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FOREWORD

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GUIDE TO PRODUCT SECTIONS

As the Radio-Electronic MASTER, we take great pride in the fact that this publication has reflected the progress of the electronic industry for more than 30 years.

The 32 sections listed below broadly categorize related electronic products and services so that you can quickly find similar items within the sections. However, to locate specific products, always refer to the General Index. Catalog pages are arranged alphabetically by manufacturers' names within each section.

Sec. Pages	Antennas & Accessories	Sec. 2800 Pages 821 thru 835	Hardware (Bolts, Fasteners, Nuts, Screws, Washers, etc.)
Sec. Pages	Audio: High Fidelity Tuners, Amplifiers, Sound Systems, Intercoms, Kits	Sec. 2900 Pages 836 thru 941	Instruments (Electrical Measuring & Test)
Sec. Pages	Audio: Speakers & Systems, Enclosures, Microphones, Headphones, Accessories	Sec. 3100 Pages 942 thru 945	Insulators, Insulating Materials & Parts
Sec. Pages	Audio: Recording & Playback Equipment, Accessories	Sec. 3500 Pages 946 thru 949	Motors, Rotating Components, Accessories
Sec. Pages	Cabinets, Chassis, Racks, Boxes, etc.	Sec. 3700 Pages 950 thru 959	Photoelectric Equipment & Components
Sec. Pages	Capacitors (All Types)	Sec. 3900 Pages 960 thru 982	Pilot & Signal Lamps, Lights, Readouts, Accessories
Sec. Pages	Chemicals (Adhesives, Cleaners, Coatings, Paints, Varnishes, Lubricants)	Sec. 4000 Pages 983 thru 1030	Power Supplies, Converters, Inverters, Vibrators, Batteries, Flashlights, etc.
Sec. 700 Pages 4, 495	Circuit Assemblies, Circuit Boards, Breadboarding Kits	Sec. 4200 Pages 1031 thru 1038	Publications (Textbooks, Reference Handbooks, etc.)
Sec. 1800 Pages 96 thru 509	Coils (Inductors, Toroids), Assemblies, Forms	Sec. 4500 Pages 1039 thru 1123	Relays & Solenoids
Sec. 1900 Pages 510 thru 536	Communications Equipment (Broadcast, Television, Amateur, Facsimile)	Sec. 4700 Pages 1124 thru 1169	Resistors, Fixed
Sec. 2100 Pages 537 thru 791	Connectors (Clips, Plugs, Jacks, Receptacles, Sockets, Terminals, Terminal Boards)	Sec. 4750 Pages 1170 thru 1229	Resistors, Variable (Potentiometers, Rheostats)
Sec. 2200 Pages 792 thru 803	Controls, Timers, Control Components & Systems	Sec. 4800 Pages 1230 thru 1259	Semiconductors (Diodes, Transistors), Semiconductor Devices, Rectifiers (Non-Tube Types)
Sec. 2300 Pages 804, 805	Crystals & Accessories	Sec. 5100 Pages 1260 thru 1327	Switches, Circuit Breakers, Fuses, Counters
Sec. 2400 Pages 806 thru 817	Dials, Knobs, Handles, Panel Components	Sec. 5400 Pages 1328 thru 1375	Tools (Hand & Power), Soldering Tools, Solder Supplies
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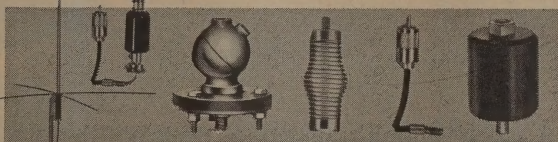
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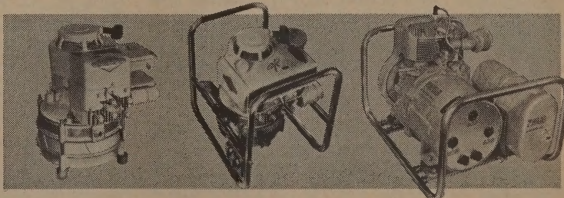
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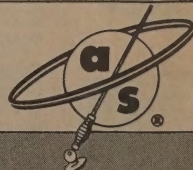
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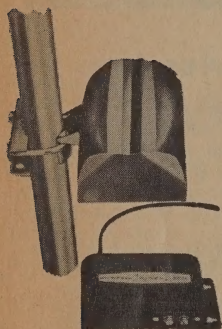


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ALL CHANNEL UHF/VHF AMPLIFIERS

World's first channel 2-83 amplifiers. The perfect mate to any all-channel TV receiver, they also improve reception when used with sets equipped with UHF converters. Only obsolescence-proof TV amplifiers on the market.



U/VAMP-2 WORLD'S FIRST MAST-MOUNTED UHF/VHF AMPLIFIER The world's first channel 2 to 83 amplifier. Mounts at antenna to achieve optimum signal-to-noise ratio. Unique two transistor circuit provides power to turn fuzzy pictures into sharp, clear ones, and handle strong local TV signals without overloading. Built-in FM filter reduces overload caused by local FM stations. Remote AC power supply sends AC power up to the mast mounted amplifier on the same downlead that delivers the signal to the set. Stripless 300 ohm screws. Rugged weather-protected cast aluminum amplifier housing. Other U/Vamp-2 features: separate antenna inputs for UHF and VHF allow the use of the best antenna for each band. Built-in low-loss UHF/VHF splitter which means that no additional unit is required to separate the signals at the TV set or UHF converter antenna terminals. Net \$25.25

VU-ALL 2, WORLD'S FIRST INDOOR UHF/VHF AMPLIFIER Installs easily anywhere in the home. Unique two-transistor circuit design achieves excellent gain, low noise figure for superior reception on up to two TV sets. For 2-set operation it provides an excellent impedance match, necessary isolation between sets, plus an increase in the antenna signal power. Single 300 ohm input accepts combined UHF/VHF twinlead. Low noise 2-transistor circuit provides gain to bring in weak channels and minimize overloading on strong local station. Built in FM filter prevents overload from strong local FM Stations. 300 ohm striplless terminals. Net \$29.15

Coloramp U/V Same as U/Vamp-2 except that it has a combined UHF/VHF input designed for use with single 300 ohm downlead with all-channel antennas like the Blonder-Tongue Color Ranger/U-Ranger combination. Net \$33.25



Patent Pending

ALL-CHANNEL ACCESSORIES

300-OHM, 2-WAY UHF/VHF/FM COUPLER, TV-2—Compact, economy indoor coupler for connecting 2 sets to single twin-lead cable. Recommended only for strong signal areas. Net \$1.30

DELUXE, 300-OHM, 2-WAY, UHF/VHF/FM COUPLER, A-102 U/V—Weatherproof coupler for connecting 2 sets to single twin-lead cable, or coupling 2 antennas together. High isolation between sets with extremely low insertion loss. Backmatched to increase picture sharpness. Net \$2.40

300-OHM 4-WAY, UHF/VHF/FM COUPLER, A-104 U/V—Similar to A-102 U/V, but for connecting 4 sets to single twin-lead cable. (An A-102 U/V and 2 A-104 U/V's can be used together to provide 8-set operation.) Net \$3.70

75-OHM 2-WAY, INDOOR UHF/VHF/FM COUPLER, MDC-2 VU—Professional-quality. Connects single coaxial cables from 2 sets. May also be used as antenna combiner with baluns and coaxial cable. High isolation on UHF and VHF with very low insertion loss. Net \$15.55

300-OHM HIGH-LOW VHF COMBINER/SPLITTER, A-105—Weatherproof. Couples high- and low-band VHF antennas to single downlead. Net \$4.10

UHF/VHF COMBINER/SPLITTER, UV-C/S—Indoor unit provides separate UHF and VHF outputs from single 300-ohm cable carrying both signals, for connection to converter or all-channel TV set with separate UHF and VHF inputs. Low loss, high isolation. Net \$2.25

DELUXE UHF/VHF COMBINER/SPLITTER, A107—Weatherproof unit combines the outputs of separate UHF and VHF antennas to feed single 300-ohm downlead. Also provides separate UHF and VHF outputs from single cable carrying both types of signals. Low loss, high isolation. Net \$3.60

UHF/VHF/FM COMBINER/SPLITTER, UVF-C/S—Weatherproof. Connects separate UHF, VHF, and FM antennas to feed single 300-ohm downlead. Also provides separate UHF, VHF and FM outputs from single cable carrying all three types of signals. Low loss, high isolation. Net \$3.75

DELUXE UHF/VHF/FM COMBINER/SPLITTER, UVF-1—Weatherproof. Features extremely low loss. Provides separate UHF, VHF, and FM outputs from a single cable carrying all three types of signal and also enables a single down lead to be fed from separate UHF, VHF and FM antennas. Excellent isolation between UHF, VHF and FM sections. Net \$9.00

JIFFY-MOUNT—Easily installed, heavy-duty mast-mount for Blonder-Tongue combiner/splitters, couplers, baluns, etc. Accommodates both small (A-102 U/V etc.) and large (UVF-1, etc) size cases. For masts of up to 1 1/2" O.D. Net \$5.45

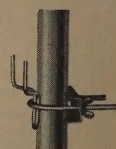
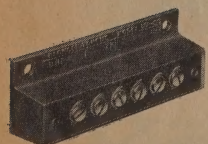
UHF/VHF SPLITTER, XFMR, CO-MATCH II—For use with separate UHF and VHF antennas where 75 ohm coax is used. Performs as a combination matching transformer and UHF/VHF splitter at set. Weatherproof. BTF connector with male connector supplies. Accepts 75-ohm coax at its input and provides separate 300 ohm U and V outputs at terminal of the all-channel set. Net \$5.60

UHF/VHF/FM MATCHING TRANSFORMER, MT-283—High-quality indoor/outdoor network. Matches 300- to 75-ohm or 75- to 300-ohm impedance. Ideal for matching all-band antennas to coaxial downlead. Can also be used to match 300-ohm set impedance to 75-ohm downlead. Mast-mounting hardware and male connector supplied. Net \$4.75

UHF/VHF/FM INDOOR MATCHING TRANSFORMER, 3370 CABLEMATCH U/V—Matches 75- to 300-ohm impedance. Especially suited for matching TV or FM sets inputs to a coax distribution system. Male connector supplied. Net \$3.20

VHF/FM INDOOR MATCHING TRANSFORMER, 3334 CABLEMATCH—Similar to the model 3370 except for VHF and FM only. Male connector supplied. Net \$2.00

ALL-CHANNEL 300 OHM OUTLET PLATE, TF-331—All-channel, COLOR APPROVED outlet fits standard AC receptacles. Designed to allow 300 ohm distribution systems to terminate at wall outlets for easy connect-disconnect functions, 300 ohm striplless screw output. Net \$2.10



BT BLONDER-TONGUE

IN-THE-HOME VHF/FM SIGNAL AMPLIFIERS



TRANSISTOR 4-SET TV/FM BOOSTER, MODEL IT-4—Inexpensive to operate and requires almost no maintenance. Specially designed for weak signal areas. Provides crisp, brilliant pictures for as many as four TV or FM sets from a single antenna. Used for one set it increases signal strength 4 to 8 times. Used for two, three or four sets, it has power to spare and necessary isolation between sets. Net \$21.15

4-SET TV/FM BOOSTER, MODEL B-24c Triples signal power to one set. Also acts as an amplified coupler to operate up to 4 TV or FM sets. Provides proper impedance match and isolation between sets and increases picture power when used with 2 or 3 sets. With 4 sets it insures that each TV or FM set receives more than 90% of the signal power picked up by the antenna. Net \$18.30

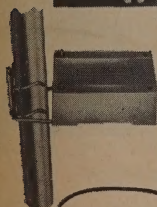


MAST MOUNTED VHF AMPLIFIERS



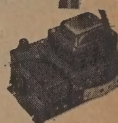
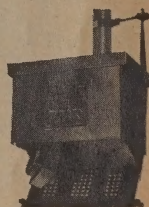
VAMP-2, 2-TRANSISTOR, 2-SET VHF/FM AMPLIFIER Deluxe home TV amplifier. Costs a few dollars more than most all-transistor amplifiers, but outperforms them all. Powerful 2-transistor circuit brings in weak, distant channels with sparkling clarity. All new circuit minimizes overload from strong local TV or FM stations. When used with one set—amplifier increases signals five times. Convenient splitter at the power supply, provides connections to 2 sets. Excellent for color. Easy installation on the mast in seconds. The remote power supply can be installed anywhere indoors, sends a safe 15 volts to the amplifier on the same twinlead that brings the signal down. The amplifier is housed in a rugged weather-proof aluminum cast housing. Stripless 300 ohm screws. Net \$27.40

VAMP-275 75 OHM VHF/FM AMPLIFIER Powerful, low-noise 2-transistor TV amplifier is ideal as the heart of the small professional system in the home, TV showroom or service shop. Delivers all the signal power to bring in the weak signals, will not overload due to strong local TV or FM stations. Excellent for color. Most important, it is equipped for use with 75 ohm coax cable. Single 75 ohm output can be split to deliver signals to as many as 8 TV sets. Input is 300 ohm, eliminating the need for a separate balun. Rugged, weatherproof cast aluminum amplifier housing. Can be mounted on mast in seconds. Remote AC power supply, which can be installed anywhere indoors, sends a safe 15 volts to amplifier on the same coax cable that brings the signal down. Net \$31.30



VAMP-1 TRANSISTOR VHF/FM AMPLIFIER Has a lower noise figure than any tubed booster on the market, lower than most transistor boosters. Designed for mast mounting to take advantage of best signal-to-noise ratio and provides clean snow-free reception. Especially designed transistor circuit increases antenna signals up to five times. Especially designed FM trap—reduces overload from strong local FM stations. Easy installation on any antenna mast in seconds. Separate remote power supply can be installed at set. Patented 300 ohm stripliss terminals. Complete with mounting hardware. Net \$18.15

DELUXE TV/FM AMPLIFIER (with remote power supply)—MODEL AB-3—Low-noise amplifier virtually eliminates snow. Can be used in a fringe area home installation, or as a pre-amplifier in a master TV system. The remote power supply sends AC power up to the mast-mounted amplifier on the same twinlead that carries the antenna signal down. It provides the correct power to the amplifier for any length of connecting cable up to one mile (when open twin-lead is used). Amplifier uses low noise frame-grid tubes. Provides 25 db minimum gain on all VHF-TV and FM stations. Choice of 300 ohm or 75 ohm output. Stripliss terminals for 300 ohm twinlead; solderless "quick-disconnect" terminals for 75 ohm coax. No balun is needed because the input is matched to 300 ohm antennas. Net \$91.15



LARGE HOME AND SMALL MATV SYSTEMS

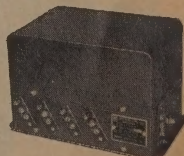


INDOOR BROADBAND VHF/FM AMPLIFIER, MLA-FM High-output broadband amplifier for continuous use in TV/FM systems of up to 200 outlets. Has independent high- and low-band amplifying sections with individual gain controls. In addition, the unit has a control for tilting the bandpass to compensate for cable loss. Gain: channel 2-6 & FM, 33 db; channel 7-13, 40db. Net \$113.95

lation (high band): 2.5 volts for less than 3% cross modulation (low band); 1.0 volts for less than 3% cross modulation (high band). Net \$52.65

8 OUTLET VHF DISTRIBUTION AMPLIFIER, MODEL DA8-B, ideal for garden apartments, motels, TV showrooms, deluxe home installation and other small TV systems. Provides 8 amplified, isolated TV outlets from one input. Choice of 75 ohm or 300 ohm input and output. 10 db minimum gain on all channels at each outlet. 22 db isolation. Low noise, all triode circuitry. Prevents overload through 10:1 gain control range. Net \$68.85

BROADBAND VHF/FM AMPLIFIER, MODEL HAB For use in master, community and home TV systems. 25 db min. gain. Both 300 and 75 ohm inputs and outputs. Separate hi and lo band gain controls. Uses frame grid tubes. Max. Output (across 75 ohms): 0.9 volts for less than 1% cross modulation (low band); 0.6 volts for less than 1% cross modulation (high band).





BLONDER-TONGUE

UHF CONVERTERS



ALL-CHANNEL, ALL TRANSISTOR UHF CONVERTER BTX-99B Adds all UHF channels (14 to 83) to any TV set. The ideal converter for prime signal areas. In many of these areas, it performs well with an indoor antenna. The many quality features that made the original '99' America's best selling converter are incorporated in this unit. The all-transistor circuit enhances the performance of the BTX-99 by providing maximum signal power and drift-free, distortion free performance. UL approved. Net \$19.85



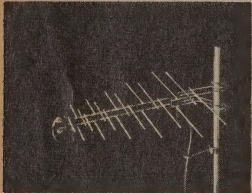
DELUXE ALL-CHANNEL, ALL TRANSISTOR UHF CONVERTER/AMPLIFIER, MODEL BTX-11A Adds all UHF channels (14 to 83) to any TV set. The most powerful and stable UHF converter ever engineered for the home. It is the perfect selection almost anywhere within the range of a UHF station producing superlative TV pictures even in weak signal areas.

The BTX-11 features easy pinpoint tuning with a dual-speed channel selector and vernier tuning. This deluxe converter also incorporates a powerful low-noise signal amplifier as well. It triples TV signal strength. The result: sharp, clear black and white pictures, full fidelity, brilliant color TV—no ghosts, no snow. UL approved Net \$31.20



ALL-CHANNEL TUNNEL DIODE UHF CONVERTER, MODEL BTD-44 Adds UHF channels (14 to 83) to any TV set. Especially recommended for prime signal areas as the most economical quality converter available today. Utilizes tunnel diode for maximum reliability. Uses penny pinching modern cordless power for convenience and economy of operation. Operates on ordinary flashlight battery which lasts from 6 to 9 months. Net \$13.20

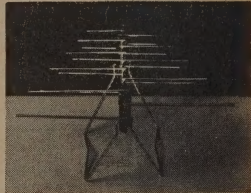
UHF ANTENNAS



Blonder-Tongue UHF antennas are designed to match the high performance standards on all UHF channels of its famed UHF converters. They employ the well-known Periodic principle.

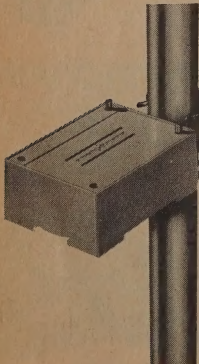
GOLDEN DART OUTDOOR UHF ANTENNA
The unique use of the Periodic principle contributes to a uniform, high gain across the entire UHF spectrum for sharp, ghost-free pictures. Full bandwidth — makes the Golden Dart excellent for color and black & white TV. Completely pre-assembled — nothing to snap out, no screws to tighten, the Dart mounts to the mast in seconds. Smallest and most compact of all UHF antennas, it's easy to piggyback with any VHF antenna. Rugged, deep fringe area reception, two Darts can be stacked with sturdy, easy-to-use stacking bars (model 3519).
Dart Net \$4.15 Stacking bars Net \$1.00

GOLDEN ARROW INDOOR UHF ANTENNA
Outperforms other available indoor UHF antennas by providing peak performance on all UHF channels 14-83. The Golden Arrow employs 10 working elements to provide constant high gain and matched impedance on all channels. The excellent design minimizes ghosts and other interference. Full bandwidth, flat response means sharp black and white reception and true fidelity color picture. Sturdily built.



Net \$3.95

UHF AMPLIFIERS AND COUPLERS

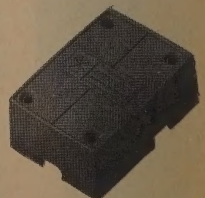


CHANNEL 14 to 83 MAST-MOUNTED UHF AMPLIFIER ABLE-U2, Where black and white pictures are fuzzy, where color pictures lack brilliance, the addition of the Able-U2 will produce a dramatic improvement. The Able-U2 uses a 2 transistor circuit to provide maximum gain, excellent impedance match and assure low-noise, snow-free reception. Remote AC power supply sends a safe 15 volts to the mast mounted amplifier on the same down lead that delivers the signals to the set. 300 ohm stripless screws at terminals. Mast mounting hardware supplied. Net \$29.65

2-WAY UHF/VHF/FM COUPLER, A-102 U/V—This COLOR APPROVED channel 2 to 83 coupler is capable of delivering full power signals to 2 all-channel sets, or 2 VHF sets or a VHF and an all-channel receiver operating on the same antenna. Can be used to couple two antennas. Couples FM sets too. Excellent interest isolation, low loss. Patented 300 ohm stainless steel stripless terminals. Net \$2.40

4-WAY UHF/VHF/FM COUPLER, A-104 U/V—This channel 2 to 83 COLOR APPROVED coupler has flat response from 54-216 mc, 470-890 mc. Feeds 4 all-channel receivers, or any mixture of all-channel, VHF or FM sets up to 4 from a single antenna. Excellent interest isolation. Patented 300 ohm stainless steel stripless terminals. Net \$3.70

DELUXE UHF-VHF COMBINER/SPLITTER A-107 Combines UHF and VHF antennas, or provides separate VHF and UHF output from a single antenna. Isolation 15db. 300 ohm. Net \$3.60





BLONDER-TONGUE

COLOR RANGER UHF/VHF/FM LOG PERIODIC ANTENNAS

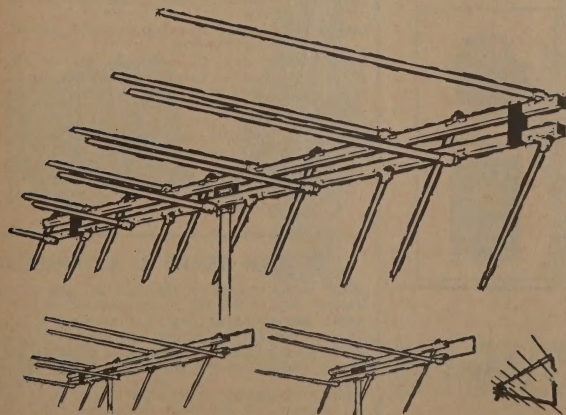
The first TRUE log periodic antenna, . . . the new Color Ranger, outperforms other antennas in any reception area. It is particularly effective for color or where ghosting is a problem because it has:

1. Uniform gain across entire band for brilliant color reception.
2. Best front to back ratio in the industry for outstanding reception in weak signal areas and positive ghost-killing power.
3. Uniform impedance across entire band.

It's convertible, too! The Color Ranger VHF antennas converts to UHF/VHF instantly and at any time, now or as needed for new UHF stations coming on the air, with the U-Ranger add-on. No couplers, no extra downlead required! One lead carries VHF/FM and UHF signals.

CONSTRUCTED TO MAINTAIN THEIR HIGH STANDARD OF PERFORMANCE FOR MANY YEARS

- Double boom construction. • Boom serves as transmission line — no wires to corrode or break
- Elements reinforced with 6-inch tubing
- Perma-Gold conductive coating
- Heavy-duty 7/16 inch elements (CR-10, CR-7 and CR-5 only)
- Spring-loaded knife edge contact points maintain continuity of signal
- Stainless steel stripless screws for 300-ohm twin-lead connection
- Snapout elements for fastest assembly
- Riveted polypropylene end caps on boom maintain shape under all conditions
- U-bolt mounting for easy assembly and extra ruggedness.



COLOR RANGER-10—10-element log-periodic. Color TV and FM stereo. All areas—prime & fringe—especially where ghosts are a problem. Net \$22.95

COLOR RANGER-5—5-element log-periodic. Color TV and FM stereo. Strong-to-medium signal areas. Net \$13.47

COLOR RANGER-3—3-element log-periodic. Color TV and FM stereo. Strong signal areas where there are no ghost problems. Net \$8.10

U-RANGER—11-element UHF log-periodic add on to any VHF Color Ranger for channels 2 to 83—one downlead for UHF/VHF/FM. Net \$5.37

FM STEREO RANGER-8—8-element log-periodic featuring exceptionally flat response over the entire FM band. Net \$23.25

FM STEREO RANGER-5—5-element log-periodic with exceptionally flat response over the entire FM band. Net \$13.47

BLONDER-TONGUE

SPLITTERS, TAPOFFS, FEED-THRUS, BALUNS, CONNECTORS

TAPOFFS AND FEED-THROUGHS

Quality components and special care in design and manufacture are the hallmarks of all Blonder-Tongue tapoffs and feed-throughs, which are available with and without built-in matching transformers. Two basic types—flush- and surface-mounted—are available. Use the chart below to choose the tapoffs and feed-throughs to meet your system requirements.

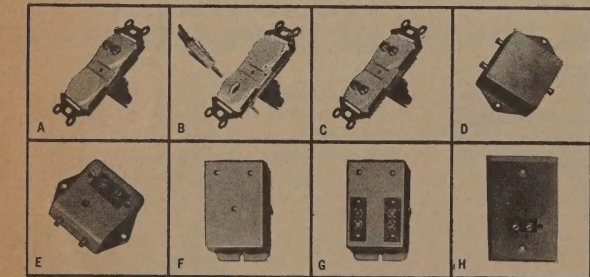
Model	Fig.	Type	Input Impedance	Output Impedance	No. of Outlets	Output Connector	Isolation in db	Thru-Line Loss in db	Mounting	Channels Passed	Net Price
V-1S12-X	A	Tapoff	75	300	1	Stripless Screws	12	1.2	Flush	2-13+FM	\$2.10
V-1S17-X	A	Tapoff	75	300	1	Stripless Screws	17	0.7	Flush	2-13+FM	2.10
V-1P12	B	Tapoff	75	75	1	Solderless Autoplug	12	1.2	Flush	2-13+FM	2.30
V-1P17	B	Tapoff	75	75	1	Solderless Autoplug	17	0.7	Flush	2-13+FM	2.30
V-2S-12X	C	Tapoff	75	300	2	Stripless Screws	12	1.2	Flush	2-13+FM*	3.45
V-2S-17X	C	Tapoff	75	300	2	Stripless Screws	17	0.7	Flush	2-13+FM*	3.45
TE-771B	D	Tapoff	75	75	1	QD†	17	0.7	Surface	2-13+FM	2.05
TS-731B	E	Tapoff	75	300	1	Stripless Screws	17	0.7	Surface	2-13+FM	2.90
TO-2-75	F	Tapoff	75	75	2	Solderless Autoplug	17	0.7	Surface	2-13+FM*	5.10
TO-2-300	G	Tapoff	75	300	2	Stripless Screws	17	0.7	Surface	2-13+FM*	5.10
V-1P17-VU	B	Tapoff	75	75	1	Solderless Autoplug	17	0.6V 0.9U	Flush	2-83+FM	3.05
V-1S17-VUX	A	Tapoff	75	300	1	Stripless Screws	17	0.6V 1.0U	Flush	2-83+FM	3.35
V-3170-17	C	Tapoff	75	300	2	Stripless Screws	17	0.8V 1.1U	Flush	2-83+FM**	4.60
TF-331-U/H	H	Feed thru	300	300	1	Stripless Screws	None	1.5V 1.5U	Flush	2-83+FM	2.10
V-1PFT	B	Feed thru	75	75	1	Solderless Autoplug	None	NA	Flush	2-13+FM	1.80

*Loss per outlet used

**One outlet VHF/FM—one outlet UHF

†"Stripless Screws" are covered by U.S. Pat. No. 3,016,510 and foreign patents

‡QD connector attaches directly to RG-59-type cables without making connector



SPLITTERS

MODEL TS-772. Indoor surface mounted 2-way Hybrid Splitter. Splits or combines two 75 ohm cables. QD connectors. Net \$4.50

MODEL TS-772F with F connector. Net \$5.40



MODEL TS-774. Indoor surface mounted 4-way splitter. Splits four 75 ohm cables. QD connectors. Net \$5.30

MODEL TS774F with F connector. Net \$6.45

TOOLS



MODEL S-1 Rotary coax Cutter and Stripper. Net \$3.65



MODEL CR-2. Crimping tool and cutting pliers for QD connectors. Net \$8.40

CABLE CONNECTORS

P-11T	"UHF" type solderless male plug for RG-11/U cable.	Net 1.15
P-59T	"UHF" type solderless male plug for RG-59U cable.	Net 1.15
MC	"UHF" type cable connector. Connects two male plugs or one plug and an MPT-75 terminator.	Net 1.90
CL-1111	Couples two RG-11/U cables together.	Net 2.00
CL-1159	Couples RG-11U cable to RG-59/U cable.	Net 2.00
CL-5959	Couples two RG-59/U cables together.	Net 2.00
AC-1000	Feed-thru bushing. Use with CL-5959, CL-1159.	Net 2.55
AD-1	Adapts. Q.D. to UHF SO-239 connectors.	Net 2.70
AD-2	Type BT-"F" to SO-239 adaptor	Net 4.10
P-75T	Male solderless auto type plug	Net .45
POU-59	Push-on UHF plug for RG-59/u.	Net 2.40
P0B-59	Push-on Type BT-"F" plug for RG-59/u.	Net 1.55
QDP	Solderless "Quick-Disconnect" plug	Net .25
BTF-590	F-type connector mates with BTF-100 and other F-type jacks. Solderless connector for RG-59 type cables. Silver plated.	Net .35
BTF-591	F-type connector—similar to BTF-590, except that it has swivel which allows threaded section of connector to turn independently of connector ferrule.	Net .45

MATCHING TRANSFORMERS

MBb	Outdoor balun matches 75 ohms to 300 ohms or vice versa.	Net \$6.50
Cablematch	Indoor, 75 ohm to 300 ohm. VHF and FM	Net 2.00
Cablematch F	Indoor, 75 to 300 ohm. VHF and FM. Type F. socket.	Net 2.05
Cablematch U/V	Indoor, 75 to 300 ohm. VHF and FM.	Net 3.20
TS-731	Indoor, surface mounted. Matches 75 ohms to 300 ohms or vice versa.	Net 3.30
TF-731	Indoor, flush mounted. Matches 75 ohms to 300 ohms or vice versa.	Net 3.00
MT-283	UHF/VHF indoor/outdoor. Matches 300 ohms to 75 ohms or vice versa.	Net 4.75
V-15MT	Flush-mounted. Versatop design. Matches 75-ohm (RG-11/u or RG-59u) cable to 300-ohm TV set. 300 ohm stripless output.	Net 3.30

75 OHM TRAPS & ATTENUATORS

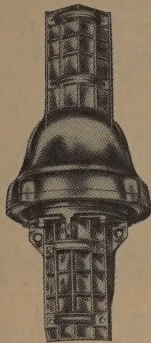
MODEL MWT-2 LO-BAND/FM TRAP. Can be tuned to attenuate any frequency from 54 thru 180 mc. Less than 0.25 db loss. Net \$41.25

MODEL MWT-3 HI-BAND TRAP. Can be tuned to attenuate any frequency from 135 thru 216 mc. Less than 0.25 db loss. Net \$42.25

MODEL SA-3 VARIABLE ATTENUATOR. 0 to 38 db. Lab. accuracy. Steps of 6 db, 12 db and 20 db. 75 ohm input and output. QD connectors. Net \$12.00

MODEL 4121 VARIABLE ATTENUATOR. 0 to 62 db in steps of 1 db. Lab. accuracy. 75 ohm input and output. "UHF" SO-239 type connectors. DC-900 mc. Net \$42.00

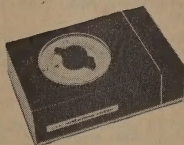
TELEVISION & FM ROTORS



TR2C
Manual Control

Coupled with the CDE heavy duty 'Bell' rotor. Reception can be tuned to perfection while viewing or listening to the reception.

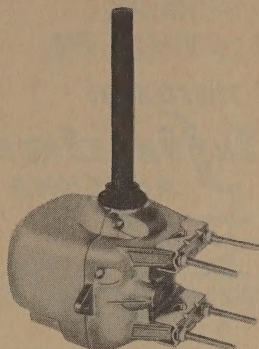
Uses 8 wire cable



AR22R
Fully Automatic Control

Coupled with the CDE heavy duty 'Bell' rotor. The knob is turned to the desired direction and the antenna rotates and stops precisely at the desired point. The dial is easily marked with channel numbers or call letters.

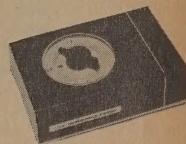
Uses 4 wire cable



TR10
Manual Control

Designed specifically for the antenna requirements of metropolitan and suburban areas. The built in mounting mast of this rotor prevents the installation of antennas above the capability of the rotor. The control unit is identical to that of model TR2C.

Uses 8 wire cable

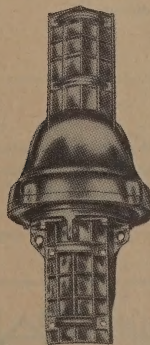
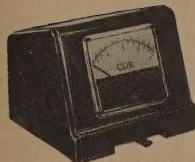


AR10
Fully Automatic Control

The precision and convenience of automatic control, identical to that of model AR22R, coupled with this rotor designed to accommodate 'In-Line' and low-silhouette antennas makes this an excellent selection where non-stacked, non-crossbraced antennas are used.

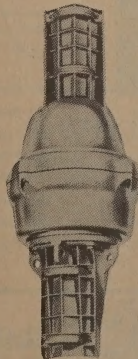
Uses 4 wire cable

ROTORS FOR AMATEUR APPLICATIONS



TR44

Designed specifically for amateur applications. Surpasses all TV/FM antenna rotors in wind resistance, torque and dead weight load carrying capability. Provided with precisely calibrated meter control unit.



HAM-M

Most widely accepted and highly regarded antenna rotor available to amateurs. The HAM-M is a rugged design intended for the most severe amateur antenna applications. It will support 1000 pounds dead weight... more than ample for the largest antenna arrays in use. Provided with precisely calibrated meter control unit.

JERROLD



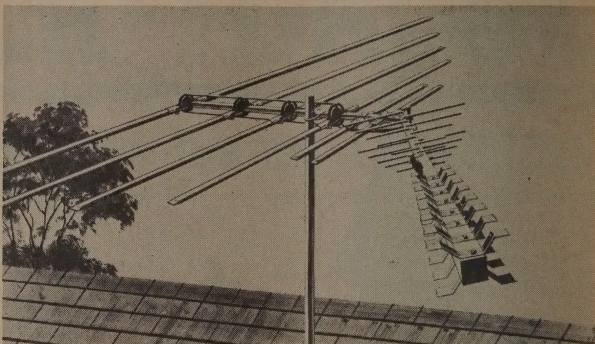
Coloraxial

WORLD'S FINEST
TV ANTENNASALL-CHANNEL
UHF • VHF • FM

Coloraxial PathfinderTM ANTENNA

Individual orientation
of the VHF and UHF sections

Pathfinder is a unique combination of a cascaded-periodic VHF antenna plus an advanced-design UHF section—with 75-ohm and 300 ohm outputs. Pathfinder eliminates the splitters needed to couple separate antennas with a common downlead. Finished with Golden Armor coating to resist corrosion.



PXB-50

PXB-30—VHF section: two driven and one parasitic element. UHF section: eleven driven elements. List Price **\$18.50**

PXB-30K—Coloraxial Kit: PXB-30 antenna, 799 tri-mount, 5' mast, 50' of 82-Channel Coloraxial cable, T380 matching transformer/splitter and miscellaneous hardware. List Price **\$39.95**

PAB-30K—300 Ohm Kit: PAB-30 antenna for 300-ohm twinlead, 1460B UHF-VHF splitter, 799 tri-mount, 5' mast, 50' of twinlead, and miscellaneous hardware. List Price **\$31.95**

PXB-45—VHF section: two driven elements and three parasitic elements. UHF section: 11 driven elements and eight parasitic directors. List Price **\$26.50**

PXB-45K—Coloraxial Kit: PXB-45 antenna, 799 tri-mount, 5' mast, 50' of 82-Channel Coloraxial cable, T-380 matching transformer/splitter, miscellaneous hardware. List Price **\$46.95**

PAB-45K—300 Ohm Kit: PAB-45 antenna for 300-ohm twinlead, 1460B UHF-VHF splitter, 799 tri-mount, 5' mast, 50' of twinlead and miscellaneous hardware. List Price **\$38.95**

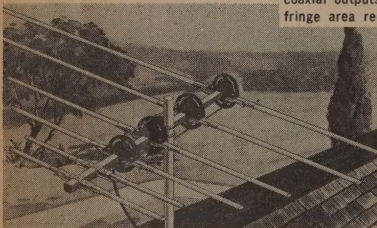
PXB-50—VHF section: four driven elements and two parasitic elements. UHF: 11 driven elements and 16 parasitic directors. List Price **\$36.50**

PXB-70—VHF section: six driven elements and two parasitic elements. UHF section: 11 driven elements and 24 parasitic directors. List Price **\$56.50**

PXB-90—VHF section: eight driven elements and two parasitic elements. UHF section: 11 driven elements and 80 parasitic directors. List Price **\$66.50**

Coloraxial VHF PARALOG

For superb color and black-and-white TV, channels 2 thru 13. High gain, log periodic design with both 300 and 75-ohm coaxial outputs. For suburban to extreme fringe area reception.



PAX-40

PAX-40 — 4 driven elements and 2 parasitic elements.

PAX-60 — 6 driven elements and 2 parasitic elements.

PAX-100 — 8 driven elements and 3 parasitic elements.

PAX-130 — 10 driven elements and 5 parasitic elements.

PAX-160 — 10 driven elements and 8 parasitic elements.

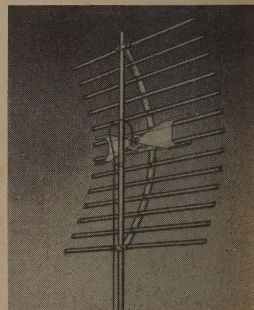
PAX-190 — 10 driven elements and 11 parasitic elements.

PAX-220 — 10 driven elements and 14 parasitic elements.

List Price **\$21.50**List Price **\$31.50**List Price **\$41.50**List Price **\$51.50**List Price **\$61.50**List Price **\$71.50**List Price **\$81.50**

UHF PARAGYL

Covers every UHF-TV reception requirement from close to station to far out locations. Cylindrical parabola design for large interception area. Finished with protective Golden Armor coating.



JUP-21

JUP-1—For local to suburban reception areas.

List Price **\$ 6.95**

JUP-2—For difficult local to suburban areas.

List Price **\$10.95**

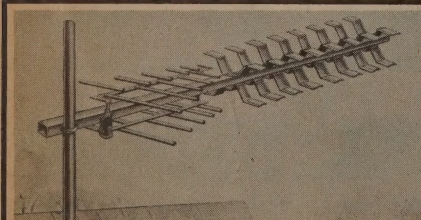
JUP-3—For suburban to medium fringe areas.

List Price **\$29.95**

JUP-4—For difficult suburban to fringe areas.

List Price **\$39.95**

JUP-5—For fringe to deep fringe areas.

List Price **\$54.50**

PUX-500

Coloraxial UHF PARAPRO

Easily added to any existing VHF antenna without mixer. High gain log periodic design
● Flat across entire UHF band ● 300 and 75-ohm coaxial outputs ● Golden Armor finish.

PUX-300—Eleven driven elements.

List Price **\$ 7.95**

PUX-450—Eleven driven elements, plus 8 parasitic directors.

List Price **\$10.95**

PUX-500—Eleven driven elements, plus 16 parasitic directors.

List Price **\$13.95**

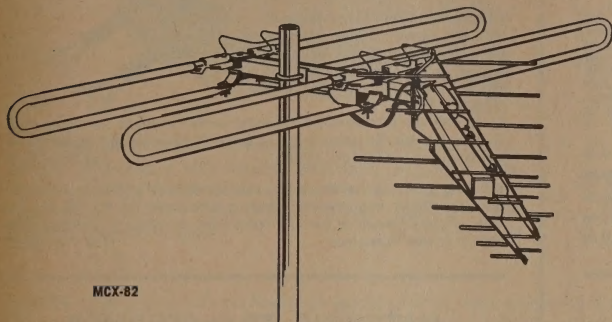
PUX-700—Eleven driven elements, plus 24 parasitic directors.

List Price **\$25.95**

PUX-900—Eleven driven elements, plus 80 parasitic directors.

List Price **\$33.95**

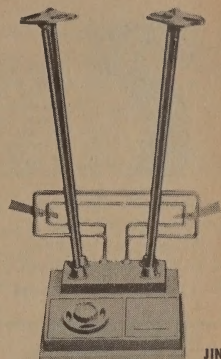
Prices and specifications subject to change without notice.

JERROLD**Coloraxial****WORLD'S FINEST
TV ANTENNAS****ALL-CHANNEL FOR METROPOLITAN AREAS****METROCOLOR™****RECEIVES ALL UHF • VHF • FM****MCX-82**

MODEL MCX-82 ALL CHANNEL especially recommended for metropolitan areas because it rejects reflected signals. Special circuitry provides ghost-killing power. Includes both 300 and 75-ohm Coloraxial outputs. Both dipoles are true 300 ohm folded dipoles and at high VHF band frequencies, they are a full wavelength long, resulting in a narrower lobe and more gain. The UHF section is a high gain periodic type, with excellent front-to-back ratio.

List Price **\$29.95**

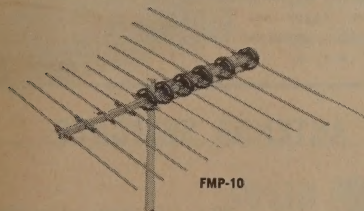
MODEL MCX-13 VHF ONLY similar to MCX-82, but does not include a UHF section.

List Price **\$16.95****82-CHANNEL
INDOOR ANTENNAS****JIN-4**

MODEL JIN-4 utilizes a true 300 ohm folded dipole delivering more signal to the TV set. It minimizes standing waves and ghosts. Brings in all UHF-VHF and FM stations—color and black-and-white. Packaged in 4-color see-through carton.

List Price **\$17.95**

MODEL JIN-3 similar to JIN-4, but does not utilize 300 ohm folded dipole. Brings in all UHF-VHF and FM stations. Packaged in 4-color display carton.

List Price **\$11.95****FMP-10****DIRECTIONAL FM PARALOG**

Includes all the features of the Coloraxial Paralog line, but especially designed for the FM band of frequencies. High gain and narrow forward lobe eliminate multi-path problems—the bugaboo of stereo reception.

FMP-8—For fringe areas.List Price **\$29.95****FMP-10**—For deep fringe areas.List Price **\$39.95****FMP-16**—For the toughest areas.List Price **\$59.95****FM YAGI****FAX-5**

Features: high gain, high front-to-back ratio • minimize multipath distortion • rugged square boom construction • special Golden Armor finish.

FAX-5 COLORAXIAL—5 elements with 72 ohm coaxial output. Flat response and gain of 6 db across entire FM band.

List Price **\$13.50**

FAX-5K COLORAXIAL KIT—FAX-5 antenna, 799 tri-mount, 5' mast, 50' of Coloraxial cable, T-378 matching transformer, hardware.

List Price **\$31.95**

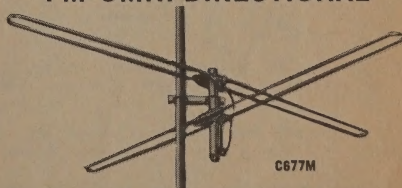
FM-5 YAGI—5 elements with balanced 300 ohm twinlead output. Flat response and gain of 6 db across entire FM band.

List Price **\$11.50**

FM-10 YAGI—10 elements with balanced 300 ohm twinlead output. Flat response and gain of 9 db across entire FM band.

List Price **\$19.95**

Prices and specifications subject to change without notice.

FM OMNI-DIRECTIONAL**C677M**

TURNSTILE MODEL C677M—Brings in FM stereo and monaural signals equally well from all directions over a full 360 degrees. Range up to 35 miles. Comes completely pre-assembled with snap-into-place elements.

List Price **\$10.95****S-TYPES**

G626-A—"S" configuration of the dipole makes it sensitive to FM signals from all directions to 25 miles. Gold anodized finish.

List Price **\$6.95**

G-626-AK—Kit contains G626-A antenna, 50' of lead-in, 1 snap-on standoff and 3 screw-eye standoff insulators. Installs on existing mast.

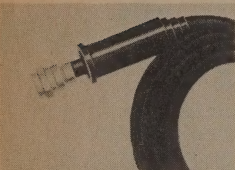
List Price **\$8.95**

C677MK—Kit contains C677M turnstile antenna, 5' mast, base mount, 50' of lead-in, guy anchor, mast standoffs, wood screw type insulated standoffs, guy wire with hooks.

List Price **\$17.95**

JERROLD**Coloraxial****CABLE AND
ACCESSORIES**

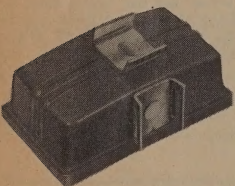
SHIELDED COLORAXIAL CABLE



Coloraxial cable assures the best possible pictures on all TV channels. Factory swept, with coaxial fittings attached. Fittings mate securely with Jerrold antennas, matching transformers and preamplifiers. Regular cable is recommended for VHF installations; 82 channel cable is recommended for UHF-VHF installations.

CAB-50 — 50' of regular cable with fittings.	List Price \$ 8.59
CAB-75 — 75' of regular cable with fittings.	List Price \$10.35
CAC-50 — 50' of 82-channel cable with fittings.	List Price \$10.30
CAC-75 — 75' of 82-channel cable with fittings.	List Price \$13.95
CAC-100—100' of 82-channel cable with fittings.	List Price \$17.45

ANTENNA TRAPS



1435* — Jerrold-TACO multi-section, wide-band, sharp cut-off trap will attenuate a specific VHF channel a minimum of 20 db to cut out TV interference. Mounts directly on antenna crossarm. For amplified and non-amplified antennas. *Specify desired channel.

1435FM—Traps out strong FM radio signals which can cause TV picture and sound. Weatherproof housing mounts directly on antenna crossarm. For use with mast-mounted amplifier or TV sets. List Price \$7.95

82 CHANNEL COLORAXIAL HYBRID SPLITTER

1596—Provides two coaxial outputs from single Coloraxial cable. Can be used to serve two sets from single Pathfinder antenna or to provide extra outlets in Colorcast-4 system. List Price \$23.80

WALL OUTLETS

FL-82 SURFACE MOUNTED WALL OUTLETS—For use with TAC-4 or TC-88. Provides Coloraxial plug-in wall outlet for TV or FM set. Passes all 82 channels and FM. List Price \$3.25

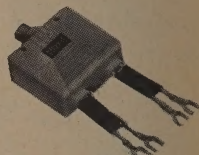
UT-18 FLUSH MOUNTED WALL OUTLETS—Similar to FL-82, but for flush wall installation. List Price \$3.50

ANTENNA MOUNTS

799—Tri-mount with self-supporting 5' mast. A rugged mount adaptable to any roof. List Price \$5.35

799K—Tri-mount with self-supporting 5' mast, plus CAB-50 and T-378. Can be used on any roof with any 300 ohm antenna. List Price \$17.95

UHF-VHF MATCHING TRANSFORMER/SPLITTER



T-380A—For use in all channel coaxial antenna systems. Matches 75 ohm cable to 300 ohm TV sets and splits signals providing separate UHF and VHF antenna inputs. List Price \$7.95

1460B UHF/VHF Splitter/Mixer—Weatherproof unit combines the signals from separate VHF and UHF antennas into a single 82 transmission line. Has highly efficient low-loss bifilar coil circuit. List Price \$4.95

CAT-2 VHF Coloraxial Conversion Kit—Converts any VHF antenna to Coloraxial. Includes: T0-374A mast-mounting matching transformer for any 300 ohm antenna, T-378 set-mounting matching transformer, bracket and mounting strap for the outdoor transformer. List Price \$9.20

MATCHING TRANSFORMER



T0-374A VHF OUTDOOR—Mast-mounted, matches 300 ohm VHF antenna to 75 ohm coaxial cable. Complete with weatherproof mounting bracket and stainless steel strap. List Price \$4.95

MVU-374—82 Channel Outdoor—Mast-mounted, matches 300 ohm all-channel (UHF and VHF antenna) to 75 ohm coaxial cable. Complete with weatherproof mounting bracket and stainless steel strap. List Price \$5.95

T-379—82 Channel Indoor—Matches 75 ohm coaxial cable to 300 ohm twinlead. List Price \$3.95

T-378—VHF Indoor—Set-mounted, matches 75 ohm coaxial cable to 300 ohm TV set. List Price \$3.25

ANTENNA SWITCHES



823 — Two-position positive-action slide switch for switching between two antennas for one set. List Price \$2.20

873 — Three-position low-loss antenna switch for switching between three antennas or three sets. Smooth lever action. List Price \$3.95

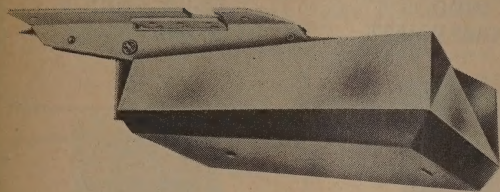


ANTENNA ATTENUATOR



835—Three-position switch is adjustable to 0-15-30 db settings. Designed for locations where signal overloading is a problem. List Price \$5.05

Prices and specifications subject to change without notice.

JERROLD**Coloraxial****POWER
AMPLIFIERS****TV-FM POWERMATE PREAMPLIFIERS**

COLORAXIAL VHF SPC-132A—The most powerful of all Powermates. Combines a two-transistor mast mounted preamplifier in a non-corrosive cyclac case with a three transistor post amplifier/power supply. Input is 300 ohms and there is a choice of 300 or 75 ohms output. For difficult signal areas and MATV systems.

List Price **\$99.50**

LPM-102—High gain (11.5 db av.) Powermate Special for areas where overloading is no problem to provide the extra gain necessary for clear pictures and noise-free FM. Comprises a universal-mounting transistorized antenna amplifier Model LPM and remote power supply Model 102. Complete with all hardware.

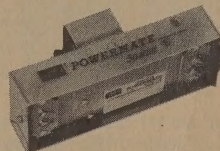
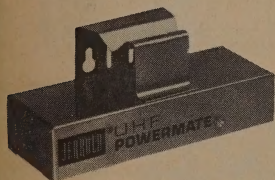
COLORAXIAL VHF SPC-107—Two transistor unit providing high gain (11 to 15 db) with excellent overload capabilities. Input is 300 ohms, download is 75 ohms. Choice of 300 or 75 ohm output. Includes filter circuit to block FM, cyclac case.

List Price **\$47.95**

VHF SPM-106—300 ohm version of SPC-107.

List Price **\$44.95**

VHF APM-106—Single transistor 300 ohm Powermate. High gain (13 to 17 db) Recommended for areas more than 15 miles from nearest TV or FM transmitter. Cyclac case.

List Price **\$39.95**List Price **\$29.95****UHF POWERMATES**

UPC-105 COLORAXIAL POWERMATE—Super gain (13.7 db). Inputs for both 300 ohm twinlead and 75 ohm coaxial cable. Output for 75 ohm coax cable comprises a two-transistor mast-mounted preamplifier and indoor power supply.

List Price **\$73.25**

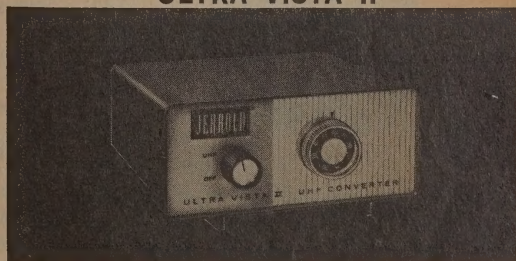
ULP-104 POWERMATE SPECIAL—Comprises a transistorized antenna amplifier Model ULP and a remote power supply Model 104. Hi-gain (4.7 db av.) for fringe areas. Mounts on mast or antenna screen. Complete with hardware.

List Price **\$34.95**

UPM-104 POWERMATE—Twin-transistor antenna amplifier and remote power supply Model 104. Super gain (13.7 db av.) for fringe and deep-fringe areas. Mounts on mast or antenna screen. Complete with hardware.

List Price **\$49.95****SOLID STATE UHF CONVERTERS****TELE-MATE****TINY • TUNNEL DIODE • CORDLESS**

UTM-1—Battery operated it is the most compact, efficient and highly-styled converter in its price range. Converts any UHF channel (14 thru 83) to either of two VHF channels (5 or 6).

List Price **\$19.95****ULTRA VISTA II****TWO-STAGE CONVERTER/AMPLIFIER**

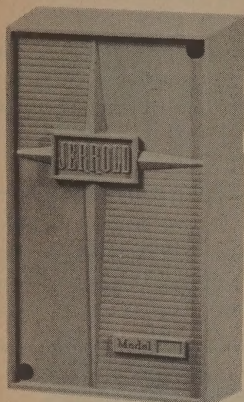
UVC-82—Smartly styled solid state two-stage converter. Not only converts any UHF channel (14 to 83) to VHF channel 5 or 6, but amplifies signal as well. Excellent even in weak-signal areas. AC convenience outlet.

List Price **\$39.95**

Prices and specifications subject to change without notice.

JERROLD**Coloraxial****HOME MATV
SYSTEMS**

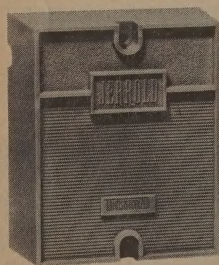
TAC-4 COLORCASTER-4 82-CHANNEL AMPLIFIER



Handles all UHF and VHF channels as well as FM stations. Because it's solid state and used with Coloraxial cable, it is reliable and trouble-free. Frequency range is 54 to 890 MHz. Total gain is 10 db, with a flatness of ± 2 db across any 100 MHz, and it provides a full 3 db gain to each of four outputs. Overload capability is excellent.

List Price \$72.50

TC-88 COLORAXIAL VHF AMPLIFIER

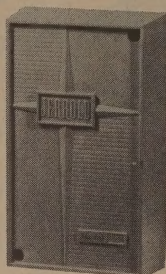


Similar to the Colorcaster-4, but covers VHF (channels 2 thru 13) TV and FM only. Solid state, uses a silicon transistor in an inverse feedback circuit. Hybrid splitter provides four outputs. Gain 3 db per outlet.

List Price \$39.95

TV-FM AMPLIFIED COUPLERS

TA-66 INDOOR SUPER-POWERMATE



Four-set 2-transistor amplified TV coupler with gain-overload to all outputs. Greatly improves reception of weak fringe-area stations without cross-modulation due to stronger local signals. Four-set terminals are so arranged that two or three sets may be connected instead of four, and increased gain is attained with each reduction in the number of sets utilized.

List Price \$34.95

TA-24 INDOOR POWERMATE



Provides sufficient gain (3.2 db av. lo-band, 4.5 db av. hi-band) to adequately supply each of four sets from a single antenna. If less than four sets are connected, increased gain is attained with each reduction in number of sets connected.

List Price \$24.95

TA-12 INDOOR POWERMATE SPECIAL



Transistorized 2-set coupler provides sufficient gain (3 db av. lo-band, 4.5 db hi-band) to more than adequately supply each of two sets from a single antenna. Mounts on any flat surface.

List Price \$17.95

VU-2 82 CHANNEL 300 OHM COUPLER

Serves two sets from single antenna. For use with 300 ohm twinlead. Handles both UHF and VHF. Resistive-hybrid circuit provides excellent isolation.

List Price \$3.75

Prices and specifications subject to change without notice.

Distributor Sales Division • THE JERROLD CORPORATION

Prices and specifications subject to change without notice.

JERROLD

TV/FM DISTRIBUTION SYSTEMS EQUIPMENT

for motels, hotels, apartment houses, schools, TV dealer showrooms

There is a growing profit opportunity for TV technicians in the installation and maintenance of small and large master antenna systems. To meet the increased demand for clear, reliable color, UHF, and FM stereo reception in commercial installations, Jerrold presents a complete line of easy-to-install "All-Channel" systems equipment.

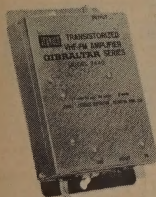
Headed by the new "Gibraltar" series of solid-state VHF and UHF system amplifiers, this new expanded line is the result of

Jerrold's long-standing superiority in TV signal distribution, and unmatched experience in solid-state amplifier design.

A newly-revised edition of Jerrold's Split-Page Handbook of TV/FM Systems Design contains over 100 typical system layouts with the equipment recommended for each. Ask your distributor for your free copy of this extremely useful \$1-value handbook.

VHF AND UHF SYSTEM AMPLIFIERS

GIBRALTAR SOLID-STATE VHF AMPLIFIER, Model 3440



Jerrold's solid-state "Gibraltar" Model 3440 broadband amplifier for small systems of up to 40 outlets. Capable of 12-channel operation. Flat response across both TV and FM bands insures excellent color and FM stereo performance. GAIN — TV 22 db, FM 19 db. OUTPUT — Lo-Band 45 dbmv, Hi-Band 43 dbmv at 0.5% cross-modulation. IMPEDANCE — Input 300 or 75 ohms, Output 75 ohms. Net \$53.70

GIBRALTAR SOLID-STATE UHF AMPLIFIER, Model 5330



"Gibraltar" Model 5330 is the first in Jerrold's new line of solid-state UHF high-gain broadband amplifiers. This UHF companion to Model 3440, is ideal for all-channel TV distribution systems. The transistorized circuitry exhibits low noise figure, high signal capability, and excellent VHF signal rejection. The power supply portion also provides low-voltage AC for an antenna-mounted preamplifier (when required). GAIN — 21 db. OUTPUT — 50 dbmv for 1-ch., 43 dbmv for 3-ch., 35 dbmv for 5-ch. (per channel). IMPEDANCE — 75 ohms. Net \$114.00

GIBRALTAR SOLID-STATE VHF AMPLIFIER, Model 3660



Jerrold's solid-state "Gibraltar" Model 3660 is a high-gain broadband VHF amplifier for large television distribution systems such as those in hotels, apartment houses and schools. It can easily handle over 100 sets, and has a capability of 12-channel operation. Unsurpassed performance for MATV systems. Flat response across both TV and FM bands for "Color Perfect" TV, and FM stereo performance. GAIN — TV and FM 40 db. OUTPUT — 52 dbmv for 3-ch., 50 dbmv for 7 ch. (per channel). IMPEDANCE — 75 ohms. Net \$130.00

VHF AMPLIFIER, Model 2880

For large systems — provides one full volt output per channel, gain of 41 db (lo-band) and 44 db (hi-band), plug-

in cable equalizer, and dual manual gain control with 14 db range. Net \$225.75

SYSTEM PREAMPLIFIERS

SINGLE-CHANNEL DE-SNOWER, Model DSS-*

Jerrold's new "De-Snowder" Model DSS-* is a single-channel VHF pre-amplifier of solid-state design. The unit features 30 db gain and 1/2 db max. sync. compression on any single TV channel, or for the entire FM band. Remote power supply Model 105. Impedance 75 ohms. Indoor or outdoor mounting.

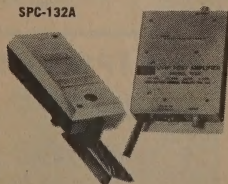
Net DSS-* (lo, FM) \$75.00 DSS-* (hi) \$85.00
*specify channel or FM

BROADBAND DE-SNOWER, Model SPC-107

High gain (lo-band 16 db, hi-band 13.5 db) and flat response of this solid-state (2 transistor) De-Snowder brings in those distant stations sharp and clear. Remote power supply Model 107. Impedance 300 or 75 ohms, switchable. This is an improved weatherized version of the famous SPC-103. Net \$31.97

BROADBAND DE-SNOWER, Model SPC-132A

SPC-132A

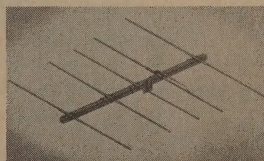


Combined five-transistor VHF pre-amplifier and post-amplifier/power supply provides highest gain (lo-band 25.2 db, hi-band 29.6 db) for toughest MATV systems applications. Flat response. Impedance 75 ohms. Can also be used as a small distribution system. This is an improved version of famous SPC-132. Net \$65.50

For other Jerrold preamplifier models see page 31.

SYSTEM ANTENNAS

J-SERIES RUGGEDIZED ANTENNAS



Jerrold ruggedized antennas, Models J55 and J105, are high-gain directional yagis for systems applications. These built-to-last antennas are available in cut-to-channel and broadband models.

CUT-TO-CHANNEL MODELS (specify channel or FM)

J55- (lo-band 2-6, FM); J105- (hi-band 7-13) Net \$37.50

BROADBAND MODELS (specify channel)

J55-Lo; J105-Hi Net \$74.25

STACKING KITS (specify channel)

JSS1 (2-bay vert); JSS2 (2-bay hor) Net \$17.97

JSS3 (quad array); JSS4 (4-bay vert) Net \$53.91

For other Jerrold antenna models see pages 28, 29.

Prices and specifications subject to change without notice.

JERROLD ELECTRONICS CORPORATION • Distributor Sales Division • Systems Products

JERROLD

TV/FM DISTRIBUTION SYSTEMS EQUIPMENT

for motels, hotels, apartment houses, schools, TV dealer showrooms



UT-22



UT-33

TV DISTRIBUTION TAP-OFFS

ULTRA-TAP, MODELS UT-22, UT-33, UT-82, UT-12, UT-13, UT-18, FL-82

MODEL UT-22, COMBINED VHF/FM TAP-OFF. Provides a choice of units with three isolation values. Simple crimp-on bushing and new positive-gripping clutch provides fast solderless connection to the feeder. Flush or surface mounting. Unit accepts G-59, PG-59 and G-56 push-on connectors. Net \$2.70

MODEL UT-33, SEPARATE VHF AND FM TAP-OFF. Same specs and isolation values as UT-22. Net \$3.30

MODEL UT-82-CAC AND UT-82-59, ALL-CHANNEL TAP-OFF. Provides a choice of three isolation values, covers the full UHF/VHF/FM frequency bands, and available in models for either "CAC" or RG-59 type coaxial cable. Net \$3.60

MODEL UT-12, VHF/TV WALL TERMINAL UNIT. Provides outlet from remote mounted isolation taps such as G-1404, 1401 or PT-1461. Net \$2.10

MODEL UT-13, SEPARATE VHF AND FM WALL TERMINAL UNIT. Same as UT-12 except provides separate VHF and FM output terminals. Net \$2.86

MODEL UT-18, ALL-CHANNEL TERMINAL UNIT. Provides outlet from a remote all-channel isolation tap such as 1405. Net \$2.10

MODEL FL-82, ALL-CHANNEL TERMINAL UNIT. Similar to UT-82 except surface-mounted in its own housing. Net \$1.95

ULTRA-TAP COVER PLATES.

MODEL UT-P1, single outlet, sturdy molded plastic, ivory color. Net \$.21

MODEL UT-PS, single outlet, brushed stainless steel. Net \$.60

MODEL UT-SH, surface-mounting box, sturdy molded plastic, ivory color. Net \$.30

ISOLATION AND FEED THRU CHART

A—Isolation		B—Feed-Thru		Values in db			
ULTRA-TAP MODELS UT-22 AND UT-33		CHANNEL NO.		WHITE	RED	YELLOW	
FREQUENCY	2	A	35	27	22.5		
54 Mhz		B	0.2	0.4	0.2		
88 Mhz	6	A	34	25	19		
		B	0.2	0.4	0.3		
174 Mhz	7	A	31	21	13		
		B	0.25	0.5	0.4		
216 Mhz	13	A	30	20	11.5		
		B	0.25	0.5	1.0		
ULTRA-TAP MODELS UT-82-CAC AND UT-82-59		CHANNEL NO.		WHITE	RED	YELLOW	
FREQUENCY	2	A	34	26.5	22		
54 Mhz		B	0.5	1.0	1.25		
216 Mhz	13	A	29.5	21	20.5		
		B	0.5	1.0	1.25		
470 Mhz	14	A	29.5	25.5	17		
		B	0.5	1.0	1.25		
890 Mhz	83	A	29.5	24	14		
		B	0.5	1.0	1.25		
VARIABLE TAP MODEL VT-75		CHANNEL NO.		RED	YELLOW	GREEN	
FREQUENCY	2	A	27	22	19		
54 Mhz		B	0.1	0.1	0.1		
88 Mhz	6	A	23	19	16		
		B	0.1	0.2	0.2		
174 Mhz	7	A	17	13	11		
		B	0.3	0.5	1.0		
216 Mhz	13	A	15	11	9		
		B	0.4	0.8	1.5		
VARIABLE TAP MODEL VT-300		CHANNEL NO.		RED	YELLOW	GREEN	
FREQUENCY	2	A	27	22	19		
54 Mhz		B	0.1	0.1	0.1		
88 Mhz	6	A	23	19	16		
		B	0.2	0.2	0.2		
174 Mhz	7	A	17	13	11		
		B	0.5	0.4	0.5		
216 Mhz	13	A	15	11	9		
		B	0.5	0.4	0.5		
MULTI-TAP MODELS 1405, 1406, 1407		CHANNEL NO.		RED	YELLOW	GREEN	
FREQUENCY	2	A	27	22	19		
54 Mhz		B	0.1	0.1	0.1		
88 Mhz	6	A	23	19	16		
		B	0.2	0.2	0.2		
174 Mhz	7	A	17	13	11		
		B	0.5	0.4	0.5		
216 Mhz	13	A	15	11	9		
		B	0.5	0.4	0.5		
MULTI-TAP MODEL 1405		CHANNEL NO.		RED	YELLOW	GREEN	
FREQUENCY	2	A	27	22	19		
54 Mhz		B	0.1	0.1	0.1		
88 Mhz	6	A	23	19	16		
		B	0.2	0.2	0.2		
174 Mhz	7	A	17	13	11		
		B	0.5	0.4	0.5		
216 Mhz	13	A	15	11	9		
		B	0.5	0.4	0.5		
MULTI-TAP MODEL 1406		CHANNEL NO.		RED	YELLOW	GREEN	
FREQUENCY	2	A	27	22	19		
54 Mhz		B	0.1	0.1	0.1		
88 Mhz	6	A	23	19	16		
		B	0.2	0.2	0.2		
174 Mhz	7	A	17	13	11		
		B	0.5	0.4	0.5		
216 Mhz	13	A	15	11	9		
		B	0.5	0.4	0.5		
MULTI-TAP MODEL 1407		CHANNEL NO.		RED	YELLOW	GREEN	
FREQUENCY	2	A	27	22	19		
54 Mhz		B	0.1	0.1	0.1		
88 Mhz	6	A	23	19	16		
		B	0.2	0.2	0.2		
174 Mhz	7	A	17	13	11		
		B	0.5	0.4	0.5		
216 Mhz	13	A	15	11	9		
		B	0.5	0.4	0.5		
IMPEDANCE		75 ohms at all terminals					
TAP ATTENUATION		27 ± 1 db		20 ± 1 db		13 ± 1 db	
DC-216 Mhz		25 ± 2 db		19.5 ± 2.5 db		13 ± 1 db	
470-890 Mhz							
NOV. FEED-THRU LOSS		0.8 db		1.8 db		NA	
DC-216 Mhz		1.0 db		2.2 db		NA	
470-890 Mhz							

JERROLD

TV/FM DISTRIBUTION SYSTEMS EQUIPMENT

for motels, hotels, apartment houses, schools, TV dealer showrooms



Model 720

FIELD STRENGTH METERS

MODEL 720. Jerrold's new battery-operated solid-state unit. Ideal for field applications. Accuracy ± 1.75 db. Four sensitivity ranges, 10 microvolts to 1 volt, —33 to +60 db. Frequency range 54-108, 174-202 MHz, extended with UF-720 Adapter to 470-890 MHz.

Net \$295.00

MODEL UF-720 UHF ADAPTER. Built-in power supply and plug-in UHF Antenna. Can be used with any FSM.

Net \$120.00

MODEL 704B. Jerrold's VHF highly accurate FSM. Reads 6 microvolts to 3 volts.

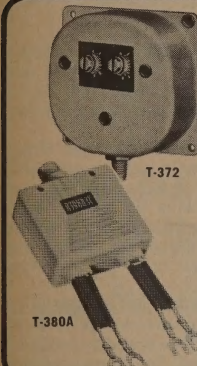
Net \$395.00

MODEL AIM-718. Solid-state all-channel (VHF/UHF/FM) direct-reading meter specially designed for the antenna installer.

Net \$199.50



Model 704B



T-372

MATCHING TRANSFORMERS, 300 to 75 OHMS

MODEL T-372. Surface mounted unit, provides AC-DC isolation. Flat response at VHF. VSWR 1.26:1. Net \$3.00

MODEL T-373. Flush mounted version of T-372. Net \$3.00

MODEL T0-374A. VHF mast mounted unit allowing replacement of twin-lead with coaxial cable. Bypasses low-frequency AC and DC current. Net \$2.95

MODEL T-378. VHF receiver-mounted transformer with built-in isolation. Net \$1.95

MODEL T-379. All-channel (UHF and VHF) version of the T-378. Net \$2.37

MODEL T-380A. All-channel, indoor, 75 ohm input — dual 300 ohm outputs. Net \$4.77

MODELS MTU-372 (indoor) AND MTUO-374 (outdoor). UHF matching transformer units with flat response across full band, insertion loss 0.6 db at 470 MHz to 1.2 db at 890 MHz. MTU-372 Net \$3.60 MTUO-374 Net \$6.00

MODEL MVU-374. All-channel UHF outdoor matching transformer. Net \$3.57

MODEL ST-1203. All-channel line-terminating unit and 75 to 300-ohm matching transformer. Net \$2.50

ISOLATION NETWORKS

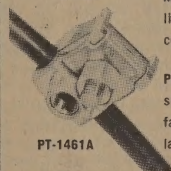


G-1404

MODEL G-1404. Four outlet, surface mounted VHF tap-off with high isolation (ch. 2 — 22 db; ch. 13 — 13 db) and low insertion loss (.25 — 1.4). Net \$10.39

MODEL 1401. Surface mounted, capacitive line tap for RG-59/U cable. Three color-coded values, R, Y, or GR. Net \$3.75

PRESSURE TAPS, MODELS PT-1461A (single shield) **AND PT-1462A** (double shield). Surface mounted. Removable color-coded isolation units. For RG-11/U cable. Net \$3.25



PT-1461A

ATTENUATORS, COUPLERS, SPLITTERS

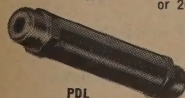


A-21

MODEL A-21 ATTENUATOR. VHF precision switch-type. 75 ohms. VSWR 1.05. Power handling up to 500 milliwatts. 0-21 db in 3 db steps. Net \$12.87

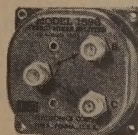
PDL IN-LINE ATTENUATORS. Available in 1, 3, 6, 10 or 20 db. Models -1, -3, and -6 are all-channel.

Net \$3.50



PDL

VHF DIRECTIONAL COUPLERS, MODELS DC-8, DC-12, DC-16. Model DC-8 (insertion loss 1.5 db — Tap loss 8 db), DC-12 (1 db — 12 db), DC-16 (3/4 db — 15 db) Net \$8.47



1596

HYBRID SPLITTERS, 75 OHMS

Model 1562. VHF 2-way	Net \$ 5.20
Model 1592. VHF 2-way	Net \$ 7.81
Model 1502. VHF 2-way	Net \$ 6.45
Model 1594. UHF 2-way	Net \$12.80
Model 1596. All-channel 2-way	Net \$14.30
Model 1514. VHF 4-way	Net \$ 9.14
Model 1584. VHF 4-way	Net \$10.55
Model G-1518. VHF 8-way	Net \$18.58

ACCESSORIES

G-SERIES SOLDERLESS COAXIAL CABLE FITTINGS. Simple, fast, reliable push-on type connectors.

G-59. Male cable connector for RG-59/U cable. Net \$.48

PG-59. Push-on G-59 connector with solid center connector. Net \$1.00

G-56. Male cable connector for CAC or RG-6 cable. Net \$.42

G-300. 75-300 ohm adapter, mates with G-61. Net \$.60

F AND C-SERIES

F-59. Male connector for RG-59, Mates with F-61, F-81, A-61, AF-101 and AF-201. Separate ferrule. Net \$.48

F-59A. Male cable connector. Like F-59 with attached ferrule. Net \$.36

F-56. Male, for RG-6, Mates with F-61A, F-81, A-61, AF-101 and AF-201. Net \$.62

AF-101. Adapta-Fit Male, for RG-11/U Mates with F-81, F-61, and A-61. Net \$1.26

AF-201. Same as AF-101, but for RG-11 Poly Foam. Net \$1.26

F-61A. Female Chassis Fitting. Accepts F-59, F-56, TR-72F, AF-101 and AF-201. Net \$.43

A-61. Adapts C-61 female to F-59 or F-56 Male. Net \$1.00/25

C-61. Female Chassis Fitting. Accepts C-52 or A-61. Net \$.48

C-81. Female Coupling, 1/4". Accepts C-52 or A-61. Net \$.48

F-81. Female Coupling, 3/8". Accepts F-59 or F-56. Net \$.60

F-71. Male Coupling Adapter. Mates F-61, F-81, F-101-59 or A-61. Net \$1.00

PF-59. Adapts F-59 for push-on use. Net \$1.70

FERRULES.

1026 — For use with RG-6/U type cables. Net \$2.86/C

1051 — For use with RG-59/U type cables. Net \$1.43/C

1095 — For use with RG-11/U type cables. Net \$24.29/C

TERMINATORS.

TR-72. VHF 75 ohm. Mates with C-61 or C-81. Net \$.90

TR-72F. VHF 75 ohm. Mates with F-61, F-81, A-61 or F-101-59. Net \$.90

TR-72B. Use with B-59 bushings. Terminates Ultra-Tap Units UT-22 or UT-33. Net \$.90

TR-75B. VHF 75 ohm. Mates with G type chassis fittings. Net \$.90

TR-75UF. UHF, VHF, All-channel 75 ohm. Mates F-61A or F-81. Net \$1.00

TOOLS.

PL-802. Crimping Tool. Ferrules 1051, 1026 and 1095 for F-59, C-52, F-101-59, AF-101 or B-59. Net \$5.39

CD-11. Cable Cutting Tool. Cuts "doughnut" holes in coax cable for pressure taps. Net \$2.16

CT-2. Cutting Tip. Replacement for CD-11. Net \$1.10

Prices and specifications subject to change without notice.

JERROLD ELECTRONICS CORPORATION • Distributor Sales Division • Systems Products

JONTZ MFG. CO.

SELF-SUPPORTING TOWERS

Super Kwick-Climb

SELF-SUPPORTING UP TO 60 FEET HIGH
HOT DIP GALVANIZED HEAVY DUTY MODELS
ZINC ELECTROPLATED ECONOMY MODELS
NO LOST TOWER FOOTAGE
FAST, EASY SECTIONAL ERECTING

With these two Jontz Tower models you can fill any tower needs... from small suburban to heavy-duty commercial installations. Sectional construction and special drive-in bases make erection fast and simple. The Zinc Electroplated Economy Model No. 300 will easily withstand high wind loads normally encountered in most parts of the country. The Hot Dip Galvanized Heavy Duty Model No. 500 will withstand hurricane force winds having been tested at wind loads of 80 mph.

Model No. 500 is self-supporting up to 60 feet high. Model 300 can be extended to 200 ft. by use of guys every 20 feet and Model 500 up to 500 ft. by use of guys every 20 feet. There is no lost tower footage when mounting in either concrete or the special drive-in base. Since the tower is separate from the base, it may be moved to another location without impairing strength.

Both towers are fabricated in 10'0" sections and can be erected in one piece or by sections. Model 300 is made from 1 1/4" x 18

ga. tubular uprights and is zinc electroplated and dipped in clear Butyrate lacquer. The Model 500 is made from 1 1/4" x 16 ga. tubular uprights and is hot dip galvanized.

New, extra-wide corrugated cross-braces give 75% more weld contact with uprights. Tower sections lock together with 2 self-locking 3/8" bolts in each leg. The splined bolts prevent thread damage and stop hole stretch when tower moves in the wind.

HOW TO ORDER: 1. Specify if to be mounted in concrete or drive-in base. 2. Order by specific sections, starting at the base. See illustration for section numbers.

SHIPPING: For best freight rates, 40 ft. and over towers will be shipped in section combinations permitting 2 telescoped bundles, unless otherwise specified. (Example: a 60 ft. tower will consist of section A, C, D, E, and 2 F's.)

ZINC ELECTROPLATED ECONOMY MODEL NO. 300

Size	Net	Ship Wt.
40'0"	\$ 63.95	130 lbs.
50'0"	82.50	172 lbs.
60'0"	99.95	215 lbs.
70'0"	115.95	245 lbs.
80'0"	134.25	292 lbs.

HOT DIP GALVANIZED HEAVY-DUTY MODEL NO. 500

Size	Net	Ship Wt.
40'0"	\$ 93.00	160 lbs.
50'0"	117.00	211 lbs.
60'0"	141.00	262 lbs.
70'0"	164.00	302 lbs.
80'0"	188.00	357 lbs.

Add 15 lbs. per Tower for hardware.

Add approximately 3 lbs. per section for galvanized No. 300 Towers.

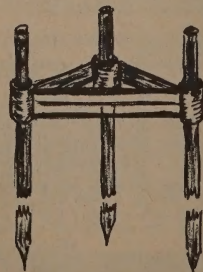
DRIVE IN TEMPLATE

For Jontz self-supporting towers

Specifications:

- 1—Drive-in legs: 1 1/4" x 16 gauge x 36".
- 2—Template: 18" triangle for 40' towers — 22" triangle for 50' or higher — state tower height.
- 3—Driving cap: 2" x 1 1/4" to drive individual legs.

2—TEMPLATE: 18" triangle for 40'



TOWER SECTIONS AVAILABLE AS ILLUSTRATED

SECTION
300A or 500A
11 1/2" x 10'
7 Crossbraces

SECTION
300B or 500B
11 1/2" x 10'
8 Crossbraces

SECTION
300C or 500C
11 1/2" x 16" x 10'
8 Crossbraces

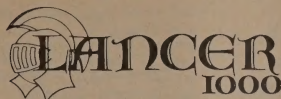
SECTION
300D or 500D
16" x 10'
8 Crossbraces

SECTION
300E or 500E
16" x 20 1/4" x 10'
8 Crossbraces

SECTION
300F or 500F
20 1/4" x 10'
9 Crossbraces

Mosley

Mosley



AMATEUR MOBILE ANTENNA

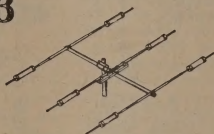
Mobile antenna for 1 KW AM/2 KW PEP SSB input to final on 10, 15, 20, 40 and 75/80 meters. Maximum overall length, 9 ft. 7 in.; minimum length, 8 ft.; radiation pattern, omni directional; matching, 52 ohm. Length of coax not critical. Interchangeable coils. Operates on 10 meters without coils. Hinge within lower antenna section. Coil caddy made of strong, rugged, black canvas cloth FREE when antenna and 5 coils are purchased. Reversible lower antenna section allows hinge use on trunk or bumper. Peaking adjustment within whip. Utilizes corona shield (ring in tip) which minimizes corona effect.

ML-10C . . . (antenna, coils & caddy) . . . Net \$72.37

The Classic 33

10, 15, & 20 Meter

TRAP MASTER Beam



New Tri-Band Beam with "Broad Band Capacitive Matching" (patent pending) . . . for 10, 15 and 20 meters. Rated for 1 KW AM/CW and 2 KW PEP SSB input to the final. Element clamping same as used on TA-36. Feed with 52 ohm RG-8/U coax. Fits up to two inch mast. Gain FULL 8 db. compared to ref. dipole or 10.1 db. over isotropic source on all 3 bands. Front-to-back, 20 db. or better on 15 and 20; 15 db. on 10 meters. SWR 1.5/1 or better. Maximum element length, 29 ft.; Boom length, 18 ft.; turning radius, 16 ft.; wind surface, 6 sq ft.; assembled weight, 60 lbs. Incorporates famous Trap-Master traps. Three element.

CL-33 Amateur Net (beam with ss hw) . . . \$119.95

RV-4 VERTICAL ANTENNA

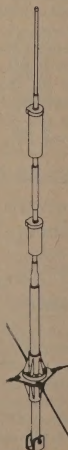
A pace setter in 10, 15, 20 and 40 meters is the Mosley RV-4 Vertical Antenna. Operate as 1 quarter wave on all four bands. This antenna features Trap-Master traps. Automatic band switching on all four bands. Self supporting and completely factory pretuned to maintain low SWR over entire range.

The RV-4RK kit for roof mounting includes radial wire, mast and hinged mounting. No radials required for ground mounting if a good ground connection can be provided within a few inches of the antenna base. Maximum power rating 750 watts on AM phone, final amplifier. Uses single 52 ohm coax line. Antenna height 20' 8-5/8" above insulator, with roof mount 25' 2-5/8". Weight of antenna 10 lbs., with roof mount 14 1/2 lbs.

Mosley RV-4 \$31.94
Mosley RV-4RK \$17.60



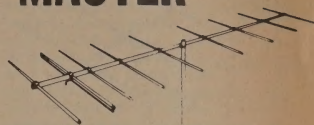
RV-4



RV-4 with
RV-4RK Kit

SCOTCH-MASTER

2 & 6 Meter Antennas



MOSLEY Model A-92-S Amateur Net \$16.90

New Mosley SCOTCH-MASTER two meter beam is a nine element antenna. May be mounted vertically or horizontally, will handle maximum legal power, amplitude modulated or 2,000 watts P.E.P. SSB. Mounting bracket fits masts up to 1 1/2" OD. Antenna is matched for 300 ohm balanced line. Boom is of sturdy medium weight wall 1 1/4" OD aluminum tubing to achieve maximum strength with minimum weight and wind loading characteristics. Stacked arrays feature 300 or 75 ohm balanced feed.

SPECIFICATIONS AND PERFORMANCE DATA: Forward gain, 14 Db. Front-to-back 20 Db. SWR, 1.5 to 1 or less at resonant frequencies. Maximum element length, 41 inches. Boom length, 12 feet. Turning radius, 6.5 feet. Assembled weight, 4 pounds. Maximum wind surface area, 1.25 square feet. Wind load, 25 pounds. Antenna is shipped in kit form.

MOSLEY Model A-76-S Amateur Net \$36.16

The Mosley SCOTCH-MASTER six meter beam has seven elements. Provides maximum forward gain and excellent directivity. SCOTCH-MASTER will handle the full legal power, amplitude modulated. Mounting bracket fits up to 1 1/2 inch OD mast. Antenna is "Gamma" matched for 52 ohm unbalanced line. Boom is of heavy gauge 1 1/4" OD aluminum. Easily rotated with TV rotor and can be mounted vertically or horizontally.

SPECIFICATIONS AND PERFORMANCE DATA: Forward gain, 12 Db. Front-to-back, 20 Db. Boom length, 24 feet. Turning radius, 13 feet. Assembled weight, 12.5 pounds. Maximum wind surface area, 2.5 square feet. Wind load, 51 pounds. Antenna is shipped in kit form, complete with detailed instructions.

MOSLEY Model A-56-S Amateur Net \$29.01

The New Mosley SCOTCH-MASTER six meter beam features five elements, maximum forward gain and excellent directivity. This gamma matched beam will handle the full legal power amplitude modulated. Can be mounted vertically or horizontally. Feed with 52 or 75 ohm line.

SPECIFICATIONS AND PERFORMANCE DATA: Forward gain, 10 Db. Front-to-back, 20 Db. or better. SWR, 1.5 to 1 or less at resonant frequencies. Maximum element length, 118 inches. Boom length, 12 feet. Turning radius, 7 feet 8 1/4 inches. Assembled weight, 6.5 pounds. Wind load, 32 pounds horizontally, 56 pounds vertically. Antenna is shipped in kit form, complete with detailed instructions.

..Mosley SCOTCH-MASTER Stacking Kits..

MOSLEY Model A-92-S-5K1 Amateur Net \$3.24

A kit for stacking two horizontally polarized A-92 SCOTCH-MASTER beams, one above the other. Comes complete with matching transformer, insulator, complete instructions and phasing line. Feed point impedance - 300 ohm balanced line. This stacked array will attain 3 Db additional gain over single horizontally mounted beam.

MOSLEY Model A-92-S-5K2H Amateur Net \$45.67

A kit for stacking four horizontally polarized A-92 SCOTCH-MASTER beams, two over two. Complete with support members, mounting plates, phasing line, insulators, hardware and instructions. Feed point impedance - 75 ohm balanced line. This stacked array will attain 6 Db additional gain over a single horizontally mounted beam.

MOSLEY Model A-92-S-5K2V Amateur Net \$45.67

A kit for stacking four A-92 SCOTCH-MASTER beams, two over two, in the vertical plane. Comes complete with support members, mounting plates, insulators, phasing line, hardware and instructions. Feed point impedance - 75 ohm balanced line. This stacked array will attain 6 Db additional gain over a single vertically mounted beam.

Mosley

Mosley

**TRAP
MASTER**

3 BAND BEAMS

10 - 15 - 20 meters.

3 element beam rated to 1 KW provides outstanding performance on 10, 15 and 20. Up to 8 db forward gain, 20 db or better front-to-back, 1.5/1 or less SWR at resonance. MODEL TA-33 Amateur Net \$109.99

2 element version of famed TRAP-MASTER Beam rated to a full KW., 5.5 db forward gain with a 20 db front-to-back, 7 ft. boom and 28 ft. maximum element length. MODEL TA-32 Amateur Net \$76.64

3-BAND DIPOLE is rated to 1 KW. For the Ham who wants to begin with an inexpensive three band dipole and in two additional steps have the Famous TA-33 Trap Master Beam.

Model TA-31 Amateur Net, \$28.49

Conversion kit to make the TA-31 a TA-32. Model TA-31-32 Amateur Net, \$46.75

Conversion Kit to make the TA-32 a TA-33 Model TA-32-33 Amateur Net, \$42.51

"JR" FOR 300 WATTS or LESS 10 - 15 - 20 meter bands.

Trap-Master "Junior" Beams provide the same fine performance as the world famous Model TA-33. Traps are rated to 300 watts (AM).

3 ELEMENT "JUNIOR" Beams provide 8db forward gain and 20 db front-to-back, SWR is usually less than 1.5/1 at resonant frequencies. Aluminum boom is 1 1/4 OD. x 12". Maximum element length, 26' 8". Turning radius is 14' 9". Wind load, 86 pounds. Assembled weight, 29 pounds. Recommended feed-line, RG-8/U.

Model TA-33 Jr. Amateur Net, \$76.64

**TRAP
MASTER**

2 ELEMENT "JUNIOR" with 5 db forward gain with approximately 20 db front-to-back. Aluminum boom is 6' long and maximum element length is 26' 8". Has turning radius of just 13' 9". Assembled weight, 14 pounds. Wind load, 62 pounds.

Model TA-32 Jr. Amateur Net, \$54.58

3 BAND DIPOLE rated to 300 watts. For the Ham who wants to begin with an inexpensive three band dipole and in two additional steps have the famous TA-33 Jr. "Trap-Master" Beam.

Model TA-31 Jr. Amateur Net, \$25.04

Conversion Kit to make the TA-31 Jr. a TA-32 Jr.

Model TA-31-32 Jr. . . . Amateur Net, \$31.87

Conversion Kit to make the TA-32 Jr. a TA-33 Jr.

Model TA-32-33 Jr. . . . Amateur Net, \$27.69

"TRAP-MASTER" VERTICAL ANTENNAS



3 BAND VERTICAL for 10, 15 and 20 meter bands. Weatherproof traps need no adjusting and provide automatic band-switching. One quarter wave operation for low angle radiation. Requires 4 or more 16' radials. With guy rope and base. The V-3 is rated to a full KW (AM). The V-3 Jr. is rated to 300 watts (AM).

Model V-3 . . . Net, \$25.31
Model V-3 Jr. . . Net, \$19.79

10 thru 40 meters

Automatic bandswitching with this vertical. Electrical 1/4 wavelength each band with low angle radiation makes this an excellent low cost DX antenna. Low SWR with exceptionally flat response over full bandwidth. Traps are weather and dirt proof for long, reliable service. Will handle full KW (AM). Study aluminum construction. Requires 4 radial wires, 30' each. With guy rope and base.

Model V-4-6. Amateur Net, \$29.94 .

80 Meter BASE LOADING COIL. Base loading coil for operating V-4-6 Vertical on 75 and 80 meter bands. Space wound on heavy ceramic form. Handles full KW (AM). Mounts on base section of vertical. Comes with coax connector. Shipping weight 3 lbs.

Model D-4BCA Amateur Net \$17.27

5 BANDS!

Work 10, 15, 20, 40 and 80 with one antenna . . . one RG-8/U feed line. Designed and built to meet United States Air Force electrical and structural specifications. The V-5 is 100% rust proof and performs brilliantly on each of the 5 bands. It is capable of handling power of 1 KW to the antenna. Weather proof trap assemblies are used throughout . . . no external loading coil needed. Maximum length of antenna is 43 ft., 8 in. Supplied complete with polyethylene guy rope, heavy duty base with internal coax fitting and all necessary hardware.

Model V-5 . . . Amateur Net, \$130.66



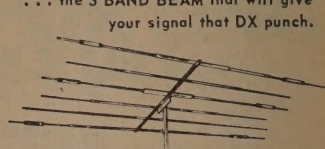
HEAVY DUTY BASE MOUNT
Supplied with the V-5 and
V-4-8 Antennas.

2 BANDS!

For 40 and 80 meter bands. 1/4 wavelength vertical on each band. Over-size trap assembly handles 1 KW (AM). Maximum overall length of antenna is 52' 3". Requires 12 radials each 64' in length. Complete with base mount (heavy duty) Polyethylene guy rope and hardware.

Model V-4-8 . . . Amateur Net, \$93.72

. . . the 3 BAND BEAM that will give
your signal that DX punch.



This wide spaced six element configuration employs 4 operating elements on 10 meters, 3 operating elements on 15 meters and 3 operating elements on 20 meters. Automatic bandswitching built for operation at maximum legal amateur power. Forward gain on 10 meters is 9 db., on 15 meters is 8.5 db. on 20 meters is 8 db. Front-to-back is 20 db or better on all 3 bands, SWR is 1.5/1 or better at resonance. Maximum element length is 29'. Boom is 24'. Turning radius is 19' 3". Assembled weight is 69 lbs. Just one coaxial feed line needed. 52 ohm RG-8/U is recommended.

Model TA-36 Amateur Net, \$138.72

**TRAP
MASTER**

MODEL "MP-33"

3 BAND MEDIUM POWER BEAM

3 ELEMENT BEAM for 10, 15, and 20 meters. Tig-Array has capacity of 750 watts AM and 2000 watts PEP on SSB. Antenna made under same rigid Mosley standards of quality and excellence. Element center sections made of double thickness aluminum to reduce sag. Antenna is fed with RG8/U, 52 ohm coax. Antenna element length, 25'; Boom feed accomplished through direct line connection to open center of radiator, achieving sturdy match over entire bandwidth. Maximum element length, 24'; Boom length, 12'; Wind load, 96 lbs.; Turning radius, 15'; VSWR, 1.5/1 or better; Feed Point, 50 ohms; Forward Gain, up to 8 db; Front-to-back, 20 db.

Model MP-33 Amateur Net, \$87.12

CONVERSION KIT FOR TA-33 JUNIOR

Addition of kit converts TA-33 Jr. into essentially MP-33 (750 watts AM/CW; 2000 watts PEP SSB). Does not change the electrical characteristics of original beam.

Model MPK-3 Amateur Net \$25.96

TA-40KR

**40
METER
OPERATION**


Hams owning a TA-33, TA-32, TA-31, TA-36, or MP-33 beam may work 40 meters in addition to 10, 15, and 20 meters by adding a TA-40KR kit. Installs on driven element to exhibit a typical figure 8 pattern obtained from a half wave antenna. Convert Jr. beams to MP-33 before adding kit. Trap assemblies, Hardware, Mast and line for guying supplied. Extra feed-line not necessary.

Model TA-40KR \$47.01

Mosley

Mosley

DEMON CB MOBILE ANTENNA

A compact CB mobile antenna that stands a mere 17" tall. Stainless steel whip. Adjustment for antenna peaking at desired frequency. Center loaded, VSWR 1.5/1 or better, 24' coax, chrome plated spring and hw. supplied.

DA-27 CB Net \$11.99

DEPUTY CB MOBILE ANTENNA

Mobile antenna with overall length of 43 3/4". Simple whip adjustment allows antenna peaking at desired frequency. VSWR 1.5/1 or better. Easy to disconnect. Roof top mount supplied. Complete with s/s whip, 24' of coax, chrome plated spring and hardware.

DP-27 CB Net \$15.99

CADET FOR MOBILE

For temporary mobile installations on cars, boats... Utilizes suction cup mount (use with suction mount only). Omni-directional. VSWR, 1.5/1 or better. Length 3 ft. from mounting surface to antenna tip. Mount on car roof top recommended. Antenna center loaded. Ground radials or systems eliminated. Will operate on fiberglass surfaces. s/s hw.

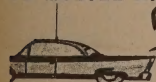
Model SUC-1 CB Net \$20.84

CADET FOR MOBILE

PER-1 is designed for permanent installations.

CB Net \$24.24

CB MOBILE ANTENNA



Devant "2"

Devant 2 mobile antenna, companion to the Devant 1 and Devant Special. This stainless steel mobile antenna has World Famous Mosley performance. A slim line beauty with built-in durability.

DEVANT 2 CB NET \$14.50

CB ANTENNA Devant "1"

5/8 wave vertical base station antenna with gain over standard ground plane of 3.4 db, or 5.9 db, compared to isotropic source. SWR 1.5/1 or better. Assembled weight 7.5 lbs. Overall height, 19" 7/8"; Wind Load (EIA Std) 41 lbs. at 80 MPH. Feed point impedance through "Induct-O-Match" matching system, 52 ohms. Low angle radiation. Easy to assemble. Grounded for lightning. Swaged elements reduce wind load and eliminate element vibrations causing metal fatigue.

CB Net \$22.76

DP 275 FOR BUSINESS BAND

Similar to Devant 1. Tuned to 27.230 Mcs., but instructions included detail tuning to other frequencies from 27.230 Mc. to 50 Mc. Available cut to specified frequency at a slightly extra charge. Maximum power input 1 KW AM

Net \$29.05

CB ANTENNA

Devant "Special"

Similar to Devant 1 and Dispatcher 275. Additional gain of 4.0 db, over std. ground plane or 6.5 db, compared to isotropic source possible, due to top hat included. VSWR 1.5/1. Three Year Parts Warranty. Overall height 20' 5"; Weight, 7 1/2 lbs. Complete with stainless steel hardware.

DEVANT SPECIAL CB NET \$29.63

CB MARINE ANTENNA



Silver Dolphin

A most versatile CB antenna. Mount on boat... use on car... secure temporarily to building window ledge for uninterrupted communications. Use for CB communications while camping, fishing etc. Requires no ground system or ground radials. Performs on all types of boats even wood and fiberglass. Hinged for quick break over. Salt water protected and tested. Brass parts chrome plated. Anodized aluminum sections for rust and corrosion protection. s/s whip. Complete with s/s hardware. Measures 8 ft, 5 in. Center loaded. Easy to load. Proven performance. Use with Swiv-L-Mount (extra) for angle mounting. For clamping to building window ledge use universal clamp accessory, U-1.

Silver Dolphin CB Net \$29.63

Swiv-L-Mount CB Net \$4.95

U-1 Clamp accessory CB Net \$6.17

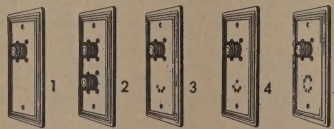
COAX TERMINATION OUTLETS

For a neat, convenient termination of unsightly coax leads, install Mosley coax termination outlets. Easy-to-install. Terminate antenna coax and rotor leads inconspicuously within wall.

1. C1-PK .. \$2.11 4. CR5-PK .. \$3.40

2. C2-PK .. \$3.78 5. CR8-PK .. \$3.73

3. CR4-PK .. \$3.13



AD-311 BEAM

Deluxe CB Base

Station Beam

Deluxe 3-element CB beam. Gamma Matched. Wide spaced. Gain of 8 db, over reference dipole or 10.5 db, compared to isotropic source. Wind Surface (vertical), 4.7 sq. ft.; Horizontal wind surface 3.2 sq. ft. Front-to-Back, 25 db; SWR 1.5/1 or better. Wind Load (EIA std.) - 95 lbs. vertical and 65 lbs. horizontal at 80 MPH. Stainless steel hardware. Assembled Weight, 12 lbs.; Shipping Weight, 16 lbs. Stack for additional gain with A-311-SK stacking kit.

CB Net \$43.92

HARDWARE KIT FOR STACKING MOSLEY CB BEAMS

Mosley hardware kit is especially designed to stack Mosley AD-311 A-311-S, A-411-S, and A-511-S beams. Contains complete hardware less stacking boom and transmission lines. Instructions are complete and detailed. Stacking two beams will usually result in added 3 db. gain.

MODEL H-CB-SK CB NET \$21.70

CB ANTENNA MODEL A-311-S

3-element beam is designed for economy minded CB enthusiasts who want the utmost in dependable 2-way communications.



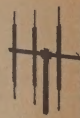
SPECIFICATIONS AND PERFORMANCE DATA:

Antenna Wt., 12.5 lbs.; Boom length, 12 ft.; Max. el. length, 18' 8 1/4". Front-to-back, 20 db.; Vertical Wind Load, 65 lbs.; Horizontal Wind Load, 35 lbs.; Gain, 8 db. compared to reference dipole, 10.5 compared to isotropic source. Feed point impedance, 52 ohms.

MODEL A-311-S CB NET \$35.00

CB ANTENNA MODEL A-411-S

4-element performance proven beam. Newest beam in the Scotch-Master beam line.



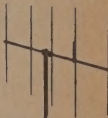
SPECIFICATIONS AND PERFORMANCE DATA:

Shipping Wt., 18 lbs.; Assembled Wt., 15 lbs.; Boom length, 15 ft.; Maximum el. length, 18' 8 1/4". Front-to-back, 20 db.; Wind Load (80 MPH EIA Std.) 59.69 lbs.; Gain, 8.7 db, over reference dipole or 11.2 db, compared to isotropic source; Feed Point Impedance, 52 ohms.

Model A-411-S \$45.00

CB ANTENNA MODEL A-511-S

The ultimate in the Scotch-Master line of rugged, economical beams. Five elements.



SPECIFICATIONS AND PERFORMANCE DATA:

Antenna Wt., 16.5 lbs.; Boom Length, 24 ft.; Max. el. length, 18' 8 1/4". Front-to-back, 20 db.; Vertical Wind Load, 112 lbs.; Horizontal Wind Load, 62 lbs.; Gain, 9.5 db, compared to ref. Dipole or 12.0 compared to isotropic source; Feed point impedance 52 ohms. CB Net \$55.00

NEW STACKED BEAMS

For additional gain over single beams, Stack-it phased beams point the signal even sharper.

Stack-it 3 (two 3-el) CB Net \$72.95 11 db. gain over ref. dipole, 13.5 db. compared to isotropic source.

Stack-it 4 (two 4-el) CB Net \$84.95 11.2 db. gain over ref. dipole, 14.2 compared to isotropic source.

Stack-it 5 (two 5-el) CB Net \$99.95 12.5 db. gain over ref. dipole, 15.0 db. compared to isotropic source.

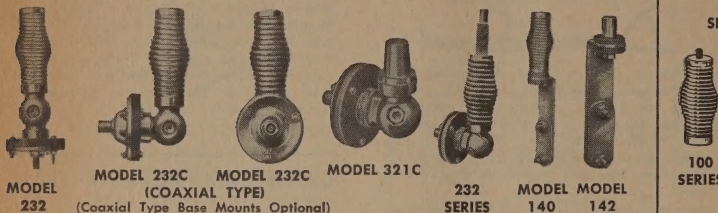
ANTENNAS MOUNTS

Master Mobile

Master Mobile Mounts

Division of Whitehall Electronics

All products are for Universal Use — Mobile, Home, Marine, C.A.P., Civil Defense, Emergency, etc.



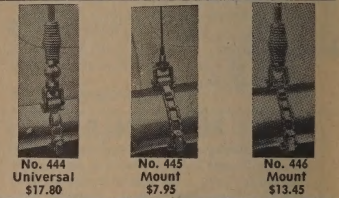
SEPARATE SPRINGS FOR UNIVERSAL MOUNTS

100 — Regular	Net \$4.50
100-X — Heavy Duty	5.50
100SS — Stainless Steel	6.95
100XSS — Heavy Duty Stainless Steel	7.95
100WX — Heavy Duty w/Male stud	5.50
100XX — Extra Heavy Duty Spring	6.50
100XXX — Extra Heavy Duty Spring	6.50
Male Stud on one end	8.50
100XSSS — Extra Heavy Duty Spring — Stainless Steel	8.95

MOUNT SPECIFICATIONS

(All types are tapped for 3/8" Stud Fitting on Antenna End. Shipping Weight Approx. 3 lbs.)

232	Base Mount—Double	Tapered Spring—Swivel Base	8.75
232C	Base Mount—Double	Tapered Spring—Swivel Base Coax Conn.	8.75
232SS	Base Mount—Double	Tapered Spring—Spec. Stainless	12.95
232SSC	Base Mount—Double	Tapered Spring—Spec. Stainless—Coax. Conn.	12.95
232X	Base Mount—Heavy Duty	Double Tapered Spring—Swivel Base	9.85
232XC	Base Mount—Heavy Duty	Double Tapered Spring—Coax. Conn.	9.85
232XSS	Base Mount—Heavy Duty	Double Tapered Spring—Spec. Stainless—Coax. Conn.	14.95
232XSSC	Base Mount—Heavy Duty	Double Tapered Spring—Spec. Stainless	14.95
232XX	Base Mount—Extra Heavy Duty	Spring	10.85
232XXC	Base Mount—Extra Heavy Duty	Spring—Double Tapered Spring—Coax. Conn.	10.85
232XSS	Base Mount—Extra Heavy Duty	Spring—Double Tapered Spring—Spec. Stainless	15.95
232XSSC	Base Mount—Extra Heavy Duty	Spring—Double Tapered Spring—Spec. Stainless—Coax. Conn.	15.95
321 or 321C	Universal Mount—Where no spring desired—with spec. rigid type ball joint		6.95
140	Universal Mount—Double Tapered Spring		7.95
140SS	Universal Mount—Special Stainless		9.65
140XSS	Universal Mount—Special Heavy Duty Stainless		10.95
140XX	Universal Mount—Extra Heavy Duty—Double Tapered Spring		8.95
140XSS	Universal Mount—Extra Heavy Duty—Stainless Steel		11.95
142	Universal Mount—Less Spring, with Insulators for Direct Mounting by Series 100 Ant. or 92 Ext. and 106 Antenna		3.95
445SS	Universal Mount—Special Stainless—Chain Mount		14.90
445XSS	Universal Mount—Heavy Duty—Special Stainless—Chain Mount		15.90
445XSSS	Universal Mount—Extra Heavy Duty—Special Stainless—Chain Mount		16.90
446	Universal Mount—Heavy Duty Spring—Chain Mount		12.45
446L	Universal Mount—Double Tapered Spring—Chain Mount		14.45
446XL	Universal Mount—Extra Heavy Duty—Double Tapered Spring—Chain Mount		14.45
446L	Universal Mount—Heavy Duty Spring—Swivel Base—Chain Mount		17.80
446L	Universal Mount—Double Tapered Spring—Swivel Base—Chain Mount		16.70
446XL	Universal Mount—Extra Heavy Duty Spring—Swivel Base—Chain Mount		18.80
446XSS	Universal Mount—Special Stainless—Swivel Base—Double Tapered Spring—Chain Mount		20.90
446XSSS	Universal Mount—Special Stainless—Heavy Duty—Swivel Base—Chain Mount		22.90
446XSSS	Universal Mount—Extra Heavy Duty—Special Stainless—Swivel Base—Chain Mount		23.90
445	Universal Mount—Threaded, 3/8" 24—Chain Mount		7.95



VERTICAL 3-ELEMENT BEAM CB-51

Triple reflectors provide higher front to back ratio than normally provided on a 3 element beam. Maximum in...

- Range
- Efficiency
- Performance

Vertical 3-element beam giving an 8 Db forward gain with an expanded beam width in the forward direction, and by use of a reflector screen, the front to back is greatly improved. The increase of front to back will give the effect of a greater forward gain.

SPECIFICATIONS:

Gain—8 Db expanded forward
Front to back—30 Db
Feed—50 Ohm unbalanced
Longest Element—9'3"
Boom Length—9'8"
Turning Radius—10'4"



NET
\$39.95

WHIP ANTENNA SPECIFICATIONS

Model Overall St. Steel Length	Base Specifications	Net Price
100-60S	60" Threaded 3/8" Stud to fit all Mounts.	\$4.85
100-72S	72" Threaded 3/8" Stud to fit all Mounts.	4.95
100-78S	78" Threaded 3/8" Stud to fit all Mounts.	5.90
100-88S	88" Threaded 3/8" Stud to fit all Mounts.	5.15
100-90S	90" Threaded 3/8" Stud to fit all Mounts.	5.20
100-96S	96" Threaded 3/8" Stud to fit all Mounts.	5.25
100-103S	103" Threaded 3/8" Stud to fit all Mounts.	6.95
106-60S	Pl. End 3/16" Dia. (Fits Mod. 92 Ext.)	4.15
106-72S	72" Pl. End 3/16" Dia. (Fits Mod. 92 Ext.)	4.15
106-78S	78" Pl. End 3/16" Dia. (Fits Mod. 92 Ext.)	4.20
106-88S	88" Pl. End 3/16" Dia. (Fits Mod. 92 Ext.)	4.35
106-90S	90" Pl. End 3/16" Dia. (Fits Mod. 92 Ext.)	4.40
106-96S	96" Pl. End 3/16" Dia. (Fits Mod. 92 Ext.)	4.45
106-103S	103" Pl. End 3/16" Dia. (Fits Mod. 92 Ext.)	6.45
Comb. 106-96" whip with #92 Ext. (18") gives up to 112" adj. Net \$8.00		

Retractable CB Antenna CG-275 GUTTER MOUNT

This new precision-built mobile antenna mount enables you to achieve maximum gain and coverage with a car roof level antenna—WITHOUT DRILLING HOLES IN YOUR CAR TOP!

\$7.95
NET

POSITIVE LOCK — positively locks antenna in position.
RETRACTABLE — won't dip even at high speed!
ADAPTABLE — attaches easily and quickly to your car's rain gutter. Any standard 3/4" 24-thread whip mounts in just seconds.
RUGGED — steel and aluminum construction, ruggedly built to take a tremendous beating!

TMI UNIVERSAL MOUNT

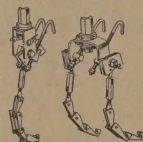
For use with any antenna having 3/4" 24-thread. Entire assembly of alloy steel, chrome plated.

\$4.45
NET

UNIVERSAL MOUNT MMM-75

For Trunk Lid, Cowl Mounting. Adjustable to fit any curved or flat surface. Special fiberglass insulation. Equipped with coaxial connector.

\$7.95 NET



UNIVERSAL MOUNTINGS

Unique shaped links adjustable to fit any width surface. For use with spring and or whip. (3/4" 24 thread). Easily attaches in minutes.

MM530 Deluxe Double Mount Stain. Steel	Net \$21.95
MM531 Deluxe Single Mount Stain. Steel	Net 11.95
MM520 Double Mount 8-Card. Plated	Net 7.95
MM519 Single Mount 8-Card. Plated	Net 4.95

SPECIFICATIONS

Relays—3 relays operated at control box position.
Power Supply—24 volts from 115 v.a.c.
3—17 1/2 gamma matched dipoles mounted in a radius of less than 2 1/2", 120° apart.
Weight—18.2 lbs.
Wind Rating—100 M.P.H.
Booms—1" tubing.
Wiring—4 conductor cable and RG-58U feedline line.
Gain—7.5 Db.



MASTER MATCHER with Field Strength Meter

Automatically tunes Band by remote control. Motor-driven variable inductance controlled by a switch from the operating position. Makes possible tuning the antenna to the exact resonant frequency. QSY in any particular band without moving to adjust antenna loading coil. All guess work is eliminated, and the field strength meter, with automatic panel light indicator, shows when roller is at minimum inductance position. With the Master Matcher maximum efficiency is possible with minimum effort.

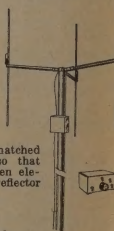
For 6 volts: Model 2495-6
For 12 volts: Model 2495-12

Amateur Net \$24.95 Complete

PUT YOUR SIGNAL INTO ORBIT WITH THE ORBITER

A phasing and beam type antenna that actually is 3 beams in one. Direction is selected immediately by a twist of the wrist at the control box and without the use of costly, slow moving rotators. Elements can be used individually or all at the same time for OMNI-DIRECTIONAL reception. Consists of 3 half wave, gamma matched dipoles, electronically constructed so that any dipole can be selected as a driven element while the other 2 become a reflector screen. 27 Mcs.

Front to Back—23 Db.
Empedance—50 Ohm unbalanced.
Electronic Rotation—can also be used as an OMNI-DIRECTIONAL antenna.



NET
\$71.95

CB MARINE Antenna CBM-16

New top-loaded "Ocean Sentry" design for greater radiation efficiency, less wind resistance, perfect match to transceiver, operation independently of ground. 72" high with 1/4 wave end feed fiberglass antenna with EZ-off quality disconnect. 1.5 db gain. SWR at resonance 1.5:1. 50 ohms input. Complete with cable, mounting and antenna.

\$19.95
NET

DARTLINE FOLD-OVER ANTENNA WITH COIL

Power Rating: A.M.—dc input, 250 watts — SSB dc input, 500 watts.
A.M.—29: 38" Stain. Steel Laydown Ext. breaks at 18" for fender or deck mount.
\$11.95

A.M.—35: 48" Stain. Steel Laydown Ext. breaks at 36" for bumper mount.
\$14.25

COIL & WHIP

AM-30 80 Meter \$9.95
AM-31 40 Meter 8.95
AM-32 20 Meter 7.95
AM-33 15 Meter 6.95
AM-34 10 Meter 5.95

ANTENNAS MOUNTS

Master Mobile

Master Mobile Mounts

Division of Whitehall Electronics

All products are for Universal Use—Mobile, Home, Marine, C.A.P., Civil Defense, Emergency, etc.

2 METER ANTENNAS — FIXED • MOBILE

Can be cut for the following freq. 220 to 225 140 to 170 460 to 465

ALL SPECIAL ALUMINUM ALLOY RODS

CERAMIC TOP INSULATOR

SPECIAL ALUMINUM MB-1 — Mounting Bracket

GROUND PLANE ANTENNA

Model 300 — Master Deluxe. ... NEW! ... brings in that DX. Outperforms any type of vertical dipole. "Drooping" Type Ground Plane plus four straight radials to give a low angle of radiation for general coverage, an almost perfect circle radiation pattern. Ideal for CD and defense nets. Covers complete Amateur and with Broad and char. Matches 52 ohm coax cable through threaded coax fitting at end. Straight radials are adjustable (up or down) to eliminate standing waves on trans. lines. For medium or low-powered trans. Sturdily built of finest materials to withstand corrosion, high winds and extreme icing. With 36" length of 3/4" pipe for mounting purposes. **Model 300 Amateur's** Net \$12.95 **MB-1 — Mounting Bracket** Net 1.00

Model GP-4 — Four "Drooping" Radials for perfect match to 52 ohm coax cable. Complete amateur band coverage. Specify other frequencies. Attaches to Mast with U-Bolts, (U-Bolts and Mounting Brackets furnished). Also attachable to side of building. Sturdy, with special alloys, to withstand corrosion and extreme weather.

MODEL GP-4 Amateur's Net \$5.95

The GIANT CUBICAL QUAD

... a giant in CB performance!

INCREASES RANGE — The Q-11 was designed specifically for Citizens Band use, and is particularly effective in increasing communications range with the power limitations on this band.

HEAVY DUTY but LIGHT WEIGHT — Beam element clamps are constructed of heavy-duty cad-plated steel treated to resist corrosion while the elements are made of rigid aluminum and fiberglass tubing to give maximum service. Its light weight enables it to be used with most TV-type rotors.

RUGGED — The Quad Antenna is a square loop beam which is light weight and still rugged enough to withstand high winds.

EASILY ASSEMBLED — It can be assembled on the ground simply lifted into place, or assembled on the tower.

SPECIFICATIONS: Forward Gain, 8 db; Front to Back, Up to 40 db; Type of Feed, 52 ohm coax; Polarization, Horizontal or Vertical; Longest Element, 9'3"; Boom Length, 65 1/2".

For class D, 27-mc operation

MODEL Q-11 \$39.95 Net

DYNA-MASTER DYNAMIC CO-LINEAR

Compare these **BASE STATION GROUND PLANE** features • Up to 20 db signal to noise improvement • Linear impedance matching insures maximum signal transfer from antenna to receiver without the losses of conventional matching transformer • Completely weather-sealed in epoxy • Lower angle of radiation gives increased range • Built-in lightning protection • On SSB radiated power will be doubled • Antenna is equally effective on upper or lower or double sideband • Terminates in SO-239 connector • Elements are heavy wall aluminum with tightly swaged telescoping sections.

ABR-365 1 1/2 Wave, adjustable, (144-174 mc), 5.8 db gain.....	\$34.95
AM-106 1/2 Wave, (50-54 mc), 3.7 db gain.....	34.95
CR-133 3/4 Wave, (30-35 mc), 3.7 db gain.....	34.95
CR-137 3/4 Wave, (35-40 mc), 3.7 db gain.....	34.95
CR-145 1 Wave, (40-50 mc), 3.7 db gain.....	34.95
CR-5 3/4 Wave, Class D, 27 mc, 3.7 db gain.....	24.95

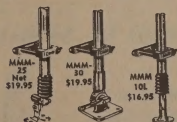
MASTER MARINE MARVEL MARINE ANTENNA

Designed, built and tested in Master Mobile's own floating laboratory, the new center-loaded Master Marine Antenna is the latest result of many years of experience in producing the finest in Antennas used throughout the world. The Marine Marvel, secure and powerful, provides maximum power radiation on all marine frequencies from 2 to 3 megacycles. Here is the Antenna that was made for your boat! ... engineered to withstand the most severe type of marine service, with long life assurance by being fabricated of the highest quality material available.

- 10% Ft. Overall Length.
- Capacity 4 Ft. Stainless Steel Plastic-Coated Whip.
- 18" Center-Loaded Impregnated Coil.
- 5 Ft. Anodized Base Section.
- Absolutely Waterproof-Weatherproof.
- No Electrolysis.
- Rugged Insulators.
- Adjustable Antenna Lead.

COLORS AVAILABLE:
WHIP — Yellow, Blue or Black.
COIL — Yellow, Blue or Black.
BASE — Gold (Spec. Saltwater Anodized).

No. MMM-2710 Antenna & Solid Mounts—5 Ft. Base. \$29.95
No. MMM-2715 Antenna & Solid Mounts—10 Ft. Base. \$35.95
No. MMM-2700 Antenna—5 Ft. Base (less Mounts) — \$27.95
No. MMM-2705 Antenna—10 Ft. Base (less Mounts) — \$33.95
MMM-10 SOLID MOUNTS— per set \$5.50



MARINE LAYDOWN MOUNTS

Additional Brackets Available

New deluxe series. Can be mounted on side of cabin or upright on deck. Mounts swivel, and are adjustable in any position. Chrome-plated brass with high impact waterproof-weatherproof phenolic insulator.

MARINE MOUNTING BRACKETS

MM-1 for 1" mast.....	\$5.95
MM-1S for 1 1/2" mast.....	\$6.75

MASTER SUPER MARINE ANTENNA No. MMM-2750

The Master Super-Deluxe Marine Antenna in 12 ft. anodized 1 1/2" tubing. Coil section is 35" long. Impregnated coil covered with phenolic tubing. 8" fiberglass whip. Here is the ultimate in Marine Antennas!

MMM-2750 Antenna & Solid Mounts..... \$49.95
Without Mounts..... \$47.95

TWO METER COAX ANTENNAS

No. 214 — MASTER DELUXE. ... ruggedly constructed, vertically polarized, frequency range 140 to 170 MC. Completely waterproof. Highly polished chrome enhances appearance of any vehicle. Furnished with 10 ft. of 72 Ohm Coax Cable. **Type 1—On side with 2 brackets furnished \$15.95** **Type 2 — Master Mount \$232.00 (or 140X)—** (Mounts sold separately. Complete \$17.45 Adjustable mtg.—adjusts to 17".

2 METER STANDARD MODEL

No. 114 COAX VHF ANTENNA — At a popular price! For OPEN TYPE VEHICLES using 140 MC to 165 MC. Mounts any convenient place with standard Master Mounts. Baked enamel finish. With 10 ft. Coax Cable and 18" Adjustable Section. **Net, only \$9.95**

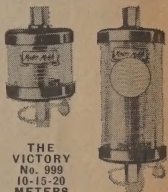
No. 613

No. 613 — NEW IMPROVED MASTER VHF ROOF TOP ANTENNA. This new high performance antenna features an improved type positive-lock coaxial connector. Designed for police, fire, taxi cabs and amateurs using 140 MC to 165 MC. Stainless steel wire with threaded fitting. Easily changed without disturbing mounting. Comes with 10 ft. coax cable Net \$4.95
No. 113 — ROOF TOP ANTENNA without De Luxe Connections Net 3.98
No. 117 — Extra Antenna for No. 113 Net .97
No. 114 Net .97
No. 116 — Extra Antenna for No. 214 and No. 613 Net 1.70

MULTI-BAND TRANS. ANTENNA COILS

New Plug-In Coils! Just plug into desired pair of jacks and presto! ... your coil is ready for operation on the desired band. No switches, no sliding contacts, no loose connections. Built and tested for maximum resonance.

- Rigidly tested and engineered — found to have a "Q" of 525.
- Operates into a 25-ohm cable.
- Positive contact—noise-free, trouble-free operation.
- Weathersealed.
- Ruggedized construction.
- Factory pre-tuned — no adjustment is necessary.
- Higher efficiency — lower loss.



THE VICTORY No. 999 10-15-20 METERS ONLY

THE MODEL SSB 150 75 & 40 METERS ONLY

YOUR CHOICE... \$14.95

HY "Q" construction with wider spacing of turns for high frequency bands. Use as center or base section of antenna with 60" whip.



ULTRA HI "Q" COILS



FOR 80-40-20 & 15 METERS

After many years of experimentation, here is the coil with the highest "Q" ever obtained. Tested and found to have a "Q" of well over 515. Use with 88" base section. 60" whip.

ANY BAND... \$5.25

No. 750 MASTER DELUXE ALL-BANDER

Covers 10 thru 75 and all intermediate frequencies. Silverplated single turn contact, positive spring, Bi-centric cam contact, easy selection of turn. Automatic lock prevents damage to coil.

NET \$14.95

DELUXE ULTRA HIGH "Q" COILS

Extremely efficient for SSB operation and with power units. New design for higher "Q", top efficiency and lighter weight. No arcing with high power transmitters. For use with 3 ft. base section and 60" whip.

15 meter.....	\$ 9.95	2374 Kc.....	\$13.95
20 meter.....	8.95	2738 Kc.....	13.95
40 meter.....	8.95	2768 Kc.....	13.95
75/80 meter.....	9.95	4507.5 Kc.....	10.95
160 meter.....	14.95	4385 Kc.....	10.95
2374 Kc.....	15.95	4325 Kc.....	10.95

ULTRA HY "Q" C.A.P. COILS

Additional HY "Q" C.A.P. Coils to be used with HY "Q" C.A.P. Antennas according to frequency desired. These coils are interchangeable. Other freq. coils priced upon request.

	Net		Net
UH "Q" 2374 Kc.....	8.95	UH "Q" 4585 Kc.....	\$ 7.95
UH "Q" 2738 Kc.....	8.95	UH "Q" 4325 Kc.....	7.95
UH "Q" 2768 Kc.....	8.95	UH "Q" 160 Meters.....	12.95
UH "Q" 4507.5 Kc.....	7.95	UH "Q" 2374 Kc.....	12.95

PREMAX**ANTENNAS--MOUNTINGS--ACCESSORIES****SERIES C CENTER-LOADED
MARINE ANTENNAS**

A Center-Loaded Collapsible Type Antenna, consisting of two telescoping, adjustable base sections on which the loading coil is mounted, with a tapered top whip section, giving a total extended length of about 19 feet. This Antenna collapses to a single unit with the whip section telescoping through the coil into the lower section, making a collapsed length of 7 feet. The sections are of sea-less aluminum, or stainless steel and the coil is wound on low-loss bakelite tubing and treated after assembly with weatherproof coating.

No.	Type	Base O.D.	Base I.D.	Wt. Lbs.	List Price
CLA-619	Aluminum	1.000"	.834"	5	\$55.00
CLS-1119	Stainless	1.000"	.900"	7	110.00

**SERIES B CENTER-LOADED ANTENNAS
FOR MOBILE & MARINE USE**

Center-Loaded Whip-Type Antennas consist of a standard base section or spring-type on which is mounted a special Premax coil. The top is a taper-ground stainless steel whip 6 ft. in length, giving a total overall height of 9 ft. Various coils are available or the standard 75-meter coil can be adapted by shorting out turns on the coil. Antennas can be used with any of the Standard Premax Mountings shown below, or will fit any 3/8" x 24-thread mounting.

NO.	FREQ.	PRICE
BXS-14	14,000 kc. (20M.)	\$24.00
BXS-23	2374 kc. (CAP)	24.75
BXS-31	3105 kc. (APT)	24.75
BXS-38	3800 kc. (75M)	24.75
BXS-43	4325 kc. (CAP)	24.75
BXS-46	4585 kc. (CAP)	24.75
BXM-25	2900 to 3000 kc. (Marine)	24.75
(Same as BXS but with Spring)		
BSS-14	14,000 kc. (20M.)	39.75
BSS-23	2374 kc. (CAP)	41.25
BSS-31	3105 kc. (APT)	41.25
BSS-38	3800 kc. (75M)	41.25
BSS-43	4325 kc. (CAP)	41.25
BSS-46	4585 kc. (CAP)	41.25
BSM-25	2900 to 3000 kc. (Marine)	41.25

SERIES B COILS

Premax also supplies the Series "B" coils in the standard frequencies above. Special frequencies available on request.

List Price\$13.50 ea.

MAST EXTENSIONS

Polished Stainless Mast Extensions—threaded 3/4"-24 on both ends and supplied with stainless nuts and lockwashers. Available in 12", 18", 24", 30" and 36" lengths.

Prices range from \$6.00 to \$12.00 list each

SERIES C

Style B
Coil

BX Mast Type
Extension BXS

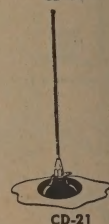
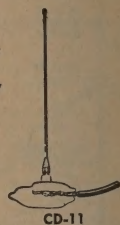
Type
BSS

MOBILE VHF WHIPS

Style CD-11 Series—Permanent type. Porcelain insulator mounts thru 1/2" hole in rooftop.

Style CD-21 Series—Emergency type. Attaches by heavy duty suction cup.

NO.	FREQ.	PRICE
CD-112	108 to 120 mc.	\$6.00
CD-114	144 mc.	6.00
CD-115	152 to 162 mc.	6.00
CD-212	108 to 120 mc.	4.20
CD-214	144 mc.	4.20
CD-215	152 to 162 mc.	4.20

**GROUND PLANE ANTENNAS
FOR POINT-TO-POINT USE**

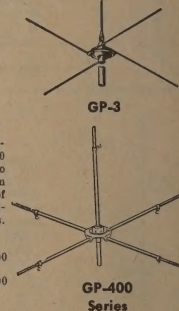
For point-to-point installations, Premax has two VHF Antennas: The Style GP-3 which has elements of heavily-plated spring steel with skirt wires that can be bent down to any angle to match coax cable. Mounting is within a water-proof housing that fits standard 1/2" pipe. Cable carries down thru pipe.

NO.	FREQ.	USE	PRICE
GP-312	120 mc.	For aircraft and CAP.	\$12.00
GP-314	140 mc.	For 2 meter and CD.	12.00
GP-315	150 mc.	For police and taxi	12.00

**PREMAX ADJUSTABLE
GROUND PLANE
ANTENNAS 20-60 mc**

Another low-cost type Ground Plane Antenna is adjustable from 20 to 40 mc. or 40 to 60 mc. Standing wave ratio matching to 52-ohm line is 1.07 to 1.13 and to 72-ohm line is 1.27 to 1.28 depending on type of transformer cable. All-aluminum construction employing adjustable tubular elements.

GP-430	Adjustable 20-40 mc.	\$75.00
GP-450	Adjustable 40-60 mc.	60.00

**MOBILE MOUNTINGS FOR USE WITH WHIPS WITH 3/4"-24 MALE THREAD****CA BUMPER MOUNTING**

"Chain Style" — clamps on any bumper with 1" clearance; no drilling; theft-proof.

Price\$15.00

**R-3 UNIVERSAL MOUNTING**

Solid Polished Aluminum Swivel Ball. Heavy stainless steel back-up plate with grounding screws. Stainless steel hardware.

Price\$22.50

**TYPE R-5-2 COMBINATION**

Similar to R-2 except has spring as shown under SA-2.

Price\$37.50

SA-2 SPRING ADAPTOR

Stainless steel Spring Adaptor—can be attached to types R-2, R-3, L-1, CA and NA-1 to provide greater flexibility. Height 4 1/4", diameter 2 3/8".

Price\$15.00

**TYPE NA-1**

Bumper mounting with ceramic cone insulator and steel bracket.

Price\$12.75

**TYPE F**

30° adjustable mounting for fender, cowl or gravel pan. Chrome-plated brass with phenolic insulation.

Price\$21.75

**R-2 UNIVERSAL COAX
TYPE MOUNTING**

Solid Polished Aluminum split-ball can be adjusted to any angle. Has shielded coax connection and stainless hardware.

Price\$18.00

**TYPE L-1**

Bumper mounting, 2 pairs ceramic cone insulators with steel bracket. 10" adjustment.

Price\$21.00

**TYPE V**

Thru-deck mounting designed for Style BX and BS Center-Loaded Marine Antennas. White porcelain cones with a maximum opening for 1-1/2" deck. Stud threaded 7/16"-24.

Price\$13.00

PREMAX PRODUCTS, DIV. CHISHOLM-RYDER CO., INC.

PREMAX**ANTENNAS--MOUNTINGS--ACCESSORIES****VERTICAL TELESCOPING ANTENNAS
PREMAX STAINLESS STEEL ANTENNAS**

Premax stainless steel antennas, fully telescoping and adjustable, have a locking device that holds the sections firmly at any desired point insuring a perfect electrical contact. Made of a high grade polished stainless steel tubing, hard-drawn to an extremely high tensile and yield strength, they are well suited for the most severe strains from high seas or winds.

PREMAX ALUMINUM ANTENNAS

Premax aluminum antennas are lightweight, corrosion resistant and have adequate strength to meet practically all needs for marine, commercial and mobile installations that demand convenience in erecting and dependable performance. They are constructed of highly polished, specially tempered aluminum tubing engineered to withstand wind velocities up to 60 miles per hour.

**SPECIFICATIONS & DESCRIPTIONS OF
TELESCOPING VERTICALS**

NO.	DESCRIPTION	EXTD.	COLL.	BASE O.D.	BASE I.D.	WGT.	LIST PRICE
SS-1118	3-Sec. Stainless	18'4"	6'3"	.750"	.680"	6	\$ 90.00
SS-1124	4-Sec. Stainless	24'3"	6'3"	1.000"	.900"	9	135.00
SS-1130	5-Sec. Stainless	30'0"	6'4"	1.250"	1.120"	13	185.00
SS-1135	6-Sec. Stainless	35'7"	6'4"	1.500"	1.370"	19	255.00
AL-312	2-Sec. Aluminum	12'4"	6'4"	.500"	.334"	1 1/2	15.00
AL-518	3-Sec. Aluminum	18'5"	6'4"	.750"	.584"	3	25.00
AL-324	4-Sec. Aluminum	24'4"	6'4"	1.000"	.834"	5	35.00
AL-530	5-Sec. Aluminum	30'0"	6'5"	1.250"	1.084"	7	55.00
AL-535	6-Sec. Aluminum	35'8"	6'5"	1.500"	1.310"	12	75.00

**GET POSITIVE PROTECTION
FOR YOUR EQUIPMENT WITH A
PREMAX GROUND ROD**

High quality, low cost Premax Ground Rods make it impractical to fuss with makeshift grounding methods. Made of smooth, drawn steel with newly designed pencil-point tip for easier driving. Heavy copper plate prevents rust and assures sensitive electrical contact. Available in 4 ft. to 8 ft. lengths; 3/8", 1/2" and 5/8" diameters. Styles J and G have simple clamp with set-screw for attaching ground lead. Style H has a 1/8" hole drilled in rod through which ground lead can be fastened. Style X is a plain rod to which ground lead can be clamped or soldered.

Weight STYLE J & G per 100 Screw Clamp			STYLE H With Hole		STYLE X Plain	
Size	Pieces	No. List	No.	List	No.	List
3/8"x4'	160	J-64T	1.25			
3/8"x6'	230	J-66T	1.85			
3/8"x8'	320	J-68T	2.00			
1/2"x6'	400	G-86T	2.90	H-86T 2.95	X-86T 2.70	
1/2"x8'	540	G-88T	3.50	H-88T 3.55	X-88T 3.25	
5/8"x6'	630	G-106T	4.25	H-106T 4.30	X-106T 4.10	
5/8"x8'	840	G-108T	5.25	H-108T 5.30	X-108T 5.10	

GALVANIZED RODS QUOTED ON REQUEST

Freight Allowance of up to \$2.00 per cwt. granted on all Ground Rods based on lowest rail freight rate.

STANDARD PACKAGING

All 3/8" x 4' Rods—25 per carton
All 3/8" x 6' and
5/8" x 8' Rods—25 per bundle
All 1/2" Dia. Rods—20 per bundle
All 5/8" Dia. Rods—10 per bundle

BASE MOUNTINGS FOR VERTICALS**TYPE 1 BASE INSULATOR**

Heavy-duty type Base Mounting Insulator with compression rating up to 10,000 lbs. Has wet-process brown-glazed porcelain cones. Available in galvanized malleable iron, and chrome-plated brass, in rigid-post, hinged-post. Ht. to post base, 7 to 9 inches. Wt. 8 lbs.

List Price\$52.00 to \$105.00

**TYPE 6 BASE INSULATOR**

For marine, mobile unit, roof-top or tower. Lead-thru construction permits connections below deck. Flanges 6" in diameter with 6 bolts on a 5" circle. For 1/2" to 3" deck. Available in galvanized malleable iron, and chrome-plated brass. Rigid post, and hinged post styles. Ht. from flange to post base, 3" to 5". Wt. 11 1/2 lbs.

List Price\$78.00 to \$170.00

STANDOFF INSULATORS**TYPE 10-5**

A heavy-duty Insulator with chrome-plated brass base and head caps—regular or hinged clamps. Insulator is brown-glazed porcelain in extra heavy style. Ht. to center of clamp, about 4 1/2". Wt., 3 lbs.

List Price\$60.00 to \$102.50

**TYPE 13-5**

Heavy, rugged cast caps and base plates in aluminum or chrome-plated brass. Heavy brown-glazed porcelain insulator, 3 inches in diameter. Ht. to center of clamp, 4 3/4". Wt., 2 1/2 lbs.

List Price\$17.50 to \$55.00

MOBILE WHIP ANTENNAS**HEAVY DUTY TAPERED STAINLESS—TYPE ES**

Solid one-piece taper-ground whips, 1/4" at base tapering to 3/32" at tip with top ball. High-tensile stainless steel fabricated by special formula, comparing favorably with the best spring steel, yet having excellent corrosion-resistant properties.

HEAVY DUTY TAPERED CHROME-SILICON—TYPE EC

Same as above only fabricated from chrome-silicon steel of exceptionally high-tensile strength and uniformity of temper, with high fatigue values developed by special heat treatment during fabrication.

**STANDARD WEIGHT TAPERED STAINLESS WHIP WITH
NON-REMOVABLE ADAPTOR—TYPE TS**

Stainless steel whips of extremely high tensile strength with a permanent type stainless adaptor, with 3/8" male thread.

**STANDARD WEIGHT WHIP WITH REMOVABLE ADAPTOR—
TYPE VS**

Same whip as above except supplied with a removable adaptor locked in place by dual set screws.

NO.	LENGTH	PRICE
ES-760	60"	\$10.50
ES-772	72"	10.50
ES-784	84"	12.00
ES-796	96"	12.00
EC-660	60"	8.25
EC-672	72"	8.25
EC-684	84"	9.75
EC-696	96"	9.75

NO.	LENGTH	PRICE
TS-860	60"	\$10.50
TS-872	72"	10.50
TS-884	84"	11.25
TS-896	96"	11.25
TS-8108	108"	12.00
VS-960	60"	12.00
VS-972	72"	12.00
VS-984	84"	12.75
VS-996	96"	12.75
VS-9108	108"	13.50

AD-700 — Separate Stainless Adaptor with 3/8" male thread for ES and ES series whips. \$3.40

AD-900 Same as AD-700 except drilled for VS series whips. \$3.40

ALL PRICES SHOWN ARE LIST PRICES SUBJECT TO USUAL COMMERCIAL DISCOUNTS.

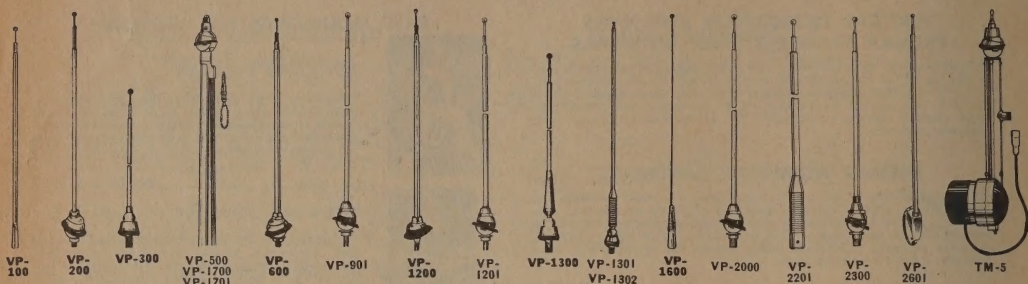
PRICES EFFECTIVE AT TIME OF PRINTING AND ARE SUBJECT TO CHANGE WITHOUT NOTICE.

PREMAX PRODUCTS, DIV. CHISHOLM-RYDER CO., INC.

Tenna Auto Antennas and Mounts

THE TENNA MANUFACTURING COMPANY, INC., CLEVELAND, OHIO

World's largest
maker of
Auto Aerials



2 SECTION TOP MOUNTS

LEADER

Split-Washer Base, Extends to 39" from 22". 48" Fixed Copper Lead Cable, Triple Chrome Plating.

Model VP-1200 Net.....\$2.04

STANDARD TOP MOUNT

Ball and Steel Stamped Rocker Base Extends to 39" from 22". 48" Radar Type Fixed Copper Lead Cable, Triple Chrome Plating.

Model VP-1201 Net.....\$2.04

DELUXE TOP MOUNT

"Ball and Diecast Rocker" Base, Extends to 39" from 22". 48" Radar type copper lead cable, Triple Chrome Plating.

Model VP-600 Net.....\$2.48

3 SECTION TOP MOUNTS

SATELLITE 3 SECTION SWIVEL BALL

Rotates Full 360°. Top, Side or Angle Mount—3 sections extend to 57" from 23". 48" Radar type copper lead cable, Triple Chrome Plating.

Model VP-300 Net.....\$2.87

STANDARD 3 SECTION TOP MOUNT

Ball & Steel Stamped Rocker Base, Fixed Lead, Extends to 57" from 23". 48" Radar Type Fixed Lead Cable, Triple Chrome Mast.

Model VP-901 Net.....\$2.25

SPECIAL DELUXE 3 SECTION TOP MOUNT

Deluxe Dome Nut Ball and Die Cast Rocker Base, Extends to 57" from 23". 48" Radar type copper lead cable, Triple Chrome Plating.

Model VP-2300 Net.....\$2.55

ALL POPULAR 3 SECTION TOP MOUNT

Ball and Die Cast Rocker Base, Extends to 57" from 23". 48" Radar Type copper lead cable, Triple Chrome Plating.

Model VP-2000 Net.....\$2.66

SUPER DELUXE 3 SECTION TOP MOUNT

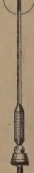
Ball and Die Cast Rocker Base with all-chrome top, 3 Sections extend to 57" from 23". 48" Radar type copper lead cable, Triple Chrome Plating.

Model VP-200 Net.....\$2.85

POWER HOUSE TOP MOUNT

With Built-in Coll equivalent to a 125" antenna, 3 Sections extend to 57". Universal mount and 48" lead cable.

Model VP-3800 Net.....\$4.85



NEW TOP MOUNT CONCEALED SAF-KEY AUTO ANTENNAS

MOUNT COMPLETELY FROM THE TOP—Fits standard 1" hole. The 3 in 1 antenna with disappearing mast—collapses to "0" out of the reach of vandals, SAF-KEY releases it when needed. Simply insert key and pull up. Mast extends to full height.

MODEL VP-1700—3 sections—extend to 50" disappear to 0". Deluxe with key and chain, 48" radar copper lead cable, Triple Chrome plating, Net \$4.05 Shipping wt. 1 1/4 lbs.

MODEL VP-1701—3 sections—extend to 39"—disappear to 0". With flat key and 18" copper lead cable, Triple Chrome plating, Net \$3.54 Shipping wt. 1 1/4 lbs.

MODEL VP-500—Deluxe-Concealed Antenna (No Key) 3 sections extend to 50". Disappear to 0". 48" Copper lead cable, Triple Chrome plating, Net \$3.54 Shipping wt. 1 1/4 lbs.

SPRING TOP MOUNTS

SATELLITE FLEX-O-MAST WITH TAPERED STAINLESS STEEL SPRING-TOP MOUNT

Spring keeps mast from breaking off on impact—snaps back. Rotates a full 360°. Can be locked at any angle 3 Sections, Extends to 57" from 23". 48" Radar type copper lead cable, Triple Chrome Plated.

Model VP-1300 Net.....\$3.95

HEAVY DUTY STAINLESS STEEL FLEX-O-MAST SPRING TOP MOUNT

Heavy duty stainless steel spring resists impact better than any other spring antenna. 3 Sections, Extends to 57" from 23". 48" Radar type copper lead cable, Triple Chrome Plating.

Model VP-1301 Net.....\$4.40

Same as above except spring is chrome plated—oil tempered steel.

Model VP-1302 Net.....\$3.95

4 Section Heavy Duty Stainless Steel Spring Top Mount. Same as above except 4 section mast extends to 55" from 18 1/2". 54" Radar type copper lead cable, Triple Chrome Plated.

Model VP-3000 Net.....\$4.61

SIDE MOUNTS

DELUXE 2 STANCHION SIDE MOUNT

3 Sections, Extends to 57" from 23". Black tenite insulators with chrome caps. 48" Radar type copper lead cable.

Model VP-400 Net \$3.41

LEADER 2 STANCHION SIDE MOUNT

3 Sections—same as VP-400 except grey insulators without chrome caps. 48" Radar type copper lead cable, Triple Chrome Plating.

Model VP-1000 Net.....\$2.90

DELUXE SINGLE STANCHION SIDE MOUNT

For Volkswagens, trucks and other foreign cars. All chrome base adapts to most curved surfaces. 36" Radar type copper lead cable, Triple Chrome Plating. Mast extends to 57" from 23".

Model VP-2601 Net.....\$3.60

LEADER SINGLE STANCHION SIDE MOUNT

Same as above except base is black polypropylene.

Model VP-2600 Net.....\$3.60

REPLACEMENT MASTS

UNIVERSAL REPLACEMENT MAST

3 Section, Extends to 57" from 23". Installs instantly over any 3 section broken mast or stud of mast. Allen wrench with 2 set screws furnished. Triple Chrome Plating.

Model VP-100 Net.....\$1.55

SINGLE SECTION FLEX-O-MAST REPLACEMENT MAST

28" high chrome plated flexing mast snaps back. Polished stainless steel spring with set screws and Allen wrench furnished.

Model VP-1600 Net.....\$1.29

HEAVY DUTY SPRING REPLACEMENT MAST STAINLESS STEEL

3 Section, Heavy spring that bends. Same as VP-1301 antenna. Extends to 57" from 23" with set screws and Allen wrench furnished.

Model VP-2201 Net.....\$2.99

*NOTE: Prices shown are for Skin Pack—VP Available in bulk (X suffix) .05 decrease. Available in bulk (A suffix) .08 decrease. Specify on order VP, X or A.

TENNAMATIC ELECTRIC ANTENNA

Universal design approved by all major auto manufacturers. Unconditionally guaranteed for one year. For 12-volt systems only. Mast extends 30", collapses to less than 1". Patented motor design can't "burn out"; give positive 15 lb. thrust for free action in sub-zero weather. Comes with switch and bracket, 54" radar cable (copper shielded), 72" electric harness, cable clips, anchor brackets, metal screws and installation instructions.

Model TM-1—Front mount. Net.....\$25.32

Model TM-2—Rear mount. Net.....\$27.66

With 18" cable and 20' electric harness. Extra clips supplied. Rear mount adapter pad for crown rear fenders.

Model TM-3—Rear mount kit of 15' cable extension, 14" harness extension and rear mount adapter pad. Converts TM-1 to TM-2. Net.....\$4.64

NEW TENNAMATIC

New Electric Antenna patterned after TM-1 but designed to fit more cars. New dress parts—4 section mast extends to 35" from 1 1/4". Includes same hardware as above models.

TM-5—Front Mount 54" lead Net.....\$26.51

TM-6—Rear Mount 216" lead Net.....\$28.82

RADAR TYPE LEAD CABLES

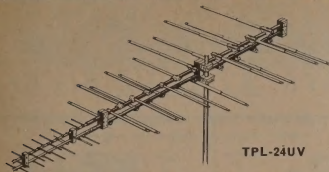
Radar type ultra high "Q" coaxial cables with polyethylene insulation and 100 per cent shielding. Type L has aircraft connector to antenna and pin plug. Extension Type LE has male and female pin plug fittings.

Model	Length	Model	Length
LE-12	12"	L-72	72"
LE-18	18"	LE-48	48"
LE-24	24"	LE-108	108"
LE-36	36"	LE-144	144"
L-36	36"	LE-180	180"
L-48	48"	LM-44†	144"
L-54	54"	LM-180†	180"
L-60	60"	MRC-54†	54"

*Communication lead. †Universal replacement cable. Equipable with three different mounting nuts for all or any assemblies.

WHERE PROGRESS IS A HABIT AND SALES LEADERSHIP AN ESTABLISHED FACT

TENNA TRU-COLOR TV ANTENNAS • UHF-VHF-FM



TPL-24UV

UHF-VHF-FM

Color and black and white. Range up to 90 miles — 24 elements, 13 UHF channels — 14 thru 83. 11 VHF elements, channels 2 thru 13. Monaural and stereo. Gold alodized finish, double boom construction. Heavy duty insulators — preassembled, quick rig. Model TPL-24UV.....List..\$49.95
Wt. 13 lbs.

Range up to 70 miles. 21 elements, 13 UHF, channels 14 thru 83. 8 VHF elements, channels 2 thru 13. FM monaural and stereo. Gold alodized finish, double boom construction. Heavy duty insulators — preassembled, quick rig. Model TPL-19UV.....List..\$29.95
Wt. 10 lbs.

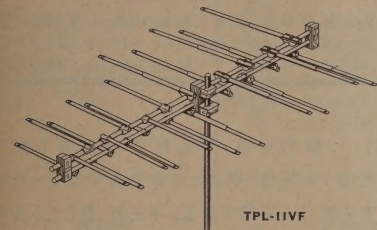
Range up to 50 miles. 19 elements, 13 UHF and 6 VHF, FM monaural and stereo. Gold alodized finish, double boom and heavy duty insulators — preassembled, quick rig. Model TPL-19UV.....List..\$29.95
Wt. 9 lbs.

VHF ONLY

Color and black and white. Range up to 90 miles. 11 elements, channels 2 thru 13. Gold alodized finish — double boom and heavy duty insulators — preassembled, quick rig. Model TPL-11VF.....List..\$21.95
Wt. 12 lbs.

Range up to 70 miles. 8 elements, channels 2 thru 13. Gold alodized finish, double boom, heavy duty insulators — preassembled, quick rig. Model TPL-8VF.....List..\$19.95
Wt. 9 lbs.

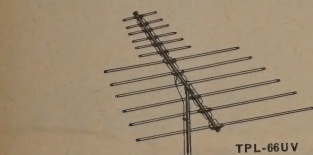
Range up to 50 miles. 6 elements, channels 2 thru 13. Gold alodized finish, double boom heavy duty insulators — preassembled, quick rig. Model TPL-6VF.....List..\$19.95
Wt. 8 lbs.



TPL-11VF

COMPLETE KIT UHF-VHF-FM

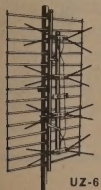
Includes boom, mast, tripod roof mount, coupler, splitter, 50 ft. lead wire. Range up to 70 miles. 12 elements, 6 UHF, 6 VHF-FM, stereo and monaural. Gold alodized finish, heavy duty construction — preassembled, quick rig. Model TPL-66UV.....List..\$19.95
Wt. 6 lbs.



TPL-66UV

UHF ONLY BOW TIES

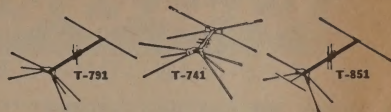
4 bay, color and black and white, UZ-6 exclusive TRU-color, gold alodized all aluminum reflector screen. Light weight, positive rust proof, mounting bracket included — preassembled. Model UZ-5A Wt. 3 lbs.....List..\$8.95
Model UZ-1A 1 bay bow tie, steel screen, Wt. 2 lbs.....List..\$5.50
Model UZ-2A 2 bay bow tie, steel screen, Wt. 2 lbs.....List..\$5.50
Model UZ-4A 4 bay bow tie, steel screen, Wt. 3 lbs.....List..\$8.95



UZ-6



UZ-4



CONICAL ARRAYS

Full size, all aluminum antennas cover all channels 2 through 13. Available with high-channel Director Bar for greatly improved reception on upper channels. Choice of four or six forward elements and two or four reflector elements. Stacked arrays consist of two bays with connecting bars for stacking. Completely pre-assembled with Instant Mount Assembly. Includes high impact molded polystyrene insulator.

SINGLE ARRAYS

Tenna Model	Forward Elements	Ref. Elements	HF Stubs	Director Bar	Shpg. Lbs.
T-751	4	4		1	3
T-801	4	2			2 1/2
T-811	4	2			2 1/2
T-741	4	4	2		3 1/2
T-851	4	2		1	2 1/2
T-791	4	2	2		2 1/2
T-771	6	2			3 1/2
T-781	6	2		1	3 1/2

STACKED ARRAYS

T-752†	8	8		2	6 1/2
T-802†	8	4			5 1/2
T-812†	8	4			5 1/2
T-742†	8	8	4		6 1/2
T-852†	8	4		2	5 1/2
T-792†	8	4	4		5 1/2
T-772†	12	4			6 1/2
T-782†	12	4		2	6 1/2

*Bulk-packed 6 per master carton; for individually boxed antennas, packed four per master carton, add suffix A to number (example: T-751A). †Bulk-packed three per master carton; for individually boxed units, packed four per master, add suffix A.

CONICAL ANTENNA KITS

Contain conical arrays, mount, masts, cable and all necessary hardware. "Do-It-Yourself" kits.

CHIMNEY MOUNT KITS

Tenna Model	Array Type	Shpg. Lbs.	Tenna Model	Array Type	Shpg. Lbs.
DK-801	T801A	8 1/2	DK-741	T741A	9
DK-802	T802A	13	DK-742	T742A	13 1/2
DK-811	T811A	8 1/2	DK-751	T751A	9
DK-812	T812A	13 1/2	DK-752	T752A	14
DK-791	T791A	8 1/2	DK-851	T851A	8 1/2
DK-792	T792A	13 1/2	DK-852	T852A	13 1/2
DK-771	T771A	8 1/2	DK-781	T781A	9 1/2
DK-772	T772A	13 1/2	DK-782	T782A	13 1/2

SWIVEL MOUNT

DK-801-3	T801A	6 1/2	DK-741-3	T741A	7
DK-802-4	T802A	11 1/2	DK-742-4	T742A	12
DK-811-3	T811A	6 1/2	DK-751-3	T751A	7
DK-812-4	T812A	12	DK-752-4	T752A	12 1/2
DK-791-3	T791A	6 1/2	DK-851-3	T851A	8 1/2
DK-792-4	T792A	11 1/2	DK-852-4	T852A	11 1/2
DK-771-3	T771A	6 1/2	DK-781-3	T781A	9 1/2
DK-772-4	T772A	11 1/2	DK-782-4	T782A	12 1/2

CUT-CHANNEL YAGIS

Cut-to-channel Yagis available upon request. Specify channels and number of elements (5 or 10).

MOBILE COMMUNICATION ANTENNAS

COMMUNICATION GEAR

BASES

Black phenolic base with black swivel ball or chrome ball.
MB-1—Swivel base cad. plated.....Net..\$2.92
MB-2—Swivel base and spring, chrome-finish.....Net..\$4.25
MB-4—Swivel base (heavy duty) chrome ball.....Net..\$4.02
MB-5—Swivel base (heavy duty) black base and ball.....Net..\$3.52
MB-6—Swivel base (heavy duty) cad. plated base and ball.....Net..\$3.03
MB-9—Same as MB-4 with CAK-1 adapter kit.....Net..\$5.43

SPRINGS

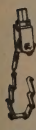
MBS-1—Regular spring (cad. plated).....Net..\$1.46
MBS-2—Heavy duty spring (chrome plated).....Net..\$2.11
SP-1—Stainless steel (heavy duty) spring.....Net..\$4.04
SP-3—Cad. plated (heavy duty) spring.....Net..\$2.04



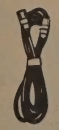
MB-6



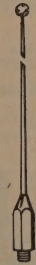
MB-1



BM-1



RG-58-U1



MM-102

WHIPS

MM-96-A—96" stainless steel whip with non-removable adapter.....Net.....\$3.77
MM-102-A—102" stainless steel whip with non-removable adapter.....Net.....\$3.84

BUMPER MOUNTS

BM-1—Single chain, chrome plated bumper mount.....Net.....\$4.85
BM-2—Double chain, chrome plated bumper mount.....Net.....\$6.14

WHIP, BASE AND SPRING COMBINATIONS

PB-1—Cad. plated combination LM-144 lead cable, MB-2 spring and base and MM-96A whip.....Net.....\$10.02
PB-1C—Chrome plated combination LM-144 lead cable, MB-2C spring and base and MM-96A whip.....Net.....\$10.19
PB-2—Cad. plated complete with longer lead LM-180 lead cable MB-2 spring and base and MM-96A whip.....Net.....\$10.28
PB-2C—Chrome plated combination with longer lead LM-180 lead cable, MB-2C spring and base and MM-96A whip.....Net.....\$10.46

THE TENNA MANUFACTURING CO. INC.

for "TOP-MAN"-ON-THE-FREQUENCY-RESULTS, AT YOUR SITE!

KING I---of all single-transmission-line "TRI-BAND" Antennas

TM-30D
USE OF "EDUCATED ALUMINUM"

MATCH

PLATE TRAP

PLATE TRAP - 1/8" STRAIN INSULATOR
INSULATING SUPPORTS
60 OHM TAPERED LINE (FEED)

S.W.R.

FREQUENCY (MHz)

100 FT.
150 FT.
200 FT.

THE BEST THAT MONEY AND ONE OF THE GAME CAN PRODUCE FOR THE AMATEUR!

"DUO-BAND" MODEL DB-30D, 4 EL on 15 & 3 EL on 20M..... **398.00**

telrex

OPTIMUM SPACED "MONARCH" MONO-BAND ARRAYS

"BALUN"-FED, LABORATORY TUNED, MATCHED AND CALIBRATED TO
PROVIDE OPTIMUM PERFORMANCE & BANDWIDTH PER ELEMENT, PER DOLLAR

MODEL 40M-346

\$895.00

213.8MM/8.4" PAIR LBS. (807)

CUSTOM-BUILT TO ORDER

SPECIFICATIONS	
GAIN IN DB OVER WAVE GUIDE	9.0
FRF. RATIO IS 10	30
BEAMWIDTH TO PWR. POINT	59°
WAVE NUMBER AT 100 M.P.H.	156
WIND LOAD AT 100 M.P.H. IN LBS.	427
ROOM CATCHER	YES
LONGEST CLAM. TUBE	46.1 IN.
TURNING RADIUS	approx. 400
NET WEIGHT, LBS. approx.	177
SHIPPING WT. LBS. approx.	222

**MANY MORE — WRITE FOR
SPEC & PRICE LIST PL67**

Telrex "BALUN" FED INVERTED "V" ANTENNA KITS

SIMPLE-TO-INSTALL, HI-PERFORMANCE ANTENNA SYSTEMS:

"TRAPPED" Models.

TELREX ROTATOR SELSYN INDICATOR System MODEL A1312RIS

- 1200 IN/LBS ROTATION TORQUE
- SELF LOCKING BY STURDY WORM GEARS
- SELSYN AZIMUTH INDICATION
- ACCOMMODATES 2" O.D. MASTING
- MALLEABLE CAST MASTING CLAMP SUPPLIED
- OUTPUT SPEED APPROX. 1 RPM

ALSO
A1822RIS..\$415.00
A2140RIS..\$495.00
A2675RIS..\$595.00
A2695RIS..\$695.00
AND MORE!

TELREX COMMUNICATION ENGINEERING LABS.

COMMUNICATION ANTENNAS by

w a r d

for every mobile frequency and application

CBI B ANTENNA



This is a low priced Mobile Communications Antenna

- Black Painted Swivel Base
- Cadmium Steel Spring
- 102" Cadmium Whip

CBIA ANTENNA



A Deluxe Mobile Communications Antenna

- Chrome Swivel Base
- Chrome Spring
- Stainless Steel 102" Whip

May be adapted for citizen band

SPRINGS

WCA-301

Stainless steel spring and mounts. Deluxe model for that high quality appearance and extremely high corrosion conditions. Lock-washer included.



WCA-3ACH

Heavily Chrome Plated for extra protection in areas where corrosion is a greater problem. Lock-washer included.

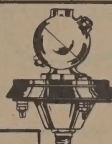
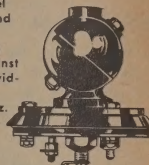
WCA-3A

Heavily Cadmium Plated with lockwasher included.

BASES

WCA-310

Universal swivel base plated and painted parts provide double protection against corrosion. Individually packed. Wt. 1 lb., 8 oz.



WCA-315 CHROME PLATED SWIVEL BASE

With external hardware of stainless steel. For smarter, dressed-up appearance and added protection. Individually packed. Wt. 1 lb., 8 oz.

CBII ANTENNA



FEATURES

- Universal Swivel Base Heavily Plated and Painted
- Triple Cadmium Plated Spring
- 102" Stainless Steel Tapered Whip

CBIII ANTENNA



FEATURES

- Chrome Plated Swivel Base With Stainless Steel Hardware
- Triple Chrome Plated, Barrel Type Spring Bends Through 100 Degrees
- 102" Stainless Steel Tapered Whip

HEAVY DUTY MASTS

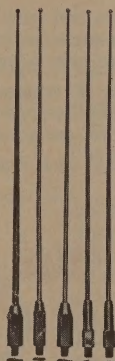
Finest stainless steel; heavy-duty performance. 84 1/2" mast bends to bring tip and base 30" apart without distortion. All base studs 3/4-24 threads. All taper ground with ball tip. WCA-320 series — 60" long, choice of adapters: Chrome press fit, cadmium plated press fit; 3/8" hex steel, cadmium plated with set screws; 1/2" hex stainless steel with set screws.

WCA-321 series — 72", same choices.

WCA-322 series — 84", same choices.

WCA-323 series — 96", same choices.

WCA-324 series — Fiberglass; in all 4 lengths.



ROOF TOP ANTENNAS

3 efficient models

WCA-250

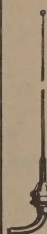
2 Meter whip 143-149 mc.

WCA-252

1 1/4 Meter whip 220-225 mc.

WCA-254

Plug in 2 Meter whip 143-149 mc



Model WCAB-71

Completely Disguised Mast and Base

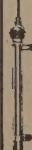
Looks exactly like ordinary 3-section car radio aerial. Uses triple chrome plated brass tubing and stainless steel tip rod. Length is fixed at 55 1/2" by permanent connections at the telescopic joints. Model includes mast and base only.



Model WCA-143

Partially Disguised

Same as WCAB-71 except mast is made of 55 1/2" type 17-7 PH stainless steel tapered rod. Use where exceptionally high strength is a necessity. Model includes mast and base only. Shipping Weight 2 lbs. 8 oz.



THE FOLLOWING CABLES ARE AVAILABLE

SPECIFY NO. 85-187 ...
15' Lead for Deluxe Hot Rod Antenna.

SPECIFY NO. 85-189 ...
15' Coaxial Lead for Citizen Band Antenna.

SPECIFY NO. 85-180 ...
17' Communication Lead for Citizen Band Antenna.

SPECIFY NO. 85-11 ...
20' Communication Lead for Citizen Band Antenna.

REPLACEMENT BASES, SPRINGS AND WHIPS
ALSO AVAILABLE FOR THE ABOVE.

SEE OUR CURRENT
COMMUNICATION CATALOG



PRODUCTS CORPORATION

DELCO MODELS #535 AND #545

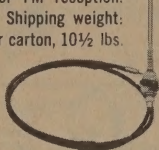
Feature the New Spring Mount

Chrome plated tempered steel spring, internally reinforced and damped with piano wire. Resists shocks and vandalism.

DELCO MODEL #535

FM or Sports Car Aerial

Spring mounting from top of cowl or fender. 2 section mast 30" optimum length for FM reception. 48" coaxial cable. Shipping weight: Boxed 12 to master carton, 10½ lbs.

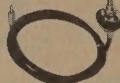


DELCO MODEL #532

Universal top mount for Cowl and Fender. Split ball base, features large oversize ball and extra thick rubber pad for complete coverage of original mounting holes.

3 section, 56" extended length with 54" low loss high "Q" coaxial cable.

Shipping weight: Individually boxed 1 lb.; 12 to master carton, 12 lbs.



DELCO MODEL #516

Fenderwell disappearing type aerial, completely shielded waterproof construction. Split-ball mount, adjustable bottom mounting brace.

Three sections, 54" extended, 4½" collapsed, 54" high "Q" lead-in cable.

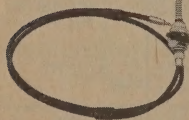
Shipping weight: Individually boxed 2 lbs. 12 to master carton, 24 lbs.



DELCO MODEL #545

Heavy Duty Truck Aerial

Shock absorbing spring. Top mounted on cowl or fender, 3 section mast extends to 56". Coaxial high "Q" cable 54". Shipping weight: Boxed 12 to master carton, 12¼ lbs.



DELCO MODEL #549

Two hole side cowl mount aerial. Ruggedly constructed for truck applications and small foreign cars.

3 section mast 58" extended length, with speedy screw fittings and heavy rubber pads, 54" coaxial cable.

Shipping weight: 12 to master carton, 10 lbs.



DELCO MODEL #550

Citizens Band Communication Aerial

108" sturdy 4 section heavy chrome plated mast, telescopes down to 38" for convenient garage parking.

Includes #850 base, 15' RG58U coaxial cable. Shipping weight: Boxed 3 lbs.



DELCO MODEL #838

Top mount aerial for Cowl and Fender. Split washer slips into position with a simple twist, provides minimum interference beneath fenders.

56" extended 3 sections with 42" coaxial cable.

Shipping weight: Individually boxed 1 lb.; 12 to master carton, 12 lbs.



DELCO MODEL #500

Top Mount Aerial for Cowl or Fender. Ball and rocker base, adjustable up to 35 degrees, securely tightened, holds angle permanently.

3 sections, 50" extended length with 54" coaxial high "Q" cable.

Shipping weight: Bulk packed, 25 to master carton, 25 lbs.



STAINLESS STEEL COMMUNICATION MASTS

Stainless steel taper ground masts of exceptionally high tensile strength.

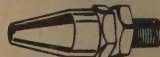
Length	Part No.	Pkg. Qty.	Shpg. Wgt.
72"	857	10	7¼ lbs.
84"	858	10	9¼ lbs.
96"	859	10	10 lbs.

Above masts supplied with ¾" threaded fitting for all standard bases or springs.

96" 866* 10 10 lbs.

*Rod only — no threaded fitting — use with No. 865 Collet. Mast can be cut to any desired length.

COLLET #865



Locks mast with two Allen set screws, ¾" threaded stud mounts on any standard base or spring.

Shipping weight: 12 to master carton, 1 lb.

DELCO EXTENSION LEADS

High "Q" type coaxial cable with polyethylene insulation, heavy shielded copper braid, weatherproof covering for low noise, maximum signal pick up.

Length Max.	Part No.	Pkg. Qty.	Shpg. Wgt.
12"	821	50	3½ lbs.
18"	829	30	3 lbs.
24"	826	30	3¼ lbs.
36"	827	10	2 lbs.
48"	511	10	2¼ lbs.
108"	828	5	2¾ lbs.
144"	822*	4	2 lbs.
180"	512*	3	2¼ lbs.

*Includes built-in impedance matching device.

SERVICE LEAD & NUTS

54"	915	5	1 lb.
	515	50	1 lb.
	814	50	1 lb.

515 Coupling Nut (Use with 505, 516)
814 Coupling Nut (Use with other Delco aerials)

Electric Aerial Lift Motors

Part No.	Application
5044303	1957-8 Lincoln
5044304	1957-9 Edsel, Mercury
5044308	1957-9 Cadillac
5047998	1957-9 Cadillac, 1958 Pontiac

BASE SPRING

Tightly coiled oil tempered steel, tough and ready to withstand shock and vibration.

Model No. 853 standard spring.

Shipping weight: 12 to master carton, 20 lbs.

**SWIVEL BASE**

Positive locking feature maintains vertical alignment regardless of body contours. Hex head locking screw wrench furnished with each base. Heavy steel back plate reinforces the black bakelite mounting plate.

Model No. 850 base.

Shipping weight: 12 to master carton, 8½ lbs.

**REPLACEMENT PARTS**

Universal Replacement Mast No. 510

Quickly installs on old aerial base, locks on with two allen set screws. Supplied with allen set screw wrench.

3 Section 58" extended.

Shipping weight: 12 per master carton,

"T" Connector No. 823

Triple lead connector.

Shipping weight: 12 per master carton, ½ lb.

COMMUNICATION LEADS (53.5 OHMS)

Length	Part No.	Pkg. Qty.	Shpg. Wgt.
144"	860	12	4 lbs.
180"	513	12	8 lbs.

ELECTROLYTIC**TWIST-PRONG BASE ELECTROLYTICS**

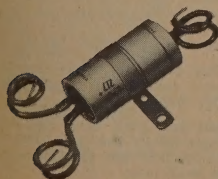
Used as original equipment in millions of GM auto radios. Designed for operation at temperatures up to 185°F.



DUAL SECTION				
Part No.	Capacity Mfd.	D.C.W.V.	Size	
			Dia.	Lgth.
7270691	500-1000	16-16	1¼	2½
7273775	1000-500	16-16	1½	2½
TRIPLE SECTION				
6319	20-20-20	400-400-25	1½	2½
6322	20-20-20	450-450-25	1½	3½
7269719	20-500-1000	16-16-16	1½	2
7273730	850-400-2.2	16-16-32	1½	2½
7273810	1000-500-4	16-16-32	1½	2½
7280383	850-400-12	16-16-11.5 RMS	1	2½
7280385	850-400-8	16-16-11.5 RMS	1	2½
7282272	850-400-4	16-16-11.5 RMS	1	2½
7283675	1000-500-4	16-16-11.5 RMS	1	2½
7291356	100-500-15	16-16-11.5 RMS	1½	2½
7292083	1000-500-4	16-16-11.5 RMS	1½	2½
QUADRUPLE SECTION				
7273847	750-750-350-4	16-16-16-4	1½	2½
7291786	850-400-100-15	16-16-16-11.5 RMS	1½	2½
7292515	850-400-100-4	16-16-4-11.5 RMS	1½	2½

ELECTROLYTIC

Designed for operation at temperatures up to 185°F.

**DUAL SECTION**

Part No.	Capacity Mfd.	D.C.W.V.	Size	
			Dia.	Lgth.
TUBULAR ELECTROLYTICS				
6320	25	50	1 $\frac{1}{4}$ "	1 $\frac{3}{4}$ "
6321	50	50	1 $\frac{3}{4}$ "	1 $\frac{3}{4}$ "
6328	10	450	1 $\frac{3}{4}$ "	1 $\frac{3}{4}$ "
6329	20	450	1 $\frac{1}{2}$ "	2 $\frac{3}{4}$ "
6330	30	450	1 $\frac{1}{2}$ "	2 $\frac{3}{4}$ "
6331	40	450	1 $\frac{1}{2}$ "	2 $\frac{3}{4}$ "
7279888	100	3	1 $\frac{1}{2}$ "	$\frac{7}{8}$ "
7279896	30	6	1 $\frac{1}{2}$ "	$\frac{7}{8}$ "
7282789	1000	1	1 $\frac{3}{4}$ "	2 $\frac{1}{2}$ "
7285035	1000	1	1 $\frac{3}{4}$ "	2 $\frac{1}{2}$ "
7290898	150	4	$\frac{1}{2}$ "	1 $\frac{1}{2}$ "

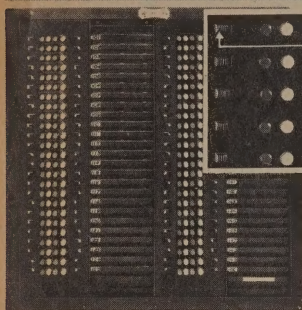
Part No.	Capacity Mfd.	D.C.W.V.	Size	
			Dia.	Lgth.
7291785	100	4	$\frac{1}{2}$ "	1 $\frac{1}{2}$ "
7291860	3	12	$\frac{3}{8}$ "	$\frac{3}{4}$ "
7292738	10	12	$\frac{3}{8}$ "	$\frac{3}{4}$ "
6304	50-30	150-150	1	2 $\frac{1}{2}$ "
7274108	100-100-65	8-8-8	$\frac{5}{8}$ "	1 $\frac{1}{2}$ "
VERTICAL ELECTROLYTICS				
7271256	100-100-60	8-8-8	$\frac{1}{2}$ "	1 $\frac{1}{4}$ "
7286539	100-100	4-4	$\frac{1}{2}$ "	1 $\frac{1}{4}$ "
7291810	100-100	4-4	$\frac{3}{8}$ "	$\frac{3}{4}$ "

AUDIO/VISUAL/SIGNAL SYSTEMS & PARTS

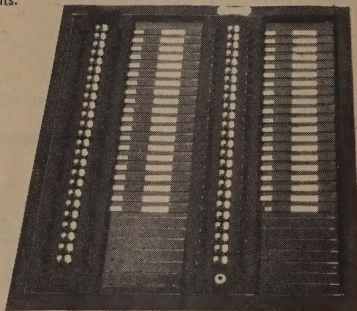
FOR HOTELS — MOTELS — INSTITUTIONS

ROOM STATUS CONTROLS

ONLY ONE CONTROL WIRE REQUIRED PER ROOM!
LITERATURE AVAILABLE (SPECIFY NUMBER OF ROOMS).

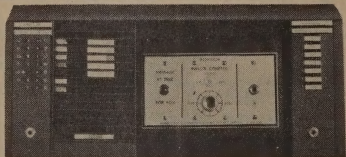


(lower-right) A-L4/50 (50 rooms, 2 lights). House-keeper panel has only lights.



No. A-L4-2 (2 board); 2 lights. For reasons of economy, this Room Checkout model, especially designed to meet the needs of the smaller occupancies, such as motels and motor inns, permits maid to automatically change status indication directly from guest room! Also, it has only 2 status lights (one Green, one White) on Front Office board, and 1 (White) light on Housekeeper panel. "Green", signals Room Available; No Light, Rented. Green and White, blinking, indicates Maid in Room and that Maid Call circuit is connected. White (steady) indicates room On Change.
(†) Net: *A-L4-2/—, \$25.00.

(†) Priced per room, up to 100 rooms; less cable, Room Unit (where required). * All switching, signaling systems in these pages protected by Patent Nos. 3,214,747 & 3,230,520.

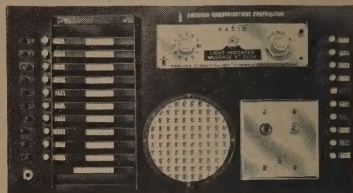


NEW MINIATURIZED GUEST ROOM STATUS CONTROLS. Only 25% the size of any previous designs—or of any other system made today. Solid state and plug-in module construction. Guaranteed 10 years against any defects. Costs less than other systems to install.

The Model A-L6 is a 2-light system using miniature lamps with automatic control of room status directly from room by maid. Miniaturized, and requiring only 25% of the office space of any other system, Front Office control module and housekeeper monitor position show room status as—available/occupied/ on change/ and whether maid or other house personnel have started or completed work in room by a flashing light system. Housekeeper or Front Desk can see where maid is working and can talk directly with maid in room. (Maid Call is an optional feature).

A-L6-2 2 light, 2 boards \$21.95 per room

(left) A-L3/50 (50 rooms, 4 lights). Switches: left row, Room Clerk; right, Cashier.
(upper-right) A-L5/10 (10 rooms, 1 light). Demonstration Panel. Shows Room Speaker, two types of Room, Unit, House-keeper lights are at right.



GENERAL INFORMATION—In a 2-board system. Front Office board includes switching facilities and lights for Room Clerk, Cashier; a 3-board installation provides separate panels for these offices. All front office boards include standard guest Room Rack. Controls may be on wall panels, flush or surface mounted, or in desk consoles, depending upon size. Monitor boards (lights only) can be supplied for supervisory personnel.

(†) Priced per room, up to 100 rooms; less cable, Room Unit (where required). * Protected by Pending Patents.

MAID CALL SYSTEMS

No. A-MC-A/- is visual type. Maid plugs into room jack, which lights a lamp on a Light Panel in Housekeeper's office. Can then be paged if paging circuit is connected. Light goes out when Maid removes plug from jack. This system includes room jacks, Maid Plugs, A-MC Light Panel (lights only), Power Supply.

No. A-MC-B/- "Blink Light" type. This newest design makes room recovery extremely rapid, through its Maid Monitor/Housekeeper "blink lights".

Soon as Maid enters guest room she plugs into Maid Jack on Room Unit. Immediately a tiny light under the jack slowly blinks on and off; at the same time, a second light blinks on Housekeeper's Light Panel, indicating "Maid in Room". Housekeeper can now page Maid if paging is provided.

When Maid has readied room, she plugs all the way into room jack, then removes plug. Maid's light now goes out but Housekeeper's light changes to steady-on "Room Ready"; she can now switch light off at her convenience.

Installation includes Room Jacks, Maid Plugs, an A-MC1/- Light Panel (with lamps and switches), Power Supply, Blinker Unit.



A-P5-A Room Unit, includes jack and light for "blink light" Room Status and Maid Call. Net \$15.00.

Room Clerk can use a No. A-MC Light Panel to monitor room status shown on Housekeeper panel.

SPECIFICATIONS

Maid Call Light Panels are built for Desk, Flush, or Surface mounting, in sizes to suit needs. Material: steel; standard finish: gray Hammertone enamel. Designation strips identify rooms. Lamps have long operating life, on 24 V. circuit.

Net Prices (Discounts on larger units.)

No. A-MC-A/- Maid Call System, w/No. A-MC Light Panel, Power Supply, and 1 Maid Plug per 10 rooms, but less Room Unit, \$5.00 per room.

No. A-MC-B/- Maid Call System, w/No. A-MC-1 Light Panel, Power Supply, Blinker Unit, and 1 Maid Plug per 10 rooms, but less Room Unit, \$8.50 per room. Prices are for up to 100 rooms.

ROOM STATUS CONTROLS, originated by AMERICAN COMMUNICATIONS CORPORATION, are now considered an essential facility in the efficient and economical operation of hotels and motels; 4 basic designs now make this electronic aid available to occupancies of all sizes, to instantly signal to Front Office and Housekeeper the changing rental status of all guest rooms.

In addition, such instantaneous sequential control and monitoring is adaptable to 1) hospitals, for bed status ("available", "occupied", "on change") control between Admitting Office, Cashier, and Floor Supervisor, 2) restaurants, for table reservation control between Reservation Desk, Maitre d', and Waiter, and 3) Schools, Factories, Laboratories, Missile Centers, etc.

OPERATION—Operating procedures depend upon the particular model. All, however, utilize switches and relays for maximum reliability—relays are NOT used in AMERICAN's room status controls systems.

No. A-L1-2 (2 board), A-L1-3 (3 board); 3 lights. (No Maid Light, and does not connect to guest rooms.) When guest has registered, Room Clerk switches color from Green—Room Available, to Amber—Room Rented. When guest checks out, Cashier switches signal to Red—Room on Change. Housekeeper signals when room is ready for occupancy by switching from Red to Green.

(†) Net: *A-L1-2/—, \$25.00; *A-L1-3/—, \$30.00.

FOLLOWING SYSTEMS CONNECT TO GUEST ROOMS

No. A-L3-2 (2 board), A-L3-3 (3 board); 4 lights. Room Unit has jack and light. Maid lights, the 4th row of lamps on the status board, show white, and start to pulse on and off, or "blink", when maid plugs into room jack; at the same time a maid paging circuit is connected, and a special Maid Light on guest-room Room Unit lights, and blinks in unison. When room has been serviced, maid removes plug. The Maid Lights on the control boards now change to steady white, and remain on until Housekeeper switches them off and changes the status lights on all the control boards from Red to Green—Room Available; the special Maid Light on the Room Unit goes out automatically when maid removes plug.

(†) Net: *A-L3-2/—, \$40.50; *A-L3-3/—, \$45.50.

No. A-L5-2 (2 board); 1 light. This Room Checkout system is the ultimate in design economy! One light on Front Office board lights to show Room Available; No Light, Rented. When guest checks out, front office clerk moves status switch so light starts to blink—room On Change. Upon instruction from Housekeeper, or upon noting blinking light on a hall signal unit, maid enters room and plugs into Room Unit. This connects Maid Call circuit (even if room is not on change). Upon completing room, maid removes plug, which automatically changes Front Office and Housekeeper lights to steady—Room Available.

(†) Net: *A-L5-2/—, \$15.00.

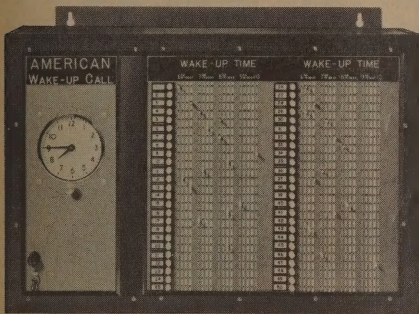


AMERICAN COMMUNICATIONS CORPORATION

AUDIO/VISUAL/SIGNAL SYSTEMS & PARTS FOR HOTELS — MOTELS — INSTITUTIONS

REQUIRES ONLY ONE CON-
TROL WIRE PER GUEST ROOM

AUTOMATIC WAKE-UP CALL*



No. A-WA-1/50 Automatic Wake-up Call.

AMERICAN'S No. A-WA-1/- Automatic Wake-up Call is a tremendous time-saver for occupancies of any size. Model A-WA-1/50 here illustrated is for a 50-room hotel or motel.

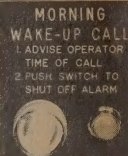
Master Control Panel has for each guest room a room designation strip, lamp, and 17 Time Jacks — one for each quarter-hour from 6 to 10 A.M. When telephone Operator receives guest's wake-up call time, she inserts a plug into the respective Time Jack. Operation now is fully automatic: Wake-up Call "remembers" calling time and sends an insistent to the room, at the proper calling time.

This calling signal is both visible and audible: (a) at 2-second intervals a light blinks at both the control panel, and in guest room; and, (b) in one model a recording advises guests to "shut me off" and in another a buzzer sounds loudly, when guest pushes a button (at blink light on Room Unit), signal light goes out in guest room and on office panel, and audio signal stops.

GENERAL SPECIFICATIONS

No. A-WA-1/- System includes Master Control Panel with Time Clock for 4-hour timing (up to 6 hours can be supplied); complete set of Time-set Plugs; either an AMERICAN No. A-TD continuous-play Tape Deck and pre-recorded Tape (not sold separately) or a Buzz Generator; 2-second Time-On; and, guest-room Unit. Long-life, low-current signal lamps are used. Fuse holder, Off-On Power Switch, are front-mounted. Satin-black steel case is approx. 31 x 21 (plus 2" mfg. skirt at top) x 4" deep (50-room unit, illustrated); wgt. approx. 100 lbs. Operates on 115 V., 60 cy. A.C. Net \$20.00 per room, less room units; materials only. Room Unit (light, switch, wired and assembled on lettered metal plate, to mount on 2-gang outlet box). Net \$8.75 ea. Cable extra.

* This system protected by pending patents.



No. A-PB-A Wake-up
Call room unit.

SIGNAL MAIL RACK & MESSAGE-AT-DESK

REQUIRES ONLY ONE CON-
TROL WIRE PER GUEST ROOM

AMERICAN COMMUNICATIONS manufactures two signal systems, either of which may be used to expedite message and/or mail handling in hotels, motels, schools, factories, hospitals, and other institutions.

The Mail (and Message) Rack Signal System is comprised of numbered pockets, one for each room with a push button light switch, or light and switch for each pocket. Each pocket is wired to a guest-room. When clerk files mail (or message) in pocket, he lights corresponding lamp; simultaneously, a duplicate lamp in the guest room lights, and advises guest he has a message at main desk.

A new 2-Way model, No. A-MR2, with access from either side and lamps and switches on both, enables Mail Clerk to insert mail from one side and silently signal guest and for Telephone Operator to insert messages from the opposite side (and also signal the guest).

The Message-at-Desk Signal is identical with the Mail Rack System, except that there are no pockets — only lamps and switches mounted on a control panel. Message clerk — usually the telephone operator — signals to guest that there is a message (or mail) by moving a switch as above described. Model A-MD1/85 (illus.), for example, is a desk-top model for 85 guest rooms.

The Racks and Panels are available in a variety of constructions to suit individual requirements as to location and number of rooms, and in standard or special finishes as decor dictates. The Mail Rack is available with shelf at top of each pocket for room key.

If guest room is not wired for radio, a separate wall plate, A-P20-3-A, is provided for the signal lamp; otherwise, it can be included on the radio control panel (See Room Unit on facing page).

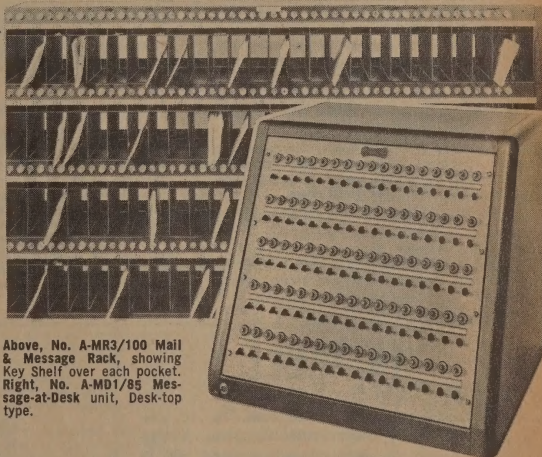
Long-life lamps in Signal Mail Racks and Message-at-Desk units are easily replaced from front. A metal stop strip across the back of each row of pockets, in the standard or A-MR3 Mail/Message Rack, permits insertions only from front.

Model A-MR3/100 (illus.), is for 100 rooms, but units can be built to 1,000 or more.

They may be made for Flush-wall recessed, Surface-wall or Desk (table-top) mounting. An easily removable end cover plate permits access to wiring. Power Supply unit (included) is controlled by a switch. House signal wiring carries only low, safe voltage.

AMERICAN'S No. A-22X/- Multi-conductor Cable is used for connection to distribution point, and A-19-1 or A-19-2 wire for runs to Room Units.

KEY SHELF →



Above, No. A-MR3/100 Mail & Message Rack, showing Key Shelf over each pocket. Right, No. A-MD1/85 Message-at-Desk unit, Desk-top type.

SPECIFICATIONS — Signal Mail/Message Racks

Standard finish, velvet black enamel. Material is steel. Standard pocket measurements: approx. 8" deep x 7 3/4" high (incl. 1 1/4" for Key Shelf, where used) x 2" wide. Specify whether wiring termination board is to be placed at left or right end of Rack. NET PRICES

A-MR2/- Signal Mail Rack System, 2-way type, * \$15.00.

A-MR3/- Signal Mail Rack System, 1-way type, standard, *\$12.50. For push button lights, add \$1.00 each.

*Per pocket

The foregoing Net Prices are less connecting wire and Room Unit, but including Power Supply for up to 100 rooms. Discounts apply on larger installations.

SPECIFICATIONS — Message-at-Desk

Standard finish, Flush or Surface mounting type, velvet black or gray enamel; Desk-top type, gray enamel. Other colors to suit decor are special. Material is steel. NET PRICE

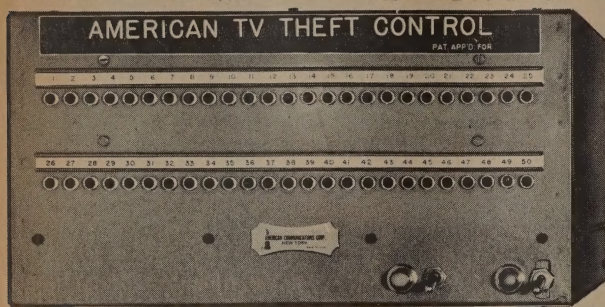
A-MD1/- Message-at-Desk System, Desk type; and, A-MD2/- Message-at-Desk System, Flush Panel type, \$7.50 per room for up to 100 rooms. Above Net Price is less connecting wire and Room Unit, but including Power Supply.



AMERICAN COMMUNICATIONS CORPORATION

AUDIO/VISUAL/SIGNAL SYSTEMS & PARTS FOR HOTELS — MOTELS — INSTITUTIONS

AMERICAN'S New TV-set THEFT ALARMS*



A-TA-B/50 TV-set Theft Alarm for Hotels.

AMERICAN'S TV-set Theft Alarm is now available in designs that meet the needs of occupancies of any size; in addition to the Model B, for hotels of 50 rooms or more, there is the new Model C, for motels of under 50 room units.

Both models operate to signal any attempt to steal the television set it protects.

In addition, AMERICAN'S Theft Alarm has other uses:

In Apartment Houses, to signal doorman of any attempt to illegally enter an apartment.

In Apartment Houses, so tenant can alert superintendent or doorman, in an emergency, without sounding an alarm. (A "panic button" is provided in each apartment.)

In Stores, Factories, Churches, etc., to signal any attempt to steal valuable electric appliances, tools, money boxes, etc.

Installation may be made by any electrician, following detailed instructions supplied with each System (Control Panel or Console, and Room Units). Requires only one control wire per guest room.

Operation: Equipment under protection (TV-set, appliance, etc.) is electronically "booby trapped" during the process of being plugged into the wall outlet. Any attempt by unauthorized persons to remove connection from wall outlet, or cut power cord, starts alarm signal. This signal is indicated at the Front Office as a flashing light, loud buzz or both.

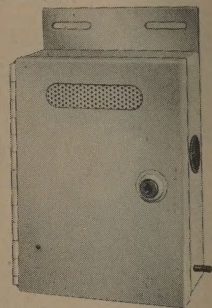
Note that the flashing light can be an existing signal system, such as AMERICAN'S Message-at-Desk.

There is no alarm in the guest room to alert the thief, but the Front Office signal, once triggered, cannot be stopped until Front Office attendant has operated a Reset switch (which cancels buzz and flashing light); a room indicator lamp remains lit, however, until house personnel has checked the guest room and restored the circuit to its normal alert condition.

Apartment House owners can now offer their tenants maximum security at negligible cost. Tenant is protected against an unlawful entry going undetected, can signal for help in an emergency.

SPECIFICATIONS

No. A-TA-B/- TV-set Theft Alarm, including Front Office Control Console, complete w/room lights, loud-sounding buzzer, bright alarm light, flasher, alarm reset and power on-off switches and bulbseye, solid state devices, and power supply; and, Room Kit (Conversion Cord, Conversion Outlet, one each per room). Control Console (A-TA-B/50) measures approx. 15" x 7 3/4" x 9" deep; wt., approx. 30 lbs.; finish, gray crackle enameled steel. Operates on 115 V., 60 cy. A-C. Net Price, A-TA-B/-, \$12.00/room, incl. Room Kit; minimum 50 rooms. Cable not included.



TV-3, SELF-CONTAINED TV THEFT ALARM.

NEW SELF-CONTAINED TV THEFT ALARM. The TV-3 Theft Alarm mounts on the back of each TV set. Should anyone attempt to cut the power line, pull out the power plug or remove the Theft Alarm, an extremely shrill piercing alarm is set off. The alarm, which is audible throughout the entire building, will run for about an hour. Two options are available to the owner. Option 1 requires the management's presence to shut the alarm off. Option 2 — If the plug is re-inserted in the receptacle, the alarm will shut off by itself. This option allows for a test of the alarm.

The TV-3 is held in place by the screws that are used to hold the cover at the back of the TV set. No internal connections have to be made to the set. All that's required is to plug the TV set's power cord into the TV-3 and then plug the TV-3 into any power receptacle.

NOTE: If Power goes off, Alarm will not be set off.

Net: TV-3, from \$13.50 to \$10.00 depending upon quantity.

*Protected by Pending Patents.

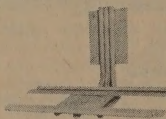
TV TABLE



No. A-TVT-B Table. For TV sets. Control panel and speaker (A-BW4/- Baffle Cabinet, equipped) will fit underneath (illus.). Black, or color to suit. Metal legs. Net \$10.14.

No. A-TVT-B Table. Room Unit (A-BW4/-, equipped) fits below.

TV MOUNTS



No. A-TVB1 Bracket (left). Swivel wall-mounted support for 19" TV sets, particularly the Designer series, or equivalent, for hospitals, hotels, etc. Saves floor space. Set easily positioned for best viewing. Net \$6.78. (Other sizes to order.)

No. A-TVS Roll-away TV Stand (right). Easily positioned under, for example, a hospital bed. Shelf holds set over bed. Hard-rubber casters, bolted 7/8-in. diam. steel tubing. Shipped KD. Bar holds pillow speaker cord or, as shown, TV Remote Control Cord. Net \$25.49.



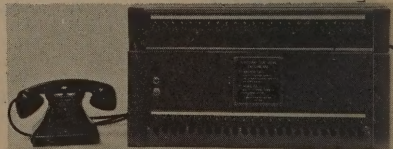
MOTEL-O-PHONE SYSTEM

AMERICAN developed this interior telephone System specially for Motels, Motor Inns, and small Hotels. This Multiple Telephone Switchboard is described as "selective ringing, common talking." Unit illustrated is for 48 telephones, add units for each 24 telephones.

You increase the basic Interior Telephone System

from a maximum of 24 stations by adding 24-station units on top (illus.).

Net Prices: No. A-MTS Basic Unit, for 24 phones, w/115 V. A-C Power Supply, \$350.00; No. A-MTS-A Add-A-Board, for 24 phones, \$150.00; A-FP French-style Desk Phones, \$25.00.



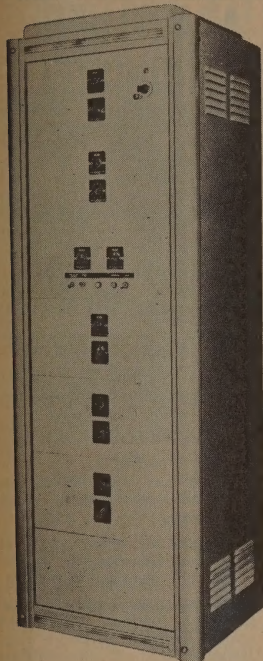
AMERICAN'S Interior Telephone, 48 stations.



AMERICAN COMMUNICATIONS CORPORATION

AUDIO/VISUAL/SIGNAL SYSTEMS & PARTS

FOR HOTELS — MOTELS — INSTITUTIONS



CENTRALIZED RADIO SYSTEM

No. A-CR
Centralized Radio
Rack, complete.

trolled No. A-P/M Preamplifier/Mixer (for mixing a high-impedance microphone and phonograph), Monitor Speaker, power supplies and controls, and Timer. The Radio Receivers deliver 50 watts audio power. (Additional amplification, if needed, is incorporated in a second Rack.)

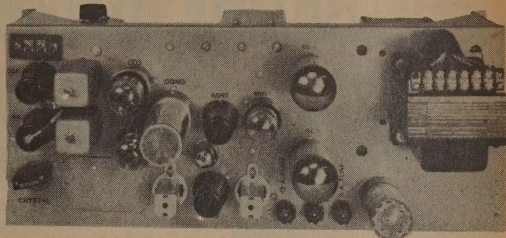
If the tunable receiver is a No. A-300F (for FM reception), the house manager may tune it, like the A-300A AM Radio Receiver, to a continuous-music station for background music, available to guest when he switches to this channel — within the operating hours automatically controlled by the Timer.

The Monitor Speaker (optional), hinged to Rack, has same response as room speakers for true check of programs as received in guest rooms. Switching permits its use on background-music, P.A., etc.

If Rack is to be used with AMERICAN'S Patented Emergency Alert System, the standard model will include all necessary equipment and circuitry including a booster amplifier for the off channel. These enable remote Emergency Alert equipment to assume control and deliver to all the loudspeakers a suitably high signal whenever needed, regardless of off-on status of Rack, room speaker channel-selector switch, or P.A. system.

All 5 channel receivers are designed with a 5 position switch so that any of 5 input sources may be used. These inputs normally include a background music source, phonograph, tape deck, microphone line pick-up, short wave, etc.

Receivers are high-fidelity type, with push-pull output. The No. A-300C Radio Receiver is shown here; No. A-300T, and -F, have same physical dimensions and general appearance. Several features make these re-



No. A-300C Radio Receiver.

ceivers exceptionally reliable and efficient: (A) the single electrolytic capacitor is plug-in type for servicing convenience; (B) circuits are triple-fused (one each for power line, filament supply, high-voltage supply); and, (C) voltage regulator tubes limit surge potentials to safe values. For trouble-free performance over long periods of continuous operation in commercial service, only close-tolerance, high-quality components are used, and operated within wide safety margins, in a ruggedized receiver design.

SPECIFICATIONS

Radio Receivers

Tuning range, 540-1,720 kc.; sets have 1 RF and 2 IF stages. Output transformer has taps that present balanced load impedances to the following lines: 8, 16, 32, 250 (70 V.), and 500 ohms. Rated audio output, 40 W. Each Receiver has a Selector Switch, knob-controlled from front of panel, for selection of (1) Radio; (2) Microphone; (3) Phonograph; (4) Tape Deck; and (5) Short Wave.

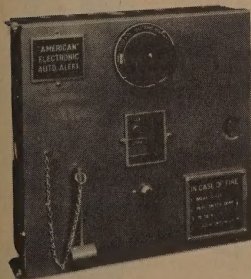
Rack

The No. A-CR Centralized Radio Rack is made of cold-rolled steel $\frac{1}{4}$ " thick; panels are aluminum, $\frac{1}{8}$ " thick. Standard finishes, Rack and Panels, slate gray or black ripple enamel. Rack amply ventilated by louvers on 3 sides. Easy-access rear door has slip-joint hinges. Rack measures approx. 68 x 22 x 18" deep. Fully fused; use on 20 A. mains service, operates from 115 V., 60 cps; 220 V., 50 cps, or as required.

Supplied completely equipped as described.

No. A-CR, complete, incl. Time Clock, Net Price \$250.00 per channel. (Monitor Speaker, extra.)

EMERGENCY ALERT SYSTEM



No. A-EA Emergency Alert signal box has electronic siren with warble sound.

The undulating, siren-like tone of AMERICAN'S patented automatic electronic Emergency Alert System commands instant attention in an emergency. The control center of the system is a conveniently located Emergency Alert unit resembling a Fire Box. In operation, operator breaks glass covering switch, and moves switch to SIREN or TALK. In either case, remote relays (usually about 7 in number) take over the amplifiers and loudspeakers in the related radio and P.A. systems, and the priority electronic siren or emergency instructions are heard at high level in guest rooms and public areas, regardless of the sound program previously being received, and even if set is off.

Mounted on the front of the steel Emergency Alert box are the SIREN-OFF-TALK switch in a glass-covered recess, a chained hammer, red pilot light, dynamic microphone (for issuing emergency instructions), and an instruction card. Within box are the electronic siren, audio power amplifier, spare tube, power supply, connecting strip, and a relay.

GENERAL SPECIFICATIONS

No. A-EA Emergency Alert unit. Steel signal box, enameled in Chinese Red. Measures approx. 15 x 5" deep; has knockouts for conduit. Supplied equipped as described. Fully fused at 5 A. Operates on 115 V., 60 cy. A-C.

No. A-EAR Relays, for Emergency Alert installations. Multiple, to suit audio circuits into which they connect. Coils operate on 24 V. D-C. Heavy contacts. Hermetically sealed. Prices upon request.

APARTMENT BUILDING ALERT SYSTEM

AMERICA'S No. A-EAB automatic and electronic Apartment Building Alert System (not illustrated) is an application of the No. A-EA Emergency Alert unit, and is particularly suited to apartment building complexes.

The No. A-EA Emergency Alert unit is connected to control boxes, an amplifier, and one or more weatherproof outdoor speakers. Upon sounding of alarm, distinctive, warbling-tone electronic siren can be heard by patrolman on beat.

GENERAL SPECIFICATIONS

No. A-EAB Apartment Building Alert System includes control boxes, No. A-EA Emergency Alert unit, 100 W. audio amplifier, weatherproof outdoor siren speaker(s), and wiring. Installation can include annunciator panel to show location of actuated alarm box.

System quotation and apparatus prices upon request.



AMERICAN COMMUNICATIONS CORPORATION

AUDIO/VISUAL/SIGNAL SYSTEMS & PARTS FOR HOTELS — MOTELS — INSTITUTIONS

NEW PORTABLE ELECTRONIC LECTERN

UNQUESTIONABLY THE BEST HEAVY-DUTY ELECTRONIC LECTERN MADE

- The greatest advance in Lecterns — anechoic speaker system!
- Completely self-contained. Demountable Base is optional!
- Use anywhere. More built-in features than any other make!
- Most RUGGED, RELIABLE Portable Electronic Lectern on the market!
- IDEAL for banquets, conventions, auctions, sales meetings, dances, at Churches, Schools, Hospitals, etc.

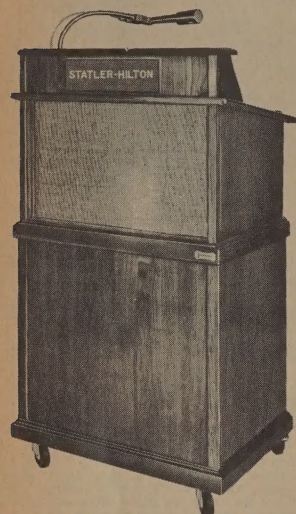
AMERICAN'S improved No. A-203 Electronic Lectern is efficient, portable and unified — nothing else to buy (includes microphone, amplifier, anechoic speaker system and reading light, with provision for optional equipment). When combined with Base, it constitutes a Podium. High-quality cardioid microphone, w/Off-On switch, is adjustable in height and position; side mounted for maximum desk room. Amplifier is high-quality, reliable, high-fidelity type, w/separate Bass and Treble controls to suit any acoustic situation of speaker or audience, and for maximum voice fidelity and minimum feedback. Lectern (top section) lifts off Base (bottom section) for table top use, and has space for reference material under sloped reading desk. Base folds for easy, convenient storage!

Optional equipment: (1) Jack with extra speaker for covering large audiences; (2) tape machine for background music or recording; (3) Jack for patching into existing P.A. system; (4) Jack, and neck microphone with long lead, for speaking away from Lectern (as for audience participation, etc.); (5) built-in or remote timer, and signal light. Engraved bakelite Nameplate is extra, Net \$10.00.

SPECIFICATIONS

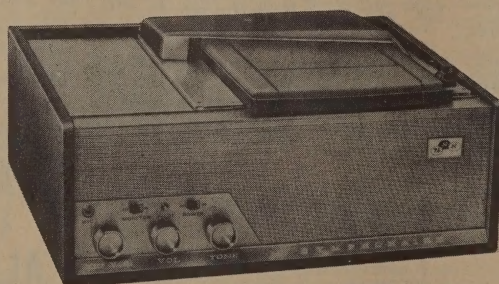
No. A-203A Lectern (only) is fully equipped, ready to use, as described. A-203B is above Lectern, plus Base; latter has quiet, ball-bearing casters. Made of selected hard wood, in rich walnut. A-203B, overall: 28" x 19" x 50" high. Approx. weights: A-203A, 75 lbs.; A-203B, 105 lbs. Microphone has gooseneck stand. Amplifier audio output, 20 watts. Junction box for A-C linecord; specify cord length required. Operates on 115 V., 60 cy. No. A-203C is A-203B w/Jack for second, auxiliary speaker (supplied).

Net Prices: A-203A, \$305.00; A-203B, \$405.00; A-203C, \$435.00.



BACKGROUND MUSIC MAKER

When the first scintillating strains of life-like music begin to create a mood of your choosing, you will know that the Symphonair is the background music system which puts the choice of musical mood at your fingertips. The Symphonair needs no attention...it plays continuously. The tape reels itself and will play over and over until changed. Simple to operate...pulling lever stops tape drive and allows you to change cartridge. Just pull out and replace. Your hand never touches the tape. Versatile...it can be used for background music plus a paging system, sales training, sales presentations, plus many additional applications. Over 10,000 selections available in comprehensive library which includes continentals, dance, show tunes, chapel (all faiths),



dinner, general, local color (Hawaiian, Italian, etc.), special holiday, industrial, etc.

SPECIFICATIONS

No. SBMM Symphonair Background Music Maker, oiled walnut cabinet, brushed aluminum facade, 17" w x 7 1/2" h x 12 3/4" deep, Net \$300.00. Supplied with one 4 hour tape reel, your choice. Extra 4 hour reels, \$59.50 ea.

- No. A-BA Weatherproof Broadband TV Booster Amplifier, w/No. A-BAP Power Supply. Net \$125.00.
No. A-U/V-C Converter, w/UHF Mixer Head. Specify UHF and VHF channels. Net \$175.00.
No. A-CH/- Channel Amplifier. Specify which of channels 2 to 13. Net \$75.00.

For Community Antenna TV (CATV). Please contact our Engineering Dept. for complete engineering and design services. For Coaxial Fittings, see last two pages.

SPECIFICATIONS

No. A-CH/- TV Channel Amplifier. Bandwidth, 6 mc.; gain, 45 db. Low-noise cascode input. Output, 1 V. per ea. two outputs.

APARTMENT "ANNUNCITEL"

AMERICAN'S new No. A-AA/- "Annuncitel" solves many problems of Apartment House owners and architects. It is a low-cost, combination multiple station 2-way telephone and transistorized annunciator, for intercommunication and signaling between apartments and lobby, service entrance, garage, etc.

WITH ANNUNCITEL —

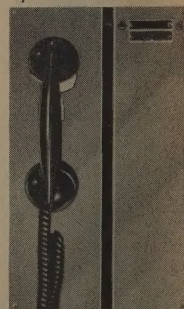
- 1) House manager can tell which apartment called his office in his absence.
- 2) Tenants can be signaled from service entrance when a package arrives.
- 3) Service attendant can handle all apartment calls that arrive simultaneously, without neglecting any call.
- 4) Arriving visitors can have immediate contact with tenants.
- 5) Tenants can reach doorman or superintendent immediately, in an emergency.
- 6) Attendant can contact garage or other in-building locations, or automatically leave signal to be called.

The Master Station or lobby unit has hanger-type telephone handset, and 25-name apartment designation strip. Apartment Station is a wall-mount panel that fits a 3-gang outlet box. Both available in stainless steel or color-anodized aluminum.

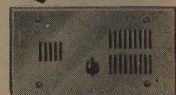
The annunciator, a transistorized design employing new solid-state techniques, can be built into either unit, or both, to show which station is calling and which is being called. The transistorized design virtually eliminates service problems.

Net Price, Master and 25 Apartment Stations, \$30.00 per apartment.

MASTER
STATION



APARTMENT STATION



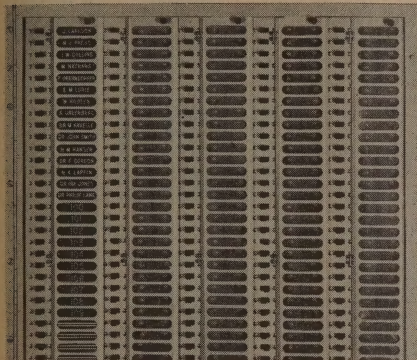
MASTER RADIO OR TV ANTENNA SYSTEM



AMERICAN COMMUNICATIONS CORPORATION

AUDIO / VISUAL / SIGNAL SYSTEMS & PARTS FOR HOTELS — MOTELS — INSTITUTIONS

DOCTORS CALL BOARDS



No. A-DCB/- Doctors "IN" or Call Board. Also available w/Message Signal, Intercom, etc.

No. A-DCB/- Doctors "IN" and "OUT" Call Board shows on-duty status of doctors at all times. AMERICAN also can supply this Call Board with Message Signal, Intercom, etc.; in double-sided construction (names on both sides, switches one side); and, less switches (for monitoring). Doctor may receive message (shown by blinking light), and leave special instructions (via intercom) with front desk — usually remote from exit — where these facilities are provided. Flush-mounting type shown. Steel panel is hinged, as are the illuminated nameplate panels.

Net Price, A-DCB/100 Doctors Call Board, basic unit for 100 rooms, \$8.00 per room, per Board, less connecting wire but w/Power Supply for 115 V., 60 cy. AC. Other quotations upon request.

PILLOW SPEAKER/"MIKE"



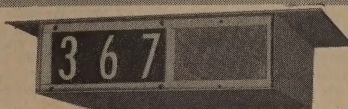
No. AS/M Pillow Speaker, may serve also as Microphone! Ideal for hospital use: waterproof (may be sterilized), stainless steel case, rugged construction, exceptional fidelity, has bedclothes clip and chain (not shown),

and special flat-to-wall plug. Alnico magnet; available voice coil impedances: 3.2, 2,000, 5,000 and 10,000 ohms. Measures $\frac{7}{8}$ " x 3" dia. Cord is 10 ft. long (other lengths to order). **Net Price, \$8.25.** Quantity discounts.

CLOSED-CIRCUIT TELEVISION

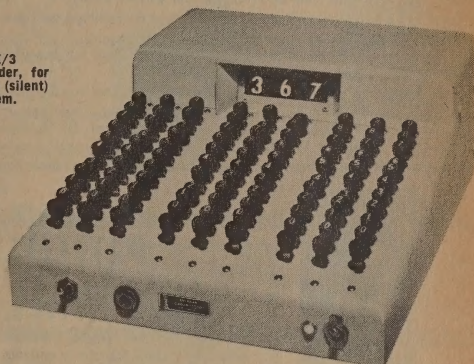
AMERICAN COMMUNICATIONS will design your CCTV System for Monitoring, Surveillance, Hotel Guest Auto Registration, Elevator Passenger Protection, Inspection or other uses.

AUDIO/VISUAL (SILENT) PAGING SYSTEM



No. A-A/VP-D Decoder. Has 4" numerals. Also available without speaker.

No. A-A/VP-E/3 3-bank Encoder, for Audio/Visual (silent) Paging System.



Designed for use with a Call Board, AMERICAN'S Audio/Visual Paging System presents an efficient means of personnel paging in hospitals, department stores, schools, hotels, factories, offices, etc.

In operation, a designated person (Telephone Operator, for instance, in a hospital) sets up on a desk-top Encoder, the call number assigned to a person (doctor or nurse) whose attention is wanted. This can be any number from 1 to 999 per bank of pushbuttons. This number then instantly appears in the window of remote readout indicators or Decoders, wherever located. The called person can acknowledge the call in a variety of ways — house phone, Intercom, etc.

Encoder No. A-A/VP-E/3 shown here has two additional banks of buttons which permit two additional calls to be set up at the same time, and by automatic switching, each will be signaled, in sequence, 20 seconds after the preceding one. Or, by operating a switch, any one of the three sets of numbers can be held in view and shown steadily until acknowledged.

A jack on the front skirt, for microphone, permits audio paging, emergency instructions, etc. A pilot light indicates the "ON" condition. Encoders may be

located in several offices, and Decoders at any number of remote points.

SPECIFICATIONS

Encoder No. A-A/VP-E/3, 3-bank, is a desk-top unit in metal housing. Dimensions, approx. 11 x $5\frac{3}{4}$ x 14" deep. Operates on 115 V., 60 cy. A-C.

Decoder No. A-A/VP-D is a signal/speaker assembly in metal housing approx. 25 (incl. flanges) x $5\frac{3}{4}$ x $15\frac{1}{2}$ " deep. This unit is surface-ceiling mount type; other types of mounting can be supplied. Speaker is 5" PM type in an acoustic chamber designed for maximum intelligibility. Readout unit displays numerals 4" high that are readable at over 60 ft. Available without speaker.

Standard finishes: Encoder, buff enamel; Decoder, flat polar white enamel.

Net Prices:

Encoders: A-A/VP-E/1, \$450.00; A-A/VP-E/2, \$550.00; A-A/VP-E/3 (3 digits, as illus.), \$650.00. Priced per # of digits, as below.

Decoders: A-A/VP-D/1, \$125.40; A-A/VP-D/2, \$234.40; A-A/VP-D/3 (3 lights, as illus.), \$354.40. Priced per number of lights.

Auxiliary Equipment (for Paging) — A-PS Paging Set (Microphone and Amplifier, 1 each for paging — not illustrated), **Net \$75.00/set.**

AMERICAN COMMUNICATIONS CORPORATION



AUDIO/VISUAL/SIGNAL SYSTEMS & PARTS FOR HOTELS — MOTELS — INSTITUTIONS

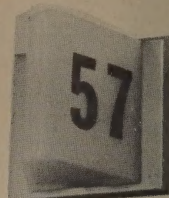
AUDIO/VISUAL NURSE CALL SYSTEM

The A-NCS is an audio-visual nurse call system which allows the patient to signal the nurse and communicate with her. When a patient wants attention at his bedside, he pulls the cord/switch. This switch turns on a white light in the corridor outside his room and also at the nurse's control station. She presses the indicated station switch to carry on a 2-way conversation with the patient. A switch mounted in the bathroom activates a red light in the corridor and at the nurse's control station. An optional feature allows the patient to have remote control of his radio and/or TV from his bedside station. All face plates are stainless steel.

The system units are:

1. No. A-PBS-2 Patient's Bedside Station-dual, to register normal calls (available with optional status switch to register emergency calls). Net Price A-PBS-1, single patient station (not shown) \$17.50; A-PBS-2 dual patient station \$25.00. Remote radio or TV control, per patient \$12.50.
2. Bathroom switch to register emergency calls from the bathroom (available in water proof model). A-EBS-1 \$5.95.
3. Single, Double or Triple Light, Corridor Dome Light equipped with white light for normal bedside calls, red light for emergency bathroom calls and a flashing red light for emergency bedside calls. Net: Single, A-EDL-1 \$5.00; Double, A-EDL-2 \$7.50; Triple, A-EDL-3 \$10.00.
4. Duty Stations to provide intercommunications with other nursing departments. Net: A-NDS-1 \$17.50.
5. Nurse's Audio-Visual Control Station with 2-light annunciator system, (1 white and 1 red light for each station), plus intercommunication to each station and All Call facilities. Basic Nurses Control Station to include power supply for 17 stations.

Net: A-NCS-17 Station Add-on Module for use with A-NCS-17 Basic Nurse's Control Station A-NCS-17M \$75.00



A-EDL-2 Corridor Dome Light



A-EBS-1 Emergency Bathroom Switch

PATIENT'S RADIO WALL-PLATE

Although designed for use by patients in hospitals, the No. A-RW1 Radio Wall-plate shown here, is a convenience wherever used. Operates by pull chain or Nylon cord. Has stepper switch and a Jack. Switch has continuous rotation through "Off", 5 positions for selection of radio programs, and back to "Off", and so-on. Jack provides connection for pillow speaker.

No. A-RW1 Radio Wall-plate.

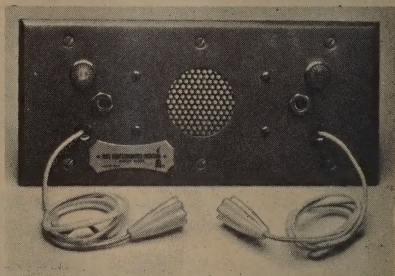
SPECIFICATIONS

No. A-RW1 Radio Wall-plate. Switch is pull-chain actuated, continuous rotation, single-pole, 5 positions and "Off". Either single-circuit or seize-type jack can be supplied, for PL-55 plug; specify which desired. Plate is brushed steel, approx. 2 3/4 x 4 1/2" high; overall depth, from front of plate, 2 1/4". Fits standard outlet box. Bead chain is steel. 3 ft. long; cut to desired length. Brass plate and chain optional.

Net Price, \$7.35

No. A-RW2 Radio Wall-plate. Placed between two beds for two patients' use. Size: 4 5/8" x 4 5/8".

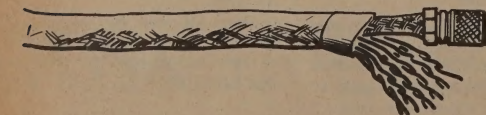
Net Price, \$12.85.



A-PBS-2 dual patient station

CABLE & WIRE

Special Wire and Cable combinations can be fabricated on quantity orders. Types here listed meet all specifications for the respective types, and are those used in making AMERICAN'S Systems installations. Specification sheets supplied upon request.



TV COAXIAL CABLE

	Net Per ft.
A-TV92-S (RG-59/U w/2 shields)	.06

TV & RADIO COMBINATION CABLE

A-TV/R92-S/- (combo.: A-TV92-S w/4 to 7 twisted pr.)
Net/ft.: -4/11¢; -5/12¢; -6/13¢; -7/14¢

*Request quotations for -91-S, -61-S, -62-S; or more pairs.

MULTI-CONDUCTOR STATUS BOARD & MESSAGE CABLE

(16) A-22X/27 (No. 22 — also No. 24 or No. 26 — twisted pr.
w/plastic jacket over 27 prs.) †
(17/20) (Ditto as No. 16, except 101, 201, 301 or 401 prs.).... †

(†) Not Illustrated

*Prices on request.
Prices subject to change without notice.



AMERICAN COMMUNICATIONS CORPORATION

AUDIO / VISUAL / SIGNAL SYSTEMS & PARTS

FOR HOTELS — MOTELS — INSTITUTIONS

No. A-53A — 8, 8-in. Hi-Fi, 80 watts, 72 x 12 x 8", 50 lbs., Net \$95.95.

No. A-53B — 6, 8-in., Hi-Fi, 60 watts, 53 x 12 x 7", 35 lbs., Net \$85.95.

No. A-53C — 6, 6-in., Wide-range, 30 watts, 40 x 9 x 5 1/2", 20 lbs., Net \$64.95.

No. A-53D — 5, 4-in., Budget, 20 watts, 27 x 7 1/2 x 4", 12 lbs., Net \$29.95.

(No. A-53E, not illus., 8, 6-in., Wide-range, 48 watts, 52 x 10 x 6", 25 lbs., Net \$74.95.)

COLUMN SPEAKERS

"MULTICOUSTIC" COLUMN SPEAKERS

Due to the narrow vertical and wide horizontal dispersion pattern of these in-line speaker arrays, approx. 90% of the sound is beamed more effectively.

Nominal line match, 8 ohms or 70 volts. Standard finish; walnut, on 3/4-in. hardwood, except A-53D (five 4-in. speakers), 1/2-in. Interior specially designed in accordance with AMERICAN'S famous Acoustical Labyrinth.

BAFFLES

(NOTE: All Baffles, both wood and metal [A-B4/-], priced less escutcheon, controls, etc., unless otherwise specified.)

WALL MOUNT STEEL BAFFLE — For 8" speaker, metallic beige, black mesh, other colors available. 10 1/2" wide x 11" high, tapered from top of 6" depth to bottom of 2" depth. Heavy duty, 1/4" welded steel, approved for schools. Net \$5.25.

CEILING MOUNT STEEL BAFFLE — For 8" speaker. Complete with rustproof ceiling enclosure with 1/2" and 3/4" knockouts. Metallic beige black mesh, other colors available. 12" x 12" exterior, ceiling box 10" x 10" x 4" deep. Net \$8.50. Ceiling box, sold separately, Net \$4.75.

FLUSH MOUNT BAFFLE A-BM-1/6 Steel with baked enamel finish in any color. Silk screen legend as required on quantity orders. Net ABM-1/6 \$4.95

UNDER-TABLE BAFFLE — No. A-BW4. Baffle mounts under table, has pressure-release vents on sides, projects sound downward. Metal baffle is dull black. Cable opening in rear. Grille cloth backed by wire mesh. Mounting holes in flanges. For 6" or 8" speaker. Baffle only: A-BM-4/6 Net \$4.95 A-BM-6/8 Net \$5.45.

SLANTING FRONT — No. A-BW3/- Baffle, surface mount, slanting front. Hardwood, light mahogany. Choice of grille cloth. A general-purpose design, for 6" or 8" speaker. Baffle only, for either size speaker, A-BW3/-, Net \$12.75.

BUDGET BAFFLE — No. A-BW5/6 Bentwood Baffle. Solidly constructed Danish maple, standard finish, other finishes to order. Louvered, slanting surface allows baffle to be wall or under-table mounted; louvered ends contribute to voice intelligibility. Sound projection and pressure-release areas grille cloth covered. For speakers only. Dimen.: approx. 11 1/2" w. x 8" h. (max.) x 4" d. at base and 4 7/8" at top. Baffle only, for 6" speaker, A-BW5/6, Net \$7.85; w/escutcheon, controls, knobs, jacks, 6" speaker (illus.), A-BW5-A/6, Net \$12.75.

NEW! 50 W. AUDITORIUM SPEAKER

No. A-55/50 High-power Speaker, 50 watts, for large-auditorium use. Newest addition to AMERICAN'S line of advanced sound equipment. Specially designed to meet the growing needs of hotels and other institutions for a speaker that will reproduce all the sound within hearing capability, and at adequate volume. This is the type of service required, for example, by the newest Discotheque technique (pioneered by AMERICAN in the first such sound installation — the famous Shephard's room, The Drake Hotel, New York).

Its unsurpassed sound quality results from a careful choice of woofer, tweeter and crossover network, combined with an acoustic system comprised of an L.F. labyrinth and H.F. multi-cellular projector assembled in a functional housing suitable for any type of decorative enclosure.

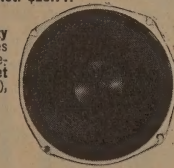
Approx. 30" wide x 54" high x 24" deep; approx. wt., 180 lbs.; finish, slate gray. Grille cloth covers front area. Frequency range: approx. 30-20,000 cps. Power rating, up to 50 W. A-55/50, Net \$160.00.

LOUDSPEAKERS

No. A-PAS-1 Indoor P.A. Speaker, surface mount type, 8" (only). Metal is enamel finished. Supplied less speaker. Net \$5.81.

No. A-PAS-0 Outdoor P.A. Speaker (not illus.), on swivel mount, w/weatherproof housing and A-T3 outdoor transformer. Net \$23.71.

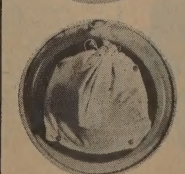
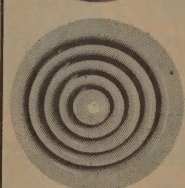
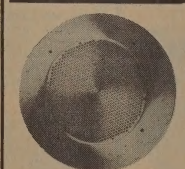
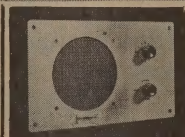
No. A-S1/- High-fidelity Speaker, with dual cones for wide frequency response. 6". A-S1/6, Net \$4.27; A-S1/8 (illus.), \$6.85.



No. A-S2/- Wide-range Speaker, 6" (illus.), A-S2/6, Net \$3.08; A-S2/8, Net \$4.86.



No. A-S4/12 High-fidelity Speaker, 12". Power rating, 25 W.; frequency response, approx. 35-15,000 cy.; voice coil 1 1/2" diam., impedance 8 ohms. Mtg. centers 11 5/8". A-S4/12, Net \$21.15.



METAL BAFFLES

"DECORATOR" BAFFLE (top) — No. A-B4/- Baffle, Decorator style. Brushed aluminum (standard finish); gold anodized available. For 6" or 8" speaker, as specified. Baffle only, A-B4/6-8 (illus.), Net \$11.23; A-B4/6, Net \$16.18.

CEILING BAFFLE STANDARD — No. A-B2/- Baffle, standard model. Brushed aluminum (standard finish), or gold anodized. A-B2/6, for 6" speaker, Net \$2.55 (A-PR/6, Plaster Ring, Net \$1.19); A-B2/8, Net \$2.67 (A-PR/8, Net \$1.49).

CEILING BAFFLE LOUVERED — No. A-B3/- Baffle, louvered type. Enameled iron, white; colors to order. A-B3/6, for 6" speaker, Net \$4.15.

A-B3/8..... Net \$5.25
(A-PR/8)..... Net \$1.49;
A-B3/12..... Net \$7.43
(A-PR/12)..... Net \$2.06.

DUST BAG

No. A-D/- Speaker Dust Bag. Fungus, vermin proofed. 6" A-D/6, Net \$4.50; A-D/8 (illus.), 5 7/8", A-D/12, 59c.



AMERICAN COMMUNICATIONS CORPORATION

AUDIO/VISUAL/SIGNAL SYSTEMS & PARTS

FOR HOTELS — MOTELS — INSTITUTIONS

PUBLIC ADDRESS PARTS & ACCESSORIES

INSTANTANEOUS OR SIMULTANEOUS INTERPRETATION & TRANSLATION SYSTEMS

These systems are used wherever foreign groups assemble for meetings, conventions or governmental business. The system is similar to that used at the United Nations and other international conference halls. There are usually five languages spoken for the purpose of interpretation. The system comprises:

1. The initial pickup of the person addressing the audience.
2. Simultaneous transmission to the interpreters through headsets.
3. Each of the five interpreters, in his own language, translates what the speaker has said simultaneously to each separate seat in the auditorium.
4. At each seat there is a special switching device and air conduction head sets for the occupant, allowing him to hear either original address or any of the five interpretations.
5. The switching unit is installed in the seat arm or in the case of a temporary installation, tied to the lower arm.
6. Whenever portable equipment is used, the wires from the switching device are plugged into a specially designed floor molding, that is placed directly under and through the seats.

The system consists of the following equipment:

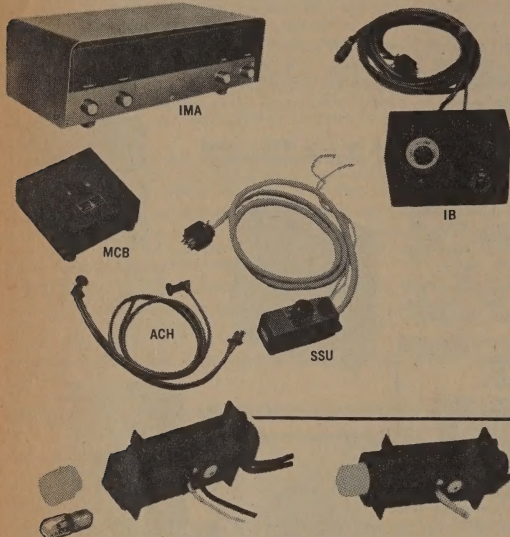
The Interpreter's Box, Model IB.....	\$ 35.00
Interpreter's Mixer-Amplifier, 25 W. solid state, Model IMA.....	160.00
Interpreter's Microphone, lavialier type, Model IM (not shown)	55.00
Seat Switching Unit, Model SSU.....	18.55
Air Conduction Headset, Model ACH.....	5.75
Molding Connection Box, built-in short circuit-proof networks, Model MCB.....	23.85
Special Wired Molding, lies flat on floor, with male and female plugs, 8 ft. section. Other lengths available.....(8 ft.)	12.50

TAPPED TRANSFORMER VOLUME CONTROL

Mounted on 2-gang S.S. plate. Handles up to 10 watts. Can be used for either 25 V. or 70 V. circuit to voice coils. Heavy duty selector switch taps any of 6 positions. For perfectly balanced impedance matching. Model TVC, \$12.50.

ALL NEW — KEY LOCK CONTROLS P.A. VOLUME

No. AKTVC/1 Complete transformer volume control. Step-less locks at any position. Handles 10 watts. Net \$15.60.



ALTERNATE ACTION PUSH BUTTON SWITCH

Uses standard bayonet type lamps of any voltage from 6 V. to 110 V. A-C or D-C, either incandescent or neon. Switch and lamp are each on separate circuits. Switch can be supplied with either SPST or SPDT. Switching is UL Approved. Lamps can be replaced from front. Lamp does not move when button is pressed, avoiding lamp burnout due to vibration. Normally supplied with SPST and 28 V., 40 Ma. bayonet lamp. Net 1 to 25, \$2.00; 25 to 100, \$1.75; 100 to 500, \$1.50; 500 to 1M, \$1.35. Other quantities write.

MICROPHONE MIXERS

No. A-6M
6-channel Portable
Microphone Mixer

AMERICAN'S A-6M Portable Microphone Mixer has 200-ohm inputs for 6 microphones, individual gain controls (mixers) for each of the 6 microphones, master gain control, Cue Jack for headphone monitoring of broadcast-quality program material, pilot light, and "Off-On" switches for Service and Standby power supplies; separate Bass, Treble electronic tone controls available.

The 6 mixers work from individual low-noise preamplifiers into the master gain control; gain is adequate for remote operation.

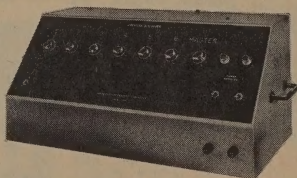
Output is +15 dbm; gain, 55 db; frequency range, 30-15,000 cy/sec. ± 1 db. Output is universal (50-600 ohms impedance). Operates on 115-120 V., 60 cy. A-C.

No. A-10M Portable Microphone Mixer (not shown) for 10 microphones is similar in construction.

SPECIFICATIONS

Slope-front metal cabinet (A-6M) measures approx. 22" x 7" x 8" high. Gray crackle finish. Carrying handle. Fused power supplies. Terminations at rear of cabinet. Instrument furnished w/Hubbell or Cannon connectors. Net Prices, No. A-6M, \$495.00; No. A-10M, \$825.00.

Stereo Microphone Mixers available, on order, for 2 or 4 outputs.



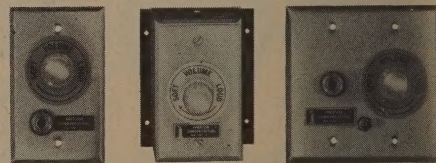
WEATHERPROOF MICROPHONE

No. A-WM Weatherproof Microphone. New! Rugged, high-fidelity dynamic microphone in diecast aluminum housing. Supplied complete w/coupling to fit all standard stands and with neoprene cable gland, and gland nut. Grille opening protected by metallic screen and non-resonant, waterproof covering. Waterproof push-to-talk button permits talk-back for intercom use, signal light indicates "Microphone in Use". Available without switch or light. Impedance 35-50 ohms; can be supplied w/built-in matching transformer tapped for 200/600 ohm lines (other impedances to order). Frequency response 40-15,000 cps. Approx. 3 3/8" x 6 1/4" x 2 3/4" deep, overall, (less fittings); approx. wt. 3 lbs. Net \$45.85.



NEW P.A. CONTROL UNITS

These new Control Units by AMERICAN meet the everyday needs of the Public Address technician. Each includes a 4-watt, wire-wound volume control for 70 volt line, or AMERICAN'S patented, continuous-rotation voice coil control. Seize jacks are circuit-opening type, for regular phone plug. Standard plates are brushed stainless steel; also available in white enamel, and brushed or bright brass finish.



No. A-CU1/- Speaker Control w/Seize Jack
With 70 volt (A-CU1/1) or voice coil (A-CU1/2) control, dial, knob; seize jack. Plugging into jack disconnects speaker from its feed line, connects speaker to plug circuit (paging assembly, etc.). Plate mounts on std. 1-gang outlet box. Net \$8.55.

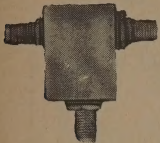
No. A-CU2/- Speaker Volume Control.—A surface-mount, general purpose unit. With 70 volt (A-CU2/1) or voice coil (A-CU2/2) control, dial, knob. Metal case 1 1/2" deep has 1/2" flange on sides, black finish (std.); plate is single gang. Metal-bushed holes for wire entry through top or bottom. Net \$7.25.

No. A-CU3/- Speaker Volume Control w/Seize Jack, Master TV Antenna Connection.—Used in conference rooms, etc. With 70 volt (A-CU3/1) or voice coil (A-CU3/2) control, dial, knob; seize jack; A-1601-G TV-set line tap (75 ohms). Other tapoffs available. Plate mounts on 2-gang outlet box. Net \$10.95.

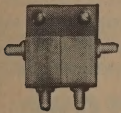
AMERICAN COMMUNICATIONS CORPORATION

AUDIO/VISUAL/SIGNAL SYSTEMS & PARTS FOR HOTELS — MOTELS — INSTITUTIONS

C.A.T.V. AND MASTER ANTENNA SYSTEM COMPONENTS



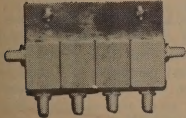
(1) No. A-1601-1 Isolation Unit. A Single-unit TV line tap. Attenuation color codes per Note 1. Outdoor housing; 75 ohms. Net \$1.80.



(2) No. A-1602-1 Double-unit Line Tap, for 2 TV sets. (Notes 1, 2) Net \$3.20.



(3) No. A-1603-1 Triple-unit Line Tap. (Notes 1, 2) Net \$4.60.



(4) No. A-1604-1 Quad-unit Line Tap. (Notes 1, 2) Net \$6.00.



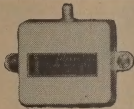
(5) A-1601-3 Single-unit Line Tap, 75 ohms, screw terminals. (Note 3) Net \$1.60.



(6) No. A-1702 Resistive Line Splitter, 2-way, T-network. Has 6 db forward attenuation. (Note 5) Net \$1.80.



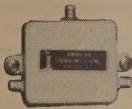
(7) No. A-1703 Resistive Line Splitter, 3-way, T-network. Has 10 db forward attenuation. (Note 5) Net \$2.80.



(8) No. A-CTVB Convenience TV Box, w/connector A-CH61. (Note 3) Net 77¢.



(9) No. A-MT Matching Transformer, 75 to 300 ohms. Solderless connector for RG-59/U one end, 3-in. leads w/lugs other end. Up to 6 db voltage step-up. Net \$.87.



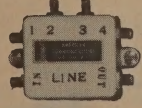
(10) No. A-1601-2 Single-unit Line Tap, 75 ohms (Notes 1, 3) Indoor housing. Net \$1.80.



(11) No. A-1602-2 Double-unit Line Tap, for 2 TV sets. (Notes 1, 3) Net \$3.20.



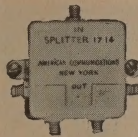
(12) No. A-1603-2 Triple-unit Line Tap. (Notes 1, 3) Net \$4.60.



(13) No. A-1604-2 Quad-unit Line Tap. (Notes 1, 3) Net \$3.00.



(14) No. A-1712 Line Splitter, hybrid 2-way. Has 3 db forward attenuation. (Note 3) Net \$2.15.



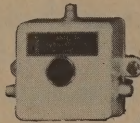
(15) No. A-1714 Line Splitter, hybrid 4-way. Has 6 db forward attenuation. (Note 3) Net \$3.95.



(16) No. A-T/R-T Trunk/ Riser Tap. Various db values of isolation. Creates Risers form Trunk Line. (Note 5) Net \$1.80.



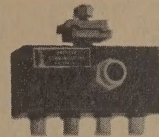
(17) No. A-DBLA DB Line Attenuator Pad. 3-6-10-20-30. (Note 5) Net \$1.77.



(18) No. A-1601/R-FT Combination Unit. Combination TV room tap with bushed box for centralized radio cable feed-through. (Note 1) Net \$2.80.



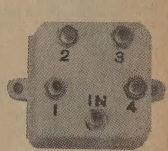
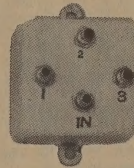
FM TAP OFF
American's FM TAP is used to connect an FM set to trunk line with minimum insert loss. The unit consists of a band pass filter for the FM band only, but allows TV spectrum to pass through. Supplied with three, C or F Fittings. Net \$2.25.



BACK MATCHED DIRECTIONAL COUPLERS WITH UP TO 6 HOUSE TAP-OFFS

A-C or D-C feed through, with complete tap isolation. 100% weatherproof, designed to mount on the strand. Low insulation loss and excellent response over entire 50 to 220 MC spectrum. Uses F61 house tap connectors. Input and output connectors are designed for up to 3/4" cables (per your order). Tap values available in 10-12-15-18-22-26 and 30 dB attenuation. VSWR 1.2:1 max. with up to 20 db or better return loss.

Type	No. of House Tap-offs	(Net Prices)			
		F. or .308 Connectors	.412 Cable Connectors	.500 Cable Connectors	.750 Cable Connectors
DC2T	2	\$7.95	\$10.80	\$13.10	\$15.10
DC4T	4	9.50	12.10	15.08	17.08
DC6T	6	11.10	13.05	16.15	18.15



BACK MATCHED HYBRID DIRECTIONAL SPLITTERS

From 2-way to 6-way with VSWR of 1.2:1 max. and with either C or F fittings. Frequency Range of 50 to 220 MC @ 72 ohms impedance.

	Net		Net
SP2 — 2-way.....	\$2.65	SP4 — 4-way.....	\$4.45
SP3 — 3-way.....	3.55	SP6 — 6-way.....	6.75

ADDITIONAL PARTS

(not illustrated)

No. A-WN Porcelain Wire Nut. Net 2¢.
No. A-CC Cable Clamp, insulated. Net 6¢.
No. A-RP Plastic Rawl Plugs. For mounting various radio and TV boxes; 5 per strip. Net 5¢, per strip of 5. No. A-P8-A Plate. "Morning Wake-up Call" control assembly. Net \$7.50. No. A-P10-P Plate, punched. (Note 6) Net 6¢. No. A-R-BP Radio Plate, bushed. (Note 6) Net 77¢. No. A-TV/R-P TV or Radio Plate, blank. (Note 6) Net 6¢. No. A-CT-1 Crimping Tool, light duty. For A-F59 ferrules. Net \$4.50. No. A-CT-2 Crimping Tool, heavy duty. For A-F59 and A-F6 ferrules. Net \$7.75.

(Note 1) Attenuation coded red, yellow, green, blue.
(Note 2) On mounting bracket.
(Note 3) Flush mount, in A-BCI Accessory Box.
(Note 4) Flush mount, on single-gang wall plate A-P10.
(Note 5) Surface mount.
(Note 6) Single or double gang, flush mount.
(Note 7) Gem flush-mount, 75 ohms.
(Note 8) GL is G type, plus 8-in. (standard length) coax. lead from 2nd tap, for back-to-back mounting.



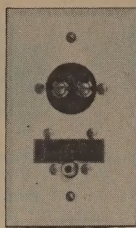
AMERICAN COMMUNICATIONS CORPORATION

AUDIO / VISUAL / SIGNAL SYSTEMS & PARTS FOR HOTELS — MOTELS — INSTITUTIONS

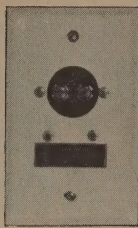
MASTER ANTENNA SYSTEM COMPONENTS



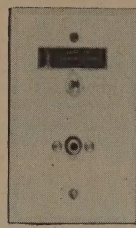
No. A-1601-4 Single-unit Line Tap, TV outlet, 75 ohms. (Note 4) Net \$1.90.



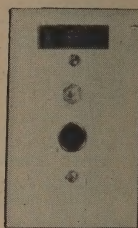
No. A-1601-5 TV Outlet, 300 ohms, screw terminals. (Note 4) Net \$2.70.



No. A-1601-6 TV Outlet, 300 ohms, screw terminals, FM outlet. (Note 4) Net \$4.05.

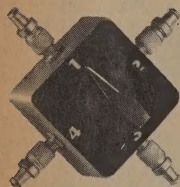


No. A-1601-7 Outlet, 75-ohm Tap, w/FM outlet. (Note 4) Net \$4.05.



No. A-1601/R, 1601 & Radio Plate. Wall plate grommets for cable. Net \$2.90.

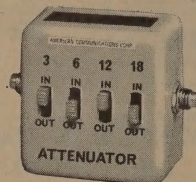
NEW! COAX. SWITCHES



No. A-SW/4 Coaxial Switch. Inexpensive, functional equivalent of lab-type switching units, for general-purpose use.

No. A-SW/- Coaxial Switch. Low-cost, small-space, light-weight coaxial switch; with positive detent action; C, F or BN connectors for coax. cable. Illustrated is a 1-pole, 4-position unit for switching one input to four circuits (antennas, transmitters, exciters, receivers, test equipment, etc.). Almost any number of circuits can be switched with 72Ω terminations on all unused circuits. Power rating up to 1 kw., amplitude modulated; impedance, 52-75 ohms. Approx. 2" x 2" diam. Supplied w/hardware (pointer knob, mounting bushing, and C, F or BN connectors w/ferules). ASW/2, 1-pole 2-position, Net \$5.75. ASW/4 (illus.), Net \$6.50 (with C connectors others extra).

DB ATTENUATORS



No. A-DB/39 Attenuator. Pays for itself in the time it saves determining loss required for best TV picture, etc. Slide switches are used.

AMERICAN'S No. A-DB/39 and No. A-DB/59 Attenuators (the latter not illustrated) provide at low cost, quick and convenient means for determining losses in a number of essential tests in TV installations. These include: measurement of amplifier gain, and equipment losses.

SPECIFICATIONS:

Insertion loss of A-DB/39 is in fixed steps of 3 to 39 db, and of the A-DB/59, 3 to 59 db, for TV frequencies, when used in 75-ohm circuits. Two, A-CH61 solderless TV connectors afford connection to 75-ohm coaxial connectors. Housing is steel, ecrú enameled; overall, 2" x 2" x 1" deep (A-DB/39).

Net: A-DB-39, \$7.75; A-DB/59, \$19.90.

TV COAXIAL CONNECTORS



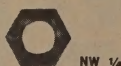
A-61



C-56



F-59



NW 1/4



NW 3/8



PL-259



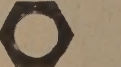
C-51



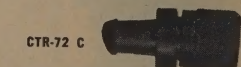
C-61



F-61



NW 3/4



CTR-72 C



C-52



C-81



F-81



NW 3/2



6U



59U

Multiple prices listed are for quantity orders... 1st price, 1-25 units; 2nd price, 26-100; 3rd price, 101-500.

A-61 Adapter, 1/4"-32 inside, 3/8"-32 outside. Changes "C" fitting to "F" fitting. Net \$1.75 for 25.

C-51 Connector, to be swaged for RG-59/U coax. Net 15¢, 12¢, 10¢.

C-52 Solderless TV Connector for RG-59/U coax. Net 19¢, 15¢ 13¢.

C-56 Solderless TV Connector for RG-6/U coax. Net 29¢, 20¢, 18¢.

C-61 Convenience Connector, chassis mount, for C-52 connector, with 1/4"-32 front nut and 3/4"-32 rear. Net 35¢, 30¢, 22¢.

C-81 Solderless Cable Connector, or TV convenience connector with 1/4"-32 front nut and 3/4"-32 rear. Net 35¢, 30¢, 22¢.

F-59 Solderless TV Connector for "F" fitting and RG-59/U coax. Net 29¢, 20¢, 18¢.

F-61 Convenience Connector, chassis mount for F-59 connector, with 3/8"-32 front nut and 3/4"-32 rear. Net 35¢, 30¢, 22¢.

F-81 Solderless Cable Connector, or TV convenience connector with 3/4"-32 nut. Net 49¢, 43¢, 38¢.

NW 1/4 Nut and Washer, 1/4"-32 for "C" fittings. Net 3¢.

NW 3/8 Nut and Washer, 3/8"-32 for C-61. Net 3¢.

NW 3/4 Nut and Washer, 3/4"-32 for "F" fittings. Net 3¢.

PL-259 Connector, for RG-11/U or RG-8/U, or double shielded equivalents. Net 45¢, 40¢, 37¢.

CTR-72 C Terminator, 72 ohms. Net 42¢, 35¢, 28¢.

FTR-72 F Terminator, 72 ohms. Net 42¢, 35¢, 28¢.

6U Ferrule, crimping ring for RG-6/U coax. Net \$1.65 per C.

59U Ferrule, crimping ring for RG-59/U coax. Net \$1.65 per C.



AMERICAN COMMUNICATIONS CORPORATION

AUDIO/VISUAL/SIGNAL SYSTEMS & PARTS

FOR HOTELS — MOTELS — INSTITUTIONS

RADIO PARTS & ASSEMBLIES



BLANK (UNASSEMBLED) ESCUTCHEON PLATES

Measurements: No. 1—No. 3, 9 x 2½"; No. 4, 2½" x 5¼"; No. 5, No. 6 (dials), 2" diam. (hole in latter is ¾" diam.). No. 7, 2¾" x 4½". No. 8, 4¾" sq.

- (1) No. A-P1 Radio Escutcheon. Patterned bronze, clear lacquered. Lettered: Off — 1 (through) 5 — Off and Loud-Soft. Net \$2.15.
No. A-P2 Radio/Maid Call Escutcheon (not shown). Same as A-P1, except w/added hole in center for lamp socket, and wording: Light indicates Message-at-Desk. Net \$2.23.
No. A-P3 Radio/Message Escutcheon (not shown). Same as A-P1, except w/added hole in center for lamp socket, and wording: Light indicates Message-at-Desk. Net \$2.23.
- (2) No. A-P4 Radio/Message/Maid Call Escutcheon. Same as A-P3, except w/added hole at upper-right for jack. Net \$2.27.
No. A-P5 Radio/Message/Maid Call/Status Escutcheon (not shown). Same as A-P4, except w/added hole, below hole for jack, for Status Maid Light. Net \$2.67.
- (3) No. A-P3P Radio Escutcheon, plastic. Same as A-P3, except material is translucent plastic. For use with incandescent or luminescent light source. Net \$1.90.



TELEPHONE HANSET

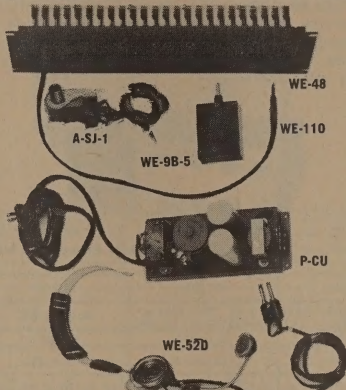
No. SH-500 Standard Telephone Handset Model 500 is complete with carbon microphone and receiver, plus 6 ft. length coiled cord (other lengths available). Net \$14.75.

UNIVERSAL HANSET HOLDER

No. UHH can be obtained with spring action for double pole, double throw or other switch configurations as required. Stainless steel double gang plate, heavy duty die cast switch mechanism chrome plated. Other finishes available. For use with standard Model 500 Handset and others. Net \$7.85.



No. A-CS-A/5 Radio/Alert Selector Switch. AMERICAN'S 360° continuous-rotation radio channel selector switch, is equipped with extra circuit wafer for AMERICAN'S patented emergency alert system. Net \$4.98.



CUE PHONE SYSTEM EQUIPMENT

P-CU Power Supply. As many as 10 head sets can be powered simultaneously by this supply. Supply has proper retard coil for phone operation. Used extensively in hotel ball rooms and other large public areas for communications between control room and personnel. P-CU is supplied with a dust cover. Net: P-CU \$48.75.

Type WE-52D Operator's Head Set for intercommunication. Signals can be transmitted over extremely long distances on an ordinary pair of wires when used with P-CU Cue Phone Power Supply. Net: WE-52D \$38.75.

Not Shown — WE-52 DLS, 15' coiled cord, including integral switch for mike and 289B plug. Net \$54.40.

Type WE-9B-5 Adapter. Adapts the WE-289-B Plug to a Cue Phone A-SJ-1 Seize Jack. Net: WE-9B-5 \$15.40.

Type WE-238-A Jack Panel WE-48. Uses 48 type WE-238-A open circuited telephone jacks with tip ring and sleeve connections. Can be supplied with double-circuited type WE-239-A at additional cost of \$1.25 per jack. Size 3½" x 19" for standard rack panel. ½" designation strip with ¾" exposure for proper labelling.

Net: WE-48 with type WE-238-A jacks \$123.50.

Type WE-110 Telephone Patch Cord. Uses tip ring and sleeve plug. Designed for use with type WE-238-A jack as used in WE-48 Jack Panel. Supplied in 2 ft. lengths. Other lengths to 10 ft. available. Net: Type WE-110, 2 ft. \$7.10.

A-SJ-1 Seize Jack (circuit opening), wired, Net \$2.70.

PANEL ASSEMBLIES

(18) No. A-P1-A Radio Control Panel. This is A-P1 Escutcheon assembled with Radio Selector Switch and Volume Control. Net \$9.15.

(19) No. A-P2-A Radio/Maid Call Panel. Same assembly as A-P1-A, except w/A-MJ Maid Call jack added, on A-P2 Escutcheon. Net \$10.50.

(20) No. A-P3-A Radio/Message Panel. Switch, Control, and Message light, on A-P3 Escutcheon. Net \$10.80.

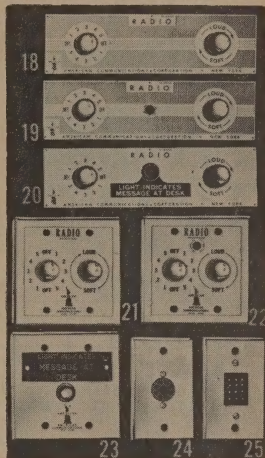
(21) No. A-P4-A Radio/Message/Maid Call Panel (not shown). Same items as on A-P3-A panel, plus Maid Call jack, all on A-P4 Escutcheon. Net \$12.15.

(22) No. A-P20-1-A Radio Wall Plate assembly, w/Switch and Volume Control. On aluminum 2-gang plate. Net \$9.15.

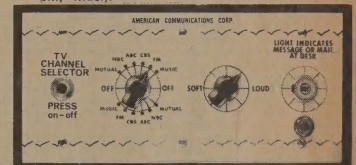
(23) No. A-P20-2-A Radio/Maid Call assembly. Same as A-P20-1-A, but w/Maid Call jack added. On aluminum 2-gang plate. Net \$10.50.

(24) No. A-P20-3-A Message-at-Desk Wall Plate assembly, w/Instructions and lamp. On aluminum 2-gang plate. Net \$3.50.

(25) No. A-P10-TV-A TV Remote Plate assembly. On 1-gang plate, w/octal socket. Net \$1.05.

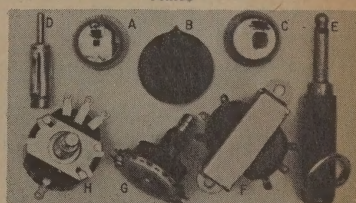


(25) No. A-P10-C-A Connector Plate assembly. On aluminum 1-gang plate. Has Jones connector, specify number of connections. Net \$2.61. (12-pin, illus.).



A-ELP1 Electroluminescent Panel. Operates on A-C. Diffuses a night-light glow in room. Mounts on standard outlet box. Manufactured to order.

PARTS



(A) No. A-K1 Knob, clear plastic. Silver insert, short short pointer, 1 screw. Net \$2.21.

(B) No. A-K3 Pointer Knob, black plastic. Has 1 screw. Net \$2.44.

(C) No. A-K2 Knob, beige plastic. Gold insert, short pointer, 1 screw. Net \$2.44.

(D) No. A-MP Plug, quick-disconnect type. Net \$1.84.

(E) No. A-MSP Maid Call Plug, w/belt ring. Net \$1.44.

(F) No. A-T1 Transformer, 70 volts to 3.2 ohms. Net \$1.03.

(G) No. A-CS Radio Selector Switch. Ceramic wafer, dual wiper, 5 positions, center off, 360° continuous rotation. Net \$2.30.

(H) No. A-VC Volume Control. A patented potentiometer with 360° continuous rotation. Standard resistance 12.5 ohms. Net \$2.30.

(Items G and H for Centralized Radio use.)

AMERICAN COMMUNICATIONS CORPORATION

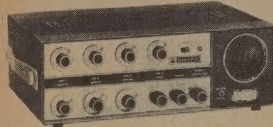
BOGEN

SOUND SYSTEMS

FLEX-PAK[®] PA AMPLIFIERS

Combining operational flexibility, sound quality and dependability, Bogen professional amplifiers offer functions and features unmatched at any price, by any maker. Adaptable to a wide variety of applications once served only by custom designed, custom fabricated equipment, these amplifiers will accommodate virtually any audio signal source, providing a degree of intelligibility and control not previously obtainable in a single chassis amplifier. They include facilities for a host of accessories, engineered to satisfy specific require-

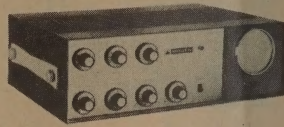
ments: two and four channel remote controllers, peak limiters, standby controllers for microphone or music channels; optional monitor and speaker units to allow checking of sound levels by both ear and eye; 600-ohm balanced line transformers; high-fidelity phono tops; plug-in microphone transformers, control locking plates, wall mounting kits and many more. All models include output jacks for driving tape recorders and booster amplifiers.



MX60A/MX30A/
MTX30B Shown with MMS-1



M330A/M60A Shown with MSK-1



M120

	*MTX30B All Transistor	MX60A	MX30A	M330A	M60A	M120
POWER OUTPUT	30 w. @ 2% (Full pwr: 30 - 20,000 cps)	60 w. @ 2% (Full pwr: 21 - 30,000 cps ± 1 db)	30 w. @ 2% (Full pwr: 21-40,000 cps $\pm 1\frac{1}{2}$ db)	30 w. @ 2%	60 w. @ 3%	120 w. @ 3%
PEAK POWER	50 watts	85 watts	50 watts	50 watts	100 watts	200 watts
POWER CONSUM.	60 watts	180 watts	125 watts	120 watts	160 watts	320 watts
FREQ. RESPONSE	± 1 db, 15-25,000 cps	$\pm 1\frac{1}{2}$ db, 10-38,000 cps	± 2 db, 10 - 40,000 cps	± 2 db, 20-20,000 cps	± 2 db, 20-20,000 cps	± 1 db, 20-20,000 cps
SENSITIVITY	Mic.: 2 MV (high imp); Mag.: 3 MV; Aux.: 0.3-v	Mic.: 3.5 MV (high imp); Mag.: 2 MV; Aux.: 0.15-v	Mic.: 3.5 MV (high imp); Mag.: 2 MV; Aux.: 0.15-v	Mic.: 6 MV; Mag.: 50 MV; Aux.: 0.3-v	Mic.: 9 MV; Mag.: 24 MV; Aux.: 0.4-v	Mic.: 9 MV; Mag.: 24 MV; Aux.: 0.4-v
GAIN	Mic.: 125 db; Mag.: 120 db; Aux.: 95 db	Mic.: 125 db; Mag.: 120 db; Aux.: 85 db	Mic.: 125 db; Mag.: 120 db; Aux.: 85 db	Mic.: 120 db; Mag.: 105 db; Aux.: 95 db	Mic.: 122 db; Mag.: 115 db; Aux.: 96 db	Mic.: 125 db; Mag.: 118 db; Aux.: 99 db
HUM and NOISE (below rated output)	Mic. - 70 db; Mag. - 65 db; Aux. - 85 db.	Mic. - 70 db	Mic. - 70 db	Mic. - 65 db; Aux. - 80 db	Mic. - 65 db; Aux. - 80 db	Mic. - 65 db; Mag. - 65 db; Aux. - 89 db
INPUTS	4 mic. (convert to low impedance with T200, T500 or T50 transformer); 2 mic. (high imp.); 2 mag. phono or tape playback heads; 2 aux. (high imp.; high level); 1 600-ohm balanced telephone line with WMT1 transformer; 2 bridging. Note: 4 mics. and any two of the other nine inputs may be simultaneously mixed and faded.	4 mic. (convert to low impedance with T200, T500 or T50 transformer); 1 mic. (high imp. or mag. tape); 2 aux. (high imp. high level/fader); 1 600-ohm balanced telephone line with WMT1 transformer; 1 bridging input/output. Note: 6 inputs can be simultaneously mixed and faded.	4 mic. (convert to low impedance with T200, T500 or T50 transformer); 1 mic. (high imp. or mag. tape); 2 aux. (high imp. high level/fader); 1 600-ohm balanced telephone line with WMT1 transformer; 1 bridging input/output. Note: 6 inputs can be simultaneously mixed and faded.	3 mic. (convert to low impedance with T200, T500 or T50 transformer or 2 convert to mag.); 1 aux. channel (2 inputs/fader control); 1 600-ohm balanced telephone line with WMT1 transformer. Note: 4 inputs can be simultaneously mixed and faded.	3 mic. (convert to low impedance with T200, T500 or T50 transformer or 2 convert to mag.); 1 aux. channel (2 inputs/fader control); 1 600-ohm balanced telephone line with WMT1 transformer. Note: 4 inputs can be simultaneously mixed and faded.	3 mic. (convert to low impedance with T200, T500 or T50 transformer or 2 convert to mag.); 1 aux. channel (2 inputs/fader control); 1 600-ohm balanced telephone line with WMT1 transformer. Note: 4 inputs can be simultaneously mixed and faded.
OUTPUT IMPEDANCE	4, 8, 16 ohms, tape and booster jack, 25-v, balanced (21 ohms), 70-v, balanced (163 ohms)	4, 8, 16 and 83 ohms, balanced 25-v. line, balanced 70-v. line; tape/booster jack	4, 8, 16 and 163 ohms, balanced 25-v. line, balanced 70-v. line; tape/booster jack	4, 8, 16 ohms, balanced 25-v (16 ohms), 70-v (163 ohms); tape/booster jack	4, 8, 16 ohms, balanced 25-v (16 ohms), balanced 70-v (82 ohms); tape/booster jack	8, 16 ohms, bal'd 25-v (5 ohms), bal'd 70-v (41 ohms), bal'd 25-v center tap (1.25 ohms); tape/booster jack
CONTROLS	4 individual mic. (each with speech filter or wide-range switch) • 1 high imp. mic./mag. phono/tape head/aux.-fader control with speech filter switch • 1 high imp. mic./mag. phono/tape head/aux.-600 ohm line fader control with speech filter switch • master vol. • bass • treble • power switch • calibrated low freq. filter (variable) determines low freq. cut-off of any of 6 inputs • provision for remote control or precedence of all six inputs and master vol.	4 individual mic. (each with speech filter switch) • 1 mic./mag./tape with speech filter switch • aux. 1/aux. 2 • master vol. • bass • treble • power switch • calibrated low freq. filter (variable) determines low freq. cut-off of all inputs • provision for remote control or precedence of all six inputs and master vol.	4 individual mic. (each with speech filter switch) • 1 mic./mag./tape with speech filter switch • aux. 1/aux. 2 • master vol. • bass • treble • power switch • calibrated low freq. filter (variable) determines low freq. cut-off of all inputs • provision for remote control or precedence of all six inputs and master vol.	3 mic. • aux. 1/2 • master vol. • bass • treble • power switch • provision for remote control or precedence for mic.	3 mic. • aux. 1/2 • master vol. • bass • treble • power switch • provision for remote control or precedence for mic.	3 mic. • aux. 1/2 • master vol. • bass • treble • power switch • provision for remote control or precedence for mic.
tone CONTROL ACTION	Treble (10 kc) ± 10 db to -14 db; Bass (50 c) ± 15 db to -9 db	Treble (10 kc) ± 13 db to -15 db; Bass (50 c) ± 15 db to -10 db	Treble (10 kc) ± 13 db to -15 db; Bass (60 c) ± 15 db to -10 db	Treble (10 kc) ± 10.5 db to -14.5 db; Bass (50 c) ± 13.5 db to -9 db	Treble (10 kc) ± 12 db to -15.5 db; Bass (50 c) ± 15 db to -9.5 db	Treble (10 kc) ± 12 db to -14.5 db; Bass (50 c) ± 15 db to -9.5 db
TRANSISTORS or TUBES	All Silicon 32-transistors, 3-diodes, 2-zener diodes	8 tubes: 3-12AX7A, 3-7247, 2-8417 plus 5-silicon rectifiers	8 tubes: 3-12AX7A, 3-7247, 2-8417 plus 5-silicon rectifiers	5 tubes: 2-7868, 1-7247, 2-6EU7 plus 2-silicon rectifiers and 1-bias silicon diode	5 tubes: 2-8417, 1-7247, 2-6EU7 plus 2-silicon rectifiers and 1-bias silicon diode	7 tubes: 4-8417, 1-7247, 2-6EU7 plus 3-silicon rectifiers
DIMENSIONS	16 $\frac{1}{2}$ " W, 12" D, 4 $\frac{3}{4}$ " H	16 $\frac{1}{2}$ " W, 12" D, 4 $\frac{3}{4}$ " H	16 $\frac{1}{2}$ " W, 12" D, 4 $\frac{3}{4}$ " H	14 $\frac{7}{8}$ " W, 9 $\frac{7}{8}$ " D, 5 $\frac{3}{4}$ " H	14 $\frac{7}{8}$ " W, 9 $\frac{7}{8}$ " D, 5 $\frac{3}{4}$ " H	16 $\frac{1}{2}$ " W, 12" D, 4 $\frac{3}{4}$ " H
SHIP. WEIGHT	24 lbs.	40 lbs.	34 lbs.	20 lbs.	28 lbs.	42 lbs.
NET EACH	\$239.25 (Zone 2: \$241.80)	\$194.65 (Zone 2: \$197.60)	\$157.45 (Zone 2: \$160.05)	\$113.25 (Zone 2: \$115.05)	\$138.75 (Zone 2: \$141.25)	\$194.90 (Zone 2: \$197.25)

* Operates on 105-125 VAC or 12-15 VDC - from -20°C to +70°C (158°F)

(SOLID STATE)

LEAR SIEGLER, INC.



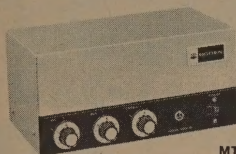
BOGEN COMMUNICATIONS DIVISION

BOGEN SOUND SYSTEMS

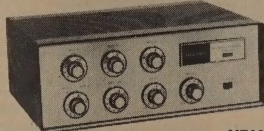
"MTA" SOLID STATE AMPLIFIERS

First packaged amplifier line of its kind in commercial sound. Advanced solid state circuitry (all-silicon except MTA10 output stage) provides consistent performance over a lifetime of use. Plug-in circuit boards allow for highest possible quality

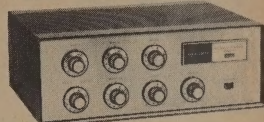
control. Chimney-type heat sinks and heat-sensing "thermo-guards" permit safe continuous operation to 158°F. Tantalum capacitors in all critical circuits; built-in protection against shorted or open speaker lines. Complete line of accessories.



MTA10



MTA30



MTA60

	MTA10	MTA30	MTA60
POWER OUTPUT	10 w. rms @ less than 3% distortion	30 w. rms @ less than 3% distortion	60 w. rms @ less than 3% distortion
PEAK POWER	20 w.	60 w.	110 w.
POWER RESPONSE	±2 db, 50-16,000 cps @ 10 w. with less than 5% distortion	±2 db, 40-12,000 cps @ 30 w. with less than 5% distortion	±2 db, 40-10,000 cps @ 60 w. with less than 5% distortion
FREQUENCY RESPONSE	±2 db, 50-20,000 cps	±1 db, 30-20,000 cps	±1 db, 7-20,000 cps
GAIN	Mic: 105 db Aux: 95 db	Mic: 125 db Aux: 110 db	Mic: 125 db Aux: 110 db
HUM & NOISE (below rated output)	Mic: -60 db (weighted) Aux: -80 db (weighted)	Mic: -58 db Aux: -70 db	Mic: -60 db Aux: -72 db
SENSITIVITY	Mic: 0.4 mV Aux: 0.2 V	Mic: 0.33 mV Aux: 0.15 V	Mic: 0.38 mV Aux: 0.15 V
TONE CONTROLS	Treble (10kc) -23 db	Treble (10 kc) +10.5 db to -10 db Bass (50 cps) +10 db to -10.5 db	Treble (10 kc) +9 db to -11 db Bass (50 cps) +12 db to -10 db
INPUTS	1 mic. (low-imp), 1 aux. (hi-imp, hi-level) 1 for optional WMT-1 (500/600 ohms) transformer 1 bridging	3 mic. (200 ohm unbal.) converts to 200 ohm bal. with T525U or to mag phono/tape head with plug-in PMC-1 2 aux. on fader	3 mic. (200 ohm unbal.) converts to 200 ohm bal. with T525U or to mag phono/tape head with plug-in PMC-1 2 aux. on fader
OUTPUT IMPEDANCE	4 and 8 ohms; 16 ohms bal; 25 VC.T. (62 ohms) bal; 70 V (500 ohms) bal; tape/booster jack	(Bal.) 4, 8, 16 ohms; 25 VC.T. (16 ohms) bal; 70 V (163 ohms) bal; tape/booster jack	(Bal.) 2.6, 8 and 16 ohms; 25 VC.T. (10.4 ohms) bal; 70 V (82 ohms) bal; tape/booster jack
PRINTED CIRCUIT BOARDS	2 plug-in	5 plug-in	5 plug-in
SEMI-CONDUCTORS	3 silicon; 2 germanium; 2 silicon diode rectifiers	13 All silicon transistors; 6 diodes	13 All silicon transistors; 7 diodes
POWER REQUIRED	30 w., 120 VAC, 50/60 cps	75 w., 105-125 VAC, 50/60 cps or 24-30 VDC	115 w., 105-125 VAC, 50/60 cps
DIMENSIONS	10 5/8" W, 6 1/2" D, 5" H	12 1/2" W, 9 3/4" D, 4 1/2" H	12 1/2" W, 9 3/4" D, 4 1/2" H
SHIPPING WEIGHT	10 lbs.	16 lbs.	18 3/4 lbs.
NET EACH:	\$74.95 (Zone 2: \$75.85)	\$119.90 (Zone 2: \$121.45)	\$149.95 (Zone 2: \$151.75)

BACKGROUND MUSIC AMPLIFIERS



MU130-30w.
AMPLIFIER 1MIC. INPUT

A handsomely styled 30-watt amplifier featuring one microphone input and provision for playing records, tapes, and adding an additional booster amplifier. Accessories include matching phono top, control-guard locking plate, rack panel mounting kit, carrying case, remote volume controls... and more (see pages 8 and 9). **Power Output:** 30 w. at less than 2% distortion. **Peak Power:** 50 watts. **Power Consumption:** 120 w. **Freq. Response:** ±2 db 20 to 20,000 cps. **Gain:** Mic: 122 db; Aux: 95 db. **Hum and Noise (below rated output):** Mic: -65 db; Aux: -80 db. **Output Imped:** 4, 8 and 16 ohms (16 ohms Bal.); 25 V. Bal. (use 16 ohm tap), 70 V. 163 ohms; tape/booster jack. **Inputs:** 1 mic. (hi-imped. converts to low-imped. with T200, T500 or T50 transformers); 1 aux. (hi-imped., hi-level). **Tubes:** Total of 4 and silicon rectifiers. **Tone Controls:** Treble (10 KC) +12 db to -14 db; Bass (50 cps) +15 db to -9 db. **Dimens:** 13 3/4" W, 10" D, 6 3/4" H. **Ship. Wt:** 20 lbs. **Net Each:** \$89.95 (Zone 2: \$91.75)



RP150-BM - 15w.
TUNER/AMPLIFIER
1MIC. INPUT

A 15-watt, high-fidelity, AM-FM radio/amplifier. Can power from 1 to 60 loudspeakers... and more by addition of a Bogen auxiliary booster amplifier. For paging and announcements, a touch of a button silences music and amplifies voice. Provision for playing records, tapes, and automatic tape. **Radio Frequency Range:** FM: 88-108 MC; AM: 530-1640 KC. **Power Output:** 15 watts at less than 2% distortion; 30 watts peak. **Inputs:** Mic. (Phono (Mag.), Phono (Xtal-ceramic), Aux. **Audio Frequency Response:** FM: 20-20,000 cps ± 1 db; AM: 20-4,500 cps ± 1 db; Phono, Aux: 20-20,000 cps ± 1 db; Mic: 50-12,000 cps ± 3 db. **Sensitivity:** FM: 1.25 uv for 20 db quieting; I.H.F.: 3 uv; AM: Loop Sensitivity - 120 uv/m for 20 db s/n; Terminal Sensitivity: 5 uv for 20 db s/n. **Selectivity:** FM: 180 KC, 3 db down; AM: 8 KC, 3 db down. **Audio Sensitivity:** Phono: mag-.005 v, crystal-25 v; Aux: .5 v; Mic: .04 v. **Hum and Noise:** -55 db. **Controls:** Power, Program Vol, Mic. Vol, Mic. Selector, Program Selector, Bass, Treble, Tuning. **Outputs:** Speaker - 8 ohms, 16 ohms, 25 v line for matching line transformers; tape output, multiplex output. **Tubes:** 13 plus 3 crystal diodes. **Power Requirements:** .85 amps @ 117 v, 60 cycles AC. **Dimensions:** 15" x 4 3/4" x 11 1/4". **Weight:** 21 lbs. **Prices:** Model RP150-BM (less enclosure), Net: \$179.95 (Zone 2: \$181.95). Model EN12 vinyl-clad Metal Enclosure, Net: \$14.95 (Zone 2: \$15.55). Microphone Assembly, Transcription Player, and Rack Panel Kit are available.

(SOLID STATE)

All prices and specifications subject to change without notice. Zone 2 includes the states of Ariz., Ark., Cal., Col., Ida., La., Miss., Mont., Nev., N.M., Okla., Oreg., Tex., Utah, Wash. and Wyo. Alaska and Hawaii run slightly higher.

"CHB" SERIES PA AMPLIFIERS

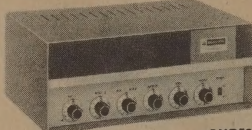
BOGEN SOUND SYSTEMS

Models CHB100, CHB50 and CHB35A share these outstanding features: systems-tested circuitry for continuous, heavy-duty operation; protected against circuit damage caused by accidental shorting or disconnecting of loudspeaker lines; no

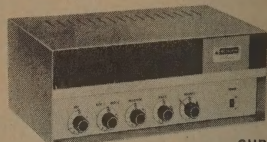
"double duty" control devices; built-in remote control circuit permits volume adjustment from up to 2,000 feet away; Memory Level Markers; tape output/booster jack.



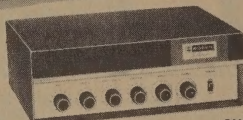
CHB100 Shown
with phono-top



CHB50/CHB35A



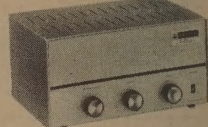
CHB20A



CHB122S



CHB14A



CHB10A

	CHB100	CHB50	CHB35A	CHB122S*	CHB20A	CHB14A	CHB10A
POWER OUTPUT	100 w. at 5% distortion	50 w. at 5% distortion	35 w. at 5% distortion	20 w. at 10% continuous	20 w. at 5% distortion	14 w. at 5% distortion	10 w.
FREQUENCY RESPONSE	±2 db, 20 to 20,000 cps	±2 db, 20 to 20,000 cps	±2 db, 20 to 20,000 cps	±2 db, 60 to 20,000 cps	±2 db, 20 to 20,000 cps	±2 db, 20 to 20,000 cps	±2 db, 40 to 12,000 cps
INPUTS	2 Mic. (hi-imped.) 1 Mag. Phono 2 Aux. (hi-imped. hi-level) Provision for WMT-1	2 Mic. (hi-imped.) 2 Aux. (hi-imped. hi-level) Provision for WMT-1	2 Mic. (hi-imped.) 1 Mag. Phono 2 Aux. (hi-imped. hi-level) Provision for WMT-1	2 Mic. (hi or low imp.) 2 Aux. (hi-imped., hi-level)	1 Mic. (hi-imped.) 2 Aux. (hi-imped. hi-level) Provision for WMT-1	1 Mic. (hi-imped.) 2 Aux. (hi-imped. hi-level) Provision for WMT-1	1 Mic. (hi-imped.) 1 Phono (hi-imped. hi-level) Provision for WMT-1
HUM & NOISE (below rated output)	Mic. —70 db Aux. —80 db	Mic. —70 db Aux. —80 db	Mic. —65 db Aux. —80 db	Mic. —65 db Aux. —70 db	Mic. —65 db Aux. —80 db	Mic. —55 db Aux. —80 db	Mic. —60 db Phono —75 db
SENSITIVITY	Mic. 5 mv Aux. 3-v Mag. Phono 15 mv	Mic. 5 mv Aux. 3-v Mag. Phono 15 mv	Mic. 4 mv Aux. 2-v Mag. Phono 12 mv	Mic. 3 mv (hi-imp.) Mic. 2 mv (low imp.) Aux. 0.5-v	Mic. 3 mv Aux. .5-v	Mic. 4 mv Aux. 4-v	Mic. 6 mv Phono 2-v
GAIN	Mic. 125 db Aux. 100 db Mag. Phono 115 db	Mic. 120 db Aux. 95 db Mag. Phono 110 db	Mic. 125 db Aux. 100 db Mag. Phono 115 db	Mic. 120 db Aux. 90 db	Mic. 125 db Aux. 100 db	Mic. 120 db Aux. 95 db	Mic. 110 db Phono 90 db
OUTPUT IMPEDANCE	4, 8 and 16 ohms, 25-v line bal., (6 ohms) 70-v line (50 ohms) 2 speaker sockets, screw terminals, tape/booster jack	4, 8 and 16 ohms, 25-v line (12 ohms) 70-v line (100 ohms) 2 speaker sockets, screw terminals, tape/booster jack	4, 8 and 16 ohms, 25-v line (18 ohms) 70-v line (143 ohms) 2 speaker sockets, screw terminals, tape/booster jack	4, 8 and 16 ohms, 25-v (25 ohms) balanced, 70-v (196 ohms) balanced	4, 8 and 16 ohms, 25-v line balanced (31 ohms), 70-v line (250 ohms) 2 speaker sockets, screw terminals, tape/booster jack	4, 8 and 16 ohms, 25-v line (45 ohms), 70-v (355 ohms) 2 speaker sockets, screw terminals, tape/booster jack	4, 8 and 16 ohms, 25-v line (62 ohms), 70-v (500 ohms) 1-speaker socket and screw terminal, tape/booster jack
TONE CONTROL ACTION	Treble (10 kc) —12 db to —15 db Bass (50 cps) +14 db to —9 db	Treble (10 kc) +10 db to —15 db Bass (50 cps) +11 db to —10 db	Treble (10 kc) +10 db to —16 db Bass (50 cps) +14 db to —10 db	Treble (10 kc) —11 db Bass (50 cps) +9 db to —9 db	Treble (10 kc) +10 db to —16 db Bass (50 cps) +14 db to —10 db	Treble (10 kc) —15 db Bass (50 cps) —17 db	Treble (10 kc) —24 db
TUBES or TRANSISTORS	Total of 7 tubes and silicon rectifier: 1-6EU7, 1-12AX7, 4-7668, 1-6C4	Total of 5 tubes and silicon rectifier: 1-6EU7, 1-12AX7, 2-6L6GC, 1-6C4	Total of 5 tubes, 2 silicon rectifiers and 1-silicon diode: 1-6EU7, 2-7868, 1-12AX7, 1-6C4	Total of 11 transistors and 3 silicon rectifiers: 9-2N2712, 2-RCA 40050 (matched) 1-50D100D 2-50D100A	Total of 3 tubes, 2 silicon rectifiers and 1-silicon diode: 1-6EU7, 2-6GW8	Total of 3 tubes, 2 silicon rectifiers: 1-6AU6, 2-ECC86	Total of 2 tubes and silicon rectifier: 1-12AX7, 1-ECC 83, 1-7868
POWER CONSUMPTION	300 w. 105-125 VAC 50-60 cycles	150 w. 105-125 VAC 50-60 cycles	125 w. 105-125 VAC 50-60 cycles	No Signal 12 w. (117 VAC) 0.3A (14 VDC) Max. Signal 50 w. (117 VAC) 2.5A (14 VDC)	90 w. 105-125 VAC 50-60 cycles	70 w. 105-125 VAC 50-60 cycles	50 w. 105-125 VAC 50-60 cycles
DIMENSIONS	6 3/4" H, 15 3/4" W, 10" D	6 3/4" H, 15 3/4" W, 10" D	6 3/4" H, 15 3/4" W, 10" D	4-7/16" H, 13 1/8" W, 10" D	6 3/4" H, 15 3/4" W, 10" D	6 3/4" H, 15 3/4" W, 10" D	5 3/4" H, 11 1/4" W, 8 1/4" D
SHIPPING WEIGHT	25 lbs.	21 lbs.	21 lbs.	17 lbs.	17 lbs.	16 lbs.	Model CHB10A 12 lbs. Model CHB10A-LC (less cage) 10 lbs.
NET EACH	\$119.90 (Zone 2: \$122.15)	\$88.40 (Zone 2: \$90.30)	\$74.90 (Zone 2: \$76.70)	\$109.35 (Zone 2: \$110.70)	\$61.40 (Zone 2: \$62.95)	\$47.90 (Zone 2: \$49.45)	Model CHB10A \$38.85 (Zone 2: \$39.90) Model CHB10A-LC (less cage) \$36.00 (Zone 2: \$36.90)

* Operates on 12-15 VDC and 117 VAC

Accessories: matching phono-top, control-guard locking plate, rack panel mounting kits, carrying cases, remote volume controls... and more. WMT-1 transformer provides 500/600 ohm telephone line input for wired background music.

(SOLID STATE)

LEAR SIEGLER, INC.



BOGEN COMMUNICATIONS DIVISION

BOGEN SOUND SYSTEMS

MIXER-PREAMPLIFIERS

MXM-A MIXER-PREAMPLIFIER

Professional, broadcast quality, self-powered unit which accommodates 7 mixed input signals simultaneously (5 may be from high or low impedance mics). One mic. input converts to an equalized mag. phono cartridge or tape playback head. Two aux. (high impeded, high level) are connected to a fader control. Bridging input accepts signals from a remote preamplifier or a zero level line. Up to 3 MXM-A's may be paralleled to provide 21 inputs (up to 15 mics). Output level may be monitored aurally and visually by headset and built-in VU meter. Panel-controlled speech filters for all mic. inputs; separate bass and treble tone controls. Provision for converting high impeded, to balanced low impeded, microphone inputs by using plug-in transformers. Sockets accept remote control and precedence plug-in units. Panel-controlled calibrated low frequency (notch) filter effectively "tunes out" hum, turntable rumble, etc. Output: 20 V. into high impeded. load at 1%; 4 V. into 600 ohms at 1%; (from bridging output) 0.1 V. into 1 Meg. **Freq. Response:** 18-38,000 cps ± 1 db. **Output Imped:** high impeded. (less than 3,000 ohms); 500/600 ohms with TL 600 (broadcast quality) plug-in transformer. **Sensitivity:** high impeded. 2 MV; low impeded. 0.1 V; Mag., 1 MV; bridging 0.5 V; Aux., 0.1 V. **Hum:** (below rated output) Mic. 60 db. **Tone Controls:** Treble (10 KC) $+12$ db; -12 db; Bass: (50 cps) $+14$ db; -8 db. **Tubes:** 4-12AX7A, 1-7247, 1-12AU6 plus 3 silicon rectifiers. **Power Consumption:** 47 watts, 117 VAC; 50/60 cps. **Dimen:** 16 $\frac{1}{2}$ " W, 12" D, 4 $\frac{3}{4}$ " H. **Ship. Wt:** 20 lbs **Net Each:** \$164.95 (Zone 2: \$167.20)

MTM ALL-SILICON TRANSISTOR MIXER-PREAMPLIFIER

Professional, all-silicon transistor, self-powered unit (operates from 120 VAC or 12-15 VDC). Mixes 6 input signals (4 may be low impedance microphones). Unbalanced low impedance microphone inputs convert to balanced (500-600 ohms) with TS25U plug-in transformer—or convert to mag. phono/tape input with PMC-1 plug-in module. 2 aux. (high impedance, high level) are connected to a fader control. Up to 3 MTM's may be paralleled to provide 18 inputs. Output level may be monitored aurally (head set) and visually (built-in meter). Sockets accept individual remote control, precedence and compressor plug-in units. Speech filters in mic. channels 1 and 2. R.F. filters in all mic. channels. **Output:** at 0 db: 1.8 V. into 500 ohms (0.5%); $+12$ db: 7 V. into 500 ohms (2.5%); output transformer is built-in; no high impedance output. **Freq. Response:** 40-15,000 cps $\pm 1\frac{1}{2}$ db. **Output Imped:** (split output) 125/150 ohms and 125/150 ohms and 500/600 ohms balanced. **Input Imped:** Mic., low impeded, unbalanced (balanced with TS25U transformer); Aux., 0.2 Meg. **Sensitivity:** low impeded. Mic. 0.1 MV; Aux. 0.15 V. **Gain:** Mic. 75 db; Aux. 60 db; Bridging 60 db. **Bass Cut:** -15 db at 50 cps. **Treble Cut:** -15 db at 10 KC. **Hum:** Mic., -65 db; Aux., -70 db. **Power Consumption:** 5 watts at 117 VAC 50/60 cps; 12 A at 12 VDC. **Transistors:** 11 silicon plus 5 silicon diodes. **Dimen:** 16 $\frac{1}{2}$ " W, 8 $\frac{1}{2}$ " D, 3 $\frac{3}{4}$ " H. **Ship. Wt:** 9 lbs **Net Each:** \$134.95 (Zone 2: \$135.75)

RTP-1 ALL-SILICON TRANSISTOR PREAMPLIFIER

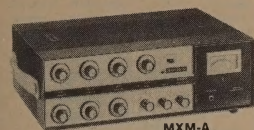
Designed for true broadcast quality, the RTP-1 will drive any number of booster amplifiers or packaged amplifiers over a 500/600 ohm line—even several miles away. Inputs include 2 Mic. (high or low impedance), 2 Aux. on fader control, 1 bridging. Two RTP-1's can be paralleled to provide 6 mixed inputs. Extremely low battery drain. Features include: Head-phone monitor jack on front panel; built-in output meter calibrated in VU and dB; VDC operation with internal batteries or external DC power supply; built-in battery tester. **Output:** at 0 db: 1.8 V. into 500 ohms (1%); $+12$ db: 7 V. into 500 ohms (2.5%); output transformer is built-in; no high impedance output. **Freq. Response:** 20-20,000 cps ± 1 db. **Output Imped:** (split output) 125/150 ohms & 125/150 ohms or 500/600 ohms balanced. **Input Imped:** Mic.: high or low impeded. (with TS20, TS200 transformers); Aux.: 0.1 Meg. **Sensitivity:** low impeded. (500 ohms) Mic. 0.5 MV; high impeded. Mic. 5 MV; Aux. 25 V. **Gain:** Mic. 72 db; Aux. 55 db; Bridging 60 db. **Bass Cut:** -12 db at 50 cps. **Hum:** Mic. -65 db; Aux. -70 db. **Power Consum:** 5 watts at 117 VAC 50/60 cps; 0.3 amps at 12 VDC. **Transistors:** 9 silicon plus 3 silicon diodes. **Dimen:** 9" W, 9 $\frac{1}{4}$ " D, 3 $\frac{1}{2}$ " H. **Ship. Wt:** 6 $\frac{1}{2}$ lbs. **Net Each:** \$114.95 (Zone 2: \$115.60)

RP-2... LOW-NOISE PROGRAM PREAMPLIFIER

For use at remote pickup points. Features: separate input channels for 1 mic. and 1 phono; separate vol. controls for each channel permit input mixing; output feeds either booster amplifier or a low impedance line separately or simultaneously; bass cut-off switch for speech clarity. Enclosure with VU meter is available. **Power Consumption:** 20 W.; 117 VAC; 60 cps. **Gain:** mic. 76 db; phono, 35 db. **Sensitivity:** mic.; 3.5 MV; phono, 0.4 V. **Bass Cut:** 20 db. **Output Imped:** hi-imped., cathode follower driven (min. recommended load resistance 10,000 ohms); lo-imped.: 600 ohms (50 and 200 ohms). **Input Imped:** hi-impedance, 1.2 megohm convertible to lo-imped. by use of plug-in transformers for 150-250 or 600 ohms. **Tubes:** total of 4 (2-6SF5, 1-6J5, 1-6X5GT). **Dimen:** 11" W, 7 $\frac{1}{4}$ " D, 5 $\frac{1}{4}$ " H. **With cage, height is 6 $\frac{1}{4}$ ".** **Ship. Wt:** 8 lbs. **RP-2** (Cage CAGVU2 optional extra). **Net Each:** \$72.00 (Zone 2: \$72.80) **CAGVU2** **Net Each:** \$26.90 (Zone 2: \$27.35)

MX6A MIXER-PREAMPLIFIER

A self-powered unit with provisions for mixing any combination of 4 of its 6 inputs, including 4 high impeded. mic. inputs and 2 radio-phono inputs. Can mix radio and/or phono signals with mic. signals for multi-mic. recordings of large groups and special recording effects. Individual gain controls for each channel; wide frequency response, low distortion and low hum; can be placed up to 400 ft. away from the amplifier. **Power Consumption:** 10 W., 117 V., 60 cps. **Freq. Response:** ± 2 db, 50 to 15,000 cps. **Gain:** mic., 59 db; phono, 30 db. **Hum:** (below rated output) -70 db. **Output Imped:** less than 1,000 ohms (cathode follower). **Input Imped:** mic., .5 megohm; phono, 5 megohm. **Tubes:** total of 3 (2-12AX7, 1-12AT7). **Dimen:** 8" W, 5 $\frac{3}{4}$ " D, 4 $\frac{3}{4}$ " H. **Ship. Wt:** 5 lbs. **Net Each:** \$42.00 (Zone 2: \$42.25)



MXM-A



MTM



RTP-1

RP-2
Shown with
CAGVU2

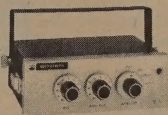
MX6A

MOBILE AMPLIFIERS



BT20A; 25w. TRANSISTOR MOBILE PA AMPLIFIER

Power Output: 25 watts @ less than 10% (continuous). **Power Consumption:** Full power: 2.8 amps; Quiescent: .26 amps; 6-15 VDC (6 w. output on 6 VDC). **Inputs:** 1 mic. (low impedance); 1 aux. (tuner, tape, phono). **Gain:** mic., 110 db; aux., 90 db. **Hum and Noise:** mic. -90 db (below rated output); aux. -95 db (below rated output). **Sensitivity:** mic., 1 MV; aux., 0.4 volts. **Output Impedance:** 4, 8, 16 ohms. **Controls:** 1 mic.; 1 aux./power. **Transistors:** 5; 2-2N2926, 1-40234, 2-DTG-110. **Dimensions:** 4 $\frac{1}{2}$ " W, 4" D, 6 $\frac{1}{2}$ " H. **Shipping Weight:** 5 lbs. **Net Each:** \$59.95 (Zone 2: \$60.50)



BT35A; 40w. COMPACT TRANSISTOR MOBILE PA AMPLIFIER

55-watts when used as electronic siren

Excellent for police, fire, CD, and boats; radio receiver connects easily to aux. input. Splash-proof gasket seals chassis in cabinet. Temperature range -20°C . to $+65^{\circ}\text{C}$. (149°F.). Polarity protection. Accessory siren tone—fog horn generator. Adjustable fixed-lock bracket. Built-in RF line filters.

Power Output: 40 w. at less than 10% (continuous); 55 w. with siren generator. **Peak Power:** 55 w. **Power Consumption:** Full power: 3.6 amps; Quiescent: .42 amps 12-15 VDC. **Freq. Response:** 150-15,000 cps ± 3 db. **Inputs:** 1 mic. (low impeded); 1 aux. ± 1 (high level) tuner/tape/phono, 1 aux. ± 2 (high level) accessory (tone signal). **Gain:** mic. 110 db; aux., 90 db. **Hum and Noise:** (below rated output) VDC. mic. -90 db; aux. -95 db. **Sensitivity:** mic.; 1 MV; aux.: 0.4 V. **Output Imped:** 4, 8, 16 ohms (output socket for accessory siren/fog horn generator). **Controls:** 1 mic.; 1 aux. volume; 1 selector switch/power (4 position); power off, mic., radio, aux. **Transistors:** 5 transistors, 1 silicon diode. **Dimen:** 8" W, 6 $\frac{1}{4}$ " D, 3" H. **Ship. Wt:** 8 lbs. **Net Each:** \$80.90 (Zone 2: \$81.65)

SF-1 SIREN/FOG HORN GENERATOR. All-silicon transistor, easily attaches to dashboard or bottom of BT35A. Furnished with 6 ft. cable and plug for attaching to BT35A. Provision for remote/accessory foot switch for generator activation. Siren may be operated automatically or manually. **Net Each:** \$54.70 (Zone 2: \$54.95)

(SOLID STATE)

All prices and specifications subject to change without notice. Zone 2 includes the states of Ariz., Ark., Cal., Col., Ida., La., Miss., Mont., Nev., N.M., Okla., Ore., Tex., Utah, Wash. and Wyo. Alaska and Hawaii run slightly higher.

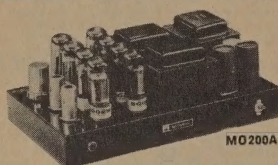
BOOSTER AMPLIFIERS

BOGEN SOUND SYSTEMS

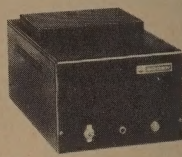
Bogen's booster amplifiers embody the most advanced developments in design and techniques of construction. These units deliver maximum power from a small package. They are ideal for sound systems in industrial plants, airports, stadia, schools... wherever undistorted power is required. Note their exceptionally wide-range response characteristics. Built-in provision permits paralleling any number of power amplifiers to multiply power output. The models described on the preceding page are ideal preamplifiers for these boosters. The MO200A, MO100A, and MT100 units are unsurpassed for both PA and industrial uses. Their 115-volt output makes them adaptable to

unique applications. With a variable frequency audio generator input, they represent relatively inexpensive power sources — any frequency or voltage — capable of driving servos, motors, vibration (shake) tables, ultrasonic equipment. The unique all-silicon transistor model MT100 may be operated from a 12-16 VDC source as well as from 117 VAC. Highly flexible in combination, inputs of identical amplifiers can be paralleled; outputs can be wired in series or parallel to provide any reasonable voltage or power (except MBT60 outputs).

No cage is furnished with MO200A.



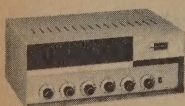
MO200A

MO100A
MO30A
MBT60

MT100

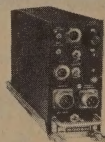
	MO200A	MO100A	MO30A	ALL-SILICON TRANSISTOR	
				MBT60	MT100
POWER OUTPUT	200 w. at less than 2% distortion (Full power: 21-50,000 cps $\pm$ 1 db at 5%)	100 w. at less than 2% distortion (Full power: 21-50,000 cps $\pm$ 1 db at 5%)	30 w. at less than 2% distortion (Full power: 21-40,000 cps $\pm$ 1 1/2 db at 5%)	60 w. rms at less than 3% distortion	100 w. rms at less than 1% distortion
FREQ. RESPONSE	8-50,000 cps $\pm$ 1 db	8-50,000 cps $\pm$ 1 db	10-40,000 cps $\pm$ 2 db	12-20,000 cps $\pm$ 1 db	15-35,000 cps $\pm$ 1 db
OUTPUT IMPEDANCE	Bal. 8 ohms, bal. 25-v (3 ohms) C.T., bal. 70-v (25 ohms) C.T. and 115-v (66 ohms) (for industrial uses)	Bal. 16 ohms, bal. 25-v (6.25 ohms) C.T., bal. 70-v (49 ohms) C.T. and 115-v (132 ohms) (for industrial uses)	Bal. 4, 8, 16 ohms, bal. 25-v (21 ohms), bal. 70-v (163 ohms)	Bal. 2.6, 8 and 16 ohms, bal. 25-v (10.4 ohms) C.T., bal. 70-v (82 ohms)	16 ohms, bal. 25-v (6 ohms) C.T., bal. 70-v (49 ohms) C.T., and 115-v (132 ohms) bal. (for industrial uses)
INPUTS	High imp.: 0.5 meg-ohms. Low imp.: 500/600 ohms with T161 or T165B line transformer	High imp.: 0.5 meg-ohms. Low imp.: 500/600 ohms with T161 or T165B line transformer	High imp.: 0.5 meg-ohms. Low imp.: 600 ohms with T161 or T165B line transformer	High imp.: 0.1 meg-ohms. Low imp.: 500/600 ohms with TL600 transformer; 10,000 ohms with TL10K transformer	High imp.: 0.1 meg-ohms. Low imp.: 500/600 ohms with TL600 transformer; 10,000 ohms with TL10K transformer
SENSITIVITY	High imp.: better than 2-v. Low imp.: with T161 transformer, better than 0.5-v	High imp.: better than 2-v. Low imp.: with T161 transformer, better than 0.5-v	High imp.: better than 2-v. Low imp.: with T161 transformer, better than 0.5-v	High imp.: 0.15-v. Low imp.: with TL600 transformer, 0.04-v	High imp.: 0.75-v. Low imp.: with TL600 transformer, 0.2-v
HUM (below rated output)	-80 db	-80 db	-80 db	-78 db	-80 db
TUBES or TRANSISTORS	(10) tubes and (3) silicon rectifiers: 7-7247, 8-9417	(5) tubes and (3) silicon rectifiers: 1-7247, 4-8417	(3) tubes and (2) silicon rectifiers, (1) bias sil.-diode 1-7247, 2-7668	(7) all silicon transistors and (7) diodes	(14) all silicon transistors, (1) Zener diode and (2) silicon rectifiers
POWER CONSUM.	500 watts	250 watts	105 watts	115 watts 105-125 VAC, 50/60 cps	215 watts 105-125 VAC, 50/60 cps, 12 A. at 15 VDC
DIMENSIONS	16" W, 11 1/2" D, 6" H	8" W, 13" D, 6 1/4" H	8" W, 13" D, 6 1/4" H	8" W, 13" D, 6 1/4" H	8" W, 13" D, 6" H
SHIP. WEIGHT	48 lbs.	29 lbs.	23 lbs.	17 lbs.	30 lbs.
NET EACH	\$247.50 (Zone 2: \$251.55)	\$142.40 (Zone 2: \$145.40)	\$89.95 (Zone 2: \$92.00)	\$112.40 (Zone 2: \$114.05)	\$209.95 (Zone 2: \$212.75)

MOBILE AMPLIFIERS



MU1250; 50w.
MOBILE
TRANSISTOR
PA AMPLIFIER □

Universal PA amplifier, operates on 12 VDC or 117 VAC, within a temperature range of -20°C. to +65°C. (-4°F. to 149°F.). This amplifier offers a variety of inputs: 2 mic., 2 aux., and 1 mag. phono/tape. A host of matching accessories are available: phono-top, control-guard locking plate, rack panel mounting kit, carrying case, remote volume controls and more. **Power Output:** 50 w. at 10% (continuous). **Peak Power:** 70 w. **Power Consumption:** Full power: 116 w. (117 VAC); 6.7 amps. (12 VDC). Quiescent: 16 w. (117 VAC); .3 amps. (12 VDC). **Freq. Response:** 30 to 15,000 cps $\pm$ 2 db. **Gain:** Mic. 125 db; Aux. 95 db. **Hum and Noise (below rated output):** Mic. -65 db; Aux. -70 db. **Output Imped:** 4, 8 and 16 ohms; 25 V. bal. line; 70 V. (122 ohms) bal. **Inputs:** 2 mic. (hi or low imp., no transformer required); 2 aux.; 1 mag. phono/tape. **Transistors:** 11 transistors and 3 silicon rectifiers. **Tone Controls:** Treble (10 KC) -17 db; Bass (50 cps) +10 db to -17 db. **Dimen:** 15 3/4" W, 10" D, 6 3/4" H. **Ship. Wt.** 23 lbs. **Net Each:** \$149.95 (Zone 2: \$151.20). Note: for a similar amplifier, but with a 20 w. output, refer to the CHB1225



BT500; 450w.
TRANSISTOR
MOBILE PA AMPLIFIER □

Ideal for use in aircraft for directing ground operations, for emergency police and fire vehicles, boats, and as a standby P.A. amplifier. Choice of square or sine wave operation. Operates at 14 or 28 VDC's. Full output from -20°C. (-4°F.) to +65°C. (+149°F.). Equipped with a low impedance mic. input, a high impedance, high level aux. input, and a siren/fog horn input. RF filter in microphone circuit. **Power Output:** Square wave: 450 w. with 28 VDC input, 150 w. with 14 VDC input. Sine wave: 390 w. with 28 VDC input, 100 w. with 14 VDC input. **Power Consumption:** with 28 VDC power input: square wave, 25 amp; sine wave, 21 amp; quiescent, 1.5 amp. With 14 VDC power input: square wave, 13 amp; sine wave, 11 amp; quiescent, 2.5 amp. Pos. or neg. ground with polarity protection. **Inputs:** 1 mic. (low imp.); 1 aux. (high level, high imp.); 1 siren/fog horn generator. **Output Imped:** With 28 VDC power input: 32, 16, 8, 4, 2 ohms. With 14 VDC power input: 16, 8, 4, 2, 1 ohms. **Controls:** Mic. volume, aux. volume, high frequency roll-off switch (at 3 KC or 12 KC), sine-square wave switch, power switch. **Transistors:** 20 (all silicon). **Dimen.:** 39 1/2" W, 14 1/4" D, 7 3/4" H. **Ship. Wt.** 11 lbs. **Net Each:** \$742.50 (Zone 2: \$744.30). **Microphone:** Use Shure 488B noise-cancelling, close talking 150 ohm (or equivalent). **Loudspeakers:** Use minimum of 4 Bogen model BP-5 reflex horn/driver units. (Write for eng. spec. sheet.)

BOGEN INTERCOMS

EXECUTIVE SERIES "9" INTERCOMS

For systems with up to 9 master and remote stations in any combination; featuring fully transistorized central amplifier; push-button convenience, simplified installation, with attractively styled brushed aluminum control panel in walnut wood cabinet. Selective call-common talk. "Hands free" answering.

OMW-9 MASTER STATION can call up to 8 master stations or remotes; 8 selector push-buttons; talk-listen lever; in-use light; volume control; 8-ohm speaker; walnut wood cabinet, brushed aluminum panel. Dimen.: 12 3/4" W x 5 1/2" H x 5" D. Ship. Wt.: 5 lbs. Net Each: \$49.95 (Zone 2: \$50.40)

OMF-9 MASTER STATION similar to OMW-9, but in metal box for flush mounting. Dimen.: 12" W x 4 3/4" H x 3 1/2" D. Ship. Wt.: 5 lbs. Net Each: \$45.95 (Zone 2: \$46.40)

OA-1 AMPLIFIER Fully transistorized, 105-125 VAC, 50/60 cps; 8 watts power consumption; 8-ohm imped.; Vol. control; power on/off. Mounts in any convenient location. Dimen.: 8 1/2" W x 4 3/4" H x 2 3/4" D. Ship. Wt.: 4 lbs. Net Each: \$48.75 (Zone 2: \$49.10)

TBS-8 REMOTE STATION for indoors or outdoors. 8-ohm weatherproof speaker. Dimen.: 7 1/2" 16" dia., 6 7/8" deep. Ship. Wt.: 4 lbs. Net Each: \$17.85 (Zone 2: \$17.85)

WB 6/L115-A REMOTE STATION walnut wood surface-mounting baffle; Bogen 6" cone speaker, 8-ohm impedance. Dimen.: 7 1/2" W, 9" H, 5" top, 3" base. Ship. Wt.: 4 lbs. Net Each: \$7.23 (Zone 2: \$7.56)

HCR-1 REMOTE STATION mounts in flush or surface box; for indoor or outdoor use. Stainless steel panel; 8-ohm speaker. Dimen.: 6 3/8" W x 4 1/2" H. Ship. Wt.: 1 lb. Net Each: \$8.85 (Zone 2: \$9.05)

Back boxes for HCR-1: RBR-F (flush mounting). Dimen.: 5 11/32" W, 3 3/4" H, 2 3/8" D. Ship. Wt.: 1 lb. Net Each: \$2.85 (Zone 2: \$3.05)

RBR-S (surface mounting) Dimen.: 6 3/8" W, 4 1/2" H, 2" D. Ship. Wt.: 1 lb. Net Each: \$7.90 (Zone 2: \$8.10)

SERIES "T" INTERCOMS

Fully transistorized intercoms of unlimited flexibility, high intelligibility, simple installation and unique styling. Permit multiple simultaneous conversations.

TIA-4 MASTER STATION (can call any other station). For systems up to 6 stations — all masters or one master plus remotes. Vol. control, talk-listen bar and 7-position selector (including "mute" and "all-call" positions.) Operates from 117 v. AC; 8 w. power consumption, 8 ohm speaker impedance. Dimen.: 7 3/4" W, 7" D, 4" H. Ship. Wt.: 4 lbs. Net Each: \$35.45 (Zone 2: \$36.00)

TIA-12 MASTER STATION For systems up to 12 stations. Similar to TIA-6 in design and operation but does not permit calling all stations simultaneously. Dimen. and Ship. Wt. same as TIA-6. Net Each: \$39.75 (Zone 2: \$40.10)

RIA-1 REMOTE STATION (can call only 1 pre-selected master and reply when called). Similar in appearance to TIA-6 with matching loudspeaker. Dimen.: same as TIA-6. Ship. Wt.: 3 lbs. Net Each: \$10.85 (Zone 2: \$11.15)

TIIM-12 MASTER STATION For intermix systems combining up to 12 masters and remotes in any combination. Same features as TIA-12; dimensions and ship. wt.: same as TIA-6. Net Each: \$47.95 (Zone 2: \$48.30)

RIIM-4 SELECTIVE REMOTE STATION (can call any of 6 pre-selected masters). Features, dimensions; same as TIIM-12. Ship. Wt.: 3 lbs. Net Each: \$23.90 (Zone 2: \$24.20)

SERIES "X" INTERCOMS

Rugged utility intercoms, used in an 11 or 22 station system (all masters or mixed masters and remotes); featuring push-button convenience, high intelligibility, and simple installation, housed in handsome tan and gold steel cabinets. Permit multiple simultaneous conversations.

Power Supply: 117 v. AC, 35 w. Output Impedance: 50 ohms balanced. Tubes: 3 (1 — 12AX7, 1 — 6WG6T, 1 — 6X4). Dimen.: X120B & X220B — 10" W, 7 1/2" D, 7" H.

X120B MASTER STATION can call up to 10 masters or remotes. 10 selector push-buttons, 6 ft. master cable ending in plug for solderless connections to junction box, complete with tubes. Ship. Wt.: 15 lbs. Net Each: \$84.90 (Zone 2: \$86.25)

X220B MASTER STATION can call up to 21 masters or remotes. 21 selector push-buttons, same features as X120B. Ship. Wt.: 16 lbs. Net Each: \$104.35 (Zone 2: \$105.80)

REM-1A REMOTE with call-initiating switch to 1 master — with vol. control and 6-ft. cable. Ship. Wt.: 3 lbs. Net Each: \$18.60 (Zone 2: \$18.85)

REM-3A REMOTE with selective call-initiating switch to 3 masters — with vol. control and 6-ft. cable. Ship. Wt.: 3 lbs. Net Each: \$22.65 (Zone 2: \$22.90)

HSX HANDSET for private conversation — attaches to X120B and X220B. Net Each: \$52.50 (Zone 2: \$52.60)

JB-2 JUNCTION BOX (one required for X120B; two for X220B) Net Each: \$6.40 (Zone 2: \$6.55)

INTERNAL PHONE SYSTEMS

TSL-BOGEN-PHONES — a unique and extremely flexible telephone system that provides multiple, simultaneous conversations without a costly central exchange. To call, lift phone, press selector button, and then ring-button . . . buzzer sounds at called station, person called lifts phone and starts conversation . . . no switching, no dialing, no switchboard delay. System provides 100% trunkage.

TSL-16 with 1 ring button and 15 station selector buttons. Dimen.: 9 1/2" W, 3 3/4" D, 3 3/4" H. Ship. Wt.: 4 lbs. Net Each: \$40.85 (Zone 2: \$41.20)

TSL-8 with 1 ring button and 7 station selector buttons. Same dimensions and Ship. Wt. as TSL-16. Net Each: \$34.25 (Zone 2: \$34.60)

PRS-16 Power Supply (1 required for each telephone system). Dimen.: 6" W, 2" D, 3 1/2" H. Ship. Wt.: 5 lbs. Net Each: \$38.25 (Zone 2: \$38.70)

TRC Phone-Page Adapter allows paging from Series TSL phones. Net Each: \$31.65 (Zone 2: \$31.90)

TQ BOGEN-PHONES — low-cost telephone system. To call, lift phone, press station button . . . buzzer sounds at called station . . . bypassing the switchboard. Selective ringing with common talk line. Handset with base is 9 1/2" x 3 1/4" x 3 1/4". Ship. Wt.: 5 lbs.; comes supplied with 4' snarlproof cord and junction box.

TQ-1A (pair) for 2-station systems. Net Per Pair: \$38.60 (Zone 2: \$39.00)

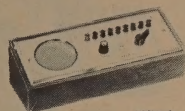
TQ-6A phone for up to 7-station system. Net Each: \$25.15 (Zone 2: \$25.50)

TQ-12A phone up to 13-station system. Net Each: \$28.30 (Zone 2: \$28.65)

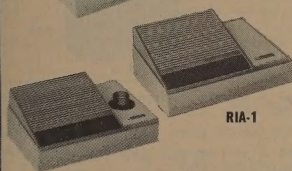
PRS-1A Power Supply (1 required for each system) Net Each: \$23.65 (Zone 2: \$23.95)

TRA Phone-Page Adapter allows paging from Series TQ phones. Net Each: \$31.65 (Zone 2: \$31.90)

PRS-5 Multi-mix Power Adapter to combine TQ-12A or TQ-6A phones with trumpets and PA amplifier. Net Each: \$97.30 (Zone 2: \$98.20)



OMW-9

TIA-6
TIA-12

RIA-1

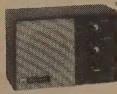
RIM-6



X220B



REM-1A



REM-3A



TSL-16



TQ-12A



TQ-1A



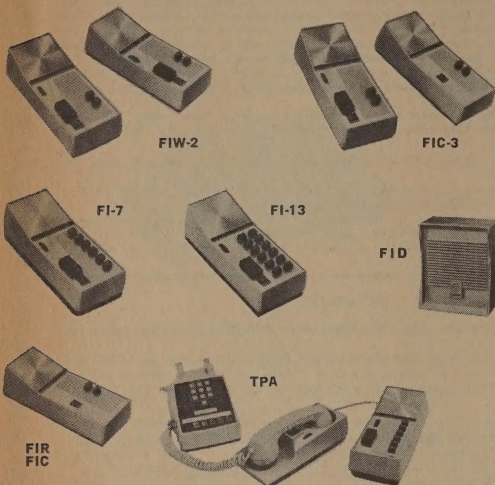
FANON



INTERCOMS FOR HOME AND BUSINESS

"FI" SERIES — DELUXE INTERCOM SYSTEM

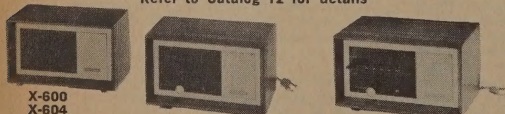
- Solid state circuits
- Push-button operation
- New styling



Refer to Catalog 15 for details

FIC-3	Trans. deluxe 2 station system with 50' cable	Net 33.50
FIS	Transistorized deluxe staff station for FIC-3	Net 26.50
FIC	Additional indoor remote for FIC-3	Net 8.95
FID-3	Transistorized deluxe 2 station door intercom system with 50' cable	Net 31.50
FID	Additional outdoor remote for "FI" series	Net 8.50
FI-3	Transistorized deluxe master only	Net 28.50
FI-7	Transistorized deluxe 7 station master for all-master or master to remote installation	Net 30.95
FI-13	Transistorized deluxe 13 station master for all master or master to remote installation	Net 43.50
FIR	Transistorized deluxe remote for FI-7, FI-13	Net 9.95
FIW-2	Transistorized deluxe 2 station, 2 channel wireless intercom system	Net 59.95
FIW-1	Additional wireless intercom station for FIW-2	Net 31.50
TPA	Telephone amplifier accessory for "FI" masters	Net 11.25
BM-3	Fire-sensing device for FIC-3, FID-3, FI-3	Net 3.50
PR-15	Paging and talkback relay accessory for FI-7, FI-13 master. Used with any PA system	Net 21.50

Refer to Catalog 12 for details

**EXECUTIVE SERIES INTERCOMS**

X-600	Deluxe two-station system with 50 ft. cable.	Net 37.50
X-610	Two station system, with 50 ft. cable, with X-601 master and, FSB remote.	Net 29.95
X-604	Deluxe two-station, 4 tube wireless intercom.	Net 62.95
X-602	Additional single station for X-604.	Net 32.95
X-601	Single station master for master-to-remote.	Net 23.95
X-606	Six station master for all master or master-to-remote. List	29.95
XR-01	Remote for X-600, X-601 and X-606.	Net 14.95

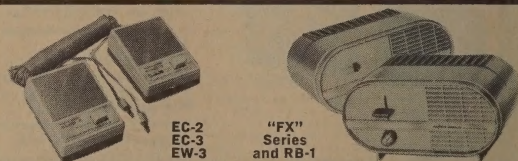
**TWO-STATION "PACKAGED" INTERCOMS
1600 SERIES — SOLID STATE INTERCOMS**

New economy series — Blister-packed for standard cartons



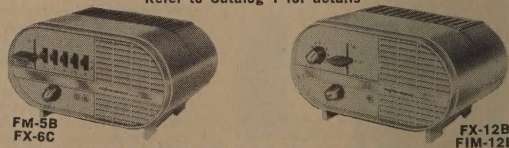
Refer to Catalog 16 for details

1600	Transistorized 2 station system w/built-in AC power supply and 50' cable	Net 15.95
1600DC	Same as above less AC power supply.	Net 13.50
ES-16	Transistorized 2 station door intercom w/built-in AC power supply and 50' cable	Net 16.75
ES-16DC	Same as above less A.C. power supply	Net 14.30
PS-16	AC power supply for 1600DC and ES-16DC	Net 3.20
1605	Single 5 station master for master to remote instal.	Net 14.95
1640	Transistorized 2 station wireless intercom	Net 29.95
1641	Additional single wireless station for 1640	Net 15.95
161	Additional outdoor remote for above systems	Net 5.25
162	Additional indoor remote for above systems	Net 4.50
2WP	50' 2 conductor cable with plug terminations	Net 1.50
2WP-100	100' 2 conductor cable with plug terminations	Net 2.25



EC-2	Transistorized battery operated two-station system with 50 ft. cable. Less battery	Net 9.95
EC-3	Transistorized, AC operated 2-station system	Net 11.95
EW-3	Transistorized, AC, 2-station wireless system	Net 19.95
FX-2B	Deluxe two-station system with 50 ft. cable	Net 26.95
FW-50B	Deluxe two-station, 4 tube wireless intercom system.	Net 49.95
RB-1	One station-wireless radio intercom	Net 14.50
FSB	Additional remote with 50 ft. cable for FX-2B	Net 9.50
FW-51B	Additional station for FW-50B	Net 25.45

Refer to Catalog 1 for details

**SIX AND TWELVE STATION MASTERS**

FM-5B	Five station master for master-to-remote installations with "remote-to-remote" talking feature.	Net 26.95
FX-6C	Six station master for all master or master-to-remote.	Net 25.45
FX-12B	Eleven station master for master or master-to-remote.	Net 31.45
FIM-12B	Twelve station master for complete intermixed type.	Net 34.50
FCB	Remote for FM-5B, FX-6C, FX-12B and FIM-12B.	Net 10.25
FC-6B	Six station selective remote, for FIM-12B only.	Net 14.95

FANON

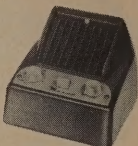


INTERCOMS

Refer to Catalog 2 for details



IJM - MF - CAM Series



INDUSTRIAL INTERCOMS

JMR	Two station system with 50 ft. cable.	Net 44.95
WF-2	WIRELESS FONE. Two station wireless system. Net	82.50
SSW	Additional single station for WF-2.	Net 41.95
IJM-5	Six station master for all master or master-to-remote installations.	Net 37.50
IJM-10	Eleven station master for all master or master-to-remote installations.	Net 42.75

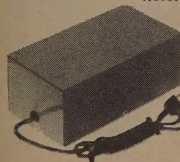
AC-DC Balanced Line Types:

MF-5	MULTIFONE. Six station master for all master, master-to-remote or intermixed installations.	Net 56.25
MF-10	MULTIFONE. Eleven station master for all master, master-to-remote or intermixed installations.	Net 56.25

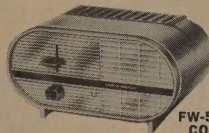
AC Transformer Powered, Balanced Line Types:

CAM-5	MASCOFONE. Six station master for all master, master-to-remote or intermixed installations.	Net 56.95
CAM-10	MASCOFINE. Eleven station master for all master, master-to-remote or intermixed installations.	Net 62.95
JR	Remote with call switch used with JMR, IJM-5, IJM-10. Net	14.25
JL	Remote less call switch (non-private). Used with all above industrial intercoms.	Net 13.50
JS	Remote with call switch. Used with MF-5, MF-10, CAM-5, CAM-10.	Net 17.25
JS-6	Remote with call switch and six-station selector switch. Used with MF-5, MF-10, CAM-5, CAM-10.	Net 26.95
JL		

Refer to Catalog P-1 for details



WP-1
WPT-2



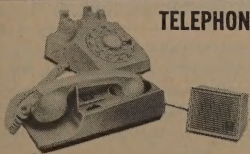
FW-51B
CO-1

WIRE-LESS PAGING SYSTEMS

WP-1	Transistorized paging Amplifier less Talk-Back. Net	39.50
FW-51B	Wireless Call-Originator for WP-1.	Net 25.45
WPT-2	Transistorized paging Amplifier with Talk-Back. Net	74.95
CO-1	Wireless Call-Originator for WPT-2.	Net 32.95

TELEPHONE AMPLIFIER

Refer to Catalog 7 for details



FTA-4	Telephone amplifier, transistorized with extension speaker	Net 14.95
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FANON



BUILT-IN INTERCOMS



5509



56



BC



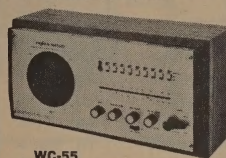
MC
MCL



4405



BD



WC-55



WC-56



Refer to Catalog 6 for details

Masters	Specify copper or chrome finish.
4405	Six station, transistorized master with plaster box. Net 37.50
MCL	Seven station master, less radio, with plaster box. Net 34.25
MC	Seven station master with AM radio, and plaster box. Net 52.50
5509	Ten station master with AM-FM radio and plaster box. Net 107.25
WC-55	Walnut table top cabinet for 5509 master. Net 23.95
WC-56	Walnut cabinet for 56 remote, for desk or wall. Net 9.75
Remotes	
BC	Indoor remote. With plaster ring. Used with 4405, MCL and MC. Net 6.50
BD	Outdoor remote. With plaster ring. Used with 4405, MCL, MC and 5509. Net 6.50
BDR	Outdoor remote with bell button. With plaster ring. Used with 4405, MCL, MC and 5509. Net 7.95
BJ	Indoor remote with phono jack. With plaster ring. Used with 4405, MCL and MC. Net 8.95
DRPB	Surface mount, outdoor-remote with switch and bell button. Less wall box. Used with 4405, MCL, MC and 5509. Net 8.90
FB	Surface mount outdoor-remote with bell button, less switch. Less wall box. Used with 4405, MCL, MC, 5509. Net 6.75
FO	Surface mount outdoor remote less switch. Less wall box. Used with 4405, MCL, MC, 5509. Net 5.95
56	Indoor remote. With plaster ring. Used with 5509. Net 10.50
FMB	Surface mount wall box for DRPB, FB and FO. Net 6.75
WJT	Phono input assembly & wall box, used with 5509 master. Net 3.00

A system is made up of a "roughing-in" package and its respective "electronic" package.

"Roughing-In" Packages

IK	Consists of all plaster boxes and wire required for EKL, or EK. Net 13.50
44-IK	Consists of all plaster boxes and wire required for 44-EK. Net 13.50
55-IK	Consists of all plaster boxes and wire required for 55-EK. Net 18.75

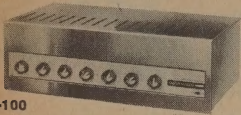
"Electronic Equipment" Packages

Specify copper or chrome

EKL	Consists of MCL, three BC and one BD. Less plaster boxes and wire. Net 53.95
EK	Consists of MC, three BC and one BD. Less plaster boxes and wire. Net 62.95
44-EK	Consists of 4405, three BC and one BD. Less plaster boxes and wire. Net 44.95
55-EK	Consists of 5509, three 56 and one BD. Less plaster boxes and wire. Net 127.50

FANON**AMPLIFIERS, P.A. SYSTEMS, HORNS & SPEAKERS**

Refer to Catalog 3D for details

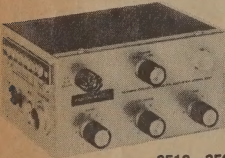
FMA-65
FMA-35BC-350
with MH-3

FMA-100



FMA-20

FMA-100	100 watt, POWER-FLEX P.A. amplifier.	Net 119.95
FMA-65	65 watt, POWER-FLEX P.A. amplifier.	Net 101.25
FMA-35	35 watt, POWER-FLEX P.A. amplifier.	Net 78.75
FMA-20	20 watt, POWER-FLEX P.A. amplifier.	Net 62.95
FMA-11	11 watt, POWER-FLEX P.A. amplifier.	Net 44.95
FMB-100	100 watt, POWER-FLEX booster amplifier.	Net 108.75
FMB-65	65 watt, POWER-FLEX booster amplifier.	Net 89.95
ARM	Above amplifiers mounted on 19" rack panel, add:	14.95
BC-350	35 watt FM/AM receiver and P.A. amplifier ...	Net 179.95
MH-3	Metal cover for BC-350.	Net 14.95
ASC-10	Speaker area selector control.	Net 20.25
BMT	600 ohm balanced line transformer.	Net 19.45
CCP-1	Control cover for 100, 65 and 35 w. amplifiers	Net 7.50
LZT	Low impedance microphone transformer.	Net 17.25
MP-2	Two channel microphone preamplifier.	Net 20.25
PPC-1	Priority paging control.	Net 9.75
RMC-2	Remote microphone volume control.	Net 8.25
3600	Phono turntable, 117v AC.	Net 27.00
3604	Automatic 4-speed changer with base.	Net 44.95
S-2	Systems case with two 12" speakers, cables, plugs.	Net 59.95
MM-4	4 channel microphone mixer.	Net 18.75



3512-3527



FMM-35AD

3512	12 watt, transistorized P.A. for 12v DC.	Net 52.50
3527	27 watt, transistorized P.A. for 12v DC.	Net 62.95
FMM-35AD	35 watt, transistorized P.A. for 12v DC or 117v AC.	Net 104.95
PS-27	117v AC power supply for 3512 and 3527.	Net 37.50
3612	Phono turntable for 12v DC.	Net 34.50

Refer to Catalog C-6 for details



MV-2

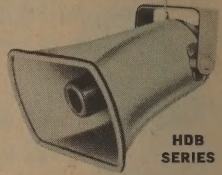


MV-1

MV-4
MV-8B
MV-16S

MV-1	Electric, battery powered megaphone.	Net 26.95
MV-2	Transistorized, 1 watt battery powered megaphone.	Net 14.95
MV-4	Transistorized, 4 watt battery powered megaphone.	Net 44.95
MV-8B	Transistorized, 8 watt battery powered megaphone.	Net 59.95
MV-16S	Transistorized, 16 watt battery powered megaphone with built-in siren alarm.	Net 74.95
MVS-5	Transistorized, 8 watt portable P.A. system.	Net 67.50
CL-16	Auto cigarette lighter adaptor cord for MV-16S.	Net 4.50
MVR	Auto window rack holder for MVS-5.	Net 3.00

Refer to Catalog 11 for details

HDA
SERIESHDB
SERIES**FANON PAGING AND TALKBACK SPEAKERS**

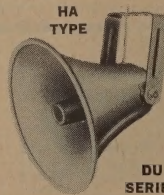
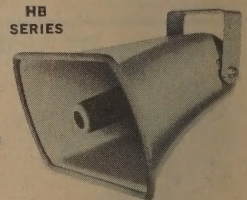
HDA-5A-8	10 watt—swivel base—4" bell, 8 ohms	Net 7.45
HDA-5A-45	10 watt—swivel base—5¼" bell, 45 ohms	Net 7.90
HDA-6-8	15 watt—swivel base—6½" bell, 8 ohms	Net 13.30
HDA-6-45	15 watt—swivel base—6½" bell, 45 ohms	Net 13.75
HDA-10-8	30 watt—swivel base—10" bell, 8 ohms	Net 18.25
HDA-10-45	30 watt—swivel base—10" bell, 45 ohms	Net 18.75
HDB-8-8	25 watt—wide angle—8½x5½" bell, 8 ohms	Net 18.25
HDB-8-45	25 watt—wide angle—8½x5½" bell, 45 ohms	Net 18.75
HDB-12-8	30 watt—wide angle—11x6½" bell 8 ohms	Net 24.95
HDB-12-45	30 watt—wide angle—11x6½" bell, 45 ohms	Net 25.40

HFA
SERIES

HS-9

FANON HI-FIDELITY AND SPECIAL PURPOSE

HFA-8	5 watt—swivel base—8" bell, 4 ohms	Net 13.75
HFA-12	10 watt—co-axial—12" bell, 8 ohms	Net 29.95
HS-9	10 watt—flush mount—6x9", 8 ohms	Net 16.60

HA
TYPEDU
SERIESHB
SERIES**FANON REFLEX TRUMPETS**

HA-15	2½ ft. air column—15" bell	Net 16.60
HA-20	3½ ft. air column—20" bell	Net 19.95
HB-15	2½ ft. air column—15x 8" wide angle	Net 21.60
HB-20	3½ ft. air column—20x10" wide angle	Net 23.25

FANON HIGH POWER DRIVERS

DU-25	25 watt, deluxe weatherproof driver, 16 ohms.	Net 12.50
DU-35	35 watt, deluxe weatherproof driver, 16 ohms.	Net 16.60
DU-45	45 watt, deluxe weatherproof driver, 16 ohms.	Net 21.60
DU-60	60 watt, deluxe weatherproof driver, 16 ohms.	Net 26.60
DU-35T	35 watt with transformer, weatherproof 16 ohms.	Net 23.25
DU-60T	60 watt with transformer, weatherproof, 16 ohms	Net 32.25

Refer to Catalog C-2 for details

TWO WATTS THREE CHANNELS

L-2000 "CHIEFTAN" 13 TRANSISTORS

The ultimate in professional quality hand-held transceivers. For performance, range, selectivity and sensitivity, "Chieftan" is the finest.

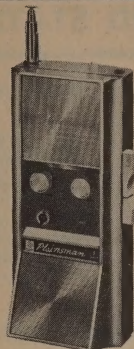
- 3 Channel operation (equipped for ch. 9).
- RF output and battery strength meter
- Separate mike and speaker
- Variable squelch control
- Jack for external 12v. power source
- Jack for external antenna
- "Beep" Tone signal to call other units
- Selective calling with optional CT-5 adapter to signal up to 5 on Channel A and 5 on Channel B

L-2000

L-2000 "Chieftan" 13 transistors, 2 watts, Single transceiver. Earphone, batteries, strap Net 79.95

OPTIONAL ACCESSORIES FOR L-2000 AND L-1000

CT-5 5 Station Call-Tone Selector Net 16.50
PS-150 Transistorized AC power supply and battery recharger Net 25.50
RBP-10 Rechargeable nickel-cadmium batteries (10) in interchangeable holder-pack Net 19.50
LC-6 Leather carrying case Net 4.50



L-1000

ONE WATT THREE CHANNELS "PLAINSMAN"— 11 Transistors

Three channel operation (equipped for channel 9) in a full one watt professional unit. Basically the same as L-2000, but without the RF output meter. All other features are same as L-2000 and can be used with the same accessories

L-1000 — "Plainsman" 11 transistors, 1 watt. Single transceiver. Earphone, batteries, strap. Net 52.50



FCB-3A



FCB-4A



FCB-5A



FCB-6



FCB-90



FCB-91



DCB-92

TRANSCEIVERS (PAIRS)

FCB-33A "Explorer" 3 transistors, 2 transceivers. Batteries and cases included Net 14.95
FCB-44A "Mariner 4" 4 transistors, 2 transceivers. Batteries, and cases included Net 17.95
FCB-55A "Adventurer" 5 transistors, 2 transceivers. Batteries, earphones and cases included Net 22.50
FCB-66 "Vagabond" Superhet, 6 transistors, 2 transceivers. Batteries, earphones and cases included Net 29.95
FCB-900 "Voyager" 9 transistors, 2 transceivers, 100 mw. Batteries, earphones and cases included Net 39.95
FCB-910 "Wanderer" 9 transistors 2 deluxe transceivers, 100mw. Batteries, earphones and straps included Net 44.95
DCB-920 "Scout" 9 transistors, 2 deluxe transceivers, 100 mw. 3 Channels. Batteries, earphones and straps included Net 59.95

TRANSCEIVERS (SINGLES)

FCB-33A "Explorer" 3 transistors. Single transceiver. Battery and case Net 7.50
FCB-44A "Mariner 4" 4 transistors. Single transceiver. Battery and case Net 9.00
FCB-55A "Adventurer" 5 transistors. Single transceiver. Battery, earphone and case Net 11.25
FCB-66 "Vagabond" Superhet 6 transistors. Single transceiver. Earphone, case and battery Net 15.00
FCB-90 "Voyager" 9 transistors 100mw. Single transceiver. Battery, earphone and case Net 19.95
FCB-91 "Wanderer" 9 transistors. Single deluxe transceiver. 100mw. Batteries, earphone and strap Net 22.50
DCB-92 "Scout" 9 transistors. Deluxe single transceiver. 100mw. 3 Channels. Batteries, earphone and strap Net 29.95

ACCESSORIES FOR C. B. TRANSCEIVERS

PS-140 A.C. power supply for DCB-92 and DCB-11 Net 4.50
LC-3 Leather case for FCB-91 Net 3.00
LC-4 Leather case for DCB-92, DCB-11 and DCL-50 Net 3.75
RBP-8 Rechargeable nickel-cadmium batteries (8) in interchangeable holder-pack for DCB-92 Net 15.75



DCL-50

500 MILLIWATT DCL-50 "PATHFINDER" 11 TRANSISTORS

- 3 Channel operation, (equipped for ch. 9)
- Battery strength meter
- Variable squelch control
- "Beep" Tone signal
- Selective calling with optional CT-5

DCL-500 "Pathfinder" 11 transistors, 500mw. Pair of transceivers. Earphones, batteries, strap Net 79.95

DCL-50 Single transceiver with earphone, battery and strap Net 39.95

DCB-11 "OUTRIDER" 11 Transistors

Basically the same as DCL-50 but rated at 100 milliwatts. Same features as DCL-50 and can be used with same accessories.

DCB-111 "Outrider" 11 transistors, 100mw. Pair of transceivers. Earphones, battery, strap Net 67.50
DCB-11 Single transceiver with earphone, battery and strap Net 33.75
PS-150 OPTIONAL ACCESSORIES FOR DCL-50 and DCB-11 AC power supply and batt. rech. Net 25.50
CT-5 5 Station Call-Tone Selector Net 16.50
RBP-8 Rechargeable nickel-cadmium batteries (8) in interchangeable holder-pack Net 15.75
LC-4 Leather carrying case Net 3.75



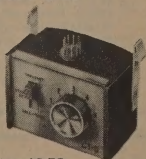
DCB-11

5 STATION CALL-TONE SELECTOR

Signals 5 transceivers selectively on each channel

A compatible unit that fits built-in plugs in L-2000, L-1000, DCL-50 and DCB-11. Eliminates listening to unwanted calls and constant background "noise." Frequency controlled tone selectively chooses just the party being called... completely bypasses all others. Up to 15 transceivers can be called (5 on each of the channels A, B and C). Other units must be equipped with CT-5 for this exclusive feature.

CT-5 5 station Call-Tone Selector Net 16.50
LC-5 Optional leather case Net 1.90



CT-5

JERROLD

ULTRA-RELIABLE SOLID STATE PA SYSTEMS



CA-50T 50 watts RMS • 2 microphone inputs, expandable to 4 • "Heat Guard"

- 12-volt circuitry simplifies conversion to battery operation for mobile, outdoor or emergency applications • full-rated output with 117 V/ac or 12 V/dc • provision for additional microphone inputs • 2 auxiliary

MAXIMUM RELIABILITY FROM TRANSISTORS AND 12-VOLT OPERATION!

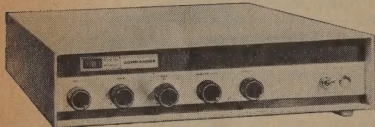
Jerrold solid state amplifiers eliminate both excessive heat and component strain — the major causes of costly service calls. These unique amplifiers convert the usual 117 volt AC supply down to 12 volts DC so all circuits operate on very low voltages. All circuit components last longer because they are never subjected to the strain of high voltages. And output transistors are protected against damage from shorted or open speaker lines. High-power models have a "Heat Guard" that automatically shuts off the amplifier to avoid damage from excessively high ambient temperatures.

JERROLD QUALITY AND VERSATILITY

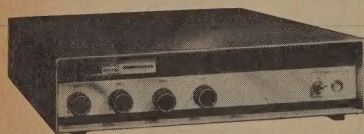
- inputs with fader control • 4, 8, and 16 ohm outputs, plus 25V and 70.7V balanced lines • heavy duty toggle switch • power "on" light • complete with protective metal cover.



CA-35T 35 watts RMS
• 2 microphone inputs, expandable to 4.



CA-15T 15 watts RMS
• 2 microphone inputs, expandable to 4.



CA-10T 10 watts RMS
• 1 microphone input, expandable to 3.

COMMANDER AMPLIFIERS

SPECIFICATIONS	CA-10T	CA-15T	CA-35T	CA-50T
POWER OUTPUT	10 watts RMS	15 watts RMS	35 watts RMS	50 watts RMS
PEAK POWER	20 watts	30 watts	70 watts	100 watts
POWER REQUIREMENT	117V, 60 cyc AC; 12V/dc with DCK-1	117V, 60 cyc AC; 12V/dc with DCK-1	117V, 60 cyc AC; 12V/dc with DCK-1	117V, 60 cyc AC; 12V/dc with DCK-1
FREQUENCY RESPONSE	30 to 20,000 Hz	20 to 20,000 Hz	20 to 20,000 Hz	20 to 20,000 Hz
SENSITIVITY	mic. 5MV; aux. 25V	mic. 5MV; aux. 25V	mic. 5MV; aux. 25V	mic. 5MV; aux. 25V
INPUTS	1 hi-impedance mic (add 2 with CPX-2T) 2 aux hi-level, hi-impedance; 600 ohm balanced with MBT-2 transformer	2 hi-impedance mic (add 2 with CPX-2T) 2 aux hi-level, hi-impedance; 600 ohm balanced with MBT-2 transformer	2 hi-impedance mic (add 2 with CPX-2T) 2 aux hi-level, hi-impedance; 600 ohm balanced with MBT-2 transformer	2 hi-impedance mic (add 2 with CPX-2T) 2 aux hi-level, hi-impedance; 600 ohm balanced with MBT-2 transformer
"HEAT GUARD"	—	—	—	Yes
OUTPUT IMPEDANCE	4, 8, & 16 ohms; 25V & 70.7V	4, 8, & 16 ohms; 25V & 70.7V	4, 8, & 16 ohms; 25V & 70.7V balanced	4, 8, & 16 ohms; 25V & 70.7V balanced
CONTROLS (with reset indicators to mark desired levels)	1 mic level, 2 aux level, treble, power toggle, "on" light	2 mic levels, aux fader, treble, power toggle, "on" light	2 mic levels, bass & treble, master gain, power toggle, "on" light	2 mic levels, bass & treble, master gain, power toggle, "on" light
TONE CONTROL	—	—	—	—
BASS CUT	—	—	—	—
TREBLE CUT	— 12 db at 10kHz	— 12 db at 10kHz	— 12 db at 50 Hz — 12 db at 10kHz	— 12 db at 50 Hz — 12 db at 10kHz
DIMENSIONS	14 7/8" W x 8 5/8" D x 3 1/4" H	14 7/8" W x 8 5/8" D x 3 1/4" H	14 7/8" W x 8 5/8" D x 3 1/4" H	15 1/2" W x 9 3/4" D x 5" H
DEALER NET	\$67.50	\$83.95	\$97.45	\$119.95

Prices and specifications subject to change without notice



CAT-1000 SOLID STATE AM/FM TUNER

Crisp, drift-free sound. All-transistor design eliminates excessive heat, the major cause of component deterioration. It's rock stable, never needs realignment! SPECS: FM—sensitivity 2.5 μ V • Peak-to-peak separation 600 kc • image rejection 45 db . . . AM—sensitivity 50 μ V • built-in loopstick antenna; provision for external antenna • image rejection 50 db • dealer net \$150.00.



GT-2000 SOLID STATE AM/FM TUNER

Meets Professional requirements. Has audio compression switch to maintain tuner output at constant level. Overload and crosstalk from strong signals prevented by exclusive circuits. Programs can be monitored with tuner output disconnected from system. SPECS: FM—sensitivity 2.5 μ V • image rejection better than 45 db . . . AM—sensitivity 50 μ V • built-in loopstick antenna; monitor headphone jack • dealer net \$197.25.

JERROLD

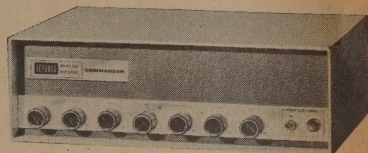
COMMERCIAL SOUND DIVISION

PROFESSIONAL SOLID STATE AMPLIFIERS

JERROLD

EXTRA RELIABILITY, VERSATILITY AND CONVENIENCE!

Like all Jerrold amplifiers, Professional models feature all-transistor 12-volt operation which eliminates the two major causes of service calls—excessive heat and high voltage component strain. In addition, they perform superbly and are especially convenient to install, operate and to expand in the future. The number of high impedance microphone inputs can be increased with a pre-amplifier that mounts inside the cabinet. All microphone inputs have snap-on Cannon connectors and individual front panel level controls. All may be individually matched to low impedance microphones with on-chassis, plug-in transformers. A precedence relay socket makes addition of paging fast and easy. Two auxiliary inputs have a fader control for radio, phono or FM tuner. There is also provision for magnetic phono input.



CAP-40T 40 watts RMS • 3 mic inputs, expandable to 5 • "Heat Guard" • provisions for precedence and mag. phono.

BUILT-IN QUALITY

• Easy conversion to battery operation for mobile, outdoor or emergency use • Crisp, clean sound • 4, 8 and 16 ohm outputs • 25V and 70.7V balanced lines for installing more speakers over longer distances with

greater ease • Accessory provides balanced 600 ohm input for telephone or wired music • Conservatively rated components • Complete with metal cover.

COMMANDER PROFESSIONAL AMPLIFIERS

SPECIFICATIONS	CAP-25T	CAP-40T
POWER OUTPUT	25 watts RMS	40 watts RMS
PEAK POWER	50 watts	80 watts
POWER REQUIREMENT	117V, 60 cyc AC; 12V/dc with DCK-1	117V, 60 cyc AC; 12V/dc with DCK-1
FREQUENCY RESPONSE	20 to 20,000 Hz	20 to 20,000 Hz
SENSITIVITY	mic 5 MV; aux. 25V; mag. phono 5 MV	mic 5 MV; aux. 25V; mag. phono 5 MV
INPUTS	2 hi-impedance mic (add 2 with CPR-2T) 1 mag. phono, 2 aux.; 600 ohm balanced with MBT-2 transformer.	3 hi-impedance mic (add 2 with CPR-2T) 1 mag. phono, 2 aux.; 600 ohm balanced with MBT-2 transformer.
"HEAT GUARD"	—	Yes
OUTPUT IMPEDANCE	4, 8, & 16 ohms; 25V & 70.7V balanced	4, 8, & 16 ohms; 25V & 70.7V balanced
CONTROLS (with reset indicators to mark desired levels)	2 mic. levels, aux fader, bass and treble, master gain, power toggle, "on" light	3 mic. levels, aux fader, bass and treble, master gain, power toggle, "on" light
TONE CONTROL BASS CUT TREBLE CUT	— 12 db at 50 Hz — 12 db at 10,000 Hz	— 12 db at 50 Hz — 12 db at 10,000 Hz
DIMENSIONS	15¼"W x 9⅝"D x 5"H	15¼"W x 9⅝"D x 5"H
DEALER NET	\$109.45	\$134.95

Prices and specifications subject to change without notice.



CAP-25T 25 watts RMS • 2 mic inputs, expandable to 4 • provisions for precedence and mag. phono.

SOLID STATE CB-40T BOOSTER AMPLIFIER

Easy system expansion • inputs of several boosters can be paralleled to provide greater flexibility • 40 watts RMS • 80 watts peak power • 4, 8, 16 ohm outputs • 25V and 70.7V balanced lines. Dealer Net \$99.45.

CAP-6T SOLID STATE COMMANDER PROFESSIONAL MIXER PRE-AMPLIFIER

4 microphone inputs with Cannon connectors, expandable to 6 • 2 separate auxiliary inputs and controls • bass, treble and master gain control • built-in VU meter • provision for plug-in matching microphone transformers • +12 dbm output • Dealer Net \$134.95.

JERROLD MATCHED ACCESSORIES FOR FULL FLEXIBILITY

	Dealer Net		Dealer Net
★ PK-1 plug-in precedence relay—for Professional models.	\$11.95	★ LOW-IMPEDANCE MICROPHONE INPUT MATCHING TRANSFORMERS — XT-1 for 30 to 50 ohms, XT-2 for 120-150 ohms, XT-3 for 500-600 ohms.	\$12.60
★ DCK-1 POWER SUPPLY CONVERSION KIT — mounts inside cabinet for conversion to 12V/dc operation.	\$15.30	★ A-95-A CABLE-TYPE LOW IMPEDANCE MICROPHONE MATCHING TRANSFORMER.	
★ MBT-2 BALANCED 600 ohm INPUT TRANSFORMER — for telephone or wired music lines.	\$17.95	★ RACK MOUNTS — available for easy mounting of every model.	\$17.95
★ CPR-2T TWO INPUT MICROPHONE PRE-AMP — for CA-50T, CAP-40T, and CAP-25T.	\$38.25	★ CS-2 CARRYING CASE — available for every model.	\$70.44
★ CPX-2T TWO INPUT MICROPHONE PRE-AMP — for CA-35T, CA-15T, and CA-10T.	\$30.60		

COMMERCIAL SOUND DIVISION

JERROLD

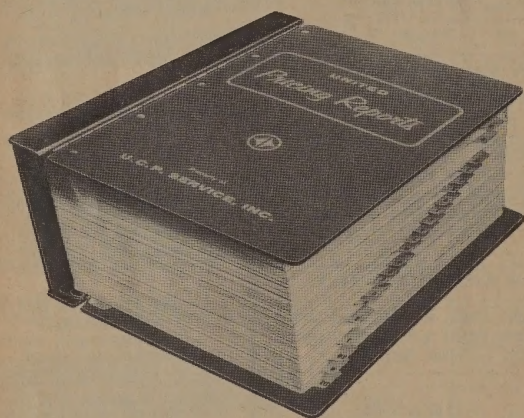
PRICES

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NEWCOMB

PORTABLE PHONOGRAPHS &
TRANSCRIPTION
PLAYER / P. A. SYSTEMS

R&RT
SERIES

R SERIES ARE VACUUM TUBE MODELS, teaching tools of moderate cost and proven reliability. They are built for intensive usage with maximum reliability, optimum performance, and minimum maintenance; they include many convenience, performance, and safety features.

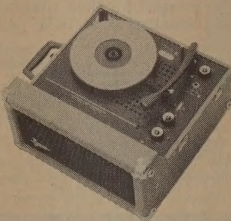
RUGGEDLY BUILT, both R and RT Series models have cases made of crack-proof, warp-proof, glue-blocked plywood covered with warm gray, washable, scratch-resistant vinyl. They are further protected with metal corners and kickproof, die-formed, perforated metal grilles and vent plates. Come-apart hinges obviate the most vulnerable part of case construction. Ready access for servicing is provided. Cases rest on spring-floated feet. All are transformer powered for maximum safety and best performance. All are UL approved. Made in the U.S.A. Handy bid specifications are available from the factory to authorized personnel. Condensed operating instructions in large type and clearly illustrated are plastic-coated and permanently mounted in lids. SPECIFICATIONS AND PRICES ARE SUBJECT TO CHANGE WITHOUT NOTICE.

RT SERIES MODELS WITH TRANSPSPECTRUM SOUND ARE FULLY TRANSISTORIZED. The purity and range of Transpectrum Sound is not only the result of using transistors properly in completely new and original circuitry, but more importantly it is the result of Newcomb's interrelationship engineering — the precise matching and balancing of all parts of the system so that the performance of the whole machine exceeds what might be expected from summing up the contributions made by the various components. All RT phono-graphs are equipped with Newcomb's lighted Instant Stop-Pause-Go control, the finest instructional pause device on the market.

MODEL R-124

Monophonic Phonograph

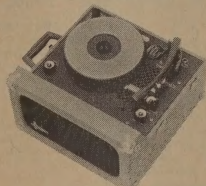
The Newcomb Model R-124 high fidelity, transformer-powered phonograph is an extraordinary combination of ruggedness and high fidelity sound — in every respect an outstanding value. It has an instant-start, 4-speed motor. Idle release is interlocked with a separate motor switch. A "Bi-Coupled" 12 watt vacuum tube output system drives a weighty 6" x 9" oval dual-cone high fidelity loudspeaker. High fidelity cartridge is a "Power Point" plug-in type. Turntable has a rubber mat and "twist-up" 45 center spindle. There is a standard phone jack for external speaker, headphones, or Newcomb Headphone Listening Center accessory. Power cord stows in a Hideaway compartment on side of case. Dual-acting bass-treble tone control matches source material to listening requirements. Volume control is compensated for realistic balance at low sound levels. Dimensions: 8 1/4" x 14 3/4" x 14 3/4"; weight 20 pounds. 117 volts, 60 cycles a.c. Transformer powered. UL approved. **MODEL R-124, fixed speed, 4 speed, PROFESSIONAL NET \$69.50** **MODEL R-124V, variable speed, 4 speed, with tempo control to vary speed as much as 20%, PROFESSIONAL NET \$85.95**



MODEL R12-C4

Monophonic Phonograph

A transformer-powered ten-watt utility model, the R12-C4 provides safety, dependability, and high performance at low cost. The powerful output system is stabilized with inverse feedback to maintain intelligibility at all volume levels. It is carefully matched to a 9" oval dual-cone loudspeaker. The tweeter cone markedly improves distribution and treble response. Cartridge is heat- and moisture-resistant ceramic "Power Point" type with turnover dual-spindle styli. The R12-C4 is equipped with a rubber record mat and "twist-up" 45 center post, output jack for headphones or external speaker, drop pad to protect pickup, positive tone arm lock screw, pilot light, and a tuckaway compartment in deck for cord storage. It has a bass-treble tone control, compensated volume control, and main power switch that turns off everything including idler pressure. Dimensions: 8 1/4" x 14 3/4" x 14 3/4"; weight 19 pounds. 117 volts, 60 cycles a.c. Transformer powered. UL approved. **MODEL R12-C4, fixed speed, 4 speed, PROFESSIONAL NET \$62.50**



MODEL R-164

Monophonic Portable Combination Transcription Player P.A. System

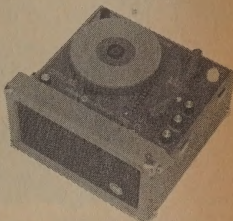
The R-164 is a versatile, medium-powered, portable combination transcription player/p.a. system that will play any size record up to 17 1/2" masters. Carefully matched to the 12 watt "Bi-Coupled" output system is a round 12" dual-cone high fidelity loudspeaker with 25" cord whose enclosure forms the top lid of the case. On the slanted, lighted operating panel are volume-mixing controls, separate treble control, bass control that does not affect voice. There is a mike input jack, and an output jack for the speaker, headphones, or Newcomb Listening Center Accessory. The R-164 has a long tone arm of cast metal. "Power Point" type plug-in ceramic high fidelity cartridge, rubber record mat, "twist-up" 45 spindle, pickup stop and lock screw, jeweled pilot light, Hideaway cord storage, idler-retracting separate power switch. Dimensions 11" x 15 1/2" x 15 1/2"; weight 25 pounds. 117 volts, 60 cycles a.c. Transformer powered. UL approved. **MODEL R-164, fixed speed, 4 speed, PROFESSIONAL NET \$93.25** **MODEL R-164V, variable speed, 4 speed, with tempo control to vary speed as much as 20%, PROFESSIONAL NET \$107.50**



MODEL RT-20

Transistorized Monophonic Phonograph

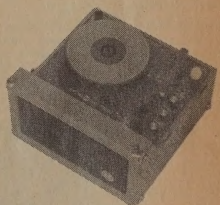
A deluxe, high quality, transformer-powered phonograph, the RT-20 has a 20 watt amplifier with 7 solid-state elements and 20-20,000 cycle response. Loudspeaker is a 6" x 9" oval unit of exceptional efficiency and fidelity. Transistors are mounted on a chimney-shaped aluminum heat sink which concentrate air flow for efficient cooling. The high compliance, high fidelity cartridge with jewel styli is the ceramic turnover plug-in type proven preferable for school use. It safely plays stereo as well as mono discs. The RT-20 has separate wide-range bass and treble tone controls which adjust to provide best reproduction of all program material from voice narration to symphonic music, compensated volume control, numbered calibrations on controls for instant return to previously selected settings. There is an output-to-tape jack, a headphone output pack, a new and improved pickup arm mount, new arm-and-styles guard of advanced design. Hideaway a.c. stowage compartment. Bright pilot light is in the Newcomb Instant Stop-Pause-Go control. Dimensions: 14" x 14" x 8"; weight 17 1/2 pounds. 117 volts, 60 cycles a.c. Transformer powered. UL approved. **MODEL RT-20, fixed speed, 4 speed, PROFESSIONAL NET \$78.50** **MODEL RT-20V, variable speed, 4 speed, with tempo control to vary speed from +5% to -15% and lighted strobe, PROFESSIONAL NET \$93.50**



MODEL RT-20B

Transistorized Monophonic Phonograph

An economical unit that retains Newcomb's matchless dependability and delivers fine sound, the RT-20B has a transformer-powered 20 watt amplifier utilizing 7 solid-state elements with a 20-20,000 cycle frequency response and a 6" x 9" oval dual-cone high fidelity loudspeaker. The high fidelity, high compliance cartridge safely plays either stereo or mono records. A rubber mat is bonded to the 8" turntable which includes a non-tilt "twist-up" 45 adapter. The RT-20B includes separate wide-range bass and treble tone controls, compensated volume control, numbered calibrations, headphone jack, Hideaway a.c. cord stowage compartment, advanced-design arm-and-styles guard. Dimensions: 14" x 14" x 8"; weight 17 pounds. 117 volts, 60 cycles a.c. Transformer powered. UL approved. **MODEL RT-20B, fixed speed, 4 speed, PROFESSIONAL NET \$73.50** **MODEL RT-20BV, variable speed, 4 speed, with tempo control to vary speed from +5% to -15% and lighted strobe, PROFESSIONAL NET \$88.50**



MODEL RTS-40

10 transistor Stereophonic Phonograph

Compact and easily carried, the RTS-40 is an all-solid-state transformer-powered phonograph that will reproduce stereophonic records in full stereo with outstanding realism and play monophonic discs as well. Amplifiers deliver 40 watts with 20-20,000 cycle response to two high fidelity dual-cone 6" x 9" oval loudspeakers. The ceramic phono pickup is a durable, high compliance, turnover, plug-in type mounted in a cast metal tone arm. A unique guard protects stylus against dropping and wrong placement. The precision-balanced 4-speed, fixed-speed motor drives an 8" metal turntable with bonded rubber mat and "twist-up" non-tilt 45 adapter. Controls are ganged for both channels and have numbered calibrations. Separate wide-range bass and dual-range treble tone controls and compensated volume control permit best reproduction of all material from speech to symphony. The RTS-40 includes Newcomb's Instant Stop-Pause-Go control, Hideaway cord compartment, output-to-tape-recorder jack, and two headphone jacks with special circuits to protect 8-ohm dynamic sets. Dimensions: 9 3/4" x 10 1/4" x 16 1/4"; weight 20 pounds. 117 volts, 60 cycles a.c. Transformer powered. UL approved. **PROFESSIONAL NET \$139.50**



NEWCOMB AUDIO PRODUCTS CO.

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STEREO PHONOGRAPHS,
TRANSCRIPTION PLAYERS,
HEADPHONE LISTENING
CENTERS, TABLE RADIOS

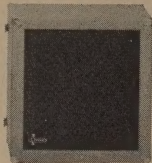
R
SERIES

RS-1620V 4 speed, variable speed

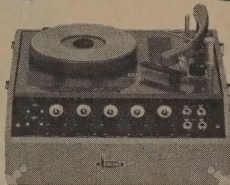
RS-1620 4 speed, fixed speed

STEREOPHONIC

PORTABLE
COMBINATION
TRANSCRIPTION
PLAYER
P.A. SYSTEM



**20 WATTS
PEAK**

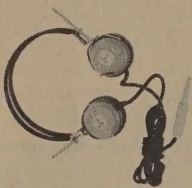


Shown with
Acra-Set tone
arm lifting
accessory
available
at additional
cost

Newcomb RS-1620V stereophonic/monophonic portable combination transcription player/public address systems are simple to operate, durable, economical. Stereo or mono at the flip of a switch. Bi-Coupled output system delivers 10 watts peak per channel, 20 watts peak combined. Compatible cartridge is a turnover ceramic, plug-in type with jeweled styli. Rubber-matted turntable plays records to 17 1/4" masters. Tempo control +5% to -15%. Two mike inputs and left and right input jacks for radio or tape. On lighted, slanted panel are separate mixers for each mike and phono, voice filters, separate bass and treble tone controls ganged for both channels, but bass does not affect voice. Player unit measures 8" x 15 1/2" x 16 1/2". For use on 117 volts, 60 cycles a.c.

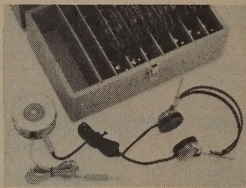
	Variable Speed Model Number	Prof. Net	Fixed Speed Model Number	Prof. Net
With S-212 split case containing two 12" dual cone hi-fi drivers. Closed case: 16 3/4" x 16 1/4" x 13 1/4", 21 lbs.	RS-1620V-2	\$215.00	RS-1620-2	\$205.00
With S-212HF split case containing two 2-way systems — 12" woofers, 3 1/2" tweeters. Closed: 16 3/4" x 16 1/4" x 13 1/4", 23 lbs.	RS-1620V-HF2	\$239.00	RS-1620-HF2	\$229.00
With 2 C-100 2-way reproducers ea. in sep. encl. Each measures 10 1/4" x 14 3/4" x 20", 19 1/2 lbs.	RS-1624V-C2	\$309.50	RS-1620-C2	\$299.50

NEWCOMB HEADPHONES AND LISTENING CENTER ACCESSORIES



**MODEL
HDPB**
monophonic
headphones

Good sound, rugged construction, low cost, HDPB phones are colored red and black, have 6' cords, standard phone plugs. Plated metal parts, plastic-covered spring headband. Vertical adjustment springs are tubular sleeves with large friction-contact area for maximum life. **NET \$4.60**



**MODEL
LC8BP**
listening
center

Kit includes an 8BP adapter, 8 sets of HDPB phones, compartmented carrying case. 14 1/4" x 8 1/2" x 7 3/4", 10 pounds. **NET \$67.30**

MODEL 8BP circular adapter

More convenient and space saving than panel-in-case type, the 8 BP free-standing adapter has 10' cord and phone jack for source connection, 8 jacks for HDPB phones, an additional jack for another adapter. **NET \$17.50**



**MODEL
HDPS**
stereophonic
headphones

Economical, general purpose stereo phones with good response, colored red and black, have plastic-covered cables, plated hardware, standard stereo phone plugs, soft neoprene ear cushions that are comfortable on ears, form sound-tight seal. **NET \$7.75**



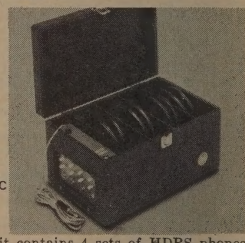
**MODEL
R-HDBBC**
listening
center

Eight sets of HDPB headphones in vinyl-covered compartmented case with 8 standard headphone jacks and 8 level controls in end panel; 10' source cord and output jack for additional adapter. 14 1/4" x 8 1/2" x 7 3/4", 11 pounds. **NET \$69.95**



**MODEL
R-HDBB**
listening
center

Kit with 8 HDPB phones, compartmented case with terminal panel at end containing 8 standard phone jacks, has 10' source connection cord, jack for additional kit. measures 14 1/4" x 8 1/2" x 7 3/4", 11 pounds. **NET \$59.55**



**MODEL
AVHS-4C**
stereophonic
listening
center

This deluxe kit contains 4 sets of HDPS phones in compartmented case that has connector panel at one end. There are 4 standard stereo phone jacks on panel and 8 level controls providing volume adjustment for each ear. 10' source cord and plug. Output jack for additional kit. 14 1/4" x 8 1/2" x 7 3/4", 10 pounds. **NET \$69.95**

TABLE MODEL RADIOS

AFM-1500
AM & FM



Highly sensitive, rendered very stable by a.f.c. and temperature-compensated oscillators, the AFM-1500 provides high fidelity sound through its 15 watts peak push-pull amplifier and 20 watt, 9" oval, dual-cone loudspeaker. It has a telescoping FM antenna, "Hi-Q" ferrite rod AM antenna, tuning eye, reference scale, large tuning knob, compensated volume control, external antenna terminals, jack for external speaker or headphones, jack for external amplifier, p.a. or tape recorder. 16 3/4" x 9 3/4" x 8 3/4", 20 1/4 lbs. 70 watts, 117 volts, 60 cycles a.c. **PROF. NET: \$164.50**

AM-500
AM



Trim, rugged, easy to carry, the AM-500 is an economical, continuous-duty transformer-powered radio with a 5 watts, peak, inverse-feedback amplifier and 8" oval, dual-cone loudspeaker whose special tweeter cone gives improved distribution and high frequency response. It has a built-in "Hi-Q" antenna and terminals for external antenna. Pilot light index illuminates direct-driven dial. Same jacks as AFM-1500. Neat power cord stowage on back of both 6 1/2" x 8" x 15 1/2", 10 lbs. 40 watts, 117 volts, 60 cycles a.c. **PROF. NET: \$59.95**

NEWCOMB AUDIO PRODUCTS CO.

NEWCOMB

NEWCOMB

**TR
SERIES**

**HIGH POWER, PORTABLE, COMBINATION
TRANSCRIPTION PLAYER
PUBLIC ADDRESS SYSTEMS**

*...outstanding for their
highest quality sound,
intelligibility, portability, versatility,
and simplicity of operation...*

features common to all TR models:

FOUR SPEED, VARIABLE SPEED, play any size record up to 17 1/4" masters.

AMERICAN-MADE MOTOR delivers full starting torque at any speed setting, no warm-up required, stable under all conditions, requires no more attention than conventional fixed-speed motors.

INDEPENDENT MOTOR SWITCH automatically retracts idler.

TEMPO CONTROL, separate from speed selector, varies speed +5% to -15%. No flutter-producing friction discs or cone drives.

SPEED-O-SCOPE neon strobe.

BIG TURNTABLE—10", 2 lbs.

STA-KLEEN, deep-ribbed rubber mat, special groove for handling 45's.

LONG TONE ARM, one-piece, cast metal, raises upright for stylus inspection, mounted on resilient acoustical filter, has stylus pressure adjustment for 78's or LP's.

RUGGED STOP POST prevents putting arm in wrong position.

LOCK SCREW secures arm during transportation.

DROP PAD, rubber-covered, protects stylus and cartridge.

PHONO PICK-UPS: GE twist-neck, with individually replaceable sapphire styli in "M" models. High fidelity ceramic in others.

STEREO CONVERSION: ceramic cartridge may be replaced with stereo cartridge. Then a patch cord is connected between stereo output jack to auxiliary input jack on second player for perfectly balanced, fully controllable stereo.

HIGH POWER AMPLIFIERS, low distortion, inverse feedback, some have ultra-linear circuits, all engineered for optimum performance with speakers used. Frequency response ± 2 db 20—20,000 cycles.

TRANSFORMER-POWERED for safety and performance.

BROAD-BAND OUTPUT TRANSFORMERS humidity-protected with mylar or acetate. Impedance selector—4 or 8 ohms (16, 8, & 4 on TRS-1680).

FUSE STOP accessible from front panel.

COMPLETE, FLEXIBLE CONTROLS: separate volume mixers for phono and mike; voice filter, scratch filter; phono bass control does not affect voice mike; bass control electrically interlocked with phono volume to automatically protect against bass overload at high levels, greatly reducing operating experience required for perfect results.

OUTPUT JACKS: "ALL" used to feed entire program to external amplifier, amplified monitor, or tape recorder. "PHONO" delivers phono signal only; useful for caller or m.c. who wants to monitor music only without interference from own voice. "STEREO" on ceramic models.

INPUT JACKS: One for each mike; number depends on model. "AUXILIARY" for signal from radio, tape machine, or stereo channel.

ILLUMINATED, SLOPING OPERATING PANEL.

TWO JEWELLED PILOT LIGHTS.

RUGGED CASE made of warp-proof, crack-proof 3/4" plywood, glue-blocked, covered with scratch-resistant, washable, gray vinyl.

METAL CORNER PROTECTORS.

COME APART HINGES.

SPRING-FLOATED FEET.

HEAVY #18 GAUGE STEEL MOTOR BOARD, reinforced.

THROUGH VENTILATION for long parts life.

EASY ACCESS. Hinged motor board raises to reach tubes and motor. Perforated bottom plate unscrews to check wiring.

KICKPROOF GRILLES of die-formed metal and armored baskets protect speakers.

25' SPEAKER CORDS with stowage provisions. Straps for wall hanging.

HIDEAWAY COMPARTMENT for 8' power cord.

FULL-SIZE HANDLES on all cases and a hand-hold slot on player units for assistant carrier.

PERMANENT SERIAL NUMBER stamped in metal and riveted to motor board.

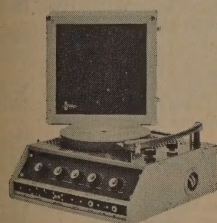
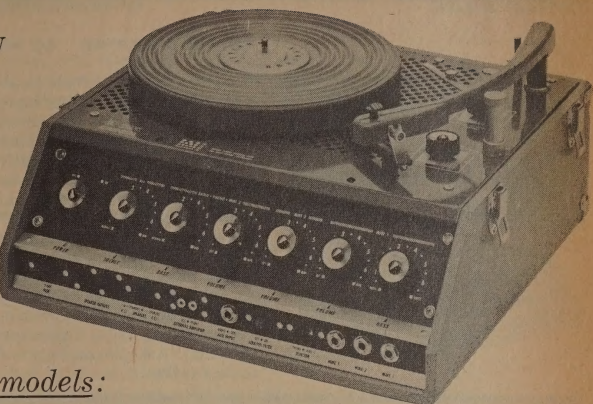
TRANSPARENT PLASTIC CARD HOLDER on each case.

PRINTED INSTRUCTION BOOK with each system.

CONDENSED INSTRUCTIONS sealed in plastic permanently attached inside lid.

BID SPECIFICATIONS AVAILABLE from factory to authorized personnel.

MADE IN U.S.A.



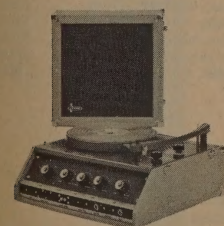
TR-1625 SERIES 25 WATT CERAMIC PICKUP STEREO JACK

TR-1625 Series player-amplifier units are carefully matched to the reproducers for great efficiency and better coverage than has heretofore been possible with a system in this class. It is equipped with a plug-in, "power point" type, high fidelity ceramic cartridge with separate jeweled standard and microgroove styli. It has a separate treble tone control, bass control that does not affect mike, phono volume mixer, mike volume mixer, scratch filter switch, voice filter switch. There are output jacks for 2 speakers, "Phono," "All," stereo; input jacks for one mike and another for auxiliary equipment.

MODEL TR-1625 in a single split case with one 12" dual-cone

30-watt speaker, 35 lbs.	139.50
MODEL TR-1625-2, two cases, includes one S-212, 50 lbs.	172.50
MODEL TR-1625-NE2, three cases, two N-12ET, 64 lbs.	237.00
MODEL TR-1625-CS2, three cases, two CS-48, 73 lbs.	247.00
MODEL TR-1625-SCS2, three cases, two SCS-412, 124 lbs.	387.00

PROF.
NET



TR-1625M SERIES 25 WATT MAGNETIC PICKUP

When monophonic music reproduction is to be a player's primary function, a Newcomb TR model equipped with a magnetic cartridge is your best choice. The TR-1625M is equipped with a GE variable reluctance, twist-needle cartridge with sapphire styli and necessary preamplifier built in. Motor is a 4-pole deluxe unit. Player has a separate treble tone control, bass control that does not affect mike, phono volume mixer, mike volume mixer, scratch filter switch, voice filter switch. There are output jacks for 2 speakers, "Phono," and "All"; input jacks for mike and auxiliary.

MODEL TR-1625M in a single split case with one 12"

dual-cone 30-watt speaker, 36 lbs.	154.50
MODEL TR-1625M-2, two cases, includes one S-212, 51 lbs.	187.50
MODEL TR-1625M-NE2, three cases, two N12ET, 64 lbs.	252.00
MODEL TR-1625M-RHF, two cases with one 2-way speaker system in base reflex enclosure, 18" x 24" x 12 1/2", 65 lbs.	211.50
MODEL TR-1625M-CS2, three cases, two CS-48, 74 lbs.	262.00
MODEL TR-1625M-SCS2, three cases, two SCS-412, 125 lbs.	402.00

PROF.
NET

SPECIFICATIONS AND PRICES ARE SUBJECT TO CHANGE WITHOUT NOTICE.

NEWCOMB AUDIO PRODUCTS CO.

NEWCOMB

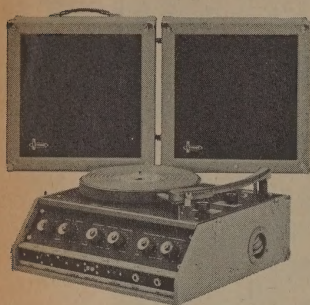
NEWCOMB

HIGH POWER PORTABLE
TRANSCRIPTION PLAYER
P.A. SYSTEMS

**TR
SERIES**

TR-1640 SERIES 40 WATT CERAMIC PICKUP STEREO JACK

PROF.
NET

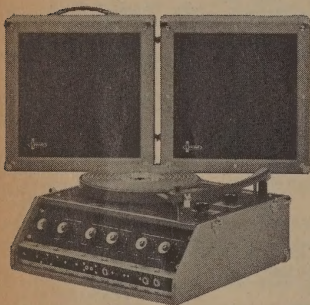


TR-1640 models provide impressive audience coverage at moderate cost. Motor is a heavy-duty, four-pole unit. Player is equipped with a plug-in, "power point" type, high fidelity ceramic cartridge with separate jeweled standard and microgroove styli, ultra-linear amplifier. It has a treble tone control for all channels, bass tone for phono, phono volume mixer, mike volume mixer, bass tone for mike, impedance switch for speakers, scratch filter switch. There are output jacks for 2 speakers, "Phono", "All", stereo. Inputs for one mike auxiliary.

MODEL TR-1640 in a single split case with one 12" 50-watt speaker, 36 lbs.	169.95
MODEL TR-1640-E2, two cases, includes one S-212, 51 lbs.	196.50
MODEL TR-1640-E4, three cases, one S-212, one S-212E, 72 lbs.	261.00
MODEL TR-1640-2, two cases, one S-212H, 51 1/2 lbs.	209.50
MODEL TR-1640-4, three cases, one S-212H, one S-212E, 72 1/2 lbs.	273.05
MODEL TR-1640-NE2, three cases two N12ET, 64 lbs.	261.00
MODEL TR-1640-NE4, five cases, four N12ET, 98 lbs.	390.00
MODEL TR-1640-NH2, three cases, two N12HT, 78 lbs.	331.00
MODEL TR-1640-NH4, five cases, four N12HT, 126 lbs.	530.00
MODEL TR-1640-CS2, three cases, two CS48, 74 lbs.	271.00
MODEL TR-1640-CS4, five cases, four CS48, 118 lbs.	410.00
MODEL TR-1640-SCS2, three cases, two SCS-412, 125 lbs.	411.00
MODEL TR-1640-SCS4, five cases, four SCS-412, 220 lbs.	690.00

TR-1640M SERIES 40 WATT MAGNETIC PICKUP

PROF.
NET

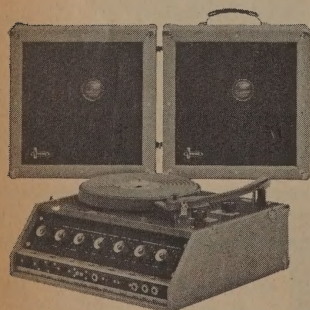


A more powerful music room model which handles with ease four speakers, the TR-1640M player unit has an ultra-linear output system, two-way crossover-network loud-speaker systems, and the GE variable reluctance cartridge. The phono circuit is converted to a second mike channel by flipping a selector switch. It has a treble tone control for all channels, phono volume mixer, phono bass tone control, mike bass tone, mike volume mixer, impedance switch for speakers, scratch filter. There are output jacks for 2 speakers, "Phono", and "All"; input jacks for 2 mikes and auxiliary.

MODEL TR-1640M-HF in a single split case with 2-way speaker system including a 12" 50-watt woofer, crossover and separate 3 1/2" tweeter, 36 1/2 lbs.	205.00
MODEL TR-1640M-E2, two cases, includes one S-212, 52 lbs.	220.00
MODEL TR-1640M-E4, three cases, one S-212, one S-212E, 73 lbs.	284.50
MODEL TR-1640M-HF2, two cases, one S-212HF, 54 lbs.	244.00
MODEL TR-1640M-HF4, three cases, one S-212HF, one S-212E, 75 1/2 lbs.	309.50
MODEL TR-1640M-KN, two cases, one KN-200, 66 lbs.	288.25
MODEL TR-1640M-KN2, three cases, two KN-200, 101 lbs.	421.00
MODEL TR-1640M-NE2, three cases, two N12ET, 65 lbs.	284.50
MODEL TR-1640M-NE4, five cases, four N12ET, 99 lbs.	413.50
MODEL TR-1640M-NH2, three cases, two N12HT, 79 lbs.	354.50
MODEL TR-1640M-NH4, five cases, four N12HT, 127 lbs.	553.50
MODEL TR-1640M-NN2, three cases, two N12NT, 86 lbs.	394.50
MODEL TR-1640M-NN4, five cases, four N12NT, 141 lbs.	633.50
MODEL TR-1640M-CS2, three cases, two CS48, 75 lbs.	294.50
MODEL TR-1640M-CS4, five cases, four CS48, 119 lbs.	433.50
MODEL TR-1640M-SCS2, three cases, two SCS-412, 126 lbs.	434.50
MODEL TR-1640M-SCS4, five cases, four SCS-412, 221 lbs.	713.50

TR-1656M SERIES 56 WATT MAGNETIC PICKUP

PROF.
NET



These fully integrated systems achieve phenomenal acoustic output. They include 56 watts peak output system, four-pole deluxe motor, GE variable reluctance cartridge. The phono channel converts to a third microphone channel by flipping a switch. First mike channel has separate bass attenuating control for voice clarity. Second mike is flat. Phono tone controls regulate third mike. There are a separate treble tone control for all channels, bass tone for phono, phono volume mixer, mike 2 mixer, mike 1 mixer, mike 1 bass tone, speaker impedance switch, scratch filter. Output jacks for 2 speakers, "Phono", and "All"; input jacks for 3 mikes and auxiliary.

MODEL TR-1656M-HF2, two cases, includes one S-212HF, 57 lbs.	288.50
MODEL TR-1656M-HF4, three cases, one S-212HF, one S-212HFE, 80 lbs.	377.00
MODEL TR-1656M-X2, two cases, one S-212X, 59 lbs.	311.00
MODEL TR-1656M-X4, three cases, one S-212X, one S-212XE, 84 lbs.	421.50
MODEL TR-1656M-NF2, two cases, one S-212NF, 63 lbs.	329.85
MODEL TR-1656M-NF4, three cases, one S-212NF, one S-212NFE, 92 lbs.	459.35
MODEL TR-1656M-KN2, three cases, two KN-200, 104 lbs.	465.85
MODEL TR-1656M-KN4, five cases, four KN-200, 176 lbs.	731.35
MODEL TR-1656M-NE2, three cases, two N12ET, 68 lbs.	329.00
MODEL TR-1656M-NE4, five cases, four N12ET, 102 lbs.	458.00
MODEL TR-1656M-NH2, three cases, two N12HT, 82 lbs.	399.00
MODEL TR-1656M-NH4, five cases, four N12HT, 130 lbs.	598.00
MODEL TR-1656M-NN2, three cases, two N12NT, 89 lbs.	439.00
MODEL TR-1656M-NN4, five cases, four N12NT, 144 lbs.	678.00
MODEL TR-1656M-CS2, three cases, two CS48, 78 lbs.	339.00
MODEL TR-1656M-CS4, five cases, four CS48, 122 lbs.	478.00
MODEL TR-1656M-SCS2, three cases, two SCS-412, 129 lbs.	479.00
MODEL TR-1656M-SCS4, five cases, four SCS-412, 224 lbs.	758.00

DIMENSIONS OF NEWCOMB TR PLAYERS

Single speaker TR players form a single case with the speaker mounting used as the lid. They measure 16 3/4" x 16 1/4" x 13 1/4". In multiple-speaker models (except TRS-1680) the phono-

amplifier unit closed measures 16 3/4" x 16 1/4" x 8 1/2". Speaker dimensions are given on facing page. Accessory speakers may be added to one- or two-speaker models at any time.

SPECIFICATIONS AND PRICES ARE SUBJECT TO CHANGE WITHOUT NOTICE.

NEWCOMB AUDIO PRODUCTS CO.

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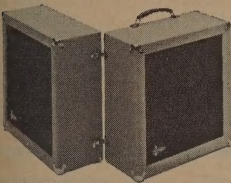
NEWCOMB

PORTABLE
LOUDSPEAKERS

TR
SERIES

Newcomb makes many types of portable loudspeakers for use with Newcomb Portable Combination Transcription Player/Public Address Systems. They vary in portability, directivity, efficiency, and frequency response. For example, the column speaker is highly directive, but not nearly as easy to carry as the compact S-212 Series models. The KN-200 reproducer combines widest frequency range with highest efficiency and exceptional intelligibility. The N-12 Series speakers are highly efficient, directive, intelligible and portable. All are excellent instruments, built to withstand rough treatment. Construction and finish matches player units.

ON THIS PAGE ARE SHOWN THE VARIOUS LOUDSPEAKER MODELS USED WITH NEWCOMB TR SERIES SYSTEMS



NEWCOMB S-212 SERIES

These open-back designs are the most popular of all square dance system reproducers because they provide a unique combination of light weight, high output per watt input, and low cost. Their wide-range response makes them ideal for general use. Each model includes two independent reproducers in a split case. Speakers snap together back-to-back for carrying. Case size: 16 3/4" x 16 1/4" x 13 1/4". 25' cords stow on hooks inside case.

- **MODEL S-212** includes two 12" dual-cone wide range 30 watts peak reproducers of good conversion efficiency. Impedance per speaker is 8 ohms. Weight: 21 lbs. **PROFESSIONAL NET: \$64.50**
- **MODEL S-212E** is same as S-212 but has series extension jacks. **PROFESSIONAL NET: \$64.50**
- **MODEL S-212H** includes two 50 watts peak 12" reproducers of wide-range and excellent conversion efficiency. Impedance per speaker is 8 ohms. Weight: 21 1/2 lbs. **PROFESSIONAL NET: \$77.50**
- **MODEL S-212HE** is same as S-212H but has series extension jacks. **PROFESSIONAL NET: \$77.50**
- **MODEL S-212HF** includes two 50 watt peak 12" woofers and two 3 1/2" tweeters with crossover. Impedance per reproducer is 8 ohms. Weight: 23 lbs. **PROFESSIONAL NET: \$88.50**
- **MODEL S-212HFE** is same as S-212HF but has series extension jacks. **PROFESSIONAL NET: \$88.50**
- **MODEL S-212X** includes two 60 watts peak super-power, aluminum-dome 12" dual-cone loudspeakers of superior efficiency and very wide range. Impedance per speaker is 8 ohms. Weight: 25 lbs. **PROFESSIONAL NET: \$110.65**
- **MODEL S-212XE** is same as S-212X but has series extension jacks. **PROFESSIONAL NET: \$110.65**
- **MODEL S-212NF** includes two 60 watts peak super-power woofers and two 3 1/2" tweeters with crossover. These systems combine exceptional response range with super efficiency. Impedance per reproducer is 8 ohms. Weight: 29 lbs. **PROFESSIONAL NET: \$129.50**
- **MODEL S-212NFE** is same as S-212NF but has series extension jacks. **PROFESSIONAL NET: \$129.50**

MODELS WITH "E" SUFFIX are only for use with other speakers and are not intended for use alone.



NEWCOMB KN-200 REPRODUCER

Designed to give you all the sound, all the quality, all the range, all the coverage inherent in your fine Newcomb sound system, the KN-200 is a fully-enclosed, ducted-port, two-way speaker system of advanced design. It is highly efficient, delivers the widest frequency response possible with a portable speaker...full music reproduction plus crisp high frequency intelligibility. The KN-200 includes a massive 12" woofer, crossover, horn tweeter and treble control. It includes a parallel extension jack and impedance change switch for 8 or 16 ohms. 25 foot cord stows into "Hideaway" compartment. Size: 10 1/4" x 16 7/8" x 23 1/4". Weight: 35 lbs. **PROFESSIONAL NET: \$132.75**



NEWCOMB N-12 SERIES SPEAKERS

Most unusual for a portable speaker, Newcomb N-12 models are back-loaded, dual-labyrinth reproducers for those who want high directivity, firm bass, crisp and clean highs. They provide the advantages of a closed-back reproducer in problem halls and auditoriums. 25 foot cord stows in "Hideaway" compartment. Enclosure measures 7 7/8" x 18 1/4" x 19 1/4". Offered in three models...

- **MODEL N12ET** is a 30 watts peak system using an efficient 12" woofer and two 3 1/2" tweeters and crossover. Included is a series-type extension jack with shorting switch which permits using the N12ET as either a regular or extension speaker. Impedance is 8 ohms. Weight 17 pounds. **PROFESSIONAL NET: \$64.50**
- **MODEL N12HT** is a 50 watts reproducer with a 12" heavy duty woofer, a directional horn tweeter and full crossover network. This reproducer provides highest sound output per watt input. Included are a parallel extension jack and impedance changing switch. Impedance: 8 and 16 ohms. Weight: 24 pounds. **PROFESSIONAL NET: \$99.50**
- **MODEL N12NT** is a 60 watts peak reproducer with an extra heavy duty 12" woofer, a directional horn tweeter and full crossover network. This reproducer provides highest sound output per watt input. Included are a parallel extension jack and an impedance changing switch. Impedances: 8 and 16 ohms. Weight 27 1/2 pounds. **PROFESSIONAL NET: \$119.50**



NEWCOMB COLUMN SPEAKER, MODEL CS48

This is one of the most practical of all column speakers. It combines exceptional directivity with portability, has good efficiency and greater effective range than most columns. Power handling capacity is 60 watts peak. 25 foot cord and plug tuck into "Hideaway" cord compartment. It has an extension jack and switch for use with extension speakers. Size: 39 7/8" x 11 1/4" x 6 3/8". Weight: 22 lbs. **PROFESSIONAL NET: \$69.50**

NEWCOMB SUPER COLUMN, MODEL SCS-412

Here's the best column speaker you've ever heard. The Newcomb SCS-412 gives you super intelligibility, super efficiency, super power handling capacity. It contains four *twelve-inch* speakers specially developed for column use. Its peak power handling capacity of 120 watts makes for dependability and unusually low distortion when used with conventionally-powered systems.

Each amplifier watt is converted into more sound than is available from any other column. The SCS-412 makes small amplifiers sound like big ones. It will project your voice clear as crystal, syllable-perfect over the noisiest big crowd. It takes a man-size system to produce these results. The SCS-412 stands 56" high, is 15" wide, 7 1/2" deep, weighs 42 1/2 pounds, Impedance is 8 ohms. It has a 25 foot cord, "Hideaway" cord compartment, series type jack with shorting switch. **PROFESSIONAL NET: \$139.50**

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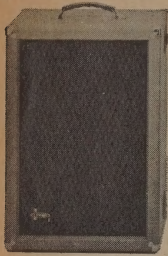
NEWCOMB AUDIO PRODUCTS CO.

NEWCOMB

NEWCOMB

STEREOPHONIC SYSTEMS
MICROPHONES, ACCESSORIES

TR
SERIES



STEREOPHONIC
MONOPHONIC



Built with a great reserve of power for most uses — 40 watts peak per channel — the Newcomb TRS-1680 is perhaps the most complete and flexible portable sound system ever built. It reproduces stereo or mono with the turn of a knob. Stereo or mono tape or radio can be fed to the system. Live music and speech are reproduced either stereo- or monophonically.

TRS-1680 SERIES 80 WATT

It has three mike channels. The central mike puts the speaker or square dance caller in the middle, midway between the reproducers. There are separate treble, bass, and volume controls for phono or other reproduced sound. Each mike channel has its own, individual tone and volume controls. Mike tone controls are rotated for treble adjustment, pushed or pulled for bass. There is a blend control to provide any degree of stereo you wish. There are "Left" and "Right" inputs for radio, tape, or auxiliary; a scratch filter; "All" or "Phono" monitor jacks; jacks for two or four speakers with an impedance-matching switch. Turntable-amplifier unit DIMENSIONS: $9\frac{1}{4}" \times 17\frac{7}{8}" \times 18\frac{5}{8}"$; 43 lbs. POWER CONSUMPTION: 180 watts, 117 volts, 60 cycles a.c. A wide choice of reproducers to meet specific assignments is offered...

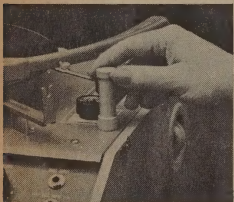
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MODEL TRS-1680-NF2, two cases, includes one S-212NF, 72 lbs.	\$429.00
MODEL TRS-1680-NF4, three cases, two S212NF, 101 lbs.	\$558.50
MODEL TRS-1680-KN2, three cases, two KN-200, 113 lbs.	\$565.00
MODEL TRS-1680-KN4, five cases, four KN-200, 183 lbs.	\$830.50
MODEL TRS-1680-NH2, three cases, two N12HT, 91 lbs.	\$498.50
MODEL TRS-1680-NH4, five cases, four N12HT, 139 lbs.	\$697.50
MODEL TRS-1680-NK2, three cases, two N12NT, 98 lbs.	\$538.50
MODEL TRS-1680-NK4, five cases, four N12NT, 153 lbs.	\$777.50
MODEL TRS-1680-CS2, three cases, two CS48, 87 lbs.	\$438.50
MODEL TRS-1680-CS4, five cases, four CS48, 131 lbs.	\$577.50
MODEL TRS-1680-SCS2, three cases, two SCS-412, 138 lbs.	\$578.50
MODEL TRS-1680-SCS4, five cases, four SCS-412, 233 lbs.	\$857.50

ACRA-SET TONE ARM LIFTER AND

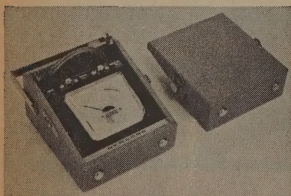
RECORD-
CUEING
DEVICE

MODEL A-1



Acra-Set is an accessory available at additional cost for repeating passages and protecting records. You simply twist the knob on top to gently lift or lower tone arm. Lifter has a 100-division scale and a traveling stop with a pointer. It is simply installed by drilling a $3/16"$ hole which is readily located with a template. Holes are pre-drilled at the factory on current transcription players. Specify your model number when ordering; correct template and C-1 cue sheets will be supplied. PROF. NET: \$12.50

MODEL VU-1 PORTABLE VISUAL OUTPUT METER



Model VU-1 Output Meter permits you to see that your voice is being amplified to the proper level, helps you make the most of your fine Newcomb TR system. Meter is high quality instrument with jeweled d'Arsonval movement and a scale calibrated in both db and volume units from 0 to 100 over the working range of the system. Also indicates overloading. Simple internal adjustment matches meter to any TR player; instructions are permanently mounted in lid. One end of the supplied patch cord connects player to "All" monitor jack, other end to "Input" on meter. Supplementary "All" monitor jack on meter. PROF. NET: \$29.95



AMPLIFIED MUSIC MONITORS

With a Newcomb Amplified Monitor you can hear reproduced music without interference or feedback squeal from caller's or speaker's voice. Connected to

"Phono" channel of transcription player, monitor reproduces music only, not mike channels. Or, it may be connected to "All" jack to reproduce voice and music. It can also be used as a stereo channel with a TR-1625 or TR-1640.

MODEL M-12: 12" speaker; 10 watt amplifier; $17\frac{1}{4}" \times 13\frac{3}{4}" \times 7\frac{1}{2}"$; 17 $\frac{1}{4}$ lbs. PROF. NET: \$79.50

MODEL M-9: 9" oval, dual-cone speaker; 10 watt amplifier; $13\frac{1}{4}" \times 10\frac{1}{4}" \times 7"$; 10 lbs. PROF. NET: \$69.50

PROTECTIVE CANVAS COVERS



Made of tightly woven, fleece-lined, rubberized mackintosh covert, with stout zipper closure and flap that tucks under handle. Transparent slot for identification.

No. CA-102 for use with TR-1625, TR-1625M, TR-1640, TR-1640M amplifier sections only. PROF. NET: \$5.95

No. CA-103 for use with S-212 type split case speaker assemblies and all TR series systems with single speaker in case lid. PROF. NET: \$5.95

No. CA-104 for use with TRS-1680 amplifier section only. PROF. NET: \$5.95

No. CA-110 for use with KN-200 or K-400 reproducers. PROF. NET: \$6.63

No. CA-111 for use with C-100 or J-200 reproducers. PROF. NET: \$5.95

No. CA-119 for use with M-12 monitor. PROF. NET: \$5.95

No. CA-132 for use with M-9 monitor. PROF. NET: \$5.95

No. CA-136 for use with all N-12 series reproducers. PROF. NET: \$5.95

No. CA-137 for use with CS48 column speaker. PROF. NET: \$9.30

No. SCS-412 for use with SCS-412 column speaker. PROF. NET: \$12.63

MICROPHONES

Model N-30 Crystal Microphone with lavaliere cord, stand adapter, switch, and shielded plug. PROF. NET 13.95

Model N-300 Desk Monitor for N-30 only. PROF. NET 1.85

Model N-36 Dynamic Professional Quality Microphone is the perfectionist's choice with any TR system, especially intended for use with TR-1640M, TR-1650M and TRS-1680 series models. Supplied with intercom cord and plug and on-off switch. PROF. NET 50.00

Model N-23 Dynamic Microphone of very high quality with switch and shielded plug, recommended for general purpose use with all TR series systems. PROF. NET 39.50

Model MS-23 Accessory Bag of heavy plastic, zippered, for microphones, etc., can be attached inside lid of speaker case. PROF. NET 2.10

Model PP-41 Stereo Conversion Pickup Cartridge, plug-in type, for any TR series player equipped with stereo output jack and plug-in ceramic cartridge. PROF. NET 4.65

Model WC-44 Connecting Cable, four feet long with plugs for connecting two TR ceramic models together for stereo. PROF. NET 4.65

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NEWCOMB AUDIO PRODUCTS CO.

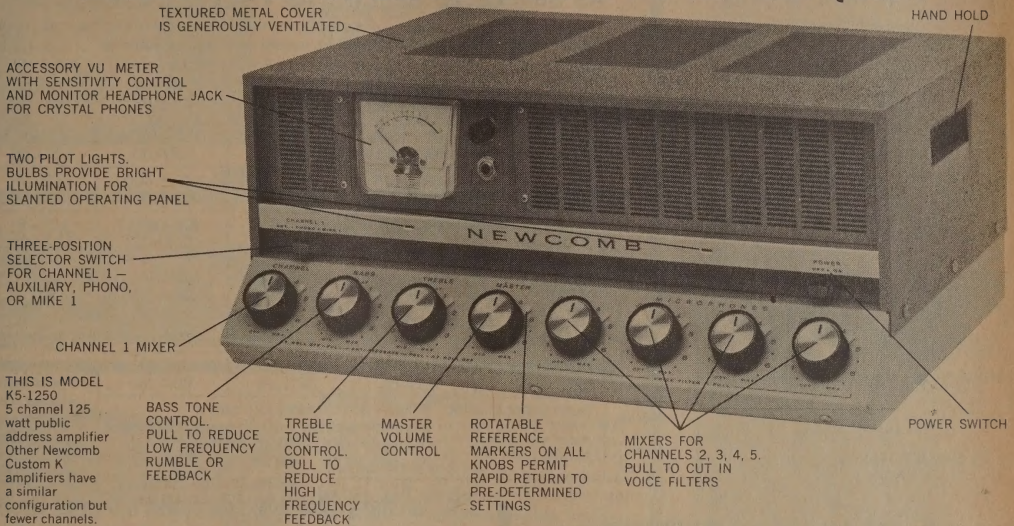
NEWCOMB

NEWCOMB

MODULAR
PUBLIC ADDRESS
AMPLIFIERS

CUSTOM
SERIES **K**

MODULAR PUBLIC ADDRESS AMPLIFIERS OF THE VERY BEST QUALITY



Flexibility and performance without equal are provided by Newcomb Custom K Series public address amplifiers. "Custom" has a very real meaning in this instance. Within minutes you can assemble exactly the right combination of channels, power and features to custom fit a particular situation. You are not faced with the hours of assembly labor and testing necessary with conventional modular designs. You simply select the Newcomb Custom K mixer/preamplifier with the number of channels — three, four, or five — you need. Then choose the power amplifier module — 40, 60, or 125 Watts — needed for the location. Drop the power amplifier into the preamplifier chassis. Two plug-in connections. No soldering. Drive a few sheet metal screws and you're in business. Take your choice of a well-ventilated cabinet cover or a rack panel mount. A VU meter accessory with a phone jack is available and can be quickly added to any front end. A remote control accessory is available for the four-channel module.

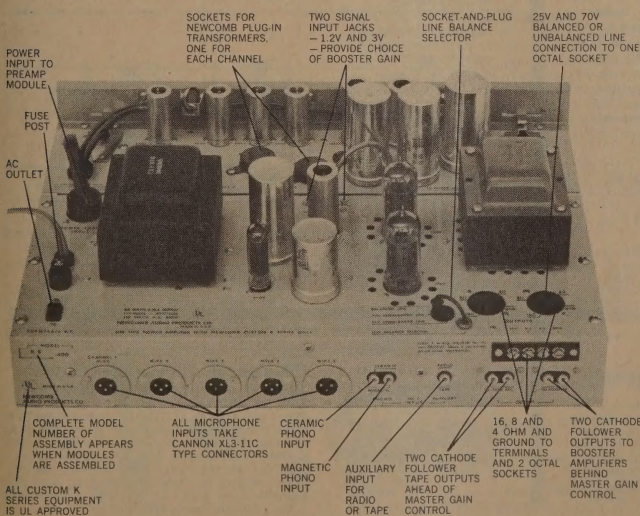
Any preamplifier may be used as a mixer by itself by inserting a Model P Power Supply instead of a power amplifier module. Any power output module becomes a straight power amplifier when it is mounted in the Newcomb Model KB Booster Chassis. The Newcomb Custom K modular system is so simple and straightforward that it's a wonder public address

amplifiers weren't made this way to begin with.

All modules are completely interchangeable.

The latest developments in vacuum tube technology and skilled hand craftsmanship are united to produce superb performance. Performance of Newcomb Custom K Series amplifiers has no equal. They operate with extremely low distortion at all power levels, supply unusually high useful power, run unbelievably cool. Vacuum tube design was chosen for the Custom K Series because no other method of amplification today provides the same combination of maximum performance, stability, reliability, extended life, and outright value. With vacuum tubes, repairs are easier and faster to make, cost less.

Visually, Custom K Series assemblies are exceedingly handsome, finished in soft, light shades of green. The control panel is slanted for convenient operation either seated or standing, and it is well illuminated. Custom K Series models abound with such refinements as movable reference markers on all knobs. To cut in a voice filter you simply pull the appropriate mixer knob. To kill feedback, pull tone control knobs. When you're out to prove what you can do, when you're putting in a model job, a job you'll be proud to put your nameplate on, that's the time to build with Newcomb Custom K.



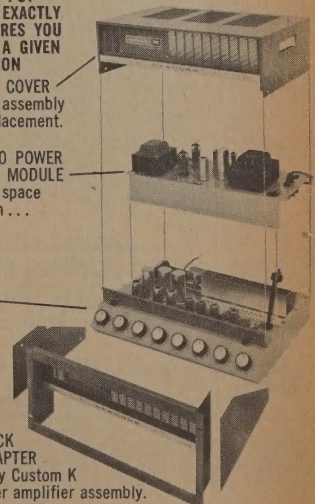
INSTANTLY PUT TOGETHER EXACTLY THE FEATURES YOU NEED FOR A GIVEN INSTALLATION

MODEL KC COVER drops over assembly for shelf placement.

MODEL 600 POWER AMPLIFIER MODULE drops into space provided in...

MODEL K5 MIXER/PREAMP MODULE

MODEL KR-875 RACK PANEL ADAPTER accepts any Custom K mixer-power amplifier assembly.



NEWCOMB AUDIO PRODUCTS CO.

NEWCOMB

NEWCOMB

MODULAR
PUBLIC ADDRESS
AMPLIFIERS

CUSTOM
SERIES **K**

70 COMBINATIONS FROM 14 UNITS

The modular concept makes it possible for you to get exactly the features you need without delay. Four chassis and four power units combine to form 15 basic assemblies. The VU meter may be added to 12 assemblies. 8 models (K4R assemblies with and without VU meter) become remote-control units with the addition of the RB4 accessory. All 35 may be rack panel mounted or covered for free-standing use. (UL requires that they be purchased with one or the other.)



MODEL KB BOOSTER CHASSIS
WITH MODEL KCB COVER

SPECIFICATIONS — K3, K4R, K5 MIXER-PREAMPLIFIERS

All of the Newcomb Custom K mixer-preamplifier modules have space at the back of the chassis into which may be inserted either a Model 400, 600 or 1250 power amplifiers or the Model P power supply. Power is normally supplied to the front end by the power amplifier module; Model P is used when the preamp section is to be used as a separate mixer-control unit. Mixer models differ principally in the number of input channels. Each has one mike channel that is convertible by switch to use with a magnetic or ceramic phono pickup (preamp provides full RIAA response curve) or with a flat tuner or tape input. Outputs: 2 from each of two cathode followers, one before and one after the master control. Maximum output from followers: 10 volts into high impedance load. Distortion: less than 1/2% D.C. on all filaments. Frequency response: ± 1 db 20-20,000 cycles. Bass tone control range: -18 db to +18 db. Low frequency roll off: 3 db at 100 cycles, -12 db at 20 cycles. Treble tone control range: -18 db to +18 db. High frequency roll off: 3 db at 5,000 cycles, -12 db at 20,000 cycles. Microphone impedance: 2 megohms convertible to low impedance by Newcomb hum-free plug-in transformer. Input volts required for 1 volt output from cathode followers: Mikes, .0028 volts, gain 54° db, 2 megohms. Magnetic, .0022 volts, 100,000 ohms. Equalized to full RIAA curve. Ceramic pickup, .086 volts. Equalized to RIAA curve. Tuner or Tape input (Aux.), .34 volts, 1/2 meg., gain 6.4° db. *Gain stated is with 1 meg. output load. With 600 ohm output using TR-100 add 13 db. Hum below 10 volts output (inputs shorted): Mikes, -80 db. Magnetic pickup, -70 db. Aux. input, -80 db. All controls off, -100 db. Socket supplies power for VU-2T volume indicating meter. Note: K4R provides for remote control of all inputs. Dimensions, all models: 17" x 13 1/2" x 7 1/2" (height dimension includes KC cover). Weight, all models: 7 pounds. All microphone inputs require Cannon XL3-11C type connectors.

	Model K3	Model K4R	Model K5
Number of Channels and mixing controls	3	4	5
Number of Channels with voice filters	2	3	4
Tubes	two 6AB4 three 12AX7	three 6AB4 three 12AX7	four 6AB4 three 12AX7
LIST: (with tubes, without cover)	\$199.50	\$225.00	\$239.50



FOR SEPARATE MIXER-PREAMPLIFIER ONLY...

MODEL P POWER SUPPLY takes the place of the power amplifier in the space provided in the K3, K4R, and K5 preamp modules, and supplies power to them through an octal socket. (It is never needed when a Model 400, 600, or 1250 power amplifier is used.) Model P includes a socket for a plug-in output transformer and output terminals for a balanced or unbalanced 600 ohm line. Maximum 600 ohm output = 0 VU. Input power: 117 volts, 60 cycles, 22 watts. Wt. 4 1/2 lbs. List: (with tubes) \$37.50.

AS SIMPLE TO SPECIFY AS THEY ARE TO ASSEMBLE

Model number of a basic assembly consists of a combination of preamp model number and power amplifier model number as follows:

Preamp Mixer ↓ Power Amp →	Model 1250 125 watts	Model 600 60 watts	Model 400 40 watts	Model P Power Supply
Model K5 5 Channel	K5 - 1250 \$439.00	K5 - 600 \$399.00	K5 - 400 \$369.00	K5 - P \$277.00
Model K4R 4 Channel	K4R - 1250 \$424.50	K4R - 600 \$384.50	K4R - 400 \$354.50	K4R - P \$262.50
Model K3 3 Channel	K3 - 1250 \$399.00	K3 - 600 \$359.00	K3 - 400 \$329.00	K3 - P \$237.00
Model KB Booster Chassis	KB - 1250 \$224.50	KB - 600 \$184.50	KB - 400 \$154.50	Complete Mixer-Preamp Only Complete Power Amplifier Only
Specifications For Complete Mixer-Preamplifier Power Amplifier Assemblies	Mike Gain Auxiliary Gain Hum, input shorted: Mike, -60 db below full output Magnetic pickup, -50 db below full output Auxiliary input, -60 db below full output All controls off, -80 db below full output	133 db 85.4 db	130 db 82.4 db	128 db 80.4 db

List prices of combinations are shown without cover, rack mounting or VU meter.

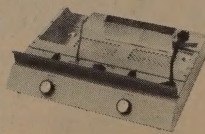
SPECIFICATIONS — 400, 600, 1250 POWER AMPLIFIER MODULES

The power amplifier modules in Newcomb's Custom K Series are not usable alone; they must be installed in a K3, K4R, or K5 mixer-preamplifier chassis. If they are to be used simply as a booster amplifier, they can be mounted in a Model KB Booster Chassis. Circuits in all power amplifier modules are resistance-capacity coupled, screen-regulated, with fixed bias and inverse feedback. They include power supply for K3, K4R, and K5 preamps. All have an a.c. outlet and an external fuse post. All three models have some identical specifications: Input impedance: 1 megohm convertible to low impedance with hum-free plug-in line or bridging transformers. Output impedances: 4, 8, and 16 ohms to a terminal strip and two octal sockets; 25 and 70 volts balanced or unbalanced line to one octal socket. Hum and noise: 80 db below steady state power rating.

	Model 400	Model 600	Model 1250
POWER OUTPUT: steady state RMS at less than 5% T.H.D.	40 watts	60 watts	125 watts
POWER OUTPUT: at less than 1% T.H.D.	35 watts	50 watts	110 watts
PEAK POWER: (Note: Music power peak rating is higher)	80 watts	120 watts	250 watts
INPUT—1.2 V or 3 V required for maximum rated steady state power output			
GAIN: at 1 meg. 1.2 V input tap 3 V input tap	74 db 70 db	76 db 72 db	79 db 75 db
GAIN: at 600 ohms input using TR-100 and 1.2 V input tap 3 V input tap	61 db 57 db	63 db 59 db	66 db 62 db
FREQUENCY RESPONSE: ± 2 db 25-15,000 cps at	35 watts	50 watts	110 watts
all +0 db 20-20,000 cps at	1 watt	1 watt	1 watt
POWER CONSUMPTION: 117 volts, 60 cycles a.c.	110 watts	145 watts	185 watts
TUBES: All models include 5 silicon rectifiers	one 7199 two 6878 one 6CU5	one 7199 two 6L6GC one 6CU5	two 12AU7 two 6550 one 6CU5
WEIGHT:	16 1/2 lbs.	21 1/4 lbs.	30 1/2 lbs.
LIST: (with tubes)	\$129.50	\$159.50	\$199.50

FOR COMPLETE POWER AMPLIFIER ONLY

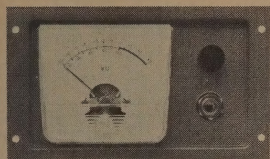
MODEL KB CHASSIS is the same size as the K3, K4R, and K5 preamp modules and accommodates Model 400, 600, or 1250 power amplifier modules when they are to be used as boosters. Model KB includes volume control, low frequency roll-off switch, power switch, and pilot lights. It has a lighted, slanted operating panel and factory-wired socket for Newcomb plug-in, hum-free transformers. Dim.: 17" x 13 1/2" x 7 1/2". Wt.: 5 lbs. (without cover). List: \$25.00.



NEWCOMB

MODULAR
PUBLIC ADDRESS
AMPLIFIERS

CUSTOM
SERIES **K**



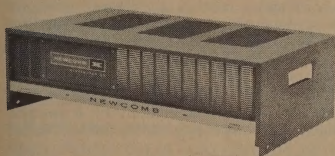
MODEL VU-2T ACCESSORY TRANSISTORIZED VU METER

for use with Newcomb Custom K Model K3, K4R or K5 mixer/preamp, the VU-2T has sensitivity control and a monitor headphone jack for wide-band crystal headphones only. The VU-2T obtains power from the preamp, is installed in place of the removable front plate, simply plugs into the socket provided. LIST: \$49.50



MODEL RB4 ACCESSORY REMOTE CONTROL UNIT

for use with the K4R only. A four-channel unit, it may be placed up to 2,000 feet from the amplifier. A 5 wire unshielded cable is required. Cable extra. Dimensions: 3" x 9" x 1 3/8". Weight: 1 1/2 pounds. LIST: \$19.50

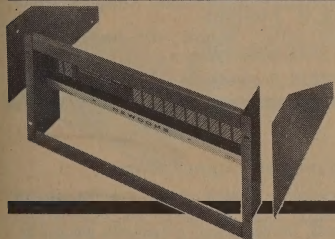


MODEL KC COVER

for assemblies incorporating Model K3, K4R, or K5 mixer-preamplifier modules. Size: 17 1/8" x 12 3/4" x 5 1/8". Weight: 5 pounds. LIST: \$25.00

MODEL KCB COVER

for booster amplifier assemblies incorporating Model KB Booster Chassis. Size: 17 1/8" x 12 3/4" x 5 1/8". Weight: 5 pounds. LIST: \$25.00



MODEL KR-875 RACK PANEL ADAPTER

for assemblies incorporating Model K3, K4R, or K5 mixer-preamplifier modules. Size: 19" x 8 3/4". Weight: 5 pounds. LIST: \$25.00

MODEL KR-875B RACK PANEL ADAPTER

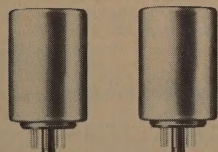
for assemblies incorporating Model KB Booster Chassis. Size: 19" x 8 3/4". Weight: 5 pounds. LIST: \$25.00

HUM-FREE PLUG-IN TRANSFORMERS

MODEL TR-91 input transformers are designed for all Newcomb amplifiers wired to accept them. They provide 30/50 ohms or 200/250 ohms input impedance depending on wiring of transformer socket. Normal Newcomb amplifier wiring connects the TR-91 for 30/50 ohms. Frequency response: 20 to 20,000 cycles. Wt: 1 1/4 lbs. LIST: \$25.

MODEL TR-100 input transformers are identical to TR-91 models. They provide 125/150 ohms or 500/600 ohms impedance depending upon wiring of socket with 125/150 ohms normal. Frequency response: 20 to 20,000 cycles. Weight: 1 1/4 pounds. LIST: \$37.50

MODEL TR-92B is a bridging transformer, otherwise identical to above models. Weight: 1 1/4 pounds. LIST: \$37.50



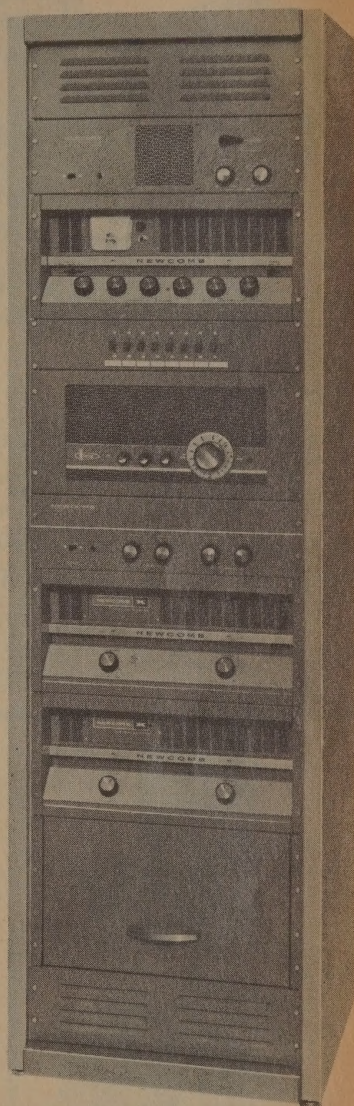
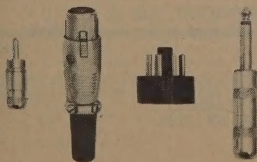
CONNECTORS

MODEL PW-157 is a phono, tape, or radio input plug for all Custom K mixer/pre-amplifiers. LIST: \$.75

MODEL PW-139 is a Cannon XL3-11C type microphone connector. LIST: \$2.50

MODEL PW-156 is an octal plug for speaker line outputs. LIST: \$.45

MODEL PW-142 is a two-contact shielded phone plug for monitor phones. LIST: \$1.50



THE RICHEST-LOOKING RACK PANEL INSTALLATIONS IMAGINEABLE

are provided by Newcomb Custom K amplifiers. The two-tone soft green tints of the finish, recessed panels, the stimulating design of the equipment combine to give an impression of professionalism and permanence. Mounted in the Model 70-19 Cabinet Rack illustrated above, top to bottom, are a Newcomb louvered panel, Newcomb TB2-525G Intercom, K3 Mixer-preamp, lever key panel, AFM-750-875G AM-FM Radio, E2-525G Industrial Preamplifier, two KB-1250 complete power amplifiers, 1050CG Phono Changer Drawer, louvered panel. All Newcomb rack panel equipment, except Custom K series, is listed in the last two Newcomb Pathfinder pages in this section.

NEWCOMB AUDIO PRODUCTS CO.

NEWCOMB

NEWCOMB

STEREO TAPE RECORDERS,
TWO-CHANNEL AMPLIFIER,
SYSTEMS

TAPE
RECORDERS



NEW TX-10 SERIES

CYBERNETICALLY ENGINEERED FOR INTUITIVE OPERATION ■ SOUND ON SOUND RECORDING ■ THREE HEADS ■ HYSTERESIS MOTOR ■ MONITOR BEFORE OR AFTER RECORDING ■ ANY SIZE REELS—3" TO 10½" ■ MIXING CONTROLS ■ POINTER-TO-POINTER METERS ■ DIFFERENTIAL BRAKING

Essentially a machine for the perfectionist, the Newcomb TX-10 incorporates virtually all of the features professional users have said they would like to see in a portable recorder. The TX-10 is thoroughly dependable, a high precision instrument, with a transport mechanism that is probably the most foolproof, the gentlest on tape of any machine in the world. Tape movement is controlled with a telescoping joy stick. Operation is intuitive. The natural thing to do is the right thing to do. You can record sound on sound ad infinitum. For example, you first record on track one. Twist the selector and you record on track two while the signal from track one is being transferred to track two. Twist the switch again and you are adding new material to track one while the previously combined signal from track two is being re-recorded on track one. There is no limit to the number of times this can be done. Tape loads in a straight line. No pressure pads on heads. All tape guides are stainless steel. Shuts off automatically at reel's end. Head covers remove for easy cleaning and editing. A pause-

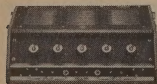
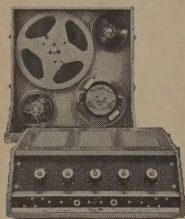
edit position of the joystick permits inching tape to exact location desired. The TX-10 is a two-speed machine—7½ ips and 3¾ ips—selected by push button with automatic speed-frequency correction. (15/7½ ips machines available on special order.) A relatively powerful, cool-running hysteresis synchronous motor and dynamically-balanced flywheel drive keep flutter and wow below .2% at 7½, .25% at 3¾, or .1% at 15 ips. The TX-10 has three heads—record, playback, and erase. 100KC bias and erase oscillators with indicators. Response is ± 2 db 30-18,000 cps at 7½ ips, or ± 3 db 30-13,000 cps at 3¾ ips. The TX-10 may be operated either vertically or horizontally. The dual volume indicating meters are illuminated, arranged pointer-to-pointer, show playback as well as recording levels. To prevent accidental erasure, you must push a separate interlock button to record. The four-digit counter permits close measurements even with a 10½" reel fully loaded with thin-base tape. There are separate "mike" and "line" input mixing controls for each channel, a balance control, a ganged volume control, a pilot light. A roomy opening on the left-hand side of the case provides for all inputs and power cord stowage. There are sockets for Cannon XLR-3-12C male connectors, easily accessible sockets for Newcomb plug-in input transformers to permit use of low impedance microphones. Outputs are on the right side of the case. Dimensions: 12½" x 16¾" x 9½". Weight: 36½ lbs. Power requirements: 95 watts, 117 volts, 60 cycles a.c.

PROFESSIONAL USERS NET: \$750.00. Unmounted CA-133 carrying case \$25.00

MODEL SA-80B

2 CHANNEL POWER AMPLIFIER WITH: TONE, VOLUME, AND BALANCE CONTROLS

The Newcomb SA-80B is a two channel, stereo/monaural, portable, power amplifier designed especially for use with the Newcomb TX-10 Series Tape Recorders. The amplifier puts out 40 watts peak per channel, a total of 80 watts peak. The controls are conveniently grouped on a slanted operating panel that is brightly illuminated by two pilot lights. Controls are ganged. They consist of a bass boost and attenuation control, treble boost and attenuation, volume control, and a balance control. There is an input jack for each channel, a stereo-monoaural selector switch, output impedance selectors, and two speaker sockets for each channel. The removable cover carries tape reels of all sizes up to and including 10½". A plastic zippered bag for miscellaneous cords is included. Frequency response—20-20,000 cycles ± 1 db. Distortion per channel at 20 watts r.m.s.—less than 1%. Hum below -65 db. Output impedances per channel—16, 8, 4 ohms. 8½" x 16¾" x 16¾", 32 pounds. PROFESSIONAL USERS NET: \$199.50.

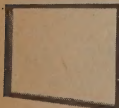


PORTABLE AMPLIFIER-REPRODUCER SYSTEMS

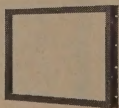
MODEL SA-80B-J2 consists of one SA-80B and two Model J-200 Reproducers. Latter are two-way speaker systems with tweeter level controls, enclosed in compact cases, use latest techniques to provide excellent, full-range coverage in music rooms and small auditoriums. Each measures 14¾" x 20" x 10¼". Three-case system weighs 71 pounds. PROFESSIONAL NET: \$368.40.

MODEL SA-80B-K2 consists of one SA-80B and two Model K-400 Reproducers. Latter are three-way loud-speaker systems developed for those who seek the very best possible reproduction that can be provided by translating advanced engineering concepts into portable form. Each measures 16⅞" x 23½" x 10¼". Three-case system weighs 102 pounds. PROFESSIONAL NET: \$468.40.

MOUNTING HARDWARE FOR THE TX-10



MODEL SR-85 is a custom frame for mounting the TX-10 in home high fidelity installations. PROFESSIONAL NET: \$10.



MODEL SR-86 is a frame for rack mounting the TX-10 in Newcomb Model 35-19 or 70-19 cabinet racks. (cannot be used with door.) PROFESSIONAL NET: \$15.95.



MODEL SR-97 is a pair of rack brackets for mounting the TX-10 in standard 19" racks. (Cannot be used in Newcomb Models 35-19 and 70-19 cabinets.) PROFESSIONAL NET: \$3.95.

SPECIFICATIONS AND PRICES ARE SUBJECT TO CHANGE WITHOUT NOTICE.

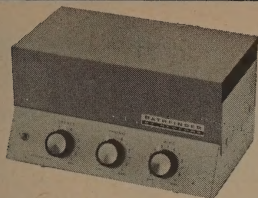
NEWCOMB AUDIO PRODUCTS CO.

NEWCOMB

NEWCOMB

PATHFINDER

PUBLIC ADDRESS EQUIPMENT

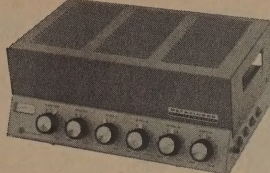


MODEL E-10B

10 watt
amplifier
Low priced, deluxe,
full push-pull output

The Newcomb E-10B offers a surprising number of deluxe features for so compact and economical an amplifier. It has the slanted operating panel and control markers which distinguish all Pathfinder models. The E-10B has separate mixers for microphone and ceramic phono pickup (or radio or tape). Mike input is a standard 3-contact phone jack suitable for high or low impedance mike. The E-10B is wired for plug-in transformers for instant conversion for use with low impedance mike. Output impedances to socket are 4, 8, 16 ohms, plus 25 and 70 volt line taps. Output jack for recorder or booster amplifier. Unit has a wide-range treble tone control, 25,000 hour pilot light. UL approved.

SPECIFICATIONS: Power Output: 10 watts RMS, 20 watts peak at less than 5% distortion. Frequency Response: ± 2 db 30 through 15,000 cycles. Mike Gain: 118 db at 2 meg. .0055 volts delivers full power. Phono Gain: 79 db at 1 meg.; 33 volts delivers full power. Output To Tape Jack: Delivers 4.4 volts max. or 1 volt at $\frac{1}{2}$ watt output. Hum: Fundamental, 70 db below rated output. Power Response: ± 3 db, 70 through 13,000 cycles at 5% distortion. Size: $10\frac{1}{4} \times 6\frac{1}{2} \times 5\frac{1}{2}$ " high. Weight: 9 lbs. Power Consumption: 60 watts, 117 volts, 60 cycles. Tubes: 1-12AX7, 1-6AU6, 2-6V6, 1-6X4. LIST: (with tubes) \$75.00.



MODEL E-5P

5-channel
mixer
preamplifier

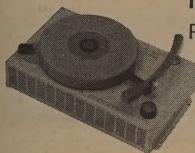
The Newcomb E-5P is a high performance, low-priced, multi-purpose mixer-preamplifier with 4 microphone channels (one convertible to magnetic phono), one high level channel with two inputs (chosen by selector switch) — one for ceramic phono pickup, the other for tape or radio. Master gain control. Each mike input jack is standard 3-contact phone jack. Each mike channel is wired for plug-in transformers for instant conversion to low impedance microphone usage. The E-5P has a VU meter with concealed sensitivity adjustment, outputs for tape, booster, and a.c., 25,000-hour pilot lamp. Operating panel is slanted for easy viewing and operating sitting or standing. Performance is excellent with individual mike input tubes for minimum crosstalk and d.c. on all filaments. UL approved.

SPECIFICATIONS: Cathode Follower Outputs: 6 volts at less than 2% into high impedance load. Volume Indicating Meter: Adjustable from 2 to 6 volts. Frequency Response: ± 2 db 30 through 20,000 cycles. Mike Inputs: 2 meg.; .0025 volts for 2 volts out. Ceramic Phono or Radio or Tape Input: 1 meg. .32 volts for 2 volts output. Magnetic Phono Input: .011 volts for 2 volts output. Hum: Fundamental, 80 db below 6 volts output. Size: $14\frac{1}{4} \times 8\frac{1}{2} \times 5\frac{1}{2}$ " high. Weight: 11 $\frac{1}{2}$ lbs. Power Consumption: 31 watts 117 volts 60 cycles A.C. Tubes: 4-12AV6, 1-12AU6, 5-0C5, 1 power silicon rectifier. LIST: (with tubes) \$139.50.

HIGH QUALITY, LOW PRICE PUBLIC ADDRESS AMPLIFIERS WITH MANY DELUXE FEATURES

MODEL P-4

PHONO TOP



The Newcomb P-4 is a 4-speed record player that is designed to fit on top of the E-20, E-40 or E-75 Pathfinder amplifier.

It includes an automatic idler release on the power switch to prevent flat spots, a plug-in turnover type dual-sapphire-styli ceramic cartridge, pickup hold-down screw and drop pad. Dimensions: $8\frac{1}{8} \times 14 \times 5$ " high over all. Weight: 6 lbs. LIST: \$39.95.



All Newcomb Pathfinder power amplifiers and the E-5P preamplifier have slanted operating panels for convenient control in either a sitting or standing position. This feature is important, too, with rack mounted installations where units may be mounted near the floor as well as at eye level. All control knobs have white, rotatable reference markers for quick return to a pre-determined setting. All have a 25,000 hour pilot light. All are UL approved. Newcomb

public address amplifiers Models E-20, E-40, and E-75 all have the following features: Each has two microphone channels with mixer controls and one high level channel with mixer for ceramic phono pickup, radio or tape. Mike channels are wired for Newcomb plug-in transformers for instant conversion to use with low impedance microphones. High level control is compensated; as volume is reduced, bass is proportionately sustained. Mike not affected by this control. There are separate bass and treble master tone controls. Output taps on terminal strip and two sockets are for 25 volt balanced or unbalanced line plus 70 ohms unbalanced, and 16, 8, and 4 ohms. There is an output jack for recorder or booster and an a.c. output receptacle. Pathfinder equipment has a distinctive two-tone finish in soft tints of olive-gray and spruce.

MODEL E-20

20 watt



SPECIFICATIONS: Power Output: 20 watts RMS, 40 watts peak at less than 5% distortion. Frequency Response: ± 2 db 30 through 15,000 cycles. Mike Gain: 122 db at 2 meg.; .005 volts delivers full power. Phono Gain: 83 db at 1 meg.; .315 volts delivers full power. Output To Tape Jack: Delivers 6 volts max. or 1 volt at $\frac{1}{2}$ watt output. Hum: Fundamental, 70 db below rated output. Power Response: ± 3 db, 50 through 20,000 cycles at 5% distortion. Size: $14\frac{1}{4} \times 9\frac{1}{2} \times 5\frac{1}{2}$ " high. Weight: 14 $\frac{1}{2}$ lbs. Power Consumption: 80 watts, 117 volts, 60 cycles A.C. Tubes: 1-12AX7, 1-6BR8, 2-EL-84, 1-5Y3. LIST: (with tubes) \$99.50.

MODEL E-40

40 watt



SPECIFICATIONS: Power Output: 40 watts RMS, 80 watts peak at less than 5% distortion. Frequency Response: ± 2 db 30 through 15,000 cycles. Mike Gain: 125 db at 2 meg.; .005 volts delivers full power. Output To Tape Jack: Delivers 6 volts max. or 1 volt at 1 watt output. Hum: Fundamental, 70 db below rated output. Power Response: ± 2 db 40 through 20,000 cycles at 5% distortion. Size: $14\frac{1}{4} \times 9\frac{1}{2} \times 6\frac{1}{2}$ " high. Weight: 19 $\frac{1}{2}$ lbs. Power Consumption: 160 watts, 117 volts, 60 cycles A.C. Tubes: 1-12AX7, 1-6BR8, 4-EL84, 1-5U4. LIST: (with tubes) \$129.50

MODEL E-75

75 watt



SPECIFICATIONS: Power Output: 75 watts RMS, 150 watts peak at less than 5% distortion from a fixed bias, screen regulated, output system. Frequency Response: ± 2 db 30 through 15,000 cycles. Mike Gain: 128 db at 2 meg.; .005 volts delivers full power. Phono Gain: 88 db at 1 meg.; 3 volts delivers full power. Output To Tape Jack: Delivers 6 volts max. or 1 volt at 1.87 watts output. Hum: Fundamental, 70 db below rated output. Power Response: ± 2 db 50 through 20,000 cycles at 5% distortion. Size: $7 \times 13\frac{1}{2} \times 14\frac{1}{2}$ " high. Weight: 25 lbs. Power Consumption: 185 watts, 117 volts 60 cycles. Tubes: 2-12AX7, 1-6CA, 2-7027A, 1-6V6GT, 3 power silicon rectifiers. LIST: (with tubes) \$189.50.

SPECIFICATIONS AND PRICES ARE SUBJECT TO CHANGE WITHOUT NOTICE.

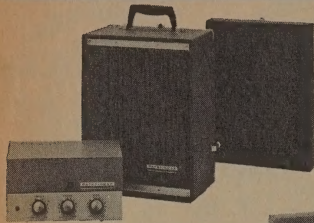
NEWCOMB AUDIO PRODUCTS CO.

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PATHFINDER

PUBLIC ADDRESS SYSTEMS

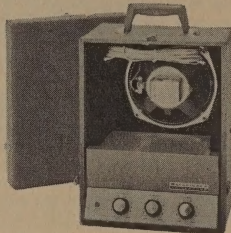


MODEL E-1008S

10 watt
PORTABLE
system

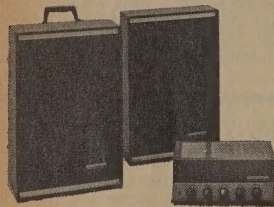
The Newcomb E-1008S System consists of one E-10B amplifier and one P-108 speaker assembly. The P-108 contains an efficient 8" loudspeaker protected by a kickproof, perforated metal grille, microphone carrying straps (but no mike), and space for carrying the E-10B amplifier. Size: $11\frac{1}{4}" \times 14\frac{3}{4}" \times 9"$ deep. System weight: 17½ lbs.

LIST: \$115.00.



MODEL E-20-212R

20 watt
PORTABLE
system



This 20 watt system consists of one Newcomb E-20 amplifier and one P-212R dual speaker assembly which also acts as a carrying case for the amplifier. The P-212R includes two efficient 12" dual-cone loudspeakers, each with a 25 foot cord and plug. Speaker baffles snap together back to back. Inside are mike carrying straps but no microphone. Speakers are protected by kickproof perforated metal grilles. System closed measures $13\frac{1}{2}" \times 15\frac{1}{4}" \times 23"$, weighs 37 lbs.

LIST: \$199.50

MODEL E-40-212H 40 watt PORTABLE system. Included in the E-40-212H are one Newcomb E-40 amplifier and one P-212H dual speaker case assembly which also acts as a carrying case for the amplifier. There are two 12" heavy duty loudspeakers each with a 25 foot cord and plug, kick-proof perforated metal grilles and mike carrying straps but no microphone. Size $13\frac{1}{2}" \times 15\frac{1}{4}" \times 23"$, weight 44 lbs.

LIST: \$242.00.

COLUMN SPEAKER PERMANENT SYSTEMS



MODEL E-20-2C8F 20 watt consists of one E-20 amplifier, two Model C-8 column speakers, and 100 feet of speaker cord. No microphone. Weight: 94½ lbs.

LIST: \$336.20.

MODEL E-40-2C8F 40 watt consists of one E-40 amplifier, two Model C-8 column speakers, and 100 feet of speaker cord. No microphone. Weight: 60 lbs.

LIST: \$366.20.

MODEL E-75-4C8F 75 watt consists of one E-75 amplifier, four Model C-8 column speakers, and 200 feet of speaker cord. No microphone. Weight: 107 lbs.

LIST: \$662.90.

MODEL E-20-2C12F 20 watt consists of one E-20 amplifier, two model C-12 super column speakers, and 100 feet of speaker cord. No microphone. Weight: 93¼ lbs.

LIST: \$569.50.

MODEL E-40-2C12F 40 watt consists of one E-40 amplifier, two model C-12 super column speakers, and 100 feet of speaker cord. No microphone. Weight: 98½ lbs.

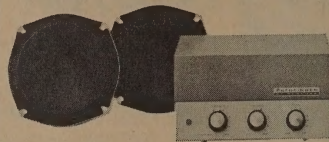
LIST: \$599.50.

MODEL E-75-2C12F consists of one E-75 amplifier, two model C-12 super column speakers, and 100 feet of speaker cord. No microphone. Weight: 105 lbs.

LIST: \$659.50.

MODEL E-75-4C12F 75 watt consists of one E-75 amplifier, four model C-12 super column speakers and 200 feet of speaker cord. No microphone. Weight: 184 lbs.

LIST: \$1129.50.



MODEL E-10-28F

10 watt
PERMANENT
system

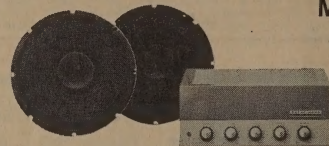
This system includes one Newcomb Model E-10B amplifier, two eight-inch extended range loudspeakers, and 100 feet of speaker cord. No microphone included. System weight: 12 lbs.

LIST: \$99.00.

MODEL E-20-48F

This is a 20 watt sound system for permanent installation consisting of one Newcomb Model E-20 amplifier, four 8" extended range loudspeakers, and 200 feet of speaker cord. No microphone. System weight: 20¼ lbs.

LIST: \$147.50.



MODEL E-20-212F

20 watt
PERMANENT
system

This twenty watt system includes one Newcomb E-20 amplifier, two 12" dual-cone loudspeakers, and 100 feet of speaker cord. No microphone included. System weight: 20¼ lbs.

LIST: \$143.50.

MODEL E-40-212FH 40 watt PERMANENT system includes one Newcomb E-40 amplifier, two heavy duty 12" loudspeakers, and 100 feet of speaker cord. No microphone. System weight: 28 lbs.

LIST: \$184.50.

MODEL E-40-412F 40 watt PERMANENT system includes one Newcomb E-40 amplifier, four dual-cone loudspeakers, and 200 feet of speaker cord. No microphone. System weight: 32½ lbs.

LIST: \$217.50.

MODEL E-75-412FH 75 watt PERMANENT system includes one Newcomb E-75 amplifier, four heavy duty 12" loudspeakers, and 200 feet of speaker cord. No microphone. System weight: 43 lbs.

LIST: \$299.50.

SPEAKER ASSEMBLIES

MODEL P-108 is an 8" speaker in a portable case fitted for carrying the Newcomb E-10B amplifier. It has a kickproof, perforated metal grille, 25 foot cord with octal plug and microphone straps. Dimensions: $11\frac{1}{4}" \times 14\frac{3}{4}" \times 9"$ deep. Weight: 9 lbs.

LIST: \$40.00.

MODEL P-212R consists of two efficient 12" dual-cone speakers, each with 25 foot cord and octal plug, in a split portable case designed to carry the E-20 amplifier with or without the P-4 phone top. Case is covered with gray vinyl, has kickproof, perforated metal grilles, and microphone-carrying straps. Dimensions: $13\frac{1}{2}" \times 15\frac{1}{4}" \times 23"$. Weight: 24½ lbs.

LIST: \$100.00.

MODEL P-212H consists of two heavy duty 12" loudspeakers, each with 25 foot cord and octal plug, in a split portable case designed to carry the E-40 amplifier with or without the P-4 phone top. Case is covered with gray vinyl, has kickproof, perforated metal grilles, and microphone-carrying straps. Dimensions: $13\frac{1}{2}" \times 15\frac{1}{4}" \times 23"$. Weight: 22½ lbs.

LIST: \$112.50.

MODEL C-8 COLUMN SPEAKER combines exceptional vertical directivity with broad horizontal coverage. Enclosure tapered front to back for ganging. Contains four efficient 8" speakers. Dimensions: $6\frac{1}{2}" \text{D} \times 11\frac{1}{4}" \text{W} \times 40" \text{H}$. Weight: 20¼ lbs.

LIST: \$115.85.

MODEL C-12 SUPER COLUMN SPEAKER with four 12" speakers provides super intelligibility, super efficiency, super power handling capacity—120 watts peak. Dimensions: $7\frac{1}{2}" \text{D} \times 15\frac{1}{4}" \text{W} \times 56" \text{H}$. Weight: 39½ lbs.

LIST: \$232.50.

SPECIFICATIONS AND PRICES ARE SUBJECT TO CHANGE WITHOUT NOTICE

NEWCOMB AUDIO PRODUCTS CO.

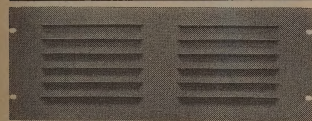
NEWCOMB

NEWCOMB**PATHFINDER**
PUBLIC ADDRESS EQUIPMENT**MODEL E2-525G INDUSTRIAL PREAMPLIFIER**

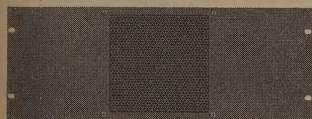
Designed for industrial sound systems, the Newcomb E2-525G has 125 to 600 ohm balanced line output. Maximum output at 600 ohms = 10 volts line output. Inputs: one mike at 2 meg impedance, convertible to low impedance by means of Newcomb plug-in transformer (socket provided) - one high level crystal phono; one radio or tape. At 600 ohm line output: mike output of .0015 volts delivers 1 volt; phono input of .15 volts delivers 1 volt out. Frequency response: ± 2 db 30 to 15,000 cycles. Electronic remote switching turns mike on and music off when paging. Remote switching line may be unshielded 3-conductor cable up to several thousand feet long. No relays required. There are separate tone controls for mike and phono. Mike input socket is a standard 3-contact phone jack usable with low or high impedance microphones. Tubes: 1-6SF5, 1-6SN7, 1-6J5, 1-6X5, 25 watts, 117 volts, 60 cycles a.c. Dimensions: 19" x 5 1/4" x 6 1/8" deep. Weight: 9 lbs. **LIST: \$129.50.**

PANELS FOR CABINET RACK**BLANK
PANELS**

Model Number	Dimensions	Weight lbs.	List
175G	1 3/4" x 19"	1 3/4	\$3.00
350G	3 1/2" x 19"	1 3/4	\$3.50
525G	5 1/4" x 19"	2 1/2	\$4.00
700G	7" x 19"	3	\$4.50
875G	8 3/4" x 19"	3 1/2	\$5.00
1050G	10 1/2" x 19"	4 1/4	\$5.50

**LOUVERED
PANELS**

Model Number	Dimensions	Weight lbs.	List
L-525G	5 1/4" x 19"	2 1/2	\$5.00
L-700G	7" x 19"	3	\$5.75
L-875G	8 3/4" x 19"	3 1/2	\$6.50
L-1050G	10 1/2" x 19"	4 1/4	\$7.25

**MONITOR
PANEL**

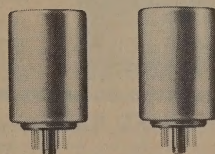
MODEL 700MPG measures 7" x 19", has perforated metal grille, requires 6" speaker, weight 3 lbs. (See also radio panels.)
LIST: \$10.00.

**LEVER KEY
PANELS**

All lever key panels have 1" slots 1" apart with 1 1/8" mounting holes. Each panel measures 3 1/2" x 19". Weight of each panel is 1 1/4 lbs.

Model No.	No. of slots	LIST
LK-350-6G	6	\$5.00
LK-350-8G	8	\$5.50
LK-350-10G	10	\$6.00
LK-350-12G	12	\$6.50
LK-350-14G	14	\$7.00
LK-350-16G	16	\$7.50

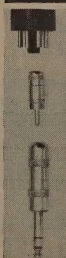
Name strip Model No.	LIST
SR-6	\$2.50
SR-8	\$2.60
SR-10	\$2.70
SR-12	\$2.80
SR-14	\$2.90
SR-16	\$3.00

**HUM-FREE PLUG-IN TRANSFORMERS**

MODEL TR-91 input transformers are designed for all Newcomb amplifiers wired to accept them. They provide 30/50 ohms or 200/500 ohms input impedance depending on wiring of transformer socket. Normal Newcomb amplifier wiring connects the TR-91 for 30/50 ohms. Frequency response: 20 to 20,000 cycles. Wt: 1 1/4 lbs. **LIST: \$25.00.**

MODEL TR-100 input transformers are identical to TR-91 models. They provide 125/150 ohms or 500/600 ohms impedance depending upon wiring of socket with 125/150 ohms normal. Frequency response: 20 to 20,000 cycles. Weight: 1 1/4 lbs. **LIST: \$37.50.**

MODEL TR-92B is a bridging transformer, otherwise identical to above models. Weight: 1 1/4 lbs. **LIST: \$37.50.**

**CONNECTORS**

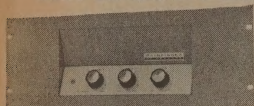
MODEL PW-156 is an octal speaker plug for all Pathfinder models.
LIST: \$.45.

MODEL PW-157 is a phono tap or radio input plug for all Pathfinder models. **LIST: \$.75.**

MODEL PW-144 is a three contact, shielded mike plug for all Pathfinder models. **LIST: \$1.75.**

SPECIFICATIONS AND PRICES ARE SUBJECT TO CHANGE WITHOUT NOTICE.

NEWCOMB AUDIO PRODUCTS CO.**NEWCOMB**

NEWCOMB**PATHFINDER**
PUBLIC ADDRESS EQUIPMENT**RACK AND PANEL EQUIPMENT****AMPLIFIER PANELS — MODEL E-10-700PG**

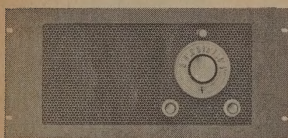
Panel only for rack mounting a standard Newcomb E-10B amplifier. Dimensions: 19" x 7". Weight: 3 lbs. LIST: \$17.50.

**MODEL E-52040-700PG**

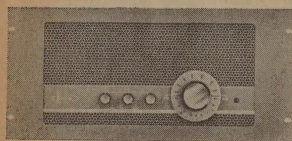
Panel only for either the Newcomb E-5P pre-amplifier, the E-20 or E-40 amplifier. Dimensions: 19" x 7". Weight: 3½ lbs. LIST: \$18.50.

**MODEL E75-875PG**

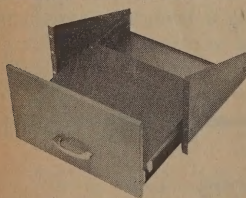
Panel only for rack mounting a standard Newcomb E-75 amplifier. Dimensions: 19" x 8¾". Weight: 4 lbs. LIST: \$19.50.

PANEL MOUNTED RADIOS—MODEL AM-500-875G AM RADIO

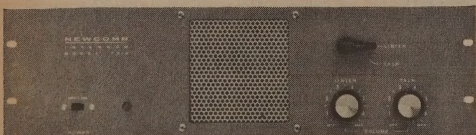
This is a complete, transformer-powered AM radio in which the output amplifier and 8" oval speaker act as a monitor. The output to external amplifiers is taken off ahead of the volume control so adjustment of monitor volume has no effect on output to sound system or tape recorder. The AM-500-875G is a dependable, rugged, continuous duty receiver with a large, direct-driven tuning dial with conelrad markings, lighted index. 40 watts, 117 volts, 60 cycles a.c. Dimensions: 19" x 8¾" x 7½" deep. Weight: 12¼ lbs. LIST: \$109.00.

MODEL AFM-750-875G AM-FM RADIO

A complete, transformer-powered AM-FM radio in which the output amplifier and 8" oval speaker act as a monitor, the AFM-750-875 has AFC (and defeat switch) and temperature-compensated oscillators for exceptionally stable performance. Output to external amplifier is taken off ahead of the volume control so adjustment of monitor volume has no effect on output to sound system or recorder. 54 watts, 117 volts, 60 cycles a.c. Dimensions: 19" x 8¾" x 7½" deep. Weight 14½ lbs. LIST: \$249.00.

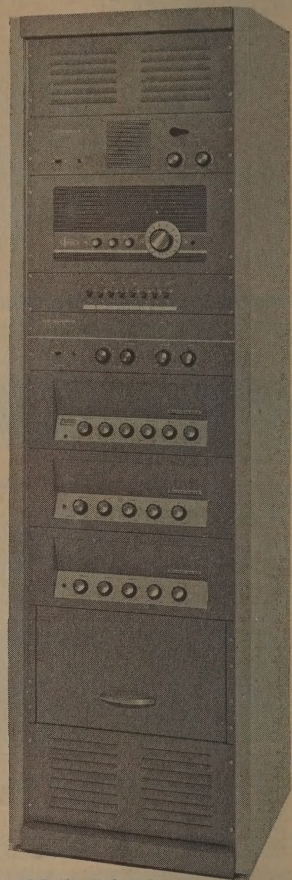
**MODEL 1050CG
PHONO CHANGER DRAWER**

The front panel dimensions of the 1050CG phonograph changer drawer is 19" x 10½". It has a 16½" x 15" removable motor board. Depth from the top of the motor is 3¾". Clearance above top of motor board is 6½". Weight 19¼ lbs. Finest double-extension, roller bearing glides provide a stable level platform for player. LIST: \$65.00.

**MODEL TB-525G
PANEL-MOUNTED
INTERCOM**

A complete intercom amplifier and speaker, the TB-525G is designed for industrial installations wherein paging speakers are used for intercommunication. Input and outgoing impedances: 500 ohms. Separate incoming and

outgoing volume controls. Talk-listen switch. Pilot light. Tubes: (3) 1-6SL7, 1-6V6, 1-6X5. 40 watts, 117 volts, 60 cycles a.c. Dimensions: 19" x 5¼" x 6¼" deep. Weight: 9¼ lbs. LIST: \$183.50.

**MODEL 70-19
CABINET RACK**

Contemporarily styled, solidly built, beautifully finished in an olive-gray tint compatible with Newcomb Pathfinder equipment, the 70-19 has a ventilated back, provides 70" of panel space. Panels are standard 19" width. Last three digits of model number indicate panel depth. e.g. "875" stands for 8¾" panel depth. Dimensions: 21¾" x 74" x 18½" deep. Weight 84 lbs. LIST: \$262.00.



MODEL 70D Door with lock for front of 70-19 cabinet. Weight: 23 lbs. LIST: \$50.00.

MODEL 35-19 CABINET RACK A short cabinet rack with ventilated back 35" of panel space. Dimensions: 21¾" x 39" x 18½" deep. Weight: 52 lbs. LIST: \$187.50.

MODEL 35D Door with lock for front of 35-19 cabinet. Weight: 12 lbs. LIST: \$29.50.

NEWCOMB AUDIO PRODUCTS CO.

NEWCOMB

NEW TALK-A-PHONE WIRELESS AND HOME INTERCOM SYSTEMS

TWO NEW WIRELESS SYSTEMS

Two NEW, high-quality wireless intercoms, featuring the exclusive TALK-A-PHONE "SONIC GATE" circuit. Provides dependable communication where permanent, wired systems are not practical. Ideal for use in offices, factories, stores, homes, apartments, nurseries, farms, etc. Distinctively styled cabinets combine the look and feel of fine grained leather with the strength and rigidity of steel. Beautifully finished in charcoal gray with brushed chrome side panels. Each station has a translucent indicator which illuminates when "On." All stations must be connected to outlets on the same electric company service transformer. Built-in Ground Adapter provides greater sensitivity where electrical wiring is routed over long paths. U.L. Approved.

NEW TALK-A-PHONE 12-STATION SELECTIVE WIRELESS* SYSTEM



- No Installation
- No Wiring
- No Cables
- Just Plug-In and Talk

Your Voice Goes Through... Noise and Hum are Screened Out... The Sonic Gate circuit effectively suppresses line noises and hum by 30 db while system is in actual operation, as well as when in Stand-By position.

- 6 Separate 2-Way Conversations Simultaneously
- Selective Paging with Reply • Push-Button Channel Selector
- Start a System with any number of Masters and Staffs

Provides selective communication. Each Master is equipped with a 6 or 12-channel selector; can converse with any other station selectively; can receive calls on any channel Master elects to use. As many as 6 separate conversations may be held simultaneously, with 12 Masters. Masters can talk with any station in system; can also set up conferences.

Wireless Staff Stations are for use where calls need not be originated, but where reply must be made. They are available for operation on any single channel desired—to match that of Master. They also can be used to receive Paging Calls from any Selective Wireless Master in the system... use as many Wireless Staffs as needed (all Staffs must operate on same channel for this system).
T-LCS-9012, 12-Station Selective Wireless Master. Complete with tubes and instructions, ready to use. Operates on 110-120 volts, AC or DC. Size 14"wx8 3/4"dx3 1/4". Shipping weight, 12 1/2 lbs.
 List Price Per Station \$164.00...Net **\$95.80**

T-LCM-8006, 6-Station Selective Wireless Master.
 As above except for 6-Station Capacity. Ship. Wt. 10 lbs.
 List Price Per Station \$146.00...Net **\$85.50**

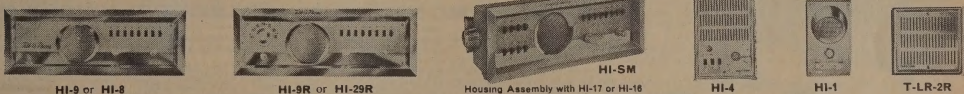
Wireless Staff Stations. Receive and reply on a single channel only.
T-LCS-901 Channel 1
T-LCS-902 Channel 2
T-LCS-903 Channel 3
T-LCS-904 Channel 4
T-LCS-905 Channel 5
T-LCS-906 Channel 6
 Complete with tubes and instructions, ready to use. Operates on 110-120 volts, AC or DC. Size, 10 1/2"wx8 3/4"dx3 1/4". Shipping weight, 7 lbs.
 List Price Per Station \$84.00...Net **\$49.00**

NEW TALK-A-PHONE 2-STATION WIRELESS* SYSTEM
 A complete system of 2 stations, ready to use. Simply place each unit where desired, plug each into nearest electrical outlet, and talk! Add more stations anytime. All stations will receive any messages transmitted from any point. Move units anywhere without electrical outlet and use—no rewiring or new installation is necessary. The original TALK-A-PHONE UNIT-TRANS is built in—provides continuous one-way transmission; ideal for dictation, or listening-in on baby. 110-120 V. AC-DC. Size, 10 1/2"wx8 3/4"dx3 1/4".

T-LC-33. Complete with tubes and instructions. Weight 16 lbs. List Price Per System \$146.00...Net **\$85.50**
T-LC-17. Additional Single Station. Weight 8 lbs. List Price Each \$73.00...Net **\$42.75**

CRADLEPHONE—Optional for all units above. Add H to model No. when ordering.
 List Price Per Station add \$59.95...Net add **\$35.00**

NEW TALK-A-PHONE All-Transistor HOME INTERCOM-RADIO SYSTEMS



This new TALK-A-PHONE Intercom System saves the housewife and homeowner miles of tiresome steps, hours of time... Makes home life easier, more comfortable and more enjoyable...

LISTEN-IN ON BABY, CHILDREN OR SICK ROOM... from any room in the house, day or night • **ANSWER OUTSIDE DOORS FROM ANY ROOM...** in any part of the house—without opening doors to strangers • **TALK FROM ROOM TO ROOM...** back and forth, upstairs or downstairs, any time, day or night • **YOUR FAVORITE RADIO PROGRAMS...** follow you throughout the house with the flick of a switch.

TALK-A-PHONE All-Transistor Home Intercom units are beautifully finished in gold, polished and satin silver tones. All Masters and Staff Stations are designed for flush mounting; or with optional Housing Assembly, these stations can be mounted on walls, cabinets, or set on tables, shelves, etc. Plaster Ring included for 8 and 16-Station units require 4 1/4"x4 1/4", 3/4" wall opening. Front panel size: 15 1/4"x7 1/4". HI-4 requires 4 1/4"x6 1/4", 2" wall opening. Front panel size: 4 1/4"x7 1/4"x7 1/4". Sub-Stations are designed for flush mounting; do not need Plaster Ring. Requires 2" square wall opening, 2" deep. Front panel size: 3 3/4"x5 1/4". Stations do not plug into electrical outlet. Operates from Battery or HI-PS Power Supply Unit. Total capacity: up to 16 stations including Central Master. With full instructions.

CENTRAL MASTER STATIONS. Only one used per system. Contains the All-Transistor Amplifier (and radio when built-in). Place in any room. Master can call and converse with any other station (or stations) in system; can listen-in to any Station that user makes "non-private." If system has Model HI-9R Central Master (built-in radio), the Master and any Staff can listen to standard AM radio broadcasts. "Additional" Masters can be used in rooms where it is desired to listen to AM radio programs different from those tuned in at Central Master.

HI-9 Central Master Station. Without radio, less battery...Net Each **\$8.00**

HI-9R Central Master Station. With built-in radio. Less battery...Net Each **\$8.50**

HI-17 Central Master Station. Same as HI-9 except has total 16 station capacity. Without built-in radio...Net Each **\$146.00**

HI-29R Additional Master Station. With built-in radio. Less battery...Net Each **\$8.50**

STAFF STATIONS. 4, 8 and 16-Station Capacity Staff Stations can be combined within the same system and used with choice of one 8-station capacity or one 16-station capacity Central Master Station. (When HI-9R is used, any HI-4, HI-8 or HI-16 staff, can listen to radio of HI-9R).

HI-4 Staff Station. Provides same facilities as HI-8 but has 4-station capacity. For flush mounting in wall. With accessory T-SM-L, can be surface mounted...Net Each **\$7.50**

HI-8 Staff Station. Use as needed to call and converse with one or more Staff, Master or Sub-Stations. Can be switched to "private" or "non-private" operation as desired. When "non-private," as in baby or sick room use, another Staff or Master can listen in, Staff can listen to standard AM radio programs of HI-9R Central Master...Net Each **\$15.00**

HI-16 Staff Station. Same as HI-8 except has total 16 station capacity...Net Each **\$58.50**

HI-SM HOUSING ASSEMBLY. For enclosing any 8 or 16-Station Capacity Master or Staff, to permit mounting on walls or cabinets, or placing on tables, shelves, etc.
 List Price Each \$19.00...Net Each **11.00**

HI-1 OUTDOOR SUB-STATION. For front and rear entrance applications. Complete with push-button for connection to regular house chime, bell or buzzer. Has illuminated nameplate. When caller rings bells, any Master or Staff may reply and converse with caller. Caller operates no controls.
 List Price Each \$27.50...Net Each **15.95**

O-SM Surface Mounting Accessory for HI-1. Custom-styled metal casting of satin silver finish. Provides an attractive, coordinated base for mounting HI-1 on surface of wall. 3 1/4"x3 1/4"x3/4". List Price Each \$5.20...Net Each **2.95**

T-LR-2R ALTERNATE OUTDOOR SUB-STATION. For flush mounting. Requires wall opening 4 1/4" square, 2" deep. Stainless steel front panel measures 4 1/4" square. Complete with plaster ring. Without push button or illuminated nameplate.
 List Price Each \$22.50...Net Each **12.95**

Model T-SM Optional accessory for surface mounting T-LR-2R on wall.
 List Price Each \$6.80...Net each **4.00**

Model T-SM-L Optional accessory for Surface mounting HI-4 Staff on wall.
 List Price Each \$7.90...Net Each **4.65**

HI-JBS JUNCTION BOX for connecting Masters and Staffs up to a total of 8 stations. See #2 of "How to Determine Cable Needs."
 List Price Each \$7.50...Net Each **4.30**

HI-JB16 JUNCTION BOX Same as above except for up to 16 stations...Net Each **6.95**

BATTERY. Use any 9-volt dry battery, such as ignition or telephone battery; or six standard #6 dry cells in series—available from local sources. *Nuter: When battery is used, power supply is not required.*

HI-PS POWER SUPPLY UNIT. One required per system (only when battery is not used). Plugs into any 110-120 volt, 60 cycle AC electrical outlet in basement, attic, etc.
 List Price Each \$27.50...Net Each **15.95**

HOW TO DETERMINE CABLE NEEDS

Masters and Staff Stations. Use #6226 cable in one of 2 ways: (1) Measure from 1st unit to 2nd unit only; from 2nd unit to 3rd unit only, etc., until last unit is reached—then twist Cable between last and 1st unit not needed. (2) Place a Common Junction Box (Model HI-JB) in attic, basement, closet, etc. Measure from each Master and Staff to Junction Box and total. Double length #6226 required for 16-Station units. Connect HI-4 to nearest 8 or 16-Station unit or to HI-JB with #6214 cable.

Outdoor Sub-Stations: Connect to nearest Master or Staff only with #6202 cable

Battery or Power Supply Unit: Connect with #6202 cable to Master Stations only

CABLE. For indoor or outdoor use.

Type No. No. Pairs Approx. O.D., LIST, Per Ft. NET, Per Ft.

6226	13	3/4"	37c
6212	4	3/8"	20c
6202	2	1/8"	7c



All prices slightly higher west of Rockies. All prices and specifications subject to change without notice. Manufactured under exclusive TALK-A-PHONE Patents.

TALK-A-PHONE CO.



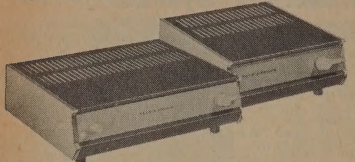
NEW TALK-A-PHONE Deluxe Intercom Systems



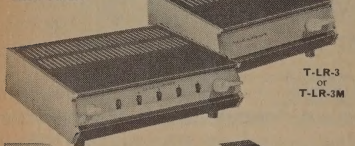
Quality intercommunication systems designed for the Office, Business, Plant, House, Farm, Professional Man, or any other private or commercial application. A flick-of-a-finger gives you instant and direct two-way conversation between any two points. Masters have translucent indicator which illuminates when system is "on." In cabinets

that combine the look and feel of fine grained leather with the strength and rigidity of steel. Beautifully finished in charcoal gray and brushed chrome. Resists industrial liquids and atmospheric vapors. Size: Masters, 10 $\frac{1}{2}$ " w x 8 $\frac{1}{2}$ " d x 3 $\frac{1}{2}$ " h; Subs, 7 $\frac{1}{2}$ " w x 8 $\frac{1}{2}$ " d x 2 $\frac{1}{2}$ " h. U.L. Approved.

2-way voice communication between any two points



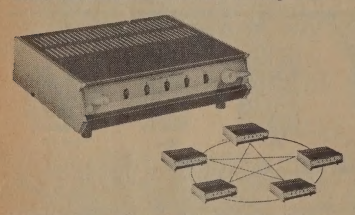
A system of one Master Station which can communicate with from one to ten Sub-Stations. Subs can call Master, but not each other.



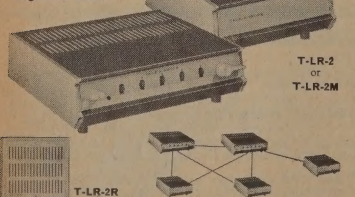
T-LR-3 or T-LR-3M



A system of up to ten Master Stations. Each station can call and communicate with any other.

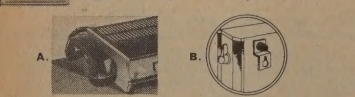


A system combining one or more Master Stations with one or more Sub-Stations up to a combined total of ten. Masters call any station. Subs reply but cannot originate calls.



T-LR-2 or T-LR-2M

T-LR-2R



A. CRADLEPHONE—Optional for any unit above (except T-CL-5, T-CL-10, T-AC-605, T-AC-610, T-AC-20, T-HP-3, T-LR-3R and T-LR-2R). Add "H" to Model No. when ordering. List Price per Station, add \$59.95.Net, add 35.00

B. WALL MOUNTING BRACKETS—Optional accessory for use with TALK-A-PHONE Models T-LR-3, T-LR-3M, T-LR-2, T-LR-2M, T-CL-41, T-CL-41M, T-CL-42, T-CL-42M, and T-CL-2 Sub Stations to enable mounting on wall, side of desk, etc. One pair required per station. Permits mounting with front panel upward, downward or sideward.

Model T-LV1 Mounting Brackets, per pair, List Price \$1.00.Net, 60¢
All Prices Slightly Higher West of Rockies—All Prices and Specifications Subject to Change Without Notice. Manufactured under exclusive TALK-A-PHONE Patents.

TALK-A-PHONE 2-STATION SYSTEM

4T-CL-2

A complete, high-quality intercommunication system. Includes a Master Station, a Sub-Station and 50 feet of interconnecting cable. Additional cable available for distances up to 2000 feet. Easy to install and operate. Master and Sub-Station can originate calls to each other and carry on a 2-way conversation. Sub-Station can be used "privately" or "non-privately." When "private," Master cannot listen-in on Sub-Station; yet Sub can answer and originate calls. When "non-private," persons at Sub-Station can listen-in at a distance without operating controls, as well as originate calls. Master is equipped with a translucent indicator, illuminated by permanent-type bulbs, to show when system is "on." Rugged, high-gain amplifier is built to withstand continuous use and to require a minimum of maintenance. Adjustable Volume. Only Master plugs into electrical outlet, 110-120 volts, AC or DC. Master in deluxe cabinet finish, Sub-Station cabinet is of same

style and color, but is in grained, baked enamel finish. U.L. Approved.

Model T-CL-2 2-Station System complete with tubes, easy-to-follow instructions, and 50 feet of cable, Wt. 13 lbs. List Price complete \$60.00.Net complete 39.00
Model T-6303 (3 conductor) cable, 175' F. individually covered conductors with overall plastic jacket and mild shield. Provides noise-free line in Industry, Office and Home. For indoor and outdoor use where additional lengths are required between the Master and Sub-Station. List Price per foot 8¢.Net per foot 4 3/4¢
No. 5303 (3 conductor) cable for indoor use. List Price per foot 6¢.Net per foot 3 3/4¢
Optional Wall Mounting Bracket for Model T-CL-2 Sub-Station are available. See description below.

TALK-A-PHONE MASTER SELECTIVE SYSTEMS

T-LM

A new system consisting of one Master Station and from one to ten Sub-Stations. Master Station can talk and listen to any one Sub-Station, several Sub-Stations or with all Subs simultaneously. Sub-Stations do not communicate with each other. Only the Master Station can be used into an electrical outlet. You may start with only one Master and one Sub-Station and then add later when necessary. Installation of system has optional feature whereby Sub-Stations can be connected "privately," or "non-privately" and still originate calls to the Master under either application. Once a conversation has been initiated with a "non-private" system, persons at Sub-Stations need operate no controls and can reply from a distance. When the system is connected "privately," Master unit cannot "listen in" on Sub-Stations. However, they can reply when called, and also originate calls to the Master. Operates universally on 110-120 volts, AC-DC. U.L. Approved.

T-AC The T-AC-5406 and T-AC-5411 Master Stations operate as above with the added feature of 10 times volume output. A desirable feature for large or noisy areas and for paging. Operates on 110-120 volts, AC only.

Use only one Master in this System.

Optional Wall Mounting Brackets for Models T-LR-3 and T-LR-3M are available. See description below.

Model T-LM-5 Master selective Station for 5 Sub-Stations, complete with tubes and easy-to-follow instructions. Wt. 8 lbs. List Price each \$64.00.Net each 37.50

Model T-LM-10 Master Selective Station for 10 Sub-Stations, complete with tubes and easy-to-follow instructions. Wt. 8 lbs. List Price each \$79.00.Net each 46.25

Model T-AC-5406 Master Station, 5 sub-station capacity. High Volume Output. Wt. 8 lbs. List Price each \$79.00.Net each 46.25

Model T-AC-5411 Master Station, 10 sub-station capacity. High Volume Output. Wt. 8 lbs. List Price each \$95.00.Net each 55.50

Model T-LR-3 Sub-Station (in same deluxe finish as Masters) for use with any of above Masters. Wt. 6 lbs. List Price each \$29.00.Net each 16.95

Model T-LR-3M Sub-Station (in cabinet of same style, color and size as above, but in grained, baked enamel finish) for use with any of above Masters. Wt. 6 lbs. List Price each \$22.50.Net each 12.95

Model T-5M-4L Optional accessory for surface mounting. List Price per foot \$1.00.Net each 4.65

Model T-HP-3 Hi-Power Staff Station for wall mounting. Charcoal Gray metal case. Wt. 8 lbs. List Price each \$29.95.Net each 17.50

Model T-HP-3M Same as above, but with built-in volume control, adjustable to full output. List Price each \$38.50.Net each 22.50

Model T-CL-20 Nine-inch weatherproof re-entrant horn. Charcoal Gray color. Wt. 5 lbs. List Price each \$46.00.Net each 27.00

Model T-CL-20V Same as above, but with built-in weather-resistant volume control, adjustable to full output. List Price each \$62.00.Net each 36.00

T-5-100 Wall Switch for origination of call through T-CL-20 or T-HP-3. List Price each \$6.40.Net each 3.75

Model T-S-111 Wall Mounted Cradle Phone (optional accessory). For noisy areas and listening privacy. Use with T-HP-3, T-CL-20 and T-5-100. Speaker disconnects when in use. List Price each \$75.00.Net each 44.00

No. 6303 (3 conductor) cable, 175' F. individually covered conductors with overall plastic jacket and mild shield. Provides noise-free cable lines in Industry, Office and Home. For indoor and outdoor use to connect Sub-Station to Master. List Price per foot 8¢.Net per foot 4 3/4¢

No. 5303 (3 conductor) cable for indoor use. List Price per foot 6¢.Net per foot 3 3/4¢

TALK-A-PHONE SUPER SELECTIVE SYSTEMS

4T-LS

A new system of all Master Stations. Any Station can call any other Station in system. Seven completely private 2-way conversations are possible at same time. A versatile, low cost intercom system offering extreme flexibility, meeting many requirements in industry, homes, etc. Any Station can call and carry on a conversation with any other Station or Stations in the system with absolute "privacy." Have a visitor in your office and your roommates can eavesdrop on your conversation. Stations can be located even 1000 feet apart. Variable volume, adjustable at each unit, controls incoming voice. You can start with two or three masters, and then add later as required. Operates universally on 110-120 volts, AC-DC. U.L. Approved.

T-AC The T-AC-505 and T-AC-510 Master Stations operate as above, but provide a system with the added feature of 10 times volume output. A desirable feature for large or noisy areas and for calling many stations at once. T-AC-505 and

T-AC-510 Masters cannot be intermixed with any other master. For 110-120 volts, AC only.

Model T-LS-5 Super Selective Station for five Masters, complete with tubes and easy-to-follow instructions. Wt. 8 lbs. List Price each \$64.00.Net each 37.50

Model T-LS-10 Super Selective Station for 10 Masters, complete with tubes and easy-to-follow instructions. Wt. 8 lbs. List Price each \$79.00.Net each 46.25

Model T-AC-505 Super Selective Station, 5-master capacity. High Volume Output. Wt. 8 lbs. Complete with instructions. List Price \$79.00.Net each 46.25

Model T-AC-510 Super Selective Station, 10-master capacity. High Volume Output. Wt. 8 lbs. Complete with instructions. List Price \$95.00.Net each 55.50

No. 5506 (6-conductor) Cable for connecting T-LS-5 or T-LS-10 Masters. List Price per foot 29¢.Net per foot 9 3/4¢

No. 9911 (11-conductor) Cable for connecting T-LS-10 or T-AC-510 Masters. List Price per foot 29¢.Net per foot 17¢

TALK-A-PHONE COMBINATION SYSTEMS

4T-CL

For the more flexible type of communication system requiring the operation of more than one Master Station, along with Sub-Stations which need not originate calls. Personnel can answer incoming calls even though they are 25 to 40 feet from their unit. Master Stations may talk to each other and to all Sub-Stations in the system selectively; or you can have one or more Sub-Stations which are exclusive to only one Master Station (as illustrated in the diagram). Master Stations have the option of making themselves "private" or "non-private" at will. You can begin with two stations (at least one must be a Master) and add other units as required. Model T-CL-5 Master Station has a total interconnecting capacity of five stations, including Masters and Sub-Stations; while Model T-CL-10 Master Station has a total capacity of ten. Sub-Stations are not plugged into electric current. U.L. Approved. 110-120 volts, AC-DC.

Optional Wall Mounting Brackets for Models T-LR-2 and T-LR-2M are available. See description below.

T-AC The T-AC-605 and T-AC-610 Master Stations operate as above but provide a system with the added feature of 10 times volume output. A desirable feature for large or noisy areas and for calling many stations at once. T-AC-605 and T-AC-610 Masters cannot be intermixed with any other master. For 110-120 volts, AC only.

Model T-CL-5 Combination Master for five station use, complete with tubes and easy-to-follow instructions. Wt. 8 lbs. List Price each \$77.00.Net each 44.95

Model T-CL-10 Combination Master for ten station use, complete with tubes and easy-to-follow instructions. Wt. 8 lbs. List Price each \$92.00.Net each 54.00

T-AC-605 Combination Master for 5-Station use. High Volume Output. Wt. 8 lbs. Complete with instructions. List Price each \$92.00.Net each 54.00

T-AC-610 Same as T-AC-605 except for 10-Station use. List Price each \$107.00.Net each 62.50

Model T-LR-2 or T-LR-2M Sub-Station (in same deluxe finish as Masters) for use with any of above Masters. Wt. 6 lbs. List Price each \$29.00.Net each 16.95

Model T-LR-2M Sub-Station (in cabinet of same style, color and size as above, but in grained, baked enamel finish) for use with any of above Masters. Wt. 6 lbs. List Price each \$22.50.Net each 12.95

Model T-LR-2R Flush mounted Sub-Station for use with any of above Masters. Requires wall opening 4 $\frac{1}{4}$ " square. Stainless steel front panel measures 4 $\frac{1}{4}$ " square. Complete with plaster ring. List Price each \$22.50.Net each 12.95

Model T-5M-4L Optional accessory for surface mounting. List Price per foot \$1.00.Net each 4.00

Model T-HP-3 Hi-Power Sub-Station for wall mounting in charcoal gray metal case. Wt. 8 lbs. List Price each \$29.95.Net each 17.50

Model T-HP-3M Same as above, but with built-in volume control, adjustable to full output. List Price each \$38.50.Net each 22.50

Model T-CL-20 Nine-inch weatherproof re-entrant horn. Charcoal Gray color. List Price each \$46.00.Net each 27.00

Model T-CL-20V Same as above, but with built-in weather-resistant volume control, adjustable to full output. List Price each \$62.00.Net each 36.00

Model T-S-111 Wall Mounted Cradle Phone (Optional accessory). For noisy areas and listening privacy. Use with T-HP-3, T-CL-20 and T-5-100. Speaker in use. List Price each \$75.00.Net each 44.00

No. 6210 (5 pair) Cable for interconnecting T-CL-5 or T-AC-605 Masters. List Price per foot 27¢.Net per foot 16¢

No. 6226 (13 pair) Cable for interconnecting T-CL-10 or T-AC-610 Masters. List Price per foot 64¢.Net per foot 37¢

No. 6802 (2 conductor) Cable for connecting Sub-Station to T-CL-5, T-CL-10, T-AC-605 or T-AC-610. List Price per foot 4 $\frac{1}{4}$ ¢.Net per foot 2 3/4¢

HOW TO DETERMINE CABLE REQUIREMENTS

For Master Selective Systems measure from each Sub-Station to the Master and order total. For Super Selective Systems—measure from first Master to second Master only, from second Master to third Master only, etc. and total. Cable between first and last Master not necessary. For Combination Systems—Master cable; measure from first Master to second Master only, from second Master to third Master only, etc.; and total; Sub-Station cable; measure from each Sub-Station to nearest Master only. Connect T-S-111 at any convenient point between remote speaker and Master Station.

TALK-A-PHONE CO.

THE ALL-NEW, ALL-TRANSISTOR TALK-A-PHONE "CHIEF" AND "CHIEF REDI-POWER" INTERCOMMUNICATION SYSTEMS



"Has Everything . . . Does Everything"

One Model Meets Every Requirement



Setting a new standard in quality, design and performance, the new TALK-A-PHONE "CHIEF" and "CHIEF REDI-POWER" meets every intercom need of office, factory, institution, or any other commercial or private application. "CHIEF" Master Stations of 6, 12, 20, 30 or 50 station capacity can be intermixed with "CHIEF REDI-POWER" Masters of different capacities, together with Staff Stations and Horns within the same system in any desired combination. Masters can talk with any other Master or Staff . . . page . . . and can utilize other optional equipment shown as well. Staffs can answer any Master and can originate calls to one Master, or to two Masters selectively.

ONLY THE TALK-A-PHONE "CHIEF" AND "CHIEF REDI-POWER" GIVE YOU ALL THESE FEATURES

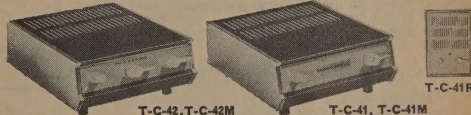
- **DISTINCTIVELY STYLED**—Less than 3-inches high. In cabinets that combine the look and feel of fine-grained leather with the strength and rigidity of steel. Attractively finished in charcoal gray and brushed chrome.
 - **"PRIVATE" OR "NON-PRIVATE" MASTERS AND STAFFS**—Exclusive Dynasonic Design enables stations to perform "privately" (no one can listen-in), or "non-privately" (for reply without use of controls). The same station can be "private" to one or more Masters and "non-private" to others, and retain full communication facilities.
 - **INCOMING CALL CHIME**—A standard feature of Masters. Indicates that your station is being called. Caller talks, you reply.
 - **MONITORING SIGNAL**—A standard feature of Masters and Staffs. Visually indicates to a "non-private" station that it is being monitored.
 - **BUSY SIGNAL**—A standard feature of Masters and Staffs. Visually indicates when station you call is "busy." All units have facility to override "busy signal" for important calls.
 - **DYNASONIC SELECTOR**—An exclusive TALK-A-PHONE feature that permits intermixing of stations and variation of performance. Add to system at anytime without discarding original equipment.
 - **MULTI-MAGIC STATION SELECTOR**—A patented, exclusive TALK-A-PHONE feature that enables selection of up to 30 stations with only 12 push buttons . . . 40 and 50 stations with 14 push buttons . . . in the same attractive cabinet style and size.
 - **UNI-TRANS DICTION CONTROL**—No need to operate or hold down controls when one-way transmission is desired or when Cradle Phone is used.
 - **EXTERNAL RELAY CONTROL**—A standard built-in feature of Masters. Enables Master to activate external relays for operating siren, gong, light, etc. For use in extremely high noise level areas to signal personnel, who can then communicate with caller from Master in quieter location or in sound booth.
 - **RECIPROCAL POWER SUPPLY**—Each Master operates on 110-120 volts, AC only, and should be plugged-in. Where no electrical outlet is available, up to 30% of the Masters in the system can operate without being plugged-in.
 - **NOISE-FREE VOICE RANGE POWER**—The rugged, all-transistor, high-gain amplifier provides unsurpassed clarity and naturalness of tone. The exclusive, patented TALK-A-PHONE circuit enables performance without noise, hum or distortion when used with TALK-A-PHONE cable.
 - **HI-POWER STAFF STATIONS AND HORNS**—For use with any TALK-A-PHONE Master where exceptionally high volume at Staff locations is needed. Ideal for paging speakers. T-HP-3 provides more than twice the volume of universal Staff; T-C-20 provides about 4 times greater volume . . . more with REDI-POWER Masters.
 - **WALL SWITCH**—Combine with TALK-A-PHONE Horn or Hi-Power Staff to add origination-of-call feature.
 - **"LD" LONG DISTANCE**—(optional accessory on "CHIEF" Masters). For use over cable lines of 2,000 ft., 5,000 ft., 10,000 ft. or more without loss of volume. Functions only between Masters with LD . . . not between an LD Master and Staff. Built-in at factory at additional cost.
 - **CRADLE PHONE**—(optional accessory on Masters or Staffs). Has live microphone. Provides listening privacy and greater speaking convenience. Diminishes background noises in noisy areas. Eliminates use of controls in conversation between Masters. Cuts off incoming voice from loudspeaker when in use.
 - **WALL MOUNTED CRADLE PHONE**—(optional accessory). For noisy areas and listening privacy. Use with T-HP-3, T-C-20 and T-S-101 or T-S-102. Speaker disconnects when in use.
 - **RIGHT-OF-WAY RELAY**—(optional accessory). Use with "CHIEF REDI-POWER" Masters to page any group of stations with a single button. Paged stations can also be used for intercommunication. RW-10 capacity, 10 stations. For greater capacity use more than one Master. Other Masters also utilize facilities.
 - **POWER PAGING BOOSTER**—(Optional accessory). Use with "CHIEF" Masters to page a group of speakers with a single button, 30 watts output. Requires its own paging speakers (as T-C-20, T-HP-3). Provides paging facility only . . . paged stations cannot reply or originate calls through paging speakers. Connects to one Master, other Masters can also utilize facilities.
- All "CHIEF" and "CHIEF REDI-POWER" Master Stations come complete with junction box and built-in power supply attached by 6' flexible cable. Master size: 14" w, 3 1/4" h, 8 3/4" d. For 110-120 volts, AC only. U.L. Approved.

T-C-4906 Master 6 station capacity. Wt. 13 lbs.	
List Price Per Station \$146.00	Net 85.50
T-C-4912 Master 12 station capacity. Wt. 14 lbs.	
List Price Per Station \$164.00	Net 95.80
T-C-4920 Master 20 station capacity. Wt. 17 lbs.	
List Price Per Station \$194.00	Net 113.40
T-C-4930 Master 30 station capacity. Wt. 20 lbs.	
List Price Per Station \$224.00	Net 131.00
T-C-4940 Master 40 station capacity. Wt. 23 lbs.	
List Price Per Station \$254.00	Net 148.60
T-C-4950 Master 50 station capacity. Wt. 26 lbs.	
List Price Per Station \$284.00	Net 166.20

How to Determine Cable Requirements. To inter-connect Master Stations, measure from first Master to second Master only, from second to third Master only, until the last unit in the system is reached, and total. For T-C-4920 and T-C-RP-5920, use two lengths of 6226 Cable; for T-C-4930, use three lengths of 6226 Cable, etc. To connect T-C-41, T-C-42, T-C-49, T-C-49-2 or T-HP-3 Staff Stations, measure from Staff Station to the one Master to which Staff Station originates calls. To connect the T-C-42 Staff Station measure a separate length of cable from Staff Station to each Master Station to which Staff Station originates calls (for each T-C-41 or T-C-42, follow same procedure). Connect T-S-111 at any convenient point between remote speaker and Master Station.

TALK-A-PHONE ALL-TRANSISTOR "CHIEF REDI-POWER" MASTERS
These units have all the operational features of the "CHIEF," plus the additional feature of built-in extra power (up to 20 watts) for use when and as needed. Provides additional volume for calling many stations at once, or noisy locations singly. Needs no separate power booster, which would eliminate return speech. Return speech is received at normal room volume. REDI-POWER Masters have a self-compensating amount of volume, whatever you call 2, 10 or 20 stations simultaneously. Each station receives its pre-determined volume with no division of output as you call more stations at once. Use REDI-POWER Masters with "CHIEF" Masters and Staffs in same system. Add RW-10 and REDI-POWER Masters can page any group of stations with a single selector button. Paged stations can also be used for intercommunication. Operates on 110-120 volts, AC only. U.L. Approved.

T-C-RP-5912 Redi-Power Master 12 station capacity. Wt. 18 lbs	
List Price Per Station \$247.00	Net 145.00
T-C-RP-5920 Redi-Power Master 20 station capacity. Wt. 21 lbs.	
List Price Per Station \$277.00	Net 162.00



TALK-A-PHONE "CHIEF" UNIVERSAL STAFF STATIONS For use with "CHIEF" or "CHIEF REDI-POWER" Master. Like Masters, Staff Stations can be connected "privately" or "non-privately," and can originate calls. When "non-private," calls can be answered at a distance from Staff without using controls. Persons at "non-private" Staffs may reply to all Masters in the system (whether directly connected to them or not) and can originate calls to one Master or two Masters, depending upon Staff's capacity. Connected "privately" no one can listen-in to Staff, but any Master can call. "Private" Staffs can originate calls and reply to one or two Masters. Each Staff has "busy signal" and "monitoring signal" features. Staffs do not connect to an electrical outlet . . . are distinctively styled in modern cabinets that combine the look and feel of fine grained leather with the strength and rigidity of steel. Attractively finished in charcoal gray and brushed chrome. Size: 7 1/2" w x 8 3/4" d x 2 3/4" h.

T-C-41 Staff Station for origination-of-call to one Master. Wt. 8 lbs.	
List Price, Each \$38.50	Net 22.50
T-C-41M Same operation as T-C-41 and in cabinet of same style, color and size, but in grained baked enamel finish. Wt. 8 lbs. List Price, Each \$31.50.	Net 18.40
T-C-42 Staff Station for origination-of-call to two Masters. Wt. 8 lbs.	
List Price, Each \$48.00	Net 28.00
T-C-42M Same operation as T-C-42 and in cabinet of same style, color and size, but in grained baked enamel finish. Wt. 8 lbs. List Price, Each \$41.25.	Net 24.00
T-C-42R Same as T-C-42, but for flush wall mounting. Stainless Steel Front Panel, 4 1/4" x 7 1/2". Wall Opening: 4 1/4" w x 6 1/2" h x 2 1/4" d. Wt. 5 lbs.	
List Price, Each \$41.25	Net 24.00
T-C-41R Flush mounted Staff Station for use with any of above Masters. Requires wall opening 4 1/4" w x 6 1/2" h. Stainless steel front panel measures 4 1/4" w x 7 1/2" h. Complete with plaster ring. List Price, Each \$31.50.	Net 18.40
T-SM-L Optional accessory for surface mounting T-C-41R on wall.	Net each 4.65
List Price each \$7.90	
T-S-101 Hi-Power Sub-Station for wall mounting charcoal gray metal case. Wt. 8 lbs.	
List Price, Each \$29.95	Net 17.50
T-HP-3V Same as above, but with built-in volume control, adjustable to full output. List Price, Each \$38.50.	Net 22.50
T-C-20 Nine-inch weatherproof re-entrant horn. List Price, Each \$46.00.	Net 27.00
T-C-20V Same as above, but with built-in weather resistant volume control, adjustable to full output. List Price, Each \$62.00.	Net 36.00
Optional Wall Mounting Brackets for Models T-C-41, T-C-41M, T-C-42 and T-C-42M are available. See description on preceding page.	

Optional Equipment

Cradle Phone Available on all Models. Add "H" to Model No. when ordering. List Price, Each add \$59.95	Net add 35.00
Model T-S-111 Wall Mounted Cradle Phone. List Price, Each \$75.00.	Net 44.00
LD-Long Distance Feature Available on "Chief," Master Stations. Add "LD" to Model No. when ordering. List Price, Each—add \$20.00.	Net add 11.75
T-S-101 Wall Switch for origination of call to one Master through T-C-20, or T-HP-3 in Chief systems. List Price, Each \$12.75.	Net 7.50
T-S-102 Wall Switch for origination of call to two Masters through T-C-20, or T-HP-3 in Chief systems. List Price, Each \$21.00.	Net 12.35
T-RW-10 Right-of-Way Relay. List Price, Each \$67.50.	Net 36.50
T-HP-30 Power Booster. List Price, Each \$146.00.	Net 85.50

Cable (For Indoor and Outdoor Use)

6206 Cable for connecting T-C-41, T-C-42, T-HP-3, T-C-20 with origination of call. List Price per Ft. 16c.	Net per Ft. 9 1/2c
6214 Cable for inter-connecting T-C-4906 Masters. List Price per Ft. 34c.	Net per Ft. 20c
6226 Cable for inter-connecting T-C-4912, T-C-4920, T-C-4930, T-C-4940, T-C-4950, T-C-RP-5912 and T-C-RP-5920 Masters. List Price per Ft. 64c.	Net per Ft. 37c
6902 Cable for connecting T-HP-3, T-C-20 without origination of call. List Price per Ft. 44c.	Net per Ft. 27c

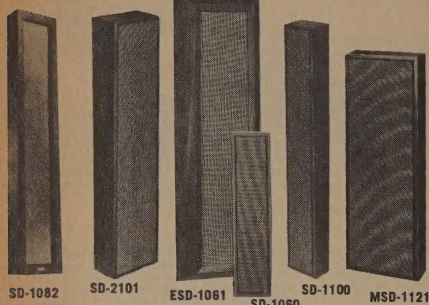
All Prices Slightly Higher West of Rockies—All Prices and Specifications Subject to Change Without Notice. Manufactured under exclusive TALK-A-PHONE Patents

TALK-A-PHONE Apartment House Intercom System. With 1 or 2 selective talking circuits; with 1 or 2 independent door opener buttons. Ask for catalog.

TALK-A-PHONE CO.

Argos Quality

PRODUCTS COMPANY



SOUND DIRECTOR Sound Columns

Provide completely intelligible PA system coverage of large audiences in churches, auditoriums, schools, hotel meeting rooms, etc. Simple installation. Available in 6 and 10 speaker columns with 8 speaker option. Models for voice, music or combined use. For complete data, send for free book all about sound columns.

For voice

Model SD-1060 — Six speakers, 16 ohms. For small rooms up to 60 feet. 30 watts. Walnut vinyl finish cane grill. Size: 30 3/4" x 7" x 3 1/4". Ship. Wt. 10 lbs. **List Price \$70.85**

Model SD-1100 — Ten speakers, 16 ohms, 50 watts. For rooms up to 200'. Converts to eight speakers, for rooms up to 125'. Walnut grain vinyl finish; cane grill. Entire column tilts to focus. Size: 49 1/4" x 7" x 6". Ship. Wt. 26 1/2 lbs. **List Price \$111.50**

Model SD-1101 — Same as SD-1100, except the deluxe housing is oiled, hand-rubbed walnut. Ship. Wt. 29 lbs. **List Price \$129.00**

Model SD-2100 — Ten speakers, 16 ohms, 50 watts. Some characteristics as SD-1100, except that speaker column may be tilted inside the housing for focusing. Walnut vinyl finish; cane grill. Size 50 1/2" x 10 3/4" x 8 1/4". Ship. Wt. 43 lbs. **List Price \$136.00**

Model SD-2101 — Same as SD-2100, except the deluxe housing is oiled, hand-rubbed walnut. Ship. Wt. 50 lbs. **List Price \$165.00**

For full range voice and music

New! Model ESD-1061 — Primarily for voice, but an extended lower range makes it great for music, also. For smaller rooms, up to about 60 feet. 100 to 12,000 cps response. 30 watts, six speakers, 16 ohms. In genuine walnut. Size 10 1/2" w. x 33 3/4" h. x 4" d. Ship. Wt. 16 lbs. **List Price \$83.25 each.**

Model MSD-1060 — For voice and music under auditorium conditions. Extremely popular with folk music groups. 70 to 15,000 cps, 60 watts. Six 8" speakers, 16 ohms. Walnut vinyl finish. Cane grill. Size: 10 3/4" x 50 1/2" x 8 1/4". Ship. Wt. 38 lbs. **List Price \$132.50**

Model MSD-1061 — Same as model MSD-1060, except has deluxe oiled walnut housing. Ship. Wt. 45 lbs. **List Price \$165.00**

For high-fidelity music

Model MSD-1121 — Projects high-fidelity music over a large area like nothing else ever created. Focused sound beam controls reverberation, keeps uniform audio levels. 12 speakers, 6 woofers, 6 tweeters with crossover network provide 50 to 17,000 cps at 30 watts. Genuine American walnut, with handsome cane grill. Dimensions: 14 1/2" w. x 42" h. x 5" d. Ship. Wt. 43 lbs. **List Price \$187.40**

For Custom installations

Concealed or back mounted installations can be made using the internal column element without cabinet. All electrical elements included, less outside housing.

Model SDBB-6: 6 speakers, 30 watts, 16 ohms. Ship. Wt. 8 lbs. 5 1/4" w. x 29" h. x 3" d. **List Price \$48.25**

Model SDBB-10: 10 speakers, 50 watts. Ship. Wt. 17 1/2 lbs. 5 1/4" w. x 47 3/4" h. x 5 1/4" d. **List Price \$75.00**

For outdoor use

Model SD-1012 — "Argonaut" . . . certified by Inland Testing Laboratories to meet rugged environmental standards of U.S. Military Specifications MIL-E-4970A, is warranted as to performance for 3 years in every kind of climate, from tropic to Antarctic. (Send for complete free test report.) Heavy duty vinyl clad. 8 speakers, 40 watts-200 to 10,000 cps response. 9 3/4" w. x 49 1/2" h. x 4 1/2" d. Ship. Wt. 37 lbs. **List Price \$282.50**

SOUND CADDY SYSTEM

Has two Jensen 12-in. heavy-duty 18-watt PA speakers, 8-ohms. Space below for amplifiers with turntable up to 35 watts, and many of greater power. Amplifier mounting board can slip out when case is opened but holds firmly in place when closed. Heavy plywood construction, steel corner angles, grey vinyl covering, matching plastic grill. 17 3/4" W x 22" H x 13 3/4" D. Wt. 28 1/2 lbs. **List Price \$70.85**

SC-20S Same as above without speakers. Wt. 20 lbs. **List Price \$41.50**

SC-20 Same as above without speakers. Wt. 20 lbs. **List Price \$41.50**

SOUND COLUMNS • PORTABLE SYSTEMS LECTERNS • SPECIAL PURPOSE SPEAKERS

Famous VOICE DIRECTOR Portable Sound Column

Performs like a "sound truck in a suitcase". Has unique audience reaching characteristic of a sound column, plus portability of a battery powered transistor amplifier. Ideal for public speakers of every type because it provides:

25 watts output from flashlight "D" cells . . . all transistor amplifier.

200 hours operation. (400 hours from electronic alkaline batteries.)

Uniform sound coverage over large audiences, indoors or out, like all Argos sound columns.

50% to 100% greater effective power than any other system of like power output, indoors and out. 6 speakers.

Includes microphone, stand, 18 ft. cable and lavalier. Case measures 30" x 10" x 7". Weight 27 lbs.

PSD-5060, professional net (less batteries) **\$169.95**

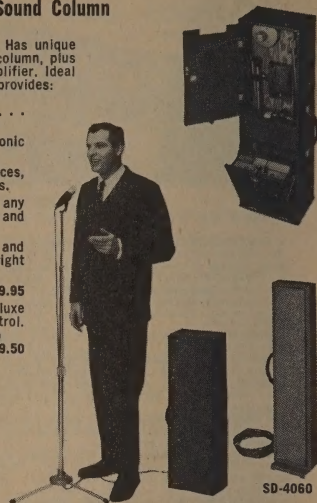
PSD-5060-1, identical to above but with deluxe microphone incorporating a built-in volume control. Wt. 30 lbs. Professional net. (less batteries) **\$199.50**

Extension Satellite SOUND DIRECTOR.

Use with VOICE DIRECTOR for extended coverage or with any P.A. system. 6 speakers; 30 watts; 16 ohms has self-storing stand and 50 feet of cable. Size: 30 3/4" x 6 7/8" x 3 3/4". **SD-4060 Wt. 12 1/2 lbs.**

Professional net \$54.95

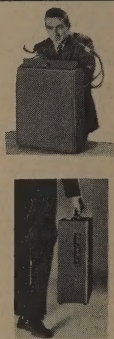
Send for complete data sheet on Voice Director, including technical specifications.



SPEECH DIRECTOR Portable Lectern

Has many of the extended audience reaching characteristics of a sound column, plus quick set up and convenience of a lectern. Gives pleasing natural sound that has won wide acceptance in meeting rooms everywhere.

4 speakers. AC/DC amplifier is all solid-state, delivers 12 watts from its own batteries, 15 watts from AC. 2 low impedance microphone inputs, 1 high impedance auxiliary. Miniature unidirectional microphone has built-in volume control, flexible 9' gooseneck stand, lavalier adaptor. Case measures 21" h. x 16" w. x 7 1/2" d. Weight, less batteries, 20 lbs. **LSD-6040 professional net \$229.95**



NEW MULTI-BAFFLES for walls, ceilings

Size 10 3/4" sq. x 3 1/4" d. Mount on ceiling with screws, on walls with clips. 8" speaker, 4.8 oz. magnet, 8 ohms, 10 watts. Antique birch or dusk walnut furniture finish.

DMBX-8S — Baffle with speaker. Ship. Wt. 4 3/4 lbs. **List Price \$17.85**

DMBX-8SV — Baffle, speaker, volume control. Ship. Wt. 4 3/4 lbs. **List Price \$21.10**

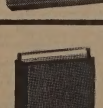
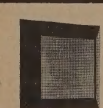
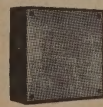
DMBX-8SVT — Baffle, speaker, 70.7-V. transformer, volume control. Ship. Wt. 5 1/4 lbs. **List Price \$24.75**

DMBX — Multi-Baffle only. Max. sq. depth 3 1/4". Ship. Wt. 3 lbs. **List Price \$9.75 each.**

*Also available w/25V. transformer at same price on special order. 12 unit minimum.

New bi-directional "Hallmark"

Talks 2 ways at once for corridor paging, etc. Mounts on wall or ceiling. 8" dual cone spkr. 4.8 oz. magnet. 10 watts, 8 ohms. Dusk Walnut or Antique Birch. 10 3/4" sq. x 3 1/2" d. Ship. Wt. 6 lbs. **TGB-8S. List Price \$23.30**

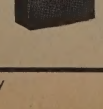


New "Troubadour" system

Extension speaker with flair design hangs square or as a diamond. Dual cone 8" speaker, 8 ohms, 15 watts. Antique Birch or Dusk Walnut. 13 1/4" sq. 3 1/2" d. Ship. Wt. 5 1/4 lbs. **TSW-8S. Audiophile net, each \$12.95**

"PATIO" OUTDOOR SPEAKER

Durable redwood and cane have been combined with special moisture-resistant full-range 8" speaker, 10 watts, 8 ohms. Volume control. 3/4" redwood enclosure has sealer coat; can be stained or painted. Baffle-board of marine grade plywood. Size: 14" x 10 1/2" x 3 1/2". Wt. 5 1/2 lbs. **PAT-10 Audiophile net, each \$14.95**



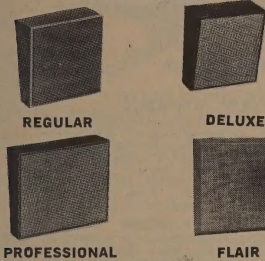
SPEAKER-BAFFLE COMBINATIONS

Argos

PRODUCTS COMPANY

- Quality Speaker-Baffle Combinations
- Wall Baffles
- High Fidelity Speaker Systems

WALL BAFFLES



Argos offers 4 wall baffle lines to meet every need. All utilize Argos famous Speedy Mounting Clip for fastest installation:

Regular Wall Baffles (WB series) are the standard of the industry for quality. In blond or walnut wood-grained vinyl with cane grill.

Deluxe Wall Baffles (DWB series) are furniture finished wood in Antique Birch or Dusk Walnut.

Professional Wall Baffles (PWB) are a large cubic capacity baffle for use with 8" speakers only. In blond or walnut wood grained vinyl.

Flair Baffle (FMB) is a stylish new flush mounting wall or ceiling baffle with concealed mounting screws. In Dusk Walnut or Antique Birch furniture finished wood.

Model	Spkr. Cap.	Width, Depth, Inches	Height, Inches	Cubic Inches	Ship. Wt. Lbs.	List Price Each
WB-4/5D	4/5	6 1/2 x 6 3/4	4	100	2 3/4	\$5.10
WB-6D	6	8 1/2 x 8 3/4	5	210	4 1/2	6.25
WB-8/9D	6/9	10 1/2 x 10 3/4	6 1/2	400	6 1/4	7.40
WB-8D	8	10 1/2 x 10 3/4	6 1/2	400	6 1/4	7.40
WB-10D	10	12 1/2 x 12 3/4	7 1/2	800	8	8.95
DWB-12D	12	13 1/2 x 14 1/4	8 1/2	1180	11	10.25
DWB-8A	8	9 3/4 x 10 1/2	6 1/2	400	5 1/2	10.00
DWB-12A	12	13 3/4 x 14 1/4	8 1/2	1180	9	14.00
PWB-8C	8	16 1/4 x 14 1/4	6 1/2	1000	6	10.35
FMB-8	8	11 3/4 sq. x 1 1/4"	—	2 1/4	9.00	

*Ship. Wt. of 2 in carton

HIGH FIDELITY SPEAKER SYSTEMS

Magnificent new "Astra"



Looks beautiful, sounds excitingly different! Sound-column design uses scientific focusing principle to add extra projection to high tones, re-create music with startling fidelity. Ideal for stereo. 33 1/4" x 10 1/2" x 4" d. 4 speakers — 2 Jensen woofers, 2 direct radiator tweeters. 50 to 17,000 cps response. Cabinet of genuine walnut with hand-rubbed oil finish. AMF-1 Ship. Wt. 15 lbs. Audiophile net, each \$49.95 Stereo pair \$89.95

The tiny new "Solitaire" A delight to see and hear, "Solitaire" offers extraordinary tonal brilliance, yet measures only 18" x 12" x 3 1/4" d. It's designed for desk, table, or wall to carry high fidelity music everywhere in home or office. Genuine walnut cabinet has hand-rubbed oil finish. Grill color is neutral Belgian linen. Rests on its own miniature legs or hangs like a picture. Contains high-compliance Jensen woofer and separate direct radiator tweeter give 50 to 17,000 cps. Stereo phased. Built-in volume control. SHF-1 Ship. Wt. 8 1/2 lbs. Audiophile net, each \$29.95 Stereo pair \$54.00

Argos Finest — Famous TX-4 Has three magnificent speakers: a 12" woofer, 8" solid-back midrange, and 3 1/2" direct radiator type tweeter. Response 35 to 17,000 cycles, input is 8 ohms and terminals are marked for stereo phasing. Hand-rubbed oiled walnut cabinet 25" x 14 1/4" x 9" deep. Perfect to use in either horizontal or vertical position. Wt. 29 lbs. Audiophile net, each \$79.95 Special STEREO PAIR Audiophile net, pair \$145.00



Now there are four complete lines of Argos speaker-baffles. Each comes to you completely wired, ready to install. Prestige (PB series) — our finest, with handsome wood furniture finishes in Dusk Walnut and Antique Birch and cane grill. 8" speaker, 15 watts. Thin line Dual Cone (WB-408 series) — Slender, handsomely clad in blond or walnut wood-grained vinyl, almost undistinguishable from wood. 8" dual cone speaker, 10 watts, 8 ohms.

"Thinline Heavy-Duty" (WB-212 series) has 12" Jensen speaker with 10 oz. ceramic magnet. 18 watt capacity, 8 ohms impedance. Dimensions: 14" h x 16 1/4" w. x 6 1/4" d. Blond or walnut vinyl-clad. Thin line Low Level (WB-108 series) Has 8" speaker, 6 watts, 8 ohms, blond or walnut vinyl covering. PB-508CS — Baffle with speaker. Ship. Wt. 5 1/2 lbs. (11" x 9 3/4" x 5 3/8") List Price \$19.10

PB-508CS — Baffle, speaker, L pad. Ship. Wt. 5 1/2 lbs. List Price \$22.85
PB-508CST — Baffle, speaker, 70.7V* transformer. Ship. Wt. 6 1/4 lbs. List Price \$23.35
PB-508CSLT — Baffle, speaker, L pad. 70.7V* transformer. Ship. Wt. 6 1/4 lbs. List Price \$26.60
PB-508C — Baffle only. Max. spkr. depth 4 1/4". Ship. Wt. of two 6 lbs. List Price each \$8.10
WB-512C — 12" Prestige Baffle only, max. spkr. depth 6". Ship. Wt. of two 11 lbs. List Price each \$11.25

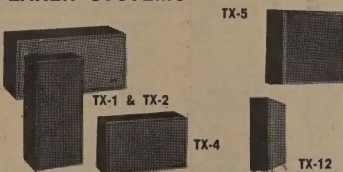
WB-408CS — Baffle with speaker. Ship. Wt. 5 lbs. (12 1/4" x 9 3/4" x 4 3/8") List Price \$15.85
WB-408CSL — Baffle, speaker, L pad. Ship. Wt. 5 lbs. List Price \$19.35
WB-408CST — Baffle, speaker, 70.7V* transformer. Ship. Wt. 5 1/2 lbs. List Price \$20.00
WB-408CSLT — Baffle, speaker, L pad. 70.7V* transformer. Ship. Wt. 5 1/2 lbs. List Price \$22.25
WB-212CS — Baffle with speaker. Ship. Wt. 9 3/4 lbs. List Price \$25.60

WB-212CSL — Baffle, speaker, L pad. Ship. Wt. 9 3/4 lbs. List Price \$29.40
WB-212CS — Baffle, speaker, and 70.7V* transformer. Ship. Wt. 10 1/4 lbs. List Price \$29.40
WB-212CSLT — Baffle, speaker, L pad. 70.7V* transformer. Ship. Wt. 10 1/4 lbs. List Price \$33.40
WB-212C — 12" baffle only. Maximum speaker depth 4 5/8". Ship. Wt. 5 3/4 lbs. List Price \$10.25

WB-108CS — Baffle with speaker. Ship. Wt. 4 1/2 lbs. (12 1/4" x 9 3/4" x 4 3/8") List Price \$12.05
WB-108CST — Baffle, speaker, volume control. Ship. Wt. 4 1/2 lbs. List Price \$16.10
WB-108CSLT — Baffle, speaker, 70.7V* transformer. Ship. Wt. 5 lbs. List Price \$17.10
WB-108CSTV — Baffle, speaker, volume control, 70.7V* transformer. Ship. Wt. 5 lbs. List Price \$19.85

WB-208C — 8" Thinline Baffle only. Max. spkr. depth 3". Ship. Wt. 3 1/4 lbs. List Price \$7.40

*Also available w/25V. transformer at same price on special order. 12 unit minimum.



TX-4E — Enclosure only. Wt. 23 lbs. Audiophile Net \$39.95
STEREO PAIR Audiophile net, each \$39.95
TX-1 & TX-2 High Fidelity Speaker Systems

Here are two versions of a system unequalled for pure value. Both are 24 1/2 x 19" deep and feature a special 8", 45 cycle woofer and 3 1/2" tweeter. Response 45 to 17,000 cps. Impedance is 8 ohms. Terminals marked for stereo phasing. Optional-use miniature legs provided.

TX-1 — System, walnut wood-grain vinyl finish. Wt. 18 lbs. Audiophile net, each \$29.95
Special STEREO PAIR Audiophile net, pair \$54.00

TX-1E — Enclosure only. Wt. 15 lbs. Audiophile net, each \$19.95
Special STEREO PAIR Audiophile net, pair \$37.00

TX-2 — System in genuine walnut enclosure. Wt. 23 lbs. Audiophile net, each \$44.50
Special STEREO PAIR Audiophile net, pair \$79.55

TX-2E — Enclosure only. Wt. 19 1/2 lbs. Audiophile net, each \$29.95
STEREO PAIR Audiophile net, pair \$54.00

TX-5 High Fidelity Speaker System Has sound fidelity normally associated with more costly and far larger high fidelity speaker systems. The 34" hand-rubbed oiled walnut cabinet is 12 3/4" x 13 1/2" x 10" deep. Has 8" woofer and a 3 1/2" tweeter. 50 to 17,000 cycles. Wired through crossover network to terminal strip, marked for stereo phasing. 8 ohms.

TX-5 — Wt. 16 lbs. Audiophile net, each \$32.50
STEREO PAIR Audiophile net, pair \$59.00

CORNER BAFFLES



Thinline Slanting Corner Baffle

Favorites for their mounting ease and over-all high quality. Argos corner baffles are now available in 3 series to fill every need. Corner location and bass reflex design provide excellent tone. All have quick clip-on front, are held to walls with Argos Speedy Mounting Clips. Coverings are wood-grained vinyl, walnut or blond, with cane grills.

Thinline Slanting Corner Speaker-Baffle combination

Heavy-duty PA performance in a thin, slanting baffle complete with 8" speaker, 15 watts, 8 ohms. Transformers and L-pads available on special order, min. 12 units. SCB-208S Ship. Wt. 6 lbs. List Price \$22.75

Slanting Corner Baffles

SCB-8D — Take 8" spkr. up to 5 1/2" deep. Internal volume: 680 cubic inches. Size: 15" H x 17 1/4" W x 9" D. Ship. Wt. 6 lbs. List Price \$14.55
SCB-12D — Takes 12" spkr. up to 6 1/2" deep. Volume: 1240 cubic inches. Size: 20" H x 20 1/4" W x 10 1/2" D. Ship. Wt. 8 lbs. List Price \$20.50

Regular Corner Baffles

CB-8D — Takes 8" spkr. up to 4 1/2" deep. Volume: 525 cubic inches. Size: 14" H x 12 1/4" W x 6 1/2" D. Ship. Wt. 4 1/2 lbs. List Price \$12.00
CB-12D — Takes 12" spkr. up to 6 1/2" deep. Volume: 1420 cubic inches. Size: 20" H x 17 1/4" W x 9" D. Ship. Wt. 8 1/2 lbs. List Price \$18.85



Space Saver Extension Speaker System

Has 8" woofer, 3 1/2" tweeter, crossover network. 12 watts, 8 ohms. Volume control. Furniture-finished hardwood enclosure 18" x 12" x 3 3/4". Dusk Walnut or Antique Birch finish.

HFB-8SV — Wt. 6 1/2 lbs. Audiophile net, each \$17.95
TX-12 High Fidelity Speaker System

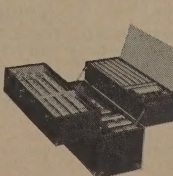
Has superb tonal realism from full-bass to the most crisp, high frequency passages. Features 12" woofer, 8" solid back midrange, 3 1/2" tweeter. Response from 40 to 17,000 cycles. Enclosure is oiled and hand-rubbed 3 1/2" American walnut. 24" x 19" x 5 7/8" deep. Gracefull metal legs. Impedance 8 ohms; terminals marked for stereo phasing.

TX-12 — Wt. 25 lbs. Audiophile net, each \$54.95
Special STEREO PAIR Audiophile net, pair \$99.95

Brass legs furnished with TX-12 available as accessory for any speaker system.

Model HFA-1 — Set of cabinet legs. Audiophile net, \$2.95

VINYL-CLAD TUBE CADDIES



TC-5 \$21.95 Super Tube Caddy. Our largest... has over 3300 cu. in. volume, roughly 1/2 larger than TC-4. Holds countless tubes and tools, soldering gun, meter, accessories. Tray clearance 2 3/4". Brown vinyl covering. Size: 24" W x 16 1/2" H x 8 1/2" D. Ship. Wt. 19 lbs.

TC-4 \$15.95 Carry-All Tube Caddy — most popular ever made. Gives quick access to all sections. Holds up to 262 tubes... less with tools. Brown vinyl covering. Size: 21" W x 15" H x 8" D. Ship. Wt. 12 lbs.
TC-100 \$13.95 Pacemaker Tube Caddy. Same size as TC-4 but built for the thrifty buyer. Break-away design gives quick access. Up to 262 tubes... less with tools. Brown vinyl covering. Size: 21" W x 15" H x 8" D. Ship. Wt. 11 lbs.

TC-201 \$9.95 Pacemaker Junior. Smaller, "easy-to-carry" size of quick trips or as companion to other Argos Tube Caddies. Up to 143 tubes, less with tools. Brown vinyl covering. Size: 15 3/4" W x 12 1/2" H x 8" D. Ship. Wt. 8 lbs.

Argos Products Co.

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ASTATIC Microphones, Accessories



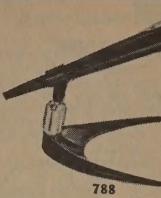
330-GS Series



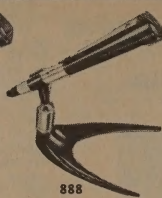
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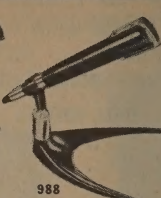
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788



888



988

SERIES 330-GS GOOSENECK MICROPHONES

Professional performing, all purpose gooseneck microphones for intercommunications, tape recording, amateur language laboratories and many other applications. Gooseneck is permanently attached, 13" in length. Satin chrome finish for both microphone and gooseneck assembly. Complete with 7' single conductor, shielded cable (335L-GS, 2-cond. for balanced line).

Model 332-GS Crystal—Output, -54 db; response, 30-15,000 cps. List Price.....**\$24.50**

Model 333-GS Ceramic—Output, -58 db; response, 30-10,000 cps. List Price.....**\$24.50**

Model 335H-GS Dynamic Hi-Z—Output, -56 db; response, 100-12,000 cps. List Price.....**\$33.00**

Model 335L-GS Dynamic Lo-Z—Output, -57 db; response, 100-12,000 cps. List Price.....**\$30.00**

MODEL 77 DYNAMIC CARDIOD

Most positive anti-feedback mike ever built. Also available in gold finish. Unidirectional design has suspended cartridge; eliminates external shock mounts. Built-in impedance selector. **Front-to-Back Pick-up:** 18 db differential. **Output:** -48 db. **Frequency Response:** 30-15,000 cps. **Impedance:** Low-Z, 30-50 ohms; medium, 150-250 ohms; high, 40,000 ohms. Shipping Weight, approximately 3 lbs., less stand.

Model 77—With on-off switch and provisions for lock—\$82.50 ing in "on" position. List Price.....

Model 77 Gold Finish—List Price.....**\$92.50**

Model 77-L—Head only for mounting on G Stand. List.....**72.50**

Model 77-L Gold Finish—List Price.....**82.50**

Model G-7—Includes G Stand and 8' cable. List Price.....**97.45**



330 Series



A-7



DN-50



JT-30



10-C, 10-D



D-104

SERIES 330 MICROPHONES

Small, slim mikes with quality performance for various applications at real low price. Model 331 has momentary on, spring-return switch, furnished with hang-up bracket. Cable provides for audio and relay connections. All other models have slide switch with "lock-on" position complete with lavalier and stand adapter with 3/8"-27 thread. High impedance except No. 335L.

Model	Type	Output	Freq.	Body	Grille	Cap	List
331	Ceramic	-58 db	300-7000	Black	Chrome		\$17.90
332	Crystal	-54 db	30-15000	Chrome	Black		17.90
333	Ceramic	-58 db	30-10000	Black	Chrome		17.90
335H	Dynamic	-56 db	100-12k	TV Gray	Chrome		26.50
335L	Dynamic	-57 db	100-12k	TV Gray	Chrome		23.50

Model A-7 Desk Stand—With adjustable swivel. List.....**\$2.45**

MODEL DN-50 "THE COMMENTATOR"

General purpose. Unitary moving coil system, carefully proportioned acoustic circuit. **Response:** 50-10,000 cps. **Output:** DN-50, -51 db; DN-HZ, -52 db. Semi- or non-directional. Opalescent gray and bright chrome finish. With 10' cable, 5/8" h. 2 1/2" grille dia., 4 1/2" d. Net Wt., 1 lb. 12 oz. (mike only). **\$33.50**

Model DN-50—Dynamic Mike, 50 ohms imp. List.....**\$33.50**

Model GDN-50—Same as above with grip-to-talk stand, 6' two conductor shielded cable. List Price.....**\$52.70**

Model UGS-DN50—Same as above, but balanced. List.....**57.70**

Model DN-HZ—Same, but Hi-Z. List Price.....**39.70**

Model GDN-HZ—Same as DN-HZ with grip-to-talk stand, 6' two conductor shielded cable. List Price.....**\$59.90**

Model G Stand—With grip-to-talk On-Off switch. List.....**24.95**

Model UGS Stand—Same as Model G; use with DN balanced line. List Price.....**\$29.95**

SERIES JT-30 "SPOKESMAN"

Streamline die-cast alloy housing; gray Hammerlin finish with chrome grille and fittings; includes handle and interlocking base. Concentric cable connector. For general PA, recording and communication. 8" high, 2 1/2" grille dia., 5/8" base die. Weight, 21 oz.

MODEL 788 "METRO" DYNAMIC

Wide range and rugged construction for voice and music reproduction in PA, recording and TV, indoor or outdoor. **Response:** 60-13,000 cps. **Output:** -58 db, lo-Z; -56 db, hi-Z. Black die cast alloy housing with brushed gold trim. Omnidirectional. Balanced high or low imp. by simple change. Max. dia. 1 1/2" x 8 3/4" h. Built-in On-Off switch. Desk-floor stand adapter, lavalier cord and assembly, belt clip. 20' cable. Net Weight, 8 oz. **\$79.50**

Model 788—Dynamic Microphone. List Price.....

MODEL 888 "TEMPO" DYNAMIC

High fidelity and advance styling for applications in color TV, sound stage and deluxe PA systems. **Response:** 50-15,000 cps. Multi-impedance, 50-200, balanced, and hi-Z. **Output Level:** -58 db, lo-Z; -56 db, hi-Z. Die cast alloy housing in satin black with brushed chrome finish; 9 1/4" long x 1 1/2" max. dia. Includes SA-8 desk-floor stand adapter, lavalier cord and assembly with belt clip and 20' two-wire shielded cable. Weight, 9 oz. **\$110.00**

Model 888—Dynamic Microphone. List Price.....

MODEL 988 "VOGUE" DYNAMIC

Beauty and high fidelity for the most exacting color TV and broadcast requirements. **Response:** 40-17,000 cps. **Output Level:** -56 db, hi-Z. Adjustable imp.: 50, 150 or 250 ohms for balanced line. Black housing with brushed gold finish. 9 1/4" long x 1 1/2" max. dia. With desk-floor stand adapter, lavalier cord and assembly and 20' cable. Net Weight, 8 3/4 oz. **\$150.00**

Model 988—Dynamic Microphone. List Price.....

MODEL A-8 "FUTURA" DESK STAND

For Models 788, 888, and 988 mikes. Has 3/8"-27 thread. **\$82.50**

Model A-8 Desk Stand (illus. on Models listed)—List.....

Model JT-30 Crystal—Output, -49 db; impedance, 1-5 megs; response 30-10,000 cps. Complete with 8' single-conductor shielded cable. List Price.....**\$18.40**

Model JT-30-C Ceramic—Same as JT-30 except with -54 db output and 5' cable. List Price.....**\$18.90**

Model JT-30-F Crystal (Head Only)—Same as Model JT-30, except less handle and desk stand. Threaded 3/8"-27 for mounting. List Price.....**\$15.90**

Model JT-30-CF Ceramic (Head Only)—Same as Model JT-30-C, except less handle and desk stand. Threaded 3/8"-27 for mounting. List Price.....**\$16.40**

MODELS 10-C, 10-D "THE VOICE"

Ideal for SSB, AM transmitters, paging and industrial applications. High impedance. **Output:** -52 db, Model 10-D; -54 db, Model 10-C. **Range:** 300-3,000 cps. Plug-in 3/8"-27 thread mounting with 5' cable. **\$29.70**

Model 10-C Ceramic—Gray chrome grille. List Price.....

Model G-10-C Ceramic—Same as above, but with "G" (grip-to-talk) stand. List Price.....**\$49.90**

Model 10-D Dynamic—Chrome body and grille. List.....**39.70**

Model G-10-D Dynamic—Same as above, but with "G" (grip-to-talk) stand. List Price.....**\$59.90**

SERIES D-104 "PREMIER"

The radio amateur's first choice. Balanced performance. Machined brass parts; heavy mesh grille; chrome finish. Standard 3/8"-27 thread mounting; adaptable to SC-11 lock-switch adapter or can be mounted on Model G (grip-to-talk) stand. Metal seal crystal offers protection against moisture and dryness. Ceramic immune to excessive heat and humidity. 3" dia., 1 1/4" deep. Weight, 14 oz. Complete with 5' single conductor shielded cable. **\$31.00**

Model D-104 Crystal—Output, -46 db; impedance, 1-5 megs; response, 30-7,500 cps rising 500-4,000 cps. List.....

Model D-104C Ceramic—Output, -49 db; all other characteristics similar to D-104. List Price.....**\$31.00**

Model SC-11 Adapter—List Price.....**9.00**

Model G Stand—With grip-to-talk On-Off switch. List.....**24.95**

ASTATIC PHONO CARTRIDGES

For over 25 years Astatic has maintained its number one position as the world's leader in supplying the most complete line of phonograph pickup cartridges for both original equipment manufacturers and distributors.



THE ASTATIC CORP.

MANUFACTURERS OF PHONOGRAPH CARTRIDGES • NEEDLES • PICKUPS • MICROPHONES
RECORDING TAPES • ELECTRONIC DEVICES

ASTATIC Microphones, Accessories

MICROPHONES



MODEL 513H MOBILE MICROPHONE
Dynamic mike for Citizens' Band and other communications. Low background noise, feedback and hum. Semi-directional polar pattern. Wide temperature range; humidity-proof. **Frequency Response:** 200-9,000 cps. **Output Level:** -50 db at 1 v./dyne/cm². **Impedance:** 40,000 ohms. With press-to-talk switch, snap-removal mounting bracket and three-conductor (one shielded) coiled cable 5½' long, extended. **Size:** 2¼" w. x 2½" d. x 6" h. Weight, 10 oz.
Model 513H Mobile Mike—List Price.....\$34.50

MODEL 511 MOBILE MICROPHONE
Ceramic element mike for Citizens' Band and similar uses. Low background noise, feedback and hum. Semi-directional polar pattern. **Frequency Response:** 200-4,000 cps. **Output Level:** -50 db at 1 v./dyne/cm². **Impedance:** 250,000 ohms (1000 cps). With press-to-talk switch, snap-removal mounting bracket and three-conductor (one shielded) coiled cable extending to 5½' long. **Size:** 2¼" w. x 2½" d. x 6" h. Weight, 7 oz.
Model 511 Ceramic Mike—List Price.....\$19.95

MODEL 531 MOBILE MICROPHONE
High performance ceramic mike for amateur and Citizens' Band applications. Carefully calculated response characteristic for maximum clarity and intelligibility. Semi-directional polar pattern. Fully shielded to minimize hum pickup. **Frequency Response:** 150-3,500 cps with 6 db rise in 2,000 cps range. **Output Level:** -50 db at 1 v./dyne/cm². **Impedance:** 250,000 ohms, approx. at 1,000 cps (EIA, 100,000 ohms). With press-to-talk switch, molded high impact plastic housing and three-conductor (one shielded) coiled vinyl cord, 5' long extended. **Size:** 2½" w. x 1½" d. x 3¾" h. Weight, 7½ oz.
Model 531 Mobile Mike—List Price.....\$12.75

NEW MODEL 539 NOISE CANCELLING MIKE
Super talk power, ceramic mike is highly recommended for CB or ham operations. High output for effective use in noisy locations. Features 360° differential cancellation of background noise for sharp, clear speech. Lip bar maintains uniform, close spacing for high output modulation and maximum cancellation. **Frequency Response:** 100-3,500 cps with mike held for close talking using lip bar. **Output Level:** -50 db at 1 volt/dyne/cm². **Impedance:** 250,000 ohms, approx. at 1 kc (EIA, 100,000 ohms). With press-to-talk DPDT switch; wired for relay or electronic switching. Coiled 3-cond. (one cond. shielded) cable extends to 5 ft. High impact plastic housing. **Size:** 2½" w. x 1½" d. x 3¾" h.
Model 539 Noise Cancelling Mike—List Price.....\$17.50

MODEL 10MSA "COMMUNICATOR"
For mobile, ship-shore, etc. Sensitive and rugged. **Response:** 100-4,000 cps. Press-to-talk DPST switch. Retracting cable 12-in. coiled extends to 8". Gray finish.
Model 10MSA Carbon Microphone—List Price.....\$29.50

SERIES 150 RECORDER MIKES
For tape recorder use. Low cost; high output; outstanding performance; compact in size. **Size:** 2¼" sq. x 1¼" d. Plastic housing with rigid metal grille. With 5' cable.
Model 150 Crystal Mike—Frequency response, 30-10,000 cps. Output, -44 db. List Price.....\$6.50

Model 151 Ceramic Mike—Frequency response, 30-8,000 cps. Output, -45 db. List Price.....\$6.50

MODEL L-1 CRYSTAL LAPEL MIKE
Tiny dual diaphragm with spring clip and 1½" d. small diameter single conductor shielded cable. Machined brass housing with wire mesh front and rear grilles; black melamine finish. **Output:** -62 db. **Impedance:** 1-5 megohms. **Response:** 30-10,000 cps. 1¼" dia., ¾" deep. Weight, 7 oz.
Model L-1 Crystal Lapel Microphone—List Price.....\$27.35

MODEL T-3 CRYSTAL
For studios, intercom, amateur, PA, recording. **Response:** 30-10,000 cps. **Output Level:** -54 db. Semi- or non-directional. With connector, 10' cable. All chrome finish.
Model T-3 Crystal Microphone—List Price.....\$29.30

"VELVET VOICE" CRYSTAL MICROPHONES
For PA, home recording, ham, paging, radio. Use with floor or desk stand or in hand. Gold finished housing and handle; chrome grille; brown detachable base. ¾"-27" mounting. 8" high, 2½" grille dia. 5½" base dia. Weight, 24 oz.
Model 200—Output, -50 db; impedance, 1-5 megs; response, 30-7,000 cps. With 8' cable. List Price.....\$19.50
Model 200-S—With on-off switch in handle. List Price.....\$21.50
Model 241-S—Same as 200-S, except response 30-10,000 cps with rising response from 1,500-5,500 cps. List Price.....\$21.50

MODEL 551 INDUSTRIAL MICROPHONE
Dynamic industrial mike provides high intelligibility in noisy areas. Housing and transformer shielded. Withstands temperatures to 200° F; 180° F indefinitely. Moisture-sealed. Semi-directional polar pattern. **Frequency Response:** 300-6,000 cps, high impedance; 300-6,500 cps, low impedance. **Output Level:** -50 db at 1 mw/10 dynes/cm², low impedance; -46 db at 1 v./dyne/cm², high impedance; both open circuit, 1000 cps. **Impedance:** 150 or 40,000 ohms, adjustable. With press-to-talk switch, virtually unbreakable Delrin® housing, and four-conductor (shielded mike, two relay) coiled cord extends to 8' long. **Size:** 1½" x 2" x 6½". Weight, 20 oz.
Model 551 Industrial Mike—List Price.....\$69.50
*DuPont trademark.

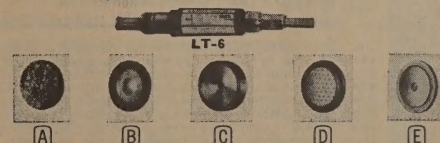
STANDS, CARTRIDGES AND LINE TRANSFORMER



Models G, UG8 **Models E-5-G, E-5-B** **Model E-1**

MICROPHONE STANDS
G Desk Stand—Has grip-to-talk SPST on-off switch, sliding bar for "lock-on". Use with DN-50, DN-HZ, T3, D-104, D-104-C, 10-C, 10-D and 77L. Finish: Bright chrome. **Size:** 16½" x 16½" x 27". Weight, 10 lb.
Model G Desk Stand—List Price.....\$24.95
Model E-5-G Stand—Same as Model G, with DPST switch for balanced or unbalanced line. Thread, 1½" x 27; eight-terminal strip in base adapts to any circuit. List Price.....**\$29.95**
Model E-5-G and E-5-B Desk Stands—Finish: Gray or brown Hammerlin base with bright chrome stem. Has ¾"-27 thread. Overall height 8". List Price.....**\$7.75**
Model E-1 Desk Stand—Finish: Gray Hammerlin base, bright chrome trim. Has ¾"-27 thread. Overall height, 5½". List.....**\$8.25**

MODEL LT-6 LINE-MATCHING TRANSFORMER
Matches low impedance microphone to high impedance amplifier input; or high impedance dynamic microphone to low impedance amplifier input. Permits long length of cable on the low impedance side of the transformer. Eliminates high frequency loss and objectionable hum pickup. Completely shielded. **Input:** 30-50 and



REPLACEMENT MICROPHONE CARTRIDGES			
Model	Fig.	Use with Astatic Mike Model	List
MC 151	D	CX, CX-1, 200, 241, JT-30, JT-30-F, JT-40, T-3	\$7.00
MC 127	D	CC, CC-1, VC, VC-1, JT-30-C, JT-30-CF, JT-40-C, T-3-C	7.00
MC 451	E	10M5, 10M5A, 11M5	8.75
MC 563	B	DN-50, DN-500, DN-HZ, DN-MZ, 10-D	16.50
MC 320	A	D-104	9.50
MC 321	A	D-104-C	7.00
MC 551	C	M-301	7.00
MC 558*	.....	332	7.00
MC 559-2*	.....	331	7.00
MC 560*	.....	335H, 335L	7.75

*Mikes without screw-fastened caps should be returned to factory for repairs.

150-250 ohms. **Output:** 40,000 ohms or higher. **Response:** ±1 db, 20-20,000 cps. Supplied with Amphenol 91-852 and 75-MC1F end connectors. Opalescent gray body with chrome finish connectors. **Size:** ½" dia.
Model LT-6 Transformer—List Price.....\$17.50

598XL-65A



THE ASTATIC CORP.

MANUFACTURERS OF PHONOGRAPH CARTRIDGES • NEEDLES • PICKUPS • MICROPHONES
RECORDING TAPE • ELECTRONIC DEVICES

ASTATIC PHONO NEEDLES

Needle for needle. Astatic always has the highest quality with the most complete stocks of any maker anywhere. No matter who the original equipment maker of the phonograph, Astatic has just the needle made for that particular cartridge on hand, ready for immediate delivery.



ATLAS SOUND



ATLAS PAGING AND TALK BACK SPEAKERS

The HU and CJ models listed below are all equipped with the well-known "Versalock" mounting bracket. This rigid, rugged and dependable bracket is completely adjustable on both a horizontal and vertical plane, affording "pin-point" directivity and simple secure mounting. The HU and TP horns are constructed of aluminum, while the CJ horns are molded of indestructible Fiberglas. Rugged diecastings and tough steel parts add strength wherever necessary. All models are 100% weatherproof under all climatic conditions.

HU-12N Small in size and low in cost. Excellent for low power paging and talk-back systems where limited coverage is required.

HU-15N The famous ATLAS SOUND "work horse." HU-15N is the most popular all-purpose, trouble-free speaker of its type and size.

HU-24N Similar to HU-15N. The larger horn improves low frequency response and increases over-all efficiency. For paging and talk-back systems that are also required to reproduce music.

CJ-14N A wide angle speaker with a rectangular horn opening which gives broad sound dispersion in the horizontal plane while maintaining good vertical coverage.

EC-10 The lowest priced American-made speaker designed specially for low power systems requiring limited coverage. Made possible by a breakthrough in design, materials and performance, EC-10 gives improved results and high efficiency for intercom and other applications formerly using cone speakers.

Horn sections are molded of a new, tough, all-weather, acrylic plastic and the handsome beige-brown color combination blends with any decor. The tough steel bracket is adjustable and makes mounting simple and secure. Model EC-10 is unmatched where size, weight, appearance and high efficiency combined with low cost are factors.

CJ-30N Similar to CJ-14N, except the power handling capacity is increased and the larger, wide angle horn improves low frequency response.

TP-15N One high efficiency driver unit does the work of two for low cost bi-directional coverage in long corridors and outdoors. The universal bracket mounts the dual horns at a 10° angle down or out from wall surface or pole.

TP-24N Same as TP-15N but equipped with oversized horns for improved low frequency response. Excellent for bi-directional paging locations required to reproduce music.

The DeCor speakers described below are designed to simulate a lamp, handsomely styled for contemporary interiors. All horn parts, fully adjustable bracket and base-canopy, are finished in brushed satin aluminum. Base-canopy conceals wiring and matching transformer, if required. All mounting hardware included. May be used outdoors in sheltered locations.

DU-12N Equipped with a driver type reproducer unit for high efficiency, directivity and intelligibility.

DC-5 Equipped with a high efficiency weather-resistant 5" diameter cone speaker for pleasing reproduction of low level voice and music. Ideal for locations where appearance is a critical factor, such as churches, conference halls, restaurants and similar quiet surroundings.

MODEL	POWER	IMPEDANCE (specify)	FREQUENCY cps	SOUND LEVEL#	DISPERSION	DIMENSIONS	SHIPPING WEIGHT	NET PRICE
EC-10	6 Watts	8 or 45 ohms	13,000	112 db	125°	6 1/4" Bell dia. 6 3/4" deep	2 1/2 lbs.	80 \$14.25 450 \$15.75
*HU-12N	7.5 Watts	8 or 45 ohms	350-13,000	115 db	120°	7 1/2" Bell dia. 7 1/4" deep	3 1/2 lbs.	80 \$17.85 450 \$19.05
*HU-15N	25 Watts	8 or 45 ohms	250-13,000	123 db	100°	9 3/4" Bell dia. 8 3/4" deep	6 lbs.	80 \$21.60 450 \$23.10
HU-24N	25 Watts	8 or 45 ohms	200-13,000	124 db	95°	11 1/4" Bell dia. 12" deep	6 lbs.	80 \$24.00 450 \$25.50
CJ-14N	7.5 Watts	8 or 45 ohms	350-13,000	115 db	120° x 60°	5 1/2" high 9 1/2" wide 8" deep	3 1/2 lbs.	80 \$19.80 450 \$21.30
CJ-30N	25 Watts	8 or 45 ohms	250-13,000	121 db	120° x 60°	6" high 14" wide 11 1/4" deep	7 lbs.	80 \$27.00 450 \$28.50
TP-15N	25 Watts	8 or 45 ohms	250-13,000	120 db Each horn	100° Each horn	9 3/4" Bell dia. 16 1/2" long	7 1/2 lbs.	80 \$33.60 450 \$35.10
TP-24N	25 Watts	8 or 45 ohms	200-13,000	121 db Each horn	95° Each horn	11 1/4" Bell dia. 23" long	8 lbs.	80 \$37.50 450 \$39.00
DU-12N	7.5 Watts	8 or 45 ohms	350-13,000	115 db	110°	7" Bell dia. 14" long	4 lbs.	80 \$23.70 450 \$25.20
DC-5	6 Watts	8 ohms	120-7,000	105 db	—	7" Bell dia. 14" long	3 lbs.	80 \$15.00

* Available with factory preassembled and prewired T-11 weatherproof line transformer. Model HU-12NT: Net Price \$24.15.
Model HU-15NT: Net Price \$28.20.

Measured at 4 ft. on axis rated power.

LINE TRANSFORMERS IN COMPLETE ATLAS SOUND CATALOG

ATLAS Columair SOUND COLUMNS

(with exclusive EASY-MOUNT Universal Bracket)

The "Columair" consists of an in-line array of six frequency adjusted cone speakers. The in-line configuration produces a sound pattern having a broad horizontal and narrow vertical distribution. Provides uniform sound intensity even at varying distances from the sound column. EASY-MOUNT swivel bracket permits optimum adjustment of critical beam pattern. Transformer cover plate located at top of enclosure. Constructed of heavy gauge steel finished in light beige two tone spatter. Plastic grill cloth in contrasting shade covers front plywood panel. Interior lined with "Tufflex" acoustic padding. Fine appearance blends with most decors.

SPECIFICATIONS	C-46	C-66
Speaker Array	Six, Four-Inch	Six, Six-Inch
Frequency Range	200-10,000 cps	125-10,000 cps
*Power Capacity	20 Watts	40 Watts
**Vert. Distribution Angle	26-36 Degrees	22-32 Degrees
**Hor. Distribution Angle	120-160 Degrees	120-160 Degrees
Impedance (Total)	16 Ohms	16 ohms
Dimensions	28" x 5 1/4" x 5"	42" x 7 3/4" x 6"
Net Weight	8 1/4 Lbs.	18 1/2 Lbs.
Net Price	\$39.00	\$59.10

Model MK-1 Columair stand attachment kit. Net Price \$ 1.35
Model SS-4 Speaker stand for Columair. Net Price \$14.10

ATLAS WR-7 TWO-WAY SPEAKER SYSTEM

WR-7 A high fidelity design woofer/tweeter system for speech and music installations requiring above average sound quality. Positions horizontally or vertically on concealed wall brackets. Beige finish and grill cloth match ATLAS SOUND Columair. Construction is similar to C-46 and C-66. Ideal for auxiliary use with sound columns. Net Price \$22.50

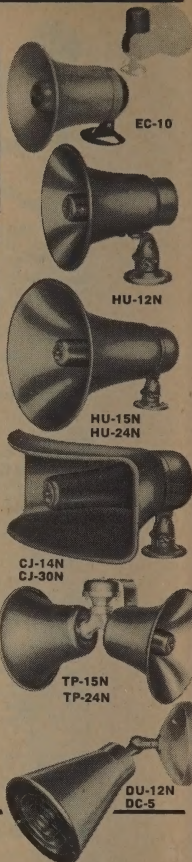
WR-7 Specifications: Power: 15 watts. Impedance: 8 ohms. Response: 70-15,000 cps. Speakers: special 5" x 7" ellipsoid woofer with 6 oz. ceramic magnet, special 3" tweeter. Dimensions: 18" long, 8" wide, 5 1/2" thin. Shipping wt. 8 lbs.

ATLAS HIGH POWER ELECTRONIC SIREN AND MOBILE SPEAKERS

HPC-75 Designed specially for electronic siren applications and high power mobile public address use. Low silhouette fiber glass, cobra-flare horn gives wide dispersion. Rigid, one-piece cast bracket for fail-safe mounting. Weatherproof. Power: 75 watts. Impedance: 16 ohms. Response: 225-8,000 cps. Dispersion: 120° x 160°. Dimensions 6" high 5 1/4" wide x 11 1/4" deep. Shipping wt: 8 1/2 lbs. Net Price \$57.00

HPR-75 Same as HPC-75 except with round horn and 100° dispersion. Dimensions: 9" bell diameter, 8 3/4" deep. Wt: 7 lbs. Net Price \$50.25

HP-75 High power public address and electronic siren driver unit only. 1 3/8"-18 dia. 9" threads for use on any industry-standard horn. Power: 75 watts. Impedance: 16 ohms. Response: 125-8,000 cps. Dimensions: 4 3/8" diameter, 3 1/4" deep including threads. Shipping wt: 4 3/4 lbs. Net Price \$34.50



New
WR-7

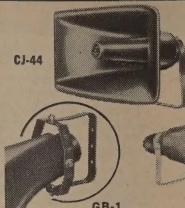
ATLAS SOUND, Division of AMERICAN TRADING AND PRODUCTION CORPORATION, In Canada: Atlas Radio Corp.

ATLAS SOUND

ATLAS COBRA-JECTOR

MODEL CJ-44 ALL PURPOSE WIDE ANGLE PROJECTOR — COMPLETE WITH SUPER POWER DRIVER — POLYESTER FIBRE GLASS CONSTRUCTION

All weather speaker with "Acousti-Matched" built in driver unit. The projector and reproducer is a single package, matched design resulting in maximum conversion efficiency. (Power input in watts versus sound pressure output.) The CJ-44 controlled response has been carefully restricted within frequency limits most useful in PA and high level music reproduction. Power: 40 watts continuous, 60 watts equalized response. Impedance: 16 ohms. Response: 115-12,000 cps. Dispersion: 120° x 60°. Dimensions: 23" wide, 13" high, 19" deep. Shipping wt. 19 lbs. Net Price \$49.80



DR-54
DR-42
DR-32

ATLAS DR PROJECTORS

NON-RESONANT — STURDY — WEATHERPROOF

Atlas DR projectors are the result of many years of acoustic research. This costly engineering and elaborate tooling has resulted in projectors that are without acoustical or mechanical equal. All acoustical sound paths are clean and uniform without steps or pockets to disturb the normal function of the horn. These critical design features eliminate conditions of turbulence, frequency cancellation and resultant signal distortion. All models are equipped with a heavy duty "U" bracket. This bracket is securely fastened to a main body casting which will not fail when subjected to extreme conditions of stress, strain and vibration.

NEW ATLAS AP-30 PROFESSIONAL SPEAKERS

BUILT-IN TRANSFORMERS • WATTS/IMPEDANCE SWITCH • SCREW-TO-LINE TERMINALS

A screwdriver is the only tool required to mount, connect and adjust new AP-30 Series with exclusive ATLAS SOUND VARI-TAP CONTROL/CONNECT CENTER. Screw line terminals, built-in transformers and externally adjustable watts/impedance switch save time and costs of installation. Silver plated switch contacts, varnish impregnated transformers and AP-30 driver units are sealed in against water, dirt and corrosion. Terminal/switch cover plate is cable strain relief and omni-directional mounting bracket adjusts in three planes. New driver unit provides high efficiency needed with low wattage amplifiers, rugged 30 watt power handling when needed for noise penetration and distance coverage. Professional, metal construction with special corrosion-proofing and melamine enamel finish. Voice/coil diaphragm assembly field replaceable without soldering.

NEW ATLAS APC-30T WIDE ANGLE SPEAKER

APC-30T Cobra-Flare, fiber glass horn version of AP-30T for wide angle, 120° horizontal and 60° vertical dispersion. Includes all the exclusive, Professional Series design features and screwdriver adjustable watts/impedance switch. Built-in combination 70/72 volt line transformer has 45 ohm intercom tap.

BX-1 Armored cable adaptor for all Series AP-30. Net Price \$1.50

MODEL	POWER	IMPEDANCE	POWER TAPS	SHIPPING WT.	NET PRICE
AP-30	30 watts	8 or 45 ohms	1.2, 2.5, 5, 666, 333, 167 1/2	5 lbs.	\$19.23/70 \$20.25/20
AP-30T	30 watts 70.7V line	4,000, 2000, 1000, 666, 333, 167 1/2	1.2, 2.5, 5, 7.5, 15, 30	6 lbs.	\$29.70
AP-30T-25	30 watts 25V line	500, 250, 125, 83, 42, 21 1/2	1.2, 2.5, 5, 7.5, 15, 30	6 lbs.	\$29.70
APC-30T	30 watts 70.7V line	2500, 1300, 666, 333, 167, 83, 45 1/2	1.8, 3.7, 7.5, 15, 30	8 1/4 lbs.	\$33.60

Series AP-30. FREQUENCY RESPONSE: 225-14,000 cps. SOUND LEVEL: 125 db. DISPERSION: 100°. DIMENSIONS: 10" wide, 9 1/2" high, 10 1/2" deep.

APC-30T 25V LINE WATTS: 1.8, 3.7, 7.5, 15. FREQUENCY RESPONSE: 250-14,000 cps. SOUND LEVEL: 126 db. DISPERSION: 120° x 60°. DIMENSIONS: 6" high x 14" wide x 12 3/4" deep.

ATLAS EXPLOSION-PROOF HIGH EFFICIENCY SPEAKERS

APPROVED BY UNDERWRITERS LABORATORIES FOR USE IN HAZARDOUS LOCATIONS WHERE EXPLOSIVE ATMOSPHERES EXIST

Highly efficient due to exclusive design of explosion barrier. Class 1 speakers for use in atmospheres containing ethyl ether, cyclopropane, gasoline, naphtha, benzene, butane, acetone, lacquer, natural gas, etc. Class 2 can be used in Class 1 conditions as well as in atmospheres containing dust of magnesium, coal, coke, flour, starch, grain, etc.

Complete specification in ATLAS SOUND catalog. Net Prices from \$75.00 to \$96.60.



GB-1 Accessory omni-directional bracket for CJ-44 and DR trumpets. 160° horizontal, 65° vertical adjustment. Attaches to U bracket. Net Price \$4.05

SPECIFICATIONS	DR-54	DR-42	DR-32
Air Column	4 1/2 ft.	3 1/2 ft.	2 1/2 ft.
Low Frequency	115 cps	140 cps	190 cps
Bell Diameter	26 inches	21 inches	16 1/2 inches
Length (less driver)	19 inches	16 inches	12 1/2 inches
Shipping Weight	23 lbs.	14 lbs.	10 lbs.
Net Price	\$30.60	\$23.70	\$20.40

ATLAS HEAVY DUTY SPEAKERS

SPB-1 Industrial duty speaker with heavy gauge bell, protective screen and fully adjustable Versalock bracket. Weatherproof. Power: 25 watts. Impedance: 8 ohms. Response: 300-13,000 cps. Dispersion: 110°. Dimensions: 7 1/4" bell diameter, 6 1/4" deep. Shipping wt. 5 1/2 lbs. Net Price \$27.00

SPB-3C Ruggedized, weatherproof speaker with cast aluminum conduit/armored cable box for industrial service. Combination bulkhead mounting plate and adjustable U bracket adapts to any surface. Power: 25 watts. Impedance: 16 ohms. Response: 300-13,000 cps. Dispersion: 130°. Dimensions: 6 1/4" wide, 9 1/4" high, 4 3/4" deep. Shipping wt. 6 1/2 lbs. Net Price \$33.00

ATLAS MOBILE SPEAKERS

MO-1 Weatherproof speaker with special, rigid, one-piece cast bracket for fail-safe use on vehicles. Concealed wiring and special, one-piece horn discourage tampering. High efficiency for use with mobile radio transceivers. Power: 25 watts. Impedance: 8 ohms. Response: 300-13,000 cps. Dispersion: 120°. Dimensions: 7 1/4" bell diameter, 6 1/4" deep. Shipping wt. 4 1/2 lbs. Net Price \$26.40

MO-2 Compact mobile communications speaker with welded steel bracket for concealed, limited space applications. Power: 25 watts. Impedance: 8 ohms. Response: 300-13,000 cps. Dispersion: 130°. Dimensions: 6 1/4" wide, 8" high, 4 3/4" deep. Shipping wt. 5 lbs. Net Price \$26.40

ATLAS ALL WEATHER HI-FI SPEAKERS

WT-6 Weatherproof, high fidelity type two-way system. Attractive beige color for indoor and outdoor use wherever wide range, clear music reproduction is important. Adjustable bracket. Power: 15 watts. Impedance: 8 ohms. Response: 100-15,000 cps. Dispersion: 120°. Dimensions: 15" bell diameter, 12" deep. Shipping wt. 16 lbs. Net Price \$37.50

MODEL W-6 identical to WT-6, but less tweeter. Extended range to 8,000 cps with special cone speaker. Shipping wt. 14 lbs. Net Price \$28.50

ATLAS BI-DIRECTIONAL BAFFLES

TW-4 Grill openings on both sides gives coverage in opposite directions with 5" cone speaker. Decorative beige finish, 9" diameter and 8" high, adjustable bracket. Less speaker. Shipping wt. 3 1/2 lbs. Net Price \$7.20



TW-10 Same as TW-8, but with speaker. Net Price \$10.35

TW-9 with 5" or 8" bracket. Less speaker. Shipping wt. 4 lbs. Net Price \$9.00

TW-11 Same as TW-9, but with speaker. Net Price \$12.15

ATLAS DRIVER UNITS

• SUPER POWER — SUPER EFFICIENT

Lifetime guarantee against electro-acoustical failure when operated to specifications. New designs, materials and double weather sealing give the ultimate in response, efficiency and trouble-free, reliable service. Models PD-5VH, PD-5VT, PD-60 and PD-60T feature self-aligning field replaceable diaphragm assemblies. Excellent for replacement in any trumpet with standard 13 1/8" x 18" driver threads.

SPECIFICATIONS	PD-60T	PD-5VT	PD-5VH	PD-4V	PD-20	PD-30T
Power (continuous)*	60 watts	40 watts	40 watts	20 watts	20 watts	30 watts
Power (equalized response)†	100 watts	60 watts	60 watts	50 watts	25 watts	40 watts
Voice Coil Impedance	16 ohms	16 ohms	16 ohms	16 ohms	16 ohms	8 ohms
Sound Intensity*	136 db	131 db	131 db	128 db	125 db	126 db
Frequency Response cps	70-12,000	80-12,000	80-12,000	85-7,000	120-7,000	120-14,000
Transformer Imp. ohms	16, 85, 125, 250, 500, 1000, 2000	16, 125, 250, 500, 1000, 2000				
Trans. Power Taps, Watts	60, 40, 20, 10, 5, 2.5	40, 20, 10, 5, 2.5				
Shipping Weight	8 lbs.	7 lbs.				
Net Price	\$39.30	\$31.80	\$23.40	\$18.60	\$14.85	\$22.80

PD-60 Same as PD-60T Less Transformer \$31.80

* Integrated speech and music full range.

† Input range limited to frequencies above horn cut off.

Measured 4 ft. on axis 6 ft. air column with integrated full power input.

ATLAS SOUND, Division of AMERICAN TRADING AND PRODUCTION CORPORATION,

In Canada: Atlas Radio Corp.



ATLAS SOUND



ATLAS MICROPHONE STANDS AND ACCESSORIES

ATLAS SOUND microphone stands and accessories are noted for variety, quality and reliable performance. The famous, extra-long clutch for secure, full hand grip is standard on all manual models. Clutch operation is velvet-smooth, wear proof parts are jam free and positive locking; the adjustable tube cannot slip and drop unexpectedly.

New, low profile bases with modern, slim silhouettes are less conspicuous and more functional. Improved designs concentrate base weight at the outer edge for maximum stability. Additional anti-tip bumpers are located between self-leveling, shock-absorbing pads which protect desk, table and floor.

Superchrome plated finishes are lifetime wear and rust resistant. Stand parts and accessories are precision threaded for easy assembly and versatile interchangeability. All models have standard $\frac{3}{8}$ "-27 threads for microphone attachment.

MS-10C Popular, budget-priced floor stand for low cost applications. Sturdy, wrinkle gray base with stability for average weight microphones.

MS-4 Three tubes with two clutches adjust from standard height for adults to special low of 25" for children and seated performers. Ideal for instrumentalists requiring low microphone placement. New, low silhouette base with dark gray wrinkle finish.

MS-11C General purpose, all chrome design with new, low profile base contour and more weight for greater stability. Slim, inconspicuous silhouette is both elegant and modern, suits any decor where styling and appearance are important.

MS-14G Identical to MS-11C, but all gold finished for special decor requirements. Complements both black and gold model microphones.

MS-11S Self-locking version of MS-11C with unique, automatic clutch for effortless, instantaneous changes in height. The stand is adjusted by simply grasping the decorative black control sleeve and raising or lowering the microphone. Removing the hand automatically locks the position. All chrome with new, low profile base.

MS-12C Same general purpose, stable design as new MS-11C, with base finished in dark gray wrinkle.

MS-12S Special, automatic clutch action for easy, quick height adjustments. Identical in size, unique operation and applications to MS-11S, except with wrinkle gray base.

MS-20 Rugged, heavy duty combination for safer support of any microphone. Larger 12", low contour base has more anti-tip weight at the outer edge for maximum stability. Oversize $1\frac{1}{4}$ "-7/8" tube assembly includes adaptor for $\frac{3}{8}$ "-27 threads.

MS-25 Professional floor stand. Integral air suspension system counterbalances microphone weight to prevent out of control crashdown, take effort out of height changes. Air cushioning action is adjustable, floats microphone tube gently down without severe mechanical shock if clutch is accidentally not tightened or released. Heavy duty, gray and chrome base contacts floor on large, 17" circle. Triangular shape and concave sides permit standing close for easy handling without stepping on base. Oversize $1\frac{1}{4}$ "-7/8" tube combination includes $\frac{3}{8}$ "-27 thread adaptor. MS-25 gives maximum stability and safety for all microphones, including the finest and most expensive — at home, on stage and in the studio.

CS-1 Tripod base infinitely adjustable from 10" diameter standing, to 42" circle flat on floor. Reverse-collapses to compact 23" for storage. Useful in restricted space, on uneven surfaces, for clustering microphones and indoor/outdoor portability.

CS-52 Handsome, three-legged floor stand. Combines the slim, less conspicuous appearance of modern, low profile design with large, 15" base stability. Packaged in one, reshippable carton.

CS-42 Similar to CS-52 in design, except that base is readily collapsible for portable use or convenient storage. Packaged in one, reshippable carton.

Model	Type	Height	Base	Tube	Weight	Net Price
MS-10C	Economy	35" to 63"	10" Gray	Chrome	10 lbs.	\$ 6.45
MS-4	Wide range	25" to 65"	10" Gray	Chrome	10 lbs.	10.05
MS-11C	General use	34" to 62"	10" Chrome	Chrome	13 lbs.	8.70
MS-14G	Gold Special	34" to 62"	10" Gold	Gold	12 lbs.	11.25
MS-11S	Auto-locking	39" to 62"	10" Chrome	Chrome	13 lbs.	15.60
MS-12C	General use	34" to 62"	10" Gray	Chrome	12 lbs.	6.90
MS-12S	Auto-locking	39" to 62"	10" Gray	Chrome	12 lbs.	14.10
MS-20	Heavy duty	37" to 66"	12" Gray	Chrome	15 lbs.	10.80
MS-25	Professional	38" to 67"	17" Gray	Chrome	22 lbs.	17.70
CS-1	Collapsible	23" to 62"	Cadmium	Chrome	5 lbs.	13.50
CS-52	Three-legged	34" to 62"	15" Gray	Chrome	9 lbs.	7.50
CS-42	Portable	34" to 62"	16" Gray	Chrome	9 lbs.	8.70

CS Type Demountable Microphone Floor Stands—with full grip—"Velvet Action," fully collapsible—quick and simple "Come Apart" base design. This new and revolutionary design in microphone stands is ideal for fixed as well as portable applications. Excellent for use when it is desired to contain the stand within the amplifier or speaker carrying case. The stability of the assembled stand is equal to many types employing heavy cast iron base construction. The base legs are easily removed to permit minimum size, lightweight transportation. The spring lock leg-holding mechanism of this ingenious design offers a quick and simple "Come Apart" feature. No tools or screw fastenings are required to hold the base assembly together. No small parts to become lost. The self-leveling legs are chrome plated, tipped with skid-proof rubber shock absorbent bumpers —eliminates vibrational conductivity... protects polished floor surfaces against damage.

Model	Finish	Height Adj.	Shipping Weight	Net Price
CS-32	Full Chrome	36" to 64"	5 lbs.	\$7.95
CS-33	Full Chrome	28" to 64"	4 lbs.	9.30

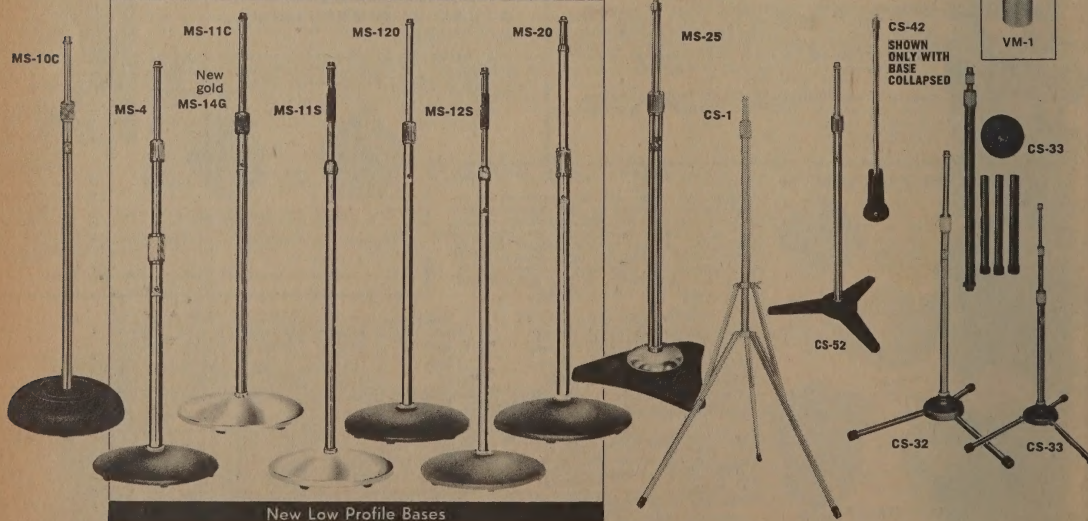
Each stand is individually packed complete in a single carton. Model CS33 can be collapsed to a total length of only 22½".

VM-1 SHOCK MOUNT The VM-1 shock mount will eliminate or greatly reduce microphone pick up of external mechanical shock and stand vibrations.

The shock mount is equipped with male and female $\frac{5}{8}$ "-27 threads permitting convenient insertion between the microphone and the microphone stand.

The VM-1 is constructed of die castings and brass turnings finished in bright polished chrome — overall length 4¾", diameter 1"

Net Price \$4.50



ATLAS SOUND, Division of AMERICAN TRADING AND PRODUCTION CORPORATION, In Canada: Atlas Radio Corp.



ATLAS SOUND



ATLAS MICROPHONE DESK STANDS AND ACCESSORIES

DS-4 Highly polished molded phenolic base is light beige in color with chrome upright tube. The smooth base will not scratch or mar table tops. Upright tube can be easily removed from base. Base diameter 5", height of tube 4", thread size $\frac{1}{8}$ "-27. Shipping weight $\frac{1}{2}$ lb. Net Price \$1.50

DS-5 Non-Adjustable Desk Stand. Base cast iron, finished in gun metal shrivel. Stable base is equipped with pads to prevent damage to desk or table tops. Base diameter 6", tube height 4" chrome finish. Shipping Weight 2 lbs. Net Price \$2.10

DS-7 Same as above but equipped with upright adjustable from 8 to 13 inches. Equipped with standard "Velvet Action" clutch adjustment. Thread $\frac{1}{8}$ "-27. Shipping Weight 3 lbs. Net Price \$3.60

DS-10 "Stream Liner" Desk Stand. Features "Rear Cable Exit". Mike cable is concealed under center section of chrome trim and directed out at rear of base; results in added stability and improved appearance. Constructed of precision die castings, finish gun metal grey, bright chrome trim. Rubber bumpers prevent damage. $\frac{1}{8}$ "-27 thread. Shipping Weight $1\frac{1}{2}$ lbs. Net Price \$3.60

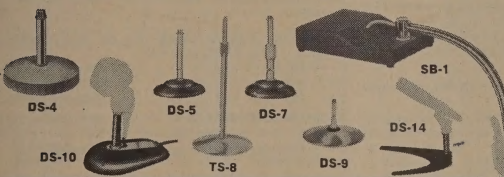
TS-8 Adjustable Banquet Stand. Low silhouette base is a trim, modern design. Upright adjustable from $14\frac{1}{2}$ " to 26". Both base and upright finished in full super-chrome. Shipping wt. $\frac{3}{2}$ lbs. Net Price \$6.45

DS-9 Professional Desk Stand. Handsome appearance of modern, low silhouette base and tapered upright, both finished in satin chrome, complements the finest microphones. Stable 8" diameter base protects against accidental microphone damage. 4" upright tube. 5 felt base pads (4 lbs.) Net Price \$5.10

DS-14 Desk stand is functionally and aesthetically suited to slim, elongated microphones. Gun-metal shrivel finished base with protective felt pads and 3" polished chrome upright tube with $\frac{1}{8}$ "-27 thread. (2 lbs.) Net Price \$2.70

SB-1 Dispatcher and Switchboard Mike Support. For use over telephone switchboards, dispatcher's desk, dais, banquet table, etc. 12 inch long, flexible, chrome plated "goose neck" arm is mounted on a spring loaded swivel, can be swung aside when not in use. A feed thru hole is located at the mike end of the "goose neck" so that the mike cable can be concealed within the flexible arm. Base casting is rear loaded so that the base will not tip forward. Finish grey shrivel. Shipping Weight 13 lbs. Net Price \$10.80

SW-1 Gyromatic Swivel permits microphone to be adjusted to any angle, up, down, around. Locks in any position. Die cast finished in chrome. Net Price \$3.15



LO-2 "Lock-On" accessory for instantaneous microphone attachment or removal without threading on or off any stand or support. One half of LO-2 remains fastened to the microphone, the other half stays on the stand. Excellent for floor show, sports announcing and similar uses where microphones must often be removed. Positive lock holds microphone safely in hanging positions on booms, ceiling supports and stage battens. Chrome finish. Net Price \$2.10

SO-1 "Snap-On" accessory. Identical to LO-2 but less locking feature. Spring loaded, ball bearing design for secure, safe microphone attachment and quick disconnect on any upright floor stand. Net Price \$1.65

FS-1 Foot Switch for press-to-talk paging applications using any microphone with a single ended input. May also be hand operated on desks and switchboards. Easily rewired for press-to-open circuit requirements. Net Price \$8.40

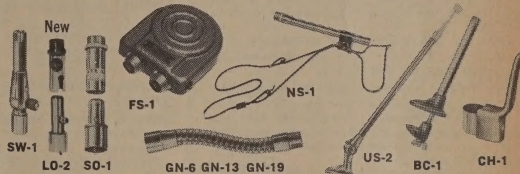
NS-1 "The Chesty" Neck Supported Mike Holder. Permits a quick and simple "three way" adjustment. Mike is always in a suitably "close talking" position reducing acoustic feedback problems. Wide comfortable chest support prevents rolling due to sudden movement. Cool and lightweight, weighing only 6 oz. Net Price \$3.90

GN "Goose Necks" can be attached to any microphone stand or fixture; ends have $\frac{1}{8}$ "-27 male and female threads—all finished in bright chrome, model number indicates overall length of "goose neck" in inches. Net Price GN-6 \$1.20, GN-13 \$1.65, GN-19 \$2.40

US-2 The Atlas US-2 Multi-Purpose microphone support. Excellent for use with language laboratories, dispatcher desks, telephone switchboards, pulpits, etc. The boom arm vertical adjustment and the rotation motion is spring loaded and will "float" the mike in the desired position without requiring a locking adjustment. The microphone cable may be concealed within the boom arm and will feed thru the swivel assembly and base flange. A small opening is provided at the microphone end of the boom for cable entry. Finishes in "super-chrome". Specifications—Boom arm length 123". All vertical adjustment of boom 180"; rotation 360"; base length 25". Net Price \$5.70

BC-1 Bracket Clamp. A multitude of useful applications. Can be used with a boom arm, goose neck, etc. Chrome tube 6" long. Clamp can be removed and top flange screwed or bolted in position, $\frac{1}{8}$ "-27 thread. Net Price \$2.40

CH-1 Cable Hanger. Fits all tubes $\frac{7}{8}$ " to $1\frac{1}{4}$ " diameter. The mike cable can be quickly coiled and looped over the cable hanger when moving, storing or transporting the mike and stand. Finished in polished chrome. Net Price \$1.65



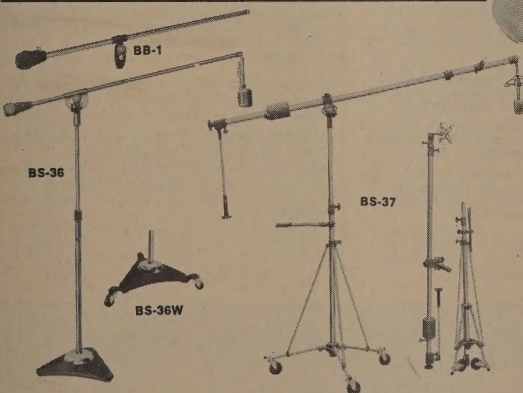
ATLAS BOOM STANDS

BB-1 "Baby Boom" Attachment. Versatile device that can be attached to any type of floor stand. All swivel parts are precision die castings resulting in smooth operation and secure positioning. Length of boom 31"—Chrome plated $\frac{1}{8}$ "-27 thread. Shipping weight $\frac{3}{2}$ lbs. Net Price \$5.10

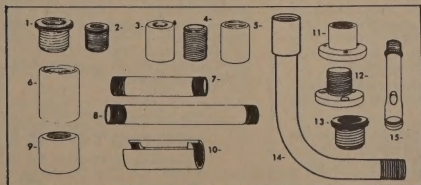
BS-36 Professional Boom Stand with "Safety Air Lock Cushion" offers all the advantages of "Floating Action" plus a secure and dependable locking adjustment. The Air Lock built into the vertical section prevents any accidental or sudden slippage of the upright section. A gyromatic swivel joint is provided at the microphone end. The base casting is equipped with shock absorbent chrome plated, "domes of silence". Specifications: Boom length 62" (extension may be added). Vertical extension from 48" to 72". All tubular sections super-chrome plated. Base finished in polished chrome and gun metal. Shipping weight 36 lbs. Net Price \$42.00

BS-36W Mobile Model. Identical to the BS-36 except that the base is supplied with ball bearing swivel casters, permitting the entire stand to be wheeled to various positions in the studio. Shipping weight 40 lbs. Net Price \$48.00

BS-37 Porto Boom. For most exacting TV studio, sound motion picture application etc., ideal for portable service. Fully collapsible, downward dimensions permitting its transportation in all automobiles. Air check prevents any accidental collapse of the upright. Detailed description sheet available. Specifications: Upright retracted 54 ft., extended 9 ft. Boom retracted 7 ft., extended 18 ft. All tubular sections aluminum processed in "Alumilite". Counter weight cast iron with bronze locking mechanism. Base casters 4" swivel type. Base spread 42" on radius. Shipping weight 73 lbs. Net Price \$420.00



ATLAS MICROPHONE ADAPTORS AND FITTINGS



Model	Description	Net Price
AD-1	$\frac{1}{8}$ "-27 female to $\frac{1}{4}$ " pipe thread male (RCA Adaptor).....	\$.63
AD-2	$\frac{1}{8}$ "-27 female to $\frac{1}{8}$ "-27 female.....	.45
AD-3	$\frac{1}{8}$ "-27 female to $\frac{1}{8}$ "-27 female.....	.45
AD-4	$\frac{1}{8}$ "-27 female to $\frac{1}{8}$ "-27 male running thread.....	.30
AD-5	$\frac{1}{8}$ "-27 female to $\frac{1}{8}$ "-27 female, coupling.....	.48
AD-6	$\frac{1}{8}$ "-27 female to $\frac{1}{8}$ "-27 female, coupling.....	.81
AD-7	$\frac{1}{8}$ "-27 long tube $\frac{1}{8}$ "-27 male each end.....	.54
AD-8	$\frac{1}{8}$ "-27 long tube $\frac{1}{8}$ "-27 male each end.....	.60
AD-9	$\frac{1}{8}$ "-27 female to $\frac{1}{8}$ "-27 female.....	.60
AD-10	$\frac{1}{8}$ "-27 female to $\frac{1}{8}$ "-27 female (W. E. Adaptor).....	.60
AD-11	Flange, $\frac{1}{8}$ "-27 female. Base Diameter $1\frac{1}{4}$ ".....	.60
AD-12	Flange, $\frac{1}{8}$ "-27 male. Base holes on $\frac{1}{4}$ " mounting centers.....	.60
AD-13	$\frac{1}{8}$ "-27 male to $\frac{1}{8}$ "-27 female.....	.57
AD-14	Right angle bent tube: $\frac{1}{8}$ "-27 male and female each end.....	1.05
AD-15	Cable "Feed-Thru" adaptor: $\frac{1}{8}$ "-27 male and female each end.....	.99

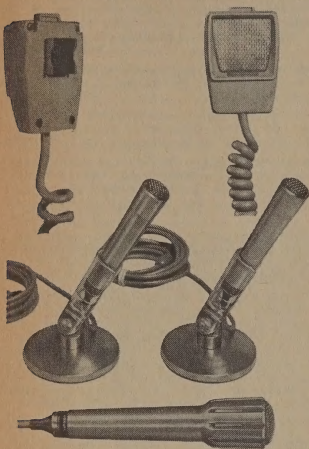
Note: Thread sizes specified as $\frac{1}{8}$ " pipe is I.P.S. (Electrical fitting) Measures Approx. $\frac{3}{16}$ " dia. All adaptors chrome plated.

ATLAS SOUND, Division of AMERICAN TRADING AND PRODUCTION CORPORATION,

In Canada: Atlas Radio Corp.

SONOTONE®

DYNAMIC AND CERAMIC MICROPHONES



SONOTONE DYNAMIC CARDIOID MICROPHONE CDM-80 (Dual Impedance). Features discriminating, front-to-back rejection and uni-directional pattern preferred by professionals; on-off switch and dual impedance. Ideal for PA systems, TV use, professional use, dual recordings. Equipped with 15' three-conductor cable plus shield. No plug. Net \$26.10.

SPECIFICATIONS: Response: 80 to 10,000 cps; Sensitivity: 50,000 ohms —59 db @ 1kc, 200 ohms —83 db @ 1kc; Front-to-back rejection: 16 to 20 db; Impedance: 50,000/200 ohms.

SONOTONE DYNAMIC MICROPHONE DM70-100, DM70-200 AND DM70-500. Low and high impedance, omnidirectional for PA systems, tape recording and professional use. Free-suspension design calls handling and clothing noises. Equipped with shielded strain relief cable. Net \$16.50. DM70-500 Dynamic microphone with switch. Impedance: 200 ohms. Net \$17.70.

SPECIFICATIONS: Response: 80 to 15,000 cps; Sensitivity: —60 to —83 db @ 1kc; Impedance: 50,000, 10,000 and 200 ohms.

SONOTONE DYNAMIC MICROPHONE DM10-100, DM10-200 AND DM10-500. Low and high impedance, omnidirectional for tape recordings, PA systems and professional use. Cartridge cup mounted in rubber sleeve, 7' single conductor shielded cable with standard phone plug. Net \$14.70. DM10-500 Dynamic microphone with switch. Impedance: 200 ohms. Net \$15.30.

SPECIFICATIONS: Response: 80 to 16,000 cps; Sensitivity: —57 to —80 db @ 1kc; Impedance: 50,000, 10,000 and 200 ohms.

MATCHING TABLE STAND CMS-10. With ½ No. 27 thread for floor stand mounting. Net \$3.25.

MATCHING TABLE STAND LA-20. Black plastic lavalier; adjustable strap for desk or body use. For all DM and CM microphones. Net \$2.25.

SONOTONE CERAMIKE CM-10A. Natural, clean reproduction for tape recording, home movies, PA systems and conference pickups. 7' shielded cable with phone plug. Net \$11.03.



Response: 50 to over 11,000 cps
Sensitivity: —56 db ± 2 db
Damping grid: Lanced, louvered metal grid

SONOTONE CERAMIKE CMC-10A. Combination package consisting of CM-10A mike and CMS-10 table stand. Net \$13.79.

SONOTONE CERAMIKE CM-3050. Low-impedance CB mike. "Push-to-talk" button, shatterproof case, lightweight. Coiled 4-conductor shielded cable. Net \$9.45.

SONOTONE CERAMIKE CM-3050MR. Same as CM-3050, with magnetic dashboard mount. Net \$11.03.

SONOTONE CERAMIKE CM-1050WR. Wide-range, low-impedance. For voice and music applications. Stand not included. Net \$11.67.

Response: 50 to 10,000 cps
Sensitivity: —58 db
Recommended impedance: 250K (useable to 33K)
Damping grid: Lanced, louvered metal grid

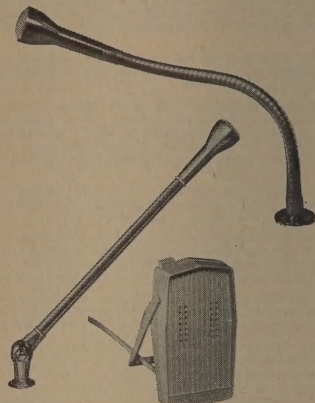
SONOTONE CERAMIKE CM-1050SR. Speech-range, low-impedance for speech applications, as tape recording and communications. Like Net \$11.67.

SONOTONE CERAMIC CMT-1050WR (matched twins). For music and speech taping in stereo. Each mike is matched to within ± 2 db. Stands not included. Spec same as CM-1050WR. Net \$23.63 pair.

SONOTONE CERAMIKE CMC-1050WR (combination stand and mike). For taping, PA systems and learning labs. Low-impedance, wide-range. Specs same as Model CM-1050WR. Net \$14.81.

SONOTONE CERAMIKE CM-10A30. Ruggedized for classroom and other hard-usage applications. New bend relief sleeve and slim cable. Ideal for learning labs. Specs same as CM-10A. Shown with optional stand CMSI-10. Sleeve of rugged plastic. Net \$11.66.

Response: 50 to over 11,000 cps
Sensitivity: —56 db ± 2 db
Damping grid: Lanced, louvered metal grid



SONOTONE CERAMIKE CM-30. For mobile units. Intelligibility unsurpassed. Favors voice frequency range. Ruggedly built. Lightweight, shatterproof plastic case. Convenient "push-to-talk" button and dashboard mounting bracket. Spring-spiraled 4-conductor shielded cable. Net \$8.82.

SONOTONE CERAMIKE CM-30MR. With new magnetic dashboard mount—no holes to drill. Net \$10.40.

Response: 60 to 7,000 cps
Sensitivity: —49 db ± 2 db
Case: Shatterproof plastic

SONOTONE CERAMIKE CM-40. Low price. High impact plastic case. Unique swing type stand sits upright for table use. Net \$6.24.

Response: 40 to 8,000 cps
Sensitivity: —50 db

SONOTONE CERAMIKE CM-17A. Omnidirectional high impedance for audio-visual labs, language labs, PA systems. 13" flexible gooseneck keeps hands free for writing and taking messages. For all speech needs. 6' shielded cable. Net \$15.44.

Response: 50 to over 11,000 cps
Sensitivity: —56 db ± 2 db
Damping grid: Lanced, louvered metal grid

Models utilizing the CM-17A element available in a variety of mountings as follows:

SONOTONE CERAMIKE CM-17B. 13" boom mike. Fixed boom mounted with 350° swivel. 7' mike cable. Net \$17.96.

SONOTONE CERAMIKE CM-T10A (matched twin). For taping live stereo. Every CM-T10A set is electronically matched at the factory to a tolerance of ± 2 db. 7' shielded cable and phone plug. Per pair, net \$22.37.

Response: 50 to over 11,000 cps
Sensitivity: —56 db ± 2 db
Damping grid: Lanced, louvered metal grid

Sonotone Sonomaster®

ACOUSTIC SUSPENSION SPEAKER SYSTEMS

SONOMASTER RM-1 (14½" x 10½" x 7¼" deep). Requires only 10 watts of amplifier power to provide big sound performance. Power handling capacity: 40 watts average (80 watts peak). Speakers: 6" linear high-compliance woofer, 2½" high-frequency cone tweeter, integrated crossover network (crossover frequency 5000 cps). Net \$44.50.

SONOMASTER RM-1K KIT. Same quality components used in factory-made RM-1. The only difference—you assemble it and save. Unfinished birch veneer cabinet. Net \$35.50.

SONOMASTER RM 0.5. Only 8 lbs., only 10½" x 7¼" x 7" deep. Can handle 20 watts average program material (40 watts peak). Speakers: 4" linear high-compliance woofer, 2" high-frequency cone tweeter (crossover frequency 5000 cps). Net \$39.75.

SONOMASTER RM-2A. The bigger sound of the compact systems. Equipped with an 8" linear high-compliance woofer and 3½" high-frequency cone tweeter acoustically matched with integrated crossover network (crossover frequency: 3000 cps), 19" x 11½" x 8½" deep. Requires only 10 watts input power. Handles 50 watts average (100 watts peak). Net \$56.50.



HEADPHONES

By **C. F. CANNON CO.**



THE "CHIEF"

Cannon-Ball Bakelite Headset

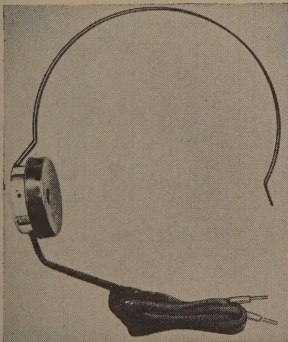
A high quality headset of durable molded black plastic. Attractive in appearance, it is a sensitive and practical phone for every headset use. Inside terminals. Diameter of diaphragm is 2½". Double coils, two in each receiver. Alnico permanent magnets. Supplied with vinyl plastic covered headband with permanent adjustment and no removable parts. Cotton covered cord, 4½ ft. long.

CC-2—2000 ohms D.C.	.....	List \$4.55	Net \$2.73
CC-3—3000 ohms D.C.	.....	List 4.80	Net 2.88
CC-5—5000 ohms D.C.	.....	List 5.90	Net 3.54
CC-11—11 ohms D.C.	.....	List 4.55	Net 2.73

ALNICO MAGNETIC No. 15

A new, small size, extra sensitive double headset, light in weight. Diameter of diaphragm 1½". Molded cap and case. Steel adjustable headband. 4½ ft. cord.

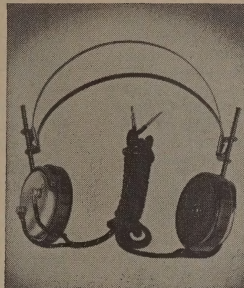
AM-15-2	.....	List \$4.05	Net \$2.43
AM-15-3	.....	List 4.30	Net 2.58



CANNON-BALL "ALNICO" Single Headphone

Equal in clarity and volume to most double headsets, efficient and attractive. Permits listening while being addressed by others. Concealed terminals. Diaphragm 1½". Bakelite case and cap. Alnico magnet, double coils. 4½ ft. cord. Spring steel headband permanently attached.

AM-15-1—1000 ohms D.C.		List \$2.20	Net 1.32
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BRANDES "SUPERIOR" Matched Tone Headset

A rugged headset, millions of which are in use all over the world. Large size diaphragms of 2¾" diameter assure efficient performance. Outside terminals, with polished aluminum cases and bakelite caps. Double coils, two in each receiver. Chrome steel magnets. Steel headband with permanent adjustment. 4½ ft. cotton covered cord.

BS-2—2000 ohms D.C.		List \$4.30	Net \$2.58
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BRANDES "ADMIRAL" Matched Tone Headset

The Brandes "Admiral" is of the same general construction as the Brandes Superior, but has terminals on the inside.

BA-2—2000 ohms D.C.	.....	List \$4.70	Net \$2.82
BA-3—3000 ohms D.C.	.....	List 5.05	Net 3.03
BA-5—5000 ohms D.C.	.....	List 6.15	Net 3.69

THE "MASTER"

Cannon-Ball Headset

Used extensively in hospitals and other institutions as well as for general purposes, and is especially recommended for institutions. Inside terminals. Aluminum cases with black bakelite caps. Spring steel adjustable headband with no removable parts. Diaphragm 2½" diameter. Double coils. Chrome steel magnets. 4½ ft. cotton-covered cord.

MC-2—2000 ohms D.C.	.....	List \$4.70	Net \$2.82
MC-3—3000 ohms D.C.	.....	List 5.05	Net 3.03
MC-5—5000 ohms D.C.	.....	List 6.15	Net 3.69

CANNON-BALL "EMPIRE"

Lightweight Headset

A low-priced light-weight headset with large magnet and double coils. Reproduces with clarity and good volume. Diameter of diaphragm is 1½". Polished aluminum cases with bakelite caps. Steel adjustable headband. 4½ ft. cord. Inside terminal connections.

EC-2—2000 ohms D.C.	.....	List \$4.20	Net \$2.52
EC-3—3000 ohms D.C.	.....	List 4.45	Net 2.67

THE "DIXIE"

Cannon-Ball Headset

The "Dixie" is of the same general construction as the "Master" headset except that the terminals are on the outside. Bakelite case Alnico magnets.

CD-2—2000 ohms D.C.	.....	List \$4.30	Net \$2.58
CD-3—3000 ohms D.C.	.....	List 4.55	Net 2.73

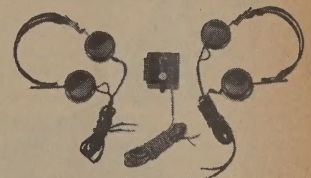


CANNON-BALL ALNICO MAGNETIC No. 25

A New Headset of Unusual Quality, Efficiency and Durability, powered by Alnico V magnets.

The headband is covered by attractive black extruded vinylite and provides utmost wearing comfort. Limits turn of phone to prevent twisting of cord. Cap and case of molded plastic. Large size diaphragm 2½". Equipped with sanitary moisture-resistant plastic cord with riveted crotch piece.

AM-25-2	.....	List \$6.90	Net \$4.14
AM-25-3	.....	List 7.40	Net 4.44
AM-25-5	.....	List 8.50	Net 5.10



CANNON-BALL HEARING AID FOR TELEVISION

Provides private listening without disturbing others. Excellent for persons hard of hearing. Can be attached to any television set and permits listening to phones alone, speaker alone, or both together.

FOR TELEVISION

Kit complete with 15 foot cord and phone volume control.

With 2 headsets.	List \$17.25	Net \$10.35
With 1 headset.	List 13.00	Net 7.80

MOLDED RUBBER CUSHIONS



Fit standard size headsets. Molded-in air chamber provides maximum wearing comfort.

per pair		List \$1.00	Net \$.60
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Phones can be supplied with any resistance required or with variations to meet special requirements.

Sanitary plastic covered cords available for institutional use. Write for special quotation.



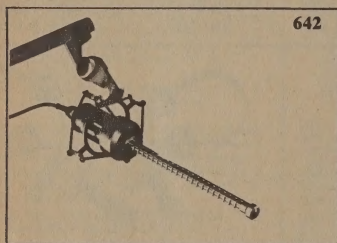
BC-TV-RECORDING MICROPHONES-DYNAMICS

Cardline™ Unidirectional Microphones

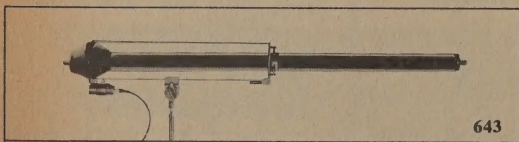
MODEL 642—A highly directional dynamic microphone combining the best characteristics of cardioid and distributed front-opening designs.* Essentially cardioid unidirectional up to 500 Hz; highly directional over balance of range. Working distance is 2 to 3 (or more) times that of conventional types. Excellent for boom use with Model 356 shock mount. Minimum mechanical shock transfer and wind noise interference. Response: Flat from 40 to 10,000 Hz or choice of 5 or 10 db low frequency reduction steps by screwdriver adjustment. Acoustalloy® diaphragm. Impedance: 50, 150 and 250 ohms, externally adjustable. Output level: —48 db. Cast aluminum case with non-reflecting gray finish. Supplied with Cannon UA-3-14 connector, 20' 3-conductor shielded broadcast cable and UA-3-11 Cannon connector. Length, 17 $\frac{7}{8}$ "; max. diameter, 3 $\frac{3}{16}$ ". Must be used with Model 356 or 327. Net weight, 3 lbs., 4 oz. **Net \$234.00**

MODEL 643—A highly directional dynamic microphone combining the best characteristics of cardioid and distributed front-opening principle for more specialized and extended long-range pickup. Provides cardioid pickup pattern to 100 Hz and is highly directional over balance of range. Includes integral 3-position switch for selecting flat response or one of two bass tilt-down positions. Integral 100 Hz cutoff filter. Impedance: 50, 150, or 250 ohms, selected by changing internal connector pin. Light weight extruded and cast aluminum case with integral shock mount and removable wind filter. Output: —48 db. Response: 30 to 10,000 Hz. Length, 7 $\frac{1}{2}$ ". Maximum diameter, 4". Cannon UA-3-14 and UA-3-11 connectors. Supplied with 20' cable and storage case. Fits $\frac{5}{8}$ "-27 pipe threads. Net weight, 12 lbs. **Net price\$936.00**

*U.S. Patent No. 3,095,084



642



643

Cardioid Unidirectional Microphones

MODEL 666 SUPER CARDIOID—A Variable-D® microphone† for high discrimination against sounds from back. Permits close talking without bass accentuation. Working distance increased by 1.7:1 over pressure microphones. Single moving element is exclusive, rugged Acoustalloy® diaphragm. Response: 40 to 15,000 Hz. Output: —58 db. Internal connector pin impedance change. Wired for 150 ohms; taps at 50 and 250 ohms. Non-reflecting gray finished aluminum case. Built-in Cannon UA-3 connector. Model 300 stand mount with $\frac{5}{8}$ "-27 thread and 20' cable furnished. Length, 7 $\frac{3}{4}$ ". Diameter, 1 $\frac{3}{4}$ ". Net weight, 11 oz. **Net price\$153.00**

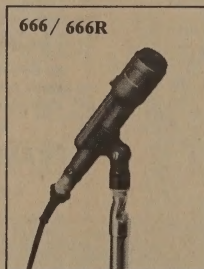
MODEL 666R RISING RESPONSE CARDIOID—Like Model 666, but with response which rises 4 $\frac{1}{2}$ db from 100 to 1,000 Hz, reducing pickup of low-frequency reverberations, room "rumble" and prop noise. Particularly suited to boom use. Output: —58 db. **Net price\$153.00**

MODEL 665 CARDIOID—Similar in design and function to the Model 666, but for less exacting applications. Uniform response 70 to 13,000 Hz. Recessed switch provides 50 or 250 ohms. Pressure-cast zinc case. Non-reflecting gray finish. Diameter, 1 $\frac{1}{8}$ "; length, 7 $\frac{3}{16}$ "; 18' cable. Fits $\frac{5}{8}$ "-27 threaded stand. Net weight, 1 lb. 10 oz. **Net price\$90.00**

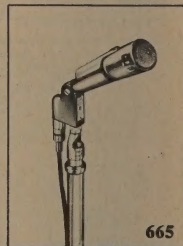
MODEL 668—Entirely new Continuously Variable-D® cardioid† designed specifically for boom use in broadcasting and recording. Extremely smooth cardioid pattern for maximum reduction of ambient noise and reverberation. Integral wind-screen eliminates noise caused by motion of boom-mounted microphone through the air. Built-in equalizer provides choice of 36 response variations. Acoustalloy® diaphragm. Response: 40 to 10,000 Hz. Output: —51 db. Internal impedance selector permits 50, 150 or 250 ohm connection. Non-reflecting gray finished aluminum case. Two-foot mechanical isolation cable and twenty-foot three-conductor shielded broadcast type cable included. Supplied complete with shock isolating boom mount. Length: 9 $\frac{5}{8}$ ". Diameter, 3 $\frac{1}{4}$ ". Net weight, 1 lb. 11 oz. **Net price\$297.00**

MODEL 667A—Identical to Model 668 except incorporates selection of six different response curves. **Net price\$207.00**

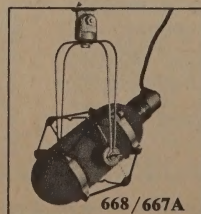
†U.S. Patent No. 3,115,207



666 / 666R



665



668 / 667A



Omnidirectional Microphones

MODEL 655C SLIM-TRIM TV DYNAMIC—Frequency response, 40 to 20,000 Hz. Output level, —57db. Excellent level affords high signal-to-noise ratio. Can be used on stand, in hand or on boom. Easily concealed in studio props. Acoustalloy® diaphragm. Pop-proof grille. Impedance: 50, 150 and 250 ohms. Impedance easily changed. Non-reflecting gray finish. Cannon UA-3 connector. Model 300 clamp-on stand mount included, has $\frac{5}{8}$ "-27 thread. Length, 10 $\frac{3}{4}$ " less connector. Diameter, 1 $\frac{1}{8}$ ". 20' cable. Net weight, 7 oz. **Net price\$120.00**

MODEL 654A SLIM-TRIM BROADCAST DYNAMIC—Frequency Response, 50 to 15,000 Hz. Output level: —57 db. Can be used stand-mounted, hand-held or as lavalier. Matches all low impedance inputs. Built-in Cannon XLR-3 connector. Acoustalloy® diaphragm. 18' cable. Length, 6 $\frac{1}{16}$ ". Diameter, 1 $\frac{1}{8}$ ". Non-reflecting gray finish. Net weight, 7 oz. Supplied with Model 300 clamp and lavalier neck cord. **Net price\$60.00**

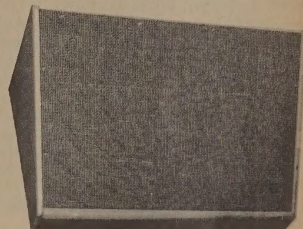
MODEL 635A BROADCAST DYNAMIC— Completely redesigned and improved omni-directional microphone, perfect for hand and stand use by entertainers and vocalists. Light weight turned steel case is extremely rugged and provides magnetic shielding. Finished in non-reflecting matte satin nickel. Effective four-stage pop and dust filter virtually eliminates need for external wind screen. Response: 100 to 13,000 Hz (rising). Output, —55 db. Acoustalloy® diaphragm. Low impedance. Cannon XL-3 connector. 2-conductor, 18' cable. Supplied with model 310 clamp and lavalier neck cord assembly. Microphone size: 6" 1. x 1 $\frac{3}{8}$ " diameter (head), $\frac{3}{4}$ " shank diameter. Net weight, 6 oz. **Net price\$49.20**

MODEL 649B MINIATURE LAVALIER—Smallest dynamic lavalier—weighs only 31 grams without cable; length, 2 $\frac{1}{4}$ "; diameter, $\frac{3}{4}$ ". Ideal for programming where unobtrusive or concealed microphone placement is desirable. Frequency response: 70 to 10,000 cps (rising). Output: —61 db. Acoustalloy® diaphragm. Omnidirectional. Matches all low impedance inputs. 30' shielded cable. Aluminum case finished in non-reflecting gray. Complete with neck cord, belt clip, model 310 stand mounting clamp, and suede pouch. **Net price\$63.00**

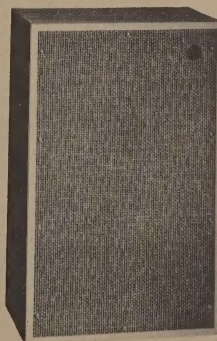
Sentry Series Studio Monitor Speaker Systems

SENTRY I WALL OR CEILING MODEL—The first loudspeaker system designed specifically for monitor use in recording and broadcast studios. Permits precise monitoring and equalization uncolored by monitor speaker. Extremely wide, flat response allows use as studio reference standard. Precision driver components include 12" Radax™ loudspeaker, Diffraction Horn high frequency driver and special crossover. Provides smooth frequency response from 30 to 20,000 Hz. Internal matching transformer accommodates 16, 150, and 600-ohm amplifier impedances. Quality hardwood cabinet, smooth sanded and sealed, ready for finishing in your choice of colors if desired. Neutral cane grille cloth. Dimensions: 21 $\frac{1}{2}$ " h. 37" w. x 16 $\frac{3}{4}$ " d. Net weight, 82 lbs. **Net price\$165.00**

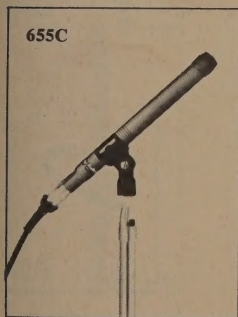
SENTRY II FLOOR MODEL—Same specifications as those shown for Sentry I. Finished on all four sides to permit vertical or horizontal mounting. Includes protective metal trunk-type corners which may be attached for portable applications. Dimensions: 32" x 20" x 13" deep. Net Wt. 63 lbs. **Net\$174.00**



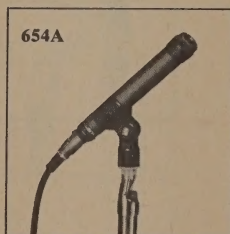
SENTRY I



SENTRY II



655C



654A



649B



635A



GENERAL PURPOSE MICROPHONES

Unidirectional Line Microphone

MODEL 644 SOUND SPOT® — Another Electro-Voice revolutionary development, the Sound Spot Model 644 is a combination cardioid and distributed front opening® instrument, making it the most directional P.A. microphone ever. The Model 644 has the farthest front pickup, or better than 2.5 times the working distance of pressure types. Work close or far away without change of frequency response.

Cancellation from the rear and sides exceeds 20 db above 700 Hz giving practically complete rejection of unwanted sound. Cardioid below 700 Hz. This feature gives extremely high rejection of random noise. Reverberation and feedback are vastly lower than with any other P.A. microphone, allowing much greater leeway in loudspeaker placement.

The effective front acceptance angle is 45° each side of center, providing best isolation of individual performers. The Model 644 is 9 db better on the reduction of wind noise and has far less response to shock than most other microphones.

Frequency response is smooth from 40 to 10,000 Hz. Acoustalloy® diaphragm. High output: —53 db. Dual high and low impedance selected by changing one tap on MC4M cable connector. The case is high-pressure die-cast zinc with ¾" aluminum tube; satin chrome finish. Rear diameter 2½", length 16". Cable is 15'. Net weight, 2 lbs. 9 oz. **Net price\$66.00**

*U.S. Patent No. 3,095,084

Cardioid Unidirectional Dynamic Microphones

NEW MODEL 674 CARDIOID DYNAMIC — Radically new design brings truly professional quality to public address, recording, communications, and other general purpose microphone applications. An exclusive Continuously Variable-D® microphone† which assures uniform symmetrical cardioid pattern at all frequencies. Frequency response 60 to 15,000 Hz. Highest discrimination against feedback and unwanted sound. Exclusive three position switch offers controlled low-frequency attenuation to overcome rumble and feedback when microphone is used at a distance.

Stud-mount for use on floor or desk stand with ⅝"-27 threads. Incorporates on/off switch.

Slim design permits full view of person speaking. Rugged high pressure die-cast construction. Acoustalloy® diaphragm. Dual Lo-Z and Hi-Z, impedance changed by moving one wire in cable connector. Output, —57 db. Satin chrome finish. 15' cable. Size: 7⅞" 1. x 1¼" dia. (not including stud). **Net price\$60.00**

MODEL 674A—Non-reflecting Gray finish. Shipped wired for Lo-Z. **Net price\$60.00**

MODEL 674G—Gold finish. **Net price\$66.00**

MODEL 676 CARDIOID DYNAMIC—Similar to 674 microphone, above, except less mounting stud and on/off switch. For use with stand mounting clamp (Model 300 supplied) so microphone can easily be removed and used hand-held during performance. Response 60 to 15,000 Hz, with low-frequency attenuation switch. Output —57 db. Dual Hi- and Lo-Z, selected by moving one wire in connector. Satin chrome finish. 15' cable. Size: 7⅞" 1. x 1¼" dia. Net weight, 12 oz. less cable.

Net price\$60.00

MODEL 676A—Non-reflecting Gray finish. Shipped wired for Lo-Z. **Net price\$60.00**

MODEL 676G—Gold finish. **Net price\$66.00**

MODEL 664 CARDIOID DYNAMIC—Similar to Model 666 in function, but designed for quality tape recording, communications, and public address applications. Cardioid pattern at all frequencies, with Variable-D† feature. Permits close talking without "booming" or bass accentuation. Provides better dis-

†U.S. Patent No. 3,115,207

crimination against unwanted sound. Blast filter minimizes wind effect. Acoustalloy® diaphragm shielded from dust and magnetic particles. Response 60-15,000 Hz. Output —58 db. On-off switch. Dual Lo-Z and Hi-Z, impedance changed by moving one wire in cable connector. Pressure-cast case. Chrome finish. 15' cable. Size: 7¼" 1., less connector; 1⅞" dia. Net weight, 1 lb. 10 oz. **Net price\$51.00**

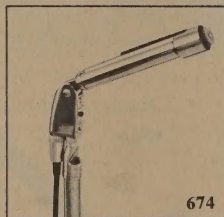
MODEL 664A—Non-reflecting Gray finish. Shipped wired for Lo-Z. **Net price\$51.00**

MODEL 664G—Gold finish. **Net price\$54.00**

Omnidirectional Dynamic Microphones

MODEL 641—Modern two-tone design dynamic microphone. High output level, wide-range response. For public address, home recording, communications, electronic teaching aids, paging systems. Integral On-Off switch, wide frequency response. 70 to 10,000 Hz. Output —57 db. 15 foot cable. Case is chrome plated die-cast zinc and gray high impact plastic. Standard ⅝"-27 stand connector. Available in Hi-Z or balanced Lo-Z, must be specified. Size: 4½" 1. x 1¼" dia., not including stud. Net weight, 8 oz. less cable. **Net price\$23.70**

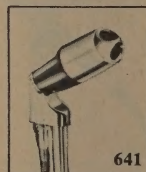
MODEL 634A—Similar to Model 641 (above) except furnished without stand mounting stud or on-off switch. Fits any stand, boom or gooseneck with complete cable concealment. Ideal for desk mounting on electronic teaching aids, amateur and commercial communications and switchboard mounting for paging systems. 6 foot cable and standard ⅝"-27 threads in rear of case. Hi-Z or balanced Lo-Z, must be specified. Size: 4" 1. x 1¼" dia. **Net weight, 8 oz. Net price\$18.00**



674



664



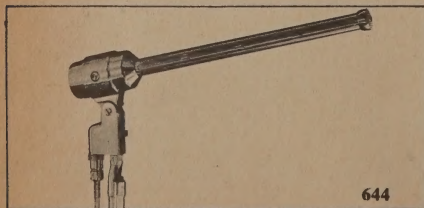
641



676



634A



644



MODEL 636 "SLIMAIR" DYNAMIC—Exceptionally fine for PA, recording and general use. Response 60-13,000 Hz. Output —58 db. Pop-proof head. Wide pickup range. On-Off switch. Satin chrome finish. Tilttable head. $\frac{5}{8}$ "-27 thread. Dual Hi-Z or Lo-Z selected by changing one wire in connector. 15' cable. Length: 10 $\frac{1}{4}$ " including stud. 1 $\frac{1}{8}$ " maximum diameter. Net weight, 15 oz. Net price\$43.50

MODEL 636G—Gold finish Net price\$46.50

MODEL 630 HIGH FIDELITY, HIGH-OUTPUT DYNAMIC—Famous for quality at low cost. Response 60-11,000 Hz; output level—55 db. Unaffected by heat or humidity. Acoustalloy® diaphragm. Tilttable head. Built-in MC-3 connector. On-Off switch. Satin chrome finish. Available in Hi-Z or balanced Lo-Z, must be specified. Size: 6 $\frac{1}{4}$ " h. x 2" dia. 15' cable. Net weight, 1 lb. Net price\$31.50

MODEL 647A DYNAMIC LAVALIER—Smallest high quality microphone in the entire public address field delivers big microphone performance. Extremely rugged dynamic construction assures long life. Frequency response, 70 to 10,000 Hz. Acoustalloy® diaphragm. Hi-Z or balanced Lo-Z, must be specified. Output: —60 db. Non-reflecting gray finish. 18' cable. Complete with neck cord, clip, and stand mounting clamp. Size: 3 $\frac{3}{4}$ " l. x $\frac{3}{8}$ " dia. Net weight, 2 oz. Net price\$49.50

MODEL 623 SLIM DYNAMIC—Ideal for PA, recording and general use. Use on stand or in hand. Omnidirectional. Response 60-12,000 Hz; output level —56 db. Acoustalloy® diaphragm. Dual Hi-Z or Lo-Z selected by changing one wire in connector. Pressure-cast case, satin chrome finish. Tilttable head. On-off switch. $\frac{5}{8}$ "-27 thread. Size: 7 $\frac{1}{2}$ " l. x 1 $\frac{5}{16}$ " dia. 15' cable. Net weight, 15 oz. Net price\$34.20

MODEL 611 "MERCURY" DYNAMIC—Traditional styling, fine performance for general sound pickup. Response 50-9000 Hz; output level —55 db. Omnidirectional. Acoustalloy® diaphragm. Tilttable head. On-Off Switch. Built-in MC-3 connector. $\frac{5}{8}$ "-27 thread. Satin chrome finish. Available in Hi-Z or balanced Lo-Z, must be specified. 15' cable. Size: 2 $\frac{7}{8}$ " w. x 6 $\frac{3}{4}$ " h. x 2 $\frac{3}{8}$ " d. Net weight 1 lb. 4 oz. Net price\$27.00

MODEL 624 DYNAMIC LAVALIER—Most economical dynamic lavalier on the market. For chest or hand use. Supplied with neck cord, support clip and 18' cable. Non-reflecting gray finish. Wire mesh head acoustically treated for wind and moisture protection. Output —56 db, response 100-7,000 Hz. Acoustalloy® diaphragm. Available in Hi-Z or Lo-Z (not balanced to ground), must be specified. Cable has integral strain relief. Size: 3 $\frac{1}{2}$ " l. x 1 $\frac{1}{4}$ " dia. Net weight, 14 oz. Net price\$27.00

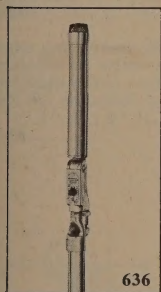
MODEL 619 "PRESS TO TALK" DYNAMIC—Modern, reliable base-station microphone ideal for ham, CB, or business communications and paging. Rugged die-cast stand in communications gray and contrasting, chrome plated die-cast head. Press-to-talk switch located on base may be moved into upper part of stand for grip-to-talk operation. Switch shorts microphone in "off" position and provides for relay operation or electronic switching. Response: 70-10,000 Hz. Output: —57 db. Hi-Z or balanced Lo-Z, must be specified. Cable: 15' (Lo-Z), 6 $\frac{1}{2}$ ' (Hi-Z). Size: 4 $\frac{3}{8}$ " w. x 9" h. x 4 $\frac{3}{4}$ " d. Net weight, 2 lbs. 2 oz. Net price\$28.50

Crystal and Ceramic Microphones

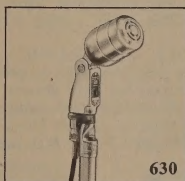
MODEL 951 CARDIOID CRYSTAL—A Variable-D® microphone* like E-V's BC-TV cardioids, obtains uniform directivity at all frequencies, high discrimination against unwanted sound. The 951 is an excellent wide-range, all-purpose PA microphone for a great variety of acoustic conditions, and especially useful where background noise and reverberation are a problem. Response 50-11,000 Hz. Output —60 db. Hi-Z. On-Off switch. Pressure-cast case. Metalustre gray finish. 15' cable. MC-1 connector. 5 $\frac{3}{8}$ " l. (excluding stud), 1 $\frac{3}{4}$ " dia. overall. Net wt., less cable, 1 $\frac{1}{4}$ lbs. Net price\$32.70

*U.S. Patent No. 3,115,207

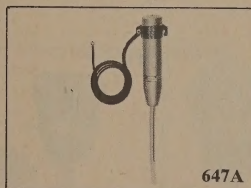
MODEL 924 LAVALIER CRYSTAL—Unique crystal lavalier for chest or hand use. Supplied with neck cord, support clip and 18' cable. Non-reflecting gray finish. Wire mesh head acoustically treated for wind and moisture protection. Output—60 db. Response 60-8,000 Hz. Hi-Z. 3 $\frac{3}{32}$ " l. x 1 $\frac{1}{32}$ " dia. Cable has integral strain relief. Net weight 8 oz. Net price\$14.10



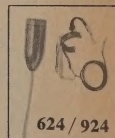
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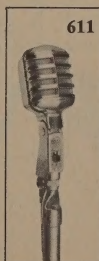
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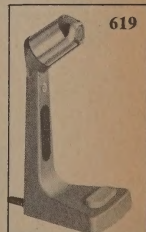
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611



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619

MODEL 911 CRYSTAL—Same smart design and fine performance as Model 611. Response 50-10,000 Hz. Output —50 db. Metal Seal Crystal. MC-1 connector. Hi-Z. 15' cable. Net weight 1½ lbs. **Net price\$22.50**

MODEL 920 "SPHEREX" CRYSTAL—Omnidirectional pickup. Response 60-10,000 Hz; output level —50 db. Strong wire-mesh head acoustically treated for wind and moisture protection. High capacity, moisture sealed crystal. Hi-Z. Satin chrome. $\frac{5}{8}$ "-27 thread. Diam. $2\frac{1}{4}$ ". 15' cable. Net Weight 8 oz. **Net ...\$16.50**

MODEL 714—A high output, ceramic hand-held communications microphone for paging, ham radio, and Citizens Band use. Molded, tough, gray Cyclocac case, usually found only in most expensive mobile microphones, assures long life and protection from accidental shock damage. Response tailored for maximum intelligibility. High level, high impedance output —55 db over range of 100 to 7,000 Hz. DPDT switch shorts microphone in "off" position and closes relay circuit in "on" position, may be used for electronic switching. 3-conductor coiled cord extends to 5'. Size: $2\frac{1}{2}$ " w. x $3\frac{3}{8}$ " h. x $1\frac{1}{16}$ " d. Net weight, 8 oz. including cable. Complete with hang-up bracket. **Net price\$9.90**

MODEL 717—Similar to Model 714 above except close talking cardioid pickup pattern for rejection of unwanted background noise and feed-back. Specially designed ceramic element with apertures on either side of diaphragm provides effective attenuation of sounds arriving from the rear and sides. Output level —55 db. Frequency response 100 to 7,000 Hz. **Net price \$11.70**

MODEL 719 "PRESS TO TALK" CERAMIC — Versatile, modest cost base-station microphone for any communications or paging work. Integral stand and head are both die-cast, communications gray and chrome plated, respectively. Switch may be used for press-to-talk in base, or moved to upper part of stand for grip-to-talk use. Switch shorts microphone in "off" position, allows relay operation or electronic switching. Hi-Z. Output: —56 db. Response: 70-7,000 Hz. $6\frac{1}{2}$ ' cable. Size: $4\frac{3}{8}$ " w. x 9" h. x $4\frac{3}{4}$ " d. Net weight, 2 lbs. 2 oz. **Net price\$16.50**

MODEL 729 CERAMIC CARDIOID—The Model 729 is the lowest priced cardioid ever built. Random noise, reverberation and feedback reduced by a factor of 67%. Front pickup range nearly double that of pressure microphones. For public address, call and paging systems, home recorders, especially stereo, and general communications. Discrimination against sound from the rear makes the 729 excellent for amateur radio VOX operations. Tailored for single sideband. Output: —60 db. Response: 60 to 8,000 Hz. High impedance only. Metalustre gray front with medium gray back. $8\frac{1}{2}$ ' cable. Attractive desk stand and floor stand adapter supplied. Size: $1\frac{1}{2}$ " w. x $8\frac{1}{4}$ " h. x $1\frac{3}{8}$ " d. Net weight, 9 oz. less cable and stand. **Net price\$14.70**

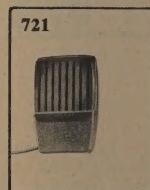
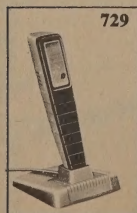
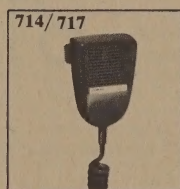
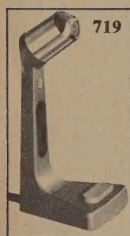
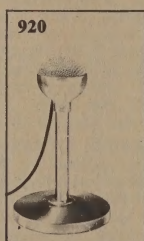
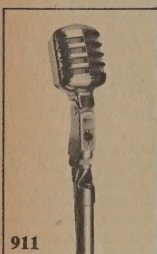
MODEL 729SR—With relay control switch. **Net price....\$15.90**

MODEL 727 SLIM CERAMIC—A new approach to the design of ceramic microphones for PA, recording and general use; similar in appearance to Model 729. Withstands extremes of temperature and humidity. Response 60-8,000 Hz. Output —55 db. High impedance only. $8\frac{1}{2}$ ' cable. Metalustre gray front with medium gray back. Supplied with attractive desk stand and floor stand adapter. Size: $1\frac{1}{2}$ " w. x $7\frac{3}{4}$ " h. x $1\frac{3}{8}$ " d. Net weight, 9 oz. less cable and stand. **Net price\$12.00**

MODEL 727SR—With relay control switch. **Net price....\$14.10**

MODEL 715 "CENTURY" CERAMIC—Use in any position—in hand, on table, on stand or overhead. Ceramic element. 60-7,000 Hz; output —55 db. Hi-Z. 5' cable. Omnidirectional. Metalustre gray finish. Rugged, lightweight. AC-DC insulated. With $\frac{5}{8}$ "-27 adapter. Size: $2\frac{1}{4}$ " w. x 3" h. x 1" d. Net weight, 6 oz. **Net price\$8.85**

MODEL 721 CERAMIC—New amazingly inexpensive microphone featuring high output level and light weight for recording, experimenting, and general use. High impact gray plastic case. Use handheld or with integral fold-out stand. Response 100-5000 Hz. Output: —52 db. Hi-Z. 5' cable. Size: $2\frac{1}{4}$ " w., $3\frac{3}{8}$ " h., 1" d. Net Weight: 3 oz. **Net price\$3.90**



Differential And Special Purpose Microphones

MODEL 606 DIFFERENTIAL DYNAMIC—Close talking, noise cancelling. Accepts sounds of close origin ($\frac{1}{4}$ ") and rejects sounds of distant origin. Response: 100 to 5,000 Hz. Output at $\frac{1}{4}$ " : —55 db. Acoustalloy® diaphragm. $\frac{5}{8}$ " -27 thread. Built-in connector. Satin Chrome finish. Size: $3\frac{1}{4}$ " h. including stud x 2" dia. Hi-Z or balanced Lo-Z, must be specified. 15' cable. Net weight, 8 oz. less cable. **Net price\$31.50**

MODEL 600E DYNAMIC MOBILE MIKE—Reliability factors have been improved over all previous designs. High-impact Cyclocac case and rugged dynamic construction assure protection against shock damage. Easy-action switch provides years of use—shorts microphone in "off" position to eliminate electrical noise pickup and closes relay circuit when depressed. High output level —55 db. Response 100 to 7,000 Hz specifically matched to high intelligibility requirements. Size: $2\frac{1}{2}$ " w. x 4" h. x $1\frac{1}{2}$ " d. Color, communications gray. Shielded coiled cord extends to 5'. Complete with hang-up bracket. Hi-Z or balanced Lo-Z, must be specified. Net weight, 10 oz. **Net price\$23.40**

MODEL 602F NOISE CANCELING DYNAMIC MOBILE MICROPHONE — New differential close-talking microphone featuring superior rejection of unwanted background noise. Two balanced rear port openings phase out sound originating more than $\frac{1}{4}$ " away. Output, —55 db. Response, 200-5,000 Hz. High-impact, rugged Cyclocac case, communications gray. Press-to-talk switch shorts microphone in "off" position and closes relay contacts in "on". Shielded coiled cord extends to 5'. Hi-Z or balanced Lo-Z, must be specified. Size: $2\frac{1}{2}$ " w. x 4" h. x $1\frac{1}{4}$ " d. Net weight, 10 oz. **Net price\$34.50**

MODEL 603TR TRANSISTORIZED NOISE CANCELING MOBILE — Developed especially for aircraft applications, the 603TR is a superior, highly reliable microphone providing all dynamic advantages for direct replacement of carbon units. Rejects sounds originating more than $\frac{1}{4}$ " away for elimination of high ambient background noise. Built-in transistor amplifier with 48 db. gain matches output level of carbon circuits. Output adjustable with internal potentiometer up to —16 db. Magnetic hanger bracket furnished, holds face of microphone. Acoustalloy® diaphragm. Response: 200-4,000 Hz. Coiled cord extends to 5'. Press-to-talk switch shorts microphone in "off" position and provides relay control. Lo-Z. Size: $2\frac{1}{4}$ " w. x $3\frac{3}{16}$ " h. x $1\frac{3}{8}$ " d. Net weight, 8 oz. **Net price\$84.00**

MODEL 602TR — Similar to 603TR with different case design, uses conventional hanger which is supplied. Fixed output level, —23 db. Response: 100-5,000 Hz. Size: $2\frac{3}{8}$ " w. x 4" h. x 2" d. Net weight, 13 oz. **Net price\$55.80**

MODEL 210E CARBON — Similar to 600E but single-button carbon. Output —50 db. Lo-Z. Press-to-talk switch closes microphone and relay circuit. Coiled cord extends to 5'. **Net price\$21.00**

MODEL 205STCKK Differential Carbon — Close-talking, noise-cancelling, single button carbon. For aircraft and emergency communications. FAA approved — Certificate No. 1040. Blastproof, waterproof and shock resistant. Output at $\frac{1}{4}$ " : —50 db. Lo-Z. Black phenolic case. Press-to-talk switch closes microphone and relay circuit. Mounting bracket furnished. Coiled cord extends to 5'. Size: $2\frac{1}{4}$ " w. x 4" h. x 2" d. Net weight 12 oz. **Net price\$30.00**

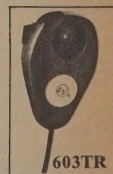
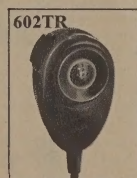
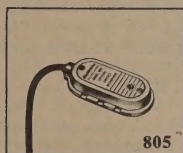
MODEL 205STCKKP — Same as above with PJ-068 plug. **Net price\$32.85**

MODEL 625SKK DYNAMIC DIFFERENTIAL HANDSET — For paging, intercom, and communications. Sturdy phenolic case contains noise-canceling Lo-Z microphone and 150 ohm magnetic receiver. Response: 100-5,000 Hz. Output: —55 db. Grip-to-talk switch closes microphone and relay circuit. Five-conductor coiled cord extends to 5'. Size: $2\frac{3}{8}$ " w. x $8\frac{1}{2}$ " l. x 3" d. Net weight, 1 lb. 8 oz. **Net price\$51.00**

MODEL 625TRSKK—Identical to Model 625SKK above except with two-stage transistor amplifier with gain of 35 db. for direct replacement in carbon microphone circuits. FAA type certificate: 3R42-2. **Net price\$73.50**

MODEL 648 INTERCOM MICROPHONE—Extremely versatile paging, intercom, or talk-back microphone. Omnidirectional. Acoustalloy® diaphragm. Non-reflecting gray. Does not include cable. Response: 50-10,000 Hz. Output: —58 db. Hi-Z or Lo-Z, must be specified. Size: 6" l. x 1" dia., including $\frac{5}{8}$ " -27 thread adapter. Net weight, $8\frac{1}{2}$ oz. **Net price\$33.60**

MODEL 805 CONTACT—For guitar, banjo, other stringed instruments. Hi-Z. Sealed crystal. Chrome finish. 15' cable. **Net price\$12.00**





MICROPHONE ACCESSORIES

Clamps

MODEL 300 DETACHABLE MICROPHONE CLAMP—Light weight adapter fits any 1" to 1½" dia. cylindrical microphone providing positive mounting to ¾"-27 desk or floor stand.

Net price\$4.50

MODEL 310 DETACHABLE MICROPHONE CLAMP—Similar to Model 300 above, but designed for ¾" diameter microphones. Net price\$3.60

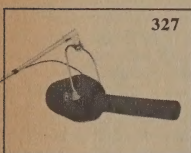
MODEL 311 SNAP-IN CLAMP—Similar to Model 310, but cut back for easy snap in, snap out of microphone.

Net price\$3.60

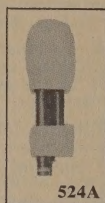
Suspension Shock Mounts

MODEL 356 SUSPENSION SHOCK MOUNT—For use with Model 642 on boom or floor stand when no windscreen is used. Net price\$36.00

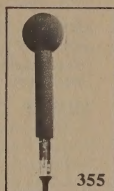
MODEL 324 SHOCK MOUNT—Suspension mount for Model 642 microphone. Will accept Model 326 windscreen. Net price\$39.00



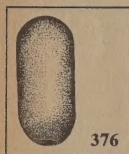
327



524A



355



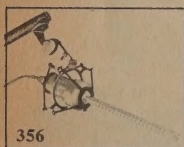
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335A



300



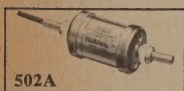
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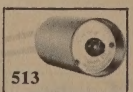
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423A



502A



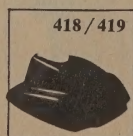
513



428



420



418/419

Windscreens

MODEL 327 WINDSCREEN PACKAGE—Consists of 324 shock mount and 326 windscreen, for use with Model 642 microphone. Fabricated of Acoustifoam*, eliminates "blast" caused by fast panning of boom, or when used outdoors. Net weight, 1 lb., 8 oz. Net price\$60.00

MODEL 326 WINDSCREEN KIT—Acoustifoam* windscreen for Model 642 microphone. Compatible with Model 324 Shock mount. Net price\$27.00

MODEL 335A WINDSCREEN—Acoustifoam* windscreen fits 630, 641, 634 microphones. Net weight, ½ oz. Net price\$7.50

MODEL 355 WINDSCREEN—Designed to reduce or eliminate wind noise, this windscreen is constructed of Electro-Voice Acoustifoam*, a material which will not alter frequency response or polar characteristics of microphone. Also protects against mechanical shock damage and pickup of dust and magnetic particles. For use with models 665C, 654A, 636, and 623. Size, 9" x 3¼". Net weight, ½ oz. Color: gray. Net price\$6.60

MODEL 376 WINDSCREEN—One piece Acoustifoam* sleeve for 676 and 674 microphones. Gray. Size: 2½" dia. x 6½" l. Net weight, ¼ oz. Net price\$9.00

MODEL 524A WINDSCREEN—Designed specifically for use with Model 666 microphone. Minimizes wind effect on boom operation or when used outdoors. Made of Acoustifoam*. Net weight, ½ oz. Net price\$7.20

Transformer and Filter

MODEL 502A MATCHING TRANSFORMER—Designed for use in series with mike line. Transformer windings have low distributed capacity and are amply shielded against inductive hum by a shield inside pressure-cast case. Designed for 50, 150, 250 and 500 ohms—to Hi-Z. Broadcast fidelity—response 40-20,000 Hz ± 1 db. Size 2½" l. x 2" dia. Net price\$10.50

MODEL 513 FILTER—Designed for use with low impedance microphones, has switch to match 50, 150 or 250 ohms. When used in line between microphone and preamp., it rejects unwanted noise below 100 Hz. Terminals provided for cable connections. Size: 5½" l. x 2¼" dia. Net weight, 1 lb. 10 oz. Net price\$57.00

Microphone Stands

MODEL 418 DESK STAND—Use with microphones using small-type stud such as Models 611, 623, 630, 641, 636, 674, 911, and 951. Die cast base. Gray finish. Net price\$7.80

MODEL 418S—With switch. Net price\$10.50

MODEL 419 DESK STAND—Similar to Model 418 but for use with microphones using large-type stud such as Models 644, 664, and 665. Net price\$7.80

MODEL 419S—With switch. Net price\$10.50

MODEL 419G—Same as Model 419, except gold finish to match 664G microphone. Net price\$9.75

MODEL 420 DESK STAND—Heavy die-cast stand finished in TV gray. Specifically designed for use with E-V 666, 655C, 654A, 652, 652A, 676 or other microphones with 1" diameter. Clamp attachment for mounting 1" to 1½" dia. cylindrical mikes, without tools. Base holds mike in position when subjected to ordinary strain. Net Weight, 3 lbs. Net price\$12.00

MODEL 420G—Same as 420, except gold finish to match 676G microphone. Net price\$15.75

MODEL 423A DESK STAND—Sturdy smartly styled, round die-cast matte black base, 5½" diameter. Rests firmly on rubber base buttons. ¾"-27 thread. 5" chrome riser. Net Weight, 1 lb. Net price\$3.60

MODEL 428 TOUCH-TO-TALK STAND—Fits standard ¾"-27 thread. Lever-type DPDT switch for relay operation or microphone On-Off—closes or opens instantly or locks in "talk" position. Satin chrome; gray plastic switch lever with locking button. 7" x 5½" base diameter. Net Weight, 1¼ lbs. Net price\$18.00

*Electro-Voice Trademark

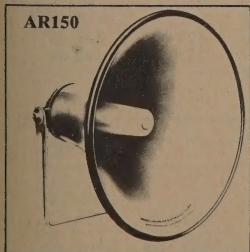
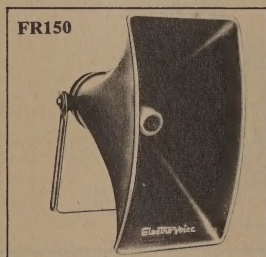
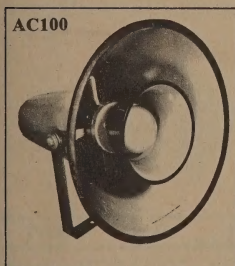
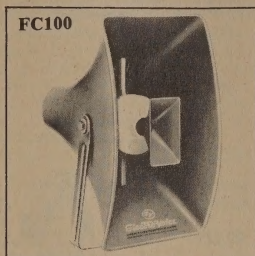
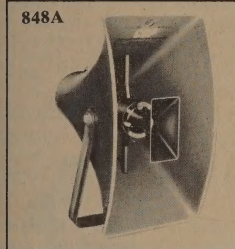




PUBLIC ADDRESS HORNS AND DRIVERS

Compound Diffraction Projector

MODEL 848A—Combines FC100 Compound Diffraction Horn plus 1828C Compound Driver for finest wide-angle sound, lowest distortion, highest quality of any projector. Specifications: Frequency response, 150-10,000 Hz; impedance, 8 ohms; dispersion, 90° x 120°; power handling capacity, 30 watts; sound pressure level, 117 db; dimensions, 10½" x 20½" x 20". Net Weight, 13½ lbs. complete. Net price\$51.00



Projector Horns

Completely new designs assure finest performance with Electro-Voice projector horns. Two basic types from which to choose ... compound and reentrant.

EXCLUSIVE COMPOUND HORNS permit widest range at lowest distortion, plus complete directional control of both highs and lows. Best wide-angle coverage with exclusive diffraction horns means better sound through entire coverage area. Concentrating compound horn provides highest efficiency at lowest distortion. Natural voice and music reproduction result in higher intelligibility without annoying peaks.

MODEL FC100—Similar to the famous CDP®, the FC100 provides two diffraction horns for uniform wide-angle coverage. Frequency response is not compromised since both horns are ideally designed to handle a specific portion of the range. Compound horn reduces distortion far below any other projector design. Flexible coverage control provided by individual adjustment of each horn. Large horn is fiberglass with Mesa Tan finish molded in. Use any E-V convertible driver. Specifications: Low-frequency horn — cut-off, 100 Hz; taper, 100 Hz; air column length, 58"; sound distribution, 90° x 120°. High frequency sound distribution, 90° x 120°; crossover, 1,000 Hz. Mouth size 10½" x 20½", depth (less driver), 20". Net Wt. (less driver), 10¾ lbs. Net price\$30.00

MODEL AC100—Concentrating version of CDP®. Has all of the quality advantages of FC100, except utilizes round horns for most concentrated coverage with greatest efficiency. Retains compound design for lowest distortion—widest range. Use any E-V convertible driver. Specifications: Low-frequency horn—cut-off, 100 Hz; taper, 100 Hz; air column length, 56"; sound distribution, 80°. High-frequency sound distribution, 30°; crossover, 1,000 Hz. Diameter, 21"; depth (less driver), 21"; Net Wt. (less driver), 11½ lbs. Net price\$51.00

REENTRANT HORNS provide wider range than ever before at lowest cost. Unique E-V ring reflector design provides better balanced highs than possible with conventional exponential designs, by reducing high-frequency losses often encountered in reentrant horns. Smoother response plus added useful range increases intelligibility and adds to more natural sound. Rugged aluminum die-cast mounting plate plus precision die-cast reentrant tubes assure long-lasting performance. Heavy spun aluminum round bell or fiberglass rectangular horn provides either concentrated coverage or medium angle coverage. Electro-Voice Reentrant Horns accept any standard driver with 1½"-18 threads.

MODEL FR150—Reentrant Horn. Medium-angle low-cost rectangular horn provides good coverage at low cost. Virtually indestructible fiberglass horn has Mesa Tan color molded in. Adjustable mounting angle allows best coverage. Can be stacked for multiple speaker applications. Ideal for car-top installation or wherever low silhouette is needed, and where bass response cannot be sacrificed. Accepts Electro-Voice convertible drivers or any standard driver with 1½"-18 thread. Specifications: Low-frequency cut-off, 150 Hz; taper, 150 Hz; air column length, 45"; sound distribution, 70° x 100°; mouth size, 10½" x 20½"; depth (less driver), 21"; Net Wt. (less driver), 9½ lbs. Shpg. Wt., 12 lbs. Net price\$26.70

MODEL AR150—Reentrant Horn. Round concentrating horn for maximum penetration at lowest cost. E-V ring reflector plus precision new exponential design contributes to widest range yet achieved from this horn type. Smoother curve results in high intelligibility, and remarkably natural voice and music quality. Rubber edge-damping ring eliminates resonances. High-efficiency design allows more useful volume from driver over entire range. Accepts Electro-Voice Convertible drivers or any standard driver with 1½"-18 thread. Specifications: Low-frequency horn—cut-off, 150 Hz; taper, 150 Hz; air column length, 41"; sound distribution, 85°; diameter, 21"; depth (less driver), 17". Net Weight (less driver), 6½ lbs. Net price\$29.40

MODEL HC400—Features wide-angle dispersion in a round reentrant horn. Same horn, less driver, as used in 844A. May be combined with any E-V driver listed on next page. High articulation for difficult paging jobs. Ruggedly constructed die-cast body. Completely weatherproofed and tropicalized. Nom. dispersion: 90°. Low frequency cutoff: 250 Hz. Taper: 250 Hz. Air column length: 16". Finished in Mesa Tan baked enamel. 10" dia., 5¼" deep. Net weight: 4½ lbs. Net price\$9.00



Versatile Convertible Drivers

Designed for smooth peak-free response with maximum efficiency, Electro-Voice public address drivers offer the greatest possible long term economy with a consistently high level of performance. The Reentrant Driver Model 1828R (30 watts) will produce maximum intelligibility when used with such Electro-Voice horns as the AR150 & FR150, and HC400, yet its freedom from severe response peaks assures improved results even when installed on other Reentrant Horns.

The versatile Convertible Drivers listed below are easily adapted for use with all Reentrant-type Horns (E-V and others), but are especially effective when used with the exclusive Electro-Voice Compound Diffraction Projectors (CDP®), FC100, and AC100.

For use in constant voltage systems, order 1828T, DC40T, DC50T, or 1829T.

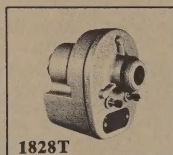
All drivers have 1 $\frac{3}{4}$ " - 18 threads for attaching horn. E-V Diaphragm replacement kits (easily field replaceable) are available for all Electro-Voice public address drivers.

Diaphragm Replacement Kits

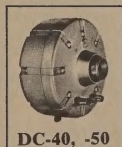
Model	Use For	Net Price
8642	DS30 (844)	\$7.20
8643	DS30-45 (844-45)	9.00
82015	DC30-45 (848-45 & 848LT-45)	9.00
82016	828 (848, 848LT)	7.20
82087	DC30, DC30T	7.20
8617	DC30-45	9.00
82088	DC40, DC40T	7.20
8618	DC40-45	9.00
82089	DC50, DC50T	7.20
8619	DC50-45	9.00
84434	1828C, 1828R (844A)	9.90
84433	1828T	9.90
84431	1829	9.90
84432	1829T	9.90



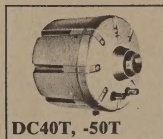
1828C, -R



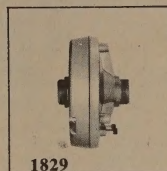
1828T



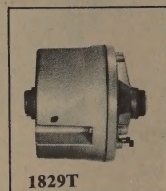
DC-40, -50



DC40T, -50T



1829



1829T



	1828R*	1828C	1828T	DC40	DC40T	DC50	DC50T	1829	1829T
Frequency Response-Hz	150-10,000	150-10,000	150-10,000	140-11,000	140-11,000	140-11,000	140-11,000	140-11,000	140-11,000
Program Power Capacity-watts	30	30	30	40	40	50	50	60	60
Sound Pressure Level†									
FC100		120 db	120 db	122 db	122 db	124 db	124 db	127 db	127 db
AR150	127 db	127 db	127 db	129 db	129 db	131 db	131 db	133 db	133 db
Voice Coil Impedance-ohms	8	8	8	16	16	16	16	16	16
Transformer Impedance-ohms			167,333,667 1337		125, 250 500, 1000		100, 143 200, 500		83,167 333,667
Transformer Power Taps-watts			30, 15, 8, 4		40, 20, 10, 5		50, 35, 25, 10		60, 30, 15, 8
Dimensions (overall)	4" dia., 2 $\frac{3}{4}$ " d	4" dia., 3 $\frac{1}{4}$ " d	5" h 4" w 5 $\frac{1}{4}$ " d	6 $\frac{1}{4}$ " dia., 4 $\frac{1}{4}$ " d	6 $\frac{1}{4}$ " dia., 6" d	6 $\frac{1}{4}$ " dia., 4 $\frac{1}{4}$ " d	6 $\frac{1}{4}$ " dia., 6" d	5 $\frac{1}{16}$ " dia., 4 $\frac{1}{16}$ " d	5 $\frac{1}{16}$ " dia., 6 $\frac{3}{8}$ " d
Net Price Each	\$18.90	\$19.80	\$27.00	\$25.20	\$32.70	\$32.70	\$39.30	\$32.70	\$39.30

†Measured at 4 feet on axis with full rated power from 750-1250 cps.

*Reentrant style only.

Paging Speakers

MODEL PA7 REENTRANT PROJECTOR—Attractively styled horn is constructed completely of Implex—virtually indestructible. Non-resonant horn won't dent, finish can't wear off. Electro-Voice diaphragm design eliminates loading problems, provides cleanliness of reproduction never before achieved in small projectors. Handles $7\frac{1}{2}$ watts over a range of 400 to 13,000 Hz. Wide 120° dispersion angle provides excellent coverage. Mounting bracket allows horn to be positioned at any angle. $6\frac{3}{4}$ " diameter by 6" deep, Net weight, 2 lbs.

Net price\$17.85

PA7-45—Same as above but with 45-ohm voice coil.

Net price\$18.60

MODEL PA30T—Thirty watt paging projector with integral 70.7-volt line transformer. Easily selected line power taps at 30, 15, 8, 4 and 2 watts. Rectangular horn design for maximum versatility and wide dispersion. Rugged, high-impact Implex horn and conservatively rated driver assure maximum reliability. Smooth response for voice and music. Universal swivel bracket permits placement in any position or rotating horn without dismounting. Response: 250-14,000 Hz. Power handling capacity: 30 watts. Dispersion: 120 degrees by 90 degrees. EIA sensitivity rating: 59 db. Sound pressure level: 125 db. Dimensions: 11" h. x $6\frac{1}{2}$ " w. x $8\frac{1}{2}$ " d. Net weight: 6 $\frac{3}{4}$ lbs.

Net price\$28.50

MODEL PA30—Same as PA30T, above, except without line transformer. Will accept any type TR3 transformer. Nominal impedance, 8 ohms. Net weight $5\frac{1}{2}$ lbs.

Net price\$21.90

MODEL PA30-45—Same as standard PA30, but with 45 ohm voice coil for simple installation in intercom systems.

Net price\$23.10

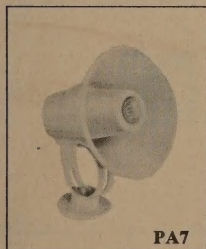
MODEL 844A—For medium-angle sound distribution. Features smooth response with better lows to provide natural paging without feedback. Handles 30 watts—to reduce costs. Rugged die-cast horn, plus field-replaceable voice coil keeps service costs at a minimum. Frequency response, 250-13,000 Hz; power handling capacity, 30 watts program; nominal impedance, 8 ohms; nom. dispersion, 90° ; EIA sensitivity rating, 54 db; sound pressure level, 123 db; dimensions, $9\frac{7}{8}$ " diameter x $7\frac{7}{8}$ " deep; Net Weight, $11\frac{1}{4}$ lb. Net price\$23.40

MODEL 847—Utilizing the famous CDP® Principle—this wide-angle speaker provides higher articulation without annoying "peaked" response over a uniform 120° x 90° area. Low distortion results from use of TWO diffraction horns. 25-watt power handling capacity. Fiberglass horn has mesa tan color molded in. Frequency response, 250-10,000 Hz; power handling capacity, 25 watts; sound pressure level, 114 db; dispersion, 90° x 120° ; impedance, 16 ohms; dimensions, $11\frac{3}{4}$ " x $7\frac{3}{4}$ " x $10\frac{1}{4}$ " depth. Net weight, 8 lbs. Net price\$33.00

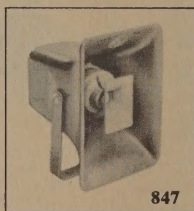
Multicellular Horn

The Multicellular Horn's dispersion characteristics are virtually independent of frequency, making it ideal for sound reinforcement where precise dispersion and wide, smooth frequency response are required.

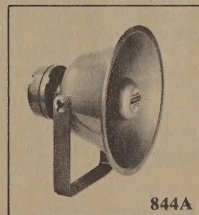
MODEL M253—Completely weatherproofed Multicellular Horn (less driver), for indoor or outdoor use. Dispersion is essentially uniform at all useful frequencies. (60° vertical, 120° horizontal). Utilizes two rows of five identical cells. Construction is steel, with cells jig assembled and covered with special black damping compound. Use with any E-V driver with $1\frac{3}{8}$ -18 threads. Low-frequency cutoff 300 Hz. Recommended crossover frequency, 300 Hz. Supplied with mounting hardware. Driver-throat built in. No special assembly required. Dimensions: $17\frac{1}{2}$ " h., $30\frac{1}{2}$ " w., $36\frac{1}{2}$ " d. Net weight 26 lbs. Net price\$180.00



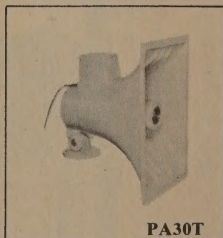
PA7



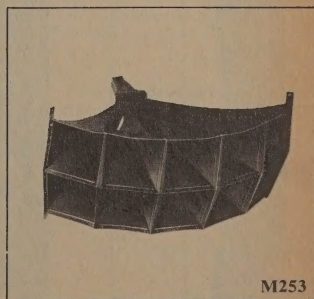
847



844A



PA30T



M253

Line Radiator™ Loudspeakers

Three new, wide-angle speaker designs permit wide horizontal dispersion while almost eliminating sound output above or below speaker. Superb for voice-reinforcement systems. Unusually wide frequency range coverage.

MODEL LR4A—Curved design* overcomes unwanted high-frequency dispersion at ends, eliminating echo and feedback. Contains nine 3" x 5" and three 3½" cone speakers. 160° horizontal dispersion; 60° vertical dispersion. Frequency response: 200–10,000 Hz. Power handling capacity: 25 watts program, 50 watts peak. Nominal impedance: 8 ohms. Size 49" h. x 7" w. x 13" d. Mesa tan finished wooden enclosure. Net weight, 26 lbs.

Net price\$120.00

MODEL LR4SA—All new, completely weatherproofed Line Radiator loudspeaker for outside or indoor sound installations. Extruded aluminum case is lightweight, rugged, and attractive. Finished in Faun metallic, the speaker fits with any decor. Electrical filters remove end speakers from circuit as frequencies increase, eliminating high-frequency lobes at ends. Smooth, carefully tailored frequency response from 200 to 10,000 Hz for true high fidelity sound reinforcement at greatly increased sound pressure levels. Impedance: 8 ohms. Power handling capacity: 40 watts program. Dispersion: 30° vertical, 160° horizontal. Sound pressure level: 116 db (at 4' with 40 watts input 750-1250 Hz.). Size: 48¾" l., 6¾" w., 4¾" d. Net weight 25 lbs. Complete with universal mounting bracket and chain.

Net price\$90.00

MODEL LR7—The largest of the revolutionary Electro-Voice Line Radiators. Both low- and high-frequency response extended. Utilizes nine 5" x 7" loudspeakers and two T35 vhf drivers for frequency range of 200 to 17,000 Hz. Full half-section crossover at 3500 Hz. Horizontal coverage 160°, vertical coverage 60°. Power handling capacity 50 watts, impedance 8 ohms. Non-resonant, curved* wood enclosure finished in Mesa Tan. Universal mounting brackets supplied. Dimensions: 60" high x 11" wide x 14" deep. Net weight, 59 lbs.

Net price\$180.00

Underwater Loudspeaker

MODEL DU30—Pool Speaker. For use in swimming pools to provide voice and music audible underwater. May be mounted at any depth down to 4 feet. Specifications: Impedance, 16 ohms. Power handling capacity, 30 watts. Frequency response, 40 to 10,000 Hz. Size, 5¾" diameter x 2¾" deep. Net weight (with cable), 8¼ lbs. Twelve-foot Underwriters approved cable. Resistant to chlorine, bromine, salt water, oil, grease, gasoline.

Net price\$58.50

*U.S. Patent No. 3,125,181

E-V Musicaster Hi-Fi Outdoor Weatherproof Speaker Systems

MUSICASTER—Provides high fidelity performance in a compact, portable system. Sturdy aluminum diecast housing protects weatherproof cone speaker and extends bass response through back-loaded folded horn. Dual Radax™ cone radiates smooth useful highs through 120° angle. Provision for mtg. 70.7-volt line transformer inside. Specifications: Frequency response, 60–13,000 Hz; nominal impedance, 8 ohms; dispersion, 120°, power handling capacity, 30 watts program; sound pressure level, 110 db; dimensions, 21½" x 21½" x 8½" depth. Net weight, 31 lbs.

Net price\$72.00

MUSICASTER II—Same fine performance as the Musicaster except has added brilliance and wider coverage from Very-High-Frequency Range Extender. Smooth response to 18,000 Hz. Complete with crossover. Net weight, 33 lbs.

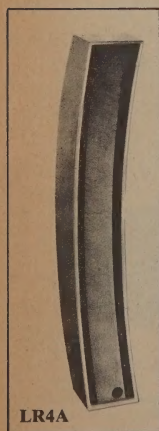
Net price\$90.00

MODEL MB-1—Surface mounting bracket allows mounting of any Musicaster flat against wall for neat unobtrusive installation. Replaces standard "U" bracket. **Net price**\$3.60

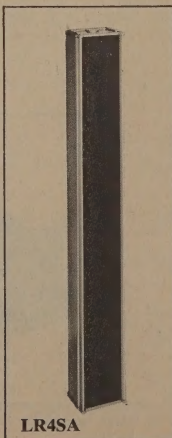
Note: Sound Pressure Level is measured at 4' on-axis with full rated power from 750 to 1250 cps.



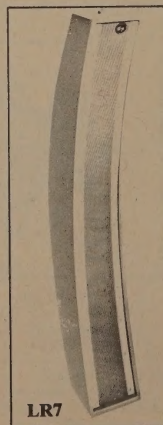
DU30



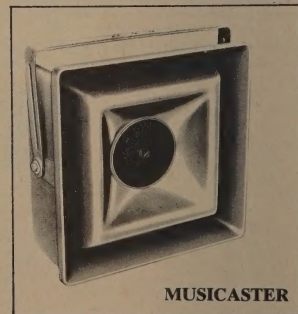
LR4A



LR4SA



LR7



MUSICASTER



PA TRANSFORMERS AND ACCESSORIES

Transformers

MODEL TR5—5-watt 70.7-volt line transformer. 5, 2.5, 1.25 and .625-watt line power taps. 4, 8 and 16 ohms secondary impedances. Accepts solderless terminals in TH housing. Frequency response ± 2 db, 35–20,000 cps. Insertion loss 0.8 db. Overall dimensions $2" \times 1\frac{1}{16}" \times 1\frac{3}{8}"$. Mounting hole centers $1\frac{3}{4}"$.
Net price\$3.30

MODEL TR15—Same as TR5 except 15-watt capacity with 15, 10, 5, 2.5-watt line power taps. Overall dimensions $1\frac{3}{4}"$ h., $2\frac{7}{8}"$ w., $2\frac{9}{16}"$ d. **Net price**\$3.60

MODEL TR30—Same as TR5 except 30-watt capacity with 30, 20, 10 and 5-watt line power taps. Overall dimensions $1\frac{3}{4}"$ h., $2\frac{7}{8}"$ w., $2\frac{9}{16}"$ d. Mounting hole centers $2\frac{3}{8}"$.
Net price\$4.20

MODEL TR50—Same as TR5 except 50-watt capacity with 50, 40, 25 and 15-watt line power taps. Overall dimensions $2\frac{1}{4}"$ h., $2\frac{9}{16}"$ w., $2\frac{1}{4}"$ d. Mounting hole centers $2\frac{3}{8}"$.
Net price\$5.40

MODEL TM5—Universal 5-watt 25- and 70.7-volt line transformer. Primary line power taps 5, 2.5, 1.25, .625 watts. Secondary impedance 8, 16 ohms. Accepts solderless terminals in TH housing. Frequency response ± 2 db, 35–20,000 cps. Insertion loss 0.8 db. Overall dimensions $2\frac{3}{8}" \times 1\frac{15}{16}" \times 1\frac{1}{8}"$. Mounting hole centers, $2"$. **Net price**\$4.20

MODEL TM15—Same as TM5 except 15-watt capacity with 15, 7.5, 3.75, 1.875 watt line power taps. Overall dimensions, $2\frac{7}{8}" \times 2\frac{3}{8}" \times 1\frac{7}{8}"$. Mounting hole centers, $2\frac{3}{8}"$.
Net price\$5.25

MODEL TM30—Same as TM5 except 30-watt capacity with 30, 15, 7.5, 3.75 watt line power taps. Overall dimensions $3\frac{1}{8}" \times 2\frac{3}{4}" \times 2"$. Mounting hole centers, $2\frac{1}{16}"$. impedance. **Net price**\$5.40

MODEL TM60—Same as TM5 except 60-watt capacity with 60, 30, 15, 7.5 watt line power taps. Overall dimensions $3\frac{9}{16}" \times 3\frac{1}{16}" \times 2\frac{1}{2}"$. Mounting hole centers, $3\frac{1}{8}"$.
Net price\$7.20

MODEL TR7-2— $7\frac{1}{2}$ -watt 25-volt line transformer and weatherproof housing designed specifically for use with the Model PA7. Mounts quickly and easily inside PA7 bracket. Primary impedance taps 83, 156, 312, 624, and 1248 ohms; $7\frac{1}{2}$, 4, 2, 1, and $\frac{1}{2}$ watt line power taps. 8 ohms secondary impedance. **Net price**\$6.60

MODEL TR7-7—Same as TR7-2 above except designed for 70.7 volt line applications. Primary impedance taps 660, 1250, 2500, 5000 and 10,000 ohms; $7\frac{1}{2}$, 4, 2, 1 and $\frac{1}{2}$ watt line power taps. 8 ohms secondary impedance **Net price**\$6.60

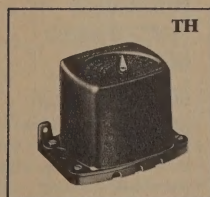
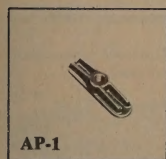
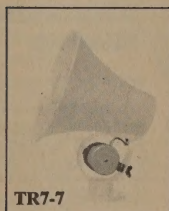
MODEL TR3-2—30-watt 25-volt line transformer and weatherproof housing designed specifically for use with the Model PA30. Line power taps at 30, 15, 8, 4, 2 watts. Secondary impedance 8 ohms. **Net price**\$9.00

MODEL TR3-7—Same as TR3-2 above except designed for 70.7-volt line applications. **Net price**\$9.00

Accessories

MODEL TH—Transformer Housing provides neat weatherproof mounting of any E-V transformer. Mount vertically or horizontally on any flat surface or on horn bracket. Exclusive wattage indicator tells power setting at a glance. No soldering required with E-V transformers. Size: $4" \text{ h.}, 5" \text{ w.}, 3\frac{1}{2}" \text{ d.}$ Net weight, $1\frac{3}{4}$ lbs. **Net price**\$5.85

MODEL AP-1—Pipe stand adapter for mounting any E-V speaker "U" bracket to standard $\frac{1}{2}"$ pipe.
Net price\$3.00



Take it from Mickey Mantle†

**"ON LAND...AT SEA...
there's a new wonderful,
exciting world of sound...
at your command!"**



POWERHOUSE MEGAPHONES

FEDTRO MEG-3600 DELUXE POWERHOUSE TRANSISTORIZED MEGAPHONE

SPECIAL FEATURES

- Superior Power Range
- Tonal Quality and Clarity of the Highest Fidelity
- Perfectly Balanced Pistol Grip with Trigger Switch and Fingertip Volume Control
- All Aluminum Construction
- All Weather Durable Handy Carrying Strap
- Instant Battery Loading

magnificently finished in gleaming harmonious tones of brilliant red and lustrous ivory

• Waterproof • Impactproof • Rustproof



- Special Blast Signal Stops and Starts the Action... Marine Signal... Boat Horn... Fog Horn... "Mayday"
- ... Designed to meet U.S. Coast Guard Distress Signalling Regulations

\$79.95*

**Suggested selling price. Slightly higher in Western states.*

FEDTRO MEG-3300 DELUXE POWERHOUSE TRANSISTORIZED MEGAPHONE

SPECIAL FEATURES

- Two Dynamic Microphones... One Built-In and Additional "Plug-In" Detachable Microphone
- Use 4 Ways:
Over Shoulder • Trumpet Grip • Thru Regular Mike • Thru Detachable Mike
- Super Power Range
- Superior Clarity
- Perfect Tonal Quality



• Waterproof • Impactproof • Rustproof

- Hi-Impact PVC Construction
- Fingertip Volume Control
- Adjustable Carrying Strap & Shoulder Cushion
- Instant Battery Loading

\$59.95*

**Suggested selling price. Slightly higher in Western states.*

magnificently finished in gleaming harmonious tones of lustrous ivory and ebony black

FEDTRO MEG-1200 MICRO-MEG POWERHOUSE TRANSISTORIZED MEGAPHONE

*the ultimate
in transistorized
miniaturization*

SPECIAL FEATURES

- Transistorized
- Miniaturized... only 8½ inches long
- Power Packed Amplification

magnificently finished in gleaming harmonious tones of iridescent Imperial silver smartly trimmed with ebony black

• Waterproof • Impactproof • Rustproof



- All Aluminum Construction
- Fingertip Volume Control
- Elegant Wrist-Strap Swivel Chain
- Noise-Cancelling Microphone

\$39.95*

**Suggested selling price. Slightly higher in Western states.*

FEDTRO MEG-1000b POWERHOUSE TRANSISTORIZED MEGAPHONE

SPECIAL FEATURES

- All Aluminum Construction
- Superior Clarity and Tonal Quality
- Durable Handy Carrying Strap
- Instant Battery Loading
- Noise-Cancelling Microphone
- Fingertip Volume Control
- Power Packed Amplification



• Waterproof • Impactproof • Rustproof

\$39.95*

**Suggested selling price. Slightly higher in Western states.*

magnificently finished in gleaming harmonious tones of brilliant red and elegant ebony black



proven sound around the world®

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†MICKEY MANTLE ENDORSES ALL FEDTRO AUDIO PRODUCTS

"FEDTRO...the proven sound of champions"

THE WORLD'S LEADING SUPPLIER OF TRANSISTORIZED MEGAPHONES



FEDTRO POWERHOUSE MEGAPHONE
SPECIFICATION GUIDE

MODEL NO.	FEDTRO MEG-5000	FEDTRO MEG-3600	FEDTRO MEG-3300	FEDTRO MEG-1200	FEDTRO MEG-1000B
ELECTRIC POWER SOURCE	9 Volts	6 Volts	6 Volts	6 Volts	6 Volts
OUTPUT	25 Watts	16 Watts	14 Watts	5 Watts	5 Watts
BATTERIES	6 Flashlight "C" cells*	4 Flashlight "D" cells*	4 Flashlight "D" cells*	4 Flashlight "C" cells*	4 Flashlight "D" cells**
DIMENSIONS	Diameter 8 3/4", Length 13 1/2"	Diameter 7 1/4", Length 12 3/4"	Diameter 7", Length 12 3/4"	Diameter 5 1/4", Length 8 1/2"	Diameter 7 1/4", Length 12 1/4"
WEIGHT	5 1/2 lbs.	3 lbs.	2 1/4 lbs.	1 lb. 10 ozs.	2.7 lbs.
POWER RANGE	Up to 5000 feet†	Up to 3600 feet†	Up to 3300 feet†	Up to 1200 feet†	Up to 1200 feet†
EXCLUSIVES	Built-in Blast-Signal	Built-in Blast-Signal	Two Dynamic Microphones	Ultra Miniaturization	Economy plus

FEDTRO MEG-5000 ULTRA DELUXE POWERHOUSE TRANSISTORIZED MEGAPHONE
the finest instrument of its kind in the world



• Waterproof • Rustproof
• Impactproof

SPECIAL FEATURES

- Super Range & Power
- The Ultimate in Clarity and Tonal Quality
- Versatility • Detachable Mike
- All Aluminum Construction
- Fingertip Volume Control
- Adjustable Carrying Strap and Shoulder Cushion
- Instant Battery Loading
- Special Blast Signal Stops and Starts the Action... Boat Horn... Fog Horn... "Mayday"... Designed to meet U.S. Coast Guard Distress Signalling Regulations

magnificently finished in brilliant red and lustrous ivory

Use 4 Ways:
Pistol Grip • Over Shoulder
On its own legs • Tripod Mount

\$119.95*

*Suggested selling price. Slightly higher in Western states.

*Eveready #1035 or equivalent.

**Eveready #950, Burgess #2 or equivalent.

†Depending on environment, climatic conditions and existing area noise levels.

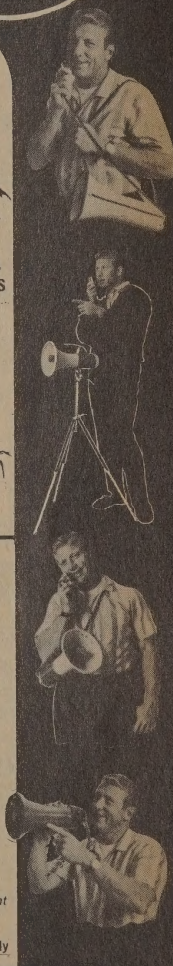
The bell of Fedtro Powerhouse Megaphone model numbers 5000, 3600, 3300 and 1000B are protected and cushioned with a rubber bumper rim, and the bell of model number 1200 is protected and cushioned with a poly-vinylchloride bumper rim.

All Fedtro Powerhouse Megaphones are magnificently packaged in an attractive re-usable, multi-color, sturdy compartment... ideal for quick, easy storage of the unit.



proven sound around the world®

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THE OFFICIAL MEGAPHONE OF THE N.Y. WORLD'S FAIR



Manufactured by... United States Steel

FOR FEDTRO POWERHOUSE TRUMPET SPEAKERS SEE PAGE 116.



POWERHOUSE TRUMPET SPEAKERS

proven sound around the world®



Take it from Mickey Mantle†
"FEDTRO...the proven sound of champions"

"proven sound around the world"® from the blistering humid depths of Equatorial Africa...to the frigid waters of the Arctic Seas, Fedtro Powerhouse Speakers are ruggedly constructed to guarantee optimum performance, even under the most brutal of climatic extremes.  Shockproof, rustproof, and totally

weatherized, the entire Fedtro series is ideally suited for the most trying applications of Marine and Mobile use...Public Address, Paging and Talkback Systems. The diaphragm is constructed with a special resinification process, which permits it to withstand higher than 30% power input overloads.  Engineered and designed to afford the highest degree of clarity

and intelligibility over the complete frequency spectrum, from the compact S-5RD to the mammoth S-16RD, there's a perfect Powerhouse available for your specific needs.  Greater efficiency...increased power output...higher intelligibility...and almost indestructible durability...all add up to why they are "proven sound around the world"®.



MODEL
S-5RD



MODEL S-6RD



MODEL S-8RD



MODEL S-8BX



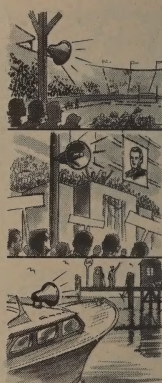
MODEL S-12RD



MODEL S-16RD

Ruggedly Constructed for
Outdoor, Indoor, Marine and
Mobile Use

■ WATERPROOF ■ SHOCKPROOF
■ RUSTPROOF ■ CORROSIONPROOF
DYNAMIC 3-COLOR
CUSTOM PACKAGING



FEDTRO POWERHOUSE TRUMPET SPEAKER SPECIFICATION CHART

Model No.	Power Rating		Voice Coil Impedance	Frequency Range	Bell Diameter (Horn Opening)	Overall Length	Net Weight
	Program	Peak					
S-5RD	8 watts	12 watts	8 ohms	200 to 13,000 cps.	5 inches	5 inches	approx. 1 lb.
S-6RD	10 watts	15 watts	8 ohms	200 to 13,000 cps.	6 inches	6½ inches	approx. 2 lbs.
S-8RD	15 watts	25 watts	8 ohms	200 to 13,000 cps.	8 inches	8½ inches	approx. 2½ lbs.
S-8BX	15 watts	25 watts	8 ohms	200 to 13,000 cps.	8 inches x 5 inches	8 inches	approx. 2.4 lbs.
S-12RD	30 watts	65 watts	8 ohms	150 to 13,000 cps.	12 inches	13¼ inches	approx. 4.4 lbs.
S-16RD	40 watts	75 watts	8 ohms	150 to 13,000 cps.	16 inches	13 inches	approx. 5.3 lbs.

GET MORE SOUND FOR YOUR DOLLAR
WITH FEDTRO POWERHOUSE SPEAKERS!

SUPERIOR QUALITY... at the
lowest prices in the industry



proven sound around the world®

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FOR FEDTRO POWERHOUSE TRANSISTORIZED
MEGAPHONES SEE PAGES 114, 115



MICROPHONES

POLYDIRECTIONAL RIBBON MICROPHONE—77DX

The standard quality microphone of the broadcast industry, the RCA 77-DX, is available in two models; one with a low gloss finish for TV, the other a satin chrome finish for AM and FM. The 77-DX offers a choice of unidirectional, bidirectional, or nondirectional pickup patterns which are easily changed by a selector switch. Three frequency response variations on the basic pickup patterns may also be obtained, thus a total of nine different directional characteristics may be utilized. The 30-20,000 cycle frequency response of the 77-DX makes it suitable for every high fidelity broadcasting and recording application. Output impedance is factory connected for 250 ohms; however, it may be easily reconnected for a 30 to 150 ohm output impedance.

This 77-DX mounts on a standard ½-inch pipe thread, and comes with 30 feet of three conductor shielded cable, less plug.

77-DX Satin Chrome Finish\$206.00°
77-DX-G Low Luster Gray Finish\$197.00°

BI-DIRECTIONAL RIBBON MICROPHONE—BK-11A

In the studio or at indoor remotes, whether a simple interview program or full orchestra pickup, the bi-directional characteristics and excellent frequency response (20 to 20,000 cps) make the BK-11A an extremely useful production tool. The output can be connected for 30, 150, and 250 ohm operation. A three position switch permits selection of desired frequency ranges for voice and music.

The BK-11A has been designed for use with the inexpensive MA-06 desk stand, and it can also be used with any standard ½-inch pipe thread desk or floor stand. Thirty feet of three conductor cable is supplied without a connector.

BK-11A\$131.25°

UNIAXIAL RIBBON MICROPHONE—BK-5B

The BK-5B is a high quality ribbon instrument designed especially for use in high noise areas, as well as being suitable for general studio purposes. Maximum sensitivity of the BK-5B is in the major mechanical axis, and this produces an extremely directional cardioid pattern. Frequency response from 30 to 20,000 cps permits using the BK-5B for all types of high fidelity voice and music pickups. The output is connected for 250 ohms, but may easily be changed to 30 or 150 ohms. The low-luster umber gray finish makes it ideal for TV.

It is supplied with thirty feet of three conductor cable, less connector. A wind-screen is available for outdoor use. The BK-5B is supported by a fork mounting which has ½-inch pipe thread.

BK-5B\$146.50°

LAVALIER MICROPHONE—BK-6B

The BK-6B is a lightweight microphone with excellent speech balance, ideal for remotes, interviews, and other applications where an inconspicuous microphone is needed. The 2.3 ounce unit is only 2 9/16 by 1 15/16 inches. Wide range frequency response (60-15,000 cps) permits using the microphone for all speech applications. The 250 ohm output impedance may be changed to 30 or 150 ohms by a simple change of cable connections.

The small size and lanyard mounting make the BK-6B extremely versatile. Thirty feet of three conductor cable is supplied, less connector.

BK-6B with lanyard and fastener\$86.00°

SUBMINIATURE LAVALIER MICROPHONE—BK-12A

The RCA BK-12A is a high-quality subminiature microphone weighing just 20 grams and measuring only 3/8" x 1 1/2". It has a wide-frequency response of 60 to 18,000 cps, which has been tailored for proper speech balance. The BK-12A is essentially non-directional to 6,000 cycles, and as a result, ordinary errors in orientation have negligible effect upon response. The microphone comes complete with lanyard, tie clip holder, cable clip and 30-feet of 2-conductor cable (less connector).

BK-12A\$95.00°

BI-DIRECTIONAL RIBBON MICROPHONE—SK-46

The SK-46 is designed for high quality indoor use. It has excellent frequency response 40-15,000 cps and bidirectional pickup characteristics. Output impedance is 200 ohms, but it may be reconnected to produce a 15,000 ohm output. Dependable performance as well as attractive styling make the SK-46 an ideal choice for high fidelity applications. The SK-46 has a ¾-inch-27 mounting thread and is supplied with 25 feet of two conductor cable (less connector).

SK-46\$54.95°

NON-DIRECTIONAL DYNAMIC MICROPHONE—BK-1A

Ideal for outdoor use or wherever constant handling is required the BK-1A offers smooth response for both voice and music. The BK-1A is also an excellent unit for sports, panel shows, interviews, and remotes. It provides uniform response from 50 to 15,000 cps. The swivel mounting of the BK-1A can be used to control directional characteristics. The vertical position is non-directional; the horizontal position is semidirectional. The output impedance is 250 ohms, but 30 and 150 ohm connections are included.

The BK-1A may be mounted on any type stand having ½-inch pipe thread and is perfect for use with the MA-06 desk stand. Thirty feet of three conductor cable is supplied, less connector.

BK-1A\$73.50°

GENERAL PURPOSE DYNAMIC MICROPHONE—SK-30/SK-31

Here is an excellent non-directional general purpose microphone available as a low-impedance (SK-30) or high-impedance (SK-31) unit. It is rugged and lightweight with good response to voice and music (60-12,000 cps). In addition to being hand held, it may be swivel mounted on a desk or floor stand or it may be mounted on a goose-neck stand. A ¾-inch-27 thread swivel adaptor is available for floor or desk stand mounting. The microphone comes complete with 20-feet of shielded cable (less connector).

SK-30\$30.00°

SK-31\$31.00°

NON-DIRECTIONAL DYNAMIC MICROPHONE—SK-45B

Ideal for talk-back, cue, and public address use, the rugged lightweight SK-45B microphone offers good voice reproduction. It may be connected for a 150 to 200 ohm balanced output, for a 15,000 ohm output. Response is from 70 to 12,000 cps. Mounting with any ¾-inch-27 fixture thread permits the use of low cost stands. Finish is low gloss gray, and the SK-45B is supplied with 25 feet of cable less connector.

SK-45B\$45.00°

NON-DIRECTIONAL DYNAMIC MICROPHONE—SK-39A

Cue and talk-back applications are perfect for this inexpensive dynamic microphone. The SK-39A is rugged and relatively insensitive to mechanical shock and wind. Frequency response is 60 to 10,000 cps. It may be mounted on any ¾-inch-27 fixture thread, and is supplied with 25 feet of two conductor cable (less connector).

SK-39A\$23.40°

STANDS AND ACCESSORIES

Windscreen—MA-25—For use with BK-5B microphone\$16.50°

Boom Mount—MA-24—Shock mounting to isolate BK-5B microphone from vibration\$36.50°

Holder—MA-07—¾" female thread. For use with BK-6B microphone\$3.35°

Adaptor—MA-08—¾" female fitting—½" male pipe thread, to adapt a ¾"-27 microphone to a ½" pipe thread stand\$.60°

Adaptor—MA-09—¾" female pipe thread, ¾"-27 male fitting, to adapt a ½" microphone to a ¾"-27 stand\$.90°

Desk Stand—MA-06—½" pipe fit—male 4 3/8" dia., 1 1/8" h. For use with BK-1A and BK-11A microphones.\$7.75°

Desk Stand—MA-05—½" pipe fit—male 4 3/8" wide, 1 1/8" dia., 3 1/2" high (incl. Stem). Crinkle and 1 1/4" dia., 3 1/2" to 66" chrome tube. Triangular 17" dia. chrome finish, 4 lbs. For use with 77-DX and BK-5B Microphones\$16.75°

Desk Stand—MA-01—¾"-27 male thread, 7" to 11" chrome tube, 8" dia. Crinkle base, About 2 1/2 lbs.\$5.20°

Banquet Stand—MA-02—¾"-27 male thread, 13" to 25" chrome tube, 8" dia. Crinkle base. About 6 lbs.\$5.85°

Floor Stand—MA-03—¾"-27 male thread, 13" to 35" to 65" chrome tube. 12" dia. Crinkle base.\$9.00°

Floor Stand (Deluxe)—MA-04—¾"-27 male thread, 1 1/4" dia., 3 1/2" to 66" chrome tube. Triangular 17" dia. Crinkle base\$16.50°

Swivel Adaptor—MA-32—for SK-30/SK-31 microphone. (Fits conventional ¾"-27 thread floor and desk stands)\$3.40°

*Optional distributor resale price.

BK-11A

SK-45B

BK-1A

SK-46B

BK-6B

77DX

SK-39A

BK-12A

SK-30/
SK-31

BK-5B



jensen Concert Series Speakers

5" x 7" Deluxe
Oval Dual Cone



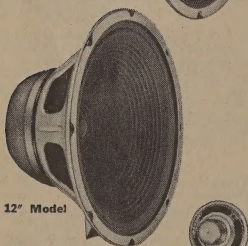
6" x 9"
Oval



C6T8



12" Super
Shallow



12" Model

2"
Miniature

OVAL GROUP

Nom. Size, Inches	Jensen No.	Mag.* Wt., Oz.	Voice Coil			Dimensions, Inches				Net Each
			Imp. Ohms	Power Watts	Dia., In.	H. x W.	Depth	Baffle Opening		
2 x 6	P2X6X3	.68	3.2	3.5	1/8	2 1/4 x 6 3/4	2 1/8	1 1/2 x 5 1/2	\$2.85	
3 x 5	P3X5X3	.68	3.2	4.0	1/8	3 1/4 x 5	2 1/8	1 1/2 x 4 1/2	2.58	
3 x 6	P3X6X3	.68	3.2	4.0	1/8	4 1/4 x 6 3/4	2 1/8	1 1/2 x 5 1/2	2.76	
4 x 6	P4X6W3	1.00	3.2	4.5	1/8	4 1/4 x 6 3/4	2 1/8	1 1/2 x 5 1/2	2.97	
4 x 6	P4X6V3	1.47	3.2	5.0	1/8	4 1/4 x 6 3/4	2 1/8	1 1/2 x 5 1/2	3.09	
4 x 8	P4X8V5	1.47	8	7.0	1/8	4 1/4 x 8	2 1/8	1 1/2 x 7 1/2	3.75	
4 x 8	P4X8U3	1.738	3.2	7.0	1/8	4 1/4 x 8	2 1/8	1 1/2 x 7 1/2	4.32	
4 x 8	P4X8U8	1.738	8	7.0	1/8	4 1/4 x 8	2 1/8	1 1/2 x 7 1/2	4.32	
4 x 8	P4X8U40	1.738	40 CT	7.0	1/8	4 1/4 x 8	2 1/8	1 1/2 x 7 1/2	4.59	
4 x 10	P4X10V8	1.47	8	7.0	1/8	4 1/4 x 10	2 1/8	1 1/2 x 9 1/2	4.65	
4 x 10	P4X10U3	1.738	3.2	7.5	1/8	4 1/4 x 10	2 1/8	1 1/2 x 9 1/2	4.65	
4 x 10	P4X10U8	1.738	8	7.5	1/8	4 1/4 x 10	2 1/8	1 1/2 x 9 1/2	4.65	
4 x 10	P4X10U20	1.738	20 CT	7.5	1/8	4 1/4 x 10	2 1/8	1 1/2 x 9 1/2	4.95	
4 x 10	P4X10U40	1.738	40 CT	7.5	1/8	4 1/4 x 10	2 1/8	1 1/2 x 9 1/2	4.95	
4 x 10	P4X10T3	2.5*	3.2	8.5	1/8	4 1/4 x 10	2 1/8	1 1/2 x 9 1/2	5.00	
4 x 10	P4X10T9	2.5*	8-10	8.5	1/8	4 1/4 x 10	2 1/8	1 1/2 x 9 1/2	5.00	
5 x 7	P5X7V3	1.47	3.2	6.0	1/8	5 1/4 x 7 1/4	2 1/8	1 1/2 x 6 1/2	3.50	
5 x 7	P5X7V6	1.47	8	6.0	1/8	5 1/4 x 7 1/4	2 1/8	1 1/2 x 6 1/2	3.50	
5 x 7	P5X7VD3†	1.47	3.2	6.0	1/8	5 1/4 x 7 1/4	2 1/8	1 1/2 x 6 1/2	3.30	
5 x 7	P5X7VD8†	1.47	8	6.0	1/8	5 1/4 x 7 1/4	2 1/8	1 1/2 x 6 1/2	3.30	
5 x 7	P5X7U3	1.738	3.2	8.0	1/8	5 1/4 x 7 1/4	2 1/8	1 1/2 x 6 1/2	4.10	
5 x 7	P5X7U6	1.738	8	8.0	1/8	5 1/4 x 7 1/4	2 1/8	1 1/2 x 6 1/2	4.10	
5 x 7	P5X7T3	2.5*	3.2	9.0	1/8	5 1/4 x 7 1/4	2 1/8	1 1/2 x 6 1/2	4.71	
5 x 7	P5X7T9	2.5*	8-10	9.0	1/8	5 1/4 x 7 1/4	2 1/8	1 1/2 x 6 1/2	4.71	
5 x 7	P5X7T20	2.5*	20 CT	9.0	1/8	5 1/4 x 7 1/4	2 1/8	1 1/2 x 6 1/2	5.07	
5 x 7	P5X7T40	2.5*	40 CT	9.0	1/8	5 1/4 x 7 1/4	2 1/8	1 1/2 x 6 1/2	5.07	
5 x 7	C5X7RD3†	10.0	3.2	10.0	1/8	5 1/4 x 7 1/4	2 1/8	1 1/2 x 6 1/2	6.72	
5 x 7	C5X7RD8†	10.0	8	10.0	1/8	5 1/4 x 7 1/4	2 1/8	1 1/2 x 6 1/2	6.72	
5 x 8	P5X8U5*	1.738	8-10	8.0	1/8	5 1/4 x 8	2 1/8	1 1/2 x 6 1/2	4.59	
6 x 9	P6X9V3	1.47	3.2	7.5	1/8	6 1/4 x 9 1/4	3 1/8	1 1/2 x 8 1/2	4.02	
6 x 9	P6X9V6	1.47	8	7.5	1/8	6 1/4 x 9 1/4	3 1/8	1 1/2 x 8 1/2	4.02	
6 x 9	P6X9VD3†	1.47	3.2	7.5	1/8	6 1/4 x 9 1/4	3 1/8	1 1/2 x 8 1/2	4.35	
6 x 9	P6X9VD8†	1.47	8	7.5	1/8	6 1/4 x 9 1/4	3 1/8	1 1/2 x 8 1/2	4.35	
6 x 9	P6X9V20	1.47	20 CT	7.5	1/8	6 1/4 x 9 1/4	3 1/8	1 1/2 x 8 1/2	4.26	
6 x 9	P6X9U3	1.738	3.2	9.0	1/8	6 1/4 x 9 1/4	3 1/8	1 1/2 x 8 1/2	4.53	
6 x 9	P6X9U8	1.738	8	9.0	1/8	6 1/4 x 9 1/4	3 1/8	1 1/2 x 8 1/2	4.53	
6 x 9	P6X9T3	2.5*	3.2	10.0	1/8	6 1/4 x 9 1/4	3 1/8	1 1/2 x 8 1/2	4.89	
6 x 9	P6X9T9	2.5*	8-10	10.0	1/8	6 1/4 x 9 1/4	3 1/8	1 1/2 x 8 1/2	4.89	
6 x 9	C6X9T40	4.8	40 CT	10.0	1/8	6 1/4 x 9 1/4	3 1/8	1 1/2 x 8 1/2	9.42	
6 x 9	C6X9RD3†	10.0	3.2	11.0	1/8	6 1/4 x 9 1/4	3 1/8	1 1/2 x 8 1/2	9.72	
6 x 9	C6X9RD8†	10.0	8	11.0	1/8	6 1/4 x 9 1/4	3 1/8	1 1/2 x 8 1/2	9.72	
6 x 10	P6X10U9*	1.738	8-10	9.0	1/8	6 3/4 x 10 3/4	3 1/8	1 1/2 x 8 1/2	4.83	

GENERAL PURPOSE GROUP

3	P3W3	1.00	3.2	3.5	1/8	3	1 1/2	2 1/2	\$ 2.73
3 1/2	P3 1/2W3	1.00	3.2	4.0	1/8	3 1/2	2 1/2	2 1/2	2.73
4	P4W3	1.00	3.2	4.5	1/8	4	2 1/2	3 1/2	2.52
4 1/2	P4 1/2W3	1.00	3.2	5.0	1/8	4 1/2	2 1/2	3 1/2	2.70
5	P5W3	1.00	3.2	5.0	1/8	5	2 1/2	4	2.55
5	P5V3	1.47	3.2	5.5	1/8	4 1/2	2 1/2	4	2.79
5 1/4	C5T3	4.8	3.2	6.0	1/8	4 1/2	2 1/2	4	4.65
5 1/4	P5 1/2W3	1.00	3.2	5.5	1/8	5 1/4	2 1/2	4 1/4	2.91
5 1/4	P5 1/2V3	1.47	3.2	6.0	1/8	5 1/4	2 1/2	4 1/4	4.15
5 1/4	C5 1/2T3	4.8	3.2	6.5	1/8	5 1/4	2 1/2	4 1/4	2.94
6	P6W3	1.00	3.2	6.0	1/8	6 1/4	2 1/2	5 1/4	3.15
6	P6V3	1.47	3.2	6.5	1/8	6 1/4	2 1/2	5 1/4	3.15
6	C6T3	4.8	3.2	7.5	1/8	6 1/4	2 1/2	5 1/4	4.71
7	P7V3	1.47	3.2	7.0	1/8	7	3 1/2	6 1/4	4.08
8	P8V3	1.47	3.2	8.0	1/8	7	3 1/2	6 1/4	3.51
8	P8U3	1.738	3.2	9.0	1/8	7 1/4	3 1/2	6 1/4	4.14
8	P8T3	2.5*	3.2	10.0	1/8	7 1/4	3 1/2	6 1/4	4.83
8	C8T8	4.8	8	10.5	1/8	7 1/4	3 1/2	6 1/4	5.37
8	C8S8	6.0	8	11.0	1/8	7 1/4	2 1/2	6 1/4	6.27
8	C8SS*	6.0	8	11.0	1/8	7 1/4	2 1/2	6 1/4	6.75
8	C8R8	10.0	8	12.0	1/8	7 1/4	3 1/2	6 1/4	6.90
10	C10T3	4.8	3.2	11.0	1/8	10 1/4	5 1/4	8 1/4	8.01
10	C10S8	6.0	8	12.0	1/8	10 1/4	5 1/4	8 1/4	8.52
10	C10SS*	6.0	8	12.0	1/8	10 1/4	5 1/4	8 1/4	8.58
12	C12T3	4.8	3.2	12.0	1/8	12 1/4	6 1/4	10 1/4	9.03
12	C12S8	6.0	8	13.0	1/8	12 1/4	6 1/4	10 1/4	9.42
12	C12SS*	6.0	8	13.0	1/8	12 1/4	6 1/4	10 1/4	9.42
12	C12R8	10.0	8	14.0	1/8	12 1/4	6 1/4	10 1/4	10.05
12	C12RS*	16.0	8	14.0	1/8	12 1/4	6 1/4	10 1/4	10.08
12	C12R8	16.0	8	18.0	1 1/8	12 1/4	6 1/4	10 1/4	18.87
15	C15N8	27.0	8	20.0	1 1/8	12 1/4	6 1/4	10 1/4	24.90
15	C15P8	16.0	8	20.0	1 1/8	15 1/4	7	13 1/4	25.17
15	C15N8	27.0	8	25.0	1 1/8	15 1/4	7	13 1/4	31.20

*All model numbers beginning with "C" have SYNTAX-6® ceramic magnets. All others DP-Alnico 5. †Program power. Peak power is twice program rating. ‡Dual cone. §Performance equivalent to EIA 2.15 oz. #Dual cone and high-compliance annulus. *Super-shallow dual cone. *Performance equivalent to EIA 3.16 oz. †Two-ear speaker housing.

MINIATURE GROUP

For small-space use in new or replacement applications. DP-Alnico 5 magnets. P20001 thru P20003, 2" sq. x 1/2" d. for 1 1/2" baffle; mag. wt., .47 oz. P27501 and 2, 2 1/2" sq. x 1 1/2" d. for 2 1/2" baffle; mag. wt., .65 oz.

Nom. Size, In.	Jensen No.	Voice Coil				Net Each
		Imp., Ohms	Pwr. W.	Dia., In.	Wt., Oz.	
2	P20001	6-8	.10	1/2	1/2	\$3.15
2	P20002	10-12	.10	1/2	1/2	3.15
2 1/2	P20003	100	.10	1/2	3/4	3.33
2 1/2	P27501	6-8	.25	1/2	1/2	3.72
2 1/2	P27502	12-16	.25	1/2	1/2	3.72

SPECIAL AUTOMOTIVE GROUP

Superior performance in confined mounting areas. No. C4T8 Intended for Jaguar, MG and other British cars; C52T8 for Volkswagen and Karmann-Ghia; C6T8 installs between rear seats where provided for in Chevrolet SS, Buick, Pontiac and Oldsmobile.

Nom. Size, Inches	Jensen Number	Mag.* Wt., Oz.	Voice Coil			Dimensions, Inches			Net Each
			Imp., Ohms	Power Watts	Dia., In.	H. x W.	Depth	Baffle Opening	
4	C4T8	4.8	8	5.5	1/2	4 1/4	1 1/4	3 1/4	\$4.65
5 1/4	C52T8	4.8	8	6.5	1/2	5 1/4	2 1/4	4 1/4	3.16
6	C6T8	4.8	8	7.5	1/2	6 1/4	2 1/4	5 1/4	3.16

*SYNTAX-6® ceramic magnet. †Program power. Peak power is twice program rating.

FOR PROFESSIONAL SERIES HORNS, DRIVERS AND ACCESSORIES . . . SEE JENSEN CATALOG 1070

FOR HIGH FIDELITY UNITARY LOUDSPEAKERS AND SYSTEMS . . . SEE JENSEN CATALOG 165

jensen

SHOW PACK AND CONCERT SERIES LOUDSPEAKERS



JENSEN "Show Pack" REPLACEMENT SPEAKERS FOR AUTOMOTIVE, RADIO, TV REPLACEMENT

Jensen replacement loudspeakers sealed on attractive visual display cards are ideal for handy display rack sale by Electronics and Automotive parts distributors. In addition to radio and TV replacement the line includes the most popular and most commonly required loudspeakers for automotive front and rear deck replacement. A convenient detailed tabulation on back of display card shows which JENSEN speaker to choose for any automobile. The attractive packaging of transparent film keep speakers dust free and provides instant model identification.

Nominal Size, Inches	Jensen Number	Alnico-5 Magnet Wt., Oz.	Impedance, Ohms	V.C. Dia., Inches	Net Each
4	B4K5	.55	3.2	1/8	\$1.76
4	B4K7	.68	3.2	1/8	2.12
5	B5K5	.55	3.2	1/8	1.95
5	B5K7	.68	3.2	1/8	2.28
6	B6K7	.68	3.2	1/8	2.48
6	B6K7S	.68	8-10	1/8	2.48
8	B8W3	1.00	3.2	1/8	3.60
8	B8W5	1.00	8-10	1/8	3.60
3 x 5	B3X5K5	.55	3.2	1/8	2.39
4 x 10	B4X10W3	1.00	3.2	1/8	3.82
4 x 10	B4X10WM	1.00	8-10, 20, 40	1/8	4.90
5 x 7	B5X7W3	1.00	3.2	1/8	3.05
5 x 7	B5X7WM	1.00	8-10, 20, 40	1/8	3.71
5 x 7	B5X7V3	1.47	3.2	1/8	3.14
5 x 7	B5X7VM	1.47	8-10, 20, 40	1/8	3.80
6 x 9	B6X9W3	1.00	3.2	1/8	3.32
6 x 9	B6X9WM	1.00	8-10, 20, 40	1/8	4.07
6 x 9	B6X9V3	1.47	3.2	1/8	3.60
6 x 9	B6X9VM	1.47	8-10, 20, 40	1/8	4.35

INTERCOM GROUP

Designed for effective pickup and reproduction of speech in intercom replacement and original equipment. Supplied with DP-Alnico 5 magnets.

Nom. Size, Inches	Jensen Number	Voice Coil			Dimensions, Inches				Net Each
		Mag. Wt., Oz.	Imp., Ohms	Power, Watts	Dia., In.	H. x W.	Depth	Baffle Opening	
2 x 6	P2X6V45	1.47	45	4.0	1/8	2 1/4 x 6 1/4	2 3/4	1 1/4 x 5 1/4	\$3.63
3	P3V45	1.47	45	4.0	1/8	2 1/4 x 3	2 3/4	1 1/4 x 3	3.00
3 x 5	P3X5X45	.68	45	4.0	1/8	3 1/4 x 5 1/4	2 3/4	2 1/4 x 4 1/4	2.82
3 1/2	P3S45	1.47	45	4.5	1/8	3 1/4 x 3 1/4	3 3/4	3 1/4 x 3 1/4	3.00
4	P4W45	1	45	5.0	1/8	4 1/4 x 4 1/4	3 3/4	3 3/4 x 3 3/4	3.06
5	P5W45	1	45	5.0	1/8	4 1/4 x 4 1/4	3 3/4	4 x 4	3.24
8	P8U45	1.73*	45	9.0	1	7 1/4 x 3	6 3/4	6 3/4 x 6 3/4	4.74
8	P8T45	2.51†	45	10.0	1	7 1/4 x 3	6 3/4	6 3/4 x 6 3/4	5.37

*Performance equivalent to EIA 2.15 oz. †Performance equivalent to EIA 3.16 oz.

CONCERT-FIDELITY SPEAKER GROUP

Advanced design, hi-fi quality speakers for full range music reproduction. Dual cone and true coaxial types for single-speaker systems offer low resonance and good bass response; coaxial types have special tweeters with integral crossover. Woofer, tweeter and midrange units provide for multi-speaker systems with 2-way and 3-way crossovers. Crossovers incorporate high frequency control, knob and switch; mount in single hole (1/4" drill) with bushing lengths for up to 3/4" panel. Binding post terminals. Impedance, 8 ohms.

Type	Nom. Size, In.	Jensen No.	Frequency Range, cps	Power, Watts	Dimensions, Inches			Baffle Opening	Net Each
				†	H. x W. D.				
Full Range, Dual Cone	8	DC-80	40-14,000	11	8 1/4	4 1/4	7	3	\$12.57
	12	DC-120	25-13,000	13	12 1/4	6 1/4	10 1/4	4	17.82
3-element Coaxials*	8	KD-80	30-15,000	12	8 1/4	4 1/4	7	3	14.49
	12	KD-120	20-15,000	14	12 1/4	6 1/4	10 1/4	4	20.97
High Compliance Woofers	8	W-80	30-2,000	15	8 1/4	4 1/4	7	3	12.15
	12	W-120	20-2,000	18	12 1/4	6 1/4	10 1/4	4	14.04
	15	M-150	20-2,000	20	15 1/4	7 1/4	13 1/4	4	20.97
Midrange†	8	M-81	600-4,000	25	8 1/4	4 1/4	7	3	9.36
Cone Tweeter	3 1/2	TW-350	2,000-15,000	15	3 1/2	2 1/4	3 1/4	3	7.78
Compression Horn Tweeters	.....	TH-100	1,000-16,000	25	4x10 1/4	11 1/4	3x9 1/4	3	13.17
	.....	TH-200	2,000-16,000	25	3x7 1/4	6 1/4	2x6 1/4	3	11.76
2-way Crossover*	.....	XN-100	1000†	.....	1 1/4 x 2 1/4	3 1/4	.....	3	9.78
	.....	XN-200	2000†	.....	1 1/4 x 2 1/4	3 1/4	.....	3	9.78
3-way Cross.*	.....	XN-640	600/4000†	.....	1 1/4 x 2 1/4	3 1/4	.....	3	12.57

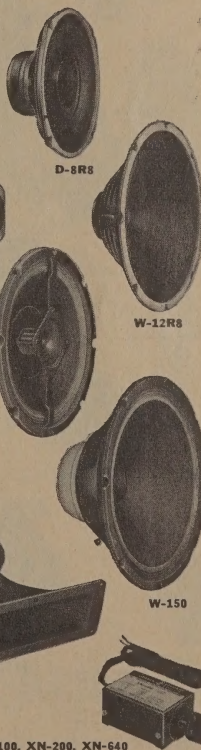
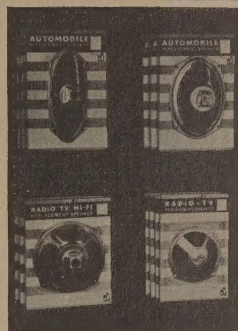
*With H-F control. †Program power; peak power is twice program rating. ‡Crossover points. §Closed-back.

HI-FI REPLACEMENT SPEAKER GROUP

Multi-application hi-fi replacements used in many makes of hi-fi equipment. Imp. 8 ohms.

Type	Nom. Size, In.	Jensen No.	Frequency Range, cps	Mag. Wt., Oz.	Power, Watts	Dimensions, Inches				Net Each
						H. x W. D.	Baffle Opening	Net Each		
Full Range, Dual Cone	8	D-8RS	60-14,000	10*	12	7 1/4	3	6 1/4	\$ 9.24	
	12	D-12RS	40-13,000	10*	14	12 1/4	4 1/4	10 1/4	8.61	
Woofers	8	W-8RS	45-2,000	10*	20	7 1/4	3	6 1/4	8.61	
	12	W-12RS	45-2,000	10*	25	12 1/4	4 1/4	10 1/4	11.19	
	15	W-15RS	30-2,000	27*	30	15 1/4	6	13 1/4	35.46	
Midrange, Closed-back	8	M-8US	600-4,000	1.73‡	25	7 1/4	3	6 1/4	4.83	
Direct	3	T-3K7S	2,000-15,000	.68	15	3	1 1/4	2 1/4	3.32	
Radiator	3 1/4	T-35K7S	2,000-15,000	.68	15	3 1/4	1 1/4	3 1/4	8.61	
Tweeters	3 1/2	T-35W8	2,000-15,000	1.00	15	3 1/2	2 1/4	3 1/4	3.48	
	3 1/2	T-35V8	2,000-15,000	1.47	15	3 1/2	2 1/4	3 1/4	3.75	
Compression	.....	T-107	2,000-16,000	1.47	25	3 x 7 1/4	6 1/4	2 x 6 1/4	10.92	
Horn Tweeters	.....	T-109	1,000-16,000	1.00	25	4 x 10 1/4	11 1/4	3 x 9 1/4	12.21	

*SYNTOX-60 ceramic magnet; all others DP-Alnico 5. †Program power; peak power is twice program rating. ‡Performance equivalent to EIA 2.15 oz.



FOR PROFESSIONAL SERIES HORNS, DRIVERS AND ACCESSORIES . . . SEE JENSEN CATALOG 1070
FOR HIGH FIDELITY UNITARY LOUDSPEAKERS AND SYSTEMS . . . SEE JENSEN CATALOG 165



jensen

ELECTRONIC MUSICAL INSTRUMENT & COMMUNICATION/AIRCRAFT SPEAKERS

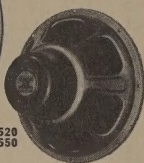
LIFETIME GUARANTEED ELECTRONIC MUSICAL INSTRUMENT LOUDSPEAKERS

The Jensen LIFETIME Electronic Musical Instrument Loudspeaker group includes four fully LIFETIME GUARANTEED loudspeakers. These 12" and 15" loudspeakers designed especially for bass guitar, string bass, fully instrumented guitar and electronic accordion are fully guaranteed against loudspeaker shatter and diaphragm disintegration.

EM-1220
EM-1250



EM-1520
EM-1550



BASS GUITAR AND STRING BASS

Nom. Size, Inches	Jensen Number	Mag. Wt., Lbs.	Voice Coil		Dimensions, Inches				Net Each
			Imp., Ohms	Power Watts	Dia., In.	H. x W.	Depth	Baffle Opening	
12	EM-1220	1 3/4*	8	1 1/2	12 1/2	6 3/4	7	10 1/2	\$34.62
15	EM-1520	3 1/2	8	2	15 1/2	7	13 1/4	13 1/4	\$76.65

FULLY INSTRUMENTED GUITAR AND ELECTRONIC ORGAN

12	EM-1250	1 3/4*	8	1 1/2	12 1/2	6 3/4	7	10 1/2	\$34.62
15	EM-1550	3 1/2	8	2	15 1/2	7	13 1/4	13 1/4	\$76.65

*SYNTOX-6@ magnet; all others DP-Alnico 5.

SPECIAL LOUDSPEAKERS FOR ELECTRONIC MUSICAL INSTRUMENTS

Jensen electronic musical instrument loudspeakers are highly special devices designed to give exactly the correct musical quality required for the particular instrument. Unprecedented ruggedness for unusually long life under severe peak load conditions.

BASS GUITAR

Nom. Size, Inches	Jensen No.	Mag. Wt., Oz.	Voice Coil		Dimensions, Inches				Net Each
			Imp., Ohms	Power Watts	Dia., In.	H. x W.	Depth	Baffle Opening	
12	EM-1200	16	8	50	1 1/2	12 1/2	6 3/4	10 1/2	\$22.65
15	EM-1500	27	8	60	1 1/2	15 1/2	7	13 1/4	\$32.76

GUITAR

8	EM-801	10	8	25	1	8 1/2	4 1/2	6 3/4	\$12.57
10	EM-1001	10	8	30	1	10 1/2	5 1/2	8 3/4	\$13.56
12	EM-1201	11	8	40	1 1/4	12 1/2	6 1/2	10 1/2	\$18.60
12	EM-1202	16	8	50	1 1/2	12 1/2	6 3/4	10 1/2	\$22.65
15	EM-1501	27	8	60	1 1/2	15 1/2	7	13 1/4	\$32.76

ACCORDION

12	EM-1202	16	8	50	1 1/2	12 1/2	6 3/4	10 1/2	\$22.65
15	EM-1501	27	8	60	1 1/2	15 1/2	7	13 1/4	\$32.76

ORGAN

6 x 9	EM-6900	10	8	12	1	6 1/2 x 9 1/4	3	5 1/4 x 8 1/4	\$ 9.33
8	EM-802	10	8	15	1	8 1/4	4 1/4	6 3/4	\$12.57
10	EM-1002	10	8	18	1	10 1/4	5 1/4	8 3/4	\$13.56
12	EM-1203	10	8	20	1	12 1/4	6 1/4	10 1/4	\$14.19
12	EM-1204	16	8	25	1 1/4	12 1/4	6 3/4	10 1/4	\$22.65
15	EM-1502	27	8	30	1 1/2	15 1/2	7	13 1/4	\$32.76

*SYNTOX-6@ magnets. †Program power. Peak power is twice program rating.

EM-1500
EM-1501
EM-1502



EM-1203



EM-801
EM-802



COMMUNICATION AND AIRCRAFT GROUP

Feature special response characteristics for maximum speech intelligibility in high noise conditions. Widely used in amateur, CB and aircraft equipment. No. PC5V45 is excellent for speaker/microphone use. Aircraft types referred to particular makes are for cabin music and announce systems. Where specification number is shown, unit is original equipment item. No. CA6T3 has special voice response widely used in private aircraft. DP-Alnico 5 magnet unless otherwise noted.

COMMUNICATION TYPES

Nom. Size, Inches	Jensen Number	Mag. Wt., Oz.	Voice Coil		Dimensions, Inches				Net Each
			Imp., Ohms	Power Watts	Dia., In.	H. x W.	Depth	Baffle Opening	
3 x 5	PC3X5V3	1.47	3.2	5.0	3/4	3 1/4 x 5 1/4	2	2 1/4 x 4 1/4	\$ 3.15
3 1/2	PC3S3V3	1.47	3.2	5.0	3/4	3 1/2	2 1/4	3 1/2	2.88
4	PC4V3	1.47	3.2	5.0	3/4	4 1/4	2 1/4	3 1/2	2.88
4 1/2	PC5V3	1.47	3.2	5.0	3/4	4 1/2	2 1/4	3 1/2	3.00
5	PC5V45	1.47	4.5	5.0	3/4	4 1/2	2 1/4	4	3.33
6	CA6T3	4.8*	3.2	7.5	3/4	6 1/4	2 1/4	3 1/2	4.76
8	CC8R3	10.0*	3.2	12.5	1	7 1/4	3	6 3/4	6.48
.....	AP-10 (ST-590)	1.47	3.2	5.0	3/4	6 3/4 x 5	3 1/4	.....	17.16
.....	AP-10 (ST-591)	1.47	4.5	5.0	3/4	6 3/4 x 5	3 1/4	.....	18.87

AIRCRAFT TYPES

5	PAST45†	3.16	4.5	6.0	3/4	4 1/4	2 1/4	4	\$ 5.04
8	RJ10 (V321-2)†	1.73	12	9.0	1	7 1/4	2 1/4	6 3/4	8.52
8	CBUS (C-7885)†	2.5*	8	10.0	3/4	7 1/4	2 1/4	6 3/4	13.56
8	CBR (C7430)†	10.0*	*	12.0	1	7 1/4	3	6 3/4	18.15

†For Douglas aircraft. ‡For Boeing aircraft. *Transformer. *SYNTOX-6@ ceramic magnet. ‡For Lockheed aircraft.

FOR PROFESSIONAL SERIES HORNS, DRIVERS AND
ACCESSORIES . . . SEE JENSEN CATALOG 1070

FOR HIGH FIDELITY UNITARY LOUDSPEAKERS AND
SYSTEMS . . . SEE JENSEN CATALOG 165



jensen

VIKING AND WEATHER MASTER® SERIES REPLACEMENT SPEAKERS

JENSEN VIKING SERIES REPLACEMENT SPEAKERS

Dependable, economical service replacement speakers used by countless manufacturers in original equipment such as home and auto radios, and even jet aircraft. Employ DP-Alnico 5 magnets, precision wound voice coils and heavily plated metal parts.

CIRCULAR RADIATOR GROUP

12J10, 10J10		8W3		7W3		6K7, 5K7, 5K5		525K7	
Nom. Size, Inches	Jensen No.	Magn. Wt., Oz.	Voice Coil Imp., Ohms	Power Watts	Dia., In.	Dimensions, Inches H. x W. Depth	Baffle Opening	Net Each	
3	3K7	.68	3.2	3.5	5/8	3 1/4 x 3 1/4 1 1/8	2 1/8	\$2.06	
3 1/2	35K7	.68	3.2	4.0	5/8	3 1/4 x 3 1/4 1 1/8	2 1/8	1.56	
4	4K5	.55	3.2	4.0	5/8	4 1/4 x 4 1/4 1 1/8	3 1/4	1.87	
4 1/2	4K7	.68	3.2	4.5	5/8	4 1/4 x 4 1/4 1 1/8	3 1/4	1.87	
5	5K5	.55	3.2	5.5	5/8	4 1/4 x 4 1/4 1 1/8	4	2.04	
5 1/2	5K7	.68	3.2	6.0	5/8	4 1/4 x 4 1/4 1 1/8	4 1/4	2.28	
5 3/4	525K7	.68	3.2	5.5	5/8	4 1/4 x 4 1/4 1 1/8	4 1/4	2.48	
6	6K7	.68	3.2	6.0	5/8	4 1/4 x 4 1/4 1 1/8	4 1/4	3.08	
7	7W3	1.00	3.2	7.0	5/8	4 1/4 x 4 1/4 1 1/8	4 1/4	3.08	
8	8W3	1.00	3.2	8.0	1	7 1/4 x 7 1/4 1 1/8	6 1/4	4.73	
10	10J10	1.73	3.2	10.0	1	10 1/4 x 10 1/4 1 1/8	8 1/4	6.53	
12	12J10	1.73	3.2	11.0	1	12 1/4 x 12 1/4 1 1/8	10 1/4		

OVAL RADIATOR GROUP

5X7W3, 5X7W9		4X8W9		4X6K7		3X5K5		6X9W3, 6X9W9		4X10W9	
Nominal Size, Inches	Jensen No.	Magnet Weight, Ounces	Voice Coil Imp., Ohms	Power Watts	Dia., Inches	Dimensions, Inches H. x W. Depth	Baffle Opening	Net Each			
3 x 5	3X5K5	.55	3.2	4.0	5/8	3 1/4 x 5 1/4 1 1/8	2 1/8 x 4 1/8	\$2.17			
4 x 6	4X6K7	.68	3.2	4.5	5/8	4 1/4 x 6 1/4 1 1/8	3 1/4 x 5 1/4	2.53			
4 x 8	4X8W3*	1.00	3.2	6.0	5/8	4 x 8 1 1/8	3 1/4 x 7 1/4	.08			
4 x 8	4X8W9*	1.00	8-10	6.0	5/8	4 x 8 1 1/8	3 1/4 x 7 1/4	.08			
4 x 10	4X10W3*	1.00	3.2	6.0	5/8	4 1/4 x 10 1/4 1 1/8	3 1/4 x 9 1/4	.33			
4 x 10	4X10W9*	1.00	8-10	6.0	5/8	4 1/4 x 10 1/4 1 1/8	3 1/4 x 9 1/4	.33			
4 x 10	4X10W9M*	1.00	8-10, 20, 40	6.0	5/8	4 1/4 x 10 1/4 1 1/8	3 1/4 x 9 1/4	.33			
5 x 7	5X7W3*	1.00	3.2	6.0	5/8	5 x 7 1/4 1 1/8	4 1/4 x 6 1/4	.81			
5 x 7	5X7W9*	1.00	8-10	6.0	5/8	5 x 7 1/4 1 1/8	4 1/4 x 6 1/4	.81			
5 x 7	5X7W9M*	1.00	8-10, 20, 40	6.0	5/8	5 x 7 1/4 1 1/8	4 1/4 x 6 1/4	.81			
5 x 7	5X7V3	1.47	3.2	6.0	5/8	5 x 7 1/4 1 1/8	4 1/4 x 6 1/4	.83			
5 x 7	5X7V9	1.47	8-10	6.0	5/8	5 x 7 1/4 1 1/8	4 1/4 x 6 1/4	.83			
5 x 7	5X7VM	1.47	8-10, 20, 40	6.0	5/8	5 x 7 1/4 1 1/8	4 1/4 x 6 1/4	.83			
6 x 9	6X9W3*	1.00	3.2	7.5	5/8	6 1/4 x 9 1/4 1 1/8	5 1/4 x 8 1/4	1.14			
6 x 9	6X9W9*	1.00	8-10	7.5	5/8	6 1/4 x 9 1/4 1 1/8	5 1/4 x 8 1/4	1.14			
6 x 9	6X9W9M*	1.00	8-10, 20, 40	7.5	5/8	6 1/4 x 9 1/4 1 1/8	5 1/4 x 8 1/4	1.14			
6 x 9	6X9V3	1.47	3.2	7.5	5/8	6 1/4 x 9 1/4 1 1/8	5 1/4 x 8 1/4	1.27			
6 x 9	6X9V9	1.47	8-10	7.5	5/8	6 1/4 x 9 1/4 1 1/8	5 1/4 x 8 1/4	1.27			
6 x 9	6X9VM	1.47	8-10, 20, 40	7.5	5/8	6 1/4 x 9 1/4 1 1/8	5 1/4 x 8 1/4	1.27			

*With combination pin-jack and solder-lug terminals; wide use as auto replacement.

WEATHER MASTER® SERIES OUTDOOR SPEAKERS

WP-602		WP-502		WP-500		WP-402		WP-400A	
Nom. Size, Inches	Jensen No.	Magnet Weight, Ounces	Voice Coil Imp., Ohms	Power Watts	Dia., Inches	Dimensions, Inches H. x W. Depth	Baffle Opening	Net Each	
4	WP-400A	.68	3.2	4.0	5/8	4 1/4 x 4 1/4 1 1/8	3 1/4	\$2.09	
4	WP-402	1.00	3.2	4.5	5/8	4 1/4 x 4 1/4 1 1/8	3 1/4	2.31	
5	WP-500	1.00	3.2	5.0	5/8	4 1/4 x 4 1/4 1 1/8	4	2.37	
5	WP-502	1.47	3.2	5.5	5/8	4 1/4 x 4 1/4 1 1/8	4	2.59	
6	WP-602	1.47	3.2	6.0	5/8	4 1/4 x 4 1/4 1 1/8	5 1/4	2.89	

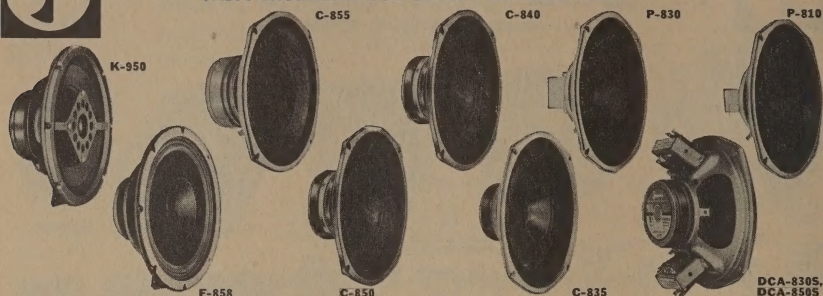
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FOR PROFESSIONAL SERIES HORNS, DRIVERS AND ACCESSORIES . . . SEE JENSEN CATALOG 1070

FOR HIGH FIDELITY UNITARY LOUDSPEAKERS AND SYSTEMS . . . SEE JENSEN CATALOG 165

jensen Professional Series Speakers

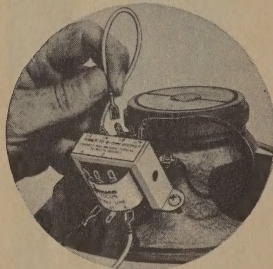
8" SPEAKERS FOR DISTRIBUTED SOUND VALUE ENGINEERED FOR LOWEST INSTALLED COST



This new line of Jensen 8-inch Professional Series loudspeakers is specially designed to meet the exacting rigorous demands of commercial sound service. The 8-inch size is ideal for the majority of all distributed sound systems giving more than adequate low frequency range with a minimum of enclosure and mounting complications.

A complete line of speakers value engineered for lowest installed cost with such features as the handy 10-pack, preattached transformers, exclusive solderless connectors, weather and corrosion resistant designs . . . and many more. A wide selection of models to meet every need—from the lowest cost highly competitive application to the most sophisticated, highest quality system. Four conventional type speakers with varying sensitivity and

power rating (magnetic energy) with the typical 90° coverage angle. Two models have dual cone radiating system with 95° coverage angle and unusually high frequency range. Another basic model is an 8" coaxial with 110° coverage angle and unusual frequency range and smoothness for the finest quality and intelligibility. This 110° coverage angle provides approximately twice the coverage area, so fewer are required for a given installation. Still another model is the unique Jensen FLEXAIR® with dual-cone radiator; super-low resonance for those small acoustic enclosures and back boxes; big-speaker lows with the remarkable H-F range to match. Two models have dual voice coil for emergency channel access and similar applications.



PREATTACHED TRANSFORMERS

The nine basic models mentioned above are all available with preattached 25-volt or 70.7-volt "constant voltage" transformers, Models 25CV4 or 70CV4. Factory attachment insures lower cost to the end user.

AVAILABLE IN HANDY 10-PACK

All of these speakers are available at added savings and convenience bulk-packed ten per carton (with or without transformers). These handy 10-pack cartons have individual sleeves for each speaker thus giving speaker protection of odd lots until actual installation.

KWIKON* INSTANT CONNECTORS

Simply twist bare ends of two 12" input leads supplied for each speaker to incoming signal cable leads, insulate with wire-nut or tape. Slide sleeve clips onto input terminal lugs of speaker or preattached transformer as speaker assembly is raised into place. KWIKON* instant connectors also provide simple fast power tap readjustment on transformer.

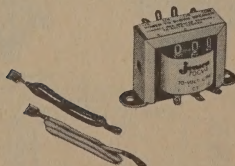
*T.M.

Model	Type	Power Rating	Sensitivity	Magnet ¹ Wt. Oz.	Freq. Range, CPS	Nom. V.C. Dia.	Max. Depth	W/O Transformer			Transformer Preattached		
								List	Net Ea. Boxed In 10-Pack	Net Each Single	List	Net Ea. Single In 10-Pack	Net Each Single In 10-Pack
K-950	Coaxial ¹	16	85.5 db	10.0	30-14,000	1"	3 1/4"	\$27.85	\$16.71	\$15.03	\$30.85	\$18.51	\$16.66
F-858	FLEXAIR	12.0	85.5 db	10.0	30-18,000	1"	3"	19.80	11.88	10.59	24.50	14.70	13.23
C-855	Dual Cone	12	85.0 db	10.0	30-18,000	1"	3 1/4"	11.85	7.11	6.40	16.60	9.96	8.96
C-850	Conventional	12	85.5 db	10.0	30-13,000	1"	3"	11.25	6.75	6.02	16.00	9.60	8.64
C-840	Conventional	11	84.5 db	6.0	30-13,000	1"	2 1/4"	10.25	6.15	5.54	15.00	9.00	8.10
C-835	Dual Cone	10	84.0 db	5.4	35-18,000	1"	2 1/4"	9.55	5.73	5.16	14.30	8.58	7.72
P-830	Conventional	10	84.0 db	2.5	40-13,000	3/4"	2 1/4"	7.40	4.44	4.00	11.93	7.16	6.44
P-810	Conventional	9	82.0 db	1.47	60-13,000	3/4"	3 1/4"	5.55	3.33	3.00	10.07	6.04	5.44
DCA-830	Dual Voice	10	82.0 db	5.4	30-12,000	1"	2 1/4"	10.00	6.00	5.40	19.50	11.70	10.53
DCA-850	Coll	12	83.0 db	10.0	30-12,000	1"	3"	12.00	7.20	6.48	21.50	12.90	11.61

V.C. and magnet information pertain to L-F unit only. ¹Maximum speech and music level as indicated on standard VU meter (peak power is substantially higher). ²Axial free field sound pressure level at a distance of 10 ft. for an input of 1.0 watt 300-1,250 cps warble frequency band (re .000204 dynes/cm²). ³All magnets are Jensen Syntox-6® except P-810 and P-830 with DP-Alnico-5.

"CONSTANT VOLTAGE" TRANSFORMERS

Specially designed for use with the popular "constant voltage" distribution systems. Primary (input) windings are center-tapped for balanced-to-ground input circuits or for special circuit needs. Tapped secondary windings provide adjustment of power to the 8-ohm speaker in 3 db steps from 1/2 watt to 4 watts. Nominal core size 3/4" x 3/4". Two 3/8" dia. mounting holes on 2 3/8" centers. Available separately or preattached to these special 8-inch speakers.



Model	Line	Packing	List	Net	Net Ea. 50-Pack
25CV4	25-volt	Single	\$5.00	\$3.00	-----
25CV4B	25-volt	50-Pack	5.00	3.00	\$2.70
70CV4	70-volt	Single	5.00	3.00	-----
70CV4B	70-volt	50-Pack	5.00	3.00	2.70

FOR PROFESSIONAL SERIES HORNS, DRIVERS AND ACCESSORIES . . . SEE JENSEN CATALOG 1070

FOR HIGH FIDELITY UNITARY LOUSPEAKERS AND SYSTEMS . . . SEE JENSEN CATALOG 165



Jensen

Professional Series Speakers

JENSEN CALSTAR* COLUMN SPEAKERS

CALSTAR Controlled-Angle Lobe-Suppressed Twin-Array Reproducers are the result of an exhaustive study of directional sound radiation by Jensen engineers. In a CALSTAR column, an array of small woofers, covering the lower frequency range, is combined with a shorter array of tweeters covering the high frequency range (where the polar sharpening would otherwise become severe). Next, the signal distribution to each element is "tailored" so that the effective array length decreases as the frequency increases. The final result is a column design in which the vertical coverage angle is unusually constant for all frequencies and therefore exceptionally uniform sound quality and high speech intelligibility are achieved throughout the audience area. The exact signal distribution at each frequency provided by the pattern shaping networks has also been chosen to suppress unwanted side lobes.

*T.M.

MODEL 55

10-Element Twin-Array 60°, 30-Watt, 8-ohm Column Speaker.

List \$139.65, Net Each. **\$83⁷⁹**

MODEL 1010

20-Element Twin-Array 30°, 60-Watt, 8-ohm Column Speaker.

List \$244.65, Net Ea. **\$146⁷⁹**

TECHNICAL SPECIFICATIONS

MODEL 55	MODEL 1010
8 ohms..... Input Impedance..... 8 ohms	
30 watts..... Power Rating..... 60 watts	
100-10,000 cps..... Frequency Range..... 100-10,000 cps	
60° total (±30°)..... Vertical Coverage..... 30° total (±15°)	
120° total (±60°)..... Horizontal Coverage..... 120° total (±60°)	
20 db..... Lobe Suppression..... 20 db	
2000 cps..... Crossover Frequency..... 2000 cps	
11½" W., 3¾" D., 30" H..... Dimensions..... 11½" W., 3¾" D., 56¾" H.	

Sensitivity Table^a

Model 55			Input Power, Watts	Model 1010		
25'	50'	100'		25'	50'	100'
90.0	84.0	78.0	5	94.5	88.5	82.5
92.0	86.0	80.0	7.5	96.5	90.5	84.5
93.0	87.0	81.0	10	97.5	91.5	85.5
95.0	89.0	83.0	15	99.5	93.5	87.5
96.0	90.0	84.0	20	100.5	94.5	88.5
98.0	92.0	86.0	30	102.5	96.5	90.5
—	—	—	60	105.5	99.5	93.5

1. Maximum speech and music level as indicated by VU meter. (Peak power is substantially higher.)
2. Maximum level outside main lobe relative to main lobe intensity.
3. Axial free field sound pressure level at listed distance (db above .000204 dynes/sq. cm.) in 800-1250 cps warble frequency band.

H-970 8" COAXIAL TWO-WAY LOUDSPEAKER

Heavy magnet, high efficiency coaxial in the popular 8" size. Circular h-f horn passes through center of l-f unit for broad symmetrical angular coverage. Ideal for high noise, high ceiling distributed sound systems.

List price \$48.75 Net Each **\$29²⁵**

K-1350 12" LOUDSPEAKER TWO-WAY LOUDSPEAKER

Similar to the popular Jensen 8" K-950 but with 12" l-f unit for improved bass range. Direct radiator h-f unit for low cost wide coverage angle distributed sound systems or central location and cluster use.

List price \$45.00 Net Each **\$27⁰⁰**

H-1380 12" COAXIAL TWO-WAY LOUDSPEAKER

Outstanding heavy-duty 12" coaxial for that premium central cluster or high power distributed sound system. Cellular horn for h-f unit passes through l-f unit yielding maximum control of coverage angles.

List price \$88.00 Net Each **\$52⁸⁰**

TECHNICAL SPECIFICATIONS

	H-970	K-1350	H-1380
Nom. Size (Diam.)	8"	12"	12"
Power Rating, Watts*	20	20	28
Nom. VC Impedance, Ohms	8	8	8
Response Range, cps	30-19,000	30-18,500	30-19,000
Angular Coverage	115°	115°	80° H x 50° V
Resonant Frequency, cps	60	60	60
Crossover Frequency, cps	2000	2000	2000
L-F Magnet Weight	16 oz.	10 oz.	27 oz.
L-F Magnet Material	Syntox-6®	Syntox-6®	Syntox-6®
Nom. L-F VC Diam.	1½"	1"	1½"
Sensitivity**; 10 ft. 1 watt	87.0 db	85.5	88.0 db
10 ft., 20 watts	100.0 db	98.5	—
10 ft., 28 watts	—	—	103.0 db
30 ft., .001 watt (EIA)	47.5 db	46.0	48.5 db

* Max. speech and music level indicated by standard VU meter (peak power is substantially higher)

** Axial free field sound pressure level for 800-1250 cps warble signal re .000204 dynes/cm².

AKTRON REPLACEMENT SPEAKERS

• ALUMINUM VOICE COILS • ALNICO 5 MAGNETS • SPECIALLY TREATED BLUE CONES • BLUE LUMINESCENT BAKED ENAMEL FINISH



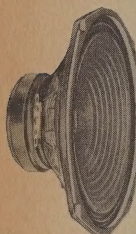
4" SQUARE CUP HOUSING



5" PIN CUSHION



8" PIN CUSHION SHIELDED MAG



8" CERAMIC MAGNET



5" x 8" "FOOTBALL SHAPE"



6" x 9" FLAT CUP HOUSING



6" x 9" MULTI-IMPEDANCE



4" WEATHERPROOF

NOTE—Transformer Mounting Boss on all 4", 5" Round, 8" and 12" Speakers.

EIA WARRANTY APPLIES TO ALL OKTRON SPEAKERS.

Size and Shape	Part No.	Magnet Weight Ounces	VOICE COIL		Power in Watts	Suggested Dealer Prices
			Dia. Inches	Impedance (Ohms)		
2 1/4" Round	23A8C	.53 cup	9/16	8	1	\$1.96
2 3/4" Round	28A8C	.53 cup	9/16	8	2	1.79
3" Square	3A3C	.53 cup	9/16	3.2	2	1.48
3" Square	3C3	1.00	9/16	3.2	2	1.68
3 1/2" Square	35A3C	.53 cup	9/16	3.2	2	1.48
3 1/2" Square	35C3C	1.00	9/16	3.2	4	1.68
4" Square	4A3C	.53 cup	9/16	3.2	2	1.35
4" Square	4B3	.68	9/16	3.2	2	1.58
4" Square	4C3C	1.00 cup	9/16	3.2	4	1.66
4" Square	4D3	1.47	9/16	3.2	4	1.91
5" Pin Cushion	5A3C	.53 cup	9/16	3.2	2	1.44
5" Pin Cushion	5B3	.68	9/16	3.2	2	1.60
5" Pin Cushion	5C3C	1.00 cup	9/16	3.2	4	1.73
5" Pin Cushion	5D3	1.47	9/16	3.2	3	1.96
5" Pin Cushion	5DBS	1.47	9/16	3.2	5	1.96
5" Round	R5A3C	.53 cup	9/16	3.2	2	1.44
5" Round	R5B3	.68	9/16	3.2	2	1.60
5" Round	R5D3	1.47	9/16	3.2	3	1.96
5 1/4" Pin Cushion	53B3	.68	9/16	3.2	2	1.73
5 1/4" Pin Cushion	53C3C	1.00	9/16	3.2	4	1.80
6" Pin Cushion	6B3	.68	9/16	3.2	3	1.84
6" Pin Cushion	6C3C	1.00 cup	9/16	3.2	5	1.93
6" Pin Cushion	6D3	1.47	9/16	3.2	5	2.20
6" Pin Cushion	6E3C	2.18 cup	1	3.2	7	2.44
6" Pin Cushion	6E8C	2.18 cup	1	8	7	2.44
8" Pin Cushion	8C3C	1.00 cup	3/4	3.2	5	2.74
8" Pin Cushion	8E3C	2.18 cup	1	3.2	6	3.87
8" Pin Cushion	8F3	3.16	3/4	3.2	12	5.44
8" Pin Cushion	8H3	6.80	1	3.2	12	5.44
8" Pin Cushion	8C8C	1.00	3/4	8	5	2.74
8" Pin Cushion	8E8	2.15	3/4	8	6	3.47
8" Pin Cushion	8E8C	2.18 cup	1	8	7	3.47
8" Round Flat	8E8CF	2.18 cup	1	8	7	3.47
8" Pin Cushion	8EU8H	*3.00	3/4	8	6	3.65
8" Pin Cushion	8EU8	*3.00	3/4	8	6	3.65
8" Pin Cushion	8F8	3.16	3/4	8	8	3.87
8" Pin Cushion	8G8	4.64	1	8	10	5.05
8" Pin Cushion	8GU8	*6.00	1	8	10	5.15
8" Pin Cushion	8H8	6.80	1	8	10	6.05
8" Pin Cushion	8HU8	*10.00	1	8	12	5.44
8" Round	8K8	10.10	1 1/4	8	20	8.01
10" Round	10F3	3.16	3/4	3.2	8	5.01
10" Round	10H3	6.80	1	3.2	12	7.05
10" Round	10F8	3.16	3/4	3.2	8	7.05
10" Round	10H8	6.80	1	8	12	7.05
12" Round	12F3	3.16	3/4	3.2	8	5.59
12" Round	12H3	6.80	1	3.2	12	7.55
12" Round	12F8	3.16	3/4	8	8	5.59
12" Round	12H8	6.80	1	8	12	7.55
12" Round	12HU8	*10.00	1	8	12	7.65
12" Round	12K8	10.10	1 1/4	8	20	9.93
12" Round	12HU8H	*10.00	1	8	12	7.65
12" Round	12K8	10.10	1 1/4	8	20	9.93
12" Round	12K8	10.10	1 1/4	8	20	13.98
2 1/2" x 6"	26A3C	.53 cup	9/16	3.2	2	1.71
3" x 5"	135A3C	.53 cup	9/16	3.2	2	1.60
3" x 5"	135C3C	1.00	9/16	3.2	4	1.80
2 1/2" x 10"	210D3	1.47	9/16	3.2	5	3.36
4" x 6"	46A3C	.53 cup	9/16	3.2	2	1.69
4" x 6"	46B3	.68	9/16	3.2	3	1.82
4" x 6"	46C3C	1.00 cup	9/16	3.2	5	1.94
4" x 8"	48E3C	2.18 cup	1	3.2	6	2.99
4" x 10"	410E3C	2.18 cup	1	3.2	6	3.15
5" x 7"	57A3C	.53 cup	9/16	3.2	2	1.84
5" x 7"	57C3C	1.00 cup	9/16	3.2	5	2.25
5" x 7"	57D3	1.47	9/16	3.2	7	2.50
5" x 7" Flat	57E3C	2.18 cup	1	3.2	7	2.77
5" x 7" Flat	57E3CF	2.18 cup	1	3.2	7	2.77
5" x 8"	57F3X	3.16	1	3.2	8	3.55
5" x 8"	†F58C8C	1.00 cup	3/4	8	5	2.78
6" x 9"	69A3C	.53 cup	9/16	3.2	2	2.15
6" x 9"	69C3C	1.00 cup	9/16	3.2	5	2.50
6" x 9"	69D3	1.47	9/16	3.2	7	2.77
6" x 9"	69E3C	2.18 cup	1	3.2	7	3.15
6" x 9" Flat	69E3CF	2.18 cup	1	3.2	7	3.15
6" x 9"	69H3	6.80	1	3.2	10	5.24
6" x 9"	69C8C	1.00 cup	3/4	8	5	2.51
6" x 9"	69E8C	2.18 cup	1	8	7	3.15
6" x 10"	†F610E8C	2.18 cup	1	8	7	3.80

*Ceramic Magnet—All others Alnico 5. †Has two mounting holes—Crimoline dust screen, "Football Shape" Shielded Magnet Assembly Shallow Profile.

MULTI-IMPEDANCE SPEAKERS 10-20-40 OHM

Okatron's new "three in one" multi-impedance series

- Specially developed heavy voice coil winding for maximum power handling.
- Dual solderless terminal strip arrangement for simplified hook up.
- Complete wiring diagram accompanies each speaker.

Size and Shape	Part No.	Magnet Weight Ounces	Dia. Inches	Impedance (Ohms)	Power in Watts	Suggested Dealer Prices
6" x Pin Cushion	6EMC	2.18 cup	1	10-20-40	6	\$2.99
4" x 6"	46MC	1.00 cup	3/4	10-20-40	5	2.51
4" x 8"	48EMC	2.18 cup	1	10-20-40	5	3.54
4" x 10"	410EMC	2.18 cup	1	10-20-40	6	3.69
5" x 7"	57EMCF	2.18 cup	1	10-20-40	7	3.31
6" x 9" Flat	69EMCF	2.18 cup	1	10-20-40	7	3.69
6" x 9" Free Edge Cone	FE69UMW	*10.00 oz.	1	10-20-40	10	8.57

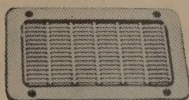
WEATHERPROOF SPEAKERS

Specialty Impregnated Cones, Gaskets and Dust Caps

Size and Shape	Part No.	Magnet Weight Ounces	Dia. Inches	Impedance (Ohms)	Power in Watts	Suggested Dealer Prices
3 1/2" Square	35D8M	1.47	9/16	8	3	\$2.25
4" Square	4A3M	.53 cup	9/16	3.2	2	1.71
4" Square	4D8M	1.47	9/16	8	3	2.27
5" Round	R5D8M	1.47	9/16	8	3	2.32
8" Pin Cushion	8F8M	3.16	3/4	8	6	4.23
8" Pin Cushion	8F45M	3.16	3/4	45	8	4.45
6" x 9"	69H8M	6.80	1	8	12	5.69

REAR SEAT SPEAKER KITS and Accessories

Featuring Oaktron's High Energy cup housing speakers. Solderless hookup — No special tools required for installation. Includes all necessary hardware.



6" x 9" CUP



TWIN CONE

TWIN CONE SPEAKERS

Matched dual cones for true high fidelity sound reproduction.



6" x 9" TWIN CONE



12" ROUND TWIN CONE

Size and Shape	Part Number	Magnet Weight Ounces	VOICE COIL		Power Watts	Sugg. Dealer Price
			Dia. Inches	Impedance (Ohms)		
8" Pin Cushion	8E8WC	2.18 cup	1	8	6	\$3.76
8" Pin Cushion	8F8W	3.16	3/4	8	8	4.14
8" Pin Cushion	8H8W	6.80	1	8	12	5.73
8" Pin Cushion	8H8UW	*10.00	1	8	12	5.83
12" Round	12F8WX	3.16	1	8	10	6.37
12" Round	12H8W	6.80	1	8	12	8.00
6" x 9"	57E8W	2.15	3/4	8	6	3.06
6" x 9"	69E8WC	2.18 cup	1	8	6	3.44
6" x 9"	69H8UW	*10.00	1	8	10	5.53
6" x 9"	69H8W	6.80	1	8	10	5.63

INTERCOM SPEAKERS

Size and Shape	Part No.	Magnet Weight Ounces	VOICE COIL		Power In Watts	Sugg. Dealer Price
			Dia. Inches	Impedance (Ohms)		
3 1/2" Square	35A45C	.53 cup	9/16	45	2	\$1.69
4" Square	4A45C	.53 cup	9/16	45	2	1.57
4" Square	4D45	1.47	9/16	45	3	2.12
5" Pin Cushion	5D45	1.47	9/16	45	3	2.18
8" Pin Cushion	8F45	3.16	3/4	45	8	4.09

TWEETER SPEAKERS

These speakers are true compression type, using totally enclosed baskets and molded curvilinear cones for maximum high frequency radiation, 8 ohm aluminum voice coils and Alnico 5 magnets—Blue luminescent enamel finish.

Size and Shape	Part Number	Impedance	Magnet Weight	V.C. Dia.	Power Watts	Frequency Response	Sugg. Dealer Price
3" Square	3C8T	8 Ohms	1.00 oz.	9/16"	4	3000-16,000	\$1.95
3 1/2" Square	35D8T	8 Ohms	1.47 oz.	9/16"	5	3000-16,000	2.25
4" Square	4D8T	8 Ohms	1.47 oz.	9/16"	5	3000-15,000	2.25
5" Round	5D8T	8 Ohms	1.47 oz.	9/16"	5	2000-15,000	2.31
4" x 6"	46D8T	8 Ohms	1.47 oz.	9/16"	6	2000-17,000	2.43

SYSTEMS

Matched Trio for Multi-Speaker Application

Size in Inches	Part Number	Impedance	Magnet Weight	V.C. Dia.	Power Watts	Frequency Response	Sugg. Dealer Price
12 6x9 Harness with Crossover	ST-124	8 Ohms	12" Woofer 6.80 oz. 6"x9" Mid Range 3.16 oz. 4"x6" Tweeter 1.47 oz.	1" 3/4" 9/16"	12	35-15,000	\$17.00

Model	Speaker	Grille	Control	Speaker	Sugg. Dealer Price
RK57	5 x 7	Gray	3 Pos. Switch	57C3C	\$4.63
RK57C	5 x 7	Chrome	3 Pos. Switch	57C3C	4.90
RK57F	5 x 7	Gray	Fader	57C3C	4.90
RK57CF	5 x 7	Chrome	Fader	57C3C	5.15
MK57	5 x 7	Multi-Chrome	3 Pos. Switch	57EMC	5.64
MK57C	5 x 7	Impe-Chrome	3 Pos. Switch	57EMC	5.89
MK57F	5 x 7	dance	Fader	57EMC	5.89
MK57CF	5 x 7	dance	Fader	57EMC	6.16
AK69	6 x 9	Gray	3 Pos. Switch	69A3C	4.63
AK69C	6 x 9	Chrome	3 Pos. Switch	69A3C	4.90
AK69F	6 x 9	Gray	Fader	69A3C	4.90
AK69CF	6 x 9	Chrome	Fader	69A3C	5.15
RK69	6 x 9	Gray	3 Pos. Switch	69C3C	5.08
RK69C	6 x 9	Chrome	3 Pos. Switch	69C3C	5.33
RK69F	6 x 9	Gray	Fader	69C3C	5.33
RK69CF	6 x 9	Chrome	Fader	69C3C	5.60
WK69	6 x 9	Gray	3 Pos. Switch	69E8WC	5.94
WK69C	6 x 9	Chrome	3 Pos. Switch	69E8WC	6.21
WK69F	6 x 9	Twin Cone	Fader	69E8WC	6.21
WK69CF	6 x 9	Chrome	Fader	69E8WC	6.47
MK69	6 x 9	Multi-Chrome	3 Pos. Switch	69EMCF	6.12
MK69C	6 x 9	Impe-Chrome	3 Pos. Switch	69EMCF	6.37
MK69F	6 x 9	dance	Fader	69EMCF	6.37
MK69CF	6 x 9	Chrome	Fader	69EMCF	6.65

ACCESSORIES:

Part No.	Description	Sugg. Dealer Price
FA-1	Fader Control with Presoldered Wire and Hardware	\$1.49
SW-1	Switch Control with Presoldered Wire and Hardware	1.22
CH57	5 x 7 Chrome Grill with Hardware	1.31
CH69	6 x 9 Chrome Grill with Hardware	1.31
GY57	5 x 7 Gray Grill with Hardware	1.04
GY69	6 x 9 Gray Grill with Hardware	1.04

NOTE — Kits can be supplied with other Oaktron Speakers. Please request prices.

HIGH FIDELITY SPEAKERS

ALL OAKTRON HI-FIDELITY SPEAKERS ARE ENCLOSED IN A PLASTIC COVERING AND INDIVIDUALLY BOXED TO INSURE MAXIMUM PROTECTION.

COAXIAL SPEAKERS

Oaktron's coaxial type speakers are superbly engineered to produce a flat response over a wide range of frequencies. These speakers are finished in a glossy royal blue luminescent enamel and feature a unique cross over network, solid basket compression type tweeters, specially treated aluminum voice coils and Alnico 5 magnets. These features combined with Oaktron's superior workmanship offer the finest in coaxial speakers.



12" COAXIAL

Size in Inches	Part Number	Impedance	Magnet Weight	V.C. Dia.	Power Watts	Frequency Response	Sugg. Dealer Price
8	CA-8	8 Ohms	8" Woofer 3.16 oz. 3" Tweeter .53 oz.	1"	8	60-14,000	\$7.95
8	CA-8-HD	8 Ohms	8" Woofer 6.80 oz. 3" Tweeter .53 oz.	1"	10	50-14,000	9.80
12	CA-12	8 Ohms	12" Woofer 6.80 oz. 3" Tweeter 1.00 oz.	1 1/2"	12	35-14,000	11.95
12	CA-12-HD	8 Ohms	12" Woofer 10.10 oz. 3 1/2" Tweeter 1.00 oz.	1 1/2"	20	25-14,000	15.85
15	CA-15	8 Ohms	15" Woofer 6.80 oz. 5" Tweeter 1.00 oz.	1 1/2"	14	30-13,000	16.35
15	CA-15-HD	8 Ohms	15" Woofer 10.10 oz. 5" Tweeter 1.00 oz.	1 1/2"	20	20-13,000	21.40
6x9	CA-69	8 Ohms	6x9" Woofer 2.15 oz. 3" Tweeter .53 oz.	1"	6	70-14,000	7.15
6x9	CA-69-HD	8 Ohms	6x9" Woofer 6.80 oz. 3" Tweeter .53 oz.	1"	10	60-14,000	9.80

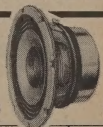
†Chrome Finished Dust Cover.

CLASSIC SERIES

Twin cone speakers:

- Perfectly matched dual cones
- Smooth Response
- Heavy magnets • Large voice coils

6" TWIN CONE



8" TWIN CONE

Size in Inches	Part Number	Impedance	Magnet Weight	V.C. Dia.	Power Watts	Frequency Response	Sugg. Dealer Price
6	†FE5W Free Edge Cone	8	6.00 oz.	1"	12	40-15,000	\$7.75
8	†FE8W Free Edge Cone	8	10.10 oz.	1 1/2"	20	30-14,000	11.80
12	†12K8W	8	10.10 oz.	1 1/2"	20	25-13,000	13.90
15	†15K8W	8	10.10 oz.	1 1/2"	20	20-13,000	18.75

†Chrome Finished Dust Cover.



8" FREE EDGE TWIN CONE

FREE EDGE CONE SUSPENSION

SAME GENERAL APPEARANCE AS COAXIAL SPEAKERS

Excellent woofer characteristics combined with a perfectly matched twin cone to complete a truly exceptional full range high fidelity speaker.

Size in Inches	Part Number	Impedance	Magnet Weight	V.C. Dia.	Power Watts	Frequency Response	Sugg. Dealer Price
6x9	FE-69W Twin Cone	8 Ohms	†10.00 oz.	1"	10	35-16,000	\$7.95
8	FE-8	8 Ohms	6.80 oz.	1"	12	35-6,500	8.60
8	FE-8W Twin Cone	8 Ohms	6.80 oz.	1"	12	40-16,000	8.95

AKTRON ARCHITECTURAL SOUND SPEAKERS LINE TRANSFORMERS

ARCHITECTURAL SOUND SPEAKERS

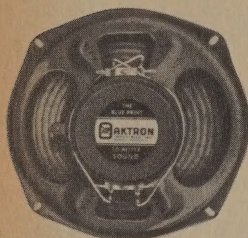
• Aluminum Voice Coils

• Attractive Blue Luminescent Finish

Oaktron Architectural Sound speakers are designed specifically for commercial sound applications. Through the use of specially treated aluminum voice coils and carefully selected component parts, these speakers have proven their exceptional durability even under the most adverse conditions. These important features combined with Oaktron's superior workmanship and rigid quality control procedures assure the finest in commercial sound speakers.



**OA51
8" ROUND**



**OA56U
8" PIN CUSHION
DOUBLE TRANSFORMER
EMBOSS**

Size and Shape	Part No.	Magnet Weight Ounces	Voice Dia. Inches	Coil Impedance Ohms	Power In Watts	Std. Bulk Pack	Wt. Case	Net Price
6" Pin Cushion	OA21	2.18 cup	1	8	7	24	20	\$2.44
8" Round	OA40	2.15	$\frac{3}{4}$	8	10	24	20	3.47
8" Pin Cushion	SOA41U	*3.00	$\frac{3}{4}$	8	6	24	31	3.65
8" Pin Cushion	OA42U	*3.00	$\frac{3}{4}$	8	6	24	31	3.65
8" Pin Cushion	OA43	3.16	$\frac{3}{4}$	8	10	24	36	3.87
8" Pin Cushion	OA45	4.64	1	8	12	24	56	5.05
8" Pin Cushion	OA46U	*6.00	1	8	12	24	48	5.15
8" Pin Cushion	OA48	6.80	1	8	15	24	58	5.44
8" Pin Cushion	OA49U	*10.00	1	8	15	24	59	5.54
8" Round	OA51	10.10	1 $\frac{1}{4}$	8	20	16	55	8.01
8" Pin Cushion	†OA53	3.16	$\frac{3}{4}$	8	10	24	36	4.14
8" Pin Cushion	†OA54U	*10.00	1	8	15	24	59	5.83
8" Pin Cushion	†OA56U	*6.00	1	8	10	24	48	6.05
12" Round	OA68	6.80	1	8	15	8	32	7.55
12" Round	OA69U	*10.00	1	8	15	8	33	7.65
12" Round	SOA70U	*10.00	1	8	12	8	31	7.65
12" Round	OA71	10.10	1 $\frac{1}{4}$	8	20	8	40	9.93

*Ceramic magnet—all others Alnico 5.

†Dual 8 ohm voice coil.

‡Twin cone speakers.

§Shielded Magnet Assembly—Shallow Profile

LINE TRANSFORMERS

CONSTANT VOLTAGE LINE TRANSFORMERS for impedance matching to 70.7 volt of 25 volt lines. This system provides simplified matching of speakers to an amplifier even though the individual speaker is required to produce different amounts of power. Oaktron transformers possess maximum efficiency and response characteristics through the use of new materials and the most advanced design parameters.

CONSTANT VOLTAGE: UNIVERSAL IMPEDANCE—MATCHING TYPES—INDIVIDUALLY BOXED

Transformers can be mounted at Factory

Part Number	Primary Impedance/ Power	Secondary Impedance (Ohms)	Nominal Watts	Core Size	DIMENSIONS			Mtg. Centers	Shpg. Wt., Lbs.	Net Price
					Height	Width	Depth			
				70.7 CONSTANT VOLTAGE LINE						
T-71	2/1/.5	8/4	2	¾ x ¾	1¼	1½	1¼	1¾	½	\$1.80
T-72	5/2.5/1.25 .62/.31	8/4	5	½ x ¾	1⅜	1¾	1⅝	2	¾	2.35
				25 VOLT CONSTANT VOLTAGE LINE						
T-25	2/1/.5	8/4	2	¾ x ¾	1¼	1½	1¼	1¾	½	1.80
T-26	5/2.5/1.25 .62/.31	8/4	5	½ x ¾	1⅜	1¾	1⅝	2	¾	2.35
				UNIVERSAL IMPEDANCE						
T-501	500/1000 1500/2000	8/4	4	½ x ½	1⅞	1⅞	1¼	2	½	1.80
T-502	500/1000 1500/2000	8/4	8	⅝ x ⅝	1⅝	1⅝	1⅝	2⅝	¾	2.35

All Oaktron Speakers Have Aluminum Voice Coils

Transformer Mounting Facilities on All Architectural Sound Speakers

Double Transformer Emboss on All 8" Pin Cushion Models

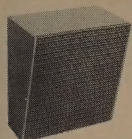
EIA Warranty Applies to All Oaktron Speakers

THE BLUE PRINT TO BETTER SOUND

OAKTRON INDUSTRIES, INC.

Oaktron's DELUXE and CUSTOM Baffles are smartly designed to complement any decor. Rugged one half inch cabinet hardwood construction assures longer service even under the most severe conditions.

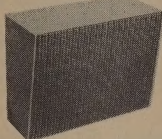
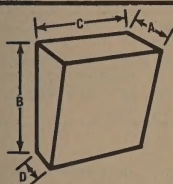
Beautifully finished in a natural blonde or walnut these baffles represent the ultimate in appearance and sound reproduction. Speaker and baffle mounting hardware included.



DELUXE WALL BAFFLE



DELUXE "KORNER" BAFFLE

CUSTOM
WALL BAFFLE

DELUXE WALL BAFFLES

Speaker Size	Model	Finish	Material	A	B	C	D	Sugg. Dealer Price
4" & 5"	WB4-5-B	Blonde	Cabinet Hardwood	4 1/2"	6 1/4"	6 1/2"	2 1/2"	\$3.25
4" & 5"	WB4-5-W	Walnut	Cabinet Hardwood	4 1/2"	6 1/4"	6 1/2"	2 1/2"	3.25
6"	WB6-B	Blonde	Cabinet Hardwood	4 5/8"	8"	9 3/8"	2 5/8"	4.10
6"	WB6-W	Walnut	Cabinet Hardwood	4 5/8"	8"	9 3/8"	2 5/8"	4.10
8"	WB8-B	Blonde	Cabinet Hardwood	6 1/4"	10 3/8"	9 1/2"	3 1/2"	4.45
8"	WB8-W	Walnut	Cabinet Hardwood	6 1/4"	10 3/8"	9 1/2"	3 1/2"	4.45
12"	WB12-B	Blonde	Cabinet Hardwood	9 1/8"	14 1/8"	13 3/4"	5 3/8"	5.80
12"	WB12-W	Walnut	Cabinet Hardwood	9 1/8"	14 1/8"	13 3/4"	5 3/8"	5.80

"NOTCHED" DELUXE WALL BAFFLES

FOR USE WITH B-8 BAFFLE BRACKET

Speaker Size	Part No.	Furniture Finish	Material	A	Dimensions B	C	D	Sugg. Dealer Price
√8"	WB8B-N	Blonde	Hardwood	6 1/4"	10 5/8"	9 1/2"	3 1/2"	\$4.60
√8"	WB8W-N	Walnut	Hardwood	6 1/4"	10 5/8"	9 1/2"	3 1/2"	4.60

DELUXE "KORNER" BAFFLES

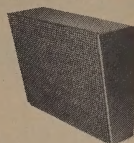
Speaker Size	Model	Furniture Finish	Material	A	B	C	D	E	F	Sugg. Dealer Price
8"	KB8-B	Blonde	Cabinet Hardwood	4"	10 3/8"	9 1/2"	1"	8 1/4"	5 1/8"	\$7.40
8"	KB8-W	Walnut	Cabinet Hardwood	4"	10 3/8"	9 1/2"	1"	8 1/4"	5 1/8"	7.40
12"	KB12-B	Blonde	Cabinet Hardwood	5 3/8"	14"	13 1/2"	1 3/4"	11 3/4"	8 1/8"	10.15
12"	KB12-W	Walnut	Cabinet Hardwood	5 3/8"	14"	13 1/2"	1 3/4"	11 3/4"	8 1/8"	10.15

CUSTOM WALL BAFFLES

Speaker Size	Model	Furniture Finish	Material	A	B	C	D	E	F	Sugg. Dealer Price
8"	CWB8-B	Blonde	Cabinet Hardwood	6"	9 3/8"	12"	4 1/4"			\$5.35
8"	CWB8-W	Walnut	Cabinet Hardwood	6"	9 3/8"	12"	4 1/4"			5.35
12"	CWB12-W	Blonde	Cabinet Hardwood	9"	14"	16"	5 1/4"			7.40
12"	CWB12-W	Walnut	Cabinet Hardwood	9"	14"	16"	5 1/4"			7.40

Note — Baffles can be supplied with speaker and transformer installed at a total cost of the units supplied plus 60¢ for installation.

SLIMLINE WALL BAFFLES

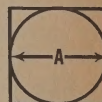
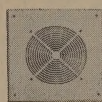


8"	SWB8-B	Blonde	Cabinet Hardwood	3 7/8"	10 1/2"	12 1/2"	3 7/8"	\$5.20
8"	SWB8-W	Walnut	Cabinet Hardwood	3 7/8"	10 1/2"	12 1/2"	3 7/8"	\$5.20

REDUCER RINGS

Model	Speaker Size	Material	Sugg. Dealer Price
R12/8	Reduces 12" to 8"	Tempered Presdwood	\$1.25
R12/10	Reduces 12" to 10"	Tempered Presdwood	1.25

CEILING BAFFLES



Oaktron's Ceiling Baffles possess qualities and design achieved only after years of engineering in this field. The extremely high efficiency and wide sound dispersion of these units result in superior acoustical sound reproduction. One piece construction eliminates vibration and rattle. Mount directly to the ceiling or to the convenient plaster ring. Available in satin or pebble aluminum and white baked enamel steel. Speaker mounting hardware included.

Speaker Size	Model	Finish	Shape	Material	Dimension A	Sugg. Dealer Price
8"	CR8-S	Satin White	Round	Aluminum	12 3/4"	\$3.30
8"	CR8-W	Satin White	Round	Steel	12 3/4"	3.10
8"	CS8-S	Satin White	Square	Aluminum	12 1/2"	3.30
8"	CS8-W	Satin White	Square	Steel	12 1/2"	3.10

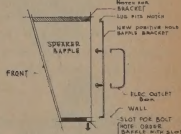
PLASTER RING

8"	PR8	Grey	—	Steel	—	\$1.90
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NEW, POSITIVE HOLD, BAFFLE BRACKET

Used To Mount Notched Deluxe Wall Baffle to Standard Electrical Outlet Box

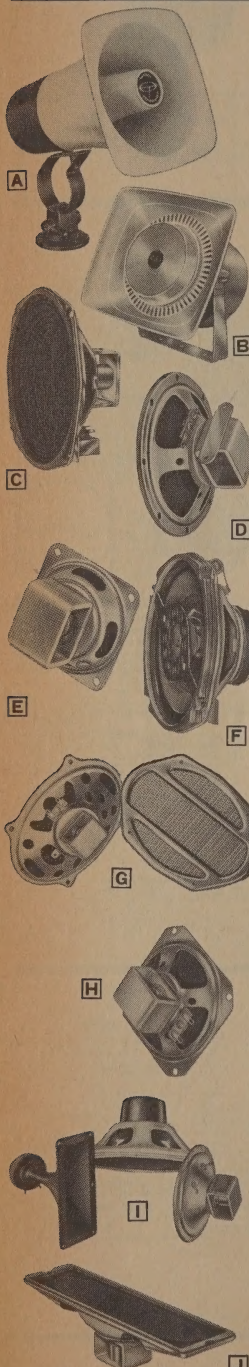
Part No.	Material	Finish	Sugg. Dealer Price
B-8	3/8" Steel	Aluminum Painted	\$.60



**OXFORD
COMPANY**

TRANSDUCER

Division of OXFORD ELECTRIC CORPORATION

*Quality Speakers
for Every
Application*

A OP SPECIALIST SERIES

Models OP-6 and OP-8 represent the most advanced weatherproof paging and talkback speakers. They incorporate new design innovations with new materials to provide the highest efficiency with the lowest distortion factors of any competitive units available.

B OH-10 WEATHERPROOF DUAL SPEAKER SOUND SYSTEM

A high efficiency co-axial speaker that reproduces music and voice with the fidelity of an expensive indoor high-fidelity speaker system yet, the OH-10 is rugged and completely weatherproof. Components are housed in die-cast aluminum inclosure which is designed to compliment every setting from the shopping center to the patio.

C PUBLIC ADDRESS SPEAKERS

Oxford public address speakers are designed for higher output, with less power input. This maximum conversion efficiency in power and coverage permits a reduction in the number of speakers usually required in an installation. And, lower rated power amplifiers may be used with a substantial savings in cost.

D INTER-COM SPEAKERS

Oxford high efficiency Inter-com speakers are designed to give round, full and clear reproduction in the voice frequency range and at the same time suppress unwanted background noises. Even whispers will be reproduced with great clarity in areas with high background noise levels . . . shouts are reproduced without distortion.

E ALL WEATHER SPEAKERS

Oxford offers a complete line of All Weather speakers specifically designed for maximum operating performance regardless of weather conditions. They feature exclusive Oxford HYDRO-PRUF cones for full environmental protection. Special moisture protected voice coils prevent humidity damage. Extra heavy cadmium plating, inside and out, resists corrosion.

F CERAMIC SPEAKERS

Featuring shallow construction, these speakers are ideal for in-wall, stereo wing, picture frame, and other installations where space is at a premium. In addition to the standard models, Oxford also offers ceramic units with exclusive Oxford Hidden Magnet design. The magnet is mounted between the basket and the cone, permitting use of the dual cone for extended range while retaining the thin silhouette.

G EXACT REPLACEMENT AUTOMOTIVE RADIO SPEAKERS

A complete line is available, including exact replacement speakers, universal speakers, special units for custom automobiles, and speakers specifically designed for transistorized automobile radios.

H REPLACEMENT SPEAKERS

Oxford manufactures the most complete line of standard replacement speakers available for original equipment, including, phonographs, tape recorders, radios and television sets. The speaker sizes range from 2" through 15", in dimensions to insure a perfect installation.

I HIGH FIDELITY SPEAKERS

The Oxford line offers a full range of woofers, tweeters, extended range and co-axial speakers. They are all designed to reproduce the entire audio spectrum with true high fidelity so necessary for fine stereo reproduction. For the price conscious hi-fi equipment buyer, Oxford offers the most outstanding value.

J SPECIAL PURPOSE SPEAKERS

As a "full line" loudspeaker manufacturer, Oxford also produces speakers for many "special purposes." The most popular of these is a series designed for use with electric musical instruments, such as guitars and electronic organs. It is only with a speaker designed for this particular application that the full quality of the instrument and performance can be appreciated.

Manufacturers, Write for Quotes on OEM Quantities.


OXFORD TRANSDUCER COMPANY

A division of OXFORD ELECTRIC CORPORATION

AUTOMOTIVE REPLACEMENT

YEAR & MAKE	Size	FRONT	Part No.	Size	REAR	Part No.
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BUICK

1959	4" x 10"		6109	6" x 9"		6112
1959 Portable	3"		7273926	6" x 9"		6112
1960	8" Special		1194080	6" x 9"		6112
1961-2	4" x 10"		6109	6" x 9"		6112
1963	4" x 10"		6127	6" x 9"		6112
1963 Riviera				6" x 9"		6126
1964	4" x 10"		6127	6" x 9"		6126
1964-5 Special	6"		6128	6" x 9"		6126
1965-6	4" x 10" Thin		6129	6" x 9"		6126
1966 Special	4" x 10" Thin		6129	6" x 9"		6126

CADDILLAC

1959-62	4" x 10"		6109	6" x 9"		6126
1963-4	4" x 10"		6127	6" x 9"		6112
1965-6	4" x 10" Thin		6129	6" x 9"		6126

CHEVROLET

1959	6" x 9" Special		7276057	6" x 9"		6112
1960	6" x 9" Special		7276057	6" x 9"		6112
1961	4" x 10"		6125	6" x 9"		6112
1962	4" x 10" Special		7277075	6" x 9"		6112
1963	6" x 9" Special		7282157	6" x 9"		6126
1964	6" x 9" Special		1222047	6" x 9"		6126
1965	4" x 10" Special		7291711	6" x 9"		6126
1966	4" x 10" Special		7291711	6" x 9"	Spcl.	7294892

CHEVELLE

1964	4" x 10" Thin		6129	6" x 9"		6126
1965	4" x 10" Special		7290681	6" x 9"		6126
1966	4" x 10" Special		7293691	6" x 9"	Spcl.	7294892

CHEVY II

1962	4" x 10" Special		7280093	6" x 9"		6112
1963	4" x 10"		6127	6" x 9"		6126
1964	4" x 10" Special		7282159	6" x 9"		6126
1965	4" x 10"		6127	6" x 9"		6126
1966	4" x 10" Special		7293691	6" x 9"	Spcl.	7294892

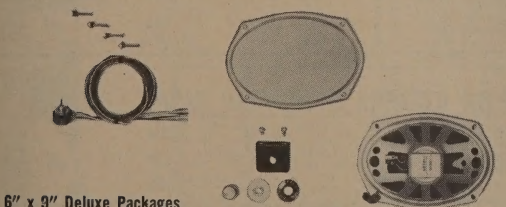
CORVAIR

1960-1	6" x 9"		6111	—		—
1962	6" x 9" Special		7280092	6" x 9"		6112
1963-4	6" x 9" Special		7282158	4" x 10"		6127
1965	6" x 9" Special		7289731	6" x 9"	Spcl.	7290951
1966	6" x 9" Special		7289731	6" x 9"	Spcl.	7294892

UNIVERSAL AUTO RADIO SPEAKERS

Part No.	Size	Mtg. Holes	V.C. Ohms	V.C. Size	Power Watts	Mag. Wgt. Oz's.	Max. Depth	Ship. Wgt. Each	Master Carton	
									Qty.	Ship. Wgt.
6105	6" x 9"	Tapped	3.7	1"	8	1.47	3"	1 lb. 6 oz.	20	32 lbs.
6109	4" x 10"	Slotted	3.7	1"	8	1.47	2 7/8"	1 lb. 3 oz.	20	25 3/4 lbs.
6110	5" x 7"	Slotted	3.2	7/8"	6	1.0	2 5/8"	1 lb.	20	25 lbs.
6111	6" x 9"	Tapped	3.7	1"	8	1.47	3 1/4"	1 lb. 10 oz.	20	35 lbs.
6112	6" x 9"	Slotted	3.7	1"	8	1.47	3 1/8"	1 lb. 10 oz.	20	35 lbs.
6113	6" x 9"	Slotted	3.2	7/8"	6	1.0	3 1/8"	1 lb. 9 oz.	20	34 lbs.
6114	6" x 9"	Slotted	4.2	1 1/8"	10	3.16	3 3/8"	1 lb. 10 oz.	20	35 lbs.
6115	8"	Slotted	3.7	1"	8	1.47	3"	1 lb. 6 oz.	20	32 lbs.
6116	8"	Slotted	3.2	7/8"	6	1.0	3"	1 lb. 5 oz.	20	31 lbs.
6117	4" x 8"	Slotted	3.7	1"	6	1.47	2 5/8"	1 lb.	20	20 lbs.
6125	4" x 10"	Tapped	4.5	7/8"	6	1.47	2 7/8"	1 lb. 3 oz.	20	25 3/4 lbs.
6126	6" x 9"	Slotted	8-10	7/8"	6	1.6	3 1/4"	1 lb. 12 oz.	20	35 lbs.
6127	4" x 10"	Slotted	8-10	7/8"	6	1.6	3 1/4"	1 lb.	20	24 lbs.
6128	6"	Slotted	8-10	1"	8	2.15	2 3/4"	1 lb. 3 oz.	20	28 lbs.
6129	4" x 10"	Slotted	8-10	7/8"	6	1.6	3 1/8"	1 lb.	20	24 lbs.

REAR SEAT SPEAKERS



6" x 9" Deluxe Packages

Part No. 6122 — 10 OHM

Latest Applications

Part No. 6120 — 4 OHM

Earlier Applications

- These Deluxe Packages combine outstanding performance and ease of installation with attractive appearance and versatility of application.
- Fader control permits infinite adjustment of Volume between front and rear speakers. Fader can be mounted on the instrument panel or with bracket.
- Chrome fader control knob and metallic gray speaker grille blend with custom car interiors.
- Plug-in connectors provide solderless installation in most applications.



PART NO. 6121 — 6" x 9" Package

This package is complete with a GM-Delco 6" x 9" speaker, 3 position switch and wiring harness, foil escutcheon for instrument panel or bracket mounting, bracket, black plastic knob, attractive gray grille and all the necessary hardware. Grounding spring and socket and plug connection eliminates necessity of soldering the connections in the trunk. GM-Delco quality throughout.



PART NO. 6119 — 5" x 7" Package

Designed for those application with a 5" x 7" package shelf cutout. This high quality package is identical to the 6121 except that it contains a 5" x 7" speaker and grille.

QUAM *Quality Line* SPEAKERS

These speakers are engineered and manufactured solely for replacement, public address, high fidelity and outdoor applications. EIA standard dimensions. Fully dust-proofed. Baked gold enamel finish. EIA service guarantee. Only Quam speakers have the U shaped coil pot construction which provides an unbroken flux path of sufficient cross section to carry the full energy of the magnetic field.



Fig. R

SPECIAL REPLACEMENT SPEAKERS FOR COLOR TV

MODEL No.	SIZE	FIGURE	MAGNET WEIGHT OR FIELD	POWER HANDLING WATTS	DEPTH	SHIP WT., LBS.	DEALER NET
35A2C*	3"x5"	R†	1.1 oz. Alnico V	4	1-11/16	3/4	\$3.00
4A2C*	4"	R†	1.1 oz. Alnico V	4	1-3/8	3/4	2.86
46A2C*	4"x6"	R†	1.1 oz. Alnico V	4	1-11/16	1	3.14
52A2C*	5 1/4"	R†	1.1 oz. Alnico V	5	1-7/8	1	3.27
8A2C*	8"	R†	1.1 oz. Alnico V	6	2-11/16	1-1/4	4.23

REPLACEMENT SPEAKERS Voice coil impedance 3.2 ohms ± 10%

22A06Z8**	2 1/4"	J	.45 oz. Alnico V	.25	1	1/4	\$ 2.85
22A06Z100**	2 1/4"	J	.45 oz. Alnico V	.25	1	1/4	3.15
25A07	2 1/2"	A	.65 oz. Alnico V	1.5	1-1/4	1/4	2.18
26A07	2"x6"	L	.65 oz. Alnico V	2	1-19/32	1/2	2.35
27A06Z12**	2 3/4"	J	.55 oz. Alnico V	.25	1	1/4	2.82
30A05	3"	I	.55 oz. Alnico V	2	1-3/16	1/2	1.72
3A05Z8**	3 1/2"	I	.55 oz. Alnico V	2	1-9/32	1/4	2.10
3A05*	3 1/2"	I	.55 oz. Alnico V	2	1-9/32	1/4	1.72
3A07*	3 1/2"	A	.55 oz. Alnico V	2.5	1-33/64	1/2	2.18
3A07Z20**	3 1/2"	I	.55 oz. Alnico V	2.5	1-33/64	1/2	2.58
35A05*	3"x5"	L	.55 oz. Alnico V	2	1-1/2	1/2	2.29
35A05Z8**	3"x5"	L	.55 oz. Alnico V	2	1-1/2	1/2	2.67
4A05*	4"	I	.55 oz. Alnico V	2.5	1-1/2	1/4	1.61
4A07*	4"	A	.65 oz. Alnico V	3	1-23/32	1/2	2.35
4A1	4"	A	1.0 oz. Alnico V	3	2-1/16	3/4	2.51
4A1Z8**	4"	A	1.0 oz. Alnico V	3	2-1/16	3/4	4.85
4A15	4"	A	1.47 oz. Alnico V	3	2-1/16	3/4	2.75
46A07*	4"x6"	E	.65 oz. Alnico V	3.5	1-15/16	3/4	2.59
46A1	4"x6"	E	1.0 oz. Alnico V	3.5	2-1/4	1	2.78
46A1Z8**	4"x6"	E	1.0 oz. Alnico V	3.5	2-1/4	1	3.18
46A15	4"x6"	E	1.47 oz. Alnico V	3.5	2-1/4	1	3.00
48A2*	4"x8"	K	1.4 oz. Alnico V	4.5	2-3/16	1	4.34
48A2Z20CT†	4"x8"	K	1.4 oz. Alnico V	4.5	2-3/16	1	4.95
410A2*	4" x 10"	M	1.4 oz. Alnico V	6	2-11/16	1 1/4	4.88
5A05*	5"	I	.55 oz. Alnico V	3	1-11/16	1/2	1.91
5A07*	5"	C	.65 oz. Alnico V	3.5	1-7/8	3/4	2.45
5A1	5"	C	1.0 oz. Alnico V	3.5	2-5/16	1	2.64
5A1Z8**	5"	C	1.0 oz. Alnico V	3.5	2-5/16	1	3.03
5A15	5"	C	1.47 oz. Alnico V	3.5	2-5/16	1	2.86
52A1	5 1/4"	C	1.0 oz. Alnico V	4	2-25/64	1	2.70
52A1Z8**	5 1/4"	C	1.0 oz. Alnico V	4	2-25/64	1	3.09
52C10#	5 1/4"	N	10.0 oz. Ceramic	10	2-1/4	2-1/8	5.43
57A1	5"x7"	D	1.0 oz. Alnico V	5	2-11/16	1	3.00
57A15	5"x7"	D	1.47 oz. Alnico V	5	2-11/16	1	3.33
57A21	5"x7"	D	2.15 oz. Alnico V	5	2-61/64	1-1/4	3.68
58A15Z8	5"x8"	F	1.47 oz. Alnico V	5	2-3/4	1-1/4	4.26
6A1	6 1/2"	C	1.0 oz. Alnico V	5	2-5/8	1	2.89
6A15	6 1/2"	C	1.47 oz. Alnico V	5	2-5/8	1	3.14
6A31	6 1/2"	C	3.16 oz. Alnico V	6	3-11/64	1-3/4	4.14
69A1*	6"x9"	D	1.2 oz. Alnico V	6	2-3/4	1-1/4	3.27
69A1S*	6"x9"	D	1.2 oz. Alnico V	6	2-1/8	1	4.64
69A2*	6"x9"	D	1.4 oz. Alnico V	8	2-15/16	1-1/2	4.09
69A3	6"x9"	D	3.2 oz. Alnico V	10	3-5/16	2	5.02
610A1Z8	6"x10"	F	1.2 oz. Alnico V	8	2-13/16	1-3/4	5.10
7A21*	7"	C	1.4 oz. Alnico V	6	2-31/32	1	3.95
8A1	8"	C	1 oz. Alnico V	6	3-1/2	1	3.24
8A21	8"	C	2.15 oz. Alnico V	7	3-13/32	1-1/2	4.23
8A31	8"	C	3.16 oz. Alnico V	9	3-21/32	2	4.91
10A31	10"	B	3.16 oz. Alnico V	9	4-1/2	2-3/4	6.27
10A6A	10"	B	6.8 oz. Alnico V	12	4-5/8	3-1/2	7.91
12A31	12"	B	3.16 oz. Alnico V	10	4-19/32	3-3/4	6.52
12A6A	12"	B	6.8 oz. Alnico V	14	5-1/4	4-1/2	8.70

* Cup pot; very shallow construction.

** Impedance is designated by number following the letter "Z".

Ceramic magnet. • Dual cone.

† 20 ohms, center tapped

‡ Illustrates magnet construction; see same size standard speaker for basket shape.



Fig. A



Fig. B



Fig. C



Fig. D



Fig. E



Fig. F

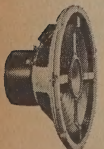


Fig. G

QUAM *Quality Line* SPEAKERS

OUTDOOR SPEAKERS

These long-life speakers have the improved Humi-Gard Cone which utilizes a Mylar plastic film to provide maximum resistance to moisture and dirt and sand abrasion, yet does not interfere with response characteristics. Air gap surfaces cadmium plated and enameled. Quantity quotations on request.

Voice coil impedance 3.2 ohms $\pm$ 10%

All Quam speakers are available weather-proofed for an additional 70¢ list. When ordering weather-proofed speakers use part numbers appearing in this catalog and add suffix "OT" to part number. (Humi-Gard Cone available only on 3½", 4" 5", and 6½" speakers.)

MODEL No.	SIZE	FIGURE	MAGNET WEIGHT OR FIELD	POWER HANDLING WATTS	DEPTH	SHIP. WT., LBS.	DEALER NET
3A07 OT*	3½"	A	.65 oz. Alnico V	2.5	1-33/64	1/2	2.18
4A2 OT**	4"	R‡	1.1 oz.	5	1-21/32	3/4	5.43
4A05 OT*	4"	I	.55 oz. Alnico V	2½	1-1/2	1/4	1.77
5A05 OT*	5"	I	.55 oz. Alnico V	3	1-11/16	1/2	2.07

PUBLIC ADDRESS SPEAKERS

Voice coil impedance 8 ohms $\pm$ 10%

MODEL No.	SIZE	FIGURE	MAGNET WEIGHT OR FIELD	POWER HANDLING WATTS	DEPTH	SHIP. WT., LBS.	DEALER NET
8A1PA	8"	C	1 oz. Alnico V	8	3-1/2	1-1/4	\$3.57
8A21PA	8"	C	2.15 oz. Alnico V	10	3-9/16	2	4.92
8A31PA	8"	C	3.16 oz. Alnico V	10	3-9/16	2	5.70
8A4PA	8"	B	4.64 oz. Alnico V	12	3-3/4	2-3/4	6.60
8A6PA	8"	B	6.8 oz. Alnico V	12	3-7/8	3-1/4	6.60
8C6PA#	8"	O	6.0 oz. Ceramic	12	3	2-1/2	6.00
8C10PA#	8"	O	10.0 oz. Ceramic	12	3-1/8	3	7.17
10A31PA	10"	B	3.16 oz. Alnico V	12	4-13/32	2-3/4	6.90
10A6PA	10"	B	6.8 oz. Alnico V	14	4-5/8	3-1/2	8.70
12A31PA	12"	B	3.16 oz. Alnico V	12	5	3-1/4	7.17
12A4PA	12"	B	4.64 oz. Alnico V	15	5-1/8	3-3/4	8.55
12A6PA	12"	B	6.8 oz. Alnico V	15	5-1/4	4	9.57
12C12PA#	12"	O	12 oz. Ceramic	25	4-1/2	4-1/2	11.97

BACKGROUND MUSIC SPEAKERS

Voice coil impedance 8 ohms

MODEL NUMBER	SIZE	FIGURE	FREQUENCY RESPONSE (CPS)	MAGNET WEIGHT	POWER HANDLING WATTS	DEPTH	SHPG. WEIGHT POUNDS	DEALER NET
8C5PAX#	8"	P	50-20000	4.8	10	2-25/32"	2	6.00
8C6PAX#	8"	P	50-20000	6.0 oz.	12	3"	2	6.57
8C10PAX#	8"	P	50-20000	10.0 oz.	15	3-1/8"	2-1/2	7.77
8C6PAS#	8"	Q	50-6000	6.0 oz.	12	2-1/8"	2-1/4	8.97
12C6PAS#	12"	Q	50-12000	6.0 oz.	15	3-1/2"	2-3/4	6.00
12C10PAX#	12"	P	50-15000	10.0 oz.	15	4-3/8"	4	10.17

INTERCOM SPEAKERS

Voice coil impedance 45 ohms $\pm$ 10%

MODEL No.	SIZE	FIGURE	MAGNET WEIGHT OR FIELD	POWER HANDLING WATTS	DEPTH	SHIP. WT., LBS.	DEALER NET
3A07Z45*	3½"	A	.65 oz. Alnico V	2.5	1-33/64	1/2	2.55
4A07Z45*	4"	A	.65 oz. Alnico V	3.0	1-23/32	1/2	2.73
4A1Z45	4"	A	1.0 oz. Alnico V	3.0	2-3/16	3/4	2.91
5A1Z45	5"	C	1.0 oz. Alnico V	3.5	2-5/16	1	3.06

HIGH FIDELITY SPEAKERS

MODEL No.	SIZE	FIGURE	SPEAKER TYPE	FREQUENCY RESPONSE CPS	Pwr Hndlg Watts	V.C. Impedance	Shpgg Wt. Lbs.	DEALER NET
15C12C0#	15"	G	Coaxial, 2000cps. Xover	25-18,000	25	8	8	31.50
12A6C0	12"	G	Coaxial, 2000cps. Xover	50-15,000	14	8	6-1/2	20.70
8A4C0	8"	G	Coaxial, 2000cps. Xover	50-15,000	10	8	2-3/4	13.77
12C12X#	12"	H	Extended range dual cone	30-16,000	18	8	5-1/2	15.60
8C12X#	8"	H	Extended range	50-14,000	15	8	3-1/4	12.00
6C6X#	6"	D	Extended Range dual cone	50-15,000	12	8	2-1/2	8.37
15C12L#	15"	H	Low frequency woofer	20-4,000	15	8	7	21.00
12C12L#	12"	H	Low frequency woofer	30-3,000	15	8	5-1/2	15.60
5A15T	5"	A	High frequency tweeter	2,000-15,000	10	14	1	3.90
3A15T	3½"	B	High frequency tweeter	2,000-15,000	10	14	3/4	3.45
C02-50			Crossover Unit for use with 5A15T&3A15T				1/8	1.20

REAR SEAT AUTO SPEAKER KITS

These kits contain everything required for the installation of the speaker. They include a dash-mounting fader control, cable, flocked screen grill, baffle plate, all necessary hardware and complete installation instructions.

†Chrome plated grill. ■ Multi-Tap Speaker
▲ Sponge rubber baffle plate gasket

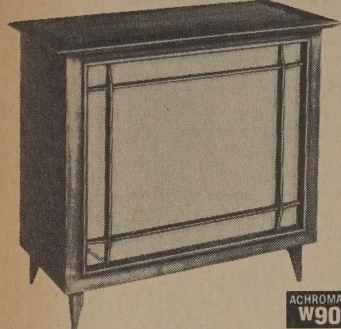
MODEL NUMBER	SIZE	FIELD OR MAGNET WEIGHT	POWER HANDLING WATTS	VOICE-COIL IMPEDANCE (OHMS)	SHPG. WEIGHT POUNDS	DEALER NET
AS-1	6-1/2"	1.47 oz.	5	3.2	2	5.43
AS1MT■	6-1/2"	1.47 oz.	5	10-20-40	2	6.57
AS-2▲	6" x 9"	2.15 oz.	9	3.2	3-1/2	7.61
AS-4	6" x 9"	1.2 oz.	6	3.2	1-3/4	4.09
AS5MT■	6" x 9"	1.4 oz.	8	10-20-40	1-3/4	8.37

AUTOMOTIVE SPEAKERS

MODEL NUMBER	SIZE	FIGURE	MAGNET WEIGHT	POWER HANDLING WATTS	DEPTH	VOICE-COIL IMPEDANCE OHMS	SHIPPING WEIGHT POUNDS	DEALER NET
410A2MT■	4" x 10"		1.4 oz.	6	2-11/16"	10-20-40	1	5.97
410A2Z10	4" x 10"	M	1.4 oz.	6	2-11/16"	8-12	1	5.97
410A2Z20CT*	4" x 10"	M	1.4 oz.	6	2-11/16"	18-22	1	5.97
410A2Z40CT*	4" x 10"	M	1.4 oz.	6	2-11/16"	35-45	1	5.97
57A2MT■	5" x 7"		1.2 oz.	5	2-5/16"	10-20-40	1	3.90
69A2MT■	6" x 9"		1.4 oz.	8	2-15/16"	10-20-40	1¼	5.04
69A2Z10	6" x 9"	D	1.4 oz.	8	2-15/16"	8-12	1¼	4.77
69A2Z20CT*	6" x 9"	D	1.4 oz.	8	2-15/16"	18-22	1¼	5.04
69A2Z40CT*	6" x 9"	D	1.4 oz.	8	2-15/16"	35-45	1¼	5.04

Wharfedale

ACHROMATIC SPEAKER SYSTEMS

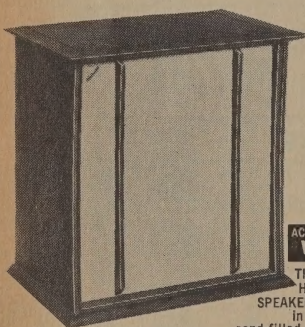


ACHROMATIC W90C

SIX SPEAKER CONSOLE
2 bass, 2 mid range, 2 treble
... superbly matched and integrated
with a magnificent sand-filled enclosure

The ultimate in Achromatic Speaker Systems. Each grouping of speakers is individually adjustable. The smart table-top cabinet is proportioned and styled to blend with any room decor. The grille is easily removed for custom grille cloth changes.

• Speakers: Woofers: one 12" with polystyrene 70 sq. in. piston; one 12" with conical diaphragm; Midrange: two 5" speakers; Treble: two Super 3" tweeters • Controls: Wire wound, continuous treble • Minimum Power Required: 8 watts (per channel) IHF • System Impedance: 4 to 8 ohms • Dimensions: Finished model: 23 3/4" x 30 1/4" x 13 5/8" deep; Utility model: 23 1/4" x 27 3/4" x 12 5/8" deep • Finishes/Prices: Genuine wood veneers: Choice of oiled or polished walnut, \$279.95; Utility model: Sanded birch hardwood, flat molding, no table top, \$263.95.



ACHROMATIC W70C

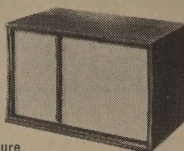
THREE-WAY HI/LO
SPEAKER SYSTEM
in exclusive
sand-filled enclosure

Provides excellent bass; clear, transparent highs, without stridency; and fullness from a superb midrange. Distinctive, exceptionally versatile cabinet may be used standing on end ("Hi-Boy") or on its side ("Lo-Boy").

• Speakers: Woofer: 12" high compliance, low resonance; Midrange: 8" heavy duty; Treble: 3" Super tweeter • Controls: Wire wound, continuous treble and midrange controls • Minimum Power Required: 8 watts (per channel) IHF • System Impedance: 4 to 8 ohms • Dimensions: Finished model: 24" x 23 1/4" x 14" deep; Utility model: 24" x 20 7/8" x 12 3/4" deep • Finishes/Prices: Genuine wood veneers: Choice of oiled or polished walnut, \$179.95; Utility model: Sanded birch hardwood with flat molding, no table top, \$160.95.

ACHROMATIC W60C

COMBINATION
THREE-WAY
BOOKSHELF/
FLOOR STANDING
SPEAKER SYSTEM
in exclusive
sand-filled enclosure

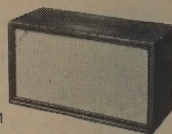


The W60C provides important benefits derived from its new 3-way speaker configuration. May be used bookshelf or floor standing. Individual, continuously variable mid and treble range compensation controls. Front grille easily removed.

• Speakers: Woofer: 12" high compliance, low resonance; Midrange: 5" acoustically isolated, heavy duty; Tweeter: 3" heavy duty omni-directional pressure dome • Minimum Power Required: 8 watts (per channel) IHF • System Impedance: 4 to 8 ohms • Dimensions: 14 1/4" x 24" x 13" deep • Finishes/Prices: Genuine wood veneers: Choice of oiled or polished walnut, \$129.95; Sanded birch hardwood with flat molding, \$113.95.

ACHROMATIC W40C

THREE-WAY
BOOKSHELF
SPEAKER SYSTEM
in exclusive
sand-filled enclosure

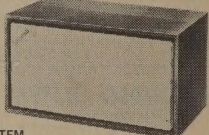


Now... a full three-way multiple speaker ensemble, yielding carefully tailored, ultra-linear response. A new dimension in sound realism for "bookshelf" speakers at a very reasonable price.

• Speakers: Woofer: 10" high compliance, low resonance; Midrange: 5" acoustically isolated; Treble: 3" omni-directional pressure dome • Controls: Wire wound, continuous treble and midrange controls • Minimum Power Required: 8 watts (per channel) IHF • System Impedance: 4 to 8 ohms • Dimensions: 12 1/2" x 23 1/2" x 10 1/8" deep • Finishes/Prices: Genuine wood veneers: Choice of oiled or polished walnut, \$89.95; Utility model: Sanded birch hardwood with flat molding, \$78.95.

ACHROMATIC W30C

TWO-WAY
COMPACT
SPEAKER SYSTEM

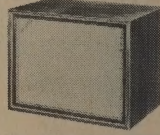


Despite its modest size and price, W30C may be used as the main system where space is at a premium. Compatible with all tube or transistor amplifiers having output of 4 to 8 ohms. Front grille removable.

• Speakers: Woofer: 8" acoustic suspension; Tweeter: 4" acoustically isolated • Control: Wire wound, continuous • Minimum Power Required: 8 watts (per channel) IHF • System Impedance: 4 to 8 ohms • Dimensions: 10" x 19" x 9 1/4" deep • Finishes/Prices: Genuine wood veneers: Oiled walnut, \$69.95; Utility model: Sanded birch hardwood with flat molding, \$63.95.

ACHROMATIC W20

TWO-WAY
MINORETTE
SPEAKER SYSTEM

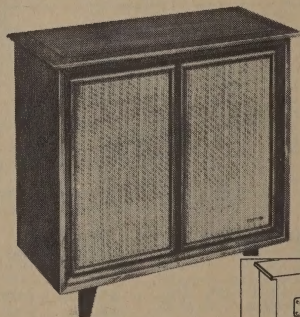


Wharfedale's W20 was designed to satisfy the requirements of good sound first, with dimensions and cost secondary considerations.

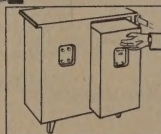
This handsome cabinet is finished in genuine walnut for decorating versatility. Front grille is easily removed.

• Speakers: Woofer: 8" acoustic suspension; Tweeter: 3" omni-directional pressure dome • Control: Wire wound, continuous • Minimum Power Required: 10 watts (per channel) IHF • System Impedance: 4 to 8 ohms • Dimensions: 9 3/4" x 14" x 8 1/2" deep • Finishes/Prices: Genuine wood veneer: Oiled walnut, \$49.95.

E-X-P-A-N-D-U-L-E-S



Bookshelf speaker slips into back of Expandule.



Wharfedale's exclusive Expandules convert Wharfedale and other bookshelf speakers into magnificent-sounding floor models. Each Expandule contains a high compliance, low-resonance wood of appropriate size, plus the correct matching network to extend bass response and improve sound projection into the room... complementing the performance of the original bookshelf speaker. All Expandule enclosures are table-top (30") height, and of slim-line design. Finished in oiled or polished walnut, they blend perfectly with all home-decorating trends. Matching legs, optional, \$7.50.

• Model E35—29 3/4" high, 23 3/4" wide, 13 5/8" deep; uses a special extended bass 10" woofer, has a 19 5/8" x 10 1/8" x 11" compartment. Takes Wharfedale bookshelf W30C. \$99.75.

• Model E45—30" high, 30 3/4" wide, 13 5/8" deep; uses a 12" woofer; has a 24 1/8" x 12 3/4" x 11" compartment. Takes Wharfedale bookshelf W40C. \$149.50.

• Model E65—30" high, 36 1/4" wide, 16 1/4" deep; uses a 15" woofer, has a 24 1/8" x 14 1/2" x 13 1/2" compartment. Takes Wharfedale bookshelf W60C. \$199.95.

COMPONENT LOUDSPEAKERS



SUPER 8/RS/DD
Full Range 8"
\$26.50



SUPER 10/RS/DD
Full Range 10"
\$47.50



SUPER 12/RS/DD
Full Range 12"
\$89.50



W12/RS
Woofer
\$52.50



W15/RS
Woofer
\$89.50



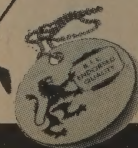
SUPER 3
Tweeter
\$26.50

Crossover Network
3-way, \$32.50
2-way, \$16.50



MODEL B67 UNIVERSAL MOUNTING BASE

Now available for the
W40C, W60C, W70C,
and W90C Speaker
System. Mahogany,
Walnut, or Oiled Wal-
nut, \$10.50; Sanded
Birch Hardwood,
\$9.50.

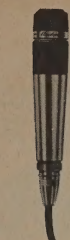
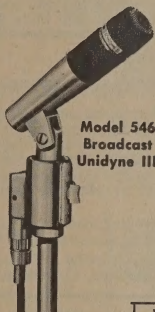


WHARFEDALE, DIV. BRITISH INDUSTRIES CORP.

SHURE

FAMOUS UNIDYNE MICROPHONES

UNIDYNE III SERIES

THE ONLY CARDIOID MICROPHONES FEATURING
PICKUP PATTERN SYMMETRICAL ABOUT
AXIS AND UNIFORM AT ALL FREQUENCIESModel "545"
Unidyne III *Model 545S
Unidyne III *Model 544
Gooseneck
Unidyne III *Model 546
Broadcast
Unidyne III *Model "55SW"
UnidyneModel "556S"
Broadcast

The world's finest moderately priced dynamic cardioid microphone for public-address system use. The Unidyne III approaches the theoretical ideal of the cardioid pickup pattern. This means completely uniform pickup about the axis at all frequencies—in all planes. Remarkably faithful reproduction of the human voice makes the Unidyne III a superior choice for public-address applications. Low frequency characteristics of the Unidyne III eliminate boominess, and make it a favorite for pickup of drums and bass instruments. Striking black and satin chrome finish in compact modern design makes the Unidyne III a stylish addition to any platform. Model 545 is suitable for handheld and/or stand use with Model A25 Swivel Adapter included. Model 545S is mounted on lifetime swivel and includes on-off switch. Model 544 is furnished with cable attached and is designed for gooseneck mountings. 544-G6 includes 6" gooseneck; 544-G12 includes 12" gooseneck; 544-G18 includes 18" gooseneck.

TYPE: Dynamic. FREQUENCY RESPONSE: 50-15,000 cps. POLAR PATTERN: Cardioid (Uniform with frequency, symmetrical about axis). MAGNETIC CIRCUIT: uses Alnico V magnet. CASE: Die cast zinc and "Armo-Dur". FINISH: Satin chrome and black. CABLE CONNECTOR: Equivalent to Amphenol MC4M plug. CABLE: 18 ft., 3 conductor shielded. STAND THREAD: $\frac{5}{8}$ " — 27 thread. DIMENSIONS: Length — $5\frac{1}{8}$ ", Diam. — $1\frac{1}{4}$ ". NET WEIGHT: 6/10 lb., Shipping Weight 2 $\frac{7}{8}$ lbs. FURNISHED ACCESSORIES: A25 type swivel adapter. OPTIONAL ACCESSORIES: A95A cable type transformer, 533B desk stands.

IMPEDANCE TABLE	OUTPUT LEVEL
L-50-250 ohms	-57 db (0 db = 1 milliwatt per 10 microbars) .141 millivolts/microbar
H-High	-55 db (0 db = 1 volt per microbar); 1.760 millivolts/microbar

MODEL	LIST PRICE
545	\$ 85.00
545S	\$ 89.95
544	\$ 80.00
544-G6	\$ 83.00
544-G12	\$ 83.75
544-G18	\$ 85.00

BROADCAST UNIDYNE III

MODEL 546. Ultra compact, unidirectional, distinctive design, weights only 1 lb. Recommended for critical broadcast and theater-stage sound system operation and highest quality public address and recording applications. Truly uniform cardioid pick-up pattern, symmetrical about axis. Special live-rubber vibration-isolating shock mount. Improved self-adjusting lifetime swivel permits tilting of head 180°. Cannon XL-3-11 connector. 20 ft. 2-conductor shielded broadcast type cable. Head only $1\frac{1}{4}$ " diam., $5\frac{1}{4}$ " long. 50-15,000 cps frequency response.

IMPEDANCE TABLE	OUTPUT LEVEL	MODEL	LIST PRICE
L — 50 Ohms	-55 db (0 db = 1 milliwatt per 10 microbars); .079 millivolts/microbar	546	\$135.00
H — 150 Ohms	-55 db (0 db = 1 milliwatt per 10 microbars); .176 millivolts/microbar		

UNIDYNE II SERIES

Famed Throughout the World for Ruggedness and Reliability

The Unidynes are the largest selling microphones throughout the world — used consistently by famed celebrities for those important events where the faithfulness of sound reproduction is critical. A sturdy construction provides immunity of the moving-coil system to abnormal atmospheric conditions and severe mechanical shock. Model 55S is highly recommended for fine quality public address, theater-stage sound systems, recording and remote broadcasting, and low-gain tape recording. It is also the field-proved standard for fixed station use in the police, fire, transportation, forestry and commercial services. Smooth frequency response from 50 to 15,000 cps. Furnished with an 18-foot cable and plug assembly. Model 55SW is same as Model 55S except it has On-Off switch.

Model 556S is specially constructed and tested to meet the requirements of the broadcast and television studio, and is held within close tolerances in frequency response and directivity. It is a moving-coil type microphone with a frequency range of 40 to 15,000 cps, production uniformity guaranteed to plus or minus $2\frac{1}{2}$ db. As a further precaution against mechanical vibration pickup, the 556S is provided with an additional isolation unit, of live rubber construction in combination with the stand connector and a built-in high quality cable connector. Furnished with a 20-foot, high quality, shielded, 2-conductor cable with Cannon plug attached. Both the 55S and the 556S feature the patented "Uniphase" network system. All units include multi-impedance switch for High, Medium or Low Impedance.

IMPEDANCE TABLE	OUTPUT LEVEL
L-35-50 ohms	-54 db (0 db = 1 milliwatt per 10 microbars); .063 millivolts/microbar
M-150-230 ohms	-55 db (0 db = 1 milliwatt per 10 microbars); .125 millivolts/microbar
H-High	-57 db (0 db = 1 volt per microbar); 1.410 millivolts/microbar

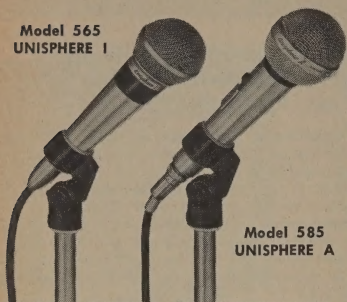
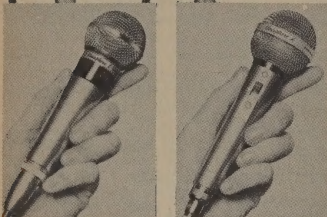
MODEL	LIST PRICE
556S	\$135.00
55S	\$ 83.00
55SW	\$ 85.00

All Shure Dynamic, Controlled Magnetic, and Ceramic Microphones are eligible for FCDA purchases.

Available in Gold finish for \$10 additional (List Price)

SHURE

NEW MICROPHONES AND MIXER

Model 565
UNISPHERE IModel 585
UNISPHERE ASUPPRESS "POP" AND FEEDBACK WITH
UNISPHERE® UNIDIRECTIONAL MICROPHONES

Provides all the superb, world-renowned feedback control and uniform cardioid pickup pattern features that have made the Unidyne family of microphones the industry standard for solving difficult public address problems—with the added problem-solving ability afforded by special filter assemblies that effectively control explosive breath sounds ("POP") and minimize wind noise in outdoor locations.

Unispheres are particularly recommended for close-talking applications and permit superior utilization of space on small stages. They facilitate speaker, singer or orchestral placement and provide practically complete rejection of unwanted audience noises. They control echoing in partially filled halls ("BOOM"). For hand or stand.

UNISPHERE I For use in the highest quality public-address systems. Smooth 50-15,000 Hz (cps) response. Dual impedance: high or 50-250 Ohm. Built-in shock mounting minimizes handling noise or floor vibration. Supplied with adjustable swivel stand adapter. 18-foot 3-conductor excellently hum-shielded cable with Amphenol MC4M type plug at microphone end. Satin chrome (or gold) finished case with black accents.

MODEL 565—List Price \$95.00

MODEL 565 GOLD—Gold Finish. List Price \$105.00

UNISPHERE A Permits you to control feedback, "pop" or "boom" even in low-budget P.A. systems. 50-12,000 Hz (cps) response. Choice of impedances. Built-in on-off switch. Adjustable swivel stand adapter. 15-foot shielded cable with Amphenol type plug at microphone end. Satin chrome (or gold) finished case with black accents.

MODEL 585 SA—High impedance—includes 15' one-conductor plastic jacketed cable with Amphenol MC1F type plug attached. List Price \$65.00

MODEL 585 SA GOLD—Gold finish. List Price \$75.00

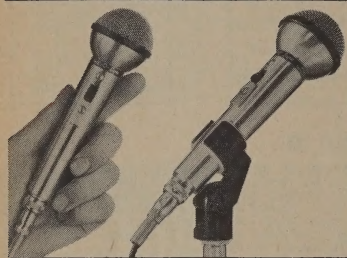
MODEL 585 SB—Low impedance—includes 15' two-conductor shielded cable with Amphenol MC2M type plug attached. List Price \$58.00

MODEL 533 SPHER-O-DYNE®
OMNIDIRECTIONAL DYNAMIC MICROPHONES

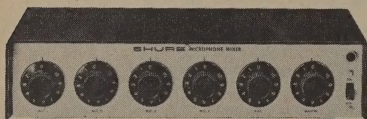
"Pop" styling with pop-proof performance, at a popular price! The only microphone of its type and quality available at such a moderate cost. Built-in wind, breath and pop filter makes it ideal for close-to-the-mouth applications—minimizes annoying, explosive breath sounds. Recommended for interview situations, singing groups, general-purpose P.A., theatre-stage sound systems, tape recording. Uniform response from 40 to 11,000 cps. Built-in on-off switch. Adjustable swivel adapter for stand use.

MODEL 533 SA—High impedance—includes 15' one-conductor plastic jacketed cable with Amphenol MC1F type plug attached. List Price \$50.00

MODEL 533 SB—Low impedance—includes 15' two-conductor shielded cable with Amphenol MC2M type plug attached. List Price \$47.50



SHURE M68 MICROPHONE MIXER (TRANSISTORIZED—PORTABLE)



PRACTICAL—The Shure M68 Mixer is a practical, efficient and economical way of increasing the efficiency, usefulness and flexibility of public-address and paging systems, or tape recorders, by making it possible to use more than one microphone or other sound source. You can strategically place microphones so that everybody who should be heard will have a microphone close at hand. It is particularly useful where additional microphones are needed for panels or for audience Question-and-Answer sessions.

UNIQUE—This new mixer is unique in that it satisfies the needs of most public-address systems and serious tape recording enthusiasts, while being light enough to be portable, simple to operate and modest in cost. It is the only mixer which strikes a happy medium between the expensive heavy and complex permanent-installation type mixer and the extremely low-cost units of limited usefulness.

With the M68, each microphone (or other sound source) can be cut in or out of the system (and independently balanced for volume) with no loss in microphone output level. In addition to independent volume controls, a master volume control simultaneously controls the gain of all inputs. The M68 can, therefore, be used as a conveniently "at-hand" P.A. system volume control in situations where the regular amplifier is located some distance away.

VERSATILE—You can use high or low impedance microphones, in any mix, with any type amplifier without need for expensive line transformers.

You can tape record from multiple sound sources or record sound-on-sound with two recorders, or conveniently record important meetings with full assurance that every voice will be intelligible.

Frequency response is 30-20,000 Hz (cps)

Underwriters Laboratory listed for use in commercial applications. Easily portable . . . 2 1/4" x 11 1/4" x 5 1/4", weighs only 4 lbs. 105-125 V. A.C. 50/60 cps. List Price \$125.00

MICROPHONE MIXER ACCESSORIES.

ATTACHE-TYPE CARRYING CASE—Makes M68 mixer, microphones and cables conveniently portable.

.....\$37.50 List Price

A68B BATTERY POWER SUPPLY—Eliminates need for 115 V. A.C. hookup . . . \$10.00 List Price

A68L LOCKING PANEL—Prevents tampering with the controls. . . . \$8.00 List Price

A68C OUTPUT CABLE KIT to connect mixer to any amplifier. . . . \$25.00 List Price

A68P PHONO PREAMP to connect magnetic or ceramic phonograph. . . . \$25.00 List Price

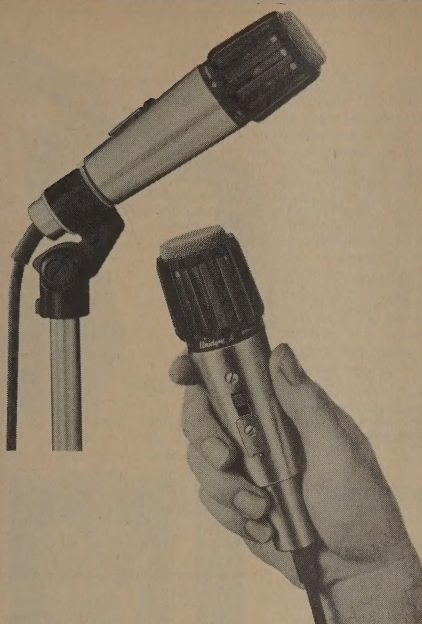
A68S STACKING KIT to connect 2 or more M68's together for use with more than four microphones. . . \$5.00 List Price

A68SC INTERCONNECTING CABLE ONLY . . \$1.25 List Price

A68R RACK PANEL KIT to mount mixer in a standard rack panel. . . . \$12.50 List Price

SHURE

NEW! UNIDYNE A MICROPHONES



IN THE QUALITY TRADITION OF THE UNIDYNE FAMILY

The Unidyne A offers unidirectional problem-solving ability at an omnidirectional price! Solves feedback problems in low-budget sound systems. Very effective cardioid pickup pattern—symmetrical about axis at all frequencies. Uniform response from 50 to 12,000 cps. Rugged Dynamic cartridge is shock-mounted for quiet operation. Built-in ON-OFF switch with provisions for locking switch in ON position. Versatile: use it on a stand, or in the hand, indoors or out. With swivel adaptor ($\frac{5}{8}$ " stand thread). Case is satin chrome and black "Armo-Dur" cap and stainless steel grille. Easy field service, if required. 15-foot attached shielded cable with rubber strain relief.

MODEL 580SB. Low impedance (150 to 250 ohms). Output: —58db (0 db = 1 milliwatt per 10 microbars). **\$52.00 List.**

MODEL 580SA. High impedance. Output: —59 db (0 db = 1 volt per microbar). **\$59.00 List.**

MATCHED PAIRS—UNIDYNE A

Matched within 2 db in both frequency response and output for stereo recording. High impedance models with plugs attached to fit most tape recorders. Boxed as a pair. **MODEL 580SA(MP) —\$118.00 List.**

SHURE

P. A. SYSTEM MICROPHONES



**MODEL 550S—
"PROBE-DYNAMIC"**

A new rugged, high quality Dynamic Microphone designed for use in top-quality sound reinforcement applications. Features smooth, wide-range response from 50-15,000 cps. Excellent for pickup of voice and music. Performance and appearance characteristics make the "Probe-Dynamic" a wise choice for use in meeting rooms, auditoriums, for tape recording or wherever a quality omnidirectional microphone is required, and moderate cost is an important consideration. Dual impedance. Comes complete with on-off switch, swivel and 18 ft. 2-conductor cable. Model 550S in satin chrome finish. Model 550S(Gold) in gold finish. Available in matched pairs for stereo recording. (Matched to ± 1 db in level and $1\frac{1}{2}$ db in frequency response.)

List Price: Model 550S \$69.00
Model 550S (Gold) \$79.00

Type: Dynamic
Frequency Response: 50 to 15,000 cps
Output: 57.5 db
58.5 db
(0 db = 1 volt/microbar; 1.18 millivolts/microbar)
Impedance: Dual: Choice of 50 to 250 ohms and High
Diaphragm: Shure Duraacoustic
Case: Model 550S
Satin finished chrome case, stainless steel mesh grille
Model 550S (Gold)
Gold finished case and grille

Dimensions: (not including swivel)
Net Weight: (less cable)
 $1\frac{1}{2}$ " diameter, $6\frac{1}{2}$ " long
15 oz.



SONODYNE II

MODEL 540S. A compact, modernistic microphone with high output dynamic element at moderate cost. The "Sonodyne II" features adjustable frequency response which allows the user to tailor the microphone to the application—One of the most versatile microphones on the market! High output Dynamic element Omni-Directional pickup pattern. Frequency response: 60 to 10,000 cps with provisions for alternate response for voice intelligibility in paging and communications systems. Reliable on-off switch. Model 540 also available without switch. Improved positive action lifetime swivel permits tilting head 150° . 15 ft. 2-conductor shielded cable, equivalent to Amphenol MC3M connector.

IMPEDANCE TABLE	OUTPUT LEVEL
L—50-250 Ohm	—56.5 db (0 db = 1 Milliwatt per microbar); .141 millivolts/microbar
H—High	—55 db (0 db = 1 volt per microbar); 1.76 millivolts/microbar

LIST
PRICE

Model 540S (with switch)	\$49.95
Model 540 (without switch)	\$47.95



SONODYNE

MODEL 51. The "Sonodyne" is ideal for all general purposes, including public address, wire and tape recording, and similar applications. Ideal high-quality, moderately-priced replacement for the conventional microphone supplied with tape recorders. The wide range frequency response is 60 to 10,000 cps. This rugged microphone is one of the pressure type, with conventional semi-directional characteristics, and it may be used for close-talking without undue low frequency emphasis. Multi-impedance — for low, medium and high impedance. Has built-in receptacle and a 15-foot, two-conductor shielded cable with microphone plug attached. Satin chrome finish. Model 51S is same as Model 51 except it has on-off switch.

IMPEDANCE TABLE	OUTPUT LEVEL
L—35-50 Ohms	—52.0 db (0 db = 1 Milliwatt per 10 microbars); .089 millivolts/microbar
M—150-250 Ohms	—52.5 db (0 db = 1 Milliwatt per 10 microbars); .238 millivolts/microbar
H—High	—49.5 db (0 db = 1 volt per microbar); 2.510 millivolts/microbar

LIST
PRICE

51	\$49.50
51S	\$51.50

SHURE**SLIM DYNAMIC PROBE MICROPHONES****MODEL 578 OMNIDYNE ULTRA SLIM PROBE****No Change in Pickup Pattern or Sensitivity from 50-17,000 cps**

An outstanding new public address microphone combining striking modern ultra-slim ($\frac{3}{4}$ " diameter) design with exceptional performance, proved in severe field testing. Inconspicuous because of slender shape. Smooth, natural response from 50 to 17,000 cps. Built-in wire mesh "pop" filter reduces breath noises. Extremely rugged construction makes the Omnidyne an excellent choice for quality P.A. use indoors and outdoors. Satin chrome steel case provides magnetic shielding as well as good looks. Model 578S is mounted on swivel-switch assembly with attached Cannon XL3-11 cable connector. Model 578 has exceptional "feel" and "balance" making it ideal for hand-held use. Dual impedance. Complete with "On-Off" switch and special slip-in swivel stand adapter. Locking switch plate is included to lock switch in "On" position. Available in Matched Pairs for Stereo Recording (Matched to plus or minus 1 db in level and $1\frac{1}{2}$ db in frequency response).

SPECIFICATIONS — TYPE: Dynamic. FREQUENCY RESPONSE: 50-17,000 cps. DIAPHRAGM: Shure Duracoustic. POLAR PATTERN: Omnidirectional. MAGNETIC CIRCUIT: Uses Alnico V Magnet. CASE FINISH: Satin chrome. SWIVEL ADAPTER: Furnished with swivel adapter having $\frac{1}{8}$ "-27 thread. CABLE: 18' — three-conductor shielded. SWITCH: Supplied with "On-Off" switch and optional cover plate. DIMENSIONS: $\frac{3}{4}$ " diameter, $7\frac{7}{8}$ " overall length. NET WEIGHT: 7 ounces (less cable).

IMPEDANCE	OUTPUT LEVEL
200 Ohms	— 60 db (0 db = 1 Milliwatt per 10 microbars); .100 millivolts/microbar
High	— 59 db (0 db = 1 Milliwatt per microbar); 1.11 millivolts/microbar

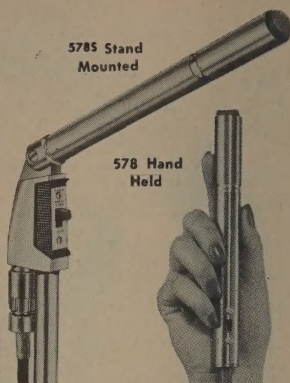
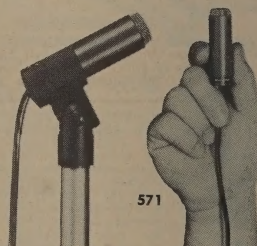
MODEL 578† LIST PRICE \$82.50 . . . MODEL 578S† LIST PRICE \$90.00.**NEW 570S—ONLY PROFESSIONAL LAVALIER MICROPHONE WITH SWITCH—MODEL 570—WITHOUT SWITCH**

FINEST PERFORMING PROFESSIONAL QUALITY DYNAMIC LAVALIER MICROPHONE — REGARDLESS OF PRICE! Designed for lavalier use in television, for lectures, etc. Features special "shaped" response for superior lavalier performance. Reduces pickup of clothing and cable noise. Designed for inconspicuous use with "Flex-Grip" lavalier assembly — the most versatile available. "Flex-Grip" design holds microphone firmly, yet permits easy and quick removal. Lavalier clip opens right or left or can be removed. Lightweight, flexible 30 ft. microphone cable attached. Non-reflecting gray metal case with stainless steel grille.

SPECIFICATIONS — ELEMENT TYPE: Dynamic. FREQUENCY RESPONSE: 50-12,000 cps, shaped for optimum lavalier performance, with rising response to 6,000 cps. DIAPHRAGM: Shure Duracoustic. POLAR PATTERN: Omnidirectional. MAGNETIC CIRCUIT: Uses Alnico V Magnet. CASE FINISH: Non-reflecting gray. CABLE: 30' two-conductor shielded. DIMENSIONS: $\frac{3}{4}$ " diameter, $2\frac{1}{2}$ " overall length, NET WEIGHT: Model 570, 2 ounces (less cable). Model 570S, $3\frac{1}{2}$ ounces. FURNISHED ACCESSORIES: Model A57L "Flex-Grip" lavalier cord, and belt clip for cable. OPTIONAL ACCESSORIES: Model A95A Transformer.

IMPEDANCE — 150 Ohms — to match all low impedance inputs; 50 to 250 Ohms.**OUTPUT LEVEL — 59 db (0 db = 1 Milliwatt per 10 microbars); .094 millivolts/microbar.****MODEL 570 LIST PRICE \$95.00 . . . MODEL 570S LIST PRICE \$105.00.**

NEW MODEL 571 — Miniature dynamic microphone for hand-held and stand use. Similar to Model 570 in size and appearance, but has smooth peak-free response from 50 to 10,000 cps for voice applications where a small, inconspicuous microphone should be used. Use in hand, on stand, hang over stage, conceal in studio and other broadcast, motion picture, theatrical and public address applications. Model A57R swivel adapter included.

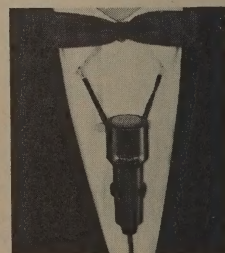
IMPEDANCE matches all low impedance inputs 50 — 250 ohms.**OUTPUT: — 60.5 db (0 db = 1 millivolt per 10 microbars); .085 millivolts/microbars.****LIST PRICE: \$95.00****570S****570 LAVALIER****571****MODEL 560 DYNAMIC LAVALIER**

Model 560 Dual Impedance, Dynamic Microphone with "tailored" response specifically designed for lavalier use. A truly excellent general purpose lavalier microphone at a very practical price. Compact and lightweight. Modern black satin all-metal case with stainless steel grille meets virtually every lavalier application, with quick change from High to Low impedance by simply moving pin jacks. New design clip-grip lavalier assembly holds microphone securely to wearer. Lightweight 18 foot attached cable permits maximum freedom of movement.

SPECIFICATIONS — FREQUENCY RESPONSE: Specially adapted to give optimum performance for lavalier use. DIAPHRAGM: Shure Duracoustic. CABLE: Non-detachable 18 ft., two-conductor shielded. CASE: Non-reflecting, black satin finished all-metal case with stainless steel grille. DIMENSIONS: $3\frac{3}{32}$ " long by $1\frac{1}{32}$ " diameter. NET WEIGHT: 5 ounces; packaged weight: 13 ounces.

IMPEDANCE TABLE	OUTPUT LEVEL
150-250 Ohms	— 55.5 db (0 db = 1 Milliwatt per 10 microbars); .149 millivolt/microbar
High	— 56.5 db (0 db = 1 volt per microbar); 1.33 millivolt/microbar

MODEL	LIST PRICE
560	\$42.50

**560 Lavalier**

SHURE**NEW! COMPACT COMMUNICATIONS MICROPHONES****RANGER II****WITH HIGH-IMPACT ARMO-DUR CASE**

Only about half the size and weight of conventional mobile communications microphones, yet performs as well as or better than the "big boys." Only 6 3/4 oz., less cable, . . . 2 1/4" wide, 2 1/4" deep, 2 3/4" high. Ideal for miniaturized or portable communications. Neoprene-jacketed coil cord. Revolutionary molded-rubber Flex-Relief cable connection. Positive action single throw, double pole million-cycle switch. Controlled Magnetic cartridge. Frequency response from 400 to 4000 cps, especially tailored for voice communication use.

MODEL	OUTPUT LEVEL	IMPEDANCE	CABLE TYPE	SWITCH MIC. CIRC.	RELAY CIRC.	LIST PRICE
414A	-54.5 db (0 db = 1 volt per microbar)	High—100,000 Ohms or more	3-cond., one shielded	Closed	Open	\$33.00
414B	-52.5 db (0 db = 1 milliwatt with 10 microbars)	150-250 Ohms	4-cond., two shielded	Closed	Open	\$33.00

RANGER II NOISE CANCELLING FOR HIGH SPEECH INTELLIGIBILITY

Gets the message through even when the ambient noise is so loud the operator can't hear himself! Significantly superior speech intelligibility to any other brand of so-called "noise cancelling" microphone. Specially tailored response for highest intelligibility—200 to 4000 cps. Same size, cable, cable relief, switch and case as Ranger II (at left) . . . only 7 oz., less cable.



MODEL	OUTPUT LEVEL	IMPEDANCE	CABLE TYPE	SWITCH MIC. CIRC.	RELAY CIRC.	LIST PRICE
419A	-57 db (0 db = 1 volt per microbar)	High—100,000 Ohms or more	3-cond., one shielded	Closed	Open	\$62.50
419B	-55 db (0 db = 1 milliwatt with 10 microbars)	150-200 Ohms	4-cond., two shielded	Closed	Open	\$62.50

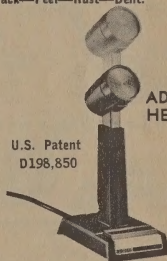
SHURE**DISPATCHING.. GENERAL PURPOSE MICROPHONES****MODEL 450 "DISPATCHER" MICROPHONE * Made of Rugged "ARMO-DUR"—Won't Crack—Peel—Rust—Dent.**

New modern design fits every decor for paging use. Integrated case design, made of gray "Armo-Dur", features telescoping height adjustment for maximum convenience. Rugged Controlled Magnetic element with impedance switch for low or high impedance. Push-to-talk switch bar with optional features provide every desired switching option.

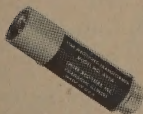
SPECIFICATIONS—ELEMENT TYPE: Controlled Magnetic. **FREQUENCY RESPONSE:** 100 to 9000 cps. **CASE:** Two-tone Gray "Armo-Dur". **CABLE:** 7 ft., four-conductor (two-conductor shielded). **SWITCH:** Push-to-talk switch button with optional locking feature to operate independent microphone and relay circuits. Relay portion of switch is normally open. Microphone portion of switch is normally open or normally closed as required. **DIMENSIONS:** 4" wide, 5 1/4" deep, 10 3/4" high (adjustable). **NET WEIGHT:** 1 1/2 lbs.

MODEL	IMPEDANCE	OUTPUT LEVEL	LIST PRICE
450	50-250	-54 db (0 db = 1 milliwatt per 10 microbars); 2.380 millivolts/microbar	\$49.50
	High	-52.5 db (0 db = 1 volt per microbar); .281 millivolts/microbar	

U.S. Patent
D198,850



ADJUSTABLE
HEIGHT

ACCESSORIES**NEW CABLE TYPE TRANSFORMER**

Model A95A is a high-quality, cable-type transformer which makes it possible to connect a low impedance microphone (35-50 ohm and 150-250 ohm) to a high impedance amplifier. It is housed in a compact, sturdy and magnetically-shielded case, 2 1/2" long x 3/2" diameter. Use of this transformer solves the problem of excessive high frequency loss and objectionable hum when long lengths of microphone cable are necessary. Model A95A may also be used in specialized applications requiring high impedance to low impedance circuit connections. Attractive gray and black case furnished with Canon XL-3-11 Input and Amphenol MC1F output plugs installed. Frequency response: 20 to 20,000 cps, plus or minus 1 db.

List Price: \$17.50

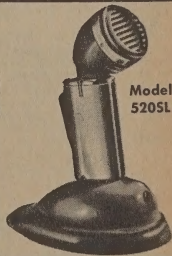
MODEL 520SL "DISPATCHER"

Model 520SL recommended for mobile and fixed station use, also for public address, recording call systems, radio telephone and amateur use.

Model 520SL equipped with grip-to-talk switch DPST — normally closed-normally open, and 7 ft. 2-conductor shielded cable, equivalent to Amphenol MC3M plug.

Model 520SLB has grip-to-talk switch DPST — normally closed-normally open, and 7 ft. 4-conductor (2 conductors shielded) cable, equivalent to Amphenol MC4M plug.

MODEL	OUTPUT LEVEL	IMPEDANCE	LIST PRICE
520SL	-52.5 db (0 db = 1 volt per microbar); 2.38 millivolts/microbar	High	\$45.00
520SLB	-51.0 db (0 db = 1 millivolt per 10 microbars); .281 millivolts/microbar	150-250 Ohms	\$49.25



Model
520SL *

* U. S. Patent 2,454,425

TRIMM / INC.

A SELECTED LISTING FROM OVER 2500
TRIMM-MANUFACTURED COMPONENTS.

HEADSETS: GENERAL PURPOSE, COMMERCIAL, MILITARY, AMATEUR, EDUCATIONAL, STEREO

Since 1922 TRIMM has manufactured a complete line of the finest electro-acoustic equipment and components. Engineered to fill the broadest applications; from the experimental crystal set to rugged field use, from industrial test equipment to home high-fidelity and stereo—these headsets are quality constructed and value priced.

ACME 24, 25, 27

A superior low-cost headset most suitable for Geiger counters, crystal sets, toys and radio systems. Black bakelite shell and cap. No. 24 has a black vinyl covered double headband and cotton tinsel conductor "Y" cord with pin tips. No. 25 headband is black enameled. No. 27 has a black enameled single headband and plastic covered stranded wire cord with pin tips.

REX 30, 32

Lowest cost BIPOLAR type headset. Increased sensitivity. A 6 oz. lightweight for code training and institutional radio systems. Black bakelite shell and cap. Black vinyl covered headband. No. 32 has a single headband and plastic covered stranded wire with pin tips.

DEPENDABLE 70, 71, 72

Combines the best qualities of Acme and Rex; simple, rugged, sensitive and low cost. Ideal for electronic organs, code training and language labs. Black bakelite shell and cap, black vinyl covered headband, mercerized cotton tinsel "Y" cord and pin tips. No. 70 has double headband; No. 71 has plastic covered stranded wire cord; and No. 72 has single headband and single cord with pin tips.

• STEREO

Four stereo models are available. They range from the least expensive Acme to the top quality, extended range "L" headset. All models have a special cord that terminated with the No. 513 or 516 three-circuit plug. All stereo listings have been expanded to include four-conductor cords and two separated No. 501 plugs. These are identified by the number 15 following the model number.

'L'

HEADSET

IDEAL

STEREO

INSTRUMENT

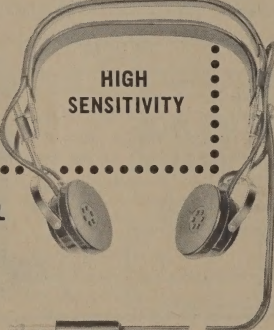
HIGH

SENSITIVITY

EXCEPTIONAL

RESPONSE

No. 50, 56



Highest quality headset of conventional construction. Individually tuned acoustic cavities assures faithful sound reproduction. Top performance under all environmental conditions. Black bakelite shell and cap. No. 50 has black rubber covered double headband and waterproof nylon tinsel conductor, "Y" cord and No. 501 plug. No. 56 has a vinyl covered double headband with over-the-head molded neoprene cord and No. 501 plug.

STANDARD "L"

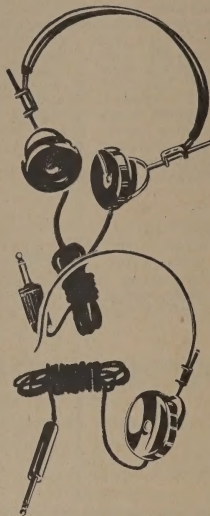
50-08	\$23.00	56-2M	\$27.65
55-08	27.65	50-5M	23.00
50-06	27.65	56-5M	27.65
56-06	27.65	50-12M	24.00
50-2M	23.00	56-12M	28.65

STEREO "L"

50-14-08	27.00	50-14-16	27.00
56-14-08	31.65	50-14-6M	28.00
50-14-16	27.00	56-14-6M	32.65
50-15-08	28.00	56-15-16	32.65
56-15-08	32.65	50-15-6M	29.00
50-15-16	28.00	56-15-6M	33.65

REPLACEMENT PARTS

For a nominal charge all TRIMM manufactured products can be restored to top working condition at the factory. Nearly any part that is required for manufacture is also available as a replacement part. In addition, worn or broken headset cords for almost any make can be made to order.



ACME

24-03	\$3.95	25-2K	\$3.65	With 511 plug
25-03	3.50	24-4K	4.45	24-9-03 \$4.85
27-03*	2.10	25-4K	4.00	24-9-2K 5.00
24-15	4.00	27-1K*	2.25	
24-2K	4.10	27-2K*	2.45	

• STEREO

24-14-03	\$6.20	24-15-03	\$7.20	
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REX

30-03	\$4.60	32-03*	\$2.60	With 511 plug
30-2K	4.80	32-1K*	2.70	30-9-03 \$5.50
30-3K	5.10			30-9-2K 5.70
				32-9-03* 3.50

DEPENDABLE

70-03	\$5.25	70-3K	\$5.85	With 511 plug
70-06	5.35	70-4K	6.15	70-9-03 \$6.10
70-15	5.45	72-03*	3.60	70-9-2K 6.40
70-2K	5.55	72-1K*	3.70	70-9-4K 7.00
71-2K	6.55	72-2K*	3.85	

• STEREO

70-14-03	\$7.20	70-14-2K	\$8.10
70-15-03	8.25	70-15-2K	9.15

Headsets are listed by their model number and by their impedance or D.C. resistance; 3.2 ohms (03); 8 ohms (08); 600 ohms (06); 1500 ohms (15); 2000 ohms D.C. (2K); 2000 ohms (2M); 3000 ohms D.C. (3K); 4000 ohms D.C. (4K); 5000 ohms (5M); 12000 ohms (12M); 17000 ohms (17M); and 24000 ohms (24M). Single earphones (*). List prices included are for single purchases at retail. Consult your distributor for quantity discounts.

FEATHERWEIGHT 5 OZ.! WORLD FAMOUS-PROVEN IN USE

100, 104, 106, 107

Highly recommended for amateur radio use, language training and electronic testing. Nos. 100 and 106 have a fully adjustable nickel plated single headband. Black bakelite shell and cap. Waterproof mercerized cotton tinsel conductor "Y" cord with pin tips. Nos. 104 and 107 have black fabric covered double headband at no increase in price.

\$11.50 List With Pin Tips

100-03	100-2K
104-03	104-2K
100-06	100-4K
104-06	104-4K
100-15	106
104-15	107

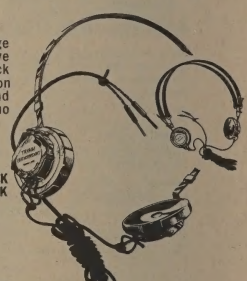
• STEREO

104-14-03	\$14.40
104-15-03	15.50

\$13.40 List With 501 Plug

100-9-03	100-9-4K
104-9-03	104-9-4K
100-9-06	106-9
104-9-06	107-9
100-9-2K	
104-9-2K	

104-14-2K	\$14.40
104-15-2K	15.50



ARMY — NAVY 28, 29

Built for severe use. Satin chrome brass shell, black bakelite cap. Black rubber covered double headband with thumbscrew lock for yoke adjustment. Waterproof nylon tinsel conductor "Y" cord, pin tips or plug.

With Pin Tips

28 (W) 600 ohm	\$20.00	With 501 Plug
29 (K) 20M ohm	20.00	28-9 (W) 600 ohm \$21.65
		29-9 (K) 20M ohm 21.65

COMMERCIAL 151, 152, 155, 159

Very rugged TRIMM headset—yet very lightweight. Developed for marine and aircraft radio use. All types have black bakelite shell and cap, waterproof mercerized cotton tinsel conductor cord. The most popular, No. 156 (600 ohm) and No. 157 (17M ohm), have a black rubber covered double headband with a "Y" cord and 501 plug. Other models in standard impedances. No. 151 has nickel plated double headband, over-the-head cord with pin tips. No. 152 has black fabric covered double headband, over-the-head cord and pin tips. No. 158 (600 ohm) and No. 159 (17M ohm) have black rubber covered double headband, "Y" cord with pin tips.

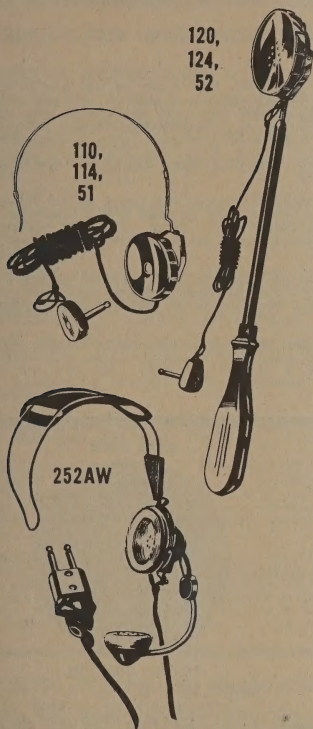
\$12.50 List

With Pin Tips		With 501 Plug			
151-03	152-06	151-9-03	152-9-06	156	\$15.75
152-03	151-2K	152-9-03	151-9-2K	157	15.75
151-06	152-2K	151-9-06	152-9-2K	158	14.00
				159	14.00

TRIMM/INC.

A SELECTED LISTING FROM OVER 2500
TRIMM-MANUFACTURED COMPONENTS.

HEADSETS: GROUP AND INDIVIDUAL LISTENING, AUDIO KITS, STEREO



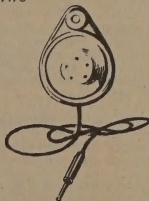
Telephone Operators Headset

A high quality transmitter/receiver unit commonly used in switchboard applications. Lightweight construction and complete adjustability assures wearing comfort and proper transmitter positioning.

RECEIVER 275 ohm impedance at 1000 cps.
TRANSMITTER 25 ohm impedance, carbon type.
PLUG Frequency range—300 to 5000 cps.
Standard twin 2 circuit plug,
TRIMM No. 505

252AW List \$77.75

"85" PILLOW PHONE



Sealed, waterproof ultra-thin disk for very local listening applications. Highly sensitive magnetic unit only 2" in diameter, 3/16" thick. Stainless steel face, pearl gray plastic shell. Replaceable vinyl tinsel cord with plug. Gray neoprene snap-on hanger ring, as shown: \$0.50

With 514 plug		With 536 plug	
85-03 3.2 ohm	\$11.30	86-03 3.2 ohm	\$11.30
85-2M 2M ohm	11.30	86-2M 2M ohm	11.30

GROUP HEARING AID COMPONENTS—SINGLE EARPHONES

For installations where the listening requirements of many individuals must be served two basic types of earphones are used: the headband model for theatres and auditoriums and the hand held lorgnette for churches and mortuaries. Both Featherweight and "L" models are used. All have a 6 ft. waterproof mercerized cotton tinsel conductor cord. Standard impedances: 3.2, 8, 300, 1K and 2K ohms.

"L" Model (With 512 flat plug)			
Headband		Lorgnette	
51-08	\$12.00	52-08	\$14.00
51-3	12.00	52-3	14.00
51-1K	12.50	52-1K	14.50

FEATHERWEIGHT (With pin tips)

Headband		Lorgnette	
110-03	\$8.00	120-03	\$10.50
110-3	8.00	120-3	10.50
110-1K	8.00	120-1K	10.50
110-2K	8.00	120-2K	10.50

FEATHERWEIGHT (With 512 flat plug)

114-03	\$8.90	124-03	\$11.40
114-3	8.90	124-3	11.40
114-1K	8.90	124-1K	11.40
114-2K	8.90	124-2K	11.40

VOLUME CONTROL AND OUTLET BOXES

Formed metal boxes measuring 3 3/4" x 2 3/4" x 1 1/4". All edges and corners are rounded. Available in Brown or Gray Hammertone and in Gloss Ivory.

Single Control — Single Jack Outlet Boxes

Resistance	Brown	Ivory	Gray	
1K	460-1K	461-1K	462-1K	\$5.80
10K	460-10K	461-10K	462-10K	5.80
25K, 50K				
100K, 500K	460-25K (etc.)			6.50
		461-100K		6.50

Dual Control — Dual Jack Outlet Boxes

1K	467-1K	469-1K	\$9.75
10K	467-10K	469-10K	9.75
25K	467-25K	469-25K	11.40

Dual Jacks — No Control

477 Brown	\$4.00
478 Ivory	4.00

(With load resistor)

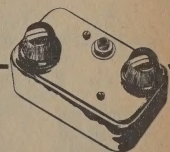
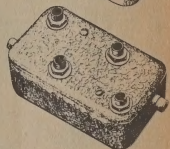
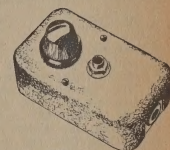
480 Brown	\$5.00
481 Ivory	5.00
482 Gray	5.00

Single Jacks — No Control

484 Brown	\$3.50
485 Ivory	3.50
486 Gray	3.50

Audio Junction Box — Four Jacks

490 Brown	\$5.50
491 Ivory	5.50
492 Gray	5.50



STEREO CONTROL BOX

Designed for stereo headsets with No. 513/516 three circuit plugs. Has two volume controls of suitable value for independent volume adjustment of both channels.

464-1C Brown Hammertone \$10.00

Headset Kits For TV and Radio

Provides a simple means of attaching headsets or extension speakers to TV or radio sets. Has remote on-off switch for loudspeaker, a volume control for the headset and two jacks for multiple listening. Complete kit includes headset or single earphone with plug, control box and 15 ft. of connecting cord.

KIT		
632	(Double ACME Headset)	\$12.15
632-1	(Single ACME Headset)	10.50
632-2	(Two double ACME Headsets)	17.00
633	(Double DEPENDABLE Headset)	13.60
634	(Double FEATHERWEIGHT Headset)	21.00
635	(Single FEATHERWEIGHT Headset)	16.40
637	(Single PILLOW-PHONE)	18.80
631	Control Box Only	7.50



EAR CUSHIONS

For comfort, cleanliness and noise control. Formed of sponge rubber, solid rubber, sponge and solid rubber, or chamolis. Prices, per pair, range from \$1.60 to \$16.95 list.

654	Sponge rubber, Military type MC-162. Fits all TRIMM headsets but Dependable and Army-Navy.	\$1.60
660	Sponge rubber. Fits Dependable and Army-Navy.	\$2.50



MICROPHONES BY TURNER



254X
254C
254R



454X
454C

COMMUNICATIONS AND CITIZENS BAND MICROPHONES BASE

MODEL 254X—It features push-to-talk front touch bar and locking on-off lever switch. May be wired for relay operation or electronic switching. Deluxe light grey hammertone finish. Output level: -48 db for more clear signal strength. Response: 100-8000 cps. 7' three-conductor (shielded) cable. Size is 7 3/4" in height x 5 1/2" in depth. Net price.....\$15.90

MODEL 254C—Same as 254X except with famous 21C ceramic interior. Output level: -54 db. Net price.....\$15.90

MODEL 254R—A CB base station microphone with carbon element for Kaar, Bendix, Pacific, RCA marine sets, Dumont and many others. Impedance: 40 ohms nominal DC resistance. Output level: -38 db. Cable is 7', 4-conductor (unshielded). Operates by touch bar on-off switch and lever lock on-off switch. Net price.....\$15.42

MODEL 454X—Designed for the voice range, it's extra hot. Output level: -48 db. Response: 300-3000 cps. Attractive telephone black finish. Your choice of VOX or PTT switch operation. Comes complete with 3-conductor (one shielded) coiled cord. Net price.....\$17.70

MODEL 454C—Same as Model 454X except has ceramic interior. Output level: -52 db. Net price.....\$17.70

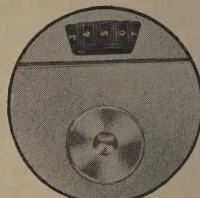
MODEL +2

Revolutionary new microphone which allows manual control of output volume by a twist of a dial. Two transistor pre-amp built into the microphone for up to 50 times the output level of conventional ceramic base station microphones. World's best and most popular base station microphone. Exclusive touch-to-talk or lock on-off switching with a frequency response of 300-3,500 cps. Self contained 9 volt battery included. Net price \$29.70



+ 2

REAR VIEW



VOLUME CONTROL

MODEL M +2

Mobile companion to the +2 Model. 10 position output level control. Two transistor built-in pre-amp. Wired for relay switching. Net price.....\$23.70

MODEL JM +2

Same as M +2 except wired for sets that use electronic switching. Net Price.....\$23.70

M + 2
JM + 2

MOBILE

MODEL 333—Top quality microphone with noise cancelling effect; voice frequency response of 300-3000 cps. Output level: -52 db. Rugged cyclocase with push-to-talk switch. Net price.....\$10.80

MODEL 350C—Most used as original equipment. This low-cost ceramic microphone with on-off switch is familiar to most mobile radio operators. More 350C microphones are used as original equipment on citizens band and marine transceivers than any other microphone. Extra-tough cyclocase. Rugged ceramic interior allows you to use the 350C in any climate. Complete with hanger button and standard dash bracket for easy mounting. Ideal for citizens band, amateur use, mobile rigs and paging. Wired for relay operation. Response: 80-7000 cps. Output level: -54 db. Net price.....\$7.50

MODEL 355C—Inexpensive mobile microphone with grip-to-talk switch. More comfortable to hold — more comfortable to use. The 355C features an output level of -50 db. It's extra hot for a high gain signal. Response: 80-7000 cps. Net price.....\$7.50

MODEL SR90D—The Model SR90D (pressure operated dynamic) features a slender die cast zinc alloy case with the Turner exclusive front hanger button. (Satin chrome finish.) Dynamic models are available in two impedances, hi or 200 ohms. Relay switching is standard. Three-conductor (one shielded) 11' retracted, 5' extended coiled cord on hi impedance models and 4-conductor (two shielded) on 200 ohm units. Output level: -52 db. at hi impedance. Response: 200-10,000 cps. Net price.....\$25.50

MODEL SR90R—Is equipped with a high quality telephone type carbon interior to give you maximum voltage output and high intelligibility as well. Same general appearance and features as Model SR90D. Output level: -40 db. Response: 200-4000 cps. Choose the Model SR90R wherever maximum output with a minimum of distortion is specified...taxicabs, police, etc. Net price.....\$15.50

333



350C



355C



SR90D
SR90R



CUSTOM INTERIORS

Turner has complete facilities for designing and manufacturing all kinds of special application microphone interiors, soft speakers for dictating machines, anything you need. Write for full information on this service.

MICROPHONES BY TURNER



CARDIOID MICROPHONES

MODEL 500 — An outstanding cardioid dynamic microphone featuring combination Hi or 50/250 ohms impedance, satin chrome finish with 20 ft. cable. Model 500 units are interchangeable in any system, with no testing for possible variations in frequency response or front-to-back ratio necessary. The 500 is a highly sensitive unit, with smooth, uniform response from 40 to 15,000 cps. and excellent front-to-back ratio of 20-25 db.

Model 500	Net price.....	\$50.40
Model S-500 (with off-on switch)	Net price.....	\$53.50
Model 500G	Net price.....	\$57.00
Model S-500G	Net price.....	\$58.50

MODEL 505 — Similar to Model 500, but with the acoustical advantages of a bass response control. In the "normal" position, response is 40-15,000 cps.; in the "less bass" position, 100-15,000 cps. Specifically recommended for auditorium work and recording. Net price.....\$66.00

MODEL 600 — The econoline model which sets new quality standards for popularly priced cardioid units. Easy to hold or use, either by hand or with stand, and made from 100% American-made parts. 6" in length, with on-off switch, 12 ft. cable, and 50-15,000 frequency response. (For low impedance specify Model 602.)

Model 600	Net price.....	\$35.70
Model 600G (Gold Finish)	Net price.....	\$38.70

MODEL 777 — Quality cardioid performance with maximum noise rejection. Rolled-off bass response permits very close-to-mouth use, and new rotary on-off switch can be clearly seen even in dim light. Rugged all metal die cast case, satin chrome plated, allows hand or stand use night after night, and full fidelity assures faithful voice or music reproduction. Low impedance only. Net price.....\$66.00

MODEL 510 — Broadcast cardioid dynamic with 40-15,000 cps. frequency response. Combination 50 or 200 ohms impedance selected at the free end of the cable. Professional broadcast blue finish. 20 ft. cable supplied. Connector is cannon XLR-4-11C. Cardioid discrimination is typically 25 db over the entire range. Furnished complete with stand adapter and matching shock-mounted desk stand. Net price.....\$90.00



GENERAL PURPOSE AND PUBLIC ADDRESS MICROPHONES

MODEL 330 — Dynamic type. Excellent for paging, communications, announcing, P.A. use, ham radio. Satin chrome finish, 90 degree swivel coupler, supplied with 20' cable. Response: 100-9000 cps. Output level: —54 db. Impedance: 200 ohms or high. Net price.....\$24.00

MODEL 440 — Compact modern design coupled with variable bass response makes the 440 an excellent microphone for paging and communications systems. Omni-directional pick-up pattern. Very sturdy. Combination yocolac and die-cast zinc alloy case. Use indoors or outside — anywhere. Response: 85-15,000 cps. — adjustable to 60-15,000 cps. Output level: —56.5 db. Complete with removable 12' cable and on-off switch. Specify Hi or 150 ohm when ordering. Net price.....\$27.00

MODEL +50 — Designed for paging applications where long lines between microphone and amplifier are necessary. Remote volume control on the microphone permits instant level adjustment. Dual output impedance. Your choice of 150 or 600 ohms. Die cast satin chrome case contains two stage silicon transistor amplifier and relay switch to control mule on background music amplifiers. Frequency response of 60-10,000 cps., with distortion of less than 1%. Self-contained 9 volt battery. Net price.....\$45.00

MODEL 58 — A dynamic lavalier microphone that's a natural for any application requiring freedom and mobility — panel shows, interview, sportscasting, etc. Only 4" long. Weight, 3 1/2 oz. Choice of either high or 150 ohms impedance selected at the free end of the cable. Response from 60 to 13,000 cps at high impedance. Output level: —60 db. Net price.....\$34.20

MODEL 58A — Same as Model 58, but is combination 50 or 200 ohm selected at free end of cable. Net price.....\$34.20

MODEL P9D — This handy dynamic hand-held or stand microphone is well suited for paging, P.A., amateur and mobile use. Extremely rugged heavy case. Push-to-talk switch. High or 200 ohms (specify when ordering). 7' cable supplied. Amphenol MC1M (MC2M on 200 ohms) connector in microphone. Output level: —52 db. Dimensions: 2 1/2" x 5" in length x 1 3/4" in depth. Shipping weight: 2 lbs. Net price.....\$25.50

MODEL 95D — A dynamic P.A. microphone for use in churches, schools, night-clubs, and high quality recording applications. Complete with 20' cable. Response: 100-10,000 cps. Output level: —58 db. Choice of 200 ohms or high impedance. Net price.....\$25.50

MODEL 250 — A dynamic microphone ideal for dispatch, paging, P.A., control tower and amateur use. Wired to operate both relay and mike circuits at a touch. Features on-off push-to-talk and lock switch. Also features Turner's "lift-switch." Response from 60 to 10,000 cps. Output level: —52 db. Complete with single unit satin chrome case and 20 ft. three-conductor (one shielded) cable. Net price.....\$33.00

MODEL 251 — The Model 251 is the industrial and commercial sound contractors' favorite in the 250 family. Rugged one piece die-cast case (no other accessories needed), gleaming satin chrome finish — three-way switching and 150 ohm impedance all add up to the paging microphone of the commercial sound industry. Why fuss with grip-to-talk devices when it's so easy to touch the 251's front bar or just simply pick it up? Convenient lock on-off switch, too. Airports, clubs, high schools, reception desks, dining rooms, are all favorite installations of 251 convenience. Comes wired for relay operation, too, with 20' four-conductor (two shielded) cable. Response: 70-10,000 cps. Output level: —52 db. Size is 7 3/4" high x 5 1/2" in depth. Shipping weight: 4 lbs. Net Price.....\$33.00

MODEL 304C — Provides four-in-one versatility to perform as a P.A. or home recording microphone. Accessories include desk stand, lavalier clip and string, and stand adapter. Response: 60-10,000 cps. Output level: —60 db. Net Price.....\$9.90

MODEL SR-585D — Dynamic microphone with push-to-talk switch. Designed for fixed mounted applications, this microphone is ideal for grocery call stations, switchboards, paging, dispatching, etc. The switch is line-shorting and is designed to actuate a relay. The switch is a six-terminal slide switch which allows the user to wire anything from DPDT to SPST. The microphone is in a die cast satin chrome housing on a 16" flexarm with a 3 hole mounting flange attached. Impedance is 150 ohms. The cable extends 4' from the base of the mounting flange and is 4-conductor (two shielded). Response from 70 to 12,000 cps. Output level: —58 db. Overall length: 22". Shipping weight: 3 lbs. Net Price.....\$26.10



UNIVERSITY SOUND
A DIVISION OF LTV LING ALTEC, INC.

High Fidelity Component Speakers

SERIES 200 Wide-Range High Compliance Models

Model	Frequency Response (Hz)	Power Capacity (Watts IPM**)	Imp. (Ohms)*	Dimensions (Dia.-Depth)	Shipping Wt. (Pounds)	Net Price
315-C***	25-20,000	50	8-16	15 1/4" x 12"	34 1/2	\$167.00
312***	28-40,000	35	8-16	13" x 6 5/8"	10 1/4	\$ 78.00
6201***	28-18,500	35	8-16	13" x 6 5/8"	9 1/2	61.80
Diff-12	25-15,000	35	8-16	13" x 6 5/8"	8 3/4	44.20
308***	30-17,000	35	8-16	9 3/8" x 6 1/8"	5	42.60
Diff-8	30-15,000	35	8-16	9 3/8" x 6 1/8"	4 3/4	29.40

M-8	50-12,000	30	8-16	8 1/4" x 2 1/2"	5 1/2	16.00
M-8D	50-15,000	30	8-16	8 1/4" x 2 1/2"	5 1/2	21.80
M-12	35-12,000	30	8-16	12 3/8" x 3 7/8"	7 1/2	19.20
M-12D	35-15,000	30	8-16	12 3/8" x 3 7/8"	7 1/2	26.00
M-12T***	35-40,000	30	8-16	12 3/8" x 3 7/8"	9	35.60
MS	3000-40,000	30	8-16	3 1/8" x 3 1/16"	1	17.40

*May be used with amplifiers with output impedance of 8 or 16 ohms.

**Integrated Program Material.

WOOFERS, MID-RANGE and TWEETERS

Dual Voice Coil Woofers High Compliance Models

Model	Frequency Response (Hz)	Power Capacity (Watts IPM*)	Impedance (Ohms)**	Dimensions (Dia.-Depth)	Shipping Wt. (Pounds)	Net Price
C-15HC	15-800	60	4-20**	15" x 8 1/4"	24 3/4	\$ 96.20
C-12HC	20-3,000	50	4-20**	13" x 6 1/4"	9	54.00
C-8HC	20-3,000	30	4-20**	9 3/8" x 4 1/4"	7 1/4	43.20

High Efficiency Models

C-15W	25-1,500	60	4-20**	15 3/4" x 10 1/2"	26 3/4	92.00
C-12SW†	30-6,000	30	8-16	13" x 6 1/4"	7 1/4	43.20
C-8W	50-5,000	25	8-16	8 1/4" x 6 1/4"	3	16.40

**Integrated Program Material.

*Impedance Range Depending on Strapping of Voice Coils.

†Equipped with Built-in Crossover Network for 5000, 2500, and 700 cps Crossover.

Mid-Range Speakers, Horns and Drivers

C-8M Cone Speaker	500-5,000	50	8	8 1/4" Dia. x 4" Depth	3	\$ 18.20
T-30 Driver*	500-18,000	50	8	3 1/2" Dia. x 3 3/4" Depth	2 1/4	33.40
T-50 Driver*	500-20,000	50	8	4 1/4" Dia. x 4 1/4" Depth	5 1/4	53.20
H-600 Horn	600 cps cutoff			7 3/4" L. x 8 3/4" W. x 4 3/4" D.	1 1/4	23.80
Cobreflex Horn	350 cps cutoff			10 1/4" L. x 18 1/2" W. x 9 1/4" D.	2 1/4	26.70

*For use with Cobreflex and H-600 horns.

Tweeters

T-202 Sphericon	3,000-40,000	30	4-16	4 1/4" x 2 3/4"	2 1/2	\$ 27.00
T-203E & W††	3,000-40,000	30	4-16	6 3/8" L. x 5 1/4" W. x 2 3/4" D.	2 3/4	27.00
HF-206	3,500-22,000	30	8	6" L. x 3 3/8" W. x 6 1/4" D.	3 1/2	36.80
4401	2,000-15,000	25	8	6" L. x 2 3/4" W. x 6 3/8" D.	2 1/4	20.40
UXT-5	4,500-17,500	25	8	4 1/4" L. x 2 1/2" W. x 4" D.	2 1/4	23.80

††Models T-203 E & W equipped with case for use outside of enclosure; available in ebony and walnut. Both equipped with built-in crossover network and brilliance control. For use with amplifiers having 4-16 ohms outputs.

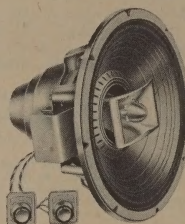
Crossover Networks and Attenuators

Model	Crossover Frequencies Hz	Impedance (Ohms)	Dimensions (L x W x D.)	Shipping Wt. (Pounds)	Net Price
N-1*	1250, 2500, 5000, 10000	4-8-16	3 3/4" x 3 1/4" x 3"	2	\$ 15.00
N-2A	350, 700	4-8-16	3 3/4" x 3 1/4" x 3"	2 1/2	20.40
N-2B	1250, 2500, 5000	4-8-16	3 3/4" x 3 1/4" x 3"	2 1/2	15.00
N-3*	350, 700, 5000	8	7" x 5" x 3"	5 1/4	34.60
AP-8	L pad for presence and brilliance controls.				4.20

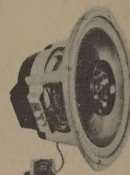
*Model N-1 equipped with built-in brilliance control. N-3 equipped with built-in brilliance and presence controls.

Wide-Range High Compliance Models

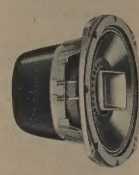
University Series 200 component speakers represent the ultimate in quality and engineering knowhow in the industry. Their high power-handling capacity and ruggedness of construction using modern die-cast baskets and molded seamless cones assures long-life adherence to original performance standards. These speakers are designed for use in any pre-finished or custom built enclosure and may be mounted from either the front or rear of the baffle panel. Where baffle mounting space is at a premium and high quality music reproduction is desired, Series 200 University component speakers are the logical choice for the discriminating music lover or audiophile.



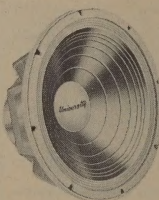
MODEL 315-C
Super 15" 3-Way Diffaxial Speaker



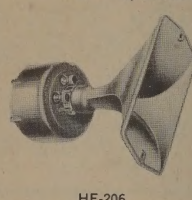
MODEL 312
12" 3-Way Diffaxial Speaker



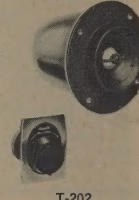
MODEL 308
8" 3-Way Diffaxial Speaker



C-15W



HF-206



T-202

University MUSTANG Series Thin-Line High Fidelity Component Speakers

The newest addition to University's line of component speakers—the Mustang Series. These completely new speakers represent the latest engineering development in the industry. As in our Series 200 models, the Mustangs are constructed using strong die-cast baskets and molded seamless cones to assure long life and adherence to original performance. Mustangs are ideal for in-wall mounting for background music systems and home high fidelity installations. For quality sound at an economical price where space is at a premium, choose a Mustang.



MUSTANG MS
Sphericon Tweeter



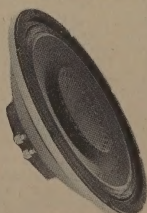
MUSTANG Model M-8
8" Dual-Cone Speaker



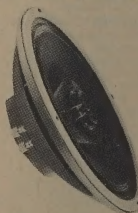
MUSTANG Model M-8D
8" 2-Way Dual-Cone Speaker



MUSTANG Model M-12
12" Dual-Cone Speaker



MUSTANG Model M-12D
12" 2-Way Dual-Cone Speaker



MUSTANG Model M-12T
12" 3-Way Wide-Range Speaker



UNIVERSITY SOUND

A DIVISION OF LTV LING ALTEC, INC.

Drivers

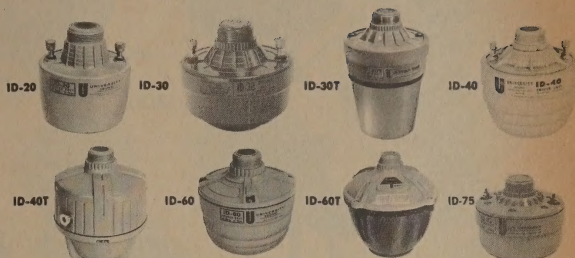
MODEL ID-20 (20 watts) For speech and music systems requiring moderate sound power. Designed to deliver maximum output, the ID-20 is highly efficient, produces a clear, penetrating and distortion-free sound.

MODEL ID-30/ID-30T (30 watts) Exceptional for installations requiring single medium power units or multiple driver/horn combinations. These high quality drivers produce musical balance and speech penetration with a performance superior to higher cost competitive models. Tropicalized voice coil, completely weatherproof. Model ID-30T has a built-in line matching transformer tapped for impedances of 167/385/-500/1000/2000/4000 ohms and 25 and 70 volt power taps at 30/20/10/5/2.5 watts.

MODEL ID-40/ID-40T (40 watts) Extended range, high quality and excellent efficiency produce an essentially uniform response and natural quality of speech and music reproduction. Moderately high power for penetrating through high ambient noise levels. Tropicalized voice coil and fully weatherproofed. Model ID-40T has a built-in line matching transformer tapped for impedances of 45/122/250/500/1000/-2000 ohms and 25 and 70 volt power taps at 40/20/10/5/2.5 watts. ID-40T housing is rugged, die-cast aluminum with dural gland nut water tight cable entrance.

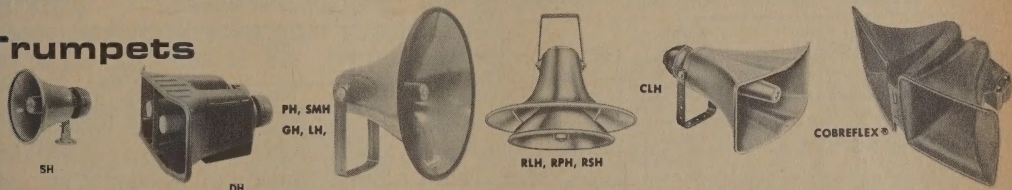
MODEL ID-50/ID-60T (60 watts) A premium high power compression driver. Wide range response, high efficiency and high quality construction for natural speech and music reproduction with maximum penetration in high noise areas. Rugged, weatherproof housing for trouble-free performance in any environmental application. Model ID-60T has high impact cyclac outer case and built-in line matching transformer tapped for impedances of 16/80/165/250/500/1000/-2000 ohms and 25 and 70 volt power taps at 60/30/20/10/5/2.5 watts.

MODEL ID-75 (75 watts) New, higher power in a compact case. Ideal for both Public Address and electronic siren applications. Peak efficiency, super power for effective penetration into exceptionally high noise areas.



DRIVER MODEL	FREQUENCY RESPONSE	POWER RATING	VOICE COIL IMPEDANCE	DIMENSIONS (Overall)	SHIP. WT.	NET PRICE
ID-20	120-6500 Hz	20 watts	16 ohms	3 1/2" dia. 3 3/4" d.	2 1/2 lbs.	15.60
ID-30	85-7500 Hz	30 watts	16 ohms	4 1/8" dia. 3 3/4" d.	3 lbs.	18.90
ID-30T	85-7500 Hz	30 watts	variable*	4 1/8" dia. 8 3/4" d.	4 lbs.	27.00
ID-40	80-12000 Hz	40 watts	16 ohms	4 1/2" dia. 4 7/8" d.	4 1/4 lbs.	23.70
ID-40T	80-12000 Hz	40 watts	variable*	5" dia. 6 1/4" d.	5 1/4 lbs.	32.40
ID-60	70-12000 Hz	60 watts	16 ohms	4-11/16" dia. 5" d.	5 3/4 lbs.	32.70
ID-60T	70-12000 Hz	60 watts	variable*	6 3/4" dia. 6 3/4" d.	6 1/2 lbs.	40.20
ID-75	150-7000 Hz	75 watts	16 ohms	4 1/4" dia. 3 3/4" d.	4 1/2 lbs.	44.70

Trumpets



DIRECTIONAL MODELS GH, LH, PH, SMH For maximum noise penetration and distance of projected sound. Reflex design for highest conversion efficiency. Fully weatherproof, baked finish.

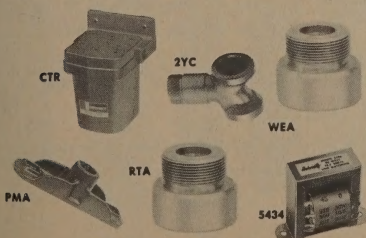
RADIAL MODELS RLH, RPH, RSH For uniform 360° overhead dispersion in high ceiling installations. Rugged construction, baked finish.

WIDE ANGLE COBREFLEX† Patented twin folded exponential horns with two air columns in a single assembly. High efficiency and smooth radiation pattern. Can be used in cluster arrays. Rugged, fully weatherproof.

WIDE ANGLE MODEL CLH† Patented design and construction. Wide angle bell and long air column for maximum low frequency response. Omnidirectional bracket for vertical and horizontal rotation to eliminate feedback and overshoot "dead spots". Can be used in cluster arrays. Rugged fiberglass horn.

HORN MODEL	LOW FREQUENCY CUT-OFF	SOUND DISTRIBUTION	AIR COLUMN LENGTH	DIMENSIONS (Overall) LENGTH	BELL	SHIP. WT.	Net Price
GH	85 Hz	65°	6 1/2 ft.	28"	31"	22 lbs.	49.50
LH	120 Hz	75°	4 1/2 ft.	19"	25 3/4"	16 1/2 lbs.	29.70
PH	150 Hz	85°	3 1/2 ft.	15 3/4"	20 3/4"	11 3/4 lbs.	23.70
SMH	200 Hz	95°	2 1/2 ft.	12"	16 1/4"	8 1/4 lbs.	20.70
RLH	120 Hz	360°	5 ft.	18 1/2"	28 9/8"	25 lbs.	38.40
RPH	140 Hz	360°	4 ft.	13 3/4"	25 1/4"	19 lbs.	31.20
RSH	180 Hz	360°	3 ft.	11"	19"	13 lbs.	29.70
COBREFLEX†	200 Hz	120°x60°	2 1/2 ft.	10 1/4"	18 1/2"x9 1/4"	10 1/4 lbs.	26.70
CLH	120 Hz	120°x60°	4 1/2 ft.	20"	21 1/2"x11 1/2"	13 1/4 lbs.	29.10
SH	350 Hz	100°	1 1/2 ft.	7"	8 3/4"	2 3/4 lbs.	20.70
DH	180 Hz	40°x60°	3 1/4 ft.	13 3/8"	20 3/8"x9 3/8"	10 3/4 lbs.	51.00
2WP	350 Hz	120° each horn	1 1/2 ft.	20 1/2"	8 1/2"	4 1/2 lbs.	20.70

Accessories



PMA ADAPTER Fits standard 1/4" dia. threaded pipe to any University "U" mounting bracket—for special applications requiring pipe mounting. Net \$2.85

RTA ADAPTER Fits University trumpets to Western Electric and RCA drivers having 1 7/16—16 threads. Shpg. wt., 1/2 lb. Net \$2.25

WEA ADAPTER Fits University drivers to Western Electric and RCA trumpets having 1 7/16—16 threads. Shpg. wt., 1/2 lb. Net \$1.80

MODEL 5433 TRANSFORMER 30 watt capacity. Use with ID-20, ID-30 or to feed a number of smaller paging speakers. Primary impedance: 45/165/200/250/500/1000

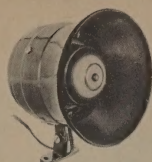
/2000 ohms. Secondary impedance: 4/8/16 ohms. 70 v. line power taps: 30/25/20/10/5/2.5 watts. Dimensions: 1 15/16" x 2 5/16" x 1 1/4". Mig. hole centers: 2 3/4". Shpg. wt., 1 lb. Net \$5.10

MODEL CTR TRANSFORMER/JUNCTION HOUSING Die cast aluminum. Weatherproof. Houses models 5433, 5434, or other transformers up to 2 3/4" x 2 3/4" x 2 3/4". Adjustable slotted adapter mounts transformers with centers 1 1/4" to 2 3/4". Junction box for speaker lines. Bar strap for mounting to "U" brackets. Screws to wall. Also holds University paging speakers. Shpg. wt., 1 1/2 lbs. Net \$5.65

2YC CONNECTOR Allows use of two driver units on a single radial, directional, or wide-angle trumpet. Shpg. wt., 1 lb. Net \$8.55



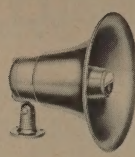
Paging/Talk-Back Speakers



DLC



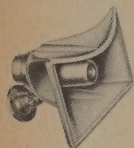
DLCT



IB-A/MIL-A



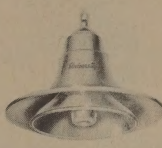
IB-T/MIL-T



CIB-A/CMIL-A



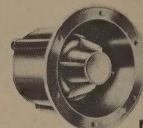
CIB-T/CMIL-T



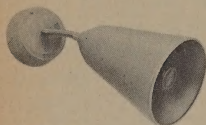
IBR-A



IBR-T



MIS



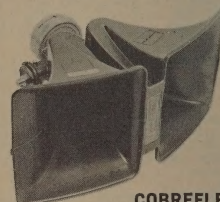
LIL-8



2WP-20



SH-30



COBREFLEX-30

MODEL	FREQUENCY RESPONSE	POWER RATING (1)	IMPEDANCE (VOICE COIL)	DISPERSION	SOUND PRESSURE LEVEL (6)	SENSITIVITY AS MICRO (7)	DIMENSIONS (8)	SHIPPING NET WEIGHT	PRICE
DLC-8	400-10,000 Hz	7½ w.	8 ohms	120°	104 db	-30 DBM	57½" dia. x 4" d. (A)	1¾ lbs.	9.80
DLC-45			45 ohms				57½" dia. x 6½" d. (A)	2¾ lbs.	10.30
DLCT	250-13,000 Hz	30 w.	8 ohms (3)	105°	126 db	-20 DBM	10¼" dia. x 9" d. (A)	4½ lbs.	21.90
IB-A8			8 ohms (2)				10¼" dia. x 11 7/16" d. (A)	5¼ lbs.	27.90
IB-T	250-13,000 Hz	30 w.	8 ohms (4)	120°x60°	126 db	-22 DBM	14" w. x 7¾" h. x 12" d. (A)	6 lbs.	27.60
CIB-A8			8 ohms (2)				14" w. x 7¾" h. x 14½" d. (P)	6¾ lbs.	33.60
CIB-T	350-13,000 Hz	10 w.	8 ohms (4)	120°	119 db	-23 DBM	7 13/16" dia. x 5 7/8" d. (A)	3¼ lbs.	17.85
MIL-A8			8 ohms (2)				7 13/16" dia. x 9 13/16" d. (A)	4 lbs.	23.85
MIL-T	350-13,000 Hz	10 w.	8 ohms (5)	120°x60°	119 db	-26 DBM	9½" w. x 6¼" h. x 8½" d. (P)	4 lbs.	20.25
CMIL-A			8 ohms (2)				9½" w. x 6¼" h. x 10 7/16" d. (P)	4¾ lbs.	26.25
CMIL-T	300-10,000 Hz	30 w.	8 ohms (5)	120°x60°	119 db	-28 DBM	13" dia. x 10¼" d. (A)	5½ lbs.	29.85
IBR-A8			8 ohms (2)				13" dia. x 12 11/16" d. (A)	6¼ lbs.	35.85
IBR-T	500-13,000 Hz	5 w.	8 ohms (4)	150°	115 db	-22 DBM	5½" o.d., 4 7/16" d. (P)	2½ lbs.	20.70
MIS-8			8 ohms (2)				6 holes on 47/8" mtg. dia.	4½ lbs.	26.85
LIL-8	300-10,000 Hz	15 w.	8 ohms	110°	123 db	-27 DBM	67/8" dia. x 15½" d. (A)	4½ lbs.	26.85
2WP-20	350-6,500 Hz	20 w.	16 ohms	120° each horn	123 db	-25 DBM	8½" dia. x 20½" d. (A)	7½ lbs.	35.85
SH-30T	350-7,500 Hz	30 w.	16 ohms (4)	100°	128 db	-22 DBM	8¾" dia. x 15¼" d. (A)	7¾ lbs.	47.10
SH-30	350-7,500 Hz	30 w.	16 ohms	100°	128 db	-22 DBM	8¾" dia. x 10¼" d. (A)	6¾ lbs.	39.00
Cobreflex-30	200-7,500 Hz	30 w.	16 ohms	120°x60°	121 db	-20 DBM	13½" x 18½" x 9¼" (A)	14 lbs.	45.00
Cobreflex-30T			16 ohms (4)				18½" x 18½" x 9¼" (A)	15 lbs.	53.10

1) Capacity in watts IPM (Music Power).

2) Also available in 4 ohm and 45 ohm impedances at 10% additional cost.

3) Voice coil impedance 8 ohms. Integral transformer terminals are labeled in wattage consumed and impedance on 70.7 and 25 volt constant voltage lines. Taps: 7.5/5/2.5/1.25/.65 watts.

4) Voice coil impedance 8 ohms. Integral transformer terminals are labeled in wattage consumed and impedance on 70.7 and 25 v. "constant voltage" lines. Wattage Taps: 30/15/10/5/2.5/1.25 w. Transformer Impedances: 167/335/500/1000/2000/4000 ohms.

5) Voice Coil impedance 8 ohms. Integral transformer terminals are labeled in wattage consumed and impedance on 70.7 and 25 v. "constant voltage" lines. Wattage Taps: 10/7.5/5/2.5/1.25/.65 Transformer Impedances: 500/667/1000/2000/4000/8000 ohms.

6) SPL reading taken 4 ft. on axis with "Full-Range" power input. Reduce by 6db each time distance is doubled. Reduce by 3db if power input is halved; increase by 3db when power input is doubled.

7) DBM re 10 dynes/cm².

8) An (A) after a dimension indicates a horn of spun aluminum with baked-on acrylic paint. A (P) after a dimension indicates a horn of color-impregnated high-impact plastic.



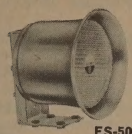
UNIVERSITY SOUND
A DIVISION OF LTV LING ALTEC, INC.



LISTEN—UNIVERSITY SOUNDS BETTER

UNIVERSITY SOUND
 A DIVISION OF LTV LING ALTEC, INC.

Special Purpose Loudspeakers



ES-50



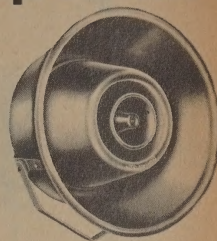
MM-2



MM-2TC



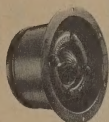
MLC



WLC



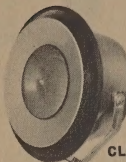
MSR



MM-2F



MM-2PPS



CLC

	Frequency Response	Power Rating (1)	Impedance (2)	Dispersion	Sound Pressure Level (3)	Dimensions	Shipping Weight	Net Price
ES-50	250-10,000 Hz	50 watts	16 ohms	120°	123 db	6 13/16" dia. x 6 7/8" d.	6 1/4 lb.	47.85
ES-75	400-7,000 Hz	75 watts	16 ohms	90°	126 db	9 1/2" h. x 8 3/4" w. x 10" l.	9 lb.	58.50
MSR	250-10,000 Hz	25 watts	16 ohms	360°	114 db	10 3/4" h. x 6 7/16" w. x 8 1/4" d.	10 1/4 lb.	51.00
MSR-T			16 ohms (4)				11 1/4 lb.	59.85
MM-2	350-10,000 Hz	25 watts	16 ohms	150°	117 db	6" dia. x 5" d.	5 1/4 lb.	33.90
MM-2F						7 1/4" dia. x 3 3/4" d.		34.50
MM-2TC	350-10,000 Hz	25 watts	16 ohms	120°	117 db	10" h. x 6 7/16" w. x 4 7/16" d.	8 3/4 lb.	52.50
MM-2TC-T			16 ohms (4)				9 3/4 lb.	59.85
MM-2PPS	100-10,000 Hz	25 watts	16 ohms			7 3/16" dia. x 3 5/8" d.	5 1/4 lb.	44.55
MLC	150-15,000 Hz	15 watts	8 ohms	120°	117 db	12 3/4" x 9 1/8" x 10 1/8" d.	10 lb.	37.50
CLC	55-14,000 Hz	30 watts	8 ohms	120°	118 db	22 3/4" dia. x 12 3/4" d.	23 lb.	59.70
WLC	50-15,000 Hz	30 watts	8 ohms	90°	120 db	33 1/2" dia. x 20" d.	68 lb.	165.00

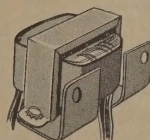
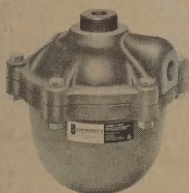
1) Capacity in watts IPM (Music Power).

2) Voice coil impedance.

3) SPL reading taken 4 ft. on axis with "Full-Range" power input. Reduce by 6db each time distance is doubled. Reduce by 3db if power input is halved; increase by 3db when power input is doubled.

4) Matching transformer primary impedances: 45/325/500/1000/2000/4000-8000 ohms.

EXPLOSION PROOF DRIVERS



5436B

7101X, 7102X, 7105X are UL approved explosion-proof drivers, for use in 100%-safe systems where flammable liquids, gases, dust, etc., are present. The 7105X is approved for use in hydrogen-air atmospheres. In compliance with Government safety regulations, these units have provisions for mounting a line-matching transformer (optional). 7101X is approved for Class I, Groups C & D. 7102X is approved for the same, plus Class II, Groups E, F & G. 7105X is approved for Class I, Groups B, C & D and Class II, Groups E, F & G. All units have 16 ohm voice coils. Frequency response is to 12,000 Hz and power capacity is 65 watts. Dimensions are 7 7/8" in dia., 7 7/8" long. Shipping weight is 14 lb.

These UNIVERSITY explosion-proof drivers may be used with any UNIVERSITY trumpet, but are most often used and recommended for use with the UNIVERSITY SOUND Models PH, SMH and Cobreflex.

* University Model 5436B 65 watt transformer kit is complete with transformer, mounting bracket and hardware for installation inside the explosion-proof driver housing.

Slim profile 3-way high fidelity speaker



8M2CT



MODEL 8M2C 3-WAY SPEAKER A slim profile multi-speaker for public address and commercial sound applications. High quality, high efficiency performance for background music. Response 50-20,000 Hz. Handles 15 watts of IPM. Model 8M2CT has built-in line matching transformer for 25 and 70 volt lines, tapped for 15/10/5/2.5/-1.25/65 watts. Only 3" deep.

MODEL 8M2CT Same as 8M2C with transformer.

Net \$12.60

Net \$14.97

UNILINE (TM) SOUND COLUMNS



CS0-6



CS0-4



CS-3



CS-2

Model	CS-2	CS-3	CS0-4	CS0-6
Speakers	6 wide-range 5"	6-4"x6" Plus 2 Tweeters	2-8" plus 2-8" Dual Cone	4-8" plus 2-8" Dual Cone
Frequency Range	175-12,000 Hz	150-10,000 Hz	70-17,000 Hz	65-14,000 Hz
Power Capacity	30 watts IPM**	25 watts IPM	75 watts IPM	120 watts IPM
Impedance	16 ohms	16 ohms	8 ohms	16 ohms
S.P.L.*	108db	92db	94db	95db
Dispersion	Vertical Horizontal	25° 165°	20° 120°	18° 120°
Dimensions	31"x5"x5 1/2"	7 1/2"x8 3/4"x47 7/8"	11 7/8"x7 3/4"x41 3/8"	11 7/8"x7 3/4"x60 1/4"
Shipping Weight	14 lb.	33 lb.	40 lb.	63 lb.
Net Price	59.70	89.70	147.90	195.00

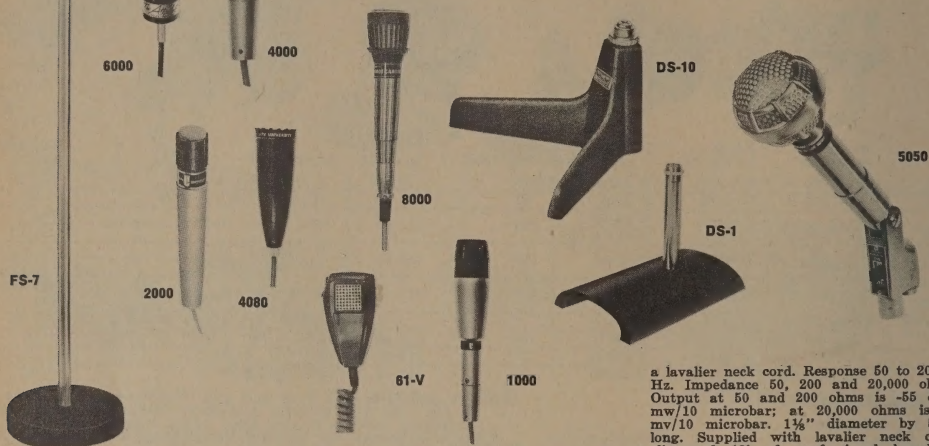
*10 ft. on axis, re .0002 dynes/cm², 1 watt at 1000 Hz



Dynamic Microphones

Broadcasting, Recording, Communications and General Purpose Models

UNIVERSITY's new series of dynamic microphones embraces every possible need in the audio field. Widely acclaimed in the industry, each UNIVERSITY microphone is designed and engineered to maintain the same exacting quality standards for which UNIVERSITY is famous the world over. Each and every UNIVERSITY microphone, from the economically priced Model 2000 to the top of the line Model 1050, is covered by UNIVERSITY's exclusive warranty to assure reliable trouble free operation for many years. To own the finest—choose UNIVERSITY!



NEW Model 5000 Shock-Mounted Super-Cardioid Dynamic New spherical shaped 5000 Series has a wide-angle pickup pattern with a precise taper characteristic that rejects all unwanted sound at the rear hemisphere of the unit. Rugged die-cast housing. For all applications—soundcasting, broadcasting, recording. 200 and 20,000 ohms. Response from 25 to 20,000 Hz. Output at 200 ohms -54 db/1 mw/10 microbar; at 20,000 ohms 13 mw/10 microbar. 2 3/16" max diameter. 9 5/8" max. length. 15' wired-in 2 cond. shielded cable and SA-10 Stand Adaptor supplied. Net \$51.60

Model 5020 Same as 5000 with detachable 15' cable and Amphenol Connector. Net \$56.95

Model 5050 Same as 5000 with swivel stand adaptor and 15' detachable cable. Net \$59.95

Model 6000 Attache' Cardioid Lavalier The 6000 is the world's smallest cardioid microphone. Its wide-range cardioid pickup pattern and inconspicuous appearance make it ideal for churches, night club, studio and remote broadcasting applications. It can be used as a lavalier, hand-held, mounted on a desk or floor stand, a boom or gooseneck fixture. Response is 50-15,000 Hz. Low Impedance 50-500 ohms. Output at 150 ohms is -57 db/1 mw/10 microbar. 1 1/8" diameter, 3 11/16" long. Supplied with lavalier neck cord, cable. Net Price \$39.95

Model 8000 Shock Mounted Cardioid Dynamic Highly directional wide angle pickup pattern. Shock mounted for on-the-move applications. Ideal for church sound systems, industrial and commercial p.a. systems and home tape recording. Response is 70-15,000 Hz. Impedance 250 and 20,000 ohms. Output at 250 ohms is -60 db/1 mw/10 microbar; at 20,000 ohms is 8.5 mw/10 microbar. 1 3/4" diameter, 6 3/4" long. Equipped with 15', 3 cond. shielded cable and Cannon XLR-4-11-C connector. Supplied with stand adaptor. Net \$34.95

Model 8100 Same as Model 8000 with switch. Net \$37.95

Model 2000 Omni-directional Dynamic For general soundcasting and recording applications. Omni-directional pickup pattern is ideal for groups and audience participation programs. Response is 50-14,000 Hz. Impedance 50 and 20,000 ohms. Output at 50 ohms is -50 db/1 mw/10 microbar; at 20,000 ohms is 28 mw/10 microbar. 15' 3 cond. shielded cable is wired-in. 1 5/32" dia., 6" long. With SA-10 Stand Adaptor. Net \$26.85

Model 2040 Same as Model 2000 with switch and detachable 15' cable. Cannon Connector. Net \$30.60

Model 2050 Same as Model 2000 with switch and swivel stand adaptor, 15' detachable cable and Cannon Connector. Net \$53.45

Model 61-V Communications Microphone For mobile communications, mobile p.a. systems and citizens band. 14" coiled (6' extended) 3 conductor cable, push-to-talk switch and panel mounting bracket. Response 95-9500 Hz. High impedance. Output at 25,000 ohms is 18 mw/10 microbar. 4" high by 2 3/4" wide by 1 3/4" deep. Net \$24.75

Model 1000 Professional Shock Mounted Cardioid Dynamic High quality for broadcast and professional recording applications. Shock mounted with a wide-angle pickup pattern that is highly directional. Broad response from 30 to 16,000 Hz. Impedance selectable—50, 200 and 20,000 ohms. Output at 50 and 200 ohms is -54 db/1 mw/10 microbar; at 20,000 ohms is 17 mw/10 microbar. 1 3/4" diameter by 8 3/4" long. Supplied with 18' 3 conductor shielded cable and Cannon connector with stand adaptor. Net \$74.70

Model 1040 Same as Model 1000 with switch. Net \$83.70

Model 1050 Same as Model 1000 with switch and swivel stand adaptor. Net \$86.55

Model 4000 Professional Omni-Directional Dynamic A premium, high quality omni-directional microphone for professional applications. May be hand-held or worn on

a lavalier neck cord. Response 50 to 20,000 Hz. Impedance 50, 200 and 20,000 ohms. Output at 50 and 200 ohms is -55 db/1 mw/10 microbar; at 20,000 ohms is 16 mw/10 microbar. 1 3/4" diameter by 5 1/4" long. Supplied with lavalier neck cord, clip and 18' of professional broadcast cable. Net \$55.95

Model 4040 Same as 4000 but not for lavalier. 6 3/4" long with switch and detachable 18' cable and stand adaptor. Net \$63.45

Model 4050 Same as Model 4040 with swivel stand adaptor. Net \$65.85

Model 4080 Professional Omni-directional Lavalier An ultra-compact version of the 4000 omni-directional dynamic microphone. May be hand held or worn on a neck cord. Lightweight, only 3 3/8" long. Response 60 to 20,000 Hz. Impedance 50 and 200 ohms. Output at 50 and 200 ohms is -55 db/1 mw/10 microbar. 1 1/4" diameter, 3 3/4" long. Supplied with lavalier neck cord, 18' shielded cable. Net \$54.90

MICROPHONE STANDS

Model DS-10 Desk Stand Heavy base sculptured stand may be used with any microphone. Standard 5/8-27 NPSM thread. 4 1/2" high x 7 7/8" wide x 4 3/4" deep. Black wrinkle finish. Net \$7.65

Model SA-10 Slide-on Stand Adaptor. Net \$2.85

Model DS-1 Desk Stand Contemporary design, slim profile desk stand with extruded aluminum base in black oxide finish. Perfectly balanced, will hold large microphones. Standard 5/8-27 thread. 6"x4"x3 3/4". Knurled locking washer. Net \$2.85

Model FS-7 Floor Stand A new concept in microphone stands. New fluted tubes are easy to adjust. Doesn't show hand marks, won't slip. Velvet action movement of upper tube, no twisting or turning. Positive lock clutch, jam-free one hand operation. Non-reflecting finish. Adjustable from 34" to 63". Black wrinkle base weighs 7 pounds and is 10" diameter. Natural satin fluted aluminum. Net \$8.95

Model FS-7B Blue Anodized. Net \$9.60

Model FS-7G Gold Anodized. Net \$9.60

Model FS-10 Floor Stand Same as Model FS-7 except for 10 pound, 12" diameter base. Natural fluted aluminum. Net \$10.75

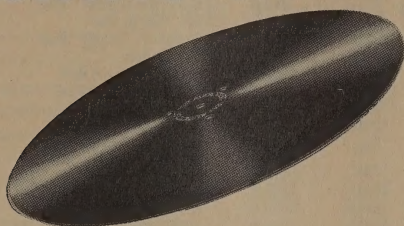
Model FS-10B Blue Anodized. Net \$11.85

Model FS-10G Gold Anodized. Net \$11.85



UNIVERSITY SOUND
A DIVISION OF LTV LING ALTEC, INC.

audiodiscs[®]



For truly fine recording and reproduction

For more than 25 years, Audiodiscs have consistently maintained their position of eminent leadership in every field of instantaneous disc recording.

A superior lacquer coating, applied to the mirror-smooth aluminum base by a patented process, gives these outstanding advantages: maximum uniformity of coating, permanent resistance to humidity, longer stylus life, freedom from audible background scratch, long playback life, brilliant frequency response, and freedom from deterioration with age.

DESCRIPTION	Size Inches	Suggested Resale	Carton Contains
RED LABEL AUDIODISCS — double face only	7*	\$1.46	25
Standard throughout the recording profession, these discs exceed the most exacting requirements for top quality and dependability. The finest discs obtainable. Aluminum base, double-sided. Embossed labels.	8	1.08	25
	10	1.39	25
	12	2.97	25
YELLOW LABEL AUDIODISCS	7*	1.33	25
The popular choice for all general purpose recording which requires high, uniform quality. Aluminum base, double-sided. Designed primarily for applications where the super quality Red Label AUDIODISCS are not required. Paper labels.	8	1.00	25
	10	1.20	25
	10**	1.90	25
	12	2.53	25
BLUE LABEL AUDIODISCS			
These discs offer the very best in recording quality at a low price for schools, homes, amateur and demonstration work. Made of the same materials as professional type AUDIODISCS — but on a thinner aluminum base. Paper labels.	6½	.51	50
	8	.76	50
	10	1.01	50
MASTER AUDIODISCS—single face only			
Where copies of recordings (pressings) are to be made by the electroplating process, these discs are the outstanding choice. Their excellence and consistent quality are well known to all record processors. Fine results with either silvering or gold sputtering. Aluminum base. Center pin and one drive pin hole. Also available with center hole only.	10	2.78	25
	12	3.16	25
	13¼	4.68	25
	14	5.00	25

*Standard 45 rpm disc with 1½" diameter center hole. Also available with conventional center hole. To specify, indicate "Small Center Hole" on orders. All Prices Subject to Change Without Notice.

**Supplied with extra heavy base.

audiopoints

The complete line of Audiopoints covers the full range of recording needs — for professional as well as general use. Audiopoints are made by skilled Craftsmen, and conveniently packaged in cards, boxes or envelopes.

RECORDING AUDIOPPOINTS



SAPPHIRE No. 14 — long recognized as the finest recording stylus made. Short or long dural shank, 87° included angle.

Suggested Resale \$5.34

SAPPHIRE No. 20 — especially designed for professional microgroove recording. Short or long dural shank. Suggested Resale \$5.34

STELLITE No. 34 — a favorite with many professional and non-professional users. Short or long shank, 87° included angle.

Suggested Resale \$1.74

Shipments: Freight will be paid anywhere in the U.S.A. on shipments of 100 lbs. or more. All other shipments are F.O.B. Stamford, Conn. or N.Y.C.

THE COMPLETE LINE OF PROFESSIONAL QUALITY audiotape

Description	Type No.	Length	Reel†	Suggested Resale
 STANDARD RECORDING on plastic base Meets the most exacting requirements of the professional, educational and home recordist at minimum cost. Known the world over for its matchless performance and consistent uniform quality. Formula 10, in the red box.	151	150 ft.	3" Plastic Reel	\$0.42
	151MB	150 ft.	3" Plastic Reel in Mailing Box	0.42
	351	300 ft.	4" Plastic Reel	0.81
	651	600 ft.	5" Plastic "C-Slot" Reel	1.35
	851	850 ft.	5¾" Plastic Reel	1.77
	1251	1200 ft.	7" Plastic "C-Slot" Reel	2.10
	2551H	2500 ft.	NARTB Hub	4.71
	2551R	2500 ft.	10½" Aluminum Reel	6.48
	‡2551FS	2500 ft.	10½" Fiberglass Reel	6.48
	5051H	5000 ft.	NARTB Hub	8.64
	5051R	5000 ft.	14" Aluminum Reel	12.81
audiotape LONGER RECORDING on 1 mil Mylar* 50% more recording time per reel. The strong, super-durable polyester film base assures trouble-free operation even under severe conditions of heat and humidity. Formula 10, in the orange box.	261	225 ft.	3" Plastic in Self-Mailer Pkg.	0.60
	961	900 ft.	5" Plastic "C-Slot" Reel	2.16
	1261	1200 ft.	5¾" Plastic Reel	2.49
	1861	1800 ft.	7" Plastic "C-Slot" Reel	3.72
	3661H	3600 ft.	NARTB Hub	6.84
	3661R	3600 ft.	10½" Aluminum Reel	8.61
	‡3661FS	3600 ft.	10½" Fiberglass Reel	8.61
	7261H	7200 ft.	NARTB Hub	14.40
	7261R	7200 ft.	14" Aluminum Reel	18.00
audiotape LONGER RECORDING on 1 mil plastic 50% more recording and playback time on low-cost 1-mil cellulose acetate base, affording maximum economy for applications where high strength is not required. Formula 10, in the blue box.	941	900 ft.	5" Plastic "C-Slot" Reel	2.10
	1241	1200 ft.	5¾" Plastic Reel	2.25
	1841	1800 ft.	7" Plastic "C-Slot" Reel	3.30
	3641H	3600 ft.	NARTB Hub	5.91
	3641R	3600 ft.	10½" Aluminum Reel	7.68
	‡3641FS	3600 ft.	10½" Fiberglass Reel	7.68
	7241H	7200 ft.	NARTB Hub	11.04
	7241R	7200 ft.	14" Aluminum Reel	15.21
audiotape DOUBLE RECORDING on ½ mil Mylar* Twice as much recording time per reel as standard plastic-base tape. Suitable for extended-play applications where tape tension is not excessive. Formula 10, in the tan box.	331	300 ft.	3" Plastic Reel	0.82
	1231	1200 ft.	5" Plastic "C-Slot" Reel	2.10
	1831	1800 ft.	5¾" Plastic Reel	3.00
	2431	2400 ft.	7" Plastic "C-Slot" Reel	3.90
audiotape DOUBLE RECORDING on "Tempered" Mylar* Twice as much recording time per reel as standard plastic-base tape, and is twice as strong as other double-length tapes. Will not stretch or break on any tape recorder—will not dry out or embrittle with age. Formula 10, in the maroon box.	331T	300 ft.	3" Plastic in Self-Mailer Pkg.	0.96
	1231T	1200 ft.	5" Plastic "C-Slot" Reel	3.27
	1831T	1800 ft.	5¾" Plastic Reel	4.05
	2431T	2400 ft.	7" Plastic "C-Slot" Reel	5.70
	4831T-R	4800 ft.	10½" Aluminum Reel	13.20
	‡4831T-FS	4800 ft.	10½" Fiberglass Reel	13.20
audiotape STANDARD RECORDING on ½ mil Mylar* A premium-quality professional tape that provides the utmost in mechanical strength and immunity to temperature and humidity. Will not dry out or embrittle with age. Formula 10, in the green box.	671	600 ft.	5" Plastic "C-Slot" Reel	1.59
	1271	1200 ft.	7" Plastic "C-Slot" Reel	2.55
	2571H	2500 ft.	NARTB Hub	4.98
	2571R	2500 ft.	10½" Aluminum Reel	6.72
	‡2571FS	2500 ft.	10½" Fiberglass Reel	6.72
	5071H	5000 ft.	NARTB Hub	9.99
	5071R	5000 ft.	14" Aluminum Reel	14.70
audiotape MASTER RECORDING on Plastic Base The finest, professional-quality recording tape. Base material 1½-mil acetate. Maximum fidelity, uniformity, frequency response and freedom from noise and distortion. . . . Plus low print-through. Formula 14, in red and gold box.	651-M	600 ft.	5" Plastic "C-Slot" Reel	1.65
	1251-M	1200 ft.	7" Plastic "C-Slot" Reel	2.58
	2551H-M	2500 ft.	NARTB Hub	5.55
	2551R-M	2500 ft.	10½" Aluminum Reel	7.32
	‡2551FS-M	2500 ft.	10½" Fiberglass Reel	7.32
	5051H-M	5000 ft.	NARTB Hub	10.17
	5051R-M	5000 ft.	14" Aluminum Reel	14.34
audiotape MASTER RECORDING on ½ mil Mylar* Super-durable tape that meets highest standards of performance. Withstands extreme temperature and is virtually immune to humidity. . . . Plus low print-through. Formula 14, in the green and gold box.	671-M	600 ft.	5" Plastic "C-Slot" Reel	1.92
	1271-M	1200 ft.	7" Plastic "C-Slot" Reel	3.06
	2571H-M	2500 ft.	NARTB Hub	6.00
	2571R-M	2500 ft.	10½" Aluminum Reel	8.10
	‡2571FS-M	2500 ft.	10½" Fiberglass Reel	8.10

† COLORED PLASTIC REELS. Audiotape on 5" and 7" reels can be supplied on colored reels at no increase in price. To designate color (Red, Yellow, Green or Blue) add "RR" and "YR", and "GR" or "BR" to Type No. E.g. — Type 1251YR covers 1200 feet of plastic-base tape on Yellow Reel.

‡ "FS" in Type No. indicates Fiberglass reel with solid hub and ¼" center hole.

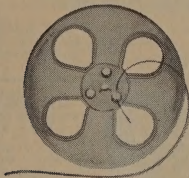
* "Mylar" is the registered DuPont trade mark for its polyester film.

SECTION 1340

Description	Type No.	Length	Reel	Sug. Resale
audiotape TRIPLE RECORDING on "Tempered" Mylar* Three times as much recording time per reel as standard-plastic-base tape, plus the same extra strength as other "Tempered" Mylar Audiotapes. Formula 11, in the olive box.	633T	600'	3¼" Plastic in Self-Mailer Pkg.	\$1.77
	1833T	1800'	5" Plastic "C-Slot" Reel	4.17
	3633T	3600'	7" Plastic "C-Slot" Reel	7.17
audiotape LOW NOISE on 1½-mil Plastic Base An excellent Low Noise tape providing high signal to noise ratio and drastically lowered hiss level without sacrificing other properties needed for critical professional recording. On 1½-mil Plastic Base, Formula 15 in the Red Box.	1257	1200'	7" Plastic "C-Slot" Reel	\$2.58
	2557H	2500'	NARTB Hub	5.55
	2557R	2500'	10½" Aluminum Reel	7.32

OTHER AUDIOTAPE ITEMS

Item	Type No.	Reel	Sug. Resale		
EMPTY AUDIOTAPE REELS IN INDIVIDUAL BOXES All Audiotape reels, the complete range of sizes and types, are available, individually packaged in standard Audio boxes. Five and seven-inch reels feature the popular C-slot design for fast, easy threading. In addition to the standard clear plastic, C-Slot reels are available in four attractive jeweltone colors, at no extra cost.	Standard Reels	3PMB	3" Plastic Reel in Mailing Box	\$0.15	
		3.25PB	3¼" Plastic Reel in Mailing Box	0.24	
		4PB	4" Plastic Reel in Box	0.33	
		5PB	5" Plastic C-Slot Reel in Box	0.39	
		7PB	7" Plastic C-Slot Reel in Box	0.45	
		10RB	10½" Aluminum Reel in Box	2.70	
		10FS	10½" Fiberglass Reel in Box	2.70	
		10H	NARTB Metal Hub	0.45	
		10S	Pr. 10½" Alum. Flanges (NAB) w. screws	2.28	
		14RB	14" Aluminum Reel in Box	5.23	
	Colored Plastic Reels	5PBR	Red	5" Plastic C-Slot Reel in Box	0.36
		5PBY	Yellow		
		5PBG	Green		
		5PBB	Blue		
		7PBR	Red	7" Plastic C-Slot Reel in Box	0.45
		7PBY	Yellow		
		7PBG	Green		
		7PBB	Blue		



* "Mylar" is the registered DuPont trade mark for its polyester film.

Audiotape Accessories

Items	Type No.	Suggested Resale	Items	Type No.	Suggested Resale
EMPTY AUDIOTAPE BOXES Standard, durably constructed, Audiotape boxes are available in all the popular sizes for filing and storing tapes.	3B	\$0.09	AUDIO HEAD CLEANER Especially formulated for use on magnetic recording heads. Contains silicone solvent for sharper sound.	2HC	\$0.60
	3MB	0.09			
	3.25B	0.09	AUDIO ADHESIVE REEL LABELS Provide positive identification of your tapes, right on the reel. Simply press to apply, pull to remove.	30AL	0.12
	4B	0.12			
	5B	0.12	AUDIO HEAD DEMAGNETIZER Removes all permanent magnetism from recording and reproducing heads in a matter of seconds.	400	6.00
	7B	0.12			
AUDIOTAPE CORRUGATED MAILING BOXES Strong, re-usable containers	5M	0.09	AUDIO HEAD ALIGNING TAPE Pre-recorded at 2,000, 10,000 and 15,000 cps (15"/sec) with precisely correct head alignment. Individually boxed, with instructions. Base material, 1½-mil Mylar.*	200	6.00
	7M	0.12			
	10M	0.18	"HOW TO MAKE GOOD TAPE RECORDINGS" — NEW STEREO EDITION Complete handbook of tape recording. Over 160 pages of interesting information of practical value to every recordist. Liberally illustrated.	15P	1.10
AUDIO SELF-TIMING LEADER TAPE A strong, durable leader tape of white Mylar* material with spaced markings to permit accurate timing of leader intervals.	3L	0.33			
	ST-0.25-66	0.35			
	ST-0.50-100	0.39			
	ST-50-66	1.05			
AUDIO SPLICING TAPE Unusually durable pressure-sensitive tape that provides a solid, noise-free splice. White thermosetting adhesive holds firmly and instantly, will not ooze to cause sticky splices. On superior-strength Mylar.*	ST-75-66	1.50			

Type EP AUDIOTAPE, extra precision magnetic recording tape for telemetering, electronic computers and other specialized applications, is also available. Ask for bulletin on EP AUDIOTAPE. AUDIOFILM on 35mm, 17½mm and 16mm base, is also available. Ask for information.



Hi Fi & Stereo ACCESSORIES

PHONO ACCESSORIES



MINIATURE EARPHONE

For private listening to radios, TV, and hi-fi. Electro-dynamic type with frequency range 50-4000 cps. Lightweight metal clip holds phone to either ear.

Cat. No. 30-154 15 ohm
Cat. No. 30-156 2000 ohm

List 2.95
List 2.95



ENGINEER'S HI-FI SERVICE TOOL KIT

Heavy duty plastic pouch contains miniature-tip soldering iron; precision tweeter neolite circuit tester; phono & recorder oil; set of jeweler's screwdrivers; Phillips screwdriver; miniature screw holding screwdriver; wire stripper and cutter and solder.

Cat. No. 30-244

List 16.50



PHONO AND RECORDER OIL

Specially compounded non-gumming oil in handy plastic drop-by-drop applicator. Contains rust inhibitor.

Cat. No. 30-250

List .65

FM INDOOR ANTENNA

Folded Dipole for local or strong locations. Comes ready to install with 6' lead wire and spade lug.

Cat. No. 30-270

List 2.10

VIBRATION PADS

Resilient pads made of foam plastic and sponge rubber. Laminations reduce rumble, minimize feedback, and protect cabinets. Four available sizes to fit wide variety of units.

Cat. No. 30-162 Size 6" x 12"
Cat. No. 30-166 Size 12" x 12"
Cat. No. 30-168 Size 13" x 16"

List .90
List 1.60
List 2.25

HI-FI DECALS

Jumbo assortment of attractive labels. Includes identification tabs for controls, cabinets, chassis parts and remote control devices.

Cat. No. 30-314

List 1.85



RECORD BRUSH

Camel hair brush clips on tone arm; sweeps grooves while record is playing. Adjustable swivel permits use with any record player.

Cat. No. 30-000

List .67



ATOMIC STAT-ELIM

Anti-static dust eliminator drains static charge by ionizing air surface of record. Contains mildly radio-active element; lightweight holder attaches to tone arm.

Cat. No. 30-002

List 3.95

STYLUS BRUSH

Automatically cleans stylus each time tone arm is moved from rest position. Self-adhesive bottom attaches to turntable; adjustable.

Cat. No. 30-004

List 1.40

ALL PURPOSE HI FI BRUSH

Gently remove harmful dust and dirt from valuable equipment with this soft nylon bristle brush with 4" handle

Cat. No. 30-005 (pack of 2)

List 1.00



RECORD SPRAY STATI-KLEER WITH SILICONE

Cleans destaticizes and lubricates in one easy operation. Just spray on and wipe off. Cleans and lubricates all plastic records. One application eliminates harmful dirt and dust in record grooves for hours and hours.

Cat. No. 30-007

List 1.80



RECOR-DE-STAT KIT

Cleaner pad and brush. Velvet pad applicator fibers reach bottom of record grooves. Anti-static detergent cleans records; leaves dust-repelling film.

Cat. No. 30-010

List 2.00



DUST OFF

Record cleaner and static eliminator. Applies cleaning fluid, brushes dirt from grooves, picks up loosened dirt, eliminates static charge while record is playing.

Cat. No. 30-013 Player model

List 4.95

Cat. No. 30-016 Fluid refill

List 1.95

Cat. No. 30-018 Plush pad replace

List 1.40



45 RPM RECORD ADAPTOR

Plastic adaptor slips over standard spindle to play any 45 RPM disc.

Cat. No. 30-034

List .25



DISK-O-KLEEN

Silicone treated record cleaning cloth eliminates static charge; has extra length nap to reach bottom of grooves.

Cat. No. 30-022

List 1.40



KLEEN-O-RECORD

Anti-static record cleaning cloth, silicone impregnated, cleans, lubricates and destaticizes records.

Cat. No. 30-024

List .75



RECORD SAVERS

Heavy duty polyethylene envelopes protect records when not in use. Pkg. of 15.

Cat. No. 30-060 Pack of 6, 10"

List .49

Cat. No. 30-062 Pack of 5, 12"

List .55

Cat. No. 30-064 Pack of 15, 12"

List 1.00



45 RPM RECORD INSERTS

Plastic snap-in inserts adapt large hole 7" records for play on 3 speed ch-ch-gers. Spring-like construction holds insert firmly in place.

Cat. No. 30-030 Pkg. of 5

List .25

Cat. No. 30-031 Pkg. of 10

List .50



TURNTABLE RECORD CUSHIONS

Thick plastic sponge cushions eliminate record slip, reduce magnetic pull, prolong record life.

Cat. No. 30-040 10"

List 1.00

Cat. No. 30-042 12"

List 1.25



TURNTABLE RUBBER MAT KIT

Heavy rubber mat fits any 12" turntable. Has tapered ridges 7", 10", and 12" in diameter. Supports any 50 c record by its blank outside rim, keeping grooves from touching. Strobe disc and 45 RPM adaptor included.

Cat. No. 30-044

List 5.25



TONE ARM LIFT

Provides precise control of tone arm. Made of spring metal, plastic coated; attaches to tone arm.

Cat. No. 30-066

List .35



RECORD TONE ARM LIFT AND BRUSH KIT

Kit fits all tone arms. Fine camels hair brush cleans records as they play. Tone arm lift is the only sure way to lift or place arm on records.

Cat. No. 30-068

List 1.00



45 RPM RECORD REPEATERS

Automatically plays favorite records again. One disc placed on top of records will use record to play twice; 2 discs - 3 times.

Cat. No. 30-036 (pack of 6)

List .97



PHONO ACCESSORY KIT

Complete phono and record care kit contains record brush, recor-de-stat, 12" record savers, tone arm lift, stylus microscope, stylus weight gauge, strobe disc, and phono and recorder oil.

Cat. No. 30-098

List 9.95



AUDIOTESTER TEST RECORD

12" plastic LP has stereo tests on Side 1; mono on Side 2. Side 1: metronome balance, pickup alignment, channel separation, frequency response. RIAA equalization, turntable rumble. Side 2: stylus wear, frequency response, RIAA equalization, IM distortion, turntable rumble, tone arm resonance.

Cat. No. 30-200

List 4.98



RECORD STYLUS MICROSCOPE

Economy model for examination of stylus condition. Ample magnification - for occasional or limited usage.

Cat. No. 30-216

List 1.25



STYLUS MICROSCOPE

Optical instrument for checking stylus wear. Has adjustable focus and magnifying power of 50. Complete with pen-type pocket clip.

Cat. No. 30-218

List 2.50



UHF GOLD LOOP ANTENNA

An attractive antenna for indoor use in primary signal areas. Plastic base; gold color antenna. Complete with wire leads.

Cat. No. 30-310

List 2.66



UHF GOLDEN HALO ANTENNA

Decorator styled indoor TV Antenna. Plastic base; gold color antenna. May be orientated for best reception. Complete with wire leads.

Cat. No. 30-312

List 2.66



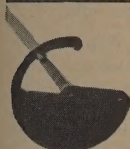
Hi Fi & Stereo ACCESSORIES

PHONO ACCESSORIES



TAPE PHONO NON SLIP COMPOUND

Applied to phono/tape drive wheels and belts, this chemical prevents slippage, insures uniform speeds. With brush applicator in cap. Cat. No. 30-121.....List **1.00**



STYLUS WEIGHT GAUGE

Accurately gauges correct stylus pressure. Cat. No. 30-220.....List **2.80**



DECI-GRAM STYLUS PRESSURE GAUGE

1 to 10 gram pressure gauge measures stylus pressure within 1/2 gram. DECI-GRAM is built to close tolerances for years of service. Cat. No. 30-222.....List **1.03**



PHONO LEVEL KIT

Includes bubble-type phono level and four adjustable feet for balancing of any phonograph or turntable. Cat. No. 30-226.....List **3.25**



PHONO LEVEL

Bubble-type gauge for precise measurement of phonograph level. Accurate to better than 1 degree. Cat. No. 30-224.....List **2.50**



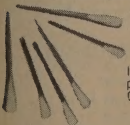
STROBE DISC

New design shows not only correct speed but also 2% and 4% deviations. Cat. No. 30-228 Cardboard.....List **.55**
Cat. No. 30-230 Plastic.....List **1.65**



TAPE HEAD PRESSURE PADS

May be cut to desired size. Package contains 4 pads; 2-1/4" x 3-1/16", in both 1/16" and 3/32" thickness. Cat. No. 30-119.....List **.99**



CLEAN STIKS

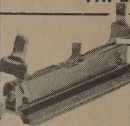
Ideal for cleaning/lubricating hard-to-reach places. Cotton tipped - package of 100. Cat. No. 30-127.....List **.98**



TAPE CLEANING CLOTH

Impregnated with anti-static agent - repels dust. Silicone in cloth lubricates tape to reduce abrasive friction. Cat. No. 30-026.....List **1.00**

TAPE ACCESSORIES



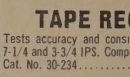
TAPE SPLICER EZE SPLICE MODEL

For fixing broken tape and editing. Provides easy-to-repair mitre cut. Cat. No. 30-100.....List **2.75**



TAPE SPLICER STANDARD MODEL

Easy to use, precise cutter/splicer with pair of curved cutting blades. Leaves tape edges free of adhesive. For use with any 1/4" tape. Cat. No. 30-104.....List **7.95**



TAPE RECORDER STROBE

Tests accuracy and consistency of recorder speed. Tests speed of 7-1/4 and 3-3/4 IPS. Compact, easy to use. Instructions included. Cat. No. 30-234.....List **5.95**



TAPERASER

Removes all traces of signal and noise from audio tapes and 16 or 35 mm magnetic sound film. Powerful erase action (to -52 db) lowers residual noise level below that of some virgin tape. Erases tape on reels up to 10 1/2" diameter. Cat. No. 30-114.....List **33.00**



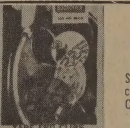
LANGUAGE LAB ACCESSORY AND SERVICE KIT

Includes tape and record labels, splicing tape, tape threading leader, Hi-Fi service tool kit, tape strobe, head cleaner, head lubricant, kleen-tape, head demagnetizer, and a standard model tape splicer. Cat. No. 30-099.....List **54.95**



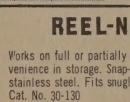
HEAD-DEMAG TAPE HEAD DEMAGNETIZER

Safely removes all trace of magnetism from recording heads. Curved, flat tip is plastic-covered. Reaches most heads with cover left on - on-off switch eliminates unplugging when device is not in use. Cat. No. 30-112.....List **12.10**



TAPE END CLIPS

Stops straying tape ends. Reusable plastic clip, works with any reel. Cat. No. 30-116 Pkg. of 18.....List **.60**



REEL-NEAT TAPE CLIPS

Works on full or partially full reels. Keep tape neatly wound for convenience in storage. Snap-on clips, fit any reel. Made of non-magnetic stainless steel. Fits snugly on wheel. Package of 5. Cat. No. 30-130.....List **1.25**



TAPE AND RECORD LABELS

36 pressure-sensitive 1/2" x 2" labels provide handy index to the music library. Space for title, date, and number. Cat. No. 30-118.....List **.45**



TAPE CUEING LABELS

Color coded pressure-sensitive numbered tabs for marking selections anywhere on a tape. Package contains five sheets, six tabs to a sheet, and includes identification labels for the reel or box. Cat. No. 30-120.....List **1.65**



TAPE THREADING LEADER

Can be written on for quick identification. 100' spool of durable, 1/4" tape for splicing and preventing wear on tape ends. Brightly colored for easy recognition. Cat. No. 30-134.....List **1.25**

DELUXE

TAPE SPLICER



With built in splicing tape dispenser. Cuts and splices tape automatically. Holds any size splicing tape. Cat. No. 30-106.....List **8.95**

KLEEN-TAPE

30' of specially impregnated cloth tape on 3" reel for cleaning tape heads. "Plays" through any standard tape recorder in less than 2 minutes. Pat. No. 3008852. Cat. No. 30-126.....List **2.21**



SPLICING TAPE

For use with any tape splicer. Special cold setting, non-flowing adhesive on Mylar® base. Available in 3 widths on 100' spools.

Cat. No. 30-110 1/2" tape.....List **.50**
Cat. No. 30-111 3/4" tape.....List **.75**
Cat. No. 30-113 3/8" tape.....List **.45**

*TM of DuPont



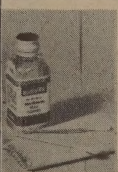
TAPE RECORDER CARE KIT

Includes tape splicer, splicing tape, head cleaner and lubricant, reel holders, end clips, cleaning brush and swabs, cleaning cloth, tape cueing and indexing labels. Plastic container. Cat. No. 30-125.....List **14.95**



TAPE HEAD CLEANER SPRAY

Simply spray tape heads - wipe dry. Remove harmful dust, dirt, grease. Will not harm finished surfaces. 6 oz. can. Cat. No. 30-128.....List **2.95**



TAPE CARE KIT JR.

Contains 2 oz. bottle of recorder head cleaner, cotton swabs and cleaning cloth. Leaves a light protective film on tape head. Cat. No. 30-129.....List **1.60**



TAPE HEAD CLEANER AND LUBRICANT

For cleaning and lubricating tape heads. Removes harmful dirt and grease. Lubricant contains silicone. Stops tape squeal, reduces friction. Tapes last longer, give better fidelity. Cat. No. 30-124-1 2 oz. cleaner.....List **1.00**
Cat. No. 30-124-2 2 oz. lubricant.....List **1.00**

BURGESS

SECTION 1340

MAGNETIC RECORDING TAPE

by the makers of BURGESS BATTERIES

40 years of successful developments in acoustics, coatings and coating processes, and solid state physics have enabled Burgess engineers to produce a superlative magnetic tape characterized by these quality features . . .



- SUPERB FREQUENCY RESPONSES
- LOW NOISE LEVEL • HIGH SENSITIVITY
- UNIFORM, TROUBLE-FREE PERFORMANCE ASSURED BY BURGESS QUALITY CONTROL

BURGESS NUMBER	TAPE LENGTH	REEL SIZE	†SUGG. DEALER PRICE	LIST PRICE	DESCRIPTION
111-1.5	150'	3"	\$.42	\$.70	SERIES NO. 111 1.5 mil ¼" ALL-PURPOSE PLASTIC 1.5 mil cellulose acetate for all general recording needs. Recognized throughout the recording industry as perfect for flawless recordings at minimum cost. The popular standard series tape.
111-2.5	250'	3¼"	.75	1.25	
111-3	300'	4"	.81	1.35	
**111-6	600'	5"	1.35	2.25	
**111-8.5	850'	5¾"	1.71	2.85	
**111-12	1200'	7"	2.10	3.50	
111-24R	2400'	10½" M	6.54	10.90	
111-24H	2400'	10½"	5.10	8.50	
111-24RPS	2400'	10½"	6.15	10.90	
111-25HPB	2500'	10½"	4.41	7.35	
111-48R	4800'	14"	13.26	22.10	SERIES NO. 111 1.5 mil ½"
111-48H	4800'	14"	10.20	17.00	
111-50HPB	5000'	14"	8.91	14.85	
1/2-111-24R	2400'	10½"	12.30	19.40	
1/2-111-24H	2400'	10½"	10.75	16.96	
190-2.25	225'	3"	.54	.90	
190-9	900'	5"	2.10	3.50	
190-12	1200'	5¾"	2.55	4.25	
190-15	1500'	7"	2.70	4.50	
190-18	1800'	7"	3.30	5.50	
190-36R	3600'	10½" M	7.71	12.85	SERIES NO. 190 1.0 mil ¼" EXTRA-PLAY PLASTIC 1.0 mil cellulose acetate for maximum economy. Superb reproduction with full frequency response and 50% more recording time.
190-36H	3600'	10½"	6.00	10.00	
190-37.5HPB	3750'	10½"	5.97	9.95	
190-72R	7200'	14"	15.60	26.00	
190-72H	7200'	14"	12.00	20.00	
190-75HPB	7500'	14"	11.97	19.95	
1/2-190-36R	3600'	10½"	15.44	25.74	
**102-6	600'	5"	1.59	2.65	
**102-8.5	850'	5¾"	2.55	4.25	
**102-12	1200'	7"	2.55	4.25	
**102-24R	2400'	10½" M	6.72	11.20	SERIES NO. 102 1.5 mil ¼" ALL-PURPOSE MYLAR* 1.5 mil mylar* for super toughness, flawless performance under all conditions. Immune to heat or humidity, will not dry out or become brittle.
**102-24H	2400'	10½"	5.28	8.80	
**102-24RPS	2400'	10½"	6.73	11.20	
**102-25HPB	2500'	10½"	4.98	8.30	
**102-48R	4800'	14"	14.70	24.50	
**102-48H	4800'	14"	11.10	18.50	
**102-50HPB	5000'	14"	9.98	16.65	
1/2-102-24R	2400'	10½"	13.45	22.42	
1/2-102-24R	2400'	10½"	13.45	22.42	
1/2-102-24R	2400'	10½"	13.45	22.42	

† Price each in quantities of 12 or more reels.

Letter "R" designates tape on NAB Reel with 3" center hole, letter "H" designates tape on metal hub.

BURGESS NUMBER	TAPE LENGTH	REEL SIZE	†SUGG. DEALER PRICE	LIST PRICE	DESCRIPTION
150-2.25	225'	3"	\$.60	\$1.00	SERIES NO. 150 1.0 mil ¼" EXTRA-PLAY POLYESTER MYLAR* 1.0 mil polyester mylar* for trouble-free operation in all weather. Performs brilliantly, unaffected by heat or humidity. 50% more recording time per reel.
150-3.75	375'	3¼"	1.05	1.75	
150-9	900'	5"	2.16	3.60	
150-12	1200'	5¾"	2.79	4.65	
150-15	1500'	7"	3.10	5.15	
150-18	1800'	7"	3.72	6.20	
150-36R	3600'	10½" M	8.84	14.40	
150-36H	3600'	10½"	7.20	12.00	
150-36RPS	3600'	10½"	8.84	14.40	
150-37.5HPB	3750'	10½"	7.20	12.00	
150-72R	7200'	14"	18.00	30.00	SERIES NO. 150 1.0 mil ½"
150-72H	7200'	14"	14.40	24.00	
150-75HPB	7500'	14"	14.40	24.00	
½-150-36R	3600'	10½"	17.28	28.80	
200-3	300'	3"	.96	1.60	SERIES NO. 200 & 290 .5 mil ¼" DOUBLE LENGTH TENSILIZED POLYESTER MYLAR* .5 mil double length tensilized polyester mylar* gives double the recording time of conventional tape. Twice the strength of conventional thin tape. Ideal for use under adverse conditions. Won't stretch or become brittle.
200-6	600'	4"	1.83	3.05	
200-12	1200'	5"	3.27	5.45	
200-17	1700'	5¾"	4.24	7.05	
200-24	2400'	7"	5.70	9.50	
200-48R	4800'	10½"	13.20	22.00	
200-48H	4800'	10½"	11.70	19.50	
200-48RPS	4800'	10½"	13.20	22.00	
290-6	600'	3¼"	1.50	2.50	
290-36	3600'	7"	7.17	11.93	
131-12	1200'	7"	2.64	4.40	SERIES NO. 131 1.5 mil ¼" LOW PRINT THROUGH PRO- FSSIONAL QUALITY PLASTIC 1.5 mil cellulose acetate. Provides absolute minimum layer-to-layer signal transfer.
131-24R	2400'	10½"	7.44	12.40	
131-24H	2400'	10½"	6.00	10.00	
131-48R	4800'	14"	15.60	26.00	
131-48H	4800'	14"	12.00	20.00	
½-131-24R	2400'	10½"	15.00	25.00	
SERIES NO. 138 1.5 mil ¼" LOW PRINT THROUGH PRO- FSSIONAL QUALITY ALL-PURPOSE MYLAR* 1.5 mil mylar* insures good strength and storage characteristics. Provides absolute minimum layer-to-layer signal transfer.					
138-12	1200'	7"	3.06	5.10	SERIES NO. 138 1.5 mil ½"
138-24R	2400'	10½"	8.10	13.50	
138-24H	2400'	10½"	6.66	11.10	
138-48R	4800'	14"	20.40	34.00	
138-48H	4800'	14"	16.80	28.00	
½-138-24R	2400'	10½"	17.28	28.80	
SERIES NO. 175 1.5 mil ¼" ALL-PURPOSE MYLAR* More tear resistant than acetate. For heavy duty recording applications.					
175-6M	600'	5"	1.44	2.40	SERIES NO. 175 1.5 mil ½"
175-12M	1200'	7"	2.25	3.75	
"HPB" designates tape on plastic hub, bulk packaged. "RPS" designates plastic reel with ¾" EIA center hole.					

ACCESSORIES

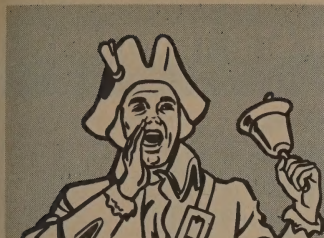
BURGESS NUMBER	SIZE	†SUGG. DEALER PRICE	LIST PRICE	DESCRIPTION
LT-15 White	150' L ¼" W (White tape)	\$.66	\$1.10	Mylar* Leader Tape
LT-15 Red	150' L ¼" W (Red tape)	.66	1.10	
LT-15 Blue	150' L ¼" W (Blue tape)	.66	1.10	
LT-15 Green	150' L ¼" W (Green tape)	.66	1.10	
LT-15 Yellow	150' L ¼" W (Yellow tape)	.66	1.10	
LT-15M	150' L ¼" W	.66	1.10	Metalized Mylar* Leader Tape
ST-5	150' L ½" W	.28	.39	Splicing Tape
RB-3	Clear Plastic 3" Reel	.15	.25	Empty Reel, Boxed
RB-3¼	Clear Plastic 3¼" Reel	.27	.45	Empty Reel, Boxed
RB-4	Clear Plastic 4" Reel	.33	.55	Empty Reel, Boxed
**RB-5	Clear Plastic 5" Reel	.39	.65	Empty Reel, Boxed
RB-5¼	Clear Plastic 5¼" Reel	.45	.75	Empty Reel, Boxed
**RB-7	Clear Plastic 7" Reel	.45	.75	Empty Reel, Boxed
RB-10.5RPS	Clear Plastic 10½" Reel with EIA hub	2.70	4.50	Empty Reel, Boxed
RB-14M	Metal 14" Reel	5.22	8.70	Empty Reel, Boxed

BURGESS NUMBER	SIZE	†SUGG. DEALER PRICE	LIST PRICE	DESCRIPTION
B-3	For 3" Reel	\$.09	\$.15	Empty Box
B-3¼	For 3¼" Reel	.09	.15	Empty Box
B-4	For 4" Reel	.12	.20	Empty Box
B-5	For 5" Reel	.12	.20	Empty Box
B-5¼	For 5¼" Reel	.12	.20	Empty Box
B-7	For 7" Reel	.12	.20	Empty Box
B-10½	For 10½" Reel	.45	.75	Empty Box
B-14	For 14" Reel	.60	1.00	Empty Box
MB-4	For 4" Reel & Box	.09	.15	Corrugated Mailing Carton
MB-5	For 5" Reel & Box	.09	.15	Corrugated Mailing Carton
MB-7	For 7" Reel & Box	.12	.20	Corrugated Mailing Carton

† Price each in quantities of 12 or more accessories.

** Also available in colored reels Red, Blue, Green, Yellow or Violet.

* Trade Mark of DuPont



Cousino

AUDIO ANNOUNCERS

MAGNETIC TAPE CARTRIDGE MESSAGE REPEATERS

The Audio Announcer message repeater uses the Echo-Matic II continuous loop, automatic threading, magnetic tape cartridges. It starts "on demand" when activated by a remote push button or any of several other types of activation accessories. It turns off automatically at end of message and then is ready to repeat when activated again. Switch provides option of start-stop as above, or continuous repetitive replay of tape cartridge. All except the Repeater R-7320 model have built in amplifier and speaker. All models have jack for remote speaker or larger amplifier. All units are completely transistorized. This means "instant on" with no warmup required. Recording models come with lid and 40 second cartridge. Weight 9 pounds, size 6" x 6" x 9" long.

SR-7341 SYNCHRO REPEATER—Provides synchronized audio with visual presentation when coupled with most filmstrip or slide projectors normally activated by a remote push-button. Will record and play back both audio and an inaudible tone to activate the projector. Less microphone \$229.95.

S56-AR 7328 PLAYBACK ONLY—Same as SR-7341 except that it provides playback only. This unit does not have audio or tone recording facilities. \$199.95.

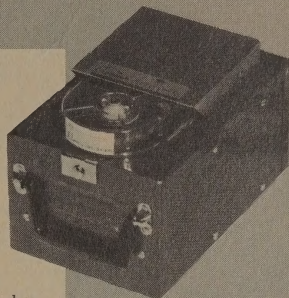
RR-7331 RECORDER REPEATER—Will record and playback on pre-loaded Echo-matic II tape cartridges. Less microphone \$169.95.

AR-7328 AUDIO REPEATER—Same as

RR-7331 except that it provides playback only. \$124.95.

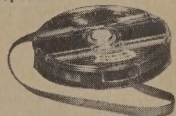
R-7320 REPEATER—Low cost, pre-amplified model without speaker—provides audio source for quiet commentary fed to phone handsets. Can also be used with auxiliary amplifier and speaker set up such as a public address system. \$99.95.

CRR-7332 AMERICAN SALES CASTER—Provides spot selling messages at timed intervals when coupled with background music and public address systems. Has built in timer and muting switch to mute music during spot announcements. Records and plays back on pre-loaded Echo-Matic II tape cartridges. With microphone \$279.95.



COUSINO AUDIO VENDOR

Continuous Loop Repeating Magnetic Tape Magazine ... Makes a standard tape recorder into a message repeater.



The Audio Vendor will fit most standard tape recorders. All units are factory loaded with the Cousino Friction Free, single oxide lubricated tape. Audio Vendors are available in playing times of 3, 5, 8, 12 and 15 minutes at 3 3/4 inches per second. All units may be played at 1 1/2, 3 3/4 or 7 1/2 inches per second. When ordering, specify (c) for clockwise OR (cc) for counter-clockwise operation, and the playing time required.

(U-1510 models are 2 3/8" dia.)
U-1510C-3 or U-1510CC-3
3 Minutes—\$3.95
U-1510C-5 or U-1510CC-5
5 Minutes—\$4.75

(U-1310 models are 3 3/8" dia.)
U-1310C-8 or U-1310CC-8
8 Minutes—\$7.15
U-1310C-12 or U-1310CC-12
12 Minutes—\$8.00
U-1310C-15 or U-1310CC-15
15 Minutes—\$8.95
U-1310C-18 or U-1310CC-18
18 Minutes—\$9.75

(U-1110 models are 5 7/16" dia.)
U-1110C-30 or U-1110CC-30
30 Minutes—\$12.95
U-1110C-40 or U-1110CC-40
40 Minutes—\$16.95

READY MOUNT SPINDLE

An accessory for recorders with spindle obstructions or a driven feed spindle. \$1.50.

ACCESSORIES

ECHO-MATIC II TAPE CARTRIDGES

Echo-Matic II Cartridges are loaded with Cousino Friction Free Tape and available in variable playing times up to 40 minutes at 3 3/4 inches of tape per second.

1410- 3 — 3 Minutes	\$3.25
1410- 6 — 6 Minutes	3.75
1410-10 — 10 Minutes	4.25
1410-12 — 12 Minutes	4.60
1410-15 — 15 Minutes	4.95
1430-30 — 30 Minutes	5.95
1430-40 — 40 Minutes	7.95
1410-MT empty, 15 Minutes capacity.....	2.00
1430-MT empty, 40 Minutes capacity.....	3.00

FF-510 COUSINO FRICTION FREE TAPE
Available in 450', 900' and 1800' reels. Friction Free Tape is the only tape to work successfully in Echo-Matic tape cartridges.

FF-510-4.5—450' Reel	\$ 3.75
FF-510-9—900' Reel	6.15
FF-510-18—1800' Reel	11.25

K-6-U-Tape-It Kit
Tape Cartridge Loading Kit. Reel of Friction-Free magnetic tape, tape loading disc, empty 1430-MT Echo-Matic Cartridge, tape splicing kit and instructions. \$11.95.

M-4312—Microphone. This matched, low impedance dynamic microphone is recommended as an accessory for recording models. \$17.95.

PC-4541—Remote Start Switch. Push button type. May be hand held or built into the display to activate all Audio Announcer models. \$4.50.

MS-4547—Footmat Start Switch. Starts all Audio Announcer models when stepped-on. \$22.50.

DS-4516—Driveway Start Switch. Designed to automatically start all Audio Announcer models when a car drives over the driveway hose. \$26.00.

CS-4548—Capacity Touch Switch. Novel activating switch for touch starting through windows, table tops, display boards, etc. \$26.00.

AS-4549—Heavy Duty Animation Power Switch. Increases standard 75 watt animation power output on machines to 1000 watts. Turns "on" and "off" slide projectors and illuminating display "on demand" from audio announcers. \$30.65.

RT-4515—Restart Timer. Will automatically start all Audio Announcer models at preset intervals (maximum time interval of 8-minutes and 20-seconds). \$29.00.

THS-4601 Telephone Handset w/cradle, black.....\$22.50

THSC-4602 Telephone Handset w/cradle, color.....27.50

JB-4603 Multi-Input Telephone.....15.75

Junction Box, 3 phones.....3.00

CT-4551 Carousel Trigger Cord.....5.25

FT-4553 Sawyer Trigger Cord, Rotomatic.....4.00

FT-4556 Bell & Howell Trigger Cord.....4.00

FT-4555 DuKane Trigger Cord.....4.00

TS-4559 Tone Shut-off Adapter Cord.....3.00

for SR-7341

SL-6278 Standard Metal Lid.....3.00

for R and AR Audio Announcer

COUSINO PRODUCTS
OF ORTRONICS INC.

WORLD'S FINEST *Garrard*® AUTOMATIC TURNTABLES



LAB 80
Mk II

Automatic Transcription Turntable, \$99.50. The Lab 80 Mk II is the automatic transcription turntable brought to perfection. It is Garrard's definitive Lab 80, subtly, but magnificently refined in appearance and engineering. Two speeds: 33 $\frac{1}{3}$ -45 RPM.

- Dynamically balanced, counterweight-adjusted tone arm, built of Afrormosia wood for light weight, low resonance
- NEW anti-skating control with $\frac{1}{2}$ gram markings and window to facilitate accurate setting
- Calibrated stylus pressure gauge with $\frac{1}{4}$ gram precision click adjustments for accurate audible/visible settings
- Built-in hydraulic cueing control eliminates accidental damage to records or stylus through manual handling
- Low-mass cutaway shell with NEW cueing pointer and extended finger lift
- NEW control center with fluted tab operating

- levers
- NEW automatic play of single record. Press auto tab, tone arm comes over and plays record; returns to rest at record's end
- Full 12" anti-magnetic turntable, heavy and dynamically balanced for perfect speed
- NEW anti-static mat featuring deep rings at 12", 10" and 7" positions to protect the stylus against accidental damage during automatic play
- Two spindles: one for manual play, the other for automatic operations. Handles 8 records fully automatically when desired
- NEW repeat adaptor fits over automatic spindle, replays records as often as desired, doubles as 45 rpm single spindle
- Exclusive, super-sensitive magnetic trip with Dupont Delrin® to offset friction
- Silent Laboratory Series® 4-pole shaded motor with vibration proof total isolation suspension.



60
Mk II

4-speed Automatic Turntable, \$74.50. Developed from the "best buy" AT60, its superior engineering features have been refined to assure excellent reproduction with the latest ultra-sensitive cartridges.

- Tubular, dynamically balanced counterweight-adjusted tone arm
- NEW resiliently mounted counter-balanced weight
- NEW built-in stylus pressure adjustment assembly with precision knurled optical instrument type dial for smooth, highly accurate settings

- NEW manual cueing and pause control permits placing tone arm on record in any position by use of cueing lever
- NEW automatic anti-skating control
- Lightweight cutaway shell with new cueing pointer and finger lift
- NEW turntable mat with large trim ring over heavy, cast, balanced oversized turntable
- Two interchangeable spindles: short for manual play, center drop for intermix automatic operation when desired
- Super-sensitive trip with Dupont Delrin®
- Double shielded Laboratory Series® motor.



50
Mk II

Automatic Turntable, \$54.50. An exciting new automatic turntable model, designed to establish the highest performance standards in its class. Styling is exceptional, trim, functional, and extremely handsome.

- NEW lightweight tubular tone arm with fixed position counterweight
- NEW manual cueing and pause control permits placing tone arm on record in any position by use of cueing lever
- NEW built-in

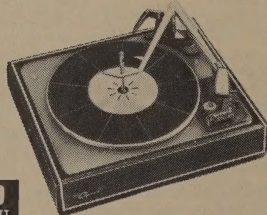
- stylus pressure adjustment with gram markings
- NEW lightweight plug-in shell with cueing pointer
- Oversized turntable with distinctive mat and trim ring
- Two spindles: short for playing single records, center-drop spindle for intermix automatic play when desired
- 4-pole shaded "Induction Surge" motor with dynamically balanced, shielded rotor
- Super-sensitive trip with Dupont Delrin® offsets friction
- Ultra-compact size.



70
Mk II

4-speed Automatic Turntable, \$84.50.

- Garrard's exclusive pusher platform record changing principle for gentleness and reliability in automatic play
- Dynamically balanced, flat silhouette, counterweight-adjusted tone arm
- Low mass, cutaway slide-in shell
- Needle pivots set in miniaturized ball bearings
- Calibrated stylus pressure gauge with precision $\frac{1}{4}$ gram click adjustments
- Adjustable anti-skating control
- Exclusive full-size, heavy, balanced cast "sandwich" turntable
- Double shielded Laboratory Series® 4-pole shaded motor
- Super-sensitive trip with Dupont Delrin®
- Two interchangeable spindles: short for single play, long one-piece spindle for automatic when desired.



40
Mk II

4-speed Automatic Turntable, \$44.50. Built to full Garrard standards, the 40 Mk II 4-speed unit is an exceptionally compact automatic turntable at the price of an ordinary record changer. It was designed to introduce new concepts of performance and versatility where space must be considered.

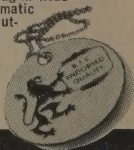
- Cast aluminum fixed counterweighted tone arm
- Simple, accessible stylus pressure adjustment
- Lightweight cutaway shell with extended finger lift
- Oversized turntable with decorative mat
- Two spindles: short for manual, center drop for intermix automatic play when desired
- Ultra-compact size—fits easily into any record changer space.



SP20

4-speed Manual Record Playing Unit, \$37.50. An excellent 4-speed manual record playing unit with high fidelity features. It is a compact, efficient player, recommended for basic stereo music systems and quality audio-visual applications.

- Semi-counterbalanced arm with adjustable stylus pressure... tracks as light as 2 grams
- Interchangeable plug-in head takes any cartridge
- Automatic return of arm to rest and shut-off after play
- Full size weighted turntable
- Dupont Delrin® trip
- Garrard-built motor
- Compact size.

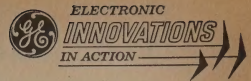


ACCESSORIES: Coordinated bases, dust covers, mounting boards, carrying cases, automatic "45" spindles.

GARRARD, DIV. BRITISH INDUSTRIES CORP.



AUDIO COMPONENTS CARTRIDGES



	Cat. No.	Stylus Radius (Inches)	Applica- tion	Repl't Stylus	Resistance	Freq. Resp. (Cy/Sec)	Output	Price Each†
	VR-1000-3	Elliptical Diamond	Stereo	DR-3D	1100 ohms per channel nominal	20-20,000 ±3 db	1 mv per cm/sec min	\$34.95
	VR-1000-5	.0005 Diamond	Stereo	DR-5D				29.95
	VR-1000-7	.0005 Diamond	Stereo	DR-7D				24.95
	4G-052	.001 Diam and .003 Saph*	Mono	4G-01D 4G-02D 4G-03D 4G-01S 4G-02S 4G-03S	600 ohms nominal	20-20,000	10 mv at 5.5 cm/sec @ 1,000 cycles	16.95
	4G-053	.001 Diam and .003 Diam	Mono					19.95
	4G-061	.001 Diamond	Mono					13.95
	4G-063	.003 Diamond	Mono					13.95
	4G-050	.001 Saph* and .003 Saph*	Mono					12.95
	4G-040	.003 Sapphire*	Mono					9.95
	4G-041	.001 Sapphire*	Mono					9.95
	4GS-01D	.001 Diamond	Mono					13.95
	4GS-02D	.0025 Diamond	Mono					13.95
	4GD-01D-02D	.001 Diam and .0025 Diam	Mono					19.95
	4GD-01D-02S	.001 Diam and .0025 Saph*	Mono					16.95
	4GS-01S	.001 Sapphire*	Mono					9.95
	4GS-02S	.0025 Sapphire*	Mono					9.95
	4GD-01S-02S	.001 Saph* and .0025 Saph*	Mono					12.95
	C100A	.0007 Diam and .003 Saph*	Stereo	TA-1	-----	20-12,000	450 mv	15.90
	C200	.0007 Diam and .003 Saph*	Stereo	TA-1	-----	20-17,000	300 mv	15.90

STYLI

	Cat. No.	Stylus Radius (Inches)	Application	Price Each†
VR-1000 STEREO STYLI				
	DR-7D	.0007 Diamond	Stereo	\$ 9.95
	DR-5D	.0005 Diamond	Stereo	11.95
	DR-3D	Elliptical Diamond	Stereo	18.95
VR-22 STEREO STYLI				
	VR-221	.0005 Diamond	Stereo	\$7.95
	VR-222	.0007 Diamond	Stereo	6.95
	VR-223	.0007 Sapphire*	Stereo	2.99
"STEREO CLASSIC" "GOLDEN CLASSIC" STYLI				
	ST-5D	.0005 Diamond	Stereo	\$7.95
	ST-7D	.0007 Diamond	Stereo	6.95
	ST-7S	.0007 Sapphire*	Stereo	2.99
VR-11 STYLI				
	4G-01D	.001 Diamond	Monaural	\$5.95
	4G-02D	.0025 Diamond	Monaural	5.95
	4G-03D	.003 Diamond	Monaural	5.95
	4G-01S	.001 Sapphire*	Monaural	2.29
	4G-02S	.0025 Sapphire*	Monaural	2.29
	4G-03S	.003 Sapphire*	Monaural	2.29

	Cat. No.	Stylus Radius (Inches)	Application	Price Each†
RPX STYLI				
	RPJ-010A	.001 Saph* and .003 Saph*	Monaural	4.95
	RPJ-012A	.001 Diam and .003 Diam	Monaural	11.95
	RPJ-013A	.001 Diam and .003 Saph*	Monaural	6.95
	RPJ-007A	.001 Saph* and .0025 Saph*	Monaural	4.95
	RPJ-011A	.001 Diam and .0025 Diam	Monaural	11.95
	RPJ-01D	.001 Diamond	Monaural	\$5.95
	RPJ-02D	.0025 Diamond	Monaural	5.95
	RPJ-03D	.003 Diamond	Monaural	5.95
	RPJ-01S	.001 Sapphire*	Monaural	2.29
	RPJ-02S	.0025 Sapphire*	Monaural	2.29
	RPJ-004	.001 Diamond	Monaural	\$5.95
	RPJ-002	.0025 Diamond	Monaural	5.95
	RPJ-003	.003 Diamond	Monaural	5.95
	RPJ-005	.001 Sapphire*	Monaural	2.29
	RPJ-006	.0025 Sapphire*	Monaural	2.29
	TA-1	.0007 Diamond	Stereo	\$9.95
		.003 Saph*		

ACCESSORIES

	Cat. No.	Description	Output Impedance	Price Each†
	UPX-003C	Self-powered Phone Preamp 3 1/2" W, 3 3/4" L, 3 3/4" H	At 30 cycles	\$14.95
			120,000 ohms	
			At 15,000 cycles	
			1700 ohms	

	Cat No.	Description	Application	Price Each†
	RX209	45-rpm Adapter (Short)	and VM Record Changers	\$2.50

* All sapphires are synthetic. † Manufacturer's suggested retail price.

GENERAL ELECTRIC

Scotch® Brand Recording Tape



No. 51 Conductive Sensing Tape: For recorders with electronic sensing controls. Sticks tight, stays clean. On dispenser card. List Price — 7/32" x 150' \$1.89.

No. 12 End-of-Reel Tape Clips: Prevent tape spilling. 10 clips per package — \$.35.

Empty Reels and Boxes: Empty 3", 5" and 7" plastic reels, plus boxes, are a must for editing and extra take-up reel needs. List Price — 3" \$.25 to 7" \$.75.

No. 102 All Purpose, Extra Strength: For all general recording—especially suited for irreplaceable recordings or long term storage. On super-tough, weather balanced 1 1/2 mil polyester backing.

No. 111 All Purpose: For all general recording. International standard of the recording industry—provides flawless sound reproduction at low cost. 1 1/2 mil plastic backing.

No. 120 High Output: Over 100% more output, greater dynamic range and freedom from distortion on signal peaks. 1 1/2 mil plastic backing.

No. 131 Low-Print: Reduces print-through (signal transfer from layer to layer) to a point below the noise level of most professional machines. Has excellent recording characteristics and allows long time storage. 1 1/2 mil plastic backing.

No. 138 Low Print, Extra Strength: Same recording qualities as No. 131 on strong 1 1/2 mil polyester backing.

No. 150 Extra Length, Extra Strength: 50% more playing time—withstanding temperature and humidity extremes. High potency oxide on 1 mil polyester backing.

No. 175 Heavy Duty Tenzar: This new, longer-wearing tape shrugs off hard use, rough handling... lasts 15 times longer than ordinary tapes. Made with a wear-resistant high potency oxide coating of the type proved exceedingly durable in heavy duty tapes for high speed computers. Available on red, blue, green, yellow or clear reels.

No. 190 Extra Length: 50% more tape—as much recording time as 1 1/2 reels of standard tape. High potency oxide offers complete purity of sound. 1 mil plastic backing.

No. 200 Double Length, Double Strength: As much playing time as two reels of standard tape—enough to record an entire opera, concert or conference. High potency oxide on tensilized polyester backing.

Nos. 201, 202, and 203 "Dynarange" Series: Dynarange tapes are products engineered primarily for professional use, (and are now available to consumers for home recording use). Their unique qualities make them especially useful for the mastering and sub-mastering of pre-recorded tapes and records. Available in 1 1/2 mil plastic (No. 201) and polyester backings (No. 202), as well as 1 mil polyester (No. 203).

No. 282 Sandwich: With exclusive micro-thin protective plastic shield over oxide coating. Eliminates oxide rub-off, wears up to 30 times longer, drastically reduces machine maintenance and provides superb sound fidelity. Strong, weatherproof 1 1/2 mil polyester backing.

No. 290 Triple Length: The tape that gives maximum playing time for each reel size. Especially suitable for continuous recording of lengthy conferences, meetings, conventions. 1/2 mil tensilized polyester backing.

No. 8000 Quick-Load Cartridge: These compact cartridges slip into place in seconds and are ready to play. Completely self-contained. No threading. No loose ends. For use in home, education and industry. Available in 320' or 560' of high potency No. 150 tape in transparent or opaque cases.

"Living Letters" Tapes (in Plastic Containers): Three tape lengths available for a variety of uses, providing up to maximum recording time on a 3" reel. Plastic container provides excellent re-useable mailer or dust-free storage unit.

ACCESSORIES

Empty Self Threading Reel in a Plastic Collar: A tape reel that threads itself. Holds tape firmly, but gently, when you start recorder. Threads up automatically—accommodates all tape thicknesses or leader tape. Reel comes complete with a snap-tight plastic collar that seals reel edges against dust, makes reel self-storing without a box. List Price—7" reel \$1.50.

No. 24 Colored Leader & Timing Tapes: Used to identify ends of tape and sections within a roll. Yellow and White in handy dispenser packages. List Price—1/4" x 100'—\$.90.

No. 41 Splicing Tape: A self-sticking tape expressly made for neat noiseless splices. On metal dispensers. List Price—1/2" x 150' \$.39.

CATALOG NO.	LENGTH	REEL	LIST PRICE
102-1/4-600	600'	5"	\$ 2.65
102-1/4-1200	1200'	7"	4.25
102-1/4-2500H	2500'	HUB	8.55
102-1/4-2500R	2500'	10 1/2"	11.35
111-1/4-150	150'	3"	.70
111-1/4-600	600'	5"	2.25
111-1/4-1200	1200'	7"	3.50
111-1/4-2500H	2500'	HUB	7.85
111-1/4-2500R	2500'	10 1/2"	10.80
120-1/4-600	600'	5"	2.25
120-1/4-1200	1200'	7"	3.50
120-1/4-2500H	2500'	HUB	7.85
120-1/4-2500R	2500'	10 1/2"	10.80
131-1/4-1200	1200'	7"	4.40
131-1/4-2500H	2500'	HUB	9.25
131-1/4-2500R	2500'	10 1/2"	12.20
138-1/4-1200	1200'	7"	5.10
138-1/4-2500H	2500'	HUB	11.10
138-1/4-2500R	2500'	10 1/2"	13.90
150-1/4-900	900'	5"	3.60
150-1/4-1800	1800'	7"	6.20
150-1/4-3600H	3600'	HUB	11.40
150-1/4-3600R	3600'	10 1/2"	14.35
175-1/4-600	600'	5"	2.40
175-1/4-1200	1200'	7"	3.75
190-1/4-900	900'	5"	3.50
190-1/4-1800	1800'	7"	5.50
190-1/4-3600H	3600'	HUB	9.85
190-1/4-3600R	3600'	10 1/2"	12.80
200-1/4-1200	1200'	5"	5.45
200-1/4-2400	2400'	7"	9.50
200-1/4-4800RPS	4800'	10 1/2"	22.00
201-1/4-600	600'	5"	2.80
201-1/4-1200	1200'	7"	4.40
201-1/4-2500-RO	2500'	10 1/2"	12.20
202-1/4-600	600'	5"	2.85
202-1/4-1200	1200'	7"	5.10
201-1/4-2500-RO	2500'	10 1/2"	13.90
203-1/4-900	900'	5"	4.25
203-1/4-1800	1800'	7"	7.35
203-1/4-3600-RO	3600'	10 1/2"	17.15
282-1/4-600	600'	5"	3.10
282-1/4-1200	1200'	7"	4.95
290-1/4-1800	1800'	5"	6.95
290-1/4-3600	3600'	7"	11.95
8000-1/4-320 C	320'		4.00
8000-1/4-560 O	560'		4.50
8000-1/4-560 C	560'		4.50
111-1/4-150-LL	150'	3"	.90
200-1/4-300-LL	300'	3"	1.85
290-1/4-600-LL	600'	3"	2.95

Magnetic Products Division **3M** COMPANY

"SCOTCH", "TENZAR" AND THE PLAID DESIGN ARE REGISTERED TRADEMARKS OF MINNESOTA MINING AND MANUFACTURING COMPANY.



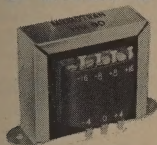
MICROTRAN

PRECISION

HI-FI

ACCESSORIES

Stereo-Monaural - Mixing Transformer - Model HM-90 For Monaural Extension Speakers



- Used to convert stereo to monaural and extend Hi-Fi throughout the house.
- Combines left and right stereo channels into single channel.
- Add single remote speaker to your stereo system.
- Permits "hole-in-the-middle" fill in.
- Permits additions and matching of any combination of monaural or stereo speakers regardless of ratings.
- Power: 30 watts.
Peak Power: 100 watts.
- Frequency Response: (Power): 40 to 20,000 cycles.
- Impedance matching Range: ± 4 thru $\pm 16\Omega$
- Simple hookup: Instructions
- show connections to be made to numbered terminals.
- Finish: Vacuum Varnish impregnation.
- Size: $3\frac{3}{4}'' \times 2\frac{1}{2}'' \times 2\frac{3}{4}''$ hi: $3\frac{3}{4}''$ Mtg. ctrs.
- Weight: 2 lbs.
- User Net: \$6.33

Tape Head Demagnetizer - Model HD-40M For Tape Recording Heads

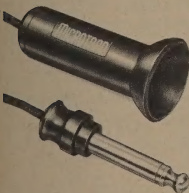
Reduce hum, noise and distortion caused by magnetized heads. Removes any residual permanent magnetism from the heads.



- Safeguards valuable tape libraries.
- Insures high frequency response.
- Special finish on pole piece prevents damaging recording head.
- Extended tapered pole piece for easy access.
- Ratings: 117 Volts AC, 1 Amp.
- Finish: High Impact molded epoxy
- Size: $4'' \times 1\frac{1}{4}''$ Diameter
- Weight: 7 ozs.
- User Net: \$6.15

Telephone Pick-up Coil - Model HP-61

For transcribing telephone conversations with tape recorder or dictation machine or making messages audible on amplifier. May also be used as probe for locating sources of hum.



- Equalized Level: Local and distant conversations recorded with more constant signal level than base mounted units.
- Suction Cup: Mounting on telephone receiver.
- Universal Model: One unit suitable for all types of telephones.
- Plug-In Use: Supplied with 68" shielded cable, terminated with standard phone plug for mike input of recorder or amplifier.
- Finish: Optical Black.
- Size: Only $\frac{3}{8}''$ diameter x 2" long.
- Weight: $1\frac{1}{2}$ ounces.
- User Net: \$6.15

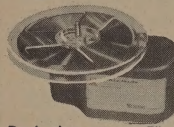
In-Line Microphone Transformer Model M8027

Matches low-impedance mike to high impedance amplifier input. Minimizes loss on long cable runs. Mu metal and electrostatic shield suppresses hum. Simple in-line installation on microphone cable.



- Impedance Ratio: 1:400
- Pri. Imp.: 150 through 250 ohms.
- Sec. Imp.: 40,000 ohms nominal.
- Freq. Resp.: 50-20,000 cps ± 2 db.
- Cable: 20" shielded cable.
- Cable Termination: Tinned Leads.
- Color: Grey.
- Case: Hi impact plastic.
- Size: $2\frac{1}{2}'' \times 1\frac{1}{4}'' \times \frac{1}{2}''$ D.
- Weight: 2 ozs.
- User Net: \$9.00

Magnetic Tape Eraser - Model HD-11M



A heavy duty bulk tape demagnetizer. Develops high intensity field. Noise level reduced below level of standard erase heads. Restores up to $\frac{1}{2}''$ tape to like-new condition or better. Spindle mounting of reel prevents missed spots.

- Reel size range: 5" through $10\frac{1}{2}''$ (spindle removable for other sizes).
- Rating: 117 Volts AC, 5 Amps.
- Finish: Cast Epoxy
- Size: $7'' \times 3\frac{1}{2}'' \times 3\frac{3}{4}''$ H
- Weight: 9 lbs.
- HD-11M User Net: \$23.50

- Universal Use: May be used for Demagnetizing Record Playback-Erase Heads, and other metal objects.

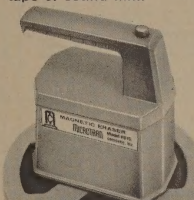
- Accessory: Adapter Hub for use with N.A.B. $10\frac{1}{2}''$ reels. (Model HD-11AD—User Net \$2.30)

A Must for Stereo Recording.

(Most stereo recorders do not provide complete erasure facilities)

Magnetic Tape Eraser - Model HD-15

A compact tape demagnetizer that erases signals and noise instantly without rewinding. Removes background noise below level of new tape or sound film.



- Universal Use: for any reel size.
- Demagnetizes guide posts, tools, watches, other metal objects, etc.
- Lightweight—hand held—easy to use.
- Tape Width Range: $\frac{1}{2}''$ and $\frac{3}{4}''$.
- Sound Film Range: 8, 16, and 35mm.
- Rating: 117 Volts 50/60 cycle, 4 amps.
- Finish: High impact plastic case.
- Size: $4\frac{1}{4}'' \times 2\frac{1}{2}'' \times 4\frac{3}{4}''$ H
- Line Cord: 8' with molded plug.
- Weight: 2 $\frac{1}{2}$ lbs.
- User Net: \$11.95

Hum-Bucking Telephone Pick-up Coil Model HP-70



For transcribing telephone conversations. Symmetrical pick-up coils eliminate high stray hum-pick up caused by fluorescent lights and appliances. For use with tape recorders or dictation machines or making messages audible on amplifier.

- Mounting: Double Suction cup.
- Cable Length: 5 feet.
- Termination: Tinned Leads.
- Shipping Weight: 2 ozs.

- Case: Hi impact plastic.
- Finish: Grey
- Size: $2\frac{1}{2}'' \times 1\frac{1}{4}'' \times \frac{1}{2}''$ H
- Model HP-70: User Net: \$6.95



As above with Molded Phone Plug Termination.
Model HP-71 User Net: \$7.50

Plug-in Input Transformers



Broadcast fidelity input transformers. 65db. double mu-metal shielding. Plug-in feature permits simple installation. $2\frac{1}{2}'' \times 1\frac{1}{4}'' \times \frac{1}{2}''$ D. Weight 6 ozs. Octal type Plug-in Base. M8030-1 have 8 pins. M8032-3 have 9 pins. Matches many amplifiers.

Part Number	Pri. Imp.	Sec. Imp.	Frequency Resp. ± 2 db	User Net
M8030*	200/50 C.T.	50,000	20-20,000	\$13.50
M8031	600 C.T./150	50,000	30-20,000	13.35
M8032†	250 C.T.	50,000	20-20,000	13.05
M8033†	50 C.T.	50,000	20-20,000	13.05

* M8030 is designed as a replacement for Ampex No. 1733-1.

† M8032 and M8033 mates with sockets on many RCA amplifiers.



MICROTRAN

Write for CATALOG
showing complete specifications

Nortronics
 COMPANY, INC.


DIRECT REPLACEMENT HEADS FOR: POPULAR TAPE RECORDERS

Listing by Manufacturer and Model Number

Manufacturer and Model Numbers	Function	Nortronics Head + Q-Kit	Net, Less Quik-Kit
PENTRON HF-400, HT-225, P-4, PB-1, PBA-2, PMC, PMD-1, 9T-3C, 9T-3M, T-90, TM-56, TR-4, PT-1, TM-1, NL-1, CT-1, RWN, PT-72, PT-74, PT-W3, NL-2, NL-3, TR-10 All above models except PBA-2 and PB-1	R/P	3000 + 100	\$ 8.40
NL-4, GR-1500	E	3600 + 300	8.00
GR15A/B/S, AR-62, XP60	R/P	1009 + 38	21.00
XP-60S	E	1401 + 18	12.00
AR62S	R/P	3000 + 20	8.40
PR-65	E	3601 + 18	8.00
ST-3	R/P	1000 + 38	21.00
NL-1S, NL-2S, NL-3S, PT-1S, PT-72S, PT-74S, PT-74S, PT-W3S, TM-4	E	3601 + 18	8.00
REVERE T-10, T-11, T-100, T-202, T-700, T-700-D, T-900, T-1100, T-1400, T-2000, TR-20 thru TR-1200, (except TR-600), TRS-25 thru TRS-1226, TS-15 thru TS-2025	RPE	RPE-231 + None 1 Replaces Shure Heads	15.60
T-11-4, T-204-4	RPE	RPE-201 + None 2 Replaces Nortronics Head	15.60
T-2200, TS-2205, TS-2225	RP	7601 + None	22.60
5150	E	7720 + None	11.00
5200, 5250, 5280, 5300	RP	7601 + None	22.60
SONY 250-D, TC-200, TC-260	E	E-52 + None	16.25
262-D, 262-SL, 300, 464-CS, 464-D, 464-SL, 500, 521	RP	6128 + 66	21.00
263-D, 263-E	RPE	6005 + 66	33.00
600	RP	1207 + 66	28.20
263-D, 263-E, 600	E	1402 + 305	12.00
For all models above (Also requires one L-6 bracket and circuit modification).	RP	1200 + 102	28.20
TC-101, TC-102, TC-801-A, TC-905-A	P	1207 + 102	28.20
TC-101	P	1207 + 66	28.20
TC-102	R	1210 + 102	28.20
V-M 700, 701	RP	2601 + 102	15.90
700	E	3602 + 305	8.00
701	E	3600 + 19	8.00
720, 722, 755, 1001-1, 1001-2, 1002-1, 1002-2	R/P	3000 + 20	8.40
710, 710A, 711, 711A, 714, 730, 750, 750A, 1000	E	3600 + 18	8.00
For all above models	R/P	3601 + 18	8.00
725-1	RPE	1009 + 38	21.00
726, 735, 738-1, 1471-1, 1481-1	RP	1801 + 38	23.30
740, 740-1, 741	E	1401 + 18	12.00
735, 740, 740-1, 741	R/P	3011 + 20	8.40
754	Play	1801 + 18	8.00
WEBCOR 2001-1, 2001-1A, 2001-1B, 2001-1C, 2009, 2810, 2811, 2812, 2816, 2819, 2820, 2820-1C, 2821, 2822, 2827, 2828, 2892, 2896, 2897, 2910, 2919, 2923, 2950, 2955, EP-2206-1	RPE	6127 + 38	21.00
2101-1, 2200, 2200-1, 2202, 2205, 2205-1, 2300, 2303, 2402, 2402-1, 2500-1, 2500-10, 2502-1, 2502-10, CP-2500-1, CP-2502-1, EP-2202-1, EP-2300-1, EP-2302, EP-2302-1, EP-2303-1, EP-2400-1, LT-5400, TP-2302-1	RP	6009 + 38	33.00
2008, 2208, 2323, EP-2323-1, EP-2323-1A	RPE	6002 + 38	33.00
For all models above	Play	1009 + 38	21.00
2007, 2107, 2150, 2207, 2250, 2328, 2356, 2360, 2391, 3392, 3393, EP-2107-1, EP-2150, EP-2207-1, EP-2208-1, EP-2250-1, EP-2328-1, EP-2356-1, EP-2356-1A, EP-2356-1B, EP-2357, EP-2357-1, EP-2360-1, EP-4007-1	RP	6005 + 38	33.00
2456, CP-2520-1, CP-2522-1 REGENT, EP-2456-1, EP-2457, 2757-1	RPE	6003 + None	33.00
2503-1, EP-2403, EP-2403-1, PB-2503-1, VISCOUNT III	RPE	6025 + None	18.00
WOLLENSAK T-7000, T-1400-B, C, D, E, T-1500, T-1570, T-1600, T-1700, T-1800, TS-1520 and all older 2-track mono models	RPE	RPE-231 + None 1 Replaces Shure Heads	15.60
T-1440-B, C, D, E, T-1515-4, T-1616-4, T-1818	RPE	RPE-201 + None 2 Replaces Nortronics Heads	15.60
1580, T-1780-B, C, D, E, T-1980-B, C, D, E, T-1981-B, C, D, E	R/P	7601 + None	22.60
524, 7500, T-540	E	7720 + None	11.00
1220	RPE	E59 + None	17.75
1280	RPE	6125 + None	21.00
5150	RPE	6026 + None	18.00
5200, 5250, 5280, 5300	RPE	6002 + None	33.00
	RPE	6128 + 66	21.00
	RPE	6005 + 66	33.00

†For prices of Quik-Kits, see listing on Page 1 of this section.

Conversion Kits—for Revere & Wollensak Models

WR-30—Converts all monophonic Wollensak and Revere tape recorders to full-track Record/Play. Fully assembled. Net Each **\$57.00**
WR-35—Retains monophonic Record/Play capabilities—converts 2-track stereo to 4-track stereo Play. Fully assembled. Net Each **\$25.5C**
WR-40—Converts monophonic machines to monophonic Record/4-track stereo Play. Fully assembled. Net Each **\$32.50**
WR-60—Positive shifter provides four-channel monophonic Record/Play, 2 and 4-track stereo Erase/Record (requires additional second channel record pre-amp). Fully assembled. Net Each **\$49.50**

Listing by Head Manufacturer

ROBINS (MICH. MAG.) Part Numbers	Nortronics Head + Q-Kit	Net, Less Quik-Kit
0808, 5P17, 5Q08, 5Q8, 5Q17-105, 300, 5Q17-105, 300	1009 + 103	\$21.00
09Q17	1008 + 38	21.00
2L35, 2M40G, 3L20-101, 3L20S, 3M20A, 2120	3001 + 20	8.40
2FM20-500, 3FM20-502, 2MV17-301, 7HV17-102, 7HV40-101	6127 + 38	21.00
3A20-101, 3F20-101, 3F20L	1851 + —	24.80
3F20-105, 106	1801 + 66	23.30
3FM20-104, 107, 108, 320	3251 + —	17.40
5AV17	6009 + 38	33.00
5B20LS, 10B20LS, 2835741, 7B17-102	1800 + 38	23.30
5L20, 5L20U, 7H17, 7H40, 7L17-105, 108, 7L17U, 9L20S, 10H25, 10L17-104, 10L17B, 10L17S, 10L20S, 10L70, 10M20A, 10M70A	3000 + 20	8.40
5S1-103, 7EM12A, 551-115	3601 + 18	8.00
5SS1	2201 + 18	12.00
5TRB, HRE-1	RPE-23 + —	15.60
6AV17-203	6003 + 38	33.00
8BE30, 9QE3, 9QTE3	1401 + 18	12.00
10FM20	3251 + —	17.40
40EM12A, 50HE6-201	3600 + 18	8.00
40EQ3-101	1400 + 18	12.00

†For prices of Quik-Kits, see listing on Page 1 of this section.

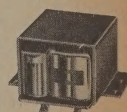
NOTE: All heads with a 100 Series dash number are interchangeable with heads with a 300 Series dash number. For example: 3L20-101 and 3L20-301 are interchangeable.

SHURE Part Numbers	Nortronics Head + Q-Kit	Net, Less Quik-Kit
815, TR5B, TR5B-J, TR5D, TR6H, TR5N	RPE-23 + —	\$15.60
815H, 816, TR5C, TR5K, TR5L, TR5Z-2, TR5Z2-J	RPE-24 + —	15.60
817, TR16A, TR21A, TR21C	3101 + 20	8.40
TE2, TE2-J, TE11C, TE11C-J	3601 + 18	8.00
TE30	3600 + 19	8.00
TE35	3650 + —	9.50
TK418	RPE-20 + —	15.60
TR16, TR16J, TR21B, TR21C-J, TR26	3100 + 20	8.40
TR30	2601 + 66	15.90
TR40, TR40-J	2001 + 66	30.30
TR54, TR54-J	7601 + —	30.00

†For prices of Quik-Kits, see listing on Page 1 of this section.

Replacements—Shure "Combinations"

RPE-23 & RPE-24—These Nortronics Head-Kits are designed as premium quality replacements for several Shure "combination" heads originally developed in the early years of tape recording. They are called combination heads because the Erase and Record/Play functions (normally two separate heads) were contained in a single assembly and mounted as if they were one head. For specific replacements, see the table above. RPE-23 will fit the same models as the RPE-20 plus the very old model Revere & Wollensak monophonic machines.

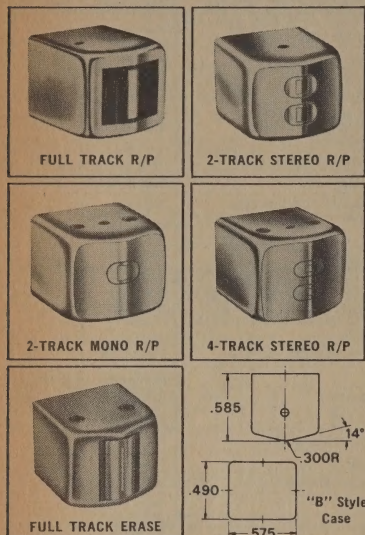

 Net Each **\$15.60**

YOUR BEST AND MOST COMPLETE SOURCE FOR MAGNETIC TAPE HEADS

Nortronics
 COMPANY, INC.


DIRECT REPLACEMENT HEADS FOR: PROFESSIONAL MACHINES

Replacement Head Listing for Professional Machines



Head Mounting Brackets for Professional Machines



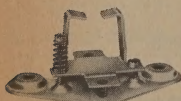
QK-76 with Nortronics Head
 original Ampex equipment...Net Each **\$12.00**

QK-35 is a special base-mount bracket kit for adapting Nortronics no-mount heads for replacement of Brush heads, or in any application requiring a large base-mounting stud. (Stud is 1/4"–28 x 3/8").....Net Each **\$2.00**

Manufacturer and Model Numbers	Original Function	Nortronics Head + Quik-Kit	Net,† Less Quik-Kit
AMPEX 300, 350, 354, 400 Series NOTE: On PR-10, 600, 900 and 1200 Series, use QK-66 instead of QK-76.	Record, Full Track	8001 + 76	\$36.00
	Play, Full Track	8000 + 76	36.00
	Erase, Full Track (for all but 300 series)	8109 + 76	30.00
	Erase, Full Track (for 300 series only)	8106 + 76	30.00
	Record Mono, 2-Track	8401 + 76	22.00
	Play Mono, 2-Track	8400 + 76	22.00
	Erase Mono, 2-Track	8504 + 76	18.00
	Record Stereo, 2-Track	8201 + 76	32.00
	Play Stereo, 2-Track	8200 + 76	32.00
	Erase Stereo, 2-Track	8304 + 76	26.00
3200	Record Stereo, 4-Track	8604 + 76	30.00
	Play Stereo, 4-Track	8600 + 76	30.00
	Erase Stereo, 4-Track	8701 + 76	26.00
	Record, Full Track	8004 + 76	40.00
	Play, Full Track	8008 + 76	36.00
	Record Stereo, 2-Track	8210 + 76	32.00
	Play Stereo, 2-Track	8210 + 76	32.00
	Record Stereo, 4-Track	8614 + 76	30.00
	Play Stereo, 4-Track	8610 + 76	30.00
	Record Mono, 2-Track	8414 + 76	22.00
CROWN 701, 801, BX801, 1001, 1401	Record, Full Track	8006 + 35	36.00
	Play, Full Track	8001 + 35	36.00
	Erase, Full Track	8102 + 35	30.00
	Play only or Record/Play Stereo, 2-Track	8209 + 35	32.00
	Record Stereo, 2-Track	8201 + 35	32.00
	Erase Stereo, 2-Track	8304 + 38	26.00
	Play only or Record/Play Mono, 2-Track	8403 + 35	22.00
	Record Mono, 2-Track	8404 + 35	22.00
	Erase Mono, 2-Track	8504 + 38	18.00
	Play only Mono, 2-Track	8406 + 66	22.00
712, 822, BX822, 1022, 1422/8	Play only Stereo, 4-Track	8608 + 66	30.00
	Record Stereo, 4-Track	8608 + 66	30.00
	Erase Stereo, 4-Track	8701 + 38	26.00
	Play only Mono, 2-Track	8406 + 66	22.00
	Play only Stereo, 4-Track	8608 + 66	30.00
	Record Stereo, 4-Track	8608 + 66	30.00
	Erase Stereo, 4-Track	8701 + 38	26.00
	Record, Full Track	8005 *	40.00
	Play Mono, 2-Track	8408 *	22.00
	Erase, Full Track	8102 *	30.00
MAGNECORD 1021 *No QK required	Play, Full Track (Optional)	8006 *	36.00
	Record Stereo, 2-Track	8203 *	35.00
	Play Stereo, 2-Track	8202 *	35.00
	Erase Stereo, 2-Track	8302 *	26.00
	Record Stereo, 4-Track	8602 *	30.00
	Play Stereo, 4-Track	8607 *	30.00
	Erase Stereo, 4-Track	8702 *	26.00
	Record, Full Track	8001 + 35	36.00
	Play, Full Track	8000 + 35	36.00
	Erase, Full Track	8105 + 35	30.00
702, 802, BX802, 1002, 1402/8	Record, Full Track	8002 *	68.00
	Play, Full Track	8003 *	54.00
	Erase, Full Track	8110 *	68.00
	Record Stereo, 2-Track	8206 *	42.00
	Play Stereo, 2-Track	8205 *	54.00
	Erase Stereo, 2-Track	8307 *	48.00
	Record, Full Track	8002 *	68.00
	Play, Full Track	8003 *	54.00
	Erase, Full Track	8110 *	68.00
	Record Stereo, 2-Track	8206 *	42.00
P60, P75, M90 R.C.A. RT21 *No QK required	Play, Full Track	8002 *	68.00
	Record Stereo, 2-Track	8206 *	42.00
	Play Stereo, 2-Track	8205 *	54.00
	Erase Stereo, 2-Track	8307 *	48.00
	Record, Full Track	8002 *	68.00
	Play, Full Track	8003 *	54.00
	Erase, Full Track	8110 *	68.00
	Record Stereo, 2-Track	8206 *	42.00
	Play Stereo, 2-Track	8205 *	54.00
	Erase Stereo, 2-Track	8307 *	48.00

†IMPORTANT—For prices of Quik-Kits, see listing on Page 1 of this section.

TAPE RECORDING ACCESSORIES



UNIVERSAL MOUNTS

QUIK-KIT 74 Adjustable Head Mounting Assembly. Unique design permits alignment of head for height, tilt and azimuth. Two TG-7 Guide Posts can be added if desired; if space does not permit, tabs for guide posts can be snapped off. Base has hole for mounting on recorder. For all Nortronics no mount, "B" case

heads. Base Size (with tabs): 1 1/16" W. x 1 7/32" L.Net Each **\$2.25**

QUIK-KIT 77 Adjustable Head Mounting Assembly. Identical to QK-74 (inc. dimensions) but for no mount, "G" case heads.Net Each **\$2.25**

QUIK-KIT 78 Adjustable Head Mounting Assembly. Identical to QK-74 (inc. dimensions) but for no mount, "S" case erase heads.Net Each **\$2.25**

L-5, L-Bracket for side mts. (inc. Azimuthing Plate) ..Net Each **\$.50**

L-6, As above but with narrow base, Right BendNet Each **\$.70**

L-7, Identical to L-6, but with Left BendNet Each **\$.70**

TAPE GUIDES

TG-7, Tape Guide Post. Vertically adjustable with tapped mounting hole in base. Chrome-Plated brass for long life.....Net Each **\$1.00**

TG-8, Tape Guide Plate. For Side-Mount heads and L-5, L-6 or L-7 bracket; gives additional guiding.....Net Each **\$.50**



ALIGNMENT TAPE

AT-100 Azimuth and Amplifier Alignment Tape. A 7.5 IPS full track, direct oscillator master recording of frequencies from 40 to 10,000 Hertz for checking azimuth and NAB equalization. 1000 Hertz zero reference level tone included. Instructions are included. Net Each **\$4.95**

CONNECTOR ASSEMBLIES

CC-70—18' plug and shielded insulated cable assembly for Nortronics heads (Except Mono Combo).....Net Each **\$2.00**

CC-77—18' plug and shielded insulated cable assembly for Nortronics Mono Combo heads.....Net Each **\$2.00**

BIA OSCILLATOR TRANSFORMERS

T60-T2—For transistor circuits. Features Ferroxcube E-cores for high Q, maximum efficiency and distortion-free waveform. Supplies 40-120 volts at 60-100 KHz. With instructions.....Net Each **\$4.50**

T60E—For vacuum tube circuits, push-pull erase and bias power at operating frequencies from 40-70 KHz; 120 volts rms to high impedance erase heads and 7 volts rms to low impedance erase heads. With instructions.....Net Each **\$4.50**

T60F—For vacuum tube circuits, push-pull erase and bias power at operating frequencies from 70-100 KHz; output 150 volts rms tapped at 60 volts for high and medium impedance erase heads. With instructions.....Net Each **\$4.50**

YOUR BEST AND MOST COMPLETE SOURCE FOR MAGNETIC TAPE HEADS

Nortronics
 COMPANY, INC.


DIRECT REPLACEMENT HEADS FOR: CARTRIDGE MACHINES

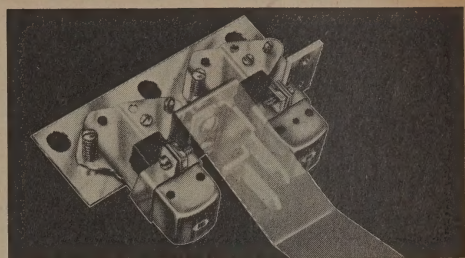
■ No-Mount Head Bracket Assembly for Cartridge Machines

QK-114 installs two no-mount dual channel heads for monophonic use, or two no-mount three channel heads for stereo operation. Left head is for recording; right head for playback. Requires heads similar to 2000 Series. Completely assembled and semi-aligned Net Each **\$13.60**

QK-115 installs two no-mount monophonic 2-track heads (see monitor conversion information below). Requires heads similar to 3000 Series. Completely assembled and semi-aligned Net Each **\$13.60**

BOTH QK-114 AND QK-115 FURNISHED WITH CARTRIDGE HOLD-DOWN SPRING AND CARTRIDGE GUIDE RAIL.

NAB CONVERSION TO MONITOR—As all professional users of tape equipment know, superior results can be achieved by using a special record-only head plus a separate playback head. Professionals also appreciate the ability to be able to monitor a tape as it is being recorded. Nortronics offers a conversion to monitor operation to update cartridge machines as shown in the shaded (NAB Conversion) columns on the chart below



■ Replacement Head Listing for Cartridge Machines—By Manufacturer and Model Number

NAME OF MFG.	MANUFACTURER'S MODEL NO.	NO-MOUNT HEADS						REAR-MOUNT HEADS					
		MFG. HEAD NO.	REPLACEMENT		NAB CONVERSION		MFG. HEAD NO.	REPLACEMENT		NAB CONVERSION			
			FUNCTION	NORTRONICS HEAD + QUIK KIT	FUNCTION	NORTRONICS HEAD + QUIK KIT		FUNCTION	NORT HEAD	FUNCTION	NORT. HEAD		
ATC	CP11, CP12, CP13		Rec.—Prog. & Cue Play—Prog. & Cue	2003 2007	+114	Unit is NAB Std.	20-1014 20-1011	Rec.—Prog. & Cue Play—Prog. & Cue	2053 2057	Unit is NAB Std.			
	CP21, CP22, CP23 STEREO (3-Channel)		Rec.—Prog. & Cue Play—Prog. & Cue	5703 5707	+114	Unit is NAB Std.	20-1016 20-1015	Rec.—Prog. & Cue Play—Prog. & Cue	5753 5757	Unit is NAB Std.			
	P150, P190, PB150, PB190 PC150, PC190		Rec./Play—Prog. Rec./Play—Cue	3201 3200	+115	Rec.—Prog. & Cue Play—Prog. & Cue	2005 2000	+114	Rec./Play—Prog. Rec./Play—Cue	3251 3250	Rec.—Prog. & Cue Play—Prog. & Cue	2055 2050	
			Requires circuit modification, see Nortronics Form No. 7213.				Requires circuit modification, see Nortronics Form No. 7213.				Requires circuit modification, see Nortronics Form No. 7213.		
			No circuit changes required.				No circuit changes required.				No circuit changes required.		
COLLINS	P150, P190, PB150, PB190		Rec./Play—Prog. Rec./Play—Cue	3201 3200	+115	Rec.—Prog. & Cue Play—Prog. & Cue	2005 2000	+114	Rec./Play—Prog. Rec./Play—Cue	3251 3250	Rec.—Prog. & Cue Play—Prog. & Cue	2055 2050	
			Requires circuit modification, see Nortronics Form No. 7213.				Requires circuit modification, see Nortronics Form No. 7213.				Requires circuit modification, see Nortronics Form No. 7213.		
	642A-1, 642A-2		Rec./Play—Prog. Rec./Play—Cue	3201 3200	+115	Rec.—Prog. & Cue Play—Prog. & Cue	2005 2000	+114	Rec./Play—Prog. Rec./Play—Cue	3251 3250	Rec.—Prog. & Cue Play—Prog. & Cue	2055 2050	
A portion of the vertical rear flange must be cut out of the deck to mount QK-115 or QK-114													
GATES	M5944		Rec./Play—Prog. Rec./Play—Cue	3201 3200	+115	Rec.—Prog. & Cue Play—Prog. & Cue	2005 2000	+114	Rec./Play—Prog. Rec./Play—Cue	3251 3250	Rec.—Prog. & Cue Play—Prog. & Cue	2055 2050	
	M5735 (SPOT TAPE)		Rec./Play Erase	2601 + 35 8501 + 35		none none		SEE LEFT SEE LEFT	none none	none none	none none	none none	
	M6211 SERIES (Play Only)	730-0343 730-0423 730-0729	Play—Prog. & Cue Play—Prog. & Cue Play—Prog. & Cue	2002 2002 2002	+114	Unit is NAB Std.	730-0343 730-0423	Play—Prog. & Cue Play—Prog. & Cue	2052	Unit is NAB Std.			
	M6212 SERIES (3-Channel) (Play Only)	730-0731	Play—Prog. & Cue	5701	+114	Unit is NAB Std.	730-0727	Play—Prog. & Cue	5751	Unit is NAB Std.			
		Must be used if the original head was cylindrical or was a Nortronics No-Mount head.					Can be used if original head was a Nortronics Rear-Mount head.						
	M6213 SERIES	730-0343 730-0423 730-0729 730-0729	Rec.—Prog. & Cue Play—Prog. & Cue Rec.—Prog. & Cue Play—Prog. & Cue	2002 2002 2002 2002	+114	Unit is NAB Std.	730-0343 730-0423	Rec.—Prog. & Cue Play—Prog. & Cue	2052 2052	Unit is NAB Std.			
		Used with QK-114 to replace Gates Rear-Mount 730-0343 and 730-0423 heads. Direct replacement for Gates No-Mount 730-0729 heads.					Direct replacement for Gates Rear-Mount 730-0343 and 730-0423 heads.						
	M6214 SERIES (3-Channel)	730-0730 730-0731	Rec.—Prog. & Cue Play—Prog. & Cue	5703 5701	+114	Unit is NAB Std.	730-0727	Rec.—Prog. & Cue Play—Prog. & Cue	5753 5751	Unit is NAB Std.			
		Must be used if the original head was cylindrical or was a Nortronics No-Mount head.					Can be used if original head was a Nortronics Rear-Mount head.						
			Check original Nortronics' OEM head numbers and replace from this listing.										
KRS	REAR MOUNT HEADS MUST BE USED.				none								
MACARTA (Moulic Specialties)	105/108 PLAYBACK 2405/2408 CAROUSELS	P-G1H7K P-G1H7K	Play—Prog. Play—Cue	3201 3201	+115		none	P-G1H7K-R P-G1H7K-R	Play—Prog. Play—Cue	3251 3251		none	
	208 STEREO PLAYBACK (4-Track)	P-B2Q7K P-B2Q7K	Play—Prog. Play—Cue	1201 1201	+114	Unit is NAB Std.				none		none	
	248 CAROUSEL (Transistor)	P-B2H2K	Play—Prog. & Cue	2000	+114	Unit is NAB Std.				none		none	
	500 PLAYBACK (Transistor)	P-B2H2K	Play—Prog. & Cue	2000	+114					none		none	
	560 RECORDER				none	Rec.—Prog. & Cue Play—Prog. & Cue	2005 2000	+114		none	Rec.—Prog. & Cue Play—Prog. & Cue	2055 2050	
RCA	570 RECORD PLAYBACK (Transistorized)	B-B2H4R P-B2H2K	Rec.—Prog. & Cue Play—Prog. & Cue	2003 2000	+114	Unit is NAB Std.				none	none	none	
	RT 7A		Rec./Play—Prog. Rec./Play—Cue	3201 3201	+115	Rec.—Prog. & Cue Play—Prog. & Cue	2005 2001	+114	223320 223320	Rec./Play—Prog. Rec./Play—Cue	3251 3251	Rec.—Prog. & Cue Play—Prog. & Cue	2055 2051
	RT 7B, RT 7C		Rec./Play—Prog. Rec./Play—Cue	3202 3201	+115	Rec.—Prog. & Cue Play—Prog. & Cue	2005 2047	+114	226517 223320	Rec./Play—Prog. Rec./Play—Cue	3252 3251	none	
		Head No. 2047 is a special Dual Channel head with 100 MHZ tape program channel and 400 MHZ bottom cue channel.											
	RT 17 MONO				none		none		Rec.—Prog. & Cue Play—Prog. & Cue	2052 2052	Unit is NAB Std.		
	RT 37 STEREO (3-Channel)				none		none	626-143 626-143	Rec.—Prog. & Cue Play—Prog. & Cue	5752 5752	Unit is NAB Std.		
		Quik Kit conversion to No-Mount heads is not recommended.											
		Quik Kit conversion to No-Mount heads is not recommended.											
		RT 37 STEREO (3-Channel)											
		Quik Kit conversion to No-Mount heads is not recommended.											
SPARTA	CD 15-2	P-A1HC47K	R/P/E (Combo Hd.)	6127	+ —		none			none		none	
	PB211 (Play Only)	P-B2H7K	Rec.—Prog. & Cue	2001	+ —	Unit is NAB Std.				none		none	
	200P, 200RP, 300P		Rec./Play—Prog. Rec./Play—Cue	3201 3200	+115	Rec.—Prog. & Cue Play—Prog. & Cue	2005 2000	+114	Rec./Play—Prog. Rec./Play—Cue	3251 3250	Rec.—Prog. & Cue Play—Prog. & Cue	2055 2050	
	300B, 400P, 800P	P-B2H4R P-B2H7K	Rec.—Prog. & Cue Play—Prog. & Cue	2003 2001	+114	Unit is NAB Std.				none		none	
	400P, 800P		Rec.—Prog. & Cue	2001	+114	Unit is NAB Std.				none		none	
	600P, 600RP	P-B3Q7K	Rec.—Prog. & Cue	5701	+114	Unit is NAB Std.				none		none	
	Older vacuum tube models will take same head listed.	P-B3Q7K	Rec.—Prog. & Cue	5701	+114								
TAPECASTER	600P, 600RP		Rec./Play—Prog. Rec./Play—Cue	3201 3200	+115	Rec.—Prog. & Cue Play—Prog. & Cue	2001 2000	+114	P-G1H7K-R P-G1H2K-R	Rec./Play—Prog. Rec./Play—Cue	3251 3250	Rec.—Prog. & Cue Play—Prog. & Cue	2055 2050
	STEREO—700P, 700RP		R/P—Prog. & Cue	5701	+114		none	P-B3Q7K-R	R/P—Prog. & Cue	5751		none	
	700P (1 Head Required)		Rec.—Prog. & Cue	2001	+114	Unit is NAB Std.			Rec.—Prog. & Cue Play—Prog. & Cue	2051	Unit is NAB Std.		
	700RP (2 Heads Required)		Rec.—Prog. & Cue	2001	+114	Unit is NAB Std.							

YOUR BEST AND MOST COMPLETE SOURCE FOR MAGNETIC TAPE HEADS

ROBINS®

RECORDING TAPE

ferrotape



TAPE OF THE HIGHEST QUALITY WITH EXCLUSIVE PLUS FEATURES...

Head-Kleen Tape Leader—CO-05 Micro-Lapping Abrasive polishing leader pre-spliced on both ends, cleans heads and guides on every run-thru. Plus—Reversing Tabs on both ends for automatic bi-directional or automatic stop recorders. Improved coating and finishing provides denser flatter oxide surface for improved, consistent high frequency response. Standardized bias requirement provides higher output without resetting bias. Special processed oxide minimizes distortion at standard bias setting. Oxide layer has exclusive dry lubricant to prevent wow and flutter, and reduce head wear. Special formulated hard, scratch resistant surface eliminates flake-off peeling, and deposits on guides and heads. Attractively Boxed.

Cat #	Previous Cat. #	Reel Size	Length Feet	Playing Time per track in minutes at 3 3/4 ips	Material	List
5X5M	20253-12	5"	1200'	60	.5 mil Polyester	\$4.50
5X7M	20253-24	7"	2400'	120		8.00
5X5MT	20256-12	5"	1200'	60	.5 mil Polyester Tensitized	5.60
5X7MT	20256-24	7"	2400'	120		9.85
5X5MTS	20257-18	5"	1800'	90	.5 mil Polyester Tensitized Triple Play	7.95
5X7MTS	20257-36	7"	3600'	180		13.85
10X5	20243-9	5"	900'	45	1. mil Acetate	3.55
10X7	20243-18	7"	1800'	90		5.65
10X5M	20252-9	5"	900'	45	1. mil Polyester	3.70
10X7M	20252-18	7"	1800'	90		6.40
15X5	20241-6	5"	600'	30	1.5 mil Acetate	2.25
15X7	20241-12	7"	1200'	60		3.60

M: Polyester (Mylar or Celanar) T: Tensitized S: Triple Play



BRAND FIVE

"Brand 5" derives its name from the fact that it is the fifth oldest brand of recording tape in the world. The "Best Buy"...the old familiar standby of better quality, popular tape, now better than ever under the guidance of Robins Quality control. "Brand 5" tapes have an improved dry synthetic lubricant to eliminate squeal, stop gumming of heads, and reduce head wear. Offers increased output, reduced distortion at same recording level, better frequency response for sharper, brighter recordings, and improved uniformity for lower modulation noise. Attractively Boxed.

Cat. #	Reel Size	Length Feet	Playing Time per track in minutes at 3 3/4 ips	Material	List
5D3M	3"	300'	15	.5 mil Polyester	\$1.08
5D5M	5"	1200'	60	Double Play	3.05
5D7M	7"	2400'	120		5.22
5D3MT	3"	300'	15	.5 mil Tensitized Polyester	1.30
5D5MT	5"	1200'	60	Double Play	4.58
5D7MT	7"	2400'	120		7.65
5D3MTS	3"	450'	22 1/2	.5 mil Tensitized Polyester Triple Play	1.55
5D5MTS	5"	1800'	90		6.25
5D7MTS	7"	3600'	180		11.10
5D3MS	3"	450'	22 1/2	.5 mil Polyester Triple Play	1.42
5D5MS	5"	1800'	90		4.85
5D7MS	7"	3600'	180		8.50
10D3	3"	225'	11	1. mil Acetate	.95
10D5	5"	900'	45		2.00
10D7	7"	1800'	90		3.35
10D3M	3"	225'	11	1. mil Polyester	1.05
10D5M	5"	900'	45		2.50
10D7M	7"	1800'	90		4.50
15D3	3"	150'	7 1/2	1.5 mil Acetate	.72
15D5	5"	600'	30		1.65
15D7	7"	1200'	60		2.52
15D3M	3"	150'	7 1/2	1.5 mil Polyester	1.00
15D5M	5"	600'	30		3.05
15D7M	7"	1200'	60		2.52



ferrodynamics brand

Good quality, economical recording tape available in a full range of lengths and base materials to meet the needs of economy minded recordists. Offers good sound reproduction for general recording. Attractively Boxed.

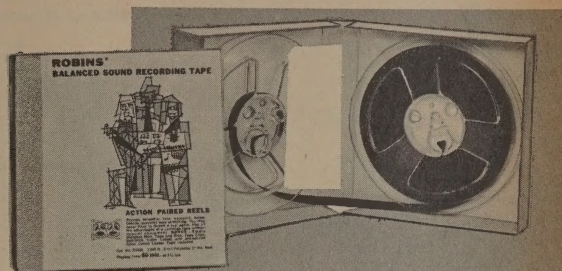
Cat. #	Reel Size	Length Feet	Playing Time per track in minutes at 3 3/4 ips	Material	List
5F3M	3"	300'	15	.5 mil Polyester	\$1.03
5F5M	5"	1200'	60	Double Play	2.91
5F7M	7"	2400'	120		5.14
5F3MT	3"	300'	15	.5 mil Tensitized Polyester	1.24
5F5MT	5"	1200'	60	Double Play	4.35
5F7MT	7"	2400'	120		7.25
5F3MTS	3"	450'	22 1/2	.5 mil Tensitized Polyester Triple Play	1.48
5F5MTS	5"	1800'	90		5.95
5F7MTS	7"	3600'	180		10.55
5F3MS	3"	450'	22 1/2	.5 mil Polyester Triple Play	1.33
5F5MS	5"	1800'	90		4.63
5F7MS	7"	3600'	180		8.05
10F3	3"	225'	11	1. mil Acetate	.90
10F5	5"	900'	45		1.90
10F7	7"	1800'	90		3.17
10F3M	3"	225'	11	1. mil Polyester	1.00
10F5M	5"	900'	45		2.38
10F7M	7"	1800'	90		4.28
15F3	3"	150'	7 1/2	1.5 mil Acetate	.69
15F5	5"	600'	30		1.55
15F7	7"	1200'	60		2.40
15F3M	3"	150'	7 1/2	1.5 mil Polyester	.95
15F5M	5"	600'	30		2.91
15F7M	7"	1200'	60		4.75

ROBINS®

RECORDING TAPE

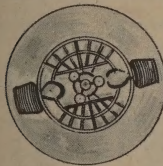
NEW ROBINS® BRAND BALANCED SOUND RECORDING TAPE WITH ACTION PAIRED REELS

ROBINS best quality recording tape with "Action Paired Reels." An empty matching reel is included with every "Balanced Sound" recording tape. The matching balanced reels provide smoother tape transport and helps prevent taps from stretching. The "Action Paired" reels offer advantages of a cartridge tape without special equipment. No need to repeatedly thread tape or search to find a treasured passage. Tape is always ready for playing or recording. Just lift partially played reels off recorder together and place them in the convenient "Dual Compartment Library Box." To load recorder, reverse procedure. Every Robins Balanced Sound Recording Tape includes Tape Log Disc, Tape Clips, and Self-Stick Title Labels. . . PLUS — Color Coded Leader Tape prespliced to beginning and end of every 5", 5½", and 7" reel of tape. Green Leader indicates beginning and Red Leader indicates end of reel. Attractively Boxed.



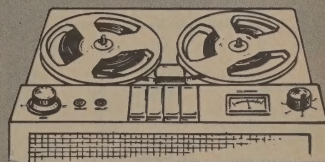
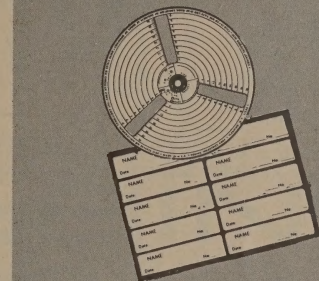
Cat. #	Reel Size	Length Feet	Playing Time per track in minutes at 3¾ ips	Material	List
5A32M	3¼"	400'	20	.5 mil Polyester	\$ 1.85
5A4M	4"	650'	32		2.90
5A5M	5"	1200'	60		4.70
5A56M	5"	1600'	80		6.10
5A7M	7"	2400'	120		8.10
5A74M	7" LT	1700'	85		6.50
5A32MT	3¼"	400'	20	.5 mil Polyester Tensitized	2.25
5A4MT	4"	650'	32		3.65
5A5MT	5"	1200'	60		5.90
5A7MT	7"	2400'	120		10.30
5A32MTS	3¼"	600'	30	.5 mil Polyester Tensitized Triple Play	3.30
5A56MTS	5½"	2400'	120		10.50
5A32MS	3¼"	600'	30	.5 mil Polyester Triple Play	2.65
5A56MS	5½"	2400'	120		8.25
10A4	4"	500'	25	1. mil Acetate	2.40
10A5	5"	900'	45		3.75
10A56	5½"	1200'	60		4.95
10A7	7"	1800'	90		5.95
10A74	7" LT	1300'	65		5.20
10A4M	4"	500'	25	1. mil Polyester	2.60
10A5M	5"	900'	45		3.90
10A56M	5½"	1200'	60		5.25
10A7M	7"	1800'	90		6.70
10A74M	7" LT	1300'	65		5.60
15A5	5"	600'	30	1.5 mil Acetate	2.36
15A56	5½"	800'	40		3.15
15A7	7"	1200'	60		3.80
15A74	7" LT	850'	42		3.30

LT: Low Torque Reel M: Polyester (Mylar or Celanar) T: Tensitized S: Triple Play



ROBINS® BRAND BALANCED SOUND RECORDING TAPE WITH ACTION PAIRED LOW TORQUE REELS...

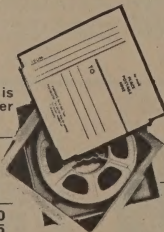
Now for the first time a Professional Quality Tape is available with Low Torque Reels. Up till now only pre-recorded tapes produced by all the major recording companies had low torque reels because the larger hub reduces the force (torque) required to wind tape steadily and evenly, thus reducing wow and flutter. Recording tape on Low-Torque Reels is a ROBINS FIRST!



ROBINS® BRAND CORRESPONDENCE TAPE WITH REUSABLE IMPACT RESISTANCE PLASTIC TAPE MAILING CANISTERS

The best quality recording tape for tape correspondents. Tape is supplied with reusable impact resistant plastic mailing canister and two-sided address card. Peg-Packaged.

Cat. #	Reel Size	Length Feet	Playing Time per track in minutes at 3¾ ips	Material	List
15H3	3"	150'	7½	1.5 mil Acetate	\$1.00
10H3	3"	225'	11	1. mil Acetate	1.15
10H3M	3"	225'	11	1. mil Polyester	1.40
5H3M	3"	300'	16	.5 mil Polyester	1.55
5H3MS	3"	450'	22½	.5 mil Polyester Triple Play	2.20
5H32MS	3¼"	600'	30	.5 mil Polyester Triple Play	2.75



ferrodynamics brand CORRESPONDENCE TAPE WITH REUSABLE IMPACT RESISTANT PLASTIC MAILING CANISTERS

Cat. #	Reel Size	Length Feet	Playing Time per track in minutes at 3¾ ips	Material	List
15C3	3"	150'	7½	1.5 mil Acetate	\$.89
10C3	3"	225'	11	1. mil Acetate	1.05
10C3M	3"	225'	11	1. mil Polyester	1.25
5C3M	3"	300'	15	.5 mil Polyester	1.45
5C3.2	3¼"	600'	30	.5 mil Polyester Triple Play	2.50

Peg-Packaged

ROBINS® TAPE HEADS

EXACT REPLACEMENT AND STEREO CONVERSION RECORDING HEADS

SPECIFICATIONS - RECORD/PLAYBACK HEADS

Head No.	Track	Type	Tape Speed (IPS)	Imped. (1 KC)	Rec. Level (Bel. Sat.) (DB)	Audio Current (MA) A	Bias Current (MA)	Bias Freq. (KC)	Play Level (1 KC) (MV)	Play Level (10 KC) 1 KC Level	Induct. (Nom.) (H)	DCR (Ohms) Direct Current Resist.	Fig. No.	List Price
2FM20-500	1/2	M. R/P & E*	7.5	1650	-12	—	—	—	2.15	-10	—	360	8	\$22.00
3F20-101	1/2	S. R/P	7.5	2000	-12	.043	1.0	62	1.8	-13	.3	390	11	32.00
3F20-305	1/2	S. R/P	7.5	2000	-12	.043	1.0	62	1.8	-13	.3	390	13	32.00
3FM20-304	1/2	M. R/P	7.5	2000	-12	.043	1.0	62	1.8	-13	.3	390	12	14.50
3FM20-308	1/2	M. R/P	7.5	2000	-12	.043	1.0	62	1.8	-13	.3	390	12	14.50
3FM20-502	1/2	M. R/P & E*	7.5	2000	-12	—	—	—	2.7	-13	.3	390	8	38.50
3L20-301	1/2	M. R/P	7.5	2460	-12	.03	1.25	50	1.64	-13	.35	280	6	11.00
5AV17	1/4	S. R/P & E*	3.75	3600	-12	.020	0.25	80	1.8	-12	.5	1000	7	35.50
5P17	1/4	S. R/P	3.75	3500	-12	.018	.2	65	1.8	-12	.5	845	15	25.00
5QT17	1/4	S. R/P	7.5	3340	-12	.020	—	80	2.4	-6.0	.5	915	1	17.50
5QT17-305	1/4	S. R/P	Identical to 5QT17 (above) Except Mounting Lugs on 5QT17-305 Are on Opposite Side											24.00
6AV17-200	1/4	S. R/P & E*	3.75	4100	-12	.018	.25	70	1.8	-12	.6	900	23	26.50
6AV17-203	1/4	S. R/P & E*	7.5	4100	-12	.022	.30	65	2.5	-3	.6	900	16	26.50
7B17	1/2	S. R/P	7.5	5150	-12	.032	.7	80	3.5	-8	.75	690	5	16.50
7H17	1/2	M. R/P	7.5	5150	-12	.042	.8	80	3.0	-8.0	0.75	640	9	11.00
7H40	1/2	M. R/P	7.5	5150	-12	.022	.3	50	6.0	-10	.7	1080	19	14.50
7HV17-302	1/2	M. R/P & E*	3.75	5150	-12	.022	.4	60	3.2	-14	.75	640	18	14.50
7H40-301	1/2	M. R/P & E*	7.5	5150	-12	.022	.3	50	6.0	-10	.7	1080	19	14.50
7L17	1/2	M. R/P	7.5	5150	-12	.023	1.0	80	2.5	-11	.75	620	6	11.00
7L17-308	1/2	M. R/P	Same as 7L17 Except Mounts from Opposite Side											11.00
10H25	1/2	M. R/P	7.5	7000	-12	.022	.6	60	3.0	-10	1.0	1080	20	11.00
10L17-304	1/2	M. R/P	7.5	7030	-12	.020	1.0	80	2.6	-12	1.0	700	6	11.00
HRE-1	1/2	M. R/P & E*	7.5	1450	+	.05	1.5	50	+	+	+	14	22.00	

M = MONO, S = STEREO, R/P = RECORD/PLAYBACK, E = ERASE, * Erase and Record specs are in separate charts.
NOTE: All series L (single track), B (two track) and Q (four track) are electrically and mechanically interchangeable for easy Stereo conversion. 90TE3 Erase head is 1/4 track replacement for 5S1 and 5SS1 Erase heads.

SPECIFICATIONS - ERASE HEADS

ROBINS M/M STEREO HEAD CONVERSION KITS												
Head No.	Track	Type Erase	Tape Speed (IPS)	Imped. @ Erase Freq.	Erase Freq. (KC)	Erase Current (MA)	Erasure (DB) (200) (Cy. Sat.)	Induct. (Nom.) (MH)	DCR (Ohms) Current Resistance	Fig. No.	List Price	
2FM20-500	1/2	Mono	7.5	1750	62	17	-55	5.0	26	8	\$22.00	
3FM20-502	1/2	Mono	7.5	1750	62	17	-55	5.0	26	8	38.00	
5AV17	1/4	Stereo	3.75	2800	80	15	-60	11.0	31	7	35.50	
5S1	1/4	Mono	7.5	1750	62	17	-55	5.0	26	2	8.00	
5S1-303	1/4	Mono	7.5	Identical to 5S1 Except Mounts from Opposite Side								8.00
5SS1	1/2	Stereo	7.5	1750	62	17	-55	5.0	26	3	14.50	
6AV17-200	1/4	Stereo	7.5	2800	70	15	-60	.12	33	23	26.50	
6AV17-203	1/4	Stereo	7.5	52	65	95	-60	.25	1.3	16	26.50	
7EM12A	1/4	Mono	7.5	2200	80	30	-50	5.4	28	4	9.00	
7HV17-302	1/2	Mono	7.5	2400	60	19	-55	18.0	40	18	14.50	
7HV40-301	1/2	Mono	7.5	2200	50	19	-55	18.0	40	19	14.50	
90TE3	1/2	Stereo	7.5	2500	75	12.5	-60	9.0	33	10	11.00	
40EM12A	1/4	Mono	7.5	10000	52	10	-50	40.0	160	4	9.00	
40EQ3-301	1/4	Stereo	7.5	8000	60	10	-60	40.0	161	21	9.50	
50HE6-201	1/2	Mono	7.5	6000	60	12.5	-55	50.0	67	22	8.00	
HRE-1	1/2	Mono	7.5	780	25	27	-50	.....	.....	14	22.00	

Converts 90% of a U.S. made two track Stereo recorders to 4 track using a screw-driver or pliers. For mono kits too, but additional amplifier required. Kit contains: 4 track R/P head, head alignment tape, hardware and instructions.

#5K17 (5Q17 head) List \$20.00

#5K17U (5Q17-305 head)List \$26.00

ROBINS M/M STEREO HEAD CONVERSION KITS

Converts 90% of all U.S. made two track Stereo recorders to 4 track using a screw-driver or pliers. For mono units too, but additional amplifier is required. Kit contains: 4 track R/P head, head alignment tape, hardware and instructions.
#5K17 (5QT17 head) List \$20.00
#5K17U (5QT17-305 head) List \$26.00

HEAD REPLACEMENT AND STEREO CONVERSION MANUAL. Complete cross reference guide lists recorder manufacturers models, head part numbers and Robins exact replacement heads. Head diagrams and specifications included. Latest Guide. List 35¢

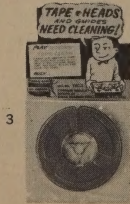
10	11	12	13	14	15	16
17	18	19	20	21	22	23

ROBINS HAS A COMPLETE LINE OF EXACT REPLACEMENT DRIVE PARTS FOR PHONOS AND TAPE RECORDERS. Latest Drive Parts Replacement Cross Reference Guide lists manufacturers phono and tape recorder models, part numbers, and Robins exact replacement numbers. 16 pages, 8 1/2" x 11", 3 hole punched for insertion into binder. Contains full size illustrations, specifications, and dimensions of all parts.

DRIVE PARTS CROSS REFERENCE GUIDE. List 35¢

ROBINS®

TAPE ACCESSORIES



1. TAPE CARE CHEMICAL KIT. 2 oz. bottles of head cleaner, head guide lubricant, Non-Slip for tape and phono drives, and tape and pho drive oil. With 50 Swabbies. #TK-7.....List \$3.50
- TAPE HEAD CLEANER AND LUBE KIT. 2 oz. bottles of head cleaner and head and guide lubricant. (Not illus.) #TK-6.....List \$1.90
2. TAPE CARE KIT. 2 oz. bottle head cleaner and tape jockey cloth. #TK-2.....List \$1.90
3. TAPE-CLEAN. Chemically treated cloth tape. Cleans and lubricates tape heads and guides when played through recorder. Deposits minute film of Silicone for friction-free performance. #HC-5, 5" reel of Tape-Clean. List \$2.50 #THC-3, 3" reel of Tape-Clean for small recorders. List \$1.65

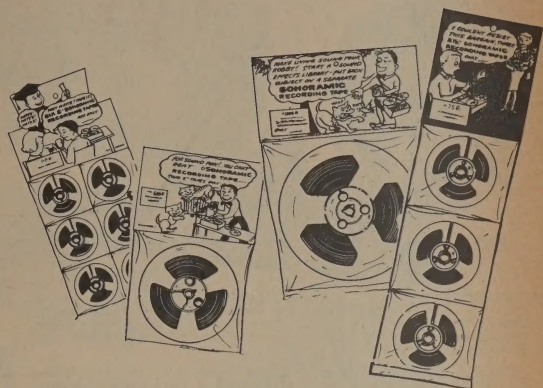
ROBINS

'SONORAMIC 99 LINE' TAPE MULTI-PAKS

A wide selection of multi-pak recording tapes for economy minded recordists and tape correspondents. Tapes are available on 2" to 7" dia. reels, packaged in quantities of 2, 3, 4, and 6 to a pack. Eye catching headers and clear polybags put reels of tape in sight. Tape boxes and mailers are included in the line. Self merchandising display #DD-25F is available to dealers.

ECONOMICAL, LOW PRICED GOOD QUALITY RECORDING TAPE

Cat. #	Reels per pkg.	Reel Size	Length Feet each reel	Playing Time per track in minutes at 3 1/2 ips	Material	List
15S3-P4	4	3"	150'	7 1/2	1.5 mil Acetate	\$1.65
15S2-P6	6	2"	75'	3 3/4	1.5 mil Acetate	1.65
10S3-P3	3	3"	225'	11	1. mil Acetate	1.65
10S2-P4	4	2"	110'	5	1. mil Acetate	1.65
10S3M-P2	2	3"	250'	12 1/2	1. mil Polyester	1.65
10S2.5M-P3	3	2 1/2"	150'	7 1/2	1. mil Polyester	1.65
5S3M-P2	2	3"	300'	15	.5 mil Polyester	1.65
5S2.5M-P3	3	2 1/2"	200'	10	.5 mil Polyester	1.65
5S2.5MS-P2	2	2 1/2"	350'	17 1/2	Double Play .5 mil Polyester	1.65
15S7-P2	2	7"	1200'	60	1.5 mil Acetate	4.35
10S7-P2	2	7"	1800'	90	1. mil Acetate	5.80
15S5-P2	2	5"	600'	30	1.5 mil Acetate	2.67
10S5-P2	2	5"	900'	45	1. mil Acetate	3.30
RMC-6	Package of 6, reusable Impact Resistant Plastic Tape Mail Canisters for up to 3 1/4" dia. tapes					1.65
TMC-15	Package of 25 double sided Addressing Cards for Reusable Plastic Tape Mailing Canisters					1.00
TB3-12	Package of 12 Cardboard Mailing Boxes for up to 3 1/4" dia. tapes. Ready to be addressed					1.00



TAPE ACCESSORIES

4. GIBSON GIRL® STEREO 4 TAPE ACCESSORY KITS. Everything required for better tape recording and editing. **DELUXE KIT** contains: Deluxe Stereo 4 tape splicer, splicing tape, tape threader, head and guide lubricant, head cleaner, tape cleaning cloth, reel holders, tape clips, reel labels, and a tape editing guide book. #TK-8DLX. List \$16.75
STANDARD KIT contains: Standard Stereo 4 splicer, splicing tape, tape threader, reel holders, head cleaner, tape cleaning cloth, tape clips, reel labels, and a tape editing guide book. #TK-4STD. List \$13.50
JUNIOR KIT. Same accessories as above with Junior Splicer. #TK-4JR. List \$11.25

TAPE "JOCKEY CLOTH" cleans and lubricates recording tape with Silicone. Washable and reusable. Pkg. of 3 cloths. #JCT-2 (Not illus.). List \$1.00

TAPE CLIPS. Keeps tape from unwinding. Pkg. of 75 plastic, reusable clips. (Not illus.) #TC-75. List \$1.00

REEL HOLDERS. Reduces reel wobbling. A must for vertical decks. (Not illus.) #RH-2 (Pair) List \$1.00

5. TAPE THREADER. Eliminates awkward fumbling. Place tape against reel, slip threader on, turn crank—tape is threaded. #TT-1. List \$1.00

6. REEL-NEET PLASTIC REEL HOLDERS FOR 7" TAPES. Stores reels in upright position. Prevents reel warping. 2 Tape Log Discs included. Pkg. of 2. #TRN-2. List \$1.00

7. TAPE LOG DISCS. Easy indexing of tapes. Write titles on circular lines. Record tape speed, reel number, date, etc. #TLD-15 for 7" reels. Pkg. of 15. List \$1.00 #TLD-18 for 5" reels. Pkg. of 18. List \$1.00

MULTI-PAK OF 150 TITLE LABELS. Self-Stick 2" x 1 1/2" labels. Write or type on them. (Not illus.) #TL-150. List \$1.00

LONG-LINE TITLE LABELS. Package of 50 self-stick 9 1/2" x 3/8" labels. Type or write on them. Supplied in sheet of 10 labels for convenient handling. (Not illus.) #TL-9. List \$1.00

REPLACEMENT TAPE RECORDER PRESSURE PADS. Assortment of pre-cut felt pads for most tape recorders. Worn pads cause wow, flutter, loss of highs, and tape squeal. Package contains 44 precut felt pads and 2 "U-Cut-It" Pads. (Not illus.) #TPP-1. List \$1.00

#TPP-2 Self-Stick Pads. List \$1.00

METAL TAPE STORAGE CANS. Enamel finished. Protects tapes against dust and moisture. Helps prevent tape "ageing." Ribs on cans nest for stacking. (Not illus.) #TC-7, 7" can for 7" reel. List 85¢ #TC-5, 5" can for 5" reel. List 60¢

8. DELUXE HI-IMPACT MOLDED INDIVIDUAL TAPE SAFES. Protects 7" tapes against dust and dirt. Reduces tape "ageing." Hinged cover for quick, easy access to tape. Bottom of safe has dovetail groove for secure fit onto dovetail metal bracket which can be mounted to wall. Sides of tape safe interlock for neat vertical stacking on shield, etc. #TCP-1. List \$1.50

9. SET OF 12 INDIVIDUAL TAPE SAFES. Includes Metal Dovetail Bracket for wall mount. #TCP-12. List \$16.65

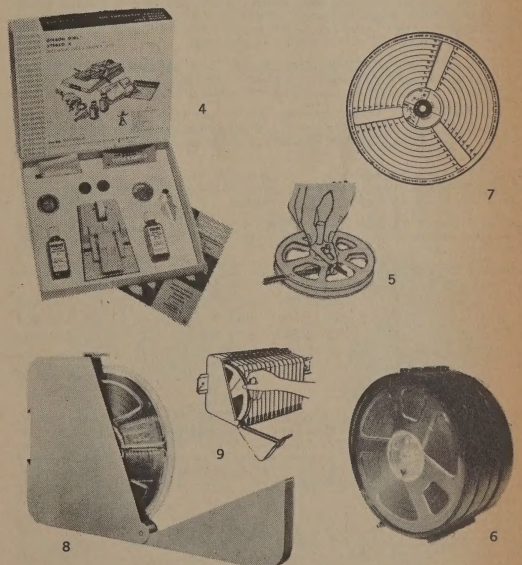
METAL DOVETAIL BRACKET FOR TAPE SAFES, mounts to wall and hold 14 units. (Not illus.) #TCB-1. List \$1.50

ROBINS BOOKS. Helpful information covering tape recorder use and care.

#TE-24 "TAPE EDITING AND SPLICING GUIDE BOOK" by N. M. Haynes. 24 pages, illustrated. List 40¢

#TE-48 "TELEVISION TAPE RECORDING" by George B. Goodall, 48 pages, illustrated. List \$1.00

#TE-96 "WHAT YOU SHOULD KNOW ABOUT YOUR TAPE RECORDER." Guide to care, use and operation of recorders. 96 pages. Illustrated. Trouble shooting guide and glossary of recording terms included. List \$1.00



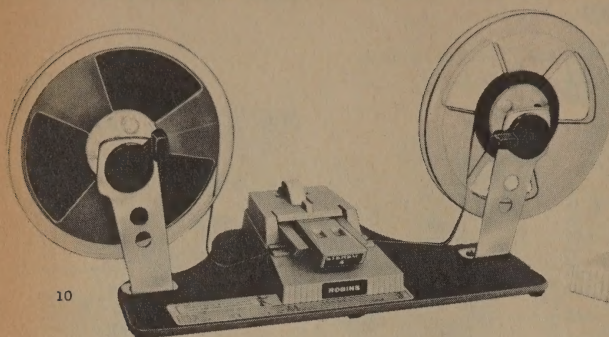
#TE-127 "TAPE RECORDING THE SOUNDS OF YOUR LIFE." 128 pages, illustrated. Learn about recording techniques, creative sound as a hobby. List \$1.35

#TE-129 "HOW TO GET THE MOST OUT OF YOUR TAPE RECORDER." 128 pages, illustrated. Practical uses for recorders. Using portable recorders, taping shortwave, adding sound to 8mm films and slides, sound effects, etc. List \$1.35

ROBINS AUDIO-VISUAL KITS. Everything required for language labs, audio-visual depts. and broadcast studios. #AVK-1 Kit contains: ME-99 Bulk Tape Eraser; UL list, HD-6 Head Demagnetizer; UL list; TS-8D Deluxe Stereo 4 Tape Splicer; Tape Holding Clips; Reel Title Labels; Tape Jockey Cloth; 6 rolls of 1/2" Splicing Tape; Tape Threader; TK-5 Tape Strobe and Light Kit; and TK-6 Head and Guide Cleaning and Lube Kit. (Not illus.) List \$78.00

#TK-11 Kit contains: ME-77 Magnetic Bulk Tape Eraser; TS-4S Standard Stereo 4 Tape Splicer; roll of 3/8" x 275" Splicing Tape; TK-6 Head and Guide Cleaning and Lube Kit; TK-5 Tape Strobe and Light Kit; HD-3 Head Demagnetizer; Tape Threader; Tape Jockey Cloth; TL-150 package of 150 Title Labels, and Tape Clips. (Not illus.) List \$46.00

ROBINS® TAPE SPLICERS



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GIBSON GIRL® "STEREO 4" TAPE SPLICERS. Precision splicing of 4 track tapes without loss of program material on the outside tracks. Excellent for single and multiple track tapes. All units have blade centering adjustment for lifetime accuracy, and replaceable cartridge and cutter pad.

11. DELUXE STEREO 4 TAPE SPLICER. "See-thru" windows show "CUT" and "TRIM" positions for easy operation. Tape guide and arms secure tape during splicing. Easy threading integral tape dispenser with roll of $\frac{1}{2}$ " x 100' splicing tape. Safety-lock protects blades when not in use. Made of Cyclocac®. #TS-8D.....List \$12.75

12. STANDARD STEREO 4 TAPE SPLICER. Same features as TS-8D, except for position index windows. Made of metal and plastic. Has integral tape dispenser with roll of $\frac{3}{8}$ " x 100' splicing tape. #TS-4S.....List \$9.50

13. JUNIOR STEREO 4 TAPE SPLICER. Same as TS-4S without tape dispenser and splicing tape. #TS-4J.....List \$7.25

REPLACEMENT CUTTER KITS FOR ROBINS STEREO 4 SPLICERS. Each kit contains replacement cutter cartridge and 2 cutter pads. #RK-2 for TS-4A series splicers. #RK-3 for TS-4S and TS-4J. #RK-8 for TS-8D. #RP-2 cutter pads for TS-4A series and TS-4S and J. #RP-8 cutter pads for TS-8D. 12 cutter pads to a package.....List each \$1.50

14. DELUXE CUT-N-SPLICE. Easy to use Tape Splicer has adjustment for cutting tapes at 30°, 45°, or 90°. 25 Self-Stick Splicing Patches and blade included in handy tray built into splicer base. #TS-6.....List \$5.00

15. CUT-N-SPLICE. Metal Splicing Block has tape guide and cutting groove to guide hand held blade. Sliding Tray built into the splicer holds 25 Self-Stick Splicing Patches and blade. Patches and blade are supplied. #TS-5.....List \$3.00

GIBSON GIRL® "SEMI-PRO." Compact, low cost splicer has tape alignment guide with adhesive back, hand held Gibson Girl Cutter and Trimmer with blade cover. Plastic. #SP-4.....(Not illus.).....List \$2.50

GIBSON GIRL® "HOBBYIST" SPLICER. Adhesive backed plastic tape guide fastens to recorder. Supplied with unique, curved, cutting blades. (Not illus.) #H-4.....List \$1.25

ROBINS SPLICING TAPE. Special formula, Mylar, tackiness, thickness, strength and cold flow carefully controlled. (Not illus.)

#TST-235 $\frac{1}{4}$ " x 300'.....List \$1.00 #ST-234 $\frac{1}{4}$ " x 100'.....List 40¢

#TST-376 $\frac{3}{8}$ " x 275'.....List 1.00 #ST-375 $\frac{3}{8}$ " x 100'.....List 45¢

#TST-501 $\frac{1}{2}$ " x 150'.....List 1.00 #ST-500 $\frac{1}{2}$ " x 100'.....List 50¢

#TST-751 $\frac{3}{4}$ " x 250'.....List 1.00 #TS-233 Self-Stick Patches for TS-5 and TS-6 Splicers and other brands of splicers. Pkg. of 75 Patches.....List \$1.00

17. GIBSON GIRL® VIDEO RECORDING TAPE SPLICERS. Heavy duty, professional splicers for video tape, computer, industrial, and special purpose tapes. Heavy duty construction with precision features that made them the accepted standard of professional users. Precise blade centering adjustment. Long life replaceable blades and cutting pads. #TS-250 for $\frac{1}{4}$ " tapes. #TS-500 for $\frac{1}{2}$ " tapes. #TS-1000 for 1" tapes. List ea. \$85.00

LEADER TAPE— $\frac{1}{2}$ mil White Mylar, 100 ft. x $\frac{1}{4}$ " wide on 2½" reel. Splice Leader Tape at beginning and end of tapes to stop loss of tape due to threading. Ideal for indexing between recorded sections of a reel. (Not illus.) #LT-100.....List \$1.00

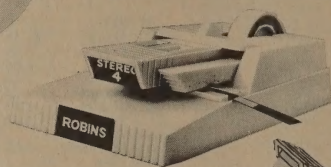
COLOR CODE SPLICING PATCHES. 12 each of 6 colors, Orange, Yellow, Green, Blue, Red, and White. Splice Color Code Patches between recorded subjects on a reel for easy, quick identification. (Not illus.) #TT-240.....List \$1.65

COLOR CODED LEADER TAPE. Set of 5 rolls. Easy indexing and cueing of recorded sections spliced on reels. Splice Color Tape to ends of tape for identification of recorded subjects. Tapes are Red, Yellow, Blue, Green, and White. (Not illus.) #TT-16.....List \$3.00

SENSING AND CUEING PATCHES. Aluminum foil patches, $\frac{1}{4}$ " wide x $\frac{3}{4}$ " lengths. For recorders having automatic stop and reverse control and other electrical sensing devices. Package of 50 Patches. (Not illus.) #TSP-50.....List \$1.65

HIGH IMPEDANCE CERAMIC MICROPHONE WITH SWING-OUT STAND FOR TAPE RECORDERS. Frequency response 40 to 8,000 cps. Sensitivity—50 db. Ceramic transducer element encased and cushioned in Neoprene to withstand physical shock. High impact plastic housing Ivory finish. Complete with 5 ft. of shielded cable. #MK-40 (Not illus.).....List \$10.50

10. GIBSON GIRL® TAPE EDITING WORKSHOP. Easy, accurate splicing, editing, combining and repairing of recording tapes on reels up to 7". Two Tape Winders and Stereo 4 Deluxe Tape Splicer are attached to a sturdy, walnut grained, warp-proof base. Complete with splicing tape. An accurately calibrated Editing/Timing Scale, attached to the workshop base, indicates tape time being added or cut from tape. Size: 7" x 14" x 5½" ht. Free editing and cueing pencil and Robins Tape Editing and Splicing Guide Book included with Tape Editing Workshop. #TK-9.....List \$24.00



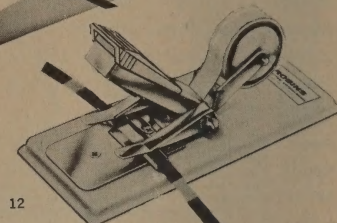
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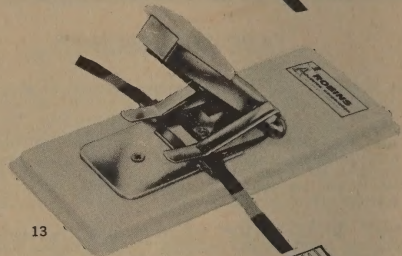
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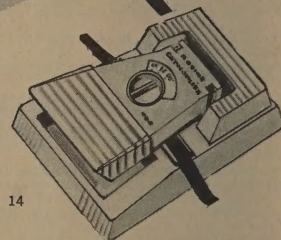
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14

EMPTY TAPE REELS FOR EVERY RECORDING NEED

Cat. No.	Size	Qty. in Pkg.	List	Cat. No.	Size	Qty. in Pkg.	List
TR20-6	2"	6	\$1.00	TR-51R	5" Red	1 w/Box	\$.65
TR25-6	2½"	6	1.00	TR-51Y	5" Yellow	1 w/Box	.65
TR30-6	3"	6	1.00	TR-53	5"†	1 w/Box	.85
TR32-4	3¼"	4	1.00	TR-70	7"	1 w/Box	.75
TR36-6	3½"	6	1.00	TR70-2	7"	2	1.00
2 each: Red Yellow, Blue				TR-71B	7" Blue	1 w/Box	.85
TR40-4	4"	4	1.00	TR-71G	7" Green	1 w/Box	.85
TR-50	5"	1 w/Box	.60	TR-71R	7" Red	1 w/Box	.85
TR50-2	5"	2	1.00	TR-71Y	7" Yellow	1 w/Box	.85
TR-51B	5" Blue	1 w/Box	.65	TR-74	7"†	1 w/Box	1.00
TR-51G	5" Green	1 w/Box	.65	(†Low Torque Reel)			

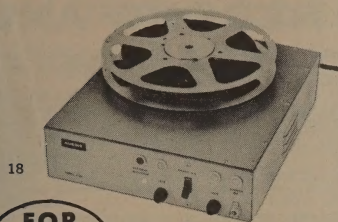
MULTI-PAK OF 12 TAPE MAILING BOXES. Cardboard boxes for tape reels up to 3½" dia. Ready for tape correspondence. (Not illus.) #TB3-12.....List \$1.00

REUSEABLE IMPACT RESISTANT PLASTIC TAPE MAILING CANISTER. Includes 2-sided address card. For reels up to 3½". (Not illus.) #TMC-3.....List \$1.00

MULTI-PAK OF 15 DOUBLE-SIDED ADDRESS CARDS FOR PLASTIC TAPE MAILERS. (Not illus.) #TMC-15.....List \$1.00

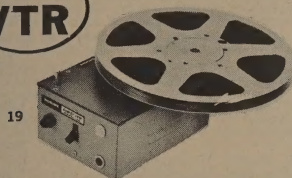
TAPE ACCESSORIES

ROBINS®



18

FOR
VTR



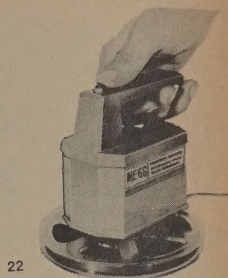
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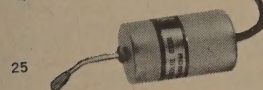
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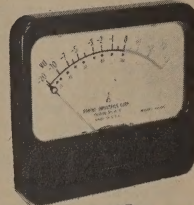
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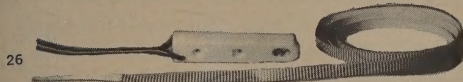
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18. MAGNETIC BULK TAPE ERASER FOR AUDIO, VIDEO, COMPUTER AND INDUSTRIAL RECORDING TAPE UP TO 1" WIDE ON REELS UP TO 17" DIA. (Up to 2" tapes can be erased by performing erase procedure on both sides of reel.) Reel is rotated slowly 3-4 seconds for erasure—50 to 90 db below saturation level. 115 V. 50-60 cy. A.C. Duty cycle 10 min. On/10 min. Off. Size: 3 3/4" x 12" x 14". Safety features: overheat indicator, individually fused, blower. #TM-120 List \$165.00

19. MAGNETIC BULK TAPE ERASER FOR AUDIO, VIDEO, COMPUTER AND INDUSTRIAL RECORDING TAPE UP TO 1" WIDE ON REELS UP TO 10 1/2" DIA. (Up to 2" tapes if erased on both sides.) Reel is rotated slowly 3-4 seconds, erasure—50-90 db below saturation level. 115 V. 50-60 cy. A.C. Duty cycle 5 min. On/15 min. Off. Size: 3 3/4" x 6" x 8". Safety features: overheat indicator, individually fused. #TM-100 List \$85.00

20. MAGNETIC BULK TAPE ERASER, UL LIST. Completely erases recorded and unwanted signals from up to 1/2" wide tape on reels up to 10 1/2" dia. in seconds. Reduces background noise levels from 3 to 6 db below normal erase head level. 110 V., 50-60 cy. A.C. Size: 5 1/2" x 6 3/4" x 3 3/4". #ME-99 List \$46.00

21. LOW COST BULK TAPE ERASER. For reels up to 7" dia. x 1/4" wide. Reduces background noise levels of tape 2-4 db below normal erase head level. 110 V. 50-60 cy. A.C. Non UL. Size: 2 3/4" x 3 3/4" x 6 1/4". #ME-77 List \$26.50

22. HAND HELD BULK TAPE ERASER. For 1/4" wide tape, any size reels. Unique handle has momentary contact switch. Erases tape in seconds without rewinding. Simply move unit slowly over each side of reel. 4 amps at 110-120 V. 60 cy. A.C. Size: 4" x 2 1/2" x 4 1/4". #ME-66 List \$19.95

23. HANDY-ERASER. Hand held Bulk Tape Eraser erases tape 1/4" wide on any size reels in seconds by moving unit over each side of reel. 4 amps at 110-120 V. 60 cy. A.C. Size: 4 1/2" x 2 3/4" x 2". #ME-55 List \$16.66

24. HEAD DEMAGNETIZER, UL LIST. Removes signal damaging residual magnetism from tape heads for optimum signal to noise ratio. Easy to use. 110 volts, 60 cycles A.C. Size: 4 3/4" x 1 1/4" dia. 6 ft. heavy weight line cord. #HD-6 List \$10.00

25. LOW COST HEAD DEMAGNETIZER. Non UL. 110 V. 60 cy. A.C. #HD-3 List \$6.00

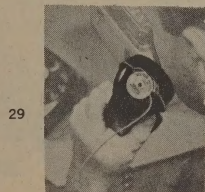
26. TAPE STROBE AND LIGHT KIT. Check tape recorder for speed, accuracy, flutter and wow operating at 15, 7 1/2 and 3 3/4 ips. Strobe tape and neon light with instructions. 110 V. 60 cy. AC. #TK-5 List \$2.25

27. "VU-METER". Size: 4 1/2". Mounts in 2 3/4" dia. hole, depth 1 1/2". 0-100% mod.; -20 to 3 db. Dual impedance output. Sensitivity 200 micro amps; shunts for 1.2 or 12 V. "zero" VU. Eliminates guess work of level control. #VU-100 List \$32.00

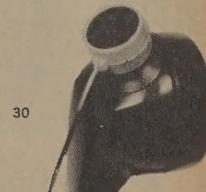
29. TELE-TAPE PHONE PICK-UP COIL. High efficiency ferrite core gives 3-5 db more gain; high signal-noise ratio. Fastens to phone with Easy-On spring. Has 6 ft. shielded cable. #TRP-1 List \$6.00

30. ECONOMY PHONE-PICK-UP. Fasten to phone by suction cup. 5 ft. cable has stripped ends for attachment of proper connector to fit recorder. #TRP-2 List \$3.00

PRECISION TAPE STROBE. All metal, chrome plated strobe checks speed, flutter and wow of 7 1/2, and 3 3/4 ips recorders. Precision machined. Precise needle bearings. With instructions. (Not illus.) #TW-1 List \$10.00



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TAPE EDITING AND CUEING PENCILS. Mark beginning and end of sections of tape to be cut out or added, sections to be re-recorded, etc. Excellent marking on any material. Ideal for movie film editing and many other uses. Package of 3 pencils: Black, White, and Yellow. (Not illus.) #TP-3 List \$1.00

RECORDING HEAD AZIMUTH ALIGNMENT TAPE. 100 ft. on a 3" reel with instructions. Enables accurate alignment of recording heads to set head angle for maximum sound output. #TAT-100 (Not illus.) List \$1.65

HEAD CLEANER removes grime and accumulated oxides from heads. 2 oz. bottle. (Not illus.) #HC-2 List \$1.00

RECORDING HEAD AND GUIDE LUBRICANT. Silicone fortified liquid provides friction-free tape patch, reduces head and tape wear. #RC-2-22 List \$1.00

TAPE AND PHONO DRIVE OIL. For rotating and moving parts. Inhibits rust and oxidation. 2 oz. bottle. (Not illus.) #RC-2-33 List 75¢

NON-SLIP FOR TAPE AND PHONO DRIVES. Helps stop slippage of idler wheels, pulley belts, and cords. Fast drying and penetrating, dries to tack free, yet non-slip surface. 2 oz. bottle #RC-2-56 List \$1.00

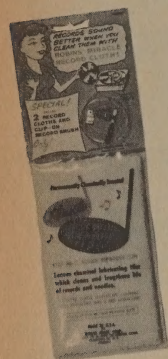
SWABBIES. Multi-Pak of 150 cotton tips wound on 6" long applicators for cleaning and oiling in hard to reach places. (Not illus.) #MSW-150 List \$1.00

ROBINS®

RECORD AND



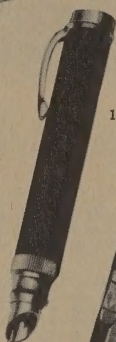
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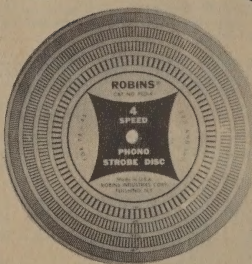
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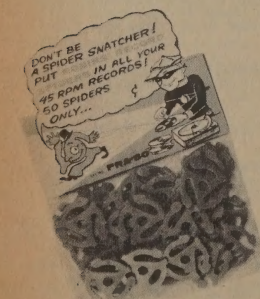
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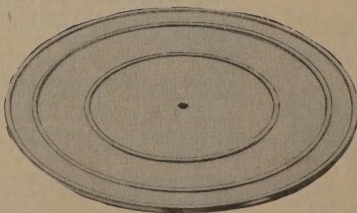
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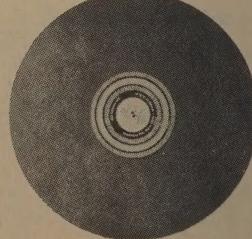
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1. **ROB-O-STAT RECORD CLEANING KIT.** Contains super-soft velvet and foam applicator mitt, 1½ oz. plastic bottle of Anti-Static cleaner and lubricant and polyfoam pad for cleaning velvet mitt. #ESK-6 List \$2.00
2. **MULTI-PAK OF TWO "MIRACLE" RECORD CLEANING CLOTHS AND CLIP-ON RECORD BRUSH.** #PC-2 List \$1.00
3. **MULTI-PAK OF THREE "HI-FI/STEREO" RECORD CLEANING CLOTHS.** Special Anti-Static ingredient reduces accumulation of dust on records. #PC-3 (Not illus.) List \$1.00
4. **MULTI-PAK OF TWO RECORD CLEANING CLOTHS AND A 45 RPM SPINDLE ADAPTOR.** Plastic conical spindle adaptor permits easy loading of 45 RPM records. #PC-4 (Not illus.) List \$1.00
5. **MULTI-PAK OF RECORD SPIDERS.** 50 hi-impact plastic 45 RPM adaptors. Easy insertion. Reusable. #PRA-50 (Not illus.) List \$1.00
6. **PHONO CARE KIT.** 2 oz. bottles of Phono Drive Oil and Non-Slip for Phono Drives. (Not illus.) #PK-12 List \$1.65
7. **PHONO DRIVE OIL.** Highly refined lubricant formulated for moving and rotating parts. Inhibits rust and oxidation. 2 oz. bottle. (Not illus.) #RC-2-33 List 75¢
8. **NON-SLIP FOR PHONO DRIVES.** Helps stop slippage of drive parts. Fast drying, stable and penetrating dries to tack-free non-slip surface. 2 oz. bottle (Not illus.) #RC-2-56 List \$1.00
9. **SWABBIES.** Cotton tips wound on 6" long applicators. Easy cleaning and oiling in hard to reach places. Package of 150. (Not illus.) #MSW-150 List \$1.00
10. **HANDY ALL-PURPOSE BRUSH.** Telescoping soft Camel's hair brush in a gold finish case with pocket clip. Ideal for dusting and removing particles from equipment, phono stylus, records, delicate parts, and fine optical lenses. Fits pocket or purse. #MRB-1 List \$1.50
11. **"KLEENEEDLE" BRUSH.** Automatic changer brush removes "dust-blob" each time arm passes over brush. Adjustable height. Pressure sensitive base pad for mounting. #NB-1 List \$1.00
12. **POLYESTER PHONO CUSHIONS.** Foam mat cushions record drop. Reduces slippage. Includes strobe disk. #PC-12, 11¾ dia. List \$1.00
13. **RIM-REST PHONO CUSHION.** Has graduated ridges for 7", 10" and 12" records. Records rest on rims only. Delicate sound grooves never touch rim-rest. Made of supple polyethylene. 12" dia. Fits all turntables. #PC-33 (Not illus.) List \$2.25
14. **METAL PHONO STROBE DISKS.** Accurately checks speeds of any phono. #PSD-4, 5" dia., 4-Speed. Checks 16⅓, 33⅓, 45 and 78 RPM speeds List \$1.65
15. **PSD-3, 3¼" dia., 3-Speed.** Checks 33⅓, 45 and 78 RPM speeds List \$1.00
16. **TURNTABLE LEVEL.** Accurate leveling incurs correct tracking, minimizes stylus and record wear. #TL-1 List \$1.35
17. **ROUND TURNTABLE LEVEL.** A must for Stereo output balance. Can be mounted to turntable or changer deck. #TL-2R (not illus.) List \$2.50
18. **STYLUS MICROSCOPE.** Inspect stylus tip for signs of wear, chips etc. Precision ground lenses for clear 50X magnification, knurled focusing adjustment, convenient slot positions stylus; with pocket clip. 3¾" long, ½" dia. Imported. #MX-1 List \$2.75
19. **HOBBYIST STYLUS MICROSCOPE.** Direct reading with precision plastic lens. #MX-40 (Not illus.) List \$1.25
20. **ROUND BOTTOM PROTECTIVE PLASTIC DIS-CLOSURES.** For 12" records. Prevents scratching, seals out dust and moisture. Package of 15 covers. (Not illus.) #E-15 List \$1.00
21. **SQUARE COVERS.** For 12" records or standard 12" record jackets. Pkg. of 15. (Not illus.) #EJ-15 List \$1.00
22. **"PLATTER-PUSSES."** Package of 12 2½" dia. folded, soft, felt-flocked leatherette disks for safe, convenient fingerprintless handling of records. Stops grease, perspiration, etc. from contacting record groove. #PRM-12 List \$1.00
23. **"FRICTION-SPOTS."** Package of 144 thin ½" dia. Polyfoam disks for placement on and around inner circumference of label area of records. Pressure sensitive for easy application. Stops slippage of records. Supplied with mounting jig. #PSF-1 List \$1.00

ROBINS®

PHONO ACCESSORIES

14. DELUXE PHONO AND RECORD CARE KIT. Eleven important accessories for enjoyment and care of records and phono in a convenient album size box. Contains: 10" Foam Phono Cushion; Phono Strobe and Light Kit; 15 Round Bottom Record Covers; Record Brush; Record Cleaning Kit having applicator mitt and 1½ oz. Anti-Static cleaner and lubricant; Stylus Pressure Gauge; Stylus Microscope; "Disk-Whisk" Kit; Round Turntable Level; 144 "Friction-Spots"; 12 "Platter-Pusses" for safe handling of records; and instructions. #PK-10.....List \$16.50

15. PHONO STROBE AND LIGHT KIT. Checks proper speed of turntable, changer or phono. Place strobe disk on turntable, set changer to desired speed and hold neon lamp over disk. 110 v. 60 cy. A.C. #ESK-5.....List \$2.00

16. "DISK-WHISK" KIT. Automatic record cleaning. Clips to tone arm. Loosens and removes dust and dirt from record grooves, deposits Anti-Static fluid containing Silicone to clean and lubricate records. Includes bottle of Anti-Static fluid with applicator. #ESK-7.....List \$2.50

RENEWAL KIT FOR ESK-7. Anti-Static fluid and 2 mohair cylinders. (Not illus.) #ESK-8.....List \$2.00

HOBBYIST RECORD KARE KIT. Contains Stylus Pressure Gauge and Turntable Level. (Not illus.) #ESK-1A.....List \$2.25

PROFESSIONAL RECORD KARE KIT. Contains Stylus Pressure Gauge, Stylus Microscope, and Turntable Level. (Not illus.) #ESK-2A.....List \$3.25

TURNTABLE LEVELING KIT. Contains four adjustable rubber feet to mount under turntable base, and round turntable level to mount to top deck of turntable. (Not illus.) #ESK-4.....List \$3.90

17. DELUXE RECORD KARE KIT. Contains Stylus Pressure Gauge, Stylus Microscope, Turntable Level, Record Cleaning Cloth, KleeNeedle Brush, Record Brush and Tone-Arm Lift. #ESK-3A.....List \$4.50

18. CLEAN-SWEEP. Large Camel's Hair Brush supported on a machined aluminum support sweeps entire tracking surface of records with each revolution. Helps protect record and stylus from dust damage. Pressure sensitive base pad mounts securely to any phono. #RB-88.....List \$5.95

19. CLIP-ON RECORD BRUSH. Clips to tone arm and sweeps dust from records automatically. #RB-75.....List 65¢

20. COMBINATION TONE-ARM LIFT AND RECORD BRUSH. Clips to tone arm. Provides convenient finger lift. Floating action nylon brush removes dust from record grooves. #RBL-1.....List \$1.00

21. STYLUS PRESSURE GAUGE. Sturdy accurately calibrated gauge measures stylus pressure from ½ gram to 8 grams. #SG-2.....List \$1.00

45 RPM SPINDLE ADAPTOR. Fits most GE and VM changers using short spindle. No twisting or jamming. (Not illus.) #PSA-35.....List \$4.00

ISOLATION PAD FOR RECORD CHANGER BASE. Absorbs vibration, minimizes acoustic feedback, reduces excessive noise and rumble. Use for recorders and TV Chassis, etc. (Not illus.) #IP-16.....List \$1.65

22. HI-FI STOP-O-MATIC. Automatically turns off amplifier and changer when last record has played. Allows you to fall asleep to your favorite music without "burning-up" equipment. Has switch control permitting use of amplifier without changer.

#HFS-1 For European Changers. Requires minimum of 10 watts. List \$10.00

#HFS-2 For U.S. made Changers. Requires minimum of 25 watts. List \$10.00

FIBERGLASS ACOUSTIC INSULATION. Line speaker cabinets, record changers, tape decks, etc. 36" x 36" x 1". Damps "boom" and distortion causing standing waves inside speaker enclosures. (Not illus.) #AM-90.....List \$2.00

CHANGER COVERS

#CC-1 13" x 13½" x 8" List \$1.95

#CC-2 12½" x 15" x 8" List 1.95

#CC-5 17" x 15" x 18½" List 1.95

TURNTABLE COVERS

#CC-3 22" x 16½" x 9" List \$2.50

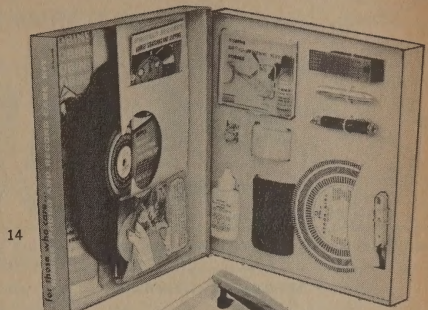
#CC-4 17½" x 17½" x 9" List 2.50

DELUXE ALUMINUM COMPONENT SLIDES. Easy to install. For record changers and other equipment. Use for cabinet drawers, etc. Supports up to 30 lbs. Length is 13". Travel 14". Ball bearing action for smooth sliding. #MS-13 Pair (Not illus.).....List \$5.00

HEAVY GAUGE STEEL COMPONENT SLIDES. Ball bearing action. Supports up to 75 lbs.

#MS-15 Length is 13". Travel length 9". Extends to 21". Pair (Not illus.).....List \$3.50

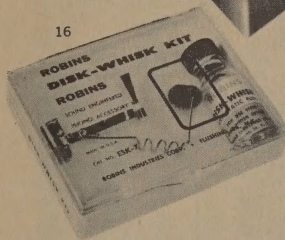
#MS-17 Length is 13". Travel length 11". Extends to 22½". Pair (Not illus.).....List 3.50



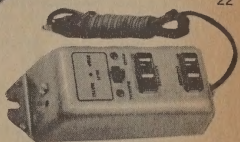
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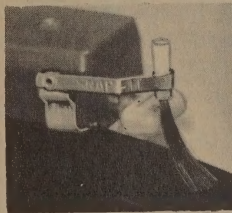
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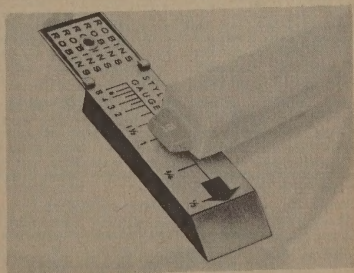
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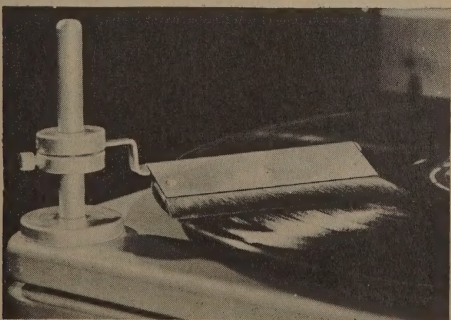
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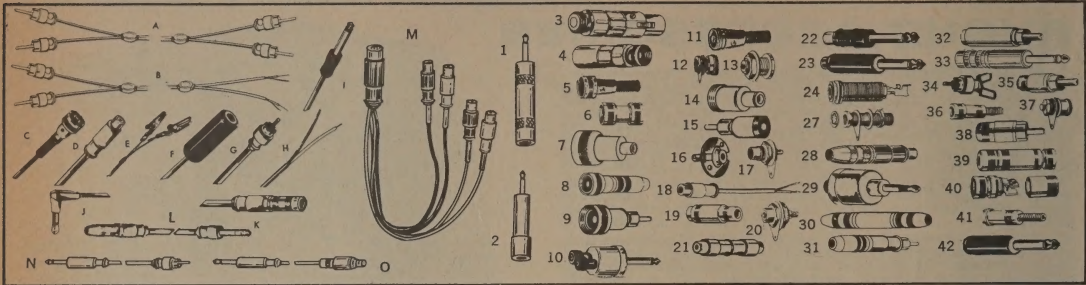


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ROBINS® PATCH CORDS AND ADAPTORS



STEREO CABLE ASSEMBLIES

Fig.	Cat. No.	Length	List	Fig.	Cat. No.	Length	List
A	SMM-36	36"	\$3.25	B	SMS-36	36"	\$2.90
A	SMM-72	72"	3.75	B	SMS-72	72"	3.25
A	SMM-120	120"	4.50	B	SMS-120	120"	3.75

L—SJT-300 Stereo extension cable, Phono plug (3 cond.) to extension jack (3 cond.) 25 ft. shielded cable. For Stereo headphones and other Stereo adaptations **List \$10.00**

M—AS-8 Stereo Adaptor Cable, 5 pin European plug, two 1 ft. lengths of shielded cable to 4 connectors. Color coded for connection. Plugs into European 5 pin sockets of Norelco, Korting, Grundig, Elber, and Sony tape recorders, Grundig radios, models SO-240U, TM-42, TM-45, and many others. Use to interconnect preamps and crystal or ceramic high imp. phono cartridges to imported tape recorders. **List \$6.00**

MOLDED CABLE ASSEMBLIES

Cat. No.	Adaptor at One End Fig.	Adaptor at Other End Fig.	Length in inches	List	Cat. No.	Adaptor at One End Fig.	Adaptor at Other End Fig.	Length in inches	List
BS-120	C	H	120"	\$2.25	MS-72	G	H	72"	\$1.15
FF-72	D	D	72"	1.95	MS-120	G	H	120"	1.65
MC-120	G	E	120"	2.25	MT-72	G	I	72"	2.20
MF-18	G	D	18"	1.25	MT-120	G	I	120"	2.75
MF-36	G	D	36"	1.35	TC-72	I	E	72"	1.90
MF-72	G	D	72"	1.75	TC-120	I	E	120"	2.40
MF-120	G	H	120"	2.00	TF-72	I	D	72"	2.20
MJ-72	G	F	72"	2.50	TJ-120	I	F	120"	3.50
MM-18	G	G	18"	1.05	TS-72	I	H	72"	1.75
MM-36	G	G	36"	1.20	TS-120	I	H	120"	2.25
MM-72	G	G	72"	1.50	TT-72	I	I	72"	2.40
MM-120	G	G	120"	2.00	TT-120	I	I	120"	2.70
MS-18	G	H	18"	.80	XJ-180	J	K	180"	5.00
MS-36	G	H	36"	.95	XM-120	J	K	120"	4.00

N—AC-32-6 Straight Tini-Plug to Straight Phono Plug; 2-Cond. 6 ft. shielded cable **List \$2.75**

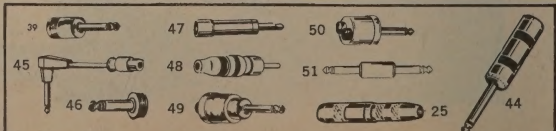
O—AC-34-6 Straight Tini-Plug to Tini-Extension Jack; 2-Cond. 6 ft. shielded cable **List \$2.90**

ADAPTORS

Fig.	Cat. No.	Description	List
1.	AA-66	Adapts standard Phone-Plug to "Tini-Jax" Phone Jack	\$1.80
2.	AA-68	Adapts standard Phono Plug to "Micro-Jax" Phone Jack	1.70
3.	AC-1	2-Cond. has input connector (#2-2), output connector, with unsoldered internal wire permitting connection to terminal	3.05
4.	AC-2	Female Mic. Connect. to input Connect.	3.05
5.	B-1	Microphone Connector, female	.60
6.	BB-1	Mic. Connect., double female, for connecting 2 cables with male connectors	1.00
7.	BF-1	Phono Jack input to female Mic. Connect. output Outside dia. main body $\frac{1}{2}$ "	1.25
8.	BJ-1	2-Cond. Phone Jack input to female Mic. output. Removeable coupler ring converts connector to male type. Body O.D. $\frac{1}{2}$ "	1.75
9.	BP-1	Phono Plug—female microphone connector	1.00
10.	BPJT-1	Binding Post, dual purpose, Banana Jack input to Phono plug output	2.60
11.	D-1	Microphone Connector, male	.45
12.	D-2	Mic. Panel Connector, Mounts in .385" hole	.40
13.	D-3	Panel Connector, male, single contact	.45
14.	DF-1	Phono Jack input to male Mic. Connect output	1.25
15.	DP-1	Phono Plug—female Mic. Connector	1.00
16.	F-1	Phono Jack, Pkg. of 3	.45
17.	F-2	Phono Jack—back of panel mount. 2-Cond.	.50
18.	F-3	2-Cond., long handle, Phono Jack to 3" shld'd. cable. Converts screw or solder type terminals to std. Phono Jack. Mates with #M-2 adaptor	.80
19.	F-4	Phono Extension Jack, removeable handle, shld'd. cable clamp	.60

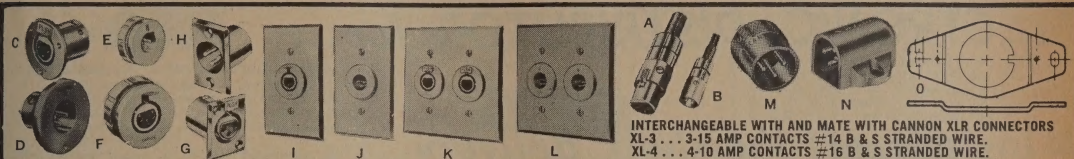
ADAPTORS

Fig.	Cat. No.	Description	List
20.	F-5	RF Phono Jack for front of panel mount	\$.60
21.	FF-1	Phono Plug to Phono Plug	1.00
22.	FT-1	Phono Plug Output—Phono Jack input	1.25
23.	FTR-1	Phone Adapt., female Phono Jack end of handle. Has internal resistor circuit for connection between crystal phono pickup or radio or TV set and input of tape recorder. May be used as adaptor with magnetic phono by opening plug and twisting leads of resistor together	1.95
24.	J-1	Phone Jack w/long bushing. Mounts in panels up to $\frac{1}{4}$ " thick. Mates with "Littel plugs." Ideal for Mic. Connector. 2-Cond.	1.30
25.	J-2	$\frac{1}{4}$ " 2-Cond. Extension Phone Jack with Solder Terminals. Completely shielded	2.15
26.	J-3	Same as J-1, except 3-Cond.	1.50
27.	JA-1	Phono Jack Adapt. Mounts in panels up to $\frac{1}{4}$ " thick	.95
28.	JF-1	2-Cond. Phone Jack input to Phono Jack output	1.45
29.	JG-1	Jack input, std. $\frac{1}{4}$ " 2-Cond. to special plug for mate with Jack in American Geloso Recorder. Permits use of U.S. made Microphone and plugs with recorder	2.35
30.	JJ-1	Coupler, 2-Cond. Phone Jack each end. Connects 2 cables having phone plug terminations	2.25
31.	JJ-3	Same as JJ-1, except 3-Cond.	2.75
32.	JM-1	2-Cond. Phone Jack input to Phono Plug output	1.45
33.	JM-2	Compact Adapt., Phono Jack input to Phono Plug output, connects Ceramic Phono Cartridge to audio amplifier which was designed for magnetic cartridge	2.95
34.	JR-1	Std. 2-Cond. Phone Plug to 2-Cond. short extension Jack. Use with late models Revere and Wollensak recorders	2.00
35.	M-1	Phono Plug, Pkg. of 4	.50
36.	M-2	Phono Plug, 2-Cond. w/long screw-on handle. Cable clamp	.60
37.	MB-1	Miniature Mic. Connect. Use w/single cond. shld'd. cable. Straight Connect., single contact, female coupling ring	.60
38.	PC-1	Panel Connect., single contact, male	.45
39.	RF-1	RF Plug, 2-Cond. long screw on handle, cable clamp	.80
40.	SC-1	Straight Connect. w/2 screw terminals. Single contact female, 2-piece handle w/built-in cable clamp. Connects cable with stripped ends without solder.	2.25
41.	SC-2	Straight Connect., same as SC-1, short handle, no cable clamp	1.65
42.	T-1	Straight Connector, single contact, male	.50
43.	T-1S	"Silent" Phone Plug, 2-Cond. w/1" lgth. shld'd. Phenolic handle. Features circuit closing device when plug is removed. Ideal for use with musical instruments	1.75
44.	T-3	$\frac{1}{4}$ " Phone Plug, 3-Cond with Solder Terminals, shld'd. Metal Handle	2.05
45.	TAF-1	Phone Plug, right angle, 2-Cond. w/long handle molded to 2" shld'd. cable. Adapts Phono Jack to Phono Plugs	1.75
46.	TD-1	Mic. input, male to Phono Plug output	.60
47.	TJF-1	Std. Phono Plug to "Tini-Plug" (3/16") output	1.40
48.	TJM-1	2-Cond. "Tini-Jack" input to Phono Plug output	1.45
49.	TJS-1	"Silent Plug" Adapt. w/2-Cond. Jack input to 2-Cond. Plug output. Circuit closes when plug is removed	2.95
50.	TJT-1	Tip Jack input to Phono Plug output	2.35
51.	TTS-2	Coupler, 2-Cond. Phone Plugs connect 2 assemblies having extension Jack terminations	2.00



ROBINS®

XL★ AUDIO AND ELECTRONIC CONNECTORS



STRAIGHT CORD PLUG. Cable relief spring entry. Zinc alloy shell, Phenolic insulator. Satin Nickel finish.

FIG. A SOCKET CONTACTS
 #XL-3-11★ 3 CONTACTS LIST \$1.90 #XL-4-11★ 4 CONTACTS LIST \$2.50
 #XL-3-11 3 contacts #XL-4-11 4 contacts

FIG. B PIN CONTACTS
 #XL-3-12★ 3 CONTACTS LIST \$1.90 #XL-4-12★ 4 CONTACTS LIST \$2.50
 #XL-3-12 3 contacts #XL-4-12 4 contacts

RECEPTACLE. Wall mount. Has mounting holes. Zinc alloy shell, Phenolic insulator. Satin Nickel finish.

FIG. C SOCKET CONTACTS—LATCH LOCK
 #XL-3-13★ 3 CONTACTS LIST \$1.90 #XL-4-13★ 4 CONTACTS LIST \$2.50
 #XL-3-13 3 contacts #XL-4-13 4 contacts

FIG. D PIN CONTACTS
 #XL-3-14★ 3 CONTACTS LIST \$1.50 #XL-4-14★ 4 CONTACTS LIST \$2.10
 #XL-3-14 4 contacts #XL-4-14 4 contacts

RECEPTACLE. Panel mount. The mounting nut accommodates 1/2" panel. Reversing the nut permits mounting on panel up to 3/4" thick. Zinc alloy shell. Satin Nickel finish.

FIG. E SOCKET CONTACTS—LATCH LOCK
 #XL-3-13N★ 3 CONTACTS LIST \$2.25 #XL-3-13N 3 contacts

FIG. F PIN CONTACTS
 #XL-3-14N★ 3 CONTACTS LIST \$2.25 #XL-4-14N★ 4 CONTACTS LIST \$2.90
 #XL-3-14N 3 contacts #XL-4-14N 4 contacts

RECEPTACLE. Wall mount. Compact rectangular flange saves mounting space. Zinc alloy shell. Satin Nickel finish.

FIG. G SOCKET CONTACTS—LATCH LOCK
 #XL-3-31★ 3 CONTACTS LIST \$2.25 #XL-4-31★ 4 CONTACTS LIST \$3.10
 #XL-3-31 3 contacts #XL-4-31 4 contacts

FIG. H PIN CONTACTS
 #XL-3-32★ 3 CONTACTS LIST \$1.75 #XL-4-32★ 4 CONTACTS LIST \$2.10
 #XL-3-32 3 contacts #XL-4-32 4 contacts

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XL INSERTS ONLY, FOR SPECIAL APPLICATIONS ARE AVAILABLE ON SPECIAL ORDER

STAINLESS STEEL WALL PLATES. Ready for drilling or punching for any required hole configuration. To accommodate any switches or controls. Holes for mounting these plates are pre-punched and countersunk. With hardware. (Not illus.)

SINGLE GANG RECEPTACLE. Wall mount. Consists of XL-3-13N Socket Receptacle and mounting bracket XL-MB-1 assembled to wall plate.

FIG. I SOCKET CONTACTS
 #XL-3-35★ 3 CONTACTS LIST \$5.00 #XL-3-35 3 contacts
SINGLE GANG RECEPTACLE. Wall mount. Consists of XL(-)14N Pin Receptacle and mounting bracket XL-MB-1 assembled to wall plate.

FIG. J PIN CONTACTS
 #XL-3-36★ 3 CONTACTS LIST \$5.00 #XL-4-36★ 4 CONTACTS LIST \$6.40
 #XL-3-36 3 contacts #XL-4-36 4 contacts

TWO GANG RECEPTACLE. Wall mount. Consists of 2 XL-3-13N Socket Receptacles and 2 mounting brackets XL-MB-1 assembled to double wall plate.

FIG. K SOCKET CONTACTS
 #XL-3-35-2G★ 3 CONTACTS LIST \$11.00 #XL-3-35-2G 3 contacts

TWO GANG RECEPTACLE. Wall mount. Consist of 2 XL(-)14N and 2 mounting brackets XL-MB-1 assembled to double wall plate.

FIG. L PIN CONTACTS
 #XL-3-36-2G★ 3 CONTACTS LIST \$11.00 #XL-4-36-2G★ 4 CONTACTS LIST \$12.00
 #XL-3-36-2G 3 contacts #XL-4-36-2G 4 contacts

RECEPTACLE. Microphone or 90° mounting receptacle. Two mounting holes. Removable insert for soldering, inspection, etc. Zinc alloy shell. Satin Nickel finish.

FIG. N PIN CONTACTS
 #XL-3-42★ 3 CONTACTS LIST \$2.20 #XL-4-42★ 4 CONTACTS LIST \$2.65
 #XL-3-42 3 contacts #XL-4-42 4 contacts

ADAPTOR RECEPTACLE. Mounts directly in or on to microphone and other units or surfaces where they can be adequately supported. Threads to mate into unit of equipment. Satin Nickel finish.

FIG. M PIN CONTACTS
 #XL-3-50T★ 3 CONTACTS LIST \$2.80 #XL-3-50T 3 contacts

MOUNTING BRACKET. XL(-)13N and XL(-)14N Receptacles can be installed in the floor or at other convenient locations using this bracket for mounting receptacles in a Russell and Stoll Box No. 2503 and other boxes.

FIG. O #XL-MB-1★ LIST \$1.00 #XL-MB-1

*ALL XL PLUGS ARE SUPPLIED EITHER IN BULK PACKED FOR O.E.M. AND INDUSTRIAL USE (AVAILABLE THROUGH INDUSTRIAL DISTRIBUTORS) OR INDIVIDUALLY PACKAGED FOR REPLACEMENT USE (AVAILABLE FROM GENERAL LINE DISTRIBUTORS. ORDER XL(-) (★) (STAR SUFFIX) FOR INDIVIDUAL PACKAGE FOR REPLACEMENT USE.

XP-1 Single Wall Plate List .75
XP-2 Double Wall Plate List 1.50

ROBINS®

GENERAL PURPOSE ACCESSORIES

A-3 SET TV/FM COUPLER. Three TV or FM sets can be coupled to one antenna and operated with little loss of gain. Screw terminals provide for simple attachment of set and antenna leads. Can be installed behind a set or at any convenient location. #FMC-3. List \$3.00

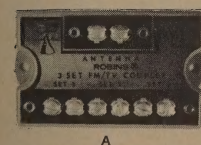
LINT-FREE CLEANING CLOTHS. Multi-Pak of six 7" x 11" lint-free cloths for cleaning and dusting fine lenses, delicate tape heads, phonos, equipment, parts, etc., without leaving lint deposits. #MLC-5 List. \$1.00

SELF-STICK FELT PADDING. Large 6" x 18" padding can be cut to size and applied as protective base to any object. Ideal for lining jewelry boxes, drawers, shelves, cabinets; protective backing for equipment, mirrors, wall plaques, etc. Many uses in arts and crafts projects. #MFP-1 List \$1.00

B-GATOR-CLIPS MULTI-PAK. Feed wiring and test clip problems to them. Package contains four pairs of alligator clips in assorted sizes and two insulators. #AGC-1 List \$1.65

C-HANDY-MADE TAPE. Pressure sensitive 5 mil. Vinyl tape, 3/4" wide. For on the spot mechanical and electrical repairs. Adheres to any irregular surface. Resists moisture, oil, alkalis, heat and cold. A must for home, shop, and auto. #MT1 3/4" x 30 ft. length. List \$1.00

#MT2 3/4" x 66 ft. length. List \$1.65



FM INDOOR ANTENNA—FOLDED DIPOLE. Eliminates need for outdoor antenna in most locations. Easily concealed under rug or back of cabinet. (Not illus.) #FMA-1 List \$2.00

"Y" ADAPTORS—Phono Jack and Plug type, Microphone Connectors.

52. YBDD-1 Light weight die cast, connects 2 cables (with std. mic. connectors) in parallel to one single connector 1.65

53. YFMM-1 1 Phono Plug connect. in parallel to 1 Phono Jack and 1 Phono Plug, shielded cable, 4" length 2.00

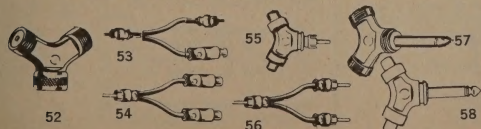
54. YMFF-1 Phono Plug connect. to 2 Phono Jacks, 4" shld'd. cable 2.00

55. YMFF-2 2 Phono Jacks connect. in parallel to std. Phono Plug 2.00

56. YMMM-1 3 Phono Plugs connect. together, 4" shld'd. cable 2.00

57. YTDD-1 2 male Mic. Connectors connected in parallel to std. 2-cond. Phone Plug 1.90

58. YTFF-1 2 Phono Jacks connect. in parallel to std. 2-cond. Phone Plug 1.90



You can depend on your local
ELECTRONIC DISTRIBUTOR for ...

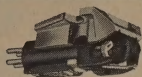
- *Instant off-the-shelf delivery*
- *In-depth inventories*
- *Wide varieties*
- *Prompt service*
- *Technical assistance*
- *Availability of the latest products*
- *Speedy purchasing — one order does the job*



Contact your local **ELECTRONIC DISTRIBUTOR**
for all your requirements!

SONOTONE®

REPLACEMENT CARTRIDGES



VELOCITONE MARK V SOLID STATE HIGH COMPLIANCE STEREO. Low stylus mass for improved tracking in professional tonearms, changes. New elliptical stylus for improved tracking force; also, 7-mil, 5-mil diamond needles. Plug-in type matched equalizers permit direct feed into magnetic phono input of any stereo preamp. Universal terminal plug. Sono-Flex® needle.

SPECIFICATIONS: Response: 20 to 20,000 cps; Output Voltage: 6mv (with equalizers); Compliance: 15×10^{-6} cm/dyne; Channel Separation: 27db; Tracking Force: 1 gram for high quality arms; 1.5-2.5 grams for changers. 100T-D7V diamond, net \$13.50; 100T-DSV diamond, net \$20.70; 100T-DEV diamond, net \$23.70.

VELOCITONE MARK IV HIGH COMPLIANCE CERAMIC STEREO. For professional tonearms and changers. High compliance, increased tracking ability. Matched equalizers feed directly into magnetic phono input of any stereo preamp. Universal terminal plug for fast, easy replacement. Sono-Flex needle.

SPECIFICATIONS: Response: 20 to 20,000 cps (± 2 db to 17,000 cps); Output Voltage: 7mv (with equalizers); Compliance: 15×10^{-6} cm/dyne; Channel Separation: 30 db; Tracking Force: 1.5-3 grams for professional arms; 3-4 grams for changers. 9TAFHC-SDV diamond/sapphire, net \$13.89; 9TAFHC-D77V dual diamond, net \$16.65.



HIGH COMPLIANCE CERAMIC STEREO MODEL 9TAFHC. Low stylus mass and high compliance for flawless, hum-free reproduction of stereo and mono records. New universal tonearm terminal plug. Sono-Flex needle.

SPECIFICATIONS: Response: 20 to 20,000 cps (± 2 db to 17,000 cps); Output Voltage: 0.2 volt; Compliance: 15×10^{-6} cm/dyne; Channel Separation: 30 db; Tracking Force: 1.5-3 grams for professional arms; 3-4 grams for changers. 9TAFHC-S dual sapphire, net \$7.04; 9TAFHC-S77 dual sapphire, net \$7.04; 9TAFHC-SD diamond/sapphire, net \$9.07; 9TAFHC-D77 dual diamond, net \$9.88.

MODEL 9TAF. Features Sono-Flex needle. Ceramic stereo cartridge with low stylus mass and high compliance for flawless, hum-free reproduction. New universal tonearm terminal plug.

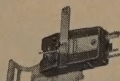
SPECIFICATIONS: Response: 20 to 20,000 cps (± 2 db); Output Voltage: 0.4 volt; Compliance: 5.5; Channel Separation: 30 db; Tracking Force: 2-4 grams for professional arms; 3-5 grams for changers. 9TAF-S dual sapphire, net \$6.67; 9TAF-S77 dual sapphire, net \$6.67; 9TAF-SD sapphire/diamond, net \$8.74; 9TAF-D77 dual diamond, net \$9.50.



MODEL 21T STEREO CERAMIC. Complete with standard mounting bracket. Extra protection buttons to protect record and needle assembly. High output voltage. Sono-Flex needle. Available in 21TR. New, safe, retractable mounting bracket.

21TR equipped with retractable mounting bracket. Response: Entire audio range; Output Voltage: 0.6 volt; Compliance: 5.5×10^{-6} cm/dyne; Channel Separation: 21 db; Tracking Force: 4-7 grams. 21TR-S dual sapphire, net \$5.24; 21T-S dual sapphire, net \$4.90; 21TR-S77 dual sapphire, net \$5.24; 21T-S77 dual sapphire, net \$4.90; 21TR-SD diamond/sapphire, net \$7.32; 21T-SD diamond/sapphire, net \$6.98.

MODEL 22T HIGH COMPLIANCE STEREO CERAMIC. New standard mounting bracket permits easy installation and servicing. Once installed, it snaps in and out of mounted bracket. Fits standard tonearms designed for many cross-reference replacements. Sono-Flex needle. 22T equipped with snap-in mounting bracket. Available in 22TR. New, safe, retractable mounting bracket. Response: Entire audio range; Output Voltage: 0.3 volt; Compliance: 10.0×10^{-6} cm/dyne; Channel Separation: 24 db; Tracking Force: 2-4 grams. 22T-S dual sapphire, net \$5.24; 22T-S77 dual sapphire, net \$5.24; 22T-SD diamond/sapphire, net \$7.32; 22TR-S dual sapphire, net \$5.24; 22TR-S77 dual sapphire, net \$5.24; 22TR-SD diamond/sapphire, net \$7.32.



MODEL 23T HIGH COMPLIANCE STEREO CERAMIC. High compliance, high output voltage, standard snap-in mounting brackets and protective "bottoming" buttons.

23T equipped with snap-in mounting bracket. Response: Entire audio range; Output Voltage: 0.4 volt; Compliance: 10×10^{-6} cm/dyne; Channel Separation: 26 db; Tracking Force: 2-4 grams. 23T-S dual sapphire, net \$5.78; 23T-S77 dual sapphire, net \$5.78; 23T-SD diamond/sapphire, net \$7.85.

MODEL 24T. For transistorized amplifiers. Rugged stereo ceramic cartridge. Available with a standard mounting bracket for fast, trouble-free servicing. Sono-Flex needle. 4500 pf capacitance.

SPECIFICATIONS: Response: Smooth over entire audio range; Output Voltage: 0.25 volt; Compliance: 4.0×10^{-6} cm/dyne; Channel Separation: 21 db; Tracking Force: 4-7 grams. 24T-S dual sapphire, net \$6.30; 24T-S77 dual sapphire, net \$6.30; 24T-SD diamond/sapphire, net \$8.37.



MODELS 25T, 26T, 27T, 28T MICRO-CERAMICS. For lightweight tonearms. New, tiny, high compliance cartridges designed for low-mass, tubular tonearms. Just 1" — and to end — weighs only one gram. Tracks light, responds smoothly and accurately is sharp, definite. Standard mounting brackets permit easy updating of any two-hole boss mounting type arms. Sono-Flex needle. Model 27T for transistorized applications. 4100 pf capacitance.

SPECIFICATIONS: High compliance 25T: Response: Smooth over entire audio range; Output Voltage: 0.2 volt; Compliance: 15.0×10^{-6} cm/dyne; Channel Separation: 24 db; Tracking Force: 1-3 grams. 25T-MB-S* dual sapphire, net \$6.75; 25T-MB-S77* dual sapphire, net \$6.75; 25T-MB-SD* diamond/sapphire, net \$8.82. Specifications: High output 26T: Response: Smooth over the entire audio range; Output Voltage: 0.5 volt; Compliance: 6.0×10^{-6} cm/dyne; Channel Separation: 21 db; Tracking Force: 3-6 grams. 26T-MB-S* dual sapphire, net \$6.75; 26T-MB-S77* dual sapphire, net \$6.75; 26T-MB-SD* diamond/sapphire, net \$8.82.

SPECIFICATIONS: Transistor application 27T: Response: Smooth over the entire audio range; Output Voltage: 0.18 db; Compliance: 5.0×10^{-6} cm/dyne; Channel Separation: 22 db; Tracking Force: 3-5 grams; 4100 pf capacitance. 27T-MB-S* dual sapphire, net \$7.20; 27T-MB-S77* dual sapphire, net \$7.20; 27T-MB-SD* diamond/sapphire, net \$9.27.

SPECIFICATIONS: 28T: Response: Smooth over the entire audio range; Output Voltage: 0.35 volt; Compliance: 9.0×10^{-6} cm/dyne; Tracking Force: 2-4 grams; Separation: 22 db. 28T-MB-S* dual sapphire, net \$6.75; 28T-MB-S77* dual sapphire, net \$6.75; 28T-MB-SD* diamond/sapphire, net \$8.82.

*MB—Metal Bracket. LB—Less Bracket.

MODEL 35T. High output stereo cartridge for replacement in popular preamplifier and tube amplifiers. Available with standard mounting bracket. Sono-Flex needle.

SPECIFICATIONS: Response: Smooth over entire audio range; Output Voltage: 1.0 volt; Compliance: 1.5×10^{-6} cm/dyne; Channel Separation: 20 db; Tracking Force: 6-8 grams. 35T-S dual sapphire, net \$7.20; 35T-S77 dual sapphire, net \$7.20; 35T-SD diamond/sapphire, net \$9.27.



MODEL 916TAF. Sono-Flex needle. Low cost stereo cartridge employs same basic features of the audiophile-accepted Velocitone Mark IV. New universal tonearm terminal plug.

SPECIFICATIONS: Response: 20 to 15,000 cps ± 2 db; Output Voltage: 0.42 volt; Compliance: 4.5×10^{-6} cm/dyne; Channel Separation: 28 db; Tracking Force: 3-5 grams for professional arms; 4-6 grams for changers. 916TAF-S dual sapphire, net \$5.78; 916TAF-S77 dual sapphire, net \$5.78; 916TAF-SD sapphire/diamond, net \$7.85.



MODELS 16TAF and 18TAF CERAMIC STEREO. Remarkable quality. **SPECIFICATIONS:** Response: 20 to 10,000 cps (± 1 db with smooth rolloff to 20,000 cps); Output: 0.65 V (16TAF), 1.0 V (18TAF); Channel Separation: 25 db; Tracking Force: 5-7 grams. 16TAF-S dual sapphire, net \$4.90; 16TAF-S77 dual sapphire, net \$4.90; 16TAF-SD diamond/sapphire, net \$6.98; 18TAF-S dual sapphire, net \$4.52; 18TAF-S77 dual sapphire, net \$4.52; 18TAF-SD diamond/sapphire, net \$6.60.

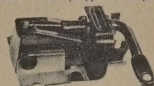


MODEL 8TA CERAMIC STEREO TURNOVER. Protects the quality of hi-fi stereo phonographs of more than 30 leading manufacturers. **SPECIFICATIONS:** Response: 20 to 20,000 cps (± 2.5 db, 20 to 15,000 cps); Output Voltage: 0.3 volt; Compliance: 3.0×10^{-6} cm/dyne; Channel Separation: 20 db; Tracking Force: 4-6 grams for changers; 3-5 grams for professional arms. 8TA4-S dual sapphire, net \$6.50; 8TA4-S77 dual sapphire, net \$6.50; 8TA4-SD diamond/sapphire, net \$8.68.



MODEL 1072 CERAMIC STEREO. Excellent for converting to stereo or replacing old stereo cartridges. Easy conversion package includes "fuse clip" mounting bracket and "jack-in" terminal plug with electrical contacts.

SPECIFICATIONS: Response: 20 to 15,000 cps ± 2.5 db; Output Voltage: 0.5 volt; Compliance: 1.5×10^{-6} cm/dyne; Channel Separation: 18 db; Tracking Force: 5-7 grams. 1072-S dual sapphire, net \$5.24; 1072-S77 dual sapphire, net \$5.24; 1072-SD diamond/sapphire, net \$7.32; 1072-S77 diamond/sapphire, net \$7.32.



MODEL 27A CERAMIC MONO. Also plays stereo records. Improved version of the famous Sonotone 27 series. New needle assembly, plus increased compliance and lower tracking force.

SPECIFICATIONS: Response: 20 to 20,000 cps (flat to 12,000); Output Voltage: 1.0 volt; Compliance: 2.0×10^{-6} cm/dyne; Tracking Force: 6 grams. 27A-S dual sapphire, net \$4.44; 27A-LB-S* dual sapphire, net \$4.64; 27A-SD diamond/sapphire, net \$6.48; 27A-LB-SD* diamond/sapphire, net \$6.48.



MODEL 3T CERAMIC MONO. Original equipment in many top quality phonographs. Available with or without brackets.

SPECIFICATIONS: Response: 20 to 20,000 cps (flat to 15,000); Output Voltage: 0.5 volt; Compliance: 2.0×10^{-6} (minimum); Tracking Force: 4-6 grams. 3T-LB-S* and 3T-S dual sapphire, net \$5.84; 3T-LB-SD* and 3T-SD diamond/sapphire, net \$7.92.



MODEL 1P CERAMIC MONO. Single needle. Selected by leading high fidelity phonograph manufacturers to protect quality of their products.

SPECIFICATIONS: Response: 20 to 20,000 cps (flat to 12,000); Output Voltage: 1.0 volt; Compliance: 1.0×10^{-6} cm/dyne; Tracking Force: 8-10 grams. 1P-LB-S* and 1P-S sapphire, net \$3.65; 1P-LB-2S* and 1P-2S sapphire, net \$3.65; 1P-LB-3S* and 1P-3S sapphire, net \$3.65; 1P-LB-10* and 1P-10 diamond, net \$5.72; 1P-LB-30* and 1P-30 diamond, net \$5.72.

*LB—Less bracket.

NEW! SONO-FLEX® NEEDLE

Flick it—bend it—knock it—it springs back, ready to play.
N-9916 F-S 0.7-mil sapphire net \$2.08
N-9916 F-S77 0.7-mil sapphire net \$2.08
N-9916 F-S77 0.7-mil diamond, 3-mil sapphire net \$2.83
N-9916 F-S77 0.7-mil diamond, 3-mil sapphire net \$3.58
N-9916 H-S etc. (for Mark IV or 9TAFHC units)

NEW MONO AND STEREO CRYSTAL CARTRIDGES

MODEL 14T MONO CRYSTAL CARTRIDGE. Direct replacement for thousands of Ronette and Vaco mono cartridges now on the market. Also replaces other cartridges of this type. Turnover type cartridge for LP, 45 and 78 records.

SPECIFICATIONS: Response: Entire audio range; Output Voltage: 3.6 volts. 14T-S dual sapphire, net \$1.88; 14TLB-S* dual sapphire, net \$1.70.

MODEL 15T MONO CRYSTAL CARTRIDGE. High output crystal cartridge for mono replacement. Has standard type turnover (leverarm) mechanical features for replacement of boss mounted turnover type cartridges. Plays LP, 45 and 78 records.

SPECIFICATIONS: Response: Entire audio range; Output Voltage: 3.6 volts. 15T-S dual sapphire, net \$3.15.

MODEL 19T2 STEREO CRYSTAL CARTRIDGE. Has standard turnover (leverarm) mechanical features for replacement of boss mounted turnover type cartridges. Plays LP, 45 and 78 records.

SPECIFICATIONS: Response: Entire audio range; Output Voltage: 2 volts. 19T2-S dual sapphire, net \$4.40.

MODEL 20T1 STEREO CRYSTAL CARTRIDGE. Complete with mounting bracket. Turnover type cartridge for LP, 45 and 78's. Replacement for Ronette and Vaco. Without bracket: Model 20TLB.

SPECIFICATIONS: Response: Entire audio range; Output Voltage: 1.0 volt. For 2-volt order Model 20T2. 20T1-S dual sapphire, net \$2.64; 20TLB-S*, net \$2.45; 20T2-S dual sapphire, net \$2.64; 20TLB-S*, net \$2.45.

SLIM MANUAL TONEARM COMPLETE WITH CRYSTAL CARTRIDGE

- Prewired ready for use
- Shielded cable
- Spring mounting post
- Packaged with installation hardware

STEREO AND MONO

STEREO T20T1-S. Complete with 20T1 stereo crystal cartridge. Net \$3.40. **T20T2-S.** Complete with 20T2 stereo crystal cartridge. Net \$3.40. **MONO T14T-S.** Complete with 14T mono crystal cartridge. Net \$2.64.

*LB—Less bracket.



KODAK SOUND RECORDING TAPES

IRC, Inc.



Whatever your recording needs there is a KODAK Tape to do the job. For a general-purpose tape with low-print characteristics, choose Type 31A. Type 34A is a high-output tape which can also be used as a low-noise tape if record levels can be adjusted. For long-playing applications try Types 21A and 21P (extra play) or Type 11P (double play). And now, Type 12P for triple-play. You'll find KODAK Sound Recording Tapes are available in a complete range of sizes and windings for amateur and professional use.

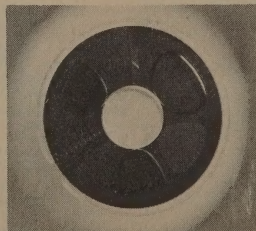
- **KODAK MEANS QUALITY.** The only professional quality tapes available at popular tape prices. Two great types . . . Professional Low Print-Through and Professional High Output. Both are lifetime coded to identify the brand and provide convenient indexing.
- **CONSISTENT UNIFORMITY** due to Eastman Kodak's exclusive emulsion process, consistent high quality is maintained from batch to batch and from reel to reel.
- **NO STRETCH.** New DUROL® base material is the Eastman Kodak's cellulose triacetate that is smooth, tough and durable. Breaks are clean . . . splices are made quickly, easily with minimum program loss.
- **NEW BINDER MATERIAL.** Coatings of "R-type" binder give a smoother, tougher recording surface that reduces tape noise and distortion. It is extremely abrasion resistant, preventing oxide build-up at the recording head.
- **THREAD EASY REEL** loads fast and easy. Rugged one-piece construction has indexing scale, built-in splicing jig and handy writing surface for titling or identification. Supplied at no extra charge with all 5 and 7 inch rolls of KODAK Tape.
- **DURABLE LIBRARY CONTAINER.** Tough one-piece construction means package won't come apart even with heavy usage.

DESCRIPTION	CAT. NO.	SIZE	REEL*
STANDARD PLAY	31A1	1/4" x 150'	3" plastic reel in mailing box
	31A6	1/4" x 625'	5" plastic "Thread Easy"
	31A12	1/4" x 1250'	7" plastic "Thread Easy"
	31A25MH	1/4" x 2500'	Metal NAB hub
	31A25HF	1/4" x 2500'	10 1/2" metal NAB hub and flange
	31A25PHB	1/4" x 2500'	Plastic NAB hub (unboxed)
	31A25PH	1/4" x 2500'	Plastic NAB hub (unboxed)
HIGH OUTPUT	31A50PHB	1/4" x 5000'	Plastic NAB hub (unboxed)
	34A12	1/4" x 1250'	7" plastic "Thread Easy"
	34A25MH	1/4" x 2500'	Metal NAB hub
	34A25HF	1/4" x 2500'	10 1/2" metal NAB hub and flange
	34A25PHB	1/4" x 2500'	Plastic NAB hub (unboxed)
EXTRA PLAY	21A9	1/4" x 900'	5" plastic "Thread Easy"
	21A18	1/4" x 1800'	7" plastic "Thread Easy"
EXTRA PLAY	21P9	1/4" x 900'	5" plastic "Thread Easy"
	21P18	1/4" x 1800'	7" plastic "Thread Easy"
DOUBLE PLAY	11P4	1/4" x 400'	3" plastic reel in mailing box
	11P12	1/4" x 1250'	5" plastic "Thread Easy"
	11P25	1/4" x 2500'	7" plastic "Thread Easy"
TRIPLE PLAY	12P6	1/4" x 600'	3 1/4" plastic reel in mailing box
	12P18	1/4" x 1800'	5" plastic "Thread Easy"
	12P36	1/4" x 3600'	7" plastic "Thread Easy"

* Unique Library Box only available with 5" & 7" size reels.



EASTMAN KODAK means quality. The only professional quality tapes available at popular tape prices. Two great types . . . Professional Low Print-Through and Professional High Output. Both are lifetime coded to identify the brand and provide convenient indexing.



Thread Easy Reel loads fast and easy. Rugged one-piece construction has indexing scale, built-in splicing jig and handy writing surface for titling or identification.

Walsco
ELECTRONICS

Walsco PHONO DRIVES



IDLER WHEEL-2-1/8" O.D.
With bushing. For GE, Motorola, Philco, Webcor.
Cat. No. 1437..... Net \$1.67



IDLER WHEEL-2-1/8" O.D.
With bushing. Used on Columbia, GE, Motorola, Webcor.
Cat. No. 1438..... Net \$2.07



IDLER WHEEL-2-1/8" O.D.
With bushing. For use on Webcor Model 1134, 1136, 1151, 1121-1.
Cat. No. 1439..... Net \$1.88



IDLER WHEEL-2-1/8" O.D.
Comes with bushing. For Webcor Model 1135 record changer.
Cat. No. 1440..... Net \$1.75



IDLER WHEEL-2-1/8" O.D.
For most Webcor tape recorders.
Cat. No. 1441..... Net \$3.60



IDLER WHEEL-1-1/2" O.D.
With bushing. For Philco & Webcor.
Cat. No. 1443..... Net \$1.00



MOLDED IDLER WHEEL- RCA 45 RPM.
For RCA Series RP168 & RP190.
Cat. No. 1447..... Net \$1.38



IDLER WHEEL-2-1/8" O.D.
For Collaro record changers in the 520 Series.
Cat. No. 1448..... Net \$2.72



IDLER WHEEL-2-1/2" O.D.
For all Collaro record changers in the 54 and 530 Series.
Cat. No. 1449..... Net \$2.00



IDLER WHEEL-1-1/2" O.D.
For Crescent, in Models of 550 Series.
Cat. No. 1450..... Net \$1.85



IDLER WHEEL-1-3/16" O.D.
For VM Models 920 and 990 and Silvertone changers.
Cat. No. 1452..... Net \$1.80

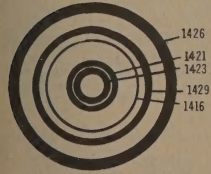


IDLER WHEEL-2-1/2" O.D.
With bushing. For Gen. Ind., Seeburg, and other players.
Cat. No. 1430..... Net \$1.90

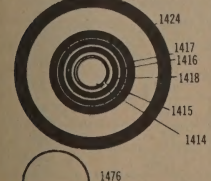


IDLER WHEEL-2-1/2" O.D.
For Webcor Model 110 record players. Manufacturer's Part No. 45P1530.
Cat. No. 1431..... Net \$2.82

BELTS & CAM TIRES



Special shapes. Made of highest quality abrasion-resistant neoprene rubber.



WALSCO TIRES & BELTS

Cat. No.	I.D.	Wall Thickness	Length	Used on	Net
1414	5/8"	1/32"	1/4"	Admiral, Ge, Vm	\$.25 per pair
1415	21/32"	1/32"	1/4"	Garrard, Ge, Philco	.25 per pair
1416	2-3/4"	1/16"	3/16"	Zenith	.25 each
1417	1-1/2"	5/32"	3/16"	Admiral, Garrard	.25 each
1418	13-16"	1/8"	3/16"	Gen. Ind., Wilcoxon	.25 each
1424	2-7/8"	1/4"	1/4"	Admiral, Crescent, RCA	.58 each
1476	15-16"	1/32"	1/4"	Admiral	.25 per pair

IDLER WHEEL-2" O.D.
For Admiral, Columbia, Crescent, GE, Motorola, Philco, RCA, Seeburg, Silvertone and VM.
Cat. No. 1432..... Net \$1.00
Bushing I.D.-.215
Cat. No. 1487 Bushing I.D.-.182
Used on older Silvertone, etc.
Net \$1.40

IDLER WHEEL-2" O.D.
With bushing. For VM and GE.
Cat. No. 1433..... Net \$1.17

IDLER WHEEL-2" O.D.
With Shaft. For Admiral, Crescent, Motorola, Philco, RCA, Seeburg, Silvertone and VM.
Cat. No. 1434..... Net \$1.60

IDLER WHEEL-2" O.D.
With bushing. For Milwaukee Stamping, Philco, Zenith and Westinghouse.
Cat. No. 1435..... Net \$1.50

DRIVE WHEEL-3" O.D.
For Zenith Crobatic Changers. Manufacturer's Part Nos. S-16922 and S-21754.
Cat. No. 1473..... Net \$5.16

DRIVE WHEEL-1" O.D.
For Crescent changers of the 550 series.
Cat. No. 1451..... Net \$2.50

3-STEP DRIVE SLEEVE
For Webcor Model 135. 135.
Cat. No. 1469..... Net \$1.60

PRESSURE ROLLER-7/8" O.D.
For Webcor tape recorders.
Cat. No. 1455..... Net \$2.42

PRESSURE ROLLER-7/8" O.D.
For Webcor tape recorders, 220 series and 2614, 2615.
Cat. No. 1462..... Net \$1.93

PRESSURE ROLLER-3/4" O.D.
For VM Model 700, 701, 710, 711, 714 tape recorders.
Cat. No. 1458..... Net \$1.75

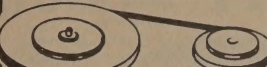
CAPSTAN PRESSURE ROLLER-1" O.D.
For Penton tape recorders.
Cat. No. 1488..... Net \$2.18

PRESSURE ROLLER-3/4" O.D.
For RCA & Wilcoxon tape recorders.
Cat. No. 1457..... Net \$2.08

TAKE-UP DRIVER
For VM tape recorder Model 700.
Cat. No. 1484..... Net \$7.51

INDEX FINGER CUSHION
Used on Webcor 100, 121, 124 series. Also on Webcor 110 and 114 series.
Cat. No. 1410..... Net \$.33 pr.

RECORDER DRIVE BELTS ROUND BLACK RUBBER DRIVES



Precision ground to exacting tolerances for positive, non-slipping drive action.

Cat. No.	Circum.	Thick-ness	Used on	Dealer Net
1410-06	6-9/32"	9/64"	Model VM 700.	
1410-07	7-7/16"	9/64"	701, 710, 711, 714 Tape Recorders	\$.62
1410-07	7-7/16"	9/64"	RCA SRT 301.	
401, 402, 403,			Wilcoxon-Gay	3A10 3A11
1410-08	8-5/8"	9/64"	Pentron, Crestwood & other tape recorders	.70
1410-10	10-23/32"	9/64"	Crescent and other tape recorders	.67
1410-12	3/16"	3/32"	Ampro and most Reverse recorders	.58
1410-14	1-9/16"	9/64"	Most Reverse Recorders	1.07
1410-15	29/32"	1/8"	Webcor Tape Recorders	1.07
1410-18	18-11"	.139"	Ampro Tape Recorders	1.42
1410-20	20-4"	.139"	Ampro Tape Recorders	1.75
1410-21	21-11"	.139"	Ampro, Gen. Ind., Webcor & other tape Recorders	1.75
1410-50	17/32"	3/16"	Webcor & Reverse Recorders	.67
1410-51	16-7/32"	1/8"	Viking Tape Recorders	1.17
1410-52	5-8"	.139"	Replaces Belts on	
4-3"	.139"		Webcor	.95
1410-53	6-5"	.210"	Reverse Tape Recorders	.52
1474	9-8"	.139"	Crestwood Tape Recorders	.72
1409-02	5-16"	17"	Pentron Tape Recorders	4.02
1409-03	5-16"	12-1/4"	Pentron, Crescent & other Tape Recorders	3.12
1409-04	5-16"	12-13/32"	VM 700, 701, 710, 711, 714 Tape Recorders	3.12
1409-05	1-64"	17"	Webcor Recorders	3.12

(A) Cat. No. 1460..... Net \$1.55
78 RPM

(A) Cat. No. 1470..... Net \$1.75
78 RPM

(B) Cat. No. 1461..... Net \$1.65
45 RPM

(C) Cat. No. 1462..... Net \$1.80
33-1/3 RPM

Cat. No. 1472..... Net \$2.15
33-1/3 RPM

1460, 1461 and 1462 are a Turret Drive Group. For Crescent, GE, Motorola, RCA, VM and other changers.
The 1470 series is used on RCA, VM and other changers.

33-1/3 RPM PULLEY-1/2" O.D.
RCA, R.P.-205-190 series motors replaces Mig's Part No. 102941.
Cat. No. 1495-01..... Net \$1.58

45 RPM PULLEY-1/2" O.D.
RCA, R.P.-205-190 series motors. Replaces Mig's Part No. 102942.
Cat. No. 1495-02..... Net \$1.58

78 RPM PULLEY-1/2" O.D.
RCA, R.P.-205-190 series motors. Replaces Mig's Part No. 102943.
Cat. No. 1495-03..... Net \$2.15

38 RPM PULLEY-3/16" O.D.
RCA, R.P.-205-190 series motors. Replaces Mig's Part No. 102944.
Cat. No. 1495-04..... Net \$1.42

RUBBER BUMPERS
Used on VM Record Changers.
Cat. No. 1411..... Net \$.33 pr.

WALSCO RECORD ARM SLEEVE
For Garrard. Protects record arm and reduces vibration. Long-lasting neoprene rubber. (2 required).
Cat. No. 1412..... Net \$.25 pr.

WALSCO VELOCITY TRIP
For Webcor, precision-molded to manufacturer's specifications.
Cat. No. 1413..... Net \$.25 pr.

78 RPM PULLEY
Cat. No. 1463 78 RPM Net \$2.32
Standard Pack: 3

45 RPM PULLEY
Cat. No. 1464 45 RPM Net \$2.38
Standard Pack: 3

33-1/3 RPM PULLEY
Cat. No. 1465 33-1/3 RPM Net \$2.22
Standard Pack: 3
Above 3 items are turret drives for GE and Webcor record changers

78 RPM PULLEY
Cat. No. 1466 78 RPM Net \$1.60

45 RPM PULLEY
Cat. No. 1467 45 RPM Net \$1.58

33-1/3 RPM PULLEY
Cat. No. 1468 33-1/3 RPM Net \$1.58
For Crescent, Motorola, VM, RCA and other changers.

IDLER WHEEL-1-11/32" O.D.
A molded rubber wheel for RCA Series RP-159 record changers.
Cat. No. 1494..... Net \$3.40

IDLER WHEEL-1" O.D.
For all Zenith Cobra-Matic record changers.
Cat. No. 1459..... Net \$3.23

CAPSTAN IDLER-1-3/4" O.D.
For 700 series tape recorders.
Cat. No. 1485..... Net \$1.67

IDLER WHEEL-2" O.D.
For Erco Tape Recorders and Silvertone Record Changers.
Cat. No. 1475..... Net \$2.40

IDLER WHEEL-2" O.D.
For Penton Tape Recorders
Cat. No. 1483..... Net \$2.65

IDLER PULLEY-15/16" O.D.
A molded rubber wheel for VM Record Changers in the 1200 series and other types.
Cat. No. 1453..... Net \$2.88

IDLER PULLEY-15/16" O.D.
A molded rubber wheel for VM Record Changers in the 1200 series having 4-pole motors.
Cat. No. 1456..... Net \$3.10

IDLER PULLEY-1-5/8" O.D.
A molded rubber wheel for VM record changers.
Cat. No. 1486..... Net \$2.17

INTER WHEEL-2" O.D.
For Garrard Model RC-80 Record Changers.
Cat. No. 1444..... Net \$2.45

INTER WHEEL-2" O.D.
Has a ball-bearing hub cap. For Garrard T & TA record players.
Cat. No. 1445..... Net \$2.38

WALSCO PHONO HARDWARE KIT

Kit contains over 60 parts, including phono jacks and plugs, assorted screws, spacers and springs, in transparent plastic box.
Cat. No. 1497..... Net \$1.82



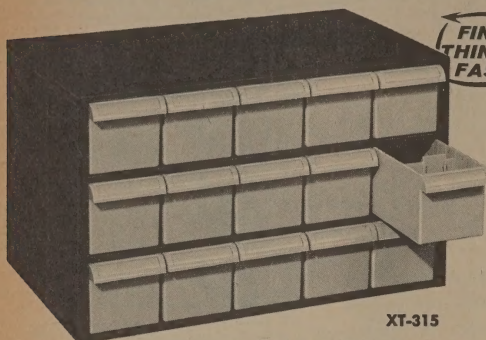
SEND FOR
FREE
CATALOG
FR-67



SMALL STORAGE CABINETS

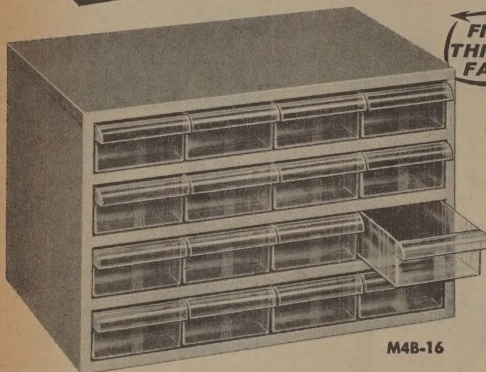
YOUR ANSWER TO EFFICIENT STORAGE

HEAVY DUTY MODULAR PARTS CABINETS



XT-315

**FIND
THINGS
FAST**



M4B-16

**FIND
THINGS
FAST**

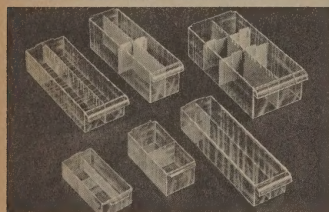
Designed to expand with your storage needs, A-M Modular Cabinets save Time, Space, Labor and Money. Stop hunting thru small part "junk piles!" Eliminate duplication, inventory confusion and wasted motion. A-M Modulares add or stack in any combination. Store more in Less Space at low cost. Locate items fast.

Welded into a single rigid unit, A-M Modular Steel frames stack securely — like building blocks. No bolting or assembling. They stand, stack, hang on walls or fit into standard shelving. Baked-on Enamel finish cannot chip or rub-off.

Two Types of Drawers Six Sizes of Each Type

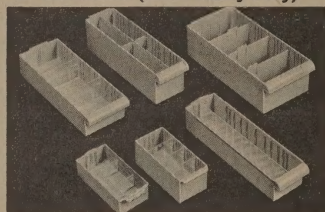
"See-Through" Drawer for visual inventory or virtually unbreakable "X"-tra Heavy Duty Drawers are available. Adjustable lengthwise, crosswise and criss-cross dividers provide from 2 to 24 compartments. No seams or sharp corners to cut hands. A-M Drawers are rustproof, Non-corrosive, Non-conductive, chemical resistant and smooth sliding. Stop tabs prevent spilling and Label slots provide easy indexing of contents.

CLEAR "See-Through" DRAWERS



"See-Through" drawers are molded of clear styrene ... for rapid visual identification.

"X" DRAWERS (Extra Heavy Duty)



Extra Heavy Duty Drawers are molded of tough polystyrene ... in granite gray color ... so strong they are virtually unbreakable ... 60% lighter than steel, yet drawers will not bend, warp, or twist out of shape.

ILLUSTRATED AT RIGHT MODELS

XJ-36
XG-24
XM-320
XM-416
XT-315
XT-509

**FIND
THINGS
FAST**

UNCONDITIONALLY GUARANTEED

You must be 100% delighted with your Akro-Mils Cabinets or it's no sale. If not completely satisfied after a 10-day trial, simply return without explanation and you will owe nothing.

CABINETS WITH "SEE THRU" DRAWERS	CABINETS WITH "X" DRAWERS	NUMBER OF DRAWERS INCLUDED	DRAWER SIZE— INCHES			CABINET SIZE All 17 1/2" Wide		SHIPPING WEIGHT POUNDS	NET COST COMPLETE
			High	Wide	Long	Deep	High		
J-36	XJ-36	36	1 1/16	2 3/4	5 7/8	6"	11 1/8"	13	\$12.48
G-24	XG-24	24	2	2 3/4	5 3/4	6"	9 7/8"	11	12.48
M3C-20	XM-320	20	2	3	11	11"	10 1/4"	16 1/2	19.98
M4B-16	XM-416	16	2	4	11	11"	10 1/4"	16 3/4	17.98
T3C-15	XT-315	15	3 1/32	3 1/8	11	11"	10 3/8"	17	17.98
T5A-9	XT-509	9	3 1/32	5 1/4	11	11"	10 3/8"	15 3/4	17.98

BUY WITH CONFIDENCE — ALL A-M CABINETS FULLY GUARANTEED — All models come ready to use, shipped in protective, individual floating-type cartons, fully assembled. Price includes drawer dividers and index labels. Prices F.O.B. shipping point. SALES TAX — Local, state and federal sales taxes are not included in prices shown in this catalog. If applicable, they are added at the time of purchase. Manufactured under one or more of the following U.S. Patents: 2,985,333, 3,200,983. Other patents pending: Made in U.S.A. TM® ©1966



SMALL STORAGE CABINETS

YOUR ANSWER TO EFFICIENT STORAGE

PORTABLE LOCKING CABINET 13 DRAWERS



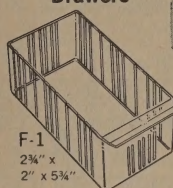
18P
12 Compact Drawers
& 1 Jumbo Drawer

The safe way to store, protect and transport small items, tools, Drugs or First Aid items. Chip-proof 10" W x 9" H x 6" D welded steel frame. 12 Compact, 1 Jumbo Clear Plastic drawers, each with divider. Hinged door with locking clasp and key **\$5.63**

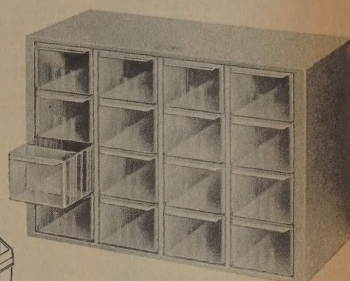
WELDED STEEL CABINETS WITH "SEE THRU" DRAWERS

FIND THINGS FAST

"See-Thru"
Plastic
Drawers



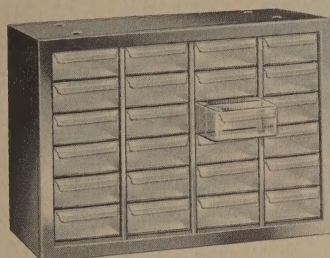
F-1
2 3/4" x
2" x 5 3/4"



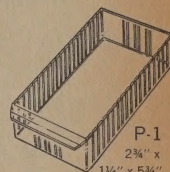
24F
With 16 Deep Drawers

Drawers
Labels And
Dividers

FIND THINGS FAST



24HB
With 24 Compact Drawers



P-1
2 3/4" x
1 3/4" x 5 3/4"

KITS OF DRAWERS THAT FIT IN ANY STANDARD SHELVING

2 SIZES
OF DRAWERS
IN KITS

FIND THINGS FAST

Quickly convert cluttered shelving into organized storage units. A-M Drawer Kits may double or triple the "use-ability" of your storage shelving. Drawers of virtually unbreakable polystyrene — no sharp edges, adjustable length-wise, crosswise and criss-cross dividers. Rustproof, non-corrosive. Kit fills one row of 36" shelving.



STORE MORE
"in your shelving"

MAKE YOUR OWN STORAGE BINS

Kit Number	Drawers are 3-1/32" High, 11" Deep	Width	Shipping Weight	Complete Kit Industrial User Price
23-110	10 Drawers—3 3/4" W.	6"	#	\$7.50
23-306	6 Drawers—5 1/4" W.	6 1/4"	#	7.50

Convenient small parts storage cabinets for office, home, shop, lab or assembly line. A-M welded steel frame cabinets stack, stand, hang from walls or fit shelving. "See-Thru" drawers provide easy, visible, inventory control. Hammertone Enamel finish is chipproof.

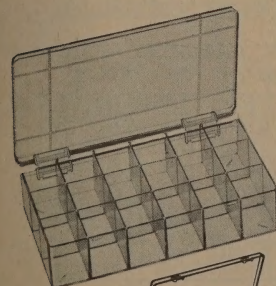
Molded of premium-quality plastic for exceptional strength and rigidity. "See-Thru" for instant visibility — see what is inside at a glance. P-1, 2-3/4" w. x 5-3/4" d. x 1-1/4" h. F-1, Deep Drawers; 2-3/4" w. x 5-3/4" d. x 2" h.

24F 9" H x 13" W x 6" D with 16 deep F-1 drawers, each with 1 divider. **\$5.63**

24HB 9" H x 13" W x 6" D with 24 compact P-1 drawers, each with 1 divider. **\$5.63**

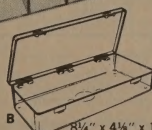
PLASTIC UTILITY STORAGE BOXES

Super-strong Plastic Utility Boxes with Exclusive "long-life" hinged-top design. Resists scratches and are light and durable. Perfect for electronic parts, hardware, all small items. 3 sizes with from 1 to 18 compartments. Packed individually



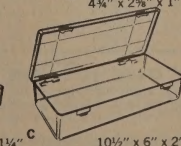
Choose from
3 Sizes with
from 1 to 18
Compartments

FIND THINGS FAST



B

8 1/4" x 4 1/4" x 1 1/4"



C

10 1/2" x 6" x 2"

A

4 3/4" x 2 3/4" x 1"

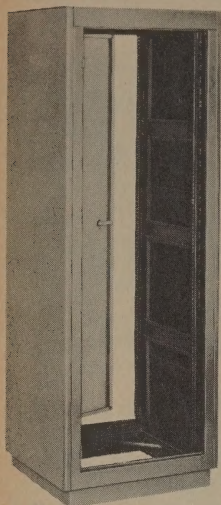
Key	Order Number	Number of Compartments	Compartment Dimensions	Ship. Wt.	Net Each	Dozen
A	05-201	1	4-3/4"x2-5/8"x1"	2 oz.	\$.29	\$ 2.64
A	05-204	4 equal	2-5/32"x1-9/32"x1"	2 oz.	.29	2.64
A	05-206	6 equal	1-7/16"x1-9/32"x1"	2 oz.	.29	2.64
B	05-401	1	8-1/4"x4-1/4"x1-1/4"	9 oz.	.65	5.88
B	05-406	6 equal	1-5/16"x4-1/8"x1-1/4"	9 oz.	.65	5.88
B	05-412	12	1-9/32"x1-5/16"x1-1/4"	9 oz.	.65	5.88
B	05-418	18 equal	1-3/16"x1-23/64"x1-1/4"	9 oz.	.65	5.88
C	05-501	1	10-7/16"x5-15/16"x2"	22 oz.	1.59	14.40
C	05-506	6 equal	1-11/16"x5-15/16"x2"	22 oz.	1.69	15.24
C	05-512	12	1-15/16"x1-11/16"x2"	22 oz.	1.69	15.24
C	05-518	18 equal	1-5/16"x1-11/16"x2"	22 oz.	1.69	15.24

BUY WITH CONFIDENCE — ALL A-M CABINETS FULLY GUARANTEED — All models come ready to use, shipped in protective, individual floating-type cartons, fully assembled. Price includes drawer dividers and index labels. Prices F.O.B. shipping point. SALES TAX — Local, state and federal sales taxes are not included in prices shown in this catalog. If applicable, they are added at the time of purchase.

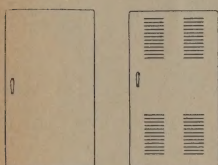
Manufactured under one or more of the following U.S. Patents: 2,985,333, 3,200,983. Other patents pending. Made in U.S.A. TM® ©1966



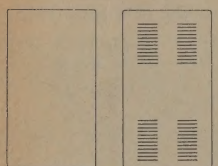
Series "60" Cabinet Racks



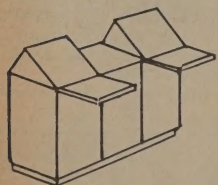
(A) Upright Rack



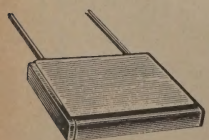
(B) Plain Door (C) Louvered Door



(D) Plain Side (E) Louvered Side



Typical Assembly



(F) Desk Top

Scientifically designed to meet all requirements for human needs as well as component physical specifications; the most practical cabinet rack developed for either a single piece of equipment or a large instrumentation system. Very economical to the user, units are shipped fully assembled and ready for immediate use.

Basic frame welded in a solid unit composed of 14-gauge cold-rolled steel channels. Sides have "T" braces with perforated channels for fastening vertical adjustable mounting rails. Rails also support other types of equipment such as brackets, shelves, slides, etc. Eliminates need of drilling holes in the rack. Sides and rear door made of 16 gauge steel. Door may be mounted to open left or right. Vertical channel, 6" wide, welded to door to prevent vibration or whip. Two pairs of panel mounting rails are supplied; fully adjustable. Panels may be mounted in front and rear at the same time. Front rails drilled and tapped 10-32 W.E. spacing. Rear rails are drilled according to universal spacing. All Series Sixty enclosures may be quickly combined with each other to create units of any desired width as shown in the Add-A-Rack series. In addition, such accessories as desk tops, turrets, drawers, slides, sloping panel supports and front door are easily installed. Standard finishes are smooth baked enamel over a primer. For two-tone gray, specify by adding suffix **SG**. For two-tone blue, add suffix **SB** to order number. Standard Bud relay rack panels are available for the Series Sixty racks in light gray and light blue; when ordering, add suffix **SG** for gray; **SB** for blue.

UPRIGHT CABINET RACKS (FIG. A)

Completely assembled with sides, rear door and top. Standard units have plain sides and door; solid top. For greater ventilation, order units with louvered sides and/or rear door; both, with solid top. Width, 24 1/4", all units. Inside depth 20 1/4" clear on units with 22" outside depth; 23 3/4", all others. Top opening 18 1/2" w. x 17" d. on units with 22" outside depth; 18 1/2" w. x 20 1/2" d., all others. Specify Color When Ordering: Add suffix **SG** to number for gray; suffix **SB**, for blue.

With Plain Sides and Door									Louvered Sides, Plain Door								
Bud No. 60-	Net Each, Lots of			Height	Outside Depth	Panel Space	Wt., Lbs.	Bud No. 60-	Net Each, Lots of			Height	Outside Depth	Panel Space	Wt., Lbs.		
	1-3	4-6	7-9						1-3	4-6	7-9						
2300	\$106.30	\$ 95.67	\$ 85.05	29 3/4"	22"	21"	118	2600	\$112.00	\$100.80	\$ 89.60	29 3/4"	22"	21"	118		
2301	131.45	118.30	105.15	40 3/4"	22"	31 1/2"	156	2601	140.00	126.00	112.00	40 3/4"	22"	31 1/2"	156		
2302	146.05	131.45	116.85	50 3/4"	22"	42"	173	2602	156.50	140.85	125.15	50 3/4"	22"	42"	173		
2303	166.25	149.60	133.00	61 1/4"	22"	52 1/2"	197	2603	179.00	161.10	143.20	61 1/4"	22"	52 1/2"	197		
2304	180.25	162.20	144.20	69 3/4"	22"	61 1/4"	220	2604	194.75	175.18	155.80	69 3/4"	22"	61 1/4"	220		
2305	200.00	180.00	160.00	78 3/4"	22"	70"	235	2605	216.50	194.85	173.20	78 3/4"	22"	70"	235		
2306	218.65	196.80	174.90	87 3/4"	22"	78 3/4"	265	2606	235.15	211.64	188.12	87 3/4"	22"	78 3/4"	265		
2307	125.50	112.95	100.40	29 3/4"	25 1/2"	21"	156	2607	135.15	121.64	108.12	29 3/4"	25 1/2"	21"	156		
2308	151.20	136.10	120.95	40 3/4"	25 1/2"	31 1/2"	176	2608	159.80	143.82	127.84	40 3/4"	25 1/2"	31 1/2"	176		
2309	168.00	151.20	134.40	50 3/4"	25 1/2"	42"	185	2609	178.00	160.20	142.40	50 3/4"	25 1/2"	42"	185		
2310	186.50	167.85	149.20	61 1/4"	25 1/2"	52 1/2"	211	2610	203.70	183.33	162.96	61 1/4"	25 1/2"	52 1/2"	211		
2311	207.30	186.55	165.85	69 3/4"	25 1/2"	61 1/4"	240	2611	219.90	197.91	175.92	69 3/4"	25 1/2"	61 1/4"	240		
2312	230.30	207.25	184.25	78 3/4"	25 1/2"	70"	256	2612	244.20	219.78	195.36	78 3/4"	25 1/2"	70"	256		
2313	251.35	226.20	201.10	87 3/4"	25 1/2"	78 3/4"	267	2613	266.20	239.58	212.96	87 3/4"	25 1/2"	78 3/4"	267		
With Louvered Sides and Door									Plain Sides, Louvered Door								
Bud No. 60-	Net Each, Lots of			Height	Outside Depth	Panel Space	Wt., Lbs.	Bud No. 60-	Net Each, Lots of			Height	Outside Depth	Panel Space	Wt., Lbs.		
	1-3	4-6	7-9						1-3	4-6	7-9						
2700	\$110.20	\$ 99.18	\$ 88.16	29 3/4"	22"	21"	118	2800	\$108.50	\$ 97.65	\$ 86.80	29 3/4"	22"	21"	118		
2701	137.00	123.30	109.60	40 3/4"	22"	31 1/2"	156	2801	134.30	120.87	107.44	40 3/4"	22"	31 1/2"	156		
2702	153.40	138.06	122.72	50 3/4"	22"	42"	173	2802	149.20	134.28	119.36	50 3/4"	22"	42"	173		
2703	175.30	157.77	140.24	61 1/4"	22"	52 1/2"	197	2803	169.70	152.73	135.76	61 1/4"	22"	52 1/2"	197		
2704	190.80	171.72	152.64	69 3/4"	22"	61 1/4"	220	2804	184.20	165.69	147.28	69 3/4"	22"	61 1/4"	220		
2705	212.00	190.80	169.60	78 3/4"	22"	70"	235	2805	204.30	183.87	163.44	78 3/4"	22"	70"	235		
2706	230.20	207.18	184.16	87 3/4"	22"	78 3/4"	265	2806	223.40	201.06	178.72	87 3/4"	22"	78 3/4"	265		
2707	129.90	116.91	103.92	29 3/4"	25 1/2"	21"	156	2807	127.70	114.93	102.16	29 3/4"	25 1/2"	21"	156		
2708	156.90	141.21	125.52	40 3/4"	25 1/2"	31 1/2"	176	2808	145.00	130.50	116.00	40 3/4"	25 1/2"	31 1/2"	176		
2709	174.70	157.23	139.76	50 3/4"	25 1/2"	42"	185	2809	171.10	153.99	136.88	50 3/4"	25 1/2"	42"	185		
2710	194.30	174.87	155.44	61 1/4"	25 1/2"	52 1/2"	211	2810	190.00	171.00	151.99	61 1/4"	25 1/2"	52 1/2"	211		
2711	215.90	194.31	172.72	69 3/4"	25 1/2"	61 1/4"	240	2811	211.10	189.99	168.88	69 3/4"	25 1/2"	61 1/4"	240		
2712	239.80	215.82	191.84	78 3/4"	25 1/2"	70"	256	2812	234.60	211.14	187.68	78 3/4"	25 1/2"	70"	256		
2713	261.30	235.17	209.04	87 3/4"	25 1/2"	78 3/4"	267	2813	256.10	230.49	204.88	87 3/4"	25 1/2"	78 3/4"	267		

ACCESSORY PERFORATED TOP

Bud No.	Width	Depth	Fits Upright Rack	Wt., Lbs.	Net Each, Lots of
					1-3 4-6 7-9
60-2370	21 1/4"	17"	With overall depth of 22"	6	\$5.65 \$5.10 \$4.50
60-2371	21 1/4"	20 1/4"	With overall depth of 25 1/4"	7	6.00 5.40 4.80

ACCESSORY DOORS

Doors are interchangeable; may be used for front or rear of rack; mount to open either left or right.

Plain Type (Fig. B)										Louvered Type (Fig. C)									
Bud No.		Net Each, Lots of			Ht.	Width	Fits Rack With Panel Space of	Wt., Lbs.	Bud No.		Net Each, Lots of			Ht.	Width	Fits Rack With Panel Space of	Wt., Lbs.		
No.		1-3	4-6	7-9					No.		1-3	4-6	7-9						
60-2340	\$16.05	\$14.45	\$12.85	\$12.85	21 1/4"	18 1/4"	21"	8	60-2340	\$18.35	\$16.52	\$14.68	21 1/4"	18 1/4"	21"	8			
60-2341	19.80	17.80	15.85	15.85	31 1/4"	18 1/4"	31 1/2"	13 1/2	60-2341	22.70	20.43	18.16	31 1/4"	18 1/4"	31 1/2"	13 1/2			
60-2342	21.90	19.70	17.50	17.50	42 1/4"	18 1/4"	42"	15 1/2	60-2342	25.20	22.50	20.16	42 1/4"	18 1/4"	42"	15 1/2			
60-2343	24.30	21.85	19.45	19.45	52 1/2"	18 1/4"	52 1/2"	19	60-2343	27.95	25.16	22.36	52 1/2"	18 1/4"	52 1/2"	19			
60-2344	27.05	24.35	21.65	21.65	61 1/4"	18 1/4"	61 1/4"	22 1/4	60-2344	31.05	27.95	24.84	61 1/4"	18 1/4"	61 1/4"	22 1/4			
60-2345	30.05	27.05	24.05	24.05	70"	18 1/4"	70"	25 1/2	60-2345	34.50	31.05	27.60	70"	18 1/4"	70"	25 1/2			
60-2346	32.80	29.50	26.25	26.25	79 3/4"	18 1/4"	78 3/4"	29	60-2346	37.70	33.93	30.16	79 3/4"	18 1/4"	78 3/4"	29			

ACCESSORY SIDES

Plain Type (Fig. D)							Louvered Type (Fig. E)						
Bud No.	Net Each Pair, Lots			Ht.	Width	Fits Rack With Panel Space of	Wt., Lbs.	Bud No.	Net Each Pair, Lots				
	1-3	4-6	7-9						1-3	4-6	7-9		
60-2560	\$24.10	\$21.70	\$19.30	26 ⁵ / ₁₆ "	22"	21"	12 ¹ / ₂ "	60-2580	\$28.10	\$25.30	\$22.50		
60-2561	31.50	28.35	25.20	37 ⁷ / ₁₆ "	22"	33"	17 ¹ / ₂ "	60-2581	37.20	33.50	29.75		
60-2562	65.70	59.13	52.56	33"	22"	33"	17 ¹ / ₂ "	60-2582	44.20	39.80	35.35		
60-2563	42.70	38.45	34.35	58 ³ / ₁₆ "	22"	52 ¹ / ₂ "	26 ¹ / ₂ "	60-2583	61.95	54.55			
60-2564	46.70	42.05	37.35	67 ⁷ / ₁₆ "	22"	61 ¹ / ₂ "	30"	60-2584	57.40	51.65	45.30		
60-2565	51.45	46.30	41.15	75 ⁵ / ₁₆ "	22"	70"	34"	60-2585	63.60	57.25	50.90		
60-2566	59.00	53.10	47.20	84 ³ / ₁₆ "	22"	78 ³ / ₁₆ "	38"	60-2586	70.75	63.70	56.60		
60-2567	30.15	27.15	24.10	26 ⁵ / ₁₆ "	25 ¹ / ₂ "	21"	14 ¹ / ₂ "	60-2587	34.70	31.25	27.75		
60-2568	39.40	35.10	31.50	37 ⁷ / ₁₆ "	25 ¹ / ₂ "	31 ¹ / ₂ "	20"	60-2588	45.30	40.75	36.25		
60-2569	48.85	44.25	39.65	47 ¹ / ₁₆ "	25 ¹ / ₂ "	41 ¹ / ₂ "	24"	60-2589	52.75	47.50	42.20		
60-2570	53.35	48.00	42.70	58 ³ / ₁₆ "	25 ¹ / ₂ "	52 ¹ / ₂ "	29 ¹ / ₂ "	60-2590	63.35	56.10			
60-2571	58.35	52.50	46.70	67 ⁷ / ₁₆ "	25 ¹ / ₂ "	61 ¹ / ₂ "	34 ¹ / ₂ "	60-2591	67.10	60.40	53.70		
60-2572	64.30	57.90	51.45	75 ⁵ / ₁₆ "	25 ¹ / ₂ "	70"	39"	60-2592	73.95	66.55	59.15		
60-2573	67.76	61.00	54.20	84 ³ / ₁₆ "	25 ¹ / ₂ "	78 ³ / ₁₆ "	43 ¹ / ₂ "	60-2593	77.90	70.10	62.30		



Series "60" Cabinet Racks

INCLINED PANEL CABINET RACKS (FIG. G)

Completely assembled with slides, rear door and solid top. Available in four combinations of plain or louvered sides and rear door. Size, 60 1/2" h. x 24 1/2" w. x 22" d., outside; 20 1/2" d., clear inside. Weight, 165 lbs. **Specify Color When Ordering:** Add suffix **SG** to number for gray; suffix **SB**, for blue.

With Plain Sides and Door					Incline Panel Hgt.	Vert. Panel Hgt.	Top Opening W. x D.	Louvered Sides and Plain Door				
Bud No. 60-	1-3	4-6	7-9	Net Each, Lots of				Bud No. 60-	1-3	4-6	7-9	Net Each, Lots of
2330	\$165.25	\$148.70	\$132.20		10 1/2"	29 3/4"	18 1/2" x 11 3/4"	2630	\$147.20	\$132.48	\$117.76	
2331	175.15	157.65	140.10		15 1/2"	24 1/2"	18 1/2" x 10"	2631	184.20	165.78	147.36	
2332	175.15	157.65	140.10		17 1/2"	22 3/4"	18 1/2" x 9 3/4"	2632	184.20	165.78	147.36	
With Louvered Sides and Door					Incline Panel Hgt.	Vert. Panel Hgt.	Top Opening W. x D.	Plain Sides, Louvered Door				
Bud No. 60-	1-3	4-6	7-9	Net Each, Lots of				Bud No. 60-	1-3	4-6	7-9	Net Each, Lots of
2730	\$170.90	\$153.81	\$136.72		10 1/2"	29 3/4"	18 1/2" x 11 3/4"	2830	\$168.50	\$151.65	\$134.80	
2731	181.00	162.90	144.80		15 1/2"	24 1/2"	18 1/2" x 10"	2831	178.40	160.56	142.72	
2732	181.00	162.90	144.80		17 1/2"	22 3/4"	18 1/2" x 9 3/4"	2832	178.40	160.56	142.72	

ACCESSORY FRONT DOORS

Plain Type (Fig. J)					Height	Width	Fits Rack Top Open. Size, In.	Wt., Lbs.	Louvered Type (Fig. K)				
Bud No.	1-3	4-6	7-9	Net Each, Lots of					Bud No.	1-3	4-6	7-9	Net Each, Lots of
60-2350	\$19.85	\$17.85	\$15.90		30 3/4"	18 1/2"	18 1/2" x 11 3/4"	11	60-2550	\$22.80	\$20.52	\$18.24	
60-2351	18.55	16.70	14.85		25 1/2"	18 1/2"	18 1/2" x 10"	9 1/2	60-2551	21.30	19.17	17.04	
60-2352	18.00	16.20	14.40		23 1/4"	18 1/2"	18 1/2" x 9 3/4"	9	60-2552	20.70	18.63	16.56	

ACCESSORY REAR DOORS

60-2342	\$21.90	\$19.70	\$17.50		42 1/2"	18 1/2"	All sizes	16 1/2	60-2542	\$25.20	\$22.68	\$20.16	
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ACCESSORY SIDES

Specify "L" for left side or "R" for right side, determined when facing front of rack.

60-2574*	\$38.45	\$34.60	\$30.75		47 1/2"	22"	18 1/2" x 11 3/4"	11	60-2594*	\$44.20	\$39.80	\$35.35	
60-2575*	39.55	35.60	31.65		47 1/2"	22"	18 1/2" x 10"	9 1/2	60-2595*	45.50	40.95	36.40	
60-2576*	39.55	35.60	31.65		47 1/2"	22"	18 1/2" x 9 3/4"	9	60-2596*	45.50	40.95	36.40	

*Fig. H, †Fig. I.

ACCESSORY PERFORATED TOPS

Bud No.	Width	Depth	Fits Rack Top Size, In.	Wt., Lbs.	Net Each, Lots of		
					1-3	4-6	7-9
60-2372	21 1/2"	11 1/2"	18 1/2" x 11 3/4"	4	\$4.40	\$3.95	\$3.50
60-2373	21 1/2"	10"	18 1/2" x 10"	3	4.25	3.85	3.40
60-2374	21 1/2"	9 1/2"	18 1/2" x 9 3/4"	3	4.20	3.80	3.35

ADD-A-RACK SERIES

Each assembly consists of frame, top, bottom, rear door and cowlings; used as an add-on unit to join any of the Series Sixty enclosures into a bank of two or more. One standard rack plus several Add-A-Racks make any desired number of racks combined for optimum width. Colors same as above racks.

Plain Sides						Louvered Sides						Wt., Lbs.
Bud No. 60-	For Add-on to Rack No. 60-	Net Each, Lots of	1-3	4-6	7-9	Bud No. 60-	For Add-on to Rack No. 60-	Net Each, Lots of	1-3	4-6	7-9	
2500	2300, 2600	\$ 86.10	\$ 77.50	\$ 68.90		2900	2700, 2800	\$ 88.40	\$ 79.56	\$ 70.72	92	
2501	2301, 2601	104.75	94.30	83.80		2901	2701, 2801	107.65	96.89	86.12	113	
2502	2302, 2602	114.70	103.25	91.75		2902	2702, 2802	118.00	106.20	94.40	115	
2503	2303, 2603	125.30	112.75	100.25		2903	2703, 2803	128.95	116.06	103.16	145	
2504	2304, 2604	140.00	126.00	112.00		2904	2704, 2804	144.00	129.60	115.20	148	
2505	2305, 2605	156.00	140.40	124.80		2905	2705, 2805	160.45	144.41	128.36	152	
2506	2306, 2606	167.35	150.60	133.90		2906	2706, 2806	172.25	155.03	137.80	158	
2507	2307, 2607	100.00	90.00	80.00		2907	2707, 2807	102.30	92.07	81.84	120	
2508	2308, 2608	117.25	105.55	93.80		2908	2708, 2808	120.15	108.14	96.12	132	
2509	2309, 2609	128.00	115.20	102.40		2909	2709, 2809	131.30	118.17	105.04	138	
2510	2310, 2610	139.60	125.65	111.70		2910	2710, 2810	143.25	128.93	114.60	142	
2511	2311, 2611	156.10	140.50	124.90		2911	2711, 2811	160.10	144.09	128.08	164	
2512	2312, 2612	174.00	156.60	139.20		2912	2712, 2812	178.45	160.61	142.76	168	
2513	2313, 2613	192.50	173.25	154.00		2913	2713, 2813	197.40	177.66	157.92	172	
2530	2330, 2630	132.90	119.60	106.30		2930	2730, 2830	136.20	122.58	108.96	119	
2531	2331, 2631	142.10	127.90	113.70		2931	2731, 2831	145.40	130.86	116.32	119	
2532	2332, 2632	142.10	127.90	113.70		2932	2732, 2832	145.40	130.86	116.32	125	

SERIES SIXTY TURRETS (FIG. L)

Made of 16 gauge steel; designed so that any one of three sides may be attached to a Series Sixty upright rack or any horizontal surface. Accommodate standard 19" panels. All mounting rails have universal spacing. Sides easily removed when a series of interconnecting turrets are desired. **Specify Color When Ordering:** Add suffix **SG** for dark gray; **SB** for dark blue. For panels, order standard Bud panels with suffix **SG** for light gray; **SB** for light blue.

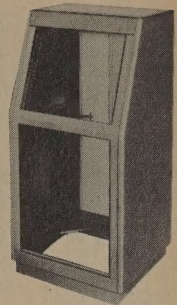
Bud No.	Width	Depth	Height	Panel Space			Wt., Lbs.	Net Each, Lots of		
				Sloping	Bottom	Rear		1-3	4-6	7-9
60-2364	22 1/2"	17 1/2"	12 1/2"	17 1/2"	14"	8 3/4"	17	\$39.05	\$35.15	\$31.25
60-2365	22 1/2"	14 1/2"	10 1/2"	12 1/2"	10 1/2"	7"	14	32.55	29.30	26.05
60-2366	22 1/2"	20 1/2"	14 1/2"	21"	17 1/2"	10 1/2"	20	41.00	36.90	32.80

SERIES SIXTY DRAWER, DESK TOP, AND SHELF ACCESSORIES

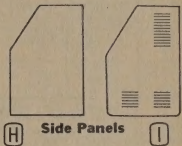
No. 60-2368 Drawer: Fits into any Series Sixty cabinet rack. Slides easily on nylon rollers. Will support heavy loads. Extends to full depth; stops prevent drawer from falling out. Slides attach unit. Slides easily removed when a series of interconnecting drawers are desired. **No. 60-2361 Sliding Desk Top:** Fits all Series Sixty racks. Has smooth Formica* surface for writing, servicing or inspection. Fits flush with front of unit. Usable area when fully extended, 11" x 16 1/4". Occupies only 1 1/4" of panel height. Will support 75 lbs. Ball-bearing slide mechanism mounts directly in Series Sixty racks; brackets included to fit other Bud cabinets and consoles. **No. 60-2363 Desk Top Drawer:** Fits Series Sixty racks. Has Formica surface. Fits flush with front of unit. Hinged desk top on drawer holds small tools or parts. Special front-panel latch both locks and releases drawer or top as desired. Mounts to cabinet U-braces; slides travel on nylon rollers. Hardware supplied. **No. 60-2380 and 60-2381 Shelves:** Ideal for support of chassis, power supplies or other equipment; also may be used as base plate for bottom support. Of one-piece 16 gauge steel with flanged front and rear for extra strength and rigidity. Easily bolt to cabinet U-braces. Will support 200 lbs. Hardware supplied.

Bud No.	Fig.	Size, Inches	Wt., Lbs.	Net Each, Lots of		
				1-3	4-6	7-9
60-2368†	M	16 1/2" x 6 3/4" x 19 1/4" inside	28	\$32.05	\$28.85	\$25.65
60-2361†	N	16 1/2" x 15 1/2" x 1 1/4" with std. 19" panel	8	16.65	14.99	13.32
60-2363†	O	16 1/2" x 3 1/2" x 15 inside; 19 x 3 1/2" front panel	19	55.00	49.50	44.00
60-2380†	P	17 1/2" w. x 19 1/2" d.	7 3/4	6.80	6.12	5.44
60-2381†	P	17 1/2" w. x 22 3/4" d.	8 3/4	7.10	6.39	5.70

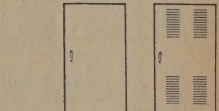
*Synthane Corp. trademark. †Add suffix **SB** for smooth blue; **SG**, smooth gray. ‡Add suffix **B** for black wrinkle; **G**, gray wrinkle; **HG**, gray hammertone; **SB**, smooth blue; **SG**, smooth gray.



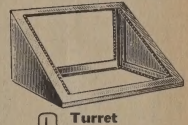
G Inclined Panel Rack



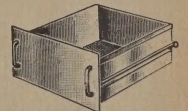
H Side Panels



J Doors



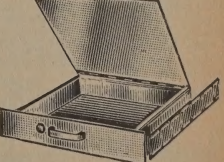
L Turret



M Drawer



N Sliding Desk Top



O Desk Top Drawer

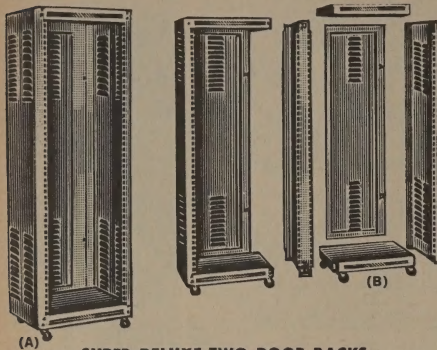


P Shelf



Cabinet Racks, Accessories

DELUXE RELAY RACKS WITH ADD-A-RACK



**SUPER DELUXE TWO-DOOR RACKS
WITH 19" WIDE PANEL SPACE**

Bud No.	Height, Overall	Panel Space	Wt., Lbs.	Net Each, Lots of		
				1-9	10-14	15-19
CR-2174	42 $\frac{1}{2}$ "	36 $\frac{3}{4}$ "	102	\$ 70.70	\$ 63.65	\$56.55
CR-2171	47 $\frac{1}{2}$ "	42"	104	80.10	72.10	64.10
CR-2172	66 $\frac{1}{2}$ "	61 $\frac{1}{4}$ "	138	103.35	93.00	82.70
CR-2175	75 $\frac{1}{2}$ "	70"	150	105.85	95.25	84.70
CR-2173	82 $\frac{1}{2}$ "	77"	163	124.10	111.70	99.30

WITH 24" WIDE PANEL SPACE

Bud No.	Height, Overall	Panel Space	Wt., Lbs.	Net Each, Lots of		
				1-9	10-14	15-19
CR-2494	42 $\frac{1}{2}$ "	36 $\frac{3}{4}$ "	119	\$ 95.85	\$ 86.25	\$76.70
CR-2491	47 $\frac{1}{2}$ "	42"	122	107.40	96.65	85.90
CR-2492	66 $\frac{1}{2}$ "	61 $\frac{1}{4}$ "	160	139.75	125.80	111.80
CR-2495	75 $\frac{1}{2}$ "	70"	175	149.00	134.10	119.20
CR-2493	82 $\frac{1}{2}$ "	77"	190	167.50	150.75	134.00

ADD-A-RACK ASSEMBLIES

Includes door, top, bottom and coupling unit for add-on use with racks indicated.

Bud No.	For Use With Rack No.	Wt., Lbs.	Net Each, Lots of		
			1-9	10-14	15-19
AR-1778	CR-1774	70	53.65	48.30	42.90
AR-1775	CR-1771	74	59.30	53.40	47.45
AR-1776	CR-1772	100	73.75	66.40	59.00
AR-1779	CR-1780	107	75.00	67.50	60.00
AR-1777	CR-1773	113	90.65	81.60	72.50
AR-2474	CR-2474	82	57.75	52.00	46.20
AR-2471	CR-2471	87	65.10	58.60	52.10
AR-2472	CR-2472	117	81.65	73.50	65.30
AR-2475	CR-2475	125	83.20	74.00	66.55
AR-2473	CR-2473	132	97.90	88.10	78.30
AR-2278*	CR-2074	102	63.15	56.85	50.50
AR-2275*	CR-2071	86	71.45	64.30	57.15
AR-2276*	CR-2072	110	89.40	80.45	71.50
AR-2279	CR-2075	120	91.35	82.20	73.10
AR-2277*	CR-2073	130	108.95	98.05	87.15
AR-2278*	CR-2484	100	81.90	73.70	65.50
AR-3275	CR-2481	119	91.35	82.20	73.10
AR-3276	CR-2482	129	114.45	103.00	91.55
AR-3279	CR-2485	140	116.55	104.90	93.25
AR-3277	CR-2483	152	137.55	123.80	110.05

*Gray hammertone standard; for black or gray wrinkle add 10% to price.

"TEM-STAT" TEMPERATURE CONTROLS

Prevents costly damage to electronic components in enclosed cabinets, boxes, etc. Bimetal sensing element responds quickly to gradual or sudden temperature changes and actuates whatever warning device you use: Activates a light, bell, blower or other device; or, shuts off current. Activates snap-action, heavy-duty, normally open switch contacts. High electrical ratings up to 300° F.; fully adjustable temperature ranges. Screw terminals for easy attachment. U/L Listed. Small size, 2 $\frac{1}{4}$ " lg. x 1 $\frac{1}{2}$ " w. x 1 $\frac{1}{2}$ " d., suitable for limited space applications. **U/L Rating:** 8 amps, full load.

Bud Model TL-15—For 80°–170° F range. Net Each. . . . \$5.00
Bud Model TL-16—For 150°–240° F range. Net Each. . . . \$5.00

CASTERS

Bud No.	Height	Weight (Set of 4)	Net Each, Lots of		
			1-49	50-99	100-149
RC-7756	2 $\frac{3}{4}$ "	1 $\frac{3}{4}$ lbs.	\$1.10	\$1.00	\$.90
RC-7757	2"	1 lb.	.50	.45	.40
RC-7758	3 $\frac{1}{4}$ "	6 lbs.	2.65	2.40	2.10

• New product.

(A) Deluxe Relay Racks—High quality relay racks made of 16-gauge steel with $\frac{3}{16}$ " panel supports. Panel mounting supports are recessed so that no panel edges will be exposed. Both back and sides are fully lowered for best ventilation. Snap catches are positioned on the door. Rounded corners and red-lined chrome trim give streamlined appearance. Base constructed with four special supports so that casters may be applied directly to base for mobility. All standard panels fit these racks: 22" wide for 19" panels; 27" wide for 24" panels.

Super Deluxe Series Relay Racks are equipped with adjustable panel mounting supports permitting forward and backward adjustment of panels for more efficient use of space. Adjustable points are at 1" intervals for 9" to 15" clearance behind panels. Super Deluxe Racks are fitted with both front and rear doors, the rear to cover any equipment behind the panel while making it easily accessible. The front door, not lowered, conceals controls on the front panel.

(B) Add-A-Rack Series—Where relay racks are to be joined in series. Provides additional strength and improved appearance. Includes door, top, bottom and coupling unit, all that is needed to make a double relay rack out of a single Deluxe series.

All Racks Listed are shipped knocked-down with all necessary hardware and assembly instructions. Casters optional. When ordering specify finish. Add suffix "HG" for gray hammertone; suffix "G" for gray wrinkle; and suffix "B" for black wrinkle.

DELUXE RELAY RACKS

17 $\frac{1}{2}$ " Overall Depth

WITH 19" WIDE PANEL SPACE

Bud No.	Height, Overall	Panel Space	Wt., Lbs.	Net Each, Lots of		
				1-9	10-14	15-19
CR-1774	42 $\frac{1}{2}$ "	36 $\frac{3}{4}$ "	82	\$54.65	\$49.20	\$43.70
CR-1771	47 $\frac{1}{2}$ "	42"	92	61.80	55.15	49.45
CR-1772	66 $\frac{1}{2}$ "	61 $\frac{1}{4}$ "	115	77.40	69.65	61.90
CR-1780	75 $\frac{1}{2}$ "	70"	125	78.65	70.80	62.90
CR-1773	82 $\frac{1}{2}$ "	77"	135	92.70	83.45	74.15

WITH 24" WIDE PANEL SPACE

Bud No.	Height, Overall	Panel Space	Wt., Lbs.	Net Each, Lots of		
				1-9	10-14	15-19
CR-2474	42 $\frac{1}{2}$ "	36 $\frac{3}{4}$ "	96	\$66.55	\$59.90	\$53.25
CR-2471	47 $\frac{1}{2}$ "	42"	108	75.10	67.60	60.10
CR-2472	66 $\frac{1}{2}$ "	61 $\frac{1}{4}$ "	135	88.15	78.65	70.10
CR-2475	75 $\frac{1}{2}$ "	70"	148	95.85	86.25	76.70
CR-2473	82 $\frac{1}{2}$ "	77"	158	112.70	101.45	90.15

EXTRA DEEP DELUXE RACKS

Same as above, except 22 $\frac{1}{2}$ " deep instead of 17 $\frac{1}{2}$ " deep. Gray hammertone finish standard; for black or gray wrinkle add 10% to price.

WITH 19" WIDE PANEL SPACE

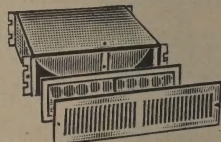
Bud No.	Height, Overall	Panel Space	Wt., Lbs.	Net Each, Lots of		
				1-9	10-14	15-19
CR-2074	42 $\frac{1}{2}$ "	36 $\frac{3}{4}$ "	98	\$69.55	\$62.60	\$55.65
CR-2071	47 $\frac{1}{2}$ "	42"	102	78.70	70.85	62.95
CR-2072	66 $\frac{1}{2}$ "	61 $\frac{1}{4}$ "	137	98.50	89.65	78.80
CR-2075	75 $\frac{1}{2}$ "	70"	148	100.45	90.40	80.35
CR-2073	82 $\frac{1}{2}$ "	77"	159	117.00	105.50	93.60

WITH 24" WIDE PANEL SPACE

Bud No.	Height, Overall	Panel Space	Wt., Lbs.	Net Each, Lots of		
				1-9	10-14	15-19
CR-2484	42 $\frac{1}{2}$ "	36 $\frac{3}{4}$ "	115	\$93.55	\$84.20	\$74.85
CR-2481	47 $\frac{1}{2}$ "	42"	119	105.00	94.50	84.00
CR-2482	66 $\frac{1}{2}$ "	61 $\frac{1}{4}$ "	160	131.70	118.55	105.35
CR-2485	75 $\frac{1}{2}$ "	70"	173	143.00	126.60	107.20
CR-2483	82 $\frac{1}{2}$ "	77"	186	157.10	141.40	125.70

TRANS-AIRE BLOWER

Ideal for use where excessive heat is generated by equipment in an enclosed rack, cabinet or console. Brings in fresh air or exhausts heated air, enabling use as an exhaust or intake blower, depending upon mounting position. Unit will operate in any position—vertical or horizontal. May be mounted to rails of standard cabinet or rack. Use of Bud Chassis Supporting Angles SA-1349, SA-1350 or CE-2219 is recommended when blower is mounted in rack or cabinet. Motor is rubber mounted to reduce vibration. Operating noise factor reduced to minimum. Thermal overload protection to prevent overheating. Automatic reset. Oil impregnated, fiberglass disposable filter can be changed without removing unit from cabinet. Three sizes provide air displacement from 100 c.f.m. to 750 c.f.m. at 0" static pressure. Complete with filter, chrome-plated grille and 18" three-wire cord. All dimensions and technical data in table below. **Weight:** B-25 17 $\frac{1}{2}$ lbs., B-25 33 lbs., B-27 35 $\frac{1}{2}$ lbs.; replacement filter 1 lb.



BLOWERS

Bud No.	Panel Space	Depth	Air c.f.m.		Mot. hp	Net Each, Lots of		
			High	Low		1-9	10-14	15 Up
B23	3½"x19"	12"	200	100	1/20	\$57.75	\$52.00	\$46.20
B25	5¼"x19"	14½"	500	250	1/6	66.00	59.40	52.80
B27	7" x19"	14½"	750	350	1/4	74.25	66.85	59.40

FILTERS FOR ABOVE BLOWERS

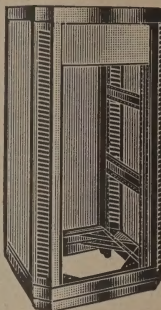
Bud No.	Unit	Net Each, Lots of		
		1-24	25-49	50-99
BF-24	Filter for use with B-23	\$1.50	\$1.35	\$1.20
BF-26	Filter for use with B-25	1.65	1.50	1.30
BF-28	Filter for use with B-27	1.80	1.65	1.45



Racks, Cabinets, Accessories

NEW ZEPHYR 8 CABINET RACKS

Combine striking appearance with increased utility, extra ventilation, and unusually sturdy construction. Units are completely assembled with all-welded 14 gauge steel frames. Sides and reinforced rear door are of 16 gauge steel. Sides of frame are reinforced by channel braces to which panel mounting rails are attached. Front and rear mounting rails are adjustable. Sides may be removed from outside of rack for easy access to interior. The octagonal shape and louvers placed in the four narrow sides permit exceptional ventilating capability. If corner placement is desired or combinations of racks are placed together, this shape allows for a "center ventilated system." Also, the outer shape surrounding the inner structural frame provides extra space for longitudinal or vertical placement of plenums, cable-track, buss ducts, etc. Casters may be attached to the base or removable sub-base. Front doors, available as optional accessories, are equipped with a flush-type latch. Available in two-tone gray finish only.



Bud No.	Overall Size, Inches W. x D. x H.	Vertical Panel Space, Inches	Weight, Lbs.
MD-1990	27 $\frac{1}{2}$ " x 24" x 47 $\frac{3}{4}$ "	19 x 42	160
MD-1991	27 $\frac{1}{2}$ " x 24" x 58 $\frac{1}{2}$ "	19 x 52 $\frac{1}{2}$ "	190
MD-1992	27 $\frac{1}{2}$ " x 24" x 67"	19 x 61 $\frac{1}{2}$ "	215
MD-1993	27 $\frac{1}{2}$ " x 24" x 75 $\frac{3}{4}$ "	19 x 70	240
MD-1994	27 $\frac{1}{2}$ " x 24" x 82 $\frac{3}{4}$ "	19 x 77	260

Bud No.	Net Each, Lots of	1-4	5-9	10-14
MD-1990	\$185.00	\$166.50	\$148.00	
MD-1991	206.00	185.40	164.80	
MD-1992	229.00	206.10	183.20	
MD-1993	255.00	229.50	204.00	
MD-1994	278.00	250.00	222.00	

ACCESSORY FRONT DOORS

Bud No.	Fits Bud No.	Weight, Lbs.	Net Each, Lots of	1-4	5-9	10-14
MD-1995	MD-1990	19	\$23.40	\$21.05	\$18.70	
MD-1996	MD-1991	25	26.00	23.40	20.80	
MD-1997	MD-1992	30	28.90	26.00	23.10	
MD-1998	MD-1993	35	32.20	29.00	25.75	
MD-1999	MD-1994	39	35.00	31.60	28.10	

IMPERIAL INCLINED PANEL CONSOLE



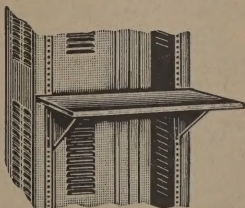
Smart looking all-aluminum console built for strength while keeping weight factor in mind. Assembly includes framework, top, bottom, two sides, and reinforced door with concealed hinges and flush mounted latch. Joints are ball-cornered aluminum castings. Inclined panel set at 22 $\frac{1}{2}$ " angle. Cast brass, heavy duty hinges designed to enable components, blowers, etc., to be mounted on rear door. Framework for top, inclined panel area and front are extrusions, drilled and tapped to accept standard rack panels. Casters may be attached. Standard Bud aluminum panels may be used to enclose the front and inclined panel spaces. Sides, top, door are gray hammertone. Frame and bottom are smooth black.

Bud No.	Overall Size, Inches W. x D. x H.	Vertical Panel Size, Inches	Weight, Lbs.
BI-1828	20 $\frac{1}{2}$ " x 18 $\frac{1}{2}$ " x 40 $\frac{1}{4}$ "	19 $\frac{1}{4}$ x 28 $\frac{1}{4}$ "	41
BI-2228	20 $\frac{1}{2}$ " x 22 $\frac{1}{2}$ " x 40 $\frac{1}{4}$ "	19 $\frac{1}{4}$ x 28 $\frac{1}{4}$ "	47
BI-2419	20 $\frac{1}{2}$ " x 19 $\frac{1}{2}$ " x 43 $\frac{3}{4}$ "	19 $\frac{1}{4}$ x 24 $\frac{1}{4}$ "	43
BI-2421	20 $\frac{1}{2}$ " x 21 $\frac{1}{2}$ " x 43 $\frac{3}{4}$ "	19 $\frac{1}{4}$ x 24 $\frac{1}{4}$ "	46

Bud No.	Net Each, Lots of	1-9	10-14	15-19
BI-1828	\$162.75	\$146.50	\$130.20	
BI-2228	170.00	153.00	136.00	
BI-2419	190.00	171.00	152.00	
BI-2421	200.00	180.00	160.00	

SHELF ASSEMBLY

Useful as a desk, work space, etc. Can't lift off or tilt; will support any reasonable weight. Shelf portion supported by two brackets, punched to fit standard panel mounting strips. No panel support needed. Sides welded to bottom of shelf; mounting brackets slip into sides and fasten with two screws. 16 gauge steel; $\frac{1}{2}$ " flange on all four sides; overall height, 7 $\frac{1}{2}$ ". Brackets are 7" high. Specify black wrinkle (suffix "B"), gray wrinkle (suffix "G"), or light gray hammertone (suffix "HG") finish.



Bud No.	Size, Inches D. x W.	Weight, Lbs.	Net Each, Lots of	1-14	15-24	25-34
SA-1719	16 x 22	14	\$12.00	\$10.80	9.60	
SA-1720	20 x 22	15	12.15	10.95	9.70	

PRESTIGE BALL CORNER RACKS

Attractive, practical housing for permanent or mobile instrumentation. Consists of framework, top, bottom, two ball cornered sides, and a ball corner door. Sides attach to frame by means of a tongue-and-slot arrangement and two screws. Sides easily removable. Drilled and tapped adjustable panel mounting rails on all four vertical members of frame. Doors mount from either left or right. Base takes side panels on any of the four sides. Door and side clearance permits covering of equipment without damage to knobs or controls. Provision made for recessed casters. Extra doors available. Knockout holes for attaching two or more units together. Bottom will support 600 lbs. Panel rails 200 lbs. suspended vertically between rails. Units take Bud SD-1717 sliding drawer assembly or CD-2210 console drawer. Shipped knocked-down, with necessary hardware. Gray hammertone finish only.



Bud No.	Height, Overall	Panel Space	Wt., Lbs.	Net Each, Lots of	1-9	10-14	15-19
CR-2280	66 $\frac{1}{2}$ "	61 $\frac{1}{2}$ "	179	\$125.15	\$112.65	\$100.10	
CR-2281	71 $\frac{1}{2}$ "	66 $\frac{1}{2}$ "	186	133.45	120.10	106.75	
CR-2282	82 $\frac{1}{2}$ "	77 $\frac{1}{2}$ "	213	149.90	134.80	119.90	
DR-2290	Door for CR-2280		28	16.65	14.05	12.50	
DR-2291	Door for CR-2281		33	16.65	15.00	13.30	
DR-2292	Door for CR-2282		39	18.70	16.85	14.95	

PRESTIGE ADD-A-RACKS

Where relay racks are to be joined in series this assembly is lower in cost yet provides additional strength and improved appearance. Consists of top, bottom, rear door and framework. 16 gauge steel. Extra ball corner doors will fit adjustable panel mounting rails which are recessed. Gray hammertone.

Bud No.	Used to Add-A-Rack to	Net Each, Lots of	1-9	10-14	15-19
AR-2284	CR-2280	\$ 88.50	\$ 88.65	\$78.80	
AR-2285	CR-2281	104.00	95.75	85.10	
AR-2287	CR-2282	119.50	107.55	95.60	

DELUXE TELEPHONE-TYPE RELAY RACKS

Sturdy rack with extra strength and capacity. U-member is welded with ventilation at top. Panel-mounting rails, front and rear, tapped 10-32 with W.E. spacing. Made of 12 ga. steel. Chassis-type 20Kc. drilled for RC-7756 casters. Brackets hold uprights to base; holes on both sides for bolting racks together. Add suffix HG for gray hammertone; B for black wrinkle; or G for gray wrinkle. Nos. RR-1367-RR-1369 have 20 $\frac{1}{2}$ " base width and take 19" panels. Nos. RR-2467-RR-2469 have 25 $\frac{1}{2}$ " base width and take 24" panels.

Bud No.	Height, Overall	Panel Space	Net Each, Lots of	1-9	10-14	15-19
RR-1367	64 $\frac{1}{2}$ "	61 $\frac{1}{2}$ "	\$42.85	\$38.55	\$34.30	
RR-1368	73 $\frac{1}{2}$ "	70"	43.80	39.40	35.05	
RR-1369	80 $\frac{1}{2}$ "	77"	51.90	46.70	41.50	
RR-2467	64 $\frac{1}{2}$ "	61 $\frac{1}{2}$ "	52.00	46.80	41.60	
RR-2468	73 $\frac{1}{2}$ "	70"	53.15	47.85	42.50	
RR-2469	80 $\frac{1}{2}$ "	77"	62.95	56.65	50.35	

TELEPHONE-TYPE RELAY RACKS

Standard Models: 3" channels and crossbars of 7/64" steel. Base is chassis type with side angles. Base drilled for RC-7756 casters. Black wrinkle (suffix "B") or gray hammertone (suffix "HG"). Heavy Duty Models RR-1265 and RR-1465: Two 3 $\frac{1}{2}$ " x 5 $\frac{1}{2}$ " x 1 $\frac{1}{2}$ " long angles form base. Steel channels are 3" x 1 $\frac{1}{2}$ " x 7 $\frac{1}{2}$ " long. Cross bars are 1 $\frac{1}{2}$ " x 2-3/32" angles. Panel holes spaced 12-24 with W.E. space. Black wrinkle finish only. Usually bolted to floor.

FOR 19" WIDE PANELS

Bud No.	Height, Overall	Panel Space	Net Each, Lots of	1-9	10-14	15-19
RR-1263	35 $\frac{1}{2}$ "	31 $\frac{1}{2}$ "	\$25.10	\$22.60	\$20.10	
RR-1363	40 $\frac{1}{2}$ "	36 $\frac{1}{2}$ "	24.20	21.80	19.35	
RR-1264	70 $\frac{1}{2}$ "	66 $\frac{1}{2}$ "	28.65	25.80	22.90	
RR-1364	75 $\frac{1}{2}$ "	71 $\frac{1}{2}$ "	27.70	24.95	22.15	
RR-1366	81 $\frac{1}{2}$ "	77"	33.00	29.70	26.40	
RR-1265	72 $\frac{1}{2}$ "	66 $\frac{1}{2}$ "	66.15	59.55	52.90	

FOR 24" WIDE PANELS

Bud No.	Height, Overall	Panel Space	Wt., Lbs.	Net Each, Lots of	1-14	15-24	25-34
RR-1463	35 $\frac{1}{2}$ "	31 $\frac{1}{2}$ "	\$30.85	\$27.75	\$24.70		
RR-1464	40 $\frac{1}{2}$ "	36 $\frac{1}{2}$ "	33.50	30.15	27.50		
RR-1464	70 $\frac{1}{2}$ "	66 $\frac{1}{2}$ "	35.30	31.75	26.80		
RR-2464	75 $\frac{1}{2}$ "	71 $\frac{1}{2}$ "	35.30	31.75	28.25		
RR-2466	81 $\frac{1}{2}$ "	77"	45.05	40.55	36.05		
RR-1465	72 $\frac{1}{2}$ "	66 $\frac{1}{2}$ "	78.30	70.45	62.65		

TABLE-MOUNT TELEPHONE RACK

Sturdy rack with chassis type base mounts heavy components on table where enclosures are not required. Panel mount rails recessed for flush mount of 19" panels. Shipped knocked down. Specify black wrinkle (suffix "B") or gray hammertone ("HG").

Bud No.	Height, Overall	Panel Space	Wt., Lbs.	Net Each, Lots of	1-14	15-24	25-34
RR-1248	24"	21"	15	\$11.05	\$ 9.95	\$ 8.85	
RR-1249	31"	28"	18	13.50	12.15	10.80	



Relay Racks and Panels

STANDARD RELAY RACK PANELS

Choice of steel or aluminum relay rack panels, $\frac{1}{8}$ " or $\frac{1}{4}$ " thick, in both 19" and 24" widths. Specify color when ordering. Use letter suffix: **B** for black wrinkle; **G** for gray wrinkle; **HG** for gray hammertone; **SB** for smooth blue; **SG** for smooth gray. Aluminum panels 5005 H-36 alloy.

STANDARD 19" WIDE PANELS

Ht., In.	$\frac{1}{8}$ " STEEL				$\frac{1}{4}$ " ALUMINUM			
	Bud No. PS-	Net Each,	Lots of		Bud No. PA-	Net Each,	Lots of	
1 $\frac{1}{2}$ "	1250	\$1.00	\$.90	\$.80	1101	\$1.25	\$1.15	\$1.00-149
3 $\frac{1}{2}$ "	1251	1.20	1.10	.95	1102	1.65	1.50	1.30
5 $\frac{1}{2}$ "	1252	1.55	1.40	1.25	1103	2.20	2.00	1.75
7 $\frac{1}{2}$ "	1253	1.70	1.50	1.35	1104	2.80	2.50	2.25
8 $\frac{1}{2}$ "	1254	1.75	1.55	1.40	1105	3.25	2.95	2.60
10 $\frac{1}{2}$ "	1255	2.55	2.30	2.05	1106	4.15	3.75	3.30
12 $\frac{1}{2}$ "	1256	2.90	2.60	2.30	1107	4.75	4.30	3.80
14"	1257	3.40	3.05	2.70	1108	5.50	4.95	4.40
15 $\frac{1}{2}$ "	1258	3.75	3.40	3.00	1109	6.15	5.55	4.90
17 $\frac{1}{2}$ "	1259	4.25	3.85	3.40	1110	6.75	6.10	5.40
19 $\frac{1}{2}$ "	1260	4.60	4.15	3.70	1111	7.35	6.65	5.90
21"	1261	5.15	4.65	4.10	1112	8.10	7.30	6.50

STANDARD 24" WIDE PANELS

Ht., In.	$\frac{1}{8}$ " STEEL				$\frac{1}{4}$ " ALUMINUM			
	Bud No. PA-	Net Each,	Lots of		Bud No. PA-	Net Each,	Lots of	
1 $\frac{1}{2}$ "	3420	\$1.40	\$1.25	\$1.10	2401	\$1.80	\$1.60	\$1.45
3 $\frac{1}{2}$ "	3421	1.60	1.45	1.30	2402	2.30	2.05	1.85
5 $\frac{1}{2}$ "	3422	2.00	1.80	1.60	2403	3.15	2.85	2.50
7 $\frac{1}{2}$ "	3423	2.25	2.05	1.80	2404	3.95	3.55	3.15
8 $\frac{1}{2}$ "	3424	2.80	2.50	2.25	2405	4.60	4.15	3.70
10 $\frac{1}{2}$ "	3425	3.25	2.95	2.60	2406	5.30	4.75	4.20
12 $\frac{1}{2}$ "	3426	3.95	3.55	3.15	2407	6.65	6.00	5.30
14"	3427	4.55	4.10	3.65	2408	7.75	7.00	6.20
15 $\frac{1}{2}$ "	3428	5.15	4.65	4.10	2409	8.70	7.85	6.95
17 $\frac{1}{2}$ "	3429	5.70	5.15	4.55	2410	9.55	8.60	7.65
19 $\frac{1}{2}$ "	3430	6.35	5.70	5.10	2411	10.50	9.45	8.40
21"	3431	7.00	6.30	5.60	2412	11.55	10.40	9.25

STANDARD $\frac{3}{16}$ " THICK ALUMINUM PANELS

Ht., In.	Standard 19" Wide Panels				Standard 24" Wide Panels			
	Bud No. PA-	Net Each,	Lots of		Bud No. PA-	Net Each,	Lots of	
1 $\frac{1}{2}$ "	3101	\$2.00	\$1.80	\$1.60	2431	\$3.25	\$2.95	\$2.60
3 $\frac{1}{2}$ "	3102	2.65	2.40	2.10	2432	4.20	3.80	3.40
5 $\frac{1}{2}$ "	3103	3.55	3.20	2.85	2433	5.80	5.20	4.65
7 $\frac{1}{2}$ "	3104	4.45	4.00	3.55	2434	7.15	6.45	5.70
8 $\frac{1}{2}$ "	3105	5.25	4.75	4.20	2435	8.40	7.55	6.70
10 $\frac{1}{2}$ "	3106	6.60	5.95	5.30	2436	10.65	9.60	8.50
12 $\frac{1}{2}$ "	3107	7.55	6.80	6.05	2437	12.10	10.90	9.70
14"	3108	8.80	7.90	7.05	2438	14.20	12.80	11.35
15 $\frac{1}{2}$ "	3109	9.85	8.85	7.90	2439	15.80	14.20	12.65
17 $\frac{1}{2}$ "	3110	10.85	9.70	8.65	2440	17.35	15.60	13.90
19 $\frac{1}{2}$ "	3111	11.85	10.65	9.50	2441	19.10	17.20	15.30
21"	3112	12.95	11.65	10.35	2442	21.00	18.90	16.80

SURFACE SHIELD PANELS

Bright aluminum alloy 5005 H-36 panels have blemish-free mill finish. Covered on both sides with sturdy, pressure-sensitive, white paper; protects against damage and useful for marking for drilling, positioning, etc. Standard notched sizes.

STANDARD 19" WIDE PANELS

Ht., In.	$\frac{1}{8}$ " ALUMINUM				$\frac{3}{16}$ " ALUMINUM			
	Bud SFA-	Net Each,	Lots of		Bud SFA-	Net Each,	Lots of	
1 $\frac{1}{2}$ "	1831	\$1.15	\$1.05	\$.90	3161	\$2.05	\$1.85	\$1.65
3 $\frac{1}{2}$ "	1832	1.65	1.50	1.30	3162	2.75	2.50	2.20
5 $\frac{1}{2}$ "	1833	2.15	1.95	1.70	3163	3.70	3.35	2.95
7 $\frac{1}{2}$ "	1834	2.70	2.45	2.15	3164	4.65	4.20	3.65
8 $\frac{1}{2}$ "	1835	3.20	2.90	2.55	3165	5.40	4.85	4.30
10 $\frac{1}{2}$ "	1836	4.05	3.65	3.25	3166	6.85	6.15	5.40
12 $\frac{1}{2}$ "	1837	4.60	4.15	3.70	3167	7.90	7.10	6.30
14"	1838	5.35	4.80	4.30	3168	9.10	8.20	7.30
15 $\frac{1}{2}$ "	1839	6.00	5.40	4.80	3169	10.15	9.15	8.10
17 $\frac{1}{2}$ "	1840	6.60	5.95	5.30	3170	11.20	10.10	8.95
19 $\frac{1}{2}$ "	1841	7.25	6.55	5.80	3171	12.25	11.05	9.80
21"	1842	7.90	7.10	6.30	3172	13.30	12.00	10.65

STANDARD 24" WIDE PANELS

Ht., In.	$\frac{1}{8}$ " ALUMINUM				$\frac{3}{16}$ " ALUMINUM			
	Bud SFA-	Net Each,	Lots of		Bud SFA-	Net Each,	Lots of	
1 $\frac{1}{2}$ "	2451	\$2.00	\$1.80	\$1.60	3401	\$4.10	\$3.70	\$3.30
3 $\frac{1}{2}$ "	2452	2.65	2.40	2.10	3402	5.40	4.85	4.30
5 $\frac{1}{2}$ "	2453	3.45	3.10	2.75	3403	7.30	6.55	5.85
7 $\frac{1}{2}$ "	2454	4.40	3.95	3.50	3404	9.00	8.10	7.20
8 $\frac{1}{2}$ "	2455	5.15	4.65	4.10	3405	10.55	9.70	8.60
10 $\frac{1}{2}$ "	2456	6.50	5.85	5.20	3406	12.50	11.50	10.80
12 $\frac{1}{2}$ "	2457	7.35	6.60	5.90	3407	14.60	13.40	12.50
14"	2458	8.60	7.75	6.90	3408	18.00	16.20	14.40
15 $\frac{1}{2}$ "	2459	9.65	8.70	7.70	3409	20.10	18.10	16.10
17 $\frac{1}{2}$ "	2460	10.85	9.45	8.40	3410	22.15	19.95	17.70
19 $\frac{1}{2}$ "	2461	11.55	10.40	9.25	3411	24.25	21.85	19.40
21"	2462	12.65	11.40	10.15	3412	26.35	23.70	21.10

FLANGED PANELS

Made of 16 gauge steel with a $\frac{1}{2}$ " flange on all four sides. Elongated hole is .281" x .500". Spacing of holes conforms to W.E. spacing on panel mounting rails. Standard 19" panels. Finished in choice of gray wrinkle (G), black wrinkle (B), gray hammertone (H), smooth light gray (SG), charcoal gray (CG) and sand (S). Use suffix when ordering.



NEW PRODUCT PRICES

Bud. No.	Ht., In.	1-49	50-99	100-149
FPS-1230	1 $\frac{1}{2}$ "	1.15	1.05	.92
FPS-1231	3 $\frac{1}{2}$ "	1.20	1.10	.96
FPS-1232	5 $\frac{1}{2}$ "	1.40	1.25	1.12
FPS-1233	7 $\frac{1}{2}$ "	1.60	1.45	1.30
FPS-1234	8 $\frac{1}{2}$ "	2.00	1.80	1.60
FPS-1235	10 $\frac{1}{2}$ "	2.40	2.15	1.90
FPS-1236	12 $\frac{1}{2}$ "	2.80	2.50	2.25
FPS-1237	14"	3.20	2.90	2.55
FPS-1238	15 $\frac{1}{2}$ "	3.65	3.30	2.90
FPS-1239	17 $\frac{1}{2}$ "	4.10	3.70	3.30
FPS-1240	19 $\frac{1}{2}$ "	4.50	4.05	3.60
FPS-1241	21"	4.90	4.40	3.90

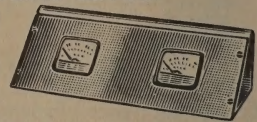
DUAL-VIEW PANEL SUPPORT

Designed for installation on a rack where an oblique view of instrument panel is desired. Engineered so that the entire assembly occupies no more space than size of supported panel. Panel support cover can be removed for easy servicing or installation of instruments. Made of heavy gauge steel with attractive contoured edges. Comes knocked-down with necessary assembly hardware, but without panels. Bud panels to fit these supports are PS-1253 (steel), and PA-1104 (aluminum) for Model IP-1120; PS-1255 (steel), and PA-1106 (aluminum) for IP-1121. Furnished in black wrinkle (add suffix "B"), gray hammertone (add suffix "HG"), gray wrinkle (add suffix "G"), smooth gray (suffix "SG"), or smooth blue (suffix "SB").

Bud No. IP-1120—Requires 19" x 7" panel space. Wt., 3 $\frac{1}{4}$ lbs. Net Each, Lots of 1-14, \$4.50 Lots of 25-34, Each, \$5.00
 Lots of 15-24, Each, \$4.50 Lots of 25-34, Each, \$5.00

Bud No. IP-1121—Requires 19" x 10 $\frac{1}{2}$ " panel space. Wt., 6 $\frac{1}{2}$ lbs. Net Each, Lots of 1-14, \$7.35 Lots of 25-34, Each, \$8.00
 Lots of 15-24, Each, \$6.35 Lots of 25-34, Each, \$5.65

• New product.



VENTILATED DOOR RACK PANELS

Generous perforated area in door provides adequate ventilation for adjacent units. Also features a newly designed plunger-type latch for positive locking and easy opening. Distance from hinged side of opening to bottom, 3 $\frac{1}{2}$ "; from lock side of opening to top, 1". Available in black or gray wrinkle finish, or gray hammertone (suffix HG).

Bud No.	Height, Overall	Door Size, Inches	Wt., Lbs.	1-49	50-99	100-149
PS-814	10 $\frac{1}{2}$ "	15 $\frac{1}{2}$ x 6	6	\$9.15	\$8.25	\$7.30
PS-815	12 $\frac{1}{2}$ "	15 $\frac{1}{2}$ x 7 $\frac{1}{2}$	7	10.00	9.00	8.00

NON-VENTILATED METAL DOOR PANELS

PS-615	10 $\frac{1}{2}$ "	15 $\frac{1}{2}$ x 6	7 $\frac{1}{2}$	\$7.35	\$6.60	\$5.90
PS-616	12 $\frac{1}{2}$ "	15 $\frac{1}{2}$ x 7 $\frac{1}{2}$	8 $\frac{1}{2}$	9.15	8.25	7.30

VENTILATING GRILLE PANELS

Substitute for solid panels for extra ventilation. Made of $\frac{1}{8}$ " steel with die-cut grille 13 $\frac{1}{2}$ " wide. Standard notched 19" wide sizes. Specify black wrinkle (suffix B), gray wrinkle (suffix G), or gray hammertone (suffix HG).

Bud No.	Height, Overall	Grille Height	Wt., Lbs.	1-49	50-99	100-149
PS-808	5 $\frac{1}{2}$ "	3 $\frac{1}{2}$ "	2 $\frac{1}{2}$	\$3.95	\$3.55	\$3.15
PS-809	7 $\frac{1}{2}$ "	4 $\frac{1}{2}$ "	3 $\frac{1}{2}$	4.30	3.85	3.45
PS-810	8 $\frac{1}{2}$ "	5 $\frac{1}{2}$ "	4 $\frac{1}{2}$	5.15	4.65	4.10
PS-811	10 $\frac{1}{2}$ "	7 $\frac{1}{2}$ "	5 $\frac{1}{2}$	5.45	4.90	4.35
PS-812	12 $\frac{1}{2}$ "	9 $\frac{1}{2}$ "	6 $\frac{1}{2}$	5.90	5.30	4.70

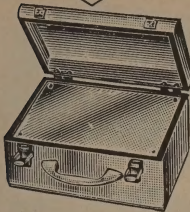
*Allows 3 $\frac{1}{4}$ " space for chassis mounting.



Cases, Racks, Chassis

TRANSICASE PORTABLE INSTRUMENT CASES

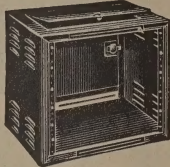
Handsome, portable instrument case with unlimited applications. Contour design fabricated of .040" aluminum with flush-fitting aluminum panel. Foam-rubber lined lid protects instruments in case; mounted on two side-olf, bright nickel-plated hinges with toggle catches. Rubber feet at both base and back; metal plugs supplied to fill holes if rubber feet are not used. Bright nickel-plated handle. **Specify Color:** Add suffix **SB** for smooth blue; **SG**, for smooth gray enamel.



Bud No.	Inside Panel Size, Inches	Clear Internal Space		Internal Aperture	Overall Size, Inches W. x D. x H.	Wt., Lbs.	Net Each, Lots of		
		Below Panel	Above Panel				1-9	10-14	15-19
TC-300	8 1/4 x 5 1/4	4 1/2	1 1/2	8 1/2 x 5 1/2	10 1/4 x 7 x 6	3 3/4	\$26.20	\$23.60	\$20.95
TC-301	10 1/2 x 7 1/4	4 1/2	1 1/2	11 1/4 x 8 1/4 x 6	11 1/4 x 8 1/4 x 6	4 1/2	26.80	24.10	21.45
TC-302	11 1/2 x 7 1/4	5 1/2	1 1/2	10 1/4 x 7 1/4	13 x 9 x 7 1/2	6	27.30	24.60	21.85
TC-303	15 1/2 x 7 1/4	5 1/2	1 1/2	14 1/4 x 7 1/4	16 1/4 x 9 x 7 1/2	8	27.85	25.05	22.30
TC-304	19 x 7	7 1/2	1 1/2	18 1/4 x 7 1/4	20 1/4 x 8 x 9	10	29.30	26.35	23.45

DELUXE CABINET RACKS

Rounded corners, red-lined chrome trim. There is a recessed, hinged door on the top with a snap catch. These racks are made of heavy gauge steel and are of sturdy construction. The five large sizes have a hinged rear door, while the small sizes have a welded panel in the rear. Adequate ventilation is assured by means of louvered sides and a 2 1/2 inch opening in the bottom of the back extends the entire width. "NO-SCRATCH" EXTENDED METAL FEET ARE EMBOSSED ON THE BOTTOM. In black wrinkle (add suffix "B" to number when ordering), gray wrinkle (suffix "G"), and hammertone gray (suffix "HG"). Size: 14 1/2" x 22" w. Fits 19" panels. Full size aluminum Relay Rack Panel supplied at no extra cost.



Bud No.	Height, Overall	Panel Space	Wt., Lbs.	Net Each, Lots of		
				1-14	15-24	25-34
CR-1726	8 1/2	7"	24	\$16.85	\$15.15	\$13.50
CR-1741	10 1/4	8 3/4"	28	18.45	16.60	14.75
CR-1740	12 1/4	10 1/4"	31	21.10	19.00	16.90
CR-1742	14 1/4	12 1/4"	32	22.20	20.00	17.75
CR-1739	15 1/4	14 1/4"	35	29.45	26.50	23.55
CR-1743*	19 1/4	17 1/2"	40	28.95	26.05	23.15
CR-1727*	22 1/4	21 1/2"	43	30.90	27.80	24.70
CR-1744*	28 1/4	26 1/4"	51	33.25	29.90	26.60
CR-1728*	33 1/4	31 1/4"	58	35.30	31.75	28.25
CR-1745*	36 1/4	35"	63	37.10	33.40	29.70

*These sizes have both top and rear doors.

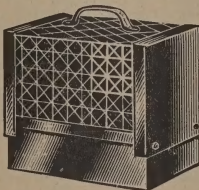
HEAVY-DUTY CABINET RACKS

Similar to above units with Add-A-Cab feature (similar to Add-A-Rack) for continuously expanding systems. Panel mounting rails are integral part of the sides. Removable rear door. Louvered sides and 2 1/2" x 17 1/2" opening in the bottom of the back assure adequate ventilation. Made of 16 ga. steel. Gray hammertone finish; black or gray wrinkle at 10% additional charge. Size: 17 1/2" d. x 22" w.

Bud No.	Height, Overall	Panel Space	Wt., Lbs.	Net Each, Lots of		
				1-24	25-49	50-99
CR-1736	24 1/2"	19 1/2"	50	\$29.40	\$26.45	\$23.50
CR-1737	31 1/2"	26 1/2"	57	31.70	28.55	25.35
CR-1738	40 1/2"	35"	70	37.65	33.90	30.10
ACR-1936	Add-A-Cab for CR-1736		42	28.00	25.20	22.40
ACR-1937	Add-A-Cab for CR-1737		52	30.20	27.20	24.15
ACR-1938	Add-A-Cab for CR-1738		57	35.85	32.25	28.70

MINIATURE AMPLIFIER FOUNDATION

With the increased use of miniature tubes, smaller cabinets can be used when designing a compact amplifier. This amplifier foundation was designed expressly for this purpose. The chassis is 5" x 7" x 2". Height, 6". The cover is made of perforated metal. A streamlined handle makes this cabinet portable. Black wrinkle only. 1 1/2 lbs.



Bud No.	Net Each, Lots of		
	1-24	25-49	50-99
CA-1754	\$4.85	\$4.35	\$3.90

PORTACAB INSTRUMENT CABINETS

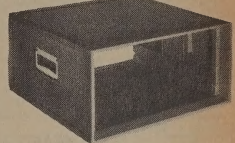
Attractive, versatile cabinets desirable as housings for instrumentation requiring highly stylized appearance. Custom, quality look achieved in standard production models. Made entirely of aluminum to minimize weight. Flexible recessed handle permits easy portability as well as vertical stacking. Well louvered for adequate ventilation. Louvers point inward, permitting side-to-side placement of cabinets without space loss. Aluminum front panel recessed 1/4". Welded back has opening. Perimeter of panel follows contour of body. Has four detachable rubber feet. Gray hammertone finish only.



Bud No.	Size, Inches W. x D. x H.	Wt., Lbs.	Bud Chassis	Net Each, Lots of		
				1-24	25-49	50-99
WA-1540	6 1/2 x 8 x 8	2 1/2	AC-402	\$10.60	\$ 9.55	\$ 8.50
WA-1541	8 1/2 x 12 x 9	3	AC-407	13.85	12.45	11.10
WA-1542	10 1/2 x 8 x 8	3 1/2	AC-406	12.30	11.05	9.85
WA-1543	11 1/2 x 18 x 11	6 1/2	AC-416	15.60	14.05	12.50
WA-1544	14 1/2 x 18 x 12	7 1/2	AC-420	17.95	16.15	14.35

CLASSIC CABINETS

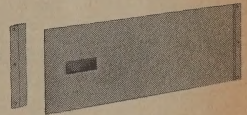
Truly functional beauty establishes this cabinet as a new concept in enclosures. Patterned .060 aluminum panels and smooth extruded 6063-T5 aluminum structure. Has 16 gauge vertically adjustable chassis supports. Front and rear mounting rails tapped 10-32; W.E. spacing. Accepts 19" panels. Clear inside depth, panel to panel is 17". Furnished completely assembled with two heavy duty aluminum handles and four rubber feet. Finish is vinyl texture. Choice of charcoal gray (CG) or sand (S). Specify when ordering.



Bud No.	Ht., In.	Panel Space In.	Net Each, Lots of		
			1-4	5-9	10-14
AGC-266	4-57/64	3 1/2	80.90	72.80	64.70
AGC-267	6-41/64	5 1/4	83.00	74.70	66.40
AGC-268	8-25/64	7	87.50	78.75	70.00
AGC-269	10-9/64	8 3/4	89.60	80.85	71.70
AGC-270	11-57/64	10 1/4	92.70	83.45	74.15
AGC-271	13-41/64	12 1/4	96.35	86.70	77.10
AGC-272	15-25/64	14	99.35	89.40	79.50
AGC-273	17-9/64	15 3/4	103.00	92.70	82.40
AGC-274	18-57/64	17 1/2	106.00	95.40	84.80
AGC-275	20-41/64	19 1/4	108.50	97.65	86.80
AGC-276	22-25/64	21	112.00	101.00	89.60
AGC-277	24-9/64	22 3/4	115.00	103.50	92.20
AGC-278	25-57/64	24 1/4	118.00	106.20	94.40
AGC-279	27-41/64	26 1/4	121.00	108.90	96.80
AGC-280	29-25/64	28	123.75	111.40	99.00

CLASSIC DOORS

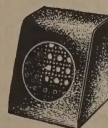
Use on Classic Cabinets or any rack or cabinet with 19" panel space by attaching to panel mounting rails. Made of 1/4" 5005-H 36 aluminum alloy. Stop fits on one panel mounting rail, hinged door attaches to other mounting rail. If an opening is required above and/or below door, select a door whose height is smaller than the opening it is intended to cover. Equipped with plated, flush type latch. Finished in vinyl texture. Choice of charcoal gray (CG) or sand (S). Use suffix when ordering.



Bud No.	Height	Width	Net Each, Lots of		
			1-4	5-9	10-14
AGD-366	3 1/2	19	6.00	5.40	4.80
AGD-367	5 1/4	19	7.30	6.55	5.85
AGD-368	7	19	8.50	7.65	6.80
AGD-369	8 3/4	19	9.50	8.55	7.60
AGD-370	10 1/4	19	10.40	9.35	8.50
AGD-371	12 1/4	19	11.40	10.25	9.10
AGD-372	14	19	12.20	11.00	9.75
AGD-373	15 3/4	19	13.00	11.70	10.40
AGD-374	17 1/2	19	14.00	12.60	11.20
AGD-375	19 1/4	19	14.90	13.40	11.90
AGD-376	21	19	15.90	14.30	12.70
AGD-377	22 3/4	19	16.70	15.00	13.35
AGD-378	24 1/4	19	17.50	15.75	14.00
AGD-379	26 1/4	19	18.70	16.85	14.95
AGD-380	28	19	19.50	17.90	15.90

MINIATURE SPEAKER CASES

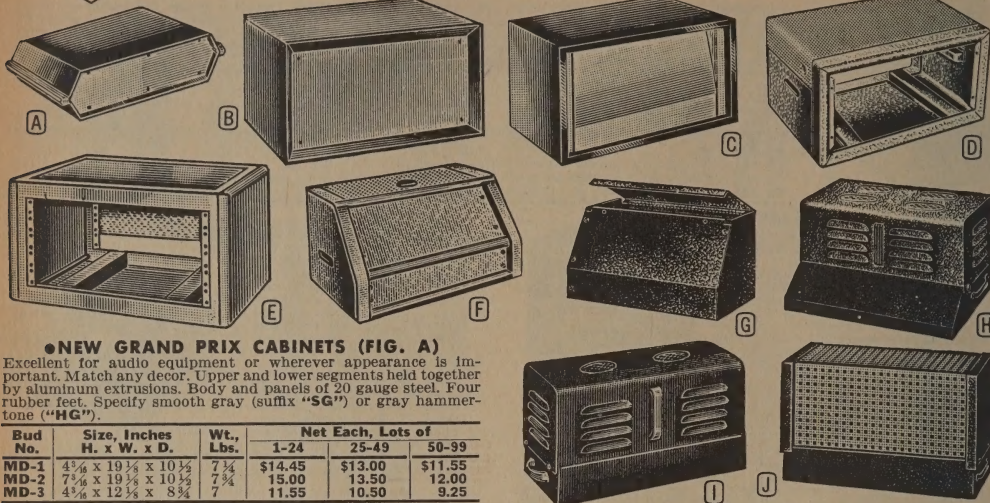
Safe, convenient steel housing for 2" and 3" speakers. Black wrinkle finish only.



Bud No.	For Size Speaker	Net Each, Lots of		
		1-24	25-49	50-99
CS-1685	2"	\$1.95	\$1.75	\$1.55
CS-1686	3"	1.95	1.75	1.55



Cabinets, Foundations



NEW GRAND PRIX CABINETS (FIG. A)

Excellent for audio equipment or wherever appearance is important. Match any decor. Upper and lower segments held together by aluminum extrusions. Body and panels of 20 gauge steel. Four rubber feet. Specify smooth gray (suffix "SG") or gray hammertone ("HG").

Bud No.	Size, Inches H. x W. x D.	Wt., Lbs.	Net Each, Lots of		
			1-24	25-49	50-99
MD-1	4 $\frac{1}{2}$ x 19 $\frac{1}{2}$ x 10 $\frac{1}{2}$	7 $\frac{1}{2}$	\$14.45	\$13.00	\$11.55
MD-2	7 $\frac{1}{2}$ x 19 $\frac{1}{2}$ x 10 $\frac{1}{2}$	7 $\frac{1}{2}$	15.00	13.50	12.00
MD-3	4 $\frac{1}{2}$ x 12 $\frac{1}{2}$ x 8 $\frac{3}{4}$	7 $\frac{1}{2}$	11.55	10.50	9.25

SHADOW CABINETS (FIG. B)

Versatile housing with removable front, bottom and rear panels. Front panel recessed 1". Front edge of body is beveled. Body of 18 gauge and panels of 16 gauge steel. Four rubber feet. Available in light gray hammertone finish only.

Bud No.	Overall Size, In. W. x H. x D.	Uses Bud Chassis No.	Net Each, Lots of		
			1-24	25-49	50-99
SB-2140	14 $\frac{1}{2}$ x 8 x 10	AC-424, CB-704	\$7.55	\$6.80	\$6.05
SB-2141	13 $\frac{1}{2}$ x 7 $\frac{1}{2}$ x 9	AC-407, CB-1193	5.80	5.20	4.65
SB-2142	17 x 9 $\frac{1}{2}$ x 11	AC-411, CB-666	10.25	9.25	8.20
SB-2143	15 $\frac{1}{2}$ x 6 x 9	AC-409, CB-1194	5.60	5.05	4.50

NEW FUTURA CABINETS (FIG. C)

Handsome steel housings of 2 piece body. Panels held by flanges not screws. Nos. MD-1960 thru -1962 have vertical front panel; others (Fig. C) have inclined front panel rising 2" vertically, then inclining 15". Specify blue (Suffix "SB") or gray ("SG").

Bud No.	Size, Inches H. x W. x D.	Uses Bud Chassis No.	Net Each, Lots of		
			1-24	25-49	50-99
MD-1960	13 x 7 x 8	CB-40	\$8.25	\$7.45	\$6.60
MD-1961	14 x 8 x 9	CB-997	8.80	7.90	7.05
MD-1962	16 x 8 x 9	CB-998	9.15	8.25	7.30
MD-1963	13 x 7 x 8	CB-40	8.65	8.70	7.70
MD-1964	14 x 8 x 9	CB-997	10.30	9.25	8.25
MD-1965	16 x 8 x 9	CB-998	11.00	9.90	8.80

STANDARD PRESTIGE CABINETS (FIG. D)

Has two supporting rails, laterally movable to fit any chassis width, and shielded handle slots. Finger holes in cover for easy lifting. Of 16 gauge steel. Takes 19" panels. With embossed feet. Size: 21 $\frac{1}{2}$ " w. x 14 $\frac{3}{4}$ " d. overall. Gray hammertone finish.

Bud No.	Height, Overall	Panel Space	Wt., Lbs.	Net Each, Lots of		
				1-14	15-24	25-34
C-1440	9 $\frac{1}{2}$ "	7"	28	\$31.45	\$28.30	\$25.15
C-1441	11 $\frac{1}{2}$ "	8 $\frac{3}{4}$ "	27	33.15	29.85	26.50
C-1442	13 $\frac{1}{2}$ "	10 $\frac{1}{2}$ "	29	36.15	32.55	28.90
C-1550*	9 $\frac{1}{2}$ "	7"	26	33.70	30.35	26.95
C-1551*	11 $\frac{1}{2}$ "	8 $\frac{3}{4}$ "	27	36.05	32.45	28.85
C-1552*	13 $\frac{1}{2}$ "	10 $\frac{1}{2}$ "	29	39.20	35.30	31.35

*With perforated cover; others solid.

PRESTIGE VERSA-CABINETS (FIG. E)

Sturdy framework with ball cornered sides, perforated back, solid bottom plate and two supporting channels. Front, back, top and bottom are removable for easy access; also accept 19" panels for full closure; top panel may be perforated. An opening, 1 $\frac{1}{4}$ " x 19", across the bottom of the back is supplied for controls, knobs, leads, etc.; may be covered with PS-1250 or PA-1101 panels if desired. Sides may be removed to join one or more cabinets together, using holes in frame; units may also be stacked. Handles may be attached to side. Four rubber feet. Top may be closed, using PS-1256HG or PA-1107HG solid panels, PS-616HG or PS-815HG door panels, or PC-1170G perforated panel. Size: 23 $\frac{3}{4}$ " w. x 15 $\frac{1}{2}$ " d. overall. Gray hammertone finish. Weight, 28 to 35 lbs.

VERSA-CABINETS

Bud No.	Height, Overall	Panel Space	Rear Panel	Net Each, Lots of		
				1-14	15-24	25-34
PC-1700	8 $\frac{3}{4}$ "	5 $\frac{1}{4}$ "	3 $\frac{1}{2}$ "	\$30.05	\$27.05	\$24.05
PC-1701	10 $\frac{1}{2}$ "	7 $\frac{1}{4}$ "	5 $\frac{1}{4}$ "	31.85	28.65	25.50
PC-1702	12 $\frac{1}{2}$ "	9 $\frac{1}{4}$ "	7 $\frac{1}{4}$ "	33.90	30.50	27.10
PC-1703	14 $\frac{1}{2}$ "	10 $\frac{1}{2}$ "	8 $\frac{3}{4}$ "	36.95	33.25	29.55
PC-1704	15 $\frac{1}{2}$ "	12 $\frac{1}{2}$ "	10 $\frac{1}{2}$ "	38.85	34.95	31.10

PERFORATED STEEL TOP PLATE

Bud No.	Size, In.	Wt., Lbs.	Net Each, Lots of		
			1-14	15-24	25-34
PC-1710	12 $\frac{1}{4}$ x 19	2 $\frac{1}{2}$	\$3.15	\$2.85	\$2.50

• New product.

PRESTIGE SLOPING PANEL CABINETS (FIG. F)

Ventilated top opens completely. Removable panel trim bar permits installation or removal of panels with chassis attached. Top panel is swept back for easy viewing. Takes standard 19" panels. Shielded lifting handles. Rear opening 2 $\frac{1}{4}$ " x 18" for controls, etc.; panel recess 1 $\frac{1}{4}$ "; bottom panel 3 $\frac{1}{2}$ " high. Size: 22" w. x 9" top depth. Gray hammertone finish only. Weight, 26, 28 and 31 lbs.

Bud No.	Size, In. H. x D.	Slope Height	Net Each, Lots of		
			1-14	15-24	25-34
C-1555	11 $\frac{1}{4}$ x 14 $\frac{1}{2}$	7"	\$39.70	\$35.75	\$31.75
C-1556	13 $\frac{1}{4}$ x 15 $\frac{1}{2}$	8 $\frac{3}{4}$ "	42.65	38.40	34.10
C-1557	14 $\frac{1}{4}$ x 16 $\frac{1}{2}$	10 $\frac{1}{4}$ "	45.70	41.15	36.55

SLOPING PANEL CABINETS (FIG. G)

Hinged top for easy access; front panel also removable. Specify black wrinkle (suffix "B") or gray hammertone (suffix "HG").

Bud No.	Size, Inches H. x W. x D.	Wt., Lbs.	Net Each, Lots of		
			1-24	25-49	50-99
C-1584	6 $\frac{1}{2}$ x 7 $\frac{1}{2}$ x 7 $\frac{1}{2}$	2 $\frac{1}{2}$	\$3.80	\$3.40	\$3.05
C-1587	8 x 8 $\frac{1}{2}$ x 8	2 $\frac{1}{2}$	5.25	4.75	4.20
C-1585	6 $\frac{1}{2}$ x 9 $\frac{1}{2}$ x 7 $\frac{1}{2}$	3	4.35	3.90	3.50
C-1588	8 x 10 $\frac{1}{2}$ x 8	3 $\frac{1}{2}$	5.80	5.20	4.65
C-1586	6 $\frac{1}{2}$ x 11 $\frac{1}{2}$ x 7 $\frac{1}{2}$	3 $\frac{1}{2}$	5.00	4.50	4.00
C-1894	8 x 14 $\frac{1}{2}$ x 8	4	6.15	5.55	4.90
C-1892	8 x 13 $\frac{1}{2}$ x 8 $\frac{1}{2}$	5 $\frac{1}{2}$	6.90	6.20	5.50
C-1896	9 x 18 $\frac{1}{2}$ x 8 $\frac{1}{2}$	7	8.85	7.95	7.10
C-1893	10 x 18 $\frac{1}{2}$ x 10 $\frac{1}{2}$	8 $\frac{1}{2}$	9.10	8.20	7.30

SLOPING PANEL FOUNDATIONS (FIG. H)

Removable top cover mounted on 3 $\frac{1}{2}$ " sloping front chassis. Cover gray wrinkle, chrome trim; black wrinkle chassis. Overall ht., 9 $\frac{1}{2}$ ".

Bud No.	Chassis W. x D.	Top Depth	Wt., Lbs.	Net Each, Lots of		
				1-24	25-49	50-99
CA-1980	10" x 8"	5"	5	\$ 8.68	\$ 7.81	\$6.94
CA-1981	12" x 10"	7"	6	9.35	8.42	7.48
CA-1982	17" x 10"	7"	8	10.69	9.62	8.55
CA-1983	17" x 13"	10"	10	11.19	10.07	8.95

STREAMLINED FOUNDATIONS (FIG. I)

Attractive unit houses amplifiers and similar apparatus. Standard chassis with removable top cover with chrome trim. Sides and ends lowered. Handles attached to chassis. Overall height, 9"; chassis 2 $\frac{1}{2}$ " high. Specify black wrinkle (suffix "B"), or gray wrinkle (suffix "G").

Bud No.	Size, In. W. x D.	Wt., Lbs.	Net Each, Lots of		
			1-24	25-49	50-99
CA-1750	10 $\frac{1}{4}$ x 5	4 $\frac{3}{4}$	\$ 8.20	\$ 7.40	\$6.55
CA-1751	12 $\frac{1}{4}$ x 7	5	9.70	8.75	7.75
CA-1752	17 $\frac{1}{4}$ x 7	8	10.30	9.25	8.25
CA-1753	17 $\frac{1}{4}$ x 10	9	11.20	10.10	8.95

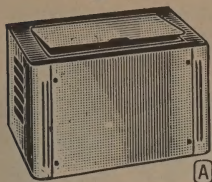
STANDARD FOUNDATIONS (FIG. J)

Standard chassis with perforated cover for maximum ventilation. Handles are attached to chassis. Chassis 2 $\frac{1}{2}$ " h., except CA-1128, 3" h. Overall height, 8 $\frac{3}{4}$ ", except CA-1128, 8 $\frac{1}{4}$ ". Black wrinkle finish only.

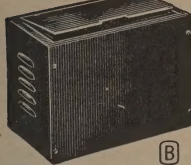
Bud No.	Size, Inches W. x D.	Wt., Lbs.	Net Each, Lots of		
			1-24	25-49	50-99
CA-699	9 $\frac{1}{2}$ x 5 $\frac{1}{2}$	3	\$6.80	\$6.10	\$5.45
CA-1125	13 $\frac{1}{2}$ x 5 $\frac{1}{2}$	4 $\frac{3}{4}$	7.05	6.35	5.65
CA-1126	17 $\frac{1}{2}$ x 7 $\frac{1}{2}$	6	8.00	7.20	6.40
CA-1128	12 $\frac{1}{2}$ x 10 $\frac{1}{2}$	7	8.25	7.45	6.60



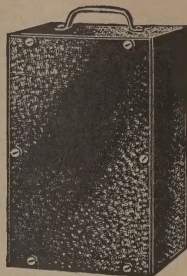
Cabinets and Cases



A



B



C

STREAMLINED CABINETS (FIG. A)

Ideal for housing devices not requiring excessive depth. Recessed, hinged cover with convenient finger lift for access. Panels fit flush with embossed, rounded corner fronts. Recommended for use with Bud Open End Chassis. Back opening $3\frac{1}{2}$ " h. provides for cables or rear controls; louvered sides provide ample ventilation. Size: $8\frac{1}{2}$ " d. x 8" h., overall. Specify black wrinkle (suffix "B") or gray hammertone (suffix "HG") finish.

Bud No.	Width, Overall	Panel Space	Wt., Lbs.	Net Each, Lots of		
				1-24	25-49	50-99
CD-1480	$10\frac{1}{2}$ "	8" x 8"	5 $\frac{1}{2}$	\$ 6.85	\$ 6.15	\$ 5.50
CD-1481	$12\frac{1}{2}$ "	8" x 10"	6	6.95	6.25	5.55
CD-1482	$14\frac{1}{2}$ "	8" x 12"	6 $\frac{1}{2}$	7.30	6.55	5.85
CD-1483	$16\frac{1}{2}$ "	8" x 14"	7	7.80	7.00	6.25
CD-1484	$18\frac{1}{2}$ "	8" x 16"	7 $\frac{1}{2}$	8.50	7.65	6.80
CD-1485*	20 $\frac{1}{2}$ "	12" x 18"	15	17.25	15.55	13.80

*Depth is 12"; has $\frac{1}{2}$ " vertical chrome strip at corners.

INSTRUMENT AND RECEIVER CABINETS (FIG. B)

Economy version of the Streamlined Cabinet series. Recessed, hinged cover provides access to contents. Front panel is attached with self-tapping screws. Louvers provide ample ventilation. Bud Open End Chassis are suited for use with these units. Black wrinkle finish only.

Bud No.	Size, Inches H. x W. x D.	Wt., Lbs.	Net Each, Lots of		
			1-24	25-49	50-99
C-973	7 x 8 x 8	5	\$ 5.05	\$ 4.55	\$ 4.05
C-993	7 x 10 x 8	5 $\frac{1}{2}$	5.85	5.25	4.70
C-994	7 x 12 x 8	5 $\frac{1}{2}$	6.05	5.45	4.85
C-995	7 x 14 x 8	6	6.40	5.75	5.10
C-1390	8 x 16 x 11	7	9.20	8.30	7.35
C-975	9 x 15 x 11	8	11.10	10.00	8.90
C-999	12 x 18 x 12	15	12.00	10.80	9.60

CARRYING CASES (FIG. C)

A versatile cabinet that accepts a variety of equipment. Removable front and back panels; handle may be attached to top. Available in sturdy steel or lightweight aluminum to suit your requirements.

Specify black wrinkle (suffix "B") or gray hammertone (suffix "HG") finish when ordering.

Bud No.	Size, Inches D. x W. x H.	Wt., Lbs.	Net Each, Lots of		
			1-24	25-49	50-99
CC-1095	5 x 6 x 9	3 $\frac{1}{4}$	\$3.65	\$3.30	\$2.90
CC-1091	5 x 9 x 6	3 $\frac{1}{4}$	3.65	3.30	2.90
CC-1096	6 x 7 x 12	4	5.05	4.55	4.05
CC-1092	6 x 12 x 7	4	5.05	4.55	4.05
CC-1097	7 x 7 $\frac{1}{2}$ x 15	5	5.65	5.10	4.50
CC-1100	8 x 10 x 10	5	5.85	5.25	4.70
CC-1093	7 x 15 x 9	5	7.10	6.40	5.70

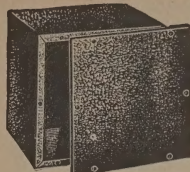
NATURAL FINISH ALUMINUM CASES*

Bud No.	Size, Inches D. x W. x H.	Wt., Lbs.	Net Each, Lots of		
			1-24	25-49	50-99
ACC-2095	5 x 6 x 9	1 $\frac{1}{2}$	\$3.75	\$3.40	\$3.00
ACC-2091	5 x 9 x 6	1 $\frac{1}{2}$	3.75	3.40	3.00
ACC-2096	6 x 7 x 12	1 $\frac{1}{2}$	5.45	4.90	4.35
ACC-2092	6 x 12 x 7	1 $\frac{1}{2}$	5.45	4.90	4.35

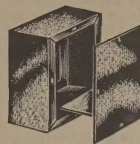
GRAY HAMMERTONE ALUMINUM CASES*

Bud No.	Size, Inches D. x W. x H.	Wt., Lbs.	Net Each, Lots of		
			1-24	25-49	50-99
ACC-2095HG	5 x 6 x 9	1 $\frac{1}{2}$	\$4.25	\$3.85	\$3.40
ACC-2091HG	5 x 9 x 6	1 $\frac{1}{2}$	4.25	3.85	3.40
ACC-2096HG	6 x 7 x 12	1 $\frac{1}{2}$	6.15	5.55	4.90
ACC-2092HG	6 x 12 x 7	1 $\frac{1}{2}$	6.15	5.55	4.90

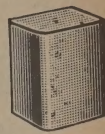
*Aluminum alloy 5005 H-14.



D



E



F

METAL UTILITY CABINETS (FIG. D)

Highly useful housing for all types of electronic equipment such as mixers, monitors, frequency meters, etc. Both front and back panels are removable for easy accessibility.

STEEL CABINETS

Specify black wrinkle (suffix "B") or gray hammertone (suffix "HG") finish.

Bud No.	Size, Inches D. x W. x H.	Wt., Lbs.	Net Each, Lots of		
			1-49	50-99	100-149
CU-883	2 x 4 x 4	$\frac{3}{4}$	\$1.30	\$1.15	\$1.05
CU-728	3 x 5 x 4	$\frac{3}{4}$	1.50	1.35	1.20
CU-729	4 x 5 x 6	1 $\frac{1}{4}$	1.70	1.55	1.35
CU-1098	6 x 6 x 6	2 $\frac{1}{2}$	2.55	2.30	2.05
CU-1099	5 x 6 x 9	3	2.85	2.55	2.30
CU-879	7 x 8 x 10	5	4.05	3.65	3.25
CU-1124	6 x 7 x 12	4	3.95	3.55	3.15
CU-880	8 x 10 x 10	5 $\frac{1}{2}$	4.85	4.35	3.90
CU-881	8 x 11 x 12	6	5.30	4.75	4.25
CU-882	7 x 9 x 15	7 $\frac{1}{2}$	5.45	4.90	4.35

NATURAL FINISH ALUMINUM CABINETS*

Bud No.	Size, Inches D. x W. x H.	Wt., Lbs.	Net Each, Lots of		
			1-49	50-99	100-149
AU-1083	2 x 4 x 4	$\frac{1}{4}$	\$1.55	\$1.40	\$1.25
AU-1028	3 x 5 x 4	$\frac{1}{4}$	1.65	1.50	1.30
AU-1029	4 x 5 x 6	$\frac{1}{4}$	1.80	1.60	1.45
AU-1039	6 x 6 x 6	1	2.65	2.40	2.10
AU-1040	5 x 6 x 9	1	3.05	2.75	2.45

GRAY HAMMERTONE ALUMINUM CABINETS*

Bud No.	Size, Inches D. x W. x H.	Wt., Lbs.	Net Each, Lots of		
			1-49	50-99	100-149
AU-1083HG	2 x 4 x 4	$\frac{1}{4}$	\$1.80	\$1.60	\$1.45
AU-1028HG	3 x 5 x 4	$\frac{1}{4}$	2.05	1.85	1.65
AU-1029HG	4 x 5 x 6	$\frac{1}{4}$	2.20	2.00	1.75
AU-1039HG	6 x 6 x 6	1	2.90	2.60	2.30
AU-1040HG	5 x 6 x 9	1	3.40	3.05	2.70

*Aluminum alloy 5005 H-14.

MINIATURE UTILITY CABINETS (FIG. E)

Ideal housing for construction of electronic devices using miniature tubes and transistorized circuitry. Front panel has a built-on chassis. Both front and rear panels are removable; fastened by self-tapping screws. Black wrinkle enamel finish.

Bud No.	Size, In. H. x W. x D.	Chassis W. x D., In.	Net Each, Lots of		
			1-49	50-99	100-149
C-1793	4 x 4 x 2	3 $\frac{1}{4}$ x 1 $\frac{1}{2}$ "	\$1.60	\$1.45	\$1.30
C-1794	4 x 5 x 3	4 $\frac{1}{2}$ x 2 $\frac{1}{2}$ "	1.80	1.60	1.45
C-1795	5 x 4 x 3	3 $\frac{1}{2}$ x 2 $\frac{1}{2}$ "	2.00	1.80	1.60
C-1796	6 x 5 x 4	4 $\frac{1}{2}$ x 3 $\frac{1}{2}$ "	2.05	1.85	1.65
C-1797	5 x 6 x 4	5 $\frac{1}{2}$ x 3 $\frac{1}{2}$ "	2.30	2.05	1.85
C-1798	6 x 6 x 6	4 $\frac{1}{2}$ x 5 $\frac{1}{2}$ "	2.65	2.40	2.10

*1" high. 1 $\frac{1}{4}$ " high. 1 $\frac{1}{2}$ " high.

STREAMLINED MULTI-PURPOSE CABINETS (FIG. F)

Attractive cabinet with curved corners; uses chassis No. CB-1625. Back is entirely open for ventilation. Finished in light gray wrinkle only.

Bud No.	Size, Inches H. x W. x D.	Wt., Lbs.	Net Each, Lots of		
			1-49	50-99	100-149
C-1787	4 $\frac{1}{2}$ x 5 $\frac{1}{2}$ x 3 $\frac{1}{2}$	1	\$1.85	\$1.65	\$1.50
C-1788	6 $\frac{1}{2}$ x 5 $\frac{1}{2}$ x 3 $\frac{1}{2}$	1 $\frac{1}{2}$	1.95	1.75	1.55

UNIVERSAL SLOPING PANEL CABINETS

Fully enclosed and shielded housing with one-piece detachable back and sides fastened to body with four self-tapping screws. Components may be mounted on back, bottom, sides or front. Will accommodate Bud Miniature Aluminum Chassis. Size: 4" d. x 4 $\frac{1}{4}$ " h. Gray hammertone finish only.



ALUMINUM MODELS

Aluminum alloy 5005 H-14.

Bud No.	Uses Chassis	Width	Wt., Lbs.	Net Each, Lots of		
				1-49	50-99	100-149
AC-1610	CB-1617	4"	$\frac{1}{2}$	\$2.05	\$1.85	\$1.65
AC-1611	CB-1618	5"	$\frac{1}{2}$	2.15	1.95	1.75
AC-1612	CB-1619	6"	$\frac{1}{2}$	2.30	2.05	1.85
AC-1613	CB-1620	7"	$\frac{3}{4}$	2.55	2.30	2.05

STEEL MODELS

Bud No.	Uses Chassis	Width	Wt., Lbs.	Net Each, Lots of		
				1-49	50-99	100-149
C-1606	CB-1617	4"	$\frac{3}{4}$	\$1.75	\$1.60	\$1.40
C-1607	CB-1618	5"	$\frac{3}{4}$	1.85	1.65	1.50
C-1608	CB-1619	6"	1	2.00	1.80	1.60
C-1609	CB-1620	7"	1 $\frac{1}{4}$	2.30	2.05	1.85



Boxes, Baffles, Cases

MINIBOXES, HANDY BOXES

Design of this box permits installation of more components than would be possible in the conventionally designed boxes the same size. Two-piece construction. Either snap-lock or screw type. The flange type construction assures adequate shielding. Made from heavy .040 g.a. aluminum. Available in natural aluminum finish and gray hammertone finish.



GRAY HAMMERTONE MINIBOXES

Bud No.	Size, Inches L. x H. x W.	Wt. Lbs.	Net Each, Lots of		
			1-49	50-99	100-149
CU-2100A	2 1/4 x 2 1/4 x 1 1/4	1/4	.80	.70	.65
CU-2101A	3 1/4 x 2 1/4 x 1 1/4	1/4	.85	.75	.70
CU-2102A	4 x 2 1/4 x 1 1/4	1/4	.90	.80	.70
CU-2103A	4 x 2 1/4 x 2 1/4	1/4	1.00	.90	.80
CU-2104A	5 x 2 1/4 x 2 1/4	1/4	1.05	.95	.85
CU-2105A	5 x 4 x 2 1/4	1/4	1.40	1.25	1.10
CU-2106A	5 1/4 x 4 x 2 1/4	1/4	1.10	1.00	.90
CU-2107A	6 x 5 x 4	1/4	1.75	1.60	1.40
CU-2108A*	7 x 5 x 3	1/4	2.00	1.80	1.60
CU-2109A*	8 x 6 x 3 1/2	1	2.55	2.30	2.05
CU-2110A*	10 x 6 x 3 1/2	1 1/4	2.85	2.55	2.30
CU-2111A*	12 x 7 x 4	1 1/4	3.85	3.45	3.10
CU-2112A*	17 x 5 x 4	2 1/4	3.95	3.45	3.10
CU-2113A*	10 x 2 x 1 1/4	1/4	1.45	1.30	1.15
CU-2114A*	12 x 2 1/4 x 2 1/4	1/4	1.85	1.65	1.50
CU-2115A	4 x 2 x 2 1/4	1/4	1.00	.90	.80
CU-2116A	4 1/4 x 2 x 1 1/4	1/4	1.00	.90	.80
CU-2117A	3 1/4 x 2 x 1 1/4	1/4	.90	.80	.70

*.050" aluminum.

NATURAL FINISH MINIBOXES

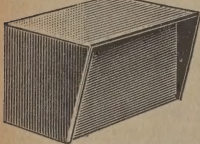
Bud No.	Size, Inches L. x H. x W.	Wt. Lbs.	Net Each, Lots of		
			1-49	50-99	100-149
CU-3000A	2 1/4 x 2 1/4 x 1 1/4	1/4	.70	.65	.55
CU-3001A	3 1/4 x 2 1/4 x 1 1/4	1/4	.70	.65	.55
CU-3002A	4 x 2 1/4 x 1 1/4	1/4	.75	.70	.60
CU-3003A	4 x 2 1/4 x 2 1/4	1/4	.90	.80	.70
CU-3004A	5 x 2 1/4 x 2 1/4	1/4	.95	.85	.75
CU-3005A	5 x 4 x 3	1/4	1.15	1.05	.90
CU-3006A	5 1/4 x 3 x 2 1/4	1/4	1.00	.90	.80
CU-3007A	6 x 5 x 3	1/4	1.25	1.15	1.00
CU-3008A	6 x 5 x 3	1/4	1.60	1.45	1.30
CU-3009A	8 x 6 x 3 1/2	1	2.05	1.85	1.65
CU-3010A	10 x 6 x 3 1/2	1 1/4	2.25	2.05	1.80
CU-3011A	12 x 7 x 4	1 1/4	3.10	2.80	2.50
CU-3012A	17 x 5 x 4	2 1/4	3.10	2.80	2.50
CU-3013A	10 x 2 x 1 1/4	1/4	1.15	1.05	.90
CU-3014A	12 x 2 1/4 x 2 1/4	1/4	1.50	1.35	1.20
CU-3015A	4 x 2 x 2 1/4	1/4	.90	.80	.70
CU-3016A	4 1/4 x 2 x 1 1/4	1/4	.90	.80	.70
CU-3017A	3 1/4 x 2 x 1 1/4	1/4	.75	.70	.60

HANDY BOXES

Similar to Miniboxes in design and construction, except made of 22 gauge steel. Black wrinkle finish only. Screw type only.

Bud No.	Size, Inches L. x H. x W.	Wt. Lbs.	1-49	50-99	100-149
HB-1621	4 1/4 x 2 1/4 x 1 1/4	1/2	\$1.40	\$1.25	\$1.10
HB-1622	4 x 2 x 2 1/4	1/2	1.45	1.30	1.15

COWL-TYPE MINIBOXES



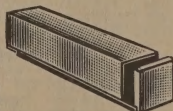
The cowl-type Mini-Box has a projecting cover to reduce glare on the panel from overhead lighting. It also provides protection for controls and dials. Cover has two box braces to which bottom is attached with sheet metal screws. When assembled, this type of construction results in a sturdy, rigid housing. Constructed of .040" aluminum and available in natural or light hammertone gray finish.

Bud No.	Overall Size, Inches			Net Each, Lots of		
	H.	W.	D.	1-49	50-99	100 & Over
SC-2130*	6	10	7	6.55	5.90	5.25
SC-2131*	7	12	8	7.15	6.45	5.70
SC-2132*	3	8	5	3.80	3.40	3.05
SC-2133*	5	6	5	3.95	3.55	3.15
SC-3030†	6	10	7	4.75	4.30	3.80
SC-3031†	7	12	8	5.15	4.65	4.10
SC-3032†	3	8	5	2.70	2.45	2.15
SC-3033†	5	6	5	2.85	2.55	2.30

*Painted light gray hammertone. †Natural aluminum finish.

MINISLIDES

Ideal for housing components or assemblies where easy access to internal parts is important. Can be mounted in a number of positions in a rack or cabinet. Accessibility achieved by removing sliding cover. Design of Mini-Slide Box provides adequate shielding and protection from dust. Sturdily made of .050 aluminum. 4 self-tapping fastening screws included. Choice of gray hammertone (GH) or natural aluminum (NA).



Bud No.	Finish	Size, Inches W. x D. x H.			Wt. Lbs.	Net Each, Lots of		
		W.	D.	H.		1-49	50-99	100-149
MS-2150	(GH)	3 1/4	13	2 1/2	1	\$4.75	\$3.75	\$3.30
MS-2151	(GH)	5 1/4	13	2 1/2	1 1/4	4.75	4.30	3.80
MS-2152	(GH)	3 1/4	17	2 1/2	1 1/4	4.85	4.10	3.65
MS-3050	(NA)	3 1/4	13	2 1/2	1 1/4	3.15	2.85	2.50
MS-3051	(NA)	5 1/4	13	2 1/2	1 1/4	3.85	3.45	3.10
MS-3052	(NA)	3 1/4	17	2 1/2	1 1/4	3.70	3.35	2.95

UNIVERSAL METER CASES

Center hole punched for 2" meters, plus easily removed knock-out ring to provide fit for 3" meters. Single piece detachable back and sides fastened to case with self-tapping screws for easy installation and servicing. Two 3/4" knock-out holes in top provide for installation of feed-through insulators, switches, volume controls, etc. Gray hammertone finish only. Size: 4 1/4" h. x 4" w. x 4" d.



Bud No.	Construction	Weight, Lbs.	Net Each, Lots of		
			1-49	50-99	100-149
CM-1935	Steel	1	\$1.50	\$1.35	\$1.20
CMA-1936	Aluminum	3/4	1.75	1.60	1.40

WIDE UNIVERSAL METER CASE

Same as above, except extra wide to permit installation of small components along with a meter or accommodate a 4" meter. Made of 5005 H-14 aluminum. Size: 4 1/4" h. x 6" w. x 4" d.

Bud No.	Construction	Weight, Lbs.	1-49	50-99	100-149
CMA-1930	Aluminum	3/4	\$2.90	\$2.60	\$2.30

HEAT RADIATING PLATE AND GRID TUBE CONNECTORS

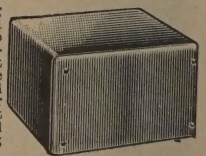
Fit all sizes of industrial and transmitting vacuum tubes. Dual purpose design permits use in making connections to plate or grid terminals, plus provide large heat radiating surface for heat dissipation from glass seal and tube element. Eight sizes fit all grid and plate leads; provide sufficient heat radiation for any tube in 50-2000 watt range. Machined from special aluminum rods. Edges rounded to minimize corona.



Bud No. TC-	Lead Hole	For Tube Types	Size L. x O.D.	Net Each
488	.052"	3C24, 24, 24G, 25T, 27	.900" x .615"	\$.90
487	.062"	UH50, HK24, 304B, 829B, 832A, 834	.900" x .615"	.90
489	.072"	35T, 35GB, 75TH, HK-25TB, HK254, 484, 8001, 1E27	.900" x .615"	.90
1923	.110"	HK57, 152TH	1.0" x .738"	.95
1924	.125"	HK57, 152TH	1.0" x .738"	.95
1920	.375"	-125A, 150TH, 2-150D, 240R, 250TH, 250TL, 420A, 802, 803, 804, 807, 808 grid, 814, 815, 825, 2E24, 2E26, 3E22, 4-65A, 4-250A, 816, 6146, 1625, 4D32, 807W, 1B3GT, 6BG6G, 6CD6G	1.0" x .738"	.85
1925	.125"	304TH, 304TL	1.0" x .924"	1.00
1921	.570"	ZB60, HF60, HF100, 111H, 211H, 230H, HF175, HF300 grid, 100R, HK375C, 450TH, 454, 750TH, 805, 806, 808, 809, 810, 811, 812, 813, 828, 833, 866, 854, 1500T, 2000T, 1054, 5331, 5332, 8000, 8003, 2005	1.0" x .924"	1.00
1926	.810"	WL468, WL463, WL460, HF200, HF201, MF300	1.0" x 1.115"	1.25

CONTOUR UTILITY CABINETS

Attractively designed utility housing with rounded contour corners. Flanged panels also have rounded corners to preserve the symmetry of design. Constructed of 20 gauge steel. Both front and rear panels are removable; the front panel is solid while the rear panel is louvered for proper ventilation. Four rubber feet, attached to base, prevent scratching surface the unit is placed on. Body is smooth, dark gray enamel; panel is smooth light gray enamel.

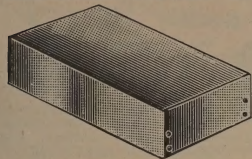


Bud No.	Overall Size, Inches			Net Each, Lots of		
	H.	W.	D.	1-24	25-49	50 & Over
CU-463	4 1/4	6 1/4	3 1/4	\$ 6.05	\$ 5.45	\$ 4.85
CU-465	4 1/4	6 1/4	5 1/4	7.00	6.30	5.60
CU-585	5 1/4	8 1/4	5 1/4	9.20	8.30	7.35
CU-587	5 1/4	8 1/4	7 1/4	10.00	9.00	8.00
CU-7125	7 1/4	12 1/4	5 1/4	10.20	9.20	8.15
CU-7127	7 1/4	12 1/4	7 1/4	10.85	9.75	8.70



Chassis and Accessories

ALUMINUM CHASSIS BASES



Each chassis is made from a single sheet of aluminum. All bases are welded on the latest type of welders by experienced operators. All corners are reinforced. Natural finish. Aluminum alloy 5005 H14. All four sides are folded at bottom for extra strength and rigidity. Now 63 sizes.

Bud No.	Width, In.	Lgth., In.	Ht., In.	Gauge	Net Each, Lots of		
					1-49	50-99	100-149
AC-1401*	2 1/2	4 1/2	1	18	1.18	\$1.05	\$.90
AC-1402*	3 1/2	4 1/2	1	18	1.20	1.10	.95
AC-1403*	3 1/2	5 1/2	1	18	1.20	1.10	.95
AC-1404*	4	5	2	18	1.40	1.25	1.10
AC-1405*	4	6	3	18	1.30	1.20	1.05
AC-430	4	6	3	18	1.60	1.45	1.30
AC-431	4	8	2	18	1.40	1.25	1.10
AC-1406*	4	8	2	18	1.70	1.55	1.35
AC-432	4	17	3	16	2.85	2.55	2.30
AC-1407*	4 1/2	8	1 1/2	18	1.30	1.20	1.05
AC-402	5	7	3	18	1.45	1.30	1.15
AC-429	5	7	3	18	1.75	1.55	1.40
AC-1408*	5	9	1 1/2	18	1.40	1.25	1.10
AC-1409*	5	9 1/2	1 1/2	18	1.40	1.25	1.10
AC-403	5	9 1/2	2	18	1.55	1.40	1.25
AC-401	5	9 1/2	2 1/2	18	1.80	1.60	1.45
AC-421	5	9 1/2	3	18	2.00	1.80	1.60
AC-404	5	10	3	18	2.00	1.80	1.60
AC-422	5	13	3	18	2.30	2.05	1.85
AC-1410*	5	13 1/2	2 1/2	18	1.85	1.65	1.50
AC-1411*	5 1/2	5 1/2	1	18	1.30	1.20	1.05
AC-1412*	5 1/2	9 1/2	1 1/2	18	1.40	1.25	1.10
AC-1413*	6	8	2	18	1.70	1.55	1.35
AC-1414*	6	14	3	16	2.80	2.50	2.25
AC-433	6	17	3	16	3.30	2.65	2.35
AC-405	7	7	2	18	1.65	1.50	1.30
AC-406	7	9	2	18	1.75	1.60	1.40
AC-407	7	11	2	18	2.00	1.80	1.60
AC-408	7	12	3	18	2.40	2.15	1.90
AC-409	7	13	2	18	2.10	1.90	1.70
AC-1415*	7	15	2	16	2.65	2.40	2.10
AC-411	7	15	3	16	3.30	2.95	2.65
AC-1416*	7	17	2	16	2.90	2.60	2.30
AC-1417*	7	17	2 1/2	16	3.00	2.70	2.40
AC-423	7	17	3	16	3.35	3.00	2.70
AC-1418*	8	10	2 1/2	16	2.50	2.25	2.00
AC-1419*	8	12	2 1/2	16	2.80	2.50	2.25
AC-424	8	12	3	16	2.95	2.65	2.35
AC-425	8	17	2	16	3.10	2.80	2.50
AC-412	8	17	3	16	3.45	3.10	2.75
AC-1420*	8 1/2	15	3	16	2.90	2.60	2.30
AC-1421*	8 1/2	16	3	16	3.50	3.15	2.80
AC-413	10	12	3	16	3.30	2.95	2.65
AC-414	10	14	3	16	3.45	3.10	2.75
AC-415	10	17	2	16	3.30	2.95	2.65
AC-416	10	17	3	16	3.85	3.45	3.10
AC-427	10	17	4	14	5.50	4.95	4.40
AC-1422*	10	17	5	14	7.90	7.00	6.30
AC-1423*	10	23	5	14	5.40	4.85	4.30
AC-426	11	17	2	14	4.20	3.80	3.35
AC-417	11	17	3	14	4.85	4.35	3.90
AC-1424*	12	12	3	16	3.30	2.95	2.65
AC-1425*	12	17	2	16	4.40	3.95	3.55
AC-418	12	17	3	14	4.95	4.45	3.95
AC-419	13	17	2	14	4.30	3.85	3.45
AC-420	13	17	3	14	5.15	4.65	4.10
AC-428	13	17	4	14	6.40	5.75	5.10
AC-1426*	13	17	5	14	8.75	7.90	7.00
AC-1427*	14	17	3	14	6.15	5.55	4.90
AC-1428*	15	17	4	14	7.75	7.00	6.30
AC-1429*	15	17	6	14	11.90	10.70	9.50
AC-1430*	17	17	3	14	7.05	6.35	5.65
AC-1431*	17	17	4	14	10.35	9.30	8.30

*Denotes new size

CHASSIS MOUNTING BRACKETS

Mounts chassis to panels, essential when panel supports entire chassis weight. Heavy gauge steel 3/16" high, cut away at bottom to mount flush to panel. Black enamel finish.

Bud No.	Depth, In.	Net Per Pair, Lots of		
		1-49	50-99	100-149
MB-458	8	\$1.50	\$1.35	\$1.20
MB-448	10	1.50	1.35	1.20
MB-459	11	1.65	1.50	1.30
MB-449	12	1.95	1.75	1.55
MB-460	13	1.85	1.65	1.50
MB-450*	10	2.15	1.95	1.70
MB-451*	13	2.30	2.05	1.85

*8 1/2" high for chassis height of 4".

TRIANGULAR MOUNTING BRACKETS

Ideal for rigid support of shelves to take heavy loads. Heavy gauge steel with 3/4" flange. Black enamel finish only.

Bud No.	Height, In.	Depth, In.	Wt., Lbs.	Net Per Pair, Lots of		
				1-49	50-99	100-149
MB-1266	5	5	1	\$1.15	\$1.05	\$.90
MB-1267	7	7	1	1.35	1.20	1.10
MB-1268	9	9	1 1/2	1.65	1.50	1.30

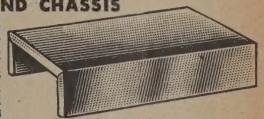
ALUMINUM BOTTOM PLATES

42 sizes to fit all Bud chassis. Made of 5005 H14 aluminum alloy. Natural finish. Plates have four embossed feet to prevent damage to surface on which they rest. Fit snugly on bottom of chassis.

Bud No.	Fits Chassis		1-49	50-99	100-149
	Width In.	Length In.			
BPA-1501*	2 1/2	4 1/2	\$.60	\$.55	\$.50
BPA-1502*	3 1/2	4 1/2	.65	.60	.55
BPA-1503*	3 1/2	5 1/2	.70	.65	.55
BPA-1504*	4	5	.70	.65	.55
BPA-1505*	4	6	.75	.70	.60
BPA-1506*	4	8	.80	.80	.70
BPA-1532*	4	17	.90	.80	.70
BPA-1507*	4 1/2	8	1.00	.90	.80
BPA-1508*	5	7	.80	.70	.65
BPA-1509*	5	9 1/2	.85	.75	.65
BPA-1591	5	10	.85	.75	.70
BPA-1509*	5	13	1.25	1.15	1.00
BPA-1510*	5	13 1/2	1.30	1.15	1.05
BPA-1511*	5 1/2	6 1/2	.80	.70	.65
BPA-1512*	5 1/2	9 1/2	.90	.80	.70
BPA-1513*	6	14	1.25	1.15	1.00
BPA-1514*	6	17	1.55	1.40	1.25
BPA-1515*	6	17	.85	.75	.70
BPA-1592	7	9	.90	.80	.70
BPA-1593	7	11	1.00	.90	.85
BPA-1594	7	12	1.05	.95	.85
BPA-1596	7	13	1.25	1.15	1.00
BPA-1516*	7	15	1.45	1.30	1.15
BPA-1517*	7	17	1.45	1.30	1.15
BPA-1518*	8	10	1.30	1.15	1.05
BPA-1519*	8	12	1.65	1.50	1.30
BPA-1520*	8	12	1.70	1.55	1.35
BPA-1521*	8 1/2	15	1.95	1.75	1.55
BPA-1522*	9	15	2.00	1.80	1.60
BPA-1523*	10	12	1.65	1.50	1.30
BPA-1524*	10	14	1.65	1.50	1.30
BPA-1527	10	16	1.65	1.50	1.30
BPA-1525*	10	23	2.40	2.15	1.90
BPA-1526*	11	17	1.85	1.65	1.50
BPA-1527*	12	12	1.85	1.65	1.50
BPA-1528*	12	17	2.20	2.00	1.75
BPA-1598	13	17	2.30	2.05	1.85
BPA-1529*	14	17	2.30	2.05	1.85
BPA-1530*	17	17	3.15	2.80	2.50
BPA-1531*	17	17	3.20	2.90	2.55

OPEN-END CHASSIS

Primarily intended to be used with the various sizes and styles of Bud metal cabinets these chassis are ideal for any type of small built-up unit such as a record amplifier, code oscillator, etc. U-shaped construction is used with ends folded over 3/4" for additional strength. This unit is natural finish aluminum alloy 5005 H-14.



Bud No.	Size, Inches D. x W. x H.	Fits Cabinet Number	Net Each, Lots of		
			1-24	25-49	50-99
CB-38	7 x 6 x 2	C-1584	\$1.10	\$1.00	\$.90
CB-39	5 x 7 x 1 1/2	.....	1.05	.95	.85
CB-41	7 x 7 x 1 1/2	C-973	1.35	1.20	1.10
CB-39	7 x 8 x 2	C-1585	1.30	1.15	1.05
CB-996	5 1/2 x 9 x 1 1/2	C-993	1.30	1.15	1.05
CB-976	7 1/2 x 9 x 1 1/2	C-999, CD-1481	1.70	1.55	1.35
CB-997	7 x 10 x 2	C-1586	2.10	1.95	1.75
CB-997	7 x 11 x 1 1/2	C-994, CD-1482	1.60	1.45	1.30
CB-998	7 x 13 x 1 1/2	C-995, CD-1483	1.95	1.75	1.55

MINIATURE ALUMINUM CHASSIS

Small versions of above with 3/4" flange on bottom for bottom plate or fastening. Ideal for limited space uses. Natural finish.

Bud No.	Size, Inches D. x W. x H.	Fits Cabinet Number	Net Each, Lots of		
			1-24	25-49	50-99
CB-1623	2 1/2 x 2 1/2 x 1 1/4	.....	\$.45	\$.40	\$.35
CB-1624	1 1/2 x 3 1/2 x 1 1/4	.....	.50	.45	.40
CB-1625	1 1/2 x 4 1/2 x 2	C-1788	.60	.55	.50
CB-1626	2 3/4 x 4 1/2 x 1	CU-728	.55	.50	.45
CB-1627	3 3/4 x 4 1/2 x 1 1/2	CU-729	.55	.50	.45
CB-1628	3 x 6 1/2 x 1 1/4	C-1788	.65	.60	.50
CB-1629	5 1/4 x 4 1/2 x 1 1/2	CU-1098	.70	.65	.55
CB-1630	4 x 3 1/2 x 1	C-1605, C-1610	1.50	.45	.40
CB-1618	4 x 4 1/2 x 1	C-1607, C-1611	.60	.55	.50
CB-1619	4 x 5 1/2 x 1	C-1608, C-1612	.65	.60	.50
CB-1620	4 x 6 1/2 x 1	C-1609, C-1613	.70	.65	.55

CHASSIS DECKS

Use in carrying cases, cabinets, etc.; deck is folded 1 1/2" over at front and 1/2" on sides. Black enamel finish only.

Bud No.	Size, In. W. x D.	Fits Cabinet Number	Net Each, Lots of		
			1-24	25-49	50-99
CB-522	4 3/4 x 5 1/2	CU-1098	68c	61c	54c
CB-523	4 3/4 x 4 1/2	CU-1099	65c	59c	52c
CB-525	5 1/2 x 5 1/2	CU-1124, CU-1096	78c	70c	62c

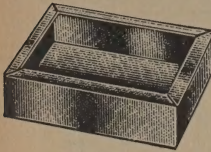
RACK SHELVES

Sturdily constructed of heavy-gauge steel. Have 1" flange to add rigidity and strength. Rest on chassis supporting angles. Available in black enamel finish only.

Bud No.	Size, Inches W. x D.	Weight, Lbs.	Net Each, Lots of		
			1-24	25-49	50-99
CB-1976	19 x 15	6 1/2	\$3.80	\$3.40	\$3.05
CB-1977	19 x 12	5 1/2	2.90	2.60	2.30



Chassis and Accessories



STEEL CHASSIS BASES

Chassis are fabricated from a single sheet of steel, 20 gauge is used unless otherwise indicated. All four sides are folded at bottom for additional rigidity and strength. Available in zinc plate or black wrinkle finish.

Size, Inches D. x W. x H.	Zinc Plated Finish				Black Wrinkle Finish			
	Bud CB-	Net Each,	Lots of		Bud CB-	Net Each,	Lots of	
	1-24	25-49	50-99		1-24	25-49	50-99	
5 1/2 x 5 1/2 x 1	101*	\$1.60	\$1.45	\$1.30	628*	\$1.30	\$1.15	\$1.05
5 x 7 x 2	629*	1.60	1.45	1.30				
4 1/2 x 8 x 1 1/2	102*	1.75	1.60	1.40				
5 x 9 x 1 1/2	103*	1.55	1.40	1.25				
5 x 9 1/2 x 2 1/2	645*	2.05	1.85	1.65	644*	1.65	1.50	1.30
5 x 9 1/2 x 1 1/2	776*	2.05	1.85	1.65	788*	1.50	1.35	1.20
5 x 10 x 3	605*	2.25	2.05	1.80	604*	1.55	1.40	1.25
5 x 13 x 3	105	2.55	2.30	2.00				
6 x 8 x 2	104	1.75	1.60	1.40				
6 x 14 x 3	756	2.50	2.25	2.00	755	1.15	1.00	1.70
7 x 7 x 2	1191	1.80	1.60	1.45	789	1.50	1.35	1.20
7 x 9 x 2	1192	1.95	1.75	1.55	790	1.70	1.55	1.35
7 x 11 x 2	1193	2.05	1.85	1.60	791	1.75	1.60	1.40
7 x 12 x 3	793	2.55	2.30	2.05	792	1.95	1.75	1.55
7 x 13 x 2	1194	2.30	2.05	1.85	646	1.65	1.50	1.30
7 x 13 1/2 x 2 1/2	1198	2.65	2.40	2.10	647	2.15	1.95	1.70
7 x 15 x 3	1189	2.90	2.60	2.30	649	2.40	2.15	1.90
8 1/2 x 15 x 3	666	3.30	2.95	2.65	665	2.70	2.45	2.15
4 x 17 x 3	1066	2.60	2.35	2.10	1068	2.25	2.00	1.75
4 x 17 x 2 1/2	1199	2.85	2.55	2.30	648	2.40	2.15	1.90
2 x 17 x 3	758	3.15	2.85	2.50	757	2.65	2.40	2.10
8 x 10 x 2 1/2	702	2.40	2.15	1.90	701	2.10	1.90	1.70
8 x 12 x 2 1/2	704	2.70	2.45	2.15	703	2.15	1.95	1.70
8 x 12 x 3	760	2.85	2.55	2.30	759	2.25	2.05	1.80
8 x 17 x 2	774	2.85	2.55	2.30	650	2.10	1.90	1.70
8 x 17 x 3	1195	3.20	2.90	2.55	651†	2.50	2.25	2.00
10 x 12 x 3	1196†	3.70	3.35	2.95	652†	2.30	2.05	1.85
10 x 12 x 3	106	3.65	3.30	2.90				
10 x 14 x 3	779	2.95	2.65	2.35	653	2.50	2.25	2.00
10 x 17 x 2	769	2.90	2.60	2.30	654†	2.40	2.15	1.90
10 x 17 x 3	637	3.45	3.10	2.75	656†	2.40	2.15	1.90
10 x 17 x 3	1197†	3.70	3.35	2.95	655†	3.10	2.80	2.50
10 x 23 x 3	1197†	4.15	3.75	3.30	656†	3.45	3.10	2.75
11 x 17 x 2	770†	3.40	3.05	2.70	657†	2.85	2.55	2.30
11 x 17 x 3	771†	4.25	3.85	3.40	658†	3.35	3.00	2.70
12 x 17 x 2	661†	3.75	3.40	3.00	663†	2.95	2.65	2.35
12 x 17 x 3	662†	4.45	4.00	3.55	664†	3.50	3.15	2.80
13 x 17 x 2	772†	4.50	4.05	3.60	659	3.50	3.15	2.80
13 x 17 x 3	773†	4.75	4.45	3.95	660†	4.15	3.75	3.30
10 x 17 x 4	641†	4.30	3.85	3.45	640†	3.60	3.25	2.90
13 x 17 x 4	643†	5.65	5.10	4.50	642†	4.75	4.30	3.80
10 x 17 x 5	624†	5.55	5.05	4.50	623†	5.50	4.95	4.40
3 x 17 x 5	626†	7.20	6.50	5.75	625†	6.00	5.40	4.80

*22 gauge. †Punched to accommodate chassis mounting brackets.
†18 gauge.

STEEL CHASSIS BOTTOM PLATES

Protect wiring and keep out dust from chassis bottom. Four embossed feet. Two finishes to match chassis finish.

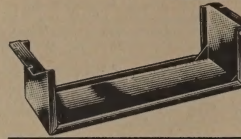
Fits Chassis Size, In. W. x L.	Zinc Plated Finish				Black Wrinkle Finish			
	Bud BP-	Net Each,	Lots of		Bud BP-	Net Each,	Lots of	
	1-49	50-99	100-149		1-49	50-99	100-149	
5 x 7	706	\$.75	\$.70	\$.60	705	\$.65	\$.60	\$.50
5 x 9 1/2	667	.85	.75	.70	680	.70	.65	.55
5 x 10	538	.90	.80	.70	536	.80	.70	.65
7 x 7	668	1.05	.95	.85	681	1.00	.90	.80
7 x 9	669	1.10	1.00	.90	682	1.05	.95	.85
7 x 11	670	1.20	1.10	.95	683	1.05	.95	.85
7 x 12	539	1.40	1.25	1.10	537	1.20	1.10	.95
7 x 13	671	1.30	1.15	1.05	684	1.10	1.00	.90
6 x 13 1/2	672	1.10	1.00	1.00	685	.90	.80	.70
4 x 17	1067	1.30	1.15	1.05	1069	1.00	.90	.80
7 x 17	673	1.50	1.35	1.20	686	1.00	.90	.80
8 x 10	708	1.15	1.05	.90	707	1.00	.90	.80
8 x 12	710	1.45	1.30	1.15	709	1.15	1.05	.90
8 x 17	674	1.70	1.55	1.35	687	1.05	.95	.85
10 x 12	675	1.75	1.60	1.40	688	1.05	.95	.85
10 x 14	514	1.65	1.50	1.30	517	1.55	1.40	1.25
10 x 17	676	1.75	1.60	1.40	689	1.30	1.15	1.05
11 x 17	677	1.75	1.60	1.40	690	1.30	1.15	1.05
12 x 17	678	2.05	1.85	1.65	691	1.40	1.25	1.10
13 x 17	679	2.45	2.20	1.95	692	1.60	1.45	1.30

HEAVY DUTY CHASSIS

Complete with 20 ga. bottom plate for uses requiring extra strength to hold heavy weights. Made of 16 ga. steel; 17" wide.

Size, In. D. x H.	Zinc Plated Finish				Black Wrinkle Finish			
	Bud CB-	Net Each,	Lots of		Bud CB-	Net Each,	Lots of	
	1-24	25-49	50-99		1-24	25-49	50-99	
8 x 3	1765	\$5.25	\$4.75	\$4.20	1758	\$4.70	\$4.25	\$3.75
11 x 3	1767	5.30	4.75	4.25	1760	4.75	4.30	3.80
13 x 2	1768	5.85	5.25	4.70	1761	5.30	4.75	4.25
13 x 3	1769	5.95	5.35	4.75	1762	5.40	4.85	4.30
13 x 4	1770	6.45	5.80	5.15	1763	5.80	5.20	4.65

PANEL CHASSIS



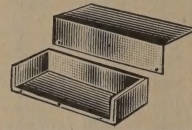
Panel mounting chassis for vertical installation where depth is limited or front service is desired. Made of .062" aluminum alloy 5005 H-14 in natural finish. Front flange has standard notching. Fits standard 19" panel space.

Bud No.	Height, Inches	Weight, Lbs.	Net Each, Lots of		
			1-24	25-49	50-99
CB-1370	1 1/4	3/4	\$2.80	\$2.50	\$2.25
CB-1371	3 1/4	1 1/4	3.15	2.85	2.50
CB-1372	5 1/4	1 1/2	3.40	3.05	2.70
CB-1373	7	2	3.95	3.55	3.15
CB-1374	8 1/2	2 1/4	4.55	4.10	3.65
CB-1375	10 1/2	2 3/4	5.35	4.80	4.30
CB-1376	12 1/4	3	5.85	5.25	4.70
CB-1377	14	3 1/4	6.45	5.80	5.15

CHASSIS SUPPORTING ANGLES

Distribute weight to sides of the rack to relieve the panel. Angles are 3" x 1 1/4" x 1/4" steel. Black enamel finish. No. CE-2219 designed for attachment to rails of Console Pedestal or Prestige Relay Rack. Slotted for infinite vertical adjustment; extend to full cabinet depth; 21" x 3" x 2 1/4".

Bud No.	Length, Inches	Weight, Lbs.	Net Per Pair, Lots of		
			1-24	25-49	50-99
SA-1349	14 1/2	4	\$2.45	\$2.20	\$1.95
SA-1350	12	3	2.40	2.15	1.90
CE-2219	21	7 1/2	3.00	2.70	2.40



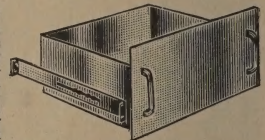
CONVERT-A-BOXES

Versatile enclosure combines welded base and two-sided cover. Components or controls are easily mounted to any surface of the unit. All contents easily accessible. Cover and base are fastened by self-tapping screws. Rigid 20 ga. cadmium-plated steel.

Bud No.	Size, Inches H. x W. x D.	Wt., Lbs.	Net Each, Lots of		
			1-24	25-49	50-99
CU-341	1 1/2 x 4 x 3	1 1/2	\$2.10	\$1.90	\$1.70
CU-452	2 x 5 x 4	1	2.20	2.00	1.75
CU-462	2 x 8 x 4	1 1/4	2.30	2.05	1.85
CU-592	2 1/2 x 9 1/2 x 5	1 1/4	2.50	2.25	2.00
CU-622	2 1/2 x 12 x 6	2 1/4	2.75	2.50	2.20
CU-712	2 1/2 x 15 x 7	3 1/2	3.65	3.30	2.90

DRAWER WITH ADJUSTABLE SLIDES

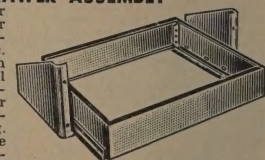
Fits any cabinet or cabinet rack with 19" panel space. Slide bracket adjustable 16 1/2" to 22 1/4" to fit any cabinet with depth 17" to 23". Fastens by bracket to panel mounting rail in front and rear of cabinet. Nylon rollers for smooth movement. Hardware supplied. Specify color when ordering: Add suffix **HG** for gray hammertone; **B** for black wrinkle; or **G** for gray wrinkle.



Bud No.	Inside Size, Inches	Wt., Lbs.	Net Each, Lots of		
			1-14	15-24	25-34
D-1721	16 1/2 x 6 1/2 x 16 1/2	19 1/4	\$45.00	\$40.50	\$36.00

SLIDING DRAWER ASSEMBLY

Ideal for use as a record player mounting base, typewriter base, apparatus and instrument base, writing desk, etc. Installs quickly and simply in any standard rack. Can't fall out or tilt. Provides a completely safe mounting base for anything put on it. Ball bearing suspension for easy sliding. Chassis formed from one-piece 14 gauge aluminum; electro-welded. Support brackets formed from one-piece 1/4" steel. Slide rail fastens securely to chassis, slides in and out easily on channel ball bearings. Stop screw on slide rail prevents drawer from falling out of channel. Support brackets and channel finished in gray enamel; chassis, slide and plate finished in light gray hammertone. Will support up to 50 lbs. Chassis Size: 16 1/2" x 14" x 3", with 1/2" flange top and bottom. *Fastens to top or bottom.



Bud No.	Description	Wt., Lbs.	Net Each, Lots of		
			1-14	15-24	25-34
SD-1717	Sliding drawer	5	\$13.20	\$11.20	\$10.55
TP-1718	Drawer plate*	1 1/2	2.95	2.65	2.35



Cabinet Hardware

BUD HANDLES



Fabricated from steel, brass or cast aluminum. Durable finish provides long wear and attractive appearance. Skin packed in pairs or bulk packed (priced singly) with all necessary mounting

hardware. Designed for rugged applications, they have unlimited use in electronic, electrical and other fields.

Bud No.	Fig.	Description	Net Per Pair, Lots of			Bulk Pack*: Net Each, Lots of		
			1-49	50-99	100-149	50-99	100-199	200-499
H-9100	A	1" x 1/4" chrome-plated solid brass; 4" x 1/2" mtg. ctrs.; 1" hand clearance; four 1/2" x 6-32 threaded screws	\$4.55	\$4.10	\$3.65	\$2.05	\$1.85	\$1.65
H-9101	A	Same, but 8" x 1/2" mtg. centers	7.05	6.35	5.65	3.20	2.90	2.55
H-9102	A	1/2" x 1/2" chrome-plated solid brass; 4" mtg. centers; 1" hand clearance; two 1/2" x 6-32 threaded screws	3.60	3.25	2.90	1.75	1.60	1.40
H-9103	A	Same, but has 6" mounting centers	4.15	3.75	3.30	1.75	1.65	1.50
H-9110	B	3/4" steel rod angular formed, chrome-plated; 6" mtg. ctrs.; 1 1/4" hand clearance; two 1/2" x 10-32 screws	3.20	2.90	2.55	1.15	1.05	.90
H-9111	B	3/4" steel rod, chrome-plated; 4" mtg. ctrs.; 1" hand clearance; two 1/2" x 10-32 threaded screws	1.70	1.55	1.35	.65	.60	.50
H-9112	B	6" mtg. center version of H-9111	2.15	1.95	1.70	.80	.70	.65
H-9113	B	8" mtg. center version of H-9111	2.40	2.15	1.90	.90	.80	.70
H-9114	B	1/2" steel rod, chrome-plated; 8" mtg. centers; 1 1/2" hand clearance; two 1/2" x 3/4-28 thd. screws	4.05	3.65	3.25	1.45	1.30	1.15
H-9115	C	3/4" steel rod, chrome-plated; 4" mtg. ctrs.; 1 1/4" hand clearance; two 1/2" x 10-32 thd. nuts	2.75	2.50	2.20	1.05	.95	.85
H-9116	C	Same, but has 6" mtg. centers	3.45	3.10	2.75	1.25	1.15	1.00
H-9120	D	Silver-anodized die-cast aluminum; 4 3/8" inside, 5 3/4" outside mtg. centers; 1" hand clearance; four 1/2" x 6-32 threaded screws	4.05	3.65	3.25	1.75	1.60	1.40
H-9121	D	Same, except chrome plated alloy	5.70	5.15	4.55	2.55	2.30	2.05
H-9123	D	Similar to H-9120 but 4 1/2" mtg. centers; 1" hand clearance; two 1/2" x 10-32 thd. screws	3.00	2.70	2.40	1.25	1.15	1.00
H-9122	E	Silver-anodized die-cast aluminum; hinged on 3/4" steel pins with 2 hinge blocks; 6 1/2" inside, 7 1/4" outside mtg. centers; 1 1/2" hand clearance; four 3/4" x 10-32 threaded screws	6.85	6.15	5.40	3.10	2.80	2.50
H-9130	F	Silver-anodized die-cast aluminum; 3" mtg. centers; two 3/4" x 10-32 thd. screws; size 4 1/4" x 3"	6.05	5.45	4.85	2.75	2.50	2.20
H-9131	G	Silver-anodized die-cast aluminum; size, 4" x 2 3/4"; 2 1/4" mtg. centers; two 3/4" x 3/4-28 thd. raised, counter-sunk screws and nuts	4.50	4.05	3.60	1.95	1.75	1.55
H-9140	H	Silver-anodized die-cast aluminum; 3 1/4" mtg. centers; 3/4" hand clearance; two 1/2" x 10-32 threaded screws	2.70	2.45	2.15	1.20	1.10	.95
H-9150	I	Silver-anodized die-cast aluminum; 4" x 3/4" mtg. centers; 1 1/2" hand clearance; four 1/2" x 10-32 threaded screws	3.60	3.25	2.90	1.55	1.40	1.25
H-9151	J	Silver-anodized die-cast aluminum; 5 1/4" x 3/4" mtg. centers; 1 1/2" hand clearance; four 1/2" x 10-32 threaded screws	5.85	5.25	4.70	2.55	2.30	2.05
H-9152	J	Similar to above except 3 3/4" mtg. centers; 1 1/2" hand clearance; two 1/2" x 10-32 threaded screws	4.75	4.30	3.80	2.15	1.95	1.70
H-9160	K	Chrome-plated 3/4" steel rod; 3 1/2" mtg. centers; 1 1/4" hand clearance; two 1/4-28 hex nuts	3.15	2.85	2.50	1.10	1.00	.90
H-9161	K	Same, but with 5 1/4" mounting centers	3.60	3.25	2.90	1.30	1.15	1.05
H-9162	K	Same, but with 7" mounting centers	3.75	3.40	3.00	1.35	1.20	1.10
H-9163	K	Same, but with 8 3/4" mounting centers	4.05	3.65	3.25	1.45	1.30	1.15
H-9164	K	Same, but with 10 1/2" mounting centers	4.55	4.10	3.65	1.50	1.35	1.20
H-9165	K	Same, but with 12 1/4" mounting centers	5.00	4.50	4.00	1.65	1.50	1.30
H-9166	L	Chrome-plated 1/4" brass rod; 1 1/2" mtg. centers; 1" hand clearance; two 1/4" x 6-32 thd. screws	1.40	1.25	1.10	.60	.55	.50
H-9168	L	Same, but 3" mtg. centers; two 1/4" x 6-32 thd. screws	1.55	1.40	1.25	.65	.60	.50

*Number shown is for skin packed pairs. For bulk packed handles (priced singly), add suffix B to number (example: H-9100B).

SPEAKER ENCLOSURE HANDLES

Attach to any small housing or speaker enclosure to achieve portability. Made of aluminum tubing with etched finish.

Bud No.	Length, Inches	Mtg. Ctrs., Inches	Net Each, Lots of		
			1-49	50-99	100-149
UH-70A	5 3/4"	4 3/4"	\$.45	\$.40	\$.35
UH-71A	3 3/4"	3 3/4"	.40	.35	.30

DOOR HANDLES, CATCH SETS

No. 9347: Fits flush with cabinet door; exploded parts chrome plated. Nos. 9196 and 9223: Lever-type handles are chrome plated with steel spindle and cam; fit Super Deluxe racks.

Bud No.	Description	Net Each, Lots of		
		1-49	50-99	100-149
9196	Non-locking handle	\$2.95	\$2.65	\$2.35
9223	9196 with lock and key	5.50	4.95	4.40
9347	Flush-mount catch set	1.10	1.00	.90

RUBBER FEET

No. F-7264A: Has recessed head with mounting stud; rubber portion 1/4" x 1/2" thick. No. F-8038: May be applied to any surface when glue coating is moistened with benzol base solution; 3/4" dia. x 1/2" thick. No. F-9653: Press-fit type for 1/4" hole.

Bud No.	Description	Net per 100, Lots of		
		1-49	50-99	100-149
F-7264A	High grade black rubber	\$8.90	\$8.00	\$7.10
F-8038	Sponge rubber pad	2.15	1.95	1.70
F-9653	Top grade gray rubber	4.15	3.75	3.30

*Lots 100-199.

MOUNTING BRACKETS

Permit mounting of midjet condensers, controls and other components in any position. Made of 3/4" wide, cadmium plated steel. Right-angle design with short side have two mounting holes; long side with 3/8" slot. No. AB-549 has additional 1/2" dia. hole centered on 3/8" slot.

Bud No.	Size	Wt. Per 100, Lbs.	Net Each, Lots of		
			1-99	100-199	200-299
AB-549	1 3/4" x 2"	2 1/2	\$11.00C	\$9.90C	\$8.80C
AB-550	1 3/4" x 2"	2 1/2	11.00C	9.90C	8.80C

ANGLES AND BRACKETS

Similar to above; made of 3/4" wide, nickel-plated brass. Right-angle design; Type 1 has single hole at end of each angle; Type 2 has two holes on long side; single hole on short side.

Bud No.	Size, Inches	Type	Wt. Per 100, Lbs.	Net Per 100, Lots of		
				1-99	100-199	200-299
AB-444	1/2 x 1/2	1	1 1/2	\$4.45	\$4.00	\$3.55
AB-445	3/4 x 3/4	1	1 1/4	5.10	4.60	4.10
AB-446	1 x 1	1	2 1/2	6.75	6.10	5.40
AB-447	1 1/2 x 1 1/2	1	2 1/2	8.25	7.45	6.60
AB-631	1 x 1 1/2	1	1 3/4	5.60	5.05	4.50
AB-632	1 1/2 x 3/4	1	1 1/2	6.95	6.25	5.55
AB-633	2 x 3/4	2	1 3/4	9.10	8.20	7.30
AB-634	3 x 3/4	2	2 1/2	11.20	10.08	9.00
AB-635	4 x 3/4	2	3 3/4	13.25	11.95	10.60

DIAL LOCK

Dual purpose design functions as both dial lock and position indicator. Completely eliminates problems of dial slippage and accidental movement. Nickel-plated brass construction.

Bud No. DL-1947 Dial Lock—Net Each.....

25¢



Imlok "Prototyper" Cabinets

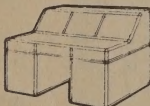
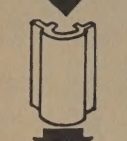
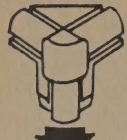
System of metal cabinet construction, ideal for research and prototype work, permits quick assembly of cases, cabinets and racks using the simplest of tools. Complex structures may be built to your design using a variety of corner castings and extrusions held rigidly with friction clips or screws. Panels may be cut to size from sheet aluminum or steel, fitted grooves or screw fastened. No grinding or welding needed.

EXTERNAL CORNER CONNECTORS

Bud No.	Description	Net Each, Lots of		
		1-14	15-24	25 Up
BI-1001	90° basic corner connector for rectangular cabinets. Use with BI-2004, BI-2014, BI-2024, BI-2034, BI-2044, BI-2054 or BI-2064 extrusions.	\$1.05	\$.95	\$.85
BI-1016	67½° corner connector holds vertical wall and horizontal wall to a third rising at 67½° to the horizontal. One leg fits BI-2041 extrusion; other two fit any 90° external extrusion.	1.70	1.55	1.35
BI-1024	60° corner connector similar to BI-1016. One leg fits BI-2081; other legs fit any 90° external extrusion.	1.70	1.55	1.35
BI-1002	45° corner connector similar to BI-1016. One leg fits BI-2005, BI-2015, or BI-2025; other two legs fit any 90° external extrusion.	1.20	1.10	.95
BI-1020	30° corner connector similar to BI-1016. One leg fits BI-2061; other two legs fit any 90° external extrusion.	1.70	1.55	1.35
BI-1012	22½° corner connector similar to BI-1016. One leg fits BI-2021; other two legs fit any 90° external extrusion.	1.70	1.55	1.35

EXTERNAL STANDARD EXTRUSIONS

Bud No.	Description	Net Each, Lots of		
		1-9	10-14	15 Up
BI-2004	12 ft. long, 90° external extrusion most used; has panel retaining groove on each flange for 0.050" panels. Ideal for small to medium sized structures with unbraced spaces up to 2 ft. long.	9.30	\$ 8.35	\$ 7.45
BI-2004-3	3 ft. length BI-2004	2.85	2.55	2.30
BI-2004-6	6 ft. length BI-2004	5.35	4.80	4.30
BI-2004-9	9 ft. length BI-2004	7.60	6.85	6.10
BI-2064	12 ft. long, 90° extrusion with panel retaining flange to take 20 gauge panels.	9.15	8.25	7.30
BI-2064-3	3 ft. length BI-2064	2.75	2.50	2.20
BI-2064-6	6 ft. length BI-2064	5.20	4.70	4.15
BI-2064-9	9 ft. length BI-2064	7.45	6.70	5.95
BI-2041	12 ft. long, 67½° extrusion; companion to BI-1016 for unbraced spans up to 3 ft. long.	11.20	10.10	8.95
BI-2041-3	3 ft. length BI-2041	3.35	3.00	2.70
BI-2041-6	6 ft. length BI-2041	6.40	5.75	5.10
BI-2041-9	9 ft. length BI-2041	9.10	8.20	7.30
BI-2081	12 ft. long, 60° extrusion; companion to BI-1024 connector. For unbraced spans up to 3 ft. long.	11.20	10.10	8.95
BI-2081-3	3 ft. length BI-2081	3.30	2.95	2.65
BI-2081-6	6 ft. length BI-2081	6.40	5.75	5.10
BI-2081-9	9 ft. length BI-2081	9.10	8.20	7.30
BI-2005	12 ft. long, 45° extrusion used with BI-1002 connector; for spans up to 2 ft. long.	8.05	7.25	6.45
BI-2005-3	3 ft. length BI-2005	2.45	2.20	1.95
BI-2005-6	6 ft. length BI-2005	4.60	4.15	3.70
BI-2005-9	9 ft. length BI-2005	6.50	5.85	5.20
BI-2061	12 ft. long, 30° extrusion used with BI-1020 connector.	11.20	10.10	8.95
BI-2061-3	3 ft. length BI-2061	3.35	3.00	2.70
BI-2061-6	6 ft. length BI-2061	6.40	5.75	5.10
BI-2061-9	9 ft. length BI-2061	9.10	8.20	7.30
BI-2021	12 ft. long, 22½° extrusion used with BI-1012 connector.	11.65	10.50	9.30
BI-2021-3	3 ft. length BI-2021	3.50	3.15	2.80
BI-2021-6	6 ft. length BI-2021	6.65	6.00	5.30
BI-2021-9	9 ft. length BI-2021	9.50	8.55	7.60
BI-2014	12 ft. long, 90° strengthened extrusion similar to BI-2004 but stronger for use in unbraced spans up to 3 ft. long.	10.40	9.35	8.30
BI-2014-3	3 ft. length BI-2014	3.15	2.85	2.50
BI-2014-6	6 ft. length BI-2014	6.00	5.40	4.80
BI-2014-9	9 ft. length BI-2014	8.50	7.65	6.80
BI-2015	12 ft. long, 45° external strengthened extrusion used in place of BI-2005 in unbraced space up to 3 ft. long.	9.15	8.25	7.30
BI-2015-3	3 ft. length BI-2015	2.75	2.50	2.20
BI-2015-6	6 ft. length BI-2015	5.20	4.70	4.15
BI-2015-9	9 ft. length BI-2015	7.45	6.70	5.95
BI-2054	12 ft. long, 90° strengthened extrusion with two ¼" extended flanges to take standard ¼", retaining groove at root of flanges.	12.90	11.60	10.30
BI-2054-3	3 ft. length BI-2054	3.90	3.50	3.10
BI-2054-6	6 ft. length BI-2054	7.40	6.65	5.90
BI-2054-9	9 ft. length BI-2054	10.60	9.55	8.50
BI-2024	12 ft. long, 90° strengthened extrusion with one flange extended ¼" to fit ¼" panel; other has normal panel-retaining groove.	10.55	9.50	8.45
BI-2024-3	3 ft. length BI-2024	3.20	2.90	2.55
BI-2024-6	6 ft. length BI-2024	6.05	5.45	4.85
BI-2024-9	9 ft. length BI-2024	8.60	7.75	6.90
BI-2025	12 ft. long, 45° strengthened extrusion with one ¼" extended flange for ¼" panel and one normal panel-retaining groove flange.	10.10	9.10	8.10
BI-2025-3	3 ft. length BI-2025	3.00	2.70	2.40
BI-2025-6	6 ft. length BI-2025	5.75	5.20	4.60
BI-2025-9	9 ft. length BI-2025	8.20	7.40	6.55
BI-2034	12 ft. long, 90° heavy-duty extrusion takes loadings for spans over 3 ft. long. Additional returns reinforce strength. Flanges are both ¾" deep.	18.60	16.75	14.90
BI-2034-3	3 ft. length BI-2034	5.55	5.00	4.45
BI-2034-6	6 ft. length BI-2034	10.60	9.55	8.50
BI-2034-9	9 ft. length BI-2034	15.15	13.65	12.10
BI-2044	12 ft. long, 90° reinforcing angle screws to return flanges of BI-2034 for extra rigid, boxed in section. Use with heavy-duty BI-1011 spacer bar and BI-2018 and BI-2028 extrusions to build almost any size structure.	6.95	6.25	5.55
BI-2044-3	3 ft. length BI-2044	2.10	1.90	1.70
BI-2044-6	6 ft. length BI-2044	3.95	3.55	3.15
BI-2044-9	9 ft. length BI-2044	5.65	5.10	4.50



Typical Structures

SPECIAL CONNECTORS, ACCESSORIES

No. BI-1003—T-junction connector permits making "T" with 2 lengths of extrusions; also used for picture frame effect. Fits 90° external extrusions.

No. BI-1005—90° table-top or foot connector used in place of radiused corner; has well to hold glass or wood table-top. Used also as foot or as wall mount. One leg fits 90° external extrusion; other two fit BI-2009.

No. BI-1008—Stacking plate for use with BI-1005 to permit stacking.

No. BI-1009—90° spacer bar cruciform connector.

No. BI-4001—Package of 50 friction clips; for assembly without use of screws.

No. BI-4302—Concealed brass hinge fits 90° extrusions; 3 mounting holes take 6-32 or 10-32 screws.

No. BI-4601—Chrome plated ventilation ring for dress-up. Used in addition to slots and louvers. Clips (supplied) into 2½" hole. Has stainless steel gauze.

Bud No.	Net Each, Lots of		
	1-14	15-24	25 Up
BI-1003	\$1.20	\$1.10	\$.95
BI-1005	1.55	1.40	1.25
BI-1008	.85	.75	.70
BI-1009	2.20	2.00	1.75
BI-4302	2.20	2.00	1.75
BI-4601	3.30	3.00	2.65



Imlok "Prototyper" Cabinets

INTERNAL EXTRUSIONS

Bud No.	Description	Net Each, Lots of		
		1-9	10-14	15 Up
BI-2032	12 ft. long, 90° internal extrusion to fit BI-1028; has two panel retaining grooves; for unbraced spans up to 3 ft. long.	\$13.85	\$12.45	\$11.10
BI-2032-3	3 ft. length BI-2032	4.20	3.80	3.35
BI-2032-6	6 ft. length BI-2032	7.90	7.10	6.30
BI-2032-9	9 ft. length BI-2032	11.30	10.15	9.05
BI-2051	12 ft. long, 67½° internal extrusion to fit BI-1017 connector. For use in unbraced spans up to 3 ft.	13.25	11.95	10.60
BI-2051-3	3 ft. length BI-2051	3.95	3.55	3.15
BI-2051-6	6 ft. length BI-2051	7.55	6.80	6.05
BI-2051-9	9 ft. length BI-2051	10.80	9.70	8.65
BI-2091	12 ft. long, 60° internal extrusion; fits BI-1025 connector.	13.70	12.35	10.95
BI-2091-3	3 ft. length BI-2091	4.10	3.70	3.30
BI-2091-6	6 ft. length BI-2091	7.85	7.05	6.30
BI-2091-9	9 ft. length BI-2091	11.20	10.10	8.95
BI-2006	12 ft. long, 45° internal extrusion has two ¾" flanges, one with panel-retaining groove. For flat-topped, sloping front cabinets.	11.80	10.60	9.45
BI-2006-3	3 ft. length BI-2006	3.55	3.20	2.85
BI-2006-6	6 ft. length BI-2006	6.75	6.10	5.40
BI-2006-9	9 ft. length BI-2006	9.65	8.70	7.70
BI-2071	12 ft. long, 30° internal extrusion; fits BI-1021 connector.	13.25	11.95	10.60
BI-2071-3	3 ft. length BI-2071	3.95	3.55	3.15
BI-2071-6	6 ft. length BI-2071	7.55	6.80	6.05
BI-2071-9	9 ft. length BI-2071	10.80	9.70	8.65
BI-2031	12 ft. long, 22½° internal extrusion; fits BI-1013 connector.	13.70	12.35	10.95
BI-2031-3	3 ft. length BI-2031	4.10	3.70	3.30
BI-2031-6	6 ft. length BI-2031	7.80	7.00	6.25
BI-2031-9	9 ft. length BI-2031	11.20	10.10	8.95

SPACER BAR AND TABLE-TOP EXTRUSIONS

BI-2008	12 ft. long, spacer bar extrusion used to subdivide panels or act as cross-bracing members.	12.60	11.35	10.10
BI-2008-3	3 ft. length BI-2008	3.75	3.40	3.00
BI-2008-6	6 ft. length BI-2008	7.15	6.45	5.70
BI-2008-9	9 ft. length BI-2008	10.30	9.25	8.25
BI-2009	12 ft. long, table-top extrusion for use at base of cabinet, as vertical member where double railing between cabinets is undesirable. Has flange with normal retaining groove; other is 1" deep to support table or bench top.	10.40	9.35	8.30
BI-2009-3	3 ft. length BI-2009	3.15	2.85	2.50
BI-2009-6	6 ft. length BI-2009	6.00	5.40	4.80
BI-2009-9	9 ft. length BI-2009	8.50	7.65	6.80

EXTERNAL SPACER BAR CONNECTORS

Bud No.	Description	Net Each, Lots of		
		1-14	15-24	25 Up
BI-1011	This connector specially designed for use with 90° external heavy duty extrusion BI-2034. One leg fits this extrusion as well as all other 90° external extrusions. The other two legs fit BI-2008, 67½° external spacer bar connector; brace or sub-divide walls where BI-1016 is used at corners. One leg fits BI-2041; other two fit any spacer bar extrusion.	1.70	1.55	1.35
BI-1018	60° version of BI-1018. One leg fits BI-2081; other two fit any spacer bar extrusion.	1.70	1.55	1.35
BI-1007	45° version of BI-1018. One leg fits BI-2005, BI-2015 or BI-2025; other two fit any spacer bar extrusion.	2.20	2.00	1.75
BI-1022	30° version of BI-1018. One leg fits BI-2061 extrusion; other two fit any spacer bar extrusion.	1.70	1.55	1.35
BI-1014	22½° version of BI-1018. One leg fits BI-2021; other two fit any spacer bar extrusion.	1.70	1.55	1.35

INTERNAL CORNER CONNECTORS

BI-1028	90° internal connector gives an included angle of 90° for L-shaped structures. One leg fits BI-2032 extrusion; other two fit any 90° external extrusion, (BI-2004, BI-2014, BI-2024, BI-2034, BI-2054).	1.70	1.55	1.35
BI-1017	67½° internal connector used where two walls are to meet to include a 67½° angle. One leg fits BI-2051 extrusion; other two fit any 90° external extrusion.	1.70	1.55	1.35
BI-1025	60° version of BI-1017. One leg fits BI-2091; other two fit any 90° external extrusion.	1.70	1.55	1.35
BI-1006	45° version of BI-1017. One leg fits BI-2006; other two fit any 90° external extrusion. Helps make flat top, sloping front structure.	2.20	2.00	1.75
BI-1021	30° version of BI-1017. One leg fits BI-2071; other two fit any 90° external extrusion.	1.70	1.55	1.35
BI-1013	22½° version of BI-1017. One leg fits BI-2031; other two fit any 90° external extrusion.	1.70	1.55	1.35

INTERNAL SPACER BAR CONNECTORS

BI-1029	90° internal spacer connector permits bracing or sub-division of spans of BI-2032. One leg fits BI-2032 internal extrusion; other two fit BI-2008 spacer bar extrusion.	1.70	1.55	1.35
BI-1019	67½° internal spacer bar connector is companion to BI-1017 for sub-dividing or cross-bracing. One leg fits BI-2051; other two fit any spacer bar extrusion.	1.70	1.55	1.35
BI-1027	60° version of BI-1019 above; companion for BI-1025. One leg fits BI-2091; other two fit any spacer bar extrusion.	2.30	2.05	1.85
BI-1010	45° version of BI-1019; companion for BI-1006. One leg fits BI-2006; other two fit any spacer bar extrusion.	1.70	1.55	1.35
BI-1023	30° version of BI-1019; companion to BI-1021. One leg fits BI-2071; other two fit any spacer bar extrusion.	2.30	2.05	1.85
BI-1015	22½° version of BI-1019; companion to BI-1013. One leg fits BI-2031; other two fit any spacer bar extrusion.	1.70	1.55	1.35

CUTTING JIGS

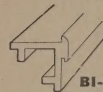
Bud No.	Description	Net Each, Lots of		
		1-4	5-9	10 Up
BI-3003	90° cutting jig permits easy mitering of any 90° external extrusion. Makes assembly quick, easy.	14.95	13.45	11.95
BI-3002	45° cutting jig for mitering any 45° external extrusion.	17.35	15.60	13.90



BI-1001



BI-1003



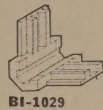
BI-2009



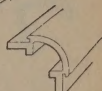
BI-1009



BI-1028



BI-1029



BI-2004



BI-2006



BI-1005



BI-2024



BI-2032



BI-2034



BI-2044



BI-2008



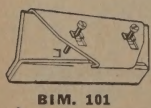
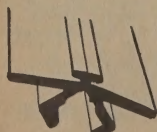
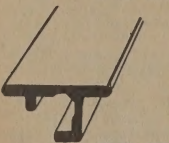
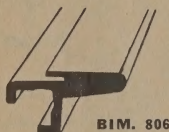
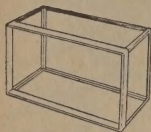
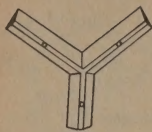
BI-3003



BI-4601



Slimline 901 Imlok®



Bud Slimline 901 Imlok is based upon the same, proven principles as the Standard Imlok system. The basic difference is lighter weight and narrower appearance of the extrusions; corner connectors are smaller in size and are not visible in the completed housing. Connectors are 380 aluminum die castings; extrusions are 6063 aluminum. A really attractive small rectangular case, large elegant console or multiangular structure can be made with Slimline 901 Imlok. Whether for a production run or a single prototype, we can supply the material or make a complete enclosure.

EXTRUSIONS (9-FT. LENGTH ONLY)

Bud No.	Description	Net Each, Lots of		
		1-9	10-14	15-19
BIM. 801	90° external extrusion suitable for lightweight frameworks; when enclosed with panels it is not visible from the outside.	\$ 5.10	\$ 4.60	\$ 4.10
BIM. 802	90° external extrusion has retaining groove for 20-gauge panels.	5.40	4.85	4.30
BIM. 803	90° external extrusion; heavier extrusion with retaining grooves for 20-gauge panels.	6.30	5.65	5.00
BIM. 806	90° bezel extrusion; bezel frame for recessed panels; one side has panel retaining groove.	7.50	6.75	6.00
BIM. 807	90° bezel extrusion similar to BIM. 806, but heavier; thicker internal flange permits mounting of rack type panels.	10.05	9.05	8.05
BIM. 821	90° bezel extrusion similar to BIM. 806, but has much deeper recess that provides picture frame effect for the panel.	12.45	11.20	9.95
BIM. 826	90° internal extrusion used for all internal 90° applications; retaining grooves for 20-gauge panels.	15.70	14.15	12.55
BIM. 810	Spacer bar extrusion matches BIM. 801 for dividing and reinforcing panel areas.	5.70	5.15	4.55
BIM. 811	Spacer bar extrusion; visible face similar to BIM. 802; used with all extrusions except BIM. 801.	5.95	5.35	4.75
BIM. 812	Spacer bar extrusion similar to BIM. 811, but with wider visible area to match BIM. 803.	7.50	6.75	6.00
BIM. 601	15° external extrusion used for all 15° external corner applications; fits one leg of BIM. 915 and BIM. 91 connectors; used with BIM. 802, BIM. 803, BIM. 806, BIM. 807, BIM. 821 and BIM. 845 extrusions.	11.80	10.60	9.45
BIM. 611	15° internal extrusion used for all 15° internal corner applications; fits one leg of BIM. 951 connector; used with BIM. 802, BIM. 803, BIM. 806, BIM. 807 and BIM. 821 extrusions.	11.80	10.60	9.45
BIM. 641	45° external extrusion used for all 45° external corner applications; fits one leg of BIM. 945 and BIM. 94 connectors; used with same extrusions as BIM. 601.	11.80	10.60	9.45
BIM. 651	45° internal extrusion used for all 45° internal corner applications; fits one leg of BIM. 954; used with same extrusions as BIM. 611.	11.80	10.60	9.45
BIM. 681	75° external extrusion used for all 75° external corner applications with BIM. 975 or BIM. 97 connectors; used with same extrusions as BIM. 601.	11.80	10.60	9.45
BIM. 682	75° acute external extrusion.	11.80	10.60	9.45
BIM. 691	75° internal extrusion used for all 75° internal corner applications with BIM. 957 connector; used with same extrusions as BIM. 611.	11.80	10.60	9.45
BIM. 845	90° deep recess extrusion has 3/4" deep recess on one side and is similar to BIM. 803 on other; used with appropriate corner connectors.	11.30	10.15	9.05
BIM. 847	Deep recess conversion extrusion used where BIM. 845 is not suitable; used with extrusions BIM. 802, BIM. 803, BIM. 812, BIM. 826, BIM. 651, BIM. 691 and one side only on BIM. 806, BIM. 807, BIM. 811 and BIM. 821.	9.10	8.20	7.30
BIM. 610	Deep recess conversion extrusion similar to BIM. 847; used with BIM. 601 and BIM. 611 extrusions.	9.45	8.50	7.55
BIM. 690	Deep recess conversion extrusion similar to BIM. 847 and BIM. 610; used with extrusions BIM. 641, BIM. 681 and BIM. 682.	9.45	8.50	7.55
BIM. 846	Deep recess spacer bar extrusion matches deep recess on deep recess conversion extrusions; inner flanges accept standard captive nuts suitable for 14-gauge material.	18.00	16.20	14.40
BIM. 834	90° glazing extrusion has retaining groove on both sides to accept 3/4" panels.	13.80	12.40	11.05
BIM. 835	90° glazing extrusion similar to BIM. 834, but will accept 1/2" panels.	12.50	11.25	10.00
BIM. 836	90° sliding door extrusion has twin channels on one side to accept 3/4" sliding doors; retaining groove on other side for 1/2" fixed panel.	19.20	17.30	15.35
BIM. 837	90° sliding door extrusion same as BIM. 836, except will accommodate 1/2" doors and 1/2" panel.	17.55	15.80	14.05
BIM. 822	3/4" sliding door conversion extrusion; used where 1/2" sliding doors are required without a side panel. May be added to either side of BIM. 802, BIM. 803, BIM. 812, BIM. 826, BIM. 651, and BIM. 691 extrusions; or, to one side only of BIM. 806, BIM. 807, BIM. 811, BIM. 821 and BIM. 845 extrusions.	8.55	7.70	6.85
BIM. 823	1/2" sliding door conversion extrusion similar to BIM. 822, except will accommodate 1/2" sliding doors; may be added to same extrusions as BIM. 822.	8.20	7.40	6.55
BIM. 832	Closure section may be added to inside of frameworks using 90° connectors to completely conceal them.	3.45	3.10	2.75
BIM. 818	90° door frame extrusion used for making double skinned doors.	7.15	6.45	5.70
BIM. 829	90° mounting flange extrusion; used in conjunction with frameworks made of BIM. 801 extrusion to provide a flange suitable for rack mounting.	7.10	6.40	5.70
BIM. 107	Panel mounting conversion extrusion; normally fitted to two vertical members to provide mountings for rack type panels.	10.40	9.35	8.30

MITERING JIGS

Bud No.	Description	Net Each, Lots of		
		1-9	10-14	15-19
BIM. 101	90° mitering jig; external, double miter	\$ 8.45	\$ 7.60	\$ 6.75
BIM. 115	90° mitering jig; external, single miter	8.40	7.55	6.70
BIM. 116	90° mitering jig; internal, single miter	8.40	7.55	6.70
BIM. 117	15° mitering jig; external, single miter	8.40	7.55	6.70
BIM. 118	15° mitering jig; internal, single miter	8.40	7.55	6.70
BIM. 121	45° mitering jig; external, single miter	8.40	7.55	6.70
BIM. 122	45° mitering jig; internal, single miter	8.40	7.55	6.70
BIM. 125	75° mitering jig; external, single miter	6.25	5.65	5.00
BIM. 126	75° mitering jig; internal, single miter	8.40	7.55	6.70
BIM. 127	Acute 75° mitering jig; external, single miter	8.40	7.55	6.70
BIM. 129	Notch jig	32.35	29.10	25.90



Slimline 901 Imlok®

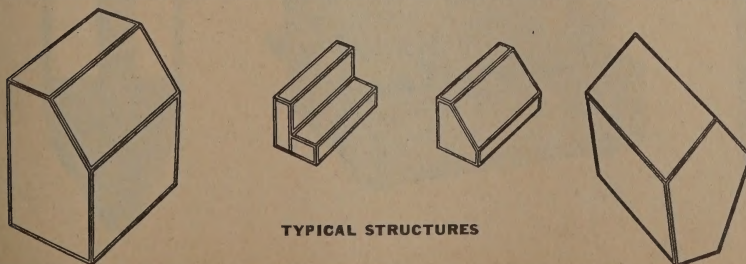
CONNECTORS

Bud No.	Description	Net Each, Lots of		
		1-14	15-24	25-34
BIM. 902	90° external standard connector used for normal 90° external corners and for joining spacer bars to the various 90° external and bezel extrusions.	\$1.00	\$.90	\$.80
BIM. 901	90° external corner connector; a lighter duty model than BIM. 902; used with extrusions BIM. 801, BIM. 834, BIM. 835, BIM. 836 and BIM. 837; if one leg is removed use BIM. 818.	.85	.75	.70
BIM. 90	90° external slotted connector or replaces BIM. 902 if an unobstructed aperture is required on framework involving extrusions BIM. 802, BIM. 806, BIM. 810, BIM. 811 and BIM. 821.	1.90	1.70	1.50
BIM. 909	90° internal connector; extrusion BIM. 826 is fitted to one leg and the other two legs accept extrusions BIM. 802, BIM. 803, BIM. 806, BIM. 807 and BIM. 821.	1.65	1.50	1.30
BIM. 090	90° internal spacer bar connector enables spacer bars BIM. 810, BIM. 811 or BIM. 812 to be fitted to extrusion BIM. 826.	1.90	1.70	1.50
BIM. 990	90° cruciform connector; used to join spacer bars BIM. 810, BIM. 811, or BIM. 812 where they cross to divide large panel areas.	1.85	1.65	1.50
BIM. 915	15° external corner connector; used for 15° external corners when two 90° frame extrusions are BIM. 803 or BIM. 845; extrusion BIM. 601 is always fitted to third leg.	1.60	1.45	1.30
BIM. 91	15° external slotted connector replaces BIM. 915 when 90° extrusions are BIM. 802, BIM. 806, BIM. 807 or BIM. 821; also used for joining spacer bars to BIM. 601.	1.90	1.70	1.50
BIM. 951	15° internal corner connector for all 15° internal corner applications; extrusion BIM. 611 is fitted to one leg; the other two will accept BIM. 802, BIM. 803, BIM. 806, BIM. 807 or BIM. 821.	1.60	1.45	1.30
BIM. 015	15° internal spacer bar connector permits spacer bars BIM. 810, BIM. 811 or BIM. 812 to be fitted to 15° internal extrusion BIM. 611.	1.90	1.70	1.50
BIM. 945	45° external corner connector; used for 45° external corners when extrusion is either BIM. 803 or BIM. 845; must be used with extrusion BIM. 641.	1.60	1.45	1.30
BIM. 94	45° external slotted connector replaces BIM. 945 when extrusions are either BIM. 802, BIM. 806, BIM. 807 or BIM. 821; also used for joining spacer bars to extrusion BIM. 641.	1.90	1.70	1.50
BIM. 954	45° internal corner connector; used for all 45° internal corners with extrusion BIM. 651; two legs accept 90° extrusions.	1.85	1.65	1.50
BIM. 045	45° internal spacer bar connector; used in fitting spacer bars to extrusion BIM. 651.	1.90	1.70	1.50
BIM. 975	75° external corner connector; used for 75° external corners with either 90° extrusion BIM. 803 or BIM. 845; BIM. 681 is always the third extrusion.	1.60	1.45	1.30
BIM. 97	75° external slotted connector; used to replace BIM. 975 when 90° extrusions are BIM. 802, BIM. 806, BIM. 807 or BIM. 821; connects spacer bars to extrusion BIM. 681.	1.90	1.70	1.50
BIM. 957	75° internal corner connector; used for all 75° internal corners with extrusion BIM. 691 fitted to one leg; use BIM. 802, BIM. 803, BIM. 806, BIM. 807 or BIM. 821 on other two legs.	1.65	1.50	1.30
BIM. 075	75° internal spacer bar connector enables spacer bars to be fitted to extrusion BIM. 691.	1.90	1.70	1.50
BIM. 750	75° acute external corner connector; used with extrusions BIM. 803 or BIM. 845; always used with extrusion BIM. 682.	1.75	1.60	1.40
BIM. 75	75° acute external slotted connector replaces BIM. 750 when extrusions BIM. 802, BIM. 806, BIM. 807 or BIM. 821 are used; also joins spacer bars to extrusion BIM. 682.	1.90	1.70	1.50

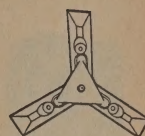
ACCESSORIES

Bud No.	Description	Net Each, Lots of		
		1-14	15-24	25-34
BIM. 103	Tapped block 6-32 threaded for mounting panels with extrusions BIM. 801 and BIM. 810.	\$.65	\$.60	\$.50
BIM. 104	Tapped block 10-32 threaded for mounting panels with extrusions BIM. 801 and BIM. 810.	.65	.60	.50
BIM. 106	Adjustable mounting bracket may be positioned as required to allow standard rack panel mountings on extrusions BIM. 801, BIM. 802, BIM. 803, BIM. 806, BIM. 807, BIM. 810, BIM. 811, BIM. 812, BIM. 821 and BIM. 845.	.35	.30	.28
BIM. 108	90° external corner gusset may be fitted to connectors BIM. 90 and BIM. 901.	.25	.23	.20
BIM. 109L	Lift-off butt hinge, left hand; chrome plated.	1.35	1.20	1.10
BIM. 109R	Lift-off butt hinge, right hand; chrome plated.	1.35	1.20	1.10
BIM. 134	45° corner gusset with 3 drilled holes (one .44", two .22") plus 4 holes tapped 12-24. For 90° corners only.	1.00	.90	.80
BIM. 135	45° corner gusset with 3 drilled holes (one .44", two .22").	.90	.80	.70
BIM. 136	23°-67° corner gusset drilled and tapped for use in any 90° corner; may be fitted after framework is completed.	1.00	.90	.80

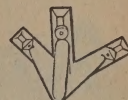
Bud No.	Description	Net Each, Lots of		
		1-9	10-14	15-19
BIM. 110	Open hinge, cadmium plated steel, undrilled, 4-ft. length for use with deep recess extrusions.	\$4.20	\$3.80	\$3.35
BIM. 130	Pivot hinge block and collar designed for use with either flush fitting or recessed doors; chrome plated.	1.70	1.55	1.35
BIM. 137	Bracing extrusion for internal bracing at any desired angle; particularly useful for strengthening non-90° corners.	9.15	8.25	7.30



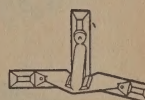
TYPICAL STRUCTURES



BIM. 902



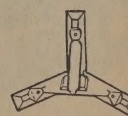
BIM. 909



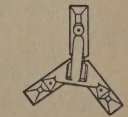
BIM. 915



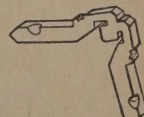
BIM. 954



BIM. 975



BIM. 750



BIM. 075



SPECIAL FABRICATION SERVICE

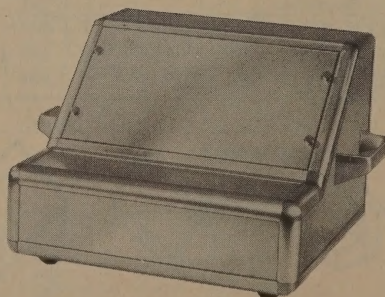
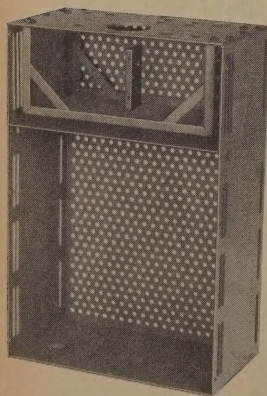
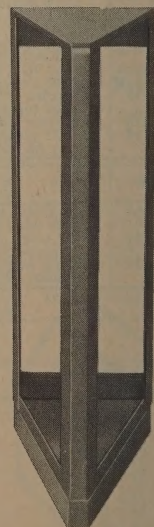
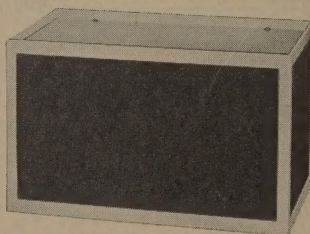
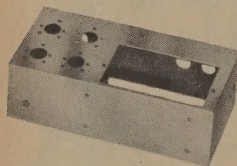
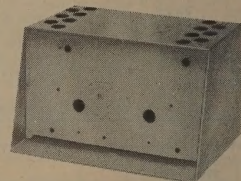
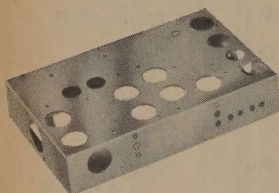
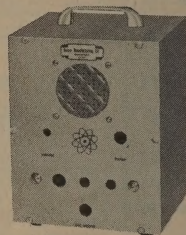
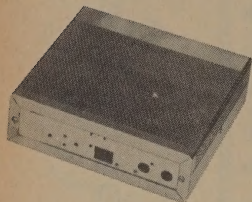
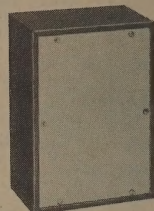
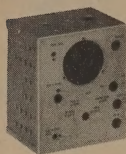
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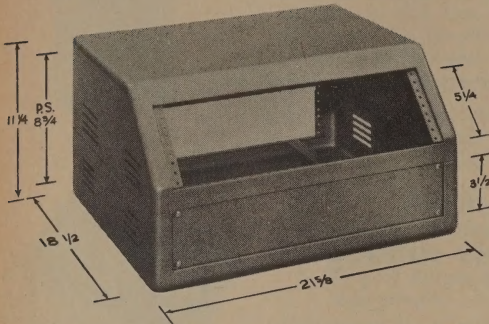
This will avoid confusion and expedite delivery.

Thank you!





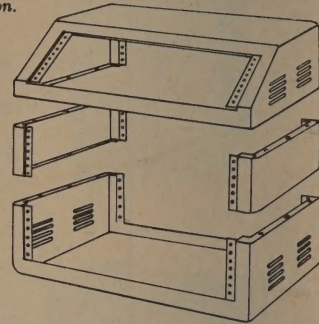
CALIFORNIA CHASSIS CO. SLOPE-FRONT EXPANDABLE CABINET (MPXM)



	Width	Height	Depth
MPXM Cabinet without inserts	21 1/2 in.	11 1/4 in.	18 1/2 in.
Slope panel opening	19 1/2 in.	5 1/4 in.	—
Front panel opening	19 1/2 in.	3 1/2 in.	—
Back panel opening	19 1/2 in.	8 3/4 in.	—
Inserts (in increments of 1 1/4 to 28 inches.)	—	1 1/4 to 28 in.	18 1/2 in. (side)

Recommended total panel height with inserts: 35 inches.

This cabinet accepts standard relay rack panels and is drilled and tapped for universal panel mountings. 16-Gauge cold rolled steel construction.

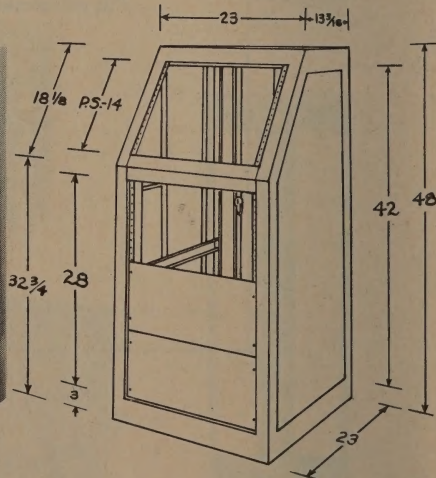
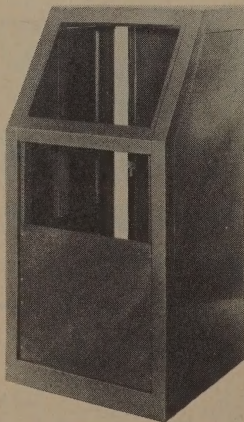


This latest addition to the popular California Chassis "Designer's Series" enclosures provide a functional 45° sloping front for convenience and easy viewing of meters, dials, control knobs and switches. The new slope front, combined with expandable inserts to meet the need of added circuitry and component requirements, enhances the functional design features of this attractive and rugged cabinet ■ Inserts are available to accommodate standard panel chassis sizes ■ Finished in silver-gray hammertone.

SLOPE-FRONT, ALL STEEL WELDED CABINET (AWCM)

The California Chassis AWCM-42 Slope-Front Cabinet offers the ultimate in clean, functional lines and versatility in construction. It is available as a finished "package" or with separate components to satisfy your specific requirements ■ The basic all-steel welded rack is open on all sides to simplify installation and permit adequate service access ■ Doors have chrome key locking handles and special spring-loaded hinge pins for rapid removal ■ Side panels are removable without use of tools ■ Panel slope is 34° and provides a full 14 x 19 1/2 inch area for meters, dials and controls ■ Holes are provided in bottom for floor mounting ■ Panel mounting angles are drilled and tapped 10-32 with universal spacing to accept all standard panels ■ The AWCM-42 is attractively finished with our special low-maintenance, scratch resistant silver-gray hammertone formula. Other finishes optional. The AWCM-42 is shipped complete with two side panels and locking rear door.

	Width	Height	Depth
AWCM-42	23 in.	48 in.	23 in.
Slope panel opening	19 1/2 in.	14 in.	—
Front panel opening	19 1/2 in.	28 in.	—
Rear Door opening	19 1/2 in.	42 in.	—
Front panel slope: 34°			



CALIFORNIA CHASSIS CO.

CALIFORNIA CHASSIS CO.



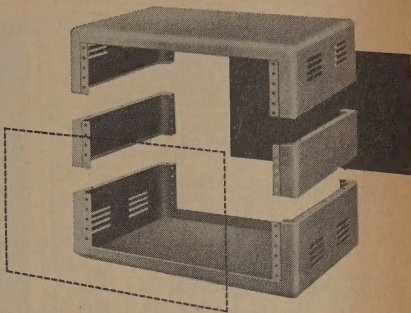
MULTI-PURPOSE EXPANDABLE CABINET

The MPX enclosure combines clean design and attractive finish with utility, strength and versatility. Inserts permit vertical expansion of cabinet. Standard finish — gray hammer-tone; other finishes optional.

MPX CABINET — Consists of top, bottom, rear panel 5¼" high and assembly hardware. Basic cabinet provides 7" of panel space front and back.....\$29.75

MPXF-10 1¾" FILLER — each filler group listed consists of two sides, rear panel same height as sides and hardware..... 9.22

MPXF-11	3½"	FILLER.....	\$10.35	MPXF-18	15¾"	FILLER.....	\$17.35
MPXF-12	5¼"	FILLER.....	11.50	MPXF-19	17½"	FILLER.....	18.50
MPXF-13	7"	FILLER.....	12.50	MPXF-20	19¼"	FILLER.....	19.50
MPXF-14	8¾"	FILLER.....	13.60	MPXF-21	21"	FILLER.....	20.60
MPXF-15	10½"	FILLER.....	14.69	MPXF-22	24½"	FILLER.....	21.80
MPXF-16	12¼"	FILLER.....	15.80	MPXF-23	26¼"	FILLER.....	22.95
MPXF-17	14"	FILLER.....	16.95	MPXF-24	28"	FILLER.....	24.10



MPX Cabinet without Inserts	Width	Height	Depth
Front panel opening	21½ in.	9½ in.	18½ in.
Back panel opening	19½ in.	7 in.	—
Inserts (in increments of 1¾ to 26¼ in.)	19½ in.	7 in.	—
	—	1¾ to 26¼ in.	18½ in. (side)

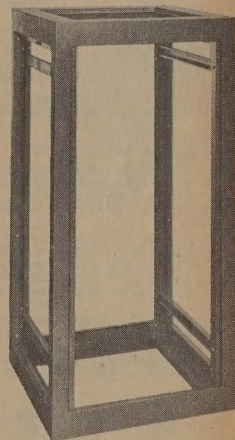
Recommended total panel height with inserts: 35 inches. This cabinet accepts standard relay rack panels and is drilled for universal panel mountings. 16 gauge cold rolled steel construction.



ALL-STEEL WELDED CABINET

This flexible AWC cabinet is available as a complete package or as separate components to satisfy individual requirements. Doors and sides are interchangeable. Doors have chrome handles — spring loaded hinge pins provide rapid removal and servicing without tools. Panel mounting angles are tapped 10-32 with universal spacing for all standard panels. Louvers on doors and sides available. Standard finish — gray hammer-tone; other finishes optional.

AWC-42	Assembly consisting of 42 inch panel space frame, two sides, one door, top, one pair panel mounting angles and all necessary hardware.....	\$125.00
AWC-61	Same as above except 61¼ inch panel space frame.....	153.00
AWC-70	Same as above except 70 inch panel space frame.....	166.00
AWC-77	Same as above except 77 inch panel space frame.....	192.00
AWCF-42	Basic frame only — 42 inch panel space.....	60.40
AWCF-61	Basic frame only — 61¼ inch panel space.....	75.40
AWCF-70	Basic frame only — 70 inch panel space.....	80.40
AWCF-77	Basic frame only — 77 inch panel space.....	95.40



NEW!

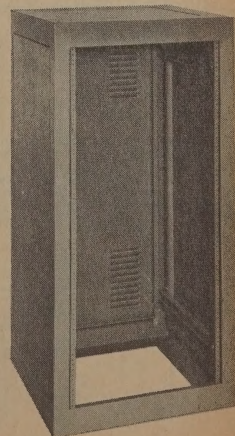
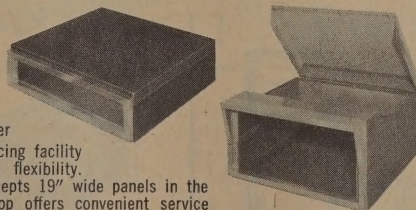
"SWING-TOP CABINET MODULE"

Developed for the discriminating user in response to a demand for servicing facility coupled with modern design and flexibility. Basic cabinet is 18" deep and accepts 19" wide panels in the shadow boxed front. The swing top offers convenient service access to installed equipment. Unit may be expanded vertically by addition of special center sections — available from the factory to meet your requirements. Standard units stocked in gray hammer-tone, other finishes available.

ST-14	Double Section	8¾" Panel Space	.....	\$34.80 ea.
ST-12	Single Section	5¼" Panel Space	.....	\$29.50 ea.

PM-11 POWER ENCLOSURE

The base section of the Swing-Top Module is available as a separate item and is most often used as a power supply enclosure. It offers a 3½" x 19" front panel area coupled with 18 inches of depth. The removable cover section serves as either top or bottom at users discretion. Panel space may be increased vertically by addition of special center sections, please contact factory with your requirements. Stocked in gray hammer-tone, custom finishes available



CALIFORNIA CHASSIS CO.

CABINET RACKS

These racks are made entirely of 16 gauge steel except for the heavy steel panel supports. They have universal spacing, the holes being tapped for 10/32" screws. Panels fit into a recess so that the edges do not show. Mounting plate on bottom of rack permits casters to be fastened directly to base for easy mobility. Casters are not included in price of rack but may be ordered separately. No. TC-10.

All standard 19" panels RETMA, Western Electric or Amateur will fit these racks.

Double rows of louvers side and rear give ample ventilation.

Gray hammertone finish.

CAT.	NO.	PANEL SPACE	HEIGHT	WIDTH	DEPTH INSIDE	SHPG. CLEAR.	WT. LBS.	NET PRICE
CR-36	36	36 3/4	42	22	17	15 1/2	90	52.00
CR-42	42	47 1/4	42	22	17	15 1/2	96	58.60
CR-61	61	61 1/4	66 1/2	22	17	15 1/2	120	74.00
CR-77	77	82 1/4	42	22	17	15 1/2	145	88.00
CRD-36	36	36 3/4	42	22	24	22 1/2	99	66.86
CRD-42	42	47 1/4	42	22	24	22 1/2	105	79.17
CRD-61	61	61 1/4	66 1/2	22	24	22 1/2	133	94.81
CRD-77	77	82 1/4	42	22	24	22 1/2	160	113.97

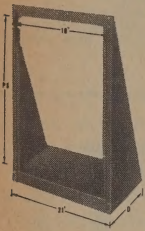


DOR SERIES

This open rack is made of 16 gauge steel. It is useful where the larger, heavier floor model is not necessary.

Mounting holes are on universal centers tapped 10/32" Gray hammertone finish.

Cat. No.	Panel Overall				Ship. Wt.	Net Price
	Space	Height	Width	Depth		
DOR-21	21 x 19	25	21	12	18	9.66
DOR-28	28 x 19	32	21	12	19	11.92



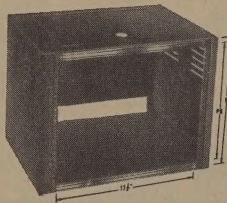
DESK CABINET RACKS

This solid welded, rounded front, deluxe desk cabinet has a professional look as well as being a sturdy utility unit. Embossed feet are on all sizes to reduce marring.

Cabinets have universal punching, accommodating W. E., RETMA, or Amateur notched panels. Unit is made from 16 ga. steel, having a 2" opening on bottom rear for ventilation in addition to side louvers.

The five smaller models have solid welded backs. The five larger models have a removable hinged rear door.

All models clear 14 1/2" inside depth — Outside width is 21 1/2". Gray hammertone.

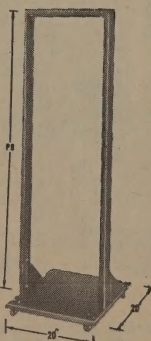


CATALOG NO.	PANEL SPACE	HEIGHT	SHPG. WT.	NET PRICE
DCR-7	7	8 1/4"	25	18.00
DCR-8	8 3/4	10 1/4"	27	18.37
DCR-10	10	12 1/4"	29	21.00
DCR-12	12 1/4	14 1/4"	31	22.06
DCR-14	14	15 1/4"	33	24.05
DCR-17	17 1/2	19 1/4"	37	28.78
DCR-21	21	22 1/4"	39	30.80
DCR-26	26 1/4	28 1/4"	47	33.00
DCR-31	31 1/2	33 1/4"	51	35.05
DCR-35	35	36 3/4"	58	37.00

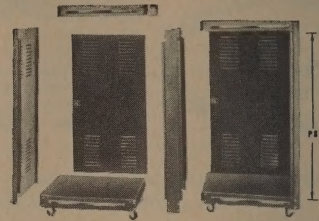
OR SERIES

These open racks are constructed so the uppermost panel mounts at the top of the 1/4" steel upright. There is no loss of space at the top. Rack uprights are punched with universal spacing and tapped 10/32". Two brackets of 1/4" steel bind the uprights and a chassis like base into one solid unit. Gray hammertone.

CATALOG NO.	PANEL SPACE	OVERALL HEIGHT	SHPG. WT.	NET PRICE
OR-31	31 1/2	32 3/4	27	22.76
OR-36	36	38	28	22.97
OR-42	42	43 3/4	30	24.63
OR-61	61 1/4	62 3/4	37	25.45
OR-66	66 1/2	73	39	25.96
OR-71	71 3/4	72 3/4	41	26.88
OR-77	77	78 1/4	42	31.28



MULTI RACK SERIES



With this unit and a standard rack of the same size one can make a multiple rack or a series of connected racks. Each unit consists of a door, top, bottom, and a multi-rack connecting unit. This must have the same panel space as the unit it is to be used with. All hardware except casters is furnished. Colors to match mating units.

CATALOG NO.	PANEL SPACE	FITS SHPG. RACK WT.	NET PRICE
MR-36	36 3/4	CR-36	75 \$52.00
MR-42	42	CR-42	80 58.60
MR-61	61 1/4	CR-61	100 74.00
MR-77	77	CR-77	118 88.00
MRD-36	36 3/4	CRD-36	80 66.86
MRD-42	42	CRD-42	85 79.17
MRD-61	61 1/4	CRD-61	108 94.81
MRD-77	77	CRD-77	128 113.97

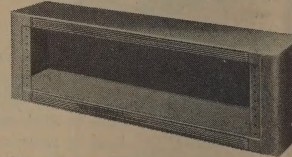
FRONT DOOR KIT

To convert CR, CRD, MR, MRD racks to Front Door type, formed of 16 gauge steel 1 3/4" deep to clear handles, knobs, etc. All corners seam welded and ground smooth. Supplied with locking handle with same keying as back door and all necessary hardware to mount on rack front. Finish grey hammertone.

Cat. No.	Price	Cat. No.	Price
FD-36	\$21.50	FD-61	\$31.80
FD-42	26.00	FD-77	38.50

MINIATURE CABINET RACKS

The MCR combines stylized function and compactness for desk-top use. Available in three sizes. Accepts standard relay rack panels and "PC" chassis units. Attractive grey hammertone with chrome trim.



MCR-12 CABINET — Panel space 19" x 5 1/4"	\$14.2
MCR-13 CABINET — Panel space 19" x 7"	14.5
MCR-14 CABINET — Panel space 19" x 8 3/4"	14.8

All above items available in gray hammertone finish. Other finishes available on special order. Contact factory for special finish prices.

All MCR units have embossed feet to protect desk tops.

TYPE	WIDTH	PANEL SPACE	DEPTH	HEIGHT	WT.
MCR-12	21 1/2"	19 x 5 1/4"	6 3/4"	7 1/4"	11 1/2" lb
MCR-13	21 1/2"	19 x 7"	6 3/4"	8 1/4"	12 1/2" lb
MCR-14	21 1/2"	19 x 8 3/4"	6 3/4"	10 5/8"	13 1/2" lb

LOW TEMPERATURE CABINETS

This cabinet made of perforated metal with 3/32 holes on 5/32 centers, solves most thermal problems. It is a real space saver, the chassis being almost the size of the cabinet.

Chassis is .063 aluminum and bolts to the rear panel which is welded to the perforated screen. Rear steel panel has rectangular hole in it to allow access to connectors in chassis. Front panel has no screws but is held on by control knobs mounted in chassis. Gray hammertone.

Chassis and front are one piece when unit is complete and can be easily removed yet cabinet chassis and front panel are solidly held together.

Catalog Number	Cabinet Size H W D	Front Panel	Chassis Size	Hole in Rear Panel	Net Price
LTC-463	4 1/2 x 7 3/4 x 9 3/4	4 1/2 x 7 1/4	6 1/4 x 8 1/4 x 1 1/2	7/8 x 4	10.00
LTC-464	4 1/2 x 9 3/4 x 7 3/4	4 1/2 x 9 3/4	8 3/4 x 6 1/4 x 1 1/2	7/8 x 5	10.00
LTC-469	5 1/4 x 8 3/4 x 11 3/4	5 1/4 x 8 3/4	8 1/4 x 10 1/4 x 2	1 1/2 x 5	11.64
LTC-470	5 1/4 x 11 3/4 x 8 1/4	5 1/4 x 11 3/4	10 3/4 x 8 3/4 x 2	1 1/2 x 6	11.64
LTC-472	9 1/2 x 16 1/4 x 11 3/4	9 1/2 x 16 1/4	11 x 16 x 3	2 x 8	18.60
LTC-474	12 x 17 1/4 x 12 1/4	12 x 17 1/4	12 x 17 x 4	2 1/2 x 12	21.70

CALIFORNIA CHASSIS COMPANY

"ALL PRICES SUBJECT TO CHANGE W/O NOTICE"

CALIFORNIA CHASSIS CO.

STANDARD ALUMINUM CHASSIS—All chassis are stamped and formed from one piece of material. All four corners welded and sides flanged to accommodate bottom plates.

Aluminum	W	L	D	Gauge	App. Wt.	Net Price	Aluminum	W	L	D	Gauge	App. Wt.	Net Price
A-134	2½ x	4½ x	1	18	¼	1.12	A-151	6 x	14 x	3	18	1	2.75
A-135	3½ x	4½ x	1	18	¼	1.22	A-114	7 x	13 x	2	18	¾	1.87
A-136	3½ x	5½ x	1	18	¼	1.22	A-139	5 x	13 x	3	18	¾	2.04
A-137	4 x	6 x	1½	18	¼	1.34	A-107	8 x	12 x	2½	18	1	2.77
A-155	4 x	6 x	2	18	¼	1.41	A-117	7 x	12 x	3	18	1	2.30
A-149	4 x	6 x	3	18	¾	1.53	A-124	8 x	12 x	3	18	1	2.55
A-138	4 x	5 x	2	18	¾	1.38	A-108	10 x	12 x	3	18	1½	2.34
A-121	5½ x	5½ x	1	18	¼	1.45	A-129	12 x	12 x	3	18	1½	3.28
A-101	5 x	7 x	2	18	¾	1.22	A-115	10 x	14 x	3	18	1½	3.18
A-150	5 x	7 x	3	18	¾	1.62	A-130	7 x	15 x	3	18	1½	2.90
A-147	4 x	8 x	2	18	¾	1.63	A-125	9 x	15 x	3	18	1½	3.45
A-119	4½ x	8 x	1½	18	¾	1.31	A-118	4 x	17 x	2	18	1	2.62
A-122	5 x	9 x	1½	18	¾	1.39	A-145	6 x	17 x	3	18	1	2.81
A-102	5 x	9½ x	2½	18	¾	1.96	A-144	7 x	17 x	2	18	1	2.81
A-120	6 x	8 x	2	18	¾	1.68	A-152	7 x	17 x	3	18	1½	3.08
A-103	5 x	10 x	3	18	½	1.82	A-109	8 x	17 x	2	18	1½	2.90
A-104	7 x	9 x	2	18	½	1.53	A-116	8 x	17 x	3	16	1½	3.48
A-105	7 x	9 x	2	18	¾	1.63	A-140	10 x	17 x	2	16	2½	3.57
A-113	7 x	11 x	2	18	¾	1.77	A-110	10 x	17 x	3	16	2½	3.91
A-106	8 x	10 x	2½	18	1	2.48	A-153	10 x	17 x	4	16	3	5.02

All aluminum chassis are etched finish. 1" and 1½" chassis are flanged on long side only and contain no mounting holes.

CHASSIS BOTTOM PLATES

CATALOG NO.	SIZE	ALUM. WEIGHT	STEEL WEIGHT	Steel Net Price
BP-105	7 x 9	¼ lb.	¾ lb.	1.00
BP-113	7 x 11	½ lb.	1 lb.	1.19
BP-106	8 x 10	¼ lb.	¾ lb.	1.17
BP-139	5 x 13	¼ lb.	½ lb.	1.16
BP-114	7 x 13	½ lb.	1 lb.	1.34
BP-107	8 x 12	¾ lb.	1½ lb.	1.50
BP-117	7 x 12	½ lb.	1 lb.	1.22
BP-108	10 x 12	¾ lb.	1½ lb.	1.56
BP-129	12 x 12	¾ lb.	1½ lb.	1.70
BP-115	10 x 14	¾ lb.	2 lb.	1.63
BP-130	7 x 15	½ lb.	1 lb.	1.43
BP-125	9 x 15	¾ lb.	1½ lb.	1.87
BP-118	4 x 17	½ lb.	1 lb.	1.15
BP-145	6 x 17	½ lb.	1 lb.	1.41
BP-144	7 x 17	½ lb.	1 lb.	1.36
BP-109	8 x 17	½ lb.	1½ lb.	1.53
BP-110	10 x 17	¾ lb.	2½ lb.	1.60
BP-128	11 x 17	1 lb.	2 lb.	1.68
BP-123	12 x 17	1½ lb.	3 lb.	2.04
BP-111	13 x 17	1½ lb.	3½ lb.	2.24
BP-133	14 x 17	1½ lb.	3½ lb.	2.43
BP-131	15 x 17	1½ lb.	3½ lb.	2.47
BP-143	17 x 17	2 lb.	5 lb.	2.99
BP-132	10 x 23	1½ lb.	3½ lb.	2.24

Steel bottom plates supplied in zinc plate aluminum is caustic etched. Actual size of BP is ⅛" under chassis size which is shown. This allows ⅛" of set back when attached to bottom of chassis.

CATALOG NO.	SIZE	ALUM. WEIGHT	STEEL WEIGHT	Net Price
P-134	2½ x 4½	1 oz.	2 oz.	.58
P-135	3½ x 4½	2 oz.	¼ lb.	.63
P-136	3½ x 5½	2 oz.	¼ lb.	.68
P-137	4 x 6	2 oz.	¼ lb.	.71
P-138	4 x 5	2 oz.	¼ lb.	.66
P-147	4 x 8	¼ lb.	½ lb.	.85
P-121	5½ x 5½	2 oz.	½ lb.	.77
P-101	5 x 7	2 oz.	¼ lb.	.77
P-119	4½ x 8	¼ lb.	½ lb.	.88
P-122	5 x 9	¼ lb.	½ lb.	.92
P-102	5 x 9½	¼ lb.	½ lb.	.90
P-120	6 x 8	¼ lb.	½ lb.	.92
P-151	6 x 14	¼ lb.	1½ lb.	1.16
P-103	5 x 10	¼ lb.	½ lb.	.93
P-104	7 x 7	¼ lb.	½ lb.	.99

HEAVY DUTY CHASSIS 16 GAUGE STEEL

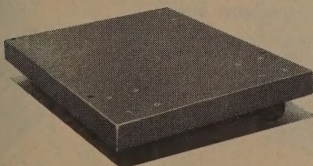
Cat. No.	Weight	Net Price
H-109	6¾# 8x17x2	4.68
H-116	7½# 8x17x3	5.15
H-110	8½# 10x17x3	5.24
H-146	8# 11x17x2	5.19
H-128	10# 11x17x3	5.80
H-126	9½# 13x17x2	6.17
H-111	11½# 13x17x3	6.55
H-112	12# 13x17x4	7.48

Bottom Plates Included
Units are Zinc Plated

HEAVY DUTY ROLLER TRUCK

Formed of 12 gauge steel with seam welded corners. Supplied with heavy duty four inch swivel casters, mounting hardware, and drilled to fit the base of the "AWC" Series. Unit is designed to extend six inches forward of the "AWC" unit, offering ample stability to assemblies with a high center of gravity. Stocked in grey hammertone finish.

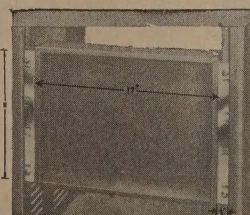
Cat. No.	Price
HDT	\$50.00



SLIDING DRAWER CHASSIS

The drawer chassis is used where there is a need to pull out the chassis without disconnecting it from the rack. Chassis rolls in and out on ball bearings in a formed channel. When assembled it forms a rigid unit which will fit any 19" rack. Brackets are ⅛" Aluminum Chassis and top plate are 14 gauge aluminum. Finish, except for slide rail assembly, is gray hammertone.

Cat. No.	Chassis Size	Brk. H	Wt. Price
SD-399	16¾x14x3	6½#	6½# \$15.52



CHASSIS FLANGES

These 1" chassis flanges will convert any 17" chassis to a 19" panel rack chassis. Made of 16 gauge zinc plated steel.

Catalog No.	Height	Shpg. Wt.	Net Price
CF-12	5¼	7	.94
CF-13	7	½	1.00
CF-14	8¾	1	1.07
CF-15	10½	1	1.16
CF-16	12½	1	1.22
CF-17	14	1	1.34

PANEL CHASSIS

CAT. NO.	ALUM.	HEIGHT	WT. LBS.
PC-110	PCA-110	1¾	2
PC-111	PCA-111	3¼	2
PC-112	PCA-112	5¼	4
PC-113	PCA-113	7	4½
PC-114	PCA-114	8¾	5¾
PC-115	PCA-115	10½	6¾
PC-116	PCA-116	12½	7½
PC-117	PCA-117	14	8½

Larger Sizes on Request

These are constructed so the sharp rib corner is cut to a 45° angle protecting the user's wrist. Side flange is ⅛" O.D. Height is ½" under size to permit proper mounting in rack.
PC Series is 16 GA—Zinc Plated Steel
PCA Series is 14 GA—Etched Aluminum

Cat. No.	Weight	Dimensions	Net Price
RT-1	5¼#	10x17x3	3.58
RT-2	7	13x17x3	4.42
RT-3	6½	10x17x4	3.93
RT-4	9	13x17x4	4.90

Experimenters and the radio amateur when designing, will find it economical to use this type chassis, as the tops and bottoms may be easily replaced or discarded. Steel-Electro Zinc Only.

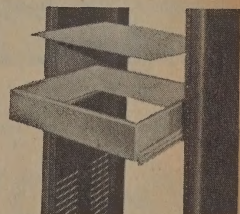
TOPS ONLY FOR REMOVAL TOP CHASSIS

Cat. No.	Weight	Dimensions	Net Price
T-1	3#	10x17	1.70
T-2	4	13x17	2.09

Made From 16 Gauge Steel — Electro Zinc Finish

Cat. No.	Weight	W	L	D	Net Price
EC-1	1 #	7	6	2	1.02
EC-2	¾	5	7	1½	.97
EC-3	1	5½	9	1½	1.12
EC-4	1¼	7½	9	1½	1.39
EC-5	1½	7	13	1½	1.58
EC-6	2¼	7¾	13	2	1.68
EC-7	1	7	8	2	1.16
EC-8	1¼	7	10	2	1.39

These chassis are ideal for any type of unit which is built-up, such as a record changer. Steel — Electro Zinc Only



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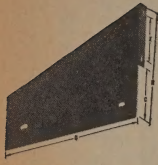
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CALIFORNIA CHASSIS CO.

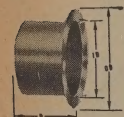
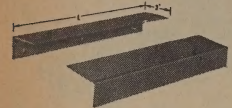
CHASSIS MOUNTING BRACKETS

To assure the proper support for a chassis a sturdy mounting bracket is used. Flange is $\frac{5}{16}$ " inside dimension. Elongated hole $\frac{3}{4}$ " x $\frac{1}{2}$ " is centered in flange. "X" shows the distance between flange holes. Finished in Zinc plated "C" or Wrinkle "W" may be had at additional cost of 15%.



Zinc Plated	Height	x	Depth	Clearance	Wt.	Net Price
C-58B	6 1/2	2 1/2	8	3 1/4	1 1/4	1.94
C-57B	6 1/2	2 1/2	9	3 1/4	1 1/2	2.09
C-48B	6 1/2	2 1/2	10	3 1/4	1 3/4	2.16
C-59B	6 1/2	2 1/2	11	3 1/4	1 3/4	2.35
C-49B	6 1/2	2 1/2	12	3 1/4	2	2.52
C-60B	6 1/2	2 1/2	13	3 1/4	2	2.48
C-50B	8 1/2	3 1/2	10	4 1/4	2 1/2	2.82
C-51B	8 1/2	3 1/2	13	4 1/4	3	3.04
C-52B	12	7	15	4 1/4	4 1/2	3.86
C-53B	14	8	17	5 1/4	5 3/4	4.40

TRIANGULAR MOUNTING BRACKETS



Cat. No.	Height	Dimensions	Net Price
MB-55	1/2	5x5	1.02
MB-77	1 1/2	7x7	1.19
MB-99	1 3/4	9x9	1.41

Steel — Zinc Plated.

CHASSIS SUPPORT ANGLES

These angles when bolted to the sides of a cabinet will support a heavy chassis unit. They are made of $\frac{1}{8}$ " thick steel and are finished in zinc plate.

Cat. No.	Length	Width	Shpg. Lbs.	Net Price
CA-12	12	3	3	2.14
CA-14	14 1/2	3	4	2.24

METER SHIELD

This shield is made of spun aluminum. It will fit over the meter and effectively stops most interference. Finished with no holes and in natural finish only.

Catalog Number	D	I.D.	O.D.	Meter Size	Net Price
MSA-2	2-3/16	2-1/32	2 7/8	2	1.75
MSA-3	2	2-25/32	3 3/4	3	1.75

RELAY RACK PANELS

Regular panels are made from $\frac{1}{8}$ " aluminum or steel material. Aluminum is 3003 H 14. Notching is Western Electric (WE). Finish gray hammertone, or unpainted. 24" wide panels are available on special order in both aluminum and steel.

Notching Western Electric

Height	Width	Wt. Alum.	Wt. Steel	Net Price
PW-10	1 3/4	19	1 1/4	1.19
PW-11	3 1/2	19	3 1/4	1.79
PW-12	5 1/4	19	4 1/4	2.26
PW-13	7	19	4 3/4	3.08
PW-14	8 3/4	19	2	3.91
PW-15	10 1/2	19	2 1/2	4.73
PW-16	12 1/4	19	3	5.00
PW-17	14	19	3 1/2	5.64
PW-18	15 3/4	19	10 3/4	6.45
PW-19	17 1/2	19	12	7.30
PW-20	19 1/4	19	5	8.15
PW-21	21	19	5 1/2	8.75
PW-22	24 1/2	19	6	10.30
PW-23	26 1/4	19	7	11.30

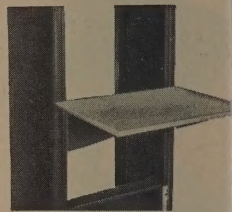
HARD ALUMINUM PANELS

Cat. No.	Height	Width	Wt.	Net Price
PWHA-10	1 3/4	19	1 1/2	1.63
PWHA-11	3 1/2	19	3 1/2	2.22
PWHA-12	5 1/4	19	1 1/4	2.80
PWHA-13	7	19	1 1/2	3.48
PWHA-14	8 3/4	19	2 1/2	4.08
PWHA-15	10 1/2	19	2 1/2	4.93
PWHA-16	12 1/4	19	3	5.78
PWHA-17	14	19	3 1/2	6.63
PWHA-18	15 3/4	19	4	7.22
PWHA-19	17 1/2	19	4 1/2	7.82
PWHA-20	19 1/4	19	5	8.42
PWHA-21	21	19	5 1/2	9.60
PWHA-22	24 1/2	19	6	11.70
PWHA-23	26 1/4	19	7	11.90

PWHA series supplied in both $\frac{1}{8}$ and $\frac{3}{16}$ thickness in the 2024T3 alloy which is considered most suitable for drilling, machining or engraving. Panels are stocked in unpainted or gray hammertone. Other finishes available on request. All panels available in 24" width, on special order.

EXTERIOR RACK SHELVES

The exterior shelf replaces a panel when a shelf is needed. Unit is composed of a 16 gauge steel shelf with seam welded front corners and two supporting $\frac{1}{4}$ " steel brackets. All hardware included. Gray hammertone finish.



Cat. No.	Shelf Size	Wt.	Net Price
ER-41	16x22	12	11.66
ER-420	20x22	15	11.83

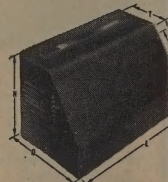
INTERIOR RACK SHELVES

These 16 gauge steel shelves may be supported in the rack by chassis support angles CA-12 or CA-14. They are used to form a strong shelf for modular units, power supplies etc. Finish black enamel.

Cat. No.	Size	Shpg. Wt.	Net Price
RS-512	12x19	5 1/2	2.64
RS-515	15x19	6 1/2	3.47

SLOPING FRONT CABINETS

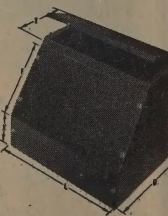
These deluxe all purpose steel cabinets are designed for wide use in the electronic field. Front and top corners are rounded, sides have stainless steel ventilators. Embossed feet to prevent scratching. Gray wrinkle or gray hammertone, please specify.



Catalog No.	D	H	L	T	X	S	C	Use This Chassis	Net Price
SFC-42	8	8	8	4 1/4	2 3/4	6	5 1/4	C-104	5.19
SFC-44	8	8	10	4 1/4	2 3/4	6	5 1/4	C-105	7.29
SFC-46	8	8	14	4 1/4	2 3/4	6	5 1/4	C-114	8.79
SFC-48	12	12	18	6	3 3/8	10 3/8	9 1/2	C-110	11.78

HINGED TOP SLOPING CABINET

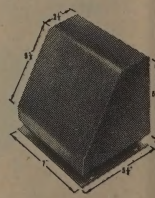
This 20 gauge steel cabinet provides for a complete opening of top and front. Chassis may be attached to the face as there is no inside flange on the front. Bottom has embossed feet. Rear has opening for connectors. Gray hammertone finish.



Catalog No.	H	L	D	X	F	T	WT.	Use Chassis Size
HC-250	6 1/2	7 3/4	7 3/4	2 3/4	4 7/8	4 1/4	2 1/2	7x 6x2
HC-251	8	8 3/4	8	2 3/4	6 3/8	3 3/8	2 3/4	7x 7x2
HC-252	6 1/2	9 3/4	7 3/4	2 3/4	4 7/8	4 1/4	3	7x 8x2
HC-253	8	10 3/4	8	2 3/4	6 3/8	3 3/8	3	7x 9x2
HC-254	6 1/2	11 3/4	7 3/4	2 3/4	4 7/8	4 1/4	3 1/2	7x10x2
HC-255	8	14 3/4	8	2 3/4	6 3/8	3 3/8	4	7x13x2
HC-256	8	13 3/4	8 1/2	2 5/8	5 7/8	4 3/4	5 1/4	8x12x2 1/2
HC-257	9	18 3/4	8 1/4	3 3/8	6	4 1/4	7	7x17x3
HC-258	10	18 3/4	10 1/2	3 3/8	7 1/4	5 3/8	8 1/2	10x17x3

ENCLOSED METER CABINET

Enclosed Meter Cabinet bottom is open. Bottom plate with embossed feet and four sheet metal screws included. Finish silver gray hammertone. 20 gauge steel or .040 aluminum. Net Price Specify EMC 2 S — Steel 3.25 EMC 2 A — Aluminum 3.75



CALIFORNIA CHASSIS COMPANY

"ALL PRICES SUBJECT TO CHANGE W/O NOTICE"

CALIFORNIA CHASSIS CO.

METER CABINETS

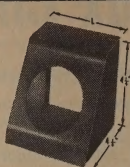
Meter Size	Aluminum Cat. No.	Net Price	Wt. Lbs.	Net Price
2"	MC-2	1.43	1/2	1.12
3"	MC-3	1.43	1/2	1.12
No Holes	MC-4	1.43	1/2	1.12
2"	MC-6*	1.43	1/2	1.12
3"	MC-7*	1.43	1/2	1.12
No Holes	MC-8	2.06	3/4	1.87
3"	HAC-MC-7*	2.06	3/4	

* Indicates it has two 1/2" holes on 3/4" centers at top of cabinet for insulators. 2" meter hole is 2 3/4". 3" meter hole is 2 1/4". Gray hammertone finish.

WALL SPEAKER ENCLOSURE

An attractive steel case suitable for wall mounting by use of Key slotted screw holes on back or may be used free standing on embossed feet in bottom. Supplied in gray hammertone finish.

Catalog No.	Speaker Size	Hole Size	H	L	D	Wt.	Net Price
WS-304	4	3 1/2	7 1/2	6 1/2	4 1/4	1 3/4	3.52
WS-305	5	4	1 7/8	6 1/2	4 1/4	1 3/4	3.71
WS-306	6	4 3/4	9 1/2	8	5 3/4	4	4.19
WS-308	8	6 1/2	11 3/4	9 1/2	8 1/4	5	5.15
WS-310	10	8 1/2	13 1/2	11 3/4	8 1/4	6	6.47
WS-312	12	10 1/2	15 1/2	13 3/4	9 3/4	8	8.12



LITE LINE SERIES

These all aluminum portable cabinets are found to be highly versatile for instrumentation housings. The "Lite Line" units are attractive and compact yet give proper ventilation with light weight. Panel is recessed 3/8". Finish: Gray hammertone.

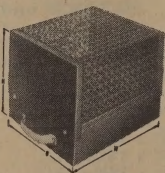
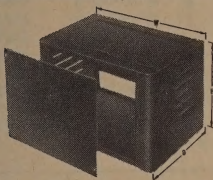


Catalog No.	H	Cabinet Size W	D	Wt.	Rear Opening 1/2 inch from base of cabinet
LLS-582	8	6 1/4	8	2	2 x 4 1/2
LLS-584	8	10 1/4	8	2 1/2	2 x 8 1/2
LLS-586	9	8 1/4	12	3 1/2	2 x 6 1/2

AMPLIFIER FOUNDATIONS

These consist of a chassis and perforated metal cover. They have ample ventilation. Handles are included in each package. Gray hammertone finish.

Catalog No.	Height	Width	Depth	Chassis Height	Shpg. Wt.	Net Price
AF-240*	8	7 3/4	5 1/4	2	2	4.49
AF-241	8 3/4	9 3/4	5 1/4	2 1/2	2	5.61
AF-242	8 3/4	13 3/4	5 1/4	2 1/2	4 3/4	6.43
AF-243	8 3/4	17 1/4	7 1/4	2 1/2	6	7.29
AF-244	8 3/4	17 1/4	10 1/4	3	8	10.01



STREAMLINED INSTRUMENT CABINET

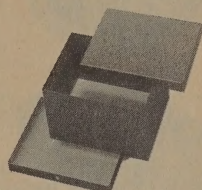
Miniature aluminum chassis MA series are usually used with this cabinet. Black wrinkle is standard.

Catalog No.	Panel Space	Height	Width	Depth	Wt.	Net Price
SC-31	8x8	8	10 1/2	8 1/4	5 3/4	4.37
SC-32	8x10	8	12 1/2	8 1/4	6	5.42
SC-33	8x12	8	14 1/2	8 1/4	6 1/2	5.88
SC-34	8x14	8	16 1/2	8 1/4	7	6.17
SC-35	8x16	8	18 1/2	8 1/4	7 3/4	6.77
SC-36	12x18	12	20 1/2	12	15	12.17

FF UTILITY CABINETS

Flange-free construction is the keynote of this series—allowing complete use of the internal cabinet surfaces. Unit consists of a basic shell, two cap-type covers and assembly screws. Fabricated in .040 aluminum and stocked in unpainted etched finish or gray hammertone baked enamel. Use suffix "UA" for unpainted or "GH" for gray hammertone.

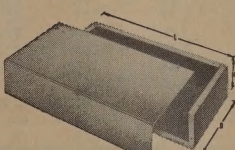
CATALOG NO.	WEIGHT LBS.	DEPTH	WIDTH	LENGTH
F.F. CAB-1	3 1/2	2	4	4
F.F. CAB-2	1 1/2	3	5	4
F.F. CAB-3	3 1/4	4	5	6
F.F. CAB-4	1	6	6	6
F.F. CAB-5	1 1/4	5	6	9



UTILITY BOX REMOVABLE COVER

This model allows complete accessibility to the interior of the unit. All work may be completed before cover is installed. Box supplied with covers. Steel box and cover electro-zinc only.

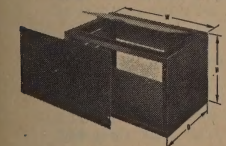
Cat. No.	D	L	H	Net Price
HA-10	3x4	4	1 1/2	1.50
HA-11	4x5	5	1 1/2	1.96
HA-12	4x8	8	2	2.14
HA-13	5x9 1/2	2 1/2	2.15	
HA-14	6x12	2 1/2	3.23	
HA-15	7x15	2 1/2	3.82	



INSTRUMENT CABINETS

This cabinet has a hinged access door on top and removable front cover. The elimination of the rounded corners

gives more inside room. The rear has a 3 1/2" opening for ventilation plus louvers at each end. The open chassis, E.C. series, is usually used with these cabinets. Black wrinkle only.

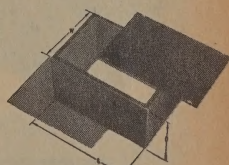


Cat. No.	H	W	D	Shpg. Wt.	Net Price
HTC-342	7	8	8	5	4.15
HTC-343	7	10	8	5 1/2	5.36
HTC-344	7	12	8	5 3/4	5.65
HTC-345	7	14	8	6	6.05
HTC-346	8	16	8	7	8.35
HTC-347	9	15	11	8	8.53
HTC-348	12	18	12	14 1/2	12.22

METAL UTILITY CABINETS

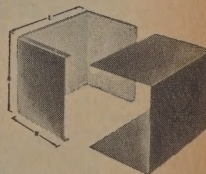
Catalog No.	Wt. Sti.	D	W	L	Alm.	Wt. Painted Alum.
CAB-1	3 1/2	2"	4"	4"	3 1/2	1.68
CAB-2	1	3"	5"	4"	1 1/2	1.87
CAB-3	1 1/2	4"	5"	6"	3 1/4	2.14
CAB-4	2 1/2	6"	6"	6"	1	2.56
CAB-5	3 3/4	5"	6"	9"	1 1/4	3.47
CAB-6	4 3/4	7"	8"	10"	2	5.10
CAB-7	5	7"	7"	12"	2	4.93
CAB-8	6	8"	10"	10"	2 1/2	7.15
CAB-9	7	8"	11"	12"	2 3/4	8.58
CAB-10	7	7"	9"	15"	2 3/4	8.75

Considered the "work horse" in the small cabinet field. This series is one of the most widely used. Supplied with two removable covers for easy access to cabinet interior. Available in both aluminum use suffix "A" and steel use suffix "S", complete with mounting hardware. Finished in gray hammertone. Aluminum units also available in unfinished etched condition — use suffix "UA".



MINIATURE CABINETS

Aluminum Gray Hammertone Cat. No.	Net Price	Etched Aluminum Cat. No.	Net Price	L	H	W
M-51	.83	M-81	.61	2 1/4	2 1/4	1 1/2
M-52	.95	M-82	.85	2 3/4	2 1/4	2 3/4
M-53	.88	M-83	.61	3 1/4	2 1/4	1 1/2
M-54	1.04	M-84	.66	3 1/4	2 1/4	1 1/2
M-55	.92	M-85	.65	4	2 1/4	1 1/2
M-56	1.00	M-86	.83	4	2 1/4	2 1/4
M-57	1.16	M-87	.83	4	x2	2 3/4
M-58	1.17	M-88	.87	4 1/4	2 1/4	1 1/2
M-59	1.21	M-89	.90	5	x2 1/4	2 1/4
M-60	1.41	M-90	1.34	5	x4	x3
M-61	1.38	M-91	1.26	5 1/4	x3	2 1/2
M-62	1.85	M-92	1.28	6	x5	x4
M-63	1.89	M-93	1.34	7	x5	x3
M-64	2.28	M-94	2.02	8	x6	x3 1/2
M-65	1.53	M-95	1.34	10	x2	1 1/2
M-66	3.66	M-96	3.23	10	x6	x3 1/2
M-67	2.04	M-97	1.53	12	x2 1/2	2 1/4
M-68	3.56	M-98	2.89	12	x7	x4
M-69	4.08	M-99	3.40	17	x5	x4



CALIFORNIA CHASSIS COMPANY

"ALL PRICES SUBJECT TO CHANGE W/O NOTICE"

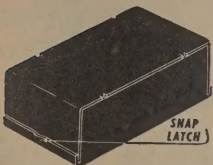
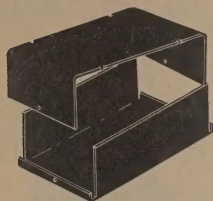
LMB® Box Chassis

The Engineered Precision Line with Interlocking and Flangelocking Construction

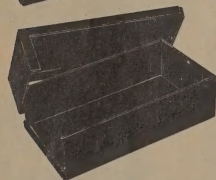
Here is the answer to box chassis needs, for the laboratory, manufacturer, experimenter, or builder. The following L. M. B.® Boxes are available from stock in either interlocking (screw fastened) or snap latch. All screw fastenings are drilled and tapped. Self tapping screws are not used. Available colors include natural aluminum, gray or brown hammettone, and black crackle. When ordering specify style and color.

Aluminum used in all LMB® products is aircraft quality specifications type 3003-H 14.

Interlocking



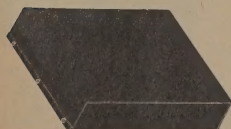
Flangelocking



Endlock



SLIDE COVER



SHIELDED CHASSIS

PRINTED CIRCUIT CHASSIS

Printed circuit chassis are made with a shallow base with a cap cover on the bottom so that it can be removed to work on the assembly without removing the printed circuit from the chassis. All printed circuit chassis are of plain aluminum.



All prices quoted are dealer net. Manufacturers Special Discounts on Application.

WRITE FOR COMPLETE CATALOGUE

INTERLOCKING (SCREW-FASTENED OR SNAP LATCH)

Model	Size	Price	Model	Size	Price
M00	2 1/2" x 1 1/2" x 1 1/2"	.57	138	6 1/4" x 3 1/2" x 2 1/2"	1.32
00Z	2 5/8" x 2 1/8" x 1 3/4"	.64	139	5 1/2" x 3" x 1 1/4"	1.01
000	3 1/4" x 2 1/8" x 1 1/2"	.68	140PL	3" x 4" x 5"	1.29
00	4" x 2 1/8" x 1 1/2"	.71	140	3" x 4" x 5"	1.61
100	2 3/4" x 2 1/8" x 2 1/2"	.89	141PL	6" x 4" x 3"	1.44
101	4 1/4" x 2 1/8" x 1 1/2"	.87	141	6" x 4" x 3"	1.72
102	4" x 2" x 2 3/4"	1.02	142PL	6" x 4" x 5"	1.68
107	4" x 2 1/4" x 2 1/4"	.96	142	6" x 4" x 5"	2.11
108	5" x 2 1/4" x 2 1/4"	1.03	143	4" x 4" x 2"	1.33
135	3 3/4" x 3" x 2 1/8"	.97	144	10" x 4" x 2 1/2"	2.19
136	5 1/4" x 3" x 2 1/8"	1.08	145	7" x 5" x 3"	2.11
650	6 1/2" x 2 1/8" x 1 1/2"	1.05	146	8" x 6" x 4 1/2"	2.99
137	8" x 3" x 2 3/4"	1.61	15	12" x 2" x 1 3/4"	1.61
850	8 1/2" x 2 1/8" x 1 1/2"	1.35			

SIDELOCK and ENDLOCK CONSTRUCTION

L. M. B.® aluminum Box chassis with sidelock and endlock construction are dust proof, semi-water, and rain proof. Sturdy construction and 100% shielded. The following models are available in plain aluminum, or finished in black, gray, or brown. Endlock or sidelock construction:

Model	Size	Price	Model	Size	Price
221	2 3/4" x 3 1/8" x 1 1/2"	1.13	654	6" x 5" x 4"	2.51
321	3 1/4" x 2 1/8" x 1 1/2"	1.13	666	6" x 6" x 6"	3.39
421	4" x 2 1/8" x 1 1/2"	1.13	686	6" x 8" x 6"	4.27
422	4" x 2 1/4" x 2 1/4"	1.29	695	6" x 5" x 5"	3.84
424	4" x 2" x 4"	1.98	753	7" x 5" x 3"	2.60
435	4" x 3" x 5"	2.19	754	7" x 5" x 4"	2.76
444	4" x 4" x 4"	1.89	863	8" x 3 1/2" x 3 1/2"	2.86
531	5 1/4" x 3" x 1 1/2"	1.29	865	8" x 6" x 5"	3.57
532	5 1/4" x 3" x 2 1/8"	1.47	1063	10" x 6" x 3 1/2"	3.57
534	5 1/8" x 3" x 4"	2.06	1085	10" x 8" x 5"	4.42
543	5" x 4" x 3"	1.87	1221	12" x 2" x 1 3/4"	1.87
546	5" x 4" x 6"	2.74	1274	12" x 7" x 4"	4.65
645	6" x 4" x 5"	2.60	1754	17" x 5" x 4"	5.27

SLIDE COVER (or dust cover) BOXES

No.	L	W	H	Ea.
16—Natural Aluminum	13"	3 3/8"	2 1/8"	\$1.85
16—Gray, Black, Brown	13"	3 3/8"	2 1/8"	2.52
17—Natural Aluminum	13"	4 1/8"	2 1/8"	3.18
17—Gray, Black, Brown	13"	4 1/8"	2 1/8"	3.95

Designed by BROADCAST ENGINEERS

No.	L	W	H	Ea.
18—Natural Aluminum	13"	5 1/4"	2 1/8"	3.50
18—Gray, Black, Brown	13"	5 1/4"	2 1/8"	4.30
19—Natural Aluminum	17"	3 3/8"	2 1/8"	3.35
19—Gray, Black, Brown	17"	3 3/8"	2 1/8"	4.15

SHIELDED CHASSIS

No.	L	W	H	Ea.
No. 20 Plain	7 1/2"	7"	2"	\$1.67
No. 20 Anodized	7 1/2"	7"	2"	2.06
No. 21 Plain	13"	10"	3"	4.34
No.	L	W	H	Ea.
No. 21 Anodized	13"	10"	3"	\$5.81
No. 22 Plain	17"	10"	3"	5.13
No. 22 Anodized	17"	10"	3"	6.67

STANDARD SIZES

Model No.	L	W	D	Mounting Lip	Price
PC 325	3	2	1/2	3/4"	ea. .70
PC 635	6	3	1/2	3/4"	ea. .80
PC 645	6	4	1/2	3/4"	ea. .91
PC 855	8	5	1/2	3/4"	ea. 1.04
PC 10875	10	8	1/2	3/4"	ea. 1.52
PC 12975	12	9	1/2	3/4"	ea. 1.76

Model No.	Size	Mounting Lip	Model No.	Size	Mounting Lip
D 7131	7 x 13 x 1	1/2"	D 541	5 x 4 x 1	1/2"
for use in building with the Danco model			for use in building with the Danco model		
No. 14 printed amplifier circuit—ea. 1.17			No. 21, 31, 41 printed preamplifier circuit—ea. .63		

WRITE FOR COMPLETE CATALOG

PRICES SUBJECT TO CHANGE

LMB®

LMB® Box Chassis (Continued)

	Each	DEALER NET Gray, Black, Brown	
		Plain	
T-F 770	2¼x2½x1½	.62	\$.81
T-F 771	2¼x2½x2¼	.68	.95
T-F 772	3¼x2½x1½	.62	.84
T-F 773	3½x2½x1½	.62	.84
T-F 774	4 x2½x1½	.62	.95
T-F 775	4 x2½x2¼	.75	.97
T-F 776	4 x2 x2¼	.75	1.00
T-F 777	4¼x2¼x1½	.72	1.00
T-F 778	5 x2¼x2¼	.78	1.03
T-F 779	5 x4 x3	.94	1.32

	Each	PRICES Gray, Black, Brown	
		Plain	
J-870	2¼x2½x1½	.62	\$.81
J-871	2¼x2½x2¼	.68	.95
J-872	3¼x2½x1½	.62	.84
J-873	3½x2½x1½	.62	.84
J-874	4 x2½x1½	.62	.95
J-875	4 x2¼x2¼	.75	.97
J-876	4 x2 x2¼	.75	1.00
J-877	4¼x2¼x1½	.72	1.00
J-878	5 x2¼x2¼	.78	1.03
J-879	5 x4 x3	.94	1.32

	Each	PRICES Gray, Black, or Brown	
		Plain	
U-C 970	4x 4x2 .040	\$1.57	\$1.82
U-C 971	5x 4x3 .040	1.69	1.98
U-C 972	6x 5x4 .040	2.18	2.52
U-C 973	6x 6x6 .040	2.55	3.02
U-C 974	7x 5x3 .040	2.98	3.48
U-C 975	9x 6x5 .051	3.38	3.89

SIZES			
No.	L	W	H
M-01	1½" x 1" x ½"		
02	1" x ¾" x ½"		
*06	1½" x 1½" x ½"		
07	1¾" x 1" x ¾"		
*08	2¼" x 1" x ¾"		
*09	2½" x 1" x ¾"		
No.	L	W	H
010	1¾" x 1¼" x ¾"		
011	2" x 1¼" x ¾"		
*012	2" x 1½" x 1"		
*013	1¾" x 1¼" x 1"		
014	1½" x 1½" x ¾"		
*015	1½" x 1¾" x ½"		

* Without Mounting Ears

With Mounting Ears in Lots of 100 to 999 ea.	Plain	Plated	Without Mounting Ears 100 to 999 ea.	Plain	Plated	Covers for LMB® Miniature Boxes 100 to 999 ea.	Plain
	.49	.65		.41	.57		.15

UTILITY ENCLOSURES

No.	L	W	H	Plain	Gray
W-1A	7" x 5" x 4½"	with built in chassis		\$3.97	\$4.84
W-1B	10" x 4" x 3½"	with built in chassis		3.97	4.84
W-1C	8½" x 6½" x 5"	with built in chassis		4.43	5.33
W-1D	18" x 9" x 11"	will accommodate an 11" x 17" 2", 3" or 4" chassis		9.75	13.13

"AL-CAB" CABINETS for meter cases
or any application where outstanding appearance
is needed

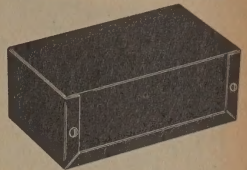
No.	L	W	H	Plain	Gray
W-2AP	3½" x 4" x 3"	with holes		\$1.88	\$2.18
W-2A	3½" x 4" x 3½"	without holes		1.98	2.28
W-2B	3" x 7" x 3½"	with and without holes		2.25	2.67
W-2C	3¾" x 7" x 3½"	without holes		2.93	3.36
W-2E	4½" x 4½" x 3½"	without holes		2.30	2.60

Holes in W-2AP, 2B are 2¼", 2¾". For 4" Meter holes and knock-out, add 10% to above prices.

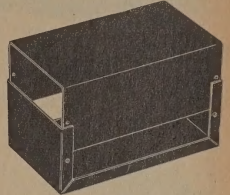
W.M. "AL-CAB" Deluxe Series
All with Built-in Chassis

No.	L	W	H	Plain	Gray
W-2F	7½" x 5" x 4½"			\$4.40	\$5.18
W-2G	13" x 10" x 5¾"			9.36	11.06
W-2H	7" x 11" x 6¼"			7.38	8.63
W-2J	8" x 11½" x 7½"			8.10	9.35

TITE-FIT BOX CHASSIS



JIFFY BOX CHASSIS

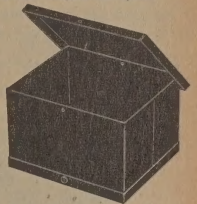


NO SCREWS

Just push together to close and the Catches snap into place—just a slight pressure of the fingers to open.

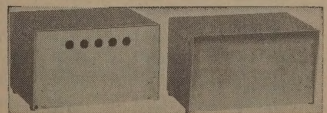
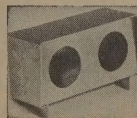
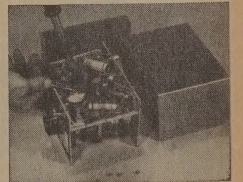
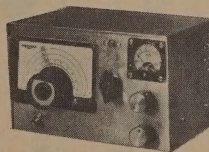
UTILITY BOXES

Give approximately 25% more usable space for building.



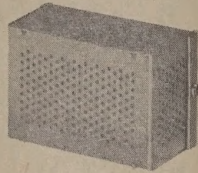
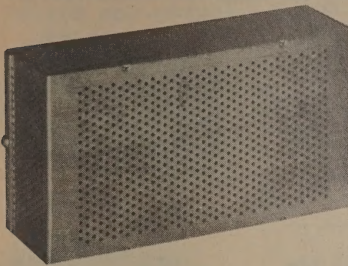
MINIATURE BOX CHASSIS

Precision made in steel only, cadmium plated. Made with or without mounting ears. Covers solder in when used in assembly.



WRITE FOR COMPLETE CATALOG PRICES SUBJECT TO CHANGE

LMB® (Continued)



LMB® PERFORATED BOX CHASSIS

LMB® Perforated Boxes are adaptable wherever heat dissipation is required as they are spaced in perforations that are set by laboratory research to give utmost heat dissipation and also give utmost shielding. They are die perforated on three sides and top of the box.

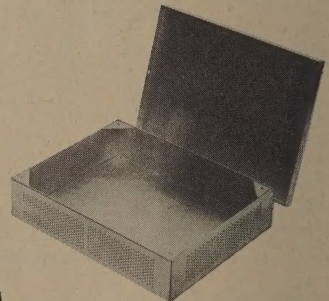
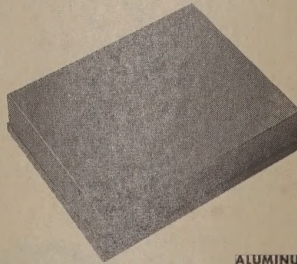
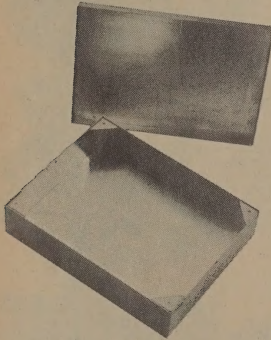
NO.	FINISH	SIZE	NET EA.	NO.	FINISH	SIZE	NET EA.
00Z	Plain or Gray	2 3/4 x 2 1/8 x 1 3/4	\$.83	138	Plain or Gray	6 1/4 x 3 1/2 x 2 1/8	\$1.82
000	" "	3 1/4 x 2 1/8 x 1 5/8	.95	139	" "	5 1/2 x 3 x 1 1/4	1.36
00	" "	4 x 2 1/8 x 1 5/8	1.02	140	" "	3 x 4 x 5	1.75
100	" "	2 3/4 x 2 1/8 x 2 5/8	1.20	141	" "	6 x 4 x 3	1.88
101	" "	4 1/4 x 2 1/4 x 1 1/4	1.12	142	" "	6 x 4 x 5	2.18
102	" "	4 x 2 x 2 3/4	1.41	143	" "	4 x 4 x 2	1.40
107	" "	4 x 2 1/4 x 2 1/4	1.09	144	" "	10 x 4 x 2 1/2	2.19
108	" "	5 x 2 1/4 x 2 1/4	1.50	650	" "	6 1/2 x 2 1/8 x 1 5/8	1.41
135	" "	3 3/4 x 3 x 2 1/8	1.36	850	" "	8 1/2 x 2 1/8 x 1 5/8	1.59
136	" "	5 1/4 x 3 x 2 1/8	1.50	15	" "	12 x 2 x 1 3/4	1.79
137	" "	8 x 3 x 2 3/4	2.14				

THE CHASSIS WITH THE CAP COVERS AS ORIGINATED BY LMB®

LMB®
PRESENTS SOMETHING NEW
IN CHASSIS —

Built with the new original LMB® popular cap cover construction. This construction enables the builder to use either the top or the bottom of the chassis for construction. The Chassis can also be mounted on its side and construction can be on both top and bottom at the same time. Sturdily built from Aircraft quality aluminum. Type 3003, H-14, the same material as is used in the construction of all LMB® precision box chassis. Special technique in welding the corners makes for a stronger chassis than the orthodox type. Cap construction allows for using all the space inside the chassis without being hindered by the mounting flange, which takes from 10% to 20% of the mounting space out of the average chassis.

The P Series are perforated on all four sides and are ideal where heat dissipation is a factor. LMB® chassis — the better chassis, with the year's ahead advanced construction for your better project application. An advanced quality product competitively priced.



ALUMINUM

WITHOUT COVER				WITH CAP COVER			PERFORATED		
NO.	SIZE L W H	GUAGE	NET	NO.	L W H	NET	NO.	L W H	NET
572	5x 7x2	18	\$1.17	572C	5x 7x2	\$1.75	572P	5x 7x2	\$2.05
573	5x 7x3	18	1.42	573C	5x 7x3	1.95	573P	5x 7x3	2.25
5952	5x9 1/2x2	18	1.25	5952C	5x9 1/2x2	1.85	5952P	5x9 1/2x2	2.15
5103	5x10x3	18	1.65	5103C	5x10x3	2.25	5103P	5x10x3	2.55
5133	5x13x3	18	1.85	5133C	5x13x3	2.50	5133P	5x13x3	2.80
6173	6x17x3	18	2.67	6173C	6x17x3	3.40	6173P	6x17x3	3.70
772	7x 7x2	18	1.35	772C	7x 7x2	1.90	772P	7x 7x2	2.20
792	7x 9x2	18	1.46	792C	7x 9x2	1.95	792P	7x 9x2	2.25
7112	7x11x2	18	1.58	7112C	7x11x2	2.30	7112P	7x11x2	2.60
7123	7x12x3	18	2.03	7123C	7x12x3	2.75	7123P	7x12x3	3.05
7153	7x15x3	18	2.67	7153C	7x15x3	3.60	7153P	7x15x3	3.90
7173	7x17x3	18	2.75	7173C	7x17x3	3.70	7173P	7x17x3	4.00
8123	8x12x3	18	2.42	8123C	8x12x3	3.23	8123P	8x12x3	3.53
8172	8x17x2	18	2.52	8172C	8x17x2	3.50	8172P	8x17x2	3.80
8173	8x17x3	16	2.95	8173C	8x17x3	4.50	8173P	8x17x3	4.80
10123	10x12x3	18	2.70	10123C	10x12x3	3.60	10123P	10x12x3	4.30
10143	10x14x3	18	2.95	10143C	10x14x3	4.30	10143P	10x14x3	4.70
10172	10x17x2	16	2.85	10172C	10x17x2	4.37	10172P	10x17x2	4.77
10173	10x17x3	16	3.40	10173C	10x17x3	5.18	10173P	10x17x3	5.98
10174	10x17x4	16	4.85	10174C	10x17x4	6.37	10174P	10x17x4	7.17
11173	11x17x3	14	4.20	11173C	11x17x3	6.60	11173P	11x17x3	7.10
12172	12x17x2	14	4.50	12172C	11x17x2	6.60	12172P	12x17x2	7.20
12173	12x17x3	14	4.60	12173C	12x17x3	6.90	12173P	12x17x3	7.50
13172	13x17x2	14	4.50	13172C	13x17x2	6.60	13172P	13x17x2	7.30
13173	13x17x3	14	4.80	13173C	13x17x3	6.90	13173P	13x17x3	7.50
13174	13x17x4	14	5.95	13174C	13x17x4	7.95	13174P	13x17x4	8.55

WRITE FOR COMPLETE CATALOG

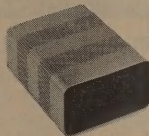
QUALITY CABINETS by LMB®

Original designs in cabinets for the electronic industry, for quality products. Use an original by LMB® to dress up your product.



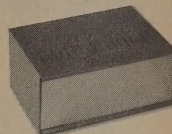
Perforated, removable top, 3 tone, body gray, trim ivory, recessed front panel blue gray.

	Net Ea. Plain	Net Ea. Gray
CO-1 14½" x 13" x 6½"	\$17.95	\$19.95
CO-2 12" x 10" x 6½"	15.75	17.95



Perforated 3 sides, built in chassis, recessed front panel. Color, body gray, panel dark gray.

	Net Ea. Plain	Net Ea. Gray
CO-3 7¼" x 5½" x 3⅞"	\$4.48	\$5.40



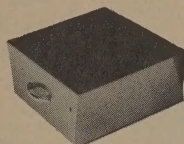
Slotted ventilation, front panel recessed. Colors — Gray, Bronze Hammertone, Black Crackle, Plain — with chassis.

	Net Ea. Plain	Net Ea. Colors
CB-1 8" x 10" x 4½"	\$4.47	\$5.35
CB-2 6" x 8" x 4½"	4.27	4.97



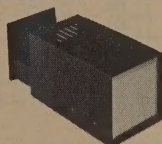
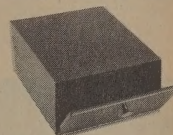
Aluminum with chassis contoured, hooded front recessed panel, slotted ventilation on bottom, louvers on side. Colors — Gold, Gray, Bronze Hammertone, Black Crackle, Plain — with chassis.

	Net Ea. Plain	Net Ea. Colors
B-1 10" x 8" x 6"	\$11.15	\$12.83
B-2 9" x 6" x 5"	10.02	11.48



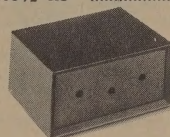
Hooded front, hinged door in rear, front panel removable by removing three screws. Chrome carrying handle. Colors blue, gray, bronze hammertone, black crackle, plain. Steel or aluminum.

	Net Ea. Plain	Net Ea. Colors
HA-1 (ALUM.) 11½" x 10½" x 5"	\$8.85	\$ 9.75
HS-1 (Steel) 11½" x 10½" x 5"	8.84	10.98



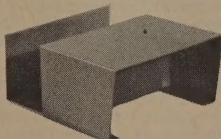
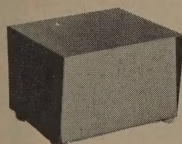
Slot ventilated, ventilation from underneath and sides, built in chassis, recessed panel. Chassis attached to back plate and is removable. Colors — Gray, Bronze Hammertone, Black Crackle, Plain.

	Net Ea. Plain	Net Ea. Colors
SQ-1 8½" x 4½" x 4½"	\$4.65	\$5.35



Double cabinet, inside cabinet fully shielded. Double recessed panel. Colors, Gray, Bronze Hammertone, Black crackle, Plain.

	Net Ea. Plain	Net Ea. Colors
CM-1 6" x 8" x 3⅞"	\$4.50	\$5.72



NEW SERIES. Original Construction. Cover slides off at bottom by removing 4 screws. Made of .040 aluminum. Finish: Plain or gray aluminum. Sensibly priced.

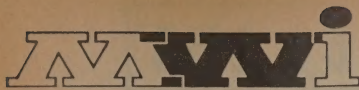
No.	D	W	H	Plain	Gray
275	2¾"	x 3"	x 4"	\$1.58	\$1.65
2754	2¾"	x 2¾"	x 4"	1.64	1.76
342	3"	x 4¼"	x 2⅝"	1.59	1.79
442	4"	x 4½"	x 2⅝"	1.71	1.95
444	4"	x 4"	x 4"	1.79	2.03
453	4"	x 5"	x 3"	1.85	2.06
463	4"	x 6"	x 3"	1.88	2.25
555	5"	x 5"	x 5"	2.40	2.75
564	5"	x 6"	x 4"	2.22	2.60
685	6"	x 8"	x 5"	3.33	3.75



STANDARD RELAY RACK PANELS

½" Aluminum material. Aluminum 1100 H 14. Notching is Western Electric. Finish — BLACK WRINKLE, GRAY WRINKLE OR HAMMERTONE. ALL PANELS 19" WIDE

No.	Height	Width	Net Price	No.	Height	Width	Net Price
#175	1¾"	x 19"	\$1.09	#14	14"	x 19"	\$4.76
#350	3½"	x 19"	1.42	#1575	15¾"	x 19"	5.34
#525	5¼"	x 19"	1.92	#1750	17½"	x 19"	5.85
#7	7"	x 19"	2.42	#1925	19¼"	x 19"	6.43
#875	8¾"	x 19"	2.84	#21	21"	x 19"	7.01
#1050	10½"	x 19"	3.59	#2425	24¼"	x 19"	9.00
#1225	12¼"	x 19"	4.09	#2625	26¼"	x 19"	10.50



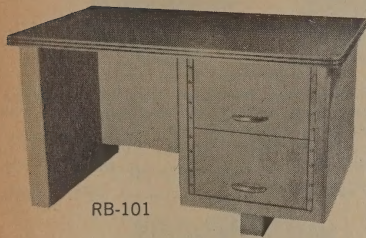
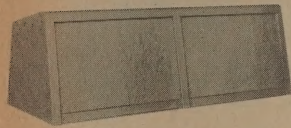
METAL WORKS INCORPORATED

MANUFACTURERS OF ELECTRONIC AND SPECIAL METAL HOUSINGS

CONSOLES FOR INDUSTRY... SCHOOLS... AIRPORTS... BROADCASTING RECORDING... TESTING APPARATUS... FOR 19" RACK PANELS

RB-101 DOUBLE PEDESTAL UNIT

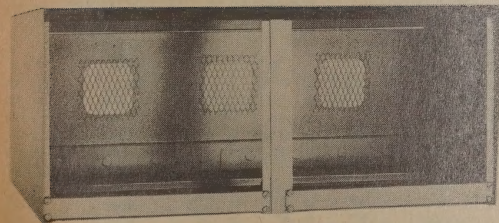
This console is designed for The Dual Turret RBT-101, equivalent to a 30 classroom unit. This unit is equipped with a sliding drawer (PD-1050-16) built in the upper or lower section of the cabinet. A blank panel (PM-1610) is provided in the remaining space. This console has a hard linoleum top trimmed with metal molding.



RB-101

Catalog No.	H	D	W	M	Inside Pedestal Depth	Ship. Wt.
RB-100	29"	30"	26"		27¼"	125
RB-101	29"	30"	53"	23¼"	27¼"	190
RB-102	29"	30"	70"	21½"	27¼"	250

Cat. No.	W	H	WT	WB	PS	No. of Units	Shipping Weight
RBT-100	21¾	15¾	13½	18	12¼	1	40 lbs.
RBT-101	42	15¾	13½	18	12¼	2	65 lbs.
RBT-102	62¼	15¾	13½	18	12¼	3	110 lbs.
RBT-100-1	21¾	17½	12¾	18	14	1	50 lbs.
RBT-101-1	42	17½	12¾	18	14	2	80 lbs.
RBT-102-1	62¼	17½	12¾	18	14	3	130 lbs.
RBT-100-2	21¾	14	11½	15½	10½	1	35 lbs.
RBT-101-2	42	14	11½	15½	10½	2	60 lbs.
RBT-102-2	62¼	14	11½	15½	10½	3	105 lbs.



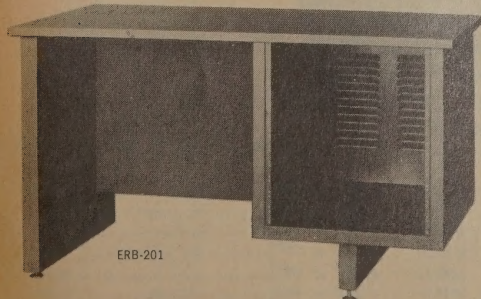
CONSOLES ERB

These units offer 21" of panel space in front and rear of each pedestal. The rear panel is removable and ventilated by two rows of six inch louvers. Both front and rear panel space is punched for Tinnerman speed clips on Western Electric spacing (½" - 1¼").

No drawers or front panels are furnished with the consoles. These can be ordered as separate items. Standard grey linoleum top and stainless steel trim is furnished. Beige linoleum is also available where desired. Standard finish is #4719 Gray Hammerex.

TURRETS ERBT

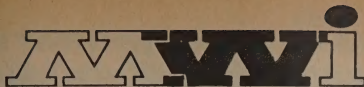
Turrets are offered in three panel heights—10½", 12¼", 14"—in single, double or triple bay to be used with our ERB consoles. Panel space with shadow effect is punched for Tinnerman speed clips on Western Electric spacing (½" - 1¼"). No front panels are furnished. Finished in #4719 Gray Hammerex.



ERB-201

MODEL NO.	HEIGHT LESS LEVELERS	DEPTH	WIDTH	MODESTY PANEL WIDTH	INSIDE PANEL DEPTH	SHIP WT.
ERB-200	29"	30"	26"	—	27¼"	100
ERB-201	29"	30"	53"	26¼"	27¼"	150
ERB-202	29"	30"	70"	26½"	27¼"	200

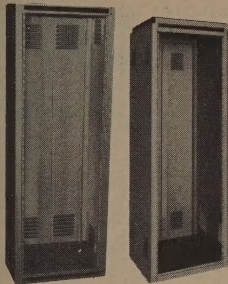
MODEL NO.	W	H FRONT	D	PS	NO. BAYS	SHIP WT.
ERBT-200	19½	15¾	16¼	12¼	1	25
ERBT-201	39¾	15¾	16¼	12¼	2	41
ERBT-202	59½	15¾	16¼	12¼	3	69
ERBT-200-1	19½	17½	16¼	14	1	31
ERBT-201-1	39¾	17½	16¼	14	2	50
ERBT-202-1	59½	17½	16¼	14	3	82
ERBT-200-2	19½	14	16¼	10½	1	22
ERBT-201-2	39¾	14	16¼	10½	2	38
ERBT-202-2	59½	14	16¼	10½	3	66



METAL WORKS INCORPORATED

MANUFACTURERS OF ELECTRONIC AND SPECIAL METAL HOUSINGS

CABINET RELAY RACKS FOR STANDARD 19" RACK PANELS



Cabinet Relay Racks are rigidly constructed of 16 ga. steel. These racks are completely bolted together.

Panel mounting space is recessed 1/4" to give a more modernistic and pleasing appearance. The rear doors swing on rigid slip joint hinges which permit it to be easily removed. The standard type rack has square front vertical corners. The rounded type rack has rounded front vertical corners. The deluxe type rack has a dome top with rounded front vertical corners.

Front door with 1 1/4" depth furnished on request.

Corner trim or stainless steel mounting trim available. Order either separately.

Model	Catalog No.	Height-in.	Width-in.	Depth-in.	Panel Space-in.	Ship. Wt. Lbs.
Standard	SCR-3675	41 1/4"	22 3/4"	18 1/2"	36 3/4"	100
	SCR-4200	46 3/4"	22 3/4"	18 1/2"	42	110
	SCR-6125	65 5/8"	22 3/4"	18 1/2"	61 1/4"	130
	SCR-7000	74 3/8"	22 3/4"	18 1/2"	70	140
	SCR-7700	81 3/8"	22 3/4"	18 1/2"	77	150
Round Corner	RCR-3675	41 1/4"	22 3/4"	18 1/2"	36 3/4"	100
	RCR-4200	46 3/4"	22 3/4"	18 1/2"	42	110
	RCR-6125	65 5/8"	22 3/4"	18 1/2"	61 1/4"	130
	RCR-7000	74 3/8"	22 3/4"	18 1/2"	70	140
	RCR-7700	81 3/8"	22 3/4"	18 1/2"	77	150
DeLuxe	DCR-3675	43	22 3/4"	18 1/2"	36 3/4"	105
	DCR-4200	48 1/4"	22 3/4"	18 1/2"	42	115
	DCR-6125	67 1/4"	22 3/4"	18 1/2"	61 1/4"	135
	DCR-7000	76 1/4"	22 3/4"	18 1/2"	70	145
	DCR-7700	83 3/4"	22 3/4"	18 1/2"	77	155

MSCR MRCR MDCR

For use where our standard SCR-RCR-DCR cabinets are to be installed in series. Panel spacing for matching units in an installation must be the same.

Where series installation is required, an SCR or RCR or DCR must be used as the basic unit. The multi-rack unit consists of a TOP-BOTTOM-CENTER SECTION and REAR DOOR.

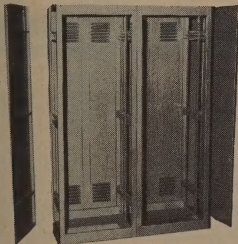
Priced to save you money. Stainless steel panel trim is also available; order separately. Front doors of 1 1/4" depth furnished at extra cost. Order separately.

MATERIAL: 16 ga. CRS

CONSTRUCTION:

1. Panel mounting holes are punched and formed as part of the center section.
2. 10-24 Tinnerman clips, oval head screws and finishing washers furnished for panel space.
3. Assembled w/ 1/4 20 pan head screws and nuts.
4. Rear door swings on slip joint hinges permitting easy removal.
5. Top and bottom furnished with a SS trim strip.
6. Furnished knocked down only.
7. FINISH: GRAY HAMMER—Other colors available on request.

DUPLI-RACK

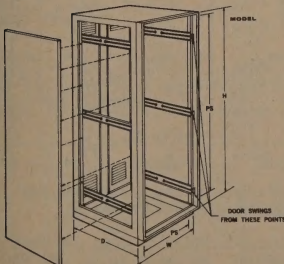


Dupli-rack features a maximum of cabinet space in a minimum of floor space at a savings in cost. To increase the size of an installation, simply remove the detachable side panels, bolt the units together through holes provided, forming a sturdy unit, and slip the detachable side panels on each side. This becomes an attractive installation where the addition of units will always remain the same in color tone and freshness of appearance. Each unit is of weld construction, forming a sturdy and rigid piece of equipment. Basic unit consists of frame and rear door.

SPECIFICATIONS MATERIAL: 16 ga. CRS. Panel mounting angles 11 ga. CRS. CONSTRUCTION: (1) Braze and spotweld assembly. (2) Detachable side panels are formed and supported and fastened by brackets. (3) Louvers provided in rear door. (4) Panel mounting angles drilled and tapped to 10-24 thread on standard 1 1/4" x 1/2" spacing. (5) Locking handle furnished on front door with flush mounted lock and separate handle on rear door.

	Rack with Rear Door			Front Door		Detachable Side Panels	
	Overall Ht.	Panel Space	Ship. Wt. Lbs.	Ship. Wt. Lbs.		Ship. Wt. Lbs. (Per Pair)	
DR-3675	42 7/8"	36 3/4"	100	FDR-36	10	DSP-36	20
DR-4200	48 1/4"	42"	104	FDR-42	12	DSP-42	24
DR-6125	67 3/8"	61 1/4"	120	FDR-61	18	DSP-61	32
DR-7000	76 1/4"	70"	129	FDR-70	20	DSP-70	36
DR-7700	83 3/8"	77"	133	FDR-77	22	DSP-77	40

DUPLI RACK-HEAVY DUTY



Complimenting units to our Dupli Rack (DR) Series where competent weight requires extra structural rigidity. No bolts or screws are visible from the outside.

The basic unit is of heli-arc weld construction and made from heavy 11 gauge. (119) steel to support weight of 1000# or more. Each unit can be bolted to an adjoining unit by removing the detachable side panels, bolting through holes provided, and then replacing the side panels on each end unit.

Supplied as part of the basic unit are a pair of 11 gauge drilled and tapped (10-32) panel angles (HD) plus two pair of support angles (SA-HD) drilled and tapped on same Western Electric spacing as panel angles and a 16 gauge CRS reinforced louvered rear door.

Front doors are box type reinforced with an internal channel and without louvers. Doors swing open on hidden hinges within an attractive anodized aluminum extrusion around entire cabinet front to give a distinct shadow effect.

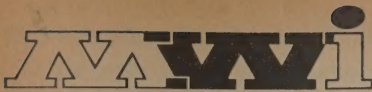
DUPLI RACK — HEAVY DUTY				FDR-HD FRONT DOORS			DSP-HD DETACHABLE SIDE PANEL		
Model No.	Height	Panel Space	Ship. Wt. Lbs.	Model No.	Height	Ship. Wt. Lbs.	Model No.	Height	Ship. Wt. Lbs.
DR-HD-3675	*44 3/8"	36 3/4"	210	FDR-HD-36	37"	17 1/2"	DSP-HD-36	36 7/8"	36 pr.
DR-HD-4200	*49 5/8"	42"	225	FDR-HD-42	42 1/4"	20 3/4"	DSP-HD-42	42 3/8"	40 pr.
DR-HD-6125	*68 7/8"	61 1/4"	275	FDR-HD-61	61 1/4"	28 1/2"	DSP-HD-61	61 3/8"	56 pr.
DR-HD-7000	*77 5/8"	70"	300	FDR-HD-70	70 1/4"	32 3/4"	DSP-HD-70	70 3/8"	62 3/4 pr.
DR-HD-7700	*84 5/8"	77"	320	FDR-HD-77	77 1/4"	35 3/4"	DSP-HD-77	77 3/8"	68 3/4 pr.

*Without casters. With casters add 6 1/2".

Width: 23 3/8", Depth: 24"

Width: 19 1/2", Depth: 1 1/4"

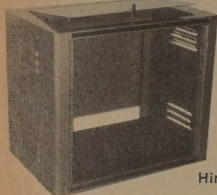
Width: 19 3/8", Depth: 1 1/4"



METAL WORKS INCORPORATED

MANUFACTURERS OF ELECTRONIC AND SPECIAL METAL HOUSINGS

DELUXE DESK CABINET RACKS FOR STANDARD 19" RACK PANELS — 15" DEEP



Hinged Door Back Type

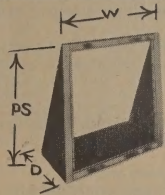
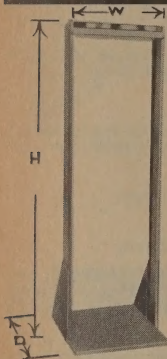
DC SERIES These cabinets are completely welded together to save on assembly time and costs. Panel mounting angles are punched to standard $1\frac{1}{4}$ "- $\frac{1}{2}$ " spacings. Enough 10-24 speed clips and machine screws are furnished to mount several rack panels. To give a more pleasing appearance, the mounting angles are constructed to permit recessing of rack panels. All models have a recessed door on top for easy access to equipment. The six largest sizes have a door in back which permits access from the back. All models have a bright chrome strip on top and bottom of front. Phono drawer PD-1050-14 can be mounted in these cabinets except DC-875.

ARCHITECTS AND ENGINEERS SPECIFICATIONS — MATERIAL: 16 ga. CRS. CONSTRUCTION: 1. Completely welded together for rigidity. 2. Rounded front corners. 3. Panels fastened with Tinnerman clips. 4. 10-24 screws, Tinnerman clips and finish washers furnished. 5. $\frac{3}{4}$ " recessed panel mounting flanges. **FINISH:** Iron phosphate dipped and finished with Silver Gray Hammertone Bake On Enamel. Other colors available.

Catalog No.	Width-in.	Height-in.	Depth-in.	Panel Space-in.	Ship. Wt. Lbs.
DC-875*	22 $\frac{3}{4}$	10 $\frac{1}{2}$	15	8 $\frac{3}{4}$	26
DC-1050*	22 $\frac{3}{4}$	12 $\frac{1}{2}$	15	10 $\frac{1}{2}$	28
DC-1225*	22 $\frac{3}{4}$	14 $\frac{1}{2}$	15	12 $\frac{1}{4}$	30
DC-1400*	22 $\frac{3}{4}$	16 $\frac{1}{2}$	15	14	35
DC-1750	22 $\frac{3}{4}$	19 $\frac{1}{2}$	15	17 $\frac{1}{2}$	38
DC-2100	22 $\frac{3}{4}$	23 $\frac{1}{2}$	15	21	42
DC-2450	22 $\frac{3}{4}$	26 $\frac{1}{2}$	15	24 $\frac{1}{2}$	46
DC-2625	22 $\frac{3}{4}$	28 $\frac{1}{2}$	15	26 $\frac{1}{4}$	48
DC-3150	22 $\frac{3}{4}$	33 $\frac{1}{2}$	15	31 $\frac{1}{2}$	52
DC-3500	22 $\frac{3}{4}$	37 $\frac{1}{2}$	15	35	56

(*) Solid back type.

RELAY RACKS CHANNEL AND TABLE TYPE



TR DESK TYPE

These Table Racks are constructed of heavy No. 16 gauge steel and are completely welded together for strength. Mounting holes are drilled to standard $1\frac{1}{4}$ "- $\frac{1}{2}$ " spacings. All panel mounting hardware is supplied. Each rack is finished in silver gray hammertone and is trimmed with bright chrome molding.

RR CHANNEL TYPE

Channel Relay Racks are constructed of No. 11 ga. steel. The vertical channels are drilled and tapped on $1\frac{1}{4}$ "- $\frac{1}{2}$ " spacing and for No. 10-24 machine screws. Racks are shipped knocked down or assembled. Hardware included. Each rack is finished in silver gray hammertone unless otherwise specified.

Catalog No.	Width-in.	Height-in.	Depth-in.	Panel Space-in.	Ship. Wt. Lbs.
TR-121	22	24	12	21	17
TR-128	22	31	12	28	20

Catalog No.	Width-in.	Height-in.	Depth-in.	Panel Space-in.	Ship. Wt. Lbs.
RR-156	19 $\frac{1}{4}$	61 $\frac{1}{4}$	20	56	70
RR-163	19 $\frac{1}{4}$	68 $\frac{3}{4}$	20	63	80
RR-170	19 $\frac{1}{4}$	75 $\frac{3}{4}$	20	70	90
RR-177	19 $\frac{1}{4}$	82 $\frac{3}{4}$	20	77	100
RR-184	19 $\frac{1}{4}$	89 $\frac{3}{4}$	20	84	110

TRANSMITTER RACKS



STR Standard



DTR Deluxe

Transmitter racks are made to accommodate 19", 24" and 30" rack panels. All models are furnished with front and rear doors.

Rear door opening provides easy access for equipment maintenance and installation. Front door furnishes full covering for dials, knobs, etc., mounted on panels. Front door is provided with a locking handle and rear door with a flush mounted lock and handle. This gives added protection where it is necessary to lock all components.

Slotted channels (3 per side) permit panel mounting angles to be recessed to full cabinet depth by simply tightening screws that hold each angle in place. Stainless steel panel mounting trim available. Order separately.

Finished Silver Gray Hammertone.

CONSTRUCTION:

1. Louvers are provided in sides and rear door—four sets of six louvers each.
2. Assembled with $\frac{1}{4}$ -20 bolts and nuts.

3. Rear doors swing on rigid slip joint hinges. Front doors mounted on continuous hinges.

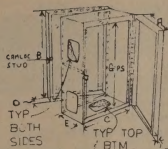
4. All models furnished with stainless steel feature strip (colored) trim.

5. Shipped knocked down unless otherwise requested.

MATERIAL: 16 ga. CRS. Panel mounting angles 16 ga. CRS. Punch for Tinnerman Clips.

Size	Catalog No.	Width-in.	Height-in.	Depth-in.	Panel Space-in.	Ship. Wt. Lbs.
Standard for 19" Panels	STR-3675	23	42	18 $\frac{1}{2}$	36 $\frac{3}{4}$	130
	STR-4200	23	47 $\frac{1}{4}$	18 $\frac{1}{2}$	42	140
	STR-6125	23	66 $\frac{1}{2}$	18 $\frac{1}{2}$	61 $\frac{1}{4}$	150
	STR-7000	23	75 $\frac{1}{4}$	18 $\frac{1}{2}$	70	155
	STR-7700	23	82 $\frac{1}{4}$	18 $\frac{1}{2}$	77	160
For 24" Panels	STR-7024	27 $\frac{7}{8}$	75 $\frac{1}{4}$	24	70	230
	STR-7724	27 $\frac{7}{8}$	82 $\frac{1}{4}$	24	77	245
For 30" Panels	STR-7030	33 $\frac{3}{8}$	75 $\frac{1}{4}$	24	70	250
	STR-7730	33 $\frac{3}{8}$	82 $\frac{1}{4}$	24	77	265
DeLuxe for 19" Panels	DTR-3675	23	43 $\frac{3}{8}$	18 $\frac{1}{2}$	36 $\frac{3}{4}$	135
	DTR-4200	23	49 $\frac{1}{8}$	18 $\frac{1}{2}$	42	145
	DTR-6125	23	68 $\frac{3}{8}$	18 $\frac{1}{2}$	61 $\frac{1}{4}$	155
	DTR-7000	23	77 $\frac{1}{8}$	18 $\frac{1}{2}$	70	160
	DTR-7700	23	84 $\frac{1}{8}$	18 $\frac{1}{2}$	77	160
For 24" Panels	DTR-7024	27 $\frac{7}{8}$	77 $\frac{1}{8}$	24	70	235
	DTR-7724	27 $\frac{7}{8}$	84 $\frac{1}{8}$	24	77	250
For 30" Panels	DTR-7030	33 $\frac{3}{8}$	77 $\frac{1}{8}$	24	70	255
	DTR-7730	33 $\frac{3}{8}$	84 $\frac{1}{8}$	24	77	270

MANUFACTURERS OF ELECTRONIC AND SPECIAL METAL HOUSINGS



This is the **ECONOMY** version of our 193 series Cabinets made for loads not exceeding 50-75 lbs. (depending on location in panel mtg.) where weight of components can be limited. Sections are hinged on the right side via slip joint hinges. Panel mounting holes are punched on W.E. spacing for Timmerman clips. The panel holes are recessed only the thickness of 16 ga. CRS. Front door is 2" deep for knock clearance and is locked with a FLUSH keyed lock. Center section is locked to back via a camlock. Entire unit is locked with one FLUSH lock. If a photo drawer is required, order our PD 1050-14. Ventilation is provided by 4 1/2" x 4 1/2" K.O. and cover w/ perforated metal. K.O. for wiring is provided in back can at top and bottom.

Construction:

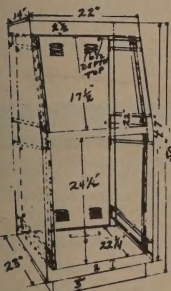
1. All sections spot weld assembled.
 2. Panel mounting holes punched for Tinnermann clips.
 3. Center section 41/4" K.O. covered on inside by perforated metal for maximum heat dissipation.
 4. Entire cabinet locks with one FLUSH lock.
 5. Center section locks via a camlock stud to back section.
 6. All hinges are a slip joint type.
 7. Center section reinforced with corner gussets.
 8. Standard finish is #4719 Gray Hammer-X.
- FINISH: Iron phosphate primed and finished with #4719 Silver Gray Hammer-X.

GR-1001

MATERIAL: 18 ga. CRS except panel mounting angles and these are made of 13 ga. CRS. **CONSTRUCTION:**

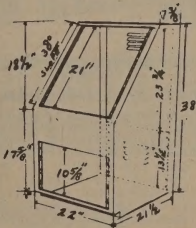
1. Spot welded and brazed throughout.
2. Upper and lower panel mounting angles drilled and tapped to accept screws.
3. All surfaces finished with baked enamel for strength and finish appearance.
4. Rear panel removable, attached with Tinnerman clips and screws.
5. 13 $\frac{1}{4}$ " x 6" rectangular slot punched out of bottom center of rear panel.
6. All reinforced channel iron on sides (3 ca. side) formed from 18 ga. CRS.
7. Channel support panel mounting angles are fastened with $\frac{1}{4}$ " x 20 blind rivets.
8. Casters—four casters per panel; two casters slope up, two sets of two casters each slope down, one set at top and bottom of rear panel.
9. Sides, front and back, and top, are formed with $\frac{3}{8}$ " dia. tubing.
10. Front corners are reinforced with 1" square angle.
11. Inside strength and smooth corners.
12. Four gussets—one on each corner, drilled for mounting 2½" rubber casters.
13. Casters are guaranteed to hold 100 lbs.
14. Casters are available in black or chrome.
15. Heavy duty casters available at extra cost.
14. Cabinet weight—105 lbs.
15. Shipping weight—140 lbs.

Shipped assembled. **FINISH:** Iron powder paint. Colors available include: Harsco's Hartmonte Base On Enamel®. Other colors available.



CR-1005

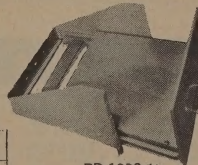
MATERIAL: 16 ga. CRS. CONSTRUCTION: 1. Spot welded and brazed throughout. 2. Upper and lower panel mounting holes are punched standard 1/4" x 1/2" spacing. 3. 10-24 Tinnerman clips, 10-24 oval head screws and finishing screws furnished by Rea and Co. 4. Removable attached with sheet metal screws. 5. Upper panel space has a 38° slope. 6. All corners are square-not rounded. 7. Gabinet strength is not required. 8. A formed panel supporting channel is formed for supporting members. 8. Louvers in fixed lower rear panel are reversed and faced up to help dissipate heat. 9. Shipping weight—110 lbs. FINISH: Iron powder paint. Color—white with silver Gray Hammettone Bake On Enamel. Other colors available.



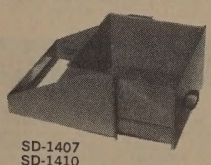
325 SLIDE

Catalog No.	PS	Chassis Size	Shp. Wt.
PD-1050-14-E	10 $\frac{1}{2}$ "	15 $\frac{1}{2}$ "W x 14"D x 3 $\frac{1}{4}$ "H	16 lbs.
PD-1050-16-E	10 $\frac{1}{2}$ "	15 $\frac{1}{2}$ "W x 16"D x 3 $\frac{1}{4}$ "H	18 lbs.
PD-1050-14	10 $\frac{1}{2}$ "	16 $\frac{1}{2}$ "W x 14"D x 3 $\frac{1}{4}$ "H	16 lbs.
PD-1050-16	10 $\frac{1}{2}$ "	16 $\frac{1}{2}$ "W x 16"D x 3 $\frac{1}{4}$ "H	18 lbs.

Finished in Silver Gray Hammertone
with an attractive chrome drawer pull.

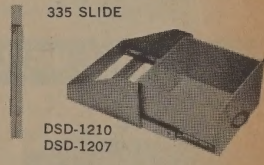


PD-1050-16
PD-1050-14



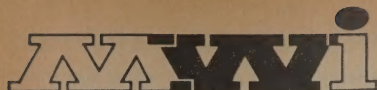
SD-1407
SD-1410

PD-1050-16 or 14 Phono Drawer. The phono drawer is obtainable in two sizes, 14 3/4" o/a depth and 16 3/4" o/a depth. The 14 3/4" o/a depth will fit all cabinets while the 16 3/4" o/a depth can be used in all cabinets except DC & 193 cabinets. Mounted on slides with nylon rim ball bearing rollers, this drawer pushes in and out with ease. Extends a full 12" from front of cabinet. If full extension slide is desired add suffix "E" to these part numbers. Weight load—75 lbs.



DSD-1210
DSD-1207

DSD-1210 or 1207 Deluxe Storage Drawer. The ultimate in storage drawer capacity and convenience. These drawers feature a full extension slide permitting the drawer to be pulled out 15" from cabinet. Smooth operation is provided by ball bearing rollers. Instant drawer removal and positive stopping, positive closing are additional features offered. Weight load—150 lbs.



METAL WORKS INCORPORATED

MANUFACTURERS OF ELECTRONIC AND SPECIAL METAL HOUSINGS

AMPLIFIER CABINETS RACKS AND CONSOLES

RVTB Series

This series of cabinets is a compliment to Metal Works' TB—STB & HTB series. For serviceability of equipment The RVTB offers a swing out panel rack. The panel rack can also be recessed if necessary for knob, handle, etc., clearance.

A fully recessed cabinet which accepts standard 19" rack panels drilled and tapped 10/24 on WE spacing. The panel rack can be reversed to swing out from either side. A 4 3/4" wide full length ventilating partition is provided in the panel rack for maximum heat dissipation. Double cabinet doors are reinforced, double louvered (inside and outside). Doors lay flat against 2 1/4" door trim and are installed with full length piano hinges. Doors recess into trim or frame with no protruding handles or knobs and are locked in closed position with a two point (rods) flush lock.

Entire cabinet is made of steel and is finished in #4719 Gray Hammer-X. Other colors available on request.

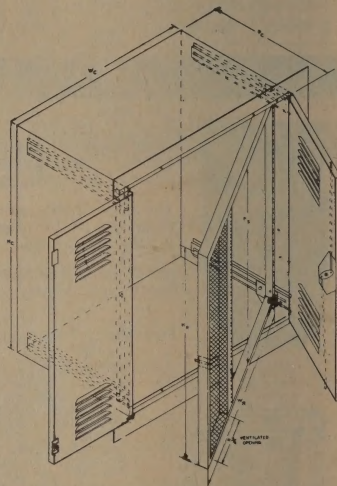
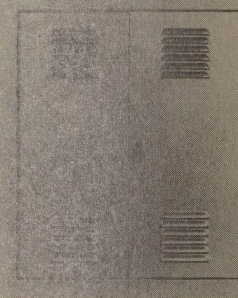
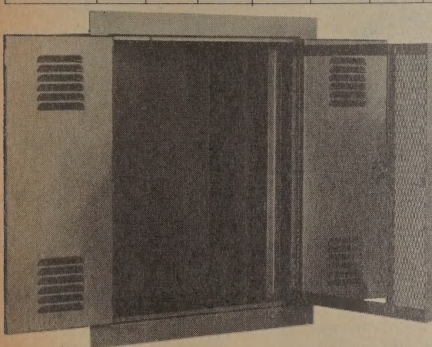
MATERIAL: Back Can—16 ga. CRS
Panel Rack—1 1/4"x1 1/4" Structured steel angles
Ventilated Opening—16-18 ga. Flat expanded CRS
Door Frame—11 ga. HRPO

CONSTRUCTION:

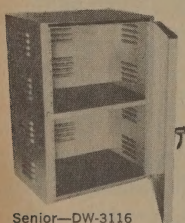
1. Entire cabinet made of steel as specified above.
2. Constructed for full recess wall mounting installation.
3. Rack panel frame drilled and tapped 10-24 on WE spacing, and made of structured steel angle.
4. Rack panel frame provided so that it can swing from either right or left side.
5. Five 1/2" KO provided in top and bottom for 1/2" conduit.
6. Cabinet provided with reinforced double steel two point flush lock doors. Rack panel frame provided with camloc stud on side opposite hinged side so it can be locked in place.

FINISH: Iron phosphate dipped and finished in Silver Gray Hammer-X paint #4719.

Model No.	Cabinet			Rack			Vent Size	Ship Wt.
	H/C	W/C	D/C	H/R	W/R	PS		
RVTB 2100	25 3/8	28	18 1/2	23 3/8	26 3/8	21	4 3/4"x21"	121
RVTB 2625	30 3/8	28	18 1/2	28 3/8	26 3/8	26 3/4	4 3/4"x26 3/4"	148
RVTB 3675	41 3/8	28	18 1/2	39 3/8	26 3/8	36 3/4	4 3/4"x36 3/4"	198
RVTB 5250	57 3/8	28	18 1/2	55 3/8	26 3/8	52 1/2	4 3/4"x52 1/4"	275



DELUXE WALL MOUNTING AMPLIFIER CABINET SENIOR MODEL...JUNIOR MODEL



Senior—DW-3116

Here is a sturdy cabinet designed for housing the new style amplifiers. Completely welded construction with facilities for wall mounting. DW3116 comes complete with cabinet shelf and door with locking handle. Tamper proof inside hinges. Deep enough for the new larger amplifiers and wide enough for amplifiers using plugs on the side. Plenty of ventilation from louvers on sides and back. No shelf in DW-1616

MATERIAL: 16 ga. CRS

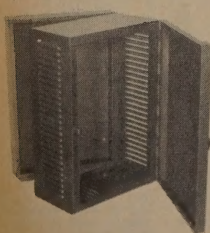
CONSTRUCTION:

1. Completely welded together for rigidity.
2. Panels fastened with Tinnerman clips.
3. 10-24 screws, Tinnerman clips and finish washers furnished.

FINISH: Iron phosphate dipped and finished with Silver Gray Hammer-X. Other colors available.

Catalog No.	Height	Depth	Width	PS	Ship. Wt.
Senior DW-3116	31"	16"	21"	28"	75 lbs.
Junior DW-1616	16 1/8"	16"	21"	14"	50 lbs.

SECTIONAL WALL MOUNTING CABINET 193 SERIES

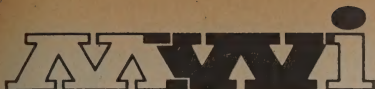


This series of cabinets is designed for maximum installation convenience. Swing out feature of cabinets permit less handling of components on the job or in the shop. Dowel pins and heavy hinge assure you of durability and a greater amount of weight acceptance of components. Camloc studs interlock two sections with a flush lock mounted on front door in sizes A & B and a locking handle in sizes C & D to complete a totally enclosed locking unit. The cabinets are available in four vertical panel sizes. If a phono drawer is required, order PD-1050-14. If a shelf is needed order CS-1207. Additional bracing is provided for rack mounting weight in excess of 250 lbs. Indicate this by prefix WT i.e. (WT 193) and letter size of cabinet. See specifications below.

ARCHITECTS AND ENGINEERS SPECIFICATIONS

MATERIAL: 16 ga. CRS, 11 ga. reinforced angle for wall mounting. CONSTRUCTION: 1. Each section shall be spot welded and brazed at corners for sturdiness. 2. Panel mounting holes shall be tapped for 10-32 threads. 3. Bottom and sides of middle section shall be louvered for maximum heat dissipation. 4. Dowel pins shall be provided to prevent sagging. 5. Each section shall be hinged with a heavy continuous steel hinge. 6. Extra bracing shall be provided when weight of components exceeds 250 lbs. 7. All louvers shall be 6" in length. FINISH: Iron phosphate dipped and finished with Silver Gray Hammer-X. Other colors available.

Model No.	Dimensions								Ship. Weight
	A	B	C	D	E	F	G-ps	D-E-F	
193A	20%	18 1/4"	19 1/4"	4 1/2"	11	1 3/4"	15 1/4"	17 1/4"	50#
193B	20%	31	19 1/4"	4 1/2"	11	1 3/4"	28	17 1/4"	75#
193C	20%	45	19 1/4"	4 1/2"	11	1 3/4"	42	17 1/4"	125#
193D	20%	64 3/4"	19 1/4"	4 1/2"	11	1 3/4"	61 1/4"	17 1/4"	175#



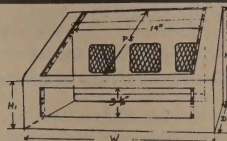
METAL WORKS INCORPORATED

MANUFACTURERS OF ELECTRONIC AND SPECIAL METAL HOUSINGS

INSTRUCTORS TURRETS FOR USE WITH "RB" SERIES — 19" PANELS



The T-103-1, 103-2, 103-3 series of turrets are especially designed for the language lab control unit ensemble. The low slope affords easy vision of the classroom as well as the equipment installed therein. These turrets are the result of considerable study in the field of audio education and are designed with the instructor, as well as maintenance personnel, in mind. Other applications of this turret are feasible where low slope aids vision of dials, meters and switch panel from a standing position. Takes panels:—ARP-123; RP-123; PM-163 or PA-163—lower space. Upper space:—ARP-1217; RP-1217; PM-1617 or PA-1617. Panels not furnished—order separately.



CRS comprise the bottom of each turret. This construction adds rigidity. 6. Front panel, 3 1/2" x 19", is made especially for our SP-1635 switch panel. 7. 17 1/2" panel space in all bays provides ample space for most installations. 8. Panel mounting holes are punched on standard Western Electric spacing. 9. 10/24 oval head screws. Tinnerman clips and finishing washers are furnished. 10. Panel spacing is recessed 3/4" to flush mount panel. FINISH: Iron phosphate dipped and finished with Silver Gray Hammertone Bake On Enamel. Other colors available.

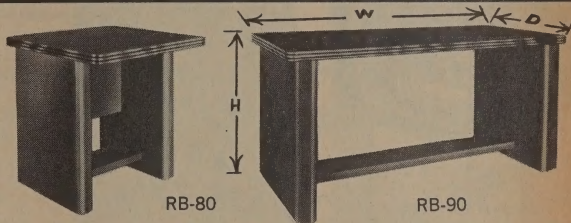
* SPECIFICATIONS

MATERIAL: 18 ga. CRS. **CONSTRUCTION:** 1. Spot weld throughout. 2. Corners brazed for added strength and finished appearance. 3. Removable rear panel for easy access to cabinet components. 4. Five 7/8" knockouts provided in rear of each panel space. These knockouts accommodate 1/2" conduit or pipe. 5. Two 6 1/4" channel irons formed from 18 ga.

Cat. No.	W	H1	H2	D	PS	Shipping Weight
T-103-1	22	6 3/4"	10	20 1/2"	17 1/2"	40 lbs.
T-103-2	42 3/4"	6 3/4"	10	20 1/2"	17 1/2"	65 lbs.
T-103-3	63 3/4"	6 3/4"	10	20 1/2"	17 1/2"	95 lbs.

EQUIPMENT TABLES FOR SMALL OR LARGE DESK EQUIPMENT

Equipment tables are exclusively in the line. They are very handy when small equipment is being used. Models 80-1 — 80-3 have an overhanging top and plenty of knee room and are used for the smaller equipment. Models 90-1 — 90-3 are for larger table mounting equipment and have larger tops for more working area. Top is attractive linoleum with bright metal trim. Finish is modern silver gray hammertone.



Cat. No.	Width-in.	Height-in.	Depth-in.	Ship. Wt. Lbs.
RB-80-1	26	29	26	75
RB-80-2	36	29	26	95
RB-80-3	46 1/2	29	26	120
RB-90-1	53	29	30	120
RB-90-2	60	29	30	130
RB-90-3	70	29	30	150

AMPLIFIER CABINETS RACKS AND CONSOLES

Surface Mounted—STB Series

Same size and panel space as TB listed above. Made for those applications where surface mounting is required. STB Panel Mtg. Angles furnished on request.

Heavy Duty—HTB Series

This cabinet offers adequate panel mounting space for most applications where the above listed TB's are too small. The rack portion of the cabinet is completely removable and mounted on 4 nylon ball bearing slides. The rack will support a maximum of 200 lbs. of weight. Maintenance convenience is offered in that the rack can be pulled forward to afford easy access to all components. Sturdy construction features of this cabinet are incorporated to give you quality in an economical unit. Doors are furnished with locking handles.

STB

MATERIAL: 16 ga. CRS body
11 ga. CRS grille

CONSTRUCTION:

1. All spot weld and braze construction.
2. Panel mounting angles are supported in slotted bracket, adjustable 9/16" front to rear, affording ample clearance for dials, tuning knobs, switches, etc., on TB only.
3. 10 1/2" of maximum panel space.
4. Panel mounting angles are punched for use with Tinnerman clips.

FINISH: Iron phosphate dipped and finished with Silver Gray Hammertone Bake On Enamel. Other colors available.

HTB

MATERIAL: 16 ga. CRS cabinet
1/2" thick angle iron with 11 ga. bracing on rack.

CONSTRUCTION:

1. Spot weld and electric arc construction on cabinet. Electric arc weld on removable rack.
2. Panel mounting angles drilled and tapped for 10/24 thread.
3. Nylon ball bearing slides used on rack.
4. Complete panel mounting rack is removable.
5. Front door made to provide adequate clearance space for dials, knobs, etc.

FINISH: Iron phosphate dipped and finished with Silver Gray Hammertone Bake On Enamel. Other colors available.



STB Series



HTB Series

Catalog No.	Inside			Outside		
	H	W	D	H	W	D
STB-1200	14"	21"	11 1/4"	16"	23"	12"
STB-1500	14"	21"	14 1/8"	16"	23"	15"
STB-1800	14"	21"	17 1/8"	16"	23"	18"

Catalog No.	Height	Cabinet Only		Height	Removable Rack		P.S.	Ship. Wt.
		Width	Depth		Width	Depth		
HTB-1575	19"	21 1/8"	18"	18 3/8"	20 3/8"	16"	15 3/4"	85
HTB-2800	31 1/4"	21 3/4"	18"	30 5/8"	20 3/4"	16"	28"	125
HTB-4200	45 1/4"	21 3/4"	18"	44 5/8"	20 3/4"	16"	42"	175
HTB-6152	64 1/2"	21 3/8"	18"	63 7/8"	20 3/8"	16"	61 1/4"	225

Door frame is 27 1/4" wide or 2 1/2" wider each side than cabinet width. Add 6" to cabinet height for overall height of door frame.

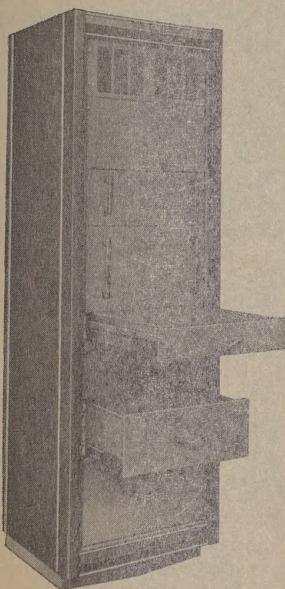
SUPERIOR CHARACTERISTICS OF

PAR-METAL Modular Cabinet Racks

SERIES "PL" RACKS
With Rear Door Only
Equipped with optional
detachable ball cornered
side panels and recessed base.



SERIES "PX" RACKS
With Rear Door Only
with **SOLID SIDE WALLS**
(Recessed base is optional)



SERIES "PR" RACKS
With Rear Door Only
Equipped with optional
flush detachable side
panels and recessed base.

PAR-METAL cabinet racks listed on **Par-Metal Pages 3 to 8** merit your serious consideration. They incorporate many features derived from long experience in the manufacture of electronic housings exclusively.

The distinctive styling and versatile design make them adaptable to many applications. At no time has sturdiness been sacrificed for styling; our emphasis has been on a **rigid, welded assembly** to assure stability and freedom from structural weakness under severe mobile usage.

DESIGN: All sizes listed may be obtained with conventional solid side walls, or with open side walls and detachable side panels. Side shields for use between racks are also available.

Racks are available for 19", 24", and 30" wide panels. Cabinet heights are 48-1/8", 58-5/8", 67-3/8", 76-1/8", 83-1/8" and 90-1/8". Racks 18" and 24" deep are listed. We have facilities to fabricate racks with panel widths to 48", and any depth to 36".

MODULAR GROUPS: All models may be joined into modular groups: cabinets of the same height, in varying panel widths with and without front doors, may be intermixed; Series "PL" racks may be combined with our console units.

MID-RAIL MOUNTING OF PANELS: The panel mounting angles or "strips" are fully adjustable on all racks, and may be positioned at any location from front to back. Additional panel mounting angles may be easily inserted where needed for mounting terminal boards, etc.

VERTICAL SIDE SUPPORTS: These supports provide a simple method for supporting chassis and other equipment in the racks. The means of attaching such brackets is fully adjustable so that chassis may be accurately lined up with the front panels. No drilling or other fabrication is required. The chassis may then be installed or removed with a minimum of effort. The vertical side supports also facilitate the installation of special sliding devices.

ADJUSTABLE FLOOR LEVELERS are supplied with all racks as standard.

SLIDING SHELVES AND DRAWERS: These are constructed for mounting on the front of the racks the same as regular panels.

SLOPING INSTRUMENT PANELS and **EXTENSION DESK TABLES** for single and modular assemblies are available for all modular racks.

ANGULAR SECTION FRAMES are available as standard units for all Modular Cabinet Racks listed on **Par-Metal Pages 3 to 8**, with a choice of 30° or 45° angles.

MODIFICATIONS: Without departing from the basic design of our racks, it is possible to modify them to meet your special requirements. Standard ventilated tops are available. They may also be modified with our standard dies for making openings, louvers, circular holes, etc., in side, tops, bottoms and doors of racks.

All of our products incorporate the same exacting standards of quality and uniformity which we have maintained for over three decades. If you have a specific problem, do not hesitate to consult us. **Personalized and interested engineering assistance is always available.**

ASK YOUR DISTRIBUTOR FOR PAR-METAL PRODUCTS CORP. CATALOG

PAR-METAL**Modular Cabinet Racks****DETAILS OF CONSTRUCTION AND ASSEMBLY**

The cabinet rack illustrated below is our **PL-FL** Series, completely assembled with vertical trim strips and horizontal mouldings at top (and bottom). The ball cornered side panels are also attached.

The same frame is used in our **PR-FR** Series racks. However, the styling is distinctively different, and permits the use of flush side panels. Series **PX-FX** Racks are similar in appearance to the **PR-FR** Series, except that the side walls are an integral part of the rack; separate side panels are not required.

REMOVABLE TOP PANEL: Also available with standard ventilating type panels (Louvers, Perforated Metal, etc.).

DETACHABLE SIDE PANELS:

FRONT MOULDINGS:

• **BOLT RETAINER RAILS:**

To these are bolted the panel mounting angles and vertical side supports, which may be located at any position from front to back. These rails are made from $\frac{1}{4}$ " steel; and are rigidly welded in place. Angles and supports are securely fastened to rails with $\frac{3}{8}$ " diam. steel bolts, lock washers, and hexagon nuts.

• **PANEL MOUNTING ANGLES:**

They are made from $1\frac{1}{2}$ " x $1\frac{1}{2}$ " x $\frac{3}{8}$ " thick structural steel. All holes are die punched to provide accurate spacings with close tolerances; holes are tapped 12/24 thread on $\frac{5}{8}$ "- $\frac{3}{4}$ "- $\frac{1}{2}$ " alternate spacings for standard rack panels. Additional angles may be purchased for mounting terminal blocks or other devices.

Holes tapped 10/32 thread are optional without additional cost.

• **VERTICAL SIDE SUPPORTS:**

These supports are fastened to the same bolt retainer rails used for securing the panel mounting angles. Holes are $\frac{5}{8}$ "- $\frac{3}{4}$ "- $\frac{1}{2}$ " alternate centers, tapped 10/32 thread, provide maximum adjustment for side mounting brackets and equipment shelves. They may also be used for attaching slides or other custom made brackets. The supports are made from $\frac{1}{4}$ " thick steel, locked in place with $\frac{3}{8}$ " diameter screws, lock washers and hexagon nuts, to afford maximum support.

• **SIDE MOUNTING BRACKETS:**

These may be used separately or with shelves as shown. Slotted holes on the brackets provide any vertical adjustment required.

DOORS:

For sake of clarity, racks are not shown on the frame drawing. They are stamped from one piece of $1/16$ " steel, and "dutch-formed" on all sides providing smooth double-thick edges. Adequate ventilation is obtained from full ventilating (venetian-type) louvers. Lock type handles are supplied on racks with both front and rear doors. Non-locking handles are used on racks with rear doors only; locking type handles are optional.

• **OUTLETS:**

"Knockout holes" are available on cabinet side for connecting cables; a duplex outlet and outlet box are mounted on cabinet under rear door.

• **FLOOR LEVELERS:**

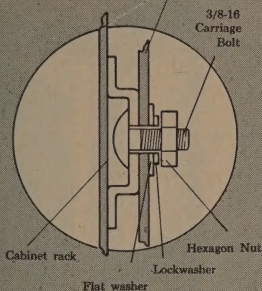
Four are supplied with all modular type racks.

• **RECESSED SUB-BASES:**

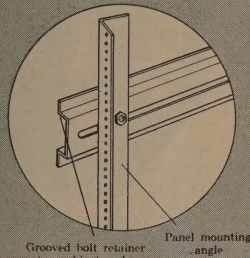
They are available for all modular type racks as an optional accessory.

BOLT RETAINER RAILS

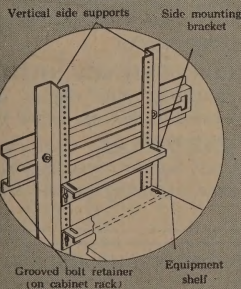
"VS Support or
Panel mtg. angle



PANEL MOUNTING ANGLES

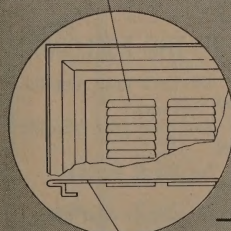


VERTICAL SIDE SUPPORTS



DOORS

Venetian type louvers



Door formed from one piece

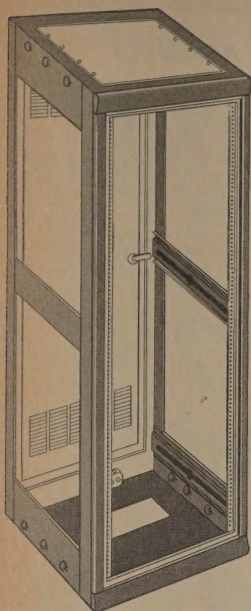
PAR-METAL
PRODUCTS CORP.



PAR-METAL Modular Cabinet Racks

SERIES PL & FL RACKS FOR BALL CORNERED SIDE PANELS

FOR 19" — 24" — 30" WIDE PANELS — 18 $\frac{3}{8}$ " & 24 $\frac{3}{8}$ " DEEP



* SERIES PL RACKS
With Rear Door Only

SERIES PL AND FL CABINET RACKS are attractively styled with built-in custom quality. Ball corners are used not only as a sales feature, but are effectively blended into a functional modular design.

FRAMES: Rack frames are made of #12 gauge steel (0.104") and are securely welded to obtain extra rigidity and stability. Doors are made from one piece of #16 gauge steel (0.059").

PANEL MOUNTING ANGLES: Angles are made from 3/16" structural steel. Hole spacing meets both WE and EIA requirements. Holes are tapped for 12-24 screws, 10-32 tapped holes are optional at no extra cost. Angles are rigidly secured with three 3/8" diameter bolts; angle may be located at any position from front to rear.

DOORS: A louvered rear door is regularly supplied on all racks; on FL racks, an additional front door (less louvres) is supplied. Plain doors, or doors louvered at the top or bottom are optional at no extra cost (See Par-Metal Page 11). Racks 30" wide have double doors with three point latching device in center, to save aisle space.

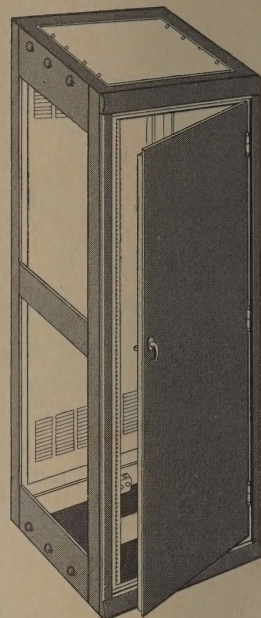
HINGES: Doors are mounted on slip-joint hinges and are easily removable.

HANDLES: Door handles are die cast with chrome plated finish. PL Series with rear doors have non-locking handles. Front and rear doors of FL racks have locking handles with keys. Locking handles may be obtained for PL Series doors at \$1.00 each additional.

TOP PANELS: All racks have removeable blank top panels. Ventilating top panels are available, (see Par-Metal Page 11).

RACK LEVELERS: Four holes are provided for insertion of levelers supplied with each rack.

DRAWINGS: Detailed drawings available for all of these racks.

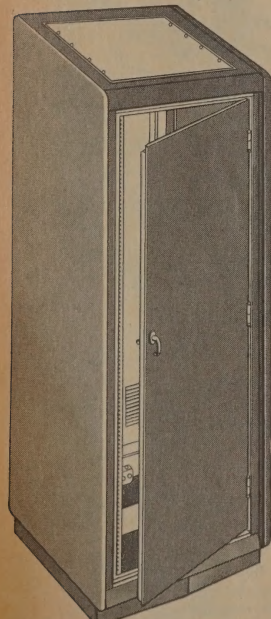


* SERIES FL RACKS
With Front and Rear Doors

RACK BASES: Heavy duty bases are optional at small extra cost. Where roller trucks are used rack bases are not required or recommended.

CONVENIENCE OUTLET: A grounding type duplex outlet is located at the rear below the door.

HARDWARE: All necessary bolts, screws, washers, nuts, and panel mounting screws are included.



SERIES FL RACK equipped
with ball cornered side panels
and recessed base attached.

BEFORE ORDERING PLEASE READ INSTRUCTIONS BELOW:

Specify racks by catalog number; also detachable side panels. (Catalog number of side panels is for one pair). If racks are set up in rows, please specify number in each row, so we can supply proper front joining vertical trims used between adjoining racks.

SPECIFY FINISH YOUR CHOICE OF THE FOLLOWING

"LH" for light grey hammertone enamel.

"DH" for dark grey hammertone enamel.

"LD" for light grey hammertone cabinets with dark grey hammertone trim on front of assembly.

"GM" for dark grey metallic enamel.

"BG" for blue grey wrinkle enamel.

"BW" for black wrinkle enamel.

"PC" for primer coat only.

**SPECIAL ENAMEL AND LACQUER FINISHES
CAN BE SUPPLIED WHERE QUANTITY WARRANTS**

* **BALL CORNERED SIDE PANELS** and **RECESSED BASES** are optional accessories and are available at additional cost (see facing page).

PAR-METAL Modular Cabinet Racks

SERIES PL & FL RACKS FOR BALL CORNERED SIDE PANELS

TYPE "PL" SERIES RACKS — WITH REAR DOORS ONLY

PARTIAL CHECK LIST OF AVAILABLE ACCESSORIES IS LISTED BELOW.

Catalog No.	Height	Width	Depth	Panel Space	* Clear Inside Depth	*** Clear Inside Width Front	Clear Inside Width Rear	Net Price	Side Panels Cat. No. Per Pair See Prices Below	Rack Base Cat. No. See Prices Below	Vertical Side Mounting Supports Cat. No. See Pg. 10 For Prices & Specs.	Side Mounting Brackets Cat. No. See Pg. 10 For Prices & Specs.	Roller Truck Cat. No. See Pg. 22 For Prices & Specs.
FOR 19" WIDE PANELS — 18 3/8" DEEP RACKS													
PL-4818-B	48-1/8"	22-3/32"	18-3/8"	42-1/16"x19-1/8"	16-3/4"	17-3/4"	19-1/8"	\$ 92.00	RL-418-B	RB-2217	VS-42	BR-118	HD-425
PL-5818-B	58-5/8"	22-3/32"	18-3/8"	52-9/16"x19-1/8"	16-3/4"	17-3/4"	19-1/8"	98.00	RL-518-B	RB-2217	VS-52	BR-118	HD-425
PL-6718-B	67-3/8"	22-3/32"	18-3/8"	61-5/16"x19-1/8"	16-3/4"	17-3/4"	19-1/8"	105.00	RL-618-B	RB-2217	VS-61	BR-118	HD-425
PL-7718-B	76-1/8"	22-3/32"	18-3/8"	70-1/16"x19-1/8"	16-3/4"	17-3/4"	19-1/8"	116.75	RL-718-B	RB-2217	VS-70	BR-118	HD-425
PL-8418-B	83-1/8"	22-3/32"	18-3/8"	77-1/16"x19-1/8"	16-3/4"	17-3/4"	19-1/8"	128.50	RL-818-B	RB-2217	VS-77	BR-118	HD-425
FOR 19" WIDE PANELS — 24 3/8" DEEP RACKS													
PL-4824-B	48-1/8"	22-3/32"	24-3/8"	42-1/16"x19-1/8"	22-3/4"	17-3/4"	19-1/8"	110.50	RL-424-B	RB-2223	VS-42	BR-124	HD-426
PL-5824-B	58-5/8"	22-3/32"	24-3/8"	52-9/16"x19-1/8"	22-3/4"	17-3/4"	19-1/8"	118.00	RL-524-B	RB-2223	VS-52	BR-124	HD-426
PL-6724-B	67-3/8"	22-3/32"	24-3/8"	61-5/16"x19-1/8"	22-3/4"	17-3/4"	19-1/8"	126.00	RL-624-B	RB-2223	VS-61	BR-124	HD-426
PL-7724-B	76-1/8"	22-3/32"	24-3/8"	70-1/16"x19-1/8"	22-3/4"	17-3/4"	19-1/8"	137.75	RL-724-B	RB-2223	VS-70	BR-124	HD-426
PL-8424-B	83-1/8"	22-3/32"	24-3/8"	77-1/16"x19-1/8"	22-3/4"	17-3/4"	19-1/8"	152.75	RL-824-B	RB-2223	VS-77	BR-124	HD-426
PL-9024-B	90-1/8"	22-3/32"	24-3/8"	84-1/16"x19-1/8"	22-3/4"	17-3/4"	19-1/8"	167.00	RL-924-B	RB-2223	VS-84	BR-124	HD-426
FOR 24" WIDE PANELS — 24 3/8" DEEP RACKS													
PL-4827-B	48-1/8"	27-3/32"	24-3/8"	42-1/16"x24-1/8"	22-3/4"	22-3/4"	24-1/8"	139.75	RL-424-B	RB-2723	VS-42	BR-124	HD-432
PL-5827-B	58-5/8"	27-3/32"	24-3/8"	52-9/16"x24-1/8"	22-3/4"	22-3/4"	24-1/8"	149.00	RL-524-B	RB-2723	VS-52	BR-124	HD-432
PL-6727-B	67-3/8"	27-3/32"	24-3/8"	61-5/16"x24-1/8"	22-3/4"	22-3/4"	24-1/8"	158.75	RL-624-B	RB-2723	VS-61	BR-124	HD-432
PL-7727-B	76-1/8"	27-3/32"	24-3/8"	70-1/16"x24-1/8"	22-3/4"	22-3/4"	24-1/8"	170.50	RL-724-B	RB-2723	VS-70	BR-124	HD-432
PL-8427-B	83-1/8"	27-3/32"	24-3/8"	77-1/16"x24-1/8"	22-3/4"	22-3/4"	24-1/8"	187.50	RL-824-B	RB-2723	VS-77	BR-124	HD-432
PL-9027-B	90-1/8"	27-3/32"	24-3/8"	84-1/16"x24-1/8"	22-3/4"	22-3/4"	24-1/8"	205.00	RL-924-B	RB-2723	VS-84	BR-124	HD-432
FOR 30" WIDE PANELS — 24 3/8" DEEP RACKS													
PL-4833-B	48-1/8"	33-3/32"	24-3/8"	42-1/16"x30-1/8"	22-3/4"	28-3/4"	30-1/8"	160.00	RL-424-B	RB-3323	VS-42	BR-124	HD-438
PL-5833-B	58-5/8"	33-3/32"	24-3/8"	52-9/16"x30-1/8"	22-3/4"	28-3/4"	30-1/8"	175.00	RL-524-B	RB-3323	VS-52	BR-124	HD-438
PL-6733-B	67-3/8"	33-3/32"	24-3/8"	61-5/16"x30-1/8"	22-3/4"	28-3/4"	30-1/8"	189.50	RL-624-B	RB-3323	VS-61	BR-124	HD-438
PL-7733-B	76-1/8"	33-3/32"	24-3/8"	70-1/16"x30-1/8"	22-3/4"	28-3/4"	30-1/8"	205.50	RL-724-B	RB-3323	VS-70	BR-124	HD-438
PL-8433-B	83-1/8"	33-3/32"	24-3/8"	77-1/16"x30-1/8"	22-3/4"	28-3/4"	30-1/8"	224.25	RL-824-B	RB-3323	VS-77	BR-124	HD-438
PL-9033-B	90-1/8"	33-3/32"	24-3/8"	84-1/16"x30-1/8"	22-3/4"	28-3/4"	30-1/8"	243.00	RL-924-B	RB-3323	VS-84	BR-124	HD-438

TYPE "FL" SERIES RACKS — WITH FRONT AND REAR DOORS

Catalog No.	Height	Width	Depth	Panel Space	** Clear Inside Depth	*** Clear Inside Width Front	Clear Inside Width Rear	Net Price	Side Panels Cat. No. Per Pair See Prices Below	Rack Base Cat. No. See Prices Below	Vertical Side Mounting Supports Cat. No. See Pg. 10 For Prices & Specs.	Side Mounting Brackets Cat. No. See Pg. 10 For Prices & Specs.	Roller Truck Cat. No. See Pg. 22 For Prices & Specs.
FOR 19" WIDE PANELS — 18 3/8" DEEP RACKS													
FL-4818-B	48-1/8"	22-3/32"	18-3/8"	42-1/16"x19-1/8"	16"	17-3/4"	19-1/8"	\$109.25	RL-418-B	RB-2217	VS-42	BR-118	HD-425
FL-5818-B	58-5/8"	22-3/32"	18-3/8"	52-9/16"x19-1/8"	16"	17-3/4"	19-1/8"	119.00	RL-518-B	RB-2217	VS-52	BR-118	HD-425
FL-6718-B	67-3/8"	22-3/32"	18-3/8"	61-5/16"x19-1/8"	16"	17-3/4"	19-1/8"	128.00	RL-618-B	RB-2217	VS-61	BR-118	HD-425
FL-7718-B	76-1/8"	22-3/32"	18-3/8"	70-1/16"x19-1/8"	16"	17-3/4"	19-1/8"	145.25	RL-718-B	RB-2217	VS-70	BR-118	HD-425
FL-8418-B	83-1/8"	22-3/32"	18-3/8"	77-1/16"x19-1/8"	16"	17-3/4"	19-1/8"	157.00	RL-818-B	RB-2217	VS-77	BR-118	HD-425
FOR 19" WIDE PANELS — 24 3/8" DEEP RACKS													
FL-4824-B	48-1/8"	22-3/32"	24-3/8"	42-1/16"x19-1/8"	22"	17-3/4"	19-1/8"	130.75	RL-424-B	RB-2223	VS-42	BR-124	HD-426
FL-5824-B	58-5/8"	22-3/32"	24-3/8"	52-9/16"x19-1/8"	22"	17-3/4"	19-1/8"	140.50	RL-524-B	RB-2223	VS-52	BR-124	HD-426
FL-6724-B	67-3/8"	22-3/32"	24-3/8"	61-5/16"x19-1/8"	22"	17-3/4"	19-1/8"	149.00	RL-624-B	RB-2223	VS-61	BR-124	HD-426
FL-7724-B	76-1/8"	22-3/32"	24-3/8"	70-1/16"x19-1/8"	22"	17-3/4"	19-1/8"	166.75	RL-724-B	RB-2223	VS-70	BR-124	HD-426
FL-8424-B	83-1/8"	22-3/32"	24-3/8"	77-1/16"x19-1/8"	22"	17-3/4"	19-1/8"	181.25	RL-824-B	RB-2223	VS-77	BR-124	HD-426
FL-9024-B	90-1/8"	22-3/32"	24-3/8"	84-1/16"x19-1/8"	22"	17-3/4"	19-1/8"	195.00	RL-924-B	RB-2223	VS-84	BR-124	HD-426
FOR 24" WIDE PANELS — 24 3/8" DEEP RACKS													
FL-4827-B	48-1/8"	27-3/32"	24-3/8"	42-1/16"x24-1/8"	22"	22-3/4"	24-1/8"	160.00	RL-424-B	RB-2723	VS-42	BR-124	HD-432
FL-5827-B	58-5/8"	27-3/32"	24-3/8"	52-9/16"x24-1/8"	22"	22-3/4"	24-1/8"	172.00	RL-524-B	RB-2723	VS-52	BR-124	HD-432
FL-6727-B	67-3/8"	27-3/32"	24-3/8"	61-5/16"x24-1/8"	22"	22-3/4"	24-1/8"	188.00	RL-624-B	RB-2723	VS-61	BR-124	HD-432
FL-7727-B	76-1/8"	27-3/32"	24-3/8"	70-1/16"x24-1/8"	22"	22-3/4"	24-1/8"	199.00	RL-724-B	RB-2723	VS-70	BR-124	HD-432
FL-8427-B	83-1/8"	27-3/32"	24-3/8"	77-1/16"x24-1/8"	22"	22-3/4"	24-1/8"	223.00	RL-824-B	RB-2723	VS-77	BR-124	HD-432
FL-9027-B	90-1/8"	27-3/32"	24-3/8"	84-1/16"x24-1/8"	22"	22-3/4"	24-1/8"	245.00	RL-924-B	RB-2723	VS-84	BR-124	HD-432
FOR 30" WIDE PANELS — 24 3/8" DEEP RACKS													
FL-4833-B	48-1/8"	33-3/32"	24-3/8"	42-1/16"x30-1/8"	22"	28-3/4"	30-1/8"	185.00	RL-424-B	RB-3323	VS-42	BR-124	HD-438
FL-5833-B	58-5/8"	33-3/32"	24-3/8"	52-9/16"x30-1/8"	22"	28-3/4"	30-1/8"	210.00	RL-524-B	RB-3323	VS-52	BR-124	HD-438
FL-6733-B	67-3/8"	33-3/32"	24-3/8"	61-5/16"x30-1/8"	22"	28-3/4"	30-1/8"	231.50	RL-624-B	RB-3323	VS-61	BR-124	HD-438
FL-7733-B	76-1/8"	33-3/32"	24-3/8"	70-1/16"x30-1/8"	22"	28-3/4"	30-1/8"	252.75	RL-724-B	RB-3323	VS-70	BR-124	HD-438
FL-8433-B	83-1/8"	33-3/32"	24-3/8"	77-1/16"x30-1/8"	22"	28-3/4"	30-1/8"	274.00	RL-824-B	RB-3323	VS-77	BR-124	HD-438
FL-9033-B	90-1/8"	33-3/32"	24-3/8"	84-1/16"x30-1/8"	22"	28-3/4"	30-1/8"	293.00	RL-924-B	RB-3323	VS-84	BR-124	HD-438

* ADD 1" to depth for adjacent areas not limited by handle latch. ** ADD 1 3/4" to depth for adjacent areas not limited by handle latches. *** Indicates clearance for chassis between panel mounting angles.

BALL CORNERED SIDE PANELS

These side panels are sturdily constructed from #16 gauge steel; they have formed edges, and are welded at all four corners. They are supplied with coinciding brackets at the bottom for easy alignment with the rack sides. At the top, they are secured with a cowl fastener, making them readily removable. Panels are 1-1/4 inches thick. They are available in all finishes to match racks.

Catalog No.	To Fit Racks	Net Price (per pair)
RL-418-B	PL or FL-4818	\$40.00
RL-518-B	PL or FL-5818	44.20
RL-618-B	PL or FL-6718	48.90
RL-718-B	PL or FL-7718	52.20
RL-818-B	PL or FL-8418	55.80
RL-424-B	PL or FL-4824, 4827, 4833	47.20
RL-524-B	PL or FL-5824, 5827, 5833	51.00
RL-624-B	PL or FL-6724, 6727, 6733	55.80
RL-724-B	PL or FL-7724, 7727, 7733	59.40
RL-824-B	PL or FL-8424, 8427, 8433	62.80
RL-924-B	PL or FL-9024, 9027, 9033	66.20

RECESSED RACK BASES

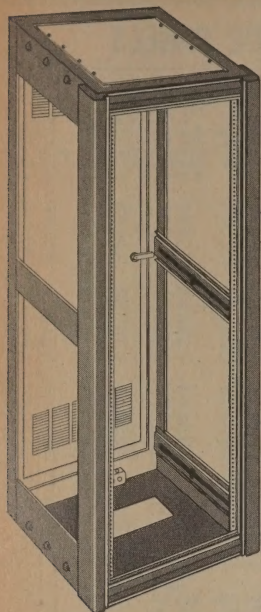
These heavy duty bases are made from #12 gauge (7/64") steel, rigidly formed and welded. Tapped holes are provided on top to match holes in bottom of racks; four adjustable floor levers are mounted on the bottom. Where roller trucks are used with racks, these bases are not required. All bases are 2-1/2" high.

Catalog No.	To Fit All Racks	Net Price
RB-2217	22" wide 18" deep	\$15.00
RB-2223	22" wide 24" deep	16.00
RB-2723	27" wide 24" deep	17.50
RB-3323	33" wide 24" deep	18.75

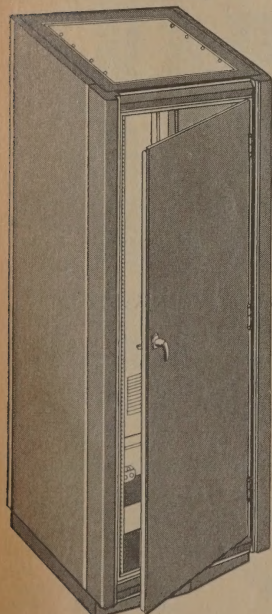
PAR-METAL Modular Cabinet Racks

SERIES PR & FR RACKS FOR FLUSH SIDE PANELS

FOR 19" — 24" — 30" WIDE PANELS — 18 $\frac{3}{8}$ " & 24 $\frac{3}{8}$ " DEEP



* SERIES PR RACKS
With Rear Doors Only



SERIES FR RACK
equipped with flush side panels
and recessed base.

* FLUSH MOUNTED SIDE PANELS and RECESSED BASES are optional accessories and are available at additional cost (see facing page).

SERIES PR AND FR CABINET RACKS have new horizontal mouldings and vertical corner trims on the front of racks, with new compact flush side panels create a distinctive appearance in keeping with the current trend in cabinet styling. In effect, a frame is provided which can be finished in a contrasting color at your option.

FRAMES: Rack frames are made of #12 gauge steel (0.104") and are securely welded to obtain extra rigidity and stability. Doors are made from one piece of #16 gauge steel (0.059"):

PANEL MOUNTING ANGLES: Angles are made from 3/16" structural steel. Hole spacing meets both WE and EIA requirements. Holes are tapped for 12-24 screws, 10-32 tapped holes are optional at no extra cost. Angles are rigidly secured with three 3/8" diameter bolts; angle may be located at any position from front to rear.

DOORS: A louvered rear door is regularly supplied on all racks; on FR racks an additional front door (less louvers) is supplied. Plain doors, or doors louvered at the top or bottom are optional at no extra cost (see Par-Metal Page 11). Racks 30" wide have double doors with three point latching device in center, to save aisle space.

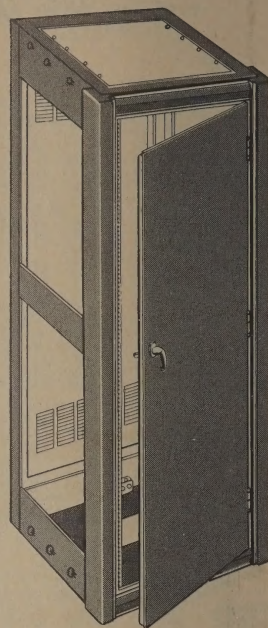
HINGES: Doors are mounted on slip-joint hinges and are easily removable.

HANDLES: Door handles are die cast with chrome plated finish. PR Series rear doors have non-locking handles. Front and rear doors of FR Series racks have locking handles with keys. Locking handles may be obtained for PR Series doors at \$1.00 each additional.

TOP PANELS: All racks have removeable blank top panels. Ventilating top panels are available, (see Par-Metal Page 11).

RACK LEVELERS: Four holes are provided for insertion of levelers supplied with each rack.

DRAWINGS: Detailed drawings available for all racks.



* SERIES FR RACKS
With Front and Rear Doors

RACK BASES: Heavy duty bases are optional at small extra cost. Where roller trucks are used rack bases are not required or recommended.

CONVENIENCE OUTLET: A grounding type duplex outlet is located at the rear below the door.

HARDWARE: All necessary bolts, screws, washers, nuts, and panel mounting screws are included.

BEFORE ORDERING PLEASE READ INSTRUCTIONS BELOW:

Specify racks by catalog number; also detachable side panels. (Catalog number of side panels is for one pair). If racks are set up in rows, please specify number in each row, so we can supply proper front joining vertical trims used between adjoining racks.

SPECIFY FINISH YOUR CHOICE OF THE FOLLOWING

"LH" for light grey hammertone enamel.

"DH" for dark grey hammertone enamel.

"LD" for light grey hammertone cabinets with dark grey hammertone trim on front of assembly.

"GM" for dark grey metallic enamel.

"BG" for blue grey wrinkle enamel.

"BW" for black wrinkle enamel.

"PC" for primer coat only.

**SPECIAL ENAMEL AND LACQUER FINISHES
CAN BE SUPPLIED WHERE QUANTITY WARRANTS**

PAR-METAL Modular Cabinet Racks

SERIES PR & FR RACKS FOR FLUSH SIDE PANELS

TYPE "PR" SERIES RACKS — WITH REAR DOORS ONLY

PARTIAL CHECK LIST OF AVAILABLE ACCESSORIES IS LISTED BELOW

Catalog No.	Height	Width	Depth	Panel Space	* Clear Inside Depth	*** Clear Inside Width Front	Clear Inside Width Rear	Net Price	Side Panels Cat. No. Per Pair See Prices Below	Rack Base Cat. No. See Prices Below	Vertical Side Supports Cat. No. See Pg. 10 For Prices & Specs.	Side Mounting Brackets Cat. No. See Pg. 10 For Prices & Specs.	Roller Truck Cat. No. See Pg. 22 For Prices & Specs.
FOR 19" WIDE PANELS — 183/8"													
PR-4818-B	48-1/8"	22-3/32"	18-3/8"	42-1/16"x19-1/8"	16-3/4"	17-3/4"	19-1/8"	\$ 80.60	RS-418-B	RB-2217	VS-42	BR-118	HD-425
PR-5818-B	58-5/8"	22-3/32"	18-3/8"	52-9/16"x19-1/8"	16-3/4"	17-3/4"	19-1/8"	86.25	RS-518-B	RB-2217	VS-52	BR-118	HD-425
PR-6718-B	67-3/8"	22-3/32"	18-3/8"	61-5/16"x19-1/8"	16-3/4"	17-3/4"	19-1/8"	92.20	RS-618-B	RB-2217	VS-61	BR-118	HD-425
PR-7718-B	76-1/8"	22-3/32"	18-3/8"	70-1/16"x19-1/8"	16-3/4"	17-3/4"	19-1/8"	103.80	RS-718-B	RB-2217	VS-70	BR-118	HD-425
PR-8418-B	83-1/8"	22-3/32"	18-3/8"	77-1/16"x19-1/8"	16-3/4"	17-3/4"	19-1/8"	115.20	RS-818-B	RB-2217	VS-77	BR-118	HD-425
FOR 19" WIDE PANELS — 243/8"													
PR-4824-B	48-1/8"	22-3/32"	24-3/8"	42-1/16"x19-1/8"	22-3/4"	17-3/4"	19-1/8"	97.70	RS-424-B	RB-2223	VS-42	BR-124	HD-426
PR-5824-B	58-5/8"	22-3/32"	24-3/8"	52-9/16"x19-1/8"	22-3/4"	17-3/4"	19-1/8"	105.00	RS-524-B	RB-2223	VS-52	BR-124	HD-426
PR-6724-B	67-3/8"	22-3/32"	24-3/8"	61-5/16"x19-1/8"	22-3/4"	17-3/4"	19-1/8"	112.00	RS-624-B	RB-2223	VS-61	BR-124	HD-426
PR-7724-B	76-1/8"	22-3/32"	24-3/8"	70-1/16"x19-1/8"	22-3/4"	17-3/4"	19-1/8"	123.50	RS-724-B	RB-2223	VS-70	BR-124	HD-426
PR-8424-B	83-1/8"	22-3/32"	24-3/8"	77-1/16"x19-1/8"	22-3/4"	17-3/4"	19-1/8"	138.30	RS-824-B	RB-2223	VS-77	BR-124	HD-426
PR-9024-B	90-1/8"	22-3/32"	24-3/8"	84-1/16"x19-1/8"	22-3/4"	17-3/4"	19-1/8"	153.00	RS-924-B	RB-2223	VS-84	BR-124	HD-426
FOR 24" WIDE PANELS — 243/8"													
PR-4827-B	48-1/8"	27-3/32"	24-3/8"	42-1/16"x24-1/8"	22-3/4"	22-3/4"	24-1/8"	126.20	RS-424-B	RB-2723	VS-42	BR-124	HD-432
PR-5827-B	58-5/8"	27-3/32"	24-3/8"	52-9/16"x24-1/8"	22-3/4"	22-3/4"	24-1/8"	136.70	RS-524-B	RB-2723	VS-52	BR-124	HD-432
PR-6727-B	67-3/8"	27-3/32"	24-3/8"	61-5/16"x24-1/8"	22-3/4"	22-3/4"	24-1/8"	143.80	RS-624-B	RB-2723	VS-61	BR-124	HD-432
PR-7727-B	76-1/8"	27-3/32"	24-3/8"	70-1/16"x24-1/8"	22-3/4"	22-3/4"	24-1/8"	155.30	RS-724-B	RB-2723	VS-70	BR-124	HD-432
PR-8427-B	83-1/8"	27-3/32"	24-3/8"	77-1/16"x24-1/8"	22-3/4"	22-3/4"	24-1/8"	172.30	RS-824-B	RB-2723	VS-77	BR-124	HD-432
PR-9027-B	90-1/8"	27-3/32"	24-3/8"	84-1/16"x24-1/8"	22-3/4"	22-3/4"	24-1/8"	190.00	RS-924-B	RB-2723	VS-84	BR-124	HD-432
FOR 30" WIDE PANELS — 243/8"													
PR-4833-B	48-1/8"	33-3/32"	24-3/8"	42-1/16"x30-1/8"	22-3/4"	28-3/4"	30-1/8"	147.50	RS-424-B	RB-3323	VS-42	BR-124	HD-438
PR-5833-B	58-5/8"	33-3/32"	24-3/8"	52-9/16"x30-1/8"	22-3/4"	28-3/4"	30-1/8"	160.00	RS-524-B	RB-3323	VS-52	BR-124	HD-438
PR-6733-B	67-3/8"	33-3/32"	24-3/8"	61-5/16"x30-1/8"	22-3/4"	28-3/4"	30-1/8"	173.20	RS-624-B	RB-3323	VS-61	BR-124	HD-438
PR-7733-B	76-1/8"	33-3/32"	24-3/8"	70-1/16"x30-1/8"	22-3/4"	28-3/4"	30-1/8"	189.00	RS-724-B	RB-3323	VS-70	BR-124	HD-438
PR-8433-B	83-1/8"	33-3/32"	24-3/8"	77-1/16"x30-1/8"	22-3/4"	28-3/4"	30-1/8"	207.40	RS-824-B	RB-3323	VS-77	BR-124	HD-438
PR-9033-B	90-1/8"	33-3/32"	24-3/8"	84-1/16"x30-1/8"	22-3/4"	28-3/4"	30-1/8"	225.00	RS-924-B	RB-3323	VS-84	BR-124	HD-438

TYPE "FR" SERIES RACKS — WITH FRONT AND REAR DOORS

Catalog No.	Height	Width	Depth	Panel Space	** Clear Inside Depth	*** Clear Inside Width Front	Clear Inside Width Rear	Net Price	Side Panels Cat. No. Per Pair See Prices Below	Rack Base Cat. No. See Prices Below	Vertical Side Supports Cat. No. See Pg. 10 For Prices & Specs.	Side Mounting Brackets Cat. No. See Pg. 10 For Prices & Specs.	Roller Truck Cat. No. See Pg. 22 For Prices & Specs.
FOR 19" WIDE PANELS — 183/8"													
FR-4818-B	48-1/8"	22-3/32"	18-3/8"	42-1/16"x19-1/8"	16"	17-3/4"	19-1/8"	\$ 97.70	RS-418-B	RB-2217	VS-42	BR-118	HD-425
FR-5818-B	58-5/8"	22-3/32"	18-3/8"	52-9/16"x19-1/8"	16"	17-3/4"	19-1/8"	107.50	RS-518-B	RB-2217	VS-52	BR-118	HD-425
FR-6718-B	67-3/8"	22-3/32"	18-3/8"	61-5/16"x19-1/8"	16"	17-3/4"	19-1/8"	115.20	RS-618-B	RB-2217	VS-61	BR-118	HD-425
FR-7718-B	76-1/8"	22-3/32"	18-3/8"	70-1/16"x19-1/8"	16"	17-3/4"	19-1/8"	132.20	RS-718-B	RB-2217	VS-70	BR-118	HD-425
FR-8418-B	83-1/8"	22-3/32"	18-3/8"	77-1/16"x19-1/8"	16"	17-3/4"	19-1/8"	143.80	RS-818-B	RB-2217	VS-77	BR-118	HD-425
FOR 19" WIDE PANELS — 243/8"													
FR-4824-B	48-1/8"	22-3/32"	24-3/8"	42-1/16"x19-1/8"	22"	17-3/4"	19-1/8"	118.00	RS-424-B	RB-2223	VS-42	BR-124	HD-426
FR-5824-B	58-5/8"	22-3/32"	24-3/8"	52-9/16"x19-1/8"	22"	17-3/4"	19-1/8"	128.50	RS-524-B	RB-2223	VS-52	BR-124	HD-426
FR-6724-B	67-3/8"	22-3/32"	24-3/8"	61-5/16"x19-1/8"	22"	17-3/4"	19-1/8"	134.90	RS-624-B	RB-2223	VS-61	BR-124	HD-426
FR-7724-B	76-1/8"	22-3/32"	24-3/8"	70-1/16"x19-1/8"	22"	17-3/4"	19-1/8"	152.50	RS-724-B	RB-2223	VS-70	BR-124	HD-426
FR-8424-B	83-1/8"	22-3/32"	24-3/8"	77-1/16"x19-1/8"	22"	17-3/4"	19-1/8"	166.80	RS-824-B	RB-2223	VS-77	BR-124	HD-426
FR-9024-B	90-1/8"	22-3/32"	24-3/8"	84-1/16"x19-1/8"	22"	17-3/4"	19-1/8"	181.50	RS-924-B	RB-2223	VS-84	BR-124	HD-426
FOR 24" WIDE PANELS — 243/8"													
FR-4827-B	48-1/8"	27-3/32"	24-3/8"	42-1/16"x24-1/8"	22"	22-3/4"	24-1/8"	146.50	RS-424-B	RB-2723	VS-42	BR-124	HD-432
FR-5827-B	58-5/8"	27-3/32"	24-3/8"	52-9/16"x24-1/8"	22"	22-3/4"	24-1/8"	162.20	RS-524-B	RB-2723	VS-52	BR-124	HD-432
FR-6727-B	67-3/8"	27-3/32"	24-3/8"	61-5/16"x24-1/8"	22"	22-3/4"	24-1/8"	172.90	RS-624-B	RB-2723	VS-61	BR-124	HD-432
FR-7727-B	76-1/8"	27-3/32"	24-3/8"	70-1/16"x24-1/8"	22"	22-3/4"	24-1/8"	183.80	RS-724-B	RB-2723	VS-70	BR-124	HD-432
FR-8427-B	83-1/8"	27-3/32"	24-3/8"	77-1/16"x24-1/8"	22"	22-3/4"	24-1/8"	207.40	RS-824-B	RB-2723	VS-77	BR-124	HD-432
FR-9027-B	90-1/8"	27-3/32"	24-3/8"	84-1/16"x24-1/8"	22"	22-3/4"	24-1/8"	218.50	RS-924-B	RB-2723	VS-84	BR-124	HD-432
FOR 30" WIDE PANELS — 243/8"													
FR-4833-B	48-1/8"	33-3/32"	24-3/8"	42-1/16"x30-1/8"	22"	28-3/4"	30-1/8"	180.00	RS-424-B	RB-3323	VS-42	BR-124	HD-438
FR-5833-B	58-5/8"	33-3/32"	24-3/8"	52-9/16"x30-1/8"	22"	28-3/4"	30-1/8"	197.50	RS-524-B	RB-3323	VS-52	BR-124	HD-438
FR-6733-B	67-3/8"	33-3/32"	24-3/8"	61-5/16"x30-1/8"	22"	28-3/4"	30-1/8"	215.20	RS-624-B	RB-3323	VS-61	BR-124	HD-438
FR-7733-B	76-1/8"	33-3/32"	24-3/8"	70-1/16"x30-1/8"	22"	28-3/4"	30-1/8"	236.20	RS-724-B	RB-3323	VS-70	BR-124	HD-438
FR-8433-B	83-1/8"	33-3/32"	24-3/8"	77-1/16"x30-1/8"	22"	28-3/4"	30-1/8"	257.20	RS-824-B	RB-3323	VS-77	BR-124	HD-438
FR-9033-B	90-1/8"	33-3/32"	24-3/8"	84-1/16"x30-1/8"	22"	28-3/4"	30-1/8"	275.00	RS-924-B	RB-3323	VS-84	BR-124	HD-438

* Add 1" to depth for adjacent areas not limited by handle latch. ** Add 1 1/4" to depth for adjacent areas not limited by handle latches. *** Indicates clearance for chassis between panel mounting angles.

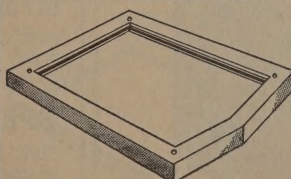
FLUSH MOUNTED SIDE PANELS

Side panels are sturdily constructed from #16 gauge steel; they have formed edges, and are welded at all four corners. The vertical edges are trimmed with recessed stainless steel mouldings to harmonize with the styling of the front of the rack.

They are supplied with coinciding brackets at the bottom, for easy alignment with the rack sides. At the top, they are secured with a cowl type fastener, making them readily removable. Panels are 3/4" thick. They are available in all finishes to match racks.

Catalog No.	To Fit Racks	Net Price (per pair)
RS-418-B	PR or FR-4818	\$34.50
RS-518-B	PR or FR-5818	38.70
RS-618-B	PR or FR-6718	41.40
RS-718-B	PR or FR-7718	44.70
RS-818-B	PR or FR-8418	48.30
RS-424-B	PR or FR-4824, 4827, 4833	41.70
RS-524-B	PR or FR-5824, 5827, 5833	45.90
RS-624-B	PR or FR-6724, 6727, 6733	48.30
RS-724-B	PR or FR-7724, 7727, 7733	51.90
RS-824-B	PR or FR-8424, 8427, 8433	55.10
RS-924-B	PR or FR-9024, 9027, 9033	58.30

RECESSED RACK BASES



These heavy duty bases are made from #12 gauge (7/64") steel, rigidly formed and welded. Tapped holes are provided on top to match holes in bottom of racks; four adjustable floor levers are mounted on the bottom. Where roller trucks are used with racks, these bases are not required.

All bases are 2-1/2" high.

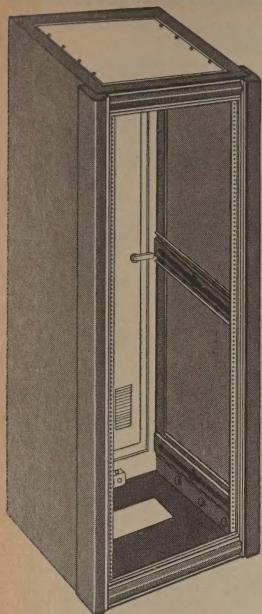
Catalog No.	To Fit All Racks	Net Price
RB-2217	22" wide 18" deep	\$15.00
RB-2223	22" wide 24" deep	16.00
RB-2723	27" wide 24" deep	17.50
RB-3323	33" wide 24" deep	18.75

ASK YOUR DISTRIBUTOR FOR PAR-METAL PRODUCTS CORP. CATALOG

PAR-METAL Modular Cabinet Racks

SERIES PX & FX RACKS WITH SOLID SIDE WALLS

FOR 19" — 24" — 30" WIDE PANELS — 18¼" & 24¼" DEEP



* SERIES PX RACKS
With Rear Door Only

SERIES PX AND FX RACKS are similar to our *PR* Racks listed on *Par-Metal* Pages 5 and 6 except that they are constructed with **SOLID SIDE WALLS** as shown. Where open side racks are not required, the cost of detachable side panels is eliminated.

These racks feature the same horizontal mouldings and corner trims used on our *PR* Series, resulting in a trim, compact appearance. The new styling, in effect, provides an attractive frame around the front of the rack where contrasting color finishes are used.

RACK CONSTRUCTION: The front, sides and doors are made from #16 gauge steel (0.059"). Trims are #18 gauge steel (0.048"). All other parts including the top and bottom are made from #12 gauge steel (0.104") securely welded for rigidity and stability.

PANEL MOUNTING ANGLES: Angles are made from 3/16" structural steel. Hole spacing meets both WE and EIA requirements. Holes are tapped for 12-24 screws, 10-32 tapped holes are optional at no extra cost. Angles are rigidly secured with three 3/8" diameter bolts; angle may be located at any position from front to rear.

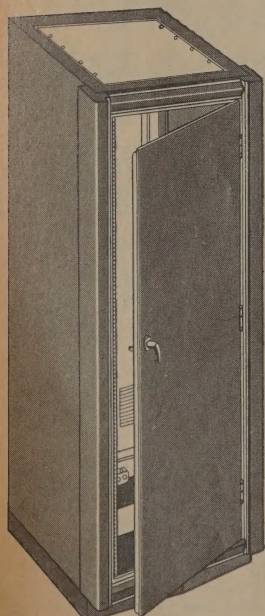
DOORS: A louvered rear door is regularly supplied on all racks; on *FX* racks, an additional front door (less louvers) is supplied. Plain doors, or doors louvered at the top or bottom are optional at no extra cost (See *Par-Metal* Page 11). Racks 30" wide have double doors with three point latching devices in center, to save aisle space.

HINGES: Doors are mounted on slip-joint hinges and are easily removable.

HANDLES: Door handles are die cast with chrome plated finish. *PX* Series doors have non-locking handles. Front and rear doors of *FX* racks have locking handles with keys. Locking handles may be obtained for *PX* Series doors at \$1.00 each additional.

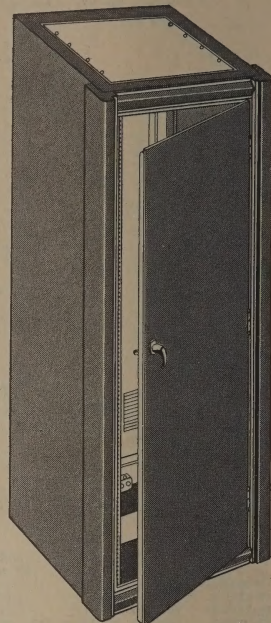
TOP PANELS: All racks have removable blank top panels. Ventilating top panels are available, (see *Par-Metal* Page 11).

RACK LEVELERS: Four holes are provided for insertion of levelers supplied with each rack.



SERIES FX RACKS
equipped with
recessed base

* The **RECESSED BASE** is an optional accessory and is available at an additional cost (see opposite page).



* SERIES FX RACKS
With Front and Rear Doors

RACK BASES: Heavy duty bases are optional at small extra cost. Where roller trucks are used rack bases are not required or recommended.

CONVENIENCE OUTLET: A grounding type duplex outlet is located at the rear below the door.

HARDWARE: All necessary bolts, screws, washers, nuts, and panel mounting screws are included.

DRAWINGS: Detailed drawings are available for all these racks.

BEFORE ORDERING PLEASE READ INSTRUCTIONS BELOW:

Specify racks by catalog number. If racks are set up in rows, please specify number in each row, so we can supply proper front joining vertical trims used between adjoining racks.

SPECIFY FINISH YOUR CHOICE OF THE FOLLOWING

"*LH*" for light grey hammertone enamel.

"*DH*" for dark grey hammertone enamel.

"*LD*" for light grey hammertone cabinets with dark grey hammertone trim on front of assembly.

"*GM*" for dark grey metallic enamel.

"*BG*" for blue grey wrinkle enamel.

"*BW*" for black wrinkle enamel.

"*PC*" for primer coat only.

**SPECIAL ENAMEL AND LACQUER FINISHES
CAN BE SUPPLIED WHERE QUANTITY WARRANTS**

PAR-METAL Modular Cabinet Racks

SERIES PX & FX RACKS WITH SOLID SIDE WALLS

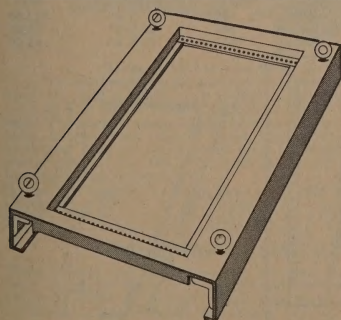
TYPE "PX" SERIES RACKS — WITH REAR DOORS ONLY

Catalog No.	Height	Width	Depth	Panel Space	* Clear Inside Depth	*** Clear Inside Width Front	Clear Inside Width Rear	Net Price	PARTIAL CHECK LIST OF AVAILABLE ACCESSORIES IS LISTED BELOW.			
									Rack Base Catalog No. See Prices Below	Vertical Side Supports Catalog No. See Pg. 10 for Prices & Specs.	Side Mounting Brackets Catalog No. See Pg. 10 for Prices & Specs.	Roller Trunk Catalog No. See Pg. 22 for Prices & Specs.
FOR 19" WIDE PANELS — 18 1/4" DEEP RACKS												
PX-3718-B	42-7/8"	22"	18 1/4"	36-13/16"x19-1/8"	16-3/4"	17-3/4"	19-1/8"	\$ 69.00	RB-2217	VS-36	BR-118	HD-412
PX-4818-B	48-1/8"	22"	18 1/4"	42-1/16"x19-1/8"	16-3/4"	17-3/4"	19-1/8"	80.60	RB-2217	VS-42	BR-118	HD-412
PX-5818-B	58-5/8"	22"	18 1/4"	52-9/16"x19-1/8"	16-3/4"	17-3/4"	19-1/8"	86.25	RB-2217	VS-52	BR-118	HD-412
PX-6718-B	67-3/8"	22"	18 1/4"	61-5/16"x19-1/8"	16-3/4"	17-3/4"	19-1/8"	92.20	RB-2217	VS-61	BR-118	HD-412
PX-7718-B	76-1/8"	22"	18 1/4"	70-1/16"x19-1/8"	16-3/4"	17-3/4"	19-1/8"	103.80	RB-2217	VS-70	BR-118	HD-412
PX-8418-B	83-1/8"	22"	18 1/4"	77-1/16"x19-1/8"	16-3/4"	17-3/4"	19-1/8"	115.20	RB-2217	VS-77	BR-118	HD-412
FOR 19" WIDE PANELS — 24 1/4" DEEP RACKS												
PX-4824-B	48-1/8"	22"	24 1/4"	42-1/16"x19-1/8"	22-3/4"	17-3/4"	19-1/8"	97.70	RB-2223	VS-42	BR-124	HD-420
PX-5824-B	58-5/8"	22"	24 1/4"	52-9/16"x19-1/8"	22-3/4"	17-3/4"	19-1/8"	105.00	RB-2223	VS-52	BR-124	HD-420
PX-6724-B	67-3/8"	22"	24 1/4"	61-5/16"x19-1/8"	22-3/4"	17-3/4"	19-1/8"	112.00	RB-2223	VS-61	BR-124	HD-420
PX-7724-B	76-1/8"	22"	24 1/4"	70-1/16"x19-1/8"	22-3/4"	17-3/4"	19-1/8"	123.50	RB-2223	VS-70	BR-124	HD-420
PX-8424-B	83-1/8"	22"	24 1/4"	77-1/16"x19-1/8"	22-3/4"	17-3/4"	19-1/8"	138.30	RB-2223	VS-77	BR-124	HD-420
PX-9024-B	90-1/8"	22"	24 1/4"	84-1/16"x19-1/8"	22-3/4"	17-3/4"	19-1/8"	153.00	RB-2223	VS-84	BR-124	HD-420
FOR 24" WIDE PANELS — 24 1/4" DEEP RACKS												
PX-4827-B	48-1/8"	27"	24 1/4"	42-1/16"x24-1/8"	22-3/4"	22-3/4"	24-1/8"	126.20	RB-2723	VS-42	BR-124	HD-427
PX-5827-B	58-5/8"	27"	24 1/4"	52-9/16"x24-1/8"	22-3/4"	22-3/4"	24-1/8"	136.70	RB-2723	VS-52	BR-124	HD-427
PX-6727-B	67-3/8"	27"	24 1/4"	61-5/16"x24-1/8"	22-3/4"	22-3/4"	24-1/8"	143.80	RB-2723	VS-61	BR-124	HD-427
PX-7727-B	76-1/8"	27"	24 1/4"	70-1/16"x24-1/8"	22-3/4"	22-3/4"	24-1/8"	155.30	RB-2723	VS-70	BR-124	HD-427
PX-8427-B	83-1/8"	27"	24 1/4"	77-1/16"x24-1/8"	22-3/4"	22-3/4"	24-1/8"	172.30	RB-2723	VS-77	BR-124	HD-427
PX-9027-B	90-1/8"	27"	24 1/4"	84-1/16"x24-1/8"	22-3/4"	22-3/4"	24-1/8"	190.00	RB-2723	VS-84	BR-124	HD-427
FOR 30" WIDE PANELS — 24 1/4" DEEP RACKS												
PX-4833-B	48-1/8"	33"	24 1/4"	42-1/16"x30-1/8"	22-3/4"	28-3/4"	30-1/8"	147.50	RB-3323	VS-42	BR-124	HD-434
PX-5833-B	58-5/8"	33"	24 1/4"	52-9/16"x30-1/8"	22-3/4"	28-3/4"	30-1/8"	160.00	RB-3323	VS-52	BR-124	HD-434
PX-6733-B	67-3/8"	33"	24 1/4"	61-5/16"x30-1/8"	22-3/4"	28-3/4"	30-1/8"	173.20	RB-3323	VS-61	BR-124	HD-434
PX-7733-B	76-1/8"	33"	24 1/4"	70-1/16"x30-1/8"	22-3/4"	28-3/4"	30-1/8"	189.00	RB-3323	VS-70	BR-124	HD-434
PX-8433-B	83-1/8"	33"	24 1/4"	77-1/16"x30-1/8"	22-3/4"	28-3/4"	30-1/8"	207.40	RB-3323	VS-77	BR-124	HD-434
PX-9033-B	90-1/8"	33"	24 1/4"	84-1/16"x30-1/8"	22-3/4"	28-3/4"	30-1/8"	225.00	RB-3323	VS-84	BR-124	HD-434

TYPE "FX" SERIES RACKS — WITH FRONT AND REAR DOORS

Catalog No.	Height	Width	Depth	Panel Space	** Clear Inside Depth	*** Clear Inside Width Front	Clear Inside Width Rear	Net Price	PARTIAL CHECK LIST OF AVAILABLE ACCESSORIES IS LISTED BELOW.			
									Rack Base Catalog No. See Prices Below	Vertical Side Supports Catalog No. See Pg. 10 for Prices & Specs.	Side Mounting Brackets Catalog No. See Pg. 10 for Prices & Specs.	Roller Trunk Catalog No. See Pg. 22 for Prices & Specs.
FOR 19" WIDE PANELS — 18 1/4" DEEP RACKS												
FX-3718-B	42-7/8"	22"	18 1/4"	36-13/16"x19-1/8"	16"	17-3/4"	19-1/8"	\$ 85.90	RB-2217	VS-36	BR-118	HD-412
FX-4818-B	48-1/8"	22"	18 1/4"	42-1/16"x19-1/8"	16"	17-3/4"	19-1/8"	97.70	RB-2217	VS-42	BR-118	HD-412
FX-5818-B	58-5/8"	22"	18 1/4"	52-9/16"x19-1/8"	16"	17-3/4"	19-1/8"	107.50	RB-2217	VS-52	BR-118	HD-412
FX-6718-B	67-3/8"	22"	18 1/4"	61-5/16"x19-1/8"	16"	17-3/4"	19-1/8"	115.20	RB-2217	VS-61	BR-118	HD-412
FX-7718-B	76-1/8"	22"	18 1/4"	70-1/16"x19-1/8"	16"	17-3/4"	19-1/8"	132.20	RB-2217	VS-70	BR-118	HD-412
FX-8418-B	83-1/8"	22"	18 1/4"	77-1/16"x19-1/8"	16"	17-3/4"	19-1/8"	143.80	RB-2217	VS-77	BR-118	HD-412
FOR 19" WIDE PANELS — 24 1/4" DEEP RACKS												
FX-4824-B	48-1/8"	22"	24 1/4"	42-1/16"x19-1/8"	22"	17-3/4"	19-1/8"	118.00	RB-2223	VS-42	BR-124	HD-420
FX-5824-B	58-5/8"	22"	24 1/4"	52-9/16"x19-1/8"	22"	17-3/4"	19-1/8"	128.50	RB-2223	VS-52	BR-124	HD-420
FX-6724-B	67-3/8"	22"	24 1/4"	61-5/16"x19-1/8"	22"	17-3/4"	19-1/8"	134.90	RB-2223	VS-61	BR-124	HD-420
FX-7724-B	76-1/8"	22"	24 1/4"	70-1/16"x19-1/8"	22"	17-3/4"	19-1/8"	152.50	RB-2223	VS-70	BR-124	HD-420
FX-8424-B	83-1/8"	22"	24 1/4"	77-1/16"x19-1/8"	22"	17-3/4"	19-1/8"	166.80	RB-2223	VS-77	BR-124	HD-420
FX-9024-B	90-1/8"	22"	24 1/4"	84-1/16"x19-1/8"	22"	17-3/4"	19-1/8"	181.50	RB-2223	VS-84	BR-124	HD-420
FOR 24" WIDE PANELS — 24 1/4" DEEP RACKS												
FX-4827-B	48-1/8"	27"	24 1/4"	42-1/16"x24-1/8"	22"	22-3/4"	24-1/8"	146.50	RB-2723	VS-42	BR-124	HD-427
FX-5827-B	58-5/8"	27"	24 1/4"	52-9/16"x24-1/8"	22"	22-3/4"	24-1/8"	162.20	RB-2723	VS-52	BR-124	HD-427
FX-6727-B	67-3/8"	27"	24 1/4"	61-5/16"x24-1/8"	22"	22-3/4"	24-1/8"	172.90	RB-2723	VS-61	BR-124	HD-427
FX-7727-B	76-1/8"	27"	24 1/4"	70-1/16"x24-1/8"	22"	22-3/4"	24-1/8"	183.80	RB-2723	VS-70	BR-124	HD-427
FX-8427-B	83-1/8"	27"	24 1/4"	77-1/16"x24-1/8"	22"	22-3/4"	24-1/8"	200.50	RB-2723	VS-77	BR-124	HD-427
FX-9027-B	90-1/8"	27"	24 1/4"	84-1/16"x24-1/8"	22"	22-3/4"	24-1/8"	218.50	RB-2723	VS-84	BR-124	HD-427
FOR 30" WIDE PANELS — 24 1/4" DEEP RACKS												
FX-4833-B	48-1/8"	33"	24 1/4"	42-1/16"x30-1/8"	22"	28-3/4"	30-1/8"	180.00	RB-3323	VS-42	BR-124	HD-434
FX-5833-B	58-5/8"	33"	24 1/4"	52-9/16"x30-1/8"	22"	28-3/4"	30-1/8"	197.50	RB-3323	VS-52	BR-124	HD-434
FX-6733-B	67-3/8"	33"	24 1/4"	61-5/16"x30-1/8"	22"	28-3/4"	30-1/8"	215.20	RB-3323	VS-61	BR-124	HD-434
FX-7733-B	76-1/8"	33"	24 1/4"	70-1/16"x30-1/8"	22"	28-3/4"	30-1/8"	236.20	RB-3323	VS-70	BR-124	HD-434
FX-8433-B	83-1/8"	33"	24 1/4"	77-1/16"x30-1/8"	22"	28-3/4"	30-1/8"	257.20	RB-3323	VS-77	BR-124	HD-434
FX-9033-B	90-1/8"	33"	24 1/4"	84-1/16"x30-1/8"	22"	28-3/4"	30-1/8"	275.00	RB-3323	VS-84	BR-124	HD-434

* ADD 1" to depth for adjacent areas not limited by handle latch. ** ADD 1 3/4" to depth for adjacent areas not limited by handle latches. *** Indicates clearance for chassis between panel mounting angles.

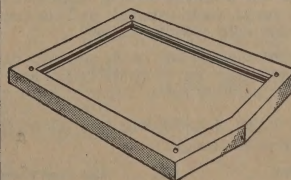


LIFT BOLT ASSEMBLY

This unit can be supplied on any of our Series PL-FL Racks (see Par-Metal Pages 3 and 4), Series PR-FR Racks (see Par-Metal Pages 5 and 6), and Series PX-FX Racks (listed above). Eyebolts have a 1/2" diameter threaded stud; opening in eye is 1-3/16" diameter. Top of rack is reinforced. To order, Specify "with IB Assembly" when ordering.

PRICES ON REQUEST.

RECESSED RACK BASES



These heavy duty bases are made from #12 gauge (7/64") steel, rigidly formed and welded. Tapped holes are provided on top to match holes in bottom of racks; four adjustable floor levers are mounted on the bottom. Where roller trucks are used with racks, these bases are not required. All bases are 2-1/2" high.

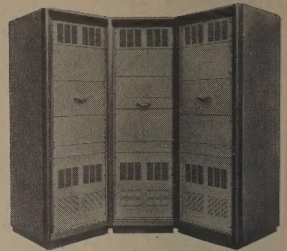
Catalog No.	To Fit All Racks	Net Price
RB-2217	22" wide 18" deep	\$15.00
RB-2223	22" wide 24" deep	16.00
RB-2723	27" wide 24" deep	17.50
RB-3323	33" wide 24" deep	18.75

PAR-METAL CABINET RACK ACCESSORIES

ANGULAR SECTION FRAMES

These angular section frames are suitable for use with any of the Modular Cabinet Racks listed on Par-Metal Pages 3 thru 8. They have the same sturdy frame as the Modular Cabinet Racks. In place of a hinged door at the back, a removable formed steel panel is supplied.

An angular front joining trim is furnished with each frame to match the style of rack to which it is joined. These frames are supplied with a choice of 30° or 45° angles.



BEFORE ORDERING, PLEASE READ INSTRUCTIONS BELOW:

1. Specify type of racks to which angular section frames will be joined (Series PL, FL, PR, FR, PX, or FX) so that we may supply proper front joining trim with each frame.
2. Frames may be used without change on racks equipped with or without recessed sub-bases.
3. Specify paint finish required. Available finishes may be selected from groups shown on Par-Metal Pages 3, 5, 7.

Catalog No.	To Fit Rack □ Height	To Fit Rack Width	Rack Depth #	Frame Angle	Frame Width (at rear)	Frame Panel (at rear)	Net Price Of Frame
AF-4818-30	48-1/8"	**	18"	30°	10"	42" x 7"	\$ 94.00
AF-5818-30	58-5/8"	**	18"	30°	10"	52-1/2" x 7"	100.00
AF-6718-30	67-3/8"	**	18"	30°	10"	61-1/4" x 7"	105.00
AF-7718-30	76-1/8"	**	18"	30°	10"	70" x 7"	116.75
AF-8418-30	83-1/8"	**	18"	30°	10"	77" x 7"	128.50
AF-4824-30	48-1/8"	**	24"	30°	13-1/4"	42" x 10-1/8"	114.50
AF-5824-30	58-5/8"	**	24"	30°	13-1/4"	51-1/2" x 10-1/8"	116.50
AF-6724-30	67-3/8"	**	24"	30°	13-1/4"	61-1/4" x 10-1/8"	126.00
AF-7724-30	76-1/8"	**	24"	30°	13-1/4"	70" x 10-1/8"	137.75
AF-8424-30	83-1/8"	**	24"	30°	13-1/4"	77" x 10-1/8"	149.50
AF-9024-30	90-1/8"	**	24"	30°	13-1/4"	84" x 10-1/8"	159.50
AF-4818-45	48-1/8"	**	18"	45°	15"	42" x 11-7/8"	98.60
AF-5818-45	58-5/8"	**	18"	45°	15"	52-1/2" x 11-7/8"	104.50
AF-6718-45	67-3/8"	**	18"	45°	15"	61-1/4" x 11-7/8"	110.25
AF-7718-45	76-1/8"	**	18"	45°	15"	70" x 11-7/8"	122.60
AF-8418-45	83-1/8"	**	18"	45°	15"	77" x 11-7/8"	134.90
AF-4824-45	48-1/8"	**	24"	45°	19-1/2"	42" x 16-1/2"	120.00
AF-5824-45	58-5/8"	**	24"	45°	19-1/2"	52-1/2" x 16-1/2"	126.00
AF-6724-45	67-3/8"	**	24"	45°	19-1/2"	61-1/4" x 16-1/2"	132.30
AF-7724-45	76-1/8"	**	24"	45°	19-1/2"	70" x 16-1/2"	144.60
AF-8424-45	83-1/8"	**	24"	45°	19-1/2"	77" x 16-1/2"	158.40
AF-9024-45	90-1/8"	**	24"	45°	19-1/2"	84" x 16-1/2"	172.00

**Will fit racks for 19", 24", and 30" wide panels listed on Par-Metal Pages 23 and 24.

NOTE: □ FRAME is same height as rack; # FRAME is same depth as rack.

RACK TYPE EXTENSION TABLES

These tables are mounted to the front of cabinet racks. They are made from 3/4" plywood to which is bonded 1/16" thick laminated plastic of a dark grey pattern on both top and apron, which is 2-1/2" high.

The apron is substantially reinforced for fastening to horizontal channel type supports. The channels are made from 7/64" thick steel, and are bolted to vertical side supports which are securely mounted on the inside wall of the rack. The tables may be adjusted at any height from the floor. This assembly provides a very rigid structure, with a smooth writing space across the entire top. There are no metal parts exposed, and no painted metal surfaces to deteriorate with constant usage.

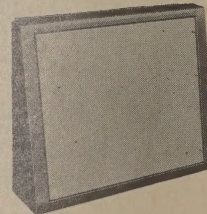
The tables may be installed on any of the modular cabinet racks (without front doors) listed on PAR-METAL Pages 3-8. They are also available for modular rows of four or more racks.

ALL OF THESE TABLE ASSEMBLIES REQUIRE ONLY 3-1/2" PANEL SPACE (height).

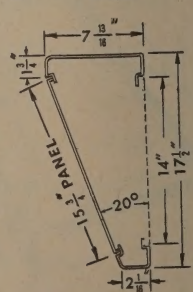
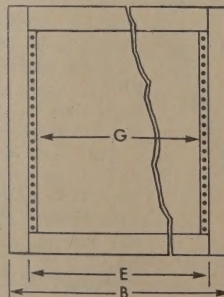
Cat. No.	Table Size	Type	Rack Panel Width	Net Price
RX-119	21 1/4" x 20"	Single	19"	\$38.00
RX-219	42 1/4" x 20"	Double	19"	72.00
RX-319	64 1/4" x 20"	Triple	19"	98.00
RX-419	86 1/4" x 20"	Quadruple	19"	136.00
RX-124	26 1/4" x 20"	Single	24"	44.00
RX-224	52 1/4" x 20"	Double	24"	88.00
RX-324	79 1/4" x 20"	Triple	24"	124.00
RX-130	32 1/4" x 20"	Single	30"	49.80
RX-230	64 1/4" x 20"	Double	30"	95.00

SLOPING PANEL TURRETS

These sloping front turrets are intended for mounting on racks for 19", 24", and 30" wide panels. The turrets extend across the full width of the rack, and are fastened to the panel mounting angles by means of adjustable bracket supports. They may be used with the slope upward or downward. They are supplied complete with removable front and back panels. Available in all standard rack finishes.



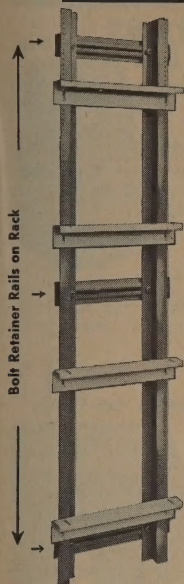
Catalog	Overall Height	Width Dim. B	Panel Width Dim. E	Clearance Dim. G	Net Price
SP-1719	17-1/2"	22"	19"	17-5/8"	\$42.00
SP-1724	17-1/2"	27"	24"	22-5/8"	50.00
SP-1730	17-1/2"	33"	30"	28-5/8"	65.00



ASK YOUR DISTRIBUTOR FOR PAR-METAL PRODUCTS CORP. CATALOG

PAR-METAL CABINET RACK ACCESSORIES

VERTICAL SIDE SUPPORTS

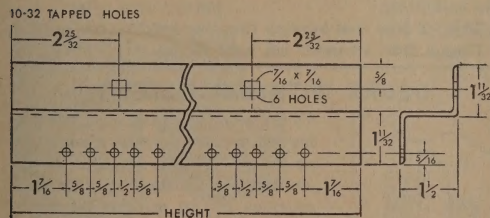


These vertical side supports are supplied in sets of four uprights to fit all Modular racks listed on PAR-METAL Pages 3 to 8. (Cut shows side mounting brackets in place which are sold separately — see listing below). Supports are fastened to bolt retainer rails which hold panel mounting angles in place, and are adjustably mounted from front to back of rack. Holes are drilled and tapped 10-32 to provide adequate vertical adjustment for mounting brackets, shelves, and various sliding devices.

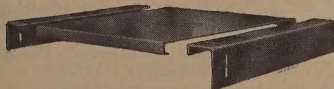
Supports are made from 7/64" thick steel, finished in aluminum enamel. Each set is supplied with 3/8" dia. bolts, lock washers, and nuts for rack mounting.

TO FIT ALL MODULAR CABINET RACKS (Par-Metal Pages 3 to 8)

Cat. No.	Height	Racks	Net Price (Set of 4)
VS-36	40-27/32"	PX-3718-B	\$15.00
VS-42	46-3/32"	PL-FL-PR-FR-PX-FX-4818-4824-4827-4833	16.50
VS-52	56-19/32"	PL-FL-PR-FR-PX-FX-5818-5824-5827-5833	19.25
VS-61	65-11/32"	PL-FL-PR-FR-PX-FX-6718-6724-6727-6733	21.75
VS-70	74-3/32"	PL-FL-PR-FR-PX-FX-7718-7724-7727-7733	25.50
VS-77	81-3/32"	PL-FL-PR-FR-PX-FX-8418-8424-8427-8433	28.35
VS-84	88-3/32"	PL-FL-PR-FR-PX-FX-9018-9024-9027-9033	31.10



SIDE MOUNTING BRACKETS



Brackets BR-118 and Shelf SS-1918

These brackets will fit on Vertical Side Supports shown above. They are sold in pairs, and slotted to provide vertical adjustment at any height required. Brackets are 2" wide and 1-13/16" high. The vertical face of the bracket is also slotted to match holes in equipment shelves listed below. Where desirable, the horizontal face of the bracket may be bolted to the vertical side supports. They are made from 7/64" steel, zinc plated finish. Necessary bolts are supplied.

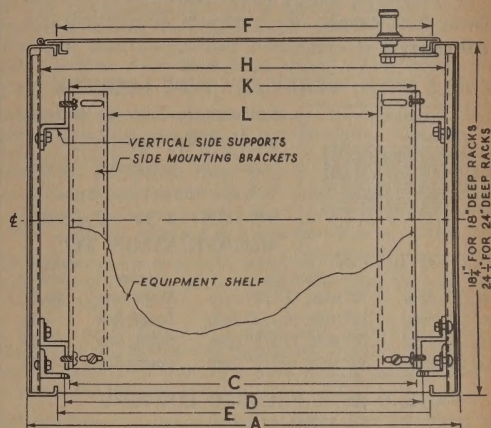
Cat. No.	Length	To Fit Racks	Shpg. Wt.	Net Price
BR-118	14"	All 18" deep racks	4 lbs.	\$3.30 per pair
BR-124	20"	All 24" deep racks	6 lbs.	4.45 per pair

EQUIPMENT SHELVES

These shelves will assemble with the side mounting brackets listed above, to make a complete shelf between Vertical Side Supports. Made from 1/16" steel, zinc plated. Necessary bolts for assembly are included. All shelves are 7/8" high.

Cat. No.	Width	Depth	To Fit Racks	Net Price
SS-1918	17 5/8"	14 1/4"	19" panels-18" deep	\$3.50
SS-1924	17 5/8"	20 1/4"	19" panels-24" deep	4.20
SS-2724	22 5/8"	20 1/4"	24" panels-24" deep	4.95
SS-3324	28 5/8"	20 1/4"	30" panels-24" deep	7.20

ASSEMBLY DIMENSIONS



Dimension	Explanation	Racks for 19" wide Panels	Racks for 24" Wide Panels	Racks for 30" Wide Panels
"A"	Nominal width of rack	22"	27"	33"
"B"	Clearance between panel mounting strips	17-3/4"	22-3/4"	28-3/4"
"C"	To centers of panel mounting holes	18-5/16"	23-5/16"	29-5/16"
"D"	Panel space (plus clearance)	19-1/8"	24-1/8"	30-1/8"
"E"	Clear inside width (rear)	19-1/8"	24-1/8"	30-1/8"
"F"	Clearance between bolt retainer rails	20-3/4"	25-3/4"	31-3/4"
"G"	Clearance between vertical side supports	17-3/4"	22-3/4"	28-3/4"
"H"	Clearance between side mounting brackets	13-3/4"	18-3/4"	24-3/4"

PANEL MOUNTING ANGLES

These panel mounting angles (or strips) are used in all Modular type racks (see PAR-METAL Pages 3 to 8). They are supplied with necessary bolts to fit into the bolt retainer rails which hold the pair of panel mounting angles regularly supplied with each rack.

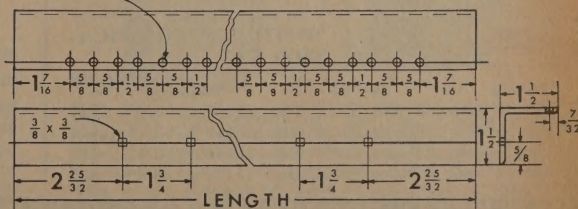
Angles regularly supplied are made from 1-1/2" x 1-1/2" x 3/16" thick structural steel. Holes are tapped for 12/24 screws. Holes tapped for 10/32 screws are optional. (See drawing below).

It is often desirable to use an additional pair of panel mounting angles for mounting chassis, terminal strips, etc. They may be adjusted to any depth within rack from front to back.

Angle No.	Length	To Fit Modular Cabinet Racks	Net Price Per Pair
PA-36	40-27/32"	PX-3718	\$ 9.50
PA-42	46-3/32"	PL, FL, PX, FX, PR, FR-4818, 4824, 4827, 4833	11.50
PA-52	56-19/32"	PL, FL, PX, FX, PR, FR-5818, 5824, 5827, 5833	13.80
PA-61	65-11/32"	PL, FL, PX, FX, PR, FR-6718, 6724, 6727, 6733	15.90
PA-70	74-3/32"	PL, FL, PX, FX, PR, FR-7718, 7724, 7727, 7733	18.10
PA-77	81-3/32"	PL, FL, PX, FX, PR, FR-8418, 8424, 8427, 8433	19.80
PA-84	88-3/32"	PL, FL, PX, FX, PR, FR-9024, 9027, 9033	21.50

12-24 TAP, STANDARD

10-32 TAP, OPTIONAL

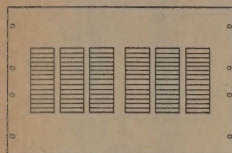


MODIFICATIONS OF MODULAR CABINET RACKS

TOP PANELS FOR RACKS

Blank formed steel panels are supplied as standard in the top of all Series **PL-FL-PR-FR-PX** and **FX** racks listed on preceding pages. Listed below are optional ventilating type panels, which may be substituted at a nominal increase in cost.

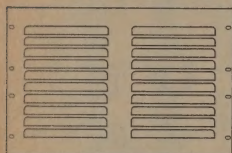
PANELS WITH "VENETIAN" TYPE LOUVERS



Louvers are the same as those used on standard rack doors listed on preceding pages. When ordering, specify **"WITH TOP PANEL MODIFICATION TC"**.

Rack Size	Panel Size	Louvers	Additional Cost
22" wide, 18" deep	19" wide, 12-1/4" deep	Single Row	\$2.00
22" wide, 24" deep	19" wide, 19-1/4" deep	Double Row	2.00
27" wide, 24" deep	24" wide, 19-1/4" deep	Double Row	2.50
33" wide, 24" deep	30" wide, 19-1/4" deep	Double Row	3.00

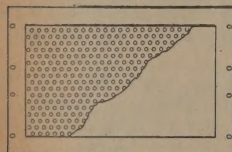
PANELS WITH PRESSED LOUVERS



With 7" wide pressed louvers in panel from front to back as illustrated above. When ordering, specify **"WITH TOP PANEL MODIFICATION TB"**.

Rack Size	Panel Size	Louvers	Additional Cost
22" wide, 18" deep	19" wide, 12-1/4" deep	2 Rows	\$2.50
22" wide, 24" deep	19" wide, 19-1/4" deep	2 Rows	3.00
27" wide, 24" deep	24" wide, 19-1/4" deep	2 Rows	3.00
33" wide, 24" deep	30" wide, 19-1/4" deep	3 Rows	4.00

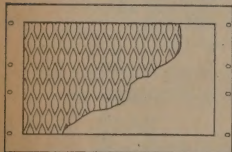
PANELS WITH PERFORATED HOLES



Perforated holes in top panel shown are 3/16" diameter, on 5/16" centers, staggered. When ordering, specify **"WITH TOP MODIFICATION TH"**.

Rack Size	Panel Size	Perforated Area	Additional Cost
22" wide, 18" deep	19" wide, 12-1/4" deep	10-1/4" x 16-3/4"	\$3.50
22" wide, 24" deep	19" wide, 19-1/4" deep	17-1/4" x 16-3/4"	4.00
27" wide, 24" deep	24" wide, 19-1/4" deep	17-1/4" x 21-3/4"	4.50
33" wide, 24" deep	30" wide, 19-1/4" deep	17-1/4" x 27-3/4"	5.25

PANELS WITH EXPANDED METAL MESH



Expanded steel mesh is .055" thick, having diamond shaped opening 5/16" x 7/8"; mesh is spot welded underneath. When ordering, specify **"WITH TOP MODIFICATION TA"**.

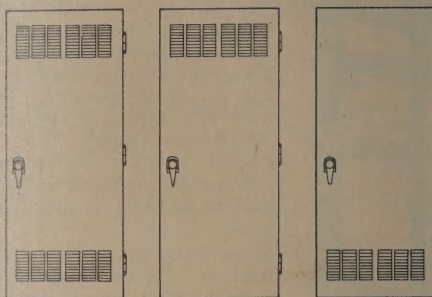
Rack Size	Panel Size	Mesh Area	Additional Cost
22" wide, 18" deep	19" wide, 12-1/4" deep	10-1/4" x 16-3/4"	\$3.50
22" wide, 24" deep	19" wide, 19-1/4" deep	17-1/4" x 16-3/4"	4.00
27" wide, 24" deep	24" wide, 19-1/4" deep	17-1/4" x 21-3/4"	4.50
33" wide, 24" deep	30" wide, 19-1/4" deep	17-1/4" x 27-3/4"	5.25

DOOR MODIFICATIONS

For Front and Rear Rack Doors

TYPE "LS" Louvers are standard for Rear Doors and TYPE "SS" Louvers (not illustrated and without louvers) are standard for Front Doors.

ALL types as shown below, are optional without additional cost when so designated on the order. ALL doors are interchangeable from front to rear of rack and will fit the same size racks in ALL series listed on preceding pages.



TYPE LS

TYPE LT

TYPE LB

Type "LS": STANDARD REAR DOOR) with louvers at top and bottom.

Type "LT": with louvers at top only.

Type "LB": with louvers at bottom only.

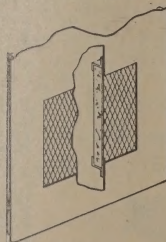
Type "SS": (STANDARD FRONT DOOR) with louvers omitted at top and bottom (not shown).

All standard doors are hinged on right side as illustrated. Doors hinged on left side are available without additional charge. When ordering, please specify any change from standard doors listed above as follows:

Type of door and location (front or rear?)

Hinged Side: wherever left hand hinges are required.

DOORS WITH AIR FILTERS



This drawing illustrates a grilled opening and interior frame for a removable air filter, which is installed in the lower section of the door. The same provision can be made at the top of the door, if so specified. The filter sizes below are standard; other sizes are available if required. When ordering, specify the rack catalog number **"WITH MODIFICATION FD DOOR"**. (Prices include filters).

Rack Size	Filter Size	Net Price
22" wide, 18" deep	10" x 10" x 1"	\$ 7.50
22" wide, 24" deep	10" x 10" x 1"	7.50
27" wide, 24" deep	10" x 10" x 1"	7.50
*33" wide, 24" deep	10" x 10" x 1"	15.00

* On each door — cabinet has double doors.

ADDITIONAL DOOR MODIFICATIONS

For Doors on All Modular Cabinet Racks

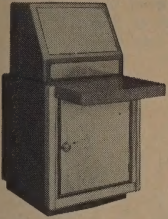
Where cooling fans are required in doors, we can provide the necessary opening and mounting holes. We can also supply doors with special round or rectangular openings, and frames for glass or plexiglass panels. Short doors for use with panel mounted cooling devices are also available.

PRICES ON REQUEST

PAR-METAL MODULAR CONSOLE ASSEMBLIES

GENERAL DESCRIPTION

SINGLE UNIT ASSEMBLY



This illustration shows one of our three basic single unit assemblies. Other single unit assemblies are shown on the next page.

The combination of a control cabinet mounted on table, desk or similar support usually called a console has been in general use in the electronics industry many years.

While it is obvious that no particular fixed design can serve every requirement, we have devised a group of standard units, the combination of which is readily adaptable for specialized applications in control equipment, testing facilities, sound distribution systems and industrial purposes. These models have been functionally designed and smartly styled to keep pace with current trends. New modular units have been added, all of which may be grouped or expanded to meet your specific needs.

The versatile pedestal racks are the keystone to the entire assembly. They are constructed for heavy duty use, having all the essential features of our PL cabinet racks listed on PAR-METAL Pages 3 and 4. This would include panel mounting angles which are adjustable from front to back, and provision for installing chassis mounting brackets and shelves where needed. They offer an efficient utilization of space, complete accessibility for servicing, and are solidly built to withstand heavy strains whether in a laboratory or a moving vehicle.

Two models of pedestal frames are available, which are identical except for the depth (front to back). PD-224 frame (24 $\frac{1}{4}$ " deep) unit may be used with or without an extension desk table.

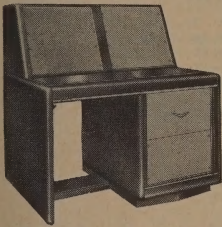
The PD-234 frame (34 $\frac{1}{4}$ " deep) forms a complete desk structure without the use of extension shelves. When one of our desk panel cabinets is mounted on top, additional space is available in front as a desk writing surface. The 34 $\frac{1}{4}$ " depth also provides additional interior space.

There are four models of desk panel cabinets suitable for mounting on the pedestal frame top to make a complete console. Single or multiple unit consoles may be combined with our Series PL racks.

Unit assemblies are not limited to quad units, and may be extended to modular groups of five or more. If you have a specific problem, do not hesitate to consult us.

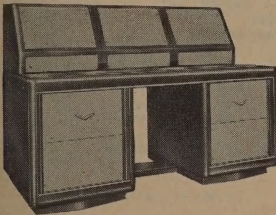
The side panels are readily detachable from the outside. No drilling or fitting is necessary for the assembly of pedestals, cabinets, brackets, shelves or drawers. All panel mounting holes are tapped for screws—no metal screws or clips are used.

DOUBLE UNIT ASSEMBLY



In this double unit assembly, the pedestal rack can also be fitted on the left side.

TRIPLE UNIT ASSEMBLY



Various triple unit assemblies are available as shown on this and the following pages.

STANDARD FINISH: Combination of light and dark grey hammer-tone enamel on pedestal frames. All panels are supplied in light grey hammertone enamel.

OPTIONAL FINISHES: Your Choice of the following:

SPECIFY

"LH" for light grey hammer-tone enamel.

"DH" for dark grey hammer-tone enamel.

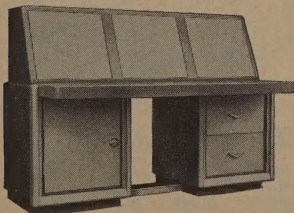
"GM" for dark grey metallic enamel.

"BG" for blue grey wrinkle enamel.

"PC" for primer coat only.

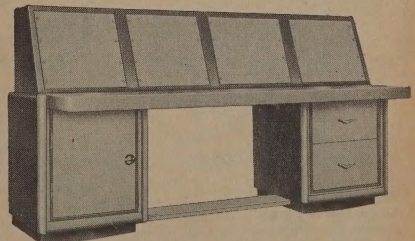
"MT" for beige enamel.

ALTERNATE TRIPLE UNIT ASSEMBLY



The above unit consists of: two No. PD-224 pedestal frames, two No. EP-24 exterior side panels, two No. KP-24 interior side panels, one No. HS-103 high slope cabinet, one No. CD-24 center desk section and one CT-319 extension table, (door drawers, or rack panels for front and back are optional).

TYPICAL QUAD UNIT ASSEMBLY



The above unit consists of: two No. PD-224 pedestal frames, two No. EP-24 exterior side panels, two No. KP-24 interior side panels, one No. HS-104 high slope cabinet, one No. CD-242 center desk section and one CT-419 extension table, (door drawers, or rack panels for front and back are optional).

COMPONENT GROUP CHECK LISTS

The group charts below list all necessary and alternate components for **single, double, triple, and quad unit** assemblies, and also provides a check list to determine your exact requirements. There are **four models of desk panel cabinets** specially designed to fit on the top of the assemblies detailed below. For simplicity, they have been omitted; for a complete description see Par-Metal Page 17.

FOR SINGLE UNIT ASSEMBLIES

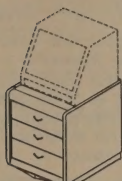


FIGURE "A" AS ABOVE
FIGURE "B" (LESS TOP CABINET)

PARTS REQUIRED

Pedestal Frame	15
Exterior Side Panel	16
Extension Desk Table	16
Utility Table Top	15

*Table top not required.

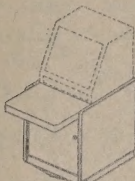


FIGURE "C" AS ABOVE
FIGURE "D" (LESS TOP CABINET)

Par-Metal Page No.	Quant.	Fig. "A"	Fig. "B"
15	1	PD-224	PD-224
16	2	EP-24	EP-24
16	1		WT-241
15	1	*	

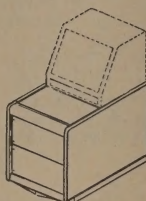


FIGURE "E" AS ABOVE
FIGURE "F" (LESS TOP CABINET)

Fig. "C"	Fig. "D"	Fig. "E"	Fig. "F"
PD-224	PD-224	PD-234	PD-234
EP-24	EP-24	EP-34	EP-34
CT-119	CT-119	HT-341	WT-341
*	NT-241		

FOR TRIPLE UNIT ASSEMBLIES

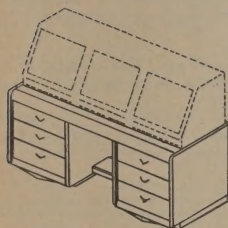


FIGURE "N" AS ABOVE
FIGURE "O" (LESS TOP CABINET)

PARTS REQUIRED

Pedestal Frames	15
Center Desk Section	16
Exterior Side Panels	16
Interior Side Panels	16
Extension Desk Table	16
Utility Table Top	15

*Table top not required

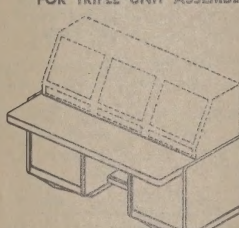


FIGURE "P" AS ABOVE
FIGURE "R" (LESS TOP CABINET)

Par-Metal Page No.	Quant.	Fig. "N"	Fig. "O"
15	2	PD-224	PD-224
16	1	CD-24	CD-24
16	2	EP-24	EP-24
16	2	KP-24	KP-24
16	1		WT-243
15	1	*	

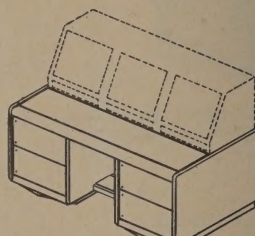


FIGURE "S" AS ABOVE
FIGURE "T" (LESS TOP CABINET)

Fig. "P"	Fig. "R"	Fig. "S"	Fig. "T"
PD-224	PD-224	PD-234	PD-234
CD-24	CD-24	CD-34	CD-34
EP-24	EP-24	EP-34	EP-34
KP-24	KP-24	KP-34	KP-34
CT-319	CT-319	HT-343	WT-343
*	NT-243		

FOR QUAD UNIT ASSEMBLIES

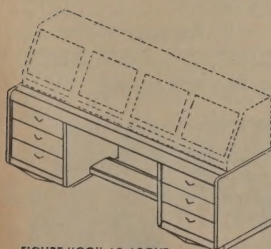


FIGURE "GG" AS ABOVE
FIGURE "HH" (LESS TOP CABINET)

PARTS REQUIRED

Pedestal Frames	15
Center Desk Section	16
Exterior Side Panels	16
Interior Side Panels	16
Extension Desk Table	16
Utility Table Top	15

*Table top not required

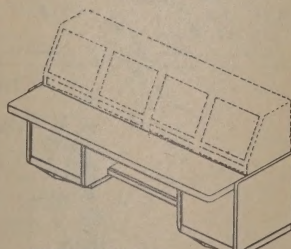


FIGURE "JJ" AS ABOVE
FIGURE "KK" (LESS TOP CABINET)

Par-Metal Page No.	Quant.	Fig. "GG"	Fig. "HH"
15	2	PD-224	PD-224
16	1	CD-242	CD-242
16	2	EP-24	EP-24
16	2	KP-24	KP-24
16	1		WT-244
15	1	*	

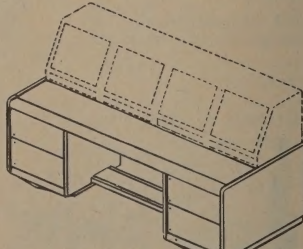


FIGURE "LL" AS ABOVE
FIGURE "MM" (LESS TOP CABINET)

Fig. "JJ"	Fig. "KK"	Fig. "LL"	Fig. "MM"
PD-224	PD-224	PD-234	PD-234
CD-242	CD-242	CD-342	CD-342
EP-24	EP-24	EP-34	EP-34
KP-24	KP-24	KP-34	KP-34
CT-419	CT-419	HT-344	WT-344
*	NT-244		

COMPONENT GROUP CHECK LISTS

All of the 19" wide panels listed on Par-Metal pages 23 and 24 may be mounted on these assemblies. Refer to Par-Metal Page 21 for **sliding drawers** shown in various illustrations in this Component Group Check List. Other **component parts** suitable for use with these assemblies are shown on Par-Metal Page 16.

FOR DOUBLE UNIT ASSEMBLIES

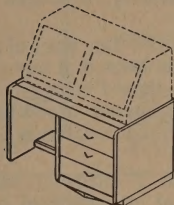


FIGURE "G" AS ABOVE
FIGURE "H" (LESS TOP CABINET)

PARTS REQUIRED

Pedestal Frame	15	1	PD-224
End Pedestal Assembly	16	1	DU-24
Exterior Side Panel	16	1	EP-24
Interior Side Panel	16	1	KP-24
Extension Desk Table	16	1	*
Utility Table Top	15	1	WT-242

*Table top not required.

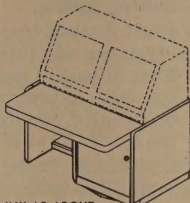


FIGURE "J" AS ABOVE
FIGURE "K" (LESS TOP CABINET)

Par-Metal Page No.	Quant.	Fig. "G"	Fig. "H"
15	1	PD-224	PD-224
16	1	DU-24	DU-24
16	1	EP-24	EP-24
16	1	KP-24	KP-24
15	1	*	WT-242

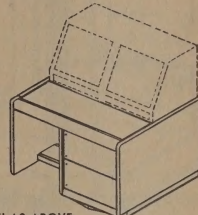


FIGURE "L" AS ABOVE
FIGURE "M" (LESS TOP CABINET)

Fig. "J"	Fig. "K"	Fig. "L"	Fig. "M"
PD-224	PD-224	PD-234	PD-234
DU-24	DU-24	DU-34	DU-34
EP-24	EP-24	EP-34	EP-34
KP-24	KP-24	KP-34	KP-34
CT-219	CT-219	HT-342	WT-342

FOR TRIPLE UNIT ASSEMBLIES

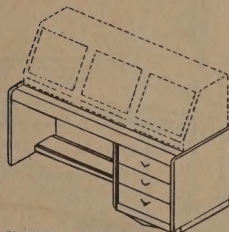


FIGURE "AA" AS ABOVE
FIGURE "BB" (LESS TOP CABINET)

PARTS REQUIRED

Pedestal Frame	15	1	PD-224
End Pedestal Assembly	16	1	DU-242
Exterior Side Panel	16	1	EP-24
Interior Side Panel	16	1	KP-24
Extension Desk Table	16	1	*
Utility Table Top	15	1	WT-243

*Table top not required.

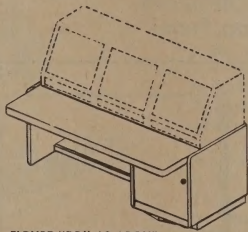


FIGURE "DD" AS ABOVE
FIGURE "CC" (LESS TOP CABINET)

Par-Metal Page No.	Quant.	Fig. "AA"	Fig. "BB"
15	1	PD-224	PD-224
16	1	DU-242	DU-242
16	1	EP-24	EP-24
16	1	KP-24	KP-24
15	1	*	WT-243

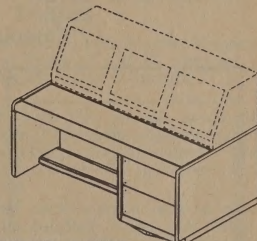


FIGURE "EE" AS ABOVE
FIGURE "FF" (LESS TOP CABINET)

Fig. "CC"	Fig. "DD"	Fig. "EE"	Fig. "FF"
PD-224	PD-224	PD-234	PD-234
DU-242	DU-242	DU-342	DU-342
EP-24	EP-24	EP-34	EP-34
KP-24	KP-24	KP-34	KP-34
CT-319	CT-319	HT-343	WT-343

FOR QUAD UNIT ASSEMBLIES

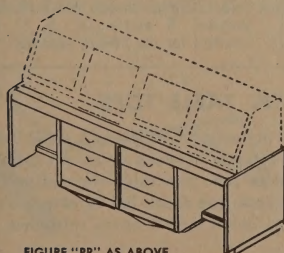


FIGURE "PP" AS ABOVE
FIGURE "RR" (LESS TOP CABINET)

PARTS REQUIRED

Pedestal Frame	15	2	PD-224
End Pedestal Assembly	16	2	DU-24
Interior Side Panels	16	2	KP-24
Extension Desk Table	16	1	*
Utility Table Top	15	1	WT-244

*Table top not required.

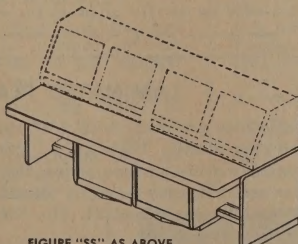


FIGURE "SS" AS ABOVE
FIGURE "TT" (LESS TOP CABINET)

Par-Metal Page No.	Quant.	Fig. "PP"	Fig. "RR"
15	2	PD-224	PD-224
16	2	DU-24	DU-24
16	2	KP-24	KP-24
16	1	*	WT-244

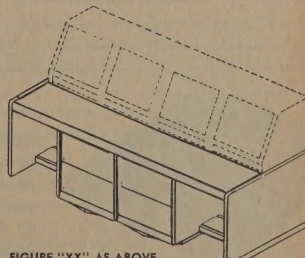


FIGURE "XX" AS ABOVE
FIGURE "ZZ" (LESS TOP CABINET)

Fig. "SS"	Fig. "TT"	Fig. "XX"	Fig. "ZZ"
PD-224	PD-224	PD-234	PD-234
DU-24	DU-24	DU-34	DU-34
KP-24	KP-24	KP-34	KP-34
CT-419	CT-419	HT-344	WT-344

PAR-METAL MODULAR CONSOLE ASSEMBLIES

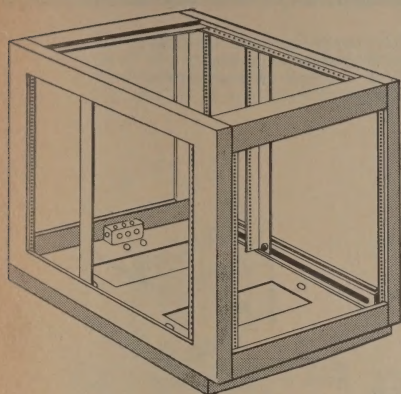
PEDESTAL FRAMES

The pedestal is the principal component used in all console assemblies. It combines the essential features of our Series PL racks listed on Par-Metal Page 3 and is attractively styled for any environment. The pedestal is made from #16 gauge steel, reinforced for extra strength and stability. A recessed base is included. It will **withstand rigorous usage**, whether in a **laboratory, industrial plant** or a **moving vehicle**.

Panel space at front and back is 21" x 19". Two pairs of panel mounting angles are supplied, which may be located at any position from front to back. Openings at sides have tapped holes on standard rack spacings, to which may be attached interior brackets and shelves or standard rack panels. The No. PD-224 pedestal is 24-1/4" deep; the No. PD-234 is 34-1/4" deep.

CASTERS: Heavy duty casters with 3" diameter wheels will be supplied in place of recessed bases at an additional cost of \$9.00 per pedestal.

FINISHES: All available finishes are listed on Par-Metal Page 12.



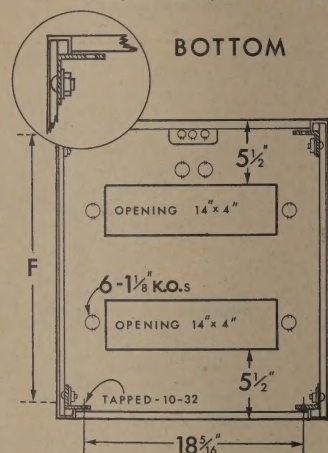
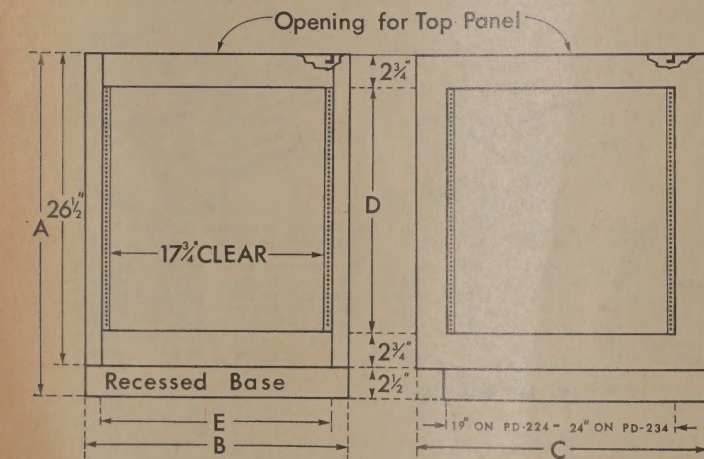
CATALOG NUMBER	OUTSIDE DIMENSIONS			PANEL SPACE		CLEAR INSIDE DEPTH	OPENING ON TOP FOR PANEL		*OVERALL DIMENSIONS			NET PRICE
	HEIGHT	WIDTH	DEPTH	HEIGHT	WIDTH		WIDTH	DEPTH	HEIGHT	WIDTH	DEPTH	
PD-224	29"	22"	24-1/4"	21"	19"	23-1/8"	19"	19-1/4"	30"	24-1/2"	25-3/8"	\$80.00
PD-234	29"	22"	34-1/4"	21"	19"	33-1/8"	19"	28"	30"	24-1/2"	35-3/8"	95.00

* WITH SIDE PANELS AND FRONT MOULDINGS.

FRONT & BACK

SIDE VIEW

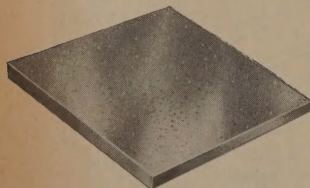
BOTTOM



Note: Bottom shown above is for PD-234 pedestal. A single 14" x 4" opening is standard for the PD-224 pedestal.

LAMINATED PLASTIC TABLE TOPS

These table tops are made from 3/4" thick plywood to which is bonded 1/16" thick patterned grey plastic. There are no metal spacers between units, providing a clear unobstructed writing surface across the entire top. The table top required for any particular assembly may be easily identified from the check list of component groups on Par-Metal Pages 13 and 14. The listings below are a cross reference and also include prices.



For Use on No. PD-224 Pedestal Frames (24-1/4" deep)

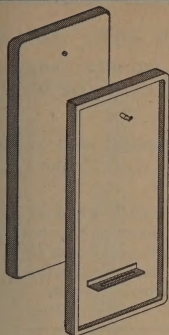
Catalog No.	Assembly	Refer to: Figure	Par-Metal Page No.	Net Price
WT-241	Single Unit Assembly	"B"	13	\$15.00
NT-241	Single Unit Assembly	"D"	13	12.00
WT-242	Double Unit Assembly	"H"	14	24.00
NT-242	Double Unit Assembly	"K"	14	24.00
WT-243	Triple Unit Assembly	"O"	13	42.00
NT-243	Triple Unit Assembly	"R"	13	32.00
WT-244	Quad Unit Assembly	"HH"	13	56.00
NT-244	Quad Unit Assembly	"TT"	14	40.00

For Use on No. PD-234 Pedestal Frames (34-1/4" deep)

Catalog No.	Assembly	Refer to: Figure	Par-Metal Page No.	Net Price
HT-341	Single Unit Assembly	"E"	13	\$11.20
WT-341	Single Unit Assembly	"F"	13	23.40
HT-342	Double Unit Assembly	"L"	14	18.20
WT-342	Double Unit Assembly	"M"	14	46.00
HT-343	Triple Unit Assembly	"S"	13	24.00
WT-343	Triple Unit Assembly	"T"	13	62.00
HT-344	Quad Unit Assembly	"XX"	14	34.00
WT-344	Quad Unit Assembly	"ZZ"	14	72.00

PAR-METAL MODULAR CONSOLE ASSEMBLIES

DETACHABLE SIDE PANELS

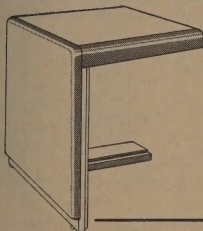


These panels are sturdily constructed from #16 gauge steel with ball corners. They have formed edges on all four sides, and are securely welded. The "EP" exterior panels are supplied with coinciding brackets at the bottom for easy alignment with the side of the pedestal. At the top they are secured with a cowl fastener, making them readily removable.

Cat. No.	Description	To fit		Net Price
		Pedestal	For use on	
EP-24	Exterior side panel	PD-224	All assemblies	\$20.00
KP-24	Interior side panel	PD-224	" "	17.50
EP-34	Exterior side panel	PD-234	" "	25.00
KP-34	Interior side panel	PD-234	" "	20.00

The "KP" panels are mounted in place with two cowl fasteners. All panels are 1 1/4" thick. They are finished to match pedestals, unless otherwise ordered.

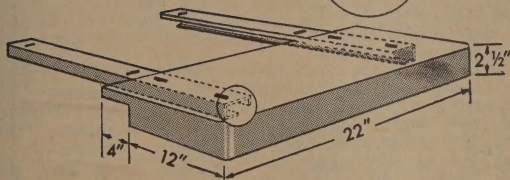
END PEDESTAL (For Double, Triple and Quad Unit Assemblies)



End pedestals are designed to make up various assemblies as shown on Par-Metal Pages 13 and 14. May be installed on either right or left hand side of pedestal. The assembly consists of vertical member, end panel, top section and floor brace. Formica table top is not included. **Finished to match pedestals** unless otherwise ordered.

Cat. No.	For Assembly With	Length	Front to Back	Height	Net Price
DU-24	Pedestal PD-224	23-1/4"	25-3/8"	30"	\$45.00
DU-242	Pedestal PD-224	45-1/4"	25-3/8"	30"	58.75
DU-34	Pedestal PD-234	23-1/4"	35-3/8"	30"	56.00
DU-342	Pedestal PD-234	45-1/4"	35-3/8"	30"	73.20

EXTENSION DESK TABLES



These extension tables are used in console assemblies illustrated on Par-Metal Pages 13 and 14. They are made from 3/4" thick plywood, to which is bonded 1/16" thick grey laminated plastic.

The plastic covers both the top and apron of the table which is 2-1/2" deep. The apron is substantially reinforced for fastening to horizontal channel supports. The assembly provides a rugged structure with a smooth writing space across the entire top.

There are no metal parts exposed, and no metal surfaces to deteriorate with constant usage. As these tables are mounted above the front panels on the pedestal frame, the full front panel space of 21" may be used.

Cat. No.	For Use on Assemblies	Overall Size	Net Price
CT-119	Single Unit	16" x 22" x 2 1/2"	\$26.00
CT-219	Double Unit	16" x 44" x 2 1/2"	44.00
CT-319	Triple Unit	16" x 66" x 2 1/2"	61.00
CT-419	Quad Unit	16" x 88" x 2 1/2"	77.00

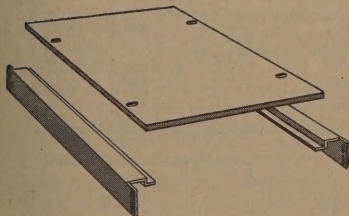
CENTER DESK SECTION (For Triple and Quad Unit Assemblies)



The center desk section shown is attached between two rack pedestals to make up a triple or quad unit assembly. Consists of table top support and floor brace illustrated on Par-Metal Page 12. Plastic table top not included in price of sections. Sections finished to match color of pedestal frames, unless otherwise ordered.

Cat. No.	For Assembly With	Front to Back	Length	Net Price
CD-24	PD-224	25-3/8"	22"	\$16.80
CD-242	PD-224	25-3/8"	44"	33.60
CD-34	PD-234	35-3/8"	22"	19.80
CD-342	PD-234	35-3/8"	44"	39.60

MOUNTING BRACKETS AND SHELVES



These brackets may be mounted on each side of the pedestal frame.

They are slotted to match the tapped holes in the sides of the pedestal and may be adjusted to any height.

Catalog No.	To Fit Pedestal	Overall Size	Net Price Per Pair
CB-24	PD-224	2-1/2"x2-31/32"x18-13/16"	\$4.20
CB-34	PD-234	2-1/2"x2-31/32"x28-13/16"	5.80

These shelves are drilled for assembly with Mounting Brackets CB-24 and CB-34. Both shelves are 17-1/2" wide and 5/8" high.

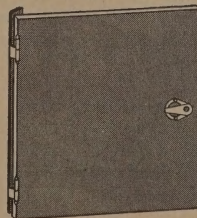
Cat. No.	To Fit Brackets	For Pedestal	Depth	Net Price
SS-24	CB-24	PD-224	22-3/4"	\$4.60
SS-34	CB-34	PD-234	32-3/4"	6.40

PEDESTAL FRAME DOORS

These doors are made to enclose the front or back of pedestal frames. They are "double wall" type with smooth surfaces inside and outside. A push button spring catch provides easy operation with a minimum projection from the front of the door.

Doors are made in three sizes, and may be used in combination with rack panels or drawers; either on pedestals or any standard racks for 19" wide panels. Available in all finishes.

Catalog No.	Sizes	Net Price
DR-7019	7" x 19"	\$11.75
DR-1019	10-1/2" x 19"	13.50
DR-2119	21" x 19"	16.50



PAR-METAL MODULAR CONSOLE ASSEMBLIES

DESK PANEL CABINETS

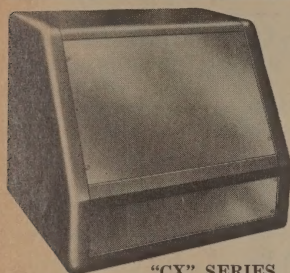
The desk control cabinets shown below are ideal for use in the laboratory, for test equipment and other industrial applications. Each cabinet section is made from 1/16" sheet steel, rigidly welded together — ready for use without a multiplicity of clips, studs, nuts and other fastening devices.

FRONT: Steel formed blank panels are supplied. Aluminum panels 1/8" thick are optional at same price.

REAR: Regularly equipped with removable hinged doors (louvered) except "LS" series cabinets. Doors are held closed with a push-button spring catch. In double, triple, and quad unit cabinets, individual doors are used for each section. Standard formed steel panels, 19" wide, either plain or louvered may be substituted for doors without additional cost.

BOTTOM: Furnished with removable blank formed steel panel.

FINISH: Cabinet finished in dark grey hammertone enamel; panels and doors in light grey hammertone enamel. Optional finishes listed on Par-Metal Page 12.

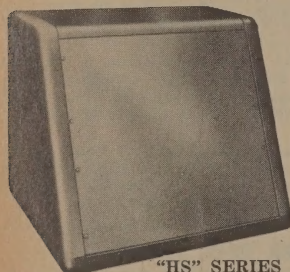
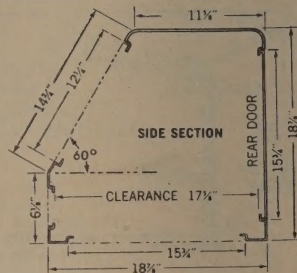


"CX" SERIES

DUAL PANEL DESK CONTROL CABINETS

On series "CX" cabinets, the upper panel is 12-1/4" high, and is sloped at an angle of 60°; the lower vertical panel is 3-1/2" high. The rear door and bottom panel (for each unit) is 15-3/4" x 19".

Catalog No.	Description	Height	Width	Depth	Net Price
CX-101	Single Unit	18-7/8"	22"	18-7/8"	\$ 70.00
CX-102	Double Unit	18-7/8"	44"	18-7/8"	115.00
CX-103	Triple Unit	18-7/8"	66"	18-7/8"	160.00
CX-104	Quad Unit	18-7/8"	88"	18-7/8"	200.00

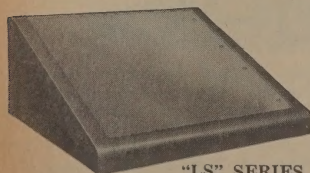
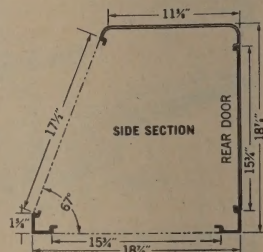


"HS" SERIES

HIGH SLOPE PANEL CABINETS

On series "HS" cabinets, the front panel is 17-1/4" high, and is sloped at an angle of 67°. The rear door and bottom panel (for each unit) is 15-3/4" x 19".

Catalog No.	Description	Height	Width	Depth	Net Price
HS-101	Single Unit	18-7/8"	22"	18-7/8"	\$ 66.50
HS-102	Double Unit	18-7/8"	44"	18-7/8"	110.00
HS-103	Triple Unit	18-7/8"	66"	18-7/8"	150.00
HS-104	Quad Unit	18-7/8"	88"	18-7/8"	190.00

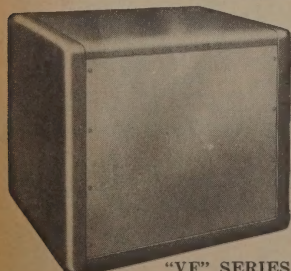
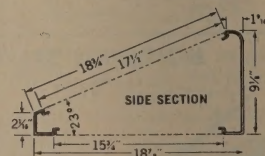


"LS" SERIES

LOW SLOPE PANEL DESK CABINETS

On series "LS" cabinets, the front panel is 17-1/2" high, and slopes upward at an angle of 23°. The bottom panel (for each unit) is 15-3/4" x 19".

Catalog No.	Description	Height	Width	Depth	Net Price
LS-101	Single Unit	9-1/8"	22"	18-7/8"	\$ 40.00
LS-102	Double Unit	9-1/8"	44"	18-7/8"	70.00
LS-103	Triple Unit	9-1/8"	66"	18-7/8"	100.00
LS-104	Quad Unit	9-1/8"	88"	18-7/8"	130.00

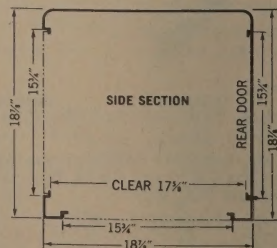


"VF" SERIES

VERTICAL PANEL DESK CABINETS

On series "VF" cabinets, the vertical front panel is 15-3/4" high. The rear door and bottom panel (for each unit) is 15-3/4" x 19".

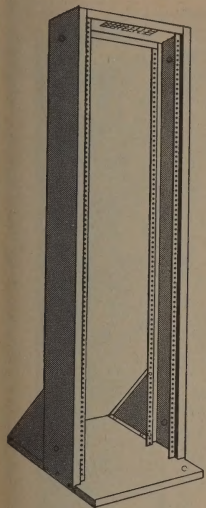
Catalog No.	Description	Height	Width	Depth	Net Price
VF-101	Single Unit	18-7/8"	22"	18-7/8"	\$ 55.00
VF-102	Double Unit	18-7/8"	44"	18-7/8"	100.00
VF-103	Triple Unit	18-7/8"	66"	18-7/8"	145.00
VF-104	Quad Unit	18-7/8"	88"	18-7/8"	185.00



ASK YOUR DISTRIBUTOR FOR PAR-METAL PRODUCTS CORP. CATALOG

PAR-METAL CHANNEL RELAY RACKS

DELUXE TYPE RACKS for 19" and 24" wide panels



No. RR-197

These DeLux Channel Type Relay Racks are made from 7/64" thick steel, and extend the utility of the channel relay rack for both Electronic and Electrical applications. The panel spaces available are: 61-1/4", 70", and 77" for both 19" and 24" wide rack panels.

The upright channels have been modified to an 8" overall depth, which when combined with a formed recess for the panels, greatly increases the rigidity of the rack. The edges of the panels are not exposed.

The rack is drilled and tapped for 10/32 screws at both front and back on 5/8"-5/8"-1/2" alternate centers permitting the optional use of either panels, or dish type chassis mounted to the racks at both front and back. The full panel space is available on the back, the same as the front.

Clear distance between panel mounting flanges (from front to back) is 6-7/8". It is practicable to use this depth as an enclosure for dish type chassis listed on Par-Metal Page 26.

When such chassis are mounted at the back, the addition of standard or hinged type panels (see Par-Metal Page 24) will make a rack enclosure with a clear depth of 6-7/8".

The top is provided with a grille for ventilation where needed. It is also trimmed with a chrome finished moulding at the front. Two holes are located on each side for bolting racks together in rows; there are no projecting screw heads on the sides. Top brace and vertical channel members are securely welded together. Base and rear braces are shipped knocked down, with all necessary bolts for assembly. Panel mounting screws are also supplied.

FINISH: Standard finish is black ripple enamel. Blue grey wrinkle or grey hammertone is also available without extra charge if so specified on your order. **OTHER FINISHES ALSO AVAILABLE**

Catalog Number	Overall Height	Dimensions Width	Depth	Panel Space	Clearance between Uprights	Clear Depth in Channel	Shipping Weight	Net Price
RR-194	64-5/8"	21-1/16"	26"	61-1/4"x19"	17-15/16"	6-7/8" Inside	88 lbs.	\$38.50
RR-196	73-3/8"	21-1/16"	26"	70" x19"	17-15/16"	6-7/8" Inside	95 lbs.	41.00
RR-197	80-3/8"	21-1/16"	26"	77" x19"	17-15/16"	6-7/8" Inside	102 lbs.	43.50
RR-1922	64-5/8"	26-1/16"	26"	61-1/4"x24"	22-15/16"	6-7/8" Inside	100 lbs.	49.00
RR-1923	73-3/8"	26-1/16"	26"	70" x24"	22-15/16"	6-7/8" Inside	105 lbs.	52.50
RR-1924	80-3/8"	26-1/16"	26"	77" x24"	22-15/16"	6-7/8" Inside	112 lbs.	55.00

DESK PANEL CABINET RACKS For Standard 19" Rack Panels

The vertical front corners are rounded and the top and bottom are trimmed with chrome finished mouldings. Panels fit into a recess, so that the edges are not exposed. Panel mounting holes are accurately drilled on universal centers, for standard rack panels. Holes are tapped for 10/32 machine screws.

They may be used with any chassis up to 13" x 17" in size. All cabinets are rigidly constructed of 1/16" thick cold rolled sheet steel, with all joints electrically welded. Louvers provide ample ventilation through sides and back. Piano type hinges are used on the top doors, which are provided with chrome plated handles. A push-button spring catch with chrome plated handle is used on rear doors. Panel mounting screws are furnished.

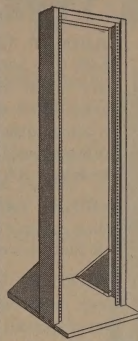
FINISH: BLACK RIPLE ENAMEL is standard. Blue grey wrinkle or grey hammertone is also available without extra charge if so specified on your order.

PANELS: Rack panels to fit these racks are listed on Par-Metal Pages 23 and 24.

(With door in top only) (not illustrated)

Catalog No.	Cabinet Size	Available Panel Space	Shp. Wt. Lbs.	Net Price
DL-128	10 1/2" x 21 1/2" x 15" deep	8 3/4" x 19"	28	\$16.20
DL-1210	12 1/4" x 21 1/2" x 15" deep	10 1/2" x 19"	29	17.70
DL-1225	14" x 21 1/2" x 15" deep	12 1/4" x 19"	30	19.20
DL-1413	15 3/4" x 21 1/2" x 15" deep	14" x 19"	32	21.00

STANDARD TYPE RACKS for 19" wide panels



No. RX-195

THESE RACKS are sturdily constructed from 7/64" pressed steel, and are braced at the back as illustrated, and will withstand severe abuse. They have a formed recess for the panels; the edges of the panels are not exposed.

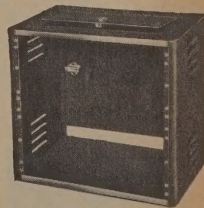
Top brace and vertical channel members are securely welded together. Base and rear braces are shipped knocked down, with necessary bolts for assembly.

Panel mounting holes are accurately drilled for standard rack panels, tapped for 10-32 machine screws at the front only. An ample supply of panel mounting screws are supplied.

Upright channels are 3-3/16" deep with flanges 1" wide. Clearance between uprights is 17-15/16". Base is 20-7/8" deep and extends both front and rear, and is 21-1/16" wide for either unit.

FINISH: Standard finish is black wrinkle. For blue grey wrinkle or grey hammertone enamel add 10%.

CAT. NO.	OVERALL HEIGHT	PANEL HEIGHT	SHIP. WT. LBS.	NET PRICE
RX-193	39 7/16"	36 3/4"	45	\$21.00
RX-195	74 7/16"	71 3/4"	55	25.50



No. DL-1713

RACK SHELF: Rack shelf No. R-2128 listed on Par Metal Page 26 is designed to fit these racks.

(With door in top and door on rear panel)

Catalog No.	Cabinet Size	Available Panel Space	Shp. Wt. Lbs.	Net Price
DL-1713	19 1/4" x 21 1/2" x 15" deep	17 1/2" x 19"	38	\$22.80
DL-2613	28" x 21 1/2" x 15" deep	26 3/4" x 19"	48	26.70
DL-3513	36 3/4" x 21 1/2" x 15" deep	35" x 19"	58	29.55

PAR-METAL TYPE "A" RELAY RACKS

DELUXE TYPE—FOR 19" WIDE PANELS



"ER" SERIES
WITH REAR DOOR ONLY

CABINET: The entire cabinet is made from 1/16" sheet steel. The sides are adequately ventilated with "venetian" type louvers similar to our modular cabinet racks. The vertical corner trims and formed mouldings at top and bottom are designed to effect a distinctive frame around the front of the rack. Racks are shipped "knocked down" for easy assembly.

CORNER TRIMS: All front vertical corner and joining trims are narrow type (do not overlap panels) to permit installation of sliding shelves, drawers, tables, etc.

PANEL MOUNTING: Angle irons are 7/64" thick steel, holes are accurately drilled and tapped 10-32 thread for all types of panels.

HARDWARE: Doors are the same as our modular racks. "Series ER" racks are equipped with die-cast non-locking handles on rear doors.

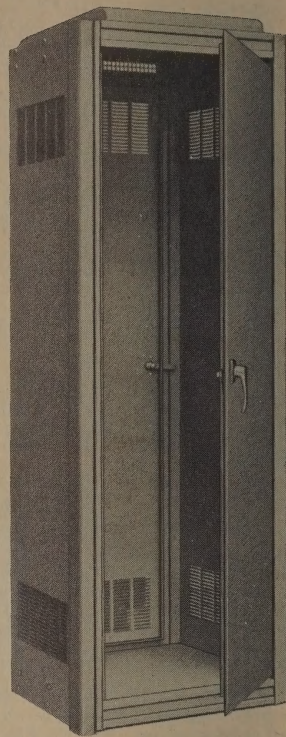
On "Series FD" racks, similar handles with key locks are used on both front and rear doors. Hinges are the "slip-joint" type so that doors may be easily removed.

FINISH: Blue grey wrinkle finish is standard. Black wrinkle enamel or grey hammertone enamel is also available without extra charge if so specified on your order.

ROLLER TRUCK: Use either No. RT-412 or HD-412 for all racks listed on this page; roller trucks are listed on Par-Metal Page 22.

PANELS: Panels 19" wide to fit these racks are listed on Par-Metal Pages 23 and 24.

SHELVES: For Series ER Racks use shelf No. ER-2212 listed on Par-Metal Page 26. To install shelves in Series FD Racks, it is recommended that Vertical Side Supports, Brackets and Shelves listed on Par-Metal Page 10 be used.



"FD" SERIES
WITH FRONT AND
REAR DOOR

Catalog No.	Doors	Overall Dimensions	Panel Space	Clear Inside Width (Front)	Clear Inside Width (Rear)	Clear Inside Depth	Shipping Wt. Lbs.	Net Price
ER-223-A	Rear only	43 1/4 x 22 x 18"	36 3/4 x 19"	**17 3/8"	19"	16 3/4"	90	\$ 52.20
ER-225-A	Rear only	67 3/4 x 22 x 18"	61 1/4 x 19"	**17 5/8"	19"	16 3/4"	120	64.35
ER-227-A	Rear only	83 1/2 x 22 x 18"	77 x 19"	**17 3/8"	19"	16 3/4"	140	77.70
FD-223-A	Front & Rear	43 1/4 x 22 x 18"	36 3/4 x 19"	19 1/8"	19"	*16"	110	66.90
FD-225-A	Front & Rear	67 3/4 x 22 x 18"	61 1/4 x 19"	19 1/8"	19"	*16"	150	83.10
FD-227-A	Front & Rear	83 1/2 x 22 x 18"	77 x 19"	19 1/8"	19"	*16"	175	103.95

*clearance between front and rear doors.

**between panel mounting angles.



MULTI-RACK ASSEMBLY

MULTI-RACK CABINET ASSEMBLIES

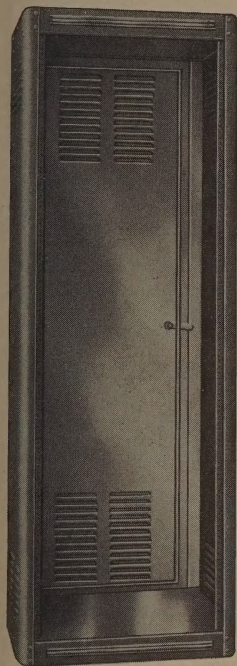
MULTI-RACK ASSEMBLIES: Both Series "ER" and "FD" racks may be set up in rows as shown. The use of "venetian type" louvers provides a flat exterior surface on the sides of the racks; separate side plates with welded screw studs inserted at top and bottom of adjacent sides simplifies the assembly — no screw-drivers or wrenches are needed. Vertical joining trims overlap the joint between racks on the sketch.

SERIES "FD" RACKS: This series with front and rear doors has adjustable panel mounting angles, which may be located at any distance from front to rear of rack. VERTICAL SIDE SUPPORTS listed on Par-Metal Page 10 will fit into these racks.

ASK YOUR DISTRIBUTOR FOR PAR-METAL PRODUCTS CORP. CATALOG

PAR-METAL TYPE "A" RELAY RACKS

ROUNDED CORNER TYPE—FOR 19" WIDE PANELS



"ER" SERIES
WITH REAR DOOR ONLY

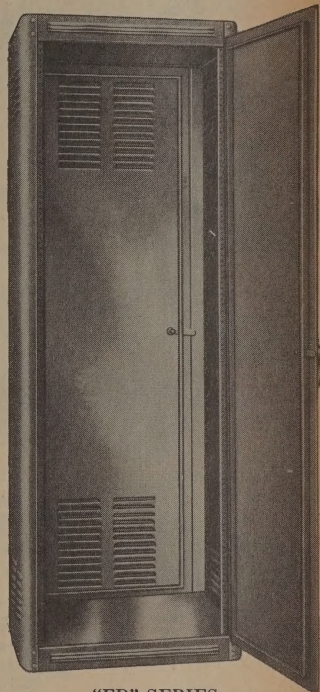
THESE RACKS ARE SIMILAR in construction to our Series "ER" Racks. They provide a combination of standard functional design and superior construction at a modest price. The vertical front corners are nicely rounded, and the top and bottom are trimmed with chrome finished mouldings. The panels fit into a recess, so that the edges are not exposed.

CABINET: Entire cabinet is constructed of 1/16" thick cold-rolled steel. These racks are shipped "knocked-down" with necessary bolts for easy assembly. Screws for mounting panels are supplied.

PANEL MOUNTING: Angle irons are 7/64" thick steel, holes are accurately drilled and tapped 10-32 thread for all types of panels.

HARDWARE: Doors are of the same design as our modular racks. "SERIES ER" racks are equipped with die-cast non-locking handles on rear doors. On "SERIES FD" racks, similar handles with key locks are used on both front and rear doors. Hinges are the "slip-joint" type so that doors may be easily removed.

FRONT DOOR RACKS: On Series FD racks, the front panel mounting angles are recessed 2" deep to allow clearance for dials, etc. The clear inside depth behind the panel is 15".



"FD" SERIES
WITH FRONT AND REAR DOOR

S P E C I F I C A T I O N S

Catalog No.	Doors	Overall Dimensions	Panel Space	Clear Inside Depth	Clear Inside Width (Rear)	Clear Inside Width (Front)	Shipping Wt. Lbs.	Net Price
ER-213-A	Rear only	42 x22x18"	36¾x19"	16¾"	19"	**17¾"	85	\$37.20
ER-215-A	Rear only	66½x22x18"	61¼x19"	16¾"	19"	**17¾"	110	54.90
ER-217-A	Rear only	82¼x22x18"	77 x19"	16¾"	19"	**17¾"	130	66.30
FD-215-A	Front & Rear	66½x22x18"	61¼x19"	*15"	19"	19½"	130	73.92
FD-217-A	Front & Rear	82¼x22x18"	77 x19"	*15"	19"	19½"	155	89.10

*clearance behind panel.

**between panel mounting angles.

FINISH: Blue grey wrinkle finish is standard. Black wrinkle enamel or grey hammertone enamel is also available without extra charge if so specified on your order.

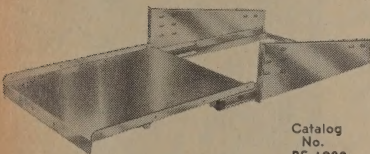
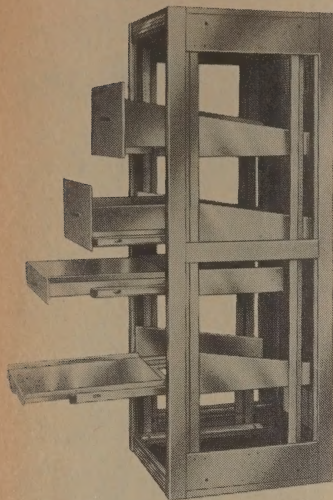
PANELS: Panels 19" wide to fit these racks are listed on Par-Metal Pages 23 and 24.

ROLLER TRUCK: No. RT-412 will fit all racks listed on this page. Roller trucks are listed on Par-Metal Page 22.

SHELVES: For series ER-215A racks, use shelf No. ER-2212. For series FD-215A racks, use shelf No. R-2225. Both shelves are listed on Par-Metal Page 26.

PAR-METAL RACK TYPE SLIDE ASSEMBLIES

GENERAL DESCRIPTION



These slide assemblies will save considerable layout and assembly time by eliminating the need to align and mount individual slides directly to the interior of a rack.

All models consist of two units: a heavy cradle made from 7/64" steel, and the sliding unit (either the basic shelf, drawer, or desk shelf). The cradle is first mounted to the rack; the sliding unit slips into place on the cradle, and may be removed when desired. Additional holes are provided in the side brackets of the shelf assembly for mounting to our standard vertical side supports. Either method will provide a rigid support; both may be used together where desirable.

The basic slide assemblies for use in 19" wide panels **will accommodate chassis up to 17" wide**. All of the "usable space" noted below may be fully extended from the front of the rack; load capacities are based on the shelf in this position. All units are ruggedly constructed to withstand constant usage. All parts are securely welded or fastened with stainless steel rivets.

BASIC SLIDE ASSEMBLIES

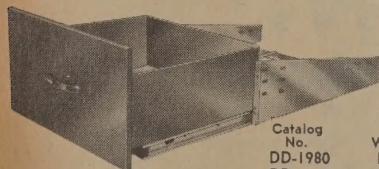
The basic slide assembly illustrated is sold as a complete unit, ready for installation in all 18" or 24" deep racks. Panels may be attached to chassis by using standard brackets or any other convenient method. The panel and chassis assembly is then bolted directly to the slide pan.

Formed panels with a minimum height of 7" are recommended. Four models are listed to fit racks using panels either 19" or 24" wide. The BS-1940 and BS-2419 are identical in size, but have different load capacities.

*All load capacities are conservatively rated to carry the full load with the sliding shelf completely extended. All parts are zinc plated.

Catalog No.	Usable Space Width	Depth	Panel Width	Rack Depth	Bracket Height	Shelf Height	* Load Capacity	Net Price	Shipping Weight
BS-1980	17 1/8"	14"	19"	18" or 24"	6 1/2"	1 3/4"	50 lbs.	\$19.25	24 lbs.
BS-1940	17 1/8"	20"	19"	24"	6 1/2"	1 3/4"	36 lbs.	25.50	32 lbs.
BS-2419	17 1/8"	20"	19"	24"	6 1/2"	1 3/4"	60 lbs.	30.75	32 lbs.
BS-2424	22 1/8"	20"	24"	24"	6 1/2"	1 3/4"	55 lbs.	33.00	35 lbs.

Special brackets are available for mounting rack panels, as listed on Par-Metal page 26.



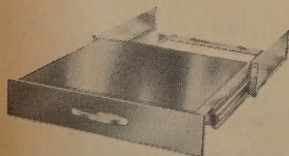
STORAGE DRAWER ASSEMBLIES

These drawers are suitable for stationery, instruments, parts, etc. The drawers are mounted on the basic slide assemblies described above. They are available either 7" or 10 1/2" high to match standard rack panels of the same height. Three models are listed for racks with 19" wide panels, and one for 24" wide panel racks.

Catalog No.	Usable Space Width	Length	Depth	Panel Height	Panel Width	Rack Depth	* Load Capacity	Net Price	Shipping Weight
DD-1980	17"	14"	5"	7"	19"	18" or 24"	40 lbs.	\$26.50	33 lbs.
DD-1940	17"	20"	5"	7"	19"	24"	25 lbs.	35.00	42 lbs.
DD-2419	17"	20"	8"	10 1/2"	19"	24"	45 lbs.	41.90	50 lbs.
DD-2424	22"	20"	8"	10 1/2"	24"	24"	45 lbs.	46.75	50 lbs.

DESK SHELF ASSEMBLIES

This assembly effectively provides a retractable writing desk, or may be used for supporting test instruments or other devices. When not in use, it saves valuable aisle space. The writing surface is charcoal grey plastic. The front requires only 3 1/2" of panel space, and is provided with a drawer pull. It is made for racks using panels either 19" or 24" wide. No. SK-1970 and SK-2419 are identical except for load capacity.

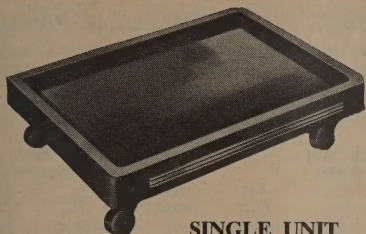


Catalog No.	Shelf Size Width Depth		Writing Surface	Pulls Out	Panel Width	Rack Depth	* Load Capacity	Net Price	Shipping Weight
SK-1970	17"	17"	Laminated Plastic	16 3/8"	19"	18" or 24"	36 lbs.	\$36.00	32 lbs.
SK-2419	17"	17"	Laminated Plastic	16 3/8"	19"	18" or 24"	60 lbs.	41.50	32 lbs.
SK-2424	22"	17"	Laminated Plastic	16 3/8"	24"	24"	60 lbs.	48.75	35 lbs.

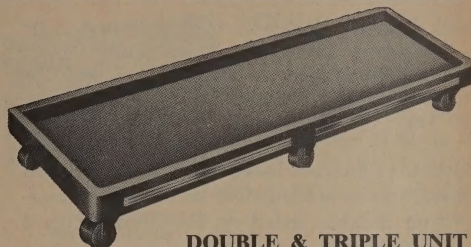
IMPORTANT: When ordering, please specify paint finish on front panels or drawer fronts of series "DD" or "SK" assemblies. Standard finishes are grey hammertone, black wrinkle, blue grey wrinkle, primer coat only. Other finishes available.

PAR-METAL PRODUCTS CORP. • ENGINEERING ASSISTANCE AVAILABLE

PAR-METAL — ROLLER TRUCKS



SINGLE UNIT



DOUBLE & TRIPLE UNIT

These roller trucks have been designed to fit all the cabinet racks listed on other pages. The overall size is about two inches larger than the racks to provide safer weight distribution of the rack and its contents. They are attractively styled with rounded front corners and chrome finished moulding.

STANDARD TYPE: Made from 1/16" steel, securely welded and equipped with swivel type casters using 2" diameter rubber composition wheels.

HEAVY DUTY TYPE: Similar to the above, but bottom of truck is reinforced with 7/16" thick steel braces. Casters are ball bearing swivel type, using 3" diameter hard rubber composition wheels. Load capacity of each caster is 225 lbs.

Trucks are available for one, two, or three racks, and are listed below as single, double and triple units. Double units have six casters, and triple units have eight casters.

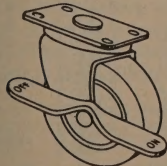
BRAKE CASTERS: The use of brake type casters is desirable both as a utility and safety measure. This is particularly true where racks have been loaded to capacity. These casters are available for all heavy duty trucks.

SEMI-CUSTOM TRUCKS: WE CAN SUPPLY ON A "SEMI-CUSTOM" BASIS pressed steel roller trucks for our cabinet racks up to 36" wide and 88" long. They can be equipped with 4" dia. wheel casters and necessary foot brakes. The extra width is used in front of the rack assembly to provide stability where extension shelves and other accessories are mounted on the front of the racks. Drawings and prices available upon request.

FINISH: Blue grey ripple enamel is standard; all other finishes listed on Par-Metal Page 3 will be supplied without additional charge. **PLEASE SPECIFY FINISH WHEN ORDERING.**

TO FIT RACKS LISTED BELOW:	Par-Metal Rack Page No.	STD. TYPE		HEAVY DUTY TYPE					
		SINGLE Catalog No.	UNIT Net Price	SINGLE Catalog No.	UNIT Net Price	DOUBLE Catalog No.	UNIT Net Price	TRIPLE Catalog No.	UNIT Net Price
DL-1713, DL-2613, DL-3513	18	RT-410	10.68						
ER-213, 215, 217A-FD-215, 217-A	20	RT-412	12.87	HD-412	22.00	HD-412-2	44.00	HD-412-3	85.00
ER-223, 225, 227-A	19	RT-412	12.87	HD-412	22.00	HD-412-2	44.00	HD-412-3	85.00
FD-223, 225, 227-A	19	RT-412	12.87	HD-412	22.00	HD-412-2	44.00	HD-412-3	85.00
PL-FL-4818, 5818, 6718, 7718, 8418	4	See Heavy Duty Type		*HD-425	25.60	HD-425-2	51.20	HD-425-3	97.50
PL-FL-4824, 5824, 6724, 7724, 8424, 9024-B	4	See Heavy Duty Type		*HD-426	28.30	HD-426-2	56.60	HD-426-3	105.00
PL-FL-4827, 5827, 6727, 7727, 8427, 9027-B	4	See Heavy Duty Type		*HD-432	31.10	HD-432-2	62.20	HD-432-3	120.00
PL-FL-4833, 5833, 6733, 7733, 8433, 9033-B	4	See Heavy Duty Type		*HD-438	38.60	HD-438-2	77.20	HD-438-3	155.00
PR-FR-4818, 5818, 6718, 7718, 8418	6	See Heavy Duty Type		*HD-425	25.60	HD-425-2	51.20	HD-425-3	97.50
PR-FR-4824, 5824, 6724, 7724, 8424, 9024-B	6	See Heavy Duty Type		*HD-426	28.30	HD-426-2	56.60	HD-426-3	105.00
PR-FR-4827, 5827, 6727, 7727, 8427, 9027-B	6	See Heavy Duty Type		*HD-432	31.10	HD-432-2	62.20	HD-432-3	120.00
PR-FR-4833, 5833, 6733, 7733, 8433, 9033-B	6	See Heavy Duty Type		*HD-438	38.60	HD-438-2	77.20	HD-438-3	155.00
PX-FX-3718, 4818, 5818, 6718-B	8	RT-412	12.87	HD-412	22.00	HD-412-2	44.00	HD-412-3	85.00
PX-FX-7718, 8418	8	See Heavy Duty Type		HD-412	22.00	HD-412-2	44.00	HD-412-3	85.00
PX-FX-4824, 5824, 6724, 7724, 8424, 9024-B	8	See Heavy Duty Type		HD-420	25.40	HD-420-2	50.80	HD-420-3	97.50
PX-FX-4827, 5827, 6727, 7727, 8427, 9027-B	8	See Heavy Duty Type		HD-427	28.60	HD-427-2	57.20	HD-427-3	112.00
PX-FX-4833, 5833, 6733, 7733, 8433, 9033-B	8	See Heavy Duty Type		HD-434	35.50	HD-434-2	71.00	HD-434-3	142.00

* For racks with detachable side panels attached to racks.



BRAKE TYPE CASTERS: Brake type casters are supplied to replace the two front casters of single roller trucks; the three front casters of double roller trucks, and four front casters on triple roller trucks. Additional cost per roller truck is as follows:

For single units (HD-412, etc.).....	\$ 8.50
For double units (HD-412-2, etc.).....	12.75
For triple units (HD-412-3, etc.).....	17.00

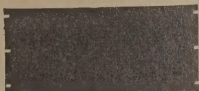
ASK YOUR DISTRIBUTOR FOR PAR-METAL PRODUCTS CORP. CATALOG

PAR-METAL RACK PANELS 19"-24"-30" WIDE

All panels on this page are uniformly slotted to fit Racks, Pedestals and Desk Panel Cabinets on Par-Metal Pages 4, 6, 8, 9, 15, 17, 18, 19 and 20. They will also fit any other rack equipment having multiple $1\frac{1}{4}$ "- $\frac{1}{2}$ " spacings or what is commonly termed as W.E. spacing.

In addition to finishes listed below, Primer Coat is optional at the same prices as Grey Hammer-tone. Other finishes listed on Par-Metal Page 3 are also available.

STANDARD STEEL BLANK PANELS $\frac{1}{8}$ " STEEL



Standard flat panels made from $\frac{1}{8}$ " thick steel, either 19", 24", or 30" wide.

19" WIDE PANELS — $\frac{1}{8}$ " STEEL

Black Wrinkle Cat. No.	Blue Grey Wrinkle Cat. No.	Net Price	Panel Height	Grey Hammer-tone Cat. No.	Net Price
6600	G-6600	\$.81	1 $\frac{3}{4}$ "	H-6600	\$.87
6601	G-6601	1.02	3 $\frac{1}{2}$ "	H-6601	1.11
6602	G-6602	1.29	5 $\frac{1}{4}$ "	H-6602	1.41
6603	G-6603	1.56	7"	H-6603	1.71
6604	G-6604	1.86	8 $\frac{3}{4}$ "	H-6604	2.04
6605	G-6605	2.10	10 $\frac{1}{2}$ "	H-6605	2.31
6606	G-6606	2.49	12 $\frac{1}{4}$ "	H-6606	2.73
6607	G-6607	2.89	14"	H-6607	3.18
6608	G-6608	3.24	15 $\frac{3}{4}$ "	H-6608	3.54
6609	G-6609	3.60	17 $\frac{1}{2}$ "	H-6609	3.96
6610	G-6610	3.98	19 $\frac{3}{4}$ "	H-6610	4.38
6611	G-6611	4.29	21"	H-6611	4.71

24" WIDE PANELS — $\frac{1}{8}$ " STEEL

Black Wrinkle Cat. No.	Blue Grey Wrinkle Cat. No.	Net Price	Panel Height	Grey Hammer-tone Cat. No.	Net Price
6201	G-6201	\$1.38	3 $\frac{1}{2}$ "	H-6201	\$1.52
6202	G-6202	1.77	5 $\frac{1}{4}$ "	H-6202	1.95
6203	G-6203	2.16	7"	H-6203	2.38
6204	G-6204	2.76	8 $\frac{3}{4}$ "	H-6204	3.04
6205	G-6205	3.15	10 $\frac{1}{2}$ "	H-6205	3.47
6206	G-6206	3.57	12 $\frac{1}{4}$ "	H-6206	3.93
6207	G-6207	4.35	14"	H-6207	4.79
6208	G-6208	4.95	15 $\frac{3}{4}$ "	H-6208	5.45
6209	G-6209	5.40	17 $\frac{1}{2}$ "	H-6209	5.94
6210	G-6210	6.09	19 $\frac{3}{4}$ "	H-6210	6.70
6211	G-6211	6.60	21"	H-6211	7.26

30" WIDE PANELS — $\frac{1}{8}$ " STEEL

Black Wrinkle Cat. No.	Blue Grey Wrinkle Cat. No.	Net Price	Panel Height	Grey Hammer-tone Cat. No.	Net Price
6301	G-6301	\$2.10	3 $\frac{1}{2}$ "	H-6301	\$2.31
6302	G-6302	2.55	5 $\frac{1}{4}$ "	H-6302	2.81
6303	G-6303	3.00	7"	H-6303	3.30
6304	G-6304	3.60	8 $\frac{3}{4}$ "	H-6304	3.96
6305	G-6305	3.99	10 $\frac{1}{2}$ "	H-6305	4.39
6306	G-6306	4.71	12 $\frac{1}{4}$ "	H-6306	5.18
6307	G-6307	5.37	14"	H-6307	5.91
6308	G-6308	6.00	15 $\frac{3}{4}$ "	H-6308	6.60
6309	G-6309	6.72	17 $\frac{1}{2}$ "	H-6309	7.39
6310	G-6310	7.44	19 $\frac{3}{4}$ "	H-6310	8.18
6311	G-6311	8.16	21"	H-6311	8.98

STANDARD ALUMINUM BLANK PANELS

These aluminum panels are made from No. 3003-H14 aluminum alloy. Panels 24" or 30" wide, made from $\frac{1}{16}$ " aluminum, are available on order.

19" WIDE PANELS — $\frac{1}{16}$ " ALUMINUM

Black Wrinkle Cat. No.	Blue Grey Wrinkle Cat. No.	Net Price	Panel Height	Grey Hammer-tone Cat. No.	Net Price
6675	G-6675	\$.96	1 $\frac{3}{4}$ "	H-6675	\$1.05
6676	G-6676	1.35	3 $\frac{1}{2}$ "	H-6676	1.47
6677	G-6677	1.86	5 $\frac{1}{4}$ "	H-6677	2.04
6678	G-6678	2.37	7"	H-6678	2.61
6679	G-6679	2.88	8 $\frac{3}{4}$ "	H-6679	3.15
6680	G-6680	3.42	10 $\frac{1}{2}$ "	H-6680	3.75
6681	G-6681	3.89	12 $\frac{1}{4}$ "	H-6681	4.26
6682	G-6682	4.56	14"	H-6682	5.01
6683	G-6683	5.13	15 $\frac{3}{4}$ "	H-6683	5.64
6684	G-6684	5.60	17 $\frac{1}{2}$ "	H-6684	6.15
6685	G-6685	6.27	19 $\frac{3}{4}$ "	H-6685	6.90
6686	G-6686	6.87	21"	H-6686	7.56

24" WIDE PANELS — $\frac{1}{16}$ " ALUMINUM

Black Wrinkle Cat. No.	Blue Grey Wrinkle Cat. No.	Net Price	Panel Height	Grey Hammer-tone Cat. No.	Net Price
6275	G-6275	\$1.80	1 $\frac{3}{4}$ "	H-6275	\$1.98
6276	G-6276	2.28	3 $\frac{1}{2}$ "	H-6276	2.51
6277	G-6277	3.00	5 $\frac{1}{4}$ "	H-6277	3.30
6278	G-6278	3.81	7"	H-6278	4.19
6279	G-6279	4.74	8 $\frac{3}{4}$ "	H-6279	5.21
6280	G-6280	5.73	10 $\frac{1}{2}$ "	H-6280	6.30
6281	G-6281	6.66	12 $\frac{1}{4}$ "	H-6281	7.33
6282	G-6282	7.62	14"	H-6282	8.38
6283	G-6283	8.58	15 $\frac{3}{4}$ "	H-6283	9.44
6284	G-6284	9.54	17 $\frac{1}{2}$ "	H-6284	10.49
6285	G-6285	10.47	19 $\frac{3}{4}$ "	H-6285	11.52
6286	G-6286	11.40	21"	H-6286	12.54

30" WIDE PANELS — $\frac{1}{16}$ " ALUMINUM

Black Wrinkle Cat. No.	Blue Grey Wrinkle Cat. No.	Net Price	Panel Height	Grey Hammer-tone Cat. No.	Net Price
6376	G-6376	\$2.73	3 $\frac{1}{2}$ "	H-6376	\$3.00
6377	G-6377	3.96	5 $\frac{1}{4}$ "	H-6377	4.36
6378	G-6378	5.19	7"	H-6378	5.71
6379	G-6379	6.42	8 $\frac{3}{4}$ "	H-6379	7.06
6380	G-6380	7.65	10 $\frac{1}{2}$ "	H-6380	8.42
6381	G-6381	8.88	12 $\frac{1}{4}$ "	H-6381	9.77
6382	G-6382	10.11	14"	H-6382	11.12
6383	G-6383	11.34	15 $\frac{3}{4}$ "	H-6383	12.47
6384	G-6384	12.57	17 $\frac{1}{2}$ "	H-6384	13.83
6385	G-6385	13.80	19 $\frac{3}{4}$ "	H-6385	15.18
6386	G-6386	15.00	21"	H-6386	16.50

19" WIDE PANELS — $\frac{3}{16}$ " ALUMINUM

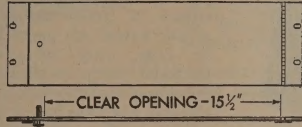
Black Wrinkle Cat. No.	Blue Grey Wrinkle Cat. No.	Net Price	Panel Height	Grey Hammer-tone Cat. No.	Net Price
6675-3	G-6675-3	\$1.65	1 $\frac{3}{4}$ "	H-6675-3	\$1.74
6676-3	G-6676-3	2.28	3 $\frac{1}{2}$ "	H-6676-3	2.40
6677-3	G-6677-3	3.36	5 $\frac{1}{4}$ "	H-6677-3	3.54
6678-3	G-6678-3	4.14	7"	H-6678-3	4.38
6679-3	G-6679-3	5.16	8 $\frac{3}{4}$ "	H-6679-3	5.43
6680-3	G-6680-3	6.18	10 $\frac{1}{2}$ "	H-6680-3	6.51
6681-3	G-6681-3	7.20	12 $\frac{1}{4}$ "	H-6681-3	7.59
6682-3	G-6682-3	8.22	14"	H-6682-3	8.64
6683-3	G-6683-3	9.30	15 $\frac{3}{4}$ "	H-6683-3	9.78
6684-3	G-6684-3	10.35	17 $\frac{1}{2}$ "	H-6684-3	10.89
6685-3	G-6685-3	11.40	19 $\frac{3}{4}$ "	H-6685-3	12.00
6686-3	G-6686-3	12.60	21"	H-6686-3	13.26

PAR-METAL PRODUCTS CORP. • CONVENIENT FACTORY WAREHOUSE

PAR-METAL RACK PANELS 19" & 24" WIDE

In addition to finishes listed below, Primer Coat is optional at the same prices as Grey Hammertone. Other finishes listed on Par-Metal Page 3 are also available.

SIDE HINGED BLANK PANELS

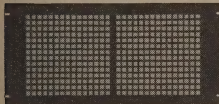


These door panels are made from 7/64" steel, hinged at the sides with a cowl type fastener to hold the door closed.

May be mounted on racks with hinges on right or left side. Clear opening (width) is 15 1/2".

Black Wrinkle Cat. No.	Blue Grey Wrinkle Cat. No.	Net Price	Panel Height	Grey Hammertone Cat. No.	Net Price
HP-350	GP-350	\$3.15	3 1/2"	HA-350	\$3.37
HP-525	GP-525	3.27	5 1/4"	HA-525	3.60
HP-700	GP-700	3.57	7"	HA-700	3.93
HP-875	GP-875	3.84	8 3/4"	HA-875	4.22
HP-1050	GP-1050	4.14	10 1/2"	HA-1050	4.56
HP-1225	GP-1225	4.41	12 1/4"	HA-1225	4.85
HP-1400	GP-1400	4.77	14"	HA-1400	5.25
HP-1750	GP-1750	6.90	17 1/2"	HA-1750	7.59
HP-2100	GP-2100	7.50	21"	HA-2100	8.25

GRILLE PANELS 19" WIDE — 1/8" STEEL



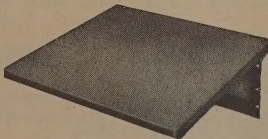
This modern type ventilating grille panel is stamped into the panel itself; it is not a pieced assembly.

Black Wrinkle Cat. No.	Grey Wrinkle Cat. No.	Net Price	Panel Size	Grille Size	Grey Hammertone Cat. No.	Net Price
P-661	G-661	\$2.94	5 1/4"	3 3/4"x14 1/4"	H-661	\$3.23
P-662	G-662	3.24	7"	4 7/8"x14 1/4"	H-662	3.56
P-663	G-663	3.87	8 3/4"	6 7/8"x14 1/4"	H-663	4.26
P-664	G-664	3.54	8 3/4"	*3 7/8"x14 1/4"	H-664	3.89
P-665	G-665	4.29	10 1/2"	8 3/4"x14 1/4"	H-665	4.72
P-666	G-666	4.02	10 1/2"	*5 7/8"x14 1/4"	H-666	4.42
P-667	G-667	4.35	12 1/4"	*7 3/8"x14 1/4"	H-667	4.79

* Allows 3 1/2" space at bottom for chassis mounting.

STANDARD DESK PANELS

These standard tables are rigidly made of 1/8" thick furniture steel. The rounded front corners are of seamless construction and the flanges of the shelf are folded in to provide smooth edges underneath.



They are securely mounted to regular 1/8" steel panels, size 10 1/2" x 19". They may be obtained in two sizes and finishes as listed below. The tables are 22" wide to give full working space across the front of the racks when mounted in place. Shipping weight is 25 lbs.

Cat. No.	Width	Depth	Finish	Net Price
BT-2216	22"	16"	Black enamel	\$15.45
GT-2216	22"	16"	Blue Grey enamel	15.45
HT-2216	22"	16"	Grey Hammertone	17.00
BT-2220	22"	20"	Black enamel	16.95
GT-2220	22"	20"	Blue Grey enamel	16.95
HT-2220	22"	20"	Grey Hammertone	18.65

FORMED BLANK PANELS

These panels are made from 1/16" thick steel, with formed edges to make an overall thickness of 7/16". They are made 19" and 24" wide, with mounting holes on standard centers to fit relay racks.

19" WIDE FORMED PANELS — 1/16" STEEL

Black Wrinkle Cat. No.	Blue Grey Wrinkle Cat. No.	Net Price	Panel Height	Grey Hammertone Cat. No.	Net Price
P-600	G-600	\$1.29	1 3/4"	H-600	\$1.42
P-601	G-601	1.38	3 1/2"	H-601	1.52
P-602	G-602	1.56	5 1/4"	H-602	1.72
P-603	G-603	1.83	7"	H-603	2.01
P-604	G-604	2.19	8 3/4"	H-604	2.39
P-605	G-605	2.46	10 1/2"	H-605	2.71
P-606	G-606	2.88	12 1/4"	H-606	3.17
P-607	G-607	3.24	14"	H-607	3.56
P-608	G-608	3.72	15 3/4"	H-608	4.09
P-609	G-609	4.11	17 1/2"	H-609	4.52
P-610	G-610	4.53	19 1/4"	H-610	4.98
P-611	G-611	4.95	21"	H-611	5.45
P-612	G-612	5.90	22 3/4"	H-612	5.90
P-613	G-613	6.35	24 1/2"	H-613	6.35
P-615	G-615	7.25	28"	H-615	7.25
P-619	G-619	9.90	35"	H-619	9.90
P-623	G-623	12.90	42"	H-623	12.80
P-629	G-629	14.70	52 1/2"	H-629	14.70
P-634	G-634	16.20	61 1/4"	H-634	16.20
P-635	G-635	18.70	70"	H-635	18.70
P-637	G-637	21.30	77"	H-637	21.30
P-639	G-639	23.70	84"	H-639	23.70

24" WIDE FORMED PANELS — 1/16" STEEL

P-641	G-641	\$1.95	3 1/2"	H-641	\$2.15
P-642	G-642	2.37	5 1/4"	H-642	2.61
P-643	G-643	2.85	7"	H-643	3.14
P-644	G-644	3.42	8 3/4"	H-644	3.76
P-645	G-645	3.78	10 1/2"	H-645	4.16
P-646	G-646	4.14	12 1/4"	H-646	4.55
P-647	G-647	4.62	14"	H-647	5.08
P-648	G-648	5.22	15 3/4"	H-648	5.74
P-649	G-649	5.82	17 1/2"	H-649	6.40
P-650	G-650	6.45	19 1/4"	H-650	7.10
P-651	G-651	7.02	21"	H-651	7.72
P-652	G-652	8.10	22 3/4"	H-652	8.10
P-653	G-653	8.70	24 1/2"	H-653	8.70
P-655	G-655	9.90	28"	H-655	9.90
P-659	G-659	12.30	35"	H-659	12.30
P-668	G-668	14.70	42"	H-668	14.70
P-669	G-669	17.10	52 1/2"	H-669	17.10
P-674	G-674	19.70	61 1/4"	H-674	19.70
P-675	G-675	22.80	70"	H-675	22.80
P-677	G-677	24.60	77"	H-677	24.60
P-679	G-679	26.70	84"	H-679	26.70

19" WIDE FORMED PANELS — 1/16" STEEL VENTILATED TYPE



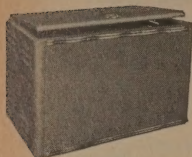
These are standard formed panels with louvre type ventilation as shown above.

Same panels can be supplied in 24" width if required.

Black Wrinkle Cat. No.	Blue Grey Wrinkle Cat. No.	Net Price	Panel Height	Grey Hammertone Cat. No.	Net Price
PV-603	GV-603	\$3.45	7"	HV-603	\$3.80
PV-604	GV-604	3.90	8 3/4"	HV-604	4.29
PV-605	GV-605	4.29	10 1/2"	HV-605	4.72
PV-606	GV-606	4.86	12 1/4"	HV-606	5.35
PV-608	GV-608	5.70	15 3/4"	HV-608	6.27
PV-611	GV-611	7.56	21"	HV-611	8.32

PAR-METAL — DESK CABINETS — AMPLIFIER CHASSIS

DELUXE TYPE CABINETS



These cabinets make attractive housings for commercial and amateur use. The formed type door, with modern handle, is hinged at the back for full access to the interior.

Chrome finished mouldings are mounted on the front at top and bottom. Cabinet has ventilating louvres on each

side, and full width opening at back for leads, etc. Standard finish is blue grey ripple enamel. Prices do not include chassis which are listed on PAR METAL Page 26.

Catalog No.	Overall Dimensions	Panel Size	For Chassis	Shp. Wt. Lbs.	Net Price
CA-300	9x12 $\frac{1}{2}$ x 8"	7 $\frac{1}{2}$ "x 10 $\frac{1}{2}$ "	7x 9x2"	6	\$ 7.95
CA-301	9x16 $\frac{1}{2}$ x 8"	7 $\frac{1}{2}$ "x 14 $\frac{1}{2}$ "	7x 13x2"	7	9.00
CA-302	10x17 $\frac{1}{2}$ x 11"	8 $\frac{1}{2}$ "x 15 $\frac{1}{2}$ "	10x 14x3"	8	12.15
CA-303	10x20 $\frac{1}{2}$ x 9"	8 $\frac{1}{2}$ "x 18 $\frac{1}{2}$ "	8x 17x3"	11	12.15
CA-304	13x20 $\frac{1}{2}$ x 12"	11 $\frac{1}{2}$ "x 18 $\frac{1}{2}$ "	10x 17x3"	15	13.65

ROUNDED CORNER TYPE CABINETS

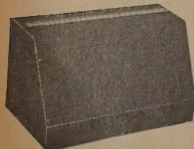


Standard type cabinets are similar in design to those listed above. They have flat type doors, hinged at back to permit full access to the interior. The vertical front corners

are rounded; ventilating louvres are stamped in both sides, and full width opening is provided at the back for leads. Standard finish is blue grey ripple enamel. Prices do not include chassis, which are listed on PAR METAL Page 26.

Catalog No.	Overall Dimensions	Panel Size	For Chassis	Shp. Wt. Lbs.	Net Price
CA-200	8 $\frac{1}{2}$ x10 $\frac{1}{2}$ x 8"	7 $\frac{1}{2}$ "x 8 $\frac{1}{2}$ "	7x 7x2"	6	\$ 5.85
CA-201	8 $\frac{1}{2}$ x12 $\frac{1}{2}$ x 8"	7 $\frac{1}{2}$ "x 10 $\frac{1}{2}$ "	7x 9x2"	7	6.30
CA-202	8 $\frac{1}{2}$ x16 $\frac{1}{2}$ x 8"	7 $\frac{1}{2}$ "x 14 $\frac{1}{2}$ "	7x 13x2"	8	7.65
CA-203	9 $\frac{1}{2}$ x17 $\frac{1}{2}$ x 11"	8 $\frac{1}{2}$ "x 15 $\frac{1}{2}$ "	10x 14x3"	11	10.05
CA-204	12 $\frac{1}{2}$ x20 $\frac{1}{2}$ x 12"	11 $\frac{1}{2}$ "x 18 $\frac{1}{2}$ "	10x 17x3"	15	11.85

SLOPING FRONT CABINETS



May be readily adapted as instrument cases for use in studios, laboratories, etc.

- Top corner is rounded and trimmed with a chrome moulding, and with the blue grey ripple finish makes a very attractive case.

- A chassis may be mounted to a front panel and removed as a unit.

- Rear of case is ventilated, with an opening for connections.
- Prices do not include chassis, which are listed on PAR METAL Page 26.

Catalog No.	Overall Dimensions	For Chassis	Shp. Wt. Lbs.	Net Price
SF-500	8x 8x 8"	7x 7x2"	6	\$ 5.70
SF-501	8x10x 8"	7x 9x2"	7	6.30
SF-502	8x14x 8"	7x 13x2"	8	6.75
SF-503	9x18x 8"	7x 17x3"	10	8.40
SF-504	12x18x12"	10x17x3"	14	10.20

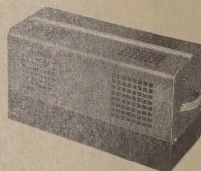
AMPLIFIER FOUNDATION CHASSIS SLOPING FRONT TYPE



These amplifier foundations are useful where a sloping panel is desirable for mounting meters, etc. This panel is removable and protrudes 3" from the face of the screen cover. All parts are finished in blue grey wrinkle enamel, trimmed with a chrome finished moulding and handles at each end. Chassis are supplied WITH bottom plates.

Cat. No.	Chassis Size	Screen Cover	Shp. Wt. Lbs.	Net Price
F-10120	10x12x3"	6 $\frac{1}{2}$ " high	11	\$ 9.15
F-10170	10x17x3"	6 $\frac{1}{2}$ " high	13	10.80
F-13170	13x17x3"	6 $\frac{1}{2}$ " high	15	11.85

ROUNDED CORNER TYPE



Rounded corners effectively streamline the screen covers of these chassis. Ventilation is obtained through rectangular screen openings. The moulding and handles, finished in chrome with red striping, gives the units a distinctive, modern design.

The screen cover is finished in blue grey wrinkle enamel to contrast with the black chassis. Chassis are drilled

for bottom plates, which are listed on PAR METAL Page 26.

Cat. No.	Chassis Size	Depth of Cover	Shp. Wt. Lbs.	Net Price
DF-510	5x10x3"	6"	7	\$5.94
DF-615	6x14x3"	6"	8	6.60
DF-717	7x17x3"	6"	9	7.65
DF-1012	10x12x3"	6"	9	7.65
DF-1017	10x17x3"	6"	10	8.55
DF-1317	13x17x3"	6"	12	10.20

STEEL UTILITY CASES



These cases have flat tops and bottoms, which are removable.

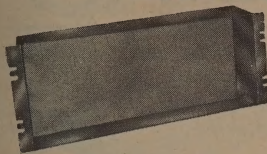
Made from 20 gauge sheet steel, with flanged edges and spot-welded corners. Finished in black wrinkle enamel.

Cat. No.	Overall Size	Shp. Wt. Lbs.	Net Price	Cat. No.	Overall Size	Shp. Wt. Lbs.	Net Price
MC-442	4x 4x 2"	1	\$1.26	MC-666	6x 6x 6"	3	\$2.31
MC-453	4x 5x 3"	2	1.47	MC-8101	8x10x10"	7	4.48
MC-596	5x 9x 6"	4	2.79	MC-8107	8x10x 7"	6	3.90
MC-654	6x 5x 4"	3	1.68	MC-1128	11x12x 8"	9	4.95

ASK YOUR DISTRIBUTOR FOR PAR-METAL PRODUCTS CORP. CATALOG

PAR-METAL BLANK CHASSIS BASES

VERTICAL RACK MOUNTING CHASSIS TO FIT 19" STANDARD RACKS



These chassis are fabricated from $\frac{1}{8}$ " thick aluminum with etched finish, or $\frac{1}{8}$ " thick steel, zinc plated. Overall length including mounting flanges is 18 $\frac{3}{4}$ ". They are designed to mount under 19" wide formed panels listed on PAR-METAL Page 24. The 4 $\frac{15}{16}$ " height is for use with 5 $\frac{1}{4}$ " high panels, 6 $\frac{1}{16}$ " for 7" high panels, etc.

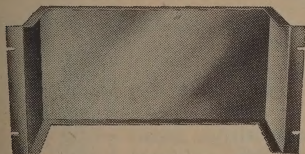
Additional slots are provided in chassis side flanges to clear panel attachment screws. Although chassis are 18 $\frac{3}{4}$ " overall width, they will fit on any relay rack.

ALUMINUM Cat. No.	Net Price	Chassis Dimensions	STEEL Cat. No.	Net Price
AC-402	\$3.98	4-15/16"x17"x3"	SC-402	\$3.06
AC-403	4.54	6-11/16"x17"x3"	SC-403	3.45
AC-404	5.10	8-7/16"x17"x3"	SC-404	3.84
AC-405	5.64	10-3/16"x17"x3"	SC-405	4.23
AC-406	6.30	11-15/16"x17"x3"	SC-406	4.59

VERTICAL RACK MOUNTING CHASSIS

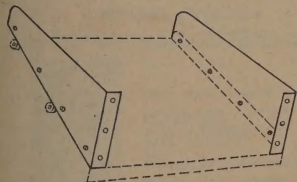
TO FIT 19" STANDARD RACKS

These chassis are suitable for installation in all cabinet relay racks. They may also be used on Deluxe channel racks listed on PAR-METAL Page 18. Material used is $\frac{1}{8}$ " aluminum, with corners welded for added rigidity. Etched finish on inside and outside. All chassis are 5 $\frac{1}{4}$ " deep; overall width is 19"; chassis width inside is 16 $\frac{1}{2}$ ".



Catalog No.	Height	Shipping Wt. Lbs.	Net Price
AC-430	1 $\frac{3}{4}$ "	2	\$2.70
AC-431	3 $\frac{1}{2}$ "	3	3.09
AC-432	5 $\frac{1}{4}$ "	3	3.51
AC-433	7"	4	3.90
AC-434	8 $\frac{3}{4}$ "	5	4.29
AC-435	10 $\frac{1}{2}$ "	5	4.80
AC-436	12 $\frac{1}{4}$ "	6	5.46
AC-437	14"	7	5.97

PANEL MOUNTING BRACKETS FOR BASIC SLIDE ASSEMBLIES



These brackets are useful for attaching rack panels to the sliding shelves of our series "BS" basic slide assemblies listed on Par-Metal page 21. Special short screws and nuts are supplied for mounting brackets which assures free movement of the shelf after assembly.

Brackets are made from $\frac{1}{8}$ " steel, zinc plated. Brackets are 6 $\frac{1}{2}$ " high at front, and 3 $\frac{1}{2}$ " at back. Front flange is $\frac{1}{8}$ " wide. Made in two lengths, for 14" and 20" deep shelf assemblies. Price listed below is for one pair of brackets, with mounting screws and nuts.

Cat. No.	Length	To Fit Assembly	Net Price
BR-14	14 $\frac{1}{4}$ "	BS-1980	\$2.55 pair
BR-20	20 $\frac{1}{4}$ "	BS-1940, 2419, 2424	3.45 pair

SHELVES FOR CABINET RACKS

These shelves are designed to fit into the various type "A" enclosed racks listed in this catalog. They are constructed to be mounted inside the rack, with side bolt mounting. All shelves are 1" high, and finished in black ripple enamel. Shipping weight of all shelves is 10 lbs.



Catalog No.	Will Fit Rack No.	Par-Metal Rack Cat. No.	Shelf Size	Net Price
ER-2112	ER-213, ER-215, ER-217-A	20	15" x 21 $\frac{15}{16}$ "	\$3.60
R-2225	FD-215, FD-217-A	20	12" x 21 $\frac{15}{16}$ "	3.60
ER-2212	ER-223, ER-225, ER-227-A	19	15" x 21 $\frac{15}{16}$ "	3.60
R-2128	DL-1713, 2613, 3513	18	12" x 21 $\frac{15}{16}$ "	2.94

CHASSIS



Stamped from one piece of cold rolled steel zinc-plated, and have four solid sides with welded corners. Bottom edges are flanged in on four sides to provide additional reinforcement, and they are drilled for bottom plates. The chassis are made from #20 gauge steel, except those marked (*) which are stamped from $\frac{1}{16}$ " steel for heavy-duty use.

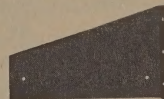
Cat. No.	Zinc Plated	Size	Shp. Wt. Lbs.	Net Price
C-4508		5 x 10 x 3"	3	\$1.38
C-4510		7 x 7 x 2"	2	1.08
C-4511		7 x 9 x 2"	2	1.29
C-4513		7 x 13 x 2"	3	1.56
C-4515		7 x 17 x 3"	4	1.98
C-4532		8 x 17 x 3"	5	1.98
C-4524		10 x 14 x 3"	5	2.01
C-4526		10 x 17 x 3"	7	2.22
C-4533*		11 x 17 x 2"	7	2.91
C-4534*		11 x 17 x 3"	9	3.18
C-4535*		13 x 17 x 2"	8	3.12
C-4536*		13 x 17 x 3"	9	3.51
C-4537*		13 x 17 x 4"	10	3.87
C-4540*		17 x 17 x 4"	13	4.65

BOTTOM PLATES

These bottom plates have holes to match the standard type chassis listed above, and also have pressed bumpers at the four corners.

Cat. No.	Zinc Plated	Size	Shp. Wt. Lbs.	Net Price
CP-4508		5 x 10"	1	\$.48
CP-4510		7 x 7"	1	.57
CP-4511		7 x 9"	1	.66
CP-4513		7 x 13"	2	.75
CP-4515		7 x 17"	2	.87
CP-4531		8 x 17"	2	.90
CP-4534		10 x 14"	2	.90
CP-4528		10 x 17"	2	1.08
CP-4533		11 x 17"	2	1.05
CP-4535		13 x 17"	3	1.26
CP-4540		17 x 17"	4	1.71

CHASSIS MOUNTING BRACKETS



These brackets are made for assembly with our standard or heavy duty type chassis listed directly above. Panels must be at least 7" high.

FINISH: Black enamel only. They are made from 1/16" thick steel. Cat. Nos. SB-78 thru SB-713 Chassis Mounting Brackets are to be used with the stipulated size base only. Cat. No. SB-717 is used for 17" Bases and larger sizes.

Cat. No.	Base Dimension	Shp. Wt. Lbs.	Net Price
SB-78	For 8"	2	\$1.05
SB-710	For 10"	2	1.23
SB-711	For 11"	2	1.32
SB-713	For 13"	3	1.50
SB-717	For 17"	4	2.31

ASK YOUR DISTRIBUTOR FOR PAR-METAL PRODUCTS CORP. CATALOG

PACKAGE WITH PREMIER

STANDARD METAL HOUSINGS FOR THE ELECTRONICS INDUSTRY



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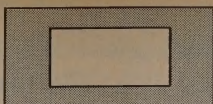
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INDUSTRIAL DISCOUNT SCHEDULE	
Applies to any PREMIER products listed in this catalog.	
If total order at net price is:	Discount
Up to \$199.99	Net Price
\$200 to \$399.99	Net Less 10%
\$400 to \$549.99	Net Less 15%
\$550 to \$699.99	Net Less 20%
\$700 to \$999.99	Net Less 25%
\$1,000 to \$2,499.99	Net Less 30%
\$2,500 OR MORE	Net Less 33 1/3%

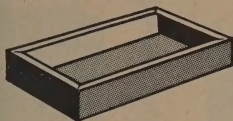
PREMIER METAL PRODUCTS CO., INC.



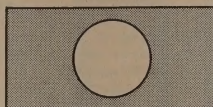
LOUVRES ON TOP (3 Rows — 4" wide)
For FA, FS, PRXA, RMX, FDX



CUT-OUTS
For FA, FS, PRXA, RMX, FDX



SOLID BOTTOM (NO CUT-OUT)
For FA, FS, PRXA, RMX, FDX



ROUND HOLE
For FA, FS, PRXA, RMX, FDX



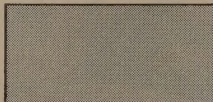
**PROVISION
FOR
MOUNTING
SPECIAL SIZE
CASTERS**



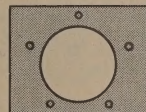
**CYLINDER LOCK (HW-6)
ON SHP PANELS**



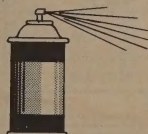
**COPPER PLATED
.0005"
PANEL MOUNTING
ANGLES**



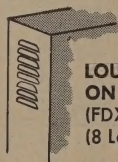
SOLID TOP PANELS on POR, MOR
SOLID REAR PANELS on POR, MOR,
CSC, CMS



MOUNTING HOLES FOR FANS
For FA, FS, PRXA, RMX, FDX



SPECIAL FINISHES



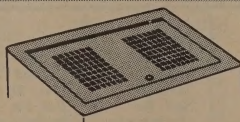
**LOUVRES
ON SIDES
(FDX, RMX only)
(8 Louvres — 6" wide)**



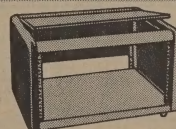
INVERTED BASES
For FA, FS, PRXA, RMX, FDX only



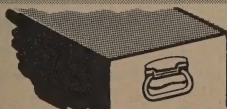
**LOUVRES
ON DOORS
(DF only)
8 Louvres — 6" wide**



**PERFORATIONS IN TOP
OF DCR**



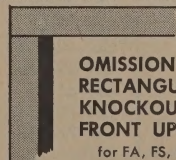
**ASSEMBLED and WELDED
POR CABINETS**



DROP HANDLES (HW-5)
Welded on both sides of
POR, DCR, SDR, MDK only



OPENING IN TOP
with 1/2" recess to accept Louvres (FPL)
or Blank Formed Panels (FP)
for FA, FS, PRXA only



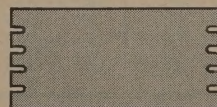
**OMISSION OF
RECTANGULAR
KNOCKOUTS ON
FRONT UPRIGHTS**
for FA, FS, PRXA

LOCKING HANDLE
ON REAR DOOR of
R, FXR, DR, RMX, FDX

**LOCKING HANDLE ON
FD-300 - 306 DOORS**



RECESSED HANDLES
ON SIDES OF POR, DCR,
CSC, MDK ONLY



**PANELS NOTCHED
TO MIL-STD-189**

**PREMIER
CUSTOMIZED
MODIFICATIONS**
Available
for all
STANDARD
UNITS
PREMIER
METAL PRODUCTS CO., INC.

PREMIER

MODULAR ROUNDED CORNER FRAMES



PREM-O-RAK

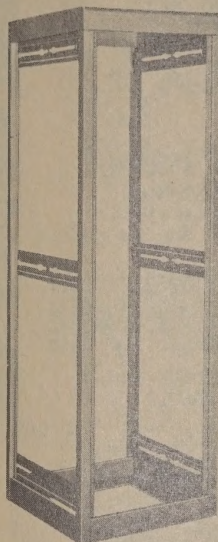
22" and 25½" DEEP for 19" and 24" PANELS

SECTION

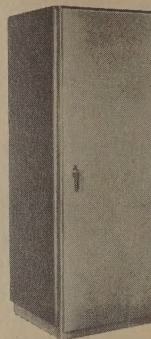
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• Frames accommodate Ball Cornered End Panels (CEP Series)

- Frame Made of No. 14 gauge steel.
- Supplied with two pair of No. 12 gauge steel Panel Mounting Angles. Both legs of the angle are tapped 10-32 on E.I.A. spacings (¾, ¾, ½) to accommodate Front Panels & Chassis Support Angles (CSA series) and Shelves (S series).
- Panel mounting angles are held in place at three points by ¾" carriage bolts and are adjustable to any desired position by means of channel slides.
- Three combination 1¾" and 1½" diameter knockouts furnished on both sides of top and bottom to provide access for cabling between racks.
- Frame completely welded throughout.
- Top of frame is solid. Round hole and 5 mounting holes on top of frame to accommodate Exhaust (EF Series) and Intake (IF Series) Fans, available at additional cost.
- Knockouts supplied on sides of uprights for use in ganging frames.
- A rectangular cutout is provided in bottom for leads, etc.
- Rectangular knockouts provided on front and rear of uprights of frame to accommodate hinge and handle brackets, so that door can be mounted either left or right hand. Doors can be mounted to front or rear of frame.
- Holes punched in bottom to accommodate CA-4 (2"), CA-5 (3"), CA-6 (double 2") and CA-7 (locking 3") casters.
- Finished in Gray Hammertone.



- Designed for MULTIPLE INSTALLATIONS
- TOPS OF FRONT AND REAR ARE ROUNDED



Above unit consists of Frame FA Series, 2 End Panels (CEP Series) and Door (DF Series).

FA FRAME



Above unit consists of Frame (FA Series), 2 End Panels (CEP Series), Flush Door (CD Series), Louvred Panel (FPL Series) and Formed Panels (FP Series)

FRAMES — 22" WIDE

22" DEEP

25½" DEEP

Cat. No.	Shpg. Wt. Lbs.	Net Price	Height	Panel Space	Cat. No.	Shpg. Wt. Lbs.	Net Price
FA-42-22	50	\$76.00	48½"	42 x 19"	FA-42-255	58	\$81.96
FA-52-22	65	84.60	59½"	52½ x 19"	FA-52-255	75	88.80
FA-61-22	80	95.85	67½"	61¼ x 19"	FA-61-255	92	105.60
FA-70-22	100	112.44	76½"	70 x 19"	FA-70-255	115	123.60
FA-77-22	110	115.59	83½"	77 x 19"	FA-77-255	127	127.20

22" DEEP

FRAMES — 27" WIDE

25½" DEEP

Cat. No.	Shpg. Wt. Lbs.	Net Price	Height	Panel Space	Cat. No.	Shpg. Wt. Lbs.	Net Price
FA-2761-22	90	105.00	67½"	61¼ x 24"	FA-2761-255	98	114.60
FA-2770-22	110	123.60	76½"	70 x 24"	FA-2770-255	123	135.60
FA-2777-22	120	126.00	83½"	77 x 24"	FA-2777-255	135	138.00

ORDERING GUIDE

FRAME Cat. No.	Use END PANEL (Page 16) Cat. No.	Use DOOR (Page 18) Cat. No.	Use CHASSIS SUPPORT ANGLE (Page 22) Cat. No.	Use SHELF (Page 22) Cat. No.	Use CHASSIS SLIDES (Pages 27, 28) Length
FA-42-22	CEP-42-22	DF-42	CSA-22	S-22-22	20"
FA-52-22	CEP-52-22	DF-52	CSA-22	S-22-22	20"
FA-61-22	CEP-61-22	DF-61	CSA-22	S-22-22	20"
FA-70-22	CEP-70-22	DF-70	CSA-22	S-22-22	20"
FA-77-22	CEP-77-22	DF-77	CSA-22	S-22-22	20"
FA-42-255	CEP-42-255	DF-42	CSA-255	S-22-255	24"
FA-52-255	CEP-52-255	DF-52	CSA-255	S-22-255	24"
FA-61-255	CEP-61-255	DF-61	CSA-255	S-22-255	24"
FA-70-255	CEP-70-255	DF-70	CSA-255	S-22-255	24"
FA-77-255	CEP-77-255	DF-77	CSA-255	S-22-255	24"
FA-2761-22	CEP-61-22	DF-2761	CSA-22	S-27-22	20"
FA-2770-22	CEP-70-22	DF-2770	CSA-22	S-27-22	20"
FA-2777-22	CEP-77-22	DF-2777	CSA-22	S-27-22	20"
FA-2761-255	CEP-61-255	DF-2761	CSA-255	S-27-255	24"
FA-2770-255	CEP-70-255	DF-2770	CSA-255	S-27-255	24"
FA-2777-255	CEP-77-255	DF-2777	CSA-255	S-22-255	24"

FOR MODIFICATIONS

See Premier Page 2

FOR ACCESSORIES

See Section E

Premier Pages 16 thru 22

FOR BLOWERS, FANS AND HARDWARE

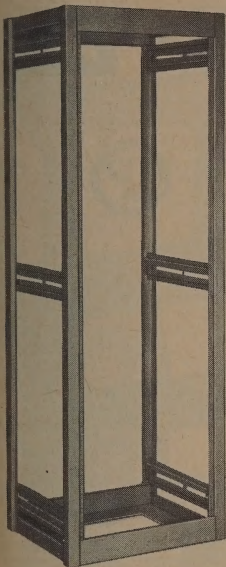
See Section G

Premier Pages 27 thru 32

PREMIER METAL PRODUCTS CO., INC.

PREMIER MODULAR Square Cornered FRAMES

18" and 24" DEEP For 19", 24" and 30" PANELS



PRXA FRAME

- DESIGNED FOR MULTIPLE INSTALLATIONS
- TOPS OF FRONT and REAR are SQUARE
- FRAMES ACCOMMODATE FLUSH SIDE PANELS (FL Series) or ROUNDED SIDE PANELS (SP Series)

- Frame made of No. 14 gauge steel.
- Supplied with two pair of No. 12 gauge steel Panel Mounting Angles. Both legs of the angle are tapped 10-32 on E.I.A. spacings ($\frac{5}{8}$ to $\frac{1}{2}$) to accommodate Front Panels & Chassis Support Angles (CSA series) and Shelves (S series).
- Panel mounting angles are held in place at three points by $\frac{3}{8}$ " carriage bolts and are adjustable to any desired position by means of channel slides.
- Frame completely welded throughout.
- Top of frame is solid. Round hole and 5 mounting holes on top of frame to accommodate Exhaust (EF Series) and Intake (IF Series) Fans, available at additional cost.
- Knockouts supplied on sides of uprights for use in ganging frames.
- A rectangular cutout is provided in bottom for leads, etc.
- Rectangular knockouts provided on front and rear of uprights of frame to accommodate hinge and handle brackets, so that door can be mounted either left or right hand. Doors can be mounted to front or rear of frame.
- Holes punched in bottom to accommodate CA-4 (2"), CA-5 (3"), CA-6 (double 2") and CA-7 (locking 3") casters.
- Finished in Gray Hammertone.

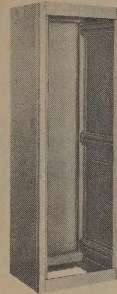


SECTION

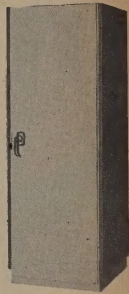
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Above unit consists of Frame (PRXA Series), Rounded Side Panels (SP Series) and Door (DF Series)



Above unit consists of Frame (PRXA Series), Flush Side Panels (FL Series) and Door (DF Series)



Above unit consists of Frame (PRXA Series), Square End Panel (MSP Series) and Door (DF Series)

FRAMES

18" DEEP				22" WIDE				24" DEEP			
Cat. No.	Shpg. Wt.	Lbs.	Net Price	Height	Panel Space	Cat. No.	Shpg. Wt.	Lbs.	Net Price		
PRXA-36	40		\$42.50	42 ⁷ / ₈ "	36 ³ / ₄ x 19"	PRXA-36-24	50		\$62.50		
PRXA-42	48		46.80	48 ¹ / ₈ "	42 x 19"	PRXA-42-24	58		70.80		
PRXA-52	60		57.60	58 ⁵ / ₈ "	52 ¹ / ₂ x 19"	PRXA-52-24	72		78.00		
PRXA-61	70		71.70	67 ³ / ₈ "	61 ¹ / ₄ x 19"	PRXA-61-24	85		99.54		
PRXA-70	88		86.76	76 ¹ / ₈ "	70 x 19"	PRXA-70-24	108		118.56		
PRXA-77	100		88.56	83 ¹ / ₈ "	77 x 19"	PRXA-77-24	120		126.00		
18" DEEP				27" WIDE				24" DEEP			
PRXA-2761	100		80.58	67 ³ / ₈ "	61 ¹ / ₄ x 24"	PRXA-2761-24	134		112.38		
PRXA-2770	104		95.58	76 ¹ / ₈ "	70 x 24"	PRXA-2770-24	140		123.00		
PRXA-2777	116		100.20	83 ¹ / ₈ "	77 x 24"	PRXA-2777-24	156		128.76		
18" DEEP				33" WIDE				24" DEEP			
PRXA-3361	122		85.56	67 ³ / ₈ "	61 ¹ / ₄ x 30"	PRXA-3361-24	162		118.80		
PRXA-3370	126		109.14	76 ¹ / ₈ "	77 x 30"	PRXA-3370-24	169		140.64		
PRXA-3377	142		110.76	83 ¹ / ₈ "	77 x 30 ¹ / ₂ "	PRXA-3377-24	190		143.52		

ORDERING GUIDE

FRAME Cat. No.	FLUSH END PANEL* (Page 17) Cat. No.	SQUARE END PANEL (Page 17) Cat. No.	ROUNDED END PANEL* (Page 17) Cat. No.	Use DOOR (Page 18) Cat. No.	Use CHASSIS SUPPORT ANGLE (Page 22) Cat. No.	Use SHELF (Page 22) Cat. No.	Use CHASSIS SLIDES (Page 27, 28) Cat. No.
PRXA-36	FL-36	MSP-36	SP-36	DF-36	CSA-18	S-2218	16"
PRXA-42	FL-42	MSP-42	SP-42	DF-42	CSA-18	S-2218	16"
PRXA-52	FL-52	MSP-52	SP-52	DF-52	CSA-18	S-2218	16"
PRXA-61	FL-61	MSP-61	SP-61	DF-61	CSA-18	S-2218	16"
PRXA-70	FL-70	MSP-70	SP-70	DF-70	CSA-18	S-2218	16"
PRXA-77	FL-77	MSP-77	SP-77	DF-77	CSA-18	S-2218	16"
PRXA-42-24	FL-36-24	MSP-36-24	SP-36-24	DF-36	CSA-24	S-2224	22"
PRXA-36-24	FL-42-24	MSP-42-24	SP-42-24	DF-42	CSA-24	S-2224	22"
PRXA-52-24	FL-52-24	MSP-52-24	SP-52-24	DF-52	CSA-24	S-2224	22"
PRXA-61-24	FL-61-24	MSP-61-24	SP-61-24	DF-61	CSA-24	S-2224	22"
PRXA-77-24	FL-70-24	MSP-70-24	SP-70-24	DF-70	CSA-24	S-2224	22"
PRXA-70-24	FL-77-24	MSP-77-24	SP-77-24	DF-77	CSA-24	S-2224	22"
PRXA-2761	FL-61	MSP-61	SP-61	DF-2761	CSA-18	S-2718	16"
PRXA-2770	FL-70	MSP-70	SP-70	DF-2770	CSA-18	S-2718	16"
PRXA-2777	FL-77	MSP-77	SP-77	DF-2777	CSA-18	S-2718	16"
PRXA-2761-24	FL-61-24	MSP-61-24	SP-61-24	DF-2761	CSA-24	S-2724	22"
PRXA-2770-24	FL-70-24	MSP-70-24	SP-70-24	DF-2770	CSA-24	S-2724	22"
PRXA-2777-24	FL-77-24	MSP-77-24	SP-77-24	DF-2777	CSA-24	S-2724	22"
PRXA-3361	FL-61	MSP-61	SP-61	DF-3361	CSA-18	S-3318	16"
PRXA-3370	FL-70	MSP-70	SP-70	DF-3370	CSA-18	S-3318	16"
PRXA-3377	FL-77	MSP-77	SP-77	DF-3377	CSA-18	S-3318	16"
PRXA-3361-24	FL-61-24	MSP-61-24	SP-61-24	DF-3361	CSA-24	S-3324	22"
PRXA-3370-24	FL-70-24	MSP-70-24	SP-70-24	DF-3370	CSA-24	S-3324	22"
PRXA-3377-24	FL-77-24	MSP-77-24	SP-77-24	DF-3377	CSA-24	S-3324	22"

FOR MODIFICATIONS

See Premier Page 2

FOR ACCESSORIES

See Section E

Premier Pages 16 thru 22

FOR BLOWERS, FANS AND HARDWARE

See Section G

Premier Pages 27 thru 32

* End Panels fit into recess on side of frame.

PREMIER METAL PRODUCTS CO., INC.

ALL PRICES 10% HIGHER WEST OF MISSISSIPPI

PREMIER PAGE 4

PREMIER

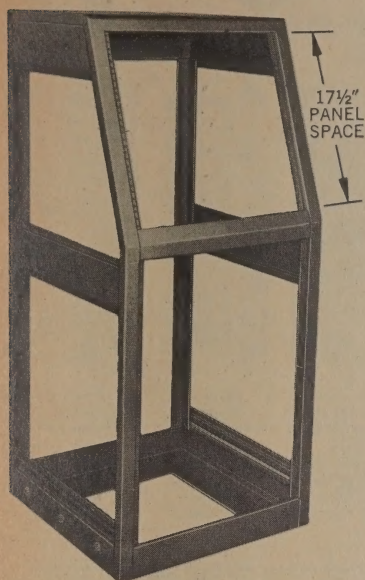
PREM-Ö-RAK™

MODULAR SLOPED FRONT FRAMES

10½" AND 17½" FOR 19" AND 24" PANELS

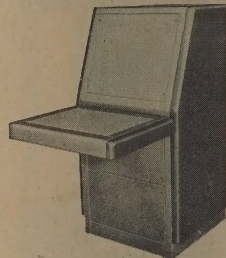
SECTION

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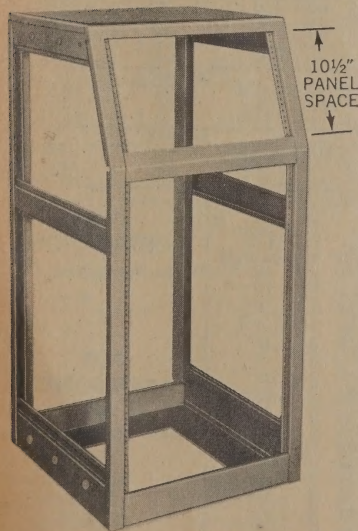


FS-1001

- TOPS OF FRONT AND REAR ARE ROUNDED
- Frames accommodate Ball Cornered End Panels (CEP Series)
- Designed for Multiple Installations
- Made of No. 14 Gauge (.0747) Steel
- Sloped Front Is 19° from Vertical
- Frame Completely Welded Throughout
- All Panel Mounting Angles are made of No. 12 Gauge Steel and Tapped on both legs 10/32 on E.I.A. Spacings (¾-⅝-½). Front and Rear Vertical Angles Are Adjustable to Any Desired Position.
- Panels Fit into ½" Recess.
- Combination 1⅝" and 1⅞" Diameter Knockouts on Top and Bottom to Provide Access for Cabling Between Racks.
- Holes Punched in Bottom to Accommodate CA-4 (2"), CA-5 (3"), CA-6 (double 2") and CA-7 (locking 3") casters.
- A Rectangular Cutout Is Provided in Bottom for Leads, etc.
- Front Cross Piece Removable.
- Rectangular Knockouts On Rear Uprights to Accommodate Hinge and Handle Latch Brackets so that Door can be Mounted Either Left or Right.
- Finished in Gray Hammertone.



Above unit consists of Frame (FS Series), 2 End Panels (CEP-1201 Series), Writing Work Shelf (WW Series) and 2 End Panels (CEP Series) for shelf.



FS-1002

Cat. No.	Width	Hgt.	Depth	Sloped Front Panel Space	Front Vertical Space	Rear Vertical Space	Ship. Wt. Lbs.	Net Price
FS-1001	22"	50"	22"	17½ x 19"	26¼ x 19"	42 x 19"	66	\$80.40
FS-1002	22"	47"	22"	10½ x 19"	29¾ x 19"	42 x 19"	64	78.00
FS-1003	27"	50"	22"	17½ x 24"	26¼ x 24"	42 x 24"	76	88.20
FS-1004	27"	47"	22"	10½ x 24"	29¾ x 24"	42 x 24"	74	86.40
FS-1001-255	22"	50"	25½"	17½ x 19"	26¼ x 19"	42 x 19"	75	83.00
FS-1002-255	22"	47"	25½"	10½ x 19"	29¾ x 19"	42 x 19"	73	81.00
FS-1003-255	27"	50"	25½"	17½ x 24"	26¼ x 24"	42 x 24"	85	92.00
FS-1004-255	27"	47"	25½"	10½ x 24"	29¾ x 24"	42 x 24"	83	90.00

ORDERING GUIDE

FRAME Cat. No.	USE END PANEL (Page 16) Cat. No.	USE REAR DOOR (Page 18) Cat. No.	USE SHELF (Page 22) Cat. No.	USE CHASSIS SUPPORT ANGLE (Page 22) Cat. No.	USE CHASSIS SLIDES (Pgs. 27, 28) Length
FS-1001	CEP-1201 (LH and/or RH)	DF-42	S-22-22	CSA-22	20"
FS-1002	CEP-1202 (LH and/or RH)	DF-42-1002	S-22-22	CSA-22	20"
FS-1003	CEP-1201 (LH and/or RH)	DF-2742	S-27-22	CSA-22	20"
FS-1004	CEP-1202 (LH and/or RH)	DF-2742-1002	S-27-22	CSA-22	20"
FS-1001-255	CEP-1201-255 (LH and/or RH)	DF-42	S-22-255	CSA-255	24"
FS-1002-255	CEP-1202-255 (LH and/or RH)	DF-42-1002	S-22-255	CSA-255	24"
FS-1003-255	CEP-1201-255 (LH and/or RH)	DF-2742	S-27-255	CSA-255	24"
FS-1004-255	CEP-1202-255 (LH and/or RH)	DF-2742-1002	S-27-255	CSA-255	24"

FOR MODIFICATIONS SEE PREMIER PAGE 2 • FOR ACCESSORIES SEE SECTION E PREMIER PAGES 16 THRU 22
FOR BLOWERS, FANS, HARDWARE SEE SECTION G PREMIER PAGES 27 THRU 32

PREMIER METAL PRODUCTS CO., INC.

PREMIER PAGE 5

ALL PRICES 10% HIGHER WEST OF MISSISSIPPI

PREMIER

PREM-Ö-RAK

MODULAR ROUNDED PEDESTAL FRAMES

SECTION

A

- Tops of front and rear are rounded.
- Frames accommodate Ball Cornered End Panel (CEP Series).
- Units are designed for multiple installation.
- Supplied with two pair of No. 12 gauge steel Panel Mounting Angles. Both legs of the angle are tapped 10-32 on E.I.A. spacings ($\frac{5}{8}$ - $\frac{9}{16}$ - $\frac{1}{2}$) to accommodate Front Panels & Chassis Support Angles (CSA Series) and Shelves (S Series).

- Panels fit into $\frac{1}{2}$ " recess.
- Two rectangular knockouts supplied on one top cross member to accommodate channels of Writing Work Shelf.
- Brackets welded in base and punched to accommodate CA-5 (3") casters and supplied with adapter to accommodate CA-4 (2") casters.
- Frame made of No. 16 gauge steel;
- Finished in Gray Hammertone.

Cat. No.	Width	Depth	Height with Casters	Height without Casters	Front & Rear Panel Space	Top Panel Space	Shpg. Wt. Lbs.	Net Price
CPF-101	22"	22"	30"	29½"	21 x 19"	17½ x 19"	45	\$56.04
CPF-102	22"	22"	37"	36½"	28 x 19"	17½ x 19"	48	64.20
CPF-103	27"	22"	30"	29½"	21 x 24"	17½ x 24"	50	63.00
CPF-104	27"	22"	37"	36½"	28 x 24"	17½ x 24"	53	72.00
CPF-101-34	22"	34½"	30"	29½"	21 x 19"	29¾ x 19"	54	78.00
CPF-101-255	22"	25½"	30"	29½"	21 x 19"	21 x 19"	53	65.00
CPF-102-255	22"	25½"	37"	36½"	28 x 19"	21 x 19"	55	78.50
CPF-103-255	27"	25½"	30"	29½"	21 x 24"	21 x 24"	58	68.50
CPF-104-255	27"	25½"	37"	36½"	28 x 24"	21 x 24"	59	83.00
CPF-101-18	22"	18½"	30"	29½"	21 x 19"	14 x 19"	44	54.00
CPF-102-18	22"	18½"	37"	36½"	28 x 19"	14 x 19"	47	62.00
CPF-103-18	27"	18½"	30"	29½"	21 x 24"	14 x 24"	49	61.00
CPF-104-18	27"	18½"	37"	36½"	28 x 19"	14 x 24"	52	70.00

CPF SERIES

ORDERING GUIDE

Frame shown with End Panel (CEP Series) and Top Panel (FP Series)

FRAME Cat. No.	Use END PANEL (Page 16) Cat. No.	Use DOOR (Page 18) Cat. No.	Use SHELVES (Page 22) Cat. No.	Use CHASSIS SUPPORT ANGLES (Page 22) Cat. No.	Use CHASSIS-SLIDES (Pgs. 27, 28) Length
CPF-101	CEP-401	CD-21	S-22-22	CSA-22	20"
CPF-102	CEP-402	CD-28	S-22-22	CSA-22	20"
CPF-103	CEP-401	CD-2124	S-27-22	CSA-22	20"
CPF-104	CEP-402	CD-2824	S-27-22	CSA-22	20"
CPF-101-34	CEP-401-34	CD-21	—	—	—
CPF-101-255	CEP-401-255	CD-21	S-22-255	CSA-255	24"
CPF-102-255	CEP-402-255	CD-28	S-22-255	CSA-255	24"
CPF-103-255	CEP-401-255	CD-2124	S-27-255	CSA-255	24"
CPF-104-255	CEP-402-255	CD-2824	S-27-255	CSA-255	24"
CPF-101-18	CEP-401-18	CD-21	S-22-18	CSA-18	16"
CPF-102-18	CEP-402-18	CD-28	S-22-18	CSA-18	16"
CPF-103-18	CEP-401-18	CD-2124	S-27-18	CSA-18	16"
CPF-104-18	CEP-402-18	CD-2824	S-27-18	CSA-18	16"

MODULAR SQUARE PEDESTAL FRAMES

- Tops of front and rear are square
- Supplied with two pair of No. 12 gauge steel Panel Mounting Angles. Both legs of the angle are tapped 10-32 on E.I.A. spacings ($\frac{5}{8}$ - $\frac{9}{16}$ - $\frac{1}{2}$) to accommodate Front Panels & Chassis Support Angles (CSA Series) and Shelves (S Series)
- Panels fits into $\frac{1}{2}$ " recess
- Finished in gray hammertone

- Frame accommodates square cornered end panels (MSP Series)
- Units designed for multiple installation
- Brackets welded in base and punched to accommodate CA-5 (3") casters and supplied with adapter to accommodate CA-4 (2") casters
- Frame made of No. 16 gauge steel

FRAME Cat. No.	Width	Depth	Height with Casters	Height without Casters	Front & Rear Panel Space	Top Panel Space	Shpg. Wt. Lbs.	Net Price
MSF-21-22	22"	22"	30"	29½"	21 x 19"	17½ x 19"	45	\$57.00
MSF-28-22	22"	22"	37"	36½"	28 x 19"	17½ x 19"	50	66.00
MSF-21-255	22"	25½"	30"	29½"	21 x 19"	21 x 19"	50	60.00
MSF-28-255	22"	25½"	37"	36½"	28 x 19"	21 x 19"	55	69.00

ORDERING GUIDE

FRAME Cat. No.	Use END PANEL (Page 16) Cat. No.	Use DOOR (Page 18) Cat. No.	Use SHELF (Page 22) Cat. No.	Use CHASSIS SUPPORT ANGLE (Page 22) Cat. No.	Use SLIDE (Pgs. 27, 28) Length
MSF-21-22	MSP-21-22	CD-21	S-22-22	CSA-22	20"
MSF-28-22	MSP-28-22	CD-28	S-22-22	CSA-22	20"
MSF-21-255	MSP-21-255	CD-21	S-22-255	CSA-255	24"
MSF-28-255	MSP-28-255	CD-28	S-22-255	CSA-255	24"

FOR MODIFICATIONS SEE PREMIER PAGE 2
 FOR ACCESSORIES SEE SECTION E PREMIER PAGES 16 THRU 22
 FOR BLOWERS, FANS and HARDWARE
 SEE SECTION G PREMIER PAGES 27 THRU 32

PREMIER METAL PRODUCTS CO., INC.

ALL PRICES 10% HIGHER WEST OF MISSISSIPPI

PREMIER PAGE 6

PREMIER**MODULAR WEDGE FRAMES****PREM-Ø-RAK®****30° and 45°**

SECTION

A

- Constructed of 16 gauge steel
- Completely welded throughout
- Supplied with formed panel on rear
- End panels (CEP Series) can be mounted to the side of wedge frames if desired
- Finished in Gray Hammertone
- Designed for use in Semi-Circular Arrangements when bolted to Pedestal Frames (CPF Series) or Transmitter Rack Frames (FA Series)

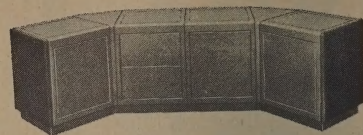
NOTE: One piece Formica Shelf available for semi-circular arrangements.

30° WEDGE RACK FRAMES

Cat. No.	Height	Width	For Use With	Net Price
WED-30-42-22	48 ⁵ / ₈ "	22"	FA-42-22	\$122.10
WED-30-52-22	59 ¹ / ₈ "	22"	FA-52-22	132.00
WED-30-61-22	67 ⁷ / ₈ "	22"	FA-61-22	138.60
WED-30-70-22	76 ⁵ / ₈ "	22"	FA-70-22	148.50
WED-30-77-22	83 ⁵ / ₈ "	22"	FA-77-22	155.10
WED-30-42-255	48 ⁵ / ₈ "	25 ¹ / ₂ "	FA-42-255	146.50
WED-30-52-255	59 ¹ / ₈ "	25 ¹ / ₂ "	FA-52-255	154.44
WED-30-61-255	67 ⁷ / ₈ "	25 ¹ / ₂ "	FA-61-255	158.40
WED-30-70-255	76 ⁵ / ₈ "	25 ¹ / ₂ "	FA-70-255	171.60
WED-30-77-255	83 ⁵ / ₈ "	25 ¹ / ₂ "	FA-77-255	178.20

45° WEDGE RACK FRAMES

Cat. No.	Height	Width	For Use With	Net Price
WED-45-42-22	48 ⁵ / ₈ "	22"	FA-42-22	\$125.40
WED-45-52-22	59 ¹ / ₈ "	22"	FA-52-22	135.30
WED-45-61-22	67 ⁷ / ₈ "	22"	FA-61-22	141.90
WED-45-70-22	76 ⁵ / ₈ "	22"	FA-70-22	151.80
WED-45-77-22	83 ⁵ / ₈ "	22"	FA-77-22	158.40
WED-45-42-255	48 ⁵ / ₈ "	25 ¹ / ₂ "	FA-42-255	149.82
WED-45-52-255	59 ¹ / ₈ "	25 ¹ / ₂ "	FA-52-255	157.30
WED-45-61-255	67 ⁷ / ₈ "	25 ¹ / ₂ "	FA-61-255	161.70
WED-45-70-255	76 ⁵ / ₈ "	25 ¹ / ₂ "	FA-70-255	174.90
WED-45-77-255	83 ⁵ / ₈ "	25 ¹ / ₂ "	FA-77-255	181.50

**30° Wedge Pedestal Frames**

Catalog No.	Height	Width	For Use With	Net Price
WED-30-101	29 ¹ / ₂ "	22"	CPF-101-103	\$102.30
WED-30-101-18	29 ¹ / ₂ "	18 ¹ / ₂ "	CPF-101-18, 103-18	100.00
WED-30-101-255	29 ¹ / ₂ "	25 ¹ / ₂ "	CPF-101-255, 103-255	105.00

45° Wedge Pedestal Frames

Catalog No.	Height	Width	For Use With	Net Price
WED-45-101	29 ¹ / ₂ "	22"	CPF-101-103	\$105.00
WED-45-101-18	29 ¹ / ₂ "	18 ¹ / ₂ "	CPF-101-18, 103-18	103.00
WED-45-101-255	29 ¹ / ₂ "	25 ¹ / ₂ "	CPF-101-255, 103-255	108.00

TYPICAL INSTALLATIONS OF THE PREM-Ø-RAK® MODULAR CONSOLE SYSTEM

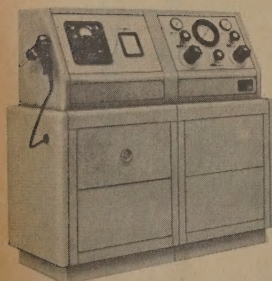


Photo Courtesy
Aerofet General
Corp.

Photo Courtesy
Commercial Radio-Sound
Corp.

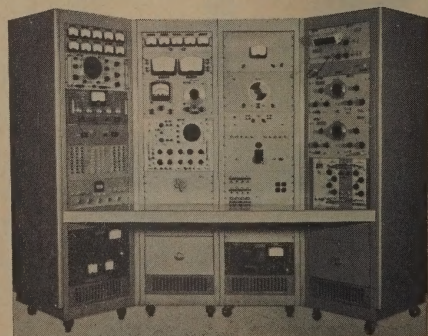
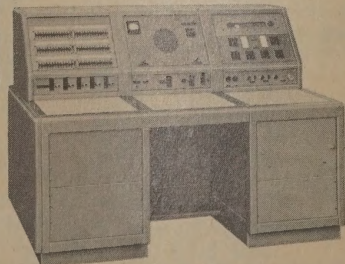


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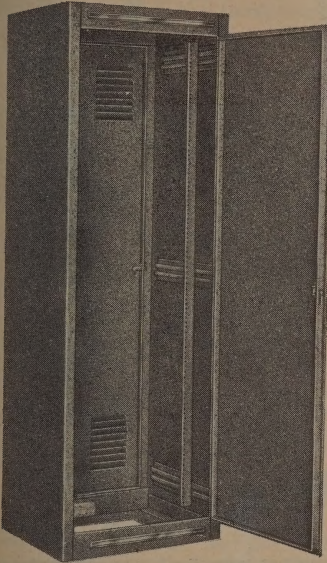
PREMIER

HEAVY DUTY RACKS

SECTION

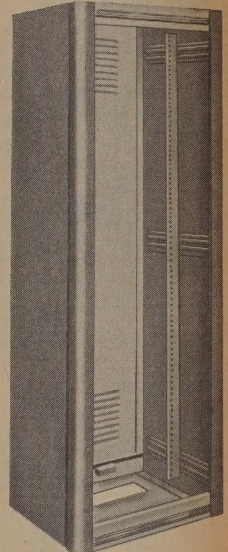
FOR 19", 24" AND 30" RACK PANELS — 18" AND 24" DEEP

B



FDX SERIES

- Rigidly constructed of #16 gauge steel with a #12 gauge steel bottom and welded throughout.
- Supplied with two pair of #12 gauge steel Panel Mounting Angles. Both legs of the angle are tapped 10-32 on E.I.A. spacings ($\frac{5}{8}$ — $\frac{1}{2}$) to accommodate Front Panels & Chassis Support Angles (CSA Series) and Shelves (S Series).
- Rear doors are hung on sturdy slip-jointed hinges and closed with a chrome handle. Locking handle with 2 keys available at additional cost.
- Round hole and 5 mounting holes on top of frame to accommodate Exhaust (EF Series) and Intake (IF Series) Fans available at additional cost.
- A rectangular cut-out is made in the bottom for leads, etc.
- RMX-7030 Rack supplied with double rear doors and with a 3-point locking device.
- FDX Series are furnished with locking handle and 2 keys on Front Door.
- ALL RACKS ARE SUPPLIED WITHOUT LOUVRES ON SIDES UNLESS SPECIFIED.
- Vertica rounded corner "J" type moldings are supplied with RMX series.
- When joining RMX racks for multiple installation, specify amount of center "U" type moldings (supplied at no additional cost). EXAMPLE: Three RMX-3619 requires two "J" and two "U" moldings.
- Tops and bottoms are trimmed with chrome molding.
- Panel mounting angles are held in place at three points by $\frac{3}{8}$ " carriage bolts and are adjustable to any desired position by means of channel slides.
- A heavy duty duplex "U" ground receptacle and outlet box are furnished in the rear under the door.
- Finished in Gray Hammertone. Also available in Black Wrinkle.



RMX SERIES

FOR MODIFICATIONS
SEE PREMIER PAGE 2

FOR ACCESSORIES
SEE SECTION E
PREMIER PAGES 16 THRU 22

FOR BLOWERS, FANS
AND HARDWARE

SEE SECTION G
PREMIER PAGES 27 THRU 32



SPECIFY COLOR WHEN ORDERING

18" DEEP RACKS				18" DEEP RACKS WITH FRONT AND REAR DOORS			
Cat. No.	Shpg. Wt. Lbs.	Net Price	H & W	Panel Space	Cat. No.	Shpg. Wt. Lbs.	Net Price
RMX-3619	100	\$ 69.15	42 $\frac{7}{8}$ x22"	36 $\frac{3}{4}$ x19"	FDX-3619	115	\$102.39
RMX-4219	130	81.00	48 $\frac{1}{8}$ x22"	42 x19"	FDX-4219	120	108.00
RMX-6119	150	90.00	67 $\frac{3}{8}$ x22"	61 $\frac{1}{4}$ x19"	FDX-6119	175	115.77
RMX-7618	170	105.84	76 $\frac{1}{8}$ x22"	70 x19"	FDX-7019	200	132.30
RMX-7719	190	115.00	83 $\frac{1}{8}$ x22"	77 x19"	FDX-7719	220	142.34

24" DEEP RACKS				24" DEEP RACKS WITH FRONT AND REAR DOORS			
Cat. No.	Shpg. Wt. Lbs.	Net Price	H & W	Panel Space	Cat. No.	Shpg. Wt. Lbs.	Net Price
RMX-3619-24	110	\$ 84.00	42 $\frac{7}{8}$ x22"	36 $\frac{3}{4}$ x19"	FDX-3619-24	125	\$105.00
RMX-4219-24	130	93.05	48 $\frac{1}{8}$ x22"	42 x19"	FDX-4219-24	150	114.00
RMX-6119-24	175	122.40	67 $\frac{3}{8}$ x22"	61 $\frac{1}{4}$ x19"	FDX-6119-24	200	152.16
RMX-7618-24	200	132.30	76 $\frac{1}{8}$ x22"	70 x19"	FDX-7019-24	255	159.76
RMX-7719-24	225	148.86	83 $\frac{1}{8}$ x22"	77 x19"	FDX-7719-24	270	181.89
RMX-2742	170	120.78	48 $\frac{1}{8}$ x27"	42 x24"	FDX-2742	180	145.00
RMX-2761	210	137.58	67 $\frac{3}{8}$ x27"	61 $\frac{1}{4}$ x24"	FDX-2761	230	170.00
RMX-2770	240	148.59	76 $\frac{1}{8}$ x27"	70 x24"	FDX-2770	260	182.00
RMX-2777	270	165.39	83 $\frac{1}{8}$ x27"	77 x24"	FDX-2777	290	200.00
RMX-7030	240	191.85	76 $\frac{1}{8}$ x33"	70 x30"			

ORDERING GUIDE

Frame Cat. No.	Frame Cat. No.	Chassis Support Angle (Page 22) Cat. No.	Shelves (Page 22) Cat. No.	Use Chassis Slides (length) (Pages 27, 28)	Use Roller Truck (Page 21) Cat. No.
RMX-3619	FDX-3619	CSA-16	S-18-22	14"	RT-1101 or RT-1101-3"
RMX-4219	FDX-4219	CSA-16	S-18-22	14"	RT-1101 or RT-1101-3"
RMX-6119	FDX-6119	CSA-16	S-18-22	14"	RT-1101 or RT-1101-3"
RMX-7618	FDX-7618	CSA-16	S-18-22	14"	RT-1101 or RT-1101-3"
RMX-7719	FDX-7719	CSA-16	S-18-22	14"	RT-1101 or RT-1101-3"
RMX-3619-24	FDX-3619-24	CSA-22	S-22-22	20"	RT-1103 or RT-1103-3"
RMX-4219-24	FDX-4219-24	CSA-22	S-22-22	20"	RT-1103 or RT-1103-3"
RMX-6119-24	FDX-6119-24	CSA-22	S-22-22	20"	RT-1103 or RT-1103-3"
RMX-7618-24	FDX-7618-24	CSA-22	S-22-22	20"	RT-1103 or RT-1103-3"
RMX-7719-24	FDX-7719-24	CSA-22	S-22-22	20"	RT-1103 or RT-1103-3"
RMX-2742	FDX-2742	CSA-22	S-27-22	20"	RT-1110 or RT-1110-3"
RMX-2761	FDX-2761	CSA-22	S-27-22	20"	RT-1110 or RT-1110-3"
RMX-2770	FDX-2770	CSA-22	S-27-22	20"	RT-1110 or RT-1110-3"
RMX-2777	FDX-2777	CSA-22	S-27-22	20"	RT-1110 or RT-1110-3"
RMX-7030	FDX-7030	CSA-22	S-33-22	20"	RT-1111 or RT-1111-3"

* 3" dia. caster

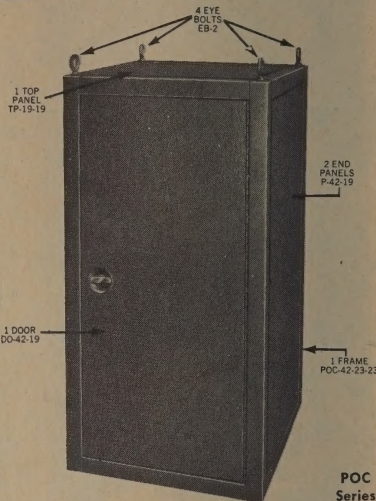
PREMIER METAL PRODUCTS CO., INC.

ALL PRICES 10% HIGHER WEST OF MISSISSIPPI

PREMIER PAGE 8

FOR STANDARD 19, 24 and 30" WIDE PANELS

- Frame made of No. 12 gauge steel and supplied with 10-32 tapped holes on EIA spacings ($\frac{1}{2}$ "- $\frac{1}{2}$ "') on both legs of all vertical uprights.
- Top of frame supplied with knock-out in each corner to accommodate eye bolts for lifting.
- Top and side panels and doors made of No. 14 gauge steel and supplied with a return flange on all sides for easy gasketing.
- Doors and/or side panels can be mounted to any openings of frame.
- Finished in Green Kromotex. Also available in Gray Hammerstone. Specify when ordering.

PREM-O-CUBE


FRAMES 23" WIDE for 19" PANELS

Overall Height	Panel Height	23" Deep Cat. No.	Net Price	28" Deep Cat. No.	Net Price	34" Deep Cat. No.	Net Price
40 1/4"	36 3/4"	POC-36-23-23	\$ 87.00	POC-36-23-28	\$ 92.00	POC-36-23-34	\$ 98.00
46"	42"	POC-42-23-23	92.00	POC-42-23-28	97.00	POC-42-23-34	103.00
65 1/4"	61 1/4"	POC-61-23-23	112.00	POC-61-23-28	117.00	POC-61-23-34	123.00
74"	70"	POC-70-23-23	120.00	POC-70-23-28	125.00	POC-70-23-34	131.00
81"	77"	POC-77-23-23	127.00	POC-77-23-28	132.00	POC-77-23-34	138.00
84 1/2"	80 1/2"	POC-80-23-23	131.00	POC-80-23-28	136.00	POC-80-23-34	142.00

FRAMES 28" WIDE for 24" PANELS

Overall Height	Panel Height	28" Deep Cat. No.	Net Price	34" Deep Cat. No.	Net Price
40 1/4"	36 3/4"	POC-36-28-28	\$ 97.00	POC-36-28-34	\$103.00
46"	42"	POC-42-28-28	102.00	POC-42-28-34	108.00
65 1/4"	61 1/4"	POC-61-28-28	122.00	POC-61-28-34	128.00
74"	70"	POC-70-28-28	130.00	POC-70-28-34	136.00
81"	77"	POC-77-28-28	137.00	POC-77-28-34	143.00
84 1/2"	80 1/2"	POC-80-28-28	141.00	POC-80-28-34	147.00

FRAMES 34" WIDE for 30" PANELS

Overall Height	Panel Height	34" Deep Cat. No.	Net Price
40 1/4"	36 3/4"	POC-36-34-34	\$109.00
46"	42"	POC-42-34-34	114.00
65 1/4"	61 1/4"	POC-61-34-34	134.00
74"	70"	POC-70-34-34	142.00
81"	77"	POC-77-34-34	149.00
84 1/2"	80 1/2"	POC-80-34-34	153.00

PANELS AND DOORS FOR PREM-O-CUBE HEAVY DUTY CUBICLES

END PANELS

Blank and Louvred —
3/4" DEEP. Made of No.
14 gauge steel with
return bend for easy
gasketing.

Blank Cat. No.	Net Price	Height	LOUVRED Cat. No.	Net Price
P-36-19	\$22.40	36 3/4"	PL-36-19	\$30.40
P-42-19	24.40	42"	PL-42-19	32.40
P-61-19	32.40	61 1/4"	PL-61-19	40.40
P-70-19	35.60	70"	PL-70-19	43.60
P-77-19	38.40	77"	PL-77-19	46.40
P-80-19	40.00	80 1/2"	PL-80-19	48.00

FOR 24" WIDE

Blank Cat. No.	Net Price	Height	LOUVRED Cat. No.	Net Price
P-36-24	24.00	36 3/4"	PL-36-24	32.00
P-42-24	26.00	42"	PL-42-24	34.00
P-61-24	34.00	61 1/4"	PL-61-24	42.00
P-70-24	37.20	70"	PL-70-24	45.20
P-77-24	40.00	77"	PL-77-24	48.00
P-80-24	41.60	80 1/2"	PL-80-24	49.80

FOR 30" WIDE

Blank Cat. No.	Net Price	Height	LOUVRED Cat. No.	Net Price
P-36-30	26.80	36 3/4"	PL-36-30	34.80
P-42-30	28.80	42"	PL-42-30	36.80
P-61-30	36.80	61 1/4"	PL-61-30	44.80
P-70-30	40.00	70"	PL-70-30	48.00
P-77-30	42.80	77"	PL-77-30	50.80
P-80-30	44.40	80 1/2"	PL-80-30	52.40

FOR 19" WIDE

Blank Cat. No.	Net Price	Height	Width	Louvred Cat. No.	Net Price
DO-36-19	\$38.08	36 3/4"	19"	DOL-36-19	\$46.08
DO-36-24	40.80	36 3/4"	24"	DOL-36-24	48.80
DO-36-30	45.56	36 3/4"	30"	DOL-36-30	53.56
DO-42-19	41.48	42"	19"	DOL-42-19	49.48
DO-42-24	44.20	42"	24"	DOL-42-24	52.20
DO-42-30	48.96	42"	30"	DOL-42-30	56.96
DO-61-19	55.08	61 1/4"	19"	DOL-61-19	63.08
DO-61-24	57.80	61 1/4"	24"	DOL-61-24	65.80
DO-61-30	62.56	61 1/4"	30"	DOL-61-30	70.56
DO-70-19	60.52	70"	19"	DOL-70-19	68.52
DO-70-24	63.24	70"	24"	DOL-70-24	71.24
DO-70-30	68.00	70"	30"	DOL-70-30	76.00
DO-77-19	65.28	77"	19"	DOL-77-19	73.28
DO-77-24	68.00	77"	24"	DOL-77-24	76.00
DO-77-30	72.76	77"	30"	DOL-77-30	80.76
DO-80-19	68.00	80 1/2"	19"	DOL-80-19	76.00
DO-80-24	70.72	80 1/2"	24"	DOL-80-24	78.72
DO-80-30	75.48	80 1/2"	30"	DOL-80-30	83.48

DOORS

Blank and Louvred

- Made of No. 14 gauge steel
- Continuous hinge flush fitting
- Supplied with 3 point latching device and round flush handle

ACCESSORIES FOR PREM-O-CUBE HEAVY DUTY CUBICLES

TOP & BOTTOM PANELS

Size	Blank Cat. No.	Net Price	Louvred Cat. No.	Net Price
19x19"	TP-19-19	\$15.20	TPL-19-19	\$20.20
19x24"	TP-19-24	17.20	TPL-19-24	22.20
19x30"	TP-19-30	19.60	TPL-19-30	24.60
24x24"	TP-24-24	19.20	TPL-24-24	24.20
24x30"	TP-24-30	21.60	TPL-24-30	26.60
30x30"	TP-30-30	24.00	TPL-30-30	29.00

PANEL MOUNTING ANGLES

12 gauge steel; tapped 10-32 on E.I.A. spacings

Length	Cat. No.	Net Price (Pair)
36 3/4"	PMA 362-12	\$11.55
42"	PMA 422-12	13.20
61 1/4"	PMA 612-12	16.50
70"	PMA 702-12	18.50
77"	PMA 772-12	20.00
80 1/2"	PMA 802-12	21.00

HORIZONTAL CROSS PIECES

Fits Frame Depth	Cat. No.	Net Price
23"	HCP-23	\$2.50
28"	HCP-28	3.00
34"	HCP-34	3.50

ROLLER TRUCKS

with 4" Diameter Rockite Casters
Fits into recess in bottom of frame

Size	Cat. No.	Net Price
19x19"	CRT 19-19	\$50.00
19x24"	CRT 19-24	52.00
19x30"	CRT 19-30	54.40
24x24"	CRT 24-24	54.00
24x30"	CRT 24-30	56.40
30x30"	CRT 30-30	59.80

EYE BOLTS

2" Dia. — Cat. No. EB-2

Net Price — \$6.00 for 4

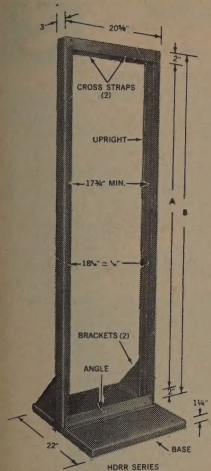
PREMIER

CHANNEL RELAY RACKS

SECTION

B

HEAVY DUTY RELAY RACK *Meets MIL-STD-189*



- Uprights and top cross straps made of $\frac{3}{16}$ " sheet steel.
- Base and Brackets made of No. 12 gauge sheet steel.
- Base angle made of 2 x 2 x $\frac{3}{16}$ " steel.
- Panel mounting holes are tapped 10-32 on E.I.A. spacings ($1\frac{1}{4}$ - $\frac{1}{2}$ ").
- Finished in Zinc Chromate Primer (MIL SPEC, 6889A) or Gray Hammertone (Specify finish when ordering).
- Shipped knocked down and assembled with $\frac{1}{4}$ -20 x $\frac{3}{4}$ " long hex head cap screws and nuts.

Catalog No.	Panel Space (A)	Frame Height (B)	Net Price
HDRR-6619	66 $\frac{21}{32}$ "	71 $\frac{29}{32}$ "	\$67.00
HDRR-7319	73 $\frac{21}{32}$ "	78 $\frac{29}{32}$ "	73.00
HDRR-7719	77 $\frac{21}{32}$ "	82 $\frac{13}{32}$ "	77.00



DELUXE UTILITY RACKS

- Made of No. 12 gauge (.104) steel Tapped 10-32 on EIA spacings ($\frac{3}{8}$ - $\frac{3}{8}$ - $\frac{1}{2}$) both front and rear.
- Uprights 8 $\frac{1}{8}$ " deep.
- Panels Fit into $\frac{1}{2}$ " Recess. Either flat or Formed Panels may be used.

- Finished in Gray Hammertone. Also available in Black Wrinkle.
- Top ventilated by means of grille.
- Racks can be bolted side by side.
- There are no screw heads projecting.
- Vertical members and top cross piece are welded together.
- The base and rear supports are shipped knocked down.



RR-2100 Series

FOR 19" WIDE PANELS

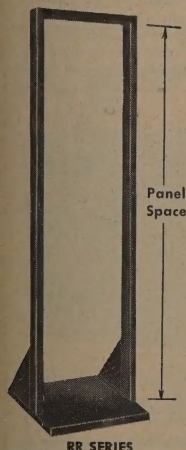
Cat. No.	Width	Panel Space	Shpg. Wt. Lbs.	Net Price
RR-2164	21 $\frac{1}{16}$ "	61 $\frac{1}{4}$ x19"	85	\$38.00
RR-2173	21 $\frac{1}{16}$ "	70x19"	90	41.00
RR-2180	21 $\frac{1}{16}$ "	77x19"	95	45.00

FOR 24" WIDE PANELS

Cat. No.	Width	Panel Space	Shpg. Wt. Lbs.	Net Price
RR-2664	26 $\frac{1}{16}$ "	61 $\frac{1}{4}$ x24"	100	\$49.00
RR-2673	26 $\frac{1}{16}$ "	70x24"	105	52.00
RR-2680	26 $\frac{1}{16}$ "	77x24"	105	56.00

CHANNEL RELAY RACKS

- Rigidly constructed of #12 gauge cold rolled sheet steel and finished in Gray Hammertone. Also available in Black Wrinkle.
- Vertical members and top crossbrace are welded together.
- Panel mounting holes are tapped for 10/32 machine screws on E.I.A. spacings ($\frac{3}{8}$ - $\frac{3}{8}$ - $\frac{1}{2}$ ").
- Racks are shipped knocked down with all necessary bolts for easy assembly.
- Base punched to accommodate CA-4 (2") and CA-5 (3") casters.



Cat. No.	H.	W.	D.	Panel Space	Shp. Wt. Lbs.	Net Price
RR-800	39 $\frac{1}{4}$ "	20"	18 $\frac{3}{8}$ "	36 $\frac{3}{4}$ " x 19"	40	\$21.20
RR-801	74 $\frac{1}{4}$ "	20"	20 $\frac{3}{8}$ "	71 $\frac{3}{4}$ " x 19"	55	25.20
RR-802	79 $\frac{1}{2}$ "	20"	20 $\frac{3}{8}$ "	77" x 19"	60	29.20
RR-803	69"	20"	20 $\frac{3}{8}$ "	66 $\frac{1}{2}$ " x 19"	50	24.20

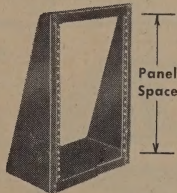


TABLE TYPE RELAY RACKS

TR SERIES

- Rigidly constructed of #16 gauge cold rolled sheet steel and finished in Gray Hammertone. Also available in Black Wrinkle.
- Base constructed of one piece, similar to a chassis.
- Panel mounting holes are tapped for 10/32 machine screws on E.I.A. spacings ($\frac{3}{8}$ - $\frac{3}{8}$ - $\frac{1}{2}$ ").
- Racks are shipped knocked down with all necessary bolts for easy assembly.

Cat. No.	H.	W.	D.	Panel Space	Shp. Wt. Lbs.	Net Price
TR-2119	25"	21"	12"	21 x 19"	17	\$ 8.82
TR-2819	32"	21"	12"	28 x 19"	20	11.04

PREMIER METAL PRODUCTS CO., INC.

PREMIER

CABINET RELAY RACKS

FOR STANDARD 19" RACK PANELS (KNOCKED DOWN)

SECTION

C

- Rigidly constructed of #16 gauge cold rolled sheet steel.
- The panel mounting angles are of #12 gauge steel and are tapped for 10-32 machine screws on E.I.A. spacings ($\frac{5}{16}$ - $\frac{3}{8}$ - $\frac{1}{2}$).
- Panels fit into a $\frac{5}{16}$ " recess so that the edges are not exposed.
- Racks are shipped knocked down with all necessary bolts for easy assembly.
- Rear doors are hung on sturdy slip-jointed hinges, and closed by a chrome handle. Locking handle with two keys available at additional cost.
- Holes punched in bottom to accommodate CA-4 and CA-5 casters.

- **ROUNDED TYPE** has front vertical rounded corners.
- **DELUXE TYPE**—The removable vertical corner mouldings are rounded and cover the mounting screws.
- **DELUXE TYPE**—Top and bottom are trimmed with chrome finished moulding.
- **FRONT DOOR TYPE** has front vertical rounded corners and is supplied with locking chrome handle and two keys for front door.
- Finished in Gray Hammertone. Also available in Black Wrinkle.
- **SPECIFY COLOR WHEN ORDERING.**

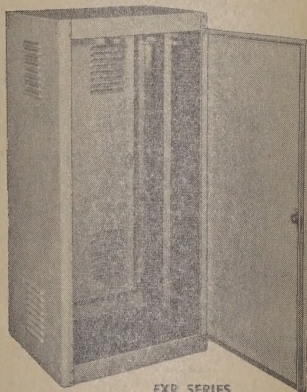
DELUXE TYPE



DR SERIES



FRONT DOOR TYPE



FXR SERIES

Supplied with adjustable Panel Mounting Angles

ROUNDED TYPE



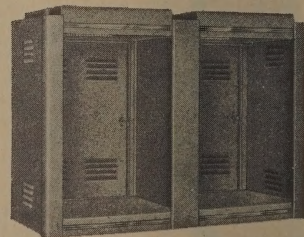
R SERIES

SPECIFY COLOR WHEN ORDERING Racks are 22" wide x 18" deep

	Cat. No.	Overall Height	Panel Space	Use Slide Length*	Ship. Wt.—Lbs.	Net Price
DELUXE	DR-3619	43 $\frac{1}{8}$ "	36 $\frac{3}{4}$ "	16"	85	\$56.70
	DR-6119	67 $\frac{3}{8}$ "	61 $\frac{1}{4}$ "	16"	135	69.30
	DR-7719	83 $\frac{3}{8}$ "	77"	16"	160	83.90
FRONT DOOR	FXR-3619	41 $\frac{7}{8}$ "	36 $\frac{3}{4}$ "	16"	93	63.50
	FXR-4219	47 $\frac{1}{8}$ "	42"	16"	105	72.00
	FXR-6119	66 $\frac{3}{8}$ "	61 $\frac{1}{4}$ "	16"	140	90.00
	FXR-7719	82 $\frac{1}{8}$ "	77"	16"	164	109.00
ROUNDED	R-3619	41 $\frac{7}{8}$ "	36 $\frac{3}{4}$ "	16"	80	43.00
	R-4219	47 $\frac{1}{8}$ "	42"	16"	90	50.00
	R-6119	66 $\frac{3}{8}$ "	61 $\frac{1}{4}$ "	16"	120	64.00
	R-7719	82 $\frac{1}{8}$ "	77"	16"	140	76.00

MULTIPLE RACK UNITS

These racks can be joined together to make multiple units by means of a solid center partition which is bolted to the top and bottom. Each multiple section comprises a top, bottom, rear door and center partition. On MXR Models, front door is also supplied. When ordering multiple units, specify number of units, such as double, triple, quad, etc.



ABOVE UNIT IS ONE DOUBLE DR3619

Example: One Double DR-3619 consists of one DR-3619 and one DMR-3619.

One Triple FXR-3619 consists of one FXR-3619 and two MXR-3619.

One Quad R-3619 consists of one R-3619 and three MR-3619.

*Use Slide Adapter Kit (Cat. No. SAK-35) for rear mounting. (See Page 28).

FOR MODIFICATIONS SEE PREMIER PAGE 2

FOR ACCESSORIES SEE SECTION E PREMIER PAGES 16 THRU 22

FOR BLOWERS, FANS and HARDWARE SEE SECTION G PREMIER PAGES 27 THRU 32

PREMIER METAL PRODUCTS CO., INC.

PREMIER PAGE 11

PREMIER MODULAR SLOPING DESK CABINETS

PREM-O-RAK®



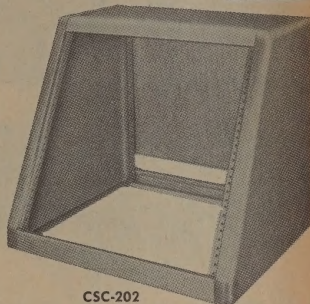
CSC-201

- BOTH FRONT AND REAR HAVE ATTRACTIVE BALL CORNERS.
- Shipped knocked down with necessary hardware for easy assembly.
- All screws for assembling console are not visible from the outside.
- Both front and rear are tapped for 10/32 machine screws on E.I.A. spacings ($\frac{5}{8}$ - $\frac{5}{8}$ - $\frac{1}{2}$).
- Interlocking removable rear panel made of perforated metal and held in place by four captive screws.
- Made of No. 16 gauge steel.
- Rear panel has $1\frac{3}{4}$ " opening on bottom for leads, etc.
- Panels fit into $\frac{1}{2}$ " recess.
- May be used individually or in multiples.
- Handsomely finished in Two Tone Hammertone—Top, cross-piece and base are Gray Hammertone. Rear and side panels are Brown Hammertone.



SECTION

D

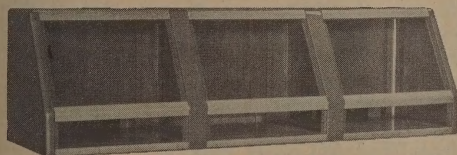


CSC-202

Cat. No.	Width	Height	Depth	Sloped Panel Space	Front Vertical Panel Space	Rear Panel Space	Slope from Vertical	Bottom Panel Space	Ship. Wt. Lbs.	Net Price
CSC-201	21 $\frac{3}{4}$ "	18 $\frac{1}{8}$ "	18"	12 $\frac{1}{4}$ " x 19"	3 $\frac{1}{2}$ " x 9"	15 $\frac{3}{4}$ " x 19"	30°		35	\$55.00
CSC-202	21 $\frac{3}{4}$ "	18 $\frac{7}{8}$ "	18 $\frac{7}{8}$ "	17 $\frac{1}{2}$ " x 19"		15 $\frac{3}{4}$ " x 19"	25°	15 $\frac{3}{4}$ " x 19"	40	\$60.00

DESIGNED FOR MULTIPLE INSTALLATION

The PREM-O-RAK CONSOLE CABINETS can be joined together to make multiple units by means of a center frame section which is bolted to the top, cross-piece and base. When ordering multiple units specify number of units, such as Double, Triple, etc.



One Triple CSC-201 consists of one CSC-201 and two CMS-301

MULTIPLE SECTION for SLOPING CABINET

Cat. No.	Ship. Wt. Lbs.	Net Price
CMS-301	26	\$36.00
CMS-302	28	40.00

EACH MULTIPLE SECTION comprises 5 pieces as shown:

EXAMPLE: One Double CSC-201 consists of one CSC-201 and one CMS-301
One Triple CSC-201 consists of one CSC-201 and two CMS-301



CENTER FRAME

CMS-301

TOP

CROSS-PIECE

BASE



REAR INTERLOCKING PANEL



CENTER FRAME

CMS-302 (No Base)

TOP

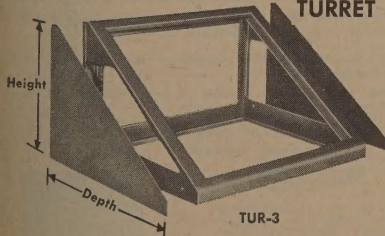
FRONT CROSSPIECE

REAR CROSSPIECE



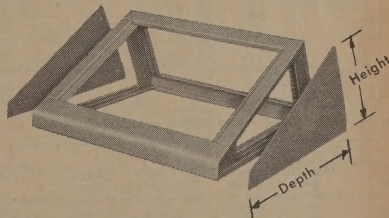
REAR INTERLOCKING PANEL

TURRET WITH FLAT SIDE PANELS



TUR-3

- Made of No. 16 gauge steel.
- All panel openings tapped for 10/32 machine screws on E.I.A. spacings ($\frac{5}{8}$ - $\frac{5}{8}$ - $\frac{1}{2}$).
- Panels fit into $\frac{1}{2}$ " recess.
- Flat side panels are assembled at factory before shipping.
- Frame finished in Gray Hammertone. Side panels finished in Brown Hammertone.



TUR-1

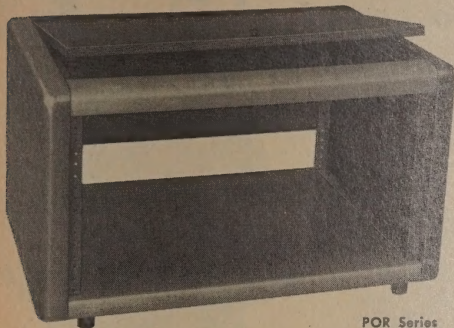
Cat. No.	Width	Height	Depth	Sloped Front Panel Space	Rear Panel Space	Bottom Panel Space	Ship. Wt. lbs.	Net Price
TUR-1	22"	9 $\frac{3}{4}$ "	21"	14" x 19"	7" x 19"	17 $\frac{1}{2}$ " x 19"	25	\$40.00
TUR-3	22"	12 $\frac{1}{4}$ "	17 $\frac{1}{2}$ "	17 $\frac{1}{2}$ " x 19"	8 $\frac{3}{4}$ " x 19"	14" x 19"	20	34.80

PREMIER METAL PRODUCTS CO., INC.

PREMIER**PREM-O-RAK****DESK CABINET RACKS**

**15 1/4" and 18" DEEP
FOR STANDARD
19" WIDE PANELS
(KNOCKED DOWN)**

SECTION

D

POR Series

- All screws for assembling PREM-O-RAK are not visible from the outside.
- Both front and rear verticals are tapped for 10/32 machine screws on E.I.A. spacings ($\frac{5}{8}$ $\frac{3}{8}$ $\frac{1}{2}$ ") so that panels may be mounted on both front and rear if desired.
- Interlocking removable top made of perforated metal and held in place by only one captive screw.
- Interlocking removable rear panel made of perforated metal and held in place by two captive screws.
- Rigidly constructed of #16 gauge steel.

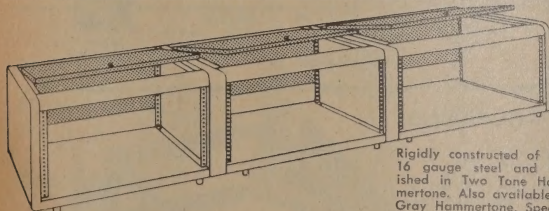
**BOTH FRONT AND REAR OF TOP
HAVE ATTRACTIVE BALL CORNERS.**

- Rear Panel has 3 1/2" opening on bottom for leads, etc., except on POR-3, 318, 5, 518.
- Panels fit into 1/2" recess.
- Base supplied with four rubber feet.
- Components may be mounted on base before assembly of rack into a complete unit.
- Shipped knocked down with all necessary hardware for easy assembly.
- HANDSOMELY FINISHED IN TWO-TONE HAMMERTONE.

Top cross braces and base are Gray Hammertone.

Top & rear panel & side panels are Brown Hammertone. Also available all Gray Hammertone. Specify color when ordering.

15 1/4" DEEP				ALL CABINETS ARE 21 3/4" WIDE		18" DEEP			
Catalog No.	Shp. Wt. Lbs.	Use Slide Length	Net Price	Overall Height	Panel Space	Catalog No.	Shp. Wt. Lbs.	Use Slide Length	Net Price
POR-3	18	14"	\$25.10	57 5/8"	3 1/2"	POR-318	20	16"	\$26.40
POR-5	20	14"	26.40	75 5/8"	5 1/4"	POR-518	22	16"	29.10
POR-7	22	14"	27.75	93 5/8"	7"	POR-718	24	16"	30.70
POR-8	24	14"	29.10	111 5/8"	8 3/4"	POR-818	26	16"	32.25
POR-10	26	14"	33.30	127 5/8"	10 1/2"	POR-1018	29	16"	36.75
POR-12	28	14"	36.05	145 5/8"	12 1/4"	POR-1218	31	16"	40.00
POR-14	32	14"	40.20	163 5/8"	14"	POR-1418	35	16"	44.35
POR-17	40	14"	47.85	197 5/8"	17 1/2"	POR-1718	44	16"	52.70
POR-21	44	14"	52.00	233 5/8"	21"	POR-2118	48	16"	57.55
POR-26	45	14"	56.15	285 5/8"	26 1/4"	POR-2618	49	16"	61.85
POR-31	50	14"	58.90	327 5/8"	31 1/2"	POR-3118	55	16"	65.65
POR-35	55	14"	62.40	373 5/8"	35"	POR-3518	60	16"	68.80



Rigidly constructed of No. 16 gauge steel and finished in Two Tone Hammertone. Also available in Gray Hammertone. Specify color when ordering.

Above unit is one Triple POR-8 which consists of one POR-8 two MOR-8

15 1/4" DEEP				18" DEEP		
Cat. No.	Shp. Wt. Lbs.	Net Price	Overall Height	Panel Space	Cat. No.	Shp. Wt. Lbs.
MOR-3	16	\$17.60	57 5/8"	3 1/2"	MOR-318	18
MOR-5	17	18.50	75 5/8"	5 1/4"	MOR-518	19
MOR-7	18	19.40	93 5/8"	7"	MOR-718	20
MOR-8	19	20.40	111 5/8"	8 3/4"	MOR-818	21
MOR-10	20	23.40	127 5/8"	10 1/2"	MOR-1018	23
MOR-12	21	25.30	145 5/8"	12 1/4"	MOR-1218	24
MOR-14	23	28.20	163 5/8"	14"	MOR-1418	26
MOR-17	31	33.55	197 5/8"	17 1/2"	MOR-1718	34
MOR-21	33	36.45	233 5/8"	21"	MOR-2118	37
MOR-26	34	39.40	285 5/8"	26 1/4"	MOR-2618	38
MOR-31	36	41.25	327 5/8"	31 1/2"	MOR-3118	40
MOR-35	40	43.70	373 5/8"	35"	MOR-3518	44

FOR MODIFICATIONS SEE PREMIER PAGE 2

FOR BLOWERS, FANS AND HARDWARE SEE PREMIER SECTION G PREMIER PAGES 27 THRU 32

FOR ACCESSORIES SEE SECTION E PREMIER PAGES 16 THRU 22

PREMIER METAL PRODUCTS CO., INC.

PREMIER PAGE 13

ALL PRICES 10% HIGHER WEST OF MISSISSIPPI

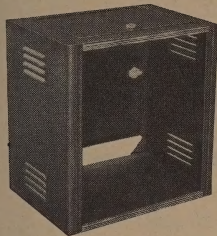
PREMIER DESK CABINET RACKS



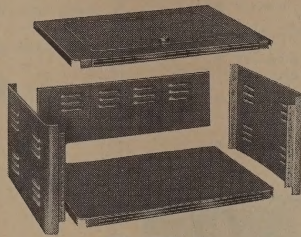
**15 1/4" and 18" DEEP
FOR STANDARD 19" WIDE PANEL
(WELDED AND KNOCKED DOWN MODELS)**

SECTION

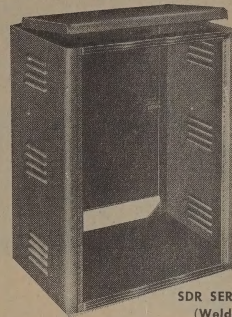
D



DCR SERIES (A)
(Welded)



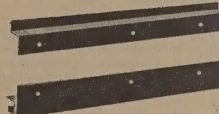
DRK SERIES (B)
(Knocked Down)



SDR SERIES (C)
(Welded)

- Front vertical corners are rounded and the top and bottom are trimmed with chrome finished moulding.
- Rigidly constructed of #16 gauge cold rolled sheet steel.
- Panels fit into a 1/4" recess so that the edges are not exposed.
- Panel mounting holes are tapped for 10-32 machine screws on E.I.A. spacings (5/8"-3/4").
- Piano type hinges are used on the top doors, which are provided with snap catches.
- Top door on Model SDR opens to 90° and has a rounded front corner.
- DRK is identical to DCR except shipped knocked down with all necessary hardware for easy assembly. On these models the bolts are not visible from the outside and have the same appearance as the welded models.
- Gussets welded at bottom of rear on Models 170-350 for additional strength.
- Finished in Gray Hammertone. Also available in Black Wrinkle.
- Specify color when ordering.

WALL MOUNTING BRACKETS



Catalog No. WB-19
Net Price \$5.00

FOR MOUNTING
DESK CABINET
RACKS ON WALL
— REMOVE REAR
DOOR AND USE
WALL MOUNT-
ING BRACKETS.

Sold in sets only.
Finished in Gray
Hammertone.
Shipping Weight 2 1/2 lbs.

FOR MODIFICATIONS SEE PREMIER PAGE 2

FOR ACCESSORIES SEE SECTION E PREMIER PAGES 16 THRU 22

FOR BLOWERS, FANS and HARDWARE SEE SECTION G
PREMIER PAGES 27 THRU 32

21 3/4" WIDE x 15 1/4" DEEP

	Catalog No. (A)	Net Price	Catalog No. (C)	Net Price	Catalog No. (B)	Net Price	Overall Height	Panel Space	Ship. Wt. Lbs.	Use Slide Length*
WITH DOOR ON TOP ONLY	DCR-70	\$15.00	SDR-70	\$19.00	DRK-70	\$14.00	8 3/4"	7"	22	14"
	DCR-80	16.00	SDR-80	20.00	DRK-80	15.00	10 1/2"	8 3/4"	24	14"
	DCR-100	17.50	SDR-100	21.50	DRK-100	16.50	12 1/4"	10 1/2"	26	14"
	DCR-120	19.50	SDR-120	23.50	DRK-120	18.50	14"	12 1/4"	28	14"
	DCR-140	21.00	SDR-140	25.00	DRK-140	20.00	15 3/4"	14"	32	14"
WITH DOOR ON TOP AND REAR	DCR-170	25.50	SDR-170	29.50	DRK-170	24.50	19 1/4"	17 1/2"	40	14"
	DCR-190	27.00	SDR-190	31.00	DRK-190	26.00	21"	19 1/4"	42	14"
	DCR-210	28.00	SDR-210	32.00	DRK-210	27.00	22 3/4"	21"	44	14"
	DCR-260	30.00	SDR-260	34.00	DRK-260	29.00	28"	26 1/4"	45	14"
	DCR-310	32.00	SDR-310	36.00	DRK-310	31.00	33 1/4"	31 1/2"	50	14"
	DCR-350	34.00	SDR-350	38.00	DRK-350	33.00	36 3/4"	35"	55	14"

21 3/4" WIDE x 18" DEEP

	Catalog No. (A)	Net Price	Catalog No. (C)	Net Price	Overall Height	Panel Space	Ship. Wt. Lbs.	Use Slide Length*
WITH DOOR ON TOP ONLY	DCR-1880	\$18.50	SDR-1880	\$22.50	10 1/2"	8 3/4"	26	16"
	DCR-18100	21.50	SDR-18100	25.50	12 1/4"	10 1/2"	29	16"
	DCR-18120	24.50	SDR-18120	28.50	14"	12 1/4"	31	16"
	DCR-18140	26.00	SDR-18140	30.00	15 3/4"	14"	35	16"
WITH DOOR ON TOP AND REAR	DCR-18170	29.50	SDR-18170	33.50	19 1/4"	17 1/2"	44	16"
	DCR-18190	30.50	SDR-18190	34.50	21"	19 1/4"	46	16"
	DCR-18210	32.00	SDR-18210	37.00	22 3/4"	21"	48	16"
	DCR-18260	35.00	SDR-18260	39.00	28"	26 1/4"	49	16"
	DCR-18310	36.50	SDR-18310	40.50	33 1/4"	31 1/2"	55	16"
	DCR-18350	37.50	SDR-18350	41.50	36 3/4"	35"	60	16"

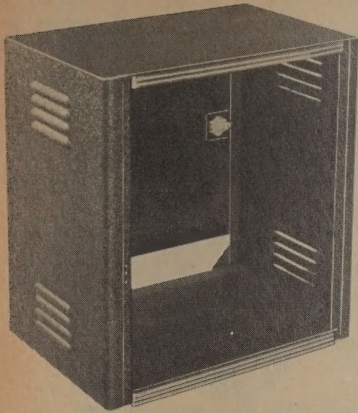
SPECIFY COLOR WHEN ORDERING

*Use Slide Adapter Kit (Cat. No. SAK-35) for rear mounting. (See Page 26)

PREMIER METAL PRODUCTS CO., INC.

ALL PRICES 10% HIGHER WEST OF MISSISSIPPI

PREMIER PAGE 14

PREMIER**12" DEEP MINIATURE DESK CABINET RACKS**

MDK SERIES
Shown with panels, horizontal (DH Series) and vertical (DV Series) dividers assembled.

**MODU-RAK®**

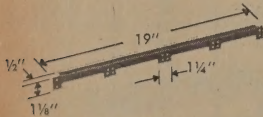
SECTION

D**FOR STANDARD
19" RACK PANELS****(KNOCKED DOWN)**

- Front vertical corners are rounded and the top and bottom are trimmed with red striped chrome moulding.
- Rigidly constructed of #16 gauge cold rolled sheet steel.
- Panels fit into a recess so that the edges are not exposed.
- Panel mounting holes are tapped for 10-32 machine screws on E.I.A. Spacings ($\frac{5}{8}$ - $\frac{1}{2}$ ").
- Rear doors have snap catches.
- Bolts are not visible from the outside and these units have the same appearance as the welded models.
- FINISHED IN GRAY HAMMERTONE.
- SHIPPED KNOCKED DOWN WITH ALL NECESSARY HARDWARE FOR EASY ASSEMBLY.

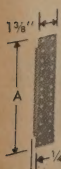
21 $\frac{3}{4}$ " WIDE x 12" DEEP

	Catalog No.	Overall Height	Available Panel-Space	Ship. Wt. Lbs.	Net Price
WITH REMOVABLE REAR PANEL	MDK-50	7"	5 $\frac{1}{4}$ x 19"	16	\$17.25
	MDK-70	8 $\frac{3}{4}$ "	7 x 19"	20	11.45
	MDK-80	10 $\frac{1}{2}$ "	8 $\frac{3}{4}$ x 19"	21	12.35
	MDK-100	12 $\frac{1}{4}$ "	10 $\frac{1}{2}$ x 19"	23	14.20
	MDK-120	14"	12 $\frac{1}{4}$ x 19"	25	15.50
WITH REAR DOOR	MDK-140	15 $\frac{3}{4}$ "	14 x 19"	29	17.50
	MDK-170	19 $\frac{1}{2}$ "	17 $\frac{1}{2}$ x 19"	36	21.25
	MDK-210	22 $\frac{3}{4}$ "	21 x 19"	39	23.15
	MDK-260	25"	25 $\frac{1}{4}$ x 19"	40	25.35
	MDK-280	29 $\frac{3}{4}$ "	29 x 19"	41	27.35

ACCESSORIES FOR SUBDIVIDING ANY 19" WIDE PANEL SPACE INTO MODULAR UNITS**HORIZONTAL DIVIDERS**

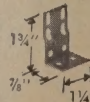
- Holes punched to accommodate vertical dividers (DV Series) which subdivides the panel space into 9 $\frac{1}{2}$ " and 4 $\frac{3}{4}$ " widths.
- Made of #16 gauge steel.
- Finished in Gray Hammertone.

Catalog No.	Dimensions	Net Price
DH-19	19" x 1 $\frac{1}{8}$ "	\$3.42
DH-95	9 $\frac{1}{2}$ " x 1 $\frac{1}{8}$ "	2.80

**VERTICAL DIVIDERS**

Cat. No.	"A" Available Panel Mtg. Space	Net Price
DV-5	5 $\frac{1}{4}$ "	\$0.95
DV-7	7"	1.30
DV-8	8 $\frac{3}{4}$ "	1.60
DV-10	10 $\frac{1}{2}$ "	1.95
DV-12	12 $\frac{1}{4}$ "	2.05
DV-14	14"	2.25
DV-17	17 $\frac{1}{2}$ "	2.95
DV-21	21"	3.60
DV-26	26 $\frac{1}{4}$ "	4.45
DV-28	28"	4.70

- Two rows of 10-32 tapped holes punched on E.I.A. Spacings.
- Made of No. 16 gauge steel.
- Finished in gray Hammertone.

**ANGLE BRACKETS**

- Punched to accommodate vertical dividers.
- Made of No. 16 gauge steel.
- Finished in gray hammertone.

Cat. No.	Net Price	sold in pairs only
AB-2	\$1.09 pr.	

FOR MODIFICATIONS SEE PREMIER PAGE 2 • FOR ACCESSORIES SEE SECTION E PREMIER PAGES 16 THRU 22

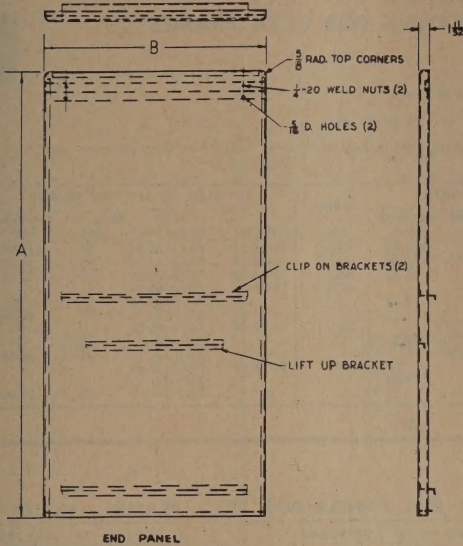
FOR BLOWERS, FANS and HARDWARE SEE SECTION G PREMIER PAGES 27 THRU 32

PREMIER METAL PRODUCTS CO., INC.

PREMIER END PANELS For Rounded Corner FRAMES

SECTION

E



END PANELS FOR FA FRAMES 1-11/32" DEEP

- Made of one piece of 16 gauge steel.
- BALL CORNERED.
- End panels attach to frame by means of a bracket on bottom and held securely by two captive screws on top.
- Panels supplied blank. Louvres furnished at no additional charge.
- Finished in Brown Hammertone.

22" WIDE

Cat. No.	For Use with Frame	Shpg. Wt. Lbs.	Hgt.	Net Price
CEP-42-22	FA-42-22	23	45 1/4"	\$18.90
CEP-52-22	FA-52-22	27	55 3/4"	22.70
CEP-61-22	FA-61-22	30	64 1/2"	25.20
CEP-70-22	FA-70-22	33	73 1/4"	27.10
CEP-77-22	FA-77-22	35	80 1/4"	29.30

25 1/2" WIDE

Cat. No.	For Use with Frame	Shpg. Wt. Lbs.	Hgt.	Net Price
CEP-42-255	FA-42-255	28	45 1/4"	\$22.05
CEP-52-255	FA-52-255	32	55 3/4"	25.85
CEP-61-255	FA-61-255	35	64 1/2"	27.75
CEP-70-255	FA-70-255	38	73 1/4"	30.25
CEP-77-255	FA-77-255	40	80 1/4"	32.20

BALL CORNERED END PANELS FOR FS FRAMES—1-11/32" DEEP

- Made of 1 P.C. No. 18 Gauge Steel.
- End Panels Attached to Frame by Means of a Bracket on Bottom & Held Securely by 2 Captive Screws on Top.
- Supplied Blank; Louvres Furnished at No Additional Charge.
- Finished in Brown Hammertone.

22" WIDE				25 1/2" WIDE			
End Panels	Used for Frame	Shp. Wt. Lbs.	Net Price	End Panels	Used for Frame	Shp. Wt. Lbs.	Net Price
CEP-1201 LH	Left side FS-1001 & 1003	20	\$18.50	CEP-1201-255 LH	Left side FS-1001-255 & 1003-255	22	\$21.50
CEP-1201 RH	Right side FS-1001 & 1003	20	18.50	CEP-1201-255 RH	Right side FS-1001-255 & 1003-255	22	21.50
CEP-1202 LH	Left side FS-1002 & 1004	18	18.90	CEP-1202-255 LH	Left side FS-1002-255 & 1004-255	20	19.50
CEP-1202 RH	Right side FS-1002 & 1004	18	18.90	CEP-1202-255 RH	Right side FS-1002-255 & 1004-255	20	19.50

END PANELS FOR CPF FRAMES

- Made of one piece of #18 gauge steel.
- Finished in Brown Hammertone.
- End panels attach to pedestal frame CPF Series by means of 2 brackets on bottom and held securely with 2 captive screws on top.

BALL CORNERED END PANEL 1-11/32" DEEP

SHORT END PANEL— 1-11/32" DEEP

Cat. No.	Width	Height	For use with	Shpg. Wt. Lbs.	Net Price
CEP-401	22"	26"	CPF-101 & 103	17	\$15.75
CEP-402	22"	33"	CPF-102 & 104	20	18.90
CEP-401-34	34 1/4"	26"	CPF-101-34	22	20.80
CEP-401-255	25 1/2"	26"	CPF-101-255 & 103-255	21	17.50
CEP-402-255	25 1/2"	33"	CPF-102-255 & 104-255	24	19.00
CEP-401-18	18 1/2"	26"	CPF-101-18 & 103-18	16	15.00
CEP-402-18	18 1/2"	23"	CPF-102-18 & 104-18	16	18.00

Used only when work top is mounted between 2 pedestal frames.

Cat. No.	Width	Height	For use with	Shpg. Wt. Lbs.	Net Price
CSS-701	22"	23"	CPF-101 & 103	15	\$10.00
CSS-701-34	34 1/4"	23"	CPF-101-34	18	13.20
CSS-701-255	25 1/2"	23"	CPF-101-255 & 103-255	17	12.00
CSS-701-18	18 1/2"	23"	CPF-101-18 & 103-18	14	9.00



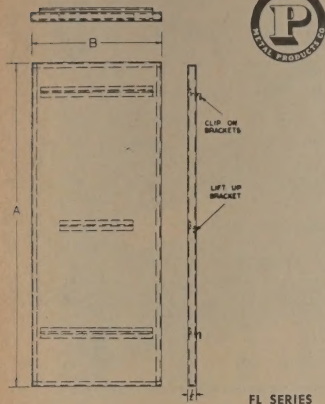
PREMIER METAL PRODUCTS CO., INC.

PREMIER**END PANELS For Square Cornered FRAMES**

SECTION

E**FLUSH END PANELS FOR PRXA FRAMES**
1½" DEEP

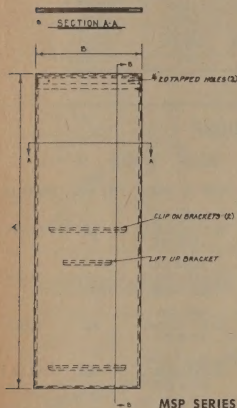
- Fits into side recess of frame.
- Made of one piece of #16 gauge steel.
- Clips on to horizontal side section of frame. Finished in Gray Hammertone.



15" WIDE for 18" DEEP FRAMES				Height (A)	21" WIDE for 24" DEEP FRAMES			
Cat. No.	To Fit Frame No.	Shpg. Wt. Lbs.	Net Price Each		Cat. No.	To Fit Frame No.	Shpg. Wt. Lbs.	Net Price Each
FL-36	PRXA-36	18	\$14.75	42¾"	FL-36-24	PRXA-36-24	20	\$19.75
FL-42	PRXA-42	19	15.66	48"	FL-42-24	PRXA-42-24	21	20.46
FL-52	PRXA-52	21	17.72	58½"	FL-52-24	PRXA-52-24	24	22.50
FL-61	PRXA-61, 2761, 3361	22	20.64	67¼"	FL-61-24	PRXA-61-24, 2761-24, 3361-24	27	24.90
FL-70	PRXA-70, 2770, 3370	25	22.26	76"	FL-70-24	PRXA-70-24, 2770-24, 3370-24	30	26.88
FL-77	PRXA-77, 2777, 3377	27	24.00	83"	FL-77-24	PRXA-77-24, 2777-24, 3377-24	33	29.00

**SQUARE
END PANELS
13/16" DEEP**

- Made of one piece of #16 gauge steel.
- End panels attach to frame by means of a bracket on bottom and held securely by two captive screws on top.
- Finished in Gray Hammertone.

**SQUARE END PANELS FOR PRXA FRAMES — 13/16" DEEP**

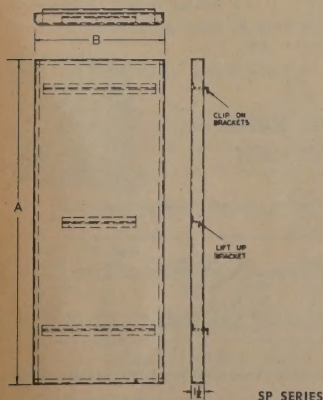
18" WIDE for 18" DEEP FRAMES				Height (A)	24" WIDE for 24" DEEP FRAMES			
Cat. No.	To Fit Frame No.	Shpg. Wt. Lbs.	Net Price		Cat. No.	To Fit Frame No.	Shpg. Wt. Lbs.	Net Price
MSP-36	PRXA-36	20	\$18.00	42¾"	MSP-36-24	PRXA-36-24	24	\$21.00
MSP-42	PRXA-42	22	19.05	48"	MSP-42-24	PRXA-42-24	27	22.05
MSP-52	PRXA-52	26	22.85	58½"	MSP-52-24	PRXA-52-24	32	25.85
MSP-61	PRXA-61	30	24.75	67¼"	MSP-61-24	PRXA-61-24	34	27.75
MSP-70	PRXA-70	32	27.25	76"	MSP-70-24	PRXA-70-24	38	30.25
MSP-77	PRXA-77	34	29.20	83"	MSP-77-24	PRXA-77-24	40	32.20

SQUARE END PANELS FOR MSF FRAMES — 13/16" DEEP

22" WIDE for 22" DEEP FRAMES			Height (A)	25½" WIDE for 25½" DEEP FRAMES		
Cat. No.	To Fit Frame No.	Net Price		Cat. No.	To Fit Frame No.	Net Price
MSP-21-22	MSF-21-22	\$13.50	26"	MSP-21-255	MSF-21-255	\$15.50
MSP-28-22	MSF-28-22	15.50	33"	MSP-28-255	MSF-28-255	17.50

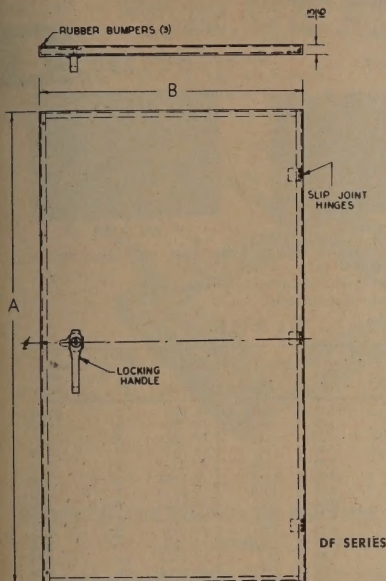
**ROUNDED END PANELS
FOR PRXA FRAMES****1½" DEEP**

- Fits into side recess of frame.
- Made of one piece of #16 gauge steel.
- Clips on to horizontal side section of frame.
- Finished in Gray Hammertone.



15" WIDE for 18" DEEP FRAMES					21" WIDE for 24" DEEP FRAMES				
Cat. No.	To Fit Frame No.	Height (A)	Shpg. Wt. Lbs.	Net Price	Cat. No.	To Fit Frame No.	Height (A)	Shpg. Wt. Lbs.	Net Price
SP-36	PRXA-36	42¾"	19	\$16.50	SP-36-24	PRXA-36-24	42¾"	21	\$21.50
SP-42	PRXA-42	48"	20	17.40	SP-42-24	PRXA-42-24	48"	22	22.44
SP-52	PRXA-52	58½"	21	19.54	SP-52-24	PRXA-52-24	58½"	25	24.58
SP-61	PRXA-61	67¼"	23	22.62	SP-61-24	PRXA-61-24	67¼"	28	27.12
SP-70	PRXA-70	76"	26	24.32	SP-70-24	PRXA-70-24	76"	31	29.18
SP-77	PRXA-77	83"	28	26.15	SP-77-24	PRXA-77-24	83"	34	31.50

PREMIER METAL PRODUCTS CO., INC.

PREMIER**DOORS for FRAMES and RACKS****DOORS FOR FA, FS and PRXA FRAMES****SECTION****E****13/16" DEEP**

- Made of #16 gauge steel
- Doors can be mounted either left or right hand by rotating door 180°
- Doors supplied blank. Louvres furnished at no additional charge
- Doors hung on slip jointed hinges and equipped with locking handle and 2 keys
- Door mounted to frame by 3 removable hinge brackets, permitting the door to be mounted either left or right hand. Handle latch bracket also supplied
- Finished in Gray Hammertone

• SPECIFY HINGED-SIDE WHEN DOORS ARE FURNISHED LOUVRED.

21½" W/E			Height (A)	26½" WIDE		
Cat. No.	Shgp. Wt. Lbs.	Net Price		Cat. No.	Shgp. Wt. Lbs.	Net Price
DF-36	17	\$25.00	40 5/8"	DF-2736	23	\$30.00
DF-42*	20	26.40	45 3/8"	DF-2742	26	32.40
DF-52	25	29.40	56 1/8"	DF-2752	31	35.40
DF-61	28	33.60	64 3/8"	DF-2761	34	39.60
DF-70	31	36.00	73 3/8"	DF-2770	38	43.50
DF-77	34	38.40	80 3/8"	DF-2777	41	45.00

32 1/2" WIDE (DOUBLE DOORS with 3 Point Locking Device)

Cat. No.	Shpg. Wt. Lbs.	Height	Net Price
DF-3361	40	64 3/8"	\$45.00
DF-3370	45	73 3/8"	50.50
DF-3377	48	80 3/8"	54.00

*Add suffix -1002 when used with FS-1002, 1002-255, 1004, 1004-255

**CD SERIES****FLUSH DOORS—1/2" DEEP**

For Prem-O-Rak Console Frames CPF, FS, FA, MSF, POR and CSC Series.

- Made of 16 gauge steel
- Finished in Gray Hammertone
- Doors can be mounted either left or right hand by rotating door 180°

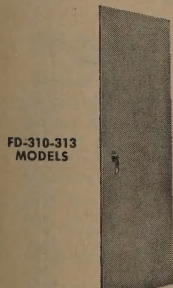
- Hinge brackets are punched to accommodate panel mounting angles on cabinets.
- Furnished with attractive round chrome plated handle and snap catch.

Cat. No.	Height	Width	Shpg. Wt. Lbs.	Net Price
CD-17	17 1/2"	19"	7	\$11.90
CD-21	21"	19"	8	12.85
CD-26	26 1/4"	19"	9	14.40
CD-28	28"	19"	10	15.10
CD-29	29 3/4"	19"	11	15.75
CD-42	42"	19"	16	25.65
CD-1724	17 1/2"	24"	8	14.30
CD-2124	21"	24"	9	15.40
CD-2824	28"	24"	12	18.15
CD-2924	29 3/4"	24"	13	18.90
CD-4224	42"	24"	17	31.50

FRONT DOORS — 1 1/4" DEEP**TO FIT STANDARD 19" DESK RACK CABINETS AND CABINET RELAY RACKS**

Constructed from one piece of #16 gauge steel. Two concealed piano hinges are provided with holes, punched to accommodate E.I.A. spacings and are made to fit on top of the panels. Supplied with cylinder lock and cam bracket to hold door in position on FD-300-306. Locking chrome handle with two keys supplied on FD-310-313 models. All necessary bolts furnished for easy assembly. All doors are 20 1/2" wide x 1 1/4" deep. Finished in Gray Hammertone. Also available in Black Wrinkle.

SPECIFY COLOR WHEN ORDERING

**FD-310-313
MODELS****FD-300-306
MODELS**

Cat. No.	Will Fit Rack No.	Overall Height	Shpg. Wt. Lbs.	Net Price
FD-300	DCR, DRK, SDR-260, 18260, MDK-260	26 1/4"	10	\$14.66
FD-301	DCR, DRK, SDR-310, 18310, MDK-310	31 1/2"	11	17.04
FD-302	DCR, DRK, SDR-350, 18350, MDK-350	35"	12	19.00
FD-303	DCR, DRK, SDR-120, 18120, MDK-120	12 1/4"	6	11.05
FD-304	DCR, DRK, SDR-140, 18140, MDK-140	14"	7	12.00
FD-305	DCR, DRK, SDR-170, 18170, MDK-170	17 1/2"	8	13.04
FD-306	DCR, DRK, SDR-210, 18210, MDK-210	21"	9	14.04
FD-310	R-3619	36 7/8"	13	30.45
FD-311	R-4219	42 1/8"	15	34.75
FD-312	R-6119	61 3/8"	20	40.55
FD-313	R-7719	77 7/8"	24	46.35

PREMIER METAL PRODUCTS CO., INC.

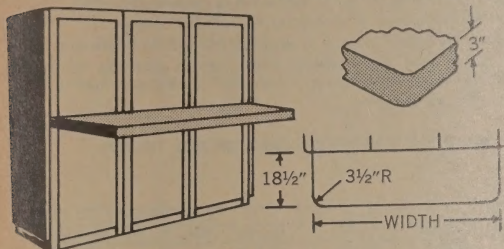
PREMIER

ACCESSORIES

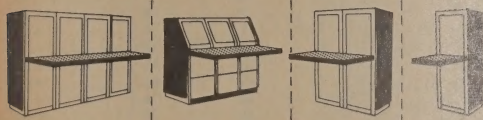
ONE PIECE FORMICA WORK WRITING SHELVES

For 22" Wide FA and FS FRAMES

- Gray linen weave Formica (2-C-1) bonded to ¾" plywood
- Other Standard Formica Colors or Patterns Available
- 3" self edged Formica skirt on 3 sides
- Supplied with 3½" x 19" formed panel, channels and brackets



TO FIT 22" DEEP FRAMES				TO FIT 25½" DEEP FRAMES			
Cat. No.	Net Price	Depth	Width	Cat. No.	Net Price	Depth	Width
For 1 Vertical Frames (FA MSF, or PRXA Series) or 1 Sloped Front Frame (FS Series) Side By Side							
OFT-2218-22	\$82.50	18½"	22"	OFT-2218-255	\$83.60	18½"	25½"
For 2 Vertical Frames (FA MSF, or PRXA Series) or 2 Sloped Front Frames (FS Series) Side By Side							
OFT-4418-22	104.50	18½"	44"	OFT-4418-255	105.60	18½"	44"
For 3 Vertical Frames (FA MSF, or PRXA Series) or 3 Sloped Front Frames (FS Series) Side By Side							
OFT-6618-22	126.50	18½"	66"	OFT-6618-255	128.70	18½"	66"
For 4 Vertical Frames (FA MSF, or PRXA Series) or 4 Sloped Front Frames (FS Series) Side By Side							
OFT-8818-22	154.00	18½"	88"	OFT-8818-255	156.20	18½"	88"



NOTE:

ONE PIECE Formica shelves available for use with semi-circular arrangements when used with Wedge Frames.

FORMICA WRITING PANELS

19" and 24" WIDE — ½" THICK

Gray Linen Weave Pattern Formica 2-C-1 bonded to plywood as top surface; Unfinished Formica bonded to bottom surface.

19" WIDE			
Cat. No.	Panel Space	Fits into	Net Price
FWP-1019	10½" x 19"	WW-15-22 & WW-15-255	\$7.26
FWP-1419	14" x 19"	WW-18-22 & WW-18-255	9.24
FWP-1719	17½" x 19"	WW-22-22 & WW-22-255	
		WTO-22-22 & Top Panel Space of CPF-101, CPF-102, MSF-21-22, MSF-28-22	11.22
FWP-2119	21" x 19"	WTO-22-255, WW-255-22, WW-255-255, MSF-21-255, MSF-28-255	14.00
FWP-2919	29¾" x 19"	CPF-101-34, WTO-22-34	26.40
24" WIDE			
Cat. No.	Panel Space	Fits into	Net Price
FWP-1024	10½" x 24"	WW-2715-22, WW-2715-255	\$7.92
FWP-1424	14" x 24"	WW-2718-22, WW-2718-255	9.90
FWP-1724	17½" x 24"	WW-2722-22, WW-2722-255	
		WTO-27-22 & Top Panel Space of CPF-103 & CPF-104	11.88
FWP-2124	21" x 24"	WTO-27-255, WW-27-255, WW-27-255-255	15.00

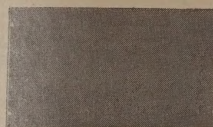
FORMED PANELS — ½" DEEP 19" and 24" WIDE

SECTION

BLANK

LOUVRED

E



FP Series



FPL Series

- Made of one piece of No. 16 gauge steel, with edges formed for overall depth of ½".
- Each panel has only 2 mounting holes on each side.
- Finished in Gray Hammetone.

BLANK

19" WIDE				24" WIDE			
Cat. No.	Shpg. Wt. Lbs.	Net Price	Height	Cat. No.	Shpg. Wt. Lbs.	Net Price	Height
FP-119	1½	\$1.21	13¼"	FP-124	2	\$1.40	13¼"
FP-319	2	1.25	3½"	FP-324	3	1.52	3½"
FP-519	2½	1.45	5¼"	FP-524	3½	1.72	5¼"
FP-719	3	1.65	7"	FP-724	4	2.00	7"
FP-819	4	2.02	8¾"	FP-824	5	2.45	8¾"
FP-1019	5	2.50	10½"	FP-1024	6	3.00	10½"
FP-1219	6	2.90	12¼"	FP-1224	7	3.45	12¼"
FP-1419	6½	3.25	14"	FP-1424	7½	3.90	14"
FP-1519	7	3.75	15¾"	FP-1524	8	4.50	15¾"
FP-1719	7½	4.15	17½"	FP-1724	8½	4.95	17½"
FP-1919	8	4.52	19¼"	FP-1924	9	5.42	19¼"
FP-2119	9	4.95	21"	FP-2124	10	5.95	21"
FP-2219	10	5.50	22¾"	FP-2224	11	6.60	22¾"
FP-2619	11	6.12	26¼"	FP-2624	12	7.35	26¼"
FP-2819	12	6.60	28"	FP-2824	13	7.95	28"
FP-4219	18	11.00	42"	FP-4224	20	13.20	42"

LOUVRED

19" WIDE				24" WIDE			
Cat. No.	Shpg. Wt. Lbs.	Net Price	Height	Cat. No.	Shpg. Wt. Lbs.	Net Price	Height
FPL-719	3	\$3.48	7"	FPL-724	4	\$4.16	7"
FPL-819	4	3.90	8¾"	FPL-824	5	4.70	8¾"
FPL-1019	5	4.30	10½"	FPL-1024	6	5.15	10½"
FPL-1219	6	4.85	12¼"	FPL-1224	7	5.82	12¼"
FPL-1419	6½	5.22	14"	FPL-1424	7½	6.30	14"
FPL-1719	7½	6.12	17½"	FPL-1724	8½	7.35	17½"
FPL-2119	9	7.60	21"	FPL-2124	10	9.12	21"
FPL-2219	10	8.25	22¾"	FPL-2224	11	9.35	22¾"
FPL-2619	11	8.52	26¼"	FPL-2624	12	10.25	26¼"
FPL-2819	12	9.05	28"	FPL-2824	13	10.85	28"
FPL-4219	18	15.40	42"	FPL-4224	20	18.70	42"

PERFORATED



PFP Series

- Made of No. 20 gauge steel with ⅛" diameter holes on ⅜" staggered centers.
- Edges formed on 4 sides.
- Each panel has 2 mounting holes on each side.
- Finished in Gray Hammetone.

19" WIDE				24" WIDE			
Cat. No.	Shpg. Wt. Lbs.	Net Price	Height	Cat. No.	Shpg. Wt. Lbs.	Net Price	Height
PFP-119	1½	\$2.50	13¼"	PFP-124	2¼	\$3.25	13¼"
PFP-319	1¾	2.75	3½"	PFP-324	2¾	3.50	3½"
PFP-519	2¼	3.00	5¼"	PFP-524	3¼	3.90	5¼"
PFP-719	2¾	3.75	7"	PFP-724	3¾	5.00	7"
PFP-819	3¼	4.25	8¾"	PFP-824	4¾	5.75	8¾"
PFP-1019	4¾	5.00	10½"	PFP-1024	5¾	6.25	10½"
PFP-1219	5¾	5.60	12¼"	PFP-1224	6¾	7.40	12¼"
PFP-1419	6¼	6.20	14"	PFP-1424	7¼	8.00	14"
PFP-1519	6¾	6.80	15¾"	PFP-1524	7¾	8.90	15¾"
PFP-1719	7¼	7.25	17½"	PFP-1724	8¼	9.50	17½"
PFP-1919	7¾	7.95	19¼"	PFP-1924	8¾	10.50	19¼"
PFP-2119	8¾	8.50	21"	PFP-2124	9¾	11.25	21"
PFP-2619	10¾	10.00	26¼"	PFP-2624	11¾	13.00	26¼"
PFP-2819	11¾	11.00	28"	PFP-2824	12¾	14.25	28"

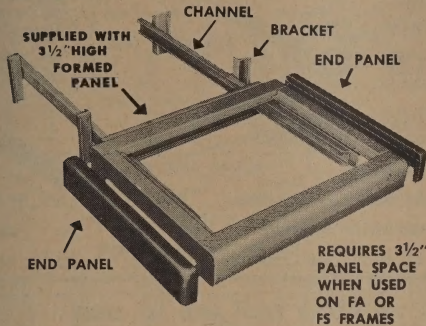
PREMIER METAL PRODUCTS CO., INC.

PREMIER

ACCESSORIES

WRITING WORK SHELVES FOR CPF, FA and FS FRAMES

- Made Of No. 16 Gauge Steel
- Tops Of Front And Rear Are Rounded
- Shipped Knocked Down • Finished In Gray Hammertone
- Supplied With Channels And Brackets For Mounting To Inside Of Frames



DESIGNED FOR SINGLE OR MULTIPLE INSTALLATION 22" WIDE — 3" HIGH

To Fit 22" DEEP FRAMES

To Fit 25 1/2" DEEP FRAMES

Cat. No.	Shpg. Lbs.	Wt. Lbs.	Net Price	Top Panel Space	Depth	Cat. No.	Shpg. Lbs.	Wt. Lbs.	Net Price
WW-15-22	11	37.80		10 1/2" x 19"	15"	WW-15-255	12	38.60	
WW-18-22	12	39.70		14" x 19"	18 1/2"	WW-18-255	13	40.50	
WW-22-22	13	41.58		17 1/2" x 19"	22"	WW-22-255	14	42.38	
WW-255-22	14	46.00		21" x 19"	25 1/2"	WW-255-255	15	47.00	

27" WIDE

WW-2715-22	14	43.40		10 1/2" x 24"	15"	WW-2715-255	15	44.26	
WW-2718-22	15	44.74		14" x 24"	18 1/2"	WW-2718-255	16	45.52	
WW-2722-22	16	46.00		17 1/2" x 24"	22"	WW-2722-255	17	46.80	
WW-27-255-22	17	48.00		21" x 24"	25 1/2"	WW-27-255-255	18	49.00	

END PANELS FOR WRITING WORK SHELF

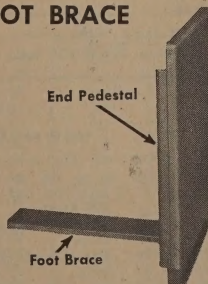
- Ball cornered • Attaches to Writing Work Shelf by means of 2 captive screws • Made of one piece of No. 18 gauge steel
- Finished in Brown Hammertone

Cat. No.	Lbs.	Used With	Net Price each
CEP-15	1 1/2	WW-15-22, 15-255; 2715-22, 2715-255	\$3.75
CEP-18	2	WW-18-22, 18-255; 2718-22, 2718-255	4.00
CEP-22	2 1/2	WW-22-22, 22-255; 2722-22, 2722-255, 255-22, 255-255, 27-255-22, 27-255-255	4.25

END PEDESTAL and FOOT BRACE

FOR DOUBLE UNIT ASSEMBLY

- Made of No. 18 gauge steel
- Ball cornered
- End Pedestal mounts to Work Top CWT Series or WTO Series. Foot Brace mounts to Pedestal Frame CPF Series and End Pedestal PE-901
- Foot Brace can be mounted between two Pedestal Frames (CPF or MSF Series).
- Finished in Brown Hammertone



WORK TOPS FOR MULTIPLE ASSEMBLY — 3" HIGH

CWT Series
Solid TypeWTO Series
Open Type

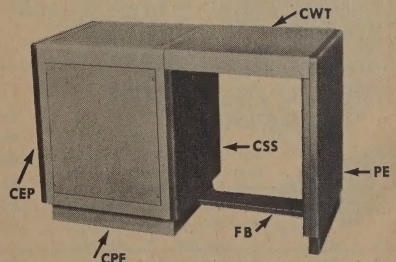
- Tops of front and rear are rounded.
- Designed for mounting between two Pedestal Frames or when used with End Pedestal (PE Series).
- USE SHORT END PANELS (CSS Series) FOR THIS INSTALLATION.
- Made of No. 16 gauge steel.
- Finished in Gray Hammertone.

WORK TOPS Solid Type

Cat. No.	Width	Depth	Shp. Wt. Lbs.	Net Price
CWT-601	22"	22"	14	\$14.00
CWT-603	27"	22"	18	16.50
CWT-601-34	22"	34 1/4"	20	20.80
CWT-601-18	22"	18 1/2"	12	13.00
CWT-601-255	22"	25 1/2"	16	15.00

Open Type

Cat. No.	Width	Depth	Panel Space	Shpg. Wt. Lbs.	Net Price
WTO-22-22	22"	22"	17 1/2" x 19"	9 1/2	\$28.35
WTO-27-22	27"	22"	17 1/2" x 24"	11	34.02
WTO-22-34	22"	34 1/4"	29 3/4" x 19"	12	44.10
WTO-22-255	22"	25 1/2"	21" x 19"	12	38.00
WTO-27-255	27"	25 1/2"	21" x 24"	13	40.00
WTO-22-18	22"	18 1/2"	14" x 19"	9	27.00



END PEDESTAL

Cat. No.	Depth	Height	Shpg. Wt. Lbs.	Net Price
PE-901	22"	29 1/2"	25	\$31.50
PE-901-34	34 1/4"	29 1/2"	30	47.25
PE-901-255	25 1/2"	29 1/2"	28	38.50
PE-901-18	18 1/2"	29 1/2"	22	30.00

FOOT BRACE

Cat. No.	Shpg. Wt. Lbs.	Used With	Net Price
FB-801	3	22" Wide Work Tops	\$8.92
FB-802	3 1/2	27" Wide Work Tops	9.64

PREMIER METAL PRODUCTS CO., INC.

ALL PRICES 10% HIGHER WEST OF MISSISSIPPI

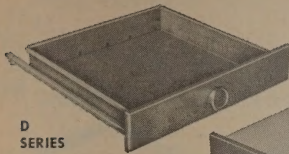
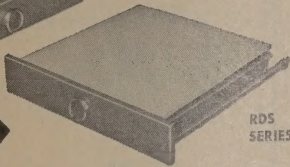
PREMIER PAGE 20

PREMIER

ACCESSORIES

SECTION

E

D
SERIESSLIDING
DRAWERSRDS
SERIES

SLIDING SHELVES ▶

- Made of No. 16 gauge steel.
- Mounted on suspension slides, which sustain 46 lbs.
- Drawer extends 16" from front of cabinet.
- Supplied with brackets for mounting to tapped holes of panel mounting angles.
- Furnished with attractive, round chrome-plated handle.
- Shipped knocked down with all necessary hardware for easy assembly.
- Will fit CPF, FS, MSF, POR, PRXA, RMX, FDX SERIES.
- Finished in Gray Hammertone.
- Sliding shelves supplied with Gray linen weave Formica (2-C-1) on top surface.



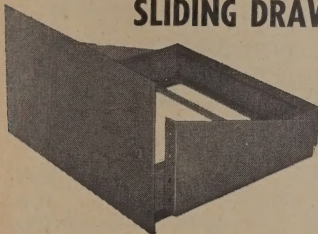
SLIDING DRAWERS

Cat. No.	Formed Panel Size	W	Drawer Size D	H	Shpg. Wt. Lbs.	Net Price
FOR 19" WIDE PANEL SPACE						
D-1916	103 5/8" x 18 7/8" x 1/2"	16 3/4"	16"	6"	23	\$18.90
D-2016	67 1/2" x 18 7/8" x 1/2"	16 3/4"	16"	6"	22	18.15
D-2316	33 3/8" x 18 7/8" x 1/2"	16 3/4"	16"	2 1/8"	16	17.10
FOR 24" WIDE PANEL SPACE						
D-2116	103 5/8" x 23 7/8" x 1/2"	21 1/8"	16"	6"	25	22.70
D-2216	67 1/2" x 23 7/8" x 1/2"	21 1/8"	16"	6"	24	21.75
D-2416	33 3/8" x 23 7/8" x 1/2"	21 1/8"	16"	2 1/8"	17	18.90

SLIDING SHELVES

Cat. No.	Formed Panel Size	Shelf Size	Shpg. Wt. Lbs.	Net Price
FOR 19" WIDE PANEL SPACE				
RDS-319-22	33 3/8" x 18 7/8" x 1/2"	16 3/4" x 15 3/8"	20	\$34.65
FOR 24" WIDE PANEL SPACE				
RDS-324-22	33 3/8" x 23 7/8" x 1/2"	21 1/8" x 15 3/8"	22	44.10

SLIDING DRAWERS TO FIT STANDARD 19" RACKS 15 1/4" AND 18" DEEP



Panel made of #12 gauge steel; chassis of #16 steel and has a 1" flange on top and bottom to accommodate plywood for the record changer. The chassis is mounted on ball-bearing suspension slides which can sustain 40 lbs. Drawer extends 11" from front of cabinet. Entire unit mounts on angle brackets which can be bolted on to the cabinet. Supplied knocked down with all necessary bolts for easy assembly. Locks in place by means of 2 latches. Finished in Gray Hammertone. Also available in Black Wrinkle.

SPECIFY COLOR WHEN ORDERING.

Catalog No.	Will Fit Rack No.	Panel Size	Chassis Size W. D. H.	Shp. Wt. Lbs.	Net Price
RD-10	R, DCR-18, SDR-18, RMX, & FDX Models	103 5/8" x 18 7/8"	17" x 16" x 3"	15	\$17.25
RD-12		12 5/8" x 18 7/8"	17" x 16" x 4"	18	19.15
RD-10-14	DCR, SDR, DRK, RMX & FDX, R, DCR-18, SDR-18 Models	103 5/8" x 18 7/8"	17" x 14" x 3"	14 1/2	17.10
RD-12-14		12 5/8" x 18 7/8"	17" x 14" x 4"	17	19.00

DESK PANELS TO FIT STANDARD 19" WIDE PANEL RACKS

For Use With RMX,
R, DR, RR, HDRR,
PRXA, MSF Series

- Made of No. 16 gauge steel and bolted to a standard steel panel 10 1/2" x 19".
- Front corners are rounded.
- Finished in Gray Hammertone. Also available in Black Enamel.
- SHIPPED KNOCKED DOWN WITH ALL NECESSARY HARDWARE FOR EASY ASSEMBLY.

Cat. No.	Width	Depth	Shp. Wt. Lbs.	Net Price
DP-1016	22"	16"	20	\$17.90
DP-1020	22"	20"	22	18.30

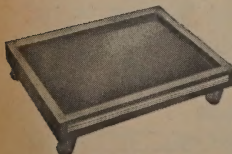
SHELVES TO FIT 19" WIDE PANEL RACKS



Made of one piece of #16 Ga. Cold Rolled Steel, 1" high. Holes are punched on sides for mounting to rack. Finished in Gray Hammertone.

Cat. No.	Will Fit Rack No.	Shelf Size	Shp. Wt. Lbs.	Net Price
RS-1106	All 15 1/4" SDR, DCR & DRK Racks	12x21 3/4"	7	\$3.10
RS-1107	R & DR Racks	15x21 3/4"	7	3.85
RS-1108	FXR	13x21 3/4"	7	3.50
RS-1111	MDK Series - 21 3/4" wide	10x21 3/4"	6	3.00
RS-1113	18" deep DCR & SDR Racks	16x21 3/4"	7	3.95

ROLLER TRUCKS FOR RACKS



Made from 1 piece of No. 16 ga. Cold Rolled Steel. Supplied with either 2" or 3" diameter casters and bolts for easy assembly. Finished in Gray Hammertone with a red striped chrome molding. Also available in Black Wrinkle.

SPECIFY COLOR WHEN ORDERING.

With 2" Dia Casters Cat. No.	Shp. Wt. lbs.	Net Price	Will Fit Rack No.	Inside Dimensions	With 3" Dia. Casters Cat. No.	Shp. Wt. lbs.	Net Price
RT-1100	22	\$10.45	All 15 1/4" Racks	15 3/4" x 22 1/4"	RT-1100-3	24	\$15.70
RT-1101	22	13.20	R, DR, FXR, 18" deep RMX, FDX, DCR and SDR Racks	18 3/4" x 22 3/4"	RT-1101-3	24	18.45
RT-1103	23	16.38	24" deep FDX & RMX Racks	22 1/2" x 24 1/2"	RT-1103-3	25	21.65
RT-1110	25	24.50	RMX-27 & FDX-27 Series	27 1/2" x 24 1/2"	RT-1110-3	27	30.00
RT-1111	30	31.50	RMX-7030	33 1/2" x 24 1/2"	RT-1111-3	32	36.75

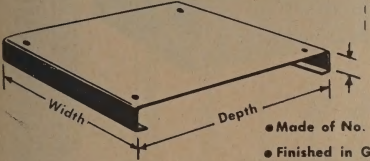
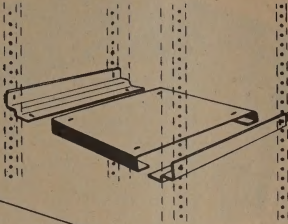
PREMIER METAL PRODUCTS CO., INC.

PREMIER

ACCESSORIES



SHELF AND CHASSIS
SUPPORT ANGLES IN
POSITION



SHELVES

- Made of No. 16 Gauge Steel
- Finished in Gray Hammertone

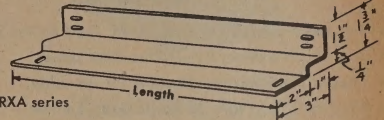
S SERIES

Cat. No.	Depth	Width	To Fit Frames	Net Price
S-18-22	14"	17 1/2"	22"Wx18"D 18" FD, RMX	\$3.30
S-22-22	22 1/2"	17 1/2"	22"Wx22"D FA	3.93
S-27-22	20 3/8"	22 1/2"	22"Wx22"D FA	5.10
S-22-255	23 7/8"	17 1/2"	22"Wx25 1/2"D FA	4.62
S-27-255	23 7/8"	22 1/2"	22"Wx25 1/2"D FA	5.82
S-22-18	16 3/8"	17 1/2"	22"Wx18"D PRXA	3.39
S-27-18	16 3/8"	22 1/2"	22"Wx18"D PRXA	4.14
S-33-18	16 3/8"	28 1/2"	33"Wx18"D PRXA	5.58
S-22-24	22 3/8"	17 1/2"	22"Wx24"D PRXA	4.38
S-27-24	22 3/8"	22 1/2"	22"Wx24"D PRXA	5.58
S-33-24	22 3/8"	28 1/2"	33"Wx24"D PRXA	6.84
S-33-22	20 3/8"	28 1/2"	33"Wx24"D RMX-7030	6.80

CHASSIS SUPPORT ANGLES

- Made of No. 12 ga. steel
- Accommodates Shelf (S Series)
- Finished in Gray Hammertone
- Mounts to tapped holes on side legs of Panel Mounting Angles of FA & PRXA series

CSA SERIES



Cat. No.	Length	To Fit Frames	Net Price Pair
CSA-16	14 1/8"	18" deep FD, RMX	\$4.25
CSA-18	16 1/8"	18" deep PRXA, CPF	4.50
CSA-22	20 1/8"	22" deep FA, CPF, MSF, FS & 24" deep FD, RMX	5.00
CSA-24	22 1/8"	24" deep PRXA	5.25
CSA-255	23 3/8"	25 1/2" deep FA, CPF, FS & MSF	5.50

PANEL MOUNTING ANGLES—1 1/4" x 1 1/4"

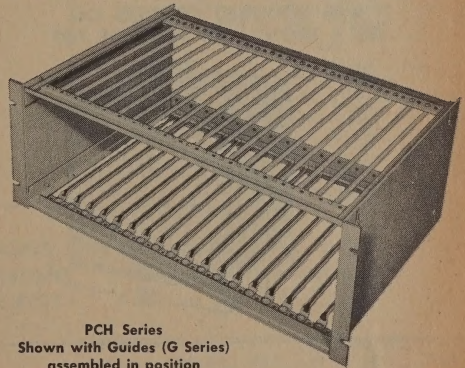
Made of #12 Ga. (.104) thick steel punched and tapped 10-32 on E.I.A. spacings (3/8-9/16) on both legs. Finished in Gray Hammertone.

PANEL MOUNTING ANGLES			TO FIT RACKS	
Cat. No.	Height	Net Price Pr.		
PMA-212-12	21"	7.60	CPF-101, 103, MSF-21-22 & MSF-21-255	
PMA-282-12	28"	10.00	CPF-102, 104, MSF-28-22 & MSF-28-255	
PMA-362-12	36 3/4"	11.00	PRXA, FD, RMX	
PMA-422-12	42"	13.20	FA, PRXA, FS, FD, RMX	
PMA-522-12	52 1/2"	15.20	FA, PRXA	
PMA-612-12	61 1/2"	16.50	FA, PRXA, FD, RMX	
PMA-702-12	70"	18.50	FA, PRXA, FD, RMX	
PMA-772-12	77"	20.00	FA, PRXA, FD, RMX	

PREMIER PRINTED CIRCUIT CARD HOLDER

TO FIT STANDARD 19" and 24" WIDE RACKS
FOR 5 1/4" — 7" — 8 3/4" PANEL HEIGHTS

- To accommodate Printed Circuit Cards from 4 1/2" to 14 1/2" deep.
- 19" wide holder accommodates up to 32 cards, 24" wide holder up to 42 cards.
- Unit shipped unassembled with all necessary hardware.
- Guides are supplied with push rivets for easy positioning.
- Guide (G Series) sold in pairs and ordered as a separate item.
- Frames made of No. 16 gauge steel and finished in Gray Hammertone.
- Guides made of No. 16 gauge steel and zinc plated with colored iridite.
- Supplied with two rear connector panels made of 1/8" aluminum with natural finish. Holes tapped 4-40 on .200" centers.
- Guides also available vinyl coated for insulation at additional cost.



PCH Series
Shown with Guides (G Series)
assembled in position

FOR 19" WIDE PANEL SPACE

Panel Height	FRAME — 19" WIDE		Overall Depth
	Rear Connector Panels Cat. No.	1 1/2"x16 1/4" Net Price	
5 1/4"	PCH-519-6	\$12.00	6 1/4"
	PCH-519-8	12.00	8 1/4"
	PCH-519-10	14.00	10"
	PCH-519-12	15.00	12"
	PCH-519-14	16.00	14"
	PCH-519-16	17.00	16"
7"	PCH-719-6	13.00	6 1/4"
	PCH-719-8	14.00	8 1/4"
	PCH-719-10	15.00	10"
	PCH-719-12	16.00	12"
	PCH-719-14	17.00	14"
	PCH-719-16	18.00	16"
8 3/4"	PCH-819-6	14.00	6 1/4"
	PCH-819-8	15.00	8 1/4"
	PCH-819-10	16.00	10"
	PCH-819-12	17.00	12"
	PCH-819-14	18.00	14"
	PCH-819-16	19.00	16"

FOR 24" WIDE PANEL SPACE

Panel Height	FRAME — 24" WIDE		Overall Depth	GUIDES		
	Rear Connector Panels Cat. No.	1 1/2"x21 1/4" Net Price		Cat. No.	Length	Net Price Pair
5 1/4"	PCH-524-6	\$14.50	6 1/4"	G-6	4 1/8"	.27
	PCH-524-8	15.50	8 1/4"	G-8	6 1/8"	.34
	PCH-524-10	16.50	10"	G-10	7 7/8"	.40
	PCH-524-12	17.50	12"	G-12	9 7/8"	.47
	PCH-524-14	18.50	14"	G-14	11 7/8"	.53
	PCH-524-16	19.50	16"	G-16	13 7/8"	.59
7"	PCH-724-6	15.50	6 1/4"	G-6	4 1/8"	.27
	PCH-724-8	16.50	8 1/4"	G-8	6 1/8"	.34
	PCH-724-10	17.50	10"	G-10	7 7/8"	.40
	PCH-724-12	18.50	12"	G-12	9 7/8"	.47
	PCH-724-14	19.00	14"	G-14	11 7/8"	.53
	PCH-724-16	20.50	16"	G-16	13 7/8"	.59
8 3/4"	PCH-824-6	16.50	6 1/4"	G-6	4 1/8"	.27
	PCH-824-8	17.50	8 1/4"	G-8	6 1/8"	.34
	PCH-824-10	18.50	10"	G-10	7 7/8"	.40
	PCH-824-12	19.50	12"	G-12	9 7/8"	.47
	PCH-824-14	20.50	14"	G-14	11 7/8"	.53
	PCH-824-16	21.50	16"	G-16	13 7/8"	.59

PREMIER

CASES

NEW!

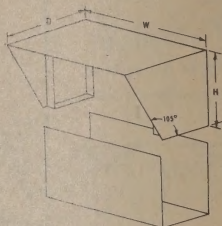
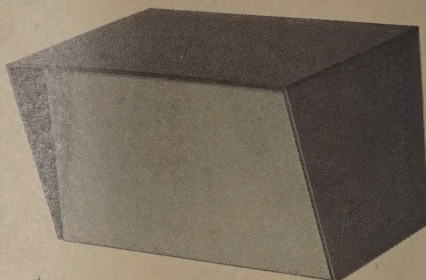
SLOPING COMPACT CASES

SCC SERIES

- Two piece case made of #20 Ga. Cold Rolled Steel.
- Top of unit extends beyond the front panel.
- Supplied with necessary screws for assembly.
- Finished in **two tone Metallic Gray Enamel** —
Outer Unit — Dark Gray
Inner Unit — Light Gray

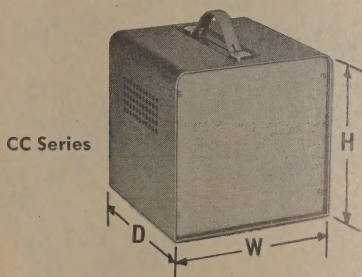
OVERALL DIMENSIONS

Cat. No.	Height	Width	Depth	Net Price
SCC-3000	6"	10"	7"	\$5.50
SCC-3001	7"	12"	8"	6.00
SCC-3002	3"	8"	5"	3.20
SCC-3003	5"	5"	5"	3.40



COMPACT CASES

with ROUNDED CORNERS ON
BOTH FRONT AND REAR OF TOP



CC Series

"Customized" Design for Instrumentation

SPECIFICATIONS

- Body made of 20 gauge steel
- Front Panel made of .064 aluminum
- Recessed Handle supplied on top
- Perforated Sides for ventilation
- Base supplied with four rubber feet
- Panel fits into 1/2" recess
- Two-inch opening in rear for leads
- Finished in two tone Metallic Gray Enamel; Body — dark grey metallic; Front panel — light grey metallic
- Supplied with necessary screws for assembly
- Welded construction

Cat. No.	Depth	Width	Height	Use Chassis	Wt. in Lbs.	Net Price
CC-2000	8"	6 1/4"	8"	ACH 426 5 x 7 x 2	4	\$8.35
CC-2001	8"	8 1/4"	8"	ACH 403 7 x 7 x 2	5	9.10
CC-2002	8"	10 1/4"	8"	ACH 404 7 x 9 x 2	6	9.75
CC-2003	12"	8 1/4"	9"	ACH 405 7x11x2	7	10.60
CC-2004	18"	11 1/4"	11"	ACH 415 10x17x3	10	12.70
CC-2005	18"	14 1/4"	12"	ACH 423 13x17x3	11	14.50

UTILITY CASES

ALUMINUM

Constructed of #16 ga. (.051) aluminum with 1/2" flanged edges, spot welded corners and two removable flat covers. Natural Aluminum finish or Gray Hammertone.

Natural Aluminum Cat. No.	Net Price
AC-442	\$1.40
AC-453	1.54
AC-564	1.82
AC-596	3.00
AC-666	2.10
AC-1276	4.10
AC-1597	5.65
AC-695	3.00

Size H. W. D.	Ship. Wt. Lbs.
4 4 2"	1/2
4 5 3"	3/4
5 6 4"	1
5 9 6"	1 1/2
6 6 6"	1 1/2
12 7 6"	2 1/4
15 9 7"	3 1/2
6 9 5"	1 1/2

Gray Hammertone Cat. No.	Net Price
PAC-442	\$1.55
PAC-453	1.78
PAC-564	2.25
PAC-596	3.40
PAC-666	2.35
PAC-1276	4.55
PAC-1597	6.25
PAC-695	3.40

STEEL

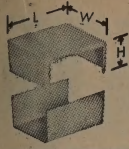
Constructed of #20 ga. sheet steel with 1/2" flanged edges, spot welded corners, and two removable flat covers. Finished in Black Wrinkle.

Catalog No.	H.	W.	D.	Ship. Wt. Lbs.	Net Price
C-442	4"	4"	2"	7/8	\$1.05
C-453	4"	5"	3"	1 1/4	1.25
C-564	5"	6"	4"	1 3/4	1.45
C-596	5"	9"	6"	3	2.25
C-666	6"	6"	6"	2 1/4	2.00
C-695	6"	9"	5"	3	2.25
C-754	7"	5"	4"	2	1.60
C-8101	10"	10"	8"	6	3.75
C-1276	12"	7"	6"	4 1/2	3.15

PREMIER METAL PRODUCTS CO., INC.

PREMIER

CASES



ALUMINUM MINIATURE UTILITY CASES

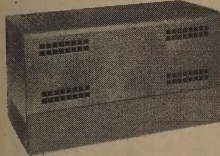
A two piece case made of
#16 Ga. (.051) aluminum.
Natural Aluminum Finish
or Gray Hammertone.



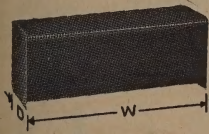
Natural Aluminum Cat. No.	Net Price	L.	W.	H.	Ship Wt. Lbs.	Gray Hammertone Cat. No.	Net Price
AMC-1000*	\$.70	2 3/4"	2 1/8"	1 5/8"	1/4	PMC-1000*	\$.79
AMC-1001*	.70	3 1/4"	2 1/8"	1 5/8"	1/4	PMC-1001*	.79
AMC-1002*	.73	4"	2 1/8"	1 5/8"	1/4	PMC-1002*	.83
AMC-1003	.96	4"	2 1/4"	2 1/4"	3/8	PMC-1003	1.06
AMC-1004	.99	5"	2 1/4"	1 1/2"	1/2	PMC-1004	1.09
AMC-1005	1.17	5"	4"	3"	1/2	PMC-1005	1.23
AMC-1006	1.09	5 1/4"	4"	2 5/8"	1	PMC-1006	1.19
AMC-1007	1.39	6"	5"	4"	3/4	PMC-1007	1.53
AMC-1008	1.56	7"	5"	3"	1 1/8	PMC-1008	1.69
AMC-1009	2.31	8"	6"	3 1/2"	1 1/2	PMC-1009	2.45
AMC-1010	2.88	10"	6"	3 1/2"	1 3/4	PMC-1010	3.04
AMC-1011	3.24	12"	7"	4"	2	PMC-1011	3.57
AMC-1012	3.84	17"	5"	4"	1 1/2	PMC-1012	4.20
AMC-1013	1.17	10"	2"	1 5/8"	1/4	PMC-1013	1.23
AMC-1014	1.53	12"	2 1/2"	2 1/4"	1/4	PMC-1014	1.65
AMC-1015	.93	4"	2"	2 3/4"	3/8	PMC-1015	1.20
AMC-1016	.96	4 1/4"	2 1/4"	1 1/2"	1/4	PMC-1016	1.06

*18 Gauge (.040)

AMPLIFIER FOUNDATIONS



STANDARD TYPE



PERFORATED TYPE COVERS

STANDARD TYPE

TOP COVER has perforations, rounded corners and is 6" high. Finished in Gray Hammertone. Also available in Blue-Gray Wrinkle.

CHASSIS constructed of one piece with corners spot-welded. Finished in Gray Hammertone. Also available in Black Wrinkle.

Cat. No.	Chassis Size	Ship. Wt. Lbs.	Net Price
AF-510	5" x 10" x 3"	5	\$5.05
AF-615	6" x 14" x 3"	7	5.85
AF-1017	10" x 17" x 3"	11	7.85
AF-1317	13" x 17" x 3"	13	9.43

PERFORATED TYPE COVERS

TOP COVER made of perforated steel and has rounded corners with solid ends, 6" high except PC-57*. Finished in Gray Hammertone. Also available in Blue-Gray Wrinkle.

Cat. No.	W.	D.	Use Chassis No.	Ship. Wt. Lbs.	Net Price
*PC-57	7"	5"	ACH or CH-426	1	\$3.40
PC-510	10"	5"	ACH or CH-401	1 3/4	3.45
PC-615	14"	5"	ACH or CH-402	2 3/8	4.00
PC-717	17"	7"	ACH or CH-409	3	4.40
PC-1012	12"	10"	ACH or CH-412	3	4.50
PC-1017	17"	10"	ACH or CH-415	3 1/4	5.45

* 4" high.

STEEL and ALUMINUM Sloping Panel Cases



ROUND TOP CORNERS WITH SLOPING FRONT

No. 20 gauge Steel—Black Wrinkle Finish. No. 18 gauge (.040) Aluminum—Natural Aluminum finish.

Steel Cat. No.	W.	D.	H.	Ship. Wt. Lbs.	Net Price	Alum. Cat. No.	Ship. Wt. Lbs.	Net Price
SPC-1200	4 1/2"	4 1/2"	4 3/8"	3/4	\$1.20	ASPC-1200	1	1.51
SPC-1201	5 1/2"	4 1/2"	4 3/8"	1	1.86	ASPC-1201	1 1/4	1.71
SPC-1202	6 1/2"	4 1/2"	4 3/8"	1 1/4	1.54	ASPC-1202	1 3/4	1.94
SPC-1203	7 1/2"	4 1/2"	4 3/8"	1 1/2	1.84	ASPC-1203	2 3/8	2.33

2 in 1 STEEL & ALUMINUM METER CASES

Center Hole for 2" meter (2-3/16" dia.) increases to 3" (2-13/16" dia.) meter hole by simply removing a knock-out. Size: 4 3/8" x 4 3/8" x 4 1/2". Supplied with two 1/2" dia. knockouts. #20 gauge steel—Black Wrinkle Finish, #18 gauge (.040) Aluminum—Natural Aluminum Finish.

Cat. No.	Sh. Wt.	Net Price
ASPC-23	3/4	\$1.66
SPC-23	3/4	1.40

ALUMINUM STEEL

CHASSIS MOUNTING BRACKETS

- Constructed of No. 16 gauge steel.
- Finished in Gray Hammertone
- Sold in pairs only.

STANDARD TYPE

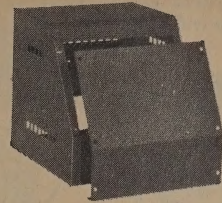


TRIANGULAR TYPE

	Cat. No.	H.	D.	Ship. Wt. Lbs.	Net Price
Notched for 3" Chassis	CB-78	6 1/2"	8"	1 1/2	\$1.06
	CB-710	6 1/2"	10"	1 3/4	1.42
	CB-711	6 1/2"	11"	2	1.55
	CB-712	6 1/2"	12"	2 1/8	1.66
	CB-713	6 1/2"	13"	2 1/4	1.80
	CB-717	6 1/2"	17"	3	2.80
Notched for 4" Chassis	CB-810	8 1/2"	10"	2 3/8	2.10
	CB-813	8 1/2"	13"	3	2.22

Cat. No.	H.	D.	Ship. Wt. Lbs.	Net Price
(CB-810	8 1/2"	10"	2 3/8	2.10
(CB-813	8 1/2"	13"	3	2.22

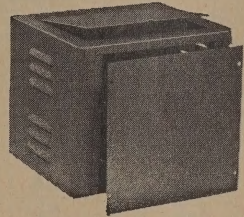
Cat. No.	Height	Depth	Ship. Wt. Lbs.	Net Price
TCB-55	5"	5"	1	\$1.04
TCB-77	7"	7"	1	1.18
TCB-99	9"	9"	1 1/2	1.44



SLOPING FRONT

Cabinet has rounded top corners and a removable front panel. Back of cabinet is perforated and has opening for leads. Constructed of #20 gauge steel. Finished in Gray Hammertone. Also available in Blue-Gray Wrinkle.

Catalog No.				Use	Ship.	
	H.	W.	D.	Chassis No.	Wt. Lbs.	Net Price
SFC-500	8 x	8 1/2 x	8"	CH-403	6	\$4.90
SFC-501	8 x	10 1/2 x	8"	CH-404	7	5.45
SFC-502	8 x	14 1/2 x	8"	CH-406	8	5.84
SFC-503	9 x	18 1/2 x	8"	CH-409	10	8.38
SFC-504	12 x	18 1/2 x	12"	CH-415	14	10.70



HINGED TOP ROUNDED CORNER TYPE

Cabinet has front vertical rounded corners and a removable front panel. Back of cabinet is louvred and has opening for leads. Constructed of #20 gauge steel. Finished in Gray Hammertone. Also available in Blue-Gray Wrinkle.

Catalog No.	H.	W.	D.	Panel Size	Use	Ship	Net
					Chassis No.	Wt. Lbs.	
HTC-200	8x10 ³ / ₄ "	8"	8"	8x 8"	CH-403	6	\$ 5.75
HTC-201	8x12 ³ / ₄ "	8"	8"	8x10"	CH-404	6 1/2	6.00
HTC-202	8x16 ¹ / ₂ "	8"	8"	8x14"	CH-406	11	7.50
HTC-203	9x17 ³ / ₄ "	11"	8"	9x15"	CH-413	6 1/2	11.00
HTC-204	12x20 ³ / ₄ "	12"	12"	12x18"	CH-415	13 1/2	13.00
HTC-205	8x14 ³ / ₄ "	8"	8"	8x12"	CH-405	7 1/4	6.50

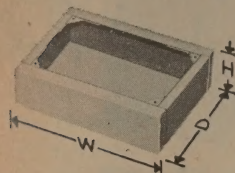
PREMIER METAL PRODUCTS CO., INC.

ALL PRICES 10% HIGHER WEST OF MISSISSIPPI

PREMIER PAGE 24

PREMIER STEEL and ALUMINUM CHASSIS

STEEL and ALUMINUM BLANK



EXCLUSIVE PREMIER FEATURE!



View of Chassis
Showing Gusset
Spot-Welded in
Corner.

Chassis are of one piece construction with gussets spot-welded to the bottom flanges for additional strength. Corners have rounded effect and single inside thickness for mounting components. Bottom edges are flanged in on four sides and punched for bottom plates.

Steel chassis are made of No. 20 gauge cold rolled steel, except those marked * which are of No. 16 gauge. Steel chassis are finished in either Black Wrinkle or Cadmium Plated. Cadmium plated furnished if finish is not specified.

Aluminum chassis are made of No. 18 gauge (.040) aluminum, except those marked * which are of No. 14 gauge (.064). Natural Aluminum Finish.

ALUMINUM							
Cat. No.	Lbs.	Ship. Wt.	Net Price	D.	Size	W.	H.
ACH-400	1/2	1.33		5 1/2"	9 1/2"	1 1/2"	
ACH-401	3/4	1.52		5"	10"	3"	
ACH-402	1	2.57		6"	14"	3"	
ACH-403	1/2	1.33		7"	7"	2"	
ACH-404	1/4	1.39		7"	9"	2"	
ACH-405	3/4	1.52		7"	11"	2"	
ACH-406	3/4	1.64		7"	13"	2"	
ACH-407	1	2.89		7"	15"	3"	
ACH-408	1	2.36		4"	17"	3"	
ACH-409	1 1/2	2.85		7"	17"	3"	
ACH-410	1 1/2	2.89		8"	17"	2"	
ACH-411	1 1/2	3.00		8"	17"	3"	
ACH-412	1 1/4	2.68		10"	12"	3"	
ACH-413	1 1/4	3.40		10"	14"	3"	
ACH-414	1 1/4	3.26		10"	17"	2"	
ACH-415*	1 3/8	3.65		10"	17"	3"	
ACH-416*	2	4.20		10"	17"	4"	
ACH-417*	1 3/4	3.48		11"	17"	2"	
ACH-418*	2	4.27		11"	17"	3"	
ACH-419*	1 3/8	3.81		12"	17"	2"	
ACH-420*	2 1/8	4.51		12"	17"	3"	
ACH-421*	2 1/8	4.98		12"	17"	4"	
ACH-422*	1 3/4	4.02		13"	17"	2"	
ACH-423*	2 1/8	4.79		13"	17"	3"	
ACH-424*	2 1/2	5.48		13"	17"	4"	
ACH-425	7/8	1.64		7"	11"	3"	
ACH-426	3/4	1.29		5"	7"	2"	
ACH-427	1 1/4	2.91		8 1/2"	15"	3"	
ACH-428	1/4	1.50		5"	7"	3"	
ACH-429	3/4	1.80		5"	13"	3"	
ACH-430	1	2.19		8"	12"	3"	
ACH-431	1/4	1.29		4"	6"	2"	
ACH-432	1/4	1.33		4"	6"	3"	
ACH-433	3/8	1.83		7"	12"	3"	
ACH-434	1	2.70		6"	17"	3"	
ACH-435*	2 1/2	5.37		10"	23"	3"	
ACH-436	1/4	1.09		4"	6"	1 1/2"	
ACH-437	3/8	1.13		4"	8"	2"	
ACH-438*	3	10.79		17"	17"	4"	
—	—	—		10"	17"	5"	
—	—	—		13"	17"	5"	
ACH-441	1	1.68		8"	10"	2 1/2"	

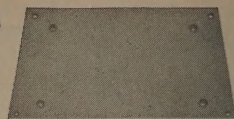
*Made of No. 14 gauge (.064) aluminum.

For Chassis Mounting Brackets See Premier Page 24

For Steel and Aluminum Panels See Premier Page 26

*Made of No. 16 gauge steel.

ALUMINUM AND STEEL BOTTOM PLATES

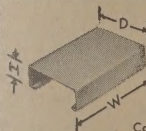


SECTION



The bottom plates have holes to match the chassis and have 4 pressed dimples. Steel plates made of No. 20 gauge steel, finished in either Black Wrinkle or Cadmium Plated. Aluminum plates made of No. 18 gauge (.040). Natural aluminum finish.

ALUMINUM				STEEL			
Cat. No.	Net Price	Size		Cat. No.	Ship. Wt. Lbs.	Net Price	
ABP-400	\$0.87	5 1/2" x 9 1/2"		BP-400	1	\$0.50	
ABP-401	.87	5" x 10"		BP-401	1	.55	
ABP-402	1.32	6" x 14"		BP-402	1	.75	
ABP-403	.90	7" x 7"		BP-403	1	.60	
ABP-404	.96	7" x 9"		BP-404	1	.60	
ABP-405	1.06	7" x 11"		BP-405	1	.80	
ABP-406	1.32	7" x 13"		BP-406	2	.80	
ABP-407	1.32	7" x 15"		BP-407	2	.85	
ABP-408	1.32	7" x 17"		BP-408	2	.95	
ABP-409	1.36	7" x 17"		BP-409	2	.95	
ABP-410	1.53	8" x 17"		BP-410	2	.95	
ABP-412	1.50	10" x 12"		BP-412	2	.95	
ABP-413	1.37	10" x 14"		BP-413	2	1.00	
ABP-414	1.72	10" x 17"		BP-414	2	1.25	
ABP-418	2.16	11" x 17"		BP-418	3	1.30	
ABP-419	2.28	12" x 17"		BP-419	3	1.35	
ABP-422	2.41	13" x 17"		BP-422	3	1.45	
ABP-423	.87	5" x 7"		BP-423	1	.50	
ABP-424	.99	5" x 13"		BP-424	1	.80	
ABP-425	1.32	8" x 12"		BP-425	2	1.15	
ABP-426	.87	4" x 6"		BP-426	1	.50	
ABP-427	1.14	7" x 12"		BP-427	2	1.00	
ABP-428	1.36	6" x 17"		BP-428	2	.95	
ABP-429	2.55	10" x 23"		BP-429	2	2.00	
ABP-430	.87	4" x 8"		BP-430	1	.50	
ABP-431	2.57	17" x 17"		BP-431	4	2.10	
ABP-432	2.41	8 1/2" x 15"		BP-432	1 1/2	1.45	
ABP-433	1.14	8" x 10"		BP-433	1	1.00	

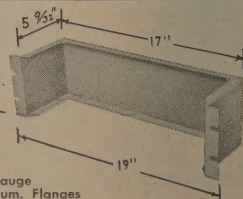


ALUMINUM OPEN END CHASSIS

Catalog No.	Depth	Width	Height	Ship. Wt. Lbs.	Net Price
ACH-1350	2 5/8"	2 3/4"	1 1/4"	1/4	\$.40
ACH-1351	1 3/4"	3 1/8"	1 1/4"	1/4	.44
ACH-1352	3 1/4"	4 1/2"	2"	1/4	.46
ACH-1353	2 3/4"	4 1/8"	1 1/4"	1/4	.46
ACH-1354	3 3/4"	4 1/8"	1 1/4"	1/4	.46
ACH-1355	2"	4 1/8"	1 1/4"	1/4	.55
ACH-1356	5 3/8"	4 7/8"	1 1/2"	1/4	.58
ACH-1357	4"	3 1/8"	1"	1/2	.46
ACH-1358	4"	4 1/8"	1"	1/2	.50
ACH-1359	4"	5 1/8"	1"	1/2	.54
ACH-1360	4"	6 1/8"	1"	1/2	.58

Made of
18 ga. (.040)
Aluminum.

ALUMINUM VERTICAL PANEL CHASSIS



To FIT 19" STANDARD RACKS

Made of 14 gauge (.064) Aluminum. Flanges are notched for standard rack mounting. All chassis depths are 5 5/8". Gussets are spot welded in each corner for greater strength. Etched finish.

Catalog No.	Height	Ship. Wt. Lbs.	Net Price
ACH-1200	1 3/4"	3/4	\$2.75
ACH-1201	3 1/2"	1 3/4	3.00
ACH-1202	5 1/4"	1 1/2	3.25
ACH-1203	7"	2	3.60
ACH-1204	8 3/4"	2 1/4	4.25
ACH-1205	10 1/2"	2 3/4	4.75
ACH-1206	12 1/4"	3	5.25
ACH-1207	14"	3 1/4	6.00

FOR SIDE HINGED PANELS (SHP SERIES) SEE PREMIER PAGE 26

PREMIER METAL PRODUCTS CO., INC.

PREMIER

STEEL & ALUMINUM RACK PANELS

TWIN-TEX

REVERSIBLE

SECTION

F

19" wide painted panels are finished in

REVERSIBLE HAMMERTONE-WRINKLE

One side is Gray Hammertone—the other side is Black Wrinkle.

9½", 24" and 30" WIDE PANELS are finished on both sides in either Gray Hammertone or Black Wrinkle. Specify color when ordering.

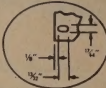
MASKED ALUMINUM PANELS

Made of bright natural aluminum covered on both sides with special self-adhesive paper. Drilling or milling can be done on paper in place, affording complete damage protection. Paper is removed simply by peeling.

NOTCHING

All panels are notched according to E.I.A. Standards and will fit any rack having multiple ⅝ - ⅝ - ½ or 1¼ - ½ spacings.

All panels have open slots except the 1¾" & 3½" high, which have closed slots for rigidity.



BLANK RACK PANELS

9½" - 19" - 24" - 30" WIDTHS

MATERIAL

Steel.....#12 Ga. (.104) Cold Rolled

Aluminum.....⅛" thick — 5005-H36 Alloy

Aluminum.....3/16" thick — 6061-T6 Alloy

*NOTE: All panels are cut 1/32" less than nominal height.

19" WIDE

ALUMINUM			
Made of ⅛" Thick Aluminum 9½" Wide			
Cat. No.	Ship. Wt.	*Nominal Height	Net Price
ARP-195	1/4	13¼"	\$0.95
ARP-395	1/2	3½"	1.25
ARP-595	3/4	5¼"	1.85
ARP-795	1	7"	2.25
ARP-895	1¼	8¾"	2.65
ARP-1095	1½	10½"	3.30
ARP-1295	1¾	12¼"	4.85
ARP-1495	2	14"	4.40

*Nominal		Masked Aluminum — 1/8" Thick		Masked Aluminum — 3/16" Thick		
Height	Cat. No.	Shipping Wt. Lbs.	Net Price	Cat. No.	Shipping Wt. Lbs.	Net Price
13 1/4"	MAP-119	1/2	\$ 1.06	MAP-119-36	3/4	\$ 2.00
3 1/2"	MAP-319	1	1.45	MAP-319-36	1 1/2	2.70
5 1/4"	MAP-519	1 1/2	1.95	MAP-519-36	2 1/2	4.15
7"	MAP-719	2	2.35	MAP-719-36	3	5.00
8 3/4"	MAP-819	2 1/2	2.85	MAP-819-36	3 3/4	6.00
10 1/2"	MAP-1019	3	3.55	MAP-1019-36	4 1/2	7.00
12 1/4"	MAP-1219	3 1/2	4.15	MAP-1219-36	5	8.25
14"	MAP-1419	4	4.75	MAP-1419-36	6	10.15
15 3/4"	MAP-1519	4	5.30	MAP-1519-36	6	11.25
17 1/2"	MAP-1719	4 3/4	5.85	MAP-1719-36	7	12.00
19 1/4"	MAP-1919	5	6.40	MAP-1919-36	7 1/2	12.75
21"	MAP-2119	6	6.95	MAP-2119-36	9	14.50
22 3/4"	MAP-2219	7 1/2	9.00	MAP-2219-36	11 1/2	18.50
31 1/2"	MAP-3119	8 1/2	10.50	MAP-3119-36	13 1/2	21.00
35"	MAP-3519	10	12.50	MAP-3519-36	15	26.00

Modifications Available

- Notched to meet MIL-Std-189.
- ⅛" thick Aluminum Panels available in 6061T6 alloy.
- Panels can be finished in same color on both sides.
- Special finishes, including unfinished.
- Special Heights.

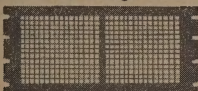
Painted Aluminum — ⅛" Thick				Painted Aluminum — 3/16" Thick				Painted Steel — No. 12 Gauge			
Cat. No.	Shipping Wt. Lbs.	Net Price		Cat. No.	Shipping Wt. Lbs.	Net Price		Cat. No.	Shipping Wt. Lbs.	Net Price	
ARP-119	1/2	\$ 1.12		ARP-119-36	3/4	\$ 1.80		RP-119	1	\$.85	
ARP-319	1	1.50		ARP-319-36	1½	2.35		RP-319	2	1.00	
ARP-519	1½	2.05		ARP-519-36	2½	3.30		RP-519	3	1.20	
ARP-719	2	2.46		ARP-719-36	3	4.00		RP-719	4	1.40	
ARP-819	2½	2.95		ARP-819-36	3¾	4.75		RP-819	5¼	1.70	
ARP-1019	3	3.75		ARP-1019-36	4½	6.00		RP-1019	6¼	2.05	
ARP-1219	3½	4.15		ARP-1219-36	5	6.95		RP-1219	7¼	2.45	
ARP-1419	4	5.00		ARP-1419-36	6	8.00		RP-1419	8¼	2.82	
ARP-1519	4	5.50		ARP-1519-36	6	8.90		RP-1519	9	3.16	
ARP-1719	4¾	6.10		ARP-1719-36	7	9.80		RP-1719	10½	3.50	
ARP-1919	5	6.70		ARP-1919-36	7½	10.75		RP-1919	12	3.85	
ARP-2119	6	7.50		ARP-2119-36	9	11.65		RP-2119	12½	4.25	
ARP-2619	7½	10.20		ARP-2619-36	11½	15.00		RP-2619	15½	6.00	
ARP-3119	8½	13.70		ARP-3119-36	13½	17.60		RP-3119	19	7.70	
ARP-3519	10	14.85		ARP-3519-36	15	20.50		RP-3519	22	9.00	

24" WIDE

Aluminum — 1/8" Thick				Steel — No. 12 Gauge				Aluminum — 1/8" Thick				Steel — No. 12 Gauge			
Cat. No.	Ship. Wt. Lbs.	Net Price	*Nominal Height	Cat. No.	Ship. Wt. Lbs.	Net Price		Cat. No.	Ship. Wt. Lbs.	Net Price		Cat. No.	Ship. Wt. Lbs.	Net Price	
ARP-324	1¼	\$2.30	3½"	RP-324	2¼	\$1.50		ARP-330	1½	\$3.05	3½"	RP-330	3	\$1.95	
ARP-524	2	3.40	5¼"	RP-524	3½	1.85		ARP-530	2¼	4.35	5¼"	RP-530	4½	2.45	
ARP-724	2½	4.10	7"	RP-724	4½	2.10		ARP-730	3	5.50	7"	RP-730	6	2.80	
ARP-824	3	4.90	8¾"	RP-824	6	2.60		ARP-830	3¾	6.50	8¾"	RP-830	8	3.40	
ARP-1024	3½	6.15	10½"	RP-1024	7	3.10		ARP-1030	4½	8.20	10½"	RP-1030	9¼	3.45	
ARP-1224	4	7.20	12¼"	RP-1224	8	3.60		ARP-1230	5	9.55	12¼"	RP-1230	10¼	4.85	
ARP-1424	4½	8.25	14"	RP-1424	9	4.20		ARP-1430	6	10.95	14"	RP-1430	12	5.60	
ARP-1524	5	9.15	15¾"	RP-1524	10	4.75		ARP-1530	6½	12.25	15¾"	RP-1530	13½	6.35	
ARP-1724	5½	10.10	17½"	RP-1724	11	5.25		ARP-1730	7	13.50	17½"	RP-1730	15	6.95	
ARP-1924	6	11.05	19¼"	RP-1924	12	5.80		ARP-1930	7½	14.75	19¼"	RP-1930	18	7.65	
ARP-2124	6½	12.05	21"	RP-2124	13	6.40		ARP-2130	9	16.05	21"	RP-2130	19	8.50	

PANELS — 19" WIDE

Made of No. 12 Gauge Steel



3/8" Sq. Perforations



SIDE HINGED DOOR PANELS

Can be used for left or right hand opening. Supplied with a quick turn fastener. Full height piano hinge welded to panel.



SPEAKER PANELS

Perforated metal is spot-welded behind the opening.

GRILLE PANELS				
Cat. No.	Grill Size	*Nominal Ship. Wt.	Lbs.	Net Price
GRP-601	3 7/8" x 13 3/8"	5 1/4"	2	\$3.40
GRP-602	3 7/8" x 13 3/8"	7"	2	3.64
GRP-603	5 7/8" x 13 3/8"	8 3/4"	2 1/2	4.40
GRP-604	3 7/8" x 13 3/8"	8 3/4"	2 1/2	4.05
GRP-605	7 7/8" x 13 3/8"	10 1/2"	2 1/2	4.82
GRP-606	5 7/8" x 13 3/8"	10 1/2"	2 1/2	4.40
GRP-607	7 7/8" x 13 3/8"	12 1/4"	3	5.00

* Allows 3 1/2" space at bottom for chassis mounting.

Cat. No.	Height	Net Price
SHP-319	3½"	\$3.30
SHP-519	5¼"	3.44
SHP-719	7"	3.76
SHP-819	8¾"	4.04
SHP-1019	10½"	4.36
SHP-1219	12¼"	4.66
SHP-1419	14"	5.05
SHP-2119	21"	8.00

Cat. No.	Height	Spkr. Size	Hole Size	Ship. Wt. Lbs.	Net Price
SRP-819	8¾"	6"	4½"	6	\$3.20
SRP-1019	10½"	8"	6½"	8	4.04
SRP-1219	12¼"	10"	8½"	9	4.82
SRP-1419	14"	12"	11"	10	5.54

* Allows 3/2" space at bottom for chassis mounting.

PREMIER METAL PRODUCTS CO., INC.

PREMIER

PREM-Ö-RAK®

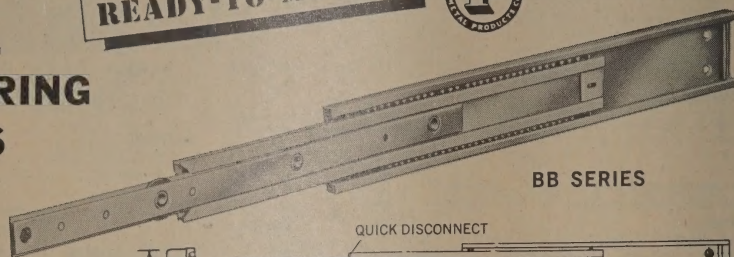
READY-TO-MOUNT



SECTION

G

100 lb. BALL BEARING SLIDES



BB SERIES

• EXCLUSIVE "QUICK DISCONNECT" allows for mediate removal of chassis.

• Carries load of 100 lbs. when fully extended.

• Glides smoothly on stainless steel ball bearings.

• $\frac{5}{16}$ " horizontal side space adjustable $\pm \frac{1}{16}$.

• $1\frac{1}{8}$ " vertical side space.

• 3 telescoping anodized aluminum members.

• Allows full accessibility for instantaneous servicing.

• Slide mounts standard 17" wide chassis.

• Slide locks in open position.

• Supplied with all necessary hardware for immediate installation.

Catalog No.	Load Rating Lbs.	Slide Length	Travel Length	Will Fit Racks	Net Price per Pair
BB-100-14	100	14"	13"	15 $\frac{1}{4}$ " deep POR (DCR, SDR, DRK, FXR)* RMX, FDX	\$63.25
BB-100-16	100	16	15	18" deep PRXA, POR (R, DCR, SDR)*	63.25
BB-100-20	100	20	19	FS, 22" deep CPF & FA, MSF, RMX, FDX	68.50
BB-100-22	100	22	21	24" deep PRXA	69.75
BB-100-24	100	24	23	25 $\frac{1}{2}$ " deep FA & FS, MSF, CPF	71.50

*Slide Adapter Kit (Cat. No. SAK-35) required for rear mounting on all models in parenthesis (See page 28).

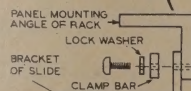
RAPID INSTALLATION

For BB, HBB, SB and SNR SERIES SLIDES

★ MOUNTS TO TAPPED HOLES OF FRONT AND REAR PANEL MOUNTING ANGLES

★ SIMPLE ADJUSTABILITY OF CHASSIS SLIDE ASSEMBLY FROM OUTSIDE OF FRAME

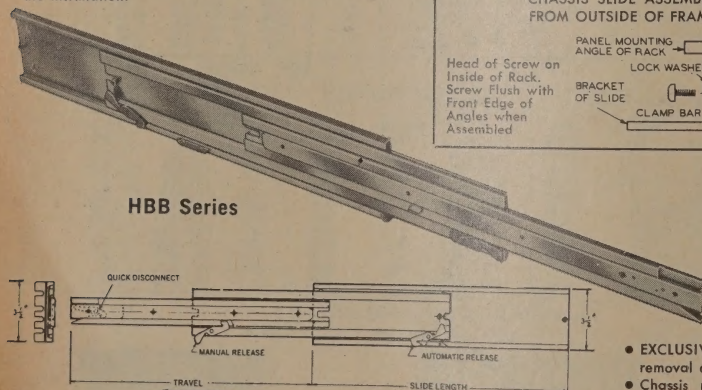
Head of Screw on Inside of Rack, Screw Flush with Front Edge of Angles when Assembled



MOUNTS IN A FEW MINUTES!

- NO DRILLING!
- NO COUNTER SINKING!
- NO SPECIAL BRACKETS!

HBB Series



200 lb. HEAVY BALL BEARING SLIDES

• EXCLUSIVE "QUICK DISCONNECT" allows for immediate removal of chassis.

• Chassis may be removed from side by depressing quick release lever.

• Slide locks in open position.

• $\frac{1}{2}$ " horizontal side space adjustable $\pm \frac{3}{32}$.

• Carries loads of 200 lbs. when fully extended.

• $3\frac{1}{2}$ " vertical side space.

• 4 telescoping anodized aluminum members.

• Allows full accessibility for instantaneous servicing.

• Glides smoothly on stainless steel ball bearings.

• Supplied with all necessary hardware for immediate installation.

Catalog No.	Load Rating Lbs.	Slide Length	Travel Length	Will Fit Racks	Net Price per Pair
HBB-200-14	200	14"	13"	15 $\frac{1}{4}$ " deep POR, RMX, FDX (DCR, SDR, DRK, FXR)*	\$81.50
HBB-200-16	200	16	15	18" deep PRXA, POR (R, DCR, SDR)*	81.50
HBB-200-20	200	20	19	FS, 22" deep CPF & FA, MSF RMX, FDX	88.75
HBB-200-22	200	22	21	24" deep PRXA	92.00
HBB-200-24	200	24	23	25 $\frac{1}{2}$ " deep FA & FS MSF, CPF	94.00

*Slide Adapter Kit (Cat. No. SAK-35) required for rear mounting on all models in parenthesis (See page 28).

SEE PAGE 29 FOR PREMIER CABLE RETRACTORS

PREMIER METAL PRODUCTS CO., INC.

PREMIER

PREM-Ø-RAK®

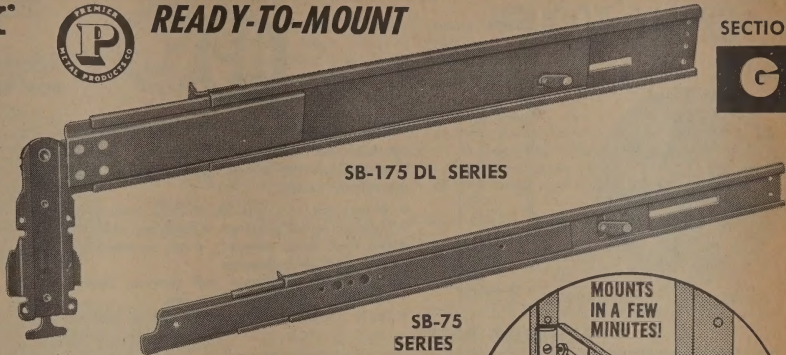
SOLID BEARING SLIDES



READY-TO-MOUNT

SECTION

G



SB-175 DL SERIES

CARRY 75 lb. and 175 lb. LOADS

- TILT and NON-TILT MODELS.

- EXCLUSIVE "QUICK DISCONNECT" allows for immediate removal of chassis.

- SB-75 Series carry 75 lbs. fully extended. SB-175 Series carry 175 lbs. fully extended.

- Made of high strength cold rolled steel.

- Withstands 100 hours salt spray.

- Slide mounts standard 17" wide chassis.

- 3 telescoping members allow full accessibility for instant servicing.

- SB-75 Series—386 horizontal side space adjustable $\pm \frac{1}{32}$.

SB-175 Series—398 horizontal side space adjustable $\pm \frac{1}{32}$.

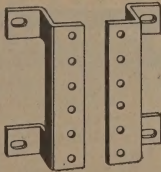
- Finish: Electro zinc plated, chromate treated and completely coated with Molybdenum Disulphide lubricant.

- SB-175-DL Series have detent locks which allow chassis to be tilted either up or down and locked at 90° for easy servicing.

SLIDE ADAPTER KIT For BB, HBB, SB and SNR SERIES

Required for rear mounting on DR, R, DCR, DRK, SDR and FXR models.

- Mounts to inside rear flange by drilling 4 holes.
 - Made of No. 12 gauge steel and tapped 10-32 on E.I.A. spacings ($\frac{5}{8}$ - $\frac{1}{2}$).
 - Finished in Gray Hammerstone.
- Kit includes 2 brackets, four 10-32 screws and keys.



Cat. No. SAK-35
\$3.63 Net Price

SLIDE TILTING KIT

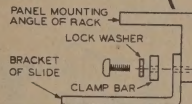
For tilting one pair of slides. Consists of 4 special screws, lock washers and nuts.

- STK-75 (For SB-75 series)\$3.00 Net Price
- STK-175 (For SB-175 series) 3.50 Net Price

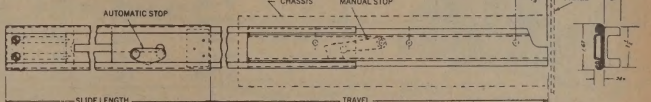
RAPID INSTALLATION For BB, HBB, SB and SNR SERIES SLIDES

- ★ MOUNTS TO TAPPED HOLES OF FRONT AND REAR PANEL MOUNTING ANGLES
- ★ SIMPLE ADJUSTABILITY OF CHASSIS SLIDE ASSEMBLY FROM OUTSIDE FRAME

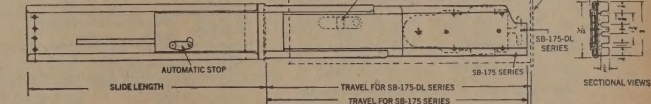
Head of Screw on Inside of Rack. Screw Flush with Front Edge of Angle when Assembled



SB-75 SERIES



SB-175 AND SB-175-DL SERIES

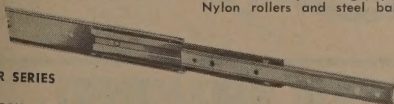


Catalog No.	Load Rating lbs.	Slide Length	Travel Length	Will Fit Racks	Net Price per-Pair
SB-75-14	75	14"	14 1/2"	15 1/4" deep POR (DCR, SDR, DRK, FXR)*	\$17.50
SB-75-16	75	16	14 1/2"	RMX, FDX	
SB-75-20	75	20	18 1/2"	18" deep PRXA, POR (R, DCR, SDR)*	17.50
SB-75-22	75	22	22 1/2"	FS, 22" deep CPF & FA, MSF, RMX, FDX	18.75
SB-75-24	75	24	26 1/2"	24" deep PRXA	19.75
				25 1/2" deep FA & FS, MSF, CPF	
SB-175-14	175	14"	14 1/2"	15 1/4" deep POR (DCR, SDR, DRK, FXR)*	\$37.25
SB-175-16	175	16	18 1/2"	RMX, FDX	
SB-175-20	175	20	22 1/2"	18" deep PRXA, POR (R, DCR, SDR)*	37.25
SB-175-22	175	22	26 1/2"	FS, 22" deep CPF & FA, MSF, RMX, FDX	39.50
SB-175-24	175	24	26 1/2"	24" deep PRXA	40.25
				25 1/2" deep FA & FS, MSF, CPF	
SB-75-DL-14	75	14"	15"	15 1/4" deep POR (DCR, SDR, DRK, FXR)*	\$40.00
SB-75-DL-16	75	16	17	RMX, FDX	
SB-75-DL-20	75	20	21	18" deep PRXA, POR (R, DCR, SDR)*	40.00
SB-75-DL-22	75	22	23	FS, 22" deep CPF & FA, MSF, RMX, FDX	42.50
SB-75-DL-24	75	24	25	24" deep PRXA	44.00
				25 1/2" deep FA & FS, MSF, CPF	
SB-175-DL-14	175	14"	14 1/2"	15 1/4" deep POR (DCR, SDR, DRK, FXR)*	\$59.00
SB-175-DL-16	175	16	18 1/4"	RMX, FDX	
SB-175-DL-20	175	20	22 1/4"	18" deep PRXA, POR (R, DCR, SDR)*	59.00
SB-175-DL-22	175	22	26 1/4"	FS, 22" deep CPF & FA, MSF, RMX, FDX	61.50
SB-175-DL-24	175	24	26 1/4"	24" deep PRXA	63.50
				25 1/2" deep FA & FS, MSF, CPF	

*Slide Adapter Kit (Cat. No. SAK-35) required for rear mounting on all models in parenthesis.

HEAVY DUTY CHASSIS SLIDES

Glide smoothly on large, quiet Nylon rollers and steel balls



SNR SERIES

CARRY 100 lb. loads

- Exclusive "QUICK DISCONNECT" allows for immediate removal of chassis.
- Extends fully, yet keeps chassis perfectly straight.

- Supplied with all necessary hardware.
- Positive mechanical stop prevents possibility of chassis extending too far.
- 1/2" horizontal side spaces.

Cat. No.	Slide Length	Slide Travel	Will fit Racks	Net Price
SNR-100-14	14"	14"	15 1/4" deep POR (DCR, SDR, DRK, FXR)*	\$11.27
SNR-100-16	16"	16"	RMX, FDX	
SNR-100-20	20"	20"	18" deep PRXA, POR (R, DCR, SDR)*	11.45
SNR-100-22	22"	22"	FS, 22" deep CPF & FA, MSF, RMX, FDX	12.03
SNR-100-24	24"	24"	24" deep PRXA	12.33
			25 1/2" deep FA & FS, MSF, CPF	

PREMIER METAL PRODUCTS CO., INC.

ALL PRICES 10% HIGHER WEST OF MISSISSIPPI

PREMIER PAGE 28

PREMIER

PREM-O-KOOL

FANS

SECTION



ACCESSORIES FOR EXHAUST FANS

GUARDS

Cat. No.	Used with Fan	Dia.	Depth	Net Price
GU-6	EF165, 220, 300	6 3/4"	1 7/8"	\$2.40
GU-8	EF400	8 1/4"	2 3/4"	2.40
GU-9	EF550	9 1/4"	2 3/8"	3.00
GU-10	EF750	10 1/4"	2 3/8"	3.60

GRILLES

Cat. No.	Used with Fan	Dia.	Net Price
GR-6	EF165, 220, 300	8 1/2"	\$2.40
GR-8	EF400	10 1/2"	2.40
GR-9	EF550	11 1/2"	3.00
GR-10	EF750	12 1/2"	3.60

SLEEVES

Cat. No.	Used with Fan	Dia.	Depth	Net Price
SL-6	EF165, 220, 300	8 1/2"	1 3/4"	\$3.60
SL-8	EF400	10 1/2"	2	3.60
SL-9	EF550	11 1/2"	2 3/8"	4.20
SL-10	EF750	12 1/2"	2 3/8"	4.80

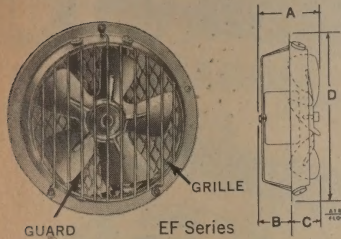
EXHAUST AND INTAKE FANS

PREM-O-KOOL fans are available for exhausting air from cabinets (EF Series) and for drawing air into cabinets (IF Series).

- Motors are 115 volts 50/60 cycle single phase AC.
- Minimum space required. • Supplied with 18" lead.
- Fan and motor assembly shock mounted for minimum noise and vibration.
- Permanently lubricated ball bearing, shaded pole motors with low temperature rise.
- Easily interchangeable accessories for flexibility of mounting in cabinets.

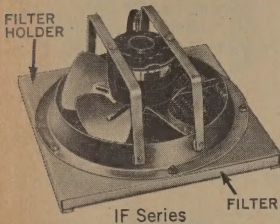
• Cut-out and mounting holes for fans can be provided on any Premier rack or cabinet at slight additional cost.

Patent No. 3,019,965.
Other Patents Pending.



EXHAUST FANS

Cat. No.	CFM	Motor Watts	RPM	Fan Blade Dia.	A	B	C	D	Hole Dia. Required	Net Price
EF-165	165	20	1650	6 1/2"	2 7/8"	1 5/8"	1 1/4"	8 1/2"	7 3/8"	\$50.00
EF-220	220	25	1550	6 1/2"	3 1/4"	1 5/8"	1 5/8"	8 1/2"	7 3/8"	45.00
EF-300	300	65	3000	6 1/2"	4 1/8"	2 5/8"	1 1/2"	8 1/2"	7 3/8"	45.00
EF-400	400	46	1460	8	3 3/8"	1 7/8"	1 3/4"	10 1/2"	9 1/4"	54.00
EF-550	550	90	1600	9	4 3/8"	2 1/8"	2 1/4"	11 1/2"	10 1/8"	57.00
EF-750	750	105	1560	10	4 3/8"	2 1/8"	2 1/4"	12 1/2"	11 1/8"	60.00



INTAKE FANS

Cat. No.	CFM	Motor Watts	RPM	Fan Blade Dia.	Dimensions A	D	Hole Diam. Required	Net Price
IF-160	160	20	1650	6 1/2"	2 7/8"	8 1/2"	7 3/8"	\$50.00
IF-180	180	25	1550	6 1/2"	3 1/4"	8 1/2"	7 3/8"	45.00
IF-300	300	65	3000	6 1/2"	4 1/8"	8 1/2"	7 3/8"	45.00
IF-360	360	46	1460	8	3 3/4"	10 1/2"	9 1/4"	54.00
IF-540	540	90	1600	9	4 3/8"	11 1/2"	10 1/8"	57.00
IF-740	740	105	1560	10	4 3/8"	12 1/2"	11 1/8"	60.00

PREMIER CABINETS AND RACKS



FA, PRXA, FS, RMX, FDX, R, DR, DCR, DRK, SDR, POR and FXR models may be supplied with one round and 5 mounting holes to accommodate Exhaust and Intake Fans, at additional cost.

ACCESSORIES FOR INTAKE FANS

FILTERS Permanent washable type, 1/2" thick			
Cat. No.	Used with Fan	Size	Net Price
FL-6	IF 160, 180, 300	8 3/8" Sq.	\$2.40
FL-8	IF 360	10 3/8" Sq.	2.40
FL-9	IF 540	11 3/8" Sq.	3.00
FL-10	IF 740	12 3/8" Sq.	3.00

FILTER HOLDERS				
Cat. No.	Used with Fan	Size	Depth	Net Price
FH-6	IF 160, 180, 300	8 3/8" Sq.	5/8"	\$4.80
FH-8	IF 360	10 3/8" Sq.	5/8"	4.80
FH-9	IF 540	11 3/8" Sq.	5/8"	6.00
FH-10	IF 740	12 3/8" Sq.	5/8"	7.20

PREMIER

BALL BEARING ACTION CABLE RETRACTOR

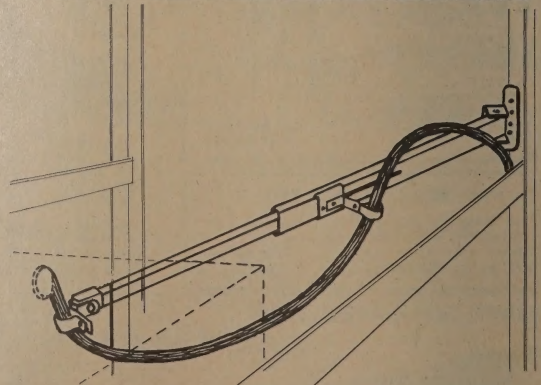
FOR CONTROL OF POWER SUPPLY CABLES

- Smooth gliding, stress-free motion
- Heavy duty construction
- Quick, simple installation
- Spring tension keeps cable "jam-proof"

The PREMIER CABLE RETRACTOR is designed for easy and fast installation in both new and existing equipment. It is attached to rear of cabinet and controls power supply cables most efficiently. As the chassis is extended, the retractor pivots and the inner ball bearing actuated member glides out as necessary.

CATALOG NO. PCR-3-16

Net Price \$15.85

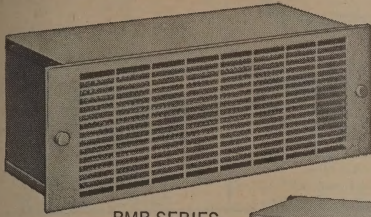


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PREMIER

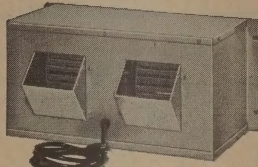
PREM-O-KOOL

MAXIMUM COOLING with
MINIMUM SPACE!

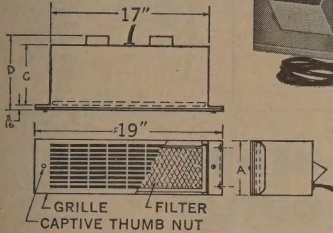


PMB SERIES

TO FIT
STANDARD
19" WIDE
PANEL
SPACE



REAR VIEW



Units available to fit
Standard 24" wide
panel space. Prices
upon request.

PANEL MOUNTED BLOWERS

SECTION

G

- Permanently lubricated motors with lubricant temperature range from -29°C to $+148^{\circ}\text{C}$.
- Permanent type washable filter—easily removable from front.
- Low noise level with minimum of vibration.
- Standard E.I.A. notching.
- Grille supplied with 2 captive thumb nuts.
- Units furnished with 3/6" lead with molded male plug.
- Performance data prepared by impartial, independent testing laboratory.
- Motors are 115 Volt 50/60 cycle, single phase AC.
- Housing and grille made of cold rolled steel and finished in gray hammer-tone.

GRILLE FINISHED TO MATCH COLOR OF PREMIER CABINETS OR FRAMES
AT NO ADDITIONAL COST.

CATALOG NO.	PMB-5-150	PMB-7-285	PMB-8-410*	PMB-10-750
CFM at 0" S.P.	150	285	410	750
PANEL HEIGHT (A)	5 1/4"	7"	8 3/4"	10 1/2"
FILTER	16 5/8" x 47/8" x 1/2"	16 5/8" x 6 3/4" x 1/2"	16 5/8" x 8 3/8" x 1/2"	16 5/8" x 10 7/8" x 1/2"
DEPTH OF ENCLOSURE ONLY (C)	6 1/4"	8 1/2"	9 3/4"	11 1/2"
OVERALL DEPTH including outlets and front grille (D)	7"	10 1/4"	11 1/4"	13 3/8"
MOTOR				
RPM	3000	1500	1500	1500
WATTS	120	78	125	255
VOLTS	115	115	115	115
CYCLES	50/60	50/60	50/60	50/60
AMPS	1.5	1.1	1.3	2.2
TYPE	Ball bearing shaded pole	Ball bearing permanent split capacitor	Ball bearing permanent split capacitor	Ball bearing permanent split capacitor
SHIPPING WT. LBS.	14	24	26	35
NET PRICE	\$125.00	\$150.00	\$175.00	\$220.00

*Supplied with grille on rear outlets.

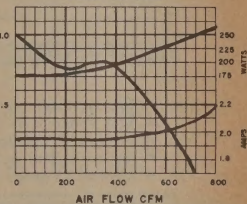
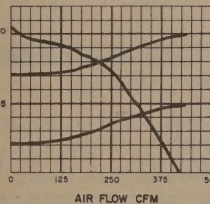
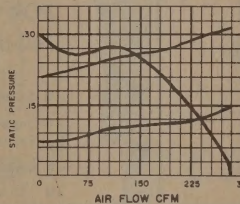
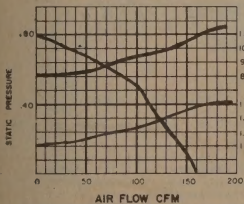
PERFORMANCE

PMB-5-150

PMB-7-285

PMB-8-410

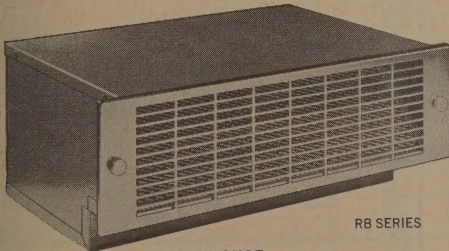
PMB-10-750



RECESSED TYPE

FOR INSTALLATION IN THE OPEN BASE AREA OF ELECTRONIC RACKS

For maximum air delivery with minimum panel height. Built to the same general specifications as Panel Mounted Blowers (PMB Series).

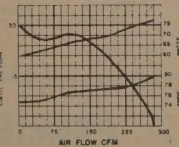
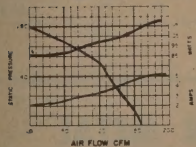


RB SERIES

PERFORMANCE

RB-150-3

RB-280-5



Cat. No.	RB-150-3	RB-280-5	RB-300-3
CFM at 0" S.P.	150	280	300
PANEL HEIGHT	3 1/2"	5 1/4"	3 1/2"
TYPE OF DISCHARGE	Diagonal Rear	Diagonal Rear	Diagonal Rear
OVERALL DEPTH including outlets and front grille	9 3/8"	12 1/8"	8 1/2"
MOTOR			
RPM	3000	1500	3000
WATTS	120	78	90
VOLTS	115	115	115
CYCLES	50/60	50/60	50/60
AMPS	1.5	1.1	1.0
TYPE	Shaded pole, permanent lubrication, ball bearing	Permanent split capacitor, permanent lubrication, ball bearing	Ball bearing, permanent split capacitor
SHIP. WT. Lbs.	15	24	15
NET PRICE	\$125.00	\$140.00	\$156.00

PREMIER METAL PRODUCTS CO., INC.

ALL PRICES 10% HIGHER WEST OF MISSISSIPPI

PREMIER PAGE 30

PREMIER

HARDWARE

HW-1

NON-LOCKING HANDLE

Chrome plated
Net Price each
\$2.64



HW-3

LOCKING HANDLE

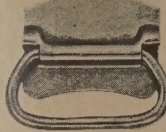
with 2 keys—
Chrome plated
Net Price each
\$5.61



HW-5

DROP HANDLE
Finished in Gray
Hammerstone. Also
available in Black
Wrinkle or Brown
Hammerstone.

Net Price each
.83



SECTION

G

HW-6

CYLINDER LOCK
with 2 keys—
Nickel plated

Net Price each
\$4.62



HW-7

BLACK NYLON HANDLE
with 2 screws

Net Price each
.56



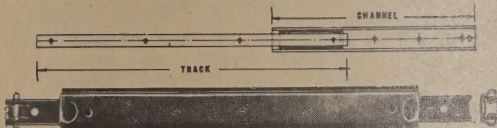
HW-13

TRUSS HEAD MACHINE
SCREWS 10/32 x 3/4"
Nickel plated

Net Price
\$1.65 per 100*
*Minimum Quantity



ECONOMY SLIDES



"A" SERIES

Patent No. 2,542,247

- May be mounted on side or underneath.
- Ball bearing spacer and patented silencer spring eliminates slide noise and vibration.
- All members made of 16 gauge cold rolled steel.
- Black oxidized finish.

Catalog No.	Slide Travel	Channel Length	Track Length	Load Cap.	Net Price Per Pair
A-50-13	9"	11"	13"	50	\$2.80
A-40-15	11	11	15	40	2.90
A-30-165	12 1/2	11	16 1/2	30	3.00
A-18-185	14 1/2	11	18 1/2	30	3.20



"330" SERIES

- Side mounted.
- Each slide rolls on 2 concealed and dust-free nylon wheels.
- No metal-to-metal contact—noiseless operation.
- Drawer is tilted up for quick removal.
- Made of 16 gauge cold rolled steel and zinc plated.

Catalog No.	Slide Travel	Track Length	Channel Length	Load Cap.	Net Price Per Pair
330-62-12	7 7/8"	12"	12"	62	\$3.25
330-58-14	9 7/8"	14	14	58	3.40
330-54-16	11 7/8"	16	16	54	3.50
330-50-18	13 7/8"	18	18	50	3.70
330-46-20	15 7/8"	20	20	46	3.80

2" - 3" - 4" DIA. CASTERS



Made of non-marking composition wheel with Ball Bearing Swivel Plate. Packed one set of 4 in box with screws for assembly.

Cat. No.	Kind of Wheel	Wheel Size	Overall Height	Cap. per caster—lbs.	Net Price Set of 4
CA-4	Plaskite	2" dia. x 1 3/4"	2 3/4"	80	\$4.68
CA-5	Rockite	3" dia. x 1 1/4"	3 3/4"	225	11.00
CA-6	Soft Rubber	2" dia. x 1 5/8"	2 3/8"	125	13.20
CA-7*	Rockite	3" dia. x 1 1/4"	3 3/4"	225	24.20
CA-8**	Rockite	4" dia. x 1 5/8"	5 1/4"	450	48.40

*Foot operated friction brake for positive locking wheel.
**With roller bearing wheel.

SPRAY CAN LACQUER Available in 2 Colors

Cat. No.	To Match
GHL-102	Premier Gray Hammerstone
BHL-103	Premier Brown Hammerstone

NET PRICE: \$1.95 EACH 12 oz. CAN



HW-2
ROUND CHROME
PLATED
HANDLE
Net Price
each
.56



HW-8
QUICK
TURN
FASTENER
Nickel
Plated
Net Price
Each
.92

HEAVY DUTY OUTLET BOXES

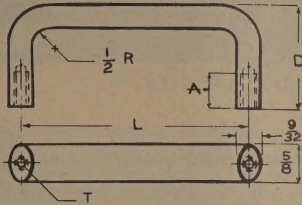
FOR INTERNAL RACK
MOUNTING

- Completely wired. Ready for use
- Supplied with 6' Neoprene cord set with molded plug
- Rated at 15 Amperes
- 130 Volts continuous duty
- "U" ground outlets—soldered connections
- Mounting centers 6"
- Circuit breaker
- 1 1/2" wide x 1 1/8" deep
- Mounts to crosspiece on PRXA, FA, FDX & RMX frames
- Steel case finished in Gray Hammerstone

Model No.	Length	No. Of Outlets	Rack Panel Space	Net Price (Each)
OB-161	56 3/4"	9	61 1/4"	\$25.30
OB-170	65 1/2"	10	70"	30.36
OB-177	72 1/2"	11	77"	31.90

**PREMIER METAL
PRODUCTS CO., INC.**

PREMIER HANDLES for INSTRUMENTS and EQUIPMENT



5/8" OVAL HW-16 SERIES

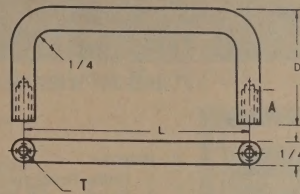
MATERIAL: Aluminum per
QQ-A-325-A.
FINISH: Black Anodize per
MIL-A-8625 Type II.

Cat. No.	L	D	A	T	Net Price
HW-16A1	3	1 3/32	3/32	10-24	\$1.39
HW-16A4	4 3/16	1 1/2	1/2	10-24	1.41
HW-16A6	6 3/16	1 3/4	1/2	10-24	2.02

5/8" OVAL HW-17 SERIES

MATERIAL: Brass per QQ-B-626 Comp 22 1/2 Hard.
FINISH: Nickel Plate and Polish per MIL-QQ-N-290 Type VI.

Cat. No.	L	D	A	T	Net Price
HW-17B1	3	1 3/32	3/32	10-32	\$1.94
HW-17B4	4 3/16	1 1/2	1/2	10-32	2.19
HW-17B6	6 3/16	1 3/4	1/2	10-32	2.57



1/4" ROUND HW-19 SERIES

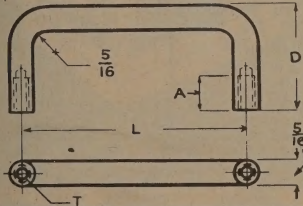
MATERIAL: Brass per QQ-B-626 Comp 22 1/2 Hard.
FINISH: Nickel Plate and Polish per MIL-QQ-N-290 Type VI.

Cat. No.	L	D	A	T	Net Price
HW-19B1	2	1 1/2	3/16	8-32	\$1.38
HW-19B2	3	1 1/2	3/16	8-32	1.44
HW-19B3	4	1 1/2	3/16	8-32	1.54
HW-19B4	6	1 1/2	3/16	8-32	1.64

1/4" ROUND HW-20 SERIES

MATERIAL: Aluminum per QQ-A-325A.
FINISH: Black Anodize per MIL-A-8625 Type II.

Cat. No.	L	D	A	T	Net Price
HW-20A1	2	1 1/2	3/16	8-32	\$.84
HW-20A2	3	1 1/2	3/16	8-32	.90
HW-20A3	4	1 1/2	3/16	8-32	.98
HW-20A4	6	1 1/2	3/16	8-32	1.16



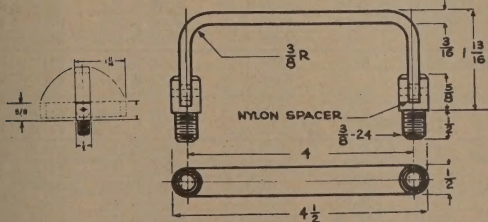
5/16" ROUND HW-18 SERIES

MATERIAL: Brass per QQ-B-626 Comp 22 1/2 Hard.

FINISH: Nickel Plate and Polish per MIL-QQ-N-290 Type VI.

Cat. No.	L	D	A	T	Net Price
HW-18B3	3	1 3/16	3/16	8-32	\$1.19
HW-18B13	4 3/16	1 1/2	3/16	10-32	1.31
HW-18B14	6	1 1/2	3/16	10-32	1.60
HW-18B16	6 3/16	1 3/4	3/16	10-32	1.70

DROP HANDLES — HW-21 and HW-22 SERIES



HW-21A

MATERIAL: Bow-Aluminum MIL Spec QQ-A-274. Ferrules MIL Spec QQ-A-325A.

FINISH: Semi-Frost Per MIL-A-8625 Type II.

HW-22B

MATERIAL: Bow-Brass MIL Spec QQ-B-626 Comp 22 1/2 Hard. Ferrules MIL Spec QQ-B-626 Comp 22 1/2 Hard.

FINISH: Nickel Plate and Polish MIL-QQ-N-290 Type VI.

NOTE: Handle and Ferrules are furnished with nylon spacer and roll-pin 1/8 dia. to hold bow in given position. Swings 180° to either plane.

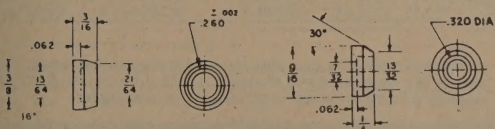
Cat. No.	Material	Net Price
HW-21A	Aluminum	\$2.40
HW-22B	Brass	3.45

FERRULES FOR ABOVE HANDLES

FOR 1/4" DIAMETER HANDLES
HW-23AF (ALUMINUM) Made of Aluminum per QQ-A-325A, anodized black per MIL-A-8625 Type II.
Net Price .12

HW-24BF (BRASS) Made of Brass per QQ-B-626 comp. 22 1/2 hard, nickel plated and polished per MIL-QQ-N-290 Type VI.
Net Price .15

FOR 5/16" DIAMETER HANDLES
HW-25BF (BRASS) Made of Brass per QQ-B-626 comp. 22 1/2 hard, nickel plated and polished per MIL-QQ-N-290 Type VI.
Net Price .16



PREMIER METAL PRODUCTS CO., INC.

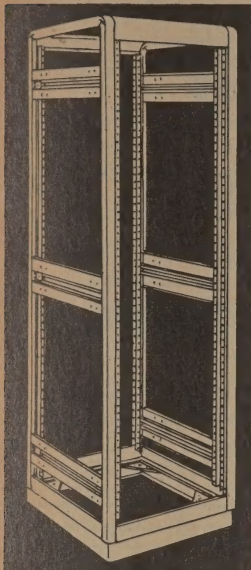
WYCO

METAL PRODUCTS

VERTICAL RACK CABINET FRAMES

BALL CORNER DESIGN

19" AND 24" WIDE PANEL SPACE—22-1/8" AND 25-5/8" DEEP

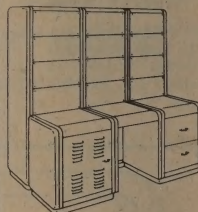
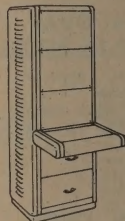


ENGINEERING DRAWINGS AVAILABLE

DESCRIPTION

- A. Material:
 1. Frame-corner post: 14 ga. steel
 2. Mouldings and braces: 16 ga. steel
 3. Panel mounting angles: 11 ga. steel
- B. Manufacturing/assembly procedure:
 1. "Heli-arc" method of welding.
 2. Electronically-controlled spot-welding.
- C. Design-features:
 1. "Four - sided" frame - corner posts.
 2. 19" or 24" wide panel space (for standard 19" or 24" formed or flat panels) available at front, rear and top.
 3. Panel mounting hole spacing: EIA and WE.
 4. Panel mounting holes TAPPED
 5. May be bolted together in any quantity for multiple installation or developing console assemblies.
- D. Panel mounting angles:
 1. Two pair provided, one pair at front, one pair at rear.
- E. Frame bottom opening may be enclosed with standard, plain, perforated or louvered panels.
- F. Pontoons base features:
 1. Bolted to cabinet bottom
 2. Will accept casters (catalog #WC1100, load capacity 800 lbs. per set of four; casters are recessed.)
 3. Has provisions for bolting to floor.
- G. Enclosure accessories:
 1. Side panels: page # 275, 276, 281.
 2. Doors: page # 275, 276.
 3. Panels: page # 287, 288, 289, 290.
- H. Other accessories, such as drawers, etc., are available and described on page # 273, 277, 278, 279, 281, 283, 284, 286, 287, 290.

EXAMPLES OF ASSEMBLIES USING THE VERTICAL FRAME WITH OTHER WYCO METAL PRODUCTS



ORDERING CHART

CAT. #	VERTICAL PANEL SPACE FRONT & BACK	PANEL SPACE WIDTH	TOP AND BOTTOM PANEL SPACE	O.D. DEPTH OF FRAME	OVER-ALL WIDTH	OVER-ALL HEIGHT	VERTICAL PANEL SPACE ABOVE DESK HEIGHT SURFACE	VERTICAL PANEL SPACE ABOVE COUNTER HEIGHT SURFACE	BALL CORNERED SIDE - PLAIN	BALL CORNERED SIDE - LOUVERED	FLAT SIDE
WF200-43-22	43-3/4"	19"	19" x 17-1/2"	22-1/8"	22-5/32"	52-1/4"	19-1/4"	12-1/4"	WS200-43-22	WS200-43-22-L	WS200-43-22-F
WF200-52-22	52-1/2"	19"	19" x 17-1/2"	22-1/8"	22-5/32"	61"	28"	21"	WS200-52-22	WS200-52-22-L	WS200-52-22-F
WF200-61-22	61-1/4"	19"	19" x 17-1/2"	22-1/8"	22-5/32"	69-3/4"	36-3/4"	29-3/4"	WS200-61-22	WS200-61-22-L	WS200-61-22-F
WF200-70-22	70"	19"	19" x 17-1/2"	22-1/8"	22-5/32"	76-1/2"	45-1/2"	38-1/2"	WS200-70-22	WS200-70-22-L	WS200-70-22-F
WF200-78-22	78-3/4"	19"	19" x 17-1/2"	22-1/8"	22-5/32"	87-1/4"	54-1/4"	47-1/4"	WS200-78-22	WS200-78-22-L	WS200-78-22-F
WF200-43-25	43-3/4"	19"	19" x 21"	25-5/8"	22-5/32"	52-1/4"	19-1/4"	12-1/4"	WS200-43-25	WS200-43-25-L	WS200-43-25-F
WF200-52-25	52-1/2"	19"	19" x 21"	25-5/8"	22-5/32"	61"	28"	21"	WS200-52-25	WS200-52-25-L	WS200-52-25-F
WF200-61-25	61-1/4"	19"	19" x 21"	25-5/8"	22-5/32"	69-3/4"	36-3/4"	29-3/4"	WS200-61-25	WS200-61-25-L	WS200-61-25-F
WF200-70-25	70"	19"	19" x 21"	25-5/8"	22-5/32"	76-1/2"	45-1/2"	38-1/2"	WS200-70-25	WS200-70-25-L	WS200-70-25-F
WF200-78-25	78-3/4"	19"	19" x 21"	25-5/8"	22-5/32"	87-1/4"	54-1/4"	47-1/4"	WS200-78-25	WS200-78-25-L	WS200-78-25-F
WF224-43-22	43-3/4"	24"	24" x 17-1/2"	22-1/8"	27-5/32"	52-1/4"	19-1/4"	12-1/4"	WS200-43-22	WS200-43-22-L	WS200-43-22-F
WF224-52-22	52-1/2"	24"	24" x 17-1/2"	22-1/8"	27-5/32"	61"	28"	21"	WS200-52-22	WS200-52-22-L	WS200-52-22-F
WF224-61-22	61-1/4"	24"	24" x 17-1/2"	22-1/8"	27-5/32"	69-3/4"	36-3/4"	29-3/4"	WS200-61-22	WS200-61-22-L	WS200-61-22-F
WF224-70-22	70"	24"	24" x 17-1/2"	22-1/8"	27-5/32"	76-1/2"	45-1/2"	38-1/2"	WS200-70-22	WS200-70-22-L	WS200-70-22-F
WF224-78-22	78-3/4"	24"	24" x 17-1/2"	22-1/8"	27-5/32"	87-1/4"	54-1/4"	47-1/4"	WS200-78-22	WS200-78-22-L	WS200-78-22-F
WF224-43-25	43-3/4"	24"	24" x 21"	25-5/8"	27-5/32"	52-1/4"	19-1/4"	12-1/4"	WS200-43-25	WS200-43-25-L	WS200-43-25-F
WF224-52-25	52-1/2"	24"	24" x 21"	25-5/8"	27-5/32"	61"	28"	21"	WS200-52-25	WS200-52-25-L	WS200-52-25-F
WF224-61-25	61-1/4"	24"	24" x 21"	25-5/8"	27-5/32"	69-3/4"	36-3/4"	29-3/4"	WS200-61-25	WS200-61-25-L	WS200-61-25-F
WF224-70-25	70"	24"	24" x 21"	25-5/8"	27-5/32"	76-1/2"	45-1/2"	38-1/2"	WS200-70-25	WS200-70-25-L	WS200-70-25-F
WF224-78-25	78-3/4"	24"	24" x 21"	25-5/8"	27-5/32"	87-1/4"	54-1/4"	47-1/4"	WS200-78-25	WS200-78-25-L	WS200-78-25-F

COLOR/FINISH: Zinc chromate primer is first applied. Any one or a combination of two of the following baking enamels are available: light or dark metallic grey and dark metallic blue. If a two tone combination is ordered, specify the color desired for the

frame and color desired for doors, sides, panels and accessories. Special colors (baking enamels only) can be applied at an additional cost of 5% of the net cost of order (after discount). Paint chip and/or paint specification must accompany order.

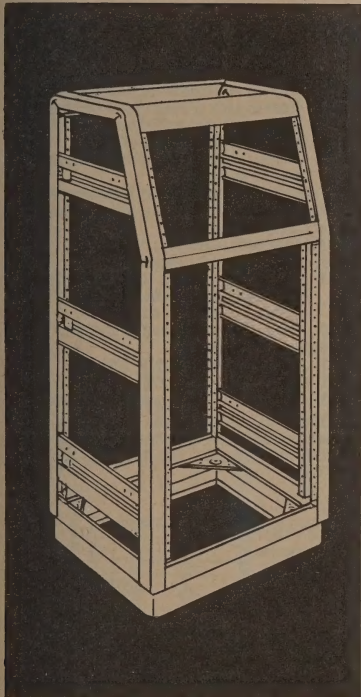
SEE PAGES 291 TO 294 FOR LIST AND DOLLAR VOLUME DISCOUNTS

Wyco Metal Products

WYCO
METAL PRODUCTS

10 1/2" AND 17 1/2" SLOPING FRONT CABINET FRAMES

19" AND 24" WIDE PANEL SPACE 18-5/8", 22-1/8" AND 25-5/8" DEEP

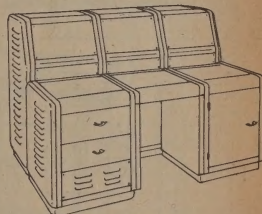
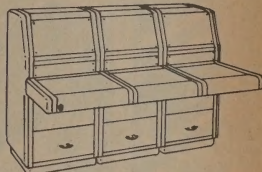


ENGINEERING DRAWINGS AVAILABLE

DESCRIPTION

- A. Material:**
1. Frame-corner post: 14 ga. steel
 2. Mouldings and braces: 16 ga. steel
 3. Panel mounting angles in vertical Panel spaces: 11 ga. steel.
- B. Manufacturing/assembly procedure:**
1. "Heli-arc" method of welding.
 2. Electronically-controlled spot-welding.
- C. Design-features:**
1. "Four-sided" frame-corner posts.
 2. 19" wide or 24" panel space (for standard 19" or 24" formed or flat panels) available at front, rear, top and sloping front.
 3. Panel mounting hole spacing: EIA and WE.
 4. Panel mounting holes TAPPED 10-32 thread.
 5. May be bolted together in any quantity for multiple installation or developing console assemblies.
 6. Sloping front 19 degrees from vertical.
- D. Panel mounting angles:**
1. Two pair provided, one pair each at front vertical space and rear vertical space.
 2. May be positioned at any depth from front to back or back to front by loosening the bolt that holds them to the WYCO METAL PROD. "UNICHANNEL"
 3. Additional pairs of panel mounting angles may be purchased.
- E. Frame bottom opening may be enclosed with standard 19" or 24" wide, plain, perforated or louvered panels.**
- F. Pontoon base features:**
1. Bolted to cabinet bottom.
 2. Will accept casters (catalog #WC1100, load capacity 800 lbs. per set of four; casters are recessed.)
 3. Has provisions for bolting to floor.
- G. Enclosure accessories:**
1. Side panels: page # 275, 276, 281.
 2. Doors: page # 275, 276.
 3. 19" and 24" panels: page # 275, 276.
- H. Other accessories, such as drawers, etc., are available and described on page # 273, 277, 278, 279, 281, 283, 284, 286, 287, 290.**

EXAMPLES OF ASSEMBLIES
USING THE 10-1/2" and 17-1/2"
SLOPING FRONT FRAME
WITH OTHER
WYCO METAL PRODUCTS



ORDERING CHART

CAT. #	SLOPING FRONT PANEL SPACE	VERTICAL FRONT	PANEL SPACE REAR	PANEL SPACE WIDTH	PANEL SPACE TOP	PANEL SPACE BOTTOM	O.D. DEPTH OF FRAME	OVER-ALL WIDTH	OVER-ALL HEIGHT	* BALL CORNERED SIDE-PLAIN	* BALL CORNERED SIDE-LOUVERED	* FLAT SIDE
WF300-18	10-1/2"	28"	38-1/2"	19"	10-1/2" x 19"	14" x 19"	18-5/8"	22-5/32"	46-3/4"	WS300-18	WS300-18-L	WS300-18-F
WF300-22	10-1/2"	28"	38-1/2"	19"	14" x 19"	17-1/2" x 19"	22-1/8"	22-5/32"	46-3/4"	WS300-22	WS300-22-L	WS300-22-F
WF324-18	10-1/2"	28"	38-1/2"	24"	10-1/2" x 24"	14" x 24"	18-5/8"	27-5/32"	46-3/4"	WS300-18	WS300-18-L	WS300-18-F
WF324-22	10-1/2"	28"	38-1/2"	24"	14" x 24"	17-1/2" x 24"	22-1/8"	27-5/32"	46-3/4"	WS300-22	WS300-22-L	WS300-22-F
WF400-22	17-1/2"	24-1/2"	42"	19"	12-1/4" x 19"	17-1/2" x 19"	22-1/8"	22-5/32"	49-7/8"	WS400-22	WS400-22-L	WS400-22-F
WF400-25	17-1/2"	24-1/2"	42"	19"	15-3/4" x 19"	21" x 19"	25-5/8"	22-5/32"	49-7/8"	WS400-25	WS400-25-L	WS400-25-F
WF424-22	17-1/2"	24-1/2"	42"	24"	12-1/4" x 24"	17-1/2" x 24"	22-1/8"	27-5/32"	49-7/8"	WS400-22	WS400-22-L	WS400-22-F
WF424-25	17-1/2"	24-1/2"	42"	24"	15-3/4" x 24"	21" x 24"	25-5/8"	27-5/32"	49-7/8"	WS400-25	WS400-25-L	WS400-25-F

* Specify LH or RH. Example: WS400-25-LH

COLOR/FINISH: Zinc chromate primer is first applied. Any one or a combination of two of the following baking enamels are available: light or dark metallic grey and dark metallic blue. If a two tone combination is ordered, specify the color desired for the

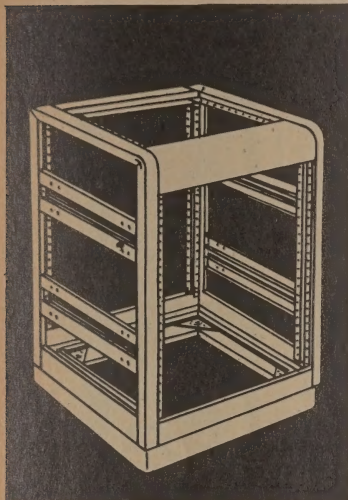
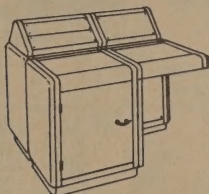
frame and color desired for doors, sides, panels and accessories. Special colors (baking enamels only) can be applied at an additional cost of 5% of the net cost of order (after discount). Paint chip and/or paint specification must accompany order.

SEE PAGES 291 TO 294 FOR LIST AND DOLLAR VOLUME DISCOUNTS

Wyco Metal Products

WYCO
METAL PRODUCTS

DESK HEIGHT AND COUNTER HEIGHT RACK CABINET FRAMES

19" AND 24" WIDE PANEL SPACE — 18-5/8", 22-1/8" AND 25-5/8" DEEP

ENGINEERING DRAWINGS AVAILABLE

**EXAMPLES OF ASSEMBLIES
USING THE DESK HEIGHT AND
COUNTER HEIGHT FRAME WITH
OTHER WYCO METAL PRODUCTS**

DESCRIPTION

- A. Material:**
1. Frame-corner post: 14 ga. steel
 2. Mouldings and braces: 16 ga. steel
 3. Panel mounting angles in vertical panel spaces: 11 ga. steel
- B. Manufacturing/assembly procedure:**
1. "Heli-arc" method of welding.
 2. Electronically-controlled spot-welding.
- C. Design features:**
1. "Four-sided" frame-corner posts.
 2. 19" wide or 24" panel space (for standard 19" or 24" formed or flat panels) available at front, rear and top.
 3. Panel mounting hole spacing: EIA and WE.
 4. Panel mounting holes TAPPED 10-32 thread.
 5. May be bolted together in any quantity for multiples installation or developing console assemblies.
- D. Panel mounting angles:**
1. Two pair provided, one pair at front, one pair at rear.
- E. May be positioned at any depth from front to back or back to front by loosening the bolt that holds them to the WYCO METAL PROD. "UNICHANNEL."**
- F. Additional pairs of panel mounting angles may be purchased.**
- E. Frame bottom opening may be enclosed with standard 19" or 24" wide, plain, perforated or louvered panels.**
- F. Pontoon base features:**
1. Bolted to cabinet bottom.
 2. Will accept casters (catalog #WC1100, load capacity 800 lbs. per set of four; casters are recessed.)
 3. Has provisions for bolting to floor.
- G. Enclosure accessories:**
1. Side panels: page # 275, 276, 281.
 2. Doors: page # 275, 276.
 3. 19" and 24" panels: page # 275, 276.
- H. Other accessories, such as drawers, etc., are available and described on page # 273, 277, 278, 279, 281, 283, 284, 286, 287, 290.**

ORDERING CHART

CAT. #	VERTICAL PANEL SPACE FRONT & BACK	PANEL SPACE WIDTH	TOP AND BOTTOM PANEL SPACE	O.D. DEPTH OF FRAME	OVER-ALL WIDTH	OVER-ALL HEIGHT	BALL CORNERED SIDE—PLAIN	BALL CORNERED SIDE—LOUVERED	FLAT SIDE
WF100-18	21"	19"	14" x 19"	18-5/8"	22-5/32"	29-1/2"	WS100-18	WS100-18-L	WS100-18-F
WF100-22	21"	19"	17-1/2" x 19"	22-1/8"	22-5/32"	29-1/2"	WS100-22	WS100-22-L	WS100-22-F
WF100-25	21"	19"	21" x 19"	25-5/8"	22-5/32"	29-1/2"	WS100-25	WS100-25-L	WS100-25-F
WF124-18	21"	24"	14" x 24"	18-5/8"	27-5/32"	29-1/2"	WS100-18	WS100-18-L	WS100-18-F
WF124-22	21"	24"	17-1/2" x 24"	22-1/8"	27-5/32"	29-1/2"	WS100-22	WS100-22-L	WS100-22-F
WF124-25	21"	24"	21" x 24"	25-5/8"	27-5/32"	29-1/2"	WS100-25	WS100-25-L	WS100-25-F
WF1500-18	28"	19"	14" x 19"	18-5/8"	22-5/32"	36-1/2"	WS1500-18	WS1500-18-L	WS1500-18-F
WF1500-22	28"	19"	17-1/2" x 19"	22-1/8"	22-5/32"	36-1/2"	WS1500-22	WS1500-22-L	WS1500-22-F
WF1500-25	28"	19"	21" x 19"	25-5/8"	22-5/32"	36-1/2"	WS1500-25	WS1500-25-L	WS1500-25-F
WF1524-18	28"	24"	14" x 24"	18-5/8"	27-5/32"	36-1/2"	WS1500-18	WS1500-18-L	WS1500-18-F
WF1524-22	28"	24"	17-1/2" x 24"	22-1/8"	27-5/32"	36-1/2"	WS1500-22	WS1500-22-L	WS1500-22-F
WF1524-25	28"	24"	21" x 24"	25-5/8"	27-5/32"	36-1/2"	WS1500-25	WS1500-25-L	WS1500-25-F

COLOR/FINISH: Zinc chromate primer is first applied. Any one or a combination of two of the following baking enamels are available: light or dark metallic grey and dark metallic blue. If a two tone combination is ordered, specify the color desired for the

frame and color desired for doors, sides, panels and accessories. Special colors (baking enamels only) can be applied at an additional cost of 5% of the net cost of order (after discount). Paint chip and/or paint specification must accompany order.

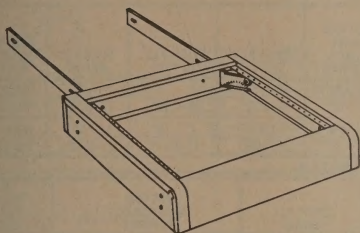
SEE PAGES 291 TO 294 FOR LIST AND DOLLAR VOLUME DISCOUNTS

Wyco Metal Products

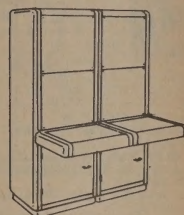


WORK/WRITING DESK FRAMES

19" AND 24" WIDE PANEL SPACE— 15-1/8", 18-5/8", 22-1/8" AND 25-5/8" PROJECTION



EXAMPLE OF AN ASSEMBLY
USING THIS FRAME WITH
OTHER WYCO METAL PRODUCTS



DESCRIPTION

- A. Material:
1. Frame: 14 ga. steel
2. Mouldings: 16 ga. steel
- B. Design-features work/writing frames:
1. 19" wide or 24" wide panel space for formed, flat or TEXTOLITE panels
2. Panel mounting hole spacing: EIA and WE. Holes TAP-PEDED 10-32 thread.

- C. When used between desk height or counter height frames, support arms not required. In all other cases, support arms required. Support arms bolt directly to WYCO METAL PROD. mounting angles.
- D. Ball-cornered or flat sides available
- E. Available in four projections: 15-1/8"—18-5/8"—22-1/8"—25-5/8"
- F. Normally installed so that top surface is 29-1/2" from floor level
- G. Requires 3-1/2" of vertical panel space on all WYCO METAL PROD. cabinet frames

19" WIDE PANEL SPACE

CAT. NO.	A	B	C	D	E	F	G	H	J	K	BALL CORNERED SIDES
WF-700-15	22-5/32	19-1/8	10-9/16	15-1/8	17-7/8	18-3/8	9			17-7/8	Not Req'd.
WF-700-15-18	22-5/32	19-1/8	10-9/16	15-1/8	17-7/8	18-3/8	9	p1-5/8	16-1/8	17-7/8	WS700-15
WF-700-15-22	22-5/32	19-1/8	10-9/16	15-1/8	17-7/8	18-3/8	9	15-1/8	19-5/8	17-7/8	WS700-15
WF-700-15-25	22-5/32	19-1/8	10-9/16	15-1/8	17-7/8	18-3/8	9	18-5/8	23-1/8	17-7/8	WS700-15
WF-700-18	22-5/32	19-1/8	14-1/16	18-5/8	17-7/8	18-3/8	12-1/2			17-7/8	Not Req'd.
WF-700-18-18	22-5/32	19-1/8	14-1/16	18-5/8	17-7/8	18-3/8	12-1/2	11-5/8	16-1/8	17-7/8	WS700-18
WF-700-18-22	22-5/32	19-1/8	14-1/16	18-5/8	17-7/8	18-3/8	12-1/2	15-1/8	19-5/8	17-7/8	WS700-18
WF-700-18-25	22-5/32	19-1/8	14-1/16	18-5/8	17-7/8	18-3/8	12-1/2	18-5/8	23-1/8	17-7/8	WS700-18
WF-700-22	22-5/32	19-1/8	17-9/16	22-1/8	17-7/8	18-3/8	16			17-7/8	Not Req'd.
WF-700-22-18	22-5/32	19-1/8	17-9/16	22-1/8	17-7/8	18-3/8	16	11-5/8	16-1/8	17-7/8	WS700-22
WF-700-22-22	22-5/32	19-1/8	17-9/16	22-1/8	17-7/8	18-3/8	16	15-1/8	19-5/8	17-7/8	WS700-22
WF-700-22-25	22-5/32	19-1/8	17-9/16	22-1/8	17-7/8	18-3/8	16	18-5/8	23-1/8	17-7/8	WS700-22
WF-700-25	22-5/32	19-1/8	21-1/16	25-5/8	17-7/8	18-3/8	19-1/2			17-7/8	Not Req'd.
WF-700-25-18	22-5/32	19-1/8	21-1/16	25-5/8	17-7/8	18-3/8	19-1/2	11-5/8	16-1/8	17-7/8	WS700-25
WF-700-25-22	22-5/32	19-1/8	21-1/16	25-5/8	17-7/8	18-3/8	19-1/2	15-1/8	19-5/8	17-7/8	WS700-25
WF-700-25-25	22-5/32	19-1/8	21-1/16	25-5/8	17-7/8	18-3/8	19-1/2	18-5/8	23-1/8	17-7/8	WS700-25

24" WIDE PANEL SPACE

CAT. NO.	A	B	C	D	E	F	G	H	J	K	BALL CORNERED SIDES
WF-724-15	27-5/32	24-1/8	10-9/16	15-1/8	22-7/8	23-3/8	9			22-7/8	Not Req'd.
WF-724-15-18	27-5/32	24-1/8	10-9/16	15-1/8	22-7/8	23-3/8	9	11-5/8	16-1/8	22-7/8	WS700-15
WF-724-15-22	27-5/32	24-1/8	10-9/16	15-1/8	22-7/8	23-3/8	9	15-1/8	19-5/8	22-7/8	WS700-15
WF-724-15-25	27-5/32	24-1/8	10-9/16	15-1/8	22-7/8	23-3/8	9	18-5/8	23-1/8	22-7/8	WS700-15
WF-724-18	27-5/32	24-1/8	14-1/16	18-5/8	22-7/8	23-3/8	12-1/2			22-7/8	Not Req'd.
WF-724-18-18	27-5/32	24-1/8	14-1/16	18-5/8	22-7/8	23-3/8	12-1/2	11-5/8	16-1/8	22-7/8	WS700-18
WF-724-18-22	27-5/32	24-1/8	14-1/16	18-5/8	22-7/8	23-3/8	12-1/2	15-1/8	19-5/8	22-7/8	WS700-18
WF-724-18-25	27-5/32	24-1/8	14-1/16	18-5/8	22-7/8	23-3/8	12-1/2	18-5/8	23-1/8	22-7/8	WS700-18
WF-724-22	27-5/32	24-1/8	17-9/16	22-1/8	22-7/8	23-3/8	16			22-7/8	Not Req'd.
WF-724-22-18	27-5/32	24-1/8	17-9/16	22-1/8	22-7/8	23-3/8	16	11-5/8	16-1/8	22-7/8	WS700-22
WF-724-22-22	27-5/32	24-1/8	17-9/16	22-1/8	22-7/8	23-3/8	16	15-1/8	19-5/8	22-7/8	WS700-22
WF-724-22-25	27-5/32	24-1/8	17-9/16	22-1/8	22-7/8	23-3/8	16	18-5/8	23-1/8	22-7/8	WS700-22
WF-724-25	27-5/32	24-1/8	21-1/16	25-5/8	22-7/8	23-3/8	19-1/2			22-7/8	Not Req'd.
WF-724-25-18	27-5/32	24-1/8	21-1/16	25-5/8	22-7/8	23-3/8	19-1/2	11-5/8	16-1/8	22-7/8	WS700-25
WF-724-25-22	27-5/32	24-1/8	21-1/16	25-5/8	22-7/8	23-3/8	19-1/2	15-1/8	19-5/8	22-7/8	WS700-25
WF-724-25-25	27-5/32	24-1/8	21-1/16	25-5/8	22-7/8	23-3/8	19-1/2	18-5/8	23-1/8	22-7/8	WS700-25

NOTE

I. MATERIAL

- 14 GA. C.R. STEEL
- 16 GA. C.R. STEEL
- 3/16 STEEL
- 11 GA. C.R. STEEL

SEE PAGES 291 TO 294 FOR LIST AND DOLLAR VOLUME DISCOUNTS

Wyco Metal Products

WYCO
METAL PRODUCTS

TURRET FRAMES / INSTRUMENT CABINETS

19" AND 24" WIDE PANEL SPACE

19°, 35° AND 55° SLOPE

 EXAMPLES OF ASSEMBLIES
USING TURRET FRAMES WITH

 OTHER WYCO
METAL PRODUCTS

DESCRIPTION

- A. Material:**
1. Frame: 14 ga. steel
 2. Mouldings and braces: 16 ga. steel
- B. Design features:**
1. 19" or 24" wide panel space (for standard 19" or 24" formed or flat panels) available at all panel space openings.
 2. Panel mounting angles (fixed) have EIA and WE hole spacing.
 3. Panel mounting holes TAPPED 10-32 thread.
 4. May be bolted together in any quantity for multiple installation.
 5. Flat sides available.
 6. Four rubber feet (part #WH-33) included with each frame.
- C. Suggested usages:**
1. On top of WYCO METAL PRODUCTS desk-height and counter-height frames, or projected top frames.
 2. Vertical surfaces of any vertical panel space opening.
 3. On table or work-bench.
- D. Four attaching clips (part #WH-34) furnished with each frame for attaching to rack frames.**

ORDERING CHART

CAT. #	55° SLOPING PANEL SPACE OPENING	35° SLOPING PANEL SPACE OPENING	BOTTOM PANEL SPACE OPENING	OVER-ALL WIDTH	OVER-ALL HEIGHT	OVER-ALL DEPTH	TURRET FLAT SIDES
WF601	10-1/2" x 19"	7" x 19"	15-3/4"	22-5/32"	9"	17-1/2"	WS601-F
WF602	14" x 19"	8-3/4" x 19"	17-1/2"	22-5/32"	11-3/16"	21-5/16"	WS602-F
WF601-24	10-1/2" x 24"	7" x 24"	15-3/4"	27-5/32"	9"	17-1/2"	WS601-F
WF602-24	14" x 24"	8-3/4" x 24"	17-1/2"	27-5/32"	11-3/16"	21-5/16"	WS602-F

*Order separately. Specify left or right hand (example: WS601-F-LH).

CAT. #	SLOPING PANEL SPACE	OVER-ALL DEPTH	OVER-ALL HEIGHT	BOTTOM PANEL SPACE OPENING	TURRET FLAT SIDES
WF605	17-1/2" x 19"	17-1/2" or 13"	13" or 17-1/2"	14" x 19" or 8-3/4" x 19"	WS605-F
WF605-24	17-1/2" x 24"	17-1/2" or 13"	13" or 17-1/2"	14" x 24" or 8-3/4" x 24"	WS605-F
WF606	14" x 19"	17-1/2"	5-3/8"	10-1/2" x 19"	WS606-F
WF606-24	14" x 24"	17-1/2"	5-3/8"	10-1/2" x 24"	WS606-F
WF607	21" x 19"	24-1/2"	8-1/16"	17-1/2" x 19"	WS607-F
WF607-24	21" x 24"	24-1/2"	8-1/16"	17-1/2" x 24"	WS607-F

*Depth determined by which vertical side is mounted to cabinet frame.

**Height determined by which vertical side is mounted to cabinet frame.

●Order separately. Specify left or right hand (example: WS605-F-LH)

17-1/2" AND 10-1/2" SLOPING FRONT
DESCRIPTION

- A. Material:** 1. Frame: 14 ga. steel. 2. Mouldings and braces: 16 ga. steel
- B. Design features:** 1. 19" or 24" wide panel space

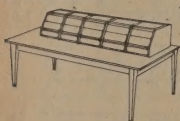
(for standard 19" or 24" formed or flat panels) available at front vertical, sloping front, top, rear and bottom. 2. Panel mounting angles (fixed) have EIA and WE hole spacing. 3. Panel mounting holes TAPPED 10-32 thread. 4. May be bolted together in any quantity for multiple installation. 5. Sloping

front is 19° from vertical. 6. Four rubber feet (part #WH-33) included with each frame.

- C. Suggested usages:** 1. On table or work-bench. 2. On WYCO METAL PROD. desk height frames. 3. On WYCO METAL PROD. height frames.
- D. Flat-sides or ball-cornered sides available.**



EXAMPLES OF ASSEMBLIES
USING THESE FRAMES
WITH OTHER
WYCO METAL PRODUCTS



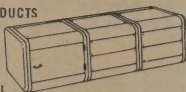
CAT. #	SLOPING FRONT PANEL SPACE OPENING	VERTICAL FRONT PANEL SPACE OPENING	TOP PANEL SPACE	ORDERING CHART			OVER-ALL HEIGHT	OVER-ALL DEPTH	TURRET FLAT SIDES	TURRET BALL-CORNERED SIDES
				REAR PANEL SPACE	BOTTOM PANEL SPACE	OVER-ALL WIDTH				
WF608	17-1/2" x 19"	3-1/2" x 19"	12-1/4" x 19"	21" x 19"	17-1/2" x 19"	22-5/32"	25-15/16"	22-1/8"	WS608-F	WS608
WF608-24	17-1/2" x 24"	3-1/2" x 24"	12-1/4" x 24"	21" x 24"	17-1/2" x 24"	27-5/32"	25-15/16"	22-1/8"	WS608-F	WS608
WF609	10-1/2" x 19"	3-1/2" x 19"	10-1/2" x 19"	14" x 19"	14" x 19"	22-5/32"	18- 7/16"	18-5/8"	WS609-F	WS609
WF610	10-1/2" x 19"	3-1/2" x 19"	3-1/2" x 19"	14" x 19"	7" x 19"	22-5/32"	18- 7/16"	18-5/8"	WS610-F	WS610
WF609-24	10-1/2" x 24"	3-1/2" x 24"	10-1/2" x 24"	14" x 24"	14" x 24"	27-5/32"	18- 7/16"	18-5/8"	WS609-F	WS609
WF610-24	10-1/2" x 24"	3-1/2" x 24"	3-1/2" x 24"	14" x 24"	7" x 24"	27-5/32"	18- 7/16"	18-5/8"	WS610-F	WS610

*Add 1-3/16" for each ball-cornered side used in assembly.

**Order separately. Specify left or right hand (example: WS608-F-LH)

INSTRUMENT CABINET FRAMES/ BALL CORNER DESIGN

EXAMPLE OF AN ASSEMBLY
USING THIS FRAME WITH
OTHER WYCO METAL PRODUCTS


DESCRIPTION

- A. Material:**
1. Frame: 14 ga. steel
 2. Mouldings or braces: 16 ga. steel
- B. Design features:**
1. 19" or 24" wide panel space for standard 19" or 24" formed or flat panels available at front, top, rear and bottom.
 2. Panel mounting angles (fixed) have EIA and WE spacing.
 3. Panel mounting holes TAPPED 10-32 thread.
 4. May be bolted together in any quantity, side by side, back to back and top of another.
 5. Four rubber feet (part #WH-33) included with each side.
 6. Ball cornered sides, plain and lowered.
 7. One pair of chassis guides and supports supplied with each frame. They are adjustable horizontally.

ORDERING CHART

CAT. #	PANEL SPACE WIDTH	VERTICAL PANEL SPACE FRONT & REAR	PANEL SPACE TOP & BOTTOM	OVER-ALL WIDTH	OVER-ALL HEIGHT	OVER-ALL DEPTH	PLAIN BALL-CORNERED SIDES	LOWERED BALL-CORNERED SIDES
WF500-8	19"	8-3/4"	12-1/4" x 19"	22-5/32"	12-13/16"	16-5/16"	WS500-8	WS500-8-L
WF500-10	19"	10-1/2"	12-1/4" x 19"	22-5/32"	14- 9/16"	16-5/16"	WS500-10	WS500-10-L
WF500-12	19"	12-1/4"	12-1/4" x 19"	22-5/32"	16- 5/16"	16-5/16"	WS500-12	WS500-12-L
WF500-14	19"	14"	12-1/4" x 19"	22-5/32"	18- 1/16"	16-5/16"	WS500-14	WS500-14-L
WF500-15	19"	15-3/4"	12-1/4" x 19"	22-5/32"	19-13/16"	16-5/16"	WS500-15	WS500-15-L
WF500-17	19"	17-1/2"	12-1/4" x 19"	22-5/32"	21- 9/16"	16-5/16"	WS500-17	WS500-17-L
WF500-19	19"	19-1/4"	12-1/4" x 19"	22-5/32"	23- 5/16"	16-5/16"	WS500-19	WS500-19-L
WF500-21	19"	21"	12-1/4" x 19"	22-5/32"	25- 1/16"	16-5/16"	WS500-21	WS500-21-L
WF524-8	24"	8-3/4"	12-1/4" x 24"	27-5/32"	12-13/16"	16-5/16"	WS500-8	WS500-8-L
WF524-10	24"	10-1/2"	12-1/4" x 24"	27-5/32"	14- 9/16"	16-5/16"	WS500-10	WS500-10-L
WF524-12	24"	12-1/4"	12-1/4" x 24"	27-5/32"	16- 5/16"	16-5/16"	WS500-12	WS500-12-L
WF524-14	24"	14"	12-1/4" x 24"	27-5/32"	18- 1/16"	16-5/16"	WS500-14	WS500-14-L
WF524-15	24"	15-3/4"	12-1/4" x 24"	27-5/32"	19-13/16"	16-5/16"	WS500-15	WS500-15-L
WF524-17	24"	17-1/2"	12-1/4" x 24"	27-5/32"	21- 9/16"	16-5/16"	WS500-17	WS500-17-L
WF524-18	24"	19-1/4"	12-1/4" x 24"	27-5/32"	23- 5/16"	16-5/16"	WS500-19	WS500-19-L
WF524-21	24"	21"	12-1/4" x 24"	27-5/32"	25- 1/16"	16-5/16"	WS500-21	WS500-21-L

*Order separately; add 1-3/16" for each ball-cornered side used in assembly.

COLOR/FINISH: Zinc chromate primer is first applied. Any one or a combination of two of the following baking enamels are available: light or dark metallic grey and dark metallic blue. If a two tone combination is ordered, specify the color desired for the

frame and color desired for doors, sides, panels and accessories. Special colors (baking enamels only) can be applied at an additional cost of 5% of the net cost of order (after discount). Paint chip and/or paint specification must accompany order.

SEE PAGES 291 TO 294 FOR LIST AND DOLLAR VOLUME DISCOUNTS

Wyco Metal Products

WYCO

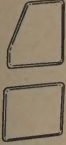
METAL PRODUCTS

DOORS — SIDES

19" AND 24" PANELS

SHORT BALL CORNERED SIDES

ORDERING CHART



DESCRIPTION

- A. Material: 16 ga. steel
 B. Usage: When vertical or sloping-front frames are joined side-by-side with desk-height frames, WF100 and WF124 series.
 C. IMPORTANT:
 1. Specify left or right hand
 2. Add one of the following suffixes to catalog number:
 -18 (when joining side-by-side to 18-5/8" deep, desk height frame)
 -22 (when joining side-by-side to 22-1/8" deep, desk height frame)
 -25 (when joining side-by-side to 25-5/8" deep, desk height frame)

(EXAMPLE: WSH300-22-LH)

CAT. #	WHEN A SHORT-SIDE IS REQUIRED FOR FRAME NUMBERS
WSH300	WF300* or WF324*
WSH400	WF400* or WF424*
WSH200-43	WF200-43* or WF224-43**
WSH200-52	WF200-52* or WF224-52**
WSH200-61	WF200-61* or WF224-61**
WSH200-70	WF200-70* or WF224-70**
WSH200-78	WF200-78* or WF224-78**

KNEE SPACE SIDE PANEL

ORDERING CHART



DESCRIPTION

- A. Material: 16 ga. steel
 B. Usage: Close up knee space side openings at operator position when work/writing desk frame is used between two desk height or counter height frames.

WYCO #	USED IN CONNECTION WITH	WYCO #	USED IN CONNECTION WITH
WS100-18-K	desk height frame—18-5/8" deep	WS1500-18-K	counter height frame—18-5/8" deep
WS100-22-K	desk height frame—22-1/8" deep	WS1500-22-K	counter height frame—22-1/8" deep
WS100-25-K	desk height frame—25-5/8" deep	WS1500-25-K	counter height frame—25-5/8" deep

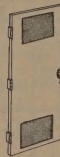
FACE MOUNTED DOORS 19" AND 24" WIDE PANEL SPACE

DESCRIPTION

- A. Material: 16 ga. steel
 B. Design-features:
 1. Face-mounted; hinged (left or right hand) on face of frame-corner post.
 2. Full-length doors over-lap 1" at top and bottom of vertical opening.

3. Two-pint catch.
 4. Locking handle (2 keys)
 5. Doors are 7/8" thick.
 6. Can be mounted at both front and back vertical openings.
 C. Louvered doors.
 1. Louvers are 6" long.
 2. Louvers are 3/4" high.

3. One inch between louvers.
 4. Approximately 1-3/4 square inches of ventilation per louver.
 D. Filtered doors:
 1. Filtered top and bottom, top only or bottom only.
 2. Filters are removable (10" x 10").
 3. Each filter allows 100 square inches of opening.
 4. Replaceable filter part number: H70.
 E. IMPORTANT: specify left hand or right hand (EXAMPLE: WD200-61-LH)



ORDERING CHART

COVERS VERTICAL PANEL SPACE	PLAIN		LOUVERED		FILTERED TOP AND BOTTOM		FILTERED TOP ONLY		FILTERED BOTTOM ONLY	
	19" WIDE	24" WIDE	19" WIDE	24" WIDE	19" WIDE	24" WIDE	19" WIDE	24" WIDE	19" WIDE	24" WIDE
17-1/2"	WD200-17	WD224-17	WD200-17-L	WD224-17-L						
21"	WD200-21	WD224-21	WD200-21-L	WD224-21-L			WD200-21-FT	WD224-21-FT	WD200-21-FB	WD224-21-FB
24-1/2"	WD200-24	WD224-24	WD200-24-L	WD224-24-L			WD200-24-FT	WD224-24-FT	WD200-24-FB	WD224-24-FB
28"	WD200-28	WD224-28	WD200-28-L	WD224-28-L			WD200-28-FT	WD224-28-FT	WD200-28-FB	WD224-28-FB
38-1/2"	WD200-38	WD224-38	WD200-38-L	WD224-38-L	WD200-38-FTB	WD224-38-FTB	WD200-38-FT	WD224-38-FT	WD200-38-FB	WD224-38-FB
42"	WD200-42	WD224-42	WD200-42-L	WD224-42-L	WD200-42-FTB	WD224-42-FTB	WD200-42-FT	WD224-42-FT	WD200-42-FB	WD224-42-FB
43-3/4"	WD200-43	WD224-43	WD200-43-L	WD224-43-L	WD200-43-FTB	WD224-43-FTB	WD200-43-FT	WD224-43-FT	WD200-43-FB	WD224-43-FB
52-1/2"	WD200-52	WD224-52	WD200-52-L	WD224-52-L	WD200-52-FTB	WD224-52-FTB	WD200-52-FT	WD224-52-FT	WD200-52-FB	WD224-52-FB
61-1/4"	WD200-61	WD224-61	WD200-61-L	WD224-61-L	WD200-61-FTB	WD224-61-FTB	WD200-61-FT	WD224-61-FT	WD200-61-FB	WD224-61-FB
70"	WD200-70	WD224-70	WD200-70-L	WD224-70-L	WD200-70-FTB	WD224-70-FTB	WD200-70-FT	WD224-70-FT	WD200-70-FB	WD224-70-FB
78-3/4"	WD200-78	WD224-78	WD200-78-L	WD224-78-L	WD200-78-FTB	WD224-78-FTB	WD200-78-FT	WD224-78-FT	WD200-78-FB	WD224-78-FB

IMPORTANT: Specify left hand or right hand (EXAMPLE: WD200-61-L-RH)

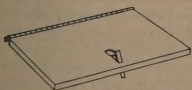
PANEL LIFT DOORS

DESCRIPTION:

- A. Material: 16 ga. steel
 B. Design-features:
 1. Installs flush into 5/8" recessed panel openings
 2. Continuous piano-hinge across 19" or 24" wide dimension
 3. Flush-type latch
 C. Suggested usage:
 1. Top opening of frames
 2. Sloping front opening of frames
 3. Vertical opening of frames when flush-latch can engage behind top moulding of panel space or behind a panel directly above the door opening

ORDERING CHART

CAT. #	AMOUNT OF PANEL SPACE REQUIRED	CAT. #	AMOUNT OF PANEL SPACE REQUIRED
WPLD-10	10-1/2"	WPLD-10-24	10-1/2"
WPLD-12	12-1/4"	WPLD-12-24	12-1/4"
WPLD-14	14"	WPLD-14-24	14"
WPLD-17	17-1/2"	WPLD-17-24	17-1/2"
WPLD-21	21"	WPLD-21-24	21"



SEE PAGES 291 TO 294 FOR LIST AND DOLLAR VOLUME DISCOUNTS

Wyco Metal Products

WYCO

METAL PRODUCTS

DOORS — SIDES

19" AND 24" PANELS

FLUSH MOUNTED DOORS

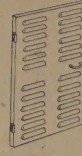
19" AND 24" WIDE
PANEL SPACE

DESCRIPTION

- A. Material: 16 ga. steel
B. Design-features:
1. Installs flush into 5/8" recessed panel openings.
2. Hinges, left or right hand, off of mounting angle. Opposite mounting angle becomes door stop.
3. Door may be easily removed by lifting pin from hinge.
4. Attractive door—pull included
C. Available types:
1. Plain
2. Louvered
3. Perforated
D. If keyed tumbler lock desired, ADD SUFFIX "-LK" TO CATALOG NUMBER. (EXAMPLE: WDF 21-LK)
E. IMPORTANT: SPECIFY LEFT HAND OR RIGHT HAND (EXAMPLE: WDF 28-LH)



PLAIN



LOUVERED



PERFORATED

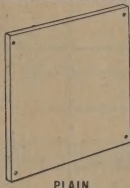
VERTICAL HEIGHT	19" WIDE	24" WIDE	19" WIDE	24" WIDE	19" WIDE	24" WIDE
8-3/4"	WDF-8	WDF-8-24	WDF-8-L	WDF-8-24-L	WDF-8-P	WDF-8-24-P
10-1/2"	WDF-10	WDF-10-24	WDF-10-L	WDF-10-24-L	WDF-10-P	WDF-10-24-P
12-1/4"	WDF-12	WDF-12-24	WDF-12-L	WDF-12-24-L	WDF-12-P	WDF-12-24-P
14"	WDF-14	WDF-14-24	WDF-14-L	WDF-14-24-L	WDF-14-P	WDF-14-24-P
17-1/2"	WDF-17	WDF-17-24	WDF-17-L	WDF-17-24-L	WDF-17-P	WDF-17-24-P
21"	WDF-21	WDF-21-24	WDF-21-L	WDF-21-24-L	WDF-21-P	WDF-21-24-P
24-1/2"	WDF-24	WDF-24-24	WDF-24-L	WDF-24-24-L	WDF-24-P	WDF-24-24-P
28"	WDF-28	WDF-28-24	WDF-28-L	WDF-28-24-L	WDF-28-P	WDF-28-24-P

FORMED STEEL PANELS

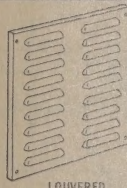
19" AND 24" WIDE FOR FRONT, REAR, TOP AND BOTTOM OPENING ON WYCO METAL FRAMES

DESCRIPTION

- A. Material:
1. Plain panels: 16 ga. steel
2. Louvered panels: 16 ga. steel
3. Perforated panels: 16 ga. steel
4. Textolite panels:
(a) Textolite top—grey desk pattern
(b) Particle board: 1/2" thick
(c) Phenolic backing sheet
B. Design-features:
1. Plain:
(a) 5/8" flange all four sides
(b) Fits into 5/8" recessed opening on all WYCO METAL PROD. frames to create "flush appearance"
(c) Available in 19" and 24" width
2. Louvered:
(a) Same features as plain panel
(b) Double-row of louvers
(c) Louvers are 6" long
(d) Louvers are 3/4" high
(e) 1" between louvers
(f) Approximately 1-3/4 square inches of ventilation per louver
3. Perforated:
(a) Same features as plain panel
(b) 5/64" dia. holes on 1/8" centers—staggered rows
(c) 36% open area
(d) 1" solid border all four sides
4. Textolite:
(a) Furnished with screws for fastening to WYCO METAL PROD. frames
(b) Used as work/writing surface
(c) Resists heat, abrasion and most acid and alkalines



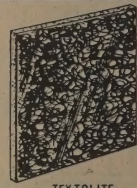
PLAIN



LOUVERED



PERFORATED



TEXTOLITE

PANEL HEIGHT	19" WIDE	24" WIDE	19" WIDE	24" WIDE	19" WIDE	24" WIDE	19" WIDE	24" WIDE
1-3/4"	WP1	WP1-24						
3-1/2"	WP3	WP3-24						
5-1/4"	WP5	WP5-24	WP5L	WP5L-24	WP5P	WP5P-24	WP3T	WP3T-24
7"	WP7	WP7-24	WP7L	WP7L-24	WP7P	WP7P-24	WP7T	WP7T-24
8-3/4"	WP8	WP8-24	WP8L	WP8L-24	WP8P	WP8P-24		
10-1/2"	WP10	WP10-24	WP10L	WP10L-24	WP10P	WP10P-24	WP10T	WP10T-24
12-1/4"	WP12	WP12-24	WP12L	WP12L-24	WP12P	WP12P-24	WP12T	WP12T-24
14"	WP14	WP14-24	WP14L	WP14L-24	WP14P	WP14P-24	WP14T	WP14T-24
15-3/4"	WP15	WP15-24	WP15L	WP15L-24	WP15P	WP15P-24		
17-1/2"	WP17	WP17-24	WP17L	WP17L-24	WP17P	WP17P-24	WP17T	WP17T-24
19-1/4"	WP19	WP19-24	WP19L	WP19L-24	WP19P	WP19P-24		
21"	WP21	WP21-24	WP21L	WP21L-24	WP21P	WP21P-24	WP21T	WP21T-24
24-1/2"	WP24	WP24-24	WP24L	WP24L-24	WP24P	WP24P-24		
28"	WP28	WP28-24	WP28L	WP28L-24	WP28P	WP28P-24		
38-1/2"	WP38	WP38-24	WP38L	WP38L-24				
42"	WP42	WP42-24	WP42L	WP42L-24				
43-3/4"	WP43	WP43-24	WP43L	WP43L-24				
52-1/2"	WP52	WP52-24	WP52L	WP52L-24				
61-1/4"	WP61	WP61-24	WP61L	WP61L-24				
70"	WP70	WP70-24	WP70L	WP70L-24				
78-3/4"	WP78	WP78-24	WP78L	WP78L-24				

SEE PAGES 291 TO 294 FOR LIST AND DOLLAR VOLUME DISCOUNTS

Wyco Metal Products

WYCO

METAL PRODUCTS

ACCESSORIES

SLIDING DRAWERS 19" AND 24" WIDE PANEL SPACE

DESCRIPTION

- A. Material:
1. Front panel: 16 ga. steel
 2. Drawer body: 20 ga. steel
 3. Slide assembly: 16 ga. steel
- B. Design-features:
1. Attractive drawer-pull included
 2. Slides, included with drawer, allow drawer to move in and out on steel roller ball bearings
 3. Front panel fits flush into cabinet frame vertical openings
 4. Stationary part of slides bolt directly to panel mounting angles
 5. Mating part of slide assembly is spot-welded to drawer body
 6. If keyed tumbler lock desired, add ".LK" to suffix. Example: WED1000-7-25-LK.

ORDERING CHART

USE WITH 19" WIDE PANEL OPENING CAT. #	USE WITH 24" WIDE PANEL OPENING CAT. #	REQUIRES VERTICAL HEIGHT OF PANEL SPACE	INSTALLS IN FRAME DEPTH
WED1000-3-18	WED1024-3-18	3-1/2"	18-5/8"
WED1000-3-22	WED1024-3-22	3-1/2"	22-1/8"
WED1000-3-25	WED1024-3-25	3-1/2"	25-5/8"
WED1000-7-18	WED1024-7-18	7"	18-5/8"
WED1000-7-22	WED1024-7-22	7"	22-1/8"
WED1000-7-25	WED1024-7-25	7"	25-5/8"
WED1000-8-18	WED1024-8-18	8-3/4"	18-5/8"
WED1000-8-22	WED1024-8-22	8-3/4"	22-1/8"
WED1000-8-25	WED1024-8-25	8-3/4"	25-5/8"
WED1000-10-18	WED1024-10-18	10-1/2"	18-5/8"
WED1000-10-22	WED1024-10-22	10-1/2"	22-1/8"
WED1000-10-25	WED1024-10-25	10-1/2"	25-5/8"
WED1000-14-18	WED1024-14-18	14"	18-5/8"
WED1000-14-22	WED1024-14-22	14"	22-1/8"
WED1000-14-25	WED1024-14-25	14"	25-5/8"

CHASSIS/EQUIPMENT SLIDES 19" AND 24" WIDE PANEL SPACE

DESCRIPTION

- A. Material: 16 ga. steel
- B. Design-features:
1. Consists of 2 parts:
 - a. stationary slides that bolt directly to mounting angles
 - b. chassis/equipment frame support that moves in and out on steel roller-ball bearings
 2. Cadmium plated
 3. Supports up to 75 lbs. in extended position
 4. Chassis/equipment frame support is removable and will not fall out because of positive-stops

ORDERING CHART

USE WITH 19" WIDE PANEL OPENING CAT. #	USE WITH 24" WIDE PANEL OPENING CAT. #	INSTALLS IN FRAME DEPTH
WSL900-18	WSL924-18	18-5/8"
WSL900-22	WSL924-22	22-1/8"
WSL900-25	WSL924-25	25-5/8"

DESCRIPTION

- A. Material: 11 ga. steel
- B. Types available:
1. One bay (1 cabinet frame)
 2. Two bay (2 cabinet frames side-by-side)
 3. Three bay (3 cabinet frames side-by-side)
- C. Pontoon bases not required with cabinet frames when heavy-duty roller trucks are used (ordering number for cabinet frame should specify w/o pontoon base)
- D. Cabinet frames are bolted to roller truck unless otherwise specified; cabinet frames are centered on roller truck (from front to back), leaving 6" of roller truck top exposed at front and rear
- E. Casters:
1. Self-lubricating
 2. Hard tread
 3. Three-inch diameter
 4. Hardened double ball-bearing raceways
 5. Full swivel
 6. 200 lb. capacity per caster
- F. IF FOOT-LOCK DESIRED, suffix catalog number with -LK (EXAMPLE: WRT3000-1-18-LK)
- G. Larger casters available. Pricing developed upon application

SLIDING WORK- WRITING SHELVES

DESCRIPTION

- A. Material:
1. 16 ga. steel
 2. Textolite work/writing top
- B. Design-features:
1. Roller-bearing slides allow shelf to be pulled out when writing surface or work surface required
 2. Uses 3-1/2" of vertical panel space
 3. Supplied with attractive drawer pull
 4. Stationary part of slides bolt directly to panel mounting angles
 5. Mating part of slide assembly is spot-welded to shelf frame

ORDERING CHART

19" WIDE PANEL SPACE CAT. #	24" WIDE PANEL SPACE CAT. #	INSTALLS IN FRAME DEPTH	EXPOSED DEPTH WHEN PULLED OUT
WSS10	WSS10-24	18-5/8"	12-1/2"
WSS11	WSS11-24	22-1/8"	16"
WSS12	WSS12-24	25-5/8"	19-1/2"

PANEL MOUNTING/ACCESSORY MOUNTING ANGLES

DESCRIPTION

- A. Material: 11 ga. steel
- B. Design Features:
1. W.E. & EIA spacing
 2. Holes TAPPED 10-32 thread
- C. Two pair (front/back) supplied with most frames. Additional pairs may be ordered.
- D. Sold in pairs only.

ORDERING CHART

CAT. #	VERTICAL HEIGHT	CAT. #	VERTICAL HEIGHT
WM21	21"	WM43	43-3/4"
WM24	24-1/2"	WM52	52-1/2"
WM28	28"	WM61	61-1/4"
WM36	38-1/2"	WM70	70"
WM42	42"	WM78	78-3/4"

EQUIP/CHASSIS SLIDES

DESCRIPTION

- A. Material: 16 ga. steel
- B. Bolts directly to mounting angles

ORDERING CHART

USED WITH 19" WIDE PANEL SPACE FRAMES	USED WITH 24" WIDE PANEL SPACE FRAMES	INSTALLED IN FRAME DEPTH
WEST1200-18	WEST1224-18	18-5/8"
WEST1200-22	WEST1224-22	22-1/8"
WEST1200-25	WEST1224-25	25-5/8"

DESCRIPTION

- A. Material: 14 ga. steel
- B. Consists of:
1. One pair of supporting angles that bolt directly to the WYCO METAL PRODS. panel mounting angles
 2. One pair of chassis/equipment guide angles that bolt to the horizontal surface of the supporting angles. Slotted holes in both parts allow for lateral adjustment in width.
- C. Lateral adjustment of guide angles, as follows:
1. 19" wide panel opening: 16-1/4" to 17-3/4"
 2. 24" wide panel opening: 21-1/4" to 22-3/4"

CHASSIS/EQUIPMENT SUPPORTING ANGLES

ORDERING CHART

CAT. #	INSTALLS IN FRAME DEPTH
WCSA15	15-1/8"
WCSA18	18-5/8"
WCSA22	22-1/8"
WCSA25	25-5/8"

HEAVY DUTY ROLLER TRUCKS

ORDERING CHART

NUMBER OF BAYS WIDE	Use With Frames Having 19" Wide Panel Opening Cat. #	Use With Frames Having 24" Wide Panel Opening Cat. #	USED WITH FRAME DEPTH	OVER-ALL WIDTH	OVER-ALL DEPTH OF TRUCK	NUMBER OF CASTERS 19" 24"
One Bay	WRT3000-1-18	WRT3024-1-18	18-5/8"	22- 51/32"	27- 5/32"	30-5/8" 4 4
One Bay	WRT3000-1-22	WRT3024-1-22	22-1/8"	22- 5/32"	27- 5/32"	34-1/8" 4 4
One Bay	WRT3000-1-25	WRT3024-1-25	25-5/8"	22- 5/32"	27- 5/32"	37-5/8" 4 4
Two Bay	WRT3000-2-18	WRT3024-2-18	18-5/8"	44- 5/16"	54- 5/16"	30-5/8" 4 4
Two Bay	WRT3000-2-22	WRT3024-2-22	22-1/8"	44- 5/16"	54- 5/16"	34-1/8" 4 4
Two Bay	WRT3000-2-25	WRT3024-2-25	25-5/8"	44- 5/16"	54- 5/16"	37-5/8" 4 4
Three Bay	WRT3000-3-18	WRT3024-3-18	18-5/8"	66-15/32"	81-15/32"	30-5/8" 6 6
Three Bay	WRT3000-3-22	WRT3024-3-22	22-1/8"	66-15/32"	81-15/32"	34-1/8" 6 6
Three Bay	WRT3000-3-25	WRT3024-3-25	25-5/8"	66-15/32"	81-15/32"	37-5/8" 6 6

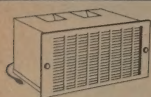
SEE PAGES 291 TO 294 FOR LIST AND DOLLAR VOLUME DISCOUNTS

Wyco Metal Products

WYCO

METAL PRODUCTS

BLOWERS/FANS



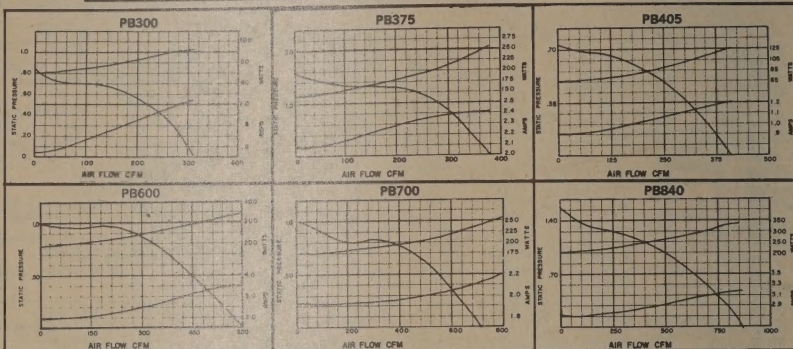
PACKAGED BLOWERS

ORDERING CHART

DESCRIPTION

- A. Motors:
- Double-shielded precision ball bearing
 - Bearings meet Fed. Spec. #FF-B-171A
 - Lubricant used has range from -29° C to +149° C, provided protection exceeding MIL-G-3278 requirements under severe high temperature conditions
 - 115 volt, 50/60 cycle current is standard
 - Most units can be constructed for 230 volt usage on "special order"
 - All standard motors meet specification #CC-M-636A
 - Forced-air cooled by portion of intake air
- B. Filter:
- Permanent
 - Washable and reusable
 - Multiple layers of knitted aluminum encased in aluminum channel frame
- C. Front Grille:
- Chrome plated C. R. steel
 - Knurled-head fasteners for easy removal
 - Grille pattern; 65% open
 - 19" wide
- D. Blower case painted zinc chromate primer plus gray hammerstone
- E. Rotating parts neoprene shock-mounted and isolated from enclosure
- F. Minimum of 36" type SJ3-wire core with molded plug included. Internally grounded, securely locked to case by strain-relief bushing.
- G. **IMPORTANT:** When ordering, add discharge suffix to catalog #, EXAMPLE: WPB300-A

CAT. #	CFM @ 0"	PANEL HEIGHT	DEPTH		MOTOR SPEED	POWER		CHOICE OF DISCHARGE				
			MIN.	MAX.		APMS	WATTS	A	B	C	D	E
WPB300	300	5-1/4"	6-1/4"	7"	3000	1.0	90	X	X	X	X	
WPB375	375	7"	8-1/4"	10"	3000	2.4	260	X	X	X	X	
WPB405	405	8-3/4"	9-3/4"	11"	1500	1.2	125	X	X	X	X	
WPB600	600	7"	15-3/4"	11"	1140	5.2	425					X
WPB700	700	10-1/2"	11-1/2"	13"	1500	2.2	255	X	X	X	X	
WPB840	840	10-1/2"	13-3/4"	1725	3.2	330				X	X	



FANS AND FAN ACCESSORIES

ORDERING CHART

MOTORS: PERMANENTLY LUBRICATED - 115 VOLT - 50/60 CYCLE - SINGLE PHASE AC

	CFM AT 0" S.P.	CAT. #	A	B	C	D	FAN BLADE DIA.	RPM	MOTOR WATTS	BALL BEARING
EXHAUST	165	WF155B	2-7/8	1-5/8	1-1/4	8-1/2	6-1/2	1650	20	X
	220	WF220B	3-1/4	1-5/5	1-5/8	8-1/2	6-1/2	1550	25	X
	300	WF300B	4-1/6	2-5/8	1-1/2	8-1/2	6-1/2	3000	65	X
	400	WF400B	3-5/8	1-7/8	1-3/4	10-1/2	8	1460	46	X
	350	WF350B	4-3/8	2-1/8	2-1/4	11-1/2	9	1600	100	X
	750	WF750B	4-3/8	2-1/8	2-1/4	12-1/2	10	1560	105	X
INTAKE	160	WF160S	2-7/8			8-1/2	6-1/2	1650	20	X
	180	WF180S	3-1/4			8-1/2	6-1/2	1550	25	X
	300	WF300S	4-1/8			8-1/2	6-1/2	3000	65	X
	360	WF360S	3-3/4			10-1/2	8	1460	46	X
	540	WF540S	4-3/8			11-1/2	9	1600	100	X
	740	WF740S	4-3/8			12-1/2	10	1560	105	X

ACCESSORIES

ITEM	CAT. #	USED WITH FAN BLADE DIA. 6-1/2"		CAT. #	USED WITH FAN BLADE DIA. 8"		CAT. #	USED WITH FAN BLADE DIA. 9"		CAT. #	USED WITH FAN BLADE DIA. 10"	
		Dia.	Depth		Dia.	Depth		Dia.	Depth		Dia.	Depth
Guard	WFA101	6-3/4	1-7/8	WFB101	8-1/4	2-3/16	WFC101	9-1/4	2-3/8	WFD101	10-1/4	2-3/8
Grille*	WFA102	8-1/2		WFB102	10-1/2		WFC102	11-1/2		WFD102	12-1/2	
Sleeve	WFA103	8-1/2	1-3/4	WFB103	10-1/2	2	WFC103	11-1/2	2-3/8	WFD103	12-1/2	2-3/8
Sleeve**	WFA104	8-1/2	1-1/2									
Filter*	WFA105	8-3/8		WFB105	10-3/8		WFC105	11-3/8		WFD105	12-3/8	
Filter Holder	WFA106	8-9/16	5/8	WFB106	10-9/16	5/8	WFC106	11-9/16	5/8	WFD106	12-9/16	5/8

*Grille Material: U S G Ronde, Type "F" Expanded Metal.

**Filter: Aluminum, Permanent-Type, 1/2" Thick.

***Used only with WF165B and WF300B Fans.

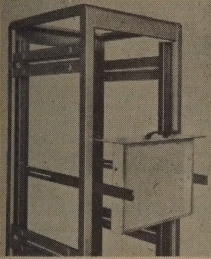
SEE PAGES 291 TO 294 FOR LIST AND DOLLAR VOLUME DISCOUNTS

Wyco Metal Products



SOLID BEARING SLIDES HARDWARE/WIRING STRIPS

75 LB. CAPACITY-TILT FEATURE



DESCRIPTION

- A. This slide can be used as a non-tilt or tilt slide.
- B. Locks in extended position.
- C. Quick release feature allows for returning of chassis to closed position or substituting replacement chassis, if required.
- D. 75 lb. load capacity at full extension with .00% safety factor.
- E. Withstands maximum shock and vibration due to solid bearing design.

ORDERING CHART

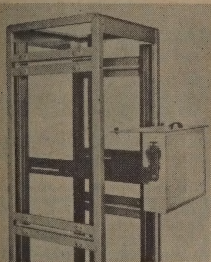
Your Chassis Length	Wyco Slide No.	**Use in Wyco Frames
up to 14"	WSBS7000-16-T	WF500 series
up to 16"	WSBS7000-18-T	18-5/8" deep frames
up to 20"	WSBS7000-22-T	22-1/8" deep frames
up to 20"	WSBS7000-25-T	25-5/8" deep frames

**If rear mounting angles are positioned completely to the rear.

- F. Will support a full 17" wide chassis in a 19" wide panel space.
- G. Will support a full 22" wide chassis in a 24" wide panel space.
- H. Meets the following MIL specifications:
 - (1) Steel: MIL-QQ-S-636
 - (2) Salt Spray: 100 hours of 20% salt fog at 95° temp.
 - (3) Lubrication: MIL-L-22273 and QPL-25504-1
 - (4) Plating: MIL-QQ-2-325, Class 2, Type II
- J. All mounting hardware included.

NOTE: If desired, any one of the above slides may be used in frames of lesser depths than notated above, by moving the rear or front mounting angles to the dimensional position required by length of slides ordered, or by ordering an additional pair of mounting angles.

175 LB. CAPACITY-TILT FEATURE



DESCRIPTION

- A. Heavy-duty detent lock allows chassis to be tilted 90° in an up or down position. This makes for quick and easy servicing.
- B. The slide will lock in extended position.
- C. Quick release feature allows for returning of chassis to closed position or substituting replacement chassis, if required.
- D. 175 lb. load capacity at full extension with 100% safety factor.
- E. Withstands maximum shock and vibration due to solid bearing design.

ORDERING CHART

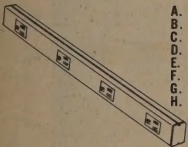
Your Chassis Length	Wyco Slide No.	*Use in Wyco Frame
10" to 16"	WSBS8000-18-D	18-5/8" deep frames
12" to 20"	WSBS8000-22-D	22-1/8" deep frames
14" to 24"	WSBS8000-25-D	25-5/8" deep frames

*If rear mounting angles are positioned completely to the rear.

- F. Will support a full 17" wide chassis in a 19" wide panel space.
- G. Will support a full 22" wide chassis in a 24" wide panel space.
- H. Meets with following MIL specifications:
 - (1) Steel: MIL-QQ-S-636
 - (2) Salt Spray: 100 hours of 20% salt fog at 95° temp.
 - (3) Lubrication: MIL-L-22273 and QPL-25504-1
 - (4) Plating: MIL-QQ-2-325, Class 2, Type II
- J. All mounting hardware included.

NOTE: If desired, any one of the above slides may be used in frames of lesser depths than notated above, by moving the rear or front mounting angles to the dimensional position required by length of slides ordered, or by ordering an additional pair of mounting angles.

PLUGMOLD WIRING STRIP



DESCRIPTION

- A. Wired with No. 12 type TW conductors
- B. NEMA Grounded Brown outlets (15A, 125V) 6" on centers.
- C. Wire leads: 5" long
- D. Duplex 2-wire outlets
- E. Furnished with end fittings
- F. Listed by Underwriters' Laboratories
- G. Manufactured by "The Wiremold Company"
- H. Sold separately or installed at factory.

ORDERING CHART

CAT. NO.	LENGTH	NUMBER OF OUTLETS
WPM4050	3' - 0"	6
WPM4051	6' - 0"	12

DESCRIPTION

- A. Shim strip used behind 1/8" thick flat 19" or 24" rack panels to create flush appearance.

ORDERING CHART

HT.	CAT. #	HT.	CAT. #
1-3/4"	WH80	12-1/4"	WH86
3-1/2"	WH81	14"	WH87
5-1/4"	WH82	15-3/4"	WH88
7"	WH83	17-1/2"	WH89
8-3/4"	WH84	19-1/4"	WH90
10-1/2"	WH85	21"	WH91

WYCO COLORS

TYPE	COLOR	QUANT.	CAT. #	TYPE	COLOR	QUANT.	CAT. #
Baking	Lite Grey	Qt.	WBLG	Air Dry	Lite Grey	Qt.	WALG
Baking	Dark Grey	Qt.	WBDG	Air Dry	Drk. Grey	Qt.	WADG
Baking	Nordic Blue	Qt.	WBND	Air Dry	Nordic Blue	Qt.	WAND
Baking	Lite Blue	Qt.	WBLB	Air Dry	Lite Blue	Qt.	WALB
Baking	Gold	Qt.	WBGD	Air Dry	Gold	Qt.	WAGD
Baking	Lite Tan	Qt.	WBLT	Air Dry	Lite Tan	Qt.	WALT
Baking	Medium Tan	Qt.	WBMT	Air Dry	Medium Tan	Qt.	WAMT
Baking	Black	Qt.	WBB	Air Dry	Black	Qt.	WAB



DESCRIPTION

- A. Panel screws for rack panels
- B. 10/32 thread - 1-1/8" long
- C. Bright nickel plated
- D. Phillips recess head
- E. CAT. #WH-40



- A. Cup washers for panel screws
- B. Bright nickel plated
- C. CAT. #WH-41



- A. Nylon cup washer insert
- B. Used with #WH-41 to protect paint finish on panels
- C. CAT. #WH-45



- A. 1/4-20 bolt with lock washer
- B. Cadmium plated
- C. Phillips recess head
- D. Used for bolting Stantron frames side-by-side
- E. CAT. #WH72



- A. 1/4-20 hex bolt
- B. Cadmium plated
- E. CAT. #WH73

SEE PAGES 291 TO 294 FOR LIST AND DOLLAR VOLUME DISCOUNTS

Wyco Metal Products



ALL-WELDED CABINET RACKS

DELUXE SERIES "G" AND "DF" — STANDARD SERIES "SL" AND "S"

DESCRIPTION:

- A. 16 ga. high quality steel.
- B. Welded together.
- C. Panel mounting angles $\frac{1}{8}$ " steel.
- D. Western Electric spacing.
- E. Tapped 10/32.
- F. Louvres rear door.
- G. Rear door hung on loose-pin hinges.
- H. Rear door has flush-type latch.
- I. Highly-polished trim at front, top and bottom.
- J. Front corners rounded.
- K. Available grey or black wrinkle and silver grey hammertone.
- L. "SL" and "S" series have detachable vertical trim.
- M. "G" and "DF" series panel mounting angles adjustable front to back.
- N. "DF" series has front door with automotive type handle and three point catch.
- O. "SL" series has louvres at sides.
- P. Narrow vertical trim can be ordered for "SL" and "S" series.

SPECIFICATIONS:

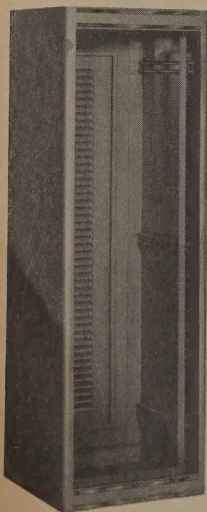
Cat. No.	Overall Dim.	Panel Space	Approx. Ship. Wt. Lbs.	Net each	
				7-5	6-10
G 6119	67 $\frac{3}{8}$ " x 22" x 18"	61 $\frac{1}{4}$ " x 19"	163	94.18	89.29
G 7019	76 $\frac{1}{8}$ " x 22" x 18"	70" x 19"	185	105.98	100.40
G 7719	83 $\frac{1}{8}$ " x 22" x 18"	77" x 19"	195	117.72	111.53
DF 1961	67 $\frac{3}{8}$ " x 22" x 18"	61 $\frac{1}{4}$ " x 19"	185	117.72	111.53
DF 1970	76 $\frac{1}{8}$ " x 22" x 18"	70" x 19"	200	135.11	128.00
DF 1977	83 $\frac{1}{8}$ " x 22" x 18"	77" x 19"	210	146.91	139.18
SL 1842	42 $\frac{3}{8}$ " x 21 $\frac{1}{8}$ " x 18"	36 $\frac{3}{4}$ " x 19"	107	67.57	64.02
SL 1867	67 $\frac{3}{8}$ " x 21 $\frac{1}{8}$ " x 18"	61 $\frac{1}{4}$ " x 19"	145	87.48	82.87
SL 1883	83 $\frac{1}{8}$ " x 21 $\frac{1}{8}$ " x 18"	77" x 19"	177	111.02	105.17

STANDARD "S" SERIES FOR 19" RACK PANELS

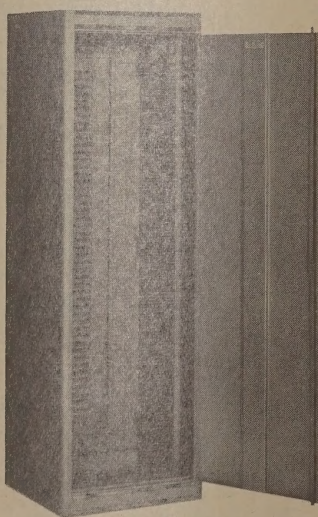
SPECIFICATIONS:

A. ALL SPECIFICATIONS AND DIMENSIONS OF "SL" SERIES APPLY, EXCEPT FOR FOLLOWING:

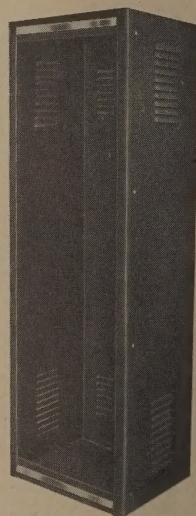
- (1) LOUVRES AT SIDE ARE OMITTED to facilitate use of racks in rows or "gangs."
- (2) When it is desirable to set up these cabinets in rows or "gangs," we can supply a connecting trim for a small additional charge. Order connecting trim, using prefix "AS" plus the last two numbers of the catalog number of the cabinet.
- (3) Catalog Numbers are prefaced with "S" instead of "SL"



"G" SERIES
ADJUSTABLE MOUNTING ANGLE



"DF" SERIES
ADJUSTABLE MOUNTING ANGLE



"SL" SERIES
DETACHABLE VERTICAL TRIM
AT FRONT CORNERS

Wyco Metal Products

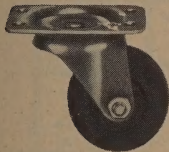


CABINET RACKS - RELAY RACKS EXPAND-A-RACKS

MODEL "W" AND BANNER "B" SERIES

DESCRIPTION: "W" SERIES

- A. 16 gauge high-quality steel.
- B. Front corners are rounded.
- C. Panel mounting angles $1\frac{1}{2} \times 1\frac{1}{2} \times \frac{1}{8}$ steel.
- D. Mounting holes tapped 10/32 thread.
- E. Mounting holes are UNIVERSAL CENTERS.
- F. Louvers in rear door and sides.
- G. Door hung on loose pin hinges.
- H. Door closed by two flush-type latches.
- I. Highly-polished trim on front.
- J. RACK IS SHIPPED "KNOCKED-DOWN"; all necessary bolts supplied for assembly.
- K. Finished in black or grey wrinkle and silver grey hammertone.
- L. There are four brackets spot welded to the bottom of the cabinet. Our casters (catalog No. RC100) can be attached to these brackets. This offers instant mobility, if required.



CASTERS

DESCRIPTION:

- A. Can be used with our "W" series and Expand-A-Rack series.
- B. Load capacity of a set of four is 520 lbs.
- C. The swivel bearing wheels are made of a hard fibrous compound.

CATALOG NO. RC-100 APPROX. SHIP. WT. EACH 8 oz.
Net Ea. \$1.10

SPECIFICATIONS:

Catalog Number	Overall Dimensions	Panel Space	Clear Inside Width (Front)	Clear Inside Width (Rear)	Clear Inside Depth	Approx. Shipping Weight	1-2	3-9	10-15
W 1036	42 x 22x17 $\frac{1}{4}$	36 $\frac{3}{4}$ x19	17 $\frac{7}{8}$	17 $\frac{1}{4}$	15 $\frac{5}{8}$	88 lbs.	45.17	36.59	32.93
W 1042	47 $\frac{1}{4}$ x22x17 $\frac{1}{4}$	42 x19	17 $\frac{7}{8}$	17 $\frac{1}{4}$	15 $\frac{5}{8}$	95 lbs.	51.10	41.39	37.25
W 1061	66 $\frac{1}{2}$ x22x17 $\frac{1}{4}$	61 $\frac{1}{4}$ x19	17 $\frac{7}{8}$	17 $\frac{1}{4}$	15 $\frac{5}{8}$	122 lbs.	63.96	51.80	46.62
W 1077	82 $\frac{1}{4}$ x22x17 $\frac{1}{4}$	77 x19	17 $\frac{7}{8}$	17 $\frac{1}{4}$	15 $\frac{5}{8}$	148 lbs.	76.57	62.02	55.82
B 1876	76 $\frac{1}{2}$ x21 $\frac{1}{2}$ x18	70 x19	17 $\frac{7}{8}$	17 $\frac{1}{4}$	16 $\frac{1}{2}$	178 lbs.	118.27	112.04	—

DESCRIPTION: "B" SERIES

- A. 16 gauge high-quality steel and is welded together.
- B. Panel mounting angles $1\frac{1}{2} \times 1\frac{1}{2} \times \frac{1}{8}$ angle iron.
- C. Mounting holes are 10/32 thread.
- D. (WESTERN ELECTRIC SPACING.)
- E. Louvers in rear doors.
- F. Rear corners re-inforced.
- G. Door hung on loose pin hinges.
- H. Door closed by two flush-type latches.
- I. Highly-polished trim on front.
- J. Panel mounting screws concealed by vertical trim.
- K. Finished in black or grey wrinkle enamel and silver grey hammertone.
- L. When it is desirable to set up racks in rows or "gangs," order connecting trim, using the prefix "AB" plus the last two numbers of the catalog number of the cabinet.



"B" SERIES



"W" SERIES

EXPAND-A-RACK SERIES

DESCRIPTION:

- A. When it is necessary to join two or more racks together, WYCO METAL PRODUCTS offers the "EXPAND-A-RACK" series.
- B. Figure "A" shows two Expand-A-Racks joined together.
- C. Figure "B" illustrates the method of expanding your present rack space. In place of purchasing an additional rack, a unit, consisting of the following items, would be bought: (a) the door; (b) the top; (c) the bottom; (d) an Expand-A-Rack joining unit. The right or left side of your existing relay cabinet rack is dis-assembled and replaced with an Expand-A-Rack joining unit. Following this step, the top and bottom are assembled. The cabinet side removed from the original rack is then fastened onto the second rack. Upon hanging the additional door, two complete racks are now joined together.
- D. Wyco's Expand-A-Rack series may be purchased by one of two methods. One method consists of buying one complete rack (the "W" series) plus one Expand-A-Rack unit. If you already have one of our basic "W" series cabinets, then order an Expand-A-Rack unit.
- E. Supports are electronically welded to the bottom to receive our casters (#RC-100).
- F. There is an ample amount of compound knockouts in the Expand-A-Rack joining unit center partition. This allows cables and leads to be taken from one cabinet to the other.
- G. Available in Grey or Black Wrinkle and Silver Grey Hammertone.

SPECIFICATIONS:

Cat. No.	Used to Expand-A-Rack With	Approx. Ship. Wt. Lbs.	1-2	Net Ea. 3-9	10-15
E-400	W-1036	74	44.34	35.92	32.33
E-401	W-1042	78	49.01	39.70	35.73
E-402	W-1061	99	60.95	49.37	44.43
E-403	W-1077	126	74.90	60.67	54.60

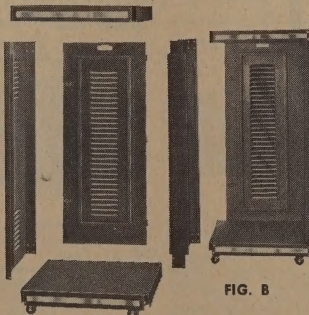


FIG. B

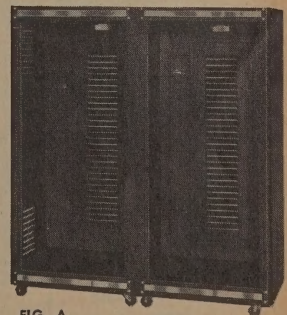
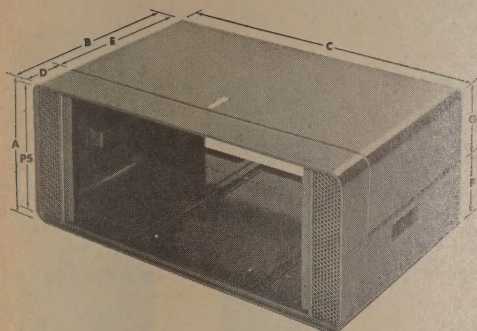


FIG. A

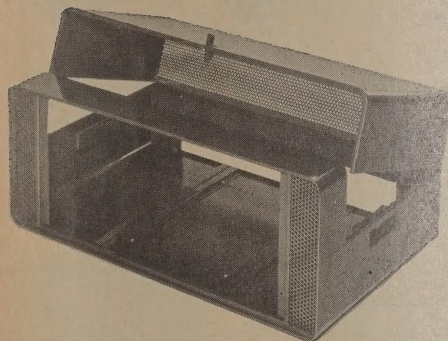
Wyco Metal Products



THE "SUPREME LINE" CABINET SERIES AND PORTABLE SCOPE DOLLY



FRONT VIEW



FRONT VIEW — TOP DOOR OPEN

DESCRIPTION:

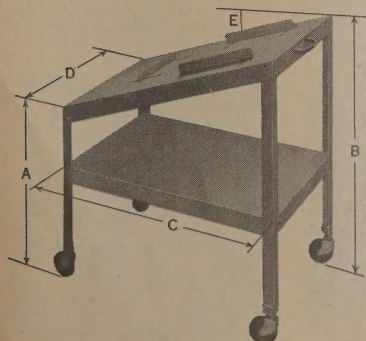
- A. Fabricated of 16 ga. steel.
- B. Mounting holes tapped 10-32.
- C. Mounting holes: Universal spacing.
- D. Ventilated by perforated metal front, louvred back and rear opening.
- E. Top door has continuous piano hinge.
- F. Top door has flush-type latch.
- G. Embossed feet with rubber bumpers at bottom.
- H. Adjustable Hat-section type rails, furnished to support chassis, have holes for bolting to cabinet bottom and chassis.
- I. Recessed carrying handles are in sides of cabinet.
- J. Finished in dark grey hammertone.
- K. Utilization of our standard aluminum or steel panels in silver grey hammertone finish with this series creates an attractive contrast.

SPECIFICATIONS

CAT #	PANEL SPACE	A	B	C	D	E	F	G	H	I	Approx. Ship.	Net each
											Wt. Lbs.	
SL 7760	7x19	7 3/4	15	24	3	12	3 7/8	3 7/8	3 1/8	3 7/8	25	30.20 28.69
SL 7761	8 3/4x19	9 1/4	15	24	3	12	4 3/4	4 3/4	3 1/8	4 3/4	23	32.20 30.59
SL 7762	10 1/2x19	11 1/4	15	24	3	12	5 5/8	5 5/8	3 1/8	5 5/8	27	34.20 32.49
SL 7763	12 1/4x19	13	15	24	3	12	6 1/2	6 1/2	3 1/8	6 1/2	29	38.73 36.79
SL 7764	14x19	14 3/4	15	24	3	12	7 3/8	7 3/8	3 1/8	7 3/8	31	43.05 40.90

DESCRIPTION

- A. Shelves fabricated of high-quality steel.
- B. Legs fabricated of structural steel for strength.
- C. Highly - polished functional handle included.
- D. By adjusting brackets on the top shelf, almost any popular type of laboratory scope may be carried.
- E. Full - swivel 3" rubber casters included.
- F. Painted in smooth grey enamel.
- G. Shipped knocked-down with all necessary hardware for easy assembly.

PORTABLE
SCOPE DOLLY

CAT. #	Type	"A"	"B"	"C"	"D"	"E"	Approx. Ship.	Net each
							Wt.	
SD 7783	sloping	21 3/4"	32 1/2"	28"	19"	20"	30#	37.33 35.46

Wyco Metal Products



SLIDES — SLIDE ASSEMBLIES

SLIDING DRAWERS

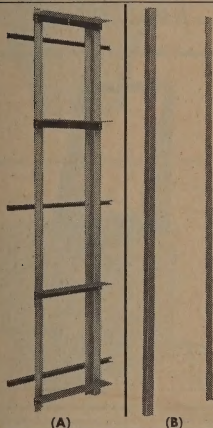
VERTICAL SLIDE SUPPORTS — EXTRA MOUNTING ANGLES

HEAVY DUTY CASTERS

(A) VERTICAL SIDE SUPPORTS

Description: (A) Bolts to Unistrut members in following series cabinets: G/DF. (B) 12 ga. steel; painted hammertone. (C) 10-32 holes. Universal spacing. (D) Supports shelves, mounting brackets and slide units. (E) Support brackets not included; order separately. (F) Mounting hardware included.

Cat. No.	Panel Space	Shp. Wt.	Net ea. 1-5	per set 6-15
ZA-7757	61 1/4"	30	20.38	19.36
ZA-7758	70"	34	23.71	22.53
ZA-7759	77"	38	26.54	25.21

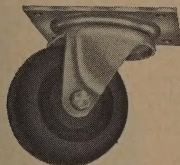


(B) EXTRA MOUNTING ANGLES

Description: (A) Order when additional pair mounting angles required for following cabinet series: DF/G. (B) 12 ga. steel; painted grey hammertone. (C) 10-32 holes; WE spacing.

Cat. No.	Panel Space	Shp. Wt.	Net ea. 1-5	per pr. 6-15
MA-7774	61 1/4"	22	17.48	16.61
MA-7775	70"	26	19.89	18.90
MA-7776	77"	30	21.73	20.64

HEAVY DUTY CASTER



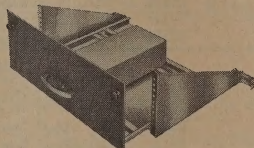
Description: (A) Capacity: 200# per caster. (B) 4" x 1 5/8" full-swivel wheel. (C) All rubber cushion tread, hard fibrous center. (D) Used on RW/FW cabinet series. Catalog #RC-7773

Net Each

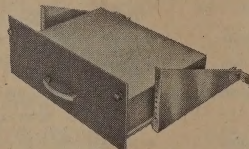
1-20:	5.18	21-30:	4.29	31-40:	4.19
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PHOTOGRAPHS A, B, C, D, ARE EXAMPLES OF SLIDE ASSEMBLIES FOR 19" RACKS

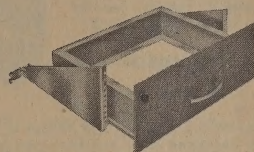
(A) Example: Slide Assembly Using Chassis LESS Than 17" Width



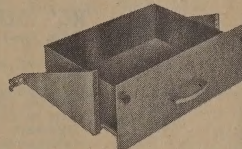
(C) Example: Slide Assembly Using 17" Wide Chassis



(B) Example: Slide Assembly Using Chassis Frame

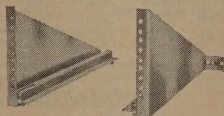


(D) Example: Slide Assembly Using Drawer



ORDER COMBINATION OF PARTS, DESCRIBED BELOW, TO BUILD ASSEMBLIES, AS REQUIRED, FOR 19" RACK MOUNTING

SLIDES FOR 17" WIDE CHASSIS

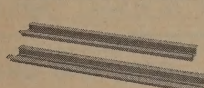


Catalog #BS-7777

Net ea. 1-5: 7.77 6-15: 7.38

Description: (A) Supports 17" wide chassis. (B) Supports 75 lbs. in extended position. (C) Travels on roller bearings. (D) 14" deep in closed position. (E) Extends 10" to front when pulled out. (F) Attaches to rear side of mounting angle. (G) Fabricated of heavy-gauge, plated steel.

SUPPORTS FOR CHASSIS LESS THAN 17" WIDE

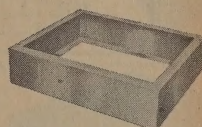


Catalog #BS-7778

Net ea. 1-5: 2.29pr 6-15: 2.18pr

Description: (A) Used with BS-7777 to support any chassis less than 17" wide. (B) Heavy-gauge, plated steel. (C) Includes hardware for attaching to basic slides.

CHASSIS FRAMES

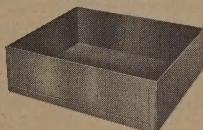


Catalog #BS-7779

Net ea. 1-5: 5.12 6-15: 4.86

Description: (A) Size 17" x 14" x 3" x 1" flange. (B) 1" flange supports plywood for record changer. (C) Heavy-gauge, plated steel. (D) Includes hardware for attaching to basic slides.

DRAWER

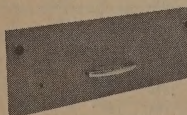


Catalog #BS-7780

Net ea. 1-5: 8.96 6-15: 8.51

Description: (A) Size: 17" wide x 14" deep x 5" high. (B) Heavy-gauge steel. (C) Painted black enamel. (D) Includes hardware for attaching to basic slides.

FRONT SLIDE PANEL



Cat. No.	Size	Net each 1-5	6-15
BS-7781	7" x 19"	4.59	4.36
BS-7782	10 1/2" x 19"	5.22	4.96

Description: (A) Used as front panel; attaches to slide assembly. (B) 12 gauge steel. (C) Handle and quick-turn latches included. (D) Colors: Grey and Black wrinkle or grey hammertone.

STANDARD CHASSIS



Description: (A) Standard aluminum or steel chassis may be used with our slide unit. (B) See list of sizes described in this catalog.

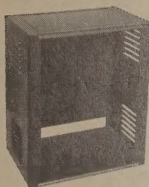
Wyco Metal Products



CABINET RACKS - RELAY RACKS CHASSIS - CASES

MODEL "C" SERIES DESCRIPTION:

- Constructed of heavy gauge high-quality steel and is completely welded together.
- Front vertical corners rounded.
- Mounting holes tapped 10/32 thread.
- Mounting holes spaced on UNIVERSAL CENTERS.
- Louvers in side provide ample ventilation.
- Highly-polished trim at top and bottom of front.
- Top door has piano hinge and flush-type latch.
- Finished in black or grey wrinkle and silver grey hammertone.
- Embossed feet on bottom minimize marring of table tops.



SPECIFICATIONS:

(DOOR IN TOP ONLY)

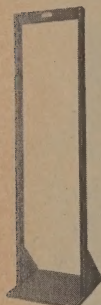
Catalog Number	Dimensions	Panel Space	Approx. Shipping Weight	Net Each		
				1-2	3-9	10-15
C719	8 3/4 x 22 x 15 Deep	7 x 19	25 lbs.	15.28	12.38	11.14
C819	10 1/2 x 22 x 15 Deep	8 3/4 x 19	27 lbs.	16.70	13.53	12.18
C1019	12 1/4 x 22 x 15 Deep	10 1/2 x 19	28 lbs.	19.12	15.49	13.94
C1219	14 x 22 x 15 Deep	12 1/4 x 19	30 lbs.	20.12	16.30	14.68
C1419	15 3/4 x 22 x 15 Deep	14 x 19	32 lbs.	22.96	17.78	16.00

(DOOR IN TOP AND REAR)

Catalog Number	Dimensions	Panel Space	Approx. Shipping Weight	Net Each		
				1-2	3-9	10-15
C1719	19 1/4 x 22 x 15 Deep	17 1/2 x 19	36 lbs.	26.22	21.24	19.12
C2119	22 3/4 x 22 x 15 Deep	21 x 19	40 lbs.	28.06	22.72	20.45
C2619	28 x 22 x 15 Deep	26 1/4 x 19	43 lbs.	30.14	24.42	21.98
C3119	33 1/4 x 22 x 15 Deep	31 1/2 x 19	47 lbs.	31.98	25.90	23.31
C3619	36 3/4 x 22 x 15 Deep	35 x 19	50 lbs.	33.65	27.26	24.53

"RC" SERIES

- Rack constructed of 1/8" high-quality steel.
- Mounting holes are tapped 10-32 thread.
- Mounting holes are spaced on UNIVERSAL CENTERS.
- Base is 20" x 20".
- SHIPPED "KNOCKED-DOWN"; all necessary bolts supplied for assembly.
- FINISH: Grey hammertone or Black Wrinkle.



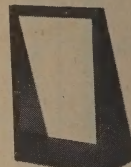
"RC" SERIES

SPECIFICATIONS:

Catalog Number	Panel Space	Approx. Shipping Weight	Net each		
			1-2	3-9	10-15
RC36	36 3/4 x 19	28 lbs.	21.96	17.78	16.00
RC71	71 3/4 x 19	41 lbs.	25.18	20.36	18.32

"RT" SERIES

- Rack constructed of heavy gauge high-quality steel.
- Mounting holes are tapped 10/32 thread.
- Mounting holes are spaced on UNIVERSAL CENTERS.
- SHIPPED "KNOCKED-DOWN"; all necessary bolts supplied for assembly.
- FINISH: Grey hammertone or Black Wrinkle.



"RT" SERIES

Catalog Number	Panel Space	Height	Width	Depth	Approx. Shipping Weight	Net each		
						1-2	3-9	10-15
RT21	21 x 19	25"	21"	12"	16 lbs.	9.10	7.37	6.63
RT28	28 x 19	32"	21"	12"	18 lbs.	11.19	9.06	8.15

OPEN END CHASSIS

DESCRIPTION:

Fig. A

- Can be utilized on all types of small built-up units such as record amplifier, code oscillator, etc.
- Electro-Zinc plated.

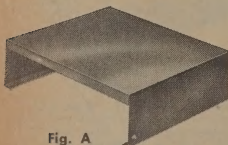


Fig. A

MINIATURE ALUMINUM CHASSIS

DESCRIPTION:

Fig. B

- Ideal for miniature tube applications, sub-assemblies, small receivers, narrow band FM adaptors.
- Has 1/4" flanges on bottom.
- Natural aluminum finish.



Fig. B

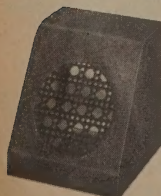
Catalog Number	Depth	Width	Height	Approx. Shipping Wt.-Lbs.	Net each		
					1-24	25-50	51-100
E-570	7"	6"	2"	1	1.00	.81	.73
E-571	5"	7"	1 1/2"	3/4	.97	.78	.70
E-572	7"	7"	1 1/2"	3/4	1.24	1.01	.91
E-573	7"	8"	2"	1	1.17	.95	.86
E-574	5 1/2"	9"	1 1/2"	3/4	1.09	.88	.79
E-575	7 1/2"	9"	1 1/2"	1	1.40	1.13	1.02
E-576	7"	10"	2"	1 1/4	1.37	1.11	1.00
E-577	7"	11"	1 1/2"	1 1/4	1.30	1.05	.95
E-578	7"	13"	1 1/2"	1 1/2	1.59	1.29	1.16
E-579	10 3/4"	14"	2"	2 1/2	1.87	1.51	1.36
E-580	7 3/4"	15"	2"	2	1.78	1.44	1.30

Catalog Number	Depth	Width	Height	Approx. Shipping Wt.-Lbs.	Net each		
					1-24	25-50	51-100
MA-700	2 5/8"	2 3/4"	1 1/4"	1/4	.38	.31	.28
MA-701	1 3/4"	3 3/8"	1"	1/4	.42	.34	.31
MA-702	3 1/4"	4 1/2"	2"	1/4	.48	.39	.35
MA-703	2 3/4"	4 1/2"	1 1/2"	1/4	.45	.37	.33
MA-704	3 3/4"	4 1/2"	1"	1/4	.45	.37	.33
MA-705	3"	6 1/2"	1 1/4"	1/4	.53	.43	.39
MA-706	5 3/4"	4 7/8"	1 1/2"	1/4	.57	.46	.41
MA-707	4"	3 1/2"	1"	1/2	.41	.33	.30
MA-708	4"	4 1/2"	1"	1/2	.50	.41	.37
MA-709	4"	5 1/2"	1"	1/2	.53	.43	.39
MA-710	4"	6 1/4"	1"	1/2	.55	.45	.41

MINIATURE SPEAKER CASE

DESCRIPTION:

- Houses midget 2" or 3" speaker.
- Silver Grey Hammertone Finish.



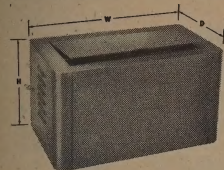
SPECIFICATIONS:

Catalog Number	Hole Diameter	Fits Speaker Size	Approx. Ship. Wt. Lbs.	Net each		
				1-24	25-50	51-100
MS-80	2 1/4"	2"	3/4	1.58	1.42	1.28
MS-81	2 13/16"	3"	3/4	1.58	1.42	1.28

Wyco Metal Products



RECEIVER CABINETS - SLOPING PANEL/TOP OPENING - MULTI-USE CABINETS - CHASSIS DECK

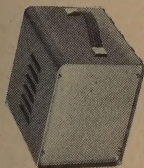


MODEL "CS" RECEIVER CABINET
(Description)

(A.) Front vertical corners are rounded. (B.) Has recessed, hinged, top door. (C.) Top door opened by finger lift. (D.) Removable front panel, included, is attached with self-tapping screws. (E.) Louvers in side provide ventilation. (F.) Silver grey hammertone only.

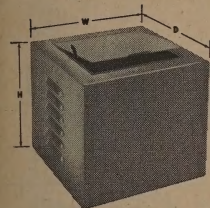
Cat. #	H	W	D	Panel Size	Approx. Ship. Wt. Lbs.	Net each		
						1-9	10-50	51-100
CS 7727	8"	10 1/2"	8 1/4"	8" x 8"	6 1/4	4.31	3.49	3.14
CS 7728	8"	12 1/2"	8 1/4"	8" x 10"	6 1/2	5.31	4.30	3.87
CS 7729	8"	14 1/2"	8 1/4"	8" x 12"	7	5.78	4.68	4.21
CS 7730	8"	16 1/2"	8 1/4"	8" x 14"	7 1/2	6.05	4.91	4.42
CS 7731	8"	18 1/2"	8 1/4"	8" x 16"	8 1/4	6.63	5.37	4.83
CS 7732	12"	20 5/8"	12"	12" x 18"	15 1/2	12.06	9.76	8.78

CARRY-CASE CABINET
(Description)



(A.) Fabricated of one piece .050 aluminum with radius corners. (B.) Front panel included is made of .062 aluminum and is recessed 1/2". (C.) Flexible handle included. (D.) Recessed louvers each side provide good ventilation. (E.) Four removable rubber feet provided. (F.) Silver grey hammertone finish.

Cat. #	H	W	D	Rear Opening	Louvre Ea. Side	Net each		
						1-9	10-50	51-100
CC 7784	8"	6 1/8"	8"	4 1/2" x 2"	1 Row	9.60	8.64	7.78
CC 7785	9"	8 1/8"	12"	6 1/2" x 2"	2 Rows	12.55	11.30	10.17
CC 7786	8"	10 1/8"	8"	8 1/2" x 2"	1 Row	11.15	10.05	9.00
CC 7787	11"	11 1/8"	18"	9 1/2" x 2"	3 Rows	14.15	12.75	11.45



MODEL "CR" RECEIVER CABINET
(Description)

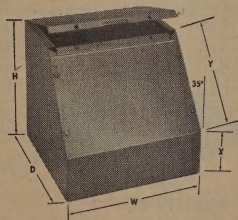
(A.) Front vertical corners are square. (B.) Top door is recessed and hinged. (C.) Top door has finger lift. (D.) Removable front panel, included, is attached with self-tapping screws. (E.) Ventilation is supplied by louvers. (F.) Finished in silver grey hammertone only.

Cat. #	H	W	D	Approx. Ship. Wt. Lbs.	Net each		
					1-9	10-50	51-100
CR 7720	7"	8"	8"	5 1/2	4.18	3.88	3.04
CR 7721	7"	10"	8"	6	4.84	3.92	3.53
CR 7722	7"	12"	8"	6 1/4	5.01	4.06	3.65
CR 7723	7"	14"	8"	6 1/2	5.26	4.26	3.83
CR 7724	8"	16"	8"	7 1/2	7.60	6.16	5.54
CR 7725	9"	15"	11"	8 1/2	9.19	7.44	6.70
CR 7726	12"	18"	12"	15 1/2	9.92	8.04	7.24

SLOPING PANEL/TOP OPENING CABINET

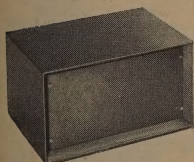
(Description)

(A.) Sloping front panel, included, is attached with self-tapping screws. (B.) Hinged, top door has finger lift. (C.) Opening at back for leads and ventilation. (D.) Silver grey hammertone only.



Cat. #	H	W	D	X	Y	Approx. Ship. Wt. Lbs.	Net each		
							1-9	10-50	51-100
SC 7739	6 1/2"	7 1/8"	7 1/8"	2 1/4"	5 1/8"	3	3.30	2.67	2.40
SC 7740	8"	8 1/4"	8"	2 1/4"	6 1/8"	3 1/4	4.51	3.65	3.29
SC 7741	6 1/2"	9 1/8"	7 3/8"	2 1/4"	5 1/8"	3 1/2	3.75	3.04	2.74
SC 7742	8"	10 1/8"	8"	2 1/4"	6 7/8"	3 3/4	5.01	4.06	3.65
SC 7743	6 1/2"	11 1/8"	7 3/8"	2 1/4"	5 1/8"	4	4.34	3.52	3.17
SC 7744	8"	14 1/8"	8"	2 1/4"	6 7/8"	4 1/2	5.34	4.33	3.90
SC 7745	8"	13 1/8"	8 1/2"	2 3/4"	6 1/8"	4 3/4	5.59	4.53	4.08
SC 7746	9"	18 1/8"	8 1/8"	2 1/4"	6 1/8"	7 1/2	7.68	6.22	5.60
SC 7747	10"	18 1/8"	10 1/2"	3 1/4"	8 1/8"	8 3/4	7.85	6.36	5.72

SHADOW-BOX INSTRUMENT CABINET (Description)



(A.) Front panel, rear panel and bottom removable for both installation and/or servicing. (B.) Front panel recessed 1" within beveled cabinet front. (C.) Front/rear panel: 16 ga. steel. (D.) Cabinet body and bottom: 18 ga. steel. (E.) Four removable rubber feet included. (F.) Silver grey hammertone finish.

Cat. #	H	W	D	1-9	Net each		
					10-50	51-100	
SBC 7788	8"	14 1/4"	10"	6.80	6.12	5.50	
SBC 7789	7 1/2"	13 1/4"	9"	5.70	5.13	4.62	
SBC 7790	9 1/2"	17"	11"	9.30	8.37	7.53	
SEC 7791	6"	15 1/2"	9"	5.60	5.04	4.54	

Wyco Metal Products

WYCO
METAL PRODUCTS

CHASSIS

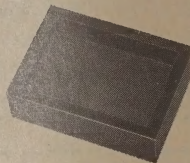
Cad. Plated Cat. No.	STEEL				Approx. Ship. Wt.-Lbs.	Net each		
	Depth	Width	Ht.	Ga.		1-24	25-50	51-100
CP-1300	5"	7"	2"	22	1	1.30	1.05	.95
CP-1301	5"	9 1/2"	2 1/2"	22	1 1/4	1.67	1.35	1.22
CP-1302	5"	9 1/2"	1 1/2"	22	1	1.69	1.37	1.23
CP-1303	5"	10"	3"	22	1 1/4	1.84	1.49	1.34
CP-1304	6"	14"	3"	20	1 3/4	2.05	1.67	1.50
CP-1305	7"	7"	2"	22	1 1/2	1.50	1.22	1.10
CP-1306	7"	9"	2"	22	1 1/2	1.59	1.29	1.16
CP-1307	7"	11"	2"	20	1 1/2	1.67	1.35	1.22
CP-1308	7"	12"	3"	20	1 3/4	2.05	1.67	1.50
CP-1309	7"	13"	2"	20	2	1.92	1.58	1.40
CP-1310	5"	13 1/2"	2 1/2"	20	1 3/4	2.17	1.76	1.58
CP-1311	7"	15"	3"	20	2	2.40	1.94	1.75
CP-1312	8 1/2"	15"	3"	20	2 1/2	2.71	2.30	1.98
CP-1313	4"	17"	3"	20	2 1/4	2.14	1.74	1.57
CP-1314	7"	17"	2 1/2"	20	2 1/2	2.37	1.92	1.73
CP-1315	7"	17"	3"	20	1 3/4	2.59	2.10	1.89
CP-1316	8"	10"	2 1/2"	20	2	2.02	1.64	1.48
CP-1317	8"	12"	2 1/2"	20	2 1/2	2.24	1.82	1.64
CP-1318	8"	12"	3"	20	1 3/4	2.34	1.90	1.71
CP-1319	8"	17"	2"	20	2 1/2	2.34	1.90	1.71
CP-1320	8"	17"	3"	20	3 1/4	2.62	2.12	1.91
CP-1321	10"	12"	3"	20	3	2.25	1.83	1.65
CP-1322	10"	14"	3"	20	4	2.44	1.98	1.78
*CP-1323	10"	17"	2"	20	3 1/4	2.39	1.94	1.75
*CP-1324	10"	17"	3"	20	4	2.84	2.30	2.07
*CP-1325	10"	17"	3"	18	5	3.05	2.48	2.23
CP-1326	10"	23"	3"	18	5 1/2	3.42	2.78	2.50
*CP-1327	11"	17"	2"	18	4 1/2	2.81	2.28	2.05
*CP-1328	11"	17"	3"	18	4 1/2	3.49	2.83	2.55
*CP-1329	12"	17"	2"	18	4 1/2	3.09	2.50	2.25
*CP-1330	12"	17"	3"	18	5 1/4	3.67	2.97	2.67
*CP-1331	13"	17"	2"	18	5	3.72	3.02	2.72
*CP-1332	13"	17"	3"	18	5 1/2	4.07	3.29	2.96
*CP-1333	10"	17"	4"	18	6 1/2	3.51	2.84	2.56
*CP-1334	13"	17"	4"	18	7 1/2	4.68	3.79	3.41
CP-1335	10"	17"	5"	18	7 1/2	5.34	4.33	3.90
CP-1336	13"	17"	5"	18	8	5.93	4.81	4.33

Cat. No.	ALUMINUM				Approx. Shipping Wt.-Lbs.	Net each		
	Depth	Width	Ht.	Gauge		1-24	25-50	51-100
CA-2001	4"	6"	3"	18	1/2	1.34	1.09	.98
CA-2002	4"	6"	2"	18	1/2	1.10	.89	.80
CA-2003	4"	17"	3"	16	1 1/4	2.33	1.89	1.70
CA-2004	5"	7"	2"	18	1/2	1.17	.95	.86
CA-2005	5"	7"	3"	16	3/4	1.42	1.15	1.04
CA-2006	5"	9 1/2"	2"	18	1/2	1.24	1.01	.91
CA-2007	5"	9 1/2"	3"	18	3/4	1.60	1.30	1.17
CA-2008	5"	10"	3"	18	3/4	1.63	1.32	1.19
CA-2009	5"	13"	3"	18	3/4	1.84	1.49	1.34
CA-2010	6"	17"	3"	16	1 1/4	2.67	2.16	1.94
CA-2011	7"	7"	2"	18	1/2	1.35	1.10	.99
CA-2012	7"	9"	2"	18	1/2	1.46	1.18	1.06
CA-2013	7"	11"	2"	18	3/4	1.58	1.28	1.15
CA-2014	7"	12"	3"	18	1	2.00	1.62	1.46
CA-2015	7"	13"	2"	18	3/4	1.67	1.35	1.22
CA-2016	7"	15"	3"	16	1 1/2	2.67	2.16	1.94
CA-2017	7"	17"	3"	16	1 3/4	2.75	2.23	2.01
CA-2018	8"	12"	3"	16	1 1/2	2.42	1.96	1.76
CA-2019	8"	17"	2"	16	1 1/2	2.51	2.03	1.83
CA-2020	8"	17"	3"	16	1 3/4	2.84	2.30	2.07
CA-2021	10"	12"	3"	16	1 1/2	2.67	2.16	1.94
CA-2022	10"	14"	3"	16	1 3/4	2.84	2.30	2.07
CA-2023	10"	17"	2"	16	1 1/4	2.68	2.17	1.95
CA-2024	10"	17"	3"	16	2	3.17	2.57	2.31
CA-2025	11"	17"	2"	14	2 1/4	3.42	2.77	2.49
CA-2026	11"	17"	3"	14	2 3/4	3.97	3.21	2.89
CA-2027	12"	17"	3"	14	2 3/4	4.08	3.30	2.97
CA-2028	13"	17"	2"	14	2 1/4	3.51	2.84	2.56
CA-2029	13"	17"	3"	14	2 3/4	4.26	3.45	3.11
CA-2030	10"	17"	4"	14	3 1/2	4.51	3.65	3.28
CA-2031	13"	17"	4"	14	3 3/4	5.26	4.26	3.83

STEEL CHASSIS

DESCRIPTION:

- A. Fabricated from one piece of steel.
 B. All corners electronically spot welded.
 C. Flanges on bottom formed and punched to allow bottom plate to be attached if desired.
 D. Finished in Cad. Plate.
 E. Asterisk indicates holes punched to receive chassis mounting brackets.



ALUMINUM CHASSIS

DESCRIPTION:

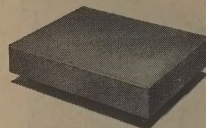
- A. Fabricated of one piece of aluminum, 3003-H14.
 B. All corners are electronically spot welded.
 C. Flanges on bottom formed and punched to allow bottom plate to be attached, if desired.
 D. Natural aluminum finish.
 E. Gauges indicated are aluminum gauges.



HEAVY DUTY CHASSIS AND BOTTOM PLATE

DESCRIPTION:

- A. Made of cold Rolled steel.
 B. Bottom plate included at no additional charge.
 C. Available in Cad. Plate.

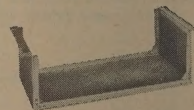


Cad. Plated Cat. No.	Steel Gauge	Depth	Width	Height	Approx. Shipping Wt. - Lbs.	Net each		
						1-24	25-50	51-100
C-627	20	8"	17"	2"	6	4.50	3.65	3.29
C-628	20	8"	17"	3"	7 1/2	4.76	3.85	3.47
C-629	18	11"	17"	2"	8 1/2	4.78	3.87	3.48
C-630	18	11"	17"	3"	9	4.84	3.92	3.53
C-631	18	13"	17"	2"	9 1/2	5.34	4.33	3.90
C-632	18	13"	17"	3"	10	5.43	4.40	3.96
C-633	18	13"	17"	4"	11	5.85	4.74	4.27

PANEL CHASSIS ALUMINUM

DESCRIPTION:

- A. .062 aluminum (3003-H14).
 B. Natural aluminum finish.
 C. Flange notched for mounting to rack mounting angles.



Alum. Cat. #	W.	H.	D.	Alum. Wt.	Net each		
					1-24	25-50	51-100
PC-505	19"	1 3/4	5 1/2	3 1/2	2.30	1.86	1.67
PC-506	19"	3 1/2	5 1/2	1 1/4	2.59	2.10	1.89
PC-507	19"	5 1/4	5 1/2	1 1/2	2.84	2.30	2.07
PC-508	19"	7	5 1/2	2	3.26	2.64	2.38
PC-509	19"	8 3/4	5 1/2	2 1/4	3.76	3.04	2.74
PC-510	19"	10 1/2	5 1/2	2 3/4	4.43	3.59	3.23
PC-511	19"	12 1/4	5 1/2	3	4.84	3.92	3.53
PC-512	19"	14	5 1/2	3 1/4	5.34	4.33	3.90

Wyco Metal Products



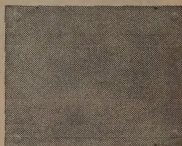
ROLLER TRUCKS - BOTTOM PLATES - SHELVES SUPPORTING ANGLES - MOUNTING BRACKETS

CHASSIS BOTTOM PLATES

STEEL AND ALUMINUM

DESCRIPTION:

- Protects component parts and wiring from dust.
- Four embossed feet protect table top or other surfaces from being marred.
- Catalog number R6023 to R6045 are Cad plated steel.
- Catalog numbers R6046 to R6055 are Natural aluminum finish.



Cad. Plated Cat. No.	W.	L.	Ship. Wt.	Net each		
				1-24	25-50	51-100
R-6023	5"	7"	1/2	.62	.56	.50
R-6024	5"	9 1/2"	3/4	.68	.61	.55
R-6025	5"	10"	3/4	.66	.59	.53
R-6026	7"	7"	1	.87	.78	.70
R-6027	7"	9"	1	.89	.80	.72
R-6028	7"	11"	1	.96	.86	.77
R-6029	7"	12"	1 1/4	1.01	.91	.82
R-6030	7"	13"	1 1/4	1.08	.97	.87
R-6031	5"	13 1/2"	1	.90	.81	.73
R-6032	7"	15"	1 1/4	1.23	1.11	1.00
R-6033	8 1/2"	15"	1 1/2	1.32	1.19	1.07
R-6034	4"	17"	1 1/2	.96	.86	.77

Alum. Cat. No.	W.	L.	Ship. Wt.	Net each		
				1-24	25-50	51-100
R-6046	5"	7"	1/2	.67	.60	.54
R-6047	5"	9 1/2"	3/4	.68	.61	.55
R-6048	5"	10"	3/4	.68	.61	.55
R-6049	7"	7"	1 1/2	.69	.62	.56
R-6050	7"	9"	1 1/2	.81	.73	.66

RACK SHELVES

DESCRIPTION:

- Used to mount heavy power supplies, modulator units, etc.
- Supported by chassis supporting angles which are described on this page.
- Made of heavy gauge steel.
- Finished in black enamel only.



Cat. No.	Size	Wt. Lbs.	Net each		
			1-24	25-50	51-100
S195	19"x15"	6 1/2	3.12	2.81	2.53
S196	19"x12"	5 1/2	2.38	2.14	1.93
S197	17 5/8"x14 1/4"	5	3.01	2.71	2.44
S198	17 5/8"x20 1/4"	5 1/2	3.94	3.55	3.20

ROLLER TRUCKS

SPECIFICATIONS:

- Roller Truck constructed from heavy gauge high-quality steel.
- Casters have 2" rubber wheels and are ball-bearing swivel type.
- Finished in grey only.



CHASSIS SUPPORTING ANGLES

DESCRIPTION:

- Used when heavy weights are encountered in chassis construction.
- Distributes weight on sides of rack to relieve panel.
- Made of 1/8" steel.
- Finished in black enamel only.
- Sold in pairs only.

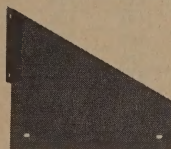


Cat. No.	Length	Wt. Lbs.	Net each		
			1-24	25-50	51-100
A-143	14 1/2"	4	2.25pr.	1.83pr.	1.65pr.
A-144	12"	3	2.17pr.	1.76pr.	1.58pr.
A-145	20"	7	3.34pr.	2.71pr.	2.44pr.

CHASSIS MOUNTING BRACKETS

DESCRIPTION:

- Used to insure proper support of chassis.
- Made of heavy gauge steel.
- Cut away at bottom to provide clearance so that chassis can mount flush against panel.
- Finished in black enamel only.
- Cat. # CB-565 and CB-566 designed for 4" chassis height.
- For 4" chassis height.
- Sold in pairs only.

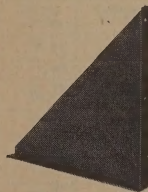


Cat. No.	H.	D.	Wt. Lbs.	Net each		
				1-24	25-50	51-100
CB-560	6 1/2"	8"	1 1/4	1.09pr.	.88pr.	.79pr.
CB-561	6 1/2"	10"	1 3/4	1.35pr.	1.10pr.	.99pr.
CB-562	6 1/2"	11"	2	1.50pr.	1.22pr.	1.10pr.
CB-563	6 1/2"	12"	2	1.75pr.	1.42pr.	1.28pr.
CB-564	6 1/2"	13"	2 1/2	1.69pr.	1.37pr.	1.23pr.
CB-565	8 1/2"	10"	2 1/4	1.97pr.	1.59pr.	1.43pr.
CB-566	8 1/2"	13"	3	2.09pr.	1.69pr.	1.52pr.

TRIANGULAR MOUNTING BRACKETS

DESCRIPTION:

- When large weights are involved in panel and chassis assemblies, triangular mounting brackets are used as supports.
- Fabricated of heavy gauge steel; finished in Black enamel only.
- Sold only in pairs.



Cat. No.	Size	Approx. Ship. Wt.-Lbs.	Net each		
			1-24	25-50	51-100
TB-410	5" x 5"	1	1.00pr.	.81pr.	.73pr.
TB-411	7" x 7"	1	1.17pr.	.95pr.	.86pr.
TB-412	9" x 9"	1 1/2	1.42pr.	1.15pr.	1.04pr.

Catalog No.	Inside Clearance	Approx. Ship. Weight	1-2	6-9
T 18	21 1/2 x 18 1/2	16 lbs.	13.79	12.41
T 19	23 3/8 x 18 3/4	18 lbs.	14.66	13.19

Wyco Metal Products

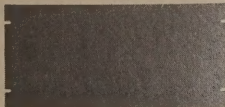


AMPLIFIER FOUNDATIONS - RACK PANELS SLOPING PANEL SUPPORTS - CABINETS

STANDARD RELAY RACK PANELS

DESCRIPTION:

- A. Aluminum: .125 THICK
3003-H18 Alloy
- B. Steel: 11 gauge (.120 THICK)
- C. Finish: Unpainted, primed only, or painted black wrinkle, grey wrinkle, or silver grey hammerstone.



STEEL

Cat. No.	Height	Wt. Lbs.	Net each		
			1-24	25-50	51-100
SP-210	13 1/4"	1 1/4	.84	.68	.61
SP-211	3 1/2"	2 1/4	1.00	.81	.73
SP-212	5 1/4"	3 1/4	1.25	1.02	.92
SP-213	7"	4 1/2	1.42	1.15	1.04
SP-214	8 3/4"	6	1.75	1.42	1.28
SP-215	10 1/2"	7	2.09	1.69	1.52
SP-216	12 1/4"	8 1/4	2.42	1.96	1.76
SP-217	14"	9 1/2	2.84	2.30	2.07
SP-218	15 3/4"	10 3/4	3.09	2.50	2.25
SP-219	17 1/2"	11 3/4	3.51	2.84	2.56
SP-220	19 1/4"	13	3.84	3.11	2.80
SP-221	21"	14 1/4	4.26	3.45	3.11
SP-210-24	13 1/4"	1 1/4	1.68	1.36	1.22
SP-211-24	3 1/2"	2 1/4	2.00	1.62	1.46
SP-212-24	5 1/4"	3 1/4	2.50	2.04	1.84
SP-213-24	7"	4 1/2	2.84	2.30	2.08
SP-214-24	8 3/4"	6	3.50	2.84	2.56
SP-215-24	10 1/2"	7	4.18	3.38	3.04
SP-216-24	12 1/4"	8 1/4	4.84	3.92	3.52
SP-217-24	14"	9 1/2	5.68	4.60	4.14
SP-218-24	15 3/4"	10 3/4	6.18	5.00	4.50
SP-219-24	17 1/2"	11 3/4	7.02	5.68	5.30
SP-220-24	19 1/4"	13	7.68	6.22	5.60
SP-221-24	21"	14 1/4	8.52	6.90	6.22

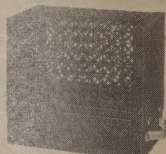
ALUMINUM

Cat. No.	Height	Wt. Lbs.	Net each		
			1-24	25-50	51-100
AP-320	13 1/4"	1/4	1.09	.88	.79
AP-321	3 1/2"	3/4	1.42	1.15	1.04
AP-322	5 1/4"	1	1.93	1.57	1.41
AP-323	7"	1 3/4	2.42	1.96	1.76
AP-324	8 3/4"	2	2.84	2.30	2.07
AP-325	10 1/2"	2 1/2	3.59	2.91	2.62
AP-326	12 1/4"	2 3/4	4.09	3.31	2.98
AP-327	14"	3	4.76	3.85	3.47
AP-328	15 3/4"	3 1/2	5.34	4.33	3.90
AP-329	17 1/2"	4	5.86	4.74	4.27
AP-330	19 1/4"	4 1/4	6.43	5.21	4.69
AP-331	21"	5	7.01	5.68	5.11
AP-320-24	13 1/4"	1/4	2.18	1.76	1.58
AP-321-24	3 1/2"	3/4	2.84	2.30	2.08
AP-322-24	5 1/4"	1	3.86	3.14	2.82
AP-323-24	7"	1 3/4	4.84	3.92	3.52
AP-324-24	8 3/4"	2	5.68	4.60	4.14
AP-325-24	10 1/2"	2 1/2	7.18	5.82	5.24
AP-326-24	12 1/4"	2 3/4	8.18	6.62	5.96
AP-327-24	14"	3	9.52	7.70	6.94
AP-328-24	15 3/4"	3 1/2	10.68	8.66	7.80
AP-329-24	17 1/2"	4	11.72	9.48	8.54
AP-330-24	19 1/4"	4 1/4	12.86	10.42	9.38
AP-331-24	21"	5	14.02	11.36	10.22

AMPLIFIER FOUNDATIONS

DESCRIPTION:

- A. Consists of standard chassis and perforated metal cover.
- B. Includes handles.
- C. Available in Black Wrinkle only.



Cat. No.	Height	Width	Depth	Height Chassis	Shipping Wt. - Lbs.	Net each		
						1-24	25-50	51-100
AF-680	8 3/4"	9 5/8"	5 1/8"	2 1/2"	3	5.61	4.55	4.10
AF-681	8 3/4"	13 5/8"	5 1/8"	2 1/2"	4 3/4	6.43	5.21	4.69
AF-682	8 3/4"	17 1/8"	7 1/8"	2 1/2"	6	7.26	5.88	5.29
AF-683	8 3/4"	17 1/8"	10 1/8"	3"	8	8.50	6.89	6.20
AF-684	8 3/4"	12 1/8"	10 1/8"	3"	7	7.52	6.09	5.48

MINIATURE AMPLIFIER FOUNDATION

DESCRIPTION:

- A. Chassis size 5" x 7" x 2".
- B. Perforated metal cover.
- C. Includes handle.
- D. Black Wrinkle finish only.

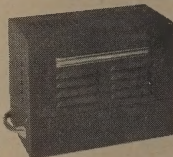


Catalog No.	Approx. Ship. Wt. - Lbs.	1-9	10-50	51-100
MA-1000	2	4.00	3.24	2.92

STREAMLINED AMPLIFIER FOUNDATIONS

DESCRIPTION:

- A. Consists of standard chassis and streamlined removable top cover.
- B. Includes attractive stainless steel trim and handles.
- C. Available in Silver Grey Hammerstone only.



Catalog No.	Width	Depth	Approx. Ship. Wt. - Lbs.	Net each		
				1-24	25-50	51-100
SA-670	10 1/4"	5"	4 3/4	6.76	5.47	4.92
SA-671	12 1/4"	7"	5	8.02	6.50	5.85
SA-672	17 1/4"	7"	8	8.52	6.90	6.21
SA-673	17 1/4"	10"	9	9.27	7.51	6.76

METAL DOOR RACK PANELS

DESCRIPTION:

- A. Used when accessibility to component parts on chassis is necessary.
- B. Made of 1/8" steel.
- C. Available in black or grey wrinkle and silver grey hammerstone.
- D. 19" wide.

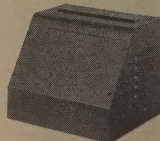


Cat. No.	Height	Door Opening	Wt. Lbs.	Net each		
				1-24	25-50	51-100
RP-310	10 1/2"	15 3/8" x 5 7/8"	7 1/4	6.08	4.92	4.43
RP-311	12 1/4"	15 3/8" x 7 5/8"	8 1/4	7.52	6.09	5.48

SLOPING FRONT CABINET

DESCRIPTION:

- A. Top corner rounded.
- B. Attractive high-polish moulding at top.
- C. Front panel is removable.
- D. Chassis may be mounted to front panel and removed as unit.
- E. Louvers at both sides; vented at rear.
- F. Available in silver grey hammerstone only.



Cat. No.	Height	Width	Depth	1-24	Net each	
					25-50	51-100
K810	8"	8"	8"	5.13	4.16	3.74
K811	8"	10"	8"	7.06	5.72	5.15
K812	8"	14"	8"	8.53	6.91	6.22
K813	12"	18"	12"	11.46	9.28	8.53

NOTE: If desired, an attractive handle can be used with above "K" series cabinet. Holes to mount moulding are spaced for handle, also. Catalog # for handle is HK70. Net ea. \$1.02

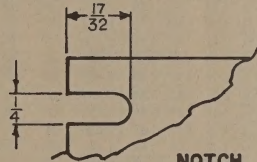
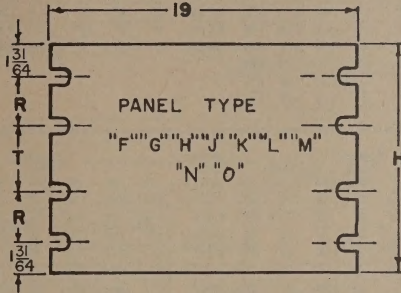
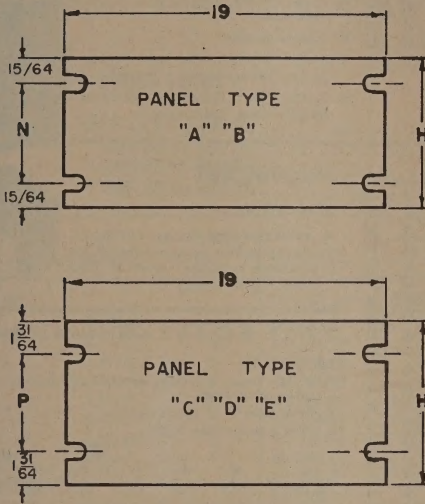
Wyco Metal Products



2024-T3 HARD ALUMINUM PANELS

$\frac{1}{8}$ " (.125) AND $\frac{3}{16}$ " (.188) THICK

RELAY RACK PANEL NOTCHING



NOTCH DETAIL

NOTE: (A) For 3-1/16" Thick Panels, Add (-316). EXAMPLE: HAP-175-316
(B) 24" Wide Panels are available. Add (-24). EXAMPLE: HAP-175-24

Panel Type	Catalog No. $\frac{1}{8}$ " Thick	H	N	P	R	T
"A"	HAP-175	1-23/32	1 $\frac{1}{4}$			
"B"	HAP-350	3-15/32	3			
"C"	HAP-525	5-7/32		2 $\frac{1}{4}$		
"D"	HAP-700	6-31/32		4		
"E"	HAP-875	8-23/32		5 $\frac{1}{4}$		
"F"	HAP-1050	10-15/32			2 $\frac{1}{4}$	3
"G"	HAP-1225	12-7/32			3 $\frac{1}{2}$	2 $\frac{1}{4}$

Panel Type	Catalog No. $\frac{1}{8}$ " Thick	H	N	P	R	T
"H"	HAP-1400	13-31/32			4	3
"J"	HAP-1575	15-23/32			4	4 $\frac{1}{4}$
"K"	HAP-1750	17-15/32			4	6 $\frac{1}{2}$
"L"	HAP-1925	19-7/32			5 $\frac{1}{4}$	5 $\frac{1}{4}$
"M"	HAP-2100	20-31/32			5 $\frac{1}{4}$	6 $\frac{1}{2}$
"N"	HAP-2450	24-15/32			7	7 $\frac{1}{2}$
"O"	HAP-2625	26-7/32			7	9 $\frac{1}{4}$

Cat. No.	Net each		
	1-24	25-50	51-100
HAP-175	1.63	1.47	1.19
HAP-175-316	2.09	1.88	1.69
HAP-350	2.06	1.85	1.66
HAP-350-316	2.62	2.36	2.12
HAP-525	2.72	2.45	2.19
HAP-525-316	3.47	3.12	2.81
HAP-700	3.32	2.99	2.69

Cat. No.	Net each		
	1-24	25-50	51-100
HAP-700-316	4.25	3.82	3.44
HAP-875	3.93	3.54	3.19
HAP-875-316	5.00	4.50	4.05
HAP-1050	4.59	4.13	3.72
HAP-1050-316	5.87	5.28	4.74
HAP-1225	5.25	4.72	4.25
HAP-1225-316	6.73	6.06	5.46

Cat. No.	Net each		
	1-24	25-50	51-100
HAP-1400	6.07	5.46	4.91
HAP-1400-316	7.77	6.99	6.29
HAP-1575	6.78	6.10	5.49
HAP-1575-316	8.67	7.80	7.02
HAP-1750	7.48	6.73	6.06
HAP-1750-316	9.57	8.61	6.97
HAP-1925	8.18	7.36	6.62

Cat. No.	Net each		
	1-24	25-50	51-100
HAP-1925-316	10.47	9.42	8.48
HAP-2100	8.87	7.99	7.19
HAP-2100-316	11.36	10.22	9.20
HAP-2450	10.73	9.66	8.69
HAP-2450-316	12.34	11.11	10.00
HAP-2625	11.58	10.73	9.46
HAP-2625-316	13.35	12.28	11.05

Wyco Metal Products



BOXES-CASES-CABINETS-DESK PANELS

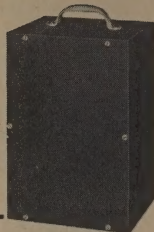
CARRYING CASE

Steel Cat. No.	D	W	H	Approx. Ship. Wt.	Net each
				1-24	25-50 51-100
D-850	5"	6"	9"	3 1/4	3.01 2.44 2.20
D-851	5"	9"	6"	3 1/4	3.01 2.44 2.20
D-852	6"	7"	12"	4	4.18 3.38 3.04
D-853	6"	12"	7"	4	4.18 3.38 3.04
D-854	7"	7 3/4"	15"	5	4.68 3.79 3.41
D-855	8"	10"	10"	5	4.84 3.92 3.53
D-856	7"	15"	9"	5	5.85 4.74 4.27

Alum. Cat. No.	D	W	H	Approx. Ship. Wt.	Net each
				1-24	25-50 51-100
DA-857	5"	6"	9"	1 1/8	3.09 2.50 2.25
DA-858	5"	9"	6"	1 1/8	3.09 2.50 2.25
DA-859	6"	7"	12"	1 1/8	4.50 3.65 3.29
DA-860	6"	12"	7"	1 1/8	4.50 3.65 3.29

DESCRIPTION:

- Front and rear panels are removable.
- Includes handle.
- Prefix "D" designates steel finished in Grey Hammerstone.
- Prefix "DA" designates aluminum Natural finish (.051) alum.).



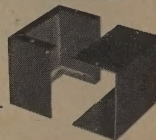
Silver Grey Cat. No.	L	W	H	Approx. Ship. Wt.	Net each
				1-24	25-50 51-100
E-900	2 3/4"	2 1/4"	1 5/8"	1/4	.85 .70 .63
E-901	3 1/4"	2 1/4"	1 5/8"	1/4	.92 .75 .68
E-902	4"	2 1/4"	1 5/8"	1/4	.92 .75 .68
E-903	4"	2 1/4"	2 1/4"	1/4	1.00 .81 .73
E-904	5"	4"	2 1/4"	1/4	1.09 .88 .79
E-905	5"	4"	3"	1/2	1.25 1.02 .92
E-906	5 1/4"	3"	2 1/8"	1/4	1.09 .88 .79
E-907	6"	5"	4"	3/4	1.90 1.54 1.39
E-908	7"	5"	3"	3/4	1.82 1.48 1.33
E-909	8"	6"	3 1/2"	1	2.23 1.81 1.63
E-910	10"	6"	3 1/2"	1 1/4	2.59 2.10 1.89
E-911	12"	7"	4"	1 3/4	3.27 2.65 2.39
E-912	17"	5"	4"	2 1/4	3.51 2.84 2.56
E-913	10"	2"	1 5/8"	1/2	1.38 1.12 1.01
E-914	12"	2 1/2"	2 1/4"	3/4	1.70 1.38 1.24
E-915	4"	2"	2 1/4"	1/4	1.09 .88 .79
E-916	4 1/4"	2 1/4"	1 1/2"	1/4	1.00 .81 .73
E-917	3 1/4"	2 1/8"	1 1/8"	1/4	.84 .68 .61

Etched Cat. No.	L	W	H	Approx. Ship. Wt.	Net each
				1-24	25-50 51-100
E-918	2 3/4"	2 1/4"	1 5/8"	1/4	.62 .50 .45
E-919	3 1/4"	2 1/4"	1 5/8"	1/4	.62 .50 .45
E-920	4"	2 1/4"	1 5/8"	1/4	.62 .50 .45
E-921	4"	2 1/4"	2 1/4"	1/4	.75 .61 .55
E-922	5"	2 1/4"	2 1/4"	1/4	.78 .63 .57
E-923	5"	4"	3"	1/2	.94 .77 .69
E-924	5 1/4"	3"	2 1/8"	1/4	.82 .67 .60
E-925	6"	5"	4"	3/4	1.47 1.19 1.07
E-926	7"	5"	3"	3/4	1.40 1.13 1.02
E-927	8"	6"	3 1/2"	1	1.72 1.40 1.26
E-928	10"	6"	3 1/2"	1 1/4	2.02 1.64 1.48
E-929	12"	7"	4"	1 3/4	2.71 2.20 1.98
E-930	17"	5"	4"	2 1/4	2.92 2.37 2.13
E-931	10"	2"	1 5/8"	1/2	1.15 .94 .85
E-932	12"	2 1/2"	2 1/4"	3/4	1.37 1.11 1.00
E-933	4"	2"	2 1/4"	1/4	.75 .61 .55
E-934	4 1/4"	2 1/4"	1 1/2"	1/4	.72 .59 .53
E-935	3 1/4"	2 1/8"	1 1/8"	1/4	.62 .50 .45

MINITBOXES

DESCRIPTION:

- Fabricated of aluminum (.051).
- Design assures necessary shielding.
- Available in Natural finish or Silver Grey Hammerstone.



EASY BOXES (SAME DESIGN AS MINITBOX)

DESCRIPTION:

- Design allows a number of small components to be easily wired or serviced.
- Fabricated of 22 gauge steel.
- Grey Hammerstone finish.

Cat. No.	H	W	D	Approx. Ship. Wt. - Lbs.	Net each
				1-24	25-50 51-100
H-105	2 1/4"	4 1/8"	1 1/2"	1/2	1.15 .94 .85
H-106	2"	4"	2 3/4"	1/2	1.17 .95 .86

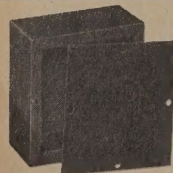
DESK PANELS



Catalog No.	Width	Depth	Approx. Shipping Weight	Net each
				1-2 6-9
DP-16	21"	16"	14 lbs.	14.79 13.31

DESCRIPTION:

- Table is constructed of heavy gauge high-quality steel and measures 21" x 16".
- Panel, constructed of 1/4" steel, is 10 1/2" x 19".
- Front corners of table are rounded.
- SHIPPED "KNOCKED-DOWN"; all necessary bolts supplied for easy assembly.
- Finished in grey enamel.



METAL UTILITY CABINETS

DESCRIPTION:

- Cabinet has two removable covers.
- Prefix MU designates steel finished in Silver Grey Hammerstone only.
- Prefix LU designates aluminum in a Natural finish (.051 Alum.).
- Used for amplifiers, monitors, input stages, meters, transceivers, etc.

Steel Cat. No.	D	W	H	Approx. Ship. Wt.	Net each
				1-24	25-50 51-100
MU-760	2"	4"	4"	3/4	1.09 .88 .79
MU-751	3"	5"	4"	1	1.22 .99 .89
MU-752	4"	5"	6"	1 1/4	1.38 1.12 1.01
MU-753	5"	6"	6"	2 1/2	2.09 1.69 1.52
MU-754	5"	6"	9"	3	2.34 1.90 1.71
MU-755	7"	8"	10"	5	3.34 2.71 2.44
MU-756	6"	7"	12"	4	3.29 2.66 2.39
MU-757	8"	10"	10"	5 1/2	4.01 3.25 2.93
MU-758	8"	11"	12"	6	4.34 3.52 3.17
MU-759	7"	9"	15"	7 1/2	4.51 3.65 3.29

Alum. Cat. No.	D	W	H	Approx. Ship. Wt.	Net each
				1-24	25-50 51-100
LU-760	2"	4"	4"	1/4	1.29 1.04 .94
LU-761	3"	5"	4"	1/4	1.37 1.11 1.00
LU-762	4"	5"	6"	1/2	1.50 1.22 1.10
LU-763	6"	6"	6"	3/4	2.17 1.76 1.58
LU-764	5"	6"	9"	1	2.51 2.03 1.83

METER CASES

DESCRIPTION:

- Sloping front with top corner rounded.
- Prefix "MC" designates steel Grey Hammerstone finish.
- Prefix "AC" designates aluminum Natural finish.



Catalog No.	Hole Diameter	Approx. Ship. Wt. - Lbs.	Net each
			1-24 25-50 51-100
MC-73	2 1/4"	1	1.10 .89 .80
MC-74	2 1/4"	1	1.10 .89 .80
AC-86	2 1/4"	1/3	1.42 1.13 1.04
AC-87	2 1/8"	1/3	1.42 1.15 1.04

MINIATURE UTILITY CABINETS

DESCRIPTION:

- Front and rear panels are removable.
- Chassis attached to front panel.
- Fabricated in steel; Silver Grey Hammerstone only.



Cat. No.	H	W	D	Chassis Size	Approx. Ship. Wt.-Lbs.	Net each
					1-24	25-50 51-100
A-780	4"	4"	2"	1" x 3 1/8" x 1 7/8"	3/4	1.34 1.09 .98
A-781	4"	5"	3"	1" x 4 1/8" x 2 7/8"	1	1.48 1.20 1.08
A-782	5"	4"	3"	1 1/4" x 3 1/8" x 2 7/8"	1	1.62 1.31 1.18
A-783	6"	5"	4"	1 3/4" x 4 1/8" x 3 7/8"	1 1/4	1.70 1.38 1.24
A-784	5"	6"	4"	1 1/4" x 5 1/8" x 3 7/8"	1 1/4	1.92 1.56 1.40
A-785	6"	6"	6"	1 3/4" x 4 7/8" x 5 7/8"	2 1/4	2.17 1.76 1.58

Wyco Metal Products

Wyco Metal Products

PRICE LIST FOR WYCO METAL PRODUCTS

A. F.O.B. our plant, North Hollywood, California

B. Prices are subject to change without notice

C. FANS, FAN ACCESSORIES, PACKAGED BLOWERS AND SOLID BEARING SLIDES ARE NET PRICED (THEY ARE NOT SUBJECT TO THE DISCOUNT SCHEDULE). ALL OTHER PRICES ARE SUBJECT TO THE DISCOUNT SCHEDULE SHOWN BELOW.

IF YOUR ORDER TOTALS:

LESS THAN \$200.00	none
200.00 to 299.99	10%
300.00 to 499.99	15%
500.00 to 699.99	20%

APPLY THIS DISCOUNT

Catalog No.	List Price Ea.	Approx. Ship. Wt. Lbs.	Catalog No.	List Price Ea.	Approx. Ship. Wt. Lbs.	Catalog No.	List Price Ea.	Approx. Ship. Wt. Lbs.
AIR DRY PAINT			PLAIN FACE-MOUNTED DOORS continued			FILTERED BOTTOM DOOR continued		
WALG	2.70/qt.	3	WD 224-17	25.65	12	WD 224-38-FB	46.10	23
WADG	2.70/qt.	3	WD 224-21	26.85	15	WD 224-42-FB	47.30	25
WANB	2.70/qt.	3	WD 224-24	28.15	17	WD 224-43-FB	47.95	26
WALB	2.70/qt.	3	WD 224-28	29.45	20	WD 224-52-FB	51.10	31
WAGM	2.70/qt.	3	WD 224-38	33.20	24	WD 224-61-FB	54.30	37
WALT	2.70/qt.	3	WD 224-42	34.50	26	WD 224-70-FB	57.45	41
WAMT	2.70/qt.	3	WD 224-43	35.15	27	WD 224-78-FB	60.65	47
WAB	2.70/qt.	3	WD 224-52	38.30	32			
PONTOON BASES			WD 224-61	41.50	38	FILTERED TOP DOOR		
WB 18	16.20	7	WD 224-70	44.65	42	WD 200-21-FT	35.30	12
WB 22	16.80	9	WD 224-78	47.80	48	WD 200-24-FT	36.35	15
WB 25	17.70	11	LOUVERED FACE-MOUNTED DOORS			WD 200-28-FT	37.45	16
WB 18-24	18.15	9	WD 200-17-L	24.50	10	WD 200-38-FT	40.30	19
WB 22-24	18.45	11	WD 200-21-L	25.55	12	WD 200-42-FT	41.45	20
WB 25-24	19.20	13	WD 200-24-L	26.70	14	WD 200-43-FT	42.00	21
BAKING ENAMEL PAINT			WD 200-28-L	27.80	16	WD 200-52-FT	44.70	25
WBLG	2.70/qt.	3	WD 200-38-L	31.25	20	WD 200-61-FT	47.35	30
WBDG	2.70/qt.	3	WD 200-42-L	32.40	21	WD 200-70-FT	50.20	34
WBNB	2.70/qt.	3	WD 200-43-L	32.90	22	WD 200-78-FT	52.85	38
WBLB	2.70/qt.	3	WD 200-52-L	35.70	26	WD 224-21-FT	36.85	15
WBGm	2.70/qt.	3	WD 200-61-L	38.50	31	WD 224-24-FT	38.15	17
WBLT	2.70/qt.	3	WD 200-70-L	41.25	35	WD 224-28-FT	39.45	20
WBMT	2.70/qt.	3	WD 200-78-L	44.10	39	WD 224-38-FT	46.10	23
WBB	2.70/qt.	3	WD 224-17-L	26.00	12	WD 224-42-FT	47.30	25
CASTERS			WD 224-21-L	27.35	15	WD 224-43-FT	47.95	26
WC 1100	10.30/set 4	5	WD 224-24-L	28.65	17	WD 224-52-FT	51.10	31
WC 1103	1.00	6 oz.	WD 224-28-L	29.90	20	WD 224-61-FT	54.30	37
CHASSIS/EQUIPMENT SUPPORTING ANGLES			WD 224-38-L	33.85	24	WD 224-70-FT	57.45	41
WCSA 15	8.15 pr.	3	WD 224-42-L	35.20	26	WD 224-78-FT	60.65	47
WCSA 18	8.80 pr.	4	WD 224-43-L	35.85	27	FILTERED TOP AND BOTTOM DOORS		
WCSA 22	9.55 pr.	4-1/2	WD 224-52-L	39.10	32	WD 200-38-FTB	47.50	18
WCSA 25	10.30 pr.	5	WD 224-61-L	42.35	38	WD 200-42-FTB	48.65	20
PLAIN FACE-MOUNTED DOORS			WD 224-70-L	45.60	42	WD 200-43-FTB	49.15	21
WD 200-17	24.20	11	WD 224-78-L	48.80	47	WD 200-52-FTB	51.90	25
WD 200-21	25.30	12	FILTERED BOTTOM DOOR			WD 200-61-FTB	54.55	29
WD 200-24	26.35	15	WD 200-21-FB	35.30	12	WD 200-70-FTB	57.40	33
WD 200-28	27.45	16	WD 200-24-FB	36.35	15	WD 200-78-FTB	60.05	37
WD 200-38	30.70	21	WD 200-28-FB	37.45	16	WD 224-38-FTB	56.80	23
WD 200-42	31.75	21-1/2	WD 200-38-FB	40.30	19	WD 224-42-FTB	58.10	25
WD 200-43	32.30	23	WD 200-42-FB	41.45	20	WD 224-43-FTB	58.75	26
WD 200-52	35.00	27	WD 200-43-FB	42.00	21	WD 224-52-FTB	61.90	30
WD 200-61	37.70	31	WD 200-52-FB	44.70	25	WD 224-61-FTB	65.10	36
WD 200-70	40.55	34	WD 200-61-FB	47.35	30	WD 224-70-FTB	68.25	41
WD 200-78	43.10	38	WD 200-70-FB	50.20	34	WD 224-78-FTB	71.45	46
			WD 200-78-FB	52.85	37	PLAIN FLUSH-MOUNTED DOORS		
			WD 224-21-FB	36.85	15	WDF 8	9.70	4-1/2
			WD 224-24-FB	38.15	17	WDF 10	10.25	5
			WD 224-28-FB	39.45	20			

Wyco Metal Products

Catalog No.	List Price Ea.	Approx. Ship. Wt. Lbs.	Catalog No.	List Price Ea.	Approx. Ship. Wt. Lbs.	Catalog No.	List Price Ea.	Approx. Ship. Wt. Lbs.
PLAIN FLUSH-MOUNTED DOORS continued			SLIDING DRAWERS continued			10-1/2" SLOPING FRONT FRAMES		
WDF 12	10.80	5-1/2	WED 1000-10-25	29.60	23	WF 300-18	72.95	64
WDF 14	11.30	6	WED 1000-14-18	30.15	23	WF 300-22	75.30	80
WDF 17	12.30	8	WED 1000-14-22	30.70	24	WF 324-18	82.35	80
WDF 21	13.20	9	WED 1000-14-25	31.10	25	WF 324-22	84.20	96
WDF 24	13.60	10	WED 1024-3-18	26.10	17	17-1/2" SLOPING FRONT FRAMES		
WDF 28	14.00	13	WED 1024-3-22	26.50	18	WF 400-22	76.50	80
WDF 8-24	10.60	5-1/2	WED 1024-3-25	27.00	19	WF 400-25	81.55	90
WDF 10-24	11.30	6	WED 1024-7-18	28.10	19	WF 424-22	82.90	96
WDF 12-24	12.10	7	WED 1024-7-22	28.50	20	WF 424-25	88.75	104
WDF 14-24	12.90	8	WED 1024-7-25	28.95	21	INSTRUMENT CABINET FRAME		
WDF 17-24	14.25	9	WED 1024-8-18	29.10	21-1/2	WF 500-8	41.55	23
WDF 21-24	15.75	10	WED 1024-8-22	29.50	22	WF 500-10	42.05	24-1/2
WDF 24-24	16.40	14	WED 1024-8-25	29.95	23	WF 500-12	42.65	25-1/2
WDF 28-24	17.30	15	WED 1024-10-18	31.05	23-1/2	WF 500-14	43.15	27
If keyed tumbler lock is desired, add suffix "—LK" to Cat. #. (Example: WDF 21-LK). Add \$1.50 to list price.			WED 1024-10-22	31.55	24-1/2	WF 500-15	43.65	29
LOUVERED FLUSH-MOUNTED DOORS			WED 1024-10-25	32.00	25-1/2	WF 500-17	44.20	31
WDF 8-L	10.45	4-1/2	WED 1024-14-18	33.05	26	WF 500-19	44.70	33-1/2
WDF 10-L	11.00	5	WED 1024-14-22	33.55	27	WF 500-21	45.20	36
WDF 12-L	11.50	5-1/2	WED 1024-14-25	34.00	28	WF 524-8	44.15	32
WDF 14-L	12.00	6	If keyed tumbler lock is desired, add "—LK" to Cat. #. (Example: WED 1000-7-22-LK). Add \$1.50 to list price.			WF 524-10	44.70	33-1/2
WDF 17-L	13.10	7	EQUIPMENT/CHASSIS SHELVES			WF 524-12	45.20	34-1/2
WDF 21-L	14.10	8	WES 1200-18	7.40	6	WF 524-14	45.80	36
WDF 24-L	14.60	8-1/2	WES 1200-22	8.20	8	WF 524-15	46.30	38
WDF 28-L	15.05	9-1/2	WES 1200-25	8.90	10	WF 524-17	46.90	40
WDF 8-24-L	11.30	5-1/2	WES 1224-18	9.65	7-1/2	WF 524-19	47.40	42-1/2
WDF 10-24-L	12.10	6	WES 1224-22	10.65	10	WF 524-21	47.95	45
WDF 12-24-L	12.90	7	WES 1224-25	11.65	12-1/2	35%—55% TURRET FRAME		
WDF 14-24-L	13.70	6	DESK HEIGHT FRAMES			WF 601	31.20	16
WDF 17-24-L	15.10	8	WF 100-18	61.30	57	WF 602	32.85	18-1/2
WDF 21-24-L	16.70	9	WF 100-22	62.80	62	WF 601-24	32.50	22
WDF 24-24-L	17.50	10	WF 100-25	68.25	67	WF 602-24	33.75	24-1/2
WDF 28-24-L	18.30	11	WF 124-18	67.10	68	19%—25%—55% TURRET FRAME		
If key tumbler lock is desired, add "—LK" to Cat. #. (Example: WDF 21-L-LK). Add \$3.00 to list price.			WF 124-22	68.85	74	WF 605	32.20	21
PERFORATED FLUSH-MOUNTED DOORS			WF 124-25	73.95	79	WF 606	29.15	19
WDF 8-P	19.00	4	FANS			WF 607	30.45	22
WDF 10-P	19.65	4-1/2	WF 165B	30.36 NET	4	WF 605-24	33.40	25
WDF 12-P	20.35	4-3/4	WF 220B	27.39 NET	4	WF 606-24	30.75	23
WDF 14-P	21.05	5	WF 300B	27.39 NET	5	WF 607-24	32.60	26
WDF 17-P	22.50	5-1/2	WF 400B	25.31 NET	6	17-1/2" SLOPING FRONT TURRET FRAME		
WDF 21-P	24.00	7	WF 550B	36.96 NET	7	WF 608	52.90	35
WDF 24-P	24.75	8	WF 750B	39.27 NET	8	WF 608-24	56.25	45
WDF 28-P	25.50	9	WF 160S	30.36 NET	4	10-1/2" SLOPING FRONT TURRET FRAME		
WDF 8-24-P	21.75	4-1/2	WF 180S	27.39 NET	4	WF 609	28.80	25
WDF 10-24-P	22.60	5	WF 300S	27.39 NET	4	WF 610	39.90	33
WDF 12-24-P	23.50	6	WF 360S	35.31 NET	6	WF 609-24	42.65	35
WDF 14-24-P	24.35	7	WF 540S	36.96 NET	7	WF 610-24	42.10	43
WDF 17-24-P	26.10	7-1/2	WF 740S	39.27 NET	8	DESK FRAMES		
WDF 21-24-P	27.70	8	VERTICAL FRAMES			WF 700-15	26.90	19
WDF 24-24-P	28.60	9	WF 200-43-22	81.45	94	WF 700-15-18	43.10	37
WDF 28-24-P	29.45	11	WF 200-52-22	84.40	103	WF 700-15-22	43.30	38
If keyed tumbler lock is desired, add "—LK" to Cat. #. (Example: WDF 21-P-LK). Add \$1.50 to list price.			WF 200-61-22	91.90	122	WF 700-15-25	43.40	39
SLIDING DRAWERS			WF 200-70-22	99.50	127	WF 700-18	27.45	20
WED 1000-3-18	24.90	14-1/2	WF 200-78-22	104.85	133	WF 700-18-18	41.20	41
WED 1000-3-22	25.35	15-1/2	WF 200-43-25	85.60	114	WF 700-18-22	41.35	42
WED 1000-3-25	25.75	16-1/2	WF 200-52-25	87.55	123	WF 700-18-25	41.50	45
WED 1000-7-18	26.45	17	WF 200-61-25	97.35	136	WF 700-22	28.25	21
WED 1000-7-22	26.85	18	WF 200-70-25	105.10	152	WF 700-22-18	41.95	44
WED 1000-7-25	27.30	19	WF 200-78-25	159.05	160	WF 700-22-22	42.10	46
WER 1000-8-18	27.15	19	WF 224-43-22	87.15	106	WF 700-22-25	42.25	48
WED 1000-8-22	27.65	20	WF 224-52-22	89.35	115	WF 700-25	30.30	23
WED 1000-8-25	28.10	21	WF 224-61-22	97.75	135	WF 700-25-18	44.15	48
WED 1000-10-18	28.65	21	WF 224-70-22	105.10	140	WF 700-25-22	44.30	50
WED 1000-10-22	29.15	22	WF 224-78-22	110.35	146	WF 700-25-25	44.45	52
			WF 224-43-25	89.65	126	WF 724-15	27.65	21
			WF 224-52-25	93.90	136	WF 724-15-18	41.90	41
			WF 224-61-25	103.45	149	WF 724-15-22	42.05	42
			WF 224-70-25	111.40	165	WF 724-15-25	42.20	43
			WF 224-78-25	114.00	173			

Wyco Metal Products

Catalog No.	List Price Ea.	Approx. Ship. Wt. Lbs.	Catalog No.	List Price Ea.	Approx. Ship. Wt. Lbs.	Catalog No.	List Price Ea.	Approx. Ship. Wt. Lbs.
DESK FRAMES continued			HARDWARE continued			LOUVERED FORMED STEEL PANELS continued		
WF 724-18	28.15	23	WH 92	12.00 pr.	1/pr.	WP 28-L	9.45	10
WF 724-18-18	42.35	45	WH 93	15.00 pr.	1/pr.	WP 38-L	12.15	13
WF 724-18-22	42.55	46	PANEL MOUNTING ANGLES			WP 42-L	13.10	15
WF 724-18-25	42.70	47	WM 21	9.10 pr.	7	WP 43-L	13.55	16
WF 724-22	28.95	26	WM 24	10.00 pr.	10	WP 52-L	16.00	18
WF 724-22-18	43.20	48	WM 28	10.90 pr.	13	WP 61-L	18.45	22
WF 724-22-22	43.35	51	WM 38	13.50 pr.	14-1/2	WP 70-L	20.75	25
WF 724-22-25	43.56	53	WM 42	14.60 pr.	16	WP 78-L	23.10	28
WF 724-25	31.20	27	WM 43	15.00 pr.	16	WP 5-L-24	3.85	2-1/2
WF 724-25-18	45.35	52	WM 52	16.90 pr.	18	WP 7-L-24	4.50	4
WF 724-25-22	45.60	55	WM 61	17.50 pr.	21	WP 8-L-24	4.95	4-1/2
WF 724-25-25	45.70	57	WM 70	28.90 pr.	24	WP 10-L-24	5.50	5
COUNTER HEIGHT FRAME			WM 78	21.90 pr.	26	WP 12-L-24	5.90	5-1/2
WF 1500-18	67.50	66	PLAIN FORMED STEEL PANELS			WP 14-L-24	6.50	6
WF 1500-22	69.55	72	WP 1	2.75	1	WP 15-L-24	6.90	7
WF 1500-25	75.10	78	WP 3	3.10	1-1/2	WP 17-L-24	4.50	8
WF 1524-18	72.80	78	WP 5	3.55	2	WP 19-L-24	8.00	9
WF 1524-22	76.10	84	WP 7	3.90	3	WP 21-L-24	8.60	10
WF 1524-25	80.70	90	WP 8	4.25	3-1/2	WP 24-L-24	9.75	11
FAN ACCESSORIES			WP 10	4.60	4	WP 28-L-24	10.90	12-1/2
WFA 101	2.09 NET	4 oz.	WP 12	5.05	4-1/2	WP 38-L-24	13.75	16
WFA 102	2.09 NET	4 oz.	WP 14	5.40	5	WP 42-L-24	14.85	19
WFA 103	2.75 NET	10 oz.	WP 15	5.75	5-1/2	WP 43-L-24	15.35	20
WFA 104	2.75 NET	9 oz.	WP 17	6.25	6-1/2	WP 52-L-24	17.90	23
WFA 105	2.09 NET	3 oz.	WP 19	6.70	7	WP 61-L-24	20.35	27
WFA 106	4.13 NET	10 oz.	WP 21	7.10	7-1/2	WP 70-L-24	22.75	31
WFB 101	2.09 NET	6 oz.	WP 24	8.10	9	WP 78-L-24	25.20	36
WFB 102	2.09 NET	6 oz.	WP 28	8.90	10	PERFORATED FORMED STEEL PANELS		
WFB 103	2.75 NET	12 oz.	WP 38	11.65	13	WP 3-P	3.25	1
WFB 105	2.09 NET	4 oz.	WP 42	12.60	15	WP 5-P	3.60	1-1/2
WFB 106	4.13 NET	14 oz.	WP 43	13.05	16	WP 7-P	3.95	2-1/2
WFC 101	2.48 NET	7 oz.	WP 52	15.35	18	WP 8-P	4.40	3
WFC 102	2.48 NET	7 oz.	WP 61	17.55	22	WP 10-P	4.85	3-1/2
WFC 103	3.19 NET	14 oz.	WP 70	19.90	25	WP 12-P	5.55	4
WFC 105	2.09 NET	5 oz.	WP 78	22.10	28	WP 14-P	5.75	4-1/2
WFC 106	4.57 NET	12 oz.	WP 1-24	2.90	1-1/2	WP 15-P	6.30	5
WFD 101	2.75 NET	8 oz.	WP 3-24	3.40	2	WP 17-P	6.85	6
WFD 102	2.75 NET	8 oz.	WP 5-24	3.80	2-1/2	WP 19-P	7.55	6-1/2
WFD 103	4.13 NET	16 oz.	WP 7-24	4.30	4	WP 21-P	8.35	7
WFD 105	2.48 NET	6 oz.	WP 8-24	4.75	4-1/2	WP 24-P	9.90	8-1/2
WFD 106	5.45 NET	18 oz.	WP 10-24	5.20	5	WP 28-P	11.35	9-1/2
HARDWARE			WP 12-24	5.70	6	WP 3-P-24	3.55	1-1/2
WH 33	.25/set 4	4 oz./4	WP 14-24	6.12	6	WP 5-P-24	4.00	2
WH 34	.60/pr.	2 oz./pr.	WP 15-24	6.65	7	WP 7-P-24	4.50	3
WH 36	1.50	5 oz.	WP 17-24	7.15	8	WP 8-P-24	4.95	4
WH 37	1.00	3 oz.	WP 19-24	7.70	9	WP 10-P-24	5.50	4-1/2
WH 38	.50	2 oz.	WP 21-24	8.20	9-1/2	WP 12-P-24	6.30	5
WH 40	2.00/100	1 oz./100	WP 24-24	9.30	11	WP 14-P-24	6.70	5-1/2
WH 41	1.00/100	1 oz./100	WP 28-24	10.35	12-1/2	WP 15-P-24	7.20	6
WH 43	.30	1 oz.	WP 38-24	13.20	16	WP 17-P-24	7.80	7-1/2
WH 44	.10	1 oz.	WP 42-24	14.25	19	WP 19-P-24	8.90	8
WH 45	3.00/100	1 oz./100	WP 43-24	14.85	20	WP 21-P-24	10.10	9
WH 50-LH	3.30	8 oz.	WP 52-29	17.20	23	WP 24-P-24	12.40	10-1/2
WH 50-RH	3.30	8 oz.	WP 61-24	19.50	27	WP 28-P-24	14.75	12
WH 51	.45	5 oz.	WP 70-24	21.90	30	TEXTOLITE PANELS		
WH 70	2.25	5 oz.	WP 78-24	24.20	35	WP 3-T	1.90	1
WH 72	1.50/100	10 oz./100	LOUVERED FORMED STEEL PANELS			WP 7-T	3.25	2
WH 73	1.50/100	7 oz./100	WP 5-L	3.65	2	WP 10-T	4.55	3
WH 80	.75/pr.	4 oz./pr.	WP 7-L	4.05	3	WP 12-T	5.25	3-1/2
WH 81	.80/pr.	4 oz./pr.	WP 8-L	4.50	3-1/2	WP 14-T	5.90	4
WH 82	.90/pr.	5 oz./pr.	WP 10-L	4.90	4	WP 17-T	7.30	5
WH 83	.95/pr.	5 oz./pr.	WP 12-L	5.25	4-1/2	WP 21-T	8.65	6
WH 84	1.00/pr.	6 oz./pr.	WP 14-L	5.70	5	WP 3-T-24	2.50	1-1/2
WH 85	1.20/pr.	6 oz./pr.	WP 15-L	6.05	5-1/2	WP 7-T-24	4.55	2-1/2
WH 86	1.25/pr.	7 oz./pr.	WP 17-L	6.55	6-1/2	WP 10-T-24	6.55	4
WH 87	1.30/pr.	7 oz./pr.	WP 19-L	7.00	7	WP 12-T-24	7.55	4-1/2
WH 88	1.35/pr.	8 oz./pr.	WP 21-L	7.40	7-1/2	WP 14-T-24	8.55	5
WH 89	1.40/pr.	8 oz./pr.	WP 24-L	8.45	9	WP 17-T-24	10.60	6-1/2
WH 90	1.45/pr.	9 oz./pr.				WP 21-T-24	12.60	7-1/2
WH 91	1.50/pr.	9 oz./pr.						

Wyco Metal Products

Catalog No.	List Price Ea.	Approx. Ship. Wt. Lbs.	Catalog No.	List Price Ea.	Approx. Ship. Wt. Lbs.	Catalog No.	List Price Ea.	Approx. Ship. Wt. Lbs.
PACKAGED BLOWERS			PLAIN BALL-CORNERED SIDES continued			KNEE SPACE SIDE PANELS continued		
WPB 300	79.75 NET	15	WS 500-19	11.55	7-3/4	WS 1500-22-K	11.95	13
WPB 375	92.95 NET	25	WS 500-21	11.75	8-1/4	WS 1500-25-K	13.20	15
WPB 405	101.20 NET	26	WS 608	13.95	8	LOUVERED BALL-CORNERED SIDES		
WPB 600	131.45 NET	43	WS 609	11.25	7	WS 100-18-L	11.45	10
WPB 700	132.00 NET	43	WS 610	10.30	9	WS 100-22-L	12.70	11-1/2
WPB 840	134.75 NET	43	WS 700-15	4.75	1-1/2	WS 100-25-L	13.90	13
PANEL LIFT DOORS			WS 700-18	4.85	2	WS 200-43-22-L	17.65	20
WPLD 10	10.15	4	WS 700-22	4.90	2-1/2	WS 200-52-22-L	19.15	24
WPLD 12	10.45	5	WS 700-25	4.95	3	WS 200-61-22-L	21.80	27
WPLD 14	10.80	6	WS 1500-18	12.55	12	WS 200-70-22-L	23.25	31
WPLD 17	11.40	7	WS 1500-22	13.70	14	WS 200-78-22-L	27.50	34
WPLD 21	11.95	8	WS 1500-25	14.90	17	WS 200-43-25-L	19.00	24
WPLD 10-24	11.50	5	TURRET FLAT SIDES			WS 200-52-25-L	21.40	28
WPLD 12-24	11.80	6	WS 601-F	4.35	2	WS 200-61-25-L	24.30	33
WPLD 14-24	12.10	7	WS 602-F	4.90	2-1/2	WS 200-70-25-L	26.90	36
WPLD 17-24	12.75	9	WS 605-F	4.55	3	WS 200-78-25-L	29.75	41
WPLD 21-24	13.35	10	WS 606-F	3.55	2	WS 300-18-L	18.75	16
PLUG MOLD WIRING STRIP			WS 607-F	3.80	4	WS 300-22-L	20.00	18
WPM 4050	18.20	5	WS 608-F	9.90	4	WS 400-22-L	20.45	20
WPM 4051	21.10	7	WS 609-F	7.40	2	WS 400-25-L	23.35	24
HEAVY DUTY ROLLER TRUCK			WS 610-F	6.70	2	WS 500-8-L	10.35	2-1/2
WRT 3000-1-18	69.15	27	FLAT SIDES			WS 500-10-L	10.60	5
WRT 3000-1-22	72.00	31	WS 100-18-F	8.35	10	WS 500-12-L	10.90	5-1/2
WRT 3000-1-25	72.95	35	WS 100-22-F	9.60	12	WS 500-14-L	11.15	6
WRT 3000-2-18	135.00	50	WS 100-25-F	10.15	15	WS 500-15-L	11.40	6-1/2
WRT 3000-2-22	140.00	58	WS 200-43-22-F	13.90	20	WS 500-17-L	11.60	7
WRT 3000-2-25	145.50	50	WS 200-43-25-F	15.00	24	WS 500-19-L	11.80	7-1/2
WRT 3000-3-18	185.40	66	WS 200-52-22-F	15.05	24	WS 500-21-L	12.05	8
WRT 3000-3-22	192.10	84	WS 200-52-25-F	17.15	28	WS 1500-18-L	13.05	12
WRT 3000-3-25	196.90	97	WS 200-61-22-F	17.35	27	WS 1500-22-L	14.25	14-1/2
WRT 3024-1-18	73.50	31	WS 200-61-25-F	19.90	33	WS 1500-25-L	15.20	17
WRT 3024-1-22	74.40	41	WS 200-70-22-F	18.60	31	SOLID BEARING SLIDES		
WRT 3024-1-25	75.30	42	WS 200-70-25-F	21.35	34	WSBS 7000-16-T	11.72 pr. NET	6
WRT 3024-2-18	114.10	58	WS 200-78-22-F	22.35	34	WSBS 7000-18-T	13.09 pr. NET	7
QRT 3024-2-22	128.30	78	WS 200-78-25-F	24.50	41	WSBS 7000-22-T	14.52 pr. NET	8
WRT 3024-2-25	132.50	80	WS 300-18-F	13.50	13	WSBS 7000-25-T	14.85 pr. NET	9
WRT 3024-3-18	165.00	89	WS 300-22-F	14.75	15	WSBS 8000-18-D	38.45 pr. NET	9
WRT 3024-3-22	179.50	119	WS 400-22-F	15.20	15	WSBS 8000-22-D	39.16 pr. NET	10
WRT 3024-3-25	184.10	122	WS 400-25-F	18.10	17	WSBS 8000-25-D	40.04 pr. NET	11
NOTE: IF FOOT-LOCK DESIRED, SUFFIX CATALOG NUMBER WITH -LK. EXAMPLE: WRT 3000-2-18-LK. ADD \$15.60 TO ABOVE LIST PRICES.			WS 700-15-F	3.05	1	SHORT BALL-CORNERED SIDES		
PLAIN BALL-CORNERED SIDES			WS 700-18-F	3.10	1-1/2	WSHS 200-43-22	15.90	9
WS 100-18	10.95	10	WS 700-22-F	3.25	2	WSHS 200-43-25	17.20	11
WS 100-22	12.10	11	WS 700-25-F	3.30	2-1/2	WSHS 200-52-22	18.10	13
WS 100-25	13.35	19	WS 1500-18-F	9.95	15	WSHS 200-52-25	19.60	16
WS 200-43-22	17.10	20	WS 1500-22-F	11.15	16	WSHS 200-61-22	21.05	16
WS 200-52-22	18.60	24	WS 1500-25-F	12.40	17	WSHS 200-61-25	22.50	20
WS 200-61-22	20.80	27	WS 100-25-H	24.90	14	WSHS 200-70-22	23.10	20
WS 200-70-22	23.75	31	WS 200-43-22-H	28.45	21	WSHS 200-70-25	25.00	24
WS 200-78-22	26.20	34	WS 200-52-22-H	30.70	25	WSHS 200-78-22	26.70	23
WS 200-43-25	18.45	24	WS 200-61-22-H	34.50	29	WSHS 200-78-25	28.70	27
WS 200-52-25	20.45	29	WS 200-70-22-H	36.50	32	WSHS 300-18	15.10	7
WS 200-61-25	23.25	32	WS 200-78-22-H	38.70	35	WSHS 300-22	16.50	8
WS 200-70-25	25.70	36	WS 200-43-25-H	31.55	25	WSHS 400-22	17.00	9
WS 200-78-25	28.35	41	WS 200-52-25-H	31.85	30	WSHS 400-25	18.20	13
WS 300-18	18.15	16	WS 200-61-25-H	35.85	34	CHASSIS/EQUIPMENT SLIDES		
WS 300-22	19.45	18	WS 200-70-25-H	38.15	38	WSL 900-18	14.10	8
WS 400-22	19.95	20	WS 200-78-25-H	40.40	42	WSL 900-22	14.75	11
WS 400-25	22.75	24	WS 300-18-H	28.15	17	WSL 900-25	16.95	13
WS 500-8	10.35	2-3/4	WS 300-22-H	29.45	20	WSL 924-18	14.40	8-1/2
WS 500-10	10.60	5-1/4	WS 400-22-H	29.90	21	WSL 924-22	15.05	11
WS 500-12	10.90	5-3/4	WS 400-25-H	32.75	25	WSL 924-25	15.60	14
WS 500-14	11.10	6-1/4	WS 1500-18-H	22.50	13	SLIDING WORK/WIRING SHELVES		
WS 500-15	11.10	6-3/4	WS 1500-22-H	23.70	16	WSS 10	29.95	18
WS 500-17	11.30	7-1/4	WS 1500-25-H	24.90	18	WSS 11	34.15	24
KNEE SPACE SIDE PANELS			KNEE SPACE SIDE PANELS			WSS 12	38.30	26
WS 100-18-K	9.15	8	WS 100-18-K	9.15	8	WSS 10-24	36.90	20
WS 100-22-K	10.35	9	WS 100-22-K	10.35	9	WSS 11-24	41.10	26
WS 100-25-K	11.60	10	WS 100-25-K	11.60	10	WSS 12-24	45.35	28
WS 1500-18-K	10.80	11	WS 1500-18-K	10.80	11			



CAPACITORS

ELECTROLYTICS


**TYPE AFH (85°C) TWIST PRONG
ELECTROLYTIC CAPACITOR**
SINGLES • DUALS • TRIPLES • QUADS

The outstanding line of twist-prong mounting electrolytic capacitors with all the latest refinements — 85°C operation — high purity aluminum foil construction through out — improved moisture resistant seal. Types AFHS-PWHS are specially constructed for high ripple current circuits. PWH and PWHS are constructed for printed wiring board applications.

These units operate over a wide temperature range with a minimum change in capacitance.

While designed for filter audio bypass applications in Radio-TV and Amplifier equipment as exact replacements, many values are rapidly gaining acceptance in industrial applications.

They are manufactured to meet all requirements of EIA specification number RS-154. Capacity tolerances of this specification are listed below.

ELECTROLYTIC CAPACITY TOLERANCES

0-50 Volts	—	—10 +250%
51-350 Volts	—	—10 +100%
351 Volts & Up	—	—10 +50%

Aerovox Corporation is currently working on a size reduction program. Many sizes shown in the following listing reflect latest design figures. However Aerovox reserves the right to furnish previous catalog sizes until present stocks are depleted.

The AFH capacitors listed here include only those ratings which might find use in industrial applications. A complete line of 1212 ratings may be found in the latest Aerovox Industrial Catalog, IDC 565, or Servicemen's Catalog, SE-565, and may be requested from Aerovox Corporation, Distributor Division, or through your nearest authorized Aerovox Industrial Distributor.

SINGLES

Catalog Number	Capacity	Voltage	Dia. x Length	*Net
AFH 1-00-50	2000	6	1-3/8 x 2	\$1.83
AFH 1-01-25	225	15	3/4 x 2	1.05
AFH 1-02	1000	15	1 x 1 1/2	1.53
AFH 1-03	2000	15	1-3/8 x 2	2.07
AFH 1-04	3000	15	1-3/8 x 2	2.55
AFH 1-08	500	25	1 x 2	1.53
AFH 1-10	1000	25	1-3/8 x 2	2.13
AFH 1-11	100	50	3/4 x 2	.99
AFH 1-12	150	50	3/4 x 2	1.08
AFH 1-13	500	50	1-3/8 x 2	1.59
AFH 1-13-05	500	50	1 x 3	1.59
AFH 1-14	1000	50	1-3/8 x 3 1/2	2.25
AFH 1-14-50	1500	50	1-3/8 x 3	2.64
AFH 1-16	30	150	1 x 1 1/2	.93
AFH 1-18	50	150	1 x 1 1/2	.99
AFHS 1-20	80	150	1 x 2	1.11
AFH 1-21	100	150	1 x 2	1.20
AFHS 1-22	120	150	1 x 2	1.23
AFHS 1-22-05	120	150	1-3/8 x 2	1.29
AFHS 1-23	140	150	1 x 1 3/4	1.26
AFH 1-24	150	150	1 x 2 1/2	1.29
AFH 1-24-01	150	150	1-3/8 x 2	1.29
AFHS 1-24-25	200	150	1-3/8 x 2	1.47
AFHS 1-24-75	300	150	1-3/8 x 2 1/2	1.68
PWH 1-25-75	160	200	1-3/8 x 3	1.74
AFH 1-29	40	250	1 x 2	1.08
AFH 1-31-25	100	250	1 x 3	1.62
AFH 1-31-75	150	250	1-3/8 x 2	1.86
AFHS 1-31-85	200	250	1-3/8 x 2	2.19
AFH 1-35	80	300	1 x 1 3/4	1.53
AFH 1-36	100	300	1 x 2 1/2	1.74
AFH 1-37	125	300	1-3/8 x 2	2.10
AFHS 1-37-25	150	300	1-3/8 x 2	2.10
AFH 1-37-35	250	300	1-3/8 x 4	3.33
AFH 1-39	30	350	1 x 1 1/2	1.14
AFH 1-40	40	350	1 x 1 1/2	1.20
AFH 1-41	50	350	1 x 2	1.26
AFH 1-42	80	350	1-3/8 x 2	1.71
AFHS 1-43	125	350	1-3/8 x 2	2.19
AFH 1-43-20	150	350	1-3/8 x 2	2.37
AFH 1-45	20	400	1 x 2	1.29
AFH 1-48	10	450	1 x 1 1/2	.93
AFH 1-49	15	450	1 x 1 1/2	1.26
AFH 1-50	20	450	1 x 1 1/2	1.08
AFH 1-51	30	450	1 x 1 1/2	1.17
AFH 1-52	40	450	1 x 1 3/4	1.23
AFH 1-53	50	450	1 x 2 1/2	1.41

SINGLES (Continued)

Catalog Number	Capacity	Voltage	Dia. x Length	*Net
AFH 1-54	60	450	1-3/8 x 2 1/2	1.62
AFH 1-55	80	450	1-3/8 x 2 1/2	1.83
AFH 1-55-20	100	450	1-3/8 x 2 1/2	2.07
AFH 1-55-25	125	450	1-3/8 x 3	2.37
AFH 1-56-10	40	475	1-3/8 x 2	1.50
AFH 1-58	10	500	1 x 2	.96
AFH 1-59	20	500	1 x 2	1.11
AFH 1-60	30	500	1 x 2	1.23
AFH 1-61	40	500	1 x 2 1/2	1.50
AFH 1-62	80	500	1-3/8 x 2 1/2	2.16
AFH 1-63	90	500	1-3/8 x 3 1/2	2.34

DUALS

Catalog Number	Capacity	Voltage	Dia. x Length	*Net
AFH 2-08	20-20	150	1 x 1 1/2	1.02
AFH 2-11	30-30	150	1 x 1 1/2	1.11
AFH 2-12	40-20	150	1 x 1 1/2	1.08
AFH 2-13	40-30	150	1 x 1 1/2	1.11
AFH 2-14	40-40	150	1 x 1 1/2	1.14
AFH 2-15	50-30	150	1 x 1 1/2	1.20
AFH 2-16	50-50	150	1 x 1 1/2	1.29
AFH 2-17	60-60	150	1 x 1 1/2	1.41
PWH 2-17-50	70-30	150	1 x 1 1/2	1.32
AFH 2-18	75-75	150	1 x 1 1/2	1.56
AFH 2-19-25	80-50	150	1 x 1 1/2	1.44
AFH 2-20	80-80	150	1-3/8 x 2	1.59
AFH 2-20-50	125-100	150	1-3/8 x 2	2.10
AFH 2-20-61	150-100	150	1-3/8 x 2	2.01
AFHS 2-21	200-5	150	1-3/8 x 2	1.62
AFH 2-22	200-125	150	1-3/8 x 3	2.25
AFH 2-22-50	200-150	150	1-3/8 x 3	2.25
AFH 2-23	200-200	150	1-3/8 x 3	2.40
AFH 2-24	60-60	200	1-3/8 x 2	1.53
AFHS 2-24-20	100-100	200	1-3/8 x 3	2.10
AFHS 2-24-75	200-5	200	1-3/8 x 2 1/2	1.83
AFH 2-26	20-20	250	1 x 1 1/2	1.14
AFH 2-29	40-40	250	1 x 1 1/2	1.50
AFHS 2-30	150-150	250	1-3/8 x 2 1/2	3.09
AFHS 2-30-75	200-200	250	1-3/8 x 4	3.66
AFH 2-34	80-80	300	1-3/8 x 3	2.43
AFH 2-35	120-20	300	1-3/8 x 3	2.40
AFH 2-36	15-15	350	1 x 2	1.35
AFH 2-39	30-30	350	1 x 2 1/2	1.74
AFH 2-40	50-30	350	1-3/8 x 2	1.89
AFH 2-40-40	60-30	350	1-3/8 x 2	1.89
AFH 2-40-80	80-40	350	1-3/8 x 2 1/2	2.37
AFH 2-41	80-80	350	1-3/8 x 3 1/2	2.82
AFH 2-41-10	90-40	350	1-3/8 x 2 1/2	2.58
AFH 2-41-40	100-60	350	1-3/8 x 3 1/2	2.88

*Request O.E.M. Prices in the following quantities: 25-49, 50-99, 100-249



CAPACITORS

ELECTROLYTICS-(Continued)

DUALS (Continued)

Catalog Number	Capacity	Voltage	Dia. x Length	*Net
AFHS 2-41-50	100-100	350	1-3/8 x 3	3.69
AFHS 2-41-80	160-10	350	1-3/8 x 3	2.58
AFH 2-45-10	80-20	400	1-3/8 x 2	2.73
AFH 2-45-40	80-60	400	1-3/8 x 4	2.91
AFH 2-45-60	120-40	400	1-3/8 x 4	3.15
AFH 2-46	5-5	450	1 x 2	1.05
AFH 2-47	10-10	450	1 x 1 1/2	1.14
AFH 2-49	15-15	450	1 x 2 1/2	1.35
AFH 2-50	20-10	450	1 x 1 3/4	1.35
AFH 2-51	20-20	450	1 x 2	1.53
AFH 2-52	30-10	450	1 x 2	1.50
AFH 2-54	30-30	450	1-3/8 x 2	1.83
AFH 2-55	40-10	450	1 x 2	1.59
AFH 2-56	40-20	450	1-3/8 x 2	1.80
AFH 2-57	40-40	450	1-3/8 x 2 1/2	2.07
AFH 2-59	50-50	450	1-3/8 x 2 1/2	2.31
AFH 2-61	60-40	450	1-3/8 x 3	2.37
AFH 2-61-50	60-60	450	1-3/8 x 3	3.36
AFH 2-62	80-10	450	1-3/8 x 2	2.16
AFH 2-63	80-20	450	1-3/8 x 2 1/4	2.34
AFH 2-64	80-40	450	1-3/8 x 2 1/4	2.61
AFH 2-64-25	100-40	450	1-3/8 x 3 1/2	2.91
AFH 2-64-50	15-15	475	1 x 2 1/2	1.41
AFH 2-66-60	80-50	475	1-3/8 x 3	3.12
AFH 2-67	10-10	500	1 x 1 3/4	1.23
AFH 2-69	20-20	500	1-3/8 x 2	1.71
AFH 2-71	30-10	500	1-3/8 x 2	1.71
AFH 2-71-01	30-10	500	1 x 3	1.56
AFH 2-71-75	30-30	500	1-3/8 x 2	1.95
AFH 2-72	40-40	500	1-3/8 x 2 1/2	2.64
AFH 2-73	60-40	500	1-3/8 x 3 1/2	2.76
AFH 2-86-70	100/30	400/50	1-3/8 x 2 1/2	2.34
AFH 2-86-72	80/80	400/200	1-3/8 x 2 1/2	2.37
AFH 2-94-30	30/200	450/150	1-3/8 x 3	2.10

TRIPLES (Continued)

Catalog Number	Capacity	Voltage	Dia. x Length	*Net
AFH 3-34	15-15-15	450	1 x 3	1.86
AFH 3-35	20-10-10	450	1 x 2	1.77
AFH 3-36	20-20-20	450	1-3/8 x 2	2.16
AFH 3-37	30-20-20	450	1-3/8 x 2	2.31
AFH 3-39	30-30-30	450	1-3/8 x 2	2.61
AFH 3-41	40-10-10	450	1-3/8 x 2	2.01
AFH 3-42	40-30-20	450	1-3/8 x 2	2.58
AFH 3-43	40-40-10	450	1-3/8 x 2	2.52
AFH 3-43-50	40-40-20	450	1-3/8 x 2 1/2	2.67
AFH 3-44	40-40-40	450	1-3/8 x 3	2.94
AFH 3-44-50	50-40-30	450	1-3/8 x 4	2.94
AFH 3-45	60-20-20	450	1-3/8 x 3 1/2	2.76
AFH 3-45-10	60-30-10	450	1-3/8 x 3	2.70
AFH 3-45-25	60-40-20	450	1-3/8 x 3	3.00
AFH 3-45-35	80-10-10	450	1-3/8 x 2 1/2	2.58
AFH 3-46	80-40-20	450	1-3/8 x 3	3.24
AFH 3-49-10	30-30-20	475	1-3/8 x 2	2.85
AFH 3-50-07	40-30-10	475	1-3/8 x 3	2.70
AFH 3-50-10	40-30-30	475	1-3/8 x 3	3.09
AFH 3-51	10-10-10	500	1 x 3	1.62
AFH 3-52	30-20-20	500	1-3/8 x 2 1/4	2.52
AFH 3-53	40-10-10	500	1-3/8 x 2	2.34
AFH 3-54	40-40-10	500	1-3/8 x 2 1/2	3.03
AFH 3-72	40-20-20	150/25	1 x 1 1/2	1.38
AFH 3-77	50-30/20	150/25	1 x 1 1/2	1.50
AFH 3-79	50-50/20	150/25	1 x 3	1.59
AFH 3-82	80-40/20	150/25	1 x 2 1/2	1.68
AFH 3-82-40	80-40/300	150/25	1-3/8 x 2	2.22
AFH 3-84-75	80-10/20	200/50	1 x 1 3/4	1.68
AFH 3-120	20-20/20	400/25	1 x 3	1.71
AFH 3-124	10-10/10	450/25	1 x 1 1/2	1.41
AFH 3-125	10-10/20	450/25	1 x 1 1/2	1.44
AFH 3-132	40-20/20	450/25	1-3/8 x 2	2.10
AFH 3-187-05	20/100/140	450/400/300	1-3/8 x 4	4.17

TRIPLES

AFH 3-05	20-20-20	150	1 x 2	1.38
AFH 3-06	30-30-10	150	1 x 2	2.10
AFH 3-07	40-20-10	150	1 x 1 1/2	1.41
AFH 3-08	40-20-20	150	1 x 2	1.44
AFH 3-09	40-30-20	150	1 x 2	1.50
AFH 3-10	40-40-40	150	1 x 2	1.56
AFH 3-11-20	50-40-10	150	1 x 1 1/2	1.53
AFH 3-11-50	50-50-50	150	1 x 1 3/4	1.80
AFH 3-12	60-40-20	150	1 x 1 3/4	1.65
PWH 3-12-10	70-15-15	150	1 x 2	1.62
AFH 3-12-20	70-40-40	150	1 x 1 3/4	1.77
AFH 3-13	80-40-20	150	1-3/8 x 3	1.74
AFH 3-13-08	100-30-10	150	1 x 2	1.83
AFH 3-13-15	120-80-40	150	1-3/8 x 2	2.28
AFH 3-13-30	120-120-40	150	1-3/8 x 2	2.43
AFH 3-13-50	200-100-60	150	1-3/8 x 2	2.73
AFH 3-13-75	200-150-150	200	1-3/8 x 3	4.50
AFH 3-17-10	20-20-20	250	1 x 2 1/2	1.56
AFH 3-20	40-20-20	250	1 x 1 3/4	1.74
AFH 3-21	80-80-60	250	1-3/8 x 3	2.94
AFH 3-22	10-10-10	300	1 x 2	1.44
AFH 3-25	60-20-10	300	1-3/8 x 2	2.07
AFH 3-25-50	80-40-40	300	1-3/8 x 2	2.85
AFH 3-26	120-50-40	300	1-3/8 x 2 1/2	3.39
AFH 3-28-30	30-20-10	350	1 x 2 1/2	1.95
AFH 3-29	60-40-20	350	1-3/8 x 2	2.55
AFH 3-29-25	60-50-50	350	1-3/8 x 2 1/4	2.94
AFH 3-29-50	80-60-60	350	1-3/8 x 2 1/2	3.33
AFH 3-29-75	90-40-20	350	1-3/8 x 3	3.15
AFH 3-30	10-10-10	400	1 x 1 1/2	1.44
AFH 3-30-75	90-10-5	400	1-3/8 x 3	2.64
AFH 3-31	10-10-10	450	1 x 2	1.56

QUADS

AFH 4-01	40-40-40-30	150	1-3/8 x 2	2.01
AFH 4-01-40	100-80-60-40	150	1-3/8 x 3	2.79
AFHS 4-01-55	200-200-60-30	175	1-3/8 x 2 3/4	3.33
AFH 4-01-80	40-20-10-10	300	1-3/8 x 2	2.37
AFH 4-02	40-40-20-10	300	1-3/8 x 2 1/2	2.73
AFH 4-02-10	40-40-30-20	300	1-3/8 x 3	2.91
AFH 4-02-30	60-40-10-10	300	1-3/8 x 2 1/2	2.73
AFH 4-02-90	200-20-20-20	300	1-3/8 x 3 1/2	3.69
AFH 4-04	40-20-10-10	350	1-3/8 x 2	2.61
AFH 4-04-50	40-40-40-40	350	1-3/8 x 2 1/4	3.60
AFH 4-05-55	80-60-40-20	350	1-3/8 x 3	3.84
AFH 4-06-40	50-40-30-20	400	1-3/8 x 4	3.30
AFH 4-07	80-20-10-10	400	1-3/8 x 3 1/2	3.03
AFH 4-10	10-10-10-10	450	1-3/8 x 2	2.01
AFH 4-14	20-20-20-20	450	1-3/8 x 2 1/2	2.82
AFH 4-15-30	30-30-20-20	450	1-3/8 x 3	4.23
AFH 4-16	35-35-10-5	450	1-3/8 x 2	2.79
AFH 4-17	40-10-10-10	450	1-3/8 x 2	2.49
AFH 4-18-10	40-35-10-10	450	1-3/8 x 2	2.88
AFH 4-18-30	40-40-20-20	450	1-3/8 x 3	3.33
AFH 4-18-40	40-40-30-30	450	1-3/8 x 3	3.63
AFH 4-18-45	40-40-40-40	450	1-3/8 x 3 1/2	3.87
AFH 4-18-50	60-20-20-20	450	1-3/8 x 3	3.39
AFH 4-18-60	60-30-10-2	450	1-3/8 x 3	3.06
AFH 4-18-80	80-10-10-10	450	1-3/8 x 3	3.03
AFH 4-19-10	20-20-10-10	475	1-3/8 x 2 1/2	2.61
AFH 4-19-20	20-20-20-20	475	1-3/8 x 2 1/2	3.12
AFH 4-19-50	40-20-10-10	475	1-3/8 x 2 1/2	3.06
AFH 4-20	10-10-10-10	500	1-3/8 x 2	2.10
AFH 4-46	60-40-20/50	300/25	1-3/8 x 2	2.79
AFH 4-58-75	80-40/40-20	400/350	1-3/8 x 4	3.87
AFH 4-59	10-10-10/20	450/25	1-3/8 x 2	1.89

*Request O.E.M. Prices in the following quantities: 25-49, 50-99, 100-249



CAPACITORS

ELECTROLYTICS — (Continued)

TYPE PRS "DANDEE" (85°C)

SINGLES • DUALS • TRIPLES • MULTIPLES

Metal Can Tubular Electrolytic Capacitors TYPE PRS-AC (AC rated units) NP-PRS (non-polarized units)

Compact, electrolytic tubular capacitors furnished in aluminum cans with cardboard insulating sleeves. Designed for use in television and radio applications where space is at a premium. Included in this listing are the AC rated units (PRS-AC) and non-polarized units (NP PRS) for replacement use in cross-over networks and color TV receivers.

Single section capacitors are furnished with bare tinned copper leads 3 inches long. Negative grounded to case. Multiple units are furnished with insulated, stranded copper leads 5 inches long. Negative is common and grounded to case. Multiple units have common cathode.

Sizes listed are diameters over cardboard insulating sleeve. For actual can size deduct $\frac{1}{8}$ " from diameter and $\frac{1}{4}$ " from length. Multiple units are supplied with mounting strap. If mounting strap is required on single units, specify on order.

Tolerance and surge voltage are in accordance with EIA Specification RS-154.

The factory is currently in the process of reducing sizes of this type. Aerovox reserves the right to ship sizes listed below until present stock is depleted and smaller sizes as they become available.

TYPE PRS — SINGLES

Prs No.	Cap. Mfd.	Size	Net Price*
3V			
1010	25	7/16 x 1 1/4	\$.51
1015	50	7/16 x 1 1/4	.57
1020	100	7/16 x 1 1/4	.66
1025	200	7/16 x 1-7/8	.69
1030	300	9/16 x 1-3/8	.78
1040	500	9/16 x 1-7/8	.84
4V			
1050	2000	13/16 x 2	1.38
6V			
1075	5	7/16 x 1 1/4	.48
1080	25	7/16 x 1 1/4	.51
1090	50	7/16 x 1 1/4	.57
1100	100	7/16 x 1 1/4	.72
1110	250	9/16 x 1-3/8	.81
1120	500	11/16 x 1 1/2	.93
1130	1000	11/16 x 2-1/8	1.14
1140	1500	13/16 x 2	1.26
1145	2000	13/16 x 2-3/8	1.38
10V			
1147	2000	15/16 x 2 1/2	1.47
12V			
1149	50	7/16 x 1-3/8	.60
1150	100	7/16 x 1-3/8	.72
1155	200	9/16 x 1-7/8	.81
1160	250	9/16 x 1 1/4	.87
1170	500	11/16 x 1-7/8	1.02
1180	1000	13/16 x 2-1/8	1.35
15V			
1200	1000	9/16 x 1-3/8	.75
1210	250	11/16 x 1-5/8	.93
1220	500	13/16 x 1 1/4	1.05
1230	1000	15/16 x 1-7/8	1.38
1240	2000	15/16 x 2 1/4	1.92
20V			
1243	2000	1 x 2 3/4	2.55
25V			
1245	5	7/16 x 1 1/4	.60
1250	10	7/16 x 1 1/4	.60
1255	16	7/16 x 1 1/4	.60
1260	25	7/16 x 1 1/4	.60
1265	50	7/16 x 1-3/8	.66
1270	100	9/16 x 1-5/8	.81
1280	250	13/16 x 1 1/4	1.02
1290	500	13/16 x 2 1/4	1.38
1295	1000	1-1/16 x 2-1/8	1.98
50V			
1297	1	7/16 x 1 1/4	.54
1300	2	7/16 x 1 1/4	.54
1310	5	7/16 x 1 1/4	.60
1320	10	7/16 x 1 1/4	.60
1325	15	7/16 x 1-3/8	.60
1330	20	7/16 x 1 1/4	.60
1340	25	7/16 x 1-3/8	.63
1350	50	11/16 x 1 1/2	.72
1360	100	11/16 x 1 1/4	.84
1370	150	13/16 x 1 1/4	.93
1380	250	15/16 x 1 1/4	1.05
1390	500	1-1/16 x 2 1/4	1.44
1395	1000	1 x 3	2.07
150V			
1400	4	7/16 x 1 1/4	.60
1401	5	7/16 x 1 1/4	.60
1405	8	9/16 x 1 1/4	.63
1410	10	9/16 x 1-3/8	.63
1420	12	9/16 x 1-3/8	.66
1425	15	9/16 x 1-3/8	.69
1430	16	9/16 x 1 1/4	.69
1440	20	9/16 x 1-5/8	.72
1450	24	9/16 x 1-7/8	.75
1451	25	9/16 x 1-7/8	.75
1460	30	11/16 x 1 1/2	.78
1470	40	11/16 x 1 1/4	.81
1480	50	13/16 x 1 1/4	.84

TYPE PRS-SINGLES (Cont)

Prs No.	Cap. Mfd.	Size	Net Price*
1490	60	13/16 x 1 1/4	.90
1500	80	13/16 x 2	.96
1510	100	13/16 x 2 1/4	1.05
1520	150	15/16 x 2-3/8	1.14
1530	200	15/16 x 2-7/8	1.32
1540	300	1-1/16 x 3	1.53
250V			
1550	4	7/16 x 1 1/4	.60
1555	8	9/16 x 1-3/8	.69
1560	12	9/16 x 1-5/8	.75
1565	16	11/16 x 1-3/8	.78
1570	20	11/16 x 1-5/8	.81
1575	30	11/16 x 2	.87
1580	40	13/16 x 1 1/4	.93
1585	50	13/16 x 2	1.02
1590	60	13/16 x 2-1/8	1.08
1595	100	15/16 x 2 1/2	1.47
350V			
1600	4	9/16 x 1 1/4	.63
1610	8	9/16 x 1-7/8	.72
1620	10	11/16 x 1 1/2	.75
1630	12	11/16 x 1 1/2	.78
1640	16	11/16 x 1 1/4	.84
1650	24	13/16 x 1-5/8	.93
1660	30	13/16 x 2-1/8	.99
1670	40	13/16 x 2-1/8	1.05
1680	50	15/16 x 2-1/8	1.11
1690	60	15/16 x 2-3/8	1.17
450V			
1700	1	7/16 x 1 1/4	.66
1705	2	9/16 x 1 1/4	.69
1710	4	9/16 x 1 1/4	.69
1715	8	11/16 x 1-5/8	.75
1720	10	11/16 x 1-7/8	.78
1725	12	13/16 x 1 1/2	.81
1730	16	13/16 x 1 1/4	.81
1735	20	13/16 x 2	.93
1740	30	15/16 x 2-1/8	1.02
1750	40	15/16 x 2 1/2	1.08
1760	50	15/16 x 2 1/4	1.26
1770	60	1-1/16 x 3	1.41
1780	80	1-1/16 x 3 1/4	1.68
1790	100	1-1/16 x 4	1.92
500V			
1795	1	1 1/2 x 1	.66
1800	4	9/16 x 1 1/4	.72
1805	8	13/16 x 1 1/2	.78
1810	10	13/16 x 1-5/8	.81
1815	12	13/16 x 1 1/4	.84
1820	16	13/16 x 2-1/8	.90
1830	20	15/16 x 2	.96
1840	30	15/16 x 2-5/8	1.05
600V			
1845	4	11/16 x 2 1/4	1.44
1850	8	13/16 x 2 1/4	1.71
1860	10	15/16 x 2 1/4	1.77
1870	12	15/16 x 2 1/2	1.89
1880	16	15/16 x 3 1/4	2.07
1890	20	1-1/16 x 3	2.13
700V			
1900	8	15/16 x 2 1/4	1.74
1905	10	15/16 x 3	1.83
1910	12	15/16 x 3 1/4	1.95
1915	16	1-1/16 x 3-3/8	2.10
TYPE PRS — DUALS			
15V			
2020	500-150	15/16 x 1 1/4	1.62
25V			
2050	10-10	11/16 x 1 1/4	.84
2075	20-20	11/16 x 1 1/4	.84
150V			
2150	8-8	11/16 x 1 1/4	.90

TYPE PRS-DUALS (Cont)

Prs No.	Cap. Mfd.	Size	Net Price*	
2155	16-8	13/16 x 1-3/8	.93	
2160	20-10	13/16 x 1 1/2	.93	
2165	20-20	13/16 x 1 1/4	.99	
2170	30-20	13/16 x 1 1/2	1.02	
2175	30-30	13/16 x 1-5/8	1.08	
2180	40-20	13/16 x 1-5/8	1.05	
2190	40-30	13/16 x 1 3/4	1.08	
2195	40-40	13/16 x 2	1.08	
2200	50-30	13/16 x 2	1.17	
2210	50-50	13/16 x 2 1/4	1.26	
2220	80-20	13/16 x 2 1/4	1.29	
2230	80-40	13/16 x 2 1/2	1.32	
2240	80-50	15/16 x 2-1/8	1.41	
2245	100-100	15/16 x 2-7/8	1.92	
200V				
2250	8-8	13/16 x 1 1/4	.90	
2260	16-8	13/16 x 1 1/2	.96	
2280	16-16	13/16 x 1 3/4	1.02	
2290	30-30	13/16 x 1-7/8	1.29	
250V				
2300	10-10	13/16 x 1-5/8	.99	
2320	16-16	13/16 x 2-1/8	1.02	
2330	20-20	13/16 x 1 1/4	1.11	
2340	30-30	13/16 x 2-1/8	1.35	
300V				
2345	50-10	1-1/16 x 2 1/4	1.50	
350V				
2348	30-5	15/16 x 2 1/4	1.29	
450V				
2350	8-8	13/16 x 1 1/4	1.02	
2360	10-10	13/16 x 2	1.11	
2370	16-8	13/16 x 2 1/4	1.20	
2380	16-16	15/16 x 2 1/4	1.35	
2390	20-20	15/16 x 2 1/2	1.50	
2400	30-30	1-1/16 x 3	1.80	
2410	40-20	1-1/16 x 3	1.77	
2420	40-40	1-1/16 x 3 1/4	2.01	
2430	50-30	1-1/16 x 3 1/4	2.04	
TYPE PRS — TRIPLES				
15V				
3200	500-100-100	15/16 x 1-13/16	1.80	
150V				
3500	20-20-20	15/16 x 1 1/4	1.51	
3550	30-20-10	15/16 x 1 1/4	1.51	
3555	30-25-20	15/16 x 1 1/4	1.51	
3560	30-30-20	15/16 x 1 1/4	1.58	
3570	30-30-30	15/16 x 1 1/4	1.58	
3600	40-20-20	15/16 x 1 1/4	1.58	
3625	40-30-20	15/16 x 1 1/4	1.58	
3650	40-40-20	15/16 x 1-7/8	1.63	
3675	40-40-40	15/16 x 2 1/4	1.67	
3700	50-30-10	15/16 x 1 1/4	1.58	
3750	50-30-20	15/16 x 1-7/8	1.63	
3800	80-40-20	15/16 x 2 1/4	1.74	
3825	80-50-20	15/16 x 2-3/8	1.74	
450V				
3900	10-10-10	15-16 x 2-1/8	1.67	
TYPE PRS — MULTIPLE VOLTAGES				
Prs No.	Cap Mfd.	VDCW	Size	Net Price*
4150	40-40/250	150/25	15/16 x 2 1/4	1.71
4200	20-20/20	150/25	15/16 x 1 1/4	1.48
4300	30-20/20	150/25	15/16 x 1 1/4	1.50
4350	30-20/100	150/25	15/16 x 1 1/4	1.58
4400	40-20/20	150/25	15/16 x 1 1/4	1.53
4425	40-30/20	150/25	15/16 x 1 1/4	1.55
4450	40-40/20	150/25	15/16 x 1 1/4	1.59
4475	40-40/100	150/25	15/16 x 2	1.67

*Request O.E.M. Prices in the following quantities:

25-49, 50-99, 100-249, 250-499.

TYPE PRS - MULTIPLE VOLTAGES (Cont)

Prs No.	Cap Mfd.	VDCW	Size	Net Price*
4500	50-30/20	150/25	15/16 x 1 1/4	1.59
4525	50-30/100	150/25	15/16 x 2	1.67
4550	50-30/250	150/25	15/16 x 2 1/2	1.81
4575	50-50/20	150/25	15/16 x 1-7/8	1.66
4600	80-20/100	150/25	15/16 x 2 1/4	1.69
4650	80-40/20	150/25	15/16 x 2-1/8	1.69
4700	20-20/20	450/25	1-1/16 x 2-3/8	1.86
*4800	20/100	475/50	15/16 x 2-7/8	1.56
4805	20/100	500/25	15/16 x 2-5/8	1.56
*No Tube				
TYPE PRS — AC Rated				
Prs No.	Cap. Mfd.		Size	Net Price*
6200	8	10VAC	11/16 x 1 1/2	\$.75
		25VAC		
6400	20		13/16 x 1 1/2	.75
		50VAC		
6500	30		15/16 x 1 3/4	.84
6550	60		13/16 x 2 3/4	.93
NP-PRS-NON-POLARIZED				
		3 VNP		
7050	1000		13/16 x 2	1.29
		6 VNP		
7100	500		11/16 x 2-1/8	1.17
		10 VNP		
7200	25		7/16 x 1 1/4	.69
7220	50		7/16 x 1-3/8	.75
7230	170		11/16 x 1-5/8	.96
7240	450		1-1/16 x 2 1/4	1.20
7245	500		1-1/16 x 1 3/4	1.20
**7247	200		11/16 x 1 3/4	1.08
**with bracket				
		15 VNP		
7250	500		15/16 x 1-7/8	1.31
7275	1000		1-1/16 x 2 1/4	1.74
		25 VNP		
7300	2		7/16 x 1 1/4	.69
7315	10		7/16 x 1 1/2	.75
7330	50		11/16 x 1 1/2	.84
7340	100		11/16 x 1-5/8	1.02
		30 VNP		
7350	20		9/16 x 1 1/4	.75
		50 VNP		
7400	2		7/16 x 1-1/8	.69
7405	4		7/16 x 1 1/4	.75
		150 VNP		
7450	40		1-1/16 x 2	1.02
		200 VNP		
7500	2		11/16 x 1 1/4	.75
		300 VNP		
7525	1		7/16 x 1 1/4	.75
		350 VNP		
7550	5		15/16 x 1 1/4	.78
7555	10		13/16 x 2	.93
7560	20		1-1/16 x 2 1/4	1.09
		400 VNP		
7650	10		13/16 x 2	.93
		450 VNP		
7750	4		11/16 x 1-5/8	.80



CAPACITORS

ELECTROLYTICS—(Continued) TYPE CRE ULTRA-MINIATURE 85°C ALUMINUM CASED ELECTROLYTICS



Temperature Range: —30°C to +85°C
 Capacitance Tolerance: —10%, +100%
 Nominal lead length: 1½"

Packaging: Packaged in new, patented, straight-lead, 5-pack container. Keeps leads straight. Holds five units. The 5-pack is adaptable to packaging in bulk or in single inside cartons. For full technical information request Bulletin NPJ-124

Ultra-miniature, tubular, aluminum cased electrolytics with tinned copper leads. Furnished with insulating sleeves of heat shrinkable mylar tubing which adds only ½" to can diameter and ¼" to length.

Ideal for use in bypass, filter, and coupling applications in low-voltage, compact, miniaturized equipments such as personal radios, hearing aids, microphones, wire receivers, etc.

Elimination of variable or high resistance connections, freedom from corrosion and extremely low leakage characteristics have been attained through the use of a combination of all-welded construction, high purity ingredients and extreme care in manufacture and test procedures.

STOCK LISTING

Mfd.	Size	Catalog Number *	Net **Price	Mfd.	Size	Catalog Number *	Net **Price	Mfd.	Size	Catalog Number *	Net **Price
3 VDCW				12 VDCW				25 VDCW (Cont.)			
1	B	CRE200A	\$.75	1	B	CRE400A	\$.84	15	D	CRE609A	\$.87
2	B	CRE201A	.75	2	B	CRE401A	.84	20	E	CRE611A	.90
3	B	CRE202A	.75	3	B	CRE402A	.84	25	E	CRE612A	.93
4	B	CRE203A	.75	4	B	CRE403A	.84	30	E	CRE613A	.96
5	B	CRE204A	.75	5	B	CRE404A	.84	35	F	CRE614A	.99
6	B	CRE205A	.75	6	B	CRE405A	.84	40	F	CRE615A	1.02
8	B	CRE206A	.75	8	B	CRE406A	.84	50	G	CRE617A	1.08
10	B	CRE207A	.75	10	B	CRE407A	.84	30	G	CRE618A	1.08
15	B	CRE209A	.75	12	B	CRE408A	.84	75	H	CRE620A	1.17
20	B	CRE211A	.75	15	C	CRE409A	.84	100	J	CRE623A	1.26
25	B	CRE212A	.75	20	C	CRE411A	.84	125	J	CRE626A	1.26
30	C	CRE213A	.75	25	C	CRE412A	.84	50 VDCW			
35	C	CRE214A	.75	30	D	CRE413A	.87	1	B	CRE750A	.84
40	C	CRE215A	.75	35	D	CRE414A	.87	2	B	CRE751A	.84
50	C	CRE217A	.75	40	E	CRE415A	.93	3	C	CRE752A	.84
60	D	CRE218A	.84	50	E	CRE417A	.93	4	C	CRE753A	.84
75	D	CRE220A	.84	60	E	CRE418A	.93	5	C	CRE754A	.87
100	D	CRE223A	.84	75	F	CRE420A	.99	6	D	CRE755A	.87
125	E	CRE226A	.87	100	F	CRE423A	1.05	8	D	CRE756A	.90
150	E	CRE228A	.87	125	G	CRE426A	1.08	10	D	CRE757A	.90
175	F	CRE230A	.90	150	H	CRE428A	1.14	15	E	CRE759A	.90
200	F	CRE231A	.90	175	H	CRE430A	1.17	20	F	CRE761A	.90
225	G	CRE232A	.96	200	H	CRE431A	1.23	25	G	CRE762A	.93
250	G	CRE233A	.96	225	J	CRE432A	1.32	30	G	CRE763A	.96
300	G	CRE235A	.99	250	J	CRE433A	1.32	35	H	CRE764A	1.02
350	H	CRE237A	1.02	15 VDCW				40	H	CRE765A	1.05
400	H	CRE239A	1.02	1	B	CRE450A	.84	50	J	CRE767A	1.11
450	J	CRE241A	1.05	2	B	CRE451A	.84	100 VDCW			
500	J	CRE243A	1.05	3	B	CRE452A	.84	1	D	CRE900A	.84
6 VDCW				4	B	CRE453A	.84	2	D	CRE901A	.84
1	B	CRE300A	.81	5	B	CRE454A	.84	3	D	CRE902A	.84
2	B	CRE301A	.81	6	B	CRE455A	.84	4	E	CRE903A	.84
3	B	CRE302A	.81	8	B	CRE456A	.84	5	E	CRE904A	.90
4	B	CRE303A	.81	10	B	CRE457A	.84	6	E	CRE905A	.90
5	B	CRE304A	.81	15	C	CRE459A	.87	8	F	CRE906A	.93
6	B	CRE305A	.81	20	C	CRE461A	.87	10	G	CRE907A	.93
8	B	CRE306A	.81	25	D	CRE462A	.87	12	G	CRE908A	.93
10	B	CRE307A	.81	30	D	CRE463A	.90	15	H	CRE909A	.93
15	B	CRE309A	.81	35	E	CRE464A	.93	20	J	CRE911A	.96
20	C	CRE311A	.81	40	E	CRE465A	.96	25	J	CRE912A	.96
25	C	CRE312A	.81	50	E	CRE467A	.96	150 VDCW			
30	C	CRE313A	.84	60	F	CRE468A	1.02	1	D	CRE950A	.84
35	C	CRE314A	.84	75	F	CRE470A	1.02	2	E	CRE951A	.87
40	D	CRE315A	.84	100	G	CRE473A	1.08	3	E	CRE952A	.87
50	D	CRE317A	.84	125	H	CRE476A	1.17	4	E	CRE953A	.87
60	D	CRE318A	.84	150	H	CRE478A	1.17	5	E	CRE954A	.93
75	E	CRE320A	.87	175	J	CRE480A	1.26	6	F	CRE955A	.93
100	E	CRE323A	.90	200	J	CRE481A	1.26	8	G	CRE956A	.96
125	F	CRE326A	.93	25 VDCW				10	H	CRE957A	.96
150	G	CRE328A	.93	1	B	CRE600A	.84	15	H	CRE959A	.96
175	H	CRE330A	.96	2	B	CRE601A	.84	20	J	CRE961A	.96
200	H	CRE331A	.96	3	B	CRE602A	.84	SIZE CHART			
225	H	CRE332A	.99	4	B	CRE603A	.84	B	¼ x ½	F	3/8 x 13/16
250	H	CRE333A	1.02	5	B	CRE604A	.84	C	¼ x 11/16	G	3/8 x 15/16
300	J	CRE335A	1.08	6	C	CRE605A	.87	D	5/16 x 11/16	H	3/8 x 1¼
350	J	CRE337A	1.08	8	C	CRE606A	.84	E	3/8 x 11/16	J	3/8 x 1½
				10	C	CRE607A	.87				

*When ordering units without insulating sleeve delete suffix letter 'A' from Catalog No.

**Request O.E.M. Prices in the following quantities: 50-99, 100-249.



CAPACITORS

ELECTROLYTICS — (Continued)

 TYPE PTT TUBULAR
 PLASTIC-CASED ELECTROLYTICS


Small in size big in performance, designed especially for wide applications in transistorized circuitry and cramped electronic assemblies, here is a truly MINATURE electrolytic tubular that will handle full sized loads. AEROVOX Type PTT units feature "Polycap" cases that are the next best thing to metal cans for maximum protection against humidity. Advanced construction techniques assure long capacitor life. Units are rated for operation at temperatures from —30°C to +65°C.

For full technical information request Bulletin NPJ-111 Rev.

Cap.	PTT #	3 VDCW	Size	Net Price*
1	PTT 1	A	.42	
2	PTT 2	A	.42	
3	PTT 3	A	.42	
5	PTT 4	A	.42	
8	PTT 5	A	.42	
10	PTT 6	A	.42	
15	PTT 7	A	.42	
20	PTT 8	B	.42	
25	PTT 9	B	.42	
30	PTT 10	B	.42	
40	PTT 11	B	.42	
50	PTT 12	C	.42	
100	PTT 13	H	.45	
150	PTT 100	J	.45	
200	PTT 14	K	.45	
250	PTT 15	K	.48	
300	PTT 16	L	.54	
500	PTT 17	O	.75	
800	PTT 138	W	.75	

Cap.	PTT #	6 VDCW	Size	Net Price*
1	PTT 18	A	.42	
2	PTT 19	A	.42	
3	PTT 20	A	.42	
5	PTT 21	A	.42	
8	PTT 22	A	.42	
10	PTT 23	A	.42	
15	PTT 24	B	.42	
20	PTT 25	B	.42	
25	PTT 26	B	.42	
30	PTT 27	C	.42	
40	PTT 28	C	.45	
50	PTT 29	E	.45	
100	PTT 30	G	.45	
150	PTT 101	J	.48	
200	PTT 31	K	.48	
250	PTT 32	M	.60	
300	PTT 33	N	.75	

Cap.	PTT #	10 VDCW	Size	Net Price*
1	PTT 34	A	.42	
2	PTT 35	A	.42	
3	PTT 36	A	.42	
5	PTT 37	A	.42	
8	PTT 38	A	.42	
10	PTT 39	A	.42	
15	PTT 40	B	.42	
20	PTT 41	B	.42	
25	PTT 42	E	.45	
30	PTT 43	E	.45	
40	PTT 44	E	.45	
50	PTT 45	F	.45	
100	PTT 46	J	.45	
150	PTT 102	K	.60	
200	PTT 47	L	.75	
250	PTT 103	N	.75	
300	PTT 104	O	.75	

Cap.	PTT #	12 VDCW	Size	Net Price*
1	PTT 48	A	.42	
2	PTT 49	A	.42	
3	PTT 50	A	.42	
5	PTT 51	A	.42	
8	PTT 52	A	.42	
10	PTT 53	B	.42	
15	PTT 54	B	.42	
20	PTT 55	E	.45	
25	PTT 56	E	.45	
30	PTT 57	E	.45	
40	PTT 58	H	.45	
50	PTT 59	H	.45	
100	PTT 60	K	.45	
150	PTT 105	L	.60	
200	PTT 106	N	.75	

Cap.	PTT #	15 VDCW	Size	Net Price*
1	PTT 61	A	.42	
2	PTT 62	A	.42	
3	PTT 63	A	.42	

Cap.	PTT #	15 VDCW (Continued)	Size	Net Price*
5	PTT 64	A	.42	
8	PTT 65	B	.42	
10	PTT 66	B	.42	
15	PTT 67	B	.42	
20	PTT 68	E	.45	
25	PTT 69	E	.45	
30	PTT 70	E	.45	
40	PTT 71	H	.45	
50	PTT 72	H	.45	
100	PTT 73	K	.60	
150	PTT 107	L	.66	
200	PTT 108	O	.75	

Cap.	PTT #	20 VDCW	Size	Net Price*
1	PTT 109	A	.42	
2	PTT 110	A	.42	
3	PTT 111	A	.42	
5	PTT 112	A	.42	
8	PTT 113	B	.42	
10	PTT 114	B	.42	
15	PTT 115	E	.45	
20	PTT 116	E	.45	
25	PTT 117	E	.45	
30	PTT 118	H	.45	
40	PTT 119	H	.45	
50	PTT 120	J	.45	
100	PTT 121	N	.66	
150	PTT 122	S	.75	
200	PTT 123	U	.75	

Cap.	PTT #	25 VDCW	Size	Net Price*
1	PTT 74	A	.42	
2	PTT 75	A	.42	
3	PTT 76	A	.42	
5	PTT 77	B	.42	
8	PTT 78	B	.42	
10	PTT 79	E	.42	
15	PTT 80	E	.45	
20	PTT 81	H	.45	
25	PTT 82	H	.45	
30	PTT 83	H	.45	
40	PTT 84	J	.45	
50	PTT 85	K	.45	
100	PTT 86	N	.66	
150	PTT 124	V	.75	

Cap.	PTT #	35 VDCW	Size	Net Price*
1	PTT 125	A	.42	
2	PTT 126	A	.42	
3	PTT 127	A	.42	
5	PTT 128	D	.42	
8	PTT 129	E	.45	
10	PTT 130	E	.45	
15	PTT 131	H	.45	
20	PTT 132	H	.45	
25	PTT 133	J	.48	
30	PTT 134	J	.60	
40	PTT 135	P	.75	
50	PTT 136	R	.75	
100	PTT 137	T	.75	

Cap.	PTT #	50 VDCW	Size	Net Price*
1	PTT 87	A	.42	
2	PTT 88	A	.42	
3	PTT 89	B	.42	
5	PTT 90	C	.42	
8	PTT 91	E	.45	
10	PTT 92	H	.45	
15	PTT 93	H	.45	
20	PTT 94	J	.45	
25	PTT 95	K	.48	
30	PTT 96	K	.60	
40	PTT 97	M	.75	
50	PTT 98	N	.75	

SIZE CHART

A 1/4 x 5/8	J 3/8 x 7/8	R 7/16 x 1
B 1/4 x 1/4	K 3/8 x 1	S 7/16 x 1 1/4
C 1/4 x 7/8	L 3/8 x 1 1/8	T 7/16 x 1 1/2
E 5/16 x 1/4	M 3/8 x 1 1/4	U 1/2 x 1 1/4
F 5/16 x 7/8	N 3/8 x 1 3/8	V 7/16 x 1 3/8
G 5/16 x 1	O 3/8 x 1 1/2	W 1/2 x 1 3/8
H 3/8 x 3/4	P 7/16 x 7/8	

 TYPE B C D UPRIGHT MOUNTING
 BAKELITE CASED ELECTROLYTICS


"Polycap" cased, epoxy end filled electrolytic capacitors. Upright mounting for replacement in printed wiring, transistorized personal radios and car radios.

Small size and type of mounting make these units ideal for use in any printed wiring circuit.

Plastic case and epoxy end seal offer good moisture barrier which protects against drying out or leakage of electrolyte.

High purity foil insures long life and low leakage.

Minimum 1" lead length assists in threading connections into printed wiring boards even in tightest spaces.

Positive lead is identified by a + (plus) mark on case.

For full technical information request Bulletin NPJ-108.

Cap. Mfds.	BCD No.	Size	Net Price*
3 VDCW			
1	3001	A	.75
2	3002	A	.75
3	3003	A	.75
4	3004	A	.75
5	3005	A	.75
6	3006	A	.75
8	3008	A	.75
10	3010	A	.75
15	3015	A	.75
20	3020	A	.75
25	3025	A	.75
35	3035	B	.75
50	3050	B	.75
75	3075	B	.78
100	3100	C	.84
150	3150	D	.84
200	3200	D	.86
250	3250	F	.97
300	3300	F	.99
500-50	3X50050	N	1.14
1.5	3X100050	Q	1.20

Cap. Mfds.	BCD No.	Size	Net Price*
4 VDCW			
100-100	4X100100	F	1.05

Cap. Mfds.	BCD No.	Size	Net Price*
5 VNP			
5	5005	A	.81

Cap. Mfds.	BCD No.	Size	Net Price*
6 VDCW			
1	6001	A	.75
2	6002	A	.75
3	6003	A	.75
4	6004	A	.75
5	6005	A	.75
6	6006	A	.75
8	6008	A	.75
10	6010	A	.75
15	6015	B	.75
20	6020	B	.75
25	6025	B	.75
35	6035	B	.75
50	6050	B	.75
75	6075	C	.81
100	6100	D	.90
150	6150	F	.96
200	6200	F	.96
100-30	6X10030	F	1.05

Cap. Mfds.	BCD No.	Size	Net Price*
8 VDCW			
800	8800	P	1.20

Cap. Mfds.	BCD No.	Size	Net Price*
10 VNP			
5	10005	A	.81

Cap. Mfds.	BCD No.	Size	Net Price*
10 VDCW			
10	10010	A	.75
25	10025	B	.75
50	10050	C	.75
80	10080	D	.84
100	10100	D	.90
190	10190	G	.99
50-30	10X5030	F	1.02
50-50	10X5050	F	1.02
80-50	10X8050	F	1.05
80-80	10X8080	F	1.05

Cap. Mfds.	BCD No.	Size	Net Price*
12 VDCW			
1	12001	A	.75
2	12002	A	.75
3	12003	A	.75
4	12004	A	.75
5	12005	A	.75
6	12006	A	.75
8	12008	A	.75
10	12010	A	.75
15	12015	B	.75
20	12020	B	.75
25	12025	B	.75
35	12035	B	.75
50	12050	C	.75
75	12075	D	.84
100	12100	F	.90
150	12150	G	.99
250	12250	H	1.08
500	12500	P	1.20

Cap. Mfds.	BCD No.	Size	Net Price*
15 VDCW			
1	15001	A	.75
2	15002	A	.75
3	15003	A	.75
4	15004	A	.75
5	15005	A	.75
6	15006	A	.75
8	15008	A	.75
10	15010	A	.75
15	15015	B	.75
20	15020	B	.75
25	15025	B	.75
35	15035	C	.75
50	15050	C	.75
75	15075	F	.87
100	15100	F	.90
100-100	*15X100100	J	1.05
300-100	15X300100	K	1.11
500	15300	N	1.20
500	15500	P	1.20

Cap. Mfds.	BCD No.	Size	Net Price*
18 VDCW			
100	18100	M	.96

Cap. Mfds.	BCD No.	Size	Net Price*
20 VDCW			
200	20200	N	1.05
100-100	*20X100100	R	1.11

3	25003	A	.75
4	25004	A	.75
5	25005	A	.75
6	25006	A	.75
8	25008	A	.75
10	25010	A	.75
15	25015	B	.75
20	25020	C	.75
25	25025	C	.75
35	25035	D	.81
50	25050	F	.84
75	25075	F	.90



CAPACITORS

ELECTROLYTICS — (Continued)

TYPE QE61



Type QE capacitors are aluminum electrolytics designed for applications requiring high reliability and long life. Typical applications are in computer equipment, power supplies, telephone networks, industrial electronic equipment and high grade commercial and laboratory test instruments.

These units are manufactured with special high purity materials and processed under controlled conditions of cleanliness with the most modern equipment available. The aluminum container is hermetically sealed and furnished with low screw inserts with a pressure type safety vent provided in the cover.

Operating temperatures for QE61 is -20°C to $+65^{\circ}\text{C}$. Standard capacity tolerance 2.5 Volts to 150 Volts is -10% $+100\%$. For 151 Volts to 450 Volts -10% $+50\%$.

QE61 will be furnished with heat shrinkable mylar tubing which adds only .010 to the diameter and .020 to the length of the can size as shown.

For complete engineering details including ripple currents, dissipation factor, etc., request our latest bulletin NPJ-125.

AVAILABLE CAN SIZES AND DESIGNATION

Can Size Designation	Can Size Designation	Can Size Designation	Can Size Designation	Can Size Designation
1½ x 1½ A1	1¾ x 2½ B1	2 x 3½ C1	2½ x 3½ D1	3 x 4½ E1
1½ x 2½ A2	1¾ x 3½ B2	2 x 4½ C2	2½ x 4½ D2	3 x 4½ E2
1½ x 3½ A3	1¾ x 4½ B3	2 x 4½ C3	2½ x 4½ D3	3 x 5½ E3
1½ x 4½ A4	1¾ x 4½ B4	2 x 5½ C4	2½ x 5½ D4	3 x 5½ E4
1½ x 4½ A5	1¾ x 5½ B5	2 x 5½ C5	2½ x 5½ D5	

Cat. No.	Size	Capacity	Net Price*
10 VDCW			
61QE2048M	A1	1800	\$2.97
61QE2049M	A2	3600	3.45
61QE2051M	A3	7300	4.71
61QE2052M	A4	11000	5.61
61QE2058M	C2	25000	8.79
15 VDCW			
61QE2072M	A1	1500	2.97
61QE2073M	A2	3100	3.54
61QE2075M	A3	6100	4.38
61QE2076M	A4	9200	5.61
61QE2079M	C1	14000	7.41
61QE2083M	C2	21000	8.94
61QE2086M	C4	28000	11.16
61QE2088M	D2	35000	12.00
25 VDCW			
61QE2120M	A1	950	2.97
61QE2121M	A2	1900	3.60
61QE2123M	A3	3800	4.62
61QE2124M	A4	5800	5.70
61QE2127M	C1	8900	6.72
61QE2131M	C2	13000	9.60
61QE2134M	C4	17000	10.20
61QE2136M	D2	22000	11.52
61QE2140M	E1	33000	13.56
35 VDCW			
61QE2164M	E1	23000	13.50
61QE2165M	E2	27000	14.10
40 VDCW			
61QE2171M	A3	2400	4.86
61QE2175M	C1	5600	7.05
61QE2178M	C2	8300	9.27
61QE2184M	D2	14000	13.50
61QE2185M	D3	16300	13.80
50 VDCW			
61QE2192M	A1	470	2.97
61QE2193M	A2	940	3.75
61QE2195M	A3	1850	4.23
61QE2196M	A4	2830	5.79
61QE2199M	C1	4300	7.20
61QE2202M	C2	6500	8.19
61QE2206M	C4	8700	10.20
61QE2208M	D2	10900	12.90
75 VDCW			
61QE2243M	A3	950	\$ 4.05
61QE2247M	C1	2300	5.43
61QE2256M	D2	5800	10.41
100 VDCW			
61QE2268M	A4	1000	4.62
61QE2271M	C1	1600	5.22
61QE2274M	C2	2400	6.30
61QE2278M	C4	3200	8.64
61QE2280M	D2	4000	10.26
150 VDCW			
61QE2291M	A3	520	3.30
61QE2292M	A4	785	4.05
61QE2295M	C1	1200	5.55
61QE2298M	C2	1800	6.72
61QE2304M	D2	3100	9.06
61QE2308M	E1	4700	13.17
61QE2309M	E2	5400	14.10
200 VDCW			
61QE2315M	A3	400	3.27
61QE2319M	C1	960	6.90
61QE2323M	C2	1450	9.00
61QE2325M	D1	1600	9.75
250 VDCW			
61QE2340M	A4	460	3.90
61QE2343M	C1	750	5.40
61QE2346M	C2	1100	9.00
300 VDCW			
61QE2363M	A3	250	3.75
350 VDCW			
61QE2387M	A3	185	3.66
61QE2400M	D2	1100	11.25
450 VDCW			
61QE2430M	C2	340	5.82
61QE2436M	D2	570	7.26
61QE2437M	E1	850	10.80

*Request O.E.M. Prices in the following quantities: 25-49, 50-99



TYPES HCB and NPB High Capacity Low Voltage Bakelite Cased Electrolytics

Type HCB units are polarized electrolytic capacitors designed for use in industrial applications such as battery eliminators, power supplies, electric fence controls and sound movie projectors. For non-polarized applications in welding and control equipment Type NPB units are available.

Both types feature heavy-duty, moisture resistant bakelite cases which eliminate the need for outer cardboard insulating tubes. Operating temperature range from -40°C to $+85^{\circ}\text{C}$. Capacitance tolerance up to 150 VDCW -10% $+100\%$, over 150 VDCW -10% $+50\%$. High capacity etched plate construction assures long trouble-free operation. Units supplied with wrap around-footed brackets for vertical mtg.—horizontal mtg. available on Special Order.

For full technical information request bulletin NPJ-117.

TYPE HCB			HCB (Continued)		
Capacity MFD	Size	Net Price**	Capacity MFD	Size	Net Price**
6 VDCW—8V Surge			50 VDCW—75V Surge		
12000	1-13/16 x 4-3/8	\$8.16	500	1-7/16 x 3-3/8	\$3.33
			1000	1-7/16 x 3-3/8	4.25
			2000	1-13/16 x 3-3/8	5.06
			3000	1-13/16 x 4-3/8	7.00
			4000	2-1/16 x 4-3/8	7.32
12 VDCW—18V Surge			150 VDCW—185V Surge		
500	1-7/16 x 2¾	2.70	1000	1-13/16 x 4-3/8	6.44
1000	1-7/16 x 2¾	2.94			
2000	1-7/16 x 2¾	3.36			
3000	1-7/16 x 3-3/8	3.96			
4000	1-7/16 x 3-3/8	4.60			
6000	1-13/16 x 3-3/8	5.20			
10000	1-13/16 x 4-3/8	7.82			
18 VDCW—25V Surge			TYPE NPB		
500	1-7/16 x 2¾	2.89	125 VNP—175V Surge		
1000	1-7/16 x 2¾	3.31	200	1-7/16 x 3-3/8	4.04
1500	1-7/16 x 2¾	3.39	300	1-13/16 x 3-3/8	4.87
2000	1-7/16 x 2¾	3.47	500	1-13/16 x 4-3/8	6.30
4000	1-13/16 x 3-3/8	5.37			
6000	1-13/16 x 3-3/8	5.62			
25 VDCW—40V Surge			300 VNP—375V Surge		
500	1-7/16 x 2¾	2.89	15	1-7/16 x 2¾	2.87
1000	1-7/16 x 2¾	3.19	100	1-13/16 x 3-3/8	6.13
1250	1-7/16 x 3-3/8	3.43	200	2-1/16 x 4-3/8	7.00
2000	1-7/16 x 3-3/8	4.15			
3000	1-13/16 x 3-3/8	4.88	450 VNP—525V Surge		
4000	1-13/16 x 3-3/8	5.58	50	1-13/16 x 3-3/8	5.30
6000	1-13/16 x 4-3/8	7.12	100	2-1/16 x 4-3/8	7.70

**Request O.E.M. Prices in the following quantities: 10-24, 25-49, 50-99, 100-249



CAPACITORS

ADDITIONAL STYLES

For complete information on any Types shown on this page request Catalog or Brochure from Aerovox Corporation, Distributor Division, or your nearest authorized Aerovox Industrial Distributor.



TYPE G Insulated Screw-Mounting Capacitors

Hermetically-sealed aluminum can unit, threaded cover size 7/16-16 with hex nut and washer for convenient mounting on chassis. Washer can be used to insulate can from chassis. Terminals molded in cover. Cathode connection thru terminal in cover. These units are the commercial equivalent of case style CE41 and 42 of specification MIL C62A.

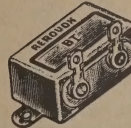
7 Stock Values - 3 Voltages



TYPE FF Photo-Flash Capacitors

Selective choice of highest purity materials makes these units ideal for rugged photoflash application calling for lowest leakage requirements. Type FF-1 furnished in molded black plastic container, type FF-2 in aluminum can with black glazed tubing; both units furnished with screw lug terminals. Highly resistant to moisture and oil. Surge voltages and time duty cycles as listed in EIA specification No. RS-154.

2 Stock Values



TYPE BT Drawn-Case "Bathtub" Electrolytic Capacitors

Hermetically-sealed units designed for rigid mounting in minimum space. Of sturdy construction, these high-quality units are commercial equivalent to the case style CE63 of MIL Specification C62A.

21 Stock Values - 6 Voltages

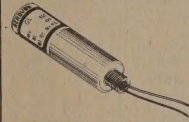


TYPE E Hermetically-Sealed, Aluminum, Round Metal-Cased Capacitors

Can be mounted with terminals upright or inverted by use of a ring-type clamp provided with unit. Can is floating, thus having two terminals on single-section capacitors, three on duals, and four on triples.

These units are the commercial equivalent of case style CE31, 2 and 3 of MIL Specification C62A.

16 Stock Values - 10 Voltages



TYPE GL

These ever-popular inverted-mounting, aluminum can units, are furnished with the same high purity materials as the more expensive type E and G. Two separate color-coded leads 4" long for each section. Inverted chassis mounting can be made, using palmnut and threaded neck. Threaded neck size 5/16-18.

24 Stock Values - 6 Voltages



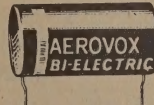
TYPE AEP Plug-in Electrolytic Capacitors

Hermetically sealed, dry electrolytic capacitor furnished in round, aluminum can and 4-pin, octal-base mounting. For quick changes, readily removed and replaced in a standard octal-base tube socket.

For use where continuous service is important. They are ideally suited for experimental testing, juke boxes and communication receiver uses. These units are the commercial equivalents of Type CE51's, 2's and 3's, as listed in MIL Specification C62A.

Operating temperature to +65°C. Quadruple element units furnished with ground lug for cathode connection.

28 Stock Values - 5 Voltages



BE - BI-ELECTRIC® MYLAR® PAPER BYPASS TUBULAR

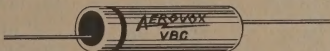
-Radial Lead Mounting

Adjunct to dipped Bi-Electric these units are furnished in Polycap® plastic case for values not normally available in DBE line. Polycap® case provides a consistent size, controlled end-fill and leads cannot crack case or pull out when mounted axially. Standard tolerance $\pm 10\%$ - operating temperature range -30°C to $+100^{\circ}\text{C}$.

54 Values - 3 Voltages

For full technical information request bulletin NPJ-118 Rev.
*Reg. DuPont trademark

Type VBC Vibrator Buffer Capacitors



These units are heavy-duty, Hyvol M impregnated, vibrator buffer capacitors in ceramic tubes, specifically designed for severe-service auto-radio applications.

AUTOPASS® Vertical Mounting Plastic-Cased Paper Capacitors



Aerovox Autopass capacitors were specifically designed and developed for use in conjunction with printed-wiring assemblies where it is highly desirable to mount capacitors at right angles to the mounting surface thereby conserving valuable space.



CAPACITORS

PAPER CAPACITORS

DIPPED BI-ELECTRIC® 10% TYPE DBE MYLAR*-PAPER BY-PASS TUBULARS

Now the "better by-pass" Bi-Electric® is presented in a dipped radial lead style. Better characteristics than all the advantages of a combination dielectric. Combines the best features of Mylar* and high quality Kraft tissue with a solid impregnant resulting in a unit that affords excellent protection against moisture, mechanical damage and damage from soldering iron contact.

The solid thermo setting impregnant will not crack, soften or flow assuring very stable units. Standard capacitance tolerance is $\pm 10\%$.

Other features of this capacitor include 125°C maximum operating temperature, low power factor, high insulation resistance. All units are furnished with crimped style leads.

For full technical information request Bulletin NPJ-130 Rev.

Cat. No.	Size	Net Price**	Cat. No.	Size	Net Price**	Cat. No.	Size	Net Price**	Cat. No.	Size	Net Price**
600 VDCW											
DBE6D1	.340 x .690	.15	DBE6D39	.370 x .690	.15	DBE6S1	.390 x .870	.18	DBE6S4	.470 x 1.150	.21
DBE6D12	.340 x .690	.15	DBE6D4	.370 x .690	.15	DBE6S12	.400 x .870	.18	DBE6S47	.490 x 1.150	.21
DBE6D15	.340 x .690	.15	DBE6D47	.400 x .690	.15	DBE6S15	.415 x .870	.18	DBE6S5	.520 x 1.180	.21
DBE6D18	.340 x .690	.15	DBE6D5	.415 x .690	.15	DBE6S18	.470 x .870	.18	DBE6S56	.520 x 1.180	.24
DBE6D2	.340 x .690	.15	DBE6D56	.415 x .690	.15	DBE6S2	.470 x .870	.18	DBE6S6	.520 x 1.180	.24
DBE6D22	.340 x .690	.15	DBE6D6	.415 x .690	.15	DBE6S22	.470 x .870	.18	DBE6S68	.540 x 1.300	.27
DBE6D25	.370 x .690	.15	DBE6D68	.430 x .690	.18	DBE6S25	.415 x 1.150	.21	DBE6S75	.570 x 1.300	.27
DBE6D27	.370 x .690	.15	DBE6D7	.430 x .690	.18	DBE6S27	.415 x 1.150	.21	DBE6S82	.590 x 1.300	.27
DBE6D3	.370 x .690	.15	DBE6D75	.370 x .870	.18	DBE6S3	.430 x 1.150	.21	DBE6P1	.640 x 1.300	.27
DBE6D33	.370 x .690	.15	DBE6D8	.370 x .870	.18	DBE6S33	.430 x 1.150	.21	DBE6P15	.650 x 1.560	.33
			DBE6D82	.370 x .870	.18	DBE6S39	.470 x 1.150	.21	DBE6P22	.750 x 1.560	.42

**Request O.E.M. Prices in the following quantities: 25-49, 50-99, 100-499, 500-999.

*Dupont Registered Trade Mark

TYPE B161Y —
High Voltage Capacitor

Now a dual purpose high voltage capacitor for use on standard DC applications or low frequency AC use. These units incorporate a dual dielectric of film and Kraft paper with a special impregnant which allows these units to be used as replacements for the higher priced glass tube capacitors. Standard tolerance is $\pm 20\%$. Operating temperature is -45°C to $+100^{\circ}\text{C}$. All units are furnished with #18 AWG wire leads. Also available on special order are units with studs for mounting in place of the glass capacitors.

Higher voltages and capacities available on request. For full technical information request bulletin NPJ-135.

Cap.	3000 VDCW	Net Price	5000 VDCW	Net Price	8000 VDCW	Net Price	10,000 VDCW	Net Price	15,000 VDCW	Net Price
.0005										
.001	1/2 x 1 5/16	.60	1/2 x 1 9/16	.72	9/16 x 1 5/8	.78	5/8 x 1 3/4	.84	5/8 x 2 3/4	1.11
.002	5/8 x 1 5/16	.63	5/8 x 1 9/16	.75	5/8 x 1 5/8	.81	3/4 x 1 3/4	.90	3/4 x 2 3/4	1.32
.005	5/8 x 1 1/2	.69	5/8 x 1 1/16	.78	3/4 x 1 3/4	.87	3/4 x 1 15/16	1.08	7/8 x 2 15/16	1.74
.01	11/16 x 1 5/8	.75	11/16 x 1 15/16	.87	7/8 x 1 7/8	1.11	15/16 x 2 3/16	1.26	1 x 3 1/2	2.22
.02	3/4 x 1 3/4	.87	7/8 x 2 5/16	1.29	115/16 x 2 1/4	1.26	1 x 2 5/8	1.74	1 x 5 3/16	2.67
.03	3/4 x 2 1/16	1.02	1 x 2 5/16	1.59	1 x 2 7/8	1.83	1 x 3 13/16	2.22		
.05	7/8 x 2 1/16	1.26	1 x 2 7/8	1.83	1 x 3 11/16	2.28	1 x 5 1/16	2.61		
.1	1 x 2 3/8	1.59	1 x 4 5/16	2.40	1 x 5 5/16	2.58				
.15	1 x 3	1.89								
.25	1 x 4 3/16	2.34								

*Request O.E.M. price in the following quantities: 25-49, 50-99, 100-499

TYPE V161

AEROFILM® (MYLAR*) CAPACITORS

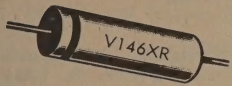
V161 Aerofilm Tubular Capacitors are high quality units in Polycap® cases. These units have exceptionally high insulation resistance and low dielectric absorption and power factor. They are extremely stable having a relatively small capacitance change with temperature variations over a range of 0 to 85°C. Their excellent resistance to humidity and moisture are due to the use of Aerofilm (Aerovox's trade name for Mylar* polyester film), finest quality casing material, and an epoxy end fill which will not flow, soften or melt at any operating temperature. Standard tolerance is $\pm 20\%$ but also available in $\pm 5\%$ and $\pm 10\%$

Cap. Mfd.	Size	Net Price*	Cap. Mfd.	Size	Net Price*	Cap. Mfd.	Size	Net Price*	Cap. Mfd.	Size	Net Price*
200 VDCW											
.0047	9/32 x 15/16	.15	.0047	9/32 x 15/16	.15	.003	9/32 x 15/16	.15	1000 VDCW		
.0068	9/32 x 15/16	.15	.0068	9/32 x 15/16	.15	.0033	9/32 x 15/16	.15	.001	9/32 x 15/16	.30
.01	9/32 x 15/16	.15	.01	5/16 x 1	.15	.004	5/16 x 1	.15	.0012	9/32 x 15/16	.30
.015	9/32 x 15/16	.15	.015	5/16 x 1	.15	.0047	5/16 x 1	.15	.0015	9/32 x 15/16	.30
.022	5/16 x 1	.15	.022	5/16 x 1-1/16	.15	.005	5/16 x 1	.15	.0018	9/32 x 15/16	.30
.033	5/16 x 1	.15	.002	11/32 x 1-1/16	.15	.0068	5/16 x 1	.18	.002	9/32 x 15/16	.30
.047	5/16 x 1-1/16	.15	.03	3/8 x 1-1/16	.18	.01	11/32 x 1-1/16	.18	.0022	9/32 x 15/16	.30
.05	5/16 x 1-1/16	.15	.033	3/8 x 1-1/16	.18	.015	3/8 x 1-3/16	.18	.0033	5/16 x 1	.30
.068	11/32 x 1-1/16	.18	.047	3/8 x 1/4	.18	.02	3/8 x 1-3/16	.18	.0039	5/16 x 1	.30
.1	3/8 x 1/4	.21	.05	3/8 x 1/4	.18	.022	13/32 x 1-3/16	.18	.0047	5/16 x 1	.30
.15	13/32 x 1/4	.24	.068	7/16 x 1/4	.21	.03	7/16 x 1-3/16	.21	.0068	11/32 x 1-1/16	.30
.22	1/2 x 1/4	.24	.1	1/2 x 1/4	.21	.033	7/16 x 1-3/16	.21	.01	3/8 x 1-1/16	.30
.25	1/2 x 1/4	.27	.15	9/16 x 1/2	.36	.04	1/2 x 1/4	.24	.018	7/16 x 1-1/16	.36
.33	1/2 x 1/2	.33	.22	9/16 x 1/2	.39	.047	1/2 x 1/4	.24	.022	7/16 x 1-1/4	.36
.47	9/16 x 1/2	.39	.33	5/8 x 1/4	.51	.05	1/2 x 1/4	.24	.025	1/2 x 1-1/4	.36
.68	19/32 x 1/4	.51	.47	11/16 x 2	.66	.068	1/2 x 1/2	.27	.027	1/2 x 1-1/4	.36
1.0	13/16 x 1-7/8	.57	.5	11/16 x 2	.69	.075	9/16 x 1/2	.30	.033	1/2 x 1-1/4	.36
			.68	25/32 x 2	.87	.1	5/8 x 1-5/8	.39	.039	1/2 x 1-1/2	.36
			1.0	7/8 x 2-1/8	1.05	.2	23/32 x 1-5/8	.48	.047	1/2 x 1-1/2	.42
						.22	3/4 x 1-5/8	.51	.056	9/16 x 1-5/8	.45
.0015	9/32 x 15/16	.15				.25	3/4 x 1/4	.54	.068	9/16 x 1-5/8	.48
.0022	9/32 x 15/16	.15				.33	13/16 x 1-7/8	.78	.075	5/8 x 1-5/8	.51
.0033	9/32 x 15/16	.15				.47	7/8 x 2-1/8	.84	.1	11/16 x 1-7/8	.54
						.5	7/8 x 2-1/8	.87	.15	13/16 x 1-7/8	.66

*Dupont trademark

*Request O.E.M. Prices in the following quantities: 25-49, 50-99, 100-249

FILM CAPACITORS
TYPES V146X AND V146XR "WRAP & FILL" AEROFILM® CAPACITORS



For Full technical information request bulletin NPJ-121 Rev.

Operating Temperature Range: Capable of operation in a temperature range of -65°C to $+85^{\circ}\text{C}$ at full voltage rating and to 125°C with voltage derating as follows:

Maximum DC Working
Voltage at 125°C

150	100
200	125
400	200
600	300

Capacity In Mfd.	150 VDC			200 VDC			400 VDC			600 VDC		
	L	Cat. No.	Net Price*	L	Cat. No.	Net Price*	L	Cat. No.	Net Price*	L	Cat. No.	Net Price*
.001	See Note 1			.156 x 1/2	V146XR-16	.31	.156 x 5/8	V146XR-37	.31	.156 x 3/4	V146XR-58	.31
.0015	See Note 1			.156 x 1/2	V146XR-17	.31	.156 x 5/8	V146XR-38	.31	.171 x 3/4	V146XR-59	.31
.0022	See Note 1			.156 x 1/2	V146XR-18	.31	.156 x 5/8	V146XR-39	.31	.187 x 3/4	V146XR-60	.31
.0033	See Note 1			.156 x 1/2	V146XR-19	.31	.156 x 5/8	V146XR-40	.31	.203 x 3/4	V146XR-61	.31
.0047	See Note 1			.156 x 1/2	V146XR-20	.31	.187 x 5/8	V146XR-41	.31	.234 x 3/4	V146XR-62	.31
.0068	See Note 1			.156 x 1/2	V146XR-21	.31	.218 x 5/8	V146XR-42	.31	.265 x 3/4	V146XR-63	.31
.01	.156 x 1/2	V146XR-1	.30	.171 x 1/2	V146XR-22	.31	.250 x 5/8	V146XR-43	.31	.312 x 3/4	V146XR-64	.31
.015	.187 x 1/2	V146XR-2	.30	.203 x 1/2	V146XR-23	.31	.296 x 5/8	V146XR-44	.31	.312 x 7/8	V146XR-65	.34
.022	.203 x 5/8	V146XR-3	.30	.250 x 5/8	V146XR-24	.31	.312 x 3/4	V146XR-45	.32	.375 x 7/8	V146XR-66	.38
.033	.218 x 5/8	V146XR-4	.30	.250 x 3/4	V146XR-25	.31	.312 x 7/8	V146XR-46	.33	.406 x 1	V146XR-67	.39
.047	.234 x 3/4	V146XR-5	.30	.296 x 3/4	V146XR-26	.31	.343 x 7/8	V146XR-47	.35	.453 x 1	V146XR-68	.43
.068	.265 x 3/4	V146XR-6	.32	.343 x 3/4	V146XR-27	.33	.375 x 1	V146XR-48	.39	.531 x 1	V146XR-69	.48
.1	.281 x 7/8	V146XR-7	.35	.375 x 7/8	V146XR-28	.35	.421 x 1	V146XR-49	.43	.562 x 1-3/8	V146XR-70	.52
.15	.328 x 7/8	V146XR-8	.38	.453 x 7/8	V146XR-29	.39	.468 x 1-1/4	V146XR-50	.47	.671 x 1-3/8	V146XR-71	.64
.22	.385 x 1	V146XR-9	.43	.438 x 1-1/8	V146XR-30	.44	.546 x 1-3/8	V146XR-51	.50	.718 x 1-5/8	V146XR-72	.86
.33	.375 x 1-1/8	V146XR-10	.45	.484 x 1-1/8	V146XR-31	.47	.593 x 1-5/8	V146XR-52	.61	.765 x 2	V146XR-73	1.09
.47	.468 x 1-1/4	V146XR-11	.54	.546 x 1-1/4	V146XR-32	.55	.671 x 1-5/8	V146XR-53	.78	.859 x 2	V146XR-74	1.25
.68	.562 x 1-1/4	V146XR-12	.59	.609 x 1-5/8	V146XR-33	.60	.796 x 1-3/4	V146XR-54	1.00	1.016 x 2	V146XR-75	1.61
1.0	.593 x 1-1/2	V146XR-13	.76	.671 x 1-3/4	V146XR-34	.85	.812 x 2	V146XR-55	1.12	1.125 x 2-1/2	V146XR-76	1.97
1.5	.718 x 1-3/4	V146XR-14	.97	.828 x 1-3/4	V146XR-35	1.31	.921 x 2-1/4	V146XR-56	1.48	1.234 x 3	V146XR-77	2.73
2.0	.812 x 1-3/4	V146XR-15	1.68	.875 x 1-7/8	V146XR-36	1.52	1.093 x 2-1/2	V146XR-57	1.92	1.421 x 3	V146XR-78	3.31

® Registered Trademark

Capacity	Thickness	Width	Length	Catalog No.	Capacity	Thickness	Width	Length	Catalog No.
150 VDC AT 85°C					400 VDC AT 85°C				
.033	3/16	11/32	15/16	V146X-15	.047	1/4	15/32	15/16	V146X-35
.047	3/16	3/8	15/16	V146X-16	.068	9/32	1/2	1-1/8	V146X-36
.068	7/32	3/8	15/16	V146X-17	.082	9/32	15/32	1-1/4	V146X-37
.082	7/32	13/32	15/16	V146X-18	.10	9/32	17/32	1-1/4	V146X-38
.1	1/4	15/32	15/16	V146X-19	.15	5/16	19/32	1-11/16	V146X-39
.15	1/4	7/16	1-1/16	V146X-20	.22	3/8	21/32	1-7/8	V146X-40
.22	1/4	17/32	1-1/4	V146X-21	.33	7/16	3/4	1-7/8	V146X-41
.33	5/16	19/32	1-1/4	V146X-22	.47	1/2	7/8	1-7/8	V146X-42
.47	7/16	23/32	1-7/16	V146X-23	.68	17/32	15/16	2-1/8	V146X-43
.68	13/32	23/32	1-11/16	V146X-24	.82	17/32	3/32	2-5/16	V146X-44
.82	15/32	3/4	1-11/16	V146X-25	1.0	9/16	1.0	2-5/16	V146X-45
1.0	13/32	3/4	1-7/8	V146X-26	600 VDC AT 85°C				
200 VDC AT 85°C					.001	3/16	5/16	13/16	V146X-46
.033	7/32	3/8	15/16	V146X-217	.0015	3/16	5/16	13/16	V146X-47
.047	7/32	13/32	15/16	V146X-218	.0022	3/16	5/16	13/16	V146X-48
.068	9/32	7/16	15/16	V146X-219	.0033	3/16	3/8	7/8	V146X-49
.1	5/16	15/32	1-1/8	V146X-220	.0047	3/16	13/32	7/8	V146X-50
.15	3/8	9/16	1-1/8	V146X-221	.0068	7/32	13/32	7/8	V146X-51
.22	13/32	9/16	1-1/4	V146X-222	.0082	1/4	13/32	7/8	V146X-52
.33	9/16	9/16	1-11/16	V146X-223	.01	1/4	7/16	7/8	V146X-53
.47	7/16	21/32	1-11/16	V146X-224	.015	5/16	1/2	7/8	V146X-54
.68	1/2	3/4	1-7/8	V146X-225	.022	5/16	1/2	1-1/16	V146X-55
1.0	9/16	13/16	2-1/8	V146X-226	.033	9/32	1/2	1-1/8	V146X-56
400 VDC AT 85°C					.047	5/16	17/32	1-1/8	V146X-57
.0033	3/16	5/16	13/16	V146X-27	.068	5/16	19/32	1-1/4	V146X-58
.0047	3/16	5/16	13/16	V146X-28	.082	3/8	5/8	1-9/16	V146X-59
.0068	3/16	5/16	13/16	V146X-29	.10	13/32	21/32	1-9/16	V146X-60
.0082	3/16	5/16	13/16	V146X-30	.15	3/8	23/32	1-7/8	V146X-61
.01	3/16	5/16	13/16	V146X-31	.22	1/2	27/32	1-7/8	V146X-62
.015	7/32	3/8	13/16	V146X-32	.33	1/2	29/32	2-1/8	V146X-63
.022	7/32	7/16	13/16	V146X-33	.47	5/8	1-11/16	2-1/8	V146X-64
.033	7/32	7/16	15/16	V146X-34	.68	11/16	1-3/32	2-7/16	V146X-65

Net Prices for V146X are same as like Vt. & Cap. in V146XR listing.



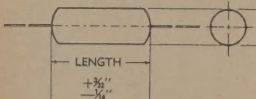
CAPACITORS

INDUSTRIAL SECTION — STANDARD TYPES
METALLIZED FILM CAPACITORSType V146Z (Flat)
Metallized Mylar* 'Wrap & Fill' Capacitors

*Dupont Trademark.

V146Z-V146ZR Metallized 'Mylar Wrap & Fill' units offer lightweight ultra miniature design featuring high insulation resistance and long stable life. These units are instrument quality and feature the self-healing characteristic of all metallized dielectrics. Standard tolerance is $\pm 10\%$. Also available at closer tolerances on request. Power factor will not exceed 1%. All leads are solder-coated "Copper-Weld" wire. These units ideally suited for use in printed assemblies and offer appreciable weight saving for use in light weight portable and air-borne equipment of all types. The flat style allows them to be mounted in banks using a minimum amount of space. For full technical information request bulletin NPJ-132 Rev.

Cap. Mfd.	Catalog Number	T	Size W L	Wire Lead Gauge	Net Price*	Cap. Mfd.	Catalog Number	T	Size W L	Wire Lead Gauge	Net Price*
100 VDCW @ 85 C						400 VDCW @ 125 C					
.1	V146Z-160	.125	.234	9/16 #22	.96	.01	V146Z-137	.140	.265	11/16 #22	.97
.15	V146Z-161	.156	.265	9/16 #22	1.06	.015	V146Z-138	.171	.296	11/16 #22	.98
.22	V146Z-162	.156	.250	11/16 #22	1.20	.022	V146Z-139	.203	.312	11/16 #22	.99
.33	V146Z-163	.203	.312	11/16 #22	1.58	.033	V146Z-140	.250	.375	11/16 #22	1.01
.47	V146Z-164	.250	.359	11/16 #22	1.78	.047	V146Z-81	.187	.281	7/8 #22	1.04
.68	V146Z-165	.218	.328	15/16 #22	2.21	.068	V146Z-141	.234	.421	15/16 #22	1.09
1.0	V146Z-166	.265	.375	15/16 #22	2.93	.1	V146Z-142	.296	.484	15/16 #22	1.11
1.5	V146Z-167	.250	.250	1 1/4 #20	3.79	.15	V146Z-143	.343	.562	15/16 #20	1.22
2.0	V146Z-168	.312	.468	1 1/4 #20	4.70	.22	V146Z-84	.281	.281	1 1/4 #20	1.36
3.0	V146Z-169	.406	.562	1 1/4 #20	6.67	.33	V146Z-85	.375	.375	1 1/4 #20	1.58
4.0	V146Z-170	.406	.562	1 3/8 #20	8.30	.47	V146Z-144	.406	.406	1 1/2 #20	1.86
5.0	V146Z-171	.375	.593	1 3/4 #20	9.79	.68	V146Z-145	.421	.890	1 1/2 #20	2.27
200 VDCW @ 85 C						1.0	V146Z-87	.531	.718	1 3/4 #20	2.91
.01	V146Z-127	.156	.203	7/16 #22	.86	1.5	V146Z-88	.500	1.093	1 3/4 #20	3.49
.015	V146Z-128	.156	.234	7/16 #22	.86	2.0	V146Z-146	.812	1.125	1 3/4 #20	4.66
.022	V146Z-129	.203	.265	7/16 #22	.88	4.0	V146Z-89	1.00	1.093	2 1/4 #20	7.87
.033	V146Z-130	.218	.281	7/16 #22	.90	600 VDCW @ 125 C					
.047	V146Z-131	.171	.265	9/16 #22	.91	.01	V146Z-147	.187	.246	11/16 #22	.99
.068	V146Z-60	.125	.250	11/16 #22	.93	.015	V146Z-148	.218	.343	11/16 #22	1.00
.1	V146Z-6	.187	.281	11/16 #22	.94	.022	V146Z-149	.250	.453	11/16 #22	1.01
.15	V146Z-61	.187	.312	11/16 #22	1.02	.033	V146Z-150	.296	.500	11/16 #22	1.03
.22	V146Z-132	.265	.375	11/16 #22	1.11	.047	V146Z-151	.234	.437	15/16 #20	1.12
.33	V146Z-133	.296	.484	11/16 #20	1.26	.068	V146Z-152	.312	.531	15/16 #20	1.20
.47	V146Z-134	.359	.546	11/16 #20	1.47	.1	V146Z-153	.375	.593	15/16 #20	1.29
.68	V146Z-135	.343	.515	11/16 #20	1.77	.15	V146Z-95	.312	.437	1 1/4 #20	1.40
1.0	V146Z-64	.312	.468	1 3/16 #20	2.19	.22	V146Z-96	.343	.531	1 1/4 #20	1.54
1.05	V146Z-65	.406	.593	1 3/16 #20	2.66	.33	V146Z-154	.515	.875	1 1/2 #20	1.78
2.0	V146Z-8	.343	.563	1 11/16 #20	3.05	.47	V146Z-155	.515	.890	1 1/2 #20	2.49
4.0	V146Z-55	.562	.687	1 11/16 #20	4.66	.68	V146Z-156	.671	1.031	1 1/2 #20	3.02
5.0	V146Z-136	.484	.843	1 3/4 #20	5.47	1.0	V146Z-157	.671	1.187	1 3/4 #20	3.70
						1.5	V146Z-158	.859	1.375	1 3/4 #20	4.80
						2.0	V146Z-159	1.032	1.515	1 3/4 #20	6.00



218 and under, $\pm .032$
219 to .500, $\pm .046$
.501 and over, $\pm .062$

Type V146ZR (Round)

Net Prices for V146ZR are same as like Vt. & Cap. in V146Z listing.

Capacity in Mfd.	100 VDC @ 85C 50 VDC @ 125C D L	Cat. No.	200 VDC @ 85C 150 VDC @ 125C D L	Cat. No.	400 VDC @ 125 C D L	Cat. No.	600 VDC @ 125 C D L	Cat. No.
.01					.180 x 9/16	V146ZR-132	.171 x 3/4	V146ZR-63
.015					.180 x 11/16	V146ZR-133	.203 x 3/4	V146ZR-64
.022					.210 x 11/16	V146ZR-134	.300 x 3/4	V146ZR-145
.033					.250 x 11/16	V146ZR-135	.370 x 3/4	V146ZR-146
.047					.300 x 11/16	V146ZR-136	.250 x 1 1/16	V146ZR-67
.068					.350 x 11/16	V146ZR-137	.296 x 1 1/16	V146ZR-68
.1	.170 x 11/16	V146ZR-111	.200 x 11/16	V146ZR-25	.325 x 1	V146ZR-138	.359 x 1 1/16	V146ZR-69
.15	.190 x 11/16	V146ZR-112	.234 x 11/16	V146ZR-26	.375 x 1	V146ZR-139	.375 x 1 1/4	V146ZR-70
.22	.215 x 11/16	V146ZR-113	.265 x 11/16	V146ZR-27	.400 x 1 1/4	V146ZR-55	.468 x 1 1/4	V146ZR-71
.33	.265 x 11/16	V146ZR-114	.340 x 11/16	V146ZR-124	.450 x 1 1/2	V146ZR-140	.453 x 3/4	V146ZR-72
.47	.315 x 11/16	V146ZR-115	.390 x 11/16	V146ZR-125	.520 x 1 1/2	V146ZR-141	.531 x 1 3/4	V146ZR-73
.68	.280 x 1	V146ZR-116	.328 x 1	V146ZR-16	.625 x 1 1/2	V146ZR-142	.800 x 1 3/4	V146ZR-147
1.0	.325 x 1	V146ZR-117	.390 x 1	V146ZR-30	.656 x 1 3/4	V146ZR-59	.950 x 1 3/4	V146ZR-148
1.5	.340 x 1 1/4	V146ZR-118	.500 x 1	V146ZR-126	.825 x 1 3/4	V146ZR-60	.859 x 2 1/4	V146ZR-76
2.0	.405 x 1 1/4	V146ZR-119	.515 x 1 3/16	V146ZR-32	.950 x 1 3/4	V146ZR-143	.890 x 2 1/4	V146ZR-17
3.0	.500 x 1 1/4	V146ZR-120	.620 x 1 1/4	V146ZR-127	.990 x 2 1/4	V146ZR-144		
4.0	.510 x 1 3/8	V146ZR-121	.650 x 1 1/2	V146ZR-128	1.032 x 2 1/4	V146ZR-62		
5.0	.510 x 1 3/4	V146ZR-122	.656 x 1 11/16	V146ZR-34				
7.0			.800 x 1 3/4	V146ZR-129				
8.0			.930 x 1 3/4	V146ZR-130				
			.990 x 1 3/4	V146ZR-131				



CAPACITORS

Type K323Z Metallized Polycarbonate Capacitors

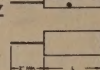
If plastic sleeve is desired add suffix "P" to type number and specify when ordering. Add 1/16" to the diameter and length and add .02 to cost of unit.

Capacity Mfd.	d x l	Net Price*	Capacity Mfd.	d x l	Net Price*	Capacity Mfd.	d x l	Net Price*	Capacity Mfd.	d x l	Net Price*
K323Z - 100 VDCW			K323Z - 200 VDCW			K323Z - 400 VDCW			K323Z - 600 VDCW		
.015	.175 x 5/8	1.59	.01	.175 x 5/8	1.83	.01	.235 x 11/16	1.86	.01	.312 x 13/16	1.95
.022	.175 x 5/8	1.59	.015	.195 x 5/8	1.83	.015	.235 x 13/16	1.86	.015	.400 x 13/16	1.98
.033	.195 x 11/16	1.62	.022	.195 x 11/16	1.83	.022	.312 x 11/16	1.95	.022	.400 x 13/16	1.98
.047	.235 x 5/8	1.68	.033	.235 x 11/16	1.86	.033	.312 x 13/16	1.95	.033	.400 x 15/16	1.98
.068	.235 x 11/16	1.77	.068	.235 x 13/16	1.95	.047	.400 x 13/16	1.95	.047	.400 x 1 1/8	2.01
.12	.312 x 13/16	2.04	.1	.312 x 13/16	2.22	.068	.400 x 15/16	2.04	.068	.400 x 1 5/16	2.13
.15	.312 x 13/16	2.07	.15	.312 x 15/16	2.25	.1	.400 x 1 1/8	2.34	.1	.562 x 1 1/8	2.43
.33	.400 x 15/16	2.25	.22	.400 x 13/16	2.25	.15	.400 x 1 5/16	2.52	.15	.562 x 1 5/16	2.73
.47	.400 x 15/16	2.34	.33	.400 x 1 1/8	2.46	.22	.562 x 1 1/8	2.61	.22	.562 x 1 13/16	2.94
.68	.400 x 1 1/8	2.49	.47	.400 x 1 5/16	2.61	.33	.562 x 1 9/16	2.88	.33	.670 x 1 13/16	3.36
1.0	.400 x 1 9/16	2.73	.68	.562 x 15/16	2.73	.47	.562 x 1 13/16	3.18	.47	.750 x 1 13/16	3.69
1.57	.562 x 1 1/8	4.35	1.0	.562 x 1 5/16	4.35	.68	.670 x 1 13/16	3.69	.68	.750 x 2 5/16	4.02
2.0	.562 x 1 5/16	5.15	1.5	.562 x 1 9/16	4.41	1.0	.750 x 2 1/16	5.37	1.0	1.0 x 2 1/16	4.71
3.0	.670 x 1 13/16	5.94	2.0	.562 x 1 13/16	5.37						
4.0	.670 x 1 13/16	7.05	3.0	.750 x 1 13/16	5.82						
5.0	.670 x 2 1/16	7.95	4.0	.750 x 2 1/16	6.96						
			5.0	.750 x 2 5/16	7.68	2.0	1.0 x 2 1/16	6.72			

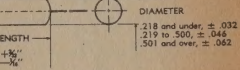
AEROVOX MINIATURE TYPE WRAP & FILL METALLIZED DIELECTRIC CAPACITORS

Aerovox Type K146Z and K146ZR offer excellent electrical characteristics to meet the miniature requirements of transistorized circuits for Military, Industrial and Consumer-Type applications. Aerovox capacitors utilize a metallized film dielectric proven by Aerovox Research and Engineering for capacitor use. Sizes chosen are consistent with high reliability and long service life at maximum rated conditions.

Type K146Z
(Flat)



Type K146ZR
(Round)



Capacity in Mfd.	100 VDC T x W x L	Cat. #	Net Price	200 VDC T x W x L	Cat. #	Net Price	Capacity in Mfd.	100 V D x L	Cat. #	Net Price	200 V D x L	Cat. #	Net Price
.027		C O N T		.125 x .234 x 1/2	K146Z-20	.01	Use 200 V		C O N T		.140 x 1/2	K146ZR-32	
.033		N T		.125 x .234 x 1/2	K146Z-21	.012	Use 200 V		T		.140 x 1/2	K146ZR-33	
.039		A C T		.125 x .234 x 1/2	K146Z-22	.015	Use 200 V		A C T		.156 x 1/2	K146ZR-34	
.056		R		.125 x .234 x 11/16	K146Z-23	.018	Use 200 V				.156 x 1/2	K146ZR-35	
.068		A C T		.140 x .250 x 11/16	K146Z-24	.027	.140 x 1/2	K146Z-6			.171 x 11/16	K146ZR-36	
.082	.125 x .218 x 9/16	K146Z-1		.140 x .250 x 11/16	K146Z-25	.033	.156 x 1/2	K146Z-7			.187 x 1/2	K146ZR-37	
.10	.140 x .250 x 9/16	K146Z-2		.171 x .281 x 11/16	K146Z-26	.039	.156 x 1/2	K146Z-8			.187 x 9/16	K146ZR-38	
.12	.156 x .265 x 9/16	K146Z-3		.187 x .296 x 11/16	K146Z-27	.047	.171 x 1/2	K146Z-9			.187 x 9/16	K146ZR-39	
.15	.140 x .250 x 11/16	K146Z-4		.218 x .328 x 11/16	K146Z-28	.068	.187 x 9/16	K146Z-10			.218 x 11/16	K146ZR-40	
.18	.156 x .265 x 11/16	K146Z-5		.250 x .359 x 11/16	K146Z-29	.082	.203 x 9/16	K146Z-11			.218 x 11/16	K146ZR-41	
.22	.171 x .281 x 11/16	K146Z-6		.265 x .375 x 11/16	K146Z-30	.082	.218 x 9/16	K146Z-12			.234 x 1 1/16	K146ZR-42	
.27	.203 x .312 x 11/16	K146Z-7		.250 x .359 x 13/16	K146Z-31	.12	.218 x 9/16	K146Z-13			.250 x 11/16	K146ZR-43	
.33	.218 x .328 x 11/16	K146Z-8		.218 x .375 x 1	K146Z-32	.15	.203 x 13/16	K146Z-14			.281 x 11/16	K146ZR-44	
.39	.250 x .359 x 11/16	K146Z-9		.234 x .390 x 1	K146Z-33	.16	.218 x 13/16	K146Z-15			.281 x 11/16	K146ZR-45	
.47	.234 x .343 x 13/16	K146Z-10		.250 x .406 x 1 1/16	K146Z-34	.22	.234 x 11/16	K146Z-16			.312 x 13/16	K146ZR-46	
.56	.234 x .390 x 1	K146Z-11		.281 x .437 x 1 3/16	K146Z-35	.27	.265 x 11/16	K146Z-17			.328 x 13/16	K146ZR-47	
.82	.281 x .429 x 1	K146Z-12		.328 x .484 x 1 3/16	K146Z-36	.33	.281 x 11/16	K146Z-18			.328 x 13/16	K146ZR-48	
1.0	.312 x .468 x 1	K146Z-13		.359 x .515 x 1 3/16	K146Z-37	.39	.343 x 1	K146Z-19			.343 x 1 3/16	K146ZR-49	
1.5	.286 x .453 x 1 3/16	K146Z-14		.399 x .556 x 1 7/16	K146Z-38	.47	.387 x 1 1/16	K146Z-20			.375 x 1 3/16	K146ZR-50	
2.0	.343 x .500 x 1 3/16	K146Z-15		.468 x .671 x 1 13/16	K146Z-39	.56	.406 x 1 1/16	K146Z-21			.406 x 1 3/16	K146ZR-51	
3.0	.296 x .493 x 13/16	K146Z-16		.515 x .718 x 1 15/16	K146Z-40	1.0	.437 x 1 3/16	K146Z-22			.453 x 1 7/16	K146ZR-52	
4.0	.343 x .546 x 1 13/16	K146Z-17		.546 x .750 x 2 3/16	K146Z-41	1.5	.421 x 13/16	K146Z-23			.484 x 1 7/16	K146ZR-53	
5.0	.375 x .578 x 1 13/16	K146Z-18				2.0	.468 x 13/16	K146Z-24			.484 x 13/16	K146ZR-54	
						5.0	.500 x 1 15/16	K146Z-25			.500 x 1 15/16	K146ZR-55	

Capacity in Mfd.	400 VDC T x W x L	Cat. #	Net Price	600 VDC T x W x L	Cat. #	Net Price	Capacity in Mfd.	400 V D x L	Cat. #	Net Price	600 V D x L	Cat. #	Net Price
.01	.140 x .250 x 9/16	K146Z-71		.125 x .281 x 11/16	K146Z-98	.01	.203 x 9/16	K146Z-88			.218 x 11/16	K146ZR-115	
.012	.140 x .250 x 9/16	K146Z-72		.140 x .296 x 11/16	K146Z-99	.012	.203 x 9/16	K146Z-89			.234 x 11/16	K146ZR-116	
.015	.171 x .281 x 9/16	K146Z-73		.156 x .312 x 11/16	K146Z-100	.015	.234 x 9/16	K146Z-90			.250 x 11/16	K146ZR-117	
.018	.187 x .296 x 9/16	K146Z-74		.187 x .343 x 11/16	K146Z-101	.018	.250 x 9/16	K146Z-91			.281 x 11/16	K146ZR-118	
.022	.203 x .312 x 9/16	K146Z-75		.203 x .359 x 11/16	K146Z-102	.022	.265 x 9/16	K146Z-92			.296 x 11/16	K146ZR-119	
.027	.218 x .328 x 11/16	K146Z-76		.234 x .384 x 11/16	K146Z-103	.027	.281 x 9/16	K146Z-93			.312 x 13/16	K146ZR-120	
.033	.203 x .312 x 11/16	K146Z-77		.218 x .375 x 13/16	K146Z-104	.033	.265 x 11/16	K146Z-94			.312 x 13/16	K146ZR-121	
.039	.234 x .343 x 11/16	K146Z-78		.187 x .390 x 1	K146Z-105	.039	.296 x 11/16	K146Z-95			.312 x 1	K146ZR-122	
.047	.250 x .359 x 11/16	K146Z-79		.203 x .406 x 1	K146Z-106	.047	.312 x 11/16	K146Z-96			.328 x 1	K146ZR-123	
.056	.281 x .390 x 11/16	K146Z-80		.218 x .421 x 1	K146Z-107	.056	.343 x 11/16	K146Z-97			.343 x 1	K146ZR-124	
.068	.265 x .375 x 13/16	K146Z-81		.250 x .359 x 1	K146Z-108	.068	.328 x 13/16	K146Z-98			.375 x 1	K146ZR-125	
.082	.281 x .390 x 13/16	K146Z-82		.281 x .484 x 1	K146Z-109	.082	.343 x 13/16	K146Z-99			.406 x 1	K146ZR-126	
.10	.250 x .406 x 1	K146Z-83		.312 x .515 x 1	K146Z-110	.1	.343 x 1	K146Z-100			.437 x 1	K146ZR-127	
.12	.281 x .437 x 1	K146Z-84		.312 x .515 x 1 3/16	K146Z-111	.12	.375 x 1	K146Z-101			.437 x 1 3/16	K146ZR-128	
.15	.296 x .453 x 1	K146Z-85		.359 x .562 x 1 3/16	K146Z-112	.15	.390 x 1	K146Z-102			.484 x 1 3/16	K146ZR-129	
.18	.343 x .500 x 1	K146Z-86		.390 x .593 x 1 7/16	K146Z-113	.18	.437 x 1 1/16	K146Z-103			.515 x 1 7/16	K146ZR-130	
.22	.390 x .546 x 1	K146Z-87		.453 x .656 x 1 7/16	K146Z-114	.22	.484 x 1	K146Z-104			.478 x 1 7/16	K146ZR-131	
.27	.375 x .531 x 1 3/16	K146Z-88		.500 x .703 x 1 7/16	K146Z-115	.27	.468 x 1 3/16	K146Z-105			.625 x 1 7/16	K146ZR-132	
.33	.343 x .546 x 1 7/16	K146Z-89		.406 x .609 x 1 13/16	K146Z-116	.33	.468 x 1 7/16	K146Z-106			.531 x 13/16	K146ZR-133	
.39	.375 x .578 x 1 7/16	K146Z-90		.453 x .656 x 1 13/16	K146Z-117	.39	.500 x 1 7/16	K146Z-107			.573 x 13/16	K146ZR-134	
.47	.421 x .625 x 1 7/16	K146Z-91		.500 x .703 x 1 13/16	K146Z-118	.47	.546 x 1 7/16	K146Z-108			.625 x 13/16	K146ZR-135	
.56	.453 x .656 x 1 7/16	K146Z-92		.562 x .765 x 1 13/16	K146Z-119	.56	.578 x 1 7/16	K146Z-109			.687 x 13/16	K146ZR-136	
.68	.515 x .718 x 1 7/16	K146Z-93		.609 x .812 x 1 13/16	K146Z-120	.68	.643 x 1 7/16	K146Z-110			.734 x 13/16	K146ZR-137	
.82	.578 x .781 x 1 7/16	K146Z-94		.687 x .890 x 1 13/16	K146Z-121	.82	.703 x 1 7/16	K146Z-111			.812 x 13/16	K146ZR-138	
1.0	.640 x .837 x 1 7/16	K146Z-95		.734 x .937 x 1 15/16	K146Z-122	1.0	.765 x 1 7/16	K146Z-112			.859 x 1 15/16	K146ZR-139	
1.5	.812 x 1.015 x 1 7/16	K146Z-96				1.5	.937 x 1 7/16	K146Z-113					
2.0	.781 x 1.00 x 1 15/16	K146Z-97				2.0	.906 x 1 15/16	K146Z-114					

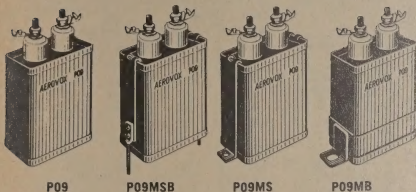
*Request O.E.M. Prices in the following quantities: 25-49, 50-99, 100-249



CAPACITORS

INDUSTRIAL SECTION — STANDARD TYPES

TYPE P09



P09

P09MSB

P09MS

P09MB

PAPER CAPACITORS

Immersion-proof units in sturdy, rectangular metal cans. High-voltage screw-type pillar terminals fitted with soldering lugs. Use of HYVOL M or J allows exceptionally compact size for capacity, working voltage and safety factor. Intended for heavy-duty, continuous service in transmitters, amplifiers, etc. Operating temperature —55 to +85°C.

Standard tolerance +20 —10%. Other tolerance on request.

Type MB bracket is supplied unless otherwise specified except on units with base sizes $3\frac{3}{4}'' \times 3\frac{3}{4}''$ and $3\frac{3}{4}'' \times 4\frac{1}{4}''$ where Type MS bracket is supplied. MSB bracket is available for all sizes on request.

Cap.	Size	Net Price*	Cap.	Size	Net Price*	Cap.	Size	Net Price*	Cap.	Size	Net Price*
600V											
.5	1-1/16 x 1-13/16 x 2 1/4	3.39	10.0	1 1/4 x 3 3/4 x 4 3/4	11.40	4.0	2 1/4 x 3 3/4 x 3-7/8	9.60	.25	2 1/4 x 3 3/4 x 2 3/4	14.40
1.0	1-1/16 x 1-13/16 x 2 1/4	3.96	12.0	2 1/4 x 3 3/4 x 3-7/8	12.75	5.0	2 1/4 x 3 3/4 x 4 3/4	12.90	.5	2 1/4 x 3 3/4 x 3-7/8	17.10
2.0	1-1/16 x 1-13/16 x 2-7/8	4.89	15.0	2 1/2 x 3 3/4 x 4 3/4	15.75	6.0	3-3/16 x 3 3/4 x 4 1/2	12.90	1.0	2 1/4 x 3 3/4 x 5-1/8	21.60
3.0	1-1/16 x 1-13/16 x 3-7/8	6.45				8.0	3-3/16 x 3 3/4 x 4 3/4	16.20	2.0	3 3/4 x 4-9/16 x 5-1/8	28.20
4.0	1-3/16 x 2 1/2 x 3 1/2	6.45	1500V			10.0	3 3/4 x 4-9/16 x 4 3/4	19.50	4.0	3 3/4 x 4-9/16 x 8 1/2	43.50
5.0	1-1/16 x 1-13/16 x 4 3/4	7.05	.5	1-1/16 x 1-13/16 x 2-7/8	4.80	12.0	3 3/4 x 4-9/16 x 5 1/2	23.40	5000V		
6.0	1-3/16 x 2 1/2 x 4 3/4	7.05	1.0	1-1/16 x 1-13/16 x 3-7/8	5.10	15.0	3 3/4 x 4-9/16 x 6 1/2	28.50	.1	2 1/4 x 3 3/4 x 2 3/4	13.50
8.0	1 1/4 x 3 3/4 x 3-7/8	7.50	2.0	1-3/16 x 2 1/2 x 4 3/4	6.30				.25	2 1/4 x 3 3/4 x 3-7/8	15.60
10.0	1 1/4 x 3 3/4 x 4 3/4	8.10	3.0	1-3/16 x 2 1/2 x 4 3/4	8.55	2500V			.5	2 1/4 x 3 3/4 x 4 1/2	17.85
12.0	1 1/2 x 3 3/4 x 4 3/4	10.05	6.0	1 1/4 x 3 3/4 x 4 3/4	8.55	.5	1-3/16 x 2 1/2 x 3 1/2	6.75	1.0	3 3/4 x 4-9/16 x 4-3/8	25.20
15.0	1 3/4 x 3 3/4 x 4 3/4	12.09	8.0	1 1/2 x 3 3/4 x 4 3/4	11.70	2.0	1 3/4 x 3 3/4 x 3 3/4	7.65	2.0	3 3/4 x 4-9/16 x 6	38.70
1000V			10.0	3-3/16 x 3 3/4 x 4 3/4	14.70	4.0	3 3/4 x 4-9/16 x 4	16.50			
.1	1-1/16 x 1-13/16 x 1-5/8	3.93	12.0	3-3/16 x 3 3/4 x 4 3/4	16.50	10.0	3 3/4 x 4-9/16 x 6-3/8	34.50	6000V		
.25	1-1/16 x 1-13/16 x 2 1/4	4.11	15.0	3 3/4 x 4-9/16 x 4 3/4	23.40				.1	2 1/4 x 3 3/4 x 3-3/8	15.30
.5	1-1/16 x 1-13/16 x 2 1/4	4.20				3000V			.25	2 1/4 x 3 3/4 x 4 1/2	18.15
1.0	1-1/16 x 1-13/16 x 2 1/4	4.74				.1	1-3/16 x 2 1/2 x 2	6.30	1.0	3 3/4 x 4-9/16 x 7 1/2	38.70
2.0	1-1/16 x 1-13/16 x 3-7/8	5.25	.1	1-1/16 x 1-13/16 x 2-1/8	4.74	.25	1-3/16 x 2 1/2 x 2 1/2	6.45	7500V		
3.0	1-3/16 x 2 1/2 x 3 1/2	6.30	.25	1-1/16 x 1-13/16 x 2-1/8	4.89	.5	1-3/16 x 2 1/2 x 3-7/8	7.20	.1	2 1/4 x 3 3/4 x 3-7/8	18.15
4.0	1-3/16 x 2 1/2 x 4 3/4	6.30	.5	1-1/16 x 1-13/16 x 2-7/8	5.22	1.0	2 1/4 x 3 3/4 x 3-7/8	8.94	.25	3 3/4 x 4-9/16 x 3-7/8	22.05
5.0	1 1/4 x 3 3/4 x 3-7/8	8.70	1.0	1-3/16 x 2 1/2 x 3 1/2	5.55	2.0	3-3/16 x 3 3/4 x 4-1/8	12.15	.5	3 3/4 x 4-9/16 x 5-1/8	29.10
6.0	1 1/4 x 3 3/4 x 4 3/4	8.70	2.0	1 1/4 x 3 3/4 x 4 3/4	6.90	4.0	3 3/4 x 4-9/16 x 4 3/4	18.00			
8.0	1 1/4 x 3 3/4 x 4 3/4	10.20	3.0	1 1/4 x 3 3/4 x 4 3/4	9.60	4000V					
						.1	2 1/4 x 3 3/4 x 2 3/4	12.69			

* Request O.E.M. Prices in the following quantities: 10-99

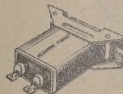


TYPE P10

Cylindrical hermetically sealed can with screw-base folded cover for vertical mounting. These units are Hyvol M or J impregnated and filled for long life and safe operation at temperatures from —55 to +85°C.

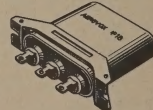
Standard units have two terminals, case floating. Standard tolerance +20% —10%. Other tolerances available on request.

6 Standard Values - 3 Voltages

TYPE P16
and P16-CT

Small corrosion and immersion-proof unit for severe atmospheric and climatic conditions. P16-CT is standard; P16 is available in 400 and 600 volts. Operating temperature —55 to +85°C. Dual units have two terminals, case grounded. Standard tolerance +20 —10%. CP0-915 and CP0-916 brackets available for P16. Base size 1-5/16 x 1-1/16, impregnated with either Hyvol M or Hyvol J.

30 Standard Values - 3 Voltages



TYPE P18-CB

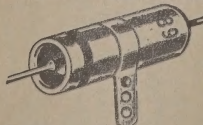
Similar to P16 in construction and electrical characteristics. Because of the difference in the base size type P18CB can be supplied with three terminals. Dual units are case floating, triples are case grounded. The size difference also makes these units suitable for use in assemblies where P16's do not fit. Operating temperature range —55 to +85°C. Standard tolerance +20 —10%, impregnated with either Hyvol M or Hyvol J.

37 Standard Values - 3 Voltages

TYPE P30
Bathtub Case

High-quality bypass capacitors furnished in drawn metal bathtub cases, hermetically sealed. These units are Hyvol M or J impregnated for operation at temperatures from —55 to +85°C. They are especially recommended for applications where high reliability and superior performance are required. Typical applications for these rugged units would include marine, aircraft and tropical climates. Standard tolerance +20% —10%.

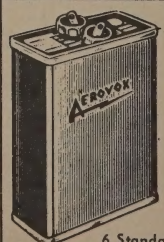
47 Standard Values - 3 Voltages



TYPE P89M

Immersion-proof, oil impregnated, oil filled units in hermetically sealed metal tubes. Ideal for coupling and bypass functions in transmitters, high voltage applications and for use in test equipment. Case is insulated, not connected to the capacitor section. Standard units are supplied with cardboard insulating sleeve and radial mounting bracket (Type P89MB).

26 Standard Values - 5 Voltages

TYPE PX
Energy Storage
Capacitors

For high-speed flash photography, flash signaling equipment, pulsing and other energy storage uses.

6 Standard Values - 5 Voltages



CAPACITORS

INDUSTRIAL SECTION — STANDARD TYPES (Continued)

PAPER SUB-MINIATURES

Tubular, metal-cased capacitors, hermetically sealed with glass terminal end seals. Miniaturized, conventional, foil-paper construction. Especially developed to meet high temperature and minimum space requirements of present day electronic equipment. Designed for rugged long life operation, these units are preferred for many of those applications where reliability is a factor. Impregnated with Hycal "S" a special, high-temperature-operating, stable, liquid impregnant for operation at elevated temperatures. These units are capable of withstanding a voltage breakdown test of twice rated voltage between terminals or between terminals and case, for a one-minute period. Ambient temperature shall be plus 25°C. plus or minus 10°C. during this test. Power factor will be less than 1% when measured or referred to a frequency of 1000 cycles per second at 25°C. Type P323S and P323SX are rigidly processed to assure operation over the temperature range of —65°C. to +125°C. The capacitor sections on types P323S utilize an inserted tab construction to obtain minimum size. Type P323SX utilizes extended foil construction for those applications where operation is required at very low AC voltages.

For equivalent types rated —65°C. to +100°C. in the same case size as shown order as P123S, SX, etc. and request prices.

These subminiature units are widely used in many applications because of their high reliability and varied case styles. To order any of these style variations add the suffix letter shown to the basic designation listed.

Suffix	STYLE VARIATIONS		Suffix	STYLE VARIATIONS	
	Description	Can size change		Description	Can size change
† S-X	As listed	As listed	GV	One end grounded with side vertical bracket	Deduct $\frac{1}{16}$ " from length
† G	As listed One end grounded	Deduct $\frac{1}{16}$ " from length	V	Both ends insulated with side vertical bracket	As listed
† GP	Grounded with plastic insulating sleeve	Add $\frac{1}{16}$ " to diameter	GB	One end grounded with soldered tangential bracket	Deduct $\frac{1}{16}$ " from length
† P	Both ends insulated with plastic sleeve	Add $\frac{1}{16}$ " to diameter and length	B	Both ends insulated with soldered tangential bracket	As listed
GT	One end grounded with threaded neck mounting	Deduct $\frac{1}{16}$ " from length	GL	One end grounded with tab terminals	Deduct $\frac{1}{16}$ " from length
T	Both ends insulated with threaded neck mounting	As listed	L	Both ends insulated with tab terminals	As listed
GE	One end grounded with axial threaded stud	Deduct $\frac{1}{16}$ " from length	R	Both ends insulated with two radial threaded studs	As listed
GR	One end grounded with two radial threaded studs	Deduct $\frac{1}{16}$ " from length			

† These style variations are available from stock. All others listed above are available on special order.

Cap.	P323S	Price*	P323SX	Price*	Cap.	P323S	Price*	P323SX	Price*	Cap.	P323S	Price*	P323SX	Price*	Cap.	P323S	Price*	P323SX	Price*
100 VOLTS					200 VOLTS (Cont.)					400 VOLTS (Cont.)					600 VOLTS (Cont.)				
.001	.175 x 3/4	1.47	.175 x 3/4	1.50	.068	.312 x 7/8	1.58	.400 x 7/8	1.70	.01	.235 x 3/4	1.55	.312 x 7/8	1.70	.11	.562 x 1-1/8	1.90	.562 x 1-3/8	1.98
.0015	.175 x 3/4	1.47	.175 x 3/4	1.50	.082	.400 x 7/8	1.62	.400 x 1-1/8	1.72	.012	.312 x 7/8	1.58	.312 x 7/8	1.70	.12	.562 x 1-3/8	1.96	.562 x 1-5/8	2.10
.002	.175 x 3/4	1.49	.175 x 3/4	1.50	.1	.400 x 7/8	1.62	.400 x 1-1/8	1.72	.015	.312 x 7/8	1.58	.312 x 7/8	1.70	.15	.562 x 1-3/8	1.98	.562 x 1-5/8	2.10
.003	.175 x 3/4	1.49	.175 x 3/4	1.50	.12	.400 x 1-1/8	1.65	.400 x 1-3/8	1.78	.018	.312 x 7/8	1.60	.400 x 1-1/8	1.75	.18	.562 x 1-3/8	1.98	.562 x 1-5/8	2.10
.004	.175 x 3/4	1.49	.175 x 3/4	1.50	.15	.400 x 1-1/8	1.65	.400 x 1-3/8	1.78	.022	.312 x 7/8	1.60	.400 x 7/8	1.75	.22	.562 x 1-7/8	2.14	.670 x 1-5/8	2.38
.008	.175 x 3/4	1.49	.195 x 3/4	1.50	.18	.400 x 1-3/8	1.80	.562 x 1-1/8	1.90	.027	.312 x 7/8	1.60	.400 x 7/8	1.75	.27	.670 x 1-7/8	2.38	.750 x 2-1/8	2.66
.015	.175 x 3/4	1.50	.235 x 3/4	1.50	.22	.400 x 1-3/8	1.80	.562 x 1-1/8	1.90	.033	.312 x 7/8	1.60	.400 x 7/8	1.75	.33	.670 x 2-1/8	2.38	.750 x 2-1/8	2.66
.022	.195 x 3/4	1.50	.312 x 7/8	1.55	.33	.562 x 1-1/8	1.94	.562 x 1-3/8	2.02	.039	.400 x 7/8	1.67	.400 x 1-1/8	1.78	.39	.750 x 2-1/8	2.67	.750 x 2-3/8	2.77
.027	.235 x 3/4	1.50	.312 x 7/8	1.58	.39	.562 x 1-3/8	2.06	.562 x 1-5/8	2.10	.056	.400 x 1-1/8	1.70	.400 x 1-3/8	1.78	.47	.750 x 2-1/8	2.67	.750 x 2-3/8	2.77
.033	.235 x 3/4	1.50	.312 x 7/8	1.58	.47	.562 x 1-3/8	2.06	.562 x 1-5/8	2.10	.068	.400 x 1-1/8	1.70	.400 x 1-3/8	1.78	.56	1.000 x 1-7/8	3.33	1.000 x 2-1/8	3.67
.047	.312 x 7/8	1.50	.312 x 7/8	1.62	.56	.562 x 1-7/8	2.18	.670 x 1-5/8	2.38	.082	.400 x 1-3/8	1.75	.562 x 1-1/8	1.90	.82	1.000 x 2-3/8	3.45	1.000 x 2-5/8	3.78
.068	.312 x 7/8	1.55	.400 x 7/8	1.62	.68	.562 x 1-7/8	2.18	.670 x 1-5/8	2.38	.1	.400 x 1-3/8	1.75	.562 x 1-1/8	1.90	1.00	1.000 x 2-3/8	3.45	1.000 x 2-5/8	3.78
.082	.312 x 7/8	1.58	.400 x 7/8	1.67	.82	.670 x 1-7/8	2.61	.750 x 2-1/8	2.67	.12	.562 x 1-1/8	1.90	.562 x 1-3/8	1.98					
.1	.312 x 7/8	1.58	.400 x 7/8	1.67	1.00	.670 x 1-7/8	2.61	.750 x 2-1/8	2.67	.15	.562 x 1-1/8	1.90	.562 x 1-3/8	1.98					
.12	.400 x 7/8	1.67	.400 x 1-1/8	1.67						.18	.562 x 1-3/8	2.02	.562 x 1-5/8	2.10					
.15	.400 x 7/8	1.67	.400 x 1-1/8	1.67						.22	.562 x 1-3/8	2.02	.562 x 1-5/8	2.10					
.18	.400 x 1-1/8	1.67	.400 x 1-3/8	1.78						.27	.562 x 1-7/8	2.06	.670 x 1-5/8	2.30	.001	.400 x 7/8	1.73	.400 x 7/8	1.82
.22	.400 x 1-1/8	1.67	.400 x 1-3/8	1.78	.001	.235 x 3/4	1.47	.235 x 3/4	1.55	.33	.670 x 1-7/8	2.46	.750 x 2-1/8	2.66	.0012	.400 x 7/8	1.73	.400 x 7/8	1.82
.27	.400 x 1-3/8	1.90	.562 x 1-1/8	1.98	.0015	.235 x 3/4	1.47	.235 x 3/4	1.55	.39	.670 x 1-7/8	2.46	.750 x 2-1/8	2.66	.0015	.400 x 7/8	1.73	.400 x 7/8	1.82
.33	.400 x 1-3/8	1.90	.562 x 1-1/8	1.98	.0022	.235 x 3/4	1.49	.235 x 3/4	1.55	.47	.670 x 1-7/8	2.46	.750 x 2-1/8	2.66	.0018	.400 x 7/8	1.73	.400 x 7/8	1.82
.39	.562 x 1-1/8	2.02	.562 x 1-3/8	2.06	.0033	.235 x 3/4	1.49	.235 x 3/4	1.55	.56	.750 x 2-1/8	3.27	.750 x 2-3/8	3.51	.0022	.400 x 7/8	1.78	.400 x 7/8	1.86
.47	.562 x 1-1/8	2.02	.562 x 1-3/8	2.06	.0047	.235 x 3/4	1.49	.235 x 3/4	1.55	.68	.750 x 2-1/8	3.37	.750 x 2-3/8	3.51	.0033	.400 x 7/8	1.78	.400 x 7/8	1.86
.56	.562 x 1-3/8	2.10	.562 x 1-5/8	2.21	.0068	.235 x 3/4	1.50	.312 x 7/8	1.62	.82	1.000 x 1-7/8	3.38	1.000 x 2-5/8	3.64	.0039	.400 x 7/8	1.78	.400 x 7/8	1.94
.68	.562 x 1-3/8	2.10	.562 x 1-5/8	2.21	.1	.235 x 3/4	1.50	.312 x 7/8	1.67	1.00	1.000 x 1-7/8	3.38	1.000 x 2-5/8	3.64	.0047	.400 x 7/8	1.78	.400 x 7/8	1.94
.82	.562 x 1-7/8	2.14	.670 x 1-5/8	2.38	.015	.235 x 3/4	1.52	.312 x 7/8	1.68						.0056	.400 x 7/8	1.78	.400 x 7/8	1.95
1.00	.562 x 1-7/8	2.14	.670 x 1-5/8	2.38	.022	.312 x 7/8	1.58	.312 x 7/8	1.70						.0068	.400 x 7/8	1.78	.400 x 7/8	1.95
					.033	.312 x 7/8	1.58	.400 x 7/8	1.72						.0082	.400 x 7/8	1.82	.400 x 7/8	1.98
					.047	.312 x 7/8	1.62	.400 x 7/8	1.72	.001	.235 x 3/4	1.50	.235 x 3/4	1.58	.01	.400 x 7/8	1.82	.400 x 7/8	1.98
					.068	.400 x 7/8	1.67	.400 x 1-1/8	1.72	.0012	.235 x 3/4	1.50	.235 x 3/4	1.58	.012	.400 x 7/8	1.86	.400 x 1-1/8	2.01
					.1	.400 x 1-1/8	1.67	.400 x 1-3/8	1.75	.0015	.235 x 3/4	1.50	.235 x 3/4	1.58	.015	.400 x 7/8	1.86	.400 x 1-1/8	2.01
					.15	.400 x 1-3/8	1.75	.562 x 1-1/8	1.90	.0018	.235 x 3/4	1.50	.235 x 3/4	1.58	.018	.400 x 1-1/8	1.86	.400 x 1-3/8	2.03
					.22	.562 x 1-1/8	1.86	.562 x 1-3/8	2.02	.0022	.235 x 3/4	1.55	.312 x 7/8	1.82	.022	.400 x 1-1/8	1.86	.400 x 1-3/8	2.03
					.33	.562 x 1-3/8	2.02	.562 x 1-5/8	2.14	.0027	.235 x 3/4	1.55	.312 x 7/8	1.82	.027	.400 x 1-3/8	1.94	.562 x 1-1/8	2.03
					.47	.562 x 1-7/8	2.46	.670 x 1-5/8	2.56	.0033	.235 x 3/4	1.55	.312 x 7/8	1.86	.033	.400 x 1-3/8	1.94	.562 x 1-1/8	2.03
					.68	.670 x 1-7/8	2.61	.750 x 2-1/8	2.66	.0039	.235 x 3/4	1.55	.312 x 7/8	1.86	.039	.562 x 1-1/8	1.95	.562 x 1-3/8	2.09
					1.00	.750 x 2-1/8	3.37	1.000 x 2-1/8	3.66	.047	.235 x 3/4	1.55	.312 x 7/8	1.86	.047	.562 x 1-1/8	1.95	.562 x 1-3/8	2.09
										.056	.235 x 3/4	1.55	.312 x 7/8	1.70	.056	.562 x 1-3/8	2.05	.562 x 1-5/8	2.23
										.068	.235 x 3/4	1.55	.312 x 7/8	1.72	.068	.562 x 1-3/8	2.05	.562 x 1-5/8	2.23
										.082	.312 x 7/8	1.58	.312 x 7/8	1.70	.082	.562 x 1-5/8	2.19	.670 x 1-5/8	2.28
										.01	.312 x 7/8	1.58	.312 x 7/8	1.72	.1	.562 x 1-5/8	2.19	.670 x 1-5/8	2.28
										.012	.312 x 7/8	1.62	.400 x 7/8	1.75	.12	.670 x 1-5/8	2.28	.670 x 1-7/8	2.41
										.015	.312 x 7/8	1.62	.400 x 7/8	1.78	.15	.670 x 1-5/8	2.28	.670 x 1-7/8	2.41
										.018	.312 x 7/8	1.62	.400 x 7/8	1.78	.18	.750 x 2-1/8	2.47	.750 x 2-1/8	2.74
										.022	.312 x 7/8	1.62	.400 x 7/8	1.78	.22	.750 x 2-1/8	2.47	.750 x 2-1/8	2.74
										.027	.400 x 7/8	1.68	.400 x 1-1/8	1.76	.27	.750 x 2-5/8	2.74	1.000 x 2-1/8	3.05
										.033	.400 x 7/8	1.68	.400 x 1-1/8	1.76	.33	.750 x 2-5/8	2.74	1.000 x 2-1/8	3.05
										.039	.400 x 1-1/8	1.70	.400 x 1-3/8	1.82	.39	1.000 x 2-1/8	3.08	1.000 x 2-3/8	3.19
										.047	.400 x 1-1/8	1.70	.400 x 1-3/8	1.82	.47	1.000 x 2-1/8	3.08	1.000 x 2-3/8	3.19
										.056	.400 x 1-3/8	1.78	.562 x 1-1/8	1.94					
										.068	.400 x 1-3/8	1.78	.562 x 1-1/8	1.94					
										.082	.562 x 1-1/8	1.90	.562 x 1-3/8	1.98					

* Request O.E.M. Prices in the following quantities: 10-24, 25-49, 50-99, 100-499



CAPACITORS

INDUSTRIAL SECTION — STANDARD TYPES (Continued) METALLIZED-PAPER CAPACITORS

TYPE P8292ZN PLASTIC-CASED, METALLIZED-PAPER TUBULARS



**Request O.E.M. Prices in the following quantities: 25-49, 50-99, 100-499, 500-999.

Featuring an exclusive "polycap" plastic-case construction, these capacitors offer outstanding resistance to humidity and improved insulation resistance. The high temperature impregnant permits operation over the temperature range of -30° to $+100^{\circ}\text{C}$ at working voltage. Distinctive black cases are completely free of any wax coating to facilitate handling problems in automatic insertion and assembly equipment. Standard tolerance on these units is $\pm 20\%$. Available in closer tolerances upon request at an additional charge. Mechanical Tolerances— $\pm 1/16''$ on length and diameter.

For full technical information request Bulletin NPJ-113. Rev.

200 VDCW

Cap. Mfd.	D L	Catalog Number	Net** Price
.01	1/4 x 19/32	P8292ZN6	.44
.02	1/4 x 21/32	P8292ZN7	.44
.03	5/16 x 23/32	P8292ZN8	.45
.05	5/16 x 23/32	P8292ZN9	.45
.1	3/8 x 23/32	P8292ZN10	.47
.25	1/2 x 23/32	P8292ZN11	.68
.5	7/16 x 1-5/32	P8292ZN12	.80
1.0	9/16 x 1-5/32	P8292ZN13	1.07
2.0	5/8 x 1-21/32	P8292ZN14	1.46
3.0	11/16 x 1-31/32	P8292ZN206	1.80
4.0	13/16 x 1-15/16	P8292ZN207	2.25
5.0	7/8 x 1-15/16	P8292ZN208	2.70
6.0	15/16 x 1-15/16	P8292ZN209	3.45
8.0	15/16 x 2-3/8	P8292ZN210	4.35
10.0	1 x 2-3/8	P8292ZN211	4.80

400 VDCW

Cap. Mfd.	D x L	Catalog Number	Net** Price
.01	5/16 x 23/32	P8292ZN15	.44
.02	3/8 x 23/32	P8292ZN16	.45
.03	3/8 x 23/32	P8292ZN17	.45
.05	7/16 x 23/32	P8292ZN18	.47

400 VDCW

Cap. Mfd.	D x L	Catalog Number	Net** Price
.1	7/16 x 1-5/32	P8292ZN19	.51
.25	9/16 x 1-5/32	P8292ZN20	.74
.5	5/8 x 1-15/32	P8292ZN21	.95
1.0	11/16 x 1-31/32	P8292ZN22	1.32
2.0	7/8 x 2-3/8	P8292ZN23	1.86
3.0	1 x 2-7/8	P8292ZN212	2.64
4.0	1 x 3-5/8	P8292ZN213	3.39

600 VDCW

Cap. Mfd.	D x L	Catalog Number	Net** Price
.01	3/8 x 23/32	P8292ZN24	.45
.02	3/8 x 23/32	P8292ZN25	.47
.03	7/16 x 23/32	P8292ZN26	.50
.05	1/2 x 23/32	P8292ZN27	.53
.1	7/16 x 1-5/32	P8292ZN28	.59
.25	5/8 x 1-5/32	P8292ZN29	.92
.5	11/16 x 1-19/32	P8292ZN30	1.15
1.0	13/16 x 2	P8292ZN31	1.43
2.0	1 x 2-3/8	P8292ZN32	2.03
3.0	1 x 3-3/8	P8292ZN214	2.73

TYPE P95ZN

Micro-Miniature Dipped Metallized Paper Capacitors

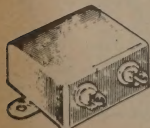
Aerovox Type P95ZN capacitors employ an entirely new internal construction concept and utilize a dipped resinous housing to produce remarkably small sizes. The dielectric is a distinct departure from conventional foil paper and previous metallized paper construction. This new and improved metallized dielectric provides both the dielectric and the electrodes. Since capacitance is predetermined mechanically in the initial processing, the human element is eliminated for capacitance control. In addition, the P95ZN offers unusually strong lead connections as the result of an exclusive Aerovox manufacturing process. Leads are hot tin-cold phosphor bronze.

These Aerovox micro-miniature capacitors are especially suited for applications where low capacity units are now being used.

Cat. No.	Capacity	Net Price*	Size	Cat. No.	Capacity	Net Price*	Size
200 VDCW				600 VDCW			
P95ZN1	.004	.40	.217 x .473	P95ZN12	.00005	.40	.217 x .473
P95ZN2	.005	.40	.217 x .473	P95ZN13	.0001	.40	.217 x .473
P95ZN3	.01	.40	.217 x .473	P95ZN14	.0002	.40	.217 x .473
P95ZN4	.02	.50	.217 x .610	P95ZN15	.00025	.40	.217 x .473
P95ZN5	.03	.50	.256 x .610	P95ZN16	.0003	.40	.217 x .473
P95ZN6	.04	.50	.256 x .610	P95ZN17	.0005	.40	.217 x .473
P95ZN7	.05	.50	.256 x .610	P95ZN18	.001	.40	.217 x .473
400 VDCW				P95ZN19	.002	.50	.256 x .610
P95ZN8	.002	.40	.217 x .473	P95ZN20	.003	.50	.256 x .610
P95ZN9	.003	.40	.217 x .473				
P95ZN10	.005	.50	.217 x .610				
P95ZN11	.01	.50	.256 x .610				

*Request O.E.M. Prices in the following quantities: 25-49, 50-99, 100-499.

TYPE P30ZN High Temperature Bathbub Case



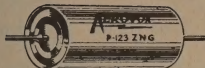
AEROVOX type P30ZN Aerolene impregnated metallized-paper capacitors housed in "bathbub" metal cases hermetically sealed. Operating temperature range -65°C to $+125^{\circ}\text{C}$ at full rating. Standard Tolerance $\pm 20\%$.

Capacity	150 V	Net* Price	200 V	Net* Price	400 V	Net* Price	600 V	Net* Price
.1			1-3/4 x 1 x 3/4	2.16	1-3/4 x 1 x 3/4	2.31	1-3/4 x 1 x 3/4	2.49
.25			1-3/4 x 1 x 3/4	2.40	1-3/4 x 1 x 3/4	2.52	1-3/4 x 1 x 3/4	2.67
.5			1-3/4 x 1 x 3/4	2.43	1-3/4 x 1 x 3/4	2.94	1-3/4 x 1 x 3/4	2.97
1.0			1-3/4 x 1 x 3/4	2.85	1-3/4 x 1 x 7/8	3.66	1-3/4 x 1 x 7/8	4.17
2.0			1-3/4 x 1 x 3/4	3.54	2 x 1-3/4 x 13/16	5.04	2 x 2 x 7/8	5.07
3.0	1-3/4 x 1 x 3/4	3.30			2 x 1-3/4 x 15/16	6.42	2 x 2 x 1-1/4	5.97
4.0	1-3/4 x 1 x 3/4	3.96			2 x 2 x 1	7.80	2 x 2 x 1-1/4	7.14
5.0	1-3/4 x 1 x 3/4	4.38			2 x 2 x 1-1/4	9.24		
6.0	1-3/4 x 1 1/4 x 7/8	4.56						
8.0	2 x 1-3/4 x 3/4	5.28						
10.0	2 x 1-3/4 x 3/4	6.09						
12.0	2 x 2 x 7/8	6.81						
15.0	2 x 2 x 1	8.25						

*Request O.E.M. Prices in the following quantities: 25-49, 50-99



CAPACITORS

INDUSTRIAL SECTION—STANDARD TYPES (Continued)
METALLIZED-PAPERTYPES P123ZN,
P123ZNG
and
TYPES P323ZN,
P323ZNGMetal-Cased
Capacitors

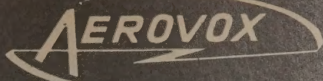
Metallized paper tubulars hermetically sealed in metal tubes with glass end seals soldered for positive moisture seal. P123ZN operating temperature range -55°C . to $+100^{\circ}\text{C}$. at full voltage rating and $+125^{\circ}\text{C}$. with voltage derating to 75%.

Type P323ZN is in a similar construction but made to operate WITHOUT VOLTAGE DERATING over a temperature range of -55°C . to $+125^{\circ}\text{C}$.

Standard tolerance — P123ZN, $-.01$ mfd. and lower $\pm 25\%$.012 mfd. and up $\pm 20\%$. Type P323ZN — all values $\pm 20\%$.

Sizes shown are for uninsulated styles, for insulated case add the suffix "P" to designation and 1/16" to diameter and length.

Capacity	P123ZN	Net Price*	P123ZNG	Net Price*	P323ZN	Net Price*	P323ZNG	Net Price*	Capacity	P123ZN	Net Price*	P123ZNG	Net Price*	P323ZN	Net Price*	P323ZNG	Net Price*
50 VOLTS																	
.047	.195 x 13/16	2.11	.195 x 7/8	1.31					.012	.235 x 13/16	1.42	.235 x 3/4	1.07	.235 x 13/16	1.56	.235 x 3/4	1.21
.068	.195 x 13/16	2.13	.195 x 3/4	1.33					.015	.235 x 13/16	1.42	.235 x 3/4	1.07	.235 x 13/16	1.56	.235 x 3/4	1.21
.1	.195 x 15/16	2.15	.195 x 7/8	1.35					.018	.235 x 13/16	1.42	.235 x 3/4	1.07	.312 x 13/16	1.60	.312 x 3/4	1.25
.15	.235 x 15/16	2.18	.235 x 7/8	1.38					.02	.235 x 13/16	1.42	.235 x 3/4	1.07				
.22	.312 x 13/16	2.22	.312 x 3/4	1.42					.022	.235 x 13/16	1.43	.235 x 3/4	1.08	.312 x 13/16	1.61	.312 x 3/4	1.26
.33	.312 x 1-1/8	2.27	.312 x 1-1/16	1.47					.027	.312 x 13/16	1.43	.312 x 3/4	1.08	.312 x 13/16	1.61	.312 x 3/4	1.26
.47	.312 x 1-3/16	2.34	.312 x 1-1/8	1.54					.033	.312 x 13/16	1.43	.312 x 3/4	1.08	.312 x 13/16	1.61	.312 x 3/4	1.26
.68	.400 x 1-1/8	2.54	.400 x 1-1/16	1.73					.039	.312 x 1-1/8	1.43	.312 x 1-1/16	1.08	.500 x 1-1/8	1.84	.500 x 1-1/16	1.49
1.0	.400 x 1-5/16	2.75	.400 x 1-1/4	1.95					.04	.312 x 1-1/8	1.43	.312 x 1-1/16	1.08	.500 x 1-1/8	1.84	.500 x 1-1/16	1.49
1.5	.500 x 1-1/8	3.08	.500 x 1-1/16	2.28					.047	.312 x 1-1/8	1.43	.312 x 1-1/16	1.08	.500 x 1-1/8	1.84	.500 x 1-1/16	1.49
2.0	.562 x 1-5/16	3.41	.562 x 1-1/4	2.61					.05	.312 x 1-1/8	1.43	.312 x 1-1/16	1.08	.500 x 1-1/8	1.84	.500 x 1-1/16	1.49
3.0	.562 x 1-7/16	3.86	.562 x 1-3/8	3.06					.056	.312 x 1-1/8	1.50	.312 x 1-1/16	1.15	.500 x 1-1/8	1.84	.500 x 1-1/16	1.49
4.0	.670 x 1-7/16	4.31	.670 x 1-3/8	3.51					.068	.312 x 1-1/8	1.53	.312 x 1-1/16	1.18	.500 x 1-1/8	1.84	.500 x 1-1/16	1.49
200 VOLTS																	
.0005	.175 x 1/2	1.36	.175 x 7/16	1.01					.082	.400 x 1-1/8	1.54	.400 x 1-1/16	1.19	.400 x 1-1/8	1.70	.400 x 1-1/16	1.34
.001	.175 x 1/2	1.36	.175 x 7/16	1.01					.1	.400 x 1-1/8	1.55	.400 x 1-1/16	1.20	.400 x 1-1/8	1.74	.400 x 1-1/16	1.39
.002	.175 x 1/2	1.36	.175 x 7/16	1.01					.12	.500 x 1-1/8	1.60	.500 x 1-1/16	1.25	.500 x 1-1/8	1.79	.500 x 1-1/16	1.44
.003	.175 x 1/2	1.36	.175 x 7/16	1.01					.15	.500 x 1-1/8	1.63	.500 x 1-1/16	1.28	.500 x 1-1/8	1.84	.500 x 1-1/16	1.49
.005	.175 x 1/2	1.36	.175 x 7/16	1.01					.18	.500 x 1-1/8	1.64	.500 x 1-1/16	1.29	.500 x 1-1/8	1.88	.500 x 1-1/16	1.53
.01	.175 x 1/2	1.36	.175 x 7/16	1.01	.175 x 1/2	1.51	.175 x 7/16	1.16	.2	.500 x 1-1/8	1.64	.500 x 1-1/16	1.29	.562 x 1-1/8	1.91	.562 x 1-1/16	1.56
.012	.195 x 5/8	1.36	.195 x 9/16	1.01	.195 x 5/8	1.51	.195 x 9/16	1.16	.22	.562 x 1-1/8	1.81	.562 x 1-1/16	1.46	.562 x 1-1/8	1.97	.562 x 1-1/16	1.62
.015	.195 x 5/8	1.36	.195 x 9/16	1.01	.195 x 5/8	1.51	.195 x 9/16	1.16	.25	.562 x 1-1/8	1.81	.562 x 1-1/16	1.46	.562 x 1-1/8	2.11	.562 x 1-1/16	1.76
.018	.195 x 5/8	1.36	.195 x 9/16	1.01	.235 x 5/8	1.51	.235 x 9/16	1.16	.33	.562 x 1-3/8	1.90	.562 x 1-5/16	1.55	.562 x 1-3/8	2.19	.562 x 1-5/16	1.84
.02	.195 x 5/8	1.36	.195 x 9/16	1.01	.235 x 5/8	1.51	.235 x 9/16	1.16	.47	.562 x 1-5/8	1.94	.562 x 1-9/16	1.59	.562 x 1-5/8	2.34	.562 x 1-9/16	2.11
.022	.195 x 5/8	1.36	.195 x 9/16	1.01	.235 x 5/8	1.51	.235 x 9/16	1.16	.5	.562 x 1-5/8	2.14	.562 x 1-9/16	1.79				
.027	.235 x 5/8	1.37	.235 x 9/16	1.02	.235 x 5/8	1.51	.235 x 9/16	1.16	.56	.670 x 1-5/8	2.14	.670 x 1-9/16	1.82	.670 x 1-5/8	2.49	.670 x 1-9/16	2.14
.033	.235 x 5/8	1.38	.235 x 9/16	1.03	.235 x 3/4	1.53	.235 x 11/16	1.18	.68	.670 x 1-5/8	2.17	.670 x 1-9/16	1.82	.670 x 1-5/8	2.68	.670 x 1-9/16	2.33
.039	.235 x 11/16	1.40	.235 x 5/8	1.05	.235 x 13/16	1.53	.235 x 3/4	1.18	.82	.670 x 1-7/8	2.30	.670 x 1-13/16	1.95	.750 x 1-7/8	2.85	.750 x 1-13/16	2.50
.04	.235 x 11/16	1.42	.235 x 5/8	1.07					1.0	.750 x 2-3/8	3.01	.750 x 2-1/16	2.65	1.000 x 1-7/8	3.90	1.000 x 1-13/16	3.55
.047	.235 x 11/16	1.42	.235 x 5/8	1.07	.235 x 13/16	1.57	.235 x 3/4	1.22	2.0	.1000 x 1-7/8	3.51	1.000 x 1-13/16	3.16	1.000 x 1-7/8	4.86	1.000 x 1-13/16	4.51
.05	.235 x 11/16	1.42	.235 x 5/8	1.07					600 VOLTS								
.056	.235 x 13/16	1.43	.235 x 3/4	1.08	.235 x 13/16	1.57	.235 x 3/4	1.22	.0005	.235 x 1/2	1.40	.235 x 7/16	1.05				
.068	.312 x 13/16	1.45	.312 x 3/4	1.10	.312 x 13/16	1.61	.312 x 3/4	1.26	.001	.235 x 5/8	1.40	.235 x 9/16	1.05	.235 x 3/4	1.62	.235 x 11/16	1.27
.082	.312 x 13/16	1.46	.312 x 3/4	1.11	.312 x 13/16	1.61	.312 x 3/4	1.26	.002	.235 x 5/8	1.40	.235 x 9/16	1.05	.235 x 3/4	1.62	.235 x 11/16	1.27
.1	.312 x 13/16	1.48	.312 x 3/4	1.13	.312 x 13/16	1.63	.312 x 3/4	1.28	.003	.235 x 5/8	1.43	.235 x 9/16	1.08	.235 x 3/4	1.62	.235 x 11/16	1.27
.12	.312 x 1-1/8	1.49	.312 x 1-1/16	1.14	.312 x 1-1/8	1.63	.312 x 1-1/16	1.28	.004	.235 x 5/8	1.43	.235 x 9/16	1.08	.235 x 3/4	1.62	.235 x 11/16	1.27
.15	.312 x 1-1/8	1.49	.312 x 1-1/16	1.14	.312 x 1-1/8	1.67	.312 x 1-1/16	1.32	.005	.235 x 5/8	1.45	.235 x 9/16	1.10				
.18	.312 x 1-1/8	1.50	.312 x 1-1/16	1.15	.400 x 7/8	1.67	.400 x 13/16	1.32	.001	.235 x 13/16	1.45	.235 x 3/4	1.10	.312 x 13/16	1.62	.312 x 3/4	1.27
.22	.312 x 1-1/8	1.50	.312 x 1-1/16	1.15	.400 x 7/8	1.67	.400 x 13/16	1.32	.012	.312 x 13/16	1.46	.312 x 3/4	1.11	.312 x 13/16	1.63	.312 x 3/4	1.28
.25	.312 x 1-1/8	1.62	.312 x 1-1/16	1.27	.400 x 1-1/8	1.67	.400 x 1-1/16	1.32	.015	.312 x 13/16	1.46	.312 x 3/4	1.11	.312 x 13/16	1.63	.312 x 3/4	1.28
.27	.400 x 1-1/8	1.62	.400 x 1-1/16	1.27	.400 x 1-1/8	1.82	.400 x 1-1/16	1.47	.018	.312 x 13/16	1.46	.312 x 3/4	1.11	.312 x 13/16	1.63	.312 x 3/4	1.28
.33	.400 x 1-1/8	1.62	.400 x 1-1/16	1.27	.400 x 1-1/8	1.82	.400 x 1-1/16	1.47	.022	.312 x 13/16	1.46	.312 x 3/4	1.11				
.39	.400 x 1-1/8	1.70	.400 x 1-1/16	1.35	.400 x 1-1/8	1.82	.400 x 1-1/16	1.47	.027	.312 x 13/16	1.48	.312 x 3/4	1.13	.312 x 13/16	1.64	.312 x 3/4	1.29
.47	.400 x 1-1/8	1.71	.400 x 1-1/16	1.36	.500 x 1-1/8	1.93	.500 x 1-1/16	1.58	.033	.400 x 13/16	1.48	.400 x 3/4	1.13	.312 x 1-1/8	1.64	.312 x 1-1/16	1.29
.5	.400 x 1-1/8	1.73	.500 x 1-1/16	1.38	.500 x 1-1/8	1.93	.500 x 1-1/16	1.58	.039	.400 x 13/16	1.49	.400 x 3/4	1.14	.400 x 1-1/8	1.64	.400 x 1-1/16	1.29
.58	.500 x 1-1/8	1.78	.500 x 1-1/16	1.43	.500 x 1-1/8	2.00	.500 x 1-1/16	1.65	.04	.400 x 13/16	1.49	.400 x 3/4	1.14				
.62	.562 x 1-1/8	1.90	.562 x 1-1/16	1.55	.562 x 1-1/8	2.00	.562 x 1-1/16	1.65	.047	.400 x 13/16	1.50	.400 x 3/4	1.15	.400 x 1-1/8	1.66	.400 x 1-1/16	1.31
1.0	.562 x 1-1/8	1.92	.562 x 1-1/16	1.57	.562 x 1-1/8	2.15	.562 x 1-1/16	1.80	.05	.400 x 13/16	1.50	.400 x 3/4	1.15				
1.5	.562 x 1-5/8	2.73	.562 x 1-9/16	2.38	.562 x 1-5/8	3.22	.562 x 1-9/16	2.87	.056	.400 x 1-1/8	1.55	.400 x 1-1/16	1.20	.400 x 1-1/8	1.70	.400 x 1-1/16	1.35
2.0	.562 x 1-7/8	2.73	.562 x 1-13/16	2.38	.670 x 1-5/8	3.90	.670 x 1-9/16	3.55	.068	.400 x 1-1/8	1.57	.400 x 1-1/16	1.22	.400 x 1-1/8	1.77	.400 x 1-1/16	1.42
3.0	.670 x 1-7/8	3.62	.670 x 1-13/16	3.27	.670 x 1-7/8	4.26	.670 x 1-13/16	3.91	.082	.400 x 1-1/8	1.60	.400 x 1-1/16	1.25	.500 x 1-1/8	1.79	.500 x 1-1/16	1.43
4.0	.750 x 1-7/8	3.89	.750 x 1-13/16	3.54	.750 x 1-7/8	5.09	.750 x 1-13/16	4.73	.1	.400 x 1-1/8	1.61	.400 x 1-1/16	1.26	.500 x 1-1/8	1.79	.500 x 1-1/16	1.43
5.0	1.000 x 1-7/8	4.10	1.000 x 1-13/16	3.75	1.000 x 1-7/8	5.61	1.000 x 1-13/16	5.25	.12	.500 x 1-1/8	1.70	.500 x 1-1/16	1.35	.500 x 1-1/8	1.90	.500 x 1-1/16	1.55
6.0	1.000 x 1-7/8	4.31	1.000 x 1-13/16	3.96	1.000 x 1-7/8	6.03	1.000 x 1-13/16	5.68	.15	.500 x 1-1/8	1.75	.500 x 1-1/16	1.40	.500 x 1-1/8	2.00	.500 x 1-1/16	1.65
8.0					1.000 x 1-7/8	6.23	1.000 x 1-13/16	5.87	.18	.562 x 1-1/8	1.81	.562 x 1-1/16	1.46	.562 x 1-1/8	2.09	.562 x 1-1/16	1.74
10.0					1.000 x 2-3/8	7.97	1.000 x 2-5/16	7.62	.2	.562 x 1-3/8	1.88	.562 x 1-5/16	1.53	.562 x 1-3/8	2.16	.562 x 1-5/16	1.81
12.0					1.000 x 2-5/8	8.87	1.000 x 2-9/16	8.52	.22	.562 x 1-3/8	1.88	.562 x 1-5/16	1.53	.562 x 1-3/8	2.16	.562 x 1-5/16	1.81
400 VOLTS																	
.0005	.235 x 1/2	1.36	.235 x 7/16	1.01	.235 x 3/4	1.56	.235 x 11/16	1.21	.25	.562 x 1-3/8	1.91	.562 x 1-5/16	1.56	.562 x 1-3/8	2.34	.562 x 1-5/16	1.99
.001	.235 x 1/2	1.36	.235 x 7/16	1.01	.235 x 3/4	1.56	.235 x 11/16	1.21	.27	.670 x 1-5/8	1.91	.670 x 1-9/16	1.56	.562 x 1-3/8	2.34	.562 x 1-9/16	2.11
.002	.235 x 1/2	1.36	.235 x 7/16	1.01	.235 x 3/4	1.56	.235 x 11/16	1.21	.33	.670 x 1-5/8	2.08	.670 x 1-9/16	1.74	.562 x 1-3/8	2.45	.562 x 1-9/16	2.11
.003	.235 x 5/8	1.39	.235 x 9/16	1.04	.235 x 3/4	1.56	.235 x 11/16	1.21	.39	.670 x 1-5/8	2.18	.670 x 1-9/16	1.83	.670 x 1-5/8	2.57	.670 x 1-9/16	2.22
.0047	.235 x 5/8	1.39	.235 x 9/16	1.04	.235 x 3/4	1.56	.235 x 11/16	1.21	.47	.670 x 1-5/8	2.21	.670 x 1-9/16	1.86	.670 x 1-5/8	2.68	.670 x 1-9/16	2.33
.0068	.235 x 5/8	1.42	.235 x 9/16	1.07	.235 x 3/4	1.56	.235 x 11/16	1.21	.56	.670 x 1-7/8	2.33	.670 x 1-13/16	1.98	.670 x 1-7/8	2.79	.670 x 1-13/16	2.44
.01	.235 x 5/8	1.42	.235 x 9/16	1.07	.235 x 3/4	1.56	.235 x 11/16	1.21	.68	.670 x 1-7/8	2.36	.670 x 1-13/16	2.00	.670 x 1-7/8	2.9.		



CAPACITORS

METALLIZED TUBULAR CAPACITORS



Metallized tubular capacitors in accordance with MIL-C-18312 Rev. C. Listed are the case floating style (diagram 1) only. Case grounded (diagram 3) are available on special order.

In accordance with directions in MIL-C-18312 Rev. C. units will be marked with the "Dash number" rather than type designation. CH08 types will be marked M18312/01-(), CH09 will be marked M18312/02-() as identified below. Tolerances shown are standard, available at closer tolerance on special order - Dash number changes with tolerance and case style.

Capacity Mfd.	Type Designation	Dash Number	Price*	Capacity Mfd.	Type Designation	Dash Number	Price*
50 VDCW				200 VDCW			
.018	CH*-AIRA183K	-0002	1.89	.1	CH*-AINC104M	-0122	1.63
.022	CH*-AIRA223K	-0006	1.89	.22	CH*-AINC224M	-0126	1.67
.027	CH*-AIRA273K	-0010	1.89	.47	CH*-AINC474M	-0130	1.93
.033	CH*-AIRA333K	-0014	1.89	1.0	CH*-AINC105M	-0134	2.15
.039	CH*-AIRA393K	-0018	1.89	1.5	CH*-AINC155M	-0138	3.22
.047	CH*-AIRA473K	-0022	1.89	2.0	CH*-AINC205M	-0142	3.90
.056	CH*-AIRA563K	-0026	1.89	3.0	CH*-AINC305M	-0146	4.26
.068	CH*-AIRA683K	-0030	1.89	4.0	CH*-AINC405M	-0150	5.09
.082	CH*-AIRA823K	-0034	1.89	5.0	CH*-AINC505M	-0154	5.61
.1	CH*-AIRA104K	-0038	1.92	6.0	CH*-AINC605M	-0158	6.03
.18	CH*-AIRA184K	-0042	2.01	8.0	CH*-AINC805M	-0162	6.23
.22	CH*-AIRA224K	-0046	2.04	10.0	CH*-AINC106M	-0166	7.97
.27	CH*-AIRA274K	-0050	2.07	12.0	CH*-AINC126M	-0170	8.87
.33	CH*-AIRA334K	-0054	2.13	400 VDCW			
.39	CH*-AIRA394K	-0058	2.00	.047	CH*-AINE473M	-0174	1.61
.47	CH*-AIRA474K	-0062	2.25	.1	CH*-AINE104M	-0178	1.74
.56	CH*-AIRA564K	-0066	2.43	.22	CH*-AINE224M	-0182	1.91
.68	CH*-AIRA684K	-0070	2.67	.47	CH*-AINE474M	-0186	2.34
.82	CH*-AIRA824K	-0074	2.88	1.0	CH*-AINE105M	-0190	2.94
1.0	CH*-AIRA105K	-0078	3.06	2.0	CH*-AINE205M	-0194	4.86
1.5	CH*-AIRA155K	-0082	3.36	3.0	CH*-AINE305M	-0198	
2.0	CH*-AIRA205K	-0086	4.26	600 VDCW			
2.5	CH*-AIRA255K	-0090	5.04	.01	CH*-AINF103M	-0202	1.62
3.0	CH*-AIRA305K	-0094	5.64	.022	CH*-AINF223M	-0206	1.64
4.0	CH*-AIRA405K	-0098	6.84	.047	CH*-AINF473M	-0210	1.66
5.0	CH*-AIRA505K	-0102	8.13	.1	CH*-AINF104M	-0214	1.79
6.0	CH*-AIRA605K	-0106	9.72	.22	CH*-AINF224M	-0218	2.16
7.0	CH*-AIRA705K	-0110	11.25	.47	CH*-AINF474M	-0222	2.68
10.0	CH*-AIRA106K	-0114	15.78	1.0	CH*-AINF105M	-0226	3.42
12.0	CH*-AIRA126K	-0118	18.00	1.5	CH*-AINF155M	-0230	4.19
				2.0	CH*-AINF205M	-0234	5.16
				2.5	CH*-AINF255M	-0238	

* Insert "08" for uninsulated case,

"09" for insulated case.

Prices shown are for CH08. For CH09 add approximately .02 ea. net.

* Request O.E.M. Prices in the following quantities: 25-49, 50-99



CAPACITORS

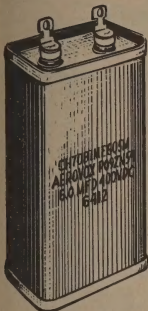
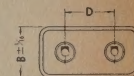
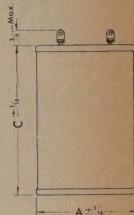
TYPE P09ZNR — MIL TYPE CH70
HIGH-TEMPERATURE METALLIZED PAPER CAPACITORS

Hermetically sealed rectangular case metallized paper capacitors, the Type P09ZNR is equivalent to the CH70 of MIL-C-18312. These units may be operated at full voltage to 125°C and offer a great deal of weight and size saving over conventional oil paper units. The operating temperature of these units is -55°C to +125°C. The P09ZNR is furnished with silicone terminals such as the "B" terminal specified in MIL-C-25. Also available with porcelain terminals equivalent to the "E" terminal on special order.

NOTES: AT PRESENT WE ARE STOCKING ONLY MIL CAPACITIES AND VOLTAGES.

ALL CAPACITIES AND VOLTAGES PREFIXED WITH ASTERISK WILL BE SUBJECT TO FACTORY DELIVERY CYCLES.

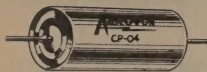
SPECIFY CHARACTERISTIC "M" OR "N" WHEN ORDERING AND ADD "K" (10%) OR "M" (20%) FOR TOLERANCE DESIRED.



Cap. Mfd.	MIL Number	S	I	Z	E	Tolerance	Net Price
		A	B	C	D		
150 VDCW							
4.0	*NOT IN MIL	1-13/16 x 1-1/16 x 1-1/4 x	13/16			K,M	C O N T A C T
6.0	*NOT IN MIL	1-13/16 x 1-1/16 x 1-1/2 x	13/16			K,M	
8.0	*NOT IN MIL	1-13/16 x 1-1/16 x 1-3/4 x	13/16			K,M	
10.0	*NOT IN MIL	1-13/16 x 1-1/16 x 1-7/8 x	13/16			K,M	
12.0	*NOT IN MIL	1-13/16 x 1-1/16 x 2-1/8 x	13/16			K,M	
15.0	CH70B1-V156-	1-13/16 x 1-1/16 x 2-3/8 x	13/16			K,M	
20.0	CH70B1-V206-	1-13/16 x 1-1/16 x 2-3/4 x	13/16			K,M	
25.0	*NOT IN MIL	1-13/16 x 1-1/16 x 3-3/8 x	13/16			K,M	
30.0	CH70B1-V306-	1-13/16 x 1-1/16 x 4-1/4 x	13/16			K,M	
40.0	*NOT IN MIL	2-1/2 x 1-3/16 x 3-1/4 x	1-1/8			K,M	
50.0	CH70B1-V506-	2-1/2 x 1-3/16 x 4 x	1-1/8			K,M	
60.0	*NOT IN MIL	3-3/4 x 1-1/4 x 3-3/8 x	2			K,M	
75.0	*NOT IN MIL	3-3/4 x 1-1/2 x 3-1/2 x	2			K,M	
100.0	*NOT IN MIL	3-3/4 x 1-3/4 x 3-3/4 x	2			K,M	
200 VDCW							
4.0	*NOT IN MIL	1-13/16 x 1-1/16 x 1-5/8 x	13/16			K,M	F A C T O R Y
6.0	*NOT IN MIL	1-13/16 x 1-1/16 x 2 x	13/16			K,M	
8.0	*NOT IN MIL	1-13/16 x 1-1/16 x 2-1/2 x	13/16			K,M	
10.0	*NOT IN MIL	1-13/16 x 1-1/16 x 3 x	13/16			K,M	
12.0	*NOT IN MIL	1-13/16 x 1-1/16 x 3-1/4 x	13/16			K,M	
15.0	*NOT IN MIL	1-13/16 x 1-1/16 x 3-7/8 x	13/16			K,M	
20.0	*NOT IN MIL	2-1/2 x 1-3/16 x 3-3/4 x	1-1/8			K,M	
25.0	*NOT IN MIL	2-1/2 x 1-3/16 x 4-1/8 x	1-1/8			K,M	
30.0	*NOT IN MIL	2-1/2 x 1-3/16 x 4-3/4 x	1-1/8			K,M	
40.0	*NOT IN MIL	3-3/4 x 1-1/4 x 4 x	2			K,M	
50.0	*NOT IN MIL	3-3/4 x 1-1/4 x 4-3/4 x	2			K,M	
60.0	*NOT IN MIL	3-3/4 x 1-3/4 x 4-3/8 x	2			K,M	
75.0	*NOT IN MIL	3-3/4 x 2-1/4 x 4-5/8 x	2			K,M	
100.0	*NOT IN MIL	3-3/4 x 2-1/4 x 5-5/8 x	2			K,M	
400 VDCW							
4.0	*NOT IN MIL	1-13/16 x 1-1/16 x 2-3/8 x	13/16			K,M	P R I C E S
6.0	CH70B1-E605-	1-13/16 x 1-1/16 x 3-1/2 x	13/16			K,M	
8.0	CH70B1-E805-	1-13/16 x 1-1/16 x 4 x	13/16			K,M	
10.0	CH70B1-E106-	1-13/16 x 1-1/16 x 4-1/4 x	13/16			K,M	
12.0	*NOT IN MIL	2-1/2 x 1-3/16 x 3-5/8 x	1-1/8			K,M	
15.0	*NOT IN MIL	2-1/2 x 1-3/16 x 4 x	1-1/8			K,M	
20.0	CH70B1-E206-	3-3/4 x 1-1/4 x 3-3/4 x	2			K,M	
25.0	*NOT IN MIL	3-3/4 x 1-1/4 x 4-1/4 x	2			K,M	
30.0	*NOT IN MIL	3-3/4 x 1-1/4 x 4-3/4 x	2			K,M	
600 VDCW							
4.0	*NOT IN MIL	1-13/16 x 1-1/16 x 2-3/4 x	13/16			K,M	P R I C E S
6.0	CH70B1-F605-	1-13/16 x 1-1/16 x 3-3/4 x	13/16			K,M	
8.0	CH70B1-F805-	2-1/2 x 1-3/16 x 3-1/4 x	1-1/8			K,M	
10.0	CH70B1-F106-	2-1/2 x 1-3/16 x 4 x	1-1/8			K,M	
12.0	*NOT IN MIL	2-1/2 x 1-3/16 x 4-3/8 x	1-1/8			K,M	
15.0	CH70B1-F156-	3-3/4 x 1-1/4 x 3-5/8 x	2			K,M	
20.0	CH70B1-F206-	3-3/4 x 1-3/4 x 3-5/8 x	2			K,M	
25.0	*NOT IN MIL	3-3/4 x 2-1/4 x 3 x	2			K,M	



CAPACITORS



INDUSTRIAL SECTION — MIL TYPES

MIL-C-25C



TYPES CPO4 and CPO5 — Characteristics K Vibration Grades 1 and 3

Hermetically sealed tubular capacitors with glass terminal seal and axial wire leads. CPO4 and CPO5 are inserted tab construction; CPO8 and CPO9 are extended foil construction. Standard tolerance is $\pm 10\%$ (K). Specify Vibration Grade when ordering.

CPO4, CHAR. K						CPO5, CHAR. K					
P3235			P3235G			P3235P			P3235GP		
		NO TUBE						PLASTIC TUBE			
CAPACITY	VOLTAGE	Case Floating	Net Price*	Case Grounded	Net Price*	Case Floating	Net Price*	Case Grounded	Net Price*		
.027	100V	CP04A1K8273K—	.78	CP04A3K8273K—	.66	CP05A1K8273K—	.84	CP05A3K8273K—	.72		
.033	100V	CP04A1K8333K—	.78	CP04A3K8333K—	.66	CP05A1K8333K—	.84	CP05A3K8333K—	.72		
.082	100V	CP04A1K8233K—	1.08	CP04A3K8233K—	.87	CP05A1K8233K—	1.14	CP05A3K8233K—	.93		
.1	100V	CP04A1K8104K—	1.08	CP04A3K8104K—	.87	CP05A1K8104K—	1.14	CP05A3K8104K—	.93		
.12	100V	CP04A1K8124K—	1.14	CP04A3K8124K—	.93	CP05A1K8124K—	1.20	CP05A3K8124K—	.99		
.15	100V	CP04A1K8154K—	1.17	CP04A3K8154K—	.93	CP05A1K8154K—	1.23	CP05A3K8154K—	.99		
.18	100V	CP04A1K8184K—	1.23	CP04A3K8184K—	1.02	CP05A1K8184K—	1.29	CP05A3K8184K—	1.08		
.22	100V	CP04A1K8224K—	1.29	CP04A3K8224K—	1.08	CP05A1K8224K—	1.35	CP05A3K8224K—	1.14		
.27	100V	CP04A1K8274K—	1.35	CP04A3K8274K—	1.14	CP05A1K8274K—	1.41	CP05A3K8274K—	1.20		
.33	100V	CP04A1K8334K—	1.44	CP04A3K8334K—	1.23	CP05A1K8334K—	1.50	CP05A3K8334K—	1.29		
.39	100V	CP04A1K8394K—	1.50	CP04A3K8394K—	1.29	CP05A1K8394K—	1.59	CP05A3K8394K—	1.38		
.47	100V	CP04A1K8474K—	1.56	CP04A3K8474K—	1.35	CP05A1K8474K—	1.65	CP05A3K8474K—	1.44		
.56	100V	CP04A1K8564K—	1.59	CP04A3K8564K—	1.38	CP05A1K8564K—	1.68	CP05A3K8564K—	1.47		
.68	100V	CP04A1K8684K—	1.65	CP04A3K8684K—	1.44	CP05A1K8684K—	1.74	CP05A3K8684K—	1.53		
.82	100V	CP04A1K8824K—	1.71	CP04A3K8824K—	1.50	CP05A1K8824K—	1.80	CP05A3K8824K—	1.59		
1.0	100V	CP04A1K8105K—	1.77	CP04A3K8105K—	1.56	CP05A1K8105K—	1.86	CP05A3K8105K—	1.65		
.012	200V	CP04A1K123K—	.78	CP04A3K123K—	.66	CP05A1K123K—	.84	CP05A3K123K—	.72		
.015	200V	CP04A1K153K—	.78	CP04A3K153K—	.66	CP05A1K153K—	.84	CP05A3K153K—	.72		
.018	200V	CP04A1K183K—	.78	CP04A3K183K—	.66	CP05A1K183K—	.84	CP05A3K183K—	.72		
.022	200V	CP04A1K223K—	.84	CP04A3K223K—	.72	CP05A1K223K—	.90	CP05A3K223K—	.78		
.039	200V	CP04A1K393K—	.84	CP04A3K393K—	.72	CP05A1K393K—	.90	CP05A3K393K—	.78		
.047	200V	CP04A1K473K—	.84	CP04A3K473K—	.72	CP05A1K473K—	.90	CP05A3K473K—	.78		
.056	200V	CP04A1K563K—	.87	CP04A3K563K—	.75	CP05A1K563K—	.93	CP05A3K563K—	.81		
.068	200V	CP04A1K683K—	.93	CP04A3K683K—	.81	CP05A1K683K—	.99	CP05A3K683K—	.87		
.082	200V	CP04A1K823K—	.96	CP04A3K823K—	.84	CP05A1K823K—	1.02	CP05A3K823K—	.90		
.1	200V	CP04A1K104K—	1.02	CP04A3K104K—	.84	CP05A1K104K—	1.08	CP05A3K104K—	.90		
.12	200V	CP04A1K124K—	1.08	CP04A3K124K—	.90	CP05A1K124K—	1.14	CP05A3K124K—	.96		
.15	200V	CP04A1K154K—	1.11	CP04A3K154K—	.93	CP05A1K154K—	1.17	CP05A3K154K—	.99		
.18	200V	CP04A1K184K—	1.14	CP04A3K184K—	.96	CP05A1K184K—	1.20	CP05A3K184K—	1.02		
.22	200V	CP04A1K224K—	1.17	CP04A3K224K—	.96	CP05A1K224K—	1.23	CP05A3K224K—	1.02		
.27	200V	CP04A1K274K—	1.29	CP04A3K274K—	1.08	CP05A1K274K—	1.38	CP05A3K274K—	1.17		
.33	200V	CP04A1K334K—	1.38	CP04A3K334K—	1.17	CP05A1K334K—	1.47	CP05A3K334K—	1.26		
.39	200V	CP04A1K394K—	1.44	CP04A3K394K—	1.23	CP05A1K394K—	1.53	CP05A3K394K—	1.32		
.47	200V	CP04A1K474K—	1.50	CP04A3K474K—	1.29	CP05A1K474K—	1.59	CP05A3K474K—	1.38		
.56	200V	CP04A1K564K—	1.56	CP04A3K564K—	1.35	CP05A1K564K—	1.65	CP05A3K564K—	1.44		
.68	200V	CP04A1K684K—	1.65	CP04A3K684K—	1.44	CP05A1K684K—	1.74	CP05A3K684K—	1.53		
.82	200V	CP04A1K824K—	1.77	CP04A3K824K—	1.56	CP05A1K824K—	1.86	CP05A3K824K—	1.65		
.0082	400V	CP04A1K105K—	1.86	CP04A3K105K—	1.65	CP05A1K105K—	1.95	CP05A3K105K—	1.74		
.01	400V	CP04A1K822K—	.87	CP04A3K822K—	.75	CP05A1K822K—	.93	CP05A3K822K—	.81		
.027	400V	CP04A1K103K—	.87	CP04A3K103K—	.75	CP05A1K103K—	.93	CP05A3K103K—	.81		
.033	400V	CP04A1K273K—	.93	CP04A3K273K—	.81	CP05A1K273K—	.99	CP05A3K273K—	.87		
.039	400V	CP04A1K333K—	.93	CP04A3K333K—	.81	CP05A1K333K—	.99	CP05A3K333K—	.87		
.047	400V	CP04A1K393K—	.96	CP04A3K393K—	.84	CP05A1K393K—	1.02	CP05A3K393K—	.90		
.056	400V	CP04A1K473K—	1.02	CP04A3K473K—	.84	CP05A1K473K—	1.08	CP05A3K473K—	.90		
.068	400V	CP04A1K563K—	1.08	CP04A3K563K—	.90	CP05A1K563K—	1.14	CP05A3K563K—	.96		
.082	400V	CP04A1K683K—	1.11	CP04A3K683K—	.90	CP05A1K683K—	1.17	CP05A3K683K—	.96		
.1	400V	CP04A1K823K—	1.17	CP04A3K823K—	.96	CP05A1K823K—	1.23	CP05A3K823K—	1.02		
.12	400V	CP04A1K104K—	1.26	CP04A3K104K—	1.05	CP05A1K104K—	1.32	CP05A3K104K—	1.11		
.15	400V	CP04A1K124K—	1.35	CP04A3K124K—	1.14	CP05A1K124K—	1.44	CP05A3K124K—	1.23		
.18	400V	CP04A1K154K—	1.44	CP04A3K154K—	1.23	CP05A1K154K—	1.53	CP05A3K154K—	1.32		
.22	400V	CP04A1K184K—	1.50	CP04A3K184K—	1.29	CP05A1K184K—	1.59	CP05A3K184K—	1.38		
.27	400V	CP04A1K224K—	1.56	CP04A3K224K—	1.35	CP05A1K224K—	1.65	CP05A3K224K—	1.44		
.33	400V	CP04A1K274K—	1.65	CP04A3K274K—	1.44	CP05A1K274K—	1.74	CP05A3K274K—	1.53		
.39	400V	CP04A1K334K—	1.71	CP04A3K334K—	1.50	CP05A1K334K—	1.80	CP05A3K334K—	1.59		
.47	400V	CP04A1K394K—	1.98	CP04A3K394K—	1.77	CP05A1K394K—	2.07	CP05A3K394K—	1.86		
.56	400V	CP04A1K474K—	1.98	CP04A3K474K—	1.77	CP05A1K474K—	2.07	CP05A3K474K—	1.86		
.68	400V	CP04A1K564K—	2.13	CP04A3K564K—	1.86	CP05A1K564K—	2.22	CP05A3K564K—	1.95		
.82	400V	CP04A1K684K—	2.13	CP04A3K684K—	1.86	CP05A1K684K—	2.22	CP05A3K684K—	1.95		
1.0	400V	CP04A1K824K—	2.58	CP04A3K824K—	2.31	CP05A1K824K—	2.67	CP05A3K824K—	2.40		
.001	600V	CP04A1K105K—	2.58	CP04A3K105K—	2.31	CP05A1K105K—	2.67	CP05A3K105K—	2.40		
.0012	600V	CP04A1KF102K—	.75	CP04A3KF102K—	.63	CP05A1KF102K—	.81	CP05A3KF102K—	.69		
.0015	600V	CP04A1KF122K—	.75	CP04A3KF122K—	.63	CP05A1KF122K—	.81	CP05A3KF122K—	.69		
.0018	600V	CP04A1KF152K—	.75	CP04A3KF152K—	.63	CP05A1KF152K—	.81	CP05A3KF152K—	.69		
.0022	600V	CP04A1KF182K—	.75	CP04A3KF182K—	.63	CP05A1KF182K—	.81	CP05A3KF182K—	.69		
.0027	600V	CP04A1KF222K—	.75	CP04A3KF222K—	.63	CP05A1KF222K—	.81	CP05A3KF222K—	.69		
.0033	600V	CP04A1KF272K—	.78	CP04A3KF272K—	.66	CP05A1KF272K—	.84	CP05A3KF272K—	.72		
.0039	600V	CP04A1KF332K—	.78	CP04A3KF332K—	.66	CP05A1KF332K—	.84	CP05A3KF332K—	.72		
.0047	600V	CP04A1KF392K—	.78	CP04A3KF392K—	.66	CP05A1KF392K—	.84	CP05A3KF392K—	.72		
.0056	600V	CP04A1KF472K—	.78	CP04A3KF472K—	.66	CP05A1KF472K—	.84	CP05A3KF472K—	.72		
.0068	600V	CP04A1KF562K—	.84	CP04A3KF562K—	.72	CP05A1KF562K—	.90	CP05A3KF562K—	.78		
.0082	600V	CP04A1KF682K—	.96	CP04A3KF682K—	.84	CP05A1KF682K—	1.02	CP05A3KF682K—	.90		
.01	600V	CP04A1KF822K—	.99	CP04A3KF822K—	.87	CP05A1KF822K—	1.05	CP05A3KF822K—	.93		
.012	600V	CP04A1KF103K—	.99	CP04A3KF103K—	.87	CP05A1KF103K—	1.05	CP05A3KF103K—	.93		
.015	600V	CP04A1KF123K—	1.05	CP04A3KF123K—	.93	CP05A1KF123K—	1.11	CP05A3KF123K—	.99		
.018	600V	CP04A1KF153K—	1.08	CP04A3KF153K—	.96	CP05A1KF153K—	1.14	CP05A3KF153K—	1.02		
.022	600V	CP04A1KF183K—	1.08	CP04A3KF183K—	.96	CP05A1KF183K—	1.14	CP05A3KF183K—	1.02		
.027	600V	CP04A1KF223K—	1.11	CP04A3KF223K—	.99	CP05A1KF223K—	1.17	CP05A3KF223K—	1.05		
.033	600V	CP04A1KF273K—	1.11	CP04A3KF273K—	.99	CP05A1KF273K—	1.17	CP05A3KF273K—	1.05		
.039	600V	CP04A1KF333K—	1.11	CP04A3KF333K—	.99	CP05A1KF333K—	1.17	CP05A3KF333K—	1.05		
.047	600V	CP04A1KF393K—	1.11	CP04A3KF393K—	.99	CP05A1KF393K—	1.17	CP05A3KF393K—	1.05		
.056	600V	CP04A1KF473K—	1.11	CP04A3KF473K—	.99	CP05A1KF473K—	1.17	CP05A3KF473K—	1.05		

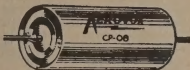
*Domestic C.E.M. Prices in the following quantities: 25, 40, 50, 90, 100, 250, 500, 1000.

* Request D.E.M. Prices in the following quantities: 25-49, 50-99, 100-249



CAPACITORS

CAPACITY	VOLTAGE	CP04, CHAR. K					CP05, CHAR. K				
		P323S		P323SG		Net Price*	P323SP		P323SGP		Net Price*
		Case Floating	Net Price*	Case Grounded	Net Price*		Case Floating	Net Price*	Plastic Tube Case Grounded	Net Price*	
.056	600V	CP04A1KF563K	1.14	CP04A3KF563K	1.02		CP05A1KF563K	1.20	CP05A3KF563K	1.08	
.068	600V	CP04A1KF683K	1.14	CP04A3KF683K	1.02		CP05A1KF683K	1.20	CP05A3KF683K	1.08	
.082	600V	CP04A1KF823K	1.20	CP04A3KF823K	1.05		CP05A1KF823K	1.29	CP05A3KF823K	1.14	
.1	600V	CP04A1KF104K	1.26	CP04A3KF104K	1.05		CP05A1KF104K	1.35	CP05A3KF104K	1.14	
.12	600V	CP04A1KF124K	1.35	CP04A3KF124K	1.14		CP05A1KF124K	1.44	CP05A3KF124K	1.23	
.15	600V	CP04A1KF154K	1.44	CP04A3KF154K	1.23		CP05A1KF154K	1.53	CP05A3KF154K	1.32	
.18	600V	CP04A1KF184K	1.47	CP04A3KF184K	1.26		CP05A1KF184K	1.56	CP05A3KF184K	1.35	
.22	600V	CP04A1KF224K	1.53	CP04A3KF224K	1.32		CP05A1KF224K	1.62	CP05A3KF224K	1.41	
.27	600V	CP04A1KF274K	1.59	CP04A3KF274K	1.38		CP05A1KF274K	1.68	CP05A3KF274K	1.47	
.33	600V	CP04A1KF334K	1.62	CP04A3KF334K	1.41		CP05A1KF334K	1.71	CP05A3KF334K	1.50	
.39	600V	CP04A1KF394K	1.74	CP04A3KF394K	1.53		CP05A1KF394K	1.83	CP05A3KF394K	1.62	
.47	600V	CP04A1KF474K	1.86	CP04A3KF474K	1.65		CP05A1KF474K	1.95	CP05A3KF474K	1.74	
.56	600V	CP04A1KF564K	2.37	CP04A3KF564K	2.16		CP05A1KF564K	2.46	CP05A3KF564K	2.25	
.68	600V	CP04A1KF684K	2.37	CP04A3KF684K	2.16		CP05A1KF684K	2.46	CP05A3KF684K	2.25	
.015	1000V	CP04A1KG153K	1.11	CP04A3KG153K	.90		CP05A1KG153K	1.17	CP05A3KG153K	.96	
.018	1000V	CP04A1KG183K	1.11	CP04A3KG183K	.90		CP05A1KG183K	1.17	CP05A3KG183K	.96	
.022	1000V	CP04A1KG223K	1.11	CP04A3KG223K	.90		CP05A1KG223K	1.17	CP05A3KG223K	.96	
.027	1000V	CP04A1KG273K	1.17	CP04A3KG273K	.96		CP05A1KG273K	1.23	CP05A3KG273K	1.02	
.033	1000V	CP04A1KG333K	1.17	CP04A3KG333K	.96		CP05A1KG333K	1.23	CP05A3KG333K	1.02	
.039	1000V	CP04A1KG393K	1.17	CP04A3KG393K	.96		CP05A1KG393K	1.26	CP05A3KG393K	1.05	
.047	1000V	CP04A1KG473K	1.17	CP04A3KG473K	.96		CP05A1KG473K	1.26	CP05A3KG473K	1.11	
.056	1000V	CP04A1KG563K	1.23	CP04A3KG563K	1.02		CP05A1KG563K	1.32	CP05A3KG563K	.99	
.068	1000V	CP04A1KG683K	1.26	CP04A3KG683K	1.05		CP05A1KG683K	1.35	CP05A3KG683K	1.14	
.082	1000V	CP04A1KG823K	1.32	CP04A3KG823K	1.11		CP05A1KG823K	1.41	CP05A3KG823K	1.20	
.1	1000V	CP04A1KG104K	1.35	CP04A3KG104K	1.14		CP05A1KG104K	1.44	CP05A3KG104K	1.23	
.12	1000V	CP04A1KG124K	1.41	CP04A3KG124K	1.20		CP05A1KG124K	1.50	CP05A3KG124K	1.29	
.15	1000V	CP04A1KG154K	1.41	CP04A3KG154K	1.20		CP05A1KG154K	1.50	CP05A3KG154K	1.29	
.18	1000V	CP04A1KG184K	1.50	CP04A3KG184K	1.23		CP05A1KG184K	1.59	CP05A3KG184K	1.47	
.22	1000V	CP04A1KG224K	1.65	CP04A3KG224K	1.38		CP05A1KG224K	1.74	CP05A3KG224K	1.49	
.27	1000V	CP04A1KG274K	2.04	CP04A3KG274K	1.77		CP05A1KG274K	2.13	CP05A3KG274K	1.86	
.33	1000V	CP04A1KG334K	2.16	CP04A3KG334K	1.89		CP05A1KG334K	2.25	CP05A3KG334K	1.96	
.39	1000V	CP04A1KG394K	2.37	CP04A3KG394K	2.10		CP05A1KG394K	2.46	CP05A3KG394K	2.19	
.47	1000V	CP04A1KG474K	2.37	CP04A3KG474K	2.10		CP05A1KG474K	2.46	CP05A3KG474K	2.19	



INDUSTRIAL SECTION - MIL TYPES

MIL-C-25C



TYPES CP08 AND CP09—Characteristics K Vibration Grades 1 and 3

Hermetically sealed tubular capacitors with glass terminal seal and axial wire leads. CP04 and CP05 are inserted tab construction; CP08 and CP09 are extended foil construction. Standard tolerance is $\pm 10\%$ (K). Specify Vibration Grade when ordering.

CAPACITY	VOLTAGE	CP08, CHAR. K					CP09, CHAR. K				
		P323SX		P323SXG		Net Price*	P323XP		P323SXGP		Net Price*
		Case Floating	Net Price*	Case Grounded	Net Price*		Case Floating	Net Price*	Plastic Tube Case Grounded	Net Price*	
.0082	100V	CP08A1KB822K	.75	CP08A3KB822K	.63		CP09A1KB822K	.81	CP09A3KB822K	.69	
.01	100V	CP08A1KB103K	.75	CP08A3KB103K	.63		CP09A1KB103K	.81	CP09A3KB103K	.69	
.012	100V	CP08A1KB123K	.75	CP08A3KB123K	.63		CP09A1KB123K	.81	CP09A3KB123K	.69	
.015	100V	CP08A1KB153K	.75	CP08A3KB153K	.63		CP09A1KB153K	.81	CP09A3KB153K	.69	
.039	100V	CP08A1KB393K	.84	CP08A3KB393K	.72		CP09A1KB393K	.90	CP09A3KB393K	.78	
.047	100V	CP08A1KB473K	.90	CP08A3KB473K	.78		CP09A1KB473K	.96	CP09A3KB473K	.84	
.082	100V	CP08A1KB823K	.99	CP08A3KB823K	.90		CP09A1KB823K	1.05	CP09A3KB823K	.96	
.1	100V	CP08A1KB104K	1.05	CP08A3KB104K	.90		CP09A1KB104K	1.11	CP09A3KB104K	.96	
.12	100V	CP08A1KB124K	1.08	CP08A3KB124K	.90		CP09A1KB124K	1.14	CP09A3KB124K	.96	
.15	100V	CP08A1KB154K	1.11	CP08A3KB154K	.90		CP09A1KB154K	1.17	CP09A3KB154K	.96	
.18	100V	CP08A1KB184K	1.20	CP08A3KB184K	.99		CP09A1KB184K	1.26	CP09A3KB184K	1.05	
.22	100V	CP08A1KB224K	1.26	CP08A3KB224K	1.02		CP09A1KB224K	1.32	CP09A3KB224K	1.08	
.27	100V	CP08A1KB274K	1.32	CP08A3KB274K	1.11		CP09A1KB274K	1.40	CP09A3KB274K	1.20	
.33	100V	CP08A1KB334K	1.38	CP08A3KB334K	1.17		CP09A1KB334K	1.47	CP09A3KB334K	1.26	
.39	100V	CP08A1KB394K	1.44	CP08A3KB394K	1.23		CP09A1KB394K	1.53	CP09A3KB394K	1.32	
.47	100V	CP08A1KB474K	1.47	CP08A3KB474K	1.26		CP09A1KB474K	1.56	CP09A3KB474K	1.35	
.56	100V	CP08A1KB564K	1.56	CP08A3KB564K	1.35		CP09A1KB564K	1.65	CP09A3KB564K	1.44	
.68	100V	CP08A1KB684K	1.62	CP08A3KB684K	1.41		CP09A1KB684K	1.71	CP09A3KB684K	1.50	
.82	100V	CP08A1KB824K	1.71	CP08A3KB824K	1.50		CP09A1KB824K	1.80	CP09A3KB824K	1.59	
1.0	100V	CP08A1KB105K	1.86	CP08A3KB105K	1.65		CP09A1KB105K	1.95	CP09A3KB105K	1.74	
.0039	200V	CP08A1KC392K	.72	CP08A3KC392K	.60		CP09A1KC392K	.78	CP09A3KC392K	.66	
.0047	200V	CP08A1KC472K	.72	CP08A3KC472K	.60		CP09A1KC472K	.78	CP09A3KC472K	.66	
.0056	200V	CP08A1KC562K	.72	CP08A3KC562K	.60		CP09A1KC562K	.78	CP09A3KC562K	.66	
.0068	200V	CP08A1KC682K	.72	CP08A3KC682K	.60		CP09A1KC682K	.78	CP09A3KC682K	.66	
.018	200V	CP08A1KC183K	.84	CP08A3KC183K	.72		CP09A1KC183K	.90	CP09A3KC183K	.78	
.022	200V	CP08A1KC223K	.84	CP08A3KC223K	.72		CP09A1KC223K	.90	CP09A3KC223K	.78	
.027	200V	CP08A1KC273K	.87	CP08A3KC273K	.75		CP09A1KC273K	.93	CP09A3KC273K	.81	
.033	200V	CP08A1KC333K	.87	CP08A3KC333K	.75		CP09A1KC333K	.93	CP09A3KC333K	.81	
.039	200V	CP08A1KC393K	.96	CP08A3KC393K	.81		CP09A1KC393K	1.02	CP09A3KC393K	.87	
.047	200V	CP08A1KC473K	.96	CP08A3KC473K	.81		CP09A1KC473K	1.02	CP09A3KC473K	.87	
.056	200V	CP08A1KC563K	1.02	CP08A3KC563K	.84		CP09A1KC563K	1.08	CP09A3KC563K	.90	
.068	200V	CP08A1KC683K	1.08	CP08A3KC683K	.87		CP09A1KC683K	1.14	CP09A3KC683K	.93	
.082	200V	CP08A1KC823K	1.17	CP08A3KC823K	.96		CP09A1KC823K	1.23	CP09A3KC823K	1.02	
.1	200V	CP08A1KC104K	1.17	CP08A3KC104K	.96		CP09A1KC104K	1.23	CP09A3KC104K	1.02	
.12	200V	CP08A1KC124K	1.23	CP08A3KC124K	1.02		CP09A1KC124K	1.29	CP09A3KC124K	1.08	
.15	200V	CP08A1KC154K	1.23	CP08A3KC154K	1.02		CP09A1KC154K	1.29	CP09A3KC154K	1.08	
.18	200V	CP08A1KC184K	1.29	CP08A3KC184K	1.08		CP09A1KC184K	1.38	CP09A3KC184K	1.17	
.22	200V	CP08A1KC224K	1.29	CP08A3KC224K	1.08		CP09A1KC224K	1.38	CP09A3KC224K	1.17	
.27	200V	CP08A1KC274K	1.35	CP08A3KC274K	1.14		CP09A1KC274K	1.44	CP09A3KC274K	1.23	

*Request Q.E.M. Prices in the following quantities: 25-49, 50-99, 100-499



CAPACITORS

CAPACITY	VOLTAGE	CP08, CHAR. K				CP09, CHAR. K			
		P323SX		P323SXG		P323SXP		P323SXGP	
		Case Floating	NO TUBE Net Price*	Case Grounded	Net Price*	Case Floating	PLASTIC TUBE Net Price*	Case Grounded	Net Price*
.33	200V	CP08A1KC334K	1.35	CP08A3K C334K	1.14	CP09A1KC334K	1.44	CP09A3K C334K	1.23
.39	200V	CP08A1K C394K	1.41	CP08A3K C394K	1.20	CP09A1K C394K	1.50	CP09A3K C394K	1.29
.47	200V	CP08A1K C474K	1.41	CP08A3K C474K	1.20	CP09A1K C474K	1.50	CP09A3K C474K	1.29
.56	200V	CP08A1K C564K	1.55	CP08A3K C564K	1.35	CP09A1K C564K	1.65	CP09A3K C564K	1.44
.68	200V	CP08A1K C684K	1.68	CP08A3K C684K	1.47	CP09A1K C684K	1.77	CP09A3K C684K	1.56
.82	200V	CP08A1K C824K	1.86	CP08A3K C824K	1.59	CP09A1K C824K	1.95	CP09A3K C824K	1.68
1.0	200V	CP08A1K C105K	1.92	CP08A3K C105K	1.65	CP09A1K C105K	2.01	CP09A3K C105K	1.74
.0027	400V	CP08A1K E272K	.75	CP08A3K E272K	.63	CP09A1K E272K	.81	CP09A3K E272K	.69
.0033	400V	CP08A1K E332K	.75	CP08A3K E332K	.63	CP09A1K E332K	.81	CP09A3K E332K	.69
.012	400V	CP08A1K E123K	.81	CP08A3K E123K	.69	CP09A1K E123K	.87	CP09A3K E123K	.75
.015	400V	CP08A1K E153K	.84	CP08A3K E153K	.72	CP09A1K E153K	.90	CP09A3K E153K	.78
.027	400V	CP08A1K E273K	.96	CP08A3K E273K	.78	CP09A1K E273K	1.02	CP09A3K E273K	.83
.033	400V	CP08A1K E333K	1.08	CP08A3K E333K	.87	CP09A1K E333K	1.14	CP09A3K E333K	.93
.039	400V	CP08A1K E393K	1.08	CP08A3K E393K	.87	CP09A1K E393K	1.14	CP09A3K E393K	.93
.047	400V	CP08A1K E473K	1.11	CP08A3K E473K	.90	CP09A1K E473K	1.17	CP09A3K E473K	.96
.056	400V	CP08A1K E563K	1.11	CP08A3K E563K	.90	CP09A1K E563K	1.17	CP09A3K E563K	.96
.068	400V	CP08A1K E683K	1.11	CP08A3K E683K	.90	CP09A1K E683K	1.17	CP09A3K E683K	.96
.082	400V	CP08A1K E823K	1.17	CP08A3K E823K	.96	CP09A1K E823K	1.26	CP09A3K E823K	1.05
.1	400V	CP08A1K E104K	1.20	CP08A3K E104K	.99	CP09A1K E104K	1.26	CP09A3K E104K	1.08
.12	400V	CP08A1K E124K	1.26	CP08A3K E124K	1.05	CP09A1K E124K	1.35	CP09A3K E124K	1.14
.15	400V	CP08A1K E154K	1.32	CP08A3K E154K	1.11	CP09A1K E154K	1.41	CP09A3K E154K	1.20
.18	400V	CP08A1K E184K	1.47	CP08A3K E184K	1.26	CP09A1K E184K	1.56	CP09A3K E184K	1.35
.22	400V	CP08A1K E224K	1.59	CP08A3K E224K	1.38	CP09A1K E224K	1.68	CP09A3K E224K	1.47
.27	400V	CP08A1K E274K	1.71	CP08A3K E274K	1.50	CP09A1K E274K	1.82	CP09A3K E274K	1.59
.33	400V	CP08A1K E334K	1.83	CP08A3K E334K	1.62	CP09A1K E334K	1.90	CP09A3K E334K	1.71
.39	400V	CP08A1K E394K	1.89	CP08A3K E394K	1.65	CP09A1K E394K	1.98	CP09A3K E394K	1.74
.001	600V	CP08A1K E474K	1.95	CP08A3K E474K	1.68	CP09A1K E474K	2.04	CP09A3K E474K	1.77
.0012	600V	CP08A1K F102K	.75	CP08A3K F102K	.63	CP09A1K F102K	.81	CP09A3K F102K	.69
.0015	600V	CP08A1K F122K	.75	CP08A3K F122K	.63	CP09A1K F122K	.81	CP09A3K F122K	.69
.0018	600V	CP08A1K F152K	.75	CP08A3K F152K	.63	CP09A1K F152K	.81	CP09A3K F152K	.69
.0022	600V	CP08A1K F182K	.75	CP08A3K F182K	.63	CP09A1K F182K	.81	CP09A3K F182K	.69
.0027	600V	CP08A1K F222K	.78	CP08A3K F222K	.66	CP09A1K F222K	.84	CP09A3K F222K	.72
.0033	600V	CP08A1K F272K	.78	CP08A3K F272K	.66	CP09A1K F272K	.84	CP09A3K F272K	.72
.0039	600V	CP08A1K F332K	.81	CP08A3K F332K	.69	CP09A1K F332K	.87	CP09A3K F332K	.75
.0047	600V	CP08A1K F392K	.81	CP08A3K F392K	.69	CP09A1K F392K	.87	CP09A3K F392K	.75
.0056	600V	CP08A1K F472K	.87	CP08A3K F472K	.75	CP09A1K F472K	.93	CP09A3K F472K	.81
.0068	600V	CP08A1K F562K	.87	CP08A3K F562K	.75	CP09A1K F562K	.93	CP09A3K F562K	.81
.0082	600V	CP08A1K F682K	.87	CP08A3K F682K	.75	CP09A1K F682K	.93	CP09A3K F682K	.81
.01	600V	CP08A1K F822K	.87	CP08A3K F822K	.75	CP09A1K F822K	.93	CP09A3K F822K	.81
.012	600V	CP08A1K F103K	.87	CP08A3K F103K	.75	CP09A1K F103K	.93	CP09A3K F103K	.81
.015	600V	CP08A1K F123K	.93	CP08A3K F123K	.78	CP09A1K F123K	.99	CP09A3K F123K	.84
.018	600V	CP08A1K F153K	.93	CP08A3K F153K	.78	CP09A1K F153K	.99	CP09A3K F153K	.84
.022	600V	CP08A1K F183K	.99	CP08A3K F183K	.81	CP09A1K F183K	1.05	CP09A3K F183K	.87
.027	600V	CP08A1K F223K	.99	CP08A3K F223K	.81	CP09A1K F223K	1.05	CP09A3K F223K	.87
.033	600V	CP08A1K F273K	1.02	CP08A3K F273K	.84	CP09A1K F273K	1.08	CP09A3K F273K	.90
.039	600V	CP08A1K F333K	1.08	CP08A3K F333K	.87	CP09A1K F333K	1.14	CP09A3K F333K	.93
.047	600V	CP08A1K F393K	1.14	CP08A3K F393K	.93	CP09A1K F393K	1.20	CP09A3K F393K	.99
.056	600V	CP08A1K F473K	1.17	CP08A3K F473K	.99	CP09A1K F473K	1.26	CP09A3K F473K	.99
.068	600V	CP08A1K F563K	1.20	CP08A3K F563K	.99	CP09A1K F563K	1.29	CP09A3K F563K	1.08
.082	600V	CP08A1K F683K	1.23	CP08A3K F683K	1.02	CP09A1K F683K	1.32	CP09A3K F683K	1.11
.1	600V	CP08A1K F823K	1.26	CP08A3K F823K	1.05	CP09A1K F823K	1.35	CP09A3K F823K	1.14
.12	600V	CP08A1K F104K	1.26	CP08A3K F104K	1.05	CP09A1K F104K	1.35	CP09A3K F104K	1.14
.15	600V	CP08A1K F124K	1.29	CP08A3K F124K	1.08	CP09A1K F124K	1.38	CP09A3K F124K	1.17
.18	600V	CP08A1K F154K	1.29	CP08A3K F154K	1.08	CP09A1K F154K	1.38	CP09A3K F154K	1.17
.22	600V	CP08A1K F184K	1.47	CP08A3K F184K	1.20	CP09A1K F184K	1.56	CP09A3K F184K	1.29
.27	600V	CP08A1K F224K	1.59	CP08A3K F224K	1.32	CP09A1K F224K	1.68	CP09A3K F224K	1.41
.33	600V	CP08A1K F274K	1.77	CP08A3K F274K	1.50	CP09A1K F274K	1.86	CP09A3K F274K	1.59
.39	600V	CP08A1K F334K	1.89	CP08A3K F334K	1.62	CP09A1K F334K	1.98	CP09A3K F334K	1.71
.47	600V	CP08A1K F394K	1.89	CP08A3K F394K	1.62	CP09A1K F394K	1.98	CP09A3K F394K	1.71
.001	1000V	CP08A1K G102K	.93	CP08A3K G102K	.72	CP09A1K G102K	.99	CP09A3K G102K	.78
.0012	1000V	CP08A1K G122K	.93	CP08A3K G122K	.72	CP09A1K G122K	.99	CP09A3K G122K	.78
.0015	1000V	CP08A1K G152K	.93	CP08A3K G152K	.72	CP09A1K G152K	.99	CP09A3K G152K	.78
.0018	1000V	CP08A1K G182K	.93	CP08A3K G182K	.72	CP09A1K G182K	.99	CP09A3K G182K	.78
.0022	1000V	CP08A1K G222K	.93	CP08A3K G222K	.72	CP09A1K G222K	.99	CP09A3K G222K	.78
.0027	1000V	CP08A1K G272K	.96	CP08A3K G272K	.75	CP09A1K G272K	1.02	CP09A3K G272K	.81
.0033	1000V	CP08A1K G332K	.96	CP08A3K G332K	.75	CP09A1K G332K	1.02	CP09A3K G332K	.81
.0039	1000V	CP08A1K G392K	1.02	CP08A3K G392K	.81	CP09A1K G392K	1.08	CP09A3K G392K	.87
.0047	1000V	CP08A1K G472K	1.02	CP08A3K G472K	.81	CP09A1K G472K	1.08	CP09A3K G472K	.87
.0056	1000V	CP08A1K G562K	1.05	CP08A3K G562K	.84	CP09A1K G562K	1.11	CP09A3K G562K	.90
.0068	1000V	CP08A1K G682K	1.05	CP08A3K G682K	.84	CP09A1K G682K	1.11	CP09A3K G682K	.90
.0082	1000V	CP08A1K G822K	1.05	CP08A3K G822K	.84	CP09A1K G822K	1.11	CP09A3K G822K	.90
.01	1000V	CP08A1K G103K	1.05	CP08A3K G103K	.84	CP09A1K G103K	1.11	CP09A3K G103K	.90
.012	1000V	CP08A1K G123K	1.05	CP08A3K G123K	.84	CP09A1K G123K	1.11	CP09A3K G123K	.90
.015	1000V	CP08A1K G153K	1.05	CP08A3K G153K	.84	CP09A1K G153K	1.11	CP09A3K G153K	.90
.018	1000V	CP08A1K G183K	1.05	CP08A3K G183K	.84	CP09A1K G183K	1.11	CP09A3K G183K	.90
.022	1000V	CP08A1K G223K	1.05	CP08A3K G223K	.84	CP09A1K G223K	1.11	CP09A3K G223K	.90
.027	1000V	CP08A1K G273K	1.11	CP08A3K G273K	.80	CP09A1K G273K	1.17	CP09A3K G273K	.99
.033	1000V	CP08A1K G333K	1.17	CP08A3K G333K	.80	CP09A1K G333K	1.23	CP09A3K G333K	1.05
.039	1000V	CP08A1K G393K	1.23	CP08A3K G393K	1.02	CP09A1K G393K	1.32	CP09A3K G393K	1.11
.047	1000V	CP08A1K G473K	1.29	CP08A3K G473K	1.08	CP09A1K G473K	1.38	CP09A3K G473K	1.17
.056	1000V	CP08A1K G563K	1.35	CP08A3K G563K	1.14	CP09A1K G563K	1.44	CP09A3K G563K	1.23
.068	1000V	CP08A1K G683K	1.38	CP08A3K G683K	1.17	CP09A1K G683K	1.47	CP09A3K G683K	1.26
.082	1000V	CP08A1K G823K	1.44	CP08A3K G823K	1.23	CP09A1K G823K	1.53	CP09A3K G823K	1.32
.1	1000V	CP08A1K G104K	1.47	CP08A3K G104K	1.26	CP09A1K G104K	1.56	CP09A3K G104K	1.35
.12	1000V	CP08A1K G124K	1.56	CP08A3K G124K	1.35	CP09A1K G124K	1.65	CP09A3K G124K	1.44
.15	1000V	CP08A1K G154K	1.65	CP08A3K G154K	1.44	CP09A1K G154K	1.73	CP09A3K G154K	1.53
.18	1000V	CP08A1K G184K	1.74	CP08A3K G184K	1.56	CP09A1K G184K	1.83	CP09A3K G184K	1.63
.22	1000V	CP08A1K G224K	1.95	CP08A3K G224K	1.68	CP09A1K G224K	2.02	CP09A3K G224K	1.65
.27	1000V	CP08A1K G274K	2.10	CP08A3K G274K	1.83	CP09A1K G274K	2.19	CP09A3K G274K	1.77
.33	1000V	CP08A1K G334K	2.10	CP08A3K G334K	1.83	CP09A1K G334K	2.19	CP09A3K G334K	1.92
.39	1000V	CP08A1K G394K	2.10	CP08A3K G394K	2.01	CP09A1K G394K	2.37	CP09A3K G394K	2.10
.47	1000V	CP08A1K G474K	2.43	CP08A3K G474K	2.16	CP09A1K G474K	2.52	CP09A3K G474K	2.25

*Request O.E.M. Prices in the following quantities: 25-49, 50-99, 100-499



CAPACITORS

INDUSTRIAL SECTION — MIL TYPES MIL-C-25C

TYPES CP53, CP54, CP55



Hyvol J or H oil impregnated and filled, drawn-metal cased capacitors, immersion proof and hermetically sealed. This unusually compact "bathtub" type capacitor is the most popular of the small units for severe operating conditions. Available with terminals on case (CP53), top (CP54), or bottom (CP55). The standard tolerance on single section units is $\pm 10\%$ (K), on multiple section units $\pm 20 - 10\%$ (V).

P30					P30-T					P30-B					P30					P30-T					P30-B				
CAP.	VOLT.	SIDE TERM.	Net Price*		TOP TERM.	Net Price*				BOTTOM TERM.	Net Price*				CAP.	VOLT.	SIDE TERM.	Net Price*		TOP TERM.	Net Price*				BOTTOM TERM.	Net Price*			
2.0	100V	CP53B1EB205K	\$2.19												3X.1	600V	CP53B5EF104V	2.40		CP54B5EF104V	\$2.40				CP55B5EF104V	\$2.40			
4.0	100V	CP53B1EB405K	2.94												3X.25	600V	CP53B5EF254V	2.70		CP54B5EF254V	2.70				CP55B5EF254V	2.70			
1.0	200V	CP53B1EC105K	2.01												3X.5	600V	CP53B5EF504V	3.24		CP54B5EF504V	3.24				CP55B5EF504V	3.24			
2.0	200V	CP53B1EC205K	2.55												.05	1000V	CP53B1EG503K	1.56											
.5	400V	CP53B1KE504K	1.86												.1	1000V	CP53B1EG104K	1.62											
1.0	400V	CP53B1KE105K	2.07												.25	1000V	CP53B1EG254K	1.77											
3X.5	400V	CP53B5EE504V	3.06												.5	1000V	CP53B1EG504K	2.04											
.25	600V	CP53B1EF254K	1.71												1.0	1000V	CP53B1EG105K	2.70											
1.0	600V	CP53B1EF504K	1.92												2X.05	1000V	CP53B4EG503V	2.10											
2.0	600V	CP53B1EF105K	2.10												2X.1	1000V	CP53B4EG104V	2.22											
2.0	600V	CP53B1EF205K	2.70												2X.25	1000V	CP53B4EG254V	2.46											
2X.05	600V	CP53B4EF503V	2.01												2X.5	1000V	CP53B4EG504V	3.03											
2X.1	600V	CP53B4EF104V	2.07												3X.05	1000V	CP53B5EG503V	2.46											
2X.25	600V	CP53B4EF254V	2.25												3X.1	1000V	CP53B5EG104V	2.76											
2X.5	600V	CP53B4EF504V	2.61												3X.25	1000V	CP53B5EG254V	3.30											
2X1.0	600V	CP53B4EF105V	3.18																										

CHARACTERISTIC F

P30J				P30-B			
CAP.	VOLT.	SIDE TERM.	Net Price*	TOP TERM.	Net Price*	BOTTOM TERM.	Net Price*
8.0	100V	CP53B1FB805K	\$4.50				
10.0	100V	CP53B1FB106K	6.30				



MIL-C-25C

CP63, CP65 — Characteristics E & K

Compact, Hyvol M or J oil impregnated and filled, rectangular units. Immersion proof and hermetically sealed. Dual section has case grounded. Channel brackets attached. Standard tolerance on single section units, $\pm 10\%$ (K), on multiple section units $\pm 20 - 10\%$ (V).

P16-CT				P16-CB			
CAP.	VOLT.	TOP TERM.	Net Price*	BOTTOM TERM.	Net Price*		
.1	400V	CP63B1KE104K	\$2.02	CP65B1KE104K	\$2.02		
.25	400V	CP63B1KE254K	2.23				
1.0	400V	CP63B1EE105K	2.68				
.05	600V	CP63B1EF503K	2.05	CP65B1EF503K	2.05		
.25	600V	CP63B1EF254K	2.32	CP65B1EF254K	2.32		
.5	600V	CP63B1EF504K	2.50	CP65B1EF504K	2.50		
1.0	600V	CP63B1EF105K	2.86	CP65B1EF105K	2.86		
2X.1	600V	CP63B6EF104V	2.74	CP65B6EF104V	2.74		
2X.25	600V	CP63B6EF254V	2.89	CP65B6EF254V	2.89		
2X.5	600V	CP63B6EF504V	3.07	CP65B6EF504V	3.07		
.01	1000V	CP63B1EG103K	2.08	CP65B1EG103K	2.08		
.02	1000V	CP63B1EG203K	2.15	CP65B1EG203K	2.15		
.05	1000V	CP63B1EG503K	2.32	CP65B1EG503K	2.32		
.1	1000V	CP63B1EG104K	2.38				
.25	1000V	CP63B1EG254K	2.50				
.5	1000V	CP63B1EG504K	2.80				

MIL-C-25C

CP91 — Characteristics E & K

Former issues of MIL-C-25 listed variations of this item as CP61 and CP90. CP91 base size $1\frac{1}{4} \times \frac{1}{2}$. Brackets must be ordered separately. Specify CP91F (footed) or CP91S (spade).

P16				P16			
CAP.	VOLT.	NO. BRACKETS	Net Price*	CAP.	VOLT.	NO. BRACKETS	Net Price*
.1	400V	CP91B1KE104K	\$1.95	.25	400V	CP91B1KE254K	2.16
.25	400V	CP91B1EE105K	2.61	1.0	400V	CP91B1EF503K	1.98
.05	600V	CP91B1EF254K	2.25	.25	600V	CP91B1EF105K	2.43
.25	600V	CP91B6EF104V	2.46	.5	600V	CP91B6EF254V	2.67
1.0	600V	CP91B6EF504V	2.82	2X.5	600V	CP91B6EF504V	3.00
2X.05	600V	CP91B1EG103K	2.01	.01	1000V	CP91B1EG203K	2.07
2X.1	600V	CP91B1EG503K	2.25	.02	1000V	CP91B1EG503K	2.31
2X.25	600V	CP91B1EG104K	2.31	.05	1000V	CP91B1EG254K	2.43
.01	1000V	CP91B1EG504K	2.73	.1	1000V		
.02	1000V			.25	1000V		
.05	1000V			.5	1000V		

MIL-C-25C

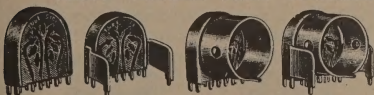
TYPES CP67, CP69 — Characteristics E



Hyvol M or J oil impregnated and filled unit, rectangular cased. Similar to CP91 except additional length in base size of $1\frac{1}{4} \times \frac{1}{2}$ permits 2 or 3 sections, case floating. Single units also can be used for special applications where type CP91 does not fit. Both CP67 and CP69 supplied with channel brackets attached. Standard tolerance on single section units $\pm 10\%$ (K), on multiple section units $\pm 20 - 10\%$ (V).

P18-CT				P18-CB				P18-CB			
CAP.	VOLT.	TOP TERM.	Net Price*	BOTTOM TERM.	Net Price*	CAP.	VOLT.	BOTTOM TERM.	Net Price*		
.05	600V	CP67B1EF503K	\$2.25	CP69B1EF503K	\$2.25	.1	1000V	CP69B1EG104K	\$2.46		
.1	600V	CP67B1EF104K	2.37	CP69B1EF104K	2.37	.25	1000V	CP69B1EG254K	2.64		
.25	600V	CP67B1EF254K	2.46	CP69B1EF254K	2.46	.5	1000V	CP69B1EG504K	2.94		
.5	600V	CP67B1EF504K	2.64	CP69B1EF504K	2.64	2X.05	1000V	CP69B4EG503V	2.94		
1.0	600V	CP67B1EF105K	3.09	CP69B1EF105K	3.09	2X.1	1000V	CP69B4EG104V	3.12		
2X.05	600V	CP67B4EF503V	2.67	CP69B4EF503V	2.67	2X.25	1000V	CP69B4EG254V	3.42		
2X.1	600V	CP67B4EF104V	2.85	CP69B4EF104V	2.85	3X.01	1000V	CP69B5EG103V	2.94		
2X.25	600V	CP67B4EF254V	2.94	CP69B4EF254V	2.94	3X.02	1000V	CP69B5EG203V	3.33		
2X.5	600V	CP67B4EF504V	3.36	CP69B4EF504V	3.36	3X.05	1000V	CP69B5EG503V	3.42		
3X.05	600V	CP67B5EF503V	3.27	CP69B5EF503V	3.27	3X.1	1000V	CP69B5EG104V	3.69		
3X.1	600V	CP67B5EF104V	3.54	CP69B5EF104V	3.54						
3X.25	600V	CP67B5EF254V	3.72	CP69B5EF254V	3.72						
.01	1000V	CP67B1EG103K	2.19	CP69B1EG103K	2.19						
.02	1000V	CP67B1EG203K	2.22	CP69B1EG203K	2.22						
.05	1000V	CP67B1EG503K	2.37	CP69B1EG503K	2.37						

RIGHT ANGLE TUBE SOCKETS



Type A Type AX Type B Type BX
Ordering Example: RA7A — (Type 7 Pin Socket)

Available in 7-pin and 9-pin types in four styles, these sockets are designed to meet existing MIL Specifications. Active contacts are silver plated and non-fatiguing contact pressure provides proper insertion and withdrawal pressure with a minimum of contact resistance. Ideal for hand or mechanical insertion into printed-wiring boards using simple in-line punched round holes. Templates are furnished with each socket. Low terminals permit use of sockets on wide range of board thickness.

Type A — for general purpose applications.

Type AX — for special applications (military and commercial) where extra strength and rigidity are required.

Type B — same as Type A except tube shield shell added.

Type BX — same as Type AX except tube shield shell added.

RA7 — 7 pin right angle tube socket. RA9 — 9 pin right angle tube socket

Cat. No.	Net Price**
RA7A	\$.64
RA7AX	.65
RA7B	.69
RA7BX	.91
RA9A	.85
RA9AX	.87
RA9B	.92
RA9BX	.95

*Request O.E.M. Prices in the following quantities: 10-24, 25-49, 50-99
**Request O.E.M. Prices in the following quantities: 25-99, 100-499



CAPACITORS

INDUSTRIAL SECTION — MIL TYPES

TYPE CP70

MIL-C-25C

Characteristics E and F • Porcelain and Riveted Terminals

Hyvol M or J oil impregnated and filled, large, rectangular, metal-cased capacitor for heavy-duty, continuous-service applications such as power supplied for transmitters, amplifiers, etc. immersion proof and hermetically sealed. Available with either high-voltage screw-type porcelain-pillar terminals or the space-saving riveted terminal. Pillar terminals have soldering lugs.

Standard tolerance $\pm 10\%$ (K). MIL-C-25C mounting brackets are also available for all units.

Units meet Vibration Grade 1 of MIL-C-25C—Designated by addition of numeral 1 to part number.



Capacity	Voltage	CHAR. E P09 Porc. Term	Case Size and Bkt. Desig.	Net Price*	CHAR. F P09 Porc. Term	Case Size and Bkt. Desig.	Net Price*	CHAR. E P09-R Rivet Term	Case Size and Bkt. Desig.	Net Price*	CHAR. F P09-R Rivet Term	Case Size and Bkt. Desig.	Net Price*
1.0	600V	CP70E1EF105K	A2	4.02				CP70B1EF105K	A2	3.78			
2.0	600V	CP70E1EF205K	A4	4.95	CP70E1FF205K	A3	4.89	CP70B1FF205K	A3	4.71	CP70B1FF205K	A3	4.71
4.0	600V	CP70E1EF405K	B4	6.90	CP70E1FF405K	B3	6.45	CP70B1FF405K	B3	6.21	CP70B1FF405K	B3	6.21
6.0	600V	CP70E1EF605K	C2	8.94	CP70E1FF605K	C2	7.05	CP70B1FF605K	C2	8.70	CP70B1FF605K	B6	6.81
8.0	600V	CP70E1EF805K	C3	10.95	CP70E1FF805K	C2	7.50	CP70B1FF805K	C3	10.71	CP70B1FF805K	C2	7.29
10.0	600V	CP70E1EF106K	D3	13.14	CP70E1FF106K	C4	8.10	CP70B1FF106K	D3	12.90	CP70B1FF106K	C4	7.89
.1	1000V	CP70E1EG104K	A1	4.14									
.25	1000V	CP70E1EG254K	A2	4.50									
.5	1000V	CP70E1EG504K	A4	4.68									
1.0	1000V	CP70E1EG105K	A3	5.19	CP70E1FG105K	A2	4.74	CP70B1EG105K	A3	4.95			
2.0	1000V	CP70E1EG205K	A6	6.06	CP70E1FG205K	A5	5.25	CP70B1EG205K	A6	5.82	CP70B1FG205K	A5	5.04
4.0	1000V	CP70E1EG405K	C2	8.10	CP70E1FG405K	B6	6.30	CP70B1EG405K	C2	7.86	CP70B1FG405K	B6	6.06
6.0	1000V	CP70E1EG605K	D3	9.90	CP70E1FG605K	C4	8.70	CP70B1EG605K	D3	9.66	CP70B1FG605K	C4	8.46
8.0	1000V	CP70E1EG805K	D5	11.85				CP70B1EG805K	D5	11.61	CP70B1FG805K	D2	9.96
10.0	1000V	CP70E1EG106K	E5	13.80	CP70E1FG106K	D5	11.40	CP70B1EG106K	E5	13.56	CP70B1FG106K	D2	11.16
12.0	1000V	CP70E1EG126K	E5	15.75				CP70B1EG126K	E5	15.51	CP70B1FG126K	E4	12.51
15.0	1000V	CP70E1EG156K	G2	18.75	CP70E1FG156K	F1	15.75	CP70B1EG156K	G2	18.51	CP70B1FG156K	F1	15.51
.5	1500V	CP70E1EH504K	A3	5.40				CP70B1EH504K	A3	5.16			
1.0	1500V	CP70E1EH105K	A6	6.24	CP70E1FH105K	A5	5.10	CP70B1EH105K	A6	6.00			
2.0	1500V	CP70E1EH205K	E6	7.80	CP70E1FH205K	B5	6.30	CP70B1EH205K	B6	7.56	CP70B1FH205K	B5	6.06
4.0	1500V	CP70E1EH405K	D4	11.10	CP70E1FH405K	C4	8.55	CP70B1EH405K	D4	10.86	CP70B1FH405K	C4	8.31
6.0	1500V	CP70E1EH605K	E5	14.34	CP70E1FH605K	D5	11.70	CP70B1EH605K	E5	14.10	CP70B1FH605K	D5	11.46
8.0	1500V	CP70E1EH805K	F2	17.55	CP70E1FH805K	F1	14.70	CP70B1EH805K	F2	17.31	CP70B1FH805K	F1	14.46
10.0	1500V	CP70E1EH106K	G4	20.85	CP70E1FH106K	G2	16.50	CP70B1EH106K	G4	20.61	CP70B1FH106K	G2	16.26
12.0	1500V	CP70E1EH126K	J3	24.00	CP70E1FH126K	G2	20.70	CP70B1EH126K	J3	23.76	CP70B1FH126K	G2	20.46
15.0	1500V	CP70E1EH156K	J6	29.10	CP70E1FH156K	J3	23.40	CP70B1EH156K	J6	28.86	CP70B1FH156K	J3	23.16
.25	2000V	CP70E1EJ254K	B1	5.22									
.5	2000V	CP70E1EJ504K	B2	5.55	CP70E1FJ105K	B3	5.55						
1.0	2000V	CP70E1EJ105K	B6	6.45	CP70E1FJ205K	C3	6.90						
2.0	2000V	CP70E1EJ205K	C4	7.95	CP70E1FJ405K	E3	9.60						
4.0	2000V	CP70E1EJ405K	E6	11.55	CP70E1FJ605K	G1	12.90						
6.0	2000V				CP70E1FJ106K	J3	19.50						
10.0	2000V				CP70E1FJ126K	J5	23.40						
12.0	2000V				CP70E1FJ156K	J7	28.50						
15.0	2000V												
.1	2500V	CP70E1EK104K	B1	5.10									
.5	2500V	CP70E1EK504K	B4	6.30	CP70E1FK504K	B3	6.75						
1.0	2500V	CP70E1EK105K	D2	7.95	CP70E1FK105K	D1	7.65						
2.0	2500V	CP70E1EK205K	E5	11.10	CP70E1FK205K	D5	10.20						
4.0	2500V	CP70E1EK405K	J2	17.70									
6.0	2500V	CP70E1EK106K	J1	36.90									
8.0	3000V	CP70E1EL104K	B2	5.70									
.25	3000V	CP70E1EL254K	B3	6.30									
.5	3000V	CP70E1EL504K	B6	7.35									
1.0	3000V	CP70E1EL105K	E4	9.75	CP70E1FL105K	E3	8.94						
2.0	3000V	CP70E1EL205K	G2	13.95	CP70E1FL205K	G1	12.15						
4.0	3000V	CP70E1EL405K	J7	22.95	CP70E1FL405K	J3	18.00						
6.0	4000V	CP70E1EM104K	E1	13.89									
.25	4000V				CP70E1FM254K	E1	14.40						
.5	4000V				CP70E1FM504K	E3	17.10						
1.0	4000V				CP70E1FM105K	E6	21.60						
2.0	4000V				CP70E1FM205K	J4	28.20						
4.0	4000V				CP70E1FM405K	J10	43.50						
.1	5000V	CP70E1EN405K	J11	46.56									
.25	5000V	CP70E1EN254K	E3	16.56									
.5	5000V	CP70E1EN504K	E6	19.29	CP70E1FN504K	E4	17.85						
1.0	5000V				CP70E1FN105K	J2	25.20						
2.0	5000V				CP70E1FN205K	J6	38.70						
.1	6000V	CP70D1EP104K	E3	16.35	CP70D1FP104K	E2	15.30						
.25	6000V	CP70D1EP254K	E5	19.14	CP70D1FP254K	E4	18.15						
.5	6000V	CP70D1EP504K	J3	22.20									
1.0	6000V	CP70D1EP105K	J11	41.16	CP70D1FP105K	E9	38.70						
.1	7500V				CP70D1FR104K	J3	18.15						
.25	7500V				CP70D1FR254K	J1	22.05						
.5	7500V				CP70D1FR504K	J4	29.10						

A1	1 1/4" x 1 1/4" x 1 1/4"	E2	3 3/4" x 2 1/4" x 3 3/8"
A2	1 1/4" x 1 1/4" x 2 1/4"	E3	3 3/4" x 2 1/4" x 3 3/8"
A3	1 1/4" x 1 1/4" x 2 7/8"	E4	3 3/4" x 2 1/4" x 4 1/2"
A4	1 1/4" x 1 1/4" x 3 1/4"	E5	3 3/4" x 2 1/4" x 4 3/4"
A5	1 1/4" x 1 1/4" x 3 7/8"	E6	3 3/4" x 2 1/4" x 5 1/4"
A6	1 1/4" x 1 1/4" x 4 1/4"	F1	3 3/4" x 2 1/4" x 4 3/4"
B1	2 1/2" x 1 1/4" x 2 1/2"	F2	3 3/4" x 2 1/4" x 5 1/4"
B2	2 1/2" x 1 1/4" x 2 7/8"	G1	3 3/4" x 3 3/4" x 4 1/4"
B3	2 1/2" x 1 1/4" x 3 1/2"	G2	3 3/4" x 3 3/4" x 4 3/4"
B4	2 1/2" x 1 1/4" x 3 7/8"	G3	3 3/4" x 3 3/4" x 5 1/4"
B5	2 1/2" x 1 1/4" x 4 1/4"	J1	4 1/4" x 3 3/4" x 3 7/8"
B6	2 1/2" x 1 1/4" x 4 3/4"	J2	4 1/4" x 3 3/4" x 4 3/4"
C2	3 3/4" x 1 1/4" x 3 7/8"	J3	4 1/4" x 3 3/4" x 4 3/4"
C3	3 3/4" x 1 1/4" x 4 1/4"	J4	4 1/4" x 3 3/4" x 5 1/4"
C4	3 3/4" x 1 1/4" x 4 3/4"	J5	4 1/4" x 3 3/4" x 5 1/4"
D1	3 3/4" x 1 1/4" x 3 1/4"	J6	4 1/4" x 3 3/4" x 6"
D2	3 3/4" x 1 1/4" x 3 7/8"	J7	4 1/4" x 3 3/4" x 6 1/2"
D3	3 3/4" x 1 1/4" x 4"	J9	4 1/4" x 3 3/4" x 7 1/2"
D4	3 3/4" x 1 1/4" x 4 1/4"	J10	4 1/4" x 3 3/4" x 8 1/2"
D5	3 3/4" x 1 1/4" x 4 3/4"	J11	4 1/4" x 3 3/4" x 9 1/4"
E1	3 3/4" x 2 1/4" x 2 1/4"		

If MIL brackets are required with units, specify CP07S (spade) or CP07F (footed) and add the bracket designation listed beside the unit.

Example: CP70E1EF504K with CP07SA2 brackets.

*Request O.E.M. Prices in the following quantities: 10-24, 25-49, 50-99

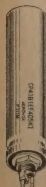
TYPE CP41 — Characteristics E and F

Cylindrical, hermetically sealed can with screwbase molded cover for vertical mounting. Operating temperature range —55 +85°C. Solder lug, nonremovable terminals MIL designation B). Supplied with mounting nut and lockwasher. Standard tolerance $\pm 10\%$ (K).

Units meet Vibration Grade 1 of MIL-C-25C Designated by addition of numeral 1 to part number.

Capacity	Voltage	Char. E P10M	Net Price*	Char. F P10M	Net Price*
2.0	600V	CP41B1EF205K	5.51	CP41B1FF205K	5.51
4.0	600V	CP41B1EF405K	7.46	CP41B1FF405K	7.46
1.0	1000V	CP41B1EG105K	5.51	CP41B1FG105K	5.51
2.0	1000V	CP41B1EG205K	6.59	CP41B1FG205K	6.59
.5	1500V			CP41B1FH504K	6.26
1.0	1500V			CP41B1FH105K	7.07

*Request O.E.M. Prices in the following quantities: 25-49, 50-99





CAPACITORS

INDUSTRIAL CERAMIC CAPACITORS

MIL TYPES CK12, 13, 14, 15, 16 and 17

CERAFIL®



These remarkably ultra-miniature units, Molded Type MC80V and Durez Coated Type C80V, are designed primarily for air-borne and space-borne equipments, having critical space and weight parameters. They are also designed for transistorized circuit applications in hearing aids and other critical requirements where space and weight are at an absolute premium. The unique design and construction features of Cerafil® capacitors make it possible to obtain extremely high capacities per unit volume. These tiny capacitors are the ideal answer to many problems created by the growing trend towards miniaturization of electronic assemblies and equipments. When tested using Cerafil® ratings, these units will meet or surpass the requirement of MIL-C-11015C.

For full technical information request Bulletins NPJ-119 Rev. 3 and NPJ-120 Rev.

Capacity Mfd.	MIL-C-11015C Number†	Dimensions D x L		± .003 - .005		Molded Axial Leads Net** Price		± 20% Part No.		10% Part No.		Net** Price		Dimensions* D x L		Dipped Axial Leads Part No.		Dipped Radial Leads Part No.		Net** Price	
.00001	CK12AX100-	.087	.315	MC80V100AM	.47	MC80V100AK	.59	.090	.320	C80V100AM	.52	C80V100RM	.57								
.000012		.087	.315	MC80V120AM	.47	MC80V120AK	.59														
.000015		.087	.315	MC80V150AM	.47	MC80V150AK	.59														
.000018		.087	.315	MC80V180AM	.47	MC80V180AK	.59														
.000022	CK12AX220-	.087	.315	MC80V220AM	.47	MC80V220AK	.59	.090	.320	C80V220AM	.52	C80V220RM	.57								
.000027		.087	.315	MC80V270AM	.47	MC80V270AK	.59														
.000033	CK12AX330-	.087	.315	MC80V330AM	.47	MC80V330AK	.59	.090	.320	C80V330AM	.52	C80V330RM	.57								
.000039		.087	.315	MC80V390AM	.47	MC80V390AK	.59														
.000047	CK12AX470-	.087	.315	MC80V470AM	.47	MC80V470AK	.59	.090	.320	C80V470AM	.52	C80V470RM	.57								
.000056		.087	.315	MC80V560AM	.47	MC80V560AK	.59	.090	.320	C80V560AM	.52	C80V560RM	.57								
.000068		.087	.315	MC80V680AM	.47	MC80V680AK	.59	.090	.320	C80V680AM	.52	C80V680RM	.57								
.000082		.087	.315	MC80V820AM	.47	MC80V820AK	.59	.090	.320	C80V820AM	.52	C80V820RM	.57								
.0001	CK12AX101-	.087	.315	MC80V101AM	.47	MC80V101AK	.59	.090	.320	C80V101AM	.52	C80V101RM	.57								
.00012		.087	.315	MC80V121AM	.47	MC80V121AK	.59														
.00015		.087	.315	MC80V151AM	.47	MC80V151AK	.59														
.00018		.087	.315	MC80V181AM	.47	MC80V181AK	.59														
.00022	CK12AX221-	.087	.315	MC80V221AM	.47	MC80V221AK	.59	.090	.320	C80V221AM	.52	C80V221RM	.57								
.00027		.087	.315	MC80V271AM	.47	MC80V271AK	.59														
.00033	CK12AX331-	.087	.315	MC80V331AM	.47	MC80V331AK	.59	.090	.320	C80V331AM	.52	C80V331RM	.57								
.00039		.087	.315	MC80V391AM	.47	MC80V391AK	.59														
.00047	CK12AX471-	.087	.315	MC80V471AM	.47	MC80V471AK	.59	.090	.320	C80V471AM	.52	C80V471RM	.57								
.00056		.087	.315	MC80V561AM	.47	MC80V561AK	.59	.090	.320	C80V561AM	.52	C80V561RM	.57								
.00068		.087	.315	MC80V681AM	.47	MC80V681AK	.59	.090	.320	C80V681AM	.52	C80V681RM	.57								
.00082		.087	.315	MC80V821AM	.47	MC80V821AK	.59	.090	.320	C80V821AM	.52	C80V821RM	.57								
.001	CK12AX102-	.087	.315	MC80V102AM	.47	MC80V102AK	.59	.090	.320	C80V102AM	.46	C80V102RM	.51								
.0012		.117	.495	MC80V122AM	.68	MC80V122AK	.85														
.0015		.117	.495	MC80V152AM	.68	MC80V152AK	.85														
.0018		.117	.495	MC80V182AM	.68	MC80V182AK	.85														
.002		.117	.495	MC80V202AM	.68	MC80V202AK	.85	.120	.500	C80V202AM	.76	C80V202RM	.84								
.0022	CK13AX222-	.117	.495	MC80V222AM	.68	MC80V222AK	.85	.120	.500	C80V222AM	.76	C80V222RM	.84								
.0027		.117	.495	MC80V272AM	.68	MC80V272AK	.85														
.0033	CK13AX332-	.117	.495	MC80V332AM	.68	MC80V332AK	.85	.120	.500	C80V332AM	.76	C80V332RM	.84								
.0039		.117	.495	MC80V392AM	.68	MC80V392AK	.85														
.0047	CK13AX472-	.117	.495	MC80V472AM	.68	MC80V472AK	.85	.120	.500	C80V472AM	.76	C80V472RM	.84								
.005		.117	.495	MC80V502AM	.68	MC80V502AK	.85	.120	.500	C80V502AM	.76	C80V502RM	.84								
.0056		.157	.495	MC80V562AM	.90	MC80V562AK	1.13														
.0068		.157	.495	MC80V682AM	.90	MC80V682AK	1.13	.180	.500	C80V682AM	1.00	C80V682RM	1.19								
.0082		.157	.495	MC80V822AM	.90	MC80V822AK	1.13														
.01	CK14AX103-	.157	.495	MC80V103AM	.90	MC80V103AK	1.13	.180	.500	C80V103AM	1.00	C80V103RM	1.19								
.012		.197	.495	MC80V123AM	1.65	MC80V123AK	2.06														
.015		.197	.495	MC80V153AM	1.65	MC80V153AK	2.06														
.018		.197	.495	MC80V183AM	1.65	MC80V183AK	2.06														
.02		.197	.495	MC80V203AM	1.65	MC80V203AK	2.06	.200	.500	C80V203AM	1.83	C80V203RM	2.03								
.022	CK15AX223-	.197	.495	MC80V223AM	1.65	MC80V223AK	2.06	.200	.500	C80V223AM	3.05	C80V223RM	3.38								
.027		.237	.645	MC80V273AM	2.75	MC80V273AK	3.44														
.033		.237	.645	MC80V333AM	2.75	MC80V333AK	3.44	.240	.650	C80V333AM	3.05	C80V333RM	3.38								
.039		.237	.645	MC80V393AM	2.75	MC80V393AK	3.44														
.047	CK16AX473-	.237	.645	MC80V473AM	2.75	MC80V473AK	3.44	.240	.650	C80V473AM	3.05	C80V473RM	3.38								
.05		.237	.645	MC80V503AM	2.75	MC80V503AK	3.44	.240	.650	C80V503AM	3.05	C80V503RM	3.38								
.056		.277	.745	MC80V563AM	4.93	MC80V563AK	6.16														
.068		.277	.745	MC80V683AM	4.93	MC80V683AK	6.16	.310	.750	C80V683AM	5.48	C80V683RM	6.08								
.082		.277	.745	MC80V823AM	4.93	MC80V823AK	6.16														
.1	CK17AX104-	.277	.745	MC80V104AM	4.93	MC80V104AK	6.16	.310	.750	C80V104AM	5.48	C80V104RM	6.08								

† FOR CK12 THRU CK17 SPECIFY K OR M TOLERANCE AND USE SAME PRICE AS SHOWN FOR COMPARABLE MC80V, K OR M TOLERANCE.

*Overall length may exceed dimensions shown by as much as 1/16" due to deposit of insulating material on leads.

ELECTRICAL SPECIFICATIONS

MECHANICAL SPECIFICATIONS

- VOLTAGE — 100 VDCW; 300 VDC
- CAPACITY TOLERANCE — ±10% (K),
±20% (M) as listed above.
- INSULATION RESISTANCE — 100 mfd.—megohms or
10,000 megohms whichever is smaller.
- TEMPERATURE COEFFICIENT — (—55°C to +85°C.)
No voltage +10% to —15%.
100 volts applied — +10% to —35%.
- POWER FACTOR — 2.5% maximum.
- OPERATING TEMPERATURE
—55°C to 85°C at 100 volts
—55°C to 125°C at 50 volts

- All dimensions in inches.

- LEADS—Tinned Copper
C80V—Below .01 mfd.—#26 gauge.
.01 and above—#22 gauge.

MC80V—.005 and below—#26 gauge.
.0051 and above—#22 gauge.

- LEAD LENGTHS — C80V—1½" Min.
MC80V—1¾" Min.

- MARKING — Color code. No code for temperature coefficient; no
code for lead designation since it is obvious.

** Request O.E.M. Prices in the following quantities: 25-49, 50-99, 100-499



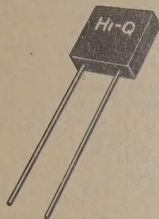
CAPACITORS

INDUSTRIAL CERAMIC CAPACITORS (cont.)

 TYPE MC52-MC62
 MIL TYPE CK05-CK06

Test and compare these new reliable types.

- Will meet MIL-C-11015/18/19
- Will operate without derating at 200VDC from -55°C to $+150^{\circ}\text{C}$
- Life tested at 400 VDC, 150°C
- Manufactured in complete new automated facility
- Molded (not shell encased)
- Ceramlam Process



DIMENSIONS

CK05—.195 x .195 x .095
 CK06—.295 x .295 x .095

These units are marked with capacity, voltage and tolerance.

For complete technical data request bulletin NPJ-123 Rev. 2.

EXTENDED CAPACITANCE RANGE

 TYPE MC51 and MC61
 in CK05 - CK06 Size


Now available as standard are capacitance values up to .01 mfd in the CK05 configuration and to .1 mfd in the CK06 size. Utilizing the exclusive Hi-Q CERAMAM construction, they are rated at 100 VDC and meet the exacting requirements of the "BX" voltage-temperature characteristic at 50 VDC, ($\pm 15\%$ @ 0°C , $+15\%$ — 25% @ 50°VDC). The Hi-Q molding process assures precisely centered leads. The monolithic CERAMAM structure provides the full capability of meeting the environmental requirements of MIL-C-11015, MIL-C-38102 and MIL-C-39014.

For full technical information request bulletin NPJ-134.

MC51 and MC61 STOCK LISTING

Cap. MFD.	Commercial Designation	MIL-C-11015C Designation				Net Price**
		$\pm 10\%$	Net 1 Price**	$\pm 20\%$		
10	MC52CW100*	CK05CW100K	1.05	CK05CW100M	.87	
12	MC52CW120*	CK05CW120K	1.05	CK05CW120M	.87	
15	MC52CW150*	CK05CW150K	1.05	CK05CW150M	.87	
18	MC52CW180*	CK05CW180K	1.05	CK05CW180M	.87	
22	MC52CW220*	CK05CW220K	1.05	CK05CW220M	.87	
27	MC52CW270*	CK05CW270K	1.05	CK05CW270M	.87	
33	MC52CW330*	CK05CW330K	1.05	CK05CW330M	.87	
39	MC52CW390*	CK05CW390K	1.05	CK05CW390M	.87	
47	MC52CW470*	CK05CW470K	1.05	CK05CW470M	.87	
56	MC52CW560*	CK05CW560K	1.05	CK05CW560M	.87	
68	MC52CW680*	CK05CW680K	1.05	CK05CW680M	.87	
82	MC52CW820*	CK05CW820K	1.05	CK05CW820M	.87	
100	MC52CW101*	CK05CW101K	1.05	CK05CW101M	.87	
120	MC52CW121*	CK05CW121K	1.05	CK05CW121M	.87	
150	MC52CW151*	CK05CW151K	1.05	CK05CW151M	.87	
180	MC52CW181*	CK05CW181K	1.05	CK05CW181M	.87	
220	MC52CW221*	CK05CW221K	1.05	CK05CW221M	.87	
270	MC52CW271*	CK05CW271K	1.05	CK05CW271M	.87	
330	MC52CW331*	CK05CW331K	1.05	CK105CW331M	.87	
390	MC52CW391*	CK05CW391K	1.05	CK05CW391M	.87	
470	MC52CW471*	CK05CW471K	1.05	CK05CW471M	.87	
560	MC52CW561*	CK05CW561K	1.05	CK05CW561M	.87	
680	MC52CW681*	CK05CW681K	1.05	CK05CW681M	.87	
820	MC52CW821*	CK05CW821K	1.05	CK05CW821M	.87	
1000	MC52CW102*	CK05CW102K	1.05	CK05CW102M	.87	
1200	MC62CW122*	CK06CW122K	1.14	CK06CW122M	.99	
1500	MC62CW152*	CK06CW152K	1.14	CK06CW152M	.99	
1800	MC62CW182*	CK06CW182K	1.14	CK06CW182M	.99	
2200	MC62CW222*	CK06CW222K	1.20	CK06CW222M	1.05	
2700	MC62CW272*	CK06CW272K	1.20	CK06CW272M	1.05	
3300	MC62CW332*	CK06CW332K	1.20	CK06CW332M	1.05	
3900	MC62CW392*	CK06CW392K	1.20	CK06CW392M	1.05	
4700	MC62CW472*	CK06CW472K	1.20	CK06CW472M	1.05	
5600	MC62CW562*	CK06CW562K	1.23	CK06CW562M	1.08	
6800	MC62CW682*	CK06CW682K	1.29	CK06CW682M	1.14	
8200	MC62CW822*	CK06CW822K	1.38	CK06CW822M	1.20	
10000	MC62CW103*	CK06CW103K	1.38	CK06CW103M	1.20	

*Add K for $\pm 10\%$ tolerance or M for $\pm 20\%$ tolerance

**Request O.E.M. Prices in the following quantities: 50-99, 100-249, 250-499, 500-999

SPECIFICATIONS

Rated at 100 VDC; Voltage-Temperature Characteristic: $\pm 15\%$ @ 0°C , $+15\%$ — 25% @ 50°VDC , $+15\%$ — 30% @ 100°VDC ; Temperature Range -55°C to $+125^{\circ}\text{C}$; Insulation Resistance is 20,000 meg. min; Power Factor 2.5%

Units are marked with the following:
 Hi-Q, 100 VDCW, Capacity, Tolerance.

SIZE CHART

CK05 — MC51 — .195 x .195 x .095

CK06 — MC61 — .295 x .295 x .095

+ Request O.E.M. Prices in the Following Quantities:
 25-49, 50-99



CAPACITORS

INDUSTRIAL CERAMIC CAPACITORS (cont.)

SUBMINIATURE THIN PLATE CAPACITORS

TYPES TPNPO, TP25 & TP89



Subminiature rectangular ceramic capacitors with a difference. Slim design allows close assembly, small size-maximum circuit density. Ideal for transistorized circuit and micro-module applications.

- Close temperature coefficients
- Operation to 125°C
- Closer standard tolerances
- Radial or axial lead
- Gold plate Dumet leads

For complete technical data request bulletin NPJ-122.

TYPICAL PROPERTIES

	TYPE TPNPO	TYPE TP25	TYPE TP89
Voltage, VDCW (a 85°C, Derated 50% (a 125°C)	50	50	50
Power Factor, Maximum @ 1 KC.	1%	.6%	2%
Temperature Coefficient with 0 Voltage, —55°C to +125°C	0±30PPM/°C	+5%, —8%	+10%, —30%
Temperature Coefficient with rated Voltage applied, —55°C to +125°C	0±30PPM/°C	+5%, —10%	+10%, —40%
Capacity Tolerance	±5%*	±10%	±20%

*To 6.8 mmf. ±.5 mmf.

TYPICAL CAPACITY RANGE—MMF

MAXIMUM SIZE (L x W x t)	TYPE TPNPO	TYPE TP25	TYPE TP89
.100 x .100 x .060"	5 - 20	25 - 140	360 - 1300
.150 x .150 x .060"	21 - 50	141 - 350	1301 - 3300
.200 x .200 x .060"	51 - 100	351 - 700	3301 - 6600
.250 x .250 x .060"	101 - 160	701 - 1200	6601 - 10500
.300 x .300 x .060"	161 - 220	1201 - 1500	10501 - 14500
.350 x .350 x .060"	221 - 305	1501 - 2100	14501 - 20000

Spacing between radial leads is .100" on the .100" and .150" case sizes; .200" on all other case sizes.

STOCK VALUES†

Capacitance In MMFDC	CAT. NO. TPNPO	*Net Price	CAT. NO. TP25	*Net Price	CAT. NO. TP89	*Net Price
4.7	TPNPO-4R7*D	.68				
6.8	TPNPO-6R8*D	.68				
10.0	TPNPO-100*J	.68				
15.0	TPNPO-150*J	.68				
22.0	TPNPO-220*J	.68				
33.0	TPNPO-330*J	.68	TP25-330*K	.60		
47.0	TPNPO-470*J	.68	TP25-470*K	.60		
68.0	TPNPO-680*J	.68	TP25-680*K	.60		
100	TPNPO-101*J	.68	TP25-101*K	.60		
150	TPNPO-151*J	.82	TP25-151*K	.60		
220	TPNPO-221*J	.82	TP25-221*K	.60		
330			TP25-331*K	.60		
470			TP25-471*K	.60	TP89-471*M	.48
680			TP25-681*K	.60	TP89-681*M	.48
1000			TP25-102*K	.72	TP89-102*M	.48
1500			TP25-152*K	.72	TP89-152*M	.48
2200			TP25-222*K	1.45	TP89-222*M	.48
3300					TP89-332*M	.48
4700					TP89-472*M	.48
6800					TP89-682*M	.58
10,000					TP89-103*M	.58
15,000					TP89-153*M	1.16
20,000					TP89-203*M	1.16

*Insert "A" for axial leads or "R" for radial leads

† Intermediate values and closer tolerances available on special order

*Request O.E.M. Prices in the following quantities: 50-99, 100-499

MILITARY CERAMIC DISCS

CK60, 61, 62 and 63

MIL-C-11015C - 500 VDCW



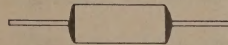
Cap. pf.	VDCW	Tol.	Mil Number	*Net Price	Cap. pf.	VDCW	Tol.	Mil Number	*Net Price
2.2	1000	10%	CK60BX2R2K	.165	330	500	20%	CK61BX331M	.156
3.3	1000	10%	CK60BX3R3K	.165	470	500	10%	CK61BX471K	.165
4.7	1000	10%	CK60BX4R7K	.165	470	500	20%	CK61BX471M	.156
6.8	1000	10%	CK60BX6R8K	.165	680	500	10%	CK61BX681K	.165
10	1000	10%	CK60BX100K	.165	680	500	20%	CK61BX681M	.156
15	1000	10%	CK60BX150K	.165	2200	500	20%	CK61AW222M	.148
22	1000	10%	CK60BX220K	.165	22	1500	20%	CK62AY220M	.148
33	1000	10%	CK60BX330K	.165	47	1500	20%	CK62AY470M	.159
33	1000	20%	CK60BX330M	.156	100	1500	20%	CK62AY101M	.159
47	1000	10%	CK60BX470K	.165	220	1500	20%	CK62AY221M	.159
47	1000	20%	CK60BX470M	.156	470	1500	20%	CK62AY471M	.159
68	1000	10%	CK60BX680K	.165	820	500	10%	CK62BX821K	.167
68	1000	20%	CK60BX680M	.156	820	500	20%	CK62BX821M	.167
100	1000	10%	CK60BX101K	.165	1000	500	10%	CK62BX102K	.181
100	1000	20%	CK60BX101M	.156	1000	500	20%	CK62BX102M	.167
150	500	10%	CK60BX151K	.165	1500	500	10%	CK62BX152K	.181
150	500	20%	CK60BX151M	.156	1500	500	20%	CK62BX152M	.167
220	1000	10%	CK60AX221K	.165	2200	500	10%	CK62AX222K	.181
220	1000	20%	CK60AX221M	.156	2200	500	20%	CK62AX222M	.167
330	500	10%	CK60AX331K	.165	3300	500	20%	CK62AX332M	.159
330	500	20%	CK60AX331M	.156	4700	500	20%	CK62AX472M	.159
470	500	10%	CK60AX471K	.165	6800	500	20%	CK62AX682M	.159
470	500	20%	CK60AX471M	.156	8200	500	20%	CK62AX822M	.159
470	1000	20%	CK60AW471M	.148	2200	500	10%	CK63BX222K	.204
680	1000	20%	CK60AW681M	.148	2200	500	20%	CK63BX222M	.176
820	1000	20%	CK60AW821M	.148	3300	500	10%	CK63BX332K	.204
1000	1000	20%	CK60AW102M	.148	3300	500	20%	CK63BX332M	.176
1500	500	20%	CK60AW152M	.148	4700	1000	20%	CK63AW152M	.168
220	500	10%	CK61BX221K	.165	10,000	1000	+80%	CK63AY103X	.168
220	500	20%	CK61BX221M	.156			-20%		
330	500	10%	CK61BX331K	.165	10,000	500	20%	CK63AW103M	.168

*Request O.E.M. Prices in the following quantities: 50-99, 100-249, 250-499, 500-999

MILITARY GENERAL PURPOSE CERAMIC TUBULARS

CK21, CK22, CK26, CK27

MIL-C-11015C



CK21 - 26

CK22 - 27

Cap. mmf.	±10%	Price*	±20%	Price*	±10%	Price*	±20%	Price*
12	CK21AX120K	.22			CK22AX120K	.17		
15	CK21AX150K	.22			CK22AX150K	.17		
18	CK21AX180K	.22			CK22AX180K	.17		
22	CK21AX220K	.22			CK22AX220K	.17		
27	CK21AX270K	.22			CK22AX270K	.17		
33	CK21AX330K	.22			CK22AX330K	.17		
39	CK21AX390K	.22			CK22AX390K	.17		
47	CK21AX470K	.22			CK22AX470K	.17		
56	CK21AX560K	.22			CK22AX560K	.17		
68	CK21AX680K	.22	CK21AX680M	.21	CK22AX680K	.17	CK22AX680M	.16
82	CK21AX820K	.22			CK22AX820K	.17		
100	CK21AX101K	.22	CK21AX101M	.21	CK22AX101K	.17	CK22AX101M	.16
120	CK21AX121K	.22			CK22AX121K	.17		
150	CK21AX151K	.22	CK21AX151M	.26	CK22AX151K	.23	CK22AX151M	.21
180	CK21AX181K	.22			CK22AX181K	.23		
200	CK21AX221K	.22	CK21AX221M	.26	CK22AX221K	.23	CK22AX221M	.21
270	CK21AX271K	.22			CK22AX271K	.23		
330	CK21AX331K	.22	CK21AX331M	.26	CK22AX331K	.23	CK22AX331M	.21
390					CK22AX391K	.23		
470	CK21AX471K	.22	CK21AX471M	.26	CK22AX471K	.23	CK22AX471M	.21
560					CK22AX561K	.23		
680	CK21AX681K	.22	CK21AX681M	.26	CK22AX681K	.23	CK22AX681M	.21
820	CK26AX821K	.30	CK26AX821M	.28	CK27AX821K	.25		
1000	CK26AX102K	.30	CK26AX102M	.28	CK27AX102K	.25	CK27AX102M	.23
1200					CK27AX120K	.25		
1500	CK26AX152K	.30	CK26AX152M	.28	CK27AX152K	.25	CK27AX152M	.23

Request O.E.M. Prices in the following quantities: 25-99, 100-249, 250-499, 500-999.



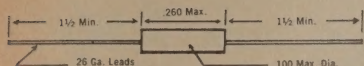
CAPACITORS

INDUSTRIAL CERAMIC CAPACITORS (cont.)

TYPE MC70 & MC705 CERAM-MOLDED TUBULAR CAPACITORS

10 pf TO 20,000 pf IN A UNIFORM MOLDED CASE

MC70 & MC705 CERAMAL CAPACITORS — ideally suited for automatic insertion into printed circuit boards . . . as well as perfectly sized for "cordwood" packaging requirements. Check the outstanding specifications on these completely versatile capacitors. MC70 & MC705 will meet the environmental requirements of MIL-C-11015, MIL-C-38100 and MIL-C-39014. Gold plated dumet leads are standard. For full technical information request Bulletin NPJ-129 Rev. 2



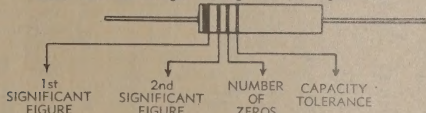
SPECIFICATIONS

Capacity Ranges in pf	Minimum Capacity Tolerance	Maximum Power Factor	Rated Voltage 125°C	Capacity Change from -55°C to +125°C		Temp. Coef. Letter for Part # Desig.
				Zero Volts	Rated Volts	
10-33	5%	1%	100	±5%	±5%	A
39-270	5%	.6%	100	+5% -8%	+5% -10%	B
330-10,000	10%	2.5%	100	+10% -15%	+10% -30%	C
10,001-22,000	20%	2.5%	50	+10% -15%	+10% -30%	C

TYPICAL PART NUMBER CODE EXAMPLE FOR 10,000 pf

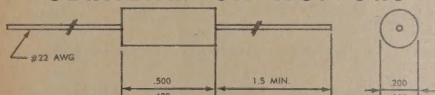
MC	70	C	103	A	M
MOLDED CERAMIC	STYLE	TEMPERATURE COEFFICIENT (see last column above)	CAPACITY pf First Two Figures Significant Third Figure Number of Zeros	AXIAL LEADS J = ± 5% K = ± 10% M = ± 20%	CAPACITY TOLERANCE X = ± 50% Y = ± 20% Z = GMV

The following color code system is used to denote capacity in microfarads and tolerance.
Read from left to right starting with the largest band.



*Request O.E.M. Prices in the following quantities: 25-49, 50-99, 100-499

MC91 and MC905 CERAMAL CAPACITORS



MC91 and MC905 Ceramal Capacitors, twice the size of the MC70 Ceramal, will meet the environment requirements of MIL-C-11015 and MIL-C-39014.

These units have a temperature range of -55° to +125°C. Capacitance change at 0 VDC is +10% -15%; at rated voltage +10% -30%. Maximum power factor is 2.5%. Gold Dumet leads are standard. For full technical information request bulletin NPJ-133.

Units will be English marked, stamped with - Hi-Q, Part Number and Tolerance.

W.D. MICH. CASH

MC91 and MC905 STOCK LISTING

Cap. pf.	VDCW	Part No. ±10%	Net Price*	Part No. ±20%	Net Price*
15,000	100	MC91C153K	\$2.29	MC91C153M	\$1.83
22,000	100	MC91C223K	2.44	MC91C223M	1.95
33,000	100	MC91C333K	3.15	MC91C333M	2.52
47,000	100	MC91C473K	3.26	MC91C473M	2.61
68,000	100	MC91C683K	3.26	MC91C683M	2.61
100,000	100	MC91C104K	6.50	MC91C104M	5.20
150,000	50	MC905C154K	6.50	MC905C154M	5.20
220,000	50	MC905C224K	7.29	MC905C224M	5.88

*Request O.E.M. Prices in the Following Quantities: 25-49, 50-99, 100-499.

CEROL®

HIGH CAPACITY, HIGH RELIABILITY, ROLLED CERAMIC CAPACITORS

Cerol® capacitors are rolled ceramic capacitors in the high capacitance range of paper and plastic film dielectrics but in much smaller physical sizes and with superior electrical characteristics. Designed for general applications in bypass-coupling, filtering and blocking circuits. Excellent electrical characteristics for critical applications in decoupling and pulse circuits where low series resistance at high frequencies together with miniature sizes are required. Low series resistance makes them ideal for use in all computer circuits. Operating temperature range at rated voltage -55°C to 85°C and at 50% rated voltage -55°C to 125°C. Capacitance tolerance is ±20%. Will meet or surpass all the requirements of MIL-C-11015C.

Units are stamped with the rated voltage for identification of type.

For full technical information request Bulletin NPJ-112 (Rev.)

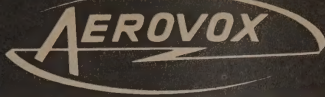
TYPE CR89 - 50 VDCW					
Value	Stock Items	D Max. In.	L Max. In.	Net Price*	
.1 MFD	CR89W104AM	.140	.400	3.10	
.25 MFD	CR89W254AM	.210	.495	4.13	
.5 MFD	CR89W504AM	.260	.495	6.72	
1.0 MFD	CR89W105AM	.260	.690	10.33	
2.0 MFD	CR89W205AM	.350	.690	15.50	

TYPE CR90 - 100 VDCW					
Value	Stock Items	D Max. In.	L Max. In.	Net Price*	
.1 MFD	CR90V104AM	.210	.690	3.44	
.25 MFD	CR90V254AM	.260	.690	4.59	
.5 MFD	CR90V504AM	.350	.690	7.46	
1.0 MFD	CR90V105AM	.480	.690	11.48	
2.0 MFD	CR90V205AM	.400	1.440	17.21	

Color Code

Brown, Black, Yellow & Black
Red, Green, Yellow & Black
Brown, Black, Yellow & Black
Green, Black, Green, Black
Red, Black, Green, Black

*Request O.E.M. Prices in the following quantities: 25-49, 50-99, 100-499



CAPACITORS

INDUSTRIAL CERAMIC CAPACITORS

Type TTD Transistor Disks

These square miniature disks are ideally suited for all applications where size is a factor such as transistorized radios and industrial applications having critical space requirements.

Units are rated at 100 VDCW $\pm 20\%$ standard tolerance.



Capacity	Length & Width	Thickness	Net Price**
.005	.280	.125	.24
.01	.340	.125	.24
.02	.430	.125	.30
.025	.465	.125	.30
.03	.465	.125	.30
.05	.535	.125	.36
.1	.700	.125	.54

**Request O.E.M. Prices in the following quantities:
50-99, 100-249, 250-499, 500-999.

General Purpose Bypass Coupling Disks
Type IDI

These industrial ceramic disk capacitors offer small physical sizes with high capacity. Mainly used for by-pass coupling or filter applications these units contain maximum protection against humidity, voltage breakdown, vibration. Rated for 500 VDCW these units are flash tested at 1500 VDC. Units will be marked with capacity and tolerance except those units which have a CK number listed. Such units are equivalent to those listed in MIL-C-11015 and will be marked with the number shown in the listing.



*NET PRICE .15

Cap. mmf	Size	Tolerance	Cap. mmf	Size	Tolerance	Mil Equivalent MIL-C-11015A
2.2	DI-1	± 5 mmf.	470	DI-1	+100-20%	CK60Y471Z
3.3	DI-1	± 5 mmf.	500	DI-1	$\pm 10\%$	
4.7	DI-1	± 5 mmf.	510	DI-1	$\pm 10\%$	
5.0	DI-1	$\pm 10\%$	560	DI-1	$\pm 10\%$	
6.0	DI-1	$\pm 10\%$	600	DI-2	$\pm 10\%$	
6.5	DI-1	$\pm 10\%$	680	DI-2	$\pm 10\%$	
7.5	DI-1	$\pm 10\%$	680	DI-1	+100-20%	CK60Y681Z
8.0	DI-1	$\pm 10\%$	750	DI-2	$\pm 10\%$	
8.2	DI-1	$\pm 10\%$	800	DI-2	$\pm 10\%$	
10	DI-1	$\pm 10\%$	820	DI-2	$\pm 10\%$	
12	DI-1	$\pm 10\%$	820	DI-1	+100-20%	CK60Y821Z
15	DI-1	$\pm 10\%$	910	DI-2	$\pm 10\%$	
18	DI-1	$\pm 10\%$	1000	DI-2	$\pm 10\%$	
20	DI-1	$\pm 10\%$	1000	DI-2	+100-20%	CK61Y102Z
22	DI-1	$\pm 10\%$	1200	DI-3	$\pm 10\%$	
24	DI-1	$\pm 10\%$	1300	DI-3	$\pm 10\%$	
25	DI-1	$\pm 10\%$	1500	DI-3	$\pm 10\%$	
27	DI-1	$\pm 10\%$	1500	DI-3	+100-20%	CK61Y152Z
30	DI-1	$\pm 10\%$	1600	DI-4	$\pm 10\%$	
33	DI-1	$\pm 10\%$	1800	DI-4	$\pm 10\%$	
39	DI-1	$\pm 10\%$	2000	DI-4	$\pm 10\%$	
47	DI-1	$\pm 10\%$	2200	DI-4	$\pm 20\%$	
50	DI-1	$\pm 10\%$	2200	DI-4	+100-20%	CK62Y222Z
56	DI-1	$\pm 10\%$	2500	DI-4	$\pm 20\%$	
68	DI-1	$\pm 10\%$	2700	DI-4	$\pm 20\%$	
75	DI-1	$\pm 10\%$	3000	DI-4	$\pm 20\%$	
82	DI-1	$\pm 10\%$	3300	DI-4	$\pm 20\%$	
91	DI-1	$\pm 10\%$	3300	DI-4	+100-20%	CK62Y332Z
100	DI-1	$\pm 10\%$	3900	DI-2	GMV	
120	DI-1	$\pm 10\%$	4000	DI-2	GMV	
130	DI-1	$\pm 10\%$	4300	DI-2	GMV	
150	DI-1	$\pm 10\%$	4700	DI-4	$\pm 20\%$	
180	DI-1	$\pm 10\%$	4700	DI-4	+100-20%	CK62Y472Z
200	DI-1	$\pm 10\%$	5000	DI-3	GMV	
220	DI-1	$\pm 10\%$	5600	DI-3	GMV	
240	DI-1	$\pm 10\%$	6800	DI-3	GMV	
250	DI-1	$\pm 10\%$	7500	DI-4	GMV	
270	DI-1	$\pm 10\%$	8200	DI-4	GMV	
300	DI-1	$\pm 10\%$	10000	DI-5	$\pm 20\%$	
330	DI-1	$\pm 10\%$	10000	DI-5	+100-20%	CK63Y103Z
350	DI-1	$\pm 10\%$				
360	DI-1	$\pm 10\%$				
390	DI-1	$\pm 10\%$				
400	DI-1	$\pm 10\%$				
470	DI-1	$\pm 10\%$				

DISK CAPACITORS
Bypass and CouplingBPD-GMV CAPACITOR
Stock Items 1000 VDCW

Type	Cap. Mfd.	Dia.	Net Price*	Type	Cap. Mfd.	Dia.	Net Price*
BPD	.00001	5/16	\$.15	BPD	.0033	7/16	\$.15
BPD	.000015	5/16	.15	BPD	.004	7/16	.15
BPD	.000022	5/16	.15	BPD	.0047	19/32	.15
BPD	.000025	5/16	.15	BPD	.005	19/32	.15
BPD	.000033	5/16	.15	BPD	.0068	19/32	.15
BPD	.000047	5/16	.15	BPD	.01	3/4	.18
BPD	.00005	5/16	.15				
BPD	.000068	5/16	.15	BPD	.015	29/32	.24
BPD	.0001	5/16	.15	BPD	.02	29/32	.36
BPD	.00012	5/16	.15	BPD	.03	29/32	.39
BPD	.00015	5/16	.15	BPD	.05	29/32	.42
BPD	.0002	5/16	.15				
BPD	.00027	5/16	.15				
BPD	.00033	5/16	.15				
BPD	.00047	5/16	.15				
BPD	.0005	5/16	.15				
BPD	.00068	5/16	.15				
BPD	.0008	5/16	.15				
BPD	.001	5/16	.15				
BPD	.0015	5/16	.15				
BPD	.002	3/8	.15				
BPD	.0022	3/8	.15				
BPD	.0025	3/8	.15				

DUALS and TRIPLES

BPD2-2 x .001	7/16	.24
BPD2-2 x .0015	19/32	.24
BPD2-2 x .002	19/32	.24
BPD2-2 x .0022	19/32	.24
BPD2-2 x .003	3/4	.27
BPD2-2 x .004	3/4	.27
BPD2-2 x .0047	3/4	.27
BPD2-2 x .01	3/4	.30
BPD2-2 x .02	29/32	.42
BPD3-3 x .0015	3/4	.30
BPD3-3 x .002	3/4	.30

DI-DISK CAPACITORS
General Purpose

Stock Items 1000 VDCW

Type	Cap. Mmfd	Dia.	Net Price**	Type	Cap. Mmfd	Dia.	Net Price**
D1	3.3	5/16	\$.15	D1	300	5/16	\$.15
D1	5	5/16	.15	D1	330	5/16	.15
D1	6.8	5/16	.15	D1	390	5/16	.15
D1	8.2	5/16	.15	D1	470	5/16	.15
D1	10	5/16	.15	D1	500	5/16	.15
D1	12	5/16	.15	D1	560	5/16	.15
D1	15	5/16	.15	D1	680	5/16	.15
D1	18	5/16	.15	D1	750	3/8	.15
D1	20	5/16	.15	D1	820	3/8	.15
D1	22	5/16	.15	D1	1000	3/8	.15
D1	25	5/16	.15	D1	1200	7/16	.15
D1	27	5/16	.15	D1	1500	7/16	.15
D1	30	5/16	.15	D1	1800	19/32	.15
D1	33	5/16	.15	D1	2000	19/32	.15
D1	39	5/16	.15	D1	2200	19/32	.15
D1	47	5/16	.15	D1	2500	19/32	.15
D1	50	5/16	.15	D1	2700	19/32	.15
D1	56	5/16	.15	D1	3000	11/16	.15
D1	68	5/16	.15	D1	3300	11/16	.15
D1	82	5/16	.15	D1	4000	11/16	.15
D1	100	5/16	.15	D1	4700	3/4	.15
D1	120	5/16	.15	D1	5000	3/4	.15
D1	150	5/16	.15	D1	5600	3/4	.18
D1	180	5/16	.15	D1	6800	29/32	.18
D1	200	5/16	.15	D1	7500	29/32	.18
D1	220	5/16	.15	D1	10000	29/32	.18
D1	250	5/16	.15				
D1	270	5/16	.15				

Standard tolerance $\pm 10\%$.

TYPE IDI DISK CAPACITOR SIZES

Designation	Size
DI-1	5/16
DI-2	3/8
DI-3	7/16
DI-4	19/32
DI-5	11/16



*Request O.E.M. Prices in the following quantities: 25-99, 100-249, 250-499, 500-999.

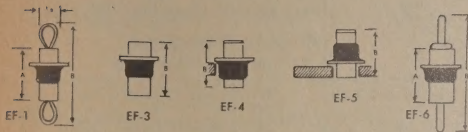
**Request O.E.M. Prices in the following quantities: 50-99, 100-249, 250-499, 500-999.



CAPACITORS

INDUSTRIAL CERAMIC CAPACITORS (cont.)

Eyelet Feed-Thru Capacitors



Hi-Q Feed-Thru Capacitors Eyelet Type are the ultimate in miniaturization because of unique design. This design is such that the capacitors can be soldered directly to a chassis and provide excellent bypass performance where space is critical. The low inductance characteristics brought about through the construction of the capacitors make the eyelet type ideal for high frequency bypass.

*Net Price .33

Style	Capacity in mmf						D.C. Working Voltage	Size	
	A	B	C	D	E	F		A	B
EF-1	50	100	200	500	1000	1500	500	.375	.750
EF-3	50	100	200	500	1000	1500	500	—	.375
EF-4	50	100	200	500	—	—	250	—	.250
EF-5	50	100	200	500	1000	—	250	—	.250
EF-6	50	100	200	500	1000	1500	500	.375	.875

Tolerance $\pm 20\%$ up to and including 500 mmf.
GMV above 500 mmf.

*Request O.E.M. prices in the following quantities:
25-99, 100-249, 250-499, 500-999.

Feed-Thru Capacitors



FEED-THRU TYPE CFC



FEED-THRU TYPE CF

Hi-Q Feed-Thru Capacitors provide means to transmit thru shields or ground potentials and simultaneously by-pass unwanted frequencies. A good mechanical connection is provided by the silver-plated bushing. These are excellent dependable units even under severe mechanical vibrations as in aircraft, missiles and automotive requirements. All units are flash tested at 1250 volts D.C.

***Net Price \$1.10

Type	Cap. Mmfd.	Thread	Type	Cap. Mmfd.	Thread
CFC-1	500 mmf.	12-28	CF-2	1800 mmf.	$\frac{1}{8}$ -24
	1000 mmf.	12-28		2300 mmf.	$\frac{1}{8}$ -24
	1500 mmf.	12-28		3000 mmf.	$\frac{1}{8}$ -24
CF-1	1500 mmf.	$\frac{1}{4}$ -28	CF-3	4000 mmf.	$\frac{1}{8}$ -24
			CF-4	7000 mmf.	$\frac{1}{8}$ -24

Tolerance $\pm 20\%$

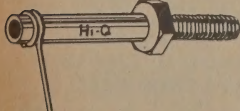
***Request O.E.M. Prices in the following quantities: 250-499

Stand-Off Capacitors

TYPE MCS



TYPE CS



Hi-Q stand-off capacitors have a screw fixture for mounting to the chassis or common ground. All units are coated with a high temperature enamel, stamped with capacity and supplied with mounting nut, if desired.

The MCS is a quick mounting type which permits high speed mechanical installation. The ceramic tube is enclosed in a cadmium-plated metal case with a specially developed end seal for protection against humidity and temperature changes. All units are flash tested at 1250 volts D.C. The power factor is under 3% and the insulation resistance is above 7500 megohms.

500 VDCW

Type	Capacity Mmfd.	Net** Price	Type	Capacity Mmfd.	Net** Price
CS-1A	50	.765	CS-4	7500	.891
CS-1A	100	.765	CIS-1	50	.410
CS-1B	500	.765	CIS-1	100	.410
CS-1B	1000	.713	CIS-1	1000	.410
CS-1B	1500	.713	CIS-1	1000	.377
CS-2	3000	.713	CIS-2	1500	.377
CS-3	4000	.891	MCS	1500	.468

Radial leads only

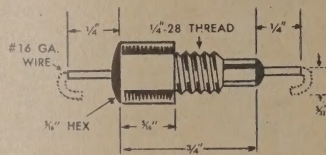
Tolerance $\pm 10\%$ up to and including 500 mmf.
 $\pm 20\%$ above 500 mmf.

**Request O.E.M. Prices in the following quantities: 100-249, 250-499, 500-999

Heavy Duty Feed-Thru Capacitors

Type BLF-ICC

These heavy-duty Feed-Thru capacitors are the same as listed in specification MIL-C-11015. Units through 100 mmf. are rated at 1000 VDCW, values above 100 mmf. are rated at 500 VDCW. Capacity tolerance is $\pm 10\%$ except on the 1000 mmf. and 1500 mmf. which have capacity tolerance of $\pm 20\%$.



BLF

FRACTIONAL TOLERANCES $\pm \frac{1}{2}\%$

Capacity	Part Number	***Net Price
10	AXCK70AX100K	1.10
33	AXCK70AX330K	1.10
47	AXCK70AX470K	1.10
68	AXCK70AX680K	1.10
100	AXCK70AX101K	1.10
470	AXCK70AX471K	1.10
680	AXCK70AX681K	1.10
1000	CK70AW102M	1.10
1500	CK70AW152M	1.10

***Request O.E.M. Prices in the following quantities: 250-499

Disk Stand-Off Capacitors

Type DS-C



DS-C

These units are very popular in industrial applications having a critical space requirement but requiring a stand-off capacitor. These stock units are furnished with captive lock washers, are rated at 950 VDCW. Capacity tolerance GMV. Both units are furnished with threaded portion $\frac{1}{4}$ " long, #6-32 thread.

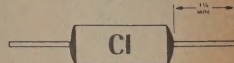
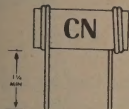
Capacity	**Net Price
470	.90
1000	.90



CAPACITORS

INDUSTRIAL CERAMIC CAPACITORS (cont.)

Temperature Compensating Tubulars



Popular values in accordance with the latest revisions of specification MIL-C-20 and EIA specification RS-198. Uninsulated units are furnished color coded, packaged in bulk. Insulated units—stamped with part number. Voltage rating 500 VDCW.

UNINSULATED TYPE CN			INSULATED TYPE CI			UNINSULATED TYPE CN			INSULATED TYPE CI		
NPO						N750					
Cap.	MIL No.	Net Price*	MIL No.	Net Price*		Cap.	MIL No.	Net Price*	MIL No.	Net Price*	
.3	CC20CKOR3C	.198	CC21CKOR3C	.250		.5	CC20UKOR5C	.198			
.5	CC20CKOR5C	.198	CC21CKOR5C	.250		.75	CC20UKR75C	.198	CC21UKR75C	.250	
.68	CC20CKR68C	.198	CC21CKR68C	.250		1.0	CC20UK010C	.198	CC21UK010C	.250	
.75	CC20CKR75C	.198	CC21CKR75C	.250		1.5	CC20UK1R5C	.198	CC21UK1R5C	.250	
1.0	CC20CK010C	.198	CC21CK010C	.250		2.0	CC20UK020C	.198	CC21UK020C	.250	
1.2	CC20CK1R2C	.198	CC21CK1R2C	.250		5.0	CC20UJ050C	.198	CC21UJ050C	.250	
1.5	CC20CK1R5C	.198	CC21CK1R5C	.250		10.0	CC20UJ100C	.348	CC21UJ100C	.400	
2.0	CC20CK020C	.198	CC21CK020C	.250		12.0	CC20UJ120G	.348	CC20UJ120G	.400	
2.2	CC20CK2R2C	.198	CC21CK2R2C	.250		15.0	CC20UJ150G	.348	CC21UJ150G	.400	
3.0	CC20CJ030C	.198	CC21CJ030C	.250		18.0	CC20UJ180G	.348	CC21UJ180G	.400	
4.0	CC20CH040C	.198	CC21CH040C	.250		20.0	CC20UJ200G	.348	CC21UJ200G	.400	
5.0	CC20CH050C	.198	CC21CH050C	.250		22.0	CC20UJ220G	.348	CC21UJ220G	.400	
6.0	CC20CH060C	.348	CC21CH060C	.400		24.0	CC20UJ240G	.348	CC21UJ240G	.400	
6.2	CC20CH6R2C	.348	CC21CH6R2C	.400		27.0	CC20UJ270G	.348	CC21UJ270G	.400	
7.0	CC20CH070C	.348	CC21CH070C	.400		30.0	CC20UJ300G	.348	CC21UJ300G	.400	
8.0	CC20CH080C	.348	CC21CH080C	.400		33.0	CC20UJ330G	.348	CC21UJ330G	.400	
9.0	CC20CH090C	.348	CC21CH090C	.400		36.0	CC20UJ360J	.178	CC21UJ360J	.230	
10.0	CC20CH100C	.348	CC21CH100C	.400		39.0	CC20UJ390J	.178	CC21UJ390J	.230	
12.0	CC20CH120G	.348	CC21CH120G	.400		43.0	CC20UJ430J	.178	CC21UJ430J	.230	
15.0	CC20CH150G	.348	CC21CH150G	.400		47.0	CC20UJ470J	.178	CC21UJ470J	.230	
18.0	CC20CH180G	.348	CC21CH180G	n.400		51.0	CC20UJ510J	.178	CC21UJ510J	.230	
20.0	CC20CH200G	.348	CC21CH200G	.400		56.0	CC20UJ560J	.178	CC21UJ560J	.230	
22.0	CC20CH220G	.348	CC21CH220G	.400		62.0	CC20UJ620J	.178	CC21UJ620J	.230	
24	CC25CH240G	.388	CC26CH240G	.440		68.0	CC25UJ680J	.212	CC26UJ680J	.264	
27	CC25CH270G	.388	CC26CH270G	.440		75.0	CC25UJ750J	.212	CC26UJ750J	.264	
30	CC25CH300G	.388	CC26CH300G	.440		82.0	CC25UJ820J	.212	CC26UJ820J	.264	
33	CC25CH330G	.388	CC26CH330G	.440		91.0	CC25UJ910J	.212	CC26UJ910J	.264	
36	CC25CH360J	.212	CC26CH360J	.264		100.0	CC25UJ101G	.388	CC26UJ101J	.264	
39	CC25CH390J	.212	CC26CH390J	.264		110	CC25UJ111G	.388	CC26UJ111J	.264	
43	CC25CH430J	.212	CC36CH430J	.576		120	CC25UJ121G	.388	CC26UJ121J	.264	
47	CC25CH470J	.212	CC36CH470J	.576		130	CC25UJ131G	.388	CC36UJ131J	.576	
51	CC25CH510J	.212	CC36CH510J	.576		150	CC25UJ151G	.388	CC36UJ151J	.576	
56	CC32CG560J	.432	CC36CG560J	.576		160	CC32UJ161G	.614	CC36UJ161J	.576	
62	CC32CG620J	.432	CC36CG620J	.576		180	CC32UJ181G	.614	CC36UJ181J	.576	
68	CC32CG680J	.432	CC36CG680J	.576		200	CC32UJ201G	.614	CC36UJ201J	.576	
75	CC32CG750J	.432	CC36CG750J	.576		220	CC32UJ221G	.614	CC36UJ221J	.576	
82	CC32CG820J	.432	CC36CG820J	.576		240	CC32UJ241G	.614	CC36UJ241J	.576	
91	CC32CG910J	.432	CC36CG910J	.576		270	CC35UJ271F	2.348	CC36UJ271J	.576	
100	CC32CG101G	.614	CC36CG101J	.576		300	CC35UJ301F	2.348	CC36UJ301J	.576	
110	CC32CG111G	.614	CC36CG111J	.576		330	CC35UJ331F	2.348	CC36UJ331F	1.444	
120	CC35CG121G	1.208	CC36CG121J	.576		360	CC35UJ361F	2.348	CC36UJ361J	1.444	
130	CC35CG131G	1.208	CC36CG131J	.576							
150	CC35CG151G	1.208	CC36CG151J	.576							

Type Designation	Max. Size	TOLERANCE	
MIL		Letter Descrip.	Tolerance
CC20	.200 x .400	C	± .25 mmf.
CC21	.200 x .562		
CC25	.250 x .655		
CC26	.250 x .812	F	± 1%
CC32	.250 x .860		
CC35	.255 x 1.090	G	± 2%
CC36	.340 x 1.328		

*Request O.E.M. Prices in the following quantities: 50-99, 100-249, 250-499, 500-999



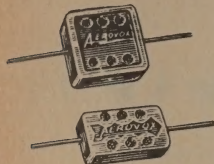
CAPACITORS

M I C A S

MIL Types CM15, CM20, CM30

AEROVOX Types 1459, 1469, 1464

Compact, precision-made mica dielectric molded capacitors made in accordance with MIL-C-5B. Units furnished color coded and tested to meet all MIL requirements for "N" temperature rating and all vibration grades of this specification. All units are silvered mica molded in red bakelite.



Type CM-15 (500 VDCW)			Type CM-20 (500 VDCW)			Type CM-30 (500 VDCW)			Type 1469-HV			Type 1464-HV		
1459			1469			1464			1000 VDCW 2000 VDCV			1500 VDCW 3000 VDCV		
Cap. Mmf.	Type Designation	Net Price*	Cap. Mmf.	Type Designation	Net Price*	Cap. Mmf.	Type Designation	Net Price*	Cap. Mmf.	*Net Price	*Net Price	Cap. Mmf.	*Net Price	*Net Price
1	CM-15C-010	.18	5	CM-20C-050	.18	470	CM-30D-471	.33	5	.27	5	.30	430	.90
2	CM-15C-020	.18	10	CM-20C-100	.18	510	CM-30D-511	.33	10	.27	10	.30	470	.90
3	CM-15C-030	.18	12	CM-20C-120	.18	560	CM-30D-561	.36	12	.27	12	.30	500	.90
5	CM-15C-050	.18	15	CM-20C-150	.18	620	CM-30D-621	.36	15	.27	15	.30	510	.90
10	CM-15C-100	.18	18	CM-20C-180	.18	680	CM-30D-681	.39	20	.27	20	.30	560	.90
12	CM-15C-120	.18	20	CM-20C-200	.18	750	CM-30D-751	.39	22	.27	22	.30	680	.90
15	CM-15C-150	.18	22	CM-20C-220	.18	800	CM-30D-801	.42	24	.27	24	.30	750	.90
18	CM-15C-180	.18	24	CM-20C-240	.18	820	CM-30D-821	.42	25	.27	25	.30	820	1.02
20	CM-15C-200	.18	25	CM-20C-250	.18	900	CM-30D-901	.42	27	.27	27	.30	910	1.08
22	CM-15C-220	.18	27	CM-20C-270	.18	910	CM-30D-911	.42	30	.27	30	.30	1000	1.08
24	CM-15C-240	.18	30	CM-20C-300	.18	1000	CM-30D-102	.45	33	.27	33	.30	1100	1.14
27	CM-15C-270	.18	33	CM-20C-330	.18	1100	CM-30D-112	.45	36	.27	36	.30	1200	.78
30	CM-15C-300	.18	36	CM-20C-360	.18	1200	CM-30D-122	.45	39	.27	39	.30	1300	.78
33	CM-15C-330	.18	39	CM-20C-390	.18	1300	CM-30D-132	.48	43	.27	43	.30	1500	.90
36	CM-15C-360	.18	40	CM-20C-400	.18	1500	CM-30D-152	.51	47	.27	47	.33	1600	.96
39	CM-15C-390	.18	43	CM-20C-430	.18	1600	CM-30D-162	.51	50	.27	50	.33	1800	.96
43	CM-15C-430	.18	47	CM-20C-470	.18	1800	CM-30D-182	.54	51	.27	51	.33	2000	1.02
47	CM-15C-470	.18	50	CM-20C-500	.18	2000	CM-30D-202	.60	56	.27	56	.33	2200	1.14
50	CM-15C-500	.18	51	CM-20C-510	.18	2200	CM-30D-222	.66	62	.27	62	.33	2400	1.26
51	CM-15C-510	.18	56	CM-20C-560	.18	2400	CM-30D-242	.72	68	.27	68	.33	2500	1.26
56	CM-15C-560	.18	62	CM-20C-620	.18	2500	CM-30D-252	.72	75	.27	75	.33	2700	1.26
62	CM-15C-620	.18	68	CM-20C-680	.18	2700	CM-30D-272	.78	82	.27	82	.33	3000	1.38
68	CM-15C-680	.18	70	CM-20C-700	.18	3000	CM-30D-302	.84	91	.30	91	.36	3300	1.44
75	CM-15C-750	.18	75	CM-20C-750	.18	3300	CM-30D-332	.90	100	.30	100	.36	3600	1.62
82	CM-15C-820	.18	82	CM-20C-820	.18	3600	CM-30D-362	.96	110	.30	110	.36	3900	1.68
91	CM-15C-910	.18	91	CM-20C-910	.18	3900	CM-30D-392	1.02	120	.30	120	.36	4000	1.68
100	CM-15C-101	.18	100	CM-20C-101	.18	4000	CM-30D-402	1.02	130	.30	130	.36	4300	1.80
110	CM-15C-111	.21	110	CM-20C-111	.21	4300	CM-30D-432	1.08	150	.30	150	.42	4700	1.98
120	CM-15C-121	.21	120	CM-20C-121	.21	4700	CM-30D-472	1.14	160	.33	160	.42	5000	2.04
130	CM-15C-131	.21	130	CM-20C-131	.21	5000	CM-30D-502	1.20	200	.33	200	.48	5100	2.04
150	CM-15C-151	.21	150	CM-20C-151	.21	5100	CM-30D-512	1.20	220	.36	220	.48		
160	CM-15C-161	.24	160	CM-20C-161	.21	5600	CM-30D-562	1.26	240	.36	240	.48		
180	CM-15C-181	.24	180	CM-20C-181	.21	6200	CM-30D-622	1.32	250	.39	250	.60		
200	CM-15C-201	.24	200	CM-20D-201	.21	6800	CM-30D-682	1.32	270	.39	270	.60		
220	CM-15C-221	.27	220	CM-20D-221	.21	7500	CM-30D-752	1.44	300	.42	300	.66		
240	CM-15C-241	.27	240	CM-20D-241	.24	8200	CM-30D-822	1.44	330	.42	330	.66		
250	CM-15C-251	.27	250	CM-20D-251	.24	9100	CM-30D-912	1.44	350	.42	350	.69		
270	CM-15C-271	.30	270	CM-20D-271	.27	10000	CM-30D-103	1.86	360	.42	360	.69		
300	CM-15C-301	.30	300	CM-20D-301	.27				390	.42	390	.69		
330	CM-15C-331	.33	330	CM-20D-331	.27				400	.42	400	.69		
360	CM-15C-361	.36	350	CM-20D-351	.30				430	.45				
390	CM-15C-391	.39	360	CM-20D-361	.30				470	.45				
430*	CM-15C-431	.42	390	CM-20D-391	.30				500	.45				
470*	CM-15C-471	.45	400	CM-20D-401	.30				510	.45				
500*	CM-15C-501	.48	430	CM-20D-431	.30				560	.48				
510*	CM-15C-511	.48	470	CM-20D-471	.33				620	.51				
			500	CM-20D-501	.33									
			510	CM-20D-511	.33									
			560	CM-20D-561	.33									
			620	CM-20D-621	.36									
			680	CM-20D-681	.36									
			750	CM-20D-751	.39									
			820	CM-20D-821	.42									
			910	CM-20D-911	.42									
			1000	CM-20D-102	.45									

NOTES

Nominal Size All CM30 Units — $\frac{3}{4}$ x $\frac{3}{4}$ x $\frac{3}{4}$ Nominal Size All CM20 Units — $\frac{1}{2}$ x $\frac{3}{4}$ x $\frac{3}{4}$ Nominal Size All CM15 Units — $\frac{1}{2}$ x $\frac{1}{2}$ x $\frac{3}{4}$

In silver mica the standard tolerance is $\pm 5\%$. Also available in $\pm 2\%$ and $\pm 1\%$. Closest available tolerance up to 10 mmf. is $\pm \frac{1}{2}$ mmf.; 10 mmf. and up $\pm 1\%$ or ± 1 mmf., whichever is greater.

*Request O.E.M. Prices in the following quantities: 25-99, 100-499, 500-and up



CAPACITORS

RECEIVING MICA CAPACITORS — (Continued)

DIPPED, SILVERED MICA CAPACITORS

TYPES ADM-15, ADM-19, ADM-20 and ADM-30

Aerovox plastic-coated dipped-mica units exceed many of the advantages of molded mica units, and at the same time are smaller than conventional units. Meeting all the applicable MIL-C-58 Test Standards for molded mica capacitors, these unique dipped-mica units offer the following features:

- High operating temperatures —55° to +125°C • Excellent long-life characteristics • Improved temperature coefficient range • Radial leads for automatic insertion and plug-in assemblies • Ideal for printed-wiring assemblies • Unsurpassed performance and stability characteristics • Smaller physical size.

Humidity Resistance: these capacitors shall have an insulation resistance of not less than 2,000 megohms after being subjected to the Humidity Resistance Test at 125°C.

as outlined in MIL-C-58. Minimum Insulation Resistance: 25,000 megohms at 25°C; 1000 megohms at 125°C.

Capacitors will be marked with capacity and tolerance.

For full technical information request Bulletin NPJ-104.

CHARACTERISTICS

ADM-15—from 5 to 20 mmf. Characteristic "C", from 22 to 150 mmf. Characteristic "E", from 160 mmf. and up Characteristic "F".
ADM-19—All capacities listed "F" Characteristic.
ADM-20—All capacities listed "F" Characteristic.
ADM-30—All capacities listed "F" Characteristic.

Standard Tolerance $\pm 5\%$

Minimum tolerance for capacitances up to and including 10 mmf. is $\pm \frac{1}{2}$ mmf., for all other capacitances $\pm 1\%$ or 1 mmf. whichever is greater.

Sizes	L	W	T
ADM-15	$\frac{1}{2}$	$\frac{3}{4}$	$\frac{1}{2}$ max.
ADM-19	$\frac{1}{2}$	$\frac{1}{2}$	$\frac{1}{2}$ max.
ADM-20	$\frac{3}{4}$	$\frac{1}{2}$	$\frac{1}{2}$ max.
ADM-30	$\frac{1}{2}$	$\frac{1}{2}$	$\frac{1}{4}$ max.

Cap. Mfd.	Type Designation	Net Price**
5	ADM-15-050	.17
10	ADM-15-100	.17
12	ADM-15-120	.17
15	ADM-15-150	.17
18	ADM-15-180	.17
20	ADM-15-200	.17
22	ADM-15-220	.17
24	ADM-15-240	.17
27	ADM-15-270	.17
30	ADM-15-300	.17
33	ADM-15-330	.17
36	ADM-15-360	.17
39	ADM-15-390	.17
43	ADM-15-430	.17
47	ADM-15-470	.17
50	ADM-15-500	.17
51	ADM-15-510	.17
56	ADM-15-560	.17
62	ADM-15-620	.17
68	ADM-15-680	.17
75	ADM-15-750	.17
81	ADM-15-810	.17
82	ADM-15-820	.17
83	ADM-15-830	.17
100	ADM-15-101	.17
110	ADM-15-111	.20
120	ADM-15-121	.20
130	ADM-15-131	.20
150	ADM-15-151	.20
160	ADM-15-161	.23
180	ADM-15-181	.23
200	ADM-15-201	.23
220	ADM-15-221	.26
240	ADM-15-241	.26
250	ADM-15-251	.26
270	ADM-15-271	.30
300	ADM-15-301	.30
330	ADM-15-331	.33
360	ADM-15-361	.33
390	ADM-15-391	.36
430	ADM-15-431	.36
470	ADM-15-471	.36
500	ADM-15-501	.36
510	ADM-15-511	.36

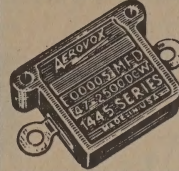
Type Designation	Net Price**
ADM-19-101	.17
ADM-19-111	.20
ADM-19-121	.20
ADM-19-131	.20
ADM-19-151	.20
ADM-19-161	.20
ADM-19-181	.20
ADM-19-201	.20
ADM-19-221	.20
ADM-19-241	.23
ADM-19-251	.23
ADM-19-271	.26
ADM-19-301	.26
ADM-19-331	.26
ADM-19-361	.30
ADM-19-391	.30
ADM-19-431	.30
ADM-19-471	.33
ADM-19-501	.33
ADM-19-511	.33
ADM-19-561	.37
ADM-19-621	.37
ADM-19-681	.40
ADM-19-751	.40
ADM-19-821	.40
ADM-19-911	.43
ADM-19-102	.46
ADM-19-112	.46
ADM-19-122	.50
ADM-19-132	.53
ADM-19-152	.56
ADM-19-162	.59
ADM-19-182	.68
ADM-19-202	.73
ADM-19-222	.79
ADM-19-242	.86
ADM-19-252	.89
ADM-19-272	.92
ADM-19-302	.99

Type Designation	Net Price**
ADM-20-561	.33
ADM-20-751	.33
ADM-20-821	.33
ADM-20-911	.37
ADM-20-102	.40
ADM-20-112	.40
ADM-20-122	.43
ADM-20-132	.46
ADM-20-152	.50
ADM-20-162	.53
ADM-20-182	.59
ADM-20-202	.63
ADM-20-222	.69
ADM-20-242	.73
ADM-20-252	.73
ADM-20-272	.79
ADM-20-302	.86
ADM-20-332	.92
ADM-20-362	.99
ADM-20-392	1.06
ADM-20-432	1.12
ADM-20-472	1.19
ADM-20-502	1.25
ADM-20-512	1.29

Type Designation	Net Price**
ADM-30-432	\$1.06
ADM-30-472	1.12
ADM-30-502	1.16
ADM-30-512	1.16
ADM-30-562	1.19
ADM-30-622	1.25
ADM-30-682	1.39
ADM-30-752	1.52
ADM-30-822	1.65
ADM-30-912	1.78
ADM-30-103	1.98
ADM-30-123	2.31
ADM-30-133	2.48
ADM-30-153	2.61

TRANSMITTING MICA CAPACITORS

TYPES 1445, 1446 and 1447



Designed with insulated mounting holes $\frac{1}{16}$ " apart independent of soldering lugs. Used to shunt meter windings.

Size: $1\frac{1}{2}$ " x $1\frac{1}{2}$ " x $\frac{1}{16}$ "
Standard Tolerance $\pm 10\%$
 $\pm 5\%$ and $\pm 2\%$ tolerance are available on special order.
Meter Mounting Bracket E available. Specify when ordering.
These units are equivalent to case styles CM45 and CM50 of specification MIL-C58.

TYPE 1445			TYPE 1446			TYPE 1447		
600 VDCV			1200 VDCV			2500 VDCV		
1000 VDCV			2500 VDCV			5000 VDCV		
Cap. Mfd.	Net* Price		Cap. Mfd.	Net* Price		Cap. Mfd.	Net* Price	
.00005	.40		.00005	.48		.00005	.60	
.0001	.40		.0001	.48		.000075	.60	
.00015	.40		.00015	.48		.0001	.60	
.0002	.40		.0002	.48		.00015	.60	
.00025	.40		.00025	.48		.0002	.60	
.0003	.40		.0003	.48		.00025	.60	
.00035	.40		.00035	.48		.0003	.60	
.0004	.40		.0004	.48		.00035	.60	
.0005	.40		.0005	.48		.0004	.60	
.001	.40		.001	.48		.0005	.66	
.0015	.46		.0015	.58		.001	.90	
.002	.48		.002	.66		.0015	1.14	
.0025	.52		.0025	.72		.002*	1.42	
.003	.54		.003	.82		.0025*	1.66	
.004	.60		.004*	.96		.003*	1.90	
.005	.66		.005*	1.14		.004*	2.40	
.006	.76		.006*	1.30		.005*	2.88	
.008	.84		.008*	1.62				
.01	1.00		.01*	2.40				
.015*	1.30		.015*	2.74				
.02*	1.62							
.025*	1.92							
.03*	2.26							
.04*	2.88							

*Request O.E.M. Prices in the following quantities: 100-499

*Thickness 7/16"



*Request O.E.M. Prices in the following quantities: 100-499

*Thickness 7/16"

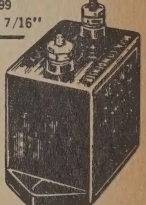
TYPES 1991 thru 1996

Porcelain-Cased Capacitors

Ideal for high-frequency application. Glazed porcelain case, high temperature wax sealed. Heavy duty power terminals. Minimum power loss due to dielectric absorption. No heating at full load.

Size: 4" overall by 3" high; 2 1/2" between mounting holes.

Standard Tolerance $\pm 10\%$



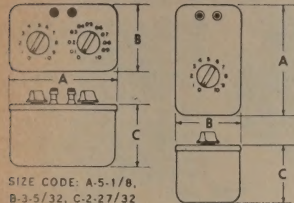
Cap. Mfd.	Voltage Rating	DC Type	Maximum Current Capacity — Amperes				Net Price**
			15 mc	7.5 mc	3750 kc	1875 kc	
.00005	12,500	1996	3	2.5	1.5	1	8.75
.0001	12,500	1996	5	4	3	2	8.75
.00025	12,500	1996	7	8	6	4	8.75
.0005	12,500	1996	8	9	8	7	8.75
	7,000	1994	7	8	6	4	7.00
.001	12,500	1996	9	10	11	12	10.50
	7,000	1994	8	9	8	8	7.88
	5,000	1992	8	9	8	5	7.88
.0015	12,500	1996	9	10	11	12	12.88
	7,000	1994	9	9	10	8	8.75
	5,000	1993	8	9	9	7	7.88
	3,500	1992	8	9	8	5	7.88
.002	12,500	1996	9	12	13	15	14.00
	10,000	1995	9	10	11	12	12.25
	7,000	1994	9	9	10	10	9.63
	5,000	1993	8	9	9	8	8.75
	3,500	1992	8	8	9	7	7.88
.003	12,500	1996	9	12	13	15	17.50
	10,000	1995	9	11	12	13	15.75
	7,000	1994	9	10	10	10	10.50
	5,000	1993	8	9	9	9	9.63
	3,500	1992	8	9	9	8	7.88
.005	10,000	1995	10	13	14	15	17.50
	7,000	1994	9	11	12	11	15.75
	5,000	1993	9	11	12	10	10.50
	3,500	1992	9	10	11	9	9.63
.01	2,000	1991	8	9	10	8	8.75
	7,000	1994	10	13	15	15	21.00
	5,000	1993	10	13	15	15	15.75
	3,500	1992	10	13	14	14	14.00
.02	2,000	1991	10	13	14	14	10.50
	3,500	1992	10	14	16	17	15.75
	2,000	1991	10	13	15	15	12.25
.05	3,500	1992	10	14	17	18	17.50
	2,000	1991	10	14	16	17	14.00
.1	2,000	1991	10	14	17	18	17.50

*Request O.E.M. Prices in the following quantities: 25-99, 100-and up.



CAPACITORS

FIGURE A



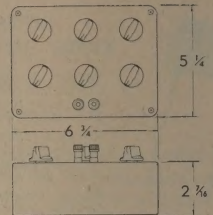
SIZE CODE: A-5-1/8,
B-3-5/32, C-2-27/32

AEROVOX DECADE BOXES

RESISTANCE CAPACITANCE INDUCTANCE



FIGURE B



Aerovox now makes available to the electronic industry laboratory quality standards in capacitance, resistance and inductance decades. From one of the outstanding manufacturers of precision resistors, capacitors and inductors, Aerovox is making available decade boxes of the highest quality in the ranges most needed for electronic and electrical laboratories at a price far below that of equivalent quality standards. Aerovox decade boxes are available in 11 units; 4 resistance decades, 3 capacitance decades and 4 inductance decades. Ten of the decades are housed in seamless, drawn steel cases coated with gray enamel. They are capable of taking the beating of bench use without impairment of accuracy. The 11th decade box, a new resistance model ARD-41, is housed in a special high impact plastic case which will also withstand rugged handling.

This new decade box has a range of 0 to 1.1 megohms in 1 ohm steps, combining all the three other resistance decades into one compact box. Outline drawings of both sizes are shown. All panels are black with the marking engraved in white.

For full technical information request bulletin NPJ-109 Rev. 2.

RESISTANCE

PART NO.	FIGURE	TYPE	DIELECTRIC	DIELS	RANGE	STEPS	ACCURACY ±		RATING		Net Price
							1st Dial	2nd Dial	1st Dial	2nd Dial	
ARD-15	A	R	Wire-Wound	2	0 to 110 ohms	1.0 ohm	5%	3%	1.0 Amp.	.5 Amp.	15.15
ARD-23	A	R	Wire-Wound	2	0 to 11 K	100 ohm	3%	3%	100 Ma.	50 Ma.	15.15
ARD-31	A	R	Carbon Deposited	2	0 to 1.1 meg.	10 K ohms	1%	1%	5 Ma.	2 Ma.	15.15
ARD-41	B	R	Wire-Wound & Metal Film	6	0 to 1.1 meg.	1.0 ohm	1%		1st Dial 2 Ma.	4th Dial 50 Ma.	44.95
									2nd Dial 5 Ma.	5th Dial 150 Ma.	
									3rd Dial 15 Ma.	6th Dial 500 Ma.	

CAPACITANCE

PART NO.	FIGURE	TYPE	DIELECTRIC	DIELS	RANGE	STEPS	ACCURACY ±	1st Dial	2nd Dial	3rd Dial	4th Dial	Net Price
ACD-13	A	C	Mica	2	0 to .011 mfd.	.0001 mfd.	3%	3%	600 VDC	220 VAC	600 VDC	14.50
ACD-23	A	C	Oil Paper	2	0 to 1.1 mfd.	.01 mfd.	3%	3%	220 VAC	600 VDC	220 VAC	16.50
ACD-33	A	C	Oil Paper	1	0 to 10.0 mfd.	1.0 mfd.	3%	—	600 VDC	220 VAC	600 VDC	27.25

INDUCTANCE

PART NO.	FIGURE	TYPE	DIELECTRIC	DIELS	RANGE	STEPS	ACCURACY ±	1st Dial	2nd Dial	3rd Dial	4th Dial	Net Price
ALD-12	A	L	Toroidal	1	0 to 10 mh	1.0 mh	2%	—	250 MaDC	—	—	29.90
ALD-22	A	L	Toroidal	1	0 to 100 mh	10.0 mh	2%	—	79 MaDC	—	—	29.90
ALD-32	A	L	Toroidal	1	0 to 1.0 hy.	100.0 mh	2%	—	25 MaDC	—	—	29.90
ALD-42	A	L	Toroidal	1	0 to 10.0 hy.	1.0 hy	2%	—	8 MaDC	—	—	32.90

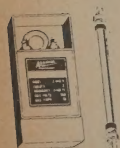
FILTERS

SCREEN ROOM FILTERS

Screen room filters comply with rigid specifications set up by the designers of the most advanced type screen rooms. All have attenuation equal to or exceeding that of the screen room. Easy mounting arrangements plus high attenuation assure you of the finest equipment specially designed for screen room use. These filters are hermetically sealed and terminals at both ends are shielded using knock-outs for 3/4" and 1" conduit.

1/4" diameter mounting hole on all cases is countersunk to permit flush mounting of the filter on the screen room.

For full technical information request Bulletin NPJ-127.



Part No.	Attenuation	Size	Frequency	Price
*S-1076-1	50	1	0-60 100 db from 14 kc to 1000 mc	20" x 3-5/8" x 3-5/8" 95.00
*S-1076-2	50	2	0-60 100 db from 14 kc to 1000 mc	20" x 7-3/16" x 3-5/8" 150.00
*S-1076-3	50	3	0-60 100 db from 14 kc to 1000 mc	20-1/8" x 10-7/8" x 3-11/16" 285.00
*S-1142-1	30	1	0-400 100 db from 150 kc to 1000 mc	10-1/8" x 2-7/8" x 2-7/16" 36.50
*S-1142-2	30	2	0-400 100 db from 150 kc to 1000 mc	10-1/8" x 4-3/8" x 2-7/16" 48.20
*S-1142-3	30	3	0-400 100 db from 150 kc to 1000 mc	10-1/8" x 7" x 2-7/16" 62.50
*S-1302-1	100	1	0-60 100 db from 200 kc to 1000 mc	14" x 4-3/8" x 4-3/8" 70.00
*S-1303-1	60	1	0-1000 100 db from 100 kc to 1000 mc	20" x 3-5/8" x 3-5/8" 100.00
*S-1304-1	80	1	0-60 100 db from 14 kc to 1000 mc	22" x 4-3/8" x 4-3/8" 105.00
*S-1305-1	100	1	0-1000 100 db from 100 kc to 1000 mc	22" x 4-3/8" x 4-3/8" 120.00
*S-1361-1	100	1	0-60 100 db from 14 kc to 1000 mc	22" x 4-3/8" x 4-3/8" 130.00
*S-1432-1	100	1	0-60 100 db from 100 kc to 1000 mc	22" x 4-3/8" x 4-3/8" 95.00
*S-1452-1	100	1	0-60 100 db from 150 kc to 1000 mc	22" x 4-3/8" x 4-3/8" 90.00

Overall L. Overall D.
10-3/4" 7/8" 70.00
10-3/4" 7/8" 80.00

S-1468-A 50 1 0-1000 60 db/1000 mc to 10000 mc
S-1468-B 100 1 0-1000 60 db/1000 mc to 10000 mc

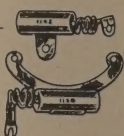
*250 VAC/DC. All others 500VAC/DC.

AUTO-RADIO CAPACITORS



Type	Net Price	Cap. Mfd.
SINGLE ELEMENT		
Car Generators		
Type 1120	.54	1.0
Type 1140	.39	0.5
DUAL ELEMENT		
Type 1141	.90	0.5-0.5
Ford Auto Radios		
Type 1144	.48	0.5
For 1936 Models		
Type 1150	.60	0.5

Type	Net Price	Cap. Mfd.
Oil Gage Filter Condenser		
Type 1142-0	.54	0.25



For complete Catalog listing and Engineering information on RF Noise Suppressors and Interference Filters request Catalog from Aerovox Corporation, Distributor Division, or your nearest authorized Aerovox Industrial Distributor.

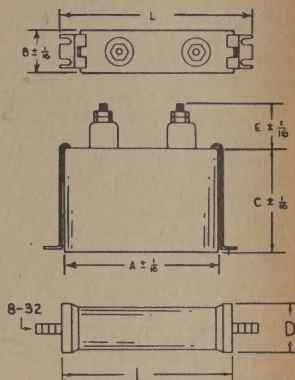
HIGH VOLTAGE FILTER CAPACITORS

SMALLEST SIZE AVAILABLE ANYWHERE

TYPE ASG and TYPE KMOC capacitors are hermetically sealed, rated for operation at 85°C at full nameplate rating, and will withstand most environmental and electrical specifications in general use. Size is very small due to the nature of the dielectric used, and the particular attention to processing. AVAILABLE UP TO 100 KV

TYPE KMOC CP70 CONTAINER

PART NUMBER	CAP MFD	VOLTS DC	DIMENSIONS			
			A	B	C	D
KMOC 25C2	2.0	2,500	3 $\frac{3}{4}$	1 $\frac{1}{4}$	4 $\frac{3}{4}$	$\frac{1}{16}$
KMOC 25C4	4.0	2,500	3 $\frac{3}{4}$	2 $\frac{1}{4}$	5 $\frac{1}{8}$	$\frac{1}{16}$
KMOC 25C6	6.0	2,500	4 $\frac{1}{8}$	3 $\frac{3}{4}$	4 $\frac{3}{8}$	$\frac{1}{16}$
KMOC 25C8	8.0	2,500	4 $\frac{1}{8}$	3 $\frac{3}{4}$	5 $\frac{1}{2}$	$\frac{1}{16}$
KMOC 25C10	10.0	2,500	4 $\frac{1}{8}$	3 $\frac{3}{4}$	6 $\frac{1}{2}$	$\frac{1}{16}$
KMOC 25C12	12.0	2,500	4 $\frac{1}{8}$	3 $\frac{3}{4}$	9 $\frac{3}{8}$	$\frac{1}{16}$
KMOC 5M01	0.1	5,000	1 $\frac{3}{4}$	1	2 $\frac{1}{8}$	1 $\frac{1}{8}$
KMOC 5M025	0.25	5,000	1 $\frac{3}{4}$	1	3	1 $\frac{1}{8}$
KMOC 5M05	0.5	5,000	1 $\frac{3}{4}$	1	4 $\frac{3}{4}$	1 $\frac{1}{8}$
KMOC 5M1	1.0	5,000	2 $\frac{1}{2}$	1 $\frac{1}{8}$	5	1 $\frac{1}{8}$
KMOC 5M2	2.0	5,000	3 $\frac{1}{4}$	1 $\frac{1}{4}$	5 $\frac{3}{4}$	1 $\frac{1}{8}$
KMOC 125C01	0.1	12,500	3 $\frac{3}{4}$	1 $\frac{1}{4}$	3 $\frac{3}{8}$	2 $\frac{3}{4}$
KMOC 125C025	0.25	12,500	3 $\frac{3}{4}$	1 $\frac{1}{4}$	5 $\frac{1}{8}$	2 $\frac{3}{4}$
KMOC 125C05	0.5	12,500	3 $\frac{3}{4}$	3 $\frac{1}{8}$	5 $\frac{3}{8}$	2 $\frac{3}{4}$
KMOC 125C1	1.0	12,500	4 $\frac{1}{8}$	3 $\frac{3}{4}$	6 $\frac{3}{8}$	2 $\frac{3}{4}$



All glass containers with "D" dimensions of $\frac{1}{16}$ have 2 $\frac{1}{2}$ inch long 18 tinned copper pigtail leads. CONTAINER is a hard glass pillar with silver fused to each end. A metal ferrule is soldered to each end assuring hermetic sealing. The stud is silver soldered to the ferrule. All parts are tin plated.

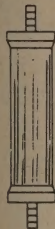
TYPE ASG GLASS CONTAINER

PART NUMBER	CAP MFD	VOLTS DC	DIMENSIONS	
			A	D
ASG 202-2M	.002	2,000	1 $\frac{1}{4}$	1 $\frac{1}{2}$
ASG 502-2M	.005	2,000	1 $\frac{1}{4}$	1 $\frac{1}{2}$
ASG 103-2M	.01	2,000	1 $\frac{1}{4}$	1 $\frac{1}{2}$
ASG 203-2M	.02	2,000	1 $\frac{1}{4}$	1 $\frac{1}{2}$
ASG 503-2M	.05	2,000	1 $\frac{1}{4}$	3 $\frac{1}{4}$
ASG 104-2M	.1	2,000	2 $\frac{1}{4}$	3 $\frac{1}{4}$
ASG 254-2M	.25	2,000	2 $\frac{1}{4}$	3 $\frac{1}{2}$
ASG 504-2M	.5	2,000	2	1 $\frac{3}{8}$
ASG 105-2M	1.0	2,000	3	1 $\frac{3}{8}$
ASG 205-2M	2.0	2,000	6	1 $\frac{3}{8}$
ASG 102-5M	.001	5,000	1 $\frac{1}{4}$	1 $\frac{1}{2}$
ASG 202-5M	.002	5,000	1 $\frac{1}{4}$	1 $\frac{1}{2}$
ASG 502-5M	.005	5,000	1 $\frac{1}{4}$	1 $\frac{1}{2}$
ASG 103-5M	.01	5,000	1 $\frac{1}{4}$	3 $\frac{1}{4}$
ASG 203-5M	.02	5,000	2 $\frac{1}{4}$	3 $\frac{1}{4}$
ASG 303-5M	.03	5,000	2 $\frac{1}{4}$	1 $\frac{3}{8}$
ASG 503-5M	.05	5,000	2 $\frac{1}{4}$	3 $\frac{1}{2}$
ASG 104-5M	.1	5,000	2 $\frac{1}{4}$	1 $\frac{3}{8}$
ASG 254-5M	.25	5,000	3	1 $\frac{3}{8}$
ASG 504-5M	.5	5,000	6	1 $\frac{3}{8}$
ASG 501-20M	.0005	20,000	3 $\frac{1}{2}$	1 $\frac{1}{2}$
ASG 102-20M	.001	20,000	3 $\frac{1}{2}$	3 $\frac{1}{4}$
ASG 202-20M	.002	20,000	3 $\frac{1}{2}$	1 $\frac{3}{8}$
ASG 502-20M	.005	20,000	3 $\frac{1}{2}$	1 $\frac{3}{8}$
ASG 103-20M	.01	20,000	4 $\frac{1}{2}$	1 $\frac{3}{8}$
ASG 203-20M	.02	20,000	4 $\frac{1}{2}$	1 $\frac{3}{8}$
ASG 303-20M	.03	20,000	6 $\frac{1}{2}$	1 $\frac{3}{8}$
ASG 403-20M	.04	20,000	8	1 $\frac{3}{8}$

AVAILABLE UP TO 100 KV

THIS IS ONLY A SMALL LISTING OF SIZES, VOLTAGES AND AVAILABLE TYPES...FOR COMPLETE INFORMATION...SEND FOR BULLETIN NO. 7...

PULSE FORMING NETWORKS PULSE CAPACITORS



PULSE CAPACITORS and PULSE FORMING NETWORKS require special consideration. Due to the sharp wave front of the pulse it is necessary to reduce the Corona effect to as close to zero as possible. With no internal Corona, and the use of low power factor dielectric material, the pulse current and the repetition rate can be raised to very high figures since relatively little internal heat will be generated. CPC pulse capacitors and pulse forming networks are generally the smallest available.

TYPE LSG and TYPE TSG CAPACITORS are designed for pulse and high radio frequency applications. They are enclosed in hard, chemically neutral, glass with soldered end ferrules. The studs are $\frac{3}{8}$ " x 8-32 thread. The end ferrules are tin plated. The operating limits are a REP rate of 2000 PPS working into a 50 ohm load on the equivalent Kva at rated pulse charge voltage. The windings are the extended foil type.

TYPE TSG 125° OPERATING

TYPE TSG Capacitors use Teflon as the solid dielectric. The liquid dielectric is silicone fluid. This item may be modified for operation up to 210°C if required. Type TSG available from 1,000 volts to 60,000 volt pulse and .0004 capacitance to .01 capacitance.

TYPE LSG 65° OPERATING

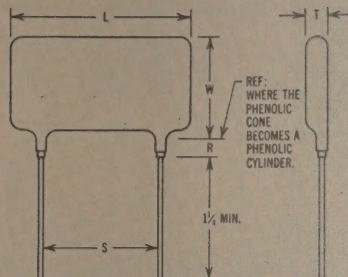
Available from 1,000 volt pulse to 60,000 volt pulse. Capacitance .000075 to .1

CONDENSER PRODUCTS COMPANY

ELMENCO

CAPACITORS

DIMENSIONAL DATA



	DM-10	DM-15	DM-16	DM-19	DM-20	DM-30	DM-42	DM-43
R MAX.	1/8	1/8	1/8	1/4	1/4	1/4	1/4	1/4
S ±1/32	1/4	1/4	1/2	1/2	1/2	1/2	1 1/4	1 1/4
LEAD WIRE GAGE	#26	#22	#22	#20	#20	#18	#18	#18

All Dur-Mica capacitor leads are tinned brass except the following which are copper-clad steel, 30% minimum conductivity:

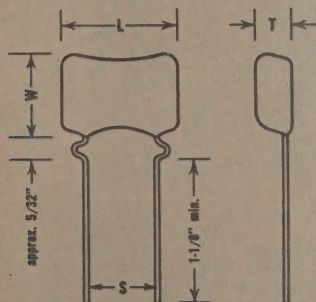
DM-10, DM-42, and DM-43.

DM-19 and DM-20 — 3000 mmf. and above.

DM-30 — 10,000 mmf. and above.

Crimped Leads

In addition to the straight lead design, DM capacitors are also available with crimped leads for printed circuit application. The crimp provides a positive stop when capacitors are mounted. This prevents interference of resin coat on the leads with dip-solder operation, provides greater mounting uniformity, and elevates the components slightly above the surface of the board. The crimp lead design is not a regularly stocked item, but it is available to special order at a small fixed handling charge.



Lead wire gage for crimped lead units is the same as for straight lead capacitors with the exception of DM-15 and DM-16. Crimped lead gage of DM-15 and DM-16 is #20. The DM-10 case size is not available with crimped leads.

Maximum Dimensions

The following is a tabulation of maximum dimensions of the various DM case sizes. They have been specified to anticipate variations in coat thickness and minor protrusions on the surface. As a result, average dimensions of a given lot may be appreciably smaller than those listed.

It is to be noted that the leads are not centered in the thickness dimension as can be seen on the end view dimensional drawing. Construction of Elmenco Dur-Mica capacitors provides for leads to project from one surface of the mica stack, causing them in turn to extend from one edge of the capacitor. Regardless of case size and overall thickness, leads will always be within 1/4 to 1/2 from one of the capacitor surfaces. (Exclude SCDM).

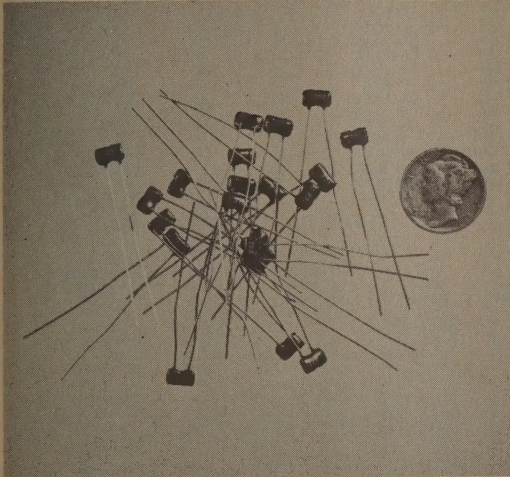
Not all dimensions of every capacitance value are listed below. It has been found that size varies almost linearly with capacitance value. As a result, dimensions of values between those specified below should be determined by interpolation.

CASE SIZE	Cap. mmf.	Volt. VDCW	L max.	W max.	T max.
DM-10	10	500	.360	.330	.190
	50	500	.370	.340	.190
	100	500	.370	.350	.200
	150	500	.380	.360	.210
	250	500	.390	.380	.220
	300	300	.390	.380	.220
	390	100	.390	.380	.220
DM-15 (CM05)	10	500	.450	.360	.170
	100	500	.460	.360	.180
	200	500	.460	.380	.190
	300	500	.470	.390	.210
	500	500	.490	.420	.240
	560	300	.470	.390	.210
	680	300	.470	.390	.210
DM-16	820	300	.470	.400	.230
	1000	100	.490	.420	.240
	430	500	.730	.390	.210
	600	500	.740	.400	.220
	720	500	.740	.410	.230
	720	300	.730	.380	.200
	900	300	.740	.390	.220
DM-19 (CM06)	1300	300	.740	.390	.230
	100	500	.640	.500	.190
	500	500	.650	.510	.200
	1000	500	.650	.520	.220
	2000	500	.670	.530	.240
	3000	500	.680	.550	.280
	5000	500	.710	.590	.360
DM-20	6200	300	.690	.570	.330
	8200	100	.700	.580	.350
	680	500	.750	.510	.200
	1000	500	.750	.510	.200
	2000	500	.760	.520	.220
	3900	500	.780	.560	.300
	5600	500	.790	.570	.340
DM-30 (CM07)	6800	300	.790	.560	.320
	7500	100	.780	.560	.300
	10000	100	.790	.570	.340
	4300	500	.780	.860	.270
	6800	500	.780	.870	.300
	10000	500	.800	.890	.340
	15000	500	.810	.900	.390
DM-42 (CM08)	20000	500	.830	.920	.450
	20000	300	.810	.890	.370
	25000	300	.820	.910	.420
	30000	300	.830	.920	.460
	36000	100	.830	.920	.450
	20000	500	1.420	.870	.300
	30000	500	1.440	.890	.350
DM-43	50000	500	1.480	.920	.460
	62000	300	1.470	.920	.450
	82000	100	1.480	.920	.460
	50000	500	2.060	.900	.380
	68000	500	2.070	.910	.440
	75000	300	2.060	.900	.380
	100000	300	2.070	.910	.440
	130000	100	2.090	.930	.490

ELMENCO

CAPACITORS

DM5 Miniature Dur-Mica

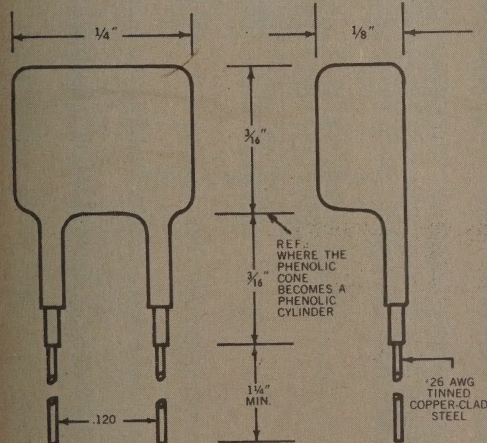


The new ELMENCO DM5 dipped silvered mica capacitor has been designed to keep pace with the ever-shrinking world of electronic circuitry. Significant volumetric savings are achieved in the lower values of capacitance through two principle changes in design. First, the area of each mica film has been reduced to get a better balance of area vs. thickness of capacitive section. This automatically resulted in further saving through redesign of other structural members to get more capacitance per cubic inch. Second, a newly developed dip-coat material is employed which imparts improved environmental protection with a far thinner coat than found on the larger mica capacitors of the ELMENCO line. The result is a much smaller capacitor in the 1 through 198 pf. range with the same reliability and high quality performance the industry has come to expect from ELMENCO mica capacitors.

DM5 capacitors have a standard voltage rating of 300 VDCW except for the highest values which are 100V and 50V ratings as indicated in the tabulation below. Electrical and environmental specifications are basically the same as for the other ELMENCO dipped mica capacitor styles. The capacitors are stamped with capacitance value in pf. followed by a letter signifying capacitance tolerance. For example, 27K would be 27 pf. $\pm 10\%$; 150G would be 150 pf. $\pm 2\%$. In the lower values, standard minimum tolerance is ± 1 pf., but for an added charge we can produce ± 0.5 pf. or even ± 0.25 pf. capacitors.

300VDCW

PRELIMINARY DIMENSIONS



The preliminary dimensions indicated above represent the expected maximum limits for the largest DM5 capacitors. At this printing the analysis of dimensions vs. capacitance for all values and voltages had not yet been completed. Due to the variation in size of capacitive section with value, dimensions will vary 30 to 40 mils between 1 and 180 pf. Final tabulation of case size similar to tabulations now shown for established case sizes. The lead spacing and specifications will not change.

Cap. pf.	Part Number	TOLERANCE (Net price 1-24 ea.)					
		± 1 pf.	± 0.5 pf. (D)	$\pm 10\%$ (K)	$\pm 5\%$ (J)	$\pm 2\%$ (G)	$\pm 1\%$ (F)
1	DM5-010†	\$0.21	\$0.34				
2	DM5-020†	.21	.34				
3	DM5-030†	.21	.34				
4	DM5-040†	.21	.34				
5	DM5-050†	.21	.34	\$0.34			
6	DM5-060†	.21	.34	.34			
7	DM5-070†	.21	.34	.34			
8	DM5-080†	.21	.34	.34			
10	DM5-100†	.34	.21	\$0.34			
12	DM5-120†	.44	.22	.36			
15	DM5-150†	.44	.22	.36			
18	DM5-180†	.46	.23	.37			
20	DM5-200†	.51	.23	.25			
22	DM5-220†	.51	.23	.25			
24	DM5-240†	.51	.23	.25			
27	DM5-270†	.24	.27	\$0.53			
30	DM5-300†	.24	.27	.53			
33	DM5-330†	.24	.27	.53			
36	DM5-360†	.25	.28	.55			
39	DM5-390†	.25	.28	.55			
43	DM5-430†	.26	.29	.57			
47	DM5-470†	.26	.29	.57			
50	DM5-500†	.26	.29	.52	\$0.87		
51	DM5-510†	.28	.31	.56	.93		
56	DM5-560†	.29	.32	.58	.96		
62	DM5-620†	.30	.33	.60	1.00		
68	DM5-680†	.32	.36	.64	1.07		
75	DM5-750†	.34	.38	.68	1.13		
82	DM5-820†	.36	.40	.72	1.20		
91	DM5-910†	.39	.43	.78	1.30		
100	DM5-101†	.42	.47	.84	.93		
110	DM5-111†	.44	.49	.88	.98		
120	DM5-121†*	.38	.42	.76	.84		
130	DM5-131†*	.39	.43	.78	.87		
150	DM5-151†*	.44	.49	.88	.98		
160	DM5-161†**	.38	.42	.76	.84		
180	DM5-181†**	.42	.47	.84	.93		

† Insert letter suffix to denote capacitance tolerance.

* 100VDCW

** 50VDCW

ELMENCO

CAPACITORS

DUR-MICA

SPACE-SAVER

TYPE SCDM THIN COAT DUR MICA CAPACITORS (ELMENCO TYPE ICR)

In applications requiring the high performance characteristics of dipped mica capacitors where space is at a premium, the Type SCDM reduced coat ELMENCO capacitors may often be used to advantage. A single protective resin coat is applied instead of the full series of dips incorporated in the standard unit. The amount of coat material is thereby reduced to a minimum consistent with good design, and a significant reduction of all dimensions is achieved.

All electrical and environmental requirements of MIL-C-5 are retained with the exception of case insulation (3.5.3) and moisture resistance (3.14). A maximum voltage stress of 100 VDC through the case insulation is recommended for SCDM units. Although some lots of this type capacitor will not meet stringent MIL moisture resistance specifications, all will meet the humidity requirements of Paragraph 2.3.6 of EIA Standard RS-153. Therefore, the SCDM capacitors will operate with satisfaction where they will not be exposed to extensive periods of high humidity. It is recommended that if these capacitors are destined for operation under extreme environmental conditions, they should be given additional moisture protection such as encapsulation or hermetic sealing of the assembly.

TYPE SCDM SINGLE COAT

CASE SIZE	Cap. mmf.	Volt. VDCW	L max.	W max.	T max.
SCDM10	10	500	.310	.230	.120
	100	500	.320	.230	.130
	180	500	.330	.240	.150
	250	500	.340	.250	.160
	300	300	.340	.250	.160
	390	100	.340	.250	.160
SCDM15	10	500	.430	.280	.140
	100	500	.430	.280	.150
	270	500	.440	.300	.160
	510	500	.450	.310	.190
	560	300	.450	.310	.160
	820	300	.450	.310	.170
	1000	100	.450	.310	.170

NOTE: SCDM10 and SCDM15 are maintained as stock items for immediate delivery. The larger ELMENCO DM case sizes are also available in the thin dip SCDM style. Contact us for price, delivery, and specification information.

TYPE DM-10

500VDCW

(SCDM10 values and prices the same)

CAP. MMF.	PART NUMBER	±10% "K"	Net Price (1-24)	Tolerance ±2% "G"	±1% "F"
1	DM-10-0105	\$0.18			
2	DM-10-0205	.18			
3	DM-10-0305	.18			
5	DM-10-0505	.18			
10	DM-10-100	.18	\$0.27		
12	DM-10-120	.21	.27		
15	DM-10-150	.21	.27		
18	DM-10-180	.21	.27		
20	DM-10-200	.21	.23		
22	DM-10-220	.21	.23		
24	DM-10-240	.21	.23		
27	DM-10-270	.21	.23	\$0.38	
30	DM-10-300	.21	.23	.38	
33	DM-10-330	.21	.23	.38	
36	DM-10-360	.21	.23	.38	
39	DM-10-390	.21	.23	.38	
43	DM-10-430	.21	.23	.38	
47	DM-10-470	.24	.26	.43	
50	DM-10-500	.24	.26	.43	\$0.60
51	DM-10-510	.24	.26	.43	.60
56	DM-10-560	.24	.26	.43	.60
62	DM-10-620	.24	.26	.43	.60
68	DM-10-680	.24	.26	.43	.66
75	DM-10-750	.24	.26	.43	.66
82	DM-10-820	.24	.26	.43	.66
91	DM-10-910	.24	.26	.43	.66
100	DM-10-100	.24	.26	.43	.60
110	DM-10-110	.24	.26	.43	.60
120	DM-10-120	.27	.30	.50	.60
130	DM-10-130	.27	.30	.50	.60

DM-10 (Continued)

CAP. MMF.	PART NUMBER	±10% "K"	Net Price (1-24)	Tolerance ±2% "G"	±1% "F"
150	DM-10-151	.30	.33	.55	.66
160	DM-10-161	.33	.37	.61	.74
180	DM-10-181	.36	.40	.66	.80
200	DM-10-201	.36	.40	.66	.80
220	DM-10-221	.39	.43	.71	.86
240	DM-10-241	.42	.46	.76	.92
250	DM-10-251	.42	.46	.76	.92
270*	DM-10-271	.42	.46	.76	.92
300*	DM-10-301	.45	.50	.83	1.00
330**	DM-10-331	.45	.50	.83	1.00
	DM-10-361	.48	.53	.87	1.06
390**	DM-10-391	.51	.56	.92	1.12

TYPE DM-15 (CM05)

(SCDM15 values and prices the same)

CAP. MMF.	PART NUMBER	MIL-C-5 TYPE DESIGNATION	Net Price (1-24)	Tolerance ±2% "G"	±1% "F"
1	DM-15-010†		\$0.17		
2	DM-15-020†		.17		
3	DM-15-030†		.17		
5	DM-15-050†	CM-05-C-050K03†	.17		
6	DM-15-060	CM-05-C-060K03	.17		
7	DM-15-070	CM-05-C-070K03	.17		
8	DM-15-080	CM-05-C-080K03	.17		
10	DM-15-100	CM-05-C-100K03	.15	\$0.17	
12	DM-15-120	CM-05-C-120K03	.15	.17	
15	DM-15-150	CM-05-C-150K03	.15	.17	
18	DM-15-180	CM-05-C-180K03	.15	.17	
20	DM-15-200	CM-05-E-200K03	.15	.17	
22	DM-15-220	CM-05-E-220K03	.15	.17	
24	DM-15-240	CM-05-E-240K03	.15	.17	
27	DM-15-270	CM-05-E-270K03	.15	.17	\$0.24
30	DM-15-300	CM-05-E-300K03	.15	.17	.24
33	DM-15-330	CM-05-E-330K03	.15	.17	.24
36	DM-15-360	CM-05-E-360K03	.15	.17	.24
39	DM-15-390	CM-05-E-390K03	.15	.17	.24
43	DM-15-430	CM-05-E-430K03	.15	.17	.24
47	DM-15-470	CM-05-E-470K03	.15	.17	.24
50	DM-15-500		.15	.17	.20 \$0.29
51	DM-15-510	CM-05-E-510K03	.15	.17	.20 .29
56	DM-15-560	CM-05-E-560K03	.15	.17	.20 .29
62	DM-15-620	CM-05-E-620K03	.15	.17	.20 .29
68	DM-15-680	CM-05-E-680K03	.15	.17	.20 .29
75	DM-15-750	CM-05-E-750K03	.15	.17	.20 .29
82	DM-15-820	CM-05-E-820K03	.15	.17	.20 .29
91	DM-15-910	CM-05-F-910K03	.15	.17	.20 .29
100	DM-15-101	CM-05-F-101K03	.15	.17	.20 .29
110	DM-15-111	CM-05-F-111K03	.18	.20	.23 .29
120	DM-15-121	CM-05-F-121K03	.18	.20	.23 .29
130	DM-15-131	CM-05-F-131K03	.18	.20	.23 .29
150	DM-15-151	CM-05-F-151K03	.18	.20	.23 .29
160	DM-15-161	CM-05-F-161K03	.21	.23	.28 .34
180	DM-15-181	CM-05-F-181K03	.21	.23	.28 .34
200	DM-15-201	CM-05-F-201K03	.21	.23	.28 .34
220	DM-15-221	CM-05-F-221K03	.24	.26	.31 .38
240	DM-15-241	CM-05-F-241K03	.24	.26	.31 .38
250	DM-15-251		.24	.26	.31 .38
270	DM-15-271	CM-05-F-271K03	.27	.30	.35 .43
300	DM-15-301	CM-05-F-301K03	.27	.30	.35 .43
330	DM-15-331	CM-05-F-331K03	.30	.33	.39 .48
360	DM-15-361	CM-05-F-361K03	.30	.33	.39 .48
390	DM-15-391	CM-05-F-391K03	.33	.37	.43 .53
430	DM-15-431		.33	.37	.43 .53
470	DM-15-471		.36	.40	.47 .58
500	DM-15-501		.36	.40	.47 .58
510	DM-15-511		.36	.40	.47 .58
560*	DM-15-561		.39	.43	.51 .62
620*	DM-15-621		.42	.46	.55 .67
680*	DM-15-681		.45	.50	.59 .72
750*	DM-15-751		.48	.53	.62 .77
820*	DM-15-821		.51	.56	.67 .82
910**	DM-15-911		.57	.63	.74 .86
1000**	DM-15-102		.60	.66	.78 .96
1100**	DM-15-112		.69	.76	.90 1.10
1200**	DM-15-122		.78	.86	1.01 1.25

TYPE DM-16

500VDCW

Although not tabulated here, DM16 is available in capacitance values up through 1600 mmf. Most values are in stock. Write for price and delivery.

*300VDCW

**100VDCW

\$Minimum tolerance ±1 mmf. Add 50% for ±0.5 mmf.

Minimum tolerance ±0.5 mmf.

DM-10 and DM-15 "C" characteristic 1 through 18 mmf.

DM-10 and DM-15 "E" characteristic 20 through 82 mmf.

DM-10 and DM-15 "F" characteristic 91 mmf. and up.

All listed DM-16 are characteristic "F".

†Insert appropriate letter designating capacitance tolerance.

NET (For quantities of 25 or more, please contact your local Arco-Elmenco Distributor)

ELMENCO

CAPACITORS

DUR-MICA

TYPE DM-19 (CM-06) 500VDCW

CAP. MMF.	PART NUMBER	TYPE DESIGNATION	Net Price (1-24) Tolerance			
			±10% "K"	±5% "J"	±2% "I"	±1% "F"
100	DM-19-101		\$0.15	\$0.17	\$0.18	\$0.23
110	DM-19-111		.18	.20	.22	.27
120	DM-19-121		.18	.20	.22	.27
130	DM-19-131		.18	.20	.22	.27
150	DM-19-151		.18	.20	.22	.27
160	DM-19-161		.18	.20	.22	.27
180	DM-19-181		.18	.20	.22	.27
200	DM-19-201		.18	.20	.22	.27
220	DM-19-221		.18	.20	.22	.27
240	DM-19-241		.21	.23	.25	.32
250	DM-19-251		.21	.23	.25	.32
270	DM-19-271		.24	.26	.29	.36
300	DM-19-301		.24	.26	.29	.36
330	DM-19-331		.24	.26	.29	.36
360	DM-19-361		.27	.30	.32	.41
390	DM-19-391		.27	.30	.32	.41
430	DM-19-431	CM-06-F-431+03	.27	.30	.32	.41
470	DM-19-471	CM-06-F-471+03	.30	.33	.36	.45
500	DM-19-501		.30	.33	.36	.45
510	DM-19-511	CM-06-F-511+03	.30	.33	.36	.45
560	DM-19-561	CM-06-F-561+03	.33	.37	.40	.50
620	DM-19-621	CM-06-F-621+03	.33	.37	.40	.50
680	DM-19-681	CM-06-F-681+03	.36	.40	.43	.54
750	DM-19-751	CM-06-F-751+03	.36	.40	.43	.54
820	DM-19-821	CM-06-F-821+03	.36	.40	.43	.54
910	DM-19-911	CM-06-F-911+03	.39	.43	.47	.59
1000	DM-19-102	CM-06-F-102+03	.42	.46	.51	.63
1100	DM-19-112	CM-06-F-112+03	.42	.46	.51	.63
1200	DM-19-122	CM-06-F-122+03	.45	.50	.54	.68
1300	DM-19-132	CM-06-F-132+03	.48	.53	.58	.72
1500	DM-19-152	CM-06-F-152+03	.51	.57	.62	.77
1600	DM-19-162	CM-06-F-162+03	.54	.60	.65	.82
1800	DM-19-182	CM-06-F-182+03	.60	.66	.72	.90
2000	DM-19-202	CM-06-F-202+03	.66	.73	.79	.99
2200	DM-19-222	CM-06-F-222+03	.72	.79	.87	1.08
2400	DM-19-242	CM-06-F-242+03	.78	.86	.94	1.17
2500	DM-19-252		.81	.89	.97	1.23
2700	DM-19-272	CM-06-F-272+03	.84	.92	1.01	1.26
3000	DM-19-302	CM-06-F-302+03	.90	.99	1.08	1.35
3300	DM-19-332	CM-06-F-332+03	.96	1.06	1.15	1.44
3600	DM-19-362	CM-06-F-362+03	1.02	1.12	1.23	1.53
3900	DM-19-392	CM-06-F-392+03	1.08	1.19	1.30	1.62
4300	DM-19-432	CM-06-F-432+03	1.14	1.26	1.37	1.71
4700	DM-19-472	CM-06-F-472+03	1.20	1.32	1.44	1.80
5000	DM-19-502		1.26	1.39	1.51	1.89
5100	DM-19-512		1.26	1.39	1.51	1.89
5600*	DM-19-562		1.32	1.45	1.58	1.89
6200*	DM-19-622		1.38	1.52	1.66	2.07
6800**	DM-19-682		1.38	1.52	1.66	2.07
7500**	DM-19-752		1.44	1.58	1.73	2.16
8200**	DM-19-822		1.50	1.65	1.80	2.25

TYPE DM-20 500VDCW

680	DM-20-681	\$0.30	\$0.33	\$0.36	\$0.45
750	DM-20-751	.30	.33	.36	.45
820	DM-20-821	.30	.33	.36	.45
910	DM-20-911	.33	.37	.40	.50
1000	DM-20-102	.36	.40	.43	.54
1100	DM-20-112	.36	.40	.43	.54
1200	DM-20-122	.39	.43	.47	.59
1300	DM-20-132	.42	.46	.50	.63
1500	DM-20-152	.45	.50	.54	.68
1600	DM-20-162	.48	.53	.58	.72
1800	DM-20-182	.54	.59	.65	.81
2000	DM-20-202	.57	.63	.68	.86
2200	DM-20-222	.66	.70	.76	.95
2400	DM-20-242	.66	.73	.79	.99
2500	DM-20-252	.66	.73	.79	.99
2700	DM-20-272	.72	.79	.86	1.08
3000	DM-20-302	.78	.86	.94	1.17
3300	DM-20-332	.84	.92	1.01	1.26
3600	DM-20-362	.90	.99	1.08	1.35
3900	DM-20-392	.96	1.06	1.15	1.44
4300	DM-20-432	1.02	1.12	1.22	1.53
4700	DM-20-472	1.08	1.19	1.30	1.62
5000	DM-20-502	1.14	1.25	1.37	1.71
5100	DM-20-512	1.17	1.29	1.40	1.76
5600	DM-20-562	1.20	1.32	1.44	1.80
6200*	DM-20-622	1.20	1.32	1.44	1.80
6800*	DM-20-682	1.26	1.39	1.51	1.89
7500**	DM-20-752	1.32	1.45	1.58	1.98
8200**	DM-20-822	1.44	1.58	1.73	2.16
9100**	DM-20-912	1.62	1.78	1.94	2.43
10000**	DM-20-103	1.80	1.98	2.16	2.70

Notes: Higher DM-20 values are available on special order as follows: up to 10,000 mmf. at 500VDCW, up to 12,000 mmf. at 300VDCW, up to 18,000 mmf. at 100VDCW. Characteristics of DM-19 and DM-20 are as follows: C characteristic 1 to 180 mmf. E characteristic 200 to 510 mmf. F characteristic 560 and up.

TYPE DM-30 (CM-07) 500VDCW

CAP. MMF.	PART NUMBER	TYPE DESIGNATION	Net Price (1-24) Tolerance			
			±10% "K"	±5% "J"	±2% "I"	±1% "F"
4300	DM-30-432		\$0.96	\$1.06	\$1.15	\$1.25
4700	DM-30-472		1.02	1.12	1.22	1.33
5000	DM-30-502		1.05	1.16	1.26	1.37
5100	DM-30-512	CM-07-F-512+03	1.05	1.16	1.26	1.37
5600	DM-30-562	CM-07-F-562+03	1.08	1.19	1.30	1.40
6200	DM-30-622	CM-07-F-622+03	1.14	1.25	1.37	1.48
6800	DM-30-682	CM-07-F-682+03	1.26	1.39	1.51	1.64
7500	DM-30-752	CM-07-F-752+03	1.38	1.52	1.66	1.79
8200	DM-30-822	CM-07-F-822+03	1.50	1.65	1.80	1.95
9100	DM-30-912	CM-07-F-912+03	1.62	1.78	1.94	2.11
10000	DM-30-103	CM-07-F-103+03	1.80	1.98	2.16	2.34
11000	DM-30-113	CM-07-F-113+03	1.95	2.15	2.34	2.54
12000	DM-30-123	CM-07-F-123+03	2.10	2.31	2.52	2.73
13000	DM-30-133	CM-07-F-133+03	2.25	2.48	2.70	2.93
15000	DM-30-153	CM-07-F-153+03	2.55	2.81	3.06	3.32
16000	DM-30-163	CM-07-F-163+03	2.70	2.97	3.24	3.51
18000	DM-30-183	CM-07-F-183+03	3.00	3.30	3.60	3.90
20000	DM-30-203	CM-07-F-203+03	3.30	3.63	3.96	4.29
22000*	DM-30-223		3.42	3.76	4.10	4.45
24000*	DM-30-243		3.69	4.06	4.43	4.80
25000*	DM-30-253		3.84	4.22	4.61	4.99
27000*	DM-30-273		4.11	4.52	4.93	5.35
30000*	DM-30-303		4.50	4.95	5.40	5.85
33000**	DM-30-333		4.95	5.45	5.94	6.44
36000**	DM-30-363		5.40	5.94	6.48	7.02

TYPE DM-42 (CM-08) 500VDCW

10000	DM-42-103		\$2.25	\$2.48
12000	DM-42-123		2.64	2.90
13000	DM-42-133		2.76	3.04
15000	DM-42-153		3.12	3.43
16000	DM-42-163		3.36	3.70
18000	DM-42-183		3.66	4.03
20000	DM-42-203		3.96	4.36
22000	DM-42-223	CM-08-F-223+03	4.29	4.72
24000	DM-42-243	CM-08-F-243+03	4.68	5.15
25000	DM-42-253		4.80	5.28
27000	DM-42-273	CM-08-F-273+03	5.19	5.71
30000	DM-42-303	CM-08-F-303+03	5.67	6.24
33000	DM-42-333	CM-08-F-333+03	6.15	6.77
36000	DM-42-363	CM-08-F-363+03	6.75	7.43
39000	DM-42-393	CM-08-F-393+03	7.20	7.92
43000	DM-42-433	CM-08-F-433+03	7.80	8.58
47000	DM-42-473	CM-08-F-473+03	8.40	9.24
50000	DM-42-503		8.85	9.74
51000	DM-42-513		9.00	9.90
51000*		CM-08-F-513+03	7.92	8.71
56000*	DM-42-563	CM-08-F-563+03	8.58	9.44
62000*	DM-42-623	CM-08-F-623+03	9.30	10.23
68000**	DM-42-683		9.00	9.90
75000**	DM-42-753		9.60	10.56
82000**	DM-42-823		10.20	11.22

TYPE DM-43 500VDCW

47000	DM-43-473		
50000	DM-43-503		
51000	DM-43-513		
56000	DM-43-563		
62000	DM-43-623		
68000	DM-43-683		
75000*	DM-43-753		
82000*	DM-43-823		
91000*	DM-43-913		
100000*	DM-43-104		
110000**	DM-43-114		
120000**	DM-43-124		
130000**	DM-43-134		

Prices on Request

All capacities marked with * are 300WV.

All capacities marked with ** are 100WV.

All capacities listed above, in DM-30, DM-42 and DM-43 case sizes are "F" characteristic.

For ±½% tolerance. Prices on request.

±Tolerance designation in part number. Insert the proper letter signifying capacitance tolerance required

NET (For quantities of 25 or more, please contact your local Arco-Elmenco distributor)

ELMENCO

CAPACITORS

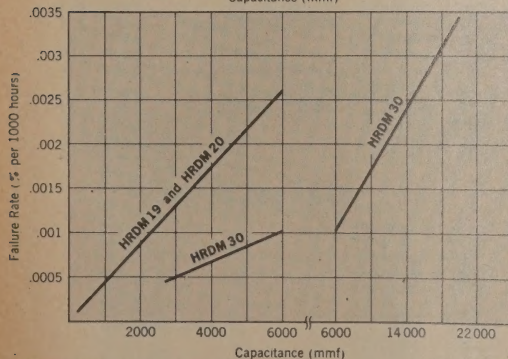
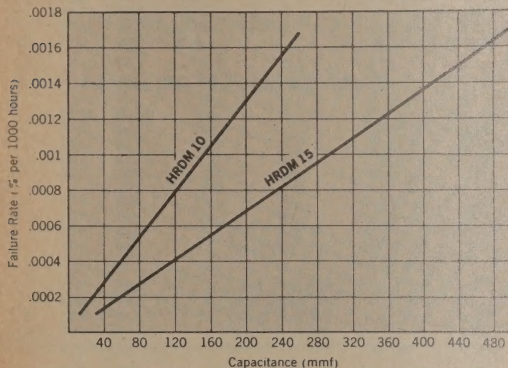
High Reliability Dur-Mica

Type HRDM

Missile, Computer, and other applications wherein entire system performance depends on reliable operation of thousands of components has prompted development of a High Reliability line of ELMENCO Dur-Mica dipped silvered mica capacitors. Selected DM units are subjected to a special "debugging" process to eliminate potential early failures. This process is particularly effective when the capacitors are to be subjected to operation near their maximum rated temperatures. The HRDM capacitors are exposed to double rated voltage for 48 hours at 125°C. The graphs below indicate the reliability levels of these capacitors. The curves have been derived from the results of tens of thousands of hours of testing of tens of thousands of capacitors of all values and case sizes. Further information on the performance characteristics of HRDM capacitors is available upon request.

RELIABILITY OF ELMENCO HRDM CAPACITORS

Failure Rate in % per 1000 Hours (90% Confidence Level) vs. Capacitance Value □ 500VDCW Operation at 85°C.



To conserve catalog space, part numbers for each HRDM capacitor are not listed as they are for the standard units. Capacitance values are shown for each case size with corresponding list prices indicated for each standard tolerance. Voltage ratings are the same as for the standard DM capacitors.

To specify part number, merely prefix the regular DM part number by the letters "HR". For example, a high reliability DM15-101J would be called out by the part number HRDM15-101J.

NET (For quantities or 25 or more, please contact your local Arco-Elmenco distributor)

Capacitance values (mmf.)

Net Price (1-24) Tolerance

	±10%	±5%	±2%	±1%
DM-10				
1-10S	\$0.33			
12-18†	.36	\$0.42		
20-43	.36	.38	\$0.53	
47-110	.39	.41	.58	\$0.81
120-130	.42	.45	.65	.75
150	.46	.49	.71	.82
160	.49	.53	.78	.90
180-200	.52	.56	.82	.96
220	.55	.59	.87	1.02
240-270	.60	.64	.94	1.10
300-330	.63	.68	1.01	1.20
360	.66	.71	1.06	1.26
390	.69	.75	1.11	1.32
DM-15				
1-100†	.32	.32	.39	.44
110-150	.33	.35	.39	.44
160-200	.36	.39	.43	.49
220-250	.39	.42	.47	.53
270-300	.42	.45	.51	.59
330-360	.45	.48	.54	.63
390-430	.48	.52	.59	.68
470-510	.51	.56	.63	.74
560	.56	.60	.68	.80
620	.59	.64	.72	.86
680	.62	.68	.77	.92
750	.66	.71	.81	.96
820	.69	.75	.86	1.02
910	.75	.81	.94	1.06
1000	.80	.85	.98	1.11
DM-18				
100	.30	.32	.33	.38
110-220	.33	.35	.37	.42
240-250	.36	.39	.41	.47
270-330	.39	.42	.44	.51
360-430	.42	.45	.48	.56
470-510	.45	.48	.51	.60
560-620	.48	.52	.55	.65
680-820	.51	.56	.59	.70
910	.54	.59	.62	.75
1000-1100	.57	.62	.66	.79
1200	.60	.65	.70	.84
1300	.63	.68	.74	.88
1500	.66	.72	.78	.93
1600	.70	.76	.81	.98
1800	.73	.79	.84	1.02
1800	.76	.82	.88	1.07
2000	.79	.86	.92	1.12
2000	.82	.88	.96	1.16
2400-2500	.88	.96	1.03	1.25
2700	.90	.98	1.06	1.29
2200				
3000	.95	1.02	1.11	1.35
2400	.97	1.05	1.14	1.38
2500	1.00	1.09	1.17	1.43
2700	1.04	1.13	1.22	1.49
3000	1.10	1.20	1.29	1.58
3300	1.17	1.27	1.37	1.68
3600	1.23	1.34	1.45	1.78
3900	1.30	1.41	1.53	1.88
4300	1.37	1.49	1.61	1.98
4700	1.43	1.55	1.69	2.08
5000-5100	1.50	1.62	1.77	2.18
5600	1.56	1.70	1.86	2.29
6200-6800	1.63	1.77	1.94	2.39
7500	1.69	1.85	2.03	2.50
8200	1.76	1.92	2.11	2.61
9100	1.85	2.04	2.21	2.75
10000	2.07	2.25	2.45	3.04

PRICES FOR HRDM30, HRDM42, AND HRDM43 ON REQUEST.

§ Minimum tolerance ±1 mmf. Add \$0.09 for ±0.5 mmf.

† Minimum tolerance ±0.5 mmf.

NOTE: Voltage ratings of items listed correspond to those indicated for the standard line DM capacitors in equivalent values and case sizes indicated on previous pages.

There is a set-up charge of \$3.00 per item when the quantity of the item is less than 100. This charge is added to the unit prices indicated above.

ELMENCO

CAPACITORS

High Voltage Dur-Mica

A new line of ELMENCO Silvered Hi-Voltage Dur-Mica capacitors is now available to complement the similar values in the molded configuration. These high voltage capacitors afford the same facility of use in low power applications by providing reliable operation in a small case size. Elmenco Dur-Mica capacitors may be substituted for similarly rated molded units normally supplied in the larger CM45, CM50, CM55, and CM60 case sizes.

The Dur-Mica design provides advantage of higher temperature operation (125°C. max.); radial leads for printed circuit application; higher capacitance in a given case size; and improved reliability. The dipped units, being solidly impregnated with corona resistant material, do not have the voids which make molded types susceptible to corona. As a

result, the dipped capacitors can be supplied with voltage rating as high as 5000VDCV.

All Elmenco Dur-Mica capacitors are silvered mica construction. They conform to electrical and environmental specifications set forth in MIL-C-5 specifications.

The physical configuration of these capacitors is the same as for the standard DM units. This information is found on page 8. The only difference is that for a given capacitance value case dimensions will be larger for higher voltage ratings because the mica is thicker. The maximum case dimensions for each of the case sizes indicated below is the same as the maximums indicated in the tabulation.

VDM-20 HI-VOLTAGE

TOLERANCE $\pm 5\%$

CAP. MMF.	TYPE DESIGNATION	VDC 2000T 1000W NET	VDC 3000T 1500W NET	VDC 5000T 2500W NET
5	VDM-20-050K			\$0.18
10	VDM-20-100J			.18
12	VDM-20-120J			.18
15	VDM-20-150J			.18
18	VDM-20-180J			.21
20	VDM-20-200J			.18
22	VDM-20-220J			.21
24	VDM-20-240J			.21
27	VDM-20-270J			.18
30	VDM-20-300J			.21
33	VDM-20-330J			.18
36	VDM-20-360J			.21
39	VDM-20-390J			.18
43	VDM-20-430J			.21
47	VDM-20-470J			.21
50	VDM-20-500J			.21
51	VDM-20-510J			.21
56	VDM-20-560J			.21
62	VDM-20-620J			.30
68	VDM-20-680J			.30
75	VDM-20-750J			.30
82	VDM-20-820J			.33
91	VDM-20-910J			.36
100	VDM-20-101J			.36
110	VDM-20-111J			.39
120	VDM-20-121J			.39
130	VDM-20-131J			.42
150	VDM-20-151J			.45
160	VDM-20-161J			.48
180	VDM-20-181J			.51
200	VDM-20-201J			.57
220	VDM-20-221J			.63
240	VDM-20-241J			.66
250	VDM-20-251J			.72
270	VDM-20-271J			.78
300	VDM-20-301J			.84
330	VDM-20-331J			.90
360	VDM-20-361J			.96
390	VDM-20-391J			.96
430	VDM-20-431J			.96
470	VDM-20-471J			.96
500	VDM-20-501J			.96
510	VDM-20-511J			.96
560	VDM-20-561J			.96
620	VDM-20-621J			.96
680	VDM-20-681J			.96
750	VDM-20-751J			.96
820	VDM-20-821J			.96
910	VDM-20-911J			.96
1000	VDM-20-102J			.96
1100	VDM-20-112J			.96
1200	VDM-20-122J			.96
1300	VDM-20-132J			.96
1500	VDM-20-152J			.96
1600	VDM-20-162J			.96
1800	VDM-20-182J			.96
2000	VDM-20-202J			.96
2200	VDM-20-222J			.96
2400	VDM-20-242J			.96
2700	VDM-20-272J			.96
3000	VDM-20-302J			.96

VDM-30 HI-VOLTAGE

TOLERANCE $\pm 5\%$

CAP. MMF.	TYPE DESIGNATION	VDC 2000T 1000W NET	VDC 3000T 1500W NET	VDC 5000T 2500W NET
390	VDM-30-391J			\$0.72
430	VDM-30-431J			.78
470	VDM-30-471J			.84
500	VDM-30-501J			.90
510	VDM-30-511J			.90
560	VDM-30-561J			.96
620	VDM-30-621J			1.02
680	VDM-30-681J			1.08
750	VDM-30-751J			1.14
820	VDM-30-821J			1.20
910	VDM-30-911J			1.29
1000	VDM-30-102J			1.38
1100	VDM-30-112J			1.50
1200	VDM-30-122J			1.65
1300	VDM-30-132J			1.80
1500	VDM-30-152J			2.10
1600	VDM-30-162J			2.25
1800	VDM-30-182J			2.58
2000	VDM-30-202J			2.94
2200	VDM-30-222J			3.30
2400	VDM-30-242J			3.66
2700	VDM-30-272J			4.20
3000	VDM-30-302J			2.16
3300	VDM-30-332J			2.34
3600	VDM-30-362J			2.52
3900	VDM-30-392J			2.70
4300	VDM-30-432J			2.88
4700	VDM-30-472J			3.06
5000	VDM-30-502J			3.24
5100	VDM-30-512J			3.30
5600	VDM-30-562J			3.60
6200	VDM-30-622J			3.90
6800	VDM-30-682J			4.20
7500	VDM-30-752J			2.64
8200	VDM-30-822J			3.00
9100	VDM-30-912J			3.36
10000	VDM-30-103J			3.72

VDM-42 HI-VOLTAGE

CAP. MMF.	TYPE DESIGNATION	VDC 2000T 1000W	VDC 3000T 1500W	VDC 5000T 2500W
3000	VDM-42-302J			
3300	VDM-42-332J			
3600	VDM-42-362J			
3900	VDM-42-392J			
4300	VDM-42-432J			
4700	VDM-42-472J			
5000	VDM-42-502J			
5100	VDM-42-512J			
5600	VDM-42-562J			
6200	VDM-42-622J			
6800	VDM-42-682J			
7500	VDM-42-752J			
8200	VDM-42-822J			
9100	VDM-42-912J			
10000	VDM-42-103J			
12000	VDM-42-123J			
13000	VDM-42-133J			
15000	VDM-42-153J			
16000	VDM-42-163J			
18000	VDM-42-183J			
20000	VDM-42-203J			
22000	VDM-42-223J			
24000	VDM-42-243J			
25000	VDM-42-253J			
27000	VDM-42-273J			
30000	VDM-42-303J			

VDM-43 HI-VOLTAGE

TOLERANCE $\pm 5\%$

CAP. MMF.	TYPE DESIGNATION	2500VW	15000VW
12000	VDM-43-123J		
13000	VDM-43-133J		
15000	VDM-43-153J		
20000	VDM-43-203J		
22000	VDM-43-223J		
24000	VDM-43-243J		
25000	VDM-43-253J		
27000	VDM-43-273J		
30000	VDM-43-303J		
33000	VDM-43-333J		
36000	VDM-43-363J		
39000	VDM-43-393J		
43000	VDM-43-433J		
47000	VDM-43-473J		

SPECIAL HVDM-42 & HVDM-43

5000VW UNITS

CAP. MMF.	TYPE DESIGNATION	10000 VOLTS DC TEST	5000 VOLTS DC WKG.
5	HVDM-42-050K		
10	HVDM-42-100J		
12	HVDM-42-120J		
15	HVDM-42-150J		
18	HVDM-42-180J		
20	HVDM-42-200J		
22	HVDM-42-220J		
24	HVDM-42-240J		
27	HVDM-42-270J		
30	HVDM-42-300J		
33	HVDM-42-330J		
36	HVDM-42-360J		
39	HVDM-42-390J		
43	HVDM-42-430J		
47	HVDM-42-470J		
50	HVDM-42-500J		
51	HVDM-42-510J		
56	HVDM-42-560J		
62	HVDM-42-620J		
68	HVDM-42-680J		
75	HVDM-42-750J		
82	HVDM-42-820J		
91	HVDM-42-910J		
100	HVDM-42-101J		
110	HVDM-42-111J		
120	HVDM-42-121J		
130	HVDM-42-131J		
150	HVDM-42-151J		
160	HVDM-42-161J		
180	HVDM-42-181J		
200	HVDM-42-201J		
220	HVDM-42-221J		
240	HVDM-42-241J		
250	HVDM-42-251J		
270	HVDM-42-271J		
300	HVDM-42-301J		
330	HVDM-42-331J		
360	HVDM-42-361J		
390	HVDM-42-391J		
430	HVDM-42-431J		
470	HVDM-42-471J		
500	HVDM-42-501J		
510	HVDM-42-511J		
560	HVDM-42-561J		
620	HVDM-42-621J		
680	HVDM-42-681J		
750	HVDM-42-751J		
820	HVDM-42-821J		
910	HVDM-42-911J		

**PLEASE SPECIFY
WORKING VOLTAGE RATING
WHEN ORDERING**

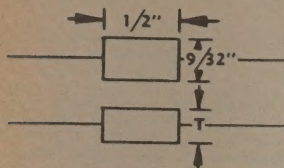
NET (For quantities of 25 or more, please contact your local Arco-Elmenco distributor)

Above prices are for Standard 5% Tolerance.
Closer Tolerances to $\pm 1\%$ available.
Pricing on request.

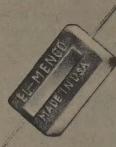
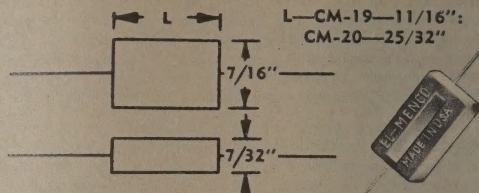
ELMENCO

CAPACITORS

Molded Silvered Mica



T—from 1-300 mmf. 3/16"
T—from 310-510 mmf. 7/32"



TYPE CM-15

500VDCW

CAP. MMF.	TYPE DESIGNATION	Net Price (1-24)		Tolerance "g"	"g"
		±5%	±2%		
1	CM-15-C-010†				
2	CM-15-C-020†				
3	CM-15-C-030†				
5	CM-15-C-050†				
10	CM-15-C-100	\$0.18			
12	CM-15-C-120	.18			
15	CM-15-C-150	.18			
18	CM-15-C-180	.18			
20	CM-15-C-200	.18			
22	CM-15-C-220	.18			
24	CM-15-E-240	.18			
27	CM-15-E-270	.18	\$0.25		
30	CM-15-E-300	.18	.25		
33	CM-15-E-330	.18	.25		
36	CM-15-E-360	.18	.25		
39	CM-15-E-390	.18	.25		
43	CM-15-E-430	.18	.25		
47	CM-15-E-470	.18	.25		
50	CM-15-E-500	.18	.25		\$0.30
51	CM-15-E-510	.18	.25		.30
56	CM-15-E-560	.18	.25		.30
62	CM-15-E-620	.18	.25		.30
68	CM-15-E-680	.18	.25		.30
75	CM-15-E-750	.18	.25		.30
82	CM-15-E-820	.18	.25		.30
91	CM-15-E-910	.18	.25		.30
100	CM-15-E-101	.18	.25		.30
110	CM-15-E-111	.21	.25		.30
120	CM-15-E-121	.21	.25		.30
130	CM-15-E-131	.21	.25		.30
150	CM-15-E-151	.21	.25		.30
160	CM-15-E-161	.24	.29		.34
180	CM-15-E-181	.24	.29		.34
200	CM-15-E-201	.24	.29		.34
220	CM-15-E-221	.27	.32		.39
240	CM-15-E-241	.27	.32		.39
250	CM-15-E-251	.27	.32		.39
270	CM-15-E-271	.30	.36		.43
300	CM-15-E-301	.30	.36		.43
330	CM-15-E-331	.33	.40		.47
360	CM-15-E-361	.36	.43		.52
390	CM-15-E-391	.39	.47		.56
430	CM-15-E-431	.39	.47		.56
470	CM-15-E-471	.42	.50		.61
500	CM-15-E-501	.42	.50		.61
510	CM-15-E-511	.42	.50		.61
560**	CM-15-E-561	.42	.50		.61
620**	CM-15-E-621	.45	.54		.65
680**	CM-15-E-681	.48	.58		.69
750**	CM-15-E-751	.51	.61		.73
820**	CM-15-E-821	.54	.65		.78

† Capacities marked with † denote that closest tolerance is ±0.5 mmf.

* Voltage rating 300 VDCW.

** Voltage rating 100 VDCW.

SPECIFICATIONS NOTES:

±1/2% tolerance available above 100 mmf., pricing

upon request.

CM-15, available "F" characteristic above 30 mmf.

CM-19, 20 available "E" characteristic above 110 mmf.

CM-19, 20 available "F" characteristic above 200 mmf.

All CM-30, 35, and 42 values listed are available in

"F" characteristic.

TYPE CM-19 & 20

500VDCW

CAP. MMF.	TYPE DESIGNATION	Net Price (1-24)		Tolerance "g"	"g"
		±10%	±5%		
100	CM-20-C-101	\$0.16	\$0.18	±0.23	\$0.29
110	CM-20-C-111	.19	.21	.23	.29
120	CM-20-C-121	.19	.21	.23	.29
130	CM-20-C-131	.19	.21	.23	.29
150	CM-20-C-151	.19	.21	.23	.29
160	CM-20-C-161	.19	.21	.23	.29
180	CM-20-C-181	.19	.21	.23	.29
200	CM-20-D-201	.19	.21	.23	.29
220	CM-20-D-221	.19	.21	.23	.29
240	CM-20-D-241	.22	.24	.26	.34
250	CM-20-D-251	.22	.24	.26	.34
270	CM-20-D-271	.22	.24	.26	.34
300	CM-20-D-301	.22	.24	.26	.34
330	CM-20-D-331	.22	.24	.26	.34
360	CM-20-D-361	.22	.24	.26	.34
390	CM-20-D-391	.24	.27	.30	.38
430	CM-20-D-431	.24	.27	.30	.38
470	CM-20-D-471	.24	.27	.30	.38
500	CM-20-D-501	.27	.30	.33	.42
510	CM-20-D-511	.27	.30	.33	.42
560	CM-20-D-561	.27	.30	.33	.42
620	CM-20-D-621	.30	.33	.37	.46
680	CM-20-D-681	.33	.36	.40	.50
750	CM-20-D-751	.33	.36	.40	.50
820	CM-20-D-821	.35	.39	.43	.55
910	CM-20-D-911	.38	.42	.46	.59
1000	CM-20-E-102	.38	.42	.46	.59
1100	CM-20-E-112	.41	.45	.50	.63
1200	CM-20-E-122	.43	.48	.53	.67
1300	CM-20-E-132	.43	.48	.53	.67
1500	CM-20-E-152	.46	.51	.56	.71
1600	CM-20-E-162	.49	.54	.59	.76
1800	CM-20-E-182	.54	.60	.66	.84
2000	CM-20-E-202	.60	.66	.73	.92
2200	CM-20-E-222	.66	.72	.79	1.01
2400	CM-20-E-242	.68	.75	.83	1.05
2500	CM-20-E-252	.71	.78	.86	1.09
2700	CM-20-E-272	.76	.84	.92	1.18
3000	CM-20-E-302	.81	.90	.99	1.26
3300	CM-20-E-332	.87	.96	1.06	1.34
3600*	CM-20-E-362	.92	1.02	1.12	1.43
3900*	CM-20-E-392	.99	1.08	1.19	1.51
4300*	CM-20-E-432	1.03	1.14	1.25	1.60
4700*	CM-20-E-472	1.08	1.20	1.32	1.68
5000*	CM-20-E-502	1.14	1.26	1.39	1.76
5100*	CM-20-E-512	1.14	1.26	1.39	1.76

Capacities from 5 to 2400 mmf. can be supplied in CM-19 cases. In values above 1000 mmf. the net prices for CM-19 are 10% higher than those listed above.

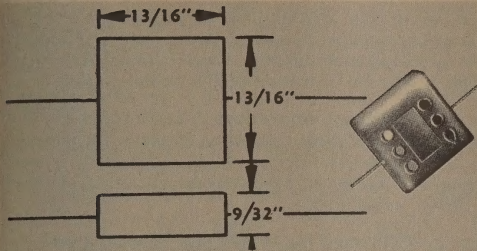
As can be seen in the line drawing above, the only difference between CM19 and CM20 is length dimension. For competitive reasons it has been necessary to retain both mold sizes. However both CM19 and CM20 fully conform to all specifications for MIL-C-5 case size CM20, and they are interchangeable for military requirements.

NET (For quantities of 25 or more, please contact your local Arco-Elmenco distributor)

ELMENCO

CAPACITORS

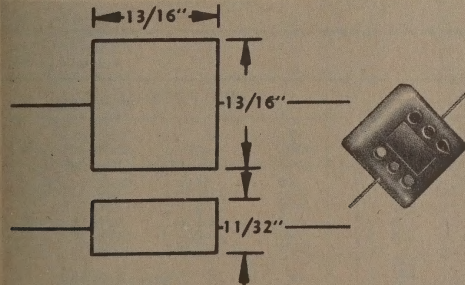
Molded Silvered Mica



TYPE CM-30

500VDCW

CAP. MMF.	TYPE DESIGNATION	Net Price (1-24)		Tolerance	
		"K" ±10%	"J" ±5%	"G" ±2%	"F" ±1%
510	CM-30-E-511	\$0.30	\$0.33	\$0.37	\$0.40
560	CM-30-E-561	.33	.36	.40	.43
620	CM-30-E-621	.33	.36	.40	.43
680	CM-30-E-681	.35	.39	.43	.47
750	CM-30-E-751	.35	.39	.43	.47
820	CM-30-E-821	.38	.42	.46	.50
910	CM-30-E-911	.38	.42	.46	.50
1000	CM-30-E-102	.41	.45	.50	.54
1100	CM-30-E-112	.41	.45	.50	.54
1200	CM-30-E-122	.41	.45	.50	.54
1300	CM-30-E-132	.43	.48	.53	.58
1500	CM-30-E-152	.46	.51	.56	.61
1600	CM-30-E-162	.46	.51	.56	.61
1800	CM-30-E-182	.49	.54	.59	.65
2000	CM-30-E-202	.54	.60	.66	.72
2200	CM-30-E-222	.60	.66	.73	.79
2400	CM-30-E-242	.65	.72	.79	.86
2500	CM-30-E-252	.65	.72	.79	.86
2700	CM-30-E-272	.70	.78	.86	.94
3000	CM-30-E-302	.76	.84	.92	1.01
3200	CM-30-E-332	.81	.90	.99	1.08
3600	CM-30-E-362	.87	.96	1.06	1.15
3900	CM-30-E-392	.92	1.02	1.12	1.22
4300	CM-30-E-432	.98	1.08	1.19	1.30
4700	CM-30-E-472	1.03	1.14	1.25	1.37
5000	CM-30-E-502	1.08	1.20	1.32	1.44
5100	CM-30-E-512	1.08	1.20	1.32	1.44
5600	CM-30-E-562	1.14	1.26	1.39	1.51
6200	CM-30-E-622	1.19	1.32	1.45	1.58



TYPE CM-35

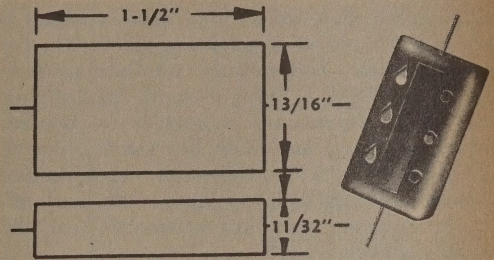
500VDCW

CAP. MMF.	TYPE DESIGNATION	Net Price (1-24)		Tolerance	
		"K" ±10%	"J" ±5%	"G" ±2%	"F" ±1%
6800*	CM-35-E-682	\$1.19	\$1.32	\$1.45	\$1.58
7500*	CM-35-E-752	1.30	1.44	1.58	1.73
8200*	CM-35-E-822	1.42	1.56	1.72	1.87
9100*	CM-35-E-912	1.53	1.68	1.85	2.02
10000*	CM-35-E-103	1.68	1.86	2.05	2.23
12000*	CM-35-E-123	1.94	2.16	2.38	2.59
15000*	CM-35-E-153	2.28	2.58	2.84	3.10
6800	VCM-35-E-682	1.31	1.44	1.58	1.73
7500	VCM-35-E-752	1.42	1.56	1.72	1.87
8200	VCM-35-E-822	1.53	1.68	1.85	2.02
9100	VCM-35-E-912	1.69	1.85	2.05	2.23
10000	VCM-35-E-103	1.80	2.04	2.24	2.45

All capacities marked with * are 300VW.

NOTE:—All above "SILVERED MICA" units can be supplied in "F" Characteristic at no extra cost.

NET (For quantities of 25 or more, please contact your local Arco-Elmenco distributor)



TYPE CM-42

500VDCW

CAP. MMF.	TYPE DESIGNATION	Net Price (1-24)		Tolerance	
		"J" ±5%	"G" ±2%	"F" ±1%	
12000	CM-42-E-123				
13000	CM-42-E-133				
15000	CM-42-E-153				
16000	CM-42-E-163				
18000	CM-42-E-183				
20000	CM-42-E-203				
22000	CM-42-E-223				
24000	CM-42-E-243				
25000	CM-42-E-253				
27000*	CM-42-E-273				
30000*	CM-42-E-303				
33000*	CM-42-E-333				
36000*	CM-42-E-363				
39000*	CM-42-E-393				

All capacities marked with * are 300VDCW.

**PRICING
ON
REQUEST**

TYPES CM-25 & CM-40

Although CM-25 and CM-40 are not listed, they are still available and most items are in stock. Please contact us for price and delivery information.

MICA CAPACITOR NOTES

Off standard capacitance values — non-standard values not listed in part number tabulations of molded and dipped mica capacitors are priced at next higher listed value and are subject to a \$1.00 set-up charge per item.

Minimum tolerance — Regardless of capacitance and percentage tolerance indicated, the minimum absolute capacitance tolerance normally supplied is ± 0.5 mmf. It is ARCO standard practice to supply ± 0.5 mmf. automatically on orders for $\pm 5\%$ or $\pm 10\%$ which calculate to less than ± 0.5 mmf. If $\pm 2\%$ or $\pm 1\%$ tolerance is specified, customer is notified of deviation for approval.

EXCEPTION: Standard minimum tolerance for DM10 is ± 1 mmf. (± 0.5 mmf available at added cost).

Source Inspection — Government Source Inspection is performed on MIL-C-5 capacitors, both dipped and molded, when specified. Prompt service is afforded on all items from case size CM-05 to CM-40 inclusive.

ELMENCO

CAPACITORS

High Temperature Molded Silvered Mica

The standard Elmenco molded mica capacitor is designed for use at a maximum of 85°C., the former industry and military standard prior to issuance of MIL-C-5. Now, in some applications, these components are expected to operate without derating and with the same order of reliability at 125°C. The latter requirement is particularly difficult to cope with and obviously requires vast improvement over the standard design.

A specially designed Elmenco molded mica capacitor, designated type HTCM, has been developed which will afford complete satisfaction at the higher levels of temperature stress. The resulting units have been carefully evaluated in millions of unit-hours of life and environmental testing to verify their performance excellence.

In order to retain proper characteristics at 125°C., the following steps are taken:

1. Every mica film is screened for high temperature characteristics. This is done 100%, not on a sampling basis.
2. A special high temperature molding resin is employed to preserve the strength and electrical characteristic of the mica at 125°C. This molding material was also selected for the lower molding pressure required. This reduced stress greatly enhances the reliability of the mica films.
3. A solid high temperature impregnant is used instead of wax for greater stability and retention of the moisture resistance characteristic. Wax will have a tendency

to melt out at high temperature, causing possible change in capacitance value, loss of moisture seal, and possible fouling of adjacent circuitry. The HTCM capacitors will remain physically and electrically stable at 125°C.

With these design innovations, vast improvement is obtained in operating reliability at elevated temperature. The expected failure rate is reduced to a small fraction of what might otherwise be expected of standard design capacitors.

HTCM CAPACITORS MEET ALL ELECTRICAL AND ENVIRONMENTAL SPECIFICATIONS FOR MIL-C-5 TEMPERATURE RANGE "O".

The Elmenco high temperature molded mica capacitor is designated simply by adding prefix letters "HT" to the standard part number. For example, a 100 mmf. $\pm 5\%$ CM-15, standard part number CM-15-E-101J, would be called an HTCM-15-E-101J, for high temperature operation.

To conserve catalog space, part numbers for each individual HTCM capacitor are not listed as they are for the standard units. Capacitance values are shown for each case size with corresponding prices indicated for each tolerance. Voltage ratings are the same as for standard CM capacitors.

THE HTCM15 CAPACITORS ARE NOW MOLDED IN A NEW FILLED-EPOXY CASE, GREATLY INCREASING RELIABILITY AND ELECTRICAL CHARACTERISTICS. THEY CAN NOW BE RECOMMENDED FOR CONSTANT OPERATION AT 150°C. ALL SPECIFICATIONS FOR MIL-C-5 TEMPERATURE RANGE "P" ARE MET.

NET PRICE (1-24)				NET PRICE (1-24)				NET PRICE (1-24)			
CAP. MMF.	$\pm 5\%$	$\pm 2\%$	$\pm 1\%$	CAP. MMF.	$\pm 5\%$	$\pm 2\%$	$\pm 1\%$	CAP. MMF.	$\pm 5\%$	$\pm 2\%$	$\pm 1\%$
HTCM15				560	\$0.90	\$1.05	\$1.14	3600	\$2.08	\$2.33	\$2.54
1-75	\$0.39	\$0.49	\$0.59	620	.90	1.05	1.14	3900	2.12	2.45	2.66
82-150	.42	.53	.63	680	.95	1.10	1.19	4300	2.21	2.54	2.76
160-200	.45	.56	.68	750	.95	1.10	1.19	4700	2.30	2.64	2.88
220	.48	.60	.72	820	.99	1.14	1.25	5000	2.39	2.75	2.99
240	.48	.60	.72					5100	2.39	2.75	2.99
250	.48	.60	.72	910	.99	1.14	1.25	HTCM30, HTCM35			
270	.51	.64	.77	1000	1.04	1.20	1.31	3600	2.12	2.45	2.66
300	.51	.64	.77	1100	1.04	1.20	1.31	3900	2.21	2.54	2.76
330	.54	.68	.81	1200	1.13	1.29	1.41	4300	2.30	2.64	2.88
360	.57	.71	.86	1300	1.13	1.29	1.41	4700	2.39	2.75	2.99
390	.57	.71	.86	1500	1.26	1.46	1.59	5000	2.52	2.90	3.17
430	.60	.75	.90	1600	1.26	1.46	1.59	5100	2.52	2.90	3.17
470	.63	.79	.95	1800	1.35	1.56	1.70	5600	2.88	3.32	3.62
500	.63	.79	.95	2000	1.35	1.67	1.82	6200	3.11	3.59	3.89
510	.63	.79	.95	2200	1.53	1.77	1.92	6800	2.75	3.17	3.44
HTCM19, HTCM20				2400	1.62	1.86	2.04	7500	2.88	3.32	3.62
100-220	.63	.74	.80	2500	1.67	1.92	2.09	8200	3.11	3.57	3.89
240-360	.72	.83	.92	2700	1.76	2.08	2.21	9100	3.33	3.94	4.17
390-430	.81	.93	1.02	3000	1.94	2.24	2.43	10000	3.50	4.14	4.52
470-510	.86	.99	1.08	3300	2.08	2.33	2.54				

Add 10% to indicated prices for HTCM19 in values above 1000 mmf. to a maximum of 2400 mmf.

THERE IS A \$5.00 PER ITEM SET-UP CHARGE FOR NON-STANDARD CAPACITANCE VALUES IN QUANTITIES LESS THAN 100 OF A SIZE. ALL VALUES LISTED ON PRIOR PAGES FOR THE STANDARD SILVERED MOLDED MICA ARE CONSIDERED STANDARD STOCK VALUES FOR WHICH THERE IS NO SET-UP CHARGE.

NET (For quantities of 25 or more, please contact your local Arco-Elmenco distributor)

ELMENCO

CAPACITORS

High Voltage Molded Mica

Demand for smaller units in higher voltages designed to meet the requirements for TELEVISION, POWER AMPLIFIERS, LOW POWER TRANSMITTERS, and various INDUSTRIAL USES has increased. ELMENCO designed and produced units listed below are especially adaptable to compact circuits where space is an important factor. Their acceptance has been overwhelming by the various manufacturers of TELEVISION RECEIVERS.

In many cases, these units will do the work of capacitors molded in

CM-45, CM-50, and CM-55 cases without breaking down. NO SPECIAL MOUNTINGS ARE NECESSARY; just wire right into the circuit.

The capacitors are molded in low-loss Phenolic Resin in CM-20, CM-35, CM-42 cases and tested at double the branded voltage. They are tested for dielectric strength, insulation resistance, temperature coefficient capacitance drift, susceptibility to humidity, and length of life, according to EIA Standards. All units are wax-dipped for protection against salt water immersion.

VCM-20 HI-VOLTAGE MOLDED SILVERED MICA

CAP. MMF.	TYPE DESIGNATION	2000VDCV 1000VDCW ±5% (J)		3000VDCV 1500VDCW ±5% (J)		5000VDCV 2500VDCW ±5% (J)	
		LIST	NET	LIST	NET	LIST	NET
5	VCM-20-050	USE 2500WV		USE 2500WV		\$0.35	\$0.21
10	VCM-20-100					.35	.21
12	VCM-20-120					.35	.21
15	VCM-20-150					.35	.21
18	VCM-20-180	USE 1500WV		\$0.35	\$0.21	.40	.24
20	VCM-20-200			.35	.21	.40	.24
22	VCM-20-220			.35	.21	.40	.24
24	VCM-20-240			.35	.21	.40	.24
27	VCM-20-270			.35	.21	.40	.24
30	VCM-20-300			.35	.21	.40	.24
33	VCM-20-330			.35	.21	.45	.27
36	VCM-20-360			.35	.21	.45	.27
39	VCM-20-390			.35	.21	.45	.27
43	VCM-20-430	\$0.35	\$0.21	.40	.24	.45	.27
47	VCM-20-470	.35	.21	.40	.24	.50	.30
50	VCM-20-500	.35	.21	.40	.24	.50	.30
51	VCM-20-510	.35	.21	.40	.24	.50	.30
56	VCM-20-560	.35	.21	.40	.24	.50	.30
62	VCM-20-620	.35	.21	.40	.24	.55	.33
68	VCM-20-680	.35	.21	.40	.24	.55	.33
75	VCM-20-750	.35	.21	.40	.24	.55	.33
82	VCM-20-820	.35	.21	.40	.24	.60	.33
91	VCM-20-910	.35	.21	.40	.24	.60	.36
100	VCM-20-101	.35	.21	.40	.24	.60	.36
110	VCM-20-111	.35	.21	.40	.24	.65	.39
120	VCM-20-121	.35	.21	.40	.24	.65	.39
130	VCM-20-131	.35	.21	.45	.27	.70	.42
150	VCM-20-151	.35	.21	.45	.27	.75	.45
160	VCM-20-161	.35	.21	.45	.27	.80	.48
180	VCM-20-181	.35	.21	.50	.30	.85	.51
200	VCM-20-201	.40	.24	.50	.30	.95	.57
220	VCM-20-221	.40	.24	.55	.33	1.00	.60
240	VCM-20-241	.40	.24	.55	.33		
250	VCM-20-251	.40	.24	.60	.36		
270	VCM-20-271	.40	.24	.60	.36		
300	VCM-20-301	.40	.24	.60	.36		
330	VCM-20-331	.40	.24	.65	.39		
360	VCM-20-361	.40	.24	.65	.39		
390	VCM-20-391	.45	.27	.70	.42		
430	VCM-20-431	.45	.27	.75	.45		
470	VCM-20-471	.45	.27	.80	.48		
500	VCM-20-501	.50	.30	.85	.51		
510	VCM-20-511	.50	.30	.85	.51		
560	VCM-20-561	.50	.30	.90	.54		
620	VCM-20-621	.55	.33				
680	VCM-20-681	.60	.36				
750	VCM-20-751	.60	.36				
820	VCM-20-821	.65	.39				
910	VCM-20-911	.70	.42				
1000	VCM-20-102	.70	.42				
1100	VCM-20-112	.75	.45				
1200	VCM-20-122	.80	.48				
1300	VCM-20-132	.85	.51				

VCM-35 & 42 HI-VOLTAGE MOLDED SILVERED MICA

CAP. MMF.	TYPE DESIGNATION	2000VDCV 1000VDCW ±5%		3000VDCV 1500VDCW ±5%		5000VDCV 2500VDCW ±5%	
		LIST	NET	LIST	NET	LIST	NET
240	VCM-35-241	USE VCM-20		USE VCM-20		USE VCM-20	
250	VCM-35-251						
270	VCM-35-271						
300	VCM-35-301						
330	VCM-35-331	USE VCM-20		USE VCM-20		USE VCM-20	
360	VCM-35-361						
390	VCM-35-391						
430	VCM-35-431						
470	VCM-35-471						
500	VCM-35-501						
510	VCM-35-511	USE VCM-20		USE VCM-20		USE VCM-20	
560	VCM-35-561						
620	VCM-35-621						
680	VCM-35-681						
750	VCM-35-751						
820	VCM-35-821						
910	VCM-35-911						
1000	VCM-35-102						
1100	VCM-35-112						
1200	VCM-35-122						
1300	VCM-35-132						
1500	VCM-35-152						
1600	VCM-35-162						
1800	VCM-35-182						
2000	VCM-35-202						
2200	VCM-35-222	USE VCM-20		USE VCM-20		USE VCM-20	
2400	VCM-35-242						
2700	VCM-35-272						
3000	VCM-35-302						
3300	VCM-35-332						
3600	VCM-35-362						
3900	VCM-35-392						
4300	VCM-35-432						
4700	VCM-35-472						
5000	VCM-35-502						
5100	VCM-35-512	USE VCM-20		USE VCM-20		USE VCM-20	
5600	VCM-35-562						
6200	VCM-42-622						
6800	VCM-42-682						
7500	VCM-42-752						
8200	VCM-42-822						
9100	VCM-42-912						
10000	VCM-42-103						
12000	VCM-42-123						
13000	VCM-42-133						
15000	VCM-42-153	USE VCM-20		USE VCM-20		USE VCM-20	
16000	VCM-42-163						

PRICING
ON
REQUEST

PLEASE SPECIFY
WORKING VOLTAGE RATING
WHEN ORDERING

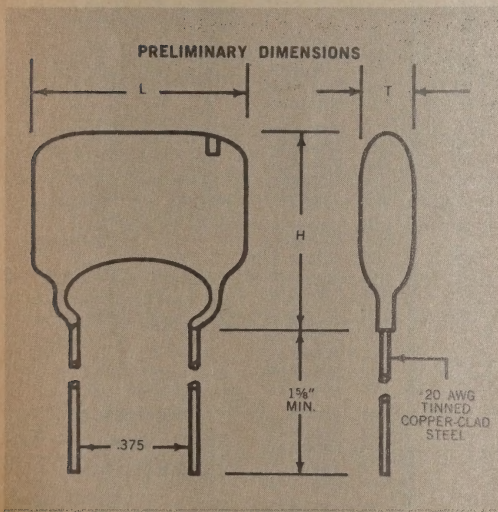
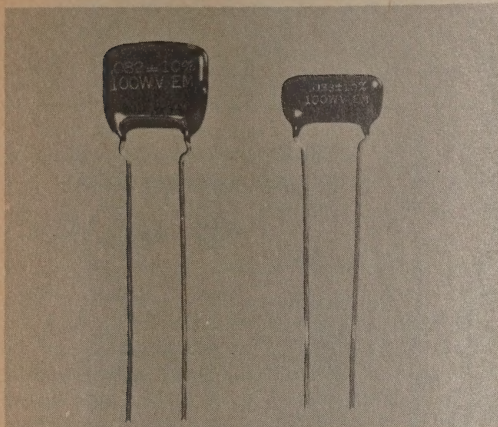
CLOSER TOLERANCES TO ±1% AVAILABLE.
PRICE AND DELIVERY INFORMATION ON REQUEST.

NET (For quantities of 25 or more, please contact your local Arco-Elmenco distributor)

ELMENCO

CAPACITORS

Epoxy-dipped Flat Mylar



These preliminary dimensions are established maximums for the four basic configurations of Type MDF. When dimensional surveys are completed on production representative of all values, individual dimensional information for each capacitance value will be published as for other dipped ELMENCO capacitors. Dimensions, particularly thickness, will vary with capacitance value.

Cap. value (mfd.)	L max.	H max.	T max.
.001 - .033	.800	$1\frac{3}{32}$	$\frac{7}{32}$
.034 - .068	.800	$\frac{5}{8}$	$\frac{1}{4}$
.069 - .15	.800	$\frac{7}{8}$	$\frac{5}{16}$
.16 - .47	.800	$1\frac{1}{8}$	$\frac{9}{16}$

The new ELMENCO Type MDF capacitor is a mylar dielectric unit dipped in a newly formulated epoxy material and shaped in the flat configuration particularly suited to saving space on printed circuit boards. Before being brought to market, the design has been carefully evaluated for more than two years to be sure that the performance of the MDF will be of a level expected of ELMENCO capacitors. This release covers the 100VDCW rated series only. Dipped mylar capacitors with other voltage ratings will be announced shortly.

The specifications for the ELMENCO Type MDF are as follows:

Voltage Rating: 100VDCW, 250VDC.

Insulation Resistance: 20,000 megohm-microfarads or 100,000 ohms, whichever is less, at 25°C.

At 85°C., the figures are 300 megohm-microfarads or 1500 megohms minimum; at 125°C., 20 and 100 respectively.

Maximum power factor at 1 kc.: 1.0%

Maximum cap. change from room temperature:

-7% at -55°C.
-3.5% at -30°C.
+4% at 85°C.
+17% at 125°C.

Capacitance drift: $\pm 1\%$ maximum.

STANDARD TOLERANCE $\pm 10\%$

Cap. mfd.	Part Number	List Price	Net Price (1-24)
.001	1MDF-1-102	\$0.25	\$0.15
.0012	1MDF-1-122	.25	.15
.0015	1MDF-1-152	.25	.15
.0018	1MDF-1-182	.25	.15
.002	1MDF-1-202	.25	.15
.0022	1MDF-1-222	.25	.15
.0027	1MDF-1-272	.25	.15
.003	1MDF-1-302	.25	.15
.0033	1MDF-1-332	.25	.15
.0039	1MDF-1-392	.25	.15
.0047	1MDF-1-472	.25	.15
.005	1MDF-1-502	.25	.15
.0051	1MDF-1-512	.25	.15
.0056	1MDF-1-562	.25	.15
.0062	1MDF-1-622	.25	.15
.0068	1MDF-1-682	.25	.15
.0075	1MDF-1-752	.25	.15
.0082	1MDF-1-822	.25	.15
.01	1MDF-1-103	.25	.15
.012	1MDF-1-123	.30	.18
.015	1MDF-1-153	.30	.18
.018	1MDF-1-183	.30	.18
.02	1MDF-1-203	.30	.18
.022	1MDF-1-223	.30	.18
.024	1MDF-1-243	.30	.18
.027	1MDF-1-273	.30	.18
.03	1MDF-1-303	.30	.18
.033	1MDF-1-333	.30	.18
.039	1MDF-2-393	.30	.18
.047	1MDF-2-473	.30	.18
.05	1MDF-2-503	.30	.18
.051	1MDF-2-513	.30	.18
.056	1MDF-2-563	.30	.18
.062	1MDF-2-623	.35	.21
.068	1MDF-2-683	.35	.21
.075	1MDF-3-753	.35	.21
.082	1MDF-3-823	.35	.21
.1	1MDF-3-104	.35	.21
.12	1MDF-3-124	.40	.24
.15	1MDF-3-154	.40	.24
.2	1MDF-4-204	.45	.27
.22	1MDF-4-224	.50	.30
.27	1MDF-4-274	.50	.36
.33	1MDF-4-334	.70	.42
.39	1MDF-4-394	.80	.48
.47	1MDF-4-474	.90	.54

ELMENCO

CAPACITORS

DIPPED TUBULARS

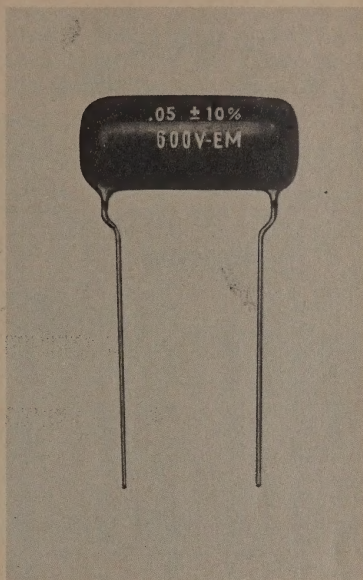
MYLAR* and MYLAR-PAPER

* Reg. DuPont Trademark

ELMENCO dipped mylar and mylar-paper capacitors represent a double break-through in capacitor design. They combine missile and computer quality with commercial radio-TV cost. A recent development is the addition of precision dipped tubular capacitors in tolerances as low as $\pm 1\%$ in addition to the popular $\pm 10\%$ general purpose unit. The only difference between the general purpose "dp" series and the industrial precision capacitors lies in the extra stabilizing processes applied to close tolerance capacitors to insure retention of accuracy in the field under operating extremes.

Elmenco Type MPD capacitors are non-inductively wound and vacuum dipped to obtain solid impregnation and a rugged, moisture-proof coat. New fabricating techniques realize the full potential of the dielectric materials utilizing most of the low-cost procedures of the exclusive Elmenco dip-coat process. The result is a product of electrical excellence with high reliability in operation at 125°C . without derating. The specifications listed on this and following pages well-illustrate the inherent quality of these capacitors.

NOTE: The 100VDCW rated dp units are pure mylar* dielectric capacitors.



SPECIFICATIONS

TOLERANCE: $\pm 10\%$, $\pm 5\%$, $\pm 2\%$, $\pm 1\%$.

VOLTAGE RATINGS: Mylar-Paper — 200, 400, 600, 1600VDCW (no derating) Mylar — 100VDCW (derate 1% per $^{\circ}\text{C}$. over 85°C .)

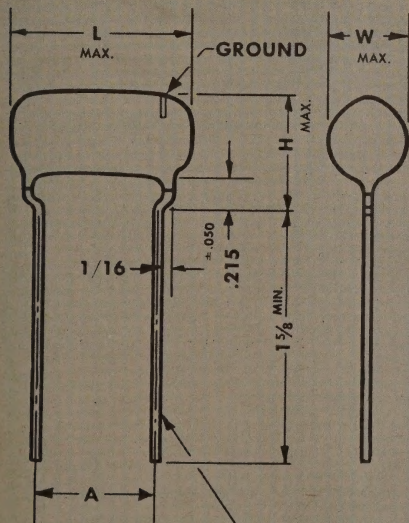
TEMPERATURE RANGE: -55 to 125°C .

INSULATION RESISTANCE:	Temperature	MYLAR-PAPER		MYLAR	
		Megohm-Microfarads Or Whichever is the lesser	Megohms	Megohm-Microfarads Or Whichever is the lesser	Megohms
	25°C .	10,000	50,000	20,000	100,000
	85°C .	200	1,000	300	1,500
	105°C .	50	250	80	400
	125°C .	15	75	20	100

POWER FACTOR: 1% maximum at 1 kc.

CAPACITANCE CHANGE VS. TEMPERATURE:

See curves on following page.



#20 (.032) TINNED ANNEALED
COPPERWELD WIRE

CASE SIZE	1	2	3	4	5	6	7	8
DIM. "A" $\pm \frac{1}{32}$	$\frac{1}{4}$	$\frac{3}{16}$	$\frac{7}{32}$	$\frac{1}{2}$	$\frac{1}{2}$	$1\frac{1}{32}$	$1\frac{1}{32}$	$1\frac{1}{32}$

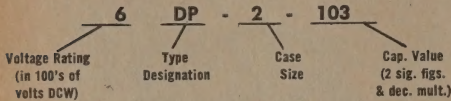
ELMenco

CAPACITORS

TYPE DP

GENERAL PURPOSE

Part Numbers:



The above example calls for a .01 mfd. capacitor with a 600VDCW voltage rating.

600VDCW

CAP. MFD.	PART NUMBER	L	W	H	LIST PRICE	NET PRICE (1-24)
.005	1DP-1-502	1 1/4	3/8	1 1/2	\$0.30	\$0.18
.006	1DP-1-602	1 1/4	3/8	1 1/2	.30	.18
.0068	1DP-1-682	1 1/4	3/8	1 1/2	.30	.18
.0075	1DP-1-752	1 1/4	3/8	1 1/2	.30	.18
.01	1DP-1-103	1 1/4	3/8	1 1/2	.30	.18
.015	1DP-1-153	2 1/2	1 1/2	1 1/2	.30	.18
.02	1DP-1-203	2 1/2	1 1/2	1 1/2	.30	.18
.022	1DP-1-223	2 1/2	1 1/2	1 1/2	.30	.18
.025	1DP-1-253	2 1/2	1 1/2	1 1/2	.30	.18
.03	1DP-1-303	2 1/2	3/8	5/8	.30	.18
.033	1DP-1-333	2 1/2	3/8	5/8	.30	.18
.04	1DP-1-403	2 1/2	3/8	5/8	.30	.18
.047	1DP-2-473	7/8	1 1/2	1 1/2	.35	.21
.05	1DP-2-503	7/8	1 1/2	1 1/2	.35	.21
.056	1DP-2-563	7/8	3/8	5/8	.35	.21
.068	1DP-2-683	7/8	1 1/2	5/8	.35	.21
.075	1DP-2-753	7/8	1 1/2	5/8	.35	.21
.1	1DP-2-104	2 1/2	1 1/4	1 1/4	.40	.24
.15	1DP-3-154	1 1/4	7/8	1 1/4	.40	.24
.2	1DP-3-204	1 3/4	1 1/2	2 1/2	.45	.27
.22	1DP-3-224	1 3/4	1 1/2	2 1/2	.45	.27
.25	1DP-3-254	1 3/4	1 1/2	2 1/2	.50	.30
.33	1DP-4-334	1 3/4	3/4	3 1/4	.60	.36
.47	1DP-4-474	1 3/4	3/4	2 1/2	.75	.45
.5	1DP-4-504	1 3/4	3/4	2 1/2	.75	.45
.68	1DP-5-684	1 1/4	1 1/4	1 1/4	.95	.57
1.0	1DP-5-105	1 1/4	3/4	1	1.20	.72

200VDCW

CAP. MFD.	PART NUMBER	L	W	H	LIST PRICE	NET PRICE (1-24)
.1	2DP-3-104	1 1/4	1/2	4 1/4	\$0.35	\$0.21
.15	2DP-3-154	1 1/4	3/4	2 1/2	.40	.24
.2	2DP-4-204	1 1/4	3/4	2 1/2	.45	.27
.22	2DP-4-224	1 1/4	3/4	2 1/2	.45	.27
.25	2DP-4-254	1 1/4	5/8	7/8	.50	.30
.33	2DP-5-334	1 1/4	5/8	1 1/4	.60	.36
.47	2DP-5-474	1 1/4	4 1/4	6 1/4	.75	.45
.5	2DP-5-504	1 1/4	4 1/4	6 1/4	.75	.45

400VDCW

CAP. MFD.	PART NUMBER	L	W	H	LIST PRICE	NET PRICE (1-24)
.01	4DP-1-103	2 1/2	1 1/2	4 1/4	\$0.25	\$0.15
.015	4DP-1-153	2 1/2	2 1/4	4 1/4	.25	.15
.02	4DP-2-203	2 1/2	1 1/4	1 1/4	.25	.15
.022	4DP-2-223	7/8	5/8	1 1/4	.30	.18
.025	4DP-2-253	7/8	1 1/2	2 1/2	.30	.18
.03	4DP-2-303	7/8	1 1/2	2 1/2	.30	.18
.033	4DP-2-333	7/8	1 1/2	2 1/2	.30	.18
.04	4DP-3-403	1 1/4	3/4	4 1/4	.35	.21
.047	4DP-3-473	1 1/4	3/4	4 1/4	.35	.21
.05	4DP-3-503	1 1/4	3/4	4 1/4	.35	.21
.056	4DP-3-563	1 1/4	3/4	4 1/4	.35	.21
.068	4DP-3-683	1 1/4	3/4	4 1/4	.40	.24
.075	4DP-3-753	1 1/4	3/4	4 1/4	.40	.24
.1	4DP-3-104	1 1/4	3/4	4 1/4	.40	.24
.15	4DP-4-154	1 1/4	4 1/4	5 1/4	.45	.27
.2	4DP-5-204	1 1/4	2 1/2	5 1/4	.55	.33
.22	4DP-5-224	1 1/4	2 1/2	5 1/4	.55	.33
.25	4DP-5-254	1 1/4	2 1/2	5 1/4	.60	.36
.27	4DP-5-274	1 1/4	4 1/4	6 1/4	.60	.36
.33	4DP-5-334	1 1/4	4 1/4	6 1/4	.90	.54
.47	4DP-6-474	1 1/4	1 1/4	1 1/4	1.10	.66
.5	4DP-6-504	1 1/4	2 1/2	1 1/2	1.20	.72

NET (For quantities of 25 or more, please contact your local Arc-Elmenco distributor)

1600 VDCW

CAP. MFD.	PART NUMBER	L	W	H	LIST PRICE	NET PRICE (1-24)
.001	16DP-2-102	7/8	1 1/2	1 1/4	\$0.40	\$0.24
.0015	16DP-2-152	7/8	1 1/2	1 1/4	.40	.24
.0018	16DP-2-182	7/8	3/8	1 1/2	.40	.24
.002	16DP-2-202	7/8	3/8	1 1/2	.40	.24
.0022	16DP-2-222	7/8	3/8	1 1/2	.40	.24
.0025	16DP-2-252	7/8	1 1/2	5/8	.45	.27
.0027	16DP-2-272	7/8	1 1/4	5/8	.45	.27
.003	16DP-2-302	7/8	1 1/4	2 1/2	.45	.27
.0033	16DP-2-332	7/8	1 1/4	2 1/2	.45	.27
.004	16DP-2-402	7/8	1 1/2	2 1/2	.45	.27
.0047	16DP-2-472	7/8	1 1/2	2 1/2	.45	.27
.005	16DP-2-502	7/8	1 1/2	3/4	.45	.27
.006	16DP-3-602	1 1/4	1 1/4	2 1/2	.50	.30
.0068	16DP-3-682	1 1/4	1 1/4	2 1/2	.50	.30
.007	16DP-3-702	1 1/4	1 1/4	2 1/2	.50	.30
.0075	16DP-3-752	1 1/4	1 1/2	2 1/2	.50	.30
.008	16DP-3-802	1 1/4	1 1/2	3/4	.50	.30
.0082	16DP-3-822	1 1/4	1 1/2	3/4	.50	.30
.01	16DP-3-103	1 1/4	1 1/2	3/4	.55	.33
.015	16DP-4-153	1 1/2	1 1/4	5 1/2	.60	.36
.018	16DP-4-183	1 1/2	1 1/4	5 1/2	.60	.36
.02	16DP-4-203	1 1/2	1 1/4	5 1/2	.60	.36
.022	16DP-5-223	1 1/4	5 1/2	7/8	.70	.42
.025	16DP-5-253	1 1/4	5 1/2	7/8	.70	.42
.03	16DP-5-303	1 1/4	1 1/4	1 1/4	.70	.42
.033	16DP-5-333	1 1/4	2 1/2	1 1/4	.70	.42
.04	16DP-5-403	1 1/4	3/4	1	.75	.45
.047	16DP-5-473	1 1/4	1 1/4	1 1/4	.80	.48
.05	16DP-5-503	1 1/4	1 1/4	1 1/4	.80	.48

ELMENCO

CAPACITORS

DIPPED TUBULARS

MYLAR* and MYLAR-PAPER

* Reg. DuPont Trademark

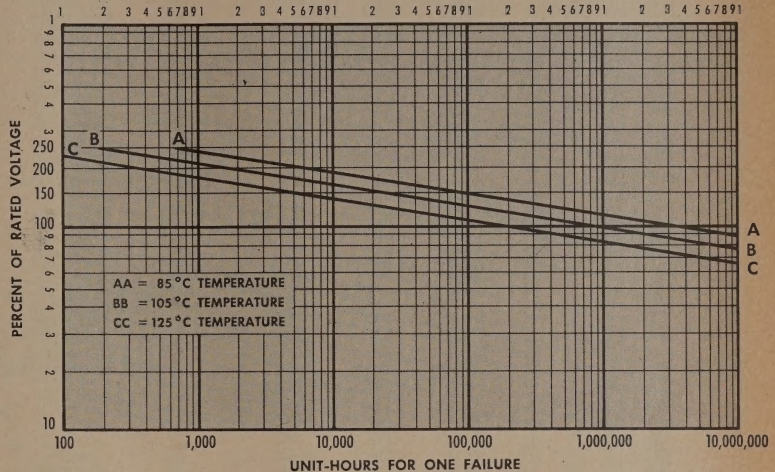
RELIABILITY

Exhaustive evaluation of ELMENCO Dipped Mylar*-Paper Capacitors has been conducted during the past four years and the product refined to its present high level of quality. The graph to the right is a plot of typical life expectancy for a theoretical 1 MFD. unit expressed in unit-hours operation to first failure as a function of voltage and temperature. It will be noted that those capacitors can be operated at 125°C. in most applications with excellent reliability.

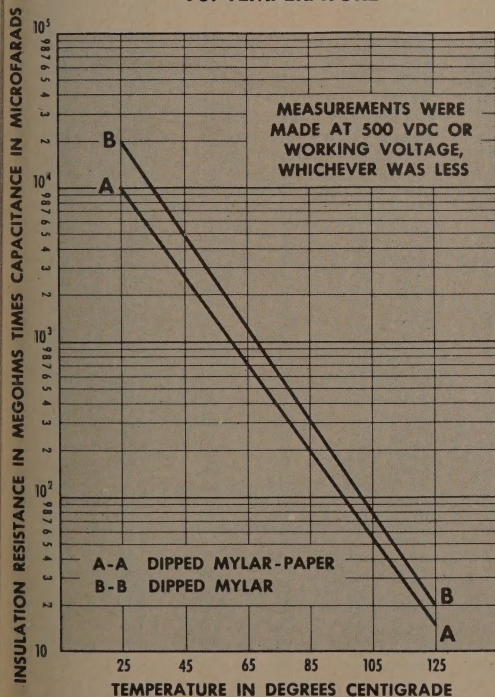
The number of unit-hours to first failure is inversely proportional to the capacitance value in mfd.

As an example, a 0.1 mfd. capacitor operated at full rated voltage and at 105°C. will have a life expectancy of $10 \times 500,000$ or 5,000,000 unit-hours to first failure. This quality level is continually verified by continuing accelerated life testing on all production.

MINIMUM LIFE EXPECTANCY FOR 1 MFD MYLAR*-PAPER DIPPED CAPACITORS AS A FUNCTION OF VOLTAGE AND TEMPERATURE

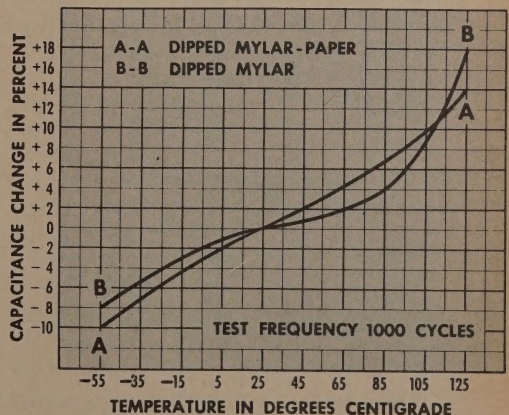


MINIMUM INSULATION RESISTANCE VS. TEMPERATURE



These curves represent characteristics as they change with temperature. They have been charted only after thorough long-term testing of thousands of capacitors to assure validity.

MAXIMUM CAPACITANCE CHANGE VS. TEMPERATURE



ELMENCO

CAPACITORS

Precision Dipped Tubular

(ELMENCO TYPES MD and MPD)

100VDCW

FOR VALUES LESS THAN .005, USE 600V UNITS

CAP. MFD.	PART NUMBER	Net Price (1-24) Tolerance			
		"K" ±10%	"J" ±5%	"G" ±2%	"F" ±1%
.005	1MD-1-502	\$0.18	\$0.27	\$1.10	\$1.38
.0051	1MD-1-512	.18	.27	1.10	1.38
.0056	1MD-1-562	.18	.27	1.10	1.38
.006	1MD-1-602	.18	.27	1.10	1.38
.0062	1MD-1-622	.18	.27	1.10	1.38
.0068	1MD-1-682	.18	.27	1.10	1.38
.0075	1MD-1-752	.18	.27	1.10	1.38
.0082	1MD-1-822	.18	.27	1.10	1.38
.0091	1MD-1-912	.18	.27	1.10	1.38
.01	1MD-1-103	.18	.27	1.10	1.38
.012	1MD-1-123	.18	.27	1.10	1.38
.015	1MD-1-153	.18	.27	1.10	1.38
.018	1MD-1-183	.18	.27	1.10	1.38
.02	1MD-1-203	.18	.27	1.10	1.38
.022	1MD-1-223	.18	.27	1.10	1.38
.024	1MD-1-243	.18	.27	1.13	1.41
.025	1MD-1-253	.18	.27	1.13	1.45
.027	1MD-1-273	.18	.27	1.15	1.45
.03	1MD-1-303	.18	.27	1.15	1.45
.033	1MD-1-333	.18	.27	1.21	1.51
.036	1MD-1-363	.18	.27	1.24	1.55
.039	1MD-1-393	.18	.27	1.24	1.55
.04	1MD-1-403	.18	.27	1.24	1.55
.043	1MD-2-433	.21	.32	1.30	1.62
.047	1MD-2-473	.21	.32	1.30	1.62
.05	1MD-2-503	.21	.32	1.37	1.71
.051	1MD-2-513	.21	.32	1.37	1.71
.056	1MD-2-563	.21	.32	1.37	1.71
.062	1MD-2-623	.21	.32	1.40	1.75
.068	1MD-2-683	.21	.32	1.43	1.79
.075	1MD-2-753	.21	.32	1.48	1.85
.082	1MD-2-823	.21	.32	1.52	1.90
.091	1MD-2-913	.21	.32	1.55	1.93
.1	1MD-2-104	.21	.32	1.57	1.96
.12	1MD-3-124	.24	.36	1.72	2.15
.15	1MD-3-154	.24	.36	1.85	2.31
.18	1MD-3-184	.27	.41	2.02	2.53
.2	1MD-3-204	.27	.41	2.12	2.64
.22	1MD-3-224	.27	.41	2.20	2.75
.25	1MD-3-254	.30	.45	2.26	2.84
.27	1MD-3-274	.36	.54	2.30	2.88
.3	1MD-3-304	.36	.54	2.34	2.93
.33	1MD-4-334	.36	.54	2.39	2.98
.39	1MD-4-394	.39	.59	2.55	3.19
.47	1MD-4-474	.45	.68	2.78	3.47
.5	1MD-4-504	.45	.68	2.80	3.63
.56	1MD-4-564	.51	.77	3.13	3.91
.62	1MD-5-624	.54	.81	3.35	4.19
.68	1MD-5-684	.57	.86	3.55	4.44
.75	1MD-5-754	.63	.95	3.80	4.75
.82	1MD-5-824	.66	.99	4.00	4.97
1.0	1MD-5-105	.72	1.08	4.38	5.45

200VDCW

FOR VALUES LESS THAN .01, USE 600V UNITS

CAP. MFD.	PART NUMBER	Net Price (1-24) Tolerance			
		"K" ±10%	"J" ±5%	"G" ±2%	"F" ±1%
.1	2MPD-3-104	\$0.21	\$0.32	\$1.65	\$2.07
.12	2MPD-3-124	.24	.36	1.81	2.27
.15	2MPD-3-154	.24	.36	1.97	2.47
.18	2MPD-3-184	.27	.41	2.13	2.66
.2	2MPD-4-204	.27	.41	2.27	2.83
.22	2MPD-4-224	.27	.41	2.40	3.00
.25	2MPD-4-254	.30	.45	2.52	3.15
.27	2MPD-4-274	.36	.54	2.67	3.33
.3	2MPD-5-304	.36	.54	2.83	3.53
.33	2MPD-5-334	.36	.54	2.98	3.73
.39	2MPD-5-394	.45	.68	3.34	4.17
.47	2MPD-5-474	.45	.68	3.65	4.56
.5	2MPD-5-504	.45	.68	3.75	4.68
.51	2MPD-5-514	.45	.68	3.75	4.68

400VDCW

FOR VALUES LESS THAN .01, USE 600 V UNITS

CAP. MFD.	PART NUMBER	Net Price (1-24) Tolerance			
		"K" ±10%	"J" ±5%	"G" ±2%	"F" ±1%
.01	4MPD-1-103	\$0.15	\$0.23	\$1.04	\$1.30
.012	4MPD-1-123	.15	.23	1.06	1.32
.015	4MPD-1-153	.15	.23	1.08	1.34
.018	4MPD-2-183	.15	.23	1.17	1.47
.02	4MPD-2-203	.15	.23	1.20	1.50

Case dimensions are the same as for Type dp capacitors listed on page 21.

Net Price (1-24) Tolerance

CAP. MFD.	PART NUMBER	Net Price (1-24) Tolerance			
		"K" ±10%	"J" ±5%	"G" ±2%	"F" ±1%
.022	4MPD-2-223	\$0.18	\$0.27	\$1.22	\$1.53
.024	4MPD-2-243	.18	.27	1.27	1.59
.025	4MPD-2-253	.18	.27	1.27	1.59
.027	4MPD-2-273	.18	.27	1.27	1.59
.03	4MPD-2-303	.18	.27	1.35	1.69
.033	4MPD-2-333	.18	.27	1.35	1.69
.036	4MPD-3-363	.18	.27	1.44	1.80
.039	4MPD-3-393	.18	.27	1.44	1.80
.04	4MPD-3-403	.18	.27	1.49	1.83
.043	4MPD-3-433	.21	.31	1.49	1.83
.047	4MPD-3-473	.21	.31	1.49	1.83
.05	4MPD-3-503	.21	.31	1.51	1.88
.051	4MPD-3-513	.21	.31	1.56	1.94
.056	4MPD-3-563	.21	.31	1.56	1.94
.062	4MPD-3-623	.24	.36	1.63	2.04
.068	4MPD-3-683	.24	.36	1.63	2.04
.075	4MPD-3-753	.24	.36	1.71	2.13
.082	4MPD-3-823	.24	.36	1.71	2.13
.091	4MPD-3-913	.24	.36	1.78	2.23
.1	4MPD-3-104	.24	.36	1.78	2.23
.12	4MPD-3-124	.27	.41	2.07	2.59
.15	4MPD-4-154	.27	.41	2.16	2.70
.18	4MPD-4-184	.33	.50	2.39	2.95
.2	4MPD-5-204	.33	.50	2.50	3.12
.22	4MPD-5-224	.33	.50	2.62	3.27
.25	4MPD-5-254	.36	.54	2.69	3.36
.27	4MPD-5-274	.36	.54	2.81	3.51
.3	4MPD-5-304	.45	.68	2.98	3.72
.33	4MPD-5-334	.45	.68	3.15	3.93
.39	4MPD-5-394	.60	.85	3.41	4.26
.47	4MPD-5-474	.66	.94	3.75	4.68
.5	4MPD-6-504	.72	1.05	4.20	5.25
.51	4MPD-6-514	.75	1.09	4.37	5.45

600VDCW

Net Price (1-24) Tolerance

CAP. MFD.	PART NUMBER	Net Price (1-24) Tolerance			
		"K" ±10%	"J" ±5%	"G" ±2%	"F" ±1%
.0025	6MPD-1-252	\$0.15	\$0.23	\$1.06	\$1.32
.0027	6MPD-1-272	.15	.23	1.06	1.32
.003	6MPD-1-302	.15	.23	1.06	1.32
.0033	6MPD-1-332	.15	.23	1.06	1.32
.0036	6MPD-1-362	.15	.23	1.06	1.32
.0039	6MPD-1-392	.15	.23	1.06	1.32
.004	6MPD-1-402	.15	.23	1.06	1.32
.0043	6MPD-1-432	.15	.23	1.06	1.32
.0047	6MPD-1-472	.15	.23	1.06	1.32
.005	6MPD-1-502	.15	.23	1.06	1.32
.0051	6MPD-1-512	.15	.23	1.06	1.32
.0056	6MPD-1-562	.15	.23	1.06	1.32
.0062	6MPD-1-622	.15	.23	1.09	1.36
.0068	6MPD-1-682	.18	.27	1.09	1.36
.0075	6MPD-2-752	.18	.27	1.10	1.38
.0082	6MPD-2-822	.18	.27	1.10	1.38
.0091	6MPD-2-912	.18	.27	1.13	1.41
.01	6MPD-2-103	.18	.27	1.13	1.41
.012	6MPD-2-123	.18	.27	1.15	1.46
.015	6MPD-2-153	.18	.27	1.15	1.46
.018	6MPD-2-183	.18	.27	1.21	1.51
.02	6MPD-2-203	.18	.27	1.26	1.57
.022	6MPD-2-223	.18	.27	1.30	1.63
.024	6MPD-2-243	.21	.31	1.36	1.71
.025	6MPD-2-253	.21	.31	1.36	1.71
.027	6MPD-3-273	.21	.31	1.36	1.71
.03	6MPD-3-303	.21	.31	1.45	1.81
.033	6MPD-3-333	.21	.31	1.45	1.81
.036	6MPD-3-363	.21	.31	1.49	1.87
.039	6MPD-3-393	.21	.31	1.49	1.87
.043	6MPD-3-433	.24	.36	1.51	1.89
.047	6MPD-3-473	.24	.36	1.51	1.89
.05	6MPD-3-503	.24	.36	1.54	1.92
.051	6MPD-3-513	.24	.36	1.54	1.92
.056	6MPD-3-563	.24	.36	1.59	1.98
.062	6MPD-3-623	.27	.41	1.72	2.14
.068	6MPD-4-683	.27	.41	1.84	2.30
.075	6MPD-4-753	.27	.41	1.88	2.34
.082	6MPD-4-823	.27	.41	1.88	2.34
.091	6MPD-4-913	.27	.41	1.95	2.43
.1	6MPD-4-104	.27	.41	1.99	2.49
.12	6MPD-5-124	.36	.54	2.21	2.76
.15	6MPD-5-154	.36	.54	2.48	3.09
.18	6MPD-5-184	.42	.66	2.71	3.39
.2	6MPD-5-204	.42	.66	2.86	3.58
.22	6MPD-5-224	.42	.66	2.98	3.72
.25	6MPD-5-254	.45	.68	3.05	3.81
.27	6MPD-5-274	.51	.77	3.34	4.17
.3	6MPD-6-304	.57	.86	3.75	4.68
.33	6MPD-6-334	.63	.95	4.18	5.20
.39	6MPD-7-394	.78	1.17	4.87	6.10
.47	6MPD-8-474	.90	1.35	5.80	7.25
.5	6MPD-8-504	.90	1.35	5.90	7.40
.51	6MPD-8-514	.90	1.35	6.00	7.50

NET (For quantities of 25 or more, please contact your local Arco-Elmenco Distributor)

ELMENCO

CAPACITORS

Variable Compression Mica

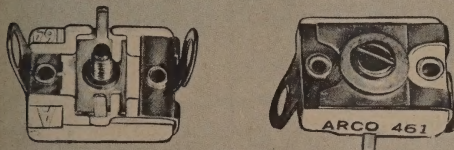
TRIMMERS

Elmenco Trimming Condensers are treated for resistance to humidity and for permanence of capacity setting.

The base is made of the lowest dielectric loss ceramic material available and the mica is clear India Ruby.

The soldering lugs may be bent in any position without affecting capacity setting due to the rigid construction of adjusting plates.

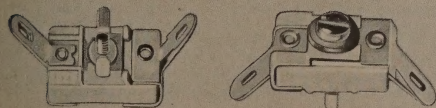
Trimmers shown here are standard sizes and capacities. Voltage 350 VDCT — 175 VDCW.



TYPE 46 STANDARD TRIMMER $\frac{3}{4}$ " x $\frac{5}{8}$ "

TYPE 46 — STANDARD TRIMMER

TYPE 46W		GUARANTEED RANGE			
PART NUMBER	NUMBER OF PLATES	At Tight Cap. Will Be More Than MMF.	At 3 Turns Open Cap. Will Be Less Than MMF.	LIST PRICE	NET PRICE (1-24)
460	1½ Pl.	15	1.5	\$0.55	\$0.33
461	1¾ Pl.	30	2.7	.55	.33
462	2 Pl.	80	5	.55	.33
463	3 Pl.	180	9	.60	.36
464	4 Pl.	280	25	.70	.42
465	5 Pl.	380	50	.75	.45
466	6 Pl.	480	80	.90	.54
467	7 Pl.	580	110	1.00	.60
468	8 Pl.	680	140	1.05	.63
469	9 Pl.	780	170	1.15	.69
4610	10 Pl.	900	190	1.30	.78
4611	11 Pl.	1000	210	1.40	.84
4612	12 Pl.	1100	240	1.55	.93
4613	13 Pl.	1200	300	1.70	1.02
4614	14 Pl.	1300	340	1.85	1.11
4615	15 Pl.	1400	390	2.00	1.20



TYPE 40 MINIATURE TRIMMER $\frac{3}{8}$ " x $\frac{3}{8}$ "

TYPE 40 — MINIATURE TRIMMER

TYPE 40		GUARANTEED RANGE			
PART NUMBER	NUMBER OF PLATES	At Tight Cap. Will Be More Than MMF.	At 3 Turns Open Cap. Will Be Less Than MMF.	LIST PRICE	NET PRICE (1-24)
400	1½ Pl.	7	0.9	\$0.55	\$0.33
402	2 Pl.	20	1.5	.55	.33
403	3 Pl.	40	4	.60	.36
404	4 Pl.	60	7	.70	.42
405	5 Pl.	80	10	.80	.48
406	6 Pl.	115	15	.85	.51

NET (For quantities of 25 or more, please contact your local Arco-Elmenco Distributor)

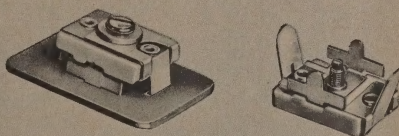


TYPE 42 MIDGET TRIMMER $\frac{3}{8}$ " x $\frac{3}{4}$ "

TYPE 42 — MIDGET TRIMMER

TYPE 42		GUARANTEED RANGE			
PART NUMBER	NUMBER OF PLATES	At Tight Cap. Will Be More Than MMF.	At 3 Turns Open Cap. Will Be Less Than MMF.	LIST PRICE	NET PRICE (1-24)
420	1½ Pl.	12	1	\$0.55	\$0.33
421	1¾ Pl.	25	2	.55	.33
422	2 Pl.	40	4	.55	.33
423	3 Pl.	100	7	.60	.36
424	4 Pl.	150	14	.70	.42
425	5 Pl.	200	24	.75	.45
426	6 Pl.	250	37	.90	.54
427	7 Pl.	300	55	1.00	.60
428	8 Pl.	350	70	1.05	.63
429	9 Pl.	400	90	1.15	.69
4210	10 Pl.	450	110	1.35	.81
4211	11 Pl.	500	130	1.50	.90
4212	12 Pl.	550	150	1.65	.99
4213	13 Pl.	600	170	1.80	1.08
4214	14 Pl.	650	190	1.90	1.14
4215	15 Pl.	700	210	2.05	1.23

TYPE PC — PRINTED CIRCUIT TRIMMERS



The Elmenco Trimmer capacitors, Types 40, 42, and 46, have been adapted for printed circuit techniques through alteration of terminals and mounting configuration. The holes in the terminal lugs are removed since necessity for hook-up is eliminated. The resulting solid terminals have greatly increased spring action, allowing the trimmer to be "snapped in" the printed circuit board and firmly held until soldered. The mounting lug portion of the trimmer has also been modified to facilitate positioning and support of the unit. Drawings of the trippers and mounting layout are available upon request at no charge.

This printed circuit style is identified by the prefix letters "PC" preceding the regular part number. All listed values are available in the PC style.

For list price add \$0.05, for net price add \$0.03, to the respective prices of the standard trimmer.

ELMENCO

CAPACITORS

Variable Compression Mica

SINGLE AND DUAL PADDERS

ELMENCO Padding Condensers have been acclaimed by engineers as the finest development in adjustable mica condensers.

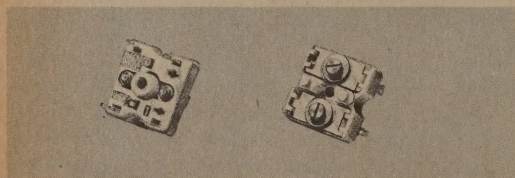
The construction is such as to completely enclose and protect the delicate edges of the mica films, made of the finest quality clear India ruby mica.

The phosphor bronze adjusting plates assure permanent resilience and freedom from mechanical fatigue. All parts are heavily plated to resist corrosion.

TYPE 30 500 Volts DC Flash-Test — 250 WVDC

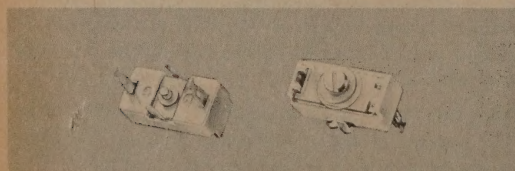
GUARANTEED RANGE					
PART NUMBER	NUMBER OF PLATES	At 1 1/4 Inch Pounds Cap. Will Be More Than MMF.	At 3 Turns Open Cap. Will Be Less Than MMF.	LIST PRICE	NET PRICE (1-24)
302	2 Pl.	130	15	\$0.90	\$0.54
303	3 Pl.	340	65	.95	.57
304	4 Pl.	550	100	1.05	.63
305	5 Pl.	760	190	1.15	.69
306	6 Pl.	970	275	1.20	.72
307	7 Pl.	1180	350	1.30	.78
308	8 Pl.	1390	450	1.40	.84
309	9 Pl.	1600	550	1.45	.87
310	10 Pl.	1890	650	1.55	.93
311	11 Pl.	2110	780	1.65	.99
312	12 Pl.	2330	880	1.75	1.05
313	13 Pl.	2605	1150	1.90	1.14
314	14 Pl.	2830	1300	2.00	1.20
315	15 Pl.	3055	1400	2.10	1.26

Screw is insulated from top plate by mica washer. Above maximum capacity values are based on using 1 1/2 to 1 3/4 Mil Mica films.

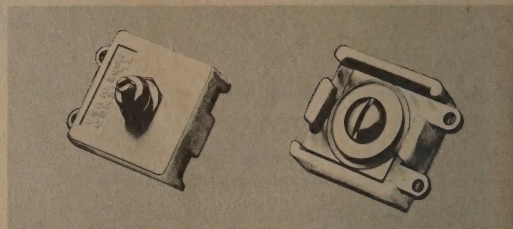


TYPE 50 DUAL PADDER — 175 VDCW

(will fit any size shield having dimensions exceeding 1 1/8" x 1 1/8")



TYPE 58 PADDER 1" x 1 1/32" — 175 VDCW



TYPE 30 AND TYPE 30-M PADDER 7/8" x 1 1/16"

TYPE 30-M 1000 Volts DC Flash-Test — 500 WVDC

GUARANTEED RANGE					
PART NUMBER	NUMBER OF PLATES	At 1 1/4 Inch Pounds Cap. Will Be More Than MMF.	At 3 Turns Open Cap. Will Be Less Than MMF.	LIST PRICE	NET PRICE (1-24)
302-M	2 Pl.	120	15	\$0.90	\$0.54
303-M	3 Pl.	320	65	1.00	.60
304-M	4 Pl.	500	100	1.10	.66
305-M	5 Pl.	690	180	1.20	.72
306-M	6 Pl.	880	265	1.30	.78
307-M	7 Pl.	1070	340	1.40	.84
308-M	8 Pl.	1260	425	1.50	.90
309-M	9 Pl.	1415	525	1.60	.96
310-M	10 Pl.	1600	615	1.70	1.02
311-M	11 Pl.	1785	730	1.80	1.08
312-M	12 Pl.	1970	800	1.90	1.14
313-M	13 Pl.	2155	1000	2.00	1.20
314-M	14 Pl.	2340	1100	2.15	1.29
315-M	15 Pl.	2525	1200	2.25	1.35

Screw is insulated from top plate by mica washer. Above maximum capacity values are based on using 2 to 2 1/4 Mil Mica.

TYPE 50

GUARANTEED RANGE					
PART NUMBER	NUMBER OF PLATES	At Tight Cap. Will Be More Than MMF.	At 2 Turns Open Cap. Will Be Less Than MMF.	LIST PRICE	NET PRICE (1-24)
502	2 Pl.	80	7.5	\$1.15	\$0.69
503	3 Pl.	160	19	1.30	.78
504	4 Pl.	240	50	1.45	.87

◀ TYPE 50 Dual Padders provide two variable trimmers mounted on a single base. This unit is designed as a tuning component for I.F. transformers; and as such, may be snap-in mounted along with the transformer coil in any size shield having dimensions exceeding 1 1/4" x 1 1/4".

TYPE 58

GUARANTEED RANGE					
PART NUMBER	NUMBER OF PLATES	At Tight Cap. Will Be More Than MMF.	At 2 Turns Open Cap. Will Be Less Than MMF.	LIST PRICE	NET PRICE (1-24)
582	2 Pl.	80	7.5	\$0.70	\$0.42
583	3 Pl.	160	19	.75	.45
584	4 Pl.	240	50	.85	.51

◀ TYPE 58 Padder is a single variable trimmer section provided with a two-pronged staple mounting for attachment to bracket or chassis. Base is made of lowest loss steatite and the mica is India Ruby.

NET (For quantities of 25 or more, please contact your local Arco-Elmenco Distributor)

ELMENCO

CAPACITORS

Variable Compression Mica Capacitors

VARIABLE COMPRESSION MICA CAPACITORS



TYPE S46

For List Price add \$0.45, For Net Price add \$0.27 to the respective prices of trimmer alone.

A complete Type 46 trimmer assembly with mounting bracket and adjusting shaft for ease of tuning. Can be supplied as pictured from stock or with construction variations to order.

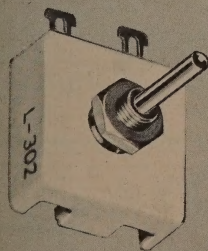
To specify precede trimmer part number with the letter "S".

For example:

Type 460 trimmer will be ordered as S-460.

The two new assemblies shown at left have been developed due to increasing demands for miniaturized tuning devices. However, certain precautions must be taken in design so that these variable mica capacitors are not used in circuits for which they are not adapted. These assemblies are highly stable for components of their design, but they do not match the stability of the air dielectric tuners. Short term drift of the mica trimmers and padders after tuning is negligible. Long term drift at one setting due to changes in atmospheric conditions and physical motion should be well within $\pm 2\%$.

It should also be remembered that variable compression type mica capacitors do not have linear variation with adjustment. Rate of change of capacity decreases per turn as the screw is withdrawn. For example, a 306 padder will reduce to half the nominal maximum value within one opening turn. Those with a greater number of plates require further screw disengagement for a similar percentage reduction in capacity value. On the other hand, a 302 padder will reach one-half the nominal maximum in less than one-half turn open. Type 46 trimmers operate in much the same way. Detailed information on specific sizes is available upon request.

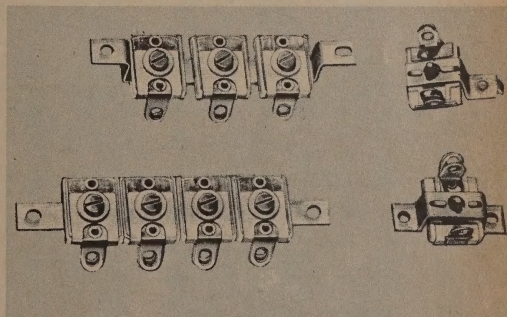


TYPE L30

For List Price add \$0.10, For Net Price add \$0.06 to the respective prices of padder alone.

The Type 30 or Type 30M padder can now be obtained with a special adjusting screw which has been lengthened to accommodate a tuning knob. To obtain a padder with the special screw, precede the regular padder part number with the letter "L". For example, a 302 padder with the special screw would be specified as "L-302".

NOTE: Knobs may also be obtained if desired at a cost of 30¢ each list, 18¢ each net.



Mounting brackets as illustrated above can be supplied for all types of trimmers in flat "Z" (single mounting hole with or without non-rotational stop), and "U" (dual mounting hole) configurations.

	List Price	Net Price (1-24)
Bracket for mounting 1 Trimmer	\$0.15	\$0.09
Bracket for mounting 2 Trimmers	.18	.11
Bracket for mounting 3 Trimmers	.21	.13
Bracket for mounting 4 Trimmers	.24	.14
Bracket for mounting 5 Trimmers	.27	.16
Bracket for mounting 6 Trimmers	.30	.18

ARCO CAPACITORS

Hermetically-Sealed Variable Compression-Type Mica Capacitors

HERMETICALLY-SEALED VARIABLE COMPRESSION-TYPE MICA CAPACITOR

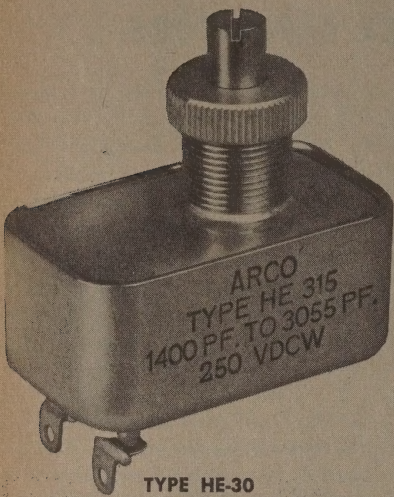
ARCO introduces the first hermetically-sealed variable compression-type mica capacitor. Designated as Types HE-30 and HE-30M, these units employ a specially designed enclosure that protects them against the effects of moisture, pressure variation, fungus, salt spray, dust, and mechanical damage. Additionally, the case provides effective electrostatic shielding.

The basic capacitor design is the time-tested Type 30 padder with established reliability verified by more than 25 years of operational experience.

The enclosure measures $1\frac{1}{4}$ " by $\frac{1}{2}$ " by $\frac{3}{4}$ " deep. The drawn brass can is hot tin dipped and all mechanical parts are nickel-plated brass. The capacitor element is completely insulated from the case and connection is made at the rear by means of two lugs mounted on glass-to-metal seals. The unit is designed for single-hole panel mounting using a $\frac{1}{32}$ "—32 bushing. A bushing nut is furnished as part of the assembly. Rotational control can be either by means of a screwdriver slot at the end of the $\frac{1}{4}$ " shaft or by means of a standard knob of the user's own choice. The rotary shaft seal enhances the stability of the shaft setting under conditions of shock and vibration. For complete locking of the shaft after adjustment, an accessory shaft lock is available. This shaft lock also provides redundant protection where the ultimate in reliability is needed.

The HE-30 is a 250VDC rated series in 14 discreet capacitance ranges from 15-130 PF to 1400-3055 PF. The HE-30M is a 500VDC rated series, also in 14 similar ranges from 15-120 PF to 1200-2525 PF. These are guaranteed minimum ranges in three turns of adjustment. Dissipation factor at 1MC is better than .001. Insulation resistance is better than 100,000 megohms.

Stability of the capacitance varies with the particular setting, however, a conservative design limit is a maximum of $\pm 3\%$ change caused by all combinations of temperature cycling, vibration, shock, hysteresis, etc. As the extremes of environment are reduced toward laboratory conditions, the stability will be improved at least ten-fold or to $\pm 0.3\%$. Operating temperature range is -55°C. to $+85^{\circ}\text{C.}$



TYPE HE-30

500 Volts DC Flash-Test — 250 WVDC

GUARANTEED RANGE

PART NUMBER	NUMBER OF PLATES	At 3 Inch Pounds Cap. Will Be More Than MMF.	At 3 Turns Open Cap. Will Be Less Than MMF.	NET PRICE (1-24)
HE-302	2 Pl.	130	15	\$6.63
HE-303	3 Pl.	340	65	6.66
HE-304	4 Pl.	550	100	6.72
HE-305	5 Pl.	760	190	6.78
HE-306	6 Pl.	970	275	6.84
HE-307	7 Pl.	1180	350	6.90
HE-308	8 Pl.	1390	450	6.96
HE-309	9 Pl.	1600	550	7.02
HE-310	10 Pl.	1890	650	7.08
HE-311	11 Pl.	2110	780	7.17
HE-312	12 Pl.	2330	880	7.23
HE-313	13 Pl.	2605	1150	7.29
HE-314	14 Pl.	2830	1300	7.38
HE-315	15 Pl.	3055	1400	7.47

Screw is insulated from capacitor element by mica washer. Above maximum capacity values are based on using $1\frac{1}{2}$ to $1\frac{3}{4}$ Mil Mica films.

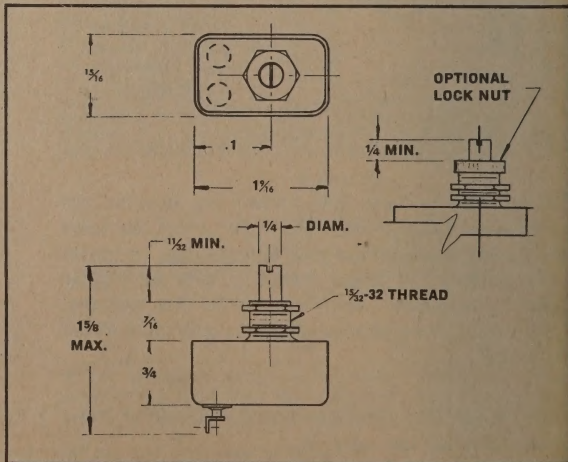
TYPE HE-30M

1000 Volts DC Flash-Test — 500 WVDC

GUARANTEED RANGE

PART NUMBER	NUMBER OF PLATES	At 3 Inch Pounds Cap. Will Be More Than MMF.	At 3 Turns Open Cap. Will Be Less Than MMF.	NET PRICE (1-24)
HE-302-M	2 Pl.	120	15	\$6.63
HE-303-M	3 Pl.	320	65	6.69
HE-304-M	4 Pl.	500	100	6.75
HE-305-M	5 Pl.	690	180	6.81
HE-306-M	6 Pl.	880	265	6.90
HE-307-M	7 Pl.	1070	340	6.96
HE-308-M	8 Pl.	1260	425	7.02
HE-309-M	9 Pl.	1415	525	7.11
HE-310-M	10 Pl.	1600	615	7.17
HE-311-M	11 Pl.	1785	730	7.26
HE-312-M	12 Pl.	1970	800	7.35
HE-313-M	13 Pl.	2155	1000	7.41
HE-314-M	14 Pl.	2340	1100	7.50
HE-315-M	15 Pl.	2525	1200	7.62

Screw is insulated from capacitor element by mica washer. Above capacity values are based on using 2 to 2 $\frac{1}{4}$ Mil Mica.

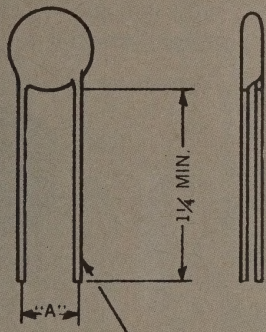


ARCO CAPACITORS

CERAMIC DISC

GENERAL INFORMATION

Arco ceramic disc capacitors exhibit a level of performance and reliability consistent with conservative design technique inherent in all Arco components. Higher voltage ratings improve reliability manyfold and provide extra reserve for resistance to surges and temporary overloads. Rugged phenolic coating and high temperature wax impregnation give superior moisture resistance and physical strength. Arco ceramic discs have been designed to minimum size obtainable with complete retention of original specifications while operating in the field. For original equipment or for replacement, Arco ceramic disc capacitors may be used with confidence.



#20 (.032)
TINNED ANNEALED
COPPERWELD WIRE

DIM. A*	DISC DIA.
.250	UNDER 1/2"
.375	1/2" AND OVER

* Below 5 mmf. .300 x 3/16" Thick max.

CERAMIC DISC SIZE TABULATION

Max. Diam.	Capacitance range (mmf.)					
	CCD	3CCD	6CCD	CCS	CCTO	CCTN
3/16"	5-1200			150-330	2.2-15	5-39
3/8"	1500-3300	4.7-680		390-620	18-24	47-68
1/4"	3900-5000	820-1000		680-1000	27-39	75-120
5/16"	5600-8200	2000	4.7-560	1200-1500	47-56	150
3/8"	10000-15000	3000		1800-2700	68-82	200-270
3/4"	20000	4000	680-1000	3000-3300	100	300-330
1 1/8"	30000-50000*	5000	2000	3900-4700	120-150	390-470

Maximum thickness: Types CCD, CCS, CCTO, CCTN — 3/32" max.

*CCD-503 — 3/16" max.

**Type CCTO below 5 mmf. is .300 x 3/16" max.

Type 3CCD — 1/4" max.

Type 6CCD — 3/16" max.

NET (For quantities of 25 or more, please contact your local Arco-Elmenco Distributor)

MINIATURE GENERAL PURPOSE

Arco Type CCD ceramic disc capacitors have improved ceramic bodies which impart longer life and greater stability to any application. The standard CCD line has a $\pm 10\%$ tolerance and 1000VDCW rating, making possible a single ceramic disc stock for universal use. Whether a broad coupling or by-pass application, or a critical close tolerance use, Arco CCD units fill the bill with dependability and economy. The "space-saving" size of Arco discs is another feature designed to offer greater service convenience with complete safety of operation. In addition to the 1000VDCW line, higher voltage ratings are available in Type CCD units. 3000VDCW (Type 3CCD) and 6000VDCW (Type 6CCD) disc ceramics are supplied in tolerance of $\pm 20\%$.



TYPE CCD

$\pm 10\%$ TOLERANCE
1000 VDCW

CAP. MMF.	PART NUMBER	LIST PRICE	NET PRICE (1-24)	CAP. MMF.	PART NUMBER	LIST PRICE	NET PRICE (1-24)
5	CCD-050	\$0.25	\$0.15	400	CCD-401	.25	.15
10	CCD-100	.25	.15	470	CCD-471	.25	.15
12	CCD-120	.25	.15	500	CCD-501	.25	.15
15	CCD-150	.25	.15	560	CCD-561	.25	.15
18	CCD-180	.25	.15	680	CCD-681	.25	.15
20	CCD-200	.25	.15	750	CCD-751	.25	.15
22	CCD-220	.25	.15	800	CCD-801	.25	.15
25	CCD-250	.25	.15	820	CCD-821	.25	.15
27	CCD-270	.25	.15	1000	CCD-102	.25	.15
30	CCD-300	.25	.15	1200	CCD-122	.25	.15
33	CCD-330	.25	.15	1500	CCD-152	.25	.15
39	CCD-390	.25	.15	2000	CCD-202	.25	.15
47	CCD-470	.25	.15	2200	CCD-222	.25	.15
50	CCD-500	.25	.15	2500	CCD-252	.25	.15
56	CCD-560	.25	.15	2700	CCD-272	.25	.15
68	CCD-680	.25	.15	3000	CCD-302	.25	.15
75	CCD-750	.25	.15	3300	CCD-332	.25	.15
82	CCD-820	.25	.15	3900	CCD-392	.25	.15
91	CCD-910	.25	.15	4700	CCD-472	.25	.15
100	CCD-101	.25	.15	5000	CCD-502	.30	.18
120	CCD-121	.25	.15	5600	CCD-562	.30	.18
150	CCD-151	.25	.15	6800	CCD-682	.30	.18
180	CCD-181	.25	.15	8200	CCD-822	.30	.18
200	CCD-201	.25	.15	10000	CCD-103	.30	.18
220	CCD-221	.25	.15	15000*	CCD-153	.30	.18
250	CCD-251	.25	.15	20000*	CCD-203	.30	.18
270	CCD-271	.25	.15	30000†	CCD-303	.50	.30
300	CCD-301	.25	.15	40000‡	CCD-403	.60	.36
330	CCD-331	.25	.15	50000‡	CCD-503	.70	.42
390	CCD-391	.25	.15				

* $\pm 20\%$ tolerance
† 500VDCW, $\pm 20\%$ tolerance
‡ 500VDCW, $\pm 80 - 20\%$ tolerance

ARCO CAPACITORS

CERAMIC DISC

MINIATURE GENERAL PURPOSE

TYPE 3CCD

High Voltage
±20% TOLERANCE
3000 VDCW

(not recommended for deflection yoke application)

CAP. MMF.	PART NUMBER	LIST PRICE	NET PRICE (1-24)	CAP. MMF.	PART NUMBER	LIST PRICE	NET PRICE (1-24)
4.7	3CCD-4R7	\$0.40	\$0.24	180	3CCD-181	\$0.40	\$0.24
6.8	3CCD-6R8	.40	.24	220	3CCD-221	.40	.24
10	3CCD-100	.40	.24	270	3CCD-271	.40	.24
15	3CCD-150	.40	.24	330	3CCD-331	.40	.24
22	3CCD-220	.40	.24	390	3CCD-391	.40	.24
27	3CCD-270	.40	.24	470	3CCD-471	.40	.24
33	3CCD-330	.40	.24	560	3CCD-561	.40	.24
39	3CCD-390	.40	.24	680	3CCD-681	.40	.24
47	3CCD-470	.40	.24	820	3CCD-821	.40	.24
56	3CCD-560	.40	.24	1000	3CCD-102	.40	.24
68	3CCD-680	.40	.24	2000	3CCD-202	.40	.24
82	3CCD-820	.40	.24	3000	3CCD-302	.40	.24
100	3CCD-101	.40	.24	4000	3CCD-402	.40	.24
120	3CCD-121	.40	.24	5000	3CCD-502	.40	.24
150	3CCD-151	.40	.24				

TYPE 6CCD

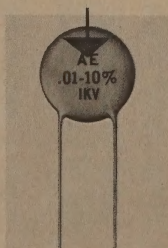
High Voltage
±20% TOLERANCE
6000 VDCW

(not recommended for deflection yoke application)

CAP. MMF.	PART NUMBER	LIST PRICE	NET PRICE (1-24)	CAP. MMF.	PART NUMBER	LIST PRICE	NET PRICE (1-24)
4.7	6CCD-4R7	\$0.60	\$0.36	100	6CCD-101	\$0.60	\$0.36
6.8	6CCD-6R8	.60	.36	120	6CCD-121	.60	.36
10	6CCD-100	.60	.36	150	6CCD-151	.60	.36
15	6CCD-150	.60	.36	220	6CCD-221	.60	.36
22	6CCD-220	.60	.36	330	6CCD-331	.60	.36
27	6CCD-270	.60	.36	470	6CCD-471	.60	.36
33	6CCD-330	.60	.36	560	6CCD-561	.70	.42
47	6CCD-470	.60	.36	680	6CCD-681	.70	.42
56	6CCD-560	.60	.36	820	6CCD-821	.70	.42
68	6CCD-680	.60	.36	1000	6CCD-102	.70	.42
82	6CCD-820	.60	.36	2000	6CCD-202	.70	.42



LOOK
for the
"AE"
brand
on all
ARCO
disc
ceramic
capacitors



ARCO disc ceramic capacitors are now packed in durable, compact plastic boxes at no extra cost. Each box contains five disc ceramic capacitors of the desired rating. Leads are kept straight ... capacitors are always factory clean. Available at ARCO distributors everywhere.

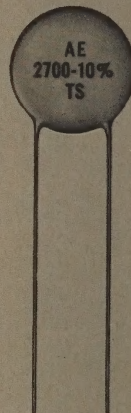
TEMPERATURE STABLE

This new ARCO ceramic capacitor maintains excellent capacitance stability with wide temperature variation. The graph illustrates typical percentage variation of capacity value with temperature. The operating temperature range has been extended to $-55^{\circ}\text{C}.$ to $+125^{\circ}\text{C}.$ without derating of the 1000VDCW specification. Standard tolerance is $\pm 10\%$. The combined small size, low cost, and high stability represents another significant advance in the quality line of ARCO capacitors. All units are marked "TS" for identification.

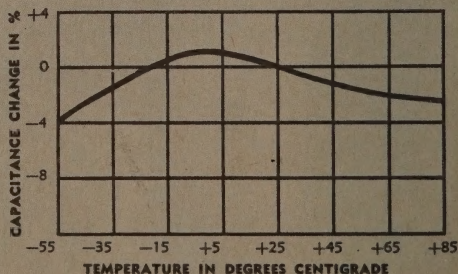
TYPE CCS

±10% TOLERANCE
1000 VDCW

CAP. MMF.	PART NUMBER	LIST PRICE	NET PRICE (1-24)
150	CCS-151	\$0.30	\$0.18
180	CCS-181	.30	.18
200	CCS-201	.30	.18
220	CCS-221	.30	.18
250	CCS-251	.30	.18
270	CCS-271	.30	.18
300	CCS-301	.30	.18
330	CCS-331	.30	.18
390	CCS-391	.30	.18
470	CCS-471	.30	.18
500	CCS-501	.30	.18
560	CCS-561	.30	.18
620	CCS-621	.30	.18
680	CCS-681	.30	.18
750	CCS-751	.30	.18
820	CCS-821	.35	.21
1000	CCS-102	.35	.21
1200	CCS-122	.35	.21
1500	CCS-152	.35	.21
1800	CCS-182	.35	.21
2000	CCS-202	.35	.21
2200	CCS-222	.35	.21
2500	CCS-252	.40	.24
2700	CCS-272	.40	.24
3000	CCS-302	.40	.24
3300	CCS-332	.40	.24
3900	CCS-392	.40	.24
4700	CCS-472	.40	.24



TYPICAL CURVE
CAPACITANCE CHANGE WITH TEMPERATURE



NET (For quantities of 25 or more, please contact your local Arco-Elmenco Distributor)

ARCO CAPACITORS**CERAMIC DISC****TEMPERATURE COMPENSATING****TYPE CCTO**

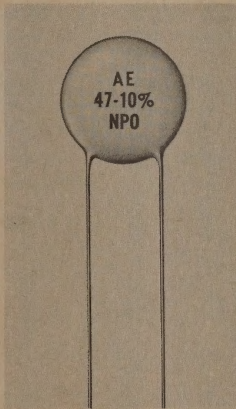
Arco Type CCTO ceramic disc capacitors are zero temperature coefficient units specifically suited for high stability, high Q application. In addition to extreme temperature stability, Type CCTO capacitors have very high insulation resistance and low aging rate. These special characteristics are added to the high 1000VDCW rating and close tolerance of the entire Arco ceramic line to provide a superior capacitor for the special purpose intended. Type CCTO capacitors are identified by "NPO" printed on each unit.

NPO-TYPE CCTO

±10% TOLERANCE
1000 VDCW

CAP. MMF.	PART NUMBER	LIST PRICE	NET PRICE (1-24)
2.2*	CCTO-2R2	\$0.50	\$0.30
3.3*	CCTO-3R3	.50	.30
4.7*	CCTO-4R7	.50	.30
5.0	CCTO-050	.50	.30
6.8	CCTO-6R8	.50	.30
10	CCTO-100	.50	.30
12	CCTO-120	.50	.30
15	CCTO-150	.50	.30
18	CCTO-180	.50	.30
20	CCTO-200	.50	.30
22	CCTO-220	.50	.30
24	CCTO-240	.50	.30
27	CCTO-270	.50	.30
30	CCTO-300	.50	.30
33	CCTO-330	.50	.30
36	CCTO-360	.50	.30
39	CCTO-390	.50	.30
47	CCTO-470	.50	.30
51	CCTO-510	.55	.33
56	CCTO-560	.55	.33
68	CCTO-680	.55	.33
75	CCTO-750	.55	.33
82	CCTO-820	.55	.33
100	CCTO-101	.55	.33
120	CCTO-121	.55	.33
150	CCTO-151	.55	.33

*±.5 mmf. tolerance

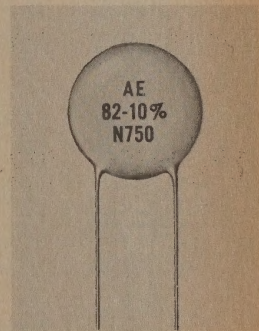
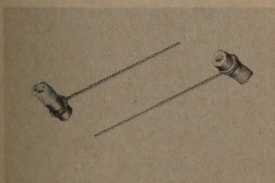
**TYPE CCTN**

Another member of the Arco temperature compensating disc ceramic line is the Type CCTN unit which has a negative temperature coefficient of -750 ppm/°C. (N750). These units are used to counterbalance shifts in other circuit components with change in temperature. The result is a more stable circuit essential to many frequency control applications. Improved ceramic bodies in the temperature compensating line provide greater long term stability in addition to accurate temperature compensation. Type CCTN capacitors are identified by "N750" imprinted on each unit except the smallest size. On the small units the E.I.A. temperature coefficient designation "U2" is imprinted.

N750-TYPE CCTN

±10% TOLERANCE
1000 VDCW

CAP. MMF.	PART NUMBER	LIST PRICE	NET PRICE (1-24)
5	CCTN-050	\$0.50	\$0.30
10	CCTN-100	.50	.30
15	CCTN-150	.50	.30
22	CCTN-220	.50	.30
27	CCTN-270	.50	.30
33	CCTN-330	.50	.30
39	CCTN-390	.50	.30
47	CCTN-470	.50	.30
56	CCTN-560	.50	.30
62	CCTN-620	.50	.30
68	CCTN-680	.50	.30
75	CCTN-750	.50	.30
82	CCTN-820	.50	.30
100	CCTN-101	.50	.30
120	CCTN-121	.50	.30
150	CCTN-151	.50	.30
200	CCTN-201	.50	.30
220	CCTN-221	.50	.30
270	CCTN-271	.50	.30
300	CCTN-301	.50	.30
330	CCTN-331	.50	.30
390	CCTN-391	.50	.30
470	CCTN-471	.50	.30

**VARIABLE CERAMIC TRIMMER**

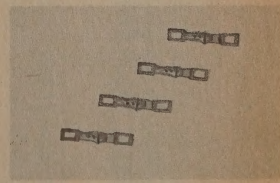
Adjustable ceramic trimmer capacitor for high frequency applications. Silvered Steatite tubes 5/8" in length provide capacity ranges listed below upon insertion of 6-32 screw.

PART No.	CAP. RANGE MMF.	LIST PRICE	NET PRICE (1-24)
CV-1	0.5 - 3	\$0.35	\$0.21
CV-2	1 - 4	.35	.21
CV-3	2 - 6	.35	.21

NET (For quantities of 25 or more, please contact your local Arco-Elmenco distributor)

FEED THRU CERAMICS

Compact rugged ceramic feed through capacitors are designed for high frequency coupling with a minimum of inductive reactance through elimination of wire leads. These units are three dot EIA coded and rated at 500VDCW.



PART No.	CAP. (MMF.) (Guar. Min. Val.)	LIST PRICE	NET PRICE (1-24)
CCF-501	500	\$0.40	\$0.24
CCF-102	1000	.40	.24
CCF-152	1500	.40	.24
CCF-202	2000	.40	.24

ARCO CAPACITORS

Miniature Aluminum Electrolytics Type ME

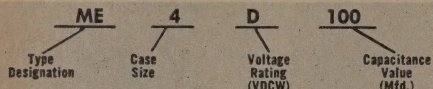
Type ME Miniature Aluminum-cased Electrolytics are the latest addition to the Arcolytic capacitor line. They use the same high purity (99.99%) etched aluminum foil as the standard size Arcolitics. The design of the ME is particularly adapted to the latest transistorized circuitry which features low voltages and compactness of structure.

OPERATING TEMPERATURE RANGE: -30°C. to +85°C.

TOLERANCE: -10%, +100%

LEADS: Axial, 1½", #20 tinned copper

NOMENCLATURE: The part numbers for each Type ME value incorporate case size, voltage and capacitance:-

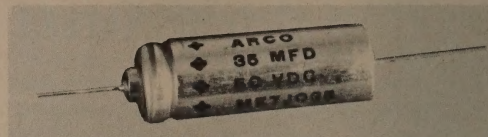


The example describes a 100 mfd. 12V capacitor, case size ¾" x ¾".

VOLTAGE RATINGS: Working voltages begin as low as 3 VDCW and extend to 350 VDCW. The voltage ratings are:-

Letter Designation	A	B	D	E	G	J	M	N	R	T
VDCW	3	6	12	15	25	50	100	150	250	350

STANDARD PACKAGING is in units of 5 in a custom-designed box which protects straight leads and allows visual observation of quantity through a clear plastic window.



Type ME capacitors have an all-welded construction which provides increased ruggedness and resistance to environmental extremes. Corrosion and electrolyte leakage is eliminated. Electrically, they exhibit extremely low leakage current and maintain extended shelf life without deterioration. All units are insulated with a transparent plastic sleeve permanently bonded to the aluminum body.

CASE SIZE: Type ME capacitors are made in 8 different case sizes:

CASE SIZE	DIMENSION	CASE SIZE	DIMENSION
1	¼" D x ⅝" L	5	¾" D x ⅞" L
2	¼" D x ¾" L	6	¾" D x 1" L
3	¾" D x ⅝" L	7	¾" D x 1 ⅛" L
4	¾" D x ¾" L	8	¾" D x 1 ⅜" L

The insulating plastic sleeve adds ⅛" x ⅛" to case dimensions.

3VDCW				12VDCW				25VDCW (cont.)			
CAP. MFD.	PART NUMBER	LIST PRICE	NET PRICE (1-24)	CAP. MFD.	PART NUMBER	LIST PRICE	NET PRICE (1-24)	CAP. MFD.	PART NUMBER	LIST PRICE	NET PRICE (1-24)
1	ME-1-A-001	\$1.25	\$0.75	1	ME-1-D-001	\$1.25	\$0.75	35	ME-4-G-035	\$1.65	\$0.99
2	ME-1-A-002	1.25	.75	2	ME-1-D-002	1.25	.75	40	ME-4-G-040	1.65	.99
3	ME-1-A-003	1.25	.75	3	ME-1-D-003	1.25	.75	50	ME-4-G-050	1.65	.99
4	ME-1-A-004	1.25	.75	4	ME-1-D-004	1.25	.75	75	ME-7-G-075	1.70	1.02
5	ME-1-A-005	1.25	.75	5	ME-1-D-005	1.35	.81	100	ME-7-G-100	1.75	1.05
6	ME-1-A-006	1.25	.75	6	ME-1-D-006	1.35	.81		50VDCW		
8	ME-1-A-008	1.25	.75	8	ME-1-D-008	1.35	.81	1	ME-1-J-001	1.30	.78
10	ME-1-A-010	1.25	.75	10	ME-1-D-010	1.35	.81	2	ME-1-J-002	1.35	.81
15	ME-1-A-015	1.25	.75	15	ME-1-D-015	1.40	.84	3	ME-1-J-003	1.35	.81
20	ME-1-A-020	1.25	.75	20	ME-1-D-020	1.40	.84	4	ME-1-J-004	1.35	.81
25	ME-1-A-025	1.25	.75	25	ME-1-D-025	1.40	.84	5	ME-1-J-005	1.45	.87
30	ME-2-A-030	1.25	.75	30	ME-3-D-030	1.45	.87	6	ME-1-J-006	1.45	.87
35	ME-2-A-035	1.25	.75	35	ME-3-D-035	1.45	.87	8	ME-2-J-008	1.50	.90
40	ME-2-A-040	1.25	.75	40	ME-3-D-040	1.50	.90	10	ME-2-J-010	1.50	.90
50	ME-2-A-050	1.25	.75	50	ME-3-D-050	1.55	.93	15	ME-4-J-015	1.50	.90
75	ME-3-A-075	1.40	.84	75	ME-4-D-075	1.65	.99	20	ME-4-J-020	1.50	.90
100	ME-3-A-100	1.40	.84	100	ME-4-D-100	1.65	.99	25	ME-4-J-025	1.55	.93
125	ME-4-A-125	1.45	.87	150	ME-8-D-150	1.75	1.05	30	ME-4-J-030	1.60	.96
150	ME-4-A-150	1.45	.87	200	ME-8-D-200	1.90	1.14	35	ME-7-J-035	1.70	1.02
175	ME-4-A-175	1.50	.90	250	ME-8-D-250	2.00	1.20	40	ME-7-J-040	1.75	1.05
200	ME-4-A-200	1.50	.90		15VDCW			40	ME-7-J-050	1.75	1.05
250	ME-4-A-250	1.60	.96	1	ME-1-E-001	1.25	.75		100VDCW		
300	ME-7-A-300	1.65	.99	2	ME-1-E-002	1.25	.75	1	ME-1-M-001	1.35	.81
350	ME-7-A-350	1.70	1.02	3	ME-1-E-003	1.25	.75	2	ME-1-M-002	1.40	.84
400	ME-7-A-400	1.70	1.02	4	ME-1-E-004	1.30	.78	3	ME-1-M-003	1.40	.84
450	ME-7-A-450	1.75	1.05	5	ME-1-E-005	1.40	.84	4	ME-3-M-004	1.40	.84
500	ME-7-A-500	1.75	1.05	6	ME-1-E-006	1.40	.84	5	ME-3-M-005	1.50	.90
	6VDCW			8	ME-1-E-008	1.40	.84	6	ME-3-M-006	1.50	.90
1	ME-1-B-001	1.25	.75	10	ME-1-E-010	1.40	.84	8	ME-4-M-008	1.55	.93
2	ME-1-B-002	1.25	.75	15	ME-1-E-015	1.45	.87	10	ME-4-M-010	1.55	.93
3	ME-1-B-003	1.25	.75	20	ME-1-E-020	1.45	.87	15	ME-7-M-015	1.55	.93
4	ME-1-B-004	1.25	.75	25	ME-1-E-025	1.45	.87	20	ME-7-M-020	1.60	.96
5	ME-1-B-005	1.25	.75	30	ME-3-E-030	1.50	.90	25	ME-7-M-025	1.60	.96
6	ME-1-B-006	1.25	.75	35	ME-3-E-035	1.55	.93		150VDCW		
8	ME-1-B-008	1.35	.81	40	ME-3-E-040	1.60	.96	1	ME-3-N-001	1.40	.84
10	ME-1-B-010	1.35	.81	50	ME-3-E-050	1.60	.96	2	ME-3-N-002	1.45	.87
15	ME-1-B-015	1.35	.81	75	ME-4-E-075	1.60	.96	3	ME-4-N-003	1.45	.87
20	ME-1-B-020	1.35	.81	100	ME-4-E-100	1.65	.99	4	ME-4-N-004	1.45	.87
25	ME-1-B-025	1.35	.81	150	ME-8-E-150	1.75	1.05	5	ME-4-N-005	1.55	.93
30	ME-2-B-030	1.40	.84	200	ME-8-E-200	1.95	1.17	6	ME-4-N-006	1.55	.93
35	ME-2-B-035	1.40	.84	250	ME-8-E-250	2.05	1.23	8	ME-6-N-008	1.60	.96
40	ME-2-B-040	1.40	.84		25VDCW			10	ME-6-N-010	1.60	.96
50	ME-2-B-050	1.40	.84	1	ME-1-G-001	1.25	.75	12	ME-6-N-012	1.60	.96
60	ME-2-B-060	1.40	.84	2	ME-1-G-002	1.30	.78	15	ME-7-N-015	1.60	.96
75	ME-3-B-075	1.45	.87	3	ME-1-G-003	1.30	.78	20	ME-7-N-020	1.60	.96
100	ME-3-B-100	1.50	.90	4	ME-1-G-004	1.30	.78		250VDCW		
125	ME-6-B-125	1.55	.93	5	ME-1-G-005	1.40	.84	1	ME-3-R-001	1.70	1.02
150	ME-6-B-150	1.55	.93	6	ME-1-G-006	1.40	.84	2	ME-3-R-002	1.70	1.02
175	ME-6-B-175	1.60	.96	8	ME-1-G-008	1.45	.87	5	ME-6-R-005	1.80	1.08
200	ME-6-B-200	1.60	.96	10	ME-1-G-010	1.45	.87		350VDCW		
250	ME-6-B-250	1.70	1.02	15	ME-3-G-015	1.45	.87	1	ME-3-T-001	1.75	1.05
300	ME-8-B-300	1.80	1.08	20	ME-3-G-020	1.50	.90	2	ME-5-T-002	1.75	1.05
400	ME-8-B-400	1.85	1.11	25	ME-3-G-025	1.55	.93				
500	ME-8-B-500	1.90	1.14	30	ME-3-G-030	1.60	.96				

NET (For quantities of 25 or more, please contact your local Arco-Elmenco distributor)

ARCO CAPACITORS

Tubular Electrolytic Capacitors

ArcoLytic®

CTA-1435

**20 MFD. 450 W.V.D.C.
DRY ELECTROLYTIC**

ARCOLYTIC TUBULARS

- Made with 99.99% high purity aluminum foil.
- Maximum operating temperature: 85°C.
(Type CTW: 75°C.)
- Extended shelf and operating life at both normal and elevated temperatures.
- Built and tested to meet EIA specification RS-154.

Type CTA Single and multiple section tubular electrolytics in drawn aluminum cans with cardboard sleeves. Single section units have bare wire leads with negative grounded to can. Multiple units have a common negative grounded to can, and all leads have vari-colored insulated wire for ease of identification.

DIMENSIONS INDICATED FOR CTA ARE ALUMINUM CAN SIZE. ADD $\frac{1}{8}$ to DIAMETER AND $\frac{3}{8}$ to LENGTH FOR CARDBOARD INSULATING SLEEVE.

Type CTW Same as type CTA except that these are multiple section electrolytics in wax-filled cardboard tubes.

SINGLE UNITS

Catalog No.	Capacity MFD.	WVDC	Diam. x Length	List Price	Net Price (1-24)
CTA-1050	50	6	$\frac{1}{2}$ x $1\frac{1}{4}$	.95	.57
CTA-1055	100	6	$\frac{1}{2}$ x $1\frac{1}{4}$	1.20	.72
CTA-1060	250	6	$\frac{5}{8}$ x $1\frac{3}{4}$	1.35	.81
CTA-1065	500	6	$\frac{3}{4}$ x $1\frac{3}{4}$	1.55	.93
CTA-1070	1000	6	$\frac{3}{4}$ x $2\frac{1}{4}$	1.90	1.14
CTA-1075	1500	6	1 x $2\frac{1}{4}$	2.10	1.26
CTA-1080	2000	6	1 x $2\frac{3}{4}$	2.30	1.38
CTA-1085	100	15	$\frac{5}{8}$ x $1\frac{1}{4}$	1.25	.75
CTA-1090	250	15	$\frac{5}{8}$ x $1\frac{3}{4}$	1.55	.93
CTA-1095	500	15	$\frac{3}{4}$ x $2\frac{1}{4}$	1.75	1.05
CTA-1100	1000	15	$\frac{7}{8}$ x $2\frac{1}{4}$	2.30	1.38
CTA-1105	2	25	$\frac{1}{2}$ x $1\frac{1}{4}$	.90	.54
CTA-1110	5	25	$\frac{1}{2}$ x $1\frac{1}{4}$	1.00	.60
CTA-1115	10	25	$\frac{1}{2}$ x $1\frac{1}{4}$	1.00	.60
CTA-1120	25	25	$\frac{1}{2}$ x $1\frac{1}{4}$	1.00	.60
CTA-1125	50	25	$\frac{5}{8}$ x $1\frac{1}{4}$	1.10	.66
CTA-1130	100	25	$\frac{5}{8}$ x $1\frac{3}{4}$	1.35	.81
CTA-1135	250	25	$\frac{7}{8}$ x $2\frac{1}{4}$	1.70	1.02
CTA-1140	500	25	1 x $2\frac{1}{4}$	2.30	1.38
CTA-1145	1	50	$\frac{1}{2}$ x $1\frac{1}{4}$	.90	.54
CTA-1150	2	50	$\frac{1}{2}$ x $1\frac{1}{4}$	.90	.54
CTA-1155	5	50	$\frac{1}{2}$ x $1\frac{1}{4}$	1.00	.60
CTA-1160	10	50	$\frac{1}{2}$ x $1\frac{1}{4}$	1.00	.60
CTA-1165	20	50	$\frac{5}{8}$ x $1\frac{1}{4}$	1.00	.60
CTA-1170	25	50	$\frac{5}{8}$ x $1\frac{1}{4}$	1.05	.63
CTA-1175	50	50	$\frac{5}{8}$ x $1\frac{3}{4}$	1.20	.72
CTA-1180	100	50	$\frac{3}{4}$ x $1\frac{3}{4}$	1.40	.84
CTA-1185	150	50	$\frac{3}{4}$ x $1\frac{3}{4}$	1.55	.93
CTA-1190	250	50	$\frac{7}{8}$ x $1\frac{3}{4}$	1.75	1.05
CTA-1195	500	50	1 x $2\frac{1}{4}$	2.40	1.44
CTA-1200	4	150	$\frac{1}{2}$ x $1\frac{1}{4}$	1.00	.60
CTA-1205	5	150	$\frac{1}{2}$ x $1\frac{1}{4}$	1.00	.60
CTA-1210	8	150	$\frac{5}{8}$ x $1\frac{1}{4}$	1.05	.63
CTA-1215	10	150	$\frac{5}{8}$ x $1\frac{1}{4}$	1.05	.63
CTA-1220	12	150	$\frac{5}{8}$ x $1\frac{1}{4}$	1.10	.66
CTA-1225	16	150	$\frac{5}{8}$ x $1\frac{3}{4}$	1.15	.69
CTA-1230	20	150	$\frac{5}{8}$ x $1\frac{3}{4}$	1.20	.72
CTA-1235	25	150	$\frac{5}{8}$ x $1\frac{3}{4}$	1.25	.75
CTA-1240	30	150	$\frac{3}{4}$ x $1\frac{3}{4}$	1.30	.78
CTA-1245	40	150	$\frac{3}{4}$ x $1\frac{3}{4}$	1.35	.81

SINGLE UNITS

Catalog No.	Capacity MFD.	WVDC	Diam. x Length	List Price	Net Price (1-24)
CTA-1250	50	150	$\frac{7}{8}$ x $1\frac{3}{4}$	1.40	.84
CTA-1255	60	150	$\frac{7}{8}$ x $1\frac{3}{4}$	1.50	.90
CTA-1260	80	150	$\frac{3}{4}$ x $2\frac{1}{4}$	1.60	.96
CTA-1265	100	150	1 x $2\frac{1}{4}$	1.75	1.05
CTA-1270	150	150	$1\frac{1}{4}$ x $2\frac{1}{4}$	1.90	1.14
CTW-1275	200	150	$1\frac{1}{4}$ x $2\frac{3}{4}$	2.20	1.32
CTW-1280	250	150	$1\frac{1}{4}$ x $3\frac{1}{4}$	2.55	1.53
CTW-1285	300	150	$1\frac{1}{4}$ x $3\frac{3}{4}$	2.55	1.53
CTW-1290	150	200	1 x $3\frac{3}{4}$	2.55	1.53
CTW-1295	200	200	1 x $3\frac{3}{4}$	2.90	1.74
CTA-1300	4	250	$\frac{5}{8}$ x $1\frac{1}{4}$	1.00	.60
CTA-1305	8	250	$\frac{5}{8}$ x $1\frac{1}{4}$	1.15	.69
CTA-1310	10	250	$\frac{5}{8}$ x $1\frac{3}{4}$	1.20	.72
CTA-1315	12	250	$\frac{5}{8}$ x $1\frac{3}{4}$	1.25	.75
CTA-1320	16	250	$\frac{5}{8}$ x $1\frac{3}{4}$	1.30	.78
CTA-1325	20	250	$\frac{3}{4}$ x $1\frac{3}{4}$	1.35	.81
CTA-1330	30	250	$\frac{3}{4}$ x $2\frac{1}{4}$	1.45	.87
CTA-1335	40	250	$\frac{3}{4}$ x $2\frac{1}{4}$	1.55	.93
CTA-1340	50	250	$\frac{7}{8}$ x $1\frac{3}{4}$	1.70	1.02
CTA-1345	60	250	$\frac{7}{8}$ x $2\frac{1}{4}$	1.80	1.08
CTA-1350	100	250	1 x $2\frac{3}{4}$	2.45	1.47
CTW-1355	140	300	1 x $3\frac{3}{4}$	3.15	1.89
CTA-1357	200	300	$1\frac{1}{4}$ x $4\frac{1}{4}$	3.70	2.22
CTA-1360	4	350	$\frac{5}{8}$ x $1\frac{1}{4}$	1.05	.63
CTA-1365	8	350	$\frac{5}{8}$ x $1\frac{3}{4}$	1.20	.72
CTA-1370	10	350	$\frac{5}{8}$ x $1\frac{3}{4}$	1.25	.75
CTA-1375	12	350	$\frac{3}{4}$ x $1\frac{3}{4}$	1.30	.78
CTA-1380	16	350	$\frac{3}{4}$ x $1\frac{3}{4}$	1.40	.84
CTA-1385	20	350	$\frac{7}{8}$ x $1\frac{3}{4}$	1.45	.87
CTA-1390	30	350	$\frac{7}{8}$ x $2\frac{1}{4}$	1.65	.99
CTA-1395	40	350	1 x $2\frac{1}{4}$	1.75	1.05
CTA-1398	60	350	1 x $2\frac{3}{4}$	1.95	1.17
CTA-1400	1	450	$\frac{1}{2}$ x $1\frac{1}{4}$	1.10	.66
CTA-1405	2	450	$\frac{1}{2}$ x $1\frac{1}{4}$	1.10	.66
CTA-1410	4	450	$\frac{5}{8}$ x $1\frac{1}{4}$	1.15	.69
CTA-1415	8	450	$\frac{5}{8}$ x $1\frac{3}{4}$	1.25	.75
CTA-1420	10	450	$\frac{3}{4}$ x $1\frac{3}{4}$	1.30	.78
CTA-1425	12	450	$\frac{3}{4}$ x $1\frac{3}{4}$	1.35	.81
CTA-1430	16	450	$\frac{7}{8}$ x $1\frac{3}{4}$	1.40	.84
CTA-1435	20	450	$\frac{7}{8}$ x $2\frac{1}{4}$	1.55	.93
CTA-1440	30	450	1 x $2\frac{1}{4}$	1.70	1.02
CTA-1445	40	450	1 x $2\frac{3}{4}$	1.80	1.08
CTA-1450	50	450	1 x $3\frac{1}{4}$	2.10	1.26
CTA-1455	60	450	1 x $3\frac{1}{4}$	2.35	1.41
CTA-1460	80	450	1 x $3\frac{3}{4}$	2.80	1.68
CTA-1465	100	450	1 x $3\frac{3}{4}$	3.20	1.92
CTA-1470	8	500	$\frac{3}{4}$ x $1\frac{3}{4}$	1.30	.78
CTA-1475	10	500	$\frac{7}{8}$ x $1\frac{3}{4}$	1.35	.81
CTA-1480	16	500	$\frac{7}{8}$ x $2\frac{1}{4}$	1.50	.90
CTA-1485	20	500	$\frac{7}{8}$ x $1\frac{3}{4}$	1.60	.96
CTA-1490	30	500	1 x $2\frac{3}{4}$	1.75	1.05
CTA-1500	8	600	1 x $2\frac{3}{4}$	2.85	1.71
CTA-1505	10	600	1 x $2\frac{3}{4}$	2.95	1.77
CTA-1510	16	600	1 x $2\frac{3}{4}$	3.45	2.07
CTA-1515	20	600	1 x $3\frac{1}{4}$	3.55	2.13
CTA-1520	8	700	1 x $2\frac{3}{4}$	2.75	1.65
CTA-1525	10	700	1 x $2\frac{3}{4}$	3.45	2.07
CTA-1530	16	700	1 x $3\frac{1}{4}$	3.55	2.13

DOUBLE UNITS

Catalog No.	Capacity MFD.	WVDC	Diam. x Length	List Price	Net Price (1-24)
CTA-2030	10-10	50-50	$\frac{5}{8}$ x $1\frac{3}{4}$	1.40	.84
CTA-2035	8-8	150-150	$\frac{5}{8}$ x $1\frac{3}{4}$	1.50	.90
CTA-2040	16-16	150-150	$\frac{3}{4}$ x $1\frac{3}{4}$	1.80	1.08
CTA-2045	20-12	150-150	$\frac{3}{4}$ x $1\frac{3}{4}$	1.60	.96
CTA-2050	20-20	150-150	$\frac{3}{4}$ x $1\frac{3}{4}$	1.65	.98
CTA-2055	30-20	150-150	$\frac{7}{8}$ x $1\frac{3}{4}$	1.70	1.02
CTA-2060	30-30	150-150	$\frac{7}{8}$ x $1\frac{3}{4}$	1.80	1.08
CTA-2065	40-20	150-150	$\frac{7}{8}$ x $1\frac{3}{4}$	1.75	1.05
CTA-2070	40-30	150-150	$\frac{7}{8}$ x $2\frac{1}{4}$	1.80	1.08
CTA-2075	40-40	150-150	$\frac{7}{8}$ x $2\frac{1}{4}$	1.85	1.11
CTA-2080	50-30	150-150	$\frac{7}{8}$ x $2\frac{1}{4}$	1.95	1.17
CTA-2085	50-50	150-150	$\frac{7}{8}$ x $2\frac{1}{4}$	2.10	1.26
CTA-2090	80-30	150-150	1 x $2\frac{1}{4}$	2.20	1.32
CTA-2100	80-40	150-150	1 x $2\frac{1}{4}$	2.20	1.32
CTA-2105	80-50	150-150	1 x $2\frac{3}{4}$	2.35	1.41
CTW-2110	100-100	150-150	1 x $3\frac{3}{4}$	3.20	1.92
CTA-2112-S	120-120	150-150	$1\frac{1}{8}$ x $4\frac{7}{8}$	3.45	2.07
CTW-2115	250-50	150-150	$1\frac{1}{4}$ x $3\frac{3}{4}$	3.70	2.22
CTW-2120	200-5	150-150	1 x $3\frac{3}{4}$	2.65	1.59
CTW-2125	250-200	150-150	$1\frac{1}{4}$ x $4\frac{3}{4}$	4.20	2.52
CTA-2130	20-20	250-250	$\frac{7}{8}$ x $2\frac{1}{4}$	1.85	1.11
CTA-2135	40-10	250-250	$\frac{7}{8}$ x $2\frac{1}{4}$	2.05	1.23
CTA-2140	80-10	250-250	1 x $3\frac{1}{4}$	2.55	1.53
CTW-2145	120-80	250-250	$1\frac{1}{4}$ x $3\frac{3}{4}$	4.00	2.40
CTW-2150	140-5	350-350	$1\frac{1}{4}$ x $4\frac{1}{4}$	4.15	2.49
CTW-2155	80-100	450-50	$1\frac{1}{4}$ x $4\frac{1}{4}$	3.70	2.22

NET (For quantities of 25 or more, please contact your local Arco-Elmenco Distributor)

ARCO CAPACITORS

Tubular Electrolytic Capacitors

DOUBLE UNITS

Catalog No.	Capacity MFD.	WVDC	Diam. x Length	List Price	Net Price (1-24)
CTA-2160	9-8	450-450	7/8 x 2 1/4	1.70	1.02
CTA-2165	10-10	450-450	1 x 2 1/4	1.85	1.11
CTA-2170	16-8	450-450	1 x 2 1/4	2.00	1.20
CTA-2175	20-20	450-450	1 x 2 3/4	2.50	1.50
CTA-2180	30-30	450-450	1 x 3 1/4	3.00	1.80
CTA-2185	40-40	450-450	1 x 3 3/4	3.40	2.04
CTA-2190	50-30	450-450	1 x 3 3/4	3.40	2.04

TRIPLE UNITS

CTA-3050	20-20-20	150-150-150	7/8 x 1 3/4	2.50	1.50
CTA-3055	30-30-30	150-150-150	7/8 x 2 1/4	2.60	1.56
CTA-3060	40-30-20	150-150-150	1 x 2 1/4	2.35	1.41
CTA-3063	40-40-20	150-150-150	1 x 2 1/4	2.35	1.41
CTA-3065	40-40-40	150-150-150	1 x 2 1/4	2.80	1.68
CTA-3070	50-30-20	150-150-150	1 x 2 1/4	2.70	1.62
CTA-3075	80-40-20	150-150-150	1 x 2 3/4	2.90	1.74
CTW-3078	150-150-150	150-150-150	1 3/8 x 4 1/4	4.85	2.91
CTW-3080	250-200-10	150-150-150	1 1/4 x 4 1/4	4.60	2.76
CTA-3085	60-40-250	150-150-15	1 x 3 1/4	2.60	1.56
CTA-3090	80-30-300	150-150-15	1 x 3 3/4	2.90	1.74
CTA-3095	20-20-20	150-150-25	7/8 x 1 3/4	2.45	1.47
CTA-3100	40-20-20	150-150-25	1 x 1 3/4	2.55	1.53
CTA-3105	40-30-20	150-150-25	7/8 x 2 1/4	2.60	1.56
CTA-3110	40-40-20	150-150-25	1 x 2 1/4	2.65	1.59
CTA-3115	40-40-100	150-150-25	1 x 2 1/4	2.80	1.68
CTA-3120	50-30-20	150-150-25	1 x 2 1/4	2.65	1.59
CTA-3125	50-30-100	150-150-25	1 x 2 1/4	2.80	1.68
CTA-3130	50-30-250	150-150-25	1 x 3	3.10	1.86
CTA-3135	50-50-20	150-150-25	1 x 2 1/4	2.75	1.65
CTA-3140	80-20-100	150-150-25	1 x 2 3/4	2.80	1.68
CTA-3145	80-40-20	150-150-25	1 x 2 3/4	2.80	1.68
CTW-3150	250-120-50	150-150-25	1 3/8 x 4	4.35	2.61
CTW-3153	120-40-100	300-250-50	1 3/8 x 4 1/4	4.95	2.97
CTW-3155	60-60-60	300-300-300	1 3/8 x 3 1/4	4.70	2.82
CTW-3160	80-40-100	300-300-50	1 3/8 x 3 1/2	4.25	2.55
CTW-3165	100-60-100	300-300-50	1 3/8 x 4 1/4	4.95	2.97
CTW-3168	120-40-10	300-300-250	1 3/8 x 3 1/2	4.85	2.91
CTW-3170	60-60-4	350-350-350	1 3/8 x 3 3/4	3.85	2.31
CTW-3175	140-5-200	350-350-200	1 1/2 x 4 3/4	6.70	4.02

TRIPLE UNITS

Catalog No.	Capacity MFD.	WVDC	Diam. x Length	List Price	Net Price (1-24)
CTW-3178	10-20-100	400-150-150	1 1/4 x 4 3/4	4.10	2.46
CTW-3180	5-80-40	450-400-400	1 1/2 x 4 3/4	4.55	2.73
CTA-3185	20-20-20	450-450-25	1 1/4 x 3	3.10	1.86
CTA-3190	40-40-20	450-450-25	1 x 3 3/4	3.80	2.28

QUADRUPLE UNITS

CTW-4050	40-20-20-100	150-150-150-25	1 x 3 3/4	3.10	1.86
CTW-4055	150-100-20-100	300-300-300-50	1 1/2 x 4 3/4	6.95	4.17
CTW-4060	120-40-40-10	300-300-300-250	1 1/4 x 4 3/4	8.20	3.72
CTW-4065	140-5-200-100	350-300-200-150	1 1/2 x 4 3/4	8.20	4.92
CTW-4070	140-5-200-30	350-300-200-200	1 1/2 x 4 3/4	7.65	4.59
CTW-4075	80-60-40-20	350-350-300-150	1 1/4 x 4 3/4	5.90	3.54
CTW-4085	80-10-40-100	400-400-300-50	1 3/8 x 4 1/4	5.45	3.27
CTW-4090	10-80-40-100	450-300-250-50	1 3/8 x 4 1/4	4.80	2.88
CTW-4095	20-120-40-100	450-300-250-50	1 1/4 x 4 3/4	6.15	3.69
CTW-4100	10-80-40-100	450-300-250-50	1 3/8 x 4 1/4	4.95	2.97
CTW-4105	20-20-20-10	450-450-450-450	1 3/8 x 3 3/4	4.25	2.55
CTW-4110	40-20-20-10	450-450-450-450	1 1/4 x 4 1/4	4.70	2.82
CTW-4115	40-40-20-20	450-450-450-450	1 1/2 x 4 1/4	5.45	3.27

FIVE LEADS

Catalog No.	Capacity MFD.	WVDC	Diam. x Length	List Price	Net Price (1-24)
CTW-5050	40-20-20-20-50	300-300-300-300-75	1 3/8 x 4 1/4	5.05	3.03

PRINTED CIRCUIT

APC-2100	50-30	150-150	1 x 2 1/2	2.60	1.56
APC-2105	50-50	150-150	1 x 2 1/2	2.70	1.62
APC-2110	80-30	150-150	1 x 3	2.75	1.65
APC-2115	100-50	150-150	1 x 3 1/2	2.95	1.77

ANTENNA ROTOR CAPACITOR

CRA-1000	70	50 VAC	7/8 x 3	1.25	.75
CRA-1050	100-120	50 VAC	1 x 2 3/4	1.65	.99
CRA-1200	210-240	50 VAC	1 x 3	1.82	1.50
CRA-1220	210-290	50 VAC	1 x 3	2.50	1.50

PRINTED CIRCUIT TWIST MOUNTS

SINGLE UNITS

Catalog No.	Capacity MFD.	WVDC	Diam. x Length	List Price	Net Price (1-24)
CTP-1250	140	150	1 x 2 1/2	2.15	1.29
CTP-1350	375	165	1 3/8 x 3 1/2	4.65	2.79
CTP-1450	160	200	1 3/8 x 3	2.90	1.74
CTP-1550	50	350	1 x 2	2.10	1.26
CTP-1650	20	450	1 x 2	1.80	1.08

DUAL UNITS

Catalog No.	Capacity MFD.	WVDC	Diam. x Length	List Price	Net Price (1-24)
CTP-2150	250-250	16-16	1 x 2	2.75	1.65
CTP-2275	500-100	16-16	1 x 2	3.10	1.86
CTP-2350	800-250	16-16	1 x 2	3.35	2.01
CTP-2360	500-200	18-18	1 x 2	3.35	2.01
CTP-2475	50-30	150-150	1 x 2	2.00	1.20
CTP-2550	80-30	150-150	1 x 2	2.25	1.35
CTP-2625	80-40	150-150	1 x 2	2.30	1.38
CTP-2700	200-5	150-150	1 3/8 x 2 1/2	2.70	1.62
CTP-2850	10-10	300-25	1 x 2	2.05	.87
CTP-2850	10-10	300-50	1 x 2	1.65	.96
CTP-2875	150-100	300-150	1 3/8 x 4	4.50	2.70
CTP-2890	10-10	300-300	1 3/8 x 2	1.75	1.05

TRIPLE UNITS

Catalog No.	Capacity MFD.	WVDC	Diam. x Length	List Price	Net Price (1-24)
CTP-3130	250-250-50	16-16-16	1 x 2	3.25	1.95
CTP-3160	500-250-50	16-16-16	1 x 2	3.50	2.10
CTP-3190	500-250-250	16-16-16	1 x 2	4.10	2.46
CTP-3220	70-30-100	150-150-10	1 x 2	2.80	1.68
CTP-3250	40-30-250	150-150-10	1 x 2 1/2	3.10	1.86

PRINTED CIRCUIT TWIST MOUNTS

TRIPLE UNITS

CTP-3280	80-60-250	150-150-10	1 x 2 1/2	3.40	2.04
CTP-3310	80-60-400	150-150-10	1 x 3	3.65	2.19
CTP-3340	90-40-400	150-150-10	1 x 3	3.50	2.10
CTP-3370	40-20-20	150-150-25	1 x 2 1/2	2.30	1.38
CTP-3400	80-20-20	150-150-25	1 x 2 1/2	2.70	1.62
CTP-3430	70-30-20	150-150-25	1 x 2 1/2	2.70	1.62
CTP-3460	30-30-30	150-150-150	1 x 2	2.50	1.50
CTP-3490	40-40-20	150-150-150	1 x 2 1/2	2.50	1.50
CTP-3510	40-40-30	150-150-150	1 x 2 1/2	2.70	1.62
CTP-3540	50-30-20	150-150-150	1 x 2	2.60	1.56
CTP-3570	50-40-30	150-150-150	1 x 2 1/2	2.70	1.62
CTP-3600	60-60-40	150-150-150	1 3/8 x 2	3.10	1.86
CTP-3630	70-15-15	150-150-150	1 x 2	2.70	1.62
CTP-3660	80-60-10	150-150-150	1 x 3	2.95	1.77
CTP-3670	100-80-40	175-175-175	1 x 3	4.00	2.40
CTP-3690	10-10-20	300-50-25	1 x 2	2.10	1.26
CTP-3720	150-60-200	300-200-150	1 3/8 x 4	5.95	3.57
CTP-3750	60-10-25	300-300-25	1 3/8 x 2	3.05	1.83
CTP-3800	100-40-10-50	150-150-150-25	1 3/8 x 2	3.70	2.22
CTP-3810	125-5-100	350-150-10	1 3/8 x 3 1/2	4.60	2.76
CTP-3830	40-30-20	400-350-300	1 3/8 x 2 1/2	3.95	2.37

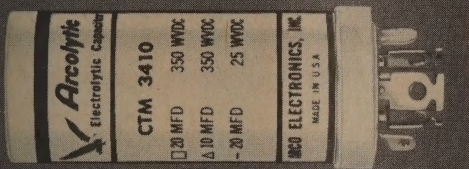
QUADRUPLE UNITS

Catalog No.	Capacity MFD.	WVDC	Diam. x Length	List Price	Net Price (1-24)
CTP-4100	290-30-10-100	150-150-150-10	1 3/8 x 3 1/2	4.50	2.70
CTP-4200	50-40-10-50	150-150-150-25	1 3/8 x 2	3.15	1.89
CTP-4300	100-40-10-50	150-150-150-25	1 3/8 x 2	3.70	2.22
CTP-4400	60-60-40-10	150-150-150-150	1 3/8 x 2	3.65	2.19
CTP-4500	100-60-60-40	350-350-200-75	1 3/8 x 3 1/2	6.55	3.93
CTP-4600	40-20-10-100	350-350-350-50	1 3/8 x 2 1/2	4.35	2.61
CTP-4700	40-30-20-20	400-350-350-350	1 3/8 x 2 1/2	4.95	2.97

NET (For quantities of 25 or more, please contact your local Arco-Elmenco Distributor)

ARCO CAPACITORS

Twist Mount Electrolytic Capacitors



ARCOLYTIC TWIST MOUNTS

- Made with 99.99% pure aluminum foil.
- Hermetically sealed in aluminum cans.
- Designed for high temperature operation: 85°C.
- Made to withstand high surge voltages and high ripple currents.
- Greater shelf and operating life because only premium grade ingredients are used.
- Built and tested to meet EIA specification RS-154.
- Complete with phenolic and metal mounting plates.

SINGLE UNITS

Catalog No.	Capacity MFD.	WVDC	Diam. x Length	List Price	Net Price (1-24)
CTM-1068	10 OHM @ 30 CPS	3 N.P.	1 3/8 x 2	2.75	1.65
CTM-1077	1000	6	1 3/8 x 2	2.40	1.44
CTM-1086	2000	6	1 3/8 x 2	2.55	1.83
CTM-1095	1000	10	1 x 2 1/2	3.20	1.92
CTM-1104	3000	10	1 3/8 x 2	4.25	2.19
CTM-1113	225	15	3/4 x 2	1.75	1.05
CTM-1122	1000	15	1 x 2 1/2	2.55	1.53
CTM-1131	1500	15	1 x 2	3.45	2.07
CTM-1140	2000	15	1 3/8 x 2	3.45	2.07
CTM-1149	3000	15	1 3/8 x 2	4.25	2.55
CTM-1158	4000	15	1 3/8 x 2	5.25	2.25
CTM-1167	25	25	3/4 x 2	1.55	.93
CTM-1176	40	25	3/4 x 2	1.35	.81
CTM-1185	50	25	1 x 2	1.70	1.02
CTM-1194	100	25	3/4 x 2	2.00	1.20
CTM-1203	500	25	1 x 2	2.55	1.53
CTM-1212	1000	25	1 3/8 x 2	3.55	2.13
CTM-1221	4	50	3/4 x 2	1.55	.93
CTM-1230	25	50	3/4 x 2	1.30	.78
CTM-1239	100	50	3/4 x 2	1.65	.99
CTM-1248	150	50	3/4 x 2 1/2	1.80	1.08
CTM-1257	250	50	1 x 2 1/2	2.00	1.20
CTM-1266	500	50	1 3/8 x 2	2.65	1.59
CTM-1275	1000	50	1 3/8 x 2	3.75	2.25
CTM-1284	1500	50	1 3/8 x 2	5.25	3.15
CTM-1293	10	150	1 x 2	1.65	.99
CTM-1302	20	150	1 x 2	1.80	1.08
CTM-1311	25	150	1 x 2	1.90	1.14
CTM-1320	30	150	1 x 2	1.55	.93
CTM-1329	40	150	1 x 2	2.00	1.20
CTM-1338	50	150	1 x 2	1.65	.99
CTM-1347	60	150	1 x 2	2.20	1.32
CTM-1356	80	150	1 x 2 1/2	1.85	1.11
CTM-1365	80	150	1 3/8 x 2	2.30	1.38
CTM-1374	100	150	1 x 2 1/2	2.00	1.20
CTM-1383	110	150	1 x 2	2.70	1.62
CTM-1392	120	150	1 x 2 1/2	2.15	1.29
CTM-1400T	120/150 with Insulated Black Sleeve		1 3/8 x 2	2.35	1.41
CTM-1401	120	150	1 3/8 x 2 1/2	2.15	1.29
CTM-1410	140	150	1 x 2	2.15	1.29
CTM-1419	150	150	1 x 2	2.15	1.29
CTM-1428	150	150	1 3/8 x 3	3.15	1.29
CTM-1436	200	150	1 x 3	2.10	1.86
CTM-1437	200	150	1 3/8 x 3 1/2	2.45	1.47
CTM-1446	300	150	1 3/8 x 3 1/2	2.80	1.68
CTM-1455	375	165	1 3/8 x 3 1/2	4.65	2.79
CTM-1464	40	200	1 x 2	2.15	1.29

*Preferred Type

SINGLE UNITS

Catalog No.	Capacity MFD.	WVDC	Diam. x Length	List Price	Net Price (1-24)
CTM-1471T	120/200 with Insulated Black Sleeve		1 3/8 x 2	2.80	1.68
*CTM-1472	125	200	1 x 2	2.90	1.74
*CTM-1473	125	200	1 3/8 x 2 1/2	2.80	1.68
CTM-1481	160	200	1 x 3 1/2	3.30	1.98
*CTM-1482	160	200	1 3/8 x 3	3.15	1.89
CTM-1491	500	200	1 3/8 x 4	6.60	3.96
*CTM-1500	15	250	1 x 2	1.95	1.17
CTM-1509	20	250	1 x 2	1.60	.96
CTM-1518	30	250	1 x 2	2.15	1.29
*CTM-1527	40	250	1 x 2	1.80	1.08
CTM-1536	50	250	1 x 2 1/2	2.45	1.47
CTM-1545	60	250	1 x 3	2.05	1.23
CTM-1554	80	250	1 x 3	2.70	1.62
*CTM-1563	100	250	1 x 3	2.70	1.62
*CTM-1572	150	250	1 3/8 x 2 1/2	3.10	1.86
*CTM-1574	160	250	1 3/8 x 2 1/2	3.15	1.89
*CTM-1581	200	250	1 3/8 x 3 1/2	3.65	2.19
CTM-1590	15	300	1 x 2	2.00	1.20
CTM-1599	30	300	1 x 2	2.20	1.32
CTM-1608	50	300	1 x 2	2.55	1.53
CTM-1617	60	300	1 x 3	2.10	1.26
*CTM-1626	80	300	1 x 3	2.55	1.53
*CTM-1635	100	300	1 x 4	2.90	1.74
*CTM-1644	125	300	1 3/8 x 3	3.50	2.10
*CTM-1653	150	300	1 3/8 x 3	3.50	2.10
*CTM-1662	250	300	1 3/8 x 4	5.55	2.10
CTM-1651	10	350	1 x 2	1.90	1.14
CTM-1660	15	350	1 x 2	2.05	1.23
CTM-1669	20	350	1 x 2	2.20	1.32
*CTM-1678	30	350	1 x 2	1.90	1.14
*CTM-1687	40	350	1 x 2	2.00	1.20
*CTM-1696	50	350	1 x 2	2.10	1.26
*CTM-1705	60	350	1 x 3	2.20	1.32
*CTM-1714	80	350	1 3/8 x 2	2.85	1.71
*CTM-1723	125	350	1 3/8 x 3 1/2	3.95	2.37
CTM-1732	140	350	1 3/8 x 3 1/2	4.95	2.97
*CTM-1741	150	350	1 3/8 x 3 1/2	3.95	2.37
CTM-1750	320	350	1 3/8 x 4	6.75	4.05
CTM-1759	10	400	1 x 2	1.90	1.14
CTM-1768	20	400	1 x 2	2.20	1.32
CTM-1777	40	400	1 3/8 x 2	3.15	1.89
CTM-1786	50	400	1 3/8 x 2 1/2	2.75	1.65
CTM-1795	80	400	1 3/8 x 3	3.70	2.22
CTM-1804	100	400	1 3/8 x 3	4.25	2.55
*CTM-1813	4	450	1 x 2	1.40	.84
*CTM-1822	10	450	1 x 2	1.55	.93
*CTM-1831	15	450	1 x 2	1.70	1.02
*CTM-1840	20	450	1 x 2	1.80	1.08
*CTM-1849	25	450	1 x 2 1/2	1.90	1.14
*CTM-1858	30	450	1 x 2 1/2	1.95	1.17
*CTM-1867	40	450	1 x 3	2.05	1.23
*CTM-1876	50	450	1 x 3	2.35	1.41
*CTM-1885	60	450	1 3/8 x 2 1/2	2.60	1.56
*CTM-1894	80	450	1 3/8 x 2 1/2	3.05	1.83
*CTM-1903	100	450	1 3/8 x 3	3.45	2.07
*CTM-1912	125	450	1 3/8 x 4	3.85	2.31
CTM-1921	20	475	1 x 2 1/2	2.30	1.38
CTM-1930	30	475	1 x 2 1/2	2.50	1.50
*CTM-1939	40	475	1 3/8 x 2	2.50	1.50
CTM-1948	90	475	1 3/8 x 2 1/2	4.40	2.64
*CTM-1957	10	500	1 x 2	1.70	1.02
*CTM-1966	20	500	1 x 2 1/2	1.85	1.11
*CTM-1975	30	500	1 x 2 1/2	2.00	1.20
*CTM-1984	40	500	1 x 2 1/2	2.50	1.50
*CTM-1993	80	500	1 3/8 x 2 1/2	3.60	2.16
CTM-1995	90	500	1 3/8 x 2 1/2	3.50	2.10
CTM-1997	15	525	1 3/8 x 3	1.85	1.11

DUAL UNITS

Catalog No.	Capacity MFD.	WVDC	Diam. x Length	List Price	Price (1-24)
CTM-2050	(5 OHM @ 51.75 K 2.5 OHM) @ 60 CPS		1 3/8 x 2	4.50	2.70
*CTM-2058	250-1000	10-6	1 3/8 x 2	2.85	1.71
*CTM-2066	1000-1000	15-15	1 x 3 1/2	4.40	2.64
*CTM-2070	1000-1000	15-15	1 3/8 x 2 1/2	4.40	2.64
CTM-2074	250-250	16-16	1 x 2	3.45	2.07
*CTM-2078	500-100	16-16	1 x 2	2.50	1.50
*CTM-2079	500-200	16-16	1 x 2	2.70	1.62
*CTM-2080	1000-50	16-16	1 x 2 1/2	3.90	2.34
*CTM-2082	20-20	25-25	1 x 2	1.80	1.08
*CTM-2086	40-40	25-25	1 x 2	2.00	1.20
*CTM-2090	100-70	25-25	1 x 2	1.80	1.08
CTM-2094	150-50	25-25	1 x 2	2.40	1.44
*CTM-2098	500-500	25-25	1 3/8 x 2	4.40	2.64
*CTM-2101	1000-500	25-25	1 3/8 x 2	5.50	3.30
*CTM-2106	50-50	50-50	1 x 2	1.70	1.02
*CTM-2110	100-25	50-50	1 x 2	1.90	1.14
*CTM-2114	100-100	50-50	1 x 2	2.10	1.26
*CTM-2118	50-500	150-5	1 x 3	2.45	1.47
CTM-2122	40-20	150-25	1 x 2	2.15	1.29
CTM-2126	40-150	150-25	1 x 2	2.55	1.52

NET (For quantities of 25 or more, please contact your local Arco-Elmenco Distributor)

ARCO

CAPACITORS

Twist Mount

Electrolytic Capacitors

DUAL UNITS

Catalog No.	Capacity MFD.	WVDC	Diam. x Length	List Price	Net Price (1-24)
CTM-2130	50-150	150-25	1 x 2 1/2	2.75	1.85
*CTM-2134	150-100	150-25	1 3/8 x 2 1/2	2.70	1.82
CTM-2138	40-20	150-50	1 x 2	2.55	1.53
*CTM-2142	150-50	150-50	1 x 3	2.80	1.68
*CTM-2146	150-100	150-50	1 3/8 x 2 1/2	3.25	1.95
CTM-2150	20-10	150-150	1 x 2	2.00	1.20
*CTM-2154	20-20	150-150	1 x 2	1.70	1.02
CTM-2158	30-15	150-150	1 x 2	2.20	1.32
CTM-2162	30-20	150-150	1 x 2	2.20	1.32
*CTM-2166	30-30	150-150	1 x 2	1.85	1.11
CTM-2170	40-20	150-150	1 x 2	1.85	1.11
*CTM-2174	40-30	150-150	1 x 2	1.85	1.11
*CTM-2178	40-40	150-150	1 x 2	1.90	1.14
*CTM-2182	50-30	150-150	1 x 2	2.00	1.20
*CTM-2186	50-50	150-150	1 x 2	2.15	1.29
*CTM-2190	60-20	150-150	1 x 2	2.05	1.23
*CTM-2194	60-60	150-150	1 x 2	2.35	1.41
*CTM-2198	70-30	150-150	1 x 2	2.20	1.32
*CTM-2202	75-75	150-150	1 x 2	2.60	1.56
*CTM-2206	80-40	150-150	1 3/8 x 2 1/2	2.30	1.38
*CTM-2210	80-50	150-150	1 x 2	2.40	1.44
*CTM-2214	80-60	150-150	1 x 3	2.50	1.50
*CTM-2218	80-80	150-150	1 3/8 x 2	2.65	1.59
*CTM-2222	100-30	150-150	1 x 2 1/2	2.80	1.68
CTM-2226	100-100	150-150	1 3/8 x 2 1/2	4.05	2.43
*CTM-2230	125-100	150-150	1 3/8 x 2 1/2	3.35	2.01
*CTM-2234	150-80	150-150	1 3/8 x 2 1/2	3.05	1.83
CTM-2238	150-150	150-150	1 3/8 x 3	4.40	2.64
*CTM-2242	200-5	150-150	1 3/8 x 2	2.70	1.62
*CTM-2246	200-125	150-150	1 3/8 x 3 1/2	3.75	2.25
*CTM-2250	200-150	150-150	1 3/8 x 4	3.75	2.25
*CTM-2254	200-200	150-150	1 3/8 x 4	4.00	2.40
*CTM-2258	60-125	200-25	1 x 3	2.40	1.44
CTM-2262	30-1	200-50	1 3/8 x 2	2.30	1.38
CTM-2266	100-100	200-50	1 3/8 x 2 1/2	3.55	2.13
CTM-2270	40-40	200-200	1 x 2	2.90	1.74
*CTM-2274	60-60	200-200	1 x 3	3.40	2.04
*CTM-2278	60-60	200-200	1 3/8 x 2	3.40	2.04
*CTM-2282	100-100	200-200	1 3/8 x 3	3.50	2.10
*CTM-2286	200-5	200-200	1 3/8 x 2	3.05	1.83
CTM-2290	40-350	250-15	1 3/8 x 2	3.45	2.07
CTM-2294	40-25	250-25	1 x 2 1/2	2.50	1.50
CTM-2298	50-100	250-50	1 3/8 x 2	3.25	1.95
CTM-2302	80-100	250-50	1 3/8 x 2 1/2	3.55	2.13
*CTM-2306	100-150	250-50	1 3/8 x 3	3.65	2.19
CTM-2310	40-25	250-150	1 x 2 1/2	3.45	2.07
CTM-2314	10-10	250-250	1 x 2	2.15	1.29
*CTM-2318	20-20	250-250	1 x 2	1.90	1.14
CTM-2322	30-30	250-250	1 x 2 1/2	2.75	1.65
CTM-2326	40-20	250-250	1 x 3	2.75	1.65
*CTM-2330	40-40	250-250	1 x 2	2.50	1.50
*CTM-2334	150-40	250-250	1 3/8 x 3	4.80	2.88
*CTM-2338	150-150	250-250	1 3/8 x 4	5.15	3.09
CTM-2342	20-60	250-250	1 3/8 x 4	6.05	3.63
*CTM-2346	35-50	300-6	1 x 2 1/2	3.55	2.13
CTM-2350	20-20	300-25	1 x 2	2.30	1.38
*CTM-2354	20-100	300-25	1 x 2 1/2	2.40	1.44
*CTM-2358	10-40	300-50	1 x 2	1.70	1.02
CTM-2362	80-100	300-50	1 3/8 x 3	3.95	2.37
CTM-2366	60-200	300-150	1 3/8 x 3	4.65	2.79
CTM-2370	80-100	300-150	1 3/8 x 2 1/2	4.55	2.73
CTM-2374	60-10	300-200	1 x 3 1/2	3.15	1.89
*CTM-2378	100-100	300-200	1 x 4	4.30	2.58
CTM-2382	20-60	300-250	1 x 3 1/2	3.45	2.07
CTM-2386	10-10	300-300	1 x 2	2.20	1.32
CTM-2390	15-15	300-300	1 x 2	2.40	1.44
*CTM-2394	40-30	300-300	1 x 3	2.65	1.59
CTM-2398	40-40	300-300	1 3/8 x 2 1/2	3.75	2.25
CTM-2402	50-50	300-300	1 3/8 x 2 1/2	4.20	2.52
CTM-2406	60-20	300-300	1 3/8 x 2 1/2	3.50	2.10
CTM-2410	60-60	300-300	1 3/8 x 2 1/2	4.25	2.55
CTM-2414	75-75	300-300	1 3/8 x 3	4.75	2.85
CTM-2418	80-40	300-300	1 3/8 x 2 1/2	4.45	2.67
CTM-2422	80-60	300-300	1 3/8 x 3 1/2	4.65	2.79
*CTM-2426	80-80	300-300	1 3/8 x 3	4.05	2.43
*CTM-2430	120-20	300-300	1 3/8 x 3 1/2	4.00	2.40
*CTM-2434	120-40	300-300	1 3/8 x 2 1/2	4.35	2.61
*CTM-2438	150-100	300-300	1 3/8 x 3 1/2	6.75	4.05
*CTM-2442	200-80	300-300	1 3/8 x 4	5.25	3.15
*CTM-2446	20-20	300-25	1 x 2	2.40	1.44
CTM-2450	40-20	350-25	1 x 2 1/2	2.95	1.77
CTM-2454	80-100	350-50	1 3/8 x 3	5.65	3.39
CTM-2458	20-100	350-75	1 x 2 1/2	2.80	1.68
CTM-2462	5-75	350-150	1 x 2 1/2	2.65	1.59
CTM-2466	40-10	350-200	1 3/8 x 2	3.05	1.83
CTM-2470	20-30	350-250	1 x 3	2.90	1.74
CTM-2474	40-10	350-250	1 x 3	3.05	1.83
CTM-2478	60-80	350-250	1 3/8 x 3 1/2	4.30	2.58
CTM-2482	20-10	350-300	1 x 2	2.55	1.53
CTM-2486	30-30	350-300	1 x 3 1/2	3.30	1.98

*Preferred Type

DUAL UNITS

Catalog No.	Capacity MFD.	WVDC	Diam. x Length	List Price	Net Price (1-24)
CTM-2490	60-20	350-300	1 3/8 x 2 1/2	3.55	2.13
*CTM-2494	15-15	350-350	1 x 2	2.25	1.35
CTM-2498	20-20	350-350	1 x 2 1/2	2.90	1.74
*CTM-2502	30-20	350-350	1 x 3 1/2	3.25	1.95
*CTM-2506	30-30	350-350	1 x 3	2.90	1.74
*CTM-2510	50-30	350-350	1 3/8 x 2 1/2	3.15	1.89
*CTM-2514	60-30	350-350	1 3/8 x 3	3.15	1.89
CTM-2518	80-4	350-350	1 3/8 x 2 1/2	4.00	2.40
*CTM-2522	80-20	350-350	1 3/8 x 3	3.50	2.10
*CTM-2526	80-40	350-350	1 3/8 x 3	4.10	2.46
*CTM-2530	80-80	350-350	1 3/8 x 4	4.70	2.82
*CTM-2534	90-40	350-350	1 3/8 x 3	4.30	2.58
CTM-2538	100-40	350-350	1 3/8 x 3	5.75	3.45
*CTM-2542	100-60	350-350	1 3/8 x 3 1/2	4.80	2.89
*CTM-2546	100-100	350-350	1 3/8 x 4	6.15	3.69
*CTM-2550	160-10	350-350	1 3/8 x 3	4.30	2.58
CTM-2554	50-50	400-385	1 3/8 x 3	4.55	2.73
*CTM-2558	35-100	400-50	1 x 3	2.60	1.56
CTM-2562	40-100	400-50	1 3/8 x 2	3.40	2.04
*CTM-2566	100-30	400-50	1 3/8 x 3	3.90	2.34
*CTM-2570	80-80	400-200	1 3/8 x 3 1/2	3.95	2.37
CTM-2574	60-80	400-250	1 3/8 x 4	4.90	2.94
CTM-2578	4-140	400-300	1 3/8 x 3	3.60	2.16
CTM-2582	100-80	400-350	1 3/8 x 4	6.80	4.08
CTM-2586	15-15	400-400	1 x 2 1/2	2.80	1.68
CTM-2590	30-10	400-400	1 x 3	2.95	1.77
CTM-2594	60-60	400-400	1 3/8 x 4	5.50	3.30
CTM-2598	75-75	400-400	1 3/8 x 4	6.05	3.63
CTM-2602	80-10	400-400	1 3/8 x 3 1/2	4.25	2.55
CTM-2606	80-20	400-400	1 3/8 x 3	4.55	2.73
CTM-2610	80-40	400-400	1 3/8 x 3	5.15	3.09
*CTM-2614	80-60	400-400	1 3/8 x 3	4.70	2.82
*CTM-2618	120-40	400-400	1 3/8 x 4	5.25	3.15
*CTM-2622	10-20	450-25	1 x 2	1.70	1.02
CTM-2626	10-50	450-25	1 x 2 1/2	2.15	1.29
CTM-2630	20-20	450-25	1 x 2	2.50	1.50
CTM-2634	20-100	450-25	1 x 2 1/2	2.75	1.65
CTM-2638	40-20	450-25	1 x 3	3.05	1.83
CTM-2642	80-10	450-25	1 3/8 x 3	4.25	2.55
CTM-2646	80-20	450-25	1 3/8 x 3	4.25	2.55
*CTM-2650	10-100	450-50	1 x 2 1/2	2.55	1.53
CTM-2654	30-25	450-50	1 x 2 1/2	2.90	1.74
CTM-2658	40-50	450-50	1 x 3 1/2	3.75	2.25
*CTM-2662	40-100	450-50	1 x 3 1/2	2.80	1.68
*CTM-2666	50-100	450-50	1 3/8 x 2 1/2	3.00	1.80
*CTM-2668	80-50	450-50	1 3/8 x 3	3.50	2.10
CTM-2670	80-100	450-50	1 3/8 x 3	3.75	2.25
CTM-2674	10-50	450-100	1 3/8 x 2	2.55	1.53
CTM-2678	20-100	450-100	1 3/8 x 2	3.65	2.19
CTM-2682	30-40	450-150	1 3/8 x 2	3.65	2.19
*CTM-2686	30-200	450-150	1 3/8 x 3	3.50	2.10
CTM-2690	40-150	450-150	1 3/8 x 3	4.30	2.58
CTM-2694	80-50	450-150	1 3/8 x 3	4.70	2.82
CTM-2698	80-60	450-150	1 3/8 x 3	5.20	3.12
CTM-2702	80-40	450-200	1 3/8 x 3	4.75	2.85
*CTM-2706	20-50	450-250	1 x 3	2.80	1.68
CTM-2710	20-150	450-250	1 3/8 x 3	4.80	2.88
*CTM-2714	40-10	450-300	1 x 3	2.60	1.56
CTM-2718	10-100	450-350	1 3/8 x 3 1/2	5.00	3.00
CTM-2722	20-80	450-350	1 3/8 x 3 1/2	4.55	2.73
CTM-2726	25-15	450-350	1 x 3	3.20	1.92
*CTM-2730	40-10	450-350	1 3/8 x 2	2.60	1.56
CTM-2734	40-20	450-350	1 3/8 x 2	3.55	2.13
CTM-2738	40-40	450-350	1 3/8 x 3	4.15	2.49
CTM-2740	80-2	450-350	1 3/8 x 3	4.20	2.52
CTM-2742	30-20	450-400	1 x 3	3.40	2.04
*CTM-2746	5-5	450-450	1 x 2	1.70	1.02
*CTM-2750	10-10	450-450	1 x 2	1.90	1.14
CTM-2754	15-10	450-450	1 x 2 1/2	2.80	1.68
*CTM-2758	15-15	450-450	1 x 2 1/2	2.25	1.35
*CTM-2762	20-10	450-450	1 x 2 1/2	2.25	1.35
*CTM-2766	20-20	450-450	1 x 2 1/2	2.55	1.53
*CTM-2770	30-10	450-450	1 x 3	2.40	1.44
CTM-2774	30-10	450-450	1 3/8 x 2	3.90	2.34
CTM-2778	30-15	450-450	1 3/8 x 2	3.30	1.98
*CTM-2782	30-30	450-450	1 3/8 x 2 1/2	3.05	1.83
CTM-2786	40-5	450-450	1 x 3	3.20	1.92
CTM-2790	40-15	450-450	1 3/8 x 2	3.50	2.10
*CTM-2794	40-20	450-450	1 3/8 x 2	3.25	1.95
*CTM-2798	40-40	450-450	1 3/8 x 2 1/2	3.45	2.07
CTM-2802	50-40	450-450	1 3/8 x 3	4.50	2.70
*CTM-2806	50-50	450-450	1 3/8 x 2 1/2	3.85	2.31
*CTM-2810	60-20	450-450	1 3/8 x 3	3.55	2.13
*CTM-2814	60-40	450-450	1 3/8 x 3	3.95	2.37
*CTM-2818	60-60	450-450	1 3/8 x 3 1/2	4.50	2.70
*CTM-2822	80-10	450-450	1 3/8 x 3	3.60	2.16
*CTM-2826	80-20	450-450	1 3/8 x 3	3.90	2.34
*CTM-2830	80-30	450-450	1 3/8 x 3	4.20	2.52
*CTM-2834	80-40	450-450	1 3/8 x 3	5.05	3.03
*CTM-2838	80-80	450-450	1 3/8 x 4 1/2	6.60	3.96
*CTM-2842	100-40	450-450	1 3/8 x 4	4.85	2.91

ARCO CAPACITORS

Twist Mount Electrolytic Capacitors

DUAL UNITS

Catalog No.	Capacity MFD.	WVDC	Diam. x Length	List Price	Net Price (1-24)
CTM-2846	10-20	475-25	1 x 2	2.15	1.29
CTM-2850	30-100	475-50	1 3/4 x 3 1/2	2.75	1.65
CTM-2854	75-50	475-50	1 3/4 x 3	4.55	2.73
CTM-2858	40-80	475-200	1 3/4 x 2 1/2	4.55	2.73
CTM-2862	80-80	475-250	1 3/4 x 4	4.65	2.79
CTM-2866	20-100	475-300	1 3/4 x 3 1/2	4.95	2.97
CTM-2870	20-100	475-400	1 3/4 x 4	4.50	2.70
CTM-2874	40-40	475-400	1 3/4 x 3	4.70	2.82
CTM-2878	15-15	475-475	1 x 2 1/2	2.35	1.41
CTM-2882	30-10	475-475	1 x 3	2.60	1.56
CTM-2886	40-10	475-475	1 3/4 x 2 1/2	3.10	1.86
CTM-2890	40-40	475-475	1 3/4 x 3	5.40	3.24
CTM-2894	60-40	475-475	1 3/4 x 3 1/2	5.70	3.42
CTM-2898	80-40	475-475	1 3/4 x 3 1/2	6.30	3.78
CTM-2902	80-50	475-475	1 3/4 x 3 1/2	5.20	3.12
CTM-2906	80-50	500-50	1 3/4 x 3 1/2	4.75	2.85
CTM-2910	60-80	500-150	1 3/4 x 3	4.70	2.82
CTM-2914	40-50	500-200	1 3/4 x 3	4.20	2.52
CTM-2918	15-20	500-300	1 x 2 1/2	2.90	1.74
CTM-2922	20-100	500-300	1 3/4 x 3	4.90	2.94
CTM-2926	40-40	500-400	1 3/4 x 3	4.70	2.82
CTM-2930	4-4	500-500	1 x 2 1/2	2.15	1.29
CTM-2934	10-10	500-500	1 x 2 1/2	1.95	1.17
CTM-2938	30-10	500-500	1 3/4 x 2	2.85	1.71
CTM-2942	30-10	500-500	1 3/4 x 3	2.60	1.56
CTM-2946	30-30	500-500	1 3/4 x 3	3.25	1.95
CTM-2950	40-25	500-500	1 3/4 x 3	4.55	2.73
CTM-2954	40-40	500-500	1 3/4 x 3	4.30	2.58
CTM-2958	60-40	500-500	1 3/4 x 3 1/2	4.60	2.76

TRIPLE UNITS

CTM-3020	1500-1500-1500	3-3-3	1 x 3 1/2	9.00	5.40
CTM-3022	200-200-30	10-10-10	1 x 2	3.40	2.04
CTM-3022.7	850-400-4	16-16-11.5RMS	1 x 2 1/2	5.00	3.00
CTM-3022.9	1000-500-4	16-16-11.5RMS	1 x 2 1/2	5.20	3.12
CTM-3023	1000-500-4	16-16-11.5RMS	1 3/4 x 2	4.10	2.46
CTM-3024	400-100-100	16-16-16	1 x 2	3.00	1.80
CTM-3026	500-100-100	16-16-16	1 x 2	3.50	2.10
CTM-3028	500-100-100	16-16-16	1 x 2	3.90	2.34
CTM-3029	700-200-100	16-16-16	1 x 2	3.55	2.13
CTM-3029.3	1000-500-20	16-16-16	1 3/4 x 2	4.30	2.58
CTM-3030	40-500-500	25-10-10	1 x 2 1/2	5.05	3.03
CTM-3032	20-20-20	25-25-25	1 x 2	1.95	1.17
CTM-3034	40-40-40	25-25-25	1 x 2	3.20	1.92
CTM-3036	30-30-30	50-50-50	1 x 2	3.25	1.91
CTM-3038	20-250-100	150-15-15	1 3/4 x 2	4.35	2.61
CTM-3040	40-25-130	150-25-15	1 x 3	4.95	2.97
CTM-3042	50-100-20	150-50-25	1 x 3	4.30	2.58
CTM-3044	100-50-25	150-50-25	1 x 3	4.50	2.70
CTM-3046	15-15-1200	150-150-2	1 x 2	3.15	1.89
CTM-3048	30-20-100	150-150-6	1 x 2	3.60	2.16
CTM-3050	20-20-100	150-150-10	1 x 2	3.55	2.13
CTM-3052	20-20-250	150-150-10	1 x 2	3.90	2.34
CTM-3056	40-20-150	150-150-10	1 x 2	2.40	1.44
CTM-3058	40-20-200	150-150-10	1 x 2 1/2	3.75	2.25
CTM-3060	40-20-250	150-150-10	1 x 2 1/2	4.05	2.43
CTM-3062	40-20-250	150-150-10	1 x 2 1/2	3.75	2.25
CTM-3064	40-40-250	150-150-10	1 x 2 1/2	5.65	3.39
CTM-3066	50-30-100	150-150-10	1 x 2 1/2	4.05	2.43
CTM-3068	80-20-200	150-150-10	1 3/4 x 2	4.30	2.58
CTM-3070	80-30-300	150-150-10	1 3/4 x 2	3.15	1.69
CTM-3072	80-60-250	150-150-10	1 x 2 1/2	4.80	2.88
CTM-3074	90-40-400	150-150-10	1 3/4 x 2 1/2	3.50	2.10
CTM-3076	100-20-200	150-150-10	1 3/4 x 2 1/2	4.95	2.97
CTM-3078	100-80-200	150-150-10	1 3/4 x 2 1/2	3.60	2.16
CTM-3080	60-40-400	150-150-15	1 3/4 x 2	4.80	2.88
CTM-3082	80-20-100	150-150-15	1 3/4 x 2	4.20	2.52
CTM-3084	20-20-20	150-150-25	1 x 2	3.30	1.98
CTM-3086	20-20-200	150-150-25	1 x 3	3.90	2.34
CTM-3088	30-20-20	150-150-25	1 x 2	3.40	2.04
CTM-3090	30-30-20	150-150-25	1 x 2	3.45	2.07
CTM-3092	40-20-20	150-150-25	1 x 2 1/2	2.30	1.38
CTM-3094	40-20-100	150-150-25	1 x 2 1/2	2.50	1.50
CTM-3096	40-20-200	150-150-25	1 x 2	2.70	1.62
CTM-3098	40-40-20	150-150-25	1 x 2	2.40	1.44
CTM-3100	40-40-200	150-150-25	1 x 3	2.80	1.68
CTM-3102	40-40-250	150-150-25	1 x 3	3.15	1.89
CTM-3104	50-30-20	150-150-25	1 x 2 1/2	2.50	1.50
CTM-3106	50-30-100	150-150-25	1 x 3	2.70	1.62
CTM-3108	50-30-200	150-150-25	1 3/4 x 2	4.35	2.61
CTM-3110	50-30-300	150-150-25	1 x 3	5.10	3.06
CTM-3112	50-50-20	150-150-25	1 x 2	2.65	1.59
CTM-3114	50-50-200	150-150-25	1 x 3	4.60	2.76
CTM-3116	60-20-20	150-150-25	1 x 2	3.85	2.31
CTM-3118	60-40-200	150-150-25	1 x 3	3.05	1.83
CTM-3120	60-60-100	150-150-25	1 3/4 x 2	4.60	2.76
CTM-3122	80-20-20	150-150-25	1 x 3	4.00	2.40
CTM-3124	80-30-300	150-150-25	1 3/4 x 2	5.50	3.30
CTM-3126	80-40-20	150-150-25	1 x 2 1/2	2.80	1.68

*Preferred Type

TRIPLE UNITS

Catalog No.	Capacity MFD.	WVDC	Diam. x Length	List Price	Net Price (1-24)
*CTM-3128	80-40-300	150-150-25	1 3/4 x 2 1/2	3.70	2.22
CTM-3130	120-60-20	150-150-25	1 3/4 x 2 1/2	5.05	3.03
*CTM-3134	10-10-10	150-150-150	1 x 2	3.10	1.86
*CTM-3136	20-20-20	150-150-150	1 x 2	2.30	1.38
*CTM-3138	30-30-10	150-150-150	1 x 2	2.85	1.71
*CTM-3140	40-20-10	150-150-150	1 x 2	2.35	1.41
*CTM-3142	40-20-20	150-150-150	1 x 2	2.40	1.44
*CTM-3144	40-30-20	150-150-150	1 x 2	2.50	1.50
*CTM-3146	40-40-40	150-150-150	1 x 2	2.60	1.56
*CTM-3150	50-40-10	150-150-150	1 x 2	2.55	1.53
CTM-3152	50-50-10	150-150-150	1 3/4 x 2	4.05	2.43
*CTM-3154	50-50-50	150-150-150	1 x 2	3.00	1.80
*CTM-3156	50-50-50	150-150-150	1 3/4 x 2	4.50	2.70
*CTM-3158	60-40-20	150-150-150	1 x 2	2.75	1.65
*CTM-3160	60-40-30	150-150-150	1 3/4 x 2	4.20	2.52
CTM-3162	60-50-50	150-150-150	1 3/4 x 2	4.65	2.79
*CTM-3164	70-15-15	150-150-150	1 x 2 1/2	2.70	1.62
*CTM-3166	70-40-40	150-150-150	1 x 3	4.05	2.43
CTM-3168	80-20-20	150-150-150	1 x 2	4.20	2.52
*CTM-3170	80-30-10	150-150-150	1 x 2	2.75	1.65
*CTM-3172	80-40-20	150-150-150	1 x 2	2.90	1.74
*CTM-3174	80-50-50	150-150-150	1 x 3	4.90	2.94
*CTM-3176	80-80-80	150-150-150	1 3/4 x 3	5.65	3.39
*CTM-3178	100-30-10	150-150-150	1 x 3	3.05	1.83
*CTM-3180	120-80-40	150-150-150	1 3/4 x 3	3.80	2.28
*CTM-3182	120-120-40	150-150-150	1 3/4 x 3	4.05	2.43
CTM-3184	150-50-25	150-150-150	1 3/4 x 3	5.40	3.24
*CTM-3186	200-100-60	150-150-150	1 3/4 x 3 1/2	4.55	2.73
*CTM-3190	200-150-150	150-150-150	1 3/4 x 3 1/2	7.50	4.50
*CTM-3192	300-100-80	150-150-150	1 3/4 x 4	7.75	4.65
*CTM-3194	40-40-50	200-100-50	1 3/4 x 2 1/2	4.60	2.76
*CTM-3196	40-40-20	200-150-25	1 x 3	3.90	2.34
*CTM-3198	60-200-140	200-150-150	1 3/4 x 4	4.80	2.88
CTM-3199	250-200-50	200-150-150	1 3/4 x 3 1/2	6.50	3.90
CTM-3200	20-20-20	200-200-25	1 x 2	3.45	2.07
CTM-3202	30-20-20	200-200-25	1 x 2	3.85	2.31
CTM-3204	30-20-40	200-200-25	1 x 2	3.85	2.31
*CTM-3206	60-5-20	200-200-50	1 x 2 1/2	2.50	1.50
*CTM-3208	60-5-100	200-200-50	1 x 2 1/2	2.90	1.74
*CTM-3209	60-5-200	200-200-50	1 x 2 1/2	3.20	1.92
*CTM-3210	80-10-20	200-200-50	1 x 3	2.80	1.68
*CTM-3212	80-40-100	200-200-50	1 3/4 x 3	5.25	3.15
CTM-3214	90-90-20	200-200-50	1 3/4 x 3	5.70	3.42
CTM-3216	100-10-40	200-200-50	1 3/4 x 2	4.75	2.85
CTM-3218	30-20-40	200-200-150	1 x 2 1/2	2.70	1.62
CTM-3220	20-20-20	200-200-200	1 x 2 1/2	3.75	2.25
CTM-3222	30-20-20	200-200-200	1 x 2 1/2	4.05	2.43
CTM-3224	40-40-20	200-200-200	1 x 2 1/2	4.55	2.73
CTM-3226	50-30-30	200-200-200	1 3/4 x 2	4.75	2.85
*CTM-3228	250-200-10	200-200-200	1 3/4 x 4	6.70	4.02
CTM-3230	40-40-20	250-150-25	1 3/4 x 2	4.05	2.43
*CTM-3232	80-40-50	250-150-50	1 3/4 x 2 1/2	2.35	1.41
CTM-3234	15-20-20	250-150-150	1 x 2	3.60	2.16
*CTM-3236	60-40-20	250-200-25	1 3/4 x 2	3.30	1.98
*CTM-3238	15-15-20	250-250-25	1 x 2	2.35	1.41
CTM-3240	20-15-20	250-250-25	1 x 2 1/2	3.55	2.13
CTM-3242	30-30-20	250-250-25	1 x 3	2.80	1.68
CTM-3244	60-60-25	250-250-25	1 x 3 1/2	5.70	3.42
CTM-3246	70-70-20	250-250-50	1 3/4 x 3	5.85	3.51
*CTM-3248	90-90-20	250-250-50	1 3/4 x 3	4.60	2.76
CTM-3250	40-20-10	250-250-150	1 3/4 x 2	4.15	2.49
CTM-3252	40-40-10	250-250-200	1 3/4 x 2	4.45	2.67
CTM-3254	80-80-60	250-250-200	1 3/4 x 3 1/2	6.75	4.05
CTM-3256	15-15-10	250-250-250	1 x 2	3.70	2.22
CTM-3258	20-20-10	250-250-250	1 x 2	3.75	2.25
CTM-3260	20-20-20	250-250-250	1 x 2	2.60	1.56
CTM-3262	30-15-10	250-250-250	1 x 2 1/2	4.05	2.43
CTM-3264	30-15-15	250-250-250	1 x 2	4.15	2.49
CTM-3266	30-20-10	250-250-250	1 x 2	4.05	2.48
*CTM-3270	40-20-20	250-250-250	1 x 3 1/2	2.90	1.74
*CTM-3272	80-10-10	250-250-250	1 x 3	3.20	1.92
*CTM-3274	80-80-60	250-250-250	1 3/4 x 3	4.90	2.94
*CTM-3276	10-500-500	300-15-15	1 3/4 x 2 1/2	5.85	3.51
*CTM-3278	20-10-10	300-75-25	1 3/4 x 3	3.55	2.13
*CTM-3280	100-60-20	300-150-25	1 3/4 x 3	4.20	2.52
CTM-3282	140-200-100	300-150-50	1 3/4 x 4	8.60	5.16
*CTM-3284	20-150-80	300-150-150	1 3/4 x 3	3.95	2.37
*CTM-3286	60-200-30	300-150-150	1 3/4 x 4	6.50	3.90
CTM-3288	100-150-30	300-150-150	1 3/4 x 4	7.45	4.47
*CTM-3290	100-20-30	300-150-150	1 3/4 x 4	5.00	3.12
*CTM-3292	100-25-60	300-150-150	1 3/4 x 3 1/2	5.00	3.00
CTM-3294	20-80-10	300-250-200	1 3/4 x 2 1/2	5.20	3.12
CTM-3296	16-20-20	300-250-250	1 x 3	3.90	2.34
CTM-3298	40-80-40	300-250-250	1 3/4 x 3	6.30	3.78
*CTM-3302	100-60-20	300-250-250	1 3/4 x 4	4.90	2.94
*CTM-3304	200-60-20	300-250-250	1 3/4 x 4	5.50	3.30
CTM-3306	20-20-20	300-300-25	1 x 2 1/2	4.15	2.49
CTM-3308	40-15-20	300-300-25	1 x 3	4.45	2.67

ARCO

CAPACITORS

Twist Mount

Electrolytic Capacitors

TRIPLE UNITS

TRIPLE UNITS

Catalog No.	Capacity MFD.	WVDC	Diam. x Length	List Price	Net Price (1-24)	Catalog No.	Capacity MFD.	WVDC	Diam. x Length	List Price	Net Price (1-24)
CTM-3310	40-20-20	300-300-25	1 3/8 x 2	6.65	2.79	*CTM-3490	90-40-20	350-350-350	1 3/8 x 4	5.25	3.15
CTM-3312	10-40-100	300-300-25	1 3/8 x 3 1/2	4.70	4.02	CTM-3492	100-20-20	350-350-350	1 3/8 x 4	5.15	3.09
*CTM-3313	20-20-50	300-300-50	1 x 2 1/2	3.00	1.80	CTM-3494	100-40-10	350-350-350	1 3/8 x 4	5.25	3.15
CTM-3314	30-30-25	300-300-50	1 x 3	4.35	2.61	CTM-3496	100-100-10	350-350-350	1 3/8 x 4	6.80	4.08
*CTM-3316	100-10-60	300-300-50	1 3/8 x 2 1/2	4.05	2.43	CTM-3497	100-100-40	350-350-350	1 3/8 x 4 1/2	7.50	4.50
CTM-3318	125-20-20	300-300-50	1 3/8 x 3	6.70	4.02	CTM-3498	120-40-20	350-350-350	1 3/8 x 4	9.30	5.58
CTM-3320	125-20-100	300-300-50	1 3/8 x 3	7.35	4.41	*CTM-3500	140-140-20	350-350-350	1 3/8 x 4	7.65	4.59
*CTM-3322	125-60-40	300-300-50	1 3/8 x 4	5.20	3.12	CTM-3502	20-50-50	400-10-10	1 x 2	3.55	2.13
*CTM-3324	140-100-60	300-300-50	1 3/8 x 4	6.05	3.63	*CTM-3504	40-200-60	400-200-200	1 3/8 x 4	5.55	3.33
*CTM-3326	140-100-100	300-300-50	1 3/8 x 4	8.40	5.04	CTM-3506	10-5-40	400-300-25	1 x 2	3.30	1.98
CTM-3328	200-20-10	300-300-100	1 3/8 x 4	4.90	2.94	CTM-3508	60-40-20	400-300-25	1 3/8 x 3 1/2	6.30	3.78
CTM-3330	40-40-20	300-300-150	1 3/8 x 2	5.40	3.24	CTM-3510	80-20-10	400-300-300	1 3/8 x 3 1/2	6.40	3.84
CTM-3332	140-10-200	300-300-150	1 3/8 x 4	5.50	3.30	CTM-3512	10-50-30	400-350-25	1 x 3 1/2	4.65	2.79
*CTM-3336	10-10-10	300-300-300	1 x 2	2.40	1.44	CTM-3514	100-10-200	400-350-25	1 3/8 x 3	4.90	2.94
*CTM-3338	60-20-10	300-300-300	1 3/8 x 2	3.45	2.07	CTM-3516	80-20-100	400-350-50	1 3/8 x 3	6.75	4.05
CTM-3340	*80-20-10	300-300-300	1 3/8 x 2 1/2	5.70	3.42	CTM-3518	100-10-20	400-350-50	1 3/8 x 3 1/2	6.75	4.05
*CTM-3342	80-40-40	300-300-300	1 3/8 x 2 1/2	4.75	3.15	CTM-3520	23-15-10	400-350-350	1 x 3	4.45	2.67
CTM-3344	100-40-20	300-300-300	1 3/8 x 3 1/2	5.50	3.30	CTM-3522	10-20-20	400-350-350	1 x 3	4.00	2.40
*CTM-3346	120-50-40	300-300-300	1 3/8 x 4	5.85	3.51	CTM-3524	15-15-40	400-400-25	1 x 3	4.20	2.52
*CTM-3348	150-100-10	300-300-300	1 3/8 x 4	6.35	3.81	*CTM-3526	20-20-20	400-400-25	1 x 3	2.85	1.71
CTM-3352	200-140-20	300-300-300	1 3/8 x 4	10.60	6.36	CTM-3528	30-10-20	400-400-25	1 x 3	4.25	2.55
CTM-3356	5-100-40	350-25-25	1 x 2	3.55	2.13	CTM-3530	20-10-40	400-400-50	1 x 3	4.00	2.40
CTM-3358	40-100-25	350-50-25	1 3/8 x 2	4.80	2.88	CTM-3532	30-10-150	400-400-50	1 3/8 x 2 1/2	5.10	3.06
CTM-3360	10-50-100	350-100-75	1 x 3	4.30	2.58	CTM-3534	80-40-100	400-400-50	1 3/8 x 3	7.50	4.50
*CTM-3362	20-50-100	350-100-75	1 x 3	3.10	1.86	*CTM-3536	80-40-150	400-400-50	1 3/8 x 3	5.25	3.15
CTM-3364	10-10-250	350-150-15	1 x 2 1/2	4.15	2.49	*CTM-3538	100-10-20	400-400-50	1 3/8 x 3 1/2	4.50	2.70
*CTM-3366	10-50-100	350-150-50	1 x 3 1/2	2.85	1.71	CTM-3540	20-20-20	400-400-100	1 x 3	4.45	2.67
CTM-3367	40-200-100	350-150-150	1 3/8 x 3 1/2	5.00	3.00	CTM-3542	20-10-10	400-400-350	1 x 3	4.05	2.43
CTM-3368	60-200-30	350-150-150	1 3/8 x 3 1/2	5.00	3.00	CTM-3544	20-10-40	400-400-350	1 x 3	5.10	3.06
CTM-3370	40-80-500	350-200-25	1 3/8 x 3 1/2	7.60	4.56	*CTM-3546	20-20-10	400-400-350	1 x 3	3.00	1.80
*CTM-3372	125-5-100	350-200-75	1 3/8 x 3 1/2	5.30	3.18	*CTM-3548	60-30-20	400-400-350	1 3/8 x 3	4.55	2.73
CTM-3374	50-10-500	350-250-5	1 3/8 x 2 1/2	5.55	3.33	*CTM-3550	80-20-10	400-400-350	1 3/8 x 3	4.30	2.58
CTM-3376	50-10-100	350-250-5	1 3/8 x 2 1/2	6.10	3.66	*CTM-3552	10-10-10	400-400-350	1 3/8 x 4	6.10	3.66
CTM-3378	20-30-20	350-250-25	1 x 3	4.20	2.52	*CTM-3554	40-40-170	400-400-400	1 x 2 1/2	2.40	1.44
CTM-3380	30-20-100	350-250-50	1 x 3	4.90	2.94	*CTM-3556	10-10-10	400-400-400	1 x 3	3.15	1.89
CTM-3382	100-40-5	350-250-50	1 3/8 x 2 1/2	4.85	2.91	*CTM-3558	90-10-5	400-400-400	1 3/8 x 4	4.40	2.64
CTM-3384	30-20-10	350-250-250	1 x 3 1/2	4.50	2.70	CTM-3560	30-10-20	400-400-400	1 3/8 x 4	8.25	4.95
CTM-3386	10-80-25	350-300-25	1 3/8 x 3	5.10	3.06	CTM-3562	10-20-10	450-25-25	1 x 2	3.25	1.95
*CTM-3388	30-30-20	350-300-25	1 x 3	3.15	1.89	CTM-3564	30-20-20	450-25-25	1 x 3	4.15	2.49
CTM-3392	10-40-5	350-300-150	1 x 2 1/2	4.30	2.58	CTM-3566	10-100-20	450-50-25	1 x 3	3.85	2.31
CTM-3396	40-20-10	350-300-200	1 3/8 x 2	4.95	2.97	CTM-3570	80-100-20	350-50-50	1 3/8 x 3	6.40	3.84
CTM-3398	100-40-40	350-300-250	1 3/8 x 3 1/2	4.85	2.91	CTM-3572	10-50-100	450-150-25	1 x 3	4.15	2.49
CTM-3400	100-10-1400	350-350-3	1 3/8 x 3	4.90	2.94	*CTM-3574	40-40-130	450-150-50	1 3/8 x 3	7.00	2.22
*CTM-3402	15-10-20	350-350-25	1 x 2 1/2	2.50	1.50	CTM-3576	40-50-100	450-150-50	1 3/8 x 2 1/2	5.50	3.30
CTM-3404	15-15-20	350-350-25	1 x 2 1/2	4.05	2.43	*CTM-3578	10-50-100	450-150-75	1 x 3	3.25	1.95
CTM-3406	20-5-30	350-350-25	1 x 2	3.70	2.22	CTM-3580	20-50-100	450-150-75	1 x 3	2.10	1.26
*CTM-3408	20-5-100	350-350-25	1 x 3	2.60	1.56	*CTM-3582	40-90-50	450-150-150	1 3/8 x 3	4.00	2.40
CTM-3410	20-10-20	350-350-25	1 x 2 1/2	2.55	1.53	CTM-3584	20-80-50	450-200-50	1 3/8 x 2 1/2	5.10	3.06
*CTM-3412	20-20-20	350-350-25	1 x 2 1/2	2.90	1.74	*CTM-3586	10-100-200	450-200-25	1 x 3 1/2	3.60	2.16
CTM-3414	30-10-20	350-350-25	1 x 2 1/2	4.60	2.76	*CTM-3588	10-100-100	450-200-50	1 x 3 1/2	3.60	2.16
*CTM-3416	30-20-20	350-350-25	1 x 2 1/2	3.10	1.86	*CTM-3590	20-60-100	450-250-25	1 3/8 x 2 1/2	3.65	2.19
CTM-3418	30-20-40	350-350-25	1 x 3	4.75	2.85	CTM-3592	10-60-60	450-250-250	1 3/8 x 4	6.00	3.60
*CTM-3420	30-30-20	350-350-25	1 3/8 x 2	3.40	2.04	*CTM-3594	10-80-80	450-250-250	1 3/8 x 3	5.15	2.49
CTM-3422	40-5-30	350-350-25	1 3/8 x 2	4.35	2.61	CTM-3596	20-40-10	450-250-250	1 3/8 x 2	4.75	2.85
CTM-3424	40-40-50	350-350-25	1 3/8 x 2 1/2	5.65	3.39	*CTM-3598	20-60-40	450-250-250	1 3/8 x 3	5.95	3.57
CTM-3426	60-10-25	350-350-25	1 3/8 x 2 1/2	4.50	2.70	*CTM-3600	80-40-40	450-250-250	1 3/8 x 4	4.80	2.88
CTM-3428	90-40-50	350-350-25	1 3/8 x 3 1/2	7.35	4.41	*CTM-3602	10-40-10	450-300-150	1 3/8 x 2	3.10	1.86
CTM-3430	100-20-20	350-350-25	1 3/8 x 3 1/2	7.10	4.26	CTM-3604	30-10-10	450-300-150	1 3/8 x 2	4.45	2.67
*CTM-3432	200-10-50	350-350-50	1 3/8 x 4	5.25	3.15	*CTM-3606	5-80-40	450-300-300	1 3/8 x 3	4.15	2.49
CTM-3434	10-5-30	350-350-50	1 x 2	3.30	1.98	CTM-3608	10-100-20	450-300-300	1 3/8 x 3	6.50	3.90
CTM-3436	10-5-150	350-350-50	1 x 3	4.05	2.43	CTM-3610	20-15-10	450-300-300	1 3/8 x 3	4.30	2.58
*CTM-3438	20-5-150	350-350-50	1 x 3	2.95	1.77	CTM-3612	10-10-20	450-350-25	1 x 2 1/2	3.45	2.07
*CTM-3440	20-10-100	350-350-50	1 3/8 x 2 1/2	2.90	1.74	CTM-3614	10-10-50	450-350-25	1 x 3	3.60	2.16
CTM-3442	70-40-50	350-350-50	1 3/8 x 3 1/2	6.50	3.90	*CTM-3616	30-15-40	450-350-25	1 3/8 x 2	3.20	1.92
CTM-3444	80-10-40	350-350-50	1 3/8 x 3	5.70	3.42	*CTM-3618	30-40-50	450-350-25	1 x 4	3.70	2.22
CTM-3446	80-10-100	350-350-50	1 3/8 x 3	6.15	3.69	CTM-3620	20-80-100	450-350-50	1 3/8 x 3 1/2	6.75	4.05
CTM-3448	100-20-50	350-350-50	1 3/8 x 3	6.95	4.17	*CTM-3622	80-50-100	450-350-200	1 3/8 x 4	5.85	3.51
CTM-3450	80-40-400	350-350-50	1 3/8 x 4	5.65	3.39	CTM-3624	15-20-20	450-350-250	1 3/8 x 2	4.45	2.67
*CTM-3452	150-4-30	350-350-50	1 3/8 x 3 1/2	4.75	2.85	CTM-3626	50-10-160	450-350-250	1 3/8 x 4	6.20	3.72
CTM-3453	150-5-100	350-350-50	1 3/8 x 3 1/2	5.10	3.06	CTM-3628	20-15-10	450-350-300	1 x 3	4.60	2.76
CTM-3454	30-20-100	350-350-75	1 3/8 x 2 1/2	6.00	3.60	CTM-3630	40-50-50	450-350-300	1 3/8 x 3	7.30	4.38
*CTM-3456	30-20-100	350-350-150	1 3/8 x 2 1/2	4.00	2.40	*CTM-3632	20-15-15	450-350-350	1 x 3	4.90	2.94
CTM-3460	40-20-10	350-350-150	1 x 3	4.80	2.88	CTM-3634	20-40-10	450-350-350	1 3/8 x 2 1/2	3.50	2.10
CTM-3462	40-40-100	350-350-200	1 3/8 x 4	7.20	4.32	*CTM-3636	20-80-30	450-350-350	1 3/8 x 3	4.25	2.55
*CTM-3464	80-40-100	350-350-200	1 3/8 x 4	5.45	3.27	*CTM-3638	40-80-40	450-350-350	1 3/8 x 3 1/2	5.40	3.24
*CTM-3466	100-60-20	350-350-200	1 3/8 x 4	5.50	3.30	CTM-3640	50-80-10	450-350-350	1 3/8 x 3 1/2	6.45	3.87
CTM-3468	20-10-5	350-350-250	1 x 2 1/2	2.55	1.53	CTM-3642	60-40-20	450-350-350	1 3/8 x 3 1/2	6.90	4.14
CTM-3470	30-10-20	350-350-250	1 x 3	4.60	2.76	CTM-3644	10-30-150	450-400-5	1 x 3	4.50	2.70
CTM-3472	20-20-10	350-350-350	1 x 3	4.45	2.67	CTM-3646	30-50-40	450-400-25	1 3/8 x 4	5.85	3.51
*CTM-3474	30-20-10	350-350-350	1 x 2 1/2	3.25	1.95	*CTM-3648	80-80-20	450-400-250	1 3/8 x 4	5.45	3.27
CTM-3476	50-50-50	350-350-350	1 3/8 x 3 1/2	7.30	4.3						

ARCO**CAPACITORS****Twist Mount
Electrolytic Capacitors****TRIPLE UNITS**

Catalog No.	Capacity MFD.	WVDC	Diam. x Length	List Price	Net Price (1-24)
*CTM-3670	30-30-20	450-450-25	1 3/8 x 2 1/2	3.55	2.13
*CTM-3672	30-30-125	450-450-25	1 3/8 x 3	3.95	2.37
*CTM-3674	40-20-20	450-450-25	1 3/8 x 2 1/2	3.95	2.37
*CTM-3676	40-40-20	450-450-25	1 3/8 x 2 1/2	3.90	2.34
*CTM-3678	40-40-40	450-450-25	1 3/8 x 2 1/2	3.95	2.37
*CTM-3680	80-10-125	450-450-25	1 3/8 x 3 1/2	4.45	2.67
*CTM-3682	80-40-100	450-450-25	1 3/8 x 4	5.05	3.03
*CTM-3684	10-10-40	450-450-50	1 x 2 1/2	2.50	1.50
*CTM-3686	20-10-50	450-450-50	1 x 3	2.85	1.71
*CTM-3688	20-20-100	450-450-50	1 3/8 x 2 1/2	5.25	3.15
*CTM-3690	30-10-150	450-450-50	1 3/8 x 2 1/2	3.50	2.10
*CTM-3692	30-15-150	450-450-50	1 3/8 x 3	3.70	2.22
*CTM-3694	30-30-40	450-450-50	1 3/8 x 3	5.50	3.30
*CTM-3696	35-25-150	450-450-50	1 3/8 x 3	3.95	2.37
*CTM-3698	40-10-40	450-450-50	1 3/8 x 2 1/2	4.90	2.99
*CTM-3700	40-10-100	450-450-50	1 3/8 x 3	4.30	2.58
*CTM-3702	40-30-25	450-450-50	1 3/8 x 2 1/2	5.65	3.39
*CTM-3704	40-40-100	450-450-50	1 3/8 x 3 1/2	4.30	2.58
*CTM-3706	60-40-75	450-450-50	1 3/8 x 4	4.65	2.79
*CTM-3708	80-20-100	450-450-50	1 3/8 x 2 1/2	4.80	2.88
CTM-3710	80-50-50	450-450-50	1 3/8 x 4	7.80	4.68
CTM-3712	30-30-125	450-450-75	1 3/8 x 3	6.75	4.05
*CTM-3716	30-20-30	450-450-150	1 3/8 x 2 1/2	5.25	3.15
*CTM-3718	40-40-40	450-450-150	1 3/8 x 3 1/2	4.15	2.49
*CTM-3720	40-10-80	450-450-200	1 3/8 x 3	3.90	2.34
*CTM-3722	40-10-100	450-450-200	1 3/8 x 3	4.15	2.49
*CTM-3724	40-40-60	450-450-200	1 3/8 x 3 1/2	4.45	2.67
*CTM-3726	40-40-100	450-450-200	1 3/8 x 3	4.95	2.97
*CTM-3728	15-10-120	450-450-300	1 3/8 x 3 1/2	7.05	4.23
CTM-3730	15-15-10	450-450-300	1 x 3 1/2	4.30	2.58
CTM-3734	20-20-60	450-450-350	1 3/8 x 3 1/2	7.60	4.56
CTM-3736	40-10-10	450-450-350	1 3/8 x 4	4.95	2.97
CTM-3738	40-40-60	450-450-350	1 3/8 x 3	7.35	4.11
*CTM-3740	40-40-80	450-450-350	1 3/8 x 3	5.55	3.33
*CTM-3742	50-5-50	450-450-350	1 3/8 x 3	4.25	2.55
*CTM-3744	60-20-40	450-450-350	1 3/8 x 4	7.35	4.41
*CTM-3746	80-80-10	450-450-400	1 3/8 x 4 1/2	7.20	4.32
*CTM-3748	10-10-10	450-450-450	1 x 3	2.60	1.56
*CTM-3748	15-15-10	450-450-450	1 x 3 1/2	4.45	2.67
*CTM-3750	15-15-15	450-450-450	1 x 3	3.10	1.86
*CTM-3752	20-10-10	450-450-450	1 x 3	2.90	1.74
*CTM-3754	20-20-20	450-450-450	1 3/8 x 2 1/2	3.50	2.16
*CTM-3756	30-10-10	450-450-450	1 3/8 x 2	3.15	1.89
*CTM-3758	30-20-20	450-450-450	1 3/8 x 2 1/2	3.85	2.31
*CTM-3760	30-30-10	450-450-450	1 3/8 x 3	5.65	3.39
*CTM-3762	30-30-30	450-450-450	1 3/8 x 3 1/2	4.35	2.61
*CTM-3764	40-10-10	450-450-450	1 3/8 x 3	3.35	2.01
*CTM-3766	40-30-20	450-450-450	1 3/8 x 3	4.30	2.58
*CTM-3768	40-40-10	450-450-450	1 3/8 x 2 1/2	4.15	2.49
*CTM-3770	40-40-20	450-450-450	1 3/8 x 3	4.45	2.57
*CTM-3772	40-40-40	450-450-450	1 3/8 x 3	4.90	2.94
*CTM-3774	50-30-30	450-450-450	1 3/8 x 3	7.15	4.29
*CTM-3776	50-40-30	450-450-450	1 3/8 x 3	4.90	2.94
*CTM-3778	60-10-10	450-450-450	1 3/8 x 3	5.85	3.51
*CTM-3780	60-20-20	450-450-450	1 3/8 x 3	4.60	2.76
*CTM-3782	60-30-10	450-450-450	1 3/8 x 3	4.50	2.70
*CTM-3784	60-40-20	450-450-450	1 3/8 x 3 1/2	5.00	3.00
*CTM-3786	80-40-10	450-450-450	1 3/8 x 4	7.60	4.56
*CTM-3788	80-40-20	450-450-450	1 3/8 x 4	5.40	3.24
*CTM-3790	20-50-20	475-75-50	1 x 3	2.75	1.65
*CTM-3792	80-80-50	475-150-50	1 3/8 x 4	4.85	2.91
*CTM-3794	10-10-40	475-200-50	1 3/8 x 2 1/2	5.05	3.03
*CTM-3796	40-40-100	475-250-50	1 3/8 x 3	6.45	3.87
CTM-3798	40-40-100	475-250-100	1 3/8 x 3	6.15	3.69
CTM-3800	40-40-100	475-250-250	1 3/8 x 3 1/2	6.00	3.00
CTM-3802	20-20-40	475-300-25	1 3/8 x 2	4.65	2.79
CTM-3804	40-40-100	475-300-50	1 3/8 x 3 1/2	6.75	4.05
*CTM-3806	40-80-10	475-300-300	1 3/8 x 3 1/2	4.85	2.91
CTM-3808	10-10-25	475-350-25	1 3/8 x 2 1/2	4.55	2.73
*CTM-3810	10-4-100	475-350-50	1 x 2 1/2	2.65	1.59
*CTM-3812	20-10-5	475-350-150	1 x 2 1/2	2.80	1.68
*CTM-3814	10-4-40	475-350-250	1 3/8 x 2	2.75	1.65
*CTM-3816	20-20-10	475-350-350	1 x 3	4.80	2.88
*CTM-3818	40-40-25	475-400-50	1 3/8 x 3	6.45	3.87
CTM-3820	10-45-100	475-450-50	1 3/8 x 3	5.50	3.30
*CTM-3822	40-40-20	475-450-50	1 3/8 x 3	6.60	3.96
*CTM-3824	10-40-100	475-450-200	1 3/8 x 3	4.20	2.52
CTM-3826	40-20-20	475-450-450	1 3/8 x 3	6.75	4.05
*CTM-3828	40-80-10	475-450-450	1 3/8 x 4	5.50	3.30
CTM-3830	40-40-500	475-475-10	1 3/8 x 3 1/2	8.20	4.92
CTM-3832	10-10-5	475-475-25	1 x 2 1/2	3.70	2.22
CTM-3834	10-10-100	475-475-25	1 x 3	4.00	2.40
CTM-3836	20-10-20	475-475-25	1 x 3	4.35	2.61
CTM-3838	10-10-150	475-475-50	1 x 3	4.50	2.70
CTM-3840	20-10-20	475-475-50	1 x 3	4.45	2.67
*CTM-3842	20-10-100	475-475-50	1 3/8 x 2	3.25	1.95
*CTM-3844	25-10-20	475-475-50	1 x 3	4.45	2.67
*CTM-3846	20-10-100	475-475-400	1 3/8 x 4	5.25	3.15
*CTM-3848	20-20-60	475-475-400	1 3/8 x 3 1/2	7.20	4.32

*Preferred Type

TRIPLE UNITS

Catalog No.	Capacity MFD.	WVDC	Diam. x Length	List Price	Net Price (1-24)
*CTM-3850	20-20-60	475-475-450	1 3/8 x 4	4.85	2.91
*CTM-3852	10-10-10	475-475-475	1 x 3	4.05	2.43
*CTM-3854	30-30-10	475-475-475	1 3/8 x 2 1/2	6.00	3.60
*CTM-3856	30-30-20	475-475-475	1 3/8 x 2 1/2	4.45	2.67
*CTM-3858	40-10-10	475-475-475	1 3/8 x 3	5.80	3.48
*CTM-3860	40-20-20	475-475-475	1 3/8 x 3	4.75	2.85
*CTM-3862	40-30-10	475-475-475	1 3/8 x 3	4.50	2.20
*CTM-3864	40-30-30	475-475-475	1 3/8 x 4	5.15	3.09
*CTM-3866	40-35-10	475-475-475	1 3/8 x 3	6.85	4.11
*CTM-3868	10-80-10	500-150-150	1 x 3 1/2	4.30	2.58
CTM-3870	10-100-40	500-200-50	1 3/8 x 2 1/2	5.05	3.03
CTM-3872	40-40-100	500-200-50	1 3/8 x 3	5.45	3.87
CTM-3874	20-20-40	500-300-25	1 3/8 x 2	4.65	2.79
*CTM-3876	20-40-100	500-300-25	1 3/8 x 2 1/2	5.40	3.24
CTM-3878	5-100-200	500-300-150	1 3/8 x 4	7.75	4.65
*CTM-3880	40-40-25	500-400-50	1 3/8 x 3	6.45	3.87
*CTM-3882	20-40-100	500-450-25	1 3/8 x 3	5.70	3.42
CTM-3884	80-20-100	500-450-50	1 3/8 x 4	7.69	4.59
*CTM-3886	10-40-40	500-450-450	1 3/8 x 3 1/2	6.25	3.75
*CTM-3888	30-20-20	500-500-25	1 3/8 x 2 1/2	5.35	3.21
*CTM-3890	10-10-100	500-500-50	1 x 3 1/2	4.30	2.58
*CTM-3892	20-10-100	500-500-50	1 x 4	3.30	1.98
*CTM-3894	30-10-20	500-500-50	1 3/8 x 2 1/2	4.65	2.79
*CTM-3896	40-40-100	500-500-200	1 3/8 x 3	5.80	3.48
*CTM-3898	30-20-20	500-500-350	1 x 2 1/2	3.75	2.25
*CTM-3900	20-20-60	500-500-400	1 3/8 x 3 1/2	4.80	2.88
*CTM-3902	10-10-10	500-500-500	1 x 3	2.70	1.02
*CTM-3904	30-20-20	500-500-500	1 3/8 x 2 1/2	4.20	2.52
*CTM-3906	40-10-10	500-500-500	1 3/8 x 3	3.90	2.34
*CTM-3908	40-40-10	500-500-500	1 3/8 x 3 1/2	5.05	3.03

QUADRUPLER UNITS

*CTM-4010	750-600-350-4	16-16-16-11.5RMS	1 3/8 x 2	5.20	3.12
*CTM-4011	750-750-350-4	16-16-16-11.5RMS	1 3/8 x 2	5.50	3.30
CTM-4020	40-40-40-40	25-25-25-25	1 3/8 x 2	4.15	2.49
*CTM-4022	5-5-25-100	75-75-25-15	1 3/8 x 2	5.00	2.40
*CTM-4025	50-20-30-100	150-150-15-15	1 3/8 x 2	3.15	1.89
*CTM-4028	40-40-50-200	150-150-25-10	1 3/8 x 2	4.75	2.85
*CTM-4031	20-20-160-40	150-150-25-25	1 3/8 x 2	3.20	1.92
CTM-4034	40-40-100-100	150-150-25-25	1 3/8 x 2	5.05	3.03
*CTM-4037	40-40-200-100	150-150-25-25	1 3/8 x 2	5.35	3.21
*CTM-4040	50-40-160-40	150-150-25-25	1 3/8 x 2	3.55	2.13
*CTM-4043	80-20-160-40	150-150-25-25	1 3/8 x 2	5.55	3.33
CTM-4047	80-30-100-40	150-150-25-25	1 3/8 x 2	5.12	3.12
CTM-4050	40-40-150-100	150-150-50-50	1 3/8 x 2	5.55	3.33
*CTM-4052	30-20-20-200	150-150-150-10	1 3/8 x 2	4.65	2.79
*CTM-4055	40-40-20-200	150-150-150-10	1 3/8 x 2	3.20	1.92
CTM-4058	50-30-25-200	150-150-150-10	1 3/8 x 2	5.05	3.03
*CTM-4061	60-40-20-200	150-150-150-10	1 3/8 x 2	3.45	2.07
*CTM-4064	80-80-10-200	150-150-150-10	1 3/8 x 2 1/2	5.85	3.51
*CTM-4067	200-30-10-100	150-150-150-10	1 3/8 x 3 1/2	4.10	2.46
*CTM-4070	290-30-10-100	150-150-150-10	1 3/8 x 3 1/2	5.00	2.70
CTM-4073	60-20-20-1000	150-150-150-15	1 3/8 x 2 1/2	7.40	4.20
CTM-4076	20-20-20-20	150-150-150-25	1 3/8 x 2	4.35	2.61
*CTM-4079	30-20-10-20	150-150-150-25	1 3/8 x 2	4.75	2.85
*CTM-4082	30-30-30-40	150-150-150-25	1 3/8 x 2	3.10	1.86
*CTM-4085	40-20-20-20	150-150-150-25	1 3/8 x 2	2.95	1.77
CTM-4088	40-30-20-100	150-150-150-25	1 3/8 x 2	4.80	2.88
*CTM-4092	40-40-30-20	150-150-150-25	1 3/8 x 2	3.10	1.86
*CTM-4095	40-40-30-120	150-150-150-25	1 3/8 x 2	5.25	3.15
*CTM-4098	40-40-40-20	150-150-150-25	1 3/8 x 2	3.15	1.89
*CTM-4104	40-40-40-160	150-150-150-25	1 3/8 x 2	3.55	2.13
*CTM-4107	50-20-20-200	150-150-150-25	1 3/8 x 2	2.10	1.26
*CTM-4110	50-30-30-100	150-150-150-25	1 3/8 x 2	3.40	2.04
*CTM-4113	50-50-50-20	150-150-150-25	1 3/8 x 2	3.55	2.13
CTM-4116	50-50-50-100	150-150-150-25	1 3/8 x 2	5.65	3.39
CTM-4118	60-30-10-60	150-150-150-25	1 3/8 x 2	4.60	2.76
CTM-4120	60-40-20-20	150-150-150-25	1 3/8 x 2	4.95	2.97
CTM-4122	60-60-10-60	150-150-150-25	1 3/8 x 2	5.25	3.15
CTM-4124	70-40-40-25	150-150-150-25	1 3/8 x 2 1/2	3.12	1.86
CTM-4126	80-40-30-100	150-150-150-25	1 3/8 x 2	5.55	3.33
*CTM-4128	80-40-20-20	150-150-150-25	1 3/8 x 2	3.55	2.13
*CTM-4130	80-40-40-40	150-150-150-25	1 3/8 x 2	3.60	2.16
*CTM-4132	80-40-40-100	150-150-150-25	1 3/8 x 2	3.75	2.25
CTM-4134	80-50-50-25	150-150-150-25	1 3/8 x 2 1/2	5.70	3.42
CTM-4136	80-60-40-100	150-150-150-25	1 3/8 x 2	5.95	3.57
*CTM-4138	100-90-90-100	150-150-150-25	1 3/8 x 3	4.95	2.97
CTM-4140	125-125-40-200	150-150-150-25	1 3/8 x 3	7.40	4.17
*CTM-4142	200-200-10-25	150-150-150-75	1 3/8 x 3	3.35	2.01
*CTM-4146	200-200-100-10	150-150-150-75	1 3/8 x 3 1/2	5.95	3.57
*CTM-4148	40-40-40-30	150-150-150-150	1 3/8 x 2	3.30	1.98
CTM-4150	50-40-30-30	150-150-150-150	1 3/8 x 2	5.10	3.06
CTM-4152	50-50-50-50	150-150-150-150	1 3/8 x 2 1/2	5.85	3.51
CTM-4154	80-50-20-20	150-150-150-150	1 3/8 x 2 1/2	5.55	3.33
*CTM-4156	100-80-60-40	150-150-150-150	1 3/8 x 2	2.79	1.61
*CTM-4158	200-200-10-20	175-175-175-175	1 3/8 x 4	5.55	3.33
*CTM-4163	250-200-10-10	175-175-150-150	1 3/8 x 4	5.50	3.30
CTM-4165	40-20-10-20	200-200-200-25	1 3/8 x 2	4.80	2.88

ARCO

CAPACITORS

Twist Mount Electrolytic Capacitors

Catalog No.	Capacity MFD.	WVDC	Diam. x Length	List Price	Net Price (1-24)	Catalog No.	Capacity MFD.	WVDC	Diam. x Length	List Price	Net Price (1-24)
CTM-4167	60-20-5-50	200-200-200-50	1 3/8 x 3	5.25	3.15	*CTM-4393	40-40-40-150	350-350-350-50	1 3/8 x 4	5.65	3.39
CTM-4170	40-40-50-80	250-250-150-150	1 3/8 x 2 1/2	6.15	3.69	*CTM-4395	50-40-20-100	350-350-350-50	1 3/8 x 3	7.75	4.65
*CTM-4173	100-40-10-100	250-250-250-50	1 3/8 x 3 1/2	5.15	3.09	CTM-4398	50-40-40-160	350-350-350-50	1 3/8 x 4	8.65	5.19
CTM-4176	80-60-40-20	250-250-250-150	1 3/8 x 4	7.65	4.59	*CTM-4400	60-25-25-100	350-350-350-50	1 3/8 x 3 1/2	7.75	4.65
CTM-4178	40-40-20-20	250-250-250-250	1 3/8 x 2 1/2	6.00	3.60	*CTM-4403	70-30-30-150	350-350-350-50	1 3/8 x 3	5.50	3.30
CTM-4180	100-40-80-20	300-50-25-25	1 3/8 x 3	6.85	4.11	*CTM-4405	60-40-10-50	350-350-350-50	1 3/8 x 3	5.25	3.15
*CTM-4183	20-150-150-100	300-150-150-30	1 3/8 x 4	5.30	3.18	*CTM-4408	100-10-10-20	350-350-350-50	1 3/8 x 3 1/2	5.15	3.09
CTM-4185	10-200-140-30	300-150-150-150	1 3/8 x 3	5.10	3.00	*CTM-4410	40-20-10-50	350-350-350-50	1 3/8 x 3 1/2	5.40	3.24
*CTM-4188	10-200-140-30	300-150-150-150	1 3/8 x 3	5.35	3.21	*CTM-4413	100-40-30-50	350-350-350-50	1 3/8 x 3 1/2	6.55	3.93
CTM-4190	100-60-10-20	300-200-150-50	1 3/8 x 3 1/2	4.85	2.91	CTM-4415	140-20-10-100	350-350-350-50	1 3/8 x 4	9.25	5.55
CTM-4193	120-20-20-100	300-250-25-30	1 3/8 x 3 1/2	7.90	4.77	*CTM-4418	90-30-50-100	350-350-350-75	1 3/8 x 3 1/2	6.15	3.69
*CTM-4195	200-20-100-20	300-250-25-30	1 3/8 x 4	5.80	3.48	CTM-4420	80-60-40-20	350-350-350-150	1 3/8 x 4	9.15	5.49
CTM-4198	40-40-40-40	300-250-250-25	1 3/8 x 2 1/2	6.60	3.96	CTM-4424	20-10-5-60	350-350-350-150	1 3/8 x 2 1/2	5.50	3.30
CTM-4200	80-5-60-20	300-300-150-25	1 3/8 x 3	4.35	2.61	*CTM-4428	30-10-5-100	350-350-350-200	1 3/8 x 2 1/2	4.55	2.73
CTM-4203	100-40-125-50	300-300-150-50	1 3/8 x 4	9.30	5.58	CTM-4432	30-20-5-100	350-350-350-200	1 3/8 x 3	4.70	2.82
*CTM-4205	140-10-10-100	300-300-150-50	1 3/8 x 3 1/2	5.05	3.03	CTM-4439	80-40-10-100	350-350-350-200	1 3/8 x 3 1/2	7.45	4.47
*CTM-4208	100-10-200-30	300-300-150-150	1 3/8 x 4	5.90	3.54	CTM-4443	130-20-10-40	350-350-350-300	1 3/8 x 4	9.80	5.88
*CTM-4210	140-10-200-30	300-300-150-150	1 3/8 x 4	6.25	3.75	*CTM-4446	35-20-10-20	350-350-350-350	1 3/8 x 3	6.95	4.17
*CTM-4213	140-10-200-60	300-300-150-150	1 3/8 x 4 1/2	6.40	3.84	*CTM-4449	40-20-20-10	350-350-350-350	1 3/8 x 2 1/2	4.35	2.61
*CTM-4215	150-20-10-250	300-300-250-50	1 3/8 x 3	6.05	3.63	CTM-4453	40-25-25-10	350-350-350-350	1 3/8 x 2 1/2	5.95	3.57
CTM-4218	10-10-10-20	300-300-300-25	1 3/8 x 2	4.45	2.67	*CTM-4456	40-40-40-40	350-350-350-350	1 3/8 x 4	6.00	3.60
CTM-4220	40-30-20-50	300-300-300-25	1 3/8 x 2 1/2	6.25	3.75	*CTM-4459	80-40-60-40	350-350-350-350	1 3/8 x 4	6.40	3.84
*CTM-4223	60-40-20-50	300-300-300-25	1 3/8 x 3 1/2	4.70	2.82	*CTM-4461	90-40-30-30	350-350-350-350	1 3/8 x 4	6.80	4.00
CTM-4225	30-30-15-30	300-300-300-50	1 3/8 x 3	5.50	3.30	*CTM-4464	100-20-10-5	350-350-350-350	1 3/8 x 3 1/2	7.95	4.77
CTM-4228	60-30-10-60	300-300-300-50	1 3/8 x 2 1/2	6.30	3.78	*CTM-4467	100-40-10-10	350-350-350-350	1 3/8 x 3 1/2	6.00	3.60
*CTM-4230	150-30-30-150	300-300-300-50	1 3/8 x 4	6.10	3.66	*CTM-4469	100-40-25-25	350-350-350-350	1 3/8 x 4	6.55	3.93
*CTM-4233	40-40-40-20	300-300-300-150	1 3/8 x 3	4.90	2.94	CTM-4471	50-20-100-25	400-200-150-25	1 3/8 x 2 1/2	7.00	4.20
*CTM-4235	120-40-10-10	300-300-300-250	1 3/8 x 4	6.30	3.78	CTM-4473	20-20-10-40	400-250-250-25	1 3/8 x 2 1/2	5.05	3.03
*CTM-4238	40-20-10-10	300-300-300-300	1 3/8 x 2	3.95	2.37	*CTM-4475	40-120-10-150	400-250-250-50	1 3/8 x 4	5.90	3.54
*CTM-4240	40-40-20-10	300-300-300-300	1 3/8 x 3	4.55	2.73	CTM-4477	10-10-10-100	400-300-75-25	1 3/8 x 2 1/2	7.05	4.23
*CTM-4243	40-40-20-10	300-300-300-300	1 3/8 x 3	4.85	2.91	CTM-4479	30-40-50-200	400-300-250-150	1 3/8 x 4	9.00	5.40
*CTM-4245	60-10-10-10	300-300-300-300	1 3/8 x 2 1/2	4.55	2.73	CTM-4481	20-30-20-20	400-300-300-25	1 3/8 x 2 1/2	5.70	3.42
CTM-4248	100-20-10-10	300-300-300-300	1 3/8 x 4	8.70	5.22	CTM-4483	80-40-20-10	400-300-300-100	1 3/8 x 4	9.00	5.40
CTM-4250	100-50-10-5	300-300-300-300	1 3/8 x 4	7.75	4.65	CTM-4484	10-10-10-10	400-350-150-50	1 3/8 x 3	6.30	3.78
*CTM-4253	140-100-20-20	300-300-300-300	1 3/8 x 4 1/2	7.10	4.26	CTM-4486	40-100-5-100	400-350-150-50	1 3/8 x 4	6.10	3.66
*CTM-4255	150-100-10-10	300-300-300-300	1 3/8 x 4	6.65	3.99	*CTM-4487	20-10-10-20	400-350-200-25	1 3/8 x 2	3.20	1.92
CTM-4258	150-150-30-30	300-300-300-300	1 3/8 x 4 1/2	7.70	4.62	*CTM-4489	40-80-100-25	400-350-200-50	1 3/8 x 3 1/2	5.95	3.57
*CTM-4260	200-20-20-20	300-300-300-300	1 3/8 x 4	6.25	3.75	CTM-4491	40-10-80-10	400-350-250-250	1 3/8 x 4	7.00	4.20
CTM-4263	20-150-80-20	350-150-150-25	1 3/8 x 3	6.85	4.11	CTM-4493	80-40-20-30	400-350-300-300	1 3/8 x 3 1/2	6.40	3.84
CTM-4265	60-60-30-160	350-150-150-25	1 3/8 x 3	6.85	4.11	CTM-4495	10-50-30-30	400-350-350-25	1 3/8 x 3	6.60	3.96
CTM-4268	40-50-20-80	350-150-150-50	1 3/8 x 3	6.10	3.66	CTM-4499	80-40-10-10	400-350-350-25	1 3/8 x 4	7.95	4.77
CTM-4270	20-60-160-40	350-20-25-25	1 3/8 x 3	6.00	3.60	*CTM-4501	20-50-40-80	400-350-350-50	1 3/8 x 3	5.00	3.00
CTM-4273	15-80-40-200	350-200-200-25	1 3/8 x 3	6.75	4.05	*CTM-4505	40-80-10-100	400-350-350-200	1 3/8 x 4	6.20	3.72
CTM-4275	20-100-100-10	350-200-200-100	1 3/8 x 4	7.50	4.50	*CTM-4507	20-10-20-350	400-400-200-350	1 3/8 x 4	6.20	3.72
CTM-4278	20-100-100-20	350-200-200-200	1 3/8 x 4	7.75	4.65	CTM-4509	10-10-25-25	400-400-25-25	1 3/8 x 2	4.20	2.52
CTM-4280	20-40-10-250	350-300-150-50	1 3/8 x 3	6.90	4.14	CTM-4511	20-5-20-20	400-400-25-25	1 3/8 x 2	4.60	2.76
CTM-4283	140-10-10-100	350-300-150-50	1 3/8 x 4	5.75	3.45	CTM-4513	20-20-40-10	400-400-25-25	1 3/8 x 2 1/2	7.60	4.56
CTM-4285	20-150-10-250	350-300-150-50	1 3/8 x 4	6.10	3.66	CTM-4515	50-25-100-20	400-400-50-25	1 3/8 x 3	7.00	4.20
CTM-4288	40-40-20-20	350-300-300-25	1 3/8 x 3	6.75	4.05	*CTM-4517	50-40-100-100	400-400-50-25	1 3/8 x 4	5.10	3.06
*CTM-4290	160-30-30-20	350-300-300-50	1 3/8 x 4	5.80	3.48	CTM-4519	80-40-100-20	400-400-50-25	1 3/8 x 4	8.40	5.04
*CTM-4293	30-30-50-100	350-300-300-75	1 3/8 x 3	5.25	3.15	*CTM-4521	100-10-30-20	400-400-50-50	1 3/8 x 3 1/2	5.10	3.06
CTM-4295	40-80-10-10	350-300-300-75	1 3/8 x 3	5.35	3.21	CTM-4523	20-10-10-25	400-400-100-25	1 3/8 x 2	4.65	2.79
*CTM-4298	140-100-20-20	350-300-300-300	1 3/8 x 4 1/2	7.70	4.62	*CTM-4525	20-10-20-100	400-400-100-100	1 3/8 x 3	5.20	3.12
CTM-4300	160-30-10-4	350-300-300-300	1 3/8 x 3 1/2	6.05	3.63	CTM-4527	20-10-20-25	400-400-200-25	1 3/8 x 4	3.30	1.98
*CTM-4303	160-60-10-4	350-300-300-300	1 3/8 x 4	6.30	3.78	CTM-4529	10-10-40-10	400-400-200-50	1 3/8 x 2	4.80	2.88
*CTM-4305	40-10-100-25	350-350-25-25	1 3/8 x 2	3.75	2.25	CTM-4530	80-40-100-100	400-400-200-50	1 3/8 x 4	6.50	3.90
*CTM-4308	60-4-100-40	350-350-25-25	1 3/8 x 2 1/2	3.80	2.28	CTM-4531	40-30-80-10	400-400-200-200	1 3/8 x 3 1/2	7.45	4.47
CTM-4310	100-4-50-50	350-350-50-25	1 3/8 x 3 1/2	5.50	4.50	CTM-4533	80-10-80-100	400-400-250-50	1 3/8 x 4	5.80	3.48
CTM-4313	200-10-4-20	350-350-50-25	1 3/8 x 4	8.70	5.22	CTM-4535	40-10-80-10	400-400-250-250	1 3/8 x 3 1/2	7.05	4.23
CTM-4315	60-5-50-20	350-350-50-50	1 3/8 x 2 1/2	3.65	2.19	CTM-4537	5-5-50-80	400-400-300-250	1 3/8 x 3	7.00	4.20
CTM-4318	100-20-50-30	350-350-50-50	1 3/8 x 3 1/2	8.15	4.89	*CTM-4539	50-20-20-25	400-400-350-25	1 3/8 x 3	4.45	2.67
*CTM-4320	60-20-80-100	350-350-150-50	1 3/8 x 4	4.90	2.94	*CTM-4543	100-10-20-20	400-400-350-50	1 3/8 x 4	8.20	4.92
CTM-4323	60-10-100-100	350-350-150-10	1 3/8 x 4	6.00	3.60	CTM-4544	20-20-20-20	400-400-400-25	1 3/8 x 2 1/2	5.80	3.48
CTM-4325	100-60-100-100	350-350-150-10	1 3/8 x 4 1/2	6.80	4.08	CTM-4545	60-30-30-150	400-400-400-25	1 3/8 x 4	8.70	5.22
CTM-4328	15-15-150-150	350-350-150-150	1 3/8 x 3 1/2	6.95	4.17	*CTM-4547	40-40-20-25	400-400-400-25	1 3/8 x 4	5.00	3.18
CTM-4330	40-20-10-20	350-350-200-25	1 3/8 x 2	5.85	3.51	*CTM-4549	80-40-30-40	400-400-400-25	1 3/8 x 4	5.95	3.57
CTM-4333	40-20-100-10	350-350-200-50	1 3/8 x 3	7.15	4.29	CTM-4551	90-40-10-40	400-400-400-25	1 3/8 x 4	8.70	5.22
CTM-4335	80-20-20-100	350-350-200-50	1 3/8 x 3 1/2	7.50	4.50	*CTM-4553	40-40-40-150	400-400-400-50	1 3/8 x 4	8.55	5.13
CTM-4338	80-20-20-20	350-350-200-50	1 3/8 x 3 1/2	8.10	4.86	*CTM-4555	90-20-10-50	400-400-400-50	1 3/8 x 4	5.40	3.24
CTM-4339	100-50-100-100	350-350-200-50	1 3/8 x 4 1/2	7.25	4.35	CTM-4557	80-20-10-100	400-400-400-50	1 3/8 x 4	7.90	4.74
*CTM-4340	60-40-60-20	350-350-200-150	1 3/8 x 2 1/2	5.05	3.03	*CTM-4558	80-40-10-100	400-400-400-200	1 3/8 x 4	6.30	3.78
CTM-4343	80-60-60-10	350-350-200-150	1 3/8 x 4	8.40	5.04	*CTM-4559	80-40-30-4	400-400-400-350	1 3/8 x 3 1/2	5.90	3.54
CTM-4346	100-40-10-100	350-350-200-150	1 3/8 x 4 1/2	6.50	3.90	CTM-4561	30-30-20-20</				

ARCO CAPACITORS

Twist Mount Electrolytic Capacitors

Catalog No.	Capacity MFD.	WVDC	Diam. x Length	List Price	Net Price (1-24)
*CTM-4609	10-100-20-20	450-300-300-200	1 3/4 x 3	5.05	3.03
*CTM-4612	10-100-20-20	450-300-300-200	1 3/4 x 3	7.90	4.74
*CTM-4615	10-40-80-10	450-350-200-200	1 3/4 x 3 1/2	7.05	4.23
*CTM-4618	10-40-100-100	450-350-250-50	1 3/4 x 3	5.55	3.33
*CTM-4621	40-30-15-50	450-300-300-50	1 3/4 x 3	6.55	3.93
*CTM-4624	10-140-20-10	450-350-300-300	1 3/4 x 4	8.95	5.37
*CTM-4625	10-140-100-20	450-350-300-300	1 3/4 x 4	7.50	4.50
*CTM-4630	10-60-40-25	450-350-350-25	1 3/4 x 4	4.60	2.76
*CTM-4633	20-15-15-20	450-350-350-25	1 3/4 x 2 1/2	5.70	3.42
*CTM-4636	20-80-50-100	450-350-350-50	1 3/4 x 4	6.00	3.60
*CTM-4639	30-40-40-10	450-350-350-200	1 3/4 x 3 1/2	7.75	4.65
*CTM-4642	80-10-30-40	450-400-300-150	1 3/4 x 3 1/2	7.90	4.74
*CTM-4645	80-10-40-30	450-400-300-300	1 3/4 x 3 1/2	5.80	3.48
*CTM-4648	5-60-50-20	450-400-350-25	1 3/4 x 3 1/2	7.60	4.56
*CTM-4651	10-40-30-40	450-400-400-25	1 3/4 x 3	6.60	3.96
*CTM-4654	80-40-10-150	450-400-400-50	1 3/4 x 4	9.00	5.40
*CTM-4657	10-40-40-100	450-400-400-50	1 3/4 x 3 1/2	7.30	4.38
*CTM-4660	60-40-20-20	450-400-400-100	1 3/4 x 4	8.70	5.22
*CTM-4664	10-10-20-20	450-450-25-25	1 3/4 x 2	4.45	2.67
*CTM-4666	20-10-100-60	450-450-25-25	1 3/4 x 2	5.35	3.21
*CTM-4669	20-15-20-20	450-450-25-25	1 3/4 x 2	3.45	2.07
*CTM-4672	30-30-125-125	450-450-25-25	1 3/4 x 3	4.85	2.91
*CTM-4675	30-10-150-30	450-450-50-50	1 3/4 x 2 1/2	6.15	3.69
*CTM-4678	20-20-60-100	450-450-150-25	1 3/4 x 2 1/2	6.40	3.84
*CTM-4681	40-40-125-125	450-450-150-25	1 3/4 x 4	5.70	3.42
*CTM-4682	50-20-4-40	450-450-150-25	1 3/4 x 2	4.50	2.70
*CTM-4684	10-10-60-100	450-450-200-50	1 3/4 x 3	3.85	2.31
*CTM-4687	35-25-20-100	450-450-200-50	1 3/4 x 3	4.65	2.79
*CTM-4690	40-40-100-60	450-450-200-200	1 3/4 x 4	6.05	3.63
*CTM-4691	80-50-20-50	450-450-250-50	1 3/4 x 4	5.95	3.57
*CTM-4692	80-50-100-250	450-450-250-50	1 3/4 x 4	7.40	4.44
*CTM-4692.4	30-20-160-40	450-450-250-150	1 3/4 x 3	5.65	3.39
*CTM-4693	10-10-10-50	450-450-300-25	1 3/4 x 2	4.75	2.85
*CTM-4696	40-40-10-50	450-450-300-50	1 3/4 x 2	7.05	4.23
*CTM-4699	20-20-30-30	450-450-300-300	1 3/4 x 3 1/2	6.50	4.05
*CTM-4702	20-5-60-20	450-450-350-25	1 3/4 x 2 1/2	6.85	4.11
*CTM-4705	20-20-30-30	450-450-350-350	1 3/4 x 3	7.60	4.56
*CTM-4708	40-10-35-10	450-450-350-350	1 3/4 x 3 1/2	6.90	4.14
*CTM-4710	40-20-80-10	450-450-350-350	1 3/4 x 4	8.70	5.22
*CTM-4712	40-40-30-30	450-450-350-350	1 3/4 x 4	5.90	3.54
*CTM-4714	10-10-10-20	450-450-450-25	1 3/4 x 2	3.15	1.89
*CTM-4716	10-10-10-100	450-450-450-25	1 3/4 x 2	4.90	2.94
*CTM-4718	15-10-10-20	450-450-450-25	1 3/4 x 3	4.95	2.97
*CTM-4720	20-10-10-10	450-450-450-25	1 3/4 x 2	5.55	3.33
*CTM-4722	20-20-20-20	450-450-450-25	1 3/4 x 2 1/2	4.15	2.49
*CTM-4724	30-15-15-40	450-450-450-25	1 3/4 x 2 1/2	6.25	3.75
*CTM-4726	30-20-20-20	450-450-450-25	1 3/4 x 3	6.60	3.96
*CTM-4728	30-30-10-20	450-450-450-25	1 3/4 x 3	6.55	3.93
*CTM-4730	30-30-10-125	450-450-450-25	1 3/4 x 3	4.70	2.82
*CTM-4732	30-30-20-20	450-450-450-25	1 3/4 x 3	4.00	2.40
*CTM-4734	40-10-10-250	450-450-450-25	1 3/4 x 3	7.05	4.23
*CTM-4736	40-15-10-25	450-450-450-25	1 3/4 x 3	6.15	3.69
*CTM-4738	40-20-10-20	450-450-450-25	1 3/4 x 3	6.40	3.84
*CTM-4740	40-20-20-20	450-450-450-25	1 3/4 x 3	4.60	2.76
*CTM-4742	40-20-20-40	450-450-450-25	1 3/4 x 3	4.65	2.79
*CTM-4744	40-30-10-20	450-450-450-25	1 3/4 x 3	4.50	2.70
*CTM-4746	40-40-10-20	450-450-450-25	1 3/4 x 3	4.70	2.82
*CTM-4748	40-40-20-20	450-450-450-25	1 3/4 x 3	5.00	3.00
*CTM-4750	40-40-40-40	450-450-450-25	1 3/4 x 3	5.50	3.30
*CTM-4752	50-40-5-20	450-450-450-25	1 3/4 x 3	7.20	4.32
*CTM-4754	60-40-40-10	450-450-450-25	1 3/4 x 4	6.00	3.60
*CTM-4756	60-50-5-20	450-450-450-25	1 3/4 x 4	5.35	3.21
*CTM-4758	80-40-40-40	450-450-450-25	1 3/4 x 4	6.45	3.87
*CTM-4759	80-50-10-20	450-450-450-25	1 3/4 x 4	5.95	3.57
*CTM-4760	10-10-10-150	450-450-450-50	1 3/4 x 2 1/2	5.55	3.33
*CTM-4762	20-20-20-100	450-450-450-50	1 3/4 x 2 1/2	4.55	2.73
*CTM-4764	30-30-10-150	450-450-450-50	1 3/4 x 3	4.55	2.73
*CTM-4766	30-30-15-100	450-450-450-50	1 3/4 x 3 1/2	7.35	4.41
*CTM-4768	40-20-10-100	450-450-450-50	1 3/4 x 3 1/2	4.60	2.76
*CTM-4770	40-40-10-25	450-450-450-50	1 3/4 x 3	4.70	2.82
*CTM-4772	40-40-10-50	450-450-450-50	1 3/4 x 4	4.80	2.88
*CTM-4774	60-40-10-25	450-450-450-50	1 3/4 x 4	5.25	3.15
*CTM-4776	40-40-10-100	450-450-450-100	1 3/4 x 3 1/2	5.55	3.33
*CTM-4778	40-10-10-10	450-450-450-150	1 3/4 x 2	4.75	2.85
*CTM-4780	60-10-10-20	450-450-450-150	1 3/4 x 3	4.55	2.73
*CTM-4782	35-35-10-10	450-450-450-200	1 3/4 x 3 1/2	6.90	4.14
*CTM-4785	40-10-10-100	450-450-450-200	1 3/4 x 4	7.35	4.41
*CTM-4788	40-40-30-10	450-450-450-200	1 3/4 x 4	8.05	4.83
*CTM-4790	30-10-10-10	450-450-450-250	1 3/4 x 2 1/2	5.80	3.48
*CTM-4794	40-20-10-100	450-450-450-250	1 3/4 x 4	5.85	3.51
*CTM-4798	40-10-10-40	450-450-450-350	1 3/4 x 3	4.75	2.85
*CTM-4800	40-10-20-20	450-450-450-350	1 3/4 x 3	4.50	2.70
*CTM-4802	40-40-10-10	450-450-450-350	1 3/4 x 3 1/2	7.20	4.32
*CTM-4804	5-5-5-5	450-450-450-450	1 3/4 x 2	3.00	1.80
*CTM-4806	10-10-10-10	450-450-450-450	1 3/4 x 2	3.35	2.01
*CTM-4808	20-10-10-10	450-450-450-450	1 3/4 x 2 1/2	3.70	2.22
*CTM-4810	20-20-20-20	450-450-450-450	1 3/4 x 3	4.70	2.82
*CTM-4812	25-20-20-20	450-450-450-450	1 3/4 x 3 1/2	7.30	4.38
*CTM-4814	30-15-15-15	450-450-450-450	1 3/4 x 3	4.45	2.67
*CTM-4816	30-20-20-10	450-450-450-450	1 3/4 x 3	6.90	4.14

Catalog No.	Capacity MFD.	WVDC	Diam. x Length	List Price	Net Price (1-24)
CTM-4818	30-30-15-10	450-450-450-450	1 3/4 x 3 1/2	7.05	4.23
*CTM-4820	30-30-20-20	450-450-450-450	1 3/4 x 3	5.20	3.12
*CTM-4822	30-30-30-15	450-450-450-450	1 3/4 x 4	7.95	4.77
*CTM-4824	35-35-10-5	450-450-450-450	1 3/4 x 3 1/2	4.60	2.76
*CTM-4826	40-10-10-10	450-450-450-450	1 3/4 x 3	4.10	2.46
*CTM-4828	40-20-20-10	450-450-450-450	1 3/4 x 3	7.20	4.32
*CTM-4830	40-35-10-10	450-450-450-450	1 3/4 x 3	4.80	2.88
*CTM-4832	40-40-4-4	450-450-450-450	1 3/4 x 3 1/2	4.65	2.79
*CTM-4834	40-40-20-20	450-450-450-450	1 3/4 x 3 1/2	5.55	3.33
*CTM-4836	40-40-30-30	450-450-450-450	1 3/4 x 4	6.05	3.63
*CTM-4838	40-40-40-40	450-450-450-450	1 3/4 x 4	6.45	3.87
*CTM-4840	60-20-20-20	450-450-450-450	1 3/4 x 4	5.65	3.39
*CTM-4842	60-30-10-2	450-450-450-450	1 3/4 x 3	5.10	3.06
*CTM-4844	70-10-10-5	450-450-450-450	1 3/4 x 3	7.15	4.29
*CTM-4846	80-10-10-10	450-450-450-450	1 3/4 x 4	5.05	3.03
*CTM-4848	40-40-50-80	475-250-150-50	1 3/4 x 3 1/2	5.00	3.00
*CTM-4850	20-40-100-80	475-300-50-25	1 3/4 x 3	4.45	2.67
*CTM-4852	10-100-10-100	475-300-300-25	1 3/4 x 3 1/2	4.90	2.94
*CTM-4854	20-80-20-10	475-300-300-300	1 3/4 x 3 1/2	5.00	3.00
*CTM-4856	20-140-20-10	475-300-300-300	1 3/4 x 4	6.00	3.60
*CTM-4858	20-10-20-125	475-350-25-25	1 3/4 x 2	3.45	2.07
*CTM-4862	20-40-80-100	475-350-200-100	1 3/4 x 4	5.45	3.27
*CTM-4864	10-40-40-100	475-350-300-100	1 3/4 x 4	5.95	3.33
*CTM-4866	10-30-5-80	475-350-350-50	1 3/4 x 2 1/2	5.55	3.33
*CTM-4868	10-140-4-100	475-350-350-50	1 3/4 x 4	5.85	3.51
*CTM-4870	10-130-20-10	475-350-350-350	1 3/4 x 4	6.00	3.60
*CTM-4872	20-60-40-10	475-350-350-350	1 3/4 x 3 1/2	7.80	4.68
*CTM-4874	30-130-10-10	475-350-350-350	1 3/4 x 4	6.40	3.84
*CTM-4876	10-40-100-10	475-400-50-25	1 3/4 x 2 1/2	4.05	2.43
*CTM-4878	10-40-4-100	475-400-350-50	1 3/4 x 2 1/2	4.05	2.43
*CTM-4880	10-80-40-100	475-400-400-50	1 3/4 x 3 1/2	5.80	3.48
*CTM-4882	5-70-25-5	475-400-400-400	1 3/4 x 3 1/2	5.05	3.03
*CTM-4884	10-10-80-50	475-450-200-60	1 3/4 x 3	5.80	3.48
*CTM-4886	25-20-20-100	475-450-300-50	1 3/4 x 3	6.90	4.14
*CTM-4888	25-20-40-100	475-450-300-50	1 3/4 x 3 1/2	7.45	4.47
*CTM-4890	10-60-30-125	475-450-400-50	1 3/4 x 4	5.55	3.33
*CTM-4892	10-50-30-30	475-450-450-25	1 3/4 x 3	4.75	2.85
*CTM-4894	10-40-10-100	475-450-450-50	1 3/4 x 2 1/2	4.30	2.58
*CTM-4895	80-4-4-4	475-450-450-450	1 3/4 x 3	5.20	3.12
*CTM-4896	15-15-80-40	475-475-300-50	1 3/4 x 3	4.80	2.88
*CTM-4898	50-30-20-20	475-475-300-300	1 3/4 x 4	8.55	5.13
*CTM-4900	40-10-4-40	475-475-350-300	1 3/4 x 3	4.95	2.97
*CTM-4902	40-10-40-10	475-475-350-350	1 3/4 x 3	5.50	3.30
*CTM-4904	20-10-20-100	475-475-450-25	1 3/4 x 2 1/2	4.20	2.52
*CTM-4906	10-5-80-40	475-475-450-50	1 3/4 x 3 1/2	7.35	4.41
*CTM-4907	80-80-4-4	475-475-450-450	1 3/4 x 4	7.50	4.50
*CTM-4908	30-30-10-20	475-475-475-25	1 3/4 x 3	6.85	4.11
*CTM-4910	40-20-10-10	475-475-475-25	1 3/4 x 3	7.30	4.38
*CTM-4912	80-30-10-20	475-475-475-25	1 3/4 x 4	8.65	5.19
*CTM-4914	20-20-10-10	475-475-475-300	1 3/4 x 2 1/2	4.30	2.58
*CTM-4916	50-30-10-20	475-475-475-300	1 3/4 x 3 1/2	5.60	3.36
*CTM-4918	10-10-10-10	475-475-475-475	1 3/4 x 2	5.25	3.15
*CTM-4920	20-20-10-10	475-475-475-475	1 3/4 x 2 1/2	4.35	2.61
*CTM-4922	20-20-20-20	475-475-475-475	1 3/4 x 3	5.10	3.06
*CTM-4924	40-10-10-10	475-475-475-475	1 3/4 x 3	7.00	4.20
*CTM-4926	40-20-10-10	475-475-475-475	1 3/4 x 3	5.10	3.06
*CTM-4928	10-10-4-20	500-300-300-25	1 3/4 x 2	2.90	1.74
*CTM-4930	10-100-30-100	500-300-300-25	1 3/4 x 3 1/2	7.80	4.68
*CTM-4932	5-100-10-200	500-300-300-150	1 3/4 x 3 1/2	5.28	3.16
*CTM-4934	20-80-4-10	500-300-300-150	1 3/4 x 2 1/2	7.50	4.50
*CTM-4936	30-10-150-30	500-450-50-50	1 3/4 x 2 1/2	4.20	2.52
*CTM-4938	40-10-8-8	500-500-500-500	1 3/4 x 2	3.50	2.10
*CTM-4940	40-10-10-10	500-500-500-500	1 3/4 x 4	5.70	3.42

ELMENCO

CAPACITORS

ARCO KITS

FOR: ENGINEERING LABS • GOVERNMENTAL AGENCIES
EXPERIMENTAL LABS. • SCHOOLS, ETC.

DUR-MICA the silvered mica capacitor coated with a specially developed plastic coating for extra durability . . . provides maximum protection at environmental extremes of moisture and temperature.

DM-15 KIT #10



Purchased individually the total list price value of the capacitors contained in this kit would be \$103.31.

SPECIAL KIT LIST PRICE
\$9500

DUR-MICA KIT #11



Purchased individually the total list price value of the capacitors contained in this kit would be \$286.35.

SPECIAL KIT LIST PRICE
\$25000

This handy kit consists of five of each DM-15 capacity as listed. All are 500VDCW and $\pm 5\%$ tolerance . . . packed in individual transparent plastic snap boxes, properly identified for ease of handling.

CAP. MMF.	TYPE DESIGNATION	CAP. MMF.	TYPE DESIGNATION	CAP. MMF.	TYPE DESIGNATION
1	DM-15-010†	56	DM-15-560	360	DM-15-361
2	DM-15-020†	62	DM-15-620	390	DM-15-391
3	DM-15-030†	68	DM-15-680	430	DM-15-431
5	DM-15-050†	75	DM-15-750	470	DM-15-471
10	DM-15-100	82	DM-15-820	500	DM-15-501
12	DM-15-120	91	DM-15-910	510	DM-15-511
15	DM-15-150	100	DM-15-101	560*	DM-15-561
18	DM-15-180	110	DM-15-111	620*	DM-15-621
20	DM-15-200	120	DM-15-121	680*	DM-15-681
22	DM-15-220	130	DM-15-131	750*	DM-15-751
				820*	DM-15-821
24	DM-15-240	150	DM-15-151	* All capacitors marked with * are 300WV.	
27	DM-15-270	160	DM-15-161		
30	DM-15-300	180	DM-15-181		
33	DM-15-330	200	DM-15-201		
36	DM-15-360	220	DM-15-221	† Minimum tolerance ± 0.5 mmf.	
39	DM-15-390	240	DM-15-241		
43	DM-15-430	250	DM-15-251		
47	DM-15-470	270	DM-15-271		
50	DM-15-500	300	DM-15-301		
51	DM-15-510	330	DM-15-331		

This Kit contains five each of the following listed DUR-MICA capacitors, all 500VDCW and $\pm 5\%$ tolerance; or ± 0.5 mmf., whichever is greater. Packed in individual transparent plastic snap boxes, properly identified for ease of handling.

CAP. MMF.	TYPE DESIGNATION	CAP. MMF.	TYPE DESIGNATION
2	DM-15-020M	360	DM-19-361J
5	DM-15-050K	390	DM-19-391J
10	DM-15-100J	430	DM-19-431J
12	DM-15-120J	470	DM-19-471J
15	DM-15-150J	510	DM-19-511J
18	DM-15-180J	560	DM-19-561J
20	DM-15-200J	620	DM-19-621J
22	DM-15-220J	680	DM-20-681J
24	DM-15-240J	750	DM-20-751J
27	DM-15-270J	820	DM-20-821J
30	DM-15-300J	910	DM-20-911J
33	DM-15-330J	1000	DM-20-102J
36	DM-15-360J	1100	DM-20-112J
39	DM-15-390J	1200	DM-20-122J
43	DM-15-430J	1300	DM-20-132J
47	DM-15-470J	1500	DM-20-152J
51	DM-15-510J	1600	DM-20-162J
56	DM-15-560J	1800	DM-20-182J
62	DM-15-620J	2000	DM-20-202J
68	DM-15-680J	2200	DM-20-222J
75	DM-15-750J	2400	DM-20-242J
82	DM-15-820J	2700	DM-20-272J
91	DM-15-910J	3000	DM-20-302J
100	DM-15-101J	3300	DM-20-332J
110	DM-15-111J	3600	DM-20-362J
120	DM-15-121J	3900*	DM-20-392J
130	DM-15-131J	4300	DM-20-432J
150	DM-15-151J	4700	DM-20-472J
160	DM-19-161J	5100	DM-30-512J
180	DM-19-181J	5600	DM-30-562J
200	DM-19-201J	6200	DM-30-622J
220	DM-19-221J	6800	DM-30-682J
240	DM-19-241J	7500	DM-30-752J
270	DM-19-271J	8200	DM-30-822J
300	DM-19-301J	9100	DM-30-912J
330	DM-19-331J	10000	DM-30-103J

DM-15 STOCK PACKAGE



Purchased individually the total list price value would be \$715.

SPECIAL LIST PRICE
\$596

Distinctive Steel Cabinet With Plastic Pull-Out Drawers Supplied FREE With DM-15 Package.

A complete stock of DM-15 capacitors (fifty-one items) totaling 2100 capacitors; fifty of each of the most used values and 25 each of the others. Capacity range is 1-820 mmf., tolerance $\pm 5\%$ or ± 0.5 mmf., whichever is greater.

ELMENCO

CAPACITORS

ARCO KITS

FOR: ENGINEERING LABS • GOVERNMENTAL AGENCIES
EXPERIMENTAL LABS. • SCHOOLS, ETC.

CM-15 MINIATURE MICA CAPACITOR KIT #1



The complete set of capacitors amounts to \$88.00 at list prices. You get the entire set at the

SPECIAL KIT
LIST PRICE **\$75.00**

This Kit can be supplied in 2% and 1% Tolerances upon request.

TYPE DESIGNATION	CAP. MMF.	DC WKG. VOLT.	TYPE DESIGNATION	CAP. MMF.	DC WKG. VOLT.
CM-15-C-010M	1	500	CM-15-E-750J	75	500
CM-15-C-020M	2	500	CM-15-E-820J	82	500
CM-15-C-030M	3	500	CM-15-E-910J	91	500
CM-15-C-050K	5	500	CM-15-E-101J	100	500
CM-15-C-100J	10	500	CM-15-E-111J	110	500
CM-15-C-120J	12	500	CM-15-E-121J	120	500
CM-15-C-150J	15	500	CM-15-E-131J	130	500
CM-15-C-180J	18	500	CM-15-E-151J	150	500
CM-15-C-200J	20	500	CM-15-E-161J	160	500
CM-15-C-220J	22	500	CM-15-E-181J	180	500
CM-15-E-240J	24	500	CM-15-E-201J	200	500
CM-15-E-270J	27	500	CM-15-E-221J	220	500
CM-15-E-300J	30	500	CM-15-E-241J	240	500
CM-15-E-330J	33	500	CM-15-E-251J	250	500
CM-15-E-360J	36	500	CM-15-E-271J	270	500
CM-15-E-390J	39	500	CM-15-E-301J	300	500
CM-15-E-430J	43	500	CM-15-E-331J	330	500
CM-15-E-470J	47	500	CM-15-E-361J	360	500
CM-15-E-500J	50	500	CM-15-E-391J	390	500
CM-15-E-510J	51	500	CM-15-E-431J	430	500
CM-15-E-560J	56	500	CM-15-E-471J	470	500
CM-15-E-620J	62	500	CM-15-E-501J	500	500
CM-15-E-680J	68	500	CM-15-E-511J	510	500

This Handy Kit consists of 46 most commonly used Capacitors per MIL-C-5 specifications five of each capacity as listed above packed in individual tuck boxes of 5 each properly identified for permanent use.

SILVERED MICA KIT #3

This kit contains the complete range of ELMENCO silvered molded mica capacitors from 5 mmf. to 10,000 mmf. manufactured in accordance with MIL-C-5 specifications. All units are of letters "C", "D" or "E" characteristics as specified and letter "J" (5%) tolerance and are MIL color coded.

Silvered Mica Kit contains FIVE EACH of the following MIL-C-5 Capacity values.

TYPE DESIGNATION	VOLT.	TYPE DESIGNATION	VOLT.
CM-20-C-050K	500	CM-20-D-361J	500
CM-20-C-100J	500	CM-20-D-391J	500
CM-20-C-120J	500	CM-20-D-431J	500
CM-20-C-150J	500	CM-20-D-471J	500
CM-20-C-180J	500	CM-20-D-511J	500
CM-20-C-200J	500	CM-20-D-561J	500
CM-20-C-220J	500	CM-20-D-621J	500
CM-20-C-240J	500	CM-20-D-681J	500
CM-20-C-270J	500	CM-20-D-751J	500
CM-20-C-300J	500	CM-20-D-821J	500
CM-20-C-330J	500	CM-20-D-911J	500
CM-20-C-360J	500	CM-20-E-102J	500
CM-20-C-390J	500	CM-20-E-112J	500
CM-20-C-430J	500	CM-30-E-122J	500
CM-20-C-470J	500	CM-30-E-132J	500
CM-20-C-510J	500	CM-30-E-152J	500
CM-20-C-560J	500	CM-30-E-162J	500
CM-20-C-620J	500	CM-30-E-182J	500
CM-20-C-680J	500	CM-30-E-202J	500
CM-20-C-750J	500	CM-30-E-222J	500
CM-20-C-820J	500	CM-30-E-242J	500
CM-20-C-910J	500	CM-30-E-272J	500
CM-20-C-101J	500	CM-30-E-302J	500
CM-20-C-111J	500	CM-30-E-332J	500
CM-20-C-121J	500	CM-30-E-362J	500
CM-20-C-131J	500	CM-30-E-392J	500
CM-20-C-151J	500	CM-30-E-432J	500
CM-20-C-161J	500	CM-30-E-472J	500
CM-20-C-181J	500	CM-30-E-512J	500
CM-20-D-201J	500	CM-30-E-562J	500
CM-20-D-221J	500	CM-30-E-622J	500
CM-20-D-241J	500	CM-35-E-682J	300
CM-20-D-271J	500	CM-35-E-752J	300
CM-20-D-301J	500	CM-35-E-822J	300
CM-20-D-331J	500	CM-35-E-912J	300
		CM-35-E-103J	300

The above kit can be supplied in 2% and 1% tolerance upon request.



Purchased individually the total list price value of the capacitors contained in this kit would be \$287.00

SPECIAL KIT
LIST PRICE

\$260.00

SILVERED MICA
KIT #3

ELMENCO

CAPACITORS

ARCO KITS



The total list price for all units included in the kit is \$170.40. Yet you may have this complete kit for only

SPECIAL KIT LIST PRICE

\$150.00

TYPE 46 TRIMMER KIT #5

This Kit contains 24 of each Trimmer listed below

TYPE 46W

PART NUMBER	NUMBER OF PLATES	GUARANTEED RANGE	
		At Tight Cap. Will Be More Than MMF.	At 3 Turns Open Cap. Will Be Less Than MMF.
460	1 1/4 Pl.	15	1.5
461	1 3/4 Pl.	30	2.7
462	2 Pl.	80	5
463	3 Pl.	180	9
464	4 Pl.	280	25
465	5 Pl.	380	50
466	6 Pl.	480	80
467	7 Pl.	580	110
468	8 Pl.	680	140
469	9 Pl.	780	170

TYPE 30 PADDER KIT TYPE #6

This Kit contains 12 each of Padders listed below

The total list price for all units included in the kit is \$224.20. Yet you may have this complete kit for only

SPECIAL KIT LIST PRICE

\$210.00



TYPE 30M PADDER KIT TYPE #6M

This Kit contains 12 each of Padders listed below

The total list price for all units included in the kit is \$261.60. Yet you may have this complete kit for only

SPECIAL KIT LIST PRICE

\$225.00

PART NUMBER	NUMBER OF PLATES	GUARANTEED RANGE	
		At 1 1/4 Inch Pounds Cap. Will Be More Than MMF.	At 3 Turns Open Cap. Will Be Less Than MMF.
302	2 Pl.	130	15
303	3 Pl.	340	65
304	4 Pl.	550	100
305	5 Pl.	760	190
306	6 Pl.	970	275
307	7 Pl.	1180	350
308	8 Pl.	1390	450
309	9 Pl.	1600	550
310	10 Pl.	1890	650
311	11 Pl.	2110	780
312	12 Pl.	2330	880
313	13 Pl.	2605	1150
314	14 Pl.	2830	1300
315	15 Pl.	3055	1400

PART NUMBER	NUMBER OF PLATES	GUARANTEED RANGE	
		At 1 1/4 Inch Pounds Cap. Will Be More Than MMF.	At 3 Turns Open Cap. Will Be Less Than MMF.
302-M	2 Pl.	120	15
303-M	3 Pl.	320	65
304-M	4 Pl.	500	100
305-M	5 Pl.	690	180
306-M	6 Pl.	880	265
307-M	7 Pl.	1070	340
308-M	8 Pl.	1260	425
309-M	9 Pl.	1415	525
310-M	10 Pl.	1600	615
311-M	11 Pl.	1785	730
312-M	12 Pl.	1970	800
313-M	13 Pl.	2155	1000
314-M	14 Pl.	2340	1100
315-M	15 Pl.	2525	1200

A complete stock of trimmers and padders is provided in these compact, easily handled, and readily accessible kits. Always have a full line of Elmenco trimmers and padders available for immediate use.

ARCO

CAPACITORS

PLASTIC FILM CAPACITORS

Type PT capacitors are polystyrene dielectric enclosed in non-ferrous metallic tubes with compression glass end seals. The principle features of this type are high stability, high insulation resistance, low dielectric absorption, and low dissipation factor. Their principle uses include precision filter and tuned circuits, analog computer circuits, pulse networks, servo systems, reference capacitors, and high Q applications.

**TYPE PT**

Part No.	Capacitance Value	Size L. x D.	1 to 9 Qty. Net Price
100 VDCW			
*1PT-102J	.001	$\frac{3}{4}$ x .312	6.34
*1PT-202J	.002	$\frac{3}{4}$ x .312	3.17
*1PT-222J	.0022	$\frac{3}{4}$ x .312	3.17
*1PT-272J	.0027	$\frac{3}{4}$ x .312	3.17
*1PT-332J	.0033	$\frac{3}{4}$ x .312	3.17
*1PT-392J	.0039	$\frac{3}{4}$ x .312	3.17
*1PT-472J	.0047	$\frac{3}{4}$ x .312	3.17
*1PT-502J	.005	$\frac{3}{4}$ x .312	3.17
*1PT-682J	.0068	$\frac{3}{4}$ x .312	3.17
*1PT-822J	.0082	$\frac{3}{4}$ x .312	3.17
*1PT-103J	.01	$\frac{3}{4}$ x .312	3.17
*1PT-123J	.012	$\frac{3}{4}$ x .312	3.19
*1PT-153J	.015	$\frac{3}{4}$ x .312	3.20
*1PT-203J	.02	$\frac{3}{4}$ x .312	3.22
*1PT-223J	.022	$\frac{3}{4}$ x .312	3.24
*1PT-273J	.027	1 x .312	3.27
*1PT-333J	.033	1 x .312	3.30
*1PT-393J	.039	1 x .400	3.34
*1PT-473J	.047	1 x .400	3.38
*1PT-503J	.05	1 x .400	3.40
*1PT-683J	.068	1 x .400	3.57
*1PT-823J	.082	$1\frac{1}{4}$ x .400	3.71
*1PT-104J	.1	$1\frac{1}{4}$ x .500	3.89
*1PT-124J	.12	$1\frac{1}{4}$ x .500	4.10
*1PT-154J	.15	$1\frac{1}{4}$ x .500	4.38
*1PT-204J	.2	$1\frac{1}{4}$ x .500	4.90
*1PT-224J	.22	$1\frac{1}{4}$ x .500	5.04
*1PT-274J	.27	$1\frac{1}{4}$ x .562	5.43
*1PT-334J	.33	$1\frac{1}{4}$ x .562	5.33
*1PT-394J	.39	$1\frac{1}{4}$ x .562	6.30
*1PT-474J	.47	$1\frac{1}{4}$ x .670	6.86
*1PT-504J	.5	$1\frac{1}{4}$ x .670	7.18

200 VDCW

*2PT-102J	.001	$\frac{3}{4}$ x .312	6.34
*2PT-202J	.002	$\frac{3}{4}$ x .312	3.17
*2PT-222J	.0022	$\frac{3}{4}$ x .312	3.17
*2PT-272J	.0027	$\frac{3}{4}$ x .312	3.17
*2PT-332J	.0033	$\frac{3}{4}$ x .312	3.17
*2PT-392J	.0039	$\frac{3}{4}$ x .312	3.17
*2PT-472J	.0047	$\frac{3}{4}$ x .312	3.17
*2PT-502J	.005	$\frac{3}{4}$ x .312	3.17
*2PT-682J	.0068	$\frac{3}{4}$ x .312	3.17
*2PT-822J	.0082	$\frac{3}{4}$ x .312	3.17
*2PT-103J	.01	$\frac{3}{4}$ x .312	3.17
*2PT-123J	.012	$\frac{3}{4}$ x .312	3.20
*2PT-153J	.015	1 x .312	3.24
*2PT-203J	.02	1 x .400	3.32
*2PT-223J	.022	1 x .400	3.32
*2PT-273J	.027	1 x .400	3.35
*2PT-333J	.033	$1\frac{1}{4}$ x .400	3.40
*2PT-393J	.039	$1\frac{1}{4}$ x .400	3.44
*2PT-473J	.047	$1\frac{1}{4}$ x .400	3.50
*2PT-503J	.05	$1\frac{1}{4}$ x .500	3.64
*2PT-683J	.068	$1\frac{1}{4}$ x .500	3.99
*2PT-823J	.082	$1\frac{1}{4}$ x .500	4.31
*2PT-104J	.1	$1\frac{1}{4}$ x .500	4.66
*2PT-124J	.12	$1\frac{1}{4}$ x .562	4.97
*2PT-154J	.15	$1\frac{1}{4}$ x .562	5.43
*2PT-204J	.2	$1\frac{1}{4}$ x .562	6.16
*2PT-224J	.22	1 x .670	6.44
*2PT-274J	.27	$1\frac{1}{4}$ x .670	7.11
*2PT-334J	.33	$1\frac{1}{4}$ x .750	7.88
*2PT-394J	.39	$1\frac{1}{4}$ x .1.00	8.65
*2PT-474J	.47	$1\frac{1}{4}$ x .1.00	9.70
*2PT-504J	.5	$1\frac{1}{4}$ x .1.00	10.22

SPECIFICATIONS:**DISSIPATION FACTOR:**

.01% max. at 25°C.

.02% max. at 85°C.

INSULATION RESISTANCE: 10^8

megohm-microfarads min. for

100VDCW and 200VDCW units; 10^8

megohm-microfarads for 400-

VDCW and higher ratings (at

25°C).

TEMPERATURE RANGE: —55°C. to

+85°C.

TEMPERATURE COEFFICIENT:—120 $\pm$ 15 ppm/°C. This specifi-

cation may be tightened if re-

quired for specific values.

DIELECTRIC ABSORPTION: .05%

max. at 25°C.

STABILITY: $\pm$ 0.1% maximum ca-

pacitance drift long term under

maximum operating conditions.

TOLERANCES: standard tolerance $\pm$ 5%. Also available, $\pm$ 10% $\pm$ 3% $\pm$ 2% $\pm$ 1% $\pm$ 1/2 $\pm$ 1/4%.

Part No.	Capacitance Value	Size L. x D.	1 to 9 Qty. Net Price
400 VDCW			
*4PT-102J	.001	$\frac{3}{4}$ x .312	6.34
*4PT-202J	.002	$\frac{3}{4}$ x .312	3.17
*4PT-222J	.0022	$\frac{3}{4}$ x .312	3.17
*4PT-272J	.0027	$\frac{3}{4}$ x .312	3.11
*4PT-332J	.0033	$\frac{3}{4}$ x .312	3.17
*4PT-392J	.0039	$\frac{3}{4}$ x .312	3.17
*4PT-472J	.0047	$\frac{3}{4}$ x .312	3.17
*4PT-502J	.005	$\frac{3}{4}$ x .312	3.17
*4PT-682J	.0068	$\frac{3}{4}$ x .312	3.22
*4PT-822J	.0082	$\frac{3}{4}$ x .312	3.26
*4PT-103J	.01	1 x .312	3.31
*4PT-153J	.015	1 x .400	3.39
*4PT-203J	.02	$1\frac{1}{4}$ x .400	3.48
*4PT-223J	.022	1 x .400	3.50
*4PT-273J	.027	$1\frac{1}{4}$ x .400	3.57
*4PT-333J	.033	$1\frac{1}{4}$ x .400	3.68
*4PT-393J	.039	$1\frac{1}{4}$ x .500	3.75
*4PT-473J	.047	$1\frac{1}{4}$ x .500	3.89
*4PT-503J	.05	$1\frac{1}{4}$ x .500	3.96
*4PT-683J	.068	$1\frac{1}{4}$ x .500	4.34
*4PT-823J	.082	$1\frac{1}{4}$ x .562	4.65
*4PT-104J	.1	$1\frac{1}{4}$ x .562	5.04
*4PT-124J	.12	$1\frac{1}{4}$ x .562	5.46
*4PT-154J	.15	$1\frac{1}{4}$ x .670	5.06
*4PT-204J	.2	$1\frac{1}{4}$ x .750	7.07
*4PT-224J	.22	$1\frac{1}{4}$ x .750	7.42
*4PT-274J	.27	$1\frac{1}{4}$ x 1.00	8.30
*4PT-334J	.33	$1\frac{1}{4}$ x 1.00	9.38
*4PT-394J	.39	$1\frac{1}{4}$ x 1.00	10.43

600 VDCW			
*6PT-102J	.001	$\frac{3}{4}$ x .312	6.34
*6PT-202J	.002	$\frac{3}{4}$ x .312	3.17
*6PT-222J	.0022	$\frac{3}{4}$ x .312	3.17
*6PT-272J	.0027	$\frac{3}{4}$ x .312	3.17
*6PT-332J	.0033	$\frac{3}{4}$ x .312	3.19
*6PT-392J	.0039	$\frac{3}{4}$ x .312	3.22
*6PT-472J	.0047	$\frac{3}{4}$ x .312	3.28
*6PT-502J	.005	$\frac{3}{4}$ x .312	3.33
*6PT-682J	.0068	$\frac{3}{4}$ x .312	3.37
*6PT-822J	.0082	$\frac{3}{4}$ x .312	3.37
*6PT-103J	.01	1 x .400	3.41
*6PT-153J	.015	1 x .400	3.54
*6PT-203J	.02	$1\frac{1}{4}$ x .400	3.68
*6PT-223J	.022	$1\frac{1}{4}$ x .400	3.75
*6PT-273J	.027	$1\frac{1}{4}$ x .500	3.89
*6PT-333J	.033	$1\frac{1}{4}$ x .500	4.06
*6PT-393J	.039	$1\frac{1}{4}$ x .500	4.17
*6PT-473J	.047	$1\frac{1}{4}$ x .562	4.31
*6PT-503J	.05	$1\frac{1}{4}$ x .562	4.38
*6PT-683J	.068	$1\frac{1}{4}$ x .562	5.22
*6PT-823J	.082	$1\frac{1}{4}$ x .670	5.60
*6PT-104J	.1	$1\frac{1}{4}$ x .750	6.09
*6PT-124J	.12	$1\frac{1}{4}$ x .750	6.65
*6PT-154J	.15	$1\frac{1}{4}$ x .1.00	7.49
*6PT-204J	.2	$1\frac{1}{4}$ x .1.00	8.58
*6PT-224J	.22	$1\frac{1}{4}$ x .1.00	10.19

NOTE: Non-standard capacitance values between those listed are also available at no additional cost.

* The starred items are stock items available for immediate delivery.

NOTE: The suffix letter "J" refers to the standard tolerance of $\pm$ 5%. This letter is changed for different tolerances.

Part No.	Capacitance Value	Size L. x D.	1 to 9 Qty. Net Price
1000 VDCW			
*10PT-102J	.001	$\frac{3}{4}$ x .312	6.34
*10PT-152J	.0015	$\frac{3}{4}$ x .312	6.34
*10PT-202J	.002	$\frac{3}{4}$ x .312	3.17
*10PT-222J	.0022	$\frac{3}{4}$ x .312	3.19
*10PT-272J	.0027	$\frac{3}{4}$ x .312	3.21
*10PT-332J	.0033	$\frac{3}{4}$ x .312	3.24
*10PT-392J	.0039	$\frac{3}{4}$ x .312	3.27
*10PT-472J	.0047	$\frac{3}{4}$ x .312	3.31
*10PT-502J	.005	$\frac{3}{4}$ x .312	3.34
*10PT-682J	.0068	1 x .312	3.40
*10PT-822J	.0082	1 x .400	3.44
*10PT-103J	.01	1 x .400	3.50
*10PT-153J	.015	$1\frac{1}{4}$ x .400	3.68
*10PT-203J	.02	$1\frac{1}{4}$ x .500	3.85
*10PT-223J	.022	$1\frac{1}{4}$ x .500	3.92
*10PT-273J	.027	$1\frac{1}{4}$ x .500	4.10
*10PT-333J	.033	$1\frac{1}{4}$ x .500	4.27
*10PT-393J	.039	$1\frac{1}{4}$ x .562	4.41
*10PT-473J	.047	$1\frac{1}{4}$ x .562	4.62
*10PT-503J	.05	$1\frac{1}{4}$ x .670	4.69
*10PT-683J	.068	$1\frac{1}{4}$ x .750	5.64
*10PT-823J	.082	$1\frac{1}{4}$ x 1.00	6.23
*10PT-104J	.1	$1\frac{1}{4}$ x 1.00	6.97

Type PJ capacitors are polystyrene dielectric enclosed in silicone treated fused polystyrene jackets. The same superior quality of the Type PT hermetically sealed units is preserved in Type PJ units while effecting a marked saving in both size and price. Extensive evaluation has confirmed the excellent moisture resistance of this design as well as extreme ruggedness. The Type PJ will meet MIL tests for vibration, shock, moisture resistance and immersion as well as providing the excellent electrical characteristics specified.

**SPECIFICATIONS:**

.01% max. at 25°C.

.02% max. at 85°C.

INSULATION RESISTANCE: 10^8 megohm-

microfarads at 25°C.

TEMPERATURE RANGE: —55°C. to +85°C.**TEMPERATURE COEFFICIENT:** —120 $\pm$ 15

ppm/°C.

DIELECTRIC ABSORPTION: .05% max. at

25°C.

STABILITY: $\pm$ 0.1% maximum capacitance

drift long term under maximum operat-

ing conditions.

TOLERANCES: standard tolerance $\pm$ 5%. $\pm$ 10% $\pm$ 3% $\pm$ 2% $\pm$ 1% $\pm$ 1/2% also

available.

TYPE PJ

Part No.	Capacitance Value	Size L. x D.	1 to 9 Qty. Net Price
100 VDCW			
*1PJ-102J	.001	$\frac{3}{4}$ x $\frac{1}{2}$	2.98
*1PJ-202J	.002	$\frac{3}{4}$ x $\frac{1}{2}$	1.49
*1PJ-222J	.0022	$\frac{3}{4}$ x $\frac{1}{2}$	1.49
*1PJ-272J	.0027	$\frac{3}{4}$ x $\frac{1}{2}$	1.49
*1PJ-332J	.0033	$\frac{3}{4}$ x $\frac{1}{2}$	1.49
*1PJ-392J	.0039	$\frac{3}{4}$ x $\frac{1}{2}$	1.49
*1PJ-472J	.0047	$\frac{3}{4}$ x $\frac{1}{2}$	1.49
*1PJ-502J	.005	$\frac{3}{4}$ x $\frac{1}{2}$	1.49
*1PJ-682J	.0068	$\frac{3}{4}$ x $\frac{1}{2}$	1.49
*1PJ-822J	.0082	$\frac{3}{4}$ x $\frac{1}{2}$	1.49
*1PJ-103J	.01	$\frac{3}{4}$ x $\frac{1}{2}$	1.49
*1PJ-123J	.012	$\frac{3}{4}$ x $\frac{1}{2}$	1.51
*1PJ-153J	.015	$\frac{3}{4}$ x $\frac{1}{2}$	1.51
*1PJ-203J	.02	$\frac{3}{4}$ x $\frac{1}{2}$	1.53
*1PJ-223J	.022	$\frac{3}{4}$ x $\frac{1}{2}$	1.54
*1PJ-273J	.027	$\frac{3}{4}$ x $\frac{1}{2}$	1.56
*1PJ-333J	.033	$\frac{3}{4}$ x $\frac{1}{2}$	1.60
*1PJ-393J	.039	$\frac{3}{4}$ x $\frac{1}{2}$	1.63
*1PJ-473J	.047	$\frac{3}{4}$ x $\frac{1}{2}$	1.67
*1PJ-503J	.05	$\frac{3}{4}$ x $\frac{1}{2}$	1.69
*1PJ-683J	.068	$\frac{3}{4}$ x $\frac{1}{2}$	1.83
*1PJ-823J	.082	$\frac{3}{4}$ x $\frac{1}{2}$	1.94
*1PJ-104J	.1	1 x $\frac{1}{2}$	2.09
*1PJ-124J	.12	$\frac{3}{4}$ x $\frac{1}{2}$	2.28
*1PJ-154J	.15	$\frac{3}{4}$ x $\frac{1}{2}$	2.34
*1PJ-204J	.2	$\frac{3}{4}$ x $\frac{1}{2}$	2.52
*1PJ-224J	.22	$\frac{3}{4}$ x $\frac{1}{2}$	2.52
*1PJ-274J	.27	$\frac{3}{4}$ x $\frac{1}{2}$	3.43
*1PJ-334J	.33	$\frac{3}{4}$ x $\frac{1}{2}$	3.82
*1PJ-394J	.39	$\frac{3}{4}$ x $\frac{1}{2}$	4.20
*1PJ-474J	.47	$\frac{3}{4}$ x $\frac{1}{2}$	4.60
*1PJ-504J	.5	$\frac{3}{4}$ x $\frac{1}{2}$	4.97

ARCO CAPACITORS

PLASTIC FILM CAPACITORS

TYPE PJ

Part No.	Capacitance Value	Size L. x D.	1 to 9 Qty. Net Price
200 VDCW			
*2PJ-102J	.001	$\frac{1}{16} \times \frac{5}{16}$	2.98
*2PJ-202J	.002	$\frac{1}{16} \times \frac{5}{16}$	1.49
*2PJ-222J	.0022	$\frac{1}{16} \times \frac{5}{16}$	1.49
*2PJ-272J	.0027	$\frac{1}{16} \times \frac{5}{16}$	1.49
*2PJ-332J	.0033	$\frac{1}{16} \times \frac{5}{16}$	1.49
2PJ-392J	.0039	$\frac{1}{16} \times \frac{5}{16}$	1.49
2PJ-472J	.0047	$\frac{1}{16} \times \frac{5}{16}$	1.49
*2PJ-502J	.005	$\frac{1}{16} \times \frac{5}{16}$	1.49
*2PJ-682J	.0068	$\frac{1}{16} \times \frac{5}{16}$	1.49
2PJ-822J	.0082	$\frac{1}{16} \times \frac{5}{16}$	1.49
*2PJ-103J	.01	$\frac{1}{8} \times \frac{5}{16}$	1.49
2PJ-123J	.012	$\frac{1}{8} \times \frac{5}{16}$	1.54
2PJ-153J	.015	$\frac{1}{8} \times \frac{5}{16}$	1.50
2PJ-203J	.02	$\frac{1}{8} \times \frac{5}{16}$	1.61
2PJ-223J	.022	$\frac{1}{8} \times \frac{5}{16}$	1.61
2PJ-273J	.027	$\frac{1}{8} \times \frac{5}{16}$	1.65
2PJ-333J	.033	$1 \times \frac{5}{16}$	1.68
2PJ-393J	.039	$1 \times \frac{5}{16}$	1.72
2PJ-473J	.047	$1 \times \frac{5}{16}$	1.77
2PJ-503J	.05	$1 \times \frac{5}{16}$	1.88
2PJ-683J	.068	$1\frac{1}{4} \times \frac{5}{16}$	2.21
2PJ-823J	.082	$1\frac{1}{4} \times \frac{5}{16}$	2.52
2PJ-104J	.1	$1\frac{1}{4} \times \frac{5}{16}$	2.78
2PJ-124J	.12	$1\frac{1}{4} \times \frac{5}{16}$	3.05
2PJ-154J	.15	$1\frac{1}{4} \times \frac{5}{16}$	3.44
2PJ-204J	.2	$1\frac{1}{2} \times \frac{5}{16}$	4.09
2PJ-224J	.22	$1\frac{1}{2} \times \frac{5}{16}$	4.34
2PJ-274J	.27	$1\frac{1}{2} \times \frac{5}{16}$	4.90
2PJ-334J	.33	$1\frac{1}{2} \times \frac{5}{16}$	5.56

400 VDCW

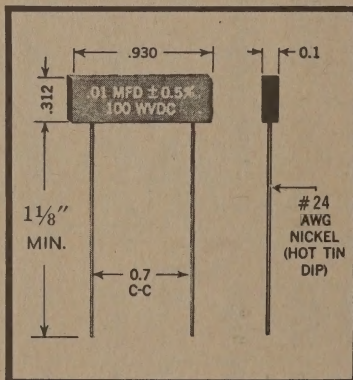
*4PJ-102J	.001	$\frac{1}{16} \times \frac{5}{16}$	2.98
*4PJ-202J	.002	$\frac{1}{16} \times \frac{5}{16}$	1.49
*4PJ-222J	.0022	$\frac{1}{16} \times \frac{5}{16}$	1.49
*4PJ-272J	.0027	$\frac{1}{16} \times \frac{5}{16}$	1.49
*4PJ-332J	.0033	$\frac{1}{16} \times \frac{5}{16}$	1.49
4PJ-392J	.0039	$\frac{1}{16} \times \frac{5}{16}$	1.49
*4PJ-472J	.0047	$\frac{1}{16} \times \frac{5}{16}$	1.49
*4PJ-502J	.005	$\frac{1}{16} \times \frac{5}{16}$	1.49
*4PJ-682J	.0068	$\frac{1}{16} \times \frac{5}{16}$	1.53
4PJ-822J	.0082	$\frac{1}{16} \times \frac{5}{16}$	1.56
*4PJ-103J	.01	$\frac{1}{8} \times \frac{5}{16}$	1.60
*4PJ-153J	.015	$\frac{1}{8} \times \frac{5}{16}$	1.68
*4PJ-203J	.02	$\frac{1}{8} \times \frac{5}{16}$	1.75
*4PJ-223J	.022	$\frac{1}{8} \times \frac{5}{16}$	1.77
4PJ-273J	.027	$1 \times \frac{5}{16}$	1.84
*4PJ-333J	.033	$1 \times \frac{5}{16}$	1.92
4PJ-393J	.039	$1 \times \frac{5}{16}$	2.00
*4PJ-473J	.047	$1\frac{1}{4} \times \frac{5}{16}$	2.10
*4PJ-503J	.05	$1\frac{1}{4} \times \frac{5}{16}$	2.16
4PJ-683J	.068	$1\frac{1}{4} \times \frac{5}{16}$	2.49
4PJ-823J	.082	$1\frac{1}{4} \times \frac{5}{16}$	2.77
*4PJ-104J	.1	$1\frac{1}{2} \times \frac{5}{16}$	3.12
4PJ-124J	.12	$1\frac{1}{2} \times \frac{5}{16}$	3.47
*4PJ-154J	.15	$1\frac{1}{2} \times \frac{5}{16}$	3.99
*4PJ-204J	.2	$1\frac{1}{2} \times \frac{5}{16}$	4.90
4PJ-224J	.22	$1\frac{1}{2} \times \frac{5}{16}$	5.18
4PJ-274J	.27	$1\frac{1}{2} \times \frac{5}{16}$	5.95

600 VDCW

*6PJ-102J	.001	$\frac{1}{16} \times \frac{5}{16}$	2.98
*6PJ-202J	.002	$\frac{1}{16} \times \frac{5}{16}$	1.49
*6PJ-222J	.0022	$\frac{1}{16} \times \frac{5}{16}$	1.49
*6PJ-272J	.0027	$\frac{1}{16} \times \frac{5}{16}$	1.49
*6PJ-332J	.0033	$\frac{1}{16} \times \frac{5}{16}$	1.50
6PJ-392J	.0039	$\frac{1}{16} \times \frac{5}{16}$	1.53
6PJ-472J	.0047	$\frac{1}{16} \times \frac{5}{16}$	1.56
*6PJ-502J	.005	$\frac{1}{16} \times \frac{5}{16}$	1.59
6PJ-682J	.0068	$\frac{1}{16} \times \frac{5}{16}$	1.62
6PJ-822J	.0082	$\frac{1}{16} \times \frac{5}{16}$	1.66
*6PJ-103J	.01	$\frac{1}{8} \times \frac{5}{16}$	1.70
*6PJ-153J	.015	$\frac{1}{8} \times \frac{5}{16}$	1.81
*6PJ-203J	.02	$\frac{1}{8} \times \frac{5}{16}$	1.92
6PJ-223J	.022	$1 \times \frac{5}{16}$	1.97
6PJ-273J	.027	$1 \times \frac{5}{16}$	2.11
6PJ-333J	.033	$1\frac{1}{4} \times \frac{5}{16}$	2.25
6PJ-393J	.039	$1\frac{1}{4} \times \frac{5}{16}$	2.35
*6PJ-473J	.047	$1\frac{1}{4} \times \frac{5}{16}$	2.48
*6PJ-503J	.05	$1\frac{1}{4} \times \frac{5}{16}$	2.55
6PJ-683J	.068	$1\frac{1}{4} \times \frac{5}{16}$	3.26
6PJ-823J	.082	$1\frac{1}{4} \times \frac{5}{16}$	3.57
*6PJ-104J	.1	$1\frac{1}{2} \times \frac{5}{16}$	4.03
6PJ-124J	.12	$1\frac{1}{2} \times \frac{5}{16}$	4.52

1 to 9
Qty.
Net
Price

Part No.	Capacitance Value	Size L. x D.	1 to 9 Qty. Net Price
1000 VDCW			
*10PJ-102J	.001	$\frac{1}{16} \times \frac{5}{16}$	2.98
*10PJ-152J	.0015	$\frac{1}{16} \times \frac{5}{16}$	2.98
*10PJ-202J	.002	$\frac{1}{16} \times \frac{5}{16}$	1.49
10PJ-222J	.0022	$\frac{1}{16} \times \frac{5}{16}$	1.50
10PJ-272J	.0027	$\frac{1}{16} \times \frac{5}{16}$	1.52
*10PJ-332J	.0033	$\frac{1}{16} \times \frac{5}{16}$	1.55
10PJ-392J	.0039	$\frac{1}{16} \times \frac{5}{16}$	1.58
*10PJ-472J	.0047	$\frac{1}{16} \times \frac{5}{16}$	1.61
*10PJ-502J	.005	$\frac{1}{16} \times \frac{5}{16}$	1.63
10PJ-682J	.0068	$\frac{1}{8} \times \frac{5}{16}$	1.68
10PJ-822J	.0082	$\frac{1}{8} \times \frac{5}{16}$	1.72
10PJ-103J	.01	$\frac{1}{8} \times \frac{5}{16}$	1.78
10PJ-153J	.015	$1 \times \frac{5}{16}$	1.93
10PJ-203J	.02	$1 \times \frac{5}{16}$	2.08
10PJ-223J	.022	$1\frac{1}{4} \times \frac{5}{16}$	2.14
10PJ-273J	.027	$1\frac{1}{4} \times \frac{5}{16}$	2.30
10PJ-333J	.033	$1\frac{1}{4} \times \frac{5}{16}$	2.45
10PJ-393J	.039	$1\frac{1}{4} \times \frac{5}{16}$	2.57
10PJ-473J	.047	$1\frac{1}{4} \times \frac{5}{16}$	2.74
10PJ-503J	.05	$1\frac{1}{4} \times \frac{5}{16}$	2.82
10PJ-683J	.068	$1\frac{1}{4} \times \frac{5}{16}$	3.64

THIN POLYSTYRENE
CAPACITORS
TYPE PE
100 WVDC

SPECIFICATIONS

CAPACITANCE RANGE: .001 to .01 mfd. (values as low as 50 mmf. and as high as .015 mfd. available to special order.)

TOLERANCES: $\pm 5\%$, $\pm 2\%$, $\pm 1\%$, $\pm \frac{1}{2}\%$, $\pm \frac{1}{4}\%$.

VOLTAGE RATING: 100VDCW.

INSULATION RESISTANCE: 10^{10} ohms min. at 25°C .;
 10^{12} ohms min. at 85°C .

DISSIPATION FACTOR: .01% max. at 25°C .; .02% max. at 85°C .

DIELECTRIC ABSORPTION: .05% max. at all temperatures.

TEMPERATURE COEFFICIENT: -190 ± 15 ppm/ $^{\circ}\text{C}$.

Special: Type T1PE -150 ± 15 ppm/ $^{\circ}\text{C}$.

Type T2PE -120 ± 15 ppm/ $^{\circ}\text{C}$.

STABILITY: $\pm 0.1\%$ maximum capacitance drift long term under maximum specified operating conditions.

STANDARD TOLERANCE $\pm 5\%$

Part Number	Cap. Mfd.	Part Number	Cap. Mfd.
PE-102J	.001	PE-392J	.0039
PE-122J	.0012	PE-432J	.0043
PE-152J	.0015	PE-472J	.0047
PE-182J	.0018	PE-502J	.005
PE-202J	.002	PE-512J	.0051
PE-222J	.0022	PE-562J	.0056
PE-242J	.0024	PE-622J	.0062
PE-252J	.0025	PE-682J	.0068
PE-272J	.0027	PE-752J	.0075
PE-302J	.003	PE-822J	.0082
PE-332J	.0033	PE-912J	.0091
PE-362J	.0036	PE-103J	.01

Other tolerances: $\pm 2\%$ — letter G suffix
 $\pm 1\%$ — letter F suffix
 $\pm \frac{1}{2}\%$ — letter D suffix
 $\pm \frac{1}{4}\%$ — letter B suffix

All the above design advantages are accompanied by lower prices and quick delivery. Listed items are standard values for Arco Type PE capacitors. All items are in stock in all tolerances for immediate delivery. In addition to listed values, any capacitance value within specified range limits can be manufactured to order.

ARCO Type PE
Thin Polystyrene Capacitors

THE FOLLOWING PRICES ARE APPLICABLE TO ALL CAPACITANCE VALUES BETWEEN .001 AND .01 MFD.

	1,000 up	500-999	100-499	50-99	25-49	10-24	1-9
$\pm 5\%$ tol.	\$0.60	\$0.62	\$0.64	\$0.68	\$0.73	\$0.99	\$1.38
$\pm 2\%$ tol.	0.68	0.70	0.72	0.77	0.88	1.15	1.61
$\pm 1\%$ tol.	0.75	0.77	0.80	0.85	1.04	1.34	1.92
$\pm \frac{1}{2}\%$ tol.	0.90	0.93	0.96	1.02	1.46	1.80	2.69
$\pm \frac{1}{4}\%$ tol.	1.20	1.24	1.28	1.36	2.09	2.53	3.85

MINIMUM BILLING FOR ANY ORDER IS \$10.00.

MINIMUM BILLING FOR ANY NON-STANDARD ITEM IS \$10.00.

Delivery is 48 hours for listed stock values, two to three weeks for initial shipments of non-listed values. Volume requirements in either standard or non-standard values will require at least 3-4 weeks for shipment.

NOTE: Non-standard capacitance values between those listed are also available at no additional cost.

The suffix letter "J" refers to the standard tolerance of $\pm 5\%$. This letter is changes for different tolerances.

* The starred items are stock items available for immediate delivery.

SIZE REDUCTIONS: If a particular application has critical space limitations, the standard dimensions tabulated above may be reduced appreciably through special monitoring of film thickness.

CORNING® FIXED GLASS CAPACITORS

For coupling, decoupling, filtering, timing, switching or computer circuits, CORNING Capacitors provide ultra-stable electrical performance. This stability is inherent in their fused glass and aluminum foil capacitive elements. These inorganic materials and continuous process and quality monitoring are responsible for the well-known CORNING CYFR capacitor made for the Minuteman. Many of the basic advantages of the CYFR have found their way into the standard CYFM and TYO units. The properties

of these capacitors are entirely those of the closely controlled dielectric, and can't be changed by assembly methods or subsequent treatment. At 1 Kc and 25°C, dissipation factor is less than 0.001; at any given temperature, TC will not deviate from the curve by more than 5 ppm.

Corning manufactures highly stable fixed glass capacitors to meet your demanding circuit requirements. Their performance and economic advantages will add value to your equipment.

	TYPE AND MIL SPEC	MODEL	CAPACITANCE RANGE (pf)	VOLTAGE	NOMINAL DIMENSIONS Size in inches	WEIGHT IN GRAMS
CYFM	Fusion-sealed environment-proof performance at cost savings. Electrically and environmentally interchangeable with CYFR. MIL-C-11272B. 	CYFM10	0.5 to 200 220 to 300	500 300	1 ¹ / ₃₂ x 1 ¹ / ₆₄ x 5 ⁵ / ₆₄	0.25 - 0.50
		CYFM15	220 to 510 560 to 1200	500 300	1 ⁵ / ₃₂ x 1 ⁷ / ₆₄ x 7 ⁷ / ₆₄	0.75 - 1.25
		CYFM20	560 to 3500 3600 to 5100	500 300	4 ⁷ / ₆₄ x 2 ⁷ / ₆₄ x 9 ⁵ / ₆₄	2.50 - 4.00
		CYFM30	3600 to 6200 6800 to 10000	500 300	4 ⁹ / ₆₄ x 3 ³ / ₄ x 9 ⁵ / ₆₄	5.00 - 7.00
TYO	New printed circuit capacitor provides glass stability in a uniformly symmetric case. Eliminates shorting. Lead spacing: TYO-6—0.2", TYO-7—0.2", TYO-8—0.4". 	TYO-6	1 to 560	300	.300 x .200 x .115	.3 - .4
		TYO-7	561 to 1000	300	.300 x .300 x .115	.4 - .5
		TYO-8	1001 to 2700	300	.500 x .300 x .115	.7 - .8

STANDARD CAPACITOR VALUES, CYFM, TYO

CAP. (pf)	MIL EQUIV.	CAP. (pf)	MIL EQUIV.	CAP. (pf)	MIL EQUIV.	CAP. (pf)	MIL EQUIV.	CAP. (pf)	MIL EQUIV.	CAP. (pf)	MIL EQUIV.
0.5†	0R5C	7.5	7R5C	33	330J	130	131J	560	561J	2400	242J
1.0	1R0C	8.2	8R2C	36	360J	150	151J	620	621J	2700	272J
1.5	1R5C	9.1	9R1C	39	390J	160	161J	680	681J	3000	302J
2.2	2R2C	10	100C	43	430J	180	181J	750	751J	3300	332J
2.7	2R7C	11	110C	47	470J	200	201J	820	821J	3600	362J
3.0	3R0C	12	120J*	51	510J	220	221J	910	911J	3900	392J
3.3	3R3C	13	130J	56	560J	240	241J	1000	102J	4300	432J
3.6	3R6C	15	150J	62	620J	270	271J	1100	112J	4700	472J
3.9	3R9C	16	160J	68	680J	300	301J	1200	122J	5100	512J
4.3	4R3C	18	180J	75	750J	330	331J	1300	132J	5600	562J
4.7	4R7C	20	200J	82	820J	360	361J	1500	152J	6200	622J
5.1	5R1C	22	220J	91	910J	390	391J	1600	162J	6800	682J
5.6	5R6C	24	240J	100	101J	430	431J	1800	182J	7500	752J
6.2	6R2C	27	270J	110	111J	470	471J	2000	202J	8200	822J
6.8	6R8C	30	300J	120	121J	510	511J	2200	222J	9100	912J
										10000	103J

*Standard Tolerances As Shown: C = ± 25 pf J = ± 5%.

*Other Tolerances Available On Request: D = ± .50 pf F = ± 1% G = ± 2% K = ± 10%

TYO Capacitors now available in 10% and 20% Tolerances

†0.5 pf does not apply to TY capacitors

CORNING
ELECTRONICS

Capacitors



Sub-Miniature Electrolytics — Type NLW — Class 201.13

$\frac{3}{4}$ dia. case is the smallest case size available in subminiature electrolytics. of all molded construction, hermetically sealed, provided with plastic insulating sleeve. Operating temp. ranges -40°C to $+85^{\circ}\text{C}$. Tolerance -10% to $+150\%$ thru 50 VDCW and to 100% thru 150 VDCW. Capacitance ranges from 10 to 450 Mfd at 3 VDCW, 1 to 300 Mfd at 6 VDCW, 8 to 225 Mfd at 10 VDCW, 15 to 250 Mfd at 12 VDCW, 3 to 200 Mfd at 25 VDCW; 1 to 75 Mfd at 50 VDCW, 2 to 20 Mfd at 100 VDCW, and 1 to 18 Mfd at 150 VDCW.

Single Section, Tubular Electrolytics — Type BR-BBR — Class 201.26

Tubular Electrolytics hermetically sealed in aluminum cases with cardboard insulating sleeves. Negative grounded to can. Maximum operating temperature is 85°C below 500 VDCW and 65°C 500 VDCW and above. Capacitance range, Single Sections, from 1 to 5000 Mfd, and voltage at 3, 6, 12, 15, 25, 50, 150, 250, 350, 450, 500, 600, and 700 VDCW.

Non Polarized Tubulars — Type BRNP — Class 201.26

Designed for use in cross-over networks and in boot-strap filtering applications, where true non-polarized electrolytics are suitable for use when no DC polarizing voltage is present.

Multiple Section Tubulars — Type BBRD, BBRT, BBRQ — Class 201.26

Similar in construction to type BBR, aluminum case is cardboard insulated and equipped with combination vent and hermetic seal.

Dual sections range from 25 to 450 VDCW.

Triple sections range from 150 to 450, 200 VDCW.

Quadruple sections range from 450 to 450, 300, 250, 50 VDCW.

Printed Circuit Wide Application Range Twist Prong —

Type APC, BPC, CPC, DPC — Class 201.40

This line of wide-application range printed circuit Twist Prong has gained wide acceptance. Dimensions and mounting have been selected to fill the vast majority of replacement requirements. Recommended replacements for all Twist Prongs in current use are contained in the 112 page CDE Twist Prong Replacement Guide available without charge from your CDE General Line Distributor.

Wide Application Range Twist Prong Electrolytics —

Type AA-BB-CC-DD — Class 201.42

Approximately 200 wide application range CDE Twist Prongs meet the requirements of over 1800 ratings. Used in conjunction with the CDE 112 page replacement guide, available without cost from your CDE General Line Distributor, almost every replacement need may be supplied from this simplified inventory.

Threaded Neck Electrolytic — Type KR — Class 201.46

Designed for top of chassis mounting through a single hole with a nut and lockwasher supplied. Available in single and dual section units. Tolerance conforms to EIA standards. Operating temperature from -20°C to $+65^{\circ}\text{C}$. Single Section voltages 450, and 600 VDCW — Dual & Triple Separate Section units — 450 VDCW.

Replacement for Wet Electrolytics — Type WR — Class 201.47

Designed to replace the majority of obsolete wet electrolytic types — as replacement for 4 to 12 Mfd.; 16 to 20 Mfd; 20 to 30 Mfd; and 30 to 40 Mfd. units.

Plug-in Electrolytics — Type QC — Class 201.51

Designed for applications such as juke boxes and communication receivers where quick capacitor changes are necessary. Units equipped with a 4 pin plug to get a medium, octal base socket. Operating temperature range is to $+85^{\circ}\text{C}$ for units rated 450 VDCW and below, and $+65^{\circ}\text{C}$ for units rated 500 VDCW.

High Capacity, Low Voltage Electrolytics — Type FB — Class 201.70

Intended for replacement applications in sound projectors and other low voltage circuits. Capacitance range from 500 to 6000 Mfd, voltage range from 10 to 50 VDCW.

Capacitor Mounting Hardware

A large variety of mounting hardware is described in the CDE Replacement Component Selector, available, without charge, from your CDE General Line Distributor.

3V High Capacitance General Purpose Ceramic Disc —

Type HCC — Class 202.05

3 VDCW, high capacitance general purpose disc for use in transistorized circuits and other low voltage circuits. Capacitance available: 005, 01, 02, 05, .1, .22, .47, 1.0 and 2.2 Mfd.

100V Miniature General Purpose Disc — Type H — Class 202.11

Designed to provide maximum capacitance in minimum disc size for use in limited space requirements. Capacitance available: 005, 01, 02, 025, 05, 0.1 Mfd.

1000V General Purpose Disc — Type BYA — Class 202.14

With capacitance ranging from 470 pf to 20,000 pf — this ceramic disc capacitor is the most widely used style of ceramic capacitor. Operating Temperature range is from $+10^{\circ}\text{C}$ to $+85^{\circ}\text{C}$.

Temperature Stable Disc — Type JB — Class 202.20

The 1000 Volt temperature stable disc provides maximum capacitance change of $\pm 10\%$ over operating temperature range of -30°C to $+85^{\circ}\text{C}$. Capacitance range from 47 Pf to 5000 Pf.

Temperature Compensating — Type C — Class 202.25

1000 Volt temperature compensating disc available in both characteristic NPO, with nominal zero capacitance change, and T.C. N750, with a nominal capacitance change of negative 750 ppm/ $^{\circ}\text{C}$. Temperature characteristic tolerance is ± 120 ppm/ $^{\circ}\text{C}$ except NPO, 5 and 6.8 pf, ± 60 ppm/ $^{\circ}\text{C}$ and NPO, 10 pf and above, ± 30 ppm/ $^{\circ}\text{C}$.

AC Line By-Pass General Purpose Disc — Type AGA — Class 202.30

Designed for AC Line by-pass applications operating at 250 VAC, 60 cycles. Nominally rated also at 1400 VDCW. Operating temperature range is -55°C to $+85^{\circ}\text{C}$.

High Voltage General Purpose Disc — Type HV — Class 202.32

Compact — suitable for high voltage applications from 1600 VDCW thru 6000 VDCW. Wide use in deflection yoke applications as well as other high voltage applications. Available as 1600 VDCW, 2000 VDCW, 3000 VDCW and 6000 VDCW units.

High Voltage General Purpose Slug — Type TM — Class 202.40

Widely used in TV as well as high voltage instrumentation and industrial electronic applications. Operating temperature range is -55°C to $+85^{\circ}\text{C}$. A wide variety of terminal styles are available.

Dipped Mica — Type CD — Class 203.01

Types CD10 thru CD42 dipped silvered mica dielectric capacitors provide a wide selection of ratings, tolerances and sizes to meet replacement requirements. Units are rated 500 VDCW, 1000V DC Test. Capacitance ranges from 5 to 62,000 Pf — and sizes from .360 x .330 x .190 to 1.470 x 920 x .450.

Molded Mica Capacitors — Type 22R, 5R, 1R, 1DR, 3R — Class 203.23

Five types of molded, silvered-mica dielectric capacitors provide a wide choice of ratings and form factors to fill replacement needs. Units are rated 500 VDCW and 1000V DC Test. Operating temperature range is -55°C to $+85^{\circ}\text{C}$. Capacitance ranges from 10 Pf to 10,000 Pf.

CORNELL-DUBILIER ELECTRONICS
DIVISION OF FEDERAL PACIFIC ELECTRIC COMPANY

High Voltage Molded Mica — Type 5RP, 1DRP — Class 203.23

Ideal replacements where high voltage spikes or pulses are encountered and stable, low-loss operation is required. Type 5RP10 is rated 1000 VDCW and 2000V DC Test. Type 5RP15 and 1DRP15 are rated 1500 VDCW and 3000V DC Test; Type 1DRP20 is rated 2000 VDCW; 4000V DC Test. Operating temperature is -55°C to $+85^{\circ}\text{C}$. Capacitance ranges from 10 Pf to 2000 Pf.

Supercadon® Encapsulated — Type 22A, 5A, 1A, 1AD — Class 203.30

Precision mica capacitors encapsulated in premolded cases — a construction providing much higher capacitance than molded units in comparable case sizes. Standard operating temperatures range from -55°C to $+125^{\circ}\text{C}$. They are available in 100V, 300V and 500V, Standard Stock Ratings — with capacitance that ranges from 10 Pf to 40,000 Pf.

Low Power Molded Mica — Type 4, 9 — Class 203.40

Type 4 — is provided with solder lugs and separate mounting holes. Capacitance range 50 Pf to 30,000 Pf.
Type 9 — is provided with tapped terminal holes. Capacitance range of 50 Pf to 60,000 Pf.

Medium Power Plastic Cased Mica — Type 6L, 15L, 30BL — Class 203.50

Frequently used as replacements in airborne and portable electronic equipment because of their small size and weight and their relatively high RF power handling capabilities.

Molded Mylar* Tubular — Type PM — Class 204.13

Utilizing an all Mylar* dielectric — molded in a low loss material with excellent moisture and humidity resistance — wax free and leak proof. Available with 100 VDCW and capacitance of .015 Mfd, 200 VDCW and capacitance range from .0033 to 1.0 Mfd, 400 VDCW and capacitance range from .0022 to 1.0 Mfd, and 600 VDCW and capacitance range from .001 to .56 Mfd.

Miniature Dipped Mylar* — Type DMF — Class 204.18

Flat pressed Mylar* dielectric, radial lead capacitor. Lends itself to use in crowded circuit boards. Maximum operating temperature is 125°C — 85°C at full rated voltage. Capacitance from .001 Mfd to 1.0 Mfd and VDCW of 100, 200, 400 and 600V.

Wrapped Mylar* Tubular — Type WMF — Class 204.23

An ideal replacement for any tubular where space is limited and requirements of the application are demanding. This Mylar* wrapped unit insures minimum size and maximum moisture and humidity resistance. Tolerance is $\pm 10\%$. Operating temperature range is -55°C to 125°C . DC working voltages of 100, 200, 400 and 600 VDCW — and capacitance range from .001 Mfd to 4.0 Mfd.

Molded Mylar* Tubular — Type PKM — Class 204.33

A Molded Tubular capacitor of the highest quality. Features a high dielectric strength Kraft paper coupled with a Mylar* dielectric for the highest dielectric strength possible. In voltages of 400, 600, 1000 and 1600 VDCW — and capacitance ranges:

400V — .0039 to 1.0 Mfd	1000V — .001 to .1 Mfd
600V — .0012 to .58 Mfd	1600V — .001 to 0.5 Mfd

Dipped Paper-Mylar* Tubular — Type DMPS — Class 204.37

Radial Lead capacitors — multiple dipped with a dielectric of high strength Kraft paper and Mylar*.

200 VDCW — .022 to .47 Mfd	600 VDCW — .001 to .25 Mfd
400 VDCW — .01 to .25 Mfd	1000 VDCW — .001 to .047 Mfd

* DuPont Trade Mark.

"Bathtub" Types — DC Paper — Type DYR — Class 205.11

Side terminal bathtub types — widely used in military as well as in communications and industrial electronic equipment. All types are drawn case "bathtub" configurations provided with integral drilled mounting flange. A wide selection of single, dual and triple capacitance units are available.

Rectangular Case — Type T — Class 205.41

Rectangular case, solder seam, DC paper-coil capacitors. Stock ratings include the most popular ratings required for replacements. Rated -55°C to $+85^{\circ}\text{C}$ — supplied with ceramic pillar terminals — Tolerance $\pm 10\%$. Footed, spade and wrap-around footed mounting brackets are available for all stock ratings.

600 VDCW — .5 to 15 Mfd	2000 VDCW — .1 to 15 Mfd
1000 VDCW — .1 to 15 Mfd	3000 VDCW — .1 to 8 Mfd

DC Oval Paper — Oil — Type OT — Class 205.50

This oval paper-oil capacitor can replace rectangular types in many applications with savings in weight, size and cost. Dual rated for DC applications from -55°C to $+85^{\circ}\text{C}$ and for AC applications up to $+55^{\circ}\text{C}$. Designed for normal blocking, filtering and by-pass applications in DC circuits and for light duty 50/60 cps AC applications. Standard ratings: 600 VDCW/330V AC: 1.0 to 20 Mfd; 1000 VDCW/440V AC: 0.1 to 20 Mfd; 1500 VDCW/660V AC: 0.5 to 14 Mfd; 2000 VDCW/800V AC: 0.1 to 10 Mfd; 2500 VDCW/800V AC: 0.5 to 8 Mfd; 3000 VDCW/950V AC: 0.1 to 4 Mfd.

Dipped Case Radial Lead — Type DMP — Class 207.03

Metalized paper capacitor — Suitable for high temperature operations with range of -55°C to $+125^{\circ}\text{C}$ at full rated voltage — extremely small size — in many cases as much as 70% smaller than equivalent ratings in paper-foil or film-foil capacitors. Excellent capacitance stability. Standard ratings: 200 VDCW: .047 to 2.0 Mfd; 400 VDCW: .022 to 1.0 Mfd; 600 VDCW: .01 to 1.0 Mfd.

Metalized Paper — Type MPY — Class 207.04

CDE's Tri-Clad case insures maximum moisture and humidity resistance with minimum size. Ideal replacement for metal or non-metal case tubular metalized capacitors. Maximum operating temperature: 125°C without derating. 200 VDCW: .022 to 2.0 Mfd; 400 VDCW: .015 to 2.0 Mfd; 600 VDCW: .01 to 2.0 Mfd.

AC Electrolytic (Motor Start) — Type ETW — Class 209.01

Widely used in motor starting applications. Available in voltage ratings of: 110V — 50/60 cps; 125V — 50/60 cps; 220V — 50/60 cps; 330 V — 50/60 cps.

AC Oil (Motor Run) Capacitors — Type KB, KK, KN, KT, KV — Class 209.50

These are drawn case capacitors designed for operation to $+70^{\circ}\text{C}$. For general purpose AC applications in voltage ratings from 236 VAC thru 660 VAC at 60 cps. Tolerance is $\pm 10\%$. These capacitors meet or exceed the requirements of NEMA standard CP-5 for AC capacitors. Designed for operations of air conditioners, refrigerators, fans, blowers and similar equipment — also in electronic equipment in power supplies and voltage correction applications. Five basic types are stocked. Types KB, KK, KV and KT are drawn case oval units of varying base sizes. Type KN is a drawn case rectangular unit. Case configuration and case heights provide a wide selection of ratings and sizes.

Rectangular AC Oil — Motor Run — Type KGNT — Class 209.60

Solder seam rectangular AC oil capacitor widely used in electronic equipment and in electrical motor run applications. Available in a wide range of ratings and small case sizes to meet all application requirements. 236 VAC: 1 to 30 Mfd; 370 VAC: 1 to 60 Mfd; 440 VAC: 1 to 40 Mfd; 660 VAC: 1 to 25 Mfd.

Round AC Oil, Motor Run — Type CRA, CMA — Class 209.70

Type CRA is a round, unpainted, AC Oil Capacitor — solder lug type terminals. Type CMA is a painted unit supplied with mounting bracket, end cap and flexible leads. Both types are rated 330/370 VAC, 60 cps for operation to $+70^{\circ}\text{C}$. Tolerance is $\pm 10\%$.

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INVENTORY

Prices in this MASTER should not be considered as final. INQUIRE ABOUT LATEST PRICES AND DELIVERY.

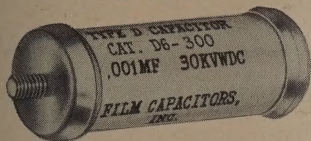
Trade discounts apply in most cases where LIST PRICES are shown.

Since previous editions of the MASTER are frequently referred to, it is important, when ordering, to mention specifically the edition and page number, also the catalog number of each item. This will avoid possible confusion and delay.

While most distributors maintain a large and varied stock, they do not represent that they stock all manufacturers' products shown in this MASTER catalog.

FILM CAPACITORS, INC.

TYPE D6 HI-VOLTAGE TUBULAR CAPACITORS



F-C-I Type D6 high voltage capacitors are designed to assure reliable operation where space is at a premium. These capacitors utilize a combination of polyester film and high quality capacitor tissue. The impregnation in a highly purified mineral oil provides for extremely high insulation resistance and low power factor. The hermetic steatite housing allows for operation under extreme humidity.

All capacitors are constructed with extended foil windings, and all internal wiring is kept to a minimum. This eliminates most of the series inductance and produces a very high ringing frequency, an extremely desirable condition for energy storage and pulsing capacitors.

OIL FILLED • MINIMUM SIZE & WEIGHT • EASY MOUNTING • HERMETICALLY SEALED • HIGH RELIABILITY

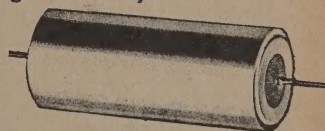
CAT. NO.	CAP. MFD.	WORKING VOLTS DC	DIMENSIONS L	DIA.	CAT. NO.	CAP. MFD.	WORKING VOLTS DC	DIMENSIONS L	DIA.
D6-10-10	.01	1000	1 3/4	x 1/2	D6-150-1	.001	15 KV	2 3/8	x 1/4
D6-10-20	.02	1000	1 3/4	x 1/2	D6-150-2	.002	15 KV	2 3/8	x 3/4
D6-10-50	.05	1000	1 3/4	x 1/2	D6-150-5	.005	15 KV	2 3/8	x 7/8
D6-10-100	.10	1000	2 3/8	x 1/4	D6-150-10	.01	15 KV	2 3/8	x 1 1/4
D6-10-250	.25	1000	2 3/8	x 7/8	D6-150-20	.02	15 KV	4 5/8	x 1 1/4
D6-10-500	.50	1000	2 3/8	x 1	D6-150-50	.05	15 KV	6 1/2	x 1 1/2
D6-20-2	.002	2000	1 3/4	x 1/2	D6-200-05	.0005	20 KV	2 3/8	x 1/4
D6-20-5	.005	2000	1 3/4	x 1/2	D6-200-1	.001	20 KV	2 3/8	x 1/4
D6-20-10	.01	2000	1 3/4	x 1/2	D6-200-2	.002	20 KV	2 3/8	x 7/8
D6-20-20	.02	2000	1 3/4	x 1/2	D6-200-5	.005	20 KV	2 3/8	x 1 1/4
D6-20-50	.05	2000	1 3/4	x 1/4	D6-200-10	.01	20 KV	4 5/8	x 1 1/4
D6-20-100	.10	2000	2 3/8	x 1/4	D6-200-20	.02	20 KV	4 5/8	x 1 1/2
D6-20-250	.25	2000	2 3/8	x 1	D6-200-50	.05	20 KV	11 1/2	x 1 1/2
D6-20-500	.50	2000	2 3/8	x 1 1/4					
D6-30-2	.002	3000	1 3/4	x 1/2	D6-300-02	.0002	30 KV	4 5/8	x 1/2
D6-30-5	.005	3000	1 3/4	x 1/2	D6-300-05	.0005	30 KV	4 5/8	x 1/2
D6-30-10	.01	3000	1 3/4	x 1/2	D6-300-1	.001	30 KV	5	x 3/4
D6-30-20	.02	3000	1 3/4	x 1/2	D6-300-2	.002	30 KV	5	x 3/4
D6-30-50	.05	3000	2 3/8	x 1/4	D6-300-5	.005	30 KV	4 5/8	x 1 1/4
D6-30-100	.10	3000	2 3/8	x 7/8	D6-300-10	.01	30 KV	6 5/8	x 1 1/2
D6-30-250	.25	3000	2 3/8	x 1 1/4					
D6-30-500	.50	3000	2 3/4	x 1 3/8					
D6-50-5	.005	5 KV	1 3/8	x 1/4	D6-400-01	.0001	40 KV	5 3/4	x 1/4
D6-50-10	.01	5 KV	1 3/8	x 1/4	D6-400-02	.0002	40 KV	5 3/4	x 1/4
D6-50-20	.02	5 KV	2 3/8	x 3/4	D6-400-05	.0005	40 KV	5 3/4	x 1/4
D6-50-50	.05	5 KV	2 3/8	x 7/8	D6-400-1	.001	40 KV	6 1/2	x 3/4
D6-50-100	.10	5 KV	2 3/8	x 1 1/4	D6-400-2	.002	40 KV	6 1/2	x 1
D6-50-250	.25	5 KV	3	x 1 1/2	D6-400-5	.005	40 KV	6 1/2	x 1 1/2
					D6-400-6	.006	40 KV	8	x 1 1/2
D6-75-1	.001	7 1/2 KV	1 3/4	x 1/2	D6-400-10	.01	40 KV	10 3/4	x 1 3/8
D6-75-2	.002	7 1/2 KV	1 3/8	x 1/4					
D6-75-5	.005	7 1/2 KV	1 3/8	x 7/8	D6-500-01	.0001	50 KV	8 1/4	x 1/4
D6-75-10	.01	7 1/2 KV	2 3/8	x 3/4	D6-500-02	.0002	50 KV	8 1/4	x 1/4
D6-75-20	.02	7 1/2 KV	2 3/8	x 7/8	D6-500-05	.0005	50 KV	8 1/4	x 1/4
D6-75-50	.05	7 1/2 KV	2 3/8	x 1 1/4	D6-500-1	.001	50 KV	8 1/4	x 3/4
D6-75-100	.10	7 1/2 KV	3	x 1 1/2	D6-500-2	.002	50 KV	8 1/4	x 1 1/4
					D6-500-5	.005	50 KV	10 3/4	x 1 3/8
D6-100-1	.001	10 KV	1 3/8	x 1/4	D6-500-6	.006	50 KV	10 3/4	x 1 3/8
D6-100-2	.002	10 KV	1 3/8	x 1/4					
D6-100-5	.005	10 KV	2 3/8	x 1/4	D6-600-01	.0001	60 KV	10	x 3/4
D6-100-10	.01	10 KV	2 3/8	x 7/8	D6-600-02	.0002	60 KV	10	x 3/4
D6-100-20	.02	10 KV	2 3/8	x 1	D6-600-05	.0005	60 KV	10	x 3/4
D6-100-50	.05	10 KV	2 3/8	x 1 1/2	D6-600-1	.001	60 KV	10	x 1 1/4
D6-100-60	.06	10 KV	3	x 1 1/2	D6-600-2	.002	60 KV	10 3/4	x 1 3/8
D6-100-100	.10	10 KV	4 5/8	x 1 1/2	D6-600-5	.005	60 KV	11 1/2	x 1 1/2

Note: Unless otherwise specified 2 1/2" wire leads will be furnished on the 1/2 x 1 1/4 size.

TYPE MD HERMETICALLY SEALED METALLIZED MYLAR* CAPACITORS.

Designed for miniaturization and high reliability.

Mylar* film is utilized by F-C-I as a dielectric to produce high quality capacitors. Metallized Mylar offers all of the advantages of Mylar film with the added feature of miniaturization and self-healing action. The results are extremely small capacitors with long life expectancy.



200V

MD4-2-10	.01	.235 x 3/4
MD4-2-15	.015	.235 x 3/4
MD4-2-22	.022	.235 x 3/4
MD4-2-33	.033	.235 x 3/4
MD4-2-47	.047	.312 x 7/8
MD4-2-68	.068	.312 x 7/8
MD4-2-100	.10	.312 x 7/8
MD4-2-150	.15	.312 x 1 1/8
MD4-2-220	.22	.400 x 7/8
MD4-2-330	.33	.400 x 1 1/8
MD4-2-470	.47	.500 x 1 1/8
MD4-2-680	.68	.500 x 1 1/8
MD4-2-1M	1.0	.562 x 1 1/8
MD4-2-1500	1.5	.562 x 1 1/8
MD4-2-2M	2.0	.670 x 1 1/8
MD4-2-3M	3.0	.670 x 1 7/8
MD4-2-4M	4.0	.750 x 1 7/8
MD4-2-5M	5.0	1.000 x 1 7/8
MD4-2-8M	8.0	1.000 x 1 7/8
MD4-2-10M	10.0	1.000 x 2 3/8
MD4-2-12M	12.0	1.000 x 2 3/8

400V

MD4-4-10	.01	.312 x 7/8
MD4-4-15	.015	.312 x 7/8
MD4-4-22	.022	.312 x 7/8
MD4-4-33	.033	.312 x 1 1/8
MD4-4-47	.047	.400 x 1 1/8
MD4-4-68	.068	.400 x 1 1/8
MD4-4-100	.10	.500 x 1 1/8
MD4-4-150	.15	.500 x 1 1/8
MD4-4-220	.22	.562 x 1 1/8
MD4-4-330	.33	.562 x 1 1/8
MD4-4-470	.47	.670 x 1 1/8
MD4-4-680	.68	.670 x 1 1/8
MD4-4-1M	1.0	.750 x 1 7/8
MD4-4-1500	1.5	1.000 x 1 7/8
MD4-4-2M	2.0	1.000 x 1 7/8
MD4-4-3M	3.0	1.000 x 2 3/8

600V

MD4-6-10	.01	.312 x 7/8
MD4-6-15	.015	.312 x 7/8
MD4-6-22	.022	.312 x 1 1/8
MD4-6-33	.033	.312 x 1 1/8
MD4-6-47	.047	.400 x 1 1/8
MD4-6-68	.068	.400 x 1 1/8
MD4-6-100	.10	.500 x 1 1/8
MD4-6-150	.15	.562 x 1 1/8
MD4-6-220	.22	.562 x 1 1/8
MD4-6-330	.33	.562 x 1 1/8
MD4-6-470	.47	.670 x 1 1/8
MD4-6-680	.68	.670 x 1 1/8
MD4-6-1M	1.0	1.000 x 1 7/8
MD4-6-1500	1.5	1.000 x 1 7/8
MD4-6-2M	2.0	1.000 x 2 3/8
MD4-6-2500	2.5	1.000 x 2 3/8

LESS 1/8 IN LENGTH FOR
TYPE MD4G, ONE SIDE GROUNDED

SEND FOR COMPLETE FILM CAPACITORS CATALOG



SERVICE-DESIGNED CAPACITORS

HOW TO SELECT THE RIGHT REPLACEMENT

It is easy to select the right G-E replacement for any aluminum electrolytic capacitor used in the past ten years.

IF YOU KNOW RATING ONLY: Refer to correct type of capacitor and locate the G-E capacitor with desired characteristics. For example if you need single-section tubular with capacitance of 55 mfd at 450 V, refer to QT TUBULAR ELECTROLYTICS, Single-Section. Look for the capacitance range in which 55 mfd falls (QT1-17: 40-60 mfd; QT1-18: 50-60 mfd; QT1-19: 50-60 mfd). The rating in bold-face type (60 mfd in the above rating) is the absolute or maximum rating. Check voltage required. Since QT1-19 is the only one rated for 450V, it is the correct replacement.

If rating needed were 55 mfd at 250 volts you could correctly use either QT1-18 (up to 350V) or QT1-19 (up to 450V), since G-E capacitors will work properly at any voltage up to their maximum rating. You would then choose between QT1-18

and QT1-19 on the basis of the size ($\frac{1}{4}$ " difference in length) or price and probably choose QT1-18.

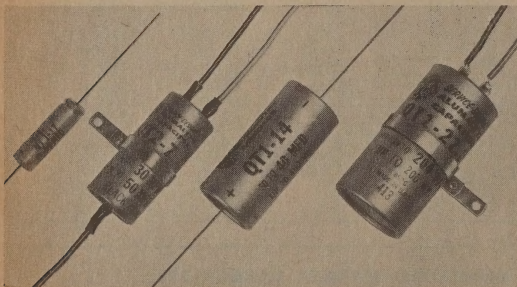
TO SELECT MULTI-SECTION UNITS (either tubular or can-type,) follow this same process for each section. Here's a quick way to do it:

1. List values of original capacitor sections in ascending order of value.
2. Match values with their voltage ratings.
3. Find G-E units that most closely match capacitance values starting from the lowest value. Use next higher value if first unit value does not match exactly.
4. Be sure that G-E voltage ratings equal or exceed original voltage ratings. Proper replacement will usually fall within two or three catalog numbers of the first unit checked.

EXPLANATION OF RATINGS

Cat. No.	Capacitance, Mfd	Voltage
SINGLE-SECTION QT1-19 (Single-section tubular)	50-60 (a 60 mfd unit that can be used at any capacitance between 50 and 60 mfd; 50, 55 or 60 mfd)	(a 450V unit that can be used for any voltage up to and including 450V: 450, 350, 250, 175, 150 or 50 volts)
MULTI-SECTION XC4-16 (Quad-section can)	8-8-50-50 10-10-60-100 (The two 10 mfd units can be used at any capacitance between 8 and 10 mfd; the 60 mfd between 50 and 60; the 100 mfd between 50 and 100)	450-450-200-50 (the two 450V units can be used for any voltage up to and including 450V; the 200V and the 50V units can also be used for any voltage up to and including 200V and 50V respectively)

QT TUBULAR ELECTROLYTICS



- Designed for 85°C operation in voltages to 600 WVDC.
- Long shelf and operating life.
- Superior capacitance, resistance and leakage current characteristics.
- Hermetically sealed in aluminum cans — with insulating sleeve.
- Insulated leads on multiple section units.

SINGLE-SECTION TUBULARS

Cat. No.	Capacitance, Mfd	Voltage	Size*	List Price
QT1-1	2	Up to 450V	$\frac{1}{2}$ x $1\frac{1}{8}$	\$1.15
QT1-2	3-4	Up to 300V	$\frac{1}{2}$ x $1\frac{1}{8}$	1.25
QT1-2.1	3-4	Up to 450V	$\frac{3}{4}$ x $1\frac{1}{8}$	1.15
QT1-3	3-5	Up to 150V	$\frac{1}{2}$ x $1\frac{1}{8}$	1.00
QT1-4	5-8	Up to 450V	$\frac{5}{8}$ x $1\frac{1}{8}$	1.25
QT1-5	8-10	Up to 150V	$\frac{1}{2}$ x $1\frac{1}{8}$	1.05
QT1-6	8-10	Up to 450V	$\frac{3}{4}$ x $1\frac{1}{8}$	1.30
QT1-6.1	8-10	Up to 500V	$\frac{7}{8}$ x $1\frac{1}{8}$	1.35
QT1-7	8-10	Up to 600V	1 x $2\frac{1}{4}$	2.25
QT1-8	12-16	Up to 450V	$\frac{7}{8}$ x $1\frac{1}{8}$	1.40
QT1-8.1	12-20	Up to 150V	$\frac{3}{4}$ x $1\frac{1}{8}$	1.20
QT1-9	16-20	Up to 350V	$\frac{7}{8}$ x $1\frac{1}{8}$	1.45
QT1-10	15-20	Up to 475V	$\frac{7}{8}$ x $1\frac{1}{8}$	1.60
QT1-10.1	15-20	Up to 500V	1 x $2\frac{3}{8}$	1.60
QT1-10.2	15-20	Up to 500V	1 x $3\frac{1}{2}$	3.55
QT1-11	16-25	Up to 50V	$\frac{3}{4}$ x $1\frac{1}{8}$	1.05
QT1-12	25-30	Up to 450V	1 x $1\frac{1}{8}$	1.70
QT1-13	30-40	Up to 150V	$\frac{3}{4}$ x $1\frac{1}{8}$	1.35
QT1-14	30-40	Up to 450V	1 x $2\frac{1}{8}$	1.80
QT1-14.1	30-40	Up to 600V	1 x $2\frac{1}{8}$	2.25
QT1-15	25-50	Up to 50V	$\frac{5}{8}$ x $1\frac{1}{8}$	1.20
QT1-16	40-50	Up to 450V	1 x $2\frac{3}{8}$	2.10
QT1-17	40-60	Up to 150V	$\frac{7}{8}$ x $1\frac{1}{8}$	1.50
QT1-18	50-60	Up to 350V	1 x $2\frac{3}{8}$	1.95
QT1-19	50-60	Up to 450V	1 x $2\frac{3}{8}$	2.35
QT1-20	60-80	Up to 150V	1 x $1\frac{1}{8}$	1.60
QT1-21	60-80	Up to 450V	1 x $3\frac{1}{8}$	2.80
QT1-22	50-100	Up to 15V	$\frac{3}{4}$ x $1\frac{1}{8}$	1.25

Cat. No.	Capacitance, Mfd	Voltage	Size*	List Price
QT1-23	50-100	Up to 50V	$\frac{3}{4}$ x $1\frac{1}{8}$	\$1.40
QT1-24	80-100	Up to 450V	$1\frac{1}{4}$ x $2\frac{1}{8}$	3.20
QT1-24.1†	75-140	Up to 300V	$1\frac{1}{4}$ x $2\frac{3}{8}$	3.15
QT1-25	100-150	Up to 150V	1 x $2\frac{1}{8}$	1.90
QT1-26	100-150	Up to 300V	$1\frac{1}{4}$ x $2\frac{3}{8}$	3.15
QT1-27	150-200	Up to 200V	$1\frac{1}{4}$ x $2\frac{3}{8}$	2.90
QT1-27.1†	110-200	Up to 200V	$1\frac{1}{4}$ x $2\frac{3}{8}$	2.90
QT1-28	150-250	Up to 25V	$\frac{3}{4}$ x $1\frac{1}{8}$	1.70
QT1-29	200-300	Up to 150V	1 x $3\frac{1}{8}$	2.55
QT1-30	250-500	Up to 15V	$\frac{3}{4}$ x $1\frac{1}{8}$	1.75
QT1-31	250-500	Up to 50V	1 x $2\frac{3}{8}$	2.40
QT1-32	500-1000	Up to 15V	1 x $1\frac{1}{8}$	2.30
QT1-33	1500-2000	Up to 15V	1 x $2\frac{1}{8}$	3.20

* Add $\frac{1}{2}$ " to diameter and $\frac{1}{4}$ " to length to allow for insulating sleeve.

† Single ended with 5" insulated leads and mounting bracket.

DUAL-SECTION TUBULARS§

Cat. No.	Capacitance, Mfd	Voltage	Size*	List Price
QT2-1	4-150-5-200	150-150	1 x $2\frac{7}{8}$	\$2.65
QT2-1.2	3-100-5-200	250-250	$1\frac{3}{8}$ x $2\frac{3}{8}$	4.40
QT2-2	5-5-8-8	450-450	$\frac{7}{8}$ x $1\frac{1}{8}$	1.70
QT2-3	8-8-10-10	450-450	$\frac{7}{8}$ x $1\frac{1}{8}$	1.85

* Add $\frac{1}{2}$ " to diameter and $\frac{1}{4}$ " to length to allow for insulating sleeve.

§ All designs have mounting bracket and insulated leads.

QT TUBULAR ELECTROLYTICS (cont'd)

Dual-Section Tubulars[§] (cont'd)

Cat. No.	Capacitance, Mfd	Voltage	Size*	List Price
QT2-3.1	7-14-10-20	450-450	7/8 x 1 1/4	\$2.25
QT2-4	8-30-10-40	350-350	7/8 x 2 5/8	2.35
QT2-5	16-16-20-20	150-150	7/8 x 1 5/8	1.65
QT2-6	16-16-20-20	450-450	7/8 x 2 5/8	2.50
QT2-6.1‡	14-14-20-20	450-450	1 x 3 1/2	3.70
QT2-6.2	10-75-20-150	150-150	1 x 2 3/4	3.05
QT2-7	20-40-30-50	150-150	7/8 x 1 7/8	1.95
QT2-8	30-30-40-40	450-450	1 x 3 3/8	3.40
QT2-9	40-40-50-50	150-150	7/8 x 1 7/8	2.10
QT2-10	40-60-50-80	150-150	7/8 x 2 5/8	2.35
QT2-10.1	40-70-80-125	250-250	1 x 3 3/4	4.30
QT2-10.2	50-75-100-125	300-350	1 3/8 x 2 1/4	6.40
QT2-11‡	60-60-120-120	150-150	1 1/4 x 3 3/4	3.45

QUAD-SECTION TUBULARS

Cat. No.	Capacitance, Mfd	Voltage	Size*	List Price
QT4-1	4-20-100-150 5-30-140-200	300-200-350-200	1 3/8 x 3 3/8	\$6.85
QT4-1.1	7-15-15-15 10-20-20-20	450-450-450-450	1 3/8 x 1 1/8	5.25
QT4-2	8-30-30-60 10-40-40-80	450-250-250-300	1 3/8 x 2 5/8	4.95
QT4-2.1	7-20-40-50 10-40-80-100	450-300-400-300	1 3/8 x 3 3/8	6.90
QT4-3	16-16-30-30 20-20-40-40	450-450-450-450	1 3/8 x 3 1/8	5.45
QT4-4	16-20-30-40 20-30-40-50	25-150-150-150	1 3/8 x 2	5.50
QT4-5	15-50-50-50 20-100-100-100	400-200-50-300	1 3/8 x 3 1/4	6.80
QT4-6	15-20-50-100 20-40-100-200	150-150-150-150	1 3/8 x 2 3/4	4.85

TRIPLE-SECTION TUBULARS[§]

Cat. No.	Capacitance, Mfd	Voltage	Size*	List Price
QT3-0.1	2-30-30 4-60-60	350-350-350	1 x 3 3/4	\$5.20
QT3-0.2	3-70-100 5-150-200	350-350-200	1 3/8 x 3 1/4	6.70
QT3-1	8-8-8 10-10-10	450-450-450	1 x 1 5/8	2.80
QT3-1.1	7-7-75 10-10-150	450-450-150	1 x 1 1/4	3.85
QT3-1.2	5-100-125 10-200-250	150-150-150	1 3/8 x 2 1/4	4.50
QT3-2	16-16-16 20-20-20	450-450-450	1 x 2 7/8	3.80
QT3-2.1	10-10-10 20-20-20	150-150-150	1 x 1 1/4	2.80
QT3-3	16-25-30 20-30-40	150-150-150	1 x 1 7/8	2.65
QT3-4	16-25-50 20-30-60	150-150-150	1 x 2 3/8	2.60
QT3-5	16-30-30 20-40-40	150-150-150	1 x 1 7/8	2.70
QT3-5.1	10-30-30 20-40-40	350-450-450	1 x 3 1/4	5.40
QT3-6	16-30-60 20-40-80	150-150-150	1 x 2 3/8	2.90
QT3-7	16-40-40 20-50-50	150-150-150	1 x 2 3/8	2.70
QT3-7.1	25-40-50 50-80-100	150-150-150	1 x 2 3/8	3.60
QT3-8	30-30-30 50-50-50	150-150-150	1 x 2 3/8	3.15
QT3-9	25-30-125 50-60-250	150-150-25	1 x 2 3/4	3.65
QT3-10	25-60-125 50-120-250	25-150-150	1 3/8 x 2 3/4	4.35
QT3-11	30-50-60 60-100-120	300-300-300	1 3/8 x 2 1/4	6.50
QT3-12	35-50-70 70-75-100	25-400-400	1 3/8 x 3 3/4	6.40
QT3-13	75-75-75 150-150-150	150-150-150	1 3/8 x 2 1/4	5.05

NONPOLARIZED TUBULARS

Cat. No.	Capacitance, Mfd	Voltage	Size*	List Price
NPQT-1	3-5	30	1/2 x 1 3/8	\$1.50
NPQT-2	4-5	350	3/4 x 1 5/8	1.70
NPQT-3	8-10	400	1 x 1 5/8	2.00
NPQT-4	15-20	350	1 x 1 5/8	2.50
NPQT-5	15-20	30	5/8 x 1 5/8	1.55
NPQT-5.1†	66.5-90	50	7/8 x 2 7/8	1.50
NPQT-5.2†	100-120	50	1 x 2 7/8	2.00
NPQT-5.3†	210-290	50	1 x 3 3/8	2.75
NPQT-6	250-500	10	1 3/8 x 1 5/8	2.00
NPQT-7	500-1000	3	1 3/8 x 1 5/8	2.10

MT1 MINIATURE ALUMINUM ELECTROLYTIC CAPACITORS IN ALUMINUM CASES

Cat. No.	Capacitance, Mfd	Voltage	Size*	List Price
MT1-1	1-2	50	3/4 x 1/2	\$1.35
MT1-2	1-2	150	3/4 x 5/8	1.45
MT1-3	3-5	50	1/4 x 1/2	1.45
MT1-4	3-5	150	3/8 x 5/8	1.55
MT1-5	6-10	25	1/4 x 5/8	1.45
MT1-6	6-10	50	3/4 x 5/8	1.50
MT1-7	6-10	100	3/8 x 7/8	1.55
MT1-8	6-10	150	3/8 x 1	1.60
MT1-9	12-20	100	3/8 x 1 1/2	1.60
MT1-10	15-25	15	3/4 x 5/8	1.45
MT1-11	15-25	25	3/8 x 5/8	1.55
MT1-12	15-25	50	3/8 x 3/4	1.60
MT1-13	20-35	6	3/4 x 5/8	1.40
MT1-14	20-25	50	3/8 x 7/8	1.70
MT1-15	25-50	6	3/4 x 3/4	1.40
MT1-16	25-50	15	3/8 x 5/8	1.60
MT1-17	25-50	50	3/8 x 1 1/4	1.85
MT1-18	50-100	6	3/8 x 3/4	1.50
MT1-19	50-100	15	3/8 x 7/8	1.80
MT1-20	50-100	25	3/8 x 1 1/2	1.80
MT1-21	75-150	6	3/8 x 7/8	1.55
MT1-22	100-200	3	3/8 x 7/8	1.50
MT1-23	100-200	15	3/8 x 1 1/2	2.10
MT1-24	150-300	6	3/8 x 1	1.80
MT1-25	125-250	12	3/8 x 1 1/2	2.10
MT1-26	250-500	3	3/8 x 1 1/2	1.75

* Add 3/32" to diameter and 1/4" to length to all for insulating sleeve.

† Separate sections.

§ All designs have mounting bracket and insulated leads.

|| Replacement for antenna rotator capacitors.

For explanation of ratings, see first page of G-E capacitors

All prices are subject to change without notice.

GENERAL ELECTRIC



SERVICE-DESIGNED CAPACITORS

XC TWIST-PRONG ELECTROLYTICS



- Designed for 85°C operation.
- Withstand high surge voltages.
- Ideal for high Ripple Seleninum Rectifier Circuits.
- Furnished complete with Phenolic Mounting Plate.

SINGLE-SECTION CANS

Cat. No.	Capacitance, Mfd	Voltage	Size	List Price
XC1-1	7-10	Up to 500V	1 x 2	\$1.70
XC1-2	15-20	Up to 500V	1 x 2	1.85
XC1-3	30-40	Up to 500V	1 x 2½	2.50
XC1-4	25-50	Up to 150V	1 x 2	1.65
XC1-5	30-50	Up to 350V	1 x 2	2.10
XC1-6	35-50	Up to 450V	1 x 2½	2.35
XC1-7	50-80	Up to 350V	1½ x 2	2.85
XC1-8	60-80	Up to 450V	1½ x 2½	3.05
XC1-9	60-80	Up to 500V	1½ x 2½	3.35
XC1-9.1	60-90	Up to 500V	1½ x 3	3.50
XC1-10	60-100	Up to 150V	1 x 2	2.00
XC1-11	60-100	Up to 300V	1 x 3	2.90
XC1-12	60-100	Up to 300V	1½ x 2	2.90
XC1-13	70-100	Up to 450V	1½ x 2½	3.45
XC1-14	70-125	Up to 200V	1 x 3	2.50
XC1-15	100-125	Up to 450V	1½ x 3	3.85
XC1-16	80-140	Up to 150V	1 x 2½	2.15
XC1-16.1*	80-150	Up to 150V	1 x 2½	2.20
XC1-17	100-150	Up to 150V	1½ x 2	2.15
XC1-18	100-150	Up to 350V	1½ x 3½	3.60
XC1-19	100-160	Up to 250V	1½ x 2½	3.40
XC1-19.1	100-160	Up to 200V	1 x 3	3.15
XC1-20	120-200	Up to 150V	1 x 3	2.70
XC1-21	120-200	Up to 300V	1½ x 2 ½	4.05
XC1-22	200-300	Up to 150V	1½ x 2½	2.80
XC1-23	250-300	Up to 350V	1½ x 4	5.55
XC1-24	250-500	Up to 25V	1 x 2	2.40
XC1-25	250-500	Up to 50V	1½ x 2	2.65
XC1-25.1	250-500	Up to 50V	1 x 2½	2.65
XC1-25.2	250-500	Up to 200V	1½ x 3½	3.65
XC1-26	500-1000	Up to 16V	1 x 2	2.55
XC1-26.1	500-1000	Up to 50V	1½ x 2	3.75
XC1-27	750-1500	Up to 50V	1½ x 3	4.40
XC1-28	1000-2000	Up to 16V	1½ x 2	3.45
XC1-29	1500-3000	Up to 16V	1½ x 2½	4.25
XC1-30	2000-4000	Up to 15V	1½ x 3	4.25

*Can insulated

DUAL-SECTION CANS

Cat. No.	Capacitance, Mfd	Voltage	Size	List Price
XC2-1	3-60 4-80	350V-450V	1 x 3½	\$3.40
XC2-2	4-4 5-5	450V-450V	1 x 2	1.90
XC2-3	4-15 5-20	350V-350V	1 x 2	2.05
XC2-4	4-120 5-200	200V-200V	1½ x 2½	2.80
XC2-5	8-8 10-10	500V-500V	1 x 2	2.00
XC2-6	8-16 10-20	350V-475V	1 x 2½	2.35
XC2-7	5-20 10-30	50V-200V	1 x 2	2.00
XC2-8	8-25 10-30	500V-500V	1 x 3	2.60
XC2-9	8-30 10-40	300V-300V	1 x 2	2.50
XC2-10	8-30 10-40	450V-450V	1 x 2	2.75
XC2-11	8-40 10-50	300V-350V	1½ x 2	\$2.90
XC2-12	8-100 10-160	350V-350V	1½ x 3	4.30

Cat. No.	Capacitance, Mfd	Voltage	Size	List Price
XC2-13	15-15 20-20	250V-250V	1 x 2	1.90
XC2-14	15-15 20-20	450V-450V	1 x 2½	2.55
XC2-15	15-15 20-20	500V-500V	1½ x 2	2.85
XC2-16	15-30 20-40	350V-350V	1 x 2½	2.75
XC2-17	15-30 20-40	450V-450V	1½ x 2	3.25
XC2-18	15-60 20-80	350V-350V	1½ x 2½	3.50
XC2-18.1	15-40 20-80	450V-350V	1 x 3	3.25
XC2-19	15-60 20-80	450V-450V	1½ x 2½	3.90
XC2-20	15-75 20-100	475V-400V	1½ x 3	4.50
XC2-21	20-30 20-50	150V-150V	1 x 2	2.00
XC2-21.1	20-20 30-30	350V-350V	1 x 2	2.90
XC2-22	20-40 30-60	350V-350V	1½ x 2	3.15
XC2-23	20-75 30-100	50V-400V	1½ x 2½	3.90
XC2-24	30-30 40-40	250V-250V	1 x 2½	2.50
XC2-25	30-30 40-40	450V-450V	1½ x 2½	3.45
XC2-26	30-35 40-45	500V-500V	1½ x 2½	4.40
XC2-26.1	20-40 40-80	150V-150V	1½ x 2	2.30
XC2-27	30-60 40-80	350V-350V	1½ x 2½	4.10
XC2-28	30-75 40-100	450V-450V	1½ x 3½	4.85
XC2-28.1	30-50 40-100	450V-50V	1 x 2½	2.80
XC2-29	30-30 50-50	150V-150V	1 x 2	2.15
XC2-30	30-60 50-80	150V-150V	1 x 2½	2.40
XC2-31	30-60 50-80	475V-475V	1½ x 3½	5.20
XC2-32	30-100 50-150	50V-150V	1 x 3	2.50
XC2-32.1	25-250 50-500	150V-5V	1 x 2	2.45
XC2-33	40-40 60-60	450V-450V	1½ x 3	4.50
XC2-34	60-60 80-80	200V-400V	1½ x 2½	3.95
XC2-35	60-60 80-80	450V-450V	1½ x 3½	5.40
XC2-36	60-75 80-100	450V-50V	1½ x 3	3.75
XC2-37	50-50 100-100	50V-50V	1 x 2	2.10
XC2-38	75-75 100-100	200V-300V	1½ x 3	3.45
XC2-38.1	75-75 100-100	350V-350V	1½ x 3	6.15
XC2-39	75-75 100-100	400V-400V	1½ x 4	5.75
XC2-40	75-100 100-150	150V-150V	1 x 3½	3.10
XC2-41	75-100 100-150	150V-150V	1½ x 2	3.25
XC2-42	75-90 100-120	400V-400V	1½ x 4	6.20
XC2-43	100-120 200-200	250V-250V	1½ x 4	5.50
XC2-43.05	250-250 500-500	16V-16V	1 x 1¼	3.05
XC2-43.1	300-100 800-250	16V-16V	1 x 2	2.75
XC2-44	500-500 1000-1000	16V-16V	1 x 3½	3.80
XC2-45	500-500 1000-1000	30V-30V	1½ x 2½	5.35

SECTION 1500

XC TWIST-PRONG ELECTROLYTICS (cont'd)



TRIPLE-SECTION CANS

Cat. No.	Capacitance, Mfd	Voltage	Size	List Price
XC3-1	4-18-15 5-10-20	350-400-400	1 x 2	\$2.55
XC3-1.1	3-7-50 4-10-100	350-475-50	1 x 2	2.65
XC3-2	4-15-30 5-20-40	350-475-400	1 x 3	3.70
XC3-3	4-15-50 5-20-40	350-350-400	1 x 3½	3.70
XC3-4	4-30-100 5-40-250	350-350-350	1½ x 3½	5.05
XC3-5	4-40-75 5-50-100	450-350-350	1½ x 3	4.55
XC3-5.1	3-30-100 5-60-200	200-200-50	1 x 2½	2.90
XC3-6	4-50-75 5-100-125	200-75-350	1½ x 3	4.80
XC3-6.1	2-250-500 5-500-1000	32-16-16	1 x 2½	4.10
XC3-7	8-8-8 10-10-10	450-450-450	1 x 2	2.60
XC3-8	8-8-30 10-10-40	400-400-400	1 x 3	3.35
XC3-9	8-8-60 10-10-80	450-450-450	1½ x 2½	4.80
XC3-10	8-15-10 10-20-20	350-350-25	1 x 2	2.55
XC3-11	8-15-20 10-20-30	475-475-350	1 x 3	3.40
XC3-12	8-15-60 10-20-80	350-450-350	1½ x 2½	4.25
XC3-13	8-15-75 10-20-100	450-350-350	1½ x 2½	4.55
XC3-13.1	7-15-50 10-20-100	450-450-50	1 x 2½	2.95
XC3-14	8-20-75 10-30-100	150-150-150	1 x 2½	2.85
XC3-15	8-30-30 10-40-40	500-500-500	1½ x 2½	5.05
XC3-16	8-30-75 10-40-100	400-400-350	1½ x 3	5.05
XC3-17	8-35-75 10-45-100	450-450-200	1½ x 2½	4.15
XC3-17.1	7-40-75 10-50-100	500-475-450	1½ x 3	5.45
XC3-18	8-60-75 10-80-100	400-350-400	1½ x 3½	5.55
XC3-19	8-75-110 10-100-150	450-300-300	1½ x 3½	5.75
XC3-20	8-150-200 10-200-250	450-300-200	1½ x 4	6.85
XC3-21	12-12-15 15-15-20	450-450-450	1 x 3	3.25
XC3-22	12-12-20 15-15-40	450-450-25	1 x 2½	2.75
XC3-22.1	10-20-75 15-30-150	500-500-50	1½ x 2½	3.70
XC3-23	15-15-15 20-20-20	350-350-350	1 x 2½	2.90
XC3-23.1	15-15-10 20-20-20	450-450-25	1 x 2	2.95
XC3-24	15-15-15 20-20-20	450-450-450	1½ x 2	3.60
XC3-25	15-10-20 20-20-30	350-25-350	1 x 2½	2.95
XC3-26	15-15-30 20-20-40	450-450-450	1½ x 2½	4.40
XC3-26.1	15-15-30 20-20-40	500-500-500	1½ x 3	4.50
XC3-27	15-15-75 20-20-100	450-450-350	1½ x 3	4.95
XC3-28	15-20-30 20-30-40	150-150-150	1 x 2	2.60
XC3-28.1	10-15-20 20-30-40	350-350-350	1 x 3	3.00
XC3-29	15-30-30 20-40-40	450-450-450	1½ x 2½	4.45
XC3-30	15-30-50 20-40-60	450-450-450	1½ x 3	5.00
XC3-31	15-30-60 20-40-80	150-150-150	1 x 2½	2.90

Cat. No.	Capacitance, Mfd	Voltage	Size	List Price
XC3-32	15-30-60 20-40-80	450-450-450	1½ x 3	\$5.40
XC3-33	15-30-60 20-40-90	350-350-350	1½ x 3	4.85
XC3-34	15-60-75 20-80-100	450-450-350	1½ x 3½	5.85
XC3-35	15-75-90 20-100-240	450-400-300	1½ x 4	6.70
XC3-35.1	10-75-75 20-140-140	350-350-350	1½ x 4	6.00
XC3-36	20-20-30 30-30-40	475-475-475	1½ x 3	5.15
XC3-36.1	20-40-75 30-60-100	500-450-450	1½ x 3½	6.00
XC3-37	20-15-150 30-60-200	400-350-150	1½ x 3	5.00
XC3-38	30-30-30 40-40-40	150-150-150	1 x 2½	2.60
XC3-39	30-30-20 40-40-40	450-450-25	1½ x 2½	3.95
XC3-40	30-30-30 40-40-40	450-450-450	1½ x 3	4.90
XC3-41	30-60-80 40-80-125	450-400-350	1½ x 4	6.30
XC3-41.1	20-20-100 40-40-250	150-150-25	1 x 2½	3.15
XC3-41.2	30-40-50 40-60-100	500-500-350	1½ x 3½	6.10
XC3-41.3	20-45-250 40-90-500	150-150-25	1½ x 2½	3.50
XC3-42	30-60-300 40-80-500	400-400-50	1½ x 3½	5.80
XC3-43	30-70-70 40-120-120	150-150-150	1½ x 2½	4.05
XC3-44	30-30-30 50-50-50	150-150-150	1 x 2½	3.05
XC3-45	40-40-50 60-60-80	350-350-350	1½ x 3½	5.55
XC3-45.1	30-40-50 60-80-100	175-175-175	1 x 3	3.60
XC3-45.2	30-50-100 60-100-200	100-350-350	1½ x 4	6.25
XC3-46	40-80-125 60-140-200	200-150-150	1½ x 3	4.40
XC3-47	60-125-175 80-200-300	150-150-150	1½ x 3½	5.00
XC3-47.1	30-75-250 100-200-700	16-16-16	1 x 1¾	3.35
XC3-48	50-250-250 100-500-500	16-16-16	1 x 2	3.35
XC3-48.1	80-80-150 250-250-300	16-16-16	1 x 1¾	3.35

Quad-Section Cans on Next Page

ACCESSORIES

Cat. No.	Description	List Price
W53	Mounting wafer (phenolic) for 1 inch can	\$0.10
WL4	Mounting wafer (phenolic) for 1½ inch can	.10
WM3	Mounting wafer (metal) for 1 inch can	.10
WM4	Mounting wafer (metal) for 1½ inch can	.10
PMA1	*Printed board mounting adapter kit	.45
1T9	†Insulating sleeves for 1 x 4 inch can	.10
1T14	†Insulating sleeves for 1½ x 4 inch can	.10

* Half-moon terminal ends must be removed from capacitors before installing printed-circuit adapters.

† Can be easily cut to fit 2, 2½, 3 and 3½-inch cans.

For explanation of ratings, see first page of G-E capacitors

All prices are subject to change without notice.

GENERAL ELECTRIC



SERVICE-DESIGNED CAPACITORS

XC TWIST-PRONG ELECTROLYTICS (cont'd)

QUAD-SECTION CANS

Cat. No.	Capacitance, Mfd	Voltage	Size*	List Price
XC4-1	3-8-8-10 4-10-10-20	300-500-300-25	2	\$3.35
XC4-2	3-8-30-100 5-10-40-160	350-475-400-350	4	6.30
XC4-3	3-8-40-100 5-10-60-160	300-300-300-350	3½	6.20
XC4-4	3-8-75-100 4-10-100-160	350-475-300-350	4	6.70
XC4-4.1	2-100-250-250 4-350-750-750	32-16-16-16	2	4.80
XC4-5	4-4-4-4 5-5-5-5	450-450-450-450	2	3.00
XC4-6	4-4-20-60 5-5-25-70	450-450-450-450	2½	5.10
XC4-7	4-8-8-60 5-10-10-70	450-450-450-450	2½	5.00
XC4-8	4-8-30-30 5-10-35-40	450-475-450-475	2½	5.00
XC4-9	4-15-40-50 5-20-50-60	450-350-350-400	3	5.15
XC4-10	4-25-30-60 5-30-40-80	400-400-400-400	3½	5.85
XC4-10.1	4-20-40-50 5-40-60-100	350-25-350-25	2	3.80
XC4-11	4-30-75-80 5-40-100-110	350-350-75-350	3	5.50
XC4-12	8-8-8-8 10-10-10-10	450-450-450-450	2	3.35
XC4-13	8-8-15-30 10-10-20-40	475-475-475-475	2½	4.85
XC4-14	8-8-15-90 10-10-20-130	475-350-350-350	3	5.60
XC4-15	8-8-30-30 10-10-35-40	450-450-450-450	2½	4.80
XC4-16	8-8-50-50 10-10-60-100	450-450-200-50	2	3.85
XC4-17	8-8-75-100 10-10-100-150	475-400-300-300	3½	6.20
XC4-18	8-15-15-100 10-20-20-140	475-300-300-300	2½	5.05
XC4-19	8-10-20-75 10-20-30-100	400-50-50-400	2½	5.10
XC4-20	8-15-30-30 10-20-40-40	350-350-350-350	2½	4.40
XC4-21	8-15-30-30 10-20-40-40	450-25-450-450	2½	4.70
XC4-22	8-15-30-50 10-20-40-60	350-475-350-350	2½	4.95
XC4-23	8-15-30-90 10-20-40-125	475-450-450-300	3	5.80
XC4-24	8-15-30-90 10-20-40-130	350-350-475-350	3½	6.35
XC4-25	8-15-30-90 10-20-50-120	350-350-50-350	3	5.10
XC4-26	8-10-30-90 10-20-50-120	475-400-50-400	3	5.90
XC4-27	8-10-50-75 10-20-60-100	150-50-200-300	2½	4.55
XC4-28	8-15-60-75 10-20-80-100	300-50-350-350	3½	5.35
XC4-29	8-15-75-100 10-20-100-140	450-300-300-350	4	6.60
XC4-30	8-15-100-100 10-20-140-150	450-300-350-300	4	6.70
XC4-31	8-15-100-150 10-20-150-250	250-350-300-50	3	5.55
XC4-32	8-15-30-50 10-25-40-60	450-25-350-350	2½	4.60
XC4-33	8-15-30-50 10-25-40-100	350-25-350-25	2	3.75
XC4-34	8-25-30-60 10-30-40-80	450-450-450-475	3½	6.65

* All Dia. are 13/16".

Cat. No.	Capacitance, Mfd	Voltage	Size*	List Price
XC4-35	8-25-30-60 10-30-40-80	450-300-400-400	3	\$5.75
XC4-36	8-25-25-75 10-30-50-150	475-500-50-50	2½	4.45
XC4-37	8-25-75-150 10-30-100-200	300-300-300-300	4	6.80
XC4-38	8-25-100-150 10-30-140-200	300-150-300-150	3½	5.70
XC4-39	8-25-150-150 10-30-200-200	300-150-200-150	3½	5.50
XC4-40	8-30-30-60 10-40-40-80	250-300-300-300	3	4.85
XC4-41	8-30-25-75 10-40-50-100	350-350-50-350	3	5.15
XC4-42	8-30-60-75 10-40-80-100	475-400-400-400	4	6.95
XC4-43	8-30-90-110 10-40-120-150	250-400-250-50	3	5.20
XC4-44	8-50-50-60 10-60-60-80	150-200-350-350	3	5.40
XC4-44.1	5-30-50-50 10-60-100-100	200-350-350-150	3	4.90
XC4-44.2	5-50-100-100 10-100-200-200	75-150-150-150	2½	5.95
XC4-45	12-12-12-30 15-15-15-40	450-350-450-350	2½	4.00
XC4-46	12-15-10-10 15-20-20-20	450-450-25-25	2	3.45
XC4-47	12-30-30-20 15-40-40-40	450-450-450-50	3	5.20
XC4-48	15-15-15-10 20-20-20-20	450-450-450-25	2	4.15
XC4-49	15-15-15-10 20-20-20-20	450-450-450-450	2½	4.55
XC4-50	15-15-15-15 20-20-20-20	475-475-475-475	2½	4.85
XC4-51	15-15-15-50 20-20-20-60	450-450-450-450	3	5.50
XC4-52	15-15-15-75 20-20-20-100	450-450-450-300	3	5.30
XC4-53	15-15-15-150 20-20-20-200	300-300-300-300	3½	5.95
XC4-54	15-15-30-20 20-20-40-40	450-450-450-25	2½	4.65
XC4-55	15-15-30-30 20-20-40-40	450-450-450-450	3	5.55
XC4-56	15-15-30-75 20-20-40-100	350-350-350-400	3½	6.00
XC4-57	15-15-60-150 20-20-80-200	350-300-350-150	3½	5.50
XC4-58	15-15-75-75 20-20-100-100	400-400-350-100	3½	5.50
XC4-59	15-15-75-100 20-20-100-140	300-300-300-350	4	5.00
XC4-60	15-20-30-75 20-25-35-100	200-450-450-50	2½	4.65
XC4-61	15-20-30-30 20-25-35-100	450-50-450-450	2½	5.05
XC4-62	10-25-30-30 20-30-40-40	25-350-350-350	2½	4.20
XC4-63	15-25-30-25 20-30-40-50	300-300-300-25	2	4.00
XC4-64	15-25-25-150 20-30-50-200	350-400-50-350	4	6.75
XC4-65	15-30-50-50 20-40-60-60	150-350-350-200	3	4.80
XC4-66	15-30-50-60 20-40-60-80	400-300-450-350	3½	6.15
XC4-67	15-30-50-65 20-40-60-90	350-350-350-350	3½	5.90
XC4-68	15-30-50-150 20-40-60-200	150-150-150-10	2	3.60
XC4-68.1	10-25-40-60 20-50-50-80	250-50-450-450	3½	5.55

Quad-Section Cans (cont'd)

SECTION 1500

Cat. No.	Capacitance, Mfd	Voltage	Size*	List Price
XC4-69	15-50-60-50 20-60-80-100	350-350-150-50	2½	4.65
XC4-70	15-75-75-170 20-100-100-240	350-150-150-150	3½	\$5.95
XC4-70.1	15-60-50-80 20-100-100-150	450-350-50-350	4	6.75
XC4-71	15-30-60-75 25-40-80-100	50-400-350-200	3½	5.55
XC4-72	25-25-30-30 30-40-40-40	450-350-450-350	3	5.35
XC4-73	25-25-30-30 30-40-150-150	450-450-300-300	4	6.95
XC4-74	25-30-20-60 30-40-40-80	400-400-25-400	3½	5.90
XC4-75	25-30-25-100 30-40-50-140	350-350-50-350	3½	5.90
XC4-76	25-30-40-150 30-40-50-200	400-300-250-150	3	5.45
XC4-77	25-45-150-150 30-60-200-100	175-175-175-175	3½	6.15
XC4-78	30-30-30-30 40-40-40-40	150-150-150-150	2	\$3.60

All Dia. are 13/16".

MPC SIDE-LEAD TUBULARS

- ±10% capacitance tolerance
- 85° OPERATION: for 125°C derate working voltage by 25%
- Dual DIELECTRIC (Mylar-Paper) solidly impregnated with rock-type casing with high humidity resistance.

Cat. No.	Capacitance, Mfd.	Size	List Price
200 W.V.D.C.			
MPC-232	.02	.350 x .855	\$0.25
MPC-2847	.047	.450 x .855	.30
MPC-255	.05	.450 x .855	.30
MPC-2P1	.1	.470 x 1.180	.35
MPC-2P15	.15	.540 x 1.180	.40
MPC-2P25	.25	.620 x 1.300	.45
MPC-2P47	.47	.730 x 1.600	.60
MPC-2P5	.5	.730 x 1.600	.60
400 W.V.D.C.			
MPC-4S1	.01	.390 x .690	.25
MPC-4S15	.015	.430 x .690	.25
MPC-4S2	.02	.390 x .855	.30
MPC-4S22	.022	.400 x .855	.30
MPC-4S33	.033	.440 x .855	.30
MPC-4S47	.047	.415 x 1.150	.35
MPC-4S5	.05	.415 x 1.150	.35
MPC-4S68	.068	.440 x 1.180	.35
MPC-4P1	.10	.520 x 1.180	.40
MPC-4P15	.15	.560 x 1.300	.50
MPC-4P22	.22	.620 x 1.560	.60
MPC-4P25	.25	.650 x 1.560	.60
MPC-4P47	.47	.850 x 1.600	.70
MPC-4P5	.50	.850 x 1.600	.75

600 W.V.D.C.			
MPC-6D1	.001	.340 x .690	.25
MPC-6D15	.0015	.340 x .690	.25
MPC-6D2	.002	.340 x .690	.25
MPC-6D22	.0022	.340 x .690	.25
MPC-6D25	.0025	.350 x .690	.25
MPC-6D27	.0027	.370 x .690	.25
MPC-6D3	.003	.370 x .690	.25
MPC-6D33	.0033	.370 x .690	.25
MPC-6D39	.0039	.370 x .690	.25
MPC-6D4	.004	.400 x .690	.25
MPC-6D47	.0047	.400 x .690	.25
MPC-6D5	.005	.415 x .690	.25
MPC-6D56	.0056	.415 x .690	.25
MPC-6D6	.006	.430 x .690	.25
MPC-6D68	.0068	.370 x .870	.25
MPC-6D75	.0075	.370 x .870	.30
MPC-6D8	.008	.390 x .870	.30
MPC-6S1	.01	.400 x .870	.30
MPC-6S12	.012	.415 x .870	.30
MPC-6S15	.015	.445 x .870	.30
MPC-6S2	.02	.470 x .870	.30
MPC-6S22	.022	.400 x 1.150	.30
MPC-6S25	.025	.415 x 1.150	.35
MPC-6S27	.027	.370 x .690	.35

PAPER MYLAR† CAPACITORS

Cat. No.	Capacitance, Mfd.	Size	List Price
600 W.V.D.C. (CONT'D.)			
MPC-6S3	.03	.415 x 1.150	\$0.35
MPC-6S33	.033	.430 x 1.150	.35
MPC-6S39	.039	.470 x 1.150	.35
MPC-6S4	.04	.470 x 1.150	.35
MPC-6S47	.047	.490 x 1.150	.40
MPC-6S5	.05	.490 x 1.150	.40
MPC-6S56	.056	.520 x 1.100	.40
MPC-6S6	.06	.520 x 1.180	.45
MPC-6S68	.068	.540 x 1.300	.45
MPC-6S75	.075	.570 x 1.300	.45
MPC-6S82	.082	.590 x 1.300	.45
MPC-6P1	.10	.640 x 1.300	.45
MPC-6P15	.15	.650 x 1.560	.65
MPC-6P2	.20	.730 x 1.560	.65
MPC-6P22	.22	.750 x 1.560	.65
1600 W.V.D.C.			
MPC-16D1	.001	.350 x .870	.35
MPC-16D15	.0015	.375 x .870	.35
MPC-16D18	.0018	.400 x .870	.35
MPC-16D2	.002	.405 x .870	.35
MPC-16D22	.0022	.420 x .870	.35
MPC-16D3	.003	.475 x .870	.40
MPC-16D33	.0033	.480 x .870	.40
MPC-16D4	.004	.520 x .870	.40
MPC-16D47	.0047	.540 x .870	.40
MPC-16D5	.005	.565 x .870	.45
MPC-16D6	.006	.460 x 1.180	.45
MPC-16D7	.007	.485 x 1.180	.45
MPC-16D75	.0075	.495 x 1.180	.45
MPC-16D8	.008	.510 x 1.180	.50
MPC-16S1	.01	.525 x 1.180	.50
MPC-16S15	.015	.560 x 1.300	.50
MPC-16S2	.02	.570 x 1.600	.60
MPC-16S3	.03	.665 x 1.600	.70
MPC-16S33	.033	.695 x 1.600	.80
MPC-16S47	.047	.785 x 1.600	.85
MPC-16S5	.05	.815 x 1.600	.85

MAL AXIAL-LEAD TUBULARS

- ±10% capacitance tolerance
- 85°C operation
- Dual DIELECTRIC (Mylar-Paper) encased in solid thermosetting compound which will not crack, soften or flow at maximum temperature.

Cat. No.	Capacitance, Mfd.	Size	List Price
200 W.V.D.C.			
MAL-2S2	.02	¾ x 1¼	\$0.25
MAL-2S47	.047	¾ x 1¼	.25
MAL-2S5	.05	¾ x 1¼	.25
MAL-2P1	.10	¾ x 1¼	.35
MAL-2P15	.15	½ x 1½	.35
MAL-2P25	.25	¾ x 1½	.45
MAL-2P47	.47	¾ x 1½	.60
MAL-2P5	.50	¾ x 1½	.60

Cat. No.	Capacitance, Mfd.	Size	List Price
400 W.V.D.C.			
MAL-4S1	.01	¾ x 1	\$0.25
MAL-4S15	.015	¾ x 1¼	.25
MAL-4S2	.02	¾ x 1¼	.25
MAL-4S22	.022	¾ x 1¼	.30
MAL-4S33	.033	¾ x 1¼	.30
MAL-4S47	.047	¾ x 1¼	.30
MAL-4S5	.05	¾ x 1¼	.30
MAL-4S68	.068	½ x 1½	.35
MAL-4P1	.10	½ x 1½	.35
MAL-4P15	.15	¾ x 1¼	.40
MAL-4P22	.22	¾ x 1¾	.45
MAL-4P25	.25	¾ x 1¾	.50
MAL-4P47	.47	¾ x 2¼	.75
MAL-4P50	.50	¾ x 2¼	.80
600 W.V.D.C.			
MAL-6D1	.001	¾ x 1	.25
MAL-6D15	.0015	¾ x 1	.25
MAL-6D2	.002	¾ x 1	.25
MAL-6D22	.0022	¾ x 1	.25
MAL-6D3	.003	¾ x 1	.25
MAL-6D33	.0033	¾ x 1	.25
MAL-6D4	.004	¾ x 1	.25
MAL-6D47	.0047	¾ x 1	.25
MAL-6D5	.005	¾ x 1	.25
MAL-6D6	.006	¾ x 1	.25
MAL-6D68	.0068	¾ x 1¼	.30
MAL-6S1	.01	¾ x 1¼	.30
MAL-6S15	.015	¾ x 1¼	.30
MAL-6S2	.02	¾ x 1¼	.30
MAL-6S22	.022	¾ x 1¼	.30
MAL-6S3	.03	¾ x 1¼	.35
MAL-6S33	.033	¾ x 1¼	.35
MAL-6S4	.04	¾ x 1¼	.35
MAL-6S47	.047	½ x 1½	.40
MAL-6S5	.05	½ x 1½	.40
MAL-6S6	.06	½ x 1½	.40
MAL-6S68	.068	½ x 1½	.45
MAL-6P1	.10	¾ x 1½	.45
MAL-6P15	.15	¾ x 1½	.55
MAL-6P2	.20	¾ x 1¾	.65
MAL-6P22	.22	¾ x 1¾	.70
MAL-6P25	.25	¾ x 1¾	.75
MAL-6P33	.33	¾ x 2¼	.90
MAL-6P47	.47	¾ x 2¼	1.25
MAL-6P50	.50	¾ x 2¼	1.25
1600 W.V.D.C.			
MAL-16D1	.001	¾ x 1¼	.65
MAL-16D15	.0015	¾ x 1¼	.65
MAL-16D22	.0022	¾ x 1¼	.65
MAL-16D33	.0033	¾ x 1¼	.65
MAL-16D47	.0047	¾ x 1¼	.65
MAL-16D5	.005	¾ x 1¼	.65
MAL-16D68	.0068	¾ x 1¼	.65
MAL-16D82	.0082	¾ x 1¼	.65
MAL-16S1	.01	½ x 1½	.70
MAL-16S15	.015	½ x 1½	.70
MAL-16S22	.022	¾ x 1¾	.70
MAL-16S33	.033	¾ x 1¾	.70
MAL-16S47	.047	¾ x 1¾	.90
MAL-16S5	.05	¾ x 1¾	.90
6000 W.V.D.C.			
MAL-60D5	.0005	½ x 1½	1.35
MAL-60D1	.001	¾ x 1¼	1.35
MAL-60D5	.005	¾ x 1¼	1.35
10,000 W.V.D.C.			
MAL-100D5	.0005	½ x 1½	1.50
12,500 W.V.D.C.			
MAL-125D5	.00025	½ x 1½	1.70

† Trade-mark of DuPont Co.

For explanation of ratings, see first page of G-E capacitors
All prices are subject to change without notice.



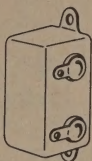
GENERAL INSTRUMENT CORPORATION

CAPACITOR GROUP

POLARIZED DRY ELECTROLYTIC CAPACITORS to MIL-C-62

CE 41, 42 (TYPE DI)

Type DI Electrolytics are provided in aluminum cans for chassis mounting. Have standard insulating 7/8-16N-2A threaded neck with lock nut. Solder lugs solidly anchored in insulating neck. Sealed with special leak-proof gasket. Available as CE41 in single capacitor and CE42 in dual capacitor units. Range: 10mfd thru 6800mfd; voltages of 15 thru 450 WVDC.

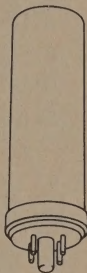
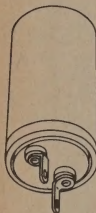


CE 63, 64 (TYPE DPD)

Type DPD's are hermetically sealed in drawn, hot-tinned steel bathtub containers. Solder-lug terminal insulated from case with silicon-rubber grommets. Type CE63 has terminals on side of can and CE64 has terminals on top of can. Range: 4 thru 100mfd, voltages of 15 thru 450 WVDC.

CE 31, 32, 33 (TYPE PFB)

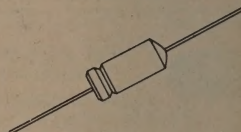
Type PFB General Instrument Polarized Electrolytics are made in standard round aluminum containers with convenient solder lugs. Special gasket provides maximum seal. Mounting ring is optional. Available as CE31 in single capacitor, CE32 in dual-capacitor units and CE33 in triple-capacitor units. Range: 6.8 thru 6800mfd., voltages of 15 thru 450 WVDC.



CE 51, 52, 53 (TYPE DO)

Type DO Electrolytics are provided in round aluminum containers with plug in terminals to fit standard medium octal socket. Type CE51 is single section, CE52 dual and CE53 triple section units. Range: 10 thru 6800mfd., voltages of 15 thru 450 WVDC.

MINIATURE SINTERED ANODE LIQUID ELECTROLYTE TANTALUMS to MIL-C-3965 (MIL TYPES CL64 & CL65)



Afford maximum space economy. Conventional cylindrical cases allow for various methods of mounting. Sealing method and materials used in manufacturing this capacitor assure protection against seepage. Manufactured to meet MIL-C-3965 specification, style CL-64 and CL-65 (insulated sleeve).

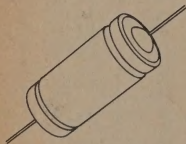
TEMPERATURE OPERATING RANGES

TAK	-55°C to 85°C
TAK-H	-55°C to 125°C

OIL-PAPER CAPACITORS to MIL-C-25

CP 25 to CP 29 (TYPE PTM)

Available in capacitances from .001 thru 0.1 mf and voltages of 1500 V.D.C.



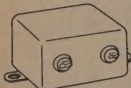
CP 70 SERIES (TYPE PLM)

Available in capacitances from .1 mf thru 15 mf and voltages of 400 V.D.C. thru 25,000 V.D.C. (Type PJ in higher values)



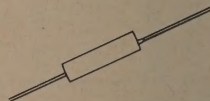
CP 53, 54, 55 (TYPE PDM)

Available in capacitances from .05 mf thru 10 mf and voltages of 100 V.D.C. thru 1000 V.D.C.



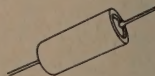
MINIATURIZED SOLID ELECTROLYTE TANTALUMS to MIL-C-26655 (MIL TYPES CS12 & CS13)

True Subminiature Sizes
Solid Tantalum Electrolyte
Hermetically Sealed Metal Cases



METALLIZED-PAPER/MYLAR GLASS-SEALED METAL TUBULARS TYPE 227

Designed for operation at +125°C without derating. The finest capacitor of its type available. Encased in hermetic, glass-sealed metal tubes.



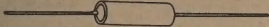


GENERAL INSTRUMENT CORPORATION

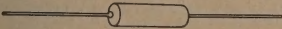
CAPACITOR GROUP

SUBMINIATURE GLASSEAL PAPER CAPACITORS to MIL-C-25

BASIC STYLE

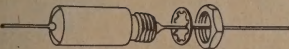


CP04A1/CP08A1/Case Floating

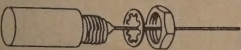


CP04A3/CP08A3/Case Grounded

STYLE 3

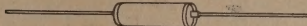


CP11A1/CP13A1/Case Floating

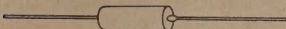


CP11A3/SP13A3/Case Grounded

STYLE V (Insulated)

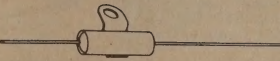


CP05A1/CP09A1/Case Floating

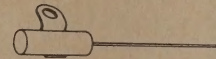


CP05A3/CP09A3/Case Grounded

STYLE 7

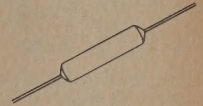


CP10A1/CP12A1/Case Floating



CP10A3/CP12A3/Case Grounded

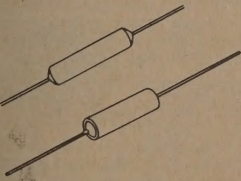
WRAPPED MYLAR® CAPACITORS TYPE 107



Non-inductive polyester film with extended foil section occupies minimum of space due to outer Mylar®-wrap case. Ends filled with thermosetting resin. Tinned leads, soldered to foil and firmly secured in the resin, will not pull out. Type 107 capacitors have very high insulation resistance and high resistance to moisture.

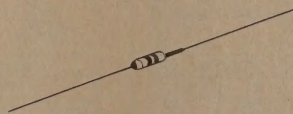
®E. I. DuPont

POLYCARBONATE CAPACITORS



TYPE 233 (hermetic seal) and TYPE 170 (wrap & fill) polycarbonate capacitors offer superior electrical characteristics: high insulation resistance, excellent capacitance stability and minimum capacitance change with temperature. Available in capacitances from .001 thru 10 mfd. and voltages of 100 thru 600 VDC.

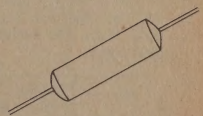
Hi-Voltan® TANTALUM CAPACITORS



Subminiature tantalum capacitor of unique construction having no electrolyte eliminates major causes of instability. Extremely low leakage current. Available in capacitances from 400 thru 33000 pF and voltages of 25 thru 125 VDC.

®General Instrument Corp.

HI-TEMP METALLIZED PAPER CAPACITORS



TYPE 155

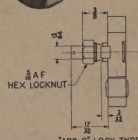
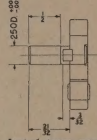
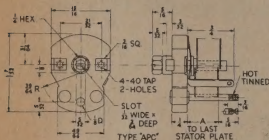
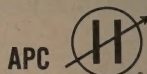
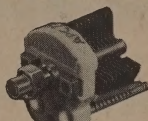
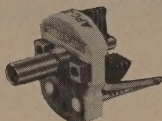
Assembled in a plastic tube with plastic end-seals. Self-healing. Low R-F impedance. Excellent Pf over wide temperature range.

Temperature Rating:
-40°C to +100°C



HAMMARLUND

88 STANDARD TYPES OF VARIABLE AIR CAPACITORS



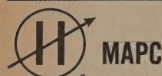
APC capacitors are available in three basic groups. The original APC group is furnished with a hex collar on a slotted shaft as indicated in the drawing. The APC-"B" group is furnished with $\frac{1}{4}$ " diameter shafts to permit adjustment of

the capacitance with a front panel knob. The APC-"C" group is supplied with slotted shafts for variation of the capacitance and a $\frac{1}{4}$ " hex locknut to prevent movement of the rotor in equipment subjected to high levels of vibration or shock.

Capacitor Type	Net Price	Capacitor Type	Net Price
APC-25	\$ 1.20	APC-100-B	\$ 1.70
APC-50	1.35	APC-140-B	1.90
APC-75	1.45	APC-25-C	1.85
APC-100	1.60	APC-50-C	2.00
APC-140	1.80	APC-75-C	2.10
APC-25-B	1.30	APC-100-C	2.25
APC-50-B	1.40	APC-140-C	2.45
APC-75-B	1.50		

TYPE	CAPACITANCE		PLATES	DIMENSION "A"
	Max.	Min.		
APC-25	25.	3.0	7	21/64
APC-50	50.	3.9	14	1/2
APC-75	75.	4.6	20	11/16
APC-100	100.	5.5	27	59/64
APC-140	140.	6.7	37	1-7/32

Note: When ordering the APC-"B" or "C" type, add the suffix -B or -C to the above listed type number.



FEATURES—The MAPC series is similar to the APC series of capacitors in that identical materials and assembly methods are employed. The silicone treated steatite bases and all brass nickel plated metal parts with exception of the phosphor bronze rotor wiper assure the same type of reliable performance that the APC series provides.

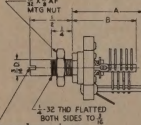
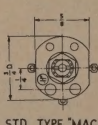
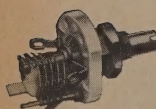
TYPE	CAPACITANCE		PLATES	DIMENSION "A"
	Max.	Min.		
MAPC-15	15	2.3	6	17/64
MAPC-25	25	2.6	10	3/8
MAPC-35	35	2.9	14	15/32
MAPC-50	50	3.2	19	37/64
MAPC-75	75	3.9	29	53/64
MAPC-100	100	4.5	38	1-5/64

Note: When ordering the MAPC-"B" or "C" type, add the suffix -B or -C to the type numbers listed above.



The MAC capacitors provide the low minimum capacitance and inductance essential for trimming and tuning resonant circuits in the VHF and UHF range. The materials employed and the constructional methods are the same as those used in the manufacture of the APC and MAPC series of capacitors.

TYPE	CAPACITANCE		PLATES	DIMENSIONS	
	Max.	Min.		"A"	"B"
MAC-5	5.4	1.3	5	45/64	39/64
MAC-10	9.6	1.5	9	13/16	23/32
MAC-15	15.8	1.9	15	1	29/32
MAC-20	21.5	2.2	21	1-11/64	1-5/64
MAC-30	32.0	2.5	27	1-7/65	1-11/64

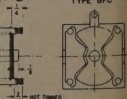
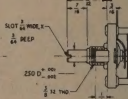
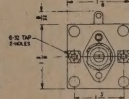
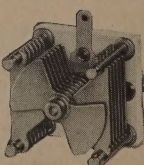


Cap. Type	Net Price	Cap. Type	Net Price
MAC-5	\$.90	MAC-20	\$ 1.10
MAC-10	.95	MAC-30	1.20
MAC-15	1.00		



The BFC capacitors are of the butterfly type permitting operation as a series capacitor without a rotor connection or as a split stator capacitor with provision for grounding the rotor independently from the capacitor mounting studs, which are insulated from the rotor in the silicone treated steatite base.

CODE	CAPACITY/SECTION		SERIES CAPACITY		PLATES		DIMENSION "A"
	Max.	Min.	Max.	Min.	Rotor	Ea. Stator	
BFC-12	14.5	3.4	7.6	2.2	4	3	29/32
BFC-25	27.3	4.8	14.1	2.9	7	6	1-13/64
BFC-38	40.1	6.2	20.6	3.6	10	9	1-1/2

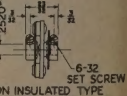
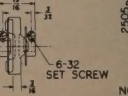
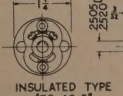


Cap Type	Net Price	Cap Type	Net Price
BFC-12	\$ 2.25	BFC-38	\$ 2.95
BFC-25	2.65		



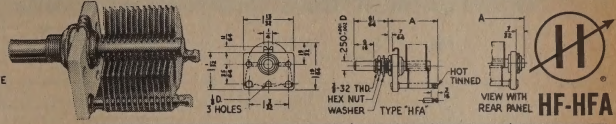
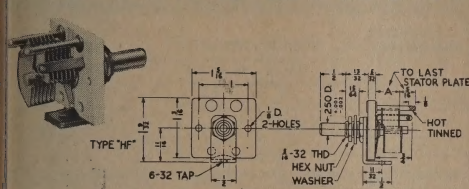
The FC-46-S is an insulated flexible coupling to prov mechanical ganging of angularly misaligned shafts. 1 FNC-46-S is non-insulated.

FC-46-S — \$1.50; FNC-46-S — \$1.20.



HAMMARLUND

88 STANDARD TYPES OF VARIABLE AIR CAPACITORS



CODE	CAPACITY		PLATES/SECTION	DIMENSION "A"
	Max.	Min.		
HF-15	17.5	2.8	5	17/64
HF-35	36.	3.2	10	25/64
HF-50	52.	3.7	14	1/2
HF-100	102.	5.3	27	59/64
HF-140	142.	6.3	37	1-7/32
HF-15-X	15.	3.6	10	23/32
HF-30-X	30.	5.2	20	1-5/16

CODE	CAPACITY		AIR GAP	PLATES/SECTION	DIMENSION "A"
	Max.	Min.			
HFA-100-A	102	4.5	0.020	19	1-13/32
HFA-140-A	145	6.0	0.020	27	1-23/32
HFA-200-A	200	8.0	0.020	38	2-7/32
HFA-15-B	16	2.8	0.030	5	7/8
HFA-25-B	25	3.0	0.030	7	31/32
HFA-50-B	50	4.3	0.030	14	1-3/8
HFA-100-B*	100	7.5	0.030	27	2-21/64
HFA-15-E	16	4.0	0.070	9	1-3/8

60 cycle peak test voltage

B, 1690 V.

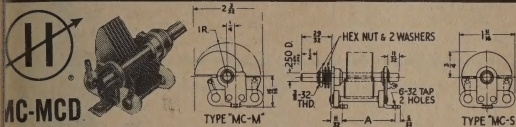
E, 1750 V.

*Has Front and Rear Supporting Panels.

The HF is a single section capacitor employing the APC rotor and stator design. An extra long sleeve bearing and positive contact nickel-plated phosphor bronze wiper make this unit ideally suited to high frequency applications.

The HFA capacitors are similar to the HF series except that larger rotor and stator plates are used.

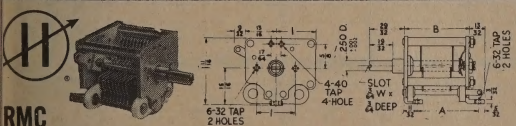
Cap. Type	Net Price	Cap. Type	Net Price
HF-15	\$ 1.30	HFA-100-A	\$ 2.75
HF-35	1.40	HFA-140-A	2.95
HF-50	1.60	HFA-200-A	3.70
HF-100	1.80	HFA-15-B	2.20
HF-140	1.95	HFA-25-B	2.30
HF-15-X	1.30	HFA-50-B	2.50
HF-30-X	1.70	HFA-100-B	3.90
		HFA-15-E	2.45



The MC is a versatile single section tuning capacitor designed to give the equipment engineer a choice of mountings, connections and capacity characteristics. The threaded brass front bearing and tapped aluminum and brackets permit panel or base mounting.

Capacitor Type	Net Price	Capacitor Type	Net Price	Capacitor Type	Net Price
MC-20-S	\$ 2.40	MC-140-S	\$ 3.15	MC-50-SX	\$ 3.00
MC-35-S	2.45	MC-200-M	3.40	MC-100-SX	3.95
MC-50-M	2.55	MC-250-M	3.70	MCD-50-M	7.25
MC-50-S	2.60	MC-325-M	4.20	MCD-100-M	7.85
MC-75-M	2.75	MC-20-SX	2.60	MCD-100-S	7.50
MC-75-S	2.85	MC-35-MX	2.75	MCD-140-M	8.35
MC-100-M	2.90	MC-35-SX	2.75	MCD-35-MX	7.85
MC-100-S	2.95	MC-50-MX	3.00	MCD-35-SX	7.50
MC-140-M	3.00				

TYPE	CAPACITY		PLATES/SECTION	DIMENSION "A"
	Max.	Min.		
MC-20-S	20.	5.5	3	1-7/32
MC-35-S	35.	6.0	5	1-7/32
MC-50-M	50.	6.3	7	1-7/32
MC-50-S	50.	6.5	7	1-7/32
MC-75-M	80.	7.3	11	1-7/32
MC-75-S	80.	8.0	11	1-7/32
MC-100-M	100.	7.7	14	1-13/32
MC-100-S	100.	8.3	14	1-13/32
MC-140-M	140.	9.0	19	1-19/32
MC-140-S	140.	10.0	19	1-19/32
MC-200-M	200.	10.3	27	2
MC-250-M	250.	12.0	34	2-5/16
MC-325-M	320.	13.5	43	2-23/32
MC-20-SX	20.	6.8	7	1-13/32
MC-35-MX	32.	7.8	11	1-19/32
MC-35-SX	32.	8.5	11	1-19/32
MC-50-MX	53.	10.5	19	2-5/16
MC-50-SX	53.	11.5	19	2-5/16
MC-100-SX	100.	16.5	35	3-29/32
MCD-50-M	50.	5.5	7	Single Hole panel mtg.
MCD-100-M	100.	6.3	14	Length back of panel
MCD-100-S	100.	7.0	14	3-11/32
MCD-140-M	140.	7.8	19	
MCD-35-MX	31.	6.0	11	
MCD-35-SX	31.	6.8	11	

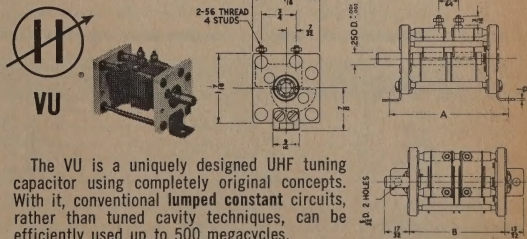


The RMC was designed specifically for applications requiring an MC type tuning capacitor with very rigid construction. Its sturdy frame consists of heavy gauge aluminum end panels held together by three aluminum tie rods.

Cap. Type	Net Price	Cap. Type	Net Price
RMC-50-S	\$ 4.95	RMC-140-S	\$ 5.95
RMC-100-S	5.25	RMC-325-S	6.85

CODE	CAPACITY		PLATES	DIMENSIONS	
	Max.	Min.		"A"	"B"
RMC-50-S	50.	7.3	7	1-7/32	1-5/16
RMC-100-S	105.	9.5	14	1-13/32	1-1/2
RMC-140-S	143.5	11.0	19	1-19/32	1-11/16
RMC-325-S	327.	17.5	43	2-23/32	2-13/16

Cap. Type	Net Price	Cap. Type	Net Price
VU-20	\$ 7.10	VU-45	\$ 8.00
VU-30	7.50		



The VU is a uniquely designed UHF tuning capacitor using completely original concepts. With it, conventional lumped constant circuits, rather than tuned cavity techniques, can be efficiently used up to 500 megacycles.

CODE	SERIES CAPACITY		PLATES/SECTION	DIMENSIONS	
	Eff.	Min.		"A"	"B"
VU-20	22.5	3.35	11	2-9/32	1-25/32
VU-30	31.5	3.5	15	2-9/16	2-1/16
VU-45	45.0	3.8	21	2-31/32	2-15/32

ITT Jennings VACUUM

Glass Vacuum Variable Capacitors

	TYPE	CAPACITY	PEAK MOMENTARY RF AND 60 CYCLE VOLTAGE ④	CONTINUOUS RMS AMPERES ① ③	NOMINAL DIMENSIONS ②	
		PF	KILOVOLTS		LENGTH	DIAMETER
2 to 5 kV	UCSL	4-250	3, 5	30	4½	2¼
	USL	5-250, 5-500	3, 5	40	5½	2¾
	USLS	5-465 shorting	3, 5	40	5½	2¾
	USL	10-1000	3, 5	40	5	3½
	UCSL	5-750, 7-1000, 20-2000	3, 5	42	7½	3½
	UCSL	50-3000	2, 3	42	8¾	3½
7.5 to 15 kV	UCSL	100-5000	2, 3	42	8¾	4½
	UCSB	5-100	7.5, 10, 15	40	47½	2¾
	UCSV	8-110, 125-250	7.5, 10, 15	40	5¼	27½
	ATCS	15-200	7.5, 10, 15	20	7	3½
	UCS	5-200, 10-300	7.5, 10, 15	42	8¾	2¾
	UCS	10-400, 25-500	7.5, 10, 15	42	9	3½
	UCSF	5-250, 12-500	7.5, 10, 15	45	7¾	3¾
	UCSX	25-700, 25-1000	7.5, 10, 15	45	97½	3¾
	UCSXF	12-1000, 15-1200	7.5, 10, 15	50	10	4¾
10 to 20 kV	UCSXF	20-1500, 50-2000	7.5, 10, 12	50	10	5½
	ECS	2-8, 3-30	10, 15	20	4	1¾
	TC	5-25	20	20	6½	2¼
	ATC	10-50, 15-75	20, 30	20	6¾	3½
	UC	50-250	10, 15, 20	60	11½	5
	UXC	25-500	10, 15, 20	60	14	5
	UXCF	10-250, 20-500	10, 15, 20	45	9¾	4¾
	VMMC	50-1000, 100-2000	10, 15	125	157½	6¾
35 to 60 kV	VMMC	100-5000	7.5, 10, 15	125	19	9¼
	UCSVH	8-35	25, 35	35	4¾	3
	UHC	10-75, 75-150	35, 45, 55, 60	60	12	5
	UXHC	25-150	35, 45, 55	75	14½	5
	UCSXH	10-200	35, 45	50	10	4½
	UCSXHF	20-450	35, 40	60	10½	5½
	VMMHC	10-250, 25-450, 30-650	35, 45, 55	125	17	8½
	VMMHCW	25-250, 50-400	35, 45, 55	500	17	9¾
	VMMHC	60-1000	35, 40, 45	125	19¾	9¼
	VMMHHC	25-200	120	140	20¼	9¼



Type USLS
5-465 pf
5 kV



Type UCSF
12-500 pf
15 kV



UCSXHF
20-450 pf
40 kV

Ceramic Vacuum Variable Capacitors

	TYPE	CAPACITY	PEAK MOMENTARY RF AND 60 CYCLE VOLTAGE ④	CONTINUOUS RMS AMPERES ① ③	NOMINAL DIMENSIONS ②	
		PF	KILOVOLTS		LENGTH	DIAMETER
2 to 5 kV	CVCE	10-750	3, 5	70	7.1	3.75
	CVCD	10-1000	3, 5	80	7.1	3.75
	CVCD	10-1500	3, 5	80	7.1	3.75
	CVCD	20-2000	3, 5	80	7.1	3.75
7.5 to 20 kV	CVDD	10-100	7.5, 10, 15	70	6.62	2.75
	CVDD	20-400	7.5, 10, 15	80	7.50	3.75
	CVDD	25-1000	7.5, 10, 15	125	8.00	4.88
	CVDP	35-1500	7.5, 10, 15	125	9.8	5.50
	CVDP	50-2300	7.5, 10, 15	125	9.8	5.50
	CVEP	25-500	10, 15, 20	140	9.4	5.50
	CVEP	50-1000	10, 15, 20	140	10.2	7.00
	CVEP	100-2000	10, 15	150	10.2	7.00
30 to 55 kV	CVFP	25-450	30, 35, 40	140	9.6	5.50
	CVFP	20-750	30, 35, 40	150	11.7	7.20
	CVFP	35-1000	30, 35, 40	150	11.7	7.20
	CVFP	100-1500	30, 35	150	13.6	7.20
	CVHP	10-250	35, 45, 55	170	11.9	7.20
	CVHP	25-450	35, 45, 55	170	11.9	7.20
	CVHP	30-650	35, 45, 55	170	11.9	7.20
	CVHP	60-1000	35, 45, 50	200	13.0	8.25



Type CVDD
10-1000 pf



Type CVEP
100-2000 pf

① Current ratings can usually be increased by 50% with proper forced air cooling, and up to 400% with water cooling.

② Nominal dimensions are for the largest unit of each type.

③ Voltage and current limitations are dependent upon capacity and frequency. Specific voltage and current information at all frequencies is available upon request.

NOTE: A series of adjustable capacitors is available to cover the range of 8 to 1000 pf at 10 kV.

Jennings application engineers are available to discuss special application problems. If necessary we will run special tests in the Jennings Radio Frequency Testing Laboratory where equipment is available with frequencies up to 600 mc, and power ratings up to 100 kw.

JENNINGS RADIO MANUFACTURING CORPORATION

CAPACITORS

Glass Vacuum Fixed Capacitors

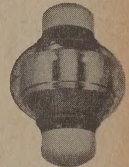
	TYPE	CAPACITY	PEAK MOMENTARY RF AND 60 CYCLE VOLTAGE ^②	CONTINUOUS RMS AMPERES ^{①③}	NOMINAL DIMENSIONS ^②	
		PF	KILOVOLTS		LENGTH	DIAMETER
2 to 5 kV	JSLF	5000	3, 5	100	3	4 1/8
	JCSL	500, 750, 1000	3, 5	50	4	2 7/8
	JCSL	1500, 2000	3, 5	42	4	2 7/8
7.5 to 15 kV	JCSF	25, 40, 80, 120, 150	7.5, 10, 15	30	1 1/8	1 1/8
	JCS2	25, 50, 100	7.5, 10, 15	35	3 1/8	1 7/8
	JCS1	25, 50, 75, 100, 150	7.5, 10, 15	65	3 3/8	2 1/8
	JCS	250, 400, 500	7.5, 10, 15	65	4	3 1/8
	JCS	1000	7.5, 10, 12	65	4 1/8	3 3/8
	MC1	500, 750, 1000	10, 15	80	4 1/8	4 1/8
	MC	500, 750, 1000	10, 15, 20	120	8 3/8	5
	MMC	1500, 2000	10, 15	140	9 1/8	6 1/8
	MMC1	2000	10, 15	125	5	6 1/8
	MMC	3000, 4000, 5000	10, 15	200	13	9 1/8
17 to 30 kV	Y	1, 2, 3, 4, 5	17	7	3 1/8	3 1/8
	X	5, 10, 15, 20, 25	17	7	3 1/8	1 1/8
	W	6, 12, 100	20, 25	10.5	4 1/8	2 1/8
	VCCA	12, 25, 50, 100, 150	20, 30	60	4 1/2	2 3/8
	VC	6, 12, 25, 50, 75, 100, 150	20, 30, 35	70	6 1/2	2 3/8
	VCCE	200, 250	20, 30, 35	70	6 1/2	2 3/8
	JMF	50, 75, 100	20, 30	50	2 3/4	2 1/8
	JC2	25, 50, 75, 100	20, 30	60	4	3 1/8
	MLC	500, 750, 1000	25, 30	125	9 1/8	5
35 to 60 kV	JC3	20, 50	35, 45, 55, 60	④140	8 1/8	3 1/2
	JC4	100, 125	35, 45, 55, 60	④280	9 1/8	5
	JC5	200	35, 45, 55, 60	④360	11 1/8	7
	MMHC	450	35, 45, 55	145	9 1/8	6 1/8
	MMHC	1000	35, 40, 45	200	13	9 1/8



Type JCS2
25 PF
15 kv



Type JMF
100 pf
30 kv



Type MMHC
1000 pf
45 kv

Ceramic Vacuum Fixed Capacitors

	TYPE	CAPACITY	PEAK MOMENTARY RF AND 60 CYCLE VOLTAGE ^②	CONTINUOUS RMS AMPERES ^{①③}	NOMINAL DIMENSIONS ^②	
		PF	KILOVOLTS		LENGTH	DIAMETER
3 to 5 kV	CFCD	1000	3, 5	45	2.62	3.75
	CFCD	2000	3, 5	85	2.62	3.75
20 to 30 kV	CFED	150	20, 25, 30	100	3.38	2.75
	CFED	500	10, 15, 20, 25	155	3.81	4.88
	CFED	750	10, 15, 20, 25	155	3.81	4.88
	CFED	1000	10, 15, 20, 25	155	3.81	4.88
35 to 60 kV	CFHD	50	45, 50, 60	130	5.18	2.75
	CFHP	450	35, 45, 55	215	5.5	2.75
	CFHP	1000	35, 45, 50	215	6.2	7.20



Type CFED 500



Type CFHP 450

Current ratings can usually be increased by 50% with proper forced air cooling, and up to 400% with water cooling.

Nominal dimensions are for the largest unit of each type.

Voltage and current limitations are dependent upon capacity and frequency. Specific voltage and current information at all frequencies is available upon request.

Forced air cooling.

High Voltage Measuring Equipment

MODEL JP 325 HIGH VOLTAGE PROBE

VOLTAGE RATINGS: 40, 50, or 60 kV peak.

VOLTAGE DIVISION RATIO: 325 to 1 to termination of 3 ft. of RG-58 A U cable.

INPUT IMPEDANCE:

Resistance: above 10¹² ohms.

Capacitance: 4 mmd.

FREQUENCY RESPONSE: High frequency limited by that of measuring instrument. (Internal resonances are above 100 mc.) Low frequency response is 100 cps if operating into 10 megohm shunt resistance, 1000 cps if operating into 1 megohm shunt resistance.



MODEL J-1003 HIGH VOLTAGE

VACUUM TUBE VOLTMETER

for use in pulse, rf and 60 cycle circuits at voltages up to 100 kV.

VOLTAGE RANGES (peak volts

Scale):
Single Ended: 2.5, 5, 10, 25, 50 kV.
Double Ended: 2.5, 5, 10, 25, 50, 100 kV.

(By using Type JCD Series capacitor, these ranges can be more than doubled.)

OSCILLOSCOPE CONNECTION:

300 to 1 division ratio.

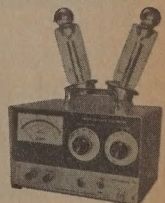
FREQUENCY RESPONSE: 10 cycles to 20 megacycles at full rated voltage. Internal resonances are above 100 mc.

INPUT IMPEDANCE: 10¹² ohms and 4 mmd.

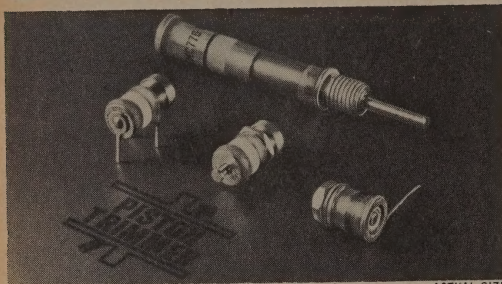
CALIBRATION ACCURACY: — 3% of full scale.

POWER SUPPLY: 117 volt, 50, 60 cy.

DIMENSIONS: 16 1/4" x 11" x 9"



JENNINGS RADIO MANUFACTURING CORPORATION

JFD**JFD ELECTRONICS CO./COMPONENTS DIVISION**

ACTUAL SIZE



JFD has available the largest selection of Precision Piston Trimmers in the industry—more than 2,500 standard and special designs that meet or exceed MIL-C-14409B.

JFD's unique capacitor-design-capability offers an unmatched number of exclusive features—Seven drive mechanisms incorporating advanced construction... Matched metalizing / homogeneous bond with dielectric... High level shock and vibration resistance... Clean room high reliability units available.

Write for complete catalog #C-66 "Precision Piston Trimmer and Tuning Capacitors."

ACTUAL SIZE

SERIES

PANEL MOUNT

PRINTED CIRCUIT

Max-C High Range
Miniature Telescopic Sealed
Capacitor Series

(Max. Dia. 5/16 in.)

JFD No.	Mil. Spec.	Cap. (pf) Min. Max.	Body Length ±1/32 in.	JFD No.	Mil. Spec.	Cap. (pf) Min. Max.	Body Length ±1/32 in.
GLASS				GLASS			
NMC601	PC39J160	1.0 16.0	15/32	NMC621	PC43J160	1.0 16.0	.750
NMC603	PC39J360	1.0 36.0	45/64	NMC623	PC43J360	1.0 36.0	.990
NMC604	PC39J520	1.0 52.0	59/64	NMC624	PC43J520	1.0 52.0	1.205
NMC606	PC39J750	1.0 75.0	1 11/64	NMC626	PC43J750	1.0 75.0	1.450
NMC609	PC39J121	1.0 120.0	1 49/64	NMC629	PC43J121	1.0 120.0	2.050
MC601Y	PC39J140	1.0 14.0	15/32	MC621Y	PC43J140	1.0 14.0	.750
MC603Y	PC39J280	1.0 28.0	45/64	MC621	PC43J140	1.0 14.0	.700
MC604Y	PC39J420	1.0 42.0	59/64	MC623Y	PC43J280	1.0 28.0	.990
MC606Y	PC39J600	1.0 60.0	1 11/64	MC623	PC43J280	1.0 28.0	.940
MC609Y	PC39J900	1.0 90.0	1 49/64	MC624Y	PC43J420	1.0 42.0	1.205
MC601	PC39J140	1.0 14.0	15/32	MC624	PC43J420	1.0 42.0	1.155
MC603	PC39J280	1.0 28.0	45/64	MC626Y	PC43J600	1.0 60.0	1.450
MC604	PC39J420	1.0 42.0	59/64	MC626	PC43J600	1.0 60.0	1.400
MC606	PC39J600	1.0 60.0	1 11/64	MC629Y	PC43J900	1.0 90.0	2.050
MC609	PC39J900	1.0 90.0	1 49/64	MC629	PC43J900	1.0 90.0	2.000

Miniature Telescopic
Capacitor Series*

Panel Mount

Printed Circuit

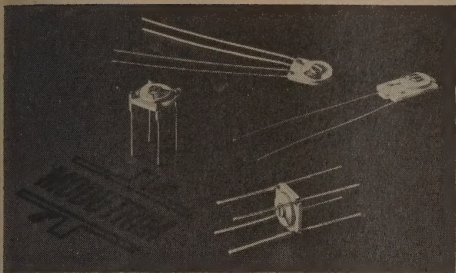
GLASS				+3/64-1/32				GLASS			
NVC20G	PC50J110	0.8 11.0	35/64	NVC9GW	PC51J110	0.8 11.0	9/16	NVC10GW	PC51J5R5	0.8 5.5	5/16
NVC21G	PC50J5R5	0.8 5.5	19/64	NVC31GW	PC51H160	0.8 16.0	49/64	NVC32GW	PC51H230	0.8 23.0	1
NVC22G	PC50H160	0.8 16.0	3/4	NVC33GW	PC51H380	1.0 38.0	1 39/64	VC9GWY	PC41J8R5	0.8 8.5	9/16
NVC23G	PC50H230	0.8 23.0	63/64	VC10GWY	PC41J4R5	0.8 4.5	5/16	VC31GWY	PC41H120	0.8 12.0	49/64
NVC24G	PC50H380	1.0 38.0	1 19/32	VC32GWY	PC41H180	0.8 18.0	1	VC43GWY	PC41H300	1.0 30.0	1 39/64
VC20GY	PC40J8R5	0.8 8.5	35/64	VC9GW	PC41J8R5	0.8 8.5	9/16	VC10GW	PC41J4R5	0.8 4.5	5/16
VC21GY	PC40J4R5	0.8 4.5	19/64	VC31GW	PC41H120	0.8 12.0	49/64	VC32GW	PC41H180	0.8 18.0	1
VC22GY	PC40H120	0.8 12.0	3/4	VC43GW	PC41H300	1.0 30.0	1 39/64	VC9GW	PC41J8R5	0.8 8.5	9/16
VC23GY	PC40H180	0.8 18.0	63/64	VC10GW	PC41J4R5	0.8 4.5	5/16	VC31GW	PC41H120	0.8 12.0	49/64
VC24GY	PC40H300	1.0 30.0	1 19/32	VC32GW	PC41H180	0.8 18.0	1	VC43GW	PC41H300	1.0 30.0	1 39/64
VC20G	PC40J8R5	0.8 8.5	35/64	VC9GW	PC41J8R5	0.8 8.5	9/16	VC10GW	PC41J4R5	0.8 4.5	5/16
VC21G	PC40J4R5	0.8 4.5	19/64	VC31GW	PC41H120	0.8 12.0	49/64	VC32GW	PC41H180	0.8 18.0	1
VC22G	PC40H120	0.8 12.0	3/4	VC43GW	PC41H300	1.0 30.0	1 39/64	VC9GW	PC41J8R5	0.8 8.5	9/16
VC23G	PC40H180	0.8 18.0	63/64	VC10GW	PC41J4R5	0.8 4.5	5/16	VC31GW	PC41H120	0.8 12.0	49/64
VC24G	PC40H300	1.0 30.0	1 19/32	VC32GW	PC41H180	0.8 18.0	1	VC43GW	PC41H300	1.0 30.0	1 39/64
QUARTZ				+3/64-1/32				QUARTZ			
NMQ101	PC40Q1R8	0.6 1.8	35/64	NMQ121	PC41Q1R8	0.6 1.8	9/16	NMQ123	PC41Q5R5	0.6 5.5	5/16
NMQ103	PC40Q5R5	0.6 5.5	19/64	NMQ126	PC41Q9R5	0.6 9.5	1	NMQ129	PC41Q160	0.8 16.0	1 19/32
NMQ106	PC40Q9R5	0.6 9.5	63/64	MQ121	PC41Q1R8	0.6 1.8	9/16	MQ123	PC41Q5R5	0.6 5.5	5/16
NMQ109	PC40Q160	0.8 16.0	1 19/32	MQ126	PC41Q9R5	0.6 9.5	1	MQ129	PC41Q160	0.8 16.0	1 19/32
MQ101	PC40Q1R8	0.6 1.8	35/64	MQ121	PC41Q1R8	0.6 1.8	9/16	MQ123	PC41Q5R5	0.6 5.5	5/16
MQ103	PC40Q5R5	0.6 5.5	19/64	MQ126	PC41Q9R5	0.6 9.5	1	MQ129	PC41Q160	0.8 16.0	1 19/32
MQ106	PC40Q9R5	0.6 9.5	63/64								
MQ109	PC40Q160	0.8 16.0	1 19/32								

Wire Series

Lug
& Lead
Series

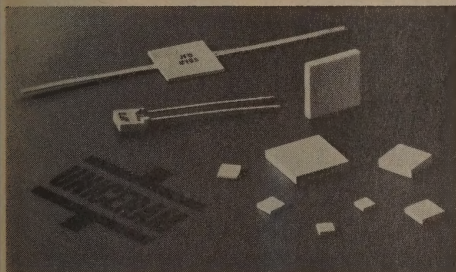
(Max. Dia. 1/4 in.)

JFD ELECTRONICS CO./COMPONENTS DIVISION

JFD

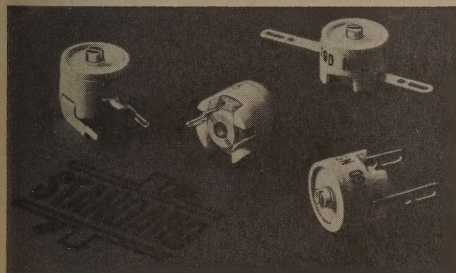
ACTUAL SIZE

Modutrim Ceramic Variable Capacitors feature wide delta C in extremely small and ultra stable circuits. Now 9 models in 4 configurations. Write for complete catalog #MT-66.



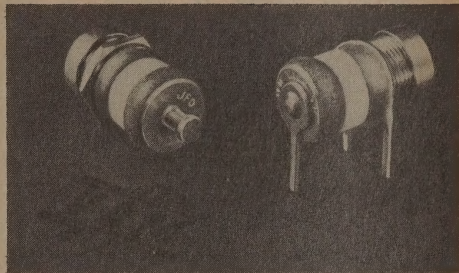
ACTUAL SIZE

Unicram High-Q ceramic fixed capacitors combine exceptional stability, small size with minimum Q of 5000. Write for complete catalog #UNM-65-2.



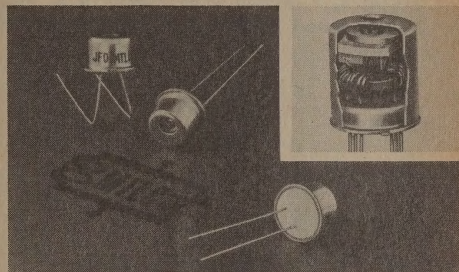
1.5 X ACTUAL SIZE

Low-cost Stangard miniature ceramic variable series for commercial and industrial applications provide 8 wide delta C in 4 versatile configurations. Write for complete catalog #STD-65.



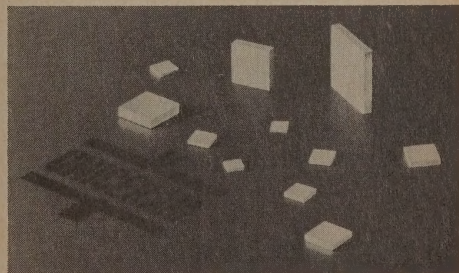
3 X ACTUAL SIZE

New JFD VAM Air Variable Capacitors maintain highest Q at high frequencies, offer ultra stability, smallest size. Write for complete catalog #VAM-65.



ACTUAL SIZE

MTLC's offer complete LC tuned circuits within TO-5 can. Standard frequency ranges from 2 MC to 300 MC. Various other complex networks such as discriminators, phase detectors are also available on special order. Write for complete catalog #MTLC-65-2.

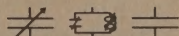


ACTUAL SIZE

JFD WAFERS are unleaded, unencapsulated versions of Unicram capacitors. They offer the same fine electrical properties of regular Unicram capacitors at lower cost. Ideally suited for hybrid microcircuits. Write for complete catalog #UNM-65-2.

JFD

JFD ELECTRONICS CO./COMPONENTS DIVISION

**"TODAY'S COMPONENTS BUILT FOR TOMORROW'S CHALLENGES"**

CAPACITORS

MACHINED PLATE TRIMMER AND TUNER TYPES — U, UA, UB, U-LC, V, AND W — Available in both printed circuit and chassis mounting types. U types available in differential and butterfly printed circuit mounting types in addition to single section types. V and W capacitors available in single section type only. Maximum capacities of up to 54 pf. Tuners consist of a machined plate trimmer and high Q air wound silver plated inductor, in resonant frequencies of 100 to 750 Mc.

SOLDER PLATE TYPES — Type M: Capacity values to 30 pf. Voltage ratings to 1250 volts peak. Available in single section, differential and butterfly types.

Type S: Capacity values to 100 pf. Voltage ratings to 3000 volts peak. Available in single section, differential and butterfly types. Type K: Capacity values to 150 pf. Voltage ratings to 3800 volts peak. Available only in single section types. May be furnished in production quantities in full compliance to MIL-C-92A.

Type R: Capacity values to 340 pf. Voltage ratings to 4400 volts peak. Available only in single section type.

Type L: Capacity values to 200 pf. Voltage ratings to 3500 volts peak. Available in single section differential, butterfly and dual section types.

SPACER TYPES — Type C: Capacity values to 1500 pf. Voltage ratings to 13,000 volts peak. Available in single section and dual section types.

Type D: Capacity values to 1700 pf. Voltage ratings to 9000 volts peak. Available in single section and dual section types.

STAKED PLATE TYPES — Type E: Capacity values to 1000 pf. Voltage ratings to 4500 volts peak. Available in single section and dual section types.

Type F: Capacity values to 400 pf. Voltage ratings to 3000 volts peak. Available in single section and dual section types.

CONNECTORS

SUB-MINIATURE INSULATED TYPES — Designed for printed circuit applications. Operating voltages to 1500 volts RMS . . . 5 amperes current carrying capacity . . . contact resistance less than 2 milliohms. Capacitance between two adjacent jacks less than one pf at 1 Mc. 10 colors available. Test-Point Strip/Handle — rapid-mounting polyamide body contains 12 test points each rated at 5 amps., maximum current capacity. Operating voltage 1500 volts RMS at sea level, 350 volts RMS at 50,000 feet. Contact resistance less than 2 milliohms.

STANDARD INSULATED CONNECTORS — A complete line of connectors molded of tough, low-loss, shock-proof polyamide in 10

colors meeting Fed. Std. 595. Tip, Banana and Dual Banana Plugs; Tip and Banana Jacks, Metal-Clad Tip Jack, Military; Jack and Sleeve; Binding Posts.

RIB-LOC TERMINALS — A new line of miniature, one-piece, insulated terminals with a unique serrated conical design, which resists loosening and turning. Provides an inexpensive approach to convenient press-in type terminals. Six colors conforming to Federal Color Standard No. 595. Terminal styles include single and double turret feed-thrus and stand-offs, .040" dia. tip plug and mating jack for .040" tip plug.

Tube Sockets, Insulators, Pilot Lights, and Hardware

ULTRA HIGH FREQUENCY SOCKETS — Continuous heat resistance to 500°F. with low loss, glass filled silicone base and heat treated beryllium copper contacts. Low inductance screen bypass capacitor available for VHF and UHF operation.

KEL-F SERIES — Molded of low dielectric loss-factor Kel-F plastic — designed for use with a wide selection of high power transmitting tubes.

STEATITE WAFER TYPES — Available in 4, 5, 6, 7, and 8-pin standard socket types, as well as Super Jumbo 4-pin types. Also giant 5 pin, and 7 pin Septar and VHF Septar Sockets.

SPECIAL PURPOSE TYPES — Includes sockets for special purpose tubes.

Note: For detailed specifications, request Socket Standardization Booklet 536 on your company letterhead.

INSULATORS — Low loss, high-voltage breakdown in either steatite or porcelain. Complete line includes Thru-panel Bushings and Insulators, Antenna Strain and Feeder Types, Cone and Stand-off Insulators, Lead-in Bushings and Feed-Thru Bowl Assemblies.

PILOT LIGHTS — Over 47 separate assemblies. Continuous indication neon types, models for high and low voltage incandescent bulbs, standard or wide angle glass, and lucite jewels. Specials, including types meeting military specifications, also available in production quantities.

PANEL BEARINGS — For use on 1/4" shafts and panels up to 3/4" thick. **CRYSTAL SOCKETS** — For low capacity, high voltage and high temperature operation. Glazed steatite, Grade L-423 or better. DC-200 impregnated. **RF CHOKES** — High quality construction. For 1.7 to 30 Mc range.

CHECK Johnson for all your component requirements

Johnson also offers a complete line of heavy-duty RF components for broadcast transmitting, RF heating, antenna phasing and other commercial applications.

Equipment in this line includes fixed and variable inductors, antenna phase sampling loops, isolation filter inductors, feed-thru bowl insulators, static drain chokes, RF contactors and heavy-duty make-before-break switches.

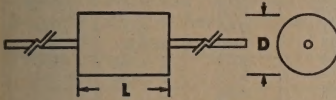


E. F. JOHNSON COMPANY

LOW VOLTAGE CAPACITORS

TYPE AZ

EPOXY DIP



TYPE AZ Capacitors are finished with a dip finish assuring operation in severe environmental conditions. **TYPE AZ** Capacitors are also available in flat oval shape.

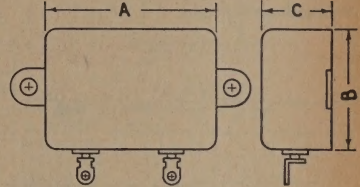
TYPE AM

METALLIZED MYLAR*

TYPE AM Capacitors are hermetically sealed in brass containers with compression glass seals for a "floating" case add 1/16" to dimension L (See drawing in **TYPE AZ** column).

TYPE AB

METALLIZED MYLAR*



TYPE AB Capacitors are housed in standard bathtub containers using compression type solder-seal glass insulators. **TYPE AB** provides large values of capacitance with the fine characteristics of Metallized Mylar.*

200 VOLTS D.C.

Cap MFD	Cap Code	AZ2		AZ3	
		D Max.	L Max.	D Max.	L Max.
.01	103	.23	.38	.26	.38
.012	123	.24	.38	.23	.51
.015	153	.25	.38	.24	.51
.018	183	.23	.51	.25	.51
.022	223	.24	.51	.26	.51
.027	273	.25	.51	.28	.51
.033	333	.26	.51	.29	.51
.039	393	.27	.51	.26	.70
.047	473	.29	.51	.28	.70
.056	563	.26	.70	.29	.70
.068	683	.27	.70	.31	.70
.082	823	.29	.70	.33	.70
.1	104	.30	.70	.35	.70
.12	124	.32	.70	.37	.70
.15	154	.39	.70	.40	.70
.18	184	.39	.70	.43	.70
.22	224	.39	.70	.39	.95
.27	274	.44	.70	.42	.95
.33	334	.44	.70	.45	.95
.39	394	.47	.70	.48	.95
.47	474	.44	.95	.52	.95
.56	564	.47	.95	.55	.95
.68	684	.50	.95	.60	.95
.82	824	.50	.95	.65	.95
1.0	105	.57	.95	.64	1.13
1.5	155	.66	1.13	.75	1.13
2.0	205	.75	1.13	.85	1.13
3.0	305	.75	1.38	.84	1.63
4.0	405	.87	1.63	1.09	1.26
5.0	505	.87	1.63	1.05	1.63
8.0	805	1.07	1.63		
10.0	106	1.19	1.63		

BASIC PART NO.	CAP MFD	SIZE	
		CIRCUIT A OR F	D
AM2-103	0.01	0.174	9/16
AM2-123	.012	.174	9/16
AM2-153	.015	.174	9/16
AM2-183	.018	.174	9/16
AM2-223	.022	.187	9/16
AM2-273	.027	.187	9/16
AM2-333	.033	.235	9/16
AM2-393	.039	.235	9/16
AM2-473	.047	.235	9/16
AM2-563	.056	.235	3/4
AM2-683	.068	.235	3/4
AM2-823	.082	.235	3/4
AM2-104	0.1	.235	3/4
AM2-124	.12	.312	3/4
AM2-154	.15	.312	3/4
AM2-184	.18	.312	3/4
AM2-224	.22	.312	3/4
AM2-274	.27	.400	3/4
AM2-334	.33	.400	3/4
AM2-394	.39	.400	3/4
AM2-474	.47	.400	1 1/16
AM2-564	.56	.400	1 1/16
AM2-684	.68	.400	1 1/16
AM2-824	.82	.562	1 1/16
AM2-105	1.0	.562	1 1/16
AM2-155	1.5	.562	1 1/4
AM2-205	2.0	.670	1 1/4
AM2-305	3.0	.670	1 1/2
AM2-405	4.0	.670	1 3/4
AM2-505	5.0	.750	1 3/4
AM2-805	8.0	1.0	1 3/4
AM2-106	10.0	1.0	2 1/4

300 VOLTS D.C.

AM3-393	.039	.235	3/4
AM3-473	.047	.235	3/4
AM3-563	.056	.235	3/4
AM3-683	.068	.312	3/4
AM3-823	.082	.312	3/4
AM3-104	0.1	.312	3/4
AM3-124	.12	.400	3/4
AM3-154	.15	.400	3/4
AM3-184	.18	.400	3/4
AM3-224	.22	.400	1 1/16
AM3-274	.27	.400	1 1/16
AM3-334	.33	.400	1 1/16
AM3-394	.39	.400	1 1/4
AM3-474	.47	.562	1 1/16
AM3-564	.56	.562	1 1/16
AM3-684	.68	.562	1 1/16
AM3-824	.82	.562	1 1/16
AM3-105	1.0	.562	1 1/2
AM3-155	1.5	.670	1 1/2
AM3-205	2.0	.670	1 3/4
AM3-305	3.0	1.0	1 1/4
AM3-405	4.0	1.0	1 1/2
AM3-505	5.0	1.0	2 1/4
AM3-605	6.0	1.0	2 1/4

200 VOLTS D.C.

PART NUMBER	CAP. MFD.	CASE SIZE		
		A	B	C
AB2-504	0.5	1 1/8	1	13/16
AB2-105	1.0	1 1/8	1	13/16
AB2-205	2.0	1 1/8	1	13/16
AB2-405	4.0	1 3/4	1	3/4
AB2-505	5.0	1 3/4	1	3/4
AB2-605	6.0	1 3/4	1 1/4	7/8
AB2-805	8.0	1 3/4	1 1/4	7/8
AB2-106	10.0	2	1 3/4	7/8
AB2-126	12.0	2	1 3/4	7/8
AB2-156	15.0	2	1 3/4	7/8
AB2-206	20.0	2	2	1 1/8
AB2-306	30.0	2	2	1 1/4

300 VOLTS D.C.

AB3-504	0.5	1 1/8	1	13/16
AB3-105	1.0	1 1/8	1	13/16
AB3-205	2.0	1 3/4	1	3/4
AB3-405	4.0	1 3/4	1 1/4	7/8
AB3-505	5.0	2	1 3/4	7/8
AB3-605	6.0	2	1 3/4	7/8
AB3-805	8.0	2	1 3/4	7/8
AB3-106	10.0	2	2	1 1/8
AB3-126	12.0	2	2	1 1/8
AB3-156	15.0	2	2	1 1/4

400 VOLTS D.C.

AB4-104	0.1	1 1/8	1	13/16
AB4-254	0.25	1 1/8	1	13/16
AB4-504	0.5	1 1/8	1	13/16
AB4-105	1.0	1 3/4	1	3/4
AB4-205	2.0	1 3/4	1 1/4	7/8
AB4-405	4.0	2	1 3/4	7/8
AB4-505	5.0	2	2	1 1/8
AB4-605	6.0	2	2	1 1/8
AB4-805	8.0	2	2	1 1/4

600 VOLTS D.C.

AB6-503	0.05	1 1/8	1	13/16
AB6-104	0.10	1 1/8	1	13/16
AB6-254	0.25	1 1/8	1	13/16
AB6-504	0.50	1 3/4	1 1/4	7/8
AB6-105	1.0	2	1 3/4	7/8
AB6-205	2.0	2	2	1 1/8

* DUPONT POLYESTER FILM

The listing comprises a small portion of capacitors and voltage available. Send for complete information.

Plastic Capacitors, Inc.

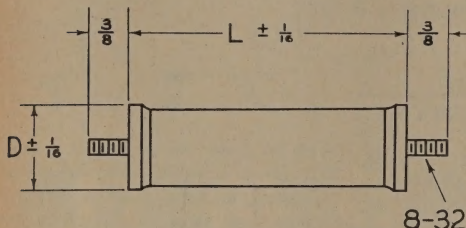


HIGH VOLTAGE CAPACITORS TYPE OF



85°C GLASS CAP — PLASTIC FILM DC FILTER

TYPE OF Capacitors are housed in glass tubes with metal-to-glass soldered ferrules. Capacitor element is an improved plastic dielectric type, impregnated with a highly purified and inhibited mineral oil.



All glass containers with 'D' dimensions of 19/32 have 2-1/2 inch long 18 tinned copper pigtail leads.

PART NUMBER	CAP MFD	VOLTS DC	DIMENSIONS	
			L	D
OF20-102	.001	2000	1 3/16	19/32
OF20-202	.002	2000	1 3/16	19/32
OF20-502	.005	2000	1 3/16	19/32
OF20-103	.01	2000	1 3/16	19/32
OF20-203	.02	2000	1 9/16	19/32
OF20-503	.05	2000	1 3/4	3/4
OF20-104	0.1	2000	2 1/4	3/4
OF20-254	0.25	2000	2 3/4	29/32
OF20-504	0.5	2000	2	1 3/8
OF30-102	.001	3000	1 3/16	19/32
OF30-202	.002	3000	1 3/16	19/32
OF30-502	.005	3000	1 3/16	19/32
OF30-103	.01	3000	1 9/16	19/32
OF30-203	.02	3000	1 3/4	3/4
OF30-503	.05	3000	2 1/4	3/4
OF30-104	0.1	3000	1 3/4	1 1/8
OF30-254	0.25	3000	2	1 3/8
OF30-504	0.5	3000	2 3/4	1 5/8
OF40-102	.001	4000	1 3/16	19/32
OF40-202	.002	4000	1 3/16	19/32
OF40-502	.005	4000	1 3/16	19/32
OF40-103	.01	4000	1 3/16	3/4
OF40-203	.02	4000	1 3/4	3/4
OF40-503	.05	4000	2	13/16
OF40-104	0.1	4000	2	1 1/8
OF40-254	0.25	4000	2 1/4	1 5/8
OF40-504	0.5	4000	3 3/4	1 5/8

PART NUMBER	CAP MFD	VOLTS DC	DIMENSIONS	
			L	D
OF50-202	.002	5000	1 3/16	19/32
OF50-502	.005	5000	1 5/8	19/32
OF50-103	.01	5000	1 3/4	3/4
OF50-203	.02	5000	2 1/4	3/4
OF50-503	.05	5000	2 1/4	29/32
OF50-104	0.1	5000	2 1/4	1 3/8
OF50-254	0.25	5000	3	1 5/8
OF50-504	0.5	5000	6	1 5/8
OF60-103	.01	6000	1 3/4	3/4
OF60-203	.02	6000	2 1/4	3/4
OF60-503	.05	6000	3 1/4	29/32
OF60-104	0.1	6000	3	1 3/8
OF60-254	0.25	6000	4	1 5/8
OF60-504	0.5	6000	7	1 5/8
OF80-502	.005	8000	1 3/4	3/4
OF80-103	.01	8000	2 1/4	3/4
OF80-203	.02	8000	2 3/4	29/32
OF80-503	.05	8000	2 3/4	1 3/8
OF80-104	0.1	8000	3 5/8	1 5/8
OF80-204	0.2	8000	7	1 5/8
OF100-101	.0001	10 KV	1 5/8	19/32
OF100-201	.0002	10 KV	1 5/8	19/32
OF100-501	.0005	10 KV	1 5/8	19/32
OF100-102	.001	10 KV	1 5/8	19/32
OF100-202	.002	10 KV	1 5/8	3/4
OF100-502	.005	10 KV	1 3/4	13/16
OF100-103	.01	10 KV	2 1/4	29/32
OF100-203	.02	10 KV	2 3/4	1 1/8
OF100-503	.05	10 KV	2 3/4	1 5/8
OF100-603	.06	10 KV	3	1 5/8
OF100-104	0.1	10 KV	5	1 5/8
OF150-101	.0001	15 KV	2 1/4	19/32
OF150-201	.0002	15 KV	2 1/4	19/32
OF150-501	.0005	15 KV	2 1/4	19/32
OF150-102	.001	15 KV	2 1/4	3/4
OF150-202	.002	15 KV	2 1/4	3/4
OF150-502	.005	15 KV	2 3/4	1 1/8
OF150-103	.01	15 KV	3 3/4	1 1/8
OF150-203	.02	15 KV	4 1/4	1 3/8
OF150-503	.05	15 KV	7	1 5/8
OF150-603	.06	15 KV	8	1 5/8
OF200-101	.0001	20 KV	3 1/2	19/32
OF200-201	.0002	20 KV	3 1/2	19/32
OF200-501	.0005	20 KV	3 1/2	19/32
OF200-102	.001	20 KV	3 1/2	3/4
OF200-202	.002	20 KV	3 1/2	13/16
OF200-502	.005	20 KV	3 1/2	1 1/8
OF200-103	.01	20 KV	4 1/2	1 1/8
OF200-203	.02	20 KV	4 1/2	1 5/8
OF200-403	.04	20 KV	7 1/4	1 5/8
OF300-101	.0001	30 KV	4 9/16	19/32
OF300-201	.0002	30 KV	4 9/16	19/32
OF300-501	.0005	30 KV	4 9/16	19/32
OF300-102	.001	30 KV	5	3/4
OF300-202	.002	30 KV	5	29/32
OF300-502	.005	30 KV	5	1 3/8
OF300-103	.01	30 KV	6 1/2	1 5/8
OF300-203	.02	30 KV	9	1 5/8

The above is a partial listing. Additional capacitance and voltage values are available. Send for complete listing.

HIGH VOLTAGE POWER PACKS COMPACT "M" SERIES 2 TO 75 KVDC

SEE SECTION 4000, PAGE 1015

Plastic Capacitors, Inc.

HIGH VOLTAGE CAPACITORS TYPE LK

MYLAR* PAPER FILTER CAPACITORS

TYPE LK Capacitors are specifically designed for filter, bypass and coupling applications in the low audio frequency range. The CP70 style container and internal construction permit operation in any position. Glazed statite bushings are used, and in the voltage ranges of 2000 and greater, statite is the electrical insulation in the terminal assembly. The threaded stud terminal is supplied with nut, lockwasher and/or solder lug. The whole assembly is hermetically sealed.

2000 VDCW

PART NUMBER	CAP. MFD.	A	B	C
LK20-105	1.0	1 3/4	1	3 1/4
LK20-205	2	2 1/2	1 3/16	3 1/2
LK20-205Y	2	1 3/4	1	5
LK20-405	4	2 1/2	1 3/16	5 1/2
LK20-405Y	4	3 3/4	1 1/4	3 3/4
LK20-605	6	3 3/4	1 1/4	5
LK20-605Y	6	3 3/4	1 3/4	3 3/4
LK20-805	8	3 3/4	1 1/4	6 1/4
LK20-805Y	8	3 3/4	1 3/4	4 1/2
LK20-106	10	3 3/4	1 3/4	5 1/4
LK20-106Y	10	3 3/4	2 1/4	4 1/2
LK20-126	12	3 3/4	1 3/4	6 1/4
LK20-126Y	12	3 3/4	2 1/4	5
LK20-126Z	12	3 3/4	3 3/16	4
LK20-156	15	3 3/4	2 1/4	6
LK20-156Y	15	3 3/4	3 3/16	5
LK20-156Z	15	4 9/16	3 3/4	3 3/4
LK20-206	20	3 3/4	3 3/16	6
LK20-206Y	20	4 9/16	3 3/4	4 1/4
LK20-256	25	3 3/4	3 3/16	6 3/4
LK20-306	30	4 9/16	3 3/4	5 3/4

3000 VDCW

LK30-504	.5	1 3/4	1	3 1/4
LK30-105	1.0	1 3/4	1	5 1/4
LK30-105Y	1.0	2 1/2	1 3/16	3 1/2
LK30-205	2	2 1/2	1 3/16	5 1/2
LK30-205Y	2	3 3/4	1 1/4	3 3/4
LK30-405	4	3 3/4	1 1/4	6 1/4
LK30-405Y	4	3 3/4	1 3/4	4 3/4
LK30-405Z	4	3 3/4	2 1/4	4
LK30-605	6	3 3/4	1 3/4	6 1/4
LK30-605Y	6	3 3/4	2 1/4	5 1/4
LK30-605Z	6	3 3/4	3 3/16	4
LK30-805	8	3 3/4	2 1/4	6 1/2
LK30-805Y	8	3 3/4	3 3/16	5
LK30-805Z	8	4 9/16	3 3/4	3 3/4
LK30-106	10	3 3/4	3 3/16	5 3/4
LK30-106Y	10	4 9/16	3 3/4	4 1/2
LK30-126	12	3 3/4	3 3/16	6 3/4
LK30-126Y	12	4 9/16	3 3/4	5
LK30-156	15	4 9/16	3 3/4	6
LK30-206Y	20	4 9/16	3 3/4	7
LK30-256Y	25	4 9/16	3 3/4	10
LK30-306Z	30	4 9/16	3 3/4	11 1/2

4000 VDCW

LK40-254	.25	1 3/4	1	2 3/4
LK40-504	.5	1 3/4	1	4
LK40-105	1.0	2 1/2	1 3/16	4
LK40-205	2	2 1/2	1 3/16	6 3/4
LK40-205Y	2	3 3/4	1 3/4	3 3/4
LK40-405	4	3 3/4	1 3/4	6
LK40-405Y	4	3 3/4	2 1/4	4 3/4
LK40-605	6	3 3/4	2 1/4	6 1/2
LK40-605Y	6	3 3/4	3 3/16	5
LK40-605Z	6	4 9/16	3 3/4	3 3/4
LK40-805	8	3 3/4	3 3/16	6
LK40-805Y	8	4 9/16	3 3/4	4 3/4
LK40-106	10	4 9/16	3 3/4	5 1/2
LK40-126	12	4 9/16	3 3/4	6 1/2
LK40-156	15	4 9/16	3 3/4	8 1/2
LK40-206Z	20	4 9/16	3 3/4	9

5000 VDCW

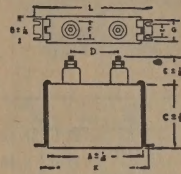
LK50-104	.1	1 3/4	1	2 1/8
LK50-254	.25	1 3/4	1	3
LK50-504	.5	1 3/4	1	4 3/4
LK50-504Y	.5	2 1/2	1 3/16	3 1/4
LK50-105	1.0	2 1/2	1 3/16	5
LK50-105Y	1.0	3 3/4	1 1/4	3 3/4
LK50-205	2	3 3/4	1 1/4	6
LK50-205Y	2	3 3/4	1 3/4	4 1/2
LK50-205Z	2	3 3/4	2 1/4	3 3/4
LK50-405	4	3 3/4	2 1/4	6 1/4
LK50-405Y	4	3 3/4	3 3/16	4 3/4
LK50-405Z	4	4 9/16	3 3/4	3 3/4
LK50-605	6	3 3/4	3 3/16	6 1/2
LK50-605Y	6	4 9/16	3 3/4	4 3/4
LK50-805	8	4 9/16	3 3/4	6 1/4
LK50-106Y	10	4 9/16	3 3/4	7 1/2
LK50-126Y	12	4 9/16	3 3/4	9 1/2
LK50-156Y	15	4 9/16	3 3/4	9 1/4
LK50-206Y	20	7 5/16	5 9/16	5 3/4
LK50-206Z	20	6	4 5/8	8
LK50-256Y	25	6	4 5/8	9 1/4
LK50-306Y	30	6	4 5/8	11 1/4

6000 VDCW

LK60-104	.1	3 3/4	1 1/4	2 1/4
LK60-254	.25	3 3/4	1 1/4	2 1/2
LK60-504	.5	3 3/4	1 1/4	3 3/4
LK60-105	1.0	3 3/4	1 1/4	6 1/2
LK60-105Y	1.0	3 3/4	1 3/4	4 1/2
LK60-205	2	3 3/4	2 1/4	6 1/4
LK60-205Y	2	3 3/4	3 3/16	4 3/4
LK60-405	4	4 9/16	3 3/4	6
LK60-605	6	4 9/16	3 3/4	8 1/4
LK60-805	8	4 9/16	3 3/4	10 1/4
LK60-805Y	8	8	4	9 1/4
LK60-106Y	10	6	4 5/8	8 3/4
LK60-126Y	12	6	4 5/8	9 3/4
LK60-156Y	15	6	4 5/8	11
LK60-206Y	20	7 5/16	5 9/16	10 1/4
LK60-306Y	30	13 1/2	5 1/8	11 7/8

8000 VDCW

LK80-104Y	.1	2 1/2	1 3/16	3
LK80-104	.1	3 3/4	1 1/4	2 1/2
LK80-254Y	.25	2 1/2	1 3/16	5 1/4
LK80-254	.25	3 3/4	1 1/4	3 3/4
LK80-504	.5	3 3/4	1 1/4	5 3/4
LK80-504Y	.5	3 3/4	1 3/4	4 1/4
LK80-105	1.0	3 3/4	1 3/4	7
LK80-105Y	1.0	3 3/4	2 1/4	5 3/4
LK80-105Z	1.0	3 3/4	3 3/16	4 1/2
LK80-205	2	3 3/4	3 3/16	7
LK80-205Y	2	4 9/16	3 3/4	5 1/4
LK80-405	4	4 9/16	3 3/4	8 1/2
LK80-605Y	6	6	4 5/8	8 1/4
LK80-605Z	6	4 9/16	3 3/4	12
LK80-805Y	8	6	4 5/8	10
LK80-106Y	10	7 5/16	5 9/16	9
LK80-126Y	12	7 5/16	5 9/16	10
LK80-156Y	15	13 1/2	4 1/8	11
LK80-206Y	20	13 1/2	5 1/8	11 7/8



10 KVDC

PART NUMBER	CAP. MFD.	A	B	C
LK100-104	.1	3 3/4	1 3/4	3 1/4
LK100-254	.25	3 3/4	1 3/4	3 3/4
LK100-254Y	.25	3 3/4	2 1/4	3 1/4
LK100-504	.5	3 3/4	1 3/4	5 3/4
LK100-504Y	.5	3 3/4	2 1/4	4 1/2
LK100-504Z	.5	3 3/4	3 3/16	3 3/4
LK100-105	1.0	3 3/4	2 1/4	7 1/4
LK100-105Y	1.0	3 3/4	3 3/16	5 1/4
LK100-105Z	1.0	4 9/16	3 3/4	4 1/2
LK100-205	2	4 9/16	3 3/4	6 3/4
LK100-405Y	4	4 9/16	3 3/4	11
LK100-605Y	6	6	4 5/8	10 1/2
LK100-805Y	8	7 5/16	5 9/16	9 1/4
LK100-106Y	10	7 5/16	5 9/16	11

12.5 KVDC

LK125-503	.05	3 3/4	1 3/4	3
LK125-104	.1	3 3/4	1 3/4	3 5/8
LK125-254	.25	3 3/4	1 3/4	5 7/8
LK125-504	.5	3 3/4	3 3/16	5 5/8
LK125-504Y	.5	4 9/16	3 3/4	4 3/8
LK125-105	1.0	4 9/16	3 3/4	6 5/8
LK125-205	2	4 9/16	3 3/4	11
LK125-205Z	2	6	4 1/8	7 3/4
LK125-405Y	4	7 5/16	5 9/16	9 1/2
LK125-605	6	13 1/2	5 1/8	11
LK125-805Y	8	13 1/2	5 1/8	11 7/8
LK125-106Y	10	13 1/2	5 1/8	13 3/4

15 KVDC

LK150-104	.1	3 3/4	1 3/4	3 3/4
LK150-254	.25	3 3/4	1 3/4	7
LK150-254Y	.25	3 3/4	2 1/4	5
LK150-504	.5	3 3/4	3 3/16	6 1/2
LK150-504Y	.5	4 9/16	3 3/4	5
LK150-105	1.0	4 9/16	3 3/4	8 1/2
LK150-205Y	2	6	4 5/8	9 1/4
LK150-405Y	4	7 5/16	5 9/16	12

20 KVDC

LK200-104	.1	3 3/4	2 1/4	4 3/4
LK200-254	.25	3 3/4	3 3/16	6
LK200-254Y	.25	4 9/16	3 3/4	4 3/4
LK200-504	.5	4 9/16	3 3/4	7 1/2
LK200-105	1.0	8	4	9 1/4
LK200-205	2	13 1/2	4 1/8	9 1/4

25 KVDC

LK250-503	.05	3 3/4	3 3/16	4
LK250-104	.1	3 3/4	3 3/16	4 3/4
LK250-254	.25	4 9/16	3 3/4	6 1/2
LK250-504	.5	4 9/16	3 3/4	11 1/2
LK250-504Y	.5	8	4	9 1/4
LK250-105	1.0	13 1/2	4 1/8	9 1/4

30 KVDC

LK300-503	.05	3 3/4	3 3/16	5 1/2
LK300-104	.1	3 3/4	3 3/16	8 3/4
LK300-254Y	.25	4 9/16	3 3/4	8 3/4
LK300-504Z	.5	6	4 5/8	9 1/4
LK300-105Y	1.0	13 1/2	4 1/8	11 1/2

* DUPONT POLYESTER FILM

The above is a partial listing. Additional capacitance and voltage values are available. Send for complete listing.

Plastic Capacitors, Inc.

Mallory Dry Electrolytic Capacitors



METAL CAN ELECTROLYTIC CAPACITORS

FP-WP capacitors are designed for 85° C operation, and have standard twist-prong mounting lugs with solder terminals. PFP-PWP types use standard EIA printed circuit terminals and can be used in place of normal solder terminal types. FPS is special mounting for auto radios. FP-WP types may be adapted to printed circuit mounting by using an FPA Adapter Kit (Net Each, 27¢). All types use "etched cathode" construction for long life operation, and have an exclusive vent and seal design. Standard tolerance: Up to 50 WVDC, -10% to +150%; 51 to 350 WVDC, -10% to +100%; 351 WVDC and up, -10% to +50%. *Sizes shown are at end of listing.

FP-WP AND PFP-PWP—SINGLES

Mallory No.	Cap., μ F	WV DC	*	Net Each	Mallory No.	Cap., μ F	WV DC	*	Net Each	Mallory No.	Cap., μ F	WV DC	*	Net Each	Mallory No.	Cap., μ F	WV DC	*	Net Each
WP510	.52/15750	3NP	b	\$1.32	WP057A	500	25	f	\$1.53	FP116.6	120	150	f	\$1.23	FP140.5A	140	350	g	\$2.34
WP540	1.02/7500	3NP	h	2.40	WP059	1000	25	f	2.13	FP116.8A	140	150	b	1.44	FP140.6A	150	350	g	2.55
WP505	102/301	3NP	a	1.20	PWP050A	2000	25	r	2.57	FP117A	150	150	b	1.29	FP141	320	350	l	4.05
PWP030A	750	6	o	1.29	FP060.4	4000	25	h	3.93	FP117.5	150	150	f	1.29	FP142	10	450	a	.93
FP030.6	5000	6	c	3.14	FP060.6	5000	25	j	4.63	FP118A	200	150	f	1.47	FP143A	15	450	a	1.02
FP030.8	10000	6	g	5.52	FP060.8	7500	25	n	6.33	FP121	120	200	f	1.41	FP144A	20	450	b	1.08
PWP031A	2500	10	c	2.84	WP063	4	50	a	.75	FP122A	125	200	f	1.47	FP145	30	450	c	1.17
FP031.6	5000	10	d	3.45	WP064A	100	50	l	.99	WP123A	160	200	f	1.31	FP146	40	450	c	1.23
FP031.8	10000	10	h	6.16	063.9A	100	50	o	1.04	WP125A	15	250	a	.93	FP147	50	450	d	1.25
WP035	225	15	a	1.05	WP064.2A	150	50	l	1.08	WP125.5A	140	250	c	1.74	FP148	60	450	g	1.68
PWP036	400	15	a	1.16	WP065	500	50	c	1.59	WP125.5A	150	250	c	1.71	FP150A	80	450	g	1.83
WP039A	1000	15	f	1.53	WP065A	500	50	c	1.59	FP128A	30	350	g	1.13	FP155A	100	450	g	2.07
WP041A	2000	15	f	2.07	FP066.5	1000	50	g	2.50	FP129.1A	100	300	c	1.74	FP171A	10	500	l	.96
WP042A	3000	15	f	2.10	PWP067A	1250	50	g	2.90	WP131.5	160	300	g	2.31	FP173A	20	500	m	1.11
FP042.6	5000	15	g	4.06	WP068	1500	50	h	2.31	WP132	200	300	g	2.58	FP175	30	500	c	1.20
FP042.8	10000	15	g	6.65	FP070	2000	50	j	3.21	FP135A	30	350	l	1.14	FP177	40	500	f	1.50
WP052	40	25	a	.81	FP113	30	150	a	.93	FP137A	50	350	b	1.26	FP178	450	500	d	2.51
WP055A	100	25	l	.96	FP115A	50	150	g	.99	FP137.2A	60	350	g	1.32	FP176.5	40	500	d	1.74
PWP056	400	25	b	1.44	FP116A	100	150	l	1.20	FP138A	80	350	f	1.71	FP187A	90	500	g	2.10
					FP116.5A	120	150	b	1.23	FP140A	125	350	g	2.37					

FP-WP AND PFP-PWP—DUALS

Mallory No.	Capacity, μ F	WVDC	*	Net Each	Mallory No.	Capacity, μ F	WVDC	*	Net Each	Mallory No.	Capacity, μ F	WVDC	*	Net Each
WP204	250-1000	10-6	f	\$1.71	FP216.4A	200-200	150-150	g	\$2.40	FP225.9A	30-200	450-150	c	\$2.10
WP205	52-2.52/102-601	12-8	f	2.16	FP216.4A	200-200	150-150	g	2.55	FP230A	30-50	450-250	c	1.68
WP200	1000-1000	15-15	f	2.64	FP216.45	50-100	300-100	l	1.41	WP231.2	20-200	450-300	d	1.56
WP200.1A	1000-1000	15-15	c	2.64	PFP216.5A	40-20	200-200	b	1.42	FP230.3	40-10	450-300	d	1.56
FP200.13A	1000-1000	16-10	b	2.77	FP216.1A	200-5	200-200	f	1.65	FP230.5	10-50	450-350	d	1.71
WP200.23	1500-1000	16-10	f	2.55	FP216.1A	200-5	200-200	f	2.26	FP230.6	10-100	450-350	h	2.40
WP200.6	500-500	16-16	b	1.75	FP217.365	20-100	300-100	g	2.70	FP235	20-80	450-350	g	2.19
PFP200.65	500-500	16-16	l	1.83	FP216.8A	100-100	200-300	l	2.23	FP230.7	80-2	450-400	b	1.43
PFP200.45A	700-200	16-16	l	2.09	FP217A	40-25	250-150	l	1.29	WP230.9A	5-5	450-450	l	1.02
WP200.18	1000-200	16-16	b	1.68	FP221A	20-20	250-250	l	1.14	FP231A	10-10	450-450	m	1.14
PFP200.19	1000-200	16-16	b	1.83	FP221A	40-40	250-250	m	1.50	FP231.2	20-5	450-450	b	1.46
WP200.21A	1000-500	16-16	b	2.28	FP217.7A	150-50	250-250	g	3.05	FP231.3A	20-10	450-450	c	1.32
PWP200.3A	250-250	20-20	l	1.69	FP217.7A	200-200	250-250	g	3.80	FP234A	20-20	450-450	g	1.53
WP200.5A	500-100	20-20	l	1.65	WP217.85A	35-500	300-6	m	1.68	FP237	30-30	450-450	g	1.83
PWP200.6	500-100	20-20	b	1.79	FP217.86A	30-20	300-50	l	1.14	FP238A	40-40	450-450	g	2.07
PFP200.7	500-100	20-20	b	1.80	FP217.86	20-60	300-250	b	1.65	FP239A	50-40	450-450	g	2.19
WP200.7A	500-200	20-20	b	1.90	FP217.87	10-10	300-300	f	1.57	FP2401	50-50	450-450	h	2.31
PWP200.4A	800-250	20-20	b	2.25	FP217.87	50-10	300-300	f	1.53	FP242A	60-20	450-450	g	2.10
WP200.2B	1000-2000	25-15	f	3.87	FP217.9A	75-75	300-300	g	2.28	FP245A	80-10	450-450	g	2.16
WP201.1A	40-40	25-25	l	.93	FP218A	120-20	300-300	g	2.40	FP245.2	80-20	450-450	h	2.34
PWP	400-200	25-25	l	1.79	WP219	125-60	300-300	g	2.50	FP245.3B	80-30	450-450	h	2.39
WP201.13A	201-13A	20-15	g	3.48	FP219	160-100	300-300	b	1.77	FP247A	100-60	450-450	l	2.91
PWP201.3A	1500-1500	25-25	g	4.52	FP220.1	40-25	350-25	g	2.54	FP248	100-60	450-450	l	2.91
WP201.5A	1000-1000	35-35	f	3.93	FP222A	5-75	350-150	m	1.26	FP250A	40-80	475-200	f	2.19
WP202.1A	50-50	50-50	l	1.02	FP225A	15-15	350-350	m	1.35	FP252B	80-80	475-250	h	2.79
WP202.5A	100-100	50-50	l	1.26	FP227A	20-20	350-350	b	1.38	FP253	80-160	475-250	m	3.53
WP205.6A	50-500	150-5	l	1.41	FP227A	30-30	350-350	c	1.74	FP255A	20-100	475-300	g	2.37
WP205.8	50-1000	150-8	b	1.71	FP227.35	20-20	350-350	c	1.74	FP256A	20-100	475-300	g	2.37
WP206A	50-150	150-25	l	1.32	FP227.4A	80-20	350-350	f	2.10	FP258	15-15	475-475	c	1.41
FP208A	20-20	150-150	l	1.02	FP227.5A	40-40	350-350	g	2.16	FP259	30-10	475-475	d	1.56
FP211A	30-30	150-150	l	1.11	FP227.6A	80-80	350-350	h	2.82	FP260B	40-10	475-475	f	1.86
FP210A	40-20	150-150	l	1.08	FP227.7A	100-100	350-350	j	3.69	FP262A	40-40	475-475	g	2.58
FP212A	40-40	150-150	l	1.14	FP228A	50-20	350-350	h	1.77	FP263A	60-40	475-475	h	2.73
FP213A	50-30	150-150	l	1.29	FP229.2	35-100	400-50	e	1.56	FP264.5A	80-40	475-475	i	3.03
PFP213.1A	50-30	150-150	l	1.40	FP229.25	80-4	400-350	e	2.10	FP266A	80-50	475-475	j	3.12
FP214A	50-50	150-150	c	1.56	FP229.28	100-10	400-350	g	2.62	WP272A	10-100	500-50	m	1.38
PFP214.3	70-30	150-150	b	1.46	FP229.3	75-75	400-400	l	2.92	FP277	60-80	500-150	h	2.82
FP214.5	75-15	150-150	f	1.75	FP229.4	80-20	400-400	l	2.82	FP280	40-50	500-200	g	1.98
FP214.6A	75-75	150-150	b	1.38	FP229.5	120-40	400-400	l	3.15	FP282A	20-20	500-500	f	2.09
FP216.2A	80-40	150-150	m	1.38	WP229.52	120-120	400-400	l	4.17	FP282.5	20-20	500-500	f	1.56
PWP214.4A	80-40	150-150	b	1.52	FP229.55	40-50	450-50	d	1.73	FP283	30-10	500-500	f	1.95
WP216.2A	80-50	150-150	b	1.50	FP229.55A	40-100	450-50	d	1.68	FP284.1B	30-30	500-500	g	2.72
FP214.7A	100-50	150-150	r	3.02	FP229.55A	80-100	450-50	h	2.82	FP285A	40-20	500-500	g	2.78
FP215A	125-100	150-150	r	2.04	FP24A	80-50	450-50	h	2.10	FP290A	80-40	500-500	g	2.83
FP216.3A	200-150	150-150	f	2.25	FP229.8	80-100	450-50	h	2.25					

*Cycles. †Can ungrounded for photoflash.

FP-WP AND PFP-PWP—TRIPLES

Mallory No.	Capacity, μ F	Working Volts DC	*	Net Each	Mallory No.	Capacity, μ F	Working Volts DC	*	Net Each	Mallory No.	Capacity, μ F	Working Volts DC	*	Net Each
WP300.6A	850-400-22	16-16-8	b	\$2.97	PFP300.8	500-100-100	16-16-16	m	\$1.72	PFP302.38	70-30-100	150-150-10	c	\$1.67
WP300.7A	850-400-4	16-16-8	b	2.97						FP302	80-20-200	160-160-10	f	1.87
FP300.75	850-400-4	16-16-8	c	3.00	PFP300.81	500-300-300	16-16-16	l	1.93	FP302.5A	80-80-250	150-150-10	c	2.04
FP300.76	850-400-8	16-16-8	c	2.57	PFP300.18	500-450-100	16-16-16	l	2.00	PWP302.55A	80-80-250	150-150-10	c	1.87
FP300.77	850-400-12	16-16-8	c	2.57						FP302.7	80-30-300	150-150-10	f	1.89
FP300.78	850-400-12	16-16-8	c	2.74	WP300.85A	500-500-100	16-16-16	m	2.40	PFP302.75A	90-40-400	150-150-10	c	1.93
WP300.88	1000-400-4	16-16-8	c	2.16						FP302.8A	100-80-200	150-150-10	f	2.16
WP300.89	1000-400-4	16-16-8	f	2.58	PFP300.87	700-200-100	16-16-16	l	1.89	FP302.9	80-20-100	150-150-15	l	1.68
WP300.9	1000-500-4	16-16-8	c	2.32						FP306A	40-20-20	150-150-25	l	1.87
FP300.91	1000-500-4	16-16-8	q	2.50	WP300	1000-500-20	16-16-16	f	2.52	PFP311.1A	40-20-20	150-150-25	l	1.50
PWP300.3A	250-250-50	16-16-16	l	1.87	WP300.17A	500-200-5	16-16-25	m	1.92	FP307A	40-20-100	150-150-25	l	1.50
	250-250-500	16-16-16	l	2.34	WP520A	40-40-40	25-25-25	l	1.29	FP304A	40-20-200	150-150-25	m	1.62
PWP300.4B	250-250-500	16-16-16	l	2.34	WP300.95	1000-200-20	25-25-25	f	2.96	FP310A	40-40-20	150-150-25	l	1.44
WP300.5	400-100-100	16-16-16	b	1.80	WP301A	30-30-30	50-50-50	l	1.29					
PFP300.65	400-300-100	16-16-16	m	1.81	FP312A	100-15-25	150-50-25	b	1.80					
					WP302.1A	150-15-1200	150-150-2	c	1.80					

*See table of sizes on another page.
#11.5 rms.

Trims continued on next page.

FACTORY Dry Electrolytic Capacitors

FP-WP AND PFP-PWP—TRIPLES (CONTINUED)

Mallory No.	Capacity, μ F	Working Volts DC	* Net Each	Mallory No.	Capacity, μ F	Working Volts DC	* Net Each	Mallory No.	Capacity, μ F	Working Volts DC	* Net Each
FP314A	40-40-200	150-150-25	m 1.65	FP326.78A	100-10-200	300-300-300	1 53.45	FP342.2A	5-80-40	450-300-300	g 52.49
WP308.1A	40-40-250	150-150-25	b 1.89	WP326.8A	41-100-40	350-25-25	1 1.35	FP342.5	30-15-40	450-350-25	1 1.92
FP309A	50-30-100	150-150-25	m 1.62	FP327	40-100-25	350-50-25	1 1.92	FP342.7	30-40-50	450-350-25	e 2.22
FP311A	50-50-20	150-150-25	m 1.59	WP327.2A	20-50-100	350-100-75	c 1.98	FP342.8	80-50-100	450-350-25	1 3.51
PFP—				FP327.3A	60-200-30	350-150-150	g 2.82	FP343.1A	15-20-20	450-350-250	1 1.77
FP311.12A	70-30-20	150-150-25	b 1.63	FP327.35	15-150-200	350-150-150	g 2.82	WP343.4A	20-15-20	450-350-25	g 2.37
FP311.05	80-20-200	150-150-25	b 1.76	FP327.4A	125-10-100	350-200-75	g 3.18	FP343.6A	20-40-10	450-350-350	1 2.10
FP311.1A	80-40-25	150-150-25	b 1.65	FP327.5A	10-40-40	350-200-200	b 2.58	FP343.9	10-30-150	450-400-5	d 1.80
FP311.15A	40-40-300	150-150-25	f 2.22	FP327.6A	30-20-100	350-250-50	c 1.95	FP344.2	60-80-20	450-400-250	1 3.27
FP311.2A	20-20-20	150-150-150	1 1.38	FP331A	30-30-20	350-300-25	c 1.89	FP344.4	4-40-40	450-400-300	g 2.22
FP311.3A	30-25-20	150-150-150	1 1.52	FP327.8A	30-50-20	350-300-25	g 2.16	FP344.5	10-20-20	450-400-35	g 2.70
PFP—				FP327.8A	30-40-10	350-300-300	1 2.61	FP345.2	10-10-20	450-450-25	b 1.44
FP311.63A	30-50-40	150-150-150	b 1.67	WP327.89B	160-120-30	350-300-300	1 3.99	FP345.5	15-15-40	450-450-25	c 1.65
FP311.4A	40-40-20	150-150-150	1 1.44	PWP—				FP345.8	20-20-20	450-450-25	c 1.83
FP311.5A	40-40-40	150-150-150	m 1.56	FP327.95A	20-20-1000	350-350-15	1 2.57	FP345.3A	40-20-20	450-450-25	f 2.10
FP311.51	40-60-40	150-150-150	b 1.70	FP328A	15-10-20	350-350-25	m 1.56	FP346A	40-20-20	450-450-25	f 2.37
FP311.55A	50-20-20	150-150-150	m 1.53	FP329.1A	125-4-100	350-350-25	m 1.62	FP346.4	80-10-125	450-450-25	h 2.64
PFP—				FP329.5	20-20-20	350-350-25	b 1.68	FP364A	80-40-100	450-450-25	1 3.06
FP311.62A	30-50-20	150-150-150	m 1.59	FP330A	30-20-20	350-350-25	c 1.86	FP365A	10-10-40	450-450-50	b 1.47
FP311.6A	50-40-10	150-150-150	m 1.53	FP330.13A	20-10-50	350-350-25	1 3.06	FP366A	20-10-50	450-450-50	c 1.71
FP311.65A	50-50-50	150-150-150	b 1.80	FP330.15A	10-5-30	350-350-50	1 1.32	FP366.5A	30-10-150	450-450-50	g 2.10
FP311.53	60-60-40	150-150-150	f 2.03	FP330.16A	10-10-10	350-350-50	m 1.62	FP367A	30-25-100	450-450-50	g 2.37
FP311.7	60-60-60	150-150-150	c 1.93	FP330.21A	20-5-150	350-350-50	b 1.77	FP367.5	40-30-25	450-450-50	g 2.25
FP311.66A	70-15-15	150-150-150	m 1.62	FP330.23	80-40-400	350-350-50	h 3.3	FP368A	60-40-75	450-450-50	1 2.76
FP311.8A	70-40-40	150-150-150	b 1.74	FP330.22A	100-20-50	350-350-50	g 2.91	FP368.3B	80-20-100	450-450-50	h 2.88
FP311.67A	80-30-10	150-150-150	m 1.65	FP330.24A	150-4-30	350-350-50	g 2.90	FP368.5A	80-50-50	450-450-50	1 3.12
FP311.7	80-40-20	150-150-150	f 1.74	FP330.24B	150-5-100	350-350-50	1 2.40	FP368.6A	80-50-50	450-450-50	1 3.12
FP311.71	80-40-20	150-150-150	b 1.67	FP330.24B	40-40-100	350-350-150	1 2.40	FP368.6B	10-40-20	450-450-150	m 1.50
PWP—				FP330.24B	70-40-50	350-350-150	1 2.64	FP368.9A	40-30-8	450-450-150	g 2.51
FP311.75A	80-20-20	150-150-150	c 1.78	FP330.24	125-20-20	350-350-150	1 2.85	FP369.1	40-40-40	450-450-150	h 2.49
FP311.84	120-80-20	150-150-150	c 1.90	FP330.29A	30-5-100	350-350-200	1 2.25	FP370A	40-10-80	450-450-200	g 2.34
FP311.85A	120-80-40	150-150-150	f 2.22	FP330.26A	100-60-20	350-350-200	h 3.30	FP375A	40-10-80	450-450-200	g 2.34
FP311.9A	120-120-40	150-150-150	f 2.43	FP330.27A	100-60-20	350-350-200	h 3.30	FP375.2A	15-10-120	450-450-50	h 2.70
FP311.95A	150-50-50	150-150-150	f 2.22	FP330.28A	100-60-100	350-350-200	1 3.36	FP375.6A	60-20-40	450-450-350	1 2.94
FP312.5A	200-100-60	150-150-150	g 2.73	FP330.3A	20-10-5	350-350-250	m 1.53	FP375.7	20-10-15	450-450-400	d 1.86
FP312.6A	300-100-80	150-150-150	g 2.97	FP330.4	10-10-60	350-350-300	1 2.15	FP375.8	10-10-10	450-450-450	c 1.56
PWP315	80-100-40	150-150-150	1 1.42	FP330.5A	10-10-10	350-350-350	1 1.44	FP376.1A	15-15-10	450-450-450	c 1.77
FP312.8A	80-100-40	150-150-150	g 2.85	FP330.6A	10-10-10	350-350-350	1 1.44	FP376.3	20-10-10	450-450-450	g 2.37
FP312.9A	150-150-20	200-200-150	1 1.92	FP330.7A	20-20-10	350-350-350	c 1.95	FP376.5A	20-20-20	450-450-450	f 2.16
FP315.1	60-5-200	200-200-50	d 1.80	FP330.8A	40-40-40	350-350-350	g 2.64	FP376.6	30-10-10	450-450-450	f 1.89
FP318.3A	30-20-40	200-200-150	m 1.62	FP330.9A	60-50-50	350-350-350	h 2.94	FP376.7A	30-30-30	450-450-450	g 2.67
FP318.5A	20-20-20	200-200-200	1 1.50	FP331.2	80-20-20	350-350-350	g 2.57	FP376.8	40-40-10	450-450-450	h 2.49
FP318.7A	40-40-20	200-200-200	m 1.62	FP331.3A	80-60-60	350-350-350	g 3.33	FP376.9	40-40-10	450-450-450	h 2.49
FP318.7A	40-40-20	200-200-200	1 1.77	FP332.4A	140-140-20	350-350-350	1 4.16	FP377.1A	40-40-40	450-450-450	h 3.12
WP318.77	60-60-40	200-200-200	f 2.16	WP331.7A	100-40-5	350-350-350	g 2.82	FP377.2A	50-40-30	450-450-450	1 2.94
FP318.8A	250-200-10	200-200-200	h 4.02	FP331.76A	100-40-40	350-350-350	h 3.15	FP377.4A	60-10-10	450-450-450	g 2.34
FP318.85	250-200-50	200-200-200	1 3.56	FP331.8A	100-60-40	350-350-350	1 3.39	FP377.6	60-30-10	450-450-450	h 2.70
FP319A	80-40-50	250-150-50	f 1.98	FP332.4A	100-100-10	350-350-350	1 4.08	FP377.7	60-40-40	450-450-450	1 3.41
WP319.6A	60-5-100	250-250-50	b 1.80	WP332.4A	140-140-20	350-350-350	1 4.16	FP378	80-40-20	450-450-450	h 3.24
FP319.5A	90-90-20	250-250-50	f 2.13	FP332.5A	40-200-60	400-200-200	1 3.33	FP378.1	80-40-30	450-450-450	1 3.53
WP319.7	60-5-50	250-250-200	f 2.16	FP332.7A	10-4-40	400-350-25	1 1.32	FP378.4	80-40-40	450-450-450	1 3.66
FP319.8A	20-20-20	250-250-250	m 1.56	FP333	10-50-30	400-350-25	1 1.86	FP379.1A	20-60-20	475-50-25	c 1.65
FP320	40-20-20	250-250-250	f 1.74	FP333.05	10-10-200	400-350-25	1 2.99	FP381.1A	80-80-50	475-150-50	1 2.91
FP321A	40-20-20	250-250-250	b 1.74	FP333.08	20-10-40	400-350-25	1 2.99	FP382.1A	40-10-100	475-150-50	1 2.46
FP321A	40-40-40	250-250-250	1 1.92	FP333.16	40-4-4	400-350-150	d 1.71	FP384	20-20-40	475-300-25	f 1.86
FP323A	80-80-60	250-250-250	f 2.94	FP333.16	40-30-20	400-350-300	g 2.44	FP384.12	30-100-50	475-300-50	h 2.46
FP326A	100-60-20	300-150-25	f 2.52	FP333.2A	80-40-100	400-400-50	1 3.00	FP384.12A	5-100-200	475-300-150	1 3.09
PWP—				FP333.3A	80-40-150	400-400-50	1 3.09	FP384.16	10-4-10	475-350-50	b 2.37
326.16A	10-20-10	300-150-150	1 1.47	FP333.15	100-20-20	400-400-50	h 2.88	FP384.2	20-10-40	475-300-300	1 1.80
FP326.2A	20-150-80	300-150-150	f 2.14	FP333.16	20-10-40	400-400-350	g 2.88	FP384.5	20-10-40	475-300-350	1 1.71
WP326.3A	100-200-60	300-150-150	h 3.27	FP333.6	20-20-10	400-400-350	d 1.80	FP384.5	10-45-100	475-450-50	g 2.19
WP326.35A	100-200-100	300-200-50	d 1.95	FP333.7	60-30-20	400-400-350	h 2.73	FP384.7	40-40-25	475-450-50	h 2.64
FP326.61	80-200-10	300-200-300	h 2.97	FP333.8	80-20-10	400-400-350	h 2.58	FP385A	10-40-100	475-450-200	g 2.52
FP326.6A	60-30-30	300-250-250	f 2.25	FP333.85	100-10-80	400-400-350	1 3.66	FP385.5A	40-80-10	475-450-450	1 3.30
FP335A	100-60-20	300-250-250	g 2.94	FP333.86	100-10-100	400-400-350	1 3.66	FP386	40-80-10	475-450-450	1 3.30
FP335A	200-60-20	300-250-250	g 2.94	FP333.87	50-30-30	400-400-350	c 2.31	FP387.1	10-10-150	475-475-50	d 1.80
FP326.6A	60-10-25	300-300-25	f 2.07	FP333.89	80-60-40	400-400-400	1 3.63	FP388.1	25-10-20	475-475-50	d 1.77
FP326.5A	150-15-25	300-300-25	g 2.37	FP333.9	90-10-5	400-400-400	h 2.64	FP389.1A	20-10-100	475-475-400	1 3.15
FP326.54A	20-20-50	300-300-50	b 1.62	FP333.95	100-30-20	400-400-400	1 3.30	FP391.1B	20-20-60	475-475-450	h 2.91
FP326.6A	100-10-60	300-300-50	f 2.43	WP334.6A	100-50-50	450-25-25	g 2.22	FP394	10-10-10	475-475-475	1 1.52
FP326.7A	140-100-60	300-300-50	h 3.57	FP342	40-40-130	450-150-50	g 2.21	FP396A	30-30-20	475-475-475	g 2.67
WP326.71A	140-100-100	300-300-50	h 3.36	FP343A	40-100-50	450-150-50	g 2.37	FP396.2A	40-10-10	475-475-475	f 2.31
100				WP339.5A	10-50-100	450-150-75	c 1.95	FP396.1A	40-20-20	475-475-475	g 2.85
FP326.74A	140-10-200	300-300-150	h 3.30	FP340	20-50-100	450-150-75	f 2.04	FP396.12	40-30-10	475-475-475	h 2.70
FP326.63A	30-10-20	300-300-250	b 1.71	FP341A	40-90-50	450-150-150	g 2.40	FP396.14B	40-30-30	475-475-475	h 3.30
FP326.64	60-40-20	300-300-250	b 1.81	FP342.1A	20-10-20	450-200-25	g 2.97	FP397A	100-10-200	475-475-475	g 2.73
FP326.62A	80-40-40	300-300-300	g 2.84	FP342.2A	10-10-100	450-200-50	d 1.94	FP397.5	40-40-60	500-200-50	g 2.53
FP326.65A	100-60-40	300-3									

MALLORY Tantalum Capacitors

Mallory tantalum foil capacitors are available in either **etched** or **plain foil, polarized** or **non-polarized**, and in two temperature grades (+85° C or +125° C). Standard ratings shown below and on the next page are listed with **uninsulated** cases. For **insulating** sleeve, add "one" to type shown (CL20 becomes CL21, etc.) and

add 10¢ to prices shown. Case sizes, tolerances and industrial net prices are shown in the table at the bottom of this page. These capacitors are also available to Mallory commercial numbers (TAF, TAG, TBF, TBG, etc.). For details on these numbers ask for Technical Bulletin 4-65.

ETCHED FOIL TO MIL-C-3965

-55° C TO +125° C

CL20/21 POLARIZED

Cap., µF	WVDC at Max. Temp.	Mallory Number	Size Code	Maximum DCL Microamps		Max. Imped. at -55° C 120CPS (Ohms)
				25° C	125° C	
15	10	CL20CD150UP3	A2	2	4	480
60	10	CL20CD600UP3	B4	2.5	10	120
200	10	CL20CD201UP3	C4	3	50	36
400	10	CL20CD401UP3	D4	6	80	18
580	10	CL20CD581UP3	E4	9	100	12
10	15	CL20CE100UP3	A2	2	4	720
40	15	CL20CE400UP3	B4	2.5	15	180
120	15	CL20CE121UP3	C4	3	45	58
250	15	CL20CE251UP3	D4	6	90	29
350	15	CL20CE351UP3	E4	12	100	21
4.5	30	CL20CH4R5TP3	A2	2	4	754
18	30	CL20CH180TP3	B4	2	14	188
100	30	CL20CH100TP3	C4	3	50	37
100	30	CL20CH101TP3	D4	4	75	30
150	30	CL20CH151TP3	E4	5	112	23
3	50	CL20CJ030TP3	A2	2	4	1128
12	50	CL20CJ120TP3	B4	2	14	282
30	50	CL20CJ300TP3	C4	3	34	113
50	50	CL20CJ500TP3	D4	4.5	80	49
100	50	CL20CJ101TP3	E4	13	112	34
2	60	CL20CK020TP3	A2	2	4	1690
8	60	CL20CK080TP3	B4	2	12	424
25	60	CL20CK250TP3	C4	2.5	37	136
60	60	CL20CK600TP3	D4	5	75	68
70	60	CL20CK700TP3	E4	7	105	50
1	100	CL20CN010SP3	A2	2	4	3385
4	100	CL20CN040SP3	B4	2	14	847
13	100	CL20CN130SP3	C4	4	30	260
25	100	CL20CN250SP3	D4	5	80	135
36	100	CL20CN360SP3	E4	8	112	94

CL22/23 NON-POLARIZED

Cap., µF	WVDC at Max. Temp.	Mallory Number	Size Code	Maximum DCL Microamps		Max. Imped. at -55° C 120CPS (Ohms)
				25° C	125° C	
10	10	CL22CD100UN3	A2	2	4	720
40	10	CL22CD400UN3	B4	2	10	180
120	10	CL22CD121UN3	C4	3	50	36
250	10	CL22CD251UN3	D4	6	80	29
350	10	CL22CD351UN3	E4	9	100	21
5	15	CL22CE050UN3	A2	2	4	1440
20	15	CL22CE200UN3	B4	2.5	15	360
20	15	CL22CE200UN3	C4	3	45	103
140	15	CL22CE141UN3	D4	6	90	52
200	15	CL22CE201UN3	E4	12	100	36
2.5	30	CL22CH2R5TN3	A2	2	4	1355
10	30	CL22CH100TN3	B4	2	14	339
30	30	CL22CH300TN3	C4	3	50	113
30	30	CL22CH600TN3	D4	4	75	57
80	30	CL22CH800TN3	E4	5	112	42
1.5	50	CL22CJ1R5TN3	A2	2	4	1487
6	50	CL22CJ060TN3	B4	2	14	560
15	50	CL22CJ150TN3	C4	3	34	226
20	50	CL22CJ350TN3	D4	4.5	80	97
50	50	CL22CJ500TN3	E4	13	112	68
1	60	CL22CK010TN3	A2	2	4	3385
4	60	CL22CK040TN3	B4	2	12	845
12	60	CL22CK120TN3	C4	2.5	37	282
25	60	CL22CK250TN3	D4	5	75	136
60	60	CL22CK600TN3	E4	7	105	50
0.5	100	CL22CN0R5SN3	A2	2	4	5770
2	100	CL22CN020SN3	B4	2	14	1693
6	100	CL22CN060SN3	C4	4	30	564
12	100	CL22CN120SN3	D4	5	80	282
18	100	CL22CN180SN3	E4	8	112	188

-55° C TO +85° C

CL24/25 POLARIZED

Cap., µF	WVDC at Max. Temp.	Mallory Number	Size Code	Maximum DCL Microamps		Max. Imped. at -55° C 120CPS (Ohms)
				25° C	125° C	
15	15	CL24BE150UP3	A1	2	4	226
60	15	CL24BE600UP3	B2	2.5	10	58
200	15	CL24BE201UP3	C2	3	50	17
400	15	CL24BE401UP3	D3	6	80	9
580	15	CL24BE581UP3	E3	9	100	6
10	25	CL24BG100UP3	A1	2	4	339
10	25	CL24BG600UP3	B2	2.5	15	35
120	25	CL24BG121UP3	C2	3	40	27
250	25	CL24BG251UP3	D3	6	90	14
350	25	CL24BG351UP3	E3	12	100	10
8	30	CL24BH080UP3	A1	2	6	424
30	30	CL24BH320UP3	B2	2	14	106
110	30	CL24BH110UP3	C2	4	30	60
220	30	CL24BH221UP3	D3	8	90	16
300	30	CL24BH301UP3	E3	11	120	11
4.5	50	CL24BJ4R5TP3	A1	2	4	753
18	50	CL24BJ180TP3	B2	2	14	188
30	50	CL24BJ600TP3	C2	3	50	37
100	50	CL24BJ101TP3	D3	4	75	34
150	50	CL24BJ151TP3	E3	5	112	23
3	75	CL24BL030TP3	A1	2	4	1130
12	75	CL24BL120TP3	B2	2	14	283
30	75	CL24BL300TP3	C2	3	34	113
70	75	CL24BL700TP3	D3	7.5	80	48
100	75	CL24BL101TP3	E3	13	112	34
2	100	CL24BN020SP3	A1	2	4	1690
8	100	CL24BN080SP3	B2	2	12	428
25	100	CL24BN250SP3	C2	2.5	37	135
50	100	CL24BN500SP3	D3	6	75	68
70	100	CL24BN700SP3	E3	7	105	49
1	150	CL24BQ010SP3	A1	2	4	3000
4	150	CL24BQ040SP3	B2	2	14	750
13	150	CL24BQ130SP3	C2	4	30	261
25	150	CL24BQ250SP3	D3	5	80	135
36	150	CL24BQ360SP3	E3	8	112	94

CL26/27 NON-POLARIZED

Cap., µF	WVDC at Max. Temp.	Mallory Number	Size Code	Maximum DCL Microamps		Max. Imped. at -55° C 120CPS (Ohms)
				25° C	125° C	
10	15	CL26BE100UN3	A1	2	4	339
40	15	CL26BE400UN3	B2	2.5	10	85
120	15	CL26BE121UN3	C2	3	50	27
250	15	CL26BE251UN3	D3	6	80	10
350	15	CL26BE351UN3	E3	9	100	10
5	25	CL26BG050UN3	A1	2	4	680
20	25	CL26BG200UN3	B2	2.5	15	170
70	25	CL26BG700UN3	C2	3	40	49
140	25	CL26BG141UN3	D3	6	90	24
200	25	CL26BG201UN3	E3	12	100	17
4.5	30	CL26BH4R5UN3	A1	2	6	754
18	30	CL26BH180UN3	B2	2	14	188
30	30	CL26BH600UN3	C2	4	50	57
120	30	CL26BH121UN3	D3	8	90	28
170	30	CL26BH171UN3	E3	11	120	20
2.5	50	CL26BJ2R5TN3	A1	2	4	1355
10	50	CL26BJ100TN3	B2	2	14	339
30	50	CL26BJ300TN3	C2	3	50	113
60	50	CL26BJ600TN3	D3	4	75	57
80	50	CL26BJ800TN3	E3	5	112	41
1.5	75	CL26BL1R5TN3	A1	2	4	2255
6	75	CL26BL060TN3	B2	2	14	565
15	75	CL26BL150TN3	C2	3	34	226
35	75	CL26BL350TN3	D3	7.5	80	97
50	75	CL26BL500TN3	E3	13	112	68
1	100	CL26BN010SN3	A1	2	4	3385
4	100	CL26BN040SN3	B2	2	12	845
12	100	CL26BN120SN3	C2	2.5	37	283
25	100	CL26BN250SN3	D3	6	75	136
35	100	CL26BN350SN3	E3	7	105	97
0.5	150	CL26BQ0R5SN3	A1	2	4	6780
2	150	CL26BQ020SN3	B2	2	14	1693
6	150	CL26BQ060SN3	C2	4	30	565
12	150	CL26BQ120SN3	D3	5	80	283
18	150	CL26BQ180SN3	E3	8	112	188

TANTALUM FOIL CAPACITOR INDUSTRIAL NET PRICES

Size Code	Net Each, Lots of*						Size Code	Net Each, Lots of*					
	1-9	10-24	25-49	50-99	100-499	500 U		1-9	10-24	25-49	50-99	100-499	500 U
A1	\$ 4.20	3.33	\$2.42	\$1.70	\$1.19	\$1.03	C5	\$20.50	\$16.10	\$11.12	7.92	5.97	\$5.47
A2	7.35	5.18	3.99	2.84	1.96	1.79	C6	23.55	18.53	12.78	9.09	6.87	6.29
A3	10.85	8.55	5.89	4.19	3.16	2.90	D1	14.60	10.03	7.70	5.49	3.78	3.46
A4	12.45	9.79	6.75	4.82	3.62	3.32	D2	18.30	12.87	9.93	7.07	4.85	4.45
B1	6.60	4.51	3.47	2.47	1.70	1.56	D3	20.55	14.11	10.83	7.70	5.31	4.86
B2	7.55	4.94	3.80	2.70	1.87	1.72	D4	24.95	17.29	13.70	9.45	6.55	5.96
B3	9.85	6.89	5.22	3.72	2.59	2.38	D5	25.30	19.95	13.73	9.77	7.30	6.76
B4	10.50	7.36	5.70	4.05	2.79	2.55	D6	29.05	22.85	15.49	11.21	8.46	7.76
B5	14.25	11.21	7.74	5.49	4.14	3.81	E1	19.60	13.44	10.30	7.34	5.06	4.63
B6	16.40	12.92	8.93	6.35	4.79	4.39	E2	25.65	16.57	12.78	9.08	6.25	5.71
C1	10.40	7.17	5.51	3.92	2.68	2.47	E3	27.35	18.76	14.44	10.26	7.10	6.47
C2	12.60	8.65	6.65	4.73	3.27	2.98	E4	31.75	22.37	17.24	12.24	8.46	7.71
C3	14.20	9.98	7.70	5.47	3.78	3.44	E5	31.90	25.13	17.34	12.33	8.50	8.53
C4	16.15	11.40	8.79	6.26	4.29	3.93	E6	36.75	26.95	19.35	14.18	10.71	9.82

*Add 10¢ to prices shown for CL21, 23, 25, 27, 31, 33, 35, 37 (Mylar sleeve).

CASE SIZES

A = 1/4" dia. x 1/4"

B = 1/2" dia. x 1/2"

C = 3/4" dia. x 1/4"

D = 1" dia. x 1/2"

E = 1 1/4" dia. x 3/4"

For insulating sleeve, add .015" to dia. and .063" to length.

TOLERANCES

K = ±10%; L = ±15%; M = ±20%;

MAJOR Electrolytic Capacitors

METAL TUBULAR ELECTROLYTICS

metal tubulars with insulating leads. Use etched cathode construction for maximum reliability. **TC**, **TCN** are single section with 3" tinneled leads; **TCD**, **TCT** have 7" insulated leads; **TC5** has solder lugs. Sizes 1/2" dia. and up have mfg. straps. **Temp. Range:** -20° C to +55° C except (*) rated at +65° C. **Tolerance:** -10%, +100%, up to 350 WVDC; -10%, +50% 450 WVDC and up.

TC SINGLE SECTION

Mallory No.	Cap., μ F	WV DC	Size, In. Dia. x Lg.	Net Each
TC304	200	3	1 1/2 x 1 1/2	\$0.69
TC305	500	3	1 1/2 x 1 1/2	1.84
TC319	1000	3	1 1/2 x 1 1/2	1.03
TC805	500	6	1 1/2 x 1 1/2	1.03
TC610	1000	6	1 1/2 x 2	1.14
TC1502	200	15	1 1/2 x 1 1/2	1.84
TC1505	500	15	1 1/2 x 1 1/2	1.05
TC1501	1000	15	1 1/2 x 2	1.38
TC1530	2000	15	1 1/2 x 2	1.38
TC22	10	25	1/2 x 3/4	.60
TC26	25	25	1/2 x 3/4	.60
TC29	50	25	1/2 x 3/4	.66
TC2501	100	25	1 1/2 x 1 1/2	.57
TC25015	150	25	1 1/2 x 1 1/2	.57
TC2505	500	25	1 1/2 x 2	1.58
TC31	1	50	1/2 x 3/4	.54
TC302	2	50	1/2 x 3/4	.54
TC30	5	50	1/2 x 3/4	.60
TC32	15	50	1/2 x 3/4	.60
TC36	25	50	1 1/2 x 1 1/2	.72
TC39	50	50	1 1/2 x 1 1/2	.72
TC3501	100	50	1 1/2 x 1 1/2	.84
TC50015	250	50	1 1/2 x 1 1/2	1.12
TC50025	250	50	1 1/2 x 2	1.05
TC50050	500	50	1 1/2 x 2	2.22
TC50100	1000	50	1 1/2 x 4	2.81
TC40	5	150	1/2 x 3/4	.63
TC41	8	150	1/2 x 3/4	.63
TC42	10	150	1/2 x 3/4	.63
TC43	12	150	1/2 x 3/4	.63
TC44	14	150	1/2 x 3/4	.63
TC45	16	150	1/2 x 3/4	.63
TC46	18	150	1/2 x 3/4	.63
TC47	20	150	1/2 x 3/4	.63
TC48	22	150	1/2 x 3/4	.63
TC49	24	150	1/2 x 3/4	.63
TC492	80	150	1 1/2 x 2	1.05
TC493	100	150	1 1/2 x 2	1.14
TC495	150	150	1 1/2 x 2	1.58
TC496	200	150	1 1/2 x 2	1.58
TC499	300	150	1 1/2 x 2	1.58
TC50X	5	250	1/2 x 3/4	.63
TC51	8	250	1/2 x 3/4	.63
TC52	10	250	1/2 x 3/4	.63
TC53	12	250	1/2 x 3/4	.63
TC54	14	250	1/2 x 3/4	.63
TC55	16	250	1/2 x 3/4	.63
TC58	40	250	1 1/2 x 1 1/2	1.02
TC59	50	250	1 1/2 x 1 1/2	1.02
TC1265	100	250	1 1/2 x 2	1.47
TC593	150	300	1 1/2 x 2	1.96
TC595	200	300	1 1/2 x 2	1.96
TC60	2	350	1/2 x 3/4	.63
TC61	8	350	1/2 x 3/4	.63
TC62	10	350	1/2 x 3/4	.63
TC63	12	350	1/2 x 3/4	.63
TC64	14	350	1/2 x 3/4	.63
TC65	16	350	1/2 x 3/4	.63
TC67	40	350	1 1/2 x 2	1.44
TC68	60	350	1 1/2 x 2	1.17
TC69	100	350	1 1/2 x 2	1.86
TC692	150	350	1 1/2 x 2	3.16
TC695	2	450	1/2 x 3/4	.63
TC697	4	450	1/2 x 3/4	.63
TC70	5	450	1/2 x 3/4	.63
TC71	8	450	1/2 x 3/4	.63
TC72	10	450	1/2 x 3/4	.63
TC73	12	450	1/2 x 3/4	.63
TC74	16	450	1/2 x 3/4	.63
TC75	20	450	1/2 x 3/4	.63
TC77	30	450	1 1/2 x 2	1.02
TC78	40	450	1 1/2 x 2	1.08
TC79	50	450	1 1/2 x 2	1.38
TC795	60	450	1 1/2 x 2	1.68
TC80	80	450	1 1/2 x 2	1.92
TC805	100	450	1 1/2 x 2	1.92
TC81*	10	500	1 1/2 x 3	1.81
TC82	15	500	1 1/2 x 3	1.81
TC83*	20	500	1 1/2 x 3	1.81
TC84*	30	500	1 1/2 x 3	1.81
TC90	4	600	1 1/2 x 2 1/2	2.30
TC92	10	600	1 1/2 x 2 1/2	1.77
TC96	20	600	1 1/2 x 3	3.51

NON-POLAR SINGLE SECTION

TCN308	5.2T	3	1 1/2 x 2 1/2	\$1.32
TCN420	1.52T	4	1 1/2 x 2 1/2	2.10
TCN431	1.52T	6	1 1/2 x 2 1/2	1.80
TCN105	1.52T	10	1 1/2 x 2 1/2	1.80
TCN106	6	10	1 1/2 x 1 1/2	.69
TCN108	8	10	1 1/2 x 1 1/2	.69
TCN1225	25	10	1 1/2 x 1 1/2	.84
TCN402	500	10	1 1/2 x 2	1.20

115,750 cps; 160 cps; 1120 cps. *VNP.

NON-POLAR (CONT'D)

Mallory No.	Cap., μ F	VNP	Size, In. Dia. x Lg.	Net Each
TCN1550	500	15	1 1/2 x 2 1/2	\$1.32
TCN415	1000	15	1 1/2 x 3 1/2	1.70
TCN2516	16	25	1 1/2 x 1 1/2	1.02
TCN425	100	25	1 1/2 x 1 1/2	.69
TCN501	1	50	1/2 x 3/4	.69
TCN502	2	50	1/2 x 3/4	.69
TCN503	3	50	1/2 x 3/4	.69
TCN504	4	50	1/2 x 3/4	.69
TCN505	5	50	1/2 x 3/4	.69
TCN5010	10	50	1/2 x 3/4	.75
TCN5099	100	50	1 1/2 x 1 1/2	1.29
TCN510	4	150	1/2 x 3/4	.75
TCN1512	40	150	1 1/2 x 1 1/2	1.01
TCN1510	40	150	1 1/2 x 1 1/2	1.30
TCN1511	50	150	1 1/2 x 2 1/2	1.34
TCN2550	4	200	1 x 1 1/2	1.02
TCN3520	20	350	1 1/2 x 2 1/2	1.08
TCN511	10	450	1 1/2 x 2 1/2	.99

TCD DUAL COMMON NEGATIVE

No. TCD-	Cap., μ F	WVDC	Size, In. Dia. x Lg.	Net Each
204	250-1000	10-6	1 1/2 x 2 1/2	\$1.68
16	500-1000	16-16	1 1/2 x 2	1.62
26	25-25	25-25	1 1/2 x 1 1/2	.84
N201	130-130	25-25	1 1/2 x 2 1/2	2.15
40	10-10	100-100	1 1/2 x 1 1/2	1.62
43	10-30	150-150	1 1/2 x 1 1/2	.99
45	20-20	150-150	1 1/2 x 1 1/2	2.07
508	130-20	150-150	1 1/2 x 2 1/2	1.08
47	30-30	150-150	1 1/2 x 1 1/2	1.05
475	40-40	150-150	1 1/2 x 1 1/2	1.11
48	40-40	150-150	1 1/2 x 2	1.17
497	50-30	150-150	1 1/2 x 2 1/2	1.26
50	50-50	150-150	1 1/2 x 2 1/2	1.53
49	50-20	150-150	1 1/2 x 1 1/2	1.41
4975	80-50	150-150	1 1/2 x 1 1/2	1.92
498	80-50	150-150	1 1/2 x 2 1/2	1.92
2155	100-100	150-150	1 1/2 x 4	2.16
46	30-20	200-200	1 1/2 x 2	.96
2165	30-30	200-200	1 1/2 x 2 1/2	.99
2167	30-30	250-250	1 1/2 x 2 1/2	1.11
2174	100-150	250-50	1 1/2 x 4	2.07
2173	8-8	250-250	1 1/2 x 3/4	1.02
52	10-10	250-250	1 1/2 x 2	1.11
55	20-20	250-250	1 1/2 x 2	1.11
2274	40-40	300-300	1 1/2 x 3/4	2.07
58	80-40	300-300	1 1/2 x 1 1/2	1.02
62	10-10	350-350	1 1/2 x 2	1.36
65	20-20	350-350	1 1/2 x 2 1/2	1.50
68	30-5	350-350	1 1/2 x 2 1/2	1.50
2287	40-50	450-50	1 1/2 x 3/4	1.02
2302	30-60	450-300	1 1/2 x 1 1/2	1.11
71	8-8	450-450	1 1/2 x 2	1.11
72	10-10	450-450	1 1/2 x 2	1.11
74	15-15	450-450	1 1/2 x 3/4	1.32
745	20-8	450-450	1 1/2 x 2 1/2	1.26
76	20-20	450-450	1 1/2 x 2 1/2	1.80
77	30-30	450-450	1 1/2 x 4	2.04
78	40-40	450-450	1 1/2 x 4	2.04

TCS DUAL SEPARATE SECTION

Mallory No.	Cap., μ F	WV DC	Size, In. Dia. x Lg.	Net Each
TC544	15-15	150	1 1/2 x 2 1/2	\$1.20
TC545	20-20	150	1 1/2 x 2 1/2	1.35
TC547	30-30	150	1 1/2 x 2 1/2	1.35
TC548	40-40	150	1 1/2 x 2 1/2	1.41
TC549	120-120	150	1 1/2 x 3 1/2	1.98
TC5505	70-70	175	1 1/2 x 2 1/2	2.16
TC551	10-10	250	1 1/2 x 2 1/2	1.41
TC555	20-20	250	1 1/2 x 2 1/2	1.26
TC561	8-8	350	1 1/2 x 2 1/2	1.65
TC564	15-15	350	1 1/2 x 2 1/2	1.65
TC571	8-8	450	1 1/2 x 2 1/2	1.65
TC575	15-15	450	1 1/2 x 2 1/2	1.65
TC575	20-20	450	1 1/2 x 3 1/2	1.89

*Non-polar. 1 Each section.

TCT TRIPLE COMMON NEGATIVE

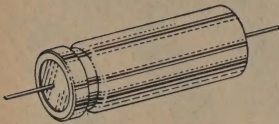
No. TCT-	Cap., μ F	Volts	Size, In. Dia. x Lg.	Net Each
3053	20-20-20	150-150-25	1 1/2 x 2 1/2	\$1.23
3055	30-30-30	150-150-25	1 1/2 x 2 1/2	1.32
3100	150-150-200	150-150-25	1 1/2 x 2 1/2	1.47
3109	20-10-10	150-150-150	1 1/2 x 1 1/2	1.20
3112	20-20-20	150-150-150	1 1/2 x 1 1/2	1.29
3113	30-30-30	150-150-150	1 1/2 x 2 1/2	1.41
3114	40-20-20	150-150-150	1 1/2 x 2 1/2	1.35
3105	40-30-20	150-150-150	1 1/2 x 1 1/2	1.38
3116	40-40-40	150-150-150	1 1/2 x 2 1/2	1.41
3117	40-40-40	150-150-150	1 1/2 x 2 1/2	1.41
3107	50-30-20	150-150-150	1 1/2 x 2 1/2	1.22
3110	60-30-10	150-150-150	1 1/2 x 2 1/2	2.47
3119	60-50-20	150-150-150	1 1/2 x 2 1/2	1.62
3117	80-40-20	150-150-150	1 1/2 x 2 1/2	1.65
3118	80-50-20	150-150-150	1 1/2 x 2 1/2	1.65
3120	80-80-20	150-150-150	1 1/2 x 3	2.47
3285	30-40-40	350-250-150	1 1/2 x 4	1.98
3405	30-50-100	450-50-25	1 1/2 x 4	1.92
3432	30-30-30	450-350-150	1 1/2 x 4	2.25
3764	40-20-10	450-450-450	1 1/2 x 4	2.25

MINIATURE PHENOLIC CASE ELECTROLYTICS



Miniature electrolytics for portable radio and television applications. Enclosed in phenolic case with epoxy end seals. **PET** series are single ended with 1" leads for printed circuit use. **PETA** series has 1 1/2" axial leads. **Temperature Range:** -30° C to +85° C. **Tolerance:** -10%, +150%.

No. PET-	Cap., μ F	WV DC	Size, In.	Net Each
118	8	3	3/4 x 3/8	\$0.82
122	15	3	3/4 x 3/8	.83
130	30	3	3/4 x 3/8	.83
140	40	3	3/4 x 3/8	.83
180	150	3	3/4 x 3/8	.89
1210	5	6	3/4 x 3/8	.82
1260	60	6	3/4 x 3/8	.85
1300	750	6	3/4 x 3/8	1.18
1310	10	10	1 1/2 x 3/8	.83
1400	100	10	1 1/2 x 3/8	.88
1500	100	12	1 1/2 x 3/8	.88
1535	6	15	3/4 x 3/8	.83
1570	20	15	3/4 x 3/8	.83
1975	50	15	3/4 x 3/8	.85
1760	10	25	3/4 x 3/8	.82
1935	4	50	3/4 x 3/8	.83
1960	25	50	3/4 x 3/8	.88
1980	50	50	3/4 x 3/8	.88
290	500-50	3-3	3/4 x 1 1/2	1.

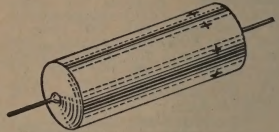
MALLORY**Electrolytic Capacitors****TT TINY TUBULAR ALUMINUM ELECTROLYTIC CAPACITORS**

Mallory No.	Cap., μ F	WV DC	Size, In.* Dia. x L.	Net Each
TT1X5	5	1	$\frac{1}{4}$ x $\frac{3}{8}$	\$0.51
TT2X150	150	2	$\frac{3}{8}$ x $\frac{3}{8}$	.90
TT3X1	1	3	$\frac{1}{4}$ x $\frac{3}{8}$	.51
TT3X2	2	3	$\frac{1}{4}$ x $\frac{3}{8}$	.51
TT3X3	3	3	$\frac{1}{4}$ x $\frac{3}{8}$	.51
TT3X4	4	3	$\frac{1}{4}$ x $\frac{3}{8}$	.51
TT3X5	5	3	$\frac{1}{4}$ x $\frac{3}{8}$	.51
TT3X6	6	3	$\frac{1}{4}$ x $\frac{3}{8}$	.51
TT3X8	8	3	$\frac{1}{4}$ x $\frac{3}{8}$	.51
TT3X10	10	3	$\frac{1}{4}$ x $\frac{3}{8}$	.51
TT3X15	15	3	$\frac{1}{4}$ x $\frac{3}{8}$	.51
TT3X20	20	3	$\frac{1}{4}$ x $\frac{3}{8}$	.51
TT3X25	25	3	$\frac{1}{4}$ x $\frac{3}{8}$	.51
TT3X35	35	3	$\frac{1}{4}$ x $\frac{3}{8}$	.57
TT3X40	40	3	$\frac{1}{4}$ x $\frac{3}{8}$	.72
TT3X50	50	3	$\frac{1}{4}$ x $\frac{3}{8}$	.74
TT3X75	75	3	$\frac{1}{4}$ x $\frac{3}{8}$	.75
TT3X100	100	3	$\frac{1}{4}$ x $\frac{3}{8}$	.81
TT3X110	110	3	$\frac{1}{4}$ x $\frac{3}{8}$	.81
TT3X150	150	3	$\frac{1}{4}$ x $\frac{3}{8}$	.81
TT3X200	200	3	$\frac{1}{4}$ x $\frac{3}{8}$	.81
TT3X250	250	3	$\frac{1}{4}$ x $\frac{3}{8}$	.81
TT3X300	300	3	$\frac{1}{4}$ x $\frac{3}{8}$	.87
TT3X400	400	3	$\frac{1}{4}$ x $\frac{3}{8}$	.93
TT3X500	500	3	$\frac{1}{4}$ x $\frac{3}{8}$	.99
TT6X1	1	6	$\frac{1}{4}$ x $\frac{3}{8}$	.54
TT6X2	2	6	$\frac{1}{4}$ x $\frac{3}{8}$	.54
TT6X3	3	6	$\frac{1}{4}$ x $\frac{3}{8}$	.54
TT6X4	4	6	$\frac{1}{4}$ x $\frac{3}{8}$	.54
TT6X5	5	6	$\frac{1}{4}$ x $\frac{3}{8}$	.54
TT6X6	6	6	$\frac{1}{4}$ x $\frac{3}{8}$	.54
TT6X8	8	6	$\frac{1}{4}$ x $\frac{3}{8}$	.54
TT6X10	10	6	$\frac{1}{4}$ x $\frac{3}{8}$	.54
TT6X15	15	6	$\frac{1}{4}$ x $\frac{3}{8}$	.54
TT6X20	20	6	$\frac{1}{4}$ x $\frac{3}{8}$	.54
TT6X25	25	6	$\frac{1}{4}$ x $\frac{3}{8}$	.54
TT6X30	30	6	$\frac{1}{4}$ x $\frac{3}{8}$	.57
TT6X35	35	6	$\frac{1}{4}$ x $\frac{3}{8}$	.57
TT6X40	40	6	$\frac{1}{4}$ x $\frac{3}{8}$	.57
TT6X50	50	6	$\frac{1}{4}$ x $\frac{3}{8}$	.75
TT6X60	60	6	$\frac{1}{4}$ x $\frac{3}{8}$	.75
TT6X75	75	6	$\frac{1}{4}$ x $\frac{3}{8}$	.81
TT6X80	80	6	$\frac{1}{4}$ x $\frac{3}{8}$	.81
TT6X100	100	6	$\frac{1}{4}$ x $\frac{3}{8}$	.81
TT6X150	150	6	$\frac{1}{4}$ x $\frac{3}{8}$	.81
TT6X200	200	6	$\frac{1}{4}$ x $\frac{3}{8}$	.84
TT6X250	250	6	$\frac{1}{4}$ x $\frac{3}{8}$	.87
TT6X300	300	6	$\frac{1}{4}$ x $\frac{3}{8}$	.93
TT10X2	2	10	$\frac{1}{4}$ x $\frac{3}{8}$	.57
TT10X6	6	10	$\frac{1}{4}$ x $\frac{3}{8}$	.57
TT10X10	10	10	$\frac{1}{4}$ x $\frac{3}{8}$	.57
TT10X15	15	10	$\frac{1}{4}$ x $\frac{3}{8}$	.57
TT10X25	25	10	$\frac{1}{4}$ x $\frac{3}{8}$	.75
TT10X30	30	10	$\frac{1}{4}$ x $\frac{3}{8}$	.81
TT10X40	40	10	$\frac{1}{4}$ x $\frac{3}{8}$	.81
TT10X50	50	10	$\frac{1}{4}$ x $\frac{3}{8}$	.81
TT10X60	60	10	$\frac{1}{4}$ x $\frac{3}{8}$	.81
TT10X100	100	10	$\frac{1}{4}$ x $\frac{3}{8}$	.81
TT10X200	200	10	$\frac{1}{4}$ x $\frac{3}{8}$	.96
TT12X1	1	12	$\frac{1}{4}$ x $\frac{3}{8}$	.57
TT12X2	2	12	$\frac{1}{4}$ x $\frac{3}{8}$	.57
TT12X3	3	12	$\frac{1}{4}$ x $\frac{3}{8}$	.57
TT12X4	4	12	$\frac{1}{4}$ x $\frac{3}{8}$	.57
TT12X5	5	12	$\frac{1}{4}$ x $\frac{3}{8}$	.57
TT12X6	6	12	$\frac{1}{4}$ x $\frac{3}{8}$	.57
TT12X8	8	12	$\frac{1}{4}$ x $\frac{3}{8}$	.57
TT12X10	10	12	$\frac{1}{4}$ x $\frac{3}{8}$	.57
TT12X15	15	12	$\frac{1}{4}$ x $\frac{3}{8}$	.57
TT12X20	20	12	$\frac{1}{4}$ x $\frac{3}{8}$	.57
TT12X25	25	12	$\frac{1}{4}$ x $\frac{3}{8}$	.75
TT12X35	35	12	$\frac{1}{4}$ x $\frac{3}{8}$	.75
TT12X50	50	12	$\frac{1}{4}$ x $\frac{3}{8}$	.81
TT12X75	75	12	$\frac{1}{4}$ x $\frac{3}{8}$	.81
TT12X100	100	12	$\frac{1}{4}$ x $\frac{3}{8}$	.81
TT12X150	150	12	$\frac{1}{4}$ x $\frac{3}{8}$	.93
TT12X200	200	12	$\frac{1}{4}$ x $\frac{3}{8}$	.96
TT12X250	250	12	$\frac{1}{4}$ x $\frac{3}{8}$	.96

Mallory TT capacitors are made from very high purity aluminum foil, deep-etched to provide maximum capacity per unit of volume. Etched cathode construction assures long, hum-free operation. Utilize all-welded construction; exhibit exceptionally low DCL and ESR. Supplied in aluminum case with insulating sleeve; wire leads $2\frac{1}{2}$ in. ($=\frac{1}{4}$ in.). Temperature Range: -30°C to $+85^{\circ}\text{C}$, operating. Tolerance: -10% , $+150\%$, ± 50 WVDC; -10% , $+100\%$, 60 WVDC and up.

Mallory No.	Cap., μ F	WV DC	Size, In.* Dia. x L.	Net Each
TT15X1	1	15	$\frac{1}{4}$ x $\frac{3}{8}$	\$0.57
TT15X2	2	15	$\frac{1}{4}$ x $\frac{3}{8}$	.57
TT15X3	3	15	$\frac{1}{4}$ x $\frac{3}{8}$	.57
TT15X4	4	15	$\frac{1}{4}$ x $\frac{3}{8}$	.57
TT15X5	5	15	$\frac{1}{4}$ x $\frac{3}{8}$	.57
TT15X6	6	15	$\frac{1}{4}$ x $\frac{3}{8}$	.57
TT15X8	8	15	$\frac{1}{4}$ x $\frac{3}{8}$	.57
TT15X10	10	15	$\frac{1}{4}$ x $\frac{3}{8}$	.57
TT15X15	15	15	$\frac{1}{4}$ x $\frac{3}{8}$	.57
TT15X20	20	15	$\frac{1}{4}$ x $\frac{3}{8}$	.57
TT15X25	25	15	$\frac{1}{4}$ x $\frac{3}{8}$	.75
TT15X30	30	15	$\frac{1}{4}$ x $\frac{3}{8}$	.75
TT15X35	35	15	$\frac{1}{4}$ x $\frac{3}{8}$	.75
TT15X40	40	15	$\frac{1}{4}$ x $\frac{3}{8}$	.81
TT15X50	50	15	$\frac{1}{4}$ x $\frac{3}{8}$	.81
TT15X75	75	15	$\frac{1}{4}$ x $\frac{3}{8}$	.81
TT15X100	100	15	$\frac{1}{4}$ x $\frac{3}{8}$	.81
TT15X150	150	15	$\frac{1}{4}$ x $\frac{3}{8}$	.87
TT15X200	200	15	$\frac{1}{4}$ x $\frac{3}{8}$	.96
TT25X1	1	25	$\frac{1}{4}$ x $\frac{3}{8}$	.54
TT25X2	2	25	$\frac{1}{4}$ x $\frac{3}{8}$	.57
TT25X3	3	25	$\frac{1}{4}$ x $\frac{3}{8}$	.57
TT25X4	4	25	$\frac{1}{4}$ x $\frac{3}{8}$	.57
TT25X5	5	25	$\frac{1}{4}$ x $\frac{3}{8}$	.57
TT25X6	6	25	$\frac{1}{4}$ x $\frac{3}{8}$	.57
TT25X8	8	25	$\frac{1}{4}$ x $\frac{3}{8}$	.60
TT25X10	10	25	$\frac{1}{4}$ x $\frac{3}{8}$	.60
TT25X15	15	25	$\frac{1}{4}$ x $\frac{3}{8}$	.75
TT25X20	20	25	$\frac{1}{4}$ x $\frac{3}{8}$	.81
TT25X25	25	25	$\frac{1}{4}$ x $\frac{3}{8}$	.81
TT25X30	30	25	$\frac{1}{4}$ x $\frac{3}{8}$	.81
TT25X35	35	25	$\frac{1}{4}$ x $\frac{3}{8}$	.81
TT25X50	50	25	$\frac{1}{4}$ x $\frac{3}{8}$	.81
TT25X75	75	25	$\frac{1}{4}$ x $\frac{3}{8}$	.87
TT25X100	100	25	$\frac{1}{4}$ x $\frac{3}{8}$	.90
TT50X1	1	50	$\frac{1}{4}$ x $\frac{3}{8}$	.54
TT50X2	2	50	$\frac{1}{4}$ x $\frac{3}{8}$	.54
TT50X3	3	50	$\frac{1}{4}$ x $\frac{3}{8}$	.57
TT50X4	4	50	$\frac{1}{4}$ x $\frac{3}{8}$	.57
TT50X5	5	50	$\frac{1}{4}$ x $\frac{3}{8}$	.57
TT50X6	6	50	$\frac{1}{4}$ x $\frac{3}{8}$	.81
TT50X8	8	50	$\frac{1}{4}$ x $\frac{3}{8}$	.81
TT50X10	10	50	$\frac{1}{4}$ x $\frac{3}{8}$	.81
TT50X15	15	50	$\frac{1}{4}$ x $\frac{3}{8}$	.81
TT50X20	20	50	$\frac{1}{4}$ x $\frac{3}{8}$	.84
TT50X25	25	50	$\frac{1}{4}$ x $\frac{3}{8}$	.84
TT50X35	35	50	$\frac{1}{4}$ x $\frac{3}{8}$	.87
TT50X50	50	50	$\frac{1}{4}$ x $\frac{3}{8}$	.87
TT80X4	4	80	$\frac{1}{4}$ x $\frac{3}{8}$	.81
TT100X1	1	100	$\frac{1}{4}$ x $\frac{3}{8}$	.81
TT100X2	2	100	$\frac{1}{4}$ x $\frac{3}{8}$	.81
TT100X3	3	100	$\frac{1}{4}$ x $\frac{3}{8}$	.81
TT100X4	4	100	$\frac{1}{4}$ x $\frac{3}{8}$	.81
TT100X5	5	100	$\frac{1}{4}$ x $\frac{3}{8}$	.81
TT100X6	6	100	$\frac{1}{4}$ x $\frac{3}{8}$	.81
TT100X8	8	100	$\frac{1}{4}$ x $\frac{3}{8}$	.81
TT100X10	10	100	$\frac{1}{4}$ x $\frac{3}{8}$	.81
TT100X15	15	100	$\frac{1}{4}$ x $\frac{3}{8}$	.84
TT100X20	20	100	$\frac{1}{4}$ x $\frac{3}{8}$	.84
TT100X25	25	100	$\frac{1}{4}$ x $\frac{3}{8}$	.84
TT150X1	1	150	$\frac{1}{4}$ x $\frac{3}{8}$	.84
TT150X2	2	150	$\frac{1}{4}$ x $\frac{3}{8}$	.84
TT150X3	3	150	$\frac{1}{4}$ x $\frac{3}{8}$	.84
TT150X4	4	150	$\frac{1}{4}$ x $\frac{3}{8}$	.84
TT150X5	5	150	$\frac{1}{4}$ x $\frac{3}{8}$	.84
TT150X6	6	150	$\frac{1}{4}$ x $\frac{3}{8}$	.84
TT150X8	8	150	$\frac{1}{4}$ x $\frac{3}{8}$	.84
TT150X10	10	150	$\frac{1}{4}$ x $\frac{3}{8}$	.84
TT150X12	12	150	$\frac{1}{4}$ x $\frac{3}{8}$	.87
TT250X1	1	250	$\frac{1}{4}$ x $\frac{3}{8}$	1.02
TT350X2	2	350	$\frac{1}{4}$ x $\frac{3}{8}$	1.05

*Size shown for plain case. For insul. sleeve add .020" dia. x $\frac{1}{4}$ " L.

MTA MOLDED TUBULAR ALUMINUM ELECTROLYTIC CAPACITORS

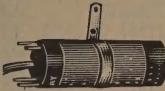
High quality electrolytics, precision molded by an exclusive new technique. Precision molding assures case uniformity and quality unattainable by conventional tube-and-fill methods. Polypropylene case material provides extreme humidity protection; actually excludes water molecules while allowing for molecular venting of the electrolyte if necessary. All-welded construction. Temperature Range: -20°C to $+65^{\circ}\text{C}$. Tolerance: -10% , $+100\%$. Ask for Bulletin 9-372 for complete specifications.

MTA STOCK VALUES

Mallory No.	Cap., μ F	Max. WVDC	Surge VDC	Size $\uparrow$	Net Each
MTA60D3	60	3	4	D	\$0.36
MTA175E3	175	3	4	E	.45
MTA600F3	600	3	4	F	.45
MTA50D6	50	6	8	D	.36
MTA125E6	125	6	8	E	.39
MTA150E6	150	6	8	E	.39
MTA450F6	450	6	8	F	.51
MTA500F6	500	6	8	F	.51
MTA40D10	40	10	12	D	.36
MTA75E10	75	10	12	E	.39
MTA100E10	100	10	12	E	.39
MTA200F10	200	10	12	F	.45
MTA400F10	400	10	12	F	.54
MTA30D15	30	15	18	D	.36
MTA35D15	35	15	18	D	.36
MTA50E15	50	15	18	E	.39
MTA80E15	80	15	18	E	.39
MTA90E15	90	15	18	E	.39
MTA100E15	100	15	18	E	.39
MTA250F15	250	15	18	F	.51
MTA300F15	300	15	18	F	.63
MTA350F15	350	15	18	F	.63
MTA25D20	25	20	25	D	.36
MTA60E20	60	20	25	E	.39
MTA70E20	70	20	25	E	.39
MTA250F20	250	20	25	F	.63
MTA50E25	50	25	30	E	.39
MTA175F25	175	25	30	F	.51
MTA200F25	200	25	30	F	.51
MTA40D30	40	30	35	D	.36
MTA60E30	60	30	35	E	.39
MTA9D35	9	35	40	D	.36
MTA10D35	10	35	40	D	.36
MTA15D35	15	35	40	D	.36
MTA25E35	25	35	40	E	.39
MTA30E35	30	35	40	E	.39
MTA35E35	35	35	40	E	.39
MTA90F35	90	35	40	F	.51
MTA100F35	100	35	40	F	.51
MTA125F35	125	35	40	F	.51
MTA150F35	150	35	40	F	.63
MTA1D50	1	50	60	D	.36
MTA2D50	2	50	60	D	.36
MTA3D50	3	50	60	D	.36
MTA4D50	4	50	60	D	.36
MTA5D50	5	50	60	D	.36
MTA6D50	6	50	60	D	.36
MTA7D50	7	50	60	D	.36
MTA8D50	8	50	60	D	.36
MTA9E50	9	50	60	E	.39
MTA10E50	10	50	60	E	.39
MTA15E50	15	50	60	E	.39
MTA20E50	20	50	60	E	.39
MTA25E50	25	50	60	E	.45
MTA30F50	30	50	60	F	.45
MTA35F50	35	50	60	F	.45
MTA40F50	40	50	60	F	.45
MTA50F50	50	50	60	F	.45
MTA60F50	60	50	60	F	.45
MTA70F50	70	50	60	F	.51
MTA80F50	80	50	60	F	.51

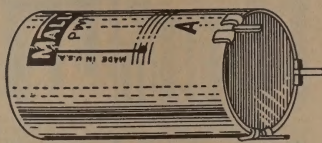
MALLORY Electrolytic Capacitors

CARDBOARD TUBULAR WAX-FILLED ELECTROLYTICS



Very high quality aluminum electrolytics in wax-filled cardboard tubes with mounting straps and 5' insulated leads. All values have exclusive Mallory safety vent and feature all-welded internal construction. **Temperature Range:** -20° C to +65° C. **Tolerance:** -10%, +250% up to 50 WVDC; -10%, +100% 51 to 350 WVDC; -10%, +50% 450 WVDC and up. WQ240 is special double ended design.

PRINTED CIRCUIT CARDBOARD TUBULAR ELECTROLYTICS

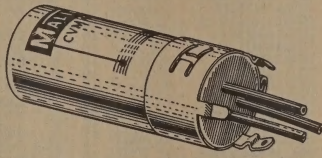


Dual and triple section types for exact replacement in popular home entertainment equipment. Fit printed circuit boards exactly. Same specifications as W series.

Mallory No.	Cap., μ F	WVDC	Size, In. Dia. x L.	Net Each
PWD211	50-30	150*	1x2	\$1.26
PWD221	50-50	150*	1x2	1.44
PWD231	75-30	150*	1x2 1/2	1.34
PWD240	80-30	150*	1x2 1/2	1.35
PWD252	80-50	150*	1x2 1/2	1.42
PWD253	80-50	200*	1x2 1/2	1.58
PWD263	100-50	150*	1x2 1/2	1.50
PWT205	30-25-20	150*	1x1 1/4	1.44
PWT225	50-30-20	150*	1x2	1.52
PWT245	60-20-5	150*	1x2 1/2	1.47
PWT260	60-80-20	150*	1x2 1/2	1.71
PWT275	80-40-150	150-150-150	1x2 1/2	1.69
PWT285	80-60-250	150-150-250	1 1/2 x 2 1/2	1.83
PWT360	60-120-20	200*	1 1/2 x 2 1/2	2.12

*WVDC each section.

"SNAP-CAP" CARDBOARD TUBULAR ELECTROLYTICS



"Snap-Cap" CVM wax-filled cardboard tubular electrolytics snap firmly into FP type mounting plates. Will not shake or vibrate loose, yet are easily removed if necessary. Furnished with color-coded insulated wire leads and exclusive safety vent. **Temp. Range:** -20° C to +65° C. **Tolerance:** -10%, +100%.

Mallory No.	Cap., μ F	WVDC*	Size, In.	Net Each
CVM2316	40-40	150	1x2	\$1.23
CVM2225	50-30	150	1x2	1.18
CVM2200	80-20	150	1x2 1/2	1.20
CVM3200	20-80-20	150	1x2 1/2	1.46
CVM3300	40-30-20	150	1x2 1/2	1.39
CVM3375	50-50	150	1x2 1/2	1.48
CVM3325	60-40-20	150	1x2 1/2	1.46
CVM3350	80-40-20	150	1x2 1/2	1.51
CVM3210	150-20-20	150	1x3	1.64

*WVDC each section.

ANTENNA ROTATOR CAPACITORS



Exact replacement capacitors for all popular antenna rotators. Especially engineered to withstand rugged climate and humidity conditions.

Mail. No.	Cap., μ F at VAC	Size, In. D. x L.	Net Each
ST75	70-92 at 50 VAC	1 1/2 x 2 1/2	\$0.75
ST76	66.2-76 at 50 VAC	1 1/2 x 2 1/2	.75
ST78	58.5-78 at 50 VAC	1 1/2 x 2 1/2	.75
ST80	75-90 at 65 VAC	1 1/2 x 2 1/2	.90
ST100	100-120 at 50 VAC	1 x 2 1/2	1.02
ST156	117-156 at 50 VAC	1 1/2 x 2 1/2	.90
ST24	210-240 at 50 VAC	1 x 2 1/2	1.29
ST290	210-290 at 50 VAC	1 x 2 1/2	1.29

HIGH CAPACITY DRY ELECTROLYTICS



HC and NP capacitors are furnished in heavy-duty molded phenolic cases with integral safety vent. HC types are polarized; NP types are non-polarized. **Temp. Range:** -20° C to +85° C. **Tolerance:** Type HC -0-50 WVDC, -10%, +150%; 51-350 WVDC, -10%, +100%; 351 WVDC up, -10%, +50%. Type NP -25%, all units.

POLARIZED TYPE HC

Mallory No.	Cap., μ F	WV DC	* Size	Net Each
HC1020A	2,000	10	1	\$ 3.36
HC1040A	4,000	10	2	4.60
HC1050A	6,000	10	3	5.20
HC1080	8,000	10	5	6.00
HC10100	10,000	10 1/2	7	7.82
HC10120	12,000	10	7	7.14
HC10150	15,000	10	7	7.67
HC1520A	2,000	15	1	3.47
HC1540A	4,000	15	3	5.37
HC1560A	6,000	15	4	5.62
HC1580	8,000	15	7	6.62
HC15100	10,000	15	7	7.14
HC2050-50	25,000	20	7	8.00
HC2060	6,000	20	7	6.50
HC2060A	6,000	20 1/2	5	6.11
HC20250	25,000	20	9	12.88
HC2510A	1,000	25	1	3.19
HC2520A	2,000	25	2	4.15
HC2530	3,000	25	4	4.66
HC2540A	4,000	25	4	5.58
HC2550	5,000	25	7	6.30
HC4040	4,000	40	7	7.54
HC4040A	4,000	40	7	6.98
HC4050	5,000	50	2	3.60
HC5005A	500	50	1	3.33
HC5010A	1,000	50	2	4.25
HC5020A	2,000	50	4	5.06
HC5030	3,000	50	7	7.00
HC5040	4,000	50	7	7.32
HC8005	500	80	2	3.85
HC8010	1,000	80	4	5.34
HC8020	2,000	80	7	6.62
HC10005	500	100	2	4.20
HC10010	1,000	100	5	5.86
HC10015	1,500	100	7	6.44
HC15005	500	150	4	5.09
HC15010	1,000	150	7	6.89
HC15010A	1,000	150	5	6.44
HC20002	200	200	4	5.97
HC20005	500	200	7	5.53
HC20005A	500	200	4	5.53
HC25001	100	250	2	4.59
HC25002	200	250	4	4.88
HC25003	300	250	5	5.37
HC25004	400	250	7	5.64
HC35001	100	350	4	4.88
HC35002	200	350	5	5.93
HC35003	300	350	7	6.97
HC45001	100	450	4	5.97
HC45002	200	450	7	7.40
HC45003	300	450	7	8.47

NON-POLARIZED TYPE NP

NP0340	2,000	25	7	\$ 5.43
NP0555	500	50	5	4.38
NP1225A	200	125	2	4.04
NP1235A	300	125	4	4.87
NP125A	400	125	7	4.69
NP1255A	500	125	5	6.30
NP251A	100	250	5	5.95
NP2520	150	250	5	6.15
NP2525	200	250	7	6.34
NP3003A	15	300	1	2.87
NP3006	30	300	2	3.85
NP3008	50	300	2	5.25
NP3014A	100	300	4	6.13
NP3020	150	300	7	6.56
NP3025	200	300	7	7.00
NP4503	30	450	2	4.90
NP4505	50	450	4	6.30
NP4510	100	450	7	7.70

†Semi-polarized.

*HC AND NP CASE SIZES

Code	Size, In. Dia. x L g.	Cap	Use Hardware No. for Brkt. Clamp
1	1 1/4 x 2 1/2	PL3, PL43	H82 VR3
2	1 1/4 x 3 1/2	PL3, PL43	H84 VR3
3	1 1/4 x 4 1/2	PL3, PL43	H88 VR3
4	1 1/4 x 5 1/2	PL6, PL46	H84 VR6
5	1 1/4 x 6 1/2	PL6, PL46	H88 VR6
6	1 1/4 x 7 1/2	PL6, PL46	H84 VR8
7	1 1/4 x 8 1/2	PL6, PL46	H88 VR8
8	1 1/2 x 4 1/2	.....	VR4
9	1 3/4 x 4 1/2	.....	VR12

Mallory High Reliability Capacitors

HIGH-RELIABILITY TUBULAR ELECTROLYTICS



TPG capacitors are premium grade electrolytics in precision tubular cases. They are especially suited to those applications which require the utmost in reliability and long-life performance (communications, computers, instruments, etc.). Internal construction is all-welded for minimum loss. DCL is exceptionally low. The TPG has a positive end seal and exclusive safety vent. Furnished with shrink-fit insulating sleeve. **Temperature Range:** -40° C to +85° C. **Tolerance:** -10%, +100%.

Mallory No.	Cap. μ F	WVDC	Size	Net Each
TPG120T3	120	3	A	\$1.81
TPG180T3	180	3	B	1.82
TPG330T3	330	3	C	1.83
TPG385T3	385	3	D	1.85
TPG450T3	450	3	E	1.86
TPG80T6	80	6	A	1.81
TPG120T6	120	6	B	1.82
TPG220T6	220	6	C	1.83
TPG260T6	260	6	D	1.85
TPG300T6	300	6	E	1.86
TPG65T10	65	10	A	1.81
TPG100T10	100	10	B	1.82
TPG175T10	175	10	C	1.83
TPG210T10	210	10	D	1.85
TPG240T10	240	10	E	1.86
TPG45T15	45	15	A	1.81
TPG70T15	70	15	B	1.82
TPG125T15	125	15	C	1.83
TPG150T15	150	15	D	1.85
TPG175T15	175	15	E	1.86
TPG30T25	30	25	A	1.81
TPG45T25	45	25	B	1.82
TPG85T25	85	25	C	1.83
TPG100T25	100	25	D	1.85
TPG115T25	115	25	E	1.86
TPG25T30	25	30	A	1.81
TPG35T30	35	30	B	1.82
TPG65T30	65	30	C	1.83
TPG75T30	75	30	D	1.85
TPG90T30	90	30	E	1.86
TPG12T50	12	50	A	1.81
TPG18T50	18	50	B	1.82
TPG35T50	35	50	C	1.83
TPG40T50	40	50	D	1.85
TPG50T50	50	50	E	1.86
TPG10T75	10	75	A	1.81
TPG15T75	15	75	B	1.82
TPG25T75	25	75	C	1.83
TPG30T75	30	75	D	1.85
TPG40T75	40	75	E	1.86
TPG7T100	7	100	A	1.81
TPG10T100	10	100	B	1.82
TPG15T100	15	100	C	1.83
TPG20T100	20	100	D	1.85
TPG30T100	30	100	E	1.86
TPG1T150	1	150	A	1.81
TPG2T150	2	150	B	1.82
TPG3T150	3	150	C	1.83
TPG4T150	4	150	A	1.81
TPG5T150	5	150	A	1.81
TPG7T150	7	150	B	1.82
TPG10T150	10	150	B	1.82
TPG15T150	15	150	D	1.85
TPG20T150	20	150	E	1.86

*TPG CASE SIZES: 1/8" DIA. X

Code	A	B	C	D	E
Length	1 1/8"	1 1/4"	1 1/2"	1 3/4"	1 7/8"

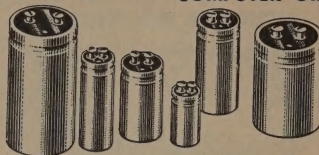
PHOTOFLASH CAPACITORS

Especially engineered capacitors for photoflash use.

HC45002—300 μ F, 450 WV DC. Plastic case, 2 1/4" dia. x 4 1/2". Max. DCL (at 5 min.) 5.5 mA. Net Each. **\$.84.7**

FF45052—525 μ F, 450 WV DC. Plastic case, 2 1/4" dia. x 4 1/2". Max. DCL (at 5 min.) 2.0 mA. Net Each. **\$.13.50**

FP240—Specially engineered FP capacitor for photoflash use. Dual separate section, 50 μ F at 450 WVDC each section. May be used in parallel for 100 μ F. Supplied with cardboard insulating tube. Uses standard FP mounting plate. Net Each. **\$.23.31**



Ultra-reliable, high capacity aluminum electrolytic capacitors. Exclusive safety vent provides positive protection. Furnished with Mylar insulating sleeve. **Temp. Range:** -20° C to +35° C. **Tolerance:** 0-150 WVDC, -10, +75% (U); 151 WVDC up, -10, +50% (T).

Mallory No.	Cap., μ F	WV DC	* Size	Net Each
CG552U3A1	5,500	3	A	\$1.44
CG1052U3B1	10,500	3	B	1.58
CG143U3C1	14,000	3	C	2.05
CG1752U3H1	17,500	3	H	2.38
CG23U3K1	23,000	3	K	2.75
CG243U3J1	24,000	3	J	2.85
CG363U3D1	36,000	3	D	3.40
CG54U3E1	50,000	3	E	4.36
CG753U3F1	75,000	3	F	5.44
CG1153U5G1	115,000	5	G	6.52
CG442U5A1	4,400	5	A	1.31
CG852U5B1	8,500	5	B	1.82
CG1252U5C1	12,500	5	C	2.43
CG143U5H1	14,000	5	H	2.50
CG1852U5K1	18,500	5	K	2.74
CG245U5J1	20,000	5	J	2.86
CG322U5D1	27,500	5	D	3.32
CG453U5E1	45,000	5	E	4.31
CG653U5F1	65,000	5	F	5.40
CG15U5G1	100,000	5	G	6.83
CG322U10A1	3,200	10	A	1.50
CG63U10B1	6,000	10	B	1.88
CG82U10C1	8,200	10	C	2.19
CG14U10H1	10,000	10	H	2.43
CG1352U10K1	13,500	10	K	2.67
CG143U10J1	14,000	10	J	2.70
CG183U10D1	18,000	10	D	3.32
CG34U10E1	30,000	10	E	5.09
CG452U10F1	45,500	10	F	6.21
CG683U10G1	68,000	10	G	6.74
CG252U15A1	2,500	15	A	1.40
CG452U15B1	4,500	15	B	2.01
CG642U15C1	6,400	15	C	2.07
CG83U15H1	8,000	15	H	2.38
CG1352U15K1	10,500	15	K	2.62
CG113U15J1	11,000	15	J	2.67
CG143U15D1	14,000	15	D	3.47
CG233U15E1	23,000	15	E	4.87
CG343U15F1	34,000	15	F	5.39
CG533U15G1	53,000	15	G	6.64
CG152U25A1	1,500	25	A	1.36
CG282U25B1	2,800	25	B	1.71
CG382U25C1	3,800	25	C	1.96
CG452U25H1	4,500	25	H	2.13
CG63U25K1	6,000	25	K	2.50
CG652U25J1	6,500	25	J	2.62
CG852U25D1	8,500	25	D	3.01
CG1352U25E1	13,500	25	E	4.66
CG24U25F1	20,000	25	F	5.05
CG3152U25G1	31,500	25	G	6.33
CG112U35A1	1,100	35	A	1.47
CG212U35B1	2,100	35	B	1.69
CG312U35C1	3,100	35	C	2.43
CG362U35H1	3,600	35	H	2.52
CG472U35K1	4,700	35	K	2.80
CG532U35J1	5,300	35	J	2.86
CG692U35D1	6,900	35	D	2.87
CG113U35E1	11,000	35	E	5.09
CG1652U35F1	16,500	35	F	6.54
CG243U35G1	24,000	35	G	6.20
CG82U50A1	800	50	A	1.40
CG152U50B1	1,500	50	B	1.77
CG23U50C1	2,000	50	C	1.82
CG252U50H1	2,500	50	H	1.94
CG33U50D1	3,300	50	D	2.51
CG352U50J1	3,500	50	J	2.47
CG452U50K1	4,500	50	D	2.67
CG732U50E1	7,300	50	E	4.14
CG14U50F1	10,000	50	F	5.17
CG1652U50G1	16,500	50	G	6.36
CG62U75A1	600	75	A	1.46
CG13U75B1	1,000	75	B	1.92
CG152U75C1	1,500	75	C	2.13
CG23U75H1	2,000	75	H	2.38
CG252U75K1	2,500	75	K	2.85
CG262U75J1	2,600	75	J	2.86
CG345U75D1	3,450	75	D	3.11
CG552U75E1	5,500	75	E	4.87
CG82U75F1	8,200	75	F	5.75
CG1252U75G1	12,500	75	G	6.89
CG42U100A1	400	100	A	1.46
CG75U100B1	750	100	B	1.82
CG13U100C1	1,000	100	C	2.11
CG132U100H1	1,300	100	H	2.30
CG165U100K1	1,650	100	K	2.38
CG172U100J1	1,700	100	J	2.42

COMPUTER GRADE CAPACITORS

Mallory No.	Cap. μ F	WV DC	* Size	Net Each
CG225U100D1	2,250	100	D	\$3.15
CG362U100E1	3,600	100	E	4.64
CG532U100F1	5,300	100	F	5.32
CG832U100G1	8,300	100	G	7.01
CG275U150A1	275	150	A	1.31
CG52U150B1	500	150	B	1.84
CG72U150C1	700	150	C	2.05
CG875U150H1	875	150	H	2.20
CG142U150K1	1,400	150	K	2.42
CG115U150J1	1,150	150	J	2.42
CG155U150D1	1,550	150	D	3.13
CG250U150E1	2,500	150	E	4.56
CG362U150F1	3,600	150	F	5.41
CG562U150G1	5,600	150	G	7.01
CG181T200A1	180	200	A	1.46
CG341T200B1	340	200	B	1.74
CG451T200C1	450	200	C	1.93
CG551T200H1	550	200	H	2.09
CG751T200K1	750	200	K	2.57
CG82T200J1	800	200	J	2.65
CG12T200D1	1,000	200	D	3.01
CG165T1200E1	1,650	200	E	3.86
CG245T1200F1	2,450	200	F	5.25
CG382T200G1	3,800	200	G	7.26
CG141T250A1	140	250	A	1.70
CG275T250B1	275	250	B	1.88
CG375T250C1	375	250	C	2.08
CG451T250H1	450	250	H	2.21
CG62T250K1	600	250	K	2.23
CG625T250J1	625	250	J	2.43
CG82T250D1	800	250	D	3.65
CG132T250E1	1,300	250	E	4.87
CG192T250F1	1,900	250	F	5.85
CG33T250G1	3,000	250	G	7.40
CG121T300A1	120	300	A	1.76
CG225T300B1	225	300	B	2.01
CG325T300C1	325	300	C	2.25
CG42T300H1	400	300	H	2.38
CG525T300K1	525	300	K	2.52
CG65T300J1	650	300	J	2.58
CG72T300D1	700	300	D	3.66
CG1151T300E1	1,150	300	E	5.60
CG1651T300F1	1,650	300	F	6.45
CG262T300G1	2,600	300	G	7.57
CG12T350A1	100	350	A	1.77
CG181T350B1	180	350	B	2.38
CG251T350C1	250	350	C	2.28
CG32T350H1	300	350	H	2.43
CG42T350K1	400	350	K	2.75
CG425T350J1	425	350	J	2.94
CG55T350D1	550	350	D	3.87
CG72T350E1	700	350	E	4.98
CG132T350F1	1,300	350	F	6.26
CG23T350G1	2,000	350	G	7.75
CG550T400A1	55	400	A	1.16
CG111T400B1	110	400	B	2.05
CG151T400C1	150	400	C	2.23
CG181T400H1	180	400	H	2.38
CG241T400K1	240	400	K	2.63
CG251T400J1	250	400	J	2.69
CG325T400D1	325	400	D	2.92
CG531T400E1	530	400	E	3.86
CG41T450A1	40	450	A	1.12
CG81T450B1	80	450	B	1.32
CG131T450C1	130	450	C	1.93
CG141T450H1	140	450	H	2.14
CG181T450K1	180	450	K	2.57
CG191T450J1	190	450	J	2.58
CG241T450D1	240	450	D	2.81

†DuPont trademark.

*CG CASE SIZES

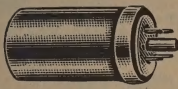
Code	Dia. x L, Inches	Mtg. Clamp
A	1 1/8" x 2 1/2"	VR3
B	1 1/8" x 3 1/8"	VR3
C	1 1/8" x 4 1/8"	VR3
D	2" x 4 1/8"	VR8
E	2 1/2" x 4 1/8"	VR10
F	3" x 4 1/8"	VR12
G	3" x 5 5/8"	VR12
H	1 3/4" x 3 1/8"	VR6
J	1 1/4" x 3 1/8"	VR6
K	2" x 3 1/8"	VR8

MALLORY Capacitors

HEAVY-DUTY INDUSTRIAL ALUMINUM ELECTROLYTICS

Heavy-duty design meets detail specifications of MIL-C-62 for industrial aluminum electrolytic capacitors. **Temperature Range:** -40° C to +85° C. **Tolerance:** -10%, +150% up to 50 WVDC; -10%, +100%, 100-350 WVDC; -10%, +50%, 450 WVDC and up.

PLUG-IN MOUNTING PB SERIES



Conform to MIL-C-62 detail specifications CE51, CE52 and CE53. Plug into standard octal tube socket.

Mallory No.	Cap., μ F	WV DC	Size, In. Dia. x L.	Net Each
PB110	20	150	1 1/2 x 2 1/2	\$2.37
PB114	40	150	1 1/2 x 2 1/2	2.46
PB139	100	350	1 1/2 x 3 1/2	2.51
PB142	10	450	1 1/2 x 3 1/2	2.43
PB144	20	450	1 1/2 x 3 1/2	2.53
PB146	40	450	1 1/2 x 3 1/2	2.73
PB149	80	450	1 1/2 x 3 1/2	3.33
PB208	20-20	150	1 1/2 x 2 1/2	2.52
PB212	40-40	150	1 1/2 x 2 1/2	2.61
PB234	20-20	450	1 1/2 x 3 1/2	2.03
PB238	40-40	450	1 1/2 x 3 1/2	2.17
PB311.2	20-20-20	150	1 1/2 x 2 1/2	2.38
PB345.8	20-20-20	450-150	1 1/2 x 2 1/2	3.33
PB375.8	10-10-10	450	1 1/2 x 2 1/2	3.06

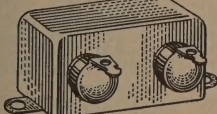
THREADED-NECK MOUNTING SERIES



Series RS, HS and RM have threaded neck 1/4"-16 x 1/2" with nut and washer; insulated stranded wire terminations. Conform closely to MIL-C-62, detail specifications CE41 and CE42.

Mallory No.	Cap., μ F	WV DC	Size, In. Dia. x L.	Net Each
RS207	30	250	1 x 3 1/2	\$1.23
RS212	8	450	1 1/2 x 3	1.32
RS213	8	450	1 x 2 1/2	1.32
RS214	12	450	1 1/2 x 3	1.44
RS215	12	450	1 x 2 1/2	1.44
RS216	16	450	1 x 3 1/2	1.44
RS217	16	450	1 1/2 x 3	1.47
RS219	20	450	1 1/2 x 3	1.62
RS223	30	450	1 1/2 x 3	1.80
RS224	40	450	1 1/2 x 3	1.89
HS691	4	600	1 1/2 x 4	1.77
HS693	8	600	1 1/2 x 3 1/2	1.89
HS696	20	600	1 1/2 x 4 1/2	2.31
RM262	8-8	450	1 1/2 x 3	1.80
RM265	8-8-8	450	1 1/2 x 4 1/2	3.00

BATHTUB BS SERIES



Conform to MIL-C-62 detail specification CE63. These capacitors are hermetically sealed in hot-tinned steel cases with solder lug terminations at the side. Mounts with flanges having 1/4" dia. holes.

Mall. No.	Cap. μ F	WV DC	Size, Inches H. x W. x L.	Net Each
BS26	25	25	3/4 x 1 x 1 1/4	\$2.70
BS29	50	25	3/4 x 1 x 1 1/4	2.73
BS36	25	50	3/4 x 1 x 1 1/4	2.82
BS39	50	50	3/4 x 1 x 1 1/4	2.82
BS45	20	150	3/4 x 1 x 1 1/4	2.82
BS48	40	150	1 x 1 1/4 x 1 1/4	2.91
BS62	10	300	1 1/4 x 1 1/4 x 1 1/4	3.85
BS65	20	300	1 x 1 1/4 x 1 1/4	3.85
BS81	8	500	1 x 1 1/4 x 2	3.45
BS91*	8	600	1 x 1 1/4 x 2	3.51

*Mtg. centers 2 3/4"; all others 2 1/4".

PVC DIPPED MYLAR* RADIAL-LEAD CAPACITORS



Dielectric 100% Mylar. Radial leads have tough polyvinyl chloride coating; will not crack during installation. **Temperature Range:** -55° C to +105° C. **Tolerance:** $\pm 10\%$.

100 WVDC, 250 V SURGE

Mallory No.	Cap., μ F	Size, Inches L. x H. x T.	Net Ea. 1-24
PVC1118	.018	.63 .38 .22	\$0.16
PVC1122	.022	.63 .38 .22	.17
PVC1133	.033	.63 .38 .22	.18
PVC114	.04	.63 .38 .22	.19
PVC1147	.047	.63 .38 .22	.19
PVC1156	.056	.75 .38 .22	.19
PVC1168	.068	.81 .41 .25	.17
PVC101	.10	.81 .44 .31	.23
PVC105	.15	.94 .47 .34	.21
PVC1022	.22	1.09 .50 .34	.24
PVC1025	.25	1.22 .50 .34	.24
PVC1033	.33	1.22 .56 .41	.28
PVC1047	.47	1.34 .59 .44	.28
PVC105	.56	1.43 .63 .46	.31
PVC1068	.68	1.46 .69 .50	.38
PVC11	1.0	1.75 .72 .53	.46
PVC11P5	1.5	1.75 .88 .63	.58
PVC12	2.0	1.78 1.00 .78	.70

200 WVDC, 500 V SURGE

Mallory No.	Cap., μ F	Size, Inches L. x H. x T.	Net Ea. 1-24
PVC211	.01	.63 .38 .22	\$0.15
PVC2115	.015	.63 .38 .22	.16
PVC212	.02	.63 .38 .22	.17
PVC2122	.022	.63 .38 .22	.17
PVC2133	.033	.81 .41 .25	.19
PVC214	.04	.81 .41 .25	.19
PVC2147	.047	.81 .44 .28	.19
PVC215	.05	.81 .44 .28	.19
PVC2168	.068	.94 .46 .28	.21
PVC201	1.1	1.10 .50 .31	.21
PVC2015	1.5	1.22 .53 .34	.21
PVC2022	2.2	1.22 .56 .41	.24
PVC2025	2.5	1.34 .56 .41	.24
PVC2033	3.3	1.46 .63 .46	.31
PVC2047	4.7	1.63 .66 .46	.31
PVC205	5	1.63 .69 .50	.31
PVC21	1.0	1.75 .88 .63	.58
PVC22	2.0	1.78 1.15 .94	.70

400 WVDC, 1000 V SURGE

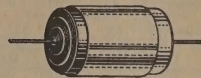
Mallory No.	Cap., μ F	Size, Inches L. x H. x T.	Net Each
PVC4222	.0022	.63 .31 .22	\$0.15
PVC4247	.0047	.63 .38 .22	.16
PVC412	.02	.63 .38 .22	.17
PVC4147	.047	.94 .46 .28	.19
PVC415	.05	.94 .46 .31	.19
PVC401	1	1.22 .53 .38	.21
PVC4022	2.2	1.46 .66 .46	.31
PVC4025	2.5	1.46 .66 .46	.31
PVC404	4	1.75 .73 .56	.40
PVC4047	4.7	1.75 .78 .59	.45
PVC405	5	1.75 .81 .63	.46
PVC4056	5.6	1.78 .84 .66	.49

600 WVDC, 1500 V SURGE

Mallory No.	Cap., μ F	Size, Inches L. x H. x T.	Net Each
PVC621	.001	.63 .31 .22	\$0.15
PVC6212	.0012	.63 .31 .22	.16
PVC6215	.0015	.63 .31 .22	.16
PVC622	.002	.63 .31 .22	.17
PVC6222	.0022	.63 .31 .22	.17
PVC6225	.0025	.63 .31 .22	.17
PVC623	.003	.63 .38 .22	.18
PVC6233	.0033	.63 .38 .22	.18
PVC6239	.0039	.63 .38 .22	.18
PVC624	.004	.63 .38 .22	.18
PVC6247	.0047	.63 .38 .22	.18
PVC625	.005	.63 .38 .22	.18
PVC6256	.0056	.63 .38 .22	.18
PVC626	.006	.63 .38 .22	.18
PVC6268	.0068	.63 .38 .25	.18
PVC6275	.0075	.63 .38 .25	.18
PVC628	.008	.63 .38 .25	.18
PVC611	.01	.75 .38 .25	.18
PVC6112	.012	.75 .38 .25	.18
PVC6115	.015	.81 .41 .28	.18
PVC612	.02	.94 .41 .28	.18
PVC6122	.022	.94 .47 .28	.18
PVC6125	.025	.94 .47 .28	.18
PVC613	.03	1.10 .50 .31	.21
PVC6133	.033	1.10 .50 .31	.21
PVC6135	.035	1.22 .50 .31	.21
PVC614	.04	1.22 .50 .31	.21
PVC6147	.047	1.22 .50 .34	.24
PVC615	.05	1.22 .53 .34	.24
PVC6156	.056	1.22 .53 .38	.24
PVC6168	.068	1.22 .59 .41	.28
PVC601	1	1.34 .63 .46	.31
PVC6015	1.5	1.63 .66 .46	.31
PVC602	2	1.75 .69 .50	.39
PVC6022	2.2	1.75 .72 .53	.40
PVC6025	2.5	1.75 .75 .56	.40
PVC6033	3.3	1.78 .84 .66	.46
PVC6047	4.7	1.78 1.00 .78	.61
PVC61	1.0	2.31 1.13 .94	1.05

600 VOLT

POLYSTYRENE CAPACITORS



Manufactured from a unique form of stretched and fused polystyrene to provide the ultimate in temperature stability and humidity protection. Can replace mica, film, paper and ceramic types in most applications. Full coverage includes 73 standard ratings from 5 pF to .01 μ F. **Insulation Resistance:** Greater than 100,000 megohms. **Power Factor:** Less than 0.05%. **Temperature Coefficient:** -150 ppm/°C. ± 60 ppm/°C. **Temperature Range:** -40° C to +85° C for best operating stability; -10° C to +70° C. **Voltage:** 600 WVDC; surge, 1500 VDC. **Tolerance:** $\pm 5\%$. Sizes shown are $\pm .010$ " dia. $\times .032$ " lg. Ask for Bulletin 9-370 for complete specifications.

Mallory No.	Cap., μ F	Size, In. Dia. x L.	Net Each
SX550	5	.165 x .395	12c
SX568	6.8	.166 x .395	12c
SX410	10	.167 x .395	12c
SX412	12	.167 x .395	12c
SX415	15	.168 x .395	12c
SX418	18	.169 x .395	12c
SX420	20	.170 x .395	12c
SX422	22	.170 x .395	12c
SX424	24	.171 x .395	12c
SX427	27	.172 x .395	12c
SX430	30	.173 x .395	12c
SX433	33	.173 x .395	12c
SX436	36	.174 x .395	12c
SX437	39	.175 x .395	12c
SX438	42	.176 x .395	12c
SX447	47	.178 x .395	12c
SX456	56	.180 x .395	12c
SX462	62	.182 x .395	12c
SX468	68	.184 x .395	12c
SX475	75	.186 x .395	12c
SX482	82	.189 x .395	12c
SX491	91	.192 x .395	12c
SX310	100	.195 x .395	12c
SX311	110	.198 x .395	12c
SX312	120	.201 x .395	12c
SX313	130	.204 x .395	12c
SX315	150	.210 x .395	12c
SX316	160	.213 x .395	12c
SX318	180	.221 x .395	12c
SX320	200	.227 x .395	12c
SX322	220	.233 x .395	12c
SX324	240	.239 x .395	12c
SX327	270	.248 x .395	12c
SX330	300	.255 x .395	12c
SX333	330	.194 x .590	12c
SX336	360	.195 x .590	12c
SX339	390	.197 x .590	12c
SX343	430	.200 x .590	12c
SX347	470	.202 x .590	12c
SX351	510	.204 x .590	12c
SX356	560	.207 x .590	12c
SX362	620	.211 x .590	12c
SX368	680	.215 x .590	12c
SX375	750	.219 x .590	12c
SX382	820	.223 x .590	12c
SX391	910	.228 x .590	12c
SX210	1,000	.233 x .590	12c
SX211	1,100	.238 x .590	15c
SX212	1,200	.245 x .590	15c
SX213	1,300	.250 x .590	15c
SX215	1,500	.262 x .590	15c
SX216	1,600	.267 x .590	15c
SX218	1,800	.279 x .590	15c
SX220	2,000	.291 x .590	15c
SX222	2,200	.300 x .590	15c
SX224	2,400	.314 x .590	15c
SX225	2,500	.320 x .590	15c
SX227	2,700	.327 x .590	15c
SX230	3,000	.348 x .590	15c
SX233	3,300	.366 x .590	18c
SX236	3,600	.383 x .590	18c
SX239	3,900	.402 x .590	18c
SX243	4,300	.425 x .590	18c
SX247	4,700	.448 x .590	18c
SX250	5,000	.465 x .590	18c
SX251	5,100	.470 x .590	18c
SX256	5,600	.465 x .790	11c
SX262	6,200	.480 x .790	11c
SX268	6,800	.500 x .790	11c
SX275	7,500	.520 x .790	11c
SX282	8,200	.545 x .790	11c
SX291	9,100	.565 x .790	11c
SX310	10,000	.590 x .790	11c

Mallory Ceramic Capacitors

DISCAP® ceramic disc capacitors offer the widest range of types available. Meet or exceed all requirements of EIA Specification RS-198, Class 2.

LOW VOLTAGE MAGNACAPS

For low-voltage transistor circuits; rated 3, 12 and 25 WVDC. Tol.: -20%, +80%. Power Factor: 3% at 3 WVDC; 5% at 12 and 25 WVDC. Temp. Coef.: ±22%. Temp. Range: -55° C to +85° C.

Mallory No.	Cap., pF	WV DC	IR* Ohms	Net Ea.
MAG315	.05	3	80K	.265 58c
MAG301	.12	3	40K	.265 42c
MAG3022	.22	3	18K	.310 24c
MAG3047	.47	3	9K	.425 24c
MAG310	1.0	3	4K	.615 36c
MAG32P2	2.2	3	1820	.880 40c
MAG1215	.05	12	800K	.290 18c
MAG1201	.1	12	400K	.400 18c
MAG12022	.22	12	180K	.550 24c
MAG12047	.47	12	85K	.775 42c
MAG121	1.0	12	40K	1.100 58c
MAG2511	.01	25	10 megs	.265 18c
MAG2512	.02	25	10 megs	.340 18c
MAG2515	.05	25	10 megs	.480 18c
MAG2501	.10	25	10 megs	.650 21c
MAG25022	.22	25	10 megs	.910 39c

*Insulation resistance.

MINIATURE 100 VOLTS

High capacity miniatures rated 100 WVDC; flash, 200 VDC. Tol.: -20%, +80%. Power Factor: 3% max. at 1 kc. Insul. Resist.: 7500 megs min. Temp. Coef.: ±22%. -56% (+10° C to +85° C).

Mallory No.	Cap., pF	Net Ea.	Mallory No.	Cap., pF	Net Ea.
TA250*	.005	12c	TA125†	.025	18c
TA110*	.01	12c	TA150†	.05	21c
TA120*	.02	18c	TA101‡	.1	52c

Dia.: *1/16"; †3/32"; ‡5/16".

MINIATURE 500 VOLTS

Miniature bypass types rated 500 WVDC; flash 1250 VDC. Tol.: ±20% except, *GMV. Power Factor: 1.5% max. at 1 kc. Insul. Resist.: 7500 megs min. Temp. Coef.: ±22%. -56% (+10° C to +85° C).

Mallory No.	Cap., pF	Net Ea.	Mallory No.	Cap., pF	Net Ea.
SM215*	.001	9c	SM110†	.01	12c
SM215*	.0015	9c	SM120†	.02	15c
SM250†	.005	9c			

Dia.: *3/64"; †1/8"; ‡1/4"; §1/2"; §1/2".

GENERAL PURPOSE 1000 VOLTS

Rated 1000 WVDC except 40K and 50K pF units, 500 WVDC.

Mallory No.	Cap., pF	Net Ea.	Mallory No.	Cap., pF	Net Ea.
GP533*	3.3	12c	GP336*	360	12c
GP550*	5.0	12c	GP335*	390	12c
GP568*	6.8	12c	GP340*	400	12c
GP580*	8.0	12c	GP347*	470	12c
GP410*	10	12c	GP350*	500	12c
GP412*	12	12c	GP356*	560	12c
GP415*	15	12c	GP360*	600	12c
GP418*	18	12c	GP368*	680	12c
GP420*	20	12c	GP375*	750	12c
GP422*	22	12c	GP382*	820	12c
GP425*	25	12c	GP390*	900	12c
GP427*	27	12c	GP212†	1200	12c
GP430*	30	12c	GP215†	1500	12c
GP433*	33	12c	GP216†	1600	12c
GP439*	39	12c	GP218†	1800	12c
GP447*	47	12c	GP220†	2000	12c
GP450*	50	12c	GP222†	2200	12c
GP456*	56	12c	GP225†	2500	12c
GP468*	68	12c	GP227†	2700	12c
GP475†	75	12c	GP230†	3000	12c
GP482†	82	12c	GP233†	3300	12c
GP491†	91	12c	GP235†	3500	12c
GP310†	100	12c	GP240†	4000	12c
GP312†	120	12c	GP243†	4300	12c
GP313†	130	12c	GP247†	4700	12c
GP315†	150	12c	GP250†	5000	12c
GP318†	180	12c	GP256†	5600	12c
GP320†	200	12c	GP260†	6000	12c
GP322†	220	12c	GP275	7500	15c
GP324†	240	12c	GP110*	10K	15c
GP325†	250	12c	GP115*	15K	15c
GP327†	270	12c	GP120*	20K	21c
GP330†	300	12c	GP130*	30K	21c
GP333†	330	12c	GP140*	40K	21c
GP335†	350	12c	GP150*	50K	36c

Max. dia.: *0.29"; *0.40"; *0.54"; *0.62"; *0.38"; *0.77"; *0.65"; *0.95"; *0.83".

DUAL-SHIELDED BYPASS

Same as B types except dual back-to-back shielded; Tol.: ±20%; 3 leads.

Mallory No.	Cap., pF	Dia., in.	Net Each
B2X210	2 x .001	.290	30c
B2X215	2 x .0015	.400	30c
B2X220	2 x .002	.400	30c
B2X230	2 x .003	.560	30c
B2X250	2 x .005	.650	30c
B2X100	2 x .01	.800	30c

HEAVY-DUTY BYPASS

High reliability; rated 1000 WVDC for bypass and audio coupling; 2000 VDC flash. Tol.: GMV† except B115 and B120, -20%, +80%. Power Factor: 1.5% max. at 1 kc. Insul. Resist.: 7500 megs min. Temp. Coef.: ±22%. -56% (+10° C to +85° C); stamped ZBU.

Mallory No.	Cap., pF	Net Ea.	Mallory No.	Cap., pF	Net Ea.
B315*	150	12c	B220†	2000	12c
B318*	180	12c	B222†	2200	12c
B322*	220	12c	B227†	2700	12c
B327*	270	12c	B233†	3300	12c
B333*	330	12c	B240†	4000	12c
B339*	390	12c	B247†	4700	12c
B347*	470	12c	B250†	5000	12c
B350*	500	12c	B256†	5600	12c
B356*	560	12c	B260†	6000	12c
B368*	680	12c	B268†	6800	12c
B382*	820	12c	B282†	8200	12c
B210*	1000	12c	B110*	10K	12c
B12*	1200	12c	B115*	15K	15c
B215*	1500	12c	B120*	20K	21c
B218†	1800	12c			

Dia.: *5/16"; †3/8"; ‡1/2"; §5/8"; §1/2"; §1/2".

TEMPERATURE COMPENSATING

Stocked in both NPO (CNO) and N750 (CN7) values. Others, from P100 to N5200 available. Rated 1000 WVDC; 2000 VDC flash. Tol.: ±1.47%; ±0.25 pF, all others, ±5%. Power Factor: 0.1% max. at 1 Mc. Insul. Resist.: 7500 megs min. Temp. Coef.: NPO or N750 (see tables). Temp. Range: -55° C to +85° C.

CNO (+.5%, -1.25%) COEFFICIENT					
CN0510*	1	12c	CN0427†	27	12c
CN0515*	1.5	12c	CN0433†	33	12c
CN0522*	2.2	12c	CN0439†	39	12c
CN0533*	3.3	12c	CN0447†	47	12c
CN0547*	4.7	12c	CN0456†	56	12c
CN0568*	6.8	12c	CN0468†	68	12c
CN0410*	10	12c	CN0475†	75	12c
CN0412*	12	12c	CN0482†	82	12c
CN0415*	15	12c	CN0491†	91	12c
CN0418*	18	12c	CN0312†	120	15c
CN0420*	20	12c	CN0315†	150	15c
CN0422*	22	12c	CN0318†	180	15c
CN0425†	25	12c			

N750 (-1.5%, -5%) COEFFICIENT

CN7522*	2.2	12c	CN7447†	47	12c
CN7533*	3.3	12c	CN7456†	56	12c
CN7547*	4.7	12c	CN7468†	68	12c
CN7550*	5	12c	CN7475†	75	12c
CN7568*	6.8	12c	CN7482†	82	12c
CN7410*	10	12c	CN7310†	100	12c
CN7412*	12	12c	CN7312†	120	12c
CN7415*	15	12c	CN7315†	150	12c
CN7418*	18	12c	CN7318†	180	12c
CN7420*	20	12c	CN7320†	200	12c
CN7422*	22	12c	CN7323†	220	12c
CN7427*	27	12c	CN7327†	270	15c
CN7433*	33	12c	CN7333†	330	15c
CN7439†	39	12c			

Dia.: *5/8"; †1 1/8"; ‡1 1/4"; §1 1/2"; §1 1/2"; §1 1/2".

TEMPERATURE STABLE

Extreme temperature stability for filter networks. Rated 1000 WVDC; 2000 VDC flash. Tol.: ±10%. Power Factor: 1.5% max. at 1 kc. Insul. Resist.: 7500 megs min. Temp. Coef.: ±7.5%. Temp. Range: -55° C to +85° C.

TL310*	100	15c	TL212†	1200	15c
TL315*	150	15c	TL215†	1500	15c
TL322*	220	15c	TL218†	1800	15c
TL333*	330	15c	TL220†	2000	18c
TL347*	470	15c	TL222†	2200	18c
TL356*	560	15c	TL233†	3300	21c
TL368*	680	15c	TL239†	3900	21c
TL375*	750	15c	TL247†	4700	27c
TL382†	820	15c	TL250†	5000	27c
TL210†	1000	15c			

FREQUENCY STABLE

Capacitance changes less than 10% from 100 cps to 100 Mc. Rated 1000 WVDC; 2000 VDC flash. Tol.: ±10%. Power Factor: 1.5% max. at 1 kc. Insul. Resist.: 7500 megs min. Temp. Coef.: ±22%. -56% (+10° C to +85° C).

JF315*	150	12c	JF215†	1500	12c
JF322*	220	12c	JF220†	2000	12c
JF333*	330	12c	JF222†	2200	12c
JF347*	470	12c	JF233†	3300	12c
JF350*	500	12c	JF239†	3900	12c
JF356*	560	12c	JF247†	4700	15c
JF368*	680	12c	JF250†	5000	15c
JF375*	750	12c	JF268†	6800	15c
JF382†	820	12c	JF110†	10K	15c
JF210†	1000	12c			
JF212†	1200	12c			

Dia.: *5/8"; †1 1/8"; ‡1 1/4"; §1 1/2"; §1 1/2"; §1 1/2".

AC LINE AND BUFFER

U/L Approved for AC line bypass. Rated 1400 WVDC; 150 V rms at 60 cps; 210 VAC/DC peak; 2800 VDC flash. Tol.: ±20%. Insul. Resist.: 7500 megs min. Temp. Coef.: ±22%. -56% (+10° C to +85° C); stamped Z5U.

Mallory No.	Cap., pF	Net Ea.	Mallory No.	Cap., pF	Net Ea.
UAC210*	.001	24c	UAC250†	.005	24c
UAC220*	.002	24c	UAC250†	.006	24c
UAC222*	.0022	24c	UAC270†	.007	24c
UAC230†	.003	24c	UAC275†	.0075	24c
UAC233†	.0033	24c	UAC280†	.008	24c
UAC240†	.004	24c	UAC110†	.01	24c
UAC247†	.0047	24c	UAC120†	.02	42c

Dia.: *1/4"; †1/2"; ‡1/2".

HIGH VOLTAGE

High voltage DISCAPs for high frequency use. Rated voltages as listed, below; flash is two times rated voltage. Tol.: ±20% except type 2HV types 330 pF up and 3HV types 560 pF up which are GMV†. Power Factor: 1.5% max. at 1 kc. Insul. Resist.: 7500 megs min. Temp. Coef.: ±22%. -15% (+13%); -10% (-35° C to +85° C). Not for deflection yoke use.

Mallory No.	Cap., pF	Net Ea.	Mallory No.	Cap., pF	Net Ea.
2HV310*	100	15c	2HV210†	1000	24c
2HV312*	120	15c	2HV212†	1200	24c
2HV315*	150	15c	2HV215†	1500	24c
2HV322*	220	15c	2HV218†	1800	24c
2HV327†	270	15c	2HV222†	2200	24c
2HV333*	330	15c	2HV233†	3300	24c
2HV339*	390	15c	2HV239†	3900	24c
2HV356*	560	24c	2HV247†	4700	24c
2HV368*	680	24c	2HV268†	6800	24c
2HV375*	750	24c	2HV110†	10K	24c
2HV382†	820	24c			

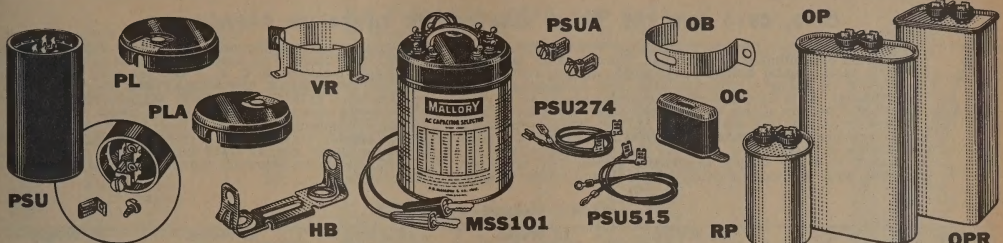
3000 WVDC

3HV322*	220	15c	3HV210†	1000	24c
3HV327†	270	15c	3HV212†	1200	24c
3HV333*	330	15c	3HV215†	1500	24c
3HV347†	470	15c	3HV218†	1800	24c
3HV356*	560	24c	3HV222†	2200	24c
3HV368*	680	24c	3HV233†	3300	24c
3HV375*	750	24c	3HV239†	3900	24c
3HV382†	820	24c	3HV247†	4700	24c

6000 WVDC

6HV310	100	36c	6HV347†	470	36c
6HV312	120	36c	6HV356†	560	36c
6HV315	150	36c	6HV368†	680	36c
6HV322	220	36c	6HV375^	750	36c
6HV327	270	36c	6HV382^	820	36c
6HV333†	330	36c	6HV210†	1000	48c

MAILORY AC Motor Capacitors



TYPE PSU MOTOR STARTING CAPACITORS

PSU capacitors are dry electrolytic non-polarized types for intermittent duty in AC motor starting circuits. Capacitors are rated at minimum to maximum microfarads. Round cases are of moisture and oil resistant molded plastic. Equipped with two quick disconnect terminals. Packed with two PSUA terminal adapters for solder or screw type connection. May be mounted by means of PL plastic end cap and HB metal snap-in bracket or VR clamp-bracket. (Order separately.)

Mailory No.	Cap., μ F	V AC	Size, In. Dia. x L.	Net 1-9*
PSU2010	20-24	110	1 1/4 x 2 3/4	\$0.74
PSU2510	26-31	110	1 1/4 x 2 3/4	.76
PSU3210	32-39	110	1 1/4 x 2 3/4	.76
PSU3810	38-46	110	1 1/4 x 2 3/4	.76
PSU4310	43-52	110	1 1/4 x 2 3/4	.76
PSU5310	53-64	110	1 1/4 x 2 3/4	.77
PSU6410	64-77	110	1 1/4 x 2 3/4	.82
PSU7010	70-84	110	1 1/4 x 2 3/4	.85
PSU7510	75-90	110	1 1/4 x 2 3/4	.92
PSU8610	86-103	110	1 1/4 x 2 3/4	.95
PSU9710	97-116	110	1 1/4 x 2 3/4	1.00
PSU10810	107-130	110	1 1/4 x 2 3/4	1.03
PSU1210	121-145	110	1 1/4 x 2 3/4	1.09
PSU13210	132-162	110	1 1/4 x 2 3/4	1.35
PSU13010	130-156	110	1 1/4 x 2 3/4	1.06
PSU14510	145-174	110	1 1/4 x 2 3/4	1.15
PSU15810	158-190	110	1 1/4 x 2 3/4	1.17
PSU16110	161-193	110	1 1/4 x 2 3/4	1.17
PSU17810	178-216	110	1 1/4 x 2 3/4	1.23
PSU19410	194-233	110	1 1/4 x 2 3/4	1.40
PSU20010	200-240	110	1 1/4 x 2 3/4	1.40
PSU21610	216-259	110	1 1/4 x 2 3/4	1.46
PSU23310	233-280	110	1 1/4 x 2 3/4	1.62
PSU24310	243-292	110	1 1/4 x 2 3/4	1.69
PSU27010	270-324	110	1 1/4 x 2 3/4	1.73
PSU28210	282-338	110	1 1/4 x 2 3/4	1.75
PSU32410	324-389	110	1 1/4 x 2 3/4	1.94
PSU34010	340-408	110	1 1/4 x 2 3/4	2.00
PSU34110	341-409	110	1 1/4 x 2 3/4	2.00
PSU37810	378-454	110	1 1/4 x 2 3/4	2.16
PSU40010	400-480	110	1 1/4 x 2 3/4	2.13
PSU43010	430-516	110	1 1/4 x 2 3/4	2.50
PSU48510	485-582	110	1 1/4 x 2 3/4	2.74
PSU4010	540-648	110	1 1/4 x 2 3/4	2.93
PSU59010	590-708	110	1 1/4 x 2 3/4	3.19
PSU3825	38-46	125	1 1/4 x 2 3/4	.83
PSU7235	72-86	125	1 1/4 x 2 3/4	.99
PSU8625	86-104	125	1 1/4 x 2 3/4	.99
PSU10825	108-130	125	1 1/4 x 2 3/4	1.10
PSU12425	124-149	125	1 1/4 x 2 3/4	1.17
PSU13025	130-156	125	1 1/4 x 2 3/4	1.17
PSU14525	145-174	125	1 1/4 x 2 3/4	1.33
PSU15825	158-193	125	1 1/4 x 2 3/4	1.33
PSU18925	189-229	125	1 1/4 x 2 3/4	1.51
PSU19225	192-230	125	1 1/4 x 2 3/4	1.55
PSU21625	216-259	125	1 1/4 x 2 3/4	1.71
PSU24325	243-292	125	1 1/4 x 2 3/4	1.87
PSU27025	270-324	125	1 1/4 x 2 3/4	1.93
PSU32425	324-389	125	1 1/4 x 2 3/4	2.09
PSU34125	341-409	125	1 1/4 x 2 3/4	2.34
PSU40025	400-480	125	1 1/4 x 2 3/4	2.43
PSU48525	485-548	125	1 1/4 x 2 3/4	2.68
PSU18965	189-227	165	1 1/4 x 2 3/4	2.61
PSU21665	216-259	165	1 1/4 x 2 3/4	2.70
PSU24365	243-292	165	1 1/4 x 2 3/4	3.10
PSU2520	25-30	220	1 1/4 x 2 3/4	1.66
PSU3230	32-38	220	1 1/4 x 2 3/4	1.76
PSU3820	38-46	220	1 1/4 x 2 3/4	1.91
PSU4320	43-52	220	1 1/4 x 2 3/4	2.00
PSU5020	50-60	220	1 1/4 x 2 3/4	2.03
PSU5320	53-64	220	1 1/4 x 2 3/4	2.07
PSU6420	64-77	220	1 1/4 x 2 3/4	2.33
PSU7020	70-84	220	1 1/4 x 2 3/4	2.52
PSU7520	75-90	220	1 1/4 x 2 3/4	2.65
PSU8620	86-103	220	1 1/4 x 2 3/4	2.75
PSU10820	108-130	220	1 1/4 x 2 3/4	2.75
PSU12120	121-145	220	1 1/4 x 2 3/4	3.10
PSU13220	132-162	220	1 1/4 x 2 3/4	3.23
PSU14120	141-169	220	1 1/4 x 2 3/4	3.37
PSU14120R	141-169	220	1 1/4 x 2 3/4	3.46
PSU14520	145-174	220	1 1/4 x 2 3/4	3.60
PSU1850R	18-22*	250	1 1/4 x 2 3/4	1.62
PSU2550	25-30	250	1 1/4 x 2 3/4	1.69
PSU3650	36-43	250	1 1/4 x 2 3/4	2.09

TYPE PSU (Continued)

Mailory No.	Cap., μ F	V AC	Size, In. Dia. x L.	Net 1-9*
PSUA350	43-53	250	1 1/4 x 3 3/4	\$2.12
PSU5050	50-60	250	1 1/4 x 3 3/4	2.07
PSU5950	59-71	250	1 1/4 x 3 3/4	2.48
PSU7550	75-90	250	1 1/4 x 3 3/4	2.61
PSU8150	81-97	250	1 1/4 x 3 3/4	2.70
PSU10850	108-130	250	1 1/4 x 3 3/4	3.38
PSU12150	121-145	250	1 1/4 x 3 3/4	3.56
PSU13550	135-162	250	1 1/4 x 3 3/4	3.71
PSU14150	141-169	250	1 1/4 x 3 3/4	4.14
PSU16150R	161-193*	250	1 1/4 x 3 3/4	4.84
PSU18950	189-227	250	1 1/4 x 3 3/4	5.20
PSU2730	27-32	330	1 1/4 x 3 3/4	1.87
PSU3430	34-42	330	1 1/4 x 3 3/4	1.94
PSU7230	72-88	330	1 1/4 x 3 3/4	3.10
PSU8130	81-90	330	1 1/4 x 3 3/4	3.60
PSU10830	108-130	330	1 1/4 x 3 3/4	4.26
PSU10830R	108-130*	330	1 1/4 x 3 3/4	4.41
PSU12430	124-149	330	1 1/4 x 3 3/4	4.91
PSU12730	127-162	330	1 1/4 x 3 3/4	4.95
PSU15330	135-162	330	1 1/4 x 3 3/4	4.85
PSU15330R	135-162*	330	1 1/4 x 3 3/4	5.11

*Furnished with Bleeder resistor.

MOTOR RUN CAPACITORS

Designed for continuous, heavy duty AC applications. Used as motor running capacitors, fluorescent light ballast, etc., where continuous duty is required. Supplied in metal cases, may be safely operated up to 10% above rated voltages and from -30° to +70° C. Impregnating oil is non-inflammable. Quick disconnect terminals have flash guards to prevent arcing. Tolerance: $\pm 10\%$.

TYPE OP (OVAL)

Mailory No.	Cap., μ F	V AC	Size, In. Dia. x L.	Net 1-9*
OP1065	10	165	1 1/4 x 2 1/4 x 2 1/4	\$3.30
OP336	3	236	1 1/4 x 2 1/4 x 2 1/4	1.51
OP436	4	236	1 1/4 x 2 1/4 x 2 1/4	1.62
OP536	5	236	1 1/4 x 2 1/4 x 2 1/4	1.80
OP736	7.5	236	1 1/4 x 2 1/4 x 2 1/4	3.35
OP1036	10	236	1 1/4 x 2 1/4 x 2 1/4	3.71
OP1536	15	236	1 1/4 x 2 1/4 x 2 1/4	4.19
OP2036	20	236	1 1/4 x 2 1/4 x 2 1/4	6.12
OP17525	17.5	250	1 1/4 x 2 1/4 x 2 1/4	5.69
OP1033	10	330	1 1/4 x 2 1/4 x 2 1/4	3.78
OP14533	14.5	330	1 1/4 x 2 1/4 x 2 1/4	4.15
OP2070B	3	370	1 1/4 x 2 1/4 x 2 1/4	1.58
OP470	6	370	1 1/4 x 2 1/4 x 2 1/4	1.69
OP570	5	370	1 1/4 x 2 1/4 x 2 1/4	2.18
OP670	6	370	1 1/4 x 2 1/4 x 2 1/4	2.76
OP7x570	7.5	370	1 1/4 x 2 1/4 x 2 1/4	3.49
OP1070	10	370	1 1/4 x 2 1/4 x 2 1/4	3.92
OP1270	12.5	370	1 1/4 x 2 1/4 x 2 1/4	4.19
OP1570B	15	370	1 1/4 x 2 1/4 x 2 1/4	4.19
OP1570	15	370	1 1/4 x 2 1/4 x 2 1/4	4.19
OP17570B	17.5	370	1 1/4 x 2 1/4 x 2 1/4	5.11
OP17570	17.5	370	1 1/4 x 2 1/4 x 2 1/4	5.11
OP2070	20	370	1 1/4 x 2 1/4 x 2 1/4	6.18
OP2570B	25	370	1 1/4 x 2 1/4 x 2 1/4	7.56
OP2570C	25	370	1 1/4 x 2 1/4 x 2 1/4	7.56
OP2570	25	370	1 1/4 x 2 1/4 x 2 1/4	7.56
OP27570	27.5	370	1 1/4 x 2 1/4 x 2 1/4	7.97
OP3070	30	370	1 1/4 x 2 1/4 x 2 1/4	8.36
OP3570	35	370	1 1/4 x 2 1/4 x 2 1/4	8.74
OP17D570	17.5	570	1 1/4 x 2 1/4 x 2 1/4	5.86
OP20D570	20	570	1 1/4 x 2 1/4 x 2 1/4	6.75
OP25D570	25	570	1 1/4 x 2 1/4 x 2 1/4	8.42
OP30D570	30	570	1 1/4 x 2 1/4 x 2 1/4	9.76
OP35D570	35	570	1 1/4 x 2 1/4 x 2 1/4	10.92
OP240	2	440	1 1/4 x 2 1/4 x 2 1/4	1.96
OP340	3	440	1 1/4 x 2 1/4 x 2 1/4	2.09
OP440	4	440	1 1/4 x 2 1/4 x 2 1/4	2.32
OP540	5	440	1 1/4 x 2 1/4 x 2 1/4	2.88
OP740	7.5	440	1 1/4 x 2 1/4 x 2 1/4	3.76
OP1040	10	440	1 1/4 x 2 1/4 x 2 1/4	4.10
OP1044	10	440	1 1/4 x 2 1/4 x 2 1/4	4.10
OP1540	15	440	1 1/4 x 2 1/4 x 2 1/4	5.69
OP17x40	17.5	440	1 1/4 x 2 1/4 x 2 1/4	6.91
OP2040	20	440	1 1/4 x 2 1/4 x 2 1/4	6.91

TYPE OP (OVAL) Continued

Mailory No.	Cap., μ F	V AC	Size, In. Dia. x L.	Net 1-9*
OP2040B	20	440	1 1/4 x 2 1/4 x 2 1/4	\$ 6.91
OP2540	25	440	1 1/4 x 2 1/4 x 2 1/4	9.77
OP3040	30	440	1 1/4 x 2 1/4 x 2 1/4	11.38
OP3540	35	440	1 1/4 x 2 1/4 x 2 1/4	12.59
OP4040	40	440	1 1/4 x 2 1/4 x 2 1/4	13.82

TYPE OPR (RECTANGULAR)

Mailory No.	Cap., μ F	V AC	Size, In. Dia. x L.	Net 1-9*
OPR2070	20	370	2 1/4 x 2 1/4 x 5 3/4	\$ 7.92
OPR2570	25	370	2 1/4 x 2 1/4 x 5 3/4	8.41
OPR2570B	25	370	2 1/4 x 2 1/4 x 5 3/4	8.41
OPR3070	30	370	2 1/4 x 2 1/4 x 5 3/4	8.93
OPR3570	35	370	2 1/4 x 2 1/4 x 5 3/4	9.32
OPR4070	40	370	2 1/4 x 2 1/4 x 5 3/4	13.18
OPR4570	45	370	2 1/4 x 2 1/4 x 5 3/4	14.44
OPR2040	20	440	2 1/4 x 2 1/4 x 5 3/4	8.14
OPR2040B	20	440	2 1/4 x 2 1/4 x 5 3/4	8.14
OPR2540	25	440	2 1/4 x 2 1/4 x 5 3/4	9.79
OPR3040	30	440	2 1/4 x 2 1/4 x 5 3/4	11.41
OPR3540	35	440	2 1/4 x 2 1/4 x 5 3/4	12.59
OPR4040	40	440	2 1/4 x 2 1/4 x 5 3/4	13.82
OPR4540	45	440	2 1/4 x 2 1/4 x 5 3/4	15.29
OPR5040	50	440	2 1/4 x 2 1/4 x 5 3/4	16.81
OPR5040	50	440	2 1/4 x 2 1/4 x 5 3/4	16.81
OPR540	55	440	2 1/4 x 2 1/4 x 5 3/4	19.72
OPR6040	60	440	2 1/4 x 2 1/4 x 5 3/4	22.62

TYPE RP (ROUND)

Mailory No.	Cap., μ F	V AC	Size, In. Dia. x L.	Net 1-9*
RP3301	1	330	1 1/4 x 1 1/4	\$1.51
RP3302	2	330	1 1/4 x 1 1/4	1.87
RP3303	3	330	1 1/4 x 1 1/4	2.23
RP3304	4	330	1 1/4 x 1 1/4	2.23
RP3305	5	330	1 1/4 x 1 1/4	2.45
RP3306	6	330	1 1/4 x 1 1/4	2.70
RP3307	7	330	1 1/4 x 1 1/4	2.84
RP3308	8	330	1 1/4 x 1 1/4	3.01
RP3310	10	330	1 1/4 x 1 1/4	3.44
RP3312	12	330	1 1/4 x 1 1/4	3.92
RP3315	15	330	1 1/4 x 1 1/4	4.97

AC CAPACITOR HARDWARE

Mailory No.	Description	Cap. in.	Net Ea.
ACR15K	5-pack: 15K ohm/2W resis.		\$0.75
PL3	End cap-wire in	1 1/4	.08
PL6	End cap-wire in	1 1/4	.10
PL8	End cap-wire in	2 1/4	.12
PL10	End cap-wire in	2 1/4	.15
PLA3	End cap-wire out	1 1/4	.08
PLA6	End cap-wire out	1 1/4	.10
PLA8	End cap-wire out	2 1/4	.12
PLA10	End cap-wire out	2 1/4	.15
HB2	Horiz. bracket	3 1/4	.13
HB4	Horiz. bracket	3 1/4	.13
HB8	Horiz. bracket	4 1/4	.15
VR1	Vert. mtg. clamp	1-1 1/4	.11
VR3	Vert. mtg. clamp	1 3/8-1 1/2	.12
VR4	Vert. mtg. clamp	1 3/8-1 1/2	.14
VR6	Vert. mtg. clamp	1 3/8-1 1/2	.14
VR8	Vert. mtg. clamp	2-2 1/4	.14
VR10	Vert. mtg. clamp	2 1/8-2 3/4	.20
VR12	Vert. mtg. clamp	3-3 3/8	.30
OB1	Mtg. clamp for OF term. cover for OF		.12
PSUA	10 term. adapters		.30
PSU274	Pair 12' leads, quick disconnect terminals		.30
PSU515	Pair 12' leads, 1 quick disconnect, 1 quick-circuit breaker		.40

MATORY Tantalum Capacitors

CS12, CS13 AND TAS SOLID ELECTROLYTE TANTALUM CAPACITORS



Ultra-miniature capacitors designed to withstand the most difficult environmental conditions. Furnished in hermetically sealed metal cases. Temperature range: -80° C to +85° C (to +125° C with derating). TAS commercial types 6 through 50 WVDC are shown on this page. TAS 75 and 100 WVDC are shown on the next page. CS12 and CS13 types are both MIL-C-26655A and MIL-C-26655B are shown on next page. **TAS ORDERING INFORMATION:** Are specified by a 13-digit part number. **Tolerance:** Specify K for ±10% or M for ±20%. **Insulating Sleeve:** TAS types are listed with uninsulated cases; for insulating sleeve, change

12th digit of part number from 0 to 1 and add 2c to prices shown. **Case Sizes:** TAS sizes are indicated by the last digit in the part number (A, C, F, & G). See price table below. **CS12/13 ORDERING INFORMATION:** Shown on next page to both MIL-C-26655A and MIL-C-26655B. Either type may be ordered. Prices are shown below by case code. **Tolerance:** Specify K for ±10% or M for ±20%. **Insulating Sleeve:** Uninsulated CS12 types are shown. For insulating sleeve, specify CS13 and add 2c to prices shown. **Case Sizes:** Shown below by code letter in listing, see price table below.

STOCK VALUES—TAS TYPES

Cap., µF	6 WVDC Mallory No.†	10 WVDC Mallory No.†	15 WVDC Mallory No.†	20 WVDC Mallory No.†	35 WVDC Mallory No.†	50 WVDC Mallory No.†
.0047	TAS472*006P0A	TAS472*010P0A	TAS472*015P0A	TAS472*020P0A	TAS472*035P0A*	TAS472*050P0A*
.0056	TAS562K006P0A	TAS562K010P0A	TAS562K015P0A	TAS562K020P0A	TAS562K035P0A*	TAS562K050P0A*
.0068	TAS682*006P0A	TAS682*010P0A	TAS682*015P0A	TAS682*020P0A	TAS682*035P0A*	TAS682*050P0A*
.0082	TAS822K006P0A	TAS822K010P0A	TAS822K015P0A	TAS822K020P0A	TAS822K035P0A*	TAS822K050P0A*
.010	TAS103*006P0A	TAS103*010P0A	TAS103*015P0A	TAS103*020P0A	TAS103*035P0A*	TAS103*050P0A*
.012	TAS123K006P0A	TAS123K010P0A	TAS123K015P0A	TAS123K020P0A	TAS123K035P0A*	TAS123K050P0A*
.015	TAS153*006P0A	TAS153*010P0A	TAS153*015P0A	TAS153*020P0A	TAS153*035P0A*	TAS153*050P0A*
.018	TAS183K006P0A	TAS183K010P0A	TAS183K015P0A	TAS183K020P0A	TAS183K035P0A*	TAS183K050P0A*
.022	TAS223*006P0A	TAS223*010P0A	TAS223*015P0A	TAS223*020P0A	TAS223*035P0A*	TAS223*050P0A*
.027	TAS273K006P0A	TAS273K010P0A	TAS273K015P0A	TAS273K020P0A	TAS273K035P0A*	TAS273K050P0A*
.033	TAS333*006P0A	TAS333*010P0A	TAS333*015P0A	TAS333*020P0A	TAS333*035P0A*	TAS333*050P0A*
.039	TAS393K006P0A	TAS393K010P0A	TAS393K015P0A	TAS393K020P0A	TAS393K035P0A*	TAS393K050P0A*
.047	TAS473*006P0A	TAS473*010P0A	TAS473*015P0A	TAS473*020P0A	TAS473*035P0A*	TAS473*050P0A*
.056	TAS563K006P0A	TAS563K010P0A	TAS563K015P0A	TAS563K020P0A	TAS563K035P0A*	TAS563K050P0A*
.068	TAS683*006P0A	TAS683*010P0A	TAS683*015P0A	TAS683*020P0A	TAS683*035P0A*	TAS683*050P0A*
.082	TAS823K006P0A	TAS823K010P0A	TAS823K015P0A	TAS823K020P0A	TAS823K035P0A*	TAS823K050P0A*
.10	TAS104*006P0A	TAS104*010P0A	TAS104*015P0A	TAS104*020P0A	TAS104*035P0A*	TAS104*050P0A*
.12	TAS124K006P0A	TAS124K010P0A	TAS124K015P0A	TAS124K020P0A	TAS124K035P0A*	TAS124K050P0A*
.15	TAS154*006P0A	TAS154*010P0A	TAS154*015P0A	TAS154*020P0A	TAS154*035P0A*	TAS154*050P0A*
.18	TAS184K006P0A	TAS184K010P0A	TAS184K015P0A	TAS184K020P0A	TAS184K035P0A*	TAS184K050P0A*
.22	TAS224*006P0A	TAS224*010P0A	TAS224*015P0A	TAS224*020P0A	TAS224*035P0A*	TAS224*050P0A*
.27	TAS274K006P0A	TAS274K010P0A	TAS274K015P0A	TAS274K020P0A	TAS274K035P0A*	TAS274K050P0A*
.33	TAS334*006P0A	TAS334*010P0A	TAS334*015P0A	TAS334*020P0A	TAS334*035P0A*	TAS334*050P0A*
.39	TAS394K006P0A	TAS394K010P0A	TAS394K015P0A	TAS394K020P0A	TAS394K035P0A*	TAS394K050P0A*
.47	TAS474*006P0A	TAS474*010P0A	TAS474*015P0A	TAS474*020P0A	TAS474*035P0A*	TAS474*050P0A*
.56	TAS564K006P0A	TAS564K010P0A	TAS564K015P0A	TAS564K020P0A	TAS564K035P0A*	TAS564K050P0A*
.68	TAS684*006P0A	TAS684*010P0A	TAS684*015P0A	TAS684*020P0A	TAS684*035P0A*	TAS684*050P0A*
.82	TAS824K006P0A	TAS824K010P0A	TAS824K015P0A	TAS824K020P0A	TAS824K035P0A*	TAS824K050P0A*
1.0	TAS105*006P0A	TAS105*010P0A	TAS105*015P0A	TAS105*020P0A	TAS105*035P0A*	TAS105*050P0A*
1.2	TAS125K006P0A	TAS125K010P0A	TAS125K015P0A	TAS125K020P0A*	TAS125K035P0C*	TAS125K050P0C*
1.5	TAS155*006P0A	TAS155*010P0A	TAS155*015P0A	TAS155*020P0A*	TAS155*035P0C*	TAS155*050P0C*
1.8	TAS185K006P0A	TAS185K010P0A	TAS185K015P0A	TAS185K020P0A*	TAS185K035P0C*	TAS185K050P0C*
2.2	TAS225*006P0A	TAS225*010P0A	TAS225*015P0A	TAS225*020P0A*	TAS225*035P0C*	TAS225*050P0C*
2.7	TAS275K006P0A	TAS275K010P0A	TAS275K015P0A*	TAS275K020P0C*	TAS275K035P0C*	TAS275K050P0C*
3.3	TAS335*006P0A	TAS335*010P0A	TAS335*015P0A*	TAS335*020P0C*	TAS335*035P0C*	TAS335*050P0C*
3.9	TAS395K006P0A	TAS395K010P0A*	TAS395K015P0C*	TAS395K020P0C*	TAS395K035P0C*	TAS395K050P0C*
4.7	TAS475*006P0A	TAS475*010P0A*	TAS475*015P0C*	TAS475*020P0C*	TAS475*035P0C*	TAS475*050P0C*
5.6	TAS565K006P0A*	TAS565K010P0C*	TAS565K015P0C*	TAS565K020P0C*	TAS565K035P0C*	TAS565K050P0C*
6.8	TAS685*006P0A*	TAS685*010P0C*	TAS685*015P0C*	TAS685*020P0C*	TAS685*035P0C*	TAS685*050P0C*
8.2	TAS825K006P0C	TAS825K010P0C	TAS825K015P0C	TAS825K020P0C*	TAS825K035P0C*	TAS825K050P0C*
10	TAS106*006P0C	TAS106*010P0C	TAS106*015P0C	TAS106*020P0C*	TAS106*035P0F*	TAS106*050P0F*
12	TAS126K006P0C	TAS126K010P0C	TAS126K015P0C	TAS126K020P0C*	TAS126K035P0F*	TAS126K050P0F*
15	TAS156*006P0C	TAS156*010P0C	TAS156*015P0C	TAS156*020P0C*	TAS156*035P0F*	TAS156*050P0F*
18	TAS186K006P0C	TAS186K010P0C	TAS186K015P0C*	TAS186K020P0F*	TAS186K035P0F*	TAS186K050P0F*
22	TAS226*006P0C	TAS226*010P0C	TAS226*015P0C*	TAS226*020P0F*	TAS226*035P0F*	TAS226*050P0F*
27	TAS276K006P0C	TAS276K010P0C*	TAS276K015P0F	TAS276K020P0F*	TAS276K035P0G*	TAS276K050P0G*
33	TAS336*006P0C	TAS336*010P0C*	TAS336K015P0F	TAS336K020P0F*	TAS336K035P0G*	TAS336K050P0G*
39	TAS396K006P0C	TAS396K010P0C*	TAS396K015P0F	TAS396K020P0F*	TAS396K035P0G*	TAS396K050P0G*
47	TAS476*006P0C*	TAS476*010P0F	TAS476*015P0F	TAS476*020P0F*	TAS476*035P0G	TAS476*050P0G
56	TAS566K006P0C*	TAS566K010P0F	TAS566K015P0F*	TAS566K020P0G*	TAS566K035P0G	TAS566K050P0G
68	TAS686*006P0F	TAS686*010P0F	TAS686*015P0F*	TAS686*020P0G*	TAS686M035P0G	TAS686M050P0G
82	TAS826K006P0F	TAS826K010P0F*	TAS826K015P0G	TAS826K020P0G*		
100	TAS107*006P0F	TAS107*010P0F*	TAS107*015P0G	TAS107*020P0G*		
120	TAS127K006P0F	TAS127K010P0F*	TAS127K015P0G*			
150	TAS157*006P0F	TAS157*010P0G	TAS157*015P0G*			
180	TAS187K006P0F*	TAS187K010P0G*				
220	TAS227*006P0G	TAS227*010P0G*				
270	TAS277K006P0G*					
330	TAS337*006P0G*					

*Specify K for ±10% tolerance or M for ±20%. *Parent value; Max. WVDC vs. capacity, size and price. †Last letter indicates size; see pricing below.

TAS AND CS12/13 INDUSTRIAL NET PRICES

Prices shown are for bare metal case types. Add 2c for types with insulating sleeve; add .010" dia. for sleeve.

FOR 6, 10, 15, 20 AND 35 WVDC

Case Code	Case Size, inches Dia. x L.	WVDC	Capacity Range,	For ±10% Tol. (K), Net Each					For ±20% Tol. (M), Net Each				
				1-24	25-49	50-99	100-499	500-999	1-24	25-49	50-99	100-499	500-999
A	.125 x .250	6, 10, 15, 20, 35	.0047-6.8	\$1.32	\$1.05	\$0.73	\$0.60	\$0.51	\$1.29	\$1.03	\$0.70	\$0.57	\$0.48
C	.175 x .438	6, 10, 15, 20, 35	1.2-56	1.33	1.23	1.15	.62	.52	1.29	1.14	.72	.59	.49
F	.279 x .650	6, 10, 15, 20, 35	18-180	2.21	1.77	1.33	1.14	.92	2.18	1.74	1.30	1.07	.89
			8.2-22	2.53	2.03	1.40	1.14	.95	2.50	2.00	1.37	1.11	.93
G	.341 x .750	6, 10, 15, 20, 35	56-330	4.48	3.53	2.32	1.89	1.58	4.45	3.50	2.29	1.86	1.55
			27-33	4.53	3.63	2.51	2.03	1.79	4.50	3.60	2.48	2.00	1.68
			39-47	4.73	3.78	2.78	2.27	1.89	4.70	3.75	2.75	2.24	1.86
			68						5.30	4.25	3.14	2.45	2.34

FOR 50 WVDC

Case Code	Case Size, inches Dia. x L.	WVDC	Capacity Range,	\$2.45	\$1.97	\$1.66	\$1.43	\$1.29	\$1.09	\$1.50	\$1.28	\$1.09	\$1.00
A	.125 x .250	50	0.47-1.0										
C	.175 x .438	50	1.2-4.7	2.60	2.08	1.75	1.50	1.37	2.00	1.60	1.35	1.15	1.05
F	.279 x .650	50	1.6-18	4.25	3.40	2.88	2.45	2.24	3.25	2.60	2.10	1.75	1.55
G	.341 x .750	50	22	7.95	6.35	5.35	4.58	4.18	6.10	4.90	4.15	3.50	3.22

MALLORY

Tantalum Capacitors

For bare metal case, order CS12 as listed. For insulating sleeve, specify CS13.

MIL-C-26655A, CS12 AND CS13

6 WVDC			15 WVDC			35 WVDC			50 WVDC		
Cap., μ F	Mallory Number	Size	Cap., μ F	Mallory Number	Size	Cap., μ F	Mallory Number	Size	Cap., μ F	Mallory Number	Size
5.6	CS12AB5R6K	A	2.7	CS12AD2R7K	A	.33	CS12AFR33*	A	1.0	CS12AG010*	A
6.8	CS12AB6R8*	A	3.3	CS12AD3R3*	A	.39	CS12AFR39K	A	1.2	CS12AG1R2K	A
47	CS12AB470*	C	18	CS12AD180K	C	.47	CS12AFR47*	A	1.5	CS12AG1R5*	C
56	CS12AB560K	C	22	CS12AD220*	C	.56	CS12AFR56K	A	1.8	CS12AG1R8K	C
150	CS12AB151*	F	56	CS12AD560K	F	.68	CS12AFR68*	A	2.2	CS12AG2R2*	C
180	CS12AB181K	F	68	CS12AD380*	F	.82	CS12AFR82K	A	2.7	CS12AG2R7K	C
270	CS12AB271K	G	120	CS12AD121K	G	1.0	CS12AF100*	A	3.3	CS12AG3R3*	C
330	CS12AB331*	G	150	CS12AD151*	G	1.2	CS12AF1R2K	C	3.9	CS12AG3R9K	C
						1.5	CS12AF1R5*	C	4.7	CS12AG4R7*	C
						1.8	CS12AF1R8K	C	5.6	CS12AG5R6K	F
						2.2	CS12AF2R2*	C	6.8	CS12AG6R8*	F
						2.7	CS12AF2R7K	C	8.2	CS12AG8R2K	F
						3.3	CS12AF3R3*	C	10	CS12AG100*	F
						3.9	CS12AF3R9K	C	12	CS12AG120K	F
						4.7	CS12AF4R7*	C	15	CS12AG150*	F
						5.6	CS12AF5R6K	C	18	CS12AG180K	F
						6.8	CS12AF6R8*	C	22	CS12AG220*	F
						8.2	CS12AF8R2K	F			
						10	CS12AF100*	F			
						12	CS12AF120K	F			
						15	CS12AF150*	F			
						18	CS12AF180K	F			
						22	CS12AF220*	F			
						27	CS12AF270K	G			
						33	CS12AF330*	G			
						39	CS12AF390K	G			
						47	CS12AF470*	G			

*Specify tolerance: K = $\pm 10\%$; M = $\pm 20\%$. For case sizes, see pricing table.

SEE PREVIOUS PAGE FOR PRICING, CASE SIZE AND ORDERING INFORMATION

For bare metal case, order CS12 as listed. For insulating sleeve, specify CS13.

MIL-C-26655B, CS12 AND CS13

6 WVDC			15 WVDC			35 WVDC			50 WVDC		
Cap., μ F	Mallory Number	Size	Cap., μ F	Mallory Number	Size	Cap., μ F	Mallory Number	Size	Cap., μ F	Mallory Number	Size
5.6	CS12B56S5*	A	2.7	CS12BD275K	A	.33	CS12BF334*	A	1.0	CS12BG105*	A
6.8	CS12B68S5*	A	3.3	CS12BD335*	A	.39	CS12BF394K	A	1.2	CS12BG125K	A
47	CS12B47S5*	C	18	CS12BD186K	C	.47	CS12BF474*	A	1.5	CS12BG155*	C
56	CS12B56S6K	C	22	CS12BD226*	C	.56	CS12BF564K	A	1.8	CS12BG185K	C
150	CS12B157*	F	56	CS12BD566K	F	.68	CS12BF684*	A	2.2	CS12BG225*	C
180	CS12B187K	F	68	CS12BD686*	F	.82	CS12BF824K	A	2.7	CS12BG275K	C
270	CS12B277K	G	120	CS12BD127K	G	1.0	CS12BF105*	A	3.3	CS12BG335*	C
330	CS12B337*	G	150	CS12BD157*	G	1.2	CS12BF125K	C	3.9	CS12BG395K	C
						1.5	CS12BF155*	C	4.7	CS12BG475*	C
						1.8	CS12BF185K	C	5.6	CS12BG565K	F
						2.2	CS12BF225*	C	6.8	CS12BG685*	F
						2.7	CS12BF275K	C	8.2	CS12BG825K	F
						3.3	CS12BF335*	C	10	CS12BG106*	F
						3.9	CS12BF395K	C	12	CS12BG126K	F
						4.7	CS12BF475*	C	15	CS12BG156*	F
						5.6	CS12BF565K	C	18	CS12BG186K	F
						6.8	CS12BF685K	C	22	CS12BG226*	G
						8.2	CS12BF825K	F			
						10	CS12BF106*	F			
						12	CS12BF126K	F			
						15	CS12BF156*	F			
						18	CS12BF186K	F			
						22	CS12BF226*	F			
						27	CS12BF276K	G			
						33	CS12BF336*	G			
						39	CS12BF396K	G			
						47	CS12BF476*	G			

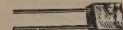
*Specify tolerance: K = $\pm 10\%$; M = $\pm 20\%$. For case sizes, see pricing table.

SEE PREVIOUS PAGE FOR PRICING, CASE SIZE AND ORDERING INFORMATION

Higher voltage versions of the TAS types listed on the previous page. Case sizes remain the same as the lower voltage versions. Furnished in hermetically sealed metal cases for maximum environmental

protection. Available with shrink-fit insulating sleeve (change 12th digit from 0 to 1, and add 2e to prices shown below. For complete technical details, ask for Bulletin 4-40.

TAM SOLID ELECTROLYTE



TAM

75 WVDC			100 WVDC			Case Size		
Cap., μ F	Mallory Number	Size†	Cap., μ F	Mallory Number	Size†	Size	Uninsulated	Insulated
.47	TAS474*075P0A	A	.47	TAS474*100P0A	A	A	.125 x .250	.135 x .286
.56	TAS564K075P0A	A	.56	TAS564K100P0A	A	A	.175 x .438	.185 x .474
.68	TAS684*075P0A	C	.68	TAS684*100P0C	C	C		
.82	TAS824K075P0C	C	.82	TAS824K100P0C	C	C		
1.0	TAS105*075P0C	C	1.0	TAS105*100P0C	C	C		
1.2	TAS125K075P0C	C	1.2	TAS125K100P0C	C	C		
1.5	TAS155*075P0C	C	1.5	TAS155*100P0C	C	C		
1.8	TAS185K075P0C	C	1.8	TAS185K100P0C	C	C		
2.2	TAS225*075P0C	C	2.2	TAS225*100P0C	C	C		
2.7	TAS275K075P0C	C	2.7	TAS275K100P0C	C	C		
3.3	TAS335*075P0C	C						

*Specify K for $\pm 10\%$ tol., M for $\pm 20\%$.

Case Sizes			Net Each, Lots of		
Size	Uninsulated	Insulated	†	1-24	25-49
A	.125 x .250	.135 x .286	A	\$7.95	\$4.55
C	.175 x .438	.185 x .474	C	8.40	4.80

†325" w. x .175" d. x .425" h.

Case Size			Net Each, Lots of		
Size	Uninsulated	Insulated	†	1-24	25-49
A	\$4.70	\$2.70	A	\$6.10	\$3.50
C	4.95	2.85	C	6.45	3.70

Mallory TAM tantalum capacitors are made to the same exacting standards as the TAS types. The TAM is designed for printed circuit board applications and has parallel leads $1\frac{1}{4}$ " long spaced .200" apart. Case is premolded plastic with polarity markings on the top. Temperature range is -55°C to $+85^{\circ}\text{C}$. Standard tolerance: $\pm 20\%$. Stability and life characteristics are ideal for low voltage, low impedance transistorized circuits. Complete technical specifications and typical life test data is given in Technical Bulletin 4-47.

Cap., μ F	WVDC	Mallory Number	Case Size†
56	6	TAM566M006P5C	C
33	10	TAM336M010P5C	C
39	10	TAM396M010P5C	C
22	15	TAM226M015P5C	C
6.8	25	TAM685M025P5C	C
10	25	TAM106M025P5C	C
15	25	TAM156M025P5C	C
4.7	35	TAM475M035P5C	C

†325" w. x .175" d. x .425" h.

MALLORY

Dry Electrolytic Capacitors

FP-WP AND PFP-PWP—QUADS (CONTINUED)

Mallory No.	Capacity, μ F	WVDC	* Net Each	Mallory No.	Capacity, μ F	WVDC	* Net Each
FP417.2A	20-150-150-100	300-300-150-30	\$3.09	FP422.9	10-100-20-20	450-300-300-300	h \$3.15
FP417.3A	10-200-140-30	300-150-150-150	3.06	FP423.4	10-40-100-100	450-350-250-50	h 3.33
FP417.8A	10-200-200-30	300-150-150-150	3.21	WP423.5	10-15-100-20	450-350-300-300	i 3.17
FP417.9A	10-20-10-20	300-200-150-50	2.91	FP424.1	10-100-10-20	450-350-350-25	h 3.12
FP419A	200-20-100-20	300-250-50-25	3.48	FP424.3A	20-80-50-100	450-350-350-50	j 3.60
FP419.11	60-5-50-20	300-300-50-50	2.16	FP425	30-40-40-10	450-350-350-200	h 3.09
FP418.7A	140-10-10-100	300-300-150-50	2.97	FP425.6	40-100-20-10	450-350-350-350	l 3.84
FP419.4A	100-10-20-30	300-300-150-150	3.54	FP425.1A	80-10-40-30	450-400-300-300	3.48
FP419.1A	150-20-10-250	300-300-250-50	h 2.83	FP426	80-10-50-20	450-400-350-25	h 3.48
FP419.2A	60-20-20-80	300-300-300-25	2.49	FP426.2	80-40-100-100	450-450-25-25	l 3.48
FP419.7A	60-40-20-50	300-300-300-25	2.73	FP426.5A	20-20-60-100	450-450-150-25	l 2.55
FP419.3A	60-30-10-60	300-300-300-50	2.52	FP426.9A	40-40-125-125	450-450-150-25	3.42
FP419.37A	150-30-30-150	300-300-300-50	h 3.66	FP427.5A	10-10-60-100	450-450-200-60	2.31
PFP419.42A	20-20-20-100	300-300-300-150	2.41	FP428A	40-10-35-10	450-450-200-50	2.79
FP419.39A	80-20-20-200	300-300-300-50	h 3.30	FP427.65A	40-40-100-60	450-450-200-200	g 3.63
FP419.45	120-40-40-10	300-300-300-250	3.63	FP427.67	80-50-20-50	450-450-250-50	l 3.58
FP419.53A	60-40-10-10	300-300-300-300	2.73	PFP427.69A	30-20-160-40	450-450-250-150	3.39
FP419.55A	150-100-10-10	300-300-300-300	3.96	FP427.7	10-10-10-50	450-450-300-25	2.49
WP419.55A	150-100-30-10	300-300-300-300	3.69	FP427.9A	20-20-20-10	450-450-350-350	g 2.76
FP419.52	150-150-30-30	300-300-300-300	4.17	FP428.4A	40-40-30-30	450-450-350-350	h 3.54
FP419.54A	20-20-20-20	300-300-300-300	3.87	FP428A	15-15-10-20	450-450-450-25	2.10
FP419.56	60-60-30-160	350-150-150-25	h 2.76	FP428.9	35-25-20-100	450-450-200-50	2.79
FP419.58	20-60-160-40	350-200-25-25	g 2.40	FP432A	40-10-10-250	450-450-450-25	2.82
FP414	15-80-40-200	350-200-50-25	h 2.70	FP432A.2A	40-20-20-25	450-450-450-25	2.76
FP418.3	120-20-100-20	350-250-50-25	2.58	FP436	40-20-20-40	450-450-450-25	h 2.79
WP419.585A	160-30-30-20	350-300-300-50	3.54	FP429	40-20-10-20	450-450-450-25	h 2.70
WP419.59A	40-80-10-10	350-300-300-300	g 2.72	FP429.2	40-40-30-100	450-450-450-25	3.21
FP419.51	140-100-20-20	350-300-300-300	n 3.88	FP430.6A	40-40-40-40	450-450-450-25	3.30
FP419.65A	160-60-10-4	350-300-300-300	3.84	FP430.9	40-40-15-10	450-450-450-25	3.21
FP419.6	40-10-10-25	350-300-300-50	2.25	FP430.95A	60-50-5-20	450-450-450-50	2.49
FP419.62A	60-4-100-40	350-350-25-25	2.28	FP430.97	20-20-20-20	450-450-450-50	g 2.73
FP419.61	100-4-50-50	350-350-50-25	h 3.03	FP437	20-20-20-100	450-450-450-50	h 2.82
FP419.63A	200-10-4-20	350-350-50-25	3.36	FP431.2	40-40-10-25	450-450-450-50	2.93
FP419.635	40-40-50-50	350-350-50-50	h 2.52	FP431.3A	40-40-10-50	450-450-450-50	h 3.03
FP419.64	40-20-50-25	350-350-150-25	g 2.45	FP431.5	40-20-20-40	450-450-450-50	h 3.15
FP419.649A	40-20-100-100	350-350-200-75	3.93	FP431.4B	60-40-10-25	450-450-450-50	h 3.03
FP419.67A	100-60-60-40	350-350-200-75	3.43	FP431.7A	40-40-10-100	450-450-450-100	3.18
FP419.661A	100-60-10-100	350-350-200-150	3.24	FP433A	60-10-10-20	450-450-450-150	g 2.76
FP419.66A	60-40-60-20	350-350-250-150	g 2.07	FP432.4A	40-40-30-10	450-450-450-200	h 3.51
FP419.68	15-15-15-15	350-350-300-25	2.49	FP432.8	35-15-15-25	450-450-450-250	h 3.21
35419.6	30-10-10-20	350-350-300-25	1.86	FP432.9B	40-20-10-100	450-450-450-250	h 3.67
FP419.82	20-10-5-10	350-350-350-25	2.28	FP450.2	80-50-10-20	450-450-450-300	l 2.85
FP419.84	30-10-5-200	350-350-350-25	2.28	FP432.2	40-10-10-40	450-450-450-350	h 3.00
FP419.86A	40-20-5-10	350-350-350-25	2.55	FP433.4	40-20-20-20	450-450-450-350	h 2.81
FP419.87	40-20-20-50	350-350-350-25	2.70	WP433.6	5-5-5-5	450-450-450-350	2.01
FP419.88A	40-10-15-30	350-350-350-25	2.99	FP434A	20-100-10-10	450-450-450-350	2.22
FP419.8A	40-40-20-20	350-350-350-25	4.08	FP434.5	20-20-10-10	450-450-450-450	g 2.82
FP419.895	10-150-100-100	350-350-350-50	2.25	FP444A	30-15-15-15	450-450-450-450	g 2.67
FP419.9	15-15-15-50	350-350-350-50	3.45	FP444.5	30-20-20-10	450-450-450-450	h 2.76
PFP420.17A	40-20-10-100	350-350-350-50	2.15	FP444.6A	30-30-10-10	450-450-450-450	h 3.12
FP420.15A	70-40-10-50	350-350-350-50	g 2.45	FP444.9A	30-30-20-20	450-450-450-450	h 3.18
50-40-2A-160	50-40-2A-160	350-350-350-50	g 3.09	FP444.5A	40-20-20-4	450-450-450-450	h 2.79
FP420.23A	100-10-10-20	350-350-350-50	g 2.94	FP444.95	40-20-20-20	450-450-450-450	h 3.06
FP419.89A	100-30-10-40	350-350-350-50	h 4.08	FP445	35-35-10-5	450-450-450-450	h 2.88
WP420.25A	100-40-4-100	350-350-350-50	h 3.63	FP447A	40-40-20-20	450-450-450-450	3.33
FP420.26A	100-40-30-50	350-350-350-50	h 3.54	FP447.5A	40-40-30-30	450-450-450-450	3.78
FP420.27A	100-100-60-100	350-350-350-50	2.13	WP447.7	40-40-40-40	450-450-450-450	3.39
FP420.273	120-20-10-50	350-350-350-50	h 3.00	FP448A	60-20-20-20	450-450-450-450	3.39
FP420.28	140-20-10-100	350-350-350-50	2.61	FP448.5	70-10-10-5	450-450-450-450	h 2.85
FP420.29A	90-30-5-100	350-350-350-50	2.82	FP450B	80-10-10-10	450-450-450-450	h 3.03
FP420.31A	100-80-10-20	350-350-350-150	3.60	FP450.08	80-40-20-10	450-450-450-450	h 3.66
FP420.32A	20-10-5-60	350-350-350-200	h 3.60	FP450.16A	80-40-20-10	450-450-450-450	h 3.79
FP420.33A	100-30-30-30	350-350-350-200	3.84	FP450.5	40-40-50-80	475-250-150-50	2.94
WP420.34	40-40-40-40	350-350-350-300	3.00	FP450.5A	25-20-10-100	475-300-300-50	3.18
FP420.35A	40-20-20-10	350-350-350-350	2.61	FP451.3A	10-140-4-100	475-300-300-50	3.00
FP420.36A	40-40-30-20	350-350-350-350	3.48	FP452A	20-80-20-10	475-300-300-300	3.27
FP420.38A	40-40-40-40	350-350-350-350	3.60	FP452.5	20-100-100-50	475-350-25-25	2.07
FP420.4A	80-60-40-40	350-350-350-350	3.84	FP453A	20-40-80-100	475-350-200-100	h 3.33
FP420.405A	100-40-10-5	350-350-350-350	2.26	FP453.4A	10-20-30-80	475-350-300-100	h 3.33
FP420.3	100-50-25-25	350-350-350-350	3.18	FP454A	10-130-20-10	475-350-350-350	3.54
FP420.407	80-80-4-100	400-200-150-50	3.63	FP454.2	20-60-40-10	475-350-350-350	h 3.12
FP420.41A	40-120-10-150	400-250-250-150	3.48	FP454.6	10-40-4-100	475-350-350-350	g 2.43
FP420.44A	30-40-50-200	400-350-25-25	3.78	FP454.8A	10-80-40-100	475-400-400-50	3.48
FP420.43	80-80-100-100	400-350-150-25	2.26	FP455.5	25-20-10-100	475-400-400-50	2.75
FP420.438	10-4-20	400-350-150-50	3.18	FP456	25-20-40-100	475-450-300-50	h 2.97
PFP420.439	40-100-5-100	400-350-150-50	3.63	FP456.5A	10-60-30-125	475-450-400-50	3.33
FP420.45A	40-80-100-25	400-350-200-50	3.48	FP459	10-50-30-30	475-450-450-25	h 2.85
FP420.46A	40-40-20-20	400-350-300-300	3.60	FP459.1	40-10-10-100	475-450-450-50	g 2.58
FP420.47	20-50-40-80	400-350-350-50	3.00	FP460	80-4-4-4	475-450-450-50	3.06
FP420.5A	40-20-50-100	400-350-350-350	2.80	FP461A	15-15-80-40	475-450-60-25	3.14
PFP420.52	40-30-20-50	400-350-350-350	2.04	FP463A	50-30-20-20	475-475-300-50	h 2.88
FP420.51	20-20-50-50	400-400-15-15	1.83	FP464.9	40-10-4-40	475-475-350-300	h 2.97
FP420.53	80-50-25-25	400-400-25-25	3.21	FP467	20-10-20-100	475-475-450-25	g 2.52
FP420.56A	40-10-40-20	400-400-50-25	3.36	FP472A	80-20-10-100	475-475-475-50	h 2.10
FP420.6A	80-40-100-20	400-400-50-25	3.06	FP474.5A	20-10-10-10	475-475-475-475	2.61
FP420.7	100-10-30-20	400-400-50-50	1.86	FP475	20-20-20-20	475-475-475-475	h 3.12
FP420.8	20-10-10-25	400-400-100-25	3.15	FP475.5A	40-10-10-10	475-475-475-475	g 2.79
WP420.9A	20-20-100-100	400-400-100-100	3.63	FP476A	40-20-10-10	475-475-475-475	3.12
FP420.95	80-40-100-100	400-400-200-50	2.79	FP490A	30-10-150-30	500-300-300-100	1.98
FP420.97	40-40-40-100	400-400-300-250	3.86	FP495B	40-40-8-8	500-450-50-50	3.42
FP421	5-5-50-80	400-400-350-25	3.45				
FP421.1	40-120-20-100	400-400-350-25	3.27				
FP421.2A	60-40-10-10	400-400-350-50	3.57				
FP421.3A	30-20-20-20	400-400-400-25	3.42				
FP421.6	40-40-30-40	400-400-400-25	3.36				
FP421.8A	40-40-40-150	400-400-400-50	3.49				
WP421.85	40-80-10-100	400-400-400-200	3.39				
FP421.87	40-80-30-4	400-400-400-350	4.25				
FP421.9A	50-40-30-20	400-400-400-400	2.46				
WP421.95	100-40-40-40	400-400-400-400	2.97				
FP422.05	100-80-10-30	400-400-400-400	3.39				
FP422.1A	20-80-20-50	450-200-200-50	2.94				
FP422.11	20-160-50-50	450-250-75-50					
FP422.7A	80-80-40-20	450-250-250-150					
FP422.6	25-150-10-60	450-300-300-50					
FP413X	80-40-40-20	450-300-300-150					

Mallory Tantalum Capacitors

PLAIN FOIL TO MIL-C-3965

Mallory plain foil tantalum capacitors shown on this page are in uninsulated cases. For insulated cases add "one" to the type number shown (CL30 becomes CL31, etc.) and add 10c to the

prices shown in the table on the previous page. Case sizes, prices and tolerances are shown on previous page.

CL30/31 POLARIZED							CL32/33 NON-POLARIZED						
Cap., μF	WVDC at Max. Temp.	Mallory Number	Size Code	Maximum DCL Microamps 25° C 125° C		Max. Imped. at 55° C 120CPS (Ohms)	Cap., μF	WVDC at Max. Temp.	Mallory Number	Size Code	Maximum DCL Microamps 25° C 125° C		Max. Imped. at 55° C 120CPS (Ohms)
4.5	10	CL30CD4R5MP3	A2	1	2	495	2.5	10	CL32CD2R5MN3	A2	1	2	893
18	10	CL30CD180MP3	B3	2	4	125	10	10	CL32CD100MN3	B3	2	4	223
55	10	CL30CD550MP3	C3	2	10	41	35	10	CL32CD350MN3	C3	2	10	64
110	10	CL30CD111MP3	D2	4	20	20	70	10	CL32CD700MN3	D2	4	20	32
160	10	CL30CD161MP3	E2	5	30	14	100	10	CL32CD101MN3	E2	5	30	23
3	15	CL30CE030MP3	A2	1	3	744	1.5	15	CL32CE155MN3	A2	1	3	1487
12	15	CL30CE120MP3	B3	2	6	186	6	15	CL32CE060MN3	B3	2	6	372
35	15	CL30CE350MP3	C3	2	12	64	20	15	CL32CE200MN3	C3	2	12	112
70	15	CL30CE700MP3	D2	4	25	32	40	15	CL32CE400MN3	D2	4	26	56
100	15	CL30CE101MP3	E2	4	20	23	60	15	CL32CE600MN3	E2	5	36	37
1.5	30	CL30CH155MP3	A2	1	4	1487	0.8	30	CL32CH0R5MN3	A2	1	4	2790
3	30	CL30CH300MP3	B3	2	6	372	3	30	CL32CH030MN3	B3	2	6	743
20	30	CL30CH200MP3	C3	2	13	112	10	30	CL32CH100MN3	C3	2	13	233
40	30	CL30CH400MP3	D2	4	26	56	20	30	CL32CH200MN3	D2	4	26	112
55	30	CL30CH550MP3	E2	6	38	41	30	30	CL32CH300MN3	E2	6	38	75
1	50	CL30CJ010MP3	A2	1	4	2255	0.5	50	CL32CJ0R5MN3	A2	1	4	4460
4	50	CL30CJ040MP3	B3	2	6	558	2	50	CL32CJ020MN3	B3	2	6	1115
14	50	CL30CJ140MP3	C3	2	13	159	7	50	CL32CJ070MN3	C3	2	13	319
28	50	CL30CJ280MP3	D2	4	26	80	14	50	CL32CJ140MN3	D2	4	26	159
40	50	CL30CJ400MP3	E2	6	38	56	20	50	CL32CJ200MN3	E2	6	38	112
0.8	60	CL30CK0R5MP3	A2	1	3.5	2790	0.4	60	CL32CK0R4MN3	A2	1	3.5	5580
3	60	CL30CK030MP3	B3	2	6	1115	1.5	60	CL32CK1R5MN3	B3	2	6	1487
10	60	CL30CK100MP3	C3	2	13	223	5	60	CL32CK050MN3	C3	2	13	446
20	60	CL30CK200MP3	D2	3	25	112	10	60	CL32CK100MN3	D2	3	25	223
30	60	CL30CK300MP3	E2	6	38	74	15	60	CL32CK150MN3	E2	6	38	149
0.5	100	CL30CN0R5MP3	A2	2	4	4454	0.25	100	CL32CNR25MN3	A2	2	4	8908
2	100	CL30CN020MP3	B3	2	6	1115	1	100	CL32CN010MN3	B3	2	6	2227
7	100	CL30CN030MP3	C3	3	13	319	3.5	100	CL32CN3R5MN3	C3	3	13	638
14	100	CL30CN140MP3	D2	4	26	159	7	100	CL32CN070MN3	D2	4	26	319
20	100	CL30CN200MP3	E2	6	38	112	10	100	CL32CN100MN3	E2	6	38	223
0.35	150	CL30CQR35MP3	A2	1	10.5	5000	0.15	150	CL32CQR15MN3	A2	1	10.5	14000
1.5	150	CL30CQ155MP3	B3	2	20	1800	0.75	150	CL32CQR75MN3	B3	2	20	3000
5	150	CL30CQ050MP3	C3	3	20	450	2.5	150	CL32CQ2R5MN3	C3	3	20	900
10	150	CL30CQ100MP3	D2	6	100	250	5	150	CL32CQ050MN3	D2	6	100	450
15	150	CL30CQ150MP3	E2	10	200	150	7.5	150	CL32CQ7R5MN3	E2	10	200	325

CL34/35 POLARIZED							-55°C TO +85°C							CL36/37 NON-POLARIZED						
10	3	CL34BA100MP3	A1	1	2	250	10	3	CL36BA100MN3	A1	1	2	263	50	3	CL36BA450MN3	B1	2	6	59
50	3	CL34BA500MP3	B1	1	2	450	45	3	CL36BA141MN3	C1	2	10	19	8	6	CL36BA281MN3	D1	3	30	10
8	6	CL34BB080MP3	A1	1	2	329	280	3	CL36BA401MN3	C1	5	50	6	100	6	CL36BB070MN3	A1	1	2	377
30	6	CL34BB101MP3	C1	2	10	28	400	3	CL36BB251MN3	E1	10	50	15	200	6	CL36BB301MP3	B1	2	6	105
100	6	CL34BB201MP3	D1	5	30	13	7	6	CL36BB850MN3	A1	1	2	31	6	10	CL34BD060MP3	A1	1	2	31
200	6	CL34BB301MP3	E1	10	50	6	150	6	CL36BB171MN3	D1	5	30	15	25	10	CL34BD250MP3	B1	2	6	105
6	10	CL34BD060MP3	A1	1	2	440	170	6	CL36BB251MN3	E1	10	50	15	80	10	CL34BD800MP3	C1	2	10	33
25	10	CL34BD250MP3	B1	2	6	105	250	6	CL36BD040MN3	A1	1	2	660	120	10	CL34BD161MP3	D1	4	20	17
80	10	CL34BD800MP3	C1	2	10	33	55	10	CL36BD150MN3	B1	2	6	165	160	10	CL34BD221MP3	E1	5	50	12
120	10	CL34BD161MP3	D1	4	20	17	4	10	CL36BD350MN3	D1	10	45	18	15	15	CL34BE4R5MP3	B1	2	4	250
220	10	CL34BD221MP3	E1	5	50	12	16	10	CL36BD111MN3	D1	4	20	24	10	15	CL34BE100MP3	B1	2	4	124
5	15	CL34BE4R5MP3	B1	2	4	495	55	10	CL36BE155MN3	A1	1	2	892	18	15	CL34BE180MP3	B1	2	4	124
10	15	CL34BE100MP3	B1	2	4	250	110	10	CL36BE100MN3	A1	2	4	223	55	15	CL34BE161MP3	E1	5	30	13
18	15	CL34BE180MP3	B1	2	4	124	150	10	CL36BE350MN3	D1	4	20	32	2.5	30	CL34BH2R5MP3	A1	2	5	893
55	15	CL34BE550MP3	C1	2	10	41	2.5	15	CL36BE101MN3	E1	5	30	23	30	30	CL34BH300MP3	C1	2	11	75
110	15	CL34BE111MP3	D1	4	20	21	10	15	CL36BG1R5MN3	A1	2	4	1485	60	30	CL34BH600MP3	D1	4	20	37
165	15	CL34BE161MP3	E1	5	30	13	35	15	CL36BG606MN3	B1	2	6	372	85	30	CL34BH850MP3	E1	6	30	27
2.5	30	CL34BH2R5MP3	A1	2	5	893	70	15	CL36BG200MN3	D1	3	10	111	50	1.5	CL34BJR5MP3	A1	1	4	1486
30	30	CL34BH300MP3	C1	2	11	75	100	15	CL36BG400MN3	D1	4	20	56	20	50	CL34BJ200MP3	B1	2	13	112
60	30	CL34BH600MP3	D1	4	20	37	1.5	25	CL36BG600MN3	E1	5	30	38	40	50	CL34BJ400MP3	D1	4	26	51
85	30	CL34BH850MP3	E1	6	30	27	6	25	CL36BH1R4MN3	A1	2	5	1594	55	50	CL34BJ550MP3	E1	6	38	46
1.5	50	CL34BJR5MP3	A1	1	4	1486	20	25	CL36BH150MN3	C1	2	11	12	1	75	CL34BL010MP3	A1	1	4	2230
20	50	CL34BJ200MP3	B1	2	13	112	40	25	CL36BH350MN3	D1	4	20	62	14	75	CL34BL140MP3	C1	2	13	168
40	50	CL34BJ400MP3	D1	4	26	56	1.4	30	CL36BH450MN3	E1	6	30	50	28	75	CL34BL280MP3	D1	4	26	80
55	50	CL34BJ550MP3	E1	6	38	41	5.5	30	CL36BJ0R8MN3	A1	1	4	2790	40	75	CL34BL400MP3	E1	6	38	56
1	75	CL34BL010MP3	A1	1	4	2230	18	30	CL36BJ303MN3	B1	2	6	743	8	100	CL34BN0R8MP3	A1	1	3.5	2790
7	75	CL34BL070MP3	C1	2	13	168	30	30	CL36BJ100MN3	C1	2	13	223	3	100	CL34BN030MP3	B1	2	6	319
14	75	CL34BL140MP3	C1	2	13	168	45	30	CL36BJ200MN3	D1	4	26	160	10	100	CL34BN100MP3	C1	2	13	223
28	75	CL34BL280MP3	D1	4	26	80	0.8	50	CL36BJ300MN3	E1	6	38	75	20	100	CL34BN200MP3	D1	3	25	111
40	75	CL34BL400MP3	E1	6	38	56	3	50	CL36BL0R5MN3	A1	1	4	4460	5	150	CL34BN300MP3	E1	6	38	75
8	100	CL34BN0R8MP3	A1	1	3.5	2790	10	50	CL36BL020MN3	B1	8	16	1115	10	200	CL34BQ0R5MP3	A1	2	4	1440
3	100	CL34BN030MP3	B1	2	6	319	7	75	CL36BL070MN3	C1	2	13	319	2	150	CL34BQ020MP3	A1	2	4	1893
10	100	CL34BN100MP3	C1	2	13	223	20	75	CL36BL140MN3	D1	4	26	160	4	150	CL34BQ040MP3	C1	3	13	319
20	100	CL34BN200MP3	D1	3	25	111	0.5	75	CL36BL200MN3	E1	6	38	112	7	150	CL34BQ070MP3	C1	3	13	319
30	100	CL34BN300MP3	E1	6	38	75	2	75	CL36BLN0R4MN3	A1	1	3.5	5600	8	150	CL34BQ080MP3	D1	4	26	285
2	150	CL34BQ0R5MP3	A1	2	4	1440	1	100	CL36BN1R5MN3	B1	2	6	1485	12	200	CL34BQ120MP3	D1	4	26	208
4	150	CL34BQ020MP3	A1	2	4	1893	7	75	CL36BN050MN3	C1	2	13	446	14	200	CL34BQ140MP3	D1	4	26	193
7	150	CL34BQ040MP3	C1	3	13	319	20	75	CL36BN100MN3	D1	3	25	111	20	150	CL34BQ200MP3	E1	6	38	112
8	150	CL34BQ070MP3	C1	3	13	319	1.5	100	CL36BN150MN3	E1	6	38	75	35	200	CL34BRR35LP3	A3	3	16	6600
12	150	CL34BQ080MP3	D1	4	26	285	0.25	150	CL36BQ010MN3	A1	2	4	8920	1.5	200	CL34BRR1R5LP3	B5	4	13	1300
20	150	CL34BQ120MP3	D1	4	26	208	1	150	CL36BQ020MN3	B1	2	6	2230	5	200	CL34BRR05LP3	C5	8	32	400
12	150	CL34BQ140MP3	D1	4	26	193	3.5	150	CL36BQ070MN3	C1	3	13	835	15	200	CL34BRR10LP3	E5	14	20	206
20	150	CL34BQ200MP3	E1	6	38	112	10	150	CL36BQ3R5MN3	D1	4	26	119	20	200	CL34BRR150LP3	E5	20	80	130
35	200	CL34BRR35LP3	A3	3	13	5700	0.15	200	CL36BRR25MN3	A1	2	4	8920	3	250	CL34BRSR30LP3	A3	3	16	6600
5	200	CL34BRR1R5LP3	B5	4	13	1300	0.15	200	CL36BQ010MN3	B1	2	6	2230	1.2	250	CL34BRS1R2LP3	B5	4	13	1600
15	200	CL34BRR05LP3	C5	8	32	400	0.75	200	CL36BQ020MN3	B1	2	6	2230	4	250	CL34BRS040LP3	C5	8	40	500
10	200	CL34BRR10LP3	E5	14	20	206	2.5	200	CL36BQ070MN3	C1	3	13	835	8	250	CL34BRS080LP3	D5	14	70	250
3	250	CL34BRSR30LP3	A3	3	16	6600	7.5	200	CL36BRR75LSN3	E6	4	32	13000	12	300	CL34BRS120LP3	E5	20	90	160
1.2	250	CL34BRS1R2LP3	B5	4	13	1600	0.15	200	CL36BRSR15LSN3	A4	6	32	13000	3	300	CL34BX010LP3	B5	4	22	1600
4	250	CL34BRS040LP3	C5	8	40	500	0.6	250	CL36BRR2R5LSN3	B6	8	40	3300	7	300	CL34BX030LP3	C5	9	45	680
8	250	CL34BRS080LP3	D5	14	70	250	2	250	CL36BRR75LSN3	C6	16	80	10000	10	300	CL34BX070LP3	D5	16	80	280
12	300	CL34BRS120LP3	E5	20	90	160	6	250	CL36BS060LN3	D6	24	140	500	17	300	CL34BX100LP3	E5	22	100	200
3	300	CL34BX010LP3	B5	4	22	1600	2	250	CL36BS060LN3	E6	40	200	330							
7	300	CL34BX030LP3	C5	9	45	680	6	250												
10	300	CL34BX070LP3	D5	16	80	280	2	250												
17	300	CL34BX100LP3	E5	22	100	200	6	250												

MALLORY Tantalum Capacitors

MIL-C-3965 CL64/65 MINIATURE METAL CASE WET-SLUG TANTALUM CAPACITORS (TLS)

Mallory CL64/65 (TLS) sintered anode tantalums have flangeless case, ideal for high density packaging. Completely replaces the older CL44/45 MIL type. Type CL64 exhibits very high performance and very low DCL. Supplied in two temperature grades: -55° C to +85° C and -55° C to +125° C. Tolerances: $\pm 10\%$ (K), $\pm 20\%$ (M), $\pm 15\%$ +30% (S) and $\pm 15\%$ +50% (T). Types listed are in plain, uninsulated case for insulating sleeve, specify CL65 and add 5c to prices shown. Complete specs in bulletin 9-351.

CL64B—, -55° TO +85° C

Cap. µF	WVDC at +85° C	Mallory Number	Case Size
30	6	CL64BB300P*P3	T1
68	6	CL64BB680P*P3	T1
140	6	CL64BB141P*P3	T2
270	6	CL64BB271P*P3	T2
330	6	CL64BB331P*P3	T3
560	6	CL64BB561P*P3	T3
680	6	CL64BC250P*P3	T1
25	8	CL64BC560P*P3	T1
220	8	CL64BC221P*P3	T2
430	8	CL64BC431P*P3	T3
20	10	CL64BD200P*P3	T1
47	10	CL64BD470P*P3	T1
100	10	CL64BD101P*P3	T2
180	10	CL64BD181P*P3	T2
250	10	CL64BD251P*P3	T3
390	10	CL64BD391P*P3	T3
15	15	CL64BE150P*P3	T1
33	15	CL64BE330P*P3	T1
70	15	CL64BE700P*P3	T2
120	15	CL64BE121P*P3	T2
170	15	CL64BE171P*P3	T3
270	15	CL64BE271P*P3	T3
20	20	CL64BJ200P*P3	T1
22	25	CL64BJ220P*P3	T1
100	25	CL64BJ101P*P3	T2
180	25	CL64BJ181P*P3	T3
8	30	CL64BH800P*P3	T1
15	30	CL64BH150P*P3	T1
40	30	CL64BH400P*P3	T2
68	30	CL64BH680P*P3	T2
100	30	CL64BH101P*P3	T3
150	30	CL64BH151P*P3	T3
5	50	CL64BJ500P*P3	T1
10	50	CL64BJ100P*P3	T1
25	50	CL64BJ250P*P3	T2
47	50	CL64BJ470P*P3	T2
60	50	CL64BJ600P*P3	T3
82	50	CL64BJ820P*P3	T3
4	60	CL64BK400P*P3	T1
8.2	60	CL64BK820P*P3	T1
20	60	CL64BK200P*P3	T2
39	60	CL64BK390P*P3	T2
50	60	CL64BK500P*P3	T3
68	60	CL64BK680P*P3	T3
75	3.5	CL64BL750P*P3	T1
9.8	75	CL64BL980P*P3	T1
15	75	CL64BL150P*P3	T2
33	75	CL64BL330P*P3	T2
40	75	CL64BL400P*P3	T3
56	75	CL64BL560P*P3	T3
2.5	100	CL64BN250P*P3	T1
4.7	100	CL64BN470P*P3	T1
11	100	CL64BN110P*P3	T2
22	100	CL64BN220P*P3	T2
30	100	CL64BN300P*P3	T3
43	100	CL64BN430P*P3	T3
1.7	125	CL64BP170P*P3	T1
3.6	125	CL64BP360P*P3	T1
9	125	CL64BP900P*P3	T2
14	125	CL64BP140P*P3	T2
18	125	CL64BP180P*P3	T3
25	125	CL64BP250P*P3	T3

*Specify tolerance: K = $\pm 10\%$; M = $\pm 20\%$; S = -15 +30%; T = -15 +50%.

CL64/65 INDUSTRIAL NET PRICES

Prices are for uninsulated case, for insulating sleeve, change no. to CL65 and add 5c to prices shown.

CL64B—, (+85° C)

Case Size	1-24	25-49	50-99	100-499	500-999
T1	\$2.42	\$1.94	\$1.64	\$1.40	\$1.27
T2	3.70	2.95	2.50	2.13	1.94
T3	5.83	4.67	3.94	3.36	3.06
$\pm 20\%$ (M)					
T1	\$2.20	\$1.76	\$1.49	\$1.27	\$1.16
T2	3.36	2.69	2.27	1.93	1.76
T3	5.30	4.25	3.58	3.05	2.78
$\pm 15 + 30\%$ (S)					
T1	\$2.20	\$1.76	\$1.49	\$1.27	\$1.16
T2	3.36	2.69	2.27	1.93	1.76
T3	5.30	4.25	3.58	3.05	2.78
$\pm 15 + 50\%$ (T)					
T1	\$1.98	\$1.58	\$1.34	\$1.14	\$1.04
T2	3.02	2.41	2.03	1.73	1.58
T3	4.72	3.77	3.18	2.71	2.48

CL64C—, (+125° C)

Case Size	1-24	25-49	50-99	100-499	500-999
T1	\$2.50	\$2.00	\$1.70	\$1.44	\$1.31
T2	3.85	3.08	2.61	2.21	2.02
T3	6.10	4.88	4.12	3.51	3.20
$\pm 20\%$ (M)					
T1	\$2.28	\$1.82	\$1.54	\$1.31	\$1.20
T2	3.50	2.80	2.39	2.02	1.84
T3	5.54	4.43	3.74	3.19	2.91
$\pm 15 + 30\%$ (S)					
T1	\$2.28	\$1.82	\$1.54	\$1.31	\$1.20
T2	3.50	2.80	2.39	2.02	1.84
T3	5.54	4.43	3.74	3.19	2.91
$\pm 15 + 50\%$ (T)					
T1	\$2.04	\$1.63	\$1.37	\$1.17	\$1.07
T2	3.14	2.52	2.12	1.81	1.65
T3	4.94	3.95	3.33	2.84	2.59



CASE SIZES

Case Size	Uninsulated	Insulated
T1	.190" .453"	.219" .485"
T2	.281" .841"	.313" .672"
T3	.375" .766"	.406" .797"

CL64C—, -55° TO +125° C

Cap. µF	WVDC at +85° C	Mallory Number	Case Size
30	6	CL64CB300P*P3	T1
68	6	CL64CB680P*P3	T1
140	6	CL64CB141P*P3	T2
270	6	CL64CB271P*P3	T2
330	6	CL64CB331P*P3	T3
560	6	CL64CB561P*P3	T3
25	8	CL64CC250P*P3	T1
220	8	CL64CC560P*P3	T1
430	8	CL64CC221P*P3	T2
20	10	CL64CC431P*P3	T3
47	10	CL64CD200P*P3	T1
100	10	CL64CD470P*P3	T1
180	10	CL64CD181P*P3	T2
250	10	CL64CD251P*P3	T3
390	10	CL64CD391P*P3	T3
15	15	CL64CE150P*P3	T1
33	15	CL64CE330P*P3	T1
70	15	CL64CE700P*P3	T2
120	15	CL64CE121P*P3	T2
170	15	CL64CE171P*P3	T3
270	15	CL64CE271P*P3	T3
20	20	CL64CJ200P*P3	T1
22	25	CL64CJ220P*P3	T1
100	25	CL64CJ101P*P3	T2
180	25	CL64CJ181P*P3	T3
8	30	CL64CH800P*P3	T1
15	30	CL64CH150P*P3	T1
40	30	CL64CH400P*P3	T2
68	30	CL64CH680P*P3	T2
100	30	CL64CH101P*P3	T3
150	30	CL64CH151P*P3	T3
5	50	CL64CJ500P*P3	T1
10	50	CL64CJ100P*P3	T1
25	50	CL64CJ250P*P3	T2
47	50	CL64CJ470P*P3	T2
60	50	CL64CJ600P*P3	T3
82	50	CL64CJ820P*P3	T3
4	60	CL64CK400P*P3	T1
8.2	60	CL64CK820P*P3	T1
20	60	CL64CK200P*P3	T2
39	60	CL64CK390P*P3	T2
50	60	CL64CK500P*P3	T3
68	60	CL64CK680P*P3	T3
75	3.5	CL64CL750P*P3	T1
9.8	75	CL64CL980P*P3	T1
15	75	CL64CL150P*P3	T2
33	75	CL64CL330P*P3	T2
40	75	CL64CL400P*P3	T3
56	75	CL64CL560P*P3	T3
2.5	100	CL64CN250P*P3	T1
4.7	100	CL64CN470P*P3	T1
11	100	CL64CN110P*P3	T2
22	100	CL64CN220P*P3	T2
30	100	CL64CN300P*P3	T3
43	100	CL64CN430P*P3	T3
1.7	125	CL64CP170P*P3	T1
3.6	125	CL64CP360P*P3	T1
9	125	CL64CP900P*P3	T2
14	125	CL64CL140P*P3	T2
18	125	CL64CP180P*P3	T3
25	125	CL64CP250P*P3	T3

MTP/MTPH ULTRA-MINIATURE TANTALUM CAPACITORS



Mallory MTP/MTPH capacitors provide the greatest capacity-voltage product of any tantalum type. Sintered anodes are housed in special silver cases with elastomer end seal, and are completely insulated. MTPH types are manufactured to rigid "Minuteman II" standards with zero failures in 3.7 million unit-hours of testing. Type MTP is the commercial equivalent. Operating Temp.: -50° C to +85° C. Tolerance: $\pm 20\%$. DCL is extremely low. See bulletin 4-70 for details.

MTP TYPES

µF	WVDC	Mallory Number	Size
15	6	MTP156M06P1D	D
47	6	MTP476M06P1A	A
150	6	MTP157M06P1B	B
180	6	MTP187M06P1B	B
450	6	MTP457M06P1C	C
470	6	MTP477M06P1C	C
10	10	MTP106M10P1D	D
33	10	MTP336M10P1A	A
100	10	MTP107M10P1B	B
120	10	MTP127M10P1B	B
300	10	MTP307M10P1C	C
330	10	MTP337M10P1C	C
22	15	MTP226M15P1A	A
68	15	MTP686M15P1B	B
80	15	MTP806M15P1B	B
200	15	MTP207M15P1C	C
220	15	MTP227M15P1C	C
6.8	20	MTP685M020P1D	D
15	20	MTP156M020P1A	A
47	20	MTP476M020P1B	B
60	20	MTP606M020P1B	B
150	20	MTP157M020P1C	C
6	30	MTP605M030P1D	D
10	30	MTP106M030P1A	A
45	30	MTP456M030P1B	B
120	30	MTP127M030P1C	C
4.7	35	MTP475M035P1D	D
10	35	MTP106M035P1A	A
100	35	MTP107M035P1C	C
4	50	MTP405M050P1D	D
6.8	50	MTP685M050P1A	A
30	50	MTP306M050P1B	B
33	50	MTP336M050P1B	B
68	50	MTP686M050P1C	C
75	50	MTP756M050P1C	C
3.3	60	MTP335M060P1D	D
4.7	60	MTP475M060P1A	A
6.8	60	MTP685M060P1A	A
10	60	MTP106M060P1B	B
15	60	MTP156M060P1B	B
22	60	MTP226M060P1B	B
33	60	MTP336M060P1C	C
47	60	MTP476M060P1C	C

MTPH TYPES

µF	WVDC	MTPH Number	Size
180	6	MTPH12	B
450	6	MTPH13	B
120	10	MTPH10	B
300	10	MTPH11	B
80	15	MTPH8	B
30	20	MTPH9	B
200	15	MTPH4	A
60	20	MTPH7	B
10	30	MTPH4	A
30	45	MTPH6	B
120	30	MTPH6	B
30	50	MTPH1	A
78	50	MTPH2	B
		MTPH3	C

CASE SIZES

Case Size	Dimensions
	Diameter Length
A	.118" .400"
B	.145" .590"
C	.225" .775"
D	.115" .312"

MTP INDUSTRIAL NET PRICES

Case Size	1-9	10-24	25-49	50-99	100-499	500-999
A	\$2.59	\$2.28	\$1.99	\$1.71	\$1.37	\$1.25
B	3.11	2.74	2.39	2.06	1.64	1.51
C	3.62	3.18	2.78	2.39	1.91	1.75
D	2.57	2.26	1.97	1.69	1.35	1.23

MTPH INDUSTRIAL NET PRICES

A	\$7.68	\$6.40	\$5.12	\$3.84	\$3.33	\$2.81
B	8.04	6.70	5.36	4.02	3.49	2.94
C	8.34	6.95	5.56	4.17	3.62	3.06

Mallory Tantalum Capacitors

TAP-TNT MINIATURE PELLET EPOXY SEAL -55°C TO +85°C



Mallory TNT-TAP capacitors employ sintered anode wet-slug construction and are furnished in metal cases with precision formed epoxy end seals. Values shown have uninsulated cases; for insulating sleeve, change 12th digit of part number to "1" and add 5c to prices shown. Standard tolerance: -15% +75%; other tolerances are available on special order. For detailed specifications, ask for bulletins: 4-38 (TNT) and 4-52 (TAP).

CASE SIZES

Add .010" dia. x .093" l. for sleeve.

Case Code	Size, in. (Dia. x L.)	
	TNT	TAP
A	.152 x .325	.228 x .500
B	.152 x .475	.228 x .660
C		.228 x .875

TNT

Cap., μ F	WVDC +85°C	Mallory Number	Case Size
40	3	TNT406U003P0A	A
80	3	TNT806U003P0B	B
25	6	TNT256U006P0A	A
50	6	TNT506U006P0B	B
35	12	TNT356U012P0B	B
12	15	TNT126U015P0A	A
25	15	TNT256U015P0B	B
15	30	TNT156U030P0B	B
12	35	TNT126U035P0A	A
6	50	TNT605U050P0A	A
4	50	TNT405U050P0A	A
8	50	TNT805U050P0A	B

TNT PRICES*

Case Size	Net Each, Lots of				
	1-24	25-49	50-99	100-499	500-999
A	\$1.24	\$0.99	\$0.84	\$0.714	\$0.651
B	1.46	1.17	.99	.84	.766

TAP PRICES*

Case Size	Net Each, Lots of				
	1-24	25-49	50-99	100-499	500-999
A	\$1.46	\$1.17	\$0.99	\$0.84	\$0.766
B	2.46	1.97	1.66	1.415	1.29
C	4.28	3.42	2.89	2.46	2.25

*For insulating sleeve, change 12th digit of catalog number from "0" to "1" and add 5c to prices shown.

TAP

Cap., μ F	WVDC +85°C	Mallory Number	Case Size
30	6	TAP306U006P0A	A
140	6	TAP147U006P0B	B
330	6	TAP337U006P0C	C
20	10	TAP206U010P0A	A
100	10	TAP107U010P0B	B
250	10	TAP257U010P0C	C
15	15	TAP156U015P0A	A
70	15	TAP706U015P0B	B
170	15	TAP177U015P0C	C
12	20	TAP126U020P0A	A
10	25	TAP106U025P0A	A
8	30	TAP806U030P0A	A
40	30	TAP406U030P0B	B
100	30	TAP107U030P0C	C
7	35	TAP705U035P0A	A
6	40	TAP605U040P0A	A
30	40	TAP306U040P0B	B
5	50	TAP505U050P0A	A
25	50	TAP256U050P0B	B
60	50	TAP606U050P0C	C
4	60	TAP405U060P0A	A
20	60	TAP206U060P0B	B
50	60	TAP506U060P0C	C
3.5	75	TAP355U075P0A	A
15	75	TAP156U075P0B	B
40	75	TAP406U075P0C	C
2	90	TAP205U090P0A	A
90	90	TAP906U090P0C	C
30	90	TAP306U090P0C	C

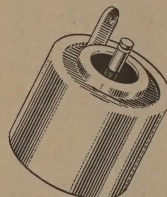
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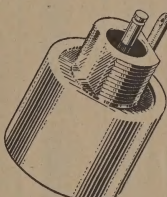
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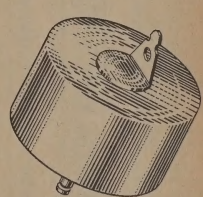
XTM-A



XTH-C, XTL-C, XTV-C



XTH-L, XTL-L



XTV-B

Mallory high temperature tantalum capacitors are furnished in hermetically sealed metal cases and are wet-slug polarized types. MTF and XTM-A have axial leads. Other XTM's and all XTL, H and V types have a wide variety of terminal arrangements available. The types shown here are the standard MIL-C-3965

MTF -55°C TO +150°C

Axial leads, commercial equivalent to MIL-C-3965 Style CL44.

Cap., μ F	WVDC +85°C	Mallory Number	Cap., μ F	WVDC +85°C	Mallory Number
140	6	MTF147U006P0H	25	50	MTF256U050P0H
100	10	MTF107U010P0H	20	60	MTF206U060P0H
70	15	MTF706U015P0H	15	75	MTF156U075P0H
40	30	MTF406U030P0H	11	90	MTF116U090P0H
30	40	MTF306U040P0H			

Any Model listed above—Net Each, Lots of 1-24, \$6.76; 25-49, \$5.41; 50-99, \$4.56; 100-499, \$3.83.

XTM -55°C TO +175°C

Cap., μ F	WVDC +85°C	Mallory Number	Net Each, Lots of		
			1-24	25-49	50-99
40	35	XTM406U035P0A	\$ 6.56	\$ 6.12	\$ 5.68
25	60	XTM256U060P0A	6.56	6.12	5.68
16	90	XTM166U090P0A	6.56	6.12	5.68
8	170	XTM805U170P0A	9.90	9.24	8.56
5	255	XTM505U255P0A	12.96	12.10	11.23
4	340	XTM405U340P0A	16.20	15.12	14.04

*Suffix A indicates MIL-C-3965/20A, Style CL10. Also available in Style CL13; change suffix A to D, add 5c to prices shown.

XTH -55°C TO +200°C

Cap., μ F	WVDC +85°C	Mallory Number*	Net Each, Lots of		
			1-24	25-49	50-99
240	18	XTH247U018P0L	\$ 9.65	\$ 9.04	\$ 8.42
150	30	XTH157U030P0C	9.30	8.69	8.07
150	30	XTH157U030P0L	9.65	9.04	8.42
150	35	XTH157U035P0C	9.30	8.69	8.07
80	60	XTH806U060P0C	9.30	8.69	8.07
80	60	XTH806U060P0L	9.65	9.04	8.42
50	90	XTH506U090P0C	9.30	8.69	8.07
25	180	XTH256U180P0C	14.80	13.81	12.83
25	180	XTH256U180P0L	15.15	14.16	13.18
16	270	XTH166U270P0C	20.48	19.12	17.76
16	270	XTH166U270P0L	20.83	19.47	18.11
12	360	XTH126U360P0C	26.06	24.33	22.59
12	360	XTH126U360P0L	26.41	24.68	22.94
8	540	XTH805U540P0C	37.13	34.66	32.19
7	630	XTH705U630P0C	42.62	39.78	36.94

*C, MIL-C-3965/1D, CL14; L, MIL-C-3965/1D, CL16.

values and all are available from stock. For detailed specifications, ask for bulletins: 4-41 (MTF); 4-49 (XTM); 4-60 (XTH-XTL-XTV). XTH, L and V also available in radiation proof construction; ask for bulletin 4-69 (XTG).

XTL -55°C TO +200°C

Cap., μ F	WVDC +85°C	Mallory Number	Net Each, Lots of		
			1-24	25-49	50-99
120	18	XTL127U018P0C*	\$ 8.24	\$ 7.69	\$ 7.15
75	30	XTL756U030P0C*	8.24	7.69	7.15
75	30	XTL756U030P0L†	8.59	8.04	7.50
40	60	XTL406U060P0C*	8.24	7.69	7.15
40	60	XTL406U060P0L†	8.59	8.04	7.50
25	90	XTL256U090P0C*	8.24	7.69	7.15
12	180	XTL126U180P0C*	12.38	11.56	10.64
12	180	XTL126U180P0L†	12.73	11.91	11.09
8	270	XTL805U270P0C*	16.70	15.59	14.48
6	360	XTL605U360P0C*	21.16	19.75	18.34
6	360	XTL605U360P0L†	21.50	20.10	18.69
5	450	XTL505U450P0C*	25.70	23.99	22.28
4	540	XTL405U540P0C*	29.89	27.90	25.91
3.5	630	XTL355U630P0C*	34.30	32.01	29.73

*Stock Items (MIL-C-3965/1D, Style CL14). †Stock Items (MIL-C-3965/1D, Style CL16).

XTV -55°C TO +200°C

XTV listed by MIL-C-3965/19A Style CL17 ("C") and CL18 ("B") are stocked. Ten other case configurations available on special order.

Cap., μ F	WVDC +85°C	Mallory Number	Net Each, Lots of		
			1-24	25-49	50-99
370	30	XTV377U030P0C	\$19.55	\$18.25	\$16.95
650	30	XTV657U030P0C	30.05	28.05	26.05
1300	30	XTV1387U030P0C	43.55	40.65	37.75
1900	40	XTV197U040P0B	13.55	12.65	11.75
1500	40	XTV297U040P0C	19.55	18.25	16.95
1000	40	XTV507U040P0C	30.05	28.05	26.05
1000	40	XTV108U040P0C	43.55	40.65	37.75
200	60	XTV207U060P0C	19.55	18.25	16.95
750	60	XTV357U060P0C	30.05	28.05	26.05
750	60	XTV707U060P0C	43.55	40.65	37.75
220	75	XTV227U075P0C	30.05	28.05	26.05
450	75	XTV457U075P0C	43.55	40.65	37.75
120	90	XTV127U090P0C	19.55	18.25	16.95
60	180	XTV696T180P0C	35.00	32.67	30.34
40	270	XTV406T270P0C	49.55	46.25	42.95
25	450	XTV256T450P0C	79.55	74.25	68.95

*Specify B for CL18 or C for CL17.

SANGAMO ELECTRIC COMPANY

capacitors



ELECTRONIC COMPONENTS

Type DCM Computer Grade FILTER AND ENERGY

STORAGE ELECTROLYTIC CAPACITOR



Type DCM Mounting Bracket	Capacitor Diameter (Inches)	Net Price
	1-7/16	\$0.24
	1-13/16	0.33
	2-1/16	0.36
	2-9/16	0.48
	3-1/16	0.60

Note: 1-7/16" bracket available with 2 feet only. Two or 3 feet are available in other sizes.

The SANGAMO Type DCM is a high quality, long life, electrolytic capacitor, specially designed for use as an energy storage or filter capacitor at 65°C. The Type DCM is enclosed in an aluminum can and is normally furnished with a clear plastic insulating sleeve. Aluminum terminals, which are permanently molded into the top, include #10-32 machine screws. A pressure-sensitive is provided as a safety mechanism in each top. A footed, wrap-around mounting bracket is available at extra cost. **For more complete information write for Bulletin 2231.**

Catalog Number	Cap. (Mfd)	Rated Volts d-c	Case Sizes *		Term. * Ctr. to Ctr.	Net Price 1-24"	Catalog Number	Cap. (Mfd)	Rated Volts d-c	Case Sizes *		Term. * Ctr. to Ctr.	Net Price 1-24"
			Diameter	Length						Diameter	Length		
539-2619-01	33,000	5	2-1/16	4-1/2	.875	\$ 7.62	539-2553-01	450	75	1-7/16	2-1/2	.500	\$ 2.85
539-2621-01	125,000	5	3-1/16	6	1.250	16.71	539-2554-01	900	75	1-7/16	3-1/2	.500	3.78
539-2530-01	3,750	10	1-7/16	2-1/2	.500	3.36	539-2653-01	1,000	75	1-7/16	4-1/2	.500	4.02
539-2531-01	7,000	10	1-7/16	3-1/2	.500	4.20	539-2655-01	1,350	75	1-7/16	4-1/2	.500	4.29
539-2532-01	10,000	10	1-7/16	4-1/2	.500	5.10	539-2654-01	3,000	75	2-1/16	4-1/2	.875	6.27
539-2736-01	15,000	10	1-13/16	4-1/2	.750	5.73	539-2656-01	5,000	75	2-9/16	4-1/2	1.125	10.23
539-2623-01	20,000	10	2-1/16	4-1/2	.875	8.07	539-2557-01	7,750	75	3-1/16	4-1/2	1.250	12.84
539-2624-01	35,000	10	2-1/16	6	.875	10.92	539-2557-01	10,000	75	3-1/16	6	1.250	16.20
539-2625-01	40,000	10	2-9/16	4-1/2	1.125	12.12							
539-2626-01	60,000	10	3-1/16	4-1/2	1.250	15.39							
539-2627-01	90,000	10	3-1/16	6	1.250	19.77	539-2558-01	350	100	1-7/16	2-1/2	.500	3.00
539-2532-01	2,500	15	1-7/16	2-1/2	.500	2.94	539-2559-01	500	100	1-7/16	3-1/2	.500	3.18
539-2533-01	5,000	15	1-7/16	3-1/2	.500	4.17	539-2658-01	1,000	100	1-7/16	4-1/2	.500	4.41
539-2628-01	6,000	15	1-7/16	4-1/2	.500	4.23	539-2742-01	1,500	100	1-13/16	4-1/2	.750	5.40
539-2534-01	8,000	15	1-7/16	4-1/2	.500	4.98	539-2657-01	3,000	100	2-1/16	6	.875	9.42
539-2737-01	10,000	15	1-13/16	4-1/2	.750	5.34	539-2660-01	4,000	100	2-9/16	4-1/2	1.125	9.96
539-2738-01	14,000	15	1-13/16	4-1/2	.750	6.94	539-2661-01	5,000	100	3-1/16	4-1/2	1.250	10.71
539-2629-01	18,000	15	2-1/16	4-1/2	.875	8.49	539-2662-01	8,500	100	3-1/16	6	1.250	16.35
539-2630-01	25,000	15	2-1/16	6	.875	10.95							
539-2631-01	33,000	15	2-9/16	4-1/2	1.125	11.28	539-2560-01	250	150	1-7/16	2-1/2	.500	2.64
539-1246-02	35,000	15	3-1/16	4-1/2	1.250	11.34	539-2663-01	500	150	1-7/16	3-1/2	.500	3.84
539-2632-01	40,000	15	3-1/16	4-1/2	1.250	12.48	539-2664-01	700	150	1-7/16	4-1/2	.500	4.32
539-2596-01	45,000	15	3-1/16	4-1/2	1.250	13.77	539-2561-01	750	150	1-7/16	4-1/2	.500	4.41
539-2673-01	50,000	15	3-1/16	6	1.250	15.12	539-2743-01	1,000	150	1-13/16	4-1/2	.750	4.83
539-2633-01	60,000	15	3-1/16	6	1.250	17.67	539-2744-01	1,250	150	1-13/16	4-1/2	.750	5.22
539-2535-01	2,250	20	1-7/16	2-1/2	.500	2.97	539-2562-01	1,450	150	1-13/16	4-1/2	.750	6.12
539-2536-01	4,500	20	1-7/16	3-1/2	.500	4.32							
539-2537-01	6,500	20	1-7/16	4-1/2	.500	4.77	539-2861-01	1,850	150	2-1/16	4-1/2	.875	7.71
539-2538-01	10,000	20	1-13/16	4-1/2	.750	5.85	539-2665-01	2,000	150	2-1/16	6	.875	8.37
539-2539-01	14,750	20	2-1/16	4-1/2	.875	8.04	539-2666-01	2,500	150	2-9/16	4-1/2	1.125	9.57
539-2540-01	22,000	20	2-1/16	6	.875	10.56	539-2664-01	3,000	150	2-9/16	4-1/2	1.125	10.44
539-2541-01	25,000	20	2-9/16	4-1/2	1.125	11.10	539-2667-01	4,000	150	3-1/16	4-1/2	1.250	12.63
539-2542-01	35,000	20	3-1/16	4-1/2	1.250	13.31	539-2565-01	4,500	150	3-1/16	4-1/2	1.250	13.29
539-2543-01	50,000	20	3-1/16	6	1.250	16.92	539-2668-01	6,000	150	3-1/16	6	1.250	15.18
539-2544-01	1,500	25	1-7/16	2-1/2	.500	2.79							
539-2545-01	3,000	25	1-7/16	3-1/2	.500	3.69	539-2566-01	200	200	1-7/16	2-1/2	.500	3.12
539-2634-01	5,000	25	1-7/16	4-1/2	.500	4.74	539-2669-01	500	200	1-7/16	4-1/2	.500	4.47
539-2739-01	8,000	25	1-13/16	4-1/2	.750	6.12	539-2745-01	750	200	1-13/16	4-1/2	.750	5.37
539-2635-01	10,000	25	2-1/16	4-1/2	.875	7.26	539-2670-01	1,500	200	2-1/16	6	.875	7.65
539-2636-01	15,000	25	2-1/16	6	.875	10.20	539-2671-01	2,000	200	2-9/16	4-1/2	1.125	9.18
539-2637-01	20,000	25	2-9/16	4-1/2	1.125	10.59	539-2672-01	2,500	200	3-1/16	4-1/2	1.250	10.80
539-2638-01	25,000	25	3-1/16	4-1/2	1.250	11.22	539-2570-01	4,500	200	3-1/16	6	1.250	14.13
539-2639-01	40,000	25	3-1/16	6	1.250	17.55							
539-2640-01	1,500	35	1-7/16	3-1/2	.500	3.03	539-2576-01	500	250	1-13/16	4-1/2	.750	4.50
539-2547-01	2,500	35	1-7/16	4-1/2	.500	3.60	539-2746-01	1,000	250	2-1/16	4-1/2	.875	9.81
539-2641-01	4,000	35	1-7/16	4-1/2	.500	4.50	539-2874-01	1,500	250	2-9/16	4-1/2	1.125	10.83
539-2740-01	5,000	35	1-13/16	4-1/2	.750	5.31	539-2675-01	275	300	1-7/16	4-1/2	.500	4.50
539-2548-01	7,000	35	1-13/16	4-1/2	.750	6.69	539-2747-01	450	300	1-13/16	4-1/2	.750	5.10
539-2642-01	8,000	35	2-1/16	4-1/2	.875	6.78	539-2676-01	1,000	300	2-9/16	4-1/2	1.125	11.22
539-2549-01	9,000	35	2-1/16	4-1/2	.875	7.71	539-2677-01	1,500	300	3-1/16	4-1/2	1.250	17.73
539-2643-01	10,000	35	2-1/16	6	.875	8.31							
539-2550-01	13,500	35	2-1/16	6	.875	10.53							
539-2644-01	15,000	35	2-9/16	4-1/2	1.125	11.07	539-2584-01	150	350	1-7/16	3-1/2	.500	4.08
539-2645-01	20,000	35	3-1/16	4-1/2	1.250	12.12	539-2748-01	350	350	1-13/16	4-1/2	.750	5.49
539-2646-01	30,000	35	3-1/16	6	1.250	13.92	539-2678-01	1,000	350	3-1/16	4-1/2	1.250	11.73
539-2551-01	750	50	1-7/16	2-1/2	.500	2.88	539-2590-01	50	400	1-7/16	2-1/2	.500	3.00
539-1615-03	1,000	50	1-7/16	3-1/2	.500	3.24	539-2595-01	50	450	1-7/16	2-1/2	.500	3.60
539-2552-01	1,500	50	1-7/16	3-1/2	.500	3.69	539-2682-01	100	450	1-7/16	3-1/2	.500	4.50
539-1463-03	2,000	50	1-7/16	4-1/2	.500	3.81	539-2596-01	150	450	1-7/16	4-1/2	.500	5.04
539-2647-01	2,500	50	1-7/16	4-1/2	.500	4.08							
539-2741-01	4,000	50	1-13/16	4-1/2	.750	5.43	539-2749-01	250	450	1-13/16	4-1/2	.750	5.94
539-2648-01	5,000	50	2-1/16	4-1/2	.875	7.11	539-2683-01	300	450	2-1/16	4-1/2	.875	6.33
539-2649-01	8,000	50	2-1/16	6	.875	8.79	539-2684-01	350	450	2-1/16	6	.875	8.04
539-2650-01	10,000	50	2-9/16	4-1/2	1.125	11.46	539-2685-01	600	450	2-9/16	4-1/2	1.125	9.90
539-2651-01	15,000	50	3-1/16	4-1/2	1.250	13.65	539-2686-01	800	450	3-1/16	4-1/2	1.250	11.46
539-2652-01	20,000	50	3-1/16	6	1.250	16.71	539-2687-01	850	450	3-1/16	4-1/2	1.250	12.24

*All dimensions are in inches.

†Prices for larger quantities are available on request.

SANGAMO ELECTRIC COMPANY

capacitors



ELECTRONIC COMPONENTS

Type 500 Computer Electrolytic

FOR HIGH RIPPLE AND HIGH TEMPERATURE APPLICATIONS

The Sangamo Type 500 capacitor represents the optimum design in electrolytic capacitors for storage and filter requirements in high reliability circuits requiring 85°C operation. An exceptional anode surface gain and better production control have been achieved in perfecting the Type 500. These advanced techniques, plus the use of the best electrolytes, result in capacitors having lower ESR which may be operated at higher ripple currents and in case sizes smaller than conventional capacitors. All units are supplied with screw terminals. Mounting brackets are furnished at extra cost. For more complete information write for Bulletin 2236.



Type	Capacitor Diameter	Net Price
500	1-3/8"	\$0.24
Mounting Bracket	2"	0.36
	2-1/2"	0.48
	3"	0.60

Note: 1-3/8" bracket available with 2 feet only. Other sizes are available with 2 or 3 feet. Specify accordingly.

Catalog Number	Cap. (Mfd)	Rated Volts d-c	Case Sizes*		Term. * Ctr. to Ctr.	Net Price 1-24†	Catalog Number	Cap. (Mfd)	Rated Volts d-c	Case Sizes *		Term. * Ctr. to Ctr.	Net Price 1-24†
			Diameter	Length						Diameter	Length		
500-1900-01	14000	3	1-3/8	2-1/8	.500	\$ 4.32	500-1971-01	57000	50	3	8-5/8	1.250	\$45.09
500-1901-01	25000	3	1-3/8	3-1/8	.500	6.06	500-1972-01	1050	75	1-3/8	2-1/8	.500	4.08
500-1902-01	35000	3	1-3/8	4-1/8	.500	7.08	500-1973-01	2000	75	1-3/8	3-1/8	.500	4.98
500-1903-01	80000	3	2	4-1/8	.875	11.82	500-1974-01	2800	75	1-3/8	4-1/8	.500	6.09
500-1904-01	120000	3	2	5-5/8	.875	15.39	500-1975-01	6500	75	2	4-1/8	.875	10.63
500-1905-01	145000	3	2-1/2	4-1/8	1.125	19.77	500-1976-01	9500	75	2	5-5/8	.875	15.66
500-1906-01	200000	3	3	4-1/8	1.250	29.88	500-1977-01	11000	75	2-1/2	4-1/8	1.125	17.28
500-1907-01	300000	3	3	5-5/8	1.250	34.92	500-1978-01	16000	75	3	4-1/8	1.250	22.26
500-1908-01	500000	3	3	8-5/8	1.250	45.00	500-1979-01	24000	75	3	5-5/8	1.250	30.21
500-1909-01	11000	5	1-3/8	2-1/8	.500	4.53	500-1980-01	39000	75	3	8-5/8	1.250	45.09
500-1910-01	20000	5	1-3/8	3-1/8	.500	6.00	500-1981-01	550	100	1-3/8	2-1/8	.500	3.30
500-1911-01	29000	5	1-3/8	4-1/8	.500	7.14	500-1982-01	1000	100	1-3/8	3-1/8	.500	4.41
500-1912-01	67000	5	2	4-1/8	.875	11.91	500-1983-01	1500	100	2	4-1/8	.875	9.63
500-1913-01	95000	5	2	5-5/8	.875	14.28	500-1984-01	3400	100	2	5-5/8	.875	10.86
500-1914-01	120000	5	2-1/2	4-1/8	1.125	16.08	500-1985-01	5000	100	2	4-1/8	1.125	12.36
500-1915-01	17000	5	3	4-1/8	1.250	26.10	500-1986-01	6000	100	2-1/2	4-1/8	1.250	15.48
500-1916-01	250000	5	3	5-5/8	1.250	35.70	500-1987-01	8500	100	3	4-1/8	1.250	25.47
500-1917-01	400000	5	3	8-5/8	1.250	45.30	500-1988-01	12500	100	3	5-5/8	1.250	44.97
500-1918-01	8000	10	1-3/8	2-1/8	.500	4.50	500-1989-01	20000	100	3	8-5/8	1.250	44.97
500-1919-01	14000	10	1-3/8	3-1/8	.500	5.64	500-1991-01	400	150	1-3/8	2-1/8	.500	3.36
500-1920-01	20000	10	1-3/8	4-1/8	.500	7.77	500-1992-01	700	150	1-3/8	3-1/8	.500	4.32
500-1921-01	26000	10	2	4-1/8	.875	13.98	500-1993-01	1000	150	2	4-1/8	.875	9.03
500-1922-01	70000	10	2	5-5/8	.875	17.31	500-1994-01	2300	150	2	5-5/8	.875	11.43
500-1923-01	85000	10	2-1/2	4-1/8	1.125	18.87	500-1995-01	3500	150	2-1/2	4-1/8	1.125	12.33
500-1924-01	120000	10	3	4-1/8	1.250	24.96	500-1996-01	4000	150	3	4-1/8	1.250	15.84
500-1925-01	180000	10	3	5-5/8	1.250	32.52	500-1997-01	6000	150	3	5-5/8	1.250	25.59
500-1926-01	260000	10	3	8-5/8	1.250	44.86	500-1998-01	8500	150	3	8-5/8	1.250	45.00
500-1927-01	6500	15	1-3/8	2-1/8	.500	4.38	500-1999-01	13000	150	3	2-1/8	.500	3.15
500-1928-01	11000	15	1-3/8	3-1/8	.500	5.49	500-1990-01	200	200	1-3/8	2-1/8	.500	3.93
500-1929-01	16000	15	1-3/8	4-1/8	.500	7.89	500-1991-01	400	200	1-3/8	3-1/8	.500	4.99
500-1930-01	37000	15	2	4-1/8	.875	11.58	500-1992-01	575	200	1-3/8	4-1/8	.500	6.09
500-1931-01	45000	15	2	5-5/8	.875	16.71	500-1993-01	1000	200	2	4-1/8	.875	9.03
500-1932-01	65000	15	2-1/2	4-1/8	1.125	18.99	500-1994-01	1800	200	2	5-5/8	.875	11.43
500-1933-01	95000	15	3	4-1/8	1.250	24.72	500-1995-01	2200	200	2-1/2	4-1/8	1.125	12.33
500-1934-01	140000	15	3	5-5/8	1.250	30.78	500-1996-01	3250	200	3	4-1/8	1.250	15.84
500-1935-01	225000	15	3	8-5/8	1.250	44.70	500-1997-01	4800	200	3	5-5/8	1.250	25.59
500-1936-01	4400	20	1-3/8	2-1/8	.500	4.29	500-1998-01	160	250	1-3/8	2-1/8	.500	3.90
500-1937-01	8000	20	1-3/8	3-1/8	.500	5.75	500-1999-01	300	250	1-3/8	3-1/8	.500	4.05
500-1938-01	11000	20	1-3/8	4-1/8	.500	6.15	500-1990-01	430	250	1-3/8	4-1/8	.500	4.35
500-1939-01	26000	20	2	4-1/8	.875	11.22	500-1991-01	1000	250	2	4-1/8	.875	9.01
500-1940-01	38000	20	2	5-5/8	.875	14.22	500-2001-01	1400	250	2	5-5/8	.875	10.71
500-1941-01	46000	20	2-1/2	4-1/8	1.125	16.32	500-2002-01	1700	250	2-1/2	4-1/8	1.125	11.25
500-1942-01	100000	20	3	4-1/8	1.250	20.43	500-2003-01	2500	250	3	4-1/8	1.250	16.20
500-1943-01	100000	20	3	5-5/8	1.250	28.98	500-2004-01	110	300	1-3/8	2-1/8	.500	3.63
500-1944-01	160000	20	3	8-5/8	1.250	45.15	500-2005-01	210	300	1-3/8	3-1/8	.500	4.11
500-1945-01	3600	25	1-3/8	2-1/8	.500	4.02	500-2006-01	310	300	1-3/8	4-1/8	.500	4.68
500-1946-01	6500	25	1-3/8	3-1/8	.500	5.52	500-2007-01	700	300	2	4-1/8	.875	7.68
500-1947-01	9500	25	1-3/8	4-1/8	.500	7.06	500-2008-01	1000	300	2	5-5/8	.875	11.22
500-1948-01	22000	25	2	4-1/8	.875	10.83	500-2009-01	1200	300	2-1/2	4-1/8	1.125	13.68
500-1949-01	30000	25	2	5-5/8	.875	12.84	500-2010-01	1750	300	3	4-1/8	1.250	18.15
500-1950-01	37000	25	2-1/2	4-1/8	1.125	16.20	500-2011-01	80	350	1-3/8	2-1/8	.500	3.69
500-1951-01	55000	25	3	4-1/8	1.250	22.20	500-2012-01	150	350	1-3/8	3-1/8	.500	4.08
500-1952-01	80000	25	3	5-5/8	1.250	30.45	500-2013-01	220	350	1-3/8	4-1/8	.500	4.77
500-1953-01	130000	25	3	8-5/8	1.250	45.21	500-2014-01	300	350	2	4-1/8	.875	7.08
500-1954-01	2500	35	1-3/8	2-1/8	.500	3.75	500-2003-01	750	350	2	5-5/8	.875	9.54
500-1955-01	4500	35	1-3/8	3-1/8	.500	4.74	500-2004-01	850	350	2-1/2	4-1/8	1.125	10.89
500-1956-01	6500	35	1-3/8	4-1/8	.500	6.27	500-2005-01	1250	350	3	4-1/8	1.250	16.89
500-1957-01	14000	35	2	4-1/8	.875	10.59	500-2006-01	440	400	1-3/8	2-1/8	.500	3.69
500-1958-01	25000	35	2	5-5/8	.875	12.15	500-2007-01	115	400	1-3/8	3-1/8	.500	4.26
500-1959-01	25000	35	2-1/2	4-1/8	1.125	13.02	500-2008-01	165	400	1-3/8	4-1/8	.500	4.77
500-1960-01	35000	35	3	4-1/8	1.250	14.82	500-2009-01	390	400	2	4-1/8	.875	6.24
500-1961-01	55000	35	3	5-5/8	1.250	25.62	500-2010-01	560	400	2	5-5/8	.875	8.70
500-1962-01	85000	35	3	8-5/8	1.250	44.94	500-2011-01	650	400	2-1/2	4-1/8	1.125	9.24
500-1963-01	15000	50	1-3/8	2-1/8	.500	3.69	500-2012-01	975	400	1-3/8	2-1/8	.500	3.69
500-1964-01	28000	50	1-3/8	3-1/8	.500	4.86	500-2013-01	55	450	1-3/8	3-1/8	.500	4.11
500-1965-01	42000	50	1-3/8	4-1/8	.500	5.55	500-2014-01	100	450	1-3/8	4-1/8	.500	4.50
500-1966-01	9400	50	2	4-1/8	.875	10.74	500-2015-01	150	450	1-3/8	5-5/8	.875	6.33
500-1967-01	13000	50	2	5-5/8	.875	12.90	500-2016-01	220	450	2	4-1/8	.875	8.10
500-1968-01	16000	50	2-1/2	4-1/8	1.125	14.25	500-2017-01	330	450	2-1/2	4-1/8	1.125	9.84
500-1969-01	23500	50	3	4-1/8	1.250	17.67	500-2018-01	450	450	3	4-1/8	1.250	12.60
500-1970-01	35000	50	3	5-5/8	1.250	26.85	500-2019-01	600	450	3	5-5/8	1.250	36.89

* All dimensions are in inches.

† Prices for larger quantities are available on request.

SANGAMO ELECTRIC COMPANY

capacitors



ELECTRONIC COMPONENTS

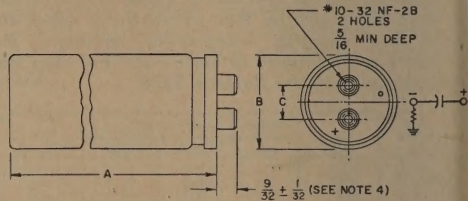
Type CE70 and CE71 MILITARY GRADE CAPACITORS

The Sangamo Types CE70 and CE71 are aluminum electrolytic capacitors designed and manufactured in accordance with Mil-C-62B. They are recommended for operation up to +85°C and are available in voltage ratings from 5 to 450 d-c volts. The Type CE70 is supplied with a plastic insulating sleeve. Commercial equivalents can be supplied which meet or exceed the applicable military requirements. **FOR MORE COMPLETE INFORMATION WRITE FOR BULLETIN 2236.**



Type	Capacitor Diameter (Inches)	Net Price
CE70 & CE71	1-7/16	\$.24
Mounting Bracket	2-1/16	.36
	2-9/16	.48
	3-1/16	.60

Note: 1-7/16" bracket available with 2 feet only. Other sizes are available with 2 or 3 feet.



1. All dimensions in inches.
2. Capacitors are mounted by means of a wraparound, footed-type bracket.
3. There is an indeterminate resistance between the metal case and the negative terminal.
4. This dimension shall be measured from the base of the container.

Type Designation	Cap. (Mfd)	Rated Volts d-c	Case Sizes*		Term. * Ctr. to Ctr.	Net Price 1-24†	Type Designation	Cap. (Mfd)	Rated Volts d-c	Case Sizes*		Term. * Ctr. to Ctr.	Net Price 1-24†
			Diam.	Length						Diam.	Length		
CE71C103C	10,000	5	1-7/16	4-1/2	.500	\$ 4.98	CE71C202J	2,000	150	2-9/16	4-1/2	1.125	\$ 9.63
CE71C153C	15,000	5	2-1/16	4-1/2	.875	6.12	CE71C332J	3,300	150	3-1/16	4-1/2	1.250	12.63
CE71C253C	25,000	5	2-1/16	4-1/2	.875	7.62							
CE71C333C	33,000	5	2-9/16	4-1/2	1.125	8.76	CE71C351K	350	200	1-7/16	4-1/2	.500	4.23
CE71C473C	47,000	5	2-9/16	4-1/2	1.125	10.77	CE71C471K	470	200	1-7/16	4-1/2	.500	4.74
CE71C683C	68,000	5	3-1/16	4-1/2	1.250	13.65	CE71C681K	680	200	2-1/16	4-1/2	.875	5.85
							CE71C102K	1,000	200	2-1/16	4-1/2	.875	8.43
CE71C682D	6,800	10	1-7/16	4-1/2	.500	4.77	CE71C152K	1,500	200	2-9/16	4-1/2	1.125	8.79
CE71C103D	10,000	10	2-1/16	4-1/2	.875	5.88	CE71C222K	2,200	200	3-1/16	4-1/2	1.250	11.22
CE71C153D	15,000	10	2-1/16	4-1/2	.875	6.80							
CE71C283D	28,000	10	2-9/16	4-1/2	1.125	11.76	CE71C301M	300	250	1-7/16	4-1/2	.500	4.65
CE71C403D	40,000	10	3-1/16	4-1/2	1.250	13.95	CE71C471M	470	250	2-1/16	4-1/2	.875	5.10
							CE71C681M	680	250	2-1/16	4-1/2	.875	7.02
CE71C472E	4,700	15	1-7/16	4-1/2	.500	4.77	CE71C102M	1,000	250	2-9/16	4-1/2	1.125	11.28
CE71C562E	5,600	15	1-7/16	4-1/2	.500	4.83	CE71C122M	1,200	250	2-9/16	4-1/2	1.125	11.46
CE71C123E	12,000	15	2-1/16	4-1/2	.875	5.85	CE71C152M	1,500	250	2-9/16	4-1/2	1.125	12.33
CE71C223E	22,000	15	2-9/16	4-1/2	1.125	11.34	CE71C222M	2,200	250	3-1/16	4-1/2	1.250	15.72
CE71C333E	33,000	15	3-1/16	4-1/2	1.250	12.96							
CE71C393E	39,000	15	3-1/16	4-1/2	1.250	14.04	CE71C251N	250	300	1-7/16	4-1/2	.500	5.01
							CE71C331N	330	300	2-1/16	4-1/2	.875	5.46
CE71C332F	3,300	25	1-7/16	4-1/2	.500	4.26	CE71C471N	470	300	2-1/16	4-1/2	.875	5.94
CE71C472F	4,700	25	2-1/16	4-1/2	.875	5.25	CE71C551N	550	300	2-1/16	4-1/2	.875	6.18
CE71C682F	6,800	25	2-1/16	4-1/2	.875	6.72	CE71C681N	680	300	2-9/16	4-1/2	1.125	8.52
CE71C103F	10,000	25	2-1/16	4-1/2	.875	8.34	CE71C102N	1,000	300	2-9/16	4-1/2	1.125	12.90
CE71C153F	15,000	25	2-9/16	4-1/2	1.125	11.73	CE71C152N	1,500	300	3-1/16	4-1/2	1.250	19.38
CE71C223F	22,000	25	3-1/16	4-1/2	1.250	12.48							
							CE71C201P	200	350	1-7/16	4-1/2	.500	5.13
CE71C152G	1,500	50	1-7/16	4-1/2	.500	4.23	CE71C331P	330	350	2-1/16	4-1/2	.875	6.21
CE71C222G	2,200	50	2-1/16	4-1/2	.875	4.50	CE71C471P	470	350	2-1/16	4-1/2	.875	8.34
CE71C332G	3,300	50	2-1/16	4-1/2	.875	6.12	CE71C681P	680	350	2-9/16	4-1/2	1.125	10.23
CE71C472G	4,700	50	2-9/16	4-1/2	1.125	6.78	CE71C751P	750	350	2-9/16	4-1/2	1.125	10.62
CE71C562G	5,600	50	2-9/16	4-1/2	1.125	8.88	CE71C122P	1,200	350	3-1/16	4-1/2	1.250	15.30
CE71C682G	6,800	50	2-9/16	4-1/2	1.125	9.90							
CE71C103G	10,000	50	3-1/16	4-1/2	1.250	13.17	CE71C151Q	150	400	1-7/16	4-1/2	.500	5.19
							CE71C221Q	220	400	2-1/16	4-1/2	.875	6.06
CE71C681H	680	100	1-7/16	4-1/2	.500	4.08	CE71C331Q	330	400	2-1/16	4-1/2	.875	6.90
CE71C102H	1,000	100	1-7/16	4-1/2	.500	5.07	CE71C471Q	470	400	2-9/16	4-1/2	1.125	7.89
CE71C152H	1,500	100	2-1/16	4-1/2	.875	5.76	CE71C601Q	600	400	2-9/16	4-1/2	1.125	10.56
CE71C222H	2,200	100	2-9/16	4-1/2	1.125	7.59	CE71C681Q	680	400	2-9/16	4-1/2	1.125	10.77
CE71C332H	3,300	100	2-9/16	4-1/2	1.125	11.01							
CE71C472H	4,700	100	3-1/16	4-1/2	1.250	12.00	CE71C101R	100	450	1-7/16	4-1/2	.500	5.79
							CE71C151R	150	450	2-1/16	4-1/2	.500	5.79
CE71C471J	470	150	1-7/16	4-1/2	.500	4.38	CE71C221R	220	450	2-1/16	4-1/2	.875	6.39
CE71C681J	680	150	1-7/16	4-1/2	.500	4.89	CE71C331R	330	450	2-1/16	4-1/2	.875	7.41
CE71C122J	1,200	150	2-1/16	4-1/2	.875	5.94	CE71C471R	470	450	2-9/16	4-1/2	1.125	8.67

For Type CE70 (CE71 without sleeve), Deduct 3/8" From Length, 1/16" From Diameter and \$0.05 From Net Price

* All Dimensions are in Inches.

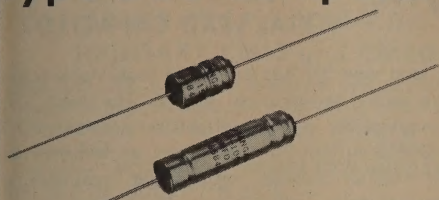
† Prices for Larger Quantities are Available on Request.

SANGAMO ELECTRIC COMPANY

capacitors

ELECTRONIC COMPONENTS

Type 556 Computer Grade ALUMINUM ELECTROLYTIC AXIAL LEAD CAPACITOR (105°C)



The Sangamo type 556 is a computer grade axial lead aluminum electrolytic capacitor with an operating temperature range of -40°C to $+105^{\circ}\text{C}$. Voltage ratings from 3 to 150 VDC and capacitance values from 4 to 560 Mfd. are available in 8 case sizes. Mylar sleeves are provided for improved electrical insulation and mechanical properties. **FOR MORE COMPLETE INFORMATION WRITE FOR BULLETIN 2238.**

Catalog Number	Cap. mfd.	Rated Volts d-c	Case Sizes *		Price † 1-24	Catalog Number	Cap. mfd.	Rated Volts d-c	Case Sizes *		Price † 1-24
			Diameter	Length					Diameter	Length	
556-1001-01	125	3	3/8	11/16	.78	556-1069-01	60	40	3/8	1-1/4	\$.795
556-1002-01	180	3	3/8	13/16	.78	556-1070-01	70	40	3/8	1-3/8	.810
556-1003-01	250	3	3/8	15/16	.795	556-1071-01	80	40	3/8	1-1/2	.825
556-1004-01	310	3	3/8	1-1/8	.795	556-1072-01	90	40	3/8	1-5/8	.840
556-1005-01	370	3	3/8	1-1/4	.795	556-1073-01	15	50	3/8	11/16	.78
556-1006-01	435	3	3/8	1-3/8	.810	556-1074-01	20	50	3/8	13/16	.78
556-1007-01	500	3	3/8	1-1/2	.825	556-1075-01	30	50	3/8	15/16	.795
556-1008-01	560	3	3/8	1-5/8	.840	556-1076-01	35	50	3/8	1-1/8	.795
556-1009-01	85	5	3/8	11/16	.78	556-1077-01	45	50	3/8	1-1/4	.795
556-1010-01	125	5	3/8	13/16	.78	556-1078-01	50	50	3/8	1-3/8	.810
556-1011-01	170	5	3/8	15/16	.795	556-1079-01	60	50	3/8	1-1/2	.825
556-1012-01	210	5	3/8	1-1/8	.795	556-1080-01	65	50	3/8	1-5/8	.840
556-1013-01	250	5	3/8	1-1/4	.795	556-1081-01	10	60	3/8	11/16	.78
556-1014-01	300	5	3/8	1-3/8	.810	556-1082-01	15	60	3/8	13/16	.78
556-1015-01	340	5	3/8	1-1/2	.825	556-1083-01	20	60	3/8	15/16	.795
556-1016-01	385	5	3/8	1-5/8	.840	556-1084-01	30	60	3/8	1-1/8	.795
556-1017-01	75	6	3/8	11/16	.78	556-1085-01	35	60	3/8	1-1/4	.795
556-1018-01	110	6	3/8	13/16	.78	556-1086-01	40	60	3/8	1-3/8	.810
556-1019-01	150	6	3/8	15/16	.795	556-1087-01	45	60	3/8	1-1/2	.825
556-1020-01	190	6	3/8	1-1/8	.795	556-1088-01	50	60	3/8	1-5/8	.840
556-1021-01	225	6	3/8	1-1/4	.795	556-1089-01	9	65	3/8	11/16	.78
556-1022-01	265	6	3/8	1-3/8	.810	556-1090-01	13	65	3/8	13/16	.78
556-1023-01	305	6	3/8	1-1/2	.825	556-1091-01	18	65	3/8	15/16	.795
556-1024-01	340	6	3/8	1-5/8	.840	556-1092-01	20	65	3/8	1-1/8	.795
556-1025-01	60	10	3/8	11/16	.78	556-1093-01	25	65	3/8	1-1/4	.795
556-1026-01	90	10	3/8	13/16	.78	556-1094-01	30	65	3/8	1-3/8	.810
556-1027-01	125	10	3/8	15/16	.795	556-1095-01	35	65	3/8	1-1/2	.825
556-1028-01	155	10	3/8	1-1/8	.795	556-1096-01	40	65	3/8	1-5/8	.840
556-1029-01	185	10	3/8	1-1/4	.795	556-1097-01	6.5	75	3/8	11/16	.78
556-1030-01	215	10	3/8	1-3/8	.810	556-1098-01	10	75	3/8	13/16	.78
556-1031-01	250	10	3/8	1-1/2	.825	556-1099-01	13	75	3/8	15/16	.795
556-1032-01	275	10	3/8	1-5/8	.840	556-1100-01	17	75	3/8	1-1/8	.795
556-1033-01	50	15	3/8	11/16	.78	556-1101-01	20	75	3/8	1-1/4	.795
556-1034-01	75	15	3/8	13/16	.78	556-1102-01	24	75	3/8	1-3/8	.810
556-1035-01	100	15	3/8	15/16	.795	556-1103-01	27	75	3/8	1-1/2	.820
556-1036-01	125	15	3/8	1-1/8	.795	556-1104-01	30	75	3/8	1-5/8	.840
556-1037-01	150	15	3/8	1-1/4	.795	556-1105-01	6	90	3/8	11/16	.78
556-1038-01	175	15	3/8	1-3/8	.810	556-1106-01	9	90	3/8	13/16	.78
556-1039-01	200	15	3/8	1-1/2	.825	556-1107-01	12	90	3/8	15/16	.795
556-1040-01	225	15	3/8	1-5/8	.840	556-1108-01	15	90	3/8	1-1/8	.795
556-1041-01	35	20	3/8	11/16	.78	556-1109-01	18	90	3/8	1-1/4	.795
556-1042-01	55	20	3/8	13/16	.78	556-1110-01	20	90	3/8	1-3/8	.810
556-1043-01	75	20	3/8	15/16	.795	556-1111-01	25	90	3/8	1-1/2	.825
556-1044-01	95	20	3/8	1-1/8	.795	556-1112-01	28	90	3/8	1-5/8	.840
556-1045-01	110	20	3/8	1-1/4	.795	556-1113-01	5	100	3/8	11/16	.78
556-1046-01	130	20	3/8	1-3/8	.810	556-1114-01	8	100	3/8	13/16	.78
556-1047-01	150	20	3/8	1-1/2	.825	556-1115-01	11	100	3/8	15/16	.795
556-1048-01	170	20	3/8	1-5/8	.840	556-1116-01	13	100	3/8	1-1/8	.795
556-1049-01	25	25	3/8	11/16	.78	556-1117-01	16	100	3/8	1-1/4	.795
556-1050-01	40	25	3/8	13/16	.78	556-1118-01	19	100	3/8	1-3/8	.810
556-1051-01	55	25	3/8	15/16	.795	556-1119-01	20	100	3/8	1-1/2	.825
556-1052-01	70	25	3/8	1-1/8	.795	556-1120-01	24	100	3/8	1-5/8	.840
556-1053-01	85	25	3/8	1-1/4	.795	556-1121-01	4.5	125	3/8	11/16	.78
556-1054-01	100	25	3/8	1-3/8	.810	556-1122-01	6.5	125	3/8	13/16	.78
556-1055-01	115	25	3/8	1-1/2	.825	556-1123-01	9	125	3/8	15/16	.795
556-1056-01	130	25	3/8	1-5/8	.840	556-1124-01	11	125	3/8	1-1/8	.795
556-1057-01	23	35	3/8	11/16	.78	556-1125-01	13	125	3/8	1-1/4	.795
556-1058-01	35	35	3/8	13/16	.78	556-1126-01	16	125	3/8	1-3/8	.810
556-1059-01	45	35	3/8	15/16	.795	556-1127-01	18	125	3/8	1-1/2	.825
556-1060-01	55	35	3/8	1-1/8	.795	556-1128-01	20	125	3/8	1-5/8	.840
556-1061-01	70	35	3/8	1-1/4	.795	556-1129-01	4	150	3/8	11/16	.78
556-1062-01	80	35	3/8	1-3/8	.810	556-1130-01	6	150	3/8	13/16	.78
556-1063-01	95	35	3/8	1-1/2	.825	556-1131-01	8	150	3/8	15/16	.795
556-1064-01	105	35	3/8	1-5/8	.840	556-1132-01	10	150	3/8	1-1/8	.795
556-1065-01	20	40	3/8	11/16	.78	556-1133-01	12	150	3/8	1-1/4	.795
556-1066-01	30	40	3/8	13/16	.78	556-1134-01	15	150	3/8	1-3/8	.810
556-1067-01	40	40	3/8	15/16	.795	556-1135-01	17	150	3/8	1-1/2	.825
556-1068-01	50	40	3/8	1-1/8	.795	556-1136-01	19	150	3/8	1-5/8	.840

* All dimensions are in inches.

† Prices for larger quantities are available on request.

SANGAMO ELECTRIC COMPANY

capacitors

ELECTRONIC COMPONENTS

Type 557 Aluminum Electrolytic**-55°C TO +125°C
AXIAL LEAD CAPACITOR**

The axial lead type 557 has extremely stable characteristics at much wider temperature ranges. The type 557, designed for application in high reliability circuits, meets the MIL - C - 39018 military specifications at temperatures from -55°C to +125°C. Standard ratings are available for both polar and non-polar applications. Mylar sleeves are provided for improved electrical insulation and mechanical properties. **FOR MORE COMPLETE INFORMATION WRITE FOR BULLETIN 2240.**

Catalog Number	Cap. mfd	Rated Volts d-c		Case Sizes*		Price 1-24 †	Catalog Number	Cap. mfd	Rated Volts d-c		Case Size*		Price 1-24 †
		+85°C	+125°C	D	L				+85°C	+125°C	D	L	
557-001-13-001	220	7	5	3/8	15/16	\$4.29	557-030-43-088	100	50	40	3/8	1-5/8	\$4.50
557-002-19-004	270	7	5	3/8	1-1/8	4.35	557-031-49-091	150	50	40	3/8	2-3/16	4.80
557-003-31-007	390	7	5	3/8	1-3/8	4.41	557-032-55-094	180	50	40	3/8	2-11/16	4.95
557-004-43-010	560	7	5	3/8	1-5/8	4.50	557-033-13-097	22	75	60	3/8	15/16	4.29
557-005-49-013	820	7	5	3/8	2-3/16	4.80	557-034-19-100	33	75	60	3/8	1-1/8	4.35
557-006-55-016	1000	7	5	3/8	2-11/16	4.95	557-035-31-103	47	75	60	3/8	1-3/8	4.41
557-007-13-019	180	10	7	3/8	15/16	4.29	557-036-43-106	68	75	60	3/8	1-5/8	4.50
557-008-19-022	220	10	7	3/8	1-1/8	4.35	557-037-49-109	100	75	60	3/8	2-3/16	4.80
557-009-31-025	330	10	7	3/8	1-3/8	4.41	557-038-55-112	120	75	60	3/8	2-11/16	4.95
557-010-43-028	470	10	7	3/8	1-5/8	4.50	557-039-13-115	12	100	75	3/8	15/16	4.29
557-011-49-031	680	10	7	3/8	2-3/16	4.80	557-040-19-118	15	100	75	3/8	1-1/8	4.35
557-012-55-034	820	10	7	3/8	2-11/16	4.95	557-041-31-121	22	100	75	3/8	1-3/8	4.41
557-013-13-037	150	15	10	3/8	15/16	4.29	557-042-43-124	33	100	75	3/8	1-5/8	4.50
557-014-19-040	180	15	10	3/8	1-1/8	4.35	557-043-49-127	47	100	75	3/8	2-3/16	4.80
557-015-31-043	270	15	10	3/8	1-3/8	4.41	557-044-55-130	68	100	75	3/8	2-11/16	4.95
557-016-43-046	390	15	10	3/8	1-5/8	4.50	557-045-13-133	8.2	150	100	3/8	15/16	4.29
557-017-49-049	560	15	10	3/8	2-3/16	4.80	557-046-19-136	12	150	100	3/8	1-1/8	4.35
557-018-55-052	680	15	10	3/8	2-11/16	4.95	557-047-31-139	18	150	100	3/8	1-3/8	4.41
557-019-13-055	82	30	20	3/8	15/16	4.29	557-048-43-142	22	150	100	3/8	1-5/8	4.50
557-020-19-058	100	30	20	3/8	1-1/8	4.35	557-049-49-145	33	150	100	3/8	2-3/16	4.80
557-021-31-061	120	30	20	3/8	1-3/8	4.41	557-050-55-148	56	150	100	3/8	2-11/16	4.95
557-022-31-064	150	30	20	3/8	1-3/8	4.41	557-051-55-151	39	200	150	3/8	2-11/16	4.95
557-023-43-067	220	30	20	3/8	1-5/8	4.50	557-052-13-154	5.6	250	200	3/8	15/16	4.29
557-024-49-070	330	30	20	3/8	2-3/16	4.80	557-053-19-157	6.8	250	200	3/8	1-1/8	4.35
557-025-55-073	390	30	20	3/8	2-11/16	4.95	557-054-31-160	10	250	200	3/8	1-3/8	4.41
557-026-13-076	33	50	40	3/8	15/16	4.29	557-055-43-163	12	250	200	3/8	1-5/8	4.50
557-027-19-079	47	50	40	3/8	1-1/8	4.35	557-056-49-166	22	250	200	3/8	2-3/16	4.80
557-028-31-082	56	50	40	3/8	1-3/8	4.41	557-057-55-169	27	250	200	3/8	2-11/16	4.95
557-029-31-085	68	50	40	3/8	1-3/8	4.41							

Non-Polarized

Catalog Number	Cap. mfd	Rated Volts d-c		Case Sizes*		Price 1-24 †	Catalog Number	Cap. mfd	Rated Volts d-c		Case Sizes*		Price 1-24 †
		+85°C	+125°C	D	L				+85°C	+125°C	D	L	
557-701-01-001	220	7	5	3/8	1-7/16	\$4.83	557-718-05-052	82	50	40	3/8	2-3/4	\$5.43
557-702-03-004	470	7	5	3/8	2-1/8	5.28	557-719-01-055	15	75	60	3/8	1-7/16	4.83
557-703-05-007	680	7	5	3/8	2-3/4	5.43	557-720-01-058	18	75	60	3/8	1-7/16	4.83
557-704-01-010	180	10	7	3/8	1-7/16	4.83	557-721-03-061	39	75	60	3/8	2-1/8	5.28
557-705-03-013	330	10	7	3/8	2-1/8	5.28	557-722-05-064	56	75	60	3/8	2-3/4	5.43
557-706-05-016	470	10	7	3/8	2-3/4	5.43	557-723-01-067	12	100	75	3/8	1-7/16	4.83
557-707-01-019	120	15	10	3/8	1-7/16	4.83	557-724-03-070	22	100	75	3/8	2-1/8	5.28
557-708-01-022	150	15	10	3/8	1-7/16	4.83	557-725-05-073	33	100	75	3/8	2-3/4	5.43
557-709-03-025	270	15	10	3/8	2-1/8	5.28	557-726-01-076	5.6	150	100	3/8	1-7/16	4.83
557-710-05-028	390	15	10	3/8	2-3/4	5.43	557-727-01-079	8.2	150	100	3/8	1-7/16	4.83
557-711-01-031	56	30	20	3/8	1-7/16	4.83	557-728-03-082	12	150	100	3/8	2-1/8	5.28
557-712-01-034	68	30	20	3/8	1-7/16	4.83	557-729-03-085	15	150	100	3/8	2-1/8	5.28
557-713-03-037	120	30	20	3/8	2-1/8	5.28	557-730-05-088	22	150	100	3/8	2-3/4	5.43
557-714-03-049	150	30	20	3/8	2-1/8	5.28	557-731-05-091	15	200	150	3/8	2-3/4	5.43
557-715-05-043	180	30	20	3/8	2-3/4	5.43	557-732-01-094	3.3	250	200	3/8	1-7/16	4.83
557-716-01-046	27	50	40	3/8	1-7/16	4.83	557-733-03-097	6.8	250	200	3/8	2-1/8	5.28
557-717-03-049	56	50	40	3/8	2-1/8	5.28	557-734-05-100	10	250	200	3/8	2-3/4	5.43

*All dimensions are in inches.

†Prices for larger quantities are available on request.

SANGAMO ELECTRIC COMPANY

capacitors



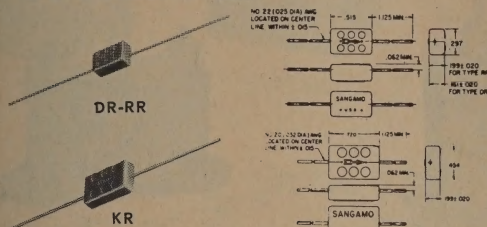
ELECTRONIC COMPONENTS

Type DR,RR and KR

SILVER MICA, 500W.V.D.C.

(MILITARY CM15 and CM20)

Type DR, RR and KR capacitors are molded in red Humidittite and are normally supplied to $\pm 5\%$ tolerance, "C" characteristic up to 20 mmf. Characteristic "E" is supplied on units above 20 mmf. unless specified otherwise. **FOR MORE COMPLETE INFORMATION WRITE FOR BULLETIN 2320.**

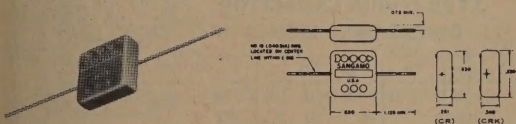


Type CR and CRK

SILVER MICA

(MILITARY CM30 and CM35)

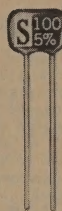
Types CR and CRK silvered mica capacitors are molded in red Humiditite and are normally supplied to $\pm 5\%$ capacitive tolerance and characteristic "E". Characteristics C, D and F are also available on request. When the thicker case size is required in higher capacitive values, the type designation changes to CRK (example: CRK5E362). **FOR MORE COMPLETE INFORMATION WRITE FOR BULLETIN 2320.**



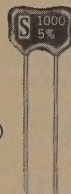
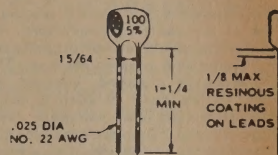
Type D15, D19, D20, D30, and D42

DIPPED SILVER MICA CAPACITORS

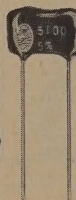
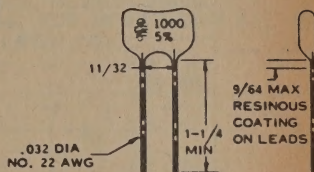
Sangamo Type D dipped Mica capacitors are available in five case sizes: D15, D19, D20, D30 and D42. With the exception of the Type D20 they correspond to the MIL-C-5B sizes CM05, CM06, CM07 and CM08 respectively. These units utilize silvered mica sections encased in several coatings of electrical grade phenolic and epoxy resins. All commercial units meet or exceed the applicable requirements of MIL-C-5 and are normally furnished to a capacitive tolerance of $\pm 5\%$ and characteristic F. **FOR MORE COMPLETE INFORMATION WRITE FOR BULLETIN 2323.**



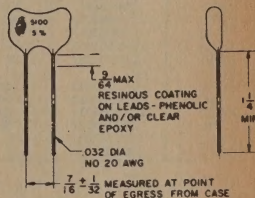
TYPE D15
(MILITARY CM05)



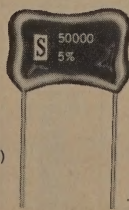
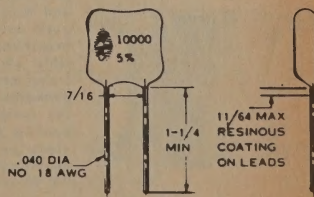
TYPE D19
(MILITARY CM06)



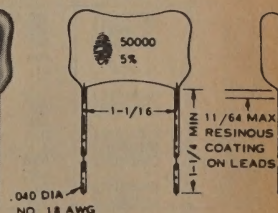
TYPE D20
(NON MILITARY)



TYPE D30
(MILITARY CM07)



TYPE D42
(MILITARY CM08)



SANGAMO ELECTRIC COMPANY

capacitors

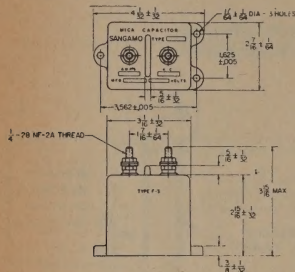


ELECTRONIC COMPONENTS

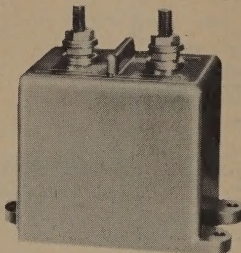
Types F1-F2-F3 MICA CAPACITORS

The Types F1, F2 and F3 are the smallest of the Sangamo line of transmitting capacitors. They are encapsulated in low loss molded phenolic cases and possess a wide range of voltage and current ratings. The mica and foil sections are pressure clamped, vacuum impregnated and encapsulated in the case in such a manner as to provide stable characteristics and adequate resistance to moisture. All Type F1 and F2 capacitors meet or exceed the applicable requirements of the MIL-C-5 specification.

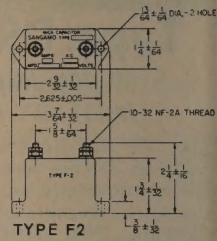
For more complete information write for Bulletin 2322.



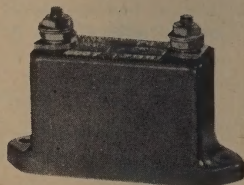
TYPE F3



TYPE F1



TYPE F2



Type F1-F2

Catalog Number	Military Type Designation	Cap. (Mfd)	Peak Volts d-c	Net Price 1-9*
F1-331	CM65B101J	.0001	3000	\$ 4.99
F1-332	CM65B201J	.0002	3000	4.99
F1-333	CM65B301J	.0003	3000	4.99
F1-321	CM65B102J	.001	3000	4.99
F1-223	CM65B302J	.003	2000	4.99
F1-111	CM65B103J	.01	1000	4.99
F1-112	CM65B203J	.02	1000	5.67
F1-0201		.1	200	6.10
F2-531	CM70B101J	.0001	5000	6.86
F2-532	CM70B201J	.0002	5000	6.86
F2-533	CM70B301J	.0003	5000	6.86
F2-522	CM70B202J	.002	5000	6.86
F2-211	CM70B103J	.01	2000	6.86
F2-212	CM70B203J	.02	2000	6.86

Catalog Number	Military Type Designation	Cap. (Mfd)	Peak Volts d-c	Net Price 1-9*
F2-0501	CM70B104J	.1	500	\$ 7.61
F2-02025		.25	250	11.06
F3-835		.0005	8000	14.65
F3-821		.001	8000	16.34
F3-825		.005	8000	20.22
F3-828		.008	8000	21.57
F3-512		.02	5000	22.96
F3-201		.1	2000	20.20
F3-0605		.5	600	21.85
F3-0410		1.0	400	34.03

*Prices for larger quantities are available on request.

Note: Standard tolerance $\pm 5\%$, "B" characteristic.

Note: Prices for closer tolerances and other characteristics are available on request.

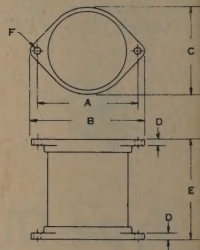
Types G1-G2-G3-G4-G5 MICA

Type G ceramic case capacitors are intended for service where high voltage and R.F. current ratings are required, such as in commercial transmitting or induction heating applications. All possible steps are taken in design and manufacturing operations to insure permanence of quality. Terminal plates are designed to permit any usual connecting or mounting practices. Case sizes are in accordance with Mil-C-5C specification covering type CM75, 80, 85, 90 and 95.

For more complete information write for Bulletin 2322.

TYPE G MICA CAPACITOR
DIMENSIONS - INCHES

Type	A	B	C	D	E	F
G1	3/4	3-13/16	2-13/16	1/4	2 1/2	17/64
G2	4/5		3 1/2	1/4	3	.272
G3	5/4	6 1/2	5	3/8	4	.377
G4	5 1/4	6 1/2	5	3/8	5 1/4	.377
G5	B	9	6 1/4	1/2	10	13/32



TYPES G1, G2, G3, G4 and G5

Catalog Number	Military Type Designation	Cap. (Mfd)	Peak Volts d-c	Net Price 1-9*
G1-6315	CM75B151J	.00015	6000	\$ 16.07
G1-633	CM75B301J	.0003	6000	17.68
G1-621	CM75B102J	.001	6000	18.47
G1-624		.004	6000	20.04
G1-511		.01	5000	20.37
G1-312		.002	3000	20.37
G2-1032	CM80B201J	.0002	10,000	25.96
G2-1022	CM80B202J	.002	10,000	25.96
G2-824		.004	8000	25.96
G2-511	CM80B103J	.01	5000	27.38
G2-1511	CM80B104J	.1	1500	27.38
G3-2031	CM85B101J	.0001	20,000	47.92
G3-2035		.0005	20,000	54.30
G3-2021	CM85B102J	.001	20,000	55.90
G3-1522	CM85B202J	.002	15,000	56.71

Catalog Number	Military Type Designation	Cap. (Mfd)	Peak Volts d-c	Net Price 1-9*
G3-1011		.01	10,000	\$ 59.90
G3-201		.1	2000	59.90
G4-3031	CM90B101J	.0001	30,000	87.45
G4-3035		.0005	30,000	91.95
G4-3021	CM90B102J	.001	30,000	95.25
G4-1525		.005	15,000	100.51
G4-301	CM90B104J	.1	3000	113.28
G5-3521	CM95B101J	.0001	35,000	183.68
G5-3535		.0005	35,000	215.62
G5-3521	CM95B102J	.001	35,000	222.28
G5-30225		.0025	30,000	216.95
G5-1511	CM95B103J	.01	15,000	235.59

*Prices for larger quantities are available on request.

Note: Standard capacitive tolerance is $\pm 5\%$, "B" characteristic.

Note: Prices for closer tolerance and better characteristics available on request.

SANGAMO ELECTRIC COMPANY

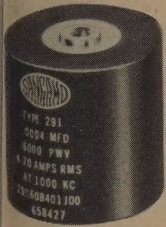
capacitors



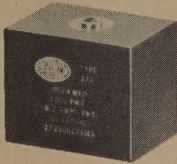
ELECTRONIC COMPONENTS

MICA
CAPACITORS

Types 271-272-273-291-292-293-294



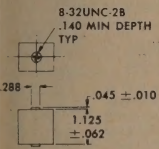
TYPE 291



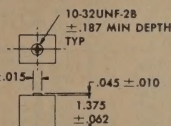
TYPE 272

Sangamo transmitting cast mica capacitors are supplied in seven basic case sizes. They are encapsulated in a high quality thermo-setting compound which eliminates moisture intrusion and makes them highly shock resistant. These capacitors are designed for frequencies ranging from 100 kilocycles per second to 3 megacycles per second and are ideally suited for high current and high voltage circuits.

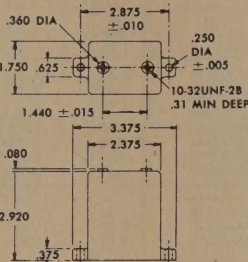
In capacitance and current ratings, Sangamo cast mica units are equivalent to MIL-C-5 Types CM65 through CM90 in molded and ceramic cases, but in environmental capability, operating temperature range, physical size, mounting configuration and reliability, they are far superior. **FOR MORE COMPLETE INFORMATION WRITE FOR BULLETIN 2324.**



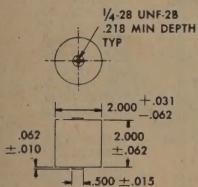
TYPE 271



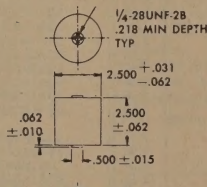
TYPE 272



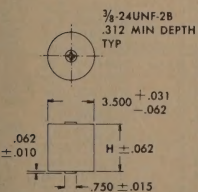
TYPE 273



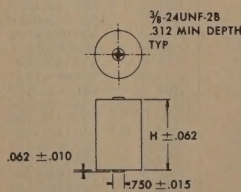
TYPE 291



TYPE 292



TYPE 293



TYPE 294

Catalog Number	Cap. (pf)	Peak Volts (d-c)	Net Price 1-9*
TYPE 271			
27130B101J0	100	3000	\$ 4.40
27130B151J0	150	3000	4.40
27130B201J0	200	3000	4.40
27130B501J0	500	3000	4.40
27130B102J0	1000	3000	4.40
27130B202J0	2000	3000	4.40
27120B502J0	5000	2000	4.40
27110B103J0	10000	1000	4.40
27102B503J0	50000	250	4.55
27102B104J0	100000	250	4.85

TYPE 272			
27250B101J0	100	5000	\$ 6.19
27250B151J0	150	5000	6.19
27250B201J0	200	5000	6.19
27250B501J0	500	5000	6.19
27250B102J0	1000	5000	6.19
27250B202J0	2000	5000	6.19
27230B502J0	5000	3000	6.19
27220B103J0	10000	2000	6.19
27215B503J0	50000	1500	6.19
27205B104J0	100000	500	7.90

TYPE 273			
27380B501J0	500	8000	\$15.29
27380B102J0	1000	8000	17.04
27380B202J0	2000	8000	17.04
27380B502J0	5000	8000	19.75
27380B103J0	10000	8000	19.75
27340B503J0	50000	4000	27.58
27320B104J0	100000	2000	23.00
27304B105J0	1000000	400	35.46

Catalog Number	Cap. (pf)	Peak Volts (d-c)	Case Height	Net Price 1-9*
TYPE 291				
29160B251J0	250	6000		\$12.85
29160B501J0	500	6000		14.00
29160B102J0	1000	6000		14.00
29160B202J0	2000	6000		14.63
29160B502J0	5000	6000		14.63
29140B103J0	10000	4000		15.33
29110B104J0	100000	1000		18.38

TYPE 292				
292100B251J0	250	10000		\$18.50
292100B501J0	500	10000		18.50
292100B102J0	1000	10000		18.50
292100B202J0	2000	10000		18.50
292050B502J0	5000	6000		18.50
29250B103J0	10000	5000		20.56
29215B104J0	100000	1500		20.56

TYPE 293				
293200B251J0	250	20000	2.50	\$43.78
293200B501J0	500	20000	2.50	45.01
293200B102J0	1000	20000	2.75	47.25
293150B202J0	2000	15000	3.00	47.25
293100B502J0	5000	10000	2.75	48.85
293050B103J0	10000	8000	3.25	48.85
29320B104J0	100000	2000	2.75	48.85

TYPE 294				
294300B251J0	250	30000	4.00	\$78.11
294300B501J0	500	30000	4.00	78.11
294300B102J0	1000	30000	4.50	79.28
294200B202J0	2000	20000	4.50	79.28
294150B502J0	5000	15000	4.50	87.51
294100B103J0	10000	10000	5.00	94.25
29430B104J0	100000	3000	4.50	94.25

* Prices for larger quantities are available on request

SANGAMO ELECTRIC COMPANY

capacitors



ELECTRONIC COMPONENTS

Type S Subminiature Hermetically Sealed Metal Tubular Capacitors

Sangamo Type S capacitors are designed to meet the demands for a high quality, hermetically sealed paper tubular capacitor. They are encapsulated in brass tubular cases finished with a high tin content alloy. Hermetic sealing is accomplished by using glass-to-metal solder seal terminals. The impregnant used in these units is Ethern, an oil of high thermal stability and superior electrical characteristics over the temperature range of -55°C to +125°C. Sangamo Type S capacitors meet the case sizes and performance requirements of military specification MIL-C-25. The limited number of popular listings below are furnished with insulated sections. They are also available with grounded case if equipment requirements so dictate. The adjacent cross reference table will assist in the interpretation of Sangamo catalog nomenclatures with the various military types and case constructions.

For more complete information on other ratings, tolerances and voltages, write for Bulletin 2421.

Sangamo Type	Military Type	Description
SBA	CP04	Tab construction (without sleeve)
SBB	CP05	Tab construction (with sleeve)
SDA	CP08	Extended foil (without sleeve)
SDB	CP09	Extended foil (with sleeve)
SBC	CP10	Tab construction (with bracket)
SBE	CP11	Tab construction (with threaded mtg)
SDC	CP12	Extended foil (with bracket)
SDE	CP13	Extended foil (with threaded mtg)

Capacitance Tolerance ±10%†		Tab Construction		Tab Construction		Extended Foil		Extended Foil	
Cap. (Mfd)	Rated Volts d-c	Catalog Number	Net Price 1-9*	Catalog Number	Net Price 1-9*	Catalog Number	Net Price 1-9*	Catalog Number	Net Price 1-9*
.027	100	SBA1K01273K	\$1.76	SBB1K01273K	\$1.84	SDA1K01273K	\$1.96	SDB1K01273K	\$2.04
.033	100	SBA1K01333K	1.80	SBB1K01333K	1.84	SDA1K01333K	1.96	SDB1K01333K	2.04
.082	100	SBA1K01823K	1.92	SBB1K01823K	1.96	SDA1K01823K	2.00	SDB1K01823K	2.08
.1	100	SBA1K01104K	1.92	SBB1K01104K	2.00	SDA1K01104K	2.04	SDB1K01104K	2.08
.15	100	SBA1K01154K	1.92	SBB1K01154K	2.04	SDA1K01154K	2.04	SDB1K01154K	2.12
.22	100	SBA1K01224K	2.00	SBB1K01224K	2.16	SDA1K01224K	2.16	SDB1K01224K	2.20
.27	100	SBA1K01274K	2.04	SBB1K01274K	2.08	SDA1K01274K	2.24	SDB1K01274K	2.28
.33	100	SBA1K01334K	2.08	SBB1K01334K	2.16	SDA1K01334K	2.32	SDB1K01334K	2.40
.39	100	SBA1K01394K	2.16	SBB1K01394K	2.24	SDA1K01394K	2.36	SDB1K01394K	2.44
.47	100	SBA1K01474K	2.24	SBB1K01474K	2.32	SDA1K01474K	2.44	SDB1K01474K	2.52
.68	100	SBA1K01684K	2.36	SBB1K01684K	2.48	SDA1K01684K	2.56	SDB1K01684K	2.64
.82	100	SBA1K01824K	2.44	SBB1K01824K	2.52	SDA1K01824K	2.68	SDB1K01824K	2.80
1.0	100	SBA1K01105K	2.52	SBB1K01105K	2.64	SDA1K01105K	2.88	SDB1K01105K	2.96
.015	200	SBA1K02153K	1.84	SBB1K02153K	1.92	SDA1K02153K	2.00	SDB1K02153K	2.08
.022	200	SBA1K02223K	1.84	SBB1K02223K	1.92	SDA1K02223K	2.00	SDB1K02223K	2.08
.039	200	SBA1K02393K	1.92	SBB1K02393K	2.00	SDA1K02393K	2.04	SDB1K02393K	2.12
.047	200	SBA1K02473K	1.96	SBB1K02473K	2.00	SDA1K02473K	2.08	SDB1K02473K	2.12
.068	200	SBA1K02683K	1.96	SBB1K02683K	2.04	SDA1K02683K	2.08	SDB1K02683K	2.16
.1	200	SBA1K02104K	2.00	SBB1K02104K	2.08	SDA1K02104K	2.08	SDB1K02104K	2.16
.15	200	SBA1K02154K	2.04	SBB1K02154K	2.08	SDA1K02154K	2.20	SDB1K02154K	2.28
.22	200	SBA1K02224K	2.16	SBB1K02224K	2.20	SDA1K02224K	2.32	SDB1K02224K	2.40
.33	200	SBA1K02334K	2.28	SBB1K02334K	2.36	SDA1K02334K	2.48	SDB1K02334K	2.56
.39	200	SBA1K02394K	2.36	SBB1K02394K	2.44	SDA1K02394K	2.52	SDB1K02394K	2.64
.47	200	SBA1K02474K	2.44	SBB1K02474K	2.52	SDA1K02474K	2.64	SDB1K02474K	2.72
.68	200	SBA1K02684K	2.56	SBB1K02684K	2.64	SDA1K02684K	2.88	SDB1K02684K	2.96
.82	200	SBA1K02824K	2.56	SBB1K02824K	2.76	SDA1K02824K	2.92	SDB1K02824K	3.00
1.0	200	SBA1K02105K	2.80	SBB1K02105K	2.88	SDA1K02105K	3.00	SDB1K02105K	3.08
.0082	400	SBA1K04822K	1.88	SBB1K04822K	1.96	SDA1K04822K	2.04	SDB1K04822K	2.12
.01	400	SBA1K04103K	1.92	SBB1K04103K	1.96	SDA1K04103K	2.04	SDB1K04103K	2.12
.033	400	SBA1K04333K	2.00	SBB1K04333K	2.04	SDA1K04333K	2.12	SDB1K04333K	2.20
.047	400	SBA1K04473K	2.04	SBB1K04473K	2.12	SDA1K04473K	2.16	SDB1K04473K	2.24
.068	400	SBA1K04683K	2.08	SBB1K04683K	2.16	SDA1K04683K	2.24	SDB1K04683K	2.32
.082	400	SBA1K04823K	2.12	SBB1K04823K	2.16	SDA1K04823K	2.28	SDB1K04823K	2.36
.1	400	SBA1K04104K	2.16	SBB1K04104K	2.24	SDA1K04104K	2.32	SDB1K04104K	2.40
.15	400	SBA1K04154K	2.28	SBB1K04154K	2.36	SDA1K04154K	2.48	SDB1K04154K	2.56
.22	400	SBA1K04224K	2.44	SBB1K04224K	2.52	SDA1K04224K	2.60	SDB1K04224K	2.68
.33	400	SBA1K04334K	2.56	SBB1K04334K	2.64	SDA1K04334K	2.88	SDB1K04334K	2.96
.47	400	SBA1K04474K	2.80	SBB1K04474K	2.88	SDA1K04474K	3.00	SDB1K04474K	3.12
.68	400	SBA1K04684K	3.00	SBB1K04684K	3.08	SDA1K04684K	3.12	SDB1K04684K	3.24
.82	400	SBA1K04824K	3.16	SBB1K04824K	3.24	-----	-----	-----	-----
1.0	400	SBA1K04105K	3.36	SBB1K04105K	3.48	-----	-----	-----	-----
.0015	600	SBA1K06152K	1.88	SBB1K06152K	1.92	SDA1K06152K	1.96	SDB1K06152K	2.00
.0022	600	SBA1K06222K	1.88	SBB1K06222K	1.92	SDA1K06222K	1.96	SDB1K06222K	2.04
.0047	600	SBA1K06472K	1.92	SBB1K06472K	1.96	SDA1K06472K	2.04	SDB1K06472K	2.12
.0068	600	SBA1K06682K	1.92	SBB1K06682K	2.00	SDA1K06682K	2.04	SDB1K06682K	2.12
.0082	600	SBA1K06822K	1.92	SBB1K06822K	2.04	SDA1K06822K	2.08	SDB1K06822K	2.12
.01	600	SBA1K06103K	1.96	SBB1K06103K	2.04	SDA1K06103K	2.08	SDB1K06103K	2.12
.015	600	SBA1K06153K	2.00	SBB1K06153K	2.08	SDA1K06153K	2.16	SDB1K06153K	2.20
.022	600	SBA1K06223K	2.00	SBB1K06223K	2.12	SDA1K06223K	2.16	SDB1K06223K	2.24
.033	600	SBA1K06333K	2.08	SBB1K06333K	2.16	SDA1K06333K	2.16	SDB1K06333K	2.24
.047	600	SBA1K06473K	2.12	SBB1K06473K	2.20	SDA1K06473K	2.28	SDB1K06473K	2.32
.068	600	SBA1K06683K	2.20	SBB1K06683K	2.32	SDA1K06683K	2.40	SDB1K06683K	2.48
.1	600	SBA1K06104K	2.32	SBB1K06104K	2.44	SDA1K06104K	2.48	SDB1K06104K	2.56
.15	600	SBA1K06154K	2.40	SBB1K06154K	2.52	SDA1K06154K	2.64	SDB1K06154K	2.72
.22	600	SBA1K06224K	2.60	SBB1K06224K	2.72	SDA1K06224K	2.92	SDB1K06224K	3.00
.39	600	SBA1K06394K	2.96	SBB1K06394K	3.12	SDA1K06394K	3.24	SDB1K06394K	3.36
.68	600	SBA1K06474K	3.04	SBB1K06474K	3.20	SDA1K06474K	3.40	SDB1K06474K	3.52
.82	600	SBA1K06684K	3.20	SBB1K06684K	3.32	-----	-----	-----	-----
.82	600	SBA1K06824K	3.32	SBB1K06824K	3.52	-----	-----	-----	-----
1.0	600	SBA1K06105K	3.40	SBB1K06105K	3.72	-----	-----	-----	-----

*Prices for larger quantities are available on request.
†For ±5% tolerance add 30% to above price.

SANGAMO ELECTRIC COMPANY

capacitors



ELECTRONIC COMPONENTS

Types 40-41-42-43 PAPER

Sangamo Types 40, 41, 42 and 43 paper dielectric capacitors are ideal for use in high voltage filter applications. Enclosed in aluminum containers, they mount to the chassis by means of a 3/4-16 threaded neck. In the Types 40 and 42, one connection is provided by an insulated terminal and the other is provided by the case and washer with a solder lug. In the Types 41 and 43, both terminals are completely insulated from the case. Each of the 4 types is provided with mounting nut and lockwasher. The Types 40 and 41 are impregnated with Diacolor to provide an F characteristic. Types 42 and 43 are impregnated with mineral oil to provide an E characteristic. All units are designed in accordance with electrical characteristics of MIL-C-25.

For more complete information write for Bulletin 2423.

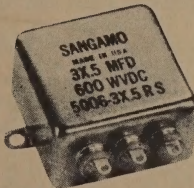
Types
40
42Types
41
43

Catalog Number	Military Type Designation	Cap. (Mfd)	Rated Volts d-c	Net Price 1-9*	Catalog Number	Military Type Designation	Cap. (Mfd)	Rated Volts d-c	Net Price 1-9*
4006-1	CP40B2FF105K	1.0	600	\$3.81	4106-1	CP41B1FF105K	1.0	600	3.91
4206-1	CP40B2EF105K	1.0	600	3.81	4306-1	CP41B1EF105K	1.0	600	3.91
4006-2	CP40B2FF205K	2.0	600	3.95	4106-2	CP41B1FF205K	2.0	600	4.05
4206-2	CP40B2EF205K	2.0	600	3.95	4306-2	CP41B1EF205K	2.0	600	4.05
4006-3	CP40B2FF405K	3.0	600	4.40	4106-3	CP41B1FF405K	3.0	600	4.50
4206-3	CP40B2EF405K	3.0	600	4.40	4306-3	CP41B1EF405K	3.0	600	4.50
4006-4	CP40B2FF405K	4.0	600	5.13	4106-4	CP41B1FF405K	4.0	600	5.23
4206-4	CP40B2EF405K	4.0	600	5.13	4306-4	CP41B1EF405K	4.0	600	5.23
4010-1	CP40B2FG105K	1.0	1000	3.54	4110-1	CP41B1FG105K	1.0	1000	3.64
4210-1	CP40B2EG105K	1.0	1000	3.54	4310-1	CP41B1EG105K	1.0	1000	3.64
4010-2	CP40B2FG205K	2.0	1000	4.54	4110-2	CP41B1FG205K	2.0	1000	4.64
4210-2	CP40B2EG205K	2.0	1000	4.54	4310-2	CP41B1EG205K	2.0	1000	4.64
4015-.25	CP40B2FH254K	.25	1500	4.18	4115-.25	CP41B1FH254K	.25	1500	4.28
4215-.25	CP40B2EH254K	.25	1500	4.18	4315-.25	CP41B1EH254K	.25	1500	4.28
4015-.5	CP40B2FH504K	.5	1500	4.49	4115-.5	CP41B1FH504K	.5	1500	4.59
4215-.5	CP40B2EH504K	.5	1500	4.49	4315-.5	CP41B1EH504K	.5	1500	4.59
4015-1.0	CP40B2FH105K	1.0	1500	4.95	4115-1.0	CP41B1FH105K	1.0	1500	5.05
4215-1.0	CP40B2EH105K	1.0	1500	4.95	4315-1.0	CP41B1EH105K	1.0	1500	5.05

*Prices for larger quantities are available on request.

Note: Standard capacitive tolerance :±10%

Type 50 PAPER



Sangamo Type 50 paper dielectric capacitors are primarily intended for bypass applications. They are non-inductively wound, supplied in fractional capacitive values and will provide efficient and continuous operation in coupling and bypass circuits. These capacitors are impregnated with mineral oil and may be operated under severe humidity conditions at temperatures between -55° and 85°C. All units are designed in accordance with electrical characteristics of MIL-C-25.

For more complete information write for Bulletin 2423.

Catalog Number	Military Type Designation	Cap. (Mfd)	Dimensions (inches)			Net Price 1-9*	Catalog Number	Military Type Designation	Cap. (Mfd)	Dimensions (inches)			Net Price 1-9*
			Length	Width	Height					Length	Width	Height	
100 W.V.D.C.							600 W.V.D.C.						
50V01-1RS	-----	1.0	1-13/16	1	7/8	\$2.34	50V06-.05RS	-----	.05	1-13/16	1	3/4	\$1.88
50V01-2RS	-----	2.0	2	1-3/4	1	2.83	50V06-1RS	-----	.1	1-13/16	1	3/4	1.98
50V01-4RS	CP53B1EB405K1	4.0	2	2	1-1/8	3.43	50V06-25RS	CP53B1EF254K1	.25	1-13/16	1	3/4	2.03
-----	CP53B1FB405K1	4.0	2	2	1	3.43	50V06-5RS	CP53B1EF504K1	.5	1-13/16	1	1	2.17
-----	CP53B1FB106K1	10.0	2	2	1-1/8	6.11	50V06-1RS	CP53B1EF105K1	1.0	2	1-3/4	7/8	2.53
200 W.V.D.C.							50V06-2RS	CP53B1EF205K1	2.0	2	2	1-1/8	3.36
50V02-.25RS	-----	.25	1-13/16	1	3/4	1.98	50X06-2X.1RS	CP53B4EF104V1	2X.1	1-13/16	1	3/4	2.67
50V02-5RS	CP53B1FC504K1	.5	1-13/16	1	3/4	2.02	-----	CP53B4EF254V1	2X.25	1-13/16	1	1	2.75
50V02-1RS	CP53B1EC105K1	1.0	2	1-3/4	7/8	2.43	50X06-2X.5RS	CP53B4EF504V1	2X.5	2	1-3/4	1	3.11
50V02-2RS	CP53B1EC205K1	2.0	2	2	1	3.07	50X06-2X1RS	CP53B4EF105V1	2X1.0	2	2	1-1/8	3.77
400 W.V.D.C.							-----	CP53B5EF104V1	3X.1	1-13/16	1	7/8	3.05
50V04-.05RS	-----	.05	1-13/16	1	3/4	1.81	50Y06-3X.25RS	CP53B5EF254V1	3X.25	2	1-3/4	7/8	3.41
50V04-1RS	-----	.1	1-13/16	1	3/4	1.90	50Y06-3X.5RS	CP53B5EF504V1	3X.5	2	2	1-1/8	4.20
50V04-5RS	CP53B1KE104K1	.5	1-13/16	1	3/4	2.09	1000 W.V.D.C.						
50V04-2RS	CP53B1KE105K1	1.0	2	1-3/4	7/8	2.79	50V10-1RS	CP53B1EG104K1	.1	1-13/16	1	3/4	2.07
50X04-2X.1RS	-----	2X.1	1-13/16	1	3/4	2.59	50V10-25RS	CP53B1EG254K1	.25	1-13/16	1	7/8	2.13
50X04-2X.25RS	-----	2X.25	2	1-3/4	7/8	3.03	50V10-5RS	CP53B1EG504K1	.5	2	1-3/4	7/8	2.28
50X04-2X1RS	-----	2X1.0	2	1-1/8	3/7	2.77	50V10-1RS	CP53B1EG105K1	1.0	2	2	1-1/8	3.11
50Y04-3X.05RS	-----	3X.05	1-13/16	1	3/4	2.92	50X10-2X.1RS	CP53B4EG104V1	2X.1	1-13/16	1	3/4	2.77
50Y04-3X.1RS	-----	3X.1	1-13/16	1	3/4	3.03	50X10-2X.5RS	CP53B4EG254V1	2X.5	2	1-3/4	7/8	3.03
50Y04-3X.5RS	CP53B5EE504V1	3X.5	2	2	1-1/8	4.07	50X10-2X.5RS	CP53B4EG504V1	2X.5	2	2	1-1/8	3.94
							50Y10-3X.1RS	CP53B5EG104V1	3X.1	2	1-3/4	7/8	3.41
							50Y10-3X.25RS	CP53B5EG254V1	3X.25	2	2	1-1/8	4.23

*Prices for larger quantities are available on request.

Note: Standard capacitive tolerance :±10%

Note: Capacitors are normally supplied with side terminals unless otherwise specified.

SANGAMO ELECTRIC COMPANY

capacitors



ELECTRONIC COMPONENTS

Types 60- 62- 64- 66- 68 PAPER



TYPE 60



TYPE 62



TYPE 64



TYPE 66



TYPE 68

Sangamo Types 60, 62, 64, 66 and 68 are non-inductively wound paper capacitors, impregnated with mineral oil and hermetically sealed in drawn metal cans. The mineral oil assures dependable service between the temperature range of -55° to +85°C. All units are designed in accordance with the electrical characteristics of MIL-C-25 specification. Mounting brackets are supplied on units as shown.

For more complete information write for Bulletin 2423.

Catalog Number	Military Type Designation	Cap. (Mfd)	Dimensions (inches)			Net Price 1-9*
			Length	Width	Height	
400 W.V.D.C.						
60V04-.05	CP91B1KE104K1	.05	1-5/16	.625	1-1/16	\$1.81
60V04-.1		.1	1-5/16	.625	1-1/16	1.91
60V04-.5		.5	1-5/16	.625	1-5/8	2.03
60V04-1	CP91B1EE105K1	1.0	1-5/16	.625	2-1/2	2.29
60X04-2X.05	CP91B6EE503V1	2X.05	1-5/16	.625	1-1/16	2.13
60X04-2X.1	CP91B6EE104V1	2X.1	1-5/16	.625	1-3/8	2.22
60X04-2X.25		2X.25	1-5/16	.625	1-3/8	2.39
	CP91B6EE504V1	2X.5	1-5/16	.625	2-1/2	2.77
62V04-.05		.05	2-5/16	.766	1-1/16	1.89
62V04-.5		.5	2-5/16	.766	1-5/8	2.11
	CP63B1KE504K1	.5	2-5/16	.766	2	1.43
62V04-1	CP63B1EE105K1	1.0	2-5/16	.766	2-1/2	2.37
62X04-2X.05	CP63B6EE503K1	2X.05	2-5/16	.766	1-1/16	2.21
62X04-2X.1	CP63B6EE104K1	2X.1	2-5/16	.766	1-3/8	2.30
62X04-2X.25		2X.25	2-5/16	.766	1-3/8	2.47
	CP63B6EE504K1	2X.5	2-5/16	.766	2-1/2	2.85
64V04-.05		.05	2-5/16	.766	1-1/16	1.89
64V04-.1	CP65B1KE104K1	.1	2-5/16	.766	1-1/16	1.99
64V04-.25	CP65B1KE254K1	.25	2-5/16	.766	1-3/8	2.05
64V04-.5		.5	2-5/16	.766	1-5/8	2.11
64V04-1	CP65B1EE105K1	1.0	2-5/16	.766	2-1/2	2.37
64X04-2X.05	CP65B6EE503K1	2X.05	2-5/16	.766	1-1/16	2.21
64X04-2X.1	CP65B6EE104K1	2X.1	2-5/16	.766	1-3/8	2.30
64X04-2X.25		2X.25	2-5/16	.766	1-3/8	2.47
	CP65B6EE504K1	2X.5	2-5/16	.766	2-1/2	2.85
600 W.V.D.C.						
60V06-.01		.01	1-5/16	.625	1-1/16	1.81
60V06-.05	CP91B1EF503K1	.05	1-5/16	.625	1-1/16	1.86
60V06-.1	CP91B1EF254K1	.1	1-5/16	.625	1-3/8	1.94
60V06-.25		.25	1-5/16	.625	1-5/8	2.01
60V06-.5	CP91B1EF504K1	.5	1-5/16	.625	2	2.08
60V06-1.0	CP91B1EF105K1	1.0	1-5/16	.625	2-3/4	2.34
60V06-2.0		2.0	2-1/4	1.188	3-1/16	4.22
60X06-2X.1	CP91B6EF104V1	2X.1	1-5/16	.625	1-5/8	2.26
60X06-2X.25	CP91B6EF254V1	2X.25	1-5/16	.625	2	2.44
60X06-2X.5	CP91B6EF504V1	2X.5	1-5/16	.625	2-3/4	2.83
62V06-.25	CP63B1EF254K1	.25	2-5/16	.766	1-5/8	2.09
62V06-.5	CP63B1EF504K1	.5	2-5/16	.766	2	2.16
62V06-1.0	CP63B1EF105K1	1.0	2-5/16	.766	2-3/4	2.42
64V06-.25	CP65B1EF254K1	.25	2-5/16	.766	1-5/8	2.09
64V06-.5	CP65B1EF504K1	.5	2-5/16	.766	2	2.16
64V06-1.0	CP65B1EF105K1	1.0	2-5/16	.766	2-3/4	2.42
64X06-2X.1	CP65B6EF104K1	2X.1	2-5/16	.766	1-5/8	2.34
64X06-2X.25	CP65B6EF254K1	2X.25	2-5/16	.766	2	2.52
64X06-2X.5	CP65B6EF504K1	2X.5	2-5/16	.766	2-3/4	2.91
600 W.V.D.C. (Cont'd.)						
66X06-2X.1	CP67B1EF104V1	2X.1	2-7/16	.640	1-1/2	\$2.78
66X06-2X.25	CP67B4EF254V1	2X.25	2-7/16	.640	2	2.85
66X06-2X.5	CP67B4EF504V1	2X.5	2-7/16	.640	2-3/4	3.06
66Y06-3X.1	CP67B5EF104V1	3X.1	2-7/16	.640	1-1/2	3.34
66Y06-3X.25	CP67B5EF254V1	3X.25	2-7/16	.640	2-3/4	3.42
68V06-1	CP69B1EF104K1	.1	2-7/16	.640	1-1/16	2.36
68V06-.25	CP69B1EF254K1	.25	2-7/16	.640	1-1/2	2.43
68V06-.5	CP69B1EF504K1	.5	2-7/16	.640	2	2.52
68V06-1.0	CP69B1EF105K1	1.0	2-7/16	.640	2-3/4	2.78
68X06-2X.1	CP69B4EF104V1	2X.1	2-7/16	.640	1-1/2	2.85
68X06-2X.25	CP69B4EF254V1	2X.25	2-7/16	.640	2	3.06
68X06-2X.5	CP69B4EF504V1	2X.5	2-7/16	.640	2-3/4	3.34
68Y06-3X.1	CP69B5EF104V1	3X.1	2-7/16	.640	1-1/2	3.42
68Y06-3X.25	CP69B5EF254V1	3X.25	2-7/16	.640	2-3/4	3.67
1000 W.V.D.C.						
60V10-.05	CP91B1EG503K1	.05	1-5/16	.625	1-3/8	1.93
60V10-.1	CP91B1EG104K1	.1	1-5/16	.625	1-3/8	2.00
60V10-.5	CP91B1EG504K1	.5	1-5/16	.625	2-3/4	2.25
60V10-1.0		1.0	2-1/4	1.188	1-3/16	2.65
60X10-2X.05	CP91B6EG503V1	2X.05	1-5/16	.625	1-3/8	2.25
60X10-2X.25	CP91B6EG254V1	2X.25	1-5/16	.625	2-3/4	2.52
62V10-.25	CP63B1EG254K1	.25	2-5/16	.766	2	2.14
62V10-.5	CP63B1EG504K1	.5	2-5/16	.766	2-3/4	2.33
62X10-2X.05	CP63B6EG503K1	2X.05	2-5/16	.766	1-3/8	2.23
62X10-2X.01	CP63B6EG104K1	2X.1	2-5/16	.766	2	2.46
62X10-2X.25	CP63B6EG254K1	2X.25	2-5/16	.766	2-3/4	2.60
64V10-.25	CP65B1EG254K1	.25	2-5/16	.766	2	2.14
64V10-.5	CP65B1EG504K1	.5	2-5/16	.766	2-3/4	2.33
64X10-2X.05	CP65B6EG503K1	2X.05	2-5/16	.766	1-3/8	2.23
64X10-2X.25	CP65B6EG254K1	2X.25	2-5/16	.766	2-3/4	2.60
66V10-1	CP67B1EG104K1	.1	2-7/16	.640	1-1/2	2.39
66V10-.5	CP67B1EG504K1	.5	2-7/16	.640	2-3/4	2.68
66X10-2X.1	CP67B4EG104V1	2X.1	2-7/16	.640	2	2.95
66X10-2X.25	CP67B4EG254V1	2X.25	2-7/16	.640	2-3/4	3.13
66Y10-3X.05	CP67B5EG503V1	3X.05	2-7/16	.640	1-1/2	3.40
66Y10-3X.1	CP67B5EG104V1	3X.1	2-7/16	.640	2-1/2	3.52
68V10-1	CP69B1EG104K1	.1	2-7/16	.640	1-1/2	2.39
68V10-.25	CP69B1EG254K1	.25	2-7/16	.640	2	2.46
68X10-2X.05	CP69B4EG503V1	2X.05	2-7/16	.640	1-1/2	2.83
68X10-2X.25	CP69B4EG254V1	2X.25	2-7/16	.640	2-3/4	3.13
68Y10-3X.1	CP69B5EG104V1	3X.1	2-7/16	.640	2-1/2	3.52

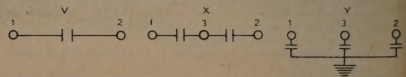
*Prices on larger quantities are available on request.

Note: Standard tolerance on all single section capacitors is $\pm 10\%$ and ± 20 , -10% on all multiple section capacitors.

Note: Type 60 can be furnished with spade or footed brackets.

Add \$0.20 to above prices when required.

Note: Letter V, X and Y denote electrical circuit as follows:



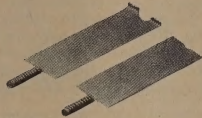
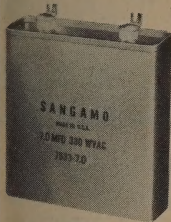
SANGAMO ELECTRIC COMPANY

capacitors



ELECTRONIC COMPONENTS

Type 75 MOTOR-RUN AND BALLAST CAPACITORS



SPADE BRACKET

The Sangamo Type 75 paper dielectric capacitors are designed for use in motor-run, ballast and light-duty power factor correction applications. These units are impregnated with Sangamo Diaclor A — a highly refined, electrically stable, non-inflammable dielectric oil that is recommended for use in continuous A.C. duty at ambient temperatures up to +70°C. For more complete information write for Bulletin 2424.

Catalog Number	Cap. (Mfd)	Rated Volts A.C.	Base Dimensions L±1/16 W±1/16	Height ±1/16	Net Price 1-9*
7522-1	1.0	220	1-13/16 1-1/16	1-5/8	\$ 3.80
7522-2	2.0	220	1-13/16 1-1/16	2-1/4	4.55
7522-4	4.0	220	1-13/16 1-1/16	3-1/4	5.32
7522-5	5.0	220	2-1/2 1-3/16	2-7/8	5.61
7522-7.5	7.5	220	2-1/2 1-3/16	3-7/8	7.24
7522-10	10.0	220	2-1/2 1-3/16	4-3/4	8.56
7522-12	12.0	220	3-3/4 1-1/4	3-7/8	9.79
7522-20	20.0	220	3-3/4 1-3/4	4	16.01
7522-25	25.0	220	3-3/4 2-1/4	4-1/8	20.01
7522-30	30.0	220	3-3/4 2-1/2	4-3/4	25.10
7522-35	35.0	220	3-3/4 3-3/16	4-1/2	29.00
7522-40	40.0	220	3-3/4 3-3/16	4-3/4	33.57
7522-50	50.0	220	4-9/16 3-3/4	4-1/4	38.10
7522-60	60.0	220	4-9/16 3-3/4	4-3/4	46.85
7533-2	2.0	330	1-13/16 1-1/16	2-7/8	4.65
7533-4	4.0	330	1-13/16 1-1/16	4-3/4	6.01
7533-6	6.0	330	2-1/2 1-3/16	3-7/8	7.34
7533-10	10.0	330	3-3/4 1-1/4	3-7/8	10.01
7533-12	12.0	330	3-3/4 1-3/4	3-7/8	12.00
7533-15	15.0	330	3-3/4 1-3/4	4-1/4	13.33
7533-20	20.0	330	3-3/4 2-1/4	4-1/2	15.99
7533-25	25.0	330	3-3/4 2-1/2	4-3/4	20.01
7533-30	30.0	330	3-3/4 3-3/16	4-1/2	24.16
7533-40	40.0	330	3-3/4 3-3/16	5-1/2	29.90
7533-45	45.0	330	4-9/16 3-3/4	4-1/2	33.73
7533-55	55.0	330	4-9/16 3-3/4	5-1/8	38.65

Catalog Number	Cap. (Mfd)	Rated Volts A.C.	Base Dimensions L±1/16 W±1/16	Height ±1/16	Net Price 1-9*
7544-2	2.0	440	1-13/16 1-1/16	3-1/4	\$ 5.63
7544-3	3.0	440	1-13/16 1-1/16	4-3/4	6.55
7544-3.75	3.75	440	2-1/2 1-3/16	3-7/8	6.88
7544-4	4.0	440	2-1/2 1-3/16	3-7/8	6.88
7544-8	8.0	440	3-3/4 1-1/4	4-1/4	10.12
7544-10	10.0	440	3-3/4 2-1/4	3-3/8	11.30
7544-15	15.0	440	3-3/4 2-1/4	4-1/2	13.65
7544-20	20.0	440	3-3/4 3-3/16	4-1/8	16.51
7544-30	30.0	440	3-3/4 3-3/16	5-1/2	24.39
7544-35	35.0	440	4-9/16 3-3/4	4-1/2	26.13
7544-40	40.0	440	4-9/16 3-3/4	5-1/8	27.63
7544-50	50.0	440	4-9/16 3-3/4	6	30.50
7544-55	55.0	440	4-9/16 3-3/4	6-3/4	32.36
7566-1	1.0	660	1-13/16 1-1/16	3-7/8	4.83
7566-2	2.0	660	2-1/2 1-3/16	3-7/8	6.07
7566-8	8.0	660	3-3/4 2-1/4	3-7/8	11.30
7566-20	20.0	660	4-9/16 3-3/4	4-1/4	17.50
7566-30	30.0	660	4-9/16 3-3/4	6	21.80

*Price for larger quantities are available on request.

Note: Standard tolerance $\pm 10\%$

Note: All dimensions in inches

Note: Spade Type, footed or universal wrap-around brackets can be furnished at additional cost.



Type 80 Ballast and Motor-Run Capacitors

The Sangamo Type 80 capacitors are impregnated with Sangamo Diaclor A and hermetically sealed in drawn oval metal containers. They are specifically used in fluorescent-light ballast, heating, ventilating and air conditioning motor-run applications. They are designed for use in continuous A.C. duty. For more complete information write for Bulletin 2424.

Catalog Number	Cap. (Mfd)	Rated Volts A.C.	Base Dimensions L±1/16 W±1/16	Height ±1/16	Net Price 1-9*
8022-2	2.0	220	2-1/16 1-1/4	2-1/4	\$ 2.86
8022-3	3.0	220	2-1/16 1-1/4	2-1/4	2.99
8022-4	4.0	220	2-1/16 1-1/4	2-7/8	3.26
8022-5	5.0	220	2-1/16 1-1/4	2-7/8	3.65
8022-6	6.0	220	2-1/16 1-1/4	3-3/4	4.40
8022-7.5	7.5	220	2-13/16 2-1/8	2-17/32	6.44
8022-10	10.0	220	2-13/16 2-1/8	3-1/32	7.46
8022-20	20.0	220	2-13/16 2-1/8	5	11.77
8033-2	2.0	330	2-1/16 1-1/4	2-1/4	3.10
8033-3	3.0	330	2-1/16 1-1/4	2-7/8	3.14
8033-4	4.0	330	2-1/16 1-1/4	3-1/8	3.26
8033-5	5.0	330	2-1/16 1-1/4	3-3/4	4.19
8033-6	6.0	330	2-1/16 1-1/4	3-3/4	5.34
8033-8	8.0	330	2-13/16 2-1/8	3-3/8	7.02
8033-10	10.0	330	2-13/16 2-1/8	3-3/8	7.54
8033-15	15.0	330	2-13/16 2-1/8	4-21/32	9.13
8033-20	20.0	330	2-13/16 2-1/8	5-3/16	11.94
8033-25	25.0	330	2-13/16 2-1/8	6-7/8	13.85
8033-30	30.0	330	2-13/16 2-1/8	8	15.80

Catalog Number	Cap. (Mfd)	Rated Volts A.C.	Base Dimensions L±1/16 W±1/16	Height ±1/16	Net Price 1-9*
8044-2	2.0	440	2-1/16 1-1/4	2-1/4	\$ 3.80
8044-3	3.0	440	2-1/16 1-1/4	3-1/8	4.04
8044-4	4.0	440	2-1/16 1-1/4	3-3/4	4.49
8044-5	5.0	440	2-13/16 2-1/8	2-17/32	5.63
8044-6	6.0	440	2-13/16 2-1/8	2-25/32	6.63
8044-8	8.0	440	2-13/16 2-1/8	3-25/32	7.80
8044-10	10.0	440	2-13/16 2-1/8	4-5/32	7.92
8044-15	15.0	440	2-13/16 2-1/8	6-1/4	11.00
8044-20	20.0	440	2-13/16 2-1/8	7-3/8	12.40
8066-1	1.0	660	2-1/16 1-1/4	2-1/4	3.52
8066-3	3.0	660	2-13/16 2-1/8	2-25/32	5.92
8066-5	5.0	660	2-13/16 2-1/8	4-5/32	8.25
8066-6	6.0	660	2-13/16 2-1/8	4-21/32	9.57
8066-8	8.0	660	2-13/16 2-1/8	5-3/16	10.52
8066-10	10.0	660	2-13/16 2-1/8	6-1/8	11.00

*Prices for larger quantities are available on request.

Note: Standard tolerance $\pm 10\%$

Note: All dimensions in inches

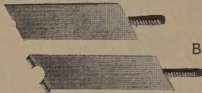
SANGAMO ELECTRIC COMPANY

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ELECTRONIC COMPONENTS

MIL Type CP72 PAPER

Footed
BracketsSpade
Brackets

Type CP72 capacitors are furnished in drawn metal cases and are designed to comply with the requirements of specification MIL-C-25. They are impregnated with various dielectric oils to guarantee the desired electrical characteristics available. Capacitors rated at 3000 volts or less are normally supplied with solder lug (B) terminals capable of accommodating a #14AWG wire. Type D and E terminals may be substituted if desired. If brackets are required, specify a choice of spade, lug or footed type.

For more complete information write for Bulletin 2423.

Military Type Designation	Cap. (Mfd)	Dimensions (inches)			Net Price 1-9*	Bracket Price Per Pr.
		L ±1/16	W ±1/16	H ±1/16†		
600 WVDC						
CP72B1EF254K1	.25	1-13/16	1-1/16	1-5/8	\$ 1.90	\$0.15
CP72B1EF105K1	1.0	1-13/16	1-1/16	2-1/4	2.20	0.15
CP72B1EF405K1	4.0	2- 1/2	1-3/16	3-1/2	4.00	0.16
CP72B1EF106K1	10.0	3- 3/4	1-3/4	4	6.80	0.26
1000 WVDC						
CP72B1EG504K1	.5	1-13/16	1-1/16	2-1/4	2.50	0.15
CP72B1EG205K1	2.0	1-13/16	1-1/16	2-7/8	2.74	0.16
CP72B1EG605K1	6.0	3- 3/4	1-3/4	4	5.90	0.26
CP72B1EG106K1	10.0	3- 3/4	2-1/4	4-3/4	8.10	0.27
1500 WVDC						
CP72B1EH105K1	1.0	1-13/16	1-1/16	4-3/4	3.00	0.16
CP72B1EH405K1	4.0	3- 3/4	1-3/4	4-1/4	6.15	0.26
CP72B1EH805K1	8.0	3- 3/4	2-1/2	5-3/4	10.60	0.27
CP72B1EH156K1	15.0	4- 9/16	3-3/4	6	17.00	0.54
2000 WVDC						
CP72E1EJ504K1	.5	2- 1/2	1-3/16	2-7/8	4.60	0.15
CP72E1EJ105K1	1.0	2- 1/2	1-3/16	4-3/4	5.40	0.16
CP72E1EJ605K1	6.0	3- 3/4	3-3/16	5-1/2	12.80	0.60
CP72E1EJ106K1	10.0	4- 9/16	3-3/4	6-1/2	18.80	0.57

Catalog Number	Cap. (Mfd)	Dimensions (inches)			Net Price 1-9*	Bracket Price Per Pr.
		L ±1/16	W ±1/16	H ±1/16†		
2500 WVDC						
CP72E1EK104K1	.1	2- 1/2	1-3/16	2-1/2	6.00	0.15
CP72E1EK105K1	1.0	3- 3/4	1-3/4	3-7/8	8.80	0.16
CP72E1EK205K1	2.0	3- 3/4	2-1/4	4-3/4	12.00	0.27
CP72E1EK405K1	4.0	4- 9/16	3-3/4	4-3/8	17.40	0.57
4000 WVDC						
CP72E1EM104K1	.1	3- 3/4	2-1/4	2-3/4	10.20	0.27
CP72E1EM254K1	.25	3- 3/4	2-1/4	3-7/8	11.20	0.27
CP72E1EM504K1	.5	3- 3/4	2-1/4	4-3/4	13.40	0.27
CP72E1EM105K1	1.0	3- 3/4	3-3/16	4-3/4	16.50	0.27
6000 WVDC						
CP72D1EP254K1	.25	3- 3/4	2-1/4	4-3/4	15.00	0.27
CP72D1EP504K1	.5	4- 9/16	3-3/4	4-3/4	19.20	0.54
CP72D1EP105K1	1.0	4- 9/16	3-3/4	9-5/8	36.20	0.60
CP72D1EP205K1	2.0	13- 1/2	4-1/8	7	85.00	1.50
7500 WVDC						
CP72D1ER254K1	.25	4- 9/16	3-3/4	4-3/8	20.80	0.57
CP72D1ER504K1	.5	4- 9/16	3-3/4	6	28.50	0.54
CP72D1ER105K1	1.0	8	4	9-1/4	68.00	1.10
CP72D1ER205K1	2.0	13- 1/2	4-1/8	9-1/4	125.00	1.60
12,500 WVDC						
CP72D1ET104K1	.1	8	4	5-1/2	67.00	0.60
CP72D1ET504K1	.5	13- 1/2	4-1/8	7	85.50	1.50
CP72D1ET105K1	1.0	13- 1/2	5-1/8	12-7/8	147.00	1.80
CP72D1ET205K1	2.0	13- 1/2	5-1/8	13-3/4	153.00	1.80

*Prices for larger quantities available on request.

†Height does not include terminals.

Note: Standard capacitive tolerance ±10%

Note: Currently stocked as CP70; CP72 stock added as orders dictate.

Type HVC HIGH VOLTAGE PAPER CAPACITORS

Sangamo Type HVC High Voltage capacitors are impregnated with a halogenated hydrocarbon called Diaclor B. This oil provides the desirable electrical performance characteristics for the most severe applications. They are sealed in shock and vibration resistant drawn rectangular or cold-rolled steel cases. The absence of solder seams eliminates oil leakage and contamination from solder flux. A wide variety of capacitance ranges are available in voltage ratings up to 50,000 volts d-c. Spade, footed or wrap-around brackets are optional at extra cost, but will not be furnished unless requested. When choice of brackets is not indicated, spade type will be supplied.

For more complete information write for Bulletin 2425.



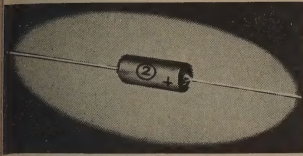
Catalog Number	Cap. (Mfd)	Rated Volts d-c	Case Dimensions (inches)			Net Price 1-9*	Bracket Price Per Pr.
			L±1/16	W±1/16	H±1/16		
702012-9401	100	600	4-9/16	3-3/4	9-1/2	\$ 35.00	\$0.55
702012-7503	30	1000	4-9/16	3-3/4	4-3/8	18.40	0.55
702013-0708	100	1500	8	4	11	46.00	1.10
702013-3107	250	1500	13-1/2	5-1/8	12-7/8	105.00	1.80
702012-7801	10	2000	4-9/16	3-3/4	4-3/4	14.30	0.55
702013-0207	30	2000	8	4	7	35.25	1.10
702013-3108	150	2000	13-1/2	5-1/8	12-7/8	106.00	1.80
702013-6604	100	2500	13-1/2	5-1/8	12-7/8	105.00	1.80
702012-7403	4	3000	4-9/16	3-3/4	4-1/4	15.80	0.55
702012-9101	10	3000	4-9/16	3-3/4	8-1/2	28.60	0.55
702013-2904	50	3000	13-1/2	4-1/8	12-7/8	100.00	1.50
702012-4203	1.0	4000	3-3/4	1-3/4	4-1/2	9.70	0.25
702013-9301	20	4000	8	4	11	37.50	1.10
702013-7401	30	4000	13-1/2	4-1/8	9-1/4	85.50	1.50
702013-4101	50	4000	13-1/2	5-1/8	11	109.00	1.80
702013-0402	10	5000	8	4	9-1/4	39.50	1.10
702013-7601	20	5000	13-1/2	4-1/8	9-1/4	81.00	1.50
702013-2201	30	5000	13-1/2	4-1/8	12-7/8	95.00	1.50
702013-6601	25	6000	13-1/2	4-1/8	9-1/4	105.00	1.80
702012-8904	1.0	10KV	4-9/16	3-3/4	7-1/2	27.00	0.55
702013-6701	10	10KV	13-1/2	5-1/8	12-7/8	109.00	1.80
702013-7802	3.5	12.5KV	13-1/2	4-1/8	11	86.00	1.50
702013-9501	2.5	12.5KV	13-1/2	4-1/8	11	87.00	1.50
702013-8402	3.5	15KV	13-1/2	4-1/8	14-1/2	102.50	1.50
702013-6602	2.0	20KV	13-1/2	5-1/8	12-7/8	111.00	1.80
702013-3302	1.0	25KV	13-1/2	5-1/8	11	96.00	1.80
702013-4102	.75	30KV	13-1/2	5-1/8	11	105.50	1.80
702013-3501	.5	35KV	13-1/2	5-1/8	11	79.50	1.80
702013-6603	.25	50KV	13-1/2	5-1/8	12-7/8	121.00	1.80

*Prices for larger quantities available on request.

Note: Standard capacitive tolerance ±10%

SPRAGUE CAPACITORS

TYPE 150D SOLID-ELECTROLYTE TANTALEX® CAPACITORS



- Combine True Miniaturization with Characteristics Previously Unobtainable in Electrolytic Capacitors.
- Hermetically Sealed Metal Case.
- Solid Electrolyte Cannot Leak or Corrode, Even if Hermetic Seal is Accidentally Broken.
- Exhibit Stable Capacitance and Low Dissipation Factor over Temperature Range of -80°C

to $+85^{\circ}\text{C}$. With Appropriate Voltage Derating, May Be Operated to $+125^{\circ}\text{C}$.

- Listed Units have Plastic Sleeves. For Bare Case, end Cat. No. in "0" instead of "2."
- For complete technical data, refer to latest issue of Engineering Bulletin 3520.
- Call your Sprague Industrial Distributor for Current Quantity Prices

μF	Size Code	Catalog Number	
		±20% Tol.	±10% Tol.
6 WVDC — 8 VDC SURGE			
.22	A	150D224X0006A2	150D224X9006A2
.27	A	150D274X9006A2	150D274X9006A2
.33	A	150D334X0006A2	150D334X9006A2
.39	A	150D394X0006A2	150D394X9006A2
.47	A	150D474X0006A2	150D474X9006A2
.56	A	150D564X9006A2	150D564X9006A2
.68	A	150D684X0006A2	150D684X9006A2
.82	A	150D824X9006A2	150D824X9006A2
1.0	A	150D105X0006A2	150D105X9006A2
1.2	A	150D125X9006A2	150D125X9006A2
1.5	A	150D155X0006A2	150D155X9006A2
1.8	A	150D185X9006A2	150D185X9006A2
2.2	A	150D225X0006A2	150D225X9006A2
2.7	A	150D275X9006A2	150D275X9006A2
3.3	A	150D335X0006A2	150D335X9006A2
3.9	A	150D395X9006A2	150D395X9006A2
4.7	A	150D475X0006A2	150D475X9006A2
5.6	A	150D565X9006A2	150D565X9006A2
6.8	A	150D685X0006A2	150D685X9006A2
8.2	B	150D825X9006B2	150D825X9006B2
10	B	150D106X0006B2	150D106X9006B2
12	B	150D126X9006B2	150D126X9006B2
15	B	150D156X0006B2	150D156X9006B2
18	B	150D186X9006B2	150D186X9006B2
22	B	150D226X0006B2	150D226X9006B2
27	B	150D276X9006B2	150D276X9006B2
33	B	150D336X0006B2	150D336X9006B2
39	B	150D396X9006B2	150D396X9006B2
47	B	150D476X0006B2	150D476X9006B2
56	B	150D566X9006B2	150D566X9006B2
68	B	150D686X0006B2	150D686X9006B2
82	R	150D826X9006R2	150D826X9006R2
100	R	150D107X0006R2	150D107X9006R2
120	R	150D127X0006R2	150D127X9006R2
150	R	150D157X0006R2	150D157X9006R2
180	R	150D187X0006S2	150D187X9006R2
220	S	150D227X0006S2	150D227X9006S2
270	S	150D277X0006S2	150D277X9006S2
330	S	150D337X0006S2	150D337X9006S2

10 WVDC — 13 VDC SURGE			
.22	A	150D224X0010A2	150D224X9010A2
.27	A	150D274X9010A2	150D274X9010A2
.33	A	150D334X0010A2	150D334X9010A2
.39	A	150D394X9010A2	150D394X9010A2
.47	A	150D474X0010A2	150D474X9010A2
.56	A	150D564X9010A2	150D564X9010A2
.68	A	150D684X0010A2	150D684X9010A2
.82	A	150D824X9010A2	150D824X9010A2
1.0	A	150D105X0010A2	150D105X9010A2
1.2	A	150D125X9010A2	150D125X9010A2
1.5	A	150D155X0010A2	150D155X9010A2
1.8	A	150D185X9010A2	150D185X9010A2
2.2	A	150D225X0010A2	150D225X9010A2
2.7	A	150D275X9010A2	150D275X9010A2
3.3	A	150D335X0010A2	150D335X9010A2
3.9	A	150D395X9010A2	150D395X9010A2
4.7	A	150D475X0010A2	150D475X9010A2
5.6	B	150D565X9010B2	150D565X9010B2
6.8	B	150D685X0010B2	150D685X9010B2
8.2	B	150D825X9010B2	150D825X9010B2
10	B	150D106X0010B2	150D106X9010B2
12	B	150D126X9010B2	150D126X9010B2
15	B	150D156X0010B2	150D156X9010B2
18	B	150D186X9010B2	150D186X9010B2
22	B	150D226X0010B2	150D226X9010B2
27	B	150D276X9010B2	150D276X9010B2
33	B	150D336X0010B2	150D336X9010B2
39	B	150D396X9010B2	150D396X9010B2
40	B	150D406X0010B2	150D406X9010B2
47	R	150D476X0010R2	150D476X9010R2
56	R	150D566X9010R2	150D566X9010R2
68	R	150D686X0010R2	150D686X9010R2
82	R	150D826X9010R2	150D826X9010R2
100	R	150D107X0010R2	150D107X9010R2

μF	Size Code	Catalog Number	
		±20% Tol.	±10% Tol.
15 WVDC — 18 VDC SURGE			
120	R	150D127X0010R2	150D127X9010R2
150	S	150D157X0010S2	150D157X9010S2
180	S	150D187X9010S2	150D187X9010S2
220	S	150D227X0010S2	150D227X9010S2
15 WVDC — 18 VDC SURGE			
.22	A	150D224X0015A2	150D224X9015A2
.27	A	150D274X9015A2	150D274X9015A2
.33	A	150D334X0015A2	150D334X9015A2
.39	A	150D394X9015A2	150D394X9015A2
.47	A	150D474X0015A2	150D474X9015A2
.56	A	150D564X9015A2	150D564X9015A2
.68	A	150D684X0015A2	150D684X9015A2
.82	A	150D824X9015A2	150D824X9015A2
1.0	A	150D105X0015A2	150D105X9015A2
1.2	A	150D125X9015A2	150D125X9015A2
1.5	A	150D155X0015A2	150D155X9015A2
1.8	A	150D185X9015A2	150D185X9015A2
2.2	A	150D225X0015A2	150D225X9015A2
2.7	A	150D275X9015A2	150D275X9015A2
3.3	A	150D335X0015A2	150D335X9015A2
3.9	B	150D395X9015B2	150D395X9015B2
4.7	B	150D475X0015B2	150D475X9015B2
5.6	B	150D565X9015B2	150D565X9015B2
6.8	B	150D685X0015B2	150D685X9015B2
8.2	B	150D825X9015B2	150D825X9015B2
10	B	150D106X0015B2	150D106X9015B2
12	B	150D126X9015B2	150D126X9015B2
15	B	150D156X0015B2	150D156X9015B2
18	B	150D186X9015B2	150D186X9015B2
22	B	150D226X0015B2	150D226X9015B2
27	R	150D276X9015R2	150D276X9015R2
33	R	150D336X0015R2	150D336X9015R2
39	R	150D396X9015R2	150D396X9015R2
47	R	150D476X0015R2	150D476X9015R2
56	R	150D566X9015R2	150D566X9015R2
68	R	150D686X0015R2	150D686X9015R2
82	S	150D826X9015S2	150D826X9015S2
100	S	150D107X0015S2	150D107X9015S2
120	S	150D127X9015S2	150D127X9015S2
150	S	150D157X0015S2	150D157X9015S2
20 WVDC — 23 VDC SURGE			

20 WVDC — 23 VDC SURGE			
.0047	A	150D472X0020A2	150D472X9020A2
.0056	A	150D562X9020A2	150D562X9020A2
.0068	A	150D682X0020A2	150D682X9020A2
.0082	A	150D822X9020A2	150D822X9020A2
.01	A	150D103X0020A2	150D103X9020A2
.012	A	150D123X9020A2	150D123X9020A2
.015	A	150D153X0020A2	150D153X9020A2
.018	A	150D183X9020A2	150D183X9020A2
.022	A	150D223X0020A2	150D223X9020A2
.027	A	150D273X9020A2	150D273X9020A2
.033	A	150D333X0020A2	150D333X9020A2
.039	A	150D393X9020A2	150D393X9020A2
.047	A	150D473X0020A2	150D473X9020A2
.056	A	150D563X9020A2	150D563X9020A2
.068	A	150D683X0020A2	150D683X9020A2
.082	A	150D823X9020A2	150D823X9020A2
.10	A	150D104X0020A2	150D104X9020A2
.12	A	150D124X9020A2	150D124X9020A2
.15	A	150D154X0020A2	150D154X9020A2
.18	A	150D184X9020A2	150D184X9020A2
.22	A	150D224X0020A2	150D224X9020A2
.27	A	150D274X9020A2	150D274X9020A2
.33	A	150D334X0020A2	150D334X9020A2
.39	A	150D394X9020A2	150D394X9020A2
.47	A	150D474X0020A2	150D474X9020A2
.56	A	150D564X9020A2	150D564X9020A2
.68	A	150D684X9020A2	150D684X9020A2
.82	A	150D824X9020A2	150D824X9020A2
1.0	A	150D105X0020A2	150D105X9020A2
1.2	A	150D125X9020A2	150D125X9020A2
1.5	A	150D155X0020A2	150D155X9020A2
1.8	A	150D185X9020A2	150D185X9020A2
2.2	A	150D225X0020A2	150D225X9020A2
2.7	B	150D275X9020B2	150D275X9020B2
3.3	B	150D335X0020B2	150D335X9020B2

μF	Size Code	Catalog Number	
		±20% Tol.	±10% Tol.
3.9	B		150D395X9020B2
4.7	B	150D475X0020B2	150D475X9020B2
5.6	B		150D565X9020B2
6.8	B	150D685X0020B2	150D685X9020B2
8.2	B		150D825X9020B2
10	B	150D106X0020B2	150D106X9020B2
12	B		150D126X9020B2
15	B	150D156X0020B2	150D156X9020B2
18	R		150D186X9020R2
22	R	150D226X0020R2	150D226X9020R2
27	R		150D276X9020R2
33	R	150D336X0020R2	150D336X9020R2
39	R		150D396X9020R2
47	R	150D476X0020R2	150D476X9020R2
56	S		150D566X9020S2
68	S	150D686X0020S2	150D686X9020S2
82	S		150D826X9020S2
100	S	150D107X0020S2	150D107X9020S2

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SPRAGUE CAPACITORS

TYPE 150D SOLID-ELECTROLYTE TANTALEX® CAPACITORS (Cont.)

Size			Catalog Number	
μF	Code		±20% Tol.	±10% Tol.
50 WVDC, 65 VDC SURGE				
.0047	A	150D472X0050A2	150D472X9050A2	
.0056	A	150D562X0050A2	150D562X9050A2	
.0068	A	150D682X0050A2	150D682X9050A2	
.0082	A	150D822X0050A2	150D822X9050A2	
.01	A	150D103X0050A2	150D103X9050A2	
.012	A	150D123X0050A2	150D123X9050A2	
.015	A	150D153X0050A2	150D153X9050A2	
.018	A	150D183X0050A2	150D183X9050A2	
.022	A	150D223X0050A2	150D223X9050A2	
.027	A	150D273X0050A2	150D273X9050A2	
.033	A	150D333X0050A2	150D333X9050A2	
.039	A	150D393X0050A2	150D393X9050A2	
.047	A	150D473X0050A2	150D473X9050A2	
.056	A	150D563X0050A2	150D563X9050A2	
.068	A	150D683X0050A2	150D683X9050A2	
.082	A	150D823X0050A2	150D823X9050A2	
.1	A	150D104X0050A2	150D104X9050A2	
.12	A	150D124X0050A2	150D124X9050A2	
.15	A	150D154X0050A2	150D154X9050A2	
.18	A	150D184X0050A2	150D184X9050A2	
.22	A	150D224X0050A2	150D224X9050A2	
.27	A	150D274X0050A2	150D274X9050A2	
.33	A	150D334X0050A2	150D334X9050A2	
.39	A	150D394X0050A2	150D394X9050A2	
.47	A	150D474X0050A2	150D474X9050A2	
.56	A	150D564X0050A2	150D564X9050A2	
.68	A	150D684X0050A2	150D684X9050A2	
.82	A	150D824X0050A2	150D824X9050A2	
1.0	A	150D105X0050A2	150D105X9050A2	
1.2	B	150D125X0050B2	150D125X9050B2	
1.5	B	150D155X0050B2	150D155X9050B2	
1.8	B	150D185X0050B2	150D185X9050B2	
2.2	B	150D225X0050B2	150D225X9050B2	
2.7	B	150D275X0050B2	150D275X9050B2	
3.3	B	150D335X0050B2	150D335X9050B2	
3.9	B	150D395X0050B2	150D395X9050B2	
4.7	B	150D475X0050B2	150D475X9050B2	
5.6	R	150D565X0050R2	150D565X9050R2	
6.8	R	150D685X0050R2	150D685X9050R2	
8.2	R	150D825X0050R2	150D825X9050R2	
10	R	150D106X0050R2	150D106X9050R2	
12	R	150D126X0050R2	150D126X9050R2	
15	R	150D156X0050R2	150D156X9050R2	
18	R	150D186X0050R2	150D186X9050R2	
22	S	150D226X0050S2	150D226X9050S2	

Size			Catalog Number	
μF	Code		±20% Tol.	±10% Tol.
60 WVDC, 78 VDC SURGE				
.0047	A	150D472X0060A2	150D472X9060A2	
.0056	A	150D562X0060A2	150D562X9060A2	
.0068	A	150D682X0060A2	150D682X9060A2	
.0082	A	150D822X0060A2	150D822X9060A2	
.01	A	150D103X0060A2	150D103X9060A2	
.012	A	150D123X0060A2	150D123X9060A2	
.015	A	150D153X0060A2	150D153X9060A2	
.018	A	150D183X0060A2	150D183X9060A2	
.022	A	150D223X0060A2	150D223X9060A2	
.027	A	150D273X0060A2	150D273X9060A2	
.033	A	150D333X0060A2	150D333X9060A2	
.039	A	150D393X0060A2	150D393X9060A2	
.047	A	150D473X0060A2	150D473X9060A2	
.056	A	150D563X0060A2	150D563X9060A2	
.068	A	150D683X0060A2	150D683X9060A2	
.082	A	150D823X0060A2	150D823X9060A2	
.1	A	150D104X0060A2	150D104X9060A2	
.12	A	150D124X0060A2	150D124X9060A2	
.15	A	150D154X0060A2	150D154X9060A2	
.18	A	150D184X0060A2	150D184X9060A2	
.22	A	150D224X0060A2	150D224X9060A2	
.27	A	150D274X0060A2	150D274X9060A2	
.33	A	150D334X0060A2	150D334X9060A2	
.39	A	150D394X0060A2	150D394X9060A2	
.47	A	150D474X0060A2	150D474X9060A2	
.56	A	150D564X0060A2	150D564X9060A2	
.68	A	150D684X0060A2	150D684X9060A2	
.82	B	150D824X0060B2	150D824X9060B2	

Size			Catalog Number	
μF	Code		±20% Tol.	±10% Tol.
1.0	B	150D105X0060B2	150D105X9060B2	
1.2	B	150D125X0060B2	150D125X9060B2	
1.5	B	150D155X0060B2	150D155X9060B2	
1.8	B	150D185X0060B2	150D185X9060B2	
2.2	B	150D225X0060B2	150D225X9060B2	
2.7	B	150D275X0060B2	150D275X9060B2	
3.3	B	150D335X0060B2	150D335X9060B2	
3.9	B	150D395X0060B2	150D395X9060B2	
4.7	R	150D475X0060R2	150D475X9060R2	
5.6	R	150D565X0060R2	150D565X9060R2	
6.8	R	150D685X0060R2	150D685X9060R2	
8.2	R	150D825X0060R2	150D825X9060R2	
10	R	150D106X0060R2	150D106X9060R2	
12	S	150D126X0060S2	150D126X9060S2	
15	S	150D156X0060S2	150D156X9060S2	
18	S	150D186X0060S2	150D186X9060S2	
22	S	150D226X0060S2	150D226X9060S2	

Size			Catalog Number	
μF	Code		±20% Tol.	±10% Tol.
75 WVDC, 97 VDC SURGE				
.0047	A	150D472X0075A2	150D472X9075A2	
.0056	A	150D562X0075A2	150D562X9075A2	
.0068	A	150D682X0075A2	150D682X9075A2	
.0082	A	150D822X0075A2	150D822X9075A2	
.01	A	150D103X0075A2	150D103X9075A2	
.012	A	150D123X0075A2	150D123X9075A2	
.015	A	150D153X0075A2	150D153X9075A2	
.018	A	150D183X0075A2	150D183X9075A2	
.022	A	150D223X0075A2	150D223X9075A2	
.027	A	150D273X0075A2	150D273X9075A2	
.033	A	150D333X0075A2	150D333X9075A2	
.039	A	150D393X0075A2	150D393X9075A2	
.047	A	150D473X0075A2	150D473X9075A2	
.056	A	150D563X0075A2	150D563X9075A2	
.068	A	150D683X0075A2	150D683X9075A2	
.082	A	150D823X0075A2	150D823X9075A2	
.1	A	150D104X0075A2	150D104X9075A2	
.12	A	150D124X0075A2	150D124X9075A2	
.15	A	150D154X0075A2	150D154X9075A2	
.18	A	150D184X0075A2	150D184X9075A2	
.22	A	150D224X0075A2	150D224X9075A2	
.27	A	150D274X0075A2	150D274X9075A2	
.33	A	150D334X0075A2	150D334X9075A2	
.39	A	150D394X0075A2	150D394X9075A2	
.47	A	150D474X0075A2	150D474X9075A2	
.56	A	150D564X0075A2	150D564X9075A2	
.68	A	150D684X0075A2	150D684X9075A2	
.82	B	150D824X0075B2	150D824X9075B2	
1.0	B	150D105X0075B2	150D105X9075B2	
1.2	B	150D125X0075B2	150D125X9075B2	
1.5	B	150D155X0075B2	150D155X9075B2	
1.8	B	150D185X0075B2	150D185X9075B2	
2.2	B	150D225X0075B2	150D225X9075B2	
2.7	B	150D275X0075B2	150D275X9075B2	
3.3	B	150D335X0075B2	150D335X9075B2	
3.9	B	150D395X0075B2	150D395X9075B2	
4.7	R	150D475X0075R2	150D475X9075R2	
5.6	R	150D565X0075R2	150D565X9075R2	
6.8	R	150D685X0075R2	150D685X9075R2	
8.2	R	150D825X0075R2	150D825X9075R2	
10.0	R	150D106X0075R2	150D106X9075R2	
12.0	S	150D126X0075S2	150D126X9075S2	
15.0	S	150D156X0075S2	150D156X9075S2	

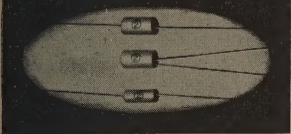
Size			Catalog Number	
μF	Code		±20% Tol.	±10% Tol.
100 WVDC, 115 VDC SURGE				
.0047	A	150D472X0100A2	150D472X9100A2	
.0056	A	150D562X0100A2	150D562X9100A2	
.0068	A	150D682X0100A2	150D682X9100A2	
.0082	A	150D822X0100A2	150D822X9100A2	
.01	A	150D103X0100A2	150D103X9100A2	
.012	A	150D123X0100A2	150D123X9100A2	
.015	A	150D153X0100A2	150D153X9100A2	
.018	A	150D183X0100A2	150D183X9100A2	

Size			Catalog Number	
μF	Code		±20% Tol.	±10% Tol.
.022	A	150D223X0100A2	150D223X9100A2	
.027	A	150D273X0100A2	150D273X9100A2	
.033	A	150D333X0100A2	150D333X9100A2	
.039	A	150D393X0100A2	150D393X9100A2	
.047	A	150D473X0100A2	150D473X9100A2	
.056	A	150D563X0100A2	150D563X9100A2	
.068	A	150D683X0100A2	150D683X9100A2	
.082	A	150D823X0100A2	150D823X9100A2	
.1	A	150D104X0100A2	150D104X9100A2	
.12	A	150D124X0100A2	150D124X9100A2	
.15	A	150D154X0100A2	150D154X9100A2	
.18	A	150D184X0100A2	150D184X9100A2	
.22	A	150D224X0100A2	150D224X9100A2	
.27	A	150D274X0100A2	150D274X9100A2	
.33	A	150D334X0100A2	150D334X9100A2	
.39	A	150D394X0100A2	150D394X9100A2	
.47	A	150D474X0100A2	150D474X9100A2	
.56	A	150D564X0100A2	150D564X9100A2	
.68	B	150D684X0100B2	150D684X9100B2	
.82	B	150D824X0100B2	150D824X9100B2	
1.0	B	150D105X0100B2	150D105X9100B2	
1.2	B	150D125X0100B2	150D125X9100B2	
1.5	B	150D155X0100B2	150D155X9100B2	
1.8	B	150D185X0100B2	150D185X9100B2	
2.2	B	150D225X0100B2	150D225X9100B2	
2.7	B	150D275X0100B2	150D275X9100B2	
3.3	R	150D335X0100B2	150D335X9100B2	
3.9	R	150D395X0100B2	150D395X9100B2	
4.7	R	150D475X0100R2	150D475X9100R2	
5.6	R	150D565X0100R2	150D565X9100R2	
6.8	R	150D685X0100R2	150D685X9100R2	

125 WVDC, 140 VDC SURGE				
.0047	A	150D472X0125A2	150D472X9125A2	
.0056	A	150D562X0125A2	150D562X9125A2	
.0068	A	150D682X0125A2	150D682X9125A2	
.0082	A	150D822X0125A2	150D822X9125A2	
.01	A	150D103X0125A2	150D103X9125A2	
.012	A	150D123X0125A2	150D123X9125A2	
.015	A	150D153X0125A2	150D153X9125A2	
.018	A	150D183X0125A2	150D183X9125A2	
.022	A	150D223X0125A2	150D223X9125A2	
.027	A	150D273X0125A2	150D273X9125A2	
.033	A	150D333X0125A2	150D333X9125A2	
.039	A	150D393X0125A2	150D393X9125A2	
.047	A	150D473X0125A2	150D473X9125A2	
.056	A	150D563X0125A2	150D563X9125A2	
.068	A	150D683X0125A2	150D683X9125A2	
.082	A	150D823X0125A2	150D823X9125A2	
.1	A	150D104X0125A2	150D104X9125A2	
.12	A	150D124X0125A2	150D124X9125A2	
.15	A	150D154X0125A2	150D154X9125A2	
.18	A	150D184X0125A2	150D184X9125A2	
.22	A	150D224X0125A2	150D224X9125A2	
.27	A	150D274X0125A2	150D274X9125A2	
.33	A	150D334X0125A2	150D334X9125A2	
.39	B	150D394X0125B2	150D394X9125B2	
.47	B	150D474X0125B2	150D474X9125B2	
.56	B	150D564X0125B2	150D564X9125B2	
.68	B	150D684X0125B2	150D684X9125B2	
.82	B	150D824X0125B2	150D824X9125B2	
1.0	B	150D105X0125B2	150D105X9125B2	
1.2	B	150D125X0125B2	150D125X9125B2	
1.5	B	150D155X0125B2	150D155X9125B2	
1.8	B	150D185X0125B2	150D185X9125B2	
2.2	B	150D225X0125B2	150D225X9125B2	

SPRAGUE CAPACITORS

TYPES 162D, 169D MINIATURE SOLID-ELECTROLYTE RED TOP® TANTALEX® CAPACITORS IN RESIN-SEALED CASES



DIMENSIONS

Case Code	D x L
AA	= .080 x 0.135
AB	= .080 x 0.185
BA	= .105 x 0.265
CA	= .145 x 0.265

• Miniature Polarized Tantalex Capacitors in Resin-sealed Case For Use in Compactly Designed Electronic Equipment.

• Two Lead Styles—Type 162D With Axial Leads, and 'Single-Ended' Type 169D, Which is Especially Suited For Printed Wiring Board Applications.

• Red End Seal Indicates Positive End on Axial Lead Units. Center Lead is Positive on 'Single-Ended' Type 169D Capacitors.

• Listed Units Have Plastic-Film Insulation. Bare Metal Case Units Available.

• Ratings From 2 Through 100 WVDC Available.

• Capacitance Values From 0.033 μ F to 68 μ F.

• Temperature Range of -55°C to $+85^{\circ}\text{C}$.

• For Complete Technical Data, Refer to the Latest Issue of Sprague Engineering Bulletin No. 3536.

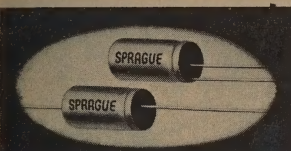
• Call Your Sprague Industrial Distributor For Prices.

	Size	Catalog Number	
μ F WVDC Code		Axial-Lead	Single-Ended
47	4 CA	162D476X9004CA2	169D476X9004CA2
1.0	10 AA	162D105X9010AA2	169D105X9010AA2
10	10 BA	162D106X9010BA2	169D106X9010BA2
22	10 CA	162D226X9010CA2	169D226X9010CA2
.68	15 AA	162D684X9015AA2	169D684X9015AA2

μF	WVDC	Size	Catalog Number	
		Code	Axial-Lead	Single-Ended
2.2	15	AB	162D225X9015AB2	169D225X9015AB2
6.8	15	BA	162D685X9015BA2	169D685X9015BA2
15	15	CA	162D156X9015CA2	169D156X9015CA2
.47	20	AA	162D474X9020AA2	169D474X9020AA2
1.0	20	AB	162D105X9020AB2	169D105X9020AB2

Size		Catalog Number	
WVDC Code		Axial-Lead	Single-Ended
4.7	20 BA	162D475X9020BA2	169D475X9020BA2
.15	35 AA	162D154X9035AA2	169D154X9035AA2
.1	50 AA	162D104X9050AA2	169D104X9050AA2
.033	100 AA	162D333X9100AA2	169D333X9100AA2
.068	100 AA	162D683X9100AA2	169D683X9100AA2

TYPE 164D, SOLID-ELECTROLYTE RED TOP® TANTALEX® CAPACITORS



• Economically Priced Red Top Capacitors Are For Use in Commercial Digital Computers and All Types of Industrial Electronic Equipment.

• Metal Cases With Resin End Seals Afford Greater Moisture Protection Than Organic Housings Such as Moldings or Polyester Film.

• Case Sizes are the Same as those of the 'Industrial Standard' Type 150D Hermetically-Sealed Design.

• Red End Seal Indicates Positive End on Axial Lead Units.

• Listed Units Have Plastic-Film Insulation. Bare Metal Case Units Available.

• Voltage Ratings From 6 Through 75 WVDC.

• Temperature Range of -55°C to $+85^{\circ}\text{C}$.

• For Complete Technical Data, Refer to the Latest Issue of Sprague Engineering Bulletin No. 3537.

• Call Your Sprague Industrial Distributor for Prices.

DIMENSIONS Case Code A = .135 D. x .322 L. B = .185 D. x .510 L. R = .289 D. x .722 L. S = .351 D. x .822 L.

μ F	WVDC	Size	Catalog Number
			Axial-Lead
5.6	6	A	164D565X9006A2
6.8	6	A	164D685X9006A2
47	6	B	164D476X9006B2
56	6	B	164D566X9006B2
150	6	R	164D157X9006R2
180	6	S	164D187X9006S2
270	6	S	164D277X9006S2
330	6	S	164D337X9006S2
3.9	10	A	164D395X9010A2
4.7	10	A	164D475X9010A2
27	10	B	164D276X9010B2
33	10	B	164D336X9010B2
39	10	B	164D386X9010B2
82	10	R	164D826X9010R2
100	10	R	164D107X9010R2
120	10	R	164D127X9010R2
180	10	S	164D187X9010S2
220	10	S	164D227X9010S2
2.7	15	A	164D275X9015A2
3.3	15	A	164D335X9015A2
18	15	B	164D186X9015B2
22	15	B	164D226X9015B2
56	15	R	164D566X9015R2
68	15	R	164D686X9015R2
120	15	S	164D127X9015S2
150	15	S	164D157X9015S2
1.2	20	A	164D125X9020A2
1.5	20	A	164D155X9020A2
1.8	20	A	164D185X9020A2
2.2	20	A	164D225X9020A2
8.2	20	B	164D825X9020B2
10	20	B	164D106X9020B2
12	20	B	164D126X9020B2
15	20	B	164D156X9020B2
27	20	R	164D276X9020R2
33	20	R	164D336X9020R2
39	20	R	164D386X9020R2
82	20	S	164D826X9020S2
100	20	S	164D107X9020S2
.0047	35	A	164D472X9035A2
.0068	35	A	164D682X9035A2

μ F	WVDC	Size	Catalog Number
			Axial-Lead
.01	35	A	164D103X9035A2
.015	35	A	164D153X9035A2
.022	35	A	164D223X9035A2
.033	35	A	164D333X9035A2
.047	35	A	164D473X9035A2
.068	35	A	164D683X9035A2
.1	35	A	164D104X9035A2
.15	35	A	164D154X9035A2
.22	35	A	164D224X9035A2
.33	35	B	164D334X9035A2
.47	35	B	164D474X9035A2
.68	35	B	164D684X9035A2
1.0	35	A	164D105X9035A2
1.2	35	B	164D125X9035B2
1.5	35	B	164D155X9035B2
1.8	35	B	164D185X9035B2
2.2	35	B	164D225X9035B2
2.7	35	B	164D275X9035B2
3.3	35	B	164D335X9035B2
3.9	35	B	164D395X9035B2
4.7	35	B	164D475X9035B2
5.6	35	B	164D565X9035B2
6.8	35	B	164D685X9035B2
8.2	35	R	164D825X9035R2
10	35	R	164D106X9035R2
12	35	R	164D126X9035R2
15	35	R	164D156X9035R2
18	35	R	164D186X9035R2
22	35	R	164D226X9035R2
27	35	S	164D276X9035S2
33	35	S	164D336X9035S2
39	35	S	164D396X9035S2
47	35	S	164D476X9035S2
.0047	50	A	164D472X9050A2
.0068	50	A	164D682X9050A2
.01	50	A	164D103X9050A2
.015	50	A	164D153X9050A2
.022	50	A	164D223X9050A2
.033	50	A	164D333X9050A2
.047	50	A	164D473X9050A2
.068	50	A	164D683X9050A2
.1	50	A	164D104X9050A2
.15	50	A	164D154X9050A2

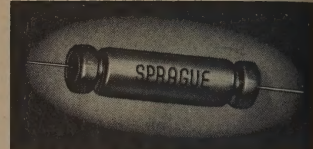
μ F	WVDC	Size	Catalog Number
			Axial-Lead
.22	50	A	164D224X9050A2
.33	50	A	164D334X9050A2
.47	50	A	164D474X9050A2
.68	50	A	164D684X9050A2
1.0	50	A	164D105X9050A2
1.2	50	B	164D125X9050B2
1.5	50	B	164D155X9050B2
1.8	50	B	164D185X9050B2
2.2	50	B	164D225X9050B2
2.7	50	B	164D275X9050B2
3.3	50	B	164D335X9050B2
3.9	50	B	164D395X9050B2
4.7	50	B	164D475X9050B2
5.6	50	R	164D565X9050R2
6.8	50	R	164D685X9050R2
8.2	50	R	164D825X9050R2
10	50	R	164D106X9050R2
12	50	R	164D126X9050R2
15	50	R	164D156X9050R2
18	50	R	164D186X9050R2
22	50	S	164D226X9050S2
.0047	75	A	164D472X9075A2
.0068	75	A	164D682X9075A2
.01	75	A	164D103X9075A2
.015	75	A	164D153X9075A2
.022	75	A	164D223X9075A2
.033	75	A	164D333X9075A2
.047	75	A	164D473X9075A2
.068	75	A	164D683X9075A2
.1	75	A	164D104X9075A2
.15	75	A	164D154X9075A2
.22	75	A	164D224X9075A2
.33	75	A	164D334X9075A2
.47	75	A	164D474X9075A2
.68	75	A	164D684X9075A2
1.0	75	B	164D105X9075B2
1.2	75	B	164D125X9075B2
1.5	75	B	164D155X9075B2
1.8	75	B	164D185X9075B2
2.2	75	B	164D225X9075B2
2.7	75	B	164D275X9075B2
3.3	75	B	164D335X9075B2
3.9	75	B	164D395X9075B2

SPRAGUE CAPACITORS

125C FOIL TANTALEX® CAPACITORS

- Small size, electrically stable, long life. For data, see latest Engineering Bulletin 3602.
- 120D, 122D available as MIL-C-3965 units.
- Tol., 120D, 121D, $\pm 20\%$; 122D, 123D, $-15, +75\%$.
- Listed units have plastic wrap. For bare metal case units, end Cat. No. in "0" instead of "1".

Size Code	D. x L.	Size Code	D. x L.
E	0.203 x 0.843	Q	0.390 x 2.968
H	0.296 x 1.125	S	0.390 x 2.968
K	0.390 x 1.656	Z	0.546 x 2.968
N	0.390 x 2.343		



μ F	Case Code	Catalog Number	μ F	Case Code	Catalog Number	μ F	Case Code	Catalog Number	μ F	Case Code	Catalog Number
TYPE 120D POLARIZED PLAIN-FOIL STANDARD RATINGS			TYPE 121D NON-POLARIZED PLAIN-FOIL STANDARD RATINGS			TYPE 122D POLARIZED ETCHED-FOIL STANDARD RATINGS			TYPE 123D NON-POLARIZED ETCHED-FOIL MAXIMUM RATINGS		
10 WORKING VOLTS D-C			10 WORKING VOLTS N.P.			10 WORKING VOLTS D-C			10 WORKING VOLTS N.P.		
4.5	E	120D455X0010E1	2.5	E	121D255X0010E1	15	E	122D56C7010E1	3	E	123D305C3065E1
18	H	120D106X0010H1	10	H	121D106X0010H1	60	H	122D406C7010H1	10	H	123D106C3065H1
55	K	120D556X0010K1	35	K	121D356X0010K1	200	K	122D207C7010K1	30	K	123D56C3065K1
110	N	120D117X0010N1	70	N	121D706X0010N1	480	N	122D407C7010N1	130	N	123D56C3065N1
160	Q	120D167X0010Q1	100	Q	121D107X0010Q1	590	Q	122D587C7010Q1	200	Q	123D587C7010Q1
260	S	120D267X0010S1	160	S	121D167X0010S1	10	E	122D106C7015E1	3	E	123D305C3065E1
320	Z	120D327X0010Z1	100	S	121D207X0010Z1	40	K	122D406C7015K1	10	K	123D106C3065K1
15 WORKING VOLTS D-C			15 WORKING VOLTS N.P.			15 WORKING VOLTS D-C			15 WORKING VOLTS N.P.		
3	E	120D305X0015E1	1.5	E	121D155X0015E1	3	E	122D305C3065E1	14	E	123D146C7015E1
12	H	120D126X0015H1	6	H	121D065X0015H1	10	H	122D106C3065H1	50	H	123D506C3065H1
35	K	120D356X0015K1	20	K	121D206X0015K1	30	K	122D306C3065K1	140	K	123D146C7015K1
70	N	120D706X0015N1	40	N	121D406X0015N1	12	H	122D126C5005H1	290	N	123D297C7015N1
100	Q	120D107X0015Q1	60	Q	121D606X0015Q1	30	K	122D306C3065K1	420	Q	123D297C7015Q1
180	S	120D187X0015S1	100	S	121D107X0015S1	70	N	122D706C3065N1	800	S	123D807C7015S1
210	Z	120D217X0015Z1	120	Z	121D127X0015Z1	100	Q	122D107C3065Q1	1100	Z	123D118C7015Z1
30 WORKING VOLTS D-C			30 WORKING VOLTS N.P.			30 WORKING VOLTS D-C			30 WORKING VOLTS N.P.		
1.5	E	120D155X0030E1	0.8	E	121D084X0030E1	2	E	122D205C3065E1	15	N	123D156C3065N1
6	H	120D605X0030H1	3	H	121D305X0030H1	8	H	122D805C3065H1	39	H	123D396C7020H1
26	K	120D206X0030K1	10	K	121D106X0030K1	25	K	122D256C3065K1	110	K	123D117C7020K1
40	N	120D406X0030N1	20	N	121D206X0030N1	50	N	122D506C3065N1	230	N	123D237C7020N1
55	Q	120D556X0030Q1	30	Q	121D306X0030Q1	70	Q	122D706C3065Q1	400	Q	123D407C7020Q1
100	S	120D107X0030S1	50	S	121D506X0030S1	100	S	122D107C3065S1	850	S	123D857C7020S1
120	Z	120D127X0030Z1	65	Z	121D656X0030Z1	1	E	122D105C3100E1	4	E	123D405C3065E1
50 WORKING VOLTS D-C			50 WORKING VOLTS N.P.			50 WORKING VOLTS D-C			50 WORKING VOLTS N.P.		
1	E	120D105X0050E1	0.5	E	121D054X0050E1	2	E	122D205C3065E1	2	E	123D205C3065E1
4	H	120D405X0050H1	2	H	121D205X0050H1	8	H	122D805C3065H1	7	H	123D705C3065H1
14	K	120D146X0050K1	7	K	121D075X0050K1	25	K	122D256C3065K1	20	K	123D206C3065K1
28	N	120D286X0050N1	14	N	121D146X0050N1	50	N	122D506C3065N1	43	N	123D436C3065N1
40	Q	120D406X0050Q1	20	Q	121D206X0050Q1	70	Q	122D706C3065Q1	60	Q	123D606C3065Q1
70	S	120D706X0050S1	40	S	121D406X0050S1	100	S	122D107C3065S1	110	S	123D117C3065S1
88	Z	120D886X0050Z1	47	Z	121D476X0050Z1	1	E	122D105C3100E1	160	Z	123D167C3065Z1
65 WORKING VOLTS D-C			65 WORKING VOLTS N.P.			65 WORKING VOLTS D-C			65 WORKING VOLTS N.P.		
0.8	E	120D804X0065E1	0.4	E	121D044X0065E1	1.7	H	122D175X0020H1	1.4	H	123D146C3065H1
3	H	120D305X0065H1	1.5	H	121D155X0065H1	5	K	122D505X0020K1	40	K	123D406C3065K1
10	K	120D106X0065K1	5	K	121D065X0065K1	11	N	122D116X0020N1	84	N	123D846C3065N1
20	N	120D206X0065N1	10	N	121D106X0065N1	15	Q	122D156X0020Q1	120	Q	123D127C3065Q1
30	Q	120D306X0065Q1	15	Q	121D156X0065Q1	18	S	122D186X0020S1	230	S	123D237C3065S1
57	S	120D576X0065S1	30	S	121D306X0065S1	25	Z	122D286X0020Z1	310	Z	123D317C3065Z1
70	Z	120D706X0065Z1	37	Z	121D376X0065Z1	1.3	H	122D135X0020H1	2	E	123D205C3065E1
100 WORKING VOLTS D-C			100 WORKING VOLTS N.P.			100 WORKING VOLTS D-C			100 WORKING VOLTS N.P.		
0.5	E	120D504X0100E1	0.25	E	121D254X0100E1	4	K	122D405X0020K1	2	E	123D205C3065E1
2	H	120D205X0100H1	1.0	H	121D105X0100H1	13	N	122D136C3100N1	7	H	123D705C3065H1
7	K	120D705X0100K1	3.5	K	121D355X0100K1	25	K	122D256C3100K1	20	K	123D206C3065K1
14	N	120D146X0100N1	7	N	121D075X0100N1	50	N	122D506C3100N1	43	N	123D436C3065N1
20	Q	120D206X0100Q1	10	Q	121D106X0100Q1	70	Q	122D706C3100Q1	60	Q	123D606C3065Q1
30	S	120D306X0100S1	20	S	121D206X0100S1	100	S	122D107C3100S1	110	S	123D117C3065S1
47	Z	120D476X0100Z1	24	Z	121D246X0100Z1	1	E	122D105C3100E1	160	Z	123D167C3065Z1
150 WORKING VOLTS D-C			150 WORKING VOLTS N.P.			150 WORKING VOLTS D-C			150 WORKING VOLTS N.P.		
0.25	E	120D254X0200E1	0.15	E	121D154X0200E1	23	E	122D236C7015E1	2	E	123D205C3065E1
1	H	120D105X0200H1	0.75	H	121D075X0200H1	80	H	122D806C7015H1	7	H	123D705C3065H1
3	K	120D305X0200K1	5.0	K	121D305X0200K1	240	K	122D247C7015K1	20	K	123D206C3065K1
10	N	120D106X0200N1	2.5	N	121D106X0200N1	720	N	122D727C7015N1	43	N	123D436C3065N1
15	Q	120D156X0200Q1	7.5	Q	121D075X0200Q1	1300	Q	122D138C7015Q1	60	Q	123D606C3065Q1
25	S	120D256X0200S1	13	S	121D136X0200S1	1600	S	122D168C7015S1	110	S	123D117C3065S1
30	Z	120D306X0200Z1	16	Z	121D166X0200Z1	200	Z	122D208C7015Z1	160	Z	123D167C3065Z1
200 WORKING VOLTS D-C			200 WORKING VOLTS N.P.			200 WORKING VOLTS D-C			200 WORKING VOLTS N.P.		
0.25	E	120D254X0200E1	0.1	E	121D104X0200E1	19	E	122D196C7020E1	0.75	E	123D754C3100E1
1	H	120D105X0200H1	0.5	H	121D054X0200H1	67	H	122D676C7020H1	2.7	H	123D754C3100H1
3	K	120D305X0200K1	1.5	K	121D155X0200K1	200	K	122D207C7020K1	7.5	K	123D754C3100K1
7	N	120D705X0200N1	3.5	N	121D355X0200N1	420	N	122D427C7020N1	15	N	123D156C3065N1
10	Q	120D106X0200Q1	5.0	Q	121D505X0200Q1	590	Q	122D597C7020Q1	29	N	123D296C3065N1
18	S	120D186X0200S1	7.5	S	121D075X0200S1	1100	S	122D118C7020S1	41	Q	123D416C3065Q1
250 WORKING VOLTS D-C			250 WORKING VOLTS N.P.			250 WORKING VOLTS D-C			250 WORKING VOLTS N.P.		
0.2	E	120D204X0250E1	0.1	E	121D044X0250E1	1400	Z	122D148C7020Z1	22	Q	123D226C3100Q1
0.8	H	120D804X0250H1	0.5	H	121D054X0250H1	19	E	122D196C7020E1	41	Q	123D416C3065Q1
2.5	K	120D255X0250K1	1.5	K	121D155X0250K1	67	H	122D676C7020H1	78	S	123D786C3065S1
5	N	120D505X0250N1	3.5	N	121D355X0250N1	200	K	122D207C7020K1	110	Z	123D117C3065Z1
8	Q	120D805X0250Q1	5.0	Q	121D505X0250Q1	420	N	122D427C7020N1	22	Q	123D226C3100Q1
12	S	120D126X0250S1	7.5	S	121D075X0250S1	590	Q	122D597C7020Q1	41	Q	123D416C3065Q1

SPRAGUE CAPACITORS

85C FOIL TANTALEX® CAPACITORS

- Small Size, Electrically Stable, Long Life, For Data, See Latest Engineering Bulletin 3601
- 110D and 112D Available as MIL-C-3965 Units
- Tol. 110D, 111D, $\pm 20\%$ and $\pm 15\%$; 112D and 113D $+75\%$, -15% , $+50\%$, -15% and $+30\%$
- Plastic Wrap, For Bare Case, End Cat. No. In "0"
- Instead of "11"
- Call Your Sprague Industrial Distributor For Quotations

DIMENSIONS

Case	D	x	L	Case	D	x	L
D	0.203 x 0.812	P	0.390 x 2.875				
G	0.296 x 1.000	R	0.483 x 2.875				
J	0.390 x 1.562	Y	0.546 x 2.875				
M	0.390 x 2.250						

μ F	Case	Catalog No.	μ F	Case	Catalog No.	μ F	Case	Catalog No.	μ F	Case	Catalog No.
TYPE 110D			200 WORKING VOLTS D-C			60 WORKING VOLTS N.P.			50 WORKING VOLTS D-C		
POLARIZED PLAIN-FOIL			20 P 110D206X0150P1			30 P 110D306X0050P1			32 G 112D326X7030G1		
40 Y 110D406X0150Y1			0.35 D 110D354X8200D1			0.5 R 110D506X0050R1			67 G 112D676X7030G1		
47 R 110D476X0150Y1			1.5 G 110D155X8200G1			65 Y 110D656X0050Y1			110 J 112D117X0730J1		
3 WORKING VOLTS D-C			5.0 J 110D155X8200G1			6.6 D 110D604X0060D1			200 M 112D227X0730M1		
10 D 110D106X0030D1			10.0 M 110D106X8200M1			8.5 G 110D856X0060G1			220 P 112D207X0730P1		
140 G 110D146X0030G1			15.0 P 110D156X8200P1			2.5 J 110D256X0060J1			300 M 112D307X0730M1		
350 M 110D357X0030M1			25.0 R 110D256X8200R1			17 M 110D176X0060M1			530 M 110D537X0730M1		
440 P 110D447X0030P1			35 Y 110D356X8200Y1			24 P 110D246X0060P1			760 J 112D767X0730J1		
1100 R 110D118X0030R1			250 WORKING VOLTS D-C			45 R 110D456X0060R1			1400 R 110D1487X0730R1		
1300 Y 110D138X0030Y1			75 WORKING VOLTS N.P.			53 Y 110D536X0060Y1			2000 Y 110D2087X0730Y1		
6 WORKING VOLTS D-C			0.2 D 110D254X8200D1			0.5 D 110D504X0075D1			4.5 D 112D455X0505D1		
8 D 110D805X0006D1			0.3 D 110D304X8250D1			0.25 D 110D254X0150D1			8 D 112D805X0505D1		
35 G 110D356X0006G1			1.2 G 110D125X8250G1			0.5 D 110D504X0075D1			18 G 112D186X0505G1		
100 J 110D107X0006J1			4.0 M 110D405X8450M1			2 J 110D205X0075G1			200 G 112D206X0505G1		
200 M 110D207X0006M1			8.0 M 110D805X8250M1			7 J 110D705X0075J1			220 M 112D227X0730M1		
350 P 110D307X0006P1			12.0 P 110D126X8250P1			14 M 110D146X0075M1			300 J 112D307X0730J1		
460 R 110D467X0006R1			20 R 110D206X8250R1			20 P 110D206X0075P1			530 M 110D537X0730M1		
560 Y 110D567X0006Y1			30 Y 110D306X8250Y1			17 M 110D176X0075M1			760 J 112D767X0730J1		
10 WORKING VOLTS D-C			300 WORKING VOLTS D-C			100 WORKING VOLTS N.P.			1400 Y 112D1487X0730Y1		
6 D 110D605X0010D1			0.25 D 110D254X8200D1			0.4 D 110D404X0100D1			50 WORKING VOLTS D-C		
25 G 110D256X0010G1			1 G 110D105X8300G1			1.5 J 110D155X0100J1			4.5 D 112D405X0505D1		
80 J 110D806X0010J1			3 J 110D305X8300J1			5 J 110D505X0105J1			15 D 112D156X0505D1		
160 M 110D167X0010M1			7 M 110D705X8300M1			15 P 110D156X0100P1			200 G 112D206X0505G1		
320 P 110D327X0010P1			10 P 110D106X8300P1			30 R 110D306X0100R1			300 J 112D306X0505J1		
350 R 110D357X0010R1			18 R 110D186X8300R1			37 Y 110D376X0100Y1			420 Y 112D427X0505Y1		
420 Y 110D427X0010Y1			375 WORKING VOLTS D-C			150 WORKING VOLTS N.P.			60 WORKING VOLTS D-C		
15 WORKING VOLTS D-C			0.8 G 110D804X8375G1			0.25 D 110D254X0150D1			75 WORKING VOLTS D-C		
4.5 D 110D455X0015D1			2.5 J 110D255X8375J1			1.0 G 110D106X0505G1			3 D 112D305X0505D1		
18 G 110D186X0015G1			5 M 110D505X8375M1			7 M 110D705X0150M1			4 D 112D405X0505D1		
110 M 110D117X0015M1			7 P 110D705X8375P1			20 R 110D206X0150R1			15 G 112D156X0505G1		
160 P 110D167X0015P1			12 R 110D126X8300R1			24 Y 110D246X0150Y1			30 J 112D306X0505J1		
260 R 110D267X0015R1			450 WORKING VOLTS D-C			200 WORKING VOLTS N.P.			45 J 112D456X0505J1		
320 Y 110D327X0015Y1			0.15 D 110D154X8450D1			0.15 D 110D154X8200D1			60 J 112D606X0505J1		
25 WORKING VOLTS D-C			0.65 G 110D654X8450G1			0.75 G 110D754X8200G1			80 P 112D806X0505P1		
3 D 110D305X0025D1			2 J 110D205X8450J1			2.5 J 110D255X8200J1			84 M 112D846X0505M1		
12 G 110D126X0025G1			4 M 110D405X8450M1			5.0 M 110D505X8200M1			120 P 112D127X0505P1		
35 J 110D356X0025J1			6 P 110D605X8450P1			7.5 P 110D755X8200P1			130 R 112D137X0505R1		
70 M 110D706X0025M1			TYPE 111D			17 Y 110D176X8200Y1			210 Y 112D217X0505Y1		
100 P 110D107X0025P1			NON-POLARIZED PLAIN-FOIL			250 WORKING VOLTS N.P.			150 WORKING VOLTS D-C		
180 R 110D187X0025R1			6 WORKING VOLTS N.P.			0.15 D 110D154X8200D1			1 D 112D105X0505D1		
210 Y 110D217X0025Y1			7 D 110D705X0006D1			0.15 D 110D154X8200D1			1.6 D 112D165X0310D1		
30 WORKING VOLTS D-C			25 G 110D256X0006G1			0.6 G 110D604X8250G1			4 G 112D405X0310G1		
2.5 D 110D255X0030D1			56 G 110D566X0006G1			2.0 M 110D205X8250M1			8 G 112D805X0310G1		
10 D 110D106X0030D1			150 M 110D157X0006M1			4.0 M 110D405X8250M1			10 G 112D106X0310G1		
30 J 110D306X0030J1			360 R 110D367X0006R1			2.0 M 110D205X8250M1			25 J 112D256X0310J1		
60 M 110D606X0030M1			470 Y 110D477X0006Y1			10.0 M 110D606X8250M1			30 J 112D306X0310J1		
85 P 110D856X0030P1			10 WORKING VOLTS N.P.			15 Y 110D156X8250Y1			30 P 112D306X0310P1		
180 R 110D187X0030R1			2.5 D 110D255X0015D1			0.1 D 110D104X8300D1			63 M 112D636X0310M1		
210 Y 110D217X0030Y1			10 G 110D106X0150G1			.5 G 110D504X8300G1			70 P 112D706X0310P1		
50 WORKING VOLTS D-C			55 J 110D556X0010J1			1.5 J 110D155X8300J1			90 P 112D906X0310P1		
1.5 D 110D155X0050D1			110 M 110D117X0010M1			3 J 110D306X0010J1			120 Y 112D127X0310Y1		
6 G 110D606X0050G1			150 P 110D157X0010P1			5 P 110D55X8300P1			150 Y 112D157X0310Y1		
20 J 110D206X0050J1			230 R 110D237X0010R1			9.5 R 110D955X8300R1			150 WORKING VOLTS D-C		
50 M 110D506X0050M1			280 Y 110D287X0010Y1			15 Y 110D156X8250Y1			1 D 112D105X0310D1		
120 Y 110D127X0050Y1			150 WORKING VOLTS N.P.			30 WORKING VOLTS D-C			1.6 D 112D165X0310D1		
60 WORKING VOLTS D-C			2.5 D 110D255X0015D1			0.1 D 110D104X8300D1			4 G 112D405X0310G1		
1.2 D 110D125X0060D1			10 G 110D106X0150G1			.5 G 110D504X8300G1			5.5 G 112D555X0310G1		
5 G 110D105X0060G1			35 J 110D356X0015J1			1.5 J 110D155X8300J1			12 J 112D127X0310J1		
11 J 110D117X0060J1			70 R 110D706X0015R1			3 J 110D306X0010J1			35 M 112D356X0310M1		
34 M 110D346X0060M1			140 R 110D147X0015R1			5 P 110D55X8300P1			43 M 112D436X0310M1		
100 P 110D107X0050P1			200 Y 110D207X0015Y1			1100 R 112D1187X0501R1			50 P 112D506X0310P1		
85 R 110D856X0060R1			250 WORKING VOLTS N.P.			2500 R 112D2087X0501R1			60 P 112D606X0310P1		
180 Y 110D187X0060Y1			1.5 D 110D155X0025D1			2500 Y 112D2587X0501Y1			110 R 112D117X0310R1		
75 WORKING VOLTS D-C			10 G 110D106X0150G1			50 WORKING VOLTS D-C			160 Y 112D167X0310Y1		
D 110D105X0075D1			35 J 110D356X0015J1			15 WORKING VOLTS D-C			100 WORKING VOLTS N.P.		
D 110D105X0075G1			70 R 110D706X0015R1			36 D 112D366X0705D1			1.4 D 110D145X0310D1		
J 110D146X0075J1			140 R 110D147X0015R1			15 D 112D156X0705D1			4 G 110D405X0310G1		
J 110D146X0075M1			200 Y 110D207X0015Y1			36 D 112D366X0705G1			5 G 110D505X0310G1		
P 110D406X0075P1			250 WORKING VOLTS N.P.			60 G 112D606X0705G1			12 J 112D126X0310J1		
P 110D406X0075R1			1.5 D 110D155X0025D1			130 D 112D137X0705D1			14 J 112D146X0310J1		
P 110D406X0075Y1			6 G 110D605X0025G1			200 J 112D207X0705J1			25 M 112D256X0310M1		
R 110D856X0060R1			20 J 110D206X0025P1			370 J 112D377X0705J1			35 R 112D356X0310R1		
Y 110D107X0060Y1			60 P 110D606X0025P1			400 M 112D407X0705M1			43 M 112D436X0310M1		
100 WORKING VOLTS D-C			120 Y 110D127X0025Y1			580 P 112D587X0705P1			55 R 112D556X0200R1		
0.8 D 110D804X0100D1			30 WORKING VOLTS N.P.			1100 R 112D1187X0501R1			66 Y 112D666X0200Y1		
3 G 110D305X0100G1			1.5 D 110D155X0025D1			2500 Y 112D2587X0501Y1			250 WORKING VOLTS D-C		
J 110D106X0100J1			6 G 110D605X0025G1			50 WORKING VOLTS D-C			2 G 112D205X0250G1		
M 110D206X0100M1			20 J 110D206X0025P1			120 J 112D127X0250J1			6 J 112D605X0250J1		
P 110D306X0100P1			60 P 110D606X0025P1			240 J 112D247X0250J1			13 M 112D136X0250M1		
R 110D576X0100R1			120 Y 110D127X0025Y1			250 Y 112D2587X0501Y1			90 R 112D906X0310R1		
Y 110D706X0100Y1			30 WORKING VOLTS N.P.			150 WORKING VOLTS D-C			120 Y 112D127X0310Y1		
0.8 D 110D804X0100D1			1.4 D 110D145X0300D1			15 D 112D156X0705D1			3 G 112D305X0200G1		
3 G 110D305X0100G1			5.5 G 110D555X0300G1			36 D 112D366X0705D1			9 J 112D905X0200J1		
J 110D106X0100J1			18 J 110D186X0300J1			60 G 112D606X0705G1			12 M 112D1196X0200M1		
M 110D206X0100M1			36 M 110D366X0300M1			130 D 112D137X0705D1			55 R 112D556X0200R1		
P 110D306X0100P1			45 P 110D456X0300P1			200 J 112D207X0705J1			66 Y 112D666X0200Y1		
R 110D576X0100R1			85 R 110D856X0300R1			370 J 112D377X0705J1			2 G 112D205X0250G1		
Y 110D706X0100Y1			100 Y 110D107X0300Y1			400 M 112D407X0705M1			6 J 112D605X0250J1		
150 WORKING VOLTS D-C			30 WORKING VOLTS N.P.			580 P 112D587X0705P1			13 M 112D136X0250M1		
0.5 D 110D504X0150D1			1.4 D 110D145X0300D1			1100 R 112D1187X0501R1			90 R 112D906X0310R1		
2 G 110D205X0150G1			5.5 G 110D555X0300G1			2000 R 112D2087X0501R1			120 Y 112D127X0310Y1		
J 110D106X0150J1			18 J 110D186X0300J1			2500 Y 112D2587X0501Y1			37 R 112D376X0250R1		
J 110D146X0075J1			36 M 110D366X0300M1			50 WORKING VOLTS D-C			45 Y 112D456X0250Y1		
J 110D146X0075M1			45 P 110D456X0300P1			120 J 112D127X0250J1			300 WORKING VOLTS D-C		
P 110D406X0075P1			85 R 110D856X0300R1			240 J 112D247X0250J1			1.8 G 112D185X0300G1		
P 110D406X0075R1			100 Y 110D107X0300Y1			250 M 112D257X0250M1			5 J 112D505X0300J1		
R 110D576X0100R1			30 WORKING VOLTS N.P.			510 M 112D517X0250M1			15 P 112D156X0300P1		
Y 110D706X0100Y1			0.8 D 110D804X0050D1			720 P 112D727X0250P1			28 R 112D286X0300R1		
150 WORKING VOLTS D-C			10 D 110D106X0050D1			1300 R 112D1387X0250R1			TYPE 113D		
0.5 D 110D504X0150D1			20 J 110D206X0050J1			1600 Y 112D1687X0250Y1			NON-POLARIZED ETCHED-FOIL		
2 G 110D205X0150G1			10 J 110D106X0050J1			30 WORKING VOLTS D-C			150 WORKING VOLTS N.P.		
J 110D106X0150J1			20 J 110D206X0050J1			8 D 112D805X070					

SPRAGUE CAPACITORS

TYPE 130D 125C SINTERED-ANODE TANTALEX® CAPACITORS



DIMENSIONS

Code	D x L	Code	D x L	Code	D x L	Code	D x L
C .203 x .515	F .296 x .703	T .390 x .828	W .390 x 1.312				

• Reliable, Superior Quality Capacitors With no Voltage Derating for 125C Operation

• Especially Suited for Military Electronics

• Meets 2000 Cycle MIL Missile Vibration Requirements

• Clean, Shoulder-Less Design Simplifies Mounting on Printed Wiring Boards

• Voltage Ratings From 4 WVDC Through 100 WVDC

• Capacitances from 1.7 μ F to 1200 μ F

• For Complete Technical Data, Refer to the Latest Issue of Sprague Engineering Bulletin No. 3701

• Listed Units Have Plastic-Film Insulation For Bare Metal Cases, Change Last Digit of Cat. No. to "0"

• Call Your Sprague Industrial Distributor for Current Quantity Prices

GROUP 1: $\pm 10\%$, $\pm 20\%$, -15% , and $+75\%$, -15% Capacitance Tolerance with outer plastic-film insulation

				Catalog Number							
μ F	WVDC	Size Code		$\pm 10\%$	$\pm 20\%$ — 15%	$+75\%$ — 15%		μ F	WVDC	Size Code	
27	4	C	130D276X9004C2	130D276C2004C2	130D276C7004C2		35	20	F	130D356X9020F2	130D356C2020F2
30	4	C	130D306X9004C2	130D306C2004C2	130D306C7004C2		40	20	F	130D406X9020F2	130D406C2020F2
120	4	F	130D127X9004F2	130D127C2004F2	130D127C7004F2		80	20	T	130D806X9020T2	130D806C2020T2
140	4	F	130D147X9004F2	130D147C2004F2	130D147C7004F2		100	20	T	130D107X9020T2	130D107C2020T2
290	4	T	130D297X9004T2	130D297C2004T2	130D297C7004T2		4.5	30	C	130D455X9030C2	130D455C2030C2
330	4	T	130D337X9004T2	130D337C2004T2	130D337C7004T2		5	30	C	130D505X9030C2	130D505C2030C2
22	5	C	130D226X9005C2	130D226C2005C2	130D226C7005C2		22	30	F	130D226X9030F2	130D226C2030F2
25	5	C	130D256X9005C2	130D256C2005C2	130D256C7005C2		25	30	F	130D256X9030F2	130D256C2030F2
100	5	F	130D107X9005F2	130D107C2005F2	130D107C7005F2		55	30	T	130D556X9030T2	130D556C2030T2
120	5	F	130D127X9005F2	130D127C2005F2	130D127C7005F2		60	30	T	130D606X9030T2	130D606C2030T2
260	5	T	130D267X9005T2	130D267C2005T2	130D267C7005T2		3.6	40	C	130D365X9040C2	130D365C2040C2
290	5	T	130D297X9005T2	130D297C2005T2	130D297C7005T2		4	40	C	130D405X9040C2	130D405C2040C2
18	7	C	130D186X9007C2	130D186C2007C2	130D186C7007C2		18	40	F	130D186X9040F2	130D186C2040F2
20	7	C	130D206X9007C2	130D206C2007C2	130D206C7007C2		20	40	F	130D206X9040F2	130D206C2040F2
85	7	F	130D856X9007F2	130D856C2007F2	130D856C7007F2		45	40	T	130D456X9040T2	130D456C2040T2
100	7	F	130D107X9007F2	130D107C2007F2	130D107C7007F2		50	40	T	130D506X9040T2	130D506C2040T2
220	7	T	130D227X9007T2	130D227C2007T2	130D227C7007T2		3	50	C	130D305X9050C2	130D305C2050C2
250	7	T	130D257X9007T2	130D257C2007T2	130D257C7007T2		3.5	50	C	130D355X9050C2	130D355C2050C2
13	10	C	130D136X9010C2	130D136C2010C2	130D136C7010C2		13	50	F	130D136X9050F2	130D136C2050F2
15	10	C	130D156X9010C2	130D156C2010C2	130D156C7010C2		15	50	F	130D156X9050F2	130D156C2050F2
55	10	F	130D556X9010F2	130D556C2010F2	130D556C7010F2		35	50	T	130D356X9050T2	130D356C2050T2
70	10	F	130D706X9010F2	130D706C2010F2	130D706C7010F2		40	50	T	130D406X9050T2	130D406C2050T2
150	10	T	130D157X9010T2	130D157C2010T2	130D157C7010T2		2.5	70	C	130D255X9070C2	130D255C2070C2
170	10	T	130D177X9010T2	130D177C2010T2	130D177C7010T2		10	70	F	130D106X9070F2	130D106C2070F2
9	15	C	130D905X9015C2	130D905C2015C2	130D905C7015C2		11	70	F	130D116X9070F2	130D116C2070F2
10	15	C	130D106X9015C2	130D106C2015C2	130D106C7015C2		27	70	T	130D276X9070T2	130D276C2070T2
45	15	F	130D456X9015F2	130D456C2015F2	130D456C7015F2		30	70	T	130D306X9070T2	130D306C2070T2
50	15	F	130D506X9015F2	130D506C2015F2	130D506C7015F2		1.7	85	C	130D175X9085C2	130D175C2085C2
100	15	T	130D107X9015T2	130D107C2015T2	130D107C7015T2		9	85	F	130D905X9085F2	130D905C2085F2
110	15	T	130D117X9015T2	130D117C2015T2	130D117C7015T2		18	85	T	130D186X9085T2	130D186C2085T2
7	20	C	130D705X9020C2	130D705C2020C2	130D705C7020C2		1.7	100	C	130D175X9100C2	130D175C2100C2
8	20	C	130D805X9020C2	130D805C2020C2	130D805C7020C2		6.8	100	F	130D685X9100F2	130D685C2100F2
							14	100	T	130D146X9100T2	130D146C2100T2

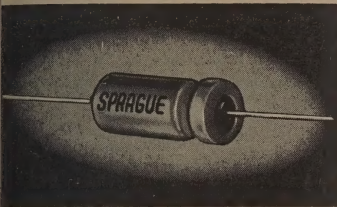
GROUP 2: $\pm 20\%$ and $\pm 10\%$ Capacitance Tolerance with outer plastic-film insulation

These capacitors have approximately twice the capacitance of Group 1 Capacitors of the same physical size at a given voltage rating.

Case Code					Case Code					Case Code				
μ F	WVDC	Case Code	$\pm 20\%$ Tol.	$\pm 10\%$ Tol.	μ F	WVDC	Case Code	$\pm 20\%$ Tol.	$\pm 10\%$ Tol.	μ F	WVDC	Case Code	$\pm 20\%$ Tol.	$\pm 10\%$ Tol.
68	4	C	130D686X0004C2	130D686X9004C2	22	15	C	130D226X0015C2	130D226X9015C2	6.8	50	C	130D685X0050C2	130D685X9050C2
270	4	F	130D277X0004F2	130D277X9004F2	100	15	F	130D107X0015F2	130D107X9015F2	33	50	F	130D336X0050F2	130D336X9050F2
560	4	T	130D567X0004T2	130D567X9004T2	180	15	T	130D187X0015T2	130D187X9015T2	56	50	T	130D566X0050T2	130D566X9050T2
1200	4	W	130D128X0004W2	130D128X9004W2	350	15	W	130D357X0015W2	130D357X9015W2	110	50	W	130D117X0050W2	130D117X9050W2
56	5	C	130D566X0005C2	130D566X9005C2	15	20	C	130D156X0020C2	130D156X9020C2	4.7	70	C	130D475X0070C2	130D475X9070C2
220	5	F	130D227X0005F2	130D227X9005F2	68	20	F	130D686X0020F2	130D686X9020F2	22	70	F	130D226X0070F2	130D226X9070F2
430	5	T	130D437X0005T2	130D437X9005T2	150	20	T	130D157X0020T2	130D157X9020T2	43	70	T	130D436X0070T2	130D436X9070T2
850	5	W	130D857X0005W2	130D857X9005W2	300	20	W	130D307X0020W2	130D307X9020W2	86	70	W	130D866X0070W2	130D866X9070W2
47	7	C	130D476X0007C2	130D476X9007C2	10	30	C	130D106X0030C2	130D106X9030C2	3.6	85	C	130D365X0085C2	130D365X9085C2
180	7	F	130D187X0007F2	130D187X9007F2	47	30	F	130D476X0030F2	130D476X9030F2	14	85	F	130D146X0085F2	130D146X9085F2
390	7	T	130D397X0007T2	130D397X9007T2	82	30	T	130D826X0030T2	130D826X9030T2	25	85	T	130D256X0085T2	130D256X9085T2
750	7	W	130D757X0007W2	130D757X9007W2	160	30	W	130D167X0030W2	130D167X9030W2	56	85	W	130D566X0085W2	130D566X9085W2
33	10	C	130D336X0010C2	130D336X9010C2	8.2	40	C	130D825X0040C2	130D825X9040C2	3	100	C	130D305X0100C2	130D305X9100C2
120	10	F	130D127X0010F2	130D127X9010F2	40	40	F	130D396X0040F2	130D396X9040F2	11	100	F	130D116X0100F2	130D116X9100F2
270	10	T	130D277X0010T2	130D277X9010T2	68	40	T	130D686X0040T2	130D686X9040T2	22	100	T	130D226X0100T2	130D226X9100T2
540	10	W	130D547X0010W2	130D547X9010W2	140	40	W	130D147X0040W2	130D147X9040W2					

SPRAGUE CAPACITORS

TYPE 109D SINTERED-ANODE TANTALEX® CAPACITORS



DIMENSIONS

Code D. x L.	Code D. x L.	Code D. x L.	Code D. x L.
C .203x.515	F .296x.703	T .380x.828	W .390x1.312

- Intended for Applications Where Reliable Design in Military Equipment is Required
- Double Spun TFE-fluorocarbon Elastomer High Temp. End Seals
- Large Values of Capacitance in Small Physical Size
- Listed Units Have Plastic Sleeves
- For Bare Case, End Catalog Number in "0" instead of "2"
- May Be Operated at 85C at Rated Voltage and to 105C With 15% Voltage Derating
- Will Meet 2000 Cycle Missile Vibration Requirements
- For Complete Technical Data, See Latest Issue of Engineering Bulletin 3700
- Call Your Sprague Industrial Distributor For Current Quantity Prices

GROUP 1: Available in Capacitance Tolerances of $\pm 10\%$, $+20$, -15% ; $+75$, -15%

F	WVDC	Size Code	Catalog Number			
			$\pm 10\%$	$+20$, -15%	$+75$, -15%	
27	6	C	109D276X9006C2	109D276C2006C2	109D276C7006C2	
30	6	C	109D306X9006C2	109D306C2006C2	109D306C7006C2	
120	6	F	109D127X9006F2	109D127C2006F2	109D127C7006F2	
140	6	F	109D147X9006F2	109D147C2006F2	109D147C7006F2	
290	6	T	109D297X9006T2	109D297C2006T2	109D297C7006T2	
330	6	T	109D337X9006T2	109D337C2006T2	109D337C7006T2	
22	8	C	109D226X9008C2	109D226C2008C2	109D226C7008C2	
25	8	C	109D256X9008C2	109D256C2008C2	109D256C7008C2	
100	8	F	109D107X9008F2	109D107C2008F2	109D107C7008F2	
120	8	F	109D127X9008F2	109D127C2008F2	109D127C7008F2	
260	8	T	109D267X9008T2	109D267C2008T2	109D267C7008T2	
290	8	T	109D297X9008T2	109D297C2008T2	109D297C7008T2	
18	10	C	109D186X9010C2	109D186C2010C2	109D186C7010C2	
20	10	C	109D206X9010C2	109D206C2010C2	109D206C7010C2	
85	10	F	109D856X9010F2	109D856C2010F2	109D856C7010F2	
100	10	F	109D107X9010F2	109D107C2010F2	109D107C7010F2	
220	10	T	109D227X9010T2	109D227C2010T2	109D227C7010T2	
250	10	T	109D257X9010T2	109D257C2010T2	109D257C7010T2	
13	15	C	109D136X9015C2	109D136C2015C2	109D136C7015C2	
15	15	C	109D156X9015C2	109D156C2015C2	109D156C7015C2	
55	15	F	109D556X9015F2	109D556C2015F2	109D556C7015F2	
70	15	F	109D706X9015F2	109D706C2015F2	109D706C7015F2	
150	15	T	109D157X9015T2	109D157C2015T2	109D157C7015T2	
170	15	T	109D177X9015T2	109D177C2015T2	109D177C7015T2	
9	25	C	109D905X9025C2	109D905C2025C2	109D905C7025C2	
25	25	C	109D106X9025C2	109D106C2025C2	109D106C7025C2	
45	25	F	109D456X9025F2	109D456C2025F2	109D456C7025F2	
50	25	F	109D506X9025F2	109D506C2025F2	109D506C7025F2	
100	25	T	109D107X9025T2	109D107C2025T2	109D107C7025T2	
110	25	T	109D117X9025T2	109D117C2025T2	109D117C7025T2	
7	30	C	109D705X9030C2	109D705C2030C2	109D705C7030C2	
8	30	C	109D805X9030C2	109D805C2030C2	109D805C7030C2	
35	30	F	109D356X9030F2	109D356C2030F2	109D356C7030F2	
40	30	F	109D406X9030F2	109D406C2030F2	109D406C7030F2	
100	30	T	109D107X9030T2	109D107C2030T2	109D107C7030T2	
4.5	50	C	109D455X9050C2	109D455C2050C2	109D455C7050C2	
5	50	C	109D505X9050C2	109D505C2050C2	109D505C7050C2	
22	50	F	109D226X9050F2	109D226C2050F2	109D226C7050F2	
25	50	F	109D256X9050F2	109D256C2050F2	109D256C7050F2	
55	50	T	109D556X9050T2	109D556C2050T2	109D556C7050T2	
60	50	T	109D606X9050T2	109D606C2050T2	109D606C7050T2	
3.6	60	C	109D365X9060C2	109D365C2060C2	109D365C7060C2	
4	60	C	109D405X9060C2	109D405C2060C2	109D405C7060C2	
18	60	F	109D186X9060F2	109D186C2060F2	109D186C7060F2	
20	60	F	109D206X9060F2	109D206C2060F2	109D206C7060F2	
45	60	T	109D456X9060T2	109D456C2060T2	109D456C7060T2	
50	60	T	109D506X9060T2	109D506C2060T2	109D506C7060T2	
3	75	C	109D305X9075C2	109D305C2075C2	109D305C7075C2	
3.5	75	C	109D355X9075C2	109D355C2075C2	109D355C7075C2	
13	75	F	109D136X9075F2	109D136C2075F2	109D136C7075F2	
15	75	F	109D156X9075F2	109D156C2075F2	109D156C7075F2	
35	75	T	109D356X9075T2	109D356C2075T2	109D356C7075T2	
40	75	T	109D406X9075T2	109D406C2075T2	109D406C7075T2	
2.5	100	C	109D255X9100C2	109D255C2100C2	109D255C7100C2	
10	100	F	109D106X9100F2	109D106C2100F2	109D106C7100F2	
11	100	F	109D116X9100F2	109D116C2100F2	109D116C7100F2	
27	100	T	109D276X9100T2	109D276C2100T2	109D276C7100T2	
30	100	T	109D306X9100T2	109D306C2100T2	109D306C7100T2	
1.7	125	C	109D175X9125C2	109D175C2125C2	109D175C7125C2	
9	125	F	109D905X9125F2	109D905C2125F2	109D905C7125F2	
18	125	T	109D186X9125T2	109D186C2125T2	109D186C7125T2	
1.7	150	C	109D175X9150C2	109D175C2150C2	109D175C7150C2	
6.8	150	F	109D685X9150F2	109D685C2150F2	109D685C7150F2	
14	150	T	109D146X9150T2	109D146C2150T2	109D146C7150T2	

GROUP 2: Available in Capacitance Tolerances of $\pm 20\%$ and $\pm 10\%$

These capacitors have approximately twice the capacitance of Group 1 Capacitors of the same physical size at a given voltage rating.

F	WVDC	Size Code	Catalog Number		F	WVDC	Size Code	Catalog Number		F	WVDC	Size Code	Catalog Number	
			$\pm 20\%$ Tol.	$\pm 10\%$ Tol.				$\pm 20\%$ Tol.	$\pm 10\%$ Tol.				$\pm 20\%$ Tol.	$\pm 10\%$ Tol.
68	6	C	109D68X0006C2	109D68X9006C2	22	25	C	109D22X00025C2	109D22X90025C2	6.8	75	C	109D68X0075C2	109D68X9075C2
270	6	F	109D277X0006F2	109D277X9006F2	100	25	F	109D107X0025F2	109D107X9025F2	33	75	F	109D33X0075F2	109D33X9075F2
560	6	T	109D567X0006T2	109D567X9006T2	180	25	T	109D187X0025T2	109D187X9025T2	56	75	T	109D56X0075T2	109D56X9075T2
1200	6	W	109D128X0006W2	109D128X9006W2	350	25	W	109D357X0025W2	109D357X9025W2	110	75	W	109D117X0075W2	109D117X9075W2
56	8	C	109D56X0008C2	109D56X9008C2	15	30	C	109D15X0030C2	109D15X9030C2	4.7	100	C	109D47X0100C2	109D47X9100C2
220	8	F	109D227X0008F2	109D227X9008F2	68	30	F	109D68X0030F2	109D68X9030F2	22	100	F	109D22X0100F2	109D22X9100F2
430	8	T	109D437X0008T2	109D437X9008T2	150	30	T	109D157X0030T2	109D157X9030T2	43	100	T	109D43X0100T2	109D43X9100T2
850	8	W	109D857X0008W2	109D857X9008W2	300	30	W	109D307X0030W2	109D307X9030W2	86	100	W	109D86X0100W2	109D86X9100W2
47	10	C	109D47X0010C2	109D47X9010C2	10	50	C	109D10X0050C2	109D10X9050C2	3.6	125	C	109D36X0125C2	109D36X9125C2
180	10	F	109D187X0010F2	109D187X9010F2	47	50	F	109D47X0050F2	109D47X9050F2	14	125	F	109D146X0125F2	109D146X9125F2
390	10	T	109D397X0010T2	109D397X9010T2	82	50	T	109D82X0050T2	109D82X9050T2	25	125	T	109D25X0125T2	109D25X9125T2
750	10	W	109D757X0010W2	109D757X9010W2	160	50	W	109D167X0050W2	109D167X9050W2	56	125	W	109D56X0125W2	109D56X9125W2
33	15	C	109D33X0015C2	109D33X9015C2	8.2	60	C	109D82X0060C2	109D82X9060C2	3	150	C	109D30X0150C2	109D30X9150C2
120	15	F	109D127X0015F2	109D127X9015F2	39	60	F	109D39X0060F2	109D39X9060F2	11	150	F	109D116X0150F2	109D116X9150F2
270	15	T	109D277X0015T2	109D277X9015T2	68	60	T	109D68X0060T2	109D68X9060T2	22	150	T	109D22X0150T2	109D22X9150T2
540	15	W	109D547X0015W2	109D547X9015W2	140	60	W	109D147X0060W2	109D147X9060W2					

Size Code	Dimensions	CALL YOUR SPRAGUE INDUSTRIAL DISTRIBUTOR FOR CURRENT QUANTITY PRICES
	Dia. x Length	
U	7/32 x 15/32	
V	9/32 x 11/16	
T	3/8 x 49/64	

- -55C to +85C Operation at Full Rating. 100C Operation With 15% Derating.
- Stable in Performance Characteristics Over Entire Temperature Range.
- Large Capacitance in Small Size.
- Extremely Low Leakage Currents.
- 132D Designed to Withstand Severe Military Vibration Tests.
- For Plastic Tube on units, change "0" to "4" at End of Catalog Number.
- For Complete Technical Data See Latest Issue of Engineering Bulletin 3710 and 3711.

#F	Size Code	Catalog Number	
		+10% Tol.	-15, +20% Tol.
6 WVDC — 7 VDC SURGE			
30	U	132D306X9006U0	132D306C2006U0
140	V	132D147X9006V0	132D147C2006V0
320	T	132D327X9006T0	132D327C2006T0
8 WVDC — 10 VDC SURGE			
25	U	132D256X9008U0	132D256C2008U0
10 WVDC — 12 VDC SURGE			
20	U	132D206X9010U0	132D206C2010U0
100	V	132D107X9010V0	132D107C2010V0
250	T	132D257X9010T0	132D257C2010T0
15 WVDC — 18 VDC SURGE			
15	U	132D156X9015U0	132D156C2015U0
70	V	132D706X9015V0	132D706C2015V0
170	T	132D177X9015T0	132D177C2015T0

#F	Size Code	Catalog Number		
		+10% Tol.	-15, +20% Tol.	
25 WVDC — 30 VDC SURGE				
10	U	132D106X9025U0	132D106C2025U0	
30 WVDC — 36 VDC SURGE				
8	U	132D805X9030U0	132D805C2030U0	
40	V	132D406X9030V0	132D406C2030V0	
100	T	132D107X9030T0	132D107C2030T0	
50 WVDC — 60 VDC SURGE				
5	U	132D505X9050U0	132D505C2050U0	
25	V	132D256X9050V0	132D256C2050V0	
60	T	132D606X9050T0	132D606C2050T0	
60 WVDC — 72 VDC SURGE				
4	U	132D405X9060U0	132D405C2060U0	
20	Y	132D206X9060Y0	132D206C2060Y0	
50	T	132D506X9060T0	132D506C2060T0	

	Size	Catalog	Number
μ F	Code	$\pm 10\%$ Tol.	$-15, +20\%$ Tol.
75 WVDC — 87 VDC SURGE			
3.5	U	132D355X9075U0	132D355C2075U0
15	V	132D156X9075V0	132D156C2075V0
40	T	132D406X9075T0	132D406C2075T0
100 WVDC — 115 VDC SURGE			
2	U	132D205X9100U0	132D205C2100U0
11	V	132D116X9100V0	132D116C2100V0
30	T	132D306X9100T0	132D306C2100T0
125 WVDC — 140 VDC SURGE			
1.7	U	132D175X9125U0	132D175C2125U0
9	V	132D905X9125V0	132D905C2125V0
25	T	132D256X9125T0	132D256C2125T0

- -55C to +125C Operation at Full Rating. May Be Up-Rated 50% for Operation at 85C.
- Meet Stringent Requirements in Military and Missile Applications.

- Sintered Anode for Unusual Capacitance Stability, Large Values of Capacitance in Small Physical Size.
- Non-Tarnish Finish to Prevent Discoloration During Storage or Use.

- For Units With Outer Plastic Insulating Tube, Substitute "4" for "0" at End of Catalog Number.
- Housed in Miniature Silver Thimble

#F	Size Code	Catalog Number	
		-15, +20% Tol.	±10% Tol.
4 WORKING VOLTS D-C			
30	U	133D306C2004U	133D306X9004U
140	V	133D147C2004V	133D147X9004V
320	T	133D327C2004T	133D327X9004T
5 WORKING VOLTS D-C			
25	U	133D256C2005U	133D256X9005U
7 WORKING VOLTS D-C			
20	U	133D206C2007U	133D206X9007U
100	V	133D107C2007V	133D107X9007V
250	T	133D257C2007T	133D257X9007T
10 WORKING VOLTS D-C			
15	U	133D156C2010U	133D156X9010U
70	V	133D706C2010V	133D706X9010V
170	T	133D177C2010T	133D177X9010T

μ F	Size Code	Catalog Number	
		-15, +20% Tol.	+10% Tol.
15 WORKING VOLTS D-C			
10	U	133D106C2015U0	133D106X9015U0
20 WORKING VOLTS D-C			
8	U	133D805C2020U0	133D805X9020U0
40	V	133D406C2020V0	133D406X9020V0
100	T	133D107C2020T0	133D107X9020T0
30 WORKING VOLTS D-C			
5	U	133D505C2030U0	133D505X9030U0
25	V	133D256C2030V0	133D256X9030V0
60	T	133D606C2030T0	133D606X9030T0
40 WORKING VOLTS D-C			
4	U	133D405C2040U0	133D405X9040U0
20	V	133D206C2040V0	133D206X9040V0
50	T	133D506C2040T0	133D506X9040T0

Size		Catalog Number	
μF	Code	-15, +20% Tol.	+10% Tol.
50 WORKING VOLTS D-C			
3.5	U	133D355C2050U0	133D355X9050U0
15	V	133D136C2050V0	133D156X9050V0
40	T	133D406C2050T0	133D406X9050T0
70 WORKING VOLTS D-C			
2	U	133D205C2070U0	133D205X9070U0
11	V	133D116C2070V0	133D116X9070V0
30	T	133D306C2070T0	133D306X9070T0
85 WORKING VOLTS D-C			
1.7	U	133D175C2085U0	133D175X9085U0
9	V	133D905C2085V0	133D905X9085V0
25	T	133D256C2085T0	133D256X9085T0

SPRAGUE CAPACITORS

TYPE 137D HERMETICALLY-SEALED GELLED-ELECTROLYTE SINTERED-ANODE TANTALEX® CAPACITORS

• Glass-to-metal Hermetic Seal Makes Type 137D Capacitors Especially Well Suited For Use in Satellites and Other Space Equipment.

• Gelled-electrolyte For Optimum Performance Characteristics

• High Volumetric Efficiency Results in Space Savings

• Operating Temperature Range of -55C to +175C

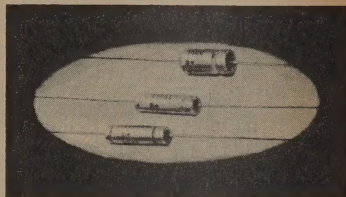
• Available in Voltage Ratings From 6 WVDC Through 125 WVDC At 85C With

Appropriate Derating For Higher Temperature Operation

- Group 1 Available in Capacitance Tolerances of +20, -15% and +75, -15%; Group 2 Available in a Capacitance Tolerance of $\pm 20\%$

- For Complete Technical Data, See Latest Issue of Sprague Engineering Bulletin Number 3703

- Call Your Sprague Industrial Distributor For Current Prices



GROUP 1: +20%, -15% and +75%, -15% Capacitance Tolerance with Outer Plastic-film Insulation

μF	Diam. (± 0.015)	Length (max.)	Catalog No.*
6 VOLTS D-C WORKING			
40	0.296	0.704	137D147C2006F2
30	0.390	0.828	137D337C2006T2
8 VOLTS D-C WORKING			
20	0.296	0.704	137D127C2008F2
90	0.390	0.828	137D297C2008T2
10 VOLTS D-C WORKING			
85	0.296	0.704	137D856C2010F2
100	0.296	0.704	137D107C2010F2
120	0.390	0.828	137D227C2010T2
150	0.390	0.828	137D257C2010T2
15 VOLTS D-C WORKING			
55	0.296	0.704	137D556C2015F2
70	0.296	0.704	137D706C2015F2
150	0.390	0.828	137D157C2015T2
170	0.390	0.828	137D177C2015T2
25 VOLTS D-C WORKING			
45	0.296	0.704	137D456C2025F2
50	0.296	0.704	137D506C2025F2
110	0.390	0.828	137D117C2025T2
30 VOLTS D-C WORKING			
35	0.296	0.704	137D356C2030F2
40	0.296	0.704	137D406C2030F2
80	0.390	0.828	137D806C2030T2
100	0.390	0.828	137D107C2030T2

μF	Diam. (± 0.015)	Length (max.)	Catalog No.*
50 VOLTS D-C WORKING			
22	0.296	0.704	137D226C2050F2
25	0.296	0.704	137D256C2050F2
55	0.390	0.828	137D556C2050T2
60	0.390	0.828	137D606C2050T2
60 VOLTS D-C WORKING			
18	0.296	0.704	137D186C2060F2
20	0.296	0.704	137D206C2060F2
45	0.390	0.828	137D456C2060T2
50	0.390	0.828	137D506C2060T2
75 VOLTS D-C WORKING			
13	0.296	0.704	137D136C2075F2
15	0.296	0.704	137D156C2075F2
35	0.390	0.828	137D356C2075T2
45	0.390	0.828	137D456C2075T2
100 VOLTS D-C WORKING			
10	0.296	0.704	137D106C2100F2
11	0.296	0.704	137D116C2100F2
27	0.390	0.828	137D276C2100T2
30	0.390	0.828	137D306C2100T2
125 VOLTS D-C WORKING			
9	0.296	0.704	137D905C2125F2
18	0.390	0.828	137D186C2125T2

*Catalog numbers listed are for +20, -15% tolerance capacitors. For +75, -15% tolerance capacitors, change the digit following the letter "C" from "2" to "7".

GROUP 2: $\pm 20\%$ Capacitance Tolerance with Outer Plastic-film Insulation

These capacitors have approximately twice the capacitance of Group 1 capacitors of the same physical size of a given voltage rating.

μF	Diam. (± 0.015)	Length (max.)	Catalog No.
6 VOLTS D-C WORKING			
270	0.296	0.704	137D277X0006F2
540	0.296	1.095	137D547X0006A2
560	0.390	0.828	137D567X0006T2
8 VOLTS D-C WORKING			
220	0.296	0.704	137D227X0008F2
430	0.390	0.828	137D437X0008T2
440	0.296	1.095	137D447X0008A2
10 VOLTS D-C WORKING			
180	0.296	0.704	137D187X0010F2
360	0.296	1.095	137D367X0010A2
390	0.390	0.828	137D397X0010T2
15 VOLTS D-C WORKING			
120	0.296	0.704	137D127X0015F2
240	0.296	1.095	137D247X0015A2
270	0.390	0.828	137D277X0015T2
25 VOLTS D-C WORKING			
100	0.296	0.704	137D107X0025F2
180	0.390	0.828	137D187X0025T2
200	0.296	1.095	137D207X0025A2
30 VOLTS D-C WORKING			
68	0.296	0.704	137D686X0030F2
140	0.296	1.095	137D147X0030A2
150	0.390	0.828	137D157X0030T2

μF	Diam. (± 0.015)	Length (max.)	Catalog No.
50 VOLTS D-C WORKING			
47	0.296	0.704	137D476X0050F2
82	0.390	0.828	137D826X0050T2
94	0.296	1.095	137D946X0050A2
60 VOLTS D-C WORKING			
39	0.296	0.704	137D396X0060F2
68	0.390	0.828	137D686X0060T2
78	0.296	1.095	137D786X0060A2
75 VOLTS D-C WORKING			
33	0.296	0.704	137D336X0075F2
56	0.390	0.828	137D566X0075T2
66	0.296	1.095	137D666X0075A2
100 VOLTS D-C WORKING			
22	0.296	0.704	137D226X0100F2
43	0.390	0.828	137D436X0100T2
44	0.296	1.095	137D446X0100A2
125 VOLTS D-C WORKING			
14	0.296	0.704	137D146X0125F2
25	0.390	0.828	137D256X0125T2
28	0.296	1.095	137D286X0125A2

CALL YOUR SPRAGUE INDUSTRIAL
DISTRIBUTOR FOR CURRENT PRICES

SPRAGUE CAPACITORS

MIL-C-26655 Solid TANTALUM CAPACITORS

- Military Version of Type 150D.

- CS12, Bare Tube; CS13, Insulating Sleeve
- Solid Electrolyte Will Not Seep Even if Hermetic Seal is Accidentally Broken

- Temperature Range of -55°C to $+85^{\circ}\text{C}$. Also -55°C to $+125^{\circ}\text{C}$ With Voltage Derating

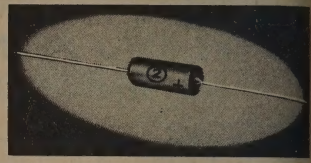
- See Latest Issue of Engineering Bulletin 3502.1

- Call Your Sprague Distributor For Quantity Prices

- For Insulated Style CS13, Add 0.010" to Diameter and 0.036" to Length

SIZE CODE

A = .125" D. x .250" L. C = .279" D. x .650" L.
B = .175" D. x .438" L. D = .341" D. x .750" L.



μF	Size Code	CS12		CS13	
		Tol.	Type Designation	Type Designation	Type Designation

6 WVDC

5.6	A	10%	CS12B8565K	CS13B8565K
6.8	A	10%	CS12B8685K	CS13B8685K
6.8	A	20%	CS12B8685M	CS13B8685M
47	B	10%	CS12B8476K	CS13B8476K
47	B	20%	CS12B8476M	CS13B8476M
56	B	10%	CS12B8566K	CS13B8566K
150	C	10%	CS12B8157K	CS13B8157K
150	C	20%	CS12B8157M	CS13B8157M
180	C	10%	CS12B8187K	CS13B8187K
270	D	10%	CS12B8277K	CS13B8277K
330	D	10%	CS12B8337K	CS13B8337K
330	D	20%	CS12B8337M	CS13B8337M

10 WVDC

3.9	A	10%	CS12B3395K	CS13B3395K
4.7	A	10%	CS12B475K	CS13B475K
4.7	A	20%	CS12B475M	CS13B475M
27	B	10%	CS12B276K	CS13B276K
33	B	10%	CS12B336K	CS13B336K
33	B	20%	CS12B336M	CS13B336M
39	B	10%	CS12B396K	CS13B396K
82	C	10%	CS12B826K	CS13B826K
100	C	10%	CS12B107K	CS13B107K
100	C	20%	CS12B107M	CS13B107M
120	C	10%	CS12B127K	CS13B127K
180	D	10%	CS12B187K	CS13B187K
220	D	10%	CS12B227K	CS13B227K
220	D	20%	CS12B227M	CS13B227M

15 WVDC

2.7	A	10%	CS12B275K	CS13B275K
3.3	A	10%	CS12B335K	CS13B335K
3.3	A	20%	CS12B335M	CS13B335M
18	B	10%	CS12B186K	CS13B186K
22	B	10%	CS12B226K	CS13B226K
22	B	20%	CS12B226M	CS13B226M
56	C	10%	CS12B566K	CS13B566K
68	C	10%	CS12B686K	CS13B686K
120	D	10%	CS12B127K	CS13B127K
150	D	10%	CS12B157K	CS13B157K
150	D	20%	CS12B157M	CS13B157M

20 WVDC

1.2	A	10%	CS12B8125K	CS13B8125K
1.5	A	10%	CS12B155K	CS13B155K
1.5	A	20%	CS12B155M	CS13B155M
1.8	A	10%	CS12B185K	CS13B185K
2.2	A	10%	CS12B225K	CS13B225K
2.2	A	20%	CS12B225M	CS13B225M
8.2	B	10%	CS12B825K	CS13B825K
10	B	10%	CS12B106K	CS13B106K
10	B	20%	CS12B106M	CS13B106M
12	B	10%	CS12B126K	CS13B126K
15	B	10%	CS12B156K	CS13B156K
15	B	20%	CS12B156M	CS13B156M
27	C	10%	CS12B276K	CS13B276K
33	C	10%	CS12B336K	CS13B336K
33	C	20%	CS12B336M	CS13B336M
39	C	10%	CS12B396K	CS13B396K
47	C	10%	CS12B476K	CS13B476K
47	C	20%	CS12B476M	CS13B476M
56	D	10%	CS12B566K	CS13B566K
68	D	10%	CS12B686K	CS13B686K
68	D	20%	CS12B686M	CS13B686M
82	D	10%	CS12B826K	CS13B826K
100	D	10%	CS12B107K	CS13B107K
100	D	20%	CS12B107M	CS13B107M

35 WVDC

33	A	10%	CS12B334K	CS13B334K
33	A	20%	CS12B334M	CS13B334M
39	A	10%	CS12B394K	CS13B394K
47	A	10%	CS12B474K	CS13B474K
47	A	20%	CS12B474M	CS13B474M
56	A	10%	CS12B564K	CS13B564K
68	A	10%	CS12B684K	CS13B684K
68	A	20%	CS12B684M	CS13B684M

μF	Size Code	Tol.	CS12		CS13	
			Type Designation	Type Designation	Type Designation	Type Designation

.82	A	10%	CS12B824K	CS13B824K
1.0	A	10%	CS12B105K	CS13B105K
1.0	A	20%	CS12B105M	CS13B105M
1.2	B	10%	CS12B125K	CS13B125K
1.5	B	10%	CS12B155K	CS13B155K
1.5	B	20%	CS12B155M	CS13B155M
1.8	B	10%	CS12B185K	CS13B185K
2.2	B	10%	CS12B225K	CS13B225K
2.2	B	20%	CS12B225M	CS13B225M
2.7	B	10%	CS12B275K	CS13B275K
3.3	B	10%	CS12B335K	CS13B335K
3.3	B	20%	CS12B335M	CS13B335M
3.9	B	10%	CS12B395K	CS13B395K
4.7	B	10%	CS12B475K	CS13B475K
5.6	B	10%	CS12B565K	CS13B565K
6.8	B	10%	CS12B685K	CS13B685K
8.2	C	10%	CS12B825K	CS13B825K
10	C	10%	CS12B106K	CS13B106K
10	C	20%	CS12B106M	CS13B106M
12	C	10%	CS12B126K	CS13B126K
15	C	10%	CS12B156K	CS13B156K
15	C	20%	CS12B156M	CS13B156M
18	C	10%	CS12B186K	CS13B186K
22	C	10%	CS12B226K	CS13B226K
22	C	20%	CS12B226M	CS13B226M
27	D	10%	CS12B276K	CS13B276K
33	D	10%	CS12B336K	CS13B336K
33	D	20%	CS12B336M	CS13B336M
39	D	10%	CS12B396K	CS13B396K
47	D	10%	CS12B476K	CS13B476K
47	D	20%	CS12B476M	CS13B476M

50 WVDC

1.0	A	10%	CS12B8105K	CS13B8105K
1.0	A	20%	CS12B8105M	CS13B8105M
1.2	B	10%	CS12B125K	CS13B125K
1.5	B	10%	CS12B155K	CS13B155K
1.5	B	20%	CS12B155M	CS13B155M
1.8	B	10%	CS12B185K	CS13B185K
2.2	B	10%	CS12B225K	CS13B225K
2.2	B	20%	CS12B225M	CS13B225M
2.7	B	10%	CS12B275K	CS13B275K
3.3	B	10%	CS12B335K	CS13B335K
3.3	B	20%	CS12B335M	CS13B335M
3.9	B	10%	CS12B395K	CS13B395K
4.7	B	10%	CS12B475K	CS13B475K
4.7	B	20%	CS12B475M	CS13B475M
5.6	C	10%	CS12B565K	CS13B565K
6.8	C	10%	CS12B685K	CS13B685K
6.8	C	20%	CS12B685M	CS13B685M
8.2	C	10%	CS12B825K	CS13B825K
10	C	10%	CS12B106K	CS13B106K
10	C	20%	CS12B106M	CS13B106M
12	C	10%	CS12B126K	CS13B126K
15	C	10%	CS12B156K	CS13B156K
15	C	20%	CS12B156M	CS13B156M
18	C	10%	CS12B186K	CS13B186K
22	D	10%	CS12B226K	CS13B226K
22	D	20%	CS12B226M	CS13B226M

75 WVDC

.10	A	10%	CS12B8104K	CS13B8104K
.10	A	20%	CS12B8104M	CS13B8104M
.12	A	10%	CS12B124K	CS13B124K
.15	A	10%	CS12B154K	CS13B154K
.15	A	20%	CS12B154M	CS13B154M
.18	A	10%	CS12B184K	CS13B184K
.22	A	10%	CS12B224K	CS13B224K
.22	A	20%	CS12B224M	CS13B224M
.27	A	10%	CS12B274K	CS13B274K
.33	A	10%	CS12B334K	CS13B334K
.33	A	20%	CS12B334M	CS13B334M
.39	A	10%	CS12B394K	CS13B394K
.47	A	10%	CS12B474K	CS13B474K
.47	A	20%	CS12B474M	CS13B474M
.56	A	10%	CS12B564K	CS13B564K
.68	A	10%	CS12B684K	CS13B684K
.68	A	20%	CS12B684M	CS13B684M

μF	Size Code	Tol.	CS12		CS13	
			Type Designation	Type Designation	Type Designation	Type Designation

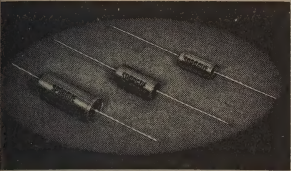
.68	A	10%	CS12B8684K	CS13B8684K
.68	A	20%	CS12B8684M	CS13B8684M
.82	B	10%	CS12B824K	CS13B824K
1.0	B	10%	CS12B105K	CS13B105K
1.0	B	20%	CS12B105M	CS13B105M
1.2	B	10%	CS12B125K	CS13B125K
1.5	B	10%	CS12B155K	CS13B155K
1.5	B	20%	CS12B155M	CS13B155M
1.8	B	10%	CS12B185K	CS13B185K
2.2	B	10%	CS12B225K	CS13B225K
2.2	B	20%	CS12B225M	CS13B225M
2.7	B	10%	CS12B275K	CS13B275K
3.3	B	10%	CS12B335K	CS13B335K
3.3	B	20%	CS12B335M	CS13B335M
3.9	B	10%	CS12B395K	CS13B395K
4.7	C	10%	CS12B475K	CS13B475K
4.7	C	20%	CS12B475M	CS13B475M
5.6	C	10%	CS12B565K	CS13B565K
6.8	C	10%	CS12B685K	CS13B685K
6.8	C	20%	CS12B685M	CS13B685M
8.2	C	10%	CS12B825K	CS13B825K
10	C	10%	CS12B106K	CS13B106K
10	C	20%	CS12B106M	CS13B106M
12	D	10%	CS12B126K	CS13B126K
15	D	10%	CS12B156K	CS13B156K
15	D	20%	CS12B156M	CS13B156M

100 WVDC

.0047	A	10%	CS12B472K	CS13B472K
.0047	A	20%	CS12B472M	CS13B472M
.0056	A	10%	CS12B562K	CS13B562K
.0068	A	10%	CS12B682K	CS13B682K
.0068	A	20%	CS12B682M	CS13B682M
.0082	A	10%	CS12B822K	CS13B822K
.01	A	10%	CS12B103K	CS13B103K
.01	A	20%	CS12B103M	CS13B103M
.012	A	10%	CS12B123K	CS13B123K
.015	A	10%	CS12B153K	CS13B153K
.015	A	20%	CS12B153M	CS13B153M
.018	A	10%	CS12B183K	CS13B183K
.022	A	10%	CS12B223K	CS13B223K
.022	A	20%	CS12B223M	CS13B223M
.027	A	10%	CS12B273K	CS13B273K
.033	A	10%	CS12B333K	CS13B333K
.033	A	20%	CS12B333M	CS13B333M
.039	A	10%	CS12B393K	CS13B393K
.047	A	10%	CS12B473K	CS13B473K
.047	A	20%	CS12B473M	CS13B473M
.056	A	10%	CS12B563K	CS13B563K
.068	A	10%	CS12B683K	CS13B683K
.068	A	20%	CS12B683M	CS13B683M
.082	A	10%	CS12B823K	CS13B823K
.10	A	10%	CS12B104K	CS13B104K
.10	A	20%	CS12B104M	CS13B104M
.12	A	10%	CS12B124K	CS13B124K
.15	A	10%	CS12B154K	CS13B154K
.15	A	20%	CS12B154M	CS13B154M
.18	A	10%	CS12B184K	CS13B184K
.22	A	10%	CS12B224K	CS13B224K
.22	A	20%	CS12B224M	CS13B224M
.27	A	10%	CS12B274K	CS13B274K
.33	A	10%	CS12B334K	CS13B334K
.33	A	20%	CS12B334M	CS13B334M
.39	A	10%	CS12B394K	CS13B394K
.47	A	10%	CS12B474K	CS13B474K
.47	A	20%	CS12B474M	CS13B474M
.56	A	10%	CS12B564K	CS13B564K
.68	B	10%	CS12B684K	CS13B684K
.68	B	20%	CS12B684M	CS13B684M
.82	B	10%	CS12B824K	CS13B824K
1.0	B	10%	CS12B105K	CS13B105K
1.0	B	20%	CS12B105M	CS13B105M
1.2	B	10%	CS12B125K	CS13B125K
1.5	B	10%	CS12B155K	CS13B155K
1.5	B	20%	CS12B155M	CS13B155M
1.8	B	10%	CS12B185K	CS13B185K
2.2	B	10%	CS12B225K	CS13B225K
2.2	B	20%	CS12B225M	CS13B225M

SPRAGUE CAPACITORS

MIL-C-3965 FOIL TANTALUM CAPACITORS TYPES CL24 & CL25



DIMENSIONS

Code	D. x L.	Code	D. x L.
D	$\frac{1}{4} \times \frac{3}{4}$	M	$\frac{2}{4} \times \frac{2}{16}$
G	$\frac{1}{4} \times \frac{1}{16}$	P	$\frac{2}{4} \times \frac{2}{16}$
J	$\frac{2}{4} \times \frac{1}{16}$		

- For -55°C to $+85^{\circ}\text{C}$ Operation up to 150 Volts in Military and Industrial Electronic Equipment
- Low Leakage Current and Stable Temperature Coefficient Makes Possible Its Use in Many Circuits Where Aluminum Foil Designs Are Undesirable
- The Electrolyte System Used Assures Long Operating and Shelf Life, ex-

cellent Low-temperature Performance, Chemical Stability and Inertness

- Dimensions Listed Are For Bare Metal-Case For Insulated Case Add $\frac{1}{4}$ " to Diameter and $\frac{1}{8}$ " to Length
- MIL Version of Sprague Type 112D
- Type CL24 Is a Bare Metal-Case Unit. If An Outer Insulating Sleeve Is Desired, Order Type CL25
- Call Your Sprague Industrial Distributor For Current Quantity Prices

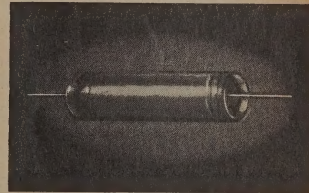
Size				Size				Size						
WVDC Code		Military Designation*		WVDC Code		Military Designation*		WVDC Code		Military Designation*				
5	15	D	CL24BE150UP3	CL25BE150UP3	110	30	J	CL24BH111UP3	CL25BH111UP3	70	75	M	CL24BL700TP3	CL25BL700TP3
0	15	G	CL24BE600UP3	CL25BE600UP3	220	30	M	CL24BH221UP3	CL25BH221UP3	100	75	P	CL24BL101TP3	CL25BL101TP3
0	15	J	CL24BE201UP3	CL25BE201UP3	300	30	P	CL24BH301UP3	CL25BH301UP3	2	100	D	CL24BN020SP3	CL25BN020SP3
0	15	M	CL24BE401UP3	CL25BE401UP3	4.5	50	D	CL24BJ4R5TP3	CL25BJ4R5TP3	8	100	G	CL24BN080SP3	CL25BN080SP3
0	15	P	CL24BE581UP3	CL25BE581UP3	18	50	G	CL24BJ180TP3	CL25BJ180TP3	25	100	J	CL24BN250SP3	CL25BN250SP3
0	25	D	CL24BG100UP3	CL25BG100UP3	60	50	J	CL24BJ600TP3	CL25BJ600TP3	50	100	M	BL24BN500SP3	CL25BN500SP3
0	25	G	CL24BG400UP3	CL25BG400UP3	100	50	M	CL24BJ101TP3	CL25BJ101TP3	70	100	P	CL24BN700SP3	CL25BN700SP3
0	25	J	CL24BG121UP3	CL25BG121UP3	150	50	P	CL24BJ151TP3	CL25BJ151TP3	1	150	D	CL24BQ010SP3	CL25BQ010SP3
0	25	M	CL24BG251UP3	CL25BG251UP3	3	75	D	CL24BL030TP3	CL25BL030TP3	4	150	G	CL24BQ040SP3	CL25BQ040SP3
0	25	P	CL24BG351UP3	CL25BG351UP3	12	75	G	CL24BL120TP3	CL25BL120TP3	13	150	J	CL24BQ130SP3	CL25BQ130SP3
8	30	D	CL24BH080UP3	CL25BH080UP3	30	75	J	CL24BL300TP3	CL25BL300TP3	25	150	M	CL24BQ250SP3	CL25BQ250SP3
2	30	G	CL24BH320UP3	CL25BH320UP3	36	150	P	CL24BQ360SP3	CL25BQ360SP3	36	150	P	CL24BQ360SP3	CL25BQ360SP3

Note: For vibration grade 1 or 2, change last digit of military designation to 1 or 2.

MIL-C-3965 FOIL TANTALUM CAPACITORS TYPES CL34 and CL35

- For use in military and industrial electronic equipment. Designed to operate over the temperature range of -55°C to $+85^{\circ}\text{C}$
- Long operation and shelf life, excellent low temperature performance, and optimum electrical characteristics
- For use in circuits where aluminum foil units are unsatisfactory

- Low leakage current and good temperature coefficient
- Type CL34 is a bare metal case unit. If an outer insulating sleeve is desired, order Type CL35
- MIL version of Sprague Type 110D
- Call Your Sprague Industrial Distributor For Current Quantity Prices



DIMENSIONS

Code	D. x L.	Code	D. x L.
D	$\frac{3}{16} \times \frac{1}{16}$	M	$\frac{3}{8} \times \frac{2}{16}$
G	$\frac{7}{32} \times \frac{1}{16}$	P	$\frac{3}{8} \times \frac{2}{16}$
J	$\frac{3}{8} \times \frac{1}{16}$		

Size				Size				Size						
WVDC Code		Military Designation*		WVDC Code		Military Designation*		WVDC Code		Military Designation*				
0	3	D	CL34BA100MP3	CL35BA100MP3	60	30	M	CL34BH300MP3	CL35BH600MP3	7	150	J	CL34BQ070MP3	CL35BQ070MP3
0	3	G	CL34BA500MP3	CL35BA500MP3	85	30	P	CL34BH850MP3	CL35BH850MP3	8	150	M	CL34BQ080MP3	CL35BQ080MP3
8	6	D	CL34BB080MP3	CL35BB080MP3	1.5	50	D	CL34BJ1R5MP3	CL35BJ1R5MP3	12	150	M	CL34BQ120MP3	CL35BQ120MP3
0	6	G	CL34BB300MP3	CL35BB300MP3	6	50	G	CL34BJ060MP3	CL35BJ060MP3	14	150	M	CL34BQ140MP3	CL35BQ140MP3
0	6	J	CL34BB101MP3	CL35BB101MP3	20	50	J	CL34BJ200MP3	CL35BJ200MP3	20	150	P	CL34BQ200MP3	CL35BQ200MP3
0	6	M	CL34BB201MP3	CL35BB201MP3	40	50	M	CL34BJ400MP3	CL35BJ400MP3	.35	200	D	CL34BR35LP3	CL35BR35LP3
0	6	P	CL34BB301MP3	CL35BB301MP3	55	50	P	CL34BJ50MP3	CL35BJ500MP3	1.5	200	G	CL34BR1R5LP3	CL35BR1R5LP3
6	10	D	CL34BD060MP3	CL35BD060MP3	1	75	D	CL34BL010MP3	CL35BL010MP3	5	200	J	CL34BR050LP3	CL35BR050LP3
5	10	G	CL34BD250MP3	CL35BD250MP3	4	75	G	CL34BL040MP3	CL35BL040MP3	10	200	M	CL34BR100LP3	CL35BR100LP3
0	10	J	CL34BD800MP3	CL35BD800MP3	14	75	J	CL34BL140MP3	CL35BL140MP3	15	200	P	CL34BR150LP3	CL35BR150LP3
0	10	M	CL34BD161MP3	CL35BD161MP3	28	75	M	CL34BL280MP3	CL35BL280MP3					
0	10	P	CL34BD221MP3	CL35BD221MP3	40	75	P	CL34BL400MP3	CL35BL400MP3	.30	250	D	CL34BSR30LP3	CL35BSR30LP3
4.5	15	D	CL34BE4R5MP3	CL35BE4R5MP3	0.8	100	D	CL34BN0R8MP3	CL35BN0R8MP3	1.2	250	G	CL34BS1R2LP3	CL35BS1R2LP3
0	15	G	CL34BE100MP3	CL35BE100MP3	3	100	G	CL34BN030MP3	CL35BN030MP3	4	250	J	CL34BS040LP3	CL35BS040LP3
8	15	G	CL34BE180MP3	CL35BE180MP3	10	100	J	CL34BN100MP3	CL35BN100MP3	8	250	M	CL34BS080LP3	CL35BS080LP3
5	15	J	CL34BE550MP3	CL35BE550MP3	20	100	M	CL34BN200MP3	CL35BN200MP3	12	250	P	CL34BS120LP3	CL35BS120LP3
0	15	M	CL34BE111MP3	CL35BE111MP3	30	100	P	CL34BN300MP3	CL35BN300MP3	1	300	G	CL34BX010LP3	CL35BX010LP3
0	15	P	CL34BE161MP3	CL35BE161MP3	0.5	150	D	CL34BQ0R5MP3	CL35BQ0R5MP3	3	300	J	CL34BX030LP3	CL35BX030LP3
2.5	30	D	CL34BH2R5MP3	CL35BH2R5MP3	2	150	G	CL34BQ020MP3	CL35BQ020MP3	7	300	M	CL34BX070LP3	CL35BX070LP3
0	30	J	CL34BH300MP3	CL35BH300MP3	4	150	J	CL34BQ040MP3	CL35BQ040MP3	10	300	P	CL34BX100LP3	CL35BX100LP3

Note: For vibration grade 1 or 2, change last digit of military designation to 1 or 2.

SPRAGUE CAPACITORS

MIL-C-3965 TUBULAR FOIL TANTALUM ELECTROLYTICS

TYPES CL20, CL21, CL22, CL23, CL30, CL31, CL32, and CL33

- Meet Requirements of Military Specification MIL-C-3965
- Small Electrically Stable Foil Tantalums, Long, Reliable Life
- Available in Industrial Equivalents as Types 120D, 121D, 122D, 123D
- Temperature Rating 125C
- Types Marked (*) Have Insulating Sleeves All Others are Bare Case

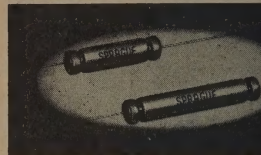
Capacitance Tolerance

$$\begin{aligned} M &= +20, -20\% & S &= +30, -15\% \\ T &= +50, -15\% & U &= +75, -15\% \end{aligned}$$

- Call Your Sprague Industrial Distributor for Current Quantity Prices

SIZE CODE (Diam x Length)

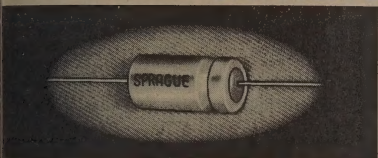
E $1\frac{3}{4} \times 3\frac{1}{2}$	N $2\frac{3}{4} \times 2\frac{1}{2}$
H $1\frac{1}{4} \times 1\frac{1}{2}$	Q $2\frac{3}{4} \times 2\frac{3}{4}$
K $2\frac{3}{4} \times 1\frac{1}{4}$	



μF	Size Code	MIL Type	μF	Size Code	MIL Type	μF	Size Code	MIL Type	μF	Size Code	MIL Type	μF	Size Code	MIL Type
TYPE CL20			TYPE CL22			TYPE CL30			TYPE CL32			TYPE CL33*		
POLARIZED ETCHED FOIL			NON-POLARIZED ETCHED FOIL			POLARIZED PLAIN FOIL			NON-POLARIZED PLAIN FOIL			NON-POLARIZED PLAIN FOIL		
10 WORKING VOLTS D-C			10 WORKING VOLTS D-C			10 WORKING VOLTS D-C			10 WORKING VOLTS D-C			10 WORKING VOLTS D-C		
15	E	CL20CD1500P3	10	E	CL22CD1000N3	1.5	E	CL30CJ1R5TN3	110	N	CL31CD111MP3	60	WORKING VOLTS D-C	
20	H	CL20CD2000P3	40	H	CL22CD4000N3	6	H	CL30CJ060TN3	160	Q	CL31CD161MP3	1.5	E	CL32CK0R4MN3
400	N	CL20CD401UP3	120	K	CL22CD121UN3	15	K	CL30CJ150TN3				0.4	H	CL32CK1R5MN3
580	Q	CL20CD581UP3	250	N	CL22CD251UN3	35	N	CL30CJ350TN3				5	K	CL32CK050MN3
15 WORKING VOLTS D-C			15 WORKING VOLTS D-C			60 WORKING VOLTS D-C			15 WORKING VOLTS D-C			100 WORKING VOLTS D-C		
4.5	E	CL20CH4R5TP3	5	E	CL22CE050UN3	1	E	CL30CJ010TN3	3	E	CL31CE030MP3	10	N	CL32CK100MN3
18	H	CL20CH180TP3	20	H	CL22CE200UN3	4	H	CL30CJ040TN3	12	H	CL31CE120MP3	15	Q	CL32CK150MN3
60	K	CL20CH600TP3	70	K	CL22CE700UN3	12	K	CL30CJ120TN3	3	E	CL31CE030MP3	10	N	CL32CK100MN3
120	K	CL20CE121UP3	250	N	CL22CD251UN3	25	N	CL30CJ250TN3	12	H	CL31CH060MP3	7	N	CL32CK075MN3
250	N	CL20CE251UP3	350	Q	CL22CD351UN3	35	Q	CL30CJ350TN3	20	K	CL31CH400MP3	10	Q	CL32CN100MN3
350	Q	CL20CE351UP3							40	N	CL31CH400MP3			
30 WORKING VOLTS D-C			30 WORKING VOLTS D-C			100 WORKING VOLTS D-C			50 WORKING VOLTS D-C			150 WORKING VOLTS D-C		
4.5	E	CL20CH4R5TP3	5	E	CL22CE050UN3	0.5	E	CL30CN0R5SN3	0.8	E	CL31CN0R5MP3	0.15	E	CL32CQR15MN3
18	H	CL20CH180TP3	20	H	CL22CE200UN3	2	H	CL30CN020SN3	2	H	CL31CN020MP3	0.75	H	CL32CQR75MN3
60	K	CL20CH600TP3	70	K	CL22CE700UN3	6	K	CL30CN060SN3	14	K	CL31CN140MP3	2.5	K	CL32CQR2R5MN3
100	N	CL20CH101TP3	140	N	CL22CE141UN3	12	N	CL30CN120SN3	28	N	CL31CN280MP3	5	N	CL32CQ050MN3
150	Q	CL20CH151TP3	200	Q	CL22CE201UN3	18	Q	CL30CN180SN3	40	Q	CL31CN400MP3	7.5	Q	CL32CQ7R5MN3
50 WORKING VOLTS D-C			30 WORKING VOLTS D-C			TYPE CL30			60 WORKING VOLTS D-C			TYPE CL33*		
						POLARIZED PLAIN FOIL						NON-POLARIZED PLAIN FOIL		
						10 WORKING VOLTS D-C						10 WORKING VOLTS D-C		
3	E	CL20CJ030TP3	2.5	E	CL22CH2R5TN3	4.5	E	CL30CD4R5MP3	0.8	E	CL31CK0R8MP3	2.5	E	CL33CD2R5MN3
12	H	CL20CJ120TP3	10	H	CL22CH100TN3	18	H	CL30CD180MP3	3	H	CL31CK030MP3	10	H	CL33CD100MN3
30	K	CL20CJ300TP3	30	K	CL22CH300TN3	55	K	CL30CD550MP3	10	K	CL31CK100MP3	35	K	CL33CD350MN3
70	N	CL20CJ700TP3	60	N	CL22CH600TN3	110	N	CL30CD110MP3	20	N	CL31CK200MP3	70	N	CL33CD700MN3
100	Q	CL20CJ101TP3	80	Q	CL22CH800TN3	160	Q	CL30CD161MP3	30	Q	CL31CK300MP3	100	Q	CL33CD101MN3
60 WORKING VOLTS D-C			50 WORKING VOLTS D-C			15 WORKING VOLTS D-C			100 WORKING VOLTS D-C			15 WORKING VOLTS D-C		
2	E	CL20CK020TP3	1.5	E	CL22CJ1R5TN3	3	E	CL30CE030MP3	0.5	E	CL31CN0R5MP3	1.5	E	CL33CE1R5MN3
8	H	CL20CK080TP3	4	H	CL22CJ040TN3	12	H	CL30CE120MP3	2	H	CL31CN020MP3	6	H	CL33CE060MN3
25	K	CL20CK250TP3	15	K	CL22CJ150TN3	35	K	CL30CE350MP3	7	K	CL31CN070MP3	20	K	CL33CE200MN3
50	N	CL20CK500TP3	35	N	CL22CJ350TN3	70	N	CL30CE700MP3	14	N	CL31CN140MP3	40	N	CL33CE400MN3
70	Q	CL20CK700TP3	50	Q	CL22CJ500TN3	100	Q	CL30CE101MP3	20	Q	CL31CN200MP3	60	Q	CL33CE600MN3
100 WORKING VOLTS D-C			60 WORKING VOLTS D-C			30 WORKING VOLTS D-C			150 WORKING VOLTS D-C			30 WORKING VOLTS D-C		
1	E	CL20CN010SP3	1	E	CL22CK010TN3	1.5	E	CL30CH1R5MP3	0.35	E	CL31CQR35MP3	0.8	E	CL33CH0R8MN3
4	H	CL20CN040SP3	4	H	CL22CK040TN3	6	H	CL30CH060MP3	1.5	H	CL31CQ1R5MP3	3	H	CL33CH030MN3
13	K	CL20CN130SP3	12	K	CL22CK120TN3	20	K	CL30CH200MP3	5	K	CL31CQ050MP3	10	K	CL33CH100MN3
25	N	CL20CN250SP3	25	N	CL22CK250TN3	40	N	CL30CH400MP3	10	N	CL31CQ100MP3	20	N	CL33CH200MN3
36	Q	CL20CN360SP3	35	Q	CL22CK350TN3	55	Q	CL30CH550MP3	15	Q	CL31CQ150MP3	30	Q	CL33CH300MN3
TYPE CL21*			TYPE CL23*			50 WORKING VOLTS D-C			TYPE CL32			50 WORKING VOLTS D-C		
POLARIZED ETCHED FOIL			NON-POLARIZED ETCHED FOIL			10 WORKING VOLTS D-C			NON-POLARIZED PLAIN FOIL			50 WORKING VOLTS D-C		
10 WORKING VOLTS D-C			10 WORKING VOLTS D-C			10 WORKING VOLTS D-C			10 WORKING VOLTS D-C			50 WORKING VOLTS D-C		
15	E	CL21CD1500P3	10	E	CL23CD1000N3	1.5	E	CL30CJ010MP3	0.5	E	CL31CQ0R5MP3	0.4	E	CL33CQ0R4MN3
20	H	CL21CD2000P3	40	H	CL23CD4000N3	6	H	CL30CJ040MP3	10	H	CL31CQ1R5MP3	1.5	H	CL33CQ0R15MN3
400	N	CL21CD401UP3	120	K	CL23CD121UN3	14	K	CL30CJ140MP3	5	K	CL31CQ050MP3	3	K	CL33CQ0R35MN3
580	Q	CL21CD581UP3	250	N	CL23CD251UN3	28	N	CL30CJ280MP3	10	N	CL31CQ100MP3	7	N	CL33CQ0R75MN3
15 WORKING VOLTS D-C			15 WORKING VOLTS D-C			60 WORKING VOLTS D-C			15 WORKING VOLTS D-C			100 WORKING VOLTS D-C		
4.5	E	CL21CH4R5TP3	5	E	CL23CE050UN3	1	E	CL30CQ0R5MP3	0.5	E	CL31CQ0R5MP3	0.15	E	CL33CQ0R15MN3
18	H	CL21CH180TP3	20	H	CL23CE200UN3	2	H	CL30CQ020MP3	2	H	CL31CQ020MP3	0.75	H	CL33CQ0R75MN3
60	K	CL21CH600TP3	70	K	CL23CE700UN3	6	K	CL30CQ060MP3	14	K	CL31CQ140MP3	2.5	K	CL33CQ2R5MN3
100	N	CL21CH101TP3	140	N	CL23CE141UN3	12	N	CL30CQ120MP3	28	N	CL31CQ280MP3	5	N	CL33CQ050MN3
150	Q	CL21CH151TP3	200	Q	CL23CE201UN3	18	Q	CL30CQ180MP3	40	Q	CL31CQ400MP3	7.5	Q	CL33CQ7R5MN3
50 WORKING VOLTS D-C			30 WORKING VOLTS D-C			150 WORKING VOLTS D-C			50 WORKING VOLTS D-C			150 WORKING VOLTS D-C		
3	E	CL21CJ030TP3	2.5	E	CL23CH2R5TN3	0.35	E	CL30CQR35MP3	0.8	E	CL31CQ0R5MN3	0.15	E	CL33CQR15MN3
12	H	CL21CJ120TP3	10	H	CL23CH100TN3	1.5	H	CL30CQ1R5MP3	2	H	CL31CQ020MN3	0.75	H	CL33CQR75MN3
30	K	CL21CJ300TP3	30	K	CL23CH300TN3	5	K	CL30CQ050MP3	3	K	CL31CQ030MN3	2.5	K	CL33CQR2R5MN3
70	N	CL21CJ700TP3	60	N	CL23CH600TN3	10	N	CL30CQ100MP3	14	N	CL31CQ140MN3	5	N	CL33CQ050MN3
100	Q	CL21CJ101TP3	80	Q	CL23CH800TN3	10	Q	CL30CQ100MP3	20	Q	CL31CQ200MN3	7.5	Q	CL33CQR75MN3
60 WORKING VOLTS D-C			15 WORKING VOLTS D-C			TYPE CL31*			50 WORKING VOLTS D-C			150 WORKING VOLTS D-C		
2	E	CL21CK020TP3	1.5	E	CL23CJ1R5TN3	4.5	E	CL31CD4R5MP3	0.5	E	CL32CJ0R5MN3	0.15	E	CL33CQR15MN3
8	H	CL21CK080TP3	4	H	CL23CJ040TN3	18	H	CL31CD180MP3	2	H	CL32CJ020MN3	0.75	H	CL33CQR75MN3
25	K	CL21CK250TP3	15	K	CL23CJ150TN3	55	K	CL31CD550MP3	10	K	CL32CJ100MN3	2.5	K	CL33CQR2R5MN3
50	N	CL21CK500TP3	35	N	CL23CJ350TN3	110	N	CL31CD110MP3	20	N	CL32CJ200MN3	5	N	CL33CQ050MN3
70	Q	CL21CK700TP3	60	Q	CL23CJ600TN3	160	Q	CL31CD161MP3	30	Q	CL32CJ300MN3	7.5	Q	CL33CQR75MN3
100 WORKING VOLTS D-C			30 WORKING VOLTS D-C			TYPE CL31*			50 WORKING VOLTS D-C			150 WORKING VOLTS D-C		
1	E	CL21CN010SP3	2.5	E	CL23CH2R5TN3	4.5	E	CL31CD4R5MP3	0.5	E	CL32CJ0R5MN3	0.15	E	CL33CQR15MN3
4	H	CL21CN040SP3	10	H	CL23CH100TN3	18	H	CL31CD180MP3	2	H	CL32CJ020MN3	0.75	H	CL33CQR75MN3
13	K	CL21CN130SP3	30	K	CL23CH300TN3	55	K	CL31CD550MP3	10	K	CL32CJ100MN3	2.5	K	CL33CQR2R5MN3
25	N	CL21CN250SP3	60	N	CL23CH600TN3	110	N	CL31CD110MP3	20	N	CL32CJ200MN3	5	N	CL33CQ050MN3
36	Q	CL21CN360SP3	80	Q	CL23CH800TN3	160	Q	CL31CD161MP3	30	Q	CL32CJ300MN3	7.5	Q	CL33CQR75MN3

SPRAGUE CAPACITORS

MIL-C-3965 TUBULAR SINTERED-ANODE TANTALEX® CAPACITORS—TYPES CL64 and CL65



DIMENSIONS

Code	D. x L.	Code	D. x L.	Code	D. x L.
T1	.188" x .453"	T2	.281" x .641"	T3	.375" x .766"

- Reliable Superior Quality Capacitors With No Voltage Derating For 125C Operation
- MIL Version of Sprague Type 130D
- Voltage Ratings From 6 WVDC Through 125 WVDC
- Type CL64 Is a Bare Metal-Case

Unit. If An Outer Insulating Sleeve Is Desired, Order Type CL65.

- Capacitance Tolerance: K = $\pm 10\%$; M = $\pm 20\%$
- Call Your Sprague Industrial Distributor For Quantity Prices

TYPES CL64, CL65 - 85C ALSO AVAILABLE IN CHARACTERISTIC C (125C)

F	Size Code	CL64 Type Number*	CL65 Type Number*	μ F	Size Code	CL64 Type Number*	CL65 Type Number*	μ F	Size Code	CL64 Type Number*	CL65 Type Number*
6 WVDC				270	T3	CL64BE271MP3	CL65BE271MP3	39	T2	CL64BK390MP3	CL65BK390MP3
30	T1	CL64BB300KP3	CL65BB300KP3	25 WVDC				50	T3	CL64BK500KP3	CL65BK500KP3
30	T1	CL64BB300MP3	CL65BB300MP3	10	T1	CL64BG100KP3	CL65BG100KP3	50	T3	CL64BK500MP3	CL65BK500MP3
58	T1	CL64BB680MP3	CL65BB680MP3	10	T1	CL64BG100MP3	CL65BG100MP3	68	T3	CL64BK680MP3	CL65BK680MP3
40	T2	CL64BB141KP3	CL65BB141KP3	22	T1	CL64BG220MP3	CL65BG220MP3	75 WVDC			
40	T2	CL64BB141MP3	CL65BB141MP3	100	T2	CL64BG101MP3	CL65BG101MP3	3.5	T1	CL64BL3R5KP3	CL65BL3R5KP3
70	T2	CL64BB271MP3	CL65BB271MP3	180	T3	CL64BG181MP3	CL65BG181MP3	3.5	T1	CL64BL3R5MP3	CL65BL3R5MP3
30	T3	CL64BB331KP3	CL65BB331KP3	30 WVDC				6.8	T1	CL64BL6R8MP3	CL65BL6R8MP3
30	T3	CL64BB331MP3	CL65BB331MP3	8	T1	CL64BH080KP3	CL65BH080KP3	15	T2	CL64BL150KP3	CL65BL150KP3
60	T3	CL64BB561MP3	CL65BB561MP3	8	T1	CL64BH080MP3	CL65BH080MP3	15	T2	CL64BL150MP3	CL65BL150MP3
8 WVDC				15	T1	CL64BH150MP3	CL65BH150MP3	33	T2	CL64BL330MP3	CL65BL330MP3
25	T1	CL64BC250KP3	CL65BC250KP3	40	T2	CL64BH400KP3	CL65BH400KP3	40	T3	CL64BL400KP3	CL65BL400KP3
25	T1	CL64BC250MP3	CL65BC250MP3	40	T2	CL64BH400MP3	CL65BH400MP3	40	T3	CL64BL400MP3	CL65BL400MP3
56	T1	CL64BC560MP3	CL65BC560MP3	68	T2	CL64BH680MP3	CL65BH680MP3	56	T3	CL64BL560MP3	CL65BL560MP3
20	T2	CL64BC221MP3	CL65BC221MP3	100	T3	CL64BH101KP3	CL65BH101KP3	100 WVDC			
30	T3	CL64BC431MP3	CL65BC431MP3	100	T3	CL64BH101MP3	CL65BH101MP3	2.5	T1	CL64BN2R5KP3	CL65BN2R5KP3
10 WVDC				150	T3	CL64BH151MP3	CL65BH151MP3	2.5	T1	CL64BN2R5MP3	CL65BN2R5MP3
20	T1	CL64BD200KP3	CL65BD200KP3	50 WVDC				4.7	T1	CL64BN4R7MP3	CL65BN4R7MP3
20	T1	CL64BD200MP3	CL65BD200MP3	5	T1	CL64BJ050KP3	CL65BJ050KP3	11	T2	CL64BN110KP3	CL65BN110KP3
47	T1	CL64BD470MP3	CL65BD470MP3	5	T1	CL64BJ050MP3	CL65BJ050MP3	11	T2	CL64BN110MP3	CL65BN110MP3
100	T2	CL64BD101KP3	CL65BD101KP3	10	T1	CL64BJ100MP3	CL65BJ100MP3	22	T2	CL64BN220MP3	CL65BN220MP3
100	T2	CL64BD101MP3	CL65BD101MP3	25	T2	CL64BJ250KP3	CL65BJ250KP3	30	T3	CL64BN300KP3	CL65BN300KP3
80	T2	CL64BD181MP3	CL65BD181MP3	25	T2	CL64BJ250MP3	CL65BJ250MP3	30	T3	CL64BN300MP3	CL65BN300MP3
50	T3	CL64BD251KP3	CL65BD251KP3	47	T2	CL64BJ470MP3	CL65BJ470MP3	43	T3	CL64BN430MP3	CL65BN430MP3
50	T3	CL64BD251MP3	CL65BD251MP3	60	T3	CL64BJ600KP3	CL65BJ600KP3	125 WVDC			
90	T3	CL64BD391MP3	CL65BD391MP3	60	T3	CL64BJ600MP3	CL65BJ600MP3	1.7	T1	CL64BP1R7MP3	CL65BP1R7MP3
15 WVDC				82	T3	CL64BJ820MP3	CL65BJ820MP3	1.7	T1	CL64BP1R7KP3	CL65BP1R7KP3
15	T1	CL64BE150KP3	CL65BE150KP3	60 WVDC				3.6	T1	CL64BP3R6MP3	CL65BP3R6MP3
15	T1	CL64BE150MP3	CL65BE150MP3	4	T1	CL64BK040KP3	CL65BK040KP3	3.6	T1	CL64BP3R6KP3	CL65BP3R6KP3
33	T1	CL64BE330MP3	CL65BE330MP3	4	T1	CL64BK040MP3	CL65BK040MP3	9	T2	CL64BP090MP3	CL65BP090MP3
70	T2	CL64BE700KP3	CL65BE700KP3	8.2	T1	CL64BK8R2MP3	CL65BK8R2MP3	9	T2	CL64BP090KP3	CL65BP090KP3
70	T2	CL64BE700MP3	CL65BE700MP3	20	T2	CL64BK200KP3	CL65BK200KP3	14	T2	CL64BP140MP3	CL65BP140MP3
20	T2	CL64BE121MP3	CL65BE121MP3	20	T2	CL64BK200MP3	CL65BK200MP3	14	T2	CL64BP140KP3	CL65BP140KP3
70	T3	CL64BE171KP3	CL65BE171KP3					18	T3	CL64BP180MP3	CL65BP180MP3
70	T3	CL64BE171MP3	CL65BE171MP3					18	T3	CL64BP180KP3	CL65BP180KP3

For Vibration Guide 1, or 2, change last digit in Type Number to 1, or 2.

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IND-REM-9b-6605

Sizes subject to change without notice.

[illegible]

- Hermetically Sealed in Aluminum Cans for Long Life and Dependable Performance in TV, Radio and Hi-Fi
- Designed for 85C (185F) Operation
- Stand Up Under Extremely High Temperatures Often Encountered in TV, Hi-Fi, and Auto Radio Cabinets
- Withstand High Surge Voltages
- Ideal for High Ripple Selenium Rectifier Circuits
- Can Be Safely Mounted "Above Ground" Using Phenolic Mounting Plate and Insulating Tube
- Easy to Mount — Unit Locks Firmly in Place with a Twist of the Tabs
- Furnished Complete with Both Phenolic and Metal Mounting Plates

The Twist-lok Capacitors listed here include only popular ratings for industrial applications. For the complete line of more than 1800 Twist-lok Capacitors, please refer to Distributor's Guide to Replacement Electrolytic Capacitors, C-1002.

μF	WVDC	Dia. x Length	Cat. No.	μF	WVDC	Dia. x Length	Cat. No.
SINGLE UNITS				DUAL UNITS			
2000	6	1 3/8 x 2	TVL-1115	160	250	1 x 4	TVL-1541.1
3000	10	1 3/8 x 2 1/2	TVL-1140	200	250	1 3/8 x 2 1/2	TVL-1547
225	15	3/4 x 2	TVL-1160	60	300	1 x 3	TVL-1570
1000	15	1 x 1 1/2	TVL-1165	80	300	1 x 2 1/2	TVL-1573
1500	15	1 x 2	TVL-1167	100	300	1 x 2 1/2	TVL-1578
2000	15	1 3/8 x 2	TVL-1168	125	300	1 3/8 x 2 1/2	TVL-1580
3000	15	1 3/8 x 2	TVL-1170	150	300	1 3/8 x 3 1/2	TVL-1584
4000	15	1 3/8 x 3 1/2	TVL-1173	250	300	1 3/8 x 4	TVL-1590
100	25	3/4 x 2	TVL-1215	30	350	1 x 2	TVL-1617
500	25	1 x 1 1/2	TVL-1220	40	350	1 x 2	TVL-1621
1000	25	1 3/8 x 2	TVL-1230	50	350	1 x 2	TVL-1622
25	50	3/4 x 2	TVL-1308	60	350	1 x 2 1/2	TVL-1624
100	50	3/4 x 2	TVL-1317	80	350	1 3/8 x 2	TVL-1630
150	50	3/4 x 2 1/2	TVL-1320	125	350	1 3/8 x 2 1/2	TVL-1638
250	50	1 x 2	TVL-1324	150	350	1 3/8 x 2 1/2	TVL-1642
500	50	1 3/8 x 2	TVL-1330	250	350	1 3/8 x 4 1/2	TVL-1644.2
1000	50	1 3/8 x 2 1/2	TVL-1338	320	350	1 3/8 x 4	TVL-1645
1500	50	1 3/8 x 3	TVL-1341	4	450	1 x 2	TVL-1702
30	150	1 x 2	TVL-1408	10	450	1 x 1 1/2	TVL-1705
50	150	1 x 1 1/2	TVL-1415	15	450	1 x 1 1/2	TVL-1709
80	150	1 x 2 1/2	TVL-1420	20	450	1 x 2	TVL-1714
100	150	1 x 1 1/2	TVL-1423	25	450	1 x 2	TVL-1716
120	150	1 x 2	TVL-1425	30	450	1 x 2 1/2	TVL-1720
120	150	1 3/8 x 2 1/2	TVL-1426	40	450	1 x 2 1/2	TVL-1725
140	150	1 x 2 1/2	TVL-1428	50	450	1 x 2 1/2	TVL-1728
150	150	1 x 2	TVL-1429	60	450	1 3/8 x 2 1/2	TVL-1730
150	150	1 3/8 x 2	TVL-1430	80	450	1 3/8 x 2 1/2	TVL-1735
200	150	1 3/8 x 2	TVL-1431	100	450	1 3/8 x 2 1/2	TVL-1750
200	150	1 x 3	TVL-1431.1	125	450	1 3/8 x 4	TVL-1760
300	150	1 3/8 x 2	TVL-1434	150	450	1 3/8 x 4	TVL-1770
500	150	1 3/8 x 4	TVL-1439.5	40	475	1 3/8 x 2	TVL-1820
125	200	1 x 2 1/2	TVL-1470	10	500	1 x 1 1/2	TVL-1940
150	200	1 x 2 3/8	TVL-1471	20	500	1 x 2 1/2	TVL-1943
160	200	1 3/8 x 2	TVL-1473	30	500	1 x 2 1/2	TVL-1947
200	200	1 3/8 x 2	TVL-1475	40	500	1 x 2 1/2	TVL-1950
500	200	1 3/8 x 4	TVL-1490	80	500	1 3/8 x 2 1/2	TVL-1958
20	250	1 x 2	TVL-1509	90	500	1 3/8 x 3	TVL-1960
40	250	1 x 2	TVL-1519	15	525	1 3/8 x 3	TVL-1980
100	250	1 x 3	TVL-1535				
150	250	1 x 3	TVL-1539				
150	250	1 3/8 x 2 1/2	TVL-1540	500-500	15-15	1 x 2	TVL-2157
160	250	1 3/8 x 2 1/2	TVL-1541	1000-1000	15-15	1 x 2 1/2	TVL-2160
				1000-1000	15-15	1 3/8 x 2 1/2	TVL-2161
				500-100	16-16	1 x 2	TVL-2175

SPRAGUE CAPACITORS

VL TWIST-LOK® ELECTROLYTICS, continued

μF	WVDC	Dia. x Length	Cat. No.
800-200	16-16	1 x 2	TVL-2179.5
900-500	16-16	1 x 2½	TVL-2185
500-200	16-16	1 x 2	TVL-2190
500-500	25-25	1½ x 2	TVL-2233
900-500	25-25	1½ x 2	TVL-2239
100-25	50-50	1 x 2	TVL-2324
100-100	50-50	1 x 1½	TVL-2326
150-100	150-50	1 x 3	TVL-2413
20-20	150-150	1 x 1½	TVL-2415
30-30	150-150	1 x 1½	TVL-2422
40-20	150-150	1 x 1½	TVL-2425
40-30	150-150	1 x 2	TVL-2427
40-40	150-150	1 x 1½	TVL-2428
50-30	150-150	1 x 1½	TVL-2432
50-50	150-150	1 x 1½	TVL-2435
60-20	150-150	1 x 2	TVL-2436
60-60	150-150	1 x 3½	TVL-2438
70-30	150-150	1 x 2	TVL-2439
75-75	150-150	1 x 2	TVL-2440
80-40	150-150	1½ x 2	TVL-2442
80-50	150-150	1 x 2½	TVL-2442.1
80-60	150-150	1 x 3	TVL-2442.2
80-80	150-150	1½ x 2	TVL-2442.4
125-100	150-150	1½ x 2½	TVL-2443.3
150-80	150-150	1½ x 2½	TVL-2443.5
200-5	150-150	1½ x 3	TVL-2444
200-125	150-150	1½ x 3½	TVL-2445
200-150	150-150	1½ x 4	TVL-2446
200-200	150-150	1½ x 2½	TVL-2447
60-60	200-200	1 x 1½	TVL-2461
60-60	200-200	1½ x 2	TVL-2462
90-100	200-200	1½ x 3	TVL-2464
200-5	200-200	1½ x 2	TVL-2470
20-20	250-250	1 x 1½	TVL-2515
40-40	250-250	1 x 3	TVL-2520
150-150	250-250	1½ x 2½	TVL-2535
200-200	250-250	1½ x 4	TVL-2538
100-100	300-200	1 x 3½	TVL-2562
40-30	300-300	1 x 3	TVL-2574
40-40	300-300	1½ x 2	TVL-2575
80-80	300-300	1½ x 2½	TVL-2585
120-20	300-300	1½ x 3½	TVL-2588
120-40	300-300	1½ x 3½	TVL-2589
150-100	300-300	1½ x 3	TVL-2591
200-80	300-300	1½ x 4½	TVL-2593
15-15	350-350	1 x 2	TVL-2625
20-20	350-350	1 x 2	TVL-2626
30-30	350-350	1 x 2½	TVL-2628
50-30	350-350	1½ x 2	TVL-2630
80-20	350-350	1½ x 2½	TVL-2633
80-40	350-350	1½ x 2½	TVL-2634
80-80	350-350	1½ x 2½	TVL-2635
90-40	350-350	1½ x 3	TVL-2637
100-60	350-350	1½ x 3½	TVL-2639
100-100	350-350	1½ x 3	TVL-2641
160-10	350-350	1½ x 3	TVL-2643
200-200	350-350	1½ x 5	TVL-2645.5
100-30	400-50	1½ x 2½	TVL-2655
80-80	400-200	1½ x 3½	TVL-2656
80-60	400-400	1½ x 3	TVL-2677
80-80	400-400	1½ x 4	TVL-2678
120-40	400-400	1½ x 4	TVL-2679
40-100	450-50	1 x 3½	TVL-2709
80-100	450-50	1½ x 3	TVL-2711
20-50	450-250	1 x 3	TVL-2722
20-160	450-250	1½ x 4	TVL-2722.7
80-200	450-250	1½ x 4½	TVL-2722.8
40-10	450-300	1 x 3	TVL-2724
80-2	450-350	1½ x 2½	TVL-2738.5
10-10	450-450	1 x 2	TVL-2750
15-15	450-450	1 x 2½	TVL-2753

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μF	WVDC	Dia. x Length	Cat. No.
20-10	450-450	1 x 2½	TVL-2754
20-20	450-450	1 x 2½	TVL-2755
30-10	450-450	1 x 2½	TVL-2757
30-30	450-450	1½ x 2	TVL-2759
40-20	450-450	1½ x 2	TVL-2762
40-40	450-450	1½ x 2½	TVL-2764
50-50	450-450	1½ x 3	TVL-2767
60-20	450-450	1½ x 3	TVL-2768
60-40	450-450	1½ x 3½	TVL-2770
60-60	450-450	1½ x 3	TVL-2772
80-10	450-450	1½ x 3	TVL-2776
80-20	450-450	1½ x 2½	TVL-2776.5
80-30	450-450	1½ x 4	TVL-2777
80-40	450-450	1½ x 3½	TVL-2778
80-50	450-450	1½ x 4	TVL-2778.5
80-80	450-450	1½ x 3½	TVL-2779
100-40	450-450	1½ x 3½	TVL-2780
30-100	475-50	1 x 3½	TVL-2803
80-160	475-250	1½ x 4½	TVL-2808
20-100	475-400	1½ x 3	TVL-2813
15-15	475-475	1 x 2½	TVL-2820
30-10	475-475	1 x 3	TVL-2824
80-50	475-475	1½ x 3½	TVL-2851
10-10	500-500	1 x 2½	TVL-2933
20-20	500-500	1½ x 2	TVL-2935
30-30	500-500	1½ x 2½	TVL-2937
40-40	500-500	1½ x 2½	TVL-2940
60-40	500-500	1½ x 3½	TVL-2944
TRIPLE UNITS			
850-400-4	16-16-11.5	1 x 2½	TVL-3021
1000-500-4	16-16-11.5	1½ x 2	TVL-3021.5
400-100-100	16-16-16	1 x 2	TVL-3025
500-500-100	16-16-16	1 x 2	TVL-3026.8
1000-500-20	16-16-16	1½ x 2	TVL-3027
20-20-20	25-25-25	1 x 1½	TVL-3210
40-20-20	150-150-25	1 x 2	TVL-3422
40-40-20	150-150-25	1 x 1½	TVL-3426
40-40-200	150-150-25	1 x 2	TVL-3426.3
40-40-250	150-150-25	1 x 2½	TVL-3426.4
50-30-20	150-150-25	1 x 2½	TVL-3426.7
50-50-20	150-150-25	1 x 3	TVL-3430
60-40-200	150-150-25	1 x 3	TVL-3431.3
80-40-20	150-150-25	1 x 2½	TVL-3432
20-20-20	150-150-150	1 x 1½	TVL-3433
30-30-10	150-150-150	1 x 2	TVL-3435
40-20-10	150-150-150	1 x 2	TVL-3436
40-20-20	150-150-150	1 x 1½	TVL-3437
40-30-20	150-150-150	1 x 2	TVL-3438
40-40-40	150-150-150	1 x 1½	TVL-3440
50-40-10	150-150-150	1 x 2½	TVL-3441
50-50-50	150-150-150	1 x 3	TVL-3442
60-40-20	150-150-150	1 x 1½	TVL-3443
70-40-40	150-150-150	1 x 3	TVL-3443.4
80-40-20	150-150-150	1 x 2	TVL-3444
80-80-80	150-150-150	1½ x 3	TVL-3446
100-30-10	150-150-150	1 x 2½	TVL-3447
120-80-40	150-150-150	1½ x 3½	TVL-3448
120-120-40	150-150-150	1½ x 2	TVL-3448.2
200-100-60	150-150-150	1½ x 2½	TVL-3450
200-150-150	150-150-150	1½ x 4	TVL-3452
250-200-10	150-150-150	1½ x 4	TVL-3453
60-200-140	200-150-150	1½ x 3	TVL-3461.4
60-5-20	200-200-50	1 x 2½	TVL-3467
80-10-20	200-200-50	1 x 3	TVL-3471
250-200-10	200-200-200	1½ x 4	TVL-3490

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SPRAGUE CAPACITORS

TVL TWIST-LOK® ELECTROLYTICS, continued

μF	WVDC	Dia. x Length	Cat. No.
15-15-20	250-250-25	1 x 2	TVL-3510
20-20-20	250-250-250	1 x 2	TVL-3532
40-20-20	250-250-250	1 x 2	TVL-3540
80-80-60	250-250-250	1 3/8 x 3	TVL-3545
100-60-20	300-150-50	1 3/8 x 3	TVL-3560.1
100-200-60	300-150-150	1 3/8 x 4	TVL-3560.5
100-200-30	300-150-150	1 3/8 x 4	TVL-3560.6
20-100-100	300-200-50	1 x 3 1/2	TVL-3560.10
100-60-20	300-250-250	1 3/8 x 3	TVL-3562
200-60-20	300-250-250	1 3/8 x 4	TVL-3563
100-10-60	300-300-50	1 3/8 x 2 1/2	TVL-3574
125-20-20	300-300-50	1 3/8 x 3 1/2	TVL-3574.3
125-60-40	300-300-50	1 3/8 x 4	TVL-3574.6
140-100-60	300-300-50	1 3/8 x 3 1/2	TVL-3574.7
140-100-100	300-300-50	1 3/8 x 3 1/2	TVL-3574.8
10-10-10	300-300-300	1 x 2	TVL-3580
80-40-40	300-300-300	1 3/8 x 2 1/2	TVL-3583
120-50-40	300-300-300	1 3/8 x 3	TVL-3585
140-100-20	300-300-300	1 3/8 x 4 1/2	TVL-3585.5
160-60-20	300-300-300	1 3/8 x 4	TVL-3587
40-200-100	350-150-150	1 3/8 x 3 1/2	TVL-3608.3
60-200-30	350-150-150	1 3/8 x 3	TVL-3608.6
125-5-75	350-200-75	1 3/8 x 3	TVL-3610
30-30-20	350-300-25	1 x 3	TVL-3620
15-10-20	350-350-25	1 x 2	TVL-3630
20-10-20	350-350-25	1 x 2	TVL-3634
20-20-20	350-350-25	1 x 2	TVL-3635
30-20-20	350-350-25	1 x 2	TVL-3636
200-10-50	350-350-25	1 3/8 x 4	TVL-3636.8
20-5-150	350-350-50	1 x 3	TVL-3638.1
80-40-100	350-350-200	1 3/8 x 3	TVL-3639
100-60-20	350-350-200	1 3/8 x 4	TVL-3639.2
20-10-10	350-350-350	1 x 2	TVL-3639.6
30-20-10	350-350-350	1 x 2 1/2	TVL-3639.8
60-40-20	350-350-350	1 3/8 x 3 1/2	TVL-3640
60-50-50	350-350-350	1 3/8 x 2 1/2	TVL-3641
80-60-60	350-350-350	1 3/8 x 3 1/2	TVL-3642
90-40-20	350-350-350	1 3/8 x 2 1/2	TVL-3645
140-140-20	350-350-350	1 3/8 x 4	TVL-3648
80-80-100	400-200-50	1 3/8 x 3	TVL-3652
40-200-60	400-200-200	1 3/8 x 4	TVL-3653
10-4-20	400-350-25	1 x 2	TVL-3668
100-10-20	400-350-50	1 3/8 x 3 1/2	TVL-3672
20-20-20	400-400-25	1 x 2 1/2	TVL-3678
80-40-60	400-400-50	1 3/8 x 3 1/2	TVL-3682.8
80-40-100	400-400-50	1 3/8 x 3	TVL-3683
80-40-150	400-400-50	1 3/8 x 4	TVL-3684
100-10-20	400-400-50	1 3/8 x 2 1/2	TVL-3685
20-20-10	400-400-350	1 x 3	TVL-3687.4
60-30-20	400-400-350	1 3/8 x 3	TVL-3688
80-20-10	400-400-350	1 3/8 x 3	TVL-3689
100-10-80	400-400-350	1 3/8 x 3 1/2	TVL-3689.3
100-30-20	400-400-400	1 3/8 x 4	TVL-3697
100-40-10	400-400-400	1 3/8 x 4	TVL-3698
10-100-200	450-200-25	1 x 3 1/2	TVL-3708.2
10-100-100	450-200-50	1 x 3 1/2	TVL-3708.4
50-160-50	450-250-50	1 3/8 x 4	TVL-3711.2
20-160-40	450-250-150	1 3/8 x 3	TVL-3711.3
10-40-10	450-300-150	1 3/8 x 2	TVL-3713.7
50-10-160	450-350-250	1 3/8 x 4 1/2	TVL-3719.4
60-80-20	450-400-250	1 3/8 x 4	TVL-3720
80-50-100	450-350-200	1 3/8 x 4	TVL-3723.7
40-80-40	450-350-350	1 3/8 x 3 1/2	TVL-3724.7
10-10-20	450-450-25	1 x 2	TVL-3731
15-15-40	450-450-25	1 x 2 1/2	TVL-3734
20-10-20	450-450-25	1 x 3	TVL-3735
20-20-20	450-450-25	1 x 3	TVL-3739
40-40-20	450-450-25	1 3/8 x 2 1/2	TVL-3744
40-40-40	450-450-25	1 3/8 x 2 1/2	TVL-3744.2
80-40-100	450-450-25	1 3/8 x 4	TVL-3746
20-10-50	450-450-50	1 x 3	TVL-3751

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μF	WVDC	Dia. x Length	Cat. No.
30-10-150	450-450-50	1 3/8 x 2	TVL-3752
80-65-50	450-450-50	1 3/8 x 3 1/2	TVL-3754.9
40-40-100	450-450-50	1 3/8 x 3	TVL-3755
60-40-75	450-450-50	1 3/8 x 4	TVL-3756
80-20-100	450-450-50	1 3/8 x 3 1/2	TVL-3757
40-40-40	450-450-150	1 3/8 x 3	TVL-3758
40-10-100	450-450-200	1 3/8 x 3 1/2	TVL-3762
40-40-100	450-450-200	1 3/8 x 3	TVL-3764
40-40-80	450-450-350	1 3/8 x 4	TVL-3774
50-20-4	450-450-350	1 x 3 1/2	TVL-3774.6
80-80-10	450-450-400	1 3/8 x 4	TVL-3775.7
10-10-10	450-450-450	1 x 2	TVL-3776
15-15-10	450-450-450	1 x 3	TVL-3778
15-15-15	450-450-450	1 x 2 1/2	TVL-3778.2
20-10-10	450-450-450	1 x 3	TVL-3779
20-20-20	450-450-450	1 3/8 x 2	TVL-3780
30-10-10	450-450-450	1 3/8 x 2	TVL-3780.5
30-20-20	450-450-450	1 3/8 x 3	TVL-3781
30-30-30	450-450-450	1 3/8 x 3	TVL-3782
40-10-10	450-450-450	1 3/8 x 2 1/2	TVL-3783
40-30-20	450-450-450	1 3/8 x 2 1/2	TVL-3784
40-40-10	450-450-450	1 3/8 x 2 1/2	TVL-3785
40-40-20	450-450-450	1 3/8 x 2 1/2	TVL-3786
40-40-40	450-450-450	1 3/8 x 3	TVL-3787
50-20-4	450-450-450	1 x 3 1/2	TVL-3787.5
50-40-30	450-450-450	1 3/8 x 3	TVL-3788
60-20-20	450-450-450	1 3/8 x 3	TVL-3789
60-30-10	450-450-450	1 3/8 x 3	TVL-3790
60-40-20	450-450-450	1 3/8 x 3	TVL-3791
80-40-20	450-450-450	1 3/8 x 3	TVL-3793
80-50-30	450-450-450	1 3/8 x 4	TVL-3793.3
40-80-10	475-300-300	1 3/8 x 3 1/2	TVL-3806
10-100-25	475-350-25	1 3/8 x 3	TVL-3806.4
10-4-100	475-350-50	1 x 2	TVL-3806.6
20-10-5	475-350-150	1 x 2 1/2	TVL-3806.8
40-80-10	475-450-450	1 3/8 x 4	TVL-3816
50-40-40	475-475-25	1 3/8 x 3 1/2	TVL-3816.11
20-10-100	475-475-50	1 3/8 x 2	TVL-3817
20-10-100	475-475-400	1 3/8 x 3 1/2	TVL-3819
30-30-20	475-475-475	1 3/8 x 3	TVL-3840
40-20-20	475-475-475	1 3/8 x 3	TVL-3842
40-30-10	475-475-475	1 3/8 x 3	TVL-3842.6
40-30-30	475-475-475	1 3/8 x 4	TVL-3843
20-10-100	500-500-50	1 x 4	TVL-3928
40-40-100	500-500-200	1 3/8 x 4	TVL-3935
10-10-10	500-500-500	1 x 2 1/2	TVL-3952
30-20-20	500-500-500	1 3/8 x 3	TVL-3956
40-40-10	500-500-500	1 3/8 x 3 1/2	TVL-3965

QUADRUPLE UNITS

50-40-160-40	150-150-25-25	1 3/8 x 2	TVL-4410.7
60-40-20-200	150-150-150-10	1 3/8 x 2	TVL-4414
40-40-30-20	150-150-150-25	1 3/8 x 2	TVL-4420
40-40-40-20	150-150-150-25	1 3/8 x 2	TVL-4421
80-40-40-20	150-150-150-25	1 3/8 x 2	TVL-4431
80-40-40-40	150-150-150-25	1 3/8 x 2 1/2	TVL-4432
80-40-40-100	150-150-150-25	1 3/8 x 2	TVL-4434
250-200-10-25	150-150-150-50	1 3/8 x 3	TVL-4440
200-200-100-10	150-150-150-75	1 3/8 x 2 1/2	TVL-4440.3
40-40-40-30	150-150-150-150	1 3/8 x 2	TVL-4441
100-80-60-40	150-150-150-150	1 3/8 x 3	TVL-4445
200-200-60-30	150-150-150-150	1 3/8 x 4	TVL-4448
200-200-60-30	175-175-175-175	1 3/8 x 3 1/2	TVL-4450
100-40-10-100	250-250-250-50	1 3/8 x 3 1/2	TVL-4516
10-200-140-30	300-150-150-150	1 3/8 x 3 1/2	TVL-4559
10-200-200-30	300-150-150-150	1 3/8 x 4	TVL-4559.2
100-60-10-20	300-200-150-50	1 3/8 x 3	TVL-4559.5
100-10-200-30	300-150-150-150	1 3/8 x 3 1/2	TVL-4561
140-10-200-30	300-300-150-150	1 3/8 x 4	TVL-4561.3
60-40-20-50	300-300-300-25	1 3/8 x 3 1/2	TVL-4570

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SPRAGUE CAPACITORS

VL TWIST-LOK® ELECTROLYTICS, continued

μF	WVDC	Dia. x Length	Cat. No.
50-30-30-150	300-300-300-50	1 3/4 x 4	TVL-4574
80-20-20-200	300-300-300-150	1 3/4 x 3 1/2	TVL-4576
40-20-10-10	300-300-300-300	1 3/4 x 2	TVL-4578
40-40-20-10	300-300-300-300	1 3/4 x 2	TVL-4579
40-40-30-20	300-300-300-300	1 3/4 x 3	TVL-4580
60-40-10-10	300-300-300-300	1 3/4 x 2 1/2	TVL-4583
50-100-10-5	300-300-300-300	1 3/4 x 4	TVL-4587
40-100-20-20	300-300-300-300	1 3/4 x 4 1/2	TVL-4588
50-150-30-30	300-300-300-300	1 3/4 x 4 1/2	TVL-4589
100-20-20-20	300-300-300-300	1 3/4 x 3 1/2	TVL-4590
10-20-10-50	350-200-200-50	1 3/4 x 2	TVL-4603.13
5-100-20-100	350-200-200-25	1 3/4 x 2	TVL-4603.15
60-30-30-20	350-300-300-50	1 3/4 x 4	TVL-4605.2
40-100-20-20	350-300-300-300	1 3/4 x 4	TVL-4605.3
60-60-10-4	350-300-300-300	1 3/4 x 3 1/2	TVL-4605.5
40-80-10-10	350-300-300-300	1 3/4 x 2 1/2	TVL-4605.6
60-4-100-40	350-350-25-25	1 3/4 x 2 1/2	TVL-4607
60-20-80-100	350-350-150-50	1 3/4 x 3	TVL-4608
5-20-100-100	350-350-200-50	1 3/4 x 2	TVL-4608.12
60-40-60-20	350-350-200-150	1 3/4 x 3	TVL-4609
00-60-10-100	350-350-200-150	1 3/4 x 4 1/2	TVL-4609.4
00-80-10-20	350-350-300-50	1 3/4 x 4	TVL-4610.8
30-10-5-200	350-350-350-25	1 3/4 x 2	TVL-4620.3
40-20-20-25	350-350-350-25	1 3/4 x 2 1/2	TVL-4621.3
40-40-20-20	350-350-350-25	1 3/4 x 2 1/2	TVL-4621.6
40-40-30-10	350-350-350-25	1 3/4 x 3	TVL-4622
40-40-40-40	350-350-350-25	1 3/4 x 2 1/2	TVL-4622.3
50-20-20-50	350-350-350-25	1 3/4 x 4 1/2	TVL-4622.11
90-30-5-100	350-350-350-75	1 3/4 x 3 1/2	TVL-4625
60-30-30-150	350-350-350-50	1 3/4 x 3	TVL-4630.4
70-40-10-50	350-350-350-50	1 3/4 x 3	TVL-4631
00-10-10-20	350-350-350-50	1 3/4 x 3	TVL-4632
00-20-10-20	350-350-350-50	1 3/4 x 3 1/2	TVL-4633
00-40-30-50	350-350-350-50	1 3/4 x 4	TVL-4634
30-20-5-100	350-350-350-200	1 3/4 x 3	TVL-4634.6
30-10-5-100	350-350-350-200	1 3/4 x 2 1/2	TVL-4634.7
40-20-20-10	350-350-350-350	1 3/4 x 2	TVL-4635
40-40-40-40	350-350-350-350	1 3/4 x 4	TVL-4635.3
80-60-40-20	350-350-350-350	1 3/4 x 3 1/2	TVL-4635.7
90-40-30-30	350-350-350-350	1 3/4 x 4	TVL-4635.8
20-10-10-20	400-350-200-25	1 3/4 x 2	TVL-4652
40-80-100-100	400-350-200-50	1 3/4 x 3 1/2	TVL-4653
40-80-100-25	400-350-200-50	1 3/4 x 3 1/2	TVL-4654
40-80-10-100	400-350-350-200	1 3/4 x 4	TVL-4661.4
40-100-20-10	400-350-350-350	1 3/4 x 4	TVL-4661.6
50-40-100-100	400-400-50-25	1 3/4 x 4	TVL-4663.2
80-40-100-20	400-400-50-25	1 3/4 x 3	TVL-4663.4
100-10-30-20	400-400-50-50	1 3/4 x 2 1/2	TVL-4663.5
50-20-20-25	400-400-350-25	1 3/4 x 3	TVL-4665.5
100-10-20-20	400-400-350-50	1 3/4 x 3	TVL-4666.2
80-40-10-20	400-400-400-25	1 3/4 x 3 1/2	TVL-4669
80-40-30-40	400-400-400-25	1 3/4 x 3 1/2	TVL-4670
90-20-10-50	400-400-400-50	1 3/4 x 4	TVL-4670.7
80-10-4-100	400-400-400-50	1 3/4 x 4	TVL-4670.9
80-40-10-100	400-400-400-200	1 3/4 x 4	TVL-4671.2
80-40-30-4	400-400-400-350	1 3/4 x 4	TVL-4672
50-40-30-20	400-400-400-400	1 3/4 x 4	TVL-4674
80-25-10-10	400-400-400-400	1 3/4 x 4	TVL-4680
100-40-10-10	400-400-400-400	1 3/4 x 4	TVL-4681
100-80-10-10	400-400-400-400	1 3/4 x 4	TVL-4683
100-80-30-10	400-400-400-400	1 3/4 x 4 1/2	TVL-4683.8
20-80-20-50	450-200-200-50	1 3/4 x 3	TVL-4701
20-160-50-50	450-250-75-50	1 3/4 x 4	TVL-4701.3
25-100-10-60	450-300-300-50	1 3/4 x 3	TVL-4703.5
10-100-20-20	450-300-300-200	1 3/4 x 3	TVL-4704
80-2-100-25	450-350-25-25	1 3/4 x 3	TVL-4705.3
40-30-15-50	450-350-300-50	1 3/4 x 3	TVL-4705.8
10-140-100-20	450-350-300-300	1 3/4 x 4	TVL-4705.9
80-10-40-30	450-400-300-300	1 3/4 x 4	TVL-4710.2
20-80-50-100	450-350-350-50	1 3/4 x 4	TVL-4711
60-40-20-20	450-400-400-400	1 3/4 x 4	TVL-4711.3

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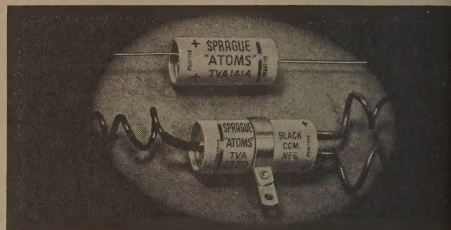
μF	WVDC	Dia. x Length	Cat. No.
20-15-20-20	450-450-25-25	1 3/4 x 2	TVL-4712
50-20-4-40	450-450-150-25	1 3/4 x 2 1/2	TVL-4712.9
50-40-4-40	450-450-150-25	1 3/4 x 2 1/2	TVL-4712.10
35-25-20-100	450-450-200-50	1 3/4 x 2 1/2	TVL-4714
80-30-20-50	450-450-250-50	1 3/4 x 3 1/2	TVL-4714.2
40-40-100-60	450-450-200-200	1 3/4 x 4	TVL-4714.3
30-20-160-40	450-450-250-150	1 3/4 x 4 1/2	TVL-4714.4
80-50-100-250	450-450-250-50	1 3/4 x 4	TVL-4714.5
80-50-20-50	450-450-250-50	1 3/4 x 4	TVL-4714.6
30-20-160-10	450-450-250-250	1 3/4 x 4	TVL-4714.10
30-20-4-200	450-450-350-250	1 3/4 x 4 1/2	TVL-4716.4
40-40-30-30	450-450-350-350	1 3/4 x 4	TVL-4720
10-10-10-20	450-450-450-25	1 3/4 x 2	TVL-4723
20-20-20-20	450-450-450-25	1 3/4 x 2	TVL-4724.2
40-20-20-20	450-450-450-25	1 3/4 x 3	TVL-4731
40-20-20-40	450-450-450-25	1 3/4 x 2 1/2	TVL-4732
40-30-10-20	450-450-450-25	1 3/4 x 3	TVL-4734
40-40-10-20	450-450-450-25	1 3/4 x 3 1/2	TVL-4736
40-40-20-20	450-450-450-25	1 3/4 x 3 1/2	TVL-4737
40-40-40-40	450-450-450-25	1 3/4 x 3	TVL-4739
60-50-5-20	450-450-450-25	1 3/4 x 4	TVL-4739.5
80-40-40-40	450-450-450-25	1 3/4 x 4	TVL-4739.6
80-50-10-20	450-450-450-25	1 3/4 x 4	TVL-4739.9
40-20-10-100	450-450-450-50	1 3/4 x 3 1/2	TVL-4743
40-40-10-25	450-450-450-50	1 3/4 x 3	TVL-4745
40-40-10-50	450-450-450-50	1 3/4 x 4	TVL-4746
40-40-10-100	450-450-450-100	1 3/4 x 3 1/2	TVL-4747
20-30-80-40	450-450-450-150	1 3/4 x 4	TVL-4754
40-20-10-100	450-450-450-250	1 3/4 x 4	TVL-4757
30-20-10-20	450-450-450-350	1 3/4 x 2 1/2	TVL-4757.12
40-10-10-40	450-450-450-350	1 3/4 x 3	TVL-4758
5-5-5-5	450-450-450-450	1 3/4 x 2	TVL-4759.7
10-10-10-10	450-450-450-450	1 3/4 x 2	TVL-4760
20-10-10-10	450-450-450-450	1 3/4 x 2	TVL-4761
20-20-20-20	450-450-450-450	1 3/4 x 2 1/2	TVL-4763
30-30-20-20	450-450-450-450	1 3/4 x 3	TVL-4769.4
35-35-10-5	450-450-450-450	1 3/4 x 3	TVL-4771
40-10-10-10	450-450-450-450	1 3/4 x 3	TVL-4771.3
40-35-10-10	450-450-450-450	1 3/4 x 3	TVL-4771.8
40-40-20-20	450-450-450-450	1 3/4 x 2 1/2	TVL-4773
40-40-30-30	450-450-450-450	1 3/4 x 4	TVL-4774
40-40-40-40	450-450-450-450	1 3/4 x 3 1/2	TVL-4775
60-20-20-20	450-450-450-450	1 3/4 x 3	TVL-4778
80-10-10-10	450-450-450-450	1 3/4 x 3 1/2	TVL-4783
20-80-20-10	475-300-300-300	1 3/4 x 3 1/2	TVL-4801
20-140-20-10	475-300-300-300	1 3/4 x 4	TVL-4801.2
10-100-10-100	475-300-300-25	1 3/4 x 3 1/2	TVL-4802
10-140-4-100	475-350-350-50	1 3/4 x 4	TVL-4803.3
10-130-20-10	475-350-350-350	1 3/4 x 3	TVL-4803.4
30-130-10-10	475-350-350-350	1 3/4 x 4	TVL-4803.8
10-40-100-10	475-400-50-25	1 3/4 x 2 1/2	TVL-4804
10-40-4-100	475-400-350-50	1 3/4 x 2 1/2	TVL-4805
10-80-40-100	475-400-400-50	1 3/4 x 4	TVL-4805.2
10-60-30-125	475-450-400-50	1 3/4 x 4	TVL-4811
10-50-30-30	475-450-450-25	1 3/4 x 3	TVL-4813
80-4-4-200	475-450-450-25	1 3/4 x 3 1/2	TVL-4813.2
10-40-10-100	475-450-450-50	1 3/4 x 2 1/2	TVL-4814
50-18-4-40	475-475-150-25	1 3/4 x 2 1/2	TVL-4814.7
20-10-20-100	475-475-450-25	1 3/4 x 2 1/2	TVL-4818
100-4-4-200	475-475-475-25	1 3/4 x 4	TVL-4818.5
80-4-4-4	475-450-450-450	1 3/4 x 3	TVL-4820.3
50-40-4-40	475-475-150-25	1 3/4 x 3 1/2	TVL-4820.4
80-80-4-4	475-475-450-450	1 3/4 x 4	TVL-4820.5
80-4-4-200	475-475-475-25	1 3/4 x 3 1/2	TVL-4823
20-20-10-10	475-475-475-475	1 3/4 x 2 1/2	TVL-4832
20-20-20-20	475-475-475-475	1 3/4 x 2 1/2	TVL-4834
40-20-10-10	475-475-475-475	1 3/4 x 2 1/2	TVL-4840
10-10-4-20	500-300-300-25	1 3/4 x 2	TVL-4909
30-10-150-30	500-450-50-50	1 3/4 x 3	TVL-4917
10-10-10-10	500-500-500-500	1 3/4 x 2	TVL-4940
40-40-8-8	500-500-500-500	1 3/4 x 4	TVL-4944

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SPRAGUE CAPACITORS

ATOM[®] ELECTROLYTICS

- The Smallest Dependable Standard Tubular—Designed for 85C (185F) Operation in Voltages to 475 WVDC
- Whether For AC-DC Sets, Auto Radios, Home Radio-phonograph Combinations, Or TV Sets, The SPRAGUE Line Will Handle All Your Replacement Requirements—No Dual Inventory Problems
- Have Low Leakage And Long Shelf Life
- Will Withstand High Temperatures, High Ripple Currents, High Surge Voltages
- Metal Case Construction with Outer Kraftboard Insulating Case Except as Noted by † Sign



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μF	WVDC	D. x L.	Cat. No.
SINGLE UNITS			
750	3	9/16 x 2 1/2	TVA-1097
50	6	3/8 x 1 1/4	TVA-1100
100	6	9/16 x 1 1/2	TVA-1101
250	6	9/16 x 1 1/2	TVA-1102
500	6	9/16 x 1 1/2	TVA-1103
1000	6	1 1/8 x 2 1/2	TVA-1104
1500	6	1 1/8 x 2 1/2	TVA-1105
2000	6	1 1/8 x 2 1/2	TVA-1106
8	10NP	9/16 x 1 1/2	TVAN-1112
50	10NP	9/16 x 1 1/2	TVAN-1117
160	10VNP	1 1/8 x 1 1/2	TVAN-1120
100	12	9/16 x 1 1/2	TVA-1130
250	12	9/16 x 1 1/2	TVA-1131
500	12	3/4 x 1 1/2	TVA-1132
1000	12	1 1/8 x 1 1/2	TVA-1133
100	15	9/16 x 1 1/2	TVA-1160
250	15	5/8 x 1 1/2	TVA-1161
500	15	1 1/8 x 1 1/2	TVA-1162
1000	15	1 1/8 x 1 1/2	TVA-1163
2000	15	1 1/8 x 2 1/2	★TVA-1170
3000	15	1 1/8 x 4 1/2	TVA-1175
2	25	3/8 x 1 1/2	TVA-1201
2	25NP	9/16 x 1 1/2	TVAN-1202
4	25NP	1 1/8 x 1 1/2	★TVAN-1202.2
5	25	9/16 x 1 1/2	TVA-1203
5	25NP	9/16 x 1 1/2	TVAN-1203.1
8	25NP	1 1/8 x 1 1/2	★TVA-1203.8
10	25	3/8 x 1 1/2	TVA-1204
10	25NP	9/16 x 1 1/2	TVAN-1204.1
20	25	9/16 x 1 1/4	TVA-1204.5
25	25	7/8 x 1 1/2	TVA-1205
50	25	9/16 x 1 1/2	TVA-1206
50	25NP	1 1/8 x 1 1/2	TVAN-1206.1
100	25	9/16 x 1 1/2	TVA-1207
100	25NP	1 1/8 x 1 1/2	TVAN-1207.1
150	25	1 1/8 x 1 1/2	TVA-1207.5
250	25	1 1/8 x 1 1/2	TVA-1208
500	25	3/4 x 1 1/2	TVA-1209
1000	25	1 1/8 x 2 1/2	TVA-1211
3	30NP	1 1/8 x 1 1/2	TVAN-1215
20	30NP	1 1/8 x 1 1/2	TVAN-1220
10	40NP	9/16 x 1 1/2	TVAN-1230
1	50	3/8 x 1 1/2	TVA-1300
2	50	9/16 x 1 1/2	TVA-1301
2	50NP	1 1/8 x 1 1/2	TVAN-1301.1
3	50	9/16 x 1 1/2	TVA-1302
3	50NP	1 1/8 x 1 1/2	TVAN-1302.1
4	50NP	1 1/8 x 1 1/2	★TVA-1302.5
5	50	9/16 x 1 1/2	TVA-1303
5	50NP	1 1/8 x 2 1/2	TVAN-1303.1
10	50	1 1/8 x 1 1/4	TVA-1304
10	50NP	1 1/8 x 2 1/2	TVAN-1304.1
15	50	7/8 x 1 1/4	TVA-1305
20	50	7/8 x 1 1/4	TVA-1305.5
25	50	7/8 x 1 1/4	TVA-1306
50	50	9/8 x 1 1/2	TVA-1308

μF	WVDC	D. x L.	Cat. No.
50	50NP	1 1/8 x 2 1/2	TVAN-1308.1
100	50	5/8 x 1 1/2	TVA-1310
150	50	3/4 x 1 1/2	TVA-1311
250	50	1 1/8 x 1 1/2	TVA-1312
500	50	1 x 1 1/2	TVA-1315
10	90	7/8 x 1 1/2	TVA-1320
10	100NP	1 1/8 x 1 1/2	TVAN-1323
1	150	7/8 x 1 1/2	TVA-1400
4	150	7/8 x 1 1/4	TVA-1402
4	150NP	9/16 x 1 1/2	TVAN-1402.1
5	150	7/8 x 1 1/4	TVA-1403
8	150	9/16 x 1 1/2	TVA-1405
10	150	9/16 x 1 1/2	TVA-1406
10	150NP	1 1/8 x 1 1/2	TVAN-1406.1
12	150	9/16 x 1 1/2	TVA-1407
16	150	9/16 x 1 1/2	TVA-1409
20	150	5/8 x 1 1/2	TVA-1410
25	150	3/4 x 1 1/2	TVA-1411
30	150	9/16 x 1 1/2	TVA-1412
40	150	1 1/8 x 1 1/2	TVA-1413
50	150	1 1/8 x 1 1/2	TVA-1414
60	150	1 1/8 x 1 1/2	TVA-1415
80	150	1 1/8 x 1 1/2	TVA-1418
100	150	1 1/8 x 2 1/2	TVA-1420
150	150	1 1/8 x 2 1/2	TVA-1422
200	150	1 1/8 x 2 1/2	TVA-1423
250	150	1 1/4 x 4 1/2	★TVA-1424†
300	150	1 1/8 x 3 1/2	TVA-1425
80	175	1 1/8 x 2 1/2	TVA-1430
2	200NP	9/16 x 1 1/2	TVAN-1435.1
60	200NP	1 1/8 x 2 1/2	TVAN-1440
100	200	1 1/8 x 2 1/2	TVA-1445
150	200	1 1/8 x 3 1/2	★TVA-1447†
200	200	1 1/8 x 3 1/2	★TVA-1480†
1	250	1 1/8 x 1 1/2	TVA-1500
4	250	9/16 x 1 1/2	TVA-1501
8	250	9/16 x 1 1/2	TVA-1503
10	250	9/16 x 1 1/2	TVA-1504
12	250	9/16 x 1 1/2	TVA-1505
16	250	1 1/8 x 1 1/2	TVA-1507
20	250	1 1/8 x 1 1/2	TVA-1508
30	250	1 1/8 x 1 1/2	TVA-1510
40	250	1 1/8 x 2 1/2	TVA-1511
50	250	1 1/8 x 1 1/2	TVA-1512
60	250	1 x 1 1/2	TVA-1513
70	250	1 1/8 x 2 1/2	TVA-1515
100	250	1 1/8 x 2 1/2	TVA-1522
200	250	1 1/8 x 3 1/2	TVA-1528†
100	300	1 1/8 x 3 1/2	TVA-1573
140	300	1 1/8 x 3 1/2	★TVA-1575†
150	300	1 1/8 x 3 1/2	★TVA-1576†
200	300	1 1/8 x 4 1/2	TVA-1578†
4	350	1 1/8 x 1 1/2	TVA-1601
5	350NP	1 1/8 x 1 1/2	TVAN-1602
8	350	1 1/8 x 1 1/2	TVA-1603
10	350	3/4 x 1 1/2	TVA-1604
10	350NP	1 1/8 x 2 1/2	TVAN-1604.1
12	350	1 1/8 x 1 1/2	TVA-1605
16	350	1 1/8 x 1 1/2	TVA-1607
20	350	1 1/8 x 1 1/2	TVA-1608
30	350	1 1/8 x 2 1/2	TVA-1610

μF	WVDC	D. x L.	Cat. No.
40	350	1 1/8 x 2 1/2	TVA-1611
60	350	1 1/8 x 2 1/2	TVA-1613
100	350	1 1/8 x 2 1/2	TVA-1620
150	350	1 1/8 x 2 1/2	TVA-1622†
200	350	1 1/8 x 4 1/2	TVA-1624†
10	400NP	1 1/8 x 2 1/2	TVAN-1650
50	400NP	1 1/8 x 2 1/2	TVAN-1652
1	450	9/16 x 1 1/2	TVA-1700
2	450	9/16 x 1 1/2	TVA-1701
4	450	1 1/8 x 1 1/2	TVA-1702
5	450	1 1/8 x 1 1/2	TVA-1703
8	450	3/4 x 1 1/2	TVA-1704
10	450	1 1/8 x 1 1/2	TVA-1705
12	450	1 1/8 x 1 1/2	TVA-1706
16	450	1 1/8 x 1 1/2	TVA-1708
20	450	1 1/8 x 1 1/2	TVA-1709
30	450	1 1/8 x 2 1/2	TVA-1711
40	450	1 1/8 x 2 1/2	TVA-1712
50	450	1 1/8 x 2 1/2	TVA-1713
60	450	1 1/8 x 2 1/2	TVA-1714
80	450	1 1/8 x 3 1/2	TVA-1716
100	450	1 1/8 x 4 1/2	TVA-1718
150	450	1 1/8 x 4 1/2	TVA-1719†
200	450	1 1/8 x 4 1/2	TVA-1720†
10	475	1 1/8 x 2 1/2	TVA-1802
20	475	1 1/8 x 2 1/2	TVA-1804
50	475	1 1/8 x 2 1/2	TVA-1902
10	500	1 1/8 x 1 1/2	TVA-1903
12	500	1 1/8 x 2 1/2	TVA-1904
16	500	1 x 2 1/2	TVA-1905
20	500	1 1/8 x 2 1/2	TVA-1906
40	500	1 1/8 x 3 1/2	TVA-1908
8	600	1 x 1 1/2	TVA-1962
10	600	1 x 1 1/2	TVA-1963
16	600	1 x 1 1/2	TVA-1965
20	600	1 x 1 1/2	TVA-1966

μF	WVDC	Diam. x Length	Cat. No.
DUAL UNITS (COMMON NEGATIVE)—3 LEADS			
10-10	25-25	1 1/8 x 1 1/2	★TVA-2210
10-10	50-50	1 1/8 x 1 1/2	★TVA-2315
8-8	150-150	1 1/8 x 1 1/2	★TVA-2415
16-16	150-150	1 1/8 x 1 1/2	★TVA-2420
30-20	150-150	1 1/8 x 1 1/2	★TVA-2421
20-12	150-150	1 1/8 x 1 1/2	★TVA-2425
20-20	150-150	1 1/8 x 1 1/2	★TVA-2428
30-30	150-150	1 1/8 x 1 1/2	★TVA-2434
40-20	150-150	1 1/8 x 1 1/2	★TVA-2438
40-30	150-150	1 1/8 x 1 1/2	★TVA-2442
40-40	150-150	1 1/8 x 2 1/2	★TVA-2445
50-30	150-150	1 1/8 x 2 1/2	★TVA-2450
50-50	150-150	1 1/8 x 2 1/2	★TVA-2453
60-20	150-150	1 1/8 x 2 1/2	★TVA-2455
60-40	150-150	1 1/8 x 2 1/2	★TVA-2456
60-60	150-150	1 1/8 x 2 1/2	★TVA-2457
80-20	150-150	1 1/8 x 2 1/2	★TVA-2459
80-30	150-150	1 1/8 x 2 1/2	★TVA-2460
80-40	150-150	1 1/8 x 2 1/2	★TVA-2461
80-50	150-150	1 1/8 x 2 1/2	★TVA-2462
100-50	150-150	1 1/8 x 2 1/2	★TVA-2463

★ Mounting straps attached † Kraftboard construction.

SPRAGUE CAPACITORS

ATOM® ELECTROLYTICS, continued

μF	WVDC	Diam. x Length	Cat. No.
DUAL UNITS (COMMON NEGATIVE)—3 LEADS continued			
00-100	150-150	1 3/8 x 3 3/8	TVA-2464†
50-150	150-150	1 3/8 x 4 1/8	TVA-2466†
00-5	150-150	1 1/8 x 3 3/8	★TVA-2467
00-100	150-150	1 3/8 x 5 1/8	★TVA-2470†
50-50	150-150	1 3/8 x 3 3/8	TVA-2473†
50-200	150-150	1 3/8 x 4 1/8	TVA-2475†
60-125	200-50	1 1/8 x 2 3/8	★TVA-2484†
60-1	200-200	1 1/8 x 2 3/8	★TVA-2493
00-5	200-200	1 1/8 x 3 3/8	★TVA-2498
20-20	250-250	1 1/8 x 1 3/8	★TVA-2515
40-10	250-250	1 1/8 x 2 3/8	★TVA-2520
80-10	250-250	1 1/8 x 2 3/8	★TVA-2525
20-80	250-250	1 3/8 x 3 3/8	TVA-2535†
40-100	300-50	1 3/8 x 3 3/8	TVA-2563†
00-100	300-50	1 3/8 x 4 3/8	★TVA-2565†
60-32	300-300	1 x 2 7/8	★TVA-2585
50-100	300-300	1 3/8 x 4 7/8	TVA-2590†
40-5	350-350	1 1/4 x 3 7/8	★TVA-2640†
10-100	450-50	1 x 2 3/8	★TVA-2663†
80-100	450-50	1 3/8 x 4 3/8	TVA-2711†
8-8	450-450	1 1/8 x 1 1/8	★TVA-2720
10-10	450-450	1 1/8 x 2 1/8	★TVA-2722
16-8	450-450	1 1/8 x 2 3/8	★TVA-2725
20-20	450-450	1 1/8 x 2 3/8	TVA-2730
30-30	450-450	1 1/8 x 3 3/8	★TVA-2735
40-40	450-450	1 1/8 x 4 3/8	★TVA-2740
50-30	450-450	1 1/8 x 4 3/8	★TVA-2750
20-100	475-50	1 1/8 x 2 3/8	★TVA-2755

DUAL UNITS (SEPARATE SECTIONS)—4 LEADS			
20-20	150-150	1 x 2 3/8	★TU-220†
40-20	150-150	1 1/8 x 2 3/8	★TU-420†
16-16	250-250	1 x 2 7/8	TU-216†
8-8	450-450	1 1/8 x 3 3/8	★TU-88†
16-16	450-450	1 3/8 x 3 3/8	★TU-1616†
20-120	150-150	1 1/8 x 4 3/8	TU-2120

TRIPLE UNITS			
40-40-250	150-150-10	1 x 2 1/8	★TVA-3406
20-20-20	150-150-25	1 3/8 x 1 3/8	★TVA-3415
30-30-100	150-150-12	1 3/8 x 2 1/8	★TVA-3419
60-40-250	150-150-15	1 3/8 x 2 1/8	★TVA-3421.5
40-20-20	150-150-25	1 3/8 x 1 1/8	★TVA-3422.9
40-30-20	150-150-25	1 3/8 x 2 1/8	★TVA-3423
40-40-20	150-150-25	1 3/8 x 2 1/8	★TVA-3425
40-40-100	150-150-25	1 3/8 x 2 1/8	★TVA-3427
50-30-20	150-150-25	1 3/8 x 2 1/8	★TVA-3430
50-30-100	150-150-25	1 3/8 x 2 1/8	★TVA-3432
50-30-200	150-150-25	1 3/8 x 2 1/8	★TVA-3433
50-50-20	150-150-25	1 x 2 1/8	★TVA-3436
80-20-100	150-150-25	1 1/4 x 2 7/8	TVA-3437†
80-40-20	150-150-25	1 1/8 x 2 1/8	★TVA-3437.1
50-120-50	150-150-25	1 3/8 x 3 3/8	★TVA-3437.6†
20-20-20	150-150-150	1 3/8 x 1 3/8	★TVA-3440
30-25-20	150-150-150	1 3/8 x 2 1/8	★TVA-3442
30-30-20	150-150-150	1 3/8 x 2 1/8	★TVA-3443
30-30-30	150-150-150	1 3/8 x 2 1/8	★TVA-3444
40-20-10	150-150-150	1 3/8 x 2 1/8	★TVA-3445
40-20-20	150-150-150	1 3/8 x 2 1/8	★TVA-3446

Mounting straps attached (†)cardboard construction.



μF	WVDC	Diam. x Length	Cat. No.
0000	6	1 1/8 x 2 3/8	HLVB-56
000	6	1 1/8 x 2 3/8	HLVB-106
000	6	1 1/8 x 2 3/8	HLVB-156
000	6	1 1/8 x 2 3/8	HLVB-206
000	10	1 1/8 x 3 3/8	HLVB-4010
000	10	1 1/8 x 4 3/8	HLVB-6010
000	10	1 1/8 x 4 3/8	HLVB-10010
000	12	1 1/8 x 2 3/8	HLVB-512
000	12	1 1/8 x 2 3/8	HLVB-1012
000	12	1 1/8 x 2 3/8	HLVB-1512
000	12	1 1/8 x 2 3/8	HLVB-2012
000	15	1 1/8 x 2 3/8	HLVB-515

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μF	WVDC	Diam. x Length	Cat. No.
40-30-20	150-150-150	1 1/8 x 2 1/8	★TVA-3448
40-30-30	150-150-150	1 1/8 x 2 1/8	★TVA-3449
40-40-20	150-150-150	1 3/8 x 2 1/8	★TVA-3450
40-40-40	150-150-150	1 1/8 x 2 1/8	★TVA-3451
50-30-20	150-150-150	1 1/8 x 2 1/8	★TVA-3453
50-50-50	150-150-150	1 1/8 x 3 1/8	★TVA-3453.5
60-40-40	150-150-150	1 1/8 x 2 1/8	★TVA-3457
80-40-20	150-150-150	1 1/8 x 3 1/8	★TVA-3455
80-40-40	150-150-150	1 1/8 x 3 1/8	★TVA-3456
80-50-50	150-150-150	1 1/8 x 3 1/8	★TVA-3456.5
80-60-50	150-150-150	1 1/8 x 3 1/8	★TVA-3457
100-30-10	150-150-150	1 1/8 x 2 1/8	★TVA-3458
150-150-150	150-150-150	1 1/4 x 4 3/8	★TVA-3459†
230-200-10	150-150-150	1 3/8 x 3 3/8	★TVA-3460†
40-20-100	250-250-50	1 3/8 x 1 3/8	TVA-3485†
200-150-50	250-250-150	1 1/2 x 4 1/8	TVA-3493†
80-10-100	300-250-50	1 3/8 x 3 3/8	★TVA-3556†
80-40-100	300-300-50	1 3/8 x 3 3/8	★TVA-3558†
100-60-100	300-300-50	1 3/8 x 3 3/8	TVA-3559†
120-40-100	300-300-50	1 3/8 x 4 3/8	TVA-3560†
120-40-10	300-300-250	1 3/8 x 3 3/8	TVA-3563†
60-60-60	300-300-300	1 3/8 x 3 3/8	TVA-3567†
80-40-40	300-300-300	1 3/8 x 3 3/8	TVA-3569†
100-40-40	350-350-250	1 3/8 x 4 3/8	★TVA-3590†
100-20-50	350-350-50	1 3/8 x 3 3/8	★TVA-3591†
140-5-200	350-350-200	1 1/2 x 5 1/8	TVA-3620†
60-60-60	350-350-250	1 3/8 x 3 3/8	TVA-3626†
60-60-4	350-350-350	1 3/8 x 3 3/8	TVA-3630†
10-80-60	400-250-150	1 3/8 x 3 3/8	TVA-3650†
100-75-70	400-400-25	1 1/2 x 4 3/8	TVA-3667†
5-80-40	450-400-400	1 3/8 x 4 3/8	★TVA-3712†
12-12-20	450-450-25	1 1/8 x 2 1/8	★TVA-3716
20-20-20	450-450-25	1 1/8 x 2 1/8	★TVA-3718
40-40-20	450-450-25	1 1/8 x 4 1/8	★TVA-3720
40-20-20	450-450-450	1 1/8 x 4 1/8	★TVA-3740
60-60-60	450-450-450	1 1/2 x 4 3/8	TVA-3748†

QUADRUPLE UNITS			
40-20-20-100	150-150-150-25	1 1/8 x 2 1/8	TVA-4517†
40-40-20-20	150-150-150-25	1 1/8 x 2 1/8	★TVA-4520†
50-50-30-25	150-150-150-25	1 3/8 x 2 1/8	TVA-4525†
60-40-40-20	150-150-150-25	1 1/4 x 2 3/8	TVA-4529†
40-40-40-25	250-250-150-25	1 1/8 x 3 1/8	★TVA-4560
100-40-40-25	300-300-50-25	1 1/2 x 3 1/8	TVA-4567†
140-5-200-30	350-300-200-150	1 1/2 x 4 7/8	TVA-4576†
150-100-20-100	300-300-300-25	1 3/8 x 4 3/8	TVA-4580†
100-80-20-50	300-300-300-50	1 3/8 x 4 3/8	TVA-4580.5†
80-40-10-40	300-300-300-250	1 3/8 x 4 1/8	TVA-4582†
120-40-40-10	300-300-300-250	1 3/8 x 4 3/8	TVA-4584†
140-5-200-30	350-300-200-200	1 1/2 x 5 1/8	TVA-4607†
80-60-40-20	350-350-300-150	1 1/2 x 4 3/8	TVA-4618†
80-10-40-100	400-400-300-50	1 3/8 x 4 1/8	★TVA-4659†
10-80-40-100	450-300-250-50	1 3/8 x 4 1/8	★TVA-4705†
20-120-40-100	450-300-250-50	1 3/8 x 4 3/8	★TVA-4706†
10-80-40-40	450-300-250-250	1 3/8 x 4 3/8	★TVA-4708†
10-20-20-10	450-300-300-300	1 3/8 x 3 3/8	TVA-4712†
20-20-20-10	450-450-450-450	1 3/8 x 3 3/8	TVA-4742†
40-20-20-10	450-450-450-450	1 3/8 x 4 3/8	TVA-4748†
40-40-20-20	450-450-450-450	1 1/2 x 4 3/8	TVA-4750†

QUINTUPLE UNITS			
40-20-20-20-50	300-300-300-300-50	1 3/8 x 3 3/8	TVA-5100†

CALL YOUR SPRAGUE INDUSTRIAL DISTRIBUTOR FOR CURRENT QUANTITY PRICES

TYPE HLVB HIGH-MF ELECTROLYTICS

- Designed For Low-Voltage Filter Circuits.
- Large Values of Capacitance in Relatively Small Physical Size.
- Molded Phenolic Case For Physical Protection and Moisture Resistance. Assures Long and Dependable Service Life.
- Easily and Securely Mounted With Hardware Listed Below.
- Call Your Sprague Industrial Distributor For Current Prices.

μF	WVDC	Diam. x Length	Cat. No.
1000	15	1 1/8 x 2 3/8	HLVB-1015
1500	15	1 1/8 x 2 3/8	HLVB-1515
2000	15	1 1/8 x 2 3/8	HLVB-2015
4000	15	1 1/8 x 4 3/8	HLVB-4015
6000	15	1 1/8 x 4 3/8	HLVB-6015
6000	20	2 1/8 x 4 3/8	HLVB-6020
500	25	1 1/8 x 2 3/8	HLVB-525
1000	25	1 1/8 x 2 3/8	HLVB-1025
2000	25	1 1/8 x 4 3/8	HLVB-2025
4000	25	1 1/8 x 4 3/8	HLVB-4025
500	50	1 1/8 x 3 3/8	HLVB-550
1000	50	1 1/8 x 3 3/8	HLVB-1050

μF	WVDC	Diam. x Length	Cat. No.
2000	50	1 1/8 x 4 3/8	HLVB-2050
3000	50	1 1/8 x 4 3/8	HLVB-3050
4000	50	2 1/8 x 4 3/8	HLVB-4050
1000	150	1 1/8 x 4 3/8	HLVB-10150
500	200	1 1/8 x 4 3/8	HLVB-5200

VERTICAL MOUNTING CLAMPS

Cap. Diam.	Cat. No.
1 1/8"	CMC-28A
2 1/8"	CMC-32
1 3/8"	CMC-22

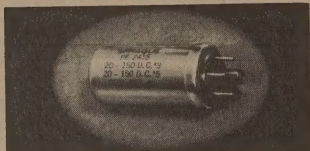
IND-REM-14-6624

All sizes subject to change without notice.

SPRAGUE CAPACITORS

PE OCTAL-BASE ELECTROLYTICS

- For Applications where Rapid Changing of Capacitors is Desired
- Will Fit Standard Octal-Base Tube Sockets
- Hermetically Sealed in Metal Cans for Long Life
- Will Stand Up Under High Temperatures, High Ripple Currents, High Surge Voltages



Terminal Code

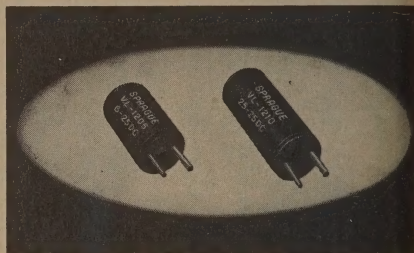
Sections	-	+
Single	1	5
Dual	1	3,5
Triple	1	3,5,7
Quadruple	Gnd Lug	1,3,5,7

μF	WVDC	Diam. x Lgth.	Cat. No.
100	350	1 3/8 x 3	PE-1636
10	450	1 3/32 x 2 1/2	PE-1705
20	450	1 3/32 x 2 1/2	PE-1714
40	450	1 3/8 x 2 1/2	PE-1725
80	450	1 3/8 x 3 1/2	PE-1730
20-20	150-150	1 3/32 x 2 1/2	PE-2415
40-40	150-150	1 3/32 x 2 1/2	PE-2428
10-10	450-450	1 3/32 x 2 1/2	PE-2750
20-20	450-450	1 3/8 x 2 1/2	PE-2755
40-40	450-450	1 3/8 x 3 1/2	PE-2764
10-10-10	450-450-450	1 3/32 x 2 1/2	PE-3776
20-20-20	450-450-450	1 3/8 x 3	PE-3780
30-30-10-20	450-450-450-50	1 3/8 x 3 1/2	PE-4741

Distributor for Current Prices

VL VERTI-LYTIC® ELECTROLYTICS

- For Replacement of Units of this Type Found on Printed Wiring Boards in Original Equipment
- Sections Housed in Sturdy, Pre-Molded Phenolic Cases
- Resin End Fill Will Not Contaminate Electrolyte — Protects Against Drying or Entrance of External Moisture
- Low Leakage Current and Long Shelf Life
- Polarity Easily Determined by Larger Diameter of Negative Lead
- For Complete Technical Data, See Latest Issue of Sprague Engineering Bulletin 3060



μF	D. x L.	Sprague Products Cat. No.	Sprague O.E.M. Part No.
3 WVDC			
1	3/8 x 3/4	VL-1031	89D100
2	3/8 x 3/4	VL-1032	89D101
3	3/8 x 3/4	VL-1033	89D102
4	3/8 x 3/4	VL-1034	89D103
5	3/8 x 3/4	VL-1035	89D104
6	3/8 x 3/4	VL-1036	89D105
8	3/8 x 3/4	VL-1037	89D106
10	3/8 x 3/4	VL-1038	89D107
15	3/8 x 3/4	VL-1039	89D108
20	3/8 x 3/4	VL-1040	89D109
25	3/8 x 3/4	VL-1041	89D110
35	3/8 x 3/4	VL-1043	89D111
50	3/8 x 3/4	VL-1045	89D112
75	3/8 x 3/4	VL-1048	89D113
100	3/8 x 3/4	VL-1051	89D114
150	3/8 x 7/8	VL-1055	89D115
200	3/8 x 7/8	VL-1059	89D116
250	7/16 x 7/8	VL-1063	89D117
290	7/16 x 7/8	VL-1067	89D118

Call your Sprague Industrial Distributor for Current Prices

6 WVDC			
1	3/8 x 3/4	VL-1080	89D119
2	3/8 x 3/4	VL-1081	89D120
3	3/8 x 3/4	VL-1082	89D121
4	3/8 x 3/4	VL-1083	89D122
5	3/8 x 3/4	VL-1084	89D123
6	3/8 x 3/4	VL-1085	89D124
8	3/8 x 3/4	VL-1086	89D125
10	3/8 x 3/4	VL-1087	89D126
15	3/8 x 3/4	VL-1088	89D127
20	3/8 x 3/4	VL-1089	89D128
25	3/8 x 3/4	VL-1090	89D129
35	3/8 x 3/4	VL-1092	89D130
50	3/8 x 3/4	VL-1094	89D131
75	3/8 x 3/4	VL-1097	89D132
100	3/8 x 7/8	VL-1100	89D133
150	7/16 x 7/8	VL-1104	89D134
200	7/16 x 7/8	VL-1108	89D135

μF	D. x L.	Sprague Products Cat. No.	Sprague O.E.M. Part No.
12 WVDC			
1	3/8 x 3/4	VL-1120	89D136
2	3/8 x 3/4	VL-1121	89D137
3	3/8 x 3/4	VL-1122	89D138
4	3/8 x 3/4	VL-1123	89D139
5	3/8 x 3/4	VL-1124	89D140
6	3/8 x 3/4	VL-1125	89D141
8	3/8 x 3/4	VL-1126	89D142
10	3/8 x 3/4	VL-1127	89D143
15	3/8 x 3/4	VL-1128	89D144
20	3/8 x 3/4	VL-1129	89D145
25	3/8 x 3/4	VL-1130	89D146
35	3/8 x 3/4	VL-1132	89D147
50	3/8 x 3/4	VL-1134	89D148
75	3/8 x 3/4	VL-1137	89D149
100	7/16 x 7/8	VL-1140	89D150
140	7/16 x 7/8	VL-1144	89D151

15 WVDC			
1	3/8 x 3/4	VL-1160	89D152
2	3/8 x 3/4	VL-1161	89D153
3	3/8 x 3/4	VL-1162	89D154
4	3/8 x 3/4	VL-1163	89D155
5	3/8 x 3/4	VL-1164	89D156
6	3/8 x 3/4	VL-1165	89D157
8	3/8 x 3/4	VL-1166	89D158
10	3/8 x 3/4	VL-1167	89D159
15	3/8 x 3/4	VL-1168	89D160
20	3/8 x 3/4	VL-1169	89D161
25	3/8 x 3/4	VL-1170	89D162
35	3/8 x 3/4	VL-1172	89D163
50	3/8 x 7/8	VL-1174	89D164
75	7/16 x 7/8	VL-1177	89D165
90	7/16 x 7/8	VL-1180	89D166

25 WVDC			
1	3/8 x 3/4	VL-1200	89D167
2	3/8 x 3/4	VL-1201	89D168

Call your Sprague Industrial Distributor for Current Prices

μF	D. x L.	Sprague Products Cat. No.	Sprague O.E.M. Part No.
25 WVDC ctd.			
3	3/8 x 3/4	VL-1202	89D169
4	3/8 x 3/4	VL-1203	89D170
5	3/8 x 3/4	VL-1204	89D171
6	3/8 x 3/4	VL-1205	89D172
8	3/8 x 3/4	VL-1206	89D173
10	3/8 x 3/4	VL-1207	89D174
15	3/8 x 3/4	VL-1208	89D175
20	3/8 x 3/4	VL-1209	89D176
25	3/8 x 3/4	VL-1210	89D177
35	3/8 x 7/8	VL-1212	89D178
50	3/8 x 7/8	VL-1215	89D179
70	7/16 x 7/8	VL-1218	89D180

50 WVDC			
1	3/8 x 3/4	VL-1300	89D181
2	3/8 x 3/4	VL-1301	89D182
3	3/8 x 3/4	VL-1302	89D183
4	3/8 x 3/4	VL-1303	89D184
5	3/8 x 3/4	VL-1304	89D185
6	3/8 x 3/4	VL-1305	89D186
8	3/8 x 3/4	VL-1306	89D187
10	3/8 x 3/4	VL-1307	89D188
15	3/8 x 3/4	VL-1308	89D189
20	3/8 x 3/4	VL-1309	89D190
25	7/16 x 7/8	VL-1310	89D191

6-6 WVDC			
100-30	7/16 x 1 3/16	VL-2150	.....

10-10 WVDC			
50-50	1/2 x 7/8	VL-2250	.....
80-80	1/2 x 7/8	VL-2350	.....

8-8 WVDC			
100-100-60	1/2 x 1 1/16	VL-3320	.....

10-10-3 WVDC			
50-50-15	1/2 x 7/8	VL-3350	.....

Call your Sprague Industrial Distributor for Current Prices

SPRAGUE CAPACITORS

TE LITTL-LYTIC® ELECTROLYTICS

Ultra-Small — Excellent, Dependable Replacement Units for Transistorized Equipment Presently on the Market

Reliability at Reasonable Prices

All-Welded Construction — No Pressure Joints to Cause "Open" or Intermittent Circuits

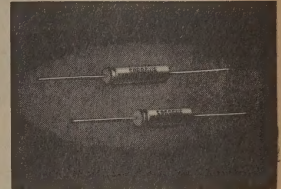
No Corrosion as with Competitive Units

● Extremely Low Leakage Current, Long Shelf Life

● Withstand Temperatures Up to 85°C (185°F)

● Furnished with Clear Plastic Outer Insulating Sleeves

● Packed 5 to a Handy Rigid Kleer-Pak® Plastic Box



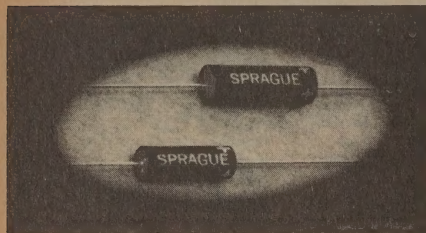
For Complete Technical Data, See Latest Issue of Sprague Engineering Bulletin 3150

F	D. x L.	Sprague Products Cat. No.	Sprague O.E.M. Part. No.	μF	D. x L.	Sprague Products Cat. No.	Sprague O.E.M. Part. No.	μF	D. x L.	Sprague Products Cat. No.	Sprague O.E.M. Part. No.
1 WVDC				10 WVDC				25 WVDC			
5	.260 x .536	TE-1010		10	.260 x .536	TE-1114		1	.260 x .536	TE-1200	30D105G025BA2
3 WVDC				15	.260 x .536	TE-1116		2	.260 x .536	TE-1201	30D205G025BA2
1	.260 x .536	TE-1050	30D105G003BA2	25	.260 x .723	TE-1118		3	.260 x .536	TE-1201.1	30D305G025BA2
2	.260 x .536	TE-1051	30D205G003BA2	50	.322 x .723	TE-1119		4	.260 x .536	TE-1201.2	30D405G025BA2
3	.260 x .536	TE-1052	30D305G003BA2	100	.322 x .848	TE-1119.3		5	.260 x .536	TE-1202	30D505G025BA2
4	.260 x .536	TE-1052.1	30D405G003BA2	200	.385 x 1.286	TE-1119.6		6	.260 x .536	TE-1203	30D605G025BA2
5	.260 x .536	TE-1052.2	30D505G003BA2	12 WVDC				8	.260 x .536	TE-1203.5	30D805G025BA2
6	.260 x .536	TE-1052.3	30D605G003BA2	1	.260 x .536	TE-1120	30D105G012BA2	10	.260 x .723	TE-1204	30D106G025BB2
8	.260 x .536	TE-1052.5	30D805G003BA2	2	.260 x .536	TE-1121	30D205G012BA2	15	.260 x .723	TE-1205	30D156G025BB2
10	.260 x .536	TE-1053	30D106G003BA2	3	.260 x .536	TE-1122	30D305G012BA2	20	.322 x .723	TE-1206	
15	.260 x .536	TE-1053.5	30D156G003BA2	4	.260 x .536	TE-1123	30D405G012BA2	25	.322 x .723	TE-1207	30D256G025CB2
20	.260 x .536	TE-1054	30D206G003BA2	5	.260 x .536	TE-1127	30D505G012BA2	35	.322 x .723	TE-1208	30D356G025CB2
25	.260 x .536	TE-1055	30D256G003BA2	6	.260 x .536	TE-1127.1	30D605G012BA2	50	.322 x .848	TE-1209	30D506G025CC2
35	.260 x .723	TE-1056		8	.260 x .536	TE-1127.3	30D805G012BA2	75	.385 x .848	TE-1210	30D756G025DC2
50	.260 x .723	TE-1057		10	.260 x .536	TE-1128	30D106G012BA2	100	.385 x .973	TE-1211	30D107G025DD2
75	.322 x .723	TE-1058	30D506G003BB2	15	.260 x .536	TE-1129	30D156G012BA2	50 WVDC			
100	.322 x .723	TE-1059		20	.260 x .723	TE-1130	30D206G012BB2	1	.260 x .536	TE-1300	30D105G050BA2
150	.385 x .848	TE-1061	30D107G003CB2	25	.260 x .723	TE-1131	30D256G012BB2	2	.260 x .536	TE-1301	30D205G050BA2
200	.385 x .848	TE-1062		35	.322 x .723	TE-1132		3	.260 x .536	TE-1302	30D305G050BA2
300	.385 x .848	TE-1064	30D207G003CC2	50	.322 x .723	TE-1133	30D506G012CB2	4	.260 x .536	TE-1302.1	30D405G050BA2
400	.385 x .848	TE-1065	30D257G003DD2	75	.322 x .848	TE-1134	30D756G012CC2	5	.260 x .723	TE-1303	30D505G050BB2
500	.385 x .973	TE-1067		100	.322 x .848	TE-1135	30D107G012CC2	6	.260 x .723	TE-1303.1	30D605G050BB2
600	.385 x 1.286	TE-1068	30D507G003DF2	150	.385 x .973	TE-1136	30D157G012DD2	8	.260 x .723	TE-1303.3	30D805G050BB2
6 WVDC				200	.385 x 1.286	TE-1137	30D207G012DF2	10	.322 x .723	TE-1304	30D106G050CB2
1	.260 x .536	TE-1080	30D105G006BA2	250	.385 x 1.286	TE-1138	30D257G012DF2	15	.322 x .723	TE-1304.2	30D156G050CB2
2	.260 x .536	TE-1081	30D205G006BA2	15 WVDC				20	.322 x .848	TE-1305	30D206G050CC2
3	.260 x .536	TE-1082	30D305G006BA2	1	.260 x .536	TE-1148	30D105G015BA2	35	.385 x .848	TE-1306	30D356G050DC2
4	.260 x .536	TE-1083	30D405G006BA2	2	.260 x .536	TE-1149	30D205G015BA2	50	.385 x .973	TE-1307	30D506G050DD2
5	.260 x .536	TE-1084	30D505G006BA2	3	.260 x .536	TE-1150	30D305G015BA2	100 WVDC			
6	.260 x .536	TE-1085	30D605G006BA2	4	.260 x .536	TE-1151	30D405G015BA2	1	.260 x .536	TE-1400	30D105G100BA2
8	.260 x .536	TE-1086	30D805G006BA2	5	.260 x .536	TE-1152	30D505G015BA2	2	.260 x .723	TE-1401	30D205G100BB2
10	.260 x .536	TE-1087	30D106G006BA2	6	.260 x .536	TE-1153	30D605G015BA2	3	.322 x .723	TE-1402	30D305G100CB2
15	.260 x .536	TE-1089	30D156G006BA2	8	.260 x .536	TE-1154	30D805G015BA2	4	.322 x .723	TE-1403	30D405G100CB2
20	.260 x .536	TE-1090	30D206G006BA2	10	.260 x .536	TE-1155	30D106G015BA2	5	.322 x .848	TE-1404	30D505G100CC2
25	.260 x .723	TE-1091	30D256G006BB2	15	.260 x .723	TE-1156	30D156G015BB2	6	.322 x .848	TE-1405	30D605G100CC2
30	.260 x .723	TE-1092		20	.260 x .723	TE-1157	30D206G015BB2	8	.385 x .848	TE-1406	30D805G100CC2
35	.260 x .723	TE-1093	30D356G006BB2	25	.260 x .723	TE-1157.1	30D256G015BB2	10	.385 x .848	TE-1407	30D106G100DC2
40	.260 x .723	TE-1095	30D406G006BB2	30	.322 x .723	TE-1158	30D306G015CB2	15	.385 x .973	TE-1408	30D156G100DD2
50	.322 x .723	TE-1100		35	.322 x .723	TE-1159	30D356G015CB2	20	.385 x 1.286	TE-1409	30D206G100DF2
60	.322 x .723	TE-1101		50	.322 x .723	TE-1160	30D506G015CB2	150 WVDC			
75	.322 x .723	TE-1101.5	30D756G006CB2	75	.322 x .848	TE-1161	30D756G015CC2	1	.260 x .536	TE-1500	30D105G150BA2
100	.385 x .848	TE-1102	30D107G006CC2	100	.385 x .848	TE-1162	30D107G015DC2	2	.260 x .723	TE-1501	30D205G150BB2
150	.385 x .848	TE-1103	30D157G006DC2	150	.385 x .973	TE-1163	30D157G015DD2	3	.322 x .723	TE-1502	30D305G150CB2
200	.385 x .973	TE-1104	30D207G006DC2	200	.385 x 1.286	TE-1164	30D207G015DF2	4	.322 x .848	TE-1503	30D405G150CC2
300	.385 x .973	TE-1105	30D257G006DD2					5	.322 x .848	TE-1504	30D505G150CC2
400	.385 x 1.286	TE-1106	30D307G006DF2					6	.385 x .848	TE-1505	30D605G150DC2
								8	.385 x .848	TE-1506	30D805G150DC2
								10	.385 x .973	TE-1507	30D106G150DD2
								12	.385 x 1.286	TE-1508	

CALL YOUR SPRAGUE INDUSTRIAL DISTRIBUTOR FOR CURRENT QUANTITY PRICES

SPRAGUE CAPACITORS

TL TRANSI-LYTIC® ELECTROLYTICS



- Miniature Low-Cost Capacitors For Use in Transistorized Pocket and "Personal Portable" Radios
- Special Low-Leakage Current Construction to Meet The Requirements of Transistor Circuitry
- Sturdy Plastic Case With Thermo-setting Resin End Seals
- Excellent Resistance to High Humidity Conditions
- Polarity Stamped on Each Unit

μF	D. x L.	Sprague Products Cat. No.	Sprague O.E.M. Part No.
3 WVDC			
1	.180 x .570	TL-1050	31D1
2	.180 x .570	TL-1051	31D2
3	.180 x .570	TL-1052	31D3
4	.180 x .570	TL-1052.1	31D4
5	.180 x .570	TL-1052.2	31D5
6	.180 x .570	TL-1052.3	31D6
8	.180 x .570	TL-1052.5	31D7
10	.180 x .570	TL-1053	31D8
15	.180 x .570	TL-1053.5	31D9
20	.210 x .700	TL-1054	31D10
25	.210 x .700	TL-1055	31D11
35	.250 x .820	TL-1056	31D12
50	.250 x .820	TL-1058	31D13
75	.250 x .820	TL-1059	31D14
100	.312 x .820	TL-1059.5	31D15
150	.375 x 1.070	TL-1061	31D16
200	.375 x 1.070	TL-1064	31D17
250	.375 x 1.070	TL-1065	31D18
300	.375 x 1.070	TL-1066	31D93
400	.437 x 1.070	TL-1067	31D94
500	.437 x 1.070	TL-1068	31D95
1000	.625 x 1.700	TL-1069	31D96
1500	.625 x 1.700	TL-1070	31D97
2000	.625 x 1.700	TL-1071	31D98
2500	.750 x 2.100	TL-1072	31D99
3000	.750 x 2.100	TL-1073	31D100
4000	.750 x 2.100	TL-1074	31D101

6 WVDC			
1	.180 x .570	TL-1080	31D19
2	.180 x .570	TL-1081	31D20
3	.180 x .570	TL-1082	31D21
4	.180 x .570	TL-1083	31D22
5	.180 x .570	TL-1084	31D23
6	.180 x .570	TL-1085	31D24
8	.180 x .570	TL-1086	31D25
10	.180 x .570	TL-1087	31D26
15	.210 x .700	TL-1089	31D27
20	.210 x .700	TL-1090	31D28
25	.250 x .820	TL-1091	31D29
35	.250 x .820	TL-1093	31D30
50	.250 x .820	TL-1100	31D31
75	.312 x .820	TL-1101.5	31D32
100	.375 x 1.070	TL-1102	31D33
150	.375 x 1.070	TL-1103	31D34
175	.375 x 1.070	TL-1103.5	31D35
200	.375 x 1.070	TL-1104	31D102
250	.437 x 1.070	TL-1105	31D103
300	.437 x 1.070	TL-1106	31D104
400	.500 x 1.440	TL-1107	31D105
500	.500 x 1.440	TL-1108	31D106
1000	.625 x 1.700	TL-1111	31D107
1500	.625 x 1.700	TL-1112	31D108
2000	.750 x 2.100	TL-1113	31D109
2500	.750 x 2.100	TL-1114	31D110
3000	.875 x 2.320	TL-1115	31D111
4000	.875 x 2.320	TL-1116	31D112

12 WVDC			
1	.180 x .570	TL-1120	31D36
2	.180 x .570	TL-1121	31D37
3	.180 x .570	TL-1122	31D38
4	.180 x .570	TL-1123	31D39

CALL YOUR SPRAGUE INDUSTRIAL DISTRIBUTOR FOR CURRENT QUANTITY PRICES

μF	D. x L.	Sprague Products Cat. No.	Sprague O.E.M. Part No.
5	.180 x .570	TL-1127	31D40
6	.180 x .570	TL-1127.1	31D41
8	.210 x .700	TL-1127.3	31D42
10	.210 x .700	TL-1128	31D43
15	.210 x .700	TL-1129	31D44
20	.250 x .820	TL-1130	31D45
25	.250 x .820	TL-1131	31D46
35	.250 x .820	TL-1132	31D47
50	.312 x .820	TL-1133	31D48
75	.375 x 1.070	TL-1134	31D49
100	.375 x 1.070	TL-1135	31D50
150	.375 x 1.070	TL-1136	31D113
200	.437 x 1.070	TL-1137	31D114
250	.500 x 1.440	TL-1138	31D115
300	.500 x 1.440	TL-1139	31D116
400	.500 x 1.440	TL-1140	31D181
500	.625 x 1.700	TL-1141	31D117
1000	.625 x 1.700	TL-1142	31D118
1500	.750 x 1.440	TL-1143	31D119
2000	.750 x 2.100	TL-1144	31D120
2500	.875 x 2.320	TL-1145	31D121
3000	.875 x 2.320	TL-1146	31D122
4000	1.000 x 2.320	TL-1147	31D123

16 WVDC			
1	.180 x .570	TL-1148	31D51
2	.180 x .570	TL-1149	31D52
3	.180 x .570	TL-1150	31D53
4	.180 x .570	TL-1151	31D54
5	.180 x .570	TL-1152	31D55
6	.180 x .570	TL-1153	31D56
8	.210 x .700	TL-1154	31D57
10	.210 x .700	TL-1155	31D58
15	.250 x .820	TL-1156	31D59
20	.250 x .820	TL-1157	31D60
25	.250 x .820	TL-1157.1	31D61
35	.312 x .820	TL-1159	31D62
50	.312 x .820	TL-1160	31D63
75	.375 x 1.070	TL-1161	31D64
100	.375 x 1.070	TL-1162	31D65
150	.375 x 1.070	TL-1163	31D124
200	.437 x 1.070	TL-1164	31D125
250	.500 x 1.440	TL-1164.5	31D126
300	.500 x 1.440	TL-1165	31D127
400	.625 x 1.700	TL-1165.5	31D128
500	.625 x 1.700	TL-1166	31D129
1000	.750 x 1.700	TL-1166.5	31D130
1500	.750 x 1.700	TL-1167	31D131
2000	.875 x 2.320	TL-1167.5	31D132
2500	.875 x 2.320	TL-1168	31D133
3000	1.000 x 2.320	TL-1168.5	31D134

20 WVDC			
1	.180 x .570	TL-1170	31D66
2	.180 x .570	TL-1171	31D67
3	.180 x .570	TL-1172	31D68
4	.180 x .570	TL-1173	31D69
5	.180 x .570	TL-1174	31D70
6	.210 x .700	TL-1175	31D71
8	.210 x .700	TL-1176	31D72
10	.210 x .700	TL-1177	31D73
15	.250 x .820	TL-1178	31D74
20	.250 x .820	TL-1179	31D75
25	.250 x .820	TL-1180	31D76
35	.312 x .820	TL-1181	31D77

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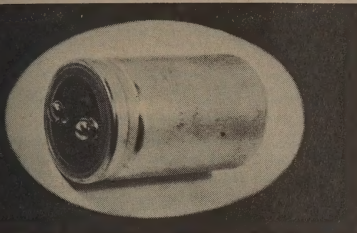
μF	D. x L.	Sprague Products Cat. No.	Sprague O.E.M. Part No.
5	.312 x .820	TL-1182	31D78
75	.375 x 1.070	TL-1183	31D79
100	.375 x 1.070	TL-1184	31D135
150	.437 x 1.070	TL-1185	31D136
200	.500 x 1.440	TL-1186	31D137
250	.500 x 1.440	TL-1187	31D138
300	.500 x 1.440	TL-1188	31D139
400	.625 x 1.700	TL-1189	31D140
500	.625 x 1.700	TL-1190	31D141
1000	.750 x 1.700	TL-1191	31D142
1500	.750 x 2.100	TL-1192	31D143
2000	.875 x 2.320	TL-1193	31D144
2500	1.000 x 2.320	TL-1194	31D145
3000	1.000 x 2.320	TL-1195	31D146

25 WVDC			
1	.180 x .570	TL-1200	31D80
2	.180 x .570	TL-1201	31D81
3	.180 x .570	TL-1201.1	31D82
4	.180 x .570	TL-1201.2	31D83
5	.210 x .700	TL-1202	31D84
6	.210 x .700	TL-1203	31D85
8	.210 x .700	TL-1203.5	31D86
10	.250 x .820	TL-1204	31D87
15	.250 x .820	TL-1205	31D88
20	.250 x .820	TL-1206	31D89
25	.312 x .820	TL-1207	31D90
35	.375 x 1.070	TL-1208	31D91
50	.375 x 1.070	TL-1209	31D92
75	.375 x 1.070	TL-1210	31D147
100	.437 x 1.070	TL-1211	31D148
150	.500 x 1.440	TL-1212	31D149
200	.500 x 1.440	TL-1213	31D150
250	.625 x 1.700	TL-1214	31D151
300	.625 x 1.700	TL-1215	31D152
400	.625 x 1.700	TL-1216	31D153
500	.625 x 1.700	TL-1217	31D154
1000	.750 x 2.100	TL-1218	31D155
1500	.875 x 2.320	TL-1219	31D156
2000	1.000 x 2.320	TL-1220	31D157

50 WVDC			
1	.180 x .570	TL-1300	31D158
2	.180 x .570	TL-1301	31D159
3	.210 x .700	TL-1302	31D160
4	.210 x .700	TL-1302.1	31D161
5	.250 x .820	TL-1303	31D162
6	.250 x .820	TL-1303.1	31D163
8	.250 x .820	TL-1303.3	31D164
10	.250 x .820	TL-1304	31D165
15	.312 x .820	TL-1304.2	31D166
20	.375 x 1.070	TL-1305	31D167
25	.375 x 1.070	TL-1305.1	31D168
35	.375 x 1.070	TL-1306	31D169
50	.437 x 1.070	TL-1307	31D170
75	.500 x 1.440	TL-1308	31D171
100	.500 x 1.440	TL-1309	31D172
150	.625 x 1.700	TL-1310	31D173
175	.625 x 1.700	TL-1311	31D174
200	.625 x 1.700	TL-1312	31D175
250	.625 x 1.700	TL-1313	31D176
300	.750 x 1.195	TL-1314	31D177
400	.750 x 2.100	TL-1315	31D178
500	.750 x 2.100	TL-1316	31D179
1000	1.000 x 2.320	TL-1317	31D180

SPRAGUE CAPACITORS

TYPE 36D POWERLYTIC® ALUMINUM ELECTROLYTICS



- For Maximum Capacitance in a Given Case Size.
- Especially Suitable for Transistorized Circuitry where High Capacitance is Required.
- Maximum Space Economy at Operating Temperatures Up To 65 C.
- Low ESR and Leakage Currents. • Extremely Long Shelf Life.
- Uses Most Reliable Seal Developed by Sprague for Aluminum Electrolytic Capacitors. Pressure-type Safety Vents Employing Silicone Rubber Are Used On All Cases.
- High Screw Insert Terminal, 9/32" high. • Plastic Outer Tube.
- Superior Electrical and Life Characteristics Are Insured By Careful Raw Material Inspection, High Quality Control Standards and

Close Manufacturing Supervision. For Complete Technical Data, Consult Sprague Engineering Bulletin 3431.

μF Case Code WVDC Catalog No.

70,000 DF 3 36D274G003DF2A

20,000 DC 6 36D124G006DC2A

70,000 DF 6 36D194G006DF2A

6,000 AA 10 36D602G010AA2A

12,000 AB 10 36D123G010AB2A

18,000 AC 10 36D183G010AC2A

28,000 BB 10 36D283G010BB2A

42,000 BC 10 36D423G010BC2A

48,000 CB 10 36D483G010CB2A

70,000 DC 10 36D104G010DC2A

70,000 DF 10 36D164G010DF2A

4,600 AA 15 36D462G015AA2A

9,200 AB 15 36D922G015AB2A

13,000 AC 15 36D133G015AC2A

21,000 BB 15 36D213G015BB2A

31,000 BC 15 36D313G015BC2A

36,000 CB 15 36D363G015CB2A

54,000 CC 15 36D543G015CC2A

53,000 CD 15 36D633G015CD2A

80,000 DC 15 36D803G015DC2A

2,700 AA 25 36D272G025AA2A

5,500 AB 25 36D552G025AB2A

8,200 AC 25 36D822G025AC2A

18,000 BC 25 36D183G025BC2A

32,000 CC 25 36D323G025CC2A

47,000 DC 25 36D473G025DC2A

55,000 DD 25 36D553G025DD2A

71,000 DF 25 36D713G025DF2A

36,000 DC 30 36D363G030DC2A

42,000 DD 30 36D423G030DD2A

5,500 AC 40 36D552G040AC2A

8,400 BB 40 36D842G040BB2A

12,000 BC 40 36D123G040BC2A

21,000 CC 40 36D213G040CC2A

25,000 CD 40 36D253G040CD2A

1,300 AA 50 36D132G050AA2A

2,600 AB 50 36D262G050AB2A

3,900 AC 50 36D392G050AC2A

6,000 BB 50 36D602G050BB2A

9,000 BC 50 36D902G050BC2A

15,000 CC 50 36D153G050CC2A

22,000 DC 50 36D223G050DC2A

2,500 AC 75 36D252F075AC2A

3,900 BB 75 36D392F075BB2A

5,900 BC 75 36D592F075BC2A

11,000 CD 75 36D113F075CD2A

14,000 DC 75 36D143F075DC2A

22,000 DF 75 36D223F075DF2A

CALL YOUR SPRAGUE INDUSTRIAL DISTRIBUTOR FOR CURRENT QUANTITY PRICES

μF Case Code WVDC Catalog No.

450 AA 100 36D451F100AA2A

1,300 AC 100 36D132F100AC2A

3,000 BC 100 36D302F100BC2A

5,300 CC 100 36D532F100CC2A

7,800 DC 100 36D782F100DC2A

300 AA 150 36D301F150AA2A

900 AC 150 36D901F150AC2A

1,400 BB 150 36D142F150BB2A

2,100 BC 150 36D212F150BC2A

3,600 CC 150 36D362F150CC2A

5,300 DC 150 36D532F150DC2A

7,800 DF 150 36D782F150DF2A

250 AA 200 36D251F200AA2A

430 AB 200 36D431F200AB2A

640 AC 200 36D641F200AC2A

1,400 BC 200 36D142F200BC2A

1,600 CB 200 36D162F200CB2A

3,700 DC 200 36D372F200DC2A

5,500 DF 200 36D552F200DF2A

530 AC 250 36D531F250AC2A

1,200 BC 250 36D122F250BC2A

3,000 DC 250 36D302F250DC2A

4,500 DF 250 36D452F250DF2A

240 AB 300 36D241F300AB2A

820 BC 300 36D821F300BC2A

2,100 DC 300 36D212F300DC2A

95 AA 350 36D950F350AA2A

190 AB 350 36D191F350AB2A

420 BB 350 36D421F350BB2A

650 BC 350 36D651F350BC2A

1,100 CC 350 36D112F350CC2A

1,600 DC 350 36D162F350DC2A

2,500 DF 350 36D252F350DF2A

420 BC 400 36D421F400BC2A

50 AA 450 36D500F450AA2A

140 AC 450 36D141F450AC2A

220 BB 450 36D221F450BB2A

330 BC 450 36D331F450BC2A

860 DC 450 36D861F450DC2A

CALL YOUR SPRAGUE DISTRIBUTOR FOR QUANTITY PRICES

CASE CODE	BARE CAN D x L	CASE CODE	BARE CAN D x L	VERTICAL MOUNTING Cat. No.	CLAMPS Dia.
AA	1 1/2 x 2 1/8	CB	2 1/2 x 3 1/8	CMC-22	1 1/2
AB	1 1/2 x 3 1/8	CC	2 1/2 x 4 1/8	CMC-32	2
AC	1 1/2 x 4 1/8	CD	2 1/2 x 4 1/8	CMC-40	2 1/2
BB	2 x 3 1/8	DC	3 x 4 1/8	CMC-48	3
BC	2 x 4 1/8	DD	3 x 4 1/8		
		DF	3 x 5 1/8		

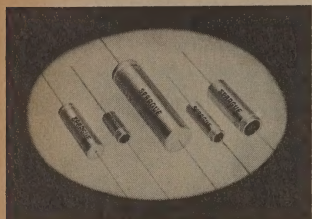
Add 1/32" to diameter and 1/16" to length for plastic outer tube.

SPRAGUE CAPACITORS

TYPE 39D POWERLYTIC® CAPACITORS

- Designed for Such Applications as Transistorized Apparatus, Which Require the Greatest Possible Capacitance in Small Case Size.
- Type 39D Capacitors Supplement the Original Type 36D Powerlytic by Offering Lower Capacitance Values in Small Case Size.
- Welds at all Critical Anode and Cathode Terminals Eliminates Riveted or Pressure Connections to Assure Freedom from Open Circuits Even During Operation in the Microvolt or Millivolt Signal Range.

- End-seals of an Improved Molded Phenolic
- Furnished with an Outer Insulation of Flexible Plastic.
- Operating Temperature Up to 85°C
- These Capacitors are Provided with a Pressure-sensitive Safety Vent.
- For Additional Technical Data, Consult the Latest Issue of Sprague Electric Company Engineering Bulletin 3415.



μF	D. x L.	WVDC	Catalog Number
1,300	1/2 x 2 1/8	3	39D138G003EL4
2,100	7/8 x 1 1/8	3	39D218G003HE4
3,000	1 x 1 1/8	3	39D308G003JE4
5,700	3/4 x 2 5/8	3	39D578G003GP4
10,000	7/8 x 3 1/8	3	39D109G003HS4
18,000	1 x 3 3/8	3	39D189G003JT4
600	1/2 x 1 5/8	6	39D607G006EJ4
1,000	3/4 x 1 1/8	6	39D108G006GE4
2,000	3/4 x 1 5/8	6	39D208G006GJ4
4,000	3/4 x 2 5/8	6	39D408G006GP4
6,000	3/4 x 2 5/8	6	39D608G006HP4
10,000	1 x 3 1/8	6	39D109G006JS4
500	1/2 x 1 5/8	10	39D507G010EJ4
1,000	5/8 x 1 5/8	10	39D108G010FJ4
1,600	5/8 x 2 1/8	10	39D168G010FL4
2,500	3/4 x 2 1/8	10	39D258G010GL4
5,000	7/8 x 2 5/8	10	39D508G010HP4
10,000	1 x 3 5/8	10	39D109G010JT4
600	1/2 x 2 1/8	15	39D607G015EL4
1,200	5/8 x 2 1/8	15	39D128G015FL4
2,500	3/4 x 2 5/8	15	39D258G015GP4
4,000	1 x 2 1/8	15	39D408G015JL4
8,000	1 x 3 5/8	15	39D808G015JT4
200	1/2 x 1 5/8	25	39D207G025EJ4
500	7/8 x 1 1/8	25	39D507G025HE4
1,000	3/4 x 2 1/8	25	39D108G025GL4
2,200	7/8 x 2 5/8	25	39D228G025HP4
4,000	1 x 3 5/8	25	39D408G025JT4
75	1/2 x 1 1/8	30	39D756G030EE4
150	1/2 x 1 5/8	30	39D157G030EJ4
250	1/2 x 2 1/8	30	39D257G030EL4

CALL YOUR SPRAGUE INDUSTRIAL DISTRIBUTOR FOR CURRENT QUANTITY PRICES

μF	D. x L.	WVDC	Catalog Number
500	5/8 x 2 1/8	30	39D507G030FL4
1,100	3/4 x 2 5/8	30	39D118G030GP4
2,100	7/8 x 3 1/8	30	39D218G030HS4
3,000	1 x 3 1/8	30	39D308G030JS4
50	1/2 x 1 1/8	50	39D506G050EE4
100	1/2 x 1 5/8	50	39D107G050EJ4
150	1/2 x 2 1/8	50	39D157G050EL4
250	7/8 x 1 1/8	50	39D257G050HE4
500	3/4 x 2 1/8	50	39D507G050GL4
1,100	3/4 x 2 5/8	50	39D118G050HP4
2,300	1 x 3 5/8	50	39D238G050JT4
25	1/2 x 1 5/8	150	39D256F150EJ4
50	5/8 x 1 5/8	150	39D506F150FJ4
100	5/8 x 2 5/8	150	39D107F150FP4
250	7/8 x 2 5/8	150	39D257F150HP4
530	1 x 3 5/8	150	39D537F150JT4
20	1/2 x 2 1/8	250	39D206F250EL4
50	1 x 1 1/8	250	39D506F250JE4
100	7/8 x 2 1/8	250	39D107F250HL4
200	1 x 2 5/8	250	39D207F250JP4
300	1 x 3 5/8	250	39D307F250JT4
20	5/8 x 2 1/8	350	39D206F350FL4
30	5/8 x 2 5/8	350	39D306F350FP4
40	3/4 x 2 1/8	350	39D406F350GL4
50	3/4 x 2 5/8	350	39D506F350GP4
100	7/8 x 3 1/8	350	39D107F350HS4
160	1 x 3 5/8	350	39D167F350JT4
5	1/2 x 2 1/8	450	39D505F450EL4
10	5/8 x 2 1/8	450	39D106F450FL4
20	3/4 x 2 1/8	450	39D206F450GL4
50	1 x 2 5/8	450	39D506F450JP4
75	1 x 3 5/8	450	39D756F450JT4

CALL YOUR SPRAGUE INDUSTRIAL DISTRIBUTOR FOR CURRENT QUANTITY PRICES



SPECIAL PURPOSE ELECTROLYTIC CAPACITORS

- Designed to Filter Low Voltage Power Supplies For Aircraft
- Solder Lug Terminals

μF	D. x L.	VDC	Catalog Number
1250	1 x 2 3/4	3NP	D16255 (S17377)
3750	1 3/8 x 3 5/8	3NP	D3759 (S17378)

SPRAGUE CAPACITORS

TYPE 600D EXTRALYTIC® ALUMINUM ELECTROLYTIC CAPACITORS

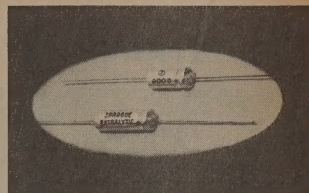
Extended Operating Temperature Range From
—55C to +125C

Dual Rating Makes Possible Operation At
Either 85C or 125C

Voltage Ratings Up to 150 Volts D-C

• Improved Oxide Systems, Etching Techniques,
and End Seals; a New Electrolyte Makes The
Type 600D Equivalent to Or Better Than
Comparable Foil Tantalum Capacitors.

• Lower Cost and One Third The Weight of
Comparable Foil Tantalums



Case Code	Catalog Number*	Case Code	Catalog Number*	Case Code	Catalog Number*	Case Code	Catalog Number*
5 WVDC @ 85C, 5 WVDC @ 125C		25 WVDC @ 85C, 20 WVDC @ 125C		60 WVDC @ 85C, 50 WVDC @ 125C		150 WVDC @ 85C, 100 WVDC @ 125C	
0 DC	600D147G007DC4	50 DC	600D506G025DC4	18 DC	600D186G060DC4	6 DC	600D605F150DC4
0 DD	600D217G007DD4	75 DD	600D756G025DD4	25 DD	600D256G060DD4	9 DD	600D905F150DD4
0 DE	600D287G007DE4	100 DE	600D107G025DE4	40 DE	600D406G060DE4	12 DE	600D126F150DE4
0 DG	600D427G007DG4	150 DG	600D157G025DG4	60 DG	600D606G060DG4	18 DG	600D186F150DG4
0 DJ	600D567G007DJ4	210 DJ	600D217G025DJ4	80 DJ	600D806G060DJ4	25 DJ	600D256F150DJ4
0 DL	600D857G007DL4	310 DL	600D317G025DL4	120 DL	600D127G060DL4	37 DL	600D376F150DL4
5 WVDC @ 85C, 10 WVDC @ 125C		40 WVDC @ 85C, 30 WVDC @ 125C		75 WVDC @ 85C, 50 WVDC @ 125C		200 WVDC @ 85C, 150 WVDC @ 125C	
5 DC	600D956G015DC4	30 DC	600D306G040DC4	15 DC	600D156G070DC4	4 DC	600D405F200DC4
5 DD	600D147G015DD4	50 DD	600D506G040DD4	20 DD	600D206G070DD4	6 DD	600D605F200DD4
5 DE	600D197G015DE4	70 DE	600D706G040DE4	30 DE	600D306G070DE4	8 DE	600D805F200DE4
5 DG	600D297G015DG4	100 DG	600D107G040DG4	50 DG	600D506G070DG4	13 DG	600D136F200DG4
5 DJ	600D397G015DJ4	140 DJ	600D147G040DJ4	65 DJ	600D656G070DJ4	17 DJ	600D176F200DJ4
5 DL	600D587G015DL4	210 DL	600D217G040DL4	100 DL	600D107G070DL4	26 DL	600D266F200DL4
0 WVDC @ 85C, 15 WVDC @ 125C		50 WVDC @ 85C, 40 WVDC @ 125C		100 WVDC @ 85C, 75 WVDC @ 125C		TABLE OF DIMENSIONS	
0 DC	600D706G020DC4	20 DC	600D206G050DC4	8 DC	600D186G100DC4	Case Code	
0 DD	600D107G020DD4	35 DD	600D356G050DD4	13 DD	600D136G100DD4		
0 DE	600D147G020DE4	50 DE	600D506G050DE4	17 DE	600D176G100DE4	Diam.	Length
0 DG	600D227G020DG4	75 DG	600D756G050DG4	25 DG	600D256G100DG4	(±0.031)	(Max.)
0 DJ	600D297G020DJ4	100 DJ	600D107G050DJ4	35 DJ	600D306G100DJ4	DC	.390
0 DL	600D447G020DL4	150 DL	600D157G050DL4	50 DL	600D506G100DL4	DD	.390
						DD	.390
						DE	.390
						DG	.390
						DJ	.390
						DL	.390
						DL	2.249

Catalog numbers listed are for capacitors with Outer Insulation. For units with bare can substitute "0" for "4" at the end of the catalog number, and subtract .64" from diameter.

TYPE 601D EXTRALYTIC® ALUMINUM ELECTROLYTIC CAPACITORS

• Supplement Type 600D Extralytic Capacitors
With Larger Case Sizes and Higher Capacitance Values

• Pressure-sensitive Safety Vent

• Designed to Operate at a Temperature Range
of —55C to +85C

• Unique New Electrolyte, High-gain Etched
Foil, Improved Oxide System Provide Long
Life With Superior Electrical Characteristics

• For Complete Technical Data, See Latest Issue
of Sprague Engineering Bulletin 3456

• Call Your Sprague Industrial Distributor For
Current Prices

Case Code	Diam. (±0.031)	Length (±0.062)	Catalog Number	Case Code	Diam. (±0.031)	Length (±0.062)	Catalog Number	Case Code	Diam. (±0.031)	Length (±0.062)	Catalog Number
5 VOLTS D-C WORKING, 7 VDC SURGE				15 VOLTS D-C WORKING, 20 VDC SURGE				50 VOLTS D-C WORKING, 75 VDC SURGE			
1500	.687	1.250	601D158G005FJ4	650	.812	1.250	601D657G015GE4	110	.687	1.250	601D117G050FE4
2300	.687	2.250	601D238G005FL4	1200	.687	2.250	601D128G015FL4	170	.812	1.250	601D177G050GE4
3500	.687	3.250	601D358G005FS4	2500	1.062	1.750	601D258G015JJ4	250	.937	1.250	601D257G050HE4
5500	.812	3.250	601D558G005GS4	4200	.937	3.250	601D428G015HS4	500	.687	3.250	601D507G050FS4
3000	1.062	3.250	601D109G005JS4	6900	1.062	3.750	601D698G015JT4	1100	.937	3.250	601D118G050HS4
2000	1.062	3.750	601D139G005JT4	25 VOLTS D-C WORKING, 40 VDC SURGE				1800	1.062	3.750	601D188G050JT4
7.5 VOLTS D-C WORKING, 10 VDC SURGE				220	.687	1.250	601D227G025FE4	150 VOLTS D-C WORKING, 200 VDC SURGE			
650	.687	1.250	601D657G7R5FE4	500	.937	1.250	601D507G025HE4	18	.687	1.250	601D186F150FE4
1000	.812	1.250	601D108G7R5GE4	1000	.812	2.250	601D108G025GL4	55	.687	2.250	601D556F150FL4
2000	.812	1.750	601D208G7R5GJ4	2200	.937	3.250	601D228G025HS4	100	.687	3.750	601D107F150FT4
4000	1.062	1.750	601D408G7R5JJ4	3700	1.062	3.750	601D378G025JT4	260	.937	3.750	601D267F150HT4
6000	1.062	2.250	601D608G7R5JL4	30 VOLTS D-C WORKING, 45 VDC SURGE				360	1.062	3.750	601D367F150JT4
1000	1.062	3.750	601D119G7R5JT4	190	.687	1.250	601D197G030FE4	200 VOLTS D-C WORKING, 250 VDC SURGE			
10 VOLTS D-C WORKING, 15 VDC SURGE				310	.812	1.250	601D317G030GE4	16	.687	1.250	601D166F200FE4
540	.687	1.250	601D547G010FE4	580	.687	2.250	601D587G030FL4	50	.812	1.750	601D506G200GJ4
1000	.687	1.750	601D108G010FJ4	1000	.687	3.750	601D108G030FT4	100	.812	3.750	601D107F200GS4
1600	.687	2.250	601D168G010FL4	2000	.937	3.250	601D208G030HS4	160	1.062	2.250	601D167F200JL4
2500	.812	2.250	601D258G010GL4	3300	1.062	3.750	601D338G030JT4	210	.937	3.750	601D217F200HT4
5000	1.062	2.250	601D508G010JL4					290	1.062	3.750	601D297F200JT4
9100	1.062	3.750	601D918G010JT4								

Catalog numbers listed are for capacitors with Outer Insulation. For units with bare can substitute "0" for "4" at the end of the catalog number, and subtract .64" from diameter.

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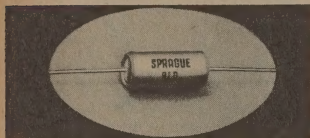
All sizes subject to change without notice.

U.C.P., Inc.

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SPRAGUE CAPACITORS

VITAMIN Q® SUBMINIATURE PAPER CAPACITORS



These capacitors are the most widely used of all paper capacitors in commercial and military electronic equipment. Her-

a higher insulation resistance and longer life than comparable units with ordinary oils.

metically sealed in metal cases, they are electrically and mechanically designed to meet stringent operating requirements.

Impregnated with Vitamin Q, a substantially linear, controlled molecular weight, hydrocarbon polymer, which is exclusive with Sprague, these dependable capacitors are available for operation in two temperature ranges: -55°C to $+85^{\circ}\text{C}$ and -55°C to $+125^{\circ}\text{C}$. Because of their Vitamin Q impregnation, these subminiature capacitors have

performance requirements of military specification MIL-C-25A. A limited number of the ratings shown here are listed in the military specification and should be ordered by their MIL type designation where equipment specifications so require. (See page after next.)

Listed below are the most popular insulated section (ungrounded case) capacitors. For technical data on these and other types, ratings, and tolerances, as well as on wax impregnated units for absolute minimum size, refer to the latest issue of Engineering Bulletin 2110.

Call your Sprague Industrial Distributor for Current Quantity Prices.

CHOICE OF INSERTED TAB OR EXTENDED FOIL CONSTRUCTION

In the past, inserted tab capacitors have not been recommended for low-voltage applications (e.g., below 10 volts) but recent improvements in design now make it possible to recommend them for operation at all voltages from 1 to rated, in nearly all applications.

From the application standpoint, the principal difference between the two construction types is that, at resonance, losses

are likely to be lower in the extended foil type. This is because the resistive component of impedance is likely to be higher at resonance in the inserted tab type of construction. Unless unusual circuit requirements make the losses at resonance a critical factor, the inserted tab construction is recommended, primarily because of the smaller size of the capacitor roll.

TYPE 91P, INSERTED TAB CONSTRUCTION, 85°C OPERATION

μF	WVDC	Size D. x L.	Capacitance Tolerance $\pm 20\%$				Capacitance Tolerance $\pm 10\%$			
			Style 2 (bare metal case)		Style 4 (w/plastic sleeve)*		Style 2 (bare metal case)		Style 4 (w/plastic sleeve)*	
			Cat. No.		Cat. No.		Cat. No.		Cat. No.	
.001	100	.175 x $\frac{3}{4}$	91P10201S2	Call Your Sprague Industrial Distributor for Current Quantity Prices	91P10201S4	Call Your Sprague Industrial Distributor for Current Quantity Prices	91P10291S2	Call Your Sprague Industrial Distributor for Current Quantity Prices	91P10291S4	Call Your Sprague Industrial Distributor for Current Quantity Prices
	200	.235 x $\frac{3}{4}$	91P10202S2		91P10202S4		91P10292S2		91P10292S4	
	300	.235 x $\frac{3}{4}$	91P10203S2		91P10203S4		91P10293S2		91P10293S4	
	400	.235 x $\frac{3}{4}$	91P10204S2		91P10204S4		91P10294S2		91P10294S4	
	600	.235 x $\frac{3}{4}$	91P10206S2		91P10206S4		91P10296S2		91P10296S4	
.0015	100	.175 x $\frac{3}{4}$	91P15201S2		91P15201S4		91P15291S2		91P15291S4	
	200	.235 x $\frac{3}{4}$	91P15202S2		91P15202S4		91P15292S2		91P15292S4	
	300	.235 x $\frac{3}{4}$	91P15203S2		91P15203S4		91P15293S2		91P15293S4	
	400	.235 x $\frac{3}{4}$	91P15204S2		91P15204S4		91P15294S2		91P15294S4	
	600	.235 x $\frac{3}{4}$	91P15206S2		91P15206S4		91P15296S2		91P15296S4	
.0022	100	.175 x $\frac{3}{4}$	91P22201S2		91P22201S4		91P22291S2		91P22291S4	
	200	.235 x $\frac{3}{4}$	91P22202S2		91P22202S4		91P22292S2		91P22292S4	
	300	.235 x $\frac{3}{4}$	91P22203S2		91P22203S4		91P22293S2		91P22293S4	
	400	.235 x $\frac{3}{4}$	91P22204S2		91P22204S4		91P22294S2		91P22294S4	
	600	.235 x $\frac{3}{4}$	91P22206S2		91P22206S4		91P22296S2		91P22296S4	
.0033	100	.175 x $\frac{3}{4}$	91P33201S2		91P33201S4		91P33291S2		91P33291S4	
	200	.235 x $\frac{3}{4}$	91P33202S2		91P33202S4		91P33292S2		91P33292S4	
	300	.235 x $\frac{3}{4}$	91P33203S2		91P33203S4		91P33293S2		91P33293S4	
	400	.235 x $\frac{3}{4}$	91P33204S2		91P33204S4		91P33294S2		91P33294S4	
	600	.235 x $\frac{3}{4}$	91P33206S2		91P33206S4		91P33296S2		91P33296S4	
.0047	100	.175 x $\frac{3}{4}$	91P47201S2		91P47201S4		91P47291S2		91P47291S4	
	200	.235 x $\frac{3}{4}$	91P47202S2		91P47202S4		91P47292S2		91P47292S4	
	300	.235 x $\frac{3}{4}$	91P47203S2		91P47203S4		91P47293S2		91P47293S4	
	400	.235 x $\frac{3}{4}$	91P47204S2		91P47204S4		91P47294S2		91P47294S4	
	600	.235 x $\frac{3}{4}$	91P47206S2		91P47206S4		91P47296S2		91P47296S4	
.0068	100	.175 x $\frac{3}{4}$	91P68201S2		91P68201S4		91P68291S2		91P68291S4	
	200	.235 x $\frac{3}{4}$	91P68202S2		91P68202S4		91P68292S2		91P68292S4	
	300	.235 x $\frac{3}{4}$	91P68203S2		91P68203S4		91P68293S2		91P68293S4	
	400	.235 x $\frac{3}{4}$	91P68204S2		91P68204S4		91P68294S2		91P68294S4	
	600	.235 x $\frac{3}{4}$	91P68206S2		91P68206S4		91P68296S2		91P68296S4	

*For Style 4 units add .0625" to diameter and $\frac{1}{8}$ " to length.

SPRAGUE CAPACITORS

TYPE 91P, continued

μF	WVDC	Size D. x L.	Capacitance Tolerance ±20%				Capacitance Tolerance ±10%			
			Style 2 (bare metal case)		Style 4 (w/plastic sleeve)*		Style 2 (bare metal case)		Style 4 (w/plastic sleeve)*	
			Cat. No.		Cat. No.		Cat. No.		Cat. No.	
.01	100	.175 x 3/4	91P10301S2	CALL YOUR SPRAGUE INDUSTRIAL DISTRIBUTOR FOR CURRENT QUANTITY PRICES	91P10301S4	CALL YOUR SPRAGUE INDUSTRIAL DISTRIBUTOR FOR CURRENT QUANTITY PRICES	91P10391S2	CALL YOUR SPRAGUE INDUSTRIAL DISTRIBUTOR FOR CURRENT QUANTITY PRICES	91P10391S4	CALL YOUR SPRAGUE INDUSTRIAL DISTRIBUTOR FOR CURRENT QUANTITY PRICES
	200	.235 x 3/4	91P10302S2		91P10302S4		91P10392S2		91P10392S4	
	300	.235 x 3/4	91P10303S2		91P10303S4		91P10393S2		91P10393S4	
	400	.235 x 3/4	91P10304S2		91P10304S4		91P10394S2		91P10394S4	
	600	.312 x 3/4	91P10306S2		91P10306S4		91P10396S2		91P10396S4	
.015	100	.175 x 3/4	91P15301S2		91P15301S4		91P15391S2		91P15391S4	
	200	.235 x 3/4	91P15302S2		91P15302S4		91P15392S2		91P15392S4	
	300	.235 x 3/4	91P15303S2		91P15303S4		91P15393S2		91P15393S4	
	400	.312 x 3/4	91P15304S2		91P15304S4		91P15394S2		91P15394S4	
	600	.312 x 3/4	91P15306S2		91P15306S4		91P15396S2		91P15396S4	
.022	100	.195 x 3/4	91P22301S2		91P22301S4		91P22391S2		91P22391S4	
	200	.235 x 3/4	91P22302S2		91P22302S4		91P22392S2		91P22392S4	
	300	.312 x 3/4	91P22303S2		91P22303S4		91P22393S2		91P22393S4	
	400	.312 x 3/4	91P22304S2		91P22304S4		91P22394S2		91P22394S4	
	600	.312 x 3/4	91P22306S2		91P22306S4		91P22396S2		91P22396S4	
.033	100	.235 x 3/4	91P33301S2		91P33301S4		91P33391S2		91P33391S4	
	200	.312 x 3/4	91P33302S2		91P33302S4		91P33392S2		91P33392S4	
	300	.312 x 3/4	91P33303S2		91P33303S4		91P33393S2		91P33393S4	
	400	.312 x 3/4	91P33304S2		91P33304S4		91P33394S2		91P33394S4	
	600	.400 x 3/4	91P33306S2		91P33306S4		91P33396S2		91P33396S4	
.047	100	.312 x 3/4	91P47301S2		91P47301S4		91P47391S2		91P47391S4	
	200	.312 x 3/4	91P47302S2		91P47302S4		91P47392S2		91P47392S4	
	300	.312 x 3/4	91P47303S2		91P47303S4		91P47393S2		91P47393S4	
	400	.400 x 3/4	91P47304S2		91P47304S4		91P47394S2		91P47394S4	
	600	.400 x 1/2	91P47306S2		91P47306S4		91P47396S2		91P47396S4	
.068	100	.312 x 3/4	91P68301S2		91P68301S4		91P68391S2		91P68391S4	
	200	.312 x 3/4	91P68302S2		91P68302S4		91P68392S2		91P68392S4	
	300	.400 x 3/4	91P68303S2		91P68303S4		91P68393S2		91P68393S4	
	400	.400 x 1/2	91P68304S2		91P68304S4		91P68394S2		91P68394S4	
	600	.400 x 1/2	91P68306S2		91P68306S4		91P68396S2		91P68396S4	
.1	100	.312 x 3/4	91P10401S2		91P10401S4		91P10491S2		91P10491S4	
	200	.400 x 3/4	91P10402S2		91P10402S4		91P10492S2		91P10492S4	
	300	.400 x 1/2	91P10403S2		91P10403S4		91P10493S2		91P10493S4	
	400	.400 x 1/2	91P10404S2		91P10404S4		91P10494S2		91P10494S4	
	600	.562 x 1/2	91P10406S2		91P10406S4		91P10496S2		91P10496S4	
.15	100	.400 x 3/4	91P15401S2		91P15401S4		91P15491S2		91P15491S4	
	200	.400 x 1/2	91P15402S2		91P15402S4		91P15492S2		91P15492S4	
	300	.400 x 1/2	91P15403S2		91P15403S4		91P15493S2		91P15493S4	
	400	.562 x 1/2	91P15404S2		91P15404S4		91P15494S2		91P15494S4	
	600	.562 x 1/2	91P15406S2		91P15406S4		91P15496S2		91P15496S4	
.22	100	.400 x 1/2	91P22401S2		91P22401S4		91P22491S2		91P22491S4	
	200	.400 x 1/2	91P22402S2		91P22402S4		91P22492S2		91P22492S4	
	300	.562 x 1/2	91P22403S2		91P22403S4		91P22493S2		91P22493S4	
	400	.562 x 1/2	91P22404S2		91P22404S4		91P22494S2		91P22494S4	
	600	.562 x 1/2	91P22406S2		91P22406S4		91P22496S2		91P22496S4	
.33	100	.400 x 1/2	91P33401S2		91P33401S4		91P33491S2		91P33491S4	
	200	.562 x 1/2	91P33402S2		91P33402S4		91P33492S2		91P33492S4	
	300	.562 x 1/2	91P33403S2		91P33403S4		91P33493S2		91P33493S4	
	400	.562 x 1/2	91P33404S2		91P33404S4		91P33494S2		91P33494S4	
	600	.670 x 1/2	91P33406S2		91P33406S4		91P33496S2		91P33496S4	
.47	100	.562 x 1/2	91P47401S2		91P47401S4		91P47491S2		91P47491S4	
	200	.562 x 1/2	91P47402S2		91P47402S4		91P47492S2		91P47492S4	
	300	.562 x 1/2	91P47403S2		91P47403S4		91P47493S2		91P47493S4	
	400	.670 x 1/2	91P47404S2		91P47404S4		91P47494S2		91P47494S4	
	600	.750 x 2 1/2	91P47406S2		91P47406S4		91P47496S2		91P47496S4	
.68	100	.562 x 1/2	91P68401S2		91P68401S4		91P68491S2		91P68491S4	
	200	.562 x 1/2	91P68402S2		91P68402S4		91P68492S2		91P68492S4	
	300	.670 x 1/2	91P68403S2		91P68403S4		91P68493S2		91P68493S4	
	400	.750 x 2 1/2	91P68404S2		91P68404S4		91P68494S2		91P68494S4	
	600	1.000 x 1 1/2	91P68406S2		91P68406S4		91P68496S2		91P68496S4	
1.0	100	.562 x 1/2	91P10501S2		91P10501S4		91P10591S2		91P10591S4	
	200	.670 x 1/2	91P10502S2		91P10502S4		91P10592S2		91P10592S4	
	300	.750 x 2 1/2	91P10503S2		91P10503S4		91P10593S2		91P10593S4	
	400	1.000 x 1 1/2	91P10504S2		91P10504S4		91P10594S2		91P10594S4	

*For Style 4 units add .0625" to diameter and 1/16" to length.

SPRAGUE CAPACITORS

TYPE 96P, INSERTED TAB CONSTRUCTION, 125°C OPERATION

μF	WVDC	Size D. x L.	Capacitance Tolerance ±20%				Capacitance Tolerance ±10%			
			Style 2 (bare metal case)		Style 4 (w/plastic sleeve)*		Style 2 (bare metal case)		Style 4 (w/plastic sleeve)*	
			Cat. No.		Cat. No.		Cat. No.		Cat. No.	
.001	100	.175 x 3/4	96P10201S2		96P10201S4		96P10201S2		96P10201S4	
	200	.235 x 3/4	96P10202S2		96P10202S4		96P10202S2		96P10202S4	
	300	.235 x 3/4	96P10203S2		96P10203S4		96P10203S2		96P10203S4	
	400	.235 x 3/4	96P10204S2		96P10204S4		96P10204S2		96P10204S4	
.0012	600	.235 x 3/4	96P10206S2		96P10206S4		96P10206S2		96P10206S4	
.0015	100	.175 x 3/4	96P15201S2		96P15201S4		96P15201S2		96P15201S4	
	200	.235 x 3/4	96P15202S2		96P15202S4		96P15202S2		96P15202S4	
	300	.235 x 3/4	96P15203S2		96P15203S4		96P15203S2		96P15203S4	
	400	.235 x 3/4	96P15204S2		96P15204S4		96P15204S2		96P15204S4	
.0018	600	.235 x 3/4	96P15206S2		96P15206S4		96P15206S2		96P15206S4	
.0022	100	.175 x 3/4	96P22201S2		96P22201S4		96P22201S2		96P22201S4	
	200	.235 x 3/4	96P22202S2		96P22202S4		96P22202S2		96P22202S4	
	300	.235 x 3/4	96P22203S2		96P22203S4		96P22203S2		96P22203S4	
	400	.235 x 3/4	96P22204S2		96P22204S4		96P22204S2		96P22204S4	
.0027	600	.235 x 3/4	96P22206S2		96P22206S4		96P22206S2		96P22206S4	
.0033	100	.175 x 3/4	96P33201S2		96P33201S4		96P33201S2		96P33201S4	
	200	.235 x 3/4	96P33202S2		96P33202S4		96P33202S2		96P33202S4	
	300	.235 x 3/4	96P33203S2		96P33203S4		96P33203S2		96P33203S4	
	400	.235 x 3/4	96P33204S2		96P33204S4		96P33204S2		96P33204S4	
.0039	600	.235 x 3/4	96P33206S2		96P33206S4		96P33206S2		96P33206S4	
.0047	100	.175 x 3/4	96P47201S2		96P47201S4		96P47201S2		96P47201S4	
	200	.235 x 3/4	96P47202S2		96P47202S4		96P47202S2		96P47202S4	
	300	.235 x 3/4	96P47203S2		96P47203S4		96P47203S2		96P47203S4	
	400	.235 x 3/4	96P47204S2		96P47204S4		96P47204S2		96P47204S4	
.0056	600	.235 x 3/4	96P47206S2		96P47206S4		96P47206S2		96P47206S4	
.0068	100	.175 x 3/4	96P68201S2		96P68201S4		96P68201S2		96P68201S4	
	200	.235 x 3/4	96P68202S2		96P68202S4		96P68202S2		96P68202S4	
	300	.235 x 3/4	96P68203S2		96P68203S4		96P68203S2		96P68203S4	
	400	.235 x 3/4	96P68204S2		96P68204S4		96P68204S2		96P68204S4	
.0082	600	.235 x 3/4	96P68206S2		96P68206S4		96P68206S2		96P68206S4	
.01	400	.400 x 1 1/4	96P10301S2		96P10301S4		96P82294S2		96P82294S4	
	600	.562 x 1 1/4	96P10302S2		96P10302S4		96P82296S2		96P82296S4	
	100	.175 x 3/4	96P10303S2		96P10303S4		96P10391S2		96P10391S4	
	200	.235 x 3/4	96P10304S2		96P10304S4		96P10392S2		96P10392S4	
.012	300	.235 x 3/4	96P10306S2		96P10306S4		96P10393S2		96P10393S4	
.015	400	.235 x 3/4	96P15301S2		96P15301S4		96P10394S2		96P10394S4	
	600	.235 x 3/4	96P15302S2		96P15302S4		96P10395S2		96P10395S4	
	1000	.400 x 1 1/4	96P15303S2		96P15303S4		96P15394S2		96P15394S4	
.018	200	.235 x 3/4	96P15306S2		96P15306S4		96P15395S2		96P15395S4	
	400	.235 x 3/4	96P22301S2		96P22301S4		96P15396S2		96P15396S4	
	600	.235 x 3/4	96P22302S2		96P22302S4		96P15397S2		96P15397S4	
	1000	.400 x 1 1/4	96P22303S2		96P22303S4		96P15398S2		96P15398S4	
.022	200	.235 x 3/4	96P22304S2		96P22304S4		96P15399S2		96P15399S4	
	400	.235 x 3/4	96P22306S2		96P22306S4		96P15400S2		96P15400S4	
	600	.235 x 3/4	96P22308S2		96P22308S4		96P15401S2		96P15401S4	
	1000	.400 x 1 1/4	96P22310S2		96P22310S4		96P15402S2		96P15402S4	
.027	100	.235 x 3/4	96P33301S2		96P33301S4		96P22311S2		96P22311S4	
	200	.235 x 3/4	96P33302S2		96P33302S4		96P22312S2		96P22312S4	
	300	.235 x 3/4	96P33303S2		96P33303S4		96P22313S2		96P22313S4	
	400	.235 x 3/4	96P33304S2		96P33304S4		96P22314S2		96P22314S4	
.033	600	.235 x 3/4	96P33306S2		96P33306S4		96P22315S2		96P22315S4	
	1000	.400 x 1 1/4	96P33308S2		96P33308S4		96P22316S2		96P22316S4	
.039	200	.235 x 3/4	96P47301S2		96P47301S4		96P22317S2		96P22317S4	
	400	.235 x 3/4	96P47302S2		96P47302S4		96P22318S2		96P22318S4	
	600	.235 x 3/4	96P47303S2		96P47303S4		96P22319S2		96P22319S4	
	1000	.400 x 1 1/4	96P47304S2		96P47304S4		96P22320S2		96P22320S4	
.047	200	.235 x 3/4	96P47306S2		96P47306S4		96P22321S2		96P22321S4	
	400	.235 x 3/4	96P47308S2		96P47308S4		96P22322S2		96P22322S4	
	600	.235 x 3/4	96P47310S2		96P47310S4		96P22323S2		96P22323S4	
	1000	.400 x 1 1/4	96P47312S2		96P47312S4		96P22324S2		96P22324S4	
.056	200	.235 x 3/4	96P56392S2		96P56392S4		96P22325S2		96P22325S4	
	400	.235 x 3/4	96P56394S2		96P56394S4		96P22326S2		96P22326S4	
	600	.235 x 3/4	96P56396S2		96P56396S4		96P22327S2		96P22327S4	
	1000	.400 x 1 1/4	96P56398S2		96P56398S4		96P22328S2		96P22328S4	

*For Style 4 units add .0625" to diameter and 1/16" to length.

SPRAGUE CAPACITORS

TYPE 96P, continued

μ F	WVDC	Size D. x L.	Capacitance Tolerance $\pm 20\%$				Capacitance Tolerance $\pm 10\%$			
			Style 2 (bare metal case)		Style 4 (w/ plastic sleeve)*		Style 2 (bare metal case)		Style 4 (w/ plastic sleeve)*	
			Cat. No.		Cat. No.		Cat. No.		Cat. No.	
.068	100	.312 x $\frac{7}{8}$	96P68301S2		96P68301S4		96P68391S2		96P68391S4	
	200	.312 x $\frac{7}{8}$	96P68302S2		96P68302S4		96P68392S2		96P68392S4	
	300	.400 x $\frac{7}{8}$	96P68303S2		96P68303S4		96P68393S2		96P68393S4	
	400	.400 x $1\frac{1}{8}$	96P68304S2		96P68304S4		96P68394S2		96P68394S4	
	600	.400 x $1\frac{1}{8}$	96P68306S2		96P68306S4		96P68396S2		96P68396S4	
	1000	.562 x $1\frac{1}{8}$					96P683910S2		96P683910S4	
.082	100	.312 x $\frac{7}{8}$					96P82391S2		96P82391S4	
	200	.400 x $\frac{7}{8}$					96P82392S2		96P82392S4	
	400	.400 x $1\frac{1}{8}$					96P82394S2		96P82394S4	
	600	.562 x $1\frac{1}{8}$					96P82396S2		96P82396S4	
	1000	.562 x $1\frac{1}{8}$					96P823910S2		96P823910S4	
	100	.312 x $\frac{7}{8}$	96P10401S2		96P10401S4		96P10491S2		96P10491S4	
.1	200	.400 x $\frac{7}{8}$	96P10402S2		96P10402S4		96P10492S2		96P10492S4	
	300	.400 x $1\frac{1}{8}$	96P10403S2		96P10403S4		96P10493S2		96P10493S4	
	400	.400 x $1\frac{1}{8}$	96P10404S2		96P10404S4		96P10494S2		96P10494S4	
	600	.562 x $1\frac{1}{8}$	96P10406S2		96P10406S4		96P10496S2		96P10496S4	
	1000	.562 x $1\frac{1}{8}$					96P104910S2		96P104910S4	
	100	.400 x $1\frac{1}{8}$					96P12491S2		96P12491S4	
.12	200	.400 x $1\frac{1}{8}$					96P12492S2		96P12492S4	
	400	.562 x $1\frac{1}{8}$					96P12494S2		96P12494S4	
	600	.562 x $1\frac{1}{8}$					96P12496S2		96P12496S4	
	1000	.670 x $1\frac{1}{8}$					96P124910S2		96P124910S4	
	100	.400 x $\frac{7}{8}$	96P15491S2		96P15491S4		96P15491S2		96P15491S4	
	200	.400 x $1\frac{1}{8}$	96P15492S2		96P15492S4		96P15492S2		96P15492S4	
.15	300	.400 x $1\frac{1}{8}$	96P15493S2		96P15493S4		96P15493S2		96P15493S4	
	400	.562 x $1\frac{1}{8}$	96P15494S2		96P15494S4		96P15494S2		96P15494S4	
	600	.562 x $1\frac{1}{8}$	96P15496S2		96P15496S4		96P15496S2		96P15496S4	
	1000	.670 x $1\frac{1}{8}$					96P154910S2		96P154910S4	
	100	.400 x $1\frac{1}{8}$					96P18491S2		96P18491S4	
	200	.400 x $1\frac{1}{8}$					96P18492S2		96P18492S4	
.18	400	.562 x $1\frac{1}{8}$					96P18494S2		96P18494S4	
	600	.562 x $1\frac{1}{8}$					96P18496S2		96P18496S4	
	1000	.750 x $2\frac{1}{8}$					96P184910S2		96P184910S4	
	100	.400 x $1\frac{1}{8}$	96P22401S2		96P22401S4		96P22491S2		96P22491S4	
	200	.400 x $1\frac{1}{8}$	96P22402S2		96P22402S4		96P22492S2		96P22492S4	
	300	.562 x $1\frac{1}{8}$	96P22403S2		96P22403S4		96P22493S2		96P22493S4	
.22	400	.562 x $1\frac{1}{8}$	96P22404S2		96P22404S4		96P22494S2		96P22494S4	
	600	.562 x $1\frac{1}{8}$	96P22406S2		96P22406S4		96P22496S2		96P22496S4	
	1000	.750 x $2\frac{1}{8}$					96P224910S2		96P224910S4	
	100	.400 x $1\frac{1}{8}$					96P27491S2		96P27491S4	
	200	.562 x $1\frac{1}{8}$					96P27492S2		96P27492S4	
	400	.562 x $1\frac{1}{8}$					96P27494S2		96P27494S4	
.27	600	.562 x $1\frac{1}{8}$					96P27496S2		96P27496S4	
	1000	.750 x $2\frac{1}{8}$					96P274910S2		96P274910S4	
	100	.400 x $1\frac{1}{8}$	96P33401S2		96P33401S4		96P33491S2		96P33491S4	
	200	.562 x $1\frac{1}{8}$	96P33402S2		96P33402S4		96P33492S2		96P33492S4	
	300	.562 x $1\frac{1}{8}$	96P33403S2		96P33403S4		96P33493S2		96P33493S4	
	400	.562 x $1\frac{1}{8}$	96P33404S2		96P33404S4		96P33494S2		96P33494S4	
.33	600	.670 x $1\frac{1}{8}$	96P33406S2		96P33406S4		96P33496S2		96P33496S4	
	1000	.750 x $2\frac{1}{8}$					96P334910S2		96P334910S4	
	100	.562 x $1\frac{1}{8}$					96P39491S2		96P39491S4	
	200	.562 x $1\frac{1}{8}$					96P39492S2		96P39492S4	
	400	.670 x $1\frac{1}{8}$					96P39494S2		96P39494S4	
	600	.750 x $2\frac{1}{8}$					96P39496S2		96P39496S4	
.39	1000	1.000 x $2\frac{1}{8}$					96P394910S2		96P394910S4	
	100	.562 x $1\frac{1}{8}$	96P47401S2		96P47401S4		96P47491S2		96P47491S4	
	200	.562 x $1\frac{1}{8}$	96P47402S2		96P47402S4		96P47492S2		96P47492S4	
	300	.562 x $1\frac{1}{8}$	96P47403S2		96P47403S4		96P47493S2		96P47493S4	
	400	.670 x $1\frac{1}{8}$	96P47404S2		96P47404S4		96P47494S2		96P47494S4	
	600	.750 x $2\frac{1}{8}$	96P47406S2		96P47406S4		96P47496S2		96P47496S4	
.47	1000	1.000 x $2\frac{1}{8}$					96P474910S2		96P474910S4	
	100	.562 x $1\frac{1}{8}$					96P56491S2		96P56491S4	
	200	.562 x $1\frac{1}{8}$					96P56492S2		96P56492S4	
	400	.750 x $2\frac{1}{8}$					96P56494S2		96P56494S4	
	600	1.000 x $1\frac{1}{8}$					96P56496S2		96P56496S4	
	100	.562 x $1\frac{1}{8}$	96P68401S2		96P68401S4		96P68491S2		96P68491S4	
.56	200	.562 x $1\frac{1}{8}$	96P68402S2		96P68402S4		96P68492S2		96P68492S4	
	300	.670 x $1\frac{1}{8}$	96P68403S2		96P68403S4		96P68493S2		96P68493S4	
	400	.750 x $2\frac{1}{8}$	96P68404S2		96P68404S4		96P68494S2		96P68494S4	
	600	1.000 x $1\frac{1}{8}$	96P68406S2		96P68406S4		96P68496S2		96P68496S4	
	100	.562 x $1\frac{1}{8}$					96P82491S2		96P82491S4	
	200	.670 x $1\frac{1}{8}$					96P82492S2		96P82492S4	
.68	400	1.000 x $1\frac{1}{8}$					96P82494S2		96P82494S4	
	100	.562 x $1\frac{1}{8}$	96P10501S2		96P10501S4		96P10591S2		96P10591S4	
	200	.670 x $1\frac{1}{8}$	96P10502S2		96P10502S4		96P10592S2		96P10592S4	
	300	.750 x $2\frac{1}{8}$	96P10503S2		96P10503S4		96P10593S2		96P10593S4	
	400	1.000 x $1\frac{1}{8}$	96P10504S2		96P10504S4		96P10594S2		96P10594S4	
	100	.562 x $1\frac{1}{8}$								
.82	200	.670 x $1\frac{1}{8}$								
	400	1.000 x $1\frac{1}{8}$								
	100	.562 x $1\frac{1}{8}$								
	200	.670 x $1\frac{1}{8}$								
	400	1.000 x $1\frac{1}{8}$								
	100	.562 x $1\frac{1}{8}$								
1.0	200	.670 x $1\frac{1}{8}$								
	400	1.000 x $1\frac{1}{8}$								
	100	.562 x $1\frac{1}{8}$								
	200	.670 x $1\frac{1}{8}$								
	400	1.000 x $1\frac{1}{8}$								
	100	.562 x $1\frac{1}{8}$								

CALL YOUR SPRAGUE INDUSTRIAL DISTRIBUTOR FOR CURRENT QUANTITY PRICES

CALL YOUR SPRAGUE INDUSTRIAL DISTRIBUTOR FOR CURRENT QUANTITY PRICES

CALL YOUR SPRAGUE INDUSTRIAL DISTRIBUTOR FOR CURRENT QUANTITY PRICES

CALL YOUR SPRAGUE INDUSTRIAL DISTRIBUTOR FOR CURRENT QUANTITY PRICES

*For Style 4 units add .0625" to diameter and $\frac{1}{8}$ " to length.

SPRAGUE CAPACITORS

TYPE 191P, EXTENDED FOIL CONSTRUCTION, 85°C OPERATION

μF	WVDC	Size D. x L.	Capacitance Tolerance ±20%				Capacitance Tolerance ±10%			
			Style 2 (bare metal case)		Style 4 (w/plastic sleeve*)		Style 2 (bare metal case)		Style 4 (w/plastic sleeve*)	
			Cat. No.	CALL YOUR SPRAGUE INDUSTRIAL DISTRIBUTOR FOR CURRENT QUANTITY PRICES	Cat. No.	CALL YOUR SPRAGUE INDUSTRIAL DISTRIBUTOR FOR CURRENT QUANTITY PRICES	Cat. No.	CALL YOUR SPRAGUE INDUSTRIAL DISTRIBUTOR FOR CURRENT QUANTITY PRICES	Cat. No.	CALL YOUR SPRAGUE INDUSTRIAL DISTRIBUTOR FOR CURRENT QUANTITY PRICES
.001	100	.175 x 3/4	191P10201S2		191P10201S4		191P10291S2		191P10291S4	
	200	.235 x 3/4	191P10202S2		191P10202S4		191P10292S2		191P10292S4	
	300	.235 x 3/4	191P10203S2		191P10203S4		191P10293S2		191P10293S4	
	400	.235 x 3/4	191P10204S2		191P10204S4		191P10294S2		191P10294S4	
	600	.235 x 3/4	191P10206S2		191P10206S4		191P10296S2		191P10296S4	
.0015	100	.175 x 3/4	191P15201S2		191P15201S4		191P15291S2		191P15291S4	
	200	.235 x 3/4	191P15202S2		191P15202S4		191P15292S2		191P15292S4	
	300	.235 x 3/4	191P15203S2		191P15203S4		191P15293S2		191P15293S4	
	400	.235 x 3/4	191P15204S2		191P15204S4		191P15294S2		191P15294S4	
	600	.235 x 3/4	191P15206S2		191P15206S4		191P15296S2		191P15296S4	
.0022	100	.175 x 3/4	191P22201S2		191P22201S4		191P22291S2		191P22291S4	
	200	.235 x 3/4	191P22202S2		191P22202S4		191P22292S2		191P22292S4	
	300	.235 x 3/4	191P22203S2		191P22203S4		191P22293S2		191P22293S4	
	400	.235 x 3/4	191P22204S2		191P22204S4		191P22294S2		191P22294S4	
	600	.235 x 3/4	191P22206S2		191P22206S4		191P22296S2		191P22296S4	
.0033	100	.175 x 3/4	191P33201S2		191P33201S4		191P33291S2		191P33291S4	
	200	.235 x 3/4	191P33202S2		191P33202S4		191P33292S2		191P33292S4	
	300	.235 x 3/4	191P33203S2		191P33203S4		191P33293S2		191P33293S4	
	400	.235 x 3/4	191P33204S2		191P33204S4		191P33294S2		191P33294S4	
	600	.235 x 3/4	191P33206S2		191P33206S4		191P33296S2		191P33296S4	
.0047	100	.175 x 3/4	191P47201S2		191P47201S4		191P47291S2		191P47291S4	
	200	.235 x 3/4	191P47202S2		191P47202S4		191P47292S2		191P47292S4	
	300	.235 x 3/4	191P47203S2		191P47203S4		191P47293S2		191P47293S4	
	400	.235 x 3/4	191P47204S2		191P47204S4		191P47294S2		191P47294S4	
	600	.235 x 3/4	191P47206S2		191P47206S4		191P47296S2		191P47296S4	
.0068	100	.175 x 3/4	191P68201S2		191P68201S4		191P68291S2		191P68291S4	
	200	.235 x 3/4	191P68202S2		191P68202S4		191P68292S2		191P68292S4	
	300	.235 x 3/4	191P68203S2		191P68203S4		191P68293S2		191P68293S4	
	400	.235 x 3/4	191P68204S2		191P68204S4		191P68294S2		191P68294S4	
	600	.235 x 3/4	191P68206S2		191P68206S4		191P68296S2		191P68296S4	
.01	100	.175 x 3/4	191P10301S2		191P10301S4		191P10391S2		191P10391S4	
	200	.235 x 3/4	191P10302S2		191P10302S4		191P10392S2		191P10392S4	
	300	.235 x 3/4	191P10303S2		191P10303S4		191P10393S2		191P10393S4	
	400	.235 x 3/4	191P10304S2		191P10304S4		191P10394S2		191P10394S4	
	600	.312 x 7/8	191P10306S2		191P10306S4		191P10396S2		191P10396S4	
.015	100	.175 x 3/4	191P15301S2		191P15301S4		191P15391S2		191P15391S4	
	200	.235 x 3/4	191P15302S2		191P15302S4		191P15392S2		191P15392S4	
	300	.235 x 3/4	191P15303S2		191P15303S4		191P15393S2		191P15393S4	
	400	.312 x 7/8	191P15304S2		191P15304S4		191P15394S2		191P15394S4	
	600	.312 x 7/8	191P15306S2		191P15306S4		191P15396S2		191P15396S4	
.022	100	.195 x 3/4	191P22301S2		191P22301S4		191P22391S2		191P22391S4	
	200	.235 x 3/4	191P22302S2		191P22302S4		191P22392S2		191P22392S4	
	300	.312 x 7/8	191P22303S2		191P22303S4		191P22393S2		191P22393S4	
	400	.312 x 7/8	191P22304S2		191P22304S4		191P22394S2		191P22394S4	
	600	.312 x 7/8	191P22306S2		191P22306S4		191P22396S2		191P22396S4	

*For Style 4 units add .0625" to diameter and 1/8" to length

SPRAGUE CAPACITORS

TYPE 191P, continued

μF	WVDC	Size D. x L.	Capacitance Tolerance ±20%				Capacitance Tolerance ±10%			
			Style 2 (bare metal case)		Style 4 (w/plastic sleeve*)		Style 2 (bare metal case)		Style 4 (w/plastic sleeve*)	
			Cat. No.	CALL YOUR SPRAGUE INDUSTRIAL DISTRIBUTOR FOR CURRENT QUANTITY PRICES	Cat. No.	CALL YOUR SPRAGUE INDUSTRIAL DISTRIBUTOR FOR CURRENT QUANTITY PRICES	Cat. No.	CALL YOUR SPRAGUE INDUSTRIAL DISTRIBUTOR FOR CURRENT QUANTITY PRICES	Cat. No.	CALL YOUR SPRAGUE INDUSTRIAL DISTRIBUTOR FOR CURRENT QUANTITY PRICES
.033	100	.235 x 3/4	191P33301S2		191P33301S4		191P33391S2		191P33391S4	
	200	.312 x 3/4	191P33302S2		191P33302S4		191P33392S2		191P33392S4	
	300	.312 x 7/8	191P33303S2		191P33303S4		191P33393S2		191P33393S4	
	400	.312 x 7/8	191P33304S2		191P33304S4		191P33394S2		191P33394S4	
	600	.400 x 7/8	191P33306S2		191P33306S4		191P33396S2		191P33396S4	
.047	100	.312 x 7/8	191P47301S2	CALL YOUR SPRAGUE INDUSTRIAL DISTRIBUTOR FOR CURRENT QUANTITY PRICES	191P47301S4	CALL YOUR SPRAGUE INDUSTRIAL DISTRIBUTOR FOR CURRENT QUANTITY PRICES	191P47391S2	CALL YOUR SPRAGUE INDUSTRIAL DISTRIBUTOR FOR CURRENT QUANTITY PRICES	191P47391S4	CALL YOUR SPRAGUE INDUSTRIAL DISTRIBUTOR FOR CURRENT QUANTITY PRICES
	200	.312 x 7/8	191P47302S2		191P47302S4		191P47392S2		191P47392S4	
	300	.312 x 7/8	191P47303S2		191P47303S4		191P47393S2		191P47393S4	
	400	.400 x 7/8	191P47304S2		191P47304S4		191P47394S2		191P47394S4	
	600	.400 x 1 1/4	191P47306S2		191P47306S4		191P47396S2		191P47396S4	
.068	100	.312 x 7/8	191P68301S2	CALL YOUR SPRAGUE INDUSTRIAL DISTRIBUTOR FOR CURRENT QUANTITY PRICES	191P68301S4	CALL YOUR SPRAGUE INDUSTRIAL DISTRIBUTOR FOR CURRENT QUANTITY PRICES	191P68391S2	CALL YOUR SPRAGUE INDUSTRIAL DISTRIBUTOR FOR CURRENT QUANTITY PRICES	191P68391S4	CALL YOUR SPRAGUE INDUSTRIAL DISTRIBUTOR FOR CURRENT QUANTITY PRICES
	200	.312 x 7/8	191P68302S2		191P68302S4		191P68392S2		191P68392S4	
	300	.400 x 7/8	191P68303S2		191P68303S4		191P68393S2		191P68393S4	
	400	.400 x 1 1/4	191P68304S2		191P68304S4		191P68394S2		191P68394S4	
	600	.400 x 1 1/4	191P68306S2		191P68306S4		191P68396S2		191P68396S4	
.1	100	.312 x 7/8	191P10401S2	CALL YOUR SPRAGUE INDUSTRIAL DISTRIBUTOR FOR CURRENT QUANTITY PRICES	191P10401S4	CALL YOUR SPRAGUE INDUSTRIAL DISTRIBUTOR FOR CURRENT QUANTITY PRICES	191P10491S2	CALL YOUR SPRAGUE INDUSTRIAL DISTRIBUTOR FOR CURRENT QUANTITY PRICES	191P10491S4	CALL YOUR SPRAGUE INDUSTRIAL DISTRIBUTOR FOR CURRENT QUANTITY PRICES
	200	.400 x 7/8	191P10402S2		191P10402S4		191P10492S2		191P10492S4	
	300	.400 x 1 1/4	191P10403S2		191P10403S4		191P10493S2		191P10493S4	
	400	.400 x 1 1/4	191P10404S2		191P10404S4		191P10494S2		191P10494S4	
	600	.562 x 1 1/4	191P10406S2		191P10406S4		191P10496S2		191P10496S4	
.15	100	.400 x 7/8	191P15401S2	CALL YOUR SPRAGUE INDUSTRIAL DISTRIBUTOR FOR CURRENT QUANTITY PRICES	191P15401S4	CALL YOUR SPRAGUE INDUSTRIAL DISTRIBUTOR FOR CURRENT QUANTITY PRICES	191P15491S2	CALL YOUR SPRAGUE INDUSTRIAL DISTRIBUTOR FOR CURRENT QUANTITY PRICES	191P15491S4	CALL YOUR SPRAGUE INDUSTRIAL DISTRIBUTOR FOR CURRENT QUANTITY PRICES
	200	.400 x 1 1/4	191P15402S2		191P15402S4		191P15492S2		191P15492S4	
	300	.400 x 1 1/4	191P15403S2		191P15403S4		191P15493S2		191P15493S4	
	400	.562 x 1 1/4	191P15404S2		191P15404S4		191P15494S2		191P15494S4	
	600	.562 x 1 1/4	191P15406S2		191P15406S4		191P15496S2		191P15496S4	
.22	100	.400 x 1 1/4	191P22401S2	CALL YOUR SPRAGUE INDUSTRIAL DISTRIBUTOR FOR CURRENT QUANTITY PRICES	191P22401S4	CALL YOUR SPRAGUE INDUSTRIAL DISTRIBUTOR FOR CURRENT QUANTITY PRICES	191P22491S2	CALL YOUR SPRAGUE INDUSTRIAL DISTRIBUTOR FOR CURRENT QUANTITY PRICES	191P22491S4	CALL YOUR SPRAGUE INDUSTRIAL DISTRIBUTOR FOR CURRENT QUANTITY PRICES
	200	.400 x 1 1/4	191P22402S2		191P22402S4		191P22492S2		191P22492S4	
	300	.562 x 1 1/4	191P22403S2		191P22403S4		191P22493S2		191P22493S4	
	400	.562 x 1 1/4	191P22404S2		191P22404S4		191P22494S2		191P22494S4	
	600	.562 x 1 1/4	191P22406S2		191P22406S4		191P22496S2		191P22496S4	
.33	100	.400 x 1 1/4	191P33401S2	CALL YOUR SPRAGUE INDUSTRIAL DISTRIBUTOR FOR CURRENT QUANTITY PRICES	191P33401S4	CALL YOUR SPRAGUE INDUSTRIAL DISTRIBUTOR FOR CURRENT QUANTITY PRICES	191P33491S2	CALL YOUR SPRAGUE INDUSTRIAL DISTRIBUTOR FOR CURRENT QUANTITY PRICES	191P33491S4	CALL YOUR SPRAGUE INDUSTRIAL DISTRIBUTOR FOR CURRENT QUANTITY PRICES
	200	.562 x 1 1/4	191P33402S2		191P33402S4		191P33492S2		191P33492S4	
	300	.562 x 1 1/4	191P33403S2		191P33403S4		191P33493S2		191P33493S4	
	400	.562 x 1 1/4	191P33404S2		191P33404S4		191P33494S2		191P33494S4	
	600	.670 x 1 1/4	191P33406S2		191P33406S4		191P33496S2		191P33496S4	
.47	100	.562 x 1 1/4	191P47401S2	CALL YOUR SPRAGUE INDUSTRIAL DISTRIBUTOR FOR CURRENT QUANTITY PRICES	191P47401S4	CALL YOUR SPRAGUE INDUSTRIAL DISTRIBUTOR FOR CURRENT QUANTITY PRICES	191P47491S2	CALL YOUR SPRAGUE INDUSTRIAL DISTRIBUTOR FOR CURRENT QUANTITY PRICES	191P47491S4	CALL YOUR SPRAGUE INDUSTRIAL DISTRIBUTOR FOR CURRENT QUANTITY PRICES
	200	.562 x 1 1/4	191P47402S2		191P47402S4		191P47492S2		191P47492S4	
	300	.562 x 1 1/4	191P47403S2		191P47403S4		191P47493S2		191P47493S4	
	400	.670 x 1 1/4	191P47404S2		191P47404S4		191P47494S2		191P47494S4	
	600	.750 x 2 1/4	191P47406S2		191P47406S4		191P47496S2		191P47496S4	
.68	100	.562 x 1 1/4	191P68401S2	CALL YOUR SPRAGUE INDUSTRIAL DISTRIBUTOR FOR CURRENT QUANTITY PRICES	191P68401S4	CALL YOUR SPRAGUE INDUSTRIAL DISTRIBUTOR FOR CURRENT QUANTITY PRICES	191P68491S2	CALL YOUR SPRAGUE INDUSTRIAL DISTRIBUTOR FOR CURRENT QUANTITY PRICES	191P68491S4	CALL YOUR SPRAGUE INDUSTRIAL DISTRIBUTOR FOR CURRENT QUANTITY PRICES
	200	.562 x 1 1/4	191P68402S2		191P68402S4		191P68492S2		191P68492S4	
	300	.670 x 1 1/4	191P68403S2		191P68403S4		191P68493S2		191P68493S4	
1.0	100	.562 x 1 1/4	191P10501S2	CALL YOUR SPRAGUE INDUSTRIAL DISTRIBUTOR FOR CURRENT QUANTITY PRICES	191P10501S4	CALL YOUR SPRAGUE INDUSTRIAL DISTRIBUTOR FOR CURRENT QUANTITY PRICES	191P10591S2	CALL YOUR SPRAGUE INDUSTRIAL DISTRIBUTOR FOR CURRENT QUANTITY PRICES	191P10591S4	CALL YOUR SPRAGUE INDUSTRIAL DISTRIBUTOR FOR CURRENT QUANTITY PRICES
	200	.670 x 1 1/4	191P10502S2		191P10502S4		191P10592S2		191P10592S4	

For Style 4 units add .0625" to diameter and 1/16" to length

SPRAGUE CAPACITORS

TYPE 196P, EXTENDED FOIL CONSTRUCTION, 125°C OPERATION

μF	WVDC	Size D. x L.	Capacitance Tolerance ±20%				Capacitance Tolerance ±10%			
			Style 2 (bare metal case)		Style 4 (w. plastic sleeve*)		Style 2 (bare metal case)		Style 4 (w. plastic sleeve)	
			Cat. No.		Cat. No.		Cat. No.		Cat. No.	
.001	100	.175 x 3/4	196P10201S2		196P10201S4		196P10291S2		196P10291S4	
	200	.235 x 3/4	196P10202S2		196P10202S4		196P10292S2		196P10292S4	
	300	.235 x 3/4	196P10203S2		196P10203S4		196P10293S2		196P10293S4	
	400	.235 x 3/4	196P10204S2		196P10204S4		196P10294S2		196P10294S4	
	1000	.400 x 13/16	196P10206S2		196P10206S4		196P10296S2		196P10296S4	
.001	600	.235 x 11/16	—		—		196P12296S2		196P12296S4	
	1000	.400 x 13/16	—		—		196P122910S2		196P122810S4	
.0015	100	.175 x 3/4	196P15201S2		196P15201S4		196P15291S2		196P15291S4	
	200	.235 x 3/4	196P15202S2		196P15202S4		196P15292S2		196P15292S4	
	300	.235 x 3/4	196P15203S2		196P15203S4		196P15293S2		196P15293S4	
	400	.235 x 3/4	196P15204S2		196P15204S4		196P15294S2		196P15294S4	
	1000	.400 x 13/16	196P15206S2		196P15206S4		196P15296S2		196P15296S4	
.0018	600	.235 x 11/16	—		—		196P152910S2		196P152910S4	
	1000	.400 x 13/16	—		—		196P18296S2		196P18296S4	
.0022	100	.175 x 3/4	196P22201S2		196P22201S4		196P22291S2		196P22291S4	
	200	.235 x 3/4	196P22202S2		196P22202S4		196P22292S2		196P22292S4	
	300	.235 x 3/4	196P22203S2		196P22203S4		196P22293S2		196P22293S4	
	400	.235 x 3/4	196P22204S2		196P22204S4		196P22294S2		196P22294S4	
	1000	.400 x 13/16	196P22206S2		196P22206S4		196P22296S2		196P22296S4	
.0027	400	.312 x 13/16	—		—		196P222910S2		196P222910S4	
	600	.235 x 11/16	—		—		196P27296S2		196P27296S4	
.0033	100	.175 x 3/4	196P33201S2		196P33201S4		196P33291S2		196P33291S4	
	200	.235 x 3/4	196P33202S2		196P33202S4		196P33292S2		196P33292S4	
	300	.235 x 3/4	196P33203S2		196P33203S4		196P33293S2		196P33293S4	
	400	.235 x 3/4	196P33204S2		196P33204S4		196P33294S2		196P33294S4	
	1000	.400 x 13/16	196P33206S2		196P33206S4		196P33296S2		196P33296S4	
.0039	600	.235 x 11/16	—		—		196P332910S2		196P332910S4	
	1000	.400 x 13/16	—		—		196P39296S2		196P39296S4	
.0047	100	.175 x 3/4	196P47201S2		196P47201S4		196P47291S2		196P47291S4	
	200	.235 x 3/4	196P47202S2		196P47202S4		196P47292S2		196P47292S4	
	300	.235 x 3/4	196P47203S2		196P47203S4		196P47293S2		196P47293S4	
	400	.235 x 3/4	196P47204S2		196P47204S4		196P47294S2		196P47294S4	
	1000	.400 x 13/16	196P47206S2		196P47206S4		196P47296S2		196P47296S4	
.0056	600	.235 x 11/16	—		—		196P472910S2		196P472910S4	
	1000	.400 x 13/16	—		—		196P56296S2		196P56296S4	
.0068	100	.175 x 3/4	196P68201S2		196P68201S4		196P68291S2		196P68291S4	
	200	.235 x 3/4	196P68202S2		196P68202S4		196P68292S2		196P68292S4	
	300	.235 x 3/4	196P68203S2		196P68203S4		196P68293S2		196P68293S4	
	400	.235 x 3/4	196P68204S2		196P68204S4		196P68294S2		196P68294S4	
	1000	.400 x 13/16	196P68206S2		196P68206S4		196P68296S2		196P68296S4	
.0082	600	.235 x 11/16	—		—		196P682910S2		196P682910S4	
	1000	.400 x 13/16	—		—		196P82296S2		196P82296S4	
.01	100	.175 x 3/4	196P10301S2		196P10301S4		196P10391S2		196P10391S4	
	200	.235 x 3/4	196P10302S2		196P10302S4		196P10392S2		196P10392S4	
	300	.235 x 3/4	196P10303S2		196P10303S4		196P10393S2		196P10393S4	
	400	.235 x 3/4	196P10304S2		196P10304S4		196P10394S2		196P10394S4	
	1000	.400 x 13/16	196P10306S2		196P10306S4		196P10396S2		196P10396S4	
.012	600	.235 x 11/16	—		—		196P103910S2		196P103910S4	
	1000	.400 x 13/16	—		—		196P12396S2		196P12396S4	
.015	100	.175 x 3/4	196P15301S2		196P15301S4		196P15391S2		196P15391S4	
	200	.235 x 3/4	196P15302S2		196P15302S4		196P15392S2		196P15392S4	
	300	.235 x 3/4	196P15303S2		196P15303S4		196P15393S2		196P15393S4	
	400	.312 x 7/8	196P15304S2		196P15304S4		196P15394S2		196P15394S4	
	1000	.400 x 13/16	196P15306S2		196P15306S4		196P15396S2		196P15396S4	
.018	600	.235 x 11/16	—		—		196P153910S2		196P153910S4	
	1000	.400 x 13/16	—		—		196P18396S2		196P18396S4	
.022	100	.195 x 3/4	196P22301S2		196P22301S4		196P22391S2		196P22391S4	
	200	.235 x 3/4	196P22302S2		196P22302S4		196P22392S2		196P22392S4	
	300	.312 x 7/8	196P22303S2		196P22303S4		196P22393S2		196P22393S4	
	400	.312 x 7/8	196P22304S2		196P22304S4		196P22394S2		196P22394S4	
	1000	.400 x 13/16	196P22306S2		196P22306S4		196P22396S2		196P22396S4	
.027	600	.312 x 13/16	—		—		196P223910S2		196P223910S4	
	1000	.400 x 13/16	—		—		196P27396S2		196P27396S4	
.033	100	.400 x 13/16	196P33301S2		196P33301S4		196P33391S2		196P33391S4	
	200	.562 x 1 1/8	196P33302S2		196P33302S4		196P33392S2		196P33392S4	
	300	.562 x 1 1/8	196P33303S2		196P33303S4		196P33393S2		196P33393S4	
	400	.562 x 1 1/8	196P33304S2		196P33304S4		196P33394S2		196P33394S4	
	1000	.400 x 13/16	196P33306S2		196P33306S4		196P33396S2		196P33396S4	

*For Style 4 units add .0625" to diameter and 1/16" to length.

SPRAGUE CAPACITORS

TYPE 196P, continued

μF	WVDC	Size D. x L.	Capacitance Tolerance ±20%		Capacitance Tolerance ±10%	
			Style 2 (bare metal case)	Style 4 (w/plastic sleeve*)	Style 2 (bare metal case)	Style 4 (w/plastic sleeve*)
			Cat. No.	Cat. No.	Cat. No.	Cat. No.
.039	100	.312 x 1 1/16	—	—	196P3939152	196P3939154
	200	.312 x 1 1/16	—	—	196P3939252	196P3939254
	400	.400 x 1 1/16	—	—	196P3939452	196P3939454
	600	.400 x 1 1/16	—	—	196P3939652	196P3939654
	1000	.562 x 1 1/16	—	—	196P39391052	196P39391054
.047	100	.312 x 7/8	196P4730152	196P4730154	196P4739152	196P4739154
	200	.312 x 7/8	196P4730252	196P4730254	196P4739252	196P4739254
	300	.312 x 7/8	196P4730352	196P4730354	196P4739352	196P4739354
	400	.400 x 7/8	196P4730452	196P4730454	196P4739452	196P4739454
	1000	.562 x 1 1/16	196P4730652	196P4730654	196P4739652	196P4739654
.056	200	.312 x 1 1/16	—	—	196P5639252	196P5639254
	400	.400 x 1 1/16	—	—	196P5639452	196P5639454
	600	.400 x 1 1/16	—	—	196P5639652	196P5639654
	1000	.562 x 1 1/16	—	—	196P56391052	196P56391054
.068	100	.312 x 7/8	196P6830152	196P6830154	196P6839152	196P6839154
	200	.312 x 7/8	196P6830252	196P6830254	196P6839252	196P6839254
	300	.400 x 7/8	196P6830352	196P6830354	196P6839352	196P6839354
	400	.400 x 1 1/16	196P6830452	196P6830454	196P6839452	196P6839454
	1000	.562 x 1 1/16	196P6830652	196P6830654	196P6839652	196P6839654
.082	100	.312 x 1 1/16	—	—	196P8239152	196P8239154
	200	.400 x 1 1/16	—	—	196P8239252	196P8239254
	400	.400 x 1 1/16	—	—	196P8239452	196P8239454
	600	.562 x 1 1/16	—	—	196P8239652	196P8239654
	1000	.562 x 1 1/16	—	—	196P82391052	196P82391054
.1	100	.312 x 7/8	196P1040152	196P1040154	196P1049152	196P1049154
	200	.400 x 7/8	196P1040252	196P1040254	196P1049252	196P1049254
	300	.400 x 1 1/16	196P1040352	196P1040354	196P1049352	196P1049354
	400	.400 x 1 1/16	196P1040452	196P1040454	196P1049452	196P1049454
	1000	.562 x 1 1/16	196P1040652	196P1040654	196P1049652	196P1049654
.12	100	.400 x 1 1/16	—	—	196P1249152	196P1249154
	200	.400 x 1 1/16	—	—	196P1249252	196P1249254
	400	.562 x 1 1/16	—	—	196P1249452	196P1249454
	600	.562 x 1 1/16	—	—	196P1249652	196P1249654
	1000	.670 x 1 1/16	—	—	196P12491052	196P12491054
.15	100	.400 x 7/8	196P1540152	196P1540154	196P1549152	196P1549154
	200	.400 x 1 1/16	196P1540252	196P1540254	196P1549252	196P1549254
	300	.400 x 1 1/16	196P1540352	196P1540354	196P1549352	196P1549354
	400	.562 x 1 1/16	196P1540452	196P1540454	196P1549452	196P1549454
	1000	.670 x 1 1/16	196P1540652	196P1540654	196P1549652	196P1549654
.18	100	.400 x 1 1/16	—	—	196P1849152	196P1849154
	200	.400 x 1 1/16	—	—	196P1849252	196P1849254
	400	.562 x 1 1/16	—	—	196P1849452	196P1849454
	600	.562 x 1 1/16	—	—	196P1849652	196P1849654
	1000	.750 x 2 1/16	—	—	196P18491052	196P18491054
.22	100	.400 x 1 1/16	196P2240152	196P2240154	196P2249152	196P2249154
	200	.400 x 1 1/16	196P2240252	196P2240254	196P2249252	196P2249254
	300	.562 x 1 1/16	196P2240352	196P2240354	196P2249352	196P2249354
	400	.562 x 1 1/16	196P2240452	196P2240454	196P2249452	196P2249454
	1000	.750 x 2 1/16	196P2240652	196P2240654	196P2249652	196P2249654
.27	100	.400 x 1 1/16	—	—	196P2749152	196P2749154
	200	.562 x 1 1/16	—	—	196P2749252	196P2749254
	400	.562 x 1 1/16	—	—	196P2749452	196P2749454
	600	.670 x 1 1/16	—	—	196P2749652	196P2749654
	1000	.750 x 2 1/16	—	—	196P27491052	196P27491054
.33	100	.400 x 1 1/16	196P3340152	196P3340154	196P3349152	196P3349154
	200	.562 x 1 1/16	196P3340252	196P3340254	196P3349252	196P3349254
	300	.562 x 1 1/16	196P3340352	196P3340354	196P3349352	196P3349354
	400	.562 x 1 1/16	196P3340452	196P3340454	196P3349452	196P3349454
	1000	.750 x 2 1/16	196P3340652	196P3340654	196P3349652	196P3349654
.39	100	.562 x 1 1/16	—	—	196P3949152	196P3949154
	200	.562 x 1 1/16	—	—	196P3949252	196P3949254
	400	.670 x 1 1/16	—	—	196P3949452	196P3949454
	600	.750 x 2 1/16	—	—	196P3949652	196P3949654
	1000	1.000 x 2 1/16	—	—	196P39491052	196P39491054
.47	100	.562 x 1 1/16	196P4740152	196P4740154	196P4749152	196P4749154
	200	.562 x 1 1/16	196P4740252	196P4740254	196P4749252	196P4749254
	300	.562 x 1 1/16	196P4740352	196P4740354	196P4749352	196P4749354
	400	.670 x 1 1/16	196P4740452	196P4740454	196P4749452	196P4749454
	1000	.750 x 2 1/16	196P4740652	196P4740654	196P4749652	196P4749654
.56	100	.562 x 1 1/16	—	—	196P5649152	196P5649154
	200	.670 x 1 1/16	—	—	196P5649252	196P5649254
	300	.562 x 1 1/16	196P6840152	196P6840154	196P6849152	196P6849154
	400	.562 x 1 1/16	196P6840252	196P6840254	196P6849252	196P6849254
	1000	.750 x 2 1/16	196P6840352	196P6840354	196P6849352	196P6849354
.82	100	.670 x 1 1/16	—	—	196P8249152	196P8249154
	200	.750 x 2 1/16	—	—	196P8249252	196P8249254
	300	.562 x 1 1/16	196P1050152	196P1050154	196P1059152	196P1059154
	400	.670 x 1 1/16	196P1050252	196P1050254	196P1059252	196P1059254
	1000	.750 x 2 1/16	—	—	—	—

For Style 4 units add .0625" to diameter and 1/8" to length.

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IND-REM-25-6330

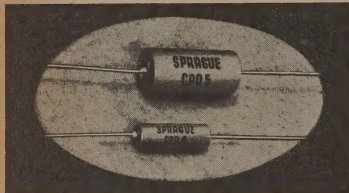
Sizes subject to change without notice.

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SPRAGUE CAPACITORS

TYPE CP04 CAPACITORS TO MIL-C-25C



- Impregnation with Vitamin Q assures capacitors exceed MIL-C-25C performance requirements.
- Inserted tab construction for applications where minimum size is necessary.
- Positive hermetic closure of the metal cases assured by glass-to-metal solder-seal terminals.
- Type CP04 has plain metal case.
- Available in Characteristic K (-55C to $+125\text{C}$). $\pm 10\%$ Capacitance Tolerance.
- Only popular insulated section (ungrounded case) capacitors are listed. For information on grounded case units, consult your Sprague Industrial Distributor.
- Call your Sprague Industrial Distributor for Quantity Prices.

μF	WVDC	D. x L.	Cat. No.*
.001	600	.235 x $\frac{3}{4}$	CP04A1KF102K3
.0012	600	.235 x $\frac{3}{4}$	CP04A1KF122K3
.0015	600	.235 x $\frac{3}{4}$	CP04A1KF152K3
.0018	600	.235 x $\frac{3}{4}$	CP04A1KF182K3
.0022	600	.235 x $\frac{3}{4}$	CP04A1KF222K3
.0027	600	.235 x $\frac{3}{4}$	CP04A1KF272K3
.0033	600	.235 x $\frac{3}{4}$	CP04A1KF332K3
.0039	600	.235 x $\frac{3}{4}$	CP04A1KF392K3
.0047	600	.235 x $\frac{3}{4}$	CP04A1KF472K3
.0056	600	.235 x $\frac{3}{4}$	CP04A1KF562K3
.0068	600	.235 x $\frac{3}{4}$	CP04A1KF682K3
.0082	400	.235 x $\frac{3}{4}$	CP04A1KE822K3
	600	.312 x $\frac{7}{8}$	CP04A1KF822K3
.01	400	.235 x $\frac{3}{4}$	CP04A1KE103K3
	600	.312 x $\frac{7}{8}$	CP04A1KF103K3
.012	200	.235 x $\frac{3}{4}$	CP04A1KC123K3
	600	.312 x $\frac{7}{8}$	CP04A1KF123K3
.015	200	.235 x $\frac{3}{4}$	CP04A1KC153K3
	600	.312 x $\frac{7}{8}$	CP04A1KF153K3
	1000	.400 x $\frac{1}{2}$	CP04A1KG153K3
.018	200	.235 x $\frac{3}{4}$	CP04A1KC183K3
	600	.312 x $\frac{7}{8}$	CP04A1KF183K3
	1000	.400 x $\frac{1}{2}$	CP04A1KG183K3
.022	200	.235 x $\frac{3}{4}$	CP04A1KC223K3
	600	.312 x $\frac{7}{8}$	CP04A1KF223K3
	1000	.400 x $\frac{1}{2}$	CP04A1KG223K3
.027	100	.235 x $\frac{3}{4}$	CP04A1KB273K3
	400	.312 x $\frac{7}{8}$	CP04A1KE273K3
	600	.400 x $\frac{1}{2}$	CP04A1KF273K3
	1000	.400 x $\frac{1}{2}$	CP04A1KG273K3
.033	100	.235 x $\frac{3}{4}$	CP04A1KB333K3
	400	.312 x $\frac{7}{8}$	CP04A1KE333K3
	600	.400 x $\frac{1}{2}$	CP04A1KF333K3
	1000	.400 x $\frac{1}{2}$	CP04A1KG333K3
.039	200	.312 x $\frac{7}{8}$	CP04A1KC393K3
	400	.400 x $\frac{1}{2}$	CP04A1KE393K3
	600	.400 x $\frac{1}{2}$	CP04A1KF393K3
	1000	.562 x $\frac{1}{2}$	CP04A1KG393K3
.047	200	.312 x $\frac{7}{8}$	CP04A1KC473K3
	400	.400 x $\frac{1}{2}$	CP04A1KE473K3
	600	.400 x $\frac{1}{2}$	CP04A1KF473K3
	1000	.562 x $\frac{1}{2}$	CP04A1KG473K3
.056	200	.312 x $\frac{7}{8}$	CP04A1KC563K3
	400	.400 x $\frac{1}{2}$	CP04A1KE563K3
	600	.400 x $\frac{1}{2}$	CP04A1KF563K3
	1000	.562 x $\frac{1}{2}$	CP04A1KG563K3
.068	200	.312 x $\frac{7}{8}$	CP04A1KC683K3
	400	.400 x $\frac{1}{2}$	CP04A1KE683K3
	600	.400 x $\frac{1}{2}$	CP04A1KF683K3
	1000	.562 x $\frac{1}{2}$	CP04A1KG683K3
.082	100	.312 x $\frac{7}{8}$	CP04A1KB823K3
	200	.400 x $\frac{1}{2}$	CP04A1KC823K3
	400	.400 x $\frac{1}{2}$	CP04A1KE823K3
	600	.562 x $\frac{1}{2}$	CP04A1KF823K3
	1000	.562 x $\frac{1}{2}$	CP04A1KG823K3

CALL YOUR SPRAGUE INDUSTRIAL DISTRIBUTOR FOR CURRENT QUANTITY PRICES

μF	WVDC	D. x L.	Cat. No.*
.1	100	.312 x $\frac{7}{8}$	CP04A1KB104K3
	200	.400 x $\frac{1}{2}$	CP04A1KC104K3
	400	.400 x $\frac{1}{2}$	CP04A1KE104K3
	600	.562 x $\frac{1}{2}$	CP04A1KF104K3
	1000	.562 x $\frac{1}{2}$	CP04A1KG104K3
.12	100	.400 x $\frac{1}{2}$	CP04A1KB124K3
	200	.400 x $\frac{1}{2}$	CP04A1KC124K3
	400	.562 x $\frac{1}{2}$	CP04A1KE124K3
	600	.562 x $\frac{1}{2}$	CP04A1KF124K3
	1000	.670 x $\frac{1}{2}$	CP04A1KG124K3
.15	100	.400 x $\frac{1}{2}$	CP04A1KB154K3
	200	.400 x $\frac{1}{2}$	CP04A1KC154K3
	400	.562 x $\frac{1}{2}$	CP04A1KE154K3
	600	.562 x $\frac{1}{2}$	CP04A1KF154K3
	1000	.670 x $\frac{1}{2}$	CP04A1KG154K3
.18	100	.400 x $\frac{1}{2}$	CP04A1KB184K3
	200	.400 x $\frac{1}{2}$	CP04A1KC184K3
	400	.562 x $\frac{1}{2}$	CP04A1KE184K3
	600	.562 x $\frac{1}{2}$	CP04A1KF184K3
	1000	.750 x $\frac{1}{2}$	CP04A1KG184K3
.22	100	.400 x $\frac{1}{2}$	CP04A1KB224K3
	200	.400 x $\frac{1}{2}$	CP04A1KC224K3
	400	.562 x $\frac{1}{2}$	CP04A1KE224K3
	600	.562 x $\frac{1}{2}$	CP04A1KF224K3
	1000	.750 x $\frac{1}{2}$	CP04A1KG224K3
.27	100	.400 x $\frac{1}{2}$	CP04A1KB274K3
	200	.562 x $\frac{1}{2}$	CP04A1KC274K3
	400	.562 x $\frac{1}{2}$	CP04A1KE274K3
	600	.670 x $\frac{1}{2}$	CP04A1KF274K3
	1000	.750 x $\frac{1}{2}$	CP04A1KG274K3
.33	100	.400 x $\frac{1}{2}$	CP04A1KB334K3
	200	.562 x $\frac{1}{2}$	CP04A1KC334K3
	400	.562 x $\frac{1}{2}$	CP04A1KE334K3
	600	.670 x $\frac{1}{2}$	CP04A1KF334K3
	1000	.750 x $\frac{1}{2}$	CP04A1KG334K3
.39	100	.562 x $\frac{1}{2}$	CP04A1KB394K3
	200	.562 x $\frac{1}{2}$	CP04A1KC394K3
	400	.670 x $\frac{1}{2}$	CP05A1KE394K3
	600	.750 x $\frac{1}{2}$	CP04A1KF394K3
	1000	1.000 x $\frac{1}{2}$	CP04A1KG394K3
.47	100	.562 x $\frac{1}{2}$	CP04A1KB474K3
	200	.562 x $\frac{1}{2}$	CP04A1KC474K3
	400	.670 x $\frac{1}{2}$	CP04A1KE474K3
	600	.750 x $\frac{1}{2}$	CP04A1KF474K3
	1000	1.000 x $\frac{1}{2}$	CP04A1KG474K3
.56	100	.562 x $\frac{1}{2}$	CP04A1KB564K3
	200	.562 x $\frac{1}{2}$	CP04A1KC564K3
	400	.750 x $\frac{1}{2}$	CP04A1KE564K3
	600	1.000 x $\frac{1}{2}$	CP04A1KF564K3
.68	100	.562 x $\frac{1}{2}$	CP04A1KB684K3
	200	.562 x $\frac{1}{2}$	CP04A1KC684K3
	400	.750 x $\frac{1}{2}$	CP04A1KE684K3
	600	1.000 x $\frac{1}{2}$	CP04A1KF684K3
.82	100	.562 x $\frac{1}{2}$	CP04A1KB824K3
	200	.670 x $\frac{1}{2}$	CP04A1KC824K3
	400	1.000 x $\frac{1}{2}$	CP04A1KE824K3
1.0	100	.562 x $\frac{1}{2}$	CP05A1KB105K3
	200	.670 x $\frac{1}{2}$	CP05A1KC105K3
	400	1.000 x $\frac{1}{2}$	CP04A1KE105K3

*For Vibration Grade 1, change last digit of cat. no. to 1

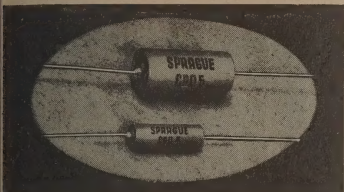
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IND-REM-27-6609

Sizes subject to change without notice

SPRAGUE CAPACITORS

TYPE CP05 CAPACITORS TO MIL-C-25C



- Vitamin Q impregnation assures performance above and beyond MIL-C-25C requirements.
- Inserted tab construction for applications where minimum size is necessary.
- Positive hermetic closure of the metal cases assured by glass-to-metal solder-seal terminals.
- Type CP05 has insulating sleeve.
- Capacitance Tolerance $\pm 10\%$. Characteristic K Temperature Range (-55°C to $+125^{\circ}\text{C}$).
- Only popular insulated section (ungrounded case) capacitors are listed. For information on grounded case units, consult you Sprague Industrial Distributor.
- Call your Sprague Industrial Distributor for Quantity Prices.

μF	WVDC	D. x L.	Cat. No.*	μF	WVDC	D. x L.	Cat. No.*	μF	WVDC	D. x L.	Cat. No.*
.001	600	.298 x $\frac{1}{16}$	CP05A1KF102K3	600	.463 x $\frac{1}{16}$	CP05A1KF393K3		100	.463 x $\frac{1}{16}$	CP05A1KB224K3	
.0012	600	.298 x $\frac{1}{16}$	CP05A1KF122K3	1000	.625 x $\frac{1}{16}$	CP05A1KG393K3		200	.463 x $\frac{1}{16}$	CP05A1KC224K3	
.0015	600	.298 x $\frac{1}{16}$	CP05A1KF152K3					400	.625 x $\frac{1}{16}$	CP05A1KE224K3	
.0018	600	.298 x $\frac{1}{16}$	CP05A1KF182K3	200	.375 x $\frac{1}{16}$	CP05A1KC473K3		600	.625 x $\frac{1}{16}$	CP05A1KF224K3	
.0022	600	.298 x $\frac{1}{16}$	CP05A1KF222K3	.047	400	.463 x $\frac{1}{16}$	CP05A1KE473K3	1000	.813 x $\frac{2}{16}$	CP05A1KG224K3	
.0027	600	.298 x $\frac{1}{16}$	CP05A1KF272K3	600	.463 x $\frac{1}{16}$	CP05A1KF473K3					
.0033	600	.298 x $\frac{1}{16}$	CP05A1KF332K3	1000	.625 x $\frac{1}{16}$	CP05A1KG473K3		100	.463 x $\frac{1}{16}$	CP05A1KB274K3	
.0039	600	.298 x $\frac{1}{16}$	CP05A1KF392K3	200	.375 x $\frac{1}{16}$	CP05A1KC563K3		200	.625 x $\frac{1}{16}$	CP05A1KC274K3	
.0047	600	.298 x $\frac{1}{16}$	CP05A1KF472K3	.056	400	.463 x $\frac{1}{16}$	CP05A1KE563K3	.27	400	.625 x $\frac{1}{16}$	CP05A1KE274K3
.0056	600	.298 x $\frac{1}{16}$	CP05A1KF562K3	600	.463 x $\frac{1}{16}$	CP05A1KF563K3		600	.733 x $\frac{1}{16}$	CP05A1KF274K3	
.0068	600	.298 x $\frac{1}{16}$	CP05A1KF682K3	1000	.625 x $\frac{1}{16}$	CP05A1KG563K3		1000	.813 x $\frac{2}{16}$	CP05A1KG274K3	
.0082	400	.298 x $\frac{1}{16}$	CP05A1KE822K3	200	.375 x $\frac{1}{16}$	CP05A1KC683K3		100	.463 x $\frac{1}{16}$	CP05A1KB334K3	
600	.375 x $\frac{1}{16}$	CP05A1KF822K3		.068	400	.463 x $\frac{1}{16}$	CP05A1KE683K3	200	.625 x $\frac{1}{16}$	CP05A1KC334K3	
.01	400	.298 x $\frac{1}{16}$	CP05A1KE103K3	600	.463 x $\frac{1}{16}$	CP05A1KF685K3		400	.625 x $\frac{1}{16}$	CP05A1KE334K3	
600	.375 x $\frac{1}{16}$	CP05A1KF103K3		1000	.625 x $\frac{1}{16}$	CP05A1KG683K3		600	.733 x $\frac{1}{16}$	CP05A1KF334K3	
.012	200	.298 x $\frac{1}{16}$	CP05A1KC123K3	100	.375 x $\frac{1}{16}$	CP05A1KB823K3		1000	.813 x $\frac{2}{16}$	CP05A1KG334K3	
600	.375 x $\frac{1}{16}$	CP05A1KF123K3		200	.463 x $\frac{1}{16}$	CP05A1KC823K3		100	.625 x $\frac{1}{16}$	CP05A1KB394K3	
200	.298 x $\frac{1}{16}$	CP05A1KC153K3		.082	400	.463 x $\frac{1}{16}$	CP05A1KE823K3	200	.625 x $\frac{1}{16}$	CP05A1KC394K3	
600	.375 x $\frac{1}{16}$	CP05A1KF153K3		600	.625 x $\frac{1}{16}$	CP05A1KF823K3		400	.733 x $\frac{1}{16}$	CP05A1KE394K3	
.015	200	.298 x $\frac{1}{16}$	CP05A1KC183K3	1000	.625 x $\frac{1}{16}$	CP05A1KG823K3		600	.813 x $\frac{2}{16}$	CP05A1KF394K3	
600	.375 x $\frac{1}{16}$	CP05A1KF183K3		100	.463 x $\frac{1}{16}$	CP05A1KB104K3		1000	1.063 x $\frac{2}{16}$	CP05A1KG394K3	
1000	.463 x $\frac{1}{16}$	CP05A1KG153K3		200	.463 x $\frac{1}{16}$	CP05A1KC104K3		100	.625 x $\frac{1}{16}$	CP05A1KB474K3	
200	.298 x $\frac{1}{16}$	CP05A1KC183K3		.1	400	.463 x $\frac{1}{16}$	CP05A1KE104K3	200	.625 x $\frac{1}{16}$	CP05A1KC474K3	
600	.375 x $\frac{1}{16}$	CP05A1KF183K3		600	.625 x $\frac{1}{16}$	CP05A1KF104K3		400	.733 x $\frac{1}{16}$	CP05A1KE474K3	
1000	.463 x $\frac{1}{16}$	CP05A1KG183K3		1000	.625 x $\frac{1}{16}$	CP05A1KG104K3		600	.813 x $\frac{2}{16}$	CP05A1KF474K3	
200	.298 x $\frac{1}{16}$	CP05A1KC223K3		100	.463 x $\frac{1}{16}$	CP05A1KB124K3		1000	1.063 x $\frac{2}{16}$	CP05A1KG474K3	
.022	600	.375 x $\frac{1}{16}$	CP05A1KF223K3	200	.463 x $\frac{1}{16}$	CP05A1KC124K3		100	.625 x $\frac{1}{16}$	CP05A1KB564K3	
1000	.463 x $\frac{1}{16}$	CP05A1KG223K3		.12	400	.625 x $\frac{1}{16}$	CP05A1KE124K3	200	.625 x $\frac{1}{16}$	CP05A1KC564K3	
100	.298 x $\frac{1}{16}$	CP05A1KB273K3		600	.625 x $\frac{1}{16}$	CP05A1KF124K3		400	.813 x $\frac{2}{16}$	CP05A1KE564K3	
600	.375 x $\frac{1}{16}$	CP05A1KF273K3		1000	.733 x $\frac{1}{16}$	CP05A1KG124K3		600	1.063 x $\frac{1}{16}$	CP05A1KF564K3	
1000	1.463 x $\frac{1}{16}$	CP05A1KG273K3		100	.463 x $\frac{1}{16}$	CP05A1KB154K3		100	.625 x $\frac{1}{16}$	CP05A1KB684K3	
100	.298 x $\frac{1}{16}$	CP05A1KB333K3		200	.463 x $\frac{1}{16}$	CP05A1KC154K3		200	.625 x $\frac{1}{16}$	CP05A1KC684K3	
400	.375 x $\frac{1}{16}$	CP05A1KE333K3		.15	400	.625 x $\frac{1}{16}$	CP05A1KE154K3	.68	400	.813 x $\frac{2}{16}$	CP05A1KE684K3
600	.463 x $\frac{1}{16}$	CP05A1KF333K3		600	.625 x $\frac{1}{16}$	CP05A1KF154K3		400	.813 x $\frac{2}{16}$	CP05A1KE684K3	
1000	1.463 x $\frac{1}{16}$	CP05A1KG333K3		1000	.733 x $\frac{1}{16}$	CP05A1KG154K3		600	1.063 x $\frac{1}{16}$	CP05A1KF684K3	
100	.298 x $\frac{1}{16}$	CP05A1KB333K3		100	.463 x $\frac{1}{16}$	CP05A1KB184K3		100	.625 x $\frac{1}{16}$	CP05A1KB824K3	
400	.375 x $\frac{1}{16}$	CP05A1KE333K3		200	.463 x $\frac{1}{16}$	CP05A1KC184K3		.82	200	.733 x $\frac{1}{16}$	CP05A1KC824K3
600	.463 x $\frac{1}{16}$	CP05A1KF333K3		.18	400	.625 x $\frac{1}{16}$	CP05A1KE184K3	400	1.063 x $\frac{1}{16}$	CP05A1KE824K3	
1000	1.463 x $\frac{1}{16}$	CP05A1KG333K3		600	.625 x $\frac{1}{16}$	CP05A1KF184K3		100	.625 x $\frac{1}{16}$	CP05A1KB105K3	
200	.375 x $\frac{1}{16}$	CP05A1KC393K3		1000	.813 x $\frac{2}{16}$	CP05A1KG184K3		200	.733 x $\frac{1}{16}$	CP05A1KC105K3	
.039	400	.463 x $\frac{1}{16}$	CP05A1KE393K3					400	1.063 x $\frac{1}{16}$	CP05A1KE105K3	

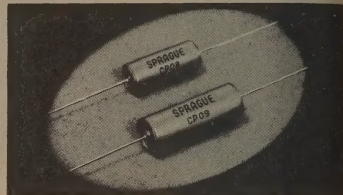
*For Vibration Grade 1, change last digit of Catalog Number to "1."

CALL YOUR SPRAGUE INDUSTRIAL DISTRIBUTOR FOR CURRENT QUANTITY PRICES

SPRAGUE CAPACITORS

TYPE CP08 CAPACITORS TO MIL-C-25C

- Vitamin Q impregnation assures performance above and beyond MIL-C-25C requirements.
- Positive hermetic closure of the metal cases with glass-to-metal solder-seal terminals.
- Capacitance Tolerance $\pm 10\%$. Characteristic K Temperature Range (-55°C to $+125^{\circ}\text{C}$).
- Type CP08 has plain metal case.
- Extended foil (so-called non-inductive section) construction.
- Listed below are popular insulated section (ungrounded case) capacitors. Consult your Sprague Industrial Distributor for information on grounded case units.
- Call your Sprague Industrial Distributor for Quantity Prices.



μF	WVDC	D. x L.	Cat. No.*	μF	WVDC	D. x L.	Cat. No.*	μF	WVDC	D. x L.	Cat. No.*
.001	600	.235 x $\frac{3}{4}$	CP08A1KF102K3	100	200	.235 x $\frac{3}{4}$	CP08A1KB123K3	.068	200	.400 x $\frac{7}{8}$	CP08A1KC683K3
1000	400	$\frac{7}{8}$	CP08A1KG102K3	400	400	.312 x $\frac{7}{8}$	CP08A1KE123K3	400	400	$\frac{7}{8}$	CP08A1KE683K3
.0012	600	.235 x $\frac{3}{4}$	CP08A1KF122K3	600	400	$\frac{7}{8}$	CP08A1KF123K3	600	600	.562 x $1\frac{1}{8}$	CP08A1KF683K3
1000	400	$\frac{7}{8}$	CP08A1KG122K3	1000	400	$1\frac{1}{8}$	CP08A1KG123K3	1000	600	.562 x $\frac{1}{2}$	CP08A1KG683K3
.0015	600	.235 x $\frac{3}{4}$	CP08A1KF152K3	100	200	.235 x $\frac{3}{4}$	CP08A1KB153K3	100	400	$\frac{7}{8}$	CP08A1KB823K3
1000	400	$\frac{7}{8}$	CP08A1KG152K3	400	400	.312 x $\frac{7}{8}$	CP08A1KE153K3	200	400	$1\frac{1}{8}$	CP08A1KC823K3
.0018	600	.235 x $\frac{3}{4}$	CP08A1KF182K3	600	400	$\frac{7}{8}$	CP08A1KF153K3	.082	400	.562 x $1\frac{1}{8}$	CP08A1KE823K3
1000	400	$\frac{7}{8}$	CP08A1KG182K3	1000	400	$1\frac{1}{8}$	CP08A1KG153K3	600	600	.562 x $\frac{1}{2}$	CP08A1KF823K3
.0022	600	.235 x $\frac{3}{4}$	CP08A1KF222K3	200	200	.312 x $\frac{7}{8}$	CP08A1KC183K3	1000	600	.670 x $\frac{1}{2}$	CP08A1KG823K3
1000	400	$\frac{7}{8}$	CP08A1KG222K3	400	400	$\frac{7}{8}$	CP08A1KF183K3	100	400	$\frac{7}{8}$	CP08A1KB104K3
.0027	600	.235 x $\frac{3}{4}$	CP08A1KE272K3	1000	400	$1\frac{1}{8}$	CP08A1KG183K3	200	400	$1\frac{1}{8}$	CP08A1KC104K3
400	400	.312 x $\frac{7}{8}$	CP08A1KF272K3	200	200	.312 x $\frac{7}{8}$	CP08A1KC223K3	.1	400	.562 x $1\frac{1}{8}$	CP08A1KE104K3
1000	400	$\frac{7}{8}$	CP08A1KG272K3	.022	600	.400 x $\frac{7}{8}$	CP08A1KF223K3	600	600	.562 x $\frac{1}{2}$	CP08A1KF104K3
400	400	.235 x $\frac{3}{4}$	CP08A1KE332K3	1000	400	$1\frac{1}{8}$	CP08A1KG223K3	1000	600	.670 x $1\frac{1}{8}$	CP08A1KG104K3
.0033	600	.312 x $\frac{7}{8}$	CP08A1KF332K3	200	200	.312 x $\frac{7}{8}$	CP08A1KC273K3	100	400	$1\frac{1}{8}$	CP08A1KB124K3
1000	400	$\frac{7}{8}$	CP08A1KG332K3	.027	400	.400 x $\frac{7}{8}$	CP08A1KE273K3	200	400	$\frac{7}{8}$	CP08A1KC124K3
200	200	.235 x $\frac{3}{4}$	CP08A1KC392K3	600	400	$\frac{7}{8}$	CP08A1KF273K3	.12	400	.562 x $1\frac{1}{8}$	CP08A1KE124K3
.0039	600	.312 x $\frac{7}{8}$	CP08A1KF392K3	1000	400	$1\frac{1}{8}$	CP08A1KG273K3	600	600	.562 x $\frac{1}{2}$	CP08A1KF124K3
1000	400	$\frac{7}{8}$	CP08A1KG392K3	200	200	.312 x $\frac{7}{8}$	CP08A1KC333K3	1000	600	.670 x $1\frac{1}{8}$	CP08A1KG124K3
200	200	.235 x $\frac{3}{4}$	CP08A1KC472K3	.033	400	.400 x $\frac{7}{8}$	CP08A1KE333K3	100	400	$1\frac{1}{8}$	CP08A1KB154K3
.0047	600	.312 x $\frac{7}{8}$	CP08A1KF472K3	600	400	$\frac{7}{8}$	CP08A1KF333K3	200	400	$\frac{7}{8}$	CP08A1KC154K3
1000	400	$\frac{7}{8}$	CP08A1KG472K3	1000	400	$1\frac{1}{8}$	CP08A1KG333K3	.15	400	.562 x $1\frac{1}{8}$	CP08A1KE154K3
200	200	.235 x $\frac{3}{4}$	CP08A1KC562K3	100	200	.312 x $\frac{7}{8}$	CP08A1KB393K3	600	600	.562 x $\frac{1}{2}$	CP08A1KF154K3
.0056	600	.312 x $\frac{7}{8}$	CP08A1KF562K3	.200	400	$\frac{7}{8}$	CP08A1KE393K3	1000	600	.670 x $1\frac{1}{8}$	CP08A1KG154K3
1000	400	$\frac{7}{8}$	CP08A1KG562K3	.039	400	.400 x $1\frac{1}{8}$	CP08A1KF393K3	100	400	$1\frac{1}{8}$	CP08A1KB184K3
200	200	.235 x $\frac{3}{4}$	CP08A1KC682K3	1000	400	$1\frac{1}{8}$	CP08A1KG393K3	200	400	$\frac{7}{8}$	CP08A1KC184K3
.0068	600	.312 x $\frac{7}{8}$	CP08A1KF682K3	100	200	.312 x $\frac{7}{8}$	CP08A1KB473K3	.18	400	.562 x $1\frac{1}{8}$	CP08A1KE184K3
1000	400	$\frac{7}{8}$	CP08A1KG682K3	.047	400	.400 x $1\frac{1}{8}$	CP08A1KE473K3	600	600	.562 x $\frac{1}{2}$	CP08A1KF184K3
100	200	.235 x $\frac{3}{4}$	CP08A1KB822K3	600	400	$\frac{7}{8}$	CP08A1KF473K3	1000	600	.670 x $1\frac{1}{8}$	CP08A1KG184K3
.0082	600	.312 x $\frac{7}{8}$	CP08A1KF822K3	1000	400	$1\frac{1}{8}$	CP08A1KG473K3	100	400	$1\frac{1}{8}$	CP08A1KB224K3
1000	400	$\frac{7}{8}$	CP08A1KG822K3	200	200	.312 x $\frac{7}{8}$	CP08A1KB743K3	200	400	$\frac{7}{8}$	CP08A1KC224K3
100	200	.235 x $\frac{3}{4}$	CP08A1KB103K3	.056	400	.400 x $1\frac{1}{8}$	CP08A1KE743K3	.22	400	.562 x $1\frac{1}{8}$	CP08A1KE224K3
.01	600	.312 x $\frac{7}{8}$	CP08A1KF103K3	600	400	$\frac{7}{8}$	CP08A1KF743K3	600	600	.562 x $\frac{1}{2}$	CP08A1KF224K3
1000	400	$\frac{7}{8}$	CP08A1KG103K3	1000	400	$1\frac{1}{8}$	CP08A1KG743K3	1000	600	.670 x $1\frac{1}{8}$	CP08A1KG224K3
				200	200	.312 x $\frac{7}{8}$	CP08A1KB823K3	100	400	$1\frac{1}{8}$	CP08A1KB274K3
				.056	400	.400 x $1\frac{1}{8}$	CP08A1KE823K3	200	400	$\frac{7}{8}$	CP08A1KC274K3
				600	400	$\frac{7}{8}$	CP08A1KF823K3	.27	400	.562 x $1\frac{1}{8}$	CP08A1KE274K3
				1000	400	$1\frac{1}{8}$	CP08A1KG823K3	600	600	.562 x $\frac{1}{2}$	CP08A1KF274K3
								1000	600	.670 x $1\frac{1}{8}$	CP08A1KG274K3

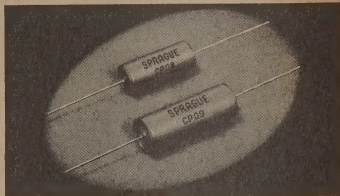
*For Vibration Grade I, change last digit of Catalog Number to "1."

CALL YOUR SPRAGUE INDUSTRIAL DISTRIBUTOR FOR CURRENT QUANTITY PRICES

SPRAGUE CAPACITORS

TYPE CP09 CAPACITORS TO MIL-C-25C

- Vitamin Q impregnation assures performance above and beyond MIL-C-25C requirements.
- Positive hermetic closure of the metal cases with glass-to-metal solder-seal terminals.
- Available in Characteristic K (−55C to +125C). Capacitance Tolerance $\pm 10\%$.
- Type CP09 has insulating sleeve.
- Extended foil, non-inductive section construction.
- Listed below are popular insulated section (ungrounded case) capacitors. Consult your Sprague Industrial Distributor for information on grounded case units.
- Call your Sprague Industrial Distributor for Quantity Prices.



μF	WVDC	D. x L.	Cat. No.
.001	600	.298 x 1 ³ / ₁₆	CP09A1KF102K3
	1000	.463 x 1 ³ / ₁₆	CP09A1KG102K3
.0012	600	.298 x 1 ³ / ₁₆	CP09A1KF122K3
	1000	.463 x 1 ³ / ₁₆	CP09A1KG122K3
.0015	600	.298 x 1 ³ / ₁₆	CP09A1KF152K3
	1000	.463 x 1 ³ / ₁₆	CP09A1KG152K3
.0018	600	.298 x 1 ³ / ₁₆	CP09A1KF182K3
	1000	.463 x 1 ³ / ₁₆	CP09A1KG182K3
.0022	600	.298 x 1 ³ / ₁₆	CP09A1KF222K3
	1000	.463 x 1 ³ / ₁₆	CP09A1KG222K3
.0027	400	.298 x 1 ³ / ₁₆	CP09A1KE272K3
	600	.375 x 1 ³ / ₁₆	CP09A1KF272K3
	1000	.463 x 1 ³ / ₁₆	CP09A1KG272K3
.0033	400	.298 x 1 ³ / ₁₆	CP09A1KE332K3
	600	.375 x 1 ³ / ₁₆	CP09A1KF332K3
	1000	.463 x 1 ³ / ₁₆	CP09A1KG332K3
.0039	200	.298 x 1 ³ / ₁₆	CP09A1KC392K3
	600	.375 x 1 ³ / ₁₆	CP09A1KF393K3
	1000	.463 x 1 ³ / ₁₆	CP09A1KG393K3
.0047	200	.298 x 1 ³ / ₁₆	CP09A1KC472K3
	600	.375 x 1 ³ / ₁₆	CP09A1KF472K3
	1000	.463 x 1 ³ / ₁₆	CP09A1KG472K3
.0056	200	.298 x 1 ³ / ₁₆	CP09A1KC562K3
	600	.375 x 1 ³ / ₁₆	CP09A1KF562K3
	1000	.463 x 1 ³ / ₁₆	CP09A1KG562K3
.0068	200	.298 x 1 ³ / ₁₆	CP09A1KC682K3
	600	.375 x 1 ³ / ₁₆	CP09A1KF682K3
	1000	.463 x 1 ³ / ₁₆	CP09A1KG682K3
.0082	100	.298 x 1 ³ / ₁₆	CP09A1KB822K3
	600	.375 x 1 ³ / ₁₆	CP09A1KF822K3
	1000	.463 x 1 ³ / ₁₆	CP09A1KG822K3
.01	100	.298 x 1 ³ / ₁₆	CP09A1KB103K3
	600	.375 x 1 ³ / ₁₆	CP09A1KF103K3
	1000	.463 x 1 ³ / ₁₆	CP09A1KG103K3
.012	100	.298 x 1 ³ / ₁₆	CP09A1KB123K3
	400	.375 x 1 ³ / ₁₆	CP09A1KE123K3
	600	.463 x 1 ³ / ₁₆	CP09A1KF123K3
	1000	.463 x 1 ³ / ₁₆	CP09A1KG123K3
.015	100	.298 x 1 ³ / ₁₆	CP09A1KB153K3
	400	.375 x 1 ³ / ₁₆	CP09A1KE153K3
	600	.463 x 1 ³ / ₁₆	CP09A1KF153K3
	1000	.463 x 1 ³ / ₁₆	CP09A1KG153K3
.018	200	.375 x 1 ³ / ₁₆	CP09A1KC183K3
	600	.463 x 1 ³ / ₁₆	CP09A1KF183K3
	1000	.463 x 1 ³ / ₁₆	CP09A1KG183K3
.022	200	.375 x 1 ³ / ₁₆	CP09A1KC223K3
	600	.463 x 1 ³ / ₁₆	CP09A1KF223K3
	1000	.463 x 1 ³ / ₁₆	CP09A1KG223K3

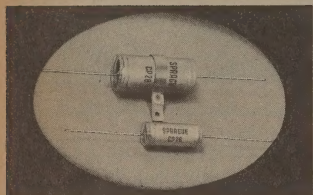
CALL YOUR SPRAGUE INDUSTRIAL DISTRIBUTOR FOR CURRENT QUANTITY PRICES

μF	WVDC	D. x L.	Cat. No.
.027	200	.375 x 1 ³ / ₁₆	CP09A1KC273K3
	400	.463 x 1 ³ / ₁₆	CP09A1KE273K3
	600	.463 x 1 ³ / ₁₆	CP09A1KF273K3
	1000	.625 x 1 ³ / ₁₆	CP09A1KG273K3
.033	200	.375 x 1 ³ / ₁₆	CP09A1KC333K3
	400	.463 x 1 ³ / ₁₆	CP09A1KE333K3
	600	.463 x 1 ³ / ₁₆	CP09A1KF333K3
	1000	.625 x 1 ³ / ₁₆	CP09A1KG333K3
.039	100	.375 x 1 ³ / ₁₆	CP09A1KB393K3
	200	.463 x 1 ³ / ₁₆	CP09A1KC393K3
	400	.463 x 1 ³ / ₁₆	CP09A1KE393K3
	600	.463 x 1 ³ / ₁₆	CP09A1KF393K3
.047	100	.375 x 1 ³ / ₁₆	CP09A1KB473K3
	200	.463 x 1 ³ / ₁₆	CP09A1KC473K3
	400	.463 x 1 ³ / ₁₆	CP09A1KE473K3
	600	.463 x 1 ³ / ₁₆	CP09A1KF473K3
.056	100	.625 x 1 ³ / ₁₆	CP09A1KG473K3
	200	.463 x 1 ³ / ₁₆	CP09A1KC563K3
	400	.463 x 1 ³ / ₁₆	CP09A1KE563K3
	600	.625 x 1 ³ / ₁₆	CP09A1KF563K3
.068	1000	.625 x 1 ³ / ₁₆	CP09A1KG563K3
	200	.463 x 1 ³ / ₁₆	CP09A1KC683K3
	400	.463 x 1 ³ / ₁₆	CP09A1KE683K3
	600	.625 x 1 ³ / ₁₆	CP09A1KF683K3
.082	1000	.625 x 1 ³ / ₁₆	CP09A1KG683K3
	100	.463 x 1 ³ / ₁₆	CP09A1KB823K3
	200	.463 x 1 ³ / ₁₆	CP09A1KC823K3
	400	.625 x 1 ³ / ₁₆	CP09A1KE823K3
.1	600	.625 x 1 ³ / ₁₆	CP09A1KF823K3
	1000	.733 x 1 ³ / ₁₆	CP09A1KG823K3
.12	100	.463 x 1 ³ / ₁₆	CP09A1KB104K3
	200	.463 x 1 ³ / ₁₆	CP09A1KC104K3
	400	.625 x 1 ³ / ₁₆	CP09A1KE104K3
	600	.625 x 1 ³ / ₁₆	CP09A1KF104K3
.15	1000	.733 x 1 ³ / ₁₆	CP09A1KG104K3
	100	.463 x 1 ³ / ₁₆	CP09A1KB124K3
	200	.463 x 1 ³ / ₁₆	CP09A1KC124K3
	400	.625 x 1 ³ / ₁₆	CP09A1KE124K3
.18	600	.625 x 1 ³ / ₁₆	CP09A1KF124K3
	1000	.733 x 1 ³ / ₁₆	CP09A1KG124K3
.22	100	.463 x 1 ³ / ₁₆	CP09A1KB154K3
	200	.463 x 1 ³ / ₁₆	CP09A1KC154K3
	400	.625 x 1 ³ / ₁₆	CP09A1KE154K3
	600	.625 x 1 ³ / ₁₆	CP09A1KF154K3
.22	1000	.733 x 1 ³ / ₁₆	CP09A1KG154K3
	100	.463 x 1 ³ / ₁₆	CP09A1KB184K3
	200	.625 x 1 ³ / ₁₆	CP09A1KC184K3
	400	.625 x 1 ³ / ₁₆	CP09A1KE184K3
.22	600	.733 x 1 ³ / ₁₆	CP09A1KF184K3
	1000	.813 x 2 ³ / ₁₆	CP09A1KG184K3
.22	100	.463 x 1 ³ / ₁₆	CP09A1KB224K3
	200	.625 x 1 ³ / ₁₆	CP09A1KC224K3
	400	.625 x 1 ³ / ₁₆	CP09A1KE224K3
	600	.733 x 1 ³ / ₁₆	CP09A1KF224K3
.22	1000	.813 x 2 ³ / ₁₆	CP09A1KG224K3

CALL YOUR SPRAGUE INDUSTRIAL DISTRIBUTOR FOR CURRENT QUANTITY PRICES

SPRAGUE CAPACITORS

MIL-C-25 CAPACITORS — TYPES CP26 and CP28



• Impregnated with specially processed mineral oil to exceed performance requirements of Specification MIL-C-25A

• Type CP26 has outer insulating sleeve — Type CP28 has insulating sleeve plus metal strap for radial mounting.

• Hermetically sealed for protection against leakage and contamination

• Meet temperature characteristic E (—55°C to +85°C operation)

• Capacitor sections are insulated from metal cases

• Call Your Sprague Distributor for Current Prices

NOTE: Capacitors listed below have a capacitance tolerance of $\pm 10\%$. For $\pm 20\%$ units, change last letter in catalog number from K to M.

*TYPE CP26 (without Mounting Bracket)				Call Your Sprague Distributor for Current Prices	*TYPE CP28 (Radial Mounting Bracket)				Call Your Sprague Distributor for Current Prices
μF	Volts	Diam. x Length	Cat. No.		μF	Volts	Diam. x Length	Cat. No.	
.006	600	$\frac{1}{2} \times 1\frac{1}{8}$	CP26A1EF602K		.1	600	$1\frac{1}{8} \times 2\frac{1}{8}$	CP28A1EF104K	
.01	600	$\frac{1}{2} \times 1\frac{1}{8}$	CP26A1EF103K		.25	600	$1\frac{1}{8} \times 2\frac{1}{8}$	CP28A1EF254K	
.02	600	$\frac{1}{2} \times 1\frac{1}{8}$	CP26A1EF203K		.5	600	$1\frac{1}{8} \times 2\frac{1}{8}$	CP28A1EF504K	
.05	600	$1\frac{1}{8} \times 1\frac{1}{8}$	CP26A1EF503K						
.5	200	$1\frac{1}{8} \times 2\frac{1}{8}$	CP26A1EC504K						

*Available until present stock is exhausted.

MIL-C-25 CAPACITORS—TYPE CP53

• Impregnated with specially processed mineral oil to exceed performance requirements of MIL-C-25A

• Hermetically sealed, with silicone rubber compression terminals

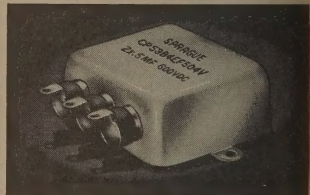
• Rated for —55°C to +85°C operation

• Drawn metal cases have mounting flanges as integral part of containers

• Single and dual capacitance units have insulated sections — triple capacitance units have grounded cases

• Call Your Sprague Distributor for Current Prices

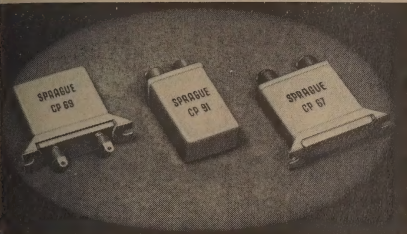
NOTE: Capacitors listed below have capacitance tolerances of $\pm 20\%$, -10% (V) or $\pm 10\%$ (K). For $\pm 20\%$ units, change last letter in catalog number from K to M or V to M.



μF	Volts	L. x W. x H.	Cat. No.	Call Your Sprague Distributor for Prices	μF	Volts	L. x W. x H.	Cat. No.	Call Your Sprague Distributor for Prices
Single Capacitance					Dual Capacitance				
.05	600	$1\frac{1}{8} \times 1 \times \frac{3}{4}$	CP53B1EF503K		.05 + .05	600	$1\frac{1}{8} \times 1 \times \frac{3}{4}$	CP53B4EF503V	
.05	1000	$1\frac{1}{8} \times 1 \times \frac{3}{4}$	CP53B1EG503K		.05 + .05	1000	$1\frac{1}{8} \times 1 \times \frac{3}{4}$	CP53B4EG503V	
.1	600	$1\frac{1}{8} \times 1 \times \frac{3}{4}$	CP53B1EF104K		.1 + .1	600	$1\frac{1}{8} \times 1 \times \frac{3}{4}$	CP53B4EF104V	
.1	1000	$1\frac{1}{8} \times 1 \times \frac{3}{4}$	CP53B1EG104K		.1 + .1	1000	$1\frac{1}{8} \times 1 \times \frac{3}{4}$	CP53B4EG104V	
.25	600	$1\frac{1}{8} \times 1 \times \frac{3}{4}$	CP53B1EF254K		.25 + .25	600	$1\frac{1}{8} \times 1 \times 1$	CP53B4EF254V	
.25	1000	$1\frac{1}{8} \times 1 \times \frac{3}{4}$	CP53B1EG254K		.25 + .25	1000	$2 \times \frac{1}{4} \times \frac{3}{4}$	CP53B4EG254V	
.5	400	$1\frac{1}{8} \times 1 \times \frac{3}{4}$	CP53B1EE504K		.5 + .5	600	$2 \times \frac{1}{4} \times 1$	CP53B4EF504V	
.5	600	$1\frac{1}{8} \times 1 \times 1$	CP53B1EF504K		.5 + .5	1000	$2 \times 2 \times 1\frac{1}{8}$	CP53B4EG504V	
.5	1000	$2 \times \frac{1}{4} \times \frac{3}{4}$	CP53B1EG504K		1.0 + 1.0	600	$2 \times 2 \times 1\frac{1}{8}$	CP53B4EF105V	
1.0	600	$2 \times \frac{1}{4} \times 1$	CP53B1EF105K						
1.0	1000	$2 \times 2 \times 1\frac{1}{8}$	CP53B1EG105K						
2.0	100	$2 \times \frac{1}{4} \times \frac{3}{4}$	CP53B1EB205K						
2.0	200	$2 \times 2 \times 1$	CP53B1EC205K						
2.0	600	$2 \times 2 \times 1\frac{1}{8}$	CP53B1EF205K						
4.0	100	$2 \times 2 \times 1\frac{1}{8}$	CP53B1EB405K						
				Call Your Sprague Distributor for Prices	Triple Capacitance				Call Your Sprague Distributor for Prices
μF	Volts	L. x W. x H.	Cat. No.		μF	Volts	L. x W. x H.	Cat. No.	
.05 + .05 + .05	600	$1\frac{1}{8} \times 1 \times \frac{3}{4}$	CP53B5EF503V		.1 + .1 + .1	600	$1\frac{1}{8} \times 1 \times \frac{3}{4}$	CP53B5EF104V	
.1 + .1 + .1	600	$1\frac{1}{8} \times 1 \times \frac{3}{4}$	CP53B5EF104V		.5 + .5 + .5	600	$2 \times 2 \times 1\frac{1}{8}$	CP53B5EF504V	

SPRAGUE CAPACITORS

TYPE CP67, CP69, CP91, CAPACITORS to MIL-C-25C



- Mineral Oil Impregnated for Minimum Capacitance Change with Temperature
- Hermetically Sealed in Drawn Metal Cases
- Have Silicone Rubber Compression Terminals for Positive Prevention Against Entrance of Moisture or Leakage of Impregnant
- Designed and Manufactured for Service Life Beyond Specification Requirements
- Units Listed are Most Popular Ratings. Complete Military Line Available from Sprague
- CP91 Capacitors Require Separate Mounting Brackets.
- CP67 and CP69 have integral channel brackets
- For quantity prices, see your Sprague Industrial Distributor.

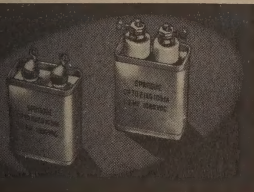
NOTE: These units have capacitance tolerances of $\pm 10\%$ (K) or $+20, -10\%$ (V).

μF	WVDC	CAT. NO.	SIZE	Mounting Brackets CAT. NO.
TYPE CP67 Terminals opposite channel bracket				
.1	600	CP67B1EF104K1	1 3/4 x 4 1/4 x 1 1/4	Integral Channel Brackets
.25	600	CP67B1EF254K1	1 3/4 x 4 1/4 x 1 1/2	
.5	600	CP67B1EF504K1	1 3/4 x 4 1/4 x 2	
1.0	600	CP67B1EF105K1	1 3/4 x 4 1/4 x 2 1/2	

		TYPE CP69		Terminals on same end as channel bracket	
.05	600	CP69B1EF503K1	$1\frac{3}{4} \times 4\frac{1}{4} \times 1\frac{1}{4}$	Integral Channel Brackets	
.1	600	CP69B1EF104K1	$1\frac{3}{4} \times 4\frac{1}{4} \times 1\frac{1}{4}$		
.25	600	CP69B1EF254K1	$1\frac{3}{4} \times 4\frac{1}{4} \times 1\frac{1}{2}$	Integral Channel Brackets	
.5	600	CP69B1EF504K1	$1\frac{3}{4} \times 4\frac{1}{4} \times 2$		
1.0	600	CP69B1EF105K1	$1\frac{3}{4} \times 4\frac{1}{4} \times 2\frac{1}{4}$		

TYPE CP91					
.05	600	CP91B1EF503K1	1 1/4 x 3/4 x 1 1/4		CP091SB1
.25	600	CP91B1EF254K1	1 1/4 x 3/4 x 1 1/4		CP091SB3
.5	600	CP91B1EF504K1	1 1/4 x 3/4 x 2		CP091SB4
1.0	600	CP91B1EF105K1	1 1/4 x 3/4 x 2 3/4		CP091SB6
.05-.05	600	CP91B6EF503V1	1 1/4 x 3/4 x 1 1/4		CP091SB2
1-.1	600	CP91B6EF104V1	1 1/4 x 3/4 x 1 3/8		CP091SB3
.25-.25	600	CP91B6EF264V1	1 1/4 x 3/4 x 2		CP091SB4
.5-.5	600	CP91B6EF504V1	1 1/4 x 3/4 x 2 3/4		CP091SB6

Call Your Sprague Industrial Distributor for Quantity Prices



TYPE CP70 CAPACITORS to MIL-C-25

- Ruggedly Constructed for Exacting Heavy-Duty Applications
- Long Life and Reliable Service under High Ambient Temperatures
- Terminals have Ceramic Pillar Insulators (E) or Rubber Compression Seals (B)
- Impregnated with a Specially Processed Mineral Oil to Withstand Severe Operating Conditions
- Char. FUnits Recommended Primarily for Ground Equipment Where no Low Temperatures are Encountered
- For Quantity Prices, See Your Sprague Industrial Distributor.

NOTE: These units have a capacitance tolerance of $\pm 10\%$. For $\pm 20\%$ tolerance, change the last letter in the catalog number from K to M.

Char. E (E Term.)				Char. F (B Term.)				Char. E (B Term.)			
μF	WVDC	Cat. No.	W x T x H	Cat. No.	W x T x H	Cat. No.	W x T x H				
.1	1000	CP70E1EG104K	1 1/8" x 1 3/8" x 1 3/8"								
.1	2000	CP70E1EH104K	2 1/2" x 1 3/8" x 2 1/2"								
.25	1000	CP70E1EG254K	1 1/8" x 1 3/8" x 2 1/2"								
.25	2000	CP70E1EJ254K	2 1/2" x 1 3/8" x 2 1/2"								
.5	600	CP70E1EF504K	1 1/8" x 1 1/8" x 2 1/4"								
.5	1000	CP70E1EG504K	1 1/8" x 1 1/8" x 2 1/4"			CP70B1EG504K	1 1/8" x 1 1/8" x 2 1/4"				
.5	1500	CP70E1EH504K	1 1/8" x 1 1/8" x 2 1/2"								
.5	2000	CP70E1EJ504K	2 1/2" x 1 1/8" x 2 1/2"								
.5	2500	CP70E1EK504K	2 1/2" x 1 1/8" x 3 1/8"								
1.0	600	CP70E1EF105K	1 1/8" x 1 1/8" x 2 1/4"			CP70B1EF105K	1 1/8" x 1 1/8" x 2 1/4"				
1.0	1000	CP70E1EG105K	1 1/8" x 1 1/8" x 2 1/2"			CP70B1EG105K	1 1/8" x 1 1/8" x 2 1/2"				
1.0	1500	CP70E1EH105K	1 1/8" x 1 1/8" x 4 3/4"								
1.0	2000	CP70E1EJ105K	2 1/2" x 1 1/8" x 4 3/4"								
1.0	2500	CP70E1EK105K	3 3/4" x 1 3/4" x 3 1/8"								
2.0	600	CP70E1EF205K	1 1/8" x 1 1/8" x 3 1/4"		CP70B1FF205K	1 1/8" x 1 1/8" x 2 1/2"	CP70B1EF205K	1 1/8" x 1 1/8" x 3 1/4"			
2.0	1000	CP70E1EG205K	1 1/8" x 1 1/8" x 4 3/4"		CP70B1FG205K	1 1/8" x 1 1/8" x 3 1/8"	CP70B1EG205K	1 1/8" x 1 1/8" x 4 3/4"			
2.0	1500	CP70E1EH205K	2 1/2" x 1 1/8" x 4 3/4"				CP70B1EH205K	2 1/2" x 1 1/8" x 4 3/4"			
2.0	2000	CP70E1EJ205K	3 3/4" x 1 1/8" x 4 3/4"								
2.0	2500	CP70E1EK205K	3 3/4" x 2 1/4" x 4 3/4"								
4.0	600	CP70E1EF405K	2 1/2" x 1 1/8" x 3 3/8"		CP70B1FF405K	2 1/2" x 1 1/8" x 3 1/2"	CP70B1EF405K	2 1/2" x 1 1/8" x 3 3/8"			
4.0	1000	CP70E1EG405K	3 3/4" x 1 1/8" x 3 3/8"		CP70B1FG405K	2 1/2" x 1 1/8" x 4 3/4"	CP70B1EG405K	3 3/4" x 1 1/8" x 3 3/8"			
4.0	1500	CP70E1EH405K	3 3/4" x 1 1/8" x 4 3/4"								
4.0	2000	CP70E1EJ405K	3 3/4" x 1 1/8" x 5 1/4"								
4.0	2500	CP70E1EK405K	4 3/4" x 3 3/4" x 4 3/8"								
6.0	600	CP70E1EF605K	3 3/4" x 1 1/8" x 3 3/8"		CP70B1FF605K	2 1/2" x 1 1/8" x 4 3/4"	CP70B1EF605K	3 3/4" x 1 1/8" x 3 3/8"			
6.0	1000	CP70E1EG605K	3 3/4" x 1 1/8" x 4		CP70B1FG605K	3 3/4" x 1 1/8" x 4 3/4"	CP70B1EG605K	3 3/4" x 1 1/8" x 4			
6.0	1500	CP70E1EH605K	3 3/4" x 2 1/4" x 4 3/4"				CP70B1EH605K	3 3/4" x 2 1/4" x 4 3/4"			
6.0	2000	CP70E1EJ605K	3 3/4" x 1 1/8" x 4 3/4"		CP70B1FF805K	3 3/4" x 1 1/8" x 3 3/8"	CP70B1EF805K	3 3/4" x 1 1/8" x 4 3/4"			
6.0	2500	CP70E1EK605K	3 3/4" x 1 1/8" x 4 3/4"		CP70B1FG805K	3 3/4" x 1 1/8" x 3 3/8"	CP70B1EG805K	3 3/4" x 1 1/8" x 4 3/4"			
8.0	1000	CP70E1EH805K	3 3/4" x 2 1/2" x 5 3/4"				CP70B1EH805K	3 3/4" x 2 1/2" x 5 3/4"			
8.0	1500										
10.0	600	CP70E1EF106K	3 3/4" x 1 3/4" x 4		CP70B1FF106K	3 3/4" x 1 1/8" x 4 3/4"	CP70B1EF106K	3 3/4" x 1 3/4" x 4			
10.0	1000	CP70E1EG106K	3 3/4" x 2 1/4" x 4 3/4"		CP70B1FG106K	3 3/4" x 1 3/4" x 4 3/4"	CP70B1EG106K	3 3/4" x 2 1/4" x 4 3/4"			
10.0	1500	CP70E1EH106K	3 3/4" x 2 1/4" x 5 1/4"				CP70B1EH106K	3 3/4" x 2 1/4" x 5 1/4"			
12.0	1000	CP70E1EG126K	3 3/4" x 2 1/2" x 5 1/8"				CP70B1EG126K	3 3/4" x 2 1/2" x 5 1/8"			
15.0	1000	CP70E1EG136K	3 3/4" x 3 3/4" x 4 3/4"								

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SPRAGUE CAPACITORS

118P DIFILM® METALLIZED CAPACITORS



Metallized Paper and of Polyester Film, Impregnated With Special High-Temperature Mineral Wax

- The Best of Their Type Possible to Produce at the Present State of the Art
- Rated for Operation at 125°C WITHOUT VOLT-AGE DERATING
- Unique Dual Dielectric —a Combination of Metallized Paper and of Polyester Film, Impregnated With Special High-Temperature Mineral Wax
- Subjected to Stringent Quality Control During Manufacture
- Higher Insulation Resistance Than Any Other Metallized Paper Capacitors—at 125°C, Minimum Product of Insulation Resistance and Capacitance is 10 Megohm-microfarads for 200 V Units or 40 Megohm-microfarads for 400 and 600 V Units
- Capacitor Sections are Effectively of Non-inductive Construction, Resulting in Capacitors Unmatched in Performance Quality by any Other Metallized Capacitors
- Hermetically Sealed, with Glass-to-metal Solder-seal Terminals
- Have Unusual Self-healing Characteristics, in the Rare Event of Capacitor Dielectric Breakdown
- May be Used at Extremely Low Voltages Where Metallized Paper Construction has Previously Been Unsatisfactory
- For Complete Performance Characteristics, see Latest Issue of Engineering Bulletin 2211
- For Units With Outer Plastic Insulating Sleeves, Change Last Digit of Cat. No. From "2" to "4"
- Capacitors Listed Below Are Ungrounded Case (Insulating Section) Units Without Outer Insulating Sleeves. For Information on Other Styles Consult Your Sprague Industrial Distributor
- Call your Sprague Industrial Distributor for Quantity Prices.

μF	D. x L.	±20% Tol.		±10% Tol.	
		Catalog Number		Catalog Number	

200 WVDC

.01	.175 x 1 1/16	118P10302S2	118P10392S2	CALL YOUR SPRAGUE INDUSTRIAL DISTRIBUTOR FOR QUANTITY PRICES	CALL YOUR SPRAGUE INDUSTRIAL DISTRIBUTOR FOR QUANTITY PRICES
.012	.195 x 1 1/16		118P12392S2		
.015	.195 x 1 1/16	118P15302S2	118P15392S2		
.018	.235 x 1 1/16		118P18392S2		
.022	.235 x 1 1/16	118P22302S2	118P22392S2		
.027	.235 x 1 1/16		118P27392S2		
.033	.235 x 1 1/16	118P33302S2	118P33392S2		
.039	.312 x 1 1/16		118P39392S2		
.047	.312 x 1 1/16	118P47302S2	118P47392S2		
.056	.312 x 1 1/16		118P56392S2		
.068	.312 x 1 1/16	118P68302S2	118P68392S2	CALL YOUR SPRAGUE INDUSTRIAL DISTRIBUTOR FOR QUANTITY PRICES	CALL YOUR SPRAGUE INDUSTRIAL DISTRIBUTOR FOR QUANTITY PRICES
.082	.312 x 1 1/16		118P82392S2		
.1	.312 x 1 1/16	118P10402S2	118P10492S2		
.12	.312 x 1 1/16		118P12492S2		
.15	.312 x 1 1/16	118P15402S2	118P15492S2		
.18	.400 x 1 1/16		118P18492S2		
.22	.400 x 1 1/16	118P22402S2	118P22492S2		
.27	.400 x 1 1/16		118P27492S2		
.33	.400 x 1 1/16	118P33402S2	118P33492S2		
.39	.500 x 1 1/16		118P39492S2		
.47	.500 x 1 1/16	118P47402S2	118P47492S2	CALL YOUR SPRAGUE INDUSTRIAL DISTRIBUTOR FOR QUANTITY PRICES	CALL YOUR SPRAGUE INDUSTRIAL DISTRIBUTOR FOR QUANTITY PRICES
.56	.500 x 1 1/16		118P56492S2		
.68	.500 x 1 1/16	118P68402S2	118P68492S2		
.82	.562 x 1 1/16		118P82492S2		
1.0	.562 x 1 1/16	118P10502S2	118P10592S2		
1.5	.562 x 1 1/16	118P15502S2	118P15592S2		
2.0	.670 x 1 1/16	118P20502S2	118P20592S2		
3.0	.670 x 1 1/16	118P30502S2	118P30592S2		
4.0	.750 x 1 1/16	118P40502S2	118P40592S2		
5.0	1.000 x 1 1/16	118P50502S2	118P50592S2	CALL YOUR SPRAGUE INDUSTRIAL DISTRIBUTOR FOR QUANTITY PRICES	CALL YOUR SPRAGUE INDUSTRIAL DISTRIBUTOR FOR QUANTITY PRICES
6.0	1.000 x 1 1/16	118P60502S2	118P60592S2		
8.0	1.000 x 1 1/16	118P80502S2	118P80592S2		
10.0	1.000 x 2 1/16	118P10602S2	118P10692S2		
12.0	1.000 x 2 1/16	118P12602S2	118P12692S2		

μF	D. x L.	±20% Tol.		±10% Tol.	
		Catalog Number		Catalog Number	

400 WVDC

.01	.312 x 1 1/16	118P10304S2	118P10394S2	CALL YOUR SPRAGUE INDUSTRIAL DISTRIBUTOR FOR QUANTITY PRICES	CALL YOUR SPRAGUE INDUSTRIAL DISTRIBUTOR FOR QUANTITY PRICES
.015	.312 x 1 1/16	118P15304S2	118P15394S2		
.022	.312 x 1 1/16	118P22304S2	118P22394S2		
.033	.312 x 1 1/16	118P33304S2	118P33394S2		
.047	.400 x 1 1/16	118P47304S2	118P47394S2		
.068	.400 x 1 1/16	118P68304S2	118P68394S2		
.1	.500 x 1 1/16	118P10404S2	118P10494S2		
.15	.500 x 1 1/16	118P15404S2	118P15494S2		
.22	.562 x 1 1/16	118P22404S2	118P22494S2		
.33	.562 x 1 1/16	118P33404S2	118P33494S2		
.47	.670 x 1 1/16	118P47404S2	118P47494S2	CALL YOUR SPRAGUE INDUSTRIAL DISTRIBUTOR FOR QUANTITY PRICES	CALL YOUR SPRAGUE INDUSTRIAL DISTRIBUTOR FOR QUANTITY PRICES
.68	.670 x 1 1/16	118P68404S2	118P68494S2		
1.0	.750 x 1 1/16	118P10504S2	118P10594S2		
1.5	1.000 x 1 1/16	118P15504S2	118P15594S2		
2.0	1.000 x 1 1/16	118P20504S2	118P20594S2		
3.0	1.000 x 2 1/16	118P30504S2	118P30594S2		

600 WVDC

.01	.312 x 1 1/16	118P10306S2	118P10396S2	CALL YOUR SPRAGUE INDUSTRIAL DISTRIBUTOR FOR QUANTITY PRICES	CALL YOUR SPRAGUE INDUSTRIAL DISTRIBUTOR FOR QUANTITY PRICES
.015	.312 x 1 1/16	118P15306S2	118P15396S2		
.022	.312 x 1 1/16	118P22306S2	118P22396S2		
.033	.312 x 1 1/16	118P33306S2	118P33396S2		
.047	.400 x 1 1/16	118P47306S2	118P47396S2		
.068	.400 x 1 1/16	118P68306S2	118P68396S2		
.1	.500 x 1 1/16	118P10406S2	118P10496S2		
.15	.562 x 1 1/16	118P15406S2	118P15496S2		
.22	.562 x 1 1/16	118P22406S2	118P22496S2		
.33	.562 x 1 1/16	118P33406S2	118P33496S2		
.47	.670 x 1 1/16	118P47406S2	118P47496S2	CALL YOUR SPRAGUE INDUSTRIAL DISTRIBUTOR FOR QUANTITY PRICES	CALL YOUR SPRAGUE INDUSTRIAL DISTRIBUTOR FOR QUANTITY PRICES
.68	.670 x 1 1/16	118P68406S2	118P68496S2		
1.0	1.000 x 1 1/16	118P10506S2	118P10596S2		
1.5	1.000 x 1 1/16	118P15506S2	118P15596S2		
2.0	1.000 x 2 1/16	118P20506S2	118P20596S2		
2.5	1.000 x 2 1/16	118P25506S2	118P25596S2		

SPRAGUE CAPACITORS

21P METALLIZED PAPER CAPACITORS

Designed to Operate at 125C WITHOUT VOLTAGE DERATING—Extremely Important in Military and Industrial Equipment Where Higher Temperatures Are Encountered.

Quality of These Capacitors Is Surpassed only by Type 118P Units Described on Opposite Page.

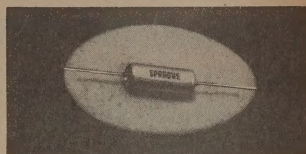
High Insulation Resistance—at 85C, Minimum Product of Insulation Resistance and Capacitance Is 20 Megohm-Microfarads. At 125C, Minimum Product is 1.0 Megohm-Microfarads.

• Hermetically Sealed With Glass-to-Metal Solder-Seal Terminals—Capacitor Cases Are of Corrosion Resistant Materials—Similar in Appearance to Type 118P.

• May Be Operated at Low Voltages, Unlike Many Other Metallized Capacitors.

• For Complete Technical Data, See Latest Issue of Engineering Bulletin 2210.

• Capacitors Listed Below Are Ungrounded Case (Insulated Section) Units Without Outer Insulating



Sleeves. For Information on Other Styles Consult Your Sprague Industrial Distributor.

• Call Your Sprague Industrial Distributor For Quantity Prices.

• For Units With Outer Plastic Insulating Sleeve, Change Last Digit in Cat. No. From 2 to 4.

		± 20% Tol.		± 10% Tol.				± 20% Tol.		± 10% Tol.	
μF	D. x L.	Cat. No.		Cat. No.		μF	D. x L.	Cat. No.		Cat. No.	
150 WVDC						150 WVDC (cont.)					
1.5	.562 x 1 1/8	121P15501R5S2		121P15591R5S2		6.0	.750 x 1 1/8	121P60501R5S2		121P60591R5S2	
2.0	.562 x 1 1/8	121P20501R5S2		121P20591R5S2		8.0	.750 x 2 3/8	121P80501R5S2		121P80591R5S2	
2.5	.562 x 1 1/8	121P25501R5S2		121P25591R5S2		10	.750 x 2 3/8	121P10601R5S2		121P10691R5S2	
3.0	.670 x 1 1/8	121P30501R5S2		121P30591R5S2		12	1.000 x 1 1/8	121P12601R5S2		121P12691R5S2	
3.5	.670 x 1 1/8	121P35501R5S2		121P35591R5S2		14	1.000 x 2 1/8	121P14601R5S2		121P14691R5S2	
4.0	.670 x 1 1/8	121P40501R5S2		121P40591R5S2		16	1.000 x 2 1/8	121P16601R5S2		121P16691R5S2	
5.0	.670 x 1 1/8	121P50501R5S2		121P50591R5S2		18	1.000 x 2 1/8	121P18601R5S2		121P18691R5S2	

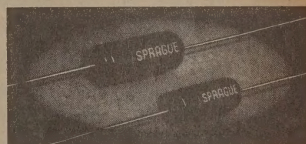
TYPE 155P & 156P MOLDED METALLIZED PAPER CAPACITORS

Superior to Most Competitive Units—Withstand Twice Rated Voltage Tests Giving Extra Design Safety Factor. Stand up Under High Humidity Condition.

• Self-generated Noise Practically Non-Existent. • Sealed With Epoxy.

• Type 155P—Molded in Case. Type 156P in Premolded Case. Available in Kleer-Pak® Boxes. Complete Technical Data in Latest Issue of Sprague Bulletin 2030.

• Call Your Sprague Industrial Distributor For Current Quantity Prices.

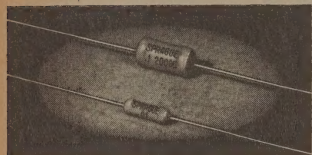


μF	D.	x	L.	Ordering Information	μF	D.	x	L.	Ordering Information	μF	D.	x	L.	Ordering Information	
200 VOLTS D-C					200 VOLTS D-C (Cont.)					400 VOLTS D-C (Cont.)					
.01	3/16		1	155P10302	7.0	7/8	2 1/2	156P70502		1.0	3/4	2 1/4	156P10504		
.015	3/16		1	155P15302	7.5	7/8	2 1/2	156P75502		1.5	7/8	2 1/2	156P15504		
.02	3/16		1	155P-.02-200	8.0	1	2 1/2	156P80502		2.0	7/8	2 1/2	156P20504		
.022	3/16		1	155P22302	8.5	1	2 1/2	156P85502		2.5	1	2 1/2	156P25504		
.03	3/16		1	155P-.03-200	9.0	1	2 1/2	156P90502		600 VOLTS D-C					
.033	3/16		1	155P33302	9.5	1	2 1/2	156P95502		.01	3/16		1	155P10306	
.047	3/16		1	155P47302	400 VOLTS D-C						.015	3/16		1 1/4	155P15306
.05	3/16		1	155P-.05-200	.01	3/16		1	155P10304		.02	3/16		1 1/4	155P-02-600
.068	3/16		1	155P68302	.015	3/16		1	155P15304		.022	3/16		1 1/4	155P22306
.1	3/16		1	155P10402	.02	3/16		1	155P-.02-400		.03	3/8		1 1/4	155P-.03-600
.15	3/8		1 1/4	155P15402	.022	3/16		1	155P22304		.033	3/8		1 1/4	155P33306
.22	3/8		1 1/4	155P22402	.025	3/8		1 1/4	155P-.025-400		.04	3/8		1 1/4	155P-.04-600
.25	7/16		1 1/4	155P-.25-200	.03	3/8		1 1/4	155P-.03-400		.047	3/8		1 1/4	155P47306
.33	7/16		1 1/4	155P33402	.033	3/8		1 1/4	155P33304		.05	7/16		1 1/4	155P-.05-600
.47	7/16		1 1/4	155P47402	.04	3/8		1 1/4	155P-.04-400		.06	7/16		1 1/4	155P-.06-600
.5	1/2		1 1/2	155P-.5-200	.047	3/8		1 1/4	155P47304		.068	7/16		1 1/4	155P68306
.68	1/2		1 1/2	155P68402	.05	3/8		1 1/4	155P-.05-400		.1	1/2		1 1/2	155P10406
.8	1/2		1 1/2	155P10502	.068	3/8		1 1/4	155P68304		.15	1/2		1 1/2	155P15406
1.0	3/4		1 1/2	155P15502	.1	7/16		1 1/4	155P10404		.2	3/4		1 1/2	155P-.2-600
2.0	3/4		1 1/2	155P20502	.15	1/2		1 1/2	155P15404		.22	3/4		1 1/2	155P22406
2.5	3/4		2 1/4	156P25502	.2	1/2		1 1/2	155P-.2-400		.25	3/4		1 1/2	155P-25-600
3.0	3/4		2 1/4	156P30502	.22	1/2		1 1/2	155P22404		.33	3/4		1 1/2	155P33406
3.5	3/4		2 1/4	156P35502	.25	3/8		1 1/2	155P-.25-400		.47	3/4		2 1/4	156P47406
4.0	3/4		2 1/4	156P40502	.33	3/8		1 1/2	155P33404		.5	3/4		2 1/4	156P-.5-600
4.5	7/8		2 1/2	156P45502	.47	3/8		1 1/2	155P47404		.68	3/4		2 1/4	156P68406
5.0	7/8		2 1/2	156P50502	.5	3/8		1 1/2	155P-5-400		1.0	7/8		2 1/2	156P10506
5.5	7/8		2 1/2	156P55502	.68	3/4		2 1/4	156P68404		1.5	1		2 1/2	156P15506
6.0	7/8		2 1/2	156P60502											
6.5	7/8		2 1/2	156P65502											

SPRAGUE CAPACITORS

TYPE 192P PACER[®] FILMITE[®] 'E' CAPACITORS

- New Minimum Construction Size. Extended Foil Film Sections Terminate in End Caps. Best Possible Non-Inductive Section. Rated for -55°C to $+85^{\circ}\text{C}$.
- Controlled Dimensions—May Be Used With Automatic Insertion Equipment.
- Wound With Polyester Film Dielectric and Thin Gage Foil Under Controlled Atmospheric Conditions. Protected by Hard Durable Orange Epoxy Coating
- Also Available in Kleer-Pak[®] Boxes.
- For Quantity Prices Call Your Sprague Industrial Distributor
- See Latest Issue of Sprague Engineering Bulletin 2066.



μF	Size			Cat. No.
	D	x	L	
80 VOLTS D-C				
0.0022	0.138	$\frac{5}{16}$	192P2229R8	
0.0027	0.138	$\frac{5}{16}$	192P2729R8	
0.0033	0.138	$\frac{5}{16}$	192P3329R8	
0.0039	0.138	$\frac{5}{16}$	192P3929R8	
0.0047	0.138	$\frac{5}{16}$	192P4729R8	
0.0056	0.170	$\frac{3}{8}$	192P5629R8	
0.0068	0.170	$\frac{3}{8}$	192P6829R8	
0.0082	0.170	$\frac{3}{8}$	192P8229R8	
0.01	0.170	$\frac{3}{8}$	192P1039R8	
0.012	0.170	$\frac{7}{16}$	192P1239R8	
0.015	0.170	$\frac{7}{16}$	192P1539R8	
0.018	0.170	$\frac{1}{2}$	192P1839R8	
0.022	0.170	$\frac{1}{2}$	192P2239R8	
0.027	0.204	$\frac{7}{16}$	192P2739R8	
0.033	0.204	$\frac{7}{16}$	192P3339R8	
0.039	0.204	$\frac{7}{16}$	192P3939R8	
0.047	0.204	$\frac{7}{16}$	192P4739R8	
0.056	0.225	$\frac{7}{16}$	192P5639R8	
0.068	0.225	$\frac{7}{16}$	192P6839R8	
0.082	0.290	$\frac{1}{2}$	192P8239R8	
0.1	0.290	$\frac{1}{2}$	192P1049R8	
0.12	0.290	$\frac{5}{8}$	192P1249R8	
0.15	0.290	$\frac{5}{8}$	192P1549R8	
0.18	0.318	$\frac{5}{8}$	192P1849R8	
0.22	0.318	$\frac{5}{8}$	192P2249R8	
0.27	0.318	$\frac{7}{8}$	192P2749R8	
0.33	0.318	$\frac{7}{8}$	192P3349R8	
0.39	0.318	$1\frac{1}{16}$	192P3949R8	
0.47	0.318	$1\frac{1}{16}$	192P4749R8	

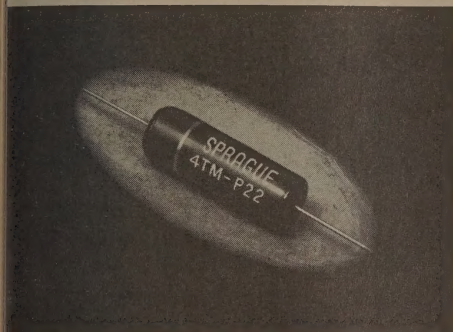
200 VOLTS D-C				
0.00047	0.138	$\frac{5}{16}$		192P47192
0.00056	0.138	$\frac{5}{16}$		192P47192

μF	Size			Cat. No.
	D	x	L	
200 VOLTS D-C (Cont.)				
0.00068	0.138	$\frac{5}{16}$	192P68192	
0.00082	0.138	$\frac{5}{16}$	192P82192	
0.001	0.138	$\frac{5}{16}$	192P10292	
0.0012	0.138	$\frac{5}{16}$	192P12292	
0.0015	0.138	$\frac{5}{16}$	192P15292	
0.0018	0.170	$\frac{5}{16}$	192P18292	
0.0022	0.170	$\frac{5}{16}$	192P22292	
0.0027	0.170	$\frac{5}{16}$	192P27292	
0.0033	0.170	$\frac{5}{16}$	192P33292	
0.0039	0.170	$\frac{7}{16}$	192P39292	
0.0047	0.170	$\frac{7}{16}$	192P47292	
0.0056	0.170	$\frac{7}{16}$	192P56292	
0.0068	0.170	$\frac{7}{16}$	192P68292	
0.0082	0.170	$\frac{1}{2}$	192P82292	
0.01	0.170	$\frac{1}{2}$	192P10392	
0.012	0.204	$\frac{7}{16}$	192P12392	
0.015	0.204	$\frac{7}{16}$	192P15392	
0.018	0.204	$\frac{7}{16}$	192P18392	
0.022	0.204	$\frac{7}{16}$	192P22392	
0.027	0.225	$\frac{7}{16}$	192P27392	
0.033	0.225	$\frac{7}{16}$	192P33392	
0.039	0.290	$\frac{1}{2}$	192P39392	
0.047	0.290	$\frac{1}{2}$	192P47392	
0.056	0.290	$\frac{3}{8}$	192P56392	
0.068	0.290	$\frac{3}{8}$	192P68392	
0.082	0.318	$\frac{3}{8}$	192P82392	
0.1	0.318	$\frac{3}{8}$	192P10492	
0.12	0.318	$\frac{7}{8}$	192P12492	
0.15	0.318	$\frac{7}{8}$	192P15492	
0.18	0.318	$1\frac{1}{16}$	192P18492	
0.22	0.318	$1\frac{1}{16}$	192P22492	

μF	Size			Cat. No.
	D	x	L	
400 VOLTS D-C				
0.00047	0.170	$\frac{3}{8}$		192P47194
0.00056	0.170	$\frac{3}{8}$		192P56194
0.00068	0.170	$\frac{3}{8}$		192P68194
0.00082	0.170	$\frac{3}{8}$		192P82194
0.001	0.170	$\frac{3}{8}$		192P10294
0.0012	0.170	$\frac{3}{8}$		192P12294
0.0015	0.170	$\frac{3}{8}$		192P15294
0.0018	0.170	$\frac{7}{16}$		192P18294
0.0022	0.170	$\frac{7}{16}$		192P22294
0.0027	0.204	$\frac{7}{16}$		192P27294
0.0033	0.204	$\frac{7}{16}$		192P33294
0.0039	0.204	$\frac{7}{16}$		192P39294
0.0047	0.204	$\frac{7}{16}$		192P47294
0.0056	0.225	$\frac{7}{16}$		192P56294
0.0068	0.225	$\frac{7}{16}$		192P68294
0.0082	0.225	$\frac{7}{16}$		192P82294
0.01	0.225	$\frac{7}{16}$		192P10394
0.012	0.290	$\frac{1}{2}$		192P12394
0.015	0.290	$\frac{1}{2}$		192P15394
0.018	0.290	$\frac{3}{8}$		192P18394
0.022	0.290	$\frac{3}{8}$		192P22394
0.027	0.318	$\frac{3}{8}$		192P27394
0.033	0.318	$\frac{3}{8}$		192P33394
0.039	0.318	$\frac{7}{8}$		192P39394
0.047	0.318	$\frac{7}{8}$		192P47394
0.056	0.318	$1\frac{1}{16}$		192P56394
0.068	0.318	$1\frac{1}{16}$		192P68394

SPRAGUE CAPACITORS

DIFILM® BLACK BEAUTY® MOLDED TUBULARS



DUAL DIELECTRIC ULTRA-RELIABLE DUAL-MARKED
WINDING



ROCK-HARD
CONSTRUCTION

LEAKPROOF

TOUGH MOLDED
HOUSING

LOOK FOR THE RED MARKINGS
ON THE BLACK CASE

- Developed Especially for Long Life Under High Humidity and Temperature Operating Conditions
- Dual Dielectric (film and paper) Combines Best Features of Both Polyester Film and Paper Capacitors
- Exclusive HCX® Solid Impregnant Construction Results in Rock-hard Capacitor Section
- Won't Leak or Drip

- Mica-filled, Non-flammable Molded Case. Won't Crack when Dropped; Soldering won't Harm it
- Every Capacitor Marked Twice. No Twisting the Case to Read Ratings
- Also Available in Handy Sprague Kleer-Pak®
- Capacitance Tolerance: $\pm 10\%$ from .001 μF up
Except 2TM-M1 $\pm 20\%$

For Complete Technical Data, See Latest Sprague Engineering Bulletin 2025

The World's Best Molded Tubular at No Extra Cost!

		Sprague Products		Sprague O.E.M.				Sprague Products		Sprague O.E.M.				Sprague Products		Sprague O.E.M.			
μF	D. x L.	Cat. No.	Part No.	μF	D. x L.	Cat. No.	Part No.	μF	D. x L.	Cat. No.	Part No.	μF	D. x L.	Cat. No.	Part No.	μF	D. x L.	Cat. No.	Part No.
200 WVDC				CALL YOUR SPRAGUE INDUSTRIAL DISTRIBUTOR FOR CURRENT QUANTITY PRICES	400 WVDC (Cont.)				CALL YOUR SPRAGUE INDUSTRIAL DISTRIBUTOR FOR CURRENT QUANTITY PRICES	600 WVDC (Cont.)				CALL YOUR SPRAGUE INDUSTRIAL DISTRIBUTOR FOR CURRENT QUANTITY PRICES					
.01	3/16 x 1	2TM-S10	160P10392		.04	3/16 x 1 1/4	4TM-S40	.....		.0022	3/16 x 1	6TM-D22	160P22296						
.02	3/8 x 1 1/4	2TM-S20	.....		.047	3/16 x 1 1/4	4TM-S47	160P47394		.0025	3/16 x 1	6TM-D25	.....						
.022	3/8 x 1 1/4	2TM-S22	160P22392		.05	3/16 x 1 1/4	4TM-S50	.....		.003	3/16 x 1	6TM-D30	.....						
.047	3/8 x 1 1/4	2TM-S47	160P47392		.068	1/2 x 1 1/2	4TM-S68	160P68394		.0033	3/16 x 1	6TM-D33	160P33296						
.05	3/8 x 1 1/4	2TM-S50	.....		.1	1/2 x 1 1/2	4TM-P10	160P10494		.004	3/8 x 1 1/4	6TM-D40	.....						
.1	3/16 x 1 1/4	2TM-P10	160P10492		.15	3/8 x 1 1/4	4TM-P15	160P15494		.0047	3/8 x 1 1/4	6TM-D47	160P47296						
.15	1/2 x 1 1/2	2TM-P15	160P15492		.2	3/8 x 1 1/4	4TM-P20	.....		.005	3/8 x 1 1/4	6TM-D50	.....						
.22	3/8 x 1 1/4	2TM-P22	160P22492		.22	3/8 x 1 1/4	4TM-P22	160P22494		.006	3/8 x 1 1/4	6TM-D60	.....						
.25	3/8 x 1 1/4	2TM-P25	.....		.25	3/8 x 2 1/4	4TM-P25	.....		.0068	3/8 x 1 1/4	6TM-D68	160P68296						
.47	3/8 x 1 1/4	2TM-P47	160P47492	.47	3/8 x 2 1/4	4TM-P47	160P47494	.008	3/8 x 1 1/4	6TM-D80	.....								
.5	3/8 x 1 1/4	2TM-P50	.....	.5	3/8 x 2 1/4	4TM-P50	.....	.01	3/8 x 1 1/4	6TM-S10	160P10396								
1.0	3/4 x 2 1/4	2TM-M1	160P10502	1.0	1 x 2 1/4	4TM-M1	160P10594	.015	3/8 x 1 1/4	6TM-S15	160P15396								
400 WVDC				CALL YOUR SPRAGUE INDUSTRIAL DISTRIBUTOR FOR CURRENT QUANTITY PRICES	600 WVDC				CALL YOUR SPRAGUE INDUSTRIAL DISTRIBUTOR FOR CURRENT QUANTITY PRICES	600 WVDC (Cont.)					CALL YOUR SPRAGUE INDUSTRIAL DISTRIBUTOR FOR CURRENT QUANTITY PRICES				
.001	3/16 x 1	4TM-D10	160P10294		.0001	3/16 x 1	6TM-T10	.....		.02	3/8 x 1 1/4	6TM-S20	.....						
.005	3/16 x 1	4TM-D50	.....		.00025	3/16 x 1	6TM-T25	.....		.022	3/8 x 1 1/4	6TM-S22	160P22396						
.01	3/16 x 1	4TM-S10	160P10394		.0004	3/16 x 1	6TM-T40	.....		.025	3/8 x 1 1/4	6TM-S25	.....						
.015	3/8 x 1 1/4	4TM-S15	160P15394		.0005	3/16 x 1	6TM-T50	.....		.03	3/8 x 1 1/4	6TM-S30	.....						
.02	3/8 x 1 1/4	4TM-S20	.....		.001	3/16 x 1	6TM-D10	160P10296		.033	3/8 x 1 1/4	6TM-S33	160P33396						
.022	3/8 x 1 1/4	4TM-S22	160P22394		.0015	3/16 x 1	6TM-D15	160P15296		.035	3/8 x 1 1/4	6TM-S35	.....						
.025	3/8 x 1 1/4	4TM-S25	.....		.002	3/16 x 1	6TM-D20	.....		.04	1/2 x 1 1/4	6TM-S40	.....						
.03	3/8 x 1 1/4	4TM-S30	.....							.047	1/2 x 1 1/2	6TM-S47	160P47396						

SPRAGUE CAPACITORS

DIFILM® BLACK BEAUTY® MOLDED TUBULARS, continued

μF	D. x L.	Sprague Products Cat. No.	Sprague O.E.M. Part No.
600 WVDC (Cont.)			
.05	1/2 x 1 1/2	6TM-S50	.....
.06	1/2 x 1 1/2	6TM-S60	.....
.068	1/2 x 1 1/2	6TM-S68	160P68396
.1	3/8 x 1 1/2	6TM-P10	160P10496
.15	3/8 x 1 1/2	6TM-P15	160P15496
.2	3/4 x 2 1/4	6TM-P20	.....
.22	3/4 x 2 1/4	6TM-P22	160P22496
.25	3/4 x 2 1/4	6TM-P25	.....
.47	1 x 2 1/2	6TM-P47	160P47496
.5	1 x 2 1/2	6TM-P50	.....
1.0	1 x 2 1/2	6TM-M1	.....

Call Your Sprague Industrial Distributor for Current Quantity Prices

μF	D. x L.	Sprague Products Cat. No.	Sprague O.E.M. Part No.
1000 WVDC			
.0005	3/16 x 1	10TM-T50	.....
.001	3/16 x 1	10TM-D10	160P102910
.0015	3/16 x 1	10TM-D15	160P152910
.002	3/8 x 1 1/4	10TM-D20	.....
.0022	3/8 x 1 1/4	10TM-D22	160P222910
.003	3/8 x 1 1/4	10TM-D30	.....
.004	3/8 x 1 1/4	10TM-D40	.....
.0047	3/8 x 1 1/4	10TM-D47	160P472910
.005	3/8 x 1 1/4	10TM-D50	.....
.0068	3/8 x 1 1/4	10TM-D68	160P682910

1600 WVDC BUFFER CAPACITORS

μF	D. x L.	Sprague Products Cat. No.	Sprague O.E.M. Part No.
.004	1/2 x 1 1/2	MB-D4	.....
.0047	1/2 x 1 1/2	MB-D47	160P472916
.005	1/2 x 1 1/2	MB-D5	.....
.006	1/2 x 1 1/2	MB-D6	.....
.0068	1/2 x 1 1/2	MB-D68	160P682916
.007	1/2 x 1 1/2	MB-D7	.....
.0075	1/2 x 1 1/2	MB-D75	.....
.008	3/4 x 1 1/2	MB-D8	.....

Call Your Sprague Industrial Distributor for Current Quantity Prices

μF	D. x L.	Sprague Products Cat. No.	Sprague O.E.M. Part No.
1000 WVDC (cont.)			
.01	3/16 x 1 1/4	10TM-S10	160P103910
.015	1/2 x 1 1/2	10TM-S15	160P153910
.02	1/2 x 1 1/2	10TM-S20	.....
.022	1/2 x 1 1/2	10TM-S22	160P223910
.03	3/4 x 1 1/2	10TM-S30	.....
.035	3/4 x 1 1/2	10TM-S35	.....
.047	3/4 x 1 1/2	10TM-S47	160P473910
.05	3/4 x 1 1/2	10TM-S50	.....
.068	3/4 x 1 1/2	10TM-S68	160P683910
.1	3/4 x 2 1/4	10TM-P10	160P104910
.15	3/4 x 2 1/4	10TM-P15	160P154910

Call Your Sprague Industrial Distributor for Current Quantity Prices

μF	D. x L.	Sprague Products Cat. No.	Sprague O.E.M. Part No.
.0005	3/16 x 1 1/4	MB-T5	.....
.001	3/16 x 1 1/4	MB-D1	160P102916
.0015	3/16 x 1 1/4	MB-D15	160P152916
.002	3/16 x 1 1/4	MB-D2	.....
.0022	3/8 x 1 1/4	MB-D22	160P222916
.003	3/8 x 1 1/4	MB-D3	.....
.0033	3/16 x 1 1/4	MB-D33	160P332916

MINERAL-OIL BLACK BEAUTY® MOLDED TUBULARS

● Kraftboard Sleeve and Epoxy End-Seal Gives Added Circuit Protection ● All Paper Dielectric, Impregnated With Mineral Oil For Best High Voltage Performance ● Maximum Operating Temperature: 85°C

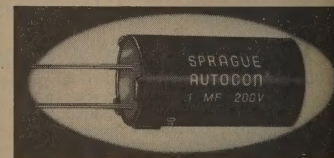
6000 WVDC BUFFER			
.0005	3/16 x 1 1/2	TVM-356	.....
.001	3/16 x 1 1/2	TVM-216	184P102060
.005	1 1/16 x 2 1/4	TVM-256	.....

10,000 WVDC BUFFER			
.0005	1 1/16 x 2 1/4	TVM-351	.....

12,500 WVDC BUFFER			
.00025	1 1/16 x 2 1/4	12TVM-325	.....

AUTOCON® MOLDED TUBULAR CAPACITORS

- Generous 1" Lead Lengths Make Autocons Universal Replacements For All Single Ended Original Equipment Types Used on Printed Wiring Boards
- Pre-molded Thermosetting Plastic Shell with Plastic Resin Endseal for Humidity Protection, Outside Foil Identified by Index Key
- Autocons Have High Insulation Resistance, Low Power Factor, and a Flat Temperature-Capacitance Curve
- Impregnated with HCX®, an Exclusive Solid Dielectric Material
- "Standoff" Feet Prevent Dust and Moisture Traps. Also Prevent Printed Wiring Board Shorts



μF	WVDC	Diam.	Length	Cat. No.
.001	200	3/8	1 1/2	2SE-D10
.0015	200	3/8	1 1/2	2SE-D15
.0022	200	3/8	1 1/2	2SE-D22
.0033	200	3/8	1 1/2	2SE-D33
.0047	200	3/8	1 1/2	2SE-D47
.0068	200	3/8	1 1/2	2SE-D68
.01	200	3/8	1 1/2	2SE-S10
.015	200	3/8	1 1/2	2SE-S15
.022	200	3/8	1 1/2	2SE-S22
.033	200	3/8	1 1/2	2SE-S33
.047	200	7/8	1 1/2	2SE-S47
.068	200	7/8	1 1/2	2SE-S68
.1	200	1 1/2	1 1/2	2SE-P10
.15	200	3/4	1 1/2	2SE-P15
.22	200	3/8	1 1/2	2SE-P22
.33	200	3/8	1 1/2	2SE-P33
.47	200	3/8	1 1/2	2SE-P47
.001	400	3/8	1 1/2	4SE-D10
.0015	400	3/8	1 1/2	4SE-D15
.0022	400	3/8	1 1/2	4SE-D22
.0033	400	3/8	1 1/2	4SE-D33
.0047	400	3/8	1 1/2	4SE-D47
.0068	400	3/8	1 1/2	4SE-D68
.01	400	3/8	1 1/2	4SE-S10

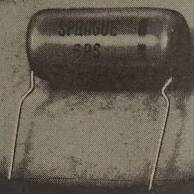
μF	WVDC	Diam.	Length	Cat. No.
.015	400	3/8	1 1/2	4SE-S15
.022	400	7/8	1 1/2	4SE-S22
.033	400	7/8	1 1/2	4SE-S33
.047	400	1 1/2	1 1/2	4SE-S47
.068	400	1 1/2	1 1/2	4SE-S68
.1	400	3/8	1 1/2	4SE-P10
.15	400	3/8	1 1/2	4SE-P15
.22	400	3/8	1 1/2	4SE-P22
.33	400	3/8	1 1/2	4SE-P33
.001	600	3/8	1 1/2	6SE-D10
.0015	600	3/8	1 1/2	6SE-D15
.0022	600	3/8	1 1/2	6SE-D22
.0033	600	3/8	1 1/2	6SE-D33
.0047	600	3/8	1 1/2	6SE-D47
.0068	600	3/8	1 1/2	6SE-D68
.01	600	3/8	1 1/2	6SE-S10
.015	600	7/8	1 1/2	6SE-S15
.022	600	7/8	1 1/2	6SE-S22
.033	600	1 1/2	1 1/2	6SE-S33
.047	600	1 1/2	1 1/2	6SE-S47
.068	600	3/8	1 1/2	6SE-S68
.1	600	3/8	1 1/2	6SE-P10
.15	600	3/8	1 1/2	6SE-P15

Call Your Sprague Industrial Distributor for Current Prices

Call Your Sprague Industrial Distributor for Current Prices

SPRAGUE CAPACITORS

DIFILM[®] ORANGE DROP[®] DIPPED TUBULARS



- Dual Dielectric (Film-paper) Solidly Impregnated With Exclusive HCX[®]—Produces Rock-Hard Capacitor Section
- Crimped Wire Leads for Correct Spacing When Mounted On Printed Wiring Boards.
- Voltage Ratings From 200 VDC to 2000 VDC
- Outside Foil on All Units Identified by Black Stripping
- Double Dipped in Bright Orange Epoxy Resin—Beats Heat and Humidity
- Won't Leak or Drip
- Also Available in Handy Sprague Kleer-Pak[®] Boxes
- For Complete Technical Data, See Latest Issue of Engineering Bulletin 2004

Especially Made for Exact, Original Replacement
Outperforms Any Other Dipped Tubular Capacitor

μF	D. x L.	Sprague Products Cat. No.	Sprague O.E.M. Part No.
200 VOLTS D-C			
.02	$\frac{3}{16} \times \frac{7}{16}$	2PS-S20	.....
.022	$\frac{2}{16} \times \frac{7}{16}$	2PS-S22	220P22392
.047	$\frac{2}{16} \times \frac{7}{16}$	2PS-S47	220P47392
.05	$\frac{1}{32} \times \frac{7}{16}$	2PS-S50	.....
.1	$\frac{3}{16} \times \frac{1}{16}$	2PS-P10	220P10492
.15	$\frac{3}{16} \times \frac{1}{16}$	2PS-P15	220P15492
.2	$\frac{1}{32} \times \frac{1}{16}$	2PS-P20	.....
.22	$\frac{3}{16} \times \frac{1}{16}$	2PS-P22	220P22492
.25	$\frac{5}{16} \times \frac{1}{16}$	2PS-P25	.....
.33	$\frac{5}{16} \times \frac{1}{16}$	2PS-P33	220P33492
.47	$\frac{4}{16} \times \frac{1}{16}$	2PS-P47	220P47492
.5	$\frac{2}{32} \times \frac{1}{16}$	2PS-P50	.....
400 VOLTS D-C			
.01	$\frac{1}{32} \times \frac{1}{16}$	4PS-S10	220P10394
.015	$\frac{2}{16} \times \frac{1}{16}$	4PS-S15	220P15394
.02	$\frac{1}{32} \times \frac{7}{16}$	4PS-S20	.....
.022	$\frac{2}{16} \times \frac{7}{16}$	4PS-S22	220P22394
.025	$\frac{7}{16} \times \frac{7}{16}$	4PS-S25	.....
.03	$\frac{2}{16} \times \frac{7}{16}$	4PS-S30	.....
.033	$\frac{1}{32} \times \frac{7}{16}$	4PS-S33	220P33394
.04	$\frac{2}{16} \times \frac{1}{16}$	4PS-S40	.....
.047	$\frac{2}{16} \times \frac{1}{16}$	4PS-S47	220P47394
.05	$\frac{2}{16} \times \frac{1}{16}$	4PS-S50	.....
.056	$\frac{3}{16} \times \frac{1}{16}$	4PS-S56	220P56394
.068	$\frac{3}{16} \times \frac{1}{16}$	4PS-S68	220P68394
.075	$\frac{3}{16} \times \frac{1}{16}$	4PS-S75	.....
.1	$\frac{3}{16} \times \frac{1}{16}$	4PS-P10	220P10494
.15	$\frac{3}{16} \times \frac{1}{16}$	4PS-P15	220P15494
.2	$\frac{1}{32} \times \frac{1}{16}$	4PS-P20	.....
.22	$\frac{3}{16} \times \frac{1}{16}$	4PS-P22	220P22494
.25	$\frac{4}{16} \times \frac{1}{16}$	4PS-P25	.....
600 VOLTS D-C			
.001	$\frac{2}{16} \times \frac{1}{16}$	6PS-D10	220P10296
.0012	$\frac{2}{16} \times \frac{1}{16}$	6PS-D12	220P12296
.0015	$\frac{2}{16} \times \frac{1}{16}$	6PS-D15	220P15296
.0018	$\frac{2}{16} \times \frac{1}{16}$	6PS-D18	220P18296
.002	$\frac{2}{16} \times \frac{1}{16}$	6PS-D20	.....
.0022	$\frac{2}{16} \times \frac{1}{16}$	6PS-D22	220P22296
.0025	$\frac{2}{16} \times \frac{1}{16}$	6PS-D25	.....
.0027	$\frac{1}{32} \times \frac{1}{16}$	6PS-D27	220P27296
.003	$\frac{1}{32} \times \frac{1}{16}$	6PS-D30	.....
.0033	$\frac{2}{16} \times \frac{1}{16}$	6PS-D33	220P33296
.0039	$\frac{3}{16} \times \frac{1}{16}$	6PS-D39	220P39296
.004	$\frac{3}{16} \times \frac{1}{16}$	6PS-D40	.....
.0047	$\frac{2}{16} \times \frac{1}{16}$	6PS-D47	220P47296
.005	$\frac{2}{16} \times \frac{1}{16}$	6PS-D50	.....
.0056	$\frac{2}{16} \times \frac{1}{16}$	6PS-D56	220P56296
.006	$\frac{1}{32} \times \frac{1}{16}$	6PS-D60	.....
.0068	$\frac{1}{32} \times \frac{1}{16}$	6PS-D68	220P68296
.0075	$\frac{2}{16} \times \frac{7}{16}$	6PS-D75	.....
.008	$\frac{2}{16} \times \frac{7}{16}$	6PS-D80	.....
.0082	$\frac{7}{16} \times \frac{7}{16}$	6PS-D82	220P82296
.01	$\frac{2}{16} \times \frac{7}{16}$	6PS-S10	220P10396
.012	$\frac{2}{16} \times \frac{7}{16}$	6PS-S12	220P12396
.015	$\frac{2}{16} \times \frac{7}{16}$	6PS-S15	220P15396
.02	$\frac{3}{16} \times \frac{7}{16}$	6PS-S20	

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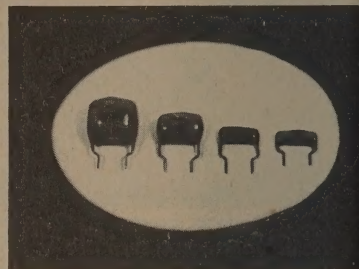
μF	D. x L.	Sprague Products Cat. No.	Sprague O.E.M. Part No.
600 VOLTS D-C (cont.)			
.022	$\frac{3}{16} \times \frac{7}{16}$	6PS-S22	220P22396
.025	$\frac{1}{32} \times \frac{7}{16}$	6PS-S25	.....
.027	$\frac{7}{16} \times \frac{1}{16}$	6PS-S27	220P27396
.03	$\frac{7}{16} \times \frac{1}{16}$	6PS-S30	.....
.033	$\frac{1}{32} \times \frac{1}{16}$	6PS-S33	220P33396
.035	$\frac{1}{32} \times \frac{1}{16}$	6PS-S35	.....
.039	$\frac{3}{16} \times \frac{1}{16}$	6PS-S39	220P39396
.04	$\frac{1}{2} \times \frac{1}{16}$	6PS-S40	.....
.047	$\frac{1}{32} \times \frac{1}{16}$	6PS-S47	220P47396
.05	$\frac{1}{32} \times \frac{1}{16}$	6PS-S50	.....
.056	$\frac{3}{16} \times \frac{1}{16}$	6PS-S56	220P56396
.06	$\frac{7}{16} \times \frac{1}{16}$	6PS-S60	.....
.068	$\frac{3}{16} \times \frac{1}{16}$	6PS-S68	220P68396
.075	$\frac{3}{16} \times \frac{1}{16}$	6PS-S75	.....
.082	$\frac{3}{16} \times \frac{1}{16}$	6PS-S82	220P82396
.1	$\frac{7}{16} \times \frac{1}{16}$	6PS-P10	220P10496
.15	$\frac{4}{16} \times \frac{1}{16}$	6PS-P15	220P15496
.2	$\frac{3}{4} \times \frac{1}{16}$	6PS-P20	.....
.22	$\frac{2}{32} \times \frac{1}{16}$	6PS-P22	220P22496
.25	$\frac{1}{16} \times \frac{1}{16}$	6PS-P25	.....
.33	$\frac{5}{16} \times \frac{1}{16}$	6PS-P33	.....
.47	$\frac{6}{16} \times \frac{1}{16}$	6PS-P47	.....
1000 VOLTS D-C			
.001	$\frac{2}{16} \times \frac{1}{16}$	10PS-D10	220P102910
.0015	$\frac{1}{32} \times \frac{1}{16}$	10PS-D15	220P152910
.002	$\frac{3}{16} \times \frac{1}{16}$	10PS-D20	.....
.0022	$\frac{3}{16} \times \frac{1}{16}$	10PS-D22	220P222910
.003	$\frac{1}{32} \times \frac{7}{16}$	10PS-D30	.....
.004	$\frac{3}{16} \times \frac{7}{16}$	10PS-D40	.....
.0047	$\frac{1}{32} \times \frac{7}{16}$	10PS-D47	220P472910
.005	$\frac{1}{32} \times \frac{7}{16}$	10PS-D50	.....
1600 VOLTS D-C			
.0005	$\frac{3}{16} \times \frac{1}{16}$	16PS-T50	.....
.001	$\frac{3}{16} \times \frac{1}{16}$	16PS-D10	220P102916
.0015	$\frac{3}{16} \times \frac{1}{16}$	16PS-D15	220P152916
.002	$\frac{3}{16} \times \frac{1}{16}$	16PS-D20	.....
.0022	$\frac{3}{16} \times \frac{1}{16}$	16PS-D22	220P222916
.003	$\frac{7}{16} \times \frac{1}{16}$	16PS-D30	.....
.0033	$\frac{7}{16} \times \frac{1}{16}$	16PS-D33	220P332916
.004	$\frac{1}{2} \times \frac{1}{16}$	16PS-D40	.....
.0047	$\frac{1}{2} \times \frac{1}{16}$	16PS-D47	220P472916
.005	$\frac{1}{2} \times \frac{1}{16}$	16PS-D50	.....
.006	$\frac{1}{2} \times \frac{1}{16}$	16PS-D60	.....
.0068	$\frac{1}{2} \times \frac{1}{16}$	16PS-D68	220P682916
.007	$\frac{1}{2} \times \frac{1}{16}$	16PS-D70	.....
.0075	$\frac{1}{2} \times \frac{1}{16}$	16PS-D75	.....
.008	$\frac{4}{16} \times \frac{1}{16}$	16PS-D80	.....
.01	$\frac{4}{16} \times \frac{1}{16}$	16PS-S10	220P103916
.015	$\frac{3}{16} \times \frac{1}{16}$	16PS-S15	220P153916
.02	$\frac{4}{16} \times \frac{1}{16}$	16PS-S20	.....
.022	$\frac{4}{16} \times \frac{1}{16}$	16PS-S22	220P223916
.03	$\frac{3}{4} \times \frac{2}{16}$	16PS-S30	.....
.04	$\frac{3}{4} \times \frac{2}{16}$	16PS-S40	.....
.05	$\frac{3}{4} \times \frac{2}{16}$	16PS-S50	.....
2000 VOLTS D-C			
.001	$\frac{3}{16} \times \frac{1}{16}$	20PS-D10	.....

CALL YOUR SPRAGUE INDUSTRIAL DISTRIBUTOR FOR CURRENT QUANTITY PRICES

SPRAGUE CAPACITORS

TYPE 225P FILMITE® 'E' ORANGE DROP® CAPACITORS

- Designed Specifically for Printed Wiring Board Applications and are Furnished with Radial Leads to Facilitate Insertion on Boards
- Find Wide Application in Television Receivers, Radio Sets, and Commercial Electronic Equipment
- Available in Voltage Ratings of 75 Volts and 100 Volts D-C for Operation up to 85°C
- Capacitor Sections are Wound From Polyester Film and Thin-gage Foil Under Carefully Controlled Atmospheric Conditions
- Protected Against Moisture by a Wax-free Conformal Coating of Epoxy
- For Complete Technical Data, Refer to Latest Issue of Sprague Engineering Bulletin 2062
- Call Your Sprague Industrial Distributor for Current Quantity Prices

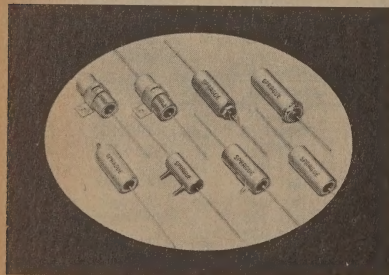


μF	Tol.	Size Height x Thickness x Length	Catalog Number
75 VOLTS D-C			
.12	10%	$\frac{3}{16} \times \frac{1}{8} \times \frac{3}{4}$	225P1249R75
.15	10%	$\frac{3}{16} \times \frac{1}{8} \times \frac{3}{4}$	225P1549R75
.18	10%	$\frac{4}{64} \times \frac{7}{16} \times \frac{3}{4}$	225P1849R75
.22	10%	$\frac{4}{64} \times \frac{7}{16} \times \frac{3}{4}$	225P2249R75
.27	10%	$\frac{27}{32} \times \frac{3}{16} \times \frac{3}{4}$	225P2749R75
.33	10%	$\frac{27}{32} \times \frac{3}{16} \times \frac{3}{4}$	225P3349R75
.39	10%	$\frac{27}{32} \times \frac{1}{8} \times \frac{3}{4}$	225P3949R75
.47	10%	$\frac{27}{32} \times \frac{1}{8} \times \frac{3}{4}$	225P4749R75
.56	10%	$\frac{57}{64} \times \frac{9}{16} \times \frac{13}{16}$	225P5649R75
.68	10%	$\frac{29}{32} \times \frac{1}{8} \times \frac{13}{16}$	225P6849R75
.82	10%	$\frac{41}{64} \times \frac{1}{8} \times \frac{13}{16}$	225P8249R75
1.0	10%	$\frac{41}{64} \times \frac{9}{16} \times \frac{13}{16}$	225P1059R75
100 VOLTS D-C			
.001	10%	$\frac{3}{16} \times \frac{1}{8} \times \frac{4}{64}$	225P10291
.0012	10%	$\frac{3}{16} \times \frac{1}{8} \times \frac{4}{64}$	225P12291
.0015	10%	$\frac{3}{16} \times \frac{1}{8} \times \frac{4}{64}$	225P15291
.0018	10%	$\frac{3}{16} \times \frac{1}{8} \times \frac{4}{64}$	225P18291
.0022	10%	$\frac{3}{16} \times \frac{1}{8} \times \frac{4}{64}$	225P22291
.0027	10%	$\frac{3}{16} \times \frac{1}{8} \times \frac{4}{64}$	225P27291

μF	Tol.	Size Height x Thickness x Length	Catalog Number
100 VOLTS D-C (Cont.)			
.0033	10%	$\frac{3}{16} \times \frac{1}{8} \times \frac{4}{64}$	225P33291
.0039	10%	$\frac{3}{16} \times \frac{1}{8} \times \frac{4}{64}$	225P39291
.0047	10%	$\frac{3}{16} \times \frac{1}{8} \times \frac{4}{64}$	225P47291
.0056	10%	$\frac{3}{16} \times \frac{1}{8} \times \frac{4}{64}$	225P56291
.0068	10%	$\frac{3}{16} \times \frac{1}{8} \times \frac{4}{64}$	225P68291
.0082	10%	$\frac{3}{16} \times \frac{1}{8} \times \frac{4}{64}$	225P82291
.01	10%	$\frac{3}{16} \times \frac{1}{8} \times \frac{4}{64}$	225P10391
.012	10%	$\frac{3}{16} \times \frac{1}{8} \times \frac{4}{64}$	225P12391
.015	10%	$\frac{3}{16} \times \frac{1}{8} \times \frac{4}{64}$	225P15391
.018	10%	$\frac{3}{16} \times \frac{1}{8} \times \frac{4}{64}$	225P18391
.022	10%	$\frac{3}{16} \times \frac{1}{8} \times \frac{4}{64}$	225P22391
.027	10%	$\frac{27}{64} \times \frac{1}{8} \times \frac{4}{64}$	225P27391
.033	10%	$\frac{27}{64} \times \frac{1}{8} \times \frac{4}{64}$	225P33391
.039	10%	$\frac{1}{32} \times \frac{1}{4} \times \frac{4}{64}$	225P39391
.047	10%	$\frac{1}{32} \times \frac{1}{4} \times \frac{4}{64}$	225P47391
.056	10%	$\frac{3}{8} \times \frac{1}{8} \times \frac{4}{64}$	225P56391
.068	10%	$\frac{3}{8} \times \frac{1}{8} \times \frac{4}{64}$	225P68391
.082	10%	$\frac{17}{32} \times \frac{1}{8} \times \frac{4}{64}$	225P82391
.1	10%	$\frac{17}{32} \times \frac{1}{8} \times \frac{4}{64}$	225P10491

TYPE 260P

TUBULAR METAL-CLAD METALLIZED FILMITE® 'K' CAPACITORS



- Designed for Applications Such as Low-frequency Tuned Circuits, Analog Computer Reference Capacitors and Precision Timing and Integrating Circuits
- High Insulation Resistance, High Stability, Minimum Capacitance Change with Temperature, Low Dielectric Absorption and Low Dissipation Factor
- Capacitor Sections are of Non-inductive Construction
- Will Operate at Full Rated D-C Voltage Over the Temperature Range of -55°C to +105°C
- Capacitance Tolerance $\pm 5\%$, Voltage Rating 200 WVDC
- For Complete Technical Data, Refer to the Latest Issue of Sprague Engineering Bulletin 2705
- Call Your Sprague Industrial Distributor for Current Quantity Prices

μF	WVDC	D, x L	Catalog No.
.01	200	.175" x $\frac{3}{8}$	260P1035254
.015	200	.195" x $\frac{3}{8}$	260P1535254
.022	200	.235" x $\frac{3}{8}$	260P2235254
.033	200	.235" x $\frac{3}{8}$	260P3335254
.047	200	.312" x $\frac{7}{8}$	260P4735254
.056	200	.312" x $\frac{7}{8}$	260P5635254
.068	200	.312" x $\frac{7}{8}$	260P6835254
.1	200	.312" x $\frac{7}{8}$	260P1045254
.15	200	.312" x $1\frac{1}{8}$	260P1545254
.22	200	.400" x $\frac{7}{8}$	260P2245254
.33	200	.400" x $1\frac{1}{8}$	260P3345254

μF	WVDC	D, x L	Catalog
.47	200	.400" x $1\frac{1}{8}$	260P47454
.68	200	.562" x $1\frac{1}{8}$	260P68454
1.0	200	.562" x $1\frac{1}{8}$	260P10554
2.0	200	.670" x $1\frac{1}{8}$	260P20554
3.0	200	.750" x $1\frac{1}{8}$	260P30554
4.0	200	.750" x $2\frac{1}{8}$	260P40554
5.0	200	.750" x $2\frac{1}{8}$	260P50554
7.0	200	1.000" x $1\frac{1}{8}$	260P70554
8.0	200	1.000" x $2\frac{1}{8}$	260P80554
10.0	200	1.000" x $2\frac{1}{8}$	260P10654

SPRAGUE CAPACITORS

BF ISOFARAD® PLASTIC FILM CAPACITORS

For Applications Where the Best in Tubulars is None Too Good

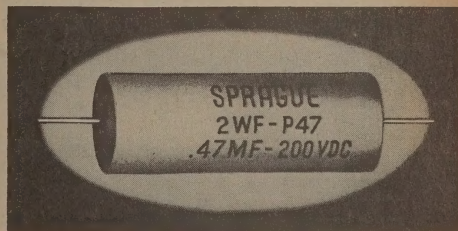


- Isofarad Quality is a Must in Color TV Synchroguide Circuits, Horizontal and Vertical Oscillators, Bridge and Parallel T Circuits and Other Tuned Circuit Applications Requiring Close Tolerance and Zero Temperature Coefficient of Capacitance
- Superior to Silvered Mica Capacitors, Yet Far Less Expensive
- Constant Capacitance—Will Not Change More Than $\pm 0.2\%$ from Room Temperature to $+80^\circ\text{C}$ at Maximum Rated Voltage Will Withstand Operating Temperatures to 85°C (185F)
- Capacitance Tolerance: $\pm 5\%$
- Also Available in Handy Sprague Kleer-Pak® Boxes
- For Complete Technical Data, See Latest Issue of Sprague Engineering Bulletin 2073

μ F	D. x L.	Sprague Products Cat. No.	Sprague O.E.M. Part No.	CALL YOUR SPRAGUE INDUSTRIAL DISTRIBUTOR FOR CURRENT PRICES	μ F	D. x L.	Sprague Products Cat. No.	Sprague O.E.M. Part No.	CALL YOUR SPRAGUE INDUSTRIAL DISTRIBUTOR FOR CURRENT PRICES
500 WVDC					500 WVDC (cont.)				
.001	$\frac{3}{8} \times 1$	5BF-D10	145P10255		.022	$\frac{1}{2} \times 1\frac{1}{2}$	5BF-S22	145P22355	
.0012	$\frac{3}{8} \times 1$	5BF-D12	145P12255		.027	$\frac{5}{8} \times 1\frac{1}{8}$	5BF-S27	145P27355	
.0015	$\frac{3}{8} \times 1$	5BF-D15	145P15255		.033	$\frac{5}{8} \times 1\frac{1}{8}$	5BF-S33	145P33355	
.0018	$\frac{3}{8} \times 1$	5BF-D18	145P18255		.039	$\frac{5}{8} \times 1\frac{1}{8}$	5BF-S39	145P39355	
.0022	$\frac{3}{8} \times 1$	5BF-D22	145P22255		.047	$\frac{5}{8} \times 1\frac{1}{8}$	5BF-S47	145P47355	
.0027	$\frac{3}{8} \times 1$	5BF-D27	145P27255		.056	$\frac{5}{8} \times 1\frac{1}{8}$	5BF-S56	145P56355	
.0033	$\frac{3}{8} \times 1$	5BF-D33	145P33255		.068	$\frac{5}{8} \times 1\frac{1}{8}$	5BF-S68	145P68355	
.0039	$\frac{3}{8} \times 1$	5BF-D39	145P39255		.082	$\frac{3}{4} \times 1\frac{1}{4}$	5BF-S82	145P82355	
.0047	$\frac{3}{8} \times 1$	5BF-D47	145P47255		.1	$\frac{3}{4} \times 2\frac{1}{4}$	5BF-P10	145P10455	
.0056	$\frac{3}{8} \times 1\frac{1}{4}$	5BF-D56	145P56255		.12	$\frac{7}{8} \times 2\frac{1}{2}$	5BF-P12	145P12455	
.0068	$\frac{3}{8} \times 1\frac{1}{4}$	5BF-D68	145P68255		.15	$\frac{7}{8} \times 2\frac{1}{2}$	5BF-P15	145P15455	
.0082	$\frac{7}{16} \times 1\frac{1}{4}$	5BF-D82	145P82255		.18	$\frac{7}{8} \times 2\frac{1}{2}$	5BF-P18	145P18455	
.01	$\frac{7}{16} \times 1\frac{1}{4}$	5BF-S10	145P10355		.22	$\frac{7}{8} \times 2\frac{1}{2}$	5BF-P22	145P22455	
.012	$\frac{1}{2} \times 1\frac{1}{4}$	5BF-S12	145P12355		.27	$1 \times 2\frac{1}{2}$	5BF-P27	145P27455	
.015	$\frac{1}{2} \times 1\frac{1}{4}$	5BF-S15	145P15355		.33	$1 \times 2\frac{1}{2}$	5BF-P33	145P33455	
.018	$\frac{1}{2} \times 1\frac{1}{2}$	5BF-S18	145P18355						

WF YELLOW-JACKET® FILMITE® 'E' CAPACITORS

- Excellent for Use in Transistorized Circuits and Low-Voltage Electron Tube Circuits
- Extended Foil Type Sections, Wound from Selected, Ultra-Thin Polyester Film and Thin Gage Foil
- Outer Plastic Film Wrap and Resin End Seals Protect Against Moisture and Humidity
- "Smaller Than Small" — These Capacitors Will Fit Anywhere
- Rated to **200 WVDC** — Capacitance Tolerance: $\pm 10\%$
- Designed for Operation to 85°C (185F)
- Available in Kleer-Pak® Boxes
- For Technical Data, See Latest Issue of Sprague Bulletin 2063



μ F	D. x L.	Sprague Products Cat. No.	Sprague O.E.M. Part No.	CALL YOUR SPRAGUE INDUSTRIAL DISTRIBUTOR FOR CURRENT PRICES	μ F	D. x L.	Sprague Products Cat. No.	Sprague O.E.M. Part No.	CALL YOUR SPRAGUE INDUSTRIAL DISTRIBUTOR FOR CURRENT PRICES
200 WVDC					200 WVDC (cont.)				
.01	$\frac{1}{8} \times \frac{1}{16}$	2WF-S10	148P10392		.12	$\frac{1}{32} \times \frac{1}{16}$	2WF-P12	148P12492	
.012	$\frac{1}{8} \times \frac{1}{16}$	2WF-S12	148P12392		.15	$\frac{1}{32} \times \frac{1}{16}$	2WF-P15	148P15492	
.015	$\frac{1}{8} \times \frac{1}{16}$	2WF-S15	148P15392		.18	$\frac{1}{32} \times \frac{1}{16}$	2WF-P18	148P18492	
.018	$\frac{1}{8} \times \frac{1}{16}$	2WF-S18	148P18392		.22	$\frac{1}{32} \times \frac{1}{16}$	2WF-P22	148P22492	
.022	$\frac{1}{8} \times \frac{1}{16}$	2WF-S22	148P22392		.27	$\frac{1}{32} \times \frac{1}{16}$	2WF-P27	148P27492	
.027	$\frac{1}{8} \times \frac{1}{16}$	2WF-S27	148P27392		.33	$\frac{1}{32} \times \frac{1}{16}$	2WF-P33	148P33492	
.033	$\frac{1}{8} \times \frac{1}{16}$	2WF-S33	148P33392		.39	$\frac{3}{64} \times \frac{1}{16}$	2WF-P39	148P39492	
.039	$\frac{1}{8} \times \frac{1}{16}$	2WF-S39	148P39392		.47	$\frac{3}{64} \times \frac{1}{16}$	2WF-P47	148P47492	
.047	$\frac{1}{8} \times \frac{1}{16}$	2WF-S47	148P47392		.56	$\frac{3}{64} \times \frac{1}{16}$	2WF-P56	148P56492	
.056	$\frac{1}{4} \times \frac{1}{16}$	2WF-S56	148P56392		.68	$\frac{3}{64} \times \frac{1}{16}$	2WF-P68	148P68492	
.068	$\frac{1}{4} \times \frac{1}{16}$	2WF-S68	148P68392		.82	$\frac{1}{32} \times \frac{1}{16}$	2WF-P82	148P82492	
.082	$\frac{1}{8} \times \frac{1}{16}$	2WF-S82	148P82392		1.0	$\frac{1}{32} \times \frac{1}{16}$	2WF-M1	148P10592	
.1	$\frac{1}{8} \times \frac{1}{16}$	2WF-P10	148P10492						

SPRAGUE CAPACITORS

TYPE CR RECTANGULAR OILS



- Hermetically sealed in Rugged Rectangular Metal Cans
- Oil-Impregnated and Oil-Filled
- Extremely High Insulation Resistance
- Will Withstand High Surge Voltages and High Ambient Temperatures
- Widely Used in Transmitter Power Supplies and Other High-Voltage Applications

- Furnished With Adapters (as shown below) to Standard Transmitting Tube Plate Caps



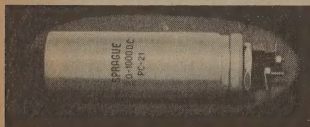
μF	WVDC	T. x W. x L.	Cat. No.
.5	600	1 1/8 x 1 1/8 x 2 1/4	CR-056
1.0	600	1 1/8 x 1 1/8 x 2 1/4	CR-16
2.0	600	1 1/8 x 1 1/8 x 2 1/4	CR-26
3.0	600	1 1/8 x 1 1/8 x 3 1/4	CR-36
4.0	600	1 1/8 x 2 1/2 x 3 1/2	CR-46
6.0	600	1 3/8 x 2 1/2 x 4 1/4	CR-66
8.0	600	1 1/4 x 3 3/4 x 3 3/4	CR-86
10.0	600	1 1/4 x 3 3/4 x 4 3/4	CR-106
.1	1000	1 1/8 x 1 1/8 x 1 1/8	CR-011
.25	1000	1 1/8 x 1 1/8 x 2 1/4	CR-0251
.5	1000	1 1/8 x 1 1/8 x 2 1/4	CR-051
1.0	1000	1 1/8 x 1 1/8 x 2 1/4	CR-11
2.0	1000	1 1/8 x 1 1/8 x 3 1/8	CR-21
4.0	1000	1 3/8 x 2 1/2 x 3 3/8	CR-41
8.0	1000	1 1/4 x 3 3/4 x 4 3/4	CR-81
10.0	1000	1 3/4 x 3 3/4 x 4 3/4	CR-101
12.0	1000	2 1/4 x 3 3/4 x 4 1/2	CR-121
15.0	1000	2 1/2 x 3 3/4 x 4 3/4	CR-151
.5	1500	1 1/8 x 1 1/8 x 2 1/8	CR-0515
1.0	1500	1 1/8 x 1 1/8 x 3 1/8	CR-115
2.0	1500	1 3/8 x 2 1/2 x 4 1/4	CR-215
4.0	1500	1 1/4 x 3 3/4 x 4 3/4	CR-415
5.0	1500	1 1/4 x 3 3/4 x 4 3/4	CR-515
8.0	1500	2 1/2 x 3 3/4 x 4 3/4	CR-815
10.0	1500	3 1/8 x 3 3/4 x 4 3/4	CR-1015
.1	2000	1 3/8 x 2 1/2 x 2 1/2	CR-012
.25	2000	1 3/8 x 2 1/2 x 2 1/2	CR-0252
.5	2000	1 3/8 x 2 1/2 x 2 1/8	CR-052
1.0	2000	1 3/8 x 2 1/2 x 3 1/2	CR-12
2.0	2000	1 1/4 x 3 3/4 x 4 1/4	CR-22

CALL YOUR SPRAGUE INDUSTRIAL DISTRIBUTOR FOR CURRENT PRICES

μF	WVDC	T. x W. x L.	Cat. No.
3.0	2000	1 1/4 x 3 3/4 x 4 3/4	CR-32
4.0	2000	2 1/4 x 3 3/4 x 3 3/8	CR-42
6.0	2000	3 1/8 x 3 3/4 x 4 1/2	CR-62
10.0	2000	4 1/8 x 3 3/4 x 4 3/4	CR-102
.1	2500	1 3/8 x 2 1/2 x 2 1/2	CR-0125
.5	2500	1 1/4 x 3 3/4 x 3 3/4	CR-0525
1.0	2500	1 3/4 x 3 3/4 x 3 3/4	CR-125
2.0	2500	1 3/4 x 3 3/4 x 4 3/4	CR-225
4.0	2500	4 1/8 x 3 3/4 x 4 3/8	CR-425
.1	3000	1 3/8 x 2 1/2 x 2 1/2	CR-013
.25	3000	1 3/8 x 2 1/2 x 2 1/8	CR-0253
.5	3000	1 3/8 x 2 1/2 x 4 1/4	CR-053
1.0	3000	2 1/4 x 3 3/4 x 3 3/8	CR-13
2.0	3000	3 3/8 x 3 3/4 x 4 1/2	CR-23
4.0	3000	4 1/8 x 3 3/4 x 4 3/4	CR-43
.1	4000	2 1/4 x 3 3/4 x 2 3/4	CR-014
.25	4000	2 1/4 x 3 3/4 x 2 3/4	CR-0254
.5	4000	2 1/4 x 3 3/4 x 3 3/8	CR-054
1.0	4000	2 1/4 x 3 3/4 x 5 1/8	CR-14
2.0	4000	4 1/8 x 3 3/4 x 5 1/8	CR-24
.2	5000	1 3/4 x 3 3/4 x 3 3/8	CR-025
.5	5000	2 1/4 x 3 3/4 x 4 1/2	CR-055
1.0	5000	4 1/8 x 3 3/4 x 4 3/8	CR-15
2.0	5000	4 1/8 x 3 3/4 x 6	CR-25
.1	6000	2 1/4 x 3 3/4 x 3 3/8	CR-0160
.2	6000	1 3/4 x 3 3/4 x 4 1/4	CR-0260
1.0	6000	4 1/8 x 3 3/4 x 7 1/2	CR-160
.1	7500	2 1/4 x 3 3/4 x 3 3/8	CR-0175
.2	7500	1 3/4 x 3 3/4 x 4 3/4	CR-0275

CALL YOUR SPRAGUE INDUSTRIAL DISTRIBUTOR FOR CURRENT PRICES

SCREWBASE PC OILS



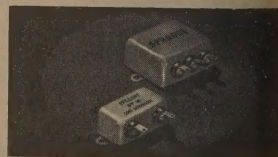
- Oil-Impregnated
- Oil-Filled
- Screwbase Can For Easy Single Hole Mounting
- Small Size — Will Fit Tight Spaces

μF	WVDC	Diam. x Lgth.	Cat. No.
2	600	1 1/2 x 2 3/4	PC-26
3	600	1 1/2 x 3 1/2	PC-36
4	600	1 1/2 x 5 1/4	PC-46
1	1000	1 1/2 x 2 3/4	PC-11
2	1000	1 1/2 x 4 1/2	PC-21
0.5	1500	1 1/2 x 2 3/4	PC-515
1	1500	1 1/2 x 3 3/4	PC-115

CALL YOUR SPRAGUE INDUSTRIAL DISTRIBUTOR FOR CURRENT PRICES

TYPE BP BATHTUB CAPACITORS

- For Applications Where Severe Operating Conditions Are Encountered
- Hermetically Sealed for Extra Protection
- Seamless Drawn Metal Can
- Oil-Filled and Oil-impregnated for Long, Dependable Service Life
- Convenient Mounting Ears are Integral Part of Metal Container



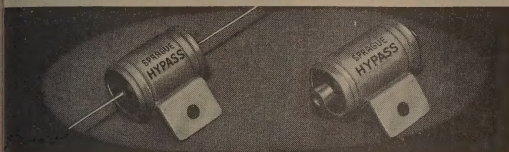
μF	L. x W. x H.	Cat. No.
400 WVDC		
.1	1 1/4 x 1 x 3/4	BP-1
.25	1 1/4 x 1 x 3/4	BP-25
.5	1 1/4 x 1 x 3/4	BP-50
1.0	2 x 1 3/4 x 1 1/4	BP-10
.1 + .1	1 1/4 x 1 x 3/4	BP-21
.25 + .25	1 1/4 x 1 x 3/4	BP-225
.5 + .5	2 x 1 3/4 x 1 1/4	BP-250
.1 + .1 + .1	1 1/4 x 1 x 3/4	BP-31
600 WVDC		
.05	1 1/4 x 1 x 3/4	BP-56
.1	1 1/4 x 1 x 3/4	BP-16
.25	1 1/4 x 1 x 3/4	BP-256
.5	1 1/4 x 1 x 3/4	BP-506
1.0	2 x 1 3/4 x 1 1/4	BP-106
2.0	2 x 2 x 1 1/4	BP-206
.05 + .05	1 1/4 x 1 x 3/4	BP-2056

μF	L. x W. x H.	Cat. No.
1000 WVDC		
.1 + .1	1 1/4 x 1 x 3/4	BP-216
.25 + .25	1 1/4 x 1 x 3/4	BP-2256
.5 + .5	2 x 1 3/4 x 1 1/4	BP-2506
1.0 + 1.0	2 x 2 x 1 1/4	BP-116
.1 + .1 + .1	1 1/4 x 1 x 3/4	BP-316
.25 + .25 + .25	2 x 1 3/4 x 1 1/4	BP-3256
.5 + .5 + .5	2 x 2 x 1 1/4	BP-356
1000 WVDC		
.05	1 1/4 x 1 x 3/4	BP-51
.1	1 1/4 x 1 x 3/4	BP-11
.25	1 1/4 x 1 x 3/4	BP-251
1.0	2 x 1 3/4 x 1 1/4	BP-501
.05 + .05	1 1/4 x 1 x 3/4	BP-2051
.1 + .1	1 1/4 x 1 x 3/4	BP-211
.25 + .25	2 x 1 3/4 x 1 1/4	BP-2251
.5 + .5	2 x 2 x 1 1/4	BP-2501
.1 + .1 + .1	1 1/4 x 1 x 3/4	BP-311
.25 + .25 + .25	2 x 2 x 1 1/4	BP-3251

CALL YOUR SPRAGUE INDUSTRIAL DISTRIBUTOR FOR CURRENT PRICES

SPRAGUE FILTERS

HYPASS® CAPACITORS



Exclusive Sprague 3-terminal Network Feed-thru Capacitors
Bypass V-H-F Currents Where Ordinary Capacitors are Ineffective
Suppress TVI from Short-wave Transmitters, Diathermy Machines, Electronic Heating Apparatus, etc.
Eliminate Interference caused by Line-conducted Radiation Between Neighboring TV Sets
Install Leads in Series with Circuit Being Filtered and Ground the Case

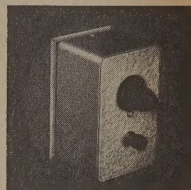
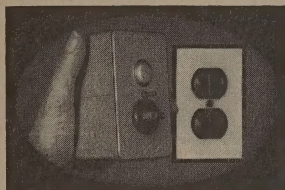
Amper.	WVDC	Dia. x Length	Cat. No.
40	50	1 x 1 13/16	*48P18
60	50	1 x 1 13/16	48P100
20	200	3/4 x 1 13/16	*48P10
20	200	1 x 1 13/16	*48P14
20	250(VAC)	1 1/16 x 1 13/16	*48P9
20	400	1 1/16 x 1 13/16	*48P6
20	400	1 1/16 x 1 13/16	†80P1
15	600	3/4 x 1 3/8	46P12
15	600	3/4 x 1 3/8	46P8
20	600	3/16 x 1 1/4	47P6
20	600	3/16 x 1 1/2	47P8
20	600	1 1/16 x 1 13/16	*48P8
20	600	1 1/16 x 1 13/16	*†80P3
20	600	1 x 1 13/16	*48P12
20	600	1 x 2 1/4	*48P16
20	1000	3/16 x 1 1/4	47P12
20	1000	3/16 x 1 1/2	47P13
20	2500	1 x 1 13/16	47P14
20	2500	1 x 1 13/16	47P15
20	5000	1 x 1 13/16	47P16

Has female screw terminals

†Bulkhead mounting.

CALL YOUR SPRAGUE INDUSTRIAL DISTRIBUTOR FOR CURRENT PRICES

TYPE F-400 MIRACLE FILTEROL®

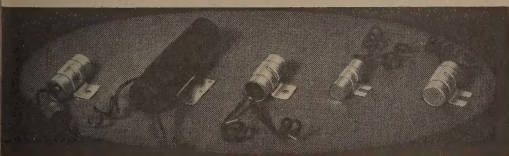


A LINE FILTER THAT REALLY WORKS

- Effectively Suppresses Radio Interference by Filtering Power Lines of Receivers and Appliances
- Maximum Noise Eliminating Efficiency because of Practically Zero Length of Ground Lead
- Plugs into Standard Duplex Wall Outlet — Captive Screw Fastens Filterol F-400 to Outlet for Safe, Secure Mounting
- Direct Wall-Mounting Provides Neat Installation — No Unsightly Cord — Receiver or Appliance Plugs into Standard Outlet on Face of F-400
- Will Also Operate at Slightly Reduced Efficiency in Older Homes where Wiring is of Knob and Tube or 2-Conductor Non-Metallic Sheathed Cable Type by Using the External Grounding Post Provided for this Purpose
- Handsomely Finished in Tan Hammerloid Baked Enamel
- Rated at 5 Amperes, 125 Volts AC or DC

CALL YOUR SPRAGUE INDUSTRIAL DISTRIBUTOR FOR CURRENT PRICES

TYPE IF FILTERS



IF-15 IF-11 IF-21 IF-S1 IF-37

IF-15 — TRIPLE-SECTION FILTER for small motor-operated devices such as fans, drills, etc. designed to prevent shocks from discharge of filter capacitors.
IF-11 — DUAL HIGH-CAPACITY FILTER designed for use on motors over 1 hp up to 220 volts ac-dc. Also used on high-current arcing devices.

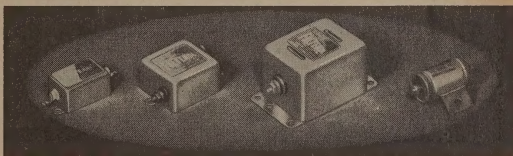
IF-21 — COMPACT DUAL FILTER for use on fractional horsepower motors with case grounded to motor frame. Also used across line terminals of motors.
IF-S1 — SINGLE SECTION 2-LEAD FILTER for use across make-and-break contacts, such as thermostats, circuit breakers, etc.

IF-37 — 3-SECTION DELTA-CONNECTED FILTER especially designed for fluorescent fixtures. Also used on governor-type motors. UL Approved.

Cat. No.	Volts AC or DC	Dia. x Length
-15	220	1 x 2 3/16
-11	220	1 3/4 x 5 1/4
-21	220	1 x 2 3/16
-S1	220	3/4 x 2 3/16
-37	220	1 x 2"

CALL YOUR SPRAGUE INDUSTRIAL DISTRIBUTOR FOR CURRENT PRICES

FILTEROL® FILTERS



FILTEROL 1 FILTEROL 2 FILTEROL 3 FILTEROL 4

Filterol Types 1, 2, and 3 — Designed for connection in series with power supply lines to interference-producing devices... A 3-terminal network with the case as one terminal... The selected filter should have a rating higher than the continuous operating current of the offending device... A single Filterol connected to the high side of the line is usually sufficient... In severe cases a Filterol in each leg of the power line may be necessary... For three or four-wire systems, a Filterol in each wire is necessary.

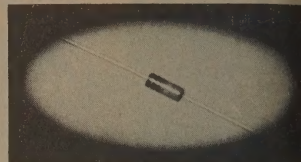
Filterol Type 4 — A new, exclusive Sprague development incorporating a Sprague HYPASS® Capacitor... Provides exceptionally high attenuation at frequencies above 5 megacycles... Intended for small devices with continuous current ratings up to 20 amperes.

Cat. No.	Amper.	Volts AC or DC	Size
Filterol 1	1	115	3/4 x 1 1/4 x 1 3/4
Filterol 2	10	115	1 1/4 x 2 x 2
Filterol 3	35	115	1 1/4 x 2 1/2 x 3 1/2
Filterol 4	20	115	1" dia. x 1 13/16" long

SPRAGUE CAPACITORS

TYPE 252C, MINIATURE MOLDED TUBULAR CERA-MITE[®] CAPACITORS

- Type 252C Capacitors Meet Basic Requirements for Modern Electronic Packaging
- Fully Molded Construction is Rugged and Offers Excellent Humidity Protection
- Ceramic Dielectric is Mechanically Strong and Electrically Stable
- Cordwood Size Permits Circuit Designer to Use These Capacitors in This New Packaging Concept
- Diameter, .094", Length, .250"
- For Complete Technical Data, See Latest Issue of Sprague Engineering Bulletin 6151

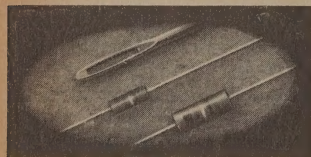


Catalog Number			
μF	WVDC	±5% Tol.	±10% Tol.
5	100	252C0555R0X9101B	252C0555R0X0101B
8	100	252C0558R0X9101B	
10	100	252C055100X9101B	252C055100X0101B
15	100	252C027150X5101B	252C027150X9101B
18	100	252C027180X5101B	
22	100	252C027220X5101B	252C027220X9101B
27	100	252C027270X5101B	
33	100	252C028330X5101B	252C028330X9101B
39	100	252C028390X5101B	
47	100	252C028470X5101B	252C028470X0101B

Catalog Number			
μF	WVDC	±5% Tol.	±10% Tol.
56	100	252C028560X5101B	
68	100	252C028680X5101B	252C028680X9101B
82	100	252C016820X5101B	
100	100	252C016101X5101B	252C016101X9101B
120	100	252C064121X5101B	
150	100	252C064151X5101B	252C064151X9101B
220	100		252C040221X0101B
330	100		252C040331X0101B
360	100		252C040361X0101B

Call Your Sprague Industrial Distributor For Prices

TYPES 262C, 263C MINIATURE MOLDED MONOLYTHIC[®] CEROD[®] CERAMIC CAPACITORS



- Cerod Capacitors—Tiny, Molded Cylindrical Ceramics Now in Monolithic Construction. True Miniaturization Without Compromise
- Two Cordwood Sizes Available. Designers Can Make Full Use of This New Packaging Concept
- Ceramic Elements Fully Molded in Thermo-

- setting Resin—Assures Good Mechanical and Electrical Properties Plus Precise Dimensional Control
- Two Ceramic Formulations Available Including a New Temperature-Stable Body
- Call Your Sprague Industrial Distributor for Quantity Prices
- For Complete Technical Data, See Latest Issue of Sprague Engineering Bulletin 6250

TYPE 262C—STANDARD RATINGS—100 VDC

Catalog Number			
μF	±5% Tol.	±10% Tol.	±20% Tol.
FORMULATION N030			
6.8		262C02568R9101B	262C02568R0X0101B
8.2		262C0258R2X9101B	262C0258R2X0101B
10	262C025100X5101B	262C025100X9100B	262C025100X0101B
12	262C025120X5101B	262C025120X9101B	262C025120X0101B
15	262C025150X5101B	262C025150X9100B	262C025150X0101B
18	262C025180X5101B	262C025180X9101B	262C025180X0101B
22	262C025220X5101B	262C025220X9101B	262C025220X0101B
27	262C025270X5101B	262C025270X9101B	262C025270X0101B
33	262C025330X5101B	262C025330X9101B	262C025330X0101B
39	262C025390X5101B	262C025390X9101B	262C025390X0101B
47	262C025470X5101B	262C025470X9101B	262C025470X0101B
56	262C025560X5101B	262C025560X9101B	262C025560X0101B
68	262C025680X5101B	262C025680X9101B	262C025680X0101B
82	262C025820X5101B	262C025820X9101B	262C025820X0101B
100	262C025101X5101B	262C025101X9101B	262C025101X0101B

Catalog Number			
μF	±5% Tol.	±10% Tol.	±20% Tol.
FORMULATION N030 (Cont.)			
120	262C025121X5101B	262C025121X9101B	262C025121X0101B
150	262C025151X5101B	262C025151X9101B	262C025151X0101B
FORMULATION X5R			
470	262C067471X9101B	262C067471X0101B	262C067471D8101B
680	262C067681X9101B	262C067681X0101B	262C067681D8101B
1000	262C067102X9101B	262C067102X0101B	262C067102D8101B
1500	262C067152X9101B	262C067152X0101B	262C067152D8101B
2200	262C067222X9101B	262C067222X0101B	262C067222D8101B
3300	262C067332X9101B	262C067332X0101B	262C067332D8101B
4700	262C067472X9101B	262C067472X0101B	262C067472D8101B
6800	262C067682X9101B	262C067682X0101B	262C067682D8101B
10000	262C067103X9101B	262C067103X0101B	262C067103D8101B

TYPE 263C—STANDARD RATINGS—100 VDC

Catalog Number			
μF	±5% Tol.	±10% Tol.	±20% Tol.
FORMULATION N030			
180	263C025181X5101B	263C025181X9101B	263C025181X0101B
220	263C025221X5101B	263C025221X9101B	263C025221X0101B
270	263C025271X5101B	263C025271X9101B	263C025271X0101B
330	263C025331X5101B	263C025331X9101B	263C025331X0101B
390	263C025391X5101B	263C025391X9101B	263C025391X0101B
470	263C025471X5101B	263C025471X9101B	263C025471X0101B
560	263C025561X5101B	263C025561X9101B	263C025561X0101B
680	263C025681X5101B	263C025681X9101B	263C025681X0101B

Catalog Number			
μF	±10% Tol.	±20% Tol.	+80%, -20% Tol.
FORMULATION X5R			
15000	263C067153X9101B	263C067153X0101B	263C067153D8101B
22000	263C067223X9101B	263C067223X0101B	263C067223D8101B
33000	263C067333X9101B	263C067333X0101B	263C067333D8101B
DIMENSIONS			
Type	Diameter	Length	
262C	.090"±.009"	.250"±.015"	
263C	.138"±.010"	.390"±.015"	

SPRAGUE CAPACITORS

MONOLYTHIC[®] LAYER-BUILT CERAMIC CAPACITORS

Types 3C and 4C—Formulation N030

Temperature Compensating Units, N030 Dielectric Offers Greater Capacitance Per Unit Volume and Greater Stability Than Previously Available.

Highly Reliable, Small in Size, Axial or Radial Leads.

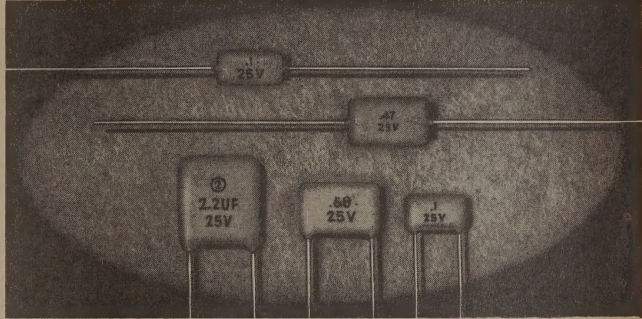
Temperature Coefficient Guaranteed Less Than $\pm .6\%$ Between -55°C and $+125^\circ\text{C}$.

Types 2C, 3C, 4C, 5C—Formulation 023

High-K General Application—High Capacitances in Small Physical Size, Axial or Radial Leads.

Well Suited for By-pass and Filtering Applications

For Complete Technical Data, See Latest Sprague Engineering Bulletin 6212 (N030) or 6201 (023)



Type 3C, 4C Monolythic Ceramic Capacitors—Formulation N030—Temperature Compensating—200 V

F	Tol.	Cat. No.	μF	Tol.	Cat. No.	μF	Tol.	Cat. No.	μF	Tol.	Cat. No.
TYPE 3C AXIAL LEADS			CALL YOUR SPRAGUE INDUSTRIAL DISTRIBUTOR FOR CURRENT QUANTITY PRICES			TYPE 3C RADIAL LEADS			CALL YOUR SPRAGUE INDUSTRIAL DISTRIBUTOR FOR CURRENT QUANTITY PRICES		
1	5%	3C5105BH1	240	2%	3C2412BH1	1200	5%	4C1225BH1	150	2%	3C1512BH3
1	2%	3C5102BH1	270	10%	3C2719BH1	1200	2%	4C1222BH1	160	5%	3C1615BH3
6	10%	3C5609BH1	270	5%	3C2715BH1	1300	5%	4C1325BH1	160	2%	3C1612BH3
6	5%	3C5605BH1	270	2%	3C2712BH1	1300	2%	4C1322BH1	180	10%	3C1819BH3
6	2%	3C5602BH1	300	5%	3C3015BH1	1500	10%	4C1529BH1	180	5%	3C1815BH3
2	5%	3C6205BH1	300	2%	3C3012BH1	1500	5%	4C1525BH1	180	2%	3C1812BH3
2	2%	3C6202BH1	330	10%	3C3319BH1	1500	2%	4C1522BH1	200	5%	3C2015BH3
8	10%	3C6809BH1	330	5%	3C3315BH1	1600	5%	4C1625BH1	200	2%	3C2012BH3
8	5%	3C6805BH1	360	5%	3C3615BH1	1600	2%	4C1622BH1	220	10%	3C2219BH3
8	2%	3C6802BH1	360	2%	3C3612BH1	1800	10%	4C1829BH1	220	5%	3C2215BH3
5	5%	3C7305BH1	390	10%	3C3919BH1	1800	2%	4C1825BH1	240	5%	3C2415BH3
5	2%	3C7302BH1	390	5%	3C3915BH1	1800	5%	4C1822BH1	240	2%	3C2412BH3
2	10%	3C8209BH1	430	2%	3C3912BH1	1800	2%	4C1822BH1	270	10%	3C2719BH3
2	5%	3C8205BH1	430	5%	3C4315BH1	430	5%	3C4312BH1	270	5%	3C2715BH3
2	2%	3C8202BH1	470	2%	3C4312BH1	430	2%	3C4312BH1	270	2%	3C2712BH3
1	5%	3C9105BH1	470	10%	3C4719BH1	51	5%	3C5105BH3	300	5%	3C3015BH3
1	2%	3C9102BH1	470	5%	3C4715BH1	51	2%	3C5102BH3	300	2%	3C3012BH3
0	10%	3C1019BH1	510	2%	3C4712BH1	56	10%	3C5609BH3	330	10%	3C3319BH3
0	5%	3C1015BH1	510	5%	3C5115BH1	56	5%	3C5605BH3	330	5%	3C3315BH3
0	2%	3C1012BH1	510	2%	3C5112BH1	56	2%	3C5602BH3	330	2%	3C3312BH3
0	10%	3C1219BH1	560	10%	3C5619BH1	62	5%	3C6205BH3	360	5%	3C3615BH3
0	5%	3C1215BH1	560	5%	3C5615BH1	62	2%	3C6202BH3	360	2%	3C3612BH3
0	2%	3C1212BH1	560	2%	3C5612BH1	68	10%	3C6809BH3	390	10%	3C3919BH3
0	5%	3C1315BH1	620	5%	3C6215BH1	68	5%	3C6805BH3	390	5%	3C3915BH3
0	2%	3C1312BH1	620	2%	3C6212BH1	68	2%	3C6802BH3	390	2%	3C3912BH3
0	10%	3C1519BH1	680	10%	3C6819BH1	75	5%	3C7505BH3	430	5%	3C4315BH3
0	5%	3C1515BH1	680	5%	3C6815BH1	75	2%	3C7502BH3	430	2%	3C4312BH3
0	2%	3C1512BH1	680	2%	3C6812BH1	82	10%	3C8209BH3	470	10%	3C4719BH3
0	5%	3C1615BH1	750	5%	4C7515BH1	82	5%	3C8205BH3	470	5%	3C4715BH3
0	2%	3C1612BH1	750	2%	4C7512BH1	82	2%	3C8202BH3	470	2%	3C4712BH3
0	10%	3C1819BH1	820	10%	4C8219BH1	91	5%	3C9105BH3	510	5%	3C5115BH3
0	5%	3C1815BH1	820	5%	4C8215BH1	91	2%	3C9102BH3	510	2%	3C5112BH3
0	2%	3C1812BH1	820	2%	4C8212BH1	100	10%	3C1019BH3	560	10%	3C5619BH3
0	5%	3C2015BH1	910	5%	4C9115BH1	100	5%	3C1015BH3	560	5%	3C5615BH3
0	2%	3C2012BH1	910	2%	4C9112BH1	100	2%	3C1012BH3	560	2%	3C5612BH3
0	10%	3C2219BH1	1000	10%	4C1029BH1	110	5%	3C1115BH3	620	5%	3C6215BH3
0	5%	3C2215BH1	1000	5%	4C1025BH1	110	2%	3C1112BH3	620	2%	3C6212BH3
0	2%	3C2212BH1	1000	2%	4C1022BH1	120	10%	3C1219BH3	680	10%	3C6819BH3
0	5%	3C2415BH1	1100	5%	4C1125BH1	120	5%	3C1215BH3	680	5%	3C6815BH3
0	2%	3C2412BH1	1100	2%	4C1122BH1	120	2%	3C1212BH3	680	2%	3C6812BH3
0	10%	3C2619BH1	1200	10%	4C1229BH1	130	5%	3C1315BH3			
0	5%	3C2615BH1				130	2%	3C1312BH3			
0	2%	3C2612BH1				150	10%	3C1519BH3			
0	10%	3C2819BH1				150	5%	3C1515BH3			
0	5%	3C2815BH1									
0	2%	3C2812BH1									
0	5%	3C2415BH1									
0	2%	3C2412BH1									
0	10%	3C2619BH1									
0	5%	3C2615BH1									
0	2%	3C2612BH1									
0	10%	3C2819BH1									
0	5%	3C2815BH1									
0	2%	3C2812BH1									
0	5%	3C2415BH1									
0	2%	3C2412BH1									
0	10%	3C2619BH1									
0	5%	3C2615BH1									
0	2%	3C2612BH1									
0	10%	3C2819BH1									
0	5%	3C2815BH1									
0	2%	3C2812BH1									
0	5%	3C2415BH1									
0	2%	3C2412BH1									
0	10%	3C2619BH1									
0	5%	3C2615BH1									
0	2%	3C2612BH1									
0	10%	3C2819BH1									
0	5%	3C2815BH1									
0	2%	3C2812BH1									
0	5%	3C2415BH1									
0	2%	3C2412BH1									
0	10%	3C2619BH1									
0	5%	3C2615BH1									
0	2%	3C2612BH1									
0	10%	3C2819BH1									
0	5%	3C2815BH1									
0	2%	3C2812BH1									
0	5%	3C2415BH1									
0	2%	3C2412BH1									
0	10%	3C2619BH1									
0	5%	3C2615BH1									
0	2%	3C2612BH1									
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0	5%	3C2815BH1									
0	2%	3C2812BH1									
0	5%	3C2415BH1									
0	2%	3C2412BH1									
0	10%	3C2619BH1									
0	5%	3C2615BH1									
0	2%	3C2612BH1									
0	10%	3C2819BH1									
0	5%	3C2815BH1									
0	2%	3C2812BH1									
0	5%	3C2415BH1									
0	2%	3C2412BH1									
0	10%	3C2619BH1									
0	5%	3C2615BH1									
0	2%	3C2612BH1									
0	10%	3C2819BH1									
0	5%	3C2815BH1									
0	2%	3C2812BH1									
0	5%	3C2415BH1									
0	2%	3C2412BH1									
0	10%	3C2619BH1									
0	5%	3C2615BH1									
0	2%	3C2612BH1									
0	10%	3C2819BH1									
0	5%	3C2815BH1									
0	2%	3C2812BH1									
0	5%	3C2415BH1									
0	2%	3C2412BH1									
0	10%	3C2619BH1									
0	5%	3C2615BH1									
0	2%	3C2612BH1									
0	10%	3C2819BH1									
0	5%	3C2815BH1									
0	2%	3C2812BH1									
0	5%	3C2415BH1									
0	2%	3C2412BH1									
0	10%	3C2619BH1									
0	5%	3C2615BH1									
0	2%	3C2612BH1									
0	10%	3C2819BH1									
0	5%	3C2815BH1									
0	2%	3C2812BH1									
0	5%	3C2415BH1									
0	2%	3C2412BH1									
0	10%	3C2619BH1									
0	5%	3C2615BH1									
0	2%	3C2612BH1									
0	10%	3C2819BH1									
0	5%	3C2815BH1									
0	2%	3C2812BH1									
0	5%	3C2415BH1									
0	2%	3C2412BH1									
0	10%	3C2619BH1									
0	5%	3C2615BH1									
0	2%	3C2612BH1									
0	10%	3C2819BH1									
0	5%	3C2815BH1									
0	2%	3C2812BH1									
0	5%	3C2415BH1									
0	2%	3C2412BH1									
0	10%	3C2619BH1									
0	5%	3C2615BH1									
0	2%	3C2612BH1									
0	10%	3C2819BH1									
0	5%	3C2815BH1									
0	2%	3C2812BH1									
0	5%	3C2415BH1									
0	2%	3C2412BH1									

SPRAGUE CAPACITORS

MONOLYTHIC[®] CERAMIC CAPACITORS, TYPE 4C RADIAL LEADS (Cont.)

μF	Tol.	Cat. No.	Call Your Sprague Industrial Distributor for Current Prices	μF	Tol.	Cat. No.	Call Your Sprague Industrial Distributor for Current Prices	μF	Tol.	Cat. No.	Call Your Sprague Industrial Distributor for Current Prices	μF	Tol.	Cat. No.	Call Your Sprague Industrial Distributor for Current Prices
820	5%	4C8215BH3		1300	5%	4C1325BH3		2200	10%	4C2229BH3		3300	2%	4C3322BH3	
820	2%	4C8212BH3		1300	2%	4C1322BH3		2200	5%	4C2225BH3		3600	5%	4C3625BH3	
910	5%	4C9115BH3		1500	10%	4C1529BH3		2200	2%	4C2222BH3		3600	2%	4C3622BH3	
910	2%	4C9112BH3		1500	5%	4C1525BH3		2400	5%	4C2425BH3		3900	10%	4C3929BH3	
1000	10%	4C1029BH3		1500	2%	4C1522BH3		2400	2%	4C2422BH3		3900	5%	4C3925BH3	
1000	5%	4C1025BH3		1600	5%	4C1625BH3		2700	10%	4C2729BH3		3900	2%	4C3922BH3	
1000	2%	4C1022BH3		1600	2%	4C1622BH3		2700	5%	4C2725BH3		4300	5%	4C4325BH3	
1100	5%	4C1125BH3	Call Your Sprague Industrial Distributor for Current Prices	1800	10%	4C1829BH3	Call Your Sprague Industrial Distributor for Current Prices	2700	2%	4C2722BH3	Call Your Sprague Industrial Distributor for Current Prices	4300	2%	4C4322BH3	Call Your Sprague Industrial Distributor for Current Prices
1100	2%	4C1122BH3		1800	5%	4C1825BH3		3000	5%	4C3025BH3		4700	10%	4C4729BH3	
1200	10%	4C1229BH3		1800	2%	4C1822BH3		3000	2%	4C3022BH3		4700	5%	4C4725BH3	
1200	5%	4C1225BH3		2000	5%	4C2025BH3		3300	10%	4C3329BH3		4700	2%	4C4722BH3	
1200	2%	4C1222BH3		2000	2%	4C2022BH3		3300	5%	4C3325BH3		5100	5%	4C5125BH3	
												5100	2%	4C5122BH3	

TYPE 2C, 3C, 4C, 5C Monolithic Ceramic Capacitors High-K Formulation 023 $\pm 20\%$ Cap. Tol.

μF	VDC	Catalog Number	CALL YOUR SPRAGUE INDUSTRIAL DISTRIBUTOR FOR CURRENT QUANTITY PRICES	μF	VDC	Catalog Number	CALL YOUR SPRAGUE INDUSTRIAL DISTRIBUTOR FOR CURRENT QUANTITY PRICES	μF	VDC	Catalog Number	CALL YOUR SPRAGUE INDUSTRIAL DISTRIBUTOR FOR CURRENT QUANTITY PRICES
TYPE 2C RADIAL LEADS				TYPE 4C RADIAL LEADS				.22	50	5C023224X0500B3	
.01	25	2C023103X0250A3		.15	25	4C023154X0250A3		.33	50	5C023334X0500B3	
.015	25	2C023153X0250A3		.22	25	4C023224X0250A3		.47	50	5C023474X0500B3	
.022	25	2C023223X0250A3		.33	25	4C023334X0250A3		.68	50	5C023684X0500B3	
.033	25	2C023333X0250A3		.47	25	4C023474X0250A3		1.0	50	5C023105X0500B3	
.047	25	2C023473X0250A3		.68	25	4C023684X0250A3		1.5	50	5C023155X0500B3	
.068	25	2C023683X0250A3	CALL YOUR SPRAGUE INDUSTRIAL DISTRIBUTOR FOR CURRENT QUANTITY PRICES	1.0	25	4C023105X0250A3	CALL YOUR SPRAGUE INDUSTRIAL DISTRIBUTOR FOR CURRENT QUANTITY PRICES	TYPE 3C AXIAL LEADS			CALL YOUR SPRAGUE INDUSTRIAL DISTRIBUTOR FOR CURRENT QUANTITY PRICES
.1	25	2C023104X0250A3		1.5	25	4C023155X0250A3		.01	25	3C023103X0250B1	
.15	25	2C023154X0250A3		TYPE 5C RADIAL LEADS				.015	25	3C023153X0250B1	
.22	25	2C023224X0250A3		.1	25	5C023104X0250B3		.022	25	3C023223X0250B1	
.33	25	2C023334X0250A3		.15	25	5C023154X0250B3		.033	25	3C023333X0250B1	
.47	25	2C023474X0250A3		.22	25	5C023224X0250B3		.047	25	3C023473X0250B1	
				.33	25	5C023334X0250B3		.068	25	3C023683X0250B1	
TYPE 3C RADIAL LEADS			CALL YOUR SPRAGUE INDUSTRIAL DISTRIBUTOR FOR CURRENT QUANTITY PRICES	.47	25	5C023474X0250B3	CALL YOUR SPRAGUE INDUSTRIAL DISTRIBUTOR FOR CURRENT QUANTITY PRICES	.1	25	3C023104X0250B1	CALL YOUR SPRAGUE INDUSTRIAL DISTRIBUTOR FOR CURRENT QUANTITY PRICES
.01	25	3C023103X0250A3		.68	25	5C023684X0250B3		.15	25	3C023154X0250B1	
.015	25	3C023153X0250A3		1.0	25	5C023105X0250B3		.22	25	3C023224X0250B1	
.022	25	3C023223X0250A3		1.5	25	5C023155X0250B3					
.033	25	3C023333X0250A3		2.2	25	5C023225X0250B3		TYPE 4C AXIAL LEADS			CALL YOUR SPRAGUE INDUSTRIAL DISTRIBUTOR FOR CURRENT QUANTITY PRICES
.047	25	3C023473X0250A3		3.3	25	5C023335X0250B3		.15	25	4C023154X0250B1	
.068	25	3C023683X0250A3		TYPE 5C RADIAL LEADS				.22	25	4C023224X0250B1	
.1	25	3C023104X0250A3		.1	50	5C023104X0500B3		.33	25	4C023334X0250B1	
.15	25	3C023154X0250A3		.15	50	5C023154X0500B3		.47	25	4C023474X0250B1	
.22	25	3C023224X0250A3						.68	25	4C023684X0250B1	
.33	25	3C023334X0250A3									
.47	25	3C023474X0250A3									

TYPE 2C, 3C, 4C, 5C Monolithic Ceramic Capacitors Formulation 067 $\pm 10\%$ Cap. Tol. 100 VDC

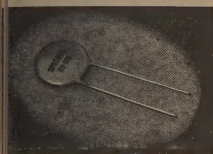
- Temperature-Stable; Developed For Application Requiring Stability of Capacitance Over a Wide Temperature Range
- High Capacitance Values in Small Physical Size
- For Complete Technical Data, See Latest Issue of Engineering Bulletin 6205

μF	Catalog Number	CALL YOUR SPRAGUE INDUSTRIAL DISTRIBUTOR FOR CURRENT QUANTITY PRICES	μF	Catalog Number	CALL YOUR SPRAGUE INDUSTRIAL DISTRIBUTOR FOR CURRENT QUANTITY PRICES	μF	Catalog Number	CALL YOUR SPRAGUE INDUSTRIAL DISTRIBUTOR FOR CURRENT QUANTITY PRICES
TYPE 2C RADIAL LEADS			TYPE 4C RADIAL LEADS			TYPE 3C AXIAL LEADS		
0.0018	2C067182X9101A3		0.012	3C067123X9101A3		0.27	5C067274X9101B3	
0.0022	2C067222X9101A3		0.015	3C067153X9101A3		0.33	5C067334X9101B3	
0.0027	2C067272X9101A3		0.018	3C067183X9101A3		0.39	5C067394X9101B3	
0.0033	2C067332X9101A3		0.022	3C067223X9101A3		0.47	5C067474X9101B3	
0.0039	2C067392X9101A3		0.027	3C067273X9101A3		0.56	5C067564X9101B3	
0.0047	2C067472X9101A3	CALL YOUR SPRAGUE INDUSTRIAL DISTRIBUTOR FOR CURRENT QUANTITY PRICES	TYPE 5C RADIAL LEADS		CALL YOUR SPRAGUE INDUSTRIAL DISTRIBUTOR FOR CURRENT QUANTITY PRICES	TYPE 4C AXIAL LEADS		
0.0056	2C067562X9101A3		0.033	4C067333X9101A3		0.0027	3C067272X9101B1	
0.0068	2C067682X9101A3		0.039	4C067393X9101A3		0.0033	3C067332X9101B1	
0.0082	2C067822X9101A3		0.047	4C067473X9101A3		0.0039	3C067392X9101B1	
0.01	2C067103X9101A3		0.056	4C067563X9101A3		0.0047	3C067472X9101B1	
0.015	2C067153X9101A3		0.068	4C067683X9101A3		0.0056	3C067562X9101B1	
0.018	2C067183X9101A3		0.082	4C067823X9101A3		0.0068	3C067682X9101B1	
0.022	2C067223X9101A3	CALL YOUR SPRAGUE INDUSTRIAL DISTRIBUTOR FOR CURRENT QUANTITY PRICES	0.10	4C067104X9101A3	0.0082	3C067822X9101B1		
0.033	2C067333X9101A3		0.12	4C067124X9101A3	0.010	3C067103X9101B1		
0.039	2C067393X9101A3		0.15	4C067154X9101A3	0.012	3C067123X9101B1		
0.047	2C067473X9101A3		0.18	4C067184X9101A3	0.015	3C067153X9101B1		
0.056	2C067563X9101A3		TYPE 5C RADIAL LEADS		0.018	3C067183X9101B1		
0.068	2C067683X9101A3		0.027	5C067273X9101B3	0.022	3C067223X9101B1		
0.082	2C067823X9101A3		0.033	5C067333X9101B3	0.027	3C067273X9101B1		
0.01	2C067104X9101A3	CALL YOUR SPRAGUE INDUSTRIAL DISTRIBUTOR FOR CURRENT QUANTITY PRICES	0.039	5C067393X9101B3	CALL YOUR SPRAGUE INDUSTRIAL DISTRIBUTOR FOR CURRENT QUANTITY PRICES	0.033	4C067333X9101B1	
TYPE 3C RADIAL LEADS			CALL YOUR SPRAGUE INDUSTRIAL DISTRIBUTOR FOR CURRENT QUANTITY PRICES	0.047		5C067473X9101B3	0.039	4C067393X9101B1
0.0027	3C067272X9101A3			0.056		5C067563X9101B3	0.047	4C067473X9101B1
0.0033	3C067332X9101A3			0.068		5C067683X9101B3	0.056	4C067563X9101B1
0.0039	3C067392X9101A3			0.082		5C067823X9101B3	0.068	4C067683X9101B1
0.0047	3C067472X9101A3			0.1		5C067104X9101B3	0.082	4C067823X9101B1
0.0056	3C067562X9101A3			0.12		5C067124X9101B3	0.10	4C067104X9101B1
0.0068	3C067682X9101A3	0.15		5C067154X9101B3	0.12	4C067124X9101B1		
0.0082	3C067822X9101A3	CALL YOUR SPRAGUE INDUSTRIAL DISTRIBUTOR FOR CURRENT QUANTITY PRICES	0.18	5C067184X9101B3	CALL YOUR SPRAGUE INDUSTRIAL DISTRIBUTOR FOR CURRENT QUANTITY PRICES	0.15	4C067154X9101B1	
0.010	3C067103X9101A3		0.22	5C067224X9101B3		0.18	4C067184X9101B1	

SPRAGUE CAPACITORS

HYPERCON® CERAMIC DISCS

- Superior to Electrolytic Capacitors of Similar Capacitance Values because of the Very Low Power Factor of Hypercons
- Ultra-miniature Ceramic Discs Ideal for use in Transistorized Circuitry
- Designed for By-pass and Coupling Applications but Particularly Well-suited for any Low Voltage use Where High Capacitance and Low Power Factor are Important Considerations
- Tolerance: $\pm 80-20\%$



F	Sprague Products Cat. No.	Sprague O.E.M. Part No.	D. x T.	CALL YOUR SPRAGUE INDUSTRIAL DISTRIBUTOR FOR CURRENT QUANTITY PRICES	μF	Sprague Products Cat. No.	Sprague O.E.M. Part No.	D. x T.	CALL YOUR SPRAGUE INDUSTRIAL DISTRIBUTOR FOR CURRENT QUANTITY PRICES
3 VOLTS D-C					16 VOLTS D-C				
	HY-120	C052B3ROC104Z	¼ x ⅜ ₃₂		.01	HY-420	C069B160C103Z	¼ x ⅜ ₃₂	
2	HY-125	C052B3ROE224Z	¼ x ⅜ ₃₂		.022	HY-425	C069B160E223Z	⅜ x ⅜ ₃₂	
7	HY-130	C052B3ROG474Z	⅜ x ⅜ ₃₂		.033	HY-430	C069B160F333Z	⅜ x ⅜ ₃₂	
8	HY-132	C052B3ROH684Z	½ x ⅜ ₃₂		.047	HY-435	C069B160G473Z	⅞ x ⅜ ₃₂	
	HY-135	C052B3ROK105Z	⅝ x ⅜ ₃₂		.068	HY-440	C069B160H683Z	½ x ⅜ ₃₂	
	HY-150	C052B3ROP225Z	⅞ x ⅜ ₃₂		.1	HY-450	C069B160J104Z	⅞ x ⅜ ₃₂	
10 VOLTS D-C					25 VOLTS D-C				
47	HY-310	C052B120E473Z	⅝ x ⅜ x ⅜ ₃₂		.01	HY-520	C069B250E103Z	⅝ x ⅜ x ⅜ ₃₂	
68	HY-315	C052B120F683Z	⅜ x ⅜ ₃₂		.022	HY-525	C069B250F223Z	⅞ x ⅜ ₃₂	
	HY-320	C052B120G104Z	⅞ x ⅜ ₃₂		.033	HY-530	C069B250G333Z	⅞ x ⅜ ₃₂	
12	HY-325	C052B120J224Z	⅜ x ⅜ x ⅜ ₃₂		.047	HY-535	C069B250H473Z	½ x ⅜ ₃₂	
13	HY-327	C052B120L334Z	⅞ ¹¹ / ₁₆ x ⅜ ₃₂		.068	HY-540	C069B250J683Z	⅞ ¹¹ / ₁₆ x ⅜ ₃₂	
7	HY-330	C052B120P474Z	⅞ x ⅜ ₃₂		.1	HY-550	C069B250L104Z	⅞ ¹¹ / ₁₆ x ⅜ ₃₂	

SPECIAL APPLICATION CERA-MITE® DISC CAPACITORS

DISC CERAMICS FOR AC APPLICATIONS

Rated at 125 VAC
Standard Tolerance $\pm 20\%$
For AC Line Bypass Application—Unlike Standard DC Rated Discs, Type 125L Meets 1500 Volt AC Flash Test—Type 125M Meets UL 10KV Discharge Test.
Call Your Sprague Industrial Distributor for Current Quantity Prices

μ F	Sprague Products Catalog No.	Sprague O.E.M. Part No.	D. x L.
01	125L-D10	19C251	$\frac{3}{8} \times \frac{1}{32}$
015	125L-D15	19C252	$\frac{3}{8} \times \frac{1}{32}$
02	125L-D20	19C253	$\frac{3}{8} \times \frac{1}{32}$
047	125L-D47	29C145	$\frac{1}{16} \times \frac{1}{32}$
05	125L-D50	29C145A	$\frac{1}{16} \times \frac{1}{32}$
1	125L-S10	36C218	$\frac{3}{4} \times \frac{1}{32}$
2	125L-S20	36C220	$\frac{3}{4} \times \frac{1}{4}$
x .005	125L-2D50	29C147	$\frac{1}{16} \times \frac{1}{4}$
x .01	125L-2S10	36C219	$\frac{3}{8} \times \frac{1}{4}$
70 μ F	125M-T47	20C235	$\frac{7}{16} \times \frac{1}{4}$
01	125M-D10	20C186	$\frac{1}{16} \times \frac{1}{4}$
015	125M-D15	55C45	$\frac{1}{2} \times \frac{1}{4}$
02	125M-D20	29C304	$\frac{7}{16} \times \frac{1}{4}$
047	125M-D47	33C114	$\frac{11}{16} \times \frac{1}{4}$
05	125M-D50	33C115	$\frac{11}{16} \times \frac{1}{4}$
1	125M-S10	41C157	$\frac{7}{8} \times \frac{1}{4}$
2	125M-S20	41C160	$\frac{7}{8} \times \frac{1}{4}$

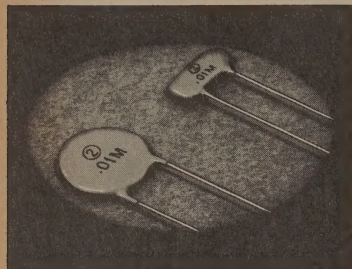
MINIATURIZED DISC CERAMIC CAPACITORS FOR TRANSISTORIZED CIRCUITRY

- For Coupling and By-Pass Applications

Type TG Standard Tolerance $\pm 20\%$				
μ F	Volts	Sprague Products Catalog Number	Sprague O.E.M. Part Number	T x D
.005	50	TG-D50	40C172A5	$\frac{1}{8} \times \frac{1}{32}$
.01	50	TG-S10	19C214A6	$\frac{1}{8} \times \frac{1}{16}$
.02	50	TG-S20	55C21A2	$\frac{1}{8} \times \frac{1}{32}$
.025	50	TG-S25	55C22A2	$\frac{1}{8} \times \frac{1}{32}$
.03	50	TG-S30	29C229A	$\frac{1}{8} \times \frac{1}{16}$
.05	50	TG-S50	55C23A1	$\frac{1}{8} \times \frac{1}{2}$
.1	50	TG-P10	33C41A3	$\frac{7}{8} \times \frac{1}{16}$
HIGH K TYPE				
.005	200	TH-D50	19C384	$\frac{5}{32} \times \frac{3}{8}$
.01	200	TH-S10	19C385	$\frac{5}{32} \times \frac{3}{8}$
.02	200	TH-S20	29C371	$\frac{5}{32} \times \frac{1}{16}$
.025	200	TH-S25	44C85	$\frac{5}{32} \times \frac{5}{8}$
.03	200	TH-S30	33C159	$\frac{3}{32} \times \frac{1}{16}$
.05	200	TH-S50	33C160	$\frac{5}{32} \times \frac{1}{16}$
.1	200	TH-P10	41C208	$\frac{5}{32} \times \frac{7}{8}$

SPRAGUE CAPACITORS

CERA-MITE® CERAMIC CAPACITORS



- Tiny, Tough, Dependable In Every Application
- Low Self-Inductance Of Silvered Flat-plate Design Means Very High By-pass Efficiency In All TV Circuits
- Flat-plate Construction Permits Higher Self-resonant Frequency Than Tubular Ceramic Or Molded Mica Capacitors
- Tough Moisture-proof Coating Protects Against Short-circuiting And Assures Good Performance Under Severe Conditions Of Humidity And Vibration
- Cera-mite Capacitors Easily Fit Into Tight Spaces, Even Across Subminiature Tube Sockets
- Designed For 85C (185F) Continuous Operation
- Call your Sprague Industrial Distributor for Current Quantity Prices

GENERAL APPLICATION TYPES

- Excellent Where Temperature Coefficient Is Not Important, Such As By-pass and Coupling Applications
- Ideal For Replacing Older Types Of General Application Capacitors Such as Molded Micacs, Tubular Ceramics, etc.

μF	Sprague Products Cat. No.	Sprague O.E.M. Part No.	Size T. x W. x L.	μF	Sprague Products Cat. No.	Sprague O.E.M. Part No.	Size D. x T.	μF	Sprague Products Cat. No.	Sprague O.E.M. Part No.	Size D. x T.
500 WVDC (plates) $\pm 20\%$ Tol.				1000 WVDC (discs) (cont.)				500 WVDC (discs) $\pm 20\%$ Tol.			
.470	5GAB-T47*	35C11A1	$\frac{5}{32} \times \frac{7}{32} \times \frac{1}{16}$	220	5GA-T22	40C204	$\frac{5}{16} \times \frac{5}{32}$	.02	5GA-S20	C023A102P203M	$\frac{7}{16} \times \frac{1}{8}$
.001 μF	5GAB-D10*	35C35	$\frac{5}{32} \times \frac{7}{32} \times \frac{1}{16}$	240	5GA-T24	40C167	$\frac{5}{16} \times \frac{5}{32}$	.04	5GA-S40	44C124	$\frac{1}{16} \times \frac{1}{8}$
.0022	5GAB-D22*	35C34	$\frac{5}{32} \times \frac{7}{32} \times \frac{1}{16}$	250	5GA-T25	40C101	$\frac{5}{16} \times \frac{5}{32}$	.05	5GA-S50	33C17A	$\frac{1}{16} \times \frac{1}{8}$
.0047	5GAB-D47*	25C166	$\frac{5}{32} \times \frac{7}{32} \times \frac{1}{16}$	270	5GA-T27	40C93	$\frac{5}{16} \times \frac{5}{32}$	.1	5GA-P10	41C92A10	$\frac{7}{16} \times \frac{1}{8}$
.01	5GAB-S10	25C167	$\frac{7}{32} \times \frac{7}{32} \times \frac{1}{16}$	300	5GA-T30	40C100	$\frac{5}{16} \times \frac{5}{32}$	3000 WVDC (discs) $\pm 20\%$ Tol.			
.022	5GAB-S22	38C32	$\frac{5}{32} \times \frac{7}{16} \times \frac{1}{16}$	330	5GA-T33	40C207	$\frac{5}{16} \times \frac{5}{32}$	1.5 μF	30GA-V15	19C306	$\frac{3}{8} \times \frac{1}{4}$
.047	5GAB-S47	42C8A	$\frac{5}{32} \times \frac{27}{32} \times \frac{1}{16}$	350	5GA-T35	40C146	$\frac{5}{16} \times \frac{5}{32}$	3.3	30GA-V33	19C307	$\frac{3}{8} \times \frac{1}{4}$
.1	5GAB-P10	42C9A	$\frac{7}{32} \times \frac{27}{32} \times \frac{1}{16}$	360	5GA-T36	40C154	$\frac{5}{16} \times \frac{5}{32}$	4.7	30GA-V47	19C308	$\frac{3}{8} \times \frac{1}{4}$
.15	5GAB-P15	112C9	$\frac{7}{32} \times \frac{1}{16} \times \frac{1}{16}$	390	5GA-T39	40C95	$\frac{5}{16} \times \frac{5}{32}$	5.0	30GA-V50	19C309	$\frac{3}{8} \times \frac{1}{4}$
*Axial Leads				400	5GA-T40	40C104	$\frac{5}{16} \times \frac{5}{32}$	6.0	30GA-V60	19C310	$\frac{3}{8} \times \frac{1}{4}$
1000 WVDC (discs) $\pm 20\%$ Tol.				470	5GA-T47	40C209A	$\frac{5}{16} \times \frac{5}{32}$	6.8	30GA-V68	19C311	$\frac{3}{8} \times \frac{1}{4}$
5	5GA-V50	40C32A4	$\frac{5}{16} \times \frac{5}{32}$	500	5GA-T50	40C232A	$\frac{5}{16} \times \frac{5}{32}$	7.5	30GA-V75	19C291	$\frac{3}{8} \times \frac{1}{4}$
6	5GA-V60	40C103	$\frac{5}{16} \times \frac{5}{32}$	560	5GA-T56	40C233A	$\frac{5}{16} \times \frac{5}{32}$	8.2	30GA-V82	19C290	$\frac{3}{8} \times \frac{1}{4}$
7.5	5GA-V75	40C155	$\frac{5}{16} \times \frac{5}{32}$	600	5GA-T60	40C305	$\frac{5}{16} \times \frac{5}{32}$	10	30GA-Q10	19C312	$\frac{3}{8} \times \frac{1}{4}$
8	5GA-V80	40C38A	$\frac{5}{16} \times \frac{5}{32}$	680	5GA-T68	40C212A	$\frac{5}{16} \times \frac{5}{32}$	12	30GA-Q12	19C313	$\frac{3}{8} \times \frac{1}{4}$
10	5GA-Q10	40C67A	$\frac{5}{16} \times \frac{5}{32}$	750	5GA-T75	40C235A	$\frac{5}{16} \times \frac{5}{32}$	15	30GA-Q15	19C314	$\frac{3}{8} \times \frac{1}{4}$
12	5GA-Q12	40C138	$\frac{5}{16} \times \frac{5}{32}$	800	5GA-T80	40C213A	$\frac{5}{16} \times \frac{5}{32}$	18	30GA-Q18	19C292	$\frac{3}{8} \times \frac{1}{4}$
15	5GA-Q15	40C65A	$\frac{5}{16} \times \frac{5}{32}$	820	5GA-T82	40C237A	$\frac{5}{16} \times \frac{5}{32}$	20	30GA-Q20	19C315	$\frac{3}{8} \times \frac{1}{4}$
18	5GA-Q18	40C132A	$\frac{5}{16} \times \frac{5}{32}$	.001 μF	5GA-D10	C023B102E102M	$\frac{5}{16} \times \frac{5}{32}$	22	30GA-Q22	19C316	$\frac{3}{8} \times \frac{1}{4}$
20	5GA-Q20	40C114	$\frac{5}{16} \times \frac{5}{32}$	.0012	5GA-D12	C023B102E122M	$\frac{5}{16} \times \frac{5}{32}$	25	30GA-Q25	19C317	$\frac{3}{8} \times \frac{1}{4}$
22	5GA-Q22	40C16A2	$\frac{5}{16} \times \frac{5}{32}$	.0013	5GA-D13	_____	$\frac{5}{16} \times \frac{5}{32}$	27	30GA-Q27	19C318	$\frac{3}{8} \times \frac{1}{4}$
25	5GA-Q25	40C113A1	$\frac{5}{16} \times \frac{5}{32}$	.0015	5GA-D15	C023B102E152M	$\frac{5}{16} \times \frac{5}{32}$	30	30GA-Q30	19C319	$\frac{3}{8} \times \frac{1}{4}$
27	5GA-Q27	40C153	$\frac{5}{16} \times \frac{5}{32}$	.0016	5GA-D16	_____	$\frac{5}{16} \times \frac{5}{32}$	33	30GA-Q33	19C320	$\frac{3}{8} \times \frac{1}{4}$
30	5GA-Q30	40C111A	$\frac{5}{16} \times \frac{5}{32}$	.0018	5GA-D18	C023B102F182M	$\frac{5}{16} \times \frac{5}{32}$	39	30GA-Q39	19C321	$\frac{3}{8} \times \frac{1}{4}$
33	5GA-Q33	40C42A	$\frac{5}{16} \times \frac{5}{32}$	.002	5GA-D20	C023B102F202M	$\frac{5}{16} \times \frac{5}{32}$	47	30GA-Q47	19C322	$\frac{3}{8} \times \frac{1}{4}$
39	5GA-Q39	40C43A	$\frac{5}{16} \times \frac{5}{32}$	.0022	5GA-D22	C023B102F222M	$\frac{5}{16} \times \frac{5}{32}$	50	30GA-Q50	19C323	$\frac{3}{8} \times \frac{1}{4}$
47	5GA-Q47	40C44A	$\frac{5}{16} \times \frac{5}{32}$	.0025	5GA-D25	_____	$\frac{5}{16} \times \frac{5}{32}$	56	30GA-Q56	19C324	$\frac{3}{8} \times \frac{1}{4}$
50	5GA-Q50	40C89	$\frac{5}{16} \times \frac{5}{32}$	.0027	5GA-D27	_____	$\frac{5}{16} \times \frac{5}{32}$	60	30GA-Q60	19C325	$\frac{3}{8} \times \frac{1}{4}$
56	5GA-Q56	40C130A3	$\frac{5}{16} \times \frac{5}{32}$	.003	5GA-D30	_____	$\frac{5}{16} \times \frac{5}{32}$	62	30GA-Q62	19C326	$\frac{3}{8} \times \frac{1}{4}$
68	5GA-Q68	40C45A	$\frac{5}{16} \times \frac{5}{32}$	.0033	5GA-D33	C023B102G332M	$\frac{5}{16} \times \frac{5}{32}$	68	30GA-Q68	19C327	$\frac{3}{8} \times \frac{1}{4}$
75	5GA-Q75	40C46A	$\frac{5}{16} \times \frac{5}{32}$	.0039	5GA-D39	C023B102G392M	$\frac{5}{16} \times \frac{5}{32}$	75	30GA-Q75	19C328	$\frac{3}{8} \times \frac{1}{4}$
82	5GA-Q82	40C47A	$\frac{5}{16} \times \frac{5}{32}$	.004	5GA-D40	_____	$\frac{5}{16} \times \frac{5}{32}$	82	30GA-Q82	20C184	$\frac{7}{16} \times \frac{1}{8}$
91	5GA-Q91	40C112	$\frac{5}{16} \times \frac{5}{32}$	.0043	5GA-D43	_____	$\frac{5}{16} \times \frac{5}{32}$	100	30GA-T10	20C43	$\frac{7}{16} \times \frac{1}{8}$
100	5GA-T10	40C200	$\frac{5}{16} \times \frac{5}{32}$	.0047	5GA-D47	C023B102H472M	$\frac{1}{2} \times \frac{5}{32}$	120	30GA-T12	20C44	$\frac{7}{16} \times \frac{1}{8}$
120	5GA-T12	40C91	$\frac{5}{16} \times \frac{5}{32}$	.005	5GA-D50	C023B102H502M	$\frac{1}{2} \times \frac{5}{32}$	150	30GA-T15	20C45	$\frac{7}{16} \times \frac{1}{8}$
130	5GA-T13	40C147	$\frac{5}{16} \times \frac{5}{32}$	.01	5GA-S10	C023A102K103M	$\frac{5}{8} \times \frac{5}{32}$	180	30GA-T18	20C46	$\frac{7}{16} \times \frac{1}{8}$
150	5GA-T15	40C202	$\frac{5}{16} \times \frac{5}{32}$	.015	5GA-S15	C023A102M153M	$\frac{3}{4} \times \frac{5}{32}$	200	30GA-T20	20C47	$\frac{7}{16} \times \frac{1}{8}$

SPRAGUE CAPACITORS

ERA-MITE® CERAMIC CAPACITORS, continued

μF	Sprague Products Cat. No.	Sprague O.E.M. Part No.	Size D. x T.	μF	Sprague Products Cat. No.	Sprague O.E.M. Part No.	Size D. x T.	μF	Sprague Products Cat. No.	Sprague O.E.M. Part No.	Size D. x T.
3000 WVDC (cont.)				6000 WVDC (cont.)				7500 WVDC (discs ±20% Tol.)			
20	30GA-T22	20C48	3/16 x 1/4	250	60GA-T25	33C191	1 1/16 x 3/16	4.7	75GA-V47	29C387	3/16 x 3/16
50	30GA-T25	20C49	3/16 x 1/4	270	60GA-T27	33C192	1 1/16 x 3/16	8.2	75GA-V82	29C380	3/16 x 1/4
70	30GA-T27	20C50	3/16 x 1/4	300	60GA-T30	36C265	3/4 x 3/16	10	75GA-Q10	29C382	3/16 x 3/16
90	30GA-T30	20C51	3/16 x 1/4	330	60GA-T33	36C266	3/4 x 3/16	12	75GA-Q12	29C383	3/16 x 3/16
30	30GA-T33	20C28A	3/16 x 1/4	390	60GA-T39	41C9A1	7/8 x 3/16	15	75GA-Q15	29C378	3/16 x 3/16
30	30GA-T39	20C176	3/16 x 1/4	400	60GA-T40	41C142	7/8 x 3/16	18	75GA-Q18	29C379	3/16 x 3/16
30	30GA-T40	20C175	3/16 x 1/4	470	60GA-T47	41C80A1	7/8 x 3/16	20	75GA-Q20	29C405	3/16 x 3/16
70	30GA-T47	29C289	1 1/32 x 1/4	500	60GA-T50	33C185	1 1/16 x 3/16	22	75GA-Q22	29C118A	3/16 x 3/16
30	30GA-T50	29C90	1 1/32 x 1/4	560	60GA-T56	33C186	1 1/16 x 3/16	30	75GA-Q30	29C418A	3/16 x 3/16
30	30GA-T56	29C290	1 1/32 x 1/4	680	60GA-T68	33C107	1 1/16 x 3/16	33	75GA-Q33	29C419A	3/16 x 3/16
80	30GA-T68	29C288	1 1/32 x 1/4	750	60GA-T75	33C108	1 1/16 x 3/16	47	75GA-Q47	29C381	3/16 x 3/16
50	30GA-T75	29C298	1 1/32 x 1/4	820	60GA-T82	33C109	1 1/16 x 3/16	56	75GA-Q56	29C30A	3/16 x 3/16
20	30GA-T82	29C299	1 1/32 x 1/4	.001 μF	60GA-D10	33C90A	1 1/16 x 3/16	100	75GA-T10	33C56A2	1 1/16 x 3/16
01 μF	30GA-D10	29C300	1 1/32 x 1/4	.0012	60GA-D12	33C101	1 1/16 x 3/16	220	75GA-T22	33C224	1 1/16 x 3/16
012	30GA-D12	29C301	1 1/32 x 1/4	.0015	60GA-D15	36C253A	3/4 x 3/16	470	75GA-T47	33C169	1 1/16 x 3/16
015	30GA-D15	29C302	1 1/32 x 1/4	.0022	60GA-D22	41C152	7/8 x 3/16	500	75GA-T50	44C89	2 1/32 x 3/16
02	30GA-D20	29C303	1 1/32 x 1/4	.0025	60GA-D25	41C250	7/8 x 3/16	560	75GA-T56	44C90	2 1/32 x 3/16
022	30GA-D22	29C255A	1 1/32 x 1/4	.0027	60GA-D27	41C251	7/8 x 3/16	680	75GA-T68	44C92	2 1/32 x 3/16
025	30GA-D25	44C63	2 1/32 x 1/4	.003	60GA-D30	41C252	7/8 x 3/16	750	75GA-T75	33C175	1 1/16 x 3/16
027	30GA-D27	44C65	2 1/32 x 1/4	.0033	60GA-D33	41C253	7/8 x 3/16	820	75GA-T82	33C177	1 1/16 x 3/16
03	30GA-D30	33C31A1	1 1/16 x 1/4	.0039	60GA-D39	41C254	7/8 x 3/16	.001 μF	75GA-D10	33C178	1 1/16 x 3/16
033	30GA-D33	33C32A2	1 1/16 x 1/4	.0047	60GA-D47	41C255	7/8 x 3/16	.0012	75GA-D12	36C334	3/4 x 3/16
039	30GA-D39	36C155A	2 1/32 x 1/4					.0015	75GA-D15	41C221	7/8 x 3/16
04	30GA-D40	36C78A	2 1/32 x 1/4					.0018	75GA-D18	41C223	7/8 x 3/16
047	30GA-D47	36C339	2 1/32 x 1/4					.002	75GA-D20	41C224	7/8 x 3/16
05	30GA-D50	36C124A	2 1/32 x 1/4					.0022	75GA-D22	41C225	7/8 x 3/16
06	30GA-D60	41C34A	2 1/32 x 1/4					.0025	75GA-D25	41C226	7/8 x 3/16
068	30GA-D68	41C153	2 1/32 x 1/4								
08	30GA-D80	41C151	2 1/32 x 1/4								
082	30GA-D82	41C150	2 1/32 x 1/4								
1	30GA-S10	41C121A2	2 1/32 x 1/4								

NP0 TYPES

● Zero Temperature-coefficient Capacitors Used Where Capacitance Change with Temperature is Undesirable

NPO TYPES

- Zero Temperature-coefficient Capacitors Used Where Capacitance Change with Temperature is Undesirable
- Superior to Silvered-mica Types in Stability, High "Q," and Insulation Resistance
- Rated at **1000 WVDC**
- Standard Capacitance Tolerance of $\pm 5\%$
- Units listed below are discs

6000 WVDC (discs) $\pm 20\%$ Tol.							
μF	Sprague Products Cat. No.	Sprague O.E.M. Part No.	Size D. x T.	μF	Sprague Products Cat. No.	Sprague O.E.M. Part No.	Size D. x T.
1.5	60GA-V15	29C406	3/16 x 3/16	30	10TCC-Q30	C030B102G300J	3/16 x 3/32
4.7	60GA-V47	29C407	3/16 x 3/16	33	10TCC-Q33	C030B102G330J	3/16 x 3/32
6.8	60GA-V68	29C408	3/16 x 3/16	39	10TCC-Q39	C030B102G390J	3/16 x 3/32
8.2	60GA-V82	29C409	3/16 x 3/16	47	10TCC-Q47	C030B102H470J	1/2 x 3/32
10	60GA-Q10	29C410	3/16 x 3/16	50	10TCC-Q50	C030B102H500J	1/2 x 3/32
12	60GA-Q12	29C411	3/16 x 3/16	56	10TCC-Q56	C030A102J560J	3/16 x 3/32
15	60GA-Q15	29C412	3/16 x 3/16	68	10TCC-Q68	C030A102J680J	3/16 x 3/32
18	60GA-Q18	29C413	3/16 x 3/16	75	10TCC-Q75	C030A102J750J	3/16 x 3/32
20	60GA-Q20	29C414	3/16 x 3/16	82	10TCC-Q82	C030A102K820J	3/8 x 3/32
22	60GA-Q22	29C415	3/16 x 3/16	100	10TCC-T10	C030A102L101J	1 1/16 x 3/32
25	60GA-Q25	29C416	3/16 x 3/16	120	10TCC-T12	C030A102L121J	1 1/16 x 3/32
27	60GA-Q27	29C417	3/16 x 3/16	150	10TCC-T15	C030A102M151J	3/4 x 3/32
30	60GA-Q30	29C418	3/16 x 3/16	175	10TCC-T175	—	7/8 x 3/32
33	60GA-Q33	29C419	3/16 x 3/16	180	10TCC-T18	C030A102P181J	7/8 x 3/32
39	60GA-Q39	29C420	3/16 x 3/16	200	10TCC-T20	C030A102P201J	7/8 x 3/32
47	60GA-Q47	29C421	3/16 x 3/16	220	10TCC-T22	—	7/8 x 3/32
50	60GA-Q50	29C422	3/16 x 3/16	270	10TCC-T27	—	7/8 x 3/32
56	60GA-Q56	29C423	3/16 x 3/16	300	10TCC-T30	—	7/8 x 3/32
60	60GA-Q60	29C424	3/16 x 3/16	330	10TCC-T33	—	7/8 x 3/32
68	60GA-Q68	29C425	3/16 x 3/16	390	10TCC-T39	—	7/8 x 3/32
75	60GA-Q75	29C426	3/16 x 3/16				
82	60GA-Q82	29C427	3/16 x 3/16				
00	60GA-T10	29C428	3/16 x 3/16				
20	60GA-T12	29C429	3/16 x 3/16				
50	60GA-T15	33C187	1 1/16 x 3/16				
80	60GA-T18	33C188	1 1/16 x 3/16				
00	60GA-T20	33C189	1 1/16 x 3/16				
20	60GA-T22	33C190	1 1/16 x 3/16				

SPRAGUE CAPACITORS

CERA-MITE[®] CERAMIC CAPACITORS, continued

TEMPERATURE-COMPENSATING TYPES

- Eliminate oscillator drift in TV, f-m, v-h-f, and a-m receivers
- Negative Temperature Coefficient is 30 ppm/°C for N030 types, 80 ppm/°C for N080 types, 150 ppm/°C for N150 types, 220 ppm/°C for N220 types, 330 ppm/°C for N330 types, 470 ppm/°C for N470 types, and 750 ppm/°C for N750 types
- Rated at **1000 WVDC**
- Standard Capacitance Tolerance $\pm 5\%$

μF	Sprague Products Cat. No.	Sprague O.E.M. Part No.	Size D. x T.
N030			
1.0	10TCM-V10	C025B102S1R0D	$\frac{3}{8} \times \frac{1}{4}$
1.2	10TCM-V12	C025B102S1R2D	$\frac{3}{8} \times \frac{1}{4}$
1.5	10TCM-V15	C025B102S1R5D	$\frac{3}{8} \times \frac{1}{4}$
1.8	10TCM-V18	C025B102S1R8D	$\frac{3}{8} \times \frac{1}{4}$
2.2	10TCM-V22	C025B102S2R2D	$\frac{3}{8} \times \frac{1}{4}$
2.7	10TCM-V27	C025B102S2R7D	$\frac{3}{8} \times \frac{1}{4}$
3.0	10TCM-V30	C025B102S3R0D	$\frac{3}{8} \times \frac{1}{4}$
3.3	10TCM-V33	C025B102S3R3D	$\frac{3}{8} \times \frac{1}{4}$
3.9	10TCM-V39	C025B102S3R9D	$\frac{3}{8} \times \frac{1}{4}$
4.7	10TCM-V47	C025B102E4R7D	$\frac{5}{16} \times \frac{5}{32}$
5.0	10TCM-V50	C025B102E5R0D	$\frac{5}{16} \times \frac{5}{32}$
5.6	10TCM-V56	C025B102E5R6D	$\frac{5}{16} \times \frac{5}{32}$
6.8	10TCM-V68	C025B102E6R8D	$\frac{5}{16} \times \frac{5}{32}$
8.2	10TCM-V82	C025B102E8R2D	$\frac{5}{16} \times \frac{5}{32}$
10	10TCM-Q10	C025B102E10J	$\frac{5}{16} \times \frac{5}{32}$
12	10TCM-Q12	C025B102E12J	$\frac{5}{16} \times \frac{5}{32}$
15	10TCM-Q15	C025B102E15J	$\frac{5}{16} \times \frac{5}{32}$
18	10TCM-Q18	C025B102E18J	$\frac{5}{16} \times \frac{5}{32}$
20	10TCM-Q20	C025B102F20J	$\frac{3}{8} \times \frac{5}{32}$
22	10TCM-Q22	C025B102F22J	$\frac{3}{8} \times \frac{5}{32}$
25	10TCM-Q25	C025B102F25J	$\frac{3}{8} \times \frac{5}{32}$
27	10TCM-Q27	C025B102G27J	$\frac{7}{16} \times \frac{5}{32}$
30	10TCM-Q30	C025B102G30J	$\frac{7}{16} \times \frac{5}{32}$
33	10TCM-Q33	C025B102G33J	$\frac{7}{16} \times \frac{5}{32}$
39	10TCM-Q39	C025B102G39J	$\frac{7}{16} \times \frac{5}{32}$
47	10TCM-Q47	C025B102H47J	$\frac{1}{2} \times \frac{5}{32}$
50	10TCM-Q50	C025B102H50J	$\frac{1}{2} \times \frac{5}{32}$
56	10TCM-Q56	C025B102H56J	$\frac{1}{2} \times \frac{5}{32}$
68	10TCM-Q68	C025A102J68J	$\frac{5}{16} \times \frac{5}{32}$
75	10TCM-Q75	C025A102J75J	$\frac{5}{16} \times \frac{5}{32}$
82	10TCM-Q82	C025A102K82J	$\frac{5}{16} \times \frac{5}{32}$
100	10TCM-T10	C025A102K10J	$\frac{5}{16} \times \frac{5}{32}$
120	10TCM-T12	C025A102L12J	$\frac{1}{16} \times \frac{5}{32}$
150	10TCM-T15	C025A102L15J	$\frac{3}{4} \times \frac{5}{32}$
175	10TCM-T175	_____	$\frac{3}{4} \times \frac{5}{32}$
180	10TCM-T18	C025A102P18J	$\frac{5}{16} \times \frac{5}{32}$
200	10TCM-T20	C025A102P20J	$\frac{7}{8} \times \frac{5}{32}$
220	10TCM-T22	C025A102P22J	$\frac{7}{8} \times \frac{5}{32}$
270	10TCM-T27	_____	$\frac{7}{8} \times \frac{5}{32}$
300	10TCM-T30	_____	$\frac{7}{8} \times \frac{5}{32}$
330	10TCM-T33	_____	$\frac{7}{8} \times \frac{5}{32}$
390	10TCM-T39	_____	$\frac{7}{8} \times \frac{5}{32}$

N080			
2.2	10TCN-V22	C026B102S2R2D	$\frac{3}{8} \times \frac{1}{4}$
2.7	10TCN-V27	C026B102S2R7D	$\frac{3}{8} \times \frac{1}{4}$
3.0	10TCN-V30	C026B102S3R0D	$\frac{3}{8} \times \frac{1}{4}$
3.3	10TCN-V33	C026B102S3R3D	$\frac{3}{8} \times \frac{1}{4}$
3.9	10TCN-V39	C026B102S3R9D	$\frac{3}{8} \times \frac{1}{4}$
4.7	10TCN-V47	C026B102S4R7D	$\frac{3}{8} \times \frac{1}{4}$
5.0	10TCN-V50	C026B102E5R0D	$\frac{5}{16} \times \frac{5}{32}$
5.6	10TCN-V56	C026B102E5R6D	$\frac{5}{16} \times \frac{5}{32}$
6.8	10TCN-V68	C026B102E6R8D	$\frac{5}{16} \times \frac{5}{32}$
8.2	10TCN-V82	C026B102E8R2D	$\frac{5}{16} \times \frac{5}{32}$
10	10TCN-Q10	C026B102E10J	$\frac{5}{16} \times \frac{5}{32}$
12	10TCN-Q12	C026B102E12J	$\frac{5}{16} \times \frac{5}{32}$
15	10TCN-Q15	C026B102E15J	$\frac{5}{16} \times \frac{5}{32}$
18	10TCN-Q18	C026B102F18J	$\frac{5}{16} \times \frac{5}{32}$
20	10TCN-Q20	C026B102F20J	$\frac{3}{8} \times \frac{5}{32}$
22	10TCN-Q22	C026B102F22J	$\frac{3}{8} \times \frac{5}{32}$
25	10TCN-Q25	C026B102F25J	$\frac{3}{8} \times \frac{5}{32}$
27	10TCN-Q27	C026B102F27J	$\frac{3}{8} \times \frac{5}{32}$

μF	Sprague Products Cat. No.	Sprague O.E.M. Part No.	Size D. x T.
N080 (cont.)			
30	10TCN-Q30	C026B102G30J	$\frac{3}{16} \times \frac{5}{32}$
33	10TCN-Q33	C026B102G33J	$\frac{3}{16} \times \frac{5}{32}$
39	10TCN-Q39	C026B102G39J	$\frac{3}{16} \times \frac{5}{32}$
47	10TCN-Q47	C026B102H47J	$\frac{1}{2} \times \frac{5}{32}$
50	10TCN-Q50	C026B102H50J	$\frac{1}{2} \times \frac{5}{32}$
56	10TCN-Q56	C026B102H56J	$\frac{1}{2} \times \frac{5}{32}$
68	10TCN-Q68	C026A102J68J	$\frac{5}{16} \times \frac{5}{32}$
75	10TCN-Q75	C026A102J75J	$\frac{5}{16} \times \frac{5}{32}$
82	10TCN-Q82	C026A102J82J	$\frac{5}{16} \times \frac{5}{32}$
100	10TCN-T10	C026A102K10J	$\frac{5}{16} \times \frac{5}{32}$
120	10TCN-T12	C026A102L12J	$\frac{1}{16} \times \frac{5}{32}$
150	10TCN-T15	C026A102L15J	$\frac{1}{16} \times \frac{5}{32}$
175	10TCN-T175	_____	$\frac{7}{8} \times \frac{5}{32}$
180	10TCN-T18	C026A102P18J	$\frac{5}{16} \times \frac{5}{32}$
200	10TCN-T20	C026A102P20J	$\frac{7}{8} \times \frac{5}{32}$
220	10TCN-T22	C026A102P22J	$\frac{7}{8} \times \frac{5}{32}$
270	10TCN-T27	_____	$\frac{7}{8} \times \frac{5}{32}$
300	10TCN-T30	_____	$\frac{7}{8} \times \frac{5}{32}$
330	10TCN-T33	_____	$\frac{7}{8} \times \frac{5}{32}$
390	10TCN-T39	_____	$\frac{7}{8} \times \frac{5}{32}$
470	10TCN-T47	_____	$\frac{7}{8} \times \frac{5}{32}$

N150			
2.2	10TCP-V22	C032B102S2R2D	$\frac{3}{8} \times \frac{1}{4}$
2.7	10TCP-V27	C032B102S2R7D	$\frac{3}{8} \times \frac{1}{4}$
3.0	10TCP-V30	C032B102S3R0D	$\frac{3}{8} \times \frac{1}{4}$
3.3	10TCP-V33	C032B102S3R3D	$\frac{3}{8} \times \frac{1}{4}$
3.9	10TCP-V39	C032B102S3R9D	$\frac{3}{8} \times \frac{1}{4}$
4.7	10TCP-V47	C032B102S4R7D	$\frac{3}{8} \times \frac{1}{4}$
5.0	10TCP-V50	C032B102S5R0D	$\frac{3}{8} \times \frac{1}{4}$
5.6	10TCP-V56	C032B102E5R6D	$\frac{5}{16} \times \frac{5}{32}$
6.8	10TCP-V68	C032B102E6R8D	$\frac{5}{16} \times \frac{5}{32}$
8.2	10TCP-V82	C032B102E8R2D	$\frac{5}{16} \times \frac{5}{32}$
10	10TCP-Q10	C032B102E10J	$\frac{5}{16} \times \frac{5}{32}$
12	10TCP-Q12	C032B102E12J	$\frac{5}{16} \times \frac{5}{32}$
15	10TCP-Q15	C032B102E15J	$\frac{5}{16} \times \frac{5}{32}$
18	10TCP-Q18	C032B102E18J	$\frac{5}{16} \times \frac{5}{32}$
20	10TCP-Q20	C032B102F20J	$\frac{3}{8} \times \frac{5}{32}$
22	10TCP-Q22	C032B102F22J	$\frac{3}{8} \times \frac{5}{32}$
25	10TCP-Q25	C032B102F25J	$\frac{3}{8} \times \frac{5}{32}$
27	10TCP-Q27	C032B102F27J	$\frac{3}{8} \times \frac{5}{32}$
30	10TCP-Q30	C032B102F30J	$\frac{3}{8} \times \frac{5}{32}$
33	10TCP-Q33	C032B102G33J	$\frac{3}{16} \times \frac{5}{32}$
39	10TCP-Q39	C032B102G39J	$\frac{3}{16} \times \frac{5}{32}$
47	10TCP-Q47	C032B102G47J	$\frac{1}{2} \times \frac{5}{32}$
50	10TCP-Q50	C032B102G50J	$\frac{1}{2} \times \frac{5}{32}$
56	10TCP-Q56	C032B102H56J	$\frac{1}{2} \times \frac{5}{32}$
68	10TCP-Q68	C032B102H68J	$\frac{1}{2} \times \frac{5}{32}$
75	10TCP-Q75	C032A102J75J	$\frac{5}{16} \times \frac{5}{32}$
82	10TCP-Q82	C032A102J82J	$\frac{5}{16} \times \frac{5}{32}$
100	10TCP-T10	C032A102K10J	$\frac{5}{16} \times \frac{5}{32}$
120	10TCP-T12	C032A102K12J	$\frac{5}{16} \times \frac{5}{32}$
150	10TCP-T15	C032A102L15J	$\frac{1}{16} \times \frac{5}{32}$
175	10TCP-T175	_____	$\frac{3}{4} \times \frac{5}{32}$
180	10TCP-T18	C032A102M18J	$\frac{3}{4} \times \frac{5}{32}$
200	10TCP-T20	C032A102P20J	$\frac{7}{8} \times \frac{5}{32}$
220	10TCP-T22	C032A102P22J	$\frac{7}{8} \times \frac{5}{32}$
270	10TCP-T27	_____	$\frac{7}{8} \times \frac{5}{32}$
300	10TCP-T30	_____	$\frac{7}{8} \times \frac{5}{32}$
330	10TCP-T33	_____	$\frac{7}{8} \times \frac{5}{32}$
390	10TCP-T39	_____	$\frac{7}{8} \times \frac{5}{32}$
470	10TCP-T47	_____	$\frac{7}{8} \times \frac{5}{32}$

μF	Sprague Products Cat. No.	Sprague O.E.M. Part No.	Size D. x T.
N220			
3	10TCR-V30	C033B102S3R0D	$\frac{3}{8} \times \frac{1}{4}$
3.3	10TCR-V33	C033B102S3R3D	$\frac{3}{8} \times \frac{1}{4}$
3.9	10TCR-V39	C033B102S3R9D	$\frac{3}{8} \times \frac{1}{4}$
4.7	10TCR-V47	C033B102S4R7D	$\frac{3}{8} \times \frac{1}{4}$
5	10TCR-V50	C033B102S5R0D	$\frac{3}{8} \times \frac{1}{4}$
5.6	10TCR-V56	C033B102S5R6D	$\frac{3}{8} \times \frac{1}{4}$
6.8	10TCR-V68	C033B102E6R8D	$\frac{5}{16} \times \frac{5}{32}$
8.2	10TCR-V82	C033B102E8R2D	$\frac{5}{16} \times \frac{5}{32}$
10	10TCR-Q10	C033B102E10J	$\frac{5}{16} \times \frac{5}{32}$
12	10TCR-Q12	C033B102E12J	$\frac{5}{16} \times \frac{5}{32}$
15	10TCR-Q15	C033B102E15J	$\frac{5}{16} \times \frac{5}{32}$
18	10TCR-Q18	C033B102E18J	$\frac{5}{16} \times \frac{5}{32}$
20	10TCR-Q20	C033B102E20J	$\frac{5}{16} \times \frac{5}{32}$
22	10TCR-Q22	C033B102F22J	$\frac{3}{8} \times \frac{5}{32}$
25	10TCR-Q25	C033B102F25J	$\frac{3}{8} \times \frac{5}{32}$
27	10TCR-Q27	C033B102F27J	$\frac{3}{8} \times \frac{5}{32}$
30	10TCR-Q30	C033B102F30J	$\frac{3}{8} \times \frac{5}{32}$
33	10TCR-Q33	C033B102F33J	$\frac{3}{8} \times \frac{5}{32}$
39	10TCR-Q39	C033B102G39J	$\frac{3}{16} \times \frac{5}{32}$
47	10TCR-Q47	C033B102G47J	$\frac{1}{2} \times \frac{5}{32}$
50	10TCR-Q50	C033B102G50J	$\frac{1}{2} \times \frac{5}{32}$
56	10TCR-Q56	C033B102G56J	$\frac{1}{2} \times \frac{5}{32}$
68	10TCR-Q68	C033B102H68J	$\frac{1}{2} \times \frac{5}{32}$
75	10TCR-Q75	C033A102H75J	$\frac{5}{16} \times \frac{5}{32}$
82	10TCR-Q82	C033A102J82J	$\frac{5}{16} \times \frac{5}{32}$
100	10TCR-T10	C033A102J10J	$\frac{5}{16} \times \frac{5}{32}$
120	10TCR-T12	C033A102K12J	$\frac{5}{16} \times \frac{5}{32}$
150	10TCR-T15	C033A102L15J	$\frac{1}{16} \times \frac{5}{32}$
175	10TCR-T175	_____	$\frac{3}{4} \times \frac{5}{32}$
180	10TCR-T18	C033A102M18J	$\frac{3}{4} \times \frac{5}{32}$
200	10TCR-T20	C033A102M20J	$\frac{3}{4} \times \frac{5}{32}$
220	10TCR-T22	C033A102P22J	$\frac{7}{8} \times \frac{5}{32}$
270	10TCR-T27	C033A102P27J	$\frac{7}{8} \times \frac{5}{32}$
300	10TCR-T30	C033A102P30J	$\frac{7}{8} \times \frac{5}{32}$
330	10TCR-T33	_____	$\frac{7}{8} \times \frac{5}{32}$
390	10TCR-T39	_____	$\frac{7}{8} \times \frac{5}{32}$
470	10TCR-T47	_____	$\frac{7}{8} \times \frac{5}{32}$
560	10TCR-T56	_____	$\frac{7}{8} \times \frac{5}{32}$

N330			
3.0	10TCS-V30	C034B102S3R0D	$\frac{3}{8} \times \frac{1}{4}$
3.3	10TCS-V33	C034B102S3R3D	$\frac{3}{8} \times \frac{1}{4}$
3.9	10TCS-V39	C034B102S3R9D	$\frac{3}{8} \times \frac{1}{4}$
4.7	10TCS-V47	C034B102S4R7D	$\frac{3}{8} \times \frac{1}{4}$
5.0	10TCS-V50	C034B102S5R0D	$\frac{3}{8} \times \frac{1}{4}$
5.6	10TCS-V56	C034B102S5R6D	$\frac{3}{8} \times \frac{1}{4}$
6.8	10TCS-V68	C034B102S6R8D	$\frac{3}{8} \times \frac{1}{4}$
8.2	10TCS-V82	C034B102E8R2D	$\frac{5}{16} \times \frac{5}{32}$
10	10TCS-Q10	C034B102E10J	$\frac{5}{16} \times \frac{5}{32}$
12	10TCS-Q12	C034B102E12J	$\frac{5}{16} \times \frac{5}{32}$
15	10TCS-Q15	C034B102E15J	$\frac{5}{16} \times \frac{5}{32}$
18	10TCS-Q18	C034B102E18J	$\frac{5}{16} \times \frac{5}{32}$
20	10TCS-Q20	C034B102E20J	$\frac{5}{16} \times \frac{5}{32}$
22	10TCS-Q22	C034B102E22J	$\frac{5}{16} \times \frac{5}{32}$
25	10TCS-Q25	C034B102F25J	$\frac{3}{8} \times \frac{5}{32}$
27	10TCS-Q27	C034B102F27J	$\frac{3}{8} \times \frac{5}{32}$
30	10TCS-Q30	C034B102F30J	$\frac{3}{8} \times \frac{5}{32}$
33	10TCS-Q33	C034B102F33J	$\frac{3}{8} \times \frac{5}{32}$
39	10TCS-Q39	C034B102G39J	$\frac{3}{16} \times \frac{5}{32}$
47	10TCS-Q47	C034B102G47J	$\frac{3}{16} \times \frac{5}{32}$
50	10TCS-Q50	C034B102G50J	$\frac{3}{16} \times \frac{5}{32}$
56	10TCS-Q56	C034B102G56J	$\frac{3}{16} \times \frac{5}{32}$
68	10TCS-Q68	C034B102H68J	$\frac{1}{2} \times \frac{5}{32}$
75	10TCS-Q75	C034B102H75J	$\frac{1}{2} \times \frac{5}{32}$
82	10TCS-Q82	C034A102J82J	$\frac{9}{16} \times \frac{5}{32}$
100	10TCS-T10	C034A102J10J	$\frac{9}{16} \times \frac{5}{32}$
120	10TCS-T12	C034A102K12J	$\frac{9}{16} \times \frac{5}{32}$
150	10TCS-T15	C034A102L15J	$\frac{11}{16} \times \frac{5}{32}$
175	10TCS-T17.5		$\frac{11}{16} \times \frac{5}{32}$
180	10TCS-T18	C034A102M18J	$\frac{3}{4} \times \frac{5}{32}$
200	10TCS-T20	C034A102M20J	$\frac{3}{4} \times \frac{5}{32}$
220	10TCS-T22	C034A102P22J	$\frac{7}{8} \times \frac{5}{32}$
270	10TCS-T27	C034A102P27J	$\frac{7}{8} \times \frac{5}{32}$

SPRAGUE CAPACITORS

ERA-MITE® CERAMIC CAPACITORS, continued

Sprague Products Cat. No.				Sprague O.E.M. Part No.				Size D. x T.			
N330 (cont.)				N750 (cont.)				N750 (cont.)			
μF				μF				μF			
0	10TCS-T30	C034A102P301J	$\frac{7}{8} \times \frac{1}{32}$	200	10TCU-T20	C036A102K201J	$\frac{7}{8} \times \frac{1}{32}$	470	10TCU-T47	C036A102P471J	$\frac{7}{8} \times \frac{1}{32}$
0	10TCS-T33		$\frac{7}{8} \times \frac{1}{32}$	220	10TCU-T22	C036A102K221J	$\frac{7}{8} \times \frac{1}{32}$	560	10TCU-T56		$\frac{7}{8} \times \frac{1}{32}$
0	10TCS-T39		$\frac{7}{8} \times \frac{1}{32}$	270	10TCU-T27	C036A102L271J	$\frac{1}{16} \times \frac{1}{32}$	680	10TCU-T68		$\frac{7}{8} \times \frac{1}{32}$
0	10TCS-T47		$\frac{7}{8} \times \frac{1}{32}$	300	10TCU-T30	C036A102M301J	$\frac{3}{4} \times \frac{1}{32}$		.00075 μF	10TCU-T75	41C293
0	10TCS-T56		$\frac{7}{8} \times \frac{1}{32}$	330	10TCU-T33	C036A102M331J	$\frac{3}{4} \times \frac{1}{32}$		.00082	10TCU-T82	41C294
				390	10TCU-T39	C036A102P391J	$\frac{7}{8} \times \frac{1}{32}$		.001	10TCU-D10	41C295

N470				TEMPERATURE-STABLE TYPES			
μF				- Used where minimum capacitance change with temperature is an important consideration - Standard capacitance tolerance: $\pm 10\%$ except 10TS-S15 10TS-S20, 10TS-S30 $\pm 15\%$ - Rated at 1000 WVDC			
μF				μF			
0	10TCT-V30	C035B102S3R0D	$\frac{3}{4} \times \frac{1}{4}$	3.3	10TS-V33	40C300A	$\frac{3}{4} \times \frac{1}{32}$
3.3	10TCT-V33	C035B102S3R3D	$\frac{3}{4} \times \frac{1}{4}$	5.0	10TS-V50	40C49A1	$\frac{3}{4} \times \frac{1}{32}$
3.9	10TCT-V39	C035B102S3R9D	$\frac{3}{4} \times \frac{1}{4}$	6.0	10TS-V60	40C299A	$\frac{3}{4} \times \frac{1}{32}$
4.7	10TCT-V47	C035B102S4R7D	$\frac{3}{4} \times \frac{1}{4}$	6.8	10TS-V68	40C97A2	$\frac{3}{4} \times \frac{1}{32}$
5.0	10TCT-V50	C035B102S5R0D	$\frac{3}{4} \times \frac{1}{4}$	7.5	10TS-V75	40C133A	$\frac{3}{4} \times \frac{1}{32}$
5.6	10TCT-V56	C035B102S5R6D	$\frac{3}{4} \times \frac{1}{4}$	8.0	10TS-V80	40C38A2	$\frac{3}{4} \times \frac{1}{32}$
6.8	10TCT-V68	C035B102S6R8D	$\frac{3}{4} \times \frac{1}{4}$	10	10TS-Q10	40C219A3	$\frac{5}{8} \times \frac{1}{32}$
8.2	10TCT-V82	C035B102S8R2D	$\frac{3}{4} \times \frac{1}{4}$	12	10TS-Q12	40C252A	$\frac{3}{4} \times \frac{1}{32}$
0	10TCT-Q10	C035B102E100J	$\frac{3}{4} \times \frac{1}{32}$	15	10TS-Q15	40C65A2	$\frac{3}{4} \times \frac{1}{32}$
0	10TCT-Q12	C035B102E120J	$\frac{3}{4} \times \frac{1}{32}$	18	10TS-Q18	40C139A3	$\frac{3}{4} \times \frac{1}{32}$
0	10TCT-Q15	C035B102E150J	$\frac{3}{4} \times \frac{1}{32}$	20	10TS-Q20	40C265A	$\frac{3}{4} \times \frac{1}{32}$
0	10TCT-Q18	C035B102E180J	$\frac{3}{4} \times \frac{1}{32}$	22	10TS-Q22	40C56A	$\frac{3}{4} \times \frac{1}{32}$
0	10TCT-Q20	C035B102E200J	$\frac{3}{4} \times \frac{1}{32}$	25	10TS-Q25	40C113A	$\frac{3}{4} \times \frac{1}{32}$
0	10TCT-Q22	C035B102E220J	$\frac{3}{4} \times \frac{1}{32}$	27	10TS-Q27	40C287A	$\frac{3}{4} \times \frac{1}{32}$
0	10TCT-Q25	C035B102E250J	$\frac{3}{4} \times \frac{1}{32}$	30	10TS-Q30	40C303	$\frac{3}{4} \times \frac{1}{32}$
0	10TCT-Q27	C035B102F270J	$\frac{3}{4} \times \frac{1}{32}$	33	10TS-Q33	40C57A	$\frac{3}{4} \times \frac{1}{32}$
0	10TCT-Q30	C035B102F300J	$\frac{3}{4} \times \frac{1}{32}$	39	10TS-Q39	40C58A	$\frac{3}{4} \times \frac{1}{32}$
0	10TCT-Q33	C035B102F330J	$\frac{3}{4} \times \frac{1}{32}$	47	10TS-Q47	40C135A	$\frac{3}{4} \times \frac{1}{32}$
0	10TCT-Q39	C035B102F390J	$\frac{3}{4} \times \frac{1}{32}$	50	10TS-Q50	40C157A	$\frac{3}{4} \times \frac{1}{32}$
0	10TCT-Q47	C035B102F470J	$\frac{3}{4} \times \frac{1}{32}$	56	10TS-Q56	40C130A2	$\frac{3}{4} \times \frac{1}{32}$
0	10TCT-Q50	C035B102G500J	$\frac{3}{4} \times \frac{1}{32}$	68	10TS-Q68	40C270A	$\frac{3}{4} \times \frac{1}{32}$
0	10TCT-Q56	C035B102G560J	$\frac{3}{4} \times \frac{1}{32}$	75	10TS-Q75	40C46A1	$\frac{3}{4} \times \frac{1}{32}$
0	10TCT-Q68	C035B102G680J	$\frac{3}{4} \times \frac{1}{32}$	82	10TS-Q82	40C281A	$\frac{3}{4} \times \frac{1}{32}$
0	10TCT-Q75	C035B102G750J	$\frac{3}{4} \times \frac{1}{32}$	91	10TS-Q91	40C302	$\frac{3}{4} \times \frac{1}{32}$
0	10TCT-Q82	C035B102H820J	$\frac{1}{2} \times \frac{1}{32}$	100	10TS-T10	40C200A	$\frac{3}{4} \times \frac{1}{32}$
0	10TCT-T10	C035B102H101J	$\frac{1}{2} \times \frac{1}{32}$	120	10TS-T12	40C60A	$\frac{3}{4} \times \frac{1}{32}$
0	10TCT-T12	C035A102J121J	$\frac{1}{4} \times \frac{1}{32}$	130	10TS-T13	40C147A	$\frac{3}{4} \times \frac{1}{32}$
0	10TCT-T15	C035A102K151J	$\frac{3}{4} \times \frac{1}{32}$	150	10TS-T15	40C202A	$\frac{3}{4} \times \frac{1}{32}$
0	10TCT-T175		$\frac{3}{4} \times \frac{1}{32}$	180	10TS-T18	40C99A1	$\frac{3}{4} \times \frac{1}{32}$
0	10TCT-T18	C035A102K181J	$\frac{3}{4} \times \frac{1}{32}$	200	10TS-T20	40C81A	$\frac{3}{4} \times \frac{1}{32}$
0	10TCT-T20	C035A102L201J	$\frac{1}{16} \times \frac{1}{32}$	220	10TS-T22	40C204A	$\frac{3}{4} \times \frac{1}{32}$
0	10TCT-T22	C035A102L221J	$\frac{1}{16} \times \frac{1}{32}$	240	10TS-T24	40C167A	$\frac{3}{4} \times \frac{1}{32}$
0	10TCT-T27	C035A102M271J	$\frac{3}{4} \times \frac{1}{32}$	250	10TS-T25	40C101A2	$\frac{3}{4} \times \frac{1}{32}$
0	10TCT-T30	C035A102P301J	$\frac{3}{4} \times \frac{1}{32}$	270	10TS-T27	C016B102E271K	$\frac{3}{4} \times \frac{1}{32}$
0	10TCT-T33	C035A102P331J	$\frac{3}{4} \times \frac{1}{32}$	300	10TS-T30		$\frac{3}{4} \times \frac{1}{32}$
0	10TCT-T39	C035A102P391J	$\frac{3}{4} \times \frac{1}{32}$	330	10TS-T33	C016B102E331K	$\frac{3}{4} \times \frac{1}{32}$
0	10TCT-T47		$\frac{3}{4} \times \frac{1}{32}$				
0	10TCT-T56		$\frac{3}{4} \times \frac{1}{32}$				

N750			
4.7	10TCU-V47	C036B102S4R7D	$\frac{3}{4} \times \frac{1}{4}$
5.0	10TCU-V50	C036B102S5R0D	$\frac{3}{4} \times \frac{1}{4}$
5.6	10TCU-V56	C036B102S5R6D	$\frac{3}{4} \times \frac{1}{4}$
6.8	10TCU-V68	C036B102S6R8D	$\frac{3}{4} \times \frac{1}{4}$
8.2	10TCU-V82	C036B102S8R2D	$\frac{3}{4} \times \frac{1}{4}$
0	10TCU-Q10	C036B102S100J	$\frac{3}{4} \times \frac{1}{4}$
0	10TCU-Q12	C036B102E120J	$\frac{3}{4} \times \frac{1}{32}$
0	10TCU-Q15	C036B102E150J	$\frac{3}{4} \times \frac{1}{32}$
0	10TCU-Q18	C036B102E180J	$\frac{3}{4} \times \frac{1}{32}$
0	10TCU-Q20	C036B102E200J	$\frac{3}{4} \times \frac{1}{32}$
0	10TCU-Q22	C036B102E220J	$\frac{3}{4} \times \frac{1}{32}$
0	10TCU-Q25	C036B102E250J	$\frac{3}{4} \times \frac{1}{32}$
0	10TCU-Q27	C036B102E270J	$\frac{3}{4} \times \frac{1}{32}$
0	10TCU-Q30	C036B102E300J	$\frac{3}{4} \times \frac{1}{32}$
0	10TCU-Q33	C036B102E330J	$\frac{3}{4} \times \frac{1}{32}$
0	10TCU-Q39	C036B102F390J	$\frac{3}{4} \times \frac{1}{32}$
0	10TCU-Q47	C036B102F470J	$\frac{3}{4} \times \frac{1}{32}$
0	10TCU-Q50	C036B102F500J	$\frac{3}{4} \times \frac{1}{32}$
0	10TCU-Q56	C036B102F560J	$\frac{3}{4} \times \frac{1}{32}$
0	10TCU-Q68	C036B102G680J	$\frac{3}{4} \times \frac{1}{32}$
0	10TCU-Q75	C036B102G750J	$\frac{3}{4} \times \frac{1}{32}$
0	10TCU-Q82	C036B102G820J	$\frac{3}{4} \times \frac{1}{32}$
0	10TCU-T10	C036B102H101J	$\frac{1}{2} \times \frac{1}{32}$
0	10TCU-T12	C036B102H121J	$\frac{1}{2} \times \frac{1}{32}$
0	10TCU-T15	C036A102J151J	$\frac{1}{4} \times \frac{1}{32}$
0	10TCU-T175		$\frac{3}{4} \times \frac{1}{32}$
0	10TCU-T18	C036A102K181J	$\frac{3}{4} \times \frac{1}{32}$

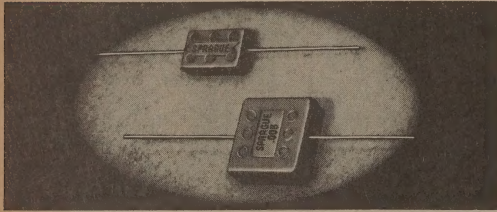
HIGH-K TYPES

- Designed for By-Pass and Coupling Applications Where Additional Capacitance Will Not Affect Circuit Operation
- Smallest Physical Size
- 5HK-S15 thru 5HK-P10, 500 WVDC, Capacitance Tolerance: $\pm 80 - 20\%$
- All Other 5HK are 1000 WVDC, Capacitance Tolerance: GMV

μF	Sprague Products Cat. No.	Sprague O.E.M. Part No.	Size D. x T.	μF	Sprague Products Cat. No.	Sprague O.E.M. Part No.	Size D. x T.
SINGLE UNITS				SINGLE UNITS (cont.)			
.001	5HK-D10	C023B102E102P	$\frac{3}{4} \times \frac{1}{32}$	.04	5HK-S40	44C124A	$\frac{1}{16} \times \frac{3}{16}$
.0015	5HK-D15	C023B102F152P	$\frac{3}{4} \times \frac{1}{32}$	.05	5HK-S50	33C58	$\frac{1}{16} \times \frac{3}{16}$
.002	5HK-D20	C023B102F202P	$\frac{3}{4} \times \frac{1}{32}$	.1	5HK-P10	41C92	$\frac{7}{8} \times \frac{1}{4}$
.0025	5HK-D25		$\frac{7}{8} \times \frac{1}{32}$	DUAL UNITS			
.0033	5HK-D33	C023B102G332P	$\frac{7}{8} \times \frac{1}{32}$	2 x .470 μF	5HK-T247	19C166	$\frac{3}{4} \times \frac{1}{32}$
.004	5HK-D40		$\frac{7}{8} \times \frac{1}{32}$	2 x .800	5HK-T80	19C167	$\frac{3}{4} \times \frac{1}{32}$
.0047	5HK-D47	C023A102J472P	$\frac{7}{8} \times \frac{1}{32}$	2 x .0015 μF	5HK-2D10	20C253	$\frac{7}{8} \times \frac{1}{32}$
.005	5HK-D50	C023A102J502P	$\frac{7}{8} \times \frac{1}{32}$	2 x .0015	5HK-2D15	55C67	$\frac{1}{2} \times \frac{1}{32}$
.0068	5HK-D68	C023A102K682P	$\frac{7}{8} \times \frac{1}{32}$	2 x .002	5HK-2D20	29C175	$\frac{7}{8} \times \frac{1}{32}$
.01	5HK-S10	C023A102L103P	$\frac{1}{16} \times \frac{1}{32}$	2 x .0022	5HK-2D22	29C27	$\frac{7}{8} \times \frac{1}{32}$
.015	5HK-S15		$\frac{7}{8} \times \frac{1}{32}$	2 x .004	5HK-2D40	33C111	$\frac{1}{16} \times \frac{1}{32}$
.02	5HK-S20		$\frac{7}{8} \times \frac{1}{32}$	2 x .0047	5HK-2D47	36C330	$\frac{3}{4} \times \frac{1}{32}$
.025	5HK-S25	20C318A	$\frac{1}{16} \times \frac{3}{16}$	2 x .01	5HK-S210	41C238	$\frac{7}{8} \times \frac{1}{32}$
				2 x .02	5HK-S250	41C219	$\frac{7}{8} \times \frac{1}{32}$

SPRAGUE CAPACITORS

MICA CAPACITORS TYPE MS and 1FM MICAS



- Each Mica Capacitor Section Receives a Radio Frequency Test Before Molding
- Careful Selection and Electrical Grading of Raw Mica Assures Maximum Quality
- Section Foils on Foil Micars are Connected to Terminals through Special Low-resistance R-F Bonds
- R-F Current Tested for Peak Ratings After Impregnation and Molding

TYPE MS — SILVERED MICA (Standard Capacitance Tolerance $\pm 5\%$)

μF	Cat. No.	μF	Cat. No.	μF	Cat. No.	μF	Cat. No.
500 WVDC, 1000 V Test							
.000005	MS-55	.000068	MS-468	.000470	MS-347	.002500	MS-225
.000010	MS-41	.000070	MS-47	.000500	MS-35	.002700	MS-227
.000012	MS-412	.000075	MS-475	.000510	MS-351	.003000	MS-23
.000015	MS-415	.000082	MS-482	.000560	MS-356	.003300	MS-233
.000018	MS-418	.000091	MS-491	.000600	MS-36	.003600	MS-236
.000020	MS-42	.000100	MS-31	.000620	MS-362	.003900	MS-239
.000022	MS-422	.000110	MS-311	.000680	MS-368	.004000	MS-24
.000024	MS-424	.000120	MS-312	.000700	MS-37	.004300	MS-243
.000025	MS-425	.000130	MS-313	.000750	MS-375	.004700	MS-247
.000027	MS-427	.000150	MS-315	.000800	MS-38	.005000	MS-25
.000030	MS-43	.000160	MS-316	.000820	MS-382	.005100	MS-251
.000033	MS-433	.000180	MS-318	.000900	MS-39	.005600	MS-256
.000036	MS-436	.000200	MS-32	.000910	MS-391	.006000	MS-26
.000039	MS-439	.000220	MS-322	.001000	MS-21	.006200	MS-262
.000040	MS-44	.000240	MS-324	.001100	MS-211	300 WVDC, 600 V Test	
.000043	MS-443	.000250	MS-325	.001200	MS-212	.006800	MS-268
.000047	MS-447	.000270	MS-327	.001300	MS-213	.007000	MS-27
.000050	MS-45	.000300	MS-33	.001500	MS-215	.007500	MS-275
.000051	MS-451	.000330	MS-333	.001600	MS-216	.008000	MS-28
.000056	MS-456	.000360	MS-336	.001800	MS-218	.008200	MS-282
.000060	MS-46	.000390	MS-339	.002000	MS-22	.009000	MS-29
.000062	MS-462	.000400	MS-34	.002200	MS-222	.009100	MS-291
		.000430	MS-343	.002400	MS-224	.010000	MS-11

TYPE 1FM (Standard Capacitance Tolerance $\pm 20\%$)

μF	Cat. No.	μF	Cat. No.	μF	Cat. No.	μF	Cat. No.
500 WVDC, 1000 V Test							
.000010	1FM-41	.000082	1FM-482	.000470	1FM-347	.003000	1FM-23
.000012	1FM-412	.000091	1FM-491	.000500	1FM-35	.003300	1FM-233
.000015	1FM-415	.000100	1FM-31	.000510	1FM-351	.003600	1FM-236
.000018	1FM-418	.000110	1FM-311	.000560	1FM-356	.003900	1FM-239
.000020	1FM-42	.000120	1FM-312	.000620	1FM-362	.004000	1FM-24
.000022	1FM-422	.000130	1FM-313	.000680	1FM-368	.004300	1FM-243
.000024	1FM-424	.000150	1FM-315	.000700	1FM-37	.004700	1FM-247
.000027	1FM-427	.000160	1FM-316	.000750	1FM-375	.005000	1FM-25
.000030	1FM-43	.000180	1FM-318	.000820	1FM-382	.005100	1FM-251
.000033	1FM-433	.000200	1FM-32	.000900	1FM-391	.005600	1FM-256
.000036	1FM-436	.000220	1FM-322	.001000	1FM-21	.006000	1FM-26
.000039	1FM-439	.000240	1FM-324	.001100	1FM-211	.006200	1FM-262
.000040	1FM-44	.000250	1FM-325	.001200	1FM-212	300 WVDC, 600 V Test	
.000043	1FM-443	.000270	1FM-327	.001300	1FM-213	.006800	1FM-268
.000047	1FM-447	.000300	1FM-33	.001500	1FM-215	.007000	1FM-27
.000050	1FM-45	.000330	1FM-333	.001600	1FM-216	.007500	1FM-275
.000051	1FM-451	.000350	1FM-335	.001800	1FM-218	.008000	1FM-28
.000056	1FM-456	.000360	1FM-336	.002000	1FM-22	.008200	1FM-282
.000060	1FM-46	.000390	1FM-339	.002200	1FM-222	.009000	1FM-29
.000062	1FM-462	.000400	1FM-34	.002400	1FM-224	.009100	1FM-291
		.000430	1FM-343	.002500	1FM-225	.010000	1FM-11
				.002700	1FM-227		

MS and 1FM Dimensions

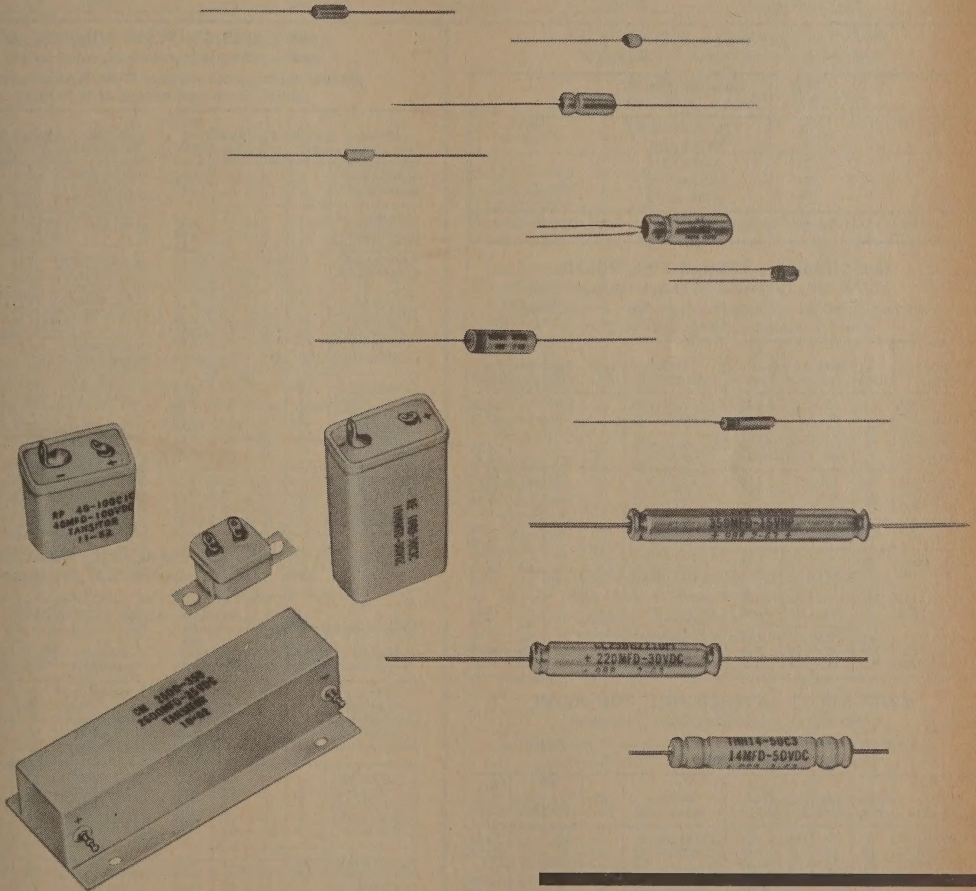
Catalog Numbers	L x W x T	Catalog Numbers	L x W x T	Catalog Numbers	L x W x T
MS-55 thru MS-35	$\frac{5}{16} \times \frac{1}{32} \times \frac{7}{32}$	MS-233	$\frac{3}{16} \times \frac{5}{16} \times \frac{7}{32}$	1FM-482 thru 1FM-356	$\frac{5}{16} \times \frac{1}{32} \times \frac{7}{32}$
MS-351 thru MS-222	$\frac{3}{16} \times \frac{5}{16} \times \frac{7}{32}$	MS-236 thru MS-282	$\frac{3}{16} \times \frac{5}{16} \times \frac{1}{32}$	1FM-362 thru 1FM-233	$\frac{3}{16} \times \frac{5}{16} \times \frac{7}{32}$
MS-224	$\frac{3}{16} \times \frac{5}{16} \times \frac{1}{32}$	MS-29 thru MS-11	$1 \times \frac{5}{8} \times \frac{3}{16}$	1FM-236 thru 1FM-282	$\frac{3}{16} \times \frac{5}{16} \times \frac{1}{32}$
MS-225 thru MS-227	$\frac{5}{16} \times \frac{5}{16} \times \frac{7}{32}$	1FM-41 thru 1FM-462	$\frac{5}{16} \times \frac{1}{32} \times \frac{7}{32}$	1FM-29 thru 1FM-11	$1 \times \frac{5}{8} \times \frac{1}{16}$
MS-23	$\frac{5}{16} \times \frac{5}{16} \times \frac{1}{32}$	1FM-468 thru 1FM-475	$\frac{3}{16} \times \frac{5}{16} \times \frac{7}{32}$		

Tansitor



TANTALUM CAPACITORS

CONDENSED CATALOG



TANSITOR
ELECTRONICS, INC.

Tansistor

ELECTRONICS, INC.

MIL-C-3965C

TANSITOR TANTALUM FOIL CAPACITORS

TYPES: CL24, CL25, CL26, CL27, CL34, CL35, CL36, CL37

-55°C to +85°C

Tansitor Military Type 85°C capacitors are tantalum foil capacitors which will operate reliably over the temperature range -55°C to +85°C. These units are equivalent to Tanistor Type TEF capacitors.

MILITARY DESIGNATION CODE

CL26	B	Q	180	S	N	3
Style	Temp. Characteristic	Voltage	Capacitance	Capacitance Tolerance	Polarity	Vibration Grade

CASE DIMENSIONS

CL24, CL26, CL34, CL36 — Uninsulated*

CASE SIZE	Dimensions (Nominal) Length x Diameter, Inches
C1	0.688 x 0.188
C2	0.875 x 0.281
C3	1.438 x 0.375
C4	2.125 x 0.375
C5	2.750 x 0.375

*For dimensions of insulated units add approximately 0.125" to length, 0.015" to diameter.

MIL-C-3965/2 — ETCHED FOIL, POLAR

TYPE: CL24 (Uninsulated) CL25 (Insulated)

All Parts Numbers are listed as CL24 Type. If insulating sleeve is required, change CL24 to CL25.

Designation Military	D.C. Volts	Mfds. Cap.	Case Size	Net Price (1-24)†
CL24BE150UP3	15	15	C1	4.20
CL24BE600UP3	15	60	C2	7.55
CL24BE201UP3	15	200	C3	12.40
CL24BE401UP3	15	400	C4	20.55
CL24BE581UP3	15	580	C5	27.35
CL24BG100UP3	25	10	C1	4.20
CL24BG400UP3	25	40	C2	7.55
CL24BG121UP3	25	120	C3	12.40
CL24BG251UP3	25	250	C4	20.55
CL24BG351UP3	25	350	C5	27.35
CL24BH080UP3	30	8	C1	4.20
CL24BH320UP3	30	32	C2	7.55
CL24BH111UP3	30	110	C3	12.40
CL24BH221UP3	30	220	C4	20.55
CL24BH301UP3	30	300	C5	27.35
CL24BJ4R5TP3	50	4.5	C1	4.20
CL24BJ180TP3	50	12	C2	7.55
CL24BJ600TP3	50	60	C3	12.40

MIL-C-3965/12 — ETCHED FOIL, NON-POLAR

TYPE: CL26 (Uninsulated) CL27 (Insulated)

All Part Numbers are listed as CL 26 Type. If insulating sleeve is required, change CL 26 to CL27.

Military Designation	Volts D.C.	Cap. Mfds.	Case Size	Net Price (1-24)†
CL26BE100UN3	15	10	C1	4.20
CL26BE400UN3	15	40	C2	7.55
CL26BE121UN3	15	120	C3	12.40
CL26BE251UN3	15	250	C4	20.55
CL26BE351UN3	15	350	C5	27.35
CL26BG050UN3	25	5	C1	4.20
CL26BG200UN3	25	20	C2	7.55
CL26BG700UN3	25	70	C3	12.40
CL26BG141UN3	25	140	C4	20.55
CL26BG201UN3	25	200	C5	27.35
CL26BH4R5UN3	30	4.5	C1	4.20
CL26BH180UN3	30	18	C2	7.55
CL26BH600UN3	30	60	C3	12.40
CL26BH121UN3	30	120	C4	20.55
CL26BH171UN3	30	170	C5	27.35
CL26BJ2R5TN3	50	2.5	C1	4.20
CL26BJ100TN3	50	10	C2	7.55
CL26BJ300TN3	50	30	C3	12.40

Military Designation	Volts D.C.	Cap. Mfds.	Case Size	Net Price (1-24)†
CL26BJ600TN3	50	60	C4	20.55
CL26BJ800TN3	50	80	C5	27.35
CL26BL1R5TN3	75	1.5	C1	4.20
CL26BL060TN3	75	6	C2	7.55
CL26BL150TN3	75	15	C3	12.40
CL26BL350TN3	75	35	C4	20.55
CL26BL500TN3	75	50	C5	27.35
CL26BN0R5SN3	100	0.5	C1	4.20
CL26BN10SN3	100	1	C2	7.55
CL26BN40SN3	100	4	C3	12.40
CL26BN120SN3	100	12	C4	20.55
CL26BN250SN3	100	25	C5	27.35
CL26BN350SN3	100	35	C5	27.35
CL26BQ0R5SN3	150	0.5	C1	4.20
CL26BQ20SN3	150	2	C2	7.55
CL26BQ60SN3	150	6	C3	12.40
CL26BQ120SN3	150	12	C4	20.55
CL26BQ180SN3	150	18	C5	27.35

MIL-C-3965/3 — PLAIN FOIL, POLAR

TYPE: CL34 (Uninsulated) CL35 (Insulated)

All Part Numbers are listed as CL34 Type. If insulating sleeve is required, change CL34 to CL35.

Military Designation	Volts D.C.	Cap. Mfds.	Case Size	Net Price (1-24)†
CL34BA100MP3	3	10	C1	4.20
CL34BA500MP3	3	50	C2	6.60
CL34BB080MP3	6	8	C1	4.20
CL34BB300MP3	6	30	C2	6.60
CL34BB101MP3	6	100	C3	10.45
CL34BB201MP3	6	200	C4	14.60
CL34BB301MP3	6	300	C5	19.60
CL34BD060MP3	10	6	C1	4.20
CL34BD250MP3	10	25	C2	6.60
CL34BD800MP3	10	80	C3	10.45
CL34BD161MP3	10	160	C4	14.60
CL34BD221MP3	10	220	C5	19.60
CL34BE4R5MP3	15	4.5	C1	4.20
CL34BE100MP3	15	10	C2	6.60
CL34BE180MP3	15	18	C2	6.60
CL34BE550MP3	15	55	C3	10.45
CL34BE111MP3	15	110	C4	14.60
CL34BE161MP3	15	160	C5	19.60
CL34BH2R5MP3	30	2.5	C1	4.20
CL34BH300MP3	30	30	C3	10.45
CL34BH600MP3	30	60	C4	14.60
CL34BH850MP3	30	85	C5	19.60
CL34BJ1R5MP3	50	1.5	C1	4.20
CL34BJ060MP3	50	6	C2	6.60
CL34BJ200MP3	50	20	C3	10.45
CL34BJ400MP3	50	40	C4	14.60
CL34BJ550MP3	50	55	C5	19.60
CL34BL010MP3	75	1	C1	4.20
CL34BL040MP3	75	4	C2	6.60
CL34BL140MP3	75	14	C3	10.45
CL34BL280MP3	75	28	C4	14.60
CL34BL400MP3	75	40	C5	19.60
CL34BN0R5MP3	100	0.8	C1	4.20
CL34BN030MP3	100	3	C2	6.60
CL34BN100MP3	100	10	C3	10.45
CL34BN200MP3	100	20	C4	14.60
CL34BN300MP3	100	30	C5	19.60
CL34BQ0R5MP3	150	0.5	C1	4.20
CL34BQ020MP3	150	2	C2	6.60
CL34BQ040MP3	150	4	C3	10.45
CL34BQ070MP3	150	7	C4	14.60
CL34BQ080MP3	150	8	C4	14.60
CL34BQ120MP3	150	12	C4	14.60
CL34BQ140MP3	150	14	C4	14.60
CL34BQ200MP3	150	20	C5	19.60

MIL-C-3965/14 — PLAIN FOIL, NON-POLAR

TYPE: CL36 (Uninsulated) CL37 (Insulated)

All Part Numbers are listed as CL36 Type. If insulating sleeve is required, change CL36 to CL37.

Military Designation	Volts D.C.	Cap. Mfds.	Case Size	Net Price (1-24)†
CL36BA100MN3	3	10	C1	4.20
CL36BA150MN3	3	45	C2	6.60
CL36BA141MN3	3	140	C3	10.45
CL36BA281MN3	3	280	C4	14.60
CL36BA401MN3	3	400	C5	19.60
CL36BB070MN3	6	7	C1	4.20
CL36BB250MN3	6	25	C2	6.60
CL36BB850MN3	6	85	C3	10.45
CL36BB171MN3	6	170	C4	14.60
CL36BB251MN3	6	250	C5	19.60
CL36BD040MN3	10	4	C1	4.20
CL36BD160MN3	10	16	C2	6.60
CL36BD050MN3	10	55	C3	10.45
CL36BD111MN3	10	110	C4	14.60
CL36BD151MN3	10	150	C5	19.60
CL36BE2R5MN3	15	2.5	C1	4.20
CL36BE100MN3	15	10	C2	6.60
CL36BE350MN3	15	35	C3	10.45
CL36BE700MN3	15	70	C4	14.60
CL36BE101MN3	15	100	C5	19.60
CL36BG1R5MN3	25	1.5	C1	4.20
CL36BG060MN3	25	6	C2	6.60
CL36BG200MN3	25	20	C3	10.45
CL36BG400MN3	25	40	C4	14.60
CL36BG600MN3	25	60	C5	19.60
CL36BJ1R5MN3	50	1.5	C1	4.20
CL36BJ030MN3	50	3	C2	6.60
CL36BJ100MN3	50	10	C3	10.45
CL36BJ200MN3	50	20	C4	14.60
CL36BJ300MN3	50	30	C5	19.60
CL36BL0R5MN3	75	0.5	C1	4.20
CL36BL020MN3	75	2	C2	6.60
CL36BL070MN3	75	7	C3	10.45
CL36BL140MN3	75	14	C4	14.60
CL36BL200MN3	75	20	C5	19.60
CL36BN0R4MN3	100	0.4	C1	4.20
CL36BN1R5MN3	100	1.5	C2	6.60
CL36BN050MN3	100	5	C3	10.45
CL36BN100MN3	100	10	C4	14.60
CL36BN150MN3	100	15	C5	19.60
CL36BQ2R5MN3	150	0.25	C1	4.20
CL36BQ010MN3	150	1	C2	6.60
CL36BQ3R5MN3	150	3.5	C3	10.45
CL36BQ070MN3	150	7	C4	14.60
CL36BQ100MN3	150	10	C5	19.60

†See your Tansistor Distributor for prices for 25 or more pieces.

Tansitor

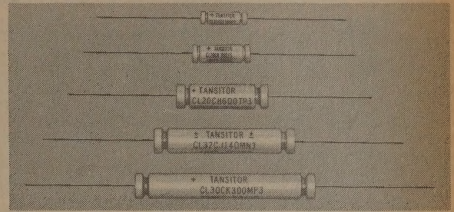
ELECTRONICS, INC.

MIL-C-3965C

TANSITOR TANTALUM FOIL CAPACITORS

TYPES: CL20, CL21, CL22, CL23, CL30, CL31, CL32, CL33

Tansitor Military Type 125°C Foil Tantalum Capacitors are small capacitors which will operate reliably over the range -55°C to 25°C. These units are equivalent to Tanistor Type TH capacitors.



MILITARY DESIGNATION CODE

0	C	N	200	M	P	3
	Temp. Characteristic	Voltage	Capacitance	Capacitance Tolerance	Polarity	Vibration Grade

MIL-C-3965/17 — ETCHED FOIL, POLAR

TYPE: CL20 (Uninsulated) CL21 (Insulated)

All Part Numbers are listed as CL20 Type. If insulating sleeve is required, change CL 20 to CL21

Military Designation	Volts D.C.	Cap. Mfds.	Case Size	Net Price (1-24)†
CE100UP3	15	10	D1	\$ 7.37
CE400UP3	15	40	D2	10.49
CE121UP3	15	120	D3	16.16
CE251UP3	15	250	D4	25.54
CE351UP3	15	350	D5	31.75
CH4R5TP3	30	4.5	D1	7.37
CH180TP3	30	18	D2	10.49
CH600TP3	30	60	D3	16.16
CH101TP3	30	100	D4	25.54
CH151TP3	30	150	D5	31.75
Military Designation	Volts D.C.	Cap. Mfds.	Case Size	Net Price (1-24)†
CL20CK020TP3	60	2	D1	7.37
CL20CK080TP3	60	8	D2	10.49
CL20CK250TP3	60	25	D3	16.16
CL20CK500TP3	60	50	D4	25.54
CL20CK700TP3	60	70	D5	31.75
CL20CN010SP3	100	1	D1	7.37
CL20CN040SP3	100	4	D2	10.49
CL20CN130SP3	100	13	D3	16.16
CL20CN250SP3	100	25	D4	25.54
CL20CN360SP3	100	36	D5	31.75

MIL-C-3965/18 — ETCHED FOIL, NON-POLAR

TYPE: CL22 (Uninsulated) CL23 (Insulated)

All Part Numbers are listed as CL22 Type. If insulating sleeve is required, change CL22 to CL23.

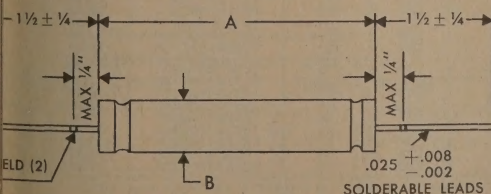
Military Designation	Volts D.C.	Cap. Mfds.	Case Size	Net Price (1-24)†
CE050UN3	15	5	D1	\$ 7.37
CE200UN3	15	20	D2	10.49
CE700UN3	15	70	D3	16.16
CE141UN3	15	140	D4	25.54
CE201UN3	15	200	D5	31.75
CH2R5TN3	30	2.5	D1	7.37
CH100TN3	30	10	D2	10.49
CH300TN3	30	30	D3	16.16
CH600TN3	30	60	D4	25.54
CH800TN3	30	80	D5	31.75
Military Designation	Volts D.C.	Cap. Mfds.	Case Size	Net Price (1-24)†
CL22CK010TN3	60	1	D1	7.37
CL22CK040TN3	60	4	D2	10.49
CL22CK120TN3	60	12	D3	16.16
CL22CK250TN3	60	25	D4	25.54
CL22CK350TN3	60	35	D5	31.75
CL22CN0R5SN3	100	0.5	D1	7.37
CL22CN020SN3	100	2	D2	10.49
CL22CN060SN3	100	6	D3	16.16
CL22CN120SN3	100	12	D4	25.54
CL22CN180SN3	100	18	D5	31.75

CASE DIMENSIONS

CL20, CL21, CL22, CL23, CL30, CL31, CL32, CL33 — Uninsulated*

CASE SIZE	Dimensions (Nominal) Length x Diameter, Inches
D1	0.688 x 0.188
D2	0.938 x 0.281
D3	1.469 x 0.375
D4	2.156 x 0.375
D5	2.781 x 0.375

*Dimensions of insulated units add approximately 0.125" to length, 0.015" to diameter.



MIL-C-3965/15 — PLAIN FOIL, POLAR

TYPE: CL30 (Uninsulated) CL31 (Insulated)

All Part Numbers are listed as CL30 Type. If insulating sleeve is required, change CL30 to CL31.

Military Designation	Volts D.C.	Cap. Mfds.	Case Size	Net Price (1-24)†
CL30CH1R5MP3	30	1.5	D1	\$ 7.37
CL30CH060MP3	30	6	D2	9.80
CL30CH200MP3	30	20	D3	14.18
CL30CH400MP3	30	40	D4	18.31
CL30CH550MP3	30	55	D5	23.54
CL30CK0R8MP3	60	0.8	D1	7.37
CL30CK030MP3	60	3	D2	9.80
CL30CK100MP3	60	10	D3	14.18
CL30CK200MP3	60	20	D4	18.31
CL30CK300MP3	60	30	D5	23.54
CL30CN0R5MP3	100	0.5	D1	7.37
CL30CN020MP3	100	2	D2	9.80
CL30CN070MP3	100	7	D3	14.18
CL30CN140MP3	100	14	D4	18.31
CY30CN200MP3	100	20	D5	23.54
CL30CQR35MP3	150	0.35	D1	7.37
CL30CQ1R5MP3	150	1.5	D2	9.80
CL30CQ050MP3	150	5	D3	14.18
CL30CQ100MP3	150	10	D4	18.31
CL30CQ150MP3	150	15	D5	23.54

MIL-C-3965/16 — PLAIN FOIL, NON-POLAR

TYPE: CL32 (Uninsulated) CL33 (Insulated)

All Part Numbers are listed as CL32 Type. If insulating sleeve is required, change CL32 to CL33.

Military Designation	Volts D.C.	Cap. Mfds.	Case Size	Net Price (1-24)†
CL32CH0R8MN3	30	0.8	D1	\$ 7.27
CL32CH030MN3	30	3	D2	9.80
CL32CH100MN3	30	10	D3	14.18
CL32CH200MN3	30	20	D4	18.31
CL32CH300MN3	30	30	D5	23.54
CL32CK0R4MN3	60	0.4	D1	7.27
CL32CK1R5MN3	60	1.5	D2	9.80
CL32CK050MN3	60	5	D3	14.18
CL32CK100MN3	60	10	D4	18.31
CL32CK150MN3	60	15	D5	23.54
CL32CN2R5MN3	100	0.25	D1	7.27
CL32CN010MN3	100	1	D2	9.80
CL32CN3R5MN3	100	3.5	D3	14.18
CL32CN070MN3	100	7	D4	18.31
CL32CN100MN3	100	10	D5	23.54
CL32CQR15MN3	150	0.15	D1	7.27
CL32CQR75MN3	150	0.75	D2	9.80
CL32CQ2R5MN3	150	2.5	D3	14.18
CL32CQ050MN3	150	5	D4	18.31
CL32CQ7R5MN3	150	7.5	D5	23.54

†See your Tansitor Distributor for prices for 25 or more pieces.

Tansitor

ELECTRONICS, INC.

TANSITOR TANTALUM CAPACITORS

TYPE: TES -55°C to +85°C

Tansitor Type TES tantalum capacitors are unique small foil tantalum capacitors ideally suited for use in printed circuits. They are similar in performance to CL34 and CL24 type capacitors, but offer significant savings in space because both leads emerge from one end of the capacitors. They operate reliably over the temperature range of -55°C to +85°C.

CASE DIMENSIONS (Uninsulated)*

CASE SIZE	Dimensions (Nominal) Length x Diameter, Inches
C1	0.650 x 0.312
C2	1.000 x 0.375

*For dimensions of insulated units add approximately 0.125" to length, 0.030" to diameter.

HIGH CAPACITANCE TYPE CASE DIMENSIONS (Uninsulated)*

CASE SIZE	Dimensions (Nominal) Length x Diameter, Inches	CASE SIZE	Dimensions (Nominal) Length x Diameter, Inches
C30	0.813 x 0.563	C40	0.813 x 0.625
C32	0.938 x 0.563	C42	0.938 x 0.625
C33	1.188 x 0.563	C43	1.188 x 0.625
C34	1.250 x 0.563	C44	1.250 x 0.625
C35	1.563 x 0.563	C45	1.563 x 0.625
C36	1.688 x 0.563	C46	1.688 x 0.625
C37	1.938 x 0.563	C47	1.938 x 0.625
C38	2.188 x 0.563	C48	2.188 x 0.625
C39	2.438 x 0.563	C49	2.438 x 0.625

*For dimensions of insulated units add approximately 0.065" to length, 0.015" to diameter.

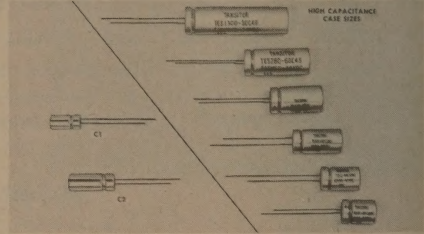
ETCHED FOIL, POLAR*

VOLTS D.C.	CASE SIZE	CAP. MFDS.	TANSITOR ¹ CATALOG NO.	NET PRICE (1-24)†
6	C1	220	TES220-6C1	\$ 3.74
	C2	600	TES600-6C2	6.10
10	C1	140	TES140-10C1	3.74
	C2	375	TES375-10C2	6.10
15	C1	90	TES90-15C1	3.74
	C2	250	TES250-15C2	6.10
20	C1	70	TES70-20C1	3.74
	C2	180	TES180-20C2	6.10
35	C1	35	TES35-35C1	3.74
	C2	100	TES100-35C2	6.10
50	C1	25	TES25-50C1	3.74
	C2	60	TES60-50C2	6.10
60	C1	19	TES19-60C1	3.74
	C2	50	TES50-60C2	6.10
75	C1	14	TES14-75C1	3.74
	C2	35	TES35-75C2	6.10
100	C1	8.5	TES8.5-100C1	3.74
	C2	20	TES20-100C2	6.10
125	C1	5	TES5-125C1	3.74
	C2	14	TES14-125C2	6.10
150	C1	3.5	TES3.5-150C1	3.74
	C2	10	TES10-150C2	6.10

ETCHED FOIL, NON-POLAR*

6	C1	150	TES150-6C1N	\$ 3.74
	C2	350	TES350-6C2N	6.10
10	C1	80	TES80-10C1N	3.74
	C2	200	TES200-10C2N	6.10
15	C1	50	TES50-15C1N	3.74
	C2	140	TES140-15C2N	6.10
20	C1	35	TES35-20C1N	3.74
	C2	100	TES100-20C2N	6.10
35	C1	18	TES18-35C1N	3.74
	C2	50	TES50-35C2N	6.10
50	C1	13	TES13-50C1N	3.74
	C2	30	TES30-50C2N	6.10
60	C1	9.5	TES9.5-60C1N	3.74
	C2	25	TES25-60C2N	6.10
75	C1	7	TES7-75C1N	3.74
	C2	18	TES18-75C2N	6.10
100	C1	4.2	TES4.2-100C1N	3.74
	C2	10	TES10-100C2N	6.10
125	C1	2.5	TES2.5-125C1N	3.74
	C2	7	TES7-125C2N	6.10
150	C1	1.8	TES1.8-150C1N	3.74
	C2	5	TES5-150C2N	6.10

*Ratings in plain foil also available.



HIGH CAPACITANCE FOIL, POLAR

VOLTS D.C.	CASE SIZE	CAP. MFDS.	TANSITOR ¹ CATALOG NO.	NET PRICE (1-24)†
3	C40	2000	TES2000-3C40	\$ 8.84
	C42	3000	TES3000-3C42	13.20
	C43	4000	TES4000-3C43	17.42
	C44	5000	TES5000-3C44	22.04
	C45	7000	TES7000-3C45	30.80
	C46	8000	TES8000-3C46	35.16
	C47	10000	TES10K-3C47	44.00
	C48	12000	TES12K-3C48	52.76
	C49	14000	TES14K-3C49	61.54
25	C30	170	TES170-25C30	\$ 6.40
	C32	260	TES260-25C32	9.60
	C33	350	TES350-25C33	12.80
	C34	430	TES430-25C34	16.00
	C35	600	TES600-25C35	22.38
	C36	690	TES690-25C36	25.36
	C37	870	TES870-25C37	31.96
	C38	1000	TES1000-25C38	38.36
	C39	1200	TES1200-25C39	44.74
50	C40	100	TES100-50C40	8.84
	C42	150	TES150-50C42	13.20
	C43	210	TES210-50C43	17.42
	C44	260	TES260-50C44	22.04
	C45	360	TES360-50C45	30.80
	C46	410	TES410-50C46	35.16
	C47	520	TES520-50C47	44.00
	C48	620	TES620-50C48	52.76
	C49	720	TES720-50C49	61.54
100	C30	27	TES27-100C30	6.40
	C32	41	TES41-100C32	9.60
	C33	55	TES55-100C33	12.80
	C34	68	TES68-100C34	16.00
	C35	95	TES95-100C35	22.38
	C36	110	TES110-100C36	25.36
	C37	140	TES140-100C37	31.96
	C38	160	TES160-100C38	38.36
	C39	190	TES190-100C39	44.74
150	C40	23	TES23-150C40	8.84
	C42	34	TES34-150C42	13.20
	C43	46	TES46-150C43	17.42
	C44	57	TES57-150C44	22.04
	C45	80	TES80-150C45	30.80
	C46	92	TES92-150C46	35.16
	C47	115	TES115-150C47	44.00
	C48	140	TES140-150C48	52.76
	C49	160	TES160-150C49	61.54

HIGH CAPACITANCE FOIL, NON-POLAR

25	C40	140	TES140-25C40N	8.84
	C42	210	TES210-25C42N	13.20
	C43	280	TES280-25C43N	17.42
	C44	350	TES350-25C44N	22.04
	C45	490	TES490-25C45N	30.80
	C46	550	TES550-25C46N	35.16
	C47	690	TES690-25C47N	44.00
	C48	830	TES830-25C48N	52.76
	C49	970	TES970-25C49N	61.54
50	C30	37	TES37-50C30N	6.40
	C32	55	TES55-50C32N	9.60
	C33	75	TES75-50C33N	12.80
	C34	90	TES90-50C34N	16.00
	C35	130	TES130-50C35N	22.38
	C36	150	TES150-50C36N	25.36
	C37	180	TES180-50C37N	31.96
	C38	220	TES220-50C38N	38.36
	C39	260	TES260-50C39N	44.74
150	C30	8	TES8-150C30N	6.40
	C32	12	TES12-150C32N	9.60
	C33	16	TES16-150C33N	12.80
	C34	20	TES20-150C34N	16.00
	C35	28	TES28-150C35N	22.38
	C36	33	TES33-150C36N	25.36
	C37	41	TES41-150C37N	31.96
	C38	50	TES50-150C38N	38.36
	C39	57	TES57-150C39N	44.74

¹When insulating tube is desired, add letter "I" as a suffix to catalog number.

†See your Tansitor Distributor for prices for 25 or more pieces.

Tansitor

ELECTRONICS, INC.

MIL-C-3965

TANSITOR TANTALUM CAPACITORS

TYPE: CL51, CL52, CL53, CL54; -55°C to +125°C

Tansitor's Type CL51, 52, 53 & 54 tantalum foil capacitors answer industry's demand for packages of high capacitance in moderate size, hermetically sealed units, and meet all the requirements of the current issue of MIL-C-3965. These units are equivalent to Tansitor Types RE & RP. Brackets available on request.

E SIZE	DIMENSIONS, INCHES	CASE SIZE	DIMENSIONS, INCHES
C1	0.750 x 0.750 x 0.500	D1	0.783 x 1.331 x 1.375
C2	0.750 x 0.750 x 0.875	D2	0.783 x 1.331 x 2.000
C3	0.750 x 0.750 x 1.125	D3	0.783 x 1.331 x 2.500

MILITARY DESIGNATION CODE

3	C	J	551	U	P	3
	Temp. Characteristic	Voltage	Capacitance	Capacitance Tolerance	Polarity	Vibration Grade

STANDARD MILITARY RATINGS

TYPE: CL53 — ETCHED FOIL*, POLAR

TYPE: CL54 — ETCHED FOIL*, NON-POLAR

MIL-C-3965/11	D.C. VOLTAGE AT +125°C	CAPACITANCE MFDS.	CASE SIZE	NET PRICE (1-24)†
CL53CD122UP3	10	1200	D1	\$44.10
CL53CD242UP3	10	2400	D2	56.60
CL53CD352UP3	10	3500	D3	62.80
CL53CF661UP3	20	660	D1	44.10
CL53CF132UP3	20	1300	D2	56.60
CL53CF182UP3	20	1800	D3	62.80
CL53CH351UP3	30	350	D1	44.10
CL53CH701UP3	30	700	D2	56.60
CL53CH102UP3	30	1000	D3	62.80
CL53CJ201UP3	50	200	D1	44.10
CL53CJ401UP3	50	400	D2	56.60
CL53CJ551UP3	50	550	D3	62.80
CL53CL121UP3	75	120	D1	44.10
CL53CL241UP3	75	240	D2	56.60
CL53CL321UP3	75	320	D3	62.80
CL53CN700UP3	100	70	D1	44.10
CL53CN141UP3	100	140	D2	56.60
CL53CN201UP3	100	200	D3	62.80
CL53CH550UP3	30	55	C1	29.86
CL53CH111UP3	30	110	C2	41.16
CL53CH181UP3	30	180	C3	48.02
CL53CJ300UP3	50	30	C1	29.86
CL53CJ600UP3	50	60	C2	41.16
CL53CJ101UP3	50	100	C3	48.02
CL53CL180UP3	75	18	C1	29.86
CL53CL360UP3	75	36	C2	41.16
CL53CL600UP3	75	60	C3	48.02
CL53CN120UP3	100	12	C1	29.86
CL53CN240UP3	100	24	C2	41.16
CL53CN360UP3	100	36	C3	48.02

MIL-C-3965/12	D.C. VOLTAGE AT +125°C	CAPACITANCE MFDS.	CASE SIZE	NET PRICE (1-24)†
CL54CD751UN3	10	750	D1	\$56.49
CL54CD152UN3	10	1500	D2	50.18
CL54CD212UN3	10	2100	D3	43.90
CL54CF361UN3	20	360	D1	56.49
CL54CF721UN3	20	720	D2	50.18
CL54CF102UN3	20	1000	D3	43.90
CL54CH201UN3	30	200	D1	56.49
CL54CH401UN3	30	400	D2	50.18
CL54CH551UN3	30	550	D3	43.90
CL54CJ101UN3	50	100	D1	56.49
CL54CJ201UN3	50	200	D2	50.18
CL54CJ271UN3	50	270	D3	43.90
CL54CL600UN3	75	60	D1	56.49
CL54CL121UN3	75	120	D2	50.18
CL54CL161UN3	75	160	D3	43.90
CL54CN350UN3	100	35	D1	56.49
CL54CN700UN3	100	70	D2	50.18
CL54CN101UN3	100	100	D3	43.90
CL54CH300UN3	30	30	C1	41.52
CL54CH600UN3	30	60	C2	54.88
CL54CH101UN3	30	100	C3	62.44
CL54CJ150UN3	50	15	C1	41.52
CL54CJ300UN3	50	30	C2	54.88
CL54CJ500UN3	50	50	C3	62.44
CL54CL090UN3	75	9	C1	41.52
CL54CL180UN3	75	18	C2	54.88
CL54CL300UN3	75	30	C3	62.44
CL54CN060UN3	100	6	C1	41.52
CL54CN120UN3	100	12	C2	54.88
CL54CN180UN3	100	18	C3	62.44

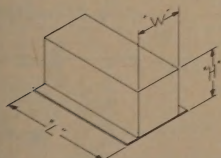
† Your Tansitor Distributor for prices for 25 or more pieces.

* Ratings in plain foil (CL51, CL52) also available.

TANSITOR TANTALUM CAPACITORS

TYPE: CM, RECTANGULAR

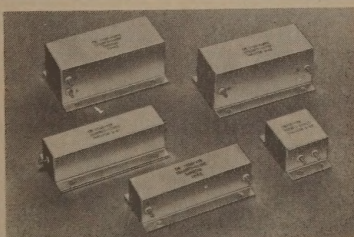
-55°C to +125°C



Tolerance on H, W & L dimensions is $\pm 3/8$ "

SUGGESTED "STANDARD" CASE SIZES

DIMENSIONS IN INCHES			DIMENSIONS IN INCHES		
H	W	L	H	W	L
1/8"	1 1/8"	3 7/8"	2 1/8"	2 1/8"	3 7/8"
1/8"	1 1/8"	3 7/8"	2 1/8"	2 1/8"	3 7/8"
1 1/8"	1 1/8"	3 7/8"	2 1/8"	3 1/8"	3 7/8"
1 1/8"	1 1/8"	3 7/8"	3 1/8"	3 1/8"	3 7/8"
1 1/8"	2 1/8"	3 7/8"	3 1/8"	3 1/8"	3 7/8"



As the name implies, Tansitor Type CM or custom-made capacitor "packages" are designed to fill special or unusual tantalum capacitor needs, most frequently in the area of extra high capacitance.

In most cases, Type CM units have employed tantalum foil internally. By its nature, however, a CM unit may employ internal sections of solid or wet sintered anode tantalum capacitors where their respective characteristics are desired. Combinations of foil, solid and wet styles are also available, if needed.

A wide range of ratings are available, with capacitance values as high as 310,000 microfarads. The CM series, however is adaptable for many ratings beyond those suggested, even to 1 farad and above, if required.

Dual or plural ratings are available in a single case or other components can be potted in the same case with the capacitors. For specific applications contact Tansitor Electronics, Inc.

Tansitor

ELECTRONICS, INC.

MIL-C-3965C

TANSITOR TANTALUM CAPACITORS

TYPES: CL64 & CL65 — CHARACTERISTICS "B" & "C"
—55°C to +85°C and —55°C to +125°C

Tansitor wet sintered anode capacitors listed herein are manufactured to meet all the requirements of MIL-C-3965C for MIL types CL64 and CL65. Encased in a fine silver can, the sintered porous tantalum anode provides exceptionally high capacitance per unit volume. These units exhibit extremely low leakage currents, low power factor, and little change in capacitance with frequency.

As opposed to "Shoulder Type" construction of other wet types, the CL64 and CL65 offer a straight cylindrical shape, readily lending them to flat circuit applications. CL 64 and CL65 styles are equivalent to Tansitor Type W. Tansitor Type WF equivalent with neutral electrolyte is also available.

CASE DIMENSIONS — CL64, CL65 (Uninsulated)*

CASE SIZE	Dimensions (Nominal) Length x Diameter, Inches
T1	0.453 x 0.188
T2	0.641 x 0.281
T3	0.766 x 0.375

*For dimensions of insulated units add approximately 0.065" to length, 0.015" to diameter. Basic case dimensions for insulated style are same as uninsulated.

MILITARY DESIGNATION CODE

CL65	C	J	050	M	P	3
Style	Temp. Characteristic	Voltage	Capacitance	Capacitance Tolerance	Polarity	Vibration Grade

STANDARD MILITARY 125°C RATINGS† TYPE: CL64 & CL65 — CHARACTERISTIC "C"

MIL-C-3965** DESIGNATION	VOLTS D.C. AT 125°C	CAPACITY MFDS.	CASE SIZE	NET PRICE (1-24)†
CL64(65)CB300MP3	4	30	T1	\$2.30
CL64(65)CB680MP3	4	68	T1	2.30
CL64(65)CB141MP3	4	140	T2	3.52
CL64(65)CB271MP3	4	270	T2	3.52
CL64(65)CB331MP3	4	330	T3	5.56
CL64(65)CB561MP3	4	560	T3	5.56
CL64(65)CC250MP3	5	25	T1	2.30
CL64(65)CC560MP3	5	56	T1	2.30
CL64(65)CC221MP3	5	220	T2	3.52
CL64(65)CC431MP3	5	430	T3	5.56
CL64(65)CD200MP3	7	20	T1	2.30
CL64(65)CD470MP3	7	47	T1	2.30
CL64(65)CD101MP3	7	100	T2	3.52
CL64(65)CD181MP3	7	180	T2	3.52
CL64(65)CD251MP3	7	250	T3	5.56
CL64(65)CD391MP3	7	390	T3	5.56
CL64(65)CE150MP3	10	15	T1	2.30
CL64(65)CE330MP3	10	33	T1	2.30
CL64(65)CE700MP3	10	70	T2	3.52
CL64(65)CE121MP3	10	120	T2	3.52
CL64(65)CE171MP3	10	170	T3	5.56
CL64(65)CE271MP3	10	270	T3	5.56
CL64(65)CG100MP3	15	10	T1	2.30
CL64(65)CG220MP3	15	22	T1	2.30
CL64(65)CG101MP3	15	100	T2	3.52
CL64(65)CG181MP3	15	180	T3	5.56
CL64(65)CH080MP3	20	8	T1	2.30
CL64(65)CH150MP3	20	15	T1	2.30
CL64(65)CH400MP3	20	40	T2	3.52
CL64(65)CH680MP3	20	68	T2	3.52
CL64(65)CH101MP3	20	100	T3	5.56
CL64(65)CH151MP3	20	150	T3	5.56

MIL-C-3965** DESIGNATION	VOLTS D.C. AT 125°C	CAPACITY MFDS.	CASE SIZE	NET PRICE (1-24)†
CL64(65)CJ050MP3	30	5	T1	\$2.30
CL64(65)CJ100MP3	30	10	T1	2.30
CL64(65)CJ250MP3	30	25	T2	3.52
CL64(65)CJ470MP3	30	47	T2	3.52
CL64(65)CJ600MP3	30	60	T3	5.56
CL64(65)CJ820MP3	30	82	T3	5.56
CL64(65)CK040MP3	40	4	T1	2.30
CL64(65)CK82MP3	40	8.2	T1	2.30
CL64(65)CK200MP3	40	20	T2	3.52
CL64(65)CK390MP3	40	39	T2	3.52
CL64(65)CK500MP3	40	50	T3	5.56
CL64(65)CK680MP3	40	68	T3	5.56
CL64(65)CL3R5MP3	50	3.5	T1	2.30
CL64(65)CL6R8MP3	50	6.8	T1	2.30
CL64(65)CL150MP3	50	15	T2	3.52
CL64(65)CL330MP3	50	33	T2	3.52
CL64(65)CL400MP3	50	40	T3	5.56
CL64(65)CL560MP3	50	56	T3	5.56
CL64(65)CN2R5MP3	70	2.5	T1	2.30
CL64(65)CN4R7MP3	70	4.7	T1	2.30
CL64(65)CN110MP3	70	11	T2	3.52
CL64(65)CN220MP3	70	22	T2	3.52
CL64(65)CN300MP3	70	30	T3	5.56
CL64(65)CN430MP3	70	43	T3	5.56
CL64(65)CP1R7MP3	85	1.7	T1	2.30
CL64(65)CP3R6MP3	85	3.6	T1	2.30
CL64(65)CP090MP3	85	9	T2	3.52
CL64(65)CP140MP3	85	14	T2	3.52
CL64(65)CP250MP3	85	25	T3	5.56

†See your Tansitor Distributor for prices for 25 or more pieces.

**CL64 indicates uninsulated capacitors. If outer insulating sleeve is required, change CL64 to CL65.

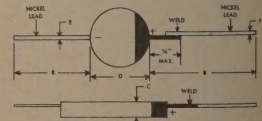
‡Standard Military 85°C Ratings (formerly "B" characteristic) are also available.

TANSITOR MICRO-MODULE — TANTALUM CAPACITORS DISC TYPE — —80°C to +125°C

Tansitor Disc Type are a new concept in tantalum capacitors. This capacitor has the best volumetric efficiency of any tantalum capacitor yet designed and produced for volume use. Specifically aimed at the micro-module market it supplements other Tansitor tantalum capacitors. Its characteristics include extremely low electrical leakage current, high capacitance per unit volume, exceptional stability over its temperature range —80°C to +125°C.

Unit	B, ±1/4"	DIMENSIONS FOR D TYPE				NET PRICE (1-24)†
		C, Max.	D, ±0.015"	E, ±0.001"	F, ±0.001"	
C1	1 1/2"	0.060"	0.100"	0.010"	0.010"	\$4.00
C2	1 1/2"	0.100"	0.100"	0.010"	0.010"	4.50
C3	1 1/2"	0.060"	0.250"	0.010"	0.010"	5.00
C4	1 1/2"	0.100"	0.250"	0.010"	0.010"	5.50
C5	1 1/2"	0.060"	0.500"	0.010"	0.010"	6.00
C6	1 1/2"	0.100"	0.500"	0.010"	0.010"	6.50

DISC CAPACITORS



These capacitors are not intended to be mounted by their leads.

RATINGS AT 85°C

RATED VOLTAGE AT 85°C	DIMENSIONS OF UNITS											
	C1 0.100" Dia. x 0.060"		C2 0.100" Dia. x 0.100"		C3 0.250" Dia. x 0.060"		C4 0.250" Dia. x 0.100"		C5 0.500" Dia. x 0.060"		D6 0.500" Dia. x 0.100"	
	CAP.	PART NO.	CAP.	PART NO.	CAP.	PART NO.	CAP.	PART NO.	CAP.	PART NO.	CAP.	PART NO.
3VDC	2.5	D2.5-3C1	5	D5-3C2	20	D20-3C3	40	D40-3C4	80	D80-3C5	160	D160-3C6
5	1.5	D1.5-5C1	3	D3-5C2	12	D12-5C3	24	D24-5C4	48	D48-5C5	96	D96-5C6
6	1.2	D1.2-6C1	2.4	D2.4-6C2	10	D10-6C3	20	D20-6C4	40	D40-6C5	80	D80-6C6
10	0.8	D0.8-10C1	1.6	D1.6-10C2	6	D6-10C3	12	D12-10C4	24	D24-10C5	48	D48-10C6
15	0.5	D0.5-15C1	1	D1-15C2	4	D4-15C3	8	D8-15C4	16	D16-15C5	32	D32-15C6
20	0.4	D0.4-20C1	0.8	D0.8-20C2	3	D3-20C3	6	D6-20C4	12	D12-20C5	24	D24-20C6
25	0.3	D0.3-25C1	0.6	D0.6-25C2	2	D2.4-25C3	4.8	D4.8-25C4	9.5	D9.5-25C5	19	D19-25C6
30	0.25	D0.25-30C1	0.5	D0.5-30C2	2	D2-30C3	4	D4-30C4	8	D8-30C5	16	D16-30C6
35	0.2	D0.2-35C1	0.4	D0.4-35C2	1.5	D1.5-35C3	3	D3-35C4	7	D7-35C5	14	D14-35C6
35	0.15	D0.15-35C1	0.3	D0.3-35C2	1.2	D1.2-35C3	2.4	D2.4-35C4	5	D5-35C5	10	D10-35C6
35	0.12	D0.12-35C1	0.24	D0.24-35C2	1	D1-35C3	2	D2-35C4	4	D4-35C5	8	D8-35C6

Tansitor ELECTRONICS, INC.

TANSITOR TANTALUM CAPACITORS — TYPE WF

(Equivalent to MIL Styles CL64 & CL65)
-55°C to +85°C and -55°C to +125°C

Tansitor type WF capacitors listed herein are manufactured to meet all the requirements of MIL-C-3965 for the ratings listed under MIL Types CL64 and 45, except that tantalum foil is used in place of tantalum sintered slugs. In addition to the advantages in volume, low leakage current and low error factor normally associated with this style of capacitor, the WF also has an acid-free construction and voltage ratings up to 300 VDC at 25°C and up to 200 VDC at 125°C where 125 VDC and 85 VDC were previously considered the upper limits. The WF is lighter in weight, too, thus offering even more advantage for aerospace applications.

Case Dimensions (Uninsulated)*

Case Code	Length x Diameter, Inches, Nominal
D1	0.453 x 0.188
D2	0.541 x 0.281
D3	0.766 x 0.375

*For insulated case dimensions add 0.063" to length, 0.015" to diameter. Basic case dimensions for insulated style are same as uninsulated.

WF

5

Style

Capacitance

50

Voltage

D1

Case Size

M

Tolerance

I

Insulating Sleeve

STANDARD WF 125°C RATINGS

Tansitor No.*	Volts D.C. at 125°C	Cap. Mfds.	Case Size	Net Price (1-24)†	Tansitor Part No.*	Volts D.C. at 125°C	Cap. Mfds.	Case Size	Net Price (1-24)†
40D1M	4	30	D1	1.88	WF4-40D1M	40	4	D1	\$1.88
40D1M	4	68	D1	1.88	WF8-40D1M	40	8.2	D1	1.88
40D2M	4	140	D2	2.88	WF20-40D2M	40	20	D2	2.88
40D2M	4	270	D2	2.88	WF30-40D2M	40	39	D2	2.88
40D3M	4	330	D3	4.50	WF50-40D3M	40	50	D3	4.50
40D3M	4	560	D3	4.50	WF68-40D3M	40	68	D3	4.50
50D1M	5	25	D1	1.88	WF3.5-50D1M	50	3.5	D1	1.88
50D1M	5	56	D1	1.88	WF6.5-50D1M	50	6.5	D1	1.88
50D2M	5	220	D2	2.88	WF15-50D2M	50	15	D2	2.88
50D3M	5	430	D3	4.50	WF33-50D3M	50	33	D3	2.88
70D1M	7	20	D1	1.88	WF40-50D3M	50	40	D3	4.50
70D1M	7	47	D1	1.88	WF56-50D3M	50	56	D3	4.50
70D2M	7	100	D2	2.88					
70D2M	7	180	D2	2.88	WF2.5-70D1M	70	2.5	D1	1.88
70D3M	7	250	D3	4.50	WF7.0-70D1M	70	7.0	D1	1.88
70D3M	7	390	D3	4.50	WF11-70D2M	70	11	D2	2.88
					WF22-70D2M	70	22	D2	2.88
100D1M	10	15	D1	1.88	WF30-70D3M	70	30	D3	4.50
100D1M	10	33	D1	1.88	WF43-70D3M	70	43	D3	4.50
100D2M	10	70	D2	2.88					
100D2M	10	120	D2	2.88	WF1.7-85D1M	85	1.7	D1	1.88
100D3M	10	170	D3	4.50	WF3.6-85D1M	85	3.6	D1	1.88
100D3M	10	270	D3	4.50	WF9-85D2M	85	9	D2	2.88
					WF14-85D2M	85	14	D2	2.88
150D1M	15	10	D1	1.88	WF25-85D3M	85	25	D3	4.50
150D1M	15	22	D1	1.88					
150D2M	15	100	D2	2.88	WF0.5-100D1M	100	0.5	D1	2.44
150D3M	15	180	D3	4.50	WF2.5-100D2M	100	2.5	D2	3.56
					WF5-100D3M	100	5	D3	5.85
200D1M	20	8	D1	1.88					
200D1M	20	15	D1	1.88	WF0.4-125D1M	125	0.4	D1	2.44
200D2M	20	40	D2	2.88	WF2-125D2M	125	2	D2	3.56
200D2M	20	68	D2	2.88	WF4-125D3M	125	4	D3	5.85
200D3M	20	100	D3	4.50					
200D3M	20	150	D3	4.50	WF0.12-150D1M	150	0.12	D1	2.44
					WF0.75-150D2M	150	0.75	D2	3.56
300D1M	30	5	D1	1.88	WF1.5-150D3M	150	1.5	D3	5.85
300D1M	30	10	D1	1.88					
300D2M	30	25	D2	2.88	WF0.1-200D1M	200	0.1	D1	2.44
300D2M	30	47	D2	2.88	WF0.6-200D2M	200	0.6	D2	3.56
300D3M	30	60	D3	4.50	WF1.25-200D3M	200	1.25	D3	5.85
300D3M	30	82	D3	4.50					

*If outer insulating sleeve is desired, add letter "I" as suffix to part number.

†For your Tansitor distributor for prices for 25 or more pieces.

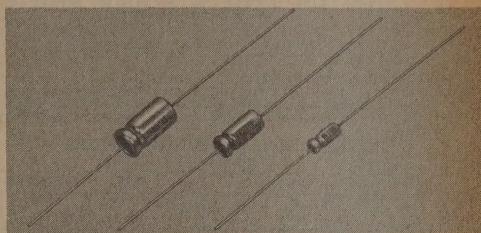
PARTIAL LIST TYPE HA SOLID TANTALUM CAPACITORS

Catalogue Number	Cap. Mfds.	Working Voltage DC	Net Price (1-24)†
HA 0.02-15C1	0.02	15	\$0.80
HA 0.1-8C1	0.1	8	0.80
HA 0.1-4C1	0.2	4	0.80
HA 0.5-15C1	0.5	15	0.80
HA 0.05-15C2	0.05	15	0.80
HA 0.15-15C2	0.15	15	0.80
HA 0.5-6C2	0.5	6	0.80
HA 1-3C2	1	3	0.80
HA 2-15C2	2	15	0.80
HA 0.01-15C3	0.01	15	0.80
HA 0.05-15C3	0.05	15	0.80
HA 0.1-15C3	0.1	15	0.80
HA 0.8-15C3	0.8	15	0.80
HA 1-10C3	0.1	10	0.80
HA 5-10C3	0.5	10	0.80

Catalogue Number	Cap. Mfds.	Working Voltage DC	Net Price (1-24)†
HA 1-10C3	1.0	10	0.80
HA 0.05-8C3	0.05	8	0.80
HA 0.5-8C3	0.5	8	0.80
HA 1-8C3	1.0	8	0.80
HA 0.8-6C3	0.8	6	0.80
HA 1-6C3	1.0	6	0.80
HA 1.2-6C3	1.2	6	0.80
HA 0.04-4C3	0.04	4	0.80
HA 0.2-4C3	0.2	4	0.80
HA 0.4-4C3	0.4	4	0.80
HA 0.5-4C3	0.5	4	0.80
HA 0.8-4C3	0.8	4	0.80
HA 1.5-4C3	1.5	4	0.80
HA 2-4C3	2	4	0.80
HA 1-3C3	1.0	3	0.80

Catalogue Number	Cap. Mfds.	Working Voltage DC	Net Price (1-24)†
HA 1.5-3C3	1.5	3	0.80
HA 2-3C3	2.0	3	0.80
HA 2.5-3C3	2.5	3	0.80
HA 2-2C3	2.0	2	0.80
HA 3-2C3	3.0	2	0.80
HA 4-2C3	4.0	2	0.80
HA 0.8-15C4	0.8	15	0.80
HA 1-15C4	1.0	15	0.80
HA 1.5-8C4	1.5	8	0.80
HA 2-8C4	2.0	8	0.80
HA 4-4C4	4.0	4	0.80
HA 5-4C4	5.0	4	0.80
HA 6-3C4	6.0	3	0.80
HA 7-2C4	7.0	2	0.80

Catalogue Number	Cap. Mfds.	Working Voltage DC	Net Price (1-24)†
HA 1.5-15C5	1.5	15	0.80
HA 1.5-6C5	1.5	6	0.80
HA 2-4C5	2.0	4	0.80
HA 4-4C5	4.0	4	0.80
HA 5-4C5	5.0	4	0.80
HA 4-3C5	4.0	3	0.80
HA 5-3C5	5.0	3	0.80
HA 6-3C5	6.0	3	0.80
HA 8-2C5	8.0	2	0.80
HA 10-2C5	10.0	2	0.80
HA 2.5-15C6	2.5	15	0.80
HA 5-8C6	5.0	8	0.80
HA 10-4C6	10.0	4	0.80
HA 14-2C6	14.0	2	0.80



TANSITOR PART NUMBER CODE

WF

5

Style

Capacitance

50

Voltage

D1

Case Size

M

Tolerance

I

Insulating Sleeve

SOLID CHIP TANTALUM CAPACITORS

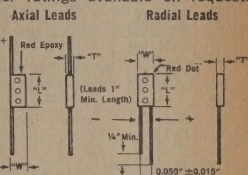
TYPE TC: -55°C to +85°C

Performance Characteristics.

Tansitor's type TC solid tantalum capacitor is tailored to meet the demand for rectangular shaped, or "chip" components as often used in modular type assemblies. The small size facilitates high density packaging. Larger sizes with higher ratings available on request.

Partial List of Type TC Capacitors

Part No.*	Cap. (Mfd.)	Working Voltage DC	Net Price (1-24)†
TC .0047-20C1	0.0047	20	\$1.00
TC .01-20C1	0.01	20	1.00
TC .033-20C1	0.033	20	1.00
TC .047-20C1	0.047	20	1.00
TC .068-20C1	0.068	20	1.00
TC .1-20C1	0.1	20	1.00
TC .33-10C1	0.33	10	1.00
TC .47-6C1	0.47	6	1.00
TC .68-4C1	0.68	4	1.00
TC 1-3C1	1.0	3	1.00
TC 1.5-2C1	1.5	2	1.00



Dimensions

Case Size	L (Max.)	W (Max.)	T (Max.)
C1	0.125"	0.070"	0.040"

*NOTE: Part numbers as listed denote Axial Lead Configuration. When the Radial Lead Configuration is desired, add the suffix "S" to the part number. If a special capacitance tolerance is required, add the tolerance letter (see paragraph 2) at the end of the part number.

†See your Tansitor distributor for prices for 25 or more pieces.

Tansitor Solid Tantalum

Type HA: -55°C to +85°C

Tansitor's Type HA Solid Tantalum Capacitors are tailored for the Hearing Aid Industry and offer size reductions never before available. Without increasing unit length, Tansitor has decreased unit diameter while maintaining, and, in some cases, increasing Capacitor ratings. Larger sizes beyond C6 with higher ratings available on request.

Axial Lead Dimensions

Case Size	Diameter +0.012 - 0.000	Length ±0.010
C1	0.053	0.100
C2	0.053	0.125
C3	0.053	0.140
C4	0.063	0.170
C5	0.063	0.190
C6	0.063	0.240

Radial Lead Dimensions

Case Size	Diameter +0.012 - 0.000	Length ±0.010
C1	0.063	0.100
C2	0.063	0.125
C3	0.063	0.140
C4	0.073	0.170
C5	0.073	0.190
C6	0.073	0.240

Tansitor

ELECTRONICS, INC.

TANSITOR TYPE S POLAR AND NON-POLAR SOLID TANTALUM CAPACITORS

Tansitor Type S Polar and Non-polar Solid Tantalum Capacitors are designed for continuous, dependable use over their full operating range of -80°C to $+125^{\circ}\text{C}$. The units are similar to MIL Styles CS12 and CS13.

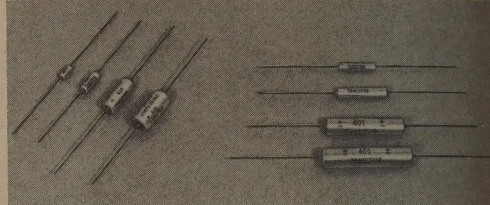
These advantages for the design engineer are further enhanced by the excellent showing made by S type units under conditions of high frequency application and when subjected to extensive vibration and shock, including all the stringent environmental requirements of MIL-C-26655, Styles CS12 and CS13.

TYPE S POLARIZED CAPACITORS

Net Price (1-24)†

Case Size	Price ($\pm 20\%$ tol.)	Case Size	Price ($\pm 20\%$ tol.)
C1	\$1.29	C3	\$2.18
C2	1.52	C4	4.70

NOTE: Add 2¢ to unit price if sleeving is required.



STANDARD RATINGS OF TYPE S POLARIZED SOLID ELECTROLYTE TANTALUM CAPACITORS

Cap. Mfds.	6VDC	10VDC	15VDC	20VDC	35VDC
0.0047	\$0.0047-6C1	\$0.0047-10C1	\$0.0047-15C1	\$0.0047-20C1	\$0.0047-35C1
0.0056	\$0.0056-6C1	\$0.0056-10C1	\$0.0056-15C1	\$0.0056-20C1	\$0.0056-35C1
0.0068	\$0.0068-6C1	\$0.0068-10C1	\$0.0068-15C1	\$0.0068-20C1	\$0.0068-35C1
0.0082	\$0.0082-6C1	\$0.0082-10C1	\$0.0082-15C1	\$0.0082-20C1	\$0.0082-35C1
0.01	\$0.01-6C1	\$0.01-10C1	\$0.01-15C1	\$0.01-20C1	\$0.01-35C1
0.012	\$0.012-6C1	\$0.012-10C1	\$0.012-15C1	\$0.012-20C1	\$0.012-35C1
0.015	\$0.015-6C1	\$0.015-10C1	\$0.015-15C1	\$0.015-20C1	\$0.015-35C1
0.018	\$0.018-6C1	\$0.018-10C1	\$0.018-15C1	\$0.018-20C1	\$0.018-35C1
0.022	\$0.022-6C1	\$0.022-10C1	\$0.022-15C1	\$0.022-20C1	\$0.022-35C1
0.027	\$0.027-6C1	\$0.027-10C1	\$0.027-15C1	\$0.027-20C1	\$0.027-35C1
0.033	\$0.033-6C1	\$0.033-10C1	\$0.033-15C1	\$0.033-20C1	\$0.033-35C1
0.039	\$0.039-6C1	\$0.039-10C1	\$0.039-15C1	\$0.039-20C1	\$0.039-35C1
0.047	\$0.047-6C1	\$0.047-10C1	\$0.047-15C1	\$0.047-20C1	\$0.047-35C1
0.056	\$0.056-6C1	\$0.056-10C1	\$0.056-15C1	\$0.056-20C1	\$0.056-35C1
0.068	\$0.068-6C1	\$0.068-10C1	\$0.068-15C1	\$0.068-20C1	\$0.068-35C1
0.082	\$0.082-6C1	\$0.082-10C1	\$0.082-15C1	\$0.082-20C1	\$0.082-35C1
0.1	\$0.1-6C1	\$0.1-10C1	\$0.1-15C1	\$0.1-20C1	\$0.1-35C1
0.12	\$0.12-6C1	\$0.12-10C1	\$0.12-15C1	\$0.12-20C1	\$0.12-35C1
0.15	\$0.15-6C1	\$0.15-10C1	\$0.15-15C1	\$0.15-20C1	\$0.15-35C1
0.18	\$0.18-6C1	\$0.18-10C1	\$0.18-15C1	\$0.18-20C1	\$0.18-35C1
0.22	\$0.22-6C1	\$0.22-10C1	\$0.22-15C1	\$0.22-20C1	\$0.22-35C1
0.27	\$0.27-6C1	\$0.27-10C1	\$0.27-15C1	\$0.27-20C1	\$0.27-35C1
0.33	\$0.33-6C1	\$0.33-10C1	\$0.33-15C1	\$0.33-20C1	\$0.33-35C1
0.39	\$0.39-6C1	\$0.39-10C1	\$0.39-15C1	\$0.39-20C1	\$0.39-35C1
0.47	\$0.47-6C1	\$0.47-10C1	\$0.47-15C1	\$0.47-20C1	\$0.47-35C1
0.56	\$0.56-6C1	\$0.56-10C1	\$0.56-15C1	\$0.56-20C1	\$0.56-35C1
0.68	\$0.68-6C1	\$0.68-10C1	\$0.68-15C1	\$0.68-20C1	\$0.68-35C1
0.82	\$0.82-6C1	\$0.82-10C1	\$0.82-15C1	\$0.82-20C1	\$0.82-35C1
1.0	\$1.0-6C1	\$1.0-10C1	\$1.0-15C1	\$1.0-20C1	\$1.0-35C1
1.2	\$1.2-6C1	\$1.2-10C1	\$1.2-15C1	\$1.2-20C1	\$1.2-35C1

Cap. Mfds.	6VDC	10VDC	15VDC	20VDC	35VDC
1.5	\$1.5-6C1	\$1.5-10C1	\$1.5-15C1	\$1.5-20C1	\$1.5-35C1
1.8	\$1.8-6C1	\$1.8-10C1	\$1.8-15C1	\$1.8-20C1	\$1.8-35C1
2.2	\$2.2-6C1	\$2.2-10C1	\$2.2-15C1	\$2.2-20C1	\$2.2-35C1
2.7	\$2.7-6C1	\$2.7-10C1	\$2.7-15C1	\$2.7-20C1	\$2.7-35C1
3.3	\$3.3-6C1	\$3.3-10C1	\$3.3-15C1	\$3.3-20C1	\$3.3-35C1
3.9	\$3.9-6C1	\$3.9-10C1	\$3.9-15C1	\$3.9-20C1	\$3.9-35C1
4.7	\$4.7-6C1	\$4.7-10C1	\$4.7-15C1	\$4.7-20C1	\$4.7-35C1
5.6	\$5.6-6C1	\$5.6-10C1	\$5.6-15C1	\$5.6-20C1	\$5.6-35C1
6.8	\$6.8-6C1	\$6.8-10C1	\$6.8-15C1	\$6.8-20C1	\$6.8-35C1
8.2	\$8.2-6C1	\$8.2-10C1	\$8.2-15C1	\$8.2-20C1	\$8.2-35C1
10.0	\$10-6C2	\$10-10C2	\$10-15C2	\$10-20C2	\$10-35C2
12.0	\$12-6C2	\$12-10C2	\$12-15C2	\$12-20C2	\$12-35C2
15.0	\$15-6C2	\$15-10C2	\$15-15C2	\$15-20C2	\$15-35C2
18.0	\$18-6C2	\$18-10C2	\$18-15C2	\$18-20C2	\$18-35C2
22.0	\$22-6C2	\$22-10C2	\$22-15C2	\$22-20C2	\$22-35C2
27.0	\$27-6C2	\$27-10C2	\$27-15C2	\$27-20C2	\$27-35C2
33.0	\$33-6C2	\$33-10C2	\$33-15C2	\$33-20C2	\$33-35C2
39.0	\$39-6C2	\$39-10C2	\$39-15C2	\$39-20C2	\$39-35C2
47.0	\$47-6C2	\$47-10C2	\$47-15C2	\$47-20C2	\$47-35C2
56.0	\$56-6C2	\$56-10C2	\$56-15C2	\$56-20C2	\$56-35C2
68.0	\$68-6C3	\$68-10C3	\$68-15C3	\$68-20C3	\$68-35C3
82.0	\$82-6C3	\$82-10C3	\$82-15C3	\$82-20C3	\$82-35C3
100.0	\$100-6C3	\$100-10C3	\$100-15C3	\$100-20C3	\$100-35C3
120.0	\$120-6C3	\$120-10C3	\$120-15C3	\$120-20C3	\$120-35C3
150.0	\$150-6C3	\$150-10C3	\$150-15C3	\$150-20C3	\$150-35C3
180.0	\$180-6C3	\$180-10C3	\$180-15C3	\$180-20C3	\$180-35C3
220.0	\$220-6C4	\$220-10C4	\$220-15C4	\$220-20C4	\$220-35C4
270.0	\$270-6C4	\$270-10C4	\$270-15C4	\$270-20C4	\$270-35C4
330.0	\$330-6C4	\$330-10C4	\$330-15C4	\$330-20C4	\$330-35C4

*TO COMPLETE PART NUMBERS, ADD APPLICABLE TOLERANCE LETTER, AND IF FLEXIBLE OUTER INSULATING SLEEVE IS REQUIRED, ADD FINAL SUFFIX LETTER "I".

POLAR CASE DIMENSIONS (Uninsulated)*			
CASE SIZE	Dimensions (Nominal) Length x Diameter, Inches	CASE SIZE	Dimensions (Nominal) Length x Diameter, Inches
C1	0.125 x 0.250	C3	0.279 x 0.650
C2	0.175 x 0.438	C4	0.341 x 0.750

NON-POLAR CASE DIMENSIONS (Uninsulated)*			
CASE SIZE	Dimensions (Nominal) Length x Diameter, Inches	CASE SIZE	Dimensions (Nominal) Length x Diameter, Inches
N1	0.145 x 0.540	N3	0.304 x 1.320
N2	0.197 x 0.915	N4	0.366 x 1.520

*For dimensions of insulated units add approximately 0.063" to length, 0.015" to diameter.

STANDARD RATINGS OF TYPE S NON-POLAR SOLID ELECTROLYTE TANTALUM CAPACITORS

Cap. Mfds.	6 Volts	10 Volts	15 Volts	20 Volts	35 Volts
0.16	\$0.16-6N1	\$0.16-10N1	\$0.16-15N1	\$0.16-20N1	\$0.16-35N1
0.24	\$0.24-6N1	\$0.24-10N1	\$0.24-15N1	\$0.24-20N1	\$0.24-35N1
0.34	\$0.34-6N1	\$0.34-10N1	\$0.34-15N1	\$0.34-20N1	\$0.34-35N1
0.50	\$0.50-6N1	\$0.50-10N1	\$0.50-15N1	\$0.50-20N1	\$0.50-35N1
0.75	\$0.75-6N1	\$0.75-10N1	\$0.75-15N1	\$0.75-20N1	\$0.75-35N1
1.1	\$1.1-6N1	\$1.1-10N1	\$1.1-15N1	\$1.1-20N1	\$1.1-35N1
1.6	\$1.6-6N1	\$1.6-10N1	\$1.6-15N1	\$1.6-20N1	\$1.6-35N1
2.4	\$2.4-6N1	\$2.4-10N1	\$2.4-15N1	\$2.4-20N1	\$2.4-35N1
3.4	\$3.4-6N1	\$3.4-10N1	\$3.4-15N1	\$3.4-20N1	\$3.4-35N1
5.0	\$5-6N2	\$5-10N2	\$5-15N2	\$5-20N2	\$5-35N2
7.5	\$7.5-6N2	\$7.5-10N2	\$7.5-15N2	\$7.5-20N2	\$7.5-35N2
11.0	\$11-6N2	\$11-10N2	\$11-15N2	\$11-20N2	\$11-35N2
16.0	\$16-6N2	\$16-10N2	\$16-15N2	\$16-20N2	\$16-35N2
24.0	\$24-6N2	\$24-10N2	\$24-15N2	\$24-20N2	\$24-35N2
34.0	\$34-6N3	\$34-10N3	\$34-15N3	\$34-20N3	\$34-35N3
50.0	\$50-6N3	\$50-10N3	\$50-15N3	\$50-20N3	\$50-35N3
75.0	\$75-6N3	\$75-10N3	\$75-15N3	\$75-20N3	\$75-35N3
110.0	\$110-6N4	\$110-10N4	\$110-15N4	\$110-20N4	\$110-35N4
160.0	\$160-6N4	\$160-10N4	\$160-15N4	\$160-20N4	\$160-35N4

Type S, Non-Polar Capacitors

Net Price (1-24)†	
Case Size	Price ($\pm 20\%$ tol.)
C1	\$2.78
C2	3.24
C3	5.74
C4	9.30

NOTE: Add 2¢ to unit price if sleeving is required.

*To complete part numbers, add applicable tolerance letter, and if flexible outer insulating sleeve is required, add final suffix letter "I".

†See your Tansitor distributor for prices for 25 or more pieces.

CAIG LABORATORIES INC.

CRAMOLIN PRODUCTS

CRAMOLIN PRODUCTS • ELECTRONIC CONTACT CLEANERS

THE BREAK-THRU FOR

HIGHER PERFORMING ELECTRIC CONTACTS

reduces contact resistance and sparking by dissolving oxide film formations. Temp. operating range -34°C . to 150°C . Effective on all metals and their alloys including gold, silver, copper, etc. Stays on moving contacts. Free of acids. Safe to use. Lasts for years.

FEATURES:

CLEANER
LUBRICANT
PRESERVATIVE
ANTI-CORROSIVE



PRICES

CRAMOLIN: Fluid for protection & cleaning of old & new contacts.

CRAMOLIN-SPECIAL: Fluid for protection of new contacts.

CRAMOLIN-PASTE: Semi-solid for protection & cleaning High Voltage/Amperage contacts.

DESCRIPTION	CRAMOLIN (Red Color)	CRAMOLIN-SPECIAL (Blue Color)	CRAMOLIN-PASTE	*CAEON SOLVENT #27
1/2. Glass Bottle	\$1.95	\$2.25		
1/2. Glass Bottle				\$1.60
1 pint, Glass Bottle	6.75	7.50		2.85
1 pint, Glass Bottle	13.00	14.50		4.00
1 quart, Glass Bottle	25.50	28.00		6.00
1 Kg Can (1/2 lb.)			\$2.90	
1/2. Spray	3.00	3.50		
Engineers Kit [with tech facts]	6.75			

(Contains: CRAMOLIN, CR-Special & Paste.)

Wescolite Solder Kit

NEW!
from
CAIG



SOLDERING SIMPLIFIED

Pre-cleaning.
After Cleaning.
Removes oxides, promotes
wetting and capillary flow.

Combines a New Wonder Flux and the finest silver solder for stronger bond. Fast and easy to use. Soldering of the difficult or impossible metals together or to each other.

\$2.50 Kit

NEW!

Cramolin-Spray

PLASTIK

air drying, colorless special plastic spray coating for electronic circuits, T.V., Radio, Aerial construction, automotive many electric applications • It seals, protects, insulates coats • Is age and weatherproof, water repellent, will not peel, has excellent adherence properties. Tropics proof • Resists acid and alkaline solutions as well as mineral oils • Withstands temperatures up to $+180^{\circ}\text{C}$. Assures long last-protective coatings on all metals, alloys & chrome • Protects against creeping currents, short circuits, weakened insulation breakdowns • As a sealant it helps to eliminate corrosion.



Price:
6 oz.
Spray Can
\$2.75

*Cramolin
Spray R*

\$3.00
6 oz. can

FREE!

6" Extension
Spray Tube



Now — for those who prefer the spray can method of application. CRAMOLIN SPRAY R has same properties as CRAMOLIN FLUID. Packaged in neat spray can with automatic valve. Equipped with a whirl spray head, which will apply CRAMOLIN — breath thin — to most remote areas. The Hygrade propellant and speedy evaporating solvent leaves only a microfilm of actual CRAMOLIN on contact area.

CAEON SOLVENT #27

(Trichlorotrifluoroethane)

A cleaning agent for removal of oil, grease, and dirt from objects without harm to metal, plastic, or elastomeric parts.

- NON-FLAMMABLE
- VIRTUALLY NON-TOXIC
- CHEMICALLY AND PHYSICALLY PURE
- CHEMICALLY AND THERMALLY INERT
- STABLE

SEE PRICE LIST
ON THIS PAGE



The solvent exhibits a washing and penetrating action which aids its cleaning ability. High density and low surface tension enables Caeson #27 to wet the surface of most materials and wash away dirt and sludge.

The solvent is useful in ultrasonic and vapor degreasing equipment. Soils which are normally insoluble in any solvent can often be removed by this solvent with cavitation in ultrasonic units. Vapor rinsing is more easily accomplished without exposing object to high temperatures.

The solvent is compatible with most organic systems. It will remove soils or contaminants and leave the surface "Residue-Free". All standard methods of using a solvent may be employed.

Write for Tech Facts.

NEW!

Cramolin-Spray

— MOISTURE REPELLENT — 3-S
PROTECT — RESTORE — CLEAN

For all electric and electronic equipment • Effective as a general cleaner, hydro-repellent, dielectric sealer and lubricant • Has excellent adherence. Safe to use on metals, rubber and synthetic materials • Reduces arcing, stops sparking and creeping currents in high voltage parts, switchboards, control panels, isolators, tube sockets, etc. • Temperature consistency between -50°C to $+200^{\circ}\text{C}$ • Can be used on all electronic equipment which is constantly used in high humidity and water, dust and gas fumes • Prevents corrosion, will not evaporate, will not gum, improves lubricating and sliding properties. Contains no silicon.

Write for Bulletin C-400



PRICE:
6 OZ.
SPRAY CAN

\$4.25

CHEMTRONICS

CHEMTRONICS



CONTACT KLEEN *Electrical* Contact and Control Cleaner That Leaves No Oily Residue

CONTACT KLEEN restores and cleans relays, attenuators, controls, switches, prongs and all other contact devices.

- Will not harm plastic parts • Non-flammable

Cat. No.	Unit Size	Dealer Net
605	8-oz.	1.49

SUPER FROST AID *Cools* new Faster • Leaves No Liquid Residue

SUPER FROST AID is a faster circuit freezer designed to locate thermal intermittent components... without leaving a liquid residue.

Cat. No.	Unit Size	Dealer Net
1550	15-oz.	2.79



new New TUN-O-LUBE Tuner Cleaner Specially Formulated for Sensitive Tuners

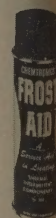
- Leaves NO oily residual deposits
- Fast drying
- Will not detune the most critical tuners
- Safe for all plastics
- Non-flammable

Cat. No.	Unit Size	Dealer Net
800	8 oz.	1.98

FROST AID Saves Hours in Locating Defective Components

FROST AID is a circuit freezer used to instantly cool and pin-point suspected intermittent resistors, capacitors, coils and other components.

Cat. No.	Description	Unit Size	Dealer Net
850	8 oz. ECONOMY SIZE	8-oz.	1.39
1650	16 oz. GIANT SIZE	16-oz.	2.19



TUN-O-LUBE Triple Action Tuner Cleaner

Cleans • Lubricates • Protects

CHEMTRONICS "Non-Drift" TUN-O-LUBE is designed to clean and lubricate tuners in one simple operation.

- Will not harm plastic parts
- Non-flammable

AVAILABLE IN THREE SIZES

Cat. No.	Description	Unit Size	Dealer Net
301	Special "Caddy Size"	3 oz.	.98
810	8 oz. Economy Size	8 oz.	1.98
1610	16 oz. Giant Size	16 oz.	2.79



NO ARC Hi-Voltage Insulator

CHEMTRONICS' highly effective NO ARC provides a tough and protective insulating coating for hi-voltage transformers, yokes, chassis and leads in high voltage sections.

It is also recommended for printed circuits, waterproofing and exposed wiring.

• With more than 20,000 volts dielectric strength.

• Positively stops arcing and corona shorts in high voltage circuits.

NO ARC 830 is specifically designed to "jet-out" in a confined stream... for pin-point application. IT IS NOT A SPRAY!

Cat. No.	Unit Size	Dealer Net
501-1	2-oz.	.98
830	8-oz.	2.79

NO ARC is available in bulk quantities.



TROL AID Activated Control-Contact Cleaner

Cleans and lubricates controls, contacts, switches, relays and all other sliding contact devices... in one fast operation.

- Safe for all plastics
- Longer lasting protection against oxidation
- Non-flammable

Cat. No.	Description	Unit Size	Dealer Net
302	Special "Caddy Size"	3-oz.	.98
820	8 oz. Economy Size	8-oz.	1.98
506-5	Bottle	2-oz.	.79



KLEER SPRAY Clear Acrylic Insulating and Protective Spray

Dries in minutes • Will not "run" • Highest insulating properties • Fungus and chemical resistant.

CHEMTRONICS' KLEER SPRAY is highly recommended for:

- Insulating exposed wiring
- Waterproofing auto ignition systems
- Prevention of rust and corrosion
- Protective coating for antennas

KLEER SPRAY leaves a high-gloss protective coating on metal, wood and paper surfaces.

Cat. No.	Unit Size	Dealer Net
890	16-oz.	1.39



new COLOR LUBE Non-Drift Color TV Tuner Cleaner

A tuner cleaner specially formulated with TC-5 to safely clean and lubricate all color TV tuners.

- Will not detune tuners • Safe for all plastics
- Non-flammable

Cat. No.	Unit Size	Dealer Net
CL 8	8 oz.	2.39



MASK-N-GLAS Anti-Static Glass & Plastic Cleaner & Polisher

CLEANS and POLISHES Plastic TV Masks—Safety Glass—Face of Picture Tube.

MASK-N-GLAS is a non-abrasive dirt and grime remover... highly suitable for the cleaning of television masks, safety glass and the front of picture tubes.

FREE—Lint-Free Cleaning Cloth Attached!

Cat. No.	Unit Size	Dealer Net
840	6-oz.	1.79



FOR **INDUSTRY • RESEARCH • TECHNICIANS • SERVICING****CHEMTRONICS**

CHEMTRONICS' ACTIVATED RESIN CORE SOLDER

NEW IMPROVED! FAST FLOWING!

CHEMTRONICS' high quality solder is non-corrosive and non-hygroscopic! Easily solders such metals as Brass, Zinc, Copper and Ferrous Alloys. Exceeds requirements of Federal Specifications QQ-S-571d.

Composition	Diameter In Inches	Wt.	Dealer Net
40% Tin 60% Lead	.062	1 lb.	1.69
50% Tin 50% Lead	.062	1 lb.	2.03
60% Tin 40% Lead	.062	1 lb.	2.31
60% Tin 40% Lead	.031	1 lb.	2.98

Cat. No.	Description	Unit Size	Dealer Net
S-100	60/40 Pure tin-lead alloy. A high quality activated resin core solder in a handy dispenser.	110"	.39

OTHER ALLOYS AND SIZES AVAILABLE.
PRICES SUBJECT TO CHANGE WITHOUT NOTICE

TV-RADIO CEMENT

CHEMTRONICS TV-RADIO CEMENT is an unexcelled high grade cement especially prepared for repairing speakers. It can also be used for glass or bakelite.

Cat. No.	Unit Size	Dealer Net
502-2	2-oz.	.55

ALL-PURPOSE GLUE

CHEMTRONICS ALL-PURPOSE GLUE is the best all-purpose glue for servicemen. It is stronger, faster drying and is excellent for joining plastic, wood and metals.

Cat. No.	Unit Size	Dealer Net
503-6	2-oz.	.55

CHEM-OIL A Very Fine All-Purpose Lubricating-Penetrating Oil

CHEMTRONICS' CHEM-OIL is highly recommended as a lubricant on record changers, tape recorders and delicate instruments...and also as a "Frozen Yoke Remover".

CHEM-OIL provides superior "lubricating-penetrating" action against rust and corrosion. Non-gumming.
• non-drying • excellent rust-inhibiting properties.

Cat. No.	Unit Size	Dealer Net
870	8-oz.	1.79



RECORD CLEANER With FREE "Lint-Free" Record Cleaning Cloth

CHEMTRONICS Anti-Static RECORD CLEANER is a specially formulated cleaner that is highly effective for cleaning phonograph records and keeping them static-free!

- Provides long lasting protection for all records
- Safe to use for all records

Cat. No.	Unit Size	Dealer Net
RC 33	6-oz.	.98



TAPE HEAD CLEANER

With Special Felt Applicator

CHEMTRONICS' TAPE HEAD CLEANER is scientifically designed to clean heads, tape guides, capstan rollers and all other critical parts of TAPE RECORDERS.

- Increases the life of tape and heads
- Improves fidelity and eliminates tape squeal
- Guaranteed not to affect plastic parts of tape recorder.

Cat. No.	Unit Size	Dealer Net
504-3	2-oz.	.89

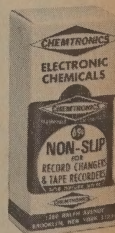


NON-SLIP For Record Changers and Tape Recorders

Prevents slippage of rubber drives, belts and cords.

- Fast-drying
- Will not harm rubber
- Prevents slippage to insure uniform speed

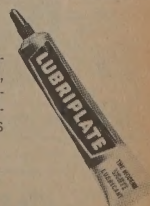
Cat. No.	Unit Size	Dealer Net
507-7	2-oz.	.98



LUBRIPLATE

LUBRIPLATE—a white grease compound for electronic and electrical switches, tuners, contacts, etc. Prevents corrosion...prolongs life of contacts. Also excellent for record changers, phonograph motors, gears, bearings, synchronous motors, etc.

Cat. No.	Unit Size	Dealer Net
105	1 3/4-oz.	.75



**NEW
SUPER**

HUSH®

Has Everything

**FIRST
IN
QUALITY**

**100%
SILICONE OILS**

**8 oz. Spray Can \$2.50
16 oz. Economy Spray Can.. \$3.50**

FREE 6" Plastic Extender With Every Can

MIRACLE T.V. TUNER CLEANER

ENGINEERED FOR TUNERS MADE WITH PLASTIC PARTS



**YOU
CAN BE SURE
WITH
NEW SUPER HUSH
THE ALL-PURPOSE
TV TUNER-CLEANER
for COLOR and
BLACK/WHITE**

----- **PURITY**

All New Super HUSH* and EVER-QUIET* is made with **SELECTED SAFE SOLVENT**** with added **PROTECTIVE LUBRICANT**, with the ability to clean, dissolve or flush away contaminants leaving a **RESIDUE-FREE** protective surface, and yet will not attack **METALS, PLASTICS, or ELASTOMERS.**

----- **SAFETY**

All New Super HUSH* and EVER-QUIET* is **NONFLAMMABLE** and virtually **NONTOXIC.**

----- **ELECTRICAL
PROPERTIES**

All New Super HUSH* and EVER-QUIET* has excellent dielectric properties and high resistance to the flow of electric current.

----- **RESEARCH AND
TESTING**

New Super HUSH* and EVER-QUIET* was researched, engineered and is continually being tested daily by our own personnel with 36 years experience in the Radio, Electronics and T.V. Service Field.

----- **ACTION**

TV tuners, Color & B/W, push button assemblies, band switches, relays, volume controls, sockets, phono-motors, etc. * Trade Mark ** No Carbon Tet



SINCE 1949 THE ORIGINAL

**NEW
SUPER EVER-QUIET®**

**CONTACT CLEANER
and PROTECTIVE LUBRICANT**

SAME AS HUSH WITHOUT 100% SILICONE OILS

FREE 6" Plastic Extender With Every Can

6 oz. SPRAY CAN \$1.59 Net

**FOR THE TECHNICIAN THAT WANTS A LOW PRICE CONTACT CLEANER WITH HIGH QUALITY
WRITE FOR CONFIDENTIAL COST PRICE LIST**

CHEMICAL ELECTRONIC ENGINEERING, INC.

INJECTORALL ELECTRONICS CORP.

INJECTORALL

Chemicals

AIR CONDITIONER

Aero-Kleen

High spray for air-conditioner filters, dripless and centered.

95 16 oz. spray can net \$1.29



CEMENTS & GLUES

Phono Grip-Well

Non-slip compound for dial cords, and slipping phonograph turntables.

3-2 2 oz. glass bottle net \$.90



Speaker Cement

Adhesion proof, fast drying, forms flexible bond; rush in cap, a plastic glue.

01 2 oz. glass bottle net \$.48



Stik-It Glue

Multi-purpose glue in squeeze bottle, spreads white, dries clear, spout with attached cap.

9 2 oz. squeeze bottle net \$.24



CIRCUIT COOLERS

Chill-It

Refrigerant spray, to pin-point defective electronic components.

79-6 6 oz. spray can net \$1.29

79-16 16 oz. spray can net \$1.79



COATINGS & INSULATORS

Clear Spray

Transparent plastic spray, waterproofs, insulates metal, wood, rubber, and paper surfaces.

99 16 oz. spray can net \$1.29



Red Hi-Volt

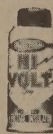
Fast drying insulator, prevents arcing and corona in high voltage circuits, has high dielectric strength.

29-2 2 oz. glass bottle net \$.89

29-6 6 oz. spray can 1.29

29-16 16 oz. spray can 2.28

29G 1 gallon can 7.50



Poly Spray Insulator

Clear Coating Printed Circuits — a polyurethane resin forms a smooth, transparent coating, conforms to MIL 1-46058A specifications.

5-16 16 oz. spray can net \$2.28



FURNITURE POLISH

Renew

Scratch cover polish for dark finishes; with cloth.

0WC 6 oz. aerosol can net \$.90



OILS & LUBRICANTS

Slide E-Z Grease

Grease Gun In An Aerosol Can — contains ANTI-OXIDANT to prevent corrosion, extends art life.

68-4 4 oz. aerosol can net \$1.20



Spot Lubricating Oil

Non-gumming, for tape-recorders and record players; with plastic needle.

0-3 3 oz. spray can net \$.90

0-16 16 oz. spray can net \$1.79



Squeal-Stop

Dry lubricant, leaves no oily film, won't affect wires; with plastic needle.

0 3 oz. spray can net \$.90



CLEANERS

Contact Cleaner

Superior non-toxic spray solvent, dries quickly; with 4" steel needle.

999WN 6 oz. spray can net \$1.79



Degreaser No. 3

Air drying cleaning compound, excellent for ultrasonic application.

3 1 gal. can net \$6.90



Fidelity Record Cleaner

Antistatic spray, cleans and protects records; with record cleaning cloth.

70WC 3 oz. spray can net \$.90



Hi-Fi Control Cleaner

Cleaner and lubricant for volume controls; with plastic needle.

799-3 3 oz. spray can net \$.90



Lens Kleen

Plastic cleaner, antistatic, for plastic TV windows and meters; with cleaning cloth.

20 6 oz. aerosol can net \$.99



Super 100

Tuner cleaner and lubricant, will not affect plastics, contains ANTI-STATIC agent, for color and black & white TV tuners.

100-3 3 oz. spray can with plastic Needle \$.89

100-6 6 oz. spray can with steel Needle 1.95

100-8 8 oz. spray can with steel Needle 2.25

100-16 16 oz. spray can with steel Needle 2.99



Tape Head Cleaner

Cleans tape recorder heads, removes squeal, flutter, wow, safe to use, with cotton-covered wire brush.

250-2 2 oz. glass bottle net \$.89

250-3 3 oz. spray can with plastic needle 1.19



Tuner Cleaner

Cleaner and lubricant for TV tuners and controls, non-toxic, non-flammable.

899-3WN 3 oz. spray can with plastic Needle \$.89

899-6 6 oz. spray can only without Needle 1.79

899WN 6 oz. spray can with steel Needle 1.95

899-8WN 8 oz. spray can with steel Needle 2.25

899-16WN 16 oz. spray can with steel Needle 2.99



PAINTS & VARNISHES

Anti-Fungus Varnish

Conforms to MIL 173B specifications, natural color; prevents fungus growth.

15-16 16 oz. spray can net \$2.40



Siliconized Spray Paints

with FREE masking tape - 15 oz. ea. net \$1.29

211 Transformer Black 225 Flat Black

212 Appliance White 226 Metal Primer Black

213 Antenna Aluminum 227 Metal Primer Grey

214 Metallic Gold 230 Metallic Grey

215 Ham Shack Grey 231 Metallic Green

219 Light Green 232 Metallic Blue



SERVICE AIDS

E-Z Off Yoke Remover

Loosens frozen yokes on picture tubes; with plastic needle.

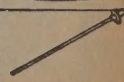
40 3 oz. spray can net \$1.19



Injectorall Steel Needle

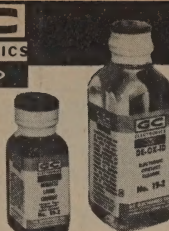
Stainless steel tube with special fitting for INJECTORALL spray cans.

6N 6 inch needle net \$.86



GC ELECTRONICS

GC Chemicals (Cements, Thinners, Paints, Oils, Varnishes, etc.), are available in 2 oz. bottles with brush-in-cap. Also supplied in larger sizes.



G-C RADIO-TELEVISION SERVICE CEMENT—This high grade cement is specially prepared for Radio, Television and Speaker Work. Unexcelled for cementing and replacing cones on dynamic speakers; repairing rattling or torn cones, cementing voice coils, spiders, etc.
Cat. No. 30-2 2-oz. Net \$.55

G-C PLASTIC CEMENT—Excellent for cementing broken plastic cabinets, cementing grille cloth in place, cementing dial and glass crystal assemblies, cementing knobs in dial, cords, etc.
Cat. No. 32-2A 2-oz. Net \$.55

G-C "BAKELITE" CEMENT—This cement is especially made for cementing "BAKELITE" to "BAKELITE" and to other materials.
Cat. No. 32-2 2-oz. Net \$.87

G-C "VINYLITE" CEMENT—This new G-C Cement based upon "VINYLITE" vinyl resins, has great adhesion, high tackiness and extreme flexibility.
Cat. No. 58-2 2-oz. Net \$.55

G-C HOUSEHOLD AND MODEL CEMENT—Fast-drying cement, suitable for many uses. Excellent "Household Cement" will cement wood, paper, plastics, metal, china, crockery, ceramics, etc.
Cat. No. 45-2 2-oz. Net \$.55

G-C FABRIC AND GRILLE CLOTH CEMENT—For cementing grille cloth and fabrics to either metal, plastic or wood cabinets.
Cat. No. 22-2 2-oz. Net \$.60

G-C WOOD CABINET GLUE—This is the ordinary well-known wood glue that is used in repair of furniture, chairs, radio cabinets, etc.
Cat. No. 39-2 2-oz. Net \$.55

G-C No. 28 Q-DOPE THINNER—This thinner is made of same solvents as G-C Service Cement and makes the best thinner for G-C Service Cement.
Cat. No. 28-2 2-oz. Net \$.52

G-C RADIO SERVICE SOLVENT—The best solvent for loosening cement on speaker cones, frames, etc., made to dissolve all types of cements. Can also be used as a thinner for G-C Cement and other cements.
Cat. No. 31-2 2-oz. Net \$.52

G-C No. 29 LACQUER THINNER—Solvent for thinning all lacquers, lacquer enamels, telephone black and gray touch-up lacquers.
Cat. No. 29-2 2-oz. Net \$.52

G-C No. 67 PAINT THINNER—Excellent for Rust-Koat, Krome-Koat, B-K Cement, Furniture Varnish and Rubber Cements.
Cat. No. 67-2 2-oz. Net \$.52

G-C No. 41 Q-DOPE THINNER—Excellent solvent for Polystyrene, Q-Dope and any other Polystyrene Coil Dopes and Cements. Will soften and dissolve polystyrene rods, sheets, etc. Clear water-white solvent will not change characteristics of original materials.
Cat. No. 41-2 2-oz. Net \$.52

G-C RUBBER-TO-METAL & PHONO DRIVE CEMENT—Specially prepared for cementing rubber phono and dial drives to shafts and pulleys.
Cat. No. 35-2 2-oz. Net \$.60

G-C PliOBOND CEMENT—Bonds anything to anything—iron, steel, plastic, glass, aluminum, cotton, vinyl sheets, stainless steel, etc. A truly universal cement.
Cat. No. 43-2 2-oz. Net \$.60

G-C ACRYLIC-PLASTIC GLASS CEMENT—Specially prepared for cementing Lucite, Plexiglass and other acrylic materials.
Cat. No. 40-2 2-oz. Net \$.60

G-C NE-O-PRENE CEMENT—For cementing neoprene rubber to neoprene or neoprene to other products, such as metal, wood, paper, etc.
Cat. No. 52-2 2-oz. Net \$.87

G-C LABEL CEMENT—Here's a label cement that will make labels stick to anything—metal, glass, wood, tin, etc.
Cat. No. 46-2 2-oz. Net \$.55

G-C TV HIGH VOLTAGE CORONA DOPE—Prevents corona shorts on high voltage circuits in television sets.
Cat. No. 47-2 2-oz. Net \$.78

G-C RED-X TV CORONA DOPE—Prevents corona shorts in high voltage circuits in TV sets. Coat surfaces and sharp corners to stop corona effect.
Cat. No. 50-2 2-oz. Net \$.78

G-C TV TUBE KOAT—For recoating the outside of TV picture tubes that have become scratched or the surface is peeling.
Cat. No. 49-2 2-oz. Net \$.72

G-C TV LINE SEAL FOR UHF and VHF—Outdoor special acrylic sealer for sealing TV wires, terminals, screws, antennas, junction boxes.
Cat. No. 17-2 2-oz. Net \$.60

G-C PHONO NON-SLIP COMPOUND—Prevents slippage of phono drives on changers, tape recorders, and all types of recorder drives.
Cat. No. 86-2S 2-oz. Net \$.96

G-C RED GLYPHOL INSULATING VARNISH—Most common of all protective insulating coatings, used on all solder connections, high voltage points, anti-corona.
Cat. No. 90-2 2-oz. Net \$.63

NON-SLIP COMPOUND FOR RADIO DIALS—Powder Compound for treating friction type dial drives such as cords, cables and belts.
Cat. No. 1210 Non-Slip, 2-oz. Net \$.55

LIQUID NON-SLIP—Penetrating and fast-drying liquid dressing. Shrinks fibres, prolongs life of cables and belts and prevents slipping.
Cat. No. 1211 1/2-oz. Net \$.38

G-C DE-OX-ID—Cleans and prevents oxidation on sensitive circuit contacts. Use in Television, Radio, Telephone, Relays, Instruments, etc.
Cat. No. 19-1 1-oz. Net \$.70
19-2 2-oz. Net \$1.03

G-C CONTACT AND CRYSTAL CLEANER—A fast-evaporating cleaner specially prepared for cleaning contacts and crystals. Cleans easily and will not injure delicate parts, crystals, etc.
Cat. No. 127-2 2-oz. Net \$.52

NEW G-C ELECTRONIC CONTACT CLEANER—Most popular all-purpose contact cleaner on the market. Fast drying and fast acting. Leaves a non-corrosive film on the contacts that insures long, trouble-free action.
Cat. No. 210-2 2-oz. Net \$.60

G-C DE-NOISE ELECTRONIC TV CONTACT AND DETENT CLEANER—Stops Noise on all types of contacts, volume controls, tuners, detents, switches, relays, etc.
Cat. No. 51-2 2-oz. Net \$.87

G-C CARBON CONTACT CLEANER—Makes it easy to repair most noisy volume controls, tone controls, switches, band switches, push-buttons—in fact, most all types of moving contacts. A special chemical that both removes oxidation and minimizes future trouble by coating the contacts.
Cat. No. 212-2 2-oz. Net \$.52

G-C CARBON TETRA-CHLORIDE—100% pure Carbon Tetra-Chloride, non-explosive and non-flammable. For cleaning electrical controls and contacts.
Cat. No. 211-2 2-oz. Net \$.52

G-C GRAFOLINE—Insures proper and lasting repairs for all air-exposed contacts, switches, and wire-wound volume controls—wherever dust and dirt affect the quiet action of adjustable radio parts or controls.
Cat. No. 120-2 2-oz. Net \$.60

G-C CARBON-X—A practical method to touch up those worn and noisy spots on carbon volume controls.
Cat. No. 1205 2-oz. Net \$.80

G-C CONTACT DOPE—Ideal contact cleaner for electronic switches, controls and contacts. Specially prepared to resist corrosion and oxidation on contacts.
Cat. No. 1214 2-oz. Net \$.48

G-C NON-CORROSIVE LIQUID SOLDERING FLUX—Best quality non-corrosive flux for all types of radio and electrical soldering, for copper, brass, steel, nickel, etc.
Cat. No. 42-2 2-oz. Net \$.55

G-C Q-DOPE (COIL DOPE)—Specially prepared for coating, doping, sealing, cementing and impregnating coils and transformers. "Very High" and "Ultra High" frequency ranges.
Cat. No. 37-2 2-oz. Net \$.55

G-C LIQUIDOPE—Gives coils a tough protective film that insures firmness and prevents characteristic changes due to weather.
Cat. No. 36-2 2-oz. Net \$.60

G-C INSULATING & DIPPING VARNISH—Produces a smooth, tough film that is water-proof, proof and non-corrosive. Recommended for treating field coils, noisy or buzzing transformers and choke coils.
Cat. No. 56-2 2-oz. Net \$.40

G-C FUNGUS VARNISH—Used on all types of Radio, Electronics and Communication equipment to prevent moisture absorption and fungus growth, when equipment is used in hot and humid climates.
Cat. No. 57-2 2-oz. Net \$.40

G-C STRIP-X—Removes insulating enamel from wire for easy soldering. Use on magnet wire.
Cat. No. 26-2 2-oz. Net \$.70

G-C RECO-STATIC CHASER—Minimize dust accumulation on records and picture tube. Reduces dust attracting static electricity.
Cat. No. 48-2 2-oz. Net \$.30

G-C MAG-NETIX RECORDING HEAD CLEANER—Cleans without injury to the recording heads that gradually lose their sensitivity if oxidized accumulates.
Cat. No. 53-1 1-oz. Net \$.40
53-1 2-oz. Net \$1.00

GC MAGNETIC CEMENT—Permanently bonds iron cores, broken loopsticks, slugs, flyback yoke cores. Renews part to original function.
Cat. No. 38-2 2-oz. Net \$.80

G-C No. 14-2 PRINT-KOTE SILICONE RESIN—After repairing or replacing parts in printed circuits, protect the panel joints and parts. Fast air drying.
Cat. No. 14-2 2-oz. Net \$1.00

G-C No. 13-2 PRINT-KOTE SOLVENT FOR SILICONE RESIN—The only solvent for G-C 14-2 Silicone Resin. Will dissolve and remove all silicone resin from printed circuits.
Cat. No. 13-2 2-oz. Net \$.40

G-C PRINT-KOTE SOLDERING FLUX—Non-corrosive liquid flux for easy soldering and repairing of printed circuits.
Cat. No. 12-2 2-oz. Net \$.60

G-C CEMENT KIT—A kit containing a complete selection for every application. Kit includes 2-oz. samples of Service, PliOBond, Acrylic, Plastic, Bakelite, Vinylite, Grille Cloth, Model, Wood, Rubber-to-Metal, Electrical and Neoprene. Label all Vinyl Cements. Ideal for research and development.
Cat. No. 345 Net \$5.00

G-C RADIO AND TELEVISION CEMENT—High grade special cement in a handy tube for those who prefer to use a tube. Cement can be applied directly from tube on the parts to be cemented without the use of a brush. Also used for television work, sealing nuts, bolts, etc. on antennas, rotators, etc.
Cat. No. 34-2 2-oz. tube Net \$.50

GC SPRAY CANS

NEW, ALL-PURPOSE SPRA-KLEEN—cleaner, lubricant. Excellent for business and industrial machines, motors, relays, switches, adding machines, computers, etc.
Cat. No. 32-8666 .6 oz. Net \$1.49

SPRA-KLEEN—eliminates noise due to dust, dirt and corrosion on contacts. Just spray, and work controls.
Cat. No. 8666 .6 oz. Net \$.39
16 oz (Sprays upside-down) Net \$1.95

RELAY-KLEEN—contact cleaner; excellent for cleaning relays and contacts in switchboards, automatic pinball or bowling machines, rocket or satellite circuitry.
Cat. No. 8662 .6 oz. Net \$1.89
Cat. No. 8662-16 .16 oz. Net \$3.49

JIF—contact and control cleaner—will not harm plastics. Contains no harsh solvents. Cleans, lubricates, long-lasting protection.
Cat. No. 8670-6 .6 oz. Net \$1.79

MP-5 outdoor metal protectant; provides chemisorption type bond to metal surfaces. Superior to other organic compounds. Contains UCARSIL® silicones. *Trademark of Union Carbide Corp.
Cat. No. 8681 .6 oz. Net \$1.79

ZERO-MIST SPRA KOAT—instantly locates defective (intermittent) circuit components due to temperature change. Circuits cooled instantly. Components isolated.
Cat. No. 8667 .16 oz. Net \$2.42

REK-O-MAGIC ANTI-STATIC SPRAY—eliminates abrasive dust that ruins records. Cleans, easy to use.
Cat. No. 98-12 .12 oz. Net \$1.88

RUF-KOAT WRINKLE VARNISH—hard, durable finish.
Cat. No. 60-12 .12 oz. Black Net \$2.25
Cat. No. 60-13 .12 oz. Gray Net \$2.25

GC DE-OX-ID—electrical contact cleaner for silver, detent and radar contacts. For TV, radio, telephone, relays, contacts, etc.
Cat. No. 19-6 .6 oz. Net \$2.45

GC STANDARD PRINTED CIRCUIT KIT—contains foil, solder washers, solder wire, solder probe tool and brush, silicone resin lacquer and solvent, tweezers and instructions.
Cat. No. 682 Net \$3.35

PRINTED CIRCUIT SERVICE AIDS

GC MASTER PRINTED CIRCUIT KIT includes all items in standard kit plus one Ungar Soldering Iron with Special tip and 6-ounce spray can of 14-6 Silicone Resin spray and instructions.
Cat. No. 683 Net \$10.25

GC PRINTED CIRCUIT SILICONE RESIN SERVICE KIT—used by leading TV set manufacturers. Everything necessary for printed circuit repairs.
Cat. No. 680 Net \$6.35

GC PRINT-KOTE SOLDER AID PROBE
Cat. No. 9093 Net \$1.00

GC PRINT-KOTE BRUSH & SCRAPER
Cat. No. 9094 Net \$.88

GC PRINT-KOTE HEAVY DUTY SOLDERING AID TOOL
Cat. No. 9088 Net \$1.00

K-21 PRINT-KOTE—TV silicone resin for printed circuits. Insulates, protects, prevents shorts. Is used by the original manufacturer.
Cat. No. 14-6 .6 oz. Net \$1.20

GC PRINT-KOTE SOLDER—special non-corrosive flux and low-temperature solder combined with Pure Silicone.
Cat. No. 9131 11-foot coil Net \$1.00

GC SILVER PRINT—for printed circuit repairs. Same Pure Silicone used by original printed circuit manufacturers.
Cat. No. 21-1 1 Troy oz. Net \$1.50
Cat. No. 21-2 1 Troy oz. Net \$1.50

GC COPPERPRINT—for repairing printed circuits. High conductivity fast drying.
Cat. No. 20-2 Net \$1.00

GC SOLDERING PASTE—high conductivity, non-corrosive soldering paste. TV, Radio and Electrical repairs.
Cat. No. 1207 2 oz Net \$.60



CHEMICALS AND KITS

GC NON-TOXIC ELECTRO-TET CLEANER

Closely parallels Carbon Tetrachloride, but much safer. Non-flammable, fast drying.
Cat. No. 10-G... 1 gallon... Net \$7.50



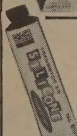
GC DE-OX-ID KIT WITH NEEDLE INJECTOR

Contains 2-ounce bottle of De-Ox-ID cleaner and hypodermic type of applicator.
Cat. No. 8460..... Net \$1.45



GC PHONO TURNTABLE MOTOR & GEAR LUBRICANT

A specially developed lubricant for phonographs. Lubricant clings to surface of parts; eliminates future repairs.
Cat. No. 1203-S 2-ounce Net \$.55



GC TRANSISTOR Z-S SILICONE COMPOUND

Essential in maintaining efficient transfer of heat from transistor to chassis. Use whenever replacing transistors.
Cat. No. 1-ounce tube Net 2.17
8101-S



GC SCRATCH STIK KIT

For Walnut, Mahogany and Light wood surfaces. Kit of 3 sticks.
Cat. No. 909-K..... Net \$1.35

GC MASTER DELUXE CABINET REPAIR KIT

Contains varnishes, enamels, spirit stains, all of the essentials needed to make cabinet repairs like a professional. Satisfy even the most exacting customer.
Cat. No. 900..... Net \$ 9.65



GC CABINET REPAIR KIT

Repair wood, plastic, or bakelite cabinets, knobs, etc. Contains the necessary equipment for repairing dents, nicks, etc.
Cat. No. 901..... Net \$ 7.55



GC SCRATCH STIKS

For Walnut, Mahogany and Light Wood. Removes scratches on all shades and colors of wood.
Cat. No. 909..... Net \$.48



GC E.I.A. COLOR CODING KIT

All standard E.I.A. colors: Black, Brown, Red, Orange, Yellow, Green, Blue, Purple, Gray and White. E.I.A. color chart included.
Cat. No. 677..... Net \$ 1.47



GC DIAL & SIGNAL LIGHT COLORING KITS

For signal systems, radio dials, decorative lighting, etc. Contains Red, Green, Blue, Amber, Purple and solvent.
Cat. No. 66-S, kit of 5, no purple Net \$ 1.23
Cat. No. 66-6, kit of 6..... Net \$ 1.43



GC RADIO TV CHEMICAL LAB

Twenty, 2-ounce bottles in permanent bench rack. Every needed chemical and cement is included for all types of repairs on speakers, coils, contacts, dials, etc.
Cat. No. 997..... Net \$13.75



GC DELUXE RADIO-TV CHEMICAL LAB

For service shop and industrial plant. Complete practical lab, designed for serviceman, engineer, technician. Contains solvents, cleaners, cements, etc.
Cat. No. 998..... Net \$17.50



NEW!



COLORMAGIC SPRALUBE COLOR TV TUNER CLEANER

Non-Drift cleaner especially formulated for cleaning and lubricating all color TV Tuners. Completely safe for plastics used in tuners. Made of highest quality chemicals. Safe to use - non-flammable.

Cat. No. 8888 ... 8oz spray can Net 1.95



COLORMAGIC COLOR CLEAR COLOR TV TUBE CLEANER & ANTI-STATIC AGENT

Keeps away unsightly dust and lint. Cleans and destaticizes color TV picture tube surface sparkling clear.

Cat. No. 8890 ... 8 oz spray can Net .99



GC MOTOR CLEANER

Effectively and safely removes harmful, dangerous dust, metal and grease deposits. For electric motors, switches, generators, control panels, etc. Quick drying - leaves no oily residue.

Cat. No. 10-910 16 oz spray can Net 1.89



GC DRI-SPRA

FORMULA X-27
STOPS ELECTRICAL FAILURE?
Cleans and lubricates - seals out moisture - prevents rust and corrosion. New water displacement spray prevents 80% of electrical equipment failures.

Cat. No. 8678 6 oz spray can Net 1.79



GC PLASTIC & GLASS CLEANER

Spray on - wipe off dirt, dust and grime from all glass and plastic surfaces without streaks or dulling residue. Contains grease - cutting ammonia.

Cat. No. 9082 16 oz spray can Net .79



GC PRESSURIZED LUBRICATING OIL

For complete, thorough lubrication. Reaches into smallest areas. Excellent for ball bearings, moving machinery, gears, etc. A high-grade, light machine oil. No Spilling, No waste.

Cat. No. 10-916 6 oz spray can Net .75



GC BENCH FIRE EXTINGUISHER

Works on all types of fires; electrical, oil, grease. Fast, low-cost method of fighting small fires - excellent supplemental fire protection. Keep one in garage shop or home.

Cat. No. 10-914 16 oz spray can Net 1.57



GC INSTANT CONTACT CLEANER

Thorough cleaning action - completely evaporates - leaves no filmy deposits. Non-flammable! Economical instant contact cleaner penetrates even the most microscopic surface openings, cleans away all harmful dirt and grime.

Cat. No. 10-610 6 oz spray can Net 1.79



GC CARTON SAVER

Re-use old carton - cut packaging costs. Spray out stenciling and labels - renews cartons. Matches carton color - fast drying - maximum coverage. Will not rub off.

Cat. No. 10-912 16 oz spray can Net 1.65

THE FINISHING TOUCH THAT MARKS A PRO!

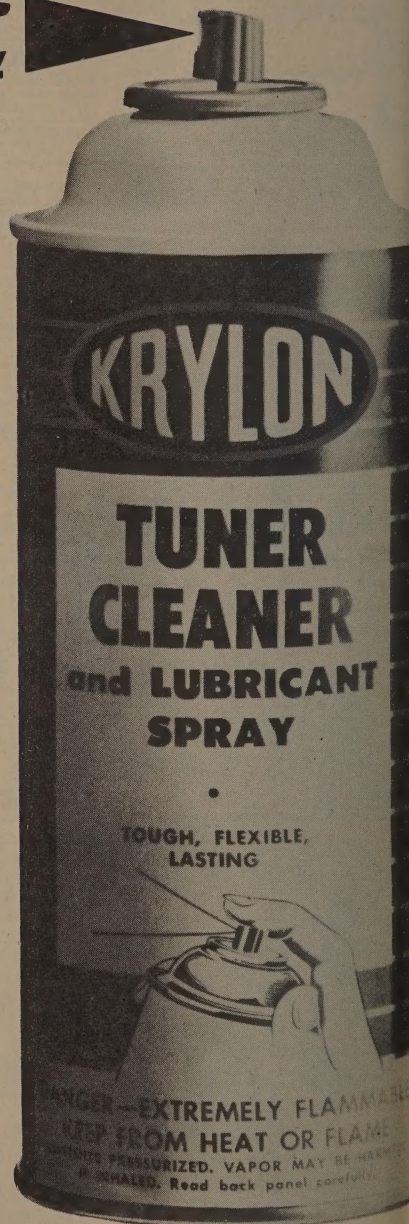
IN ELECTRICAL WORK—
IN PAINTING

Goes on in seconds—
dries in minutes!

**KRYLON...
AMERICA'S NO. 1
SPRAY PAINT**

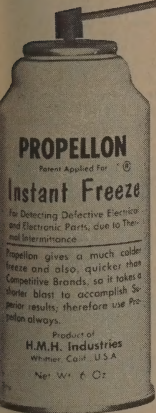


**BORDEN
CHEMICAL**



Heeger, Inc., as national sales administrators, present the following chemicals that have found favor with engineers, laboratory technicians and production in industry, to assist them in procuring the best proven material to enable them to arrive at the best results.

From the laboratories of
H. M. H. INDUSTRIES



PROPELLON INSTANT FREEZE

Used by electronic engineers and technicians for detecting defective electronic and electrical parts, due to thermal intermittence. Valuable in the laboratory, field testing, service bench or field work, maintenance of equipment and in the electronic and electrical analysis of trouble. Propellon "Instant Freeze" delivers the lowest temperature practical for above uses. Odorless, non-toxic and non-flammable.

The 12" extender facilitates in directing the spray directly onto the area tested. Also aids in getting into inaccessible places.



"DRY-BLOW"™ (Duster)

A Propellon product for the service technician for cleaning before and after integrated circuitry repairs or replacements. For blowing dust and dirt out of chassis and between parts and tubes where it is impossible to reach with brush or cloth.

Used by electronic engineers and technicians, electronic and optical laboratories and any place where fine dust particles are a problem to eliminate.

TO A CASE

PACKED IN 7 OZ. CANS AND 15 OZ. CANS — 12" EXTENDER FREE WITH EACH CAN

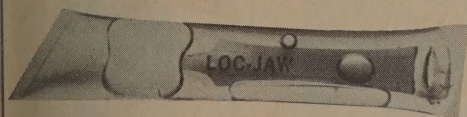
7 OZ. CAN, with 12" extender.....ea. \$1.45
15 OZ. CAN, with 12" extender.....ea. \$2.25

12 TO A CASE

PACKED IN 15 OZ. CANS — 18" EXTENDER FREE WITH EACH CAN
15 OZ. CAN, with 18" extender.....ea. \$2.25

From the laboratories of
HASCOL ENTERPRISES

LOC-JAW



A SCIENTIFICALLY COMPOUNDED
ADHERENT FORMULA

Loc-Jaw" is an "Epoxy" base compound for bonding metal to metal, glass to glass, glass to wood, wood to wood, metal to wood, etc. Properly proportioned, it hermetically seals small parts and connections. After setting, it actively resists salt water and salt air, gasoline, chemicals and solvents of all types and withstands temperatures up to 300° F. Applicable to many industrial uses. Packed in its own plastic container and applicator. Indispensable where an adherent or sealer is needed.

INDIVIDUAL PLASTIC CONTAINER.....ea. 50c
BAG OF 10.....per bag \$4.50

From HASCOL LABORATORIES

SAL-MET

NON-CORROSIVE FLUX

- SOLDERS COPPER TO ALUMINUM
- ALUMINUM TO ALUMINUM
- SOLDERS ALL METALS

A scientific laboratory non-corrosive flux for soldering all metals. By using "SAL-MET," copper can be soldered to aluminum, aluminum to aluminum, copper to steel, copper to copper; in fact, any metal to metal is possible. No special preparation on material to be soldered. Use conventional solder, applied with quick heat, regular soldering iron, torch or pot.

1 oz. Tubes.....ea. \$.95
1 lb. Can.....ea. \$7.88



WRITE FOR COMPLETE CATALOG

PRICES SUBJECT TO CHANGE

L M B®

QUIETROLE

the original
LUBRICANT
CLEANER

SPRAY ^{IT} OR ^{OR} DROP ^{IT}...

the
NEW

BIG THREE AEROSOLS for Electronic Servicing

"HARMLESS TO
PLASTICS"
"HARMLESS TO METAL"



MARK-II
FOR TUNERS

SPRAY-PACK
FOR CONTROLS &
SWITCHES

"QUIETROLE" is the preferred, standard product of the industry! Your guarantee for quieting noisy television and radio controls, switches and other moving parts is QUIETROLE. Here is the original, non-inflammable, most reliable lubricant-cleaner on the market today — developed through years of factual and authentic research. Perfect for all servicing, including color.

NON-INFLAMMABLE — NON-CONDUCTIVE — NON-CORROSIVE
There is no substitute for **QUALITY**... get **QUIETROLE TODAY**

A First of the Industry... A 19 Year Plus Record of Proven Superiority. Built to Meet a Demand, Not a Price.



SILITRON
FOR GENERAL USE



OR
QUIETROLE
BOTTLE
with the Eye Dropper



QUIETROLE BOTTLE

Cat. No.	Size	Min. Order	Min. Re-order	Distr. Net Resale price
10-2	2 oz.	24	24	\$1.69
10-3	4 oz.	16	8	2.54
10-4	8 oz.	8	6	5.07

QUIETROLE BOTTLE WITH BRUSH-N-CAP

10-3A	4 oz.	16	8	2.64
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QUIETROLE AEROSOLS

All include free plastic extender... **HARMLESS TO PLASTICS... ZERO EFFECTS ON CAPACITY & RESISTANCE...**
Non-Inflammable... Non-Conductive... Non-Corrosive.

Cat. No.	Size	Order Min.	Min. Re-order	Distr. Net Resale price
10-5	6 oz.	12	12	2.89 Spray-Pack
10-7	6 oz.	12	12	2.89 Mark II
10-8	6 oz.	12	12	1.98 Silatron



QUIETROLE COMPANY

WALSCO CHEMICALS

CONTACTENE

Lubricates as it cleans; fast acting, quick drying. Eliminates volume control noise. Absolutely anti-oxidant.

No.	Desc.	Net
80-02	2-oz bottle	.60
80-04	4-oz bottle	.90
80-08	8-oz bottle	1.65
80-16	16-oz can	2.50
80-06	6-oz spray can	.99
80-12	12-oz spray can	1.95



WALSCOLUB-B

Electrically neutral lubricant that prevents corrosion. Makes for smooth, noise-free operation of electrical contacts, band switches, attenuators, push button tuners, remote control switches and other contacts.

No.	Desc.	Net
22-01	1-3/4-oz tube	.55



WALSCO GLYPTAL

An outstanding insulating varnish. Resists heat oils and acid. High arc resistance makes it essential in electrical and electronic application.

No.	Desc.	Net
134-02	2-oz bottle	.63
134-08	8-oz bottle	1.90



RED CORONA DOPE

Positively stops high voltage "Corona". Protects against "shorts" in high voltage circuits of TV sets. Completely coat surfaces and sharp corners to stop dangerous corona effect.

No.	Desc.	Net
198-02	2-oz bottle	.78

CONTACTENE
INJECTOR

A fine surgical-grade steel needle. For inserting into places where other applicators cannot reach. Makes lubrication of most volume controls and other parts possible without dismantling.

No.	Desc.	Net
989		.48



"NO-OX"

A liquid, non-gumming chemical that dissolves corrosion with amazing speed without the use of drastic solvents. Lubricates and protects slide contacts long after application.

No.	Desc.	Net
100-01	1-oz bottle	.70
100-02	2-oz bottle	1.03
100-16	1-lb. bottle	8.50
100-33	1-gal. can	40.65
100-34	5-gal. can	191.00
100-06	6-oz. spray can	2.33

AIR-DRY
WRINKLE VARNISH

Factory like finish without baking.

No.	Desc.	Net
145-06	Bk, 6-oz jar	1.87
145-12	Bk, 16-oz spray can	2.25
145-33	Bk, 1-gal. can	15.91
146-12	Gray, 16-oz spray can	2.25
146-33	Gray, 1-gal. can	16.49



SUPER GLUE

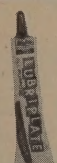
New miracle cement. Bond strength of over 3000 lbs. per square inch. Particularly suitable for cementing non-porous materials. Cures at room temperature through chemical action. Supplied in two ingredients which must be mixed before application.

No.	Std. Pkg.	Net
10-100	2 - 1/4 oz. tubes	12 .99

CHLORO-KLEEN
(NON-TOXIC)

A powerful solvent for cleaning of electronic components, switches, chassis, etc. Dissolves grease, dirt, oils, tar, and waxes. Safe indoors, under normal conditions.

No.	Desc.	Net
113-04	4-oz bottle	.65
113-16	16-oz bottle	1.55



LUBRIPLATE

Super lubricant, grease type, protective. Reduces friction loss, prevents rust and corrosion. Extends bearing life 50% ... increases mechanical efficiency 20% over ordinary lubricant.

No.	Desc.	Net
23-02 S	2-oz tube	.75

TYPE CEMENT

Plastic Cement
Radio Cement

Polystyrene Cement

Vinylite Cement
Radio Cement

Crystallizing Lacquer
Fungus Lacquer

Telephone Black & Grey
Light Bulb Coloring

Anti-Corona Lacquer
CR-Tubecast

Rubber Cement
Wrinkle Varnish

Flock Undercoat
Elec. & Resistor Cement

Wood Glue
Aluma-Flux

*Cement Solvent should be used to loosen hardened cement on speaker cones, voice coils, etc. Solvent will dissolve Plastic and Radio cements if used as a thinner; Lacquer Thinner is recommended for this purpose.

WALSCO SOLVENTS AND THINNERS

USE SOLVENT

*Cement
Solvent

Polystyrene
Solvent

Lacquer

Thinner

Water

CAT. NO.

201-02
201-04
201-08
201-16
201-33
202-02
202-04
202-33
203-02
203-33
203-34

204-04
204-33

QTY.

2 oz.
4 oz.
8 oz.
16 oz.
1 gal.
2 oz.
4 oz.
1 gal.
2 oz.
1 gal.
5 gal.

4 oz.
1 gal.

4 oz.
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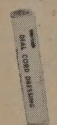
4 oz.
1 gal.

4 oz.
1 gal.

RADIO CEMENT

A fast-drying, elastic adhesive that will not become brittle with age. Compounded especially for speaker repair. Unaffected by cold or high temperature, moisture or oil.

No.	Desc.	Net
50-01	1-3/4-oz tube	.55
50-02	2-oz bottle	.55
50-04	4-oz bottle	.82
50-08	8-oz bottle	1.45
50-16	1-lb. bottle	2.50

DIAL CORD
FRICTION STICK

To prevent slipping, simply rub Walsco Friction Stick on dial cord or belt. Increases grip, lengthens life of cord.

No.	Desc.	Net
259-01		.25

*Cement Solvent should be used to loosen hardened cement on speaker cones, voice coils, etc. Solvent will dissolve Plastic and Radio cements if used as a thinner; Lacquer Thinner is recommended for this purpose.

WALSCO SPRAY CHEMICALS

KLEEN-TUNE

TUNER CLEANER completely cleans and lubricates all tuners. Kleen-Tune is a non-flammable, non-toxic cleaner, formulated to clean, lubricate and renew all styles of TV tuners in one simple operation. Kleen-Tune provides a protective film against noise and oxidation and is not harmful to other components.

No.	Std. Pkg.	Net
40-800	12	1.98



OX-NOX

VOLUME CONTROL & CONTACT CLEANER for removing oxidation and noise from volume controls and electrical contacts. Ox-Nox cleans, lubricates and restores controls and tuning condensers. Non-flammable and non-toxic.

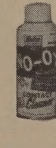
No.	Std. Pkg.	Net
40-802	12	1.98



INSUL-VOLT

20K high voltage insulator. Positive insulation against high-voltage leaks, arcing and corona shorts.

No.	Std. Pkg.	Net
40-804	8-ounce Spray Can	1.99



NO-OX

Contact cleaner; dissolves corrosion quickly, efficiently with no harsh solvents. Lubricates and protects.

No.	Std. Pkg.	Net
100-06	6-oz spray can	2.33

INSUL-VOLT

HI-VOLTAGE INSULATOR WITH SURE SHOT CONFINED STREAM Insul-Volt is specifically designed to meet the requirements of Military Specification MIL-V-1137-A, Grade BA, Types M&N. Insul-Volt is positive insulation against Hi-Voltage leaks, arcing and corona shorts such as Hi-Voltage sections of TV sets, or any electrical apparatus requiring this superior protection.

No.	Std. Pkg.	Net
40-804	12	1.99



FREEZE-MIST

CIRCUIT COOLER saves hours locating defective intermittent circuit components caused by temperature changes. Walsco Freeze-Mist cools instantly pinpointing faulty capacitors, resistors, transistors, cold solder and oxidized junctions, etc. due to temperature variances.

No.	Std. Pkg.	Net
40-808	12	1.98

PRINTED CIRCUIT
INSULATING VARNISH

Silicone Resin type. Provides tough, protective coating for printed circuits. Fast air-drying.

No.	Std. Pkg.	Net
120-06	6-ounce Spray Can	2.42



CONTACTENE

Fast action; cleans and lubricates noisy switches and controls, quick drying.

No.	Std. Pkg.	Net
80-06	6-oz spray can	.99

WALSCO ACTION

Electronic Silicone Contact Cleaner—won't harm plastics, non-flammable. Provides long-lasting protection.

No.	Std. Pkg.	Net
99-06	6-ounce Spray Can	.99
99-16	16-ounce Spray Can	1.49



WALSCO ACRY-SPRAY

Prevents corrosion, rust, oxidation on all metals.

No.	Std. Pkg.	Net
140-12	Clear	1.50
141-12	Aluminum	1.63



CLEAN & QUIET

Contact cleaner; cleans, lubricates, protects. Leaves siliconized protection after application. Non-Flammable; will not harm plastic.

No.	Std. Pkg.	Net
94-06	6-oz spray can	1.49

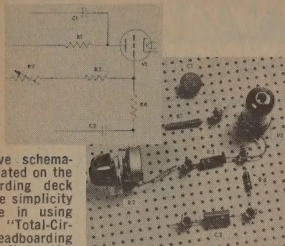


SUPER FREEZE MIST

Pinpoint defective (intermittent) components through temperature changes. Cools circuits instantly.

No.	Std. Pkg.	Net
216-06	6-oz spray can	1.26

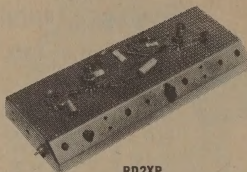




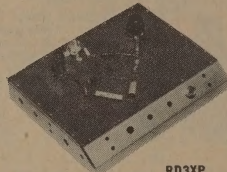
The above schematic translated on the breadboarding deck shows the simplicity and ease in using Aladin's "Total-Circuit" breadboarding system. Note the same approximate relationship between the schematic and the breadboarding deck.

The Breadboarding Kits, punched Board and Accessories shown and described here provide a simple means of developing circuits. The Breadboarding Deck or work area is the standard "A" Pattern punched board. The rugged aluminum Base has $\frac{1}{4}$ ", $\frac{3}{8}$ " and $\frac{1}{2}$ " holes for mounting of potentiometers, switches and etc. Feed through terminals part #B200A, Terminal Boards part # "11" brackets part #BR-2, "V" brackets part #463, "Z" brackets part #422, and assembly screws are items that are found in each Slanting Base Kit. Exact quantities are specified below. accessory and punched board pages for more exacting details and specifications.

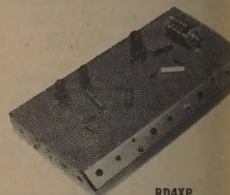
RD1XP KIT measures 8½" long x 6½" wide x 2½" high and contains the following: A phenolic deck #32XX18, A metal base #RD1XP-B, A package of 25 terminals #B200A, A terminal board #526, 2 brackets #BR-2, 2 universal brackets #463, 6 universal brackets #422, and a package of screws for assembly of Kit and accessories, plus a plastic parts box.

RD2XP
KIT

RD2XP KIT measures 17" long x 6 1/8" wide x 2 1/8" high and contains the following: A phenolic deck #64XX18, A metal base #RD2XP-B, A package of 50 terminals #B200A, 2 terminal boards #526, 4 brackets #BR-2, 3 universal brackets #463, 8 universal brackets #422 and a package of screws for assembly of Kit and accessories, plus a plastic parts box.

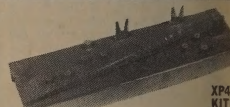
RD3XP
KIT

RD3XP KIT measures 12" long x 10" wide x 2 1/4" high and contains the following: A phenolic deck #45X32, A metal base #RD3XP-B, A package of 50 terminals #B200A, 2 terminal boards #526, 4 brackets #BR-2, 3 universal brackets #463, 8 universal brackets #422 and a package of screws for assembly of Kit and accessories, plus a plastic parts box.

RD4XP
KIT

RD4XP KIT measures 17" long x 10 1/2" wide x 2 1/8" high and contains the following: A phenolic deck #641, 1 metal base #RD4XP-B, a package of 75 terminals #B200A, 3 terminal boards #526, 6 brackets #BR-100, 10 universal brackets #463, 10 universal brackets #422 and a package of screws for assembly of Kit and accessories, plus a plastic parts tray.

The inexpensive Breadboarding Kits, **XP48** and **XP417** described and shown here contain the same quality material and workmanship as used in our Slanting Base line of kits, shown elsewhere. Each Kit contains a phenolic deck, 2 aluminum rails, terminals, terminal insertion tool, "V" and "Z" brackets, screws for assembly of kit and accessories, plus a plastic parts box. See accessory and punched board pages for more exacting details and specifications.



AF4
KIT

XP48 KIT measures 8½" long x 4¼" wide x 1¼" high and contains the following: A phenolic deck #32XX18, a metal base XP-48B, (two aluminum rails 8½" long), a package of 25 terminals #B200A, terminal insertion tool #B200-T, 3 universal brackets #463, 6 universal brackets #422 and screws for assembly of kit and accessories, plus a plastic parts box.

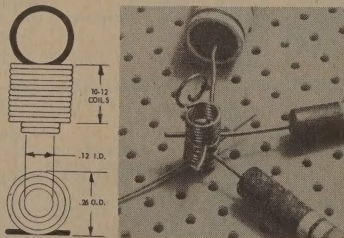
XP417 KIT measures 17" long 4 1/4" high and contains the following: A phenolic deck #64XX18, metal base #XP-417B, (two aluminum rails 17" long), A package of 50 terminals #B200A, terminal insert tool #B200-T, 4 universal brackets #463, 8 universal brackets #422 and screws for assembly of kit and accessories, plus a plastic parts box.

[illegible]

B200A TERMINAL

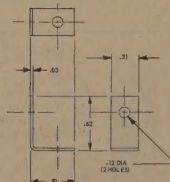
B200-T
TERMINAL
INSERTION TOOL

Our B200A is a feed through terminal stamped from half hard Brass and is plated. Two serrated slots .032" x .190" will accommodate 3 or more wires per slot. The serrations will hold wires in place until soldered. The two .062" dia. holes near the bottom end will accommodate 2 or more wires. Insertion or extraction of the B200A terminal is easily accomplished by using our B200-T insertion tool or a pair of long nose pliers. Because of the locking notch in the top of the B200A terminals will not fall out of the breadboarding deck. B200A terminals are packaged in bags of 25, 100 and 1,000.



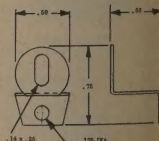
GS 200A SPRING

The GS200A "Genie Spring" is a solderless connector and will hold many wires from all directions. The Genie Spring can be secured to the breadboarding deck using our B200A terminal, a #4 self tapping sheet metal screw or a #3-48 screw and nut. GS200A "Genie Springs" are packaged in bags of 25, 100 and 1,000.



BR-2

PART #BR-2 brackets — Right angle brackets for mounting of items on breadboarding deck. 10 brackets per package. Available in packages of 100.

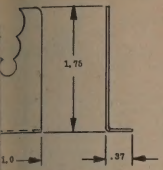


PART #422

Part #422—A universal "Z" Bracket designed to mount components on a breadboarding deck such as transistors, diodes, resistors, potentiometers, relays, and integrated circuit (IC) components, etc. For convenience, the "Z" brackets are packaged 100/pkg. with assy. screws. "Z" brackets are available in bags of 100.

"The Largest and Most Complete Selection of

KITS & ACCESSORIES *by Aladin Kits Co.*



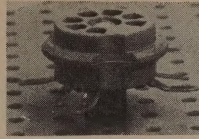
PART #463

#463—A universal "V" bracket with $\frac{1}{4}$ ", $\frac{3}{8}$ " and $\frac{1}{2}$ " holes for deck mounting of resistors, potentiometers, etc. It is positive retaining and will not allow shafts to pull out. Packaged 5 per package with assembly screws. Available in bags of 100.



PART #526

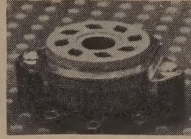
PART #526—Terminal Boards, made from XXXP phenolic ("A" pattern) measures $1\frac{1}{4}$ " x $\frac{1}{2}$ ". Two boards per package with 4 brackets #BR-2 and 8 screws for mounting.



PART #360

PART #360—7-Pin sockets, 5 sockets per package with phenolic spacers and assembly screws. (As shown above).

PART #350—9-pin sockets, 5 sockets per package with phenolic spacers and assembly screws. (Mounts the same way as the 7-pin socket shown above).



PART #340

PART #340—Octal sockets, 5 sockets per package with phenolic spacers and assembly screws.



PART #310

PART #310—Transistor socket assembly, a universal four contact socket assembled to a plated steel bracket. The bracket is dimensionally similar to our Part #422. 5 socket assemblies per package with screws for mounting. Available in bags of 100.

ORDERING INFORMATION AND PRICES

Part Name/Description	Part #	Price
Breadboard Kit	RD1XP	\$6.60
Terminal Base (Only)	RD1XP-B	2.40
Breadboard Kit	RD2XP	9.38
Terminal Base (Only)	RD2XP-B	2.75
Breadboard Kit	RD3XP	9.90
Terminal Base (Only)	RD3XP-B	2.95
Breadboard Kit	RD4XP	12.60
Terminal Base (Only)	RD4XP-B	3.50
Breadboard Kit	XP 48	3.30
Terminal Base (Only)	XP 48-B	.86
Breadboard Kit	XP 417	4.90
Terminal Base (Only)	XP 417-B	1.16

Part Name/Description	Part #	Pieces per pkg.	Cost
Terminals	B200A/25	25	\$.50
	**B200A/100	100	1.65
	**B200A/1000	1000	8.90
Genie Springs	GS200A/25	25	.80
	GS200A/100	100	2.95
	GS200A/1000	1000	24.95
Terminal Insertion Tool	B200-T	1	.50
"V" Brackets (for Switch and Potentiometers)	463/5	5	.65
	463/100	100	9.75
"Z" Brackets (Universal Mtg.)	422/10	10	.99
	422/100	100	8.40
	BR-2/10	10	.25
"L" Brackets	BR-2/100	100	2.00

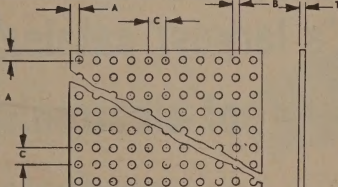
Part Name/Description	Part #	Pieces per pkg.	Cost
Terminal Boards	*526/2	2	\$.65
Transistor	*310/5	5	1.50
Socket Assem.	310/100	100	19.95
Octal Sockets	***340/5	5	1.25
9-Pin Sockets	***350/5	5	1.20
7-Pin Sockets	***360/5	5	1.15

* Package contains sufficient screws for assembly of items to breadboarding deck.

** Terminal insertion tool B200-T is included with each package of 100 and 1000 terminals.

*** Package contains sockets plus phenolic spacers and screws for assembly to breadboarding deck.

Pattern Punched Board has .015" holes spaced on .265" centers. Tolerance between .015" and .016" on the overall width is $\pm .005$. THERE IS NO ACCUMULATIVE TOLERANCE IN OUR PUNCHED BOARD. Should you have requirements for sizes and materials listed, please consult the factory for prompt and competitive quotations.



"A" PATTERN PUNCHED BOARD

Material	Part No.	Dimensions "L" "W" "T"	No. of Holes	Price
Phenolic	18 x 18	4.77 4.77	18 x 18	\$.43
	32 x 3	8.48 1.06	32 x 3	.30
	32 x 7	8.48 1.88	32 x 7	.39
	32 x 9	8.48 2.41	32 x 9	.45
	32 x 18	8.48 4.77	32 x 18	.72
	64 x 18	16.96 4.77	64 x 18	1.25
	45 x 32	11.92 8.48	45 x 32	1.60
	64 x 32	16.96 8.48	64 x 32	2.13
	**135 x 32	35.77 8.48	135 x 32	4.15
Epoxy Glass	32 x 5	8.48 1.35	32 x 5	.48
	32 x 7	8.48 1.88	32 x 7	.54
	32 x 9	8.48 2.41	32 x 9	.60
	32 x 18	8.48 4.77	32 x 18	.84
	64 x 18	16.96 4.77	64 x 18	1.60
	45 x 32	11.92 8.48	45 x 32	1.99
	64 x 32	16.96 8.48	64 x 32	2.45
	**135 x 32	35.77 8.48	135 x 32	4.65

Phenolic	7 x 5EP	1.88 1.35	7 x 5	.18
	11 x 17EP	2.92 1.35	11 x 7	.33
	32 x 7EP	8.48 1.88	32 x 7	.75
	32 x 18EP	8.48 4.77	32 x 18	1.40
	64 x 18EP	16.96 4.77	64 x 18	2.73
	64 x 32EP	16.96 8.48	64 x 32	4.39
	**135 x 32EP	35.77 8.48	135 x 32	7.85
Epoxy Glass	32 x 18EG	8.48 4.77	32 x 18	1.89
	64 x 18EG	16.96 4.77	64 x 18	3.72
	64 x 32EG	16.96 8.48	64 x 32	5.86
	**135 x 32EG	35.77 8.48	135 x 32	9.95

Minimum order of 5 pieces accepted. Combinations of different materials accepted to make up minimum of 5 piece order.

This punched copper clad board is the standard and more popular "A" pattern. The sizes listed below are stock items. All material used as per MIL-P-13949 Type PP (XXXXP) or MIL-P-18177B-GEE (Epoxy Glass). The Copper laminate is 2 oz. per side. For materials and sizes not listed please consult the factory for prompt and competitive quotations.

"A" PATTERN PUNCHED COPPER CLAD BOARD

Material	Part No.	Dimensions "L" "W" "T"	No. of Holes	Price
(XXXXP) Phenolic Copper Clad (one side)	HCP 10	5.03 3.45 .06	19 x 13	\$.58
	HCP 20	6.89 3.71 .06	26 x 14	.70
	HCP 30	6.89 5.03 .06	26 x 19	.96
	HCP 40	9.81 6.89 .06	37 x 26	1.75
	HCP 50	16.96 8.48 .06	64 x 32	3.65
(XXXXP) Phenolic Copper Clad (two sides)	HCCP 10	5.03 3.45 .06	19 x 13	.70
	HCCP 20	6.89 3.71 .06	26 x 14	.85
	HCCP 30	6.89 5.03 .06	26 x 19	1.20
	HCCP 40	9.81 6.89 .06	37 x 26	2.05
	HCCP 50	16.96 8.48 .06	64 x 32	4.30
Epoxy Glass Copper Clad (one side)	HCG 10	5.03 3.45 .06	19 x 13	.95
	HCG 20	6.89 3.71 .06	26 x 14	1.20
	HCG 30	6.89 5.03 .06	26 x 19	1.80
	HCG 40	9.81 6.89 .06	37 x 26	3.25
	HCG 50	16.96 8.48 .06	64 x 32	6.75
Epoxy Glass Copper Clad (two sides)	HCCG 10	5.03 3.45 .06	19 x 13	1.04
	HCCG 20	6.89 3.71 .06	26 x 14	1.32
	HCCG 30	6.89 5.03 .06	26 x 19	1.98
	HCCG 40	9.81 6.89 .06	37 x 26	3.57
	HCCG 50	16.96 8.48 .06	64 x 32	7.35

UNPUNCHED COPPER CLAD BOARD

The unpunched copper clad board listed below is some of the more popular sizes used. All material used is per MIL-P-13949 Type PP (XXXXP) or MIL-P-18177B-GEE (Epoxy Glass). The copper laminate is 2 oz. per side. For materials and sizes not listed please consult the factory for prompt and competitive quotations.

Material	Part No.	Dimensions "L" "W" "T"	Price
(XXXXP) Phenolic Copper Clad (one side)	CP 100	4.50 2.0 .06	\$.24
	CP 101	3.0 2.25 .06	.22
	CP 102	4.50 3.0 .06	.30
	CP 103	6.50 4.50 .06	.55
	CP 104	6.87 3.62 .06	.49
	CP 105	8.5 4.5 .06	.70
	CP 106	12.0 9.0 .06	1.90
	CP 107	9.87 6.12 .06	1.19
	CP 108	17.0 8.5 .06	2.52
(XXXXP) Phenolic Copper Clad (two sides)	CCP 100	4.50 2.0 .06	.30
	CCP 101	3.0 2.25 .06	.27
	CCP 102	4.50 3.0 .06	.40
	CCP 103	6.50 4.5 .06	.77
	CCP 104	6.87 3.62 .06	.65
	CCP 105	8.5 4.5 .06	.98
	CCP 106	12.0 9.0 .06	2.70
	CCP 107	9.87 6.12 .06	1.51
	CCP 108	17.0 8.5 .06	3.63

Material	Part No.	Dimensions "L" "W" "T"	Price
Epoxy Glass Copper Clad (one side)	CG 100	4.50 2.0 .06	\$.45
	CG 101	3.0 2.25 .06	.40
	CG 102	4.50 3.0 .06	.69
	CG 103	6.50 4.50 .06	1.14
	CG 104	6.87 3.62 .06	1.32
	CG 105	8.5 4.5 .06	1.71
	CG 106	12.0 9.0 .06	4.65
	CG 107	9.87 6.12 .06	2.60
	CG 108	17.0 8.5 .06	6.65
Epoxy Glass Copper Clad (two sides)	CCG 100	4.50 2.0 .06	.54
	CCG 101	3.0 2.25 .06	.45
	CCG 102	4.50 3.0 .06	.77
	CCG 103	6.50 4.50 .06	1.52
	CCG 104	6.87 3.62 .06	1.30
	CCG 105	8.5 4.5 .06	1.95
	CCG 106	12.0 9.0 .06	5.40
	CCG 107	9.87 6.12 .06	3.02
	CCG 108	17.0 8.5 .06	7.75

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sold through
distributors**





ICORE
ELECTRO-PLASTICS, INC.

subsidiary of ICORE INDUSTRIES

Electro-Plastics offers a complete versatile series of air core inductors designed for RF transmission, or other equipment requiring high Q factors in the range from 100 to 500. Standard coils are available for prototype, production, or test use. These coils may be used for pi output circuits, conventional LC output circuits, interstage and oscillator circuits. All Air Dux coils are constructed of tinned wire wound on large low-loss polystyrene rods for the highest mechanical strength and lowest electrical losses.

DUX is a trade name synonymous with quality. Workmanship and materials set the highest standards in the industry. Coils are free of defects or ICORE will replace free of charge.

DUX STICK COILS (T SERIES)

1/2 to 3" diameter tinned copper stick coils are available in various TPI (turns per inch), wire sizes and lengths. 4", 5" and 6" diameter coils, as well as silver plated coils, are available on special order.

PRECUT PI DUX®

1/2 to 3" diameter precut coils with mounting plate for direct use in pi networks. Each coil has inductance of 18 micro henries. Alternate turns provided for ease of tapping. Catalog numbers 106A, 1014A, 1212A, 1411A, 1609A, 2007A, 2008A.

WIDER-PITCH PI DUX

1/2 to 3" diameter precut coils are similar to standard pi dux except that each coil has two different pitches. The reduced inductance per turn and wider pitch facilitates the tapping of low inductances. The vari-pitch constructions provide a higher Q due to space factor. Catalog numbers — 820D10, 1212D6, 1608D6, 2008D5, 2008D4.

SERIES PI DUX

500 and 1000 watt pi dux assemblies are compact yet conservatively rated. The high frequency coil sections are silver plated for high circuit efficiency. A complete technical sheet is included with each assembly. Catalog numbers — 195-1 (500 watt); 195-2 (1000 watt).

DUX BALUN

These coils match impedance in both transmitters and receivers, without adjustment, from 10 ohms to 80 meters. Also match 75 ohms unbalanced to 300 ohms, or 75 ohms balanced. Easily adaptable outputs from transmitters with power up to 50 watts if SWR is held low.

No. B2009—One balun coil (two required) with plastic mounting strips, insulator and hardware.

No. MB2009—Metal mounting plate with plastic terminal plate and hardware (less coax connector).

DUX COIL CLIPS

Dux coil clips permit convenient tapping of coils and rapid movement of coils from turn to turn, where soldering is undesirable. Because of large gasprayer area, clips will not slip. Special solder hole permits fast soldering of leads.

	1-24	Price 25 Pack	100-999
No. CC-A WG wire sizes #22-14	.12 ea.	\$ 2.75 /pk.	\$ 9.80 /C
No. CC-B WG wire sizes #12- 8	.12 ea.	2.75 /pk.	9.80 /C

CUSTOM COILS

Dux coils can be designed to specification for commercial, industrial, and military applications with special indenting, tapping, mounting brackets, pre-attached leads. For quotations and applications assistance, submit specifications and requirements. Air dux - High Temperature use Lexan support rods and mounting plates, allowing for operation at temperatures up to

air dux®

AIR WOUND COILS

SUGGESTED NET RESALE PRICES

Cat. #	Dia.	TPI	Wire Size (AWG)	Length of Coil (Inches)	Prices	
					1-49	50-249
195-1	3	—	—	—	\$12.00	\$ —
195-2	3	—	—	—	17.00	—
404 T	1/2	4	18	2	.50	.43
406 T	1/2	6	18	2	.50	.43
408 T	1/2	8	18	2	.50	.43
410 T	1/2	10	18	2	.55	.47
416 T	1/2	16	20	2	.55	.47
432 T	1/2	32	24	2	.55	.47
504 T	5/8	4	16	2	.60	.51
506 T	5/8	6	18	2	.60	.51
508 T	5/8	8	18	2	.60	.51
510 T	5/8	10	18	2	.60	.51
516 T	5/8	16	20	2	.60	.51
532 T	5/8	32	24	2	.60	.51
604 T	3/4	4	16	2	.60	.51
606 T	3/4	6	18	2	.65	.55
608 T	3/4	8	18	2	.65	.55
610 T	3/4	10	18	2	.70	.60
616 T	3/4	16	20	2	.70	.60
632 T	3/4	32	24	2	.70	.60
804 T	1	4	16	3	.75	.63
806 T	1	6	18	3	.80	.68
808 T	1	8	18	3	.80	.68
810 T	1	10	18	3	.80	.68
816 A	1	16	18	3 3/4	1.75	—
816 T	1	16	20	3	.85	.72
820 D10	1	20 & 10	18	3 3/4	2.15	—
832 T	1	32	24	3	.85	.72
					1-24	25-99
1004 T	1 1/4	4	14	10	2.05	1.75
1006 T	1 1/4	6	14	10	2.05	1.75
1008 T	1 1/4	8	16	10	2.10	1.75
1010 T	1 1/4	10	18	10	2.10	1.75
1014 A	1 1/4	14	18	2 3/4	1.95	—
1016 T	1 1/4	16	20	10	2.15	1.83
1032 T	1 1/4	32	24	10	2.20	1.87
1204 T	1 1/2	4	14	10	2.20	1.87
1206 T	1 1/2	6	14	10	2.35	2.00
1208 T	1 1/2	8	16	10	2.35	2.00
1210 T	1 1/2	10	18	10	2.40	2.04
1212 A	1 1/2	12	16	2 3/4	2.15	—
1212 D6	1 1/2	12 & 6	14	3 1/4	2.80	—
1216 T	1 1/2	16	20	10	2.40	2.04
1232 T	1 1/2	32	24	10	2.40	2.04
1404 T	1 3/4	4	14	10	2.50	2.13
1406 T	1 3/4	6	14	10	2.55	2.17
1408 T	1 3/4	8	14	10	2.55	2.17
1410 T	1 3/4	10	16	10	2.60	2.21
1411 A	1 3/4	11	14	2 3/4	2.45	—
1416 T	1 3/4	16	18	10	2.60	2.21
1432 T	1 3/4	32	24	10	2.70	2.30
1604 T	2	4	12	10	2.35	2.00
1606 T	2	6	14	10	2.35	2.00
1608 D6	2	8 & 6	12	4 1/4	3.75	—
1608 T	2	8	14	10	2.35	2.00
1609 A	2	9	14	3	2.75	—
1610 T	2	10	16	10	2.35	2.00
1616 T	2	16	18	10	2.70	2.30
2004 T	2 1/2	4	12	10	2.80	2.38
2006 T	2 1/2	6	12	10	2.90	2.47
2007 T	2 1/2	7	12	3 1/4	3.40	—
2008 D5	2 1/2	8 & 5	12	3 3/4	4.80	—
2008 T	2 1/2	8	12	10	2.90	2.47
2010 T	2 1/2	10	16	10	3.25	2.76
2404 T	3	4	10	10	4.55	3.87
2406 A	3	6	10	3 3/4	4.35	—
2406 T	3	6	14	10	4.55	3.87
2408 D4	3	8 & 4	10	3 3/4	5.75	—
2408 T	3	8	14	10	4.55	3.87
2410 T	3	10	14	10	4.55	3.87
B2009	2 1/2	4 1/2	20	5 1/4	6.30	—
MB2009 (Mounting Plate)					3.20	—

Prices subject to change without notice.



280°F (140°C) before distortion, with a Q factor comparable to coils wound on polystyrene rods. These coils are applicable to high temperature environments or where heat from surrounding equipment must be considered. Normal operating temperatures are: Polystyrene: Up to 180°F (80°C)
Lexan: Up to 280°F (140°C)

lumitronic engineering is now ICORE ELECTRO-PLASTICS, INC.



MOLDED INDUCTORS



JEFFERS inductors are for use at radio frequencies and in pulse circuitry. The listed standard inductors, in values from 0.1 μ h through 10,000 μ h, are designed to meet the requirements of MIL-C-15305 Revision C.

Important features of JEFFERS standard inductors.

- High Reliability, proven by over 157,000,000 unit test hours.
- High Q and SRF.
- Maximum protection with minimum dimension as a result of full encapsulation in a thermo-setting mineral filled plastic jacket.
- Assured uniformity of product, a result of stringent Quality Control and Inspection procedures at every production stage.

Suffix letter on part number denotes standard tolerance. J=5%, K=10%, M=20%.

These inductors, in standard tolerances, are available for immediate delivery from your local JEFFERS Distributor.

TYPE 15 — Dia. .156 $\pm$.010 - Length .375 $\pm$.010

Jeffers P/N	L μ h	Max. Oper. Temp. °C	Test Freq. (MC)	Q Min	SRF Min (MC)	DCR Max Ohms	Direct Current (MA)
4415-1M	0.15	125°	25.0	50	525	0.03	2450
4415-2M	0.22	125°	25.0	50	360	0.055	1900
4425-1M	0.33	125°	25.0	50	360	0.075	1410
4425-2M	0.47	125°	25.0	55	310	0.11	1225
4425-3K	0.68	105°	25.0	55	290	0.13	1220
4425-4K	0.68	105°	25.0	55	265	0.15	1100
4425-5K	0.82	125°	25.0	55	245	0.21	900
4425-6K	1.00	125°	25.0	55	220	0.29	830
4425-7K	1.20	125°	7.9	33	195	0.39	650
4425-8K	1.50	125°	7.9	33	180	0.49	600
4425-9K	1.80	125°	7.9	33	160	0.66	525
4425-10K	2.20	125°	7.9	33	145	0.94	435
4425-11K	2.70	125°	7.9	33	130	1.15	385
4425-12K	3.30	125°	7.9	33	115	1.90	300
4425-13K	3.90	125°	7.9	33	105	2.20	280
4425-14K	4.70	125°	7.9	33	100	2.50	260
4435-1K	5.60	125°	7.9	50	65	0.32	750
4435-2K	6.80	125°	7.9	50	60	0.46	600
4445-1K	8.20	125°	7.9	55	55	0.61	545
4445-2K	10.0	125°	7.9	60	49	0.90	445
4445-3K	12.0	125°	2.5	70	44	1.10	404
4445-4K	15.0	125°	2.5	70	40	1.40	370
4445-5J	18.0	125°	2.5	75	35	2.20	280
4445-6J	20.0	125°	2.5	80	34	2.30	275
4445-7J	22.0	125°	2.5	80	32	2.50	265
4455-1J	24.0	125°	2.5	65	27	2.20	265
4455-2J	27.0	125°	2.5	65	26	2.50	260
4465-1J	30.0	125°	2.5	70	22	2.80	255
4465-2J	33.0	125°	2.5	70	21	3.00	250
1315-1J	36.0	105°	2.5	60	15.5	2.50	180
1315-2J	38.0	105°	2.5	60	14.5	2.60	176
1315-3J	43.0	105°	2.5	60	13.7	2.70	172
1315-4J	47.0	105°	2.5	60	13.0	2.75	170
1315-5J	51.0	105°	2.5	55	12.7	3.00	167
1315-6J	56.0	105°	2.5	55	12.0	3.00	164
1315-7J	62.0	105°	2.5	55	11.5	3.15	160
1315-8J	68.0	105°	2.5	55	11.0	3.30	156
1315-9J	75.0	105°	2.5	55	10.5	3.45	147
1315-10J	82.0	105°	2.5	50	10.3	3.90	143
1315-11J	91.0	105°	2.5	50	10.0	4.30	136
1315-12J	100.0	105°	2.5	50	9.5	4.50	133
1315-13J	110.0	105°	.790	65	8.9	4.90	128
1315-14J	120.0	105°	.790	65	8.7	5.20	124
1315-15J	130.0	105°	.790	65	8.5	5.45	121
1315-16J	150.0	105°	.790	65	8.0	6.05	114
1315-17J	160.0	105°	.790	65	7.5	6.40	111
1315-18J	180.0	105°	.790	65	7.0	6.75	108
1315-19J	200.0	105°	.790	65	6.5	7.10	106
1315-20J	220.0	105°	.790	65	6.2	7.45	103
1315-21J	240.0	105°	.790	65	5.9	7.80	101

0.15 Thru 33.0 μ meet requirements of MS18130. 36.0 Thru 240.0 μ meet requirements of MS90538.

TYPE 19 — Dia. .190 $\pm$.010 - Length .440 $\pm$.010

Jeffers P/N	L μ h	Max. Oper. Temp. °C	Test Freq. (MC)	Q Min	SRF Min (MC)	DCR Max Ohms	Direct Current (MA)
4411-1M	0.15	125°	25.0	50	510	0.030	3000
4411-2M	0.22	125°	25.0	50	415	0.035	2940
4411-3M	0.33	125°	25.0	50	350	0.065	2020
4411-4M	0.47	125°	25.0	50	300	0.085	1740
4411-5K	0.56	125°	25.0	50	270	0.125	1450
4411-6K	0.68	125°	25.0	45	250	0.150	1300
4411-7K	0.82	125°	25.0	40	210	0.205	1100
4411-8K	1.00	125°	25.0	40	200	0.290	930
4411-9K	1.20	125°	7.9	30	180	0.400	785
4411-10K	1.50	125°	7.9	30	175	0.485	715
4411-11K	1.80	125°	7.9	30	150	0.740	580
4411-12K	2.20	125°	7.9	30	140	0.970	505
4411-13K	2.70	125°	7.9	30	120	1.200	460
4421-1K	3.30	105°	7.9	30	70	0.140	1350
4421-2K	3.90	105°	7.9	30	65	0.155	1250
4421-3K	4.70	105°	7.9	30	60	0.210	1100
4421-4K	5.60	105°	7.9	30	50	0.280	935
4421-5K	6.80	105°	7.9	30	50	0.375	810
4421-6K	8.20	105°	7.9	30	48	0.440	750
4421-7K	10.0	105°	7.9	30	42	0.600	640
4421-8K	12.0	105°	2.5	50	36	1.000	490
4421-9K	15.0	105°	2.5	55	30	1.200	460
4421-10K	18.0	105°	2.5	60	30	1.350	360
4421-11K	22.0	105°	2.5	60	24	2.200	305
4421-12K	27.0	105°	2.5	65	22	2.750	300
1331-21J	270.0	105°	.790	70	5.6	8.2	110
1331-22J	300.0	105°	.790	70	5.3	8.7	107
1331-23J	330.0	105°	.790	70	5.0	9.1	105
1331-24J	360.0	105°	.790	70	4.7	9.5	102
1331-25J	390.0	105°	.790	70	4.5	10.0	100
1331-26J	430.0	105°	.790	70	4.3	10.6	97
1331-27J	470.0	105°	.790	70	4.0	11.1	95
1331-28J	510.0	105°	.790	70	3.8	11.6	93
1331-29J	560.0	105°	.790	70	3.6	12.3	91
1331-30J	620.0	105°	.790	70	3.5	13.7	88
1331-31J	680.0	105°	.790	70	3.6	13.7	85
1331-32J	750.0	105°	.790	70	3.5	14.4	83
1331-33J	820.0	105°	.790	70	3.3	15.1	81
1331-34J	910.0	105°	.790	65	3.1	15.8	79
1331-35J	1000.0	105°	.790	65	3.0	16.5	78

0.15 Thru 27.0 μ meet requirements of MS75008 — 27.0 Thru 1000.0 μ meet requirements of MS90538.

TYPE 09 — Dia. .095 $\pm$.005 - Length .250 $\pm$.010

Jeffers P/N	L μ h	Max. Oper. Temp. °C	Test Freq. (MC)	Q Min	SRF Min (MC)	DCR Max Ohms	Direct Current (MA)
4416-1K	0.10	125°	25.0	34	680	0.08	1315
4416-2K	0.12	125°	25.0	34	640	0.09	1240
4416-3K	0.15	125°	25.0	34	600	0.10	1170
4416-4K	0.18	125°	25.0	34	550	0.12	1070
4416-5K	0.22	125°	25.0	32	510	0.14	990
4416-6K	0.27	125°	25.0	30	460	0.16	925
4416-7K	0.33	125°	25.0	28	410	0.22	790
4426-1K	0.39	125°	25.0	35	355	0.30	675
4426-2K	0.47	125°	25.0	35	325	0.34	635
4426-3K	0.56	125°	25.0	34	310	0.40	585
4426-4K	0.68	125°	25.0	33	280	0.54	500
4426-5K	0.82	125°	25.0	32	260	0.63	465
4426-6K	1.00	125°	25.0	32	240	0.74	430
4436-1K	1.20	105°	7.9	32	150	0.18	875
4436-2K	1.50	105°	7.9	32	140	0.22	790
4436-3K	1.80	105°	7.9	32	125	0.28	700
4436-4K	2.20	105°	7.9	32	115	0.38	600
4436-5K	2.70	105°	7.9	40	100	0.55	500
4436-6K	3.30	105°	7.9	45	90	0.80	415
4436-7K	3.90	105°	7.9	45	82	1.00	370
4436-8K	4.70	105°	7.9	45	75	1.20	340
4446-1K	5.60	105°	7.9	50	67	1.50	300
4446-2K	6.80	105°	7.9	50	60	1.80	275
4446-3K	8.20	105°	7.9	60	55	2.40	240
4446-4K	10.0	105°	7.9	60	50	3.10	210
1316-1K	12.0	105°	2.5	40	40	2.40	240
1316-2K	15.0	105°	2.5	40	36	2.75	225
1316-3K	18.0	105°	2.5	50	32	3.00	215
1316-4K	22.0	105°	2.5	50	28	3.30	205
1316-5K	27.0	105°	2.5	50	24	3.60	195
1326-1K	33.0	105°	2.5	45	29	2.80	225
1326-2K	39.0	105°	2.5	45	26	3.10	210
1326-3K	47.0	105°	2.5	45	24	4.30	180
1326-4K	56.0	105°	2.5	45	22	5.00	160
1326-5K	68.0	105°	2.5	50	19	6.00	152
1326-6K	82.0	105°	2.5	50	17	6.70	144
1326-7K	100.0	105°	2.5	50	14	7.50	135

SECTION 1800

SPEER CARBON COMPANY, A DIVISION OF AIR REDUCTION CO., INC.



MOLDED INDUCTORS

TYPE 22 — Dia. .220 ± .010 — Length .560 ± .010

Jeffers P/N	L μ h	Max. Oper. Temp. °C	Test Freq. (MC)	Q Min	SRF Min (MC)	DCR Max Ohms	Direct Current (MA)
4412-1K	0.47	125°	25.0	65	300	0.06	1970
4412-2K	0.56	125°	25.0	65	270	0.08	1850
4412-3K	0.68	125°	25.0	65	240	0.10	1750
4412-4K	0.82	125°	25.0	65	220	0.11	1520
4412-5K	1.00	125°	25.0	65	200	0.14	1290
4412-6K	1.20	125°	7.9	40	180	0.19	1120
4412-7K	1.50	125°	7.9	40	160	0.28	925
4412-8K	1.80	125°	7.9	40	150	0.37	790
4412-9K	2.20	125°	7.9	40	135	0.50	680
4412-10K	2.70	125°	7.9	40	120	0.65	600
4412-11K	3.30	125°	7.9	40	105	1.00	480
4412-12K	3.90	125°	7.9	40	100	1.20	440
4412-13K	4.70	125°	7.9	40	90	1.80	360
4422-1K	5.60	125°	7.9	35	55	0.13	1340
4422-2K	6.80	125°	7.9	35	50	0.20	1080
4422-3K	8.20	125°	7.9	35	44	0.22	1030
4422-4K	10.0	125°	7.9	35	42	0.26	950
4422-5K	12.0	125°	2.5	45	34	0.45	720
4422-6K	15.0	125°	2.5	45	32	0.52	670
4422-7K	18.0	125°	2.5	50	28	0.70	580
4422-8K	22.0	125°	2.5	60	24	1.00	480
4422-9K	27.0	125°	2.5	65	22	1.30	420
4422-10K	33.0	125°	2.5	65	20	1.50	390
4422-11K	39.0	125°	2.5	70	18	2.00	340
312-20J	1100	105°	.250	65	2.8	21.0	78
312-21J	1200	105°	.250	65	2.7	22.0	76
312-22J	1300	105°	.250	65	2.6	23.0	75
312-23J	1500	105°	.250	70	2.5	25.0	72
312-25J	1800	105°	.250	70	2.4	26.0	70
312-24J	1600	105°	.250	70	2.3	28.0	68
312-26J	2000	105°	.250	70	2.2	29.0	67
312-27J	2200	105°	.250	75	2.1	30.0	66
312-28J	2400	105°	.250	75	2.0	31.0	64
312-29J	2700	105°	.250	75	1.9	33.0	62
312-30J	3000	105°	.250	75	1.8	35.0	61
312-31J	3300	105°	.250	75	1.7	38.0	58
312-32J	3600	105°	.250	75	1.6	40.0	57

Thru 39.0 μ h meet requirements of MS90542 — 1100 Thru 3600 μ h meet requirements of MS90540.

TYPE 24 — Dia. .240 ± .010 — Length .740 ± .010

Jeffers P/N	L μ h	Max. Oper. Temp. °C	Test Freq. (MC)	Q Min	SRF Min (MC)	DCR Max Ohms	Direct Current (MA)
313-20J	3900	105°	.250	80	1.45	44	61
313-21J	4300	105°	.250	80	1.40	46	59
313-22J	4700	105°	.250	80	1.35	48	58
313-23J	5100	105°	.250	80	1.30	50	57
313-24J	5600	105°	.250	80	1.25	53	56
313-25J	6200	105°	.250	80	1.20	56	54
313-26J	6800	105°	.250	80	1.15	59	52
313-27J	7500	105°	.250	80	1.10	62	51
313-28J	8200	105°	.250	80	1.05	65	50
313-29J	9100	105°	.250	80	1.00	68	49
313-30J	10000	105°	.250	80	0.95	72	47

Thru 10,000 μ h meet requirements of MS90541.

TYPE 25 — Dia. .250 ± .010 — Length .560 ± .010

Jeffers P/N	L μ h	Max. Oper. Temp. °C	Test Freq. (MC)	Q Min	SRF Min (MC)	DCR Max Ohms at 25°C	Direct Current (MA)
25-A-470K	47	125°	2.5	18	13.5	5.9	195
25-A-560K	56	125°	2.5	18	13.0	6.4	185
25-A-680K	68	125°	2.5	70	13.0	3.3	255
25-A-820K	82	125°	2.5	65	11.7	3.5	245
25-A-101K	100	125°	2.5	65	10.7	3.8	235
25-A-121K	120	125°	.790	75	9.3	4.7	215
25-A-151K	150	125°	.790	75	8.3	5.3	200

Thru 150 μ h meet the requirements of MS75052.

TYPE 28 — Dia. .280 ± .010 — Length .940 ± .010

Jeffers P/N	L μ h	Max. Oper. Temp. °C	Test Freq. (MC)	Q Min	SRF Min (MC)	DCR Max Ohms	Direct Current (MA)
4414-1K	1.20	125°	7.9	60	170	0.075	2400
4414-2K	1.20	125°	7.9	60	170	0.075	2200
4414-3K	1.80	125°	7.9	60	140	0.135	1780
4414-4K	2.20	125°	7.9	60	125	0.160	1650
4414-5K	2.70	125°	7.9	60	115	0.220	1415
4414-6K	3.30	125°	7.9	60	100	0.305	1195
4414-7K	3.90	125°	7.9	60	95	0.450	955
4414-8K	4.70	125°	7.9	60	90	0.560	880
4414-9K	5.60	125°	7.9	60	80	0.745	775
4414-10K	6.80	125°	7.9	60	75	1.050	660
4414-11K	8.20	125°	7.9	60	68	1.400	610
4414-12K	10.0	125°	7.9	60	60	1.900	520
4414-13K	12.0	125°	2.5	40	53	2.650	410
4414-14K	15.0	125°	2.5	40	50	3.250	370
4414-15K	18.0	125°	2.5	40	45	4.150	315
4424-1K	22.0	125°	2.5	50	24	0.295	1210
4424-2K	27.0	125°	2.5	50	24	0.295	1115
4424-3K	33.0	125°	2.5	60	19	0.550	865
4424-4K	39.0	125°	2.5	55	18	0.650	850
4424-5K	47.0	125°	2.5	65	16	1.000	650
4424-6K	56.0	125°	2.5	65	14	1.150	610
4424-7K	68.0	125°	2.5	75	13	1.850	475
4424-8K	82.0	125°	2.5	75	12	2.100	450
4424-9K	100.0	125°	2.5	75	12	2.500	420
4424-10K	120.0	125°	.790	95	10	4.100	350

1.20 Thru 120.0 μ h meet the requirements of MS91189.

TYPE 31 — Dia. .310 ± .010 — Length .560 ± .010

Jeffers P/N	L μ h	Max. Oper. Temp. °C	Test Freq. (MC)	Q Min	SRF Min (MC)	DCR Max Ohms at 25°C	Direct Current (MA)
31-A-181K	180	125°	.790	80	6.0	5.5	225
31-A-221K	220	125°	.790	80	5.5	5.9	220
31-A-271K	270	125°	.790	80	5.1	6.6	210
31-A-331K	330	125°	.790	75	4.2	7.8	185
31-A-391K	390	125°	.790	75	3.9	8.7	180

180 Thru 390 μ h meet the requirements of MS75053.

TYPE 37 — Dia. .375 ± .010 — Length .625 ± .010

Jeffers P/N	L μ h	Max. Oper. Temp. °C	Test Freq. (MC)	Q Min	SRF Min (MC)	DCR Max Ohms at 25°C	Direct Current (MA)
37-A-471K	470	125°	.790	80	3.7	9.0	190
37-A-561K	560	125°	.790	80	3.5	10.0	180
37-A-681K	680	125°	.790	75	3.2	11.2	170
37-A-821K	820	125°	.790	75	3.0	13.0	155
37-A-102K	1000	125°	.790	70	2.7	14.5	145

470 Thru 1000 meet the requirements of MS75054.

TYPE 46 — Dia. .468 ± .010 — Length .687 ± .010

Jeffers P/N	L μ h	Max. Oper. Temp. °C	Test Freq. (MC)	Q Min	SRF Min (MC)	DCR Max Ohms at 25°C	Direct Current (MA)
46-A-152K	1500	125°	.250	85	2.2	22.0	127
46-A-222K	2200	125°	.250	85	1.8	27.0	115
46-A-512K	2700	125°	.250	85	1.6	32.0	105
46-A-512K	5100	125°	.250	70	1.0	66.0	73
46-A-103K	10000	125°	.250	70	0.8	70.0	71

1500 Thru 10,000 μ h meet the requirements of MS75055.

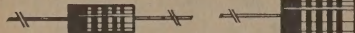
INDUCTOR LEAD MATERIAL

Standard All leads are 1 $\frac{1}{16}$ " minimum length.

The leads of standard sizes cataloged, are 99.9% oxygen free copper. Before manufacturing, the coating is pure tin hot dipped a minimum thickness of 0.0006 inch. After manufacturing into molded inductors the leads are hot dip coated with 60/40 lead solder with a minimum thickness of 0.0006 inch.

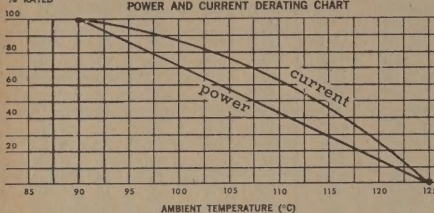


MILLER MOLDED COILS CONFORM TO MIL-C-15305C



This group of molded chokes affords the design engineer a wide range of inductance values, current ratings, and sizes which will fulfill most normal design requirements. Manufactured under strict Quality Control supervision and tested in accordance with MIL Standard 105 the user is guaranteed uniformity and reliability in every coil. This series conforms to MIL-C-15305, Grade and Class 7.

% RATED



Tabulated currents in milliamperes are maximum values based on a temperature rise not to exceed 35° C., nor wattage dissipation in excess of listed values.

"MICRO MITE" SERIES 9210

MOLDED R. F. CHOKES

Mold Size: .155 ± .010 diameter, .375 ± .010 length. Leads: AWG #22 TCW; 1.44 ± .125 length. Power Rating: .22 Watt Max. at 90° C. *Current based on (1) Temperature rise not to exceed 35° C at 90° ambient, (2) Overload not to exceed 1 1/2 times rated current.

PART No.	L. uH.	Q MIN.	TEST FREQ. (MHz)	Fo. MIN. (MHz)	Rdc. MAX.	*Ma. MAX.	CORE MTL.	NET PRICE
9210-54	36 ± .5%	60	2.5	16.0	2.50	250	IRON	.90
9210-56	39 ± .5%	60	2.5	15.0	2.60	245	IRON	.90
9210-58	43 ± .5%	60	2.5	13.7	2.70	242	IRON	.90
9210-60	47 ± .5%	65	2.5	10.5	2.75	240	IRON	.90
9210-62	51 ± .5%	55	2.5	12.7	2.85	235	IRON	.90
9210-64	56 ± .5%	55	2.5	10.2	3.00	230	IRON	.90
9210-66	62 ± .5%	55	2.5	11.0	3.15	225	IRON	.90
9210-68	68 ± .5%	55	2.5	11.0	3.30	220	IRON	.90
9210-70	75 ± .5%	50	2.5	10.5	3.40	205	IRON	.90
9210-72	82 ± .5%	50	2.5	10.3	3.90	200	IRON	.90
9210-74	91 ± .5%	50	2.5	10.0	4.30	190	IRON	.90
9210-76	100 ± .5%	60	2.5	8.5	4.50	185	IRON	.99
9210-78	110 ± .5%	60	2.5	7.90	8.5	180	IRON	.99
9210-80	120 ± .5%	65	2.5	7.90	8.5	175	IRON	.99
9210-82	130 ± .5%	65	2.5	7.90	8.5	170	IRON	.99
9210-84	150 ± .5%	65	2.5	7.90	8.0	165	IRON	.99
9210-86	160 ± .5%	65	2.5	7.90	8.0	160	IRON	.99
9210-88	180 ± .5%	65	2.5	7.90	6.5	150	IRON	.99
9210-90	200 ± .5%	65	2.5	7.90	6.5	145	IRON	.99
9210-92	220 ± .5%	65	2.5	7.90	6.0	140	IRON	.99
9210-94	240 ± .5%	65	2.5	7.90	6.0	140	IRON	.99

"MICRO MITE" SERIES 9220

MOLDED R. F. CHOKES

*Current based on (1) Temperature rise not to exceed 35° C at 90° ambient, (2) Overload not to exceed 1 1/2 times rated current.

MOLD SIZE	MOLD DIAMETER	MOLD LENGTH	LEAD SIZE	LEAD LENGTH	MAX. WATT AT 90° C.
A	.190 ± .010	.440 ± .010	AWG #22	1.44 ± .125	.25
B	.215 ± .010	.560 ± .010	AWG #21	1.44 ± .125	.40
C	.240 ± .010	.740 ± .010	AWG #20	1.44 ± .125	.45

PART No.	L. uH.	Q MIN.	TEST FREQ. (MHz)	Fo. MIN. (MHz)	Rdc. MAX.	*Ma. MAX.	MOLD SIZE	CORE MTL.	NET PRICE
9220-00	270 ± .5%	65	790	5.3	8.0	150	A	IRON	\$1.05
9220-02	300 ± .5%	65	790	5.0	8.8	145	A	IRON	1.05
9220-04	330 ± .5%	65	790	5.0	8.9	142	A	IRON	1.05
9220-06	350 ± .5%	65	790	4.7	9.6	137	A	IRON	1.05
9220-08	390 ± .5%	65	790	4.5	9.9	135	A	IRON	1.05
9220-10	430 ± .5%	65	790	4.3	10.4	131	A	IRON	1.05
9220-12	470 ± .5%	65	790	4.0	12.0	128	A	IRON	1.05
9220-14	500 ± .5%	65	790	3.7	11.3	126	A	IRON	1.05
9220-16	560 ± .5%	60	790	3.5	11.8	123	A	IRON	1.05
9220-18	600 ± .5%	60	790	3.2	12.5	120	A	IRON	1.14
9220-20	680 ± .5%	60	790	3.3	13.5	115	A	IRON	1.14
9220-22	750 ± .5%	60	790	3.3	14.0	113	A	IRON	1.14
9220-24	820 ± .5%	60	790	3.0	15.0	109	A	IRON	1.14
9220-26	910 ± .5%	60	790	3.0	15.5	107	A	IRON	1.14
9220-28	1000 ± .5%	60	790	2.8	16.5	106	A	IRON	1.14
9220-30	1100 ± .5%	60	250	2.7	21.0	117	B	IRON	1.35
9220-32	1200 ± .5%	60	250	2.7	22.0	114	B	IRON	1.35
9220-34	1300 ± .5%	60	250	2.6	22.5	113	B	IRON	1.35
9220-36	1500 ± .5%	65	250	2.3	24.5	108	B	IRON	1.35
9220-38	1600 ± .5%	65	250	2.2	25.7	106	B	IRON	1.35
9220-40	1800 ± .5%	65	250	2.2	27.0	102	B	IRON	1.35
9220-42	2000 ± .5%	65	250	2.0	29.0	99	B	IRON	1.35
9220-44	2200 ± .5%	70	250	2.0	30.0	98	B	IRON	1.35
9220-46	2400 ± .5%	70	250	1.9	31.5	96	B	IRON	1.35
9220-48	2700 ± .5%	70	250	1.9	33.0	93	B	IRON	1.35
9220-50	3000 ± .5%	70	250	1.8	35.0	91	B	IRON	1.35
9220-52	3300 ± .5%	70	250	1.8	37.8	87	B	IRON	1.35
9220-54	3600 ± .5%	70	250	1.5	39.3	85	B	IRON	1.35
9220-56	3900 ± .5%	80	250	1.5	43.0	86	C	IRON	1.50
9220-58	4300 ± .5%	80	250	1.5	45.0	83	C	IRON	1.50
9220-60	4700 ± .5%	80	250	1.4	47.0	83	C	IRON	1.50
9220-62	5000 ± .5%	80	250	1.3	48.3	82	C	IRON	1.50
9220-64	5600 ± .5%	80	250	1.3	52.0	79	C	IRON	1.50
9220-66	6200 ± .5%	80	250	1.2	54.0	77	C	IRON	1.50
9220-68	6800 ± .5%	80	250	1.2	56.5	75	C	IRON	1.50
9220-70	7500 ± .5%	80	250	1.2	59.5	73	C	IRON	1.50
9220-72	8200 ± .5%	80	250	1.1	62.5	72	C	IRON	1.50
9220-74	9100 ± .5%	80	250	1.0	65.0	70	C	IRON	1.50
9220-76	10000 ± .5%	80	250	1.0	70.0	68	C	IRON	1.50

MILLER SERIES 9230

Mold Size: .095 ± .010 Diameter, .250 ± .010 length. Leads AWG #24 TCW; 1.500 ± .125 length. Power Rating: 17 Watt Max. at 90° C. For .00 thru .70 Watt Max. at 90° C. For .72 thru .92. *Current based on (1) Temperature rise not to exceed 35° C at 90° C ambient, (2) Overload not to exceed 1 1/2 times rated current.

PART No.	L. uH.	Q MIN.	TEST FREQ. (MHz)	Fo. MIN. (MHz)	Rdc. MAX.	*Ma. MAX.	CORE MTL.	NET PRICE
9230-94	.10 ± .10%	40	25.0	690	.07	1100	PHENOLIC	\$1.02
9230-96	.12 ± .10%	40	25.0	650	.08	1100	PHENOLIC	1.02
9230-98	.15 ± .10%	38	25.0	600	.10	1100	PHENOLIC	1.02
9230-02	.18 ± .10%	35	25.0	550	.12	1010	PHENOLIC	1.02
9230-04	.22 ± .10%	33	25.0	510	.14	930	PHENOLIC	1.02
9230-06	.25 ± .10%	33	25.0	470	.16	875	PHENOLIC	1.02
9230-08	.33 ± .10%	30	25.0	410	.20	780	PHENOLIC	1.02
9230-10	.37 ± .10%	30	25.0	380	.25	715	PHENOLIC	1.02
9230-12	.47 ± .10%	30	25.0	340	.30	590	PHENOLIC	1.02
9230-14	.56 ± .10%	30	25.0	300	.50	490	PHENOLIC	1.02
9230-16	.68 ± .10%	28	25.0	275	.60	450	PHENOLIC	1.02
9230-18	.82 ± .10%	28	25.0	250	.85	380	PHENOLIC	1.02
9230-20	1.00 ± .10%	25	25.0	230	1.00	350	PHENOLIC	1.02
9230-22	1.20 ± .10%	25	25.0	210	1.20	315	IRON	1.08
9230-24	1.50 ± .10%	28	7.9	140	.22	745	IRON	1.08
9230-26	1.80 ± .10%	30	7.9	125	.30	640	IRON	1.08
9230-28	2.20 ± .10%	30	7.9	115	.40	550	IRON	1.08
9230-30	2.70 ± .10%	37	7.9	100	.50	495	IRON	1.08
9230-32	3.30 ± .10%	45	7.9	90	.85	380	IRON	1.08
9230-34	3.90 ± .10%	45	7.9	82	1.00	350	IRON	1.08
9230-36	4.70 ± .10%	45	7.9	75	1.20	320	IRON	1.08
9230-38	5.60 ± .10%	45	7.9	68	1.40	280	IRON	1.22
9230-40	6.80 ± .10%	50	7.9	60	2.00	245	IRON	1.23
9230-42	8.20 ± .10%	55	7.9	55	2.70	210	IRON	1.23
9230-44	10.0 ± .10%	60	7.9	50	3.40	180	IRON	1.23
9230-46	12.0 ± .10%	65	2.5	40	2.70	210	IRON	1.32
9230-48	15.0 ± .10%	70	2.5	35	2.80	205	IRON	1.32
9230-50	18.0 ± .10%	75	2.5	32	3.2	185	IRON	1.32
9230-52	22.0 ± .10%	80	2.5	25	3.30	190	IRON	1.32
9230-54	27.0 ± .10%	85	2.5	22	3.50	185	IRON	1.32
9230-56	33.0 ± .10%	90	2.5	20	3.80	187	FERRITE	1.41
9230-58	39.0 ± .10%	95	2.5	22	3.60	180	FERRITE	1.63
9230-60	47.0 ± .10%	100	2.5	20	4.50	165	FERRITE	1.65
9230-62	56.0 ± .10%	105	2.5	18	5.70	150	FERRITE	1.65
9230-64	68.0 ± .10%	110	2.5	15	6.70	135	FERRITE	1.65
9230-66	82.0 ± .10%	115	2.5	13	7.40	120	FERRITE	1.65
9230-68	100.0 ± .10%	120	2.5	13	8.00	125	FERRITE	1.65
9230-70	120.0 ± .10%	130	.79	12	13.00	97	FERRITE	2.25
9230-72	150.0 ± .10%	140	.79	10	15.00	85	FERRITE	2.25
9230-74	180.0 ± .10%	150	.79	10	17.00	79	FERRITE	2.25
9230-76	220.0 ± .10%	160	.79	9	21.00	73	FERRITE	2.25
9230-78	270.0 ± .10%	170	.79	8	25.00	65	FERRITE	2.25
9230-80	330.0 ± .10%	180	.79	7	28.00	62	FERRITE	2.25
9230-82	390.0 ± .10%	190	.79	6.5	35.00	55	FERRITE	2.25
9230-84	470.0 ± .10%	200	.79	6	42.00	50	FERRITE	2.25
9230-86	560.0 ± .10%	210	.79	5	46.00	48	FERRITE	2.25
9230-88	680.0 ± .10%	220	.79	4.5	60.00	42	FERRITE	2.25
9230-90	820.0 ± .10%	230	.79	3.8	65.00	40	FERRITE	2.25
9230-92	1000.0 ± .10%	240	.79	3.4	72.00	38	FERRITE	2.25

MILLER SERIES 9240

Size: 0.157" Diameter, 0.375" Length. Inductance: 0.1 uH thru 10,000 uH (61 values). Shielding: Less than 2% coupling. Environment: Grade 1, Class B, MIL-C-15305.

*Current Based on (1) Temperature rise not to exceed 35° C at 90° C ambient, (2) Overload not to exceed 1 1/2 times rated current.

*Current required to decrease inductance 50%.

PART No.	L ± %	Q MIN.	TEST FREQ. (MHz.)	Fo. MIN. (MHz.)	Rdc. MAX.	*Ma. MAX.	*Ma. APPROX.	NET PRICE
9240-770	10. uH.	50	25	250	.015	3100	3100	\$1.74
9240-711	.12 uH.	50	25	250	.020	2650	2650	1.74
9240-701	.15 uH.	50	25	250	.025	2400	2400	1.74
9240-772	.18 uH.	50	25	250	.030	2190	2190	1.74
9240-702	.22 uH.	50	25	250	.035	2030	2030	1.74
9240-773	.27 uH.	50	25	250	.045	1790	1790	1.74
9240-703	.33 uH.	45	25	250	.075	1380	1380	1.74
9240-774	.47 uH.	45	25	250	.085	1300	1300	1.74
9240-704	.56 uH.	45	25	235	.100	1200	1200	1.74
9240-705	.68 uH.	45	25	180	.150	850	850	1.74
9240-706	.68 uH.	45	25	190	.200	850	850	1.74
9240-707	.82 uH.	45	25	180	.280	710	710	1.74
9240-708	1 uH.	45	25	180	.430	610	610	1.74
9240-709	1.2 uH.	45	7.9	145	.080	1340	1340	1.86
9240-710	1.5 uH.	45	7.9	130	.100	1200	1200	1.86
9240-711	1.8 uH.	50	7.9	120	.150	1050	1050	1.86
9240-712	2.2 uH.	50	7.9	110	.250	880	880	1.86
9240-713	2.7 uH.	50	7.9	105	.380	800	800	1.86
9240-714	3.3 uH.	50	7.9	90	.700	730	730	1.86
9240-715	3.9 uH.	50	7.9	85	.700	700	700	1.86
9240-716	4.7 uH.	55	7.9	82	.850	670	670	1.86
9240-717	5.6 uH.	55	7.9	80	.960	500	500	1.86
9240-718	6.6 uH.	55	7.9	78	1.300	450	450	1.86
9240-719	8.2 uH.	55	7.9	70	.410	410	410	1.86
9240-720	10.0 uH.	50	7.9	60	.900	400	400	1.86
9240-721	12 uH.	45	2.5	50	.950	380	380	1.86
9240-722	15 uH.	45	2.5	45	.430	420	420	1.86
9240-723	18 uH.	45	2.5	42	.850	410	410	1.86
9240-724	22 uH.	45	2.5	40	.380	380	380	1.86
9240-725	27 uH.	50	2.5	35	1.10	360	350	1.89
9240-726	33 uH.	45	2.5	33	.330	330	330	1.89
9240-727	38 uH.	45	2.5	33	.280	280	280	1.89
9240-728	47 uH.	50	2.5	27	.200	260	260	1.89
9240-729	56 uH.	50	2.5	22	.250	250	250	1.89
9240-730	68 uH.	50	2.5	20	.250	240	240	1.89
9240-731	82 uH.	50	2.5	15	.350	215	85	1.89
9240-732	100 uH.	60	7.9	10	.200	200	200	1.89
9240-733	120 uH.	60	7.9	10	.250	255	74	2.25
9240-734	150 uH.	60	7.9	8	.380	240	68	2.25
9240-735	180 uH.	60	7.9	3.20	.915	210	210	2.25
9240-736	220 uH.	60	.79	8	2.70	205	46	2.25
9240-737	270 uH.	60	.79	8	4.50	180	42	2.25
9240-738	330 uH.	60	.79	5	1.07	175	175	2.25
9240-739	390 uH.	60	.79	6	.560	190	34	2.25
9240-740	470 uH.	60	.79	6	.607	180	24	2.25
9240-741	560 uH.	60	.79	5.5	.750	160	32	2.25
9240-742	680 uH.	60	.79	5	8.50	145	30	2.25
9240-743	820 uH.	60	.79	3	12.00	135	35	2.25
9240-744	1000 uH.	65	.79	42	13.00	105	22	2.25
9240-745	1.2 mH.	40	2.5	18	.650	100	24	2.25
9240-746	1.5 mH.	50	2.5	3.8	.20	90	20	2.25
9240-747	1.8 mH.	50	2.5	3.2	.25	80	18	2.25
9240-748	2.2 mH.	50	2.5	2.5	.35	75	15	2.25
9240-749	2.7 mH.	50	2.5	2.1	.35	65	13	2.85
9240-750	3.3 mH.	45	2.5	2	.40	60	13	2.85
9240-751	3.9 mH.	45	2.5	1.8	.55	40	5	2.85
9240-752	4.7 mH.	45	2.5	1.4	.58	50	11	2.85
9240-753	5.6 mH.	45	2.5	1.3	.60	45	10	2.85
9240-754	6.6 mH.	45	2.5	1.5	.80	40	8.0	2.97
9240-755	8.2 mH.	40	2.5	1.4	1.07	40	7.0	2.97
9240-756	10.0 mH.	40	2.5	1.3	1.30	35	6.5	2.97



Miller

MIL-SPEC MOLDED CHOKES



MILLER MOLDED COILS CONFORM TO MIL-C-15305C

MILLER SERIES 9310

(MS 12225)

Mold Size: .155 ± .010 diameter; .375 ± .010 length. Leads: AWG #22 TCW; 1.437 ± .125 length. Power Rating: 1/4 Watt Max. at 90° C. *Current based on (1) Temperature rise not to exceed 35° C. at 90° ambient. (2) Overload not to exceed 1 1/2 times rated current.

PART No.	MS TYPE	L uh	Q MIN.	FREQ. (MHz)	Fo. (MHz)	Rdc. MAX.	*Ma. MAX.	CORE MTL.	NET PRICE
9310-00	18130-1	.15 ± 20%	50	25	525	.03	2450	PHENOLIC	\$.60
9310-02	18130-2	.22 ± 20%	50	25	450	.055	1900	PHENOLIC	.60
9310-04	18130-3	.31 ± 20%	45	25	370	.09	1400	PHENOLIC	.60
9310-06	18130-4	.47 ± 20%	45	25	310	.12	1225	PHENOLIC	.60
9310-07	18130-5	.56 ± 20%	50	25	290	.15	1220	PHENOLIC	.60
9310-08	18130-6	.68 ± 10%	50	25	250	.15	1100	PHENOLIC	.60
9310-10	18130-7	.82 ± 10%	50	25	220	.22	900	PHENOLIC	.60
9310-12	18130-8	1.00 ± 10%	50	25	200	.29	830	PHENOLIC	.60
9310-14	18130-9	1.20 ± 10%	33	7.9	180	.42	650	PHENOLIC	.60
9310-16	18130-10	1.50 ± 10%	33	7.9	160	.50	600	PHENOLIC	.60
9310-18	18130-11	1.80 ± 10%	33	7.9	150	.58	525	PHENOLIC	.60
9310-20	18130-12	2.20 ± 10%	33	7.9	135	.95	435	PHENOLIC	.60
9310-22	18130-13	2.70 ± 10%	33	7.9	120	1.20	385	PHENOLIC	.60
9310-24	18130-14	3.30 ± 10%	33	7.9	110	2.00	300	PHENOLIC	.60
9310-26	18130-15	3.90 ± 10%	33	7.9	100	2.30	280	PHENOLIC	.60
9310-28	18130-16	4.70 ± 10%	33	7.9	100	2.60	260	PHENOLIC	.60
9310-30	18130-17	5.60 ± 10%	45	7.9	60	3.2	750	IRON	.66
9310-32	18130-18	6.80 ± 10%	50	7.9	55	5.0	600	IRON	.66
9310-34	18130-19	8.20 ± 10%	50	7.9	50	6.0	600	IRON	.66
9310-36	18130-20	10.0 ± 10%	55	7.9	45	.90	445	IRON	.66
9310-38	18130-21	12.0 ± 10%	65	2.5	42	1.10	404	IRON	.66
9310-40	18130-22	15.0 ± 10%	75	2.5	40	1.40	370	IRON	.66
9310-42	18130-23	18.0 ± 10%	75	2.5	34	2.25	280	IRON	.66
9310-44	18130-24	22.0 ± 10%	75	2.5	30	2.60	250	IRON	.66
9310-46	18130-25	27.0 ± 10%	60	2.5	26	2.50	265	IRON	.75
9310-48	18130-26	34.0 ± 10%	60	2.5	25	2.60	260	IRON	.75
9310-50	18130-27	42.0 ± 10%	65	2.5	19	2.2	300	IRON	.75
9310-52	18130-28	33.0 ± 10%	65	2.5	19	3.00	250	IRON	.75

MILLER SERIES 9320

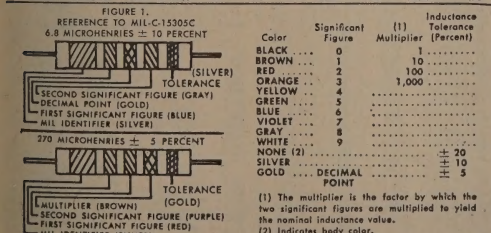
Mold Size: 0.185 ± .010 diameter; 0.437 ± .010 length. Leads: AWG #22 TCW; 1.437 ± .125 length. Power Rating: .25 Watt Max. at 90° C. *Current based on (1) Temperature rise not to exceed 35° C. at 90° ambient. (2) Overload not to exceed 1 1/2 times rated current.

PART No.	MS TYPE	L uh	Q MIN.	FREQ. (MHz)	Fo. (MHz)	Rdc. MAX.	*Ma. MAX.	CORE MTL.	NET PRICE
9320-00	75008-21	.15 ± 20%	55	25	515	.03	3000	PHENOLIC	\$.60
9320-02	75008-22	.22 ± 20%	55	25	415	.035	2800	PHENOLIC	.60
9320-04	75008-23	.31 ± 20%	55	25	350	.06	2000	PHENOLIC	.60
9320-06	75008-24	.47 ± 20%	55	25	300	.08	1700	PHENOLIC	.60
9320-07	75008-25	.56 ± 20%	55	25	270	.10	1450	PHENOLIC	.60
9320-08	75008-26	.68 ± 10%	55	25	250	.12	1300	PHENOLIC	.60
9320-09	75008-27	.82 ± 10%	55	25	220	.180	1100	PHENOLIC	.60
9320-10	75008-28	1.00 ± 10%	55	25	200	.20	1000	PHENOLIC	.60
9320-11	75008-29	1.20 ± 10%	35	7.9	180	.400	785	PHENOLIC	.60
9320-12	75008-30	1.50 ± 10%	35	7.9	170	.485	700	PHENOLIC	.60
9320-13	75008-31	1.80 ± 10%	35	7.9	150	.740	580	PHENOLIC	.60
9320-14	75008-32	2.20 ± 10%	35	7.9	140	.90	505	PHENOLIC	.60
9320-16	75008-33	2.70 ± 10%	35	7.9	120	1.10	460	PHENOLIC	.60
9320-18	75008-34	3.30 ± 10%	35	7.9	120	1.30	430	PHENOLIC	.60
9320-20	75008-35	3.90 ± 10%	35	7.9	65	.155	1250	IRON	.66
9320-22	75008-36	4.70 ± 10%	35	7.9	60	.210	1100	IRON	.66
9320-24	75008-37	5.60 ± 10%	35	7.9	60	.280	835	IRON	.66
9320-26	75008-38	6.80 ± 10%	35	7.9	50	.375	810	IRON	.66
9320-28	75008-39	8.20 ± 10%	35	7.9	48	.400	750	IRON	.66
9320-30	75008-40	10.0 ± 10%	35	7.9	42	.60	640	IRON	.66
9320-32	75008-41	12.0 ± 10%	50	2.5	36	.85	490	IRON	.66
9320-34	75008-42	15.0 ± 10%	65	2.5	30	1.10	400	IRON	.66
9320-36	75008-43	18.0 ± 10%	60	2.5	30	1.80	360	IRON	.66
9320-38	75008-44	22.0 ± 10%	60	2.5	24	.00	335	IRON	.66
9320-40	75008-45	27.0 ± 10%	65	2.5	22	2.750	300	IRON	.66

MILLER SERIES 9330

Mold Size: 0.215 ± .010 diameter; 0.560 ± .010 length. Leads: AWG #22 TCW; 1.437 ± .125 length. Power Rating: .33 Watt max. at 90° C. *Current based on (1) Temperature rise not to exceed 35° C. at 90° ambient. (2) Overload not to exceed 1 1/2 times rated current.

PART No.	MS TYPE	L uh	Q MIN.	FREQ. (MHz)	Fo. (MHz)	Rdc. MAX.	*Ma. MAX.	CORE MTL.	NET PRICE
9330-00	16222-1	.47 ± 20%	65	25	300	.06	1970	PHENOLIC	\$.66
9330-02	16222-2	.68 ± 20%	65	25	240	.08	1700	PHENOLIC	.66
9330-04	16222-3	1.00 ± 10%	65	25	200	.14	1250	PHENOLIC	.66
9330-06	16222-4	1.50 ± 10%	40	7.9	160	.28	925	PHENOLIC	.66
9330-08	16222-5	2.20 ± 10%	40	7.9	135	.50	680	PHENOLIC	.66
9330-10	16222-6	2.70 ± 10%	40	7.9	120	.50	600	PHENOLIC	.66
9330-12	16222-7	3.30 ± 10%	40	7.9	105	1.00	480	PHENOLIC	.66
9330-14	16222-8	4.00 ± 10%	40	7.9	100	1.20	440	PHENOLIC	.66
9330-16	16222-9	4.70 ± 10%	40	7.9	90	1.50	380	PHENOLIC	.66
9330-18	16222-10	5.60 ± 10%	35	7.9	55	1.3	1340	IRON	.75
9330-20	16222-11	6.80 ± 10%	35	7.9	50	1.60	1200	IRON	.75
9330-22	16222-12	8.20 ± 10%	35	7.9	44	.22	1030	IRON	.75
9330-24	16222-13	10.0 ± 10%	35	7.9	42	.26	950	IRON	.75
9330-26	16222-14	12.0 ± 10%	65	2.5	34	.45	720	IRON	.75
9330-28	16222-15	15.0 ± 10%	45	2.5	32	.52	670	IRON	.75
9330-30	16222-16	18.0 ± 10%	50	2.5	28	.70	580	IRON	.75
9330-32	16222-17	22.0 ± 10%	60	2.5	24	1.00	470	IRON	.75
9330-34	16222-18	27.0 ± 10%	60	2.5	22	1.30	420	IRON	.75
9330-36	16222-19	33.0 ± 10%	65	2.5	20	1.50	360	IRON	.75
9330-38	16222-20	39.0 ± 10%	70	2.5	18	2.00	340	IRON	.75



MILLER SERIES 9340

Mold Size: 0.280 ± .010 diameter; 0.900 ± .010 length. Leads: AWG #21 TCW; 1.437 ± .125 length. Power Rating: .50 Watt Max. at 90° C. *Current based on (1) Temperature rise not to exceed 25° C. at 90° ambient. (2) Overload not to exceed 1 1/2 times rated current.

PART No.	MS TYPE	L uh	Q MIN.	FREQ. (MHz)	Fo. (MHz)	Rdc. MAX.	*Ma. MAX.	CORE MTL.	NET PRICE
9340-00	91189-14	1.2 ± 10%	60	7.9	170	.075	2400	PHENOLIC	\$.78
9340-02	91189-15	1.5 ± 10%	60	7.9	160	.090	2150	PHENOLIC	.78
9340-04	91189-16	1.8 ± 10%	60	7.9	140	.125	1750	PHENOLIC	.78
9340-06	91189-17	2.2 ± 10%	60	7.9	125	.160	1600	PHENOLIC	.78
9340-08	91189-18	2.7 ± 10%	60	7.9	115	.220	1350	PHENOLIC	.78
9340-10	91189-19	3.3 ± 10%	60	7.9	100	.300	1150	PHENOLIC	.78
9340-12	91189-20	3.9 ± 10%	60	7.9	95	.45	955	PHENOLIC	.78
9340-14	91189-21	4.7 ± 10%	60	7.9	90	.560	860	PHENOLIC	.78
9340-16	91189-22	5.6 ± 10%	60	7.9	80	.745	745	PHENOLIC	.78
9340-18	91189-23	6.8 ± 10%	60	7.9	75	1.05	635	PHENOLIC	.78
9340-20	91189-24	8.2 ± 10%	60	7.9	68	1.4	550	PHENOLIC	.78
9340-22	91189-25	10.0 ± 10%	60	7.9	60	1.9	460	PHENOLIC	.78
9340-24	91189-26	12.0 ± 10%	40	2.5	53	2.65	395	PHENOLIC	.78
9340-26	91189-27	15.0 ± 10%	40	2.5	50	3.25	355	PHENOLIC	.78
9340-28	91189-28	18.0 ± 10%	40	2.5	45	4.15	315	PHENOLIC	.78
9340-30	91189-29	22.0 ± 10%	45	2.5	22	.350	1050	IRON	.84
9340-32	91189-30	33.0 ± 10%	60	2.5	20	.550	865	IRON	.84
9340-34	91189-31	39.0 ± 10%	55	2.5	18	.65	810	IRON	.84
9340-36	91189-32	47.0 ± 10%	65	2.5	16	1.0	640	IRON	.84
9340-38	91189-33	56.0 ± 10%	65	2.5	14	1.15	620	IRON	.84
9340-40	91189-34	68.0 ± 10%	75	2.5	13	1.85	470	IRON	.84
9340-42	91189-35	82.0 ± 10%	75	2.5	13	2.10	440	IRON	.84
9340-44	91189-36	100 ± 10%	75	2.5	12	2.50	405	IRON	.84
9340-46	91189-37	120 ± 10%	95	7.90	10	4.00	315	IRON	.84

MILLER SERIES 9350

*Current based on (1) Temperature rise not to exceed 35° C. at 90° ambient. (2) Overload not to exceed 1 1/2 times rated current.

COIL DIMENSIONS		A	B	C	D	LEAD DIMENSIONS			
DIAMETER ± .010		.250	.310	.375	.468	AWG 20, 21, 22 TCW			
LENGTH ± .010		.560	.625	.687	1.437	± .125			
MAX. WATT. AT 90° C		.30	.40	.45	.55				
		TEST		Fo.					
PART NO.	MS. TYPE	L (INCH.)	Q (FREQ. MIN.)	FREQ. (MHZ.)	RDC. MAX.	*MA. MAX.	CORE MTL.	NET PRICE	
9350-00	75052-1	.47 ± 10%	18	2.5	13.5	.5	195	A PHENOLIC	\$1.02
9350-02	75052-2	.66 ± 10%	18	2.5	11.6	.64	185	A PHENOLIC	1.02
9350-04	75052-3	.88 ± 10%	70	2.5	13	.3	255	A IRON	1.08
9350-06	75052-4	1.10 ± 10%	65	2.5	11.7	.35	245	A IRON	1.08
9350-08	75052-5	1.30 ± 10%	55	2.5	10.7	.35	235	A IRON	1.08
9350-10	75052-6	1.50 ± 10%	75	7.90	9.3	.47	215	A IRON	1.08
9350-12	75052-7	1.70 ± 10%	80	7.90	8.3	.53	200	A IRON	1.08
9350-14	75052-8	1.80 ± 10%	80	7.90	8.0	.55	200	A IRON	1.08
9350-16	75053-1	2.20 ± 10%	80	7.90	5.5	5.9	220	B IRON	1.08
9350-18	75053-2	2.70 ± 10%	70	7.90	5.1	6.6	210	B IRON	1.08
9350-20	75053-3	3.30 ± 10%	75	7.90	4.2	7.8	185	B IRON	1.08
9350-22	75053-4	3.90 ± 10%	70	7.90	3.9	8.7	180	B IRON	1.08
9350-24	75053-5	4.47 ± 10%	70	7.90	3.7	9.6	180	B IRON	1.08
9350-26	75054-2	5.60 ± 10%	80	7.90	3.5	10.0	180	C IRON	1.18
9350-28	75054-3	6.80 ± 10%	70	7.90	3.2	11.2	170	C IRON	1.18
9350-30	75054-4	8.20 ± 10%	75	7.90	3.0	13.0	155	C IRON	1.11
9350-32	75054-5	10.00 ± 10%	70	7.90	2.7	14.0	145	C IRON	1.11
9350-34	75054-6	12.00 ± 10%	85	25.0	2.6	16.0	120	D IRON	1.20
9350-36	75055-2	2.00 ± 10%	18	2.5	22.2	2.20	127	D IRON	1.14
9350-38	75055-3	2.50 ± 10%	18	2.5	27.0	2.20	127	D IRON	1.14
9350-40	75055-4	2.50 ± 10%	85	25.0	1.7	30.0	115	D IRON	1.20
9350-42	75055-5	3.00 ± 10%	70	25.0	1.5	32.5	110	D IRON	1.20
9350-44	75055-6	5.00 ± 10%	70	25.0	1.0	66.0	75	D IRON	1.20
9350-46	75055-7	10.00 ± 10%	70	25.0	.8	70.0	75	D FERRITE	1.20



Industrial Adjustable R.F. Coils



Resin Encapsulated R.F. Coils

Resin is a phenolic impregnated tubing which can be used in MIL-STD-2078 type PBG. This material is resistant to moisture and electrical characteristics along with the nonconductive properties of cellulose acetate.

Miniature Adjustable R.F. Coils

Dimensions (form) 1/4" dia. x 13/16" long

Part No.	L. Min.	L. Max.	Net Price
20A107781	.088 in.	.120 in.	\$1.02
20A157781	.108 in.	.180 in.	1.02
20A227781	.162 in.	.264 in.	1.02
20A337781	.238 in.	.396 in.	1.08
20A447781	.356 in.	.564 in.	1.08
20A557781	.508 in.	.816 in.	1.08
20A667781	.816 in.	1.20 in.	1.08
20A77781	.108 in.	.180 in.	1.08
20A15681	.138 in.	.264 in.	1.08
20A22681	.162 in.	.264 in.	1.08
20A33681	.238 in.	.396 in.	1.08
20A44681	.356 in.	.564 in.	1.08
20A55681	.508 in.	.816 in.	1.08
20A66681	.816 in.	1.20 in.	1.08
20A77681	.108 in.	.180 in.	1.20
20A15581	.108 in.	.180 in.	1.20
20A22581	.162 in.	.264 in.	1.20
20A33581	.238 in.	.396 in.	1.20
20A44581	.356 in.	.564 in.	1.20
20A55581	.508 in.	.816 in.	1.20
20A66581	.816 in.	1.20 in.	1.20
20A77581	.108 in.	.180 in.	1.20
20A15481	.108 in.	.180 in.	1.20
20A22481	.162 in.	.264 in.	1.20
20A33481	.238 in.	.396 in.	1.20
20A44481	.356 in.	.564 in.	1.20
20A55481	.508 in.	.816 in.	1.20
20A66481	.816 in.	1.20 in.	1.20
20A77481	.108 in.	.180 in.	1.20
20A10381	.885 in.	1.20 in.	1.20

Standard Adjustable R.F. Coils

Dimensions (form) 3/4" dia. x 1 1/4" long

Part No.	L. Min.	L. Max.	Net Price
21A15681	1.20 in.	1.80 in.	1.11
21A15681	1.20 in.	1.80 in.	1.11
21A22681	1.62 in.	.264 in.	1.11
21A33681	2.38 in.	.396 in.	1.11
21A44681	3.56 in.	.564 in.	1.11
21A55681	5.08 in.	.816 in.	1.11
21A66681	8.16 in.	1.20 in.	1.11
21A77681	.108 in.	.180 in.	1.11
21A15581	.108 in.	.180 in.	1.11
21A22581	.162 in.	.264 in.	1.11
21A33581	.238 in.	.396 in.	1.11
21A44581	.356 in.	.564 in.	1.11
21A55581	.508 in.	.816 in.	1.11
21A66581	.816 in.	1.20 in.	1.11
21A77581	.108 in.	.180 in.	1.11
21A15481	.108 in.	.180 in.	1.11
21A22481	.162 in.	.264 in.	1.11
21A33481	.238 in.	.396 in.	1.11
21A44481	.356 in.	.564 in.	1.11
21A55481	.508 in.	.816 in.	1.11
21A66481	.816 in.	1.20 in.	1.11
21A77481	.108 in.	.180 in.	1.11
21A10381	.885 in.	1.20 in.	1.11
21A15381	1.08 in.	1.80 in.	1.38
21A22381	1.62 in.	.264 in.	1.38
21A33381	2.38 in.	.396 in.	1.38
21A44381	3.56 in.	.564 in.	1.38
21A55381	5.08 in.	.816 in.	1.38
21A66381	8.16 in.	1.20 in.	1.38
21A77381	.108 in.	.180 in.	1.38
21A10281	.885 in.	1.20 in.	1.38

Jumbo Adjustable R.F. Coils

Dimensions (form) 1 1/2" dia. x 1 7/8" long

Part No.	L. Min.	L. Max.	Net Price
22A10581	.885 in.	1.20 in.	31.32
22A15581	1.08 in.	1.80 in.	31.32
22A22581	.162 in.	.264 in.	1.41
22A33581	.238 in.	.396 in.	1.41
22A44581	.356 in.	.564 in.	1.41
22A55581	.508 in.	.816 in.	1.41
22A66581	.816 in.	1.20 in.	1.41
22A77581	.108 in.	.180 in.	1.41
22A15481	.108 in.	.180 in.	1.41
22A22481	.162 in.	.264 in.	1.41
22A33481	.238 in.	.396 in.	1.41
22A44481	.356 in.	.564 in.	1.41
22A55481	.508 in.	.816 in.	1.41
22A66481	.816 in.	1.20 in.	1.41
22A77481	.108 in.	.180 in.	1.41
22A10381	.885 in.	1.20 in.	1.41
22A15381	1.08 in.	1.80 in.	1.44
22A22381	1.62 in.	.264 in.	1.44
22A33381	2.38 in.	.396 in.	1.44
22A44381	3.56 in.	.564 in.	1.44
22A55381	5.08 in.	.816 in.	1.44
22A66381	8.16 in.	1.20 in.	1.44
22A77381	.108 in.	.180 in.	1.50
22A10281	.885 in.	1.20 in.	1.50
22A15281	1.08 in.	1.80 in.	1.62
22A22281	.162 in.	.264 in.	1.62
22A33281	.238 in.	.396 in.	1.62
22A44281	.356 in.	.564 in.	1.62
22A55281	.508 in.	.816 in.	1.62
22A66281	.816 in.	1.20 in.	1.62
22A77281	.108 in.	.180 in.	1.62
22A10181	.885 in.	1.20 in.	2.01

Shielded Subminiature Adjustable R.F. Coils

These compact adjustable coils offer a minimum inductance range with relatively small changes in the tuning adjustment. It is accomplished through the use of a coil assembly. Magnetic shielding is achieved through the use of a core while the metal shield of ferrite effect is achieved by the ferrite printed circuit terminals on base and shield.

Dimensions: 1/2" x 3/4" x 1/2"

Part No.	L. Min.	L. Max.	C. (pH)	Net Price
9050	1.5 in.	3.0 in.	3.5	\$1.80
9051	2.0 in.	7.0 in.	4.3	2.10
9052	7.0 in.	14.0 in.	7.6	1.83
9053	14.0 in.	28.0 in.	10.3	1.83
9054	28.0 in.	60.0 in.	11.0	1.86
9055	60.0 in.	120.0 in.	10.3	1.86
9056	120.0 in.	280.0 in.	9.0	1.86
9057	280.0 in.	650.0 in.	8.0	1.95
9058	650.0 in.	1.3 Mh	8.0	1.95
9059	1.3 Mh.	3.0 Mh	16.0	1.95
9060	3.0 Mh.	10.0 Mh	7.0	2.10
9061	8.0 Mh.	20.0 Mh	7.0	2.10
9062	15.0 Mh.	40.0 Mh	7.0	2.10
9063	20.0 Mh.	60.0 Mh	7.0	2.10

Ceramic Adjustable R.F. Coils

The forms used in this series feature terminal rings machined from the ceramic form material. Coils wound on these forms exhibit high Q and good stability. The adjusting core is held rigidly of any setting through use of a newly designed tension device on the bushing.

Sub Miniature Adjustable R.F. Coils

Dimensions (form) 7/32" dia. x 19/32" long

Part No.	L. Min.	L. Max.	Net Price
40A00081	.088 in.	.120 in.	\$1.44
40A10781	.108 in.	.180 in.	1.98
40A15781	.162 in.	.264 in.	1.98
40A22781	.238 in.	.396 in.	1.98
40A33781	.356 in.	.564 in.	1.98
40A44781	.508 in.	.816 in.	1.98
40A55781	.816 in.	1.20 in.	1.98
40A66781	.108 in.	.180 in.	2.01
40A77781	.108 in.	.180 in.	2.01
40A15681	.138 in.	.264 in.	2.01
40A22681	.162 in.	.264 in.	2.01
40A33681	.238 in.	.396 in.	2.01
40A44681	.356 in.	.564 in.	2.01
40A55681	.508 in.	.816 in.	2.01
40A66681	.816 in.	1.20 in.	2.01
40A77681	.108 in.	.180 in.	2.01
40A15581	.108 in.	.180 in.	2.01
40A22581	.162 in.	.264 in.	2.01
40A33581	.238 in.	.396 in.	2.01
40A44581	.356 in.	.564 in.	2.01
40A55581	.508 in.	.816 in.	2.01
40A66581	.816 in.	1.20 in.	2.01
40A77581	.108 in.	.180 in.	2.01
40A15481	.108 in.	.180 in.	2.01
40A22481	.162 in.	.264 in.	2.01
40A33481	.238 in.	.396 in.	2.01
40A44481	.356 in.	.564 in.	2.01
40A55481	.508 in.	.816 in.	2.01
40A66481	.816 in.	1.20 in.	2.01
40A77481	.108 in.	.180 in.	2.01
40A10381	.885 in.	1.20 in.	2.01

Miniature Adjustable R.F. Coils

Dimensions (form) 1/4" dia. x 13/16" long

Part No.	L. Min.	L. Max.	Net Price
41A00081	.088 in.	.120 in.	\$1.50
41A10681	.108 in.	.180 in.	2.10
41A15681	.162 in.	.264 in.	2.10
41A22681	.238 in.	.396 in.	2.10
41A33681	.356 in.	.564 in.	2.10
41A44681	.508 in.	.816 in.	2.10
41A55681	.816 in.	1.20 in.	2.10
41A66681	.108 in.	.180 in.	2.10
41A77681	.108 in.	.180 in.	2.10
41A15581	.108 in.	.180 in.	2.10
41A22581	.162 in.	.264 in.	2.10
41A33581	.238 in.	.396 in.	2.10
41A44581	.356 in.	.564 in.	2.10
41A55581	.508 in.	.816 in.	2.10
41A66581	.816 in.	1.20 in.	2.10
41A77581	.108 in.	.180 in.	2.10
41A15481	.108 in.	.180 in.	2.10
41A22481	.162 in.	.264 in.	2.10
41A33481	.238 in.	.396 in.	2.10
41A44481	.356 in.	.564 in.	2.10
41A55481	.508 in.	.816 in.	2.10
41A66481	.816 in.	1.20 in.	2.10
41A77481	.108 in.	.180 in.	2.10
41A10381	.885 in.	1.20 in.	2.10

Standard Adjustable R.F. Coils

Dimensions (form) 3/4" dia. x 1 1/4" long

Part No.	L. Min.	L. Max.	Net Price
42A00081	.088 in.	.120 in.	\$1.56
42A10681	.108 in.	.180 in.	2.10
42A15681	.162 in.	.264 in.	2.10
42A22681	.238 in.	.396 in.	2.10
42A33681	.356 in.	.564 in.	2.10
42A44681	.508 in.	.816 in.	2.10
42A55681	.816 in.	1.20 in.	2.10
42A66681	.108 in.	.180 in.	2.10
42A77681	.108 in.	.180 in.	2.10
42A15581	.108 in.	.180 in.	2.10
42A22581	.162 in.	.264 in.	2.10
42A33581	.238 in.	.396 in.	2.10
42A44581	.356 in.	.564 in.	2.10
42A55581	.508 in.	.816 in.	2.10
42A66581	.816 in.	1.20 in.	2.10
42A77581	.108 in.	.180 in.	2.10
42A15481	.108 in.	.180 in.	2.10
42A22481	.162 in.	.264 in.	2.10
42A33481	.238 in.	.396 in.	2.10
42A44481	.356 in.	.564 in.	2.10
42A55481	.508 in.	.816 in.	2.10
42A66481	.816 in.	1.20 in.	2.10
42A77481	.108 in.	.180 in.	2.10
42A10381	.885 in.	1.20 in.	2.10

Jumbo Adjustable R.F. Coils

Dimensions (form) 1 1/2" dia. x 1 7/8" long

Part No.	L. Min.	L. Max.	Net Price
43A00081	.088 in.	.120 in.	\$1.62
43A10681	.108 in.	.180 in.	2.25
43A15681	.162 in.	.264 in.	2.25
43A22681	.238 in.	.396 in.	2.25
43A33681	.356 in.	.564 in.	2.25
43A44681	.508 in.	.816 in.	2.25
43A55681	.816 in.	1.20 in.	2.25
43A66681	.108 in.	.180 in.	2.25
43A77681	.108 in.	.180 in.	2.25
43A15581	.108 in.	.180 in.	2.25
43A22581	.162 in.	.264 in.	2.25
43A33581	.238 in.	.396 in.	2.25
43A44581	.356 in.	.564 in.	2.25
43A55581	.508 in.	.816 in.	2.25
43A66581	.816 in.	1.20 in.	2.25
43A77581	.108 in.	.180 in.	2.25
43A15481	.108 in.	.180 in.	2.25
43A22481	.162 in.	.264 in.	2.25
43A33481	.238 in.	.396 in.	2.25
43A44481	.356 in.	.564 in.	2.25
43A55481	.508 in.	.816 in.	2.25
43A66481	.816 in.	1.20 in.	2.25
43A77481	.108 in.	.180 in.	2.25
43A10381	.885 in.	1.20 in.	2.25

Resin Encapsulated Printed Circuit R.F. Coils

This series of printed circuit coils are wound on a phenolic impregnated tubing which combines the mechanical and electrical advantages of the ceramic material.

Miniature Adjustable R.F. Coils

Dimensions: Form length 3/4" dia. x 1 1/4" long

23A1578P	130	170	99
23A2278P	185	265	99
23A3378P	285	410	99
23A4478P	420	580	99
23A5578P	540	850	99
23A6678P	680	1.00	99
23A7778P	740	1.00	99
23A158P	1.70	1.87	108
23A228P	2.40	2.75	108
23A338P	2.40	4.10	108
23A448P	4.20	5.80	108
23A558P	4.60	8.50	108
23A668P	6.80	12.50	108
23A778P	7.40	12.50	108
23A158P	7.10	8.50	108
23A158P	10	18.7	117
23A228P	16	27.5	117
23A338P	22	41	117
23A448P	42	58	117
23A558P	43.5	85	117
23A668P	68	125	117
23A778P	74	125	117
23A1048P	76	120	117
23A158P	105	187	117
23A228P	160	275	117
23A338P	240	410	117
23A448P	420	580	117
23A558P	460	850	117
23A668P	530	1250	117
23A778P	590	1250	117
23A1038P	910	125	126
23A158P	990	1.87	126
23A228P	140	27.5	126
23A338P	240	41	126
23A448P	420	58	126
23A558P	460	85	126
23A668P	515	125	126
23A778P	570	125	126
23A1028P	880	1250	126
23A158P	1200	1870	126
23A228P	1800	2750	126
23A338P	1800	4100	132
23A448P	4000	5800	132
23A558P	4000	8500	132
23A668P	4000	12500	132
23A778P	4000	12500	132
23A1018P	6300	12500	132

Industrial R.F. Chokes and Filters



Adjustable Ceramic Forms and R.F. Coils
Permeability tuned coils wound on silicone impregnated ceramic forms. Hardware necessary for assembly is supplied.

Sub-Minature Adjustable R.F. Coils
Dimensions (form): $\frac{1}{8}$ " diameter x $\frac{1}{16}$ " long.

Cat. No.	L Min.	L Max.	Net Price
4301	.190 uh	.250 uh	\$1.50
4302	.300 uh	.390 uh	1.50
4303	.440 uh	.620 uh	1.54
4304	.770 uh	.940 uh	1.59
4305	1.00 uh	1.40 uh	1.63
4306	1.60 uh	2.40 uh	1.68
4307	2.70 uh	4.20 uh	1.77
4308	4.20 uh	6.80 uh	1.80
4309	7.80 uh	12.0 uh	1.83
4310	14.0 uh	19.0 uh	1.89
4311	22.0 uh	31.0 uh	1.89
4312	36.0 uh	47.0 uh	1.92
4313	56.0 uh	97.0 uh	1.95
4314	111 uh	171 uh	1.95
4315	196 uh	285 uh	1.95

Standard Adjustable Ceramic Form and R.F. Coils
Dimensions (form): $\frac{3}{16}$ " diameter x $\frac{1}{16}$ " long.

Cat. No.	L Min.	L Max.	Net Price
4403	.990 uh	1.50 uh	\$1.62
4404	1.60 uh	3.10 uh	1.63
4405	3.20 uh	6.10 uh	1.68
4406	7.30 uh	14.0 uh	1.74
4407	16.0 uh	31.0 uh	1.80
4408	33.0 uh	64.0 uh	1.83
4409	74.0 uh	134 uh	1.89
4410	120 uh	210 uh	1.92
4411	270 uh	451 uh	1.95
4412	495 uh	790 uh	1.95
4413	825 uh	1,300 uh	2.01
4414	1,440 uh	2,300 uh	2.01

Miniature Adjustable R.F. Coils
Dimensions (form): $\frac{1}{16}$ " diameter x $\frac{1}{16}$ " long.

Cat. No.	L Min.	L Max.	Net Price
4501	.440 uh	.760 uh	\$1.50
4502	1.10 uh	1.90 uh	1.50
4503	1.70 uh	3.10 uh	1.59
4504	3.10 uh	4.80 uh	1.59
4505	5.30 uh	8.50 uh	1.63
4506	9.00 uh	15.0 uh	1.71
4507	17.0 uh	29.0 uh	1.74
4508	26.0 uh	39.0 uh	1.80
4509	44.0 uh	67.0 uh	1.83
4510	66.0 uh	100 uh	1.89
4511	100 uh	150 uh	1.89
4512	170 uh	270 uh	1.92
4513	290 uh	470 uh	1.95
4514	530 uh	870 uh	1.95
4515	970 uh	1,600 uh	2.01

R.F. Chokes with Axial Leads

These chokes cover an inductance range from 1 microhenry to 10 millihenries in 5 decades with B coils per decade. Inductance values in parentheses of approximately 50%. Either single layer or 3-pi universal windings are used. Minimum low distributed capacitance. Chokes are wound on low-loss molded phenolic or powdered iron core forms and are impregnated with a moisture- and fungus-resistant varnish. The type of powdered iron used allows the chokes to operate at all frequencies up into the ultra-high frequency region.

Dimensions: Phenolic form $\frac{1}{16}$ " diameter x $\frac{1}{16}$ " long. Iron core form $\frac{1}{16}$ " diameter x $\frac{1}{16}$ " long. Leads are $\frac{1}{16}$ " long.

Single Layer Windings

Cat. No.	uH*	Ohms Max.	mA.	Net Price
4580	0.1	.017	3000	\$.51
4582	0.15	.018	2900	51
4584	0.22	.020	2800	51
4586	0.33	.024	2600	51
4588	0.47	.034	2500	51
4590	0.68	.036	2400	51
4592	0.75	.040	2200	51
4594	0.82	.043	2100	51
4602	1	.050	2000	51
4604	1.5	.093	1800	51
4606	2.4	.190	1500	51
4608	3.9	.450	1000	51
4610	6.2	.850	700	54
4612	10	1.50	500	54

Iron Core Form

Single Layer Windings

Cat. No.	uH*	Ohms Max.	mA.	Net Price
4624	10	1.1	1500	\$.60
4626	24	.34	800	.63
4628	39	.50	600	.63
4630	55	1.0	450	.66
4632	82	1.9	450	.66
4634	100	3.0	400	.66

Phenolic Form

3-Section Windings

Cat. No.	uH*	Ohms Max.	mA.	Net Price
4642	0.1	.016	3000	\$.56
4644	0.15	.016	3000	56
4646	0.24	.018	2800	56
4648	0.35	.022	2600	56
4650	0.52	.026	2400	56
4652	0.75	.032	2200	56
4654	1.0	.040	2000	56

Iron Core Form

3-Section Windings

Cat. No.	uH*	Ohms Max.	mA.	Net Price
4662	1	.084	1600	\$.75
4664	1.5	.11	1600	75
4666	2.4	.16	1400	75
4668	3.9	.20	1400	75
4670	6.2	.37	1200	75
4672	10	.62	1000	75
4674	16	1.1	1000	75
4676	24	1.9	900	75
4678	39	3.0	800	75
4680	55	5.0	700	75
4682	82	9.0	600	75
4684	100	12.0	500	75

Ferrite Core R.F. Chokes

A new series of R.F. Chokes having advantage of the high permeability of ferrite cores, these chokes combine high inductance and low D.C. resistance with a small physical size.

Dimensions: Phenolic form $\frac{1}{16}$ " diameter x $\frac{1}{16}$ " long. $\frac{1}{16}$ " long axial leads.

Cat. No.	uH*	Ohms Max.	mA.	Net Price
6302	2.5	10	50	\$.50
6304	5	14	160	1.00
6306	15	42	85	1.26
6308	25	87	45	1.44
6310	50	127	65	1.44

Sub-Minature R.F. Chokes

An extremely versatile series of low core R.F. chokes designed to meet the industries' demand for high reliability, ultra-miniature components.

ent. The coils are ideally suited to network and filter design, delay, trim, and computer applications. Rated at 75 milliwatts.

Part No. L* Min. Q Min. F Net Price

70F186A1	1.8 uh	39	48	7.9 MHz.
70F226A1	2.2 uh	48	48	7.9 MHz.
70F276A1	2.7 uh	39	47	7.9 MHz.
70F336A1	3.3 uh	48	47	7.9 MHz.
70F396A1	3.9 uh	44	7	7.9 MHz.
70F476A1	4.7 uh	46	7	7.9 MHz.
70F566A1	5.6 uh	46	7	7.9 MHz.
70F686A1	6.8 uh	44	7	7.9 MHz.
70F756A1	7.5 uh	40	7	7.9 MHz.
70F826A1	8.2 uh	40	7	7.9 MHz.
70F916A1	9.1 uh	40	7	7.9 MHz.
70F105A1	10 uh	48	2.5	MHz.
70F125A1	12 uh	52	2.5	MHz.
70F155A1	15 uh	50	2.5	MHz.



Miller

R. F. and I. F. Transformers



Unshielded High-Q R.F. Coils

A complete line of Unshielded Permeability tuned coils for replacement use or as the front end components in new receiver design. These #25495 series coils can be shielded in our #8-33 shields (1 1/4" sq.) with very little loss in Q. Mounting is by means of a single 1/4" hole. Dimensions (form): 3/8" x 2". Ranges shown are for use with a 365 mmfd. variable tuning condenser.

Long Wave Coils (140-420 KC)

Cat. No.	Use	Net Price
X-5495-A	Antenna Stage	\$1.80
X-5495-RF	RF Stage	1.80
X-5495-C	Standard Osc. 455 KC	1.80
X-5496-C	Tapped Osc. 455 KC	1.80

Broadcast Band Coils (540-1700 KC)

A-5495-A	Antenna Stage	\$1.80
A-5495-RF	RF Stage	1.80
A-5495-C	Standard Osc. 455 KC	1.80
A-5496-C	Tapped Osc. 455 KC	1.80

Medium Wave Coils (1.7-5.5 MC)

B-5495-A	Antenna Stage	\$1.80
B-5495-RF	RF Stage	1.80
B-5495-C	Standard Osc. 455 KC	1.80
B-5496-C	Tapped Osc. 455 KC	1.80

Short Wave Broadcast Coils (5-15 MC)

C-5495-A	Antenna Stage	\$1.80
C-5495-RF	RF Stage	1.80
C-5495-C	Standard Osc. 455 KC	1.80
C-5496-C	Tapped Osc. 455 KC	1.80

High Frequency Coils (12-36 MC)

D-5495-A	Antenna Stage	\$1.80
D-5495-RF	RF Stage	1.80
D-5495-C	Standard Osc. 455 KC	1.80
D-5496-C	Tapped Osc. 455 KC	1.80

F.M. Stereo Multiplex Inductors



Basically the system involves pick-up of sound by two microphones, the left (L) and right (R). Subsequently the two audio signals are combined in such a way that L plus R frequency modulates an F.M. carrier in the conventional way while L minus R amplitude modulates a 38KC stereo-phonetic subcarrier, and the resulting double side-band AM signal (23-KC) with suppressed carrier, likewise frequency modulates the FM carrier. A 19KC pilot sub-carrier signal also frequency modulates the FM carrier and at the receiver provides a means of controlling the frequency and phase of the 38 KC carrier for re-insertion. When broadcasting Stereo Multiplex the region of 53 to 75KC is allotted to the station for SCA signals.

Dimensions: 3/4" Sq. x 1 1/2" High.

Cat. No.	Description	Net Price
1351	Low Pass Filter	\$1.95
1352	BP Filter Series Element	1.95
1353	BP Filter Shunt Element	1.80
1354	Locked Osc. 19 kc.	2.55
1355	Output Trans. 38 kc.	2.40

Printed Circuit Multiplex Inductors

The following coils are electrically the same as the regular point to point wiring type listed above. The printed circuit board PCM can be adapted for use with either the regular coils or the printed circuit type.

Dimensions: 3/4" Sq. x 1 1/2" High.

Cat. No.	Description	Net Price
1351-PC	Low Pass Filter	\$1.95
1352-PC	BP Filter Series Element	1.80
1353-PC	BP Filter Shunt Element	1.95
1354-PC	Locked Osc. 19 kc.	2.25
1355-PC	Output Trans. 38 kc.	2.25
PCM	Printed Circuit Board	5.55

New F.M. Stereo Multiplex Inductors



For use in a newly designed circuit that eliminates the 19 kc Oscillator and resulting synchronizing problems. In conjunction with an improved low pass filter and detecting system improved separation can be achieved.

Dimensions: 3/4" Sq. x 1 1/2" High

Cat. No.	Description	Net Price
1356	19 kc. Amplifier Coil	\$2.31
1357	38 kc. Output Trans.	2.25
1358	67 kc. Low Pass Filter	2.40

Communications I.F. Transformers



Designed for experimental use in communications equipment where selectivity and stability are important. The 100 kc. I.F. transformer and BFO coil are intended for tube application, while the 455 kc. crystal filter I.F. transformers have taps on the winding to allow for use with both tubes and transistors. The 1800 kc. I.F. transformer offers the best possible "Q" with stability to give a degree of selectivity that compares with lower frequency I.F. transformers. This transformer is for use with tubes only. Part number 1770 is a double tuned I.F. transformer having taps on both Primary and Secondary winding.

Dimensions: 3/4" by 3/4" by 2" high.

Cat. No.	Description	Net Price
1709	100 KC I.F.—2.5 KC Bandwidth	\$2.25
1710	100 KC I.F.—3 KC Bandwidth	2.10
1711	100 KC B.F.O.	1.95
1725	455 KC Crystal Filter I.F. Input	2.16
1726	455 KC Crystal Filter I.F. Output	1.95
1727	455 KC B.F.O.	1.80
1730	1800 KC I.F.—25 KC Bandwidth	2.10
1770	455 KC Double Tuned Transistor I.F.—30K-1K	2.55
1731	1610 KC Link Coupling Coil Unshielded	2.37
1732	1650 KC I.F. (C B Transceivers)	2.10
1733	1650 KC Printed Circuit I.F.	2.10
1740	9 Mc S.S.B. Input Trans.	2.10
1741	9 Mc S.S.B. Output Trans.	2.10

Miniature I.F. Trans.



Designed for experimental use and for general replacement in "personal" radio receivers, this series of shell core permeability tuned transformers are becoming increasingly popular. Tuning from top and bottom of the shield. Transformers are available for all standard I.F.

*(With diode filter capacitors)

Dimensions: 3/4" by 3/4" by 2" high.

Cat. No.	Item	Net Price
12-H1	262 KC Input I.F. Trans.	\$1.74
12-H2	262 KC Output I.F. Trans.	1.74
12-H6	262 KC Output I.F. Trans.*	1.80
12-C1	455 KC Input 16 KC @ 6db	1.62
12-C2	455 KC Output 21 KC @ 6db	1.62
12-C6	455 KC Output I.F. Trans.	1.71
12-C7	455 KC Input I.F. Battery	1.62
12-C8	455 KC Output I.F. Battery	1.62
12-C9	455 KC Input I.F. AC-DC	1.62
12-C10	455 KC Output I.F. AC-DC	1.62
12-C12	455 KC Tapped Pri. I.F. Trans.	1.95
12-C30	455 KC Input 11.4 KC @ 6db	1.62
12-C31	455 KC Output 13.6 KC @ 6db	1.62
12-C45	455 KC Discriminator	2.70
12-W1	155 KC Input or Interstage	1.65
12-W2	1500 KC Output I.F. Trans.	1.65
1463	10.7 MC Input or Interstage	1.95
1464	10.7 MC Discriminator	2.25
1465	10.7 MC Ratio Detector	2.34
6203	4.5 MC Input or Interstage	1.98
6204	4.5 MC Discriminator	2.25
6205	4.5 MC Ratio Detector	2.25
6260	21.25 MC I.F. Trans.	2.55
6261	21.25 MC Discriminator	2.70
6262	21.25 MC Ratio Detector	2.70

Printed Circuit I.F. Trans.

Same as our regular miniature I.F. transformers shown above, except for terminals and mounting. Supplied in all standard frequencies.

*(With diode filter capacitors)

Dimensions: 3/4" sq. x 2" high.

Net Price
13-PH1 262 KC Input I.F. Trans. \$1.71
13-PH2 262 KC Output I.F. Trans. 1.71
13-PH6 262 KC Output I.F. Trans. * 1.80
13-PC1 455 KC Input I.F. Trans. 1.65
13-PC2 455 KC Output I.F. Trans. 1.65
13-PC6 455 KC Output I.F. Trans. * 1.74
13-PC7 455 KC Input I.F. Trans. Battery 1.65
13-PC8 455 KC Output I.F. Trans. Battery 1.65
13-PC9 455 KC Input I.F. Trans. AC-DC 1.65
13-PC10 455 KC Output I.F. Trans. AC-DC 1.65
1463-PC 10.7 MC Input or Interstage 1.95
1464-PC 10.7 MC Discriminator Trans. 2.25
1465-PC 10.7 MC Ratio Detector Trans. 2.34
6203-PC 4.5 MC Input or Interstage 2.07
6204-PC 4.5 MC Discriminator Trans. 2.25
6205-PC 4.5 MC Ratio Detector Trans. 2.25

J-TRAN Top Tuned I.F. Trans



The standard J-TRAN series of miniature I.F. transformers has hollow hexagonal-hole cores and thereby, with the aid of a suitable tuning tool (#182), permits either double or single ended tuning. The transformer is mounted with a unique snap fastener which is permanently attached to the shield.

Dimensions: 3/4" by 3/4" by 2" high.

*(With diode filter capacitors)

Cat. No.	Item	Net Price
14-H1	262 KC Input I.F.	\$1.80
14-H2	262 KC Output I.F.	1.80
14-H6	262 KC Output I.F.*	1.89
14-C1	455 KC Input I.F.	1.65
14-C2	455 KC Output I.F.	1.65
14-C6	455 KC Output I.F.*	1.80
14-C7	455 KC Input I.F. Battery Radios	1.65
14-C8	455 KC Output I.F. Battery Radios	1.65
14-C9	455 KC Input I.F. AC-DC Radios	1.65
14-C10	455 KC Output I.F. AC-DC Radios	1.65
6270	4.5 MC Input or Interstage	1.80
6271	4.5 MC Ratio Detector	2.97
1457	10.7 MC Input or Interstage	1.95
1458	10.7 MC Discriminator	2.25
1459	10.7 MC Ratio Detector	2.34
145B-WB	10.7 MC Disc. 800 KC. P/P	2.34
145B-WB	10.7 MC Ratio Disc. 800 KC. P/P	2.34
6230	TV Converter I.F.	1.89
6231	TV 44 MC First I.F.	1.89
6232	TV 42.5 MC Second I.F. 41.25 MC	1.59
6233	TV 45.5 MC Third I.F. 47.25 MC	1.92
6234	TV 44 MC Fourth I.F.	1.50

Top Tuned P.C. I.F. Transformers



The printed circuit series of miniature J-TRAN I.F. transformers is similar to the standard J-TRAN shown in that both cores may be tuned from either end of the shield.

Dimensions: 3/4" by 3/4" by 2" high.

*(With diode filter capacitors)

Cat. No.	Item	Net Price
16-PH1	262 KC Input I.F.	\$1.80
16-PH2	262 KC Output I.F.	1.80
16-PH6	262 KC Output I.F.*	1.89
16-PC1	455 KC Input I.F.	1.65
16-PC2	455 KC Output I.F.	1.65
16-PC6	455 KC Output I.F.*	1.80
16-PC7	455 KC Input I.F. Battery Radios	1.80
16-PC8	455 KC Output I.F. Battery Radios	1.80
16-PC9	455 KC Input I.F. AC-DC Radios	1.80
16-PC10	455 KC Output I.F. AC-DC Radios	1.80
6270-PC	4.5 MC Input or Interstage	1.80
6271-PC	4.5 MC Ratio Detector	2.97
6230-PC	TV 44 MC Converter I.F. Trans.	1.95
6231-PC	TV 44 MC First I.F. Trans. Trap	1.86
6232-PC	TV 42.5 MC Second I.F. 41.25 MC	1.68
6233-PC	TV 45.5 MC Third I.F. 47.25 MC	1.86
6234-PC	TV 44 MC Fourth I.F. Trans.	1.65

For a Complete Listing of MILLER PRODUCTS ask for a copy of our Latest General Catalog.

J. W. MILLER COMPANY



Miller

Variable Capacitors, Dials & Filters



Front Panel Dials

High quality panel dials with black crackle finish on the exterior metal work while the calibration plate is finished in a light gray color with the calibration scale 0-100 printed in red. The self calibration scales are in black and a supply of numerals for use on these scales are included to give a professional finish. Dials MD-5 and MD-6 use a 9:1 drive mechanism while the MD-7 and 8 use a drive that features a combination 6:1 and 36:1 drive. Dials MD-6 and MD-8 are 7 1/2" wide 4 1/4" high 1/2" deep.

Dials MD-5 and MD-7 are 6 1/4" wide 4 1/8" high 1/2" deep.

Cat. No.	Scales	Net Price
MD-5	4	\$ 2.25
MD-6	6	8.00
MD-7	6	15.00
MD-8	6	15.00

Slide Rule Dial

A top quality slide rule dial for use on projects where this feature would add to the appearance of the completed assembly. The dial face opening is 6 1/4" wide by 1 3/8" high and requires a slightly larger opening in the metal panel. The dial has a 10:1 turns ratio.

Cat. No.	Description	Net Price
SL-16	Slide Rule Dial	\$6.00

Planetary Drive Knobs

A two piece knob that has been specifically designed for use with the planetary drives used on the variable capacitors. The larger knob #555-20 has a gold stamped calibration covering 550 to 1600 kc. while #565-24 has a gold marker for use with a self calibrated scale on the front panel of a piece of equipment. The two drive knobs have a metallic inlaid insert. Diameter of larger knob 2 1/2" inches. Diameter of drive knob 1 1/4" inches.

Cat. No.	Description	Net Price
555-20	Calibrated knob	\$1.20
555-21	Drive knob	.51
565-24	Marker knob	1.02
565-26	Drive knob	.51

Micro Miniature F.M. Variable Capacitor

A companion variable capacitor to our part No. 2108 ceramic variable. The ceramic material has a temperature coefficient of -120 parts per million per degree C over the range -20 to +70°C. The use of silvered ceramic rotor and stator assemblies results in a capacitor that is completely free of microphonics. This is very important in the design of small F.M. receivers that are subject to shock and vibration. Size .51" sq. x .39" deep. Ant. Section 3.0 to 19.0 pf. Osc. Section 3.0 to 19.0 pf. Trimmers both sections 1.5 to 5.0 pf.

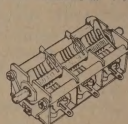
Cat. No.	Net Price
1401	\$2.85

Micro Miniature B.C. Variable Capacitor

To our knowledge this unit represents the smallest two section Broadcast Band variable capacitor generally available. The capacitor is manufactured by evaporating silver on the ceramic plates, which are lapped to insure perfect mechanical register. This construction assures against shock and vibration with a complete absence of microphonics. Dimensions .60" sq. by .43" deep. Ant. Section 6.5 to 145 pf. use JWM #2010. Osc. Section 6.5 to 69.7 pf. use JWM #2069. Trimmers on both sections 1.5 to 6.5 pf.

Cat. No.	Description	Net Price
2108	2 Section Variable	\$3.30
2069	Companion Osc. Coil	2.10

Precision Variable Capacitors



The capacitors we list in this group represent the highest standards that can be achieved in a commercial product. The rotor shaft revolves in a ball race at both front and back, with the torque controlled very closely. Each section has its own wipers grounded to the frame to assure that the rotor does not present ground loops. The stator in each section is supported on four ceramic pillars to assure excellent mechanical stability as well as insulation resistance better than 1000 megohms. The complete mechanical assembly is silver plated to keep R.F. losses to a minimum.

Dimensions 2101 1.5" x 1.26" x 1.0"

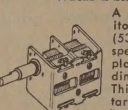
2102 1.5" x 1.26" x 3.0"

Cat. No.	Sections	Capacitance pf.	Net Price
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2101 1 10.5 to 104 \$6.65

2102 3 5 to 22.5 \$7.75

Cut Section Two Gang with Planetary Drive



A two section variable capacitor for use in broadcast band (535 to 1650 kc) receivers. The special design of the oscillator plate makes the use of a padding capacitor unnecessary. This capacitor features a planetary drive that has a 6:1 turning ratio and can be used with knobs #555-20 and 555-21.

Capacitance range RF section 10 to 365pf

Osc section 6.6 to 170.6pf

Trimmers on both sections 2-15pf

Cat. No.	Dimensions	Net Price
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555-27 2 3/16x1 1/8x1 3/8 \$3.15



Two Section Variable Capacitor with Planetary Drive

A two section variable capacitor having equal values of capacitance for use in tuned radio frequency circuits or in superheterodyne circuits where a series padding capacitor is used in the oscillator circuit. This capacitor features a planetary drive that has a 6:1 turning ratio and can be used with knobs #565-24 and 565-26.

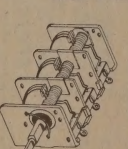
Capacitance range 10 to 365pf per section

Trimmers on both sections 2-15pf

Cat. No.	Dimensions	Net Price
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565-8 2 3/16x1 1/8x1 3/8 \$3.15

FM Three Gang Variable with Planetary Drive



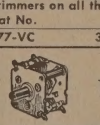
A commercial quality FM variable having a delta C of 10 picofarads intended for use in circuits having a minimum amount of stray capacitance. Capacitor is an ideal unit for use as a bandspread variable in short wave receivers. This capacitor features a planetary drive that has a 6:1 turning ratio, and can be used with knobs #565-24 and 565-26.

Capacitance range 7.0 to 17.7pf. per section

Trimmers on all three sections 2-15pf

Cat. No.	Dimensions	Net Price
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777-VC 3 1/16x1 1/8x1 3/8 \$4.65



Sub-Miniature Variable Capacitor

It was necessary to use a four point suspension for the capacitor frame to insure against the frame becoming distorted and resultant shorting of plates. R.F. Cap. (11 Plates) 5.3 mfd—122.4 mfd. Os. Cap. (9 Plates) 4.2 mfd—78.6 mfd. Effective trimmer range: 1.8—8 mfd

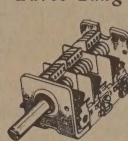
Shaft Dia. 1/4" x 1/2" Long

Cat. No.	Sections	Dimensions	Net Price
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2109 2 1 1/8x1 1/8x3/4 \$2.19

Sub-Miniature

Three Gang Variable Capacitor



An extremely small but stable air dielectric variable capacitor. Each section is composed of 4 stator and 5 rotor plates. Trimmer capacitors are mounted on the antenna and R.F. sections only. Capacitor range: 5-20 mfd.-1. Trimmer range: 1.5-8 mfd. Shaft range: 1/8" x 1/2" long.

Dimensions: 1 1/8" wide x 1 1/8" high x 2" deep.

Cat. No.	Item	Net Price
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1460 3-Gang Variable Capacitor \$3.96

Midget Variable Condensers



Shaft dia. 1/4" x 1" long. The #2110, 2-gang variable condenser antenna section has a range of 10-130 mfd. The oscillator section has a range of 10-78 mfd. The #2111, #2112 and #2113 are the standard size condensers having a range of 10-365 mfd. Mounting is provided by tapped holes in the frame of the condensers. Counter-clock rotation for capacity increase.

Cat. No.	Sections	Dimensions	Net Price
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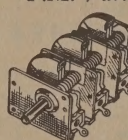
2110 2 1 3/16x1 3/8x1 1/8 \$2.10

2111 1 1 3/16x1 3/8x1 1/8 2.10

2112 2 2 3/16x1 3/8x1 1/8 2.55

2113 3 3 3/16x1 3/8x1 1/8 3.57

F.M. Variable Capacitor



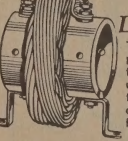
This 3-gang 7-plate variable capacitor is rigidly constructed with widely spaced (.042 Air Gap) plates to assure highest stability. The plate contour results in an almost linear frequency versus rotation characteristics. Although the capacitor is supplied with 3 trimmer capacitors attached, it is recommended that the oscillator trimmer be replaced with a small NPO adjustable ceramic. The tuning capacitor has a 1/4" diameter shaft 1 1/8" long. Capacitor range is 6.6-23 mfd. Trimmer capacitor will add to these values. Dimensions: 3 3/16x1 3/8x1 3/8

mer capacitors attached, it is recommended that the oscillator trimmer be replaced with a small NPO adjustable ceramic. The tuning capacitor has a 1/4" diameter shaft 1 1/8" long. Capacitor range is 6.6-23 mfd. Trimmer capacitor will add to these values. Dimensions: 3 3/16x1 3/8x1 3/8

Cap. No. Item Net Price

1461-B5 3-Gang FM Tuning Capacitor \$4.05

Medium Duty Duo-Lateral Line Filter Chokes



These chokes combine small physical size with low distributed capacity. They are used essentially for radio interference filtering. The chokes are wound on ceramic forms with suitable brass terminals. Dim: 2 1/2" x 4"

Part No.	uh.	Rdc.	Amps.	Net Price
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7826 570 .28 5 \$5.10

7827 370 .15 10 5.40

7828 200 .085 20 5.70

7829 135 .050 30 6.15

Dual Line Filter Chokes

The following Dual Duo-Lateral Line Filter Chokes are wound with two coils on the one ceramic form. They are identical in electrical specifications.

Dim: 4 1/2" x 4"

Part No.	uh.	Rdc.	Amps.	Net Price
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D-7826 570 .28 5 \$ 7.50

D-7827 370 .15 10 9.00

D-7828 200 .085 20 10.50

D-7829 135 .050 30 12.00

For a Complete Listing of MILLER PRODUCTS ask for a copy of our Latest General Catalog.

J. W. MILLER COMPANY



NORTH HILLS ELECTRONICS, INC.

ADJUSTABLE COILS and COIL FORMS

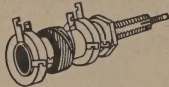
Cover Every Frequency Range from Audio to 200mc

These high quality coils enable engineers and experimenters to save valuable development time by filling a vast number of requirements with standard components from stock. All coils have the following features:

- All metal parts plated to MIL specifications.
- Built-in "perma-tune" tension for smooth "stay-put" tuning.
- Litz wound higher inductance ranges.
- Extra terminals for tie points or additional winding on some types.
- Moisture and fungus resistant impregnant per MIL-V-173-A.
- Color coded ranges.

COILS ON CERAMIC FORM PER JAN-I-10

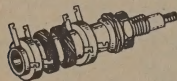
Subminiature 1100 Series



- $\frac{5}{16}$ " above mounting surface
- Mounting — $\frac{1}{4}$ " hole
- For R.F. and I.F. applications

Part No.	Nominal Microhenries	Average Q
1100-A	0.9-1.4	45 @ 7.9 mc
1100-B	1.4-1.9	50 @ 7.9 mc
1100-C	1.9-2.6	55 @ 7.9 mc
1100-D	2.6-3.7	65 @ 7.9 mc
1100-E	3.7-5.5	65 @ 7.9 mc
1100-F	5.5-7.4	70 @ 7.9 mc
1100-G	7.4-12.5	64 @ 5.0 mc
1100-H	12.5-18.0	72 @ 5.0 mc
1100-I	18.0-28.0	74 @ 5.0 mc
1100-J	28.0-38.0	72 @ 5.0 mc
1100-K	38.0-55.0	75 @ 2.5 mc

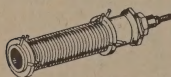
Miniature 1000 Series



- $\frac{3}{16}$ " above mounting surface
- Mounting — #10 hole
- For R.F. and I.F. applications

Part No.	Nominal Microhenries	Average Q
1000-A	1.0-1.6	70 @ 7.9 mc
1000-B	1.6-2.7	80 @ 7.9 mc
1000-C	2.7-4.5	85 @ 7.9 mc
1000-D	4.5-8.5	85 @ 7.9 mc
1000-E	8.5-14.5	75 @ 2.5 mc
1000-F	14.5-22	65 @ 2.5 mc
1000-G	22-29	65 @ 2.5 mc
1000-H	29-55	85 @ 2.5 mc
1000-I	55-110	80 @ 2.5 mc
1000-J	110-185	85 @ .79 mc
1000-K	185-305	85 @ .79 mc
1000-L	305-515	85 @ .79 mc
1000-M	515-820	85 @ .79 mc
1000-N	820-1100	75 @ .79 mc

Transmitter 1300 Series



- $1\frac{1}{4}$ " above mounting surface
- Mounting — $\frac{1}{4}$ " hole
- For low power transmitters and high Q receiver circuits

Part No.	Nominal Microhenries	Average Q
1300-A		For use from 90-200 mc
1300-B		For use from 40-90 mc
1300-C		For use from 20-40 mc
1300-D	0.7-1.1	130 @ 20 mc
1300-E	1.1-1.7	150 @ 18 mc
1300-F	1.7-2.7	150 @ 16 mc
1300-G	2.7-4.5	150 @ 14 mc
1300-H	4.5-6.8	150 @ 12 mc
1300-I	6.8-10.8	150 @ 10 mc
1300-J	10.8-17.0	150 @ 7 mc
1300-K	17.0-29.0	125 @ 5 mc
1300-L	29.0-45.0	125 @ 4 mc
1300-M	45.0-75.0	125 @ 3 mc

See Section 5600 for Wideband Transformers

COILS ON MICA FILLED FORMS PER MIL-P-14-D

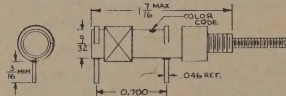
Standard 120 Series



- $1\frac{1}{4}$ " above mounting surface
- Mounting #10 hole
- For R.F. and I.F. applications

Part No.	Nominal Microhenries	Average Q
120-A	2-3	75 @ 7.9 mc
120-B	3-5	85 @ 7.9 mc
120-C	5-9	90 @ 7.9 mc
120-D	9-18	75 @ 7.9 mc
120-E	18-36	75 @ 2.5 mc
120-F	36-64	75 @ 2.5 mc
120-G	64-105	90 @ 2.5 mc
120-H	105-200	90 @ 2.5 mc
120-I	200-500	90 @ .79 mc
120-J	500-1000	90 @ .79 mc
120-K	1000-2000	70 @ .79 mc

Printed Circuit PCS-120 Series



- Mounting — Terminals are soldered directly to printed circuit board.

Part No.	Nominal Microhenries	Average Q
PCS-120-A	2-3	75 @ 7.9 mc
PCS-120-B	3-5	85 @ 7.9 mc
PCS-120-C	5-9	90 @ 7.9 mc
PCS-120-D	9-18	75 @ 7.9 mc
PCS-120-E	18-36	75 @ 2.5 mc
PCS-120-F	36-64	75 @ 2.5 mc
PCS-120-G	64-105	90 @ 2.5 mc
PCS-120-H	105-200	90 @ 2.5 mc
PCS-120-I	200-500	90 @ .79 mc
PCS-120-J	500-1000	90 @ .79 mc
PCS-120-K	1000-2000	70 @ .79 mc

HI Q POT CORE

Adjustable Coils

1 MilliH. to 2.2 H

Q's to 500

Send for data sheet

MICROMINIATURE

Adjustable Coils

1 MicroH. to 1 MilliH.

for printed circuitry, shielded, high Q

Send for data sheet

ENCAPSULATED CUP-CORE COILS

Audio and Ultrasonic 700 Series



- $1\frac{1}{2}$ " above mounting surface
- Mounting Centers — Two #6 holes spaced $1\frac{1}{4}$ "
- Magnetically shielded—High Q
- For standard or printed circuits

Part No.	Nominal Millihenries	Average Q
700-A	1.5-3	70 @ 100 kc
700-B	3-7	70 @ 100 kc
700-C	7-13	70 @ 60 kc
700-D	13-25	70 @ 60 kc
700-E	25-50	50 @ 40 kc
700-F	50-100	50 @ 15 kc
700-G	100-250	50 @ 10 kc
700-H	250-500	50 @ 5 kc
700-I	500-1000	50 @ 5 kc

SHIELDED COILS

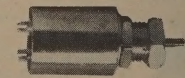
900 Series



- $\frac{7}{16}$ " Diameter
- Shielded and Encapsulated

Part No.	Nominal Microhenries	Average Q
900-A	0.5-0.8	80 @ 25 mc
900-B	0.8-1.3	70 @ 18 mc
900-C	1.3-2.0	60 @ 15 mc
900-D	2.0-4.0	70 @ 8 mc
900-E	4.0-7.0	70 @ 5 mc
900-F	7.0-12.0	70 @ 4 mc
900-G	12.0-20.0	70 @ 3 mc
900-H	20.0-35.0	70 @ 2.5 mc
900-I	35.0-60.0	70 @ 2.0 mc
900-J	60.0-100.0	70 @ 1.0 mc

1500 Series



- $\frac{3}{8}$ " Diameter
- Shielded and Encapsulated

Part No.	Nominal Millihenries	Average Q
1500-A	.100-.175	80 @ 790 kc
1500-B	.175-.300	80 @ 790 kc
1500-C	.300-.500	80 @ 790 kc
1500-D	.500-.800	75 @ 790 kc
1500-E	.800-1.15	55 @ 500 kc
1500-F	1.15-1.50	55 @ 250 kc
1500-G	1.50-2.50	55 @ 250 kc
1500-H	2.50-3.50	55 @ 250 kc
1500-I	3.50-7.50	40 @ 250 kc

See eem SECTION 5600 for Wideband RF Transformers in this edition of The Radio-Electronic Master.

See eem Section 2900 for Precision Bridges, Potentiometers, Galvanometers, Electromagnets, Line Stabilizers, etc.

See eem Section 4000 for Precision AC & DC Power Sources.



inductors

Toroidal Inductors

Magamo toroidal inductors are designed and manufactured to meet the highest standards of quality and reliability with maximum attention to user convenience. The use of powdered molybdenum permalloy cores assures inductors with a high Q factor and exceptional stability of inductance. Types ET and LT encapsulated toroids, specifically designed for printed circuit board mounting, feature a unique coil protection scheme and construction that is virtually impervious to moisture. Types WT (wax-impregnated) and NT (unimpregnated) units display the same electrical qualities.

ENCAPSULATED UNITS

Terminals—The terminals are soft brass with a hot solder finish and are made on automatic screw machines to a special design which minimizes moisture creepage. The terminal length beyond the mounting surface is 0.13" minimum. The 0.04" diameter permits use in printed circuit boards with or without eyelets. The terminal ends are rounded to simplify assembly.

Inserts—The inserts are also made on automatic screw machines to a design which minimizes moisture creepage and provides a convenient and rigid means of mounting the inductors.

Header and Terminal Assembly—The terminals and the insert are hot molded into the header, an important feature in making the unit moisture resistant.

Encapsulation—The coil is rigidly held and protected from shock or vibration damage by a specially selected epoxy encapsulating compound. Vacuum encapsulation assures a void-free envelope around the coil.

Mounting—All units are designed so the terminal area is elevated from the mounting surface. This permits easy flux removal and prevents moisture accumulation.

WAX-IMPREGNATED UNITS

Sangamo Type WT inductors are available in all standard core sizes described in bulletin 2721A. The electrical characteristics of these units are identical to those of corresponding Sangamo Type ET encapsulated inductors. Units can be supplied on special order without wax-impregnation. These are designated Type NT inductors.

Impregnation: All standard units are impregnated in a high quality, electrical grade, micro-crystalline wax which provides effective protection against moisture.

Leads: In accordance with MIL-W-16878, leads are stranded tinned copper lead wire with Type B insulation. Minimum length is 6 inches.

MAXIMUM OPERATING TEMPERATURE:

105°C for encapsulated units
65°C for wax-impregnated units.

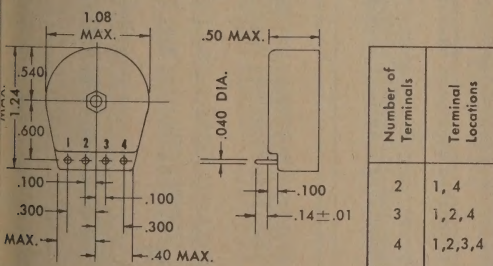
MILITARY APPLICATIONS

Sangamo inductors meet or exceed all requirements of military specification MIL-T-27B for grade 5, Class R and life expectancy X.

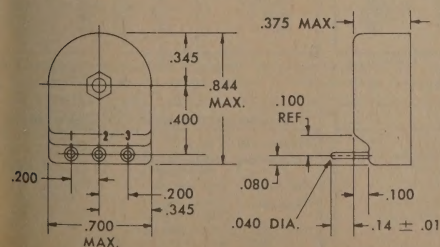
TERMINAL LOCATIONS AND PIN CONNECTIONS

(NOTE: Numbers refer to terminal locations and are not marked on unit)

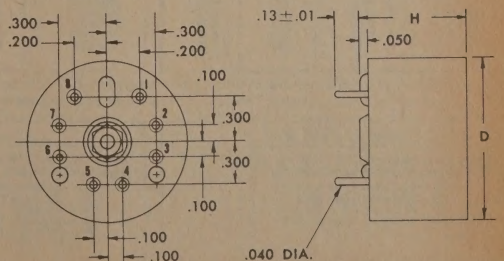
TYPE LT-2



TYPE ET-1



TYPES ET-9, 2, 3, 4 & 5



SANGAMO ELECTRIC COMPANY

inductors

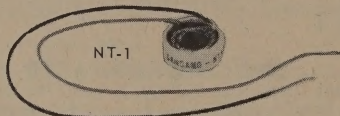


ELECTRONIC COMPONENTS

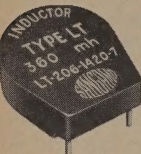
TYPE ET-1, WT-1, NT-1 AND LT-2 INDUCTORS



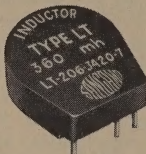
ET-1



NT-1



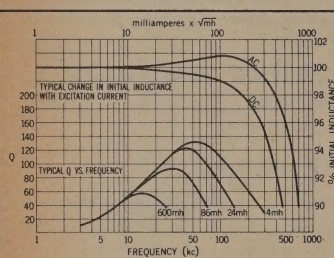
LT-2

CENTER
TAPPED
LT-2

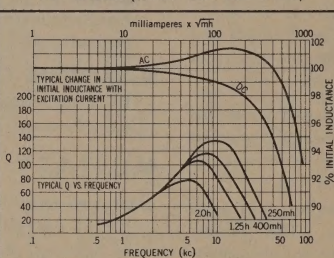
Sangamo type ET-1 and LT-2 encapsulated inductors are specifically designed for printed circuit card applications where board space is a critical factor. These Low-Profile packages are designed so the terminal area is elevated from the mounting surface. This permits easy flux removal and prevents accumulation of moisture. 72 hour delivery is available on a proto-type units.

For complete information, including additional listings and sizes, write for bulletin 2721A.

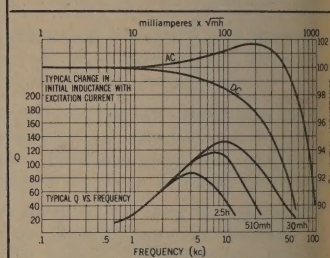
TYPE 107



TYPE 206 (CENTER TAPPED)



TYPE 204



ET-WT-NT		NET PRICE FOR TYPE ET ONLY	
Specification Number	Inductance	1-14	15-49
107-1050-2	2.40 mH	\$ 7.12	\$ 5.34
107-1070-2	3.00	7.12	5.34
107-1080-2	3.60	7.12	5.34
107-1090-2	4.00	7.12	5.34
107-1110-2	5.00	7.12	5.34
107-1120-2	6.00	7.12	5.34
107-1124-2	6.40	7.12	5.34
107-1140-2	7.50	7.12	5.34
107-1150-2	8.60	7.12	5.34
107-1160-2	10.00	7.12	5.34
107-1170-2	12.00	7.12	5.34
107-1190-2	15.00	7.12	5.34
107-1210-2	20.0	7.12	5.34
107-1230-2	25.0	7.12	5.34
107-1240-2	30.0	7.12	5.34
107-1250-2	36.0	7.12	5.34
107-1260-2	40.0	7.12	5.34
107-1280-2	50.0	7.12	5.34
107-1290-2	60.0	7.12	5.34
107-1310-2	75.0	7.58	5.69
107-1320-2	86.0	7.58	5.69
107-1330-2	100.0	7.58	5.69
107-1340-2	120.0	7.98	5.69
107-1350-2	125.0	7.58	5.69
107-1360-2	150.0	7.94	5.96
107-1370-2	175.0	7.94	5.96
107-1380-2	200.0	7.94	5.96
107-1390-2	240.0	7.94	5.96
107-1400-2	250.0	7.94	5.96
107-1410-2	300.0	8.28	6.21
107-1430-2	400.0	8.46	6.35
107-1450-2	500.0	8.70	6.53
107-1460-2	600.0	8.84	6.63
107-1480-2	750.0	9.04	6.78
107-1490-2	860.0	9.28	6.96
107-1496-2	960.0	9.46	7.10

LT-WT-NT		NET PRICE FOR TYPE LT ONLY	
Specification Number	Inductance	1-14	15-49
206-3210-7	20.0 mH	\$ 6.16	\$ 4.62
206-3230-7	25.0	6.16	4.62
206-3240-7	30.0	6.38	4.79
206-3260-7	40.0	6.38	4.79
206-3280-7	50.0	6.38	4.79
206-3290-7	60.0	6.58	4.94
206-3300-7	72.0	6.58	4.94
206-3320-7	86.0	6.58	4.94
206-3330-7	100.0	6.80	5.10
206-3340-7	120.0	6.80	5.10
206-3360-7	150.0	6.80	5.10
206-3370-7	175.0	6.80	5.10
206-3380-7	200.0	7.00	5.25
206-3390-7	240.0	7.00	5.25
206-3410-7	300.0	7.00	5.25
206-3420-7	360.0	7.22	5.42
206-3430-7	400.0	7.22	5.42
206-3450-7	500.0	7.22	5.42
206-3460-7	600.0	7.22	5.42
206-3480-7	750.0	7.42	5.57
206-3490-7	860.0	7.42	5.57
206-3500-7	1,000 h	7.42	5.57
206-3510-7	1,200	7.42	5.57
206-3520-7	1,250	7.42	5.57
206-3530-7	1,500	7.64	5.73
206-3540-7	1,750	7.64	5.73
206-3550-7	2,000	7.64	5.73
206-3560-7	2,400	7.64	5.73
206-3570-7	2,500	7.95	6.05
206-3580-7	3,000	6.95	6.05
206-3590-7	3,600	7.95	6.05
206-3600-7	4,000	8.70	6.53
206-3610-7	4,300	8.70	6.53
206-3620-7	5,000	8.70	6.53
206-3630-7	6,000	8.70	6.53
206-3634-7	6,400	8.70	6.53

LT-WT-NT		NET PRICE FOR TYPE LT ONLY	
Specification Number	Inductance	1-14	15-49
204-1124-7	6.40 mH	\$ 5.22	\$ 3.92
204-1140-7	7.50	5.22	3.92
204-1144-7	8.00	5.22	3.92
204-1160-7	10.00	5.42	4.07
204-1170-7	12.00	5.42	4.07
204-1190-7	15.00	5.42	4.07
204-1210-7	20.0	5.60	4.20
204-1230-7	25.0	5.60	4.20
204-1240-7	30.0	5.60	4.20
204-1250-7	36.0	5.80	4.35
204-1260-7	40.0	5.80	4.35
204-1280-7	50.0	5.80	4.35
204-1290-7	60.0	5.80	4.35
204-1310-7	75.0	5.98	4.47
204-1320-7	86.0	5.98	4.47
204-1330-7	100.0	5.98	4.47
204-1340-7	120.0	5.98	4.47
204-1360-7	150.0	6.18	4.64
204-1380-7	200.0	6.18	4.64
204-1400-7	250.0	6.36	4.77
204-1410-7	300.0	6.36	4.77
204-1430-7	400.0	6.36	4.77
204-1450-7	500.0	6.56	4.92
204-1460-7	600.0	6.56	4.92
204-1480-7	750.0	6.56	4.92
204-1500-7	1,000 h	6.74	5.06
204-1530-7	1,500	6.74	5.06
204-1550-7	2,000	6.94	5.21
204-1570-7	2,500	6.94	5.21
204-1580-7	3,000	6.94	5.21
204-1590-7	3,600	7.12	5.34
204-1600-7	4,000	7.12	5.34
204-1620-7	5,000	7.12	5.34
204-1630-7	6,000	7.12	5.34
204-1650-7	7,500	7.12	5.34
204-1655-7	8,200	7.12	5.34

*Prices for larger quantities are available on request. ‡ET=Encapsulated Toroid, WT=Wax-impregnated Toroid, NT=Non-impregnated Toroid. LT=Low-Profile Encapsulated Toroid - Please use correct prefix when ordering.

TYPES ET-1, WT-1, NT-1	
Subminiature Inductors (.375" H x .590" W x .844" L) 4 Core Types - Frequency Range: to 500 KC.	
104 - Inductance: 5.4 mH to 2.5 h	
106 - Inductance: 5.0 mH to 2.0 h	
107 - Inductance: 2.5 mH to 0.96 h	
108 - Inductance: 1.0 mH to 0.43 h	

LT (LOW PROFILE)	
Toroid Inductors (.5" H x 1.08" Dia x 1.24 L) 5 Core Types - Frequency Range: to 100 KC	
203 - Inductance: 8.00 mH to 10.3 h	
204 - Inductance: 6.40 mH to 8.2 h	
206 - Inductance: 5.00 mH to 6.4 h	
207 - Inductance: 2.40 mH to 3.0 h	
208 - Inductance: 1.20 mH to 1.25 h	

STANDARD SPECIFICATIONS FOR SIZE 1 INDUCTORS	
Inductance Tol: ± 1%	
Max. Oper. Temp.: 105°C type ET 65°C type WT	
Freq. Range: 3 kc to 500 kc	
Approx. Wt.: 0.30 oz. type ET 0.25 oz. type WT	
NOTE: Type LT-2 Specs. same as size 2 Standard Specs. on following page	

SANGAMO ELECTRIC COMPANY

inductors

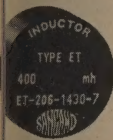


ELECTRONIC COMPONENTS

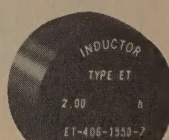
ET-2, WT-2, NT-2

ET-4, WT-4, NT-4

INDUCTORS



ET-2



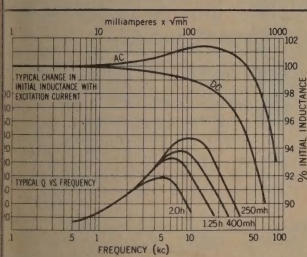
ET-4

NT-2
CENTER
TAPPED

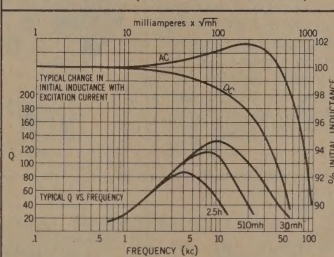
Sangamo size 2 and 4 inductors employ the most popular sizes of powdered molybdenum permalloy cores. The type ET-2 and ET-4 package is available with up to 8 terminals; permitting various designs such as center tapped inductors, or multiple winding transformers. Sangamo inductors are designed and manufactured in accordance with all requirements of Military Specification MIL-T-27B. 72 hour delivery is available on all prototype units.

For additional information, including additional listings and sizes, write for bulletin 2721A.

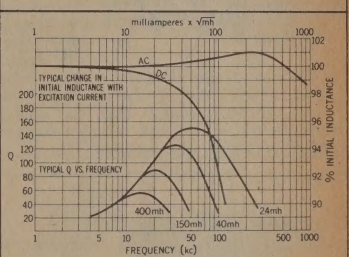
TYPE 206



TYPE 204 (CENTER TAPPED)



TYPE 208



ET-WT-NT		Net Price For Type ET Only		
Specification Number ±	Inductance	1-14	15-49*	
K-111-7	5.00 mh	\$5.22	\$3.92	
K-112-7	6.00	5.22	3.92	
K-114-7	6.40	5.22	3.92	
K-114-7	7.50	5.22	3.92	
K-115-7	8.60	5.42	4.07	
K-116-7	10.00	5.42	4.07	
K-117-7	12.00	5.42	4.07	
K-119-7	15.00	5.60	4.20	
K-120-7	17.50	5.60	4.20	
K-121-7	20.0	5.60	4.20	
K-123-7	25.0	5.60	4.20	
K-124-7	30.0	5.80	4.35	
K-126-7	40.0	5.80	4.35	
K-128-7	50.0	5.80	4.35	
K-129-7	60.0	5.98	4.49	
K-131-7	75.0	5.98	4.49	
K-132-7	86.0	5.98	4.49	
K-133-7	100.0	6.18	4.64	
K-134-7	120.0	6.18	4.64	
K-136-7	150.0	6.18	4.64	
K-138-7	200.0	6.36	4.77	
K-140-7	250.0	6.36	4.77	
K-141-7	300.0	6.36	4.77	
K-143-7	400.0	6.56	4.92	
K-145-7	500.0	6.56	4.92	
K-146-7	600.0	6.56	4.92	
K-148-7	750.0	6.74	5.06	
K-150-7	1,000 h	6.74	5.06	
K-153-7	1,500	6.94	5.21	
K-155-7	2.00	6.94	5.21	
K-157-7	2.50	7.12	5.34	
K-158-7	3.00	7.12	5.34	
K-159-7	3.60	7.12	5.34	
K-160-7	4.00	7.12	5.34	
K-162-7	5.00	7.12	5.34	
K-163-7	6.40	7.12	5.34	

ET-WT-NT		Net Price For Type ET Only		
Specification Number ±	Inductance	1-14	15-49*	
204-324-7	30.0 mh	\$6.16	\$4.62	
204-326-7	40.0	6.38	4.79	
204-328-7	50.0	6.38	4.79	
204-329-7	60.0	6.38	4.79	
204-330-7	72.0	6.58	4.94	
204-332-7	86.0	6.58	4.94	
204-333-7	100.0	6.58	4.94	
204-334-7	120.0	6.58	4.94	
204-336-7	150.0	6.78	4.99	
204-337-7	175.0	6.78	4.99	
204-338-7	200.0	6.78	4.99	
204-339-7	240.0	7.00	5.25	
204-340-7	250.0	7.00	5.25	
204-341-7	300.0	7.00	5.25	
204-342-7	360.0	7.00	5.25	
204-343-7	400.0	7.00	5.25	
204-345-7	500.0	7.22	5.42	
204-346-7	600.0	7.22	5.42	
204-348-7	750.0	7.22	5.42	
204-349-7	860.0	7.42	5.57	
204-350-7	1,000 h	7.42	5.57	
204-351-7	1,200	7.42	5.57	
204-352-7	1,250	7.42	5.57	
204-353-7	1,500	7.52	5.62	
204-355-7	2.00	7.64	5.73	
204-356-7	2.40	7.64	5.73	
204-357-7	2.50	7.64	5.73	
204-358-7	3.00	7.64	5.73	
204-359-7	3.60	7.95	6.06	
204-360-7	4.00	7.95	6.06	
204-361-7	4.30	7.95	6.06	
204-362-7	5.00	7.95	6.06	
204-363-7	6.00	8.70	6.53	
204-364-7	7.20	8.70	6.53	
204-365-7	8.20	8.70	6.53	

ET-WT-NT		Net Price For Type ET Only		
Specification Number ±	Inductance	1-14	15-49*	
406-113-7	7.20 mh	\$ 6.34	\$ 4.76	
406-115-7	8.60	6.34	4.76	
406-117-7	12.00	6.34	4.76	
406-119-7	15.00	6.34	4.76	
406-121-7	20.00	6.34	4.76	
406-123-7	25.00	6.34	4.76	
406-124-7	30.0	6.34	4.76	
406-126-7	40.0	6.34	4.76	
406-128-7	50.0	6.34	4.76	
406-129-7	60.0	6.62	4.97	
406-131-7	75.0	6.62	4.97	
406-132-7	86.0	6.62	4.97	
406-133-7	100.0	6.62	4.97	
406-134-7	120.0	6.82	4.97	
406-136-7	150.0	6.88	5.16	
406-138-7	200.0	6.88	5.16	
406-139-7	240.0	6.88	5.16	
406-142-7	300.0	7.16	5.37	
406-143-7	400.0	7.16	5.37	
406-145-7	500.0	7.16	5.37	
406-146-7	600.0	7.16	5.37	
406-148-7	750.0	7.44	5.58	
406-149-7	860.0	7.44	5.58	
406-150-7	1,000 h	7.44	5.58	
406-153-7	1,500	7.72	5.79	
406-155-7	2.00	7.72	5.79	
406-157-7	2.50	7.98	5.99	
406-159-7	3.60	7.98	5.99	
406-160-7	4.00	7.98	5.99	
406-162-7	5.00	7.98	5.99	
406-165-7	7.50	8.26	6.20	
406-166-7	9.10	8.26	6.20	
406-168-7	12.00	8.26	6.20	
406-170-7	15.00	8.26	6.20	
406-171-7	17.50	8.26	6.20	
406-174-7	19.00	8.26	6.20	

For larger quantities are available on request.

* Encapsulated Toroid, WT = Wax-impregnated Toroid, NT = Non-impregnated Toroid—Please use correct prefix when ordering.

Types ET-2, WT-2, NT-2
Toroidal Inductors (.56" H x 1.08" Dia.)
Core Types - Frequency Range: to 100 KC.
203 - Inductance: 8.00 mh to 10.3 h
204 - Inductance: 6.40 mh to 8.2 h
206 - Inductance: 5.00 mh to 6.4 h
207 - Inductance: 2.40 mh to 3.0 h
208 - Inductance: 1.20 mh to 1.25 h

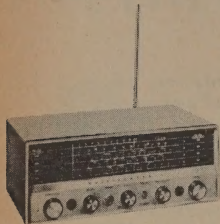
Standard Specifications for Size 2 Inductors
Inductance Tol: ±1%
Max. Oper. Temp: 105°C Type ET
65°C Type WT
Freq. Range: 1kc to 100kc
Approx. Wt: 0.95 oz. Type ET
0.64 oz. Type WT

Types ET-4, WT-4, NT-4
Toroidal Inductors (.86" H x 1.34" Dia.)
4 Core Types - Frequency Range: to 60 KC.
403 - Inductance: 12.0 mh to 30.40 h
404 - Inductance: 9.60 mh to 24.30 h
406 - Inductance: 7.20 mh to 19.00 h
407 - Inductance: 3.60 mh to 9.10 h

Standard Specifications for Size 4 Inductors
Inductance Tol: ±1%
Max. Oper. Temp: 105°C Type ET
65°C Type WT
Freq. Range: 400 cps to 50 kc
Approx. Wt: 2.20 oz. Type ET
1.70 oz. Type WT



Precision-Built Short Wave Receivers and Citizens Band Equipment



11½ lbs. (U/L approved.)\$69.95

S-120

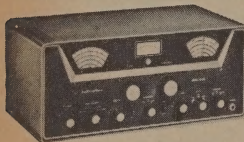
Broadcast 540-1650 kc, three S/W bands 1650 kc.-31 Mc. Three antennas ferrite loop for broadcast, adjustable whip for S/W and wire antenna. Front panel headphone jack, disconnects built-in speaker when headphones are plugged in. Four tubes plus selenium rectifier. 105/125V AC/DC. Gray steel cabinet with silver trim. 13½" x 5½" x 8¾". Shipping wt.



NEW!

CB-20

Hallicrafters breaks the solid-state price barrier — a highly reliable, five channel all-transistorized 5-watt transceiver for under \$100! Exceptionally low current drain. High-order modulation. Less than 1 µv sensitivity for 10 db S/N ratio. Size: 7" x 6" x 2¼" LW. Shipping wt. 4 lbs.....\$99.



for maximum electro-mechanical stability. Antenna trimmer, amplified AVC. 2nd conversion oscillator crystal-controlled. Removable top and bottom. Cabinet size: 18¾" wide, 8" high, 9¾" deep. Shipping wt. approx. 31 lbs. Provisions for 100 kc. crystal calibrator accessory (HA-7). Uses R-50 or R-51 speaker (see above). (U/L approved.)\$289.95

SX-122 (Less speaker)

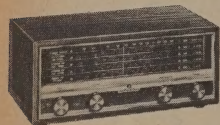
Deluxe general coverage receiver. Broadcast (538-1580 kc.) plus three S/W bands (1720 kc.-34 Mc.). Dual conversion, superheterodyne over the entire frequency range. Product detector for SSB/CW. Envelope detector for AM. Series noise limiter. Heavy-duty tuning capacitor with copper plates in oscillator section



NEW!

CB-14

Completely transistorized, highly compact deluxe CB transceiver featuring 23 channels, crystal controlled synthesizer. Receiver is dual conversion—sensitivity, 1 microvolt for db. S/N. Full-time auto. noise limit. Extremely low battery drain, instant warm-up. Built-in P.A. or loud har circuitry. Size: 9" x 3¾" x 7¾". power supply available. Ship. wt. lbs.....\$259.

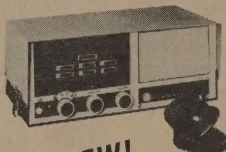


silver trim measures 13½" x 5½" x 8¾". Shipping wt. 12 lbs. (U/L approved.)\$59.95

S-200

NEW!

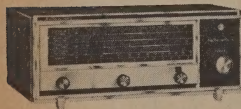
Broadcast 550 to 1600 kc, four S/W bands 5.9 Mc to 15.55 Mc. Expanded, precision slide-rule dial. Two antennas (ferrite loop and wire). Four tubes plus rectifier. Built-in speaker. Front panel headphone jack. 105/125V. AC/DC. Trim walnut wood-grained steel cabinet with



NEW!

CB-17

Six channel fixed or mobile class C Citizens Band transceiver. All-electronic push-to-talk circuitry. 7 tube and 4 silicon diodes. 5 watt power input. Dimensions: 12" x 7" x Shipping wt. 15 lbs.\$99.



S-210

Exceptional FM entertainment plus AM plus most-wanted foreign broadcast frequencies in four SW bands. New Hallicrafters S-P-R-E-A-D Tuning greatly simplifies "zeroing-in" on foreign stations. Beautiful wood-grained vinyl-clad metal cabinet. Built-in speaker. Size: 13½" x 5½" x 8¾". Ship. wt. 12 lbs.....\$89.95

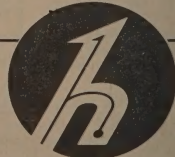


NEW!

CB-18

Brand new — a rugged, hand-held, 14-transistor CB transceiver for personal or industrial use. 2 watts input. You get two-channel operation with plug-in crystals. Powered by self-contained 500-hour nickel-cadmium batteries (batteries a charger included). Squelch control, provision external antenna, earphone/speaker, microphone. Sizes: 8¾" x 3¾" x 1¼".....\$119 Model CB11A, 100 mw unit.....\$74.95/

"Quality through Craftsmanship"



hallicrafters

Philmore Guaranteed ELECTRONIC COMPONENTS

ATT SOLID STATE STEREO AMPLIFIER Model -1600



Y developed circuitry incorporating 18 latest transistors and 4 silicon diodes. m oiled walnut wood cabinet and knurled knobs on etched aluminum front panel.

Panel Inputs:
• Tape in
• Tape out
• Switched AC receptacle

Panel:
selector Switch: Tape head — phono — Tuner

controls: Volume, Bass, Treble, Balance.
position mode: Left, Right, Mono, Stereo, reverse.

locker Switch Selections: Tape monitor —
oudness — Rumble — Speaker Muting —
ower.

tered Headphone Jack

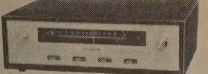
IFICATIONS:
Output: 40 watts per channel IHFM
music power

ency Response: ± 1 db, from 20 to 20,000 cps
onic Distortion: Less than 1%
and Noise: —70db

ge: mag: 110-120 volts 50/60 cps —
double-fused
13 $\frac{3}{4}$ " w x 4 $\frac{1}{8}$ " H x 10" D

No. TA-1600 Audiophile Net \$99.95

FM STEREO SOLID STATE TUNER Model -1700



perfectly matched companion to our Model
10 Solid State Stereo Amplifier features:
FM Noise Filter Switch

Stereo Indicator Light for Multiplex FM Broad-
ast
IFC — assuring locked-in stations — even in
ringe areas

tuning meter
atest advances in transistorized circuitry
Built-in antenna for local stations.

IFICATIONS:
ency Response: 30-20,000 cps ± 1 db
tivity: 3uv

re Rejection: 35db at 98mc
nel Separation: 30db at 1000 cps

conductors: 13 transistors, 8 diodes
m oiled walnut wood with etched front panel
aluminum knobs to match.

13 $\frac{3}{4}$ " W x 4" H x 10 $\frac{1}{4}$ " D.

No. TT-1700 Audiophile Net \$89.95

NEW IMPROVED THREE TUBE (Including Rectifier Tube) TWO-BAND AC-DC RADIO KIT



Provides signal strength
sufficient to drive a 3 $\frac{1}{2}$ "
PM speaker.

illustrated with pictorial and schematic dia-
s, speed assembly. Chassis is completely
ned and plated. Panel is attractive gray ham-
one, with white silk-screened lettering and

Here is a professional radio kit that is perfect
the beginner in radio. When assembled, you have
O BAND set, covering the standard broadcast
(550-1650 KC) and SHORT WAVE band (3-13

(Complete with PM speaker, less tubes)
ses 1 each: 35W4, 50C5 and 12AU6 tubes.

7001-CR Net Price \$14.50

STEREO PHONO AMPLIFIER WITH TRANSFORMERS



the Stereo Amplifier plus Silicon Rectifier. Neat,
fact, fully assembled, furnished with tubes.
volume controls with on-off switch, two tone
rols, standard RCA type input jacks for phono
ridge. Features two 2500-ohm output trans-
formers to match 3.2 ohm voice coil.

PA630 Net Price \$11.95 ea.

TWO STATION TRANSISTORIZED INTERCOM



No. TC2
Net Price \$10.95
Per Set

Beautifully styled high-impact plastic cabinets, with
sloping design for full maximum speaker performance.
Consists of a master control, and listen-talk
push button switch and a remote (sub). Both sta-
tions can call each other, even when master is in
off position, by pressing either one of the push
buttons, which sends a signal. Provides excellent
communication between two locations in home,
shop or office. Supplied complete with 66 feet
connecting cable and plugs, 9 Volt battery, insu-
lated staples, plastic tape and instructions. Size
of cabinets 13 $\frac{1}{4}$ " high x 4" deep x 3" wide. Eye
appealing blister packed for quick sales.

30,000 OHMS PER VOLT MULTITESTER



Features a self-shielded core-magnet
movement. Has flat frequency re-
sponse in AC measurement pro-
vided by semiconductor diodes. In-
corporates single deck rotary switch
which gives instant positive selection
of desired range. Sensitivity is
30,000 ohms per volt DC, and
12,000 ohms per volt AC. Rugged
compact black wrinkled metal case 2" high x 5 $\frac{1}{2}$ "
long x 3 $\frac{3}{4}$ " wide.

SPECIFICATIONS:

DC Voltage: 0.25V, 1V, 10V, 50V
250V, 1000V (30K ohms/V)
AC Voltage: 10V, 50V, 250V, 500V, 1000V
(12K ohms/V)

DB 1. —20db + 22db on 10V AC range
2. +20db to 35db on 50V AC range

Reference: odb = .775V or 1mw across 600
ohms
Resistance: 10K, 100K, 1meg, 10 meg
Capacitance: 250mmfd to .02mfd

Inductance: 50-5K henries
Output Scale: 10, 50, 250, 500 & 1000V AC
Diode protected meter movement

DC Current: 50uA, 10mA, 250mA
Battery: 2 penlite batteries
1% precision resistors used

Includes test leads, batteries and instructions.

No. PNH301D Net Price \$14.95 ea.

HI-FI TURNOVER CRYSTAL CARTRIDGE WITH TONE ARM



Contains the CX401 cartridge with two Sapphire
needles, 30 to 11,000 cps., 6 Volt output. Includes
arm rest and hardware. Spring counter balanced
aluminum arm. Needles are very easily replaceable.
Individually boxed.

No. C401 Net Price \$2.50

ADAPTERS



Phone Jack to Phono Plug: Shielded Phone Jack at
rear takes standard (1/4") phono plug. Front is RCA
type phono plug. Overall size 2 $\frac{1}{8}$ ".

No. 530A Net Price \$.42

Phone Jack to Miniature Phone Plug: Shielded RCA
type phono jack at one end, Shielded miniature
phone plug (1/8" diam.) at other end. Packed 5 to
a bag, suitable for peg-rack sales.

No. 533A Net Price Per Adapter \$.42

TELEPHONE EXTENSION CABLE (30 Feet)



Supplied completely assembled
with telephone plug and jack.
Complete with simple hookup instructions. Individ-
ually blister packed for peg-rack sales.

No. TEC30 Net Price \$2.75 ea.

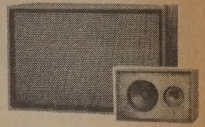
SUB-MINIATURE PUSH BUTTON SWITCH



Panel mount, momentary contact, single
pole two circuit push to make and
break switch. Has red button, washer,
and mounting nut. Overall diameter 1/2". Overall
depth including knob 1 $\frac{1}{4}$ ". Protrudes 3/4" behind
panel. Mounting hole dimension 1/4" diam.

No. M291 Net Price \$.25 ea.

Low Suspension Type 2-Way Speaker System



Highest quality 2-
way acoustic sus-
pension speaker sys-
tem.

The size of this compact wonder of sound is 8 $\frac{3}{4}$ "
x 13 $\frac{3}{4}$ " x 7 $\frac{1}{4}$ ".

The enclosure is made of genuine oiled walnut.
Includes high compliance 1/2" woofer for clean
full bass tone and a 4" tweeter bringing out sounds
that really mean HIGH fidelity.

Other specifications:

L-C Crossover network at 1900 CPS

Capacity: 20 watts

Frequency Response: 60 to 18,000 CPS

Magnet Structure: 1 Pound

Impedance: 8 Ohms

Model No. SS4 Net Price \$29.95

DUAL IMPEDANCE DYNAMIC MICROPHONE

Black die cast case

with a chrome

plated head around

a black mesh grille.

• Built-in on/off

Switch

• Swivel mike

holder

• Separate mike

stand

• 20 ft. of shielded

cable.

SPECIFICATIONS:

Simplified change

of Impedance:

(from 50,000 ohms to 600 ohms
by merely rotating connector
plug)

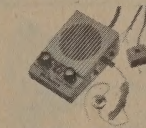
—60db at 1000 CPS

Frequency Resp.: 100 to 12,000 CPS

Fitting: Standard 3/8"-27 thread

Size of Mike: 7 $\frac{1}{4}$ " long x 1 $\frac{1}{4}$ " dia. of head

Model DM16 Net Price \$13.25 ea.



"ALL-PURPOSE" REMOTE CONTROL

• Turns any Audio Device
such as TV, Radio, Hi-Fi
Equipment, etc., ON or
OFF.

• Separate Controls regulate the Volume of all
Audio Devices, as well as the Speaker built into
the Remote Control Unit.

• Two Earphone Positions are available for Private
Listening. Earphone and Main Speaker can be
operated together or separately, with Individual
Control of Volume on Each!

Molded ivory plastic cabinet. 20 ft. of combina-
tion AC cut-off and attachment cable. Simple hook-
up instruction are included.

Packaged in an attractive self-display carton com-
plete with cable and one earphone.

No. TRC Net Resale Price \$7.50

J-38 TYPE

TELEGRAPH KEY



Exact replacement of the
famous J-38 Army Key.
Brass key and nickel plated metal parts are
mounted on black polystyrene base. Adjustable
coin silver contacts. Comes with lever switch and
flat Navy type knob. Individually boxed.

Model No. JJ38 Net Price \$3.10 ea.

HI-FI ALUMINUM KNOBS



Individually packaged in a
poly bag suitable for peg-rack
sales.

Push-on soft gold finish knob with depressed in-
set line on side of knob. Fits 1/4" shaft. Di-
ameter 3/4". Height 3/8".

No. 325 Net Price \$.36 ea.

Set Screw knob with dark gray depressed indicator
line on the side. Fits 1/4" shaft. Diameter 3/4"
tapered to 3/8". Height 3/4".

No. 327 Net Price \$.40 ea.

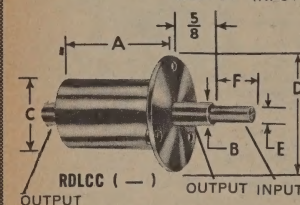
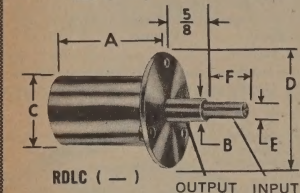
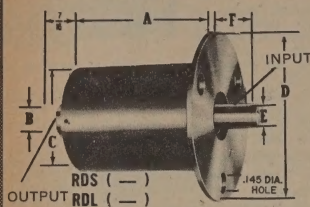
PHILMORE MANUFACTURING CO. INC.

We will be pleased to send our latest Catalog upon request.



JAN HARDWARE

MANUFACTURING COMPANY, INC.



RATIO DRIVES

for FINE INSTRUMENT AND MACHINE CONTROLS

Ball Bearing Type Compact, durable, exceptionally smooth action

These unique ratio drives employ precision ball bearings. Used for rotary control of components in instruments, they provide unexcelled smooth motion. Ruggedly built, permanently sealed and lubricated, JAN Ratio Drives accommodate applications where miniaturization is essential.

Input and output shafts of these units operate in the SAME DIRECTION. Types "RDL" and "RDS" provide "in-line" input-output shafts. Type "RDLC" is supplied with concentric shafts whereby the output envelops the input shaft. An added feature of type RDLC is the output shaft in the rear.

CAT. No.	RATIO	A	O.D.	I.D.	C	D	Input Shaft E	F	Bolt-Mtg. Dia.
RDL-1	2.6-1	1	$\frac{3}{8}$	$\frac{1}{4}$	$1\frac{1}{8}$	$1\frac{1}{8}$	$\frac{1}{4}$	$\frac{3}{4}$	$1\frac{1}{32}$
RDL-2	7.0-1	$1\frac{1}{32}$	$\frac{3}{8}$	$\frac{1}{4}$	$1\frac{1}{8}$	$1\frac{1}{8}$	$\frac{1}{4}$	$\frac{3}{4}$	$1\frac{1}{32}$
RDL-3	17.0-1	$1\frac{1}{16}$	$\frac{3}{8}$	$\frac{1}{4}$	$1\frac{1}{8}$	$1\frac{1}{8}$	$\frac{1}{4}$	$\frac{3}{4}$	$1\frac{1}{32}$
RDLC-1	2.6-1	1	$\frac{3}{8}$	$\frac{1}{4}$	$1\frac{1}{8}$	$1\frac{1}{8}$	$\frac{1}{4}$	$1\frac{1}{2}$	$1\frac{1}{32}$
RDLC-2	7.0-1	$1\frac{1}{32}$	$\frac{3}{8}$	$\frac{1}{4}$	$1\frac{1}{8}$	$1\frac{1}{8}$	$\frac{1}{4}$	$1\frac{1}{4}$	$1\frac{1}{32}$
RDLC-3	17.0-1	$1\frac{1}{16}$	$\frac{3}{8}$	$\frac{1}{4}$	$1\frac{1}{8}$	$1\frac{1}{8}$	$\frac{1}{4}$	$\frac{3}{4}$	$1\frac{1}{32}$
RDLC-1	2.6-1	$1\frac{1}{32}$	$\frac{3}{8}$	$\frac{1}{4}$	$1\frac{1}{8}$	$1\frac{1}{8}$	$\frac{1}{4}$	$\frac{3}{4}$	$1\frac{1}{32}$
RDLC-2	7.0-1	$1\frac{1}{32}$	$\frac{3}{8}$	$\frac{1}{4}$	$1\frac{1}{8}$	$1\frac{1}{8}$	$\frac{1}{4}$	$\frac{3}{4}$	$1\frac{1}{32}$
RDLC-3	17.0-1	$1\frac{1}{16}$	$\frac{3}{8}$	$\frac{1}{4}$	$1\frac{1}{8}$	$1\frac{1}{8}$	$\frac{1}{4}$	$\frac{3}{4}$	$1\frac{1}{32}$
RDLC-1	2.6-1	$1\frac{1}{32}$	$\frac{3}{8}$	$\frac{1}{4}$	$1\frac{1}{8}$	$1\frac{1}{8}$	$\frac{1}{4}$	$\frac{3}{4}$	$1\frac{1}{32}$
RDLC-2	7.0-1	$1\frac{1}{32}$	$\frac{3}{8}$	$\frac{1}{4}$	$1\frac{1}{8}$	$1\frac{1}{8}$	$\frac{1}{4}$	$\frac{3}{4}$	$1\frac{1}{32}$
RDLC-3	17.0-1	$1\frac{1}{16}$	$\frac{3}{8}$	$\frac{1}{4}$	$1\frac{1}{8}$	$1\frac{1}{8}$	$\frac{1}{4}$	$\frac{3}{4}$	$1\frac{1}{32}$

ALL RATIOS ARE $\pm 10\%$

KNOB RATIO DRIVE

(9 to 1)

Cat. No. KR-11
(plain gripping surface)

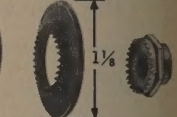
Cat. No. KR-12
(knurled gripping surface)



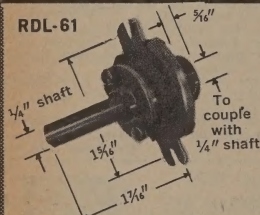
Exploded view shows engineered miniature gear system, to permit precise, fine tuning of controls. As shown, 9 to 1 ratio. Other ratios designed to specifications.

Brass gears; black anodized aluminum knob and dial. Available with knurled or non-knurled outside knob.

Available for $\frac{1}{8}$ " and $\frac{1}{4}$ " shafts.



RDL-61



IN-LINE RATIO DRIVE

6.3 : 1

Variations available to customers specifications.

For smooth rotary control of components requiring Vernier adjustments. Suitable for use where panel space is at a premium. Durable, ruggedized ball bearing mechanism.

LIMIT STOP COMPONENTS

Designers can now consider the limit stop as a component to design with, such as potentiometers, capacitors, or other standard units. The simplicity of adjustment and the large number of available turns enables the stop range to be set with extreme precision. Conveniently located dual locking screws maintain settings under all conditions of shock and vibration.

Available for
 $\frac{1}{4}$ " and $\frac{3}{16}$ " shafts.
Specify — (3) for $\frac{3}{16}$ "
— (4) for $\frac{1}{4}$ "



LS 552 Washer



LS 554 Collar



LS 556 Stop Plate



Typical End Product

Versatile, miniaturized, right angle rotary controls.

Featuring dual output stainless steel shafts at right angles to input, these engineered drives provide an ideal type of instrument control. Available with matched bevel or worm gears covering a wide range of ratios.

JAN'S RIGHT ANGLE DRIVES are especially useful for handling spring or gravity-loaded components since the output shaft automatically locks in any desired position yet remains free for smooth adjustment by the input shaft. Assembled in dust-proof housings, the gears are permanently pinned in place on stainless-steel shafts mounted in oilite bearings and held under constant pressure.

BEVEL GEAR

RIGHT ANGLE DRIVES

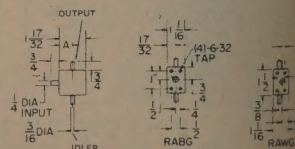
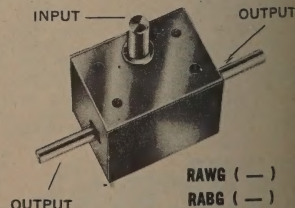


CAT. No.	RATIO	"A"
RABG-1	1:1	$\frac{3}{4}$
RABG-2	2:1	$\frac{3}{4}$
RABG-3	3:1	$\frac{3}{4}$



WORM GEAR RIGHT ANGLE DRIVES

CAT. No.	RATIO	"A"
RAWG-1	5:1	$\frac{3}{4}$
RAWG-2	10:1	$\frac{3}{4}$
RAWG-22	12:1	$\frac{3}{4}$
RAWG-3	20:1	$\frac{3}{4}$





JAN HARDWARE

MANUFACTURING COMPANY, INC.



U.S. PATENT NO. 2,681,378

HI-VOLTAGE INSULATED COUPLINGS

MEETS MIL SPECS:

TEMPERATURE - HUMIDITY
SHOCK - VIBRATION - FUNGUS

HI-VOLTAGE INSULATED COUPLINGS

15 KV Breakdown 10 inch pounds torque

Series No. AK-5079 & No. AK-5164

Engineered with stainless steel shaft and precision, screw-driver tip molded-integrally with Diallyl Phthalate Material in accordance with Military Specifications. Completely shock, vibration and fungus proof, they operate with ease over an ambient temperature range of -75 to $+175^{\circ}$ C. Supplied complete with nickel plated mounting hardware.

Stainless steel screw driver tip fits all standard slotted shafts (potentiometer, etc.) without need for further machining. Ideally suited to adjust high voltage controls thus protecting operating personnel against danger. They are also used to reduce ground capacitance on other types of sensitive instrument controls.

For Commercial Instrument Applications

These couplings are available in general Purpose Black Bakelite.

Cat. No. 6164-(X or B)-() For Standard Type

Cat. No. 6079-(X or B)-() with Locking Type Bushing.

Dimensions are identical with 5000 series, in chart above.

STANDARD
TYPEWITH
LOCKING
TYPE
BUSHING

CAT No.

"A"

"B"

SHAFT

"C"

AK-5164-X-1

 $\frac{3}{8}$ " $\frac{3}{16}$ "

Slotted

 $\frac{5}{16}$ "

AK-5164-B-1

 $\frac{3}{8}$ " $\frac{1}{16}$ "

Slotted

 $\frac{3}{16}$ "

AK-5164-X-2

 $\frac{3}{8}$ " $\frac{3}{16}$ "

Slotted

 $\frac{15}{32}$ "

AK-5164-B-2

 $\frac{3}{8}$ " $\frac{1}{16}$ "

Slotted

 $\frac{15}{32}$ "

AK-5164-X-3

 $\frac{3}{8}$ " $\frac{3}{16}$ "

No Slot

 $\frac{15}{32}$ "

AK-5164-B-3

 $\frac{3}{8}$ " $\frac{1}{16}$ "

No Slot

 $\frac{15}{32}$ "

AK-5164-X-4

 $\frac{3}{8}$ " $\frac{3}{16}$ "

No Slot

 $\frac{15}{32}$ "

AK-5164-B-4

 $\frac{3}{8}$ " $\frac{1}{16}$ "

No Slot

 $\frac{15}{32}$ "

AK-5164-X-5

 $\frac{3}{8}$ " $\frac{3}{16}$ "

Slotted

Minus $\frac{1}{16}$ "

AK-5164-B-5

 $\frac{3}{8}$ " $\frac{1}{16}$ "

Slotted

Minus $\frac{1}{16}$ "

AK-5079-X-1

 $\frac{9}{16}$ " $\frac{3}{16}$ "

Slotted

 $\frac{1}{2}$ "

AK-5079-B-1

 $\frac{9}{16}$ " $\frac{1}{16}$ "

Slotted

 $\frac{1}{2}$ "

AK-5079-X-2

 $\frac{9}{16}$ " $\frac{3}{16}$ "

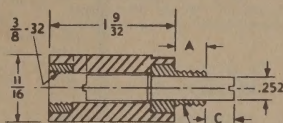
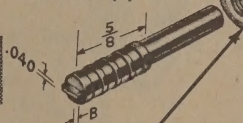
Slotted

 $\frac{1}{2}$ "

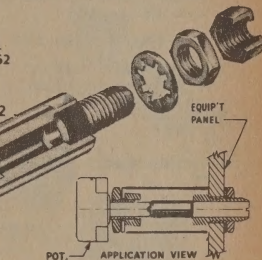
AK-5079-B-2

 $\frac{9}{16}$ " $\frac{1}{16}$ "

Slotted

 $\frac{1}{2}$ "AK-5164- ()
AK-5079- ()REDUCER
INSERT
BUSHING
Cat. No.
AK771

Used as an adapter with high voltage insulated couplings to accommodate miniature ($\frac{1}{16}$ " shaft) potentiometers. External thread $\frac{3}{8}$ x32. Internal thread $\frac{1}{4}$ x32.



COMMERCIAL INSULATED COUPLINGS

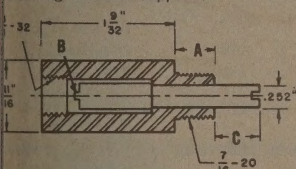
30 KV Breakdown

Series No. AK-4160

10 inch pounds torque

For TV and Industrial Applications

These handy couplings, capable of withstanding 30 KV, are made of high grade Bakelite throughout except for the stainless steel screwdriver tip molded within the drive shaft. Mounting hardware supplied.



CAT No.

"A"

"B"

SHAFT

"C"

STANDARD

TYPE

AK-4160-X-1

 $\frac{3}{8}$ " $\frac{3}{16}$ "

Slotted

 $\frac{1}{8}$ "

AK-4160-B-1

 $\frac{3}{8}$ " $\frac{3}{16}$ "

Slotted

 $\frac{1}{8}$ "

AK-4160-X-2

 $\frac{3}{8}$ " $\frac{3}{16}$ "

No Slot

 $\frac{1}{2}$ "

AK-4160-B-2

 $\frac{3}{8}$ " $\frac{3}{16}$ "

No Slot

 $\frac{1}{2}$ "

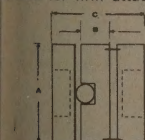
AUTOLINEAR (INSULATED) SHAFT COUPLINGS

2.5 - 5KV BREAKDOWN

Universal, miniature, self-aligning

Cat. No. AP-1530 & AP-1538

A unique series of shaft couplers that accommodate either similar or dissimilar $\frac{1}{16}$ ", $\frac{3}{16}$ ", or $\frac{1}{4}$ " shafts. Permits offset misalignment to $\frac{1}{16}$ " and 5° angle. Operates free of backlash. Plastic insulator between precision cast aluminum hubs. Each hub has 2 set screws for firm attachment. Aldolene finish.



PART NO.

DIA.

HOLE

"A"

"B"

"C"

AP-1530

-2

 $\frac{1}{16}$ " $\frac{1}{2}$ " $\frac{1}{4}$ " $\frac{7}{16}$ "

AP-1530

-3

 $\frac{3}{16}$ " $\frac{1}{2}$ " $\frac{1}{4}$ " $\frac{7}{16}$ "

AP-1538

-2

 $\frac{1}{16}$ " $\frac{1}{2}$ " $\frac{3}{16}$ " $\frac{1}{4}$ "

AP-1538

-3

 $\frac{3}{16}$ " $\frac{1}{2}$ " $\frac{3}{16}$ " $\frac{1}{4}$ "

AP-1538

-4

 $\frac{1}{16}$ " $\frac{1}{2}$ " $\frac{3}{16}$ " $\frac{1}{4}$ "

VOLTAGE RATING:

AP-1530-34

AP-1530 — 2500 VOLTS

AP-1538-22

AP-1538 — 5000 VOLTS

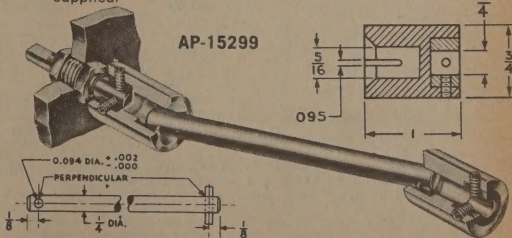
OFFSET-SHAFT (INSULATED) COUPLINGS

10 KV Breakdown $\pm 30^{\circ}$ Offset

Cat. No. AP-15299

Highly versatile, durable, insulated couplings made with single-unit, molded Nylon-to-metal insert construction. Application requires two couplings—permits smooth control for two parallel shafts offset from each other up to 30° degrees at separations greater than 3 inches. Secured to component and control shafts by 2 set screws.

Note: Coupling is accomplished with a $\frac{1}{4}$ " shaft of any length (not furnished). Coupling shaft keyed to coupler by steel drive pins supplied.





JAN HARDWARE

MANUFACTURING COMPANY, INC.



JACK COVERS (TRIMMER COVERS)

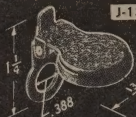
These sturdy Jack Covers fit jack or panel bushings and are used to keep out dust and moisture as well as to prevent inadvertent disturbance of control settings. Outer surfaces are finished in standard colors of baked enamel.

To Order Colors: Specify:

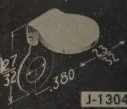
- (-1) Black Wrinkle; (-2) Smooth Gray; (-3) Smooth Olive; (-4) Smooth Black. Other colors on request.

Example: Jack cover, color black wrinkle, order as J-1301 (-1)

J-1301 ()
STANDARD
JACK COVER



J-1304 ()
MINI-JACK
COVER



J-1303 ()
WATERPROOF
JACK COVER
Gasket & Nut

J-1303

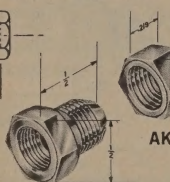
SHAFT LOCKS

Cat. No. AK-5100 thru No. AK-5107
Split-bushing, collet type locks.

Used to securely hold the shaft of volume controls, capacitors, switches, etc. in position. Body and lock nut are brass—nickel plated. Supplied with nickel plated internal tooth lock washers, upon request.

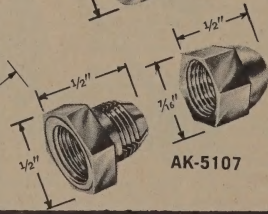
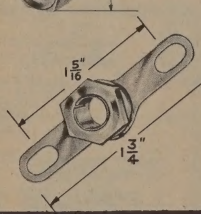
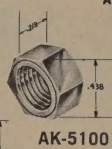
SPLIT BUSHING TYPE For 1/4" shafts

AK-5100 Standard Lock Nut
AK-5101 Panel Mount Type



AK-5106 Knurled Shaft Lock
(1" O.D. Knurl)

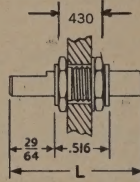
AK-5107 Lock Nut (Round Head)



PANEL BEARING & SHAFT ASSEMBLIES

Cat. No. AP-15350 series

Used for rotary control of components. Passivated stainless steel shaft is 1/4" dia. with one end flattened for attaching to knob control by set screws. Supplied completely assembled with two retaining rings, jam nut with lock washer and nickel plated, brass panel bearing. Fits panels up to 3/4" thick; mounts in 1/2" dia. hole.



AP 15350- ()

STAINLESS STEEL



Cat. No.

Item

"L" Shaft Length

AP 15350

Panel Bearing

—

AP 15350-1

Panel Bearing &

1 1/4"

AP 15350-2

Shaft Assembly

3"

AP 15350-3

6"

NYLON SHAFT LOCK

Cat. No. AK-1050



One-piece, black nylon; fits standard 3/8"-32 thread of shaft bushing. Friction grip holds 1/4" shaft to prevent accidental or vibrational disturbance of control settings. Adjustment for semi-permanent locking, provided.

SHAFT KNOB LOCK

Cat. No. AK 1055-2 (1/8" shaft)
AK 1055-4 (1/4" shaft)



Prevents movement of controls due to shock... vibration... or accidental manual contact. Available in matte or glossy finish, for commercial or military applications.

CHASSIS & CABINET BUMPERS

Durable, low-friction polyethylene. Guards against scuffing. Supplied in either black or russet brown, with recessed hole for screw or bolt usage.

Cat. No.
AK575 ()

Cat. No. AK574 ()

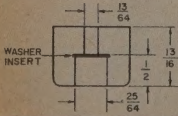


To Order Colors:

- Black, specify (4);
Brown specify (7).
Other colors on request.

No. AK 576-4 HEAVY DUTY CHASSIS & CABINET BUMPER.

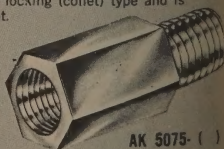
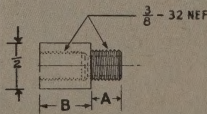
(with steel washer insert).
Molded neoprene. 1" Diameter, 1 3/4" high.
Configuration similar to AK 574 above.
Color, Black. Other colors on request.



BUSHING EXTENDERS Cat. No. AK-5075-1 thru No. AK-5075-11

Permit staggered mounting of components having 1/4" shafts, behind a panel. Useful in meeting problems of space economy. Supplied in nickel plated brass.

Note: Extender No. AK-5075-9 is a locking (collet) type and is supplied by JAN with lock nut.



AK 5075- ()

Cat. No.

"B"

"A"

Cat. No.

"B"

"A"

AK5075-1

3/8"

3/8"

AK5075-6

1 3/4"

1/4"

AK5075-2

3/8"

1/4"

AK5075-7

1 3/4"

3/8"

AK5075-3

3/8"

3/8"

AK5075-8

1 3/4"

1/4"

AK5075-4

3/8"

1/4"

AK5075-9

1 3/4"

1/4"

AK5075-5

2 1/4"

1/4"

AK5075-10

1 3/4"

3/8"

AK5075-11

3 3/4"

1/4"

JAN HARDWARE

MANUFACTURING COMPANY, INC.



at. No. H-465
VIEWING HOOD
and/or ADAPTER

can be used as viewing hood, on 2 3/4" dia. bezels. 1427; 1428; 1429). Also serves as adapter to permit use of face-fitting neoprene rubber viewing hoods. (see above). All aluminum. Dull black enamel finish.



VIEWING HOOD

No. H-689-1 (5 5/8" I.D.)

Black neoprene rubber. Contour-molded, fits shape of face. Keeps out ambient light when viewing scope.

Used with following Jan Bezels: 19636; 19495; 13584; 1465

No. H-689-2 (4 7/8" I.D.)

Used with Jan Bezel #545



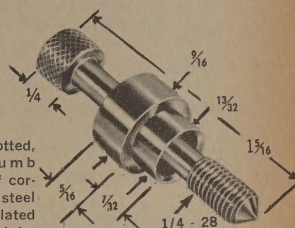
VIEWING HOOD
to fit rectangular bezels

Cat. No. H-1008

Black, contour molded neoprene rubber. Keeps ambient light out, when viewing scope. Fits shape of face. Can be adapted for smaller I.D.'s.

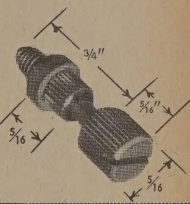
Used with Jan Bezel #1328. Can be adapted for #1533-P

CAPTIVE SCREW & NUT ASSEMBLIES



Cat. No. Ap-711

Consists of slotted, knurled thumb screws made of corrosion resistant steel bar, and nickel-plated (on brass) panel inserts.

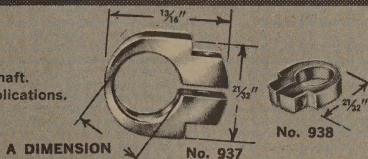


Cat. No. AP1039
Insert, Captive

Cat. No. AP1040
Screw, Captive

"NO-MAR" CLAMPS

Set screw does not touch shaft. Ideal for knob and gear applications. Variety of sizes available.



A DIMENSION

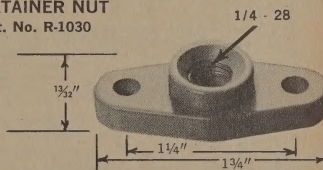
No. 937

No. 938

Cat. No.	-2	-3	-4	-5	-6	-7	-8
937	1/8"	3/16"	1/4"	5/16"	3/8"	13/32"	7/8"
938	1/8"	3/16"	1/4"	5/16"	3/8"	13/32"	7/8"

RETAINER NUT

Cat. No. R-1030

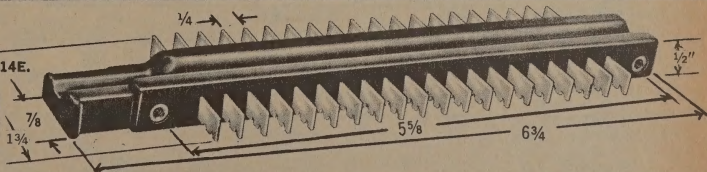


Used in conjunction with captive screw and nut assemblies. Die casting. Can be painted.

FEED THROUGH" TERMINAL BOARDS

Cat. No. T-746
Molded of wood-filled melamine per MIL-M-14E.

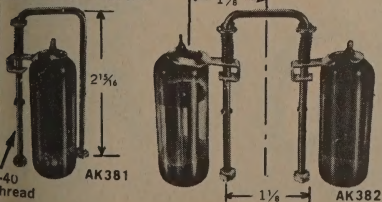
Avoid expensive tooling. Design around this integrally-molded 20 feed-through terminal board. Equally-spaced terminals can be used for wrap around and/or solder connections. Voltage Breakdown 4000 Volts.



TUBE BAIL ASSEMBLIES

Positive protection against vibration and shock. Spring-loaded tube holders give positive protection that is free of strain on tube. Available as single and twin tube hold-downs.

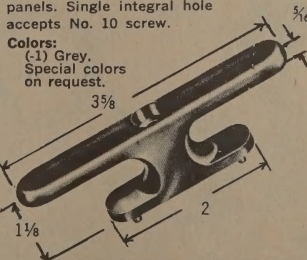
Holds securely in any position,—can't shake loose. Also provides excellent heat sink.



HANDLE, CORD Cat. No. H-692-1

This durable, die-cast aluminum handle is designed for use on small instrument panels. Single integral hole accepts No. 10 screw.

Colors:
(-1) Grey.
Special colors on request.



The service of JAN's design engineers is available to assist you with your Component requirements.

JAN will design and manufacture special Components to customers' specifications.

Complete facilities for prototype work.



JAN HARDWARE

MANUFACTURING COMPANY, INC.

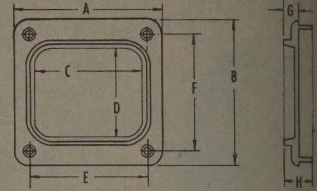


JAN's Bezels enhance the appearance of the instruments on which they are used. These units are functionally designed to provide OPTIMUM UTILIZATION OF THE CRT SCREEN, as well as safety against tube breakage and danger to operating personnel.

JAN Bezel Assemblies are supplied with a bezel, calibrated graticule, (where applicable) light filter and CRT cushion. Bezels are finished in a smooth dull black non-reflecting surface. These units fit JAN Mu-Metal Shields.

Edge-lit Bezels (E.L.B.A.)** These Bezels are designed to provide edge lighting of the engraved scale-calibrated graticule by means of pilot lights.

Camera Mount Bezel These units provide an integral cast mounting flange that fits all standard 3", 5" and 7" CRT cameras.

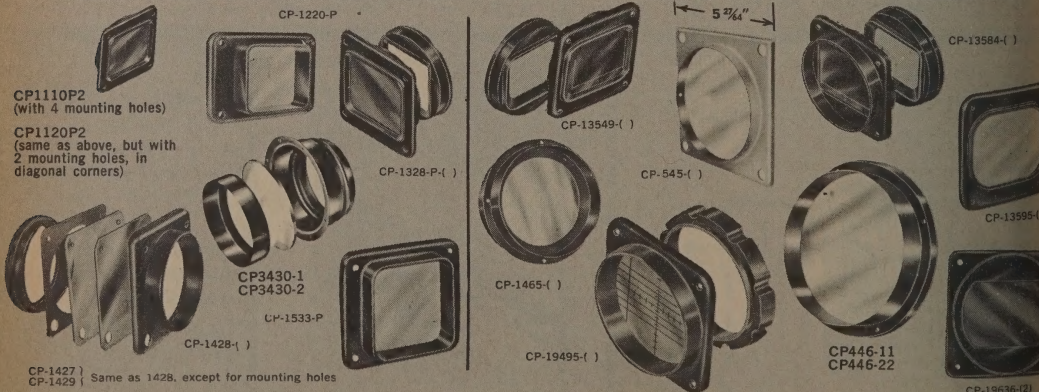


Catalog No.	CRT Face	Material	Type	Panel Opening	A Overall Width	B Overall Height	C Visible Area (Bezel) Width	D Visible Area (Bezel) Height	E Mounting Holes Width	F Mounting Holes Height	G Thickness (Face Incl. Only)	H Thickness (Flange)	Visible Area (Cushion) Height	Width
BEZELS FOR 2" C.R.T.														
CP-1110-P-2	Flat	Plastic*	Standard	2 1/8"	2 3/8"	2 3/8"	1 3/8"	1 3/8"	2"	2"	3/16"	3/16"	1 3/8"	1 3/8"
BEZELS FOR 3" C.R.T.														
CP-1220-P-2	Curved or Flat	Plastic*	Camera Mount	—	4 7/8"	3 3/4"	2 3/4"	2 1/4"	4"	2 1/2"	3/16"	1 1/8"	—	—
CP-1328-P-1	Curved	Plastic*	Standard	3 3/4"	3 3/4"	3 3/4"	2 3/4"	2 3/4"	3"	3"	3/16"	5/16"	2 1/2"	2 3/4"
CP-1427-1	Curved	Aluminum	Camera Mount	3 3/4"	4"	4"	2 3/4" Dia.	2 3/4" Dia.	3"	3"	3/16"	5/16"	2 3/2" Dia.	2 3/2" Dia.
CP-1428-1**	Curved	Aluminum	Camera Mount E.L.B.A.**	3 3/4"	4"	4"	2 3/4" Dia.	2 3/4" Dia.	3"	3"	3/16"	5/16"	2 3/2" Dia.	2 3/2" Dia.
CP-1429-1	Curved	Aluminum	Camera Mount	3 3/4"	4"	4"	2 3/4" Dia.	2 3/4" Dia.	3"	3"	3/16"	5/16"	2 3/2" Dia.	2 3/2" Dia.
CP-1429-2	Curved	Aluminum	Camera Mount	3 3/4"	4"	4"	2 3/4" Dia.	2 3/4" Dia.	3"	3"	3/16"	5/16"	2 3/2" Dia.	2 3/2" Dia.
CP-3430-1	Curved	Steel	Standard	—	4 1/8" Dia.	3 3/8" Dia.	3 3/8" Dia.	3 3/8" Dia.	3 3/4"	3 3/4"	1 1/16"	1 1/16"	2 3/2" Dia.	2 3/2" Dia.
CP-3430-2	Curved	Steel	Standard	—	4 1/8" Dia.	3 3/8" Dia.	3 3/8" Dia.	3 3/8" Dia.	3 3/4"	3 3/4"	1 1/16"	1 1/16"	2 3/2" Dia.	2 3/2" Dia.
BEZELS FOR 4" C.R.T.														
CP-1533-P-2	Flat	Plastic*	Camera Mount	3 1/2"	4 1/8"	3 3/4"	3"	3"	4"	—	1 3/8"	1 3/8"	—	No Cushion
BEZELS FOR 5" C.R.T.														
CP-13549-1	Curved	Aluminum	Standard	6.0"	6 1/2"	6 1/2"	4 7/8"	3 3/4"	4 1/8"	4 1/8"	1 1/2"	1 3/8"	4 1/4"	3 3/8"
CP-13549-2	Curved	Aluminum	Standard	6.0"	6 1/2"	6 1/2"	4 7/8"	3 3/4"	4 1/8"	4 1/8"	1 3/2"	1 3/2"	4 1/4"	3 3/8"
CP-13584-1	Curved	Aluminum	Camera Mount	6.0"	6 1/2"	6 1/2"	4 7/8"	3 3/4"	4 1/8"	4 1/8"	1 3/2"	1 3/2"	4 1/4"	3 3/8"
CP-13584-2	Curved	Aluminum	Camera Mount	6.0"	6 1/2"	6 1/2"	4 7/8"	3 3/4"	4 1/8"	4 1/8"	1 3/2"	1 3/2"	4 1/4"	3 3/8"
CP-13595-1**	Curved	Aluminum	Standard E.L.B.A.**	5 1/8"	6 1/2"	6 1/2"	4 7/8"	3 3/4"	4 1/8"	4 1/8"	1 3/2"	—	4 3/4" Dia.	—
CP-13595-2**	Curved	Aluminum	Standard E.L.B.A.**	5 1/8"	6 1/2"	6 1/2"	4 7/8"	3 3/4"	4 1/8"	4 1/8"	1 3/2"	—	4 3/4" Dia.	—
CP-1465	Curved or Flat	Steel	Camera Mount	5 1/8"	6 3/8" Dia.	6 3/8" Dia.	5 3/4" Dia.	5 3/4" Dia.	6"	6"	3/8"	3/8"	—	No Cushion
CP-1465-2	Curved or Flat	Steel	Camera Mount	5 1/8"	6 3/8" Dia.	6 3/8" Dia.	5 3/4" Dia.	5 3/4" Dia.	6"	6"	3/8"	3/8"	—	No Cushion
CP-19495-1**	Curved	Aluminum	Camera Mount E.L.B.A.**	5 1/8"	6 1/2"	6 1/2"	5 1/4" Dia.	5 1/4" Dia.	4 1/8"	4 1/8"	1 3/2"	—	4 3/4" Dia.	—
CP-19495-2**	Curved	Aluminum	Camera Mount E.L.B.A.**	5 1/8"	6 1/2"	6 1/2"	5 1/4" Dia.	5 1/4" Dia.	4 1/8"	4 1/8"	1 3/2"	—	4 3/4" Dia.	—
CP-19636-2**	Flat	Aluminum	Camera Mount E.L.B.A.**	5 1/8"	5 7/8"	5 7/8"	4 1/2" Dia.	4 1/2" Dia.	4 1/8"	4 1/8"	1 1/4"	—	4 1/2" Dia.	—
CP-446-11	Flat	Steel	Camera Mount	—	6 1/8" Dia.	5 3/8" Dia.	5 3/8" Dia.	5 3/8" Dia.	6 1/2"	6 1/2"	1"	1 1/8"	4 1/2" Dia.	—
CP-446-22	Flat	Steel	Camera Mount	—	6 1/8" Dia.	5 3/8" Dia.	5 3/8" Dia.	5 3/8" Dia.	6 1/2"	6 1/2"	1"	1 1/8"	4 1/2" Dia.	—

* All Plastic Bezels are furnished in shock resistant plastic, per MIL P-3414

** Edge Lit Bezel Assemblies

† Rectangular C.R.T.





JAN HARDWARE

MANUFACTURING COMPANY, INC.



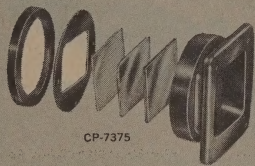
Catalog No.	CRT Face	Material	Type	Panel Opening	A Overall Width	B Overall Height	C Visible Area (Bezel)		D Height	E Mounting Holes		F Height	G-Thickness (Face Only)	H-Thickness (Incl. Flange)	Visible Area (Cushion)	
BEZELS FOR 7" C.R.T.																
CP-7330-1 CP-7331-2**	Curved Flat	Aluminum	Standard E.L.B.A.**	7 ¹ / ₃₂ "	7 ¹ / ₁₆ "	7 ¹ / ₁₆ "	6 ³ / ₁₆ " Dia.		6 ³ / ₁₆ "	6 ³ / ₁₆ "	3 ¹ / ₄ "	3 ¹ / ₄ "	6 ³ / ₁₆ " Dia.			
CP-7375-1** -2**	Curved Flat	Aluminum	E.L.B.A.**	7 ¹ / ₃₂ "	8"	8"	4 ¹ / ₂ "	4 ¹ / ₂ "	6 ³ / ₁₆ "	6 ³ / ₁₆ "	1 ¹ / ₃₂ "	2 ³ / ₃₂ "	4 ¹ / ₂ "	4 ¹ / ₂ "		
CP-7420-1** -2**	Curved Flat	Aluminum	Camera Mount	7 ¹ / ₃₂ "	7 ¹ / ₁₆ "	7 ¹ / ₁₆ "	6 ¹ / ₁₆ " Dia.		6 ³ / ₁₆ "	6 ³ / ₁₆ "	3 ¹ / ₄ "	1 ³ / ₄ "	6 ³ / ₁₆ " Dia.			
CP-7550	Curved or Flat	Aluminum	Camera Mount	4 ³ / ₃₂ "	7 ³ / ₈ "	6 ¹ / ₄ "	4 ³ / ₄ "	4 ³ / ₄ "	6 ¹ / ₄ "	5 ¹ / ₈ "	1 ³ / ₁₆ "	1 ³ / ₁₆ "	No Cushion			

** Edge Lit Bezel Assemblies

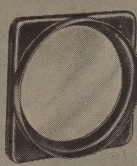
BEZEL FOR 10" C.R.T.																					
CP-10860	Curved or Flat	Aluminum	Standard	11 $\frac{1}{32}$ "	12 $\frac{1}{4}$ " Dia.	8 $\frac{1}{4}$ "	6 $\frac{1}{4}$ "	11 $\frac{1}{2}$ " B.C	1 $\frac{1}{4}$ "	1 $\frac{1}{4}$ "	No Cushion										



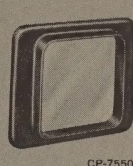
CP-7330



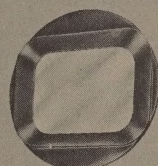
CP-7375



CP-7420



CP-7550

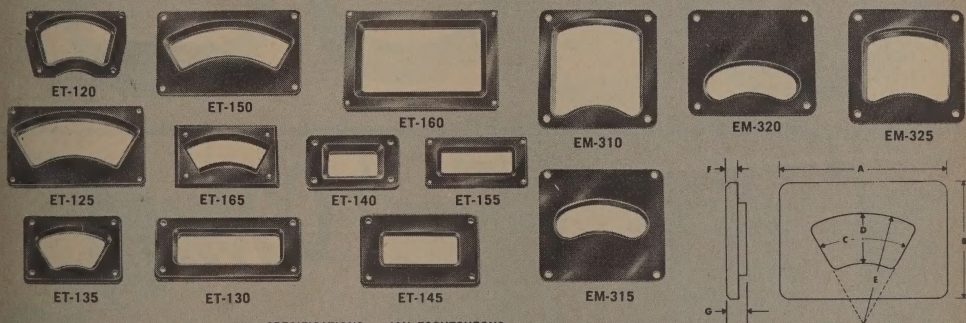


CP-10860

DISTINCTIVE FEATURES

- Engineered for 2", 3", 4", 5", 7", 8" and 10" CRT
- Maximum display area
- Precision engraved, scale-calibrated gratitudes; standard or to customer's specifications
- Materials and finish to "Mil Spec"
- Heavy buna-S shock cushion
- Models for edge-lighting
- Phosphor-matched light filters
- Non-reflecting matte surfaces
- Rugged camera mounts
- Models for curved and flat-faced CRT

ESCUTCHEON PLATES For Elegant Framing of Panel Openings



SPECIFICATIONS — JAN ESCUTCHEONS

Escutcheon Cat. No.	A		B		C		D		E		F—Face B—Incl. Only Flange		Panel Opening		Mounting Holes		Type of Dial	Material
	Overall Width	Overall Height	Window Width	Window Height	Window Width	Window Height	Window Width	Window Height	Effective Outer Dial Radius	Effective Inner Dial Radius	Thickness Only	Flange	Width	Height	Width	Height		
ET-120	2 $\frac{1}{2}$ "	1 $\frac{1}{2}$ "	1 $\frac{1}{2}$ "	1"	1 $\frac{1}{2}$ "	1"	1 $\frac{1}{2}$ "	1"	1 $\frac{1}{2}$ "	1"	3 $\frac{1}{8}$ "	3 $\frac{1}{8}$ "	2 $\frac{1}{2}$ "	1 $\frac{1}{2}$ "	2 $\frac{1}{2}$ " top 2 $\frac{1}{2}$ " bottom	1 $\frac{1}{8}$ "	Circular	Injection Molded Tenite II, Black Matte Finish
ET-125	3 $\frac{1}{2}$ "	2 $\frac{1}{2}$ "	2 $\frac{1}{2}$ "	1 $\frac{1}{2}$ "	2 $\frac{1}{2}$ "	1 $\frac{1}{2}$ "	2 $\frac{1}{2}$ "	1 $\frac{1}{2}$ "	2 $\frac{1}{2}$ "	1 $\frac{1}{2}$ "	3 $\frac{1}{8}$ "	3 $\frac{1}{8}$ "	3 $\frac{1}{2}$ "	1 $\frac{1}{2}$ "	3 $\frac{1}{2}$ "	1 $\frac{1}{8}$ "		
ET-130	4"	1 $\frac{1}{2}$ "	2 $\frac{1}{2}$ "	1 $\frac{1}{2}$ "	2 $\frac{1}{2}$ "	1 $\frac{1}{2}$ "	2 $\frac{1}{2}$ "	1 $\frac{1}{2}$ "	2 $\frac{1}{2}$ "	1 $\frac{1}{2}$ "	3 $\frac{1}{8}$ "	3 $\frac{1}{8}$ "	2 $\frac{1}{2}$ "	1 $\frac{1}{2}$ "	2 $\frac{1}{2}$ "	1 $\frac{1}{8}$ "		
ET-135	3 $\frac{1}{2}$ "	2 $\frac{1}{2}$ "	2 $\frac{1}{2}$ "	1 $\frac{1}{2}$ "	2 $\frac{1}{2}$ "	1 $\frac{1}{2}$ "	2 $\frac{1}{2}$ "	1 $\frac{1}{2}$ "	2 $\frac{1}{2}$ "	1 $\frac{1}{2}$ "	3 $\frac{1}{8}$ "	3 $\frac{1}{8}$ "	2 $\frac{1}{2}$ "	1 $\frac{1}{2}$ "	2 $\frac{1}{2}$ "	1 $\frac{1}{8}$ "		
ET-140	2 $\frac{1}{2}$ "	1 $\frac{1}{2}$ "	1 $\frac{1}{2}$ "	1"	1 $\frac{1}{2}$ "	1"	1 $\frac{1}{2}$ "	1"	1 $\frac{1}{2}$ "	1"	3 $\frac{1}{8}$ "	3 $\frac{1}{8}$ "	2 $\frac{1}{2}$ "	1 $\frac{1}{2}$ "	2 $\frac{1}{2}$ "	1 $\frac{1}{8}$ "		
ET-145	2 $\frac{1}{2}$ "	1 $\frac{1}{2}$ "	1 $\frac{1}{2}$ "	1"	1 $\frac{1}{2}$ "	1"	1 $\frac{1}{2}$ "	1"	1 $\frac{1}{2}$ "	1"	3 $\frac{1}{8}$ "	3 $\frac{1}{8}$ "	2 $\frac{1}{2}$ "	1 $\frac{1}{2}$ "	2 $\frac{1}{2}$ "	1 $\frac{1}{8}$ "		
ET-150	3 $\frac{1}{2}$ "	2 $\frac{1}{2}$ "	2 $\frac{1}{2}$ "	1 $\frac{1}{2}$ "	2 $\frac{1}{2}$ "	1 $\frac{1}{2}$ "	2 $\frac{1}{2}$ "	1 $\frac{1}{2}$ "	2 $\frac{1}{2}$ "	1 $\frac{1}{2}$ "	3 $\frac{1}{8}$ "	3 $\frac{1}{8}$ "	2 $\frac{1}{2}$ "	1 $\frac{1}{2}$ "	2 $\frac{1}{2}$ "	1 $\frac{1}{8}$ "		
ET-155	3 $\frac{1}{2}$ "	2 $\frac{1}{2}$ "	2 $\frac{1}{2}$ "	1 $\frac{1}{2}$ "	2 $\frac{1}{2}$ "	1 $\frac{1}{2}$ "	2 $\frac{1}{2}$ "	1 $\frac{1}{2}$ "	2 $\frac{1}{2}$ "	1 $\frac{1}{2}$ "	3 $\frac{1}{8}$ "	3 $\frac{1}{8}$ "	2 $\frac{1}{2}$ "	1 $\frac{1}{2}$ "	2 $\frac{1}{2}$ "	1 $\frac{1}{8}$ "		
ET-160	3 $\frac{1}{2}$ "	2 $\frac{1}{2}$ "	2 $\frac{1}{2}$ "	1 $\frac{1}{2}$ "	2 $\frac{1}{2}$ "	1 $\frac{1}{2}$ "	2 $\frac{1}{2}$ "	1 $\frac{1}{2}$ "	2 $\frac{1}{2}$ "	1 $\frac{1}{2}$ "	3 $\frac{1}{8}$ "	3 $\frac{1}{8}$ "	2 $\frac{1}{2}$ "	1 $\frac{1}{2}$ "	2 $\frac{1}{2}$ "	1 $\frac{1}{8}$ "		
ET-165	3 $\frac{1}{2}$ "	2 $\frac{1}{2}$ "	2 $\frac{1}{2}$ "	1 $\frac{1}{2}$ "	2 $\frac{1}{2}$ "	1 $\frac{1}{2}$ "	2 $\frac{1}{2}$ "	1 $\frac{1}{2}$ "	2 $\frac{1}{2}$ "	1 $\frac{1}{2}$ "	3 $\frac{1}{8}$ "	3 $\frac{1}{8}$ "	2 $\frac{1}{2}$ "	1 $\frac{1}{2}$ "	2 $\frac{1}{2}$ "	1 $\frac{1}{8}$ "		
ET-310	3"	3"	2 $\frac{1}{2}$ "	1 $\frac{1}{2}$ "	2 $\frac{1}{2}$ "	1 $\frac{1}{2}$ "	2 $\frac{1}{2}$ "	1 $\frac{1}{2}$ "	2 $\frac{1}{2}$ "	1 $\frac{1}{2}$ "	3 $\frac{1}{8}$ "	3 $\frac{1}{8}$ "	3 $\frac{1}{2}$ "	2 $\frac{1}{2}$ "	2 $\frac{1}{2}$ "	2 $\frac{1}{8}$ "	Helical	Soft Aluminum with Black Matte Enamel Finish
ET-315	3 $\frac{1}{2}$ "	3"	2 $\frac{1}{2}$ "	1 $\frac{1}{2}$ "	2 $\frac{1}{2}$ "	1 $\frac{1}{2}$ "	2 $\frac{1}{2}$ "	1 $\frac{1}{2}$ "	2 $\frac{1}{2}$ "	1 $\frac{1}{2}$ "	3 $\frac{1}{8}$ "	3 $\frac{1}{8}$ "	2 $\frac{1}{2}$ "	2 $\frac{1}{2}$ "	2 $\frac{1}{2}$ "	2 $\frac{1}{8}$ "	Helical	
ET-320	3 $\frac{1}{2}$ "	3"	2 $\frac{1}{2}$ "	1 $\frac{1}{2}$ "	2 $\frac{1}{2}$ "	1 $\frac{1}{2}$ "	2 $\frac{1}{2}$ "	1 $\frac{1}{2}$ "	2 $\frac{1}{2}$ "	1 $\frac{1}{2}$ "	3 $\frac{1}{8}$ "	3 $\frac{1}{8}$ "	2 $\frac{1}{2}$ "	2 $\frac{1}{2}$ "	2 $\frac{1}{2}$ "	2 $\frac{1}{8}$ "	Helical	
ET-325	3"	3"	2 $\frac{1}{2}$ "	1 $\frac{1}{2}$ "	2 $\frac{1}{2}$ "	1 $\frac{1}{2}$ "	2 $\frac{1}{2}$ "	1 $\frac{1}{2}$ "	2 $\frac{1}{2}$ "	1 $\frac{1}{2}$ "	3 $\frac{1}{8}$ "	3 $\frac{1}{8}$ "	2 $\frac{1}{2}$ "	2 $\frac{1}{2}$ "	2 $\frac{1}{2}$ "	2 $\frac{1}{8}$ "	Helical	

* To Order specify: (1) frame only; (2) frame with clear window; (3) frame with clear window scribed with a center line.

JAN'S molded, black, shock-resistant plastic escutcheons are available in an exceptionally wide variety of different types and sizes. They provide a pleasing window to frame dial plates mounted behind the panel.

Plastic escutcheons are available in the following ways: frame only; frame with clear windows; frame with clear window scribed with a center line.

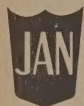
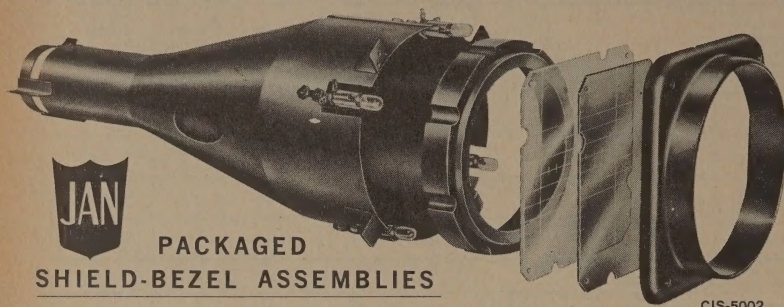
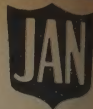
For especially large working areas, stamped aluminum escutcheons, finished in dull black are available to meet the needs for space economy. Withstands temperature shock —65° to +85° C.

NON INFLAMMABLE



JAN HARDWARE

MANUFACTURING COMPANY, INC.



PACKAGED SHIELD-BEZEL ASSEMBLIES

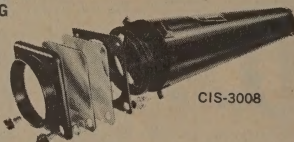
SAVES TIME MONEY **ELIMINATES** MULTIPLE PURCHASING COMPLEX ENGINEERING

All necessary items for CRT Magnetic Shield and Bezel applications are packaged in one unit.

EACH ASSEMBLY CONTAINS } Shield, JAN Bezel, CRT Rubber Cushion, Graticule, Filter, Light Sockets, Pilot Lamps (for edge-lit bezel-shield assemblies) plus Hardware.

When ordering specify:

"JAN PACKAGED UNIT" giving JAN shield No., JAN bezel No. and CRT tube type with which it is to be used.



PILOT LIGHT ASSEMBLIES FOR EDGE LIGHTING



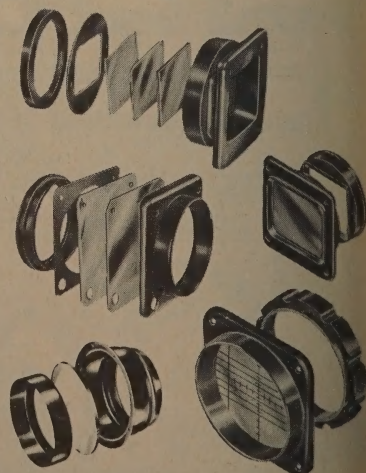
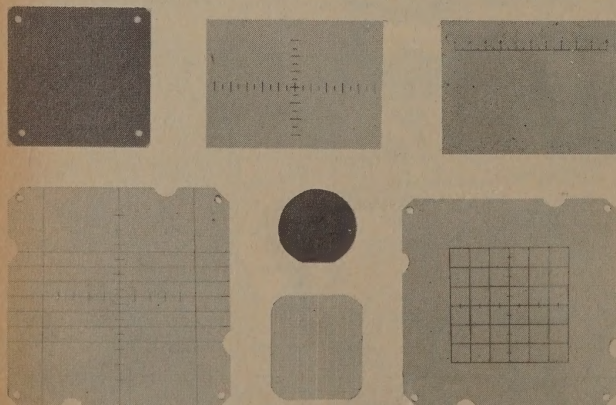
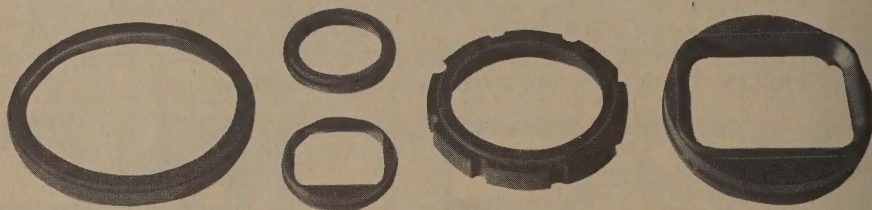
Cat. No. 100306



Cat. No. 100232

CUSHIONS — GRATICULES — FILTERS — SHIELD/BEZEL ASSEMBLIES

Available in Assorted Sizes and Shapes





JAN HARDWARE

MANUFACTURING COMPANY, INC.



JAN'S MAGNETIC SHIELDS are made of Mu-Metal and are hydrogen annealed by a special process to assure optimum orientation of the molecular structure of the alloy for best magnetic shielding. JAN'S MAGNETIC SHIELDS prevent distortion and intensity modulation of the electron beam due to stray magnetic fields.

In addition, the use of these shields protect personnel against the dangers of accidental tube breakage. Mounting holes are tapped for No. 6-32 screws as shown. These shields are designed to fit JAN'S standard bezels as listed below. See following pages for specifications on JAN'S BEZEL ASSEMBLIES.

SHIELD CAT. NO.	FOR USE WITH C.R.T. NO.	MATCHING JAN BEZEL	
S2001 S2001-1	902 2AP 2BP	CP1110P2 CP1120P2	
S3001 adaptable for edge-lighting graticule using S3010 with Bezel CP1428*	3RP 3RPA	CP1328-P-1 C1427-1 CP1429-1 CP1328-P-2 CP1427-2 CP1429-2 CP3430-1 CP3430-2	
S3003 S3003-1	3KP 908A 3AP	CP1328-P-1 CP1427-1 CP1429-1	Same type as S-3001, except A=10% B=2
S3004 adaptable for edge-lighting graticule using S3012 with Bezel CP1428*	3BP 3JP 3ACP	Same as S3003 Same as S3005	Same type as S-3001, except A=8% B=2%
S3005 adaptable for edge-lighting graticule using S3008 with Bezel CP1428*	3WP	CP1328-P-2 CP1427-2 CP1429-2	Same type as S-3001, except A=10% B=1%
S3016	3ASP		
S3019	3XP	CP-725	
S3031	3BFP		

ALL SHIELDS ARE FABRICATED WITH OVERLAPPED AND SPOT WELDED CONSTRUCTION



SHIELD CAT. NO.	FOR USE WITH C.R.T. NO.	MATCHING JAN BEZEL
S5008 adaptable for edge-lighting	5AMP	CP1465-2 CP13549-2 CP13584-2 CP13595-2 CP19495-2
S5017 adaptable for edge-lighting	5ABP 5ADP	CP1465-2 CP19636-2
S5027	5BTP	CP19495-2
S5032	5CEP	CP19495-2
S5500	5BXP	
S6600	6E17P	

ALL SHIELDS ARE FABRICATED WITH OVERLAPPED AND SPOT WELDED CONSTRUCTION

The service of JAN's design engineers is available to assist you with your Shield & Bezel requirements. We will design and manufacture special Shields & Bezels to customers specifications. Complete facilities for prototype work.





JAN HARDWARE

MANUFACTURING COMPANY, INC.



PARTIAL LIST
OF GOV'T KNOBS
MFG'D BY JAN

KNOBS TO MILITARY SPECIFICATIONS

One of the largest assortment of Military Knobs in the country.



No. 1005
Available with or
without skirt



No. 1006



No. 1007

MACHINED KNOBS



No. 1020



No. 1021

CAST ALUMINUM KNOBS

Available in black. Other colors on request. Specify shaft hole size required.



No. 1022
Full Round Skirt



No. 1023
Flat Back Round Skirt



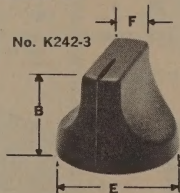
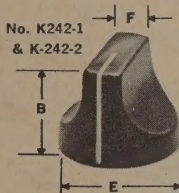
No. 1024
With Cam Shape Cut-out.



SIGNAL CORPS DIE CAST KNOBS

ZINC ALLOY

ALUMINUM



Cat. No. 984
Dimensions as per 242-3
No markings. Aluminum.

Cat. No.	B	E	F	Marking
242-1	3/4"	1 1/8"	3/8"	White
242-2	7/8"	1 1/8"	3/8"	White
242-3	3/4"	1 1/8"	3/8"	None

Manufactured in accordance with
applicable military specifications.

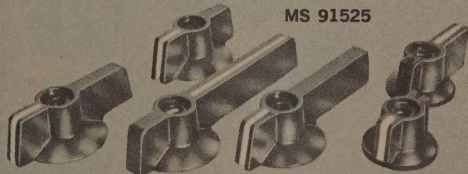
MS SIGNAL CORPS DIE-CAST ALUMINUM & ZINC ALLOY CONTROL KNOBS

Manufactured in accordance with applicable Military Specifications

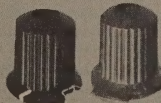


Cat. No. 680

MS 91525



MS 91524



(Many sizes available. Lengths from 1 3/8" to 2 3/8").



JAN HARDWARE

MANUFACTURING COMPANY, INC.



TRANSILLUMINATED POINTER KNOBS



NAS 539-1B



MS25165-1



MS91528



USAF 61D 404 74

Precision molded of JAN's transparent plastic material, to NAS specs, with dull finish. Transilluminated pointers permit easy reading under subdued lighting conditions. For use on instrument panels, switchboards, electrical and electronic apparatus.

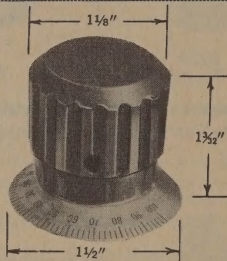
Cat. No. K936-1

Black phenolic molded knob, with beveled satin aluminum skirt, anodized finish. Deeply etched and filled contrasting markings.

Accurately centered brass insert, for $\frac{3}{16}$ " shafts.

Cat. No. 936-2 ($\frac{1}{4}$ " shaft)

Variations on shaft sizes and markings available in production quantities.



KNOB ONLY

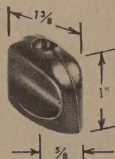
Cat. No. 929-1 ($\frac{3}{16}$ " shaft)

Same as above, less skirt

Cat. No. 929-2 ($\frac{1}{4}$ " shaft)

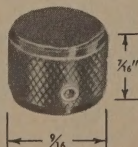
POINTER KNOB Cat. No. K-706

Molded thermo-setting phenolic. Type CFG per MIL-P-14. Designed for square shaft, providing positive action.



KNOB Cat. No. K-897

Machined knurled edge for easy turning. Has set screw for firm attachment to $\frac{1}{4}$ " shafts. Height $\frac{3}{16}$ " x $\frac{3}{16}$ " diam.



STANDARD PLASTIC KNOBS

Knobs to satisfy almost any design or demand. Can be produced in any color or finish, either illuminated or non-illuminated.

Knobs shown are only part of our stock.

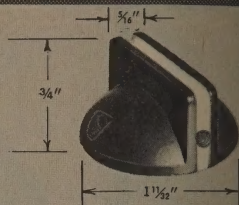
Let us quote on your specifications.

Knobs Back Lighted on special request only

CONTROL KNOBS

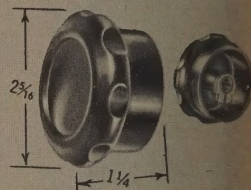
Cat. No. K-772

Positive action bar knob, furnished with protruding pin for setting of controls. Molded in Red, Yellow, Blue and Black, specify. Colors withstand MIL E-16400 environmental conditions.



TUNING KNOB Cat. No. K243

Die cast aluminum. Made to Fed. Spec. QQ-A-591 and MIL-F-14072. Mounted with no-mar clamp for $\frac{3}{8}$ " shaft.

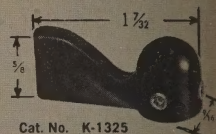


BAR-KNOB

Cat. No. AK-1325

Precision cast aluminum for $\frac{1}{4}$ " shafts. Furnished with twin set screws for shaft attachment.

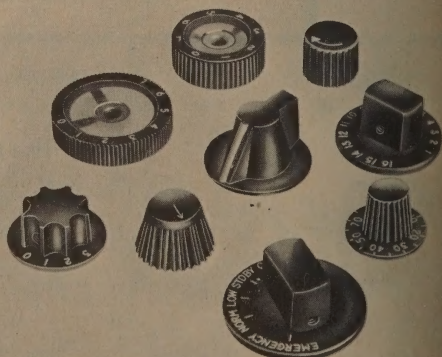
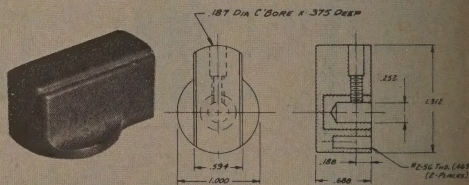
Provides a 1.0" integrally cast lever arm for heavy-load switching. Finished to specifications.



Cat. No. K-1325

BAR KNOB Cat. No. K783

Phenolic molded knob, with metal insert. Set screw at back, for shaft attachment. Finished to specifications.





JAN HARDWARE

MANUFACTURING COMPANY, INC.



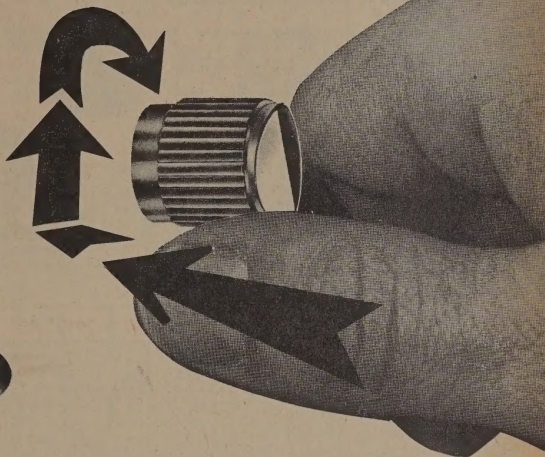
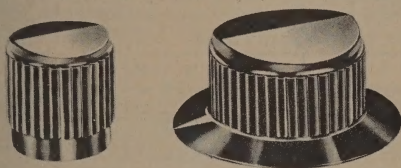
SAFETY KNOBS

NEW!

"PRESS-TO-TURN" KNOBS.

Knobs spin freely... and **MUST BE PRESSED-IN** while making changes.

Developed specifically to prevent inadvertent changing of settings.



For basic dimensions, see our "Deluxe Instrument Knobs", (90, 125, 175 and 225 series).

SLIP-CLUTCH

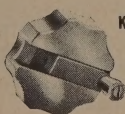
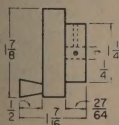
With Fixed or Retractable Spinners

Cat. Nos. K-1375 & K-1376 (For $\frac{1}{4}$ " shafts)

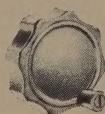
Designed for driving devices such as variable capacitors, inductors, potentiometers, etc., these knobs are based upon the principle of the "slip-clutch"; automatically disengaging and slipping when a pre-determined torque has been exceeded. JAN'S SLIP-CLUTCH SAFETY KNOBS are fluted to aid in sensitive adjustments and are equipped with either a fixed or retractable spinner for fast turning. Insert-molded-to-Bakelite construction provide durable, backlash-free units to safeguard delicate and costly instruments against careless or inadvertent cranking beyond their normal stops.

*Normally set for $2\frac{1}{2}$ - 5" lbs. Can be modified for other requirements.

Model No. K-1376 is identical with No. K-1375 but has the additional feature of a retractable spinner. Spring loading provides positive, toggle-type action to lock spinner in either open or closed position. Model No. K-1376 is designed for use where economy of space is essential.



K1376



K1375

SPINNER KNOBS

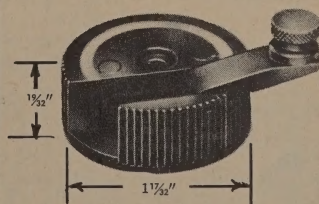
With Fixed or Retractable Spinners

Cat. Nos. K-1275 & K-1276 (For $\frac{1}{4}$ " shafts)

In appearance, these knobs are identical with No. K-1375 and No. K-1376 but without JAN'S Slip-Clutch mechanism. Made with single-unit, molded Bakelite-to-metal-insert construction, with two set screws for firm attachment to shafts.

Cat. No. MS 91522-1

SAFETY CRANK KNOB



Retractable Spinner. Aluminum. Olive Drab. Other colors on request. For $\frac{1}{4}$ " shaft. Other shaft diameters on request.



DELUXE INSTRUMENT KNOBS

MEETS PERFORMANCE OF MIL-STD-242D (SHIPS) AND MS 91528C

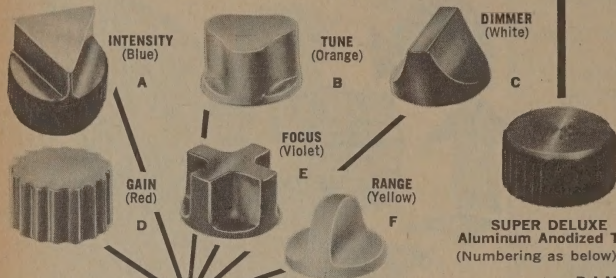
JAN's Standard Instrument Control Knobs for use with electronic equipment. Molded of polycarbonate, these knobs will withstand the extreme environmental conditions of

MIL-E-16400. Either knob-cap or entire knob is available in a variety of colors, in MATTE (M) or GLOSSY (G) finish. Complete range of sizes... send for catalog.

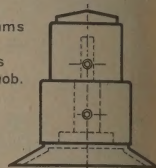


TACTILE SHAPE CONTROL KNOBS

Expressly made for both visual and tactile function identification. Each Tactile knob is produced in the standard recognizable color identified with its configuration. Available in other colors on special order. See column—below, for applicable tactile shape.



See diagrams below for dimensions of each knob.



DUAL KNOBS FOR CONCENTRIC CONTROLS

APPROVED FOR USE
MIL STD 242D and MS 91528C

Molded of polycarbonate plastic, these "piggy-back" knobs are used with dual concentric potentiometers and in other similar applications. M performance of military specs above.

SUPER DELUXE
Aluminum Anodized Top.
(Numbering as below)

DIMENSIONS

PART NO.				A	D	F	G	H	K	M	N	P	R	S	T	Y
5	1	A	†	.505	.302				.509	.158	.026	.408				
7	1	A		.708	.486				.626	.158	.026	.406				.915
9	1	A		.911	.645				.798	.255	.114	.521				1.171
12	1	A		1.255	.974				.703	.260	.115	.458				1.220
17	1	A		1.755	1.465				.854	.255	.114	.521				
22	1	A		2.255	1.870				.885	.255	.114	.521				
5	1	B	†	.505	.302	.450		.660	.509				.181	.563	.324	
7	1	B		.708	.486	.670		.805	.626				.188	.568	.340	1.100
9	1	B		.911	.654	.826		1.027	.798				.323	.730	.484	1.399
12	1	B		1.255	.974	1.155		.870	.703				.262	.605	.427	1.399
17	1	B		1.755	1.465	1.666		1.088	.854				.333	.740	.489	
22	1	B		2.255	1.870	2.153		1.114	.885				.333	.740	.489	
5	1	C	†	.505	.302			.885	.660	.509			.181	.563	.324	
7	1	C		.708	.486		1.135	.805	.626				.188	.568	.340	1.100
9	1	C		.911	.645		1.510	1.027	.798				.323	.730	.484	1.399
12	1	C		1.255	.974		1.822	.870	.703				.262	.605	.427	1.399
17	1	C		1.755	1.465		2.453	1.088	.854				.333	.740	.489	
22	1	C		2.255	1.870		3.005	1.114	.885				.333	.740	.489	

NO SKIRT

PLAIN SKIRT

DIAL SKIRT

SPECIFY AS REQUIRED

TYPICAL PART NUMBERS

91CAGA = 90 Dia./Round/Dial/1/4" Glossy/Black
A71BAMA = Triangle Top Blue/.72/Round/Plain/1/4" Matte/Black
BA71BAMA = Triangle Top Red/.72/Round/Plain/1/4" Matte/Black
BT71BAMA = Standard Top Red/.72/Round/Plain/1/4" Matte/Black
O71BAMA = No Top/.72/Round/Plain/1/4" Matte/Black

(Specify whether Hole is drilled thru for Dual Knob Mounting)**

**Specify if .127, .190, .250 hole is required for dual mounting

NOTE: *T—Preceded by color code (BT—would mean Standard RED top)

IF WHITE DOTS ARE REQUIRED—ADD SUFFIX WD TO CATALOG NO.
FOR SPECIAL KNOBS—GIVE FULL DESCRIPTION OR SKETCH WITH ORDER.

1 TOP (Color or Tactile)	2 BODY DIA.	3 BODY STYLE	4 SKIRT	5 SHAFT HOLE DIA.	6 FINISH	7 COLOR
O=NO TOP	5=.51	1=ROUND	A=NONE	2=.123	M=MATTE	A=BLACK
*T=STANDARD	7=.72	2=POINTER	B=PLAIN	3=.190	G=GLOSSY	B=RED
A=(INTENSITY—Blue)	9=.90		C=DIAL W/ POINTER	4=.253		C=GREY
B=(TUNE—Orange)	12=1.25		D=DIAL W/O POINTER	5=.312		D=GREEN
C=(DIMMER—White)	17=1.75			6=.375		E=YELLOW
D=(GAIN—Red)	22=2.25			7=.268		F=PURPLE
E=(FOCUS—Violet)						G=BLUE
F=(RANGE—Yellow)						H=WHITE
						J=ORANGE

"D" FLAT SHAFT HOLES

B=.107 (3/64")
D=.222 (1/4")

DELUXE INSTRUMENT KNOBS

MEETS PERFORMANCE OF MIL-STD-242D (SHIPS) AND MS 91528C

JAN's Standard Instrument Control Knobs for use with electronic equipment. Molded of polycarbonate, these knobs will withstand the extreme environmental conditions of

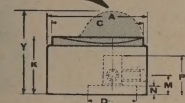
MIL-E-16400. Either knob-cap or entire knob is available in a variety of colors, in MATTE (M) or GLOSSY (G) finish. Complete range of sizes... send for catalog.

POINTER KNOBS

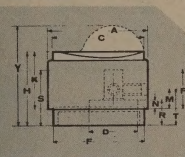
DIMENSIONS

PART NO.				A	D	F	H	K	M	N	P	R	S	T	Y
5	2	A	†	.750	.406			.505	.158	.026	.402				
7	2	A		1.038	.486			.619	.187	.026	.406				.918
9	2	A		1.344	.645			.796	.255	.114	.555				1.171
5	2	B	†	.750	.406	.669	.655	.505			.402	.177	.563	.324	
7	2	B		1.038	.486	.940	.791	.619			.406	.193	.573	.364	1.100
9	2	B		1.344	.645	1.251	1.015	.796			.555	.328	.796	.479	1.400

SPECIFY AS REQUIRED



POINTER



POINTER WITH SKIRT

- 1 TOP (Color or Tactile) G= (RANGE—Yellow)
 2 BODY DIA. 5= .51 7= .72 9= .90
 3 BODY STYLE 2= POINTER B= PLAIN C= DIAL W/ POINTER D= DIAL W/O POINTER
 4 SKIRT A= NONE B= PLAIN C= DIAL W/ POINTER D= DIAL W/O POINTER
 5 SHAFT HOLE DIA. 2= .128 3= .190 4= .253 5= .312 6= .375 7= .268
 6 FINISH M= MATTE G= GLOSSY
 7 COLOR A= BLACK B= RED C= GREY D= GREEN E= YELLOW F= PURPLE G= BLUE H= WHITE J= ORANGE
 † Not suitable for 1/4" "D" FLAT SHAFT HOLES B= .107 (1/8") D= .222 (1/4")

TYPICAL PART NUMBERS

72B4MA= Regular Top
 G72A4MA= Tactile Top



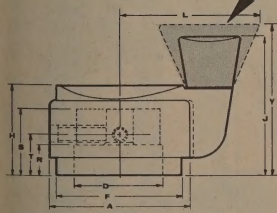
BEARING GRAY

MARKER GREEN

CRANK KNOBS

PART NO.				A	D	F	H	J	L	P	R	S	T	Y
12	4	B	†	1.250	0.685	1.185	.850	1.350	1.275		.250	.605	.427	1.475
17	4	B		1.750	0.685	1.690	1.070	1.758	1.735		.320	.740	.489	1.940
22	4	B		2.250	0.685	2.185	1.095	1.782	1.970		.320	.740	.489	1.970

SPECIFY AS REQUIRED



- 1 TOP (Color or Tactile) H= GREEN J= GREY
 2 BODY DIA. 12= 1.25 17= 1.75 22= 2.25
 3 BODY STYLE 4= SPINNER
 4 SKIRT B= PLAIN
 5 SHAFT HOLE DIA. 4= .253
 6 FINISH M= MATTE G= GLOSSY
 7 COLOR A= BLACK B= RED C= GREY D= GREEN E= YELLOW F= PURPLE G= BLUE H= WHITE J= ORANGE

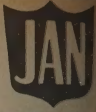
TYPICAL PART NUMBERS

J174B4MA= Grey Tactile Handle
 124B4MA= Standard Handle



JAN HARDWARE

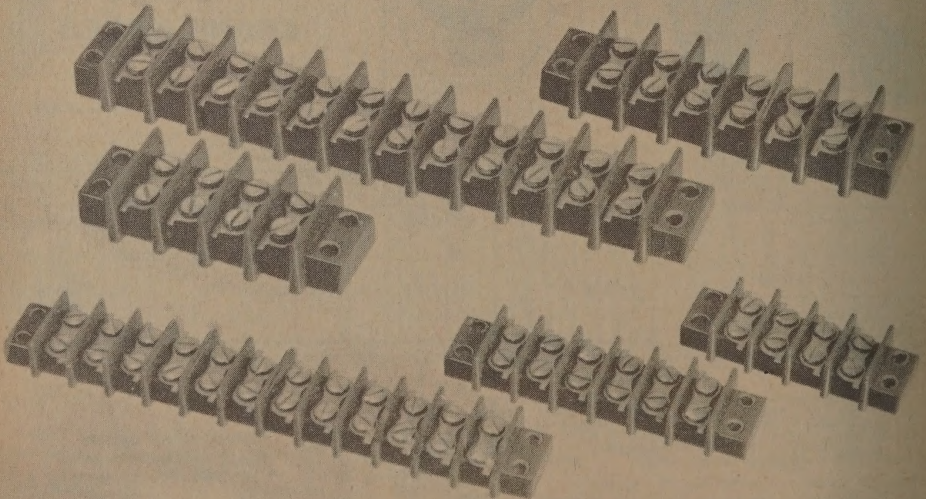
MANUFACTURING COMPANY, INC.



IMPORTED PRODUCTS



Commercial Knobs — Available for Radio and HI-FI applications.



Terminal Blocks — Equally Spaced Terminals. Equipped with single screw surface connections.



JAN HARDWARE

MANUFACTURING COMPANY, INC.



JOLTA SHOCK TEST MACHINES

For reproducible impact-shock test pulses

Four models engineered to reproduce the entire spectrum of all significant impact shock waves.

Designed for laboratory and production testing of light to medium weight components as well as complete instrumentation. Produced to meet practically all requirements of common Mil. Spec. qualification tests. Each JOLTA is electronically calibrated to certify compliance with test specifications.

JOLTA — Bench Model No. 1001 — Produced to meet JAN-S-44 & Mil-Std. 202 (202A). Standard model range 30-120G. Accessory plate springs available for test pulses to 500 G.

JOLTA — Bench Model No. M-500 — Produced to meet Mil-T-12679A (Sig. C) and Mil. T-19500A. Standard model range —200 to 1000 G at 1.0 millisees. Alternate anvil and pad kits available to order.

JOLTA—Floor Model Nos. F-3003-C1, C2, C-3—Designed for high impact shock testing for small and moderate-sized components. Precision-machined magnesium casting utilized for higher shock amplitudes. Typical tests with these units 0 to 5000 G at .2 to 11.0 millisees. For high impact testing, accessory springs and twin anvil combinations yield impulses of 0.2 millisees to 5000 G.

Note: New design allows for quick changeovers of accessories.

FEATURES

- Economical
- Simple to operate
- Rugged
- Uniformly accurate

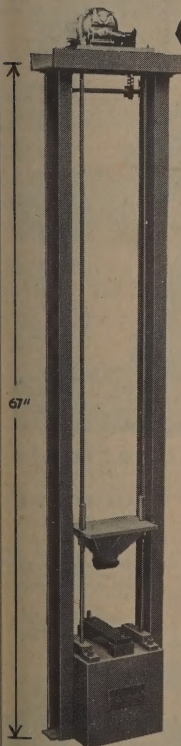
JOLTA UNIVERSAL SHOCK TESTERS No. S-200-V

A functionally engineered test machine for large components and complete instrumentation. Accepts specimens up to 200 lbs. and volume of 2 cubic feet. Standard model provides pulses of from 20 to 250 G at 3.0 to over 30.0 millisees.

For Production Testing,
JAN's Jolta Shock Test Machines
can be automated for continuous operation.

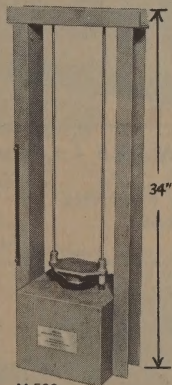
SPECIFICATIONS — JOLTA SHOCK TESTERS

Model No.	Carriage Volume	Test Weight	"G" Ranges
1001	4" x 4" x 5"	0-12 lbs.	25-500
M-500	3" cube	0-2.0 lbs.	100-1000
F-3003-C-1	5" cube	0-12 lbs.	50-1500
F-3003-C-2	5" cube	0-4.0 lbs.	350-5000
S-200-V	2 Foot cube	0-200 lbs.	20-250

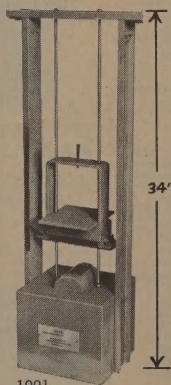


F-3003-C

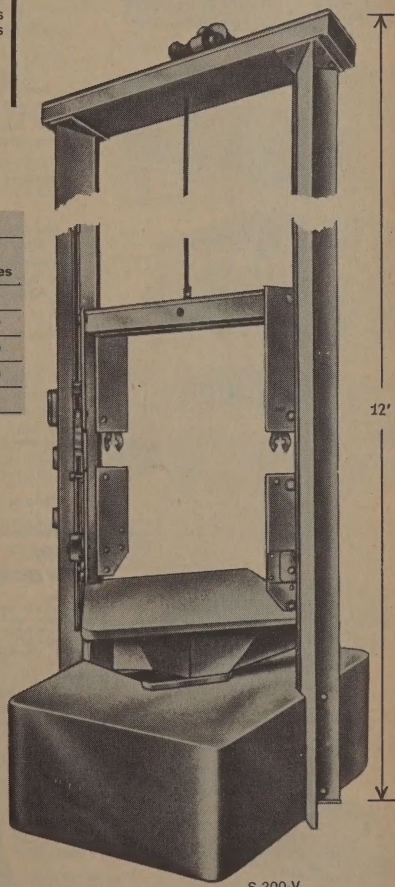
Plastic impact pad for
1/2 MS-2000 G impact shock.



M-500



1001



S-200-V

Free engineering services available to customers
where adaptation or conversion of standard machines
are needed to meet Mil. Spec. changes or other special needs.

THE TENNA MANUFACTURING CO. INC.

RANGER® UNIVERSAL ALL TRANSISTOR AUTO RADIOS

FOR ALL CARS, TRUCKS, BOATS & TRACTORS
PUSH-BUTTON and MANUAL — 6 VOLT & 12 VOLT



● **ALL TRANSISTOR CIRCUITRY** on an etched board for total performance. Perfectly mated components assure constant uniformity of high quality sound. Low current consumption, low heat generation and minimum car battery drain.

● **AUTOMATIC VOLUME CONTROL** provides constant comfort-level listening regardless of the frequent and annoying changes in signal level.

● **CONTINUOUSLY VARIABLE TONE CONTROL** allows precision adjustment of both high and low frequencies, so that bass and treble may easily be adjusted to the individual choice of the listener.

● **WIDE RANGE SPEAKERS** — distortion is at a minimum, yet there is a greater dimension to the highs and a wonderful depth to the lows. Voice clarity is particularly evident.

● **FIVE QUICK-SET PUSH BUTTONS** mean instantaneous, finger-tip station tuning. They are a snap to adjust to the exact frequencies of your five favorite stations.

● **SIMPLIFIED INSTALLATION** — designed with careful attention to detail. Installs in a matter of minutes. Conveniently located antenna trimmer, with which a front or rear custom antenna can be tuned with equal ease.

● **SEVEN AND EIGHT TUNED CIRCUITS**, including RF stage, give maximum sensitivity and selectivity in station choice. Local, as well as certain distant stations, can therefore be brought in with utmost ease.

● **BUILT-IN RELIABILITY** — repeated quality control checks on all components and circuits, both in the factory and in the field, guarantee that these auto radios are engineered and manufactured to the highest standards of quality.

FULL TWO YEAR GUARANTEE

Note: Custom Installation Kits Available — Write for catalog



UNIVERSAL MANUAL
Model RR-1-M

12 Volt Negative Ground
(5 transistors 2 diodes)
List:\$29.95

Shipping wt. 5 lbs.



UNIVERSAL PUSH-BUTTON
Model RR-2-PB

12 Volt Negative Ground
(5 transistors 2 diodes)
List:\$49.95

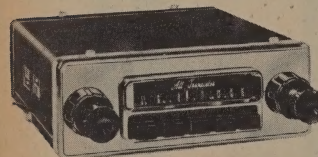
Shipping wt. 6 lbs.



DELUXE MANUAL
Model RR-3-M

6-12 Volt Negative or Positive Ground (6 transistors 2 diodes)
List:\$29.95

Shipping Wt. 6 lbs.



DELUXE PUSH-BUTTON
Model RR-4-PB

6-12 Volt Negative or Positive Ground (6 transistors 2 diodes)
List:\$54.95

Shipping Wt. 6 lbs.



UNIVERSAL MANUAL
Model RR-6-M

12 Volt Negative Ground with Push Button Switch (6 transistors 2 diodes)
List:

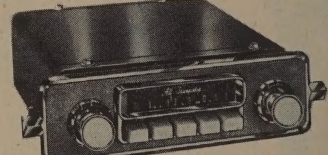
Shipping Wt. 5 lbs.



UNIVERSAL PUSH-BUTTON
Model RR-7-PB

12 Volt Negative Ground with Push Button Switch (6 transistors 2 diodes)
List:

Shipping Wt. 6 lbs.

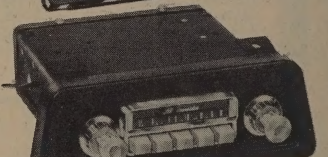


FOR VOLKSWAGEN CARS
Model RV-8-PB

For 1958-1966 Models (except Volkswagen 1500)

A deluxe push-button radio with antenna match for a complete custom installation.
List:

Shipping Wt. 6 1/2 lbs.



FOR VOLKSWAGEN 1500 CARS
Model RV-16-PB

The custom built for the Volkswagen car. Deluxe push-button model with antenna match for a complete custom installation.
List:

Shipping Wt. 6 1/2 lbs.

AM/FM UNIVERSAL



Pushbutton car radio with unique push-in control for constant volume level. Fits in-dash or under—accommodates custom trim plates—11 transistors, 8 diodes, 2 thermistors, 7 AM tuned circuits and 9 FM tuned circuits — 12 volt neg. pos. ground.

Model RR-FM
List.....\$79.95

6/12 VOLT UNIVERSAL

AM
CAR RADIO



Manual reverse polarity in-dash or under—complete unit needs no trim plates, removable face plate can be used for in-dash installation. Built in permanent magnet speaker — plus external speaker jack — 7 transistors, 2 diodes.

Model RR-20M.....List.....\$29.95

TRUCK ROOF MOUNT

Fits all trucks, all models. Can be used on tractors and boats. Includes antenna — transferable from one vehicle to another — by addition of RTK-9 kit.

Model RT-9-M
List \$49.95

12 volt neg./pos. ground



PLAY-MATE In-out Portables

AM/FM PORTABLE R-501

For cars, boats, trucks, tractors or house trailers. Installed like any car radio — used like any portable.
• Locks in, operates on car battery for perfect in car reception.
• Key releases it.
• Portable: plays on 4 penlite batteries.

6/12 volt neg./pos. ground. Black leatherette case with sparkling chrome and brushed aluminum, built-in antenna, 10 transistors, 6 diodes.

Model R-501
AM/FM

List.....\$69.95

AM PORTABLE R-502

6/12 volt neg. pos. ground accepts rechargeable batteries. Black and Gold finish—with built-in antenna. 8 transistors, 2 diodes.

Model R-502 AM
List.....\$49.95

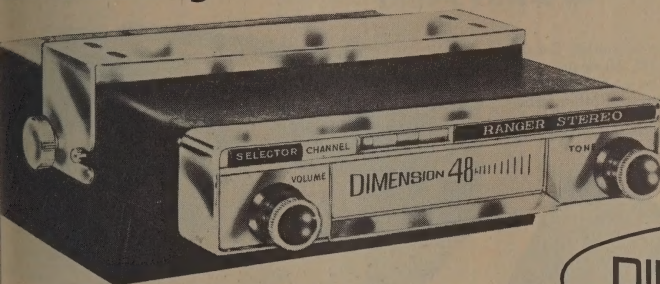


RANGER®**The Hot Line**

a new concept
in auto radios
& sound systems



Introducing The World's First compatible 4 & 8 track CAR STEREO TAPE PLAYER



**Model
RR-40-T**

12 Volt Neg./Pos. Ground

DIMENSION 48

PLAYS BOTH 4 AND 8 TRACK STEREO AND MONAURAL TAPES

FULLY AUTOMATIC — Insertion of either 4 or 8 track cartridge activates appropriate mechanism and plays instantly — no extra switches or wires to operate — removal of the cartridge switches the unit off.

HIGH STYLING IN A COMPACT CASE — Attractive black and chrome trim piece enhances any automobile interior — the compact unit (1 1/2" h x 7 7/8" wide x 8" deep) may be mounted from either top or bottom universal brackets permit a choice of 10 mounting angles.

ELECTRONIC PROGRAM SELECTION — Channel automatically transfers

at the end of each program — remote control circuit permits program changes by operating optional foot switches of "selector" bar — illuminated dial indicates the channel that is playing.

DUST-PROOF DOOR — Seals cartridge opening when player is not in use to protect precision parts from harmful dust — swings away when cartridge is inserted — an additional door is conveniently located on top for cleaning of these parts.

Model RR-40T List.....\$129.95

ALL NEW UNDER-DASH CAR RADIOS AND SOUND SYSTEMS



**AM
CAR RADIO**

superb quality in a completely self contained universal AM radio. Silent audio, continuously variable tone control. Built-in speaker-solids state, AVC, 6 1/2 volt pos/neg ground, 6 transistors, 2 diodes. Installs easily under dash with 2 screws and adjustable bracket. Size 1 7/8" x 4 1/2" x 9".

Model RR-18-M List.....\$39.95

Wt. 5 lbs.

**FM
CONVERTER**

Converts any existing 12 volt AM radio to FM band. AM/FM switch for instant selection. Multiplex plug-in continuously variable tone control, external 5 x 7" speaker. Easy to mount under dash with 2 screws and adjustable bracket. AVC, 12-volt, neg/pos ground, 11 transistors, 8 diodes, Solid State. Size 1 7/8" x 4" x 9".

Model RR-21FC List.....\$49.95

Wt. 4 lbs.

**MARINE/
SHORT WAVE
CONVERTER**

Converts any AM radio to Marine/Shortwave reception. Selector switch allows instant selection of Marine, shortwave or AM programming, 12 V neg ground, 3 transistors and 1 diode. RF stage permits drift free reception. Solid State. Size is 1 7/8" x 4" x 9".

Model RR-30MC List Price.....\$39.95

Wt. 4 lbs.

**AM/FM
CAR RADIO**



Complete AM/FM auto radio in a compact under dash unit. Selector slide switch. Multiplex plug-in continuously variable tone control, external 5 x 7" speaker. Easy to mount under dash with 2 screws and adjustable bracket. AVC, 12-volt, neg/pos ground, 11 transistors, 8 diodes, Solid State. Size 1 7/8" x 4 1/2" x 9".

Model RR-19FM List.....\$79.95

Wt. 6 lbs.

**FM
MULTIPLEX**



Converts any AM/FM radio or FM converter to Stereophonic sound, dual channel controls, balance control, Hi Fi audio circuit, Solid State, Red "reminder light" indicates when unit is on. "Stereo" is illuminated in green when station is broadcasting Stereo Sound. Easy under dash mount and bracket. Size is 1 7/8" x 4" x 10".

Model RR-23MX List.....\$99.95

Wt. 6 lbs.

**TUNEABLE
REVERBRATION
UNIT**



Verb-a-tone control, electronic tuning control custom fits the sound to your car — to your ear. Ruby indicator light reminds you when reverb is "on". Universal, matches all car speakers, no transformer required and solid state, 12 volt neg/pos ground, peak audio output 4 watts. Size 1 7/8" x 4" x 9".

Model RR-22-R complete with 6 x 9" speaker and grille. Wt. 6 lbs.....List \$29.95

Model RR-22-R6 complete with 6" round speaker. Wt. 6 lbs.....List \$29.95

Model RR-22-R0 reverb unit less speaker. Wt. 4 lbs.....List \$25.95

REVERBRATION UNITS

The first under-dash reverb pioneered by Ranger called Stereo-Magic has all adjustable features of the above units with wood grained front plate for sparkling under dash installation. Fader command built-in solid state, can be used with any car radio AM, AM/FM, 12 volt. It's the nearest thing in Stereo in your car.

Model RR-13R with 6 x 9" speaker and grille. Wt. 4 lbs.....List.....\$29.95

Model RR-14R with 6" round speaker. Wt. 4 lbs.....List.....\$29.95

Model RR-15R no speaker. Wt. 3 lbs.....List.....\$25.95

TRUNK MOUNT REVERB

The original reverb with switch plate only mounted under dash. Transducer box mounts in rear of car. Equipped with fader command and "jewel light" indicator lamp, Solid State.

Model RR-10-R with 6 x 9" speaker and grille. Wt. 6 lbs.....List.....\$29.95

Model RR-11-R with 6" round speaker. Wt. 6 lbs.....List.....\$29.95

Model RR-12-R with out speakers. Wt. 5 1/2 lbs.....List.....\$25.95



STEREO MAGIC

THE TENNA MANUFACTURING CO. INC.



CITIZENS' BAND RADIO

THE RCA MARK 10 ALL TRANSISTOR CB 2-WAY RADIO

The RCA MARK 10 is the latest in a long line of quality 2-way radios from RCA. Fully transistorized, the MARK 10 draws only a fraction of the current required to power tube units making it particularly useful for installation in automobiles and other vehicles. Because the MARK 10 uses all silicon transistors, dependable performance is assured at operating temperatures ranging from -23 degrees to +130 degrees F.

Among a host of operating features, the versatile RCA MARK 10 has provision for public address use with a PA switch on the front panel and an external speaker jack which de-activates the internal speaker. The MARK 10 may be connected to a standard 12-volt DC power source with either positive or negative ground. A separate, voltage-regulated matching AC power supply with auxiliary speaker is available for connection to a 120-volt AC, 60 cycle power source.

source.

FEATURES

- 12 crystal-controlled transmit and receive channels with illuminated channel selector
- All silicon transistors—provides dependable communications at temperatures ranging from -23 degrees to +130 degrees F
- Combination "S" meter and relative RF output meter
- Operates from 12-volts DC power source (positive or negative ground)
- Regulated receiver power section for maximum stability
- 3-watt public address system with volume level fully controllable by receiver volume control
- External speaker jack (de-activates internal speaker)
- Crystal-controlled double conversion, superheterodyne receiver provides frequency accuracies greater than 0.004%
- Separate AGC amplifier eliminates blasting and overloading and minimizes fading

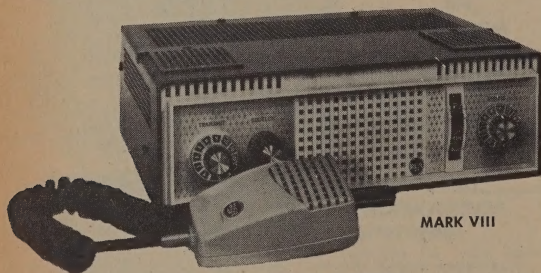


MARK 10 TRANSCEIVER \$189.95
(RCA type CB-2601A complete)

MARK 10 ac POWER SUPPLY \$ 40.00
(RCA type CB-2602A complete)

- Six stage IF bandpass filter for maximum selectivity without ringing
- Low distortion, series type automatic noise limiter
- Acoustically designed cabinet with audio characteristics shaped for maximum intelligibility
- Full 5 Watt⁰⁰ transmitter
- Rugged metal cabinet
- Compact, lightweight—only 3 3/8" high, 5 3/4" deep, 8 1/2" wide—weighs less than 4 1/2 lbs.
- Comes complete with push-to-talk ceramic microphone with coiled cord and a trunnion-type mobile mounting bracket

⁰⁰ Maximum input power to final radio frequency stage as defined by FCC regulations



MARK VIII

The RCA Mark VIII

- 9 crystal-controlled transmit and receive channels
- Tuneable receiver for reception of 23 C-B channels, dial marked both channel numbers and frequency
- Exceptionally good voice reproduction
- Highly selective superheterodyne receiver with one rf and two amplifier stages
- Electronic switching—no relay noise or chatter
- Illuminated "working channel" feature
- Light and compact—only 3 1/2 inches high, weighs only 8 pounds
- mike; fits easily under the dashboard of even a compact car
- Improved Automatic Noise Limiter to reduce effects of ignition and similar interference

The RCA Mark Nine

- Combination "S" Meter and Relative RF Output Meter. "S" Meter indicates the relative strength of incoming signal in "S" units. RF Output Meter (EO) indicates relative strength of the signal being transmitted
- Spotting Switch. Permits precise manual tuning of receiver with use of receiver crystals. Receiver can be tuned (or "spotted") quickly to any incoming channel for which you have a transmit crystal.
- External Speaker Jack. Lets you connect an external speaker to set, so incoming calls can be heard at remote locations.

MARK VIII TRANSCEIVER \$ 99.95
(RCA type 17704 complete)

MARK NINE TRANSCEIVER \$114.95
(RCA type CB-2600A complete)

**DC POWER SUPPLY FOR MARK VIII
OR MARK NINE** \$ 19.95
(6 or 12 volt)



MARK NINE

*Optional distributor resale price

SECTION 1900

APPLICATIONS • CHASSIS PARTS AND KNOBS

Make and Radio Model No.	Year	Description	Service Bulletin Number	Transistor	Resistor Fuse Type	Bias Control	Filter Capacitor	Speaker	AM 1st	I.F. Coils 2nd	Audio Transformers Input Output	Volume Control	Control	Knobs (or Sensitivity)	Tone
BUICK															
981968	1959	Push Button	6D-94E	DS501	7281890	1221422	7273847	6109	1221257	1221253	7272822	7273626	7273993	1186745	1186767
981969	1959	Wunder Bar	6D-94E	DS501	7281890	1221422	7273847	6109	1221257	1221253	7272822	7273626	7273993	1186745	1186767
981970	1959	Auto-Portable	6D-948	DS501	7281890	7273796	7273793	1/2723926 6109	7274341 7273761	7273760 7273762	7273764 7273762	1/2723765 7273762	1/2724634 7273484	1/2723881 7273822—Volume	1186767
980051	1960	Push Button	6D-949	DS501	7271375	1221422	7273847	1194080	1221257	1221253	7272822	1221428	7275219	1192976	1192589
980052	1960	Wunder Bar	6D-9001	DS501	7281890	1221422	7273847	1194080	1221257	1221253	7272822	1221428	7275219	1192976	1192589
980132	1961	P.B. Special	6D-9002	DS503	7276499	7275474	7273700	7273434	1221257	1221253	7271590	1221489	7271591	1197676	1197688
980134	1961	Push Button	6D-9003	DS501	7281890	1221422	7273847	6109	1221257	1221253	7272822	1221522	7271155	1199769	1199714
980135	1961	Wunder Bar	6D-9004	DS501	7281890	1221422	7273847	6109	1221257	1221253	7272822	1221522	7271155	1199769	1199714
980296	1962	Push Button	6D-9005	DS501	7281890	1221422	7273847	7277408	1221856	1221618	7272120	1221532	7279987	1250613	1350614
980297	1962	Wunder Bar	6D-9006-1	DS503	7281890	1221422	7273775	7271208	1221856	1221618	7272822	1221532	7279987	1250613	1350614
980316	1962	P.B. Special	6D-9007	DS503	7276499	7275474	7283675	7276434	1221856	1221618	7272120	1221532	7280042	1192976	1192589
980462	1963	Push Button	6D-9008	DS501	7281890	1221422	7282272	6127 6126	1221856	1221857	7280915	1222297	1221978	1355878	1355481
980463	1963	Wunder Bar	6D-9009	DS501	7281890	1221422	7283675	6127 6126	1221856	1221857	7280915	1222297	7282338	1355878	1355481
980464	1963	P.B. Special	6D-9011	DS503	7276499	7275474	7282272	6127	1221856	1221857	7280915	1222297	7282057	1355878	1355481
980626	1963	FM-AM	6D-9010	DS501	7281890	1221422	7283675	6127	1221858	1221859	7283586	1222297	7284625	1355878	1355481
980649	1964	P.B. Special	6D-9014	DS503	7287480	7286601	7282272	6128	1221856	1221857	—	7282057	7285845	1363435	1366676
980655A	1964	Push Button	6D-1964-1	DS501	7286602	7286601	7282272	6127	1221856	1221857	—	1222297	7286594	1355878	1355481
980657	1964	Wunder Bar	6D-1964-2	DS501	7286602	7286601	7283675	6127	1221856	1221857	—	1222297	7286608	1355878	1355481
980659	1964	FM-AM	6D-1964-2	DS501	7286602	7286601	7283675	6128	1221858	1221859	—	1222297	7286594	1355878	1355481
980714	1965	P.B. Special	6D-1965-1	DS503	7287480	7286601	7292515	6128	1221856	1221857	—	7280545	7285845	1370815	1370801
980734	1965	P.B. Buick	6D-1965-1	DS501	7286602	7286601	7291786	6128	1221856	1221857	—	1222297	7286594	1370815	1370801
980742	1965	P.B. Buick	6D-1965-1	DS501	7286602	7286601	7291786	6129	1221856	1221857	—	1222297	7286594	1370815	1370801
980743	1965	P.B. Buick	6D-1965-1	DS501	7286602	7286601	7291786	6129	1221856	1221857	—	1222297	7286594	1370815	1370801
980754	1965	W.B. Buick	6D-1965-1	DS501	7281890	7286601	7291356	6129	1221856	1221857	—	1222297	7291951	1370756	1370850
980755	1965	W.B. Buick	6D-1965-1	DS501	7281890	7286601	7291356	6129	1221856	1221857	—	1222297	7291951	1370756	1370850
980756	1965	W.B. Buick	6D-1965-1	DS501	7281890	7286601	7291356	6129	1221856	1221857	—	1222297	7291951	1370756	1370850
980757	1965	W.B. Buick	6D-1965-1	DS501	7281890	7286601	7291356	6129	1221856	1221857	—	1222297	7291951	1370756	1370850
980758	1965	W.B. Buick	6D-1965-1	DS501	7281890	7286601	7291356	6129	1221856	1221857	—	1222297	7291951	1370756	1370850
980759	1965	W.B. Buick	6D-1965-1	DS501	7281890	7286601	7291356	6129	1221856	1221857	—	1222297	7291951	1370756	1370850
980760	1965	W.B. Buick	6D-1965-1	DS501	7281890	7286601	7291356	6129	1221856	1221857	—	1222297	7291951	1370756	1370850
980761	1965	W.B. Buick	6D-1965-1	DS501	7281890	7286601	7291356	6129	1221856	1221857	—	1222297	7291951	1370756	1370850
980762	1965	W.B. Buick	6D-1965-1	DS501	7281890	7286601	7291356	6129	1221856	1221857	—	1222297	7291951	1370756	1370850
980763	1965	W.B. Buick	6D-1965-1	DS501	7281890	7286601	7291356	6129	1221856	1221857	—	1222297	7291951	1370756	1370850
980764	1965	W.B. Buick	6D-1965-1	DS501	7281890	7286601	7291356	6129	1221856	1221857	—	1222297	7291951	1370756	1370850
980765	1965	W.B. Buick	6D-1965-1	DS501	7281890	7286601	7291356	6129	1221856	1221857	—	1222297	7291951	1370756	1370850
980766	1965	W.B. Buick	6D-1965-1	DS501	7281890	7286601	7291356	6129	1221856	1221857	—	1222297	7291951	1370756	1370850
980767	1965	W.B. Buick	6D-1965-1	DS501	7281890	7286601	7291356	6129	1221856	1221857	—	1222297	7291951	1370756	1370850
980768	1965	W.B. Buick	6D-1965-1	DS501	7281890	7286601	7291356	6129	1221856	1221857	—	1222297	7291951	1370756	1370850
980769	1965	W.B. Buick	6D-1965-1	DS501	7281890	7286601	7291356	6129	1221856	1221857	—	1222297	7291951	1370756	1370850
980770	1965	W.B. Buick	6D-1965-1	DS501	7281890	7286601	7291356	6129	1221856	1221857	—	1222297	7291951	1370756	1370850
980771	1965	W.B. Buick	6D-1965-1	DS501	7281890	7286601	7291356	6129	1221856	1221857	—	1222297	7291951	1370756	1370850
980772	1965	W.B. Buick	6D-1965-1	DS501	7281890	7286601	7291356	6129	1221856	1221857	—	1222297	7291951	1370756	1370850
980773	1965	W.B. Buick	6D-1965-1	DS501	7281890	7286601	7291356	6129	1221856	1221857	—	1222297	7291951	1370756	1370850
980774	1965	W.B. Buick	6D-1965-1	DS501	7281890	7286601	7291356	6129	1221856	1221857	—	1222297	7291951	1370756	1370850
980775	1965	W.B. Buick	6D-1965-1	DS501	7281890	7286601	7291356	6129	1221856	1221857	—	1222297	7291951	1370756	1370850
980776	1965	W.B. Buick	6D-1965-1	DS501	7281890	7286601	7291356	6129	1221856	1221857	—	1222297	7291951	1370756	1370850
980777	1965	W.B. Buick	6D-1965-1	DS501	7281890	7286601	7291356	6129	1221856	1221857	—	1222297	7291951	1370756	1370850
980778	1965	W.B. Buick	6D-1965-1	DS501	7281890	7286601	7291356	6129	1221856	1221857	—	1222297	7291951	1370756	1370850
980779	1965	W.B. Buick	6D-1965-1	DS501	7281890	7286601	7291356	6129	1221856	1221857	—	1222297	7291951	1370756	1370850
980780	1965	W.B. Buick	6D-1965-1	DS501	7281890	7286601	7291356	6129	1221856	1221857	—	1222297	7291951	1370756	1370850
980781	1965	W.B. Buick	6D-1965-1	DS501	7281890	7286601	7291356	6129	1221856	1221857	—	1222297	7291951	1370756	1370850
980782	1965	W.B. Buick	6D-1965-1	DS501	7281890	7286601	7291356	6129	1221856	1221857	—	1222297	7291951	1370756	1370850
980783	1965	W.B. Buick	6D-1965-1	DS501	7281890	7286601	7291356	6129	1221856	1221857	—	1222297	7291951	1370756	1370850
980784	1965	W.B. Buick	6D-1965-1	DS501	7281890	7286601	7291356	6129	1221856	1221857	—	1222297	7291951	1370756	1370850
980785	1965	W.B. Buick	6D-1965-1	DS501	7281890	7286601	7291356	6129	1221856	1221857	—	1222297	7291951	1370756	1370850
980786	1965	W.B. Buick	6D-1965-1	DS501	7281890	7286601	7291356	6129	1221856	1221857	—	1222297	7291951	1370756	1370850
980787	1965	W.B. Buick	6D-1965-1	DS501	7281890	7286601	7291356	6129	1221856	1221857	—	1222297	7291951	1370756	1370850
980788	1965	W.B. Buick	6D-1965-1	DS501	7281890	7286601	7291356	6129	1221856	1221857	—	1222297	7291951	1370756	1370850
980789	1965	W.B. Buick	6D-1965-1	DS501	7281890	7286601	7291356	6129	1221856	1221857	—	1222297	7291951	1370756	1370850
980790	1965	W.B. Buick	6D-1965-1	DS501	7281890	7286601	7291356	6129	1221856	1221857	—	1222297	7291951	1370756	1370850
980791	1965	W.B. Buick	6D-1965-1	DS501	7281890	7286601	7291356	6129	1221856	1221857	—	1222297	7291951	1370756	1370850
980792	1965	W.B. Buick	6D-1965-1	DS501	7281890	7286601	7291356	6129	1221856	1221857	—	1222297	7291951	1370756	1370850
980793	1965	W.B. Buick	6D-1965-1	DS501	7281890	7286601	7291356	6129	1221856	1221857	—	1222297	7291951	1370756	1370850
980794	1965	W.B. Buick	6D-1965-1	DS501	7281890	7286601	7291356	6129	1221856	1221857	—	1222297	7291951	1370756	1370850
980795	1965	W.B. Buick	6D-1965-1	DS501	7281890	7286601	7291356	6129	1221856	1221857	—	1222297	7291951	1370756	1370850
980796	1965	W.B. Buick	6D-1965-1	DS501											

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Make and Radio Model No.	Year	Description	Service Bulletin Number	Transistor	Resistor Fuse Type	Bias Control	Filter Capacitor	Speaker	AM 1st	I.F. Coils 2nd	Audio Transformers Input Output	Volume Control	Control	Knobs (or Sensitivity)	Tone	
CHEVY II																
985189	1962	Manual	6D-886	D5S03	7276499	7275474	7280383	7280093	1221621	1221622	7277230	1221535	7280269	7277055	7274782	7272970
985315	1962	Push Button	6D-887	D5S03	7276499	7275474	7280383	7280093	1221621	1221622	7277230	1221535	7281978	7277055	7274782	7272970
985453	1963	Manual	6D-893	D5S03	7276499	7275474	7282272	6127	1221856	1221857	7280915	7282057	1221991	7277055	379635	379633
985455	1963	Push Button	6D-894	D5S03	7276499	7275474	7282272	6127	1221856	1221857	7280915	7282057	1221980	7277055	379635	379633
985587	1964	Manual	6D-1964-1	D5S03	7287480	7286601	7282272	7282159	1221856	1221857	—	7282057	7287947	7277055	379635	379633
985598	1964	Push Button	6D-1964-1	D5S03	7287480	7286601	7282272	7282159	1221856	1221857	—	7282057	7287953	7277055	379635	379633
986248	1965	Manual	6D-1965-1	D5S03	7287480	7286601	7292515	6127	1221856	1221857	—	7282057	7291843	3860189	379635	379633
986339	1965	Man. Chev-Van	6D-1965-1	D5S03	7287480	7286601	7292515	6126	1221856	1221857	—	7282057	7291775	7277055	3825878	379633
986250	1965	Push Button	6D-1965-1	D5S03	7287480	7286601	7292515	6127	1221856	1221857	—	7282057	7291841	3860189	379635	379633
986252	1965	AM-FM	6D-1966-1	D5S03	7287480	7286601	7292515	7293691	1221856	1221857	—	7282057	7293489	3860189	379635	379633
986521	1966	Manual	6D-1966-1	D5S03	7287480	7286601	7292515	7293691	1221856	1221857	—	7282057	7293489	3860189	3860188	379633
986522	1966	Push Button	6D-1966-1	D5S03	7287480	7286601	7292515	7293691	1221856	1221857	—	7282057	7293880	3860189	3860188	379633
CHRYSLER																
300, 331, 332, 333, 335, 336, 337, 352, 353	1963	AM-FM	6D-1802	D5S01	7281890	1221422	7283675	—	1221858	1221859	7283586	7285451	7285860	—	7288462	7288462
416, 417, 418, 419, 420	1964	AM-FM	6D-1964-2	D5S01	7286602	7286601	7283675	—	1221858	1221859	—	7286623	7290520	7288458	7288462	7288462
416, 417, 418, 419, 420	1965	W.B. Chrysler	6D-1965-1	D5S01	7281890	7286601	7291356	—	1221856	1221857	—	7291585	7290437	—	7288462	7288462
416, 417, 418, 419, 420	1965	W.B. Imperial	6D-1965-1	D5S01	7281890	7286601	7291356	—	1221856	1221857	—	7291585	7290437	—	7288462	7288462
416, 417, 418, 419, 420	1966	Wonder Bar	6D-1966-1	D5S01	7281890	7286601	7291356	7288454	1221856	1221857	—	7291585	7290437	7291720	7291717	7291717
416, 417, 418, 419, 420	1966	Imperial W.B. [AM-FM W.B.]	6D-1966-1	D5S01	7281890	7286601	7291356	7288454	1221856	1221857	—	7291585	7290437	7291720	7291717	7291717
416, 417, 418, 419, 420	1966	Imperial W.B. [AM-FM W.B.]	6D-1966-1	D5S01	7281890	7286601	7291356	7288454	1221856	1221857	—	7291585	7290437	7291720	7291717	7291717
CORVAIR																
988062	1960	Manual	6D-873	D5S03	—	7275474	7273730	6111	1221257	1221255	7275145	—	7274920	1909894	7274782	7272970
988336	1961	Manual-Truck	6D-877	D5S03	—	7275474	7273730	7277515	1221257	1221255	1221590	1221535	7277288	7277055	7274782	7272970
988460	1961	Manual	6D-880	D5S03	7274151	7275474	7273730	6111	1221257	1221255	1221590	1221535	7277288	7277055	7274782	7272970
988468	1961	Push Button	6D-881	D5S03	7276499	7275474	7273730	6111	1221257	1221255	1221590	1221535	7278286	7277055	7274782	7272970
981518	1962	Manual	6D-886	D5S03	7276499	7275474	7289385	7280092	1221621	1221622	7272330	1221535	7278966	7277055	7274782	7272970
983293	1962	Manual-Truck	6D-888	D5S03	7276499	7275474	7289385	7280092	1221621	1221622	7272330	1221535	7278966	7277055	7274782	7272970
981519	1962	Push Button	6D-887	D5S03	7276499	7275474	7280383	7280092	1221621	1221622	7272330	1221535	7278966	7277055	7274782	7272970
985447	1963	Manual	6D-893	D5S03	7276499	7275474	7282272	7282158	1221856	1221857	7280915	7282057	1221990	7277055	379635	379633
985449	1963	Push Button	6D-894	D5S03	7276499	7275474	7282272	7282158	1221856	1221857	7280915	7282057	1221976	7277055	379635	379633
985443	1963	Manual-Truck	6D-897	D5S03	7276499	7275474	7282272	7282160	1221856	1221857	7280915	7282057	1221990	7277055	379635	379633
985815	1964	Manual-Truck	6D-1964-1	D5S03	7287480	7286601	7282272	7282158	1221856	1221857	—	7282057	7291775	7277055	379635	379633
985831	1964	Manual	6D-1964-1	D5S03	7287480	7286601	7282272	7282158	1221856	1221857	—	7282057	7291775	7277055	379635	379633
985832	1964	Push Button	6D-1964-1	D5S03	7287480	7286601	7282272	7282158	1221856	1221857	—	7282057	7291775	7277055	379635	379633
986113	1965	Manual	6D-1965-1	D5S03	7287480	7286601	7292515	7289731	1221856	1221857	—	7282057	7290608	3860189	3860553	3860553
986338	1965	Manual-Truck	6D-1965-1	D5S03	7287480	7286601	7292515	7289731	1221856	1221857	—	7282057	7291771	7277055	379635	379633
986116	1965	Push Button	6D-1965-1	D5S03	7287480	7286601	7292515	7289731	1221856	1221857	—	7282057	7290608	3860189	3860553	3860553
986118	1965	AM-FM	6D-1965-1	D5S01	7281890	7286601	7291356	7289731	1221856	1221857	—	7282057	7290608	3860189	3860553	3860553
986113	1966	Manual	6D-1966-1	D5S03	7287480	7286601	7292515	7289731	1221856	1221857	—	7282057	7290608	3860189	3860553	3860553
986116	1966	Push Button	6D-1966-1	D5S03	7287480	7286601	7292515	7289731	1221856	1221857	—	7282057	7290608	3860189	3860553	3860553
986118	1966	AM-FM	6D-1966-1	D5S01	7281890	7286601	7291356	7289731	1221856	1221857	—	7282057	7290608	3860189	3860553	3860553
CORVETTE																
3748611	1958-60	Wonder Bar	6D-869	D5S01	7281890	7269637	7269719	7270428	1220990	1221124	1221159	7271448	1221125	1909864	7268744	7268744
985003	1961	Wonder Bar	6D-882	D5S01	7281890	7269637	7269719	7270428	1220990	1221124	1221159	7271448	1221125	7277055	3747772	3747772
985383	1962	Wonder Bar	6D-890	D5S01	7281890	1221422	7273775	7281141	1221257	1221253	7272822	7281131	1221066	7277055	3747772	3747772
985396	1963	Wonder Bar	6D-895	D5S01	7281890	1221422	7283675	7282256	1221856	1221857	7280915	7282229	7282024	7277055	—	—
985686	1963	AM-FM	6D-899	D5S01	7281890	1221422	7283675	7282256	1221856	1221857	7280915	7282229	7282024	7277055	—	—
985921	1964	AM-FM	6D-1964-2	D5S01	7286602	7286601	7283675	7282256	1221856	1221857	—	7282229	7290296	7286030	—	—
986281	1966	AM-FM	6D-1966-1	D5S01	7281890	7286601	7283675	7282256	1221856	1221857	—	7282229	7290296	7286030	—	—
GMC TRUCK																
2233850	1960	Manual	6D-1109	D5S03	—	7275474	7273730	6112	1227570	1221255	1221425	—	7275629	1909597	7274892	7274892
2233944	1961	Manual	6D-1110	D5S03	7274151	7275474	7273730	7277260	1221257	1221255	1221590	1221535	7278528	7274892	7274892	7274892
2234043	1962	Manual	6D-1111	D5S03	7276499	7275474	7280383	7277260	1221622	1221622	7272330	1221535	7278528	7274892	7274892	7274892
2234043	1962	Manual	6D-1112	D5S03	7276499	7275474	7280383	7277260	1221622	1221622	7272330	1221535	7278528	7274892	7274892	7274892
2234044	1964	Manual	6D-1964-1	D5S03	7287480	7286601	7282272	6127	1221856	1221857	—	7282057	7287962	7291775	7274892	7274892
7291556	1965	Manual	6D-1965-1	D5S03	7287480	7286601	7292515	6127	1221856	1221857	—	7282057	7291775	7277055	3825878	379633
7291576	1965	Man. Handy Van	6D-1965-1	D5S03	7287480	7286601	7292515	6126	1221856	1221857	—	7282057	7291775	7277055	3825878	379633
7293006	1966	Manual	6D-1966-1	D5S03	7287890	7286601	7292515	7282121	1221856	1221857	—	7282057	7291775	7277055	3825878	379633
LINCOLN																
6TDC	1966	Push Button	6D-1966-1	D5S01	7282890	7286601	7291786	7293908	1221856	1221857	—	On Speaker	7294835	—	—	—
6TDC	1966	AM-FM W.B.	6D-1966-1	D5S01	7282890	7286601	7291786	7293908	1221856	1221857	—	On Speaker	7294835	—	—	—
OLDSMOBILE																
989127	1958	Push Button	6D-9500	D5S01	7281890	7269637	7270691	—	1221015	1221021	7269877	7269650	7270679	572330	572995	572995
989129	1958	Wonder Bar	6D-9501	D5S01	7281890	7269637	7269791	—	1220990	1221124	1221159	7269650	7270679	572330	572995	572995
989131	1958	Trans-Portable	6D-9502	D5S01	7281890	7269743	7270954	7273926	7270814	1221015	1221021	7269877	7269650	7270679	572337	

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Make and Radio Model No.	Year	Description	Service Bulletin Number	Transistor	Resistor Fuse Type	Bias Control	Filter Capacitor	Speaker	AM 1st	I.F. Coils 2nd	Audio Transformers Input Output	Volume Control	Control	Knobs (or Sensitivity)	Dummy (or Tone)		
PONTIAC																	
988671	1957	Push Button	6D-1042	DS501	72L8190	7269637	7269719	6111	1221015	1221021	7269877	7269650	7269638	14 523150	518914	518915	
988822	1958	Push Button	6D-1044	DS501	72L8190	7269637	7270691	6112	1221015	1221021	7269877	7271527	7271466	529079	529077	529078	
988823	1958	Wonder Bar	6D-1045	DS501	72L8190	7269637	7269719	6112	1220990	1221159	7271527	7270939	7270939	529079	529077	529078	
988337	1956	Sportable	6D-1046	DS501	72L8190	7269743	7270954	7273926	1270814	1270815	7270811	7270804	7270665	7271613	7271616	7272110	
989876	1959	Push Button	6D-1047	DS501	72L8190	1221422	7273810	6109	1221257	1221253	7274354	7273626	7273623	532456	532707	532455	
989877	1959	Wonder Bar	6D-1048	DS501	72L8190	1221422	7273810	6109	1221257	1221253	7274354	7273626	7273623	532456	532707	532455	
989878	1959	Sportable	6D-1049	DS501	72L8190	7273796	7273793	101 6109	1273792	1273793	1273796	1273764	1273762	1273762	7273822	Volume	
989613	1960	Sportable	6D-1049 6D-10003	DS501	7271375	1221422	7273793	101 6109	1273792	1273793	1273796	7273764	1273762	1273764	1273762	7274023	Tuning
989614	1960	Push Button	6D-10001	DS501	72L8190	1221422	7273810	6109	1221257	1221253	1221425	1221428	7275708	536196	536196	536196	
989615	1960	Wonder Bar	6D-10002	DS501	72L8190	1221422	7273810	6109	1221257	1221253	1221425	1221428	7275708	536196	536196	536196	
989632	1961	Wonder Bar	6D-10005	DS501	72L8190	1221422	7273810	7276482	1221257	1221253	1221590	1221499	7277542	535908	535908	535908	
989633	1961	Push Button	6D-10006	DS503	7271375	1221422	7273810	6125	1221257	1221253	1221590	1221499	7277542	535908	535908	535908	
989792	1961-2	Man. Tempest	6D-10004	DS503	7274151	7275474	7273730	6125	1221257	1221253	1221590	1221428	7277112	535908	535908	535908	
989831	1961	P.B. Tempest	6D-10007	DS503	7276499	7275474	7273730	6125	1221257	1221253	1221590	1221428	7277112	535908	535908	535908	
989579	1962	Push Button	6D-10008	DS501	72L8190	1221422	7263675	7276482	1221856	1221618	1221590	1221428	7280055	535908	535908	535908	
989587	1962	P.B. Tempest	6D-10010	DS503	7276499	7275474	7263675	7276482	1221856	1221618	1221590	1221535	7281055	535908	535908	535908	
989873	1963	Push Button	6D-10011	DS503	72L8190	1221422	7263675	7276482	1221856	1221857	7280915	1222297	7281055	544207	544207	544207	
989874	1963	Man. Tempest	6D-10013	DS503	7276499	7275474	7263675	7276482	1221856	1221857	7280915	1222297	7281055	544207	544207	544207	
989875	1963	P.B. Tempest	6D-10014	DS503	7276499	7275474	7263675	7276482	1221856	1221857	7280915	1222297	7281055	544207	544207	544207	
989345	1963	AM-FM	6D-10012	DS501	7271890	1221422	7263675	7276482	1221856	1221857	7283586	1222297	7282440	544207	544207	544207	
984075	1964	Man. Tempest	6D-1964-1	DS503	7287480	7286601	7282272	6129	1221856	1221857	7280915	1222297	7282440	5775398	5775398	5775398	
984076	1964	P.B. Tempest	6D-1964-1	DS503	7287480	7286601	7282272	6129	1221856	1221857	7280915	1222297	7282440	5775398	5775398	5775398	
984077	1964	Push Button	6D-1964-1	DS501	7286602	7286601	7282272	6127	1221856	1221857	7280915	1222297	7282440	5775398	5775398	5775398	
984078	1964	AM-FM	6D-1964-2	DS501	7286602	7286601	7282272	6127	1221858	1221859	7280915	1222297	7282440	5775398	5775398	5775398	
7291562	1965	Man. Tempest	6D-1966-1	DS503	7287480	7286601	7292515	7286462	1221856	1221857	7280915	1222297	7291794	5775398	5775398	5775398	
7291562	1965	P.B. Tempest	6D-1966-1	DS503	7287480	7286601	7292515	7286462	1221856	1221857	7280915	1222297	7291794	5775398	5775398	5775398	
7291562	1965	Push Button	6D-1966-1	DS501	7281890	7286601	7291786	6129	1221856	1221857	7280915	1222297	7291794	5775398	5775398	5775398	
7292112	1965	AM-FM Tempest	6D-1965-1	DS501	7281890	7286601	7291786	6129	1221856	1221857	7280915	1222297	7291794	5775398	5775398	5775398	
7292772	1965	AM-FM	6D-1965-1	DS501	7281890	7286601	7291786	6129	1221856	1221859	7280915	1222297	7291794	5775398	5775398	5775398	
7293492	1966	Tempest Man. P.B.	6D-1966-1	DS503	7287480	7286601	7292515	7286462	1221856	1221857	7280915	1222297	7291794	5775398	5775398	5775398	
7293502	1966	Tempest P.B.	6D-1966-1	DS503	7287480	7286601	7292515	7286462	1221856	1221857	7280915	1222297	7291794	5775398	5775398	5775398	
7293502	1966	Push Button	6D-1966-1	DS501	7281890	7286601	7291786	6129	1221856	1221857	7280915	1222297	7291794	5775398	5775398	5775398	
7294332	1966	Wonder Bar	6D-1966-1	DS501	7286602	7286601	7291356	7291442	1221856	1221857	7280915	1222297	7291794	5775398	5775398	5775398	
7294372	1966	Tempest AM-FM	6D-1966-1	DS501	7281890	7286601	7291356	7286462	1221856	1221857	7291794	1222297	7291794	5775398	5775398	5775398	
7294342	1966	AM-FM	6D-1966-1	DS501	7281890	7286601	7291356	6129	1221856	1221857	7291794	1222297	7291794	5775398	5775398	5775398	
STUDEBAKER																	
AC-2905	1958-9	Push Button	6D-1404	DS501	72L8190	7269637	7270691	6117	1221015	1221121	7269877	7271827	7271782	7271845	569555	7271847	
AC-2907	1959-9	Wonder Bar	6D-1405	DS501	72L8190	7269637	7269719	6117	1221090	1221021	7269877	7271827	7271831	7271845	569555	7271847	
AC-2908	1959-9	Push Button	6D-1406	DS501	72L8190	7269637	7270691	6117	1221015	1221121	7269877	7271827	7271831	7271845	569555	7271847	
AC-2970	1960	Push Button	6D-1407	DS501	7271375	1221422	7273810	6117	1221257	1221253	7269877	7271827	7271831	7271845	569555	7271847	
AC-3084	1961	Manual	6D-1408	DS503	7274151	7275474	7273730	6109	1221257	1221255	7269877	7271827	7271831	7271845	569555	7271847	
AC-3085	1961	Push Button	6D-1409	DS503	7271375	1221422	—	6109	1221257	1221253	1221590	1221428	7271827	7267414	569555	7272828	
AC-3217	1962	Manual	6D-1410	DS503	7274151	7275474	7273730	7278208	1221621	1221255	1221590	1221428	7271827	7267414	569555	7272828	
AC-3216	1962	Push Button	6D-1411	DS503	72L8190	1221422	7263675	7278208	1221856	1221618	1221590	1221535	7280255	7280822	7280334	7280335	
AC-3305	1962	P.B. Avanti	6D-1412	DS501	72L8190	1221422	7263675	7282941	1221856	1221618	1271230	1221428	7280255	7282934	7282937	7282936	
AC-3331	1963	(Man. Hawk)	6D-1413	DS503	7276499	7275474	7263675	7282941	1221856	1221857	7280915	7280255	1221996	7282934	7282937	7282936	
AC-3352	1963	(Man. Hawk)	6D-1413	DS503	7276499	7275474	7263675	7282941	1221856	1221857	7280915	7280255	1221996	7282934	7282937	7282936	
AC-3352	1963	(Man. Hawk)	6D-1413	DS503	7276499	7275474	7263675	7282941	1221856	1221857	7280915	7280255	1221996	7282934	7282937	7282936	
AC-3354	1963	(Man. Hawk)	6D-1414	DS501	72L8190	1221422	7263675	7282941	1221856	1221857	7280915	1222297	7282934	7282937	7282936	7282936	
AC-3377	1964	(Man. Hawk)	6D-1964-1	DS503	7287480	7286601	7282272	6129	1221856	1221857	7280915	1222297	7282934	7282937	7282936	7282936	
AC-3472	1964	Manual	6D-1964-1	DS503	7287480	7286601	7292515	7295184	1221856	1221857	7280915	1222297	7282934	7282937	7282936	7282936	
AC-3474	1964	Push Button	6D-1964-1	DS501	7286602	7286601	7292515	6127	1221858	1221859	7280915	1222297	7282934	7282937	7282936	7282936	
AC-3500	1964	AM-FM	6D-1964-2	DS502	7286602	7286601	7292515	6127	1221858	1221859	7280915	1222297	7282934	7282937	7282936	7282936	
AC-3590	1964	P.B. Avanti	6D-1964-1	DS502	7286602	7286601	7292515	6127	1221856	1221857	7280915	1222297	7282934	7282937	7282936	7282936	
OPEL																	
7274694	1956	Manual	6D-1966-1	DS503	7287480	7286601	7282272	6127	1221856	1221857	7280915	1222297	7282934	7282937	7274892	7274892	

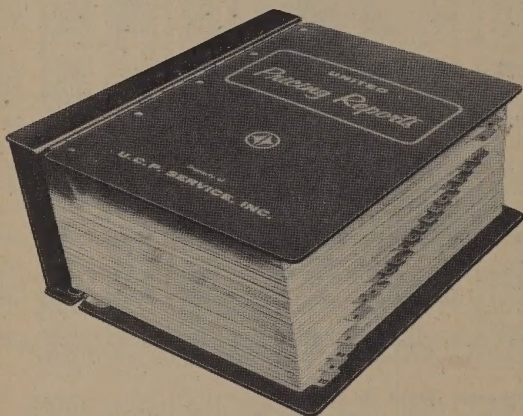
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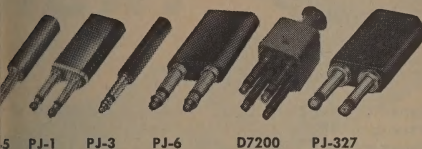
DELIVERY

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ADC PRODUCTS, INC.

PLUGS



5 **Equivalent, PJ-055, WE-47**, fits $\frac{1}{4}$ " phone jacks. Black plastic shell. Screw terminals. Two conductor. **Net \$0.78**

1 **Equivalent WE-241**, heavy duty die cast frame. Black phenolic shell. Self aligning plug prongs on $\frac{5}{8}$ " center for use with all standard jack panels. Two tip conductors, plus sleeve connection common to both sleeves. **Net \$2.55**

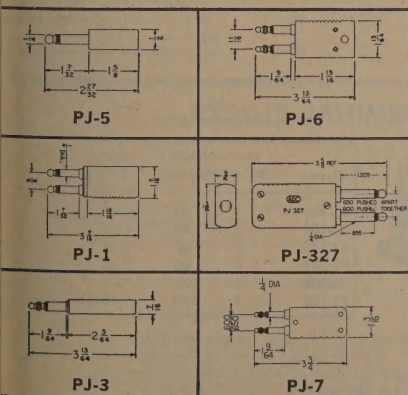
3 **Equivalent PJ-051, WE-310**. Designed for use with $\frac{1}{4}$ " tip, ring and sleeve jacks. Molded insulation, red plastic shell. Three conductor. **Net \$2.40**

6 **Equivalent WE-213**. Designed for applications requiring two separate 3 conductor circuits. Popularly used with operator's intercom/monitor headsets. Black shell notched for polarity identification. Self aligning plug prongs on $11/16$ " centers. **Net \$9.78**

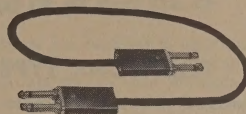
200 **Equivalent WE-315B**. Four prong, self aligning plug. Molded insulation. Brass shell notched for polarity is nickel plated and connected to plug stems to provide shielding for tip conductors. For use with four PJ-318 double jacks mounted on $\frac{5}{8}$ " centers. Five conductors. **Net \$14.70**

327 **Equivalent WE-327**. The PJ-327 Twin Plugs provides two electrically independent, 2 conductor plugs in a black plastic shell which is notched to indicate polarity. Self aligning plug sleeves are on $\frac{5}{8}$ " centers. Designed and constructed in accordance with Specification MIL-P-642A. **Net \$2.55**

7 Twin type plug with tip, ring and sleeve conductors on $\frac{5}{8}$ " centers for use with all standard jack panels. Designed to mate with three conductor jacks having $\frac{1}{4}$ " diameter sleeves. Molded insulation. Black phenolic shell is notched to indicate polarity. **Net \$7.20**



PATCH CORDS



Length	Cord With PJ-1 Plugs	Net Price	Cord With PJ-5 Plugs	Net Price	Replacement Cords Only	Net Price
6-inch	PJ-10 $\frac{1}{2}$	\$6.38	PJ-50 $\frac{1}{2}$	\$3.48	PJ-20 $\frac{1}{2}$	\$1.11
1-foot	PJ-11	6.60	PJ-51	3.63	PJ-21	1.50
2-feet	PJ-12	6.75	PJ-52	3.84	PJ-22	1.65
3-feet	PJ-13	6.90	PJ-53	4.11	PJ-23	1.74
4-feet	PJ-14	7.13	PJ-54	4.44	PJ-24	1.80
5-feet	PJ-15	7.28	PJ-55	4.77	PJ-25	1.89
6-feet	PJ-16	7.58	PJ-56	5.25	PJ-26	2.49
10-feet	PJ-10	8.10	PJ-50	5.82	PJ-20	3.15

ADC patch cords have become standards in the communications industry. Unmatched in quality, these shielded cords are made of tinned copper conductor wire with a heavy braided cover reinforced at each end. These cords, as well as cord assemblies with PJ-1 double plugs, PJ-5 or PJ-3 single plugs and standard black patch cords with shields grounded both ends, are considered standard. Unshielded cords or assemblies with shields grounded one end only available on special order. Gray, red, other color cords available on special order.

Length	Cord With PJ-3 Plugs	Net Price	Replacement Cords Only	Net Price
2-feet	PJ-82	\$8.70	PJ-62	\$2.10
4-feet	PJ-84	9.30	PJ-64	2.40
6-feet	PJ-86	9.90	PJ-66	2.82

Four tinsel wire conductors plus shield (shield grounded to both sleeves of PJ-7 plugs). Conductors are rubber insulated. Heavy black braided glazed cotton cover overall.

Length	Cord with PJ-7 Plugs
1 foot	PJ-171
2 feet	PJ-172
3 feet	PJ-173
4 feet	PJ-174
5 feet	PJ-175
6 feet	PJ-176

Four tinsel wire conductors, thermoplastic insulated. Slate colored Nylon braided cover overall resists wear.

Patch Cords Length	Nylon Cord With PJ-327 Plugs
1 foot	PJ-181
2 feet	PJ-182
3 feet	PJ-183
4 feet	PJ-184
5 feet	PJ-185
6 feet	PJ-186



ADC PRODUCTS, INC.

JACKS....



TELEPHONE TYPE

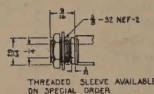
ADC is recognized as a leading supplier of long frame, telephone type jacks. As evidence of their outstanding quality, ADC jacks are used by the country's foremost manufacturers of communication equipment. The unique, ADC one piece frame is strong, dimensionally stable and readily interchangeable both mechanically and electrically with commonly used jacks. Plating withstands 50-hour salt spray tests. Coin silver contacts are welded to nickel silver springs. Lugs are hot tin dipped. Insulation is high grade phenolic.

Schematic Diagram	Jacks	W. E. Equiv.	Frame Style	Net Price
	PJ-115	215-A	A	\$.90
	PJ-116	216-A	A	.90
	PJ-117	217-A	A	.90
	PJ-123	223-A	A	.60
	PJ-125	225-A	A	1.02
	PJ-202	None	C	1.02
	PJ-203	303-A	A	.78
	PJ-204	None	A	1.02
	PJ-205	240-A	A	1.32
	PJ-206	242-A	A	1.32
	PJ-207	285-A	A	1.50
	PJ-208	284-A	A	1.50
	PJ-209	411-A	A	1.02
	PJ-226	226-A	A	1.02
	PJ-237	237-A	A	.87
	PJ-238	238-A	A	.66
	PJ-240	240-C	C	1.23
	PJ-241	241-A	A	1.02
	PJ-242	242-C	C	1.23
	PJ-318	218-A	A	.66
	PJ-336	236-C	C	1.14
	PJ-338	438-C	C	1.23
	PJ-339	239-A	A	.92
	PJ-418	218-C	C	.69

MILITARY JACKS

Designed to meet the rugged, exacting requirements of military applications. These ADC jacks are made in accordance with Mil-J-641B specifications. Highest quality materials and closely held tolerances on dimensions conform with military specifications.

Schematic Diagram	Mil Jacks	Net Price	Schematic Diagram	Mil Jacks	Net Price
	JJ-015	1.17		JJ-073	1.50
	JJ-016	.90		JJ-074	1.17
	JJ-017	1.17		JJ-075	1.50
	JJ-019	1.41		JJ-077	1.71
	JJ-022	.75		JJ-078	1.71
	JJ-024	.75		JJ-084	1.05
	JJ-035	1.17		JJ-085	1.05
	JJ-042	1.02		JJ-086	.66
	JJ-072	1.05		JJ-087	1.17





ADC PRODUCTS, INC.

new!

BANTAM JACK PANELS

Bantam Jack Panels are designed to satisfy the increasing demand for more compact patchfields in modern electronic and communication equipment. Bantam Jack Panels, with miniaturized jacks, provide twice the number of jacks in a standard size panel. They require only $\frac{1}{2}$ the rack space previously used by conventional panels. The new panel assemblies weigh 65% less when compared to an assembly using an equivalent number of jacks in a conventional jack panel. ■ Bantam Jack Panels are compact, lightweight, and yet provide the same dependable service as the long established telephone types. This new design offers 96 jacks (48 pairs) in a $1\frac{1}{2}$ inch x 19 inch standard sized panel. The jacks on this panel are spaced to prevent the cross patching of adjacent circuits when using double plugs.

BANTAM JACK PANEL SPECIFICATIONS

Panel: Aluminum alloy, extruded, $1\frac{1}{2}$ inches wide for standard 19 inch rack mounting.

Jack Mounting: Four molded plastic inserts, each provides for 24 jacks. Pairs of jacks on $\frac{1}{4}$ inch centers. Double row panel provides 96 jacks total. Blank inserts can be furnished where only single row of jacks is required.

Panel mounting: Mounting brackets are integral part of panel.

Designation Strip: Extruded clear plastic.

Panel Finish: Anodized, Black.

	NET
PJ-731 Double row panel, assembly less jacks, hold 96 jacks	\$ 19.20
PJ-737 Double row panel, with 48 pair (96 total) PJ-818 jacks.	92.40
PJ-739 Double row panel, with 48 pair (96 total) PJ-839 jacks.	116.40
PJ-724 Panel inserts, less jacks, 24 holes.	2.40
PJ-700 Panel inserts, blank (same as PJ-724 without holes).	1.20

Custom panel assemblies with up to 104 jacks are available on special order.

BANTAM JACKS

Bantam Jacks will meet the electrical, mechanical and environmental requirements of the military specification for long frame telephone jacks. Although reduced in size these jacks will provide the same reliable service equal to that expected from regular size telephone jacks. These jacks are available in a variety of two and three conductor types, with isolated circuit contacts as well as normalizing contact.

SPECIFICATIONS:

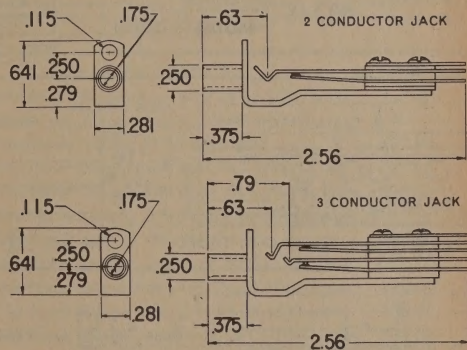
Frame: Steel, Cadmium plate with chromate conversion coating to withstand 50 hours of salt spray.

Springs: Nickel silver.

Contacts: Palladium, cross-bar contacts are welded to springs.

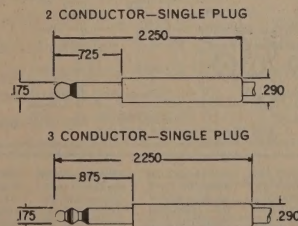
Insulation: Spacers, Phenolic Type PBE-P per Mil-P-3115B.

Bushing: Brass, silver soldered to frame. Finish same as frame.



BANTAM PATCH CORDS

Bantam Patch Cords are plastic jacketed, shielded cords complete with molded-on plugs. The plugs are made with molded insulation between conductors. Bantam Patch Cords are available with single and double two conductor plugs and single three conductor plugs. A cord strain relief feature is included in the plug construction.



SPECIFICATIONS:

Cord: Plastic jacketed, shielded tinned copper conductors. Jacket color, Gray.

Plugs: Conductor parts are precision machined of brass.

Plug Insulation: Molded polystyrene, black.

Internal connections: Soldered.

Plug shell: Plastic, molded to cord. Gray.

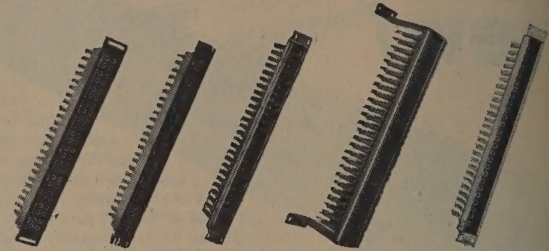
BANTAM PATCH CORDS

Length	Single (2) Conductor Plug	Double (2) Conductor Plug	Single (3) Conductor Plug	Net
6 inch	PJ-701	PJ-751	PJ-711	\$3.90
12 inch	PJ-702	PJ-752	PJ-712	3.96
24 inch	PJ-704	PJ-754	PJ-714	4.02
36 inch	PJ-706	PJ-756	PJ-716	4.08
48 inch	PJ-708	PJ-758	PJ-718	4.20


ADC PRODUCTS, INC.

JACK PANELS...

ADC offers the most complete assortment of jack panels available today. ADC panels are used in television and broadcasting stations, recording studios, industrial paging systems, and communication equipment of all kinds where there is a need to efficiently switch and distribute audio signals. Molded of solid phenolic, reinforced with steel to provide maximum rigidity and strength. Jacks are spaced to permit use of any standard double plug with $\frac{1}{8}$ " spacing. Mounting brackets and designation strips furnished with each panel. All panels designed to fit standard 19" relay rack. Consult ADC for your standard and special jack panel requirements.



PJ-31
PJ-341
PJ-391

PJ-33
PJ-343
PJ-393

PJ-30
PJ-340
PJ-390

PJ-35
PJ-350
PJ-395

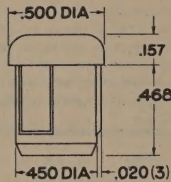
PJ-36
PJ-360
PJ-396

HOLE PLUG

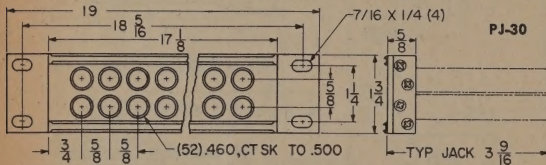
Molded of black polyethylene plastic. Fits all ADC standard jack panels. Made to plug unused jack mounting holes in jack panels.

PJ-29

Net \$.15



Panel less Jacks	Net Price	Panel with PJ-318 Jacks	Net Price	Panel with PJ-339 Jacks	Net Price
PJ-30	\$12.90	PJ-340	\$49.50	PJ-390	\$64.80
PJ-31	9.45	PJ-341	42.75	PJ-391	57.30
PJ-33	8.52	PJ-343	25.14	PJ-393	32.40
PJ-35	15.60	PJ-350	52.50	PJ-395	67.50
PJ-36	8.70	PJ-360	27.90	PJ-396	35.10



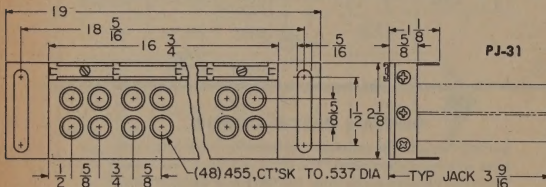
PJ-30

PJ-30

Double panel. Holds 52 jacks—requires $1\frac{1}{2}$ " panel space. Double designation strip. Brackets for flush rack mounting. All jack mounting holes on $\frac{1}{8}$ " centers.

PJ-35

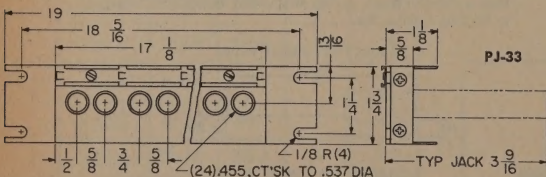
Double panel. Same as PJ-30 except with stand brackets to hold panel 7" in front of mounting rack.



PJ-31

PJ-31

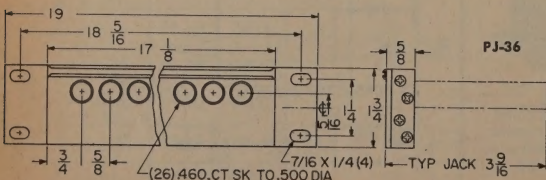
Double panel. Holds 48 jacks. Holes spaced to prevent patching adjacent circuits. Requires $2\frac{1}{2}$ " panel space.



PJ-33

PJ-33

Single panel. Holds 24 jacks. Holes spaced to prevent patching adjacent circuits. Requires $1\frac{1}{2}$ " panel space.



PJ-36

PJ-36

Single panel. Holds 26 jacks—requires $1\frac{1}{2}$ " panel space. Brackets for flush rack mounting. All jack mounting holes on $\frac{1}{8}$ " centers.

Panels with mil jacks and other telephone type jacks also available.

ADC COAX COAXIAL PATCHING COMPONENTS

COAX JACKS

CJ-1005
CJ-1009

SPECIFICATIONS

JACK SLEEVE AND FRAME: Brass

FINISH (CONDUCTOR SURFACES): Gold Plating over Silver*

INSULATION: Teflon

CONTACT FINGERS: Phosphor Bronze (Gold Plating over Silver*)

CENTER CONDUCTOR: Beryllium Copper (Gold Plating over Silver*)

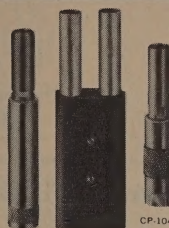
SHIELD TERMINATION: Brass (Gold Plating over Silver*) A sleeve is furnished for use when a crimped on solderless connection for shield is desired**

*Mil-G-45024, Type II

**For crimped solderless connections recommended tool: Thomas & Betts crimping tool #WT-412

CJ-1011
CJ-1111

	1-24	25-99
CJ-1000 Single Jack (WE 477B equivalent)	4.50	3.60
CJ-1011 Single Jack (with BNC connector)	5.00	4.00
CJ-1005 Dual Jack (WE 465C equivalent)	8.75	7.00
CJ-1009 Dual Jack (WE 491A equivalent)	8.50	6.80
CJ-1100 Single Jack	4.50	3.60
CJ-1111 Single Jack (with BNC connector)	5.00	4.00

CP-1040
CP-1140
CP-1042
CP-1142
CP-1041
CP-1141
CP-1049
CP-1149

COAX PLUGS

SPECIFICATIONS

PLUG FINGERS: Brass

FINISH (CONDUCTOR SURFACES): Gold Plating over Silver*

CENTER CONDUCTOR—BRASS: Gold Plating over Silver*

INSULATION: Teflon

HANDLE: Single & Termination Plugs—Brass Nickel Plated

Looping Plugs—High Impact Resistant Plastic (Implex) Black

Dummy Plugs—Brass—Black Nickel

*Mil-G-45204, Type II

WE Compatible Part Numbers	1-24	25-99
CP-1040 (WE 340C)	4.50	3.60
CP-1041 (WE 358A)	3.00	2.80
CP-1042 (WE 372A) ³	6.00	4.80
CP-1043 ³	7.50	6.00
CP-1049 (WE 339A)	2.25	1.80

RCA Compatible Part Numbers

RCA Compatible Part Numbers	1-24	25-99
CP-1140	4.50	3.60
CP-1141	3.00	2.80
CP-1142 ³	6.00	4.80
CP-1143 ³	7.50	6.00
CP-1149	2.25	1.80

¹ Same as CP1042 with pin jacks.

³ Both 50 and 75 ohm looping plugs are available. 75 ohm plug will be supplied unless order specifies 50 ohm version

COAX PANELS

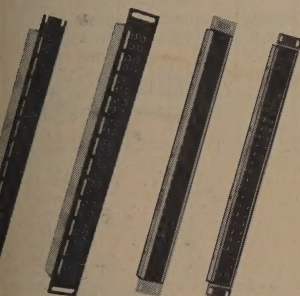


FIG. 2

FIG. 3

FIG. 4

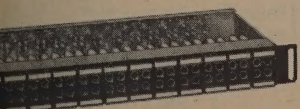
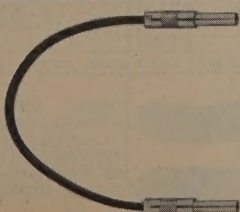


FIG. 5

Double and single row available.

CAT. NO.	FIG.	DESCRIPTION	1-4	5-9
CM-1020	1	1 3/4" wide Panel (Single Row) with 24 CJ-1000 jacks	115.00	92.00
CM-1022	5	1 3/4" wide Panel (Single Row) with 24 CJ-1000 jacks and Subchassis with 12 VHF Connectors	130.00	104.00
CM-1021	1	1 3/4" wide Panel (Single Row) with 24 CJ-1011 jacks	128.00	102.50
CM-1025	2	2 1/2" wide Panel (Double Row) with 48 CJ-1000 jacks	225.00	180.00
CM-1027	5	2 1/2" wide Panel (Double Row) with 48 CJ-1000 jacks and Subchassis with 24 VHF Connectors	255.00	202.00
CM-1026	2	2 1/2" wide Panel (Double Row) with 48 CJ-1011 jacks	250.00	200.00
CM-1028	3	1 3/4" wide Panel (Single Row) with 26 CJ-1000 jacks	125.00	100.00
CM-1029	3	1 3/4" wide Panel (Single Row) with 26 CJ-1011 jacks	138.00	110.50
CM-1031	4	1 3/4" wide Panel (Double Row) with 52 CJ-1000 jacks	254.00	203.00
CM-1032	4	1 3/4" wide Panel (Double Row) with 52 CJ-1011 jacks	270.00	216.00
CM-1120	1	1 3/4" wide Panel (Single Row) with 24 CJ-1100 jacks	115.00	92.00
CM-1122	5	1 3/4" wide Panel (Single Row) with 24 CJ-1100 jacks and Subchassis with 12 VHF Connectors	130.00	104.00
CM-1121	1	1 3/4" wide Panel (Single Row) with 24 CJ-1111 jacks	128.00	102.50
CM-1125	2	2 1/2" wide Panel (Double Row) with 48 CJ-1100 jacks	225.00	180.00
CM-1127	5	2 1/2" wide Panel (Double Row) with 48 CJ-1100 jacks and Subchassis with 24 VHF Connectors	255.00	202.00
CM-1126	2	2 1/2" wide Panel (Double Row) with 48 CJ-1111 jacks	250.00	200.00
CM-1128	3	1 3/4" wide Panel (Single Row) with 26 CJ-1100 jacks	125.09	100.00
CM-1129	3	1 3/4" wide Panel (Single Row) with 26 CJ-1111 jacks	138.00	110.50
CM-1131	4	1 3/4" wide Panel (Double Row) with 52 CJ-1100 jacks	254.00	203.00
CM-1132	4	1 3/4" wide Panel (Double Row) with 52 CJ-1111 jacks	270.00	216.00

COAX PATCH CORDS

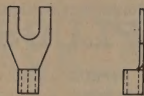


Length	WE Compatible Part Numbers 50 ohm cable (RG-58U) with CP-1041 plugs	RCA Compatible Part Numbers 50 ohm cable (RG-58U) with CP-1141 plugs	WE Compatible Part Numbers 75 ohm cable (RG-59U) with CP-1041 plugs	RCA Compatible Part Numbers 75 ohm cable (RG-59U) with CP-1141 plugs	1-24	25-99
6"	CC-1051	CC-1151	CC-1071	CC-1171	6.00	4.80
12"	CC-1052	CC-1152	CC-1072	CC-1172	6.00	4.80
18"	CC-1053	CC-1153	CC-1073	CC-1173	6.25	5.00
24"	CC-1054	CC-1154	CC-1074	CC-1174	6.25	5.00
30"	CC-1055	CC-1155	CC-1075	CC-1175	6.50	5.20
36"	CC-1056	CC-1156	CC-1076	CC-1176	6.50	5.20

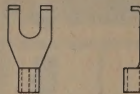


SOLDERLESS TERMINALS AND CONNECTORS

ARK-LES



.240 Width



Non-Insulated

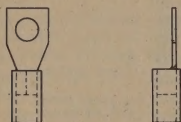


.380 Width

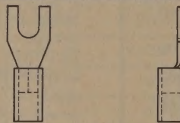
Wire Gauge	Stud Size	Spade	Flanged Spade	Square Spade	Ring
22-18	0	56001-1	56041-1	56079-1	56118-1
	2	56009-1	56048-1	56087-1	56126-1
	4	56017-1	56056-1	56095-1	56134-1
	6		56064-1		56142-1
16-14	0	56005-1	56044-1	56083-1	56122-1
	2	56013-1	56052-1	56091-1	56130-1
	4	56021-1	56060-1	56099-1	56138-1
	6		56068-1		56146-1

Wire Gauge	Stud Size	Spade	Flanged Spade	Square Spade	Ring
22-18	4	56165-1	56213-1	56261-1	56309-1
	6	56177-1	56225-1	56273-1	56321-1
	8	56189-1	56237-1	56285-1	56348-1
	10	56201-1	56249-1		56360-1
16-14	4	56169-1	56217-1	56265-1	56313-1
	6	56181-1	56229-1	56277-1	56325-1
	8	56193-1	56241-1	56289-1	56352-1
	10	56205-1	56253-1		56364-1
12-10	4	56173-1	56221-1	56269-1	56317-1
	6	56185-1	56233-1	56281-1	56329-1
	8	56197-1	56245-1	56293-1	56356-1
	10	56209-1	56257-1		56368-1

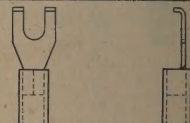
Wire Gauge	Stud Size	Spade	Flanged Spade	Square Spade
22-18	6	56387-1	56435-1	56483-1
	8	56399-1	56447-1	56495-1
	10	56411-1	56459-1	56507-1
	1/4			56519-1
16-14	6	56391-1	56439-1	56487-1
	8	56403-1	56451-1	56499-1
	10	56415-1	56463-1	56511-1
	1/4			56523-1
12-10	6	56395-1	56443-1	56491-1
	8	56407-1	56455-1	56503-1
	10	56419-1	56467-1	56515-1
	1/4			56527-1



.240 Width



Pre-Insulated Straight Sleeve

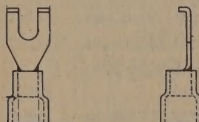


.380 Width

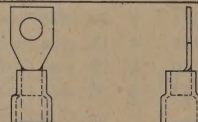
Wire Gauge	Stud Size	Spade	Flanged Spade	Square Spade	Ring
22-18	0	50001-1	50041-1	50079-1	50118-1
	2	50009-1	50048-1	50087-1	50126-1
	4	50017-1	50056-1	50095-1	50134-1
	6		50064-1		50142-1
16-14	0	50005-1	50044-1	50083-1	50122-1
	2	50013-1	50052-1	50091-1	50130-1
	4	50021-1	50060-1	50099-1	50138-1
	6		50068-1		50146-1

Wire Gauge	Stud Size	Spade	Flanged Spade	Square Spade	Ring
22-18	4	50165-1	50213-1	50261-1	50309-1
	6	50177-1	50225-1	50273-1	50321-1
	8	50189-1	50237-1	50285-1	50348-1
	10	50201-1	50249-1		50360-1
16-14	4	50169-1	50217-1	50265-1	50313-1
	6	50181-1	50229-1	50277-1	50325-1
	8	50193-1	50241-1	50289-1	50352-1
	10	50205-1	50253-1		50364-1
12-10	4	50173-1	50221-1	50269-1	50317-1
	6	50185-1	50233-1	50281-1	50329-1
	8	50197-1	50245-1	50293-1	50356-1
	10	50209-1	50257-1		50368-1

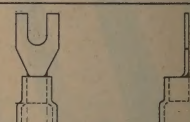
Wire Gauge	Stud Size	Spade	Flanged Spade	Square Spade
22-18	6	50387-1	50435-1	50483-1
	8	50399-1	50447-1	50495-1
	10	50411-1	50459-1	50507-1
	1/4			50519-1
16-14	6	50391-1	50439-1	50487-1
	8	50403-1	50451-1	50499-1
	10	50415-1	50463-1	50511-1
	1/4			50523-1
12-10	6	50395-1	50443-1	50491-1
	8	50407-1	50455-1	50503-1
	10	50419-1	50467-1	50515-1
	1/4			50527-1



.240 Width



Pre-Insulated Expanded Sleeve



.380 Width

Wire Gauge	Stud Size	Spade	Flanged Spade	Square Spade	Ring
22-18	0	50003-1	50042-1	50081-1	50120-1
	2	50011-1	50050-1	50089-1	50128-1
	4	50019-1	50058-1	50097-1	50136-1
	6		50066-1		50144-1
16-14	0	50007-1	50046-1	50085-1	50124-1
	2	50015-1	50054-1	50093-1	50132-1
	4	50023-1	50062-1	50101-1	50140-1
	6		50070-1		50148-1

Wire Gauge	Stud Size	Spade	Flanged Spade	Square Spade	Ring
22-18	4	50167-1	50215-1	50263-1	50311-1
	6	50178-1	50227-1	50275-1	50323-1
	8	50191-1	50239-1	50287-1	50335-1
	10	50203-1	50251-1		50347-1
16-14	4	50171-1	50219-1	50267-1	50315-1
	6	50183-1	50231-1	50279-1	50327-1
	8	50195-1	50243-1	50291-1	50339-1
	10	50207-1	50255-1		50351-1
12-10	4	50175-1	50223-1	50271-1	50319-1
	6	50187-1	50235-1	50283-1	50331-1
	8	50199-1	50247-1	50295-1	50343-1
	10	50211-1	50259-1		50355-1

Wire Gauge	Stud Size	Spade	Flanged Spade	Square Spade
22-18	6	50389-1	50437-1	50485-1
	8	50401-1	50449-1	50497-1
	10	50413-1	50461-1	50509-1
	1/4			50521-1
16-14	6	50393-1	50441-1	50489-1
	8	50405-1	50453-1	50501-1
	10	50417-1	50465-1	50513-1
	1/4			50525-1
12-10	6	50397-1	50445-1	50493-1
	8	50409-1	50457-1	50505-1
	10	50421-1	50469-1	50517-1
	1/4			50529-1

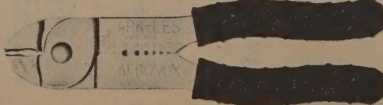
Part numbers shown are for Terminals with butted seam. For the same Terminal with welded seam add 1 to each number, example: 56001-1 becomes 56002-1

TOOLS

Tool Model 10,000 - pre-insulated Terminals

Tool Model 10,001 - non-insulated Terminals

Also a complete selection of manual, electric and pneumatic tools available.

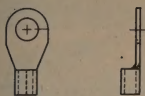


Contact your Local Authorized AER Distributor for prices up to 10,000 pieces.

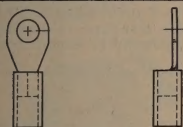
For complete information on our entire line of Solderless Terminals and Kits read Catalog AKD-566.



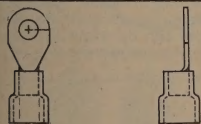
SOLDERLESS TERMINALS AND CONNECTORS

Non-Insulated
.500 Width

Stud Size	Spade	Flanged Spade	Square Spade	Ring
10 1/4 5/16	56609-1 56621-1	56648-1 56660-1	56687-1 56699-1	56726-1 56738-1 56750-1
10 1/4 5/16	56613-1 56625-1	56652-1 56665-1	56691-1 56703-1	56730-1 56742-1 56754-1
10 1/4 5/16	56617-1 56629-1	56656-1 56668-1	56695-1 56707-1	56734-1 56746-1 56758-1

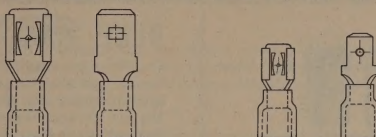
Pre-Insulated Straight Sleeve
.500 Width

Stud Size	Spade	Flanged Spade	Square Spade	Ring
10 1/4 5/16	50609-1 50621-1	50648-1 50660-1	50687-1 50699-1	50726-1 50738-1 50750-1
10 1/4 5/16	50613-1 50625-1	50652-1 50665-1	50691-1 50703-1	50730-1 50742-1 50754-1
10 1/4 5/16	50617-1 50629-1	50656-1 50668-1	50695-1 50707-1	50734-1 50746-1 50758-1

Pre-Insulated Expanded Sleeve
.500 Width

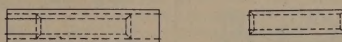
Stud Size	Spade	Flanged Spade	Square Spade	Ring
10 1/4 5/16	50611-1 50623-1	50650-1 50662-1	50689-1 50701-1	50728-1 50740-1 50752-1
10 1/4 5/16	50615-1 50627-1	50654-1 50666-1	50693-1 50705-1	50732-1 50744-1 50756-1
10 1/4 5/16	50619-1 50631-1	50658-1 50670-1	50697-1 50709-1	50736-1 50748-1 50760-1

QUICK CONNECT TERMINALS – MALE & FEMALE



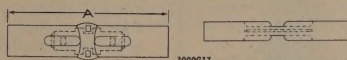
Wire Gauge	Size	Non-Insulated	Pre-Insulated Straight Sleeve	Pre-Insulated Expanded Sleeve
22-18	1/4 Male	56952-1	50952-1	50954-1
	1/4 Female	56902-1	50902-1	50904-1
	3/16 Male	56964-1	50964-1	50966-1
	3/16 Female	56914-1	50914-1	50916-1
16-14	1/4 Male	56956-1	50956-1	50958-1
	1/4 Female	56906-1	50906-1	50908-1

BUTT & LINE CONNECTORS



Butt Connectors

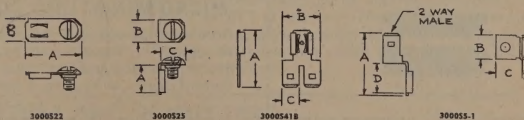
Wire Gauge	Non-Insulated	Pre-Insulated Straight Sleeve	Pre-Insulated Expanded Sleeve
22-18	59004	59002	59007
16-14	59005	59003	59008
12-10	59006	59004	59009



Line Connector

Part #	Series	A	
3000G17	3000	Polyvinyl Tube and Brass Tab	2.125 Line Connector for Two Inline Female Terminals

QUICK CONNECT ADAPTORS



Part #	Series	Material	A	B	C	D	Remarks
3000S22	—	Brass	.812	.328	—	—	Screw #6-32x1/4"
3000S25	—	Brass	.391	.312	.359	—	Screw #6-32x1/4"
3000S41B	—	Brass	.820	.562	.250	—	3000 Series
3000S5-1	—	Brass	.884	.343	.379	.391	

KITS

Kits available containing generous assortments of Terminals together with a Crimping Tool.

- ATK-900 — Pre-Insulated Quick Connect
- ATK-901 — Pre-Insulated Solderless Terminals
- ATK-902 — Non-Insulated Solderless Terminals

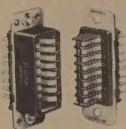


AMPHENOL RACK & PANEL CONNECTORS



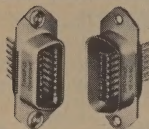
AMPHENOL
DISTRIBUTOR
DIVISION

For Immediate Service Contact Your Local Amphenol Sales Office



BLUE *Ribbon*® CONNECTORS

The Amphenol gold-plated ribbon connector provides more contact mating surface than any connector of its type. Applying the principle of the wedge, ribbon contacts exert a continuous flexing action against each other while mated, providing unusually low contact resistance. The Blue Ribbon® contact is self-wiping for reliability throughout its long life, and is available with 8 to 32 contacts. Cable to panel versions are also available.



Micro RIBBON® CONNECTORS

Amphenol's Micro Ribbon® connector is a miniature version of the Blue Ribbon. It features 14 to 50 contacts, low contact resistance, self-wiping action and miniature size.



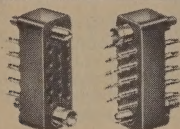
Min-Rac 17 CONNECTORS

Amphenol's Min-Rac 17® connector is highly suited for saving needed space for proper ventilation, component mounting, or chassis size reduction. Mounting depth is less than most "shell-less" rack-and-panel connectors. It provides up to 50 Poke-Home® terminals in half the insert space required for standard rack-and-panel connectors. Poke-Home contacts are available in either crimp or solder versions.



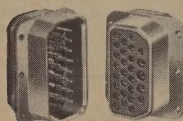
HEX-TYPE CONNECTORS

Amphenol provides a complete family of miniature rack-and-panel and cable-to-chassis connectors for interconnection in a wide range of applications. Hardware and contacts are interchangeable. Bodies are molded of diallylphthalate; gold-over-silver contacts will not tarnish or corrode and can be soldered without pre-tinning even after long storage. All hardware is nickel-plated solid brass.



126 SERIES CONNECTORS

The 126 Series is a versatile group of connectors available in 11, 15, and 20 contacts—with or without protective can and cable clamp. Rated at 900 volts RMS, 60 CPS at sea level. Bodies are mica-filled phenolic; contacts are gold-plated.



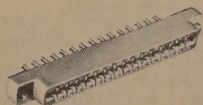
94 SERIES POKE-HOME® CONNECTORS

Amphenol's 94 Series rack-and-panel connectors feature Poke-Home contacts. Aluminum shells are cadmium plate, chromate treated. Useful for any rack-and-panel application, the 94 Series is especially valuable where circuits must be changed frequently within the connector. Poke-Home contacts can be wired and then inserted into the mounted or unmounted connectors in any desired position.



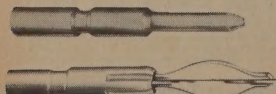
MICRO-MINIATURE CONNECTORS

Amphenol provides three additional complete series of subminiature connectors designed for modules, stick-circuitry, thin style printed circuit boards, and other micro-miniature applications. Use of the Micro-Mod®, Micro-Min® Series, and Micro-Edge® connectors is limited only by the imagination of the design engineer.



PRINTED CIRCUIT CONNECTORS

Amphenol's printed circuit connectors are available with ribbon or tuning fork contacts. The broad selection of contact tails represents the most complete line in the industry.



POKE-HOME® CRIMP MICRO-MINIATURE CONNECTORS

Amphenol micro-miniature connectors are now available with a choice of high-density contacts: Wire-Form for economically solving virtually every contact application or new Relia-Tac for extra high reliability. Both feature handy crimp termination on the following connectors:

Mighty-Mite®—cable-to-panel and cable-to-cable application; 7 to 61 contacts.
Tiny Tim®—module and rack-and-panel application; 5 to 33 contacts.
Micro-Rac®—rack-and-panel, cable, and module application; 52 to 104 contacts.
The 221 Series Strip—permits cutting and stacking in unlimited shapes.

FOR COMPLETE TECHNICAL INFORMATION . . . CONSULT AMPHENOL'S 20 PAGES OF PRODUCT AND ORDER SPECIFICATIONS APPEARING IN THE ELECTRONIC ENGINEERS MASTER (eem).

AMPHENOL POWER CONNECTORS



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**MS CONNECTORS**

Amphenol builds MS connectors to the latest issue of MIL-C-5015 Specification. They are designed, manufactured, and approved under this specification for the armed forces, and are ideal for commercial and industrial applications which require the same versatility and dependability.

**MS — E CONNECTORS**

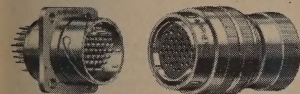
Amphenol's resilient dielectric MS connector meets all environmental requirements of the latest revision of MIL-C-5015. Its unitized grommet eliminates the use of bulky cable clamps, and results in a considerable reduction of length and weight in relation to standard MS connectors.

**MS — R & 69 POKE-HOME® CONNECTORS**

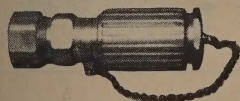
Amphenol Poke "R" solderless connectors provide all the lightweight environmental-resistant features of MIL-C-5015s "R" Class with two important additions: Poke-Home contacts and superior environmental performance. Incorporation of these two features make Poke "R" a highly preferred MIL-C-5015-type connector.

**48 SERIES — MIL-C-26500 MIL-C-3830 (USAF)**

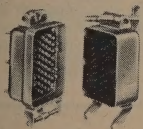
Meeting or exceeding all MIL-C-26500 and MIL-C-38300 requirements, Amphenol's 48 Series combines miniature environmentally-resistant construction and Poke-Home crimp type contacts. MIL-C-26500 connectors perform with utmost reliability in temperatures of -55°C to $+260^{\circ}\text{C}$, with no re-rating up to 360,000 ft. Available with threaded and bayonet coupling.

**67 SERIES MINNIE® CONNECTORS**

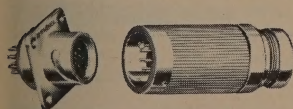
Amphenol 67 Series MinnieE connectors are quick-disconnect, multi-contact, miniature bayonet types. MinnieE connectors feature inclined stainless steel slots and spring loaded coupling rings. A bright orange visual indicator signals full coupling. The 67 Series has a wide variety of shell styles with environmental capability. Receptacles are available in hermetics.

**89 SERIES CONNECTORS**

Rugged and completely leakproof, Amphenol 89 Series connectors provide efficient and dependable service even when entirely submerged in mud, ice, water, or mire. They are used extensively in missile ground-and-support systems, radar antenna installations, oil well and digging equipment, and other hard-service applications. Available in more than 70 insert configurations with 2 to 52 contacts.

**115 SERIES CONNECTORS**

Amphenol 115 Series connectors accommodate 50 or 100 No. 16 contacts and are nominally rated at 750 volts RMS, 60 CPS at sea level. They provide maximum space efficiency for all applications where a large number of circuits must be broken quickly and conveniently. The vise-action of the screw lock permits a quick-make quick-break switching action of all contacts.

**MINIATURE "AN" CONNECTORS**

Compact, efficient Amphenol 165 Series connectors are miniature versions of standard AN/MS types. Because of their weight and space saving design they are widely used in aircraft and miniaturized electronic equipment. 165 Series connectors use bayonet couplings, and are both pressure-proof and completely waterproof-mated or apart. Hermetically sealed, 182 Series connectors mate with connectors of the 165 Series.

**172 SERIES HERMETIC CONNECTORS**

Amphenol 172 Series hermetic receptacles use an improved hard-glass compression seal with high visibility "Identoseal" contact identification. Both insert faces have ceramic white marking permanently fused to the dark brown glass. Receptacles mate with MIL-C-5015 MS plugs. The 172 Series is available in round flange, square flange, hex flange, and flangeless shells.

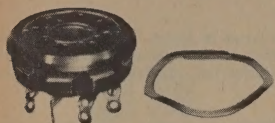
FOR COMPLETE TECHNICAL INFORMATION . . . CONSULT AMPHENOL'S 20 PAGES OF PRODUCT AND ORDERING SPECIFICATIONS APPEARING IN THE ELECTRONIC ENGINEERS MASTER (eem).

AMPHENOL TUBE SOCKETS & MICROPHONE CONNECTORS



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"S" TYPE TUBE SOCKETS

Amphenol "S" type tube sockets mount quickly and easily without screws or rivets by means of a patented "Retainer Ring Mounting." Sockets position to line up contacts for convenient wiring. The "S" type tube socket may be used with "Plug Caps" to make high-quality, low-cost cable connectors. Available also in mica-filled phenolic.



"MIP" SOCKETS

Amphenol's famous "MIP" socket (Molded-in-Plate) features Bakelite dielectric, and 4 to 20 contacts.



"CP" PLUGS

Amphenol "CP" plugs also mount simply through use of the patented "Retainer Ring Mounting." "CP" plugs are ideal as chassis connectors with plug-in units and are available optionally in mica-filled phenolic. They also adapt to cable applications when used with steel caps.



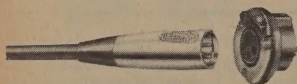
110/220 VOLT PLUGS & RECEPTACLES

Amphenol's 110/220 volt plugs and receptacles may be panel or cable mounted. Available with rubber grommets or cable clamp type shields, recessed or raised mountings, two or three contacts.



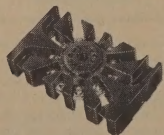
110 VOLT GROUND PLUGS & RECEPTACLES

Amphenol's 110 volt ground plugs and receptacles meet latest UL requirements. The 160 Series may be panel or cable mounted.



MIKE CONNECTORS

Designed for use with shielded microphone cables, Amphenol's family of microphone connectors are available in several series and include "Quick" Microphone Connectors with quick-button disconnect, 75 Series, single and double contact 80 Series, and its companion, 3, 4 and 6 contact 91 Series.



RELAY SOCKETS

Amphenol relay sockets are available in a broad range of contact styles and sizes, with up to 20 contacts.



MILITARY TIP JACKS

Amphenol military tip jacks feature a recessed silver-plated contact for top durability and high performance. Available in a wide range of colors, and other options. 1/4 inch mounting hole.

FOR COMPLETE TECHNICAL INFORMATION . . . CONSULT AMPHENOL'S 20 PAGES OF PRODUCT AND ORDERING SPECIFICATIONS APPEARING IN THE ELECTRONIC ENGINEERS MASTER (eem).

AMPHENOL RF PRODUCTS



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**83 SERIES UHF CONNECTORS**

Amphenol's UHF 83 Series consists of both small and large single and twin contact connectors. All are low-cost, general purpose connectors of non-constant impedance. They operate satisfactorily at frequencies up to 200 megacycles, can be used with caution up to 500 megacycles, and can be used at peak voltages up to 500 volts.

**MIL-CRIMP, QUICK-CRIMP & SOLDER BNC CONNECTORS**

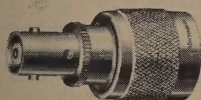
Amphenol Series BNC connectors for small coaxial cables consist of non-constant impedance types and an improved constant 50 ohm impedance type. All incorporate quick-connect and disconnect bayonet-lock coupling and are weatherproof. Now you can have your MIL-spec and crimp it, too — with the first quick-crimp connector to meet MIL-C-23329A, Amphenol's MIL-Crimp.

**SERIES N CONNECTORS**

Completely weatherproof Series N connectors are the most popular constant impedance connectors for medium size coaxial cables. They can be used throughout microwave frequencies with minimum line unbalance or increase in standing-wave ratio. Although Series N 50 ohm and 70 ohm connectors do not mate, 70 ohm cables may be used with 50 ohm Series N connectors where impedance matching is not critical.

**SUBMinax[®] RF CONNECTORS**

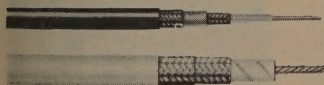
Amphenol's SubMinax RF connector family provides the most complete subminiature line available from one source. The SubMinax 27 Series is gold-plated and uses a MIL-C-22557 screw-on and push-on coupling. The SubMinax 5116 is silver-plated and mates with competitive non-MIL-C-22557 screw-on, push-on coupling types. The 5116 contains only five components, saving as much as two-thirds assembly time.

**BETWEEN SERIES ADAPTERS**

Amphenol can provide the most complete line available of between-series adapters.

**OTHER RF CONNECTORS**

Types C, HN, LC, BN, TNC, LN, SKL, MB, MC, SM, TWINAX, MHV, and Terminations, as well as a variety of modifications, make up the complete Amphenol line.

**COAXIAL CABLE**

Amphenol provides the broadest line of RG and non-RG coaxial cable available, and is generally accepted as the quality leader in this field. Dielectric includes Teflon, Polyethylene, and Polyfoam.

**COAXIAL SWITCHES**

Amphenol coaxial switches provide remote and manual switching up through 4000 mc. Single pole, single throw—through 12 pole. Available with a variety of terminating connectors and relay voltages.

FOR COMPLETE TECHNICAL INFORMATION . . . CONSULT AMPHENOL'S 20 PAGES OF PRODUCT AND ORDERING SPECIFICATIONS APPEARING IN THE ELECTRONIC ENGINEERS MASTER (eem).

BEAUCHAINE

Beauplugs

PLUGS AND SOCKETS

1967 B-4 Beauchaine Catalog Available for Complete Information & Engineering Data

BEAUPUGS / 3300 SERIES

PLUGS SERIES 3300 is interchangeable with Jones 300 series. Molded bakelite insulators; cadmium plated contacts; polypropylene caps; and bright-plated hardware. Rated 250 volts at 10 amps.

3300 BEAUPUGS and sockets are also made as: (-DB) deep bracket mounted; (-EB) end bracket; (-FHT) flared hole top; (-FHT-L) flared hole top; (-FHT-K) flared hole top-keeper (-CCE) cable clamp end; (-CCT-L) cable top-latch; (-CCT-K) cable clamp top-keeper. U/L and C.S.A. listed.

Beauchaine Number	Contacts	List	Each 1-49	Each 50-99	Each 100-249	Each 250-499
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PLUGS — ANGLE BRACKETS MOUNTED (-AB)

03-AB	3	\$3.38	\$2.28	\$1.19	\$1.52	\$1.44
04-AB	4	4.42	2.52	.21	1.68	.16
06-AB	6	5.11	3.06	.255	2.04	.194
08-AB	8	6.51	3.66	.305	2.44	.232
10-AB	10	6.69	4.14	.345	2.76	.252
12-AB	12	7.77	4.62	.385	3.08	.283
15-AB	15	1.05	.63	.525	4.22	.399
18-AB	18	1.30	.78	.65	.52	.494
21-AB	21	1.65	.99	.825	.66	.627
24-AB	24	2.00	1.20	1.00	.80	.76
27-AB	27	2.35	1.41	1.175	.94	.893
30-AB	30	2.70	1.62	1.35	1.08	1.026
33-AB	33	3.05	1.83	1.525	1.22	1.159

SOCKETS — ANGLE BRACKETS MOUNTED (-AB)

03-AB	3	\$4.40	\$2.4	\$2.0	\$1.16	\$1.52
04-AB	4	4.44	2.64	.22	.176	.167
06-AB	6	.55	.33	.275	.22	.209
08-AB	8	6.69	4.14	.345	.276	.262
10-AB	10	6.62	.492	.41	.328	.312
12-AB	12	9.5	.57	.475	.38	.361
15-AB	15	1.20	.72	.60	.48	.456
18-AB	18	1.45	.87	.725	.58	.551
21-AB	21	1.80	1.08	.90	.72	.684
24-AB	24	2.15	1.29	1.075	.86	.817
27-AB	27	2.50	1.50	1.25	1.00	.95
30-AB	30	2.90	1.74	1.45	1.16	1.102
33-AB	33	3.20	1.92	1.60	1.28	1.216

PLUGS — CABLE CLAMP TOP (-CCT)

03-CCT	3	\$7.75	\$4.5	\$3.75	\$3.00	\$2.85
04-CCT	4	8.43	4.98	.415	.332	.315
06-CCT	6	9.22	5.52	.46	.368	.35
08-CCT	8	9.99	5.94	.495	.396	.376
10-CCT	10	1.11	.666	.555	.444	.422
12-CCT	12	1.22	.732	.61	.488	.464
15-CCT	15	1.56	.936	.78	.624	.593
18-CCT	18	1.83	1.098	.915	.732	.695
21-CCT	21	2.20	1.32	1.10	.88	.836
24-CCT	24	2.56	1.536	1.28	1.024	.973
27-CCT	27	2.92	1.752	1.46	1.168	1.11
30-CCT	30	3.36	2.106	1.68	1.424	1.277
33-CCT	33	3.75	2.25	1.875	1.532	1.425

SOCKETS — CABLE CLAMP TOP (-CCT)

03-CCT	3	\$7.77	\$4.62	\$3.85	\$3.08	\$2.93
04-CCT	4	8.4	5.04	.42	.336	.319
06-CCT	6	9.5	.57	.475	.38	.361
08-CCT	8	1.11	.666	.555	.444	.422
10-CCT	10	1.23	.738	.615	.492	.467
12-CCT	12	1.42	.852	.71	.568	.54
15-CCT	15	1.72	1.032	.86	.688	.654
18-CCT	18	2.00	1.20	1.00	.80	.76
21-CCT	21	2.30	1.38	1.15	.92	.874
24-CCT	24	2.72	1.63	1.36	1.088	1.034
27-CCT	27	3.06	1.836	1.53	1.224	1.163
30-CCT	30	3.56	2.136	1.78	1.344	1.353
33-CCT	33	3.83	2.298	1.915	1.532	1.455

PLUGS — SHALLOW BRACKETS MOUNTED (-SB)

15-SB	15	\$1.38	\$8.28	\$6.9	\$5.52	\$5.24
18-SB	18	1.70	1.02	.85	.68	.646
21-SB	21	2.07	1.242	1.035	.828	.787
24-SB	24	2.50	1.50	1.25	1.00	.95
27-SB	27	2.80	1.68	1.40	1.12	1.064
30-SB	30	3.20	1.92	1.60	1.28	1.216
33-SB	33	3.55	2.13	1.775	1.42	1.349

SOCKETS — SHALLOW BRACKETS MOUNTED (-SB)

15-SB	15	\$1.58	\$9.48	\$7.9	\$6.32	\$6.0
18-SB	18	1.90	1.14	.95	.76	.72
21-SB	21	2.25	1.35	1.125	.90	.855
24-SB	24	2.67	1.602	1.335	1.068	1.015
27-SB	27	3.00	1.80	1.50	1.20	1.14
30-SB	30	3.40	2.04	1.70	1.36	1.292
33-SB	33	3.75	2.25	1.875	1.50	1.425



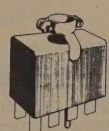
S-3306-AB



P-3321-AB



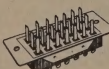
S-3321-AB



P-3321-CCT



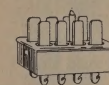
S-3321-CCT



P-3321-SB



S-3321-SB

P-5408-LAB
(NOT LISTED)
SEE STORY ABOVE

S-5408-AB



P-5408-SB

P-5408-SB-WN
(NOT LISTED)
SEE STORY ABOVE

P-5408-CCT



S-5408-CCT

P-5408-DB
(NOT LISTED)
SEE STORY ABOVE

Beauchaine Number	Contacts	List	Each 1-49	Each 50-99	Each 100-249	Each 250-499
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PLUGS — ANGLE BRACKETS MOUNTED (-AB)

P-5404-AB	4	\$1.12	\$6.72	\$5.6	\$4.48	\$4.26
P-5406-AB	6	1.27	.762	.635	.508	.483
P-5408-AB	8	1.45	.87	.725	.58	.551
P-5410-AB	10	1.76	1.056	.88	.704	.669
P-5412-AB	12	1.98	1.188	.99	.792	.752

SOCKETS — ANGLE BRACKETS MOUNTED (-AB)

S-5404-AB	4	\$1.27	\$7.62	\$6.35	\$5.08	\$4.83
S-5406-AB	6	1.46	.876	.73	.584	.555
S-5408-AB	8	1.70	1.02	.85	.68	.646
S-5410-AB	10	1.90	1.14	.95	.76	.722
S-5412-AB	12	2.12	1.272	1.06	.848	.806

PLUGS — SHALLOW BRACKETS MOUNTED (-SB)

P-5404-SB	4	\$1.26	\$7.56	\$6.3	\$5.04	\$4.79
P-5406-SB	6	1.47	.882	.735	.588	.559
P-5408-SB	8	1.60	.96	.80	.64	.608
P-5410-SB	10	1.93	1.158	.965	.772	.733
P-5412-SB	12	2.11	1.266	1.055	.844	.802

SOCKETS — SHALLOW BRACKETS MOUNTED (-SB)

S-5404-SB	4	\$1.38	\$8.28	\$6.9	\$5.52	\$5.24
S-5406-SB	6	1.61	.966	.805	.644	.612
S-5408-SB	8	1.87	1.122	.935	.748	.711
S-5410-SB	10	2.08	1.248	1.04	.832	.79
S-5412-SB	12	2.30	1.38	1.15	.92	.874

PLUGS — CABLE CLAMP TOP (-CCT)

P-5404-CCT	4	\$1.70	\$1.02	\$6.5	\$6.8	\$6.46
P-5406-CCT	6	1.93	1.158	.965	.772	.733
P-5408-CCT	8	2.04	1.224	1.02	.816	.775
P-5410-CCT	10	2.35	1.41	1.175	.94	.893
P-5412-CCT	12	2.59	1.554	1.295	1.036	.984

SOCKETS — CABLE CLAMP TOP (-CCT)

S-5404-CCT	4	\$1.87	\$1.122	\$9.35	\$7.48	\$7.11
S-5406-CCT	6	2.02	1.212	1.01	.808	.768
S-5408-CCT	8	2.28	1.368	1.14	.912	.866
S-5410-CCT	10	2.51	1.506	1.255	1.004	.954
S-5412-CCT	12	2.75	1.65	1.375	1.10	1.045

SEE YOUR LOCAL REPRESENTATIVE LISTED IN E. E. M. YELLOW PAGES!

S-5408-FHE
(NOT LISTED)
SEE STORY ABOVEP-5408-CCE
(NOT LISTED)
SEE STORY ABOVE

WRITE FOR CATALOG LISTING BEAUCHAINE PLUGS AND SOCKETS

BEAUCAPS

Beaucaps are used on Octal type plugs and sockets (Beauchaine does not manufacture the octal plugs and sockets.) 2001-1 Beaucaps have no hole for cable; 2001-2 have cable hole in top; 2001-3 have cable hole on side; and 2001-4 have cable hole top with cable clamp. Four NEMA colors are offered: Black, Blue, Red and Green.

2001-1	1	\$1.15	\$0.09	\$0.75	\$0.06	\$0.57
2001-2	2	.17	.102	.085	.068	.065
2001-3	3	.17	.102	.085	.068	.065
2001-4	4	.27	.162	.135	.108	.103



2001



BEAUCHAINE

BINDING POSTS

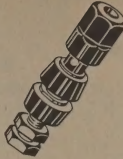


BINDING POST

"Standard" Type

DESCRIPTION: Banana Plug Receptacle, .161 I.D.; Head non-removable from Stud; Molded in Brass Bushing in Head; Molded in Brass Bushing in Washers; For Panels $\frac{1}{4}$ " to $\frac{1}{2}$ " thick; Drill $\frac{1}{2}$ " hole for mounting washers; Wire Hole is at right angle to Flat on Insulated Washers; Production Punch for keyed Slot for mounting Washers.

Cat. No. 274 Standard Brass Red or Black



BINDING POST

30 Amp. 2000 VDC

Molded Nylon Body Banana Plug Receptacle, .161 I.D.; Head non-removable from Stud; Molded in Brass Bushing in Head; Molded in Brass Bushing in Washers; For Panels $\frac{1}{4}$ " to $\frac{1}{2}$ " thick; Drill $\frac{1}{2}$ " hole for mounting washers; Wire Hole is at right angle to Flat on Insulated Washers; Production Punch for keyed Slot for mounting Washers.

WRAP AROUND TYPE COLORS

Cat. No. 275 Brass, Nickel Plated, Red, Black, Yellow, Green, White, Blue, Brown, Grey.

Cat. No. 275A Brass, Gold-Plated, Red, Black, Yellow, Green, White, Blue, Brown, Grey.



TIP JACK TYPE

Similar to 275A, gold plated, brass, except with Tip Jack receptacle.

Cat. No. 277 Red, Black

BINDING POST FLUTED HEAD

New fluted nut design is attractive and functional molded nylon body per MIL-P-20693A completely insulates panel from binding post. Makes ideal connection for electrical and electronic equipment. Brass nickel plated "Wrap Around Type" solder connection to stud rated 30 amp. 2000 VAC test capacitance 5.0 mmfd. Similar construction as our No. 275.

Cat. No. 273 Nickel plated Red, Black

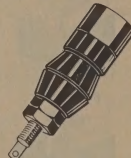


BINDING POST

NEW! BIRNBACH "Multi-Use" Binding Posts Safe-Positive-Heavy Duty

Rugged, versatile "Multi-Use" binding post made of molded nylon with molded-in brass inserts in head and washer for complete insulation from panel. For use on panels $\frac{1}{4}$ " to $\frac{1}{2}$ " thick. Mounting hole $\frac{1}{2}$ ". Current Capacity: 30 Amps. Voltage: 2000 VAC. RMS Test. No. 276 can be soldered directly to stud. Will permit six different methods of connection above panel and three below panel.

Cat. No. 276 Nickel Plated; Red, Black, Yellow, Green, White, Blue, Brown, Grey.

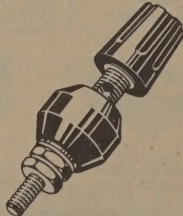


BINDING POST

Wrap Around Type

Designed to accept phone tip plug, spade lug, banana plug, alligator clip and wire strand. Direct solder connection. Molded nylon head (non-removable from stud) and washer completely insulates post from panel. Mounts in $\frac{1}{2}$ " or keyed hole for panels $\frac{1}{4}$ " to $\frac{1}{2}$ " thick. Nickel-plated brass metal parts. Molded-in brass bushings in head and washers. Rated 2,000 volts AC RMS test, 30 amp safe current-carrying capacity.

Cat. No. 271 Red, Black



STANDARD DUTY 5-WAY BINDING POST

Molded-in brass bushings for complete insulation. Useful for standard duty work. Available in Red or Black. Specify color. Body is brass nickel plated.

6 AMPS

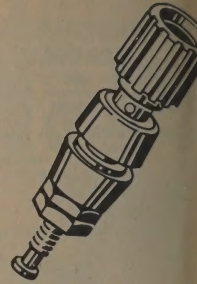
Cat. No. 278 Red, Black
Cat. No. 279* Red, Black

* Same as above, but normally grounded. (Without bottom insulating section.)

NYLON BINDING POST

Head: MOLDED NYLON, with brass Gold-Plated insert. **Body:** Brass, Gold-Plated. **Washers:** MOLDED NYLON, brass Gold-plated inserts. **Accepts:** Phone tip plug, spade lug, banana plug, alligator clip, or wire strand. **Rating:** 15 Amps AC for 10°C Temp. rise, continuous duty. 1 KV Volts 60 cycle AC continuous working voltage. **CAPACITANCE** 3.0 mmfd. Molded washers completely insulate post from panel. Miniature washers and narrow fluted head require minimum panel space. Mounts in $\frac{1}{4}$ " round or "D" hole in panel as indicated. Wrap-around solder terminal on stud for direct connection.

Cat. No. 280 Red, Black, Yellow, Green.

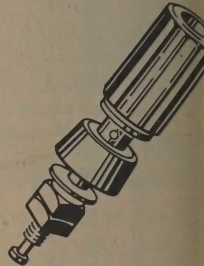


METAL BINDING POST

Grounded

Head: Fluted Brass, Gold-plated. **Body:** Brass, Gold-plated. **Washer:** MOLDED BLACK NYLON, with brass Gold-plated insert. **Accepts:** Phone tip plug, spade lug, banana plug, alligator clip, or wire strand. **Rating:** 15 Amps AC for 10°C temp. rise, continuous duty. Fluted-head metal post to match our No. 280. For use where direct ground connection is made to panel or chassis. Supplied with brass, gold-plated flat metal washer for grounding.

Cat. No. 281

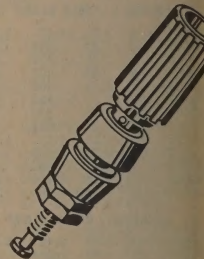


METAL BINDING POST

Insulated

Head: Fluted Brass, Gold-plated. **Body:** Brass, Gold-plated. **Washer:** MOLDED BLACK NYLON, with brass Gold-plated insert. **Accepts:** Phone tip plug, spade lug, banana plug, alligator clip, or wire strand. **Rating:** 15 Amps AC for 10°C temp. rise, continuous duty. 1 KV Volts, 60 cycle AC continuous working voltage. **CAPACITANCE** 3.0 mmfd. Fluted-head metal post to match our No. 280. Molded washers insulate post from panel for use where internal ground circuit is isolated from chassis or panel.

Cat. No. 282



INSULATED BINDING POST

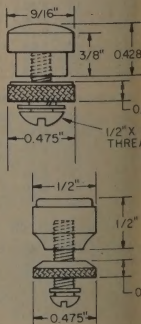
Molded bakelite head with brass insert supplied complete with 8/32 x $\frac{1}{2}$ " screw, lock washer. Has brass insert molded-in. Supplied with washer. Available in black. Cat. No. 184



Binding Post Molded bakelite head with brass insert molded-in. Supplied complete with 8/32 x $\frac{1}{2}$ " screw, lock washer. Has brass nickel-plated retaining washer. Red, Black. Cat. No. 185

Binding Post Brass, heavily nickel-plated overall. Complete with screw and lock washer. Designed for high amperage, low resistance connections.

Cat. No. 186 Metal Binding Post



FOR MORE INFORMATION ON COMPLETE LINES, WRITE FOR NEW CATALOG.

BIRNBACH

RADIO COMPANY INC.

SECTION 2100 BINDING POSTS

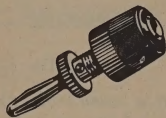
COMBINATION POST-PLUG

Material: CAPTIVE, Molded Butyrate. Body: Brass, nickel plated. Spring: Four-leaved phosphor bronze, nickel plated. Rating: 15 Amps AC for 10°C Temp. rise, continuous duty. Converts any panel-mounted banana jack into a five-way binding termination. Accepts phone spade lug, banana plug, alligator clip, or solid or stranded wire.



Cat. No. 283 Red, Black

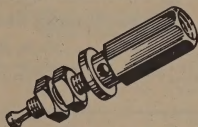
Material: Molded Nylon, SPECIFY OR, Body: Brass, nickel plated. Spring: Four-leaved phosphor bronze, nickel plated. Rating: 15 Amps AC for 10°C Temp. rise, continuous duty.



Cat. No. 284 Red, Black, Yellow, Green, Blue, White.

BINDING POST Metal Five-Way

Material: CAPTIVE, Hex brass nickel plated. Body: Brass, nickel plated. Spring: Phone tip, spade lug, banana plug, alligator clip or wire end.



Cat. No. 285 Wrap-around

METAL BINDING POST

Material: BRASS nickel plated. Body: Brass nickel plated. Spring: standard phone tips or banana plugs.



Cat. No. 286

COMBINATION TERMINALS

Material: BRASS, nickel plated. Combination Screw and Turret Terminal. Knurled shank prevents turning.

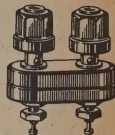


Cat. No.	A	B	C	D	E	F	G	Bhms	Panel Thk.
187	3/4	1/4	3/4	3/4	1/4	1/4	.220	6-32	3/16
188	3/4	1/4	3/4	3/4	1/4	1/4	.257	10-32	3/16

DUAL ASSEMBLY

Nylon

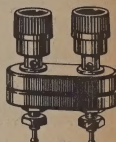
MOLDED black STYRENE, cross slotted (+) to accept standard phone tips in post either forward or sideways. Body: Brass, nickel plated. Head: Captive: MOLDED NYLON, with molded in brass insert. Rating: 15 Amps AC for 10°C Temp. rise, continuous duty. 2 K Volts 60 cycle AC continuous working voltage. CAPACITANCE 2.0 mmfd. between conductors, 3.0 mmfd. to panel. Mounts in two 1/4" holes on 1/2" mounting centers in panels up to 1/4" thick. Accommodates single or dual banana plugs. Supplied with 4 hex nuts, 2 flat washers.



Cat. No. 188BB Two Black Heads
Cat. No. 188RR Two Red Heads
Cat. No. 188RB One Red, One Black Head

DUAL BINDING POST

MOLDED black STYRENE, cross slotted (+) to accept standard phone tips in post either forward or sideways. Body: Brass, nickel plated. Head: Captive: MOLDED BUTYRATE, Red, Black. Rating: 15 Amps AC for 10°C Temp. rise, continuous duty. 2 K Volts 60 cycle AC continuous working voltage. CAPACITANCE 2.0 mmfd. between conductors, 3.0 mmfd. to panel. Mounts in two 1/4" holes on 1/2" mounting centers in panels up to 1/4" thick. Accommodates single or dual banana plugs. Supplied with 4 hex nuts, 2 flat washers.



Cat. No. 189BB Two Black Heads
Cat. No. 189RR Two Red Heads
Cat. No. 189RB One Red, One Black Head

BLACK STYRENE INSULATOR

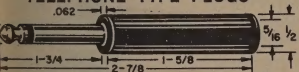
Insul: STYRENE. Rating: 2 K Volts 60 cycle AC continuous working voltage. Mounts in two 1/4" holes on 1/2" mounting centers in panels up to 1/4" thick.



Cat. No. 190

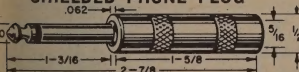
TELEPHONE PLUGS & JACKS

TELEPHONE TYPE PLUGS



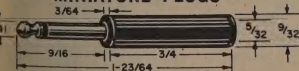
Standard two and three conductor plugs fits standard jacks. All metal parts brass with nickel plating except for contact screw. Barrel - molded bakelite; Red, Black. Cat. No. Circuit Terminals
51 two solder
51A two screw
53 three solder
53A three screw

SHIELDED PHONE PLUG



Barrel - brass, nickel plated with tubular insulator. Cat. No. Circuit Terminals
52A two solder
54 two screw
54A three solder
54A three screw

MINIATURE PLUGS



Insulated type. Solder terminals, two conductor mini. phone plug. Ideal for hearing aids, portable receivers, small instruments. Rated 500 volts. Cat. No. 130 Red, Black

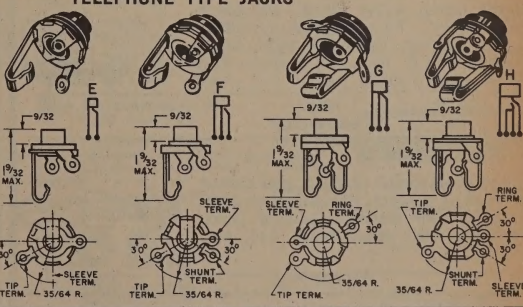
SHIELDED MINIATURE PHONE PLUG

Same as No. 130 except with brass, bright nickel plated barrel with insulating tube inside.

Cat. No. 131

The body is brass nickel plated. Small, rugged and they are designed for long life, with low contact resistance snap springs made specially from nickel silver alloy which is corrosion resistant. Mounts in 3/4" hole.

E - Cat. No. 257 Open Circuit Two Conductor
F - Cat. No. 258 Single Closed Circuit Two Conductor
G - Cat. No. 259 Open Circuit Three Conductor
H - Cat. No. 260 Single Closed Circuit Three Conductor



TELEPHONE TYPE JACKS

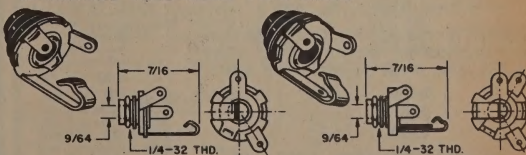
MILITARY PLUGS

Cat. No.	Barrel - MIL Type	Red, Black Circuit	Terminals
255	PJ054	2	Screw
256	PJ055	2	Screw

Rugged construction, smaller than standard type jacks. Mount in 1/4" dia. hole in panels up to 1/4" thick.

Cat. No. 132 Open circuit type.
Cat. No. 133 Single closed circuit type.

MINIATURE TELEPHONE TYPE JACKS



FOR MORE INFORMATION ON COMPLETE LINES, WRITE FOR NEW CATALOG.

BIRNBAUGH

RADIO COMPANY INC.

NON-INSULATED BANANA PLUGS

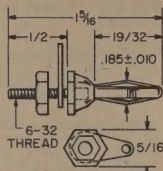


Variations of Standard Plugs Available to Order. Plated to Gov't. Specs.

BANANA PLUG No. 400

Hexed brass nickel plated. Fits all standard banana plugs. Complete with hex brass n.pl. nut and tinned copper lug. Spring is four-leaved nickel plated. Rated at 5 amps.

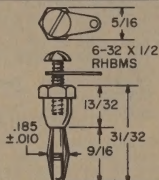
Cat. No.	Spring	Dim. "A"
400	Phos. Bronze	1/2"
400A	Phos. Bronze	3/8"
400B	Beryl. Copper	1/2"



BANANA PLUG No. 401

Hexed brass nickel plated. One-piece four-leaved spring. Complete with brass n.pl. screw and tinned copper lug. Rated at 5 amps. Fits all standard banana jacks.

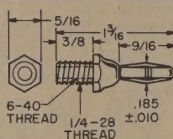
Cat. No.	Spring
401	Phos. Bronze
401B	Beryl. Copper



BANANA PLUG No. 404A

Hexed brass and four-leaved phosphor bronze spring all nickel plated. Rated at 5 amps. Fits all standard banana jacks.

Cat. No.	Spring
404A	Banana Plug

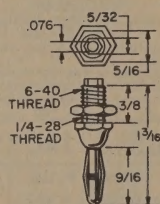


BANANA PLUG No. 404S

Hexed brass nickel pl. Complete with hex brass n.pl. nut. Has solderless Scroluk connection. Fits all standard banana plugs. Spring is four-leaved phosphor bronze nickel plated. Rated at 5 amps.

Cat. No.	Spring
404S	Phos. Bronze
404SB	Beryl. Copper

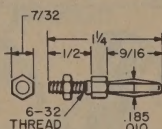
Scroluk Banana Plug



BANANA PLUG No. 414

Hexed brass, nickel plated. One-piece construction. Four-leaved phosphor bronze spring. Complete with brass hexed nut n.pl. Rated at 5 amps. Fits all standard banana jacks.

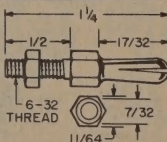
Cat. No.	Spring
414	Phos. Bronze



BANANA PLUG No. 416

Hexed brass nickel plated. Cross slotted for positive contact. One-piece construction. Fits all standard banana jacks. Complete with hexed brass n.pl. nut.

Cat. No.	Spring
416	Banana Plug

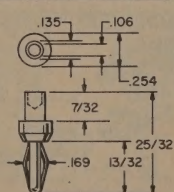


MIDGET BANANA PLUG Rivet Type — No. 426

Brass silver plated body. One-piece four-leaved phosphor bronze spring silver plated. Also made to Rigid Jan specs.

Cat. No.	"A"
426	1/32"
426A	3/32"

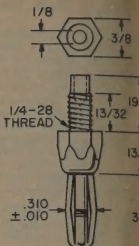
Midget Banana Plug Rivet Type



GIANT PLUG No. 392A

Body is hexed brass nickel plated. Rated at 25 amps. Has large soldering well in threaded shank. Fits all Giant Banana Jacks.

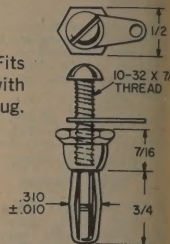
Cat. No.	Spring
392A	Phos. Bronze



GIANT PLUG No. 396

Body is hexed brass, nickel plated. Fits all giant banana jacks. Complete with nickel plated screw and soldering lug. Rated at 25 amps.

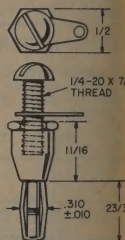
Cat. No.	Spring
396	Phos. Bronze
396B	Beryl. Copper



GIANT PLUG No. 397

Body is hexed brass, nickel plated. Fits all giant banana jacks. Complete with nickel plated screw and soldering lug. Heavy duty, 25 amp. rating.

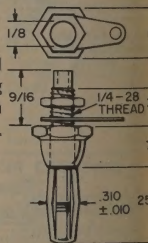
Cat. No.	Spring
397	Phos. Bronze
397B	Beryl. Copper



GIANT PLUG No. 398

Body is hexed brass, n.pl. nut and tinned copper lug. Has large soldering well in threaded shank. Used in high amperage circuits rated at 25 amps. Fits all giant banana jacks.

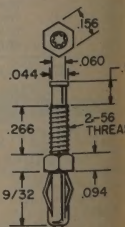
Cat. No.	Spring
398	Phos. Bronze
398B	Beryl. Copper



SUB MINIATURE BANANA PLUGS

One piece beryllium copper springs insure positive and lasting contact. Silver plated overall.

Cat. No.	Description
590	Rivet Type Plug
591	Screw Type Plug



FOR MORE INFORMATION ON COMPLETE LINES, WRITE FOR NEW CATALOG.

BIRNBACH

RADIO COMPANY INC.

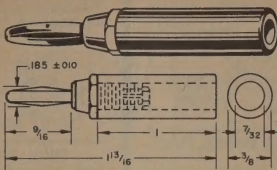
INSULATED BANANA PLUGS

INSULATED BANANA PLUG

Plated brass n.p.l. spring type. Fits standard banana jacks. Solderless connection. Molded handle.

Colors: Red, Black, Yellow, Green, White.

Cat. No.	Spring	Plating
404	Phos. Brz.	Nickel
404B	Beryl. Cop.	Nickel
404SP	Phos. Brz.	Silver
404B-SP	Beryl. Cop.	Silver

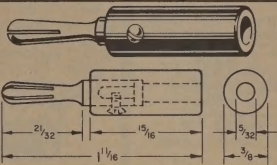


INSULATED BANANA PLUG

Split type plug brass n.p.l. Fits standard banana jacks. Set screw. Solderless connection. Molded handle.

Colors: Red, Black, Yellow, Green, White.

Cat. No.	Banana Plug
604	

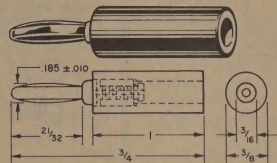


INSULATED BANANA PLUG

Plated brass n.p.l. plug. Fits standard banana jacks. Spring type. Solderless connection. Molded handle.

Colors: Red, Black, Yellow, Green, White.

Cat. No.	Spring	Plating
405	Phos. Brz.	Nickel
405B	Beryl. Cop.	Nickel
405SP	Phos. Brz.	Silver
405B-SP	Beryl. Cop.	Silver

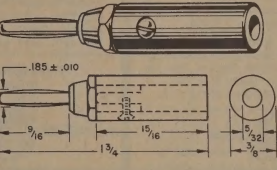


SPRING BANANA PLUG

Plated brass n.p.l. plug. Set screw solderless connection. 404BC Beryllium springs, highly resilient. Molded handle.

Colors: Red, Black, Yellow, Green, White.

Cat. No.	Spring
404B	Phos. Brz.
404BC	Beryl. Cop.

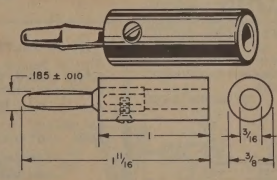


INSULATED BANANA PLUG

Plated brass n.p.l. set screw solderless connection. Spring type. Fits standard banana jacks. Molded handle.

Colors: Red, Black, Yellow, Green, White.

Cat. No.	Hdl.	Spring
406	1"	Ph. Brz.
406A	1 1/2"	Ph. Brz.

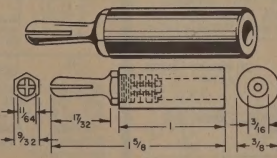


INSULATED BANANA PLUG

Split type, brass n.p.l. Solderless connection. Fits standard jacks. Molded handle.

Colors: Red, Black, Yellow, Green, White.

Cat. No.	Banana Plug
606	

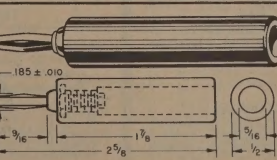


INSULATED BANANA PLUG

Plated brass n.p.l. Solderless connection. Spring type. Fits standard jacks. Plastic handle.

Colors: Red, Black.

Cat. No.	Spring
341	Phos. Brz.
341B	Beryl. Cop.

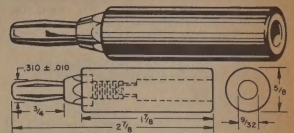


INSULATED GIANT PLUG

Plug brass n.p.l. Wire can be soldered to plug. Spring type. Fits giant banana jacks. Plastic handle.

Colors: Red, Black.

Cat. No.	Spring
392	Phos. Brz.
392B	Beryl. Cop.

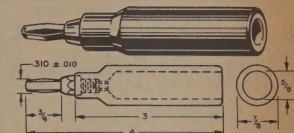


INSULATED GIANT PLUG

Plug brass n.p.l. Wire can be soldered to plug. Spring type. Fits giant banana jacks. Polished giant hard rubber handle.

Colors: Red, Black.

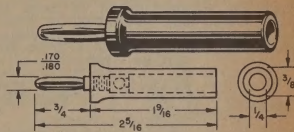
Cat. No.	Spring
342	Phos. Brz.
342B	Beryl. Cop.



Long Shoulder Handle INSULATED BANANA PLUG

Long shoulder handle insulated banana plug. Handle made of bakelite. Available in various colors. Red, Black, Yellow, Blue, Green, White.

Cat. No. 424

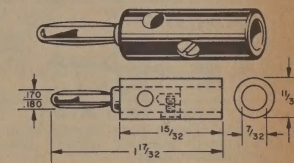


STACK BANANA PLUG Solderless

Brass, nickel plated, solderless connection. Accepts standard banana plugs in top and side. Interconnects unlimited amount of multiple circuits.

Colors: Red, Black, Yellow, Green.

Cat. No.	Spring
425	Phos. Brz.
425A	Beryl. Cop.

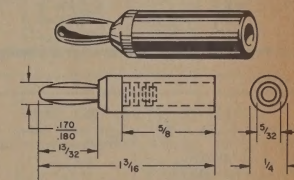


INSULATED MIDGET BANANA PLUG

Spring type. Fits all standard Banana jacks. Beryllium spring retains resiliency after thousands of insertions. Wire soldered directly into plug.

Colors: Red, Black.

Cat. No.	Spring	Plating
455	Phos. Brz.	Nickel
455BC	Beryl. Cop.	Silver
455A	Phos. Brz.	Silver
455A-BC	Beryl. Cop.	Nickel

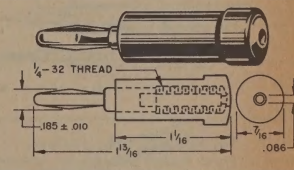


TIP PLUG TO BANANA PLUG ADAPTER

Fits standard banana jacks. Adapter for phone tip to banana plug. Molded handle.

Colors: Red, Black, Yellow, Blue, Green, White.

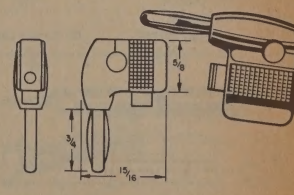
Cat. No.	Spring
467	Phos. Brz.
467B	Beryl. Cop.



PUSH BUTTON BANANA PLUG

Wire is fastened easily, speedily, and securely without soldering. Simply by pressing the push buttons the bare wire can be inserted into the opening of the plug.

Cat. No. 122 Push Button Banana Plug, Red, Black, Yellow, Green, White.
No. 122 Banana Plug will fit all Standard Banana Jacks.



FOR MORE INFORMATION ON COMPLETE LINES, WRITE FOR NEW CATALOG.

BIRNBAUGH

RADIO COMPANY INC.

INSULATED PHONE TIPS, TEST PRODS



SOLDERLESS PHONE TIPS

Brass, nickel plated. Wire fits thru body of tip, tightened around screw with nickel plated knurled nut. Fits all standard phone tip jacks.

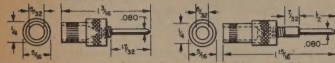
Cat. No.

23 Junior Solderless Phone Tip

24 Senior Solderless Phone Tip

No. 23

No. 24



BRASS NICKEL PLATED TIPS

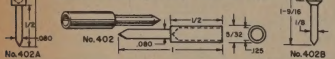
Fits all standard phone tip jacks

Cat. No.

402 Standard Phone Tip

402A Phone Tip Larger Diam

402B Heavy Duty Phone Tip



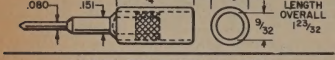
PHONE TIP

Plugs into standard phone tip jacks. Brass nickel plated plug. Accommodates standard banana plug in molded plastic handle.

Colors: Red, Black, Yellow, Blue, Green, White.

Cat. No.

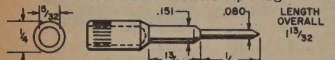
331



PHONE TIP PLUG No. 331A

Plugs into all standard phone tip jacks. Barrel of plug accommodates all standard banana jacks. Brass, nickel plated.

Cat. No. 331A Phone Tip Plug

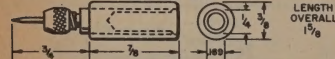


NEEDLE POINT PLUG

Brass nickel plated body. Needle point tip. Accommodates standard banana plug in molded plastic handle.

Colors: Red, Black.

Cat. No. 330

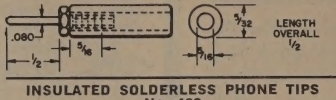


SCRULOK PHONE TIP

Brass nickel plated. Fits standard phone tip jacks. Scrulok solderless connection. Molded handle.

Colors: Red, Black, Yellow, Blue, Green, White.

Cat. No. 412



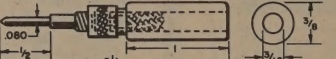
INSULATED SOLDERLESS PHONE TIPS

No. 409

Insulated handles, fitted to solderless phone tips. Made of Brass, Nickel Plated. Wire easily attached by threading through hole in handle and tightening knurled nut.

Colors: Red, Black, Yellow, Blue, Green, White

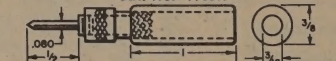
Cat. No. 409 Senior Solderless Phone Tip



JUNIOR SOLDERLESS PHONE TIP

Same as above except 2" overall length. Specify colors.

Cat. No. 415Jr.

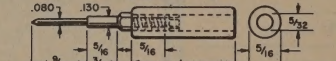


SCRULOK PHONE TIP

Fits standard phone tip jacks. Plug is brass, nickel plated. Has Scrulok solderless connection. Molded handle.

Colors: Red, Black, Yellow, Blue, Green, White.

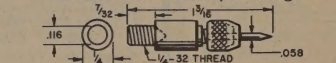
Cat. No. 419



NEEDLE POINT PLUG No. 345A

Has a brass, nickel plated body, steel nickel plated needle. Sharp point will pierce insulation or plating. Has removable chuck for replacing needle. Threaded to take handle.

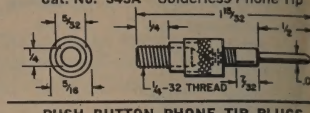
Cat. No. 345A Needlepoint Plug



SOLDERLESS PHONE TIP No. 343A

Brass, nickel plated. Wire easily attached threading thru hole provided, and tightened knurled nut. Threaded to take plastic handle.

Cat. No. 343A Solderless Phone Tip



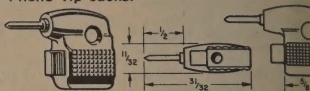
PUSH BUTTON PHONE TIP PLUG

Wire is fastened easily, speedily, and securely without soldering. Simply by pressing push buttons the bare wire can be inserted into the opening of the plug.

Colors: Red, Black.

Cat. No. 121 Push Button Phone Tip Plug

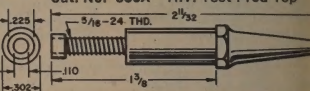
No. 121 Phone Tip Plug will fit all Standard Phone Tip Jacks.



HIGH VOLTAGE TEST PROD TIP No. 559

Heavy brass, nickel plated. Large solder wire accommodates heavy wires. As used on B back High Voltage Test prod Handle. No. 559 and 562 Test Leads.

Cat. No. 559A H.V. Test Prod Tip

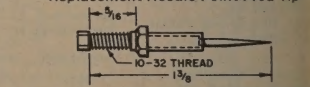


NEEDLE POINT PROD TIP No. 439

Extra heavy needle point for piercing insulations or plating. Solderless Scrulok wire connection. Brass, nickel plated body; needle point, steel, nickel plated. Replacement for No. 408 Leads.

Cat. No. 439

Replacement Needle Point Prod Tip



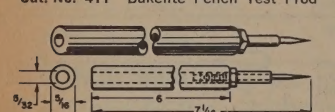
TEST PRODS

BAKELITE PENCIL TEST PROD

Body is brass nickel plated with steel n.p.l. needle. Has Scrulok solderless connection. Bakelite handle.

Colors: Red, Black.

Cat. No. 411 Bakelite Pencil Test Prod



SOLDERLESS TEST PRODS

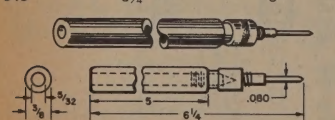
Body is brass nickel plated with solderless knurled nut connection. Heavy duty needle-point, nickel plated.

Colors: Red, Black.

Cat. No. (A) Overall (B) Handle Length

410 5 1/4" 4"

343 6 1/4" 5"



NEEDLEPOINT TEST PRODS

Brass nickel plated body with steel nickel plated needle. Chuck threaded in end of handle is removable for replacing needles. Polished cast phenolic handle.

Cat. No. (A) Overall (B) Handle Length

344 4 1/4" 4"

345 5 1/4" 5"

Colors: Red, Black.

Cat. No. (A) Overall (B) Handle Length

417 5 1/4" 4"

418 6 1/4" 5"

Colors: Red, Black.

Cat. No. (A) Overall (B) Handle Length

417 5 1/4" 4"

418 6 1/4" 5"

Colors: Red, Black.

Cat. No. (A) Overall (B) Handle Length

417 5 1/4" 4"

418 6 1/4" 5"

Colors: Red, Black.

Cat. No. (A) Overall (B) Handle Length

417 5 1/4" 4"

418 6 1/4" 5"

Colors: Red, Black.

Cat. No. (A) Overall (B) Handle Length

417 5 1/4" 4"

418 6 1/4" 5"

Colors: Red, Black.

Cat. No. (A) Overall (B) Handle Length

417 5 1/4" 4"

418 6 1/4" 5"

Colors: Red, Black.

Cat. No. (A) Overall (B) Handle Length

417 5 1/4" 4"

418 6 1/4" 5"

Colors: Red, Black.

Cat. No. (A) Overall (B) Handle Length

417 5 1/4" 4"

418 6 1/4" 5"

Colors: Red, Black.

Cat. No. (A) Overall (B) Handle Length

417 5 1/4" 4"

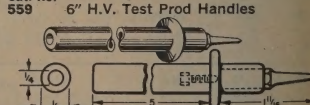
418 6 1/4" 5"

HI-VOLTAGE TEST PROD HANDLE

Tip is heavy brass nickel plated. Bake finger guard. Accommodates IN-34 diode condenser for use as RF Probe.

Colors: Red, Black.

Cat. No. 559 6" H.V. Test Prod Handles



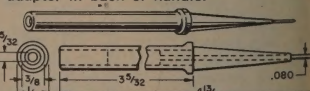
TEST PROD No. 424A

Shouldered insulated handle made of bakelite. Tip made of nickel-plated brass has screw in side for securing conductor and the making a solderless connection. Tip screw into handle. Available in Red and Black. In cate color.

TEST PROD No. 424B

with Banana Plug Adapter

Same as No. 424A except with a banana plug adapter in back of handle.



FOR MORE INFORMATION ON COMPLETE LINES, WRITE FOR NEW CATALOG.

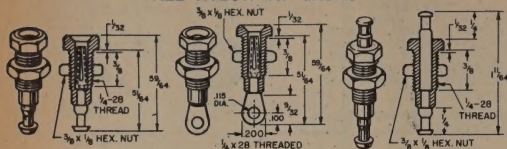
BIENBACH

RADIO COMPANY INC.

NYLON TIP JACKS AND PLUGS



ALL NYLON TIP JACKS



No. 1180

No. 1182

No. 1184

Completely Molded Nylon Jack. Fits all standard phone tip plugs. Contact recessed in head for safe contact. Hexagon head for grip in tightening. Mounts in $\frac{1}{4}$ " hole in panels up to $\frac{1}{4}$ " thick. Meets following requirements:

- Salt Spray Test—Withstands 100 hours
- Rated Voltage & Current—1000 volts peak at 5 amps max.
- Test Voltage—9000 volts DC peak
- Insulation Resistance—5000 megohms
- Operating Temperature—55 to +150C
- Nominal Capacity—2.0 mmf.
- Material Specifications—A. Body: Nylon Grade FM 10001; A. Center Contact: Numbers 1180 and 1182 Heat Treated Beryllium Copper Silver plated per Spec 72-53. Number 1184 Brass Tin Pl.; Hex Nut: Brass Nickel Pl.
- Colors: Red, Black, Orange, Green, Blue, White, Brown, Yellow, Grey & Purple. Specify Color.

Cat. No. 1180 Wrap Around

Cat. No. 1182 Spade Terminal

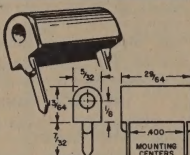
Cat. No. 1184 Feed Through

PRINTED CIRCUIT TEST JACKS

Designed for permanent, soldered assembly to printed circuit boards. Nylon bodies. Has gold over silver plated Beryllium copper contacts which provide low resistance contact. Takes standard .080" diameter test probes.

Colors: Red, Black, Green, Brown, Yellow, Blue, Purple, Grey, Orange, White.

Cat. No. 1177 Printed Circuit Jack
PER MIL-F-14072, M301



NYLON INSULATED PLUG

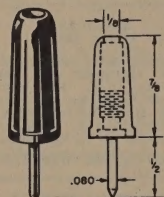
Molded of tough low-loss Nylon—provides high voltage insulation. Withstands extreme temperature changes without chipping or cracking. This series fits all standard Banana Jacks and standard Phone Tip Jacks.

Nylon Solderless Short Tip Plug. Molded nylon handle, recessed metal head provides flush contact without metal exposure in any standard tip jack brass nickel plated plug. Solderless wire fits thru handle.

NYLON PER MIL-P-20693A

Cat. No. 1169

Specify color as indicated below.



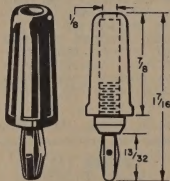
NYLON BANANA PLUG—MIDGET

NYLON PER MIL-P-20693A

Molded Nylon Handle Brass N.P.I. Wire can be soldered directly into stud. Fits all Standard Banana Jacks.

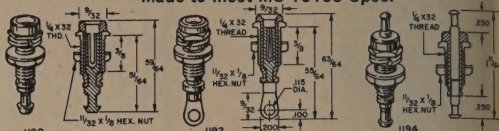
Cat. No.	Spring Material	Plating
1172	Phosphor Nickel Bronze	
1173	Phosphor Silver Bronze	
1174	Beryllium Nickel Copper	
1175	Beryllium Silver	

Specify color as indicated in Color Code below.



NYLON TIP JACK WITH METAL SHELL

Made to meet MS 16108 Spec.



Molded Nylon Tip Jack. Metal shell eliminates possibility of stripped threads during assembly. Meets following requirements: • Salt Spray Test—Withstands 100 hours. • Rated Voltage & Current—1000 volts peak @ 5 amps. maximum.

- Test Voltage—2500 peak.
- Insulation Resistance—5000 megohms
- Operating Conditions—A. Continuous; 23 hours on, 1 hour off; Elevation: Up to 15,000 feet; C. Temperature: —55 to +85 C; Humidity: Up to 95%.

• Material Specifications—A. Insulator: Nylon, Grade FM 10001; Shell & Nut: Brass Nickel Plated Per Spec 72-53; C. Lockwash: Phosphor Bronze Nickel Plated Per Spec 72-53; D. Center Contact: Numbers 1190 and 1192 Heat Treated Beryllium Copper Silver Plated per Spec 72-53. Number 1194 Brass, Tin Plated.

• Non-Operating Conditions—A. Elevation: Up to 50,000 feet; B. Temperature: Continuous exposure for 72 hours @ +160 F and 240 hours @ —80 F; C. Humidity: Up to 100%.

• Colors: Red, Black, Orange, Green, Blue, White, Brown, Yellow, Grey & Purple. Specify Color.

Cat. No. 1190 Wrap Around

Cat. No. 1192 Spade Terminal

Cat. No. 1194 Feed Through

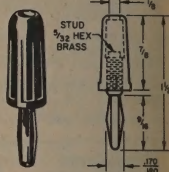
NYLON BANANA PLUG

Molded Nylon handle, Brass N.P.I. plug. Springs Phosphor Bronze or Beryllium Copper. Nickel or Silver plated. Wire can be soldered into plug or brass stud.

NYLON PER MIL-P-20693A

Cat. No.	Spring	Plating
1160	Phos. Brz.	Nickel
1161	Phos. Brz.	Silver
1162	Beryl. Cop.	Nickel
1163	Beryl. Cop.	Silver

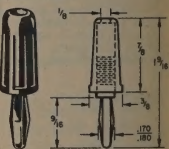
Specify color as indicated in color code below.



Same as above with Solderless Scrulock Connection MIL-P-20693A

Cat. No.	Spring	Plating
1164	Phos. Brz.	Nickel
1165	Phos. Brz.	Silver
1166	Beryl. Cop.	Nickel
1167	Beryl. Cop.	Silver

Specify color as indicated in color code below.

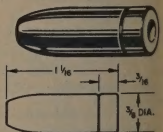


NYLON HANDLE JACK

Made with our Nylon Tip Jack #1180 without mounting nut inside of threaded molded nylon insulated sleeve.

Cat. No.
1179 Nylon Handle Jack

Specify color as indicated below.
NYLON PER MIL-P-20693A

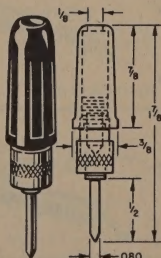


NYLON SOLDERLESS TIP PLUG

Molded Nylon handle, Brass N.P.I. Solderless plug. Wire fits thru body of tip and is wrapped around screw portion and then tightened. Fits all standard tip jacks.

Cat. No. 1170

Specify color as indicated above.

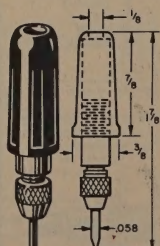


PHONE NEEDLE TIP PLUG

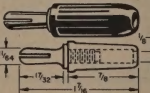
Molded Nylon Handle, Brass N.P.I. Plug. Has removable chuck for easy replacement of needles. Needle makes positive contact thru insulation or corrosion.

Cat. No. 1171
NYLON PER MIL-P-20693A

Specify color as indicated above.



NYLON BANANA PLUG



NYLON PER MIL-P-20693A

Molded Nylon handle, brass N.P.I. plug, split type with solderless scrulock connection.

Cat. No. 1168

Specify color as indicated above.

Color Code For NYLON HANDLE PLUGS

- Add to Catalog Numbers
- 01 White
 - 02 Red
 - 03 Black
 - 04 Dk. Green
 - 05 Lt. Blue
 - 06 Orange
 - 07 Yellow
 - 08 Brown
 - 09 Lt. Green
 - 10 Dk. Blue
 - 11 Ivory
 - 12 Violet (Purple)
 - 13 Grey

FOR MORE INFORMATION ON COMPLETE LINES, WRITE FOR NEW CATALOG.

BIRNBACH

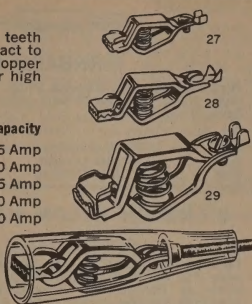
RADIO COMPANY INC.

ALLIGATOR CLIPS—TEST CLIPS

TEST CLIPS

They are sturdily constructed. The teeth mesh correctly permitting good contact to be made. The No. 27-C is a solid copper plug with a brass screw designed for high frequency work.

	Jaw Length	Spread	Capacity
—Pee Wee	1 1/2"	3/4"	5 Amp
—Midget	2"	1 1/2"	10 Amp
—Medium	2 3/4"	3/4"	25 Amp
—Large	4"	1 1/4"	50 Amp
C—Pee Wee Copper	1 1/2"	3/4"	10 Amp
R—Vinyl Sleeve			Red or Black
R—Vinyl Sleeve			Red or Black
R—Vinyl Sleeve			Red or Black
R—Vinyl Sleeve			Red or Black



MICRO-GATOR CLIPS

The Alligator Clip with the Microscopic Tip. Use it where no other clip can go—for tight spots, printed circuits, etc. Length, 1 1/2". Jaw spread, 3/4". Tiny tip, 1/32" across. New extra strong "keyed in" type hinge. Solder connection with clinching ears to relieve strain on wire.

Cat. No.	Type
31 MG/S	Steel, Cad. Plated
31 MG/C	Solid Copper
31 FB	Insulator Boots to fit 31 MG/S or 31 MG/C

Specify Color: Red, Black, Blue, Yellow, White, Green for 31 FB.



MINIATURE ALLIGATOR CLIPS

Very small and compact. Useful where space is important. Accurately matching jaws for finger-tight grip. Length 1 1/2". Jaws open to 3/4". Has lip for soldering.

Cat. No.	Type
31 MS	STEEL (Cad Plate)
31 MC	Solid Copper

MB INSULATOR BOOT to fit 31 MS or MC.

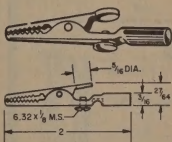
Specify Color: Black, Red, Blue, Yellow, White, Green for 31 MB.



ALLIGATOR CLIP

Made of cadmium plated steel. The jaws mesh accurately, permitting them to grip all kinds of wire securely. Has screw for solderless wire connection. Banana plug fits into rear of clip.

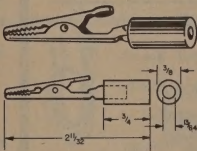
- 31 —Alligator Clip (no screw)
- 31S—Alligator Clip with screw
- 31C—Alligator Clip (Copper) with screw



INSULATED ALLIGATOR CLIP

Made of steel, cadmium plated. Insulated handle allows use of all banana plugs. Has small soldering lip. Colors: Red, Black.

- 310 —Insulated Alligator Clip
- 310B—1 1/2" Insulated handle Alligator Clip



ALLIGATOR CLIP VINYL INSULATOR BOOT

Extremely flexible. Made to fit Nos. 31, 31S, 31C. Colors: White, Red, Black, Yellow, Blue, Green.

Cat. No. 31R—Vinyl Insulator



ALLIGATOR CLIP WITH PHONE TIP JACK

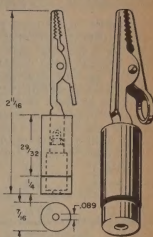
Handle—has our No. 31 clip and our No. 407 tip jack in rear for all standard phone tip plugs.

Colors: Red, Black.

Cat. No.

334—Alligator Clip with Phone Tip Jack

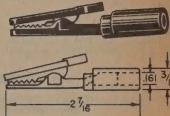
336—Same as above except with our #31C screw type Copper Alligator Clip



ALL INSULATED ALLIGATOR CLIP

Steel Cadmium plated alligator clip. All metal parts covered with vinyl plastic insuring against shock. Solder Type connection. Red or Black. Specify color.

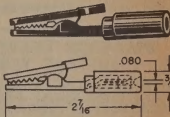
Cat. No. 123



PHONE TIP TO CLIP ADAPTER

Same as above with spring in rear of handle enabling the adapting of standard phone tip plugs to alligator clips. Red or Black. Specify color.

Cat. No. 124

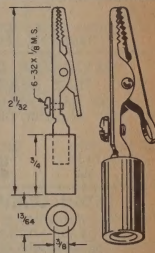
INSULATED ALLIGATOR CLIP
(Screw Type)

Made of steel, cadmium plated. Accurately matching jaws for tight grip. Has screw for solderless connection. Banana plug fits into rear of clip. Insulated handle. Colors: Red, Black.

Cat. No.

310S—Insulated Alligator Clip

310C—Insulated Copper Alligator Clip



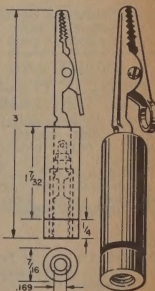
ALLIGATOR CLIP COMBINATION JACK

Insulated alligator clip is composed of our #31, steel, cadmium plated Alligator Clip with our #333 Combination Jack in rear allowing the adaption of both standard senior phone tip plugs and banana plugs to Alligator Clips. Colors: Red, Black.

Cat. No.

335—Alligator Clip Combination Jack

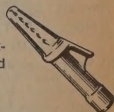
337—Same as above except with our #31C screw type Copper Alligator Clip



ALL INSULATED ALLIGATOR CLIP

Completely insulated. Made of finest materials. Extra strong grip, sharp teeth. Overall lgt. 2 1/2". Red or Black—Specify Color.

Cat. No. 338



FOR MORE INFORMATION ON COMPLETE LINES, WRITE FOR NEW CATALOG.

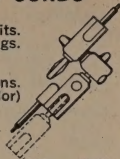
BIRNBAUGH

RADIO COMPANY INC.

PATCH CORDS—TEST LEADS

MOLDED "STACKING TYPE" PATCH CORDS

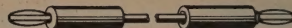
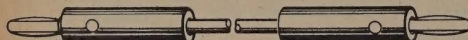
1. Never ending banana plug receptacle.
2. Interconnects unlimited amount of multiple circuits.
3. Positive & lasting contact for all standard banana plugs.
4. Four leaved heat treated beryllium copper spring.
 - a. 360° spring contact.
 - b. Maintains resiliency after thousands of insertions.
5. Supplied in Red, Black, Yellow or Green. (Specify Color) (Special colors on request)
6. Handle molded to body and to wire.
7. 10,000 volt rubber covered flexible wire.
 - a. 65 strands #36 insulated to an O.D. of .140.



Cat. No.	Wire	Cat. No.	Wire	Cat. No.	Wire	Cat. No.	Wire
655-8	8"	655-12	12"	655-24	24"	655-36	36"

Provides a never-ending banana plug receptacle to interconnect an unlimited amount of multiple circuits. The cross hole is designed for positive contact of all standard banana plugs. Fits all standard banana jacks. Four-leaved phosphor bronze nickel plated spring. Red or Black assemblies. Specify color.

Cat. No.	Wire	Cat. No.	Wire
653-8	8" Wire Length	653-24	24" Wire Length
653-12	12" Wire Length	653-36	36" Wire Length



BIRNBACH PATCH CORDS

Birnbach No. 465 Banana Plugs connected to our kinkless test lead wire. Used to interconnect circuits. Fits all standard banana jacks. Specify red or black.

Cat. No.	Wire Length	Cat. No.	Wire Length
607A	8" Wire Length	609	36" Wire Length
607	12" Wire Length	610	48" Wire Length
608	24" Wire Length		

BIRNBACH NYLON HANDLE PATCH CORDS

Birnbach #1162 Banana Plugs using molded nylon handles connected to our plastic kinkless test lead wire #18 65/36 TC. Suitable for 10 KV. Wire is same color as handle. For interconnecting circuits. Fits standard Banana Jacks. Color: Red, Blk., Yel., Green.

Cat. No.	Wire Length	Cat. No.	Wire Length
657-8	8"	657-36	36"
657-12	12"	657-48	48"
657-24	24"		

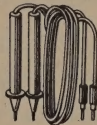


TEST LEADS

BIRNBACH HEAVY DUTY HIGH VOLTAGE TEST LEADS

Overall length 60". Tips are heavy solid brass nickel plated. Rugged, dependable heavy duty bakelite prods. Color coded Red and Black. Uses our Hi Volt kinkless test lead wire.

Cat. No. 562—Heavy Duty High Voltage Test Leads



ALLIGATOR CLIP TEST LEADS

Black and Red kinkless test lead wire with Alligator Clips at each end.

Cat. No.	Wire	Cat. No.	Wire
675	12"	677	36"
676	24"	678	48"



STRETCH LEADS

Kink-Proof Retracted 9" Coil No tangling or knotting of wires. Lead coil only 9", extends to 6 feet.

Cat. No. 564—Solderless phone tip, retractile wire, solderless prod.

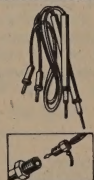


DELUXE AND BAKELITE PENCIL TYPE TEST LEADS

No. 408 Bakelite pencil test leads, color coded, Red, Black, all with kinkless test lead wire. Overall length 60". #560 and #561 polished cast phenolic resin handles, solderless type tips. 50" long. Color coded Red, Black.

Cat. No. 408 Bakelite Pencil Type Test Leads, 6" han. 560 Deluxe Solderless Prod Test Leads, 5" handles

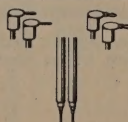
561 Deluxe Needlepoint Prod Test Leads, 5" handles



PUSH BUTTON KINKLESS TEST LEADS

556 Solderless phone tip one end, push button tip other end.

557 Solderless phone tip one end, push button banana plug other end.



BIRNBACH NEEDLEPOINT TEST LEADS

Have Red and Black 4" fibre handles. Use kinkless lead wire. Overall length 50". Good, dependable low priced leads.

- Cat. No.
- 420 Needlepoint Phone Tip Test Leads
 - 421 Needlepoint Spade Lug Test Leads
 - 422 Solderless Phone Tip Test Leads
 - 423 Solderless Spade Lug Test Leads



INSULATED ALLIGATOR CLIP TEST LEADS

CLIPS: STEEL, cadmium plated (#31).

Cat. No.	Wire
424-12	12"
424-24	24"
424-36	36"
424-48	48"



MIDGET ALLIGATOR CLIP TEST LEAD

CLIPS: Steel, Cadmium Plated (#31MS).

Cat. No.	Wire
425-12	12"
425-18	18"
425-24	24"
425-36	36"



ALLIGATOR CLIP TEST LEAD

CLIP HANDLES: Red and Black. #310

PLUG HANDLES: Red and Black. #409

CLIPS: Steel, Cadmium Plated #310

TIPS: Solderless, Brass, Nickel Plated Cat. No. 427



ALLIGATOR CLIP TEST LEAD

CLIP HANDLES: Red and Black. #310. Steel, Cadmium Plated.

ELBOWS: Red and Black. #121

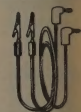
TIPS: Brass, Nickel Plated Cat. No. 427A



ALLIGATOR CLIP TEST LEAD

CLIP HANDLES: Molded, Red and Black. Steel, Cadmium Plated. #310

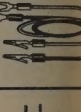
ELBOWS: Red and Black. #122 Cat. No. 428



ALLIGATOR CLIP TEST LEAD

CLIP HANDLES: Molded, Red and Black. #310 Steel, Cadmium Plated.

LUGS: #332 Cat. No. 428A



ALLIGATOR CLIP TEST LEAD

HANDLES: Molded, Red and Black. #410

TIPS: Solderless: Brass, nickel plated.

CLIPS: Steel, cadmium plated. #31

BOOT: Vinyl Plastic, Red & Black. #31R Cat. No. 429



CROCODILE CLIP TEST LEAD

CLIP: Steel, cadmium plated.

BOOT: Vinyl plastic, Red and Black.

HANDLE: Spade Lug: Molded tenite 3/4" long x 3/4" O.D. Red and Black. #332 Cat. No. 563

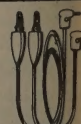


CROCODILE CLIP TEST LEAD

CLIP: Steel, cadmium plated.

BOOT: Vinyl Plastic, Red and Black.

ELBOW: Molded bakelite, Red and Black. #121 Cat. No. 563A

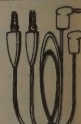


CROCODILE CLIP TEST LEAD

CLIPS: Steel, cadmium plated.

BOOTS: Vinyl Plastic, Red and Black.

ELBOWS: Molded Bakelite, Red and Black. #122 Cat. No. 563B



SPECIAL ASSEMBLIES AVAILABLE TO ORDER

FOR MORE INFORMATION ON COMPLETE LINES, WRITE FOR NEW CATALOG.

BIRNBACH RADIO COMPANY INC.

TRANSISTOR HEAT SINKS & RETAINERS TRANSMITTING SOCKETS & ADAPTER PLUGS

TRANSISTOR HEAT SINKS

mediate Delivery from
Stock

standard "off the shelf"
of beryllia heat sinks
available in JEDEC-TO
bers: 3, 5, 8, 9, 11, 12,
18, 33, 38, 39, etc.
dard thickness $\frac{1}{8}$ ". Also
lable in $\frac{1}{16}$ " thickness.

TRANSISTOR HEAT SINKS

Beryllium oxide is unique among inorganic materials in that it combines the characteristic pure oxide electrical properties of high resistivity and low dielectric loss with a thermal conductivity equal to aluminum metal. Where electronic applications require both dielectric insulation and high heat transfer from device to chassis, only Beryllium Oxide (BeO) can provide a satisfactory solution to the design engineers problems. Beryllium oxide, a high purity sintered BeO was developed to answer this problem. Its excellent physical and electrical properties are contained in the charts which follow.

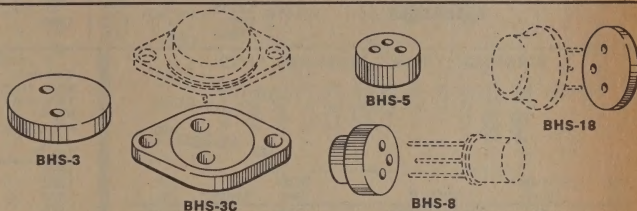
BERYLLIUM OXIDE HEAT SINKS GIVE YOU THESE ADVANTAGES

- Increased transistor life and output
- Freedom from outgassing
- Extremely resistant to shocks, vibration and moisture
- Infinite shelf life

PHYSICAL PROPERTIES

Chemical Purity: 99+ per
cent Beryllium Oxide
Density: 2.9 Grams/cc
Melting Point: 4650°F
Heat Capacity at 350°F:
0.3 BTU/lb
Thermal Expansion: 3.2×10^{-4} °F
Thermal Conductivity:
140 BTU/FT²HR°F-FT
Transverse Strength:
25,000 PSI
Elastic Modulus: 40×10^4
PSI

Part No.	For Jecdec Transistor Case Type	Cat. No.	For Jecdec Transistor Case Type
HS-1	MT-1	BHS-10	MT-10
HS-2	TO-3	BHS-11	TO-11
HS-3A	MT-3	BHS-12	TO-12
HS-3C	TO-3	BHS-14	MT-14
HS-4	DO-4 (with glass epoxy outline)	BHS-16	TO-16
HS-5	DO-5	BHS-18	TO-18
HS-5A	DO-5	BHS-33	TO-33
HS-5B	MT-5	BHS-36	TO-36
HS-6	TO-6	BHS-38	TO-38
HS-8	TO-8	BHS-39	TO-39
HS-9	TO-9	BHS-43	TO-43
		BHS-46	TO-46



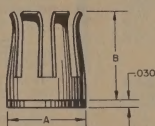
BERYLLIUM OXIDE TRANSISTOR RETAINERS for HEAT DISSIPATION AND ELECTRICAL INSULATION

TRANSISTOR RETAINERS

imum thermal conductivity, with absolute
ctrical insulation reliability, are offered
spring clip transistor retainers. The re-
ers provide electrical isolation for the
iconductor by means of a disc of beryl-
ium oxide ceramic brazed to the base of the
yllium copper retainer. Solid ceramic disc,
contrast to a thin insulating coating, is
ctically immune to loss of insulating value
ough cracking, abrasion, chipping or
er results of rough treatment in assem-
y. Heat transfer from the semiconductor
chassis or heat sink is not sacrificed
ce the high-purity (BeO) has thermal con-
ctivity equal to that of aluminum metal.

maximum soldering temperature — 300°C.

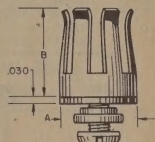
FOR SOLDERING MOUNTING



Type Part No.
A. O.D.
B. Length
C. Screw Size

TO-5
BTR-21
Solder

FOR MECHANICAL MOUNTING



TO-5
BTR-22
Screw
 $\frac{3}{16}$
.37
4-40 x $\frac{3}{16}$

TO-18
BTR-26
Solder
.221
.28
—

TO-18
BTR-25
Screw
.221
.28
2-56 x $\frac{3}{16}$

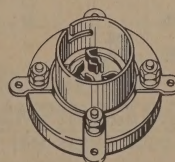
TRANSMITTING SOCKETS

Medium 4 Pin Bayonet and Jumbo 4 Pin Bayonet

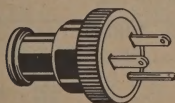
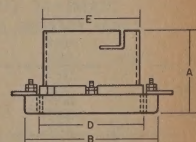
434 — "50 watt" socket for medium power bayonet based tubes such as 575A, 805, 835, 845, 872A, 8000 and others with Retma Base No. A4-29. Has heavy phosphor zinc cadmium plated double wiping filament contacts will handle heavy currents. Minimal designed for solder or screw connections. Two mounting holes. Has polished nickel plated brass shell; white glazed porcelain base.

435 — "10 watt" socket for economy, has heavy phosphor bronze, cadmium plated double wiping contacts; white glazed porcelain base; heavy plated brass shell. Two mounting holes, for medium 4 pin bayonet based tubes such as 3B25, 3B28, 10Y, 801A, 809, 811A, 812A, 834, 836, 860, 865, 866A, 1616, 8005 with Retma Base No. A4-10.

Part No.	Watt Socket	A	B	D	E	Mtg. Holes	Pin	Tube Base
34	50	$2\frac{1}{2}$ "	$3\frac{3}{4}$ "	$2\frac{1}{4}$ "	1.886"	2	4	Std. Jumbo
35	10	$1\frac{1}{4}$ "	$2\frac{1}{2}$ "	$2\frac{1}{4}$ "	1.386"	2	4	Med. Bay

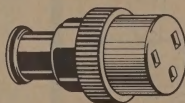


Nos. 434-435



NEW TYPE
3 PRONG PLUG
No. 814T

Two parallel blades plus ground
pin for safe grounding of ap-
pliance.

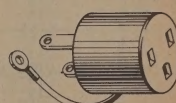


ADAPTER PLUGS

FEMALE CONNECTOR

No. 811

For new type 3 prong plug,
Female mate to No. 814T.



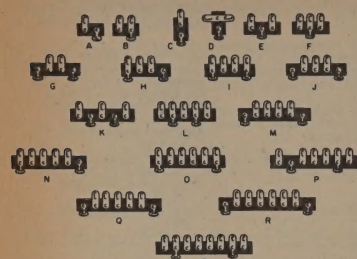
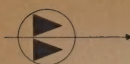
ADAPTER FOR USING NEW
TYPE 3 PRONG PLUG IN
STANDARD OUTLET

No. 812

FOR MORE INFORMATION ON COMPLETE LINES, WRITE FOR NEW CATALOG.

BIRNBAUGH RADIO COMPANY INC.

TERMINAL STRIPS • LUGS • CLAMPS

TIE DOWN LUG TERMINAL STRIPS
STANDARD TYPE

These lugs made of $\frac{1}{8}$ " (.062" thick) XP bakelite x $\frac{3}{4}$ " wide with cadmium plated brass lugs. Lugs are $\frac{3}{4}$ " centers with .140 diam. mounting holes. Strips illustrated are standard; special combinations on request.

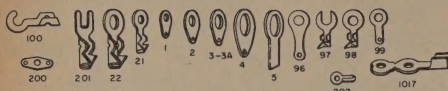
Cat. No.	Illustration	Std. Pkg.	Cat. No.	Illustration	Std. Pkg.
1382	A	100	1385B	L	100
1382A	B	100	1386	M	100
1382B	C	100	1386A	N	100
1382C	D	100	1385B	O	100
1383	E	100	1387	P	100
1383A	F	100	1388	Q	100
1384	G	100	5 Ter., 2 grds.		
1384A	H	100	1389	R	100
1384B	I	100	6 Ter., 2 grds.		
1385	J	100	1390	S	100
1385A	K	100			

MINIATURE TYPE

These lugs made of $\frac{1}{8}$ " (.062" thick) XP bakelite x $\frac{3}{4}$ " wide. Brass, cadmium plated lugs are $\frac{1}{4}$ " centers; .096 diam. mounting holes. Clearance for $\frac{3}{4}$ " rivet or No. 3 screw. Strips illustrated are standard; special combinations on request.

Cat. No.	Illustration	Std. Pkg.	Cat. No.	Illustration	Std. Pkg.
1352	A	100	1355A	K	100
1352A	B	100	1355B	L	100
1352B	C	100	1355C	M	100
1352C	D	100	1355D	N	100
1353	E	100	1355E	O	100
1353A	F	100	1355F	P	100
1354	G	100	1355G	Q	100
1354A	H	100	1355H	R	100
1354B	I	100	1355I	S	100
1355	J	100			

BIRNBACH TINNED TERMINAL LUGS



Cat. No.	Hole For Screw	Material	Thickness	Length	Std. Pkg.
1	6	Tinned Copper	.015"	$\frac{1}{2}$ "	1000
2	10	Tinned Copper	.016"	$\frac{3}{4}$ "	1000
3	.252	Tinned Copper	.015"	$\frac{1}{2}$ "	1000
3A	$\frac{1}{4}$	Tinned Copper	.015"	$\frac{1}{2}$ "	1000
4	$\frac{3}{8}$	Tinned Copper	.016"	$\frac{3}{4}$ "	1000
5	$\frac{1}{2}$	Hot Tinned Copper	.024"	$\frac{1}{2}$ "	1000
21	10	Hot Tinned Copper	.020"	$\frac{1}{2}$ "	1000
22	$\frac{1}{4}$	Hot Tinned Copper	.025"	$\frac{1}{2}$ "	1000
201	8	Brass Hot Tinned	.020"	$\frac{1}{2}$ "	1000
96	4-6-8-10	Brass Hot Tinned	.020"	$\frac{3}{4}$ "	1000
97	8	Tinned Copper	.016"	$\frac{3}{4}$ "	1000
98	4-6-8-10	Brass Hot Tinned	.020"	$\frac{1}{2}$ "	1000
99	4-6-8-10	Brass Hot Tinned	.020"	$\frac{1}{2}$ "	1000
100	10	Brass Hot Tinned	.020"	$\frac{1}{2}$ "	1000
1017	10	Nickel Plated Copper	.023"	$\frac{1}{2}$ "	1000

LUGS IN PACKAGES

Cat. No.	Quan. In Env.	Lug No.	Cat. No.	Quan. In Env.
1-50	50	1	1-100	100
2-50	50	2	2-100	100
3-50	50	3	3-100	100
21-35	35	21	21-100	100
22-15	15	22	22-100	100
201-35	35	201	201-100	100
96-40	40	96	96-100	100
97-40	40	97	97-100	100
98-35	35	98	98-100	100
99-35	35	99	99-100	100
100-20	20	100	100-100	100
1017-10	10	1017	1017-100	100

BIRNBACH LOCKING TYPE

TERMINAL LUGS

BRASS ELECTRO PLATED

Cat. No.	Hole	Thickness	Length	Std. Pkg.
193	4	.020"	$\frac{3}{4}$ "	1000
194	6	.020"	$\frac{3}{4}$ "	1000
195	8	.020"	$\frac{3}{4}$ "	1000
196	$\frac{1}{4}$	.020"	$\frac{1}{2}$ "	1000
197	10	.020"	$\frac{1}{2}$ "	1000

LOCKWASHER TERMINAL LUGS BRASS HOT TINNED

Cat. No.	Hole for Screw	Thickness	Lgth.	Std. Pkg. 1000
140-4	4	.018"	$\frac{3}{4}$ "	
140-6	6	.018"	$\frac{3}{4}$ "	
140-8	8	.018"	$\frac{3}{4}$ "	
140-10	10	.018"	$\frac{3}{4}$ "	
140-14	$\frac{1}{4}$ "	.018"	$\frac{1}{2}$ "	
141-4	4	.018"	$\frac{3}{4}$ "	
141-6	6	.018"	$\frac{3}{4}$ "	
141-8	8	.018"	$\frac{3}{4}$ "	
142-4	4	.018"	$\frac{3}{4}$ "	
142-6	6	.018"	$\frac{3}{4}$ "	
142-8	8	.018"	$\frac{3}{4}$ "	
143-4	4	.018"	$\frac{3}{4}$ "	
143-6	6	.018"	$\frac{3}{4}$ "	
143-8	8	.018"	$\frac{3}{4}$ "	
144-4	4	.018"	$\frac{3}{4}$ "	
144-6	6	.018"	$\frac{3}{4}$ "	
144-8	8	.018"	$\frac{3}{4}$ "	
144-10	10	.018"	$\frac{3}{4}$ "	
145-4	4	.018"	$\frac{3}{4}$ "	
145-6	6	.018"	$\frac{3}{4}$ "	
145-8	8	.018"	$\frac{3}{4}$ "	
146-4	4	.018"	$\frac{3}{4}$ "	
146-6	6	.018"	$\frac{3}{4}$ "	
146-8	8	.018"	$\frac{3}{4}$ "	

BAKELITE TERMINAL STRIPS

Terminals are made of brass and cadmium plated. Available from 2 to 10 terminals either marked or plain. Terminals are mounted on $\frac{1}{4}$ " bakelite x $\frac{3}{4}$ " width, 7, 8, 9 and 10 terminals mounted on $\frac{3}{4}$ " bakelite. All terminals are spaced $\frac{1}{4}$ " center to center.

Cat. No.	Terminals	Mounting Center	Cat. No.	Terminals	Marked Terminals Marked
1372	2	$\frac{1}{4}$ "	1260	2; AG	
1373	3	$\frac{1}{4}$ "	1261	2; Output	
1374	4	$\frac{1}{4}$ "	1262	2; Input	
1375	5	$\frac{1}{4}$ "	1263	3; 1-2-3	
1376	6	$\frac{1}{4}$ "	1264	4; 1-2-3-4	
1377	7	$\frac{1}{4}$ "	1265	5; 1-2-3-4-5	
1378	8	$\frac{1}{4}$ "	1266	6; 1-2-3-4-5-6	
1379	9	$\frac{1}{4}$ "			
1380	10	$\frac{1}{4}$ "			

TERMINAL STRIPS 2 POST

Excellent mounting for twin lead transmission lines. Brass hot tinned lugs spaced $\frac{1}{4}$ " center to center, $\frac{1}{4}$ " bakelite. $\frac{1}{8}$ " mounting center.

Cat. No. T16

BIRNBACH 3 POST

A synchronizing lock strip for RCA type television receivers. Brass hot tinned lugs. Spaced $\frac{1}{4}$ " center to center. Mounting center $\frac{1}{4}$ " bakelite.

Cat. No. T16A

INSULATED SPADE LUG NO. 332

This insulated spade lug accommodates all standard banana plugs into the rear of lug enabling same to be adapted to a spade lug. Lug is Steel Hot Tinned. Colors: Red or Black.

Cat. No. 332 Insulated Spade Lug

SPADE LUG NO. 332A

Barrel accommodates all standard banana type plugs. Lug is Steel Hot Tinned.

Cat. No. 332A Spade Lug 50

INSULATED SPADE LUG

Colors: Red or Black. Lug: Brass, .050 thick, nickel plated.

Rating: 30 Amps AC for 10°C Temp. rise, continuous duty.

Descr.: $\frac{1}{4}$ " I.D. fits all standard Multi-purpose binding posts. Accepts up to #10 insulated wire, which solders in front hole.

Cat. No. 332B

BIRNBACH CABLE CLAMPS

Cat. No.	To Fit Cable	Length	Width	Mtg. Hole
1153	$\frac{3}{8}$ "	$\frac{3}{4}$ "	$\frac{1}{2}$ "	No. 4
1154	$\frac{1}{2}$ "	$\frac{3}{4}$ "	$\frac{1}{2}$ "	No. 6
1155	$\frac{1}{2}$ "	$\frac{1}{2}$ "	$\frac{3}{4}$ "	No. 6
1156	$\frac{1}{2}$ "	$\frac{1}{2}$ "	$\frac{3}{4}$ "	No. 8
1157	$\frac{3}{8}$ "	$\frac{1}{2}$ "	$\frac{3}{4}$ "	No. 10

BIRNBACH TAPPED ANGLE BRACKET

Steel cadmium plated. $\frac{1}{2}$ " by $\frac{1}{2}$ ". One plain .165 hole and one 8/32 tapped hole.

Cat. No. 1120

BRASS & STEEL ANGLES

Cat. No.	Material	Size	Mtg. Holes
1121	Brass N. Pl.	$\frac{1}{2}$ " x $\frac{1}{2}$ "	.169
1122	Brass N. Pl.	$\frac{3}{8}$ " x $\frac{3}{8}$ "	.169
1123	Steel H.T.	$\frac{3}{8}$ " x $\frac{3}{8}$ "	.144
1124	Steel H.T.	$\frac{5}{8}$ " x $\frac{1}{2}$ "	.169

SPRING WIRE CLIPS

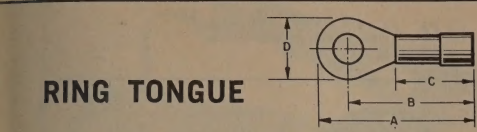
They will hold a wire, up to No. 10 B&S Gauge, in a secure contact. All clips are brass nickel-plated.

Cat. No.	Length	Width	Mtg. Hole
32A Spring Clip	$\frac{3}{4}$ "	$\frac{3}{8}$ "	6
32 Spring Clip	$\frac{1}{2}$ "	$\frac{3}{8}$ "	10
32 Twin Clip	$\frac{1}{2}$ "	$\frac{3}{8}$ "	10

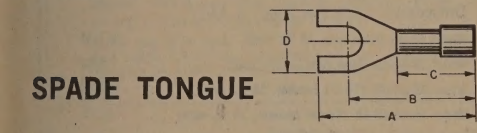
FOR MORE INFORMATION ON COMPLETE LINES, WRITE FOR NEW CATALOG.

BIRNBACH

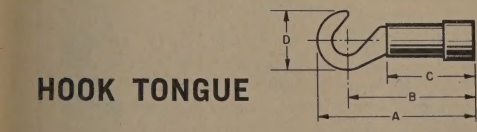
RADIO COMPANY INC.



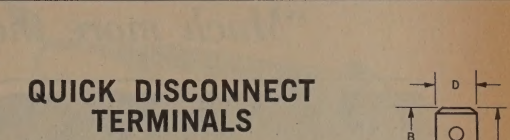
RING TONGUE							
Cat. No.	Wire Size	Stud Size	A	B	C	D	
5651-4	22-16	4	31/32	13/16	1/2	5/16	
5651-6	22-16	6	31/32	13/16	1/2	5/16	
5651-8	22-16	8	31/32	13/16	1/2	5/16	
5652-4	16-14	4	27/32	23/32	1/2	1/4	
5652-6	16-14	6	27/32	23/32	1/2	1/4	
5653-6	16-14	6	27/32	51/64	1/2	11/32	
5653-8	16-14	8	27/32	51/64	1/2	11/32	
5653-10	16-14	10	27/32	51/64	1/2	11/32	
5654-1/4	16-14	1/4	13/32	55/64	1/2	15/32	
5655-6	12-10	6	61/64	49/64	1/2	3/8	
5655-8	12-10	8	61/64	49/64	1/2	3/8	
5655-10	12-10	10	61/64	49/64	1/2	3/8	
5656-1/4	12-10	1/4	111/64	39/64	1/2	1/2	
5657-3/8	12-10	3/8	11/4	61/64	1/2	19/32	



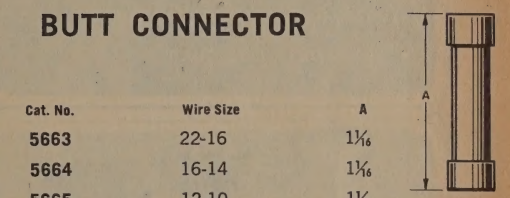
SPADE TONGUE							
Cat. No.	Wire Size	Stud Size	A	B	C	D	
5666-4	22-16	4	1"	13/16	1/2	5/16	
5666-6	22-16	6	1"	13/16	1/2	5/16	
5666-8	22-16	8	1"	13/16	1/2	5/16	
5666-10	22-16	10	1"	13/16	1/2	5/16	
5658-4	16-14	4	31/32	25/32	1/2	23/64	
5658-6	16-14	6	31/32	25/32	1/2	23/64	
5658-8	16-14	8	31/32	25/32	1/2	23/64	
5658-10	16-14	10	31/32	25/32	1/2	23/64	
5667-6	12-10	6	63/64	25/32	1/2	3/8	
5667-8	12-10	8	63/64	25/32	1/2	3/8	
5667-10	12-10	10	63/64	25/32	1/2	3/8	



HOOK TONGUE							
Cat. No.	Wire Size	Stud Size	A	B	C	D	
5660-6	22-16	6	31/32	13/16	1/2	5/16	
5660-8	22-16	8	31/32	13/16	1/2	5/16	
5660-10	22-16	10	31/32	13/16	1/2	5/16	
5661-6	16-14	6	31/32	25/32	1/2	23/64	
5661-8	16-14	8	31/32	25/32	1/2	23/64	
5661-10	16-14	10	31/32	25/32	1/2	23/64	
5662-6	12-10	6	1"	13/16	1/2	3/8	
5662-8	12-10	6	1"	13/16	1/2	3/8	
5662-10	12-10	10	1"	13/16	1/2	3/8	



QUICK DISCONNECT TERMINALS							
Cat. No.	Wire Size	A	B	C	D		
5670	22-16	25/32	5/16	1/2	5/16		
5672	16-14	25/32	5/16	1/2	5/16		
5674	12-10	25/32	5/16	1/2	5/16		
5671	22-16	1"	5/16	1/2	1/4		
5673	16-14	1"	5/16	1/2	1/4		
5675	12-10	1"	5/16	1/2	1/4		



BUTT CONNECTOR				
Cat. No.	Wire Size	A		
5663	22-16	1 1/16		
5664	16-14	1 1/16		
5665	12-10	1 1/16		



UNIVERSAL CRIMPING TOOL

Crimps both insulated and non-insulated terminals, wire sizes 22 thru 10. Cuts and strips wire.

Cat. No. 4676

Color coded for easy matching to wire sizes.

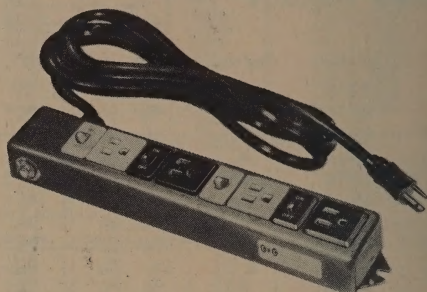
Red — 22-16
Blue — 16-14
Yellow — 12-10

THE ORIGINAL AC POWER CONTROL UNITS

"Much more than an outlet box"

FEATURES

- PROTECTION BY FUSE OR CIRCUIT BREAKER
- U L APPROVED COMPONENTS
- PORTABLE OR STATIONARY
- SELF CONTAINED POWER SWITCHES
- RUGGED CONSTRUCTION
- REQUIRES LITTLE SPACE & EASY TO STORE
- LIFETIME NEON INDICATOR
- 2 PRONG & "U" GROUND OUTLETS
- EASY TO KEEP CLEAN
- FINISH OF BROWN HAMMERTONE OR CHROME
- RATED FOR 15 AMPS 130 VOLTS
- HEAVY DUTY LINE CORD



SS-GD Series — All models contain four colored sets of power switches and heavy duty "U" type outlets, paired for easy identification. Choice of fuse or circuit breaker protection. Dimension $13\frac{1}{8}'' \times 2\frac{1}{4}'' \times 1\frac{1}{2}''$.

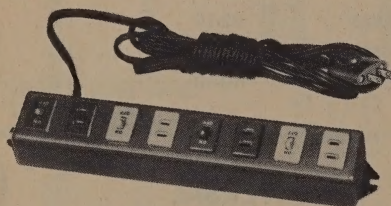
Model SS-GD (Fuse type, 10 Ft. cord) \$ 8.95

Model SS-GD-15 (Fuse type, 15 Ft. cord) 9.95

Model SS-GD-CB (Circuit breaker, 10 Ft. cord) 10.75

Model SS-GD-CB-15 (Circuit breaker, 15 Ft. cord) 11.75

Add suffix CR to model number for chrome plating plus an additional \$1.50 to the net price.



SS Series — Provides four independently controlled 2 prong outlets, each set in a contrasting color for easy recognition. Choice of fuse or circuit breaker protection. Dimensions $13\frac{1}{8}'' \times 2\frac{1}{4}'' \times 1\frac{1}{2}''$.

Model SS (Fused plug 10 Ft. cord) \$ 6.75

Model SS-F (Same as SS but with one fuse) 6.25

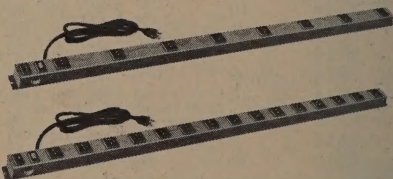
Model SS-CB (Circuit breaker 10 Ft. cord) 8.75

Add suffix CR to the model number for chrome plating plus an additional \$1.50 to the net price.

Model SS-2 — Provides two independently controlled 2 prong outlets, each set in a contrasting color for easy recognition. Dimensions $5'' \times 2'' \times 1\frac{1}{4}''$.

(Fused plug 6 Ft. cord) \$ 4.15

Add suffix CR to the model number for chrome plating plus an additional \$1.00 to the net price.



LL-GD Series — 4' HEAVY DUTY LONG LINE — Each unit has a switch and pilot light. With "U" type grounded outlets. Choice of fuse or circuit breaker protection. Dimensions $49'' \times 2'' \times 1\frac{1}{2}''$.

8 OUTLETS

LL-GD-8-10 (Fuse type, 10 Ft. cord) \$14.95

LL-GD-8-15 (Fuse type, 15 Ft. cord) 15.95

LL-GD-CB-8-10 (Circuit breaker, 10 Ft. cord) 15.95

LL-GD-CB-8-15 (Circuit breaker, 15 Ft. cord) 16.95

15 OUTLETS

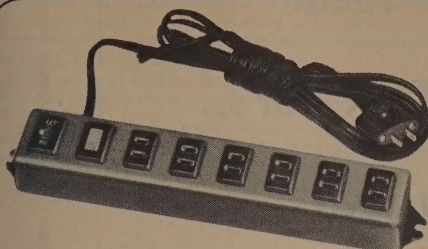
LL-GD-15-10 (Fuse type, 10 Ft. cord) 18.95

LL-GD-15-15 (Fuse type, 15 Ft. cord) 19.95

LL-GD-CB-15-10 (Circuit breaker 10 Ft. cord) 19.95

LL-GD-CB-15-15 (Circuit breaker 15 Ft. cord) 20.95

All prices are net and subject to change without notice.



MO Series — One switch controls six 2 prong outlets. Pilot light indicates when power is on. Choice of fuse or circuit breaker protection. Dimensions $13\frac{1}{8}'' \times 2\frac{1}{4}'' \times 1\frac{1}{2}''$.

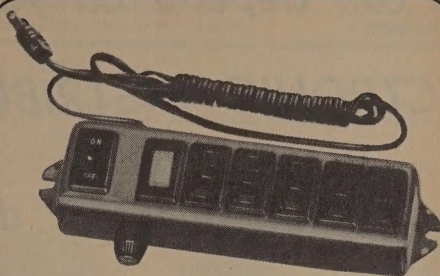
Model MO (Fused plug 10 Ft. cord) \$ 6.75
 Model MO-F (Same as MO but with one fuse) 6.25
 Model MO-CB (Circuit breaker 10 Ft. cord) 8.75
 Add suffix CR to model number for chrome plating plus an additional \$1.50 to the net price.

Model MO-4 — Four 2 prong outlets where just additional outlets are required. No switch. Dimensions $5'' \times 2'' \times 1\frac{1}{4}''$.

(Fused plug, 6 Ft. cord) \$ 3.75

Model MO-3 — One switch controls three 2 prong outlets. Dimensions $5'' \times 2'' \times 1\frac{1}{4}''$.

(Fused plug, 6 Ft. cord) \$ 3.90
 Add suffix CR to the model numbers for chrome plating plus an additional \$1.00 to the net price.



MO-5 Series — One switch controls five 2 prong outlets. Pilot light shows when power is on. Choice of fuse or circuit breaker protection. Dimensions $8\frac{5}{8}'' \times 2\frac{1}{4}'' \times 1\frac{1}{2}''$.

Model MO-5-10 (Fused type, 10 Ft. cord) \$ 5.95

Model MO-5-15 (Fused type, 15 Ft. cord) 6.95

Model MO-CB-5-10 (Circuit breaker 10 Ft. cord) 6.95

Model MO-CB-5-15 (Circuit breaker 15 Ft. cord) 7.95

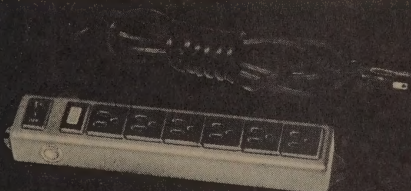
Add suffix CR to model number for chrome plating plus an additional \$1.25 to the net price.

APPROVED UNITS FOR MILITARY APPLICATION

Model MO-GD-4 — 7 "U" type grounding outlets, 3 ten foot leads, grey housing.

Model MO-GD-5 — 3 "U" type grounding outlets, 3 ten foot leads, grey housing.

Used in Missile Ground Support Equipment \$15.00 Each



MO-GD Series — Six 3-wire "U" type ground outlets, switch and pilot light. Choice of fuse or circuit breaker protection. Dimensions $13\frac{1}{8}'' \times 2\frac{1}{4}'' \times 1\frac{1}{2}''$.

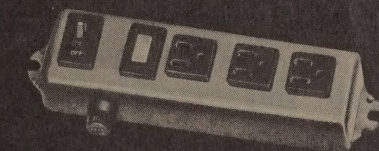
Model MO-GD (Fuse type, 10 Ft. cord) \$ 8.50

Model MO-GD-15 (Fuse type, 15 Ft. cord) 9.50

Model MO-GD-CB-10 (Circuit breaker, 10 Ft. cord) 10.50

Model MO-GD-CB-15 (Circuit breaker, 15 Ft. cord) 10.95

Add suffix CR to model number for chrome plating plus an additional \$1.50 to the net price



MO-GD-3 Series — Three 3-wire "U" type ground outlets, switch and pilot light. Choice of fuse or circuit breaker protection. Dimensions $8\frac{5}{8}'' \times 2\frac{1}{4}'' \times 1\frac{1}{2}''$.

Model MO-GD-3-10 (Fuse type, 10 Ft. cord) \$ 5.95

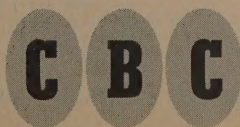
Model MO-GD-3-15 (Fuse type, 15 Ft. cord) 6.95

Model MO-GD-CB-3-10 (Circuit breaker, 10 Ft. cord) 6.95

Model MO-GD-CB-3-15 (Circuit breaker, 15 Ft. cord) 7.95

Add suffix CR to the model number for chrome plating plus an additional \$1.25 to the net price.

All prices are net and subject to change without notice.



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- *Instant off-the-shelf delivery*
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- *Technical assistance*
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for all your requirements!

CANNON® AUDIO CONNECTORS for low level circuit applications



ITT Cannon Audio Connectors are designed for use on audio/video and other low level circuit applications in the electronic/industrial fields where reliability, quiet operation and the elimination of mechanical interference are necessary. Some common uses are: microphones, tape recorders, hi-fi equipment, medical instruments, cameras, test instrumentation and computers.

LR CONNECTOR SERIES

The XLR incorporates the most advanced audio/electronic design concepts. Small and compact, it features resilient insulators on the socket side plus resilient ribs for shock protection and quiet operation.

Shells are aluminum alloy (receptacles), or steel or aluminum alloy (plugs), with tin nickel finish. Insulators are rigid molded plastic (pin side), or resilient polychloroprene (socket side). Contacts are brass, silver plated. Coupling is by the latch-lock method.

FEATURES

• QUIET OPERATION

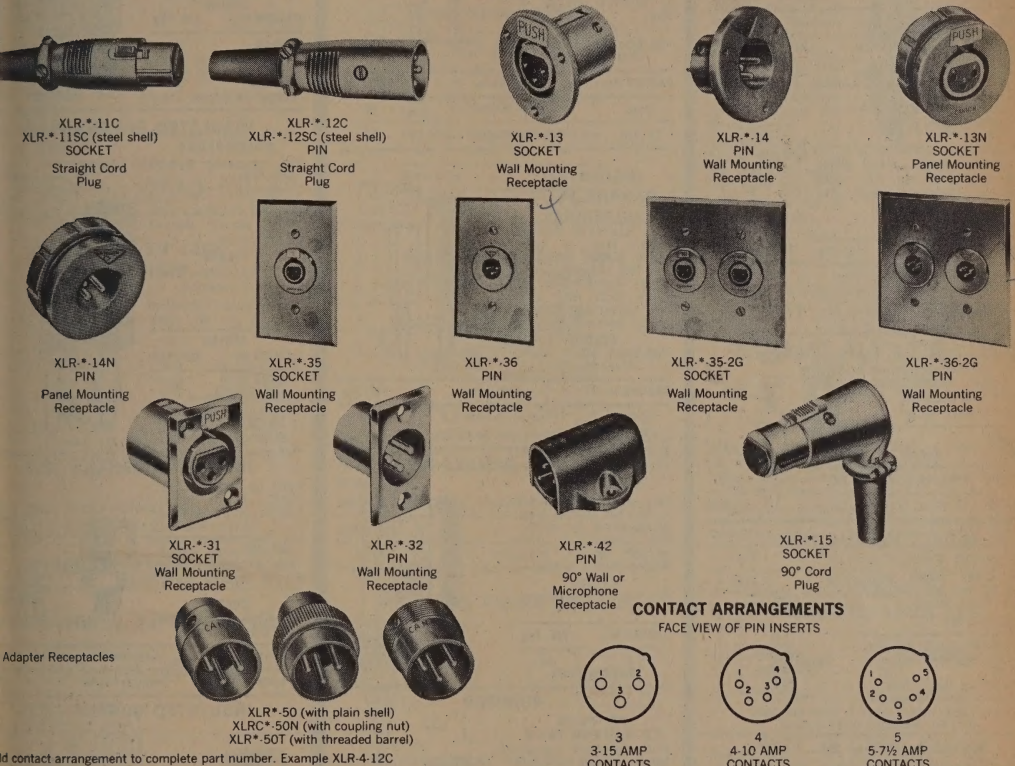
Thick aluminum cross sections for shell strength, plus resilient insulators and resilient ribs on the socket side, insure elimination of mechanical interference from shock.

• EASY TO WORK WITH

Finger grips for positive handling.

Integral cable clamp with two clamping positions for positive grip on cable sizes from 7/32 to 5/16 of an inch.

Large internal space for ease of wiring.



CONNECTOR SERIES

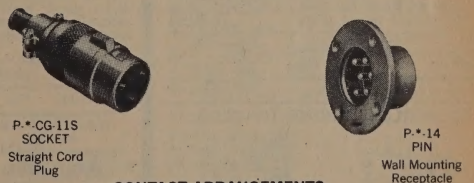
The ITT Cannon P is a versatile connector in terms of the wide range of contact arrangements offered. It is a proven connector and has been the standard of quality in the audio field for many years. Socket contacts are full floating and precision-made from milled bar stock.

Shells are zinc (receptacles), or steel or zinc (plugs), with satin chrome finish. Insulators are phenolic. Contacts are brass, silver plated. Coupling is by the latch-lock method.

P Series connectors not shown.

- P*-CG-12S Straight cord plug. (Pin)
- P*-13 Flush panel receptacle. (Socket)
- P*-CG-15 90° angle cord plug. (Socket)
- P*-CG-16 90° angle cord plug. (Pin)
- P*-17 Surface panel receptacle. (Socket)
- P*-18 Surface panel receptacle. (Pin)
- P*-23 Straight cord plug. (Socket)
- P*-24 Straight cord plug. (Pin)
- P*-35 Single gang wall receptacle. (Socket)
- P*-36 Single gang wall receptacle. (Pin)
- P*-35-2G Two gang wall receptacle. (Socket)
- P*-36-2G Two gang wall receptacle. (Pin)
- P*-41 Microphone mounting receptacle. (Socket)
- P*-42 Microphone mounting receptacle. (Pin)

*Add contact arrangement to complete part number. Example P2-CG-12S



YOUR ITT CANNON AUTHORIZED DISTRIBUTOR

CANNON ELECTRIC **ITT**
A DIVISION OF INTERNATIONAL TELEPHONE AND TELEGRAPH CORPORATION

DABURN**DABURN ELECTRONICS & CABLE CORP.**

PHONE TIPS • BANANA PLUGS & JACKS

**BANANA PLUG —
No. 17-40**

Fits all standard banana jacks. Hex brass, nickel plated. Comes thru with hex N. PL. nut and tinned copper lug. Spring is four leaf phosphor bronze, nickel plated.

RATED: 15 Amps. AC.

DABURN No.	Spring	Dim. A	Std. Pkg.
17-40	Phosphor Bronze	1/2"	100
17-40A	Phosphor Bronze	3/8"	100
17-40B	Beryllium Copper	1/2"	100

**BANANA PLUG —
No. 17-14**

Nickel plated hex brass; spring is four leaf phosphor bronze, nickel plated. Comes thru with hex nut, nickel plated. Fits all standard banana jacks.

RATED: 15 Amps. AC.

DABURN No.	Spring	Std. Pkg.
17-14	Phosphor Bronze	100

BANANA PLUG — No. 17-41

Body is hex brass, nickel plated, comes thru complete with N. PL. screw and tinned copper lug; spring is four leaf phosphor bronze or beryllium copper, nickel plated. Fits all standard banana jacks.

RATED: 15 Amps. AC.

DABURN No.	Spring	Std. Pkg.
17-41	Phosphor Bronze	100
17-41B	Beryllium Copper	100

MIDGET BANANA PLUG**RIVET TYPE**

Brass silver plated body. Spring is four leaf phosphor bronze, silver plated.

RATED: 10 Amps. AC.

DABURN No.	Std. Pkg.
17-26	100

Rivet Type Midget Plug

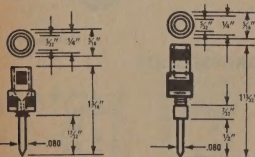
Additional Midget Plugs & Jacks Available.
Also Sub-Miniature Plugs & Jacks.

BANANA JACK — No. 17-03

Hexed brass nickel plated hex nut and tinned copper lug. Has recessed head. Mounts in 1/4" hole in panels up to 3/8" thick. Fits all standard banana plugs.

Rated: 15 amps AC.

DABURN No.	Std. Pkg.
17-03	Banana Jack 100

SOLDERLESS PHONE TIP PLUG

Brass nickel plated. Both fit all standard phone tip jacks. Slipping the wire thru body of tip, then wrapping same around screw, is tightened by knurled collar.

DABURN No.	Description	Std. Pkg.
17-33	Junior	100
17-34	Senior	100

INSULATED BANANA PLUG**SOLDERLESS**

Fits standard banana jacks. Plug is hex brass, Nickel plated. Spring is four leaf phosphor bronze nickel plated. Molded plastic handle.

For solderless connection: wire can be passed thru hex brass N.P. stud and spread, which locks wire to plug. Wire can also be soldered directly to plug.

COLORS

Red, Black, Yellow, Green, Blue. (Specify)

DABURN No.	SPRING	Std. Pkg.
19-04	Phosphor Bronze N.P.	50
19-04B	Beryllium Copper S.P.	50

INSULATED BANANA PLUG**SOLDERLESS**

Fits standard banana jacks. Plug is brass nickel plated. Spring is four leaf phosphor bronze, nickel plated. Side set screw holds wire without soldering. Molded plastic handle.

COLORS

Red, Black, Yellow, Green, Blue. (Specify)

DABURN No.	SPRING	Std. Pkg.
19-46	Phosphor Bronze N.P.	50
19-46A	Beryllium Copper N.P.	50

INSULATED BANANA PLUG**SOLDERLESS**

This split plug, brass N. PL., has internal brass N. PL., stud for solderless connection. Fits standard banana jacks. Molded plastic handle.

Red, Black, Yellow, Green, Blue. (Specify)

DABURN No.	Std. Pkg.
19-47	50

BANANA PLUG**ADAPTER****TIP PLUG TO BANANA PLUG**

Fits standard banana jacks, accepts standard phone tips. Plug is brass nickel plated. Spring is four leaf phosphor bronze, nickel plated. Phone tip jack is phosphor bronze molded plastic handle and cap.

COLORS

Red, Black (Specify)

DABURN No.	Std. Pkg.
19-67	50

ADAPTER**INSULATED BANANA PLUG****SOLDERLESS**

Split plug, brass N. PL., with side screw fits standard banana jacks. Plug is slotted, set screw holds wire without soldering. Molded plastic handles.

COLORS

Red, Black, Yellow, Green, Blue. (Specify)

DABURN No.	Std. Pkg.
19-44	50

BANANA PLUG**INSULATED MIDGET BANANA PLUG****SOLDERLESS**

Spring is four leaf phosphor bronze, or beryllium copper, nickel plated. Wire can be soldered directly into plug. Molded plastic handle. Fits standard banana jacks.

COLORS

Red, Black. (Specify)

DABURN No.	SPRING	Std. Pkg.
19-55	Phosphor Bronze N.P.	50
19-55B	Beryllium Copper S.P.	50

INSULATED BANANA PLUG**SOLDERLESS**

Fits standard banana jacks. Plug is brass nickel plated. Spring is four leaf phosphor bronze nickel plated. Molded plastic handle.

COLORS

Red, Black, Yellow, Green, Blue. (Specify)

For solderless connection same as our No. 19-04.

SPRING

DABURN No.	Std. Pkg.
19-65	50
19-65B	50

Phos. Bronze N.P.

Beryllium Copper S.P.

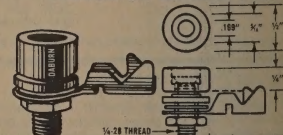
INSULATED BANANA JACK

Body is brass nickel plated, mounts in 3/8" hole in panels up to 3/8" thick. Comes thru with hex nut, tinned copper lug and fibre washer. Takes all standard banana plugs. Molded plastic head.

COLORS

Red, Black, Yellow, Green, Blue. (Specify)

DABURN No.	Description	Std.
19-06	Insulated Jack	50

INSULATED BANANA JACK

Body is brass nickel plated. Mounts in 3/8" hole in panels up to 3/8" thick. Comes thru with hex tinned copper lug, lockwasher, fibre washer. All standard banana plugs. Jack body is recessed tight contact. Molded plastic head.

COLORS: Red, Black, Yellow, Green, Blue. (Specify)

DABURN No.	Description	Std.
19-91	Insulated Jack	50

INSULATED JACK COMBINATION

Will take senior phone tips or standard banana plugs. Body is brass, nickel plated. Mounts in 5/8" hole in panels up to 1/2" thick. Springs are phosphor bronze. Comes thru with hex nut and fibre washer. Molded plastic head.

COLORS

Red, Black, Yellow, Green, Blue. (Specify)

DABURN No.	Description	Std.
19-33	Insulated Combination Jack	50

DABURN

DABURN ELECTRONICS & CABLE CORP.

INSULATED BINDING POSTS • PHONE TIP PLUGS • TEST JACKS • PRODS

NYLON TIP JACK WITH METAL SHELL

Meets MS-16108 Spec — Wrap Around

nylon tip jack metal shell eliminates possibility of wire stripping during assembly. Made to meet requirements of MS-16108 specification. Con- recessed in head for easy insertion. Nylon, grade FM 1, brass N.P. Shell nut per Spec. 72-53. Tough and rugged. Fits all standard phone tip plugs.

TER CONTACT: Heat treated beryllium copper, ever plated.

COLORS: Red, Black, Yellow, Green, Blue, White. (Specify Color)

Form No.	Std. Pkg.
19-90	Wrap Around 25

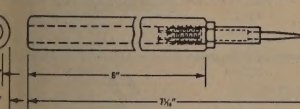
ALL NYLON TIP JACK WRAP AROUND

nylon molded tip jack. Fits all standard phone plugs. Contact recessed in head for safety. Head for ease in inserting. Mounts in hole in panels up to 1/4" deep. Body is nylon, grade 1000L. Tough and rugged. Complete with brass nickel plated hex center contact. Heat treated beryllium copper, ever plated.

COLORS: Red, Black, Yellow, Green, Blue, White. (Specify)

Form No.	Std. Pkg.
19-80	Wrap Around 25

NYLON PENCIL TYPE TEST PROD

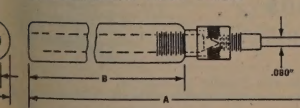


is brass nickel plated with heavy steel phone tip. Handle is XX bakelite per MIL-P-79. Wire threaded thru stud and tightened allows solderless connection.

COLOR: Red, Black. (Specify)

Form No.	Std. Pkg.
19-11	Bakelite Pencil Type Prod 25

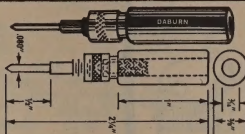
SOLDERLESS TEST PROD



is brass nickel plated with molded plastic handle. Solderless connection, for wire fits thru handle and body and wraps under knurled nut.

COLOR: Red, Black. (Specify)

Daburn No.	Handle (B)	Overall L'gth (A)	Std. Pkg.
19-10	4"	5 3/4"	50
19-43	5"	6 1/2"	50



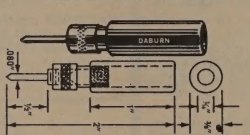
INSULATED PHONE TIP SOLDERLESS — SENIOR

Fits standard phone tip jacks. Brass nickel plated. Solderless connection for wire which fits thru body of tip and fastens under knurled nut. Molded plastic handle.

COLORS: Red, Black, Yellow, Green, Blue. (Specify)

Daburn No.	Std. Pkg.
19-09	Senior 50

INSULATED PHONE TIP SOLDERLESS — JUNIOR

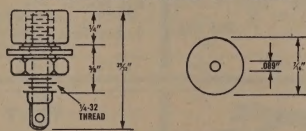


Fits standard phone tip jacks. Brass nickel plated. Solderless connection for wire which fits thru body of tip and fastens under knurled nut. Molded plastic handle.

COLORS: Red, Black, Yellow, Green, Blue. (Specify)

Daburn No.	Std. Pkg.
19-15	Junior 50

INSULATED PHONE TIP JACK

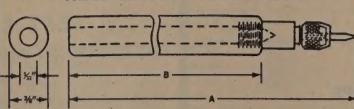


Fits all standard phone tips. Brass nickel plated body. Phosphor bronze spring provides positive contact. Comes thru complete with hex nut and fibre washer. Molded plastic head.

COLORS: Red, Black, Yellow, Green Blue. (Specify)

Daburn No.	Std. Pkg.
19-07	50

NEEDLEPOINT TEST PROD



Brass nickel plated plug, chuck is removable for replacement of broken needles. Sharp needle pierces insulation or corrosion for testing purposes. Molded plastic handle.

COLORS: Red, Black. (Specify)

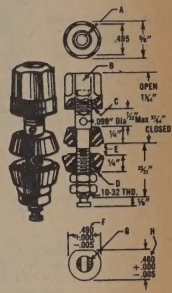
Daburn No.	Handle (B)	Overall L'gth (A)	Std. Pkg.
19-20	4"	4 7/8"	50
19-21	5"	5 3/4"	50

BINDING POSTS — MULTI-PURPOSE WRAP AROUND TYPE

Molded nylon body. Accepts tip plug, spade lug, banana plug, wire alligator clip and direct solder connection. Has molded-in brass inserts in head and washer. Rated at 30 amps. AC, capacitance 5.0 MMFD.

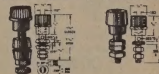
Banana plug receptacle .161" I.D. head non-removable from stud and washer completely insulates post from panel. For panels 3/4" to 1 1/4" thick; drill 1/2" hole for mounting washers. Wire hole is at right angle to flat on insulated washer.

COLORS: Red, Black. (Specify)



Daburn No.	Description	Std. Pkg.
18-75	Nylon Binding Post	100
18-72	Nylon Fluted Head Post	100

STANDARD DUTY BINDING POST

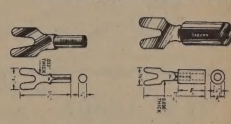


Molded-in brass bushings similar as above. Rated at 15 Amps. AC, capacitance 3.0 MMFD. Body is brass nickel plated. Mounts in 3/4" hole for locking. Has milled slot complete with two hex nuts.

COLOR: Red, Black. (Specify)

Daburn No.	Description	Std. Pkg.
18-78	All Insulated Type	100
18-79	Grounding Type	100

INSULATED SPADE LUG



Molded plastic handle lug is steel hot tinned. Rated at 25 Amps. AC. Rear barrel accommodates all standard banana plugs.

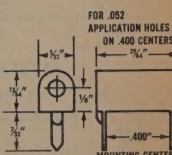
COLORS — Insulated Spade: Red, Black.

Daburn No.	Std. Pkg.
19-32	Insulated Spade Lug 50
19-32A	Spade Lug Only 50

PRINTED CIRCUIT TEST JACKS

Nylon bodies, designed for permanent, soldered connection to printed circuit boards. Beryllium copper contacts have gold over silver plate. Accepts .080" diameter per MIL F-14072, M301 test probes. For .052 application holes on .400 centers.

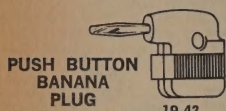
COLORS: Red, Black, Green, Yellow, Blue. Additional colors available.



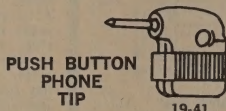
Daburn No.	Std. Pkg.
19-77	Printed Circuit Jacket 25

DABURN**DABURN ELECTRONICS & CABLE CORP.**

WIRE • CABLE • TUBING • MIL/COMM • SWITCHES • ELECTRONIC HARDWARE

METER TYPES

19-42



19-41

Molded bakelite handles. Nickel plated brass bodies. Banana plug has phosphor bronze slotted spring, nickel plated fits standard banana jacks. Phone tip fits standard phone tip jacks. Push button allows wire connection without soldering.

Cat. No. 19-42 Push button banana plug
19-41 Push button phone tip plug

Std. Pkg. 100
100

Colors: Red, black

INSULATED BANANA JACK TURRET TERMINAL

Body is brass nickel plated. Mounts in $\frac{3}{16}$ " hole in panels up to $\frac{3}{8}$ " thick. Molded plastic head. Takes standard banana plugs.

Cat. No. 19-26 Banana jack

Std. Pkg. 100

Colors: Red, black, yellow, green, blue, white.

COMBINATION POST — BANANA PLUG

Molded fluted nylon captive head rated at 15 amps ac. Body is brass nickel plated; spring — N.P.L. phosphor bronze. Converts a standard banana jack into a five way binding post.

Cat. No. 18-40 Combination plug

Std. Pkg. 100

Colors: Red, black.

COMBINATION POST — BANANA PLUG

Molded hex head nylon captive head. Rated at 15 amps ac. Body is brass nickel plated; spring — N.P.L. phosphor bronze. Converts a standard banana jack into a five way binding post.

Cat. No. 18-42 Combination plug

Std. Pkg. 100

Colors: Red, black.

COMBINATION TERMINAL METAL BINDING POST

Brass nickel plated turret terminal screw head. Knurled shank. Knurled end. For $\frac{3}{16}$ " thick panel. 10-32 x $\frac{1}{4}$ " long BHM screw.

Cat. No. 18-30 Combination terminal

Std. Pkg. 100

COMBINATION TERMINAL METAL BINDING POST

Brass nickel plated turret terminal screw head. Knurled shank. Knurled end. 8-32 x $\frac{1}{4}$ " long BHM screw. For $\frac{1}{4}$ " thick panel.

Cat. No. 18-32 Combination terminal

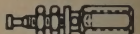
Std. Pkg. 100

METAL BINDING POST — 5 WAY

Hex brass, nickel plated. Wrap around terminal. Captive head.

Cat. No. 18-34 Binding post

Std. Pkg. 100

**BINDING POST — 5 WAY**

Hex head molded nylon with spade lug. Brass nickel plated.

Colors: Red, black.

Cat. No. 18-77 Binding Post

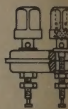
Std. Pkg. 100

**DUAL BINDING POSTS NYLON — 5 WAY**

Hex nylon captive head. Brass nickel plated. Turret terminals — wrap around 15 amp rating ac. Mounts in $\frac{3}{16}$ " centers. Available in red or black combinations. Specify.

Cat. No. 18-50 Dual binding post

Std. Pkg. 100

**DUAL BINDING POSTS NYLON — 5 WAY**

Fluted nylon captive head. Brass nickel plated. Turret terminals — wrap around. 15 amp rating ac. Mounts in $\frac{3}{16}$ " centers. Available in red or black combinations. Specify.

Cat. No. 18-52 Dual binding post

Std. Pkg. 100

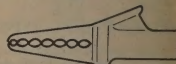
**ALLIGATOR CLIP ALL INSULATED**

Fully insulated. Cad. plated sharp steel jaws. Accepts banana plug in rear.

Cat. No. 20-25 Insulated clip

Std. Pkg. 100

Colors: Red, black

**TEST LEADS****ALLIGATOR CLIP TEST LEADS**

Black and red kinkless test lead wire with steel cadmium plated clips at each end.

DABURN No.	Wire Length	Pkg. Std.
17-275	12"	12
17-276	24"	12
17-277	36"	12
17-278	48"	12

**TEST LEADS****INSULATED ALLIGATOR CLIPS**

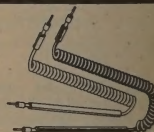
Black and red kinkless test lead wire with steel, cadmium plated clips; vinyl plastic boot.

DABURN No.	Wire Length	Pkg. Std.
17-280	12"	12
17-281	24"	12
17-282	36"	12
17-283	48"	12

TEST LEADS**RETRACTILE KINKLESS WIRE**

Black and red wire.

DABURN No.	Description	Std. Pkg.
17-364	Solderless Phone Tip, Retractable Wire, Solderless Prod	10

**TEST LEADS****NEEDLEPOINT AND SOLDERLESS**

Black and red kinkless test lead wire, handles as specified.

DABURN No.	Description	Std. Pkg.
17-308	Pencil Type Bakelite, 6" Handles	10
17-360	Deluxe Solderless Prod, 5" Handles	25
17-361	Deluxe Needlepoint Prod, 5" Handles	25
17-320	Needlepoint Prods, 4" Handles	25
17-322	Solderless Prods, 4" Handles	25



DABURN

DABURN ELECTRONICS & CABLE CORP.

BUSHINGS • STRIPS LUGS • BEARINGS

DABURN BRASS BUSHINGS AND SPACERS

Suitable for raising sub panels, condensers, transformers, chassis, etc. Bushing hole accommodates A No. 4, No. 6 or No. 8 screw.

1/4" O.D.			
Length	For No. 8 Screw Cat. No.	For No. 6 Screw Cat. No.	For No. 4 Screw Cat. No.
1/4"	14-320	14-315	14-310
1/2"	14-321	14-316	14-311
3/4"	14-322	14-317	14-312
1"	14-323	14-318	14-313
1 1/4"	14-324	14-319	14-314
Std. Pkg. 100			
3/8" O.D.			
1/4"	14-330	14-325	14-305
1/2"	14-331	14-326	14-306
3/4"	14-332	14-327	14-307
1"	14-333	14-328	14-308
1 1/4"	14-334	14-329	14-309
Std. Pkg. 100			

THREADED BRASS SPACERS

Threaded spacers for 4-40, 6-32 and 8-32 application.

1/4" O.D.			
Length	For 8-32 Cat. No.	For 6-32 Cat. No.	For 4-40 Cat. No.
1/4"	14-340	14-335	14-300
1/2"	14-341	14-336	14-301
3/4"	14-342	14-337	14-302
1"	14-343	14-338	14-303
1 1/4"	14-344	14-339	14-304
Std. Pkg. 100			

DABURN FIBRE SPACERS

material per MIL-F-1148A, Grade CH.

1/4" O.D.			
Length	For No. 8 Screw Cat. No.	For No. 6 Screw Cat. No.	For No. 4 Screw Cat. No.
1/4"	14-365	14-360	14-355
1/2"	14-366	14-361	14-356
3/4"	14-367	14-362	14-357
1"	14-368	14-363	14-358
1 1/4"	14-369	14-364	14-359
Std. Pkg. 100			

PANEL BEARINGS ASSEMBLY

nickel plated for 1/4" shaft up to 3/8" panels.

Burn No.	Description	Std. Pkg.
4-372	3" Overall Length	25
4-374	6" Overall Length	25

MINIATURE PANEL BEARING ASSEMBLY

Burn No.	Description	Std. Pkg.
14-376	2" Overall Length	25
14-377	4" Overall Length	25

LUG TERMINAL STRIP

STANDARD TYPE

Lugs are 3/4" centers with .140 diam. mounting holes. Lugs are 3/4" (.062") thick XP bakelite by 3/8" wide lugs. Special combinations available. Mount: .140 I.D. for #6 screw.

Burn No.	Illustration	Std. Pkg.
15-82	A	100
15-82A	B	100
15-82B	C	100
15-82C	D	100
15-83	E	100
15-83A	F	100
15-84	G	100
15-84A	H	100
15-84B	I	100
15-85	J	100
15-85A	K	100
15-85B	L	100
15-86	M	100
15-86A	N	100
15-86B	O	100
15-87	P	100
15-88	Q	100
15-89	R	100
15-90	S	100

BAKELITE TERMINAL BOARD

SCREW TYPE

Terminals made of brass, hot tinned, mounted on X.P. Bakelite 5/8" wide x 1/4" thick, spaced 1/4" centers. Screws are 8-32 x 3/8" steel, cadmium plated.

Burn No.	Terminals	Mtg. Center	Std. Pkg.
15-72	2	1 1/4"	50
15-73	3	1 3/4"	50
15-74	4	2 1/4"	50
15-75	5	2 3/4"	50
15-76	6	3 1/4"	50
15-77	7	3 3/4"	50
15-81	SHORTING LINK		100

DABURN TERMINAL BOARD

HEAVY DUTY

Terminals made of brass, cadmium plated, .042" thick, spaced 1/2" centers. Mounted on XP bakelite 7/8" wide x 1/2" thick. Screws are 8-32 x 3/4" brass, nickel plated.

Burn No.	Terminals	Mtg. Center	Std. Pkg.
15-61A	2	1 1/2"	25
15-61	3	2"	25
15-62	4	2 1/2"	25
15-63	5	3"	25
15-64	6	3 1/2"	25
15-65	7	4"	25
15-66	8	4 1/2"	25
15-67	9	5"	25
15-68	10	5 1/2"	25
15-69	11	6"	25
15-70	12	6 1/2"	25

PANEL BEARINGS

Brass nickel plated. Same as used on the above bearing assemblies.

Burn No.	Description	Std. Pkg.
14-370	3/8" Threaded Length	50
14-370A	1/2" Threaded Length	50
14-370B	3/8-32 Thread 3/4" Threaded Length, 3/2" O.L.	50
14-370C	Miniature — 1/4-32 Thd., Threaded L'gth. 3/4", 3/8" O.L., 1/25" 1/2" Hex.	50

MINIATURE TYPE

Lugs are 1/4" centers. Lugs are .062" thick XP bakelite x 3/4" wide. Steel cadmium plated. Mount: .096 I.D. for 3/32" rivet or No. 3 screw.

Burn No.	Illustration	Std. Pkg.
15-52	A	100
15-5A	B	100
15-5B	C	100
15-52C	D	100
15-53	E	100
15-53A	F	100
15-54	G	100
15-54A	H	100
15-54B	I	100
15-55	J	100
15-55A	K	100
15-55B	L	100
15-56	M	100
15-56A	N	100
15-56B	O	100
15-57	P	100
15-58	Q	100
15-59	R	100
15-60	S	100

DABURN TINNED TERMINAL LUGS

No.	Hole Standard	Material	L'gth	Thickness
101-11	6	Tinned Copper	1 1/2"	.015"
101-12	10	Tinned Copper	3/8"	.016"
101-13	.252	Tinned Copper	1/2"	.015"
101-13A	1/4	Tinned Copper	1 1/4"	.015"
101-14	3/8	Tinned Copper	7/8"	.016"
101-15	1/2	Hot Tin. Copper	1 3/4"	.024"
101-21	10	Hot Tin. Copper	3/4"	.020"
101-22	1/4	Hot Tin. Copper	1 1/4"	.025"
101-00	8	Brass Hot Tin.	7/8"	.015"
101-01	10	Brass Hot Tin.	3/2"	.020"
101-02	6	Brass Hot Tin.	3/8"	.010"
101-06	4-6-8-10	Brass Hot Tin.	7/8"	.020"
101-07	8	Tinned Copper	3/8"	.016"
101-08	4-6-8-10	Brass Hot Tin.	1 1/4"	.020"
101-09	4-6-8-10	Brass Hot Tin.	1 1/4"	.010"
101-10	10	Brass Hot Tin.	7/8"	.020"
Std. Pkg. 1000				

TERMINAL LUGS

LOCKWASHER - BRASS - HOT TINNED

Burn No.	Hole	Thickness	Length
101-40-4	4	.018"	7/8"
101-40-6	6	.018"	7/8"
101-40-8	8	.018"	7/8"
101-40-10	10	.018"	5/4"
101-40-14	1 1/4"	.018"	1 3/4"
101-41-4	4	.018"	5/4"
101-41-6	6	.018"	5/4"
101-41-8	8	.018"	5/4"
101-42-4	4	.018"	5/8"
101-42-6	6	.018"	5/8"
101-42-8	8	.018"	5/8"
101-43-4	4	.018"	3/2"
101-43-6	6	.018"	3/2"
101-43-8	8	.018"	3/2"
101-44-4	4	.018"	1 3/4"
101-44-6	6	.018"	1 3/4"
101-44-8	8	.018"	1 3/4"
101-44-10	10	.018"	5/4"
101-45-4	4	.018"	3/2"
101-45-6	6	.018"	3/2"
101-45-8	8	.018"	3/2"
101-46-4	4	.018"	5/4"
101-46-6	6	.018"	5/4"
101-46-8	8	.018"	5/4"
Std. Pkg. 1000			

DABURN**DABURN ELECTRONICS & CABLE CORP.**

WIRE • CABLE • TUBING • MIL/COMM • SWITCHES • ELECTRONIC HARDWARE

DABURN SOLDERLESS TERMINALS

Material is pure electrolytic copper with heavy cadmium plating, chromate finish resists corrosion and assures long shelf life — one piece design for maximum conductivity and strength. Beveled edges to facilitate wire insertion, barrels are full 1/4" length, "V" grooves for wire protection.

NON INSULATED • QUICK DISCONNECT TERMINALS

COLOR CODE: For matching to wire sizes.

RED: For 22-16 wire, .160" I.D. BLUE: For 16-14 wire, .185" I.D.

YELLOW: For 12-10 wire, .260" I.D.

Female disconnect terminals are .020" brass, cadmium plated. Male disconnect terminals are .032" copper, cadmium plated. Beveled mouth and "V" grooves plus full 1/4" length barrels for all.

INSULATED TERMINALS • QUICK DISCONNECT TERMINALS

The insulated terminals have strong, permanently attached rigid vinyl insulation sleeves for increased vibration resistance.

**QUICK DISCONNECT TERMINALS
NON-INSULATED**

Wire Size Range	Male Catalog No.	Female Catalog No.	Standard Package
22-16	21-12	21-22	100
16-14	21-13	21-23	100
12-10	21-14	21-24	100

INSULATED

Wire Size Range	Male Catalog No.	Female Catalog No.	Standard Package
22-16	21-17	21-27	100
16-14	21-18	21-28	100
12-10	21-19	21-29	100

**SOLDERLESS TERMINALS
NON-INSULATED — HOOK TONGUE**

Wire Size Range	Stud Size	Catalog No.	Standard Package
22-16	6	21-31	100
	8	21-32	100
16-14	6	21-34	100
	8	21-35	100
	10	21-36	100

INSULATED

22-16	6	21-38	100
	8	21-39	100
16-14	6	21-41	100
	8	21-42	100
	10	21-43	100

**BUTT CONNECTORS
NON-INSULATED**

Wire Size Range	Catalog No.	I.D.	Stub Clearance	Standard Package
22-16	21-47	.140"	37/64	100
16-14	21-48	.170"	37/64	100

INSULATED

22-16	21-51	.140"	37/64	100
16-14	21-52	.170"	37/64	100

**RING TONGUE
NON-INSULATED**

Wire Size Range	Specify Stud Sizes	Catalog No.	Standard Package
22-16	4, 6, 8, 10	21-60	100
16-14	4, 6	21-61	100
16-14	6, 8, 10	21-62	100
12-10	6, 8, 10	21-63	100
12-10	1/4	21-64	100

INSULATED

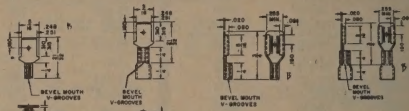
22-16	4, 6, 8, 10	21-70	100
16-14	4, 6	21-71	100
16-14	6, 8, 10	21-72	100
12-10	6, 8, 10	21-73	100
12-10	1/4	21-74	100

**SPADE TONGUE
NON-INSULATED**

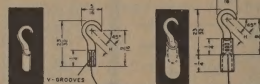
Wire Size Range	"H" Stud Sizes Specify	Catalog No.	Standard Package
22-16	4, 6, 8, 10	21-79	100
16-14	4, 6, 8, 10	21-80	100
12-10	6, 8, 10	21-81	100

INSULATED

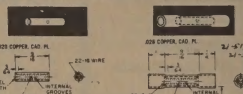
22-16	4, 6, 8, 10	21-84	100
16-14	4, 6, 8, 10	21-85	100
12-10	6, 8, 10	21-86	100



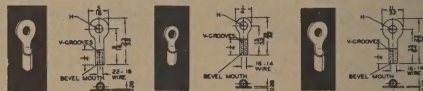
CAT. NOS. 21-12, 21-13, 21-14 CAT. NOS. 21-17, 21-18, 21-19 CAT. NOS. 21-22, 21-23, 21-24 CAT. NOS. 21-27, 21-28, 21-29



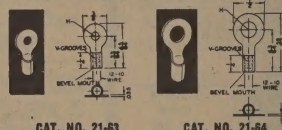
CAT. NOS. 21-31 THRU — 36 CAT. NOS. 21-38 THRU — 43



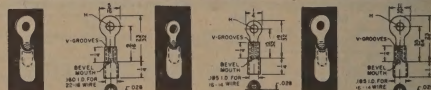
CAT. NOS. 21-47, 21-48 CAT. NOS. 21-51, 21-52



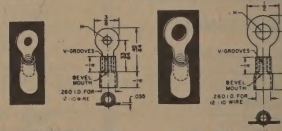
CAT. NO. 21-60 CAT. NO. 21-61 CAT. NO. 21-62



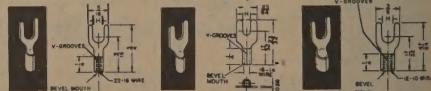
CAT. NO. 21-63 CAT. NO. 21-64



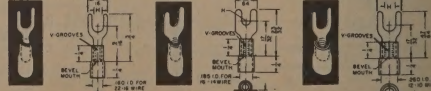
CAT. NO. 21-70 CAT. NO. 21-71 CAT. NO. 21-72



CAT. NO. 21-73 CAT. NO. 21-74



CAT. NO. 21-79 CAT. NO. 21-80 CAT. NO. 21-81



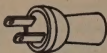
CAT. NO. 21-84 CAT. NO. 21-85 CAT. NO. 21-86

DABURN ELECTRONICS & CABLE CORP.

PLUGS • JACKS • SPIRAL WRAP • CLIPS

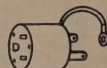
RUBBER MALE PLUG

URN No.	Standard Package	
30	2 Prong Male Plug — Brass Rated: 15 Amps, 125V.	100



ADAPTER FOR 3 PRONG PLUG IN STANDARD OUTLETS

URN No.	Standard Package	
19	Adapter	50



3 PRONG MALE PLUG

URN No.	Standard Package	
17	2 Parallel Blades and Ground Pin	50



FEMALE CONNECTOR

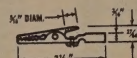
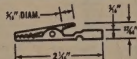
URN No.	Standard Package	
31	Male to 9-17	50



ALLIGATOR CLIPS

cadmium plated. 5 amp continuous duty. $\frac{1}{2}$ " opening. Jaws match accurately, grips securely. Replaces standard banana plugs.

URN No.	Standard Package	
33	Clip (no screw)	50
35	Clip (with screw)	50



PLASTIC WIRE TIES

Useful for temporary or permanent installation. Can be adapted for immediate bundling or harnessing. Insulated. Has .016" steel gauge, $\frac{5}{32}$ " wide, $\frac{1}{8}$ " test.

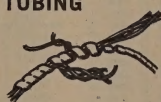
TEMPERATURE: -20°F to $+90^{\circ}\text{C}$.

URN No.	Package Standard	
33	Plastic Wire Ties	100', 500', 1000'

COLORS: White, Blue, Red, Green, Yellow.

SPIRAL WRAP — PLASTIC TUBING FOR HARNESSES

Available in two formulations: Polyethylene and Nylon (flame retardant) Polyethylene. Easily applied. Twists on easily. Can be flexed repeatedly without cracking or breaking. Reusable. Fits around sharp corners. Expandable.



POLYETHYLENE (Clear)

URN No.	Covers Wire Groups	Outside Diam.	Wall	Standard Package
146	$\frac{1}{8}$ " to $\frac{1}{2}$ "	$\frac{1}{8}$ "	.031"	100', 500', 1000'
147	$\frac{1}{4}$ " to $\frac{1}{2}$ "	$\frac{1}{4}$ "	.058"	100', 500', 1000'
148	$\frac{1}{4}$ " to $\frac{1}{2}$ "	$\frac{1}{4}$ "	.045"	100', 500', 1000'
149	$\frac{3}{8}$ " to $\frac{1}{2}$ "	$\frac{3}{8}$ "	.058"	100', 500', 1000'
150	$\frac{1}{2}$ " to $\frac{3}{4}$ "	$\frac{1}{2}$ "	.058"	100', 500', 1000'

RULAN (White)

151	$\frac{1}{4}$ " to $\frac{1}{2}$ "	$\frac{1}{4}$ "	.058"	100', 500', 1000'
152	$\frac{3}{8}$ " to $\frac{1}{2}$ "	$\frac{3}{8}$ "	.058"	100', 500', 1000'

PHONO JACKS

Available for our Nos. 9-148, 9-147. Positive grip, single $\frac{1}{4}$ " bakelite, $\frac{1}{4}$ " mounting center.

URN No.	Standard Package	
49		100
49-1	Insulating Washer	100



9-149

MINIATURE PHONO JACK

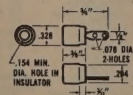
Compact $\frac{1}{4}$ " mounting centers.

49A		100
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PHONO INPUT JACK

Space is at a premium. Mounts in $\frac{1}{4}$ " hole. Fits and grounds to chassis.

49B		100
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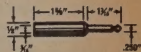
9-149B

TELEPHONE TYPE PLUGS

Fits all standard phone jacks. Body, tip, sleeve is brass, nickel plated. 5 amp. AC rating, continuous duty. 750V. 60 cycle AC.

Bakelite Barrel — specify color red or black.

DABURN Cat. No.	Circuit	Terminals	Standard Package
19-81	2	Solder	100
19-81A	2	Screw	100

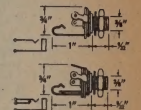


Additional types available

TELEPHONE TYPE JACKS

Body is brass nickel plated. Designed for long life. Nickel silver alloy spring. Rated 10 amp. AC continuous duty. Mounts in $\frac{3}{8}$ " hole in panels up to $\frac{1}{2}$ " thick.

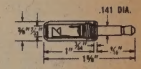
DABURN Cat. No.	Standard Package	
19-157	2 Cond., Open	50
19-158	2 Cond., Closed	50
19-159	3 Cond., Open	50
19-160	3 Cond., Closed	50



MINIATURE PHONE PLUGS

Insulated, molded plastic handle; brass nickel plated body; solder terminals; 5 amp rating continuous duty.

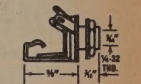
DABURN Cat. No.	Standard Package	
19-130	Solder Term.	50
19-131	Shielded	50



MINIATURE TELEPHONE JACKS

Brass, nickel plated, mounts in $\frac{1}{4}$ " hole in panels up to $\frac{1}{8}$ " thick.

DABURN Cat. No.	Standard Package	
19-132	2 Cond., Open	50
19-133	2 Cond., Closed	50



PHONO PLUGS

STANDARD PHONO PLUGS

RCA Type — useful with record players, recording equipment. Extra large hole in cap .175" for coaxial cable.

DABURN Cat. No.	Standard Package	
9-148	Long Pin 1" Overall	100
9-148S	Short Pin $\frac{1}{4}$ " Overall	100



NEW RCA TYPE PHONO PLUG

Easier to assemble, reduces production costs. Eliminates any damage to shielded cable when connecting and disconnecting equipment.

DABURN Cat. No.	Standard Package	
9-147	Long Pin 1" Overall	100
9-147S	Short Pin $\frac{1}{4}$ " Overall	100



MOTOROLA TYPE PLUGS

Nickel plated $\frac{1}{8}$ " tube pin extends from split brass shell, cadmium plated.

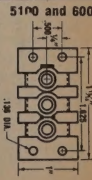
DABURN Cat. No.	Standard Package	
9-146		100
9-146S	For Smaller Cable	100



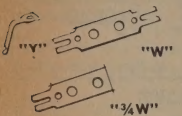
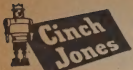
PHONO JACKS

Used on recording equipment, phonographs, etc.

DABURN Cat. No.	Standard Package	
9-150	Double Phono Jack	50
9-150A	Triple Phono Jack	50
9-150B	Quadruple Phono Jack	50
9-150-1	Insulating Washer for 9-150	50

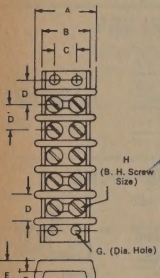


Additional DABURN Products in Sections 2800, 3100.



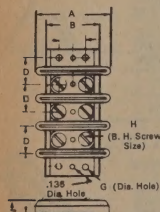
TERMINALS

Barrier type terminal blocks are also available where indicated with "Y" or "W" terminals. Made of hot-solder-dipped brass. For blocks with "W" terminals, change suffix "Y" to "W"; for blocks with "Y" terminals, change suffix "Y" to "W" (2-172-W, 2-172-3/4-W, etc.); same price.



SERIES DIMENSIONS

	140	141	142	164
A	3/8"	1 1/8"	1 1/4"	3/8"
B	1 1/4"	3/8"	1 1/4"	1 1/4"
C	3/8"	2 7/8"	1 1/2"	3/8"
D	3/8"	3/8"	3/8"	3/8"
E	1 1/2"	1 1/2"	1 1/2"	1 1/2"
F	1 1/4"	3/8"	3/8"	1 1/4"
G	1 1/4"	1 1/2"	1 1/2"	1 1/2"
H	5/40	6/32	8/32	6/32
I	3/8"	1/4"	3/8"	1/4"



SERIES DIMENSIONS

	150	151	152
A	1 1/4"	2"	2 1/2"
B	1 1/4"	1 1/2"	1 1/4"
C	3/8"	3/8"	3/8"
D	1 1/4"	3/8"	1 1/4"
E	3/4"	1 1/4"	1 1/4"
F	3/8"	1 1/2"	3/8"
G	1 1/4"	1 1/2"	1 1/2"
H	10/32	12/32	1/2"
I	3/8"	1/4"	3/8"

Barrier Terminal Blocks

Interposed barriers between terminal positions in Jones Barrier Terminal Blocks produce higher voltage ratings and protection from frayed wire faults. Bakelite base has eyelets and binder screws of nickel plated brass.

140 SERIES

C-J No.	Con-tacts	Net Each, Lots of					
		1-24	25-49	50-99	100-249	250-499	500-999
1-140	1	1.98	.15	.125	.10	.095	.09
2-140	2	.225	.18	.15	.12	.114	.108
3-140	3	.263	.21	.175	.14	.132	.126
4-140	4	.33	.264	.22	.176	.167	.158
5-140	5	.405	.324	.27	.216	.205	.194
6-140	6	.465	.372	.31	.248	.236	.223
7-140	7	.533	.426	.355	.284	.27	.256
8-140	8	.608	.486	.405	.324	.308	.292
9-140	9	.675	.54	.45	.36	.342	.324
10-140	10	.75	.60	.50	.40	.38	.36
11-140	11	.81	.648	.54	.432	.41	.389
12-140	12	.885	.708	.59	.472	.448	.425
13-140	13	.953	.762	.635	.508	.483	.457
14-140	14	1.028	.822	.685	.548	.521	.493
15-140	15	1.095	.876	.73	.584	.555	.526
16-140	16	1.163	.924	.775	.62	.59	.558
17-140	17	1.23	.984	.82	.656	.623	.59
18-140	18	1.298	1.038	.865	.692	.657	.623
19-140	19	1.365	1.092	.91	.728	.692	.655
20-140	20	1.433	1.146	.965	.784	.739	.698
21-140	21	1.508	1.208	1.005	.804	.764	.724

141 SERIES

C-J No.	Con-tacts	Net Each, Lots of					
		1-24	25-49	50-99	100-249	250-499	500-999
1-141	1	.225	.18	.15	.12	.114	.108
2-141	2	.248	.198	.165	.132	.125	.119
3-141	3	.338	.27	.225	.18	.171	.162
4-141	4	.428	.342	.285	.228	.217	.205
5-141	5	.518	.414	.345	.276	.262	.248
6-141	6	.593	.474	.395	.316	.308	.294
7-141	7	.698	.558	.465	.372	.353	.335
8-141	8	.78	.624	.52	.416	.395	.374
9-141	9	.863	.69	.575	.46	.437	.414
10-141	10	.95	.736	.64	.514	.485	.461
11-141	11	1.043	.834	.695	.556	.528	.50
12-141	12	1.125	.90	.75	.60	.57	.54
13-141	13	1.215	.972	.81	.648	.616	.583
14-141	14	1.305	1.044	.87	.696	.661	.626
15-141	15	1.388	.11	.925	.74	.703	.668
16-141	16	1.478	1.182	.985	.788	.749	.709
17-141	17	1.568	1.254	1.045	.836	.794	.752
18-141	18	1.658	1.326	1.105	.884	.84	.796
19-141	19	1.748	1.398	1.165	.935	.885	.839
20-141	20	1.838	1.47	1.225	.98	.931	.882

142 SERIES

C-J No.	Con-tacts	Net Each, Lots of					
		1-24	25-49	50-99	100-249	250-499	500-999
1-142	1	.248	.198	.165	.132	.125	.119
2-142	2	.30	.24	.20	.16	.152	.144
3-142	3	.405	.324	.27	.216	.205	.194
4-142	4	.51	.408	.34	.272	.258	.245
5-142	5	.615	.492	.41	.328	.312	.295
6-142	6	.728	.582	.485	.388	.369	.349
7-142	7	.84	.672	.56	.448	.426	.403
8-142	8	.945	.756	.63	.504	.479	.454
9-142	9	1.05	.84	.70	.56	.532	.504
10-142	10	1.17	.936	.78	.62	.593	.562
11-142	11	1.275	1.02	.85	.68	.646	.612
12-142	12	1.388	1.11	.925	.74	.703	.668
13-142	13	1.50	1.20	1.00	.80	.76	.72
14-142	14	1.613	1.29	1.075	.86	.817	.774
15-142	15	1.725	1.38	1.15	.92	.874	.828
16-142	16	1.838	1.47	1.225	.98	.931	.882
17-142	17	1.95	1.56	1.30	1.04	.988	.936

150 SERIES

C-J No.	Con-tacts	Net Each, Lots of					
		1-24	25-49	50-99	100-249	250-499	500-999
1-150	1	.563	.45	.375	.30	.285	.27
2-150	2	.75	.60	.50	.40	.38	.36
3-150	3	1.05	.84	.70	.56	.532	.504
4-150	4	1.358	.108	.905	.724	.688	.652
5-150	5	1.665	1.332	1.11	.888	.84	.799
6-150	6	1.973	1.578	1.315	1.052	.999	.947
7-150	7	2.28	1.824	1.52	1.216	1.155	1.094
8-150	8	2.588	.207	1.725	1.38	1.31	1.242
9-150	9	2.895	.236	1.93	1.544	1.467	1.39
10-150	10	3.203	.262	2.135	1.708	1.623	1.537

151 SERIES

C-J No.	Con-tacts	Net Each, Lots of					
		1-24	25-49	50-99	100-249	250-499	500-999
1-151	1	.825	.66	.55	.44	.418	.396
2-151	2	1.35	1.08	.90	.72	.684	.648
3-151	3	1.95	1.56	1.30	1.04	.988	.936
4-151	4	2.55	2.04	1.70	1.38	1.282	1.224
5-151	5	3.15	2.52	2.10	1.68	1.586	1.512
6-151	6	3.75	3.00	2.50	2.00	1.90	1.82
7-151	7	4.35	3.48	2.90	2.32	2.204	2.088
8-151	8	4.95	3.96	3.30	2.64	2.508	2.376

152 SERIES

C-J No.	Con-tacts	Net Each, Lots of					
		1-24	25-49	50-99	100-249	250-499	500-999
1-152	1	1.575	1.28	1.05	.840	.798	.756
2-152	2	2.25	1.80	1.50	1.20	1.14	1.08
3-152	3	3.075	.446	2.05	1.60	1.558	1.476
4-152	4	3.90	3.12	2.60	2.08	1.976	1.872
5-152	5	4.725	.778	3.15	2.52	2.394	2.268
6-152	6	5.55	.444	3.70	2.96	2.812	2.664

140-Y, 3/4W, W SERIES

C-J No.	Con-tacts	Net Each, Lots of					
		1-24	25-49	50-99	100-249	250-499	500-999
1-140-Y	1	.225	.18	.15	.12	.114	.108
2-140-Y	2	.285	.228	.19	.152	.144	.138
3-140-Y	3	.353	.282	.235	.188	.179	.171
4-140-Y	4	.465	.372	.31	.248	.236	.223
5-140-Y	5	.578	.462	.385	.308	.293	.283
6-140-Y	6	.668	.534	.445	.356	.338	.326
7-140-Y	7	.773	.618	.515	.412	.391	.376
8-140-Y	8	.878	.702	.585	.468	.445	.426
9-140-Y	9	.983	.786	.655	.524	.498	.474
10-140-Y	10	1.088	.87	.725	.58	.551	.526
11-140-Y	11	1.185	.948	.79	.632	.60	.574
12-140-Y	12	1.29	1.032	.86	.688	.654	.626
13-140-Y	13	1.395	1.116	.93	.744	.707	.678
14-140-Y	14	1.50	1.20	1.00	.80	.76	.72
15-140-Y	15	1.605	1.284	1.07	.856	.813	.774
16-140-Y	16	1.703	1.362	1.135	.908	.863	.824
17-140-Y	17	1.808	1.446	1.205	.964	.916	.874
18-140-Y	18	1.905	1.524	1.27	1.016	.965	.924
19-140-Y	19	2.01	1.608	1.34	1.072	1.018	.974
20-140-Y	20	2.116	1.688	1.405	1.124	1.068	1.024
21-140-Y	21	2.22	1.778	1.48	1.184	1.125	1.08

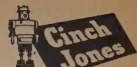
*For 3/4W or W Series, substitute for 4, such as 1-140-3/4W. Mounting Centers and Overall Lengths same as 140 Series.

141-Y, 3/4W, W SERIES

C-J No.	Con-tacts	Net Each, Lots of					
		1-24	25-49	50-99	100-249	250-499	500-999
1-141-Y	1	.27	.216	.18	.144	.137	.13
2-141-Y	2	.338	.27	.225	.18	.171	.162
3-141-Y	3	.473	.378	.315	.252	.239	.226
4-141-Y	4	.608	.486	.405	.324	.308	.292
5-141-Y	5	.743	.594	.495	.396	.376	.358
6-141-Y	6	.878	.696	.575	.468	.445	.426
7-141-Y	7	1.005	.804	.67	.536	.509	.484
8-141-Y	8	1.140	.912	.76	.608	.578	.551
9-141-Y	9	1.288	1.014	.845	.676	.642	.614
10-141-Y	10	1.41	1.128	.94	.752	.714	.684
11-141-Y	11	1.538	1.23	1.025	.82	.784	.752
12-141-Y	12	1.665	1.332	1.11	.888	.844	.812
13-141-Y	13	1.80	1.44	1.20	.96	.912	.874
14-141-Y	14	1.935	1.548	1.29	1.032	.98	.94
15-141-Y	15	2.063	.85	1.375	1.10	1.045	.998
16-141-Y	16	2.198	1.758	1.465	1.172	1.113	1.041
17-141-Y	17	2.333	1.866	1.555	1.244	1.182	1.11
18-141-Y	18	2.468	1.974	1.645	1.318	1.25	1.17
19-141-Y	19	2.602	2.082	1.735	1.392	1.32	1.24
20-141-Y	20	2.738	2.19	1.825	1.46	1.387	1.3

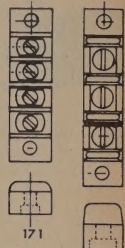
Barrier Terminal Blocks

The new 500 series Jones Barrier Terminal Blocks are designed for applications where electrical and mechanical performance requirements are especially critical. Bottoms are closed so that insulating strips are not required. Lockouts are molded into the base so that Y terminals can be accommodated if desired. The heavy construction adds strength to the block, minimizing warpage and shrinkage. A top-mounted marker strip can be furnished.



170 SERIES SLIDER TERMINAL STRIPS

Heavy solder terminals are made of .032" brass, hot solder coated; mounted on Bakelite. Size, $\frac{1}{2}$ " w. x $\frac{1}{4}$ " thick. Mounting holes, $\frac{1}{8}$ " from center of end terminals.



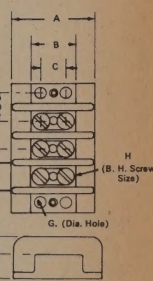
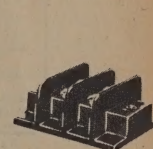
171

174

ELECTRICAL RATINGS

Series	Max. Volts m.s.	Max. Current m.s.	Max. Watts per terminal
140	1100	1200	15
141	1100	1600	20
142	1600	2500	30
150	1700	2600	30
151	1800	3800	70
152	2100	3800	90
164	1100	1200	15
174	1000	2000*	5
540	2300	—	15
541	2800	—	20
542	4000	—	30

*No marker strip available for Series 174.



SERIES DIMENSIONS

	540	541	542
A	$\frac{1}{2}$ "	$\frac{1}{2}$ "	$\frac{1}{2}$ "
B	$\frac{1}{2}$ "	$\frac{1}{2}$ "	$\frac{1}{2}$ "
C	$\frac{3}{4}$ "	$\frac{3}{4}$ "	$\frac{1}{2}$ "
D	$\frac{3}{4}$ "	$\frac{3}{4}$ "	$\frac{1}{2}$ "
E	$\frac{3}{4}$ "	$\frac{1}{2}$ "	$\frac{1}{2}$ "
F	$\frac{3}{4}$ "	$\frac{3}{4}$ "	$\frac{1}{2}$ "
G	1.60"	.175"	.209"
H	5/40	6/32	8/32
	$\frac{3}{16}$	$\frac{1}{4}$	$\frac{3}{16}$

540 SERIES

C-J No.	Con-tacts	1-24	25-49	50-99	100-249
1-540	1	.68	.54	.34	.26
2-540	2	.75	.60	.40	.32
3-540	3	.83	.66	.46	.38
4-540	4	.90	.72	.52	.44
5-540	5	.98	.78	.58	.50
6-540	6	1.05	.84	.64	.56
7-540	7	1.13	.90	.70	.62
8-540	8	1.20	.96	.76	.68
9-540	9	1.28	1.02	.82	.74
10-540	10	1.35	1.08	.88	.80
11-540	11	1.43	1.14	.94	.86
12-540	12	1.50	1.20	1.00	.92
13-540	13	1.58	1.26	1.06	.98
14-540	14	1.65	1.32	1.12	1.04
15-540	15	1.73	1.38	1.18	1.10
16-540	16	1.80	1.44	1.24	1.16
17-540	17	1.88	1.50	1.30	1.22
18-540	18	1.95	1.56	1.36	1.28
19-540	19	2.03	1.62	1.42	1.34
20-540	20	2.10	1.68	1.48	1.40
21-540	21	2.18	1.74	1.54	1.46
22-540	22	2.25	1.80	1.60	1.52
23-540	23	2.32	1.86	1.66	1.58
24-540	24	2.40	1.92	1.72	1.64
25-540	25	2.48	1.98	1.78	1.70
26-540	26	2.55	2.04	1.84	1.76
27-540	27	2.63	2.10	1.90	1.82
28-540	28	2.70	2.16	1.96	1.88
29-540	29	2.78	2.22	2.02	1.94
30-540	30	2.85	2.28	2.08	2.00
31-540	31	2.93	2.34	2.14	2.06

541 SERIES

C-J No.	Con-tacts	1-24	25-49	50-99	100-249
1-541	1	.73	.58	.38	.30
2-541	2	.80	.64	.44	.36
3-541	3	.88	.70	.50	.42
4-541	4	.95	.76	.56	.48
5-541	5	1.03	.82	.62	.54
6-541	6	1.10	.88	.68	.60
7-541	7	1.19	.95	.75	.67
8-541	8	1.27	1.01	.81	.73
9-541	9	1.34	1.07	.87	.79
10-541	10	1.42	1.13	.93	.85
11-541	11	1.49	1.19	.99	.91
12-541	12	1.58	1.26	1.06	.98
13-541	13	1.65	1.32	1.12	1.04
14-541	14	1.73	1.38	1.18	1.10
15-541	15	1.80	1.44	1.24	1.16
16-541	16	1.88	1.50	1.30	1.22
17-541	17	1.97	1.57	1.37	1.29
18-541	18	2.04	1.64	1.43	1.35
19-541	19	2.12	1.69	1.49	1.41
20-541	20	2.19	1.75	1.55	1.47
21-541	21	2.27	1.81	1.61	1.53
22-541	22	2.36	1.88	1.68	1.60
23-541	23	2.43	1.94	1.74	1.66
24-541	24	2.51	2.00	1.80	1.72
25-541	25	2.58	2.06	1.86	1.78
26-541	26	2.66	2.12	1.92	1.84
27-541	27	2.74	2.19	1.99	1.91
28-541	28	2.81	2.25	2.05	1.97
29-541	29	2.89	2.31	2.11	2.03
30-541	30	2.96	2.37	2.17	2.09

542 SERIES

C-J No.	Con-tacts	1-24	25-49	50-99	100-249
1-542	1	.75	.60	.40	.30
2-542	2	.85	.68	.48	.38
3-542	3	.95	.76	.56	.46
4-542	4	1.05	.84	.64	.54
5-542	5	1.15	.92	.72	.62
6-542	6	1.25	1.00	.80	.70
7-542	7	1.35	1.08	.88	.78
8-542	8	1.45	1.16	.96	.86
9-542	9	1.55	1.24	1.04	.94
10-542	10	1.65	1.32	1.12	1.02
11-542	11	1.75	1.40	1.20	1.10
12-542	12	1.85	1.48	1.28	1.18
13-542	13	1.95	1.56	1.36	1.26
14-542	14	2.05	1.64	1.44	1.34
15-542	15	2.15	1.72	1.52	1.42
16-542	16	2.25	1.80	1.60	1.50
17-542	17	2.35	1.88	1.68	1.58
18-542	18	2.45	1.96	1.76	1.66
19-542	19	2.55	2.04	1.84	1.74
20-542	20	2.65	2.12	1.92	1.82
21-542	21	2.75	2.20	2.00	1.90
22-542	22	2.85	2.28	2.08	1.98
23-542	23	2.95	2.36	2.16	2.06
24-542	24	3.05	2.44	2.24	2.14
25-542	25	3.15	2.52	2.32	2.22
26-542	26	3.25	2.60	2.40	2.30

SOLDER TERMINALS

W-Type	C-J No.	%W-Type	Y-Type	1-499	500-999	1000-9999
W-140	%W-140	Y-140	.025	.023	.02	
W-141	%W-141	Y-141	.035	.032	.028	
W-142	%W-142	Y-142	.04	.036	.032	
W-150	—	—	.075	.068	.06	
W-151	—	—	.10	.08	.07	
W-152	—	—	.175	.168	.14	

170 SERIES TERMINAL STRIPS

Con-tacts	Mtg. Ctrs.	1-24	25-49	50-99	100-249	250-499
2	3"	.213	.17	.142	.114	.108
3	2 1/4"	.255	.204	.17	.136	.129
4	3 1/4"	.308	.248	.205	.164	.156
5	4 1/4"	.36	.288	.24	.192	.182
6	2 1/2"	.413	.33	.278	.22	.209
7	2 3/4"	.465	.372	.31	.248	.238
8	3"	.518	.414	.345	.278	.262
9	3 3/4"	.57	.458	.38	.304	.289
10	3 1/2"	.623	.498	.415	.332	.316
11	4"	.675	.54	.45	.36	.342

171 SERIES

Con-tacts	1-24	25-49	50-99	100-249	250-499	500-999
2	.263	.21	.175	.14	.133	.126
3	.323	.258	.215	.172	.155	
4	.383	.306	.255	.204	.194	.184
5	.443	.354	.295	.236	.224	.212
6	.503	.402	.335	.268	.255	.241
7	.563	.455	.375	.30	.285	.27
8	.623	.498	.415	.332	.315	.299

172 SERIES

Con-tacts	1-24	25-49	50-99	100-249	250-499	500-999
2	.45	.36	.30	.24	.228	.216
3	.57	.456	.38	.304	.289	.274
4	.69	.552	.46	.368	.35	.331
5	.81	.648	.54	.432	.41	.389
6	.93	.744	.62	.496	.47	.446
7	1.05	.84	.70	.56	.532	.504
8	1.17	.936	.78	.624	.593	.562
9	1.29	1.032	.86	.688	.654	.619
10	1.41	1.128	.94	.752	.714	.677
11	1.53	1.224	1.02	.816	.775	.734
12	1.65	1.32	1.10	.88	.836	.792
13	1.77	1.416	1.18	.944	.897	.85
14	1.89	1.512	1.26	1.008	.958	.907

172-Y, 3/4W, W SERIES

Con-tacts	1-24	25-49	50-99	100-249	250-499	500-999
2	.51	.408	.34	.272	.258	.245
3	.66	.528	.44	.352	.334	.317
4	.81	.648	.54	.432	.41	.389
5	.96	.768	.64	.512	.486	.461
6	1.11	.888	.74	.592	.562	.533
7	1.26	1.008	.84	.672	.638	.605
8	1.41	1.128	.94	.752	.714	.677
9	1.56	1.248	1.04	.832	.79	.749
10	1.71	1.368	1.14	.912	.866	.821
11	1.86	1.488	1.24	.992	.942	.893
12	2.01	1.608	1.34	1.072	1.018	.965
13	2.16	1.728	1.44	1.152	1.094	1.037
14	2.31	1.848	1.54	1.232	1.17	1.109

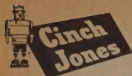
Y and W Series, substitute for Y, such as 2-172-3/4W. Mounting and Overall Lengths, same as 172 Series.

173 SERIES

Con-tacts	1-24	25-49	50-99	100-249	250-499	500-999
2	.255	.204	.17	.136	.129	.122
3	.345	.276	.23	.184	.175	.166
4	.435	.348	.29	.232	.22	.209
5	.525	.42	.35	.28	.266	.252
6	.615	.492	.41	.328	.312	.295
7	.705	.564	.47	.378	.357	.339
8	.795	.636	.53	.424	.403	.382
9	.885	.708	.59	.472	.448	.425
10	.975	.78	.65	.52	.494	.468

174 SERIES

1/4 Series						
Con- tacts	Net Each, Lots of					
	1-24	25-49	50-99	100-249	250-499	500-999
2	.21	.168	.14	.112	.106	.101
3	.278	.222	.185	.148	.141	.133
4	.345	.276	.23	.184	.175	.166
5	.413	.33	.275	.22	.209	.198
6	.48	.384	.32	.256	.243	.23
7	.548	.438	.365	.292	.277	.263
8	.615	.492	.41	.328	.312	.295
9	.683	.546	.455	.364	.346	.328
10	.75	.60	.50	.40	.38	.36



Barrier Block Fanning Strips

Fanning strips serve as a convenient means for rapidly making and removing connections from barrier terminal blocks. They facilitate cable or harness wiring and minimize the possibility of subsequent wiring errors. Both straight and angle type fanning strips are available. Terminals are made of .032" brass, cadmium-plated. The 3/32" thick, 1/2" wide XP black phenolic mounts are furnished with a hole, in either the right or left side, for securing the cable with lacing twine. For larger sizes, use of a cable clamp is recommended.



STRAIGHT TYPE FANNING STRIPS—160 SERIES

160 SERIES	No. of Term.	160A SERIES		160B SERIES		Net Each, Lots of			
		C. C. Hole on left	C. C. Hole on right	C. C. Hole on left	C. C. Hole on right	1-24	25-49	50-99	100-249
 Fits 140 Series Barrier Blocks 3/4" Terminal Centers	2	2-160-L	2-160-R	2-160B-L	2-160B-R	.36	.29	.24	.23
	3	3-160-L	3-160-R	3-160B-L	3-160B-R	.39	.31	.26	.25
	4	4-160-L	4-160-R	4-160B-L	4-160B-R	.44	.35	.29	.28
	5	5-160-L	5-160-R	5-160B-L	5-160B-R	.47	.37	.31	.30
	6	6-160-L	6-160-R	6-160B-L	6-160B-R	.51	.41	.34	.33
	7	7-160-L	7-160-R	7-160B-L	7-160B-R	.54	.43	.36	.35
	8	8-160-L	8-160-R	8-160B-L	8-160B-R	.57	.45	.38	.38
	9	9-160-L	9-160-R	9-160B-L	9-160B-R	.62	.49	.41	.40
	10	10-160-L	10-160-R	10-160B-L	10-160B-R	.66	.53	.44	.43
	11	11-160-L	11-160-R	11-160B-L	11-160B-R	.69	.55	.46	.45
 Fits 140 Series Barrier Blocks 3/4" Terminal Centers	12	12-160-L	12-160-R	12-160B-L	12-160B-R	.74	.59	.49	.48
	13	13-160-L	13-160-R	13-160B-L	13-160B-R	.77	.61	.51	.50
	14	14-160-L	14-160-R	14-160B-L	14-160B-R	.81	.65	.54	.53
	15	15-160-L	15-160-R	15-160B-L	15-160B-R	.83	.67	.56	.55
	16	16-160-L	16-160-R	16-160B-L	16-160B-R	.88	.70	.59	.58
	17	17-160-L	17-160-R	17-160B-L	17-160B-R	.94	.75	.63	.60
	18	18-160-L	18-160-R	18-160B-L	18-160B-R	.98	.79	.66	.63
	19	19-160-L	19-160-R	19-160B-L	19-160B-R	1.04	.83	.70	.65
	20	20-160-L	20-160-R	20-160B-L	20-160B-R	1.09	.87	.73	.68
	21	21-160-L	21-160-R	21-160B-L	21-160B-R	1.15	.92	.77	.70

ANGLE TYPE FANNING STRIPS—160 SERIES

160A SERIES	No. of Term.	160A SERIES		160BA SERIES		Net Each, Lots of			
		C. C. Hole on left	C. C. Hole on right	C. C. Hole on left	C. C. Hole on right	1-24	25-49	50-99	100-249
 Fits 140 Series Barrier Blocks 3/4" Terminal Centers	2	2-160-AL	2-160-AR	2-160B-AL	2-160B-AR	.39	.31	.26	.25
	3	3-160-AL	3-160-AR	3-160B-AL	3-160B-AR	.44	.35	.29	.28
	4	4-160-AL	4-160-AR	4-160B-AL	4-160B-AR	.48	.38	.32	.31
	5	5-160-AL	5-160-AR	5-160B-AL	5-160B-AR	.54	.43	.36	.34
	6	6-160-AL	6-160-AR	6-160B-AL	6-160B-AR	.60	.48	.40	.37
	7	7-160-AL	7-160-AR	7-160B-AL	7-160B-AR	.62	.49	.41	.40
	8	8-160-AL	8-160-AR	8-160B-AL	8-160B-AR	.66	.53	.44	.43
	9	9-160-AL	9-160-AR	9-160B-AL	9-160B-AR	.70	.56	.47	.46
	10	10-160-AL	10-160-AR	10-160B-AL	10-160B-AR	.75	.60	.50	.48
	11	11-160-AL	11-160-AR	11-160B-AL	11-160B-AR	.80	.64	.53	.52
 Fits 140 Series Barrier Blocks 3/4" Terminal Centers	12	12-160-AL	12-160-AR	12-160B-AL	12-160B-AR	.83	.67	.56	.55
	13	13-160-AL	13-160-AR	13-160B-AL	13-160B-AR	.90	.72	.60	.59
	14	14-160-AL	14-160-AR	14-160B-AL	14-160B-AR	.99	.79	.66	.63
	15	15-160-AL	15-160-AR	15-160B-AL	15-160B-AR	1.08	.86	.72	.67
	16	16-160-AL	16-160-AR	16-160B-AL	16-160B-AR	1.16	.92	.77	.72
	17	17-160-AL	17-160-AR	17-160B-AL	17-160B-AR	1.21	.97	.81	.76
	18	18-160-AL	18-160-AR	18-160B-AL	18-160B-AR	1.28	1.02	.85	.80
	19	19-160-AL	19-160-AR	19-160B-AL	19-160B-AR	1.35	1.08	.90	.85
	20	20-160-AL	20-160-AR	20-160B-AL	20-160B-AR	1.41	1.13	.94	.89
	21	21-160-AL	21-160-AR	21-160B-AL	21-160B-AR	1.47	1.18	.96	.94

STRAIGHT TYPE—161 SERIES

No. of Term.	C. C. Hole on left	C. C. Hole on right	Net Each, Lots of			
			1-24	25-49	50-99	100-249
2	2-161-L	2-161-R	.36	.29	.24	.23
3	3-161-L	3-161-R	.39	.31	.26	.25
4	4-161-L	4-161-R	.44	.35	.29	.28
5	5-161-L	5-161-R	.47	.37	.31	.30
6	6-161-L	6-161-R	.51	.41	.34	.33
7	7-161-L	7-161-R	.54	.43	.36	.35
8	8-161-L	8-161-R	.59	.47	.39	.38
9	9-161-L	9-161-R	.62	.49	.41	.40
10	10-161-L	10-161-R	.66	.53	.44	.43
11	11-161-L	11-161-R	.69	.55	.46	.45
12	12-161-L	12-161-R	.74	.59	.49	.48
13	13-161-L	13-161-R	.77	.61	.51	.50
14	14-161-L	14-161-R	.81	.65	.54	.53
15	15-161-L	15-161-R	.83	.67	.56	.55
16	16-161-L	16-161-R	.88	.70	.59	.58
17	17-161-L	17-161-R	.94	.75	.63	.60
18	18-161-L	18-161-R	.98	.79	.66	.63
19	19-161-L	19-161-R	1.04	.83	.70	.65
20	20-161-L	20-161-R	1.09	.87	.73	.68

STRAIGHT TYPE—162 SERIES

No. of Term.	C. C. Hole on left	C. C. Hole on right	Net Each, Lots of			
			1-24	25-49	50-99	100-249
2	2-162-L	2-162-R	.39	.31	.26	.25
3	3-162-L	3-162-R	.41	.32	.27	.26
4	4-162-L	4-162-R	.44	.35	.29	.28
5	5-162-L	5-162-R	.47	.37	.31	.30
6	6-162-L	6-162-R	.50	.40	.33	.32
7	7-162-L	7-162-R	.54	.43	.36	.34
8	8-162-L	8-162-R	.56	.44	.37	.36
9	9-162-L	9-162-R	.59	.47	.39	.38
10	10-162-L	10-162-R	.62	.49	.41	.40
11	11-162-L	11-162-R	.65	.52	.43	.42
12	12-162-L	12-162-R	.68	.54	.45	.44
13	13-162-L	13-162-R	.71	.56	.47	.46
14	14-162-L	14-162-R	.74	.59	.49	.48
15	15-162-L	15-162-R	.77	.61	.50	.49
16	16-162-L	16-162-R	.80	.63	.52	.45
17	17-162-L	17-162-R	.90	.72	.60	.54

ANGLE TYPE—161 SERIES

No. of Term.	C. C. Hole on left	C. C. Hole on right	Net Each, Lots of			
			1-24	25-49	50-99	100-249
2	2-161-AL	2-161-AR	.39	.31	.26	.25
3	3-161-AL	3-161-AR	.44	.35	.29	.28
4	4-161-AL	4-161-AR	.48	.38	.32	.31
5	5-161-AL	5-161-AR	.54	.43	.36	.34
6	6-161-AL	6-161-AR	.60	.48	.40	.37
7	7-161-AL	7-161-AR	.62	.49	.41	.40
8	8-161-AL	8-161-AR	.66	.53	.44	.43
9	9-161-AL	9-161-AR	.70	.56	.47	.46
10	10-161-AL	10-161-AR	.75	.60	.50	.49
11	11-161-AL	11-161-AR	.80	.64	.53	.52
12	12-161-AL	12-161-AR	.83	.67	.56	.55
13	13-161-AL	13-161-AR	.90	.72	.60	.59
14	14-161-AL	14-161-AR	.99	.79	.66	.63
15	15-161-AL	15-161-AR	1.08	.86	.72	.67
16	16-161-AL	16-161-AR	1.16	.92	.77	.72
17	17-161-AL	17-161-AR	1.21	.97	.81	.76
18	18-161-AL	18-161-AR	1.28	1.02	.85	.80
19	19-161-AL	19-161-AR	1.35	1.08	.90	.85
20	20-161-AL	20-161-AR	1.41	1.13	.94	.89

ANGLE TYPE—162 SERIES

No. of Term.	C. C. Hole on left	C. C. Hole on right	Net Each, Lots of			
			1-24	25-49	50-99	100-249
2	2-162-AL	2-162-AR	.48	.38	.32	.28
3	3-162-AL	3-162-AR	.57	.46	.38	.32
4	4-162-AL	4-162-AR	.66	.53	.44	.36
5	5-162-AL	5-162-AR	.78	.62	.52	.40
6	6-162-AL	6-162-AR	.87	.70	.58	.48
7	7-162-AL	7-162-AR	.96	.77	.64	.48
8	8-162-AL	8-162-AR	1.08	.86	.72	.52
9	9-162-AL	9-162-AR	1.20	.96	.80	.56
10	10-162-AL	10-162-AR	1.32	1.06	.88	.60
11	11-162-AL	11-162-AR	1.44	1.15	.96	.68
12	12-162-AL	12-162-AR	1.56	1.25	1.04	.68
13	13-162-AL	13-162-AR	1.71	1.37	1.14	.72
14	14-162-AL	14-162-AR	1.83	1.48	1.22	.76
15	15-162-AL	15-162-AR	1.95	1.56	1.30	.80
16	16-162-AL	16-162-AR	2.07	1.66	1.38	.84
17	17-162-AL	17-162-AR	2.19	1.75	1.46	.88



Marker Strips

Marker strips are used for the purpose of labelling terminal positions on barrier terminal blocks and exposed portions of terminals from metallic mounting surface. Marker strip mounting holes correspond with those on appropriate barrier terminal block. Made of 1/32" vulcanized fibre and numbered initially from 1 with legible white numerals. Part number indicates number of terminal positions modulated.

500" series marker strips are made of 1/16" XP Bakelite, 1/4" wide and numbered sequentially from 1 with legible white numerals. Mounted on top of terminal strip as illustrated, with mounting screws.

0 AND 164 SERIES TERMINAL BLOCKS (MARKER STRIPS)

C-J No.	Term.	Net Each, Lots of				
		1-24	25-49	50-99	100-249	250-499
1-140	2	.23	.22	.21	.20	.10
1-140	3	.23	.22	.21	.20	.10
1-140	4	.23	.22	.21	.20	.10
1-140	5	.23	.22	.21	.20	.10
1-140	6	.24	.23	.22	.21	.11
1-140	7	.24	.23	.22	.21	.11
1-140	8	.24	.23	.22	.21	.11
1-140	9	.24	.23	.22	.21	.11
1-140	10	.24	.23	.22	.21	.11
1-140	11	.25	.235	.225	.215	.12
1-140	12	.25	.235	.225	.215	.12
1-140	13	.25	.235	.225	.215	.12
1-140	14	.25	.235	.225	.215	.12
1-140	15	.25	.235	.225	.215	.12
1-140	16	.26	.24	.23	.22	.13
1-140	17	.26	.24	.23	.22	.13
1-140	18	.26	.24	.23	.22	.13
1-140	19	.26	.24	.23	.22	.13
1-140	20	.26	.24	.23	.22	.13
1-140	21	.26	.24	.23	.22	.13

FOR 141 SERIES TERMINAL BLOCKS

C-J No.	Term.	Net Each, Lots of				
		1-24	25-49	50-99	100-249	250-499
1-141	2	.375	.30	.25	.20	.10
1-141	3	.377	.302	.252	.201	.10
1-141	4	.379	.304	.253	.202	.10
1-141	5	.381	.305	.254	.203	.10
1-141	6	.383	.306	.255	.204	.12
1-141	7	.385	.308	.257	.205	.12
1-141	8	.387	.31	.258	.206	.12
1-141	9	.389	.311	.259	.207	.12
1-141	10	.39	.312	.26	.208	.12
1-141	11	.392	.314	.262	.209	.14
1-141	12	.394	.316	.263	.21	.14
1-141	13	.396	.317	.264	.211	.14
1-141	14	.398	.318	.265	.212	.14
1-141	15	.40	.32	.267	.213	.14
1-141	16	.402	.322	.268	.214	.15
1-141	17	.404	.323	.269	.215	.15
1-141	18	.406	.324	.27	.216	.15
1-141	19	.409	.327	.273	.218	.15
1-141	20	.413	.33	.275	.22	.15

FOR 142 SERIES TERMINAL BLOCKS

C-J No.	Term.	Net Each, Lots of				
		1-24	25-49	50-99	100-249	250-499
1-142	2	.23	.22	.21	.20	.11
1-142	3	.23	.22	.21	.20	.11
1-142	4	.23	.22	.21	.20	.11
1-142	5	.23	.22	.21	.20	.11
1-142	6	.23	.22	.21	.20	.11
1-142	7	.24	.23	.22	.21	.13
1-142	8	.24	.23	.22	.21	.13
1-142	9	.24	.23	.22	.21	.13
1-142	10	.24	.23	.22	.21	.13
1-142	11	.24	.23	.22	.21	.13
1-142	12	.25	.24	.23	.22	.15
1-142	13	.25	.24	.23	.22	.15
1-142	14	.25	.24	.23	.22	.15
1-142	15	.25	.24	.23	.22	.15
1-142	16	.30	.29	.28	.27	.19
1-142	17	.30	.29	.28	.27	.19

FOR 540 SERIES TERMINAL BLOCKS

C-J No.	Term.	Net Each, Lots of				
		1-24	25-49	50-99	100-249	250-499
1-540	2	.28	.27	.26	.25	.12
1-540	3	.28	.27	.26	.25	.12
1-540	4	.28	.27	.26	.25	.12
1-540	5	.29	.28	.27	.26	.13
1-540	6	.29	.28	.27	.26	.13
1-540	7	.29	.28	.27	.26	.13
1-540	8	.29	.28	.27	.26	.13
1-540	9	.29	.28	.27	.26	.13
1-540	10	.29	.28	.27	.26	.13
1-540	11	.29	.28	.27	.26	.13
1-540	12	.29	.28	.27	.26	.13
1-540	13	.29	.28	.27	.26	.13
1-540	14	.29	.28	.27	.26	.13
1-540	15	.30	.29	.28	.27	.14
1-540	16	.30	.29	.28	.27	.14
1-540	17	.30	.29	.28	.27	.14
1-540	18	.30	.29	.28	.27	.14
1-540	19	.30	.29	.28	.27	.14
1-540	20	.30	.29	.28	.27	.14
1-540	21	.30	.29	.28	.27	.14
1-540	22	.30	.29	.28	.27	.14

C-J No.	Term.	Net Each, Lots of				
		1-24	25-49	50-99	100-249	250-499
MSX-23-540	23	.30	.29	.28	.27	.14
MSX-24-540	24	.36	.35	.34	.33	.17
MSX-25-540	25	.36	.35	.34	.33	.17
MSX-26-540	26	.36	.35	.34	.33	.17
MSX-27-540	27	.36	.35	.34	.33	.17
MSX-28-540	28	.36	.35	.34	.33	.17
MSX-29-540	29	.36	.35	.34	.33	.17
MSX-30-540	30	.36	.35	.34	.33	.17
MSX-31-540	31	.36	.35	.34	.33	.17

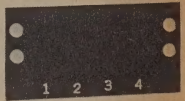


FOR 541 SERIES TERMINAL BLOCKS

C-J No.	Term.	Net Each, Lots of				
		1-24	25-49	50-99	100-249	250-499
MSX-2-541	2	.28	.27	.26	.25	.12
MSX-3-541	3	.28	.27	.26	.25	.12
MSX-4-541	4	.28	.27	.26	.25	.12
MSX-5-541	5	.29	.28	.27	.26	.13
MSX-6-541	6	.29	.28	.27	.26	.13
MSX-7-541	7	.29	.28	.27	.26	.13
MSX-8-541	8	.29	.28	.27	.26	.13
MSX-9-541	9	.29	.28	.27	.26	.13
MSX-10-541	10	.29	.28	.27	.26	.13
MSX-11-541	11	.29	.28	.27	.26	.13
MSX-12-541	12	.29	.28	.27	.26	.13
MSX-13-541	13	.29	.28	.27	.26	.13
MSX-14-541	14	.29	.28	.27	.26	.13
MSX-15-541	15	.30	.29	.28	.27	.14
MSX-16-541	16	.30	.29	.28	.27	.14
MSX-17-541	17	.30	.29	.28	.27	.14
MSX-18-541	18	.30	.29	.28	.27	.14
MSX-19-541	19	.30	.29	.28	.27	.14
MSX-20-541	20	.30	.29	.28	.27	.14
MSX-21-541	21	.36	.35	.34	.33	.17
MSX-22-541	22	.36	.35	.34	.33	.17
MSX-23-541	23	.36	.35	.34	.33	.17
MSX-24-541	24	.36	.35	.34	.33	.17
MSX-25-541	25	.36	.35	.34	.33	.17
MSX-26-541	26	.36	.35	.34	.33	.17
MSX-27-541	27	.36	.35	.34	.33	.17
MSX-28-541	28	.36	.35	.34	.33	.17
MSX-29-541	29	.36	.35	.34	.33	.17
MSX-30-541	30	.36	.35	.34	.33	.17

FOR 542 SERIES TERMINAL BLOCKS

C-J No.	Term.	Net Each, Lots of				
		1-24	25-49	50-99	100-249	250-499
MSX-2-542	2	.28	.27	.26	.25	.12
MSX-3-542	3	.28	.27	.26	.25	.12
MSX-4-542	4	.28	.27	.26	.25	.12
MSX-5-542	5	.29	.28	.27	.26	.13
MSX-6-542	6	.29	.28	.27	.26	.13
MSX-7-542	7	.29	.28	.27	.26	.13
MSX-8-542	8	.29	.28	.27	.26	.13
MSX-9-542	9	.29	.28	.27	.26	.13
MSX-10-542	10	.29	.28	.27	.26	.13
MSX-11-542	11	.29	.28	.27	.26	.13
MSX-12-542	12	.29	.28	.27	.26	.13
MSX-13-542	13	.29	.28	.27	.26	.13
MSX-14-542	14	.29	.28	.27	.26	.13
MSX-15-542	15	.29	.28	.27	.26	.13
MSX-16-542	16	.35	.34	.33	.32	.16
MSX-17-542	17	.35	.34	.33	.32	.16
MSX-18-542	18	.35	.34	.33	.32	.16
MSX-19-542	19	.35	.34	.33	.32	.16
MSX-20-542	20	.36	.35	.34	.33	.17
MSX-21-542	21	.36	.35	.34	.33	.17
MSX-22-542	22	.36	.35	.34	.33	.17
MSX-23-542	23	.36	.35	.34	.33	.17
MSX-24-542	24	.36	.35	.34	.33	.17
MSX-25-542	25	.36	.35	.34	.33	.17
MSX-26-542	26	.36	.35	.34	.33	.17



"Y" TYPE AVAILABLE AT SLIGHT EXTRA COST



"Jones" Type Plugs, Sockets

300 SERIES CONNECTORS are from the famous line of "Jones" plugs and sockets which have been standard of the electrical and electronic industry for over a generation. For medium duty applications they are small in size with good separation between contacts.

Molded bakelite insulator has 2 to 33 cadmium-plated phosphor-bronze contacts, for cap or panel mounting. All plugs and sockets are polarized so that plugs of one size cannot fit into sockets of another size. "Knife-switch" type socket contacts engage both sides of flat plug contacts, providing double contact area. Rated Voltage...730 Volts rms. Contact Resistance...0.016 Ohms max. Rated Current...10A max.

In accordance with UL Standard #498, (all contacts carrying "rated" current simultaneously) as follows: Current (2-12 contacts).....7.5 amperes Wattage (2-12 contacts).....1875 watts
(15-33 contacts).....4.5 amperes (15-33 contacts).....1,125 watts

PLUGS WITH ANGLE BRACKETS

C-J No.	Con-tacts	Net Each, Lots of			
		1-24	25-49	50-99	100-249 250-499
P-302-AB	2	.285	.228	.19	.152 .144
P-303-AB	3	.33	.264	.22	.176 .167
P-304-AB	4	.368	.294	.245	.156 .186
P-306-AB	6	.458	.366	.305	.244 .232
P-308-AB	8	.525	.42	.35	.28 .266
P-310-AB	10	.593	.474	.395	.316 .30
P-312-AB	12	.658	.528	.44	.352 .34
P-315-AB	15	.885	.708	.59	.472 .448
P-318-AB	18	1.065	.852	.71	.568 .54
P-321-AB	21	1.335	1.068	.89	.712 .676
P-324-AB	24	1.62	1.296	1.08	.864 .821
P-327-AB	27	1.898	1.518	1.265	1.012 .961
P-330-AB	30	2.175	1.74	1.45	1.16 .1102
P-333-AB	33	2.445	1.956	1.63	1.304 .1239

PLUGS WITH CABLE CLAMPS/TOP

C-J No.	Con-tacts	Net Each, Lots of			
		1-24	25-49	50-99	100-249 250-499
P-302-CCT	2	.60	.48	.40	.32 .304
P-303-CCT	3	.66	.558	.44	.352 .334
P-304-CCT	4	.698	.558	.465	.372 .353
P-306-CCT	6	.795	.636	.53	.424 .403
P-308-CCT	8	.863	.69	.575	.46 .437
P-310-CCT	10	.953	.762	.635	.508 .483
P-312-CCT	12	1.028	.822	.685	.548 .521
P-315-CCT	15	1.373	1.098	.915	.732 .695
P-318-CCT	18	1.598	1.278	1.065	.852 .809
P-321-CCT	21	1.913	1.53	1.275	1.02 .969
P-324-CCT	24	2.243	1.794	1.495	1.196 .1136
P-327-CCT	27	2.565	2.052	1.71	1.368 .130
P-330-CCT	30	2.888	2.31	1.925	1.54 .1463
P-333-CCT	33	3.203	2.562	2.135	1.708 .1623

PLUGS WITH CABLE CLAMPS/TOP & LOCKS

C-J No.	Con-tacts	Net Each, Lots of			
		1-24	25-49	50-99	100-249 250-499
P-302-CCT-L	2	.75	.60	.50	.40 .38
P-303-CCT-L	3	.81	.648	.54	.432 .41
P-304-CCT-L	4	.848	.678	.565	.452 .429
P-306-CCT-L	6	.945	.756	.63	.504 .479
P-308-CCT-L	8	1.013	.81	.675	.54 .513
P-310-CCT-L	10	1.103	.882	.735	.588 .559
P-312-CCT-L	12	1.178	.942	.785	.628 .597
P-315-CCT-L	15	1.523	1.218	1.015	.812 .771
P-318-CCT-L	18	1.748	1.398	1.165	.932 .885
P-321-CCT-L	21	2.063	1.65	1.375	1.10 .1045
P-324-CCT-L	24	2.393	1.914	1.595	1.276 .1212
P-327-CCT-L	27	2.715	2.172	1.81	1.448 .1376
P-330-CCT-L	30	3.038	2.43	2.025	1.62 .1543
P-333-CCT-L	33	3.353	2.682	2.235	1.788 .1699

PLUGS WITH CABLE CLAMPS/END

C-J No.	Con-tacts	Net Each, Lots of			
		1-24	25-49	50-99	100-249 250-499
P-306-CCE	6	.833	.666	.555	.444 .422
P-308-CCE	8	.90	.72	.60	.48 .456
P-310-CCE	10	.99	.792	.66	.528 .502
P-312-CCE	12	1.065	.852	.71	.568 .54
P-315-CCE	15	1.41	1.128	.94	.752 .714
P-318-CCE	18	1.635	1.308	1.09	.872 .828
P-321-CCE	21	1.95	1.504	1.30	.988 .94
P-324-CCE	24	2.28	1.824	1.52	1.216 .1155
P-327-CCE	27	2.603	2.082	1.735	1.388 .1319
P-330-CCE	30	2.925	2.34	1.95	1.56 .1482
P-333-CCE	33	3.24	2.592	2.16	1.728 .1642

PLUGS WITH DEEP BRACKETS

C-J No.	Con-tacts	Net Each, Lots of			
		1-24	25-49	50-99	100-249 250-499
P-302-DB	2	.72	.576	.48	.384 .365
P-303-DB	3	.728	.582	.485	.388 .369
P-304-DB	4	.765	.612	.51	.408 .388
P-306-DB	6	.855	.684	.57	.456 .433
P-308-DB	8	.923	.738	.615	.492 .467
P-312-DB	12	1.058	.846	.705	.564 .536
P-315-DB	15	1.298	1.038	.865	.692 .657
P-318-DB	18	1.553	1.242	1.035	.828 .787
P-321-DB	21	1.86	1.488	1.24	.992 .942
P-324-DB	24	2.183	1.746	1.455	1.164 .1106
P-327-DB	27	2.498	1.998	1.665	1.332 .1265
P-330-DB	30	2.813	2.25	1.875	1.50 .1425
P-333-DB	33	3.12	2.496	2.08	1.664 .1581

PLUGS WITH SHALLOW BRACKETS

C-J No.	Con-tacts	Net Each, Lots of			
		1-24	25-49	50-99	100-249 250-499
P-315-SB	15	1.298	1.038	.865	.692 .657
P-318-SB	18	1.553	1.242	1.035	.828 .787
P-321-SB	21	1.86	1.488	1.24	.992 .942
P-324-SB	24	2.183	1.746	1.455	1.164 .1106
P-327-SB	27	2.498	1.998	1.665	1.332 .1265
P-330-SB	30	2.813	2.25	1.875	1.50 .1425
P-333-SB	33	3.12	2.496	2.08	1.664 .1581

SOCKETS WITH ANGLE BRACKETS

C-J No.	Con-tacts	Net Each, Lots of			
		1-24	25-49	50-99	100-249 250-499
S-302-AB	2	.308	.246	.205	.164 .164
S-303-AB	3	.345	.276	.23	.184 .184
S-304-AB	4	.39	.312	.26	.208 .208
S-306-AB	6	.488	.39	.325	.26 .26
S-308-AB	8	.593	.474	.395	.316 .316
S-310-AB	10	.658	.528	.44	.352 .34
S-312-AB	12	.818	.654	.545	.438 .438
S-315-AB	15	1.035	.828	.69	.552 .552
S-318-AB	18	1.193	.954	.795	.636 .636
S-321-AB	21	1.47	1.178	.98	.784 .784
S-324-AB	24	1.748	1.398	1.165	.932 .932
S-327-AB	27	2.025	1.62	1.35	1.08 .108
S-330-AB	30	2.325	1.86	1.55	1.24 .124
S-333-AB	33	2.595	2.076	1.73	1.384 .1384

SOCKETS WITH CABLE CLAMPS/TOP

C-J No.	Con-tacts	Net Each, Lots of			
		1-24	25-49	50-99	100-249 250-499
S-302-CCT	2	.623	.498	.415	.332 .332
S-303-CCT	3	.675	.54	.45	.36 .36
S-304-CCT	4	.72	.576	.48	.384 .384
S-306-CCT	6	.825	.66	.55	.44 .44
S-308-CCT	8	.93	.744	.62	.496 .496
S-310-CCT	10	1.05	.84	.70	.56 .56
S-312-CCT	12	1.195	.948	.79	.632 .632
S-315-CCT	15	1.523	1.218	1.015	.812 .812
S-318-CCT	18	1.725	1.38	1.15	.92 .92
S-321-CCT	21	2.048	1.638	1.365	1.092 .1092
S-324-CCT	24	2.37	1.896	1.58	1.264 .1264
S-327-CCT	27	2.693	2.178	1.795	1.462 .1462
S-330-CCT	30	3.038	2.43	2.025	1.62 .162
S-333-CCT	33	3.353	2.682	2.235	1.788 .1788

SOCKETS WITH CABLE CLAMPS/TOP & KEYPERS

C-J No.	Con-tacts	Net Each, Lots of			
		1-24	25-49	50-99	100-249 250-499
S-302-CCT-K	2	.773	.618	.515	.412 .412
S-303-CCT-K	3	.825	.66	.55	.44 .44
S-304-CCT-K	4	.87	.696	.58	.464 .464
S-306-CCT-K	6	.975	.78	.65	.52 .52
S-308-CCT-K	8	1.08	.864	.72	.576 .576
S-310-CCT-K	10	1.20	.96	.80	.64 .64
S-312-CCT-K	12	1.32	1.088	.89	.712 .712
S-315-CCT-K	15	1.673	1.338	1.115	.892 .892
S-318-CCT-K	18	1.875	1.50	1.25	1.00 .100
S-321-CCT-K	21	2.198	1.758	1.465	1.172 .1172
S-324-CCT-K	24	2.52	2.016	1.68	1.344 .1344
S-327-CCT-K	27	2.843	2.274	1.865	1.516 .1516
S-330-CCT-K	30	3.188	2.55	2.125	1.732 .1732
S-333-CCT-K	33	3.503	2.802	2.335	1.868 .1868

SOCKETS WITH CABLE CLAMPS/END

C-J No.	Con-tacts	Net Each, Lots of			
		1-24	25-49	50-99	100-249 250-499
S-306-CCE	6	.863	.69	.575	.46 .46
S-308-CCE	8	.968	.778	.645	.516 .516
S-310-CCE	10	1.088	.87	.725	.58 .58
S-312-CCE	12	1.223	.978	.815	.652 .652
S-315-CCE	15	1.56	1.248	1.04	.832 .832
S-318-CCE	18	1.763	1.41	1.175	.94 .94
S-321-CCE	21	2.085	1.668	1.41	1.142 .1142
S-324-CCE	24	2.408	1.926	1.605	1.284 .1284
S-327-CCE	27	2.73	2.184	1.82	1.456 .1456
S-330-CCE	30	3.068	2.454	2.045	1.636 .1636
S-333-CCE	33	3.39	2.712	2.26	1.808 .1808

SOCKETS WITH DEEP BRACKETS

C-J No.	Con-tacts	Net Each, Lots of			
		1-24	25-49	50-99	100-249 250-499
S-302-DB	2	.743	.594	.495	.396 .396
S-303-DB	3	.743	.594	.495	.396 .396
S-304-DB	4	.788	.63	.525	.42 .42
S-306-DB	6	.885	.708	.59	.472 .472
S-308-DB	8	.987	.797	.66	.528 .528
S-312-DB	12	1.215	.972	.81	.648 .648
S-315-DB	15	1.448	1.158	.965	.772 .772
S-318-DB	18	1.68	1.344	1.12	.896 .896
S-321-DB	21	1.995	1.596	1.33	1.064 .1064
S-324-DB	24	2.318	1.854	1.545	1.236 .1236
S-327-DB	27	2.625	2.10	1.75	1.40 .140
S-330-DB	30	2.963	2.37	1.975	1.58 .158
S-333-DB	33	3.27	2.616	2.18	1.744 .1744

SOCKETS WITH SHALLOW BRACKETS

C-J No.	Con-tacts	Net Each, Lots of			
		1-24	25-49	50-99	100-249 250-499
S-315-SB	15	1.448	1.158	.965	.772 .772
S-318-SB	18	1.68	1.344	1.12	.896 .896
S-321-SB	21	1.995	1.596	1.33	1.064 .1064
S-324-SB	24	2.318	1.854	1.545	1.236 .1236
S-327-SB	27	2.625	2.10	1.75	1.40 .140
S-330-SB	30	2.963	2.37	1.975	1.58 .158
S-333-SB	33	3.27	2.616	2.18	1.744 .1744

400 SERIES plugs and sockets are rated for duty beyond the range of the 300 series. Maximum rating is 1200 volts r.m.s. at 15 amperes. Average contact resistance is .001 ohms.

2, 4, 6, 8, 10 and 12 contact sizes are available, each size being polarized and suitable for either cap or panel mounting. "Knife-switch" type socket contacts are made of cadmium-plated phosphor bronze. These contacts engage both sides of the flat plug contacts, providing double the contact area.

Plug prongs are made of cadmium-plated brass $\frac{1}{8}$ " wide by $\frac{1}{16}$ " thick. Caps are finished in black wrinkle and equipped with fibre lining.

PLUGS WITH ANGLE BRACKETS

C-J No.	Contacts	Net Each, Lots of				
		1-24	25-49	50-99	100-249	250-499
-AB	2	.675	.54	.45	.36	.342
-AB	4	.825	.66	.55	.44	.418
-AB	6	.975	.78	.65	.52	.494
-AB	8	1.125	.90	.75	.60	.57
-AB	10	1.275	1.02	.85	.68	.646
-AB	12	1.425	1.14	.95	.76	.722

PLUGS WITH CABLE CLAMPS/TOP

C-J No.	Contacts	Net Each, Lots of				
		1-24	25-49	50-99	100-249	250-499
CCT	2	1.125	.90	.75	.60	.57
CCT	4	1.283	1.026	.855	.684	.65
CCT	6	1.478	1.182	.985	.788	.749
CCT	8	1.656	1.338	1.115	.872	.828
CCT	10	1.89	1.512	1.26	1.008	.958
CCT	12	2.063	1.65	1.375	1.10	1.045

PLUGS WITH CABLE CLAMPS/END

C-J No.	Contacts	Net Each, Lots of				
		1-24	25-49	50-99	100-249	250-499
CCE	2	1.163	.93	.775	.62	.589
CCE	4	1.32	1.056	.88	.704	.669
CCE	6	1.515	1.212	1.01	.808	.768
CCE	8	1.673	1.338	1.115	.892	.847
CCE	10	1.928	1.542	1.285	1.028	.977
CCE	12	2.10	1.68	1.40	1.12	1.064

PLUGS WITH DEEP BRACKETS

C-J No.	Contacts	Net Each, Lots of				
		1-24	25-49	50-99	100-249	250-499
DB	2	.90	.72	.60	.48	.456
DB	4	1.095	.876	.73	.584	.555
DB	6	1.29	1.032	.86	.688	.654
DB	8	1.485	1.188	.99	.792	.752
DB	10	1.68	1.344	1.12	.896	.851
DB	12	1.875	1.50	1.25	1.00	.95

PLUGS WITH SHALLOW BRACKETS

C-J No.	Contacts	Net Each, Lots of				
		1-24	25-49	50-99	100-249	250-499
SB	2	.863	.69	.575	.46	.437
SB	4	1.058	.846	.705	.564	.536
SB	6	1.253	1.002	.835	.668	.635
SB	8	1.448	1.158	.965	.772	.733
SB	10	1.643	1.314	1.095	.876	.832
SB	12	1.838	1.47	1.225	.98	.931

2400 SERIES plugs and sockets are designed for excellent electrical and mechanical performance. Ratings for the 2400 Series are the same as for the 400 Series except for a higher voltage rating (400 volts).

All units of the 2400 series are interchangeable with corresponding units of the 400 series.

PLUGS WITH ANGLE BRACKETS

C-J No.	Contacts	Net Each, Lots of				
		1-24	25-49	50-99	100-249	250-499
-AB	2	.765	.612	.51	.408	.388
-AB	4	.945	.756	.63	.504	.479
-AB	6	1.11	.888	.74	.592	.562
-AB	8	1.275	1.02	.85	.68	.646
-AB	10	1.44	1.152	.96	.768	.73
-AB	12	1.605	1.284	1.07	.856	.813

PLUGS WITH CABLE CLAMPS/TOP

C-J No.	Contacts	Net Each, Lots of				
		1-24	25-49	50-99	100-249	250-499
CCT	2	1.245	.996	.83	.664	.631
CCT	4	1.418	1.136	.945	.756	.718
CCT	6	1.59	1.272	1.06	.848	.806
CCT	8	1.763	1.41	1.175	.94	.893
CCT	10	1.935	1.548	1.29	1.032	.98
CCT	12	2.093	1.626	1.355	1.084	1.03

PLUGS WITH CABLE CLAMPS/END

C-J No.	Contacts	Net Each, Lots of				
		1-24	25-49	50-99	100-249	250-499
CCE	2	1.283	1.026	.855	.684	.65
CCE	4	1.464	1.188	.97	.776	.737
CCE	6	1.628	1.302	1.085	.868	.825
CCE	8	1.80	1.44	1.20	.96	.912
CCE	10	1.973	1.578	1.315	1.052	.999
CCE	12	2.145	1.716	1.43	1.144	1.087

PLUGS WITH DEEP BRACKETS

C-J No.	Contacts	Net Each, Lots of				
		1-24	25-49	50-99	100-249	250-499
DB	2	.975	.78	.65	.52	.494
DB	4	1.14	.912	.76	.608	.578
DB	6	1.305	1.044	.87	.696	.661
DB	8	1.47	1.176	.98	.784	.745
DB	10	1.635	1.308	1.09	.872	.828
DB	12	1.86	1.488	1.24	.992	.942

PLUGS WITH SHALLOW BRACKETS

C-J No.	Contacts	Net Each, Lots of				
		1-24	25-49	50-99	100-249	250-499
SB	2	.90	.72	.60	.48	.456
SB	4	1.065	.852	.71	.568	.54
SB	6	1.23	.984	.82	.656	.623
SB	8	1.395	1.116	.93	.744	.707
SB	10	1.56	1.248	1.04	.832	.79
SB	12	1.725	1.38	1.15	.92	.874

SOCKETS WITH ANGLE BRACKETS

C-J No.	Contacts	Net Each, Lots of				
		1-24	25-49	50-99	100-249	250-499
S-402-AB	2	.788	.63	.525	.42	.399
S-404-AB	4	1.013	.81	.675	.54	.513
S-406-AB	6	1.238	.99	.825	.66	.627
S-408-AB	8	1.463	1.17	.975	.78	.741
S-410-AB	10	1.688	1.35	1.125	.90	.855
S-412-AB	12	1.913	1.53	1.275	1.02	.969

SOCKETS WITH CABLE CLAMPS/TOP

C-J No.	Contacts	Net Each, Lots of				
		1-24	25-49	50-99	100-249	250-499
S-402-CCT	2	1.275	1.02	.85	.68	.646
S-404-CCT	4	1.523	1.218	1.015	.812	.771
S-406-CCT	6	1.77	1.416	1.18	.944	.897
S-408-CCT	8	2.018	1.614	1.345	1.076	1.022
S-410-CCT	10	2.265	1.812	1.51	1.208	1.148
S-412-CCT	12	2.513	2.01	1.675	1.34	1.273

SOCKETS WITH CABLE CLAMPS/END

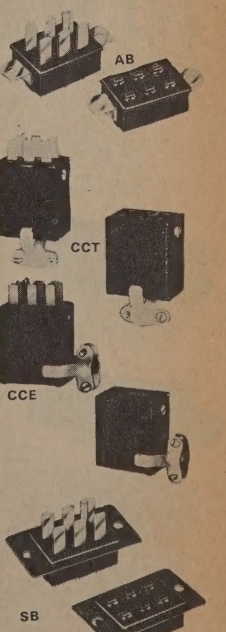
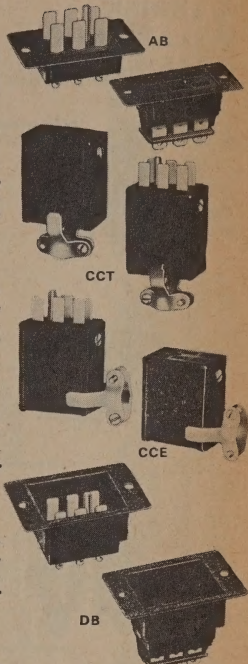
C-J No.	Contacts	Net Each, Lots of				
		1-24	25-49	50-99	100-249	250-499
S-402-CCE	2	1.313	1.05	.875	.70	.665
S-404-CCE	4	1.56	1.248	1.04	.832	.79
S-406-CCE	6	1.808	1.446	1.205	.964	.916
S-408-CCE	8	2.055	1.644	1.37	1.096	1.041
S-410-CCE	10	2.303	1.842	1.535	1.228	1.167
S-412-CCE	12	2.55	2.04	1.70	1.36	1.292

SOCKETS WITH DEEP BRACKETS

C-J No.	Contacts	Net Each, Lots of				
		1-24	25-49	50-99	100-249	250-499
S-402-DB	2	1.013	.81	.675	.54	.513
S-404-DB	4	1.283	1.026	.855	.684	.65
S-406-DB	6	1.553	1.242	1.035	.828	.787
S-408-DB	8	1.823	1.458	1.215	.972	.923
S-410-DB	10	2.093	1.674	1.395	1.116	1.06
S-412-DB	12	2.363	1.89	1.575	1.26	1.197

SOCKETS WITH SHALLOW BRACKETS

C-J No.	Contacts	Net Each, Lots of				
		1-24	25-49	50-99	100-249	250-499
S-402-SB	2	.975	.78	.65	.52	.494
S-404-SB	4	1.245	.996	.83	.664	.631
S-406-SB	6	1.515	1.212	1.01	.808	.768
S-408-SB	8	1.785	1.428	1.19	.952	.904
S-410-SB	10	2.055	1.644	1.37	1.096	1.041
S-412-SB	12	2.325	1.86	1.55	1.24	1.178



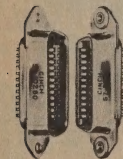
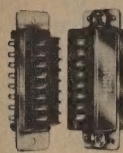


Cinch Jones Connectors

RACK AND PANEL PLUGS AND RECEPTACLES

BLUE Ribbon CONNECTORS

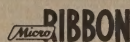
BARRIER POLARIZATION TYPE



Ideal and used universally in a wide variety of applications. Proven reliability combines with smooth, easy insertion and self-wiping and self-cleaning contacts available in linear arrays up to 32 per unit. Barrier-type polarization and interlocking of dielectric bodies gives easy alignment without visual aid. Ribbon contacts can't bend. Rectangular body for layout. Corrosion resistant, passivated stainless steel mounting plates are molded in. **Current:** 5 amps. **Voltage:** 800 at sea level; 300 VDC at 70,000 ft. **Insulator:** Diallyl phthalate per MIL-M-14F. Type MDG. **Contacts:** Gold plate per MIL-G-4204 over silver per QQ-S-365 on copper per ASTM-B-152. Type ETP. **Receptacle Contacts:** Gold plate per MIL-G-4204 over silver per QQ-S-365 on phosphor bronze per ASTM-B-103-51. MIL-B-892, Grade A. **Size:** (Other than in table below): Body $\frac{1}{4}$ " w. x $\frac{1}{4}$ " d. below mtg. plate, socket; $\frac{1}{4}$ " d. plug Mtg. plate $\frac{1}{4}$ " w. Plug mtg. holes $\frac{1}{16}$ " socket, in bushing, $\frac{1}{16}$ " dia. **Code:** Suffix indicates number of contacts (-8, -16, etc.); S, socket; P, plug.

C-J No.		PLUGS				
		Contacts	Net Each, Lots of			
			1-9	10-49	50-99	100-249
26-4100-8P	8	1.01	.85	.69	.62	
26-4100-16P	16	1.89	1.59	1.29	1.16	
26-4100-24P	24	2.27	1.91	1.55	1.39	
26-4100-32P	32	2.64	2.22	1.80	1.62	

C-J No.		RECEPTACLES				
		Contacts	Net Each, Lots of			
			1-9	10-49	50-99	100-249
26-4200-8S	8	1.65	1.39	1.13	1.01	
26-4200-16S	16	2.40	2.02	1.64	1.41	
26-4200-24S	24	2.84	2.39	1.94	1.71	
26-4200-32S	32	3.39	2.85	2.31	2.07	



Micro RIBBON RACK AND PANEL PLUGS AND RECEPTACLES

Extremely small, ribbon-contact connectors suited for airborne and computer applications with high reliability. Shell polarization; easily inserted or withdrawn without visual aid; self-wiping, self-cleaning contacts in units up to 50 per connector. Float-mounted receptacle prevents mis-alignment. **Current:** 5 amps. **Voltage:** 700 VDC at sea level; 200 VDC at 70,000 ft. **Insulator:** Diallyl phthalate per MIL-M-14F. Type MDG. **Contacts:** Gold plate per MIL-G-4204 over silver per QQ-S-365 on cadmium bronze, ASTM-B-105. **Shells:** Cadmium-plated brass (ASTM-B-36, Alloy 6) with clear thru finish. **Size:** Dimensions on request. Cable plugs come with hoods; chassis-mounted sockets come with spring latches.

C-J No.		PLUGS				
		Contacts	Net Each, Lots of			
			1-9	10-49	50-99	100-249
57-10140	14	1.76	1.48	1.20	1.08	
57-10240	24	2.35	1.98	1.61	1.44	
57-10360	36	2.88	2.26	1.83	1.65	
57-10500	50	3.54	2.98	2.42	2.17	

C-J No.		RECEPTACLES				
		Contacts	Net Each, Lots of			
			1-9	10-49	50-99	100-249
57-20140	14	1.80	1.52	1.23	1.11	
57-20240	24	2.40	2.02	1.64	1.41	
57-20360	36	2.76	2.31	1.88	1.71	
57-20500	50	3.59	3.02	2.45	2.21	

CABLE TO CLASSIC PLUGS AND RECEPTACLES

C-J No.		PLUGS WITH HOODS				
		Contacts	Net Each, Lots of			
			1-9	10-49	50-99	100-249
57-30140	14	3.37	2.83	2.30	2.07	
57-30240	24	3.70	3.11	2.52	2.27	
57-30360	36	4.53	3.81	3.09	2.78	
57-30500	50	4.97	4.18	3.39	3.05	

C-J No.		RECEPTACLES WITH HOODS				
		Contacts	Net Each, Lots of			
			1-9	10-49	50-99	100-249
57-40140	14	2.22	1.87	1.52	1.41	
57-40240	24	2.64	2.22	1.80	1.65	
57-40360	36	2.84	2.39	1.94	1.71	
57-40500	50	3.72	3.13	2.54	2.21	

PRINTED CIRCUIT EDGE CONNECTORS

TWIN-CON EDGE CONNECTORS

C-J No.		Cont. Pos.	No. of Cont.	Net Each, Lots of				
				1-24	25-49	50-99	100-249	250-499
50-8TC	8	16	5.08	4.70	3.93	3.14	2.98	2.86
50-15TC	15	30	7.33	5.86	4.88	3.91	3.71	3.58
50-22TC	22	44	8.97	7.18	5.99	4.79	4.58	4.43
50-43TC	43	86	18.04	14.43	12.02	9.82	9.14	8.61

(No. 20 Wire Pin) 500-999 = .075 ea.; 1000-4999 = .06 ea.
(No. 22-24 Wire Pin) 500-999 = .075 ea.; 1000-4999 = .06 ea.
(Polarizing Key) 1-24 = .12 ea.; 25-49 = .09 ea.; 50-99 = .08 ea.
(Insertion/Removal Tool) 28.00 All Quantities; Each Net

TYKON EDGE CONNECTORS

C-J No.		Cont. Pos.	No. of Cont.	Net Each, Lots of				
				1-24	25-49	50-99	100-249	250-499
50-12A-40	6	12	3.38	2.70	2.26	1.81	1.71	1.60
50-20A-40	10	20	4.14	3.31	2.76	2.21	2.10	2.00
50-30A-40	15	30	5.03	4.02	3.36	2.69	2.58	2.46
50-40A-40	20	40	5.98	4.78	3.99	3.19	3.02	2.89
50-50A-40	25	50	6.90	5.52	4.61	3.69	3.50	3.32
50-MC	(Mounting Clip)		.075	.06	.05	.04	.03	.03
50-PK	(Polarizing Key)		.09	.072	.06	.05	.04	.03

BIFURCATED CONTACT EDGE CONNECTORS

C-J No.		Cont. Pos.	No. of Cont.	Net Each, Lots of				
				1-24	25-49	50-99	100-249	250-499
50-6A-20	6	12	1.19	.95	.79	.63	.60	.58
50-10A-20	10	20	1.58	1.26	1.05	.84	.80	.78
50-12A-20	12	24	1.78	1.42	1.19	.95	.90	.88
50-15A-20	15	30	2.08	1.66	1.39	1.10	1.05	.99
50-18A-20	18	36	2.36	1.89	1.58	1.26	1.20	1.15
50-22A-20	22	44	2.77	2.21	1.84	1.47	1.40	1.34
50-25A-20	25	50	3.79	3.03	2.53	2.02	1.92	1.84

C-J No.		Cont. Pos.	No. of Cont.	Net Each, Lots of				
				1-24	25-49	50-99	100-249	250-499
50-12B-10	6	12	1.19	.95	.79	.63	.60	.58
50-20B-10	10	20	1.58	1.26	1.05	.84	.80	.78
50-24B-10	12	24	1.78	1.42	1.19	.95	.90	.88
50-30B-10	15	30	2.08	1.66	1.39	1.10	1.05	.99
50-36B-10	18	36	2.36	1.89	1.58	1.26	1.20	1.15
50-44B-10	22	44	2.77	2.21	1.84	1.47	1.40	1.34

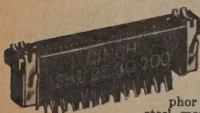
C-J No.		Cont. Pos.	No. of Cont.	Net Each, Lots of				
				1-24	25-49	50-99	100-249	250-499
50-12A-30	6	12	1.19	.95	.79	.63	.60	.58
50-20A-30	10	20	1.58	1.26	1.05	.84	.80	.78
50-24A-30	12	24	1.78	1.42	1.19	.95	.90	.88
50-30A-30	15	30	2.08	1.66	1.39	1.10	1.05	.99
50-36A-30	18	36	2.36	1.89	1.58	1.26	1.20	1.15
50-44A-30	22	44	2.77	2.21	1.84	1.47	1.40	1.34
50-50A-30	25	50	3.79	3.03	2.53	2.02	1.92	1.84

C-J No.		Cont. Pos.	No. of Cont.	Net Each, Lots of				
				1-24	25-49	50-99	100-249	250-499
50-12B-20	6	12	3.59	2.87	2.39	1.60	1.41	1.30
50-20B-20	10	20	4.29	3.43	2.86	1.97	1.71	1.58
50-24B-20	12	24	4.39	3.55	2.99	2.23	2.02	1.88
50-30B-20	15	30	5.09	4.02	3.36	2.69	2.58	2.46
50-36B-20	18	36	5.73	4.58	3.82	2.74	2.58	2.42
50-44B-20	22	44	6.99	4.79	3.99	2.88	2.72	2.56



With Crimp-On Snap-In Pins

High reliability edge connectors designed for exacting military and aerospace requirements. Crimp-on, snap-in removable wire pins insert into bifurcated twin-barrel contact receptacles, permitting 2 wires per contact, 4 wires per position. Meets MIL-C-20197, latest revision, handles double sided .062" pc boards and is available in 8, 15 and 22-position sizes. 43-position size (Part No. 50-43TC) also available. Insulator is glass-filled diallyl phthalate, type GDI-30F per MIL-M-19833. Contacts are beryllium copper with 30 micro-inches gold over 200 micro-inches silver finish. Wire pins are of brass with same finish as contacts. *Patent Pending



High density edge connectors with .050" centers for use with double-sided .062" printed circuit boards. Conventional wiring plans. Insulator is diallyl phthalate, type SDG-F per MIL-M-14. Contacts are phosphor bronze with .00003" minimum gold plate. Carbon steel mounting for use in semi-flush printed circuit mounting, and cellulose acetate polarizing key available as separate items.



Designed for minimum printed circuit card wear, low insertion force and positive contact with printed circuit board. Insulator is glass-filled diallyl phthalate, type SDG-F per MIL-M-14. Contacts are of phosphor bronze with .00003" minimum gold plated. Types 250, 251 and 252 utilize bifurcated contacts, permitting two flexing surfaces instead of one for positive contact.

Bifurcated contacts are especially recommended for added contact reliability where vibration or printed circuit board irregularities would otherwise cause trouble. Connectors meet requirements of MIL-C-21097A (Ships) where applicable. One plastic polarizing key furnished unassembled. Rating: 830 v. AC rms.



Cinch Jones Connectors

"D" SUBMINIATURE CONNECTORS

D Subminiature Connectors are designed for applications where space and weight are prime considerations. These contact density connectors are especially well-suited for aircraft, missile and ground support installations. Although essentially for rack-and-panel installations, D series connectors may be adapted for cable attachment by means of integral clamps.

Original D series has two-piece nylon insulators and solder pot contact termination.

D Subminiature connectors will inter-mate if insert arrangements correspond. These connectors are designed to meet or most of the requirements of MIL-C-8384 Rev. B. Cinch current rating is 5 amps; military current rating is nominally 1.5 amp.

VOLTAGE RATINGS

Standard Layout Connectors measured from contact-to-contact, and contact-to-shell in unmated condition.

Connector Type		Altitude (feet)			
		Sea Level	20,000	50,000	70,000
D	Average Flashover	1700	1000	650	500
DSM	Test	1250	750	475	375

ORIGINAL "D" CONNECTORS (NYLON INSULATOR)

Con-tacts	Net Each, Lots of			
	10-49	50-99	100-249	250-499
9	.82	.74	.67	.59
9	1.21	1.10	.99	.88
15	1.09	1.00	.89	.80
15	1.61	1.47	1.33	1.18
25	1.61	1.47	1.33	1.18
25	2.63	2.42	2.19	1.97
37	2.22	2.01	1.81	1.61
37	3.31	3.01	2.70	2.41
50	2.89	2.64	2.37	2.11
50	4.31	3.92	3.53	3.14

SCREW LOCK ASSEMBLIES

C-J No.	Net Each, Lots of			
	50-99	100-249	250-499	
20418-2	.19	.17	.15	
20419-0	.17	.15	.14	
20420-0	.24	.22	.19	

STANDARD JUNCTION SHELLS

C-J No.	Net Each, Lots of			
	50-99	100-249	250-499	
DA/J/S-19678-1	.53	.48	.42	
DB/J/S-19678-2	.53	.48	.42	
DC/J/S-19678-3	.74	.67	.59	
DD/J/S-19678-4	.76	.68	.60	

90° JUNCTION SHELLS

C-J No.	Net Each, Lots of			
	50-99	100-249	250-499	
DA-90°J/S-19977-1	.68	.61	.54	
DA-90°J/S-19977-2	.71	.64	.57	
DA-90°J/S-19977-3	.75	.68	.60	
DA-90°J/S-19977-4	.84	.75	.67	
DA-90°J/S-19977-5	1.07	.96	.86	

MARK I GOLDEN "D" CONNECTORS

Golden D connectors have crimp, snap-in contacts in a monoblock, diallyl phthalate insulator for quick assembly in critical applications. Voltage and current ratings are the same as for the D connectors.

MARK I GOLDEN "D" CONNECTORS

Con-tacts	Net Each, Lots of			
	10-49	50-99	100-249	250-499
P 9	1.40	1.27	1.14	1.02
S 9	2.10	1.91	1.72	1.53
SP 15	1.96	1.79	1.62	1.43
SS 15	2.96	2.68	2.42	2.15
SP 25	2.99	2.72	2.45	2.17

C-J No.	Con-tacts	Net Each, Lots of			
		10-49	50-99	100-249	250-499
DBM-25S	25	5.05	4.59	4.13	3.67
DCM-37P	37	4.16	3.78	3.40	3.02
DCM-37S	37	6.25	5.69	5.12	4.55
DDM-50P	50	5.50	5.00	4.49	4.00
DDM-50S	50	8.26	7.52	6.76	6.01

HINGE CONNECTORS

fact damage due to insertion and extraction. Maximum contact in minimum space; engaged with normal pressure. locking device insures positive contact. Spring action contacts separate units after releasing the lock. Wiping contact or clean contacts at all times. Castings are of black Bakelite, type CFG. Contacts are of phosphor bronze, cadmium (.0001). Current rating is 4.5 amps. **Alternate Lock:** For more secure locking, order Alternate Lock No. 37AL. It has a special device to prevent accidental unlocking. **Caps:** Furnished with formed fiber liners, nickel-plated caps. Designed to take the alternate lock when required. Black wrinkle finish.

PLUG WITH LOCK

No. of Cont.	Net Each, Lots of				
	1-24	25-49	50-99	100-249	250-499
OL 20	2.605	2.004	1.67	1.336	1.269
OL 30	2.955	2.364	1.97	1.576	1.497
OL 40	3.405	2.724	2.27	1.816	1.725
OL 50	3.855	3.084	2.57	2.056	1.953
OL 60	4.305	3.444	2.87	2.296	2.181
OL 70	4.755	3.804	3.17	2.536	2.409
OL 80	5.205	4.164	3.47	2.776	2.637
OL 90	5.655	4.524	3.77	3.016	2.865
OL 100	6.105	4.884	4.07	3.256	3.093

PLUG WITHOUT LOCK

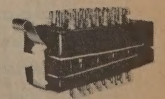
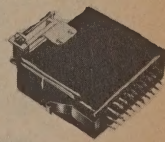
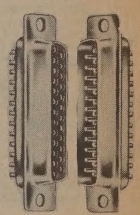
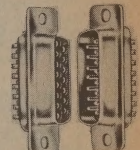
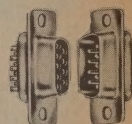
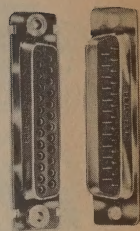
No. of Cont.	Net Each, Lots of				
	1-24	25-49	50-99	100-249	250-499
OL 20	2.25	1.80	1.50	1.20	1.14
OL 30	2.70	2.16	1.80	1.44	1.368
OL 40	3.15	2.52	2.10	1.68	1.596
OL 50	3.60	2.88	2.40	1.92	1.824
OL 60	4.05	3.24	2.70	2.16	2.052
OL 70	4.50	3.60	3.00	2.40	2.28
OL 80	4.95	3.96	3.30	2.64	2.508
OL 90	5.40	4.32	3.60	2.88	2.736
OL 100	5.85	4.68	3.90	3.12	2.964

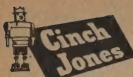
SOCKET WITH LOCK

C-J No.	No. of Cont.	Net Each, Lots of				
		1-24	25-49	50-99	100-249	250-499
37-F20L	20	2.605	2.004	1.67	1.336	1.269
37-F30L	30	2.955	2.364	1.97	1.576	1.497
37-F40L	40	3.405	2.724	2.27	1.816	1.725
37-F50L	50	3.855	3.084	2.57	2.056	1.953
37-F60L	60	4.305	3.444	2.87	2.296	2.181
37-F70L	70	4.755	3.804	3.17	2.536	2.409
37-F80L	80	5.205	4.164	3.47	2.776	2.637
37-F90L	90	5.655	4.524	3.77	3.016	2.865
37-F100L	100	6.105	4.884	4.07	3.256	3.093

SOCKET WITHOUT LOCK

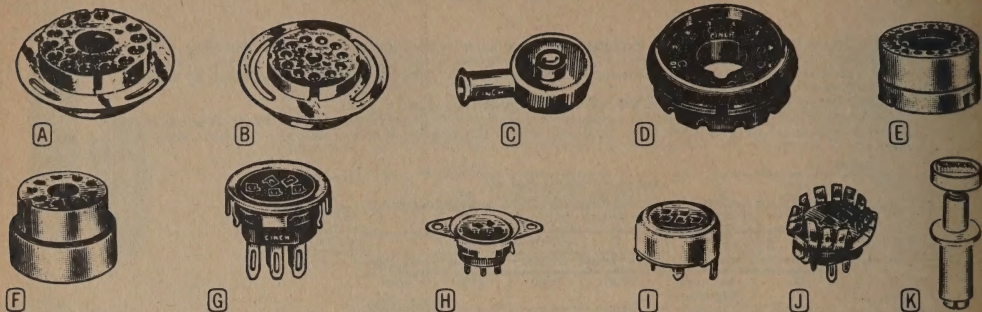
C-J No.	No. of Cont.	Net Each, Lots of				
		1-24	25-49	50-99	100-249	250-499
37-F20	20	2.25	1.80	1.50	1.20	1.14
37-F30	30	2.70	2.16	1.80	1.44	1.368
37-F40	40	3.15	2.52	2.10	1.68	1.596
37-F50	50	3.60	2.88	2.40	1.92	1.824
37-F60	60	4.05	3.24	2.70	2.16	2.052
37-F70	70	4.50	3.60	3.00	2.40	2.28
37-F80	80	4.95	3.96	3.30	2.64	2.508
37-F90	90	5.40	4.32	3.60	2.88	2.736
37-F100	100	5.85	4.68	3.90	3.12	2.964





Sockets and Terminal Strips

SOCKETS FOR SPECIAL PURPOSE TUBES



14-PRONG DIHEPTAL (FIG. A)

Molded from high dielectric black Bakelite® or mica-filled low loss Bakelite. Same features as No. 3M11. Size: $2\frac{1}{2}$ " w. x $1\frac{1}{4}$ " h. •Bakelite Corp. trademark.

C-J No. 3B14—Black Bakelite diheptal socket.

C-J No. 3M14—Mica-filled Bakelite diheptal socket.

MODEL 3M11 11-PRONG MAGNAL (FIG. B)

Molded from mica-filled low loss Bakelite. Full floating silver-plated beryllium copper contacts insure easy insertion of tubes and provide excellent electrical connections. For use with 5B1 and 2AP1 cathode ray tubes. Size: $1\frac{1}{2}$ " w. x $1\frac{1}{4}$ " h.

MOUNTING RINGS

C-J No. 3R11—Steel mounting ring for No. 3M11.

C-J No. 3R14—Steel mounting ring for Nos. 3B14 and 3M14.

MODEL 3A1 SECOND ANODE CONNECTOR (FIG. C)

Snap over .096" dia. prong on side of diheptal tubes. Cadmium-plated brass contact surrounded by rubber insulator. Size, $\frac{1}{4}$ " w. x $1\frac{1}{4}$ " lg.

12-PRONG DUODECAL (FIG. D)

Slightly larger in diameter than the tube base and only slightly longer than the tube pin. Integral wire strain relief contact. For use with 10B14, 2B11, 5T14, etc. type tubes. Also RCA 6199 tube.

C-J No. 3B12—Bakelite duodecal socket.

C-J No. 3M12—Mica duodecal socket.

MODEL 20-PM PHOTO-MULTIPLIER (FIG. E)

Twenty-contact socket for RCA photo-multiplier tube Nos. 6810, C7187A, C7122 and 7265. Casting material is MAI-60 Alkyd Glass Fiber, JETEC No. is 20-120. Contacts are cadmium-plated brass.

MODEL 7-VT VIDICON (FIG. F)

Seven-contact socket for RCA vidicon tube Nos. 6198 and 7038. Casting material is mica. Contacts are silver-plated phosphor bronze. JETEC No. is ES-11.

MODEL 8-VT VIDICON (FIG. F)

Same as Model 7-VT, except eight-contact size.

NUVISTOR SOCKETS

Five-contact sockets. Socket body is of low-loss phenolic insulation (MFE). Cadmium-plated cold-rolled steel saddle. Contacts are of copper alloy with cadmium plating.

C-J No. 5NS-1 (Fig. G)—Crimp-mounting type. Fastened to chassis by two tabs.

C-J No. 5NS-1 (Fig. H)—Conventional-mounting type. Mounts with screws, eyelets, rivets or self-tapping screws. Any #2 screw or $\frac{1}{8}$ " dia. rivet with head dia. of up to .190" may be used.

C-J No. 5NS-2 (Fig. I)—Standoff type. For printed circuit applications. Has two grounding terminals.

C-J No. 5NS-3 (Fig. J)—Heat dissipating type. Has fingered-style base. Reduces envelope temperature.

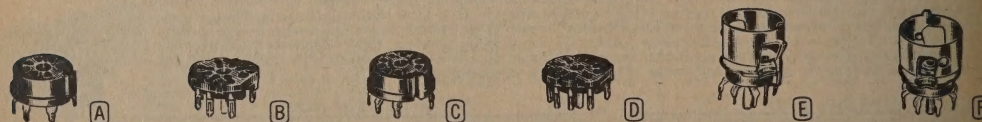
MODEL TP-1 NUVISTOR TUBE PULLER* (FIG. K)

Unique device for removing Nuvistor tubes from their sockets without scratching them. Size: Approximately $2\frac{1}{2}$ " h. x $1\frac{1}{2}$ " w. *Patent Pending.

PRICING FOR SOCKETS AND PULLER

C-J No.	Net Each, Lots of			
	1-24	25-49	50-99	100-249
3A1	List Price			
3B12	\$0.60	\$0.48	\$0.40	\$0.32
3B14	1.00	.84	.70	.56
3M11	4.50	3.60	3.00	2.40
3M12	1.80	1.44	1.20	.96
3M14			1.10	.88
3R11	.30	.24	.20	.16
3R14				.26
5NS	.138	.138	.138	.069
5NS-1	.213	.213	.213	.1065
5NS-2	List Price			
5NS-3	2.10	1.68	1.40	.743
7-VT	List Price			
8-VT	2.10	1.68	1.40	.743
20-PM	5.003	4.002	3.335	2.668
TP-1	.79	.79	.79	.79

PRINTED CIRCUIT SOCKETS



PRINTED CIRCUIT MINIATURE SOCKETS

C-J No. 7PC-B (Fig. A)—Seven-pin, brass contacts with hot-solder-dipped finish. General purpose black phenolic casting. Special tabs prevent tube shields from contacting the printed wire chassis. Center shields provide mechanical retention of the socket in the chassis. Net Each, Lots of 1-99.....6.3c; 100-999.....3.15c

C-J No. 7PC-B1 (Fig. A)—Same as 7PC-B but without center shield or tabs. Net Each, Lots of 1-99.....7.1c; 100-999.....3.5c

C-J No. 7PC-B4 (Fig. B)—Seven-pin, brass contacts with hot-solder-dipped finish. Molded of general purpose black phenolic. No center shield. List Price.....16.5c*

C-J No. 7PC-M4 (Fig. B)—Same as 7PC-B4, except molded of mica-filled, low-loss phenolic. List Price.....16c*

C-J No. 7PC-B5 (Fig. B)—Same as 7PC-B4, except has brass center shield, hot-solder-dipped. List Price.....16.5c*

C-J No. 7PC-M5 (Fig. B)—Same as 7PC-M4, except has brass center shield, hot-solder-dipped. List Price.....23c*

PRINTED CIRCUIT NOVAL SOCKETS

C-J No. 9PC-B (Fig. C)—Same as 7PC-B but 9-pin noval. Net Each, Lots of 1-99.....8.58c; 100-999.....4.29c

C-J No. 9PC-B1 (Fig. C)—Same as 7PC-B1 but 9-pin noval. Net Each, Lots of 1-99.....9.5c; 100-999.....4.7c

C-J No. 9PC-B4 (Fig. D)—Same as 7PC-B4, but 9-pin noval. List Price.....19c*

C-J No. 9PC-M4 (Fig. D)—Same as 7PC-M4, but 9-pin noval. List Price.....19.5c*

C-J No. 9PC-B5 (Fig. D)—Same as 7PC-B5, but 9-pin noval. List Price.....20.5c*

C-J No. 9PC-M5 (Fig. D)—Same as 7PC-M5, but 9-pin noval. List Price.....22c*

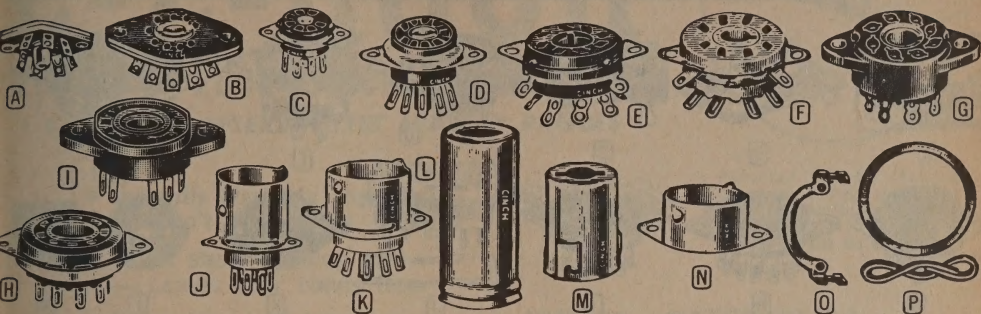
PRINTED CIRCUIT SOCKETS WITH SHIELD BASES

C-J No. 7PC-M2 (Fig. E)—Seven-pin miniature standoff socket. Has an attached bayonet type shield base with ground tab. For use with 1" printed circuit boards. Castings are low-loss mica-filled phenolic (MFE). Contacts are phosphor bronze with a hot-tinned finish. Center shield and ground tab are brass, hot-tinned and base, nickel-plated brass.

Net Each, Lots of 1-99.....\$0.48; 100-999.....\$0.474

C-J No. 9PC-M2 (Fig. F)—Same as 7PC-M2 but 9-pin noval. Net Each, Lots of 1-99.....\$1.17; 100-999.....\$0.585

Tube Sockets, Accessories



WAFER TYPE SOCKETS

Cadmium-plated brass contacts; hot-solder-coated center shield.

C-J No.	Fig.	Description	Mtg. Ctrs.	Net Ea.	Lots of 100-999
W2A	A	7-pin miniature, Chocolate XP Bakelite* laminations.	$\frac{1}{8}$ "	6.8c	3.4c
WL2	A		$\frac{1}{8}$ "	6.8c	3.4c
WL4	A		$\frac{1}{8}$ "	8c	4c
W1	B	9-pin miniature	$\frac{1}{8}$ "	8.4c	4.2c
W2	B	9-pin miniature	$\frac{1}{8}$ "	9.3c	4.7c

Bakelite Corp. trademark.

SADDLE TYPE SOCKETS

C-J No.	Fig.	Description	Mtg. Centers	Mounting	Net Each, Lots of 1-99	100-999
CB	C	Black	$\frac{3}{8}$ "	Bottom	9.4c	4.7c
CB	C	Ceramic	$\frac{3}{8}$ "	Bottom	11.3c	5.6c
CB	C	Mica	$\frac{3}{8}$ "	Bottom	11.3c	5.6c
AM1	C	Black	$\frac{3}{8}$ "	Top	List...	15.5c
AM1	C	Mica	$\frac{3}{8}$ "	Top	11.3c	5.6c
CB	D	Black	$\frac{1}{2}$ "	Bottom	12.5c	6.2c
CB	D	Mica	$\frac{1}{2}$ "	Bottom	14.5c	7.2c
CB	D	Black	$\frac{1}{2}$ "	Top	List...	19.9c*
AM	D	Mica	$\frac{1}{2}$ "	Top	List...	24c*
AM	E	Black	$\frac{1}{2}$ "	Bottom	List...	15c*
AM	E	Mica	$\frac{1}{2}$ "	Bottom	List...	20.1c*
CB	E	Black	$\frac{1}{2}$ "	Bottom	10.2c	5.1c
CB	E	Mica	$\frac{1}{2}$ "	Bottom	12.9c	6.5c

MIL-S-12883A SADDLE TYPE SOCKETS

MIL Type: 7-pin, TS102P03 (MFE), TS102C03 (ceramic); 9-pin, TS103P03 (MFE), TS103C03 (ceramic). Bottom mounting.

C-J No.	Fig.	Description	Mtg. Ctrs.	Mounting Holes	Net Each, Lots of 1-99	100-999
JM-3	C	MFE	$\frac{3}{8}$ "	.125" dia.	8.3c	
IC-3	C	Ceramic	$\frac{3}{8}$ "	.125" dia.	14.3c	
IM-3	D	MFE	$\frac{1}{2}$ "	.125" dia.	9.8c	
IC-3	D	Ceramic	$\frac{1}{2}$ "	.125" dia.	16.5c	

MIL MOLDED OCTAL SOCKETS (FIG. F)

Castings of molded thermosetting plastic (MFE). Silver-plated phosphor bronze contacts, with heavy tinned tails. Heavy brass die, hot-solder-coated, with four hot tinned ground lugs. Mounting centers, $\frac{1}{2}$ ".

C-J No.	Fig.	MIL-S-12883A No.	Mtg. Hole, In.	Net Each, Lots of 1-99	100-999
JM-2		TS101P01	.156 dia.	35.4c	17.7c
JMN-2		TS101P02	6-32 tap	54c	27c

ALL-MOLDED OCTAL SOCKETS (FIG. G)

All-molded octal socket offers complete one-piece construction; the saddle and body are a single casting. The standard socket is molded of high dielectric black Bakelite. Contacts are brass, cadmium plated. No. 8XM mica filled phenolic insulation, prevents loss on leakage. Mounting holes, $\frac{1}{4}$ " dia. on $\frac{1}{4}$ " centers.

J No. 8XM Socket—Mica.
Net Each, Lots of 1-99.....13.2c; 100-999.....6.6c
J No. 8XB Socket—Black. List Price.....14.5c*

NOVAR SOCKETS (FIG. H)

Molded from high dielectric black phenolic (CFG) or mica-filled, low loss phenolic. Top or bottom mounting. Cadmium-plated brass contacts. Mounting centers, $\frac{1}{2}$ ".

C-J No.	Type	List Pr.*	C-J No.	Type	List Pr.*
9NS-B	Black	22.5c	9NS-B1	Black	25.0c
9NS-M	Mica	27.5c	9NS-M1	Mica	30.0c

MODEL 8RO RETAINER RING (FIG. P)

Cramped retaining ring formed of .020" spring steel. Will securely hold sockets designed for ring mounting. Standard finish is cadmium.

J No. 8RO—Net Each, Lots of 1-99...3.5c; 100-999.....1.7c

COMPACTRON SOCKETS (FIG. I)

All-molded sockets for compactron tubes. High dielectric black phenolic (CFG) or mica-filled, low loss phenolic. Available in 12-contact or high voltage eight contact sizes. Mtg. ctrs., $\frac{1}{4}$ ".

C-J No.	No. of Contacts	Description	Net Each, Lots of 50-99	100-249	250-499
8CS-B	8	Black	29.5c	23.6c	22.4c
8CS-M	8	Mica	32c	25.6c	23c
12CS-B	12	Black	36c	28.8c	27.4c
12CS-M	12	Mica	38.5c	30.8c	29.3c

SHIELD BASE TYPE SOCKETS

MINIATURE AND NOVAL TYPES

Miniature (Fig. J): Mtg. holes, .125" dia. on $\frac{3}{8}$ " mounting centers. Noval (Fig. K): Mtg. holes, .093" dia. on $\frac{1}{4}$ " mounting centers.

Description	C-J No.	Fig.	Net Ea., Lots of 1-99	100-999	C-J No.	Fig.	Net Ea., Lots of 1-99	100-999
Black	7XB1	J	List...	25.5c*	9XB	K	20.9c	10.4c
Mica	7XM1	J	19.3c	9.6c	9XM	K	List...	37.8c*
Ceramic	7XC	J	33c	16.5c	9XC	K	35.7c	17.9c

MIL-S-12883A TYPE SOCKETS

Mounting centers, 7-pin, $\frac{3}{8}$ "; 9-pin, $\frac{1}{4}$ ".

C-J No.	Fig.	MIL-S-12883A No.	Description	Net Each, Lots of 1-99	100-999
7JC-2	J	TS102C01	Ceramic	11.6c	
7JMN-1	C	TS102P02	MFE	8.3c	
7JM-2	J	TS102P01	MFE	9.8c	
7JCN-1	C	TS102C02	Ceramic	14.3c	
9JM-2	K	TS103P01	MFE	12.6c	
9JMN-1	D	TS103P02	MFE	9.8c	
9JC-2	K	TS103C01	Ceramic	19.4c	
9JCN-1	D	TS103C02	Ceramic	16.5c	

J-SLOT TUBE SHIELDS (FIG. M)

C-J No.	Description	Length, Inches	Net Each, Lots of 1-99	100-999
752	Steel	$\frac{1}{4}$ "	11c	5.5c
753	Steel	$\frac{1}{2}$ "	11.6c	5.8c
754	Steel	$\frac{3}{4}$ "	17.8c	8.9c
75J2-1	MIL*, brass	$\frac{1}{4}$ "	14.3c	7.2c
75J3-1	MIL*, brass	$\frac{1}{4}$ "	16.1c	8c
75J4-1	MIL*, brass	$\frac{1}{4}$ "	17.8c	8.9c
951	Steel	$\frac{1}{2}$ "	16.3c	8.2c
952	Steel	$\frac{1}{2}$ "	16.4c	8.2c
953	Steel	$\frac{3}{4}$ "	29.9c	15c
95J1-1	MIL*, brass	$\frac{1}{4}$ "	17.6c	8.8c
95J2-1	MIL*, brass	$\frac{1}{4}$ "	19.3c	9.7c
95J3-1	MIL*, brass	$\frac{3}{4}$ "	21.1c	10.5c

*JAN-S-28A.

SNAP ON TYPE TUBE SHIELD (FIG. L)

C-J No. 751—Size: $1\frac{1}{4}$ " h.

Net Each, Lots of 1-99.....9c; 100-999.....4.5c

SHIELD BASES

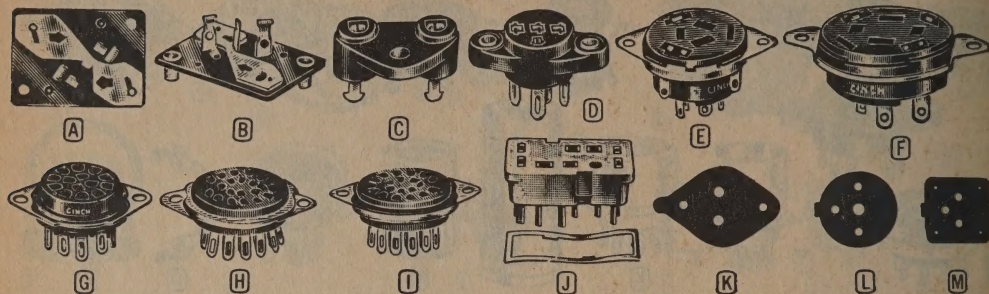
C-J No.	Fig.	H.	Mtg. Hole	Mtg. Ctrs.	Material	Net Each, Lots of 1-99	100-999
75B1	N	$\frac{3}{8}$ "	.125 dia.	$\frac{3}{8}$ "	Steel	5.4c	2.7c
75B2	N	$\frac{1}{2}$ "	.125 dia.	$\frac{3}{8}$ "	Brass	7.2c	3.6c
95B1	N	$\frac{1}{2}$ "	$\frac{3}{4}$ " dia.	$\frac{1}{2}$ "	Steel	7.2c	3.6c

STRAP NUTS (FIG. O)

C-J No. 75N—Cadmium-plated brass strap nuts for use in mounting sockets with saddles or shield bases. One strap nut takes the place of two conventional type nuts. Mounting centers, $\frac{3}{8}$ ". For 7-contact sockets. Ground lugs are hot-solder-clipped. Net Each, Lots of 1-99.....16.8c; 100-999.....8.4c

C-J No. 95N—Same as Model 75N except mounting centers are $\frac{1}{4}$ " and are for 9-contact sockets. Net Each, Lots of 1-99.....18.3c; 100-999.....9.2c

Sockets for All Purposes



POWER TRANSISTOR SOCKETS

LAMINATED TYPE

C-J No. 2TS-1 (Fig. A)—Top and bottom plates are of natural XP Bakelite* vacuum wax impregnated. Contacts are of brass, cadmium plated. Formed thread for 6-20 screw. Has .104/110" dia. hole in CR steel plate. Provides easy attachment to a heat sink. List Price..... **15c***

C-J No. 2TS-2 (Fig. B)—Identical with above except equipped with integral eyelets for easy assembly to chassis.

Net Each, Lots of 1-99..... **10.7c**; 100-999..... **5.4c**

*Bakelite Corp. trademark.

MODEL 2TS-3 MOLDED TYPE (Fig. C)

Molded power transistor socket. Casting is molded of general purpose Bakelite. Contacts are phosphor bronze, cadmium plated. Mounting holes are .098" dia., mounting centers are .425/435".

C-J No. 2TS-3—Net Each, Lots of 1-99, 9c; 100-999, **4.5c**

MODEL 2TS-4 GENERAL PURPOSE (Fig. D)

This new transistor socket was originally designed for an all-transistor television set; however, its future applications are many. This socket may be used in industrial communications, test equipment, ham gear, etc. Socket has a triangular base layout with 0.2" by 0.1" (JETEC-30) contact centers, as well as three contacts in line (.048" by .192" contact centers). Casting is molded of general purpose Bakelite; contacts are phosphor bronze, cadmium plated. May be used with the following EIA base designations: E3-14, E3-15, E3-25, E3-32, E3-38, E3-39, E3-42, E3-43, E3-44, E3-51, E3-53, E4-13, E4-24, E4-31, E4-43, E4-52, E7-103-D.

C-J No. 2TS-4—List Price..... **25.5c***

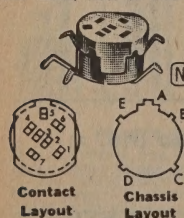
CAPACITOR "PLUG-IN" SOCKETS

C-J No. 2C5 (Fig. E)—Designed for use with Mallory and Magnavox 1" FP type capacitors. Molded from high dielectric black Bakelite. Sturdy steel mounting saddle has four round lugs. Mounting centers, 1 1/4". Three recessed center contacts for extended prongs of capacitor and two outer contacts flush with surface for short prongs of capacitor. All contacts are cadmium plated for fast, easy soldering.

Net Each, Lots of 1-99..... **43.5c**; 100-999..... **21.8c**

C-J No. 2C7 (Fig. F)—Designed for use with Mallory and Magnavox 1 1/4" FP type capacitors. Molded from high dielectric black Bakelite. Sturdy cadmium-plated steel saddle has 1 1/2" mounting centers. Four recessed center contacts for extended prongs of capacitor and three outer contacts flush with surface for short prongs of capacitor. All contacts are cadmium plated.

Net Each, Lots of 1-99..... **67.8c**; 100-999..... **33.9c**



UNIVERSAL TRANSISTOR SOCKETS (Fig. N)

Universal transistor socket that can be used with all transistor bases shown in illustration above. Casting is of mica-filled phenolic (MFE). Contacts are beryllium copper and are gold plated. Contacts may be used with either one or two-sided 1/4" printed circuit boards.

C-J No.	Base Types	Tabes Used (See Diag.)	Cont. Pos. Used	Net Ea., Lots of 1-99	100-999
7UTS	All	A, B, C, D, E	1, 3, 4, 7	67.5c	33.8c
7UTS-1	1 and 3	C, D, E	1, 3, 4, 7	45c	22.5c
7UTS-3	3	C, D, E	1, 4, 7	40.5c	20.25c
7UTS-4	4	A, B, C, D, E	1, 4, 5, 6, 7	54c	27c
7UTS-5	5	B, D, E	1, 6, 7	40.5c	20.25c
7UTS-6	1 and 3	C, D, E	1, 3, 4, 7	45c	22.5c

RELAY SOCKETS

SERIES 14RS RELAY SOCKETS (Fig. G)

C-J No. 14RS—Bottom-mount, 14-contact type with mica-filled, low-loss Bakelite casting. Beryllium-copper contacts silver-plated with hot-tinned tails. Saddle length 1 1/4". Mounting centers, 1 1/4". Net Each, Lots 1-99..... **\$0.738**; 100-999..... **\$0.369**

C-J No. 14RS-2—Same, but top mount instead of bottom mount. Net Each, Lots of 250-999..... **\$0.369**

MODEL 20RS TOP MOUNTED RELAY SOCKET (Fig. H)

A 20-pin top-mounted relay socket. Contacts are of beryllium copper, silver-plated with hot-tinned tails. Steel saddle, cadmium plated; 1 1/4" mounting centers.

C-J No. 20RS—Net Each, Lots of 1-99, **\$1.68**; 100-999, **\$0.84**

BOTTOM-MOUNTED RELAY SOCKETS (Fig. I)

C-J No. 20RS-1—A 20-contact relay socket with mica-filled low-loss Bakelite casting. Contacts are of beryllium copper, silver-plated with hot-tinned tails. Mounting centers, 1 1/4". Net Each, Lots of 1-99..... **\$1.68**; 100-999..... **\$0.84**

C-J No. 14RS-1—A 14-contact relay socket. Same as above except contacts 15 to 20 are omitted. Net Each, Lots of 1-99..... **\$1.32**; 100-999..... **\$0.66**

C-J No. 16RS-1—A 16-contact relay socket. Same as Model 20RS-1 except contacts 15, 17, 18 and 20 are omitted. Net Each, Lots of 1-99..... **\$1.44**; 100-999..... **\$0.72**

MODEL 8RS RELAY SOCKET (Fig. J)

This relay socket is molded of mica filled phenolic and is attached to the chassis with a cold rolled steel clip that is cadmium plated. The contacts are beryllium copper, silver-plated. Mounting clip 20731 furnished with each socket. This socket fits the following relays: Advance MV-2C, AEMCO 95-3274, Brubaker K110A, Filters P.26.A1.P.6A, G.E. D200A and G-203A, Potter & Brumfield SL and Ace Relay No. 50-6-A (single contact only).

C-J No. 8RS—Net Each, Lots of 1-99, **45c**; 100-999, **22.5c**

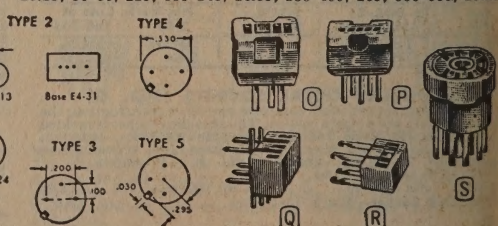
POWER TRANSISTOR HEAT SINKS

Hard anodized aluminum insulator wafers for use with power transistors. Feature high thermal conductivity, high dielectric resistance, high abrasion resistance and high corrosion resistance.

C-J No. 2W-1 (Fig. K)—For Motorola transistors 2N179, 2N176 and 2N554.

C-J No. 2W-2 (Fig. L)—For Delco transistor 2N174.

C-J No. 2W-3 (Fig. M)—For Texas Instruments transistor 2N389. Any Model Listed Above—Net Each, Lots of 1-24, **31.5c**; 25-49, **25.2c**; 50-99, **21c**; 100-249, **16.8c**; 250-499, **16c**; 500-999, **15.1c**



SUBMINIATURE TUBE SOCKETS

Use extensively for hearing aids, radios and other electronic apparatus. Molded from mica-filled low loss Bakelite with silver-plated beryllium copper contacts. No. 2H5 can be used for four probe tube or as a transistor socket. No. 5PC for printed circuits. No. 5WC for wired circuits.

C-J No.	Pin	Fig.	Net Ea., Lots of 1-99	100-999	C-J No.	Pin	Fig.	Net Ea., Lots of 1-99	100-999
2H3*	3	O	20.8c	10.4c	5PC	5	Q	39.6c	19.8c
2H5*	5	P	22.4c	11.2c	5WC	5	R	37.6c	18.8c
2H6*	6		29.8c	14.9c	8SM*	8	S	42c	21c
2H7*	7		31c	15.5c	8SM-P*	8		54c	27c

*Mounting ring included. †No. 8SM with a mounting plate.

E-Z-HOOK

TEST AND PRODUCTION CONNECTORS

• CLIPS • ADAPTERS • TEST LEADS • PROBES

- Instantly connects anywhere
— Won't cut or nick.
- Won't short or jump off
— Leaves your hands free.
- Saves time and temper
— Money back guarantee.



Patented hook tip connects anywhere, 1. Push to connect. 2. Push again to remove.

U.S. PATENT No. 2702892

RNESS BOARD CLIPS

Save Up to 30% in Board Construction Time!

Speeds wiring... Improves Quality

...no need to waste valuable time drilling holes, placing screws, nuts, & washers. The "Nail" Clip drives into wood like a nail! Pulls out as easy. Make changes in seconds. Use them to speed Prototyping—Save Construction & Production time.

...sy finger-tip operation speeds wire placing—makes it easier. Patented E-Z-HOOK holds firmly won't cut nick or damage wire ends. L. 1 3/16". Made of tough Stainless Steel and Durable Nylon.

...Over 62,000 used by Company X...



E-Z-HOOK "Nail" Clips

81-1	E-Z-HOOK "Nail" Clip (Use T-20 Tool)	24¢ ea.	10 for 1.98
K8150T-1	"Nail" Clip Kit (50 Clips, Tool & Instr.)	Wt. 2 oz.	ea. 8.95
T-20	E-Z-HOOK "Nail" Clip Driving Tool	Wt. 1-3 oz.	ea. .35

ST PROD TIP ADAPTERS

For testing as you like it

Sharp point to an E-Z-HOOK in seconds

...andiest, most trouble-free adapter you can get. Convenient E-Z-HOOK Tip slips easily on, or off, — in seconds! Doubles regular test prod utility, 1. as a sharp point for probing, 2. as an extra hand when needed.

...fer, tool... remote connections made easily while your hand stays out in the clear — safe from shock.

...smart investment in trouble-free design. Exclusive ring chuck eliminates loose, wobbly fit on Prod... ensures pleasant, irritation-free performance.

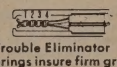
...Over 12,300 used by Company Y...

...ade of rust-proof Stainless Steel, Brass, and tough Zytel Nylon in Red, Black, Blue, Green, Orange, and Yellow. Lgh. 2 1/16", O.D. 19-64", Wt. 1-8 oz.

55-0	E-Z-HOOK Tip	(Needle—.060")	ea. .69
56-1	E-Z-HOOK Tip	(Standard—.080")	ea. .69
57-10	E-Z-HOOK Tip	(Tec—10-32 female thread)	ea. .69
59-4	E-Z-HOOK Tip	(Banana—Standard.)	ea. .69



Slips Easily On—Off



Trouble Eliminator
4 springs insure firm grip

RT SUBSTITUTION CLIPS

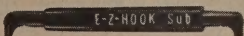
Eliminate Guessing

You can be sure!—when you substitute, and this E-Z-H Sub is just the thing to use... quick, easy,

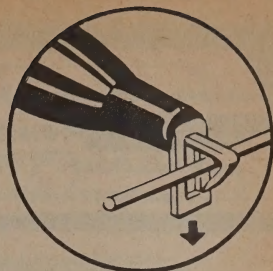
...temporary connections in seconds... no lead twisting or solder tacking to damage parts or wiring. Speeds trouble-shooting, makes it easier... saves hours and dollars in valuable production time and material.

...Long-lasting Zytel Nylon and tough Stainless Steel. In colors for easy lead identification: Red, Black, Blue, Green, Orange, and Yellow. Length 2 1/2", O.D. 19-64", Weight 1-12th oz.

71-1	E-Z-HOOK Sub	ea. .49
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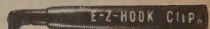
Solderless Clips
Eliminate Broken Leads



JUMPER - METER CLIPS

- Convert needless delays... to

pleasant productive checks



Let carefree E-Z-HOOK Clips help speed your checks... make it easier. They quickly pay for themselves in savings.

Easy slip-on design saves in assembly and maintenance... safe solder connection and strain relief assures longer trouble-free lead life.

...Over 37,000 used by Company Z...

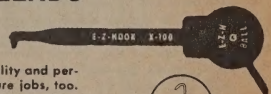
Made of tough Stainless, durable Nylon in colors for easy lead identification: Red, Black, Blue, Green, Orange, Yellow. Lgh. 2 1/8", O.D. 5-8, Wt. 1-13 oz.

No. 61-1	E-Z-HOOK Clip	(Standard)	ea. .39
No. 61-2	E-Z-HOOK Clip	(Gold Plated)	ea. .59

Miniature CLIP & LEADS

- Make Impossible

Connections... Easy



FULL SIZE

Now enjoy famous E-Z-HOOK reliability and performance on your small, sub-miniature jobs, too. Easily make test connections never before possible.

Tiny E-Z-HOOK with the new "Hypo Action" gives you the small size and positive control needed to make such tedious work easier, more efficient, pleasant and profitable.

Use "Q" Balls two ways—1, as a versatile low voltage test connector, 2, as a tiny mechanical hand to handle small parts. Will save you hours of unnecessary delays and aggravation.

Durably constructed of the finest materials—Red Nylon insulation, Stainless Steel spring, & Beryllium Copper conductor to assure reliable performance.

Also available on 32"—Ready-to-Plug-In—Test Leads of flexible Red and Black striped, 24 AWG (19-36) thermoplastic wire—Standard or Banana Tip.

Over all length 2 1/4". Maximum width at hook only .079". Wt. 1-6th oz.

No. X-100	E-Z-HOOK 'Q' Ball Mini-HOOK (No lead)	ea. .49
No. AX-1	E-Z-HOOK 'Q' Ball Test Lead (32"—Std. Tip)	ea. .89
No. BX-1	E-Z-HOOK 'Q' Ball Test Lead (32"—Ban. Tip)	ea. .94

SCOPE - METER PROBES

- Now—Special Probes assembled in minutes



Custom PROBE

Never before such efficiency and convenience in a replacement probe... SPECIAL TERMINALS speeds assembly, makes it easier... E-Z-HOOK for easy time-saving care-free connections... SCREW-ON COVER for ready access and repair... STRAIN-RELIEF prolongs life of single or shielded leads.

For Professional or Production use. Finest streamlined feather-weight construction of rust proof Stainless, durable Zytel Nylon (slide), tough Tenite (body) in Red, Black, Blue, Green, Orange, & Silver. Lgh. 4 3/4", O.D. 15-32", Wt. 1-3 oz.

No. 54-1	E-Z-HOOK Custom PROBE	ea. .89
No. 54-2	E-Z-HOOK Custom PROBE (Gold Plated)	ea. 1.05

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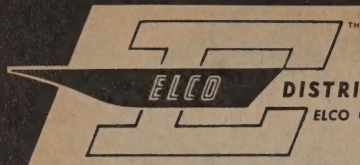
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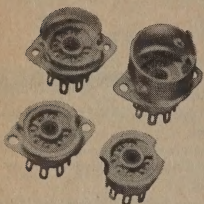


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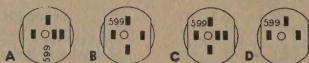
ELCO SOCKETS

Commercial and MIL Types E-Z MATE* SOCKETS (Patented) 7-Pin and 9-Pin Miniature Models



CONFORMING TO MIL-S-12883-A, our exclusive, patented E-Z MATE* design will be found in all our 7-Pin and 9-Pin Base-Shield and Saddle Type Sockets (except Ceramic). This ingenious design provides a positioning-key at the top of the socket which permits the tube to "find" its correct insertion point without loss of time or pin damage. And by virtue of the E-Z MATE* feature, tube locations may now be designed into "blind" or formerly inaccessible positions.

Series 05-3300 COMBINATION TRANSISTOR SOCKETS



Model No.	Saddles	Mtg. Rings	Material: Mica Contacts:
(A) 05-3301	Flat		Beryllium
(A) 05-3304		65-47202	Copper, Gold
(B) 05-3307		65-47202	Flashed over Silver Plate
(C) 05-3313		65-47202	

Series 05-3300 COMBINATION TRANSISTOR SOCKETS STANDOFF TYPE FOR PRINTED CIRCUITRY



Model No.	
(A) 05-3303	(B) 05-3308
(A) 05-3305	(B) 05-3338



3 and 4 PIN FLAT IN-LINE SOCKETS



3-Pin—for Point Contact Type and Junction Type Transistors. 4-Pin—for Linetetrar Type Transistors.

Model No.	Mounting Rings
Mica filled casting, beryl, copper contacts	3-Pin, 05-0799 3-Pin, 65-0777 4-Pin, 05-0803 4-Pin, 65-0777

PRINTED CIRCUIT SUB-MINIATURE SOCKETS



Model No.
3-Pin 05-0786
4-Pin 05-0805

RIGHT-ANGLE PRINTED CIRCUIT SOCKETS



Model No.—with Continuous Contacts

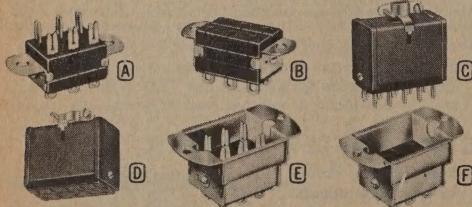
05-4006 7-pin without shield base
05-4007 7-pin with shield base
05-4008 9-pin without shield base
05-4009 9-pin with shield base



Mica filled insulator, beryllium copper contacts, silver plated. Usable for 1/16 or 3/32 printed circuit cards.

FOR COMPLETE DATA, CONTACT YOUR ELCO DISTRIBUTOR FOR OUR TUBE-SOCKET CATALOG

ELCO VARICON* Connectors



ELCO VARICON* Connectors provide the most positive contact under all operating conditions. Contacts in use are always under pressure; cannot be over-stressed or over-strained. Have nickel-silver contacts. Covers have blue-black vinyl finish. U. L. Approved. Current Rating: 9 amps, 115 v., 30°C temperature rise. Voltage rating: 2000 volts at sea level. Contact resistance: .007 ohm.

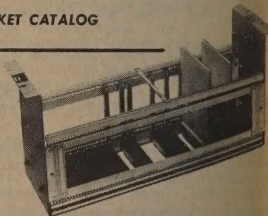
SINGLE TIER WITH STANDARD BRACKETS (FIGS. A, B)
Available in double tier for 20, 24, 28, 32 and 36 contacts. Plug type (Fig. A) mates with receptacle type (Fig. B) and Cover Type (Fig. D); (see other listings). Receptacle unit also mates with Cover Type (Fig. C).

SINGLE TIER WITH COVERS AND CLAMPS (FIGS. C, D)
Plug unit (Fig. C) mates with receptacle unit (Fig. D), plus standard bracket type (Fig. B) and recessed housing type (Fig. F). Receptacle unit also mates with standard bracket type (Fig. A) and recessed housing type (Fig. E).

SINGLE TIER WITH RECESSED HOUSING (FIGS. E, F)
Units available in double tier for 20, 24, 28, 32 and 36 contacts. Plug unit (Fig. E) does not mate with receptacle unit (Fig. F); mates with cover and clamp type (Fig. D) only. Receptacle unit mates with cover and clamp type (Fig. C) only.

FOR COMPLETE DATA, CONTACT YOUR ELCO DISTRIBUTOR
FOR OUR VARICON* CONNECTOR CATALOG

Series 9016 ELCO VARIPAK* Printed Circuit Card Enclosure



Designed to be adapted to any packaging technique utilizing printed or etched circuitry, and to provide maximum density. It holds the printed circuit cards and printed circuit connectors in correct alignment, and its adaptability to any packaging program is universal.

Available in 4 standard sizes, making it possible to package all 4,500 wide printed circuit cards.

Made completely of aluminum. Guide Plate is extruded aluminum 6063-T6. Mounting Hanger and Connector Panel are made of No. 14 gauge aluminum 6061-T4.

CONNECTOR PANEL—Available for two types of connector mounting—panel type and strap type. Strap type 1/8" thick, 3/4" wide aluminum strap mounted to each Guide Plate. The Connector Panel is a precision blanked part.

GUIDE PLATE—Available in various sizes. Has provisions to mount VARIPAK* Guides in 82 different positions on a .200" grid. The greatest density possible is 41 guides on a .400" spacing.

GUIDES—Made of polycarbonate with a temperature rating of 280°-300° F. Designed to snap in place in any of 82 positions provided in the Guide Plate. Available in three printed circuit card thicknesses—1/16", 3/32" and 1/8". Quickly removable from any position without damage to either Guide or Guide Plate.

ACCESSORIES—The following are accessory parts supplied on request at additional cost:

Marker Strip—63-9016.2402, an extruded flexible white polyvinyl strip provides an area upon which component identification can be imprinted.
Front Panel—63-9016.2201, a panel of 14 gauge aluminum 6061-T4. Hinge and mounting hardware can be provided to serve a decorative, protective or functional purpose.

FOR COMPLETE DATA, REQUEST BULLETIN 03-9016

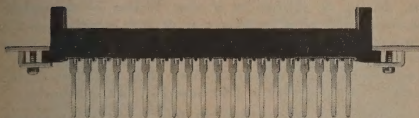
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Series 00-5006, 00-5007 Miniature VARICON* Printed Circuit Connectors



One-piece molded insulator with integrally molded card guides as part of connector body. Mounting brackets attached to insulator in Series 00-5006; two .128 dia. mounting holes. Series 00-5007. Contact configuration is single row of contacts, .200 spacing. Contacts are miniature VARICON* type. Sizes 12 to 26 contacts. Module card sizes $\frac{1}{16}$, $\frac{1}{32}$, base card sizes $\frac{1}{16}$, $\frac{1}{32}$, $\frac{1}{8}$. Polarization accomplished by plastic insert within connector card slot.

FOR COMPLETE DATA, CONTACT YOUR DISTRIBUTOR
FOR OUR PRINTED CIRCUIT CATALOG

Series 00-7001, 00-7008 Miniature VARICON* Printed Circuit Connectors



SERIES 7001

SERIES 7008

Designed for greater density. Provide double row of printed circuit contacts. One-piece molded connector body; available with or without integrally molded card guides. Two .128 dia. mounting holes. Double row of VARICON* miniature contacts on .200 centers, rows .125 apart, each row offset .100 from the other. 6 sizes from 17 to 47 contacts. Module card sizes: $\frac{1}{16}$ and $\frac{1}{32}$. Base card size: $\frac{1}{16}$, $\frac{1}{32}$ and $\frac{1}{8}$. Offers polarization features.

FOR COMPLETE DATA, CONTACT YOUR DISTRIBUTOR
FOR OUR PRINTED CIRCUIT CATALOG

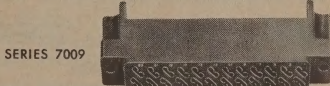
Series 00-6007 Miniature Printed Circuit Card-Edge Connectors



Versatile design to provide optimum performance from single or double-sided printed circuit cards. One-piece molded connector body with mounting holes. One row of contacts of .156 spacing. Single, dual or switch type contacts. Also terminations for taper tab, wire hole and wire wrapping. Sizes 6/12 to 22/44 contacts. Module card size $\frac{1}{16}$. Base and card sizes up to $\frac{1}{8}$. Offers polarization feature.

FOR COMPLETE DATA, CONTACT YOUR DISTRIBUTOR
FOR OUR PRINTED CIRCUIT CATALOG

Series 00-7009 Miniature VARITWIN-PIN* Printed Circuit Connector

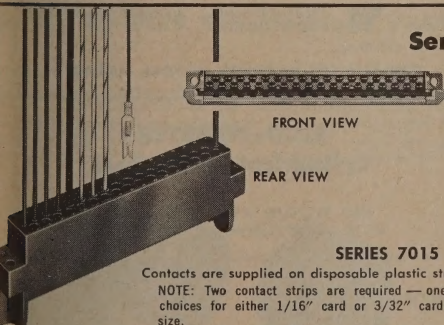


SERIES 7009

Bifurcated contact terminations accept two Series 53 wire taper pins. Designed to mate with Series 00-7008 upper and lower tier contacts staked to module card. One-piece molded connector body, with or without integrally molded card guides. Two .128 dia. mounting holes. Two rows of VARICON* noses with VARITWIN-PIN* terminations recessed into connector body. Contacts on .200 centers, with .125 between rows, one row offset .100 from the other. Standard sizes 16, 20, 24, 34, 40 contacts; others on request. Module card $\frac{1}{16}$. Offers polarization feature.

FOR COMPLETE DATA, CONTACT YOUR DISTRIBUTOR
FOR OUR PRINTED CIRCUIT CATALOG

Series 00-7015 Miniature VARILOK* Printed Circuit Connector



FRONT VIEW

REAR VIEW

Similar to Series 00-7008, but accepts VARILOK* crimp-type, snap-in contacts, offering proven reliability of VARICON* contacts and which, in same size, accept all wires 16 to 30 gauge. Provide positive locking of contacts into connector; mates with itself or numerous other VARICON* connectors. Available with or without card guides. Mounting accomplished via two .128 diameter holes. Two rows of VARILOK* contacts in 17 to 47 contacts. Module card sizes $\frac{1}{16}$ or $\frac{1}{32}$. Offers polarization feature.

SERIES 7015 ELCO PLUG CONTACTS

Contacts are supplied on disposable plastic strips—See Series 7021-7022 for molded plugs.

NOTE: Two contact strips are required—one Lower Tier and one Upper Tier. The Lower Tier has two choices for either 1/16" card or 3/32" card sizes. The Upper Tier has only one contact for either card size.

CONTACTS CUT TO LENGTH BY YOUR DISTRIBUTOR

LOWER TIER				UPPER TIER	
1/16" CARD		3/32" CARD		1/16" CARD	3/32" CARD
02-777-135-5200	02-777-147-5200	02-777-136-5200	02-777-148-5200	02-777-137-5200	02-777-138-5200

777=No. of Contacts

FOR COMPLETE DATA, ASK YOUR DISTRIBUTOR FOR OUR CONTACT CATALOG

*ELCO Corporation Trade-Mark

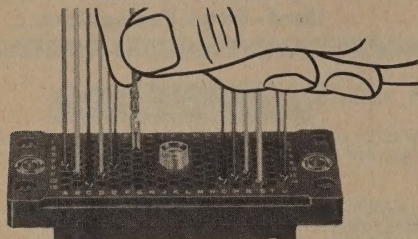
ELCO Maintains A Complete Inventory for Exclusive Use of ELConer Distributors



DISTRIBUTOR DIVISION

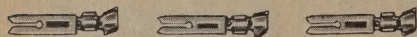
ELCO CORPORATION

Series 00-8000 VARILOK* Contacts

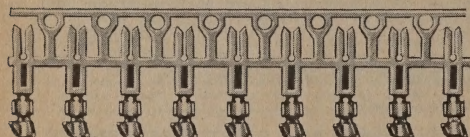


Most recent development in applying VARICON* contact to self-locking, crimped-wire technique. Serves increasing need for advanced wiring technique of solderless connections. VARILOK* contacts may be crimped to wire independently, stored and stocked; inserted into insulator when needed. Insertion accomplished easily, speedily by inserting contact into any insulator hole selected; may be extracted with equal facility. Locks into insulator positively; will not twist, turn or bend out of alignment. Contacts available loose or on reels for use with automatic crimping machines. Many ELCO rack and panel plus printed circuit connectors available for use with VARILOK* contacts. Also available: Hand Crimping Tool; VARIMATIC* Automatic Crimping Machine; Insertion Tool; Extraction Tool; Concentricity Gage.

ELCO VARILOK* Self-Locking Crimped Wiring Contacts



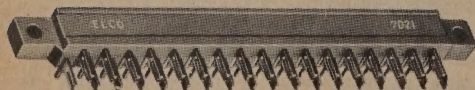
60-8017.0313 SUPPLIED LOOSE
FOR USE WITH HAND-CRIMPING TOOL



60-8017.0323 SUPPLIED IN CONTINUOUS STRIPS
FOR USE WITH VARIMATIC* AUTOMATIC CRIMPING
MACHINE (1800 TO REEL)

FOR COMPLETE DATA, REQUEST OUR CONTACT CATALOG

Series 00-7021, 00-7022, 00-7023, and 00-7024 Sub-Miniature VARICON* Printed Circuit Connectors



One fully assembled unit replaces lower and upper board contacts supplied on plastic strips. Contacts are bonded into our Series 00-7000 pattern, with only one leg on each contact for staking into module card. Offers simultaneous, simplified staking; maximum contact protection. Series 00-7021 for use with receptacles without card guides. Series 00-7022 for use with receptacles with card guides. Series 00-7021 has guide pins for use with Series 00-7024 receptacles. Series 00-7021 and 00-7023 have mounting holes at either end; Series 00-7022 mounted by staking of contacts to module card. 12 contact sizes, 16 to 47. Module card sizes $\frac{1}{8}$, and $\frac{3}{16}$. Polarization feature offered. Series 00-7023 and 00-7024 can be furnished per MIL-C-21097-B.

FOR COMPLETE DATA, REQUEST OUR
PRINTED CIRCUIT CONNECTOR CATALOG

ELCO VARICON* Printed Circuit Contact Strips

ELCO VARICON* Contacts are supplied on disposable plastic strips of .200" spacing, except ELCO MICROCON* Contacts, which are at .100" spacing. One to 60 contacts to a strip. Staking of the contacts on printed circuit card is made in accordance with modern mass-production techniques with the special staking tools. Contacts: Phospho Bronze. Finish: Gold flash over nickel plate. Contact Resistance: .00 ohm max. Insertion and withdrawal force: 8 oz. per contact, average. Contact Life: Unchanged after 5000 insertions and withdrawals.

FOR COMPLETE DATA, REQUEST OUR CONTACT CATALOG

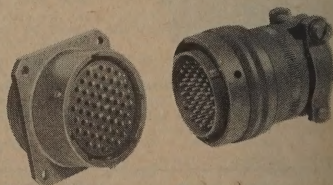


Model No.	Description
02-777-013-5200	Module Card 1/16"
02-777-014-5200	Module Card 3/32"
02-777-111-5200	45° for 1/16" Card
02-777-112-5200	45° for 3/32" Card
02-777-113-6200	Stand-off 1/16" Card
02-777-114-6200	Stand-off 3/32" Card
02-777-135-5200	Lower Tier—1/16" Card
02-777-136-5200	Lower Tier—3/32" Card
02-777-137-5200	Upper Tier—1/16" Card
02-777-138-5200	Upper Tier—3/32" Card
02-777-147-5200	Lower Tier—1/16" Card
02-777-148-5200	Lower Tier—3/32" Card
02-777-701-3100	MICROCON*—Stand-off 1/32" Card
02-777-702-5100	MICROCON*—1/32" Card
02-777-703-5100	MICROCON*—1/16" Card

??? = No. of Contacts.

CONTACTS CUT TO LENGTH BY YOUR DISTRIBUTOR

ELCO-WEBSTER Cylindrical Connectors



Precision cylindrical connectors for anyone who designs, specifies or purchases for governmental or equally rigid commercial manufacturing. This line covers the entire spectrum of audio and power connectors from 4 to 30 contacts, and includes the new miniature cylindrical conforming to MIL-C-26482.

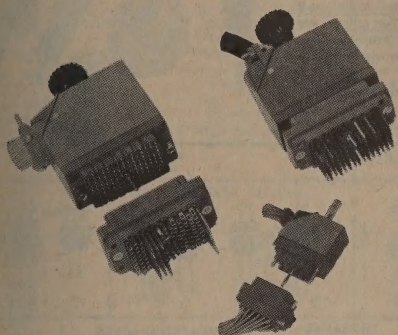
FOR COMPLETE DATA, REQUEST OUR
CYLINDRICAL CONNECTOR CATALOG

*ELCO Corporation Trade-

ELCO Maintains A Complete Inventory for Exclusive Use of ELCOneer Distributor



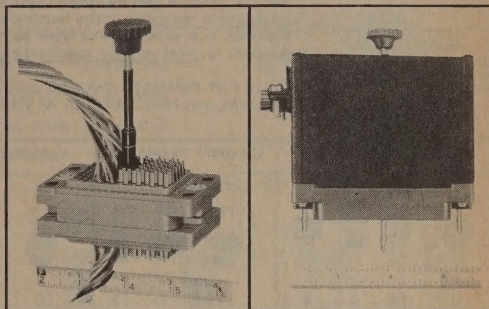
Series 00-8016
Miniature VARICON*
Rack and Panel/Cable Connector



Embodies usage of VARILOK* crimp-type contacts in both plug and receptacle. Optional features include actuating screw and aluminum cover with reversible clamp for top or side cable entrance. One-piece molded connector body, with guide pins and sockets for proper mating alignment. Four .125 dia. mounting holes. Contacts on .150 honeycomb grid. Standard sizes include our new 20, 90, 120 contacts, as well as our popular 38, 56 contact models. All offer polarization feature.

FOR COMPLETE DATA, REQUEST OUR
RACK-AND-PANEL/CABLE CONNECTOR CATALOG

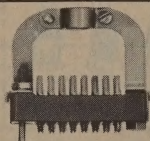
Series 00-8017, 00-8018
Miniature VARICON*
Rack and Panel/Cable Connector



Embodies usage of VARILOK* crimp-type contacts in addition to factory installed contacts. One-piece connector body with guide pins and sockets for proper mating alignment. 4 to 8 contacts per row at .150 spacing, alternate rows offset .075. Series 00-8017, with 75, 100 or 130 contacts, provided with screw actuating device, and optional vinyl-coated cover. Series 00-8018, with 80, 110 or 140 contacts, provided with cover, may be used with or without hold-down device. Offer changeable polarization feature.

FOR COMPLETE DATA, REQUEST OUR
RACK-AND-PANEL/CABLE CONNECTOR CATALOG

Series 00-8125
Sub-Miniature VARICON*
Connectors



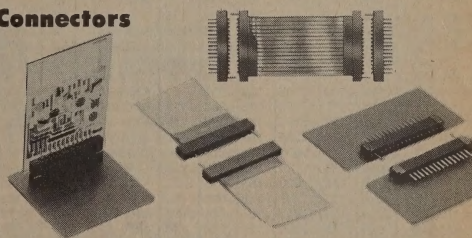
FOR COMPLETE DATA, REQUEST OUR PRINTED CIRCUIT CONNECTOR CATALOG

Consists of hermaphroditic plug and receptacle, each of one-piece molded construction. Provides extra-thick guide pins; with top or side cable clamp, locking clips, honeycomb insulator, potting shell with or without flange as optional features. 4 rows of 8 contacts each. Standard size 32 sub-miniature VARICON* contacts of 5 types. Offers polarizing feature.

Series 00-8129 Subminiature VARICON* Connectors

Similar to our Series 8108 Hermaphroditic. For printed circuit, flexible welded cable, rack-and-panel and substrate application. One piece diallyl phthalate insulator. Pin and socket arrangement for mating; brackets for upright or side mounting. 6, 9, 12 or 15 subminiature Series 100 VARICON* contacts in single row on .100" centers, contacts on .5" axis. $\frac{1}{16}$ ", $\frac{3}{32}$ ", $\frac{1}{8}$ " module and base card sizes. Write for

FOR COMPLETE DATA, REQUEST OUR
PRINTED CIRCUIT CONNECTOR CATALOG



ELCO-VECTOR Plugboard and Receptacles

Ideal for printed circuit prototypes, plug-in test circuits and computer cards. Saves times and money. Permits circuit changes with simple hand tools. Several cards may be used in conjunction with each other by wiring connections between receptacles. CARD MATERIAL: Epoxy glass $\frac{1}{16}$ " thick, suffix WE (example: 837WE) indicates Epoxy glass card. Pattern "G," 0.062 holes on alternate 0.1" grid.

CONTACTS—ELCO VARICON* Contacts, phosphor bronze, .0002 nickel plated and gold flashed on both card and receptacle.

RECEPTACLE—One piece glass filled Diallyl Phthalate insulator with .078 base taper tab termination. Models R612-1 and R616-1 supplied without P. C. Card Guides, Model R635 with Guides.

USE: Graph paper 10 squares per inch, may be used for initial circuit layout. Push-in terminals are then positioned on card as designed in layout. Contacts are soldered to staked eyelets on bottom edge for terminations. Bare wire may be used for inter-component connections.

FOR COMPLETE DATA, REQUEST OUR BULLETIN 02-5000

*ELCO Corporation Trade-Mark

ELCO Maintains A Complete Inventory for Exclusive Use of ELCOneer Distributors

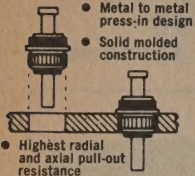
Nurl-Loc®

(Pats. and Pats. Pend.)

TERMINALS

STANDOFFS

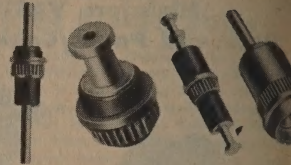
FEED-THRU



NURL-LOC DESIGN

Electronic Molding offers the largest variety of molded insulated terminals available anywhere. The metal inserts are molded into high-temperature Dialyl Phthalate, (500°F) forming a strong integral unit that will not crack while soldering. The metal to metal Nurl-Loc press-in feature (shown left) assures highest radial and axial pullout resistance of any terminal of this type. Ten colors are available, in a wide range of types for various applications, many designed to meet military specifications, plus mounting tools.

WRITE FOR COMPLETE CATALOG describing and illustrating over 800 items, and FREE SAMPLES for evaluation.



FEED-THRU END HOLE					STANDOFF TERMINALS					FEED-THRU THRU HOLE					FEED-THRU				
8	50	6	4		11	1	12			10	2	49			13	7	5	9	3
																		36	28
ULTRA MINIATURE SERIES					THREADED NURL-LOC FEED-THRU					THREADED FEED-THRU					INSULATED SPACERS				
47	13	12	10		73	71	72	70		37	69	33	32		81	82	83	84	
																			53
																			51
MIL-T-55155 TERMINALS					DOUBLE TURRET					STANDOFF TERMINALS					STRAIGHT PIN				
89M	90M	91M			92	93	94	91		90	95	89			96	97	98	99	100
																			101

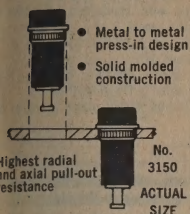
PART NO.	TYPE	A	B	C	D	E	MTG. HOLE	PART NO.	TYPE	A	B	C	D	E	MTG. HOLE	PART NO.	TYPE	A	B	C	D	E	MTG. HOLE
2781-4-1	1	.151	.075	.060	.155	.070	.136	3337-4-1	12	.145	.075	.090	.098	.030	.086	3327-53-1	84	17/32	5/32	5/32	1/4	6-32	
2772-4-1	1	.195	.120	.060	.155	.083	.136	2945-4-1	13	.250	.205	.265	.155	.040	.136	4096-52-1	89M	.593	.218	.156	.140	4-40	
4786-14-1	1	.437	.210	.105	.187	.093	.156	3336-4-1	13	.145	.075	.180	.098	.030	.086	2014-91-1	89	19/32	7/32	5/32	.140	4-40	
2912-4-1	1	.195	.120	.075	.155	.083	.136	4156-4-1	28	.380	.225	.440	.180	.072	.161	2175-91-1	89	25/64	5/32	5/64	.072	2-56	
2497-4-1	2	.151	.075	.060	.155	.025	.136	4363-64-1	32	.272	.077	.397	7/32	.080	.203	3045-92-1	90M	3/8	.156	.218	.093	2-56	
4361-4-1	2	.175	.200	.060	.155	.036	.136	3376-64-1	33	7/16	.130	5/8	.312	.078	.265	3046-92-1	90M	17/32	.156	.218	.093	2-56	
2764-4-1	3	.195	.120	.060	.155	.025	.136	4047-64-1	33	11/32	.123	17/32	.312	.092	.265	2050-91-1	90	19/32	7/32	7/32	.140	4-40	
2767-4-1	3	.195	.120	.185	.155	.050	.136	4388-14-1	36	.437	.210	.440	.187	.093	.156	2464-91-1	90	29/64	7/32	7/32	.072	2-56	
2526-4-1	4	.195	.120	.185	.155	.050	.136	4179-126-1	37	.065	.025	.150	.281	4-40	.250	2899-91-1	90	25/64	5/32	7/32	.072	2-56	
2599-4-1	4	.151	.075	.185	.155	.029	.136	4201-126-1	37	.275	.156	.406	.281	4-40	.250	2989-52-1	91M	.718	.343	.156	.140	4-40	
2806-4-1	5	.210	.135	.200	.155	.055	.136	4295-4-1	47	.145	.090	.365	.098	.030	.086	2990-62-1	91M	.937	.343	.218	.140	4-40	
2809-4-1	5	.210	.135	.200	.155	.055	.136	4485-4-1	49	.150	.090	.400	.098	.030	.086	2131-91-1	91	23/32	1/32	5/32	.140	4-40	
4490-4-1	5	.210	.135	1.000	.155	.055	.136	4174-4-1	49	.135	.070	.060	.155	.031	.136	4064-91-6	91	23/32	7/32	1/8	7/64	4-40	
4495-4-1	5	.210	.135	1.125	.155	.055	.136	3034-4-1	50	.195	.110	.185	.156	.029	.136	2174-91-1	91	25/64	5/32	5/64	.072	2-56	
2798-4-1	6	.210	.135	1.000	.155	.034	.136	4066-4-1	50	.115	.033	.185	.156	.029	.136	2037-91-1	91	7/8	1/32	7/32	.140	4-40	
4031-4-1	6	.210	.135	2.000	.155	.034	.136	4338-4-1	51	.260	.182	.300	.187	.037	.156	4554-54-5	92	1/2	.240	.165	.093	.113	
2803-4-1	6	.210	.135	.375	.155	.034	.136	4250-4-1	53	.218	.082	.277	.187	.037	.156	2049-91-1	93	23/32	11/32	7/32	.140	4-40	
2778-4-1	7	.150	.075	.200	.155	.040	.136	4803-126-1	69	.270	.125	.325	.281	4-40	.250	4462-91-1	93	25/64	1/16	5/32	.072	2-56	
2779-4-1	7	.150	.075	.100	.155	.040	.136	4804-126-1	69	.270	.125	.325	.281	6-32	.250	4661-91-1	94	25/64	7/32	5/16	.093	6-32	
4130-4-1	7	.140	.065	.500	.155	.040	.136	4805-126-1	70	.351	.156	.325	.281	4-40	.250	2606-91-1	95	19/32	7/32	7/32	.140	4-40	
2792-4-1	8	.150	.075	.200	.155	.025	.136	4806-126-1	70	.351	.156	.325	.281	6-32	.250	2702-91-1	95	29/64	7/32	1/8	.072	2-56	
2918-4-1	8	.150	.075	.100	.155	.025	.136	4807-126-1	71	.362	.187	.406	.281	4-40	.250	2696-91-1	95	25/64	7/32	1/8	.072	2-56	
3013-4-1	8	.185	.110	.090	.155	.016	.136	4808-126-1	71	.362	.187	.406	.281	6-32	.250	4720-91-1	96	5/8	1/4	7/32	.078	4-40	
4111-4-1	8	.187	.112	.485	.155	.033	.136	4809-126-1	72	.331	.156	.417	.281	4-40	.250	2154-91-1	96	27/64	3/16	5/32	.082	2-56	
2819-4-1	9	.255	.105	.295	.180	.072	.161	4810-126-1	72	.331	.156	.417	.281	6-32	.250	2630-91-1	97	.865	.290	7/32	.070	4-40	
2926-4-1	10	.171	.096	.075	.155	.030	.136	4811-126-1	73	.351	.156	.417	.281	4-40	.250	2738-91-1	97	27/64	3/16	3/16	.082	2-56	
4340-4-1	10	.225	.110	.120	.187	.030	.156	4812-126-1	73	.351	.156	.417	.281	6-32	.250	2782-91-1	98	5/8	1/4	5/32	.078	2-56	
2930-4-1	10	.115	.040	.060	.155	.025	.136	2479-53-1	81	5/8	1/4	7/32	1/4	4-40	.125	2718-91-1	98	27/64	3/16	5/64	.082	2-56	
4547-4-1	10	.180	.075	.090	.098	.023	.086	2480-53-1	81	25/32	1/4	7/32	1/4	4-40	.125	2539-91-1	99	5/8	1/4	7/32	3/16	4-40	
2932-4-1	11	.171	.096	.075	.155	.093	.136	3320-53-1	82	5/8	1/4	5/32	1/4	4-40	.125	2541-91-1	99	25/32	1/4	7/32	3/16	4-40	
2934-4-1	11	.115	.040	.075	.155	.083	.136	2485-53-1	82	3/4	1/4	7/32	1/4	4-40	.125	2666-91-1	100	5/8	1/4	7/32	3/16	4-40	
2996-4-1	11	.193	.117	.060	.155	.093	.136	3329-53-1	83	3/8	5/32	7/32	1/4	4-40	.125	2671-91-1	100	27/32	1/4	7/32	3/16	6-32	
4090-4-1	11	.193	.117	.075	.155	.093	.136	2482-53-1	83	1/2	7/32	7/32	1/4	4-40	.125	2304-91-1	101	9/16	3/16	5/32	3/16	4-40	
2939-4-1	12	.250	.205	.075	.155	.043	.136	3325-53-1	84	1/2	5/32	5/32	1/4	4-40	.125	2994-91-1	101	27/32	1/4	7/32	3/16	4-40	

ELECTRONIC MOLDING CORPORATION

Nurl-Loc[®] TEST JACKS

(Pats. and Pats. Pend.)

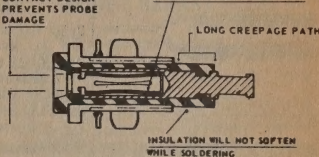
THREADED
PUSH-ON
NURL-LOC
PRINTED CIRCUIT



- Rugged Molded Construction assures high reliability.
- A wide range of colors for coding.
- High temperature Diallyl Phthalate (500°F).
- Closed entry feature guards against damaging contact with over-size test probe.
- Short test jack NO. 4274 allows minimum space requirements.
- Good resistance to shock and vibration.
- Hour Glass type spring contact maintains a low millivolt drop after repeated insertions and withdrawals.
- High temperature insulation allows long creepage path at solder terminal end of jack.
- High temperature rigid insulation will not soften and flow at soldering temperature.

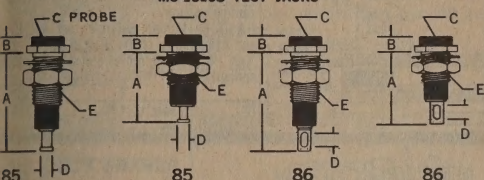
CLOSED-ENTRY
CONTACT DESIGN
PREVENTS PROBE
DAMAGE

4 POINT HOUR GLASS CONTACT

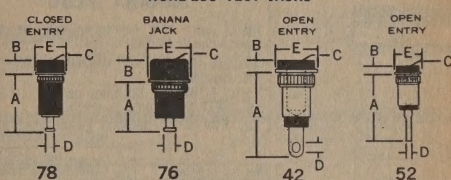


MILITARY CLOSED ENTRY TEST JACKS

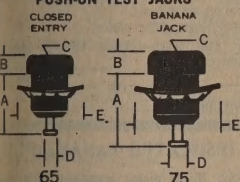
MS-16108 TEST JACKS



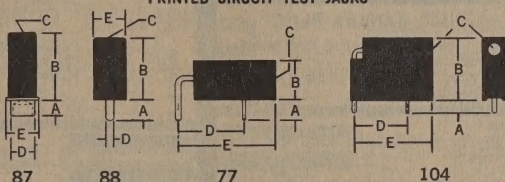
NURL-LOC TEST JACKS



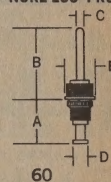
PUSH-ON TEST JACKS



PRINTED CIRCUIT TEST JACKS



NURL-LOC PROBE



T. NO.	TYPE	A	B	C	D	E	MTG. HOLE	PART NO.	TYPE	A	B	C	D	E	MTG. HOLE	PART NO.	TYPE	A	B	C	D	E	MTG. HOLE
2-104*	42	35/64	.080	.080	.115	.218	.172	3150-113*	78	.574	.093	.080	.093	.281	.250	4653-86*	86	27/32	9/64	.080	.120	1/4-32	.265
3-104*	52	1/2	.061	.040	.040	.203	.181	4928-144*	78	.315	.098	.040	.079	.216	.172	4862-86*	86	19/32	9/64	.080	.120	1/4-32	.265
3-116*	65	9/16	.125	.080	.093	17/32	.266	4962-134*	76	.400	.156	.080	.093	.281	.250	4349-139*	87	.109	.500	.080	.145	.250	.149
5-124*	75	5/8	.187	.185	.093	17/32	.266	4242-86*	85	13/16	9/64	.080	.116	1/4-32	.265	5075-139*	88	.12	.312	.090	.148	.195	.082
6-126*	76	39/64	.207	.185	.093	.375	.343	4274-86*	85	35/64	9/64	.080	.093	1/4-32	.265	5173-125	104	.13	.487	.080	.400	.281	.250
9-125*	77	.125	.230	.080	.400	.600	.052	4876-86*	85	13/16	9/64	.080	.116	1/4-32	.265	NURL-LOC PROBE							
																5194-148-1	60	.406	.675	.080	.140	.281	.250

Specify color when ordering

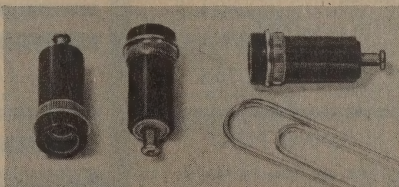
MS 16108 CROSS REF.

MILITARY STANDARD NUMBER	EMC NUMBER
MS 16108-1A	4242-86-9
MS 16108-2A	4242-86-2
MS 16108-3A	4242-86-0
MS 16108-4A	4242-86-1
MS 16108-5A	4242-86-5
MS 16108-6A	4242-86-3
MS 16108-7A	4242-86-6
MS 16108-8A	4242-86-4
MS 16108-9A	4242-86-8
MS 16108-10A	4242-86-7
MS 16108-1C	4653-86-9
MS 16108-2C	4653-86-2
MS 16108-3C	4653-86-0
MS 16108-4C	4653-86-1
MS 16108-5C	4653-86-5
MS 16108-6C	4653-86-3
MS 16108-7C	4653-86-6
MS 16108-8C	4653-86-4
MS 16108-9C	4653-86-8
MS 16108-10C	4653-86-7

MIL-C-39024

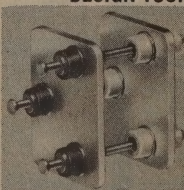
SPECIFICATION

MIL-C-39024 NUMBER	EMC PART NUMBER
MIL-C-39024/1	4242 4274
MIL-C-39024/2	4876
MIL-C-39024/3	4877 4879
MIL-C-39024/5	3150 4928 4952

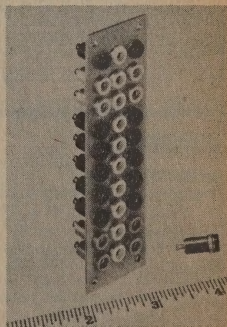


EMC Test Jacks are designed to offer the most rugged construction and dependable performance, combined with minimum size for the most sophisticated electronic applications. Samples are available upon request. Please indicate your basic requirements.

DESIGN-YOUR-OWN CONNECTORS



Male/female custom connectors may be fabricated "on-the-job" through the use of Nurl-Loc Probes and Jacks, to fulfill any immediate or specialized requirements. Merely drill or stamp holes and add Probes and jacks as required. While not a stock item, EMC can furnish pre-assembled connectors to your specifications on special order.



TEST/PATCH PANELS

Metal panels of desired size and shape may be drilled or stamped to specification with .250" mounting holes. Nurl-Loc closed entry test jacks are pressed in for fast installation. With connectors or test panels, an infinite combination of layouts is possible, with up to 10 colors of jacks for coding.

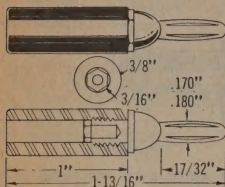
ELECTRONIC MOLDING CORPORATION



ELECTROCRAFT ELECTRONIC COMPONENTS

BANANA PLUGS

ILLUSTRATIONS



DESCRIPTION

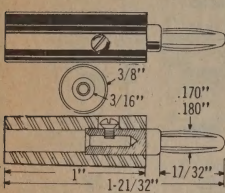
BANANA PLUG*

DESC: Hex brass body, separate internal brass stud for solderless or soldered connection.
RATING: 15 amps AC for 10 degrees C Temp. rise, continuous duty.

HANDLE: Molded Butyrate, per MIL-LP-349-A and ASEA letter QUD4-59-4820 type 3.

TIP: Four leaved, phosphor bronze nickel plated spring.

No.	Color	No.	Color	Net per C 22.00
33-000-BU	Red	33-002-BU	Blk	



BANANA PLUG*

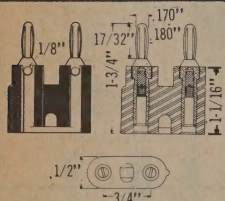
DESC: Lead wire connection with set screw through plastic handle.

RATING: 15 amps AC for 10 degree C Temp. rise, continuous duty.

HANDLE: Molded Butyrate, per MIL-LP-349-A and ASEA letter QUD4-59-4820 type 3.

TIP: Four leaved, phosphor bronze nickel plated spring.

No.	Color	No.	Color	Net per C 19.00
33-006-BU	Red	33-008-BU	Blk	



DUAL BANANA PLUG

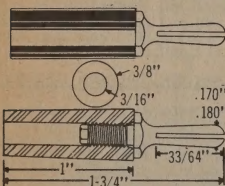
DESC: Brass, nickel plated plug. Mates with standard dual binding posts.

RATING: 15 amps AC for 10 degrees C Temp. rise, continuous duty.

BODY: Molded cycloc plastic, per MIL-M-22544, type 4.

TIPS: Four leaved, phosphor bronze nickel plated springs.

No.	Color	Net per C 72.00
33-010-BU		



BANANA PLUG*

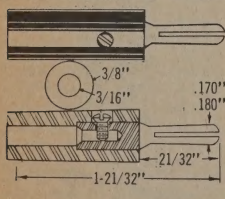
DESC: Separate internal brass stud for solderless or soldered connection.

RATING: 15 amps AC for 10 degree C Temp. rise, continuous duty.

HANDLE: Molded Butyrate, per MIL-LP-349-A and ASEA letter QUD4-59-4820 type 3.

TIP: Cross slotted, nickel plated brass.

No.	Color	No.	Color	Net per C 19.00
33-012-BU	Red	33-014-BU	Blk	



BANANA PLUG*

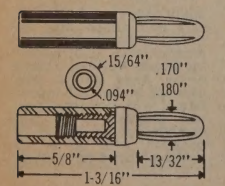
DESC: Lead wire connection with set screw through plastic handle.

RATING: 15 amps AC for 10 degree C Temp. rise, continuous duty.

HANDLE: Molded Butyrate, per MIL-LP-349-A and ASEA letter QUD4-59-4820 type 3.

TIP: Cross slotted, nickel plated brass.

No.	Color	No.	Color	Net per C 19.00
33-018-BU	Red	33-020-BU	Blk	



BANANA PLUG

DESC: Midget type; lead wire connection solders to drilled body.

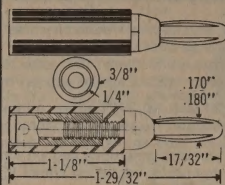
RATING: 10 amps AC for 10 degree C Temp. rise, continuous duty.

HANDLE: Molded Butyrate, per MIL-LP-349-A and ASEA letter QUD4-59-4820 type 3.

TIP: Four leaved, phosphor bronze, nickel plated spring.

No.	Color	No.	Color	Net per C 19.00
33-024-BU	Red	33-026-BU	Blk	

ILLUSTRATIONS



DESCRIPTION

BANANA PLUG

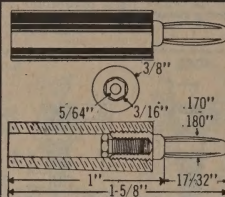
DESC: Lead wire connection with set screw through plastic handle.

RATING: 15 amps AC for 10 degree C Temp. rise, continuous duty.

HANDLE: Molded Butyrate, per MIL-LP-349-A and ASEA letter QUD4-59-4820 type 3.

TIP: Four leaved, nickel plated phosphor bronze spring.

No.	Color	No.	Color	Net per C 22.00
33-028-1BU	Red	33-028-2BU	Blk	



BANANA PLUG*

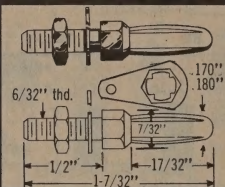
DESC: Wire solders to stud; or brass stud in place for solderless connection.

RATING: 15 amps AC for 10 degree C Temp. rise, continuous duty.

HANDLE: Molded Butyrate, per MIL-LP-349-A and ASEA letter QUD4-59-4820 type 3.

TIP: Four leaved, nickel plated, phosphor bronze spring.

No.	Color	No.	Color	Net per C 19.00
33-032-1BU	Red	33-032-2BU	Blk	



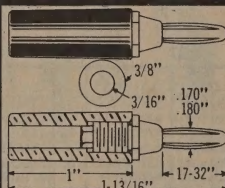
BANANA PLUG

DESC: Threaded shank type, supplied with minimal lug and hex nut.

BODY: Brass, nickel plated.

TIP: Four leaved, phosphor bronze nickel plated spring.

No.	Color	Net per C 19.00
33-034-BU		



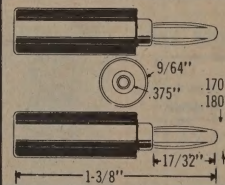
INSULATED BANANA PLUG

DESC: Nickel plated brass plug, fits standard Banana Jack.

HANDLE: Molded Butyrate, per MIL-LP-349-A and ASEA letter QUD4-59-4820 type 3.

TIP: Four leaved beryllium copper, nickel plated spring.

No.	Color	No.	Color	Net per C 19.00
33-036-1BU	Red	33-036-2BU	Blk	



INSULATED BANANA PLUG

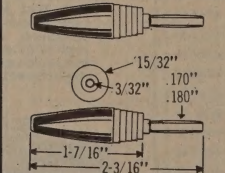
DESC: Solderless connection, nickel plated plug. Fits standard Banana Jack.

RATING: 15 amps AC for 10 degree C Temp. rise, continuous duty.

HANDLE: Molded Nylon, per MIL-P-20693A, type 4.

TIP: Four leaved beryllium copper nickel plated spring.

No.	Color	No.	Color	Net per C 19.00
33-037-1BU	Red	33-037-2BU	Blk	



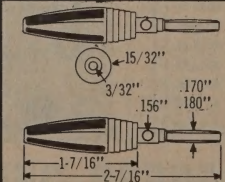
BANANA PLUG

DESC: Flexible handle type.

HANDLE: Unbreakable, shockproof plastic.

TIP: Phosphor bronze, nickel plated spring.

No.	Color	No.	Color	Net per C 23.00
33-040-1BU	Red	33-040-2BU	Blk	



BANANA PLUG

DESC: Flexible handle, stock type.

HANDLE: Unbreakable, shockproof plastic.

TIP: Phosphor bronze, nickel plated spring.

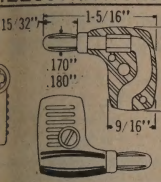
No.	Color	No.	Color	Net per C 23.00
33-042-1BU	Red	33-042-2BU	Blk	

*Also available in Bulk quantities in yellow, green, or blue. To order: add to part number, "-3BU" for yellow, "-4BU" for green, "-5BU" for blue. Example: No. 33-000-3BU (for yellow).



ELECTROCRAFT ELECTRONIC COMPONENTS

ILLUSTRATIONS



BANANA PLUGS

DESCRIPTION

BANANA PLUG

DESC: Right angle "Gun" Tip (meter plug), lead wire solders to body.

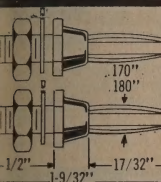
RATING: 10 amps AC for 10 degree C Temp. rise, continuous duty.

HANDLE: Molded plastic, per MIL-P-14 CFG.

TIP: Four leaved, phosphor bronze, nickel plated springs.

No. Color No. Color
33-046-BU Red 33-048-BU Blk

Net per C 36.00



BANANA PLUG

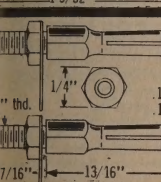
DESC: All metal, threaded shank type, with terminal lug and hex nut.

BODY: Brass, nickel plated.

TIP: Four leaved, nickel plated phosphor bronze spring.

No. Color No. Color
33-058-BU Red 33-048-BU Blk

Net per C 15.00



BANANA PLUG

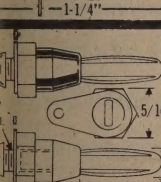
DESC: Threaded shank type, supplied with terminal lug and hex nut.

BODY: Brass, nickel plated.

TIP: Cross slotted, brass, nickel plated.

No. Color No. Color
33-060-BU Red 33-048-BU Blk

Net per C 14.00



BANANA PLUG

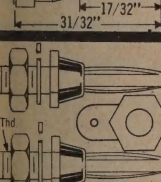
DESC: Panel mounting type, number 6-32 tapped body, with screw and terminal lug.

BODY: Brass, nickel plated.

TIP: Four leaved, phosphor bronze, nickel plated spring.

No. Color No. Color
33-062-BU Red 33-048-BU Blk

Net per C 18.00



BANANA PLUG

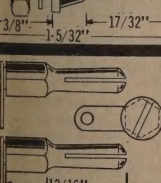
DESC: Threaded shank type, with terminal lug and hex nut.

BODY: Brass, nickel plated.

TIP: Four leaved, phosphor bronze, nickel plated spring.

No. Color No. Color
33-064-BU Red 33-048-BU Blk

Net per C 18.00



BANANA PLUG

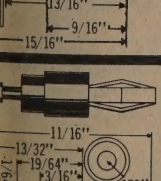
DESC: Panel mounting type, tapped number 6-32, with screw and terminal lug.

BODY: Brass, nickel plated.

TIP: Cross slotted, brass, nickel plated.

No. Color No. Color
33-066-BU Red 33-048-BU Blk

Net per C 15.00



BANANA PLUG

DESC: Printed circuit, sub-miniature rivet type, solder connection, fits jacks with 104 I.D.

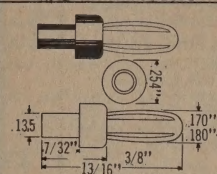
TIP: Four leaved, beryllium copper, silver plated spring.

No. Color No. Color
33-068-BU Red 33-048-BU Blk

Net per C 18.00

Also available in Bulk quantities in yellow, green, or blue. To order: add to part number, "5BU" for blue. Example: No. 33-000-3BU (for yellow).

ILLUSTRATIONS



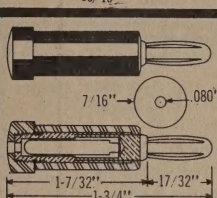
MIDGET BANANA PLUG

DESC: Rivet type, fits all standard Banana Jacks.

TIP: Four leaved phosphor bronze silver plated spring.

No. Color No. Color
33-069-BU Red 33-048-BU Blk

Net per C 16.00



BANANA PLUG ADAPTOR

DESC: Adapts tip plug to banana plug, ends are standard tip jack and banana plug.

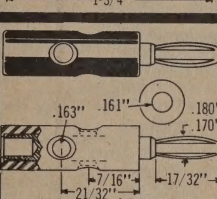
RATING: 15 amps AC for 10 degree C Temp. rise, continuous duty.

HANDLE: Molded Butyrate, per MIL-LP-349-A and ASEA letter QUD4-59-4820 type 3.

TIP: Standard tip jack one end; other end four leaved banana plug.

No. Color No. Color
33-072-BU Red 33-074-BU Blk

Net per C 30.00



STACK BANANA PLUG

DESC: Stack type, fits standard banana plugs in top and side.

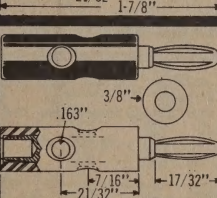
RATING: 15 amps AC for 10 degree C Temp. rise, continuous duty.

HANDLE: Molded Butyrate, per MIL-LP-349-A and ASEA letter QUD4-59-4820 type 3.

TIP: Four leaved phosphor bronze, nickel plated spring.

No. Color No. Color
33-084-1BU Red 33-084-2BU Blk

Net per C 30.00



STACK BANANA PLUG

DESC: Stack type, fits standard banana plugs in top and side.

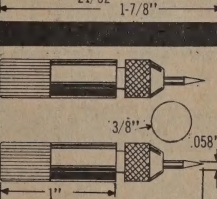
RATING: 15 amps AC for 10 degree C Temp. rise, continuous duty.

HANDLE: Molded Butyrate, per MIL-LP-349-A and ASEA letter QUD4-59-4820 type 3.

TIP: Four leaved beryllium copper, nickel plated spring.

No. Color No. Color
33-086-1BU Red 33-086-2BU Blk

Net per C 33.00



TIP PLUGS

PHONO NEEDLE TIP PLUG

DESC: Nickel plated brass body, chuck design to hold .058 replaceable phono needle. Wire solders to body.

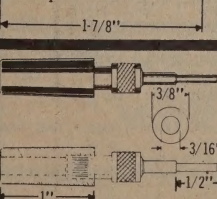
RATING: 12 amps AC for 10 degree C Temp. rise, continuous duty.

HANDLE: Molded Butyrate, per MIL-LP-349-A and ASEA letter QUD4-59-4820 type 3.

TIP: Phono needle, brass alloy.

No. Color No. Color
33-100-BU Red 33-102-BU Blk

Net per C 18.00



INSULATED TIP PLUG*

DESC: Solderless type, wire tightens under knurled collar, machined brass body, nickel plated.

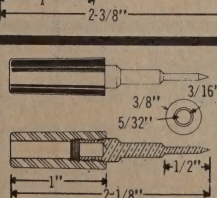
RATING: 12 amps AC for 10 degree C Temp. rise, continuous duty.

HANDLE: Molded Butyrate per MIL-LP-349-A and ASEA letter QUD4-59-4820 type 3.

TIP: Phono needle, brass alloy.

No. Color No. Color
33-106-BU Red 33-108-BU Blk

Net per C 15.00



HEAVY DUTY PHONE TIP PLUG*

DESC: Standard tip, large diameter body for accepting heavy duty wire solder type.

RATING: 12 amps AC for 10 degree C Temp. rise, continuous duty.

HANDLE: Molded Butyrate, per MIL-LP-349-A and ASEA letter QUD4-59-4820 type 3.

TIP: Brass, nickel plated phono needle.

No. Color No. Color
33-110-1BU Red 33-110-2BU Blk

Net per C 15.00

Also available in Bulk quantities in yellow, green, or blue. To order: add to part number, "5BU" for blue. Example: No. 33-000-3BU (for yellow).

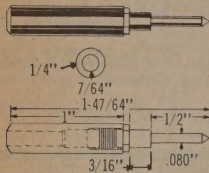


ELECTROCRAFT ELECTRONIC COMPONENTS

TIP PLUGS

ILLUSTRATIONS

DESCRIPTION



SUBMINIATURE PHONE TIP PLUG

DESC: Standard tip, extra-small diameter, nickel plated, brass body. Solder-type.

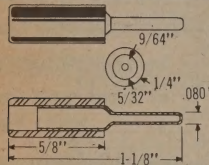
RATING: 12 amps AC for 10 degree C Temp. rise, continuous duty.

HANDLE: Fibre, per MIL-F-1148-A type BH.

TIP: Brass, nickel plated

No.	Color	No.	Color
33-112-BU	Red	33-114-BU	Blk

Net per C 18.00



INSULATED HOLLOW PHONETIP

DESC: Drawn brass, nickel plated, solder type.

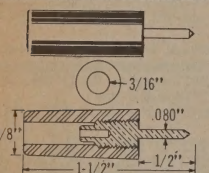
RATING: 12 amps AC for 10 degree C Temp. rise, continuous duty.

HANDLE: Molded Butyrate, per MIL-LP-349-A and ASEA letter QUD4-59-4820 type 3.

TIP: Hollow, brass, nickel plated.

No.	Color	No.	Color
33-116-BU	Red	33-116-2BU	Blk

Net per C 11.00



INSULATED SHORT TIP PLUG*

DESC: Specially designed where minimum amount of metal can be exposed. Solder type.

RATING: 12 amps AC for 10 degree C Temp. rise, continuous duty.

HANDLE: Molded Butyrate, per MIL-LP-349-A and ASEA letter QUD4-59-4820 type 3.

TIP: Brass, nickel plated.

No.	Color	No.	Color
33-118-BU	Red	33-120-BU	Blk

Net per C 12.00

RIGHT ANGLE TIP PLUG

DESC: Right angle "gun" tip (meter plug). Lead wire solders to body.

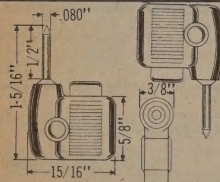
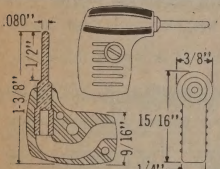
RATING: 12 amps AC for 10 degree C Temp. rise, continuous duty.

HANDLE: Molded Plastic, per MIL-P-14 CFG.

TIP: Brass, nickel plated.

No.	Color	No.	Color
33-128-BU	Red	33-130-BU	Blk

Net per C 27.00



"TRIGGER-QUIK" TIP PLUG

DESC: Right angle plug, spring loaded solderless wire connection.

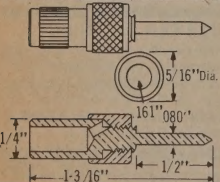
RATING: 12 amps AC for 10 degree C Temp. rise, continuous duty.

HANDLE: Molded Plastic, per MIL-P-14 CFG.

TIP: Brass, nickel plated

No.	Color	No.	Color
33-132-BU	Red	33-134-BU	Blk

Net per C 39.00



"JR." SOLDERLESS PHONE TIP

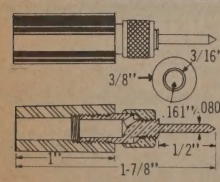
DESC: Press fit, nickel plated brass body; wire fastens under knurled collar.

RATING: 12 amps AC for 10 degree C Temp. rise, continuous duty.

TIP: Brass, nickel plated.

No.	Color	No.	Color
33-142-BU			

Net per C 11.00



"JR." SOLDERLESS PHONE TIP*

DESC: Threaded nickel plated brass body. Wire fastens under knurled collar.

RATING: 12 amps AC for 10 degree C Temp. rise, continuous duty.

HANDLE: Molded Butyrate, per MIL-LP-349-A and ASEA letter QUD4-59-4820 type 3.

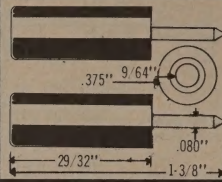
TIP: Brass, nickel plated.

No.	Color	No.	Color
33-144-1BU	Red	33-144-2BU	Blk

Net per C 20.83

ILLUSTRATIONS

DESCRIPTION



INSULATED TIP PLUG*

DESC: Short tip, nickel plated brass plug standard phone tip jack. Solder type.

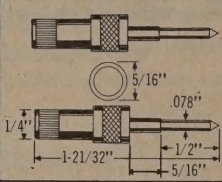
RATING: 12 amps AC for 10 degree C Temp. continuous duty.

HANDLE: Nylon, per MIL-P-20693A.

TIP: Brass, nickel plated

No.	Color	No.	Color
33-145-1BU	Red	33-145-2BU	Blk

Net per C



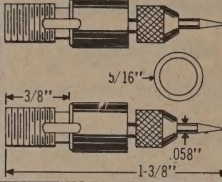
SOLDERLESS TIP PLUG

DESC: All metal; wire fastens under knurled body. Precision machined brass, nickel plated.

TIP: Brass, nickel plated.

No.	Color	No.	Color
33-146-BU			

Net per C



PHONO NEEDLE TIP PLUG

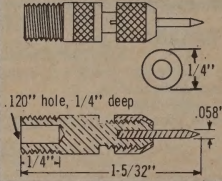
DESC: Threaded shank type with 1/4 inch chuck to hold phono needle.

BODY: Brass, nickel plated.

TIP: Steel, nickel plated phono needle.

No.	Color	No.	Color
33-148-BU			

Net per C



NEEDLE TIP AND CHUCK

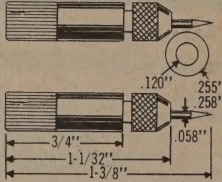
DESC: Threaded shank type. Tip is removable for quick replacement.

BODY: Brass, nickel plated

TIP: Steel, nickel plated phono needle.

No.	Color	No.	Color
33-149-BU			

Net per C



PUSH-ON NEEDLE CHUCK

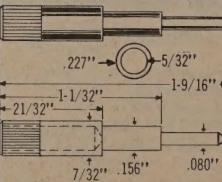
DESC: Knurled body for press fit into Test handles drilled with 1/4 inch hole.

BODY: Brass, nickel plated, solder connection.

TIP: Steel, nickel plated phono needle.

No.	Color	No.	Color
33-150-BU			

Net per C



HEAVY DUTY PHONE TIP

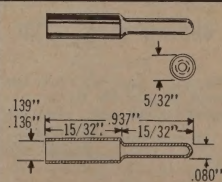
DESC: Knurled shank for press fit into Test handles, drilled with 7/32 inch hole; extra large for lead wires up to No. 10 gauge; solder connection.

BODY: Brass, nickel plated.

TIP: Brass, nickel plated phone tip.

No.	Color	No.	Color
33-152-BU			

Net per C



STANDARD HOLLOW PHONE

DESC: Solder type, hollow design.

BODY: Drawn brass, nickel plated.

TIP: Hollow, brass, nickel plated.

No.	Color	No.	Color
33-154-BU			

Net per C

*Also available in Bulk quantities in yellow, green, or blue. To order: add to part number, "-3BU" for yellow, "-4BU" for green, "-5BU" for blue. Example: No. 33-000-3BU (for yellow).



ELECTROCRRAFT ELECTRONIC COMPONENTS

ILLUSTRATIONS	TIP PLUGS
DESCRIPTION	
5/32" ϕ .118" ϕ .080" ϕ 1" 1/2"	STANDARD SOLID PHONE TIP DESC: Solder type, solid metal tip. BODY: Brass, nickel plated. TIP: Solid, brass, nickel plated. Net per C 3.20 No. 33-156-BU

149" ϕ 3/16" ϕ .080" ϕ 1/2" 1"	HEAVY DUTY PHONE TIP PLUG DESC: Solder type. Solid metal tip for heavy duty applications. BODY: Brass, nickel plated. TIP: Solid, brass, nickel plated. Net per C 3.85 No. 33-158-BU
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161" ϕ 1/2" ϕ .180" ϕ .170" ϕ 3/32" 17/32" 1-3/8" closed 1-9/16" open	COMBINATION POST-PLUG DESC: Captive head, type; for converting panel-mounted banana jack to 5-way binding post termination. Accepts solid or standard wire, spade lug, phone tip, banana plug or alligator clip. Brass, nickel plated body. RATING: 15 amps AC for 10 degree C Temp, rise, continuous duty. HANDLE: Nylon - Dupont Zytel No. 101, per MIL-M-20693A. TIP: Four leaved, phosphor bronze, nickel plated spring. Net per C 30.00 No. 33-158-BU Color Red No. 33-165-2BU Color Blk
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161" ϕ 9/16" ϕ .180" ϕ .170" ϕ 3/32" 17/32" 5/8" 1-7/16" closed 1-5/8" open	COMBINATION POST-PLUG* DESC: Captive head, type; for converting panel-mounted banana jack to a spring-loaded push out. Accepts solid or stranded wire, standard phone tip which locks in place upon release of pressure on cap. Brass, nickel plated body. RATING: 15 amps AC for 10 degree C Temp, rise, continuous duty. HEAD: Molded nylon, per MIL-M-20693A. TIP: Four leaved, phosphor bronze, nickel plated spring. Net per C 30.00 No. 33-166-1BU Color Red No. 33-166-2BU Color Blk
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1-17/32" ϕ 3/4" ϕ 17/32" ϕ .180" ϕ .170" ϕ 8" hole thru	COMBINATION POST-PLUG DESC: Captive head type. For converting panel-mounted banana jack to a spring-loaded push out. Accepts solid or stranded wire, standard phone tip which locks in place upon release of pressure on cap. Brass, nickel plated body. HEAD: Molded styrene cap per MIL-L-416, type I. TIP: Four leaved phosphor bronze, nickel plated spring. Net per C 42.00 No. 33-167-BU
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1/4" ϕ .156" ϕ .080" ϕ 1/2" 1-3/32"	HEAVY DUTY PHONE TIP PLUG DESC: All metal, nickel plated brass body is large enough to accept standard banana plug. Body is threaded to fit into plastic handle. Net per C 12.00 No. 33-170-BU
--	--

ILLUSTRATIONS	DESCRIPTION
1/4" ϕ 3/32 Thd. 1-3/16" 1/2" 5/16" ϕ .161" ϕ .080" ϕ	"JR" SOLDERLESS PHONE TIP "THREADED" DESC: Threaded shank type. Wire fastens under knurled collar. BODY: Brass, nickel plated. RATING: 12 amps AC for 10 degree C Temp, rise, continuous duty. TIP: Brass, nickel plated phone tip. Net per C 12.00 No. 33-172-BU

109" ϕ 3/4" ϕ 1-15/16" ϕ 1.062" ϕ 1/2" ϕ 1/2" ϕ .080" ϕ 1/2"	DUAL STANDARD TIP PLUG DESC: Solderless type; brass, nickel plated body. Designed mates with No. 33-206. BODY: Molded Cycloac plastic, per MIL-M-22544, type 4. TIPS: 2 brass, nickel plated tips on 3/4" centers. Net per C 14.00 No. 33-174-BU
---	--

109" hole 3/4" deep 3/4" ϕ 1-11/16" ϕ 1.062" ϕ 1/2" ϕ 1/2" ϕ .080" ϕ 1/2"	DUAL SHORT TIP PLUG SOLDERLESS TYPE DESC: Brass, nickel plated body. Mates with No. 33-206. BODY: Molded Cycloac plastic, per MIL-M-22544, type 4. TIPS: 2 brass, nickel plated tips on 3/4" centers. Net per C 72.00 No. 33-176-BU
--	---

3/4" ϕ 13/64" ϕ 19/32" ϕ 1" ϕ 1/4" ϕ 32 thd.	DUAL BANANA JACK DESC: Mounts in 2 - 3/8" holes on 3/4" centers in panel up 1/4" thick. Accepts standard and dual banana plugs. Solder connection. RATING: 15 amps AC for 10 degree C Temp, rise, continuous duty. 2 K Volts 60 cycle AC continuous working voltage. Capacitance 2.0 mfd. between conductors. 4.0 mfd. to panel. HEAD: Insulated, molded black styrene, per MIL-L-P416, type I. BODY: Brass, nickel plated. Net per C 50.00 No. 33-179-BU
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7/16" ϕ 161" ϕ 1/4" ϕ 32 thd. 15/64" ϕ 21/32" ϕ	BANANA & TIP PLUG JACKS BANANA JACK * DESC: Mounts in 5/16" hole. Fits panel up to 3/8" thick. Accepts Standard Banana Plug. RATING: 15 amps AC for 10 degree C Temp, rise, continuous duty. HEAD: Melamine MIL-14F, type CMC. BODY: Brass, nickel plated; with tinned solder lug. Net per C 14.00 No. 33-180-BU Color Red No. 33-182-BU Color Blk
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1/4" ϕ 32 thd. 3/32" ϕ 19/32" ϕ .161" ϕ 3/8" ϕ	BANANA JACK DESC: Mounts in 1/4" hole and fits panel up to 3/8" thick. Accepts standard banana plugs. BODY: Brass, nickel plated; with tinned solder lug. Net per C 11.00 No. 33-184-BU
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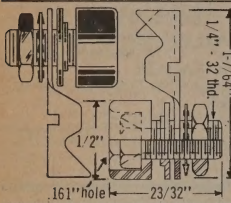
Also available in Bulk quantities in yellow, green, or blue. To order: add to part number, "-3BU" for yellow, "-4BU" for green, "-5BU" for blue. Example: No. 33-000-3BU (for yellow).



ELECTROCRAFT ELECTRONIC COMPONENTS

BANANA & TIP PLUG JACKS

ILLUSTRATIONS



DESCRIPTION

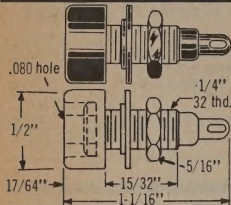
HEAVY DUTY BANANA JACK*

DESC: Exclusive hex design prevents turning in assembly; with fibre insulating washer.
 RATING: 15 amps AC for 10 degree C Temp. rise, continuous duty.
 HEAD: Molded plastic per MIL-P-14 CFG.
 BODY: Brass, nickel plated; with heavy duty solder lug.

No.	Color	No.	Color
33-186-BU	Red	33-188-BU	Blk

Net per C 16.00

TIP JACK *

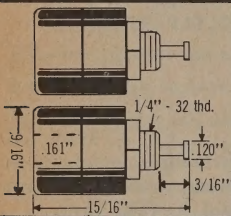


DESC: Positive-hold hex lock between molded head and jack body. Exclusive hex design prevents turning in assembly. Insulated.
 RATING: 15 amps AC for 10 degree C Temp. rise, continuous duty.
 HEAD: Molded plastic, per MIL-P-14 CFG.
 BODY: Brass, nickel plated.

No.	Color	No.	Color
33-190-1BU	Red	33-190-2BU	Blk

Net per C 15.00

HIGH VOLTAGE NYLON BANANA JACK *

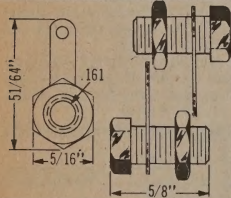


DESC: High voltage flashover to panel prevented by heavy molded nylon body and cup washer.
 HANDLE: Molded nylon per MIL-P-20693A.
 RATING: 15 amps AC for 10 degree C Temp. rise, continuous duty. 5KV 60 cycle continuous working voltage. Millivolt drop per MIL-J-6751.
 BODY: Brass, bright nickel plated per QQ-N-290, type V(FC).

No.	Color	No.	Color
33-191-1BU	Red	33-191-2BU	Blk

Net per C 45.00

BANANA JACK

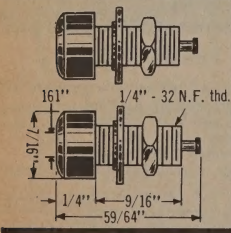


DESC: All metal body, with hex mounting nut. Mounts in 1/4" hole; fits panel up to 3/8".
 BODY: Brass, nickel plated with tinned solder lug.

No.	Color	No.	Color
33-192-BU			

Net per C 11.00

INSULATED BANANA JACK*

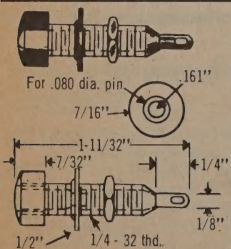


DESC: Mounts in 5/16" hole in panels up to 3/8" thick, solder direct to turret terminal. Supplied with hex nut and fibre washer. Accepts standard banana plugs.
 RATING: 15 amps AC for 10 degree C Temp. rise, continuous duty.
 HEAD: TB-30 Melamine-MIL-14F type CMG - red and black. Urea - LU-671 type 1 - colors.
 BODY: Brass, nickel plated.

No.	Color	No.	Color
33-193-1BU	Red	33-193-2BU	Blk

Net per C 15.00

BANANA-TIP JACK COMBINATION*

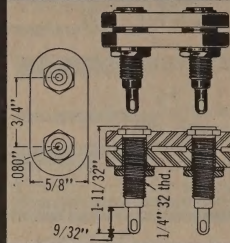


DESC: Accepts both Banana Plug and Standard Tip Plug; with extruded fibre washer and mounting nut. Mounts in 5/16" hole; fits panel up to 5/8" thick.
 RATING: 15 amps AC for 10 degree C Temp. rise, continuous duty.
 HEAD: TB-30 Melamine-MIL-14F type CMG - red and black. Urea - LU-671 type 1 - colors.
 BODY: Brass, nickel plated; phosphor bronze contact.

No.	Color	No.	Color
33-194-1BU	Red	33-196-BU	Blk

Net per C 17.00

ILLUSTRATIONS



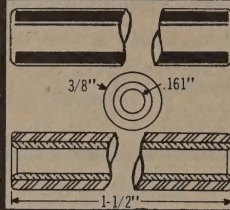
DESCRIPTION

DUAL BANANA AND STANDARD TIP PLUG

DESC: Mounts in two 3/8" holes on 3/4" center on panels up to 5/16" thick. Mates with banana plug No. 33-010 and dual tip plug 33-011 with two hex nuts and washers.
 RATING: 15 amps AC for 10 degree C Temp. rise, continuous duty.
 HEAD: Molded black styrene body, per MIL-L-416, type 1.
 BODY: Brass, nickel plated; phosphor bronze contacts.

No.	Color	No.	Color
33-197-BU			

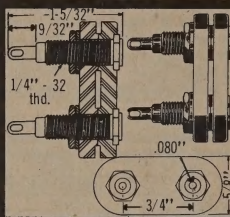
BANANA PLUG SPLICE



DESC: For coupling 2 standard Banana Plugs, extending test leads, etc.
 RATING: 15 amps AC for 10 degree C Temp. rise, continuous duty.
 HANDLE: Molded Butyrate, per MIL-LP-349-A. ASEA letter QUD4-59-4820 type 3.
 BODY: Brass

No.	Color	No.	Color
33-200-BU	Red	33-202-BU	Blk

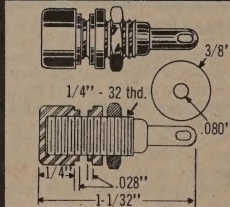
DUAL TIP JACK ASSEMBLY



DESC: Mounts in two 3/8" holes on 3/4" center in panels up to 1/4" thick. Accepts phone plugs; with two hex nuts.
 RATING: 15 amps AC for 10 degree C Temp. rise, continuous duty.
 HEAD AND WASHER: Molded black styrene body per MIL-L-P416, type 1.

No.	Color	No.	Color
33-206-BU			

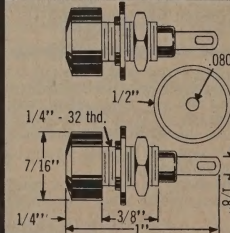
INSULATED TIP JACK*



DESC: Requires 5/16" hole; fits panels up to 1/4" thick; with hex nut.
 HEAD: Dupont Nylon, per MIL-M-20693A.
 BODY: Brass, nickel plated.

No.	Color	No.	Color
33-208-1BU	Red	33-208-2BU	Blk

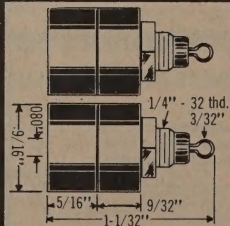
STANDARD TIP JACK*



DESC: Requires 5/16" mounting hole; fits panels up to 1/4" thick with insulating washer & hex nut.
 RATING: 15 amps AC for 10 degree C Temp. rise, continuous duty.
 HEAD: Molded plastic, red and black per MIL-L-14F type CMG. Yellow, green and blue per LU-671 type 1.
 BODY: Brass, nickel plated; phosphor bronze contact.

No.	Color	No.	Color
33-210-BU	Red	33-212-BU	Blk

HIGH VOLTAGE NYLON PHONE TIP JACK*



DESC: High voltage flashover to panel prevented by heavy molded nylon body and cup washer. Colors conform to Federal Standard 595. Hex nut and insert shell are nickel plated brass per QQ-290 type V (FC). Phosphor bronze contact, silver plated per QQ-S-365, overall gold plated. Withstands 100 hours salt spray test.
 HANDLE: Molded nylon body per MIL-P-20693A.

No.	Color	No.	Color
33-214-1BU	Red	33-214-2BU	Blk

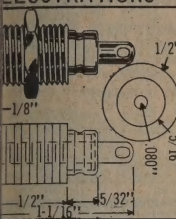
*Also available in Bulk quantities in yellow, green, or blue. To order: add to part number, "-3BU" for yellow, "-4BU" for green, "-5BU" for blue. Example: No. 33-000-3BU (for yellow).



ELECTROCRAFT ELECTRONIC COMPONENTS

BANANA & TIP PLUG JACKS

ILLUSTRATIONS



DESCRIPTION

TIP JACK, ALL-INSULATED*

DESC: Mounts in 3/8" hole; fits panel up to 5/16" thick; with mounting nut.
RATING: 10 amps AC for 10 degree C Temp. rise, continuous duty. 5K Volts 60 cycle AC continuous working voltage. Capacitance 3.0 mmd.
BODY: Molded of nylon per MIL-M-20693A.
CONTACT: Phosphor bronze.

No.	Color	No.	Color
33-216-BU	Red	33-218-BU	Blk

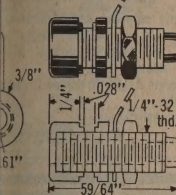
MINIATURE BANANA JACK*

DESC: Insulating washer provides isolation from panel. Fits 5/16" mounting hole; for panels up to 1/4" thick.

HEAD AND WASHER: Molded nylon per MIL-M-20693A.

BODY: Brass, nickel plated body; tinned solder lug.

No.	Color	No.	Color
33-220-1BU	Red	33-220-2BU	Blk



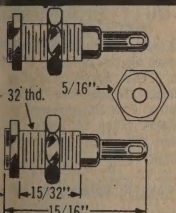
TIP JACK, ALL-METAL

DESC: Brass nickel plated body; mounts in 1/4" hole; fits panels up to 3/8" thick.

RATING: 15 amps AC for 10 degree C Temp. rise, continuous duty.

TIP: Phosphor bronze contact.

No.	Color	No.	Color
33-226-BU	Red		



TIP JACK, IN-LINE STYLE

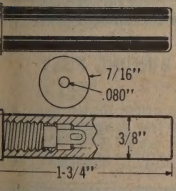
DESC: Brass nickel plated body; mounts on end of cords. For test lead extensions, etc.

RATING: 15 amps AC for 10 degree C Temp. rise, continuous duty.

HANDLE: Molded Butyrate, per MIL-LP-349-A and ASEA letter QUD4-59-4820 type 3.

CONTACT: Phosphor bronze.

No.	Color	No.	Color
33-228-BU	Red	33-230-BU	Blk



NYLON IN-LINE TIP JACK*

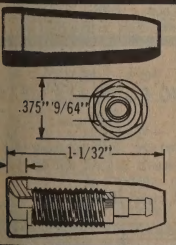
DESC: Accommodates all standard phone tip plugs; for extension cords or mounting on panel when wrap around terminal must be insulated in rear.

RATING: 15 amps AC for 10 degree C Temp. rise, continuous duty. 5 KV 60 cycle AC continuous working voltage.

BODY: Molded nylon per MIL-P-20693A.

CONTACT: Heat-treated, gold plated, phosphor bronze.

No.	Color	No.	Color
33-231-1BU	Red	33-231-2BU	Blk



TIP PLUG SPLICE

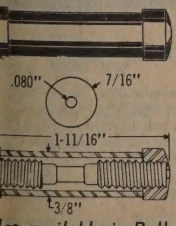
DESC: Brass nickel plated body. For making extensions to test leads, etc.

RATING: 15 amps AC for 10 degree C Temp. rise, continuous duty.

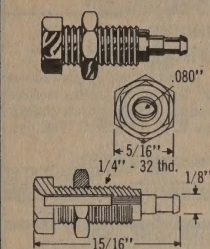
HANDLE: Molded Butyrate, per MIL-LP-349-A and ASEA letter QUD4-59-4820 type 3.

CONTACT: Phosphor bronze spring.

No.	Color	No.	Color
33-232-BU	Red	33-234-BU	Blk



ILLUSTRATIONS



DESCRIPTION

NYLON TIP JACK (WRAP AROUND TYPE)*

DESC: Hex head for sure grip tightening. Mounts in 1/4" hole in panels up to 1/4" thickness.

SALT SPRAY TEST: 100 hours.

INSULATION RESISTANCE: 5000 Meg. Resistance Ohms.

RATED VOLTAGE & CURRENT: 1000 volts peak at 5 amp max.

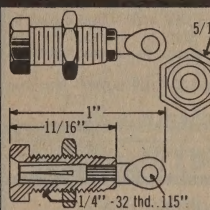
OPERATING TEMPERATURE: -55 degree to +150C

NOMINAL CAPACITY: -2.0 mmd

TEST VOLTAGE: 9000 volts DC peak.

BODY: Nylon per MIL-M-20693A.

No.	Color	No.	Color
33-240-BU	Red	33-242-BU	Blk



NYLON TIP JACK WITH SPADE TERMINAL*

DESC: Fits phone tip plugs. Mounts in 1/4" hole in panel up to 1/4" thick with hex nut.

BODY: Insulated molded nylon per MIL-M-20693A.

CONTACT: Spade terminal.

No.	Color	No.	Color
33-245-1BU	Red	33-245-2BU	Blk

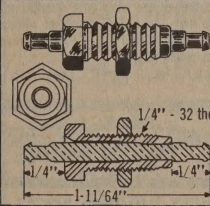
NYLON FEED-THRU JACK*

DESC: Feed-thru type. Fits all standard phone tip plugs. Mounts in 1/4" hole in panel up to 1/4" thick with hex nut.

BODY: Insulated nylon per MIL-M-20693A.

CONTACT: Brass, silver plated.

No.	Color	No.	Color
33-247-1BU	Red	33-247-2BU	Blk



BINDING POSTS

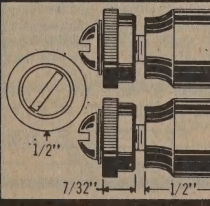
BINDING POST

DESC: Brass nickel plated body, supplied with 8-32 mounting screw and lock washer.

RATING: 15 amps AC for 10 degree C Temp. rise, continuous duty.

HEAD: Molded plastic.

No.	Color	No.	Color
33-250-BU	Red	33-252-BU	Blk



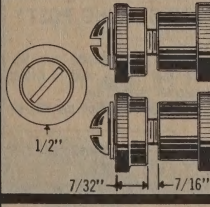
BINDING POST

DESC: Brass, nickel plated body, comes complete with 8-32 threaded screw - 1/2" long, nickel plated, brass lockwasher. Head diameter 1/2"

RATING: 15 amps AC for 10 degree C Temp. rise, continuous duty.

HEAD: Molded bakelite.

No.	Color	No.	Color
33-254-BU	Red	33-255-BU	Blk



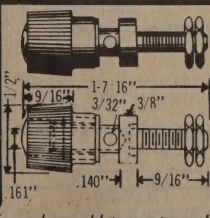
BINDING POST COMBINATION TYPE

DESC: Brass nickel plated body. Accepts banana plug, tip plug, bare wire, or spade lug. Threaded No. 8-32 mounting stud 1/2" long; supplied with 2 hex nuts.

RATING: 15 amps AC for 10 degree C Temp. rise, continuous duty.

HEAD: Molded nylon per MIL-M-20693A.

No.	Color	No.	Color
33-256-BU	Red	33-258-BU	Blk



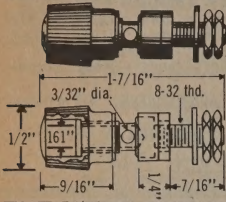
so available in Bulk quantities in yellow, green, or blue. To order: add to part number, "-3BU" for yellow, "-4BU" for en, "-5BU" for blue. Example: No. 33-000-3BU (for yellow).



ELECTROCRAFT ELECTRONIC COMPONENTS

BINDING POSTS

ILLUSTRATIONS



DESCRIPTION

BINDING POST COMBINATION TYPE

DESC: Similar in design and construction as 33-256/8, except, supplied with molded shoulder-type plastic washers to insulate post from chassis.
RATING: 15 amps AC for 10 degree C Temp., rise, continuous duty.
HEAD: Molded nylon per MIL-M-20693A.

No.	Color	No.	Color
33-260-BU	Red	33-262-BU	Blk

BINDING POST INSULATED UNIVERSAL TYPE

DESC: Brass, nickel-plated body with threaded No. 8-32 mounting stud; accepts banana plug, tip plug, needle tip, spade lug, alligator clip or bare wire. Heavy duty spacers insulate post from chassis. Mounts in 5/16" hole.
RATING: 15 amps AC for 10 degree C Temp. rise continuous duty.
HEAD: Molded nylon per MIL-M-20693A.

No.	Color	No.	Color
33-264-BU	Red	33-266-BU	Blk

BINDING POST

DESC: Brass, nickel plated body with insulating washer and two hex nuts, 8-32 threaded stud. Accepts phone tip plug, spade lug, alligator clip, banana plug or stranded wire.
RATING: 15 amps AC for 10 degree C Temp. rise, continuous duty.
HEAD AND WASHER: Molded nylon per MIL-M-20693A.

No.	Color	No.	Color
33-265-BU	Red	33-267-BU	Blk

HEAVY DUTY BINDING POST*

DESC: Brass, nickel plated body; accepts standard banana or tip plug, spade lug alligator clip or bare wire; supplied with a thick molded insulating spacer, punched, keyed slot for mounting washers; spacer has "D" shaped shoulder; shoulder keys into chassis mounting hole and prevents post from turning; supplied with two hex nuts.
RATING: (Maximum) 30 amps., 2000 RMS Volt.
HEAD AND WASHER: Molded nylon per MIL-M-20693A.

No.	Color	No.	Color
33-268-BU	Red	33-270-BU	Blk

HEAVY DUTY BINDING POST*

DESC: Identical in design to binding post No. 33-268/270, except, that end of stud is milled flat and drilled for solder connection.
HEAD AND WASHER: Molded nylon per MIL-M-20693A.

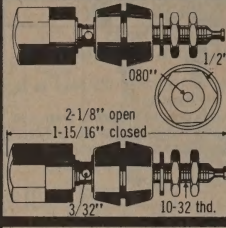
No.	Color	No.	Color
33-272-BU	Red	33-274-BU	Blk

BINDING POST

DESC: 5-way, nylon. Fluted style, insulated, Banana adapter type. Wrap around tips, brass nickel plated.
HEAD AND WASHER: Molded nylon per MIL-M-20693A.

No.	Color	No.	Color
33-279-1BU	Red	33-279-2BU	Blk

ILLUSTRATIONS



DESCRIPTION

NYLON BINDING POST*

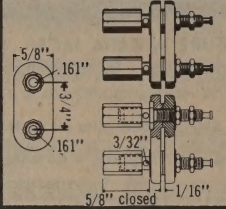
DESC: Tip plug receptacle .080" I.D. Wire at right angle to flat on insulated washers. Punched key slot for mounting washers. Mounts in 3/8" hole in panels up to 1/4" thick. Solder connection to stud. Body and inserts are brass nickel plated.
HEAD AND WASHER: Molded nylon per MIL-M-20693A.

No.	Color	No.	Color
33-275-1BU	Red	33-275-2BU	Blk

DUAL BINDING POST

DESC: Accepts standard dual banana plug wire, etc. Mounts in two 3/8" holes on centers in 1/16" to 1/4" panels. With around solder studs.
RATING: 15 amps AC for 10 degree C Temp. rise continuous duty.
BODY: Black plastic.

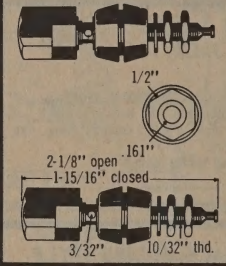
No.	Color	No.	Color
33-276-BU			



HEAVY DUTY BINDING POST

DESC: Brass nickel plated body; accepts banana or tip plug, spade lug, alligator clip or bare wire; supplied with a thick molded insulating spacer, punched, keyed slot for mounting washers; spacer has "D" shaped shoulder; shoulder keys into chassis mounting hole and prevents post from turning; maximum rating 30 amps., 2000 volts; with 2 hex nuts.
RATING: 30 amps AC for 10 degree C Temp. rise continuous duty.
HEAD AND WASHER: Molded nylon per MIL-M-20693A.

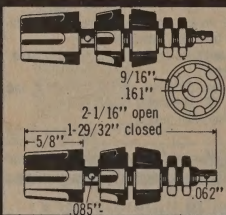
No.	Color	No.	Color
33-278-BU	Red	33-280-BU	Blk



BINDING POST

DESC: 5-way, nylon. Fluted style, insulated, Banana adapter type. Spade type tip...brass nickel plated.
HEAD AND WASHER: Molded nylon per MIL-M-20693A.

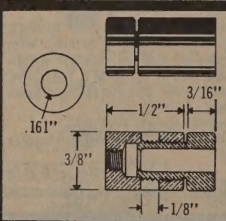
No.	Color	No.	Color
33-281-1BU	Red	33-281-2BU	Blk



BINDING POST, ALL METAL

DESC: Knurled cap; accepts banana plug, tip or wire. Mounts to panel with No. 6-32 (not supplied).
BODY: Brass, nickel plated.

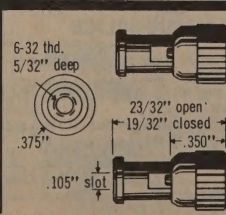
No.	Color	No.	Color
33-282-BU			



BINDING POST

DESC: Compression type, captive brass, knurled cap. Screw head down to wire between body and sliding contact. Thread internally for No. 6-32 mounting screw.
BODY: Brass, nickel plated.

No.	Color	No.	Color
33-283-BU			



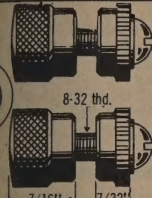
*Also available in Bulk quantities in yellow, green, or blue. To order: add to part number, ".3BU" for yellow, ".4BU" for green, ".5BU" for blue. Example: No. 33-000-3BU (for yellow).



ELECTROCRRAFT ELECTRONIC COMPONENTS

ILLUSTRATIONS DESCRIPTION

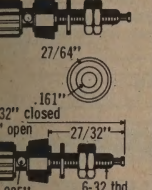
BINDING POST, ALL METAL



DESC: Knurled cap; designed for connection of bare wires or spade lugs; No. 8-32 x 1/2" mounting screw and lock washer supplied.
BODY: Heavy brass, nickel plated.

No.	Color	Net per C 18.00
33-284-BU		

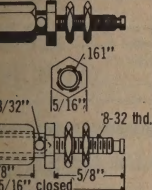
METAL BINDING POST



DESC: Gold plated, fluted brass, captive head. Molded black nylon washer with gold plated brass insert. Use where direct ground connection is made to panel or chassis. Complete with gold plated brass flat washer for grounding. Accepts phone tip plug, spade lug, banana plug, alligator clip or stranded wire.

No.	Color	Net per C 33.00
33-285-BU		

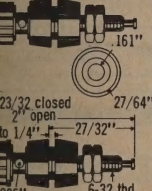
BINDING POST



DESC: 5-way metal binding post. Can accept banana plug. Mounts in .171" hole in 1/16" to 3/8" panels. Has wrap-around solder stud 8-32 thread.

No.	Color	Net per C 21.60
33-286-BU		

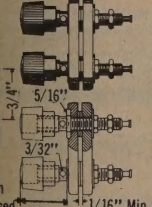
METAL BINDING POST



DESC: Gold plated, fluted brass, captive head, molded black nylon washer with gold plated brass insert. Use where internal ground circuit is isolated from chassis or panel. Accepts phone tip plug, spade lug, banana plug, alligator clip or wire strand.

No.	Color	Net per C 33.00
33-287-BU		

DUAL BINDING POST INSULATED



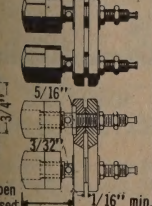
DESC: 5-way binding post with fluted heads. Accepts Dual Banana Plug. Mounts in two 3/8" holes, on 3/4" centers in panels from 1/16" to 1/4". Has soldered studs. With four hex nuts, black styrene washers.

RATING: 15 amps AC for 10 degree C Temp. rise, continuous duty.

HEAD: Molded nylon per MIL-M-20693A.

No.	Color	Net per C 54.00
33-288-BU		

DUAL BINDING POST



DESC: Accepts standard phone tips, forward or sideways. Brass, nickel plated body. Mounts in two 3/8" holes on 3/4" centers in panels up to 1/4" thick. Accommodates single or dual banana plugs.

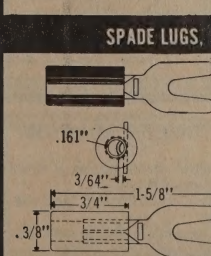
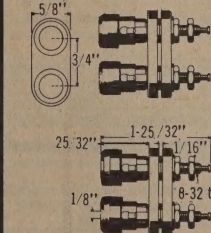
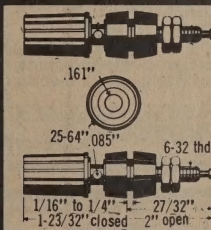
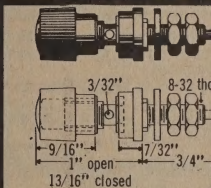
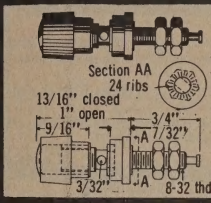
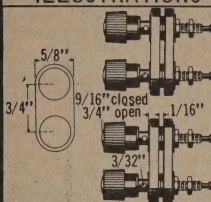
RATING: 15 amps AC for 10 degree C Temp. rise, continuous duty.

HEAD: Molded nylon per MIL-M-20693A.

No.	Color	Net per C 66.00
33-290-BU	Blk	
	33-299-BU	Red

Also available in Bulk quantities in yellow, green, or blue. To order add to part number, "-3BU" for yellow, "-4BU" for green, "-5BU" for blue. Example: No. 33-000-3BU (for yellow).

ILLUSTRATIONS



DESCRIPTION

DUAL BINDING POST

DESC: Brass, nickel plated body. Molded styrene washer, cross slot accommodates phone tip forward, back or sideways. With hex nuts and washers. Mounts in two 3/8" holes on 3/4" centers on panels up to 1/4" thick.

RATING: 15 amps AC for 10 degree C Temp. rise, continuous duty.

HEAD: Nylon heads per MIL-M-20693A.

No.	Color	No.	Color
33-291-BU	Blk	33-293-BU	Red

NYLON BINDING POST

DESC: Grounding type, with molded nylon, non-removable head takes direct folder connection to stud.

RATING: 15 amps AC for 10 degree C Temp. rise, continuous duty.

HEAD AND WASHER: Molded nylon per MIL-M-20693A.

No.	Color	No.	Color
33-294-1BU	Red	33-294-2BU	Blk

NYLON BINDING POST

DESC: Brass, nickel plated body. Takes direct solder connection to stud.

RATING: 15 amps AC for 10 degree C Temp. rise, continuous duty.

HEAD AND WASHER: Molded nylon per MIL-M-20693A.

No.	Color	No.	Color
33-296-1BU	Red	33-296-2BU	Blk

NYLON BINDING POST*

DESC: Gold plated body. Miniature washers and narrow head require minimum mounting space. Requires 5/16" round or "D" hole in panel. Wrap around solder terminal. Accepts phone tip plug, banana plug, spade lug, alligator clip or stranded wire.

RATING: 15 amps AC for 10 degree C Temp. rise, continuous duty.

HEAD: Molded nylon per MIL-M-20693A.

No.	Color	No.	Color
33-297-1BU	Red	33-297-2BU	Blk

DUAL SPRING LOADED BINDING POST

DESC: Cross-slotted to accept standard phone tips or wire either forward or sideways. Molded black styrene cap; nickel plated brass body. Requires 2-3/8" holes on 3/4" centers for mounting on panels up to 1/4" thick. Accommodates phone tips or wires in side holes and secures them when pressure on cap is released. With hex nuts and flat washers.

RATING: 15 amps AC for 10 degree C Temp. rise, continuous duty. 5 KV 60 cycle AC continuous working voltage.

No.	Color	Net per C 75.00
33-298-BU		

SPADE LUGS, ALLIGATOR & BATTERY CLIPS

SPADE LUG, INSULATED

DESC: Tapered "fork" fits binding posts and terminal screws up to No. 10 size. Accepts soldered wire or banana plug.

RATING: 25 amps AC for 10 degree C Temp. rise, continuous duty.

HANDLE: Molded Butyrate, per MIL-LP-349A and ASEA letter QUD4-59-4820 type 3.

LUG: Brass, nickel plated.

No.	Color	No.	Color
33-300-BU	Red	33-302-BU	Blk



ELECTROCRAFT ELECTRONIC COMPONENTS

SPADE LUGS, ALLIGATOR & BATTERY CLIPS

ILLUSTRATIONS

DESCRIPTION

INSULATED SPADE LUG

DESC: Fits all standard multi-purpose binding posts. Wire up to No. 10 solders in front hole.
 RATING: 30 amps AC for 10 degree C Temp. rise, continuous duty.

HANDLE: Molded Butyrate, per MIL-LP-349A and ASES letter QUD4-59-4820 type 3.

LUG: Brass, nickel plated.

No.	Color	No.	Color
33-304-1BU	Red	33-304-2BU	Blk

Net per C 12.00

DESC: 3/8" jaw opening; made of cadmium plated steel, accepts banana plug or wires. May be soldered to clip.

RATING: 5 amps AC for 10 degree C Temp. rise, continuous duty.

HANDLE: Molded Butyrate, per MIL-LP-349A and ASES letter QUD4-59-4820 type 3.

No.	Color	No.	Color
33-310-BU	Red	33-312-BU	Blk

Net per C 8.50

DESC: Molded plastic handle; cadmium plated steel jaws with 3/8" opening. Wire fastens with screw or soldered to clip.

RATING: 5 amps AC for 10 degree C Temp. rise, continuous duty.

HANDLE: Molded Butyrate, per MIL-LP-349A and ASES letter QUD4-59-4820 type 3.

No.	Color	No.	Color
33-314-BU	Red	33-316-BU	Blk

Net per C 9.50

ALLIGATOR CLIP SOLID COPPER

DESC: Identical to No. 33-314/16, except, made of solid copper for higher current carrying capacity.

RATING: 5 amps AC for 10 degree C Temp. rise, continuous duty.

HANDLE: Molded Butyrate, per MIL-LP-349A and ASES letter QUD4-59-4820 type 3.

No.	Color	No.	Color
33-318-BU	Red	33-320-BU	Blk

Net per C 11.50

ALLIGATOR CLIP

DESC: With extra long insulated handle; cadmium plated steel jaws; 3/8" opening, wire solders to clip.

HANDLE: Molded Butyrate, per MIL-LP-349A and ASES letter QUD4-59-4820 type 3.

No.	Color	No.	Color
33-322-BU	Red	33-324-BU	Blk

Net per C 12.50

DESC: Completely insulated with black molded plastic to insure against shock or grounding. Accepts banana plug in receptacle end.

No.	Color	No.	Color
33-326-1BU	Red	33-326-BU	Blk

Net per C 45.00

DESC: Accommodates standard tip plug, or banana plug; steel cadmium plated jaws.

RATING: 5 amps AC for 10 degree C Temp. rise, continuous duty.

HANDLE: Butyrate, per MIL-LP-349A and ASES letter QUD4-59-4820 type 3.

No.	Color	No.	Color
33-330-BU	Red	33-332-BU	Blk

Net per C 39.00

ILLUSTRATIONS

DESCRIPTION

ALLIGATOR CLIP ADAPTOR

DESC: Adapts standard tip plug to alligator clip steel cadmium plated jaws.

RATING: 5 amps AC for 10 degree C Temp. rise, continuous duty.

HANDLE: Butyrate, per MIL-LP-349A and ASES letter QUD4-59-4820 type 3.

No.	Color	No.	Color
33-334-BU	Red	33-336-BU	Blk

Net per C 3.00

MINI-GATOR CLIP (MUELLER)

DESC: Miniature alligator clip. For use where space is a factor; wires solder to clip.

No.	Color	No.	Color
33-342-BU	Steel		

Net per C 1.00

No.	Color	No.	Color
33-344-BU	Copper		

Net per C 1.00

ALLIGATOR CLIP ALL METAL

DESC: Cadmium plated jaws with 3/8" opening, accepts standard banana plug or wires may be soldered directly onto clip.

No.	Color	No.	Color
33-346-BU			

Net per C 1.00

ALLIGATOR CLIP-ALL METAL

DESC: For solderless connection of wires, means of a No. 6-32 binding head screw; accepts banana plug.

No.	Color	No.	Color
33-348-BU	Steel		

Net per C 1.00

No.	Color	No.	Color
33-350-BU	Copper		

Net per C 1.00

ALLIGATOR CLIP

DESC: All insulated with standard Banana adaptor. Molded plastic over steel jaws and handle.

No.	Color	No.	Color
33-352-1BU	Red	33-352-2BU	Blk

Net per C 1.00

ALLIGATOR CLIP INSULATOR

DESC: Flexible molded vinyl insulator which covers most standard alligator clips. It completely insulates. Permits maximum jaw opening.

No.	Color	No.	Color
33-360-BU	Red	33-362-BU	Blk

Net per C 1.00

MINIATURE ALLIGATOR CLIP BOOTS

DESC: Molded vinyl plastic; allow maximum opening of clip while still insulating clip. Nature size.

No.	Color	No.	Color
33-363-1BU	Red	33-363-2BU	Blk

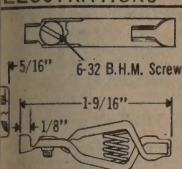
Net per C 1.00



ELECTROCRRAFT ELECTRONIC COMPONENTS

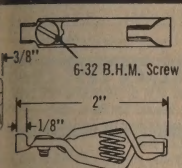
SPADE LUGS, ALLIGATOR & BATTERY CLIPS

ILLUSTRATIONS



BATTERY CONNECTING & TESTING CLIP

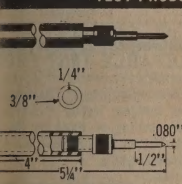
DESC: Steel cadmium plated jaws with 1/2" spread.
 RATING: 5 amps
 No. _____ Net per C 6.00
 33-370-BU



BATTERY CONNECTING & TESTING CLIP

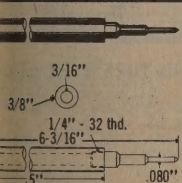
DESC: Steel cadmium plated jaws with 9/16" spread.
 RATING: 10 amps
 No. _____ Net per C 8.00
 33-372-BU

TEST PRODS, LEADS & ADAPTORS



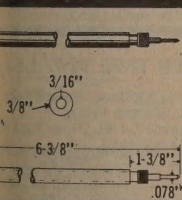
SOLDERLESS FIBRE TEST PROD

DESC: Features 1/4" inside diameter for heavy duty wire. Overall length 5 1/2".
 RATING: 12 amps AC for 10 degree C Temp. rise, continuous duty.
 HANDLE: Fibre, per MIL-F-1148-A type BH.
 TIP: Brass, nickel plated.
 No. _____ Net per C 30.00
 33-376-1BU | Red 33-376-2BU | Blk



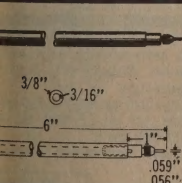
HEAVY DUTY TEST PROD

DESC: Brass, nickel plated. Overall length 6-3/16".
 RATING: 12 amps AC for 10 degree C Temp. rise, continuous duty.
 HANDLE: Molded Butyrate, per MIL-LP-349A and ASEA letter QUD4-59-4820 type 3.
 TIP: Extra heavy, brass, nickel plated.
 No. _____ Net per C 33.00
 33-378-1BU | Red 33-378-2BU | Blk



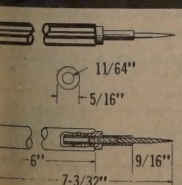
DELUXE TEST PROD

DESC: Solderless design; wire fits through handle and is fastened to tip with knurled collar. 6-3/8" long.
 RATING: 12 amps AC for 10 degree C Temp. rise, continuous duty.
 HANDLE: Butyrate, per MIL-LP-349A and ASEA letter QUD4-59-4820 type 3.
 TIP: Brass, nickel plated.
 No. _____ Net per C 33.00
 33-380-BU | Red 33-382-BU | Blk



NEEDLE POINT TEST PROD

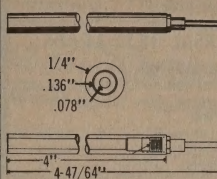
DESC: Extra safe, long handle; wire solders to nickel plated brass chuck.
 RATING: 12 amps AC for 10 degree C Temp. rise, continuous duty.
 HANDLE: Butyrate, per MIL-LP-349A and ASEA letter QUD4-59-4820 type 2.
 TIP: Replaceable Phono Needle.
 No. _____ Net per C 30.00
 33-384-BU | Red 33-386-BU | Blk



SOLDERLESS TEST PROD

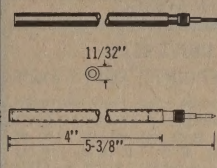
DESC: Brass, nickel plated plug. Wire can be soldered to plug. Stud locks wire to pellet for solderless connections.
 RATING: 12 amps AC for 10 degree C Temp. rise, continuous duty.
 HANDLE: XX-5 Spauldite - PB6-MIL-P-79.
 TIP: Steel Phono Needle
 No. _____ Net per C 75.00
 33-381-BU | Red 33-387-2BU | Blk

ILLUSTRATIONS



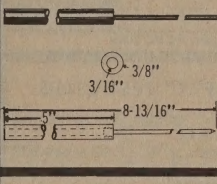
SUBMINIATURE TEST PROD

DESC: Designed for checking all types of miniature products and equipment only 4-2/3" long.
 RATING: 12 amps AC for 10 degree C Temp. rise, continuous duty.
 HANDLE: Fibre, per MIL-F-1148-A type BH.
 TIP: Brass, nickel plated.
 No. _____ Net per C 30.00
 33-388-1BU | Red 33-388-2BU | Blk



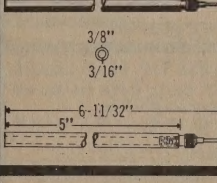
THIN HANDLE TEST PROD

DESC: Solderless wire connection; slim type for hard-to-reach places. Ideal for portable testers.
 RATING: 12 amps AC for 10 degree C Temp. rise, continuous duty.
 HANDLE: Butyrate, per MIL-LP-349A and ASEA letter QUD4-59-4820 type 3.
 TIP: Brass, nickel plated.
 No. _____ Net per C 21.60
 33-392-BU | Red 33-394-BU | Blk



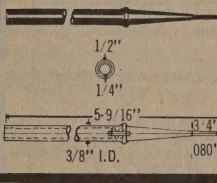
LONG REACH TEST PROD

DESC: Has a long thin insulated extension beyond handle, to reach hard-to-get places or for work in crowded quarters. Wire solders to prod.
 HANDLE: Butyrate, per MIL-LP-349A and ASEA letter QUD4-59-4820 type 3.
 TIP: Brass, nickel plated.
 No. _____ Net per C 24.60
 33-396-BU | Red 33-398-BU | Blk



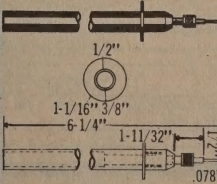
SOLDERLESS TEST PROD

DESC: 5" long handle, 3/8" diameter. Wire fits through handle, wraps around screw portion of body.
 RATING: 12 amps AC for 10 degree C Temp. rise, continuous duty.
 HANDLE: Butyrate, per MIL-LP-349A and ASEA letter QUD4-59-4820 type 3.
 TIP: Nickel plated phone tip.
 No. _____ Net per C 30.00
 33-404-1BU | Red 33-404-2BU | Blk



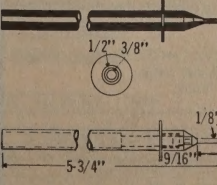
TEST PROD

DESC: Tapered slim-type. Fully insulated plastic-solder type. 5-9/16" overall length.
 TIP: Nickel plated brass.
 No. _____ Net per C 75.00
 33-406-1BU | Red 33-406-2BU | Blk



HIGH VOLTAGE TEST PROD

DESC: Heavy duty type; has guard ring to prevent accidental touching of tip; accepts wires up to 3/8" diameter. Solderless connection.
 RATING: 12 amps AC for 10 degree C Temp. rise, continuous duty. 15 KV cycle AC continuous working voltage.
 HANDLE: Fibre, per MIL-F-1148-A type BH.
 TIP: Nickel plated brass.
 No. _____ Net per C 72.00
 33-408-BU | Red 33-410-BU | Blk



R.F. TEST PROBE

DESC: Heavily insulated Coax cable or IN-34 crystal for R.F. Probes may be used because of larger inside diameter.
 HANDLE: Fibre, per MIL-F-1148-A type BH.
 TIP: Heavy duty; removable. Brass, nickel plated.
 No. _____ Net per C 30.00
 33-411-1BU | Red 33-411-2BU | Blk



ELECTROCRAFT ELECTRONIC COMPONENTS

TEST PRODS, LEADS & ADAPTORS

ILLUSTRATIONS	DESCRIPTION
UNIVERSAL TEST LEADS	
	DESC: Interchangeable tips; one end solderless tip plug, other end banana plug; includes alligator clips, spade lugs and phono tip plugs, which fit on banana plug end. HANDLE: Butyrate, per MIL-LP-349-A and ASEA letter QUD4-59-4820 type 3. CABLE: 50" flexible
3/16" .078" 3/8" 5" 1-11/32"	Net per pair 1.88
No.	33-450-S One pair, red and black
UNIVERSAL "NEEDLEPOINT" TEST LEADS	
	DESC: Interchangeable tips, one end interchangeable Phono needle type test prod, other end banana plug; includes spade lugs, alligator clips and phono tip plugs, which fit on banana plug end. HANDLE: Butyrate, per MIL-LP-349-A and ASEA letter QUD4-59-4820 type 3. CABLE: 50" flexible
3/16" .058" 3/8" 5" 6"	Net per pair 1.88
No.	33-452-S One pair, red and black
"THRIFTY" TEST LEADS	
	DESC: One end 4" test prods, other end terminated in standard phono tip. HANDLE: Butyrate, per MIL-LP-349-A and ASEA letter QUD4-59-4820 type 3. CABLE: 50" flexible
5/32" .080" 11/32" 4" 1-3/8"	Net per pair .75
No.	33-454-S One pair, red and black
SOLDERLESS TIP TEST LEADS	
	DESC: 5" x 3/8" diameter handle, available with either spade lugs or alligator clips. HANDLE: Butyrate, per MIL-LP-349-A and ASEA letter QUD4-59-4820 type 3. CABLE: 50" flexible
3/16" .080" 3/8" 6-3/8" 1-1/8"	Net per pair .85
No.	33-455-S 1 pair, red and black, W/spade lug A
No.	33-457-S 1 pair, red and black, W/alligator clip B
HEAVY DUTY TEST LEADS	
	DESC: 6-11/32" long; solderless wire connections. Available in tip plug or right angle meter type. HANDLE: Butyrate, per MIL-LP-349-A and ASEA letter QUD4-59-4820 type 3. CABLE: 50" flexible
3/16" .080" 3/8" 5" 1-11/32"	Net per pair 1.27
No.	33-456-S Pair of 1 red and 1 black with solderless straight tip plugs.
No.	33-458-S Pair of 1 red and 1 black with right angle, meter-type, insulated tip plug.
No.	33-459-S One pair, red and black With spade lug
No.	33-461-S One pair, red and black With alligator clip
PHONO NEEDLE TEST LEADS	
	DESC: 5" x 3/8" diameter, tips are sharp phono-graph needles. Available in spade lugs or alligator clips. HANDLE: Butyrate, per MIL-LP-349-A and ASEA letter QUD4-59-4820 type 3. CABLE: 50" flexible
3/16" .058" 3/8" 5" 6"	Net per pair .87
No.	33-459-S One pair, red and black With spade lug
No.	33-461-S One pair, red and black With alligator clip

ILLUSTRATIONS

DESCRIPTION

HEAVY DUTY "NEEDLEPOINT" TEST LEADS	
	DESC: 6" long, heavy duty needle point prod. Available in tip plugs or right angle meter type. HANDLE: Butyrate, per MIL-LP-349-A and ASEA letter QUD4-59-4820 type 3. CABLE: 50" flexible
3/16" .058" 3/8" 5" 6"	Net per pair 1.88
No.	33-460-S Pair of 1 red and 1 black with solderless straight tip plugs
No.	33-462-S Pair of 1 red and 1 black with right angle, meter-type insulated tip plug.
LONG REACH TEST LEADS	
	DESC: One end with 5" insulated test prod, with thin extension beyond handle to reach hard-to-place; other end terminated in right angle, meter-type insulated tip plug. HANDLE: Butyrate, per MIL-LP-349-A and ASEA letter QUD4-59-4820 type 3. CABLE: 50" flexible
3/16" .080" 3/8" 5" 8-13/16"	Net per pair 1.88
No.	33-464-S One pair, red and black
RETRACTABLE TEST PRODS	
	DESC: Electrocraft's own printed circuit test prod, with the exclusive retractable tip. This exclusive feature allows complete testing of printed circuitry without shorting or shock to the user. HANDLE: Butyrate, per MIL-LP-349-A and ASEA letter QUD4-59-4820 type 3. CABLE: 48" flexible
3/16" .093" 3/8" 3-1/8" 5-5/8" 1-1/2"	Net each .75
No.	33-465-1-S Red
No.	33-465-2-S Blk
SUB-MINIATURE TEST LEADS	
	DESC: O.D. only 1/4"; insulated tips. Other threaded phone tips. HANDLE: Butyrate, per MIL-LP-349-A and ASEA letter QUD4-59-4820 type 3. CABLE: 50" flexible
3/16" .080" 3/8" 4-23/32" 1/2"	Net per pair .91
No.	33-466-S One pair, red and black
STRETCH TYPE TEST LEADS	
	DESC: One end 6-3/8" heavy duty test prod; other end insulated, solderless tip plug. HANDLE: Butyrate, per MIL-LP-349-A and ASEA letter QUD4-59-4820 type 3. CABLE: spiral type, 9"; 6" extended.
3/16" .080" 3/8" 1-3/8" 5" 1" 1-3/8"	Net per pair 1.27
No.	33-470-S One pair, red and black
HIGH VOLTAGE TEST LEADS	
	DESC: Extra heavy-duty with finger guard and test prod handles. Available in tip plugs, spade lugs, or alligator clips. HANDLE: Large-fibre, per MIL-F-1148-A type Small Butyrate, per MIL-LP-349-A and ASEA letter QUD4-59-4820 type 3. CABLE: 48" heavy insulated high tension (22,000.V)
3/16" .080" 3/8" 6-3/16" 1/2"	Net per pair 1.88
No.	33-472-S Pair of 1 red, 1 black, terminated with tip plug
No.	33-474-S Pair of 1 red, 1 black, terminated with insulated spade lugs.
No.	33-476-S Pair of 1 red, 1 black, terminated with alligator clips.



ELECTROCRRAFT ELECTRONIC COMPONENTS

TEST PRODS, LEADS & ADAPTORS

ILLUSTRATIONS DESCRIPTION



ALLIGATOR CLIP TEST LEADS

DESC: Cadmium plated steel alligator clips on both ends of heavy duty test lead wire.

CABLE: Flexible, choice of lengths

No. Net per pair .55

33-496-S 12" length One pair, red and black

No. Net per pair .61

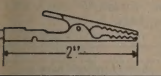
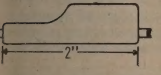
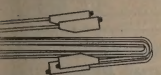
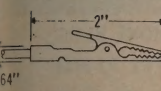
33-497-S 24" length One pair, red and black

No. Net per pair .70

33-498-S 36" length One pair, red and black

No. Net per pair .79

33-499-S 48" length One pair, red and black



ALLIGATOR CLIP JUMPER LEADS

DESC: Terminated at each end with fully insulated steel nickel plated alligator clips.

CABLE: Flexible, choice of lengths

No. Net per pair .92

33-500-S 12" length One pair, red and black

No. Net per pair .95

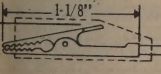
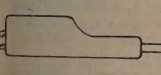
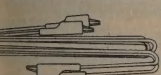
33-502-S 24" length One pair, red and black

No. Net per pair 1.05

33-504-S 36" length One pair, red and black

No. Net per pair 1.10

33-506-S 48" length One pair, red and black



MIDGET ALLIGATOR CLIP TEST LEADS

DESC: Cadmium plated steel alligator clips with red vinyl plastic boots.

CABLE: Flexible, choice of lengths

No. Net per pair .81

33-501-S 12" length One pair, red and black

No. Net per pair .84

33-503-S 18" length One pair, red and black

No. Net per pair .87

33-505-S 24" length One pair, red and black

No. Net per pair .96

33-507-S 36" length One pair, red and black



TEST LEAD WIRE

DESC: Flexible, rubber-coated and kink-resistant replacement wire for test leads.

No. Net per pair .60

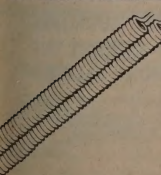
Package of two, 50" length, red and black, 6000/V insulation.

No. Net per pair .87

33-518-S 24" length One pair, red and black

No. Net per pair .95

33-520-S 36" length One pair, red and black



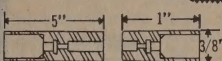
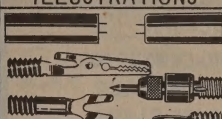
STRETCH LEAD WIRE

DESC: Coiled wire, for all applications where it is desirable to have leads retract. Package contains 1 red and 1 black lead, .9" long - stretches to 6'.

No. Net per pair 1.95

33-522-S 12" length One pair, red and black

ILLUSTRATIONS



DESCRIPTION

UNIVERSAL TEST LEAD KIT

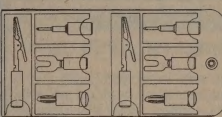
DESC: Two 55" leads and 12 interchangeable testing tips and connectors. Both ends convert to different types. Has four phone tips, two alligator clips, two needle tips, two banana plugs, two spade lugs. Plastic wallet-style kit.

HANDLE: Butyrate, per MIL-LP-349-A and ASEA letter QUD4-59-4820 type 3.

CABLE: 55" flexible

No. Net per pair 2.40

33-528



TEST LEAD PLUG INTERCHANGE KIT

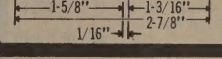
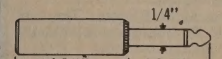
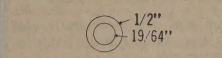
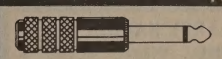
DESC: Contains pairs of alligator clips, banana plugs, spade lugs and phone tips, (1 each in red and black) to adapt standard test leads to different types of terminations. Attractive plastic case.

HANDLE: Butyrate, per MIL-LP-349-A and ASEA letter QUD4-59-4820 type 3.

No. Net each 2.25

33-530

PHONE PLUGS



2-COND., SCREW TERMINALS

RATING: 5 amps AC for 10 degree C Temp. rise, continuous duty. 750 volts 60 cycle AC continuous working voltage.

HANDLE: Butyrate, per MIL-LP-349-A and ASEA letter QUD4-59-4820 type 3.

No. Net per C 44.83

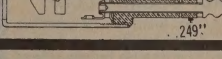
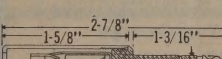
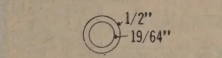
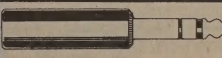
33-600-BU with black plastic handle.

No. Net per C 44.83

33-602-BU with red plastic handle.

No. Net per C 62.89

33-604-BU with metal (shielded) handle.



2-COND., CLAMP OR SOLDER

DESC: Standard size plug, with large "grounding" terminals which clamp around cable insulation or shield, and acts as strain relief.

HANDLE: Butyrate, per MIL-LP-349-A and ASEA letter QUD4-59-4820 type 3.

No. Net per C 39.90

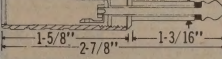
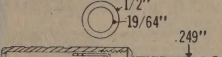
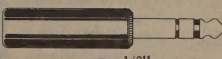
33-606-BU With black plastic handle.

No. Net per C 39.90

33-608-BU with red plastic handle.

No. Net per C 57.50

33-610-BU with metal (shielded) handle.



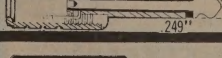
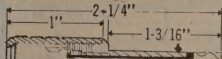
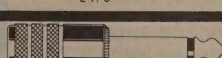
TWO-CONDUCTOR PHONE PLUG, PLAIN SOLDER LUGS

DESC: Standard size plug.

HANDLE: Butyrate, per MIL-LP-349-A and ASEA letter QUD4-59-4820 type 3.

No. Net per C 39.17

33-612-1BU | Color No. 33-612-2BU | Black

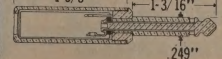
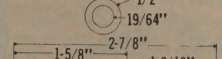
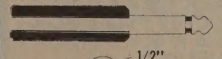


"STUBBY" SHIELDED TWO-CONDUCTOR PHONE PLUG

DESC: Standard phone plug with special, short metal handle; plain solder lugs.

No. Net per C 51.30

33-614-BU



STANDARD SHIELD TWO-CONDUCTOR PHONE PLUG

DESC: Regular plug with metal (shielded) handle, plain solder lugs.

No. Net per C 57.00

33-616-BU



ELECTROCRAFT

ELECTRONIC COMPONENTS

ILLUSTRATIONS	DESCRIPTION
	TWO-CONDUCTOR PHONE PLUG TYPE PJ-055B DESC: Solder terminal and screw connection; Supplied with black, break-resistant molded shell. No. Net per C 80.63 33-618-BU

	SHORT FINGER, 2-COND. PHONE PLUG DESC: Special short finger (barrel) type plug to connect microphone or telephone pickup to Revere-Wollensack tape recorders. Combination clamp and solder lug connection; metal shielded handle. No. Net per C 63.30 33-620-BU
--	--

	LARGE HANDLE 2-COND. PHONE PLUG DESC: Standard size plugs with sturdy large handles where space is no factor; all supplied with screw type terminals. RATING: 5 amps AC for 10 degree C Temp. rise, continuous duty. 750 volts 60 cycles AC working voltage. HANDLE: Butyrate, per MIL-LP-349-A and ASESA letter QUD4-59-4820 type 3. No. Net per C 42.30 33-622-BU with black plastic handle, 1-1/2" long Net per C 42.30 33-624-BU with red plastic handle, 1-2" long Net per C 53.08 33-626-BU with metal (shielded) handle, 1" long Net per C 69.00 33-628-BU with metal (shielded) handle, 2-1/16"
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	"THIN-FINGER" 2-COND. PHONE PLUGS DESC: Special plugs, with undersize barrel diameter of .206", for applications where polarized input is desired to distinguish between different connections. Plugs have combination clamp and solder lug connection and mate with jacks No. 33-700/2. HANDLE: Butyrate, per MIL-LP-349-A and ASESA letter QUD4-59-4820 type 3. No. Color Net per C 41.40 33-630-1BU Red 33-630-2BU Blk Net per C 51.00 33-632-BU with metal (shielded) handle,
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	3-CONDUCTOR PHONE PLUG: COMB. CLAMP AND SOLDER LUG TERMINALS HANDLE: Butyrate, per MIL-LP-349-A and ASESA letter QUD4-59-4820 type 3. No. Color Net per C 58.35 33-640-1BU Red 33-640-2BU Blk Net per C 73.35 33-642-BU Metal
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	SCREW TERMINALS 3-CONDUCTOR PHONE PLUG HANDLE: Butyrate, per MIL-LP-349-A and ASESA letter QUD4-59-4820 type 3. No. Net per C 70.83 33-644-BU with black plastic handle Net per C 70.83 33-646-BU with red plastic handle Net per C 83.17 33-648-BU with metal (shielded) handle
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ILLUSTRATIONS	DESCRIPTION
	LARGE HANDLE 3-CONDUCTOR PHONE PLUG DESC: For heavy duty applicator; can accommodate large diameter cables, with room in handle for wired-in resistors or capacitors; with 1/2 metal (shielded) handle. No. Net per C 70.83 33-650-BU

	3-CONDUCTOR PHONE PLUG, TYPE PJ-068B DESC: With solder terminal and screw connection made in accordance with military specifications. No. Net per C 205.83 33-654-BU
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	MIN. PHONE PLUGS COMB. CLAMP & SOLDER TER. DESC: These small plugs are designed for use with hearing aids, pocket radios, portable recorders, etc. Two-conductor style; tested for 500 breakdown. RATING: 5 amps AC for 10 degree C Temp. rise, continuous duty. HANDLE: Butyrate, per MIL-LP-349-A and ASESA letter QUD4-59-4820 type 3. No. Net per C 51.00 33-660-BU with metal (shielded) handle Net per C 40.83 33-662-BU with black plastic handle Net per C 40.83 33-664-BU with red plastic handle
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	MIN. PHONE PLUGS COMB. CLAMP & SOLDER TER. DESC: Same plug as 33-660 except for different style terminals. HANDLE: Butyrate, per MIL-LP-349-A and ASESA letter QUD4-59-4820 type 3. No. Net per C 51.00 33-666-BU with metal (shielded) handle Net per C 40.83 33-668-BU with black plastic handle Net per C 40.83 33-670-BU with red plastic handle
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PHONE JACKS

	PANEL MOUNTING TWO-CONDUCTOR PHONE JACKS DESC: Open circuit, 2-conductor. RATING: 10 amps AC for 10 degree C Temp. rise, continuous duty. 1.2 K Volts 60 cycle AC continuous working voltage. WASHER: Phenolic, per MIL-LL-31 and ASTM 709 type 1. No. Net per C 27.83 33-690-BU
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	PANEL MOUNTING TWO-CONDUCTOR PHONE JACKS DESC: Panel mounting - two conductor Ph Jack. Use with Revere/Wollensack type, accommodate 33-620 phone plug. No. Net per C 29.83 33-691-BU
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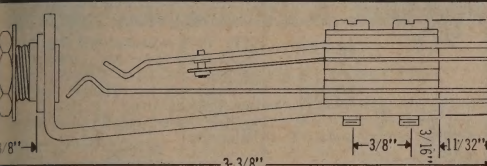


ELECTROCRAFT ELECTRONIC COMPONENTS

ILLUSTRATIONS	PHONE JACKS
DESCRIPTION	
MINIATURE CORD MOUNTED JACKS	
DESC: Miniature type, mates with plugs No. 33-660 through 33-670, with solder lugs and metal (shielded) handle.	
No.	Net per C 70.00
33-746-BU	

ILLUSTRATIONS	DESCRIPTION
PHONO PLUG	
DESC: New RCA type, 1/8" tube pin, nickel plated, brass, cadmium plated shell. Eliminates damaging shielded cable when connecting. Short Pin (13/16" overall) Long Pin (1" overall)	
No.	Net per C 7.50
33-769-BU	short 1-1/16"

LONG FRAME JACKS



Electrocraft Long Frame Jacks are designed for heavy duty use and where long service life is required. Special metal frame construction permits mounting on 5/8" centers. These jacks are made with nickel-silver alloy springs; mounted with phenolic insulator to cadmium plated steel frames. Steel nickel plated washer and nickel plated brass lock nut is supplied. Standard jacks is 3 amps. On special orders, these jacks can be supplied with

No.	Description	Net per C
33-750-BU	2-conductor, open circuit	44.16
33-751-BU	2-conductor, closed circuit	51.20
33-752-BU	2-conductor, single closed circuit	61.65
33-753-BU	2-conductor, closed circuit, grounded	51.20
33-754-BU	3-conductor, single closed circuit, ring grounded	61.65
33-755-BU	3-conductor, open circuit	51.20
33-756-BU	2-conductor, open circuit w/insulated break	61.65

PHONO PIN PLUGS & JACKS

ILLUSTRATIONS	PHONO PLUGS
DESC: Motorola type, tube pin nickel plated-1/8". Pin extends from split brass, cadmium plated shell. Provides positive ground connection when inserted into connector.	
No.	Net per C 10.35
33-765-BU	

ILLUSTRATIONS	PHONO PLUG
DESC: Motorola type, tube pin nickel-plated-1/8". Pin extends from split brass shell, designed for use with small diameter cable. Shell is cadmium plated.	
No.	Net per C 10.35
33-766-BU	

ILLUSTRATIONS	PHONO PLUG
DESC: Motorola type 1/8" tube pin extends from solid brass, cadmium plated shell, small ribbed.	
No.	Net per C 10.35
33-767-BU	

ILLUSTRATIONS	PHONO PLUG
DESC: Solder type.	
No.	Net per C 5.80
33-768-BU	15/16" overall
No.	Net per C 4.80
33-770-BU	13/16" overall

PART NO.	SCHEMATIC	DIM. A	PART NO.	SCHEMATIC	DIM. A	PART NO.	SCHEMATIC	DIM. A
33-750		21/32"	33-757		3/4"	33-760		3/4"
33-751		21/32"	33-758		3/4"	33-761		15/16"
33-752		21/32"	33-759		3/4"	33-762		15/16"
33-753		21/32"	33-760		3/4"	33-763		15/16"
33-754		21/32"	33-761		23/32"			
			33-762		23/32"			
			33-763		23/32"			

contacts up to 10 amps at 110/V AC non-inductive load. Also available, on special order, are jacks made in accordance with MIL-J-641 specifications. The jacks listed below are the most popular models, stocked at distributors. Many additional contact configurations and solder lug arrangements are available on order.

No.	Description	Net per C
33-757-BU	2-conductor, closed circuit and make	55.83
33-758-BU	3-conductor, 2 closed circuits	70.80
33-759-BU	2-conductor, insulated make	55.83
33-760-BU	2-conductor, closed circuit w/insulated break and make	70.80
33-761-BU	3-conductor, 2 closed circuit	66.60
33-762-BU	2-conductor, closed circuit w/insulated break and make	80.63
33-763-BU	3-conductor, 2 closed circuits w/insulated break and make	92.70

ILLUSTRATIONS	PHONO PLUG
DESC: Combination clamp, solder type, with removable metal (shielded) handle. Much easier to attach than the standard phono plug, and provides "finished" appearance. Mates with 33-774.	
No.	Net per C 28.50
33-772-BU	

ILLUSTRATIONS	PHONO JACK, CORD MOUNTED
DESC: Also known as "extension" or "inline" jacks. Combination clamp and solder terminal; removable metal (shielded) handle. Mates with 33-772.	
No.	Net per C 34.17
33-774-BU	

ILLUSTRATIONS	SOLDERLESS PHONO PLUGS
DESC: Completely new design, requires only stripping of cable, inserting in plastic shell, and tightening of assembly with 2 screws. Positive, noise-free pressure connection without soldering. Right angle style, designed for regular shielded cable with approximately 3/16" OD.	
No.	Net per C 23.40
33-776-BU	gray plastic shell
33-778-BU	black plastic shell
33-780-BU	red plastic shell
33-782-BU	yellow plastic shell
33-784-BU	blue plastic shell



ELECTROCRAFT ELECTRONIC COMPONENTS

ILLUSTRATIONS	PHONE JACKS	ILLUSTRATIONS	DESCRIPTION
	PANEL MOUNTING 2-CONDUCTOR PHONE JACKS DESC: Closed circuit, 2-conductor. RATING: 10 amps AC for 10 degree C Temp. rise, continuous duty. 1.2 K Volts 60 cycle AC continuous working voltage. WASHER: Phenolic, per MIL-LL-31 and ASTM-709 type 1. No. _____ 33-692-BU _____ Net per C 29.83		STEREO TELEPHONE JACK DESC: New jack designed for switching speakers when connecting stereo headphones for switching three wire stereo input circuit. Open circuit, 3-conductor, MIL-type J. WASHER: Phenolic, per MIL-LL-31 and ASTM-709 type 1. No. _____ 33-712-BU _____ Net per C 39.
	PANEL MOUNTING TWO-CONDUCTOR PHONE JACKS DESC: Open circuit, 2-conductor. WASHER: Per MIL type, JJ-034. No. _____ 33-694-BU _____ Net per C 34.17		MINIATURE PANEL MOUNTING JACKS DESC: These jacks mate with plugs No. 33-670 through 33-670. Open circuit, 2-conductor. RATING: 5 amps AC for 10 degree C Temp. rise, continuous duty. 500 Volts 60 cycle AC continuous working voltage. WASHER: Phenolic, per MIL-LL-31 and ASTM-709 type 1. No. _____ 33-720-BU _____ Net per C 23.
	PANEL MOUNTING TWO-CONDUCTOR PHONE JACKS DESC: Open circuit, 2-conductor .210" I.D. sleeve fits plugs No. 33-630/2. WASHER: Phenolic, per MIL-LL-31 and ASTM-709, Washers type 1. No. _____ 33-700-BU _____ Net per C 24.98		MINIATURE PANEL MOUNTING JACKS DESC: These jacks mate with plugs No. 33-670 through 33-670. Closed circuit, 2-conductor. RATING: 5 amps AC for 10 degree C Temp. rise, continuous duty. 500 Volts 60 cycle AC continuous working voltage. WASHER: Phenolic per MIL-LL-31 and ASTM-709 type 1. No. _____ 33-722-BU _____ Net per C 26.
	PANEL MOUNTING TWO-CONDUCTOR PHONE JACKS DESC: Closed circuit, 2-conductor .210" I.D. sleeve...fits plugs No. 33-630/2. WASHER: Phenolic, per MIL-LL-31 and ASTM-709 type 1. No. _____ 33-702-BU _____ Net per C 26.67		BUSHING AND NUT DESC: Bushing and Nut assembly for controlling potentiometers, etc. internally threaded to screw in control. Brass-bright nickel plated. No. _____ 33-724-BU _____ Net per C 35.
	PANEL MOUNTING 3-COND. PHONE JACKS DESC: Open circuit, 3-conductor. RATING: 10 amps AC for 10 degree C Temp. rise, continuous duty. 1.2 K Volts 60 cycle AC continuous working voltage. WASHER: Phenolic, per MIL-LL-31 and ASTM-709 type 1. No. _____ 33-708-BU _____ Net per C 36.00		CORD MOUNTED JACKS DESC: Often referred to as "extension jacks" or "inline jacks"; available in 2 or 3 conductor types. No. _____ 33-730-BU metal _____ 77 33-732-BU plastic _____ 55 2-conductor, open circuit style, with screw terminals. 33-734-BU metal _____ 90 33-736-BU plastic _____ 66 3-conductor, open circuit style, with screw solder type terminals, and metal (shielded) hand. _____ 99 33-740-BU solder _____ 99 33-742-BU screw _____ 110
	PANEL MOUNTING 3-COND. PHONE JACKS DESC: Single closed circuit, 3-conductor. RATING: 10 amps AC for 10 degree C Temp. rise, continuous duty. 1.2 K Volts 60 cycle AC continuous working voltage. WASHER: Phenolic, per MIL-LL-31 and ASTM-709 type 1. No. _____ 33-710-BU _____ Net per C 44.32		
	STEREO TELEPHONE JACK DESC: New Jack designed for switching out speakers when connecting stereo headphones and for switching three stereo input circuits. Normally closed dual switch contacts open both stereo circuits separately when three circuit plug is inserted. WASHER: Phenolic per MIL-LL-31 and ASTM-709 type 1. No. _____ 33-711-BU _____ Net per C 54.00		SEND FOR FREE ELECTROCRAFT CATALOG & WALL CHART FR-66-I FR-029-E



ELECTROCRAFT ELECTRONIC COMPONENTS

ILLUSTRATIONS	STACK ASSEMBLIES
	DESCRIPTION STACK ASSEMBLIES DESC: High grade stack assemblies can be supplied in a wide variety of circuit arrangements and contact ratings. Basic contacts can be placed at any one or more locations. Assemblies are tightly held together by press-fit insulator tubing. Length of blade is variable up to a maximum of 2-5/8". Available in lug design, as shown below. With a small tooling charge, blades are available in various forms to act as cam followers or other types of actuators. We will be happy to consult with you on any special application where stack assemblies are used.

SPECIAL CONNECTORS & ADAPTORS	FEMALE COAXIAL CONNECTORS
	DESC: Low-cost solderless coaxial cable connectors. For use with RG-8/U, RG-11/U and RG-59/U. Mates with No. 33-836 receptacle or No. 33-834 female coupler. Low-loss insulation. No. Net per C 48.00 33-834-BU

MALE CHASSIS FITTING
DESC: Silver-plated, low-loss insulated co-axial cable connector. Mates with No. 33-834. 5/8" threaded stem. No. Net per C 48.00 33-836-BU

MALE COUPLER
DESC: Highly conductive, silver-plated cable connector. Mates at either end with No. 33-834 connector. No. Net per C 60.00 33-838-BU

ADAPTOR
DESC: Phono jack input, standard phone plug output. HANDLE: Butyrate, per MIL-LP-349-A and ASESA letter QUD4-59-4820 type 3. No. Net per C 67.50 33-850-BU

ADAPTOR
DESC: Phono jack input, standard phone plug output, heavy duty metal shielded type. No. Net per C 78.30 33-852-BU

MALE ADAPTOR
DESC: Phone jack input, microphone connector output. No. Net per C 59.40 33-854-BU

ILLUSTRATIONS	DESCRIPTION
	FEMALE ADAPTOR DESC: Phono jack input, microphone connector output. No. Net per C 67.50 33-856-BU

MALE ADAPTOR
DESC: Microphone connector input, standard phone plug output. No. Net per C 30.00 33-858-BU

ADAPTOR
DESC: Miniature phone jack input, standard phone plug output. No. Net per C 78.30 33-860-BU

MALE CONNECTOR
DESC: Connects 2 female microphone connectors. No. Net per C 40.00 33-862-BU

FEMALE CONNECTOR
DESC: Connects 2 male microphone connectors. No. Net per C 44.17 33-864-BU

ADAPTOR
DESC: Miniature phone jack input, standard phone plug output. No. Net per C 78.30 33-865-BU

ADAPTOR
DESC: Standard phone jack input, phono plug output. No. Net per C 105.84 33-866-BU

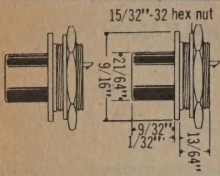


ELECTROCRAFT ELECTRONIC COMPONENTS

PHONO PIN PLUGS & JACKS

ILLUSTRATIONS

DESCRIPTION



PHONO JACK, SINGLE HOLE MOUNTING

DESC: Supplied with washer and mounting nut.
Net per C 20.67

No. 33-790-BU

PHONO JACKS

DESC: Fastens to chassis with 2 rivets or 2 screws.
Net per C 7.33

No. 33-792-BU

W/oval, space saving metal mounting plate.

No. 33-796-BU

W/regular, round mounting plate.

PHONO PIN JACKS

No.		Net per C
33-798-BU	single phono pin jack	7.50
33-800-BU	double phono pin jack	12.00
33-802-BU	triple phono pin jack	15.00
33-803-BU	quadruple phono pin jack	24.00

SINGLE HOLE PANEL PHONO JACK

DESC: Mounts in 9/32" hole, requires only one hole drilled. Comes equipped with nut, washer and solder lug for ground.

Net per C 16.20

No. 33-804-BU

STANDARD MICROPHONE CONNECTORS

CORD MOUNTED MALE MICROPHONE CONNECTOR

DESC: With flexible spring to protect cable; center conductor solders to contact; braid is clamped securely by set screw.

Net per C 24.00

No. 33-810-BU

CORD MOUNTED FEMALE MICROPHONE CONNECTOR

DESC: With flexible spring to protect cable; center conductor solders to contact; braid is clamped securely by set screw.

Net per C 31.50

No. 33-812-BU

PANEL MOUNTED MICROPHONE CONNECTOR

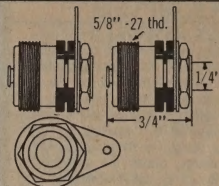
DESC: Requires 3/8" hole when grounded to chassis; or 7/16" hole if insulated with fibre washers; mates with No. 33-812 connector. Single contact connector.

Net per C 19.38

No. 33-814-BU

ILLUSTRATIONS

DESCRIPTION

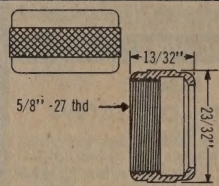


MICROPHONE AND CHASSIS CONNECTOR

DESC: Closed circuit type which grounds contact when cable connector removed, eliminating noise.

Net per C 26.

No. 33-816-BU

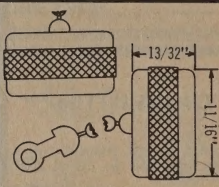


COUPLING NUT

DESC: Converts No. 33-810 male connector to 33-812 female type, and No. 33-872 adapter female No. 33-874.

Net per C 8.

No. 33-818-BU

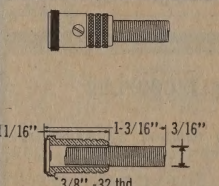


CAP FOR PANEL CONNECTORS

DESC: Protects unused connectors from mechanical damage and dust.

Net per C 42.

No. 33-820-BU

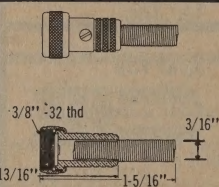


MINIATURE MALE MICROPHONE CONNECTOR

DESC: These connectors are only about one-half the size of the standard microphone connectors. Particularly useful for portable equipment, lap microphone, musical instruments, recorders, etc. Made to the same specifications and of same materials as standard size connectors.

Net per C 26.

No. 33-826-BU

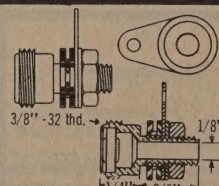


MINIATURE FEMALE MICROPHONE CONNECTOR

DESC: These connectors are only about one-half the size of the standard microphone connectors. Particularly useful for portable equipment, lap microphone, musical instruments, recorders, etc. Made to the same specifications and of same materials as standard size connectors.

Net per C 33.

No. 33-828-BU

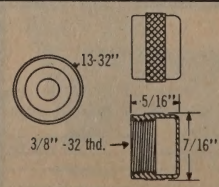


MINIATURE MIKE CONNECTOR

DESC: These connectors are only about one-half the size of the standard microphone connectors. Particularly useful for portable equipment, lap microphones, musical instruments, recorders, etc. Made to the same specifications and of same materials as standard size connectors. Pa mounted connector.

Net per C 20.

No. 33-830-BU



MINIATURE COUPLING NUT

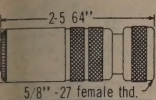
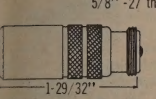
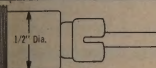
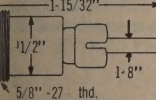
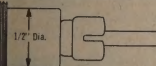
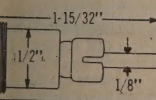
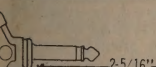
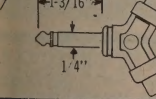
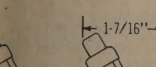
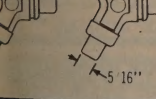
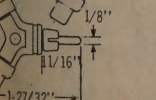
DESC: Converts male connector No. 33-826 female connector No. 33-828.

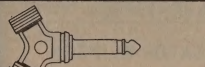
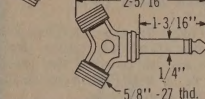
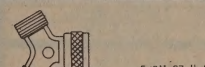
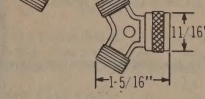
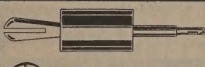
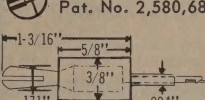
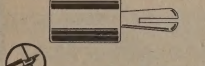
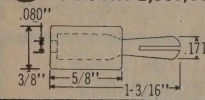
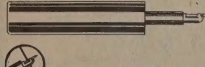
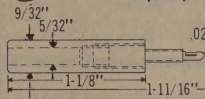
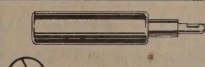
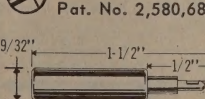
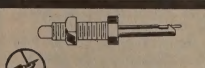
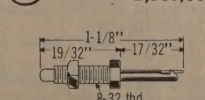
Net per C 5.

No. 33-832-BU



ELECTROCRAFT ELECTRONIC COMPONENTS

ILLUSTRATIONS	SPECIAL CONNECTORS & ADAPTORS DESCRIPTION
	FEMALE ADAPTOR
	DESC: Standard phone jack input, microphone connector output. No. 33-868-BU Net per C 99.17
	MALE ADAPTOR
	DESC: Standard phone jack input, microphone connector output. No. 33-870-BU Net per C 89.10
	MALE ADAPTOR
	DESC: Microphone connector input, phono plug output. No. 33-872-BU Net per C 67.50
	FEMALE ADAPTOR
	DESC: Microphone connector input, phono plug output. No. 33-872-1BU Net per C 99.17
	"Y" ADAPTOR
	DESC: Input - 2 phono jacks (in parallel); output - single phono plug. No. 33-880-BU Net per C 98.50
	"Y" ADAPTOR
	DESC: Input - 2 phono jacks (in parallel); output - single phono jack. No. 33-882-BU Net per C 94.50
	"Y" ADAPTOR
	DESC: Input - 2 phono jacks (in parallel); output - standard phono pin plug. No. 33-884-BU Net per C 94.50

ILLUSTRATIONS	DESCRIPTION
	"Y" ADAPTOR
	DESC: Input - 2 male microphone connectors (in parallel); output standard phone plug. No. 33-886-BU Net per C 102.60
	"Y" ADAPTOR
	DESC: Input - 2 male microphone connectors (in parallel); output - female microphone connector. No. 33-888-BU Net per C 89.63
	KLIPZON BANANA PLUG-KLIPZON ADAPTOR
	DESC: Designed to adapt unterminated wire ends to Banana Jack. HANDLE: Molded Butyrate, per MIL-LP-349-A and ASEA letter QUD4-59-4820 type 3. TIP: One end cross-slotted; brass, nickel plated banana plug; other end "Klipzon" self-holding wire piercing tip. No. 33-076-BU Color Red No. 33-078-BU Color Blk Net per C 45.00
	ADAPTER, KLIPZON TIP TO BANANA PLUG
	DESC: For connection of test leads terminated with Klipzon prods to equipment with banana jacks or standard tip plugs. HANDLE: Molded Butyrate, per MIL-LP-349-A and ASEA letter QUD4-59-4820 type 3. TIP: Adapts tip plugs to banana plugs. No. 33-080-BU Color Red No. 33-082-BU Color Blk Net per C 36.00
	KLIPZON MINI-PROD
	DESC: Ingeniously designed; insulated tip plug which can be snapped securely on wires; sharp point to pierce insulation; fits standard tip jacks; wire solders to body. HANDLE: Molded Butyrate, per MIL-LP-349-A and ASEA letter QUD4-59-4820 type 3. TIP: Wire piercing Klipzon No. 33-138-BU Color Red No. 33-140-BU Color Blk Net per C 36.00
	KLIPZON MINI-PROD ADAPTOR
	DESC: Converts standard Tip Plug and Test Prod to self-holding Klipzon wire piercing prod. HANDLE: Molded Butyrate, per MIL-LP-349-A and ASEA letter QUD4-59-4820 type 3. TIP: Wire piercing Klipzon. No. 33-160-BU Color Red No. 33-162-BU Color Blk Net per C 36.00
	KLIPZON PANEL MOUNTS
	DESC: Wire holding patented Klipzon Test Prod with threaded shank (8-32 x 3/8") for panel mount. Designed for test setups. Quickly connects and disconnects Resistors, Capacitors, Diodes or Transistor leads. TIP: Wire piercing Klipzon. No. 33-164-BU Net per C 45.00



ELECTROCRAFT ELECTRONIC COMPONENTS

ILLUSTRATIONS	DESCRIPTION								
Pat. No. 2,580,682 3/8" 5/8" 2-1/4" Ø.080"	ALLIGATOR-KLIPZON PROD ADAPTOR DESC: Adapts Klipzon Mini-Prod connectors and standard tip plugs to Alligator clip, has very short insulated handle and cadmium plated steel jaws. HANDLE: Butyrate, per MIL-LP-349-A and ASEA letter QUD4-59-4820 type 3. <table><tr><td>No.</td><td>Color</td><td>No.</td><td>Color</td></tr><tr><td>33-338-BU</td><td>Red</td><td>33-340-BU</td><td>Blk</td></tr></table> Net per C 36.00	No.	Color	No.	Color	33-338-BU	Red	33-340-BU	Blk
No.	Color	No.	Color						
33-338-BU	Red	33-340-BU	Blk						
Pat. No. 2,580,682 9/32" 5/32" 5-5/16" 9-7/16"	KLIPZON TEST PROD DESC: Ingenious Klipzon tip has self-holding point which clips on wire or chassis; sharp point, easily penetrates insulation; has convenient, thin handle; wire solders to tip. HANDLE: Butyrate, per MIL-LP-349-A and ASEA letter QUD4-59-4820 type 3. TIP: Wire piercing Klipzon <table><tr><td>No.</td><td>Color</td><td>No.</td><td>Color</td></tr><tr><td>33-400-BU</td><td>Red</td><td>33-402-BU</td><td>Blk</td></tr></table> Net per C 63.00	No.	Color	No.	Color	33-400-BU	Red	33-402-BU	Blk
No.	Color	No.	Color						
33-400-BU	Red	33-402-BU	Blk						
Pat. No. 2,580,682 3/16" Ø.028" 1-1/8"	KLIPZON CRYSTAL PROD KIT DESC: Self-holding prod in molded, streamlined handle with Germanium Diode and other parts to assemble a low capacity crystal probe. HANDLE: Molded Butyrate, per MIL-LP-349-A and ASEA letter QUD4-59-4820 type 3. TIP: Self-holding, Patented Klipzon tip. Aluminum body, spring wire tip. <table><tr><td>No.</td><td>Color</td><td>No.</td><td>Color</td></tr><tr><td>33-416-BU</td><td>Red</td><td>33-418-BU</td><td>Blk</td></tr></table> Net each 1.83 RF Probe for use with Vacuum Tube Volt Meter 33-412 RF Probe for use with Vacuum Ohm Millimeter 33-414	No.	Color	No.	Color	33-416-BU	Red	33-418-BU	Blk
No.	Color	No.	Color						
33-416-BU	Red	33-418-BU	Blk						
Pat. No. 2,580,682 7/32" 3-5/8" 1-3/16"	KLIPZON JUMBO PROD HANDLE DESC: Solder type. Clips on wires up to .229" in diameter, chassis, screws, terminals, etc. HANDLE: Molded Butyrate, per MIL-LP-349-A and ASEA letter QUD4-59-4820 type 3. TIP: Self-holding, patented Klipzon tip. Aluminum body; spring wire tip. <table><tr><td>No.</td><td>Color</td><td>No.</td><td>Color</td></tr><tr><td>33-416-BU</td><td>Red</td><td>33-418-BU</td><td>Blk</td></tr></table> Net per C 66.00	No.	Color	No.	Color	33-416-BU	Red	33-418-BU	Blk
No.	Color	No.	Color						
33-416-BU	Red	33-418-BU	Blk						
Pat. No. 2,580,682 9/32" Ø.080" Ø.028" 3-1/8"	KLIPZON LONGIE ADAPTOR DESC: Long, slender, self-holding point. Fits standard tip plug and test prod. HANDLE: Molded Butyrate, per MIL-LP-349-A and ASEA letter QUD4-59-4820 type 3. TIP: Self-holding, patented Klipzon tip. Aluminum body; spring wire tip. <table><tr><td>No.</td><td>Color</td><td>No.</td><td>Color</td></tr><tr><td>33-420-BU</td><td>Red</td><td>33-422-BU</td><td>Blk</td></tr></table> Net per C 45.00	No.	Color	No.	Color	33-420-BU	Red	33-422-BU	Blk
No.	Color	No.	Color						
33-420-BU	Red	33-422-BU	Blk						
Pat. No. 2,580,682 5/32" Ø.080" Ø.040" 2-9/16" 1-7/16"	KLIPZON JUMBO ADAPTOR DESC: Adapts regular Tip Plug or Test Prod to Jumbo self-holding Klipzon type. Designed to clip on large wires, chassis, screws, lugs, etc. HANDLE: Molded Butyrate, per MIL-LP-349-A and ASEA letter QUD4-59-4820 type 3. TIP: Self-holding, patented "Jumbo" Klipzon tip. Aluminum body; spring wire tip. <table><tr><td>No.</td><td>Color</td><td>No.</td><td>Color</td></tr><tr><td>33-424-BU</td><td>Red</td><td>33-426-BU</td><td>Blk</td></tr></table> Net per C 63.00	No.	Color	No.	Color	33-424-BU	Red	33-426-BU	Blk
No.	Color	No.	Color						
33-424-BU	Red	33-426-BU	Blk						

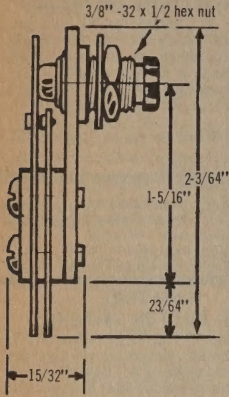
ILLUSTRATIONS	DESCRIPTION																				
Pat. No. 2,580,682 9/32" 5-5/16" 9/16"	KLIPZON TEST LEADS DESC: 48" flexible leads. One end on all leads 4-3/4" long handle with Klipzon tip; other end 1-1/8" handle with choice of Klipzon tip, standard Phone Tip, or Banana Plug. HANDLE: Molded Butyrate, per MIL-LP-349-A and ASEA letter QUD4-59-4820 type 3. PROD TIP: Self-holding, patented Klipzon. Aluminum body, spring wire tip. <table><tr><td>No.</td><td>Length</td><td>Color</td><td>Net each</td></tr><tr><td>33-480-S</td><td>48"</td><td>Red</td><td>2.00</td></tr><tr><td>33-482-S</td><td>48"</td><td>Black</td><td>2.00</td></tr><tr><td>33-484-S</td><td>48"</td><td>Red</td><td>2.00</td></tr></table>	No.	Length	Color	Net each	33-480-S	48"	Red	2.00	33-482-S	48"	Black	2.00	33-484-S	48"	Red	2.00				
No.	Length	Color	Net each																		
33-480-S	48"	Red	2.00																		
33-482-S	48"	Black	2.00																		
33-484-S	48"	Red	2.00																		
Pat. No. 2,580,682 4-5/16" 9/16"	KLIPZON CRYSTAL PROBE DESC: Germanium diode probe with Klipzon holding points, for measuring high frequency voltage with Vacuum Tube Volts Meter, flexible lead wires are terminated on meter end with Klipzon tip plug. Completely shielded model, flexible coaxial cable and separate ground terminals, on probe and cable end, for frequency range to 200 Mc. HANDLE: Butyrate, per MIL-LP-349-A and ASEA letter QUD4-59-4820 type 3. <table><tr><td>No.</td><td>Color</td><td>Net each</td></tr><tr><td>33-486-S</td><td>Red</td><td>1.00</td></tr></table>	No.	Color	Net each	33-486-S	Red	1.00														
No.	Color	Net each																			
33-486-S	Red	1.00																			
Pat. No. 2,580,682 4-5/16" 9/16"	KLIPZON CRYSTAL PROBE DESC: Standard type, consisting of lead, Klipzon crystal probe on one end, plus ground lead terminated on each end with Klipzon plug; for use with regular V/I meter. Frequency range to 200 Mc. HANDLE: Butyrate, per MIL-LP-349-A and ASEA letter QUD4-59-4820 type 3. <table><tr><td>No.</td><td>Color</td><td>Net each</td></tr><tr><td>33-488-S</td><td>Red</td><td>1.00</td></tr></table>	No.	Color	Net each	33-488-S	Red	1.00														
No.	Color	Net each																			
33-488-S	Red	1.00																			
Pat. No. 2,580,682 3-11/16" 1-3/16"	SHIELDED LOW CAPACITY KLIPZON CRYSTAL PROBE DESC: 36" low capacity, coaxial type lead, terminated on each end with self-holding insulation piercing, Klipzon tip prods. Ground connection each end with separate Klipzon plug tips. HANDLE: Molded Butyrate, per MIL-LP-349-A and ASEA letter QUD4-59-4820 type 3. TIP: Self-holding, patented Klipzon Tip. Aluminum body; spring wire tip. <table><tr><td>No.</td><td>Color</td><td>Net each</td></tr><tr><td>33-490-S</td><td>Red</td><td>1.00</td></tr></table>	No.	Color	Net each	33-490-S	Red	1.00														
No.	Color	Net each																			
33-490-S	Red	1.00																			
Pat. No. 2,580,682 3-11/16" 1-3/16"	HEAVY DUTY KLIPZON LEADS DESC: 48" leads with "Jumbo" Klipzon terminals one end, hook type other end. One red and black. HANDLE: Molded Butyrate, per MIL-LP-349-A and ASEA letter QUD4-59-4820 type 3. TIP: Self-holding, patented Klipzon Tip. Aluminum body, spring wire tip. <table><tr><td>No.</td><td>Length</td><td>Color</td><td>Net each pair</td></tr><tr><td>33-492-S</td><td>48"</td><td>Red and black</td><td>1.00</td></tr></table>	No.	Length	Color	Net each pair	33-492-S	48"	Red and black	1.00												
No.	Length	Color	Net each pair																		
33-492-S	48"	Red and black	1.00																		
Pat. No. 2,580,682 156" 9/32" Ø.028" 1-11/16" 1-1/8"	KLIPZON JUMPER LEADS DESC: 48" leads, terminated on each end with patented Klipzon tips, which clip on wires terminals, have sharp insulation and correct piercing points, and will also plug in any standard tip jack. Single jumper. HANDLE: Butyrate, per MIL-LP-349-A and ASEA letter QUD4-59-4820 type 3. TIP: Self-holding, patented Klipzon Tip. Aluminum body, spring wire tip. <table><tr><td>No.</td><td>Length</td><td>Color</td><td>Net each</td></tr><tr><td>33-510-S</td><td>12"</td><td>Red</td><td>1.00</td></tr><tr><td>33-512-S</td><td>12"</td><td>Black</td><td>1.00</td></tr><tr><td>33-514-S</td><td>24"</td><td>Red</td><td>1.00</td></tr><tr><td>33-516-S</td><td>24"</td><td>Black</td><td>1.00</td></tr></table>	No.	Length	Color	Net each	33-510-S	12"	Red	1.00	33-512-S	12"	Black	1.00	33-514-S	24"	Red	1.00	33-516-S	24"	Black	1.00
No.	Length	Color	Net each																		
33-510-S	12"	Red	1.00																		
33-512-S	12"	Black	1.00																		
33-514-S	24"	Red	1.00																		
33-516-S	24"	Black	1.00																		



ELECTROCRAFT ELECTRONIC COMPONENTS

PUSH BUTTON SWITCHES

ILLUSTRATIONS



DESCRIPTION

STRAIGHT FRAME PUSH BUTTON SWITCHES

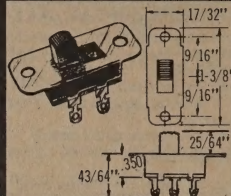
DESC: Designed for heavy duty application where utmost reliability is required; straight frame design provides perfect spring and contact; fine silver contacts with minimum resistance rated at 3 amp, 115/V, AC, non-inductive load. Standard push button is black, however, other colors and higher ratings as well as many additional contact arrangements can be supplied on order.

No.		Net per C
34-028-BU	Single make, black button SPST, normally open	58.38
34-028-1BU	Single make, red button SPST, normally open	58.38
34-030-BU	Single break, black button SPST, normally closed	58.38
34-030-1BU	Single break, red button SPST, normally closed	58.38
34-032-BU	Single break-make Black button SPDT, spring return	69.00
34-032-1BU	Single break-make Red button SPDT, spring return	69.00
34-034-BU	DPST, normally open Black button	75.90
34-034-1BU	DPST, normally open Red button	75.90
34-036-BU	DPST, normally closed Black button	75.90
34-036-1BU	DPST, normally closed Red button	75.90
34-038-BU	DPDT, spring return Black button	90.00
34-038-1BU	DPDT, spring return Red button	90.00
34-040-BU	3PDT, spring return Black button	115.00
34-040-1BU	3PDT, spring return Red button	115.00

PART NO.	PUSH BUTTON	SCHEMATIC CIRCUIT
34-028	Black	
34-028-1	Red	
34-030	Black	
34-030-1	Red	
34-032	Black	
34-032-1	Red	
34-034	Black	
34-034-1	Red	
34-036	Black	
34-036-1	Red	
34-038	Black	
34-038-1	Red	
34-040	Black	
34-040-1	Red	

MISC. SMALL SWITCHES

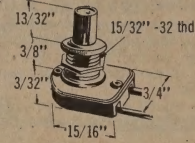
ILLUSTRATIONS



SLIDE SWITCHES

DESC: Small switches of sturdy design; approved for 1/2 amp, 125/V. Mount with 2 screws. No. 6 or rivets 1/8" with 1-1/8" spacing.

No.		Amps	Net
34-160	SPDT	AC 4.0 DC 1.0	
34-162	DPDT	AC 3.0 DC 0.5	



ROTARY CANOPY SWITCH

DESC: With wire leads and 13/32" shank length. Standard replacement switch for lighting fixture bench lamps, small electrical appliances, instruments, etc. Rating: 3 amps, 125/V, 1 amp, 250/V. Mounts in 3/8" hole.

No.		Net each
34-166		

ELECTROCRAFT WALL CHART

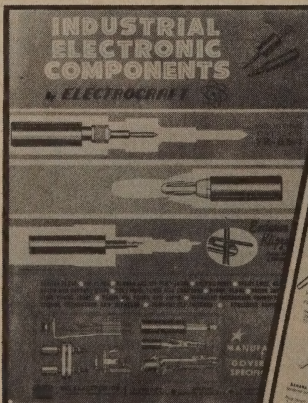
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DRAFTSMEN
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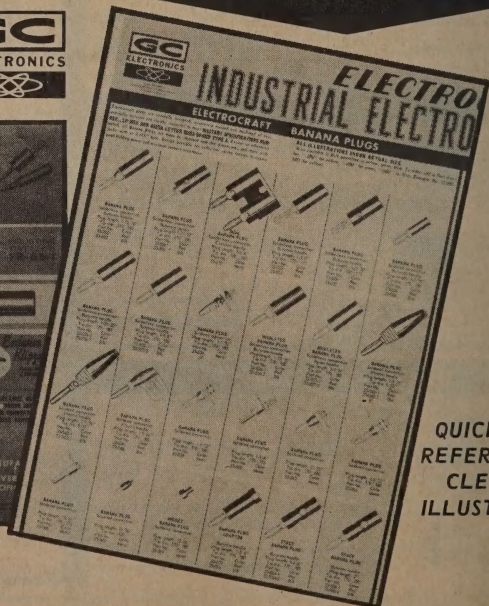
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PRODUCTS

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SEND FOR WALL CHART FR-029-E



QUICK EASY
REFERENCE...
CLEARLY
ILLUSTRATED



SOLDERLESS TERMINALS and CONNECTORS

DESCRIPTION	WIRE SIZE	STUD SIZE	LENGTH	100 PACK		1000 PACK	
				PART. NO.	NET/100	PART. NO.	NET/100
RING TONGUE NON INSULATED 	22-16	4-6	17/32	13-000-C	2.43	13-000-M	20.79
	22-16	4-6	23/32	13-002-C	2.43	13-002-M	20.79
	22-16	8	41/64	13-004-C	2.43	13-004-M	20.79
	22-16	8	23/32	13-006-C	2.73	13-006-M	23.10
	22-16	8-10	23/32	13-008-C	2.43	13-008-M	20.74
	16-14	4-6	19/32	13-012-C	2.45	13-012-M	21.01
	16-14	4-6	45/64	13-014-C	2.45	13-014-M	21.01
	16-14	8	45/64	13-016-C	2.45	13-016-M	21.01
	16-14	10	45/64	13-018-C	2.45	13-018-M	21.01
	16-14	12-1/4	57/64	13-020-C	3.42	13-020-M	29.32
	12-10	4-6	3/4	13-022-C	3.42	13-022-M	29.32
	12-10	8-10	3/4	13-024-C	3.42	13-024-M	29.32
	12-10	1/4"	1-1/32	13-026-C	4.26	13-026-M	36.47
	16-14	10	55/64	13-030-C	7.21	13-030-M	61.71
	22-16	4-6	45/64	13-050-C	5.54	13-050-M	47.52
	22-16	4-6	29/32	13-052-C	5.54	13-052-M	47.52
RING TONGUE INSULATED 	22-16	8-10	29/32	13-054-C	5.54	13-054-M	47.52
	16-14	4-6	25/32	13-056-C	5.54	13-056-M	47.52
	16-14	4-6	57/64	13-058-C	5.54	13-058-M	47.52
	16-14	10	57/64	13-060-C	5.54	13-060-M	47.52
	16-14	12-14	1-5/64	13-062-C	5.54	13-062-M	47.52
	12-10	8-10	1-3/64	13-064-C	6.47	13-064-M	55.44
	12-10	1/4	1-21/64	13-066-C	7.41	13-066-M	63.36
	22-16	4-6	3/4	13-100-C	2.43	13-100-M	20.79
	22-16	8	3/4	13-102-C	2.13	13-102-M	18.26
	16-14	4-6	3/4	13-104-C	2.43	13-104-M	20.79
SPADE TERMINAL NON-INSULATED 	16-14	8	3/4	13-105-C	2.43	13-105-M	20.79
	16-14	10	3/4	13-106-C	2.43	13-106-M	20.79
	22-16	4-6	13/16	13-108-C	5.54	13-108-M	47.52
	22-16	8	13/16	13-109-C	5.54	13-109-M	47.52
SPADE TERMINAL INSULATED 	16-14	4-6	13/16	13-110-C	5.54	13-110-M	47.52
	16-14	8	13/16	13-111-C	5.54	13-111-M	47.52
	16-14	10	13/16	13-112-C	5.54	13-112-M	47.52
	22-16	4-6	5/8	13-114-C	2.43	13-114-M	20.79
FLANGE SPADE TERMINAL NON INSULATED 	16-14	10	3/4	13-116-C	3.36	13-116-M	28.82
	16-14	4-6	3/4	13-118-C	4.99	13-118-M	42.68
	16-14	8	3/4	13-120-C	4.99	13-120-M	42.68
	22-16	4-6	13/16	13-124-C	8.16	13-124-M	67.87
FLANGE SPADE TERMINAL INSULATED 	22-16	8-10	13/16	13-126-C	10.09	13-126-M	83.82
	16-14	4-6	13/16	13-128-C	8.72	13-128-M	74.58
	16-14	8	13/16	13-130-C	10.74	13-130-M	91.85
	16-14	10	13/16	13-132-C	10.74	13-132-M	91.85
HOOK TERMINAL 	22-16	4-6	23/32	13-200-C	2.13	13-200-M	18.26
	22-16	8-10	23/32	13-202-C	2.48	13-202-M	21.23
BUTT CONNECTOR NON-INSULATED 	22-16	9/16		13-220-C	2.60	13-220-M	22.22
	16-14	9/16		13-222-C	2.13	13-222-M	18.26
	12-10	9/16		13-224-C	2.48	13-224-M	21.23
BUTT CONNECTOR INSULATED 	22-16	1		13-226-C	6.47	13-226-M	55.44
	16-14	1		13-228-C	5.69	13-228-M	48.73
	12-10	1-1/16		13-230-C	6.93	13-230-M	59.40
PARALLEL CONNECTOR NON-INSULATED 	22-16	5/16		13-240-C	2.62	13-240-M	22.44
	16-14	5/16		13-242-C	4.52	13-242-M	36.30
SNAP TERMINAL 	16-14	5/8		13-250-C	2.16	13-250-M	18.46
TAB TERMINALS NON-INSULATED 	18-14	male	23/32	13-260-C	2.54	13-260-M	21.78
	18-14	female	23/32	13-262-C	2.54	13-262-M	21.78
	18-14	90°male	9/16	13-264-C	2.77	13-264-M	23.76
	18-14	90°female	15/32	13-266-C	2.60	13-266-M	22.22
	18-14	male	7/8	13-268-C	5.83	13-268-M	49.72
	18-14	female	7/8	13-269-C	5.83	13-269-M	49.72
ADAPTER 			7/8	13-270-C	4.40	13-270-M	37.62
			5/16	13-272-C	4.44	13-272-M	38.06
			7/8	13-274-C	4.40	13-274-M	37.62
			49/64	13-276-C	4.40	13-276-M	37.62
INSULATING TUBING 	22-16		5/8	13-280-C	2.71	13-280-M	23.21
CONNECTOR INSULATOR 	16-14		1-1/8	13-282-C	2.71	13-282-M	23.21
TERMINAL INSULATOR 	16-14		1-5/8	13-284-C	2.71	13-284-M	23.21
KNIFE DISCONNECT 	22-16		5/8	13-290-C	8.09	13-290-M	69.30
FLAG TERMINAL 	22-16	8-10	5/8	13-294-C	2.60	13-294-M	22.22
	16-14	8-10	5/8	13-296-C	2.43	13-296-M	20.79



Look to Johnson for
all your component needs

CONNECTORS

SUB-MINIATURE INSULATED TYPES — Designed for printed circuit applications. Operating voltages to 1500 volts RMS . . . 5 amperes current carrying capacity . . . contact resistance less than 2 milliohms. Capacitance between two adjacent jacks less than one pf at 1 Mc. 10 colors available. Test-Point Strip/Handle — rapid-mounting polyamide body contains 12 test points each rated at 5 amps., maximum current capacity. Operating voltage 1500 volts RMS at sea level, 350 volts RMS at 50,000 feet. Contact resistance less than 2 milliohms.

STANDARD INSULATED CONNECTORS — A complete line of connectors molded of tough, low-loss, shock-proof polyamide in 10

colors meeting Fed. Std. 595. Tip, Banana and Dual Banana Plugs; Tip and Banana Jacks; Metal-Clad Tip Jack, Military; Jack and Sleeve; Binding Posts.

RIB-LOC TERMINALS — A new line of miniature, one-piece, insulated terminals with a unique serrated conical design, which resists loosening and turning. Provides an inexpensive approach to convenient press-in type terminals. Six colors conforming to Federal Color Standard No. 595. Terminal styles include single and double turret feed-thrus and stand-offs, .040" dia. tip plug and mating jack for .040# tip plug.

CAPACITORS

MACHINED PLATE TRIMMER AND TUNER TYPES — U, UA, UB, U-LC, V, and W — Available in both printed circuit and chassis mounting types. U types available in differential and butterfly printed circuit mounting types in addition to single section types. V and W capacitors available in single section type only. Maximum capacities of up to 54 pf. Tuners consist of a machined plate trimmer and high Q air wound silver plated inductor, in resonant frequencies of 100 to 750 Mc.

SOLDER PLATE TYPES — Type M: Capacity values to 30 pf. Voltage ratings to 1250 volts peak. Available in single section, differential and butterfly types.

Type S: Capacity values to 100 pf. Voltage ratings to 3000 volts peak. Available in single section, differential and butterfly types.

Type K: Capacity values to 150 pf. Voltage ratings to 3800 volts peak. Available only in single section types. May be furnished in production quantities in full compliance to MIL-C-92A.

Type R: Capacity values to 340 pf. Voltage ratings to 4400 volts peak. Available only in single section type.

Type L: Capacity values to 200 pf. Voltage ratings to 3500 volts peak. Available in single section differential, butterfly and dual section types.

SPACER TYPES — Type C: Capacity values to 1500 pf. Voltage ratings to 13,000 volts peak. Available in single section and dual section types.

Type D: Capacity values to 1700 pf. Voltage ratings to 9000 volts peak. Available in single section and dual section types.

STAKED PLATE TYPES — Type E: Capacity values to 1000 pf. Voltage ratings to 4500 volts peak. Available in single section and dual section types.

Type F: Capacity values to 400 pf. Voltage ratings to 3000 volts peak. Available in single section and dual section types.

TUBE SOCKETS, INSULATORS, PILOT LIGHTS AND HARDWARE

ULTRA HIGH FREQUENCY SOCKETS — Continuous heat resistance to 500°F. with low loss, glass filled silicone base and heat treated beryllium copper contacts. Low inductance screen bypass capacitor available for VHF and UHF operation.

KEL-F SERIES — Molded of low dielectric loss-factor Kel-F plastic — designed for use with a wide selection of high power transmitting tubes.

STEATITE WAFER TYPES — Available in 4, 5, 6, 7, and 8-pin standard socket types, as well as Super Jumbo 4-pin types. Also giant 5 pin, and 7 pin Septar and VHF Septar Sockets.

SPECIAL PURPOSE TYPES — Includes sockets for special purpose tubes.

Note: For detailed specifications, request Socket Standardization Booklet 536 on your company letterhead.

INSULATORS — Low loss, high-voltage breakdown in either steatite or porcelain. Complete line includes Thru-panel Bushings and Insulators, Antenna Strain and Feeder Types, Cone and Stand-off Insulators, Lead-in Bushings and Feed-Thru Bowl Assemblies.

PILOT LIGHTS — Over 47 separate assemblies. Continuous indication neon types, models for high and low voltage incandescent bulbs, standard or wide angle glass, and lucite jewels, Specials, including types meeting military specifications, also available in production quantities.

PANEL BEARINGS — For use on 1/4" shafts and panels up to 3/8" thick. **CRYSTAL SOCKETS** — For low capacity, high voltage and high temperature operation. Glazed steatite, Grade L-423 or better. **DC-200 IMPREGNATED. RF CHOKES** — High quality construction. For 1.7 to 30 Mc range.

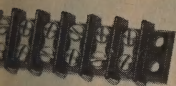
Johnson also offers a complete line of heavy-duty RF components for broadcast transmitting, RF heating, antenna phasing and other commercial applications.

Equipment in this line includes fixed and variable inductors, antenna phase sampling loops, isolation filter inductors, feed-thru bowl insulators, static drain chokes, RF contactors, and heavy duty make-before-break switches.



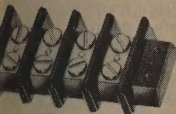
E. F. JOHNSON COMPANY

Kulka TERMINAL BOARDS



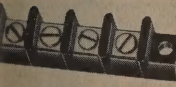
STANDARD

410, 600, 600A, 601, 602 Series. Current range 5 thru 30 Amps; Voltage Range 1000 thru 600 RMS; Wire sizes 20-14 Ga.; 1 thru 26 Terminals.



HEAVY DUTY

603, 604, 605 Series. Current range 50 thru 90 Amps; Voltage range 1700 thru 2100 RMS; Wire Sizes #6 to 2 ga.; 1 thru 12 terminals.



SINGLE ROW

599, 699, 812 Series. Current range 15 thru 30 Amps; Voltage range 1100 thru 1600 RMS; Wire sizes: #22 to #12 ga.; 1 thru 23 terminals.



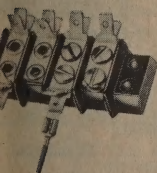
STUD and TURRET

For greater wiring convenience. Choice of terminals:

- Regular Screw Type
- Solder Turret • Feedthru
- Threaded Stud, etc.

Also, choice of finishes: electro-tinned, silver-plated, even gold over silver.

design facilities are available for your special requirements.



"KLIPTITE"

For fast connect and disconnect. Available on Kulka's full line of terminal boards.

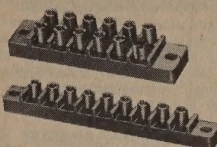
- Just clip on wire terminal fast for tight connection.
- Up to 6 connections per stage.
- Vari-angled tabs.
- Available rivetted to terminal hardware or with screw assembly.



PRESSURE CONTACT

9-85 SERIES

Ideal for power equipment. One-piece molded plastic for industrial or military use. Extra-safe, completely enclosed. 2 to 12 terminals. Rated at 85 Amps, 8000 Volts.

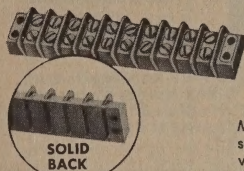


MILITARY BOARDS

Per MIL-T-16784B

Designed by the Bureau of Ships according to MIL-T-16784B, superseding MIL-T-16784A (Ships). They are made to BUSHIPS 9000-S6505-73214 drawings, with the latest revisions, and BUORD S64101.

MOLDED MATERIAL: MAI-60, in accordance with MIL-M-14F.



MILITARY BOARDS

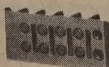
SOLID BACK

MADE TO MEET OR EXCEED
MIL-T-55164

Molded-in Terminals. Equal molded sections. Kulka improved design, for weight saving, greater strength, flexibility. All sizes available, classes 377B thru 427B.

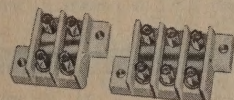


CLOSED BACK TERMINAL BOARDS



CLOSED
BACK

670, 670A, 671, 672 Series. Current range 15 to 30 Amps, Voltage range 2500 to 3300 Volts RMS. Wire sizes #22 thru #12 ga.; 1 thru 30 terminals.



HIGH HEAT

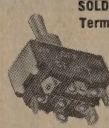
1215 SERIES

For temperatures up to 850°. Made in two and three terminal units with incremental configuration. Stainless steel stud type terminals.

TOGGLE SWITCHES



SCREW
Terminals



SOLDER
Terminals



KLIPTITE®
Terminals

Made to Military Specifications: JAN-S-23, MIL-S-21195, MIL-S-6745 and MIL-S-3950A. Available in SPST, SPDT, DPST and DPDT types. DA and AC up to 1600 cps. Your choice of terminals: Screw, solder or tab.

Also, MINIATURE, SUBMINIATURE, TAPER PIN, PRINTED CIRCUIT, WIRE-WRAP, SCREW CLAMP TERMINAL BOARDS AND ACCESSORIES. Available in a variety of Military and Commercial Grade materials.

Manufacturers of
ing Devices
more than a
rter Century

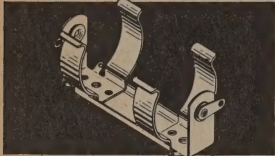
Kulka Electric Corporation

Write for
COMPLETE
ENGINEERING
DATASHEET
on any of these
products.

KEYSTONE ALL STEEL BATTERY HOLDERS

STANDARDIZED ALL STEEL BATTERY HOLDERS

An important advance in design that has gained wide acceptance for military and commercial usage. Battery when installed is held under spring tension at a constant pressure assuring low resistance contact will hold up to 4 cells in series in sturdy insulating tube. Retainer clips available to lock battery securely. This prevents shifting or loosening of battery in holder. Recommended for use where shock or severe vibration is encountered.



SPECIFICATIONS

Made of SAE 1065 Carbon Steel to MIL Spec. 17919, heat treated to spring temper and nickel plated .0002 thick. Contact assembly consists of a stainless steel eyelet, moisture proof vulcooid washers and a coated copper solder lug. Ribbed carbon steel base for added support is nickel plated and has 2 mounting holes for ease in mounting.

- CORROSION RESISTANT NICKEL PLATED
- STAINLESS STEEL CONTACTS
- MOISTURE PROOF INSULATING WASHERS
- IDEAL FOR NI-CAD AND ALKALINE CELLS

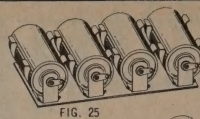


FIG. 25



FIG. 23



FIG. 19

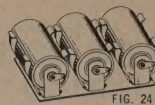


FIG. 24

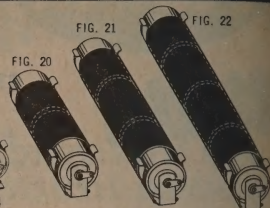


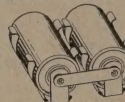
FIG. 20

FIG. 21

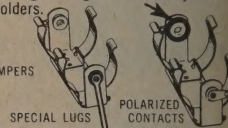
FIG. 22

MODIFICATIONS AVAILABLE

Variety of stock parts permits fast delivery on special requirements. Use our engineering service for your special custom-built holders.



JUMPERS



SPECIAL LUGS

POLARIZED CONTACTS

SPACE SAVER BATTERY CLIPS



DIMPLE AND INSULATED CONTACTS

Std. Pkg. 10 Pieces



These holders are available insulated contact or with a dimple contact. Provides positive contact in either case. They are compact and economical. The "AA", "C", "D", Mercury and Ni-Cad batteries are accommodated. Made of SAE 1065 steel heat treated to spring temper and nickel plated. Insulated type has steel nickel plated eyelet and resin impregnated vulcanized fibre insulation. Snap-on washer for polarization will be supplied upon request.

Cat. No.	Battery Types	Min. to max. Diameter	Net Each 5-19	Net Each 20-99
92*	AA	.531 - .660	.05	.04
99*	AA	.531 - .660	.05	.04
100†	AA	.531 - .660	.08	.07
86*	C	.875 - 1.125	.08	.08
87†	C	.875 - 1.125	.12	.11
88†	D	1.187 - 1.375	.13	.12
89*	D	1.187 - 1.375	.13	.09

*Non-Insulated

†Insulated

INSULATED POLARIZING WASHERS



Cat. No. 59 (Red)

Cat. No. 60 (Black)

Molded Insulated Polarizing Washers. The washers hold securely when snapped over the eyelets used on our standardized battery holders.

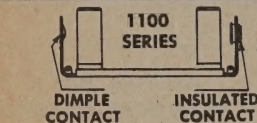
POLARITY LABELS



Cat. No. 58

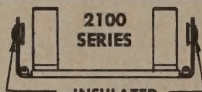
- PRESSURE SENSITIVE
- WILL ADHERE TO ANY SURFACE
- NO GLUE OR DAMPING REQUIRED
- ECONOMICAL

Wherever circuit polarity is to be shown labels colored Blue and Red.



DIMPLE CONTACT

INSULATED CONTACT



INSULATED CONTACTS

One Insulated Contact	Net Each 5-19	Net Each 20-99	All Contacts Insulated	Net Each 5-19	Net Each 20-99	Fig. No.	Holds No. of Cells	All Batteries in the Group are of Similar Size and Fit Holders Listed Burgess	Eveready	RCA
PENCILL HOLDERS										
Cat. No.	.25	.23	2139	.30	.26	19	1	Z, HG9	E9, E12	VS034A
1139	—	—	2140*	.45	.43	23	2	CD6, 9R	E91, E133	VS144
—	—	—	2171*	.70	.68	24	3	HG12R	E502, N46	VS149
—	—	—	2182*	.80	.75	25	4	H133	515, 915	VS313A
1189	.40	.38	2189	.40	.38	20	2	HG502R	1015	VS334
1191	.45	.41	2191	.45	.40	21	3	920		
1194	.50	.48	2194	.55	.51	22	4	930		

"C" CELL HOLDERS

1173	.35	.30	2173	.35	.33	19	1	1		VS035A
—	—	—	2174*	.60	.59	23	2	P6	E233	VS300
—	—	—	2187*	.80	.75	24	3	120	635	VS335
—	—	—	2188*	1.05	.95	25	4	130	935	VS400
1185	.50	.45	2185	.50	.49	20	2	H233		
1195	.50	.48	2195	.55	.51	21	3	302599		
1198	.55	.51	2198	.60	.57	22	4			

"D" CELL HOLDERS

1175	.35	.30	2175	.35	.33	19	1	2	E42	VS036
—	—	—	2176*	.60	.59	23	2	2R	N56	VS036A
—	—	—	2190*	.85	.80	24	3	CD7	E95	VS336
—	—	—	2192*	1.05	.95	25	4	210	D99	
1186	.48	.44	2186	.50	.49	20	2	230	A100	
1199	.55	.51	2199	.60	.56	21	3		950	
1162	.60	.54	2162	.65	.62	22	4		1050	
1179	.35	.30	2179	.35	.34	19	1		E94	

*Clips mounted on phenolic $\frac{1}{8}$ " thick Mil Spec 3115B

BATTERY AND COMPONENT HOLDERS

Cat. No.	Battery Types	Min. to Max. Diameters	NET EACH 5-19	NET EACH 20-99	Cat. No.	Battery Types	Min. to Max. Diameters	NET EACH 5-19	NET EACH 20-99
69	2U6 or (2) AA	$\frac{3}{8} \times 1\frac{1}{8}$	.07	.06	96	(1) K 20	$\frac{3}{8} \times 1\frac{1}{8}$	.08	.07
70	(2) RM 12	$\frac{3}{8} \times 1\frac{1}{8}$	.09	.08	97	(2) "C"	(2) $1\frac{1}{8}$ Dia.	.09	.08
90	#7	$\frac{3}{8} \times \frac{3}{4}$	.06	.04	98	(2) D	(2) $1\frac{1}{8}$ Dia.	.11	.10
91	(1) AA	$\frac{1}{2} \times \frac{3}{4}$	.07	.05	217	$1\frac{1}{2}$ Dia.	$1\frac{1}{2}$ Dia.	.18	.14
93	(1) C	$\frac{3}{8} \times 1\frac{1}{8}$	.07	.06	218	$1\frac{1}{2}$ Dia.	$1\frac{1}{2}$ Dia.	.20	.15
94	(1) D	$1\frac{1}{8} \times 1\frac{3}{4}$	.08	.07	219	2" Dia.	2" Dia.	.22	.18
95	(1) U-15	$\frac{3}{8} \times 1\frac{1}{2}$	.07	.06					

Clips are made of Aluminum except Nos. 69, 217, 218, 219 are made of Steel.

KEYSTONE ELECTRONICS CORP.

KEYSTONE BATTERY HOLDERS

NET EACH 5-19 20-99	Holds No. of Cells	Fig. No.	ALL BATTERIES LISTED WITHIN BOXES ARE IN THE SAME SIZE GROUP BATTERY CROSS REFERENCE Burgess Eveready RCA
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MINIATURE CELL HOLDERS

.23 .38 .49 .64	.21 .34 .44 .57	1 2 3 4	1 2 3 4	7	912	VS074
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CELL HOLDERS

.23 .38 .49 .64 .85	.21 .34 .44 .57 .81	1 2 3 4 6	1 2 3 4 8	CD6 9R, Z HC9 HG12R H133 HG502R 920 930	E9, E12 E91 E133 333 E502 515 915, 1015 N46	VS034A VS144 VS149 VS313A VS334
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CELL HOLDERS

.30 .38 .45 .45 .49 .64 .93	.26 .34 .36 .36 .54 .81	1 2 3 3 6 6	1 2 3 3 7 8	1 P6 320 5 H233 302599	226 E233 VS300 VS335 VS400	VS035A
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CELL HOLDERS

.30 .38 .49 .46 .50 .65 .95 .95	.26 .34 .44 .37 .45 .55 .85 .85	1 2 3 2 5 6 6 12	1 2 2 2 5 7 8 12	2 2R CD7 210 230 D99 950 1050	E42 N56 E95 A10 D10 950 1050	VS036A VS036 VS336
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VOLT CELL HOLDERS

.21 .35 .49	.20 .32 .44	1 2 3	1 2 3	N	E340 E401 E94	VS073
.49 .30	.26 .1	1 1	1 1	21R	964 E94	VS236

VOLT CELL HOLDERS

.23	.21	1	1		333	VS1149
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VOLT CELL HOLDERS

.26 .44 .30	.24 .30 .29	1 1 1	1 14 1	206 P6M	VS327 VS323 VS300A
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VOLT CELL HOLDERS

.30 .30 .38 .21 .35	.26 .26 .34 .20 .20	1 1 2 2 2	11 11 9 2 1	K10 U10 Y10	417 411 504	VS083
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1/2 VOLT CELL HOLDERS

.30 .38 .38 .26 .41 .52 .67	.26 .34 .34 .24 .37 .47 .60	1 1 1 1 2 3 4	11 11 9 10 1 3 4	K15 U15 Y15	420 412 505	VS084
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VOLT CELL HOLDERS

.30 .30 .30 .38 .38	.26 .26 .26 .34 .34	1 1 1 2 1	14 11 9 10 1	Y20 K20 U20 Y20S	506 430 413 507	VS085
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INSULATED POLARIZING WASHERS

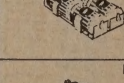
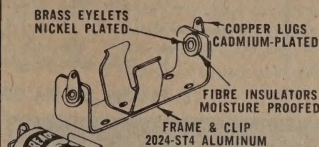
Insulated Polarizing Washers eliminate the danger of damage and short circuit to expensive transistor equipment. The washers are securely snapped over the eyelets on our standardized battery holders. Material: Precision molded of plastic.

No.	NET COST EACH	5- 19	20- 99
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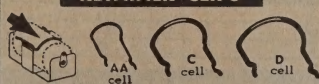
.04 .03



A standard line of battery holders available for immediate shipment from stock. Low cost, lightweight and sturdily constructed of quality materials. Good electrical contact, low leakage current and snap-fit clips are the outstanding features.



RETAINER CLIPS



These retainers prevent the battery from shifting or loosening in the holder. Made of high carbon steel, heat treated to spring temper and nickel plated.

Cat. No. 61—Retainer for "A" or Mercury cells with diameters of $\frac{1}{2}$ " to $\frac{3}{4}$ " when used with Keystone #91, 92, 93 or 100 clips also clip #95 for rectangular battery.

Cat. No. 62—Retainer for C cells or other batteries with maximum diameter of $\frac{1}{2}$ " when used with Keystone #93, 86 or 87 clips.

Cat. No. 63—Retainer for D cells or other batteries with maximum diameter of $\frac{3}{4}$ " when used with Keystone #94, 88 or 89 clips.

Cat. No. 66—Retainer for mercury cells with .650 dia. when used with our #91 clips.

Any above, Net Each (5-19) .05; (20-99) .04

MERCURY BATTERY HOLDERS



FIG. 13



FIG. 15



FIG. 16



FIG. 17



FIG. 18



FIG. 19

Fig. 2



Fig. 3



Fig. 5



Fig. 7



Fig. 9



Fig. 11



Fig. 14



Fig. 12



Mallory Mercury Battery Listing	Aluminum and Phenolic Base Holders		All Steel Holders One Insulated Contact		All Steel Holders All Contacts Insulated	
	Cat. No.	Fig. No.	Cat. No.	Fig. No.	Cat. No.	Fig. No.
RM1R	101*	13	1101	15	2101	16
RM3R	103*	13	1103	15	2103	16
RM4R	104*	13	1104	15	2104	16
ZM9	139	1	1139	19	2139	19
RM12R	139	1	1139	19	2139	19
RM42	175	1	1175	19	2175	19
TR113			1113	15	2113	16
TR114			1114	15	2114	16
TR115	132	1	1132	15	2132	16
TR132	132	1	1132	15	2132	16
TR133	135	1	1139	19	2139	19
TR134	134	1	1134	19	2134	19
TR135	135	5	1135	19	2135	19
TR136	189	5	1189	19	2189	19
TR137			1125	19	2125	19
TR145			1145	15	2145	16
TR152	124**	1				
TR153	106**	1				
TR162			1113	15	2113	16
TR163	132	1	1132	15	2132	16
TR164	109	1	1109	19	2109	19
TR165	110	1	1110	19	2110	19
TR169	189	5	1189	19	2189	19
TR175	124**	1				
TR177			1142	19	2142	19
TR233	173	1	1173	19	2173	19
TR234			1144	19	2144	19
RM400	111*	18				
RM401	124**	1				
RM411	166**	9				
RM412	177**	9				
RM413	183**	9				
RM450	112*	17				
RM502	139	1	1139	19	2139	19
RM601			1116	15	2116	16
RM625	117*	17				
RM630	126*	18				
RM640	118*	13				
RM675	127*	18				
302351	119	1	1119	19	2119	19
302478	120	5	1120	19	2120	19
302642	121	1	1121	19	2121	19
302435	122**	1				
302437	139	1	1139	19	2139	19
302599	173	1	1173	19	2173	19

*Bakelite Base Holders

**Available Only in Aluminum

NET EACH PRICE LIST

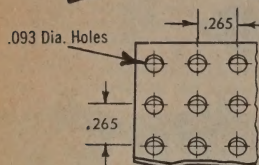
MERCURY BATTERY HOLDERS

No.	5-19	20-99	No.	5-19	20-99	No.	5-19	20-99
101	.35	.31	175	.30	.26	1175	.35	.30
103	.37	.33	177	.30	.26	1189	.40	.38
104	.38	.34	183	.30	.26	2101	.35	.34
106	.30	.26	189	.45	.36	2103	.35	.34
109	.30	.26	1161	.35	.30	2104	.35	.34
110	.38	.34	1183	.35	.30	2109	.35	.34
111	.35	.31	1104	.35	.30	2110	.35	.34
112	.35	.31	1109	.35	.30	2113	.35	.34
117	.35	.31	1110	.35	.30	2114	.35	.34
118	.35	.31	1113	.35	.30	2116	.35	.34
119	.38	.34	1114	.35	.30	2119	.35	.34
120	.38	.34	1116	.35	.30	2120	.45	.41
121	.38	.34	1119	.35	.30	2121	.45	.41
122	.38	.34	1120	.40	.38	2125	.35	.34
124	.23	.21	1121	.40	.38	2132	.35	.34
126	.35	.31	1125	.35	.30	2134	.35	.34
127	.35	.31	1132	.35	.30	2135	.40	.37
132	.30	.26	1134	.35	.30	2139	.30	.26
134	.38	.34	1135	.35	.30	2142	.30	.26
135	.38	.34	1139	.25	.23	2144	.30	.26
139	.23	.21	1144	.25	.23	2145	.35	.34
166	.30	.26	1145	.25	.23	2173	.35	.33
173	.30	.26	1173	.35	.30	2189	.40	.38

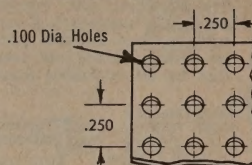


PRE-PUNCHED TERMINAL BOARDS

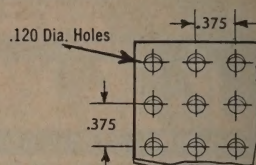
- COMPLETE RANGE OF SIZES AND SUITABLE HARDWARE
- "DO IT YOURSELF" STAKING TOOLS
- COPPER CLAD FOR PRINTED CIRCUITS
- UNCLAD TYPE FOR WIRED CIRCUITS
- STANDARD AND CUSTOM-MADE



"A" PATTERN .093 DIA. HOLES



"E" PATTERN .100 DIA. HOLES



"H" PATTERN .120 DIA. HOLES

"A" PATTERN .093 DIA. HOLES .265 x .265 C to C

Size Width & Length	No. of Holes W & L	XXXX Natural	Glass Epoxy	Paper Base Epoxy
1/16" THICK				
.82 x 8.50	3 x 32	Cat. No. 1731	Cat. No. 1790	Cat. No. 1796EP
1.88 x 8.50	7 x 32	1737	1791	1797EP
2.44 x 8.50	9 x 32	1738	1788	1798EP
3.25 x 8.50	13 x 32	1785	1789	1801EP
3.25 x 17.00	13 x 64	1786	1787	1802EP
4.88 x 4.88	18 x 18	1806	1807	1803EP
4.88 x 8.50	18 x 32	1784	1792	1804EP
4.88 x 17.00	18 x 64	1739	1793	1805EP
8.50 x 8.50	32 x 32	1732	1794	1808EP
8.50 x 17.00	32 x 64	1733	1795	1809EP
3/32" THICK				
1.38 x 1.88	5 x 7	1758	—	1758EP
1.38 x 4.00	5 x 15	1760	—	1760EP
1.38 x 8.50	5 x 32	1749	—	1749EP
1.88 x 2.94	7 x 11	1759	—	1759EP
1.88 x 8.50	7 x 32	1740	—	1740EP
2.44 x 8.50	9 x 32	1741	—	1741EP
3.25 x 8.50	13 x 32	1814	—	1814EP
3.25 x 17.00	13 x 64	1816	—	1816EP
4.88 x 8.50	18 x 32	1756	—	1756EP
4.88 x 17.00	18 x 64	1742	—	1742EP
8.50 x 8.50	32 x 32	1817	—	1817EP
8.50 x 17.00	32 x 64	1757	—	1757EP

"E" PATTERN .100 DIA. HOLES .250 x .250 C to C

Size Width & Length	No. of Holes W & L	XXXX Natural
1/16" THICK		
2.13 x 4.00	8 x 16	Cat. No. 1750
2.13 x 8.50	8 x 34	1765
3.63 x 8.50	14 x 34	1766
8.50 x 8.50	34 x 34	1767
8.50 x 17.00	34 x 68	1768
3/32" THICK		
2.13 x 8.50	8 x 34	1770
8.50 x 8.50	34 x 34	1771
8.50 x 17.00	34 x 68	1772

"H" PATTERN .120 DIA. HOLES .375 x .375 C to C

Size Width & Length	No. of Holes W & L	XXXX Natural	Paper Base Epoxy
1/16" THICK			
1.88 x 8.25	5 x 22	Cat. No. 1743	Cat. No. —
2.25 x 8.25	6 x 22	1744	—
4.13 x 8.25	11 x 22	1782	—
4.13 x 16.50	11 x 44	1745	—
3/32" THICK			
1.88 x 8.25	5 x 22	1746	1746EP
2.25 x 8.25	6 x 22	1747	1747EP
4.13 x 8.25	11 x 22	1783	1783EP
4.13 x 16.50	11 x 44	1748	1748EP
6.00 x 8.25	16 x 22	1941	1941EP
6.00 x 16.50	16 x 44	1942	1942EP
8.25 x 8.25	22 x 22	1943	1943EP
8.25 x 16.50	22 x 44	1939	1939EP

TERMINALS AND EYELETS For Boards with .093-.100 dia. Holes

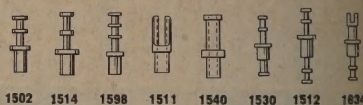
TERMINALS

Brass (Mil Spec QQ626) and Silver Plated.

NOTE: When ordering Turret Terminals BE SURE TO SPECIFY No. of Terminal and add -2 for 1/16" thick Board -3 for 3/32" thick Board

I.E. 1598-2 for 1/16" thick Board and 1598-3 for 3/32" thick Board

ALL TERMINAL DRAWINGS ARE ACTUAL SIZE.



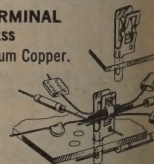
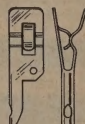
PUSH-IN TERMINAL

SOLDERLESS

Made of Beryllium Copper.

Cat. No. 1498-CP (cadmium plate)

Cat. No. 1498-SP (silver plate)



PRECISION MADE EYELETS

Made of Brass and Hot Tinned for easy solderability

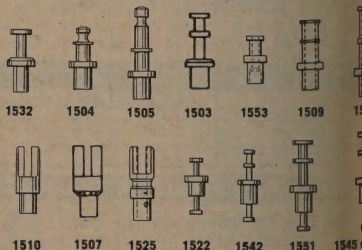


Specify Cat. No. 33 for 1/16" thick Board Cat. No. 34 for 3/32" thick Board

TERMINALS AND EYELETS For Boards with .120 dia. Holes

TERMINALS

ALL TERMINAL DRAWINGS ARE ACTUAL SIZE.



PRECISION MADE EYELETS



Specify Cat. No. 43 eyelet for 1/16" thick Board Cat. No. 44 eyelet for 3/32" thick Board

KEYSTONE ELECTRONICS CORP.

KEYBOARDS

PRE-PUNCHED TERMINAL BOARDS

THE PRACTICAL APPROACH TO SIMPLE OR COMPLEX CIRCUITRY
LOW COST — IMMEDIATE DELIVERY — CHOICE OF SIX POPULAR PATTERNS AND MATERIALS

STANDARDIZED KEYBOARDS: Permits time saving, low cost, assembly of components. Used extensively in development of prototype breadboarding, test design or production runs. A large selection of sizes and materials offers the designer the flexibility and convenience needed to create special circuitry on short notice.

ELECTRONIC HARDWARE: A large selection of turret, push-in and stamped terminals, sockets, eyelets, etc. available from stock.

STAKING TOOLS: Inexpensive tooling supplied for staking eyelets, bushings, turret terminals, etc. You can do an entire assembly at your bench with ease, using our impact tool. Other tools for arbor, kickpress, drill press. See Staking Tool page.

SPECIAL SERVICES: We will install eyelets or terminals to suit your application. Invite inquiries for special sizes or additional holes drilled. Prompt quotations ordered at no cost to you.

MATERIAL SPECIFICATIONS & TOLERANCES

XXXX Type PBE (Paper Base Elect.) Mil-P-3115C Temp. 250° F Max.

XXXXC Type PP Copper Clad Mil-P-13949 Temp. 250° F Max.

PAPER BASE EPOXY Mil-P-22324 (Type PEE) Temp. 250° F Max.

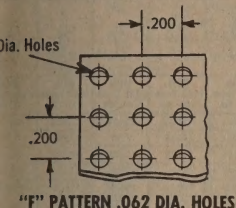
GLASS EPOXY UNCLAD Mil-P-18177 G-10 (GEE) Temp. 300° F Max.

GLASS EPOXY Copper Clad Mil-P-13949B (GE) Temp. 300° F Max.

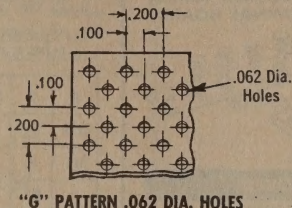
TOLERANCE: Length and width overall dimension after fabrication Plus or Minus .015.

HOLE SIZE: Plus or Minus .003.

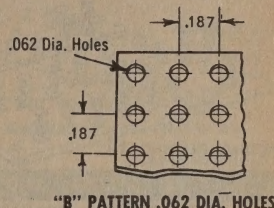
Thickness of standard sheet varies Plus or Minus .008 for 1/16" or .010 for 3/32" thick.



"F" PATTERN .062 DIA. HOLES



"G" PATTERN .062 DIA. HOLES



"B" PATTERN .062 DIA. HOLES

"F" PATTERN .062 DIA. HOLES .200 x .200 C to C

Size & Length	No. of Holes W & L	1/16" THICK					
		XXXX Natural	Glass Epoxy	Paper Base Epoxy	Glass Epoxy Cop. Clad (2 Sides)	XXXX Cop. Clad (1 Side)	XXXX Cop. Clad (2 Sides)
		Cat. No.	Cat. No.	Cat. No.	Cat. No.	Cat. No.	Cat. No.
8.50	8 x 42	1730	1844	1730EP	1846	1847	1848
4.50	14 x 20	1835	1845	1835EP	1836	1837	1838
8.50	18 x 42	1773	1854	1773EP	1855	1856	1857
17.00	18 x 85	1775	1859	1775EP	1864	1865	1866
6.50	22 x 30	1868	1870	1868EP	1876	1877	1878
8.50	22 x 42	1869	1871	1869EP	1881	1886	1887
8.50	24 x 42	1774	1872	1774EP	1882	1889	1894
17.00	24 x 85	1776	1873	1776EP	1883	1891	1895
8.50	42 x 42	1777	1874	1777EP	1884	1892	1896
17.00	42 x 85	1778	1875	1778EP	1885	1893	1897

"G" PATTERN .062 DIA. HOLES .100 GRID ALTERNATES

Size & Length	No. of Holes W & L	1/16" THICK					
		XXXX Natural	Glass Epoxy	Paper Base Epoxy	Glass Epoxy Copper Clad (1 Side)	Glass Epoxy Copper Clad (2 Sides)	
		Cat. No.	Cat. No.	Cat. No.	Cat. No.	Cat. No.	
4.00	(8 x 19) x 2	1752	1909	1752EP	1919	1920	
8.50	(11 x 42) x 2	1754	1910	1754EP	1921	1922	
4.00	(17 x 19) x 2	1753	1911	1753EP	1923	1924	
8.50	(17 x 42) x 2	1905	1912	1905EP	1925	1926	
17.00	(17 x 85) x 2	1906	1913	1906EP	1927	1928	
8.50	(19 x 42) x 2	1907	1914	1907EP	1929	1930	
8.50	(24 x 42) x 2	1908	1915	1908EP	1931	1932	
17.00	(24 x 85) x 2	1779	1916	1779EP	1933	1934	
8.50	(42 x 42) x 2	1780	1917	1780EP	1935	1936	
17.00	(42 x 85) x 2	1781	1918	1781EP	1937	1938	

"B" PATTERN .062 DIA. HOLES .187 x .187 C to C

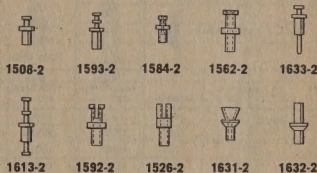
Size Width & Length	No. of Holes W & L	XXXX Natural		XXXX Copper Clad (1 Side)	
		Cat. No.	Cat. No.	Cat. No.	Cat. No.
		1/16" THICK			
1.38 x 8.50	6 x 45	1761	1818		
1.88 x 8.50	8 x 45	1734	1819		
2.44 x 3.38	12 x 17	1812	1813		
2.84 x 8.50	15 x 45	1735	1820		
3.66 x 6.75	19 x 35	1824	1825		
5.69 x 8.50	30 x 45	1762	1834		
5.69 x 17.00	30 x 90	1736	1831		
6.75 x 7.31	19 x 35	1826	1827		
7.31 x 10.50	38 x 56	1828	1829		
7.31 x 18.00	38 x 95	1832	1830		
8.50 x 17.00	45 x 90	1763	1833		

TERMINALS AND EYELETS For Boards with .062 dia. Holes

TERMINALS

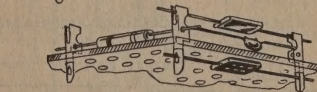
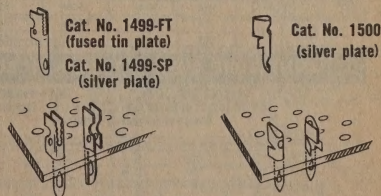
Brass, (Mil Spec QQ626) and Silver Plated.

ALL TERMINAL DRAWINGS ARE ACTUAL SIZE.



PUSH-IN TERMINALS

Made of Beryllium Copper.



PRECISION MADE EYELETS

Made of Brass and Hot Tinned for easy solderability.

T Cat. No. 23 For 1/16" thick Board

A variety of mounting brackets and staking tools are listed on the following pages.

STANDARDIZED TERMINAL BOARDS

STANDARDIZED TURRET TERMINAL BOARDS

Cut your production cost by eliminating the tooling and setup charge usually applied to nonstandardized boards. Terminals are securely riveted and hot tinned for easy soldering.

TERMINALS: Your choice of most popular types.

Made of Brass: QQ-626, comp. 22, 1/2 hard.

Hot Dip Solder finish: Mil-F-14072 Type 221.

Material: Your choice of either PBE or GEE Phenolic.

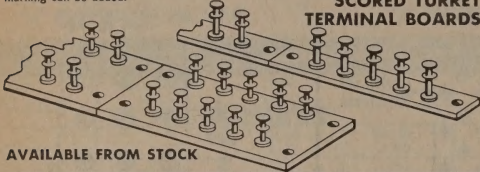
PBE: Paper base electrical, Mil-P-31150, Temp. 250° F max. Type XXXP.

GEE: Glass Epoxy, Mil-P-18177, Temp. 300° F max. Type G-10.

Five sections SCORED for easy separation M'tg. holes in each section.

These boards CAN BE MODIFIED with terminals staked in all holes, scoring eliminated. Marking can be added.

SCORED TURRET TERMINAL BOARDS

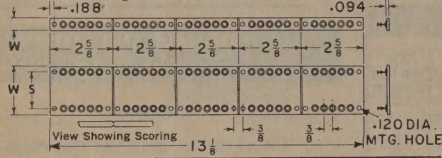


AVAILABLE FROM STOCK

3/8" SPACING AND SCORED

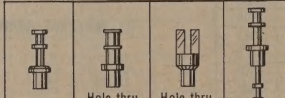
3/32" THICK PHENOLIC — Choice of 4 Types of Terminals

Overall Length of Board 13 1/8", FIVE 2 5/8" Sections.



Five sections SCORED for easy operation.
M'tg. holes in each section.

CHOICE OF TERMINALS



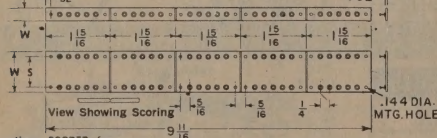
W	S	No. of Terms.	Material	With 1503 Term. Cat. No.	With 1509 Term. Cat. No.	With 1507 Term. Cat. No.	With 1545 Term. Cat. No.
1/2	Single Row	25	PBE	15031	15091	15071	15041
			GEE	15231	15291	15271	15241
1 1/2	1	50	PBE	15032	15092	15072	15042
			GEE	15232	15292	15272	15242
1 1/2	1 1/16	50	PBE	15036	15096	15076	15046
			GEE	15236	15296	15276	15246
2	1 1/2	50	PBE	15033	15093	15073	15043
			GEE	15233	15293	15273	15243
2 1/2	2	50	PBE	15034	15094	15074	15044
			GEE	15234	15294	15274	15244
3	2 1/2	50	PBE	15035	15095	15075	15045
			GEE	15235	15295	15275	15245

MINIATURE TURRET TERMINAL BOARDS

1/4" SPACING AND SCORED — 1/16" THICK PHENOLIC

Overall Length of Board is 9 1/16", Five 1 5/16" Sections

Choice of 6 Types of Terminals



Five sections SCORED for easy operation.
M'tg. holes in each section.

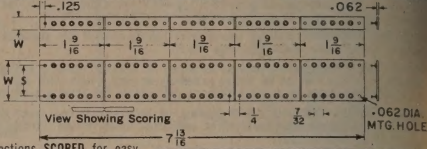
CHOICE OF TERMINALS



W	S	No. of Terms.	Material	With 1572 Term. Cat. No.	With 1573 Term. Cat. No.	With 1574 Term. Cat. No.	With 1575 Term. Cat. No.	With 1593 Term. Cat. No.	With 1559 Term. Cat. No.
5/16	Single Row	25	PBE	15047	15057	15067	15077	15087	15097
			GEE	15247	15257	15267	15277	15287	15297
7/8	9/16	50	PBE	15048	15058	15068	15078	15088	15098
			GEE	15248	15258	15268	15278	15288	15298
1 1/8	13/16	50	PBE	15049	15059	15069	15079	15089	15099
			GEE	15249	15259	15269	15279	15289	15299

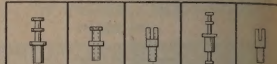
MINIATURE TURRET TERMINAL BOARDS

7/32" SPACING AND SCORED — 1/16" THICK PHENOLIC
Overall Length of Board 7 1/8", Five 1 1/8" Sections



Five sections SCORED for easy operation.
M'tg. holes in each section

CHOICE OF TERMINALS



W	S	No. of Terms.	Material	With 1502 Term. Cat. No.	With 1502 Term. Cat. No.	With 1526 Term. Cat. No.	With 1512 Term. Cat. No.	With 1533 Term. Cat. No.
5/16	Single Row	25	PBE	15021	15023	15025	15063	15063
			GEE	15221	15223	15225	15263	15263
3/4	1/2	50	PBE	15028	15029	15026	15064	15064
			GEE	15228	15229	15226	15264	15264
1	3/4	50	PBE	15022	15024	15030	15065	15065
			GEE	15222	15224	15230	15265	15265

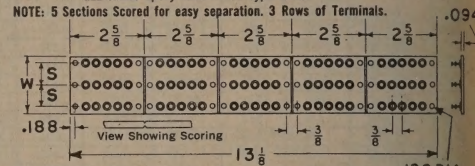
UNIVERSAL TERMINAL BOARDS

Designed for production or experimental use, these standardized boards are well suited for any electronic application requiring a sturdy mounting surface for resistors, condensers and components.

TERMINAL: 1503-3 HOT TIN DIP finish for easier soldering and infinite shelf life.

MATERIALS: PBE (Paper Base Elect. Mil-P-31150 type XXXP) or GEE (Glass Epoxy Mil-P-18177 type G-10)

NOTE: 5 Sections Scored for easy separation. 3 Rows of Terminals.



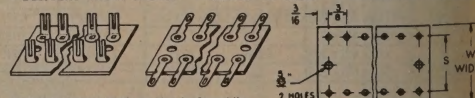
MODIFICATIONS: Other materials and terminals of your choice supplied. Marking may be added.



W	S	Total No. of Terms.	Material	Cat. No.
2 1/2	1	75	PBE	19332
			GEE	19342
3 1/2	1 1/2	75	PBE	19333
			GEE	19343

READI-MADE TERMINAL BOARDS

• ECONOMICAL • SAVE TOOLING COST
• DELIVERY FROM STOCK • RANGE OF SIZES • APPROVED MATERIAL



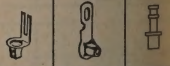
Readi-Made Terminal Boards are ideal for General Use. Excellent for mounting resistors, condensers, etc. Choice of Terminals.

MATERIAL: 1/16" Thick Bakelite (Mil Spec 3115C-Pbe-P grade).

TERMINALS: 1204 and 1268 are stamped from .023 thick brass. 1539 is turned from 3/16" dia. brass rod.

PLATING: 1204 is Cadmium plated 1268 and 1539 are Hot Tinned for easy soldering.

CHOICE OF TERMINALS



W	L	S	A	Terminals Each Side	With 1268 Term. Cat. No.	With 1204 Term. Cat. No.	With 1539 Term. Cat. No.
1	1 1/2	1/8	1 1/2	5	1268-10	1204-10	1238-10
1	2 1/2	1/8	1 1/2	6	1268-12	1204-12	1238-12
1	5 1/4	1/8	4 1/4	14	1268-28	1204-28	1238-28
1 1/2	3 1/2	1/8	3 1/2	10	1268-20	1204-20	1238-20
1 3/4	4 1/2	1/8	3 1/2	11	1268-22	1204-22	1238-22
1 3/4	7 1/4	1/8	6 1/2	19	1268-38	1204-38	1238-38
1 1/2	7 1/4	Single Row	6 1/2	19	1268-19	1204-19	1238-19

STANDARDIZED TERMINAL BOARDS AND BRACKETS

STANDARDIZED TURRET TERMINAL BOARDS

- SAVE TOOLING
- COMPLETE RANGE OF SIZES
- ECONOMICAL
- DELIVERY FROM STOCK

READ-MADE TERMINAL BOARDS are low cost and meet commercial and military specifications. They are produced in large quantities, making it possible to eliminate tooling and setup charges usually applied to non-standardized boards.

TERMINALS: Made of BRASS, QQ-B-626, COMP. 22, ½ HARD. Terminals are staked in all holes except end mounting holes.

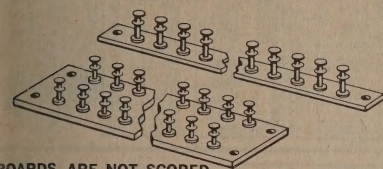
PLATING: HOT DIP SOLDER finish, MIL-F-14072. Recommended for longer shelf life and better solderability. Other platings can be furnished.

MATERIAL: Your choice of either PBE or GEE phenolic.

PBE: Paper base electrical, MIL-P-3115C, Type XXXP natural, Temp. 250 deg. F max.

GEE: Glass epoxy, MIL-P-18177, Type G-10, Temp. 300 deg. F max.

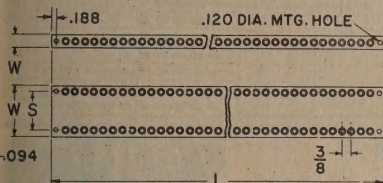
MODIFICATIONS: Other materials and terminals of your choice supplied. Marking may be added.



BOARDS ARE NOT SCORED

TERMINAL: 1503-3 HTD* used on these boards. Height above board .23/.64" MIL-F-35155 — SE12-X-C-08 style SE12-8).

MATERIAL: Choice of PBE or GEE 3/32" thick.

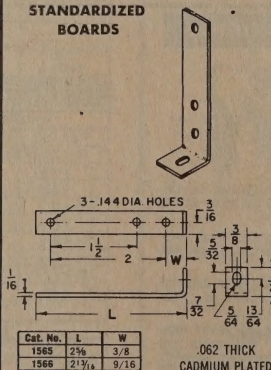


3/8" SPACING

Terminals are staked in all holes except end mounting holes.

S	L	No. of Terms. Each Side	Material PBE Cat. No.	Material GEE Cat. No.
Single Row	2%	5	15101	15301
	5%	12	15102	15302
	7%	19	15103	15303
	10½%	26	15104	15304
	13½%	33	15105	15305
¾	2%	5	15106	15306
	5%	12	15107	15307
	7%	19	15108	15308
	10½%	26	15109	15309
	13½%	33	15110	15310
1	2%	5	15111	15311
	5%	12	15112	15312
	7%	19	15113	15313
	10½%	26	15114	15314
	13½%	33	15115	15315
1½	2%	5	15116	15316
	5%	12	15117	15317
	7%	19	15118	15318
	10½%	26	15119	15319
	13½%	33	15120	15320
2	2%	5	15121	15321
	5%	12	15122	15322
	7%	19	15123	15323
	10½%	26	15124	15324
	13½%	33	15125	15325
2½	2%	5	15126	15326
	5%	12	15127	15327
	7%	19	15128	15328
	10½%	26	15129	15329
	13½%	33	15130	15330

BRACKETS FOR STANDARDIZED BOARDS



Cat. No.	L	W
1565	2%	3/8
1566	2½%	9/16

.062 THICK
CADMIUM PLATED

MINIATURE TURRET TERMINAL BOARDS

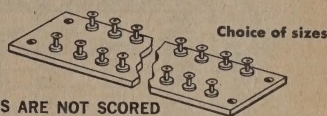
7/32" SPACING

These **GENERAL USE TERMINAL BOARDS** are made of certified materials to JAN and MIL specs. can be supplied in other grades of materials and with terminals of your choice; also marking when requested.



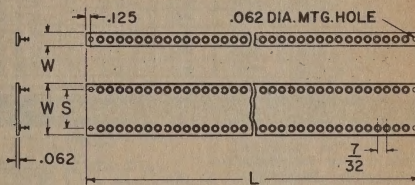
TERMINAL: Made of BRASS, QQ-B-626, COMP. 22, ½ HARD. HOT DIP SOLDER finish MIL-F-14072. Mounting holes in board at each end.

The 1562 terminal is often specified for support and connection of transistors, resistors and small component parts. There is a .043 dia. hole thru the terminal and it stands 5/32" above the board.



BOARDS ARE NOT SCORED

MATERIAL: Choice of PBE or GEE 1/16" thick.

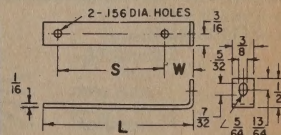


Terminals are staked in all holes except end mounting holes.

W	S	L	No. of Terms. Each Side	Material PBE Cat. No.	Material GEE Cat. No.
5/16	Single Row	1½%	5	15401	15501
		3%	12	15402	15502
		4½%	19	15403	15503
		6½%	26	15404	15504
		7½%	33	15405	15505
¾	1/2	1½%	5	15406	15506
		3%	12	15407	15507
		4½%	19	15408	15508
		6½%	26	15409	15509
		7½%	33	15410	15510
1	3/4	1½%	5	15411	15511
		3%	12	15412	15512
		4½%	19	15413	15513
		6½%	26	15414	15514
		7½%	33	15415	15515

BRACKETS FOR STANDARDIZED BOARDS

Originally designed for our line of standardized terminal boards, these brackets will find many uses for a variety of applications. Available in both steel with cad. plate finish or aluminum.



CHOICE OF STEEL OR ALUMINUM

.062 thick Steel — Per Mil Spec, QQ-S 633 B Grade FS-1010 cadmium plated per QQ-P-416 A Type II, Class B.
.062 thick Aluminum — Per QQ-A-318.

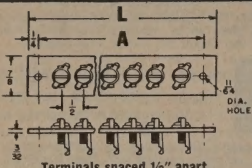
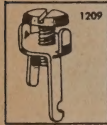
Cat. No.	Steel	Alum.	W	L	S	FOR BOARDS Cat. Nos.
1556	622	3/8	1%	1	15022	15072 15092
1567	623	3/8	2½%	1½%	15033	15073 15093
1568	624	3/8	2%	2	15034	15074 15094
1569	625	3/8	3½%	2½%	15035	15075 15095
1570	626	9/32	1½%	¾%	15022	15024 15030
1571	627	9/32	1%	1½%	15036	15076 15096



KEYSTONE TERMINAL BOARDS

BINDING POST STRIPS

Terminal supplied on these boards is No. 1209



HEAVY DUTY 3/8" THICK MATERIAL 3/4" WIDE

Glass Epoxy Cat. No.	Fiber-glass Cat. No.	L Length	A Mtg. C'trs	No. Term.
4147	4157	1 1/2	1	1
4148	4158	2	1 1/2	2
4149	4159	2 1/2	2	3
4150	4160	3	2 1/2	4
4151	4161	3 1/2	3	5
4152	4162	4	3 1/2	6
4153	4163	4 1/2	4	7
4154	4164	5	4 1/2	8
4155	4165	5 1/2	5	9
4156	4166	6	5 1/2	10

- Available from Stock
- Eliminate Costly Setup Charges

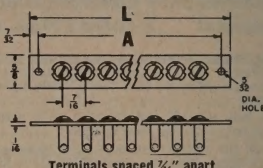
MATERIAL SPECIFICATIONS:

LOW COST TAN COLORED FIBERGLASS — Nema Grade GPO-1 a glass polyester rated for 300°F.

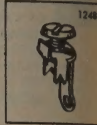
OR

GEE: GLASS EPOXY: MIL-P-18177 temp., 300°F. MAX. Type G-10.

YOUR CHOICE OF GLASS EPOXY OR FIBERGLASS MATERIALS



Terminal supplied on these boards is No. 1248



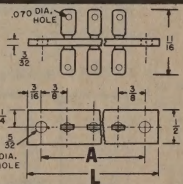
STANDARD 1/4" THICK MATERIAL 3/4" WIDE

Glass Epoxy Cat. No.	Fiber-glass Cat. No.	L Length	A Mtg. C'trs	No. Term.
4177	4167	1 1/4	1	1
4178	4168	1 3/4	1 1/4	2
4179	4169	2 1/4	2 1/4	3
4180	4170	2 3/4	2 3/4	4
4181	4171	3	3	5
4182	4172	3 1/4	3 1/4	6
4183	4173	3 3/4	3 3/4	7
4184	4174	4 1/4	4 1/4	8
4185	4175	4 3/4	4 3/4	9
4186	4176	5 1/4	5 1/4	10

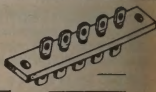
FEED-THRU TERMINAL BOARDS

- Low Cost Feed-Thru Terminations
- For Light or Heavy Duty Applications

Copper pins are forced into hole of the phenolic, then flattened and pierced. Terminals are hot tin dipped for good solderability.



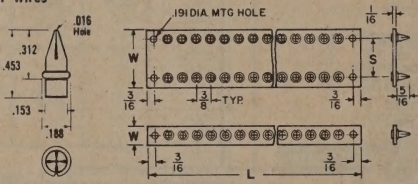
Cat. No.	No. Lugs	A Mtg. Ctr.	L Length
1220-1	1	3/4	1 1/8
1220-2	2	1 1/4	1 1/2
1220-3	3	1 1/2	1 3/4
1220-4	4	1 3/4	2 1/4
1220-5	5	2 1/4	2 3/4
1220-6	6	2 3/4	3
1220-7	7	3	3 3/4
1220-8	8	3 3/4	3 3/4
1220-9	9	3 3/4	4 1/4
1220-10	10	4 1/4	4 1/4



CONICAL GRIP BOARDS

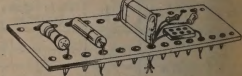
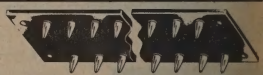
W	S	L	No. of Term. Each Side	Cat. No.
1/2	Single Row	2 1/2	5	4500
		5 1/2	12	4501
		7 1/2	19	4502
		10 1/2	26	4503
1 1/2	1	2 1/2	5	4505
		5 1/2	12	4506
		7 1/2	19	4507
		10 1/2	26	4509
2	1 1/2	2 1/2	5	4510
		5 1/2	12	4511
		7 1/2	19	4512
		10 1/2	26	4513
13 1/2	33	2 1/2	5	4514
		5 1/2	12	4515
		7 1/2	19	4516
		10 1/2	26	4517

- Spring Action Fingers Hold Leads
- Eliminates Time-consuming Wrapping of Wires



CAT. NO. 1641

- More Reliable
- Less Costly
- Time Saving
- Easy Service



MATERIAL: Brass, tinned Conical Terminals are firmly staked to 1/4" thick fiberglass insulator that will withstand temperatures to 300 degrees F. Wire leads are retained until ready to multiple dip solder.

STANDARD LAMINATED PHENOLIC MATERIAL

- RANGE OF SIZES
- CERTIFIED MATERIAL
- CHOICE OF —
 - XXXXP
 - GLASS EPOXY
 - COPPER CLAD
 - FIBERGLASS



The finest grade laminated phenolic sheets we use in our production fabrication are available to you in a range of standard sizes or special sizes cut to order; and in a variety of types.

NEMA GRADE XXXP-MIL-P-31155, paper base electrical-color natural. Most commonly used for panels and terminal boards. Excellent electrical grade and dimensional stability. Max. operating temp. continuous 250 deg. F.

NEMA GRADE G-10, MIL-P-18177B-GEE, color green **GLASS CLOTH EPOXY**. Superior chemical resistance, excellent mechanical and electrical properties. Max. operating temp. continuous 300 deg. F.

COPPER CLAD LAMINATES, XXXP MIL-P-13949 TYPE PP and GLASS EPOXY MIL-P-13949B TYPE FL-GE, are used mainly for printed circuitry. The copper foil serves as the conductor and the laminate provides the insulating support. 2-ounce copper foil is laminated to one or both sides of the insulator. We catalog both types in XXXP and G-10.

FIBERGLASS REINFORCED POLYESTER NEMA GRADE GPO-1 with a class 155C (300°F) rating. Color is Tan. Excellent mechanical and electrical properties. Fabricates similar to Phenolic and can be punched cold.

- SPECIFIED SIZES CUT TO ORDER

Size Width & Length	XXXXP Natural	Glass Epoxy	XXXXP Cop. Clad (1 Side)	XXXXP Cop. Clad (2 Sides)	Glass Epoxy Cop. Clad (1 Side)	Glass Epoxy Cop. Clad (2 Sides)	Fiber-glass Polyester
1/16 THICK MATERIALS							
	Cat. No.	Cat. No.	Cat. No.	Cat. No.	Cat. No.	Cat. No.	Cat. No.
5/16 x 7 1/16	2006	2022	—	—	—	—	2304
3/4 x 7 1/16	2020	2023	—	—	—	—	2305
1 x 7 1/16	2021	2024	—	—	—	—	2306
2 x 4 1/2	1970	1978	1985	1992	1999	2013	2307
2 1/4 x 3	1971	1979	1986	1993	2007	2014	2308
3 x 4 1/2	1972	1980	1987	1994	2008	2015	2309
4 1/2 x 6 1/2	1973	1981	1988	1995	2009	2016	2310
4 1/2 x 8 1/2	1974	1982	1989	1996	2010	2017	2311
8 1/2 x 17	1975	1983	1990	1997	2011	2018	2312
9 x 12	1976	1984	1991	1998	2012	2019	2313
3/32 THICK MATERIALS							
	Cat. No.	Cat. No.	Cat. No.	Cat. No.	Cat. No.	Cat. No.	Cat. No.
1/2 x 13 1/2	2025	2031	—	—	—	—	2314
1 1/4 x 13 1/2	2026	2032	—	—	—	—	2315
1 1/2 x 13 1/2	2027	2033	—	—	—	—	2316
2 x 13 1/2	2028	2034	—	—	—	—	2317
2 1/2 x 13 1/2	2029	2035	—	—	—	—	2318
3 x 13 1/2	2030	2036	—	—	—	—	2319

NOT SUPPLIED IN THESE TYPES

STANDARDIZED PLUG-IN HOUSINGS

PLUG IN HOUSINGS

enhance the appearance and give that professional look to your products using these molded housings. Ideally suited for packaging relays, logic packages, networks and miniature circuitry. Durable, lightweight covers that will withstand vibrations and rough usage. A most popular size metal cover is included in this listing of stock items.

HEADERS: Molded of G.P. black phenolic and fit standard sockets.

FINISHES: Brass, Nickel Plated. Guide hole tapped 8-32 for terminal board mounting stud.

VARIETY OF MOLDED MATERIALS

GOOD CHEMICAL RESISTANCE

LOW WATER ABSORPTION

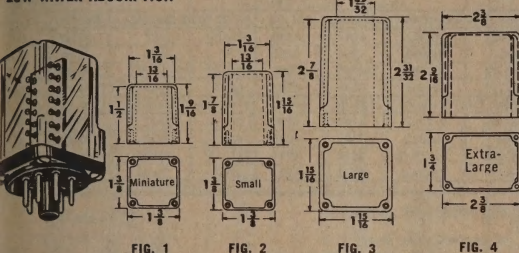


FIG. 1

FIG. 2

FIG. 3

FIG. 4

FIG. 5



Steel-Electro Tin Plated

1 1/2

1 1/2

1 1/2

1 1/2

1 1/2

1 1/2

HEADERS

HEADERS: Headers are available in two sizes and a variety of pin configurations at fit standard sockets. Molded of general purpose phenolic with brass nickel plated pins sturdily attached. Guide hole tapped 8-32 for terminal board mounting stud.

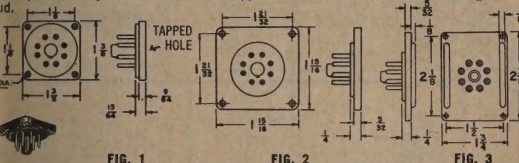


FIG. 1

FIG. 2

FIG. 3

TERMINAL BOARDS

(FOR USE WITH ABOVE HOUSINGS)

These boards are stocked in XXXP PAPERBASE and GLASS EPOXY MATERIAL. TAPPING OF HOLES IS .100 and .200 ALTERNATES. AN 8-32 THREADED STUD IS PRELIMINARY EYELETTED TO THE BOARD AND IS EASILY ASSEMBLED INTO THE TAPPED HOLE OF THE HEADERS.


 .062 Dia. Holes
 .32 Mounting Stud
 BOARD THICKNESS 1/16"

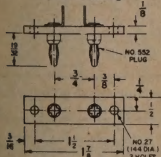
XXX PBE MIL-P- 3115C Bakelite Cat. No.	Glass Epoxy G-10, GEE MIL-P- 16177B Cat. No.	Size of Board with Stud	For Covers Listed Above
692	696	1 x 1 1/2	Miniature
693	697	1 1/2 x 1 1/2	Small
694	698	1 1/2 x 2 1/2	Large
695	699	1 1/2 x 1 1/2	Metal Case
637	638	1 1/2 x 2 1/2	Xtra Large

BANANA PLUG AND JACK STRIP

3/4" Centers — Mate with all Stack-Up Plugs

BANANA PLUG STRIP

Panel Mounting

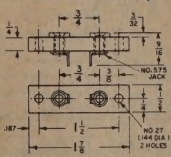


Cat. No. 621

Additional needed accessories for patching boards and stack-up plugs. Resistance banana plugs are used on 3/4" centers, staked into thick black bakelite and solder plugs.

JACK STRIP

Panel Mount Jack Strip



Cat. No. 633

These panel mounting strips mate with any 3/4" spaced stack-up plug or individual patchboards. Silver plated jacks are staked into 1/4" thick black bakelite with solder lugs. Multiples can be supplied in most instances without tooling or setup charges.

MATERIAL CHARACTERISTICS:

POLYSTYRENE: For general purpose use where high impact strength is not required and temperature would not exceed 170°F.

BUTYRATE: 3 times the impact strength of Polystyrene and excellent electrical properties, use wherever temperatures of 210°F exist.

NYLON: Impact strength slightly less than Butyrate but recommended for use where temperatures are as high as 300°F.

Housing with Octal Header & 4 Screws CAT. NO.	Housing Only CAT. NO.	Fig. No.	Type	Material	Color
660	670	1	Mini	Butyrate	Clear
661	671	1	Mini	Nylon	White
662	672	1	Mini	Polystyrene	Clear
641	645	1	Mini	Polystyrene	Opaque Black
642	646	1	Mini	Polystyrene	Transp. Red
663	673	2	Small	Butyrate	Clear
664	674	2	Small	Nylon	White
665	676	2	Small	Polystyrene	Clear
643	647	2	Small	Polystyrene	Opaque Black
644	648	2	Small	Polystyrene	Transp. Red
650	649	3	Large	Butyrate	Clear
668	679	3	Large	Polystyrene	Clear
677	666	3	Large	Polystyrene	Opaque Black
678	667	3	Large	Polystyrene	Transp. Red
639	640	4	Extra-Large	Polystyrene	Clear
669	680	5	Small	Steel	Electro Tin Plate

1 1/2 Sq. Headers for Mini & Small Housing (FIG. 1) CAT. NO.	Pin Configuration	1 1/2 Sq. Headers for Large Housing (FIG. 2) CAT. NO.	1 1/2 x 2 1/2 Headers for Extra Large Housing (FIG. 3) CAT. NO.
681	Octal	685	690
682	Nine Pin	Not Available	Not Available
683	Eleven Pin	686	Not Available
684	Twenty Pin	687	691

SELF-TAPPING SCREWS

CAT. NO. 688 — For miniature & small covers #4 x 3/8"

CAT. NO. 689 — For large covers #4 x 1/2"

BANANA PLUG IN MODULES

- Suitable for test adaptors, modules, filters, etc.
- Low resistance Beryllium Copper spring plugs
- Shielded or molded hi-impact Butyrate cover
- Mates with all standard patch board plugs

PLASTIC HOUSING



BANANA PLUG SPRINGS: One piece Beryllium Copper per QQ-C-533 and heat treated to 15N, 73-79.

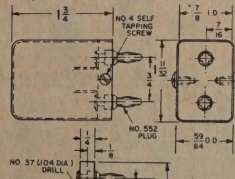
PLUG BODY: Brass QQ-626 Comp. 22% H; silver plated, MIL-P-14072 per QQ S-365.

ALUMINUM SHELL



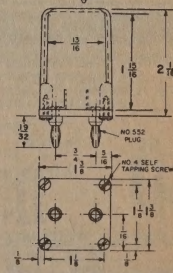
Cat. No. 659

Complete with header and 2 screws



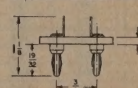
Cat. No. 657

Header only



Cat. No. 658

Complete with header and 4 screws



Cat. No. 656

Header only

KEYSTONE ELECTRONICS CORP.

MICRO-MINIATURE KEYBOARDS

-

"P" PATTERN .042 HOLES .100 x .100			
Width & Length	No. Holes & L	Glass Epoxy	Glass Epoxy Cop. Class (1 Side)
1/32" Thick Material	Cat. No.	Cat. No.	Cat. No.
2x4 1/2	19x44	4225	4234
2x6	19x59	4226	4235
4 1/2 x 6	44x59	4227	4236
6x17	59x169	4228	4237
3/64" Thick Material	Cat. No.	Cat. No.	Cat. No.
2x4 1/2	19x44	4229	4238
2x6	19x59	4230	4239
4 1/2 x 6	44x59	4231	4240
6x17	59x169	4232	4241

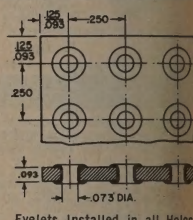
"M" PATTERN .042 HOLES .100 x .200				
Width & Length	No. Holes W & L	Glass Epoxy	Glass Epoxy Cop. Dtd. (1 Side)	
1/32" Thick Material		Cat. No.	Cat. No.	
2x4 1/2	9x22x2	4242	4250	
2x6	9x29x2	4243	4251	
4 1/2 x 6	22x29x2	4244	4252	
6 1/2 x 6	29x84x2	4245	4253	
3/64" Thick Material		Cat. No.	Cat. No.	
2x4 1/2	9x22x2	4246	4254	
2x6	9x29x2	4247	4255	
4 1/2 x 6	22x29x2	4248	4256	
6 1/2 x 6	29x84x2	4249	4257	

"J" PATTERN .042 HOLES .200 X .200				
Width & Length	No. Holes & W	Glass Epoxy	Glass Epoxy Cop. C. (1 Side)	
3/32" Thick Material				
2x4½	9x22	4258	4266	
2x6	9x29	4259	4267	
4½x6	22x29	4260	4268	
6x17	29x84	4261	4269	
1/8" Thick Material				
2x4½	9x22	4262	4270	
2x6	9x29	4263	4271	
4½x6	22x29	4264	4272	
6x17	29x84	4265	4273	

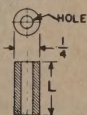
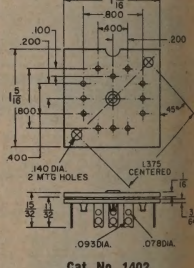
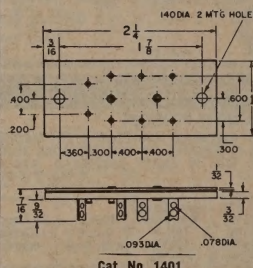
A diagram of a Wheatstone bridge circuit. It consists of four resistors arranged in a diamond shape on a rectangular base. A central galvanometer is connected between the two opposite nodes of the bridge. The resistors are represented by cylindrical symbols with internal markings.

-

Cat. No.	No. of Holes W & L	Width	Length	No. of Eyelets
4283	5x5	1¼	1¼	25
4284	6x10	1½	2½	60
4285	10x13	2½	3¼	130
4286	13x18	3¼	4½	234
4287	14x16	3½	4	224
4288	16x24	4	6	384



Most Standard Encapsulated Operational Amplifiers and Module Circuits

[illegible]

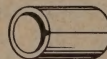
SPACERS — DRILLED HOLE ONLY

SPACERS — WITH TAPPED HOLE

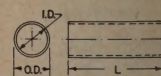
	For #4 Screw 120 Hole Cat. No.	For #6 Screw 140 Hole Cat. No.	For #8 Screw 171 Hole Cat. No.	4-40 Thread Cat. No.	6-32 Thread Cat. No.	8-32 Thread Cat. No.
$\frac{1}{8}$ (.250)	360	367	1490	376	383	390
$\frac{3}{16}$ (.375)	361	368	1491	377	384	391
$\frac{1}{2}$ (.500)	362	369	1492	378	385	392
$\frac{3}{4}$ (.750)	363	370	1493	379	386	393
1 (1.000)	364	371	1494	380	387	394
1 $\frac{1}{2}$ (1.500)	365	372	374	381	389	395
2 (2.000)	366	373	375	382	389	396

1.500 and 2" are tapped $\frac{3}{4}$ deep each end

Made of flat strip aluminum and rolled on precision equipment. Assures maximum bearing surface, square ends.



Tight Joint on Outside Diameter



L Length Inches	For #4 Cat. No.	For #6 Cat. No.	For #8 Cat. No.	L Length Inches	For #4 Cat. No.	For #6 Cat. No.	For #8 Cat. No.
$\frac{3}{16}$	397	—	—	$\frac{3}{8}$	418	425	432
$\frac{1}{4}$	398	405	412	$\frac{7}{8}$	419	426	433
$\frac{5}{16}$	399	406	413	1	420	427	434
$\frac{3}{8}$	400	407	414	$1\frac{1}{4}$	421	428	435
$\frac{7}{16}$	401	408	415	$1\frac{1}{2}$	422	429	436
$\frac{1}{2}$	402	409	416	$1\frac{3}{4}$	—	430	437
$\frac{5}{8}$	403	410	417	2	—	431	438

STANDOFFS & SPACERS

SWAGE TYPE THREADED STANDOFFS

ALL HARDWARE ON THIS PAGE IS MADE OF: BRASS MIL SPEC. QQ-B-1470 Type V

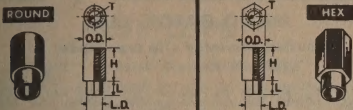


Plate Mil-F-14072
Type V

Cadmium plate per QQ-P-416 Type 2
Class B and clear chromate.

D Cat. No.	H Height Above Panel	L	For Panel Thickness	LD	OD	T Thread	HEX Cadmium Plated Cat. No.
2	1/8	.109	3/32	.125	5/32	2-56	—
3	1/4	.140	3/32	.125	5/32	2-56	—
3	3/8	.109	3/32	.125	5/32	2-56	—
3	1/2	.140	3/32	.125	5/32	2-56	—
3	3/4	.109	3/32	.125	5/32	2-56	—
3	1	.140	3/32	.125	5/32	2-56	—
3	1 1/8	.109	3/32	.125	5/32	2-56	—
3	1 1/4	.140	3/32	.125	5/32	2-56	—
A	1 1/2	.109	3/32	.125	5/32	2-56	—
F	1 3/4	.140	3/32	.125	5/32	2-56	—
2	1/8	.109	3/32	.187	1/4	4-40	1653-2
2	1/4	.140	3/32	.187	1/4	4-40	1653-3
2	3/8	.109	3/32	.187	1/4	4-40	1627-2
2	1/2	.140	3/32	.187	1/4	4-40	1627-3
2	3/4	.109	3/32	.187	1/4	4-40	1628-2
2	1	.140	3/32	.187	1/4	4-40	1628-3
2	1 1/8	.109	3/32	.187	1/4	4-40	1629-2
2	1 1/4	.140	3/32	.187	1/4	4-40	1629-3
2	1 1/2	.109	3/32	.187	1/4	4-40	1654-2
2	1 3/4	.140	3/32	.187	1/4	4-40	1654-3
2	2	.109	3/32	.187	1/4	4-40	1655-2
2	2 1/4	.140	3/32	.187	1/4	4-40	1655-3
2	2 1/2	.109	3/32	.187	1/4	4-40	1630-2
2	2 3/4	.140	3/32	.187	1/4	4-40	1630-3
B	1/8	.109	3/32	.187	1/4	6-32	1620-2
C	1/4	.140	3/32	.187	1/4	6-32	1620-3
D	3/8	.171	3/32	.187	1/4	6-32	1620-4
2	1/2	.109	3/32	.187	1/4	6-32	—
2	3/4	.140	3/32	.187	1/4	6-32	—
2	1	.171	3/32	.187	1/4	6-32	1621-2
2	1 1/8	.109	3/32	.187	1/4	6-32	1621-3
2	1 1/4	.140	3/32	.187	1/4	6-32	1621-4
2	1 1/2	.171	3/32	.187	1/4	6-32	1622-2
2	1 3/4	.109	3/32	.187	1/4	6-32	1622-3
2	2	.140	3/32	.187	1/4	6-32	1622-4
2	2 1/4	.171	3/32	.187	1/4	6-32	—
2	2 1/2	.109	3/32	.187	1/4	6-32	—
2	2 3/4	.140	3/32	.187	1/4	6-32	—
2	3	.171	3/32	.187	1/4	6-32	—
2	3 1/4	.109	3/32	.187	1/4	6-32	—
2	3 1/2	.140	3/32	.187	1/4	6-32	—
2	3 3/4	.171	3/32	.187	1/4	6-32	—
2	4	.109	3/32	.187	1/4	6-32	—
2	4 1/4	.140	3/32	.187	1/4	6-32	—
2	4 1/2	.171	3/32	.187	1/4	6-32	—
2	4 3/4	.109	3/32	.187	1/4	6-32	—
2	5	.140	3/32	.187	1/4	6-32	—
2	5 1/4	.171	3/32	.187	1/4	6-32	—
2	5 1/2	.109	3/32	.187	1/4	6-32	—
2	5 3/4	.140	3/32	.187	1/4	6-32	—
2	6	.171	3/32	.187	1/4	6-32	—
2	6 1/4	.109	3/32	.187	1/4	6-32	—
2	6 1/2	.140	3/32	.187	1/4	6-32	—
2	6 3/4	.171	3/32	.187	1/4	6-32	—
2	7	.109	3/32	.187	1/4	6-32	—
2	7 1/4	.140	3/32	.187	1/4	6-32	—
2	7 1/2	.171	3/32	.187	1/4	6-32	—
2	7 3/4	.109	3/32	.187	1/4	6-32	—
2	8	.140	3/32	.187	1/4	6-32	—
2	8 1/4	.171	3/32	.187	1/4	6-32	—
2	8 1/2	.109	3/32	.187	1/4	6-32	—
2	8 3/4	.140	3/32	.187	1/4	6-32	—
2	9	.171	3/32	.187	1/4	6-32	—
2	9 1/4	.109	3/32	.187	1/4	6-32	—
2	9 1/2	.140	3/32	.187	1/4	6-32	—
2	9 3/4	.171	3/32	.187	1/4	6-32	—
2	10	.109	3/32	.187	1/4	6-32	—
2	10 1/4	.140	3/32	.187	1/4	6-32	—
2	10 1/2	.171	3/32	.187	1/4	6-32	—
2	10 3/4	.109	3/32	.187	1/4	6-32	—
2	11	.140	3/32	.187	1/4	6-32	—
2	11 1/4	.171	3/32	.187	1/4	6-32	—
2	11 1/2	.109	3/32	.187	1/4	6-32	—
2	11 3/4	.140	3/32	.187	1/4	6-32	—
2	12	.171	3/32	.187	1/4	6-32	—

TOOLS FOR ABOVE STANDOFFS

on made tools—heat treated and plated. Will give you the pro-
pr appearance. Set of tools consist of: Top Staking Tool and Anvil.

Cat. No.	
TL-19	For Bushing 5/16" OD with 2-56 Thd.
TL-20	For Bushing 3/8" OD with 4-40 Thd.
TL-21	For Bushing 1/2" OD with 6-32 Thd.

CUT COST OF SERVICING • SPACE SAVER
INTERCONNECT CIRCUITS OR SERVICES
WITHOUT DANGER OF SHORTING
WIRING EXPOSED FOR EASY TEST



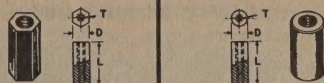
Material: Made of Brass
Finish: Nickel Plate

These
standoffs
mount at front
of the board.

T Thread	D Diam.	L Length	U	M	P	Standoff Only Cat. No.
4-40	.187	3/4	.172	.375	.375	1657A
4-40	.187	1	.250	.375	.625	1657B
6-32	.250	3/4	.172	.375	.375	1548E
6-32	.250	1	.250	.375	.625	1548F
8-32	.250	3/4	.172	.375	.375	1692D
8-32	.250	1	.250	.375	.625	1692E

THREADED SPACERS

THREADED SPACERS 1/4" O.D. THREADED 4-40, 6-32, 8-32 AVAILABLE EITHER IN
ROUND OR HEX. ROUND TYPE IS NICKEL PLATED, HEX TYPE IS CADMIUM.



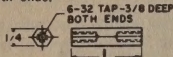
Cadmium plate per QQ-P-416 Type 2
Class B and clear chromate.

Nickel Plate Mil-F-14072
QQ-N-290 Type V

HEX Cadmium Plated Cat. No.	D	L	T Thread	ROUND Nickel Plated Cat. No.
1450	3/4	1/2	4-40	1547
1656	3/4	3/4	4-40	1657
1656A	3/4	3/4	4-40	1657A
1656B	3/4	1	4-40	1657B
1450A	1/4	1/4	4-40	1547A
1450B	1/4	3/8	4-40	1547B
1450C	1/4	1/2	4-40	1547C
1450D	1/4	3/4	4-40	1547D
1450E	1/4	1	4-40	1547E
1451A	1/4	3/8	6-32	1548A
1451B	1/4	1/2	6-32	1548B
1451C	1/4	3/4	6-32	1548C
1451D	1/4	1	6-32	1548D
1451E	1/4	3/4	6-32	1548E
1635	1/4	1	6-32	1548F
1474A	1/4	1/4	8-32	1692A
1474B	1/4	3/8	8-32	1692B
1474C	1/4	1/2	8-32	1692C
1474D	1/4	3/4	8-32	1692D
1474E	1/4	1	8-32	1692E
1452A	3/4	3/4	8-32	1549A
1452B	3/4	1/2	8-32	1549B
1452C	3/4	3/8	8-32	1549C
1452D	3/4	3/4	8-32	1549D
1452E	3/4	1	8-32	1549E

HEX SPACERS 6-32 TAPPED BOTH ENDS

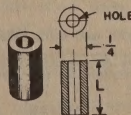
Extra long length spacers ideal as standoff legs for Key-
stone pre-punched boards or your special application.
Brass cad. plated and chromate. 1/4" O.D. with 6-32 x 3/8" deep tapped holes both ends.



Cat. No.	Length
1635	1
1636	1 1/4
1637	1 1/2
1638	1 3/4
1639	2
1642	2 1/4
1643	2 1/2

ROUND BRASS SPACERS

Made of Brass MIL Spec. QQ-2-626A Comb. 22 1/2 Hard.
Finishes: Nickel Plate Mil-F-14072 QQ-N-233 Type V.

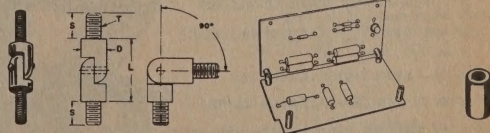


Length Inches	For #4 Sc'R .120 I.D. Cat. No.	For #6 Sc'R .140 I.D. Cat. No.	For #8 Sc'R .171 I.D. Cat. No.
1/4	1454A	1457A	1480
3/8	1454B	1457B	1481
1/2	1454C	1457C	1482
3/4	1457D	1457D	1483
1	1454E	1457E	1484

HINGED STANDOFFS FOR TERMINAL BOARDS

- APPLICATIONS UNLIMITED
- TIME SAVING

Only 2 screws used to fasten
board in place or open the
hinged board.



Hinge Cat. No.	T Thread	L Length	D Diam.	S	P	Standoff Only For Front of Board Cat. No.
357	4-40	1/2	.187	1/4	1/4	1657
—	—	—	—	—	—	—
358	6-32	1/2	.250	3/16	1/4	1548C
—	—	—	—	—	—	—
359	8-32	1/2	.250	3/16	1/4	1692C
—	—	—	—	—	—	—

mueller clips

a complete line of

ALLIGATOR TEST & BATTERY CLIPS

Mueller Electric Co.

"60 SERIES" ALLIGATOR CLIPS

No. 60—CONVENTIONAL TYPE

New slim design with full-meshing teeth. Convenient, round thumb grip, barrel connection for banana plug. Equipped with small soldering tip. Strong spring with a hard bite. Cadmium plated, 2" long.



EACH NET.....\$0.07 LOTS OF 10.....\$0.048

No. 60-S—SCREW CONNECTION

Eliminates necessity for soldering. Otherwise same as No. 60.



EACH NET.....\$0.08 LOTS OF 10.....\$0.058

No. 60-CS—COPPER ALLIGATOR CLIP

Solid copper version of No. 60-S. Screw connection. 2" long. 10 per box.

EACH NET.....\$0.12 LOTS OF 10.....\$0.086

No. 60PR-2—SPECIAL BARREL

FOR TEST PROD OR PHONE TIP



Barrel crimped to provide friction fit on standard test prod or phone tip. Holds prod on test, frees hand for other work.

EACH NET.....\$0.10 LOTS OF 10.....\$0.072

No. 62 FLEXIBLE VINYL INSULATOR

Red and black insulators for Alligator Clips 60, 60-S, 60-CS, 60PR-2.



EACH NET.....\$0.05 LOTS OF 10.....\$0.033

No. 60-HS—STEEL ALLIGATOR CLIP WITH INSULATED HANDLE

Same as No. 60-S except equipped with red and black insulating sleeves on ends. Very convenient for distinguishing leads. Has screw connection also. Cadmium plated. 2 1/2" long. Shipped half red, half black.



EACH NET.....\$0.12 LOTS OF 10.....\$0.08

No. 60-CHS—COPPER ALLIGATOR CLIP, INSULATED HANDLE

Solid copper version of No. 60-HS. Screw connection. Shipped with half red, half black insulating sleeves. 10 per box.

EACH NET.....\$0.15 LOTS OF 10.....\$0.106

"70 SERIES" ALLIGATOR CLIPS

U.S. Patent No. 2,762,028

A trim, modern Alligator Clip. Features simplified design, fast connection of wire with cord strain relief ears, patented hinge construction and lower cost. Mueller's notoriously snappy spring, full jaw spread, fine meshing teeth, round thumb grip and trim shape give most wanted features for test work in close quarters.

No. 70—FOR SOLDERED CONNECTION

Steel, cadmium plated. 1 1/4" long.



EACH NET.....\$0.07 LOTS OF 10.....\$0.042

No. 70-S—SCREW CONNECTION

Otherwise same as No. 70.

EACH NET.....\$0.08 LOTS OF 10.....\$0.05

No. 70-CS—COPPER SCREW CONNECTION

Solid copper version of No. 70-S.

EACH NET.....\$0.11 LOTS OF 10.....\$0.077



No. 72—SKIN-TIGHT INSULATOR

FOR 70 SERIES ALLIGATOR CLIPS!



For the first time complete, skin-tight, one-piece insulation for a standard size Alligator Clip! Covers entire clip right down to nose. Special tip slot permits full jaw opening without exposing teeth.

EACH NET.....\$0.05 LOTS OF 10.....\$0.035



WEE-PEE-WEE No. 88

Entirely Non-ferrous.

An extremely small clip for fine testing in radio and electrical work. Light-Weight; thin-nosed; bronze. Ideal for close-wound coils. 1 1/4" long; jaw

spring-temper phosphor spread 3/4", 10 per box.

EACH NET.....\$0.24 LOTS OF 10.....\$0.167

Use No. 93 Insulator.

MICRO-GATOR CLIP

(Smallest Insulated Clip Ever Made)

U.S. Patent No. 2,762,028

Trademark



Micro-Gator



Micro-Gator with Insulator

The alligator clip with the microscopic tip! This is the alligator clip you now can use where no other clip will do—on printed circuits, in tight spots and on tiny terminals too crowded for anything but its microscopic tip. Including separate skin-tight insulator the tip is bigger than the head of a pin! Yet the Micro-gator, with ample thumb grip, and plenty of bite to stand up straight on the smallest terminals. Ample 3/4" jaw spread, 1 1/2" long. Solder connection. Skin-tight flexible vinyl insulator (sold separately) has "lip-action" tip slot so that jaw stay covered whether open or closed.

No. 34 (Steel, cadmium plated) EACH NET.....\$0.06 LOTS OF 10.....\$0.04

No. 34-C (Solid Copper) EACH NET.....\$0.08 LOTS OF 10.....\$0.05

No. 36 (Insulator for Nos. 34 and 34-C) EACH NET.....\$0.05 LOTS OF 10.....\$0.03

MINI-GATOR CLIP

Trademark Reg.



Mini-gator



Mini-gator with Insulator

Indispensable for testing or incorporation into miniaturized equipment. New design features rivet hinge for greater strength, full-meshing teeth to grip finest wire. Skin-tight flexible Vinyl insulator (sold separately) covers completely—has slotted "lip action" tip. Clip weighs 1/20th oz., has tiny 1/4" O.D. nose, but ample 3/4" jaw spread, 1 1/2" long. Crimping ears. Solder connection. Surprisingly strong bite penetrates corrosion and coatings.

No. 30 (Steel, cadmium plated) EACH NET.....\$0.07 LOTS OF 10.....\$0.04

No. 30-C (Solid Copper) EACH NET.....\$0.09 LOTS OF 10.....\$0.06

No. 32 (Insulator for Nos. 30 and 30-C) EACH NET.....\$0.05 LOTS OF 10.....\$0.03

COMPLETELY INSULATED ALLIGATOR CLIPS

Patent Pending



No. 63 or 63-C Clip

Sold only as a unit, with factory-applied insulators.

Completely insulated right down to the nose. Flexible 2-piece skin-tight vinyl insulator of high dielectric strength, with "lip action" slotted tip that permits opening of clip without exposing metal. Insulator nose is on 13/64" O.D. The tight fitting sheath preserves all the slimness of the Alligator Clip, still giving complete protection against shorts in even the tightest spots. Screw connection easily made by slipping insulator forward. 2 1/4" long.

No. 63—INSULATED ALLIGATOR CLIP (STEEL)

Composed of Mueller No. 60-S Alligator Clip steel, cadmium plated, screw connection, complete with 2-piece vinyl insulator. Shipped half with red insulators, half black 10 per box.

EACH NET.....\$0.19 LOTS OF 10.....\$0.12

No. 63-C—INSULATED ALLIGATOR CLIP (COPPER)

Composed of Mueller No. 60-CS Alligator Clip, solid copper, screw connection. Shipped half with red insulators, half black. 10 per box.

EACH NET.....\$0.22 LOTS OF 10.....\$0.14

CROCODILE CLIPS



No. 85 or 85-C Clip with No. 87 Insulator



No. 85-T Clip

No. 85—A very small clip with slender, elongated jaws for getting into tight places in radio or electrical test work. Screw connection. 2 1/4" long. EACH NET.....\$0.10 LOTS OF 10.....\$0.07

No. 85-C—Same as No. 85, except solid copper with phosphor bronze spring, brass screw. A radio frequency, entirely non-ferrous test clip. 10 per box. EACH NET.....\$0.19 LOTS OF 10.....\$0.12

No. 85-T—Crocodile "Tip-Clip"—equipped with standard phone tip on or jaw, otherwise same as No. 85. Ideal for use as a prod, for ordinary clip connections and for connections to insulated binding posts having non-removable heads. 2 5/8" long. 10 per box. EACH NET.....\$0.25 LOTS OF 10.....\$0.17

Use No. 87 Insulators for clips 85, 85-C and 85-T. Red and Black. Cover entire clip except nose. Protect against short and shock. Help to distinguish leads.



mueller clips

a complete line of

ALLIGATOR TEST & BATTERY CLIPS

Mueller Electric Co.

TEST CLIPS

No. 45 PEE WEE

A very small test clip for radio, ignition, meter and similar work. $1\frac{1}{2}$ " long. Jaw spread $\frac{1}{4}$ ". Steel, cadmium plated.

NET.....\$0.09 LOTS OF 10.....\$0.06

No. 45-C

Solid Copper R.F. Test Clip

Solid copper radio frequency test clip. Phosphor bronze spring, brass screw. Will not heat up in high frequency test work, entirely non-ferrous. $1\frac{1}{2}$ " long. 10 per box.

NET.....\$0.14 LOTS OF 10.....\$0.10

Use No. 47 Insulator for clips 45 and 45-C.

No. 48-B

A small test and battery clip for radio use and general testing purposes. $2\frac{1}{2}$ " long. Jaw spread $\frac{1}{2}$ ". Steel, cadmium plated. 10 per box.

EACH NET.....\$0.12 LOTS OF 10.....\$0.086

No. 48C—Solid Copper. Same size as 48-B.

NET.....\$0.17 LOTS OF 10.....\$0.12

No. 50-C Needle Clip

Solid bronze. Needle pierces insulation of wire for quick test contact. $2\frac{1}{4}$ " long. 10 per box.

EACH NET.....\$0.28 LOTS OF 10.....\$0.20

No. 51-C—Large crocodile clip. Same as 50-C but without needle. 10 per box.

EACH NET.....\$0.20 LOTS OF 10.....\$0.137

Use No. 49 Insulator for clips 48-B, 48-C, 50-C and 51-C.

No. 27

A high grade test clip with meshing teeth on three sides of jaws. For laboratory and shop test work $2\frac{1}{2}$ " long. Jaw spread $\frac{1}{2}$ ". Steel, cadmium plated. 10 per box.

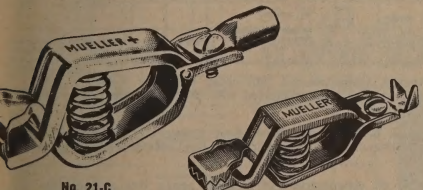
NET.....\$0.15 LOTS OF 10.....\$0.10

No. 27-C—Solid copper. Same size as No. 27. 10 per box.

NET.....\$0.24 LOTS OF 10.....\$0.17

Use No. 29 Insulator for clips 27 and 27-C.

LARGER SIZES OF CLIPS



No. 21-C

No. 25-C

All packed 10 per box.

	Each Net	Lots of 10
24-A—25 Amp. Steel, lead plated, $2\frac{1}{2}$ " long.....	\$0.24	\$0.163
25-C—40 Amp. Steel, cadmium plated, $3\frac{1}{2}$ " long.....	.22	.16
26-C—15 Amp. Solid Copper, $3\frac{1}{2}$ " long.....	.43	.30
27-A—50 Amp. Steel, lead plated, $4\frac{1}{2}$ " long.....	.43	.30
21-C—100 Amp. Solid Copper, $4\frac{1}{2}$ " long.....	1.05	.73
11-C—100 Amp. Steel, lead plated, $6\frac{1}{2}$ " long.....	1.12	.78
11-C—200 Amp. Solid Copper, $6\frac{1}{2}$ " long.....	1.96	1.37
33-C—300 Amp. Solid Copper, $7\frac{1}{2}$ " long.....	3.75	2.62

(*Furnished with detachable lug connection for easy securing to large cables.)

GROUND CLAMP



The ClampPipe will not spread, bend or lop over when applied. Point of large screw bites through corrosion into clean metal to insure good contact. Applicable to pipe $\frac{3}{8}$ " to $1\frac{1}{2}$ " O.D. The best ground clamp on the market!

EACH NET.....\$0.20 LOTS OF 10.....\$0.14

CLAMPPIPE
No. 58

FLEXIBLE INSULATORS FOR CLIPS



A convenient protection against short circuit and electric shock. Colors help to distinguish leads. Packed half red and half black to indicate polarity. Long tail prevents breakage of wire. Constructed so that clip is held in firmly. NOW AVAILABLE also in blue, white, yellow and green at 10% above regular price are insulators marked * below.

Insulator No.	For Use with Clip No.	Each Net	Lots of 10
18*	11-A, 11-C.....	\$0.80	\$0.56
28*	21-A, 21-C.....	.40	.28
26*	24-A, 25, 25-C.....	.21	.15
29*	27, 27-C.....	.13	.09
32*	30, 30-C.....	.05	.03
35	33-C.....	3.13	2.19
36*	34, 34-C.....	.05	.03
47*	45, 45-C.....	.06	.04
49*	48-B, 48-C, 50-C, 51-C.....	.09	.065
62*	60, 60-S, 60-CS, 60PR-2 (also 70 Series).....	.05	.035
72*	70, 70-S, 70-CS.....	.05	.035
87*	85, 85-C, 85-T.....	.06	.04
93	88.....	.17	.12

*Also available in blue, white, yellow and green.

MUELLER QUALITY BATTERY BOOSTER CABLES

Highest quality cables, equipped with famous Hippo-Clips, for boosting "dead" 6 or 12-volt vehicle batteries with an external battery. Cables are pure copper, finely stranded for high flexibility and covered with rubber insulation which stays flexible in the coldest weather and resists oil, grease and acid. 413 strands of No. 30 wire in the 4-gauge cable and 259 strands of No. 30 wire in the 6-gauge cable. The many fine features of the Hippo-Clips alone are listed elsewhere on this page. The clips are both soldered to the cable and clinched around the cable insulation by means of clinching ears.

Packaged: pair of cables with clips in a bright, attractive display carton. Standard shipping container 10 cartons.

No. 8A6—8 ft., 6-gauge, with

No. 41A Hippo-Clips (Steel,

bright copper plated)

NET PRICE PER PAIR.....\$5.70

No. 12A6—12 ft., 6-gauge, with No.

41A Hippo-Clips (Steel, bright copper plated)

NET PRICE PER PAIR.....\$7.20

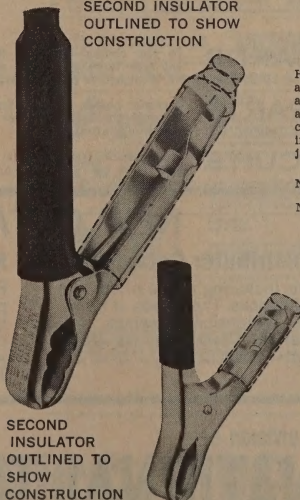


No. 12C4—12 ft., 4-gauge, with No.

41C Hippo-Clips (Solid Copper)

NET PRICE PER PAIR.....\$12.60

SECOND INSULATOR OUTLINED TO SHOW CONSTRUCTION



SECOND
INSULATOR
OUTLINED TO
SHOW
CONSTRUCTION

HIPPO-CLIP

HIPPO-CLIP—For battery booster cables and fast chargers. Proved higher quality and superior design. Built-in solder strap and clinching ears for fast, sure cable connection. Supplied with vinyl handle insulators in red or black. Full 1-9/16" jaw spread. 6" long.

Net price ea.

No. 41-A Steel, bright copper

plated, 100 amp.....\$.45

No. 41-C Solid Copper, 200 amp......99

NEW!

PIGMY HIPPO-CLIP

PIGMY HIPPO-CLIP—A new small plier clip for battery operated equipment and automotive test. Flat, wide handle allows positive grip. Won't "squeak away". Built-in solder strap and wire clinching ears. Supplied with vinyl handle insulators in red or black. Ample $1\frac{1}{8}$ " jaw spread. $3\frac{1}{2}$ " long.

Net price ea.

No. 46-A Steel, bright copper

plated, 50 amp.....\$.15

No. 46-C Solid Copper, 75 amp......24

ntt
SALES CO.


A DIVISION OF

NATIONAL TEL-TRONICS CORP.

The complete, economical line of hardware with many important extra features. NT-T Sales Co., Inc. offers a fully comprehensive and extensive line of electronic hardware and components to meet all the needs of the distributor and manufacturer. Every offers important features, is excellently packaged, and is economically priced.

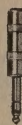
Widely used in hi-fi equipment, tape recorders, dictaphone machines, etc. Molded plastic shells in red or black are supplied for numbers 300, 301, 302, 304, 305, 307, and 308. Metal shells available for numbers 300, 301, 302, 307, and 309.

PHONE PLUGS

ILLUSTRATION	DIMENSIONS	DESCRIPTION	Catalog Number	Color	Std. 10 Pack	USA Net Each
		TWO CONDUCTOR Screw Type Two conductor screw type, molded plastic shells in red or black are supplied for numbers 300, 301, 302, 304, 305, 307, and 308. Metal shells available for numbers 300, 301, 302, 307, and 309.	300B 300R 300M	Black Red Metal	45 45 63	
		TWO CONDUCTOR Solder Type Two conductor solder type, molded plastic shells in red or black are supplied for numbers 301B, 301R, 301M.	301B 301R 301M	Black Red Metal	39 39 60	
		THREE CONDUCTOR Solder Type Three conductor solder type, molded plastic shells in red or black are supplied for numbers 302B, 302R, 302M.	302B 302R 302M	Black Red Metal	63 63 78	
		TWO CONDUCTOR Type P305 Two conductor solder type, made to military specifications. Solder terminals are silver plated to facilitate soldering.	304B 304R	Black Red	.81 .81	
		TWO CONDUCTOR Type P304 Two conductor solder type, made to military specifications. Solder terminals are silver plated to facilitate soldering.	305B 305R	Black Red	.81 .81	
		MINIATURE TWO CONDUCTOR Solder Type Two conductor solder type, made to military specifications. Solder terminals are silver plated to facilitate soldering.	307B 307R	Black Red	42 42	
		ULTRA-MINIATURE TWO CONDUCTOR Solder Type Two conductor solder type, made to military specifications. Solder terminals are silver plated to facilitate soldering.	308B 308R	Black Red	45 45	
		RIGHT ANGLE TWO CONDUCTOR Solder Type Right angle plug, prevents protrusion, accommodates two conductor jacks #308 and #307.	309M	Metal	.54	

Over the years original equipment manufacturers have looked to NT-T for the finest in all types of phone plugs. New distributors, industrial, and consumer

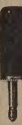
will be able to obtain the same high quality phone plugs as supplied to the equipment manufacturers.



Widely used in hi-fi equipment, tape recorders, dictaphone machines, etc. Molded plastic shells in red or black are supplied for numbers 300, 301, 302, 304, 305, 307, and 308. Metal shells available for numbers 300, 301, 302, 307, and 309.

PHONE PLUGS

ILLUSTRATION	DIMENSIONS	DESCRIPTION	Catalog Number	Color	Std. 10 Pack	USA Net Each
		THREE CONDUCTOR Screw Type Three conductor screw type, molded plastic shells in red or black are supplied for numbers 303, 304, 305, 307, and 308. Metal shells available for numbers 303, 304, 305, 307, and 309.	303-B 303-R 303-M	Black Red Metal	.72 .72 .84	
		THREE CONDUCTOR Slot Car Package Same as above but packaged for use in slot car controllers.	303-SP 303-MSP	Black Metal	.72 .84	



PHONE JACKS

Telephone jacks are of two basic types, open circuit and closed circuit, and are available as two conductor and three conductor jacks. The special nickel plated spring brass springs are designed to retain their tension throughout unlimited use. Standard if jacks mount in 3/8" holes.

ILLUSTRATION	DIMENSIONS	DESCRIPTION	Catalog Number	Color	Std. 10 Pack	USA Net Each
		ULTRA-MINIATURE JACK Two conductor closed circuit jack for miniature applications. Used in many radio, radio, vacuum modules plug #308.	310	Metal	27	
		SUB-MINIATURE JACKS Sub-miniature phone jack, two conductor closed circuit will accommodate plug #307.	311	Metal	27	
		SUB-MINIATURE JACKS Sub-miniature jacks, two conductor open circuit will accommodate plug #307.	313	Metal	.24	
		TWO CONDUCTOR Open Circuit Two conductor, open circuit will accommodate plugs #300, 301 and 304.	336	Metal	.24	
		TWO CONDUCTOR Closed Circuit Two conductor, closed circuit, will accommodate plugs #300, 301 and 304.	337	Metal	.27	
		THREE CONDUCTOR Open Circuit Three conductor, open circuit, will accommodate plug #302.	338	Metal	.33	
		THREE CONDUCTOR Open Circuit Three conductor open circuit with independent bushing, will accommodate plug #302.	338-B	Metal	.36	
		THREE CONDUCTOR Open Circuit Three conductor, open circuit with 210 I.B. will accommodate plug #302.	338-A	Metal	.42	
		THREE CONDUCTOR Closed Circuit Three conductor closed circuit, will accommodate plug #302.	339	Metal	.45	

NT-T provides the finest engineering and greatest number of years of experience in the manufacture of phone jacks. With NT-T parts you can now replace with jacks used by original equipment manu-

facturers throughout the country. Whether for research and development, industrial, repair, or hobby, always rely on NT-T.

PHONO JACKS

Illustrator shows NT-T laminated phono with chrome monitor bushings. Shells are steel and nickel plated, and the contacts are spring brass, common phono. Excellent for repairs and new equipment.

ILLUSTRATION	DIMENSIONS	DESCRIPTION	Catalog Number	Std. 10 Pack	USA Net Each
		ROUND TYPE JACK Single contact jack providing sure grip on all phono pin plugs.	318	—	.042
		RECTANGULAR JACK Single contact jack for replacement applications, and can be used as repair.	319	—	.072
		DUAL TYPE JACK For smaller sizes use this compact phono jack. .087 mounting centers.	328	—	.072



TERMINAL BOARDS

To your custom design or N.T.T. standard. Under-one-roof fabrication from any materials, with any type terminals. Paper, cloth; glass; nylon laminates bonded with phenolic resins, silicon or melamine resins. MIL, Jan, Commercial Specs. Lacquered, varnished or plain. Imprinted all ways.

FABRICATED PARTS

Terminal boards (without terminals), Jack panel boards, front panel plates, etc., all the above terminal board materials as well as aluminum, brass, copper, and steel. Metal parts may be finished in cadmium, anodized, iridite, lacquer, etc. All types of printing.

PRINTED CIRCUITS

Photographic, silk screen or other types on copper clad XPC or glass epoxy. One or two sides. Sizes from 1/2" x 1/2" up to 12" x 24" thick.

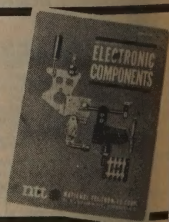
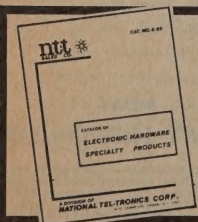
NEW CATALOGS

New Distributor Catalog

Complete, including resale prices and cross references. Thousands of items. Pictures, dimension drawings, full specification. Covers all the items sold by ntt Sales Co.

New OEM Catalog

For engineering and purchasing departments. 48 pages of complete detailed information on the wide line of components, connectors, and hardware that is manufactured by National Tel-tronics, Inc.



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NATIONAL TEL-TRONICS CORP.

NATIONAL TEL-TRONICS CORP.



National Tel-tronics is a reliable, service oriented company devoted to the cost-conscious manufacture of component hardware in the electronics industry. We are equipped, experienced and eager to serve you with the largest, most comprehensive stocks of standard and custom designed items. Complete engineering assistance is at your service.

PHONO PLUGS

Shells are .016 Brass or Steel, Cadmium Plated, designed to have a wiping action with mating part for good ground. Plus are brass brass, bright nickel plated. Insulating washer is .002 Thick Fibre.

ILLUSTRATION	DIMENSIONS	A	B	C	D	Catalog Number	Color	Std. 10 Pack	USA Mfg. Each
	CRIMP TYPE Standard	1/8"	.175	11/16"	1-7/32"	48A	Metal	.06	
	CRIMP TYPE Short Pin	1/8"	.175	3/8"	29/32"	48B	Metal	.06	
	PLASTIC BAREBELL Standard	1/8"	.175	11/16"	1-5/8"	60A-R	Red Black	.10	
		1/8"	.175	11/16"	1-5/8"	60A-B	Gray White	.10	
		1/8"	.175	11/16"	1-5/8"	60A-G	Gray White	.10	
	PLASTIC BAREBELL Short Pin	1/8"	.175	3/8"	1-5/16"	60B-R	Red Black	.10	
		1/8"	.175	3/8"	1-5/16"	60B-B	Gray White	.10	
		1/8"	.175	3/8"	1-5/16"	60B-G	Gray White	.10	
	SHIELDED BAREBELL PLUG					5-005	Metal	.30	

Shells are .016 Brass or Steel, Cadmium Plated, designed to have a wiping action with mating part for good ground. Plus are brass brass, bright nickel plated. Insulating washer is .002 Thick Fibre.

PHONO PLUGS

ILLUSTRATION	DIMENSIONS	A	B	C	D	Catalog Number	Color	Std. 10 Pack	USA Mfg. Each
	Standard	1/8"	.175	11/16"	15/16"	36A	Metal	.06	
	Short Pin	1/8"	.175	3/8"	5/8"	36B	Metal	.06	
		1/8"	.145	11/16"	1-7/16"	44A	Metal	.09	
		1/8"	.145	3/8"	1-1/8"	44B	Metal	.09	
		1/8"	.145	11/16"	1-3/32"	42A	Metal	.17	
		1/8"	.145	3/8"	25/32"	42B	Metal	.17	

Shells are .016 Brass or Steel, Cadmium Plated, designed to have a wiping action with mating part for good ground. Plus are brass brass, bright nickel plated. Insulating washer is .002 Thick Fibre.

EXTENSION JACKS

ILLUSTRATION	DIMENSIONS	DESCRIPTION	Catalog Number	Color	Std. 10 Pack	USA Mfg. Each
		TWO CONDUCTOR JACK Accommodates plug types 381, 382, and 383. Has internal radio shield.	6-100 6-101	Black Metal	54 75	
		THREE CONDUCTOR JACK Accommodates plug type 382. Used in many audio and stereo applications.	6-102 6-103	Black Metal	75 37	

COAXIAL JACK

ILLUSTRATION	DIMENSIONS	DESCRIPTION	Catalog Number	Color	Std. 10 Pack	USA Mfg. Each
		COAXIAL JACK Used extensively in AC adapters, and battery chargers for transistorized tape recorders, television receivers, and radios.	6-200	Green	.39	
		COAXIAL JACK Used extensively in AC adapters, and battery chargers for transistorized tape recorders, television receivers, and radios.	6-201	Red	.39	

Shells are .016 Brass or Steel Cadmium Plated designed to have a wiping action with mating part for good ground. Plus are brass brass, bright nickel plated. Insulating washer is .002 Thick Fibre.

PHONO JACKS

ILLUSTRATION	DIMENSIONS	DESCRIPTION	Catalog Number	Color	Std. 10 Pack	USA Mfg. Each
		SINGLE HOLE JACK Front Mount Mounts in 3/16" hole. Insulated with red, weather, and solder lug. Mounts through front of panel.	340	Metal	.30	
		SINGLE HOLE JACK Rear Mount Mounts in 3/16" hole. Insulated with red, weather, and solder lug. Mounts through rear of panel.	342	Metal	.33	
		DUAL PHONO JACK Ideal for stereo applications, replacement and new projects.	352	---	.006	
		QUADRIPOLE PHONO JACK Variable jack for all audio applications, such as tuner, amplifier, and multimeter inputs.	384	---	.171	
		SWITCHING JACKS 317 is two conductor "closed" and 318 is a three conductor "closed" jack. Used in stereo, photograph, or amplifier input.	318 317	---	.27 .21	
		INLINE PHONO JACK Combination clamp and solder type insulated handling jack. Matches with all phone pin jacks.	5-006	Metal	.36	

PILOT LIGHT SHIELDS

ILLUSTRATION	DIMENSIONS	DESCRIPTION	Catalog Number	Color	Std. 10 Pack	USA Mfg. Each
		LIGHT SHIELD Brass, cadmium plated shield intended for use in television, radio receivers, meters, and all electronic equipment. Prevents glare and directs the light to the desired position.	3110	Metal	.326	
		LIGHT SHIELD Bright brass die shield intended for use in television, radio receivers, meters, and all electronic equipment. Prevents glare and directs the light to the desired position.	3111	Metal	.333	

*Indicates BSI After Catalog No. When Ordering Both Quantities

Because of the Shield's wide and constant usage, NT-1 has engineered it to provide reliability and versatility and to meet the requirements of the industry, naval ships, consumers, and hobbyists.

SPADE LUGS

ILLUSTRATION	DIMENSIONS	DESCRIPTION	Catalog Number	Color	Std. 10 Pack	USA Mfg. Each
		INSULATED SPADE LUG Red or Black case is made of insulating material. Red and black end lug is .002 inch. Brown end lug is .002 inch. Brown end lug is .002 inch. Brown end lug is .002 inch.	870-B 870-R	Black Red	.100 .108	

Realistic pricing, extensive packaging, rapid turnover, and product reliability are only a few of the reasons why customers are continually asking for NT-1 products. NT-1 is specified on drawings by original equipment manufacturers throughout the country. Be sure and specify NT-1.

Use with single conductor, shielded microphone cable. Shells are brass, nickel plated with phono finish.

MICROPHONE CONNECTORS

ILLUSTRATION	DIMENSIONS	DESCRIPTION	Catalog Number	Color	Std. 10 Pack	USA Mfg. Each
		CORD MOUNT Male Flexible spring allows cable to rotate in cable. Shield is held securely by set screw. Used extensively for microphone, amplifier applications.	101	Metal	.30	
		CORD MOUNT Female Flexible spring allows cable to rotate in cable. Cable connector connector clamp is lock. Used extensively for microphone, amplifier applications.	102	Metal	.39	
		PANEL MOUNT Single Conductor Mounts with #100 connector. Mounts in 3/16" hole and may be insulated from chassis by insulating washer.	103	Metal	.50	

Ease of handling, rapid insertion and removal, and positive locking are but a few of the features which have been designed in to the NT-1 line of microphone connectors. The constant use that these connectors are subjected to requires that they must be extremely durable. NT-1 designed their microphone connectors with these features in mind. When you desire reliability, depend on NT-1.

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A DIVISION OF

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SALES CO.

ntt **NATIONAL TEL-TRONICS CORP.**
SALES CO.

NT•T Sales Co. products are merchandised to sell for the distributor. All the products are designed to be obviously better competitive items in one or more ways. The line is composed of items that sell faster for more rapid turnover. Items are played on unique self-service racks with transparent, rack-cap and poly bag type product dispensers. Contact your National Electronics Sales Co. representative for full, profitable details.

TEST PRODS

RT-T Prods have been engineered and manufactured to provide the most comprehensive and complete line, and which at the same time embodies design features which afford ease of handling and give years of service.

ILLUSTRATION	DIMENSIONS	DESCRIPTION	Catalog Number	Color	Std. 10 Pack	USA Net Each
TEST PROD. NO. 871						
		a surface connection. To allow flexibility, the leads of nickel-plated brass lead test wire are soldered to the black, indicate color.	891-B 891-R	Black Red	80 80	80 80
TEST PROD. WITH REMOTE PLUG ADAPTER						
		Same as No. 891 except with a band-on plug adapter in back of handle.	892-B 892-R	Black Red	86 86	86 86
TEST PROD.: SOLDERLESS THREADED TYPE						
		Handles: Molded plastic, red or black. 894-B Red 30 894-R Red 30 895-B Black 24 895-R Black 24 896-B Black 33 896-R Black 33 897-B Black 27 897-R Red 27	894-B 894-R 895-B 895-R 896-B 896-R 897-B 897-R	Black Red Black Black Black Black Black Red	30 30 24 24 33 33 27 27	30 30 24 24 33 33 27 27
SOLDERLESS TEST PROD.—Force Fit Type						
		Handles: Molded plastic, red or black. 898-B Red 24 898-R Red 24 899-B Black 24 899-R Black 24 900-B Black 27 900-R Red 27	898-B 898-R 899-B 899-R 900-B 900-R	Black Red Black Black Black Red	24 24 24 24 27 27	24 24 24 24 27 27
TEST PROD.—HEAVY DUTY SOLDER TYPE						
		Handles: Molded plastic, red or black. 901-B Red 30 901-R Red 30 902-B Black 30 902-R Black 30 903-B Black 33 903-R Red 33	901-B 901-R 902-B 902-R 903-B 903-R	Black Red Black Black Black Red	30 30 30 30 33 33	30 30 30 30 33 33
TEST PROD.—PHONE HEADSET TYPE						
		Handles: Molded plastic, red or black. 904-B Red 30 904-R Red 30 905-B Black 30 905-R Black 30 906-B Black 33 906-R Red 33	904-B 904-R 905-B 905-R 906-B 906-R	Black Red Black Black Black Red	30 30 30 30 33 33	30 30 30 30 33 33

The WT-T Nylon Tip Jacks which are used throughout the electronic industry provide a very rugged, compact, and neat receptacle for all tip plugs. Note the wide assortment of types and colors.

NYLON TIP JACKS

ILLUSTRATION	DIMENSIONS	DESCRIPTION	Catalog Color	SS-10 Pack	USA Net
WHLN TIP JACK					
Wrap-Around Type with Metal Shell					
Wheeled jack for quick and easy installation. The wheel is made of heavy-duty cast iron. The shell is made of heavy-duty steel. The jack is designed for use on concrete, asphalt, and other hard surfaces. The wheel is 10 inches in diameter. The shell is 10 inches wide and 10 inches high. The jack is 10 inches long. The jack is 10 inches wide. The jack is 10 inches high. The jack is 10 inches long. The jack is 10 inches wide. The jack is 10 inches high. The jack is 10 inches long. The jack is 10 inches wide. The jack is 10 inches high. The jack is 10 inches long. The jack is 10 inches wide. The jack is 10 inches high. The jack is 10 inches long. The jack is 10 inches wide. The jack is 10 inches high. The jack is 10 inches long. The jack is 10 inches wide. The jack is 10 inches high. The jack is 10 inches long. The jack is 10 inches wide. The jack is 10 inches high. The jack is 10 inches long. The jack is 10 inches wide. The jack is 10 inches high. The jack is 10 inches long. 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ALLIGATOR CLIPS

The extensive use of alligator clips in the electronic industry requires that they must withstand constant use without a breakdown in their spring action and at the same time must provide positive jaw clamping action. All NT-7 clips are manufactured of high grade cadmium

ILLUSTRATION	DIMENSIONS	DESCRIPTION	Catalog Number	Size To Pack	
				Color	USA Net Each
		ALLIGATOR CLIP Under Type Cadmium plated steel jaws with 3/8" jaw opening. Accurately matched jaws grip securely.	740	Metal	.08
		ALLIGATOR CLIP Screw Type Screw required for underless connection. All other features the same as under type.	741	Metal	.03
		INSULATED ALLIGATOR CLIP Under Type Accurately matched, cammed steel jaws with 3/8" opening. Insulated jaws grip securely. Accented knurled hexes plug in back.	742-B 742-R	Black Red	.12 .12
		INSULATED ALLIGATOR CLIP Screw Type Supplied with screw for underless connection. All other features the same as clip #742.	743-B 743-R	Black Red	.15 .15
		ALLIGATOR CLIP Special Screw Type Jaws of cadmium plated steel open 3/8" and grip securely. Supplied with screw for underless connection.	744	Metal	1.44
		ALLIGATOR CLIP Full Jaw Opening Type Cadmium plated steel jaws open to 3/8" and grip securely. Accented knurled hexes plug in back. Can be supplied in red or black.	745-B 745-R	Black Red	.48 .48
		MINIATURE CLIP Under Type Solder type clip which spaces a factor. Convenient for all labs, shops, and hospitals.	748	Metal	.05
STANDARD INSULATORS					
		Insulators for clips #740 and #741.	749-B	Black	.05
		Made of high purity and tested for full jaw opening. Completely rust free.	749-R	Red	.05
MINIATURE INSULATORS					
		Insulators for clip #748. Made of high purity which allow for full jaw opening. Completely rust free.	750-B 750-R	Black Red	.05 .05

TIP PLUGS

The engineering and manufacturing of all NT-T tip plugs are based upon the highest standards and specifications of the industry. Close adherence is maintained on all tolerances and only the finest quality materials are used to provide years of service.

ILLUSTRATION		DIMENSIONS	DESCRIPTION	Catalog Number	Std. to Pack	
				Color	USA Met Each	
			TIP PLUG Heavy Duty, Described	857B	Black	15
				857L	Blue	15
				857G	Green	15
				857R	Red	15
				857Y	Yellow	15
				857W	White	15

INSULATED TIP PLUG	8588	Black	.12
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BANANA PLUGS

ILLUSTRATION	DIMENSIONS	DESCRIPTION	Catalog Number	Std. 10 Pack	
				Color	USA Net Each
		INSULATED BANANA PLUG Miniature Type This miniature banana plug with wire leads is used to connect test leads to the terminals of the 867-B oscilloscope. Color of plug indicates wire size.	940-B 940-C	Black Red	19 19
		INSULATED BANANA PLUG This all-enclosed banana plug, standard lead wire, has a 1/4" diameter. It is used to connect test leads to the terminals of the 867-B oscilloscope. Color of plug indicates wire size.	951-B 951-RL 951-R	Black Blue Red	19 19 19
		INSULATED BANANA PLUG With Side Screw This miniature banana plug with side screw is used to connect test leads to the terminals of the 867-B oscilloscope. Color of plug indicates wire size.	952-B 952-RL 952-GR 952-Y 952-R 952-W	Black Blue Green Yellow Red White	19 19 19 19 19 19
		INSULATED BANANA PLUG Standard Banana Plug with Wire Leads This standard banana plug with wire leads is used to connect test leads to the terminals of the 867-B oscilloscope. Color of plug indicates wire size.	953-B 953-RL 953-GR 953-Y 953-R 953-W	Black Blue Green Yellow Red White	27 27 27 27 27 27

867-B Banana jacks are designed to mate with all 867-B Type Specifications and other equipment used in series with other Banana Plug manufactured to industry specifications and standards. 867-B jacks are available in a number of color choices as noted.

ILLUSTRATION	DIMENSIONS	DESCRIPTION	Catalog Number	Std. 10 Pack	
				Color	USA Net Each
		BANANA JACK Insulated Type This insulated banana jack is used to connect test leads to the terminals of the 867-B oscilloscope. Color of jack indicates wire size.	813	Metal	11
		BANANA JACK Insulated Type This insulated banana jack is used to connect test leads to the terminals of the 867-B oscilloscope. Color of jack indicates wire size.	844-B 844-RL 844-R	Black Blue Red	16 16 16
		BANANA JACK Insulated Type This insulated banana jack is used to connect test leads to the terminals of the 867-B oscilloscope. Color of jack indicates wire size.	845-B 845-RL 845-R 845-W	Black Blue Green White	14 14 14 14
		BANANA JACK Insulated Type This insulated banana jack is used to connect test leads to the terminals of the 867-B oscilloscope. Color of jack indicates wire size.	846-B 846-RL 846-R 846-W	Black Blue Green White	15 15 15 15

BANANA PLUGS NT-T banana jacks are designed to mate with all NT-T banana plugs and also are engineered to match all other banana plugs manufactured to industry specifications and standards. NT-T jacks are available in a number of color choices as noted.

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*Indicate BU After Catalog No. When Ordering Bulk Quantity

NTT Sales Co. products are merchandised to sell for the distributor. All the products are designed to be obviously better than competitive items in one or more ways. The line is composed of items that sell faster for more rapid turnover. Items are played on unique self-service racks with transparent, rack-cap and poly bag type product dispensers. Contact your National Tel-tronics Sales Co. representative for full, profitable details.

NTT offers the most extensive line of binding posts designed with precision molds and engineered to provide complete versatility. For use on test equipment, meters, breadboards, and experimental situations.

BINDING POSTS

ILLUSTRATION	DIMENSIONS	DESCRIPTION	Catalog Number	Std. 10 Pack Color	USA Net Each
		METAL BINDING POST Metal screw thread. Accepts standard plug. Not a threaded post.	874	Metal	.15
		METAL BINDING POST Metal screw thread. Standard connection with screw and lockwasher.	875	Metal	.18
		5-WAY BINDING POST Accepts 10 and 1/2 inch screw. 5-point plug. Metal screw thread. Accepts standard plug. Not a threaded post. 1/2 inch or 1/4 inch. Metal screw thread. Accepts standard plug. Not a threaded post.	876-B 876-RL 876-GR 876-Y 876-R 876-W	Black Blue Green Yellow Red White	.38 .38 .38 .38 .38 .38
		5-WAY BINDING POST Metal screw. 5-point plug. Metal screw thread. Accepts standard plug. Not a threaded post. 1/2 inch or 1/4 inch.	1-876-B 1-876-R	Black Red	.40 .40
		5-WAY BINDING POST Metal screw. 5-point plug. Metal screw thread. Accepts standard plug. Not a threaded post. 1/2 inch or 1/4 inch.	2-876-B 2-876-R	Black Red	.42 .42
		5-WAY BINDING POST Metal screw. 5-point plug. Metal screw thread. Accepts standard plug. Not a threaded post. 1/2 inch or 1/4 inch.	3-876-B 3-876-R	Black Red	.42 .42
		DUAL 5-WAY BINDING POST Metal screw. 5-point plug. Metal screw thread. Accepts standard plug. Not a threaded post. 1/2 inch or 1/4 inch.	4-876-B 4-876-R 4-876-DR	Black Red Black/Red	.66 .66 .66
		5-WAY BINDING POST Metal screw. 5-point plug. Metal screw thread. Accepts standard plug. Not a threaded post. 1/2 inch or 1/4 inch.	877-B 877-R	Black Red	.48 .48
		5-WAY BINDING POST Metal screw. 5-point plug. Metal screw thread. Accepts standard plug. Not a threaded post. 1/2 inch or 1/4 inch.	1-877-B 1-877-R	Black Red	.45 .45

*Indicate BU After Catalog No. When Ordering Bulk Quantities.

BINDING POSTS

NTT offers the most extensive line of binding posts designed with precision molds and engineered to provide complete versatility. For use on test equipment, meters, breadboards, and experimental situations.

ILLUSTRATION	DIMENSIONS	DESCRIPTION	Catalog Number	Std. 10 Pack Color	USA Net Each
		5-WAY BINDING POST Metal screw. 5-point plug. Metal screw thread. Accepts standard plug. Not a threaded post. 1/2 inch or 1/4 inch.	2-877-B 2-877-R	Black Red	.52 .52
		5-WAY BINDING POST Metal screw. 5-point plug. Metal screw thread. Accepts standard plug. Not a threaded post. 1/2 inch or 1/4 inch.	878-B 878-R	Black Red	.18 .18
		DUAL 5-WAY BINDING POST Metal screw. 5-point plug. Metal screw thread. Accepts standard plug. Not a threaded post. 1/2 inch or 1/4 inch.	2-878-B 2-878-R 2-878-DR	Black Red Black/Red	.54 .54 .54
		FULLY INSULATED TYPE Designed to accept phone plug, banana plug, standard plug, etc. Metal screw thread. Accepts standard plug. Not a threaded post. 1/2 inch or 1/4 inch.	879-B 879-R	Black Red	.25 .25
		BINDING POST Metal screw. 5-point plug. Metal screw thread. Accepts standard plug. Not a threaded post. 1/2 inch or 1/4 inch.	880-B 880-R	Black Red	.18 .18
		BINDING POST Metal screw. 5-point plug. Metal screw thread. Accepts standard plug. Not a threaded post. 1/2 inch or 1/4 inch.	881-B 881-R	Black Red	.18 .18
		5-WAY BINDING POST Self-locking. Metal screw. 5-point plug. Metal screw thread. Accepts standard plug. Not a threaded post. 1/2 inch or 1/4 inch.	882-B 882-R	Black Red	.27 .27

The engineer, repairman, hobbyist and consumer can rely on NTT to provide the items he needs to do the job and do it well. Every day more and more com-

panies are placing the name NTT on their prints for job specifications. Using NTT products will show you the reasons.

*Indicate BU After Catalog No. When Ordering Bulk Quantities.

NTT now offers this extensive line of Anode Connectors for vacuum tube CRT applications and color. The large rubber-mount case on the connectors help alleviate the problem of corona, caused on NT-7.

ANODE CONNECTORS

ILLUSTRATION	DIMENSIONS	DESCRIPTION	Catalog Number	Std. 10 Pack Color	USA Net Each
		COLOR CONNECTOR For use on color cathode ray tubes.	239-18	---	.42
		STANDARD CONNECTOR	242-18	---	.33
		STANDARD CONNECTOR	246-18	---	.37
		COLOR CONNECTOR Large rubber cap for color tubes.	250-18	---	.50

Plus are made from 1/4" hard brass wire cathode plate. Polished interlocks are made of brass and nickel plated.

INTERLOCK RECEPTACLES

ILLUSTRATION	DIMENSIONS	DESCRIPTION	Catalog Number	Std. 10 Pack Color	USA Net Each
		FLUSH RECEPTACLE Standard 102 x 076 1/2" TYPICAL	714	---	.054
		RECESSED RECEPTACLE Standard 102 x 076 1/2" TYPICAL	718	---	.078
		FLUSH RECEPTACLE Phosphor 102 x 076 1/2" TYPICAL	731	---	.054
		RECESSED RECEPTACLE Phosphor 102 x 076 1/2" TYPICAL	733	---	.078

*Indicate BU After Catalog No. When Ordering Bulk Quantities.

BINDING POST TERMINALS

Legs are tapered with screws mounted ready for use. No re-placement or re-drill of your own screws. All but brass for ease in soldering.

ILLUSTRATION	DIMENSIONS	DESCRIPTION	Catalog Number	Std. 10 Pack Color	USA Net Each
		BINDING POST TERMINAL 102 BRASS 8-32x1/8 SCREW	4403	Metal	.0306
		SHORTING LINK 7/16" Centers	4515	Metal	.018
		SHORTING LINK 1/2" Centers	4516	Metal	.018
		BINDING POST TERMINAL 100 BRASS 8-32x1/8 SCREW	4418	Metal	.054

Boards are 1/16" thick 1/2" Laminated Phenolic. Terminals are 1/32" thick brass. Cathode plate screws are 1/16" hole.

BINDING POST BOARDS

ILLUSTRATION	DIMENSIONS	DESCRIPTION	Cat. #	Std. 10 Pack Color	USA Net Each
		BINDING POST BOARD 1/16" thick 1/2" Laminated Phenolic. Terminals are 1/32" thick brass. Cathode plate screws are 1/16" hole.	2401	---	.04
		BINDING POST BOARD 1/16" thick 1/2" Laminated Phenolic. Terminals are 1/32" thick brass. Cathode plate screws are 1/16" hole.	2402	---	.06
		BINDING POST BOARD 1/16" thick 1/2" Laminated Phenolic. Terminals are 1/32" thick brass. Cathode plate screws are 1/16" hole.	2403	---	.09
		BINDING POST BOARD 1/16" thick 1/2" Laminated Phenolic. Terminals are 1/32" thick brass. Cathode plate screws are 1/16" hole.	2404	---	.114
		BINDING POST BOARD 1/16" thick 1/2" Laminated Phenolic. Terminals are 1/32" thick brass. Cathode plate screws are 1/16" hole.	2405	---	.132
		BINDING POST BOARD 1/16" thick 1/2" Laminated Phenolic. Terminals are 1/32" thick brass. Cathode plate screws are 1/16" hole.	2406	---	.168
		BINDING POST BOARD 1/16" thick 1/2" Laminated Phenolic. Terminals are 1/32" thick brass. Cathode plate screws are 1/16" hole.	2407	---	.21
		BINDING POST BOARD 1/16" thick 1/2" Laminated Phenolic. Terminals are 1/32" thick brass. Cathode plate screws are 1/16" hole.	2408	---	.234
		BINDING POST BOARD 1/16" thick 1/2" Laminated Phenolic. Terminals are 1/32" thick brass. Cathode plate screws are 1/16" hole.	2409	---	.246
		BINDING POST BOARD 1/16" thick 1/2" Laminated Phenolic. Terminals are 1/32" thick brass. Cathode plate screws are 1/16" hole.	2410	---	.262
		BINDING POST BOARD 1/16" thick 1/2" Laminated Phenolic. Terminals are 1/32" thick brass. Cathode plate screws are 1/16" hole.	2411	---	.298
		BINDING POST BOARD 1/16" thick 1/2" Laminated Phenolic. Terminals are 1/32" thick brass. Cathode plate screws are 1/16" hole.	2412	---	.32

NTT is proud to offer the distributor the most extensive Binding Post Board line available today. The extensive combination of terminals allows for faster

development of new products and facilitates terminal board usage for the repairman and hobbyist.

*Indicate BU After Catalog No. When Ordering Bulk Quantities.

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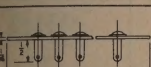
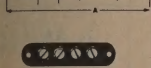
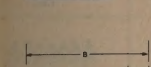
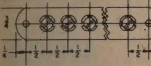
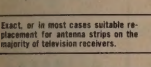
NATIONAL TEL-TRONICS CORP.

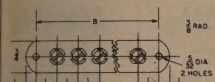

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SALES CO.

National Tel-tronics is a reliable, service oriented company devoted to the cost-conscious manufacture of component hardware for the electronics industry. We are equipped, experienced and eager to serve you with the largest, most comprehensive stocks of standard and custom designed items. Complete engineering assistance is at your service.

Boards are 1/16" thick XP laminated phenolic. Terminals are 1/32" thick brass, cadmium plated. Screws are steel, nickel-plated.

BINDING POST BOARDS

ILLUSTRATION	DIMENSIONS	TERMINAL POSITIONS	Cat. #	Std. 10 Pack USA Net Each
	A	1-1/2" 1"	2551	.042
	B	2"	2552	.066
	2-1/2" 2"	3"	2553	.09
	3"	2-1/2"	2554	.114
	3-1/2" 3"	4"	2555	.132
	4"	3-1/2"	2556	.174
	4-1/2" 4"	5"	2557	.216
	5"	4-1/2"	2558	.234
	5-1/2" 5"	6"	2559	.252
	6"	5-1/2"	2560	.270



Utilized as replacements for antenna terminals on the rear of many television receivers, and as speaker terminals on many amplifiers. Makes an excellent replacement and is ideal for the engineer or hobbyist in the construction of new equipment.

Exact, or in most cases suitable replacement for antenna strips on the majority of television receivers.

ANTENNA BINDING POSTS

ILLUSTRATION	DIMENSIONS	DESCRIPTION	Catalog Number	Std. 10 Pack Color USA Net Each
		UHF CONVERTER STRIP Replacement on many UHF converters to the market today.	001-3	— .36
		STANDARD STRIP Used on many receivers. Replaces UHF converter strips. Taper antenna wire plugs into strip allowing fast disconnection.	001-4	— .18
		UHF-VHF STRIP Used on many of the new receivers with combination UHF-VHF tuners.	001-12	— .28

*Indicate BS After Catalog No. When Ordering Bulk Quantities

Contact strips are used on low cost converters, provide 1/2" spacing. Contacts will accommodate 1/8" pins.

CONTACT CONNECTORS

ILLUSTRATION	DIMENSIONS	DESCRIPTION	Catalog Number	Std. 10 Pack Color USA Net Each
		TWO CONTACT STRIP Used on many television receivers for speaker hook-up or on the tuners to connect some circuits as AEC, interlocks, or other control circuits.	002-5	— .066

CHEMICALS

ILLUSTRATION	DESCRIPTION	Catalog Number	Standard Pack
	LECTRO-ALLEN Tuner Contact Cleaner There is no longer a need to stick a special contact cleaner for contact and an extra type for tapes, electronic cleaning pens, LECTRO-ALLEN chemicals, sprayers, and products of the same line. Due to the new viscosity, LECTRO-ALLEN will not drift. One touch does the job. No rubbing. Most manufacturers of LECTRO-ALLEN will sell their products and it's not hard to get for you. Look for LECTRO-ALLEN.	7-001	24-6 oz. Cans

MAGNETIC MICROPHONE HOLDER

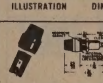
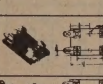
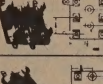
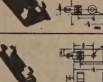
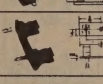
ILLUSTRATION	DESCRIPTION	Catalog Number	Std. 10 Pack Color USA Net Each
	Ideal for mobile communication. No more fumbling to find the microphone holder. NT-7's Magnetic Microphone holder will attach to metal surfaces such as dashboards, and the sides of van. This holder was designed not only for standard CB type applications, but also for heavy two-way radio work such as cabs, ambulances, and industrial communication. This convenience allows the driver to keep his eye on the road and avoid accidents. This model not available.	3-006	Metal .99

*Indicate BS After Catalog No. When Ordering Bulk Quantities

JAG fuse mounting assemblies as used throughout industry.

Fuse blocks available in one, two, and three-pole assemblies.

FUSE MOUNTING BASES

ILLUSTRATION	DIMENSIONS	DESCRIPTION	Catalog Number	Std. 10 Pack Color USA Net Each
		PANEL MOUNTING BASES 340 Type Fuses Made from black general purpose phenolic material. All metal parts are plated to resist corrosion and solder lugs are plated to facilitate soldering. Rated at 15 amps, 250 volts and is interchangeable with standard screw.	450	Black .43
		Bases are manufactured from XP laminated phenolic, clips are made from .020 spring brass, cadmium or silver plated. Two 140 diameter mounting holes.	403	Black .24
		Bases are manufactured from XP laminated phenolic, clips are made from .020 spring brass, cadmium or silver plated. Three hole unit with mounting holes for #8 screws.	405	Black .48
		Bases are manufactured from XP laminated phenolic, clips are made from .020 spring brass, cadmium or silver plated. Two hole unit with mounting holes for #8 screws.	406	Black .36
		Bases are manufactured from XP laminated phenolic, clips are made from .020 spring brass, cadmium or silver plated. Single hole unit with mounting holes for #8 screws.	408	Black .13
		Bases are manufactured from XP laminated phenolic, clips are made from .020 spring brass, cadmium or silver plated. Single hole unit with connector below base.	410	Black .13

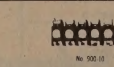
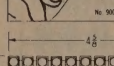
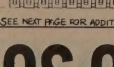
Small parts—large headaches. This is often the plight of the distributor, manufacturer, engineer, repairman, and hobbyist. NT-7 now offers a one-stop source for the majority of these small items which, no matter how small, are often needed. Relieve your purchasing problems by ordering from NT-7.

*Indicate BS After Catalog No. When Ordering Bulk Quantities

SOLDERING LUGS

ILLUSTRATION	DIMENSIONS	DESCRIPTION	Catalog Number	Std. 10 Pack Color USA Net Each
		"A" .016 BRASS .152	4501	Metal Bulk Only
		"A" .016 BRASS .152	4502	Metal Bulk Only
		"A" .016 BRASS .152	4504	Metal Bulk Only

900 SERIES PUSH BUTTON MOLDED TERMINAL BLOCKS

ILLUSTRATION	DESCRIPTION	Catalog Number	Std. 10 Pack Color USA Net Each
	No. 900-10	900-10	Black .52
	No. 900-14	900-14	Black .52
	No. 900-18	900-18	Black .52
	No. 900-22	900-22	Black .52
	No. 900-26	900-26	Black .52

Like Type No. 905, the No. 900 terminal block is solderless, and is molded of hard black polypropylene. Push buttons are molded of red polypropylene.

These terminal blocks have extremely high solderless properties and are approved to resist 440 volts or 500 volts when mounted on insulated surface. Maximum current 75 amperes, maximum wire capacity 70°C. Maximum wire size applicable AWG #12. Maximum contact pressure 15.22 lbs. Connection of conductors is extremely fast. Press the red button and insert the wire. Release pressure for locking. The beryllium copper contacts are made into the block. Type 900 is available for 24 connectors. It may be cut to smaller size if required.

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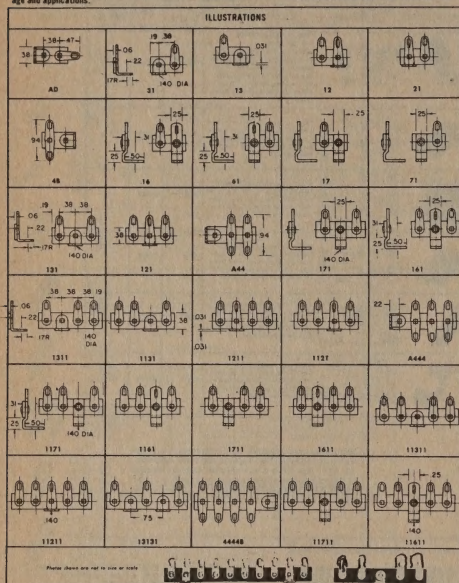
A DIVISION OF

NATIONAL TEL-TRONICS CORP.

The complete, economical line of hardware with many important extra features. NT•T Sales Co., Inc. offers a fully comprehensive and extensive line of electronic hardware and components to meet all the needs of the distributor and manufacturer. Every item offers important features, is excellently packaged, and is economically priced.

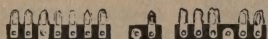
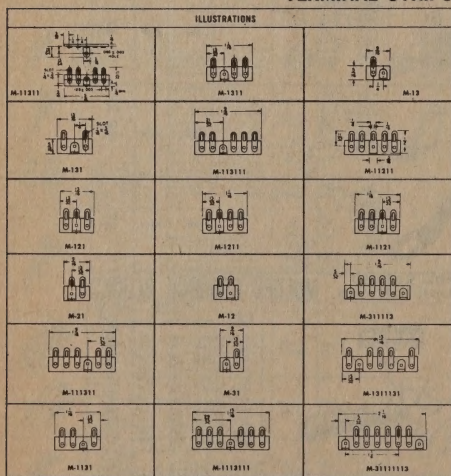
Strips are 1/16" by 3/8" NEMA grade XP laminated phenolic with brass or steel lugs. All are securely eyeletted in position. Lug spacing is .38". NT's T's vast assortment of strips allows for the most complete coverage and applications.

TERMINAL STRIPS



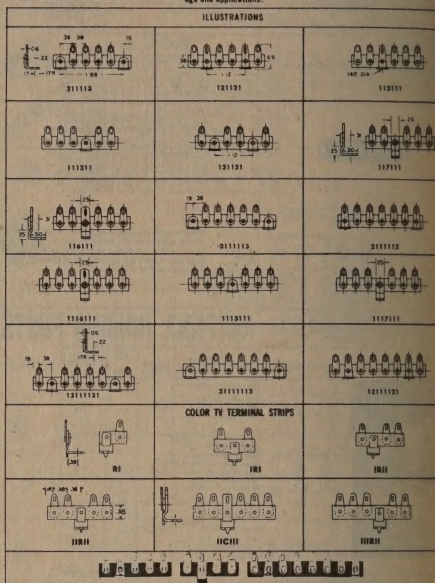
*Indicate BU After Catalog No. When Ordering Bulk Quantities

MINIATURE TERMINAL STRIPS



TERMINAL STRIPS

Strips are 1/16" by 3/8" WEMA grade XP laminated phenolic with brass or steel lugs. All are securely eyeletted in position. Lug spacing is .30". NT-T's vast assortment of strips allows for the most complete coverage and applications.



MOLDED TERMINAL BLOCKS

**910 SERIES
PUSH TYPE RELEASE**

[illegible]

Solderless, flexible, Thermoplastic Terminal Block Accepts stranded tinned or solid wire to 13 AWG. Just press wire into opening. No wrapping, no soldering. Place small blade screw driver in top slot and press to release wire. Contacts are Copper nickel-plated. Maximum operating temperature 212°F. Transit resistance 0.7 Ohms. Units are rated at 380-440 Volts D.C. Ideal for labs, schools, and hobbyists. Type 910 is available up to 24 connectors and may be cut down as desired.

Catalog Number	Std. 10 Pack	
	Color	USA Net Each
910-4	Clear	.25
910-6	Clear	.48
910-8	Clear	.71
910-10	Clear	.94
910-12	Clear	1.17
910-14	Clear	1.40
910-16	Clear	1.63
910-18	Clear	1.86
910-20	Clear	2.09
910-22	Clear	2.32
910-24	Clear	2.55

No. 910-4—Four-connector terminal block
No. 910-6—Six-connector terminal block
No. 910-8—Eight-connector terminal block
No. 910-10—Ten-connector terminal block
No. 910-12—Twelve-connector terminal block
No. 910-14—Fourteen-connector terminal block
No. 910-16—Sixteen-connector terminal block
No. 910-18—Eighteen-connector terminal block
No. 910-20—Twenty-connector terminal block
No. 910-22—Twenty-two-connector terminal block
No. 910-24—Twenty-four-connector terminal block

905 SERIES • FLEXIBLE

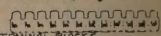
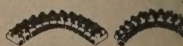
Type No. 905 Solderless Terminal Blocks are specially designed for applications where space and weight conservation are important factors. Because they are molded of dielectric materials, they are	Catalog Number	Color	Std. 10 Pack USA Net Each	Bulk Pack ¹ Qty.	USA Net Each
	905	Gray	1.95	100	1.78
	1. Minimum order 100 units. 2. Price subject to change without notice. 3. Price includes freight and handling charges.				

Type No. 905 Solderless Terminal Blocks are specially designed for applications where space and weight conservation are important factors. Because they are molded of flexible polyvinylchloride material they may be bent in any direction to fit contours and sharp angles. Typical applications for these terminal blocks include missile guidance systems, computers, aircraft communications, underwater detection equipment, etc.

The shortest distance between the live parts of Type No. 905 Terminal Block is 3/8". Its brass terminals will accommodate a #10 wire as a maximum. The polyester material of which the blocks are made is rated at max. of 30 amps, 380 volts, or 440 volts if mounted on insulated surface. Maximum heat capacity: 60° C. Insert conductor in block.

Flexible Terminal Block No. 905 measures 3-3/4" long, 5/8" wide, 1/2" high and 11/32" between terminal centers. It may be cut to smaller sizes as required.

11
32 CENTER TO CENTER



SEE PRECEDING PAGE FOR ADDITIONAL TERMINAL BLOCKS

**whatever electronic products
you require...**



**...you'll find it
faster in
this catalog...**

**...the world's largest catalog
of electronic
products
sold through
distributors**



POMONA ELECTRONICS

3/4" SPACED MOLDED
DOUBLE BANANA PLUGS

Pomona Banana Plug and stack-up accessories are of the highest quality—tough thermo-plastic—molded directly on to the metal body of plugs and connectors for maximum strength, moisture resistance and insulative properties:

General Specifications listed below apply to items using banana plugs in this catalog.

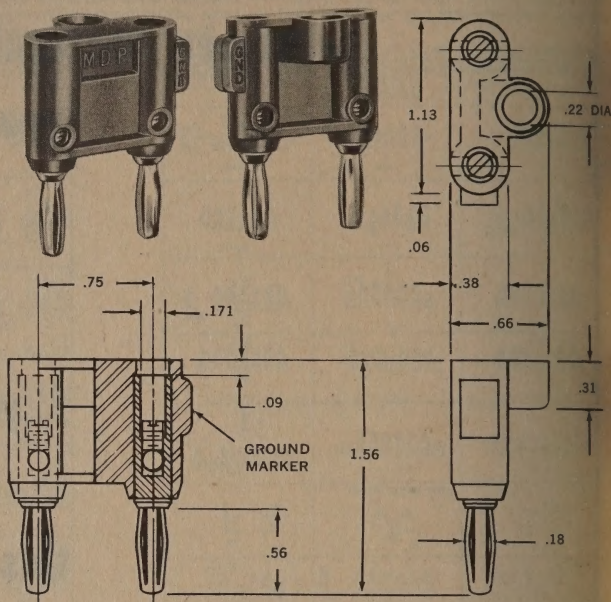
FEATURES . . .

- One piece beryllium copper heat treated spring for maximum long life.
- Rounded spring design results in maximum contact area.
- STACK-UP feature allows an unlimited number of connections at the same electrical point.

SPECIFICATIONS . . .

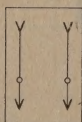
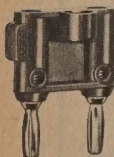
- Fits standard 0.166 dia. banana jacks.
- Spring, beryllium copper alloy 25 per QQ-C-533.
- Plug body, Brass per QQ-B-626 Comp. 22.
- Nickel plated per QQ-N-290, Class 2.
- Contact resistance less than 0.001 ohms per banana plug

ACTUAL SIZE



RATINGS	Models: MDP; MDP-ST; 1330; 1330-ST
Capacity :	0.8 pf to 10 MC
Current :	15 Amps. Cont., 30 Amps. Int.
Voltage :	5000 W.V. D.C.
Temperature :	-25°C to +85°C, operating temp.

DOUBLE BANANA PLUG



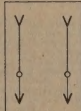
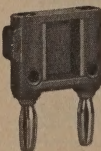
Double banana plug on 3/4" centers; set screws secure leads; simplifies cable construction or component mounting; banana jacks permit top Stack-Up for multiple connections.

COLORS: Black, Brown, Red, Orange, Yellow, Green, Blue, Violet, Gray, White.

MODEL MDP (Specify Color)

QUANTITY DISC. CODE **A** NET .75

COMPONENT MOUNTING DOUBLE BANANA

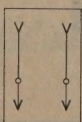
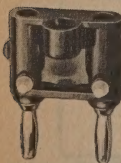


Double banana plug on 3/4" centers; set screws secure leads; features recess for mounting components; banana jacks permit top Stack-Up for multiple connections.

COLORS: Black, Red

MODEL 1330 (Specify Color)

QUANTITY DISC. CODE **A** NET

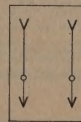
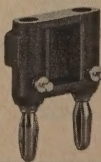
DOUBLE BANANA PLUG WITH
SOLDER TURRET TERMINALS

Similar to Model MDP, except has solder turret terminals for permanent noise-free connections of cables and components. Double banana plug on 3/4" centers; banana jacks permit top Stack-Up for multiple connections.

COLOR: Black

MODEL MDP-ST

QUANTITY DISC. CODE **A** NET .85

COMPONENT PLUG WITH SOLDER
TURRET TERMINALS

Similar to Model 1330, except has solder terminals for permanent noise-free connections of components, etc. Double banana plug on 3/4" centers; banana jacks permit top Stack-Up for multiple connections.

COLORS: Black, Red.

MODEL 1330-ST (Specify Color)

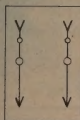
QUANTITY DISC. CODE **A** NET

OMONA ELECTRONICS

BINDING POSTS TO DOUBLE BANANA PLUG



Features insulated binding posts on $\frac{3}{4}$ " centers for rapid mounting and interchangeability of components. Binding posts allow top Stack-Up for multiple connections. Side Stack-Up provided by thru-holes in plug body.



UPPER: Insulated double binding posts, on $\frac{3}{4}$ " centers. Cross holes (.166 dia.) in body provide side Stack-Up connections.

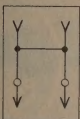
LOWER: Double banana plug, on $\frac{3}{4}$ " centers.

COLORS: Body, Black. Binding Posts, Black/Red.

EL 1286

QUANTITY DISC. CODE **A** NET 2.50

INSULATED SHORTING BAR



Ideal as a connecting link for use with $\frac{3}{4}$ " spaced banana jacks. Banana plugs internally solder-bonded with #14 AWG wire. Banana jacks provide top Stack-Up. Cross holes (.166 dia.) in body provide side Stack-Up connections. Resistance less than 1.5 milliohms installed. Current rating: 15 Amps. Cont., 30 Amps. Int. "Shorting Bar" marked on top of plug.

COLORS: Natural, Black, Red.

EL MDP-S (Specify Color)

QUANTITY DISC. CODE **A** NET .95

METAL SHORTING BAR

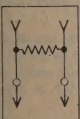


Low profile, nickel plated brass shorting bar. Double banana plugs on $\frac{3}{4}$ " centers swaged to $\frac{3}{32}$ " thick brass bar. Resistance, less than 1.5 milliohms installed. Current rating: 15 Amps. Cont., 30 Amps. Int.

EL 1855

QUANTITY DISC. CODE **A** NET .75

MOLDED PRECISION RESISTOR

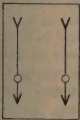


Ideal where rapid interchange of resistance values is required. Used in breadboarding, R & D labs., Standards, Terminations, etc. Deposited carbon 1% resistor, $\frac{1}{2}$ watt, molded internally. Resistor soldered to double banana plug, on $\frac{3}{4}$ " centers. Top Stack-Up provided for multiple connections. Cross holes (.166 dia.) in body provide side Stack-Up connections. Resistance value stamped on top of plug.

50	200	1K	100K	1 Meg.
75	250	5K	200K	2 Meg.
120	500	10K	250K	5 Meg.
130	600	20K	500K	10 Meg.
150	900	50K		

QUANTITY DISC. CODE **A** NET 2.75

ADAPTER — .080 TIP JACKS TO DOUBLE BANANA PLUG



Permits .080 Tip plugs to be used with equipment having banana jacks.

UPPER: Tip jacks, beryllium copper, gold flashed; spaced on $\frac{3}{4}$ " centers to accept .080 dia. pin tip plugs.

LOWER: Double banana plug, on $\frac{3}{4}$ " centers, nickel plated. Cross holes (.166 dia.) in body provide side Stack-Up connections.

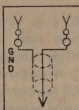
COLOR: Black.

EL 1845

QUANTITY DISC. CODE **A** NET .85

 $\frac{3}{4}$ " SPACED BANANA PLUG TEST ACCESSORIES

ADAPTER — BINDING POSTS TO PHONE PLUG



Permits single or double banana plug to be used with equipment having phone jacks. Ideal for rapid mounting of components and test leads.

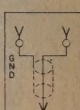
UPPER: Insulated binding posts, on $\frac{3}{4}$ " centers with .166 dia. banana jacks. Cross holes (.166 dia.) in body provide side Stack-Up connections.

LOWER: $\frac{1}{4}$ " dia. phone plug, 1-3/16" long.

COLOR: Body, Black. Binding Posts: Black/Red.

QUANTITY DISC. CODE **A** MODEL 1285 NET 4.85

ADAPTER — BANANA JACKS TO PHONE PLUG



Permits single or double banana plugs to be used with equipment having phone jacks.

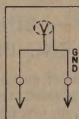
UPPER: Double banana jack, on $\frac{3}{4}$ " centers. Cross holes (.166 dia.) in body provide side Stack-Up connections.

LOWER: Standard $\frac{1}{4}$ " dia. phone plug, 1-3/16" long.

COLOR: Black.

QUANTITY DISC. CODE **A** MODEL 1980 NET 2.85

ADAPTER — MICRODOT RECEPTACLE TO DOUBLE BANANA PLUG



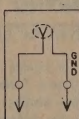
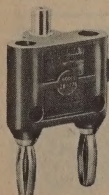
Permits Microdot miniature coaxial plug to be used with equipment having banana jacks. Cross holes in body provide side Stack-Up connections.

UPPER: Microdot receptacle, Screw-On Type.

LOWER: Double banana plug, on $\frac{3}{4}$ " centers. Cross holes (.166 dia.) in body provide side Stack-Up connections.

MODEL	Type (Ohms)	Body Color	Receptacle Thread	NET	QUANTITY DISC. CODE
1275	50	Green	10-32	6.85	A
1277	70	Violet	12-32	6.85	
1279	93	White	$\frac{1}{4}$ -32	6.85	

ADAPTER — MICRODOT RECEPTACLE TO DOUBLE BANANA PLUG



Permits Microdot miniature coaxial plug to be used with equipment having banana jacks. Cross holes in body provide side Stack-Up connections.

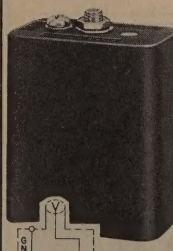
UPPER: Microdot Receptacle, Slide-On Type. Universally adapts to 50, 70 or 93 ohm type plug.

LOWER: Double banana plug, on $\frac{3}{4}$ " centers. Cross holes (.166 dia.) in body provide side Stack-Up connections.

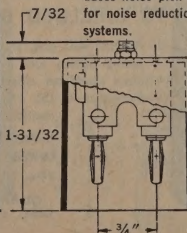
COLOR: Black.

QUANTITY DISC. CODE **A** NET 7.85

ADAPTER — MICRODOT RECEPTACLE TO SHIELDED BANANA PLUGS



Permits Microdot miniature coaxial plug, 50 ohm, to be used with equipment having banana jack binding posts. Black anodized aluminum shield reduces noise pick-up more than 70 dB. Ideal for noise reduction in low level acceleration systems.



UPPER: Microdot Receptacle, Screw-On Type, Receptacle Thread 10-32.

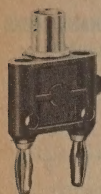
LOWER: Shielded Double banana plug, on $\frac{3}{4}$ " centers.

COLOR: Black.

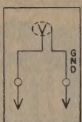
QUANTITY DISC. CODE **A** NET 6.85

POMONA ELECTRONICS

BNC ADAPTERS



ADAPTER — BNC RECEPTACLE TO DOUBLE BANANA PLUG



Permits BNC plug to be used with equipment having banana jacks. Excellent for adapting laboratory VTVM, oscilloscopes and signal generator inputs to readily available coaxial cables.

UPPER: BNC receptacle.

LOWER: Double banana plug, on $\frac{3}{4}$ " centers. Cross holes (.166 dia.) in body provide side Stack-Up connections.

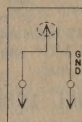
COLOR: Black.

MODEL 1269

QUANTITY DISC. CODE **A** NET 2.85



ADAPTER — BNC PLUG TO DOUBLE BANANA PLUG



Permits BNC receptacle to be used with equipment having banana jacks. Minimizes number of coaxial connections for maximum efficiency.

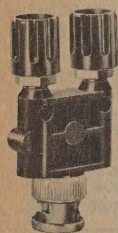
UPPER: BNC plug.

LOWER: Double banana plug, on $\frac{3}{4}$ " centers. Cross holes (.166 dia.) in body provide side Stack-Up connections.

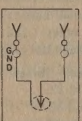
COLOR: Black.

MODEL 1270

QUANTITY DISC. CODE **A** NET 3.85



ADAPTER — BINDING POSTS TO BNC PLUG



Permits single or double banana plugs to be used with equipment having BNC receptacle. Excellent for use with laboratory oscilloscopes.

UPPER: Insulated binding posts, on $\frac{3}{4}$ " centers with .166 dia. banana jacks. Cross holes (.166 dia.) in body provide side Stack-Up connections.

LOWER: BNC plug.

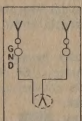
COLOR: Body, Black. Binding Posts: Black/Red.

MODEL 1296

QUANTITY DISC. CODE **A** NET 4.85



ADAPTER — BINDING POSTS TO BNC RECEPTACLE



Permits single or double banana plugs to be used with equipment having BNC plug.

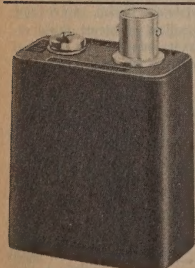
UPPER: Insulated binding posts, on $\frac{3}{4}$ " centers with .166 dia. banana jacks. Cross holes (.166 dia.) in body provide side Stack-Up connections.

LOWER: BNC receptacle.

COLOR: Body, Black. Binding Posts: Black/Red.

MODEL 1452

QUANTITY DISC. CODE **A** NET 4.85



ADAPTER — BNC RECEPTACLE TO SHIELDED BANANA PLUGS

Permits BNC plug to be used with equipment having banana jack binding posts. Black anodized aluminum shield reduces noise Pick-up more than 70 DB. Ideal for low level inputs to oscilloscopes, wave analyzers, etc.

UPPER: BNC receptacle.

LOWER: Shielded double banana plug, on $\frac{3}{4}$ " centers.

QUANTITY DISC. CODE **A**

MODEL 1645

NET 3.45

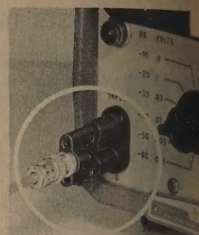
Now! Increase the flexibility of your laboratory with the use of POMONA molded test accessories.

Minimize the necessity of stocking a large quantity and variety of coaxial cables by using POMONA molded adapters.

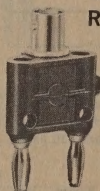
Tough thermo-plastic material molded to plug body or connectors insures maximum strength, moisture resistance and excellent insulative properties.

POMONA ELECTRONICS adapters are designed and engineered with you in mind, from the selection of the best in materials, incorporated with a quality control program that enables us to offer to you, products that are unequalled in reliability and quality.

Complete engineering facilities are offered to our customers for special adapter problems that may arise.



ADAPTER — SIGNAL ISOLATOR — BNC RECEPTACLE TO DOUBLE BANANA PLUG



Permits BNC male connector to be used with equipment having banana jacks. General purpose ceramic capacitor molded internally.

Rated @ .01 mfd $\pm 20\%$, 200 WVDC. Insulation resistance 10,000 megohms min. Ideal for isolating DC signals from VTVM inputs and signal generator outputs.

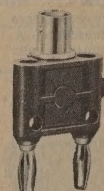
UPPER: BNC receptacle.

LOWER: Double banana plug, on $\frac{3}{4}$ " centers. Cross holes (.166 dia.) in body provide side Stack-Up connections.

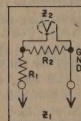
COLOR: Blue.

MODEL 1868

QUANTITY DISC. CODE **A** NET 7.



ADAPTER — BNC MATCHING PAD



Adapts 600 OHM sources to 50, 75 or 93 cables. Excellent for matching signal generator VTVM's to standard coaxial cables. Ideal for resonance alignment. Molded in deposited carbon resistors 1%, $\frac{1}{4}$ W.

UPPER: BNC receptacle.

LOWER: Double banana plug, on $\frac{3}{4}$ " centers. Cross holes (.166 dia.) in body provide side Stack-Up connections.

MODEL
1656-1
1656-2
1656-3

COLOR
Yellow
Red
White

RANGE — OHMS
600 to 50
600 to 75
600 to 93

NET
10.85
10.85
10.85

QUANTITY
DISC. CODE
A



ADAPTER — BNC RECEPTACLE TO SHIELDED BANANA JACKS

Permits BNC plug to be used with equipment having banana plugs. Black anodized aluminum shield reduces noise pick-up more than 70 DB. Ideal for low level inputs to oscilloscopes, wave analyzers, etc.

UPPER: BNC receptacle.

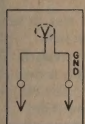
LOWER: Shielded double banana jacks, on $\frac{3}{4}$ " centers.

COLOR: Black.

QUANTITY DISC. CODE **A** NET 3.

MODEL 1681

POMONA ELECTRONICS

ADAPTER — TNC RECEPTACLE
TO DOUBLE BANANA PLUG

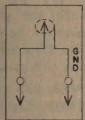
Permits TNC plug to be used with equipment having banana jacks. Perfect for connecting modern control systems to laboratory test equipment.

UPPER: TNC receptacle.

LOWER: Double banana plug, on $\frac{3}{4}$ " centers. Cross holes (.166 dia.) in body provide side Stack-Up connections.

COLOR: Black.

MODEL 1340 QUANTITY DISC. CODE **A** NET 5.85

ADAPTER — TNC PLUG
TO DOUBLE BANANA PLUG

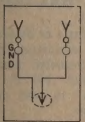
Permits TNC receptacle to be used with equipment having banana jacks. Minimizes your stock of coaxial cables.

UPPER: TNC plug.

LOWER: Double banana plug, on $\frac{3}{4}$ " centers. Cross holes (.166 dia.) in body provide side Stack-Up connections.

COLOR: Black.

MODEL 1981 QUANTITY DISC. CODE **A** NET 6.85

ADAPTER — BINDING POSTS
TO TNC PLUG

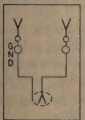
Permits single or double banana plugs to be used with equipment having a TNC receptacle. Exceptional for signal insertion with rapid interchangeability of terminations.

UPPER: Insulated binding posts, on $\frac{3}{4}$ " centers with .166 dia. banana jacks. Cross holes (.166 dia.) in body provide side Stack-Up connections.

LOWER: TNC plug.

COLOR: Body, Black. Binding Posts: Black/Red.

MODEL 1982 QUANTITY DISC. CODE **A** NET 6.85

ADAPTER — BINDING POSTS
TO TNC RECEPTACLE

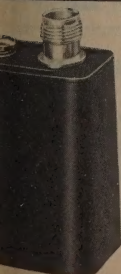
Permits single or double banana plugs to be used with equipment having TNC plug. Useful for rapid interconnection of systems and components.

UPPER: Insulated binding posts, on $\frac{3}{4}$ " centers with .166 dia. banana jacks. Cross holes (.166 dia.) in body provide side Stack-Up connections.

LOWER: TNC receptacle.

COLOR: Body, Black. Binding Posts: Black/Red.

MODEL 1976 QUANTITY DISC. CODE **A** NET 5.85

ADAPTER — TNC RECEPTACLE
TO SHIELDED BANANA PLUGS

Permits TNC plug to be used with equipment having banana jack binding posts. Black anodized aluminum shield reduces noise pick-up more than 70 DB.

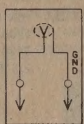
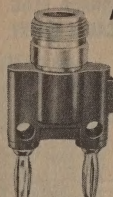
UPPER: TNC receptacle.

LOWER: Double banana plug, on $\frac{3}{4}$ " centers.

COLOR: Black.

MODEL 1975 QUANTITY DISC. CODE **A** NET 4.85

TNC & "N" ADAPTERS

ADAPTER — TYPE "N" RECEPTACLE
TO DOUBLE BANANA PLUG

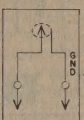
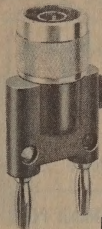
Permits Type "N" plug to be used with equipment having banana jacks. Ideal for connecting R.F. equipment to conventional test equipment.

UPPER: Type "N" receptacle.

LOWER: Double banana plug, on $\frac{3}{4}$ " centers. Cross holes (.166 dia.) in body provide side Stack-Up connections.

COLOR: Black.

MODEL 1740 QUANTITY DISC. CODE **A** NET 5.85

ADAPTER — TYPE "N" PLUG
TO DOUBLE BANANA PLUG

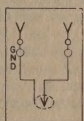
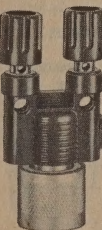
Permits type "N" receptacle to be used with equipment having banana jacks.

UPPER: Type "N" plug.

LOWER: Double banana plug, on $\frac{3}{4}$ " centers. Cross holes (.166 dia.) in body provide side Stack-Up connections.

COLOR: Black.

MODEL 1770 QUANTITY DISC. CODE **A** NET 5.85

ADAPTER — BINDING POSTS
TO TYPE "N" PLUG

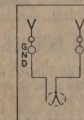
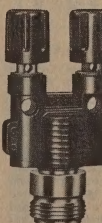
Permits single or double banana plugs to be used with equipment having Type "N" receptacle. Binding posts allow component insertion.

UPPER: Insulated binding posts, on $\frac{3}{4}$ " centers with .166 dia. banana jacks. Cross holes (.166 dia.) in body provide side Stack-Up connections.

LOWER: Type "N" plug.

COLOR: Body, Black. Binding Posts: Black/Red.

MODEL 1796 QUANTITY DISC. CODE **A** NET 5.85

ADAPTER — BINDING POSTS
TO TYPE "N" RECEPTACLE

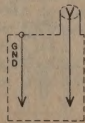
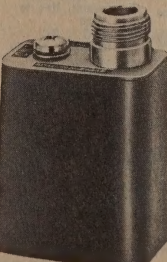
Permits single or double banana plugs to be used with equipment having type "N" plug. Useful for rapid interconnection of systems and components.

UPPER: Insulated binding posts, on $\frac{3}{4}$ " centers with .166 dia. banana jacks. Cross holes (.166 dia.) in body provide side Stack-Up connections.

LOWER: Type "N" receptacle.

COLOR: Body, Black. Binding Posts: Black/Red.

MODEL 1992 QUANTITY DISC. CODE **A** NET 5.85

ADAPTER — TYPE "N" RECEPTACLE
TO SHIELDED BANANA PLUGS

Permits type "N" plug to be used with equipment having banana jack binding posts. Black anodized aluminum shield reduces noise pick-up more than 70 DB.

UPPER: Type "N" receptacle.

LOWER: Double banana plug, on $\frac{3}{4}$ " centers.

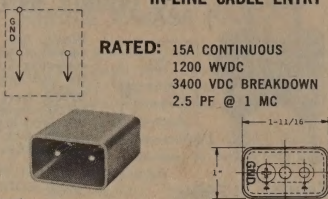
COLOR: Black.

MODEL 1983 QUANTITY DISC. CODE **A** NET 4.85

POMONA ELECTRONICS

SHIELDED BANANA PLUGS
UHF ADAPTERSSHIELDED DOUBLE BANANA PLUG
IN-LINE CABLE ENTRY

RATED: 15A CONTINUOUS
1200 WVDC
3400 VDC BREAKDOWN
2.5 PF @ 1 MC



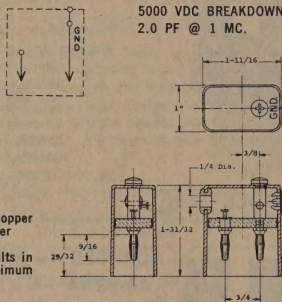
- Shielded double plug $\frac{3}{4}$ " spaced
- Die cast aluminum shell, black anodized
- Noise pick-up reduced 70 DB
- Gold flashed solder turret terminals for positive reliable cable connections
- One piece nickel plated beryllium copper springs for use with standard 0.166 dia. banana jack binding posts.
- Rounded banana spring design results in maximum contact area and minimum contact resistance
- GND clearly molded in shell
- Cable opening, $7/32$ " diameter

MODEL 1433

QUANTITY DISC. CODE **A** NET 2.25

SHIELDED DOUBLE BANANA PLUG
RIGHT ANGLE CABLE ENTRY

RATED: 15A CONTINUOUS
2800 PEAK WV
5000 VDC BREAKDOWN
2.0 PF @ 1 MC.



- Shielded double plug, $\frac{3}{4}$ " spaced
- Ceramic insulating base
- Die cast aluminum shell, black anodized
- GND clearly molded in shell
- Noise pick-up reduced 70 DB
- One piece nickel plated beryllium copper springs for use with $\frac{1}{16}$ diameter banana jack binding posts.
- Rounded banana spring design results in maximum contact area and minimum contact resistance
- Vinyl grommet and nickel plated snap button supplied

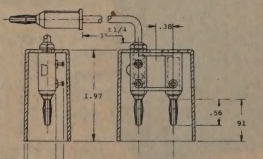
MODEL 1791

QUANTITY DISC. CODE **A** NET 2.95

BALANCED LINE SHIELDED DOUBLE BANANA PLUG

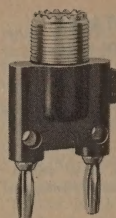
- Unique 3 terminal design allows connection to shielded two conductor cable while maintaining balanced conditions
- Minimizes ground loop errors in low signal level applications
- Noise pick-up reduced at least 70 DB
- Gold flashed solder turret terminals for reliable noise free connections
- One piece nickel plated beryllium copper springs for use with standard 0.166 dia. banana jack binding posts.

RATED:
15A Continuous 5000 V peak break-down, line to line
1000 WV Peak; line to shield 2.0 pf @ 1 MC
2000 WV peak; line to line 3.0 pf @ 1 MC
2500 V peak break-down; line to shield capacity; both lines to shield.

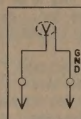


MODEL 1921

QUANTITY DISC. CODE **A** NET 4.85

ADAPTER — UHF RECEPTACLE
TO DOUBLE BANANA PLUG

MODEL 1707



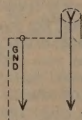
Permits UHF plug to be used with equipment having banana jacks.

UPPER: UHF receptacle, $\frac{3}{8}$ " dia.
LOWER: Double banana plug, on $\frac{3}{4}$ " centers with .166 dia. jacks. In body provide Stack-Up connections.
COLOR: Black.

QUANTITY DISC. CODE **A** NET 4.

ADAPTER — UHF RECEPTACLE
TO SHIELDED BANANA PLUGS

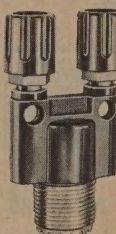
MODEL 1708



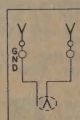
Permits UHF plug to be used with equipment having banana binding posts. Black anodized shield red noise pick-up at least 70 DB.

UPPER: UHF receptacle, $\frac{3}{8}$ " dia.
LOWER: Double banana plug, $\frac{3}{4}$ " centers.
COLOR: Black.

QUANTITY DISC. CODE **A** NET 4.

ADAPTER — BINDING POSTS
TO UHF RECEPTACLE

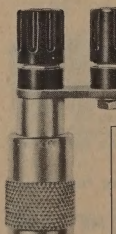
MODEL 1792



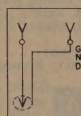
Permits single or double banana plugs to be used with equipment having UHF plug. **UPPER:** Insulated binding posts, on centers with .166 dia. jacks. Cross (1.66 dia.) in body provide side Stack-Up connections.

LOWER: UHF receptacle, $\frac{3}{8}$ " dia.
COLOR: Body, Black. Binding posts: Black.
Red.

QUANTITY DISC. CODE **A** NET 5.

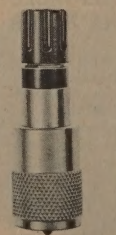
ADAPTER — BINDING POSTS
TO UHF PLUG

MODEL 1699

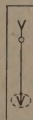


Permits single or double banana plugs to be used with equipment having a UHF receptacle, $\frac{3}{8}$ " dia. Convenient for use with modern oscilloscopes. **UPPER:** Insulated binding post Red; Ground, Black. **LOWER:** Insulated binding posts, on $\frac{3}{4}$ " centers with .166 dia. jacks. **Red.**

QUANTITY DISC. CODE **A** NET 4.

ADAPTER — BINDING POST
TO UHF PLUG

MODEL 1698



Permits single banana plug to be used with equipment having a UHF receptacle, $\frac{3}{8}$ " dia. Adds flexibility to your oscilloscope. **UPPER:** Insulated binding post with .166 dia. banana jack.
LOWER: UHF plug.

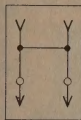
QUANTITY DISC. CODE **A** NET 3.

OMONA ELECTRONICS

INSULATED SHORTING BAR



MODEL 1730
(Specify color)



Used as a connecting link with equipment having tip jacks. Plugs internally solder bonded with 14 AWG wire. Top stack-up feature.

Current rating: 5 AMPS. cont., 10 AMPS. int. "Shorting Bar" marked on top of plug.

UPPER: Banana jacks, .166 dia. on $\frac{3}{4}$ " centers. Brass, nickel plated.

LOWER: Pin tips, .080 dia. on $\frac{3}{4}$ " centers. Brass, nickel plated. Cross holes (.166 dia.) in body provide side Stack-Up connections.

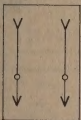
COLORS: Black, Red.

QUANTITY DISC. CODE **A** NET .75

PLUG—COMPONENT MOUNTING— DOUBLE PIN TIP PLUG—SOLDER TURRETS



MODEL 1904 (Specify color)



Features recess for mounting components. Gold flashed solder turrent terminals for permanent noise-free connections.

UPPER: Tip jacks, beryllium copper, gold flashed; spaced on $\frac{3}{4}$ " centers to accept .080 dia. pin tip plugs.

LOWER: Pin tips, .080 dia. brass, nickel plated.

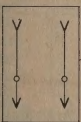
COLORS: Black, Red.

QUANTITY DISC. CODE **A** NET .85

COMPONENT MOUNTING PLUG— BANANA JACKS TO DOUBLE PIN TIP —SET SCREWS



MODEL 1858



Permits single or double banana plugs to be used in equipment having tip jacks. Features recess for component mounting. Internal set screws firmly secure wire leads.

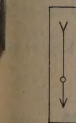
UPPER: Banana jacks, .166 dia., on $\frac{3}{4}$ " centers. Brass, nickel plated.

LOWER: Pin tips, .080 dia. on $\frac{3}{4}$ " centers. Brass, nickel plated.

COLOR: Black.

QUANTITY DISC. CODE **A** NET .75

ADAPTER—BANANA JACK TO PIN TIP



MODEL 1432 (Specify Color)

Permits standard single banana plug patch cords to be used with equipment having tip jacks.

UPPER: Banana jack, .166 dia. Brass, nickel plated.

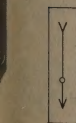
LOWER: Pin tip, .080 dia. Brass, nickel plated. Cross hole (.166 dia.) in body provides side Stack-Up connection.

COLORS: Black, Red.

Standard Package: 10 (per color)

QUANTITY DISC. CODE **A** NET .15

SOLDERLESS PIN TIP PLUG—STACK-UP



MODEL 1922

Wire firmly held in place with internal set screw, eliminating soldering. Assembly of test leads simplified.

UPPER: Tip jack, beryllium copper, gold flashed; accepts .080 dia. pin.

LOWER: Pin tip, .080 dia., brass, nickel plated.

COLORS: Black, Brown, Red, Orange, Yellow, Green, Blue, Violet, Gray, White.

QUANTITY DISC. CODE **A** NET .50

.080 TIP AND BANANA PLUG ACCESSORIES

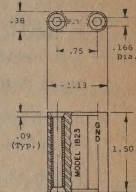
DOUBLE BANANA PLUG SPLICE



MODEL 1823 (Specify color)

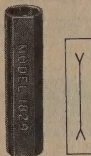
Provides rapid method for splicing extra long cables. Reduces necessity of storing extra long cables. Molded thermo-plastic body eliminates shock hazard by completely enclosing banana plug contact. Brass, nickel plated banana jacks. .166 dia., on $\frac{3}{4}$ " centers.

COLORS: Black, Red.



QUANTITY DISC. CODE **A** NET .50

SINGLE BANANA PLUG SPLICE

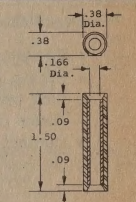


MODEL 1829 (Specify color)

Provides rapid method for splicing single banana plug patch cords. Reduces the necessity of storing extra long patch cords. Molded thermo-plastic body eliminates shock hazard by completely enclosing banana plug contact. Brass, nickel plated banana jack, .166 dia.

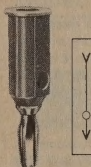
COLORS: Black, Red.

Standard Package: 10 (per color)



QUANTITY DISC. CODE **A** NET .25

ADAPTER—.080 TIP JACK TO BANANA PLUG



MODEL 1809 (Specify Color)

Permits .080 dia. pin tip patch cords to be used with equipment having banana jacks. Insulation molded to plug body.

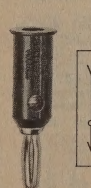
UPPER: Tip jack, beryllium copper, gold flashed. Accepts .080 dia. pin.

LOWER: Banana plug, one piece nickel plated beryllium copper spring for use with standard 0.166 dia. banana jack. Cross hole (.166 dia.) in body provides side Stack-Up connection.

COLORS: Black, Red.

QUANTITY DISC. CODE **A** NET .50

SOLDERLESS BANANA PLUG—STACK-UP



MODEL 1325 (Specify color)

Wire firmly held in place with internal set screw, eliminating soldering. Assembly of test leads simplified.

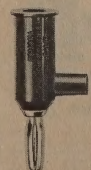
UPPER: Banana jack, .166 dia.; Brass, nickel plated.

LOWER: Banana plug, one piece nickel plated beryllium copper spring for use with standard 0.166 dia. banana jack.

COLORS: Black, Brown, Red, Orange, Yellow, Green, Blue, Violet, Gray, White.

QUANTITY DISC. CODE **A** NET .50

SOLDERLESS BANANA PLUG WITH SAFETY COLLAR—STACK-UP



MODEL 1825 (Specify Color)

Features: Integral safety collar insulates exposed wire leads. Wire firmly held in place with internal set screw, eliminating soldering. Assembly of test leads simplified.

UPPER: Banana jack, .166 dia.; Brass, nickel plated.

LOWER: Banana plug, one piece nickel plated beryllium copper spring for use with standard 0.166 dia. banana jack.

COLORS: Black, Brown, Red, Orange, Yellow, Green, Blue, Violet, Gray, White.

QUANTITY DISC. CODE **A** NET .50

POMONA ELECTRONICS

ISOLATION PLUGS—
COMPONENT MOUNTINGS

CREATE passive and active networks, voltage dividers, isolation networks or attenuators with the Split-Terminal isolation plugs described below.

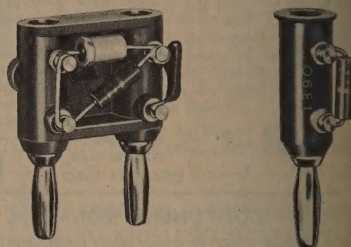
Gold flashed solder turret terminals provide permanent, reliable noise-free connections for component mounting.

Tough thermo-plastic material molded to plug body and connectors insures maximum strength, moisture resistance and excellent insulative properties.

Specifications for MDP-X, 1390, 1837, 1468:

- Fits standard 0.166 dia. banana jack.
- Spring, heat treated beryllium copper alloy 25 per QQ-C-533.
- Plug body, Brass per QQ-B-626 Comp. 22.
- Nickel plated per QQ-N-290, Class 2.
- Contact resistance less than 0.001 ohms per banana plug.

TYPICAL APPLICATION

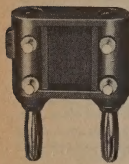


ACTUAL SIZE

MODEL MDP-X

MODEL 1390

DOUBLE BANANA PLUG, FOUR TERMINAL ISOLATION



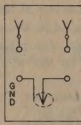
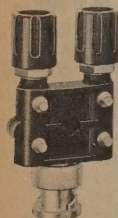
Provides four terminal isolation. Top Stack-Up receptacle isolated from lower plugs. Ideal for insertion of matching networks in laboratory VTVM's, signal generators, etc. Gold flashed solder turret terminals for permanent noise-free connections.

UPPER: Double banana jacks, .166 dia., on $\frac{3}{4}$ " centers.
LOWER: Double banana plug on $\frac{3}{4}$ " centers.
COLOR: Red.

MODEL MDP-X

QUANTITY **A** NET 3.25
DISC. CODE

ADAPTER—BINDING POSTS TO BNC PLUG, ISOLATION



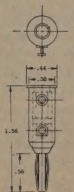
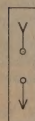
Permits single or double banana plugs to be used with equipment having BNC receptacle. Provides isolation for a four terminal network. Binding posts facilitate connections of test leads or additional components. Gold flashed solder turret terminals provide permanent noise-free connections.

UPPER: Insulated binding posts, on $\frac{3}{4}$ " centers with .166 dia. jacks.
LOWER: BNC plug.
COLOR: Body, Black.
Binding Posts: Black/Red.

MODEL 1469

QUANTITY **A** NET 10.85
DISC. CODE

PLUG—SINGLE BANANA, ISOLATION



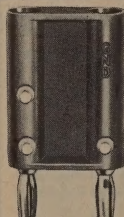
Provides two terminal isolation. Top Stack-Up receptacle is isolated from lower plug to permit addition of series resistors, diodes, etc. Ideal for computers, lab. circuit design and testing. Gold flashed solder turret terminals for permanent noise-free connections.

UPPER: Banana jack, .166 dia.
LOWER: Banana plug.
COLORS: Black, Red.

MODEL 1390 (Specify color)

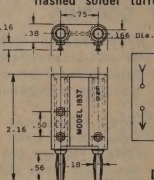
QUANTITY **A** NET .95
DISC. CODE

DOUBLE BANANA PLUG, THREE TERMINAL ISOLATION



MODEL 1837

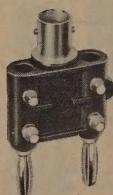
Provides three terminal isolation. Excellent for "L" "Pi" networks. Plug and receptacle nickel plated. Gold flashed solder turret terminals for permanent noise-free connections. "Ground" straight feed-thru. Hot isolated.



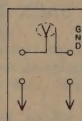
UPPER: Banana jacks, .166 dia. on $\frac{3}{4}$ " centers.
LOWER: Double banana plug on $\frac{3}{4}$ " centers.
COLOR: Blue.

QUANTITY **A** NET 2
DISC. CODE

ADAPTER—BNC RECEPTACLE TO DOUBLE BANANA PLUG, ISOLATION



MODEL 1468

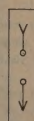


Permits BNC plug to be used with equipment having banana jacks. Provides isolation for four terminal network. Excellent for matching pad networks. Gold flashed solder turret terminals for permanent noise-free connections.

UPPER: BNC receptacle.
LOWER: Double banana plug, on $\frac{3}{4}$ " centers.
COLOR: Black.

QUANTITY **A** NET 9
DISC. CODE

PLUG—PIN TIP, ISOLATION

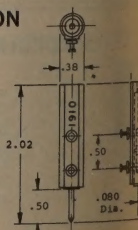


Pin tip jack is isolated from .080 pin tip plug. Provides for addition of series components. Ideal for use with computer boards, lab circuit designs, etc. Gold flashed solder turret terminals for permanent noise-free connections.

UPPER: Tip jack, beryllium copper, gold flashed; accepts .080 dia. pin.
LOWER: Pin tip, .080 dia. Brass, nickel plated.
COLORS: Black Red.

MODEL 1910 (Specify color)

QUANTITY **A** NET
DISC. CODE



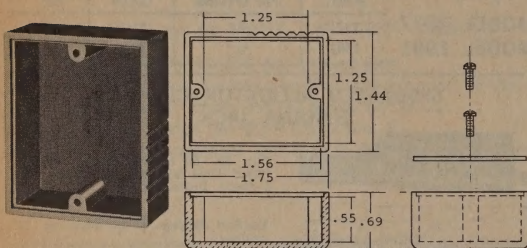
ADAPTER — AMP PROGRAM BOARD

POMONA ELECTRONICS

Boxes of unlimited uses for packaging of components and circuitry. Also ideal for potting and encapsulating. Available in three sizes as shown below. Housing molded of thermosetting electrical grade phenolic. Cover, punched XXP laminated paper base phenolic. Color, Housing and cover, Black. Cover plate and self tapping screws included.

Operating Temperature: -25°C to $+125^{\circ}\text{C}$.

BLACK BOX—JUNIOR SIZE



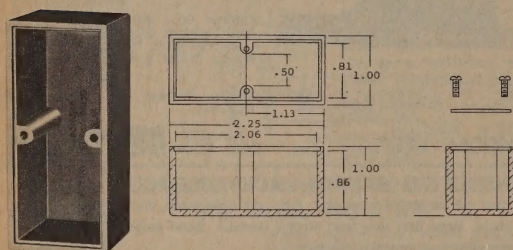
MODEL 2105

QUANTITY
DISC. CODE

A

NET .75

BLACK BOX—QUEEN SIZE



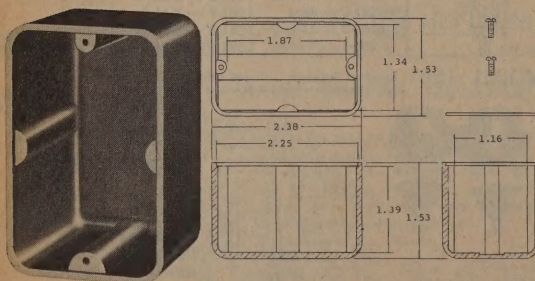
MODEL 2103

QUANTITY
DISC. CODE

A

NET .75

BLACK BOX—KING SIZE



MODEL 2104

QUANTITY
DISC. CODE

A

NET .75

"BLACK BOXES"

CREATE passive and active networks, voltage dividers, isolation networks or attenuators with these units. Solder terminals for permanent noise-free connection of components etc. Entire unit may be potted or encapsulated.

Housing molded of thermosetting electrical grade phenolic. Cover, punched XXP laminated paper base phenolic. Color, housing and cover, BLACK. Cover plate and self tapping screws included.

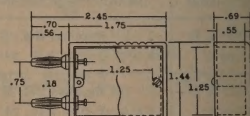
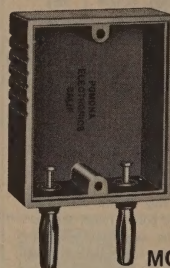
APPLICABLE SPECIFICATIONS:

Operating Temp: -25°C to $+125^{\circ}\text{C}$.

Working Voltage: 5000 VDC.

Current: 15 Amps Cont., 30 Amps Int.

COMPONENT MOUNTING—ACROSS BANANA PLUGS



UPPER: No Connection.

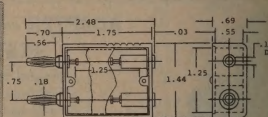
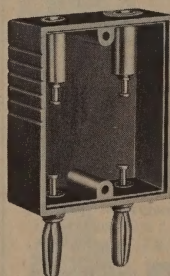
LOWER: Banana plugs on $\frac{3}{4}$ " centers. piece beryllium copper spring, heat treated nickel plated. Plug body and solder terminals, brass, nickel plated. For use standard .166" dia. banana jacks.

QUANTITY
DISC. CODE

A

NET 1

COMPONENT MOUNTING—BANANA JACKS TO DOUBLE BANANA PLUG—JUNIOR SIZE



UPPER: Banana jacks, .166" dia. and der turret terminals on $\frac{3}{4}$ " centers. Brass, nickel plated. Polarity indicator on color, RED.

LOWER: Banana plugs on $\frac{3}{4}$ " centers. piece beryllium copper spring, heat treated nickel plated. Plug body and solder terminals, brass, nickel plated. For use standard .166" dia. banana jacks.

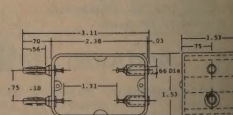
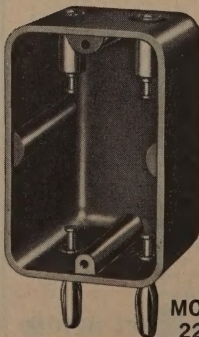
MODEL 2098

QUANTITY
DISC. CODE

A

NET 2

COMPONENT MOUNTING—BANANA JACKS TO DOUBLE BANANA PLUG—KING SIZE



UPPER: Banana jacks, .166" dia. and der turret terminals on $\frac{3}{4}$ " centers. Brass, nickel plated. Polarity indicator on color, RED.

LOWER: Banana plugs on $\frac{3}{4}$ " centers. piece beryllium copper spring, heat treated nickel plated. Plug body and solder terminals, brass, nickel plated. For use standard .166" dia. banana jacks.

MODEL
2224QUANTITY
DISC. CODE

A

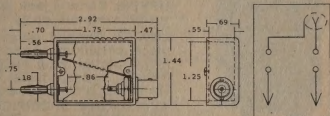
NET 2

OMONA ELECTRONICS

"BLACK BOXES"

ATE passive and active networks, voltage dividers, ation networks or attenuators with these units. er turret terminals for permanent noise-free con- on of components, etc. Entire unit may be potted and encapsulated.

COMPONENT MOUNTING—BNC RECEPTACLE TO DOUBLE BANANA PLUG



UPPER: BNC Receptacle UG1094/U

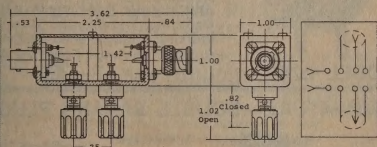
LOWER: Banana plugs on $\frac{3}{4}$ " centers. One piece beryllium copper spring, heat treated, nickel plated. Plug body and solder turret terminals, brass, nickel plated. For use with standard .166" dia. banana jacks.

APPLICABLE SPECIFICATIONS:

Operating Temp: -25°C to $+125^{\circ}\text{C}$.
Working Voltage: 500 V Peak.

EL 2097 QUANTITY DISC. CODE **A** NET 3.85

COMPONENT MOUNTING—BNC RECEPTACLE TO BNC PLUG WITH BINDING POSTS



UPPER: BNC Receptacle UG290A/U

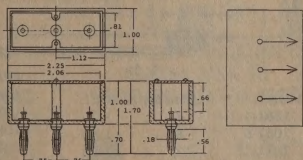
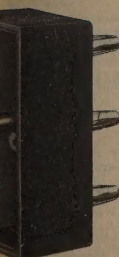
CENTER: Banana jack binding posts with solder turret terminals. Red and Black.

LOWER: BNC Plug, UG1104A/U.

APPLICABLE SPECIFICATIONS:

Operating Temp: -25°C to $+125^{\circ}\text{C}$.
Working Voltage: 500 V Peak.

EL 2100 QUANTITY DISC. CODE **A** NET 8.95

(3) $\frac{3}{4}$ " SPACED BANANA PLUGS

Three-in-line $\frac{3}{4}$ " Spaced Banana Plugs.

One piece beryllium copper spring, heat treated, nickel plated. Plug body and solder turret terminals, brass, nickel plated. For use with standard .166" dia. banana jacks.

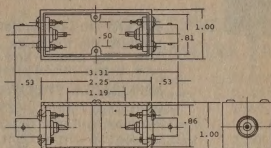
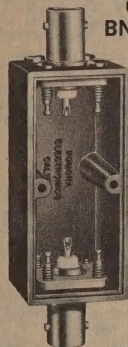
APPLICABLE SPECIFICATIONS:

Operating Temp: -25°C to $+125^{\circ}\text{C}$.
Working Voltage: 5000 VDC.
Current: 15 Amps Cont., 30 Amps Int.

EL 2095 QUANTITY DISC. CODE **A** NET 2.75

Housing molded of thermosetting electrical grade phenolic. Cover, punched XPP laminated paper base phenolic. Color, housing and cover, BLACK. Cover plate and self tapping screws included.

COMPONENT MOUNTING—BNC RECEPTACLE BOTH ENDS



UPPER: BNC Receptacle UG290A/U

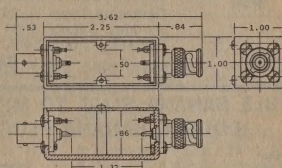
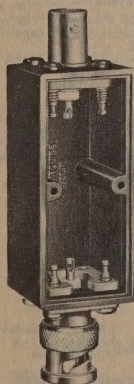
LOWER: BNC Receptacle UG290A/U

APPLICABLE SPECIFICATIONS:

Operating Temp: -25°C to $+125^{\circ}\text{C}$.
Working Voltage: 500 V Peak.

MODEL 2101 QUANTITY DISC. CODE **A** NET 4.85

COMPONENT MOUNTING—BNC RECEPTACLE TO BNC PLUG



UPPER: BNC Receptacle UG290A/U

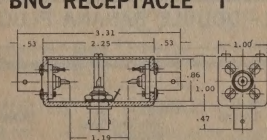
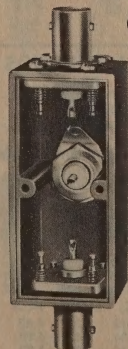
LOWER: BNC Plug UG1104A/U

APPLICABLE SPECIFICATIONS:

Operating Temp: -25°C to $+125^{\circ}\text{C}$.
Working Voltage: 500 V Peak.

MODEL 2099 QUANTITY DISC. CODE **A** NET 6.85

COMPONENT MOUNTING—BNC RECEPTACLE "T"



UPPER: BNC Receptacle UG290A/U

CENTER: BNC Receptacle UG1094/U

LOWER: BNC Receptacle UG290A/U

APPLICABLE SPECIFICATIONS:

Operating Temp: -25°C to $+125^{\circ}\text{C}$.
Working Voltage: 500 V Peak.

MODEL 2102 QUANTITY DISC. CODE **A** NET 7.85

POMONA ELECTRONICS

SHIELDED "BLACK BOXES"

NOW AVAILABLE, *SHIELDED* "BLACK BOXES." Boxes that fulfill the requirement for RF applications.

Ideal for compact packaging, eg., voltage dividers, isolation networks, impedance matching networks, and other varied uses.

Cover and self-tapping screws included.

APPLICABLE SPECIFICATIONS: (ALL MODELS)

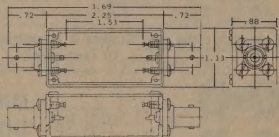
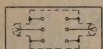
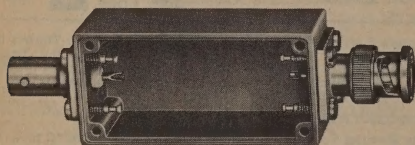
Operating Temp.: -55°C to +150°C.

Working Voltage: 500 V Peak (Model 2415, 1500 V Peak).

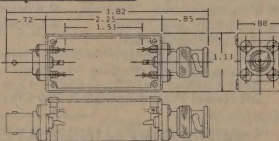
Noise Rejection: Greater than 70DB.

NEW**COMPONENT MOUNTING—
BNC RECEPTACLE BOTH ENDS**

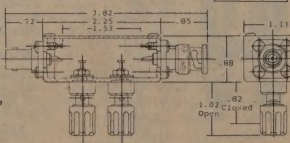
CONN: } BNC Receptacle Jack,
1st END } UG290A/U.
CONN: } BNC Receptacle Jack,
2nd END } UG290A/U.

**MODEL 2390**QUANTITY
DISC. CODE **A****NET 6.85****NEW****COMPONENT MOUNTING—
BNC RECEPTACLE TO BNC PLUG**

CONN: } BNC Receptacle Jack,
1st END } UG290A/U.
CONN: } BNC Receptacle Plug,
2nd END } UG1104A/U.

**MODEL 2391**QUANTITY
DISC. CODE **A****NET 7.85****COMPONENT MOUNTING—BNC RECEPTACLE TO
BNC PLUG WITH BINDING POSTS****NEW**

CONN: } BNC Receptacle Jack,
1st END } UG290A/U.
CENTER: Banana Jack binding
posts with solder turret
terminals. Red and Black.
CONN: } BNC Receptacle Plug,
2nd END } UG1104A/U.

**MODEL 2393**QUANTITY
DISC. CODE **A****NET 10.85****MODEL 2397**

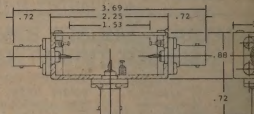
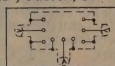
Above boxes available blank, less connectors.
Finish: BLUE per above. Includes cover and mounting screws.

FEATURES:

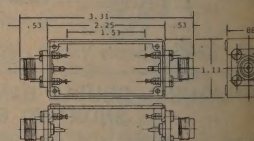
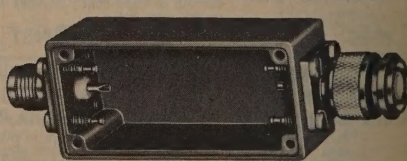
- **SHIELDED HOUSING;** Die Cast Aluminum. FINISH: Baked enamel per Federal Standard 595 #25109 over phosphoric etch per MIL-C-15328A.
- **COVER;** .040 Thick Aluminum #6061-T6 with clear anodized finish per MIL-A-8625A.
- Four screws secure cover for proper shielding.
- Solder turret terminals for permanent noise free connection of components.

**COMPONENT MOUNTING—
BNC RECEPTACLE "T"**

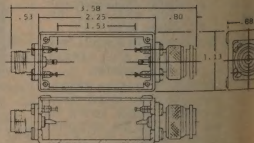
CONN: } BNC Receptacle Jack,
1st END } UG290A/U.
CENTER: BNC Receptacle Jack,
UG290A/U.
CONN: } BNC Receptacle Jack,
2nd END } UG290A/U.

**MODEL 2392**QUANTITY
DISC. CODE **A****NET 9.50****COMPONENT MOUNTING—
TNC RECEPTACLE BOTH ENDS**

CONN: } TNC Receptacle Jack.
1st END }
CONN: } TNC Receptacle Jack.
2nd END }

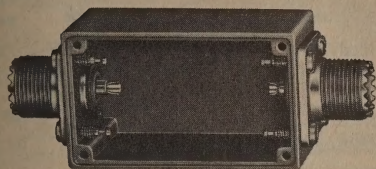
**MODEL 2396**QUANTITY
DISC. CODE **A****NET 7.85****COMPONENT MOUNTING—
TNC RECEPTACLE TO TNC PLUG**

CONN: } TNC Receptacle Jack.
1st END }
CONN: } TNC Receptacle Plug.
2nd END }

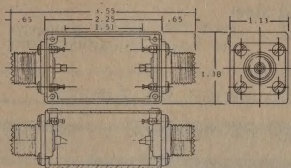
**MODEL 2395**QUANTITY
DISC. CODE **A****NET 9.50****MODEL 2397**QUANTITY
DISC. CODE **A****NET 15.00**

POMONA ELECTRONICS

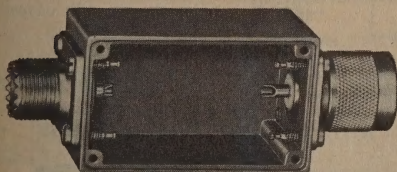
SHIELDED "BLACK BOXES"

NEW COMPONENT MOUNTING—
UHF RECEPTACLE BOTH ENDS

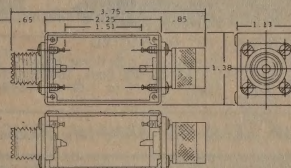
CONN: } UHF Receptacle Jack.
1st END
CONN: } UHF Receptacle Jack.
2nd END



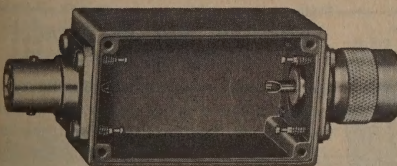
MODEL 2412 QUANTITY DISC. CODE **A** NET 6.85

NEW COMPONENT MOUNTING—
UHF RECEPTACLE TO UHF PLUG

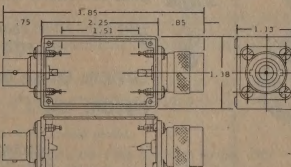
CONN: } UHF Receptacle Jack.
1st END
CONN: } UHF Receptacle Plug.
2nd END



MODEL 2413 QUANTITY DISC. CODE **A** NET 9.50

EW COMPONENT MOUNTING—
TYPE "C" RECEPTACLE TO TYPE "C" PLUG

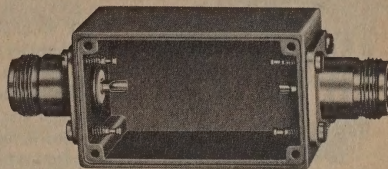
CONN: } Type "C" Receptacle
1st END } Jack, UG568/U.
CONN: } Type "C" Receptacle
2nd END } Plug.



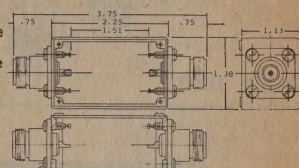
MODEL 2415 QUANTITY DISC. CODE **A** NET 11.75

MODEL 2417

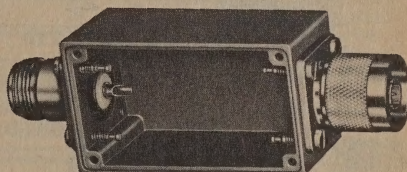
Above boxes available blank, less connectors.
Finish: BLUE, per above. Includes cover and mounting screws.

COMPONENT MOUNTING—
TYPE "N" RECEPTACLE BOTH ENDS **NEW**

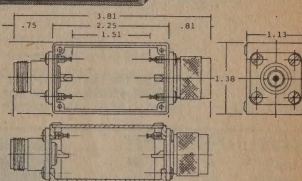
CONN: } Type "N" Receptacle
1st END } Jack, UG58A/U.
CONN: } Type "N" Receptacle
2nd END } Jack, UG58A/U.



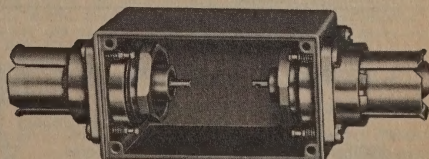
MODEL 2410 QUANTITY DISC. CODE **A** NET 6.85

COMPONENT MOUNTING—
TYPE "N" RECEPTACLE TO TYPE "N" PLUG **NEW**

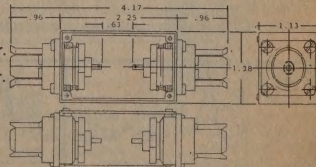
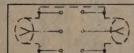
CONN: } Type "N" Receptacle
1st END } Jack, UG58A/U.
CONN: } Type "N" Receptacle
2nd END } Plug.



MODEL 2411 QUANTITY DISC. CODE **A** NET 9.85

COMPONENT MOUNTING—
GR-874 CONNECTOR BOTH ENDS **NEW**

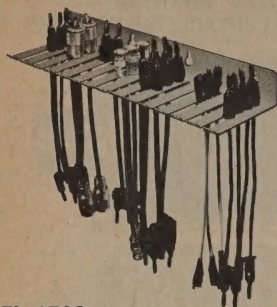
CONN: } Type GR-874 Connector.
1st END }
CONN: } Type GR-874 Connector.
2nd END }



MODEL 2416 QUANTITY DISC. CODE **A** NET 24.75

QUANTITY DISC. CODE **A** NET 1.50

POMONA ELECTRONICS

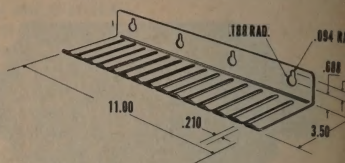
MISCELLANEOUS
ACCESSORIES

MODEL 1508

TEST LEAD HOLDER

No need to spend time searching for a particular test lead. With this new rack, all of your patch cords and cable assemblies can be conveniently filed for instant selection—within easy reach. Holder mounts quickly on any vertical surface. Test leads are easy to store, easy to remove. Accepts cables up to .210" in diameter.

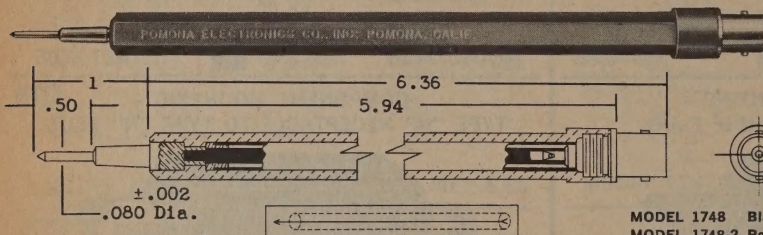
MATERIAL: Cold Rolled Steel.
FINISH: Baked Enamel.
COLOR: Orange.



QUANTITY **A**
DISC. CODE

NET 2

TEST PROBE TO BNC RECEPTACLE



BNC receptacle in handle connects to tip. Permits the use of cables with BNC plug for testing as a test prod. Tough moplastic molded to BNC receptacle and tip.

PIN TIP: .080" dia. x 1/2" brass, nickel plated.
RECEPTACLE: BNC, UG1094/

MODEL 1748 Black
MODEL 1748-2 Red

QUANTITY **A**
DISC. CODE

NET 4

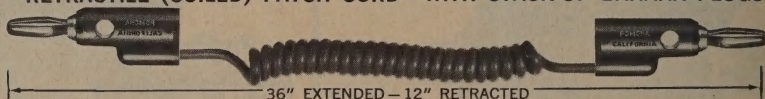
QUANTITY **A**
DISC. CODE

MODEL
2484-36

MODEL	LENGTH	NET
1959-4	4"	.95
1959-8	8"	.95
1959-12	12"	.95
1959-24	24"	.95
1959-36	36"	.95
1959-48	48"	1.00
1959-60	60"	1.05

MODEL 1959
(Specify Color)

RETRACTILE (COILED) PATCH CORD—WITH STACK-UP BANANA PLUGS



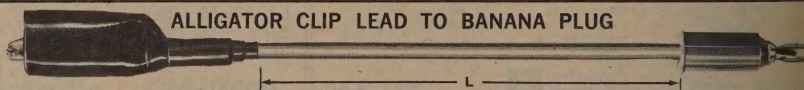
Permits the use of one size patch cord in place of many various lengths. **BANANA PLUGS:** Spring, one piece beryllium copper heat treated, nickel plated. Tough thermoplastic molded to body and wire. **WIRE:** 20 AWG;

Stranding 41 x 36 tinned copper; rubber insulation .145" O.D. RATED: 4 A. Cont., 10 A Int./5000 WVDC. **OPERATING TEMP.:** -20°C to +60°C. **COLOR:** Red.

NET 2

QUANTITY **A**
DISC. CODE

ALLIGATOR CLIP LEAD TO BANANA PLUG



Adapts to equipment using standard banana jacks. **CLIP:** Alligator, steel, cad plated. **BANANA PLUG:** Spring, one piece beryllium copper, heat treated, nickel plated. Tough thermoplastic molded to body.

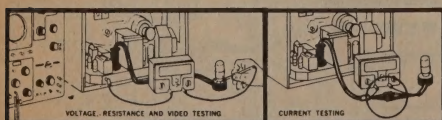
INSULATOR: Red vinyl with red wire. Black on all other cords. **WIRE:** 18 AWG, Strand, 65 x 36 T.C. Extra flexible poly insulation .144" O.D. **OPERATING TEMP.:** -25°C to +105°C. **COLORS:** Black, Red.

Universal Harness

TESTING ADAPTER

Takes the Trouble out of Trouble Shooting!

TEST SOCKET: Extended test tabs, phosphor bronze contacts, heavy duty molded phenolic base with easy-to-read socket connections. **CURRENT MEASUREMENT CONNECTIONS:** Fully insulated, molded .080 phone tip plugs. **INSULATED PLUG:** Fits either shielded or unshielded tube sockets.

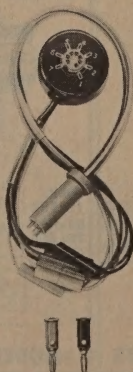


Model 1737 (7 Pin) Model 1738 (8 Pin) Model 1739 (9 Pin)

QUANTITY DISC. CODE **D**

NET 9.95

* Various lengths may be aggregated for best quantity price.

ADAPTER—BNC RECEPTACLE TO
SINGLE BANANA PLUG

Permits BNC plug to be used with equipment having banana jacks. Inner conductor connected only. Excellent for adapting laboratory VTVM, oscilloscopes and signal generators to readily available coaxial cables.

UPPER: BNC receptacle, UG1094/U.

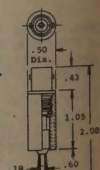
LOWER: Single Banana Plug.

COLOR: Black.

QUANTITY **A**
DISC. CODE

MODEL 1894

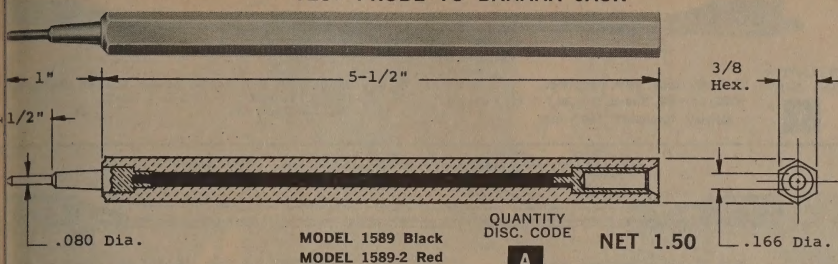
NET 2



POMONA ELECTRONICS

TEST PROBES

TEST PROBE TO BANANA JACK

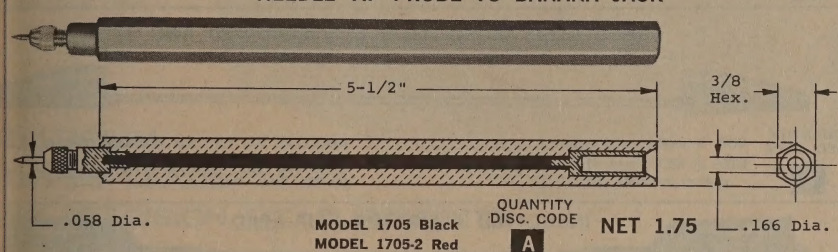


Banana jack in handle connected to tip. Permits use of standard banana plugs for circuit testing as a test prod. Heavy duty insulated handle molded to banana jack and tip.

PIN TIP: .080 dia. x 1/2" long, brass nickel plated.

BANANA JACK: .166 dia. Brass nickel plated. Accepts standard banana plug.

NEEDLE TIP PROBE TO BANANA JACK

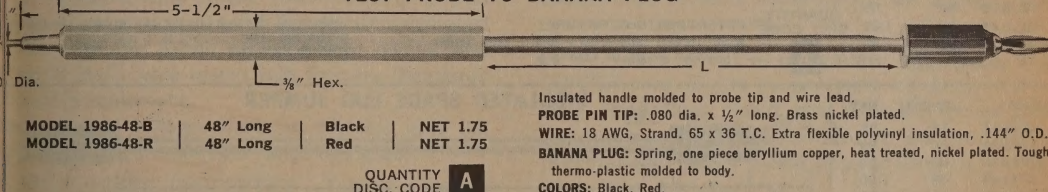


Sharp replaceable needle tip allows testing of encapsulated circuits. Banana jack in handle connected to tip. Permits use of standard banana plugs for circuit testing as a test prod. Heavy duty insulated handle molded to banana jack and tip.

PIN TIP: Replaceable needle tip, steel nickel plated.

BANANA JACK: .166 dia. Brass nickel plated. Accepts standard banana plug.

TEST PROBE TO BANANA PLUG



Insulated handle molded to probe tip and wire lead.

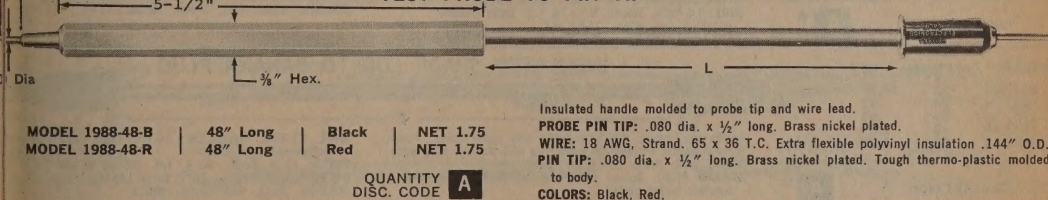
PROBE PIN TIP: .080 dia. x 1/2" long. Brass nickel plated.

WIRE: 18 AWG, Strand. 65 x 36 T.C. Extra flexible polyvinyl insulation, .144" O.D.

BANANA PLUG: Spring, one piece beryllium copper, heat treated, nickel plated. Tough thermo-plastic molded to body.

COLORS: Black, Red.

TEST PROBE TO PIN TIP



Insulated handle molded to probe tip and wire lead.

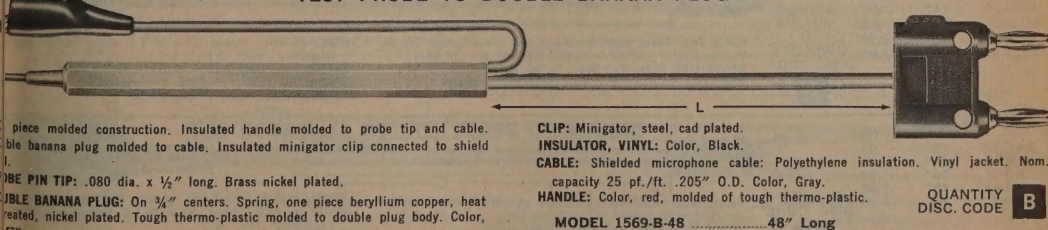
PROBE PIN TIP: .080 dia. x 1/2" long. Brass nickel plated.

WIRE: 18 AWG, Strand. 65 x 36 T.C. Extra flexible polyvinyl insulation, .144" O.D.

PIN TIP: .080 dia. x 1/2" long. Brass nickel plated. Tough thermo-plastic molded to body.

COLORS: Black, Red.

TEST PROBE TO DOUBLE BANANA PLUG



piece molded construction. Insulated handle molded to probe tip and cable. Double banana plug molded to cable. Insulated minigator clip connected to shield lead.

PIN TIP: .080 dia. x 1/2" long. Brass nickel plated.

DOUBLE BANANA PLUG: On 3/4" centers. Spring, one piece beryllium copper, heat treated, nickel plated. Tough thermo-plastic molded to double plug body. Color, gray.

CLIP: Minigator, steel, cad plated.

INSULATOR, VINYL: Color, Black.

CABLE: Shielded microphone cable: Polyethylene insulation. Vinyl jacket. Nom. capacity 25 pf./ft. .205" O.D. Color, Gray.

HANDLE: Color, red, molded of tough thermo-plastic.

POMONA ELECTRONICS

JUMPERS—
CLIP LEADS

MODEL	LENGTH	NET
MG-B-4	4"	.95
MG-B-8	8"	.95
MG-B-12	12"	.95
MG-B-24	24"	.95
MG-B-36	36"	.95
MG-B-48	48"	1.00
MG-B-60	60"	1.05

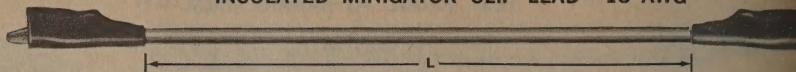
(Specify Color)

QUANTITY
DISC. CODE

A ★

CLIP: Minigator, steel, cad plated.
WIRE: 18 AWG, Strand. 65 x 36 T.C. Extra flexible
polyvinyl insulation .144" O.D.

INSULATOR: Red vinyl with red wire. Black on all other
colors.
OPERATING TEMP.: -25°C to +105°C.
COLORS: Black, Red.



MODEL	LENGTH	NET
1236-4	4"	.95
1236-8	8"	.95
1236-12	12"	.95
1236-24	24"	.95
1236-36	36"	.95
1236-48	48"	1.00
1236-60	60"	1.05

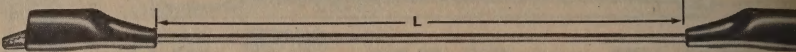
(Specify Color)

QUANTITY
DISC. CODE

A ★

CLIP: Minigator, steel, cad. plated.
WIRE: 20 AWG, Strand. 41 x 36 T.C. Extra flexible
polyvinyl insulation, .087" O.D.

INSULATOR: Red Vinyl with Red Wire. Black on all
colors.
OPERATING TEMP.: -25°C to +105°C.
COLORS: Black, Red.



MODEL	LENGTH	NET
1613-4	4"	.95
1613-8	8"	.95
1613-12	12"	.95
1613-24	24"	.95
1613-36	36"	.95
1613-48	48"	1.00
1613-60	60"	1.05

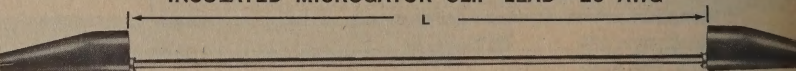
(Specify Color)

QUANTITY
DISC. CODE

A ★

CLIP: Microgator, solid copper.
WIRE: 20 AWG, Strand. 41 x 36 T.C. Extra flexible
polyvinyl insulation, .087" O.D.

INSULATOR: Red Vinyl with Red Wire. Black on all
colors.
OPERATING TEMP.: -25°C to +105°C.
COLORS: Black, Red.



MODEL	LENGTH	NET
AL-B-4	4"	.95
AL-B-8	8"	.95
AL-B-12	12"	.95
AL-B-24	24"	.95
AL-B-36	36"	.95
AL-B-48	48"	1.00
AL-B-60	60"	1.05

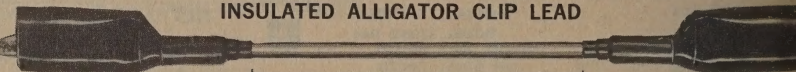
(Specify Color)

QUANTITY
DISC. CODE

A ★

CLIP: Alligator, steel, cad plated.
WIRE: 18 AWG, Strand. 65 x 36 T.C. Extra flexible
polyvinyl insulation .144" O.D.

INSULATOR: Red vinyl with red wire. Black on all other
colors.
OPERATING TEMP.: -25°C to +105°C.
COLORS: Black, Red.



MODEL	LENGTH	NET
1743-12	12"	.95
1743-24	24"	.95
1743-36	36"	.95
1743-48	48"	1.00
1743-60	60"	1.05

(Typical Dimensions
spade lug)

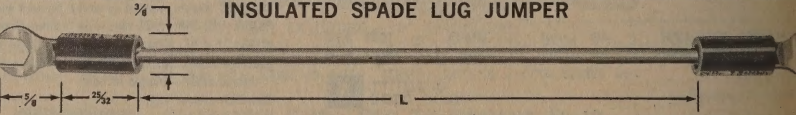
(Specify Color)

QUANTITY
DISC. CODE

A ★

Spade lug heavy duty machined one piece brass. Tough
thermo-plastic molded to spade lug and pin tip body.
SPADE LUGS: Brass $\frac{1}{8}$ " thick, nickel plated.
WIRE: 18 AWG, Strand. 65 x 36 T.C. Extra flexible
polyvinyl insulation .144" O.D.

RATED: 15 A. Cont., 30 A. Int. 10,000 W.V.D.C.
OPERATING TEMP.: -25°C to +105°C.
COLORS: Black, Red, Green, White.



MODEL	LENGTH	NET
1987-12	12"	.95
1987-24	24"	.95
1987-36	36"	.95
1987-48	48"	1.00
1987-60	60"	1.05

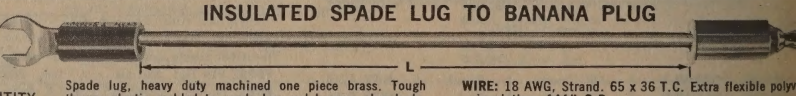
(Specify Color)

QUANTITY
DISC. CODE

A ★

Spade lug, heavy duty machined one piece brass. Tough
thermo-plastic molded to spade lug and banana plug body.
SPADE LUG: Brass $\frac{1}{8}$ " thick, nickel plated.
BANANA PLUG: Spring one piece beryllium copper heat
treated, nickel plated.

WIRE: 18 AWG, Strand. 65 x 36 T.C. Extra flexible poly
insulation .144" O.D.
RATED: 15 A. Cont., 30 A. Int. 10,000 W.V.D.C.
OPERATING TEMP.: -25°C to +105°C.
COLORS: Black, Red, Green, White.



MODEL	LENGTH	NET
1989-12	12"	.95
1989-24	24"	.95
1989-36	36"	.95
1989-48	48"	1.00
1989-60	60"	1.05

(Specify Color)

QUANTITY
DISC. CODE

A ★

Spade lug, heavy duty machined one piece brass. Tough
thermo-plastic molded to spade lug and pin tip body.
SPADE LUG: Brass $\frac{1}{8}$ " thick, nickel plated.
PIN TIP: .080 dia. $\frac{1}{2}$ " long. Brass nickel plated.

WIRE: 18 AWG, Strand. 65 x 36 T.C. Extra flexible poly
insulation .144" O.D.
RATED: 15 A. Cont., 10 A. Int. 10,000 W.V.D.C.
OPERATING TEMP.: -25°C to +105°C.
COLORS: Black, Red, Green, White.



MODEL	LENGTH	NET
1960-12	12"	.95
1960-24	24"	.95
1960-36	36"	.95
1960-48	48"	1.00
1960-60	60"	1.05

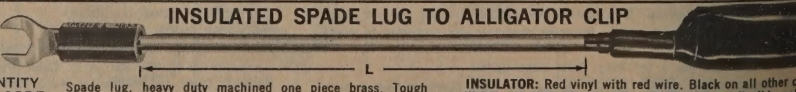
(Specify Color)

QUANTITY
DISC. CODE

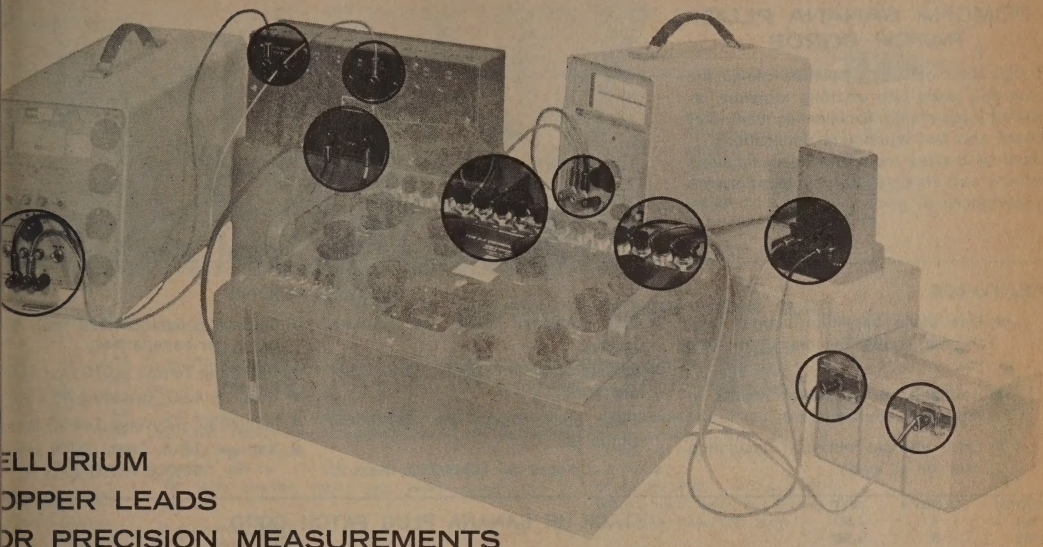
A ★

Spade lug, heavy duty machined one piece brass. Tough
thermo-plastic molded to spade lug body.
SPADE LUG: Brass $\frac{1}{8}$ " thick, nickel plated.
CLIP: Alligator, steel, cad plated.

INSULATOR: Red vinyl with red wire. Black on all other
colors.
WIRE: 18 AWG, Strand. 65 x 36 T.C. Extra flexible poly
insulation .144" O.D.
OPERATING TEMP.: -25°C to +105°C.
COLORS: Black, Red, Green, White.



POMONA ELECTRONICS

JUMPERS—
LOW THERMAL E.M.F.TELLURIUM
COPPER LEADS
FOR PRECISION MEASUREMENTS

POMONA ELECTRONICS has advanced the state of the art in measurements where Thermoelectric Effects are significant sources of error. Comparators designed to use with the Kelvin-Varley voltage divider and microvolt leads were tested with Primary Standards Laboratory equipment.

Thermoelectric voltages were not detected until the most sensitive galvanometer range was used.

THERMOELECTRIC PROPERTIES—Tellurium copper cold-plated spade lugs cold-staked to multi-stranded

12 gauge COPPER wire minimize thermoelectric effects—an absolute necessity for low voltage, high precision measurements.

LOW RESISTANCE—12 gauge multi-stranded COPPER wire results in extremely low cable resistance. Spade lugs plated with 50 micro inches gold for minimum contact resistance and minimum thermal EMF when using copper binding posts. (Less than $0.01 \mu\text{V}/^\circ\text{C}$).

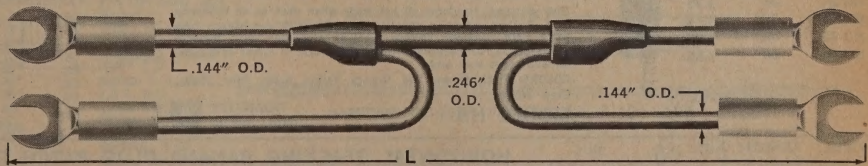
TELLURIUM COPPER SPADE LUGS, SHIELDED LEAD

MODEL	LENGTH
56-24	24"
56-48	48"

MODEL 1756
(Specify Length)

QUANTITY
DISC. CODE **A**

NET 9.85



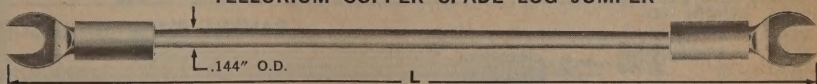
Designed for use with Kelvin Varley voltage dividers where extreme precision is required for low voltage measurements. Features guard shield to effectively reduce shunt resistance. Tough thermo-plastic molded to spade lug body, color; center conductor lug red, shield lug black. Tellurium copper heavy duty one piece machined spade lug gold plated per MIL-G-45204, Type II, Class I. Center conductor 12 AWG multi-stranded bare copper, shield lead wire, 18 AWG, stranded. Polyethylene primary insulation. Braided shield bare copper. Polyvinyl jacket, color black, per MIL-C-17C Type IIA.

MODEL	LENGTH	NET
93-12	12"	2.50
93-18	18"	2.50
93-24	24"	2.50
93-36	36"	2.50
93-48	48"	2.55
93-60	60"	2.60

MODEL 1693 (Specify Color)

★QUANTITY
DISC. CODE **A**

TELLURIUM COPPER SPADE LUG JUMPER



Single conductor tellurium copper spade lug jumper used in applications where guard shield is not required. Tough thermo-plastic molded to spade lug body. Color matches wire. Tellurium Copper heavy duty one piece machined spade lug gold plated per MIL-G-45204, Type II, Class I. Conductor, 12 AWG multi-stranded bare copper. Insulation polyvinyl, 105°C , .144" O.D. **COLORS:** Black, Red, Green.

Various lengths may be aggregated for best quantity price.

POMONA ELECTRONICS

PATCH CORDS
BANANA PLUGPOMONA BANANA PLUG
PATCH CORDS

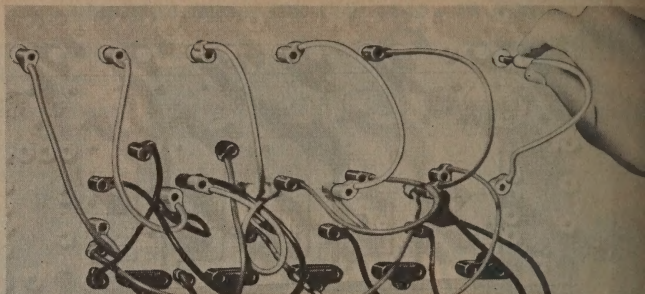
Tough thermoplastic insulation molds the plug and leads into a strong moisture resistant integral unit. Excellent for computer board and test equipment applications. Used by leading industries in applications where extreme reliability is of prime importance.

FEATURES

- One piece beryllium copper heat treated spring for maximum long life.
- Rounded spring design results in maximum contact area.
- Extra flexible polyvinyl insulation used on all leads.

- Fits standard 0.166 dia. banana jacks.
- Spring, beryllium copper alloy 25 per QQ-C-533.
- Plug body, brass per QQ-B-626, Comp. 22.
- Nickel plated per QQ-N-290, Class 2.

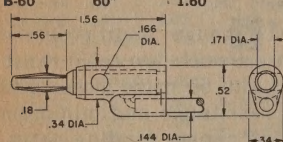
- Contact resistance less than 0. ohms per banana plug.
- Operating Temp.: -0°C to $+105^{\circ}\text{C}$
- Wire, 18 AWG, stranding 65 x 36
- Insulation, polyvinyl .144" O.D.
- Ratings: 15 A. Cont., 30 A. Int. 10,000 W.V.D.C.



SPECIFICATIONS

MODEL	LENGTH	NET
B-4	4"	1.50
B-8	8"	1.50
B-12	12"	1.50
B-18	18"	1.50
B-24	24"	1.50
B-36	36"	1.50
B-48	48"	1.55
B-60	60"	1.60

STACK-UP BANANA PLUG PATCH CORD



Multiple stacking feature accommodates the most complex stacking; keeps circuitry neater. Greatly simplifies circuit connections and changes. Reliable solder-bonded connections withstand pull test in excess of 50 lbs. Banana plugs both ends.

COLORS: Black, Brown, Red, Orange, Yellow, Green, Blue, Violet, Gray, White.

MODEL B (Specify Color)

QUANTITY DISC. CODE **A** ★

STACK-UP

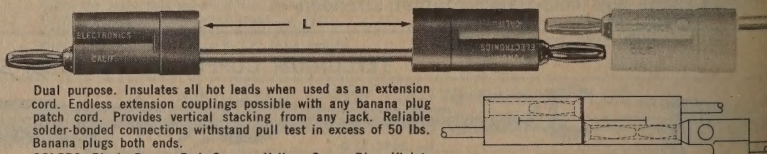


MODEL	LENGTH	NET
HB-4	4"	1.75
HB-8	8"	1.75
HB-12	12"	1.75
HB-18	18"	1.75
HB-24	24"	1.75
HB-36	36"	1.75
HB-48	48"	1.80
HB-60	60"	1.85

STACK-UP



EXTENSION STACKING BANANA PLUG PATCH CORD



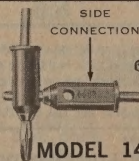
Dual purpose. Insulates all hot leads when used as an extension cord. Endless extension couplings possible with any banana plug patch cord. Provides vertical stacking from any jack. Reliable solder-bonded connections withstand pull test in excess of 50 lbs. Banana plugs both ends.

COLORS: Black, Brown, Red, Orange, Yellow, Green, Blue, Violet, Gray, White.

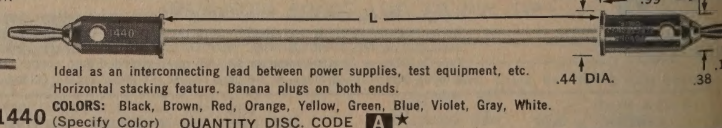
MODEL HB (Specify Color)

QUANTITY DISC. CODE **A** ★

MODEL	LENGTH	NET
1440-4	4"	1.00
1440-8	8"	1.00
1440-12	12"	1.00
1440-18	18"	1.00
1440-24	24"	1.00
1440-36	36"	1.00
1440-48	48"	1.05
1440-60	60"	1.10



HORIZONTAL STACKING BANANA PLUG PATCH CORD



Ideal as an interconnecting lead between power supplies, test equipment, etc. Horizontal stacking feature. Banana plugs on both ends.

COLORS: Black, Brown, Red, Orange, Yellow, Green, Blue, Violet, Gray, White.

(Specify Color) QUANTITY DISC. CODE **A** ★

MODEL	LENGTH	NET
1985-4	4"	.85
1985-8	8"	.85
1985-12	12"	.85
1985-18	18"	.85
1985-24	24"	.85
1985-36	36"	.85
1985-48	48"	.90
1985-60	60"	.95



Excellent for general lab work. Permits interconnection between test instruments, etc. Banana plugs both ends.

COLORS: Black, Brown, Red, Orange, Yellow, Green, Blue, Violet, Gray, White.

MODEL 1985 (Specify Color) QUANTITY DISC. CODE **A** ★

POMONA ELECTRONICS

PATCH CORDS
.080 TIP

DEL	LENGTH	NET
4	4"	1.75
8	8"	1.75
12	12"	1.75
18	18"	1.75
24	24"	1.75
36	36"	1.75
48	48"	1.80
60	60"	1.85



PIN TIP VERTICAL STACKING PATCH CORD

A must in circuit designing and testing, with instruments that utilize tip jacks.

PIN TIP: .080 dia., $\frac{1}{2}$ " long, brass, gold flashed.

TIP JACK, STACK-UP: Beryllium copper, gold flashed. Accepts .080 dia. pin.

WIRE: 20 AWG, Strand. 41 x 36 T.C. Extra flexible polyvinyl insulation .087" O.D.

RATED: 5 A. Cont., 10 A. Int.

5,000 W.V.D.C.

OPERATING TEMP.: -0°C to $+105^{\circ}\text{C}$.

COLORS: Black, Brown, Red, Orange, Yellow, Green, Blue, Violet, Gray, White.

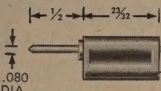
MODEL P
(Specify Color)

STACK-UP

★ **QUANTITY**
DISC. CODE **A**

PIN TIP EXTENSION STACKING PATCH CORD

DEL	LENGTH	NET
27-4	4"	1.85
27-8	8"	1.85
27-12	12"	1.85
27-18	18"	1.85
27-24	24"	1.85
27-36	36"	1.85
27-48	48"	1.90
27-60	60"	1.95



Dual purpose, insulates exposed leads when used as an extension cord. Endless extension coupling possible. Also provides stacking from .080 jack.

PIN TIP: .080 dia., $\frac{1}{2}$ " long, brass, gold flashed.

TIP JACK: Beryllium copper, gold flashed. Accepts .080 dia. pin.

WIRE: 20 AWG, Strand. 41 x 36 T.C. Extra flexible polyvinyl insulation .087" O.D.

RATED: 5 A. Cont., 10 A. Int.

5,000 W.V.D.C.

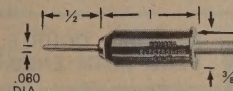
OPERATING TEMP.: -0°C to $+105^{\circ}\text{C}$.

COLORS: Black, Brown, Red, Orange, Yellow, Green, Blue, Violet, Gray, White.

MODEL 1727
(Specify Color)

★ **QUANTITY**
DISC. CODE **A**

DEL	LENGTH	NET
90-4	4"	.75
90-8	8"	.75
90-12	12"	.75
90-18	18"	.75
90-24	24"	.75
90-36	36"	.75
90-48	48"	.80
90-60	60"	.85



Heavy Duty patch cord. Excellent for general lab work. Permits interconnection between test instruments that utilize tip jacks.

PIN TIP: .080 dia., $\frac{1}{2}$ " long, brass, nickel plated.

WIRE: 18 AWG, Strand. 65 x 36 T.C. Extra flexible polyvinyl insulation .144" O.D.

RATED: 5 A. Cont., 10 A. Int.

10,000 W.V.D.C.

OPERATING TEMP.: -0°C to $+105^{\circ}\text{C}$.

COLORS: Black, Brown, Red, Orange, Yellow, Green, Blue, Violet, Gray, White.

MODEL 1990
(Specify Color)

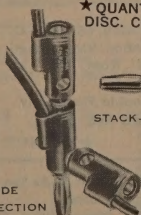
★ **QUANTITY**
DISC. CODE **A**

DEL	PT080-4	PM080-4	LENGTH	NET
33-4	PT080-4	PM080-4	4"	.85
33-8	PT080-8	PM080-8	8"	.85
33-12	PT080-12	PM080-12	12"	.85
33-18	PT080-18	PM080-18	18"	.85
33-24	PT080-24	PM080-24	24"	.85
33-36	PT080-36	PM080-36	36"	.85
33-48	PT080-48	PM080-48	48"	.90
33-60	PT080-60	PM080-60	60"	.95

MODEL PT & PM

(Specify Color)

Small body style permits usage in equipment having receptacles spaced closely together. Three models shown.



★ **QUANTITY**
DISC. CODE **A**

BANANA PLUG TO PIN TIP STACK-UP PATCH CORD

Adapts to equipment using banana jacks and pin jacks. Banana plug and pin tip allow vertical stack-up.

BANANA PLUG: Spring, one piece beryllium copper, heat treated, nickel plated.

PIN TIP: .080 dia., $\frac{1}{2}$ " long, brass, gold flashed.

TIP JACK, STACK-UP: Beryllium copper, gold flashed. Accepts .080 Dia. pin.

WIRE: 20 AWG, Strand. 41 x 36 T.C. Extra flexible

polyvinyl insulation .087" O.D.

RATED: 5 A. Cont., 10 A. Int.

5,000 W.V.D.C.

OPERATING TEMP.: -0°C to $+105^{\circ}\text{C}$.

COLORS: Black, Red.

MODEL 1126
(Specify Color)

★ **QUANTITY**
DISC. CODE **A**

Various lengths may be aggregated for best quantity price.

OTHER LENGTHS AVAILABLE TO ORDER

POMONA ELECTRONICS

PATCH CORDS
DOUBLE BANANA PLUGS

POMONA MOLDED DOUBLE BANANA PLUG PATCH CORDS AND TEST LEADS

... indispensable for bridge transformer connections, three terminal capacitor measurements and general hook-up for two wire systems. They are horizontally and vertically stackable in parallel.

Tough thermo-plastic material molded to plug body and cable insures maximum strength, moisture resistance and excellent insulative properties.

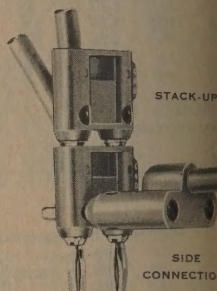
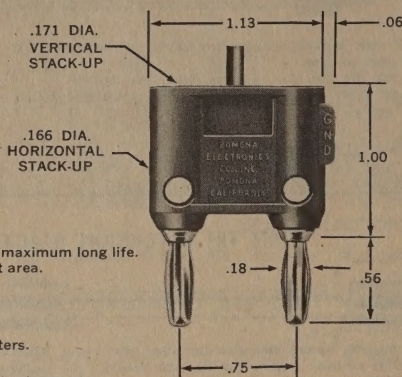
Used by leading industries in applications where extreme reliability is of prime importance.

FEATURES...

- One piece beryllium copper heat treated spring for maximum long life.
- Rounded spring design results in maximum contact area.
- GND., clearly molded on plug body and shell.
- Solder-bonded noise-free connections.

SPECIFICATIONS...

- Fits standard 0.166 dia. banana jacks, on 3/4" centers.
- Contact resistance less than 0.001 ohms per plug.
- Spring beryllium copper alloy 25 per QQ-C-533.
- Plug body brass per QQ-B-626, Comp. 22.
- Nickel plated per QQ-N-290, Class 2.



CABLE TYPE DESCRIPTION

TWO COND. TWISTED PAIR

18 AWG, Strand. 65 x 36 T.C.
Vinyl insulation. Vinyl jacket, .250" O.D. Nom. Cap. 30 pf/ft.
COLOR: Gray.

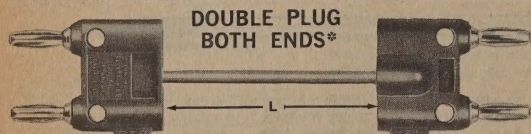
SHIELDED MICROPHONE CABLE

Polyethylene insulation. Vinyl jacket, .205" O.D. Nom. Cap. 25 pf/ft.
COLOR: Gray.

SHIELDED COAXIAL CABLE

RG58C/U Polyethylene insulation. Vinyl jacket, .195" O.D. Nom. Cap. 28.5 pf/ft. COLOR: Black.

DOUBLE PLUG BOTH ENDS*

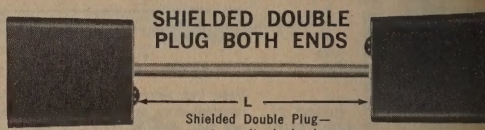


TWO COND. TWISTED PR.	SHIELDED MIC. CABLE	SHIELDED COAX. CABLE	LENGTH	NET
2BA-18	2BB-18	2BC-18	18"	4.85
2BA-24	2BB-24	2BC-24	24"	4.85
2BA-30	2BB-30	2BC-30	30"	4.85
2BA-36	2BB-36	2BC-36	36"	4.85
2BA-48	2BB-48	2BC-48	48"	5.00
2BA-60	2BB-60	2BC-60	60"	5.15

★ QUANTITY
DISC. CODE

B

SHIELDED DOUBLE PLUG BOTH ENDS

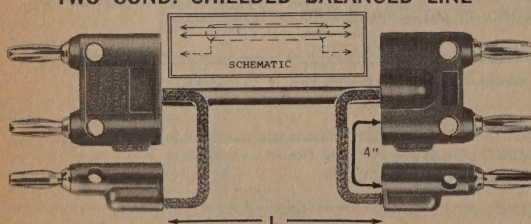


SHIELDED MIC. CABLE	SHIELDED COAX. CABLE	LENGTH	NET
1550-B-18	1550-C-18	18"	5.85
1550-B-24	1550-C-24	24"	5.85
1550-B-30	1550-C-30	30"	5.85
1550-B-36	1550-C-36	36"	5.85
1550-B-48	1550-C-48	48"	6.00
1550-B-60	1550-C-60	60"	6.15

★ QUANTITY
DISC. CODE

B

TWO COND. SHIELDED BALANCED LINE

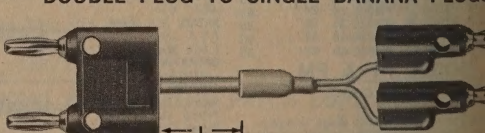


CABLE DESCRIPTION	MODEL	LENGTH	NET
2-Cond. shielded mic. cable. Polyethylene insulation. Vinyl jacket, .231" O.D. Nom. Cap. between cond. 18 pf/ft. Nom. Cap. between one cond. and remaining cond. connected to shield, 32 pf/ft. COLOR: Cable and double plug, Gray. Single ground plug, Green.	1167-18	18"	7.85
	1167-24	24"	7.85
	1167-30	30"	7.85
	1167-36	36"	7.85
	1167-48	48"	8.10
	1167-60	60"	8.35

★ QUANTITY DISC. CODE

B

DOUBLE PLUG TO SINGLE BANANA PLUGS



CABLE DESCRIPTION

18 AWG, Strand. 65 x 36 T.C.
Vinyl insulation. Vinyl jacket, .250" O.D. Nom. Cap. 30 pf/ft.
COLOR: Double Plug: Gray
Single Plugs: Red, Black

MODEL	LENGTH	NET
1368-18	18"	5.85
1368-24	24"	5.85
1368-30	30"	5.85
1368-36	36"	5.85
1368-48	48"	6.00
1368-60	60"	6.15

★ QUANTITY DISC. CODE

B

°NOTE: Molded double plug matches color of cable.

Two cond. Twisted pair, GRAY. Shielded mic. cable, GRAY.
Coaxial RG58C/U Cable, BLACK.

★ Various lengths may be aggregated for best quantity price.

1. Other cable colors available to order on the Two Cond. Twisted Pair and Shielded Mic. cable models with plug to match.

COLORS: Black, Brown, Red, Orange, Yellow, Green, Blue, Violet, Gray.

2. Other lengths and cable types available to order.

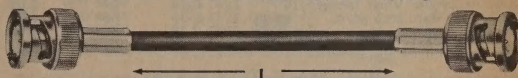
POMONA ELECTRONICS

PATCH CORDS
BNC CONNECTING LEADS

Standard video and RF connecting leads available in both shielded microphone and shielded coaxial cables. Designed to meet rigid industrial and military applications. Reliable solder-bonded connections minimize noise.

Pomona Electronics cable assemblies and patch cords are used in applications where extreme reliability is of prime importance.

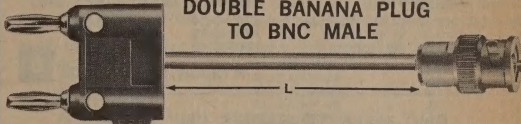
CRIMP BNC MALE BOTH ENDS



CONN.: } Crimp Male BNC CABLE: Shielded Coax, RG58C/U. CONN.: } Crimp Male BNC
1st END } (Comparable to UG88E/U) 2nd END } (Comparable to UG88E/U)

CABLE DESCRIPTION:	MODEL	LENGTH	NET
Shielded coax., RG58C/U, Polyethylene Insulation, Vinyl Jacket, .195" O.D., Nom. Cap. 28.5 pf/ft.	2249-C-12	12"	3.85
	2249-C-24	24"	3.85
	2249-C-36	36"	3.85
	2249-C-48	48"	4.00
	2249-C-60	60"	4.15

★ QUANTITY DISC. CODE **B**

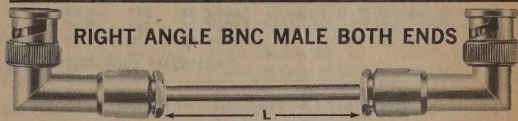
DOUBLE BANANA PLUG
TO BNC MALE

CONN.: } Double Banana Plug, CABLE: Shielded Mic. or UG88C/U, 1st END } on 3/4" Centers. Shielded Coax, RG58C/U. 2nd END } Male BNC

SHIELDED MIC. CABLE	SHIELDED COAX. CABLE	LENGTH	NET
2BB-BNC-18	2BC-BNC-18	18"	5.85
2BB-BNC-24	2BC-BNC-24	24"	5.85
2BB-BNC-30	2BC-BNC-30	30"	5.85
2BB-BNC-36	2BC-BNC-36	36"	5.85
2BB-BNC-48	2BC-BNC-48	48"	6.00
2BB-BNC-60	2BC-BNC-60	60"	6.15

★ QUANTITY DISC. CODE **B**

RIGHT ANGLE BNC MALE BOTH ENDS

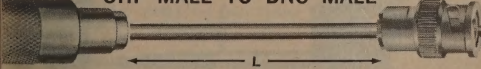


CONN.: } UG913A/U, CABLE: Shielded Mic. or UG913A/U, 1st END } Angle Male BNC Shielded Coax, RG58C/U. 2nd END } Angle Male BNC

SHIELDED MIC. CABLE	SHIELDED COAX. CABLE	LENGTH	NET
1155-B-18	1155-C-18	18"	10.85
1155-B-24	1155-C-24	24"	10.85
1155-B-30	1155-C-30	30"	10.85
1155-B-36	1155-C-36	36"	10.85
1155-B-48	1155-C-48	48"	11.00
1155-B-60	1155-C-60	60"	11.15

★ QUANTITY DISC. CODE **B**

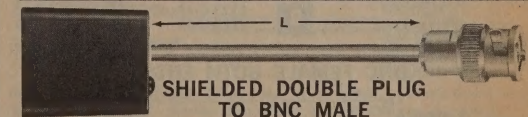
UHF MALE TO BNC MALE



CONN.: } PL259, CABLE: Shielded Mic. or UG88C/U, 1st END } UHF Male Shielded Coax, RG58C/U. 2nd END } Male BNC

SHIELDED MIC. CABLE	SHIELDED COAX. CABLE	LENGTH	NET
67-B-18	1367-C-18	18"	5.85
67-B-24	1367-C-24	24"	5.85
67-B-30	1367-C-30	30"	5.85
67-B-36	1367-C-36	36"	5.85
67-B-48	1367-C-48	48"	6.00
67-B-60	1367-C-60	60"	6.15

★ QUANTITY DISC. CODE **B**

SHIELDED DOUBLE PLUG
TO BNC MALE

CONN.: } Shielded Double plug, CABLE: Shielded Mic. or UG88C/U, 1st END } on 3/4" centers. Black anodized aluminum. Shielded Coax, RG58C/U. 2nd END } Male BNC

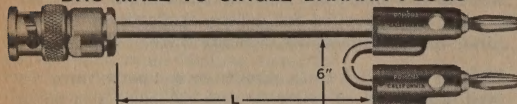
SHIELDED MIC. CABLE	SHIELDED COAX. CABLE	LENGTH	NET
1555-B-18	1555-C-18	18"	6.85
1555-B-24	1555-C-24	24"	6.85
1555-B-30	1555-C-30	30"	6.85
1555-B-36	1555-C-36	36"	6.85
1555-B-48	1555-C-48	48"	7.00
1555-B-60	1555-C-60	60"	7.15

★ QUANTITY DISC. CODE **B**

ious lengths may be aggregated for best quantity price.

POMONA ELECTRONICS

BNC MALE TO SINGLE BANANA PLUGS

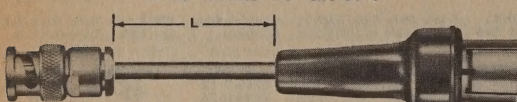


CONN: } UG88E/U CABLE: Shielded Coax., CONN: } Single Banana Plugs
1st END } Male BNC RG58C/U 2nd END } Color: 1 Black, 1 Red.

CABLE DESCRIPTION:	MODEL	LENGTH	NET
Shielded coax., RG58C/U, Polyethylene insulation. Vinyl jacket, .195" O.D., Nom. Cap. 28.5 pf/ft.	2241-C-18	18"	5.85
	2241-C-24	24"	5.85
	2241-C-36	36"	5.85
	2241-C-48	48"	6.00

★ QUANTITY DISC. CODE **B**

BNC MALE TO GR-874

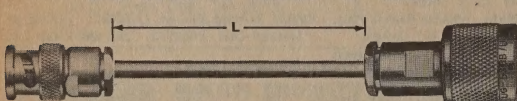


CONN: } UG88E/U CABLE: Shielded Coax., CONN: } GR-874
1st END } Male BNC RG58C/U 2nd END }

CABLE DESCRIPTION:	MODEL	LENGTH	NET
Shielded coax., RG58C/U, Polyethylene insulation. Vinyl jacket, .195" O.D., Nom. Cap. 28.5 pf/ft.	1703-C-24	24"	9.85
	1703-C-36	36"	9.85
	1703-C-48	48"	10.00

★ QUANTITY DISC. CODE **B**

BNC MALE TO SERIES "N" MALE

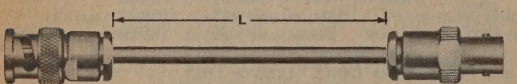


CONN: } UG88E/U CABLE: Shielded coax., CONN: } UG536B/U
1st END } Male BNC RG58C/U 2nd END } "N" Male

CABLE DESCRIPTION:	MODEL	LENGTH	NET
Shielded coax., RG58C/U, Polyethylene insulation. Vinyl jacket, .195" O.D., Nom. Cap. 28.5 pf/ft.	1366-C-24	24"	6.85
	1366-C-36	36"	6.85
	1366-C-48	48"	7.00

★ QUANTITY DISC. CODE **B**

BNC MALE TO BNC FEMALE

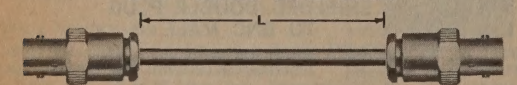


CONN: } UG88E/U CABLE: Shielded coax., CONN: } UG89C/U
1st END } Male BNC RG58C/U 2nd END } Female BNC

CABLE DESCRIPTION:	MODEL	LENGTH	NET
Shielded Coax., RG58C/U, Polyethylene insulation. Vinyl jacket, .195" O.D., Nom. Cap. 28.5 pf/ft.	2223-C-12	12"	6.85
	2223-C-24	24"	6.85
	2223-C-36	36"	6.85
	2223-C-48	48"	7.00
	2223-C-60	60"	7.15

★ QUANTITY DISC. CODE **B**

BNC FEMALE BOTH ENDS



CONN: } UG89C/U CABLE: Shielded Coax., CONN: } UG89C/U
1st END } Female BNC RG58C/U 2nd END } Female BNC

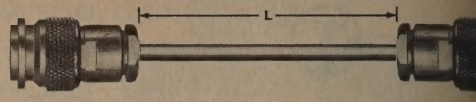
CABLE DESCRIPTION:	MODEL	LENGTH	NET
Shielded coax., RG58C/U, Polyethylene insulation. Vinyl jacket, .195" O.D., Nom. Cap. 28.5 pf/ft.	1808-C-12	12"	6.85
	1808-C-24	24"	6.85
	1808-C-36	36"	6.85
	1808-C-48	48"	7.00
	1808-C-60	60"	7.15

★ QUANTITY DISC. CODE **B**

★ Various lengths may be aggregated for best quantity price.

PATCH CORDS
CONNECTING LEADS

TNC MALE BOTH ENDS



CONN: } Male TNC

CABLE: Shielded coax., RG58C/U

CONN: } 2nd END

CABLE DESCRIPTION

Shielded coax., RG58C/U, Polyethylene insulation. Vinyl jacket, .195" O.D., Nom. Cap. 28.5 pf/ft.

MODEL

1944-C-12

1944-C-24

1944-C-36

1944-C-48

1944-C-60

LENGTH

12"

24"

36"

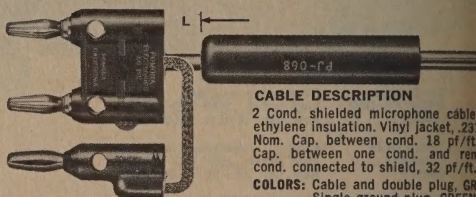
48"

60"

★ QUANTITY DISC. CODE **B**

DOUBLE PLUG BALANCED LINE TO PJ-06

CONN: } Double and Single CABLE: 2 Cond. Shielded CONN: } PJ-06
1st END } Banana Plug Microphone 2nd END }



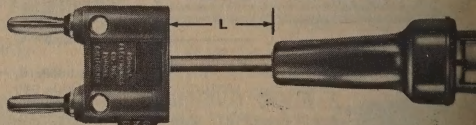
CABLE DESCRIPTION

2 Cond. shielded microphone cable ethylene insulation. Vinyl jacket, .23" Nom. Cap. between cond. 18 pf/ft. Cap. between one cond. and shield, 32 pf/ft. COLORS: Cable and double plug, GR Single ground plug, GREEN

MODEL	LENGTH	NET
2174-36	36"	9.85

QUANTITY DISC. CODE **B**

DOUBLE PLUG TO GR-874



CONN: } Double Banana Plug, 1st END } on 3/4" Centers.

CABLE: Shielded Coax., RG58C/U

CONN: } GR-874 2nd END }

CABLE DESCRIPTION

Shielded coax., RG58C/U, Polyethylene insulation. Vinyl jacket, .195" O.D., Nom. Cap. 28.5 pf/ft.

MODEL

2243-C-24

2243-C-36

2243-C-48

LENGTH

24"

36"

48"

NET

9.50

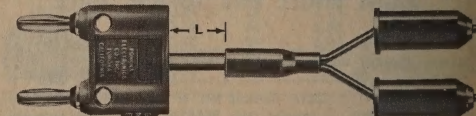
9.50

9.65

COLOR: Cable and double plug, Black.

★ QUANTITY DISC. CODE **B**

DOUBLE PLUG TO SINGLE PIN TIPS



CONN: } Double Banana Plug, on 3/4" Centers.

CABLE: Two Cond. Twisted Pair

CONN: } Single Pin Tip Plugs, .080 Dia. Color: 1 Black, 1 Red.

CABLE DESCRIPTION

Two Cond. Twisted pair, 18 AWG, Strand, 65 x 36 T.C. Vinyl insulation, vinyl jacket, .250" O.D. Nom. Cap. 30 pf/ft.

MODEL

2184-A-24

2184-A-36

2184-A-48

LENGTH

24"

36"

48"

NET

4.85

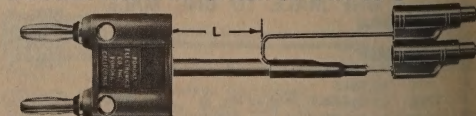
4.85

5.00

COLOR: Cable and Double Plug, Gray.

★ QUANTITY DISC. CODE **B**

DOUBLE PLUG TO STACK-UP PIN TIPS



CONN: } Double Banana Plug, on 3/4" Centers.

CABLE: Shielded Coax., RG58C/U

CONN: } Single Stack-Up Pin Tip Plugs, .080 Dia. Color: 1 Black, 1 Red.

CABLE DESCRIPTION

Shielded coax., RG58C/U, Polyethylene insulation. Vinyl jacket, .195" O.D., Nom. Cap. 28.5 pf/ft.

MODEL

28C-PP-18

28C-PP-24

28C-PP-36

28C-PP-48

LENGTH

18"

24"

36"

48"

NET

7.50

7.50

7.50

7.65

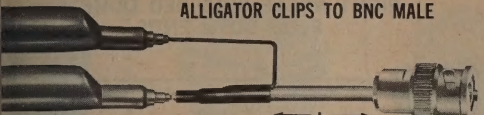
COLOR: Cable and Double Plug, Black.

★ QUANTITY DISC. CODE **B**

OTHER LENGTHS AVAILABLE TO

POMONA ELECTRONICS

ALLIGATOR CLIPS TO BNC MALE



CONN.: } Alligator Clips, Steel, cad plated
1ST END } Insulators, Vinyl: Black/Red.

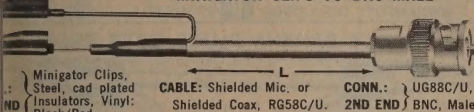
CABLE: Shielded Mic. or Shielded Coax, RG58C/U.

CONN.: } UG88C/U, 2ND END } BNC, Male.

SHIELDED MIC. CABLE	SHIELDED COAX. CABLE	LENGTH	NET
AL-B-BNC-18	AL-C-BNC-18	18"	5.85
AL-B-BNC-24	AL-C-BNC-24	24"	5.85
AL-B-BNC-30	AL-C-BNC-30	30"	5.85
AL-B-BNC-36	AL-C-BNC-36	36"	5.85
AL-B-BNC-48	AL-C-BNC-48	48"	6.00
AL-B-BNC-60	AL-C-BNC-60	60"	6.15

★ QUANTITY DISC. CODE **B**

MINIGATOR CLIPS TO BNC MALE



CONN.: } Minigator Clips, Steel, cad plated
1ST END } Insulators, Vinyl: Black/Red.

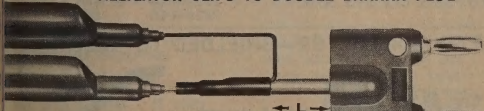
CABLE: Shielded Mic. or Shielded Coax, RG58C/U.

CONN.: } UG88C/U, 2ND END } BNC, Male.

SHIELDED MIC. CABLE	SHIELDED COAX. CABLE	LENGTH	NET
MG-B-BNC-18	MG-C-BNC-18	18"	5.85
MG-B-BNC-24	MG-C-BNC-24	24"	5.85
MG-B-BNC-30	MG-C-BNC-30	30"	5.85
MG-B-BNC-36	MG-C-BNC-36	36"	5.85
MG-B-BNC-48	MG-C-BNC-48	48"	6.00
MG-B-BNC-60	MG-C-BNC-60	60"	6.15

★ QUANTITY DISC. CODE **B**

ALLIGATOR CLIPS TO DOUBLE BANANA PLUG*



CONN.: } Alligator Clips, Steel, cad plated
1ST END } Insulators, Vinyl: Black/Red.

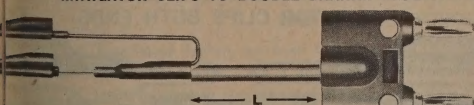
CABLE: Two Cond. Twisted Pair, Shielded Mic. or Shielded Coax, RG58C/U.

CONN.: } Double Banana Plug, on 3/4" centers.

SHIELDED MIC. CABLE	SHIELDED COAX. CABLE	LENGTH	NET
2BB-AL-18	2BC-AL-18	18"	5.85
2BB-AL-24	2BC-AL-24	24"	5.85
2BB-AL-30	2BC-AL-30	30"	5.85
2BB-AL-36	2BC-AL-36	36"	5.85
2BB-AL-48	2BC-AL-48	48"	6.00
2BB-AL-60	2BC-AL-60	60"	6.15

★ QUANTITY DISC. CODE **B**

MINIGATOR CLIPS TO DOUBLE BANANA PLUG*



CONN.: } Minigator Clips, Steel, cad plated
1ST END } Insulators, Vinyl: Black/Red.

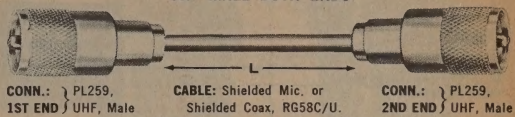
CABLE: Two Cond. Twisted Pair, Shielded Mic. or Shielded Coax, RG58C/U.

CONN.: } Double Banana Plug, on 3/4" centers.

SHIELDED MIC. CABLE	SHIELDED COAX. CABLE	LENGTH	NET
2BB-MG-18	2BC-MG-18	18"	5.85
2BB-MG-24	2BC-MG-24	24"	5.85
2BB-MG-30	2BC-MG-30	30"	5.85
2BB-MG-36	2BC-MG-36	36"	5.85
2BB-MG-48	2BC-MG-48	48"	6.00
2BB-MG-60	2BC-MG-60	60"	6.15

★ QUANTITY DISC. CODE **B**PATCH CORDS
CONNECTING LEADS

UHF MALE BOTH ENDS



CONN.: } PL259, 1ST END } UHF, Male

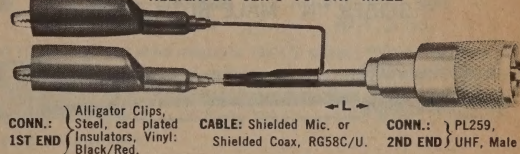
CABLE: Shielded Mic. or Shielded Coax, RG58C/U.

CONN.: } PL259, 2ND END } UHF, Male

SHIELDED MIC. CABLE	SHIELDED COAX. CABLE	LENGTH	NET
UHF-B-18	UHF-C-18	18"	5.85
UHF-B-24	UHF-C-24	24"	5.85
UHF-B-30	UHF-C-30	30"	5.85
UHF-B-36	UHF-C-36	36"	5.85
UHF-B-48	UHF-C-48	48"	6.00
UHF-B-60	UHF-C-60	60"	6.15

★ QUANTITY DISC. CODE **B**

ALLIGATOR CLIPS TO UHF MALE



CONN.: } Alligator Clips, Steel, cad plated
1ST END } Insulators, Vinyl: Black/Red.

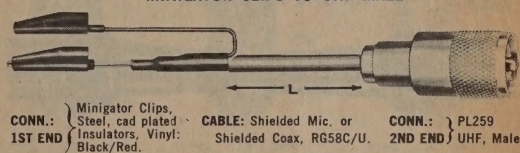
CABLE: Shielded Mic. or Shielded Coax, RG58C/U.

CONN.: } PL259, 2ND END } UHF, Male

SHIELDED MIC. CABLE	SHIELDED COAX. CABLE	LENGTH	NET
AL-B-UHF-18	AL-C-UHF-18	18"	5.85
AL-B-UHF-24	AL-C-UHF-24	24"	5.85
AL-B-UHF-30	AL-C-UHF-30	30"	5.85
AL-B-UHF-36	AL-C-UHF-36	36"	5.85
AL-B-UHF-48	AL-C-UHF-48	48"	6.00
AL-B-UHF-60	AL-C-UHF-60	60"	6.15

★ QUANTITY DISC. CODE **B**

MINIGATOR CLIPS TO UHF MALE



CONN.: } Minigator Clips, Steel, cad plated
1ST END } Insulators, Vinyl: Black/Red.

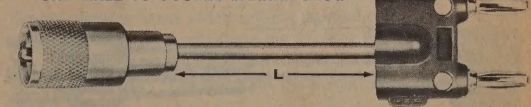
CABLE: Shielded Mic. or Shielded Coax, RG58C/U.

CONN.: } PL259, 2ND END } UHF, Male

SHIELDED MIC. CABLE	SHIELDED COAX. CABLE	LENGTH	NET
MG-B-UHF-18	MG-C-UHF-18	18"	5.85
MG-B-UHF-24	MG-C-UHF-24	24"	5.85
MG-B-UHF-30	MG-C-UHF-30	30"	5.85
MG-B-UHF-36	MG-C-UHF-36	36"	5.85
MG-B-UHF-48	MG-C-UHF-48	48"	6.00
MG-B-UHF-60	MG-C-UHF-60	60"	6.15

★ QUANTITY DISC. CODE **B**

UHF MALE TO DOUBLE BANANA PLUG*



CONN.: } PL259, 1ST END } UHF, Male

CABLE: Shielded Mic. or Shielded Coax, RG58C/U.

CONN.: } Double Banana Plug, on 3/4" centers.

SHIELDED MIC. CABLE	SHIELDED COAX. CABLE	LENGTH	NET
2BB-UHF-18	2BC-UHF-18	18"	5.85
2BB-UHF-24	2BC-UHF-24	24"	5.85
2BB-UHF-30	2BC-UHF-30	30"	5.85
2BB-UHF-36	2BC-UHF-36	36"	5.85
2BB-UHF-48	2BC-UHF-48	48"	6.00
2BB-UHF-60	2BC-UHF-60	60"	6.15

★ QUANTITY DISC. CODE **B**

* Molded double plug matches color of cable.
Two cond. Twisted pair, GRAY. Shielded mic. cable, GRAY. Coaxial RG58C/U cable, BLACK.

1. Other CABLE COLORS available to order on the Two Cond. Twisted Pair and Shielded Mic. cable models, with plug to match.

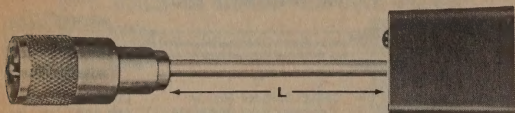
COLORS: Black, Brown, Red, Orange, Yellow, Green, Blue, Violet, Gray, White.

2. Other lengths and cable types available to order.

* Lengths may be aggregated for best quantity price.

POMONA ELECTRONICS

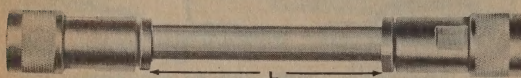
UHF MALE TO SHIELDED DOUBLE PLUG*



CONN.: } PL259, 1ST END / Male, UHF	CABLE: Shielded Mic. or Shielded Coax, RG58C/U.	CONN.: } Shielded Double Plug, 2ND END on 3/4" centers. Black anodized aluminum.
SHIELDED MIC. CABLE	SHIELDED COAX. CABLE	LENGTH NET
1556-B-18	1556-C-18	18" 6.85
1556-B-24	1556-C-24	24" 6.85
1556-B-36	1556-C-36	36" 6.85
1556-B-48	1556-C-48	48" 7.00
1556-B-60	1556-C-60	60" 7.15

* QUANTITY DISC. CODE **B**

SERIES "N" MALE BOTH ENDS

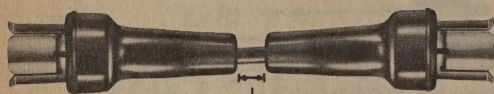


CONN.: } UG21E/U 1ST END "N" Male	CABLE: Coax, RG213/U	CONN.: } UG21E/U 2ND END "N" Male
CABLE DESCRIPTION	MODEL	LENGTH NET
Shielded Coax. Polyethylene Insulation. Vinyl jacket, Black. Nom. Cap. 29.5 pf/ft. Nom. Imp. 50 ohms. Nom. O.D. .405"	1658-S-18	18" 10.85
	1658-S-24	24" 10.85
	1658-S-36	36" 10.85
	1658-S-48	48" 11.00
	1658-S-60	60" 11.15

* QUANTITY DISC. CODE **B**

NEW

GR-874 TO GR-874

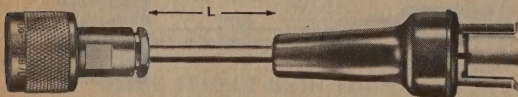


CONN.: } GR-874 1ST END	CABLE: Shielded coax., RG58C/U	CONN.: } GR-874 2ND END
CABLE DESCRIPTION:	MODEL	LENGTH NET
Shielded coax., RG58C/U, Polyethylene Insulation. Vinyl jacket, .195" O.D., Nom. Cap. 28.5 pf/ft.	2316-C-24	24" 16.85
	2316-C-36	36" 16.85
	2316-C-48	48" 17.00
	2316-C-60	60" 17.15

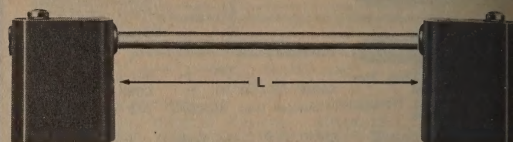
* QUANTITY DISC. CODE **B**

NEW

SERIES "N" MALE TO GR-874



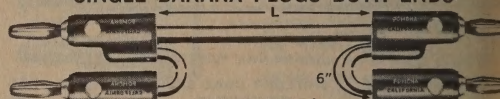
CONN.: } UG536B/U 1ST END "N" Male	CABLE: Shielded Coax., RG58C/U	CONN.: } GR-874 2ND END
CABLE DESCRIPTION:	MODEL	LENGTH NET
Shielded coax., RG58C/U, Polyethylene Insulation. Vinyl jacket, .195" O.D., Nom. Cap. 28.5 pf/ft.	2438-C-24	24" 10.85
	2438-C-36	36" 10.85
	2438-C-48	48" 11.00
	2438-C-60	60" 11.15

* QUANTITY DISC. CODE **B**PATCH CORDS
CONNECTING LEADSRIGHT ANGLE SHIELDED DOUBLE
PLUG BOTH ENDS

CONN.: } Right Angle 1ST END Shielded double plug on 3/4" centers. Black anodized aluminum shield.	CABLE: Shielded coax. RG58C/U.	CONN.: } Right Angle 2ND END Shielded double plug on 3/4" centers. Black anodized aluminum shield.
CABLE DESCRIPTION:	MODEL	LENGTH NET
Shielded coax., RG58C/U, polyethylene insulation. Vinyl jacket, .195" O.D., Nom. Cap. 28.5 pf/ft.	2204-C-24	24" 7.8
	2204-C-36	36" 7.8
	2204-C-48	48" 8.0
	2204-C-60	60" 8.15

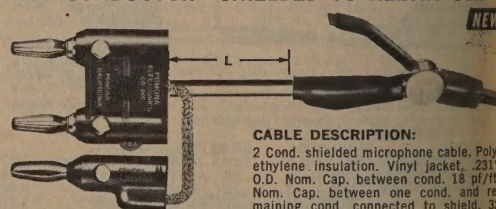
* QUANTITY DISC. CODE **B**

SINGLE BANANA PLUGS BOTH ENDS



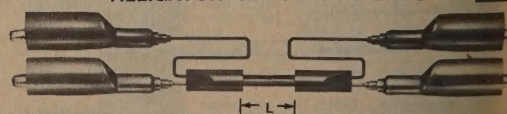
CONN.: } Single Banana 1ST END Plugs Colors: Inner Conductor plug, Red. Ground Plug, Black.	CABLE: Shielded Coax., RG122/U	CONN.: } Single Banana Plug 2ND END Colors: Inner Conductor Plug, Red. Ground Plug, Black.
CABLE DESCRIPTION:	MODEL	LENGTH NET
Shielded coax., RG122/U polyethylene insulation. Vinyl jacket, .160" O.D., Nom. Cap. 29.5 pf/ft.	2239-R-24	24" 4.85
	2239-R-36	36" 4.85
	2239-R-48	48" 5.00
	2239-R-60	60" 5.15

TWO CONDUCTOR—SHIELDED TO KELVIN CLIP



CONN.: } Double and Single 1ST END Banana Plug	CABLE: 2 Cond. Shielded Microphone	COLORS: Cable and double plug, GRAY. Single ground plug, GREEN.
CONN.: } Kelvin Clip 2ND END	MODEL	LENGTH NET
	2476-J-24	24" 16.8
	2476-J-36	36" 16.8

ALLIGATOR CLIPS BOTH ENDS



CONN.: } Alligator Clips, 1ST END Steel, cad plated Insulators, Vinyl: Black/Red.	CABLE: Shielded Coax., RG58C/U	CONN.: } Alligator Clips, 2ND END Steel, cad plated Insulators, Vinyl: Black/Red.
CABLE DESCRIPTION:	MODEL	LENGTH NET
Shielded coax., RG58C/U, Polyethylene Insulation Vinyl jacket, .195" O.D., Nom. Cap. 28.5 pf/ft.	1152-C-12	12" 5.85
	1152-C-24	24" 5.85
	1152-C-36	36" 5.85
	1152-C-48	48" 6.15
	1152-C-60	60" 6.15

* QUANTITY DISC. CODE **B**

*NOTE: Molded double plug matches color of cable.
Two cond. Twisted pair, GRAY. Shielded mic. cable, GRAY. Coaxial RG58C/U cable, BLACK.

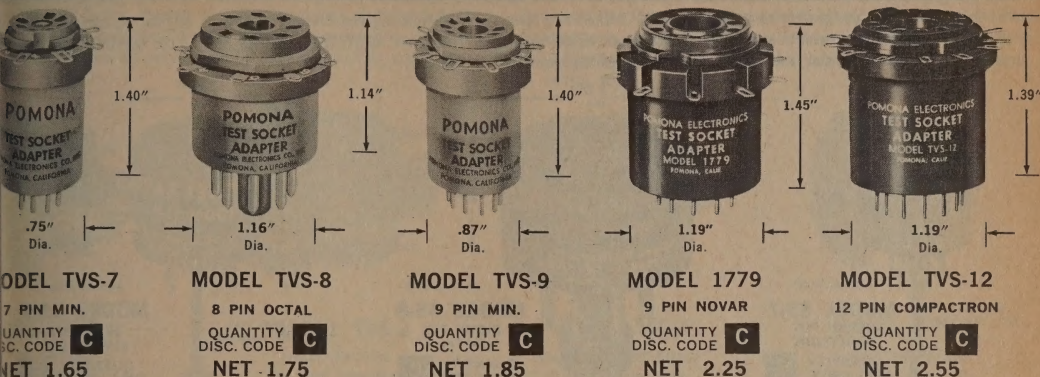
1. Other CABLE COLORS available to order on the Two Cond. Twisted Pair and Shielded Mic. cable models, with plug to match.

COLORS: Black, Brown, Red, Orange, Yellow, Gray, Blue, Violet, Gray, White.

2. Other lengths and cable types available to order.

*Various lengths may be aggregated for best quantity price.

POMONA ELECTRONICS

TEST SOCKET TUBE ADAPTERS
BREADBOARD SOCKETS

Pomona Test Socket Tube Adapters are ideal for making measurements of voltage, resistance, audio and video without tracing complicated circuits to the bottom of the chassis. They feature: Extended test tabs for easy connection with either alligator clips or test prods; Low loss MICA-FILLED molded plastic construction per MIL-M-14, MFE. Power factor less than 0.010

at 10 Mc; high insulation resistance, the I.R. exceeds 500,000 megohms at 40% R.H., at 24°C; Distributed capacity, inter-element approximately 1 micro-micro farad; high voltage operation, voltage breakdown elements exceeds 1700 volts AC or DC Model TVS-12 and 1779 molded of electrical grade Black phenolic.

TVS-789 KIT SET OF THREE 5.25

(TVS-7, TVS-8, TVS-9)

MINIATURE TV TEST SOCKET TUBE ADAPTERS

USE WITH TUNERS HAVING
SHIELDING OR TELESCOPING
SHIELDS

TALL • IT'S SLIM • IT FITS

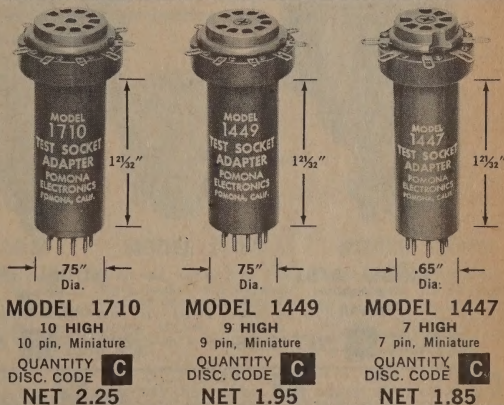
Extra height—exact fit—clears shields

Ready access to socket connections

Unobstructed operation saves time

Must for every modern TV receiver Shop

The 7-, 9- or 10-HIGH adapter rises above the shields and places testing in the open. Shields or tuner covers do not have to be removed. All construction is the highest quality. Inter-element distributed capacity is approximately 1.5 micro-micro farad. Voltage breakdown elements exceed 1800 V. AC or DC. The insulation resistance exceeds 5×10^5 megohms at 40% R.H. at 24°C.

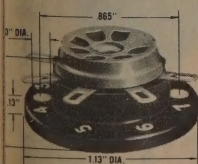


SURFACE MOUNTED BREADBOARD SOCKETS

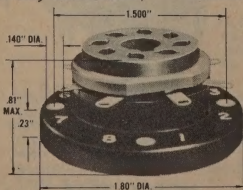
IDEAL FOR ELECTRONIC AND EXPERIMENTAL USE

Surface Mounted Breadboard Sockets are used for experimental circuit design, portable and enclosed units, plug-in and packaged assemblies. Features: An insulated base to prevent connections from shorting to chassis; Eliminates double chassis design; Circuits may be wired in an enclosed unit; The base connections are numbered for easy identification;

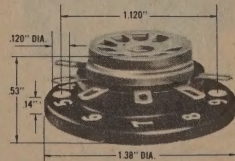
Grade-A phosphor bronze spring contacts; Standard center to center mounting holes; For ease of installation the 7 and 9 Pin Miniatures may be mounted either in the center or on the sides, the 8 Pin Octal is mounted on the sides; Small mounting holes permit the re-use of experimental chassis.



MODEL XS-7
7 PIN MINIATURE
QUANTITY DISC. CODE **C** NET .59



MODEL XS-8
8 PIN OCTAL
QUANTITY DISC. CODE **C** NET .75



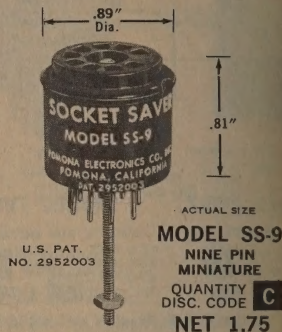
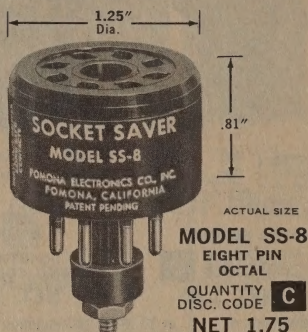
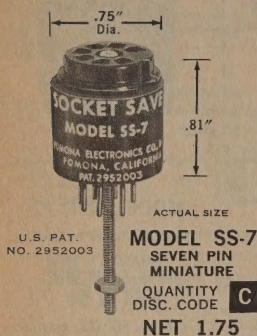
MODEL XS-9
9 PIN MINIATURE
QUANTITY DISC. CODE **C** NET .69

POMONA ELECTRONICS

SOCKET SAVERS

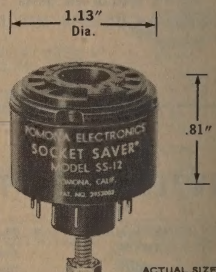
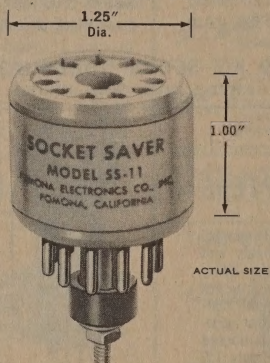
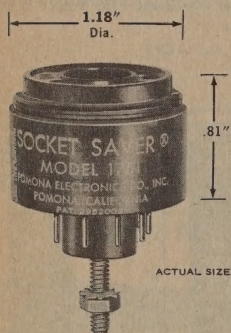
The Socket Saver® is designed to be installed on tube checkers and other electronic equipment to prevent wear and tear of sockets on original equipment. They are easy to install and remove. This eliminates the necessity

of replacing and rewiring sockets on original equipment. Built of materials. BERYLLIUM COPPER LONG LIFE CONTACTS to give maximum service.



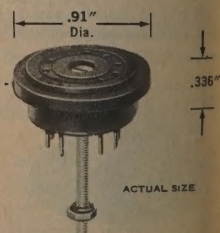
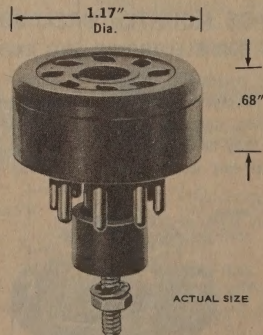
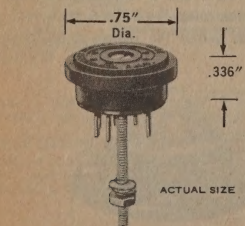
MODEL SS-789 KIT SET OF THREE 5.25

(SS-7, SS-8, SS-9)



MINIATURIZED SOCKET SAVERS®

For use in applications where vertical height is restricted. Contacts made of beryllium copper, heat treated. Models 1847 and 1849 closed entry receptacles, contact and pin one piece formed beryllium copper, molded of black phenolic electrical grade.

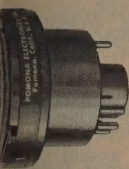


POMONA ELECTRONICS

CATHODE RAY TUBE
TEST ADAPTERS

POMONA Test Socket Adapters are ideal for making measurements of resistance, and video from the base of the picture tube. The test adapter is inserted between the CR Tube base and its socket.

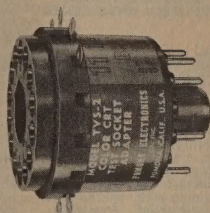
This completes the circuit and makes all connections readily accessible. Measurements can be made without tracing circuit wiring to test points below the chassis, thereby saving valuable time and increasing efficiency in trouble shooting.



MODEL TVS-1

DUO DECAL
For Television
picture tubes

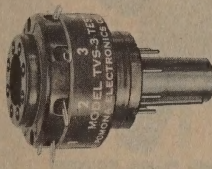
NET 1.95
QUANTITY DISC. CODE



MODEL TVS-2

NEO-DIHEPTAL
For Color Television
picture tubes

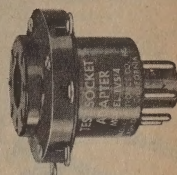
NET 7.45
QUANTITY DISC. CODE



MODEL TVS-3

EIGHTAR (.040 PINS)
For 110° Television
picture tubes

NET 2.55
QUANTITY DISC. CODE



MODEL TVS-4

7 PIN (.093 PINS)
For 110° Television
picture tubes

NET 1.95
QUANTITY DISC. CODE



TUBE SOCKET CONVERSION ADAPTERS

110° CRT SOCKET ADAPTER TO DUO DECAL BASE.

FOR TESTING NEW NARROW-NECK 110° TUBES.

MODEL 110-E

to 110-G, except 8KP
tests 23EP4 etc.

NET 1.55
QUANTITY DISC. CODE



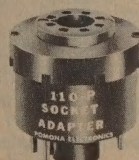
Modernize your present test equipment with these simple adapters. Just plug in adapter to convert to 110° socket. Used for testing, ageing, and lifetesting, etc.



MODEL 110-G

Socket end, 8JS Basing,
accepts pins with .040 dia.,
(.600 pin circle dia.). Wired to
test 110° series similar to
4, 21ESP4, 23KP4, etc.
and wired to Duo Decal 12L

NET 1.55
QUANTITY DISC. CODE



MODEL 110-P

Eightar socket end, 8JK Basing,
accepts pins with .040 dia.,
(.600 pin circle dia.). Wired to
test 110° Semi-Flat S-F series
17DAP4/SF17, 21EAP4/SF21,
etc. Plug end wired to Duo Decal
12L Basing.

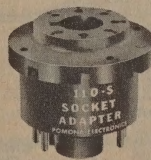
NET 1.55
QUANTITY DISC. CODE



MODEL 110-R

Eightar socket end, 8HR Basing,
accepts pins with .040 dia.,
(.600 pin circle dia.). Wired to
test 110° series similar to
17BZP4, 21CEP4, 23CP4, etc.
Plug end wired to Duo Decal 12L
Basing.

NET 1.55
QUANTITY DISC. CODE



MODEL 110-S

Socket end, button base, 7FA
Basing, accepts 7 pins .093 dia.,
(.820 pin circle dia.). Wired to
test 110° series similar to
17BVP4, 21CSP4, 23IP4, etc.
Plug end wired to Duo Decal 12L
Basing.

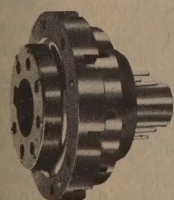
NET 1.55
QUANTITY DISC. CODE



MODEL 110-RS

Eightar socket end, 8HR Basing,
accepts pins with .040 dia., (.600
pin circle dia.). Wired to test
110° series similar to 17BZP4,
21CEP4, 23CP4, etc. Plug end,
7 pin Button, 7FA Basing.

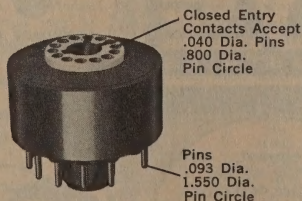
NET 1.95
QUAN. DISC. CODE

SYLVANIA TO RCA
110° CRT-ADAPTER

Socket End: Sylvania Type 7FA
Basing.
Plug End: RCA Type 8HR Basing.

MODEL 110-SYR NET 2.25

QUANTITY
DISC. CODE

COLOR-TUBE SOCKET
CONVERSION ADAPTER

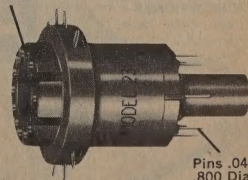
This single adapter will allow you to test
both the new Motorola and RCA color
tubes with your present test equipment.
Provision for accepting bases equipped
with spark gaps.

Socket End: Miniature Diheptal Socket,
14BE Basing.
Plug End: Neo-Diheptal Base, 14AL/AU
Basing.

QUANTITY DISC. CODE MODEL 2276 NET 5.95

COLOR-TEST ADAPTER
MINIATURE DIHEPTAL

Closed Entry
Contacts Accept
.040 Dia. Pins
.800 Dia. Pin Circle



Pins .040 Dia.
.800 Dia.
Pin Circle

MINIATURE DIHEPTAL
For Color Television
Picture Tubes
Provision for spark gaps.

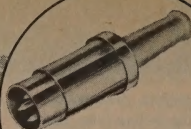
MODEL 2380

QUANTITY DISC. CODE NET 4.95



**MULTIPOLE PLUGS
SOCKETS & CONNECTORS
UP TO 36 POLES**

**MULTIPOLE CONNECTORS
UNSHIELDED**



**MULTIPOLE CONNECTORS
DOUBLE-SHIELDED
SHIELDED, UNSHIELDED**



**MINIATURE SOCKETS
SHIELDED AND UNSHIELDED**



**TEST PRODS
THIRD HAND PROBES**

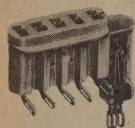
**PHONO PLUGS, SOCKETS
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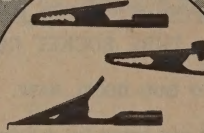
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I.E.C. CONNECTORS



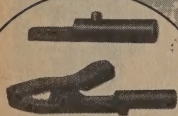
**MULTI-WAY
BINDING POSTS
AND TERMINALS**



**ALLIGATOR CLIPS
STAINLESS OR PLATED**



**ULTRA-MINIATURE
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**ALLIGATOR CLIPS
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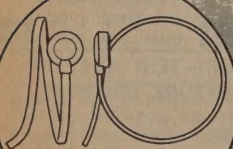
**UNDER
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HEADSETS**



**MINIATURE
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Ball bearing detent.**



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SUPERIOR 5-WAY® Binding Posts

5 WAYS TO CONNECT • GOLD-PLATED BRASS PARTS • RANGE OF COLORS

FLUTED NUT TYPES

Plastic parts of standard (not miniature) size types molded of Lexan polycarbonate resin; brass parts are gold-plated. Rated for 30 amperes, 1000 volts working. Nickel-plated brass types available on special order.

HEX NUT TYPES

Rated for 30 amperes, 1000 volts working. Brass parts are gold-plated; plastic parts are of nylon compounded to meet military specifications MIL-M-20693A, Type IV. Nickel-plated brass types available on order.

GROUNDING TYPE

For making rapid connections to ground. Made of finely machined brass nickel-plated and polished. Panel grounding collar frozen to shaft has "D" type shoulder for locking in keyed panel hole.

MINIATURE TYPES

Fluted nut design only. Rated for 15 amperes, 1000 volts working. Gold-plated brass parts; nylon plastic parts compounded to meet military specification MIL-M-20693A, Type IV. Types with nickel-plated brass available also.

FUSED TYPE

Rated for 250 volts, 15 amperes maximum. Built-in fuseholder accepts standard type 3AG fuse (not supplied). Fuse can be replaced from front of panel. Type FP15BGC has black captive thumbnut; types with noncaptive black, red, white, blue, yellow and green thumbnuts available on special order.

DUAL ADAPTER TYPE

Designed to facilitate line voltage connections from output receptacles to binding posts. Has integral parallel-blade plug. Rating is 15 amperes, 125 volts. Body is black; captive black and white thumbnuts are mounted on 3/4" centers. Brass parts are gold-plated. Ideal for safe, rigid connections to equipment lacking a parallel-blade plug and cord assembly.

DOUBLE ASSEMBLY TYPES

For instrument and equipment panels requiring binding posts mounted on 3/4" centers. Rated for a current capacity of 30 amperes and a working voltage of 1000 volts. Brass parts are gold-plated; panel insulators in black only. Rugged, self-contained assembly makes mounting more accurate.

faster and easier than two individual binding posts and gives maximum strength where connections are frequently made.

STYLE	TYPE	STYLE	TYPE
SUPERIOR 5-WAY® BINDING POSTS		DUAL ADAPTER TYPE	
FLUTED NUT — STANDARD	DF31*	BLACK & WHITE FLUTED NUTS	DAP15BWC
HEX NUT — STANDARD	DF30*		
GROUNDING — ALL METAL	GP30NC		
FLUTED NUT — MINIATURE	DF21*	DOUBLE ASSEMBLY TYPES	
FUSED TYPE		BLACK & WHITE HEX NUTS	DF30-2-BWTC
BLACK FLUTED NUT	FP15BGC	TWO BLACK HEX NUTS	DF30-2-BBC
		BLACK & RED HEX NUTS	DF30-2-BRC

*Add desired color suffix to series designation number: BC (black), BLC (blue), RC (red), WTC (white), YC (yellow), GNC (green). For example: DF21BLC.

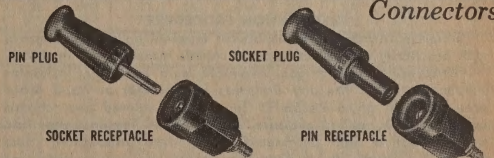
DUB-L-PLUG® Dual Electrical Connectors



For safe, rapid connections to binding posts mounted on 3/4" centers. Gold-plated current carrying parts, completely recessed integral banana plugs, captive black and white thumbnuts. Shielded/insulated type has die-cast, chrome-plated case; removable grounding banana plug; black nylon body. Insulated types have wire slots to permit stacking; nylon bodies in various colors.

NYLON BODY	INSULATED TYPE	SHIELDED/INSULATED
BLACK	IPG2BC	SPGK2BC
RED	IPG2RC	—
WHITE	IPG2WTC	—
BLUE	IPG2BLC	—
YELLOW	IPG2YC	—
GREEN	IPG2GNC	—

SUPERCON® Electrical Connectors



Nylon plastic parts; gold-plated brass current-carrying parts. Wiring connections to the same plug can be either soldered or solderless. Plug cable-fastening screws permit a wide range of cable sizes. Plug grips are of a simple, two-piece threaded construction for quick assembly. All receptacle plastic parts are molded of the same color to permit more rapid and accurate circuit identification front and back of panel when installed. The 25, 50 and 100 ampere types are listed by Underwriters' Laboratories, Inc.

AMPERES	PIN PLUGS TYPE†	SOCKET RECEPTACLES TYPE†	SOCKET PLUGS TYPE†	PIN RECEPTACLES TYPE†
25	PP25G	RS25G	PS25G	RP25G
50	PP50G	RS50G	PS50G	RP50G
100	PP100G	RS100G	PS100G	RP100G
250	PP250G	RS250G	PS250G	RP250G

†Add desired color suffix to series designation number: B (black), BL (blue), R (red), WT (white), Y (yellow), GN (green). For example: PS25GWT.



THE SUPERIOR ELECTRIC COMPANY

SEE OTHER SUPERIOR ELECTRIC PRODUCT PAGES IN SECTIONS 3500, 4000 AND 5600

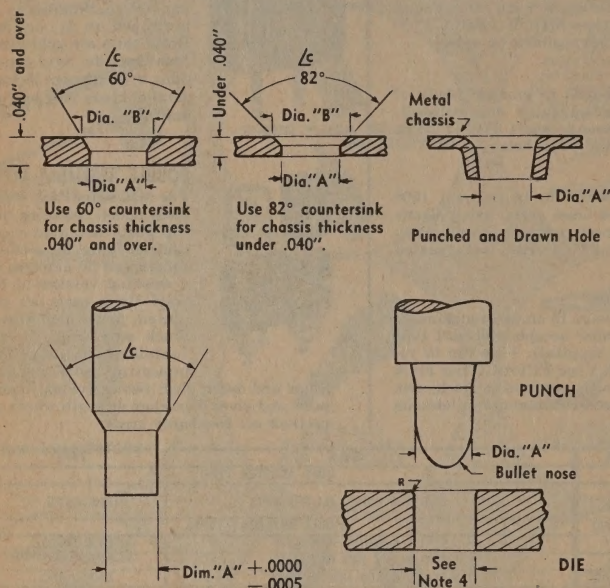


Sealectro PRESS-FIT® TEFLON† TERMINALS

†Reg. Trademark, E. I. Du Pont de Nemours & Co.

INSTALLATION PROCEDURE

FEED-THRU AND STAND-OFF



PUNCH AND COUNTERSINK DETAIL

DRAW PUNCH AND DIE DETAIL

Bushing minor diameter $+ .002$ $- .000$	Hole or punch Dia. "A" $\pm .002$	Dia. "B" $+ .010$ $- .000$
.093	.086	.110
.104	.091	.115
.125	.113	.135
.127	.114	.140
.135	.122	.145
.148	.136	.160
.165	.152	.175
.171-.172	.158	.175
.175	.162	.195
.179	.166	.185
.185	.172	.195
.200	.187	.210
.204	.191	.235
.215	.203	.235
.217-.218	.205	.235
.234	.221	.240
.263	.250	.280
.266	.253	.280

NOTES

1. Teflon should protrude .040" min. below chassis.
2. Clearance between punch and die should be held to normal shop tolerances governed by material and thickness and type.
3. Predrawn hole size is governed by material type and thickness.
4. Die diameter is punch diameter plus double the metal thickness, tolerances being consistent with normal shop practice.

INSTALLATION PROCEDURE

Simplest, fastest, most economical terminal installation known, with practically no restriction as to chassis material and thickness. Inexpensive insertion tool available from Sealectro, facilitates installation. Tool fits any drillpress (power off) or hand arbor press, to hold given PRESS-FIT Terminal. Centered over chassis hole, and with applied pressure, the PRESS-FIT Terminal slips into the hole for a rigid permanent, trouble-free installation. Just PRESS-FIT — that's it! In four easy steps:

(1) PUNCH OR DRILL HOLE . . .

.013" $\pm .002$ " less than diameter of terminal section (dia. "G" in tables) passing through chassis. Minimum protrusion of bushing passing through chassis, .040". Maximum thickness of chassis .125"; for greater thickness, ask for our recommendations. Countersink from breakout or die side of chassis (not from punch side).

(2) COUNTERSINK ENTRANCE EDGE . . .

Use 60° countersink when chassis thickness is .040" and over; use 82° countersink when chassis thickness is less than .040". This enables centering of terminal in hole and prevents scoring the Teflon bushing. Depth and maximum diameter of countersink is determined by thickness of chassis stock and bushing's major diameter.

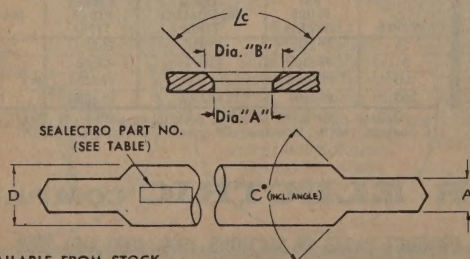
(3) INSERTION TOOL . . .

Insertion tool is placed in chuck of drillpress (power off) or hand arbor press. Terminal is held by tool, leaving assembler's hands free to index and center chassis hole underneath tool. Proper pressure is applied and released just as soon as major diameter of terminal seats itself.

(4) PERMANENT INSTALLATION . . .

PRESS-FIT Terminal is now permanently secured in place.

DRILL AND COUNTERSINK IN 1 OPERATION



AVAILABLE FROM STOCK

SEALECTRO PART NO.	DIMENSION			
	A	B*	C°	D
086-115-60	.086	.115	60	.187
112-140-60	.112	.140	60	.187
136-160-60	.136	.160	60	.187
136-160-82	.136	.160	82	.187
152-175-60	.152	.175	60	.187
158-175-60	.158	.175	60	.187
172-195-60	.172	.195	60	.250

Note: B* is recommended diameter of countersink $\pm .010$

STAND-OFFS

MICROMINIATURE and SUBMINIATURE

PART No.	TOOL NO.	CAPACITANCE mmf	V.RMS 60 CPS		A	B	B ₁	B ₂	C	D	E DIA.	E ₁ DIA.	F DIA.	+ .002 - .000 G DIA.	K	K ₁
			NOMINAL RATING	FLASHOVER SEA LEVEL												
ST-SM-3C1-L6	B3-10	0.35	750	2500	.213	.093			.031	.089	.040		.125	.093		
ST-SM-7	B3-1	0.30	1000	3000	.262	.147			.040	.075	.040		.125	.093		
ST-SM-7LT	B3-1	0.40	1000	3000	.299	.174			.040	.085	.040		.125	.093		
ST-SM-16	B3-1	0.60	1000	3000	.350	.210			.040	.100	.040		.125	.093		
ST-SM-3C1-L4	B3-4	0.50	750	2500	.250	.130			.031	.089	.040		.125	.104		
ST-SM-1	B-8	0.45	1000	3000	.350	.210			.040	.100	.040		.172	.148		
*ST-SM-1C2	B-8	0.50	1000	3000	.410	.210			.040	.160	.040		.172	.148		
ST-SM-1	B-8	0.50	1000	3000	.500	.210			.040	.250	.040		.172	.148		
ST-SM-1L2	B-8	0.40	1000	3000	.265	.125			.040	.100	.040		.172	.148		
ST-SM-1L2-C2	B-8	0.40	1000	3000	.280	.125			.040	.115	.040		.172	.148		
ST-SM-1L4	B-8	0.35	1000	3000	.250	.110			.040	.100	.040		.172	.148		
ST-SM-1L6	B-8	0.40	1000	3000	.285	.145			.040	.100	.040		.172	.148		
ST-SM-1L6-C2	B-8	0.30	1000	3000	.260	.145			.040	.075	.040		.172	.148		
ST-SM-1L8	B-8	0.50	1000	3000	.750	.610			.040	.100	.040		.172	.148		
ST-SM-1L10	B-8	0.50	1000	3000	.594	.450			.040	.100	.040		.172	.148		
ST-SM-1L12	B-8	0.40	1000	3000	.460	.320			.040	.100	.040		.172	.148		
ST-SM-2	B-8	0.35	1000	3000	.310	.210			.050	.050	.040		.172	.148		
ST-SM-2C2	B-8	0.50	1000	3000	.335	.210			.050	.075	.040		.172	.148		
ST-SM-2C2-L2	B-8	0.20	1000	3000	.230	.105			.050	.075	.040		.172	.148		
ST-SM-2C4	B-8	0.40	1000	3000	.370	.210			.050	.110	.040		.172	.148		
ST-SM-2C6	B-8	0.40	1000	3000	.305	.145			.050	.110	.040		.172	.148		
ST-SM-2C6-C2	B-8	0.30	1000	3000	.247	.147			.050	.050	.040		.172	.148		
*ST-SM-2L2	B-8	0.35	1000	3000	.250	.150			.030	.070	.040		.172	.148		
ST-SM-2L4	B8-G1	0.30	1000	3000	.210	.120			.030	.060	.040		.172	.148		
ST-SM-500	B8-18A	0.40	1000	3000	.360	.204			.046	.110	.046		.172	.148		
ST-SM-6	B-8	0.40	1200	3500	.345	.210			.060	.075	.040		.172	.148		
ST-SM-8	B-8	0.45	1000	3000	.370	.210			.040	.120	.040		.172	.148		
ST-SM-15	B-8	0.35	1500	4000	.350	.210			.078	.062	.040		.172	.148		
ST-SM-19	B-8	0.45	1000	3000	.365	.193			.040	.132	.040		.172	.148		
ST-SM-9	B-15	0.45	1000	3000	.350	.210			.040	.100	.040		.172	.148		
ST-SM-4	B-16	0.35	1200	3500	.350	.210			.040	.100	.040		.200	.179		
ST-SM-5	B-22	0.35	1200	3500	.350	.210			.040	.100	.040		.250	.218		
ST-SM-15L	B8-16	0.40	1000	3000	.265	.125			.040	.100	.040		.172	.148	.010	.010
ST-MM-10-TUR	B3-2C	0.40	1000	3000	.310	.170	.020	.060	.040	.100	.030	.060	.125	.093		
ST-SM-16-TUR	B3-2B	0.60	1000	3000	.350	.210	.020	.100	.040	.100	.040	.080	.125	.093		
ST-SM-027-TUR	B8-A	0.60	1000	3000	.480	.250	.020	.093	.040	.190	.040	.093	.172	.130		
ST-SM-1 TUR	B-8	0.40	1000	3000	.375	.210	.020	.100	.040	.100	.040	.080	.172	.148		
ST-SM-1 TUR-C2	B-8	0.50	1000	3000	.375	.210	.020	.100	.040	.125	.040	.080	.172	.148		
ST-SM-TUR-C4	B-8	0.40	1000	3000	.360	.210	.020	.100	.040	.110	.040	.080	.172	.148		
ST-SM-19 TUR-C2	B-8	0.55	1000	3000	.500	.210	.020	.100	.040	.250	.040	.080	.172	.148		
ST-SM-22 TUR	B-8	0.50	1700	4500	.428	.210	.020	.100	.093	.125	.040	.080	.172	.148		
ST-SM-22 TUR-C2	B-8	0.30	1700	4500	.461	.210	.020	.100	.093	.158	.040	.080	.172	.148		
*ST-SM-25 TUR	B8-A	0.50	1000	3000	.334	.154	.020	.046	.040	.140	.046	.093	.172	.148		
ST-SM-25 TUR-C2	B8-A	0.35	1000	3000	.254	.154	.020	.046	.040	.060	.046	.093	.172	.148		
*ST-SM-29 TUR	B8-A	0.50	1000	3000	.455	.250	.020	.093	.040	.165	.040	.093	.172	.148		
ST-SM-29 TUR-C2	B8-A	0.60	1000	3000	.540	.250	.020	.093	.040	.250	.040	.093	.172	.148		
ST-SM-51 TUR-L2	B8-A	0.50	1000	3000	.470	.250	.020	.093	.040	.180	.040	.093	.172	.148		
ST-SM-51 TUR-C2	B8-A	0.45	1400	3800	.346	.156	.020	.047	.040	.150	.047	.093	.172	.152		
ST-SM-51 TUR-C4	B8-A	0.40	1000	3000	.296	.156	.020	.047	.040	.100	.047	.093	.172	.152		
ST-SM-51 TUR-C6	B8-A	0.50	1000	3000	.361	.156	.020	.047	.040	.165	.047	.093	.172	.152		
ST-SM-51 TUR-L2	B8-A	0.40	1000	3000	.335	.207	.020	.100	.040	.088	.047	.093	.172	.152		
ST-SM-52 TUR	B8-A	0.30	1000	3000	.347	.207	.020	.100	.040	.100	.047	.093	.172	.152		
ST-SM-4 TUR	B-16	0.35	1000	3000	.350	.210	.020	.100	.040	.100	.040	.080	.200	.179		
ST-SM-20 TUR	B-18	0.40	1000	3000	.350	.210	.020	.100	.040	.100	.040	.080	.218	.185		
ST-SM-21 TUR	B-18	0.40	1000	3000	.375	.210	.020	.100	.040	.125	.040	.080	.218	.185		
ST-SM-23 TUR	B-22	0.40	1200	3500	.350	.210	.020	.100	.040	.100	.040	.080	.250	.204		
ST-SM-50 TUR	B-8	0.30	1000	3000	.262	.125	.020	.085	.050	.087	.040	.080	.172	.148		
ST-SM-362 TUR	B-8	0.30	1000	3000	.250	.110	.020	.080	.040	.100	.040	.080	.172	.148		
ST-SM-36 TUR	B-16	0.35	1500	4000	.320	.120	.020	.080	.075	.125	.040	.090	.200	.172		
ST-SM-40 TUR	B-9	0.40	1000	3000	.392	.232	.029	.031	.050	.110	.070	.109	.172	.148		
ST-SM-45 TUR	B8-13B	0.40	1000	3000	.362	.232	.029	.031	.050	.080	.070	.109	.172	.148		
ST-SM-47 TUR	B-8	0.30	1000	3000	.328	.210	.020	.120	.040	.078	.040	.080	.172	.148		
ST-SM-47 TUR-C2	B-8	0.40	1000	3000	.350	.210	.020	.120	.040	.100	.040	.080	.172	.148		
ST-SM-47 TUR-C4	B-8	0.50	1000	3000	.415	.210	.020	.120	.040	.165	.040	.080	.172	.148		
ST-SM-47 TUR-C6	B-8	0.50	1000	3000	.428	.210	.020	.120	.093	.125	.040	.080	.172	.148		
ST-SM-42 TUR	B3-2A	0.40	1000	3000	.334	.153	.015	.031	.041	.140	.068	.078	.125	.093		
ST-SM-44 TUR	B-2	0.40	1000	3000	.255	.150	.015	.031	.030	.075	.068	.078	.125	.093		

Wet Lug: Brass, Solder Finish (40 to 70% Tin Content) Electro-Plate .0003" Minimum Thick (*Silver—**Gold Flash over Silver)
 Dimensions and voltage measured with terminals installed in .050" thick aluminum chassis.

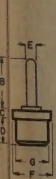


Fig. 1

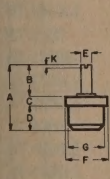


Fig. 2

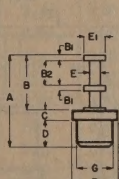


Fig. 3

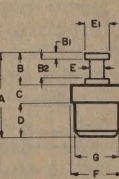


Fig. 4

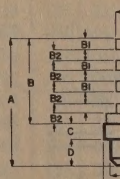


Fig. 5

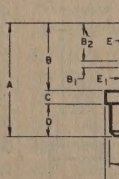


Fig. 6

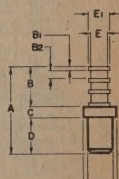


Fig. 7

STAND-OFFS

MICROMINIATURE and SUBMINIATURE

FIG.	PART No.	TOOL NO.	CAPACITANCE mmf	V.RMS 60 CPS		A	B	B ₁	B ₂	C	D	E	E ₁	F	G	K	K ₁
				NOMINAL RATING	FLASHOVER SEA LEVEL												
51	RST-SM-3-C1	B-3-B	0.40	1000	3000	.250	.130			.031	.089	.040		.125	.093		
51	RST-SM-16	B-3-2X	0.40	1000	3000	.350	.210			.040	.100	.040		.125	.093		
51	RST-SM-3	B-3-B	0.30	1000	3000	.250	.130			.031	.089	.040		.125	.104		
51	RST-SM-3-C3	B-3-B	0.30	1000	3000	.250	.130			.031	.089	.040		.125	.106		
51	RST-SM-11C1	B8-G	0.45	1500	4000	.350	.210			.020	.120	.040		.172	.112		
51	RST-SM-39-C1	B-8-M	0.35	1000	3000	.350	.210			.015	.125	.040		.172	.112		
51	RST-SM-13	B6-X1	0.50	500	2000	.310	.210			.040	.060	.040		.150	.125		
51	RST-SM-1	B8-X1	0.40	1200	3500	.350	.210			.040	.100	.040		.172	.148		
51	RST-SM-1B2	B8-G	0.40	1200	3500	.330	.210			.020	.100	.040		.172	.148		
51	RST-SM-1-CB	B8-X1	0.30	1000	3000	.330	.210			.046	.074	.040		.170	.148		
51	RST-SM-1C6	B8-X1	0.40	2000	5000	.500	.210			.040	.250	.040		.172	.148		
51	RST-SM-1L2	B8-X1	0.50	1200	3500	.265	.125			.040	.100	.040		.172	.148		
51	RST-SM-1L8	B8-X1	0.50	1200	3500	.750	.610			.040	.100	.040		.172	.148		
51	RST-SM-2	B8-X2	0.40	1000	3000	.310	.210			.050	.050	.040		.172	.148		
51	RST-SM-6	B8-X	0.35	1200	3500	.345	.210			.060	.075	.040		.172	.148		
51	RST-SM-7C2	B8-X1	0.30	1200	3500	.382	.210			.040	.132	.045		.172	.148		
51	** RST-SM-11	B8-G	0.30	1200	3500	.350	.210			.020	.120	.040		.172	.148		
51	RST-SM-28	B8-X1	0.35	1500	4000	.390	.218			.040	.132	.040		.172	.148		
51	RST-SM-39	B-8-M	0.30	1200	3500	.350	.210			.015	.125	.040		.172	.148		
51	RST-SM-3CD3	B-15-X	0.45	1000	3000	.500	.360			.040	.100	.040		.195	.172		
52	RST-SM-3SL	B3-2X	0.50	500	2000	.350	.210			.040	.100	.080		.125	.104	.036	.180
52	RST-SM-41SL	B6-C	0.30	750	2500	.150	.062			.025	.063	.050		.150	.125	.020	.047
53	RST-SM-47-TUR	B8-X-1	0.40	1000	3000	.328	.210	.020	.120	.040	.078	.040	.080	.172	.148		
53	RST-SM-47-TUR-C2	B8-X-1	0.40	1200	3500	.350	.210	.020	.120	.040	.100	.040	.080	.172	.148		
54	RST-MM-10-TUR	B1-2	0.40	500	2000	.310	.170	.020	.060	.040	.100	.030	.060	.125	.093		
54	RST-SM-25-TUR-C4	B8-X-1	0.40	1500	4000	.295	.156	.020	.046	.040	.100	.046	.093	.172	.148		
54	RST-SM-38-TUR	B10	0.40	1500	4000	.405	.210	.020	.100	.040	.155	.040	.080	.188	.171		
54	RST-SM-1-TUR	B8-X-1	0.40	1200	3500	.350	.210	.020	.100	.040	.100	.040	.080	.172	.148		
54	RST-SM-4-TUR	B16	0.40	1500	4000	.350	.210	.020	.100	.040	.100	.040	.080	.200	.179		
54	RST-SM-20-TUR	B18	0.40	1500	4000	.350	.210	.020	.100	.040	.100	.040	.080	.218	.185		
54	RST-SM-21-TUR	B18	0.30	1700	4500	.375	.210	.020	.100	.040	.125	.040	.080	.218	.185		
54	RST-SM-23-TUR	B22-X-2	0.30	1500	4000	.350	.210	.020	.100	.040	.100	.040	.080	.250	.204		
55	RST-SM-31-TUR	B8-X-1	0.50	1700	4500	.455	.227	.020	.187	.040	.187	.040	.080	.172	.148		
55	RST-SM-31-TUR-CD1	B8-3	0.35	1500	4000	.382	.227	.020	.187	.025	.130	.040	.080	.172	.148		
55	RST-SM-31-TUR-L2	B8-X-1	0.40	1200	3500	.296	.156	.020	.116	.040	.100	.046	.093	.172	.148		
55	RST-SM-352-TUR	B8-X-1	0.40	1200	3500	.250	.110	.020	.080	.040	.100	.040	.080	.172	.148		
55	RST-SM-350-TUR	B10	0.20	1500	4000	.320	.125	.020	.080	.040	.155	.040	.080	.188	.171		
55	RST-SM-36-TUR	B16	0.30	1500	4000	.320	.120	.020	.080	.075	.125	.048	.090	.200	.172		

Terminal Lug: Brass, Solder Finish (40 to 70% Tin Content) Electro-Plate .0003" Minimum Thickness.
Capacitance and voltage measured with terminals installed in .050" thick aluminum chassis.

**Gold flash over silver.

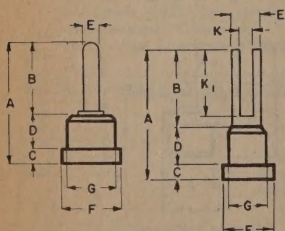


Fig. 51

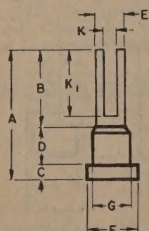


Fig. 52

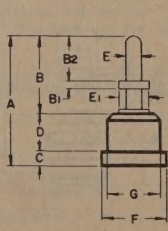


Fig. 53

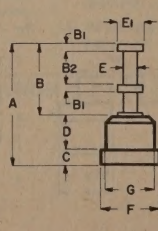


Fig. 54

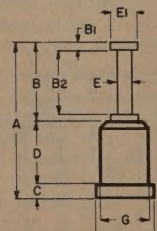


Fig. 55

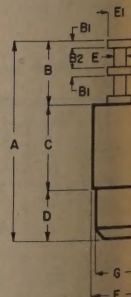


Fig. 101

Sealelectro PRESS-FIT® TEFLON TERMINALS — AVAILABLE IN TEN EIA COLORS

STAND-OFFS MINIATURE

FIG. #	PART No.	TOOL NO.	CAPACI- TANCE mmf	V,RMS		60 CPS		A	B	B ₁	B ₂	C	D	E	E ₁	F	G
				NOMINAL RATING	FLASHOVER SEA LEVEL												
101	ST-210	B3-A	0.50	1500	4000	.346	.156	.020	.046	.103	.087	.046	.093	.125	.104		
101	ST-211	B3-A	0.50	1500	4000	.346	.156	.020	.046	.103	.087	.046	.093	.125	.104		
101	ST-215	B3-A	0.50	1500	4000	.359	.156	.020	.046	.103	.103	.046	.093	.125	.104		
101	ST-1200	B6-10	0.20	3000	7000	.531	.156	.020	.046	.219	.156	.046	.093	.156	.127		
101	ST-1400L2	B12-3	0.30	2800	7500	.647	.250	.020	.093	.250	.150	.040	.093	.187	.135		
101	ST-230L2	B9-3	0.50	2500	6000	.482	.250	.020	.094	.125	.110	.040	.093	.172	.148		
101	ST-1175L2	B9-3	0.30	3200	7500	.598	.250	.020	.093	.187	.165	.040	.093	.172	.148		
101	ST-250	B12	0.30	2500	6000	.431	.156	.020	.046	.125	.150	.046	.093	.187	.165		
101	ST-250L2	B12	0.50	2500	6000	.522	.250	.020	.093	.125	.150	.040	.093	.187	.165		
101	ST-250L3	B12-2	0.60	2000	5000	.556	.281	.031	.093	.125	.150	.046	.125	.187	.165		
101	ST-250L6	B12	0.50	2500	6000	.485	.210	.020	.100	.125	.150	.040	.093	.187	.165		
101	ST-260L3	B13	0.60	3000	7000	.556	.281	.031	.093	.175	.100	.046	.125	.187	.165		
101	ST-1000	B13	0.20	2800	6700	.493	.156	.020	.046	.187	.150	.046	.093	.187	.165		
101	ST-1000L2	B13	0.30	2800	6700	.584	.250	.020	.093	.187	.150	.040	.093	.187	.165		
101	ST-1000L3	B13-3B	0.65	2500	6000	.616	.281	.031	.093	.187	.150	.046	.125	.187	.165		
101	ST-1000-2C	B13	0.30	2800	6700	.468	.156	.020	.046	.187	.125	.046	.093	.187	.165		
101	ST-1450L3	B13-3B	0.55	3000	7000	.681	.281	.031	.093	.200	.200	.046	.125	.187	.165		
101	ST-1500	B12-3	0.20	3100	7300	.556	.156	.020	.046	.250	.150	.046	.093	.187	.165		
101	ST-1500L2	B12-3	0.30	3100	7300	.647	.250	.020	.093	.250	.150	.040	.093	.187	.165		
101	ST-1500L3	B13	0.35	3100	7300	.681	.281	.031	.093	.250	.150	.046	.125	.187	.165		
101	ST-1525	B12-3	0.25	3000	7000	.706	.156	.020	.046	.250	.300	.046	.093	.187	.165		
101	ST-1900	B13-4	0.20	3500	8000	.831	.281	.031	.093	.350	.200	.046	.125	.187	.165		
101	ST-1901	B12	0.25	3500	8000	.893	.343	.031	.125	.350	.200	.047	.125	.187	.165		
101	ST-2000	B13-3B	0.25	4500	10000	.831	.281	.031	.093	.400	.150	.046	.125	.187	.165		
101	ST-2000L2	B12-3	0.20	4500	10000	.797	.250	.020	.093	.400	.150	.040	.093	.187	.165		
101	ST-2000L2-C2	B12-3	0.20	4500	10000	.797	.250	.020	.093	.400	.100	.040	.093	.187	.165		
101	ST-2000L3	B12-3	0.15	4500	10000	.706	.156	.020	.046	.400	.150	.046	.093	.187	.165		
101	ST-2000L3-C2	B12-3	0.20	4500	10000	.656	.156	.020	.046	.400	.100	.046	.093	.187	.165		
101	ST-250C1	B12	0.30	2500	6000	.431	.156	.020	.046	.125	.150	.046	.093	.187	.171		
101	ST-250L3-C1	B12-2	0.60	2000	5000	.556	.281	.031	.093	.125	.150	.046	.125	.187	.171		
101	ST-250L4	B12-2	0.60	2000	5000	.556	.281	.031	.093	.125	.150	.062	.125	.187	.171		
101	ST-250L4-C2	B12	0.65	2000	5000	.621	.281	.031	.093	.125	.215	.062	.125	.187	.171		
101	ST-250L5	B12	0.50	2500	6000	.485	.210	.020	.100	.125	.150	.040	.080	.218	.171		
101	ST-251C1	B12	0.35	2500	6000	.485	.210	.020	.100	.125	.150	.040	.080	.187	.171		
101	ST-1000C1	B13	0.20	2800	6700	.493	.156	.020	.046	.187	.150	.046	.093	.187	.171		
101	ST-1000L2-C1	B13	0.35	2800	6700	.584	.250	.020	.093	.187	.150	.040	.093	.187	.171		
101	ST-1500C1	B12-3	0.25	3100	7300	.556	.156	.020	.046	.250	.150	.046	.093	.187	.171		
101	ST-1500L3-C1	B13	0.40	3100	7300	.681	.281	.031	.093	.250	.150	.046	.125	.187	.171		
101	ST-1500L4-C1	B12-3	0.15	3200	7500	.610	.210	.020	.100	.250	.150	.040	.080	.187	.171		
101	ST-1501C1	B13	0.20	3100	7300	.593	.156	.020	.046	.250	.187	.046	.093	.187	.171		
101	ST-1525C1	B12-3	0.20	3000	7000	.706	.156	.020	.046	.250	.300	.046	.093	.187	.171		
101	ST-2000C1	B13-3B	0.25	4500	10000	.831	.281	.031	.093	.400	.150	.046	.125	.187	.171		
101	ST-2000C4	B13-3B	0.40	3000	7000	.831	.281	.031	.093	.250	.300	.046	.125	.187	.171		
101	ST-2500C1	B26	0.20	5500	12000	.968	.281	.031	.093	.500	.187	.046	.125	.250	.171		
101	ST-4000C1	B26	0.25	6000	13000	1.268	.281	.031	.093	.800	.187	.046	.125	.250	.171		
101	ST-941	B19-A	0.60	2500	6000	.546	.281	.031	.093	.125	.140	.046	.125	.218	.185		
101	ST-1510L3	B24-1	0.40	3000	7000	.718	.281	.031	.093	.250	.187	.046	.125	.250	.215		
101	ST-2500	B26	0.20	5500	12000	.968	.281	.031	.093	.500	.187	.046	.125	.250	.215		
101	ST-2500B2	B24-1	0.30	4000	9000	.968	.281	.031	.093	.370	.317	.046	.125	.250	.215		
101	ST-2500L2	B26	0.20	5200	11500	.934	.250	.020	.093	.500	.187	.040	.093	.250	.215		
101	ST-2500L3	B26	0.20	5200	11500	.843	.156	.020	.046	.500	.187	.046	.093	.250	.215		
101	ST-4000	B26	0.30	6000	13000	1.268	.281	.031	.093	.800	.187	.046	.125	.250	.215		
101	ST-4000L2	B26	0.25	6000	13000	1.234	.250	.020	.093	.800	.187	.040	.093	.250	.215		
101	ST-4000L3	B26	0.15	6000	13000	1.143	.156	.020	.046	.800	.187	.046	.093	.250	.215		

Terminal Lugs: Brass, Silver Plate .0003" Min. Thick.

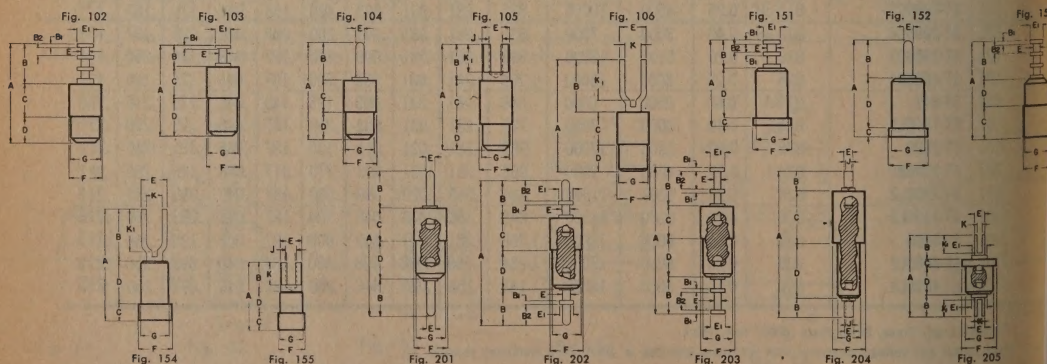
Capacitance and voltage measured with terminals installed in .050" thick aluminum chassis.

See preceding page for figure drawing

STAND-OFFS MINIATURE and SUBMINIATURE

FIG.	PART No.	TOOL NO.	CAPACITANCE mmf	V.R.M.S		A	B	B ₁	B ₂	C	D	E DIA.	E ₁ DIA.	F DIA.	+ .002 - .000 G DIA.	J DIA.	K
				NOMINAL RATING	60 CPS FLASH OVER SEA LEVEL												
102	ST-1150	B12	0.60	2500	6000	.555	.218	.020	.046	.187	.150	.046	.093	.187	.171		
103	ST-1500TUR	B12-3	0.20	2700	6500	.520	.120	.020		.250	.150	.048	.090	.187	.165		
103	ST-1600-TUR	B13-3B	0.20	2000	6000	.519	.120	.020		.187	.212	.048	.090	.187	.171		
104	ST-251*	B13-3	0.45	2000	5000	.485	.210			.125	.150	.040		.187	.165		
104	ST-1020LS*	B13-3	0.40	2200	5500	.547	.210			.187	.150	.040		.187	.165		
104	ST-1181*	B13	0.70	2200	5500	.718	.312			.187	.218	.040		.187	.165		
104	ST-1182*	B16-1	0.55	2500	5500	.600	.300			.125	.175	.062		.200	.180		
105	ST-1500SL-C3	B11	0.50	2700	6500	.603	.203			.250	.150	.148		.187	.165	.078	
105	ST-250SL	B11	0.70	2000	5000	.478	.203			.125	.150	.148		.187	.171	.078	
105	ST-250SL-1L	B11	0.70	2000	5000	.478	.203			.125	.150	.148		.187	.171	.046	
105	ST-1000SL-1L	B11	0.70	2300	5600	.540	.203			.187	.150	.148		.187	.171	.078	
105	ST-1000SL-1L	B11	0.70	2300	5600	.540	.203			.187	.150	.148		.187	.171	.046	
105	ST-1150SL-1L	B11	0.50	2300	5600	.555	.203			.187	.165	.148		.187	.171	.046	
105	ST-1180SL	B11	0.70	2300	5600	.602	.203			.187	.212	.148		.187	.171	.078	
105	ST-1180SL-C2	B11	0.80	2300	5600	.620	.203			.187	.230	.148		.187	.171	.078	
105	ST-1500SL	B11	0.45	2700	6500	.603	.203			.250	.150	.148		.187	.171	.078	
105	ST-1500SL-1L	B11	0.45	2700	6500	.603	.203			.250	.150	.148		.187	.171	.046	
105	ST-2000SL	B11	0.30	4200	9500	.753	.203			.400	.150	.148		.187	.171	.078	
105	ST-2000SL-1L	B11	0.30	4200	9500	.753	.203			.400	.150	.148		.187	.171	.046	
105	ST-2000SL-C2	B11	0.30	4200	9500	.703	.203			.400	.100	.148		.187	.171	.078	
105	ST-2500SL-C1	B25	0.30	5000	11000	.890	.203			.500	.187	.148		.250	.171	.078	
105	ST-4000SL-C1	B25	0.25	6000	13000	1.190	.203			.800	.187	.148		.250	.171	.078	
105	ST-2500SL	B25	0.30	5000	11000	.890	.203			.500	.187	.148		.250	.217	.078	
105	ST-2500SL-1L	B25	0.30	5000	11000	.890	.203			.500	.187	.148		.250	.217	.046	
105	ST-4000SL	B25	0.20	6000	13000	1.190	.203			.800	.187	.148		.250	.217	.078	
105	ST-4000SL-1L	B25	0.25	6000	13000	1.190	.203			.800	.187	.148		.250	.217	.046	
106	ST-35ML	B11-C	0.85	2000	5000	.633	.296			.187	.150	.150		.187	.171		.090
151	RST-1	B18-1B	0.40	3000	7000	.487	.154	.020	.046	.046	.287	.046	.093	.218	†.185		
151	RST-1L2	B18-1B	0.20	3000	7000	.583	.250	.020	.093	.046	.287	.046	.093	.218	†.185		
152	RST-2	B18	0.15	3200	7500	.543	.210			.046	.287	.040		.218	.185		
152	RST-2C2	B18-1B	0.50	4000	9000	.756	.210			.046	.500	.040		.218	.185		
152	RST-2L2	B18	0.70	2500	6000	1.133	.800			.046	.333	.040		.218	.185		
153	RST-1150	B13-X	0.70	1200	3500	.555	.218	.020	.046	.187	.150	.046	.093	.187	.171		
154	RST-15ML	B13-X-2	0.75	2000	5000	.629	.296			.093	.240	.150		.187	.171		.090
155	RST-250SL	B12-X	0.75	1900	4800	.478	.203			.125	.150	.148		.187	.165	.078	
201	DST-SM-110*	B8-16	0.20	1000	3000	.560	.180			.040	.160	.040		.172	.148		
201	DST-SM-110-L4*	B8-11	0.15	1500	4000	.600	.155			.080	.210	.040		.172	.148		
201	DST-1010-C2*	B13-3-1	0.20	2700	6400	.819	.210			.187	.212	.040		.187	.148		
201	DST-1010-C4*	B9	0.20	2700	6400	.819	.210			.187	.212	.040		.172	.148		
201	DST-SM-105*	B17	0.25	1000	3000	.640	.210			.050	.170	.040		.205	.169		
201	DST-900*	B12	0.15	2000	5000	.572	.110			.140	.212	.040		.187	.171		
201	DST-900-L2	B12	0.20	2000	5000	.696	.172			.140	.212	.040		.187	.171		
201	DST-1010*	B13-3-1	0.20	2700	6500	.819	.210			.187	.212	.040		.187	.171		
201	DST-1010-L1*	B13	0.20	1500	4000	.587	.125			.187	.150	.040		.187	.171		
202	DST-1001*	B13	0.20	2000	6000	.819	.210	.020	.120	.187	.212	.040	.080	.187	.171		
203	DST-1000-C2*	B13	0.20	2000	5000	.819	.210	.020	.100	.187	.212	.040	.080	.187	.148		
203	DST-SM-105-TUR*	B17	0.20	1000	3000	.640	.210	.020	.100	.050	.170	.040	.080	.205	.169		
203	DST-1000*	B13	0.20	2500	6000	.819	.210	.020	.100	.187	.212	.040	.080	.187	.171		
203	DST-1015*	B20	0.20	2700	6500	.819	.210	.020	.100	.187	.212	.040	.080	.218	.187		
203	DST-1550	B24-1	0.40	3500	8000	1.187	.281	.031	.093	.250	.375	.046	.125	.250	.218		
203	DST-2550	B26	0.35	5000	11000	1.687	.281	.031	.093	.500	.625	.046	.125	.250	.218		
203	DST-4050	B26	0.30	6000	13000	2.287	.281	.031	.093	.800	.925	.046	.125	.250	.218		
204	DST-2560	B28	0.15	4000	9000	1.377	.176			.500	.525	.085		.312	.217	.062	.156
205	DTS-SM-101SL*	B10-3	0.20	1000	3000	.480	.140			.040	.160	.060	.093	.185	.165		.032
205	DST-SM-100SL*	B17	0.20	1000	3000	.480	.140			.040	.160	.060	.093	.205	.169		.032

Terminal Lug: Brass, Silver Plate .0003" Min. Thick. *Solder Finish (40 to 70% Tin Content) Electro-Plate .0003" Min. Thick.
Capacitance and voltage measured with terminals installed in .050" thick aluminum chassis.

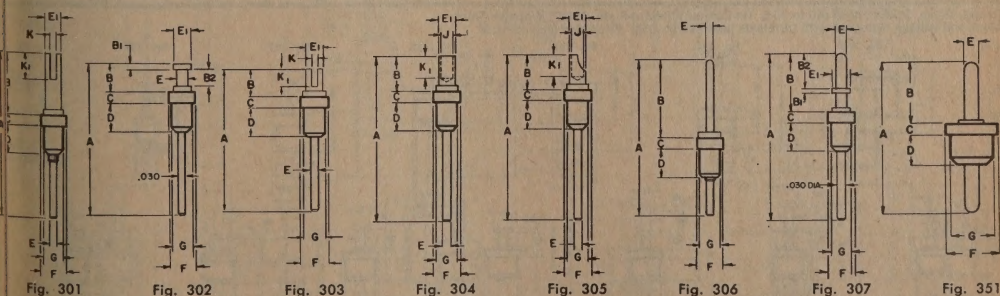


EED-THRUS MICROMINIATURE and SUBMINIATURE

PART No.	TOOL NO.	CAPACITANCE mmf	V.R.M.S. NOM. INAL RATING	60 CPS FLASH-OVER SEA LEVEL	A	B	B ₁ *	B ₂	C	D	E DIA.	E ₁ DIA.	F DIA.	+ .002 - .000 G DIA.	J	K	K ₁
FT-MM-3SL	B0-1	0.65	400	1800	.510	.100			.040	.090	.030	.060	.093	.075		.024	.080
FT-MM-3SL-2L	B0-1-A	0.75	400	1800	.635	.225			.040	.090	.030	.060	.093	.075		.024	.075
FT-MM-3SL-4L	B0-1	0.65	400	1800	.471	.110			.040	.090	.030	.060	.093	.075		.024	.080
FT-MM-5-TUR	B0	0.70	400	1800	.510	.100	.020	.060	.040	.100	.040	.060	.093	.075			
FT-MM-5SL	B0-1	0.70	400	1800	.510	.100			.040	.100	.030	.060	.093	.075		.024	.080
FT-MM-6SL	B0-1	0.70	400	1800	.552	.100			.040	.100	.030	.060	.093	.075		.024	.080
FT-MM-7	B0-1	0.70	400	1800	.588	.125			.040	.100	.030	.060	.093	.075	.040		.080
FT-MM-7ML	B0-1	0.70	400	1800	.588	.120			.040	.100	.030	.060	.093	.075	.040		.080
FT-MM-16L2	B0-2	0.70	400	1800	.550	.275			.040	.100	.030		.093	.075			
FT-MM-47-TUR	B0-A	1.05	500	2000	1.500	.210	.020	.100	.040	.125	.032	.060	.093	.075			
FT-MM-47-TUR-BC*	B0-A	1.10	500	2000	1.500	.210	.020	.100	.040	.125	.032	.060	.093	.075			
FT-MM-47-TUR-SS*	B0-A	1.00	500	2000	1.500	.210	.020	.100	.040	.125	.032	.060	.093	.075			
FT-MM-48-TUR-BC*	B0-5	0.70	500	2000	1.700	.210	.020	.100	.090	.125	.032	.060	.093	.075			
FT-SM-7	B3-1	0.50	500	2000	.375	.147			.040	.075	.040		.125	.093			
FT-SM-16	B3-1	0.75	500	2000	.515	.210			.040	.100	.040		.125	.093			
FT-SM-16L2	B3-1	0.65	500	2000	.453	.156			.040	.100	.040		.125	.093			
†FT-SM-16L6	B3-1	0.80	500	2000	.987	.687			.040	.100	.040		.125	.093			
†FT-SM-16L14	B3-1	0.80	500	2000	.438	.125			.040	.100	.040		.125	.093			
FT-SM-13	B6	0.50	750	2500	.515	.210			.040	.060	.040		.150	.125			
FT-SM-23	B6	0.45	750	2500	.335	.125			.040	.060	.040		.150	.125			
FT-SM-23L2	B6	0.60	750	2500	.375	.125			.040	.100	.040		.150	.125			
FT-SM-022	B8-A	0.65	1000	3000	.630	.210			.040	.170	.040		.172	.148			
FT-SM-023	B8	0.65	1000	3000	.630	.210			.040	.217	.040		.172	.148			
FT-SM-1	B8-16	0.50	1000	3000	.515	.210			.040	.100	.040		.172	.148			
FT-SM-1C6	B8-A	0.70	1000	3000	.710	.210			.040	.250	.040		.172	.148			
FT-SM-1L2	B8-16	0.50	1000	3000	.443	.210			.040	.100	.040		.172	.148			
FT-SM-1L3	B8-16	0.70	1000	3000	.725	.210			.040	.100	.040		.172	.148			
FT-SM-1L4	B8-16	0.70	1000	3000	1.000	.210			.040	.100	.040		.172	.148			
FT-SM-1L6	B8-16	0.55	1000	3000	.562	.210			.040	.100	.040		.172	.148			
FT-SM-2	B8-18	0.40	1000	3000	.515	.210			.050	.050	.040		.172	.148			
FT-SM-2C4	B8-18	0.50	1200	3500	.535	.210			.050	.110	.040		.172	.148			
FT-SM-2C4-L2	B8-13	0.50	1200	3500	.431	.106			.050	.110	.040		.172	.148			
FT-SM-2C6	B8-18	0.50	1200	3500	.410	.147			.050	.110	.040		.172	.148			
FT-SM-8	B8-16	0.60	1000	3000	.535	.210			.040	.120	.040		.172	.148			
FT-SM-9	B8-16	0.50	1000	3000	.535	.210			.040	.132	.040		.172	.148			
FT-SM-9L1	B8-16	0.55	1000	3000	.515	.210			.040	.132	.040		.172	.148			
FT-SM-9L2	B8-16	0.50	1000	3000	.407	.125			.040	.132	.040		.172	.148			
†FT-SM-14**	B8-16	0.50	1000	3000	.375	.125			.040	.100	.040		.172	.148			
†FT-SM-14L2**	B8-16	0.50	1000	3000	.325	.075			.040	.100	.040		.172	.148			
FT-SM-18	B8-16	0.55	1000	3000	.443	.093			.040	.100	.040		.172	.148			
FT-SM-19	B8-16	0.60	1000	3000	.535	.210			.040	.160	.040		.172	.148			
FT-SM-19L1	B8-16	0.60	1000	3000	.571	.210			.040	.160	.040		.172	.148			
FT-SM-35	B8	0.70	1200	3500	.890	.625			.040	.100	.045		.172	.148			
FT-SM-35L2	B8	0.60	1000	3000	.585	.320			.040	.100	.045		.172	.148			
FT-SM-1C1	B8-16	0.55	1000	3000	.515	.210			.040	.100	.040		.172	.157			
FT-SM-10	B18	1.10	1000	3000	2.500	.460			.040	.100	.040		.218	.169			
FT-SM-10L1	B18	1.30	1000	3000	2.500	.460			.040	.100	.049		.219	.169			
FT-SM-10L2	B18	1.00	1000	3000	1.875	.125			.040	.100	.049		.218	.169			
FT-SM-10L4	B18	0.65	1000	3000	.937	.125			.040	.100	.049		.218	.169			
FT-SM-10L6	B18-E	0.85	1000	3000	1.250	.125			.040	.100	.049		.218	.169			
FT-SM-27L2	B18-1	0.70	1000	3000	1.090	.680			.050	.110	.040		.218	.171			
FT-SM-3	B15	0.50	1200	3500	.515	.210			.040	.100	.040		.195	.172			
FT-SM-3L2	B15	0.55	1200	3500	.560	.210			.040	.100	.040		.195	.172			
FT-SM-4	B16	0.50	1200	3500	.515	.210			.040	.100	.040		.200	.179			
FT-SM-5	B22	0.50	1200	3500	.515	.210			.040	.100	.040		.250	.218			

inal Lug: Brass, Solder Finish (40 to 70% Tin Content) Electro-Plate .0003" Minimum Thick
 elance and voltage measured with terminals installed in .050" thick aluminum chassis.
 ryllium Copper
 ainless Steel

**Gold Flash over Silver
 † E Diameter ±.001

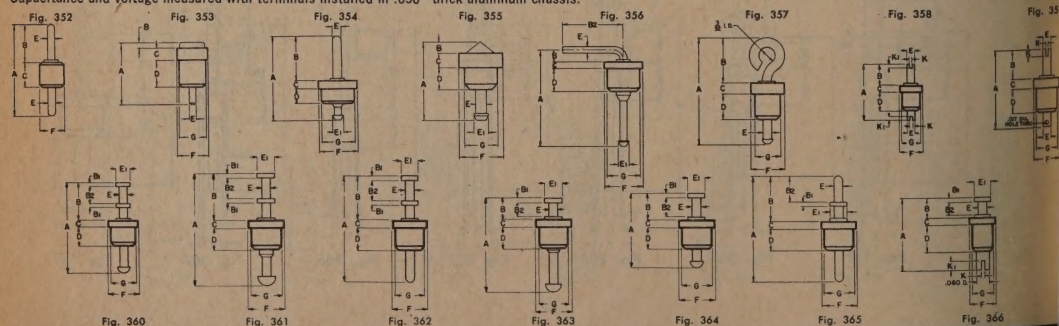


Sealelectro Press-Fit TEFLON TERMINALS — AVAILABLE IN TEN EIA COLORS

FEED-THRU SUBMINIATURE

FIG.	PART No.	TOOL NO.	CAPACITANCE mmf	V.RMS NOMINAL RATING	60 CPS FLASHOVER SEA LEVEL	A	B	B ₁	B ₂	C	D	E DIA.	E ₁ DIA.	F DIA.	+ .002 - .000 G DIA.	K	K ₁
352	FT-SM-024		—	—	—	.515	.210			.140		.040		.148			
352	FT-SM-17		—	—	—	.375	.200			.140		.040		.180			
353	FT-SM-80	B9-X	0.70	1700	4500	.531	.031			.156	.218	.050		.172	.148		
353	FT-SM-81	B9-X1	0.70	1000	3000	.281	.031			.040	.100	.040		.172	.148		
354	FT-SM-125	B3-1	0.50	500	2000	.306	.078			.040	.075	.040	.050	.125	.093		
354	FT-SM-021	B18	0.40	1200	3500	.449	.250			.046	.060	.040	.060	.125	.185		
355	FT-SM-706	B3-5	0.40	500	2000	.218	.031			.040	.060	.030	.040	.125	.093		
356	FT-SM-400	B18-H	1.00	1000	3000	.561	.053		.718	.040	.125	.040	.060	.218	.185		
356	FT-SM-400L2	B18-H	1.10	1000	3000	.718	.210		1.031	.040	.125	.040	.060	.218	.185		
356	FT-SM-400L4	B18-H	1.30	1000	3000	.998	.490		1.343	.040	.125	.040	.060	.218	.185		
357	FT-M-9L4	B10-2	0.80	1000	3000	.593	.250			.062	.140	.050		.187	.148		
357	FT-SM-9L6	B8-15-2	0.60	1000	3000	.479	.250			.040	.070	.050		.172	.148		
358	FT-SM-13L	B3-1	0.60	500	2000	.312	.116			.040	.100	.040		.125	.106	.010	.020
358	FT-SM-1005L	B17	0.65	1500	4000	.480	.140			.040	.160	.060		.205	.169	.032	.110
359	FT-SM-15L-1	B3-1	0.50	500	2000	.312	.116			.040	.100	.040		.125	.106	.010	.020
360	FT-SM-16-TUR	B-3-2B	0.70	500	2000	.500	.210	.020	.100	.040	.100	.040	.080	.125	.093		
360	FT-SM-17-TUR-C6	B8	0.50	1000	3000	.500	.210	.020	.100	.040	.100	.040	.080	.172	.116		
360	FT-SM-028TUR	B8	0.60	1000	3000	.550	.245	.020	.070	.040	.125	.040	.080	.172	.148		
360	FT-SM-029TUR	B8	0.50	1000	3000	.812	.210	.020	.100	.040	.165	.040	.080	.172	.148		
360	FT-SM-1TUR	B8	0.50	1000	3000	.500	.210	.020	.100	.040	.100	.040	.080	.172	.148		
360	FT-SM-1TUR-C4	B8	0.50	1000	3000	.500	.210	.020	.100	.040	.165	.040	.080	.172	.148		
360	FT-SM-1-TUR-L2	B8	0.50	1000	3000	.438	.210	.020	.100	.040	.083	.040	.080	.172	.148		
360	FT-SM-1-TUR-L6	B8	0.70	1000	3000	.609	.210	.020	.100	.040	.165	.040	.080	.172	.148		
360	FT-SM-22-TUR-C2	B9	0.70	1200	3500	.609	.210	.020	.100	.093	.158	.040	.080	.172	.148		
360	FT-SM-4-TUR	B16	0.50	1200	3500	.500	.210	.020	.100	.040	.100	.040	.080	.200	.179		
360	FT-SM-1TUR-C8	B18	0.50	1200	3500	.438	.210	.020	.100	.040	.100	.040	.080	.218	.185		
360	FT-SM-33-TUR	B22	0.50	1500	4000	.500	.210	.020	.100	.040	.100	.040	.080	.250	.234		
361	FT-SM-2-TUR-C1	B8	0.50	1000	3000	.531	.210	.020	.100	.040	.100	.040	.080	.172	.112		
361	FT-SM-23-TUR	B6	0.50	750	2500	.500	.210	.020	.100	.040	.060	.040	.080	.150	.125		
361	FT-SM-025-TUR	B8	0.60	1000	3000	.609	.210	.020	.100	.040	.165	.040	.080	.172	.148		
361	FT-SM-026-TUR	B8-A	0.55	1000	3000	.437	.156	.020	.047	.040	.065	.040	.080	.172	.148		
361	FT-SM-1-TUR-C2	B8	0.45	1000	3000	.500	.210	.020	.100	.040	.060	.040	.080	.172	.148		
361	FT-SM-2-TUR	B8	0.70	1000	3000	.531	.210	.020	.100	.040	.100	.040	.080	.172	.148		
361	FT-SM-2-TUR-C2	B8	0.70	1000	3000	.531	.215	.020	.100	.040	.125	.040	.080	.172	.148		
361	FT-SM-21-TUR	B9	0.55	1200	3500	.609	.210	.020	.100	.093	.125	.040	.080	.172	.148		
361	FT-SM-51-TUR	B8-A	0.55	1000	3000	.437	.156	.020	.047	.040	.088	.047	.093	.172	.152		
361	FT-SM-51-TUR-C2	B8-A	0.65	1000	3000	.500	.156	.020	.047	.040	.150	.047	.093	.172	.152		
361	FT-SM-51-TUR-C4	B8-A	0.60	1000	3000	.437	.156	.020	.047	.040	.100	.047	.093	.172	.152		
361	FT-SM-20-TUR-C1	B18	0.55	1200	3500	.531	.210	.020	.100	.040	.125	.040	.080	.218	.175		
361	FT-SM-20-TUR	B18	0.65	1200	3500	.531	.210	.020	.100	.040	.100	.040	.080	.218	.185		
361	FT-SM-21-TUR	B18	0.65	1200	3500	.531	.210	.020	.100	.040	.125	.040	.080	.218	.185		
361	FT-SM-34-TUR	B19-A	0.55	1500	4000	.609	.210	.020	.100	.093	.125	.040	.080	.218	.185		
361	FT-SM-26-TUR	B28-A	0.50	1500	4000	.531	.210	.020	.100	.040	.100	.040	.080	.312	.264		
362	FT-SM-1-TUR-L4	B8	0.50	1000	3000	.500	.210	.020	.100	.040	.100	.040	.080	.172	.148		
363	FT-SM-28-TUR	B6	0.45	750	2500	.350	.125	.020	.095	.040	.060	.040	.080	.150	.125		
363	FT-SM-18-TUR	B8	0.60	1000	3000	.443	.093	.020	.062	.040	.100	.040	.080	.172	.148		
363	FT-SM-37-TUR-C1	B8-G-1	0.65	750	2500	.493	.093	.020	.063	.020	.170	.040	.080	.172	.148		
363	FT-SM-026-TUR	B8	0.60	1000	3000	.640	.250	.020	.210	.040	.125	.040	.080	.172	.148		
363	FT-SM-36-TUR	B16	0.60	1200	3500	.500	.120	.020	.080	.075	.125	.048	.090	.200	.172		
363	FT-SM-36-TUR-L1	B16-1-A	1.00	1000	3000	.500	.120	.020	.080	.075	.125	.080	.125	.200	.172		
364	FT-SM-16-TUR-L2	B3-5	0.60	500	2000	.350	.125	.020	.085	.040	.100	.040	.080	.125	.093		
364	FT-SM-32-TUR-L2	B8	0.50	1000	3000	.350	.125	.020	.095	.040	.100	.040	.080	.172	.148		
364	FT-SM-32-TUR-L2	B8	0.60	1000	3000	.385	.160	.020	.130	.040	.100	.040	.093	.172	.148		
364	FT-SM-47-TUR-L2	B8	0.50	1000	3000	.380	.090	.020	.060	.040	.100	.040	.080	.172	.148		
365	FT-SM-47-TUR	B8	0.55	1000	3000	.500	.210	.020	.120	.040	.100	.040	.080	.172	.148		
365	FT-SM-47-TUR-L1	B8	0.50	1000	3000	.500	.210	.020	.120	.040	.100	.040	.080	.172	.148		
366	FT-SM-6-TUR-SL	B3-4-1	0.70	750	2500	.346	.093	.020	.060	.030	.130	.040	.080	.125	.106	.015	.047

Terminal Lug: Brass, Solder Finish (40 to 70% Tin Content) Electro-Plate .0003" Minimum Thick
Capacitance and voltage measured with terminals installed in .050" thick aluminum chassis.



Sealectro PRESS-FIT® TEFLON TERMINALS — AVAILABLE IN TEN EIA COLORS

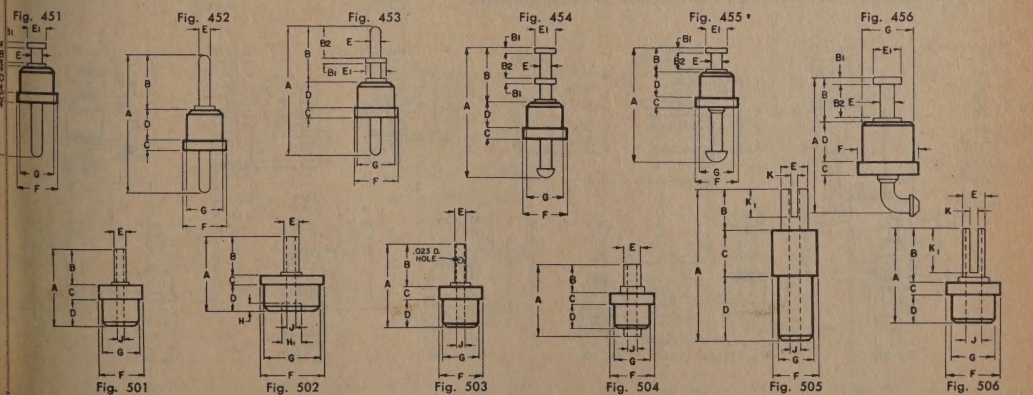
NEED-THRU SUBMINIATURE - SUBMINIATURE, MINIATURE (TUBULAR)

PART No.	TOOL No.	CAPACITANCE mmf	V.RMS NOMINAL RATING	60 CPS FLASHOVER SEA LEVEL	A	B	B ₁	B ₂	C	D	E DIA.	E ₁ DIA.	F DIA.	+ .002 - .000 G DIA.
RFT-SM-9	B8	0.50	1000	3000	.443	.093	.020	.062	.040	.100	.040	.080	.172	.148
RFT-SM-1	B8	0.50	1000	3000	.515	.210			.040	.100	.040		.172	.148
RFT-SM-2	B8	0.40	750	2500	.515	.210			.050	.050	.040		.172	.148
RFT-SM-9L4	B8-19	1.15	1200	3500	2.500	1.750			.040	.132	.040		.172	.148
RFT-SM-47-TUR-L1	B8	0.60	1200	3500	.500	.210	.020	.120	.040	.100	.040	.080	.172	.148
RFT-SM-16-TUR	B3-12	0.85	500	2000	.500	.210	.020	.100	.040	.100	.040	.080	.125	.093
RFT-SM-23-TUR	B6	0.50	1000	3000	.500	.210	.020	.100	.040	.060	.040	.080	.150	.125
RFT-SM-1-TUR	B8	0.50	1000	3000	.500	.210	.020	.100	.040	.100	.040	.080	.172	.148
RFT-SM-1-TUR-L6	B8	0.60	1200	3500	.609	.210	.020	.100	.040	.165	.040	.080	.172	.148
RFT-SM-2-TUR	B8	0.70	1000	3000	.531	.210	.020	.100	.040	.100	.040	.080	.172	.148
RFT-SM-2-TUR-C4	B8	0.60	1200	3500	.531	.210	.020	.100	.040	.165	.040	.080	.172	.148
RFT-SM-2-TUR-C6	B8	0.70	1200	3500	.609	.210	.020	.100	.093	.125	.040	.080	.172	.148
RFT-SM-22-TUR	B8	0.70	1200	3500	.609	.210	.020	.100	.093	.125	.040	.080	.172	.148
RFT-SM-21-TUR	B18	0.50	1500	4000	.531	.210	.020	.100	.040	.125	.040	.080	.218	.185
RFT-SM-18-TUR	B8	0.55	1000	3000	.443	.093	.020	.062	.040	.100	.040	.080	.172	.148
RFT-SM-32-TUR	B8	0.45	1000	3000	.350	.125	.020	.094	.040	.100	.040	.080	.172	.148
RFT-SM-35-TUR	B8	0.60	1000	3000	.500	.120	.020	.080	.040	.130	.040	.080	.172	.148
RFT-SM-37-TUR	B8	0.50	1200	3500	.493	.093	.020	.062	.040	.150	.040	.080	.172	.148
RFT-SM-18-TUR-L2###	B8-15-1	0.60	1000	3000	.378	.093	.020	.062	.040	.100	.040	.080	.172	.148

PART No.	TOOL NO.	CAPACITANCE mmf	V.RMS NOMINAL RATING	60 CPS FLASHOVER SEA LEVEL	A	B	C	D	E DIA.	F DIA.	+ .002 - .000 G DIA.	H	H ₁ DIA.	J	K	K ₁
FT-SM-99	B3-1	0.40	500	2000	.225	.125	.040	.060	.040	.125	.093			.030		
FT-SM-502	B3-1	0.40	500	2000	.215	.125	.040	.050	.040	.125	.093			.030		
FT-SM-39L2	B3-1	0.45	500	2000	.312	.207	.040	.060	.040	.125	.093			.030		
FT-SM-600	B3-1	0.45	500	2000	.317	.187	.040	.090	.040	.125	.093			.030		
FT-SM-601	B3-1	0.40	500	2000	.405	.275	.040	.090	.040	.125	.093			.030		
FT-SM-54	B4-1	0.40	750	2500	.310	.207	.050	.053	.040	.130	.120			.030		
FT-SM-52	B6	0.40	750	2500	.225	.125	.040	.060	.040	.150	.125			.030		
FT-SM-50L2	B8-13-A	0.30	750	2500	.250	.147	.050	.053	.040	.172	.148			.030		
FT-SM-55	B8-4	0.50	1000	3000	.296	.136	.060	.100	.040	.172	.148			.030		
FT-SM-55L2	B8-4	0.45	1000	3000	.234	.074	.060	.100	.040	.172	.148			.030		
FT-SM-62	B8-13-A	0.75	750	2500	.367	.207	.050	.110	.085	.172	.148			.063		
FT-SM-62C2	B8-13-A	0.90	1000	3000	.413	.207	.050	.156	.085	.172	.148			.063		
FT-SM-62C6	B8-13-A	0.70	1000	3000	.332	.207	.050	.075	.085	.172	.148			.063		
FT-SM-62C8	B8-13-A	0.60	1000	3000	.312	.207	.050	.055	.085	.172	.148			.063		
FT-SM-62L1	B8-13-A	0.70	1000	3000	.367	.207	.050	.110	.085	.172	.148			.070		
FT-SM-57	B18-2	0.40	1200	3500	.367	.207	.050	.110	.040	.218	.171			.030		
FT-SM-60	B18-1	0.70	1000	3000	.367	.207	.050	.110	.085	.218	.171			.063		
FT-SM-63	B21-A	0.65	1200	3500	.367	.207	.050	.110	.085	.240	.200			.063		
FT-SM-56	B8-13-A	0.35	1200	3500	.307	.207	.050	.110	.040	.172	.148	.057	.050	.030		
FT-SM-58	B8-4	0.30	1000	3000	.282	.147	.060	.075	.040	.172	.148	.042	.070	.030		
FT-SM-61	B18-1	0.75	1200	3000	.417	.207	.050	.160	.085	.218	.171	.050	.085	.063		
FT-SM-61L2	B18-1	0.95	1000	3000	.710	.500	.050	.160	.085	.218	.171	.050	.085	.063		
FT-SM-51	B21	0.35	1200	3500	.367	.207	.050	.110	.040	.240	.200	.057	.050	.030		
FT-SM-53	B22	0.35	1200	3500	.287	.147	.040	.100	.060	.250	.218	.030	.050	.030		
FT-SM-35-1A	B8-4	0.45	1000	3000	.296	.136	.060	.100	.040	.172	.148			.030		
FT-SM-50L2-1A	B8-13-A	0.30	1000	3000	.250	.147	.050	.053	.040	.172	.148			.030		
FT-SM-71L4	B8-A	0.55	1000	3000	.270	.100	.040	.100	.060	.172	.148			.030		
FT-SM-42SL	B3-3	0.65	1500	4000	.412	.065	.109	.238	.062	.125	.089			.030	.020	.050
FT-102SSL	B11	0.90	2000	5000	.602	.203	.187	.212	.148	.187	.171			.052	.072	.156
FT-150-SL*	B11-A	1.0	1000	3000	.426	.203	.060	.163	.148	.218	.185			.078		.156
FT-SM-59SL	B3-1	0.40	500	2000	.225	.125	.040	.060	.040	.125	.093			.030	.015	.115
FT-SM-52SL	B6	0.40	750	2500	.225	.125	.040	.060	.040	.150	.125			.030	.015	.115
FT-SM-59SL	B8-13-A	0.30	1000	3000	.310	.207	.050	.053	.040	.172	.148			.030	.010	.125
FT-SM-62C4SL	B8-13-A	0.75	1000	3000	.320	.190	.050	.080	.085	.172	.148			.050	.030	.175
FT-SM-50SL-C1	B8-13-A	0.30	1000	3000	.310	.207	.050	.053	.040	.172	.165			.030	.010	.125
FT-SM-60SL	B18-1	0.70	1000	3000	.367	.207	.050	.110	.085	.218	.171			.062	.030	.175

*Lug: Brass, Solder Finish (40 to 70% Tin Content) Electro-Plate .0003" Minimum Thickness
 Distance and voltage measured with terminals installed in .050" thick aluminum chassis.

*Silver Finish
 ## Gold over Silver



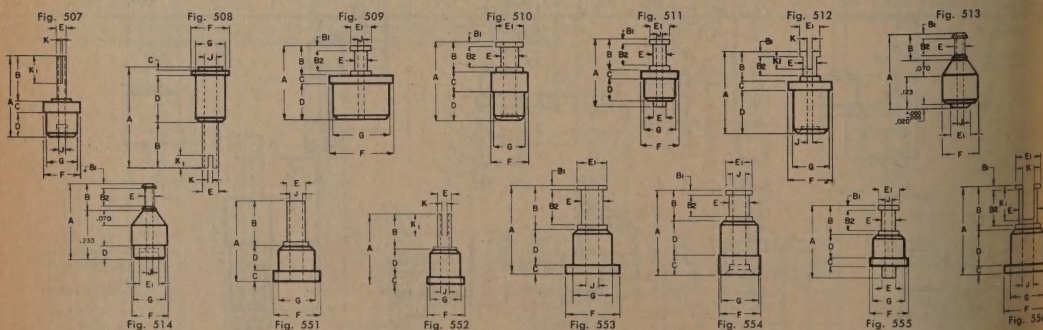
Sealectro Press-Fit TEFLON TERMINALS - AVAILABLE IN TEN EIA COLORS

FEED-THRU SUBMINIATURE (TUBULAR)

FIG.	PART No.	TOOL No.	CAPACITANCE mmf	V.RMS NOMINAL RATING	60 CPS FLASHOVER SEA LEVEL	A	B	B ₁	B ₂	C	D	E DIA.	E ₁ DIA.	F DIA.	+ .002 - .000 G DIA.	J DIA.	K
507	FT-SM-65SL	B3-2B	0.40	750	2500	.294	.156			.078	.060	.060		.125	.105	.030	.015
508	FT-SM-66SL	B8-13-A	0.25	1000	3000	.367	.207			.050	.110	.040		.172	.148	.030	.010
508	FT-SM-66	B8-G-2	0.80	250	1500	.332	.072			.025	.220	.072		.172	.148	.052	.011
508	FT-SM-66L2	B8-G-2	0.75	250	1500	.470	.210			.025	.220	.072		.172	.148	.052	.011
508	FT-SM-66L4	B8-G-2	0.90	250	1500	.606	.346			.025	.220	.072		.172	.148	.052	.011
509	FT-SM-702	B3-5	0.50	500	2000	.215	.125	.020		.040	.050	.040	.080	.125	.093	.030	
509	FT-SM-70	B8-A	0.50	750	2500	.273	.133	.020		.060	.080	.060	.090	.150	.125	.030	
509	FT-SM-79C4	B6-B	0.65	750	2500	.273	.133	.020	.093	.040	.100	.060	.090	.150	.125	.030	
509	FT-SM-701	B6	0.60	750	2500	.293	.133	.020		.050	.110	.060	.090	.150	.125	.030	
509	FT-SM-703	B6-B	0.50	750	2500	.233	.133	.020		.040	.060	.060	.090	.150	.125	.030	
509	FT-SM-704L2	B6-B	0.50	750	2500	.200	.090	.020	.050	.050	.060	.060	.090	.150	.125	.030	
509	FT-SM-71C4	B8-A	0.60	1000	3000	.303	.133	.020		.040	.130	.060	.090	.172	.148	.030	
509	FT-SM-71C4	B8-A	0.50	1000	3000	.238	.133	.020	.093	.040	.065	.060	.093	.172	.148	.040	
509	FT-SM-71C2	B8-A	0.50	1000	3000	.293	.133	.020	.093	.050	.110	.060	.093	.172	.148	.030	
509	FT-SM-71L2	B8-A	0.50	1000	3000	.273	.133	.020		.040	.100	.060	.090	.172	.148	.030	
509	FT-SM-350	B23-1	0.35	1200	3500	.273	.133	.020		.065	.075	.060	.090	.250	.218	.030	
509	FT-SM-70	B27	0.40	1700	4500	.333	.133	.020	.093	.040	.160	.060	.090	.297	.263	.030	
510	FT-SM-74	B9-1	0.75	1000	3000	.351	.133	.020	.093	.093	.125	.082	.125	.172	.148	.062	
510	FT-SM-77	B10	0.80	1500	4000	.381	.133	.020	.093	.093	.155	.082	.125	.188	.171	.062	
511	FT-SM-79L2	B6-B	0.60	1000	3000	.303	.133	.020		.060	.080	.060	.090	.150	.125	.030	
511	FT-SM-71	B8-A	0.50	1000	3000	.303	.133	.020	.093	.040	.100	.060	.090	.172	.148	.030	
511	FT-SM-71L8	B8-A	0.70	1000	3000	.460	.133	.020	.093	.040	.100	.060	.090	.172	.148	.040	
511	FT-SM-72	B8-13	0.60	1200	3500	.333	.133	.020	.093	.050	.110	.060	.090	.172	.148	.030	
511	FT-SM-74L2	B8-13	0.85	1000	3000	.411	.133	.020		.093	.125	.082	.125	.172	.148	.062	
512	FT-SM-76SL	B17	0.75	1200	3500	.333	.133	.020	.093	.040	.160	.060	.093	.205	.169	.030	.032
513	FT-SM-75		0.40	750	2500	.313	.120	.020	.080			.047	.090	.172		.031	
514	FT-EM-75L2		0.40	750	2500	.343	.120	.020	.080		.060	.047	.090	.172	.150*		
551	FT-MM-8	B3-2X	0.50	750	2500	.360	.055			.045	.260	.045		.125	.090	.030	
551	FT-SM-96	B3-2X	0.30	750	2500	.252	.100			.040	.110	.043		.125	.093	.030	
551	RFT-SM-40	B6-C	0.30	750	2500	.193	.105			.025	.063	.050		.150	.125	.030	
551	RFT-SM-52B2	B6-C	0.30	750	2500	.225	.125			.025	.075	.040		.125	.100	.030	
551	RFT-SM-52B4	B6-C	0.30	500	2000	.247	.147			.025	.075	.040		.150	.125	.030	
551	RFT-SM-50	B8	0.40	1000	3000	.310	.207			.050	.053	.040		.172	.148	.030	
551	RFT-SM-50B2	B8-X-1	0.30	1000	3000	.250	.147			.045	.053	.040		.172	.148	.030	
551	RFT-SM-50L2	B8-X-2	0.30	1000	3000	.250	.147			.050	.053	.040		.172	.148	.030	
551	RFT-SM-55	B8-X	0.45	1000	3000	.296	.136			.060	.100	.040		.172	.148	.063	
551	RFT-SM-62	B8-X-2	0.70	1000	3000	.367	.207			.050	.110	.085		.172	.148	.063	
551	RFT-SM-62L2	B8-X-2	0.70	950	2900	.310	.150			.050	.110	.085		.172	.148	.063	
551	RFT-SM-66	B8-3	0.35	750	2500	.193	.105			.025	.063	.080		.172	.148	.052	
551	RFT-SM-60	B18-X	0.70	700	3000	.367	.207			.050	.110	.085		.218	.171	.063	
552	RFT-SM-103SL	B3-1X	0.40	500	2000	.225	.115			.020	.090	.065		.108	.093	.018	.023
552	RFT-SM-184SL	B2-5	0.40	500	2000	.266	.146			.020	.100	.060		.125	.105	.030	.015
552	RFT-SM-40SL	B6-C	0.40	500	2000	.193	.105			.025	.063	.050		.150	.125	.030	.020
552	RFT-SM-41SL	B6-C	0.30	500	2000	.150	.062			.025	.063	.050		.125	.105	.030	.020
552	RFT-SM-52B2-SL	B6-C	0.40	750	2500	.310	.160			.025	.125	.060		.150	.135	.030	.028
553	RFT-SM-602	B3-6	0.40	500	2000	.200	.100	.010		.020	.080	.050	.070	.125	.093	.030	
553	RFT-SM-78D1	B6-C	0.35	750	2500	.200	.100	.010	.080	.025	.075	.060	.090	.150	.123	.030	
553	RFT-SM-74	B9	1.00	750	2500	.351	.133	.020	.093	.093	.125	.082	.125	.172	.148	.062	
554	RFT-SM-72B-C2	B9	0.60	1200	3500	.392	.162	.020	.130	.100	.130	.060	.093	.172	.148	.042	
554	RFT-SM-77	B10	0.60	1200	3500	.381	.133	.020	.093	.093	.155	.090	.125	.188	.177	.062	
555	RFT-SM-71	B8	0.60	1000	3000	.333	.133	.020	.093	.040	.100	.060	.093	.172	.148	.030	
555	RFT-SM-71L2	B8-X-1	0.50	750	2500	.273	.133	.020	.093	.040	.100	.060	.093	.172	.148	.030	
555	RFT-SM-72C4	B8	0.50	1000	3000	.333	.133	.020		.040	.130	.060	.093	.172	.148	.030	
556	RFT-SM-602SL	B3-6	0.40	500	2000	.200	.100	.010	.080	.020	.080	.050	.070	.125	.093	.030	.030
556	RFT-SM-602SL-C2	B3-6	0.50	750	2500	.260	.100	.010	.080	.020	.140	.050	.070	.125	.093	.030	.030
556	RFT-SM-76SL	B7-B	0.55	500	2000	.200	.100	.010	.080	.020	.080	.085	.115	.160	.143	.060	.030

Terminal Lug: Brass, Solder Finish (40 to 70% Tin Content) Electro-Plate .0003" Minimum Thick
Capacitance and voltage measured with terminals installed in .050" thick aluminum chassis.

*±.005



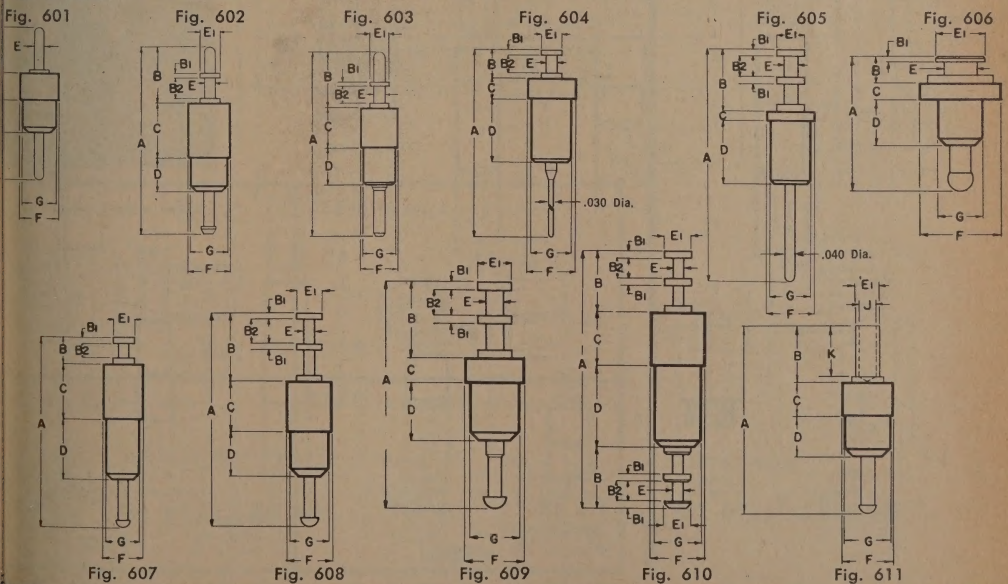
Sealectro PRESS-FIT® TEFLON TERMINALS — AVAILABLE IN TEN EIA COLORS

SEAL-THRU MINIATURE

PART No.	TOOL No.	CAPACITANCE mmf	V.RMS		60 CPS FLASHOVER SEA LEVEL	A	B	B ₁	B ₂	C	D	E DIA.	E ₁ DIA.	F DIA.	+0.002 -0.000 G DIA.	J DIA.	K
			NOMINAL RATING	SEA LEVEL													
FT-225*	B9	0.60	1500	4000	.619	.187				.140	.105	.040		.172	.148		
FT-800-L5*	B12	0.60	1700	4500	.675	.200				.125	.150	.040		.187	.165		
FT-311*	B10	0.60	1700	4500	.540	.133				.063	.171	.046		.187	.171		
FT-1000-L5*	B13-3A	0.80	2000	5000	.740	.125				.187	.212	.063		.187	.171		
FT-1500-L5*	B13	0.80	2500	6000	.865	.125				.250	.275	.050		.187	.171		
FT-1101	B12-3	0.75	2000	5000	.836	.250	.020	.093		.250	.150	.050	.093	.187	.171		
FT-992	B9-3	0.75	1700	4500	.836	.250	.020	.093		.187	.165	.050	.093	.172	.148		
FT-1001	B13	0.75	2000	5000	.836	.250	.020	.093		.187	.212	.050	.093	.187	.171		
FT-M-1*	B19	1.10	2000	5000	2.005	.125	.020	.085	.093	.287	.050	.093	.218	.185			
FT-M-12*	B19	0.75	2000	5000	1.000	.125	.020	.085	.093	.287	.050	.093	.218	.185			
FT-M-28C*	B19	1.00	2000	5000	2.000	.125	.020	.085	.230	.150	.050	.093	.218	.185			
FT-M-3**	B18-1B	0.95	1000	3000	1.052	.281	.031	.093	.046	.287	.060	.125	.218	.185			
FT-310#	B10	0.75	1700	4500	.540	.133	.020	.093	.063	.171	.046	.093	.187	.171			
FT-320**	B28-A	0.70	1700	4500	.540	.133	.020	.093	.063	.171	.046	.093	.312	.171			
FT-325**	B28	1.20	750	2500	.506	.099	.020	.048	.063	.171	.125	.188	.312	.171			
FT-960	B13	0.70	1500	4000	.740	.125	.031	.062	.187	.125	.050	.093	.187	.171			
FT-1000	B13	0.70	2200	5500	.740	.125	.031	.062	.187	.212	.050	.093	.187	.171			
FT-1000B1	B24	0.80	2500	6000	.740	.125	.031	.062	.187	.212	.050	.093	.250	.171			
FT-1100	B12-3	0.70	2500	6000	.740	.125	.031	.062	.250	.150	.050	.093	.187	.171			
FT-1500	B12-3	0.70	3000	7000	.865	.125	.031	.062	.250	.275	.050	.093	.187	.171			
FT-1990	B13	0.90	2500	6000	1.115	.125	.031	.062	.365	.318	.050	.125	.187	.171			
FT-1995	B13	0.90	2500	6000	1.115	.125	.031	.062	.375	.340	.050	.125	.187	.171			
FT-2000	B13-3B	0.95	3500	8000	1.115	.125	.031	.062	.375	.400	.050	.125	.187	.171			
FT-2000B2	B13-3B	0.80	2000	5000	1.115	.125	.031	.062	.562	.212	.050	.125	.187	.171			
FT-2500C1	B26	1.45	4500	10000	1.365	.125	.031	.062	.500	.525	.050	.125	.250	.171			
FT-4000C1	B26	1.65	6000	13000	1.965	.125	.031	.062	.800	.825	.050	.125	.250	.171			
FT-400	B19-A	0.80	2000	5000	.640	.133	.020	.093	.093	.210	.046	.093	.215	.185			
FT-410	B19-A	0.80	2000	5000	.718	.133	.020	.093	.093	.288	.046	.093	.215	.185			
FT-2500	B26	1.70	4500	10000	1.365	.125	.031	.062	.500	.525	.050	.125	.250	.217			
FT-4000	B26	1.50	6000	13000	1.965	.125	.031	.062	.800	.825	.050	.125	.250	.217			
FT-990-DTUR	B9-3	0.80	1500	4000	.836	.250	.020	.093	.187	.165	.050	.093	.172	.148			
FT-995-DTUR	B9-3	0.85	1500	4000	.836	.250	.020	.093	.125	.230	.050	.093	.172	.148			
FT-1000-DTUR-C3	B13-3B	0.75	2000	5000	.836	.250	.020	.093	.187	.212	.050	.093	.187	.165			
FT-1000-DTUR	B13-3B	0.80	2000	5000	.836	.250	.020	.093	.187	.212	.050	.093	.187	.171			
FT-1100-DTUR	B12-3	0.75	2000	5000	.836	.250	.020	.093	.250	.150	.050	.093	.187	.171			
FT-2000-DTUR	B13	1.00	3500	8000	1.337	.281	.031	.093	.375	.400	.050	.093	.187	.171			
FT-1050-DTCR	B24	0.80	2500	6000	.836	.250	.020	.093	.187	.212	.050	.093	.250	.204			
FT-1050-DTUR-C3	B24	0.70	2500	6000	.836	.250	.020	.093	.187	.212	.050	.093	.250	.230			
FT-950-DTUR*	B12	1.00	1500	4000	.828	.281	.031	.093	.125	.200	.062	.125	.187	.171			
FT-940-DTUR*	B19-A	1.00	1200	3500	.828	.281	.031	.093	.094	.210	.062	.125	.218	.185			
FT-998-DTUR*	B19-A	1.00	2500	6000	.828	.281	.031	.093	.187	.212	.062	.125	.218	.185			
FT-1550-DTUR	B24-A	1.25	3000	7000	1.187	.281	.031	.093	.250	.375	.062	.125	.250	.218			
FT-2550-DTUR	B26	1.60	5000	11000	1.687	.281	.031	.093	.500	.625	.062	.125	.250	.218			
FT-4050-DTUR	B40	1.90	6000	13000	2.287	.281	.031	.093	.800	.925	.062	.125	.250	.218			
FT-800	B12	0.75	1700	4500	.680	.207				.125	.150		.085	.187	.171	.063	.187
FT-801**	B12	0.70	1700	4500	.535	.062				.125	.150		.085	.187	.171	.067	.062

al Lug: Brass, Silver Plate .0003" Min. Thick.
tance and voltage measured with terminals installed in .050" thick aluminum chassis
flash over silver.

*Solder Finish (40 to 70% Tin Content) Electro-Plate .0003" Minimum Thick
#Seating Turret E1 dimension.



Sealelectro PRESS-FIT TEFLON TERMINALS — AVAILABLE IN TEN EIA COLORS

FEED-THRU MINIATURE

FIG.	PART No.	TOOL No.	CAPACITANCE mmf	V.RMS	60 CPS	A	B	C	D	E DIA.	E ₁ DIA.	F DIA.	+.002 -.000 G DIA.	J DIA.	K	K ₁	L	Class
				NOMINAL RATING	FLASHOVER SEA LEVEL													
612	FT-E-4**	B19	1.00	1500	4000	.500		.281	.100	.050	.062	.218	.185					4-4
613	FT-1000T	B13-2	0.80	2000	5000	.899	.281	.187	.212	.050		.187	.171					4-3
613	FT-1000T1	B13-2	0.80	2000	5000	.899	.281	.187	.212	.050		.187	.171					4-4
613	FT-1500T	B13-2	0.90	2500	6000	1.024	.281	.250	.275	.050		.187	.171					4-3
613	FT-1500T1	B13-2	0.90	2500	6000	1.024	.281	.250	.275	.050		.187	.171					4-4
613	FT-1800T1	B13-6	0.90	2000	5000	1.039	.421	.187	.212	.050		.187	.171					4-4
613	FT-2000T	B13-2	0.95	3500	8000	1.274	.281	.375	.400	.050		.187	.171					4-4
613	FT-2000T1	B13-2	0.95	3500	8000	1.274	.281	.375	.400	.050		.187	.171					4-4
614	FT-500T1	B13-4	0.80	1500	4000	.743	.281	.187	.150	.070		.187	.171					4-4
615	FT-1000SL	B11	0.80	2000	5000	.821	.203	.187	.212	.148		.187	.171				.156	
615	FT-1000SL-1L	B11	0.75	2000	5000	.821	.203	.187	.212	.148		.187	.171				.156	
615	FT-1000SL-C2	B11	0.80	2000	5000	.821	.203	.187	.230	.148		.187	.171				.156	
615	FT-1500SL	B13-X-3	0.90	2500	6000	.947	.203	.250	.275	.148		.187	.171				.156	
615	FT-1500SL-1L	B13-X-3	0.80	2500	6000	.947	.203	.250	.275	.148		.187	.171				.156	
615	FT-2000SL	B11	1.20	3500	8000	1.197	.203	.375	.400	.148		.187	.171				.156	
615	FT-2000SL-1L	B11	0.85	3500	8000	1.197	.203	.375	.400	.148		.187	.171				.156	
615	FT-2030SL	B11	1.10	2500	6000	1.197	.203	.225	.550	.148		.187	.171				.156	
615	FT-2035SL	B11	1.00	2500	6000	1.197	.203	.250	.525	.148		.187	.171				.156	
616	FT-900SL	B11	0.90	1000	3000	.593	.203	.150	.100	.148		.187	.171				.156	
617	FT-1500ML	B13-B	0.90	2500	6000	1.040	.296	.250	.275	.148		.187	.171			.110	.250	
618	FT-35ML	B11-C	1.40	2000	5000	1.015	.296	.187	.427	.150		.187	.171			.090	.234	
619	FT-2010ML*	B33	1.35	2500	6000	1.285	.281	.562	.250	.050		.250	.171					
625	FT-1600T10	B32-1	1.80	2000	5000	.737	.050	.125	.250	.125	.187	.375	.312	##				
630	FT-E-2**	B10	0.85	1000	3000	.225	.020	.040	.150	.125		.187	.165					
630	FT-E-1	B23-X-1	0.90	1000	3000	.225	.015	.040	.155	.195		.250	.203					
630	FT-E-5	B23-X-1	0.75	1000	3000	.210	.010	.040	.155	.170		.250	.203					
651	RFT-195SL	B10	0.60	1000	3000	.477	.125	.040	.187	.148		.187	.171				.078	
652	RFT-200SL	B10	0.70	1000	3000	.532	.125	.040	.187	.148		.187	.171				.078	
651	RFT-210SL	B10	0.70	1000	3000	.586	.125	.040	.140	.148		.187	.171				.078	
652	RFT-1000SL	B13	0.80	2000	5000	.821	.203	.187	.212	.148		.187	.171				.156	
652	RFT-1500SL	B13-X-1	1.00	2500	6000	.947	.203	.250	.275	.148		.187	.171				.156	
652	RFT-2000SL	B13	1.00	3500	8000	1.197	.203	.375	.400	.148		.187	.171				.156	
653	RFT-1500ML	B13	0.95	2500	6000	1.040	.296	.250	.275	.148		.187	.171			.110	.250	

Terminal Lug: Brass, Silver Plated .0003" Min. Thick.

Capacitance and voltage measured with terminals installed in .050" thick aluminum chassis.

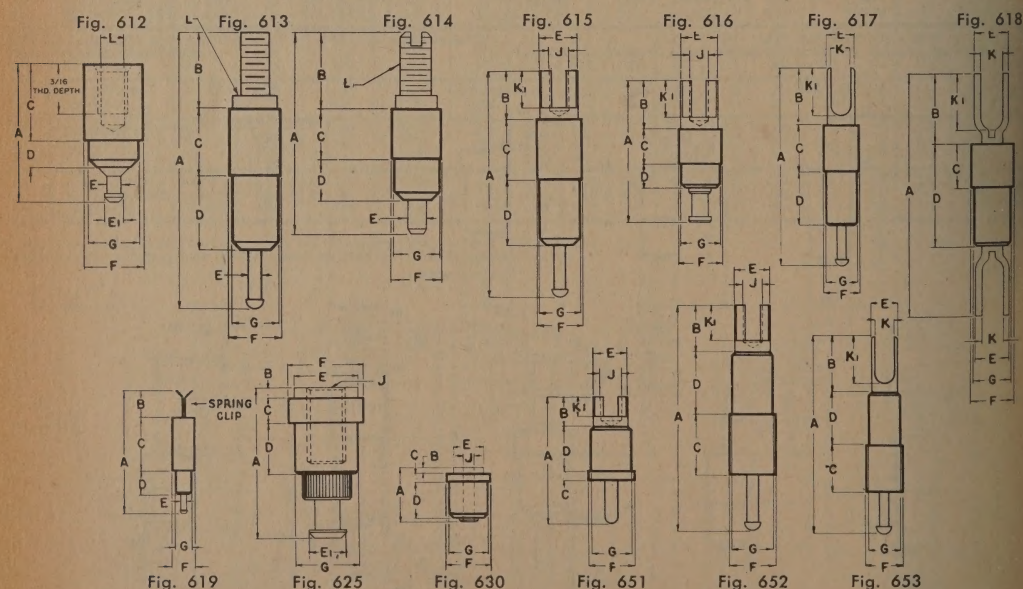
** Gold Flash over Silver

.156 Hex Brass Base.

† 0-80 Thread.

10/32 Thread

* Solder dip on tail only.



RED-THRUS FOR WELDED CONNECTIONS

Part No.	TOOL NO.	CAPACITANCE mmf	V.RMS NOMINAL RATING	60 CPS FLASHOVER SEA LEVEL	+ .002 — .000													
					A	B	B ₁	C	D	E	E ₁	F	G	J	K	K ₁		
SM-705-12	B10-5	.80	750	2500	.463	100			.035	155	.060	.149	.187	.172	.068	100	.018	.125
SM-705-14	B0-5	.80	750	2500	.581	.218									.068	100	.018	.125
MM-47-TUR-SC*	B0-A	1.10	500	2000	1.500	.210	.020	.100	.040	.125	.032	.032	.060	.093	.075			.080
MM-48-TUR-SC*	B0-5	0.70	500	2000	1.700	.210	.020	.100	.040	.125	.032	.060	.093	.075				.080

Resistance and voltage measured with terminals installed in .050" thick aluminum chassis

*Beryllium copper gold plate over copper flash.

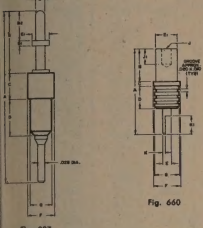


Fig. 660

"Press-Fit" installation for deep holes. As the terminal is pressfitted into the hole, the lands and grooves of the body are deflected upward, thus providing a high degree of pull-out strength as illustrated in the accompanying sketch.

Typical deep hole terminal Type FT-SM-705-L2 is a feedthru featuring a weld terminal at bottom. In this particular case, the wire is welded to the bottom terminal and drawn through the hole before terminal is pressfitted into place.

FEED-THRUS FOR WIRE-WRAP CONNECTIONS

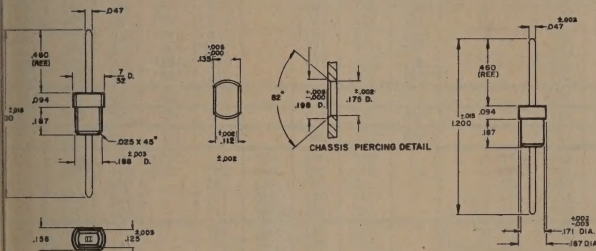
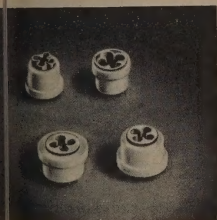


Fig. FT-WJ-100
Erection Tool No. B-19

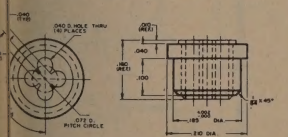
Fig. FT-WJ-200
Insertion Tool No. B13-5

OVERLEAF FEED-THRUS

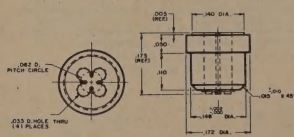


The "Press-Fit" Cloverleaf Receptacle provides economical, yet uniformly perfect solder joints by means of dip-soldering with metal chassis. The unique Cloverleaf configuration permits insertion of four, or more wire leads, plus an optional center pin post for mounting additional components after the dip-soldering operation.

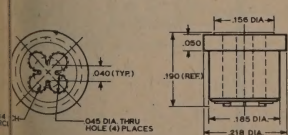
E-10 For AWG-19 wire or smaller



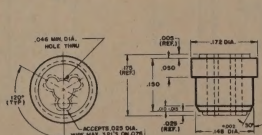
FT-E-12 For AWG-22 wire or smaller



F-15 For AWG-20 wire or smaller



FT-E-16 For AWG-24 wire or smaller



BUSHINGS

FIG.	PART NO.	A	D	D ₁	F	G	G ₁	J
1001	B-1440	140	100		125	093		040
1001	B-1440-1	140	100		125	093		035
1001	B-1441	100	060		125	093		037
1001	B-1464	100	080		125	093		038
1001	B-1442	140	100		125	093		048
1001	B-1435	140	100		172	148		040
1001	B-1439	160	120		172	148		073
1001	B-1452	125	075		172	148		
1001	B-1455	165	125		172	148		083
1001	B-1475	140	100		172	148		073
1001	B-1446	330	250		218	185		
1001	B-1447	225	185		218	185		
1001	B-1447-1	130	080		218	185		120
1001	B-1451	327	140		218	185		
1001	B-1473	450	400		218	185		150
1001	B-1443	140	075		250	218		
1001	B-1454	240	200		250	218		
1002	B-1409	080	060		172	148		030
1002	B-1447-2	130	090		218	185		120
1003	B-1453	082	042	017	145	003	115	067
1003	B-1449	070	040	020	187	123	143	052
1003	B-1403	104	069	040	218	154	164	120
1003	B-1401	104	054	025	218	154	164	085
1003	B-1406	094	044	015	218	154	164	099
1003	B-1407	104	069	040	218	154	164	085
1003	B-1408	094	044	015	218	154	164	085
1003	B-1409	084	035	015	218	154	164	085
1003	B-1416	104	069	040	218	154	164	099
1003	B-1418	085	035	015	195	154	164	085
1003	B-1419	134	099	070	218	154	164	120
1003	B-1420	104	054	025	218	154	164	099
1003	B-1421	104	069	040	218	154	164	120
1003	B-1424	094	044	025	195	154	164	085
1003	B-1432	104	054	025	218	154	164	120
1003	B-1437	125	075	060	218	154	164	120
1003	B-1463	104	069	040	218	154	164	120
1003	B-1466	140	105	075	218	154	164	120
1003	B-1472	135	085	060	218	154	164	085
1003	B-1462	156	106	076	218	168	178	089
1003	B-1431	104	069	040	248	184	194	150
1003	B-1467	104	054	035	250	190	200	157
1003	B-1436	104	069	040	260	199	210	128
1003	B-1459	104	069	040	268	204	214	175
1003	B-1459-1	104	069	040	268	204	214	125
1004	#B-1470	260	140	070	500	431	450	330

Can be used as Transistor Holder for TO-5 Header.

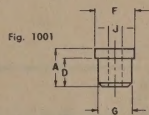


Fig. 1001

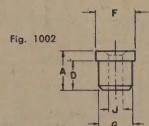


Fig. 1002

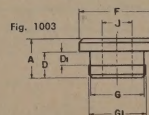


Fig. 1003

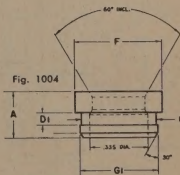


Fig. 1004

TEST POINT JACKS

FIG.	PART No.	TOOL No.	CAPACITANCE mmf	V _{RMS} NOMINAL RATING	60 CPS FLASHOVER SEA LEVEL	REF. A	B	B ₁	B ₂	C	D	E DIA.	E ₁ DIA.	F DIA.	+ .002 - .000 G DIA.	J* PROBE DIA.	J ₁ PROBE LENGTH	K
701	SKT-13C3	S13-1	0.45	500	2000	.203	.060	.010	.040	.030	.113	.046	.080	.150	.120	.040	.078	
701	SKT-22	S4	0.20	1500	4000	.449	.120	.030	.060	.046	.283	.040	.060	.142	.120	.040	.245	
701	SKT-22C2	S22	0.30	1500	4000	.410	.120	.030	.060	.046	.244	.040	.060	.142	.120	.040	.205	
701	SKT-13B2	S14	0.30	750	2500	.253	.060	.010	.040	.050	.143	.046	.080	.172	.140	.040	.125	
701	SKT-14B2	S14	0.30	1000	3000	.345	.120	.023	.077	.046	.179	.040	.060	.172	.140	.040	.140	
701	SKT-13B4	S13	0.40	750	2500	.203	.060	.010	.040	.046	.097	.046	.080	.172	.148	.040	.078	
701	SKT-13L2	S13	0.40	750	2500	.190	.050	.010	.030	.046	.094	.046	.080	.172	.148	.040	.078	
701	SKT-14	S5	0.35	1000	3000	.345	.120	.023	.077	.046	.179	.040	.060	.172	.148	.040	.140	
701	SKT-12	S7	0.70	1000	3000	.375	.060	.010	.040	.046	.269	.046	.080	.218	.170	.090	.156	
701	SKT-28C	S2	0.70	1000	3000	.437	.120	.037	.053	.046	.271	.054	.074	.218	.185*	.090	.195	
701	SKT-58C	S2	0.60	1000	3000	.437	.120	.037	.053	.046	.271	.054	.074	.218	.185*	.080	.195	
701	SKT-58C-C2	S35	0.45	1000	3000	.453	.120	.037	.053	.046	.287	.054	.074	.218	.185*	.050	.195	
701	SKT-10	S1	0.70	1200	3500	.640	.187	.037	.104	.050	.400	.054	.074	.218	.185*	.080	.287	
701	SKT-37C1	S12	0.55	1000	3000	.340	.120	.023	.077	.046	.174	.054	.074	.218	.185*	.090	.140	
701	SKT-41	S2	0.55	1200	3500	.467	.120	.035	.047	.046	.301	.054	.074	.218	.185*	.080	.225	
701	SKT-42	S23-1	0.40	2000	5000	.455	.105	.020	.065	.050	.300	.080	.125	.218	.185*	.080	.315	
701	SKT-27	S11	0.80	3200	7500	.761	.187	.035	.116	.187	.386	.054	.074	.218	.200	.093	.455	
701	SKT-27L1	S12	0.70	2000	5000	.689	.187	.035	.116	.125	.386	.054	.074	.218	.200	.093	.390	
701	SKT-0930	S37	0.70	3200	7500	.834	.187	.035	.116	.230	.417	.054	.074	.375	.200	.093	.518	
701	SKT-38C	S2	0.60	1000	3000	.437	.120	.037	.053	.046	.271	.054	.074	.250	.204	.080	.195	
701	SKT-19	S9	0.60	1200	3500	.400	.060	.010	.037	.046	.294	.066	.098	.250	.218	.105	.250	
702	SKT-35	B8-14	0.25	1200	3500	.400	.150			.046	.204	.040		.172	.148	.032	.200	
703	SKT-1	S31	0.55	1200	3500	.687	.354			.046	.287	.115		.218	.185*	.050	.250	.140
703	SKT-4	S30	0.40	1200	3500	.687	.354			.046	.287	.104		.218	.185*	.041	.250	.140
703	SKT-9	S1	0.50	1200	3500	.687	.330			.046	.287	.103		.218	.185*	.080	.250	.156
703	SKT-8B2	S1	0.55	2000	5000	.711	.354			.070	.287	.103		.218	.185*	.080	.274	.156
703	SKT-18	S25	0.50	1500	4000	.687	.354			.052	.281	.115		.218	.185*	.050	.250	.140
703	SKT-20	S27	0.80	1000	3000	.687	.330			.187	.146	.103		.218	.185*	.080	.187	.156
703	SKT-20L1	S25	0.75	1000	3000	.687	.330			.187	.146	.110		.218	.185*	.050	.250	.156
703	SKT-23	S28	0.65	1000	3000	.625	.355			.046	.224	.115		.218	.185*	.050	.200	.140
703	SKT-26	S26	0.60	1000	3000	.718	.316			.046	.356	.104		.218	.185*	.060	.315	.125
704	SKT-15	S32	0.60	3500	8000	.732	.188			.157	.387	.110		.250	.220	.050	.320	.140
705	SKT-36	S28	0.80	1000	3000	.620	.287			.046	.287	.115		.218	.185*	.050	.250	.156
706	SKT-31	S17	0.45	1000	3000	.408	.187			.046	.175	.060		.172	.148	.040	.135	
707	SKT-38					1.000	.060	.010			.940	.046	.078		.218	.125**	.090	.825
707	SKT-38C1					1.000	.060	.010			.940	.046	.078		.187	.125**	.090	.825
707	SKT-13					.203	.060	.010			.143	.046	.080		.140		.040	.075
707	SKT-13C1					.203	.060	.010			.143	.046	.080		.120		.040	.075
707	SKT-13L1					.203	.060	.010			.143	.046	.080		.140		.025	.075
708	SKT-39					.370	.120	.023			.250	.040	.060		.250		.040	.165
708	SKT-39C1					.370	.120	.023			.250	.040	.060		.270		.040	.140
708	SKT-43B1					.460	.120	.037			.340	.054	.074		.400		.070	.250

Terminal Lug: Beryllium Copper — Gold Flash over Silver Plate.
Capacitance and voltage measured with terminals installed in .050" thick aluminum chassis.

*±.001
**±.005

Fig. 701

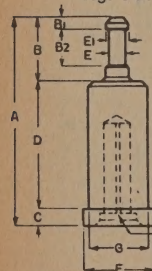


Fig. 702

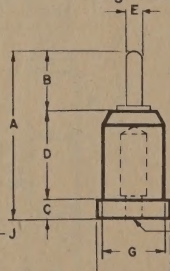


Fig. 703

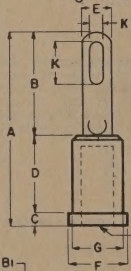


Fig. 704

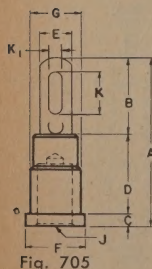
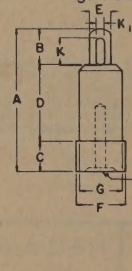


Fig. 705

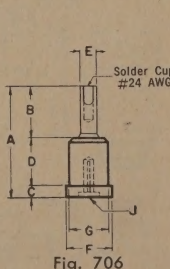


Fig. 706

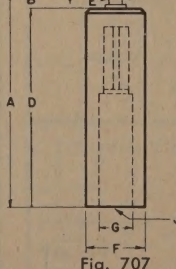


Fig. 707

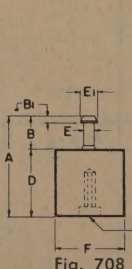
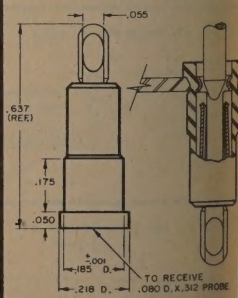


Fig. 708

SKT-0804—GUIDED ENTRY TEST POINT JACK FOR INCREASED CHASSIS PULL-OUT STRENGTH

Featuring a beryllium-copper form lug with unique design configuration, the SKT-0804 test point jack offers greater pull-out strength and higher resistance. The jack is designed to provide guided-entry for an .080" meter probe. The SKT-0804 construction permits uniform retention and greater support of the Teflon bushing by lug.

Insertion Tool No. S-38



ST POINT JACKS

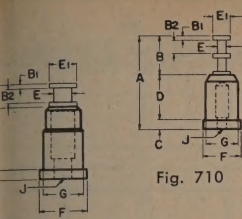


Fig. 709

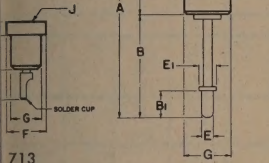


Fig. 710

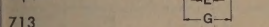


Fig. 711

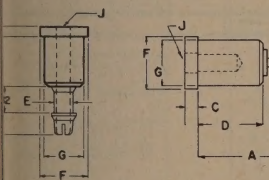


Fig. 712

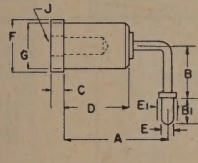


Fig. 713

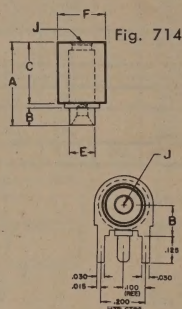


Fig. 714

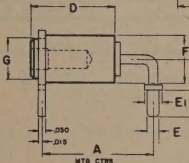


Fig. 715

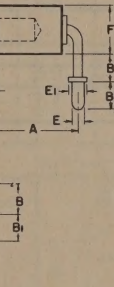


Fig. 716

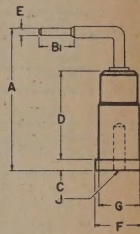


Fig. 717

PER PIN RECEPTACLES AND SPECIAL UNITS

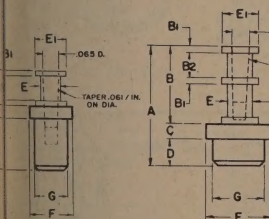


Fig. 721

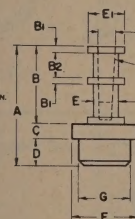


Fig. 722

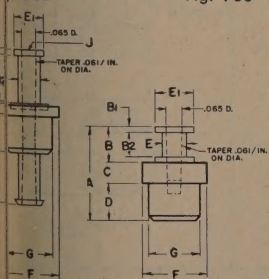


Fig. 723

Fig.	Part No.	TOOL No.	Capacitance mmf	V _{RMS} Nominal Rating	60 CPS Flashover Sea Level	A	B	B ₁	B ₂	C	D	E Dia.	E ₁ Dia.	F Dia.	+ .002 - .000 G Dia.	J* Probe Dia.	J ₁ Probe Lgth
751	TP-ST-201	B22	0.70	1000	3000	.350	.133	.020	.093	.080	.140	.093	.149	.250	.200		
752	TP-ST-203	B8-13	0.90	1500	4000	.383	.133	.020	.093	.050	.200	.093	.125	.172	.133		
753	TP-ST-202	B22	0.65	1000	3000	.453	.293	.025	.093	.060	.100	.093	.149	.250	.200		
753	TP-ST-202-B2	B22	0.75	1500	4000	.513	.293	.025	.093	.080	.140	.093	.149	.250	.200		
754	TP-FT-200	S22	1.10	1000	3000	.593	.210	.020	.180	.040	.143	.093	.125	.250	.200		
755	TP-FT-201	B22	0.70	1000	3000	.500	.133	.020	.093	.080	.140	.093	.149	.250	.200		
756	TP-FT-100	B6A-1	1.10	1000	3000	1.798	.133	.020	.093		.171	.080	.093		.150		
757	RFT-340**	B22	0.90	1500	4000	.650	.182			.040	.138	.093	.125	.250	.200		
758	PL-20**	B23-B	1.40	1000	3000	.940	.140	.020		.050	.450	.050	.078	.250	.218		

Terminal Lug: Brass, Solder Finish (40 to 70% Tin Content) Electro-Plate .0003" Minimum Thick.
Capacitance and voltage measured with terminals installed in .050" thick aluminum chassis.
**Gold Flash over Silver Plate.

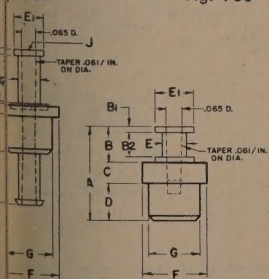


Fig. 724

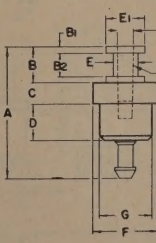


Fig. 725

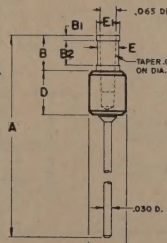


Fig. 726

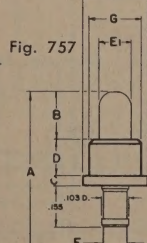


Fig. 727

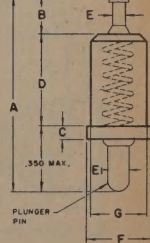


Fig. 728

PROBES AND PLUGS

FIG.	PART No.	TOOL No.	CAPACITANCE mmf	V _{RMS} NOMINAL RATING	60 CPS FLASHOVER SEA LEVEL	A	B	B ₁	C	D	±.001 E DIA.	E ₁ DIA.	F DIA.	+.002 —.000 G DIA.	J DIA.	J ₁ DIA.
801	FT-M-9C1	B8-16	1.0	1000	3000	1.937	.250		.046	.165	.050		.172	.148		
801	FT-M-9	B18-1B	1.0	1000	3000	1.937	.250		.046	.141	.050		.218	.185*		
801	FT-M-2	B18-1B	1.10	1000	3000	2.083	.250		.046	.287	.050*		.218	.185*		
801	FT-M-2L2	B18-1B	0.70	1000	3000	.906	.250		.046	.287	.050		.218	.185*		
801	FT-M-2L4	B18-1B	0.85	1000	3000	1.531	.250		.046	.287	.050*		.218	.185*		
801	FT-M-19	B18-1B	1.0	1000	3000	1.870	.120		.046	.250	.040		.218	.185*		
802	PR-15	B-23	0.90	3000	7000	1.531			.157	.375	.050*	.125	.250	.220		
803	RFT-M-14	B-18-1C	0.90	1700	4500	1.940	.120		.046	.320	.040*		.218	.185*		
804	FT-M-4#	B18-1B	0.80	1000	3000	.739	.281		.046	.287	.081*		.218	.185*		
804	FT-M-12	B-10	0.65	1000	3000	.687	.272		.040	.212	.040		.187	.171		
804	FT-M-7	B18-1B	0.80	1000	3000	.739	.281		.046	.287	.081*		.218	.185*		
804	FT-M-8	B18-1B	0.90	1000	3000	.562	.250		.046	.141	.050*		.218	.185*		
804	FT-M-8-L1	B18-E	0.90	1000	3000	.562	.250		.046	.141	.081		.218	.185*		
804	FT-M-11	B18-1B	0.90	1000	3000	.562	.250		.052	.135	.050*		.218	.185		
804	FT-M-14	B18-E	0.80	1000	3000	.906	.250		.046	.287	.050		.218	.185		
804	FT-M-16	B18-1B	0.80	1000	3000	.648	.190		.046	.287	.090*		.218	.185*		
804	FT-M-17	B18-1B	0.80	1000	3000	.612	.250		.046	.141	.062*		.218	.185*		
805	RFT-M-11	B18-E	0.80	1000	3000	.562	.250		.052	.135	.050*		.218	.185*		
806	FT-M-6###	B13-2	0.85	2000	5000	.867	.250		.187	.212	.100**		.187	.171		.2
807	PR-10	B8-14	0.70	1000	3000	.538	.130		.046	.175	.040		.172	.148		
807	PR-10-B-L2	B-9-3	0.70	1500	4000	.571	.125		.125	.160	.040		.172	.148		
807	PR-13	B-8	0.65	1000	3000	.416	.080		.040	.135	.040		.172	.148		
807	PR-13C1	B-8	0.65	1000	3000	.416	.080		.040	.135	.040		.172	.148		
808	PR-400	B13-3	0.55	1000	3000	.407	.125		.065	.090	.040		.187	.148		
808	PR-620	B18-1	0.55	1200	3500	.559	.187		.065	.176	.062		.218	.171		
808	PR-800	B23-A	0.70	1200	3500	.559	.187		.065	.169	.080		.250	.185*		
809	PR-300					.645	.270		.375		.080		.218		.062	.128
809	PR-0900					.645	.270		.375		.090		.218		.062	.128
810	PR-302	B22-X1				.645	.270		.050	.325	.080		.250	.218	.062	.128
811	PR-100**	B6-X	0.75	750	2500	.365	.194		.046	.125	.077**		.150	.120	.030	
812	FT-M-5	B18-1B	0.70	1000	3000	.833	.250		.046	.287	.050		.218	.185		
812	FT-M-9L2	B18-1B	0.65	1000	3000	.682	.250		.046	.141	.050		.218	.185		
813	PR-28***					1.300		.030	.453		.080	.060				

Terminal Lug: Gold Flash over Silver Plate.

Capacitance and voltage measured with terminals installed in .050" thick aluminum chassis.

No ball on end of Lug.

Silver Plate .0003" Min. Thick.

**Beryllium Copper — E Dimension +.003 —.002

***Gold over Copper.

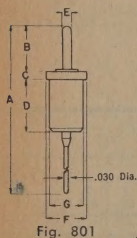


Fig. 801

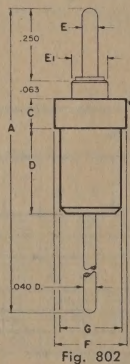


Fig. 802

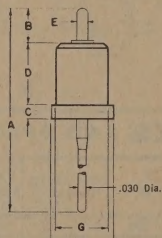


Fig. 803

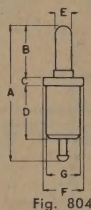


Fig. 804

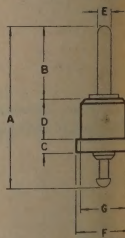


Fig. 805

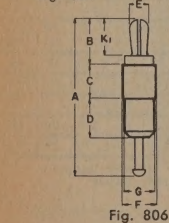


Fig. 806

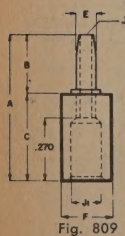


Fig. 809

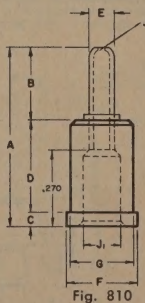


Fig. 810

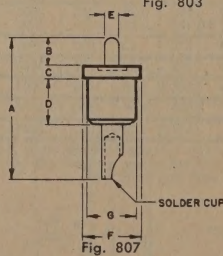


Fig. 807

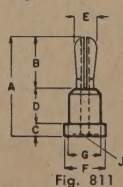


Fig. 811

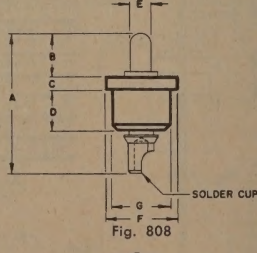


Fig. 808

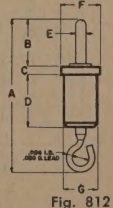


Fig. 812

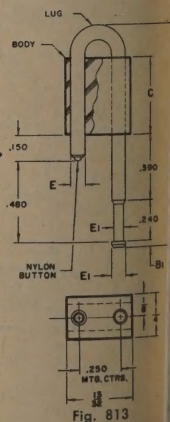
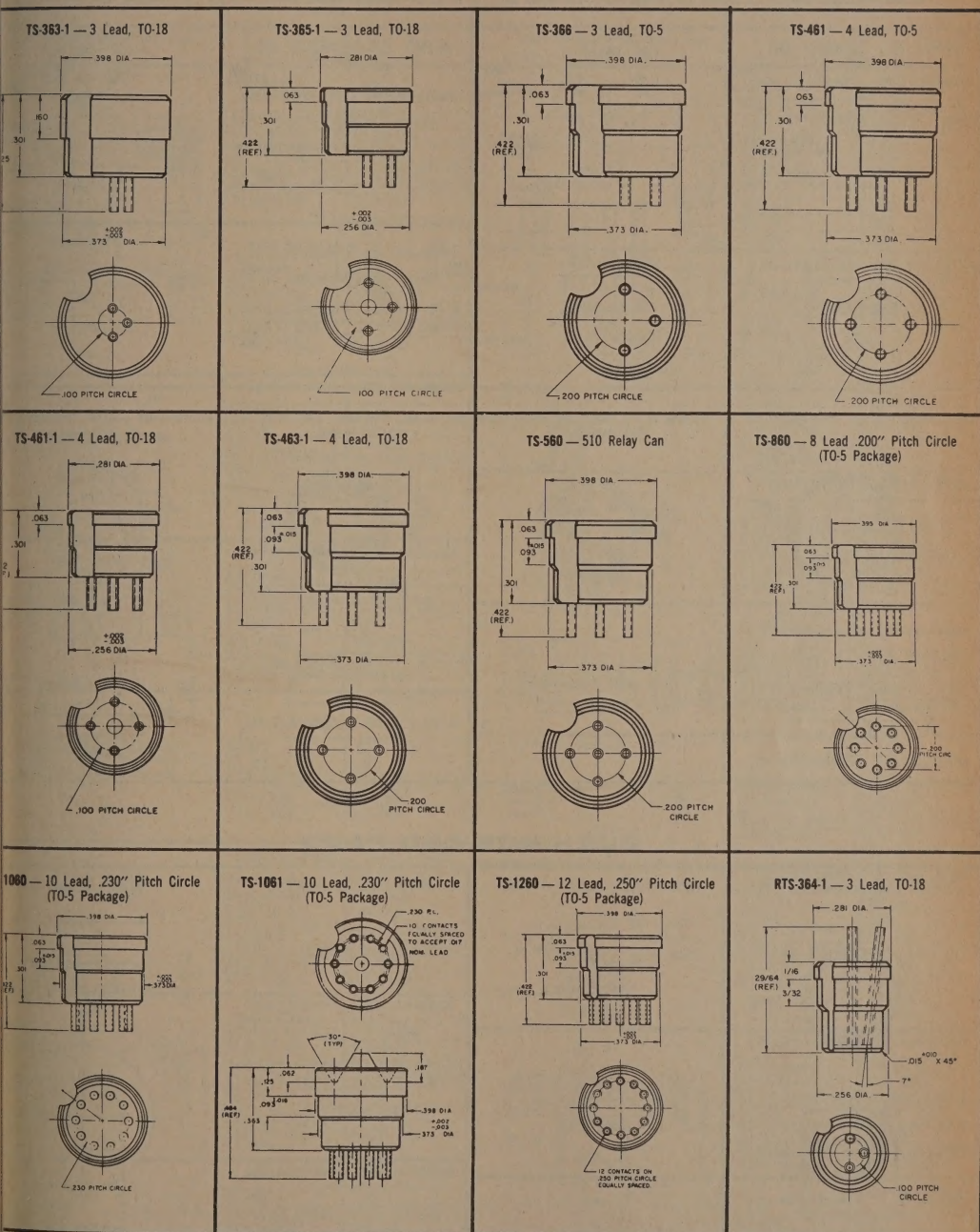


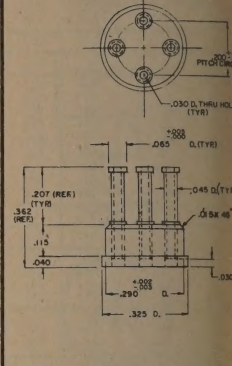
Fig. 813

Sealectro PRESS-FIT® TEFLON TERMINALS — AVAILABLE IN TEN EIA COLORS

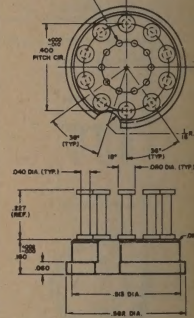
TRANSISTOR UNITS SOCKETS

NEW — SERIES 60 TRANSISTOR AND I.C. SOCKETS

RTC-400T — 4 Lead, T0-5

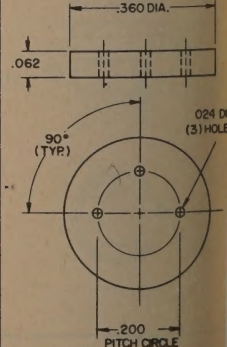


RTC-1010-TUR — 10 Pin. Integrated Cir

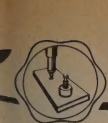


BUSHINGS AND PADS

T-1499 — 3 Lead, T0-5



© U.C.P.,



Sealectro

SUB-MINIATURE R. F. CONNECTORS



PLATING: 0.0001 Gold over 0.0001 Copper.

MATING CONNECTORS: All Screw-On (Snap-On) plugs will mate with all Screw-On (Snap-On) jacks & receptacles of the same resistance rating.

U. S. Pat. No. 2,937,360

See listing on following page for typical cables.

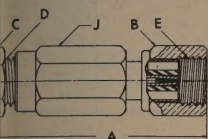
50 OHM

75 OHM

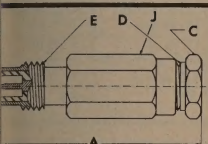
See listing on following page for typical cables.

50 OHM

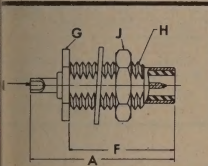
75 OHM



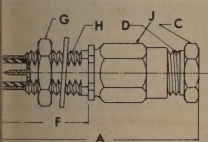
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A 7/8 approx.	13/16 approx.
B 15/64 HEX	11/32 HEX
C 15/64 HEX	5/16 HEX
D #10-32, UNF-2A	#9/32-40, UNS-2A
E #10-32, UNF-2B	#5/16-32, UNEF-2B
J 15/64 HEX	5/16 HEX



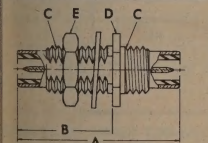
50-008-0000	50-108-0000
A 27/32 approx.	51/64 approx.
C 15/64 HEX	5/16 HEX
D #10-32, UNF-2A	#9/32-40, UNS-2A
E #10-32, UNF-2A	#5/16-32, UNEF-2A
J 15/64 HEX	5/16 HEX



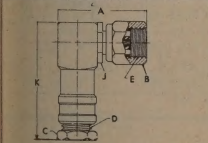
50-043-0000	50-143-0000
A 19/32	19/32
F .426	.426
G 1/4 HEX	3/8 HEX
H #10-32, UNF-2A	#5/16-32, UNEF-2A
J 1/4 HEX	3/8 HEX
N .060 O.D. x .040 I.D.	.060 O.D. x .040 I.D.
x .078 Deep	x .078 Deep



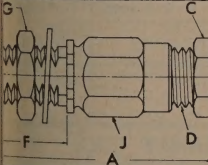
50-010-0000	50-110-0000
A 7/8 approx.	7/8 approx.
C 15/64 HEX	5/16 HEX
D #10-32, UNF-2A	#9/32-40, UNS-2A
F .425	.425
G 1/4 HEX	3/8 HEX
H #10-32, UNF-2A	#5/16-32, UNEF-2A
J 15/64 HEX	11/32 HEX



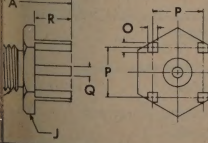
50-075-0000	50-175-0000
A .671	.671
B .397	.397
C #10-32, UNF-2A	#5/16-32, UNEF-2A
D 1/4 HEX	3/8 HEX
E 1/4 HEX	3/8 HEX



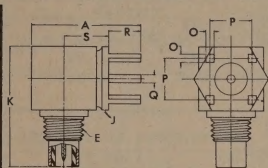
50-011-0000	50-111-0000
A 39/64 approx.	23/32 approx.
B 15/64 HEX	11/32 HEX
C 15/64 HEX	5/16 HEX
D #10-32, UNF-2A	#9/32-40, UNS-2A
E #10-32, UNF-2B	#5/16-32, UNEF-2B
J 15/64 HEX	11/32 HEX
K 3/4 approx.	27/32 approx.



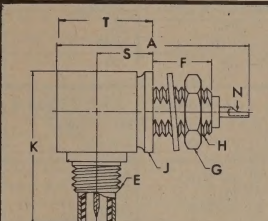
55-013-0000	50-113-0000
A 49/64 approx.	3/4 approx.
C 15/64 HEX	5/16 HEX
D #10-32, UNF-2A	#9/32-40, UNS-2A
E #10-32, UNF-2A	#5/16-32, UNEF-2A
F .277	.277
G 1/4 HEX	3/8 HEX
J 15/64 HEX	11/32 HEX
L .067D.	.111D.



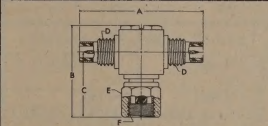
50-051-0000	50-151-0000
A .448	.448
E #10-32, UNF-2A	#5/16-32, UNEF-2A
J 5/16 HEX	3/8 HEX
O .040 (Typ.)	.040 (Typ.)
P .200	.200
Q .038D.	.038D.
R .155	.155



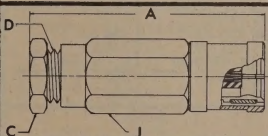
50-053-0000	50-153-0000
A 17/32 approx.	19/32 approx.
E #10-32, UNF-2A	#5/16-32, UNEF-2A
J 5/16 HEX	3/8 HEX
K 19/32	21/32
O .040 (Typ.)	.040 (Typ.)
P .200	.200
Q .038D.	.038D.
R .155	.155
S .215	.247



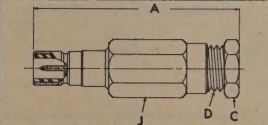
50-047-0000	50-147-0000
A 3/4 approx.	13/16 approx.
E #10-32, UNF-2A	#5/16-32, UNEF-2A
F .228	.228
G 1/4 HEX	3/8 HEX
H #10-32, UNF-2A	#5/16-32, UNEF-2A
J 5/16 HEX	3/8 HEX
K 19/32	21/32
N .038 O.D. x .025 I.D. x .078 Deep	.038 O.D. x .025 I.D. x .078 Deep
S .215	.247
T .372	.435



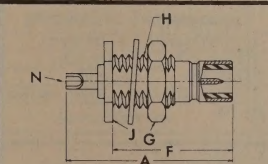
50-085-0000	50-185-0000
A .860	.923
B 21/32 approx.	23/32 approx.
C 15/32 approx.	1/2 approx.
D #10-32, UNF-2A	#5/16-32, UNEF-2A
E 15/64 HEX	11/32 HEX
F #10-32, UNF-2B	#5/16-32, UNEF-2B



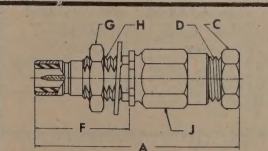
51-007-0000	51-107-0000
A 7/8 approx.	27/32 approx.
C 15/64 HEX	5/16 HEX
D #10-32, UNF-2A	#9/32-40, UNS-2A
J 15/64 HEX	11/32 HEX



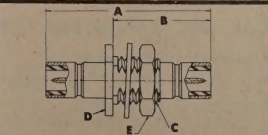
51-008-0000	51-108-0000
A 7/8 approx.	51/64 approx.
C 15/64 HEX	5/16 HEX
D #10-32, UNF-2A	#9/32-40, UNS-2A
J 15/64 HEX	5/16 HEX



51-043-0000	51-143-0000
A 19/32	19/32
F .426	.426
G 1/4 HEX	3/8 HEX
H #10-32, UNF-2A	#5/16-32, UNEF-2A
J 1/4 HEX	3/8 HEX
N .060 O.D. x .040 I.D. x .078 Deep	.060 O.D. x .040 I.D. x .078 Deep



51-010-0000	51-110-0000
A 7/8 approx.	7/8 approx.
C 15/64 HEX	5/16 HEX
D #10-32, UNF-2A	#9/32-40, UNS-2A
F .425	.425
G 1/4 HEX	3/8 HEX
H #10-32, UNF-2A	#5/16-32, UNEF-2A
J 15/64 HEX	11/32 HEX



51-075-0000	51-175-0000
A .671	.671
B .430	.430
C #10-32, UNF-2A	#5/16-32, UNEF-2A
D 1/4 HEX	3/8 HEX
E 1/4 HEX	3/8 HEX

SEALECTRO CORPORATION

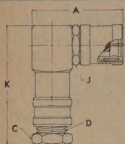


SUB-MINIATURE
R. F. CONNECTOR

See listing below for
typical cables.

50 OHM

75 OHM



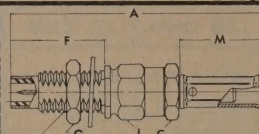
51-011-0000 **51-111-0000**

A 19/32	11/16
C 15/64 HEX	5/16 HEX
D #10-32, UNF-2A	#9/32-40, UNS-2A
J 15/64 HEX	11/32 HEX
K 3/4 approx.	27/32 approx.

See listing below for
typical cables.

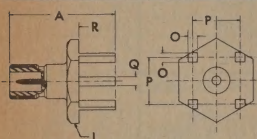
50 OHM

75 OHM



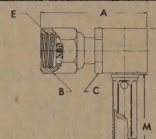
50-027-0000 **50-127-0000**

A 1-1/8 approx.	1-5/32 approx.
C 7/32 HEX	5/16 HEX
F .425	.425
G 1/4 HEX	3/8 HEX
H #10-32, UNF-2A	#5/16-32, UNEF
J 7/32 approx.	11/32 HEX
M .375	.400



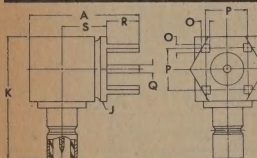
51-051-0000 **51-151-0000**

A .448	.448
J 5/16 HEX	3/8 HEX
O .040 (Typ.)	.040 (Typ.)
P .200	.200
Q .038D	.038D
R .155	.155



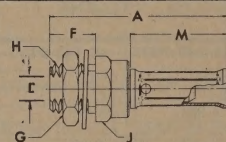
50-028-0000 **50-128-0000**

A 39/64 approx.	21/32 approx.
B 15/64 HEX	11/32 HEX
C 15/64 HEX	11/32 HEX
E #10-32, UNF-2B	#5/16-32, UNEF
K 5/8 approx.	23/32 approx.
M .375	.400



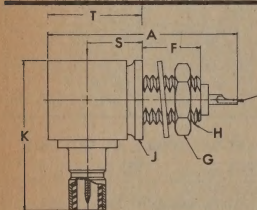
51-053-0000 **51-153-0000**

A 17/32 approx.	19/32 approx.
J 5/16 HEX	3/8 HEX
K 19/32	21/32
O .040 (Typ.)	.040 (Typ.)
P .200	.200
Q .038D	.038D
R .155	.155
S .215	.247



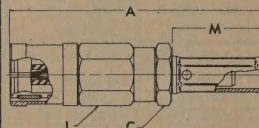
55-031-0000 **55-131-0000**

A 47/64 approx.	51/64 approx.
F .228	.228
G 1/4 HEX	3/8 HEX
H #10-32, UNF-2A	#5/16-32, UNEF
J 7/32 HEX	11/32 HEX
L .067D	.111D
M .375	.400



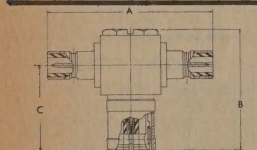
51-047-0000 **51-147-0000**

A 3/4 approx.	13/16 approx.
F .228	.228
G 1/4 HEX	3/8 HEX
H #10-32, UNEF-2A	#5/16-32, UNEF-2A
J 5/16 HEX	3/8 HEX
K 19/32	21/32
N .038 O.D. x .025 I.D.	.038 O.D. x .025 I.D.
S .215	.247
T .372	.435



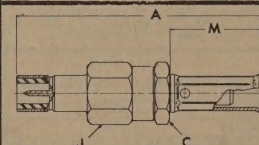
51-024-0000 **50-124-0000**

A 1-1/64 approx.	1-3/64 approx.
C 7/32 HEX	5/16 HEX
J 7/32 HEX	11/32 HEX
M .375	.400



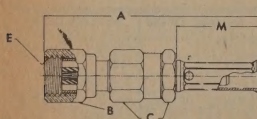
51-085-0000 **51-185-0000**

A .860	.923
B 41/64	45/64
C .456	.488



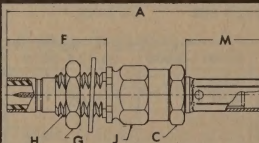
51-025-0000 **51-125-0000**

A 63/64 approx.	1-1/64 approx.
C 7/32 HEX	5/16 HEX
J 7/32 HEX	5/16 HEX
M .375	.400



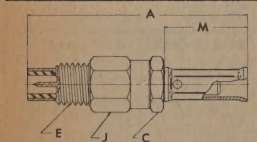
50-024-0000 **50-124-0000**

A 1-1/32 approx.	1-1/16 approx.
B 15/64 HEX	11/32 HEX
C 7/32 HEX	5/16 HEX
E #10-32, UNF-2B	#5/16-32, UNEF-2B
M .375	.400



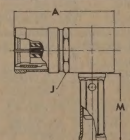
51-027-0000 **51-127-0000**

A 1-1/8 approx.	1-5/32 approx.
C 7/32 HEX	5/16 HEX
F .425	.425
G 1/4 HEX	3/8 HEX
H #10-32, UNF-2A	#5/16-32, UNEF
J 7/32 HEX	11/32 HEX
M .375	.400



50-025-0000 **50-125-0000**

A 63/64 approx.	1-1/64 approx.
C 7/32 HEX	5/16 HEX
E #10-32, UNF-2A	#5/16-32, UNEF-2A
J 7/32 HEX	5/16 HEX
M .375	.400



51-028-0000 **51-128-0000**

A 19/32	41/64
J 15/64 HEX	11/32 HEX
K 5/8 approx.	23/32 approx.
M .375	.400

CRIMP-ON ASSEMBLY TOOL — Part No.

TYPICAL SPEC CABLES FOR USE WITH "CONHEX" CONNECTORS

Standard 50 ohm **clamp-type** connectors accept:
RG-161/U, 174/U, 179/U, 188/U and 316/U cables.

Standard 50 ohm **crimp-type** connectors accept:
RG-161/U, 174/U, 179/U, 187/U, 188/U and 316/U cables.

Other cables having the same component diameters as those listed can also be used in the same series of connectors.

Standard 75 ohm **clamp-type** connectors accept:
RG-180/U and 195/U cables.

Standard 75 ohm **crimp-type** connectors accept:
RG-180/U and 195/U cables.



Sealectro



MICRO-MINIATURE R.F. CONNECTORS

VSWR: Better than 1.15:1 to 10 KMC
 Impedance: 50 ohms
 Dielectric Withstanding Voltage:
 450 volts RMS @ Sea Level
 Contact Current Rating:
 1.0 amps DC max.
 Contact Voltage Drop:
 4 mv max. @ 1 amp

with RG-196/U -178/U cables	FLEXIBLE CABLE*	SEMI-RIGID CABLE**	**For use with .056" diameter cable	FLEXIBLE CABLE*	SEMI-RIGID CABLE**
	50-724-0000-2G	50-724-3701-2G		51-724-0000-2G	51-724-3701-2G
	A .39	.37		A .40	.38
	B .156 Hex	.156 Hex		D .168 D.	.168 D.
	E #5-40, UNC-2B	#5-40, UNC-2B		M .31	.31
	M .31	.31			
	50-725-0000-2G	50-725-3701-2G		51-725-0000-2G	51-725-3701-2G
	A .34	.32		A .34	.32
	C .156 Hex	.156 Hex		C .156 Hex	.156 Hex
	E #5-40, UNC-2A	#5-40, UNC-2A		M .31	.31
	M .31	.31			
	50-743-0000-2G	52-743-0000-2G		51-727-0000-2G	51-727-3701-2G
	A .48	.46		A .48	.46
	C .156 Hex	.156 Hex		C .156 Hex	.156 Hex
	F .256	.256		F .256	.256
	G .156 Hex	.156 Hex		G .156 Hex	.156 Hex
	H #5-40, UNC-2A	#5-40, UNC-2A		H #5-40, UNC-2A	#5-40, UNC-2A
	M .31	.31		M .31	.31
	50-727-0000-2G	50-727-3701-2G		51-733-0000-2G	51-733-3701-2G
	A .48	.46		A .49	.47
	C .156 Hex	.156 Hex		B .343 Hex	.343 Hex
	F .256	.256		F .228	.228
	G .156 Hex	.156 Hex		G .375 Hex	.375 Hex
	H #5-40, UNC-2A	#5-40, UNC-2A		H #5/8-40, UNS-2A	#5/8-40, UNS-2A
	M .31	.31		M .31	.31
	51-775-0000-2G	52-775-0000-2G		52-724-0000-2G	52-724-3701-2G
	A .38	.38		A .40	.38
	B .156 Hex	.156 Hex		D .168 D.	.168 D.
	E #5-40, UNC-2B	#5-40, UNC-2B		M .31	.31
	K .36	.34			
	M .31	.31			
	50-728-0000-2G	50-728-3701-2G		52-725-0000-2G	52-725-3701-2G
	A .38	.38		A .34	.32
	B .156 Hex	.156 Hex		C .156 Hex	.156 Hex
	E #5-40, UNC-2B	#5-40, UNC-2B		M .31	.31
	K .36	.34			
	M .31	.31			
	55-736-0000-2G	55-736-3701-2G		50-747-000-2G	51-747-0000-2G
	A .33	.51		A .34	.32
	C .156 Hex	.156 Hex		C .156 Hex	.156 Hex
	F .177	.177		M .31	.31
	G .156 Hex	.156 Hex			
	H #5-40, UNC-2A	#5-40, UNC-2A			
	M .31	.31			
	N .013 I.D. x .020 O.D.	.013 I.D. x .020 O.D.			
	51-0000-2G	52-756-2210-2G		50-756-2210-2G	52-756-2210-2G
	A .33	.51		A .34	.32
	C .156 Hex	.156 Hex		C .156 Hex	.156 Hex
	F .177	.177		M .31	.31
	G .156 Hex	.156 Hex			
	H #5-40, UNC-2A	#5-40, UNC-2A			
	M .31	.31			
	N .013 I.D. x .020 O.D.	.013 I.D. x .020 O.D.			
	51-751-0000-2G	52-751-0000-2G		50-762-2210-2G	52-762-2210-2G
	A .33	.51		A .34	.32
	C .156 Hex	.156 Hex		C .156 Hex	.156 Hex
	F .177	.177		M .31	.31
	G .156 Hex	.156 Hex			
	H #5-40, UNC-2A	#5-40, UNC-2A			
	M .31	.31			
	N .013 I.D. x .020 O.D.	.013 I.D. x .020 O.D.			
	51-751-0000-2G	52-751-0000-2G		50-762-2210-2G	52-762-2210-2G
	A .33	.51		A .34	.32
	C .156 Hex	.156 Hex		C .156 Hex	.156 Hex
	F .177	.177		M .31	.31
	G .156 Hex	.156 Hex			
	H #5-40, UNC-2A	#5-40, UNC-2A			
	M .31	.31			
	N .013 I.D. x .020 O.D.	.013 I.D. x .020 O.D.			

SEAELECTRO PROGRAM SWITCHING

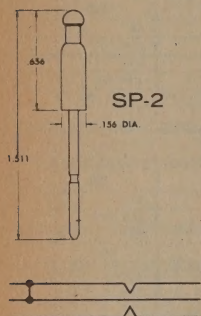
SEAELECTOBOARD MODULAR CORDLESS PROGRAM BOARDS

"Seaelectboard" programming and switching provides complete ease and simplicity of operation with drastic reductions in hardware and space. The units consist of two decks of bussed contacts running at right angles to each other in the X and Y directions, forming an electrical matrix. A single shorting or component holding pin is used to complete the program circuit... move the pin to a new location and a new program function is generated.

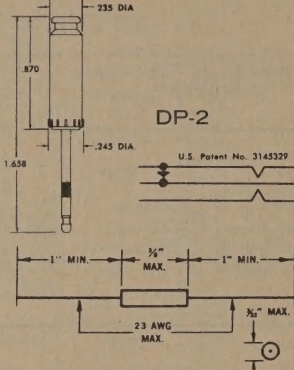
The "Modular Seaelectboard" provides an extremely flexible means of program system expansion with a built-in appearance. The system consists of only four standard component assemblies, designed such that when installed in a standard E.I.A. 19" relay rack, or bench cabinet, they result in a very attractive unit.

The "Modular Seaelectboard" can be expanded from a 10 x 10 hole matrix to a 10 x 60 hole matrix in one standard 5 $\frac{1}{2}$ " x 19" rack panel. Additional panels can be added and interwired to expand program capacity as system requirements dictate.

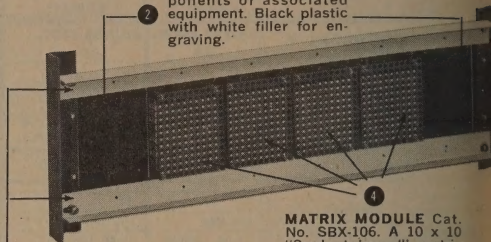
SHORTING PIN



COMPONENT PIN



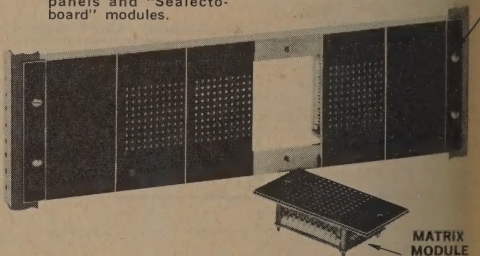
BLANK PANEL Cat. No. SBX-106-2. Fills in unused width. May be used for mounting other components or associated equipment. Black plastic with white filler for engraving.



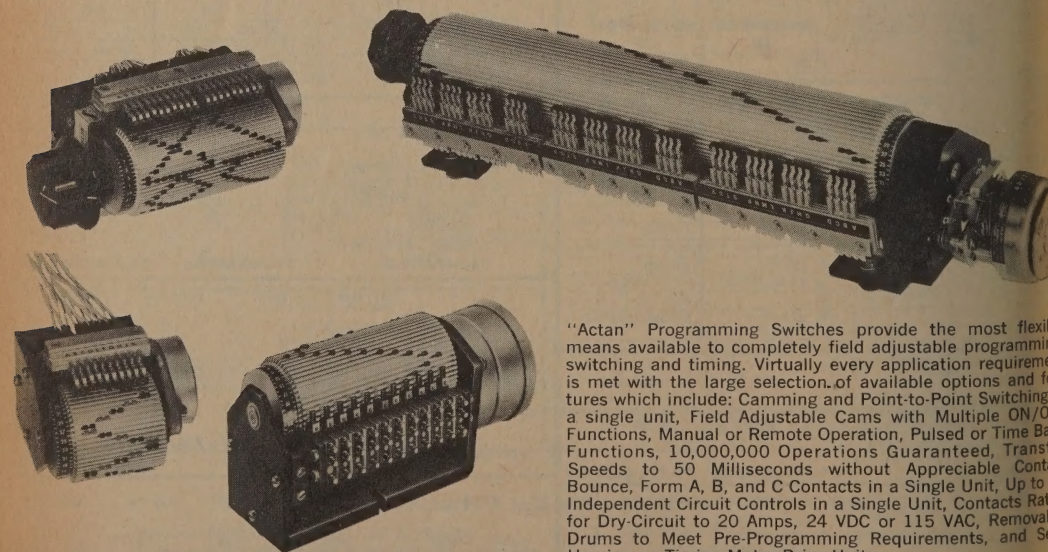
MODULE RAIL Cat. No. SBX-106-1. Rails are designed for mounting on standard 19" relay racks. Offset is provided for flush panel installation. Mounting holes are provided for any combination (up to 6) of blank panels and "Seaelectboard" modules.

MATRIX MODULE Cat. No. SBX-106. A 10 x 10 "Seaelectboard" matrix bussed vertically and horizontally. Terminals are combination solder and Klip-on. Contact strips are silver plated.

SIDE PLATE Cat. No. SBX-106-3. Provides dressing, or return to lay rack frame.



ACTAN FIELD ADJUSTABLE PROGRAMMING SWITCHES



"Actan" Programming Switches provide the most flexible means available to completely field adjustable programming switching and timing. Virtually every application requirement is met with the large selection of available options and features which include: Camming and Point-to-Point Switching in a single unit, Field Adjustable Cams with Multiple ON/OFF Functions, Manual or Remote Operation, Pulsed or Time Base Functions, 10,000,000 Operations Guaranteed, Transistor Speeds to 50 Milliseconds without Appreciable Contact Bounce, Form A, B, and C Contacts in a Single Unit, Up to Independent Circuit Controls in a Single Unit, Contacts Rated for Dry-Circuit to 20 Amps, 24 VDC or 115 VAC, Removal Drums to Meet Pre-Programming Requirements, and Self-Homing on Timing Motor Drive Units.

Seaelectro PRESS-FIT[®] TEFLON TERMINALS — AVAILABLE IN TEN EIA COLORS

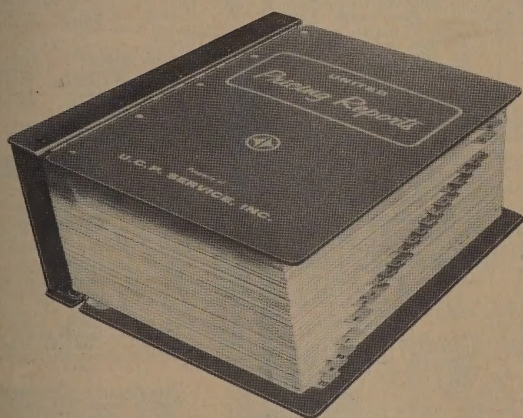
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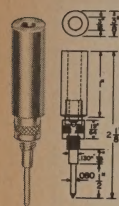
645 STEWART AVENUE
GARDEN CITY, N. Y. 11530

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Delivery is often dependent on availability of raw materials. Check with your distributor for delivery information at the time you place your order.

specify S M I T H

HERMAN H. SMITH, INC.

ELECTRO
COMPO

INSULATED SHORT TIP PLUG Solderless

HANDLE: MOLDED THERMOSETTING plastic, Red and Black per MIL-M-14 CFG. Yellow, Green, Blue, White per LC-726-1.

SPECIFY COLOR

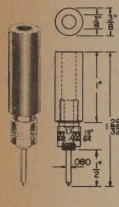
BODY: Brass, nickel plated.

RATING: 12 Amps AC for 10°C Temp. rise, continuous duty.

DESCR.: Solderless; wire fits through body of tip then wrapped around screw portion and tightened with knurled collar. Threaded type. Fits standard phone tip jacks.

Std. Pkg. 100

No. 200 Type Senior NET Per C \$15.00



INSULATED SHORT TIP PLUG Solderless

HANDLE: MOLDED THERMOSETTING plastic, Red and Black per MIL-M-14 CFG. Yellow, Green, Blue, White per LC-726-1.

SPECIFY COLOR

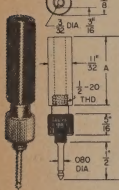
BODY: Brass, nickel plated.

RATING: 12 Amps AC for 10°C Temp. rise, continuous duty.

DESCR.: Solderless; wire fits through body of tip then wrapped around screw portion and tightened with knurled collar. Threaded type. Fits standard phone tip jacks.

Std. Pkg. 100

No. 201 Type Junior NET Per C \$15.00



INSULATED TIP PLUG Signal Corps Approved

HANDLE: ETHYL CELLULOSE, Type EM-1, per MIL-P-3412, Red, Black.

SPECIFY COLOR

PLUG: Steel, case hardened to Signal Corps specs.

RATING: 10 Amps AC for 10°C Temp. rise, continuous duty.

DESCR.: recess at end of prod tip holds plugs more firmly in jack spring. Prevents tip from falling out when in an inverted position.

Std. Pkg. 50

No. 230 Handle (A) Overall (B) Per C
230 1 inch 4 1/4" \$4.00
338 3 inch 4 1/4" \$4.00



INSULATED TIP PLUG Solder Type

HANDLE: MOLDED BUTYRATE, per FED. SPEC. L-P349A, Type 3, Class MS. Red or Black.

SPECIFY COLOR

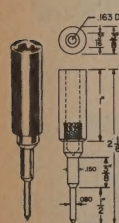
BODY: Brass, nickel plated

our No. 158.

RATING: 12 Amps AC for 10°C Temp. rise, continuous duty.

DESCR.: Drawn hollow tip for easy soldering. Fits standard phone tip jacks. Std. Pkg. 100

No. 237 NET Per C \$11.00



INSULATED TIP PLUG Heavy Duty Type

HANDLE: MOLDED THERMOSETTING plastic, Red and Black per MIL-M-14 CFG. Yellow, Green, Blue, White per LC-726-1.

SPECIFY COLOR

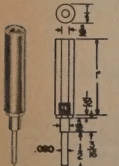
PLUG: Brass, nickel plated

RATING: 12 Amps AC for 10°C Temp. rise, continuous duty.

DESCR.: Large diameter well enables soldering of heavy duty wire directly into plug. Fits standard phone tip jacks. Std. Pkg. 100

NET Per C \$15.00

No. 229



SUB-MINIATURE TIP PLUG

HANDLE: FIBRE, per MIL-F-148A, Grade CH. Red, Black.

SPECIFY COLOR

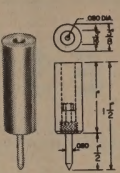
TIP: Brass, nickel plated.

RATING: 12 Amps AC for 10°C Temp. rise, continuous duty.

DESCR.: Ideally suited for checking sub-miniature equipment. Fits standard phone tip jacks. Std. Pkg. 100

NET Per C \$18.00

No. 270



INSULATED SHORT TIP PLUG

HANDLE: MOLDED THERMOSETTING plastic, Red & Black per MIL-M-14 CFG. Yellow, Green, Blue, White per LC-726-1.

SPECIFY COLOR

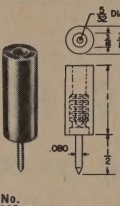
PLUG: Brass, nickel plated.

RATING: 12 Amps AC for 10°C Temp. rise, continuous duty.

DESCR.: Inserts flush to insulate handle, no metal exposed; eliminates possibility of shock or grounding. Fits standard phone tip jacks.

Std. Pkg. 100

No. 203 NET Per C \$12.00



INSULATED SHORT TIP PLUG Solderless

HANDLE: MOLDED THERMOSETTING plastic, Red & Black per MIL-M-14 CFG. Yellow, Green, Blue, White per LC-726-1.

SPECIFY COLOR

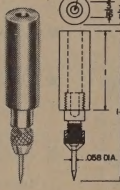
PLUG: Brass, nickel plated.

RATING: 12 Amps AC for 10°C Temp. rise, continuous duty.

DESCR.: Solderless; wire fits through handle and body of tip then wrapped around screw portion. Inserts flush to insulate handle, no metal exposed; eliminates possibility of shock or grounding. Fits standard phone tip jacks.

Std. Pkg. 50

No. 212 NET Per C \$14.00



INSULATED TIP PLUG Phone Needle

HANDLE: MOLDED THERMOSETTING plastic, Red & Black per MIL-M-14 CFG. Yellow, Green, Blue, White per LC-726-1.

SPECIFY COLOR

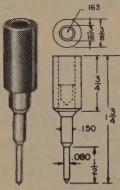
BODY: Brass, nickel plated.

RATING: 12 Amps AC for 10°C Temp. rise, continuous duty.

DESCR.: Removable chuck for easy replacement of broken needle. Needle pierces corrosion or plating for positive retention.

Std. Pkg. 50

No. 216 NET Per C \$18.00



ADAPTER

Banana Plug to Tip Plug

HANDLE: MOLDED BUTYRATE, per FED. SPEC. L-P349A, Type 3, Class MS. Red or Black.

SPECIFY COLOR

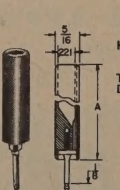
BODY: Brass, nickel plated.

RATING: 12 Amps AC for 10°C Temp. rise, continuous duty.

DESCR.: Accepts standard banana plugs, adapts to standard tip plug.

Std. Pkg. 100

No. 215 NET Per C \$15.00



SUB-MINIATURE TIP PLUG AND TEST PROD

HANDLE: Molded Nylon, per MIL-P-20693A. Available in Red or Black.

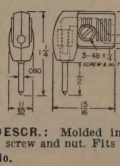
SPECIFY COLOR

TIP: Brass, Silver plated.

DESCR.: Solderless assembly. Ideal for use with sub-miniature printed-circuit tip jacks. Sharp tip breaks flux or oxide coating on contact. Dimple pattern for positive contact when used as prod. Grooved head or prod makes positive contact when laid across wires. Fits all standard 080" tip jacks.

Std. Pkg. 25

No. 348 Handle (A) Overall (B) Per C
348 1 inch 1 1/4" \$3.00
349 4 inches 4 1/4" \$2.00



METER TIP PLUG

HANDLE: MOLDED THERMOSETTING plastic, per MIL-M-14 CFG. Red and Black. **SPECIFY COLOR**

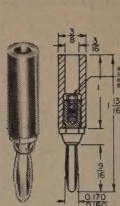
TIP: Brass, nickel plated.

RATING: 12 Amps AC for 10°C Temp. rise, continuous duty.

DESCR.: Molded in two halves for easy assembly with screw and nut. Fits standard phone tip jacks. Std. Pkg. 50

NET Per C \$27.00

No. 235



INSULATED BANANA PLUG

HANDLE: MOLDED THERMOSETTING plastic, Red & Black per MIL-M-14 CFG. Yellow, Green, Blue, White per LC-726-1.

SPECIFY COLOR

PLUG: Hex brass, nickel plated.

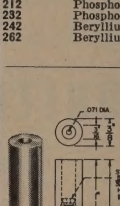
SPRING: Four-leaved phosphor bronze or beryllium copper or silver plated.

RATING: 15 Amps AC for 10°C Temp. rise, continuous duty.

DESCR.: Wire can be soldered to brass stud or directly into itself. Stud also locks plug for solderless connection. Fits standard banana jacks.

Std. Pkg. 100

No. 212 Spring Material Plating
212 Phosphor Bronze Nickel
232 Phosphor Bronze Silver
242 Beryllium Copper Nickel
262 Beryllium Copper Silver



INSULATED BANANA PLUG

HANDLE: MOLDED THERMOSETTING plastic, Red & Black per MIL-M-14 CFG. Yellow, Green, Blue, White per LC-726-1.

SPECIFY COLOR

PLUG: Brass, nickel plated.

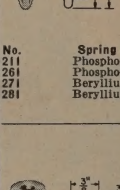
SPRING: Four-leaved phosphor bronze or beryllium nickel or silver plated.

RATING: 15 Amps AC for 10°C Temp. rise, continuous duty.

DESCR.: Wire can be soldered to brass stud or directly into itself. Stud also locks plug for solderless connection. Fits standard banana jacks.

Std. Pkg. 100

No. 211 Spring Material Plating
211 Phosphor Bronze Nickel
261 Phosphor Bronze Silver
271 Beryllium Copper Nickel
281 Beryllium Copper Silver



INSULATED BANANA PLUG

HANDLE: MOLDED THERMOSETTING plastic, Red & Black per MIL-M-14 CFG. Yellow, Green, Blue, White per LC-726-1.

SPECIFY COLOR

PLUG: Hex brass, nickel plated.

SPRING: Four-leaved phosphor bronze or beryllium copper or silver plated.

RATING: 15 AC Amps for 10°C Temp. rise, continuous duty.

DESCR.: Wire through handle and body then wrapped around screw enables quick solid connection of wire to plug standard banana jacks.

Std. Pkg. 100

No. 295 Spring Material Plating
295 Phosphor Bronze Nickel
296 Phosphor Bronze Silver
297 Beryllium Copper Nickel
298 Beryllium Copper Silver



INSULATED BANANA PLUG

HANDLE: MOLDED BUTYRATE, per FED. SPEC. L-P349A, Type 3, Class MS. Red or Black.

SPECIFY COLOR

BODY: Hex brass, nickel plated with mating brass spacer.

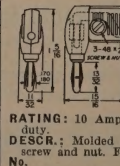
SPRING: Four-leaved phosphor bronze or beryllium copper or silver plated.

RATING: 15 Amps AC for 10°C Temp. rise, continuous duty.

DESCR.: Cross drilled body spacer enables quick solid connection of wire to plug standard banana jacks.

Std. Pkg. 100

No. 285 Spring Material Plating
285 Phosphor Bronze Nickel
286 Phosphor Bronze Silver
287 Beryllium Copper Nickel
288 Beryllium Copper Silver



METER BANANA PLUG

HANDLE: MOLDED THERMOSETTING plastic, per MIL-M-14 CFG. Red and Black. **SPECIFY COLOR**

PLUG: Brass, nickel plated.

SPRING: Four-leaved phosphor bronze, nickel or silver plated.

RATING: 10 Amps AC for 10°C Temp. rise, continuous duty.

DESCR.: Molded in two halves for easy assembly with screw and nut. Fits standard banana jacks. Std. Pkg. 50

No. 255 NET Per C \$27.00

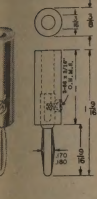
Specify SMITH

HERMAN H. SMITH, INC.



ELECTRONIC COMPONENTS

INSULATED BANANA PLUG With Side Screw



HANDLE: MOLDED THERMOSETTING plastic, Red & Black per MIL-M-14 CPG, Yellow, Green, Blue, White per LC-726-1. **SPECIFY COLOR**

PLUG: Brass, nickel plated.

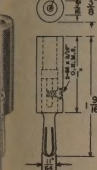
SPRING: Four-leaved phosphor bronze or beryllium copper, nickel plated.

RATING: 15 Amps AC for 10°C Temp. rise, continuous duty.

DESCR.: Set screw secures wire without soldering. Fits standard banana jacks.

No.	Spring	NET Per C
204	Phosphor Bronze	\$19.00
254	Beryllium Copper	27.00

INSULATED BANANA PLUG Split Type With Side Screw



HANDLE: MOLDED THERMOSETTING plastic, Red & Black per MIL-M-14 CPG, Yellow, Green, Blue, White per LC-726-1. **SPECIFY COLOR**

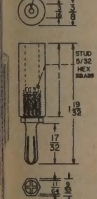
PLUG: Brass, nickel plated.

RATING: 15 Amps AC for 10°C Temp. rise, continuous duty.

DESCR.: Cross-slotted for spring tension. Set screw secures wire without soldering. Fits standard banana jacks.

No.	Spring	NET Per C
213	Phosphor Bronze	\$19.00

INSULATED BANANA PLUG Split Type With Internal Stud



HANDLE: MOLDED THERMOSETTING plastic, Red & Black per MIL-M-14 CPG, Yellow, Green, Blue, White per LC-726-1. **SPECIFY COLOR**

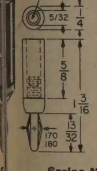
PLUG: Brass, nickel plated.

RATING: 15 Amps AC for 10°C Temp. rise, continuous duty.

DESCR.: Cross-slotted for spring tension. Wire can be soldered to brass stud or directly into plug itself. Stud also locks wire to plug for solderless connection. Fits standard banana jacks.

No.	Spring	NET Per C
253	Phosphor Bronze	\$19.00

INSULATED BANANA PLUG Midgert Type



HANDLE: MOLDED BUTYRATE, per MIL-P-10408A, Type I, Class II, Red, Black, Green. **SPECIFY COLOR**

PLUG: Brass, nickel or silver plated.

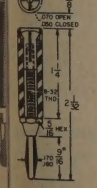
SPRING: Phosphor bronze or beryllium copper, nickel or silver plated.

RATING: 10 Amps AC for 10°C Temp. rise, continuous duty.

DESCR.: Wire soldered directly into stud. Fits standard banana jacks.

No.	Spring	NET Per C
253	Phosphor Bronze	\$19.00

INSULATED BANANA PLUG With Internal Spring Collet



HANDLE: MOLDED BUTYRATE, per MIL-P-10408A, Type I, Class II, Red, Black, Green. **SPECIFY COLOR**

BODY: Hex brass, nickel plated.

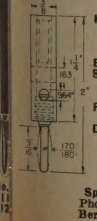
SPRING: Four-leaved phosphor bronze or beryllium copper, nickel plated.

RATING: 15 Amps AC for 10°C Temp. rise, continuous duty.

DESCR.: Solderless: Spring collet provides quick connect and disconnect of wire. Tin wire for secure contact. Fits standard banana jack.

No.	Spring	NET Per C
259	Phosphor Bronze	\$41.00

STACK BANANA PLUG Solderless



HANDLE: MOLDED BUTYRATE, per MIL-P-10408A, Type I, Class II, Red, Black, Yellow or Green. **SPECIFY COLOR**

BODY: Brass, nickel plated.

SPRING: Four-leaved phosphor bronze or beryllium copper, nickel plated.

RATING: 15 Amps AC for 10°C Temp. rise, continuous duty.

DESCR.: Solderless connection. Accepts standard banana plugs in top and side. Interconnects unlimited amount of multiple circuits.

No.	Spring	NET Per C
259	Phosphor Bronze	\$33.00
260	Beryllium Copper	36.00

NYLON PLUGS COLOR CODE SUFFIX

Add to Catalog Number as required

— 101 WHITE	— 104 GREEN	— 106 ORANGE	— 112 PURPLE
— 102 RED	— 105 BLUE	— 107 YELLOW	— 113 GRAY
— 103 BLACK		— 108 BROWN	

BANANA PLUG TYPE

NYLON BANANA PLUG



HANDLE: MOLDED NYLON, per MIL-P-20693A. Specify color as coded above.

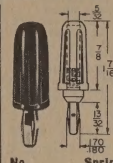
PLUG: Brass, nickel plated.

SPRING: Phosphor bronze or beryllium copper nickel or silver plated.

RATING: 15 Amps AC for 10°C Temp. rise, continuous duty.

DESCR.: Wire can be soldered to brass stud or directly into plug itself. Stud also locks wire to plug for solderless connection. Fits standard banana jacks.

No.	Spring Material	Plating	NET Per C
426	Phosphor Bronze	Nickel	\$21.00
427	Phosphor Bronze	Silver	24.00
428	Beryllium Copper	Nickel	24.00
429	Beryllium Copper	Silver	30.00



NYLON BANANA PLUG Midgert

HANDLE: MOLDED NYLON, per MIL-P-20693A. Specify color as coded above.

PLUG: Brass, nickel or silver plated.

SPRING: Phosphor bronze or beryllium copper, nickel or silver plated.

RATING: 15 Amps AC for 10°C Temp. rise, continuous duty.

DESCR.: Wire soldered directly into stud. Fits standard banana jacks.

No.	Spring Material	Plating	NET Per C
426	Phosphor Bronze	Nickel	\$19.00
427	Phosphor Bronze	Silver	21.00
428	Beryllium Copper	Nickel	24.00
429	Beryllium Copper	Silver	27.00

NYLON BANANA PLUG Split Type



HANDLE: MOLDED NYLON, per MIL-P-20693A. Specify color as coded above.

PLUG: Brass, nickel plated.

RATING: 15 Amps AC for 10°C Temp. rise, continuous duty.

DESCR.: Cross-slotted for spring tension. Wire can be soldered to brass stud or directly into plug itself. Stud also locks wire to plug for solderless connection. Fits standard banana jacks.

No.	Spring Material	Plating	NET Per C
494	Phosphor Bronze	Nickel	\$16.00



NYLON BANANA PLUG Solderless

HANDLE: MOLDED NYLON, per MIL-P-20693A. Specify color as coded above.

PLUG: Brass, nickel or silver plated.

SPRING: Phosphor bronze or beryllium copper nickel or silver plated.

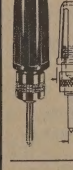
RATING: 15 Amps AC for 10°C Temp. rise, continuous duty.

DESCR.: Solderless: Wire fits through handle and body of tip then wrapped around screw portion. Inserts flush to handle, no metal exposed, eliminates possibility of shock or grounding. Fits standard banana jacks.

No.	Spring Material	Plating	NET Per C
453	Phosphor Bronze	Nickel	\$21.00
454	Phosphor Bronze	Silver	24.00
455	Beryllium Copper	Nickel	27.00
456	Beryllium Copper	Silver	30.00

PIN TIP TYPE

NYLON TIP PLUG Solderless



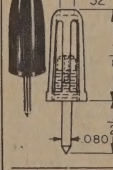
HANDLE: MOLDED NYLON, per MIL-P-20693A. Specify color as coded above.

PLUG: Brass, nickel plated.

RATING: 12 Amps AC for 10°C Temp. rise, continuous duty.

DESCR.: Solderless: Wire fits through body of tip then wrapped around screw portions and tightened with knurled collar. Threaded type. Fits standard phone tip jacks.

No.	Spring Material	Plating	NET Per C
490	Phosphor Bronze	Nickel	\$16.00



NYLON SHORT TIP PLUG

HANDLE: MOLDED NYLON, per MIL-P-20693A. Specify color as coded above.

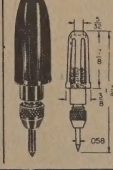
PLUG: Brass, nickel plated.

RATING: 12 Amps AC for 10°C Temp. rise, continuous duty.

DESCR.: Inserts flush to insulated handle, no metal exposed; eliminates possibility of shock or grounding. Fits standard phone tip jacks.

No.	Spring Material	Plating	NET Per C
491	Phosphor Bronze	Nickel	\$13.00

NYLON TIP PLUG



HANDLE: MOLDED NYLON, per MIL-P-20693A. Specify color as coded above.

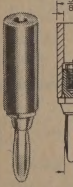
BODY: Brass, nickel plated.

RATING: 15 Amps AC for 10°C Temp. rise, continuous duty.

DESCR.: Removable chuck for easy replacement of broken needles. Needle pierces corrosion or plating for positive reading.

No.	Spring Material	Plating	NET Per C
493	Phosphor Bronze	Nickel	\$16.00

DUAL BANANA PLUG



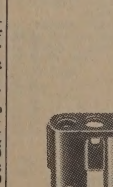
HANDLE: MOLDED THERMOSETTING plastic, Red and Black per MIL-M-14 CPG, Yellow, Green, Blue, White per LC-726-1. **SPECIFY COLOR**

PLUG: Hex brass, nickel plated.

RATING: 15 Amps AC for 10°C Temp. rise, continuous duty.

DESCR.: Withstand temperature to 1200 degrees F. Full resiliency—non-oxidizing. Excellent for thermocouple connection on plastic extruding die heads.

No.	Spring Material	Plating	NET Per C
388	Phosphor Bronze	Nickel	\$72.00



BODY: MOLDED POLYSTYRENE, per Fed. Spec. L-P416, Type I for electrical characteristics. Red or Black.

PLUG: Brass, nickel plated.

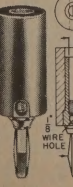
SPRING: Four-leaved phosphor bronze, nickel plated.

RATING: 15 Amps AC for 10°C Temp. rise, continuous duty.

DESCR.: Removable chuck for easy replacement of broken needles. Needle pierces corrosion or plating for positive reading.

No.	Spring Material	Plating	NET Per C
493	Phosphor Bronze	Nickel	\$16.00

STACK BANANA PLUG



BODY: MOLDED POLYSTYRENE, per Fed. Spec. L-P416, Type I for electrical characteristics. Red or Black.

PLUG: Brass, nickel plated.

SPRING: Four-leaved phosphor bronze, nickel plated.

SCREW: Steel, cadmium plated.

RATING: 15 Amps AC for 10°C Temp. rise, continuous duty.

DESCR.: Internal set screw for wire or phone tip connection. Can be stacked for multiple connections.

No.	Spring Material	Plating	NET Per C
324	Phosphor Bronze	Nickel	\$48.00



BODY: MOLDED POLYSTYRENE, per Fed. Spec. L-P416, Type I for electrical characteristics. Red or Black.

PLUG: Brass, nickel plated.

SPRING: Four-leaved phosphor bronze, nickel plated.

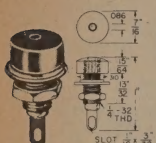
RATING: 15 Amps AC for 10°C Temp. rise, continuous duty.

DESCR.: Removable chuck for easy replacement of broken needles. Needle pierces corrosion or plating for positive reading.

No.	Spring Material	Plating	NET Per C
493	Phosphor Bronze	Nickel	\$16.00

specify SMITH

HERMAN H. SMITH, INC.

ELECTRO
COMPON

INSULATED PHONE TIP JACK
HEAD: MOLDED THERMOSETTING plastic, Red and Black per MIL-M-14 CFG. Yellow, Green, Blue, White per LC-726-1.

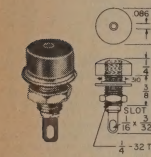
SPECIFY COLOR
BODY: Brass, nickel plated.
SPRING: Phosphor bronze.
RATING: 15 Amps AC for 10°C Temp. rise, continuous duty. 750 Volts 60 cycle AC continuous working voltage. CAPACITANCE 4.0 mmfd.

DESCR.: Positive contact with standard phone tip plugs. Supplied complete with hex nut and fibre washer. Mounts in $\frac{5}{16}$ " hole in panels up to $\frac{3}{4}$ " thick. Accepts standard phone tip plugs. Std. Pkg. 100

NET Per C
\$14.00

No.

202



INSULATED PHONE TIP JACK

HEAD: MACHINED BUTYRATE, per MIL-P-14048A, Type 1, Class 1, Red, Black Yellow, Green. SPECIFY COLOR

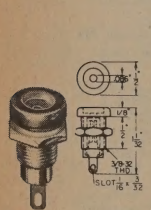
BODY: Brass, nickel plated.
SPRING: Phosphor bronze.
RATING: 15 Amps AC for 10°C Temp. rise, continuous duty. 750 Volts 60 cycle AC continuous working voltage. CAPACITANCE 4.0 mmfd.

DESCR.: Complete with hex nut and fibre washer. Mounts in $\frac{5}{16}$ " hole in panels up to $\frac{3}{4}$ " thick. Accepts standard phone tip plugs. Std. Pkg. 50

NET Per C
\$21.00

No.

223



MOLDED NYLON TIP JACK

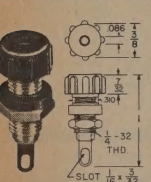
BODY: MOLDED NYLON, per MIL-P-20693A, Red, Black, Yellow, Green, Blue, White. SPECIFY COLOR

CONTACT: Phosphor bronze.
CAP: Brass, nickel plated.
SPRING: 10 Amps AC for 10°C Temp. rise, continuous duty. 5 K Volts 60 cycle AC continuous working voltage. CAPACITANCE 3.0 mmfd.
DESCR.: Mounts in $\frac{5}{16}$ " hole in panels up to $\frac{3}{4}$ " thick. Accepts standard phone tip plugs. Std. Pkg. 100

NET Per C
\$18.00

N.

240



INSULATED PHONE TIP JACK

HEAD: Fluted Head, MOLDED NYLON, per MIL-P-20693A. With molded nylon washer. Red, Black, Yellow, Green, Blue. SPECIFY COLOR

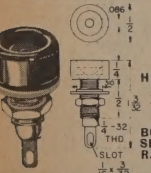
BODY: Brass, nickel plated.
SPRING: Phosphor bronze.
RATING: 12 Amps AC for 10°C Temp. rise, continuous duty. 750 Volts 60 cycle AC continuous working voltage. CAPACITANCE 4.0 mmfd.

DESCR.: Extruded portion of head and washer provides excellent insulation from panel. Supplied with hex nut. Mounts in $\frac{5}{16}$ " hole in panels up to $\frac{3}{4}$ " thick. Accepts standard tip plugs. Std. Pkg. 100

NET Per C
\$19.00

No.

241



INSULATED TIP JACK

Met Type

HEAD: MOLDED THERMOSETTING plastic, Red and Black per MIL-M-14 CFG. Yellow, Green, Blue per LC-726-1.

SPECIFY COLOR
BODY: Brass, nickel plated.
SPRING: Phosphor bronze.
RATING: 15 Amps AC for 10°C Temp. rise, continuous duty. 750 Volts 60 cycle AC continuous working voltage. CAPACITANCE 4.0 mmfd.

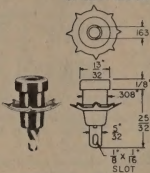
DESCR.: Supplied complete with hex nut and fibre washer. Mounts in $\frac{5}{16}$ " hole in panels up to $\frac{3}{4}$ " thick. Recessed jack body prevents possibility of shock or grounding. Accepts standard phone tip plugs. Std. Pkg. 50

NET Per C
\$17.00

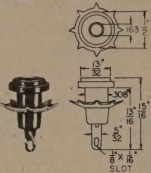
No.

252

"SPEEDI-MOUNT" BANANA JACKS



#398—Small Head



#399—Large Head

BODY: MOLDED THERMOSETTING plastic, Red and Black per MIL-M-14 CFG. Yellow, Green, Blue, White per LC-726-1. SPECIFY COLOR

CONTACT: Brass, cadmium plated.
WASHER: Steel cadmium plated, internal and external tooth.

RATING: 12 Amps AC for 10°C Temp. rise, continuous duty. 3 K Volts 60 cycle AC continuous working voltage. CAPACITANCE 4.0 mmfd.

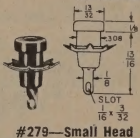
DESCR.: Unusual dish lockwasher permits fast assembly. Teeth embed into jack and panels, preventing pulling out and turning. Mounts in $\frac{5}{16}$ " hole in panels up to $\frac{3}{16}$ " thick. Accepts standard banana plugs.

Std. Pkg. 100
NET Per C
\$6.60

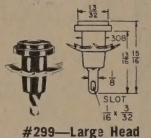
Small Head 13/32"
Large Head 1 1/2"

No.
398
399

"SPEEDI-MOUNT" TIP JACKS



#279—Small Head



#299—Large Head

BODY: MOLDED THERMOSETTING plastic, Red and Black per MIL-M-14 CFG. Yellow, Green, Blue, White per LC-726-1. SPECIFY COLOR

SPRING: Phosphor bronze.
WASHER: Steel cadmium plated, internal and external tooth.

RATING: 12 Amps AC for 10°C Temp. rise, continuous duty. 3 K Volts 60 cycle AC continuous working voltage. CAPACITANCE 3.0 mmfd.

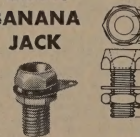
DESCR.: Unusual dish lockwasher permits fast assembly. Teeth embed into jack and panels, preventing pulling out and turning. Mounts in $\frac{5}{16}$ " hole in panels up to $\frac{3}{16}$ " thick. Accepts standard phone tip plugs.

Std. Pkg. 100
NET Per C
\$6.60

Small Head 13/32"
Large Head 1 1/2"

No.
279
299

GIANT BANANA JACK



BODY: HEX BRASS, nickel plated.

RATING: 25 Amps AC for 10°C Temp. rise, continuous duty.

DESCR.: Supplied with hex nut and brass tinued lug.

Std. Pkg. 25
NET Per C
\$30.00

Mtg. Hole
Panel
187
157

1/2"
1/2"

1/2"
1/2"

1/2"
1/2"

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COLOR CODE SUFFIX — Add to Catalog Number as required

101 WHITE **104 GREEN**

102 BLUE **105 BLUE**

103 BLACK **106 ORANGE**

107 YELLOW **108 BROWN**

109 PURPLE **110 PURPLE**

111 PURPLE **112 PURPLE**

113 PURPLE **114 PURPLE**

115 PURPLE **116 PURPLE**

117 PURPLE **118 PURPLE**

119 PURPLE **120 PURPLE**

121 PURPLE **122 PURPLE**

123 PURPLE **124 PURPLE**

125 PURPLE **126 PURPLE**

127 PURPLE **128 PURPLE**

129 PURPLE **130 PURPLE**

131 PURPLE **132 PURPLE**

133 PURPLE **134 PURPLE**

135 PURPLE **136 PURPLE**

137 PURPLE **138 PURPLE**

139 PURPLE **140 PURPLE**

141 PURPLE **142 PURPLE**

143 PURPLE **144 PURPLE**

145 PURPLE **146 PURPLE**

147 PURPLE **148 PURPLE**

149 PURPLE **150 PURPLE**

151 PURPLE **152 PURPLE**

153 PURPLE **154 PURPLE**

155 PURPLE **156 PURPLE**

157 PURPLE **158 PURPLE**

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189 PURPLE **190 PURPLE**

191 PURPLE **192 PURPLE**

193 PURPLE **194 PURPLE**

195 PURPLE **196 PURPLE**

197 PURPLE **198 PURPLE**

199 PURPLE **200 PURPLE**

201 PURPLE **202 PURPLE**

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213 PURPLE **214 PURPLE**

215 PURPLE **216 PURPLE**

217 PURPLE **218 PURPLE**

219 PURPLE **220 PURPLE**

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223 PURPLE **224 PURPLE**

225 PURPLE **226 PURPLE**

227 PURPLE **228 PURPLE**

229 PURPLE **230 PURPLE**

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255 PURPLE **256 PURPLE**

257 PURPLE **258 PURPLE**

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263 PURPLE **264 PURPLE**

265 PURPLE **266 PURPLE**

267 PURPLE **268 PURPLE**

269 PURPLE **270 PURPLE**

271 PURPLE **272 PURPLE**

273 PURPLE **274 PURPLE**

275 PURPLE **276 PURPLE**

277 PURPLE **278 PURPLE**

279 PURPLE **280 PURPLE**

281 PURPLE **282 PURPLE**

283 PURPLE **284 PURPLE**

285 PURPLE **286 PURPLE**

287 PURPLE **288 PURPLE**

289 PURPLE **290 PURPLE**

291 PURPLE **292 PURPLE**

293 PURPLE **294 PURPLE**

295 PURPLE **296 PURPLE**

297 PURPLE **298 PURPLE**

299 PURPLE **300 PURPLE**

301 PURPLE **302 PURPLE**

303 PURPLE **304 PURPLE**

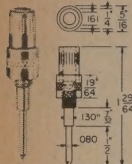
305 PURPLE **306 PURPLE**

307 PURPLE **308 PURPLE**

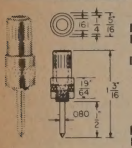
The MASTER — 31st Edition • Page 689

specify SMITH

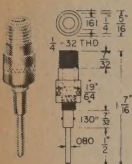
HERMAN H. SMITH INC.

ELECTRO
COMPONE

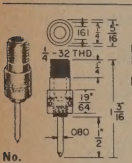
SOLDERLESS TIP PLUG
BODY: Brass, nickel plated.
RATING: 12 Amps AC for 10°C Temp. rise, continuous duty.
DESCR.: Solderless; wire fits through body of tip then wrapped around screw portion and tightened with knurled collar. Force fit type. Fits standard phone tip jacks.
 Std. Pkg. 100
 No. 105 Type NET Per C
 Senior \$11.00



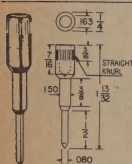
SOLDERLESS TIP PLUG
BODY: Brass, nickel plated.
RATING: 12 Amps AC for 10°C Temp. rise, continuous duty.
DESCR.: Solderless; wire fits through body of tip then wrapped around screw portion and tightened with knurled collar. Force fit type. Fits standard phone tip jacks.
 Std. Pkg. 100
 No. 106 Type NET Per C
 Junior \$11.00



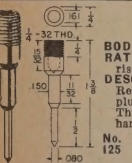
SOLDERLESS TIP PLUG
Threaded Sr.
BODY: Brass, nickel plated.
RATING: 12 Amps AC for 10°C Temp. rise, continuous duty.
DESCR.: Solderless; wire fits through body of tip then wrapped around screw portion and tightened with knurled collar. Threaded for easy assembly in plastic handle. Fits standard phone tip jacks.
 Std. Pkg. 100
 No. 124 Type NET Per C
 Senior \$12.00



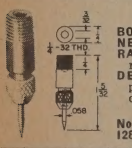
SOLDERLESS TIP PLUG
Threaded Jr.
BODY: Brass, nickel plated.
RATING: 12 Amps AC for 10°C Temp. rise, continuous duty.
DESCR.: Solderless; wire fits through body of tip then wrapped around screw portion and tightened with knurled collar. Threaded for easy assembly in standard phone tip jacks.
 Std. Pkg. 50
 No. 127 Type NET Per C
 Junior \$12.00



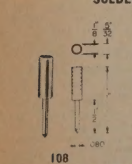
HEAVY DUTY TIP PLUG
Force-Fit
BODY: Brass, nickel plated.
RATING: 12 Amps AC for 10°C Temp. rise, continuous duty.
DESCR.: Extra large well for soldering. Rear of plug accepts standard banana plugs. Fits all standard phone tip jacks.
 Std. Pkg. 25
 No. 156 Type NET Per C
 Force Fit \$11.00



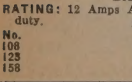
HEAVY DUTY TIP PLUG
Threaded
BODY: Brass, nickel plated.
RATING: 12 Amps AC for 10°C Temp. rise, continuous duty.
DESCR.: Extra large well for soldering. Rear of plug accepts standard banana plugs. Fits standard phone tip jacks. Threaded for easy assembly in plastic handle.
 Std. Pkg. 50
 No. 125 Type NET Per C
 Threaded \$12.00



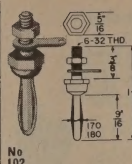
NEEDLE TIP AND CHUCK
BODY: Brass, nickel plated.
NEEDLE: Steel, nickel plated.
RATING: 12 Amps AC for 10°C Temp. rise, continuous duty.
DESCR.: Removable chuck for easy replacement. Needle pieces plating or corrosion for positive reading.
 Std. Pkg. 50
 No. 128 Type NET Per C
 Standard \$14.00



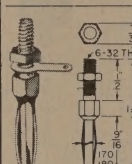
SOLDER TYPE PHONE TIPS
BODY: Brass, Nickel Plated
RATING: 12 Amps AC for 10°C Temp. rise, continuous duty.
 Std. Pkg. 100
 No. 108 Type NET Per C
 Standard \$2.40
 Large L.D. 2.70
 Drawn 1.50



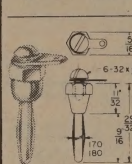
SOLDER TYPE PHONE TIPS
BODY: Brass, Nickel Plated
RATING: 12 Amps AC for 10°C Temp. rise, continuous duty.
 Std. Pkg. 100
 No. 108 Type NET Per C
 Standard \$2.40
 Large L.D. 2.70
 Drawn 1.50



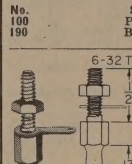
BANANA PLUG
BODY: HEX BRASS, nickel plated.
SPRING: Four-leaved phosphor bronze, nickel plated.
RATING: 15 Amps AC for 10°C Temp. rise, continuous duty.
DESCR.: Supplied with hex nut and phosphor bronze lug. Threaded stud for panel mounting. Fits standard banana jacks.
 Std. Pkg. 100
 No. 102 Type NET Per C
 Senior \$18.00



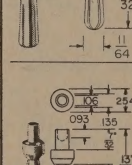
BANANA PLUG
BODY: HEX BRASS, nickel plated.
SPRING: Four-leaved phosphor bronze, nickel plated.
RATING: 15 Amps AC for 10°C Temp. rise, continuous duty.
DESCR.: Supplied with hex nut and phosphor bronze lug. Threaded stud for panel mounting. Fits standard banana jacks.
 Std. Pkg. 100
 No. 103 Type NET Per C
 Senior \$18.00



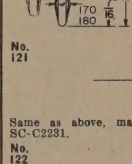
BANANA PLUG
BODY: HEX BRASS, nickel plated.
SPRING: Four-leaved phosphor bronze or beryllium copper, nickel plated.
RATING: 15 Amps AC for 10°C Temp. rise, continuous duty.
DESCR.: Supplied with screw and phosphor bronze tinmed lug. Internal female permits use on all size panels. Fits standard banana jacks.
 Std. Pkg. 100
 No. 100 Type NET Per C
 Senior \$18.00



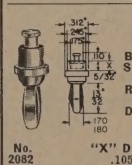
BANANA PLUG
Split Tip
BODY: HEX BRASS, nickel plated, cross-slotted.
RATING: 15 Amps AC for 10°C Temp. rise, continuous duty.
DESCR.: Fits all standard banana jacks. Supplied with hex nut and phosphor bronze lug, threaded stud for panel mounting. Fits standard banana jacks.
 Std. Pkg. 100
 No. 104 Type NET Per C
 Senior \$14.00



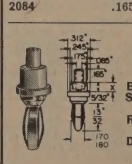
MIDGET BANANA PLUG
Rivet Type
BODY: BRASS, nickel plated.
SPRING: Four-leaved phosphor bronze, nickel plated.
RATING: 10 Amps AC for 10°C Temp. rise, continuous duty.
DESCR.: Can be furnished in varying types to meet Jan specs. Fits all standard banana jacks.
 Std. Pkg. 100
 No. 121 Type NET Per C
 Senior \$16.20



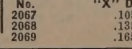
MIL-SPEC. TYPE
 Same as above, made to meet Signal Corps Drawings SC-C2231.
 Std. Pkg. 100
 No. 122 Type NET Per C
 Senior \$18.00



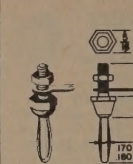
RIVET TYPE BANANA PLUG
Wrap Around Type
BODY: BRASS, nickel plated.
SPRING: Four leaved, beryllium copper, nickel plated.
RATING: 10 Amps AC for 10°C Temp. rise, continuous duty.
DESCR.: Rivets to panel or bakelite board. Wire is soldered in stud and is then soldered.
 Std. Pkg. 100
 No. 2082 Type NET Per C
 Standard \$18.00
 Large L.D. 18.00
 Drawn 18.00



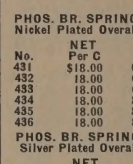
RIVET TYPE BANANA PLUG
Solder Well Type
BODY: BRASS, nickel plated.
SPRING: Four-leaved beryllium copper, nickel plated.
RATING: 10 Amps AC for 10°C Temp. rise, continuous duty.
DESCR.: Rivets to panel or bakelite board. Wire solders to well in rear of plug.
 Std. Pkg. 100
 No. 2087 Type NET Per C
 Standard \$18.00
 Large L.D. 18.00
 Drawn 18.00



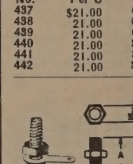
RIVET TYPE BANANA PLUG
Solder Well Type
BODY: BRASS, nickel plated.
SPRING: Four-leaved beryllium copper, nickel plated.
RATING: 10 Amps AC for 10°C Temp. rise, continuous duty.
DESCR.: Rivets to panel or bakelite board. Wire solders to well in rear of plug.
 Std. Pkg. 100
 No. 2089 Type NET Per C
 Standard \$18.00
 Large L.D. 18.00
 Drawn 18.00



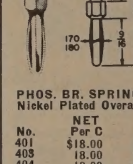
BANANA PLUG
BODY: HEX BRASS, nickel plated.
SPRING: Phosphor bronze beryllium copper, nickel plated.
RATING: 15 Amps AC for 10°C Temp. rise, continuous duty.
DESCR.: Supplied with hex nut and tinned phosphor bronze lug threaded stud for panel mounting. Fits standard banana jacks.
 Std. Pkg. 100
 No. 431 Type NET Per C
 Senior \$18.00



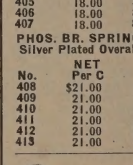
BANANA PLUG
BODY: HEX BRASS, nickel plated.
SPRING: Phosphor bronze beryllium copper, nickel plated.
RATING: 15 Amps AC for 10°C Temp. rise, continuous duty.
DESCR.: Supplied with hex nut and tinned phosphor bronze lug threaded stud for panel mounting. Fits standard banana jacks.
 Std. Pkg. 100
 No. 432 Type NET Per C
 Senior \$18.00



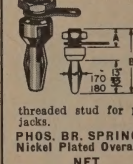
BANANA PLUG
BODY: HEX BRASS, nickel plated.
SPRING: Phosphor bronze beryllium copper, nickel plated.
RATING: 15 Amps AC for 10°C Temp. rise, continuous duty.
DESCR.: Supplied with hex nut and tinned phosphor bronze lug threaded stud for panel mounting. Fits standard banana jacks.
 Std. Pkg. 100
 No. 433 Type NET Per C
 Senior \$18.00



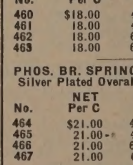
BANANA PLUG
BODY: HEX BRASS, nickel plated.
SPRING: Phosphor bronze beryllium copper, nickel plated.
RATING: 15 Amps AC for 10°C Temp. rise, continuous duty.
DESCR.: Supplied with hex nut and tinned phosphor bronze lug threaded stud for panel mounting. Fits standard banana jacks.
 Std. Pkg. 100
 No. 434 Type NET Per C
 Senior \$18.00



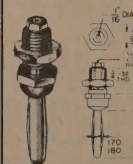
BANANA PLUG
BODY: HEX BRASS, nickel plated.
SPRING: Phosphor bronze beryllium copper, nickel plated.
RATING: 15 Amps AC for 10°C Temp. rise, continuous duty.
DESCR.: Supplied with hex nut and tinned phosphor bronze lug threaded stud for panel mounting. Fits standard banana jacks.
 Std. Pkg. 100
 No. 435 Type NET Per C
 Senior \$18.00



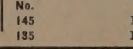
BANANA PLUG
BODY: HEX BRASS, nickel plated.
SPRING: Phosphor bronze beryllium copper, nickel plated.
RATING: 15 Amps AC for 10°C Temp. rise, continuous duty.
DESCR.: Supplied with hex nut and tinned phosphor bronze lug threaded stud for panel mounting. Fits standard banana jacks.
 Std. Pkg. 100
 No. 436 Type NET Per C
 Senior \$18.00



BANANA PLUG
BODY: HEX BRASS, nickel plated.
SPRING: Phosphor bronze beryllium copper, nickel plated.
RATING: 15 Amps AC for 10°C Temp. rise, continuous duty.
DESCR.: Supplied with hex nut and tinned phosphor bronze lug threaded stud for panel mounting. Fits standard banana jacks.
 Std. Pkg. 100
 No. 437 Type NET Per C
 Senior \$18.00



BANANA PLUG
BODY: HEX BRASS, nickel plated.
SPRING: Phosphor bronze beryllium copper, nickel plated.
RATING: 15 Amps AC for 10°C Temp. rise, continuous duty.
DESCR.: Supplied with hex nut and tinned phosphor bronze lug threaded stud for panel mounting. Fits standard banana jacks.
 Std. Pkg. 100
 No. 438 Type NET Per C
 Senior \$18.00

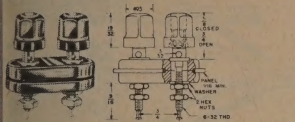


BANANA PLUG
BODY: HEX BRASS, nickel plated.
SPRING: Phosphor bronze beryllium copper, nickel plated.
RATING: 15 Amps AC for 10°C Temp. rise, continuous duty.
DESCR.: Supplied with hex nut and tinned phosphor bronze lug threaded stud for panel mounting. Fits standard banana jacks.
 Std. Pkg. 100
 No. 439 Type NET Per C
 Senior \$18.00

DEX ON LAST SMITH PAGE) © U.C.P.

Specify **SMITH**

HERMAN H. SMITH, INC.

ELECTRONIC
COMPONENTS**DUAL ASSEMBLY
With Insulated Head**

R: MOLDED black STYRENE, per Fed. Spec. L-P416, Type 1, cross slotted (+) to accept standard phone tips in post either forward or sideways.

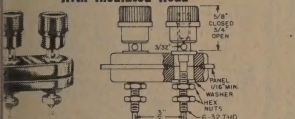
BRASS, nickel plated.

CAPTIVE: MOLDED NYLON, per MIL-P-20693A, molded in brass insert.

RATING: 15 Amps AC for 10°C Temp. rise, continuous duty. 2 K Volts 60 cycle AC continuous working voltage. CAPACITANCE 2.0 mmfd. between conductors, 3.0 mmfd. to panel.

DESCR.: Mounts in two 1/4" holes on 3/4" mounting centers in panels up to 1/4" thick. Accommodates single or dual banana plugs. Supplied with 4 hex nuts, 2 flat washers.

Description	Std. Pkg. 10	NET Per C
Two Black Heads	\$66.00	
Two Red Heads	66.00	
One Red, One Black Head	66.00	

**DUAL ASSEMBLY
With Insulated Head**

R: MOLDED black STYRENE, per Fed. Spec. L-P416, Type 1, cross slotted (+) to accept standard phone tips in post either forward or sideways.

BRASS, nickel plated.

CAPTIVE: MOLDED BUTYRATE, per Fed. Spec. L-P416, Type 3, Class MS, Red or Black.

SPECIFY COLOR

RATING: 15 Amps AC for 10°C Temp. rise, continuous duty. 2 K Volts 60 cycle AC continuous working voltage. CAPACITANCE 2.0 mmfd. between conductors, 3.0 mmfd. to panel.

DESCR.: Mounts in two 1/4" holes on 3/4" mounting centers in panels up to 1/4" thick. Accommodates single or dual banana plugs. Supplied with 4 hex nuts, 2 flat washers.

Description	Std. Pkg. 10	NET Per C
Two Black Heads	\$54.00	
Two Red Heads	54.00	
One Red, One Black Head	54.00	

as above with brass nickel plated insert in head

Two Black Heads	66.00
Two Red Heads	66.00
One Red, One Black Head	66.00

INSULATED SPADE LUG

HANDLE: MOLDED BUTYRATE, per Fed. Spec. L-P349A, Type 3, Class MS, Red or Black.

SPECIFY COLOR

LUG: Brass, .050 thick, nickel plated.

RATING: 30 Amps AC for 10°C Temp. rise, continuous duty.

DESCR.: 1/4" I.D. fits all standard multi-purpose binding posts. Accepts up to 2510 insulated wire, which solder in front hole.

No.	Std. Pkg. 100	NET Per C
400	\$12.00	

SHORTING LINK

MATERIAL: Spring brass, nickel plated, .038" thick.

RATING: 50 Amps AC continuous duty, for 10°C Temp. rise.

DESCR.: Snap over contact bars of dual binding posts with standard 3/4" mounting centers.

No.	Std. Pkg. 50	NET Per C
270	\$6.00	

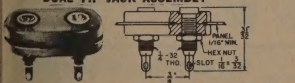
BLACK STYRENE INSULATOR

MATERIAL: STYRENE, per Fed. Spec. L-P416, Type 1.

RATING: 2 K Volts 60 cycle AC continuous working voltage.

DESCR.: Mounts in two 1/2" holes on 3/4" mounting centers in panels up to 1/4" thick.

No.	Std. Pkg. 100	NET Per C
207	\$6.00	

DUAL TIP JACK ASSEMBLY

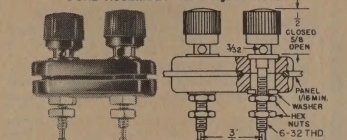
R: MOLDED black STYRENE, per Fed. Spec. L-P416, Type 1.

RECESSED, BRASS, nickel plated.

RATING: 15 Amps AC for 10°C Temp. rise, continuous duty. 2 K Volts 60 cycle AC continuous working voltage. CAPACITANCE 2.0 mmfd. between conductors, 4.0 mmfd. to panel.

DESCR.: Mounts in two 1/4" holes on 3/4" mounting centers in panels up to 1/4" thick. Accommodates standard phone plugs. Supplied with two hex nuts.

No.	Std. Pkg. 10	NET Per C
208	\$55.00	

DUAL ASSEMBLY With Nylon Heads

WASHER: MOLDED black STYRENE, per Fed. Spec. L-P416, Type 1, cross slotted (+) to accept standard phone tips in post either forward or sideways.

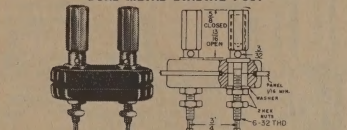
BODY: Brass, nickel plated.

HEAD: Captive: MOLDED NYLON, per MIL-P-20693A, with molded in brass insert.

RATING: 15 Amps AC for 10°C Temp. rise, continuous working voltage. CAPACITANCE 2.0 mmfd. between conductors, 3.0 mmfd. to panel.

DESCR.: Mounts in two 1/4" holes on 3/4" mounting centers in panels up to 1/4" thick. Supplied with 4 hex nuts, 2 flat washers.

No.	Description	Std. Pkg. 10	NET Per C
2448B	Two Black Heads	\$60.00	
2448R	Two Red Heads	60.00	
2448B	One Red, One Black Head	60.00	

DUAL METAL BINDING POST

WASHER: MOLDED black STYRENE, per Fed. Spec. L-P416, Type 1, cross slotted (+) to accept standard phone tips in post either forward or sideways.

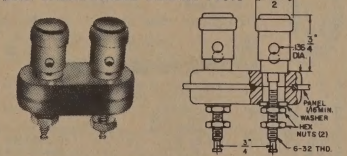
BODY: Brass, nickel plated.

HEAD: Captive: Hex brass, nickel plated.

RATING: 15 Amps AC for 10°C Temp. rise, continuous duty. 2 K Volts 60 cycle AC continuous working voltage. CAPACITANCE 2.0 mmfd. between conductors, 3.0 mmfd. to panel.

DESCR.: Mounts in two 1/4" holes on 3/4" mounting centers in panels up to 1/4" thick. Accommodates single or dual banana plugs. Supplied with 4 hex nuts, 2 flat washers.

No.	Std. Pkg. 10	NET Per C
249	\$60.00	

DUAL SPRING-LOADED BINDING POSTS

WASHER: MOLDED black STYRENE, per Fed. Spec. L-P416, Type 1, cross slotted (+) to accept standard phone tips or wire in post either forward or sideways.

Supplied in colors on special order.

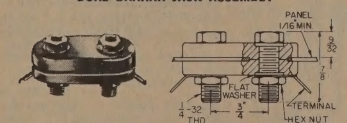
HEAD: Captive, brass, nickel plated

CAP: Molded black styrene, per Fed. Spec. L-P416.

RATING: 15 Amps AC for 10°C Temp. rise, continuous duty. 5 KV 60 cycle AC continuous working voltage.

DESCR.: Accepts standard phone tips or wires in side holes, and locks them in place when pressure on cap is released.

No.	Std. Pkg. 10	NET Per C
2713	\$75.00	

DUAL BANANA JACK ASSEMBLY

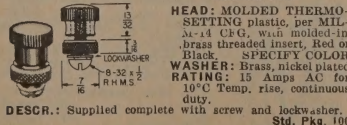
WASHER: MOLDED black STYRENE, per Fed. Spec. L-P416, Type 1.

BODY: Brass, nickel plated.

RATING: 15 Amps AC for 10°C Temp. rise, continuous duty. 2 K Volts 60 cycle AC continuous working voltage. CAPACITANCE 2.0 mmfd. between conductors, 4.0 mmfd. to panel.

DESCR.: Mounts in two 1/4" holes on 3/4" mounting centers in panels up to 1/4" thick. Accommodates standard and dual banana plugs. Supplied with two hex nuts and brass tin-plated lugs.

No.	Std. Pkg. 10	NET Per C
489	\$50.00	

BINDING POST

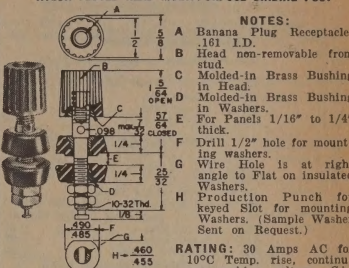
HEAD: MOLDED THERMO-SETTING plastic, per MIL-A-18 CEG, with molded-in brass threaded insert, Red or Black. SPECIFY COLOR

WASHER: Brass, nickel plated

RATING: 15 Amps AC for 10°C Temp. rise, continuous duty.

DESCR.: Supplied complete with screw and lockwasher.

No.	Std. Pkg. 100	NET Per C
265	\$18.00	

NYLON FLUTED HEAD MULTI-PURPOSE BINDING POST

NOTES:

- Banana Plug Receptacle, 161 I.D.
- Head non-removable from stud.
- Molded-in Brass Bushing in Head.
- Molded-in Brass Bushing in Washers.
- For Panels 1/16" to 1/4" thick.
- Drill 1/2" hole for mounting washers.
- Head is at right angle to flat on insulated washers.
- Production Punch for keyed slot for mounting Washers. (Sample Washer Sent on Request.)

RATING: 30 Amps AC for 10°C Temp. rise, continuous working voltage. CAPACITANCE 5.0 mmfd.

CURRENT: 30 amps safe current

ACCEPTS: Phone tip plug, spade lug, banana plug, alligator clip or wire strand.

DESCR.: MOLDED NYLON, per MIL-P-20693A, head and washer completely insulates post from panels. Mounts in 1/4" or keyed hole as indicated. Wrap around type—direct solder connection to stud. Metal parts brass.

COLORS: Red, Black, Yellow, Green, Blue, White. Specify color.

No.	Std. Pkg. 100	NET Per C
459	\$36.00	

MIL-SPEC BINDING POST

Same as our #459 above, made to meet MIL-P-55149/1.

No.	Std. Pkg. 50	NET Per C
495	\$48.00	

PIN JACK TYPE

Same as above with Beryllium copper, gold plated pin tip receptacle replacing Note "A" above. All other specifications apply.

No.	Std. Pkg. 100	NET Per C
487	\$42.00	

DUAL SHORTING PLUG

BODY: MOLDED BUTYRATE, per Fed. Spec. L-P416, Type 1, Red, Black, Yellow, Green.

SPECIFY COLOR

PLUG: Brass, nickel plated.

SPRING: Four-leaved beryllium copper, nickel plated.

RATING: 15 Amps AC for 10°C Temp. rise, continuous duty. 5 KV 60 cycle AC continuous working voltage.

DESCR.: Internally shorted plug mates with standard dual binding posts on 3/4" centers. Used for grounding or shorting input and output connections. Can be stacked for additional current rating. Rear banana jack holes allow connection to shorted posts.

No.	Std. Pkg. 25	NET Per C
1516	\$72.00	

BINDING POST

HEAD: MOLDED THERMO-SETTING plastic, per MIL-A-18 CEG, with molded-in brass threaded insert, Red or Black. SPECIFY COLOR

WASHER: Brass, nickel plated

RATING: 15 Amps AC for 10°C Temp. rise, continuous duty.

DESCR.: Supplied complete with screw and lockwasher.

No.	Std. Pkg. 100	NET Per C
266	\$18.00	

METAL BINDING POST

HEAD: BRASS, nickel plated.

BODY: Brass, nickel plated.

RATING: 15 Amps AC for 10°C Temp. rise, continuous duty.

DESCR.: Accepts standard phone tips or banana plugs.

No.	Std. Pkg. 50	NET Per C
136	\$15.00	

METAL BINDING POST

HEAD: BRASS, nickel plated.

BODY: Brass, nickel plated.

RATING: 15 Amps AC for 10°C Temp. rise, continuous duty.

DESCR.: Supplied complete with screw and lockwasher.

No.	Std. Pkg. 25	NET Per C
110	\$18.00	

BINDING POST

Compression Type

HEAD: Captive, brass nickel plated. Straight knurled for finger grip.

BODY: Brass, nickel plated.

ACCEPTS: Phone tips or wire (up to #10 gauge).

DESCR.: Head screws down to compress wire between body and sliding contact. Internally threaded for .32 mounting screw. Base knurled for positive grip to panel.

No.	Std. Pkg. 50	NET Per C
159	\$21.00	

specify SMITH

HERMAN H. SMITH, INC.

ELECTRON
COMPONENTS**SOLDERLESS TIP TEST LEAD**

HANDLE: MOLDED BUTYRATE, per Fed. Spec. L-P349A, Type 3, Class MS. Red and Black.

TIP: Solderless: Brass, nickel plated.

No.	Meter End	NET Per Pk.
600	Phone Tips	\$.87
601	Spade Lugs	.37
602	Alligator Clips	.93

PHONO NEEDLE TEST LEAD

HANDLE: MOLDED BUTYRATE, per Fed. Spec. L-P349A, Type 3, Class MS. Red and Black.

BODY: Brass, nickel plated.

NEEDLE: Steel, nickel plated.

No.	Meter End	NET Per Pk.
613	Phone Tips	\$.87
614	Spade Lugs	.37
615	Alligator Clips	.93

ALL SOLDERLESS TEST LEAD

HANDLE: MOLDED BUTYRATE, per Fed. Spec. L-P349A, Type 3, Class MS. Red and Black.

PLUG: MOLDED THERMOSETTING plastic, Red and Black per MIL-M-14 CFG.

TIP: Solderless: Brass, nickel plated.

No.	Meter End	NET Per Pk.
603		\$1.26

HIGH TENSION TEST LEAD

HANDLE: FIBRE, per MIL-F-1148A, Grade CH. Red and Black.

PLUG: FIBRE, per MIL-F-1148A, Grade CH. Red and Black.

TIP: Brass, nickel plated.

No.	Meter End	NET Per Pk.
620	Ins. Phone Tips	\$1.38
621	Ins. Spade Lugs	1.38
622	Ins. Alligator Clips	2.40

SHORT TIP TEST LEAD

HANDLE: MOLDED BUTYRATE, per Fed. Spec. L-P349A, Grade CH. Red and Black.

PLUG: MOLDED THERMOSETTING plastic, Red and Black per MIL-M-14 CFG.

TIP: Brass, nickel plated.

No.	Meter End	NET Per Pk.
624		\$1.03

SLIM HANDLE TEST LEAD

HANDLES: MACHINED BUTYRATE, per MIL-P10408A, Type 1, Class 2. Red and Black.

TIPS: Prod: Brass, Nickel Plated. Meter End: Drawn Brass Nickel Plated.

No.	Meter End	NET Per Pk.
670		\$.66

BANANA PLUG TEST LEAD

HANDLE: MOLDED BUTYRATE, per Fed. Spec. L-P349A, Type 3, Class MS. Red and Black.

PLUG: MOLDED THERMOSETTING plastic, Red and Black per MIL-M-14 CFG.

TIP: Solderless: Brass, nickel plated.

BODY: Brass, nickel plated.

SPRING: Four leaved phosphor bronze, nickel plated.

No.	Meter End	NET Per Pk.
623		\$1.50

SUB MINIATURE TEST LEAD

HANDLE: FIBRE, per MIL-F-1148A, Grade CH. Red and Black.

PLUG: FIBRE, per MIL-F-1148A, Grade CH. Red and Black.

TIPS: Brass, nickel plated.

No.	Meter End	NET Per Pk.
676		\$1.26

TEST LEAD KIT

DESCR.: Each kit is supplied with one pair of test leads. One and test prods, other end ins. banana plugs.

FITTINGS: Two each: Phone tips, alligator clips, spade lugs.

No.	Type	NET Ea.
610	Solderless Prods	\$1.80
611	Needle Tip Prods	1.80

SHIELDED TEST LEADS

HANDLE: MOLDED BUTYRATE, per Fed. Spec. L-P349A, Type 3, Class MS. Red and Black.

TIP: Prod tip brass, nickel plated. Meter end, see type.

DESCR.: Plugs insert flush to insulated handle. Prods have retractable cover leaving no metal exposed. Eliminates possibility of shock or grounding. Supplied with either phone tip or banana plug meter ends. Other variations on special order.

No.	Type	NET Per Pk.
616	Phone Tip End	\$1.80
617	Banana Plug End	1.86

ALLIGATOR CLIP TEST LEAD

HANDLES: MOLDED BUTYRATE, per Fed. Spec. L-P349A, Type 3, Class MS. Red and Black.

TIPS: Solderless: Brass, nickel plated.

CLIPS: Steel, cadmium plated (No. 300).

BOOT: Vinyl Plastic, Red and Black

No.	Meter End	NET Per Pk.
672		\$1.26

ALLIGATOR CLIP TEST LEAD

CLIPS: STEEL, cadmium plated.

No.	Wire	NET Per Pk.
604	12 inches	\$.57
605	24 inches	.55
606	36 inches	.72
607	48 inches	.91

ALLIGATOR CLIP TEST LEAD

With Boots

CLIPS: Steel, Cadmium Plated

BOOTS: Vinyl plastic Red and Black.

No.	Wire	NET Per Pk.
629	12 inches	\$.81
637	24 inches	.87
638	36 inches	.96
639	48 inches	1.02

ALLIGATOR CLIP TEST LEAD

CLIP HANDLES: MOLDED BUTYRATE, per Fed. Spec. L-P349A, Type 3, Class MS. Red and Black.

PLUG HANDLES: MOLDED THERMOSETTING PLASTIC, per MIL-M-14 CFG. Red and Black.

CLIPS: Steel, cadmium plated.

TIPS: Solderless: Brass, nickel plated.

No.	Meter End	NET Per Pk.
627		\$.59

ALLIGATOR CLIP TEST LEAD

CLIP HANDLES: MOLDED BUTYRATE, per Fed. Spec. L-P349A, Type 3, Class MS. Red and Black.

CLIPS: Steel, cadmium plated.

ELBOWS: MOLDED THERMOSETTING PLASTIC, per MIL-M-14 CFG. Red and Black.

TIPS: Brass, nickel plated.

No.	Meter End	NET Per Pk.
626		\$1.20

ALLIGATOR CLIP TEST LEAD

CLIP HANDLES: MOLDED BUTYRATE, per Fed. Spec. L-P349A, Type 3, Class MS. Red and Black.

CLIPS: Steel, cadmium plated.

ELBOWS: MOLDED THERMOSETTING PLASTIC, per MIL-M-14 CFG. Red and Black.

No.	Meter End	NET Per Pk.
647		\$1.20

ALLIGATOR CLIP TEST LEAD

CLIP HANDLES: MOLDED BUTYRATE, per Fed. Spec. L-P349A, Type 3, Class MS. Red and Black.

CLIPS: Steel, cadmium plated.

LUGS: Steel, hot tinned.

No.	Meter End	NET Per Pk.
649		\$1.20

CROCODILE CLIP TEST LEAD

CLIP: STEEL, cadmium plated.

BOOT: Vinyl plastic. Red and Black.

HANDLE: MOLDED BUTYRATE, per Fed. Spec. L-P349A, Type 3, Class MS. Red and Black.

LUG: Steel, Hot tinned.

No.	Meter End	NET Per Pk.
671		\$1.20

CROCODILE CLIP TEST LEAD

CLIPS: Steel, Cadmium plated.

BOOTS: Vinyl plastic, Red and Black.

ELBOWS: MOLDED THERMOSETTING PLASTIC, per MIL-M-14 CFG. Red and Black.

No.	Meter End	NET Per Pk.
648		\$1.14

CROCODILE CLIP TEST LEAD

CLIPS: STEEL, cadmium plated.

BOOT: Vinyl plastic. Red and Black.

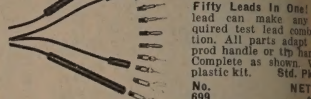
ELBOW: MOLDED THERMOSETTING PLASTIC, per MIL-M-14 CFG. Red and Black.

TIP: Brass, nickel plated.

No.	Meter End	NET Per Pk.
673		\$1.14

"UNIVERSAL TEST LEAD"

Completely Interchangeable



Fifty Leads in One! Lead can make any required test lead combination. All parts adapt pro handle or tip. Complete as shown. Plastic kit. Std. Pk. 699

"UNIVERSAL TEST LEAD"

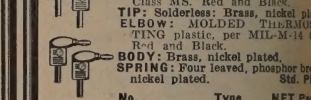
Miniature Accessories Completely Interchangeable



Fifty Leads in One. One lead make any required test lead combination. All parts adapt into prod handle or meter tip. Supplied with mini tips, clips, banana plugs and tips. Complete as shown. With plastic kit. Std. Pk. 679

METER TEST LEADS

Solderless Prod



HANDLE: MOLDED BUTYRATE, per Fed. Spec. L-P349A, Type 3, Class MS. Red and Black.

TIP: Solderless: Brass, nickel plated.

ELBOW: MOLDED THERMOSETTING plastic, per MIL-M-14 CFG. Red and Black.

BODY: Brass, nickel plated.

SPRING: Four leaved phosphor bronze, nickel plated.

No.	Type	NET Pk.
625	Phone Tip Meter Tip	\$.87
685	Banana Meter Tip	1.00

NEEDLE PROD

HANDLE: MOLDED BUTYRATE, per Fed. Spec. L-P349A, Type 3, Class MS. Red and Black.

NEEDLE: Steel, nickel plated.

ELBOW: MOLDED THERMOSETTING plastic, per MIL-M-14 CFG. Red and Black.

BODY: Brass, nickel plated.

SPRING: Four leaved phosphor bronze, nickel plated.

No.	Type	NET Pk.
626	Phone Tip Meter Tip	\$.87
686	Banana Meter Tip	1.00

SLIM JIM TEST LEAD

HANDLE: MOLDED BUTYRATE, per Fed. Spec. L-P349A, Type 3, Class MS. Red and Black.

PROBE: Steel, cadmium plated.

INSULATOR: Vinyl spaghetti tubing, Red and Black.

ELBOWS: MOLDED THERMOSETTING plastic, per MIL-M-14 CFG. Red and Black.

TIPS: Brass, nickel plated.

No.	Meter End	NET Per Pk.
696		\$1.20

MIDGET ALLIGATOR CLIP TEST LEAD

CLIPS: STEEL, Cadmium plated

BOOTS: Vinyl plastic, Red and Black.

No.	Wire	NET Per Pk.
716	12 inches	\$.87
717	18 inches	.96
718	24 inches	1.05
719	36 inches	1.14

RETRACTABLE ALL SOLDERLESS TEST LEAD

HANDLE: MOLDED BUTYRATE, per Fed. Spec. L-P349A, Type 3, Class MS. Red and Black.

PLUG: MOLDED THERMOSETTING plastic, Red and Black per MIL-M-14 CFG.

TIP: Solderless brass, nickel plated.

WIRE #20 gauge, 41/36 strand, 400 volt, nom. O.D. .165. Retracts 12". Extends to 6 ft. Std. Pk. 618

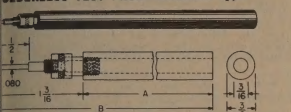
NET Per Pk.

TEST LEAD WIRE SPECIFICATIONS

All test leads on this page are supplied with extra-flexible rubber-covered kinkless wire, 50-in. long, unless specified otherwise. #20 wire, 26/34 strands, 500 Volts, .125" O.D.

Specify SMITH

HERMAN H. SMITH, INC.

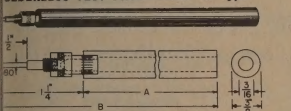
ELECTRONIC
COMPONENTS**SOLDERLESS TEST PROD—Threaded Type**

HANDLE: MOLDED BUTYRATE, per Fed. Spec. L-P349A, Type 3, Class MS. Red or Black. SPECIFY COLOR

BODY: Brass, nickel plated.
RATING: 12 Amps AC for 10°C Temp. rise, continuous duty.

DESCR.: Wire fits through handle and body of screw portion and is tightened around screw portion and tightened nut collar. Std. Pkg. 25

Handle (A)	Overall (B)	NET Per C
4"	5 1/4"	\$30.00
5 1/2"	6 3/4"	\$35.00

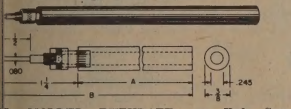
SOLDERLESS TEST PROD—Force Fit Type

HANDLE: MOLDED BUTYRATE, per Fed. Spec. L-P349A, Type 3, Class MS. Red or Black. SPECIFY COLOR

BODY: Brass, nickel plated.
RATING: 12 Amps AC for 10°C Temp. rise, continuous duty.

DESCR.: Wire fits through handle and body of screw portion and is tightened around screw portion and tightened nut collar. Std. Pkg. 25

Handle (A)	Overall (B)	NET Per C
4"	5 1/4"	\$24.00
5 1/2"	6 3/4"	\$27.00

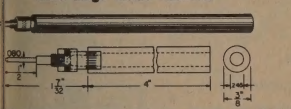
SOLDERLESS TEST PROD—Force Fit Type Extra Large Inside Diameter

HANDLE: MOLDED BUTYRATE, per Fed. Spec. L-P349A, Type 3, Class MS. Red or Black. SPECIFY COLOR

BODY: Brass, nickel plated.
RATING: 12 Amps AC for 10°C Temp. rise, continuous duty.

DESCR.: Wire fits through handle and body of screw portion and is tightened around screw portion and tightened nut collar. Extra large I.D. for heavy duty wiring. Std. Pkg. 25

Handle (A)	Overall (B)	NET Per C
4"	5 1/4"	\$24.00
5 1/2"	6 3/4"	\$27.00

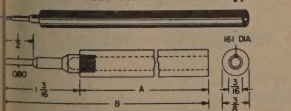
SOLDERLESS FIBRE TEST PROD Extra Large Inside Diameter

HANDLE: FIBRE, per MIL-F-1148A, Grade CH. Red or Black. SPECIFY COLOR

RATING: 12 Amps AC for 10°C Temp. rise, continuous duty.

DESCR.: Wire fits through handle and body of screw portion and is tightened around screw portion and tightened nut collar. Large I.D. permits use of heavy duty wire. Std. Pkg. 25

Handle (A)	Overall (B)	NET Per C
4"	5 1/4"	\$30.00
5 1/2"	6 3/4"	\$35.00

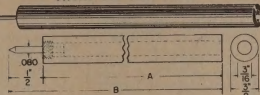
HEAVY DUTY TEST PROD—Threaded Type

HANDLE: MOLDED BUTYRATE, per Fed. Spec. L-P349A, Type 3, Class MS. Red or Black. SPECIFY COLOR

BODY: Brass, nickel plated.
RATING: 12 Amps AC for 10°C Temp. rise, continuous duty.

DESCR.: Large diameter well enables soldering of heavy wire directly into plug. Fits standard phone tip. Std. Pkg. 25

Handle (A)	Overall (B)	NET Per C
4"	5 1/4"	\$30.00
5 1/2"	6 3/4"	\$35.00

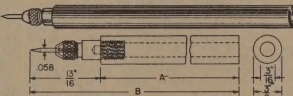
SHORT TIP TEST PROD

HANDLE: MOLDED BUTYRATE, per Fed. Spec. L-P349A, Type 3, Class MS. Red or Black. SPECIFY COLOR

BODY: Brass, nickel plated.
RATING: 12 Amps AC for 10°C Temp. rise, continuous duty.

DESCR.: Inserts flush with insulated handle, no metal exposed; eliminates possibility of shock or grounding. Fits standard phone tip jacks. Std. Pkg. 25

No.	Handle (A)	Overall (B)	NET Per C
353	4"	4 3/4"	\$21.00
354	5 1/2"	6"	\$24.00

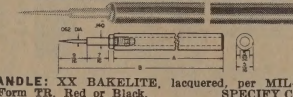
PHONO NEEDLE TEST PROD

HANDLE: MOLDED BUTYRATE, per Fed. Spec. L-P349A, Type 3, Class MS. Red or Black. SPECIFY COLOR

BODY: Brass, nickel plated.
RATING: 12 Amps AC for 10°C Temp. rise, cont. duty.

DESCR.: Removable chuck for easy replacement or broken needles. Needle pierces corrosion or plating for positive reading. Std. Pkg. 25

No.	Handle (A)	Overall (B)	NET Per C
317	4"	4 1/4"	\$30.00
318	5 1/2"	6 1/4"	\$35.00

SOLDERLESS PHONO NEEDLE TEST PROD

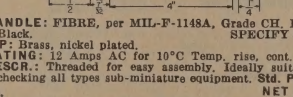
HANDLE: XX BAKELITE, lacquered, per MIL-P-79, Form TR. Red or Black. SPECIFY COLOR

BODY: Brass, nickel plated.
NEEDLE: Phono needle, steel.

RATING: 12 Amps AC for 10°C Temp. rise, cont. duty.

DESCR.: Wire can be soldered to brass stud or directly into plug itself. Stud also locks wire to permit for solderless connections. Std. Pkg. 25

No.	Handle (A)	Overall (B)	NET Per C
314	4"	5 3/4"	\$75.00
315	5"	7 3/4"	\$81.00

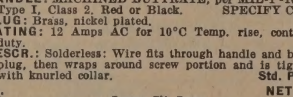
SUB-MINIATURE TEST PROD

HANDLE: FIBRE, per MIL-F-1148A, Grade CH. Red or Black. SPECIFY COLOR

TIP: Brass, nickel plated.
RATING: 12 Amps AC for 10°C Temp. rise, cont. duty.

DESCR.: Threaded for easy assembly. Ideally suited for checking all types sub-miniature equipment. Std. Pkg. 25

No.	Handle (A)	Overall (B)	NET Per C
322	4"	5 1/4"	\$30.00

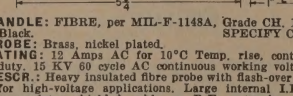
PENCIL TYPE SOLDERLESS TEST PROD

HANDLE: MACHINED BUTYRATE, per MIL-P-14048A, Type 1, Class 2, Red or Black. SPECIFY COLOR

PLUG: Brass, nickel plated.
RATING: 12 Amps AC for 10°C Temp. rise, continuous duty.

DESCR.: Solderless: Wire fits through handle and body of plug, then wraps around screw portion and is tightened with knurled collar. Std. Pkg. 25

No.	Force Fit Type	NET Per C
384		\$21.00

TEST PROBE HIGH VOLTAGE TYPE

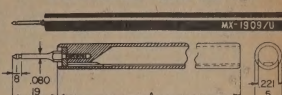
HANDLE: FIBRE, per MIL-F-1148A, Grade CH. Red or Black. SPECIFY COLOR

PROBE: Brass, nickel plated.
RATING: 12 Amps AC for 10°C Temp. rise, continuous duty.

DESCR.: Heavy insulated fibre probe with flash-over shield for high-voltage applications. Large internal I.D. accommodates shielded cable or R.F. networks. Heavy duty removal tip. Std. Pkg. 10

No.	NET Ea.
630	\$ 72
630D	\$ 84

Display of 12

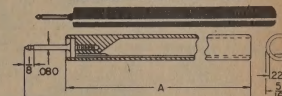
NYLON HANDLE PRODS AND TIPS

HANDLE: MOLDED NYLON, per MIL-P-20693A. Specify color as coded above.

TIP: Brass, silver plated.
RATING: 10 Amps AC for 10°C Temp. rise, continuous duty.

DESCR.: Solderless. Made to meet Signal Corps Drawing SC-C-82761.

No.	Sig. Corps. Drawing and Part No.	Size ("A")	Color	NET Per C
176	MX-1908/U	1 1/2"	Red	\$54.00
177	MX-1907/U	1 1/2"	Black	\$4.00
178	MX-1909/U	4"	Red	\$6.00
179	MX-1910/U	4"	Black	\$6.00

SUB-MINIATURE TEST PROD

HANDLE: Molded Nylon, per MIL-P-20693A. Available in Red or Black. SPECIFY COLOR

TIP: Brass, Silver plated.

DESCR.: Solderless assembly. Ideal for use with sub-miniature printed-circuit tip jacks. Sharp tip breaks flux or oxide coating on printed-circuit pattern for positive contact when used as prod. Grooved head of prod makes positive contact when laid across wires. Fits all standard .080" tip jacks. Std. Pkg. 25

No.	Handle (A)	Overall (B)	NET Per C
348	1"	4 1/4"	\$33.00
349	4"	4 1/4"	\$22.00

RADIO CHASSIS PUNCHES

An assortment of round, square, "D" and Keenel holes can be punched by inserting in drilled pilot hole, and turning with wrench. Finished hole is smooth, accurately sized without burrs. Round punches are provided with center-line markings for enlarging holes larger than pilot hole. Individually packed.

No.	Hole Size	NET Ea.	No.	Hole Size	NET Ea.
3801	1/8"	\$2.60	3814	1 1/2"	\$3.00
3802	3/16"	2.60	3815	1 3/4"	3.60
3803	1/4"	2.60	3816	1 3/4"	3.60
3804	5/16"	2.60	3817	1 3/4"	4.10
3805	3/8"	2.60	3818	1 3/4"	4.90
3806	7/16"	2.60	3819	1 3/4"	5.60
3807	1/2"	2.60	3820	1 3/4"	7.00
3808	5/8"	2.90	3821	1 3/4"	7.50
3809	3/4"	2.90	3822	1 3/4"	11.20
3810	7/8"	3.00	3823	1 3/4"	12.10
3811	1"	3.00	3824	1 3/4"	13.20
3812	1 1/8"	3.00	3825	1 3/4"	18.30
3813	1 1/4"	3.00	3826	1 3/4"	25.50

No.	Hole Size	NET Ea.	No.	Hole Size	NET Ea.
3827	3/4"	6.00	3830	1 1/4"	7.75
3828	7/8"	5.90	3831	1 1/4"	8.00
3829	1"	6.65			

No.	Hole Size	NET Ea.	No.	Hole Size	NET Ea.
3832	1 1/8"	5.40	3834	1 1/4"	6.00
3833	1 1/4"	5.35	3835	1 1/4"	6.70

No.	Hole Size	NET Ea.	No.	Hole Size	NET Ea.
3836	2 1/2"	\$12.60			

No.	Hole Size	NET Ea.	No.	Hole Size	NET Ea.
3837	1 1/2" x 1 1/2"	4.65	3838	1 1/2" x 1 1/2"	4.95

BALL BEARING DRIVE SCREWS
Reduces friction and effort when punching round holes 1/4", 3/8", 1/2", 5/8", 3/4", 1", 1 1/4", 1 1/2", 1 3/4", 2", 2 1/4", 2 1/2", 3", 3 1/4", 3 1/2", 4", 4 1/4", 4 1/2", 5", 5 1/4", 5 1/2", 6", 6 1/4", 6 1/2", 7", 7 1/4", 7 1/2", 8", 8 1/4", 8 1/2", 9", 9 1/4", 9 1/2", 10", 10 1/4", 10 1/2", 11", 11 1/4", 11 1/2", 12", 12 1/4", 12 1/2", 13", 13 1/4", 13 1/2", 14", 14 1/4", 14 1/2", 15", 15 1/4", 15 1/2", 16", 16 1/4", 16 1/2", 17", 17 1/4", 17 1/2", 18", 18 1/4", 18 1/2", 19", 19 1/4", 19 1/2", 20", 20 1/4", 20 1/2", 21", 21 1/4", 21 1/2", 22", 22 1/4", 22 1/2", 23", 23 1/4", 23 1/2", 24", 24 1/4", 24 1/2", 25", 25 1/4", 25 1/2", 26", 26 1/4", 26 1/2", 27", 27 1/4", 27 1/2", 28", 28 1/4", 28 1/2", 29", 29 1/4", 29 1/2", 30", 30 1/4", 30 1/2", 31", 31 1/4", 31 1/2", 32", 32 1/4", 32 1/2", 33", 33 1/4", 33 1/2", 34", 34 1/4", 34 1/2", 35", 35 1/4", 35 1/2", 36", 36 1/4", 36 1/2", 37", 37 1/4", 37 1/2", 38", 38 1/4", 38 1/2", 39", 39 1/4", 39 1/2", 40", 40 1/4", 40 1/2", 41", 41 1/4", 41 1/2", 42", 42 1/4", 42 1/2", 43", 43 1/4", 43 1/2", 44", 44 1/4", 44 1/2", 45", 45 1/4", 45 1/2", 46", 46 1/4", 46 1/2", 47", 47 1/4", 47 1/2", 48", 48 1/4", 48 1/2", 49", 49 1/4", 49 1/2", 50", 50 1/4", 50 1/2", 51", 51 1/4", 51 1/2", 52", 52 1/4", 52 1/2", 53", 53 1/4", 53 1/2", 54", 54 1/4", 54 1/2", 55", 55 1/4", 55 1/2", 56", 56 1/4", 56 1/2", 57", 57 1/4", 57 1/2", 58", 58 1/4", 58 1/2", 59", 59 1/4", 59 1/2", 60", 60 1/4", 60 1/2", 61", 61 1/4", 61 1/2", 62", 62 1/4", 62 1/2", 63", 63 1/4", 63 1/2", 64", 64 1/4", 64 1/2", 65", 65 1/4", 65 1/2", 66", 66 1/4", 66 1/2", 67", 67 1/4", 67 1/2", 68", 68 1/4", 68 1/2", 69", 69 1/4", 69 1/2", 70", 70 1/4", 70 1/2", 71", 71 1/4", 71 1/2", 72", 72 1/4", 72 1/2", 73", 73 1/4", 73 1/2", 74", 74 1/4", 74 1/2", 75", 75 1/4", 75 1/2", 76", 76 1/4", 76 1/2", 77", 77 1/4", 77 1/2", 78", 78 1/4", 78 1/2", 79", 79 1/4", 79 1/2", 80", 80 1/4", 80 1/2", 81", 81 1/4", 81 1/2", 82", 82 1/4", 82 1/2", 83", 83 1/4", 83 1/2", 84", 84 1/4", 84 1/2", 85", 85 1/4", 85 1/2", 86", 86 1/4", 86 1/2", 87", 87 1/4", 87 1/2", 88", 88 1/4", 88 1/2", 89", 89 1/4", 89 1/2", 90", 90 1/4", 90 1/2", 91", 91 1/4", 91 1/2", 92", 92 1/4", 92 1/2", 93", 93 1/4", 93 1/2", 94", 94 1/4", 94 1/2", 95", 95 1/4", 95 1/2", 96", 96 1/4", 96 1/2", 97", 97 1/4", 97 1/2", 98", 98 1/4", 98 1/2", 99", 99 1/4", 99 1/2", 100", 100 1/4", 100 1/2", 101", 101 1/4", 101 1/2", 102", 102 1/4", 102 1/2", 103", 103 1/4", 103 1/2", 104", 104 1/4", 104 1/2", 105", 105 1/4", 105 1/2", 106", 106 1/4", 106 1/2", 107", 107 1/4", 107 1/2", 108", 108 1/4", 108 1/2", 109", 109 1/4", 109 1/2", 110", 110 1/4", 110 1/2", 111", 111 1/4", 111 1/2", 112", 112 1/4", 112 1/2", 113", 113 1/4", 113 1/2", 114", 114 1/4", 114 1/2", 115", 115 1/4", 115 1/2", 116", 116 1/4", 116 1/2", 117", 117 1/4", 117 1/2", 118", 118 1/4", 118 1/2", 119", 119 1/4", 119 1/2", 120", 120 1/4", 120 1/2", 121", 121 1/4", 121 1/2", 122", 122 1/4", 122 1/2", 123", 123 1/4", 123 1/2", 124", 124 1/4", 124 1/2", 125", 125 1/4", 125 1/2", 126", 126 1/4", 126 1/2", 127", 127 1/4", 127 1/2", 128", 128 1/4", 128 1/2", 129", 129 1/4", 129 1/2", 130", 130 1/4", 130 1/2", 131", 131 1/4", 131 1/2", 132", 132 1/4", 132 1/2", 133", 133 1/4", 133 1/2", 134", 134 1/4", 134 1/2", 135", 135 1/4", 135 1/2", 136", 136 1/4", 136 1/2", 137", 137 1/4", 137 1/2", 138", 138 1/4", 138 1/2", 139", 139 1/4", 139 1/2", 140", 140 1/4", 140 1/2", 141", 141 1/4", 141 1/2", 142", 142 1/4", 142 1/2", 143", 143 1/4", 143 1/2", 144", 144 1/4", 144 1/2", 145", 145 1/4", 145 1/2", 146", 146 1/4", 146 1/2", 147", 147 1/4", 147 1/2", 148", 148 1/4", 148 1/2", 149", 149 1/4", 149 1/2", 150", 150 1/4", 150 1/2", 151", 151 1/4", 151 1/2", 152", 152 1/4", 152 1/2", 153", 153 1/4", 153 1/2", 154", 154 1/4", 154 1/2", 155", 155 1/4", 155 1/2", 156", 156 1/4", 156 1/2", 157", 157 1/4", 157 1/2", 158", 158 1/4", 158 1/2", 159", 159 1/4", 159 1/2", 160", 160 1/4", 160 1/2", 161", 161 1/4", 161 1/2", 162", 162 1/4", 162 1/2", 163", 163 1/4", 163 1/2", 164", 164 1/4", 164 1/2", 165", 165 1/4", 165 1/2", 166", 166 1/4", 166 1/2", 167", 167 1/4", 167 1/2", 168", 168 1/4", 168 1/2", 169", 169 1/4", 169 1/2", 170", 170 1/4", 170 1/2", 171", 171 1/4", 171 1/2", 172", 172 1/4", 172 1/2", 173", 173 1/4", 173 1/2", 174", 174 1/4", 174 1/2", 175", 175 1/4", 175 1/2", 176", 176 1/4", 176 1/2", 177", 177 1/4", 177 1/2", 178", 178 1/4", 178 1/2", 179", 179 1/4", 179 1/2", 180", 180 1/4", 180 1/2", 181", 181 1/4", 181 1/2", 182", 182 1/4", 182 1/2", 183", 183 1/4", 183

specify SMITH

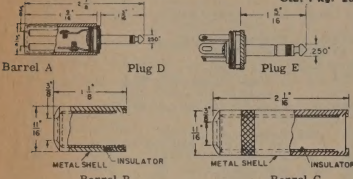
HERMAN H. SMITH, INC.



ELECTRON COMPONENTS

STANDARD PHONE PLUGS

BODY: Body, tip, and sleeve—Brass, nickel plated.
RATING: 5 Amps AC for 10°C Temp. rise, continuous duty. 750 Volts 60 cycle AC working voltage.
DESCR.: Fits standard phone jacks. Molded styrene separator insures maximum insulation between elements.
LUGS: 2 circuit plugs are screw terminals with ribbed clips and cord anchor. 3 circuit plugs are solder lugs.
 Std. Pkg. 25



Bakelite Barrel

BARREL: MOLDED THERMOSETTING plastic, per MIL-M-14 CFG. Red and Black. SPECIFY COLOR

No.	Circuit	Terminals	Plug	Barrel	NET Per C
222	2	Screw	D	A	\$39.00
227	3	Solder	E	A	\$4.00

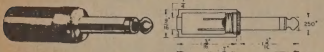
Shielded Barrel

BARREL: BRASS, nickel plated with tubular insert.

No.	Circuit	Terminals	Plug	Barrel	NET Per C
272	2	Screw	D	B	\$6.00
228	3	Solder	E	B	\$9.00
238	3	Solder	E	C	\$11.00

STANDARD PHONE PLUG

Baby Bakelite Barrel

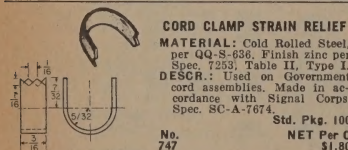


BARREL: MOLDED THERMOSETTING plastic, per MIL-M-14 CFG. Red and Black. SPECIFY COLOR
BODY: Body, tip, sleeve—Brass, nickel plated.
RATING: 5 Amps AC for 10°C Temp. rise, continuous duty. 750 Volts 60 cycle AC continuous working voltage.
DESCR.: Molded styrene separator insures maximum insulation between conductors. Fits standard phone jacks.

No.	Circuit	Terminals	NET Per C
243	Two	Solder	\$35.00

PJ055 AND PJ068 PLUGS

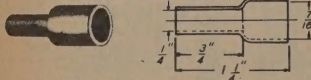
BARREL: MOLDED plastic.
BODY: Body, tip, sleeve—Machined brass.
TERM.: Brass, hot tinned.
INSUL.: Ethyl cellulose type EM-1 MIL-P-3412.
DESCR.: Designed especially for high quality communications equipment and to meet the exacting requirements of the armed services. Parts are assembled together in a mold, providing a finished plug with complete continuity of thermo plastic insulation between the tip rod and plug sleeve.
 Std. Pkg. 25
 Each \$.90
 216 PJ055 \$.90
 247 PJ068 \$ 2.19



CORD CLAMP STRAIN RELIEF

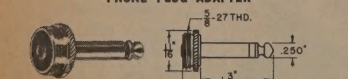
MATERIAL: Cold Rolled Steel, per QQ-S-636. Finish zinc per Spec. 7253, Table II, Type I.
DESCR.: Used on Government cord assemblies. Made in accordance with Signal Corps. Spec. SC-A-7674.
 Std. Pkg. 100
 No. 747 NET Per C \$1.80

TELEPHONE CORD SLEEVE



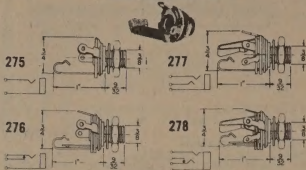
MATERIAL: Neoprene in accordance with Grade SC415AFF per MIL-R-3085.
INSUL.: XXXP Bakelite.
DESCR.: Used on Government cord assemblies, for Strain Relief, Dust and Moisture Seal.
 Std. Pkg. 100
 No. 748 NET Per C \$6.80

PHONE PLUG ADAPTER



BODY: Body, Tip, Sleeve—Brass, nickel plated.
INSUL.: XXXP Bakelite.
DESCR.: Mates with No. 116 microphone connector. Fits standard phone jacks.
 Std. Pkg. 25
 No. 113 NET Per C \$30.00

TELEPHONE JACKS



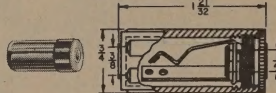
BUSHING: BRASS, nickel plated.
INSUL.: Bakelite, type PBE-P per MIL-P-3115B.
SPRING: Nickel-Silver alloy, spring temper. New lapped design provides for ease of insertion while eliminating possibility of shorts.

SLEEVE TERM.: Brass, hot tinned.
RATING: 10 Amps AC for 10°C Temp. rise, continuous duty. 1.2 K Volts 60 cycle AC continuous working voltage.
DESCR.: Notched insulating washers accurately locate all parts, and eliminate possibility of shorts and arc-over. Springs designed for firm, low-resistance electrical contact. Bushings $\frac{1}{4}$ " long, threaded $\frac{1}{8}$ "-32. Mounts in $\frac{3}{8}$ " hole panels up to $\frac{1}{2}$ " thick. Overall diameter $\frac{1}{2}$ " require $\frac{1}{4}$ " clearance behind panel. Supplied with $\frac{1}{2}$ " hex brass nut and $\frac{1}{4}$ " steel panel washer. All nickel plated.
 Std. Pkg. 50

No.	Circuit	NET Per C
275	Two Conductor Open	\$27.00
276	Two Conductor Closed	\$30.00
277	Three Conductor Open	\$6.00
278	Three Conductor Closed	\$45.00

IN-LINE EXTENSION JACK

Bakelite Barrel

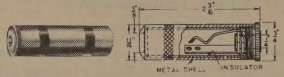


BARREL: MOLDED THERMOSETTING plastic, per MIL-M-14 CFG. Red and Black. SPECIFY COLOR
BODY: Brass, nickel plated.
RATING: 10 Amps AC for 10°C Temp. rise, continuous duty. 1 K Volts 60 cycle AC continuous working voltage.
SPRING: Nickel, silver, special alloy, spring temper.
INSUL.: XXXP Bakelite.

DESCR.: For microphone and Hi-Fi extension cords. Mates with standard phone plugs.

No.	Type	NET Per C
274	Solder Connection	\$54.00
288	Screw Connection	\$66.00

Shielded Barrel



BARREL: Brass, nickel plated, with tubular insulator.
BODY: Brass, nickel plated.
RATING: 10 Amps AC for 10°C Temp. rise, continuous duty. 1 K Volts 60 cycle AC continuous working voltage.
SPRING: Nickel, silver, special alloy, spring temper.
INSUL.: XXXP Bakelite.

DESCR.: For microphone and Hi-Fi extension cords. Mates with standard phone plugs.
 Std. Pkg. 25
 No. 279 Solder Connection NET Per C \$75.00
 288 Screw Connection NET Per C \$84.00

MINIATURE MICROPHONE CONNECTORS

3/32 THREAD

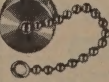
DESCR.: Ideal for lapel microphone, musical instruments, etc., wherever small cable is used. Accepts cable up to 3/16" diameter.

No.	Type	Length	NET Per C
484	Single Contact Female	1"	\$36.00
485	Single Contact Male	1 1/4"	\$70.00

CHASSIS CONNECTOR

Mounts in 3/16" hole grounded; $\frac{1}{4}$ " hole insulated with shoulder washer.

No.	Type	NET Per C
486	Single Contact Male	\$21.00



CAP AND CHAIN

DESCR.: Brass, nickel plated. Seals chassis connectors against dust. Eliminates noisy connections. Used with any threaded one or two conductor chassis unit.

No.	Type	NET Per C
118	5/16"-27 Thread	\$45.00

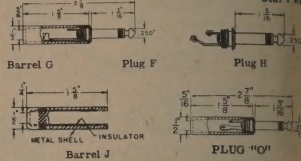
"SPECIALS are STANDARD with SMITH!"

For VARIATIONS of these standard parts to meet your SPECIAL requirements, or for entirely NEW parts to your specifications, WE WELCOME YOUR INQUIRY!

SLIM PHONE PLUGS

Cable Clamp Style

BODY: Body, tip, and sleeve—Brass, nickel plated.
RATING: 5 Amps AC for 10°C Temp. rise, continuous duty. 750 Volts 60 cycle AC continuous working voltage.
DESCR.: Fits standard phone jacks. Molded styrene separator insures maximum insulation between elements.
 Std. Pkg. 25



Bakelite Barrel

BARREL: MOLDED THERMOSETTING plastic, per MIL-M-14 CFG. Red and Black. SPECIFY COLOR

No.	Circuit	Terminals	Plug	Barrel	NET Per C
323	2	Solder	F	G	\$4.00
307	2	Screw	H	G	\$4.00

Shielded Barrel

BARREL: BRASS, nickel plated with tubular insert.

No.	Circuit	Terminals	Plug	Barrel	NET Per C
316	2	Solder	F	J	\$6.00
	2	Screw	H	J	\$6.00

ECONOMY TYPE

BODY: Body, tip, sleeve—Brass, nickel plated.
RATING: 5 Amps AC for 10°C Temp. rise, continuous duty. 750 Volts 60 cycle AC continuous working voltage.
DESCR.: An inexpensive modified version of our popular #225 and #225 plugs shown above. Features two solder lugs.
 Std. Pkg. 25

Bakelite Barrel

BARREL: MOLDED THERMOSETTING plastic, per MIL-M-14 CFG. Red and Black. SPECIFY COLOR

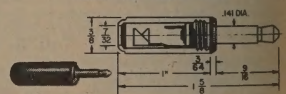
No.	Circuit	Terminals	Plug	Barrel	NET Per C
320	2	Solder	O	G	\$4.00

Shielded Barrel

BARREL: BRASS, nickel plated with tubular insert.

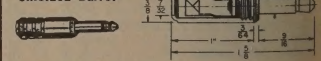
No.	Circuit	Terminals	Plug	Barrel	NET Per C
330	2	Solder	O	J	\$6.00

MINIATURE PHONE PLUG



HANDLE: MOLDED plastic. Black.
BODY: Body, tip, sleeve—Brass, nickel plated.
TERM.: Brass, hot tin dipped.
RATING: 5 Amps AC for 10°C Temp. rise, continuous duty. 350 Volts 60 cycle AC continuous working voltage.
DESCR.: Designed for use with hearing aids, small etc. Solder terminals.
 Std. Pkg. 25
 No. 490 NET Per C \$1.00

Shielded Barrel



BARREL: BRASS, nickel plated with tubular insulator.
BODY: Body, tip, sleeve—Brass, nickel plated.
RATING: 5 Amps AC for 10°C Temp. rise, continuous duty. 350 Volts 60 cycle AC continuous working voltage.
DESCR.: Designed for use with hearing aids, small etc. Solder terminals.
 Std. Pkg. 25
 No. 481 NET Per C \$1.00

Microphone Connectors



BODY: Brass, chrome plated.
SPRING: Steel cadmium plated.
INSUL.: XXXP Bakelite.
EYELET: Brass, hot tinned for easy soldering.

DESCR.: Designed for use with single conductor microphone connectors provided with flexible ground spring. Cable clamped firmly to connector by hand point set screw.

No.	Type	Length	NET Per C
115	Single Contact Male	1 1/4"	\$21.00
116	Single Contact Female	2"	\$21.00

CHASSIS CONNECTORS

Mount in .385 hole grounded; .500 hole insulated shoulder washer.

No.	Type	NET Per C
117	Single Contact Male	\$21.00

Specify S M T H

HERMAN H. SMITH, INC.

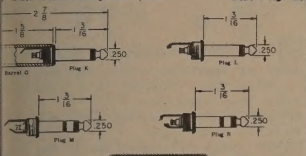


ELECTRONIC COMPONENTS

IMPROVED "TURRET-CENTER" STYLE

BODY: Body, Tip, Ring, and sleeve — Brass, nickel plated.
RATING: 5 Amps AC for 10°C Temp. rise, continuous duty. 1.5 KV 60 cycle AC continuous working voltage.

DESCR.: New, improved construction has co-axial "turret-center" tip lug and widely separated contacts for minimum voltage ratings. Styrene separator, Mylar and Nylon bushings used for increased performance. Fits standard phone jacks. Std. Pkg. 25



White Barrel

HANDLE: MOLDED THERMOSETTING plastic, per MIL-P-14084, Type I, Class II, Red and Black. SPECIFY COLOR

Circuit	Terminals	Plug	Barrel	NET Per C
1	Solder	K	G	\$39.00
2	Solder	L	G	45.00
3	Solder	M	G	63.00
4	Solder	N	G	72.00

Red Barrel

EL: BRASS, nickel plated with tubular insert.

Circuit	Terminals	Plug	Barrel	NET Per C
1	Solder	K	J	\$60.00
2	Solder	L	J	63.00
3	Solder	M	J	78.00
4	Solder	N	J	84.00

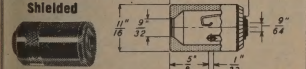
MINIATURE PHONE JACKS

NG: BRASS, nickel plated.

DESCR.: XXXP bakelite, type PBE-P per MIL-P-3115A. G: Nickel silver alloy, spring temper. H: Brass, not tinned. I: 5 Amps AC for 10°C Temp. rise, continuous 500 Volts 60 cycle AC continuous working voltage. J: Notched insulation washers interlock springs and eliminate possibility of shifting which result in short circuits. Springs firmly hold mating plug. Supplied with hex brass nut and steel mounting washer all nickel plated. Std. Pkg. 50

Circuit	NET Per C
Two Conductor, Open	\$25.00
Two Conductor, Closed	27.00

TURE EXTENSION JACK



EL: Brass, nickel plated.
EL: Brass, nickel plated.
G: Nickel silver alloy, spring temper.
H: Bar-Lite.
I: 5 Amps AC for 10°C Temp. rise, continuous 500 Volts 60 cycle AC continuous working voltage.
J: Mates with Miniature Phone Plugs. Std. Pkg. 25
 NET Per C \$72.00

NYLON IN-LINE TIP JACK

Color Code Suffix
 Add to Catalog Number as Required

- 101 WHITE
- 102 RED
- 103 BLACK
- 104 GREEN
- 105 BLUE
- 106 ORANGE
- 107 YELLOW
- 108 BROWN
- 109 PURPLE
- 110 GREY

All Nylon

HANDLE: MOLDED NYLON, per MIL-P-20693A. Specify color as coded above.
BODY: Molded Nylon, per MIL-P-20693A.
CONTACT: Heat treated beryllium copper, gold washed.
G: 15 Amps AC for 10°C Temp. rise, continuous 5 KV 60 cycle AC continuous working voltage.
I: Fits all standard phone-tip plugs, with recessed for safe connection. Ideally suited for use in extension cords. Can also be used for panel wiring where wrap-around terminal connection must be plated at rear. Std. Pkg. 50
 NET Per C \$30.00

PHONE TIP PLUG SPlice

HANDLE: MACHINED BUTYRATE, per MIL-P-14048A, Type I, Class II, Red, Black, Yellow, Green.

CAP: MOLDED THERMOSETTING plastic, Red and Black per MIL-M-14 CFG. Yellow, Green, per L-726-1.

BODY: Brass, nickel plated.

SPRING: Phosphor bronze.

RATING: 15 Amps AC for 10°C Temp. rise, continuous duty.

DESCR.: Invaluable for quick splicing connections or for test lead extension. Accepts standard phone tip plugs. Std. Pkg. 50

NET Per C \$27.00

BANANA PLUG SPlice

HANDLE: MACHINED BUTYRATE, per MIL-P-14048A, Type I, Class II, Red, Black, Yellow, Green.

SPRING: Phosphor bronze.

INSERT: Brass.

RATING: 15 Amps AC for 10°C Temp. rise, continuous duty.

DESCR.: Invaluable for quick splicing connections. Accepts standard banana plugs. Std. Pkg. 50

NET Per C \$24.00

ADAPTER Tip Plug to Banana Plug

HANDLE: MOLDED BUTYRATE, per Fed. Spec. L-P349A, Type 3, Class MS, Red or Black.

CAP: MOLDED THERMOSETTING plastic, Red and Black per MIL-M-14 CFG.

PLUG: Brass, nickel plated.

CONTACT: Phosphor Bronze.

SPRING: Four-leaved phosphor bronze, nickel plated.

JACK: Brass, nickel plated.

RATING: 15 Amps AC for 10°C Temp. rise, continuous duty.

DESCR.: Accepts standard phone tip plugs and adapts to standard banana plugs. Std. Pkg. 50

NET Per C \$30.00

INSULATED SPADE LUG

HANDLE: MOLDED BUTYRATE, per Fed. Spec. L-P349A, Type 3, Class MS, Red or Black.

SPRING: Phosphor bronze.

LUG: Steel, hot tinned, .030 thick.

RATING: 25 Amps AC for 10°C Temp. rise, continuous duty.

DESCR.: Banana plug can be inserted into spade lug thru rear of handle. Std. Pkg. 100

NET Per C \$10.80

218 Insulated Spade Lug \$10.80

129 Lug Only

ADAPTER

Phone Tip to Spade Lug

HANDLE: MOLDED BUTYRATE, per Fed. Spec. L-P349A, Type 3, Class MS, Red or Black.

CAP: MOLDED THERMOSETTING plastic, Red and Black per MIL-M-14 CFG.

JACK: Brass.

SPRING: Phosphor Bronze.

SPADE LUG: Steel hot tinned .030 thick.

RATING: 15 Amps AC for 10°C Temp. rise, continuous duty.

DESCR.: Tip jack accepts standard phone tip plugs and adapts to spade lug. Std. Pkg. 50

NET Per C \$35.00

COMBINATION SPlice

Phone Tip to Banana Plug

HANDLE: MOLDED BUTYRATE, per Fed. Spec. L-P349A, Type 3, Class MS, Red or Black.

SPRING: Phosphor bronze.

BODY: Brass.

CONTACT: Beryllium copper, gold washed.

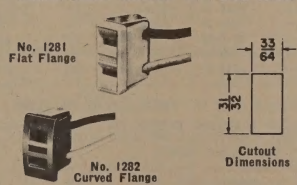
DESCR.: Invaluable for quick splicing of test leads. Accepts standard Banana plug one end, .080 phone tip other end. Std. Pkg. 50

NET Per C \$30.00

CONVENIENCE OUTLETS

For small unit electrical appliances and Electronic devices. UL Approved RADIOS — CLOCK RADIOS — CLOCKS — T.V. SETS — LAMPS — TOASTERS, ETC.

SINGLE SCREW BRACKET TYPE WIRE LEADS



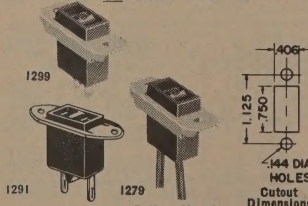
Can be dropped into opening and held in place by metal bracket and single central screw, supplied. UL Approved.

RATING: 15 Amps, 125 Volts AC or DC.

LEADS: Plastic wire #14 gauge, 6" long. Std. Pkg. 50

No.	Color	NET Per C
1281-103	Black	\$17.00
1281-101	White	19.00
1282-103	Black	17.00
1282-101	White	19.00

BRACKET TYPE



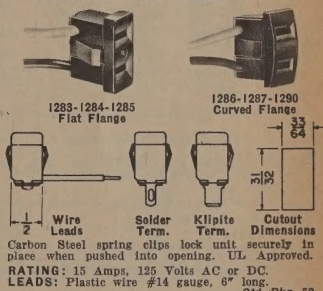
Flat steel bracket mounts with two #6 screws or equivalent size eyelets from bottom. UL Approved.

RATING: 15 Amps, 125 Volts AC or DC.

LEADS: No. 1279 has two leads, plastic wire #16 gauge, 8" long. UL Approved. Std. Pkg. 50

No.	Terminals	NET Per C
1299	Solder	\$ 9.00
1279	Wire Leads	22.80
1291	Top or Bottom Mount	10.00

PUSH-IN SNAP-LOCK BRACKET TYPE



Carbon steel spring clips lock unit securely in place when pushed into opening. UL Approved.

RATING: 15 Amps, 125 Volts AC or DC.

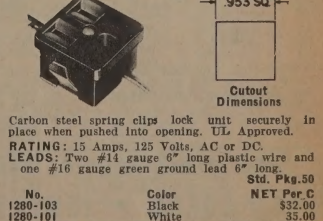
LEADS: Plastic wire #14 gauge, 6" long. Std. Pkg. 50

No.	Terminals	Color	NET Per C
1283-103	Wire Leads	Black	\$17.00
1283-101	Wire Leads	White	19.00
1284-103	Solder	Black	15.00
1284-101	Solder	White	17.00
1285-103	Klip-Lite	Black	15.00
1285-101	Klip-Lite	White	17.00

No.	Wire Leads	Color	15.00
1286-103	Wire Leads	White	17.00
1287-103	Solder	Black	15.00
1287-101	Solder	White	17.00
1290-103	Klip-Lite	Black	15.00
1290-101	Klip-Lite	White	17.00

THREE WIRE OUTLET

(With grounding lead)



Carbon steel spring clips lock unit securely in place when pushed into opening. UL Approved.

RATING: 15 Amps, 125 Volts AC or DC.

LEADS: Two #14 gauge 6" long plastic wire and one #16 gauge green ground lead 6" long. Std. Pkg. 50

No.	Color	NET Per C
1280-103	Black	\$32.00
1280-101	White	35.00

Specify SMITH

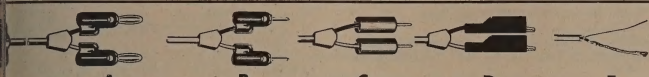
HERMAN H. SMITH, INC.

PATCH CORDS

ELECTRONIC
COMPONENTS

CABLE TYPES AVAILABLE

	WIRE "A"	WIRE "B"	WIRE "C"
DESCRIPTION	2-cond. tw. 18 ga. 65/36 str.	Shielded audio cable	Coaxial Cable RG58C/U.
INSULATION	Vinyl	Polyethylene	Polyethylene
PLATING	Vinyl, Color Grey	Vinyl, Color Grey	Vinyl, Color Black
CAP.	30 mmf./ft.	25 mmf./ft.	28.5 mmf./ft.



DOUBLE JACK TO "CROSS-PATCH" PLUGS

HANDLE: MOLDED BUTYRATE, per Fed. Spec. L-P349A, Type 3, Class MS. Color to match wire.

PLUG: Brass, nickel plated.

WIRE: Four-leaved beryllium copper, nickel plated.

As specified above.

Our No. 1510, Red and black.

TERMINATES: Mates with standard dual banana plugs having 3/4" center. Polarity indicated by the word GROUND molded on side. Interconnects unlimited number of multi-circuits on top and side. One end terminates with banana jacks, other end with "Cross-Patch" plugs, color coded Red and Black. Std. Pkg. 10

No.	No.	No.	Length	NET
Wire "A"	Wire "B"	Wire "C"		Each
1886-12	1887-12	1888-12	12"	\$2.15
1886-24	1887-24	1888-24	24"	2.28
1886-36	1887-36	1888-36	36"	2.40
1886-48	1887-48	1888-48	48"	2.52
1886-60	1887-60	1888-60	60"	2.65

DOUBLE JACK TO "CROSS-PATCH" PIN PLUGS

HANDLE: MOLDED BUTYRATE, per Fed. Spec. L-P349A, Type 3, Class MS. Color to match wire.

PLUG: Brass, nickel plated.

As specified above.

Our No. 1505, Red and black.

TERMINATES: Mates with standard dual banana plugs having 3/4" center. Polarity indicated by the word GROUND molded on side. Interconnects unlimited number of multi-circuits on top and side. One end terminates with banana jacks, other end with "Cross-Patch" plugs with standard .080" tip and jack in rear, a jack in side, color coded Red and Black. Std. Pkg. 10

No.	No.	No.	Length	NET
Wire "A"	Wire "B"	Wire "C"		Each
1886-12	1887-12	1888-12	12"	\$2.15
1886-24	1887-24	1888-24	24"	2.28
1886-36	1887-36	1888-36	36"	2.40
1886-48	1887-48	1888-48	48"	2.52
1886-60	1887-60	1888-60	60"	2.65

COAXIAL CABLE CONNECTORS

Solder Type

Connectors for use with RG-8, 9, 10, 11, 12, 65, 65/U cables. Std. Pkg. 5

STRAIGHT COAXIAL CONNECTOR

Brass, Silver-plated shell.	Type	NET Per C
1713	PL-259	\$67.50

CHASSIS TYPE COAXIAL RECEPTACLE

1715	80-239	\$67.50
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COAXIAL JUNCTION

For joining separate cable lengths. 1716 PL-258 \$121.50

CABLE REDUCING ADAPTER

5/16" I.D. For RG-58/U.

CABLE: Brass, Silver-plated.	Type	NET Per C
1719	UG-175	\$12.50

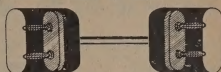
RF COAXIAL CABLE CONNECTORS



weatherproof low-voltage connectors with bayonet for quick-disconnect. Constant impedance, 50 ohms, silver-plated. For RG-55 and 58/U Cables. Std. Pkg. 5

Type	Description	Each
UG-58C/U	Plug	\$8.81
UG-913/U	90° Plug	2.70
UG-290AA/U	Receptacle	1.08
UG-89B/U	Jack	1.35

SHIELDED DOUBLE PLUG TO SHIELDED DOUBLE PLUG



SHIELD: Aluminum, black anodized.

BODY: MOLDED BUTYRATE, per Fed. Spec. L-P349A, Type 3, Class MS.

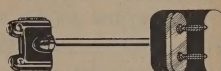
PLUG: Brass, nickel plated.

SPRING: Four-leaved beryllium copper, nickel plated.

DESCR.: Mates with standard dual binding post having 3/4" center. Both ends terminate with double shielded banana plugs. Std. Pkg. 10

No.	No.	No.	Length	NET
RG-58C/U	RG-11/U	Wire		Each
1876-12	1877-12	1878-12	12 inches	\$7.50
1876-24	1877-24	1878-24	24 inches	7.62
1876-36	1877-36	1878-36	36 inches	7.75
1876-48	1877-48	1878-48	48 inches	7.88
1876-60	1877-60	1878-60	60 inches	8.00

DOUBLE JACK TO SHIELDED DOUBLE PLUG



SHIELD: Aluminum, black anodized.

HANDLE: MOLDED BUTYRATE, per Fed. Spec. L-P349A, Type 3, Class MS. Color to match wire.

PLUG: Brass, nickel plated.

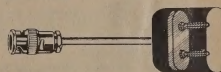
SPRING: Four-leaved beryllium copper, nickel plated.

WIRE: As specified above.

DESCR.: Mates with standard dual binding post having 3/4" center. Polarity indicated by the word GROUND molded on side. Interconnects unlimited number of multiple circuits top and side. One end terminates with molded double shielded banana plug, other end in double extension jack. Std. Pkg. 10

No.	No.	No.	Length	NET
Wire "A"	Wire "B"	Wire "C"		Each
1884-12	1885-12	1886-12	12"	\$5.15
1884-24	1885-24	1886-24	24"	5.28
1884-36	1885-36	1886-36	36"	5.40
1884-48	1885-48	1886-48	48"	5.52
1884-60	1885-60	1886-60	60"	5.65

BNC MALE TO SHIELDED DOUBLE PLUG



BODY: MOLDED BUTYRATE, per Fed. Spec. L-P349A, Type 3, Class MS. Assemblies.

SHIELD: Aluminum, black anodized.

PLUG: Brass, nickel plated.

SPRING: Four-leaved beryllium copper, nickel plated.

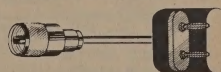
WIRE: RG-58C/U.

CONN: UG 88C/U. (BNC Series)

DESCR.: Mates with standard dual binding post having 3/4" center. One end terminates with double shielded banana plug, other end with UG 88 C/U. Std. Pkg. 10

No.	No.	No.	Length	NET
Wire	Wire	Wire		Each
1873-12	1874-12	1875-12	12 inches	\$6.00
1873-24	1874-24	1875-24	24 inches	6.12
1873-36	1874-36	1875-36	36 inches	6.25
1873-48	1874-48	1875-48	48 inches	6.38
1873-60	1874-60	1875-60	60 inches	6.50

UHF MALE TO SHIELDED DOUBLE PLUG



SHIELD: Aluminum, black anodized.

BODY: MOLDED BUTYRATE, per Fed. Spec. L-P349A, Type 3, Class MS.

CONN: PL-259 (UHF Series).

PLUG: Brass, nickel plated.

SPRING: Four-leaved beryllium copper, nickel plated.

DESCR.: Mates with standard dual binding post having 3/4" center. One end terminates with double shielded banana plug, other end in UHF Conn. Std. Pkg. 10

No.	No.	No.	Length	NET
RG-58C/U	RG-11/U	Wire		Each
1874-12	1875-12	1876-12	12 inches	\$6.00
1874-24	1875-24	1876-24	24 inches	6.12
1874-36	1875-36	1876-36	36 inches	6.25
1874-48	1875-48	1876-48	48 inches	6.38
1874-60	1875-60	1876-60	60 inches	6.50

LABORATORY INTERCHANGE KIT

DESCR.: All parts interchangeable, converts any standard test lead to an all purpose unit. Packaged in an electronically sealed vinyl kit.

Consists of one Red, one Black of the following: Phone tips No. 215 Spade lugs No. 218 Tip plug adapter No. 214

Alligator clip jack No. 305 Std. Pkg. 1

No. 640 NET \$2.25

DOUBLE JACK TO PHONE TIPS

HANDLE: MOLDED BUTYRATE, per Fed. Spec. L-P349A, Type 3, Class MS. Color to match wire.

PLUG: Brass, nickel plated.

WIRE: As specified above.

PLUG: Our No. 203, Red and black.

DESCR.: Mates with standard dual banana plugs by the word GROUND molded on side. One end terminates with double banana jacks, other end with insulated tip plug, one red and one black. Std. Pkg. 10

No.	No.	No.	Length	NET
Wire "A"	Wire "B"	Wire "C"		Each
1892-12	1893-12	1894-12	12"	\$1.55
1892-24	1893-24	1894-24	24"	1.68
1892-36	1893-36	1894-36	36"	1.80
1892-48	1893-48	1894-48	48"	1.92
1892-60	1893-60	1894-60	60"	2.05

DOUBLE JACK TO ALLIGATOR CLIPS

HANDLE: MOLDED BUTYRATE, per Fed. Spec. L-P349A, Type 3, Class MS. Color to match wire.

JACKS: Brass, nickel plated.

CLIP: Steel cadmium plated (No. 300).

INSUL.: Molded vinyl plastic (No. 331).

WIRE: As specified above.

DESCR.: Mates with standard dual banana plugs having 3/4" center. Polarity indicated by the word GROUND molded on side. One end terminates with double banana jacks, other end with insulated alligator clips, one red, one black. Std. Pkg. 10

No.	No.	No.	Length	NET
Wire "A"	Wire "B"	Wire "C"		Each
1889-12	1890-12	1891-12	12"	\$1.55
1889-24	1890-24	1891-24	24"	1.68
1889-36	1890-36	1891-36	36"	1.80
1889-48	1890-48	1891-48	48"	1.92
1889-60	1890-60	1891-60	60"	2.05

DOUBLE JACK TO STRIPPED & TINNED LEADS

HANDLE: MOLDED BUTYRATE, per Fed. Spec. L-P349A, Type 3, Class MS. Color to match wire.

PLUG: Brass, nickel plated.

DESCR.: Mates with standard dual plugs having 3/4" center. Polarity indicated by the word GROUND molded on side. One end terminates in double extension jack, other end in stripped and tinned leads. Std. Pkg. 10

No.	No.	No.	Length	NET
Wire "A"	Wire "B"	Wire "C"		Each
1886-12	1887-12	1888-12	12"	\$1.19
1886-24	1887-24	1888-24	24"	1.32
1886-36	1887-36	1888-36	36"	1.44
1886-48	1887-48	1888-48	48"	1.56
1886-60	1887-60	1888-60	60"	1.69

SOLDERLESS COAXIAL CABLE CONNECTORS

For RG-8/U, RG-11/U, RG-13/U and RG-59/U Cables. Designed to use the inner conductor of the coaxial cable for the male pin. Can be wrench-tightened for positive contact. Brass, silver plated. Std. Pkg. 25

Crimp Type

Both types mate with female chassis fitting #1680 and Female Coupling #1680. Designed for quick and easy assembly using #1752 Crimping Tool. Withstands 550-lb pull when assembled. Packaged individually, with instruction sheet. Std. Pkg. 25

No.	No.	For Cables	NET Ea.
1652	1652	RG-59/U	\$.48
1656	1656	RG-6/U	.63

FEMALE CHASSIS FITTING

Mates with #1652 connector. Mounts in 3/64" hole. Threaded stem is 3/64".

No.	NET Ea.
1660	Individually Packaged \$.48

FEMALE COUPLING

Accepts two #1680, 1652 or 1656 connectors.

No.	NET Ea.
1680	Individually Packaged \$.60

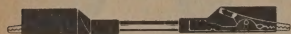
specify **SMITH**

HERMAN H. SMITH, INC.

JUMPERS & PATCH CORDS

ELECTRO
COMPONE

STANDARD ALLIGATOR CLIP TO PIN LUG



CLIPS: STEEL, Cadmium plated.

BOOTS: Vinyl plastic. Boot colors match wire.

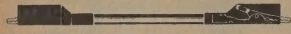
RATING: 5 Amps AC for 10°C Temp. rise, continuous duty.

WIRE: 10 KV PVC flexible wire, 65 strands #36 copper, #18 AWG, insulated to an O.D. of .140". Available in Red, Black, Yellow, Green, Blue, and White.

SPECIFY COLOR

No.	Length	Std. Pkg. 10	Net Ea.
1596-12	12 inches		\$.40
1596-24	24 inches		.43
1596-36	36 inches		.48
1596-48	48 inches		.51
1596-60	60 inches		.55

MINIATURE ALLIGATOR CLIP BOTH ENDS



CLIPS: STEEL, Cadmium plated.

BOOTS: Vinyl plastic. Boot colors match wire.

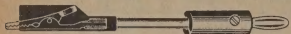
RATING: 5 Amps AC for 10°C Temp. rise, continuous duty.

WIRE: General purpose, PVC insulated 1/64" wall, #18 AWG, 16/30 stranded conductor. Available in Red, Black, Yellow, Green, Blue, and White.

SPECIFY COLOR

No.	Length	Std. Pkg. 10	Net Ea.
1597-12	12 inches		\$.40
1597-18	18 inches		.42
1597-24	24 inches		.43
1597-36	36 inches		.48
1597-48	48 inches		.51
1597-60	60 inches		.55

STANDARD ALLIGATOR CLIP TO BANANA PLUG



HANDLES: MOLDED THERMOSETTING plastic, Red and Black per MIL-M-14 CFG. Yellow, Green, Blue, White per LC-726-1. SPECIFY COLOR

PLUG: Hex brass, nickel plated.

SPRING: Four-leaved phosphor bronze, nickel plated.

CLIPS: STEEL, Cadmium plated.

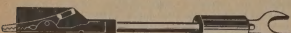
BOOTS: Vinyl plastic. Boot colors match wire.

RATING: 15 Amps AC for 10°C Temp. rise, continuous duty.

WIRE: 10 KV PVC flexible wire, 65 strands #36 copper, #18 AWG, insulated to an O.D. of .140". Std. Pkg. 10

No.	Length	Std. Pkg. 10	Net Ea.
1598-12	12 inches		\$.45
1598-24	24 inches		.50
1598-36	36 inches		.55
1598-48	48 inches		.58
1598-60	60 inches		.65

STANDARD ALLIGATOR CLIP TO SPADE LUG



HANDLES: MOLDED BUTYRATE, per Fed. Spec. L-P349A, Type 3, Class MS. Red, Black, Green, Blue, White. SPECIFY COLOR

LUG: Brass, .050 thick, nickel plated.

CLIPS: STEEL, Cadmium plated.

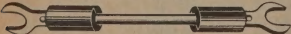
BOOTS: Vinyl plastic. Boot colors match wire.

RATING: 15 Amps AC for 10°C Temp. rise, continuous duty.

WIRE: 10 KV PVC flexible wire, 65 strands #36 copper, #18 AWG, insulated to an O.D. of .140". Std. Pkg. 10

No.	Length	Std. Pkg. 10	Net Ea.
1599-12	12 inches		\$.35
1599-24	24 inches		.40
1599-36	36 inches		.45
1599-48	48 inches		.50
1599-60	60 inches		.55

SPADE LUG BOTH ENDS



HANDLES: MOLDED BUTYRATE, per Fed. Spec. L-P349A, Type 3, Class MS. Red, Black, Green, Blue, White. SPECIFY COLOR

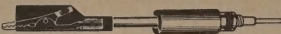
LUG: Brass, .050 thick, nickel plated.

RATING: 25 Amps AC for 10°C Temp. rise, continuous duty.

WIRE: 10 KV PVC flexible wire, 65 strands #36 copper, #18 AWG, insulated to an O.D. of .140". Std. Pkg. 10

No.	Length	Std. Pkg. 10	Net Ea.
1599-12	12 inches		\$.30
1599-24	24 inches		.35
1599-36	36 inches		.40
1599-48	48 inches		.45
1599-60	60 inches		.50

STANDARD ALLIGATOR CLIP TO PIN LUG



HANDLES: MOLDED THERMOSETTING plastic, Red and Black per MIL-M-14 CFG. Yellow, Green, Blue, White per LC-726-1. SPECIFY COLOR

PLUG: Brass, nickel plated.

CLIPS: STEEL, Cadmium plated.

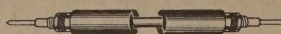
BOOTS: Vinyl plastic. Boot colors match wire.

RATING: 12 Amps AC for 10°C Temp. rise, continuous duty.

WIRE: 10 KV PVC flexible wire, 65 strands #36 copper, #18 AWG insulated to an O.D. of .140". Std. Pkg. 10

No.	Length	Std. Pkg. 10	Net Ea.
1865-12	12 inches		\$.40
1865-24	24 inches		.45
1865-36	36 inches		.50
1865-48	48 inches		.55
1865-60	60 inches		.60

PIN PLUG BOTH ENDS



HANDLES: MOLDED THERMOSETTING plastic, Red and Black per MIL-M-14 CFG. Yellow, Green, Blue, White per LC-726-1. SPECIFY COLOR

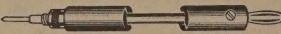
PLUGS: Brass, nickel plated.

RATING: 12 Amps AC for 10°C Temp. rise, continuous duty.

WIRE: 10 KV PVC flexible wire, 65 strands #36 copper, #18 AWG, insulated to an O.D. of .140". Std. Pkg. 10

No.	Length	Std. Pkg. 10	Net Ea.
1862-12	12 inches		\$.50
1862-24	24 inches		.55
1862-36	36 inches		.60
1862-48	48 inches		.65
1862-60	60 inches		.70

PIN PLUG TO BANANA PLUG



HANDLES: MOLDED THERMOSETTING plastic, Red and Black per MIL-M-14 CFG. Yellow, Green, Blue, White per LC-726-1. SPECIFY COLOR

PLUGS: Brass, nickel plated.

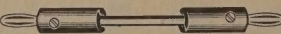
SPRING: Four-leaved phosphor bronze, nickel plated.

RATING: 12 Amps AC for 10°C Temp. rise, continuous duty.

WIRE: 10 KV PVC flexible wire, 65 strands #36 copper, insulated to an O.D. of .140". Std. Pkg. 10

No.	Length	Std. Pkg. 10	Net Ea.
1868-12	12 inches		\$.55
1868-24	24 inches		.60
1868-36	36 inches		.65
1868-48	48 inches		.70
1868-60	60 inches		.75

BANANA PLUG BOTH ENDS



HANDLES: MOLDED THERMOSETTING plastic, Red and Black per MIL-M-14 CFG. Yellow, Green, Blue, White per LC-726-1. SPECIFY COLOR

PLUGS: Brass, nickel plated.

SPRING: Four-leaved phosphor bronze, nickel plated.

RATING: 15 Amps AC for 10°C Temp. rise, continuous duty.

WIRE: 10 KV PVC flexible wire, 65 strands #36 copper, #18 AWG, insulated to an O.D. of .140". Std. Pkg. 10

No.	Length	Std. Pkg. 10	Net Ea.
1863-12	12 inches		\$.60
1863-24	24 inches		.65
1863-36	36 inches		.70
1863-48	48 inches		.75
1863-60	60 inches		.80

MINIATURE MOLDED PATCH CORDS



HANDLE: MOLDED BUTYRATE, per Fed. Spec. L-P349A, Type 3, Class MS. Red, Yellow, Black, Green, Blue, White. SPECIFY COLOR

BODY: Brass, nickel plated.

SPRING: Four-leaved beryllium copper, nickel plated.

WIRE: 10 KV PVC flexible wire, 65 strands #36 copper, insulated to an O.D. of .140".

DESCR.: Interconnects banana jacks on closely spaced centers where space is at a premium. Fits standard banana jacks.

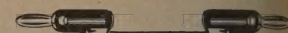
No.	WIRE	NET Per C
1860-8	8 inches	\$30.00
1860-12	12 inches	32.00
1860-24	24 inches	35.00
1860-36	36 inches	38.00

COLOR CODE SUFFIX

Add to Catalog Number as required

—101 WHITE —103 BLACK —105 BLUE
—102 RED —104 GREEN —107 YELLOW

"CROSS PATCH" BANANA PLUG CORD



HANDLE: MOLDED BUTYRATE, per Fed. Spec. L-P349A, Type 3, Class MS. Red, Black, Yellow, Green, Blue, White. SPECIFY COLOR

BODY: Brass, nickel plated.

WIRE: 10 KV PVC flexible wire, 65 strands #36 copper, #18 AWG, insulated to an O.D. of .140".

DESCR.: Interconnects unlimited number of multiple cuts. Positive, lasting contact for all banana plug top and side.

WITH PLUG SPRING 9/16" LONG

No.	Length ("A")	NET
1510-8	8 inches	\$10.00
1510-12	12 inches	11.00
1510-25	24 inches	12.00
1510-36	36 inches	13.00

WITH PLUG SPRING 13/32" LONG

No.	Length ("A")	NET
1515-8	8 inches	\$11.00
1515-12	12 inches	12.00
1515-24	24 inches	13.00
1515-36	36 inches	14.00

"CROSS PATCH" PIN TIP CORD



HANDLE: MOLDED BUTYRATE, per Fed. Spec. L-P349A, Red, Black, Yellow, Green, Blue, White. SPECIFY COLOR

BODY: Brass, nickel plated.

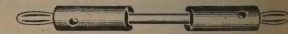
CONTACT: Beryllium copper.

WIRE: 10 KV PVC flexible wire, 65 strands #36 copper, insulated to an O.D. of .140".

DESCR.: Interconnects an unlimited number of multiple circuits. .080" tip plug and female jack in rear of fits all standard phone tips and jacks. Side holes standard banana plugs. Std. Pkg. 10

No.	Length ("A")	NET
1595-8	8 inches	\$10.00
1595-12	12 inches	11.00
1595-24	24 inches	12.00
1595-36	36 inches	13.00

"CROSS PATCH" CORD



HANDLE: MACHINED BUTYRATE, per MIL-10408A, Type I, Class II. Red, Black, Green, Blue, White. SPECIFY COLOR

BODY: Brass, nickel plated.

SPRING: Four-leaved beryllium copper, nickel plated.

WIRE: 10 KV PVC flexible wire, 65 strands #36 copper, #18 AWG, insulated to an O.D. of .140".

DESCR.: Provides a never ending banana plug receptacle and can be used to interconnect an unlimited number of multiple circuits. Accepts standard banana plug side. Std. Pkg. 10

No.	Length ("A")	NET
680	8 inches	\$10.00
681	12 inches	11.00
682	24 inches	12.00
683	36 inches	13.00

FOR YOUR SPECIAL REQUIREMENTS IN

- PATCH CORDS
- JUMPERS
- TEST LEADS

WHAT DO YOU NEED?

We are equipped to manufacture Patch Cords, Jumpers and Test Leads in every conceivable combination of terminal end—plugs, jacks, clips and connectors—be found in our entire line.

What are YOUR special requirements? We welcome your inquiry!

Specify SMITH

HERMAN H. SMITH, INC.

JUMPERS & PATCH CORDS

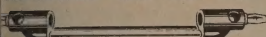
ELECTRONIC
COMPONENTS

CABLE TYPES AVAILABLE

COLOR CODE SUFFIX
Add to Catalog Number as required

— 01 WHITE	— 106 ORANGE
— 102 RED	— 107 YELLOW
— 103 BLACK	— 108 BROWN
— 104 GREEN	— 112 PURPLE
— 105 BLUE	— 113 GREY

SUB-MINIATURE "CROSS PATCH" CORD



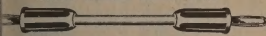
E: MOLDED BUTYRATE, per Fed Spec. L-P349A, Class MS. Available in ten colors listed above.
S: Brass, silver plated. SPECIFY COLOR
G: Four-leaved beryllium copper, silver plated.

General purpose, PVC insulated, 1/64" wall, #18 41/64 stranded conductor. Voltage rating up to RMS.

Interconnects unlimited number of multiple banana plugs, lasting contact for banana plugs on both ends. Special lengths on request. Std. Pkg. 10

Length ("A")	NET Per C
6 inches	\$60.00
12 inches	69.00
18 inches	75.00
24 inches	84.00

NYLON HANDLE PATCH CORD



E: MOLDED NYLON, per MIL-P-20693A, Red, Yellow, or Green. SPECIFY COLOR
S: Brass, nickel plated.

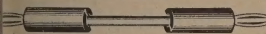
G: Four-leaved beryllium copper, nickel plated.
10 KV PVC flexible wire, 65 strands #36 copper, AWG, insulated to an O.D. of .140".

Uses our standard No. 473 banana plug to connect circuits. Fits standard banana jacks.

Std. Pkg. 10

Length	NET Per C
8 inches	\$54.00
12 inches	60.00
24 inches	66.00
36 inches	72.00

PATCH CORD



E: MOLDED THERMOSETTING plastic. Red and per MIL-M-14 CFG. Yellow, Green per LC-721-1. SPECIFY COLOR

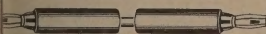
Brass, nickel plated.
G: Four-leaved beryllium copper, nickel plated.
10 KV PVC flexible wire, 65 strands #36 copper, insulated to an O.D. of .140".

Uses our standard No. 271 banana plug to connect circuits. Fits standard banana jacks.

Length ("A")

Length ("A")	NET Per C
8 inches	\$48.00
12 inches	54.00
24 inches	60.00
36 inches	66.00

HIGH-CURRENT PATCH CORD



E: MACHINED PHENOLIC plastic, per MIL-B-3, Type 1. Red or Black assemblies. SPECIFY COLOR

Brass, nickel plated.
G: Six-leaved, phosphor bronze, nickel plated.
#10, PVC insulated stranded wire, 105 strands tinned copper wire, insulated to an O.D. of .215".
G: 25 Amps AC for 10°C Temp. rise, continuous

Tapered recessed plug so that no metal portions exposed when plugged into mating jacks.

Std. Pkg. 10

Length	NET Per C
8 inches	\$135.00
12 inches	135.00
24 inches	140.00
36 inches	145.00

BNC MALE TO ALLIGATOR CLIPS



UG-88C/U. (BNC Series)
Steel Cad. Plated (#300).
Molded Vinyl (#331).

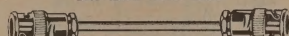
As specified above.
For testing of wave patterns etc. One end terminated with UG-88C/U other end with insulated alligator clips, one red, one black.

Std. Pkg. 10

Wire "B"	Wire "C"	Lgth.	NET Ea.
1337-12	1387-12	12"	\$3.75
1337-24	1387-24	24"	3.96
1337-36	1387-36	36"	4.08
1337-48	1387-48	48"	4.20
1337-60	1387-60	60"	4.30

DESCRIPTION	WIRE "A"	WIRE "B"	WIRE "C"
	2-cond. tw. 18 ga. 65/36 str.	Shielded audio cable	Coaxial Cable RG58C/U.
INSULATION	Vinyl	Polyethylene	Polyethylene
JACKET	Vinyl, Color Grey	Vinyl, Color Grey	Vinyl, Color Black
NOM. CAP.	30 mmf./ft.	25 mmf./ft.	28.5 mmf./ft.

BNC MALE BOTH ENDS

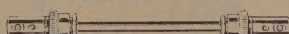


CONN.: UG 88 C/U. (BNC Series)

Std. Pkg. 10

Wire "A"	Wire "B"	Wire "C"	Lgth.	NET Ea.
1539-12	1589-12	12"	4.00	
1539-24	1589-24	24"	4.20	
1539-36	1589-36	36"	4.32	
1539-48	1589-48	48"	4.44	
1539-60	1589-60	60"	4.55	

BNC FEMALE BOTH ENDS

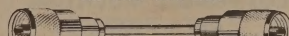


CONN.: UG-89B/U. (BNC Series)

WIRE: RG-58C/U.

No.	Length	NET Ea.
1869-12	12 inches	\$3.75
1869-24	24 inches	3.85
1869-36	36 inches	4.00
1869-48	48 inches	4.15
1869-60	60 inches	4.25

UHF MALE BOTH ENDS

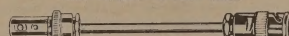


CONN.: PL-259. (UHF Series)

Std. Pkg. 10

No.	Length	NET Ea.
1871-12	12 inches	\$4.50
1871-24	24 inches	4.62
1871-36	36 inches	4.75
1871-48	48 inches	4.88
1871-60	60 inches	5.00

BNC FEMALE TO BNC MALE



CONN.: UG-89B/U. (BNC Series)

WIRE: RG-58C/U.

No.	Length	NET Ea.
1878-12	12 inches	\$4.00
1878-24	24 inches	4.20
1878-36	36 inches	4.32
1878-48	48 inches	4.44
1878-60	60 inches	4.55

NYLON LACING CORD



MIL-T-113A, Type S. Composition P, Classes 3, 2 and 1. Supplied in 1-lb. tubes.

No.	Class	Test	Yardage	NET Ea.
734	1	70 lb.	600	\$9.00
735	2	48 lb.	800	9.30
736	3	32 lb.	1140	9.60

Black Color

No.	Class	Test	Yardage	NET Ea.
791	1	70 lb.	600	\$10.80
792	2	48 lb.	800	11.10
793	3	32 lb.	1140	11.40

NYLON LACING TAPE

Braided - MGD Finish

#18 size meets MIL-T-13 A, Type P, Class 2, 500-yard spools.

No.	Size	Width	Thick	Test	NET Each
766	18	.090	.0125	50 lbs.	\$9.50
767	21	.0625	.009	25 lbs.	7.00

Black Color

No.	Size	Width	Thick	Test	NET Each
769	18	.090	.0125	50 lbs.	\$10.00
770	21	.0625	.009	25 lbs.	7.50

Commercial Type

Has all application of above but at a much lower cost. Supplied in 1-lb tubes in natural color.

No.	Width	Yardage	NET Ea.
743	3/8"	620	\$5.10

DACRON LACING CORD

Conforms to the physical requirements of MIL-T-713A. Greater tensile strength with minimal stretch than nylon. Fungus, acid and abrasion resistance. Supplied in 1 lb. tubes in natural color.

No.	Class	Test	Yardage	NET Ea.
722	1	75 lbs.	750	\$9.60
723	2	57 lbs.	1000	9.90
724	3	37 lbs.	1500	10.20

RIGHT ANGLE BNC TO RIGHT ANGLE BNC



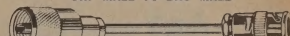
CONN.: UG-913/U. (BNC Series)

WIRE: As specified above.

DESCR.: Used for patching and jumping. Each end terminated with UG-913/U.

No.	Wire "A"	Wire "B"	Wire "C"	Lgth.	NET Ea.
1538-12	1588-12	12"	12"	12"	\$5.88
1538-24	1588-24	24"	24"	24"	6.00
1538-36	1588-36	36"	36"	36"	6.12
1538-48	1588-48	48"	48"	48"	6.24
1538-60	1588-60	60"	60"	60"	6.35

UHF MALE TO BNC MALE



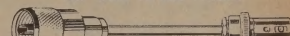
CONN.: UG-88C/U. (BNC Series)

PL-259. (UHF Series)

WIRE: RG-58C/U.

No.	Length	NET Ea.
1879-12	12 inches	\$4.40
1879-24	24 inches	4.20
1879-36	36 inches	4.32
1879-48	48 inches	4.44
1879-60	60 inches	4.55

UHF MALE TO BNC FEMALE



CONN.: UG-89B/U. (BNC Series)

PL-259. (UHF Series)

WIRE: RG-58C/U.

No.	Length	NET Ea.
1880-12	12 inches	\$4.20
1880-24	24 inches	4.40
1880-36	36 inches	4.52
1880-48	48 inches	4.64
1880-60	60 inches	4.75

UHF MALE TO ALLIGATOR CLIPS



CONN.: PL-259. (UHF Series)

CLIPS: Steel Cad. Plated (#300).

INSUL.: Molded Vinyl (#331).

WIRE: As specified above for wave patterns, etc. One end terminates with PL-259, other end with insulated alligator clips one red, one black.

No.	Wire "A"	Wire "B"	Wire "C"	Lgth.	NET Ea.
1872-12	1832-12	1882-12	12"	3.75	
1872-24	1832-24	1882-24	24"	3.96	
1872-36	1832-36	1882-36	36"	4.08	
1872-48	1832-48	1882-48	48"	4.20	
1872-60	1832-60	1882-60	60"	4.30	

For VARIATIONS of these standard parts to meet your SPECIAL requirements, or for entirely NEW parts made to your specifications, WE WELCOME YOUR INQUIRY!



LINEN LACING CORD

Mildew proofed, Spec. MIL-T-713-A, Type N.

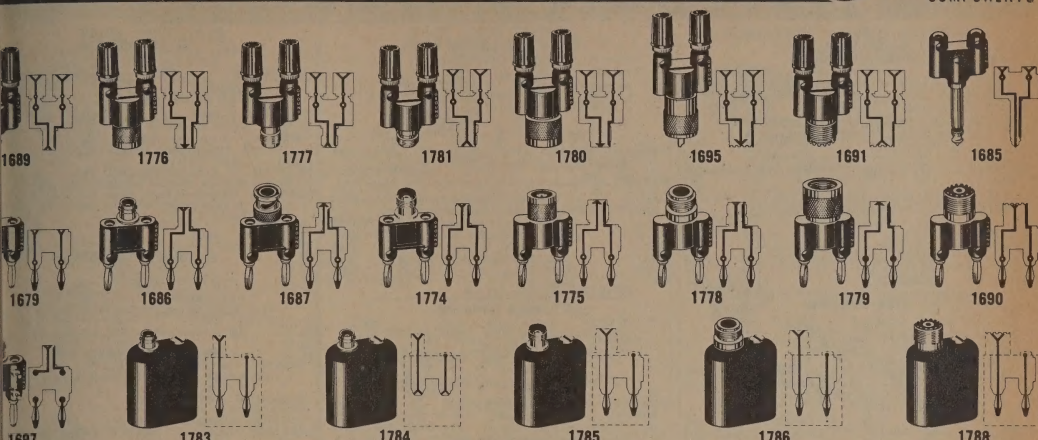
No.	Tube	Ply	Class	Ydg.	NET Ea.
725	4 oz.	4	—	210	\$1.65
726	8 oz.	4	—	425	3.00
727	1 lb.	4	—	850	5.40
728	4 oz.	6	3	165	1.65
729	8 oz.	6	3	300	3.00
730	1 lb.	6	3	600	5.40
731	4 oz.	8	2	115	1.65
732	8 oz.	8	2	235	3.00
733	1 lb.	8	2	470	5.40
734	4 oz.	9	—	200	3.00
735	8 oz.	9	—	400	5.40
736	1 lb.	9	—	800	5.40
737	4 oz.	12	1	75	1.65
738	8 oz.	12	1	150	3.00
739	1 lb.	12	1	300	5.40

Black Color

No.	Tube	Ply	Class	Ydg.	NET Ea.
794	1 lb.	4	—	850	\$6.00
795	1 lb.	6	3	600	6.00
796	1 lb.	8	2	470	6.00
797	1 lb.	9	—	400	6.00
798	1 lb.	12	1	300	6.00

Specify SMITH

HERMAN H. SMITH, INC.

ELECTRONIC
COMPONENTS**BINDING POST ADAPTERS****BINDING POSTS TO BNC FEMALE CONNECTOR**

Insulated dual 5-way binding posts, Red and black heads on $\frac{3}{4}$ " centers. Banana jack holes for stacking.

T: BNC series co-axial jack.

Std. Pkg. I	NET Ea.
	\$3.60

BINDING POSTS TO TNC MALE CONNECTOR

Insulated dual 5-way binding posts, Red and black heads on $\frac{3}{4}$ " centers. Banana jack holes for stacking.

T: TNC series co-axial plug.

Std. Pkg. I	NET Ea.
	\$4.50

BINDING POSTS TO TNC FEMALE CONNECTOR

Insulated dual 5-way binding posts, Red and black heads on $\frac{3}{4}$ " centers. Banana jack holes for stacking.

T: TNC series co-axial jack.

Std. Pkg. I	NET Ea.
	\$4.50

BINDING POSTS TO TYPE N MALE CONNECTOR

Insulated dual 5-way binding posts, Red and black heads on $\frac{3}{4}$ " centers. Banana jack holes for stacking.

T: Type N co-axial plug

Std. Pkg. I	NET Ea.
	\$4.50

BINDING POSTS TO TYPE N FEMALE CONNECTOR

Insulated dual 5-way binding posts, Red and black heads on $\frac{3}{4}$ " centers. Banana jack holes for stacking.

T: Type N co-axial jack.

Std. Pkg. I	NET Ea.
	\$4.50

BINDING POSTS TO UHF MALE CONNECTOR

Insulated dual 5-way binding posts, Red and black heads on $\frac{3}{4}$ " centers. Banana jack holes for stacking.

T: UHF series co-axial plug.

Std. Pkg. I	NET Ea.
	\$3.60

BINDING POSTS TO UHF FEMALE CONNECTOR

Insulated dual 5-way binding posts, Red and black heads on $\frac{3}{4}$ " centers. Banana jack holes for stacking.

T: UHF series co-axial jack.

Std. Pkg. I	NET Ea.
	\$3.60

ADAPTERS**DUAL BANANA JACKS TO 2-CIRCUIT PHONE PLUG**

REAR: Dual banana jacks on $\frac{3}{4}$ " centers, rear and side, for stacking.

FRONT: Standard $\frac{3}{4}$ " 2-circuit phone plug.

No.	Std. Pkg. I	NET Ea.
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1685		\$2.40
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DUAL PHONE-TIP ADAPTER

REAR: Dual .080" phone tip jacks on $\frac{3}{4}$ " centers.

FRONT: Dual banana plugs on $\frac{3}{4}$ " centers. Banana jack holes for side stacking.

No.	Std. Pkg. I	NET Ea.
-----	-------------	---------

1679		\$1.81
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COAXIAL CONNECTOR ADAPTERS**BNC FEMALE TO BANANA PLUGS**

REAR: BNC series co-axial jack. Banana jack holes for side stacking.

FRONT: Dual banana plugs on $\frac{3}{4}$ " centers. Banana jack holes for side stacking.

No.	Std. Pkg. I	NET Ea.
-----	-------------	---------

1686		\$2.45
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BNC MALE TO BANANA PLUGS

REAR: BNC series co-axial plug.

FRONT: Dual banana plugs on $\frac{3}{4}$ " centers. Banana jack holes for side stacking.

No.	Std. Pkg. I	NET Ea.
-----	-------------	---------

1687		\$2.70
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TNC FEMALE TO BANANA PLUGS

REAR: TNC series co-axial jack.

FRONT: Dual banana plugs on $\frac{3}{4}$ " centers. Banana jack holes for side stacking.

No.	Std. Pkg. I	NET Ea.
-----	-------------	---------

1774		\$4.50
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TNC MALE TO BANANA PLUGS

REAR: TNC series co-axial plug.

FRONT: Dual banana plugs on $\frac{3}{4}$ " centers. Banana jack holes for side stacking.

No.	Std. Pkg. I	NET Ea.
-----	-------------	---------

1775		\$4.50
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TYPE N FEMALE TO BANANA PLUGS

REAR: Type N co-axial jack.

FRONT: Dual banana plugs on $\frac{3}{4}$ " centers. Banana jack holes for side stacking.

No.	Std. Pkg. I	NET Ea.
-----	-------------	---------

1778		\$4.50
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TYPE N MALE TO BANANA PLUGS

REAR: Type N co-axial plug.

FRONT: Dual banana plugs on $\frac{3}{4}$ " centers. Banana jack holes for side stacking.

No.	Std. Pkg. I	NET Ea.
-----	-------------	---------

1779		\$4.50
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UHF FEMALE TO BANANA PLUGS

REAR: UHF series co-axial jack.

FRONT: Dual banana plugs on $\frac{3}{4}$ " centers. Banana jack holes for side stacking.

No.	Std. Pkg. I	NET Ea.
-----	-------------	---------

1690		\$3.60
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BNC FEMALE TO ISOLATED DUAL BANANA PLUGS

REAR: BNC series co-axial jack.

CENTER: Turret-terminal connections to isolated front and rear conductors in both GND and HOT circuits allow insertion of matching pad or other 4-terminal networks in input circuits.

FRONT: Dual banana plugs on $\frac{3}{4}$ " centers.

No.	Std. Pkg. I	NET Ea.
-----	-------------	---------

1697		\$7.20
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SHIELDED CO-AXIAL CONNECTOR ADAPTERS**BNC JACK TO DUAL BANANA PLUGS**

REAR: BNC series co-axial jack.

FRONT: Dual banana plugs on $\frac{3}{4}$ " centers.

SHIELD: Aluminum shield electrically connected to GND conductor fully encloses plug and mating binding posts to reduce noise pickup.

No.	Std. Pkg. I	NET Ea.
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1783		\$3.25
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BNC JACK TO DUAL BANANA JACKS

REAR: BNC series co-axial jack.

FRONT: Dual banana plugs on $\frac{3}{4}$ " centers.

SHIELD: Aluminum shield electrically connected to GND conductor fully encloses jacks and mating plug to reduce noise pickup.

No.	Std. Pkg. I	NET Ea.
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1784		\$3.25
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TNC JACK TO DUAL BANANA PLUGS

REAR: TNC series co-axial jack.

FRONT: Dual banana plug $\frac{3}{4}$ " centers.

SHIELD: Aluminum shield electrically connected to GND conductor fully encloses plug and binding posts to reduce noise pickup.

No.	Std. Pkg. I	NET Ea.
-----	-------------	---------

1785		\$4.50
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TYPE N JACK TO DUAL BANANA PLUGS

REAR: Type N co-axial jack.

FRONT: Dual banana plugs on $\frac{3}{4}$ " centers.

SHIELD: Aluminum shield electrically connected to GND conductor fully encloses plug and binding posts to reduce noise pickup.

No.	Std. Pkg. I	NET Ea.
-----	-------------	---------

1786		\$4.50
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UHF JACK TO DUAL BANANA PLUGS

REAR: UHF series co-axial jack.

FRONT: Dual banana plugs on $\frac{3}{4}$ " centers.

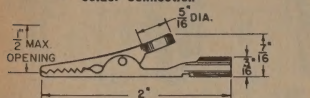
SHIELD: Aluminum shield electrically connected to GND conductor fully encloses plug and mating binding posts to reduce noise pickup.

No.	Std. Pkg. I	NET Ea.
-----	-------------	---------

1788		\$4.50
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specify **SMITH**

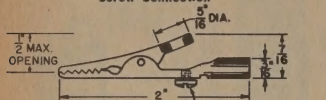
HERMAN H. SMITH, INC.

ELECTRONIC
COMPONENTS**ALLIGATOR CLIPS
Solder Connection**

RATING: 5 Amps AC for 10°C Temp. rise, continuous duty.

DESCR.: 1/4" jaw opening. Jaws match accurately and grip securely, accepts standard banana plugs in rear.

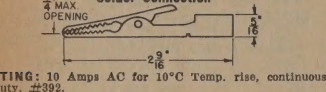
No.	Type	Std. Pkg. 100	NET Per C
300	Steel, Cad. Pl.	\$5.00	\$4.40
380	Solid Copper	7.50	6.50
332	Brass N.P.	10.40	8.40

Screw Connection

RATING: 5 Amps AC for 10°C Temp. rise, continuous duty.

DESCR.: 1/4" jaw opening. Supplied with screw for solderless connection when required. Jaws match accurately and grip securely. Accepts standard banana plugs in rear.

No.	Type	Std. Pkg. 100	NET Per C
350	Steel, Cad. Pl.	\$5.50	\$4.80
360	Solid Copper	8.40	7.20
339	Brass N.P.	13.00	9.90

**JUMBO ALLIGATOR CLIP
Solder Connection**

RATING: 10 Amps AC for 10°C Temp. rise, continuous duty, #392.

15 Amps AC for 10°C Temp. rise, continuous duty, #396.

DESCR.: 3/4" jaw opening. Jaws match accurately. For heavy terminal use.

No.	Type	Std. Pkg. 100	NET Per C
392	Steel, Cad. Pl.	\$15.00	
396	Solid Copper	18.00	

Screw Connection

RATING: STEEL: 10 Amps AC for 10°C Temp. rise, continuous duty.
COPPER: 15 Amps AC for 10°C Temp. rise, continuous duty.

DESCR.: 3/4" jaw opening. Jaws match accurately. Supplied with screw for solderless connection. For heavy terminal use.

No.	Type	Std. Pkg. 100	NET Per C
368	Steel, Cad. Pl.	\$18.00	
356	Solid Copper	21.00	

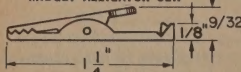
ALLIGATOR CLIP BOOTS

MATERIAL: MOLDED VINYL PLASTIC, Red, Black, Yellow, Green, Blue or White.

RATING: 1 K Volts 60 cycle AC continuous working voltage.

DESCR.: Fully insulated clip while allowing maximum jaw opening. No. 331 for use on standard size alligator clips such as our No. 300, No. 339 for use on miniature alligator clips, such as our No. 338.

No.	Description	Std. Pkg. 100	NET Per C
389	Miniature	\$4.80	\$4.00
331	Standard	4.80	4.00

MIDGET ALLIGATOR CLIP

DESCR.: 1/4" jaw opening, jaws match accurately and grip securely. Unique SMITH spring construction. Solder connection and ears for crimping.

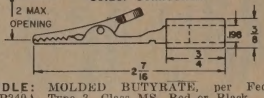
No.	Type	10 Ea.	Per C
338	Steel, Cad. Pl.	\$0.07	\$4.20
367	Copper	.07	5.00

**TL137 TEST CLIP
Signal Corps Approved**

RATING: 10 Amps AC for 10°C Temp. rise, continuous duty.

DESCR.: Steel, nickel plated, made in accordance with government spec. 1/4" jaw opening. Needle for piercing carson.

No.	Std. Pkg. 25	NET Per C
315	\$42.00	

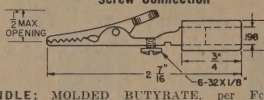
**INSULATED ALLIGATOR CLIPS
Solder Connection**

HANDLE: MOLDED BUTYRATE, per Fed. Spec. L-P349A, Type 3, Class MS, Red or Black.

RATING: 5 Amps AC for 10°C Temp. rise, continuous duty.

DESCR.: 1/4" jaw opening. Jaws match accurately and grip securely, accepts standard banana plugs in rear.

No.	Type	Std. Pkg. 100	NET Per C
301	Steel, Cad. Pl.	\$8.50	\$7.50
381	Solid Copper	10.50	9.00
354	Brass N.P.	15.00	11.40

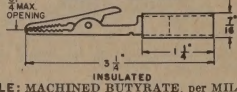
Screw Connection

HANDLE: MOLDED BUTYRATE, per Fed. Spec. L-P349A, Type 3, Class MS, Red or Black.

RATING: 5 Amps AC for 10°C Temp. rise, continuous duty.

DESCR.: 1/4" jaw opening. Supplied with screw for solderless connection when required. Jaws match accurately and grip securely. Accepts standard banana plugs in rear.

No.	Type	Std. Pkg. 100	NET Per C
351	Steel, Cad. Pl.	\$9.50	\$8.00
361	Solid Copper	11.00	9.60
362	Brass N.P.	19.00	12.40

**INSULATED JUMBO ALLIGATOR CLIPS
Solder Connection**

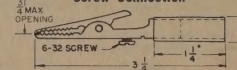
HANDLE: MACHINED BUTYRATE, per MIL-P-10408A, Type I, Class II, Red or Black.

RATING: 10 Amps AC for 10°C Temp. rise, continuous duty, #393.

15 Amps AC for 10°C Temp. rise, continuous duty, #397.

DESCR.: 3/4" jaw opening. Jaws match accurately. For heavy terminal use.

No.	Type	Std. Pkg. 100	NET Per C
393	Steel, Cad. Pl.	\$21.00	
397	Solid Copper	24.00	

Screw Connection

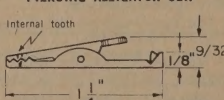
HANDLE: MACHINED BUTYRATE, per MIL-P-10408A, Type I, Class II, Red or Black.

RATING: 10 Amps AC for 10°C Temp. rise, continuous duty, #399.

15 Amps AC for 10°C Temp. rise, continuous duty, #357.

DESCR.: 3/4" jaw opening. Jaws match accurately. Supplied with screw for solderless connection. For heavy terminal use.

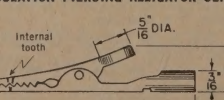
No.	Type	Std. Pkg. 100	NET Per C
359	Steel, Cad. Pl.	\$24.00	
357	Solid Copper	27.00	

**MINIATURE INSULATION
PIERCING ALLIGATOR CLIP**

RATING: 1 Amp AC for 10°C Temp. rise, continuous duty.

DESCR.: 3/16" jaw opening. Jaws match accurately and grip securely. Internal tooth for piercing wire insulation. Solder connection and ears for crimping.

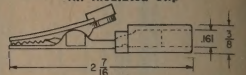
No.	Std. Pkg. 100	NET Per C
326	\$11.00	

INSULATION PIERCING ALLIGATOR CLIP

RATING: 5 Amps AC for 10°C Temp. rise, continuous duty.

DESCR.: 1/2" jaw opening. Jaws match accurately and grip securely. Internal tooth for piercing wire insulation. Accepts standard banana plug in rear.

No.	Std. Pkg. 100	NET Per C
347	\$11.00	

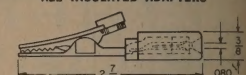
All Insulated Clip

INSULA.: MOLDED BUTYRATE, per Fed. Spec. L-P349A, Type 3, Class MS, Red or Black.

RATING: 10 Amps AC for 10°C Temp. rise, continuous duty. 1 K Volts 60 cycle AC continuous working voltage.

DESCR.: All metal parts fully insulated with non-plastic. Insures against shock or grounding. Solder connection.

No.	Std. Pkg. 100	NET Per C
337	\$20.00	

ALL INSULATED ADAPTERS**Phone Tip to Alligator Clip**

INSULA.: MOLDED BUTYRATE, per Fed. Spec. L-P349A, Type 3, Class MS, Red or Black.

CLIP: Steel, cadmium plated.

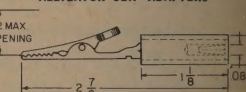
BODY: Brass.

CONTACT: Phosphor bronze.

RATING: 5 Amps AC for 10°C Temp. rise, continuous duty.

DESCR.: All metal parts fully insulated with non-plastic. Insures against shock or grounding. Jack in rear permits adapting standard phone tip plugs to alligator clips.

No.	Std. Pkg. 100	NET Per C
336	\$36.00	

ALLIGATOR CLIP ADAPTERS**Phone Tip to Alligator Clip**

HANDLE: MOLDED BUTYRATE, per Fed. Spec. L-P349A, Type 3, Class MS, Red or Black.

CAP: MOLDED THERMOSETTING plastic, Red or Black.

CLIP: Steel, cadmium plated or solid copper.

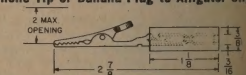
BODY: Brass.

SPRING: Phosphor bronze.

RATING: 5 Amps AC for 10°C Temp. rise, continuous duty.

DESCR.: Jack in rear permits adapting standard phone tip plugs to alligator clips.

No.	Std. Pkg. 100	NET Per C
304	\$36.00	
334	\$36.00	

Phone Tip or Banana Plug to Alligator Clip

HANDLE: MOLDED BUTYRATE, per Fed. Spec. L-P349A, Type 3, Class MS, Red or Black.

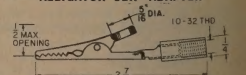
CLIP: Steel, cadmium plated or solid copper.

BODY: Brass.

RATING: 5 Amps AC for 10°C Temp. rise, continuous duty.

DESCR.: Combination jack in rear, permits the adapting of standard phone tip or banana plugs to alligator clips.

No.	Std. Pkg. 100	NET Per C
305	\$39.00	
335	\$39.00	

ALLIGATOR CLIP ADAPTER

BUSHING: Brass, nickel plated.

CLIP: Steel cadmium plated.

RATING: 5 Amps AC for 10°C Temp. rise, continuous duty.

DESCR.: Adapts standard solderless tips to alligator clips. This novel quick-adaptor is a must for all types of work.

No.	Std. Pkg. 100	NET Per C
310	\$11.00	

BATTERY TEST CLIP

No.	Spread	Lgth.	Rating	Spring (10 Ea.)	Std. Pkg. 100	NET Per C
365	3/16"	1 1/2"	5 amp	7 lbs.	\$3.00	
366	1/4"	1 1/2"	10 amp	10 lbs.	\$3.00	

"SPECIALS are STANDARD
with SMITH!"

Specify SMITH

HERMAN H. SMITH, INC.

ELECTRONIC
COMPONENTS

PANEL INDICATORS

Indicators supplied with faceted jewels in Red, Green, Amber, Blue, Opal and White. SPECIFY COLOR.

1/2" JEWEL—Mounts in 7/16" Hole			
No.	Type	NET Per C	Std. Pks. 10
1900	Miniature Screw	\$27.00	
1901	Candelabra	\$35.00	
1902	Can/Univ. Bkt.	\$4.80	
1903	Bayonet	\$27.00	
1904	Bayonet w/Univ. Bkt.	\$30.00	
1912	3/4" Jewel Only	21.00	

3/4" JEWEL—Mounts in 1 1/16" Hole			
No.	Type	NET Per C	Std. Pks. 10
1905	Miniature Screw	\$57.00	
1906	Bayonet	\$60.00	
1907	Candelabra	\$60.00	
1914	3/4" Jewel Only	\$22.00	

3/4" JEWEL—Mounts in 5/16" Hole			
No.	Type	NET Per C	Std. Pks. 10
1908	Miniature Screw	\$27.00	
1909	Bayonet	\$28.80	
1941	3/4" Jewel Only	21.00	

Jewel Removable From Front 1 1/2" JEWEL—Mounts in 1 1/2" Hole			
No.	Type	NET Per C	Std. Pks. 10
1920	Miniature Screw	\$39.00	
1921	Bayonet, Open Type	39.00	
1942	Bayonet, 1 1/2" Bkt.	\$4.00	
1943	3/4" Jewel Only	35.00	

1" JEWEL—Mounts in 1 1/2" Hole			
No.	Type	NET Per C	Std. Pks. 10
1917	Miniature Screw	\$96.00	
1918	Bayonet	\$96.00	
1919	Candelabra	\$102.00	
1916	1" Jewel Only	75.00	

NEON INDICATORS

UL Approved. Supplies 180 degree light spread. Available in Red, Amber, White, Yellow and Clear caps. Neon removable from front. Candelabra screw base; 105-125 volts 1" mtg. clearance hole. Std. Pkg. 10

No.	Type	NET Per C	Std. Pks. 10
1953	Lens Cap Only	\$171.00	
1954	Built-in 56K ohm, 1/2 watt resistor	70.20	

11/16" mtg. clearance hole.			
No.	Type	NET Per C	Std. Pks. 10
1955	Lens Cap Only	\$185.00	
1956	Lens Cap Only	22.20	

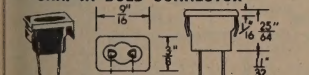
INDICATOR ASSEMBLIES

Enclosed Type

UL Approved. Available in Red, Green, Amber, Blue, Yellow, Clear and White. Std. Pkg. 10

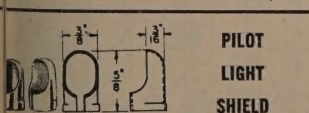
Candelabra screw base; 1" mtg. clearance hole; 1" indicator. Uses No. 1918 Jewel.			
No.	Type	NET Per C	Std. Pks. 10
1957	Bayonet base; 11/16" mtg. clearance hole; 3/4" indicator. Uses No. 1943 Jewel.	\$172.20	
1958	NET Per C	\$128.40	

SNAP-IN BULB CONNECTOR



Designed for use with the new Twin Pin Baseless Incandescent Lamps (G.E. #10-25 volts, #12-6.3 lbs., or #15-7.0 volts). Easily assembled to any bulb for indicating purposes. Withstands excessive temperatures. Snaps into a .500x.296 rectangular hole in panels .032 to .062 thick. Bezel of brass, cad. plated; contacts — brass, silver plated. Std. Pkg. 25

NET Per C \$17.00



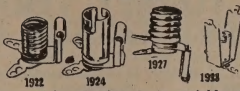
PILOT LIGHT SHIELD

CR.: Prevents glare when used in radio receiver meters, etc. Ribbed bottom holds shield securely in place on bulb. Std. Pkg. 100

Type	NET Per C
Brass Cad. Plate	\$3.60
Plain Brass	\$2.30
Flared Brass Cad. Plate	4.20

PILOT LIGHT SOCKETS

Clip-On Type



Can be used by clipping on to variable condenser or chassis. All brackets are cadmium plated. Std. Pkg. 50

No.	Type	NET Per C
1922	Miniature Screw Up Clip	\$10.20
1923	Miniature Screw Down Clip	10.20
1924	Miniature Bayonet Up Clip	10.20
1925	Miniature Bayonet Down Clip	10.20
1926	Candelabra Up Clip	11.00
1927	Candelabra Down Clip	11.00
1938	Clip-in Socket	10.20

PILOT LIGHT SOCKETS

Bracket Type

No.	Type	NET Per C
1928	Miniature Screw Up Bracket	\$10.20
1929	Miniature Screw Down Bracket	10.20
1930	Miniature Bayonet Up Bracket	10.20
1931	Miniature Bayonet Down Bracket	10.20
1932	Candelabra Up Bracket	11.00
1933	Candelabra Down Bracket	11.00

UNMOUNTED TYPE SOCKETS

No.	Type	NET Per C
1934	Miniature Screw Base	\$10.20
1935	Miniature Bayonet Base	10.20
1936	Candelabra Base	11.00

NAVY TYPE LAMP SOCKETS

Bayonet Base

Vibration-proof socket for surface mounting. Made to rigid specifications of black phenolic. Has bayonet sleeve of brass and double contacts of heavy spring phosphor bronze. Std. Pkg. 10

NET Per C \$135.00

SCREW BASE

Made of black phenolic to strict requirements. Instead of usual screw shell has phosphor bronze wire coiled spring for perfect contact and elimination of vibration. Designed for soldering wire leads. Std. Pkg. 10

NET Per C \$84.00

SCREW BASE

Easily wired and mounted. A very practical unit made of black phenolic to rigid specifications. Has phosphor bronze spring contact to assure positive contact and elimination of vibration. Std. Pkg. 10

NET Per C \$84.00

MINIATURE BAYONET BASE LAMPHOLDER

Surface mounted socket for miniature bayonet single contact lamp. Made to rigid specifications and constructed of massive bakelite insulation. Designed with screw terminals to facilitate wiring. Std. Pkg. 10

NET Ea. \$3.00

MINI-SHIELDS FOR MINI-TUBES

These Mini-Shields fit snugly on all Mini-Tubes. Serrations in base clip prevent shielded tube from flexing or working loose. Available in two sizes for 1 1/2" & 2" long tubes. Std. Pkg. 50

No.	Type	NET Per C
550	for 2" tube	1 1/2" \$7.80
551	for 1 1/2" tube	1 1/2" 6.60

MINI-SPRING FOR MINI-TUBES

Maintains a direct axial pressure downwards plus a sideways support that keeps the tube upright and perpendicular to the chassis. The spring action is constant and resilient permanently. Std. Pkg. 50

No.	Type	NET Per C
560	Short	\$11.40
561	Medium	11.40
562	Long	11.40
563	9 Prong	11.63

MINIATURE WAFER SOCKETS

Miniature bakelite sockets with brass cadmium plated contacts. XP bottom top plate 1/16" thick, bottom plate 3/64" thick; high grade spring brass cadmium plated contact: .095 dia. mounting holes. Std. Pkg. 50

No.	Description	MTG. Cen.	NET Per C
880	Eyelet only	7/8"	\$7.00
881	Eyelet and Shield	7/8"	6.90
882	Grid Strap and Shield	7/8"	7.50
887	Eyelet only	1"	7.00
888	Eyelet and Shield	1"	6.90
889	Grid Strap and Shield	1"	8.00

MOLDED MINIATURE SOCKETS

Saddle Type Moulded from either high dielectric black general purpose bakelite or low loss mica-filled bakelite. Both types supplied with center pin. .098 dia. mtg. holes. Std. Pkg. 50

GENERAL PURPOSE BLACK BAKELITE			
No.	Type	Pin	MTG. Cen.
895	Bottom Mount	7	3/8"
896	Top Mount	7	3/8"
897	Bottom Mount	9	1 1/2"
898	Top Mount	9	1 1/2"

LOW LOSS MICA-FILLED BAKELITE

No.	Type	Pin	MTG. Cen.	NET Per C
883	Bottom Mount	7	3/8"	\$8.00
884	Top Mount	7	3/8"	8.00
885	Bottom Mount	9	1 1/2"	10.80
886	Top Mount	9	1 1/2"	10.80

CRYSTAL SOCKET

Suitable for Citizen's Band

Glazed ceramic base. Phosphor bronze alloy silver plated contacts spaced .485". Pin diameter .051. mtg. hole .125. Std. Pkg. 25

NET Per C \$15.00

COOLING FAN

An exceptionally efficient fan for cooling tubes, rectifiers, etc. for Industrial equipment. Amateur Transmitters, and other devices requiring assisted convection flow of air. Permits more efficient RF shielding of equipment without depending on convection cooling. Shaded pole induction motor with Nylon Fan Blade runs 3000 RPM on 105-125 Volts, 60 cycle AC. Blade diameter 2 1/4", over-all size 3 1/4" x 2 1/4" x 3". Mounts either horizontally or vertically. Supplied complete with two 6-32 x 1 1/4" screws and nuts, and two 1" fibre standoffs. NET Each \$4.40

INSTRUMENT CASES AND COVERS

Ideal for small instruments and test equipment. The right size and the right mounting for your requirements. Molded of high quality, glass finish, thermosetting plastic. Threaded brass insert for cover mounting. BLACK ONLY. Std. Pkg. 5

No.	H	W	D	Insert	Net Ea.
2255	6-1/4"	x 3-3/4"	x 2"	6-32	\$1.03
2257	6-13/16"	x 5-9/32"	x 2-5/16"	4-36	1.28
2289	8-1/2"	x 7-7/16"	x 3"	6-32	2.40
2377	4"	x 2-7/8"	x 1-9/16"	4-40*	.43

*Tapped hole only (no insert).

COVERS			
No.	Type	Net Ea.	
2256	For No. 2255	.59	
2260	For No. 2257	.80	
2390	For No. 2289	1.50	
2378	For No. 2377	.30	

PANEL PLATE

Brushed and laquered Aluminum

For No. 2255

1.00

GRID CAPS

No.	Type	NET Per C
1450	Std. Pkg. 100	
1451	3/4" Glass Tubes	\$1.20
1452	3/4" Mini Tubes	1.20

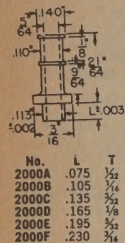
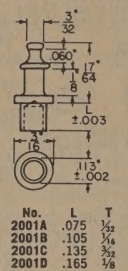
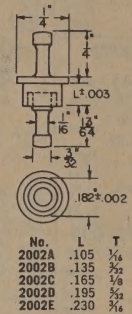
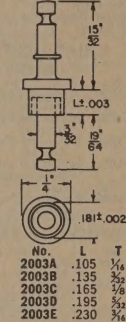
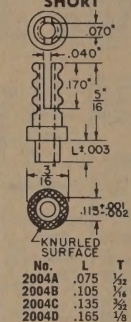
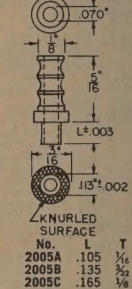
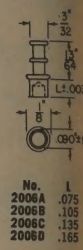
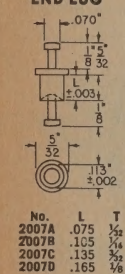
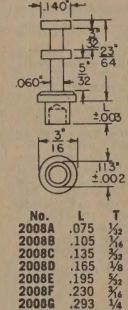
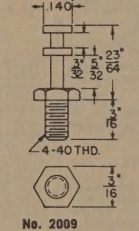
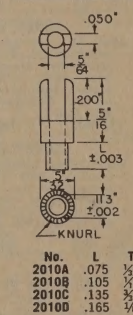
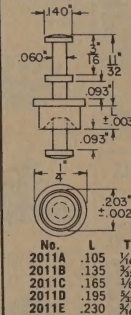
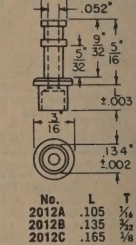
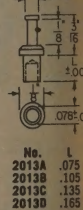
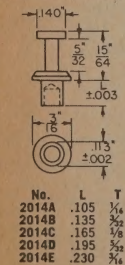
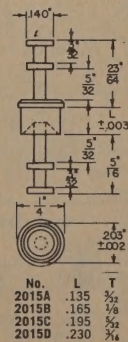
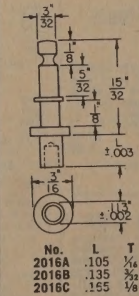
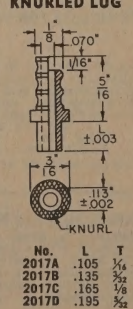
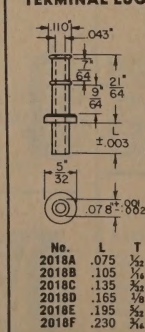
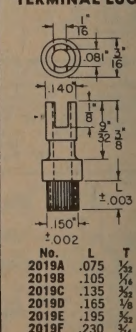
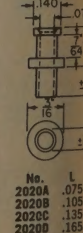
specify

SMITH

HERMAN H. SMITH, INC.

ELECTRONIC
COMPONENTS**SWAGE TURRET TERMINALS**

Terminals shown below are "stock" items, available for speedy delivery. All brass, silver-plated, precision made. See next page for Suggested Resale Prices. For quantities over 15,000 request special prices. Inquiries are invited, for special types and sizes to particular requirements. L indicates Shank Length of Lug. T indicates Thickness of mounting boards

2000**HOLLOW LUG****2001****SHORT
TERMINAL LUG****2002****DOUBLE END
TERMINAL LUG****2003****DOUBLE END
LUG, LONG****2004****SLOTTED
TERMINAL LUG
SHORT****2005****HOLLOW
KNURLED LUG****2006****SHORT
TERMINAL LUG****2007****SHORT DOUBLE
END LUG****2008****TERMINAL LUG****2009****TERMINAL LUG****2010****SPLIT
TERMINAL LUG****2011****DOUBLE END
TERMINAL LUG****2012****TERMINAL LUG****2013****TERMINAL LUG****2014****TERMINAL LUG****2015****TERMINAL LUG****2016****TERMINAL LUG****2017****HOLLOW
KNURLED LUG****2018****HOLLOW
TERMINAL LUG****2019****SPLIT
TERMINAL LUG****2020****TERMINAL LUG**

specify **SMITH**

HERMAN H. SMITH, INC.

ELECTRON
COMPONENTS

BODY: Pure virgin Teflon, meeting all requirements of MIL-P-19468 and AMS Specification 3651B.

TERMINALS: Precision machined of brass, meeting specification QQ-B-626, Composition 22, and gold-plated for maximum solderability and resistance to corrosion and tarnish.

DESCRIPTION: Terminals are easily inserted into punched or drilled holes, and are self-locking.

— Miniature and sub-miniature sizes allow for maximum space utilization.

— Excellent resistance to thermal and mechanical shock, vibration, corrosive atmospheres, moisture absorption.

— Exceptionally high dielectric strength for use well up into Kilovolt region, depending on size and design.

COLOR CODE SUFFIX (add to catalog number as required).

— 101 WHITE* — 104 GREEN — 107 YELLOW — 112 PURPLE
— 102 RED — 105 BLUE — 108 BROWN — 113 GREY
— 103 BLACK — 106 ORANGE

*White is natural Teflon, and will be supplied if no color is specified. Coloring does not affect electrical, mechanical, thermal or physical characteristics of Teflon.

REVERSED STYLES: Most popular types are listed below. We can supply most standard types REVERSED on request. Send us your requirements for ANY style not shown and we will advise at once on availability.

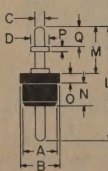
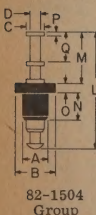
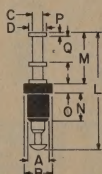
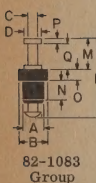
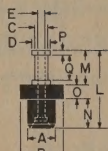
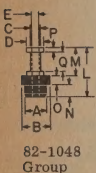
NOTE: While this listing contains latest specifications on our Teflon Terminals, industry demands may create changes and revisions. We urge that you contact our Engineering Department before proceeding with prototype design or production.

FEED THRU, SUBMINIATURE

Cat. No.	DIMENSIONS												RESALE PER THOUSAND IN LOTS			
	A	B	C	D	E	L	M	N	O	P	Q	R	1-99	100-499	500-999	1000

FEED THRU, SUBMINIATURE, TUBULAR

82-1048	.263	.297	.060	.090	.030	.333	.133	.160	.040	.020	.093	—	\$140.00	\$119.00	\$105.00	\$93.00
82-1049	.125	.150	.060	.090	.030	.273	.133	.080	.060	.020	—	—	130.00	110.00	97.50	86.00
82-1054	.148	.172	.060	.090	.030	.273	.133	.100	.040	.020	—	—	120.00	102.00	90.00	80.00
82-1092	.148	.172	.060	.090	.030	.303	.133	.130	.040	.020	—	—	120.00	102.00	90.00	80.00
82-1093	.148	.172	.060	.093	.040	.238	.133	.065	.040	.020	.093	—	120.00	102.00	90.00	80.00
82-1096	.148	.172	.060	.093	.030	.293	.133	.110	.050	.020	.093	—	130.00	110.00	97.50	86.00
82-1103	.125	.150	.060	.090	.030	.273	.133	.100	.040	.020	.093	—	130.00	110.00	97.50	86.00
82-1118	.125	.150	.060	.090	.030	.293	.133	.110	.050	.020	—	—	150.00	126.00	120.00	108.00
82-1119	.093	.125	.040	.080	.030	.215	.125	.050	.040	.020	—	—	130.00	110.00	97.50	86.00
82-1120	.125	.150	.060	.090	.030	.293	.133	.060	.040	.020	—	—	120.00	102.00	90.00	80.00
82-1122	.125	.150	.060	.090	.030	.200	.090	.060	.050	.020	.050	—	150.00	112.50	100.00	97.50
82-1150	.218	.250	.060	.090	.030	.273	.133	.075	.060	.020	—	—	130.00	110.00	97.50	86.00



FEED THRU, SUBMINIATURE, TUBULAR

82-1050	.148	.172	.060	.090	.030	.303	.133	.100	.040	.020	.093	—	\$120.00	\$102.00	\$90.00	\$80.00
82-1051	.148	.172	.060	.090	.030	.333	.133	.110	.050	.020	.093	—	130.00	110.00	97.50	86.00
82-1055	.148	.172	.082	.125	.062	.411	.133	.125	.093	.020	—	—	130.00	110.00	97.50	86.00
82-1104	.125	.150	.060	.090	.030	.303	.133	.080	.060	.020	—	—	130.00	110.00	97.50	86.00

FEED THRU, SUBMINIATURE, SINGLE TURRET

82-1083	.148	.172	.040	.093	—	.385	.160	.100	.040	.020	.130	—	\$130.00	\$110.00	\$97.50	\$86.00
82-1513	.148	.172	.040	.080	—	.350	.125	.100	.040	.020	.095	—	80.00	68.00	60.00	53.00
82-1540	.093	.125	.040	.080	—	.350	.125	.100	.040	.020	.085	—	110.00	93.50	82.50	73.00
82-1550	.148	.172	.040	.080	—	.380	.090	.100	.040	.020	.060	—	110.00	93.50	82.50	73.00

FEED THRU, SUBMINIATURE, TURRET

82-1500	.148	.172	.040	.080	—	.500	.210	.100	.040	.020	.100	—	\$ 75.00	\$ 63.70	\$ 56.20	\$ 50.00
82-1501	.148	.172	.040	.080	—	.500	.210	.165	.040	.020	.100	—	80.00	68.00	60.00	53.00
82-1502	.179	.200	.040	.080	—	.500	.210	.100	.040	.020	.100	—	130.00	110.00	97.50	86.00
82-1509	.148	.172	.040	.080	—	.438	.210	.100	.040	.020	.100	—	100.00	85.00	75.00	66.00
82-1515	.185	.218	.040	.080	—	.438	.210	.100	.040	.020	.100	—	130.00	110.00	97.50	86.00
82-1516	.093	.125	.040	.080	—	.500	.210	.100	.040	.020	.100	—	100.00	85.00	75.00	66.00
82-1527	.148	.172	.040	.080	—	.609	.210	.158	.093	.020	.100	—	130.00	110.00	97.50	86.00
82-1532	.148	.172	.040	.080	—	.609	.210	.165	.040	.020	.100	—	130.00	110.00	97.50	86.00
82-1537	.148	.172	.040	.080	—	.550	.245	.125	.040	.020	.070	—	120.00	102.00	90.00	80.00
82-1538	.148	.172	.040	.080	—	.812	.210	.165	.040	.020	.100	—	130.00	110.00	97.50	86.00
82-1539	.148	.172	.040	.080	—	.438	.210	.083	.040	.020	.100	—	100.00	85.00	75.00	66.00
82-1551	.116	.172	.040	.080	—	.500	.210	.100	.040	.020	.100	—	110.00	93.50	82.50	73.00
83-1501	.234	.250	.040	.080	—	.500	.210	.100	.040	.020	.100	—	120.00	102.00	90.00	80.00

FEED THRU, SUBMINIATURE, TURRET

82-1504	.148	.172	.040	.080	—	.531	.210	.100	.040	.020	.100	—	\$110.00	\$ 93.50	\$ 82.50	\$ 73.00
82-1505	.148	.172	.040	.080	—	.531	.210	.125	.040	.020	.100	—	110.00	93.50	82.50	73.00
82-1506	.185	.218	.040	.080	—	.531	.210	.100	.040	.020	.100	—	110.00	93.50	82.50	73.00
82-1507	.185	.218	.040	.080	—	.531	.210	.125	.040	.020	.100	—	110.00	93.50	82.50	73.00
82-1512	.148	.172	.040	.080	—	.609	.210	.125	.093	.020	.100	—	110.00	93.50	82.50	73.00
82-1514	.152	.172	.047	.093	—	.500	.158	.150	.040	.020	.047	—	120.00	102.00	90.00	80.00
82-1518	.148	.172	.040	.080	—	.531	.210	.060	.040	.020	.100	—	110.00	93.50	82.50	73.00
82-1519	.112	.172	.040	.080	—	.531	.210	.100	.040	.020	.100	—	110.00	93.50	82.50	73.00
82-1520	.175	.218	.040	.080	—	.531	.210	.100	.040	.020	.100	—	120.00	102.00	90.00	80.00
82-1521	.125	.150	.040	.080	—	.500	.210	.060	.040	.020	.100	—	120.00	102.00	90.00	80.00
82-1523*	.148	.172	.040	.080	—	.531	.210	.100	.040	.020	.100	—	110.00	93.50	82.50	73.00
82-1532	.148	.172	.040	.080	—	.609	.210	.165	.040	.020	.100	—	100.00	85.00	75.00	66.00
82-1534	.185	.218	.040	.080	—	.609	.210	.125	.093	.020	.100	—	140.00	119.00	105.00	93.00
82-1536	.148	.172	.040	.080	—	.685	.395	.065	.040	.020	.070	—	120.00	102.00	90.00	80.00
82-1546	.152	.172	.047	.093	—	.437	.156	.088	.040	.020	.047	—	120.00	102.00	90.00	80.00
82-1547	.152	.172	.047	.093	—	.437	.156	.100	.040	.020	.047	—	120.00	102.00	90.00	80.00
83-1500	.264	.312	.040	.080	—	.531	.210	.100	.040	.020	.100	—	140.00	119.00	105.00	93.00

* No ball on end

FEED THRU, SUBMINIATURE

82-1544	.148	.172	.040	.080	—	.500	.210	.100	.040	.020	.120	—	\$110.00	\$ 93.50	\$ 82.50	\$ 73.00
82-1545	.148	.172	.040	.080	—	.500	.210	.100	.040	.020	.120	—	110.00	93.50	82.50	73.00



FEED THRU, SUBMINIATURE

Cat. No.	DIMENSIONS												RETAIL PER THOUSAND IN LOTS OF			
	A	B	C	D	E	L	M	N	O	P	Q	R	1-99	100-499	500-999	1000-UP
FEED THRU, SUBMINIATURE																
82-1510	.148	.172	.040	.080	—	.443	.093	.100	.040	.020	.062	—	\$120.00	\$102.00	\$ 90.00	\$ 80.00
82-1524	.125	.150	.040	.080	—	.350	.125	.060	.040	.020	.095	—	120.00	102.00	90.00	80.00
82-1525	.172	.200	.048	.090	—	.500	.120	.125	.075	.020	.080	—	140.00	119.00	105.00	93.30
82-1541	.172	.200	.080	.125	—	.500	.120	.125	.075	.020	.080	—	140.00	119.00	105.00	93.30
82-1542	.148	.172	.040	.080	—	.493	.093	.170	.020	.020	.063	—	110.00	93.50	82.50	73.30
82-1557	.148	.172	.040	.080	—	.640	.250	.125	.040	.020	.210	—	110.00	93.50	82.50	73.30

FEED THRU, SUBMINIATURE, REVERSED

28-1002	.148	.172	.040	—	—	.515	.210	.050	.050	—	—	—	\$120.00	\$102.00	\$ 90.00	\$ 80.00
28-1003	.148	.172	.040	—	—	.515	.210	.100	.040	—	—	—	80.00	68.00	60.00	53.30
28-1086	.148	.172	.040	—	—	2.500	1.750	.132	.040	—	—	—	150.00	127.50	112.50	100.00

FEED THRU, SUBMINIATURE, REVERSED TUBULAR

28-1016	.148	.172	.082	.125	.062	.351	.133	.125	.093	.020	.093	—	\$120.00	\$102.00	\$ 90.00	\$ 80.00
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FEED THRU, SUBMINIATURE, REVERSED TUBULAR

28-1050	.148	.172	.060	.093	.030	.333	.133	.100	.040	.020	.093	—	\$130.00	\$110.00	\$ 97.50	\$ 86.60
28-1128	.148	.172	.060	.093	.030	.273	.133	.100	.040	.020	.093	—	130.00	110.00	97.50	86.60
28-1130	.148	.172	.060	.093	.030	.333	.133	.130	.040	.020	—	—	160.00	136.00	120.00	106.60

FEED THRU, MINIATURE, TUBULAR, REVERSED

28-1017	.148	.172	.085	—	.063	.367	.207	.110	.050	—	—	—	\$120.00	\$102.00	\$ 90.00	\$ 80.00
28-1034	.148	.172	.040	—	.030	.310	.207	.053	.050	—	—	—	120.00	102.00	90.00	80.00
28-1035	.148	.172	.040	—	.030	.250	.147	.053	.050	—	—	—	130.00	110.00	97.50	86.60
28-1038	.148	.172	.040	—	.030	.296	.136	.100	.060	—	—	—	120.00	102.00	90.00	80.00
28-1041	.171	.218	.085	—	.063	.367	.207	.110	.050	—	—	—	120.00	102.00	90.00	80.00
28-1088	.125	.155	.050	—	.030	.193	.105	.063	.025	—	—	—	140.00	119.00	105.00	93.30
28-1123	.148	.172	.040	—	.030	.245	.147	.053	.045	—	—	—	130.00	110.00	97.50	86.60
28-1124	.125	.150	.040	—	.030	.225	.125	.075	.025	—	—	—	110.00	93.50	82.50	73.30
28-1126	.125	.150	.040	—	.030	.247	.147	.075	.025	—	—	—	130.00	110.00	97.50	86.60
28-1127	.148	.172	.080	—	.052	.193	.105	.063	.025	—	—	—	120.00	102.00	90.00	80.00

FEED THRU, SUBMINIATURE, REVERSED TUBULAR

28-1052	.177	.188	.090	.125	.062	.381	.133	.155	.093	.020	.093	—	\$130.00	\$110.00	\$ 97.50	\$ 86.60
28-1060	.148	.172	.060	.093	.042	.392	.162	.130	.100	.020	.130	—	160.00	136.00	120.00	106.60

FEED THRU, SUBMINIATURE, REVERSED

28-1510	.148	.172	.040	.080	—	.443	.093	.100	.040	.020	.062	—	\$110.00	\$ 93.50	\$ 82.50	\$ 73.30
28-1511	.148	.172	.040	.080	—	.493	.093	.180	.040	.020	.062	—	130.00	110.00	97.50	86.60
28-1513	.148	.172	.040	.080	—	.350	.125	.100	.040	.020	.094	—	110.00	93.50	82.50	73.30
28-1549	.148	.172	.040	.080	—	.500	.120	.130	.040	.020	.080	—	110.00	93.50	82.50	73.30

FEED THRU, SUBMINIATURE, REVERSED

28-1545	.148	.172	.040	.080	—	.500	.210	.100	.040	.020	.120	—	\$120.00	\$102.00	\$ 90.00	\$ 80.00
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FEED THRU, SUBMINIATURE, REVERSED TURRET

28-1085	.148	.172	.040	.080	—	.531	.210	.125	.040	.020	.100	—	\$130.00	\$110.00	\$ 97.50	\$ 86.60
28-1500	.148	.172	.040	.080	—	.500	.210	.100	.040	.020	.100	—	110.00	93.50	82.50	73.30
28-1504	.148	.172	.040	.080	—	.531	.210	.100	.040	.020	.100	—	120.00	102.00	90.00	80.00
28-1507	.185	.218	.040	.080	—	.531	.210	.125	.040	.020	.100	—	120.00	102.00	90.00	80.00
28-1512	.148	.172	.040	.080	—	.609	.210	.125	.093	.020	.100	—	120.00	102.00	90.00	80.00
28-1516	.093	.125	.040	.080	—	.500	.210	.100	.040	.020	.100	—	120.00	102.00	90.00	80.00
28-1521	.125	.150	.040	.080	—	.500	.210	.060	.040	.020	.100	—	140.00	119.00	105.00	93.30
28-1533	.148	.172	.040	.080	—	.609	.210	.165	.040	.020	.100	—	140.00	119.00	105.00	93.30
28-1550	.148	.172	.040	.080	—	.531	.210	.165	.040	.020	.100	—	130.00	110.00	97.50	86.60

FEED THRU, MINIATURE

Cat. No.	DIMENSIONS												RETAIL PER THOUSAND IN LOTS OF			
	A	B	C	D	E	L	M	N	O	P	Q	R	1-99	100-499	500-999	1000-UP
FEED THRU, MINIATURE																
83-1000	.165	.187	.040	—	—	.675	.200	.150	.125	—	—	—	\$160.00	\$136.00	\$120.00	\$106.60
83-1537	.148	.172	.040	—	—	.619	.187	.105	.140	—	—	—	150.00	127.50	112.50	100.00
83-1538	.171	.187	.046	—	—	.540	.133	.171	.063	—	—	—	140.00	119.00	105.00	93.30
83-1543	.171	.187	.063	—	—	.740	.125	.212	.187	—	—	—	170.00	144.50	127.50	113.30
83-1549	.171	.187	.050	—	—	.865	.125	.275	.250	—	—	—	200.00	170.00	150.00	133.30

FEED THRU, MINIATURE, TURRET

83-1515	.185	.218	.062	.125	—	.828	.281	.210	.094	.031	.093	—	\$150.00	\$127.50	\$112.50	\$100.00
83-1516	.171	.187	.062	.125	—	.828	.281	.200	.125	.031	.093	—	140.00	119.00	105.00	93.30
83-1542	.185	.218	.062	.125	—	.828	.281	.212	.127	.031	.093	—	200.00	170.00	150.00	133.30

specify

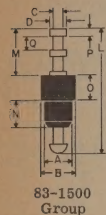
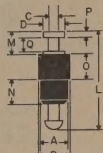
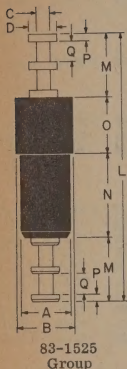
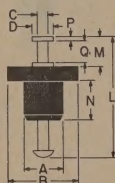
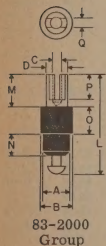
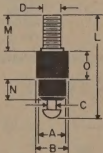
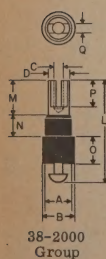
SMITH

HERMAN H. SMITH, INC.

ELECTRICAL
COMPONENTS**FEED THRU, MINIATURE**Cat.
No.

DIMENSIONS

A B C D E L M N O P Q R

RESALE PER THOUSAND IN LOTS
1- 99 100- 499 500- 99983-1500
Group83-1502
Group83-1525
Group83-1531
Group83-2000
Group83-2500
Group38-2000
Group**FEED THRU, MINIATURE, TURRET**

83-1500	.264	.312	.040	.080	-	.531	.210	.100	.040	.020	.100	-	\$140.00	\$119.00	\$105.00	\$
83-1501	.234	.250	.040	.080	-	.500	.210	.100	.040	.020	.100	-	120.00	102.00	90.00	8
83-1503	.148	.172	.040	.093	-	.836	.250	.165	.187	.020	.095	-	140.00	119.00	105.00	8
83-1510	.148	.172	.040	.093	-	.836	.250	.230	.125	.020	.095	-	150.00	127.50	112.50	10
83-1511	.171	.187	.040	.093	-	.836	.250	.212	.187	.020	.095	-	150.00	127.50	112.50	10
83-1512	.204	.250	.040	.093	-	.836	.250	.212	.187	.020	.095	-	180.00	153.00	135.00	12
83-1513	.230	.250	.040	.093	-	.836	.250	.212	.187	.020	.095	-	250.00	212.50	187.50	16
83-1524	.171	.187	.050	.093	-	.836	.250	.150	.250	.020	.093	-	180.00	153.00	135.00	12
83-1544	.165	.187	.050	.093	-	.836	.250	.212	.187	.020	.093	-	180.00	153.00	135.00	12
83-1553	.171	.187	.050	.093	-	1.337	.281	.400	.375	.031	.093	-	250.00	212.50	187.50	16

FEED THRU, MINIATURE, TURRET

83-1502	.171	.187	.046	.093	-	.540	.133	.171	.063	.020	.093	-	\$110.00	\$ 93.50	\$ 82.50	\$
83-1503	.185	.215	.046	.093	-	.640	.133	.210	.093	.020	.093	-	180.00	153.00	135.00	12
83-1504	.171	.187	.050	.093	-	.740	.125	.212	.187	.031	.062	-	140.00	119.00	105.00	8
83-1505	.171	.187	.050	.093	-	.740	.125	.150	.250	.031	.062	-	160.00	136.00	120.00	10
83-1506	.171	.187	.050	.093	-	.865	.125	.275	.250	.031	.062	-	150.00	127.50	112.50	10
83-1507	.171	.187	.050	.125	-	1.115	.125	.400	.375	.031	.062	-	240.00	204.00	180.00	16
83-1508	.217	.250	.050	.125	-	1.365	.125	.525	.500	.031	.062	-	310.00	263.50	232.50	20
83-1514	.217	.250	.050	.125	-	1.965	.125	.825	.800	.031	.062	-	440.00	374.00	330.00	28
83-1519	.185	.215	.046	.093	-	.718	.133	.288	.093	.020	.093	-	170.00	144.50	127.50	10
83-1520	.171	.250	.050	.093	-	.740	.125	.212	.187	.031	.062	-	180.00	153.00	135.00	12
83-1521	.171	.187	.050	.125	-	1.115	.125	.212	.562	.031	.062	-	240.00	204.00	180.00	16
83-1522	.171	.250	.050	.125	-	1.365	.125	.525	.500	.031	.062	-	300.00	255.00	225.00	20
83-1523	.171	.250	.050	.125	-	1.965	.125	.825	.800	.031	.062	-	440.00	374.00	330.00	28
83-1540	.171	.187	.050	.093	-	.740	.125	.125	.187	.031	.062	-	180.00	153.00	135.00	12
83-1551	.171	.187	.050	.125	-	1.115	.125	.318	.365	.031	.062	-	200.00	170.00	150.00	12
83-1552	.171	.187	.050	.125	-	1.115	.125	.340	.375	.031	.062	-	200.00	170.00	150.00	12

FEED THRU, MINIATURE, DOUBLE TURRET

83-1529	.218	.250	.062	.125	-	1.187	.281	.375	.250	.031	.093	-	\$200.00	\$170.00	\$150.00	\$1
83-1526	.218	.250	.062	.125	-	1.687	.281	.625	.500	.031	.093	-	350.00	297.50	262.50	2
83-1527	.218	.250	.062	.125	-	2.287	.281	.925	.800	.031	.093	-	470.00	399.50	352.50	3

FEED THRU, MINIATURE

83-1531	.171	.312	.125	.188	-	.506	.099	.171	.063	.020	.048	-	\$140.00	\$119.00	\$105.00	\$
83-1532	.171	.312	.046	.093	-	.540	.133	.171	.063	.020	.093	-	150.00	127.50	112.50	1

FEED THRU, MINIATURE, SLOTTED LUG

83-2000	.171	.187	.078	.148	-	.821	.203	.212	.187	.156	.046	-	\$160.00	\$136.00	\$120.00	\$1
83-2001	.171	.187	.046	.148	-	.821	.203	.212	.187	.156	.030	-	200.00	170.00	150.00	1
83-2002	.171	.187	.078	.148	-	.947	.203	.275	.250	.156	.046	-	190.00	161.50	142.50	1
83-2003	.171	.187	.046	.148	-	.947	.203	.275	.250	.156	.030	-	210.00	178.50	157.50	1
83-2004	.171	.187	.078	.148	-	1.197	.203	.400	.375	.156	.046	-	260.00	221.00	195.00	1
83-2005	.171	.187	.046	.148	-	1.197	.203	.400	.375	.156	.030	-	270.00	229.50	202.50	1
83-2006	.171	.187	.078	.148	-	1.197	.203	.550	.225	.150	.046	-	260.00	221.00	195.00	1
83-2007	.171	.187	.078	.148	-	1.197	.203	.525	.250	.156	.046	-	260.00	221.00	195.00	1

FEED THRU, MINIATURE, THREADED LUG

83-2500	.171	.187	.050	4-36 *	-	.899	.281	.212	.187	-	-	-	\$200.00	\$170.00	\$150.00	\$1
83-2501	.171	.187	.050	4-40 *	-	.899	.281	.212	.187	-	-	-	210.00	178.50	157.50	1
83-2502	.171	.187	.050	4-36 *	-	1.024	.281	.212	.250	-	-	-	240.00	204.00	180.00	1
83-2503	.171	.187	.050	4-40 *	-	1.024	.281	.212	.250	-	-	-	240.00	204.00	180.00	1
83-2504	.171	.187	.050	4-36 *	-	1.274	.281	.212	.375	-	-	-	300.00	255.00	225.00	2
83-2505	.171	.187	.050	4-40 *	-	1.274	.281	.212	.375	-	-	-	300.00	255.00	225.00	2

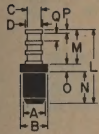
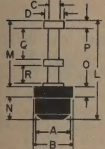
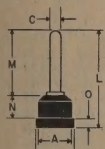
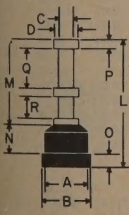
* Thread Size

FEED THRU, MINIATURE, REVERSED, SLOTTED LUG

38-2000	.171	.187	.078	.148	-	.821	.203	.212	.187	.156	.046	-	\$220.00	\$187.00	\$165.00	\$1
38-2001	.171	.187	.046	.148	-	.821	.203	.212	.187	.156	.030	-	140.00	118.00	105.00	1
38-2002	.171	.187	.078	.148	-	.947	.203	.275	.250	.156	.046	-	240.00	204.00	180.00	1
38-2003	.171	.187	.046	.148	-	.947	.203	.275	.250	.156	.030	-	150.00	127.50	112.50	1
38-2004	.171	.187	.078	.148	-	1.197	.203	.400	.375	.156	.046	-	300.00	255.00	225.00	2
38-2005	.171	.187	.046	.148	-	1.197	.203	.400	.375	.156	.030	-	300.00	255.00	225.00	2
38-2006	.171	.187	.078	.148	-	1.197	.203	.550	.225	.156	.046	-	270.00	229.50	202.50	1
38-2007	.171	.187	.078	.148	-	1.197	.203	.525	.250	.156	.046	-	270.00	229.50	202.50	1



STANDOFF, MICROMINIATURE

92-1515
Group91-1500
Group19-1003
Group19-1500
Group

Cat.

No. A B C D E L M N O P Q R

DIMENSIONS

RETAIL PER THOUSAND IN LOTS OF

1- 99 100- 499 500- 999 1000- UP

STANDOFF, MICROMINIATURE, TURRET

92-1515	.093	.125	.068	.078	—	.344	.153	.140	.040	.015	.031	—	\$100.00	\$ 85.00	\$ 75.00	\$ 66.60
92-1516	.093	.125	.068	.078	—	.255	.150	.075	.030	.015	.031	—	110.00	93.50	82.50	73.30

STANDOFF, MICROMINIATURE, TURRET

91-1500	.093	.125	.030	.060	—	.310	.170	.100	.040	.020	.060	—	\$110.00	\$ 93.50	\$ 82.50	\$ 73.30
92-1500	.148	.172	.040	.080	—	.350	.210	.100	.040	.020	.100	—	70.00	59.50	52.50	46.60
92-1501	.148	.172	.040	.080	—	.375	.210	.125	.040	.020	.100	—	100.00	85.00	75.00	66.60
92-1502	.179	.200	.040	.080	—	.350	.210	.100	.040	.020	.100	—	120.00	102.00	90.00	80.00
92-1503	.185	.218	.040	.080	—	.375	.210	.125	.040	.020	.100	—	110.00	93.50	82.50	73.30
92-1504	.148	.172	.046	.093	—	.334	.154	.140	.040	.020	.046	—	110.00	93.50	82.50	73.30
92-1505	.148	.172	.040	.080	—	.428	.210	.125	.093	.020	.100	—	110.00	93.50	82.50	73.30
92-1506	.148	.172	.040	.093	—	.455	.250	.165	.040	.020	.093	—	110.00	93.50	82.50	73.30
92-1507	.148	.172	.040	.080	—	.500	.210	.250	.040	.020	.100	—	110.00	93.50	82.50	73.30
92-1508	.185	.218	.040	.080	—	.350	.210	.100	.040	.020	.100	—	110.00	93.50	82.50	73.30
92-1512	.148	.172	.040	.093	—	.540	.250	.250	.040	.020	.093	—	110.00	93.50	82.50	73.30
92-1519	.148	.172	.046	.093	—	.254	.154	.060	.040	.020	.046	—	100.00	85.00	75.00	66.60
92-1524	.148	.172	.040	.080	—	.461	.210	.158	.093	.020	.100	—	120.00	102.00	90.00	80.00
92-1526	.204	.250	.040	.080	—	.350	.210	.100	.040	.020	.100	—	120.00	102.00	90.00	80.00
92-1528	.093	.125	.040	.080	—	.350	.210	.100	.040	.020	.100	—	110.00	93.50	82.50	73.30
92-1531	.152	.172	.047	.093	—	.346	.156	.150	.040	.020	.047	—	120.00	102.00	90.00	80.00
92-1532	.152	.172	.047	.093	—	.296	.156	.100	.040	.020	.047	—	100.00	85.00	75.00	66.60
92-1533	.152	.172	.047	.093	—	.351	.156	.165	.040	.020	.047	—	120.00	102.00	90.00	80.00
92-1534	.152	.172	.047	.093	—	.335	.207	.088	.040	.020	.100	—	100.00	85.00	75.00	66.60
92-1535	.152	.172	.047	.093	—	.347	.207	.100	.040	.020	.100	—	100.00	85.00	75.00	66.60
92-1540	.130	.172	.040	.093	—	.480	.250	.190	.040	.020	.093	—	130.00	110.00	97.50	86.60

STANDOFF, MICROMINIATURE, REVERSED

19-1003	.104	.125	.040	—	—	.250	.130	.089	.031	—	—	—	\$110.00	\$ 93.50	\$ 82.50	\$ 73.30
19-1000	.148	.172	.040	—	—	.350	.210	.100	.040	—	—	—	80.00	68.00	60.00	53.30
19-1001	.148	.172	.040	—	—	.375	.210	.110	.050	—	—	—	85.00	72.20	63.70	56.60
19-1003	.172	.195	.040	—	—	.350	.210	.100	.040	—	—	—	110.00	93.50	82.50	73.30
19-1004	.179	.200	.040	—	—	.350	.210	.100	.040	—	—	—	110.00	93.50	82.50	73.30
19-1005	.218	.250	.040	—	—	.350	.210	.100	.040	—	—	—	130.00	110.00	97.50	86.60
19-1006	.148	.172	.040	—	—	.345	.210	.075	.060	—	—	—	100.00	85.00	75.00	66.60
19-1007	.148	.172	.040	—	—	.370	.210	.120	.040	—	—	—	90.00	76.50	67.50	60.00
19-1008	.148	.172	.040	—	—	.350	.210	.062	.078	—	—	—	110.00	93.50	82.50	73.30
19-1009	.148	.172	.040	—	—	.406	.210	.156	.040	—	—	—	85.00	72.20	63.70	56.60
19-1010	.148	.172	.040	—	—	.500	.210	.250	.040	—	—	—	130.00	110.00	97.50	86.60
19-1016	.148	.172	.040	—	—	.265	.125	.100	.040	—	—	—	110.00	93.50	82.50	73.30
19-1019	.148	.172	.040	—	—	.750	.610	.100	.040	—	—	—	140.00	119.00	105.00	93.30
19-1020	.148	.172	.040	—	—	.310	.210	.050	.050	—	—	—	110.00	93.50	82.50	73.30
19-1034	.093	.125	.040	—	—	.350	.210	.100	.040	—	—	—	120.00	102.00	90.00	80.00
19-1060	.148	.172	.040	—	—	.350	.210	.125	.015	—	—	—	110.00	93.50	82.50	73.30
19-1061	.112	.172	.040	—	—	.350	.210	.125	.015	—	—	—	120.00	102.00	90.00	80.00
19-1063	.148	.172	.040	—	—	.330	.210	.074	.046	—	—	—	110.00	93.50	82.50	73.30
19-1066	.093	.125	.040	—	—	.250	.130	.089	.031	—	—	—	110.00	93.50	82.50	73.30
19-1067	.106	.125	.040	—	—	.250	.130	.089	.031	—	—	—	120.00	102.00	90.00	80.00
19-1068	.148	.172	.045	—	—	.382	.210	.132	.040	—	—	—	120.00	102.00	90.00	80.00
19-1069	.148	.172	.040	—	—	.350	.210	.120	.020	—	—	—	110.00	93.50	82.50	73.30
19-1070	.112	.172	.040	—	—	.350	.210	.120	.020	—	—	—	130.00	110.00	97.50	86.60
19-1071	.125	.150	.040	—	—	.310	.210	.060	.040	—	—	—	110.00	93.50	82.50	73.30
19-1072	.148	.172	.040	—	—	.390	.218	.132	.040	—	—	—	110.00	93.50	82.50	73.30

STANDOFF, MICROMINIATURE, REVERSED TURRET

19-1500	.093	.125	.030	.060	—	.310	.170	.100	.040	.020	.060	—	\$110.00	\$ 93.50	\$ 82.50	\$ 73.30
19-1500	.148	.172	.040	.080	—	.350	.210	.100	.040	.020	.100	—	80.00	68.00	60.00	53.30
19-1501	.148	.172	.040	.080	—	.375	.210	.125	.040	.020	.100	—	110.00	93.50	82.50	73.30
19-1502	.179	.200	.040	.080	—	.350	.210	.100	.040	.020	.100	—	120.00	102.00	90.00	80.00
19-1503	.185	.218	.040	.080	—	.375	.210	.125	.040	.020	.100	—	110.00	93.50	82.50	73.30
19-1504	.148	.172	.046	.093	—	.334	.154	.140	.040	.020	.046	—	110.00	93.50	82.50	73.30
19-1505	.148	.172	.040	.080	—	.428	.210	.125	.093	.020	.100	—	110.00	93.50	82.50	73.30
19-1506	.148	.172	.040	.093	—	.455	.250	.165	.040	.020	.093	—	110.00	93.50	82.50	73.30
19-1507	.148	.172	.040	.080	—	.500	.210	.250	.040	.020	.100	—	120.00	102.00	90.00	80.00
19-1508	.185	.218	.040	.080	—	.350	.210	.100	.040	.020	.100	—	110.00	93.50	82.50	73.30
19-1511	.148	.172	.046	.093	—	.295	.156	.100	.040	.020	.046	—	90.00	76.50	67.50	60.00
19-1513	.171	.188	.040	.080	—	.405	.210	.155	.040	.020	.100	—	110.00	93.50	82.50	73.30
19-1526	.204	.250	.040	.080	—	.350	.210	.100	.040	.020	.100	—	120.00	102.00	90.00	80.00

specify SMITH

HERMAN H. SMITH, INC.

ELECTRIC
COMPONENTS

STANDOFFS, SUBMINIATURE

Car. No. **A B C D E L M N O P Q R**

RESALE PER THOUSAND IN LBS.
1- 99 100- 499 500- 999

STANDOFF, SUBMINIATURE

92-1509	.148	.172	.040	.080	—	.328	.210	.078	.040	.020	.120	—	\$100.00	\$ 85.00	\$ 75.00
92-1545	.148	.172	.040	.080	—	.350	.210	.100	.040	.020	.120	—	100.00	85.00	75.00
92-1546	.148	.172	.040	.080	—	.415	.210	.165	.040	.020	.120	—	120.00	102.00	90.00

STANDOFF, SUBMINIATURE, TURRET

92-1514	.148	.172	.070	.109	—	.392	.232	.110	.050	.029	.031	—	\$120.00	\$102.00	\$ 90.00
92-1517	.148	.172	.070	.109	—	.362	.232	.080	.050	.029	.031	—	120.00	102.00	90.00

STANDOFF, SUBMINIATURE

92-1520	.172	.200	.048	.090	—	.320	.120	.125	.075	.020	.080	—	\$110.00	\$ 93.50	\$ 82.50
92-1525	.148	.172	.040	.080	—	.250	.110	.100	.040	.020	.110	—	130.00	110.00	97.50
92-1527	.148	.172	.040	.080	—	.262	.125	.087	.050	.020	.085	—	100.00	85.00	75.00

DOUBLE STANDOFF, SUBMINIATURE

92-3000	.169	.205	.040	—	—	.640	.210	.050	.170	—	—	—	\$180.00	\$153.00	\$135.00
92-3001	.148	.172	.040	—	—	.560	.180	.040	.160	—	—	—	180.00	153.00	135.00
92-3002	.148	.172	.040	—	—	.600	.155	.080	.210	—	—	—	160.00	136.00	120.00
92-3504	.171	.187	.040	—	—	.819	.210	.187	.212	—	—	—	170.00	144.50	127.50
92-3507	.171	.187	.040	—	—	.572	.110	.140	.212	—	—	—	220.00	187.00	165.00
92-3508	.171	.187	.040	—	—	.696	.172	.140	.212	—	—	—	220.00	187.00	165.00
92-3511	.148	.187	.040	—	—	.819	.210	.187	.212	—	—	—	220.00	187.00	165.00
92-3512	.148	.172	.040	—	—	.819	.210	.187	.212	—	—	—	220.00	187.00	165.00
92-3513	.171	.187	.040	—	—	.587	.125	.187	.150	—	—	—	220.00	187.00	165.00

DOUBLE STANDOFF, SUBMINIATURE

92-3500	.169	.205	.040	.080	—	.640	.210	.170	.050	.020	.100	—	\$180.00	\$153.00	\$135.00
92-3500	.171	.187	.040	.080	—	.819	.210	.212	.187	.020	.100	—	170.00	144.50	127.50
92-3501	.218	.250	.046	.125	—	1.187	.281	.375	.250	.031	.093	—	280.00	238.00	210.00
92-3502	.218	.250	.046	.125	—	1.687	.281	.625	.500	.031	.093	—	350.00	287.50	252.50
92-3503	.218	.250	.046	.125	—	2.287	.281	.925	.800	.031	.093	—	400.00	340.00	300.00
92-3505	.187	.218	.040	.080	—	.819	.210	.212	.187	.020	.100	—	190.00	161.50	142.50
92-3509	.148	.187	.040	.080	—	.819	.210	.212	.187	.020	.100	—	220.00	187.00	165.00

STANDOFF, SUBMINIATURE

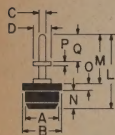
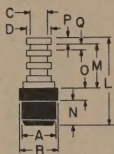
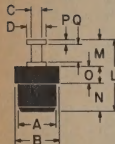
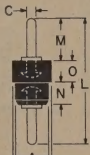
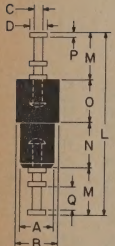
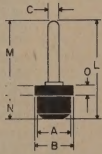
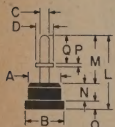
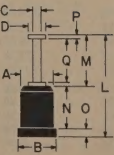
92-1000	.148	.172	.040	—	—	.350	.210	.100	.040	—	—	—	\$ 70.00	\$ 59.50	\$ 52.50
92-1001	.148	.172	.040	—	—	.370	.210	.110	.050	—	—	—	75.00	63.70	56.20
92-1003	.172	.195	.040	—	—	.350	.210	.100	.040	—	—	—	110.00	93.50	82.50
92-1004	.179	.200	.040	—	—	.350	.210	.100	.040	—	—	—	110.00	93.50	82.50
92-1005	.218	.250	.040	—	—	.350	.210	.100	.040	—	—	—	140.00	118.00	105.00
92-1006	.148	.172	.040	—	—	.345	.210	.075	.060	—	—	—	90.00	76.50	67.50
92-1007	.148	.172	.040	—	—	.370	.210	.120	.040	—	—	—	80.00	68.00	60.00
92-1009	.148	.172	.040	—	—	.406	.210	.156	.040	—	—	—	75.00	63.70	56.20
92-1010	.148	.172	.040	—	—	.500	.210	.250	.040	—	—	—	120.00	102.00	90.00
92-1011	.148	.172	.040	—	—	.594	.450	.100	.040	—	—	—	110.00	93.50	80.00
92-1012	.148	.172	.040	—	—	.335	.210	.075	.050	—	—	—	75.00	63.70	56.20
92-1015	.148	.172	.040	—	—	.250	.150	.070	.030	—	—	—	120.00	102.00	90.00
92-1016	.148	.172	.040	—	—	.265	.125	.100	.040	—	—	—	120.00	102.00	90.00
92-1017	.148	.172	.040	—	—	.250	.110	.100	.040	—	—	—	110.00	93.50	82.50
92-1018	.148	.172	.040	—	—	.285	.145	.100	.040	—	—	—	100.00	85.00	75.00
92-1019	.148	.172	.040	—	—	.750	.610	.100	.040	—	—	—	120.00	102.00	90.00
92-1020	.148	.172	.040	—	—	.310	.210	.050	.050	—	—	—	90.00	76.50	67.50
92-1021	.148	.172	.040	—	—	.305	.145	.110	.050	—	—	—	90.00	76.50	67.50
92-1022	.148	.172	.040	—	—	.247	.147	.050	.050	—	—	—	90.00	76.50	67.50
92-1025	.093	.125	.040	—	—	.262	.147	.075	.040	—	—	—	100.00	85.00	75.00
92-1034	.093	.125	.040	—	—	.350	.210	.100	.040	—	—	—	100.00	85.00	75.00
92-1035	.104	.125	.040	—	—	.250	.130	.089	.031	—	—	—	150.00	127.50	112.50
92-1036	.148	.172	.040	—	—	.365	.193	.132	.040	—	—	—	110.00	93.50	82.50
92-1037	.148	.172	.040	—	—	.260	.145	.075	.040	—	—	—	110.00	93.50	82.50
92-1038	.148	.172	.040	—	—	.230	.105	.075	.050	—	—	—	90.00	76.50	67.50
92-1050	.148	.172	.040	—	—	.460	.320	.100	.040	—	—	—	120.00	102.00	90.00
92-1051	.148	.172	.040	—	—	.280	.125	.125	.040	—	—	—	120.00	102.00	90.00
92-1052	.148	.172	.040	—	—	.210	.120	.060	.030	—	—	—	100.00	85.00	75.00
92-1053	.093	.125	.040	—	—	.213	.093	.089	.031	—	—	—	110.00	93.50	82.50
92-1054	.148	.172	.040	—	—	.350	.210	.062	.078	—	—	—	110.00	93.50	82.50
92-1055	.093	.125	.040	—	—	.299	.174	.085	.040	—	—	—	75.00	63.70	56.20

STANDOFF, SUBMINIATURE, REVERSED

29-1509	.148	.172	.040	.080	—	.328	.210	.078	.040	.020	.120	—	\$120.00	\$102.00	\$ 90.00
29-1545	.148	.172	.040	.080	—	.350	.210	.100	.040	.020	.120	—	120.00	102.00	90.00

STANDOFF, SUBMINIATURE, REVERSED

29-1520	.172	.200	.048	.090	—	.320	.120	.125	.075	.020	.080	—	\$120.00	\$102.00	\$ 90.00
29-1521	.148	.172	.040	.080	—	.455	.227	.187	.040	.020	.187	—	120.00	102.00	90.00
29-1525	.148	.172	.040	.080	—	.250	.110	.100	.040	.020	.080	—	110.00	93.50	82.50
29-1562	.148	.172	.040	.080	—	.382	.227	.130	.025	.020	.187	—	120.00	102.00	90.00
29-1563	.148	.172	.046	.093	—	.296	.156	.100	.040	.020	.116	—	120.00	102.00	90.00

92-1509
Group92-1514
Group92-1520
Group92-3000
Group92-3500
Group92-1000
Group29-1509
Group29-1520
Group

specify SMITH

HERMAN H. SMITH, INC.

ELECTRO
COMPONE

STANDOFF, MINIATURE

Cat. No.	DIMENSIONS											RESALE PER THOUSAND IN LOTS OF			
	A	B	C	D	E	L	M	N	O	P	Q	1-99	100-499	500-999	1000 U

DOUBLE STANDOFF, MINIATURE

93-3510	.171	.187	.040	.080	—	.819	.210	.212	.187	.020	.120	—	\$220.00	\$187.00	\$165.00	\$146.00
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STANDOFF, MINIATURE, REVERSED, TURRET

39-1000	.185	.218	.046	.093	—	.487	.154	.287	.046	.020	.046	—	\$100.00	\$ 85.00	\$ 75.00	\$ 86.00
39-1005	.185	.218	.046	.093	—	.583	.250	.287	.046	.020	.093	—	100.00	85.00	75.00	86.00

STANDOFF, MINIATURE, REVERSED

39-1001	.185	.218	.040	—	—	.543	.210	.287	.046	—	—	—	\$100.00	\$ 85.00	\$ 75.00	\$ 66.00
39-1002	.185	.218	.040	—	—	1.133	.800	.333	.046	—	—	—	150.00	127.50	112.50	100.00

STANDOFF, MINIATURE, REVERSED, SLOTTED LUG

39-2000	.171	.187	.078	.148	—	.478	.203	.150	.125	.156	—	—	\$130.00	\$110.00	\$ 97.50	\$ 86.00
39-2001	.171	.187	.078	.148	—	.540	.203	.150	.187	.156	—	—	140.00	119.00	105.00	93.00
39-2002	.171	.187	.078	.148	—	.603	.203	.150	.250	.156	—	—	150.00	127.50	112.50	100.00
39-2003	.171	.187	.078	.148	—	.753	.203	.150	.400	.156	—	—	170.00	144.50	127.50	113.00
39-2004	.217	.250	.078	.148	—	.890	.203	.187	.500	.156	—	—	230.00	195.50	172.50	153.00
39-2005	.217	.250	.078	.148	—	1.190	.203	.187	.800	.156	—	—	310.00	263.50	232.50	208.00

FEED THRU, SUBMINIATURE

Cat. No.	DIMENSIONS											RESALE PER THOUSAND IN LOTS OF			
	A	B	C	D	E	L	M	N	O	P	Q	1-99	100-499	500-999	1000 U

FEED THRU, SUBMINIATURE, TUBULAR

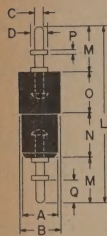
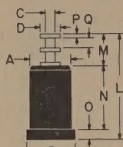
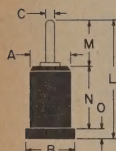
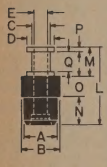
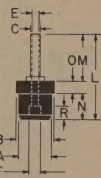
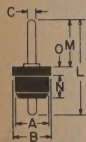
82-1016	.148	.172	.082	.125	.062	.351	.133	.125	.093	.020	.093	—	\$110.00	\$ 93.50	\$ 82.50	\$ 73.00
82-1052	.171	.188	.082	.125	.062	.381	.133	.155	.093	.020	.093	—	140.00	118.00	105.00	93.00

FEED THRU, SUBMINIATURE, TUBULAR

82-1044	.200	.240	.040	.030	.050	.367	.207	.110	.050	—	.057	—	\$140.00	\$119.00	\$105.00	\$ 93.00
82-1045	.218	.250	.060	.030	.050	.287	.147	.100	.040	—	.030	—	140.00	119.00	105.00	93.00
82-1046	.148	.172	.040	.030	.070	.282	.147	.075	.060	—	.042	—	110.00	97.50	86.00	75.00
82-1047	.171	.218	.085	.063	.085	.417	.207	.160	.050	—	.050	—	120.00	102.00	90.00	80.00
82-1085	.148	.172	.040	.030	.050	.387	.207	.110	.050	—	.057	—	130.00	110.00	97.50	86.00
82-1088	.171	.218	.085	.063	.085	.710	.500	.160	.050	—	.050	—	150.00	127.50	112.50	100.00

FEED THRU, MINIATURE

82-1000	.148	.172	.040	—	—	.443	.210	.100	.040	—	—	—	\$ 80.00	\$ 68.00	\$ 60.00	\$ 53.00
82-1001	.148	.172	.040	—	—	.410	.147	.110	.050	—	—	—	100.00	85.00	75.00	66.00
82-1003	.148	.172	.040	—	—	.515	.210	.100	.040	—	—	—	75.00	63.70	56.20	50.00
82-1004	.148	.172	.040	—	—	.535	.210	.110	.050	—	—	—	80.00	68.00	60.00	53.00
82-1005	.179	.200	.040	—	—	.515	.210	.100	.040	—	—	—	120.00	102.00	90.00	80.00
82-1006	.218	.250	.040	—	—	.515	.210	.100	.040	—	—	—	130.00	110.00	97.50	86.00
82-1007	.148	.172	.040	—	—	.535	.210	.120	.040	—	—	—	110.00	93.50	82.50	73.00
82-1008	.148	.172	.040	—	—	.535	.210	.132	.040	—	—	—	110.00	93.50	82.50	73.00
82-1009	.148	.172	.040	—	—	.535	.210	.160	.040	—	—	—	130.00	110.00	97.50	86.00
82-1010	.148	.172	.040	—	—	.725	.210	.100	.040	—	—	—	110.00	93.50	82.50	73.00
82-1011	.148	.172	.040	—	—	1.000	.210	.100	.040	—	—	—	130.00	110.00	97.50	86.00
82-1012	.171	.218	.040	—	—	2.000	.680	.110	.050	—	—	—	140.00	119.00	105.00	93.00
82-1013	.169	.219	.040	—	—	2.500	.460	.100	.040	—	—	—	140.00	119.00	105.00	93.00
82-1014	.169	.219	.040	—	—	2.500	.460	.100	.040	—	—	—	160.00	136.00	120.00	106.00
82-1015	.172	.195	.040	—	—	.515	.210	.100	.040	—	—	—	110.00	93.50	82.50	73.00
82-1018	.125	.150	.040	—	—	.515	.210	.060	.040	—	—	—	110.00	93.50	82.50	73.00
82-1021	.148	.172	.040	—	—	.375	.125	.100	.040	—	—	—	100.00	85.00	75.00	66.00
82-1022	.093	.125	.040	—	—	.515	.210	.100	.040	—	—	—	100.00	85.00	75.00	66.00
82-1023	.093	.125	.040	—	—	.375	.147	.075	.040	—	—	—	100.00	85.00	75.00	66.00
82-1026	.157	.172	.040	—	—	.515	.210	.100	.040	—	—	—	100.00	85.00	75.00	66.00
82-1027	.148	.172	.040	—	—	.515	.210	.132	.040	—	—	—	120.00	102.00	90.00	80.00
82-1028	.148	.172	.040	—	—	.407	.125	.132	.040	—	—	—	110.00	93.50	82.50	73.00
82-1030	.148	.172	.040	—	—	.571	.210	.160	.040	—	—	—	120.00	102.00	90.00	80.00
82-1031	.125	.150	.040	—	—	.335	.125	.060	.040	—	—	—	120.00	102.00	90.00	80.00
82-1033	.148	.172	.045	—	—	.890	.625	.100	.040	—	—	—	140.00	119.00	105.00	93.00
82-1064	.148	.172	.040	—	—	.630	.210	.170	.040	—	—	—	110.00	93.50	82.50	73.00
82-1065	.148	.172	.040	—	—	.630	.210	.217	.040	—	—	—	130.00	110.00	97.50	86.00
82-1067	.148	.172	.040	—	—	.710	.210	.250	.040	—	—	—	130.00	110.00	97.50	86.00
82-1068	.148	.172	.040	—	—	.562	.210	.100	.040	—	—	—	110.00	93.50	82.50	73.00
82-1069	.148	.172	.040	—	—	.431	.106	.110	.050	—	—	—	100.00	85.00	75.00	66.00
82-1070	.172	.195	.040	—	—	.560	.210	.100	.040	—	—	—	120.00	102.00	90.00	80.00
82-1071	.169	.218	.049	—	—	1.875	.125	.100	.040	—	—	—	160.00	136.00	120.00	106.00
82-1072	.169	.218	.049	—	—	.937	.125	.100	.040	—	—	—	160.00	136.00	120.00	106.00
82-1073	.169	.218	.049	—	—	1.250	.125	.100	.040	—	—	—	160.00	136.00	120.00	106.00
82-1075	.148	.172	.040	—	—	.325	.075	.100	.040	—	—	—	110.00	93.50	82.50	73.00
82-1076	.093	.125	.040	—	—	.453	.156	.100	.040	—	—	—	110.00	93.50	82.50	73.00
82-1077	.093	.125	.040	—	—	.987	.687	.100	.040	—	—	—	120.00	102.00	90.00	80.00
82-1080	.148	.172	.040	—	—	.443	.093	.100	.040	—	—	—	120.00	102.00	90.00	80.00
82-1081	.148	.172	.040	—	—	.535	.210	.160	.040	—	—	—	110.00	93.50	82.50	73.00
82-1082	.171	.218	.040	—	—	1.090	.680	.110	.050	—	—	—	140.00	119.00	105.00	93.00
82-1084	.148	.172	.045	—	—	.585	.320	.100	.040	—	—	—	140.00	119.00	105.00	93.00

93-3510
Group39-1000
Group39-1001
Group39-2000
Group82-1016
Group82-1044
Group82-1000
Group



FEED THRU, SUBMINIATURE

Cat. No.	DIMENSIONS												RESALE PER THOUSAND IN LOTS OF			
	A	B	C	D	E	L	M	N	O	P	Q	R	1- 99	100- 499	500- 999	1000- UP

FEED THRU, MINIATURE, TUBULAR

82-1017	.148	.172	.085	—	.063	.367	.207	.110	.050	—	—	—	\$110.00	\$ 93.50	\$ 82.50	\$ 73.30
82-1024	.200	.240	.085	—	.063	.367	.207	.110	.050	—	—	—	120.00	102.00	90.00	80.00
82-1035	.148	.172	.040	—	.030	.250	.147	.053	.050	—	—	—	110.00	93.50	82.50	73.30
82-1036	.125	.150	.040	—	.030	.225	.125	.060	.040	—	—	—	110.00	93.50	82.50	73.30
82-1037	.120	.130	.040	—	.030	.310	.207	.053	.050	—	—	—	110.00	93.50	82.50	73.30
82-1038	.148	.172	.040	—	.030	.296	.136	.100	.060	—	—	—	120.00	102.00	90.00	80.00
82-1039	.171	.218	.040	—	.030	.367	.207	.110	.050	—	—	—	130.00	110.00	97.50	86.60
82-1040	.093	.125	.040	—	.030	.225	.125	.060	.040	—	—	—	120.00	102.00	90.00	80.00
82-1041	.171	.218	.085	—	.063	.367	.207	.110	.050	—	—	—	120.00	102.00	90.00	80.00
82-1089	.148	.172	.085	—	.063	.413	.207	.156	.050	—	—	—	140.00	119.00	105.00	93.30
82-1090	.148	.172	.085	—	.063	.332	.207	.075	.050	—	—	—	140.00	119.00	105.00	93.30
82-1091	.148	.172	.085	—	.070	.367	.207	.110	.050	—	—	—	130.00	110.00	97.50	86.60
82-1115	.093	.125	.040	—	.030	.317	.187	.090	.040	—	—	—	130.00	110.00	97.50	86.60
82-1116	.093	.125	.040	—	.030	.405	.275	.090	.040	—	—	—	140.00	119.00	105.00	93.30
82-1134	.093	.125	.040	—	.030	.215	.125	.050	.040	—	—	—	120.00	102.00	90.00	80.00
82-1135	.093	.125	.040	—	.030	.312	.207	.060	.040	—	—	—	140.00	119.00	105.00	93.30

PROBES & PLUGS

Cat. No.	DIMENSIONS												RESALE PER THOUSAND IN LOTS OF			
	A	B	C	D	E	L	M	N	O	P	Q	R	1- 99	100- 499	500- 999	1000- UP

PROBES & PLUGS

73-1000	.185	.218	.030	.050	—	1.531	.250	.287	.046	—	—	—	\$150.00	\$127.50	\$112.50	\$100.00
73-1001	.185	.218	.030	.050	—	.906	.250	.287	.046	—	—	—	150.00	127.50	112.50	100.00
73-1002	.185	.218	.030	.050	—	2.083	.250	.287	.046	—	—	—	150.00	127.50	112.50	100.00
73-1003	.185	.218	.030	.050	—	1.937	.250	.141	.046	—	—	—	130.00	110.00	97.50	86.60
73-1018	.148	.172	.030	.050	—	1.937	.250	.165	.046	—	—	—	180.00	153.00	135.00	120.00
73-1028	.185	.218	.030	.040	—	1.870	.120	.250	.046	—	—	—	160.00	136.00	120.00	106.50

PROBE & PLUG

73-1006	.185	.218	.081	—	—	.739	.281	.287	.046	—	—	—	\$150.00	\$127.50	\$112.50	\$100.00
73-1011	.185	.218	.050	—	—	.562	.250	.135	.052	—	—	—	120.00	102.00	90.00	80.00
73-1015	.185	.218	.081	—	—	.739	.281	.287	.046	—	—	—	130.00	110.00	97.50	86.60
73-1016	.185	.218	.050	—	—	.562	.250	.141	.046	—	—	—	120.00	102.00	90.00	80.00
73-1017	.185	.218	.081	—	—	.562	.250	.141	.046	—	—	—	130.00	110.00	97.50	86.60
73-1022	.171	.197	.040	—	—	.687	.272	.212	.040	—	—	—	180.00	153.00	135.00	120.00
73-1023	.185	.218	.050	—	—	.906	.250	.287	.046	—	—	—	150.00	127.50	112.50	100.00
73-1026	.185	.218	.090	—	—	.648	.190	.287	.046	—	—	—	170.00	144.50	127.50	113.30
73-1027	.185	.218	.062	—	—	.612	.250	.141	.046	—	—	—	150.00	127.50	112.50	100.00

PROBES & PLUGS

Cat. No.	DIMENSIONS												RESALE PER THOUSAND IN LOTS OF			
	A	B	C	D	E	L	M	N	O	P	Q	R	1- 99	100- 499	500- 999	1000- UP

PROBES & PLUGS

73-1007	.185	.218	.050	.093	—	2.005	.125	.287	.093	.020	.085	—	\$150.00	\$127.50	\$112.50	\$100.00
73-1008	.185	.218	.050	.093	—	1.000	.125	.287	.093	.020	.085	—	150.00	127.50	112.50	100.00
73-1009	.185	.218	.050	.093	—	2.000	.125	.150	.230	.020	.085	—	160.00	136.00	120.00	106.50

PROBES & PLUGS

73-1010	.185	.218	.060	.125	—	1.052	.281	.287	.046	.031	.093	—	\$150.00	\$127.50	\$112.50	\$100.00
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PROBES & PLUGS

73-3001	.218	—	.080	—	.062	.645	.270	.375	—	—	—	—	\$120.00	\$102.00	\$ 90.00	\$ 80.00
73-3012	.218	—	.090	—	.062	.645	.270	.375	—	—	—	—	150.00	127.50	112.50	100.00

PROBE & PLUG, REVERSED

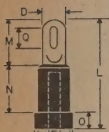
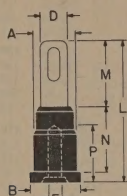
37-1011	.185	.218	.050	—	—	.562	.250	.135	.052	—	—	—	\$150.00	\$127.50	\$112.50	\$100.00
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specify **SMITH**

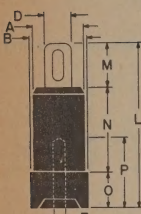
HERMAN H. SMITH, INC.

ELECTRO
COMPONE

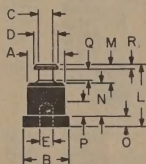
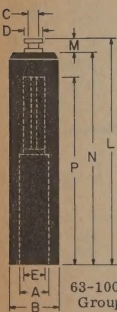
TEST JACKS

63-1000
Group

63-1052



63-1035

63-1003
Group63-1008
GroupCat.
No.

DIMENSIONS

A B C D E* L M N O P** Q R

RESALE PER THOUSAND IN LOTS

1-
99100-
499500-
9991000-
9999

TEST JACK, FLAT LUG

63-1000	.185	.218	—	.105	.050	.687	.354	.287	.046	.250	—	—	\$120.00	\$102.00	\$ 90.00	\$ 80.00
63-1001	.185	.218	—	.105	.041	.687	.354	.287	.046	.250	—	—	160.00	136.00	120.00	100.00
63-1002	.185	.218	—	.110	.080	.687	.354	.287	.046	.250	—	—	160.00	136.00	120.00	100.00
63-1014	.185	.218	—	.115	.050	.687	.354	.281	.052	.250	—	—	160.00	136.00	120.00	100.00
63-1015	.185	.218	—	.103	.080	.687	.330	.146	.187	.187	—	—	160.00	136.00	120.00	100.00
63-1016	.185	.218	—	.115	.050	.625	.355	.224	.046	.200	—	—	160.00	136.00	120.00	100.00
63-1017	.185	.218	—	.104	.060	.718	.316	.356	.046	.315	—	—	160.00	153.00	135.00	120.00
63-1037	.185	.218	—	.110	.050	.687	.330	.146	.187	.250	—	—	160.00	136.00	120.00	100.00

*Probe Diameter

**Probe Length

TEST JACK

Cat.
No.

DIMENSIONS

A B C D E* L M N O P** Q R

RESALE PER THOUSAND IN LOTS

1-
99100-
499500-
9991000-
9999

TEST JACK, FLAT LUG

63-1052	.185	.218	—	.115	.050	.620	.287	.287	.046	.250	—	—	\$160.00	\$136.00	\$120.00	\$ 80.00
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TEST JACK, FLAT LUG

63-1035	.220	.250	—	.115	.050	.732	.188	.387	.157	.320	—	—	\$200.00	\$170.00	\$150.00	\$ 80.00
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TEST JACK

63-1003	.185	.218	.054	.074	.090	.437	.120	.271	.046	.195	.053	.037	\$180.00	\$153.00	\$135.00	\$120.00
63-1004	.185	.218	.054	.074	.080	.437	.120	.271	.046	.195	.053	.037	180.00	153.00	135.00	120.00
63-1005	.185	.218	.054	.074	.080	.640	.187	.400	.050	.287	.104	.037	180.00	153.00	135.00	120.00
63-1006	.204	.250	.054	.074	.080	.437	.120	.271	.046	.195	.053	.037	200.00	170.00	150.00	130.00
63-1007	.170	.218	.046	.078	.090	.375	.060	.269	.046	.250	.040	.010	220.00	187.00	165.00	140.00
63-1010	.148	.172	.040	.060	.040	.345	.120	.179	.046	.140	.077	.023	180.00	153.00	135.00	120.00
63-1011	.218	.250	.066	.098	.105	.400	.060	.294	.046	.250	.037	.010	220.00	187.00	165.00	140.00
63-1012	.120	.142	.040	.060	.040	.449	.120	.283	.046	.245	.060	.030	190.00	161.50	142.50	120.00
63-1013	.200	.218	.054	.074	.093	.761	.187	.386	.187	.455	.116	.035	270.00	229.50	202.50	180.00
63-1028	.200	.218	.054	.074	.093	.699	.187	.386	.125	.390	.116	.035	400.00	340.00	300.00	260.00
63-1029	.140	.172	.046	.080	.040	.253	.060	.143	.050	.125	.040	.010	220.00	187.00	165.00	140.00
63-1032	.148	.172	.046	.080	.040	.203	.060	.097	.046	.078	.040	.010	210.00	178.50	157.50	140.00
63-1033	.120	.150	.046	.080	.040	.203	.060	.113	.030	.078	.040	.010	210.00	178.50	157.50	140.00
63-1054	.185	.218	.054	.074	.090	.340	.120	.174	.046	.140	.077	.023	210.00	178.50	157.50	140.00
63-1057	.185	.218	.054	.074	.080	.467	.120	.301	.046	.225	.047	.035	210.00	178.50	157.50	140.00
63-1072	.120	.142	.040	.060	.040	.410	.120	.244	.046	.205	.060	.030	180.00	153.00	135.00	120.00
63-1077	.140	.172	.040	.060	.040	.345	.120	.179	.046	.140	.077	.023	180.00	153.00	135.00	120.00
63-1078	.148	.172	.046	.080	.040	.190	.050	.094	.046	.078	.030	.010	200.00	170.00	150.00	130.00
63-1079	.185	.218	.054	.074	.050	.437	.120	.271	.046	.195	.053	.037	190.00	161.50	142.50	120.00
63-1080	.185	.218	.080	.125	.080	.455	.105	.300	.050	.315	.065	.020	250.00	212.50	187.50	160.00
63-1081	.200	.375	.054	.074	.093	.834	.187	.417	.230	.518	.116	.035	350.00	297.50	262.50	230.00

TEST JACK

63-1008	—	.140	.046	.080	.040	.203	.060	.143	—	.075	—	—	\$190.00	\$161.50	\$142.50	\$120.00
63-1009	—	.120	.046	.080	.040	.203	.060	.143	—	.075	—	—	200.00	170.00	150.00	130.00
63-1034	—	.140	.046	.080	.025	.203	.060	.143	—	.075	—	—	200.00	170.00	150.00	130.00
63-1038	.125	.218	.046	.078	.090	1.000	.060	.940	—	.825	—	—	380.00	323.00	285.00	250.00
63-1039	.125	.187	.046	.078	.090	1.000	.060	.940	—	.825	—	—	360.00	306.00	270.00	240.00

*Probe Diameter

**Probe Length

TEST JACK

Cat.
No.

DIMENSIONS

A B C D E* L M N O P** Q R

RESALE PER THOUSAND IN LOTS

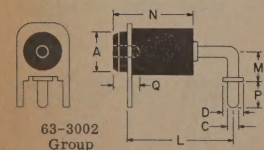
1-
99100-
499500-
9991000-
9999

TEST JACK, PRINTED CIRCUIT

63-3002	.187	.218	.050	.080	.080	.500	.140	.378	—	.125	.250	—	\$350.00	\$297.50	\$262.50	\$230.00
63-3003	.187	.218	.050	.080	.080	.400	.140	.378	—	.125	.250	—	350.00	297.50	262.50	230.00
63-3004	.187	.218	.040	.080	.080	.520	.140	.398	—	.130	.250	—	350.00	297.50	262.50	230.00
63-3005	.187	.218	.035	.080	.080	.400	.140	.378	—	.187	.250	—	360.00	306.00	276.00	240.00
63-3009	.187	.218	.050	.080	.080	.500	.140	.689	—	.125	.500	—	390.00	331.50	292.50	260.00

*Probe Diameter

**Probe Length

63-3002
Group

Specify

SMITH

HERMAN H. SMITH, INC.

ELECTRONIC
COMPONENTS

METAL HEX BASE, TEFLON INSULATED TERMINALS

Cat. No.	DIMENSIONS												RESALE PER THOUSAND IN LOTS OF			
	A	B	C	D	E	L	M	N	O	P	Q	R	1-99	100-499	500-999	1000-UP

DOUBLE TURRET TERMINAL, THREADED HOLE BASE

52-1500	.125	.156	.045	.066	4.40	.547	.148	.366	.181	.018	.031	.100	\$240.00	\$204.00	\$180.00	\$160.00
52-1502	.245	.250	.069	.140	6.32	.719	.310	.461	.258	.025	.100	.156	245.00	208.20	183.70	163.30
52-1503	.245	.250	.069	.140	4.40	.719	.310	.461	.258	.025	.100	.156	245.00	208.20	183.70	163.30
52-1507	.245	.250	.069	.140	4.40	1.297	.310	1.039	.258	.025	.100	.156	278.00	236.30	208.50	185.30
52-1508	.245	.250	.069	.140	6.32	1.297	.310	1.039	.258	.025	.100	.156	278.00	236.30	208.50	185.30

DOUBLE TURRET TERMINAL, THREADED STUD BASE

53-1500	.125	.156	.045	.066	4.40	.750	.148	.372	.128	.018	.031	.250	\$250.00	\$212.50	\$187.50	\$166.60
53-1502	.245	.250	.069	.140	6.32	.890	.310	.460	.180	.025	.100	.250	254.00	215.90	190.50	169.20
53-1503	.245	.250	.069	.140	4.40	.890	.310	.460	.180	.025	.100	.250	254.00	215.90	190.50	169.20
53-1506	.125	.156	.045	.066	6.32	.750	.148	.372	.128	.018	.031	.250	252.00	214.20	189.00	167.90
53-1507	.245	.250	.069	.140	4.40	1.469	.310	1.039	.180	.025	.100	.250	332.00	282.20	249.00	221.30
53-1508	.245	.250	.069	.140	6.32	1.469	.310	1.039	.180	.025	.100	.250	332.00	282.20	249.00	221.30

SINGLE TURRET TERMINAL, THREADED STUD BASE

53-1501	.245	.250	.069	.140	6.32	.766	.180	.336	.180	.031	.120	.250	\$256.00	\$217.60	\$192.00	\$170.60
53-1503	.245	.250	.069	.140	4.40	.766	.180	.336	.180	.031	.120	.250	256.00	217.60	192.00	170.60
53-1504	.125	.156	.045	.066	4.40	.672	.079	.294	.128	.018	.049	.250	252.00	214.20	189.00	167.90
53-1509	.125	.156	.045	.066	6.32	.672	.079	.294	.128	.018	.049	.250	252.00	214.20	189.00	167.90
53-1510	.245	.250	.069	.140	4.40	1.344	.180	.914	.180	.031	.120	.250	334.00	283.90	250.50	222.60
53-1511	.245	.250	.069	.140	6.32	1.344	.180	.914	.180	.031	.120	.250	334.00	283.90	250.50	222.60

DOUBLE TURRET TERMINAL, RIVET BASE

54-1500	.125	.156	.045	.066	1.205#	.594	.148	.376	.128	.018	.031	.090	\$296.00	\$251.60	\$222.00	\$197.30
54-1502	.245	.250	.069	.140	1.205#	.734	.310	.304	.180	.025	.100	.090	278.00	236.30	208.50	185.30
54-1508	.245	.250	.069	.140	1.205#	1.297	.310	1.027	.180	.025	.100	.090	353.00	300.00	264.70	235.30

SINGLE TURRET TERMINAL, RIVET BASE

54-1501	.245	.250	.069	.140	1.205#	.609	.180	.339	.180	.031	.120	.090	\$280.00	\$238.00	\$210.00	\$186.60
54-1504	.125	.156	.045	.066	1.205#	.516	.079	.298	.128	.018	.049	.090	282.00	238.70	211.50	187.90
54-1510	.245	.250	.069	.140	1.205#	1.172	.180	.902	.180	.031	.120	.090	355.00	301.70	266.20	236.60

SLOTTED TURRET TERMINAL, RIVET BASE

54-2000	.245	.250	.140	.060	1.205#	.609	.174	.339	.180	.101	—	.090	\$361.00	\$255.90	\$225.80	\$200.70
54-2002	.125	.156	.066	.036	1.205#	.516	.087	.298	.128	.067	—	.090	330.00	280.50	247.50	220.00
54-2004	.245	.250	.140	.060	1.205#	1.172	.174	.902	.180	.101	—	.090	377.00	320.40	282.70	251.30

Rivet Shank + .0015 tolerance.

SLOTTED TURRET TERMINAL, THREADED STUD BASE

52-2000	.245	.250	.140	.060	6.32	.594	.174	.236	.258	.101	—	.156	\$275.00	\$233.70	\$206.20	\$183.30
52-2001	.245	.250	.140	.060	4.40	.594	.174	.236	.258	.101	—	.156	275.00	233.70	206.20	183.30
52-2002	.125	.156	.066	.036	4.40	.484	.087	.303	.181	.067	—	.100	275.00	233.70	206.20	183.30
52-2003	.245	.250	.140	.060	4.40	1.172	.174	.914	.258	.101	—	.156	353.00	300.00	264.70	235.30
52-2004	.245	.250	.140	.060	6.32	1.172	.174	.914	.258	.101	—	.156	353.00	300.00	264.70	235.30

SLOTTED TURRET TERMINAL, THREADED STUD BASE

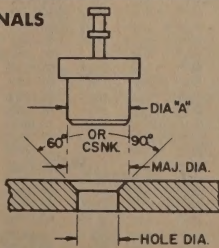
53-2000	.245	.250	.140	.060	6.32	.766	.174	.336	.180	.101	—	.250	\$280.00	\$238.00	\$210.00	\$186.60
53-2001	.245	.250	.140	.060	4.40	.766	.174	.336	.180	.101	—	.250	304.00	258.40	228.00	202.60
53-2002	.125	.156	.066	.036	4.40	.672	.087	.294	.128	.067	—	.250	287.00	243.90	215.20	191.20
53-2003	.245	.250	.140	.060	4.40	1.344	.174	.914	.180	.101	—	.250	355.00	301.70	266.20	236.60
53-2004	.245	.250	.140	.060	6.32	1.344	.174	.914	.180	.101	—	.250	355.00	301.70	266.20	236.60
53-2005	.125	.156	.066	.036	6.32	.672	.087	.294	.128	.067	—	.250	287.00	243.90	215.20	191.20

SINGLE TURRET TERMINAL, THREADED HOLE BASE

52-1501	.245	.250	.069	.140	6.32	.594	.180	.336	.258	.031	.120	.156	\$250.00	\$212.50	\$187.50	\$166.60
52-1510	.245	.250	.039	.140	4.40	1.172	.180	.914	.258	.031	.120	.156	280.00	238.00	210.00	186.60
52-1503	.245	.250	.039	.140	4.40	.594	.180	.336	.258	.031	.120	.156	252.00	214.20	189.00	167.90
52-1504	.125	.156	.045	.066	4.40	.484	.079	.303	.181	.018	.049	.100	245.00	208.20	183.70	163.30
52-1511	.245	.250	.039	.140	6.32	1.172	.180	.914	.258	.031	.120	.156	280.00	238.00	210.00	186.60

INSTALLATION PROCEDURE FOR TEFLON TERMINALS

- For chassis or panels $\frac{1}{16}$ " (.125") or less in thickness, punch or drill hole $.013" \pm .002"$ LESS than the diameter of the bushing (dimension "A" in the tables). Minimum protrusion of assembled terminal should be .040" (dimension "B" less chassis thickness) for greater holding power. Recommendations for panels greater than .125" thick are available on request.
- Countersink the insertion side of the chassis. For chassis thicker than .040" use 60° countersink. For chassis less than .040" thick use 90° countersink. Countersink depth should be such that "Maj. Dia." shown in drawing is equal to bushing diameter (Dimension "A") of the terminal.
- Insert terminal in countersunk side of chassis, and press until shoulder of terminal seats against chassis.



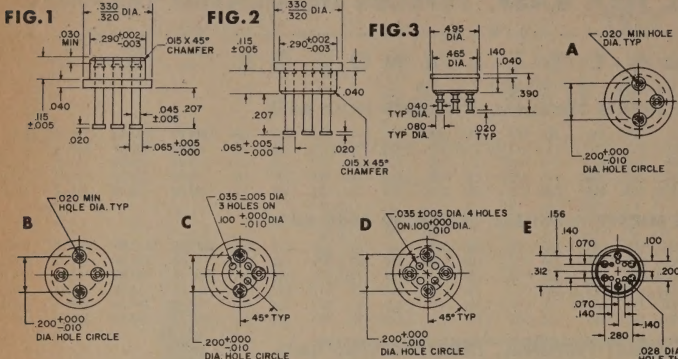
specify SMITH

HERMAN H. SMITH, INC.



ELECTRONIC COMPONENTS

TEFLON* TRANSISTOR SOCKETS



SMITH Teflon Transistor Sockets cut installation time and afford increased reliability. Sockets shown here represent the basic configurations available for JEDEC Packages To-5 (.200" Dia. Pitch Circle) and To-18 (.100" Dia. Pitch Circle). Other styles and variations are being added constantly. Consult our Engineering Dept., for your special requirements.

*Reg. Trademark E. I. DuPont Co.

GSA — SMITH TEFLON* TERMINALS

GSA is provided to insure "Guaranteed Stock Availability" for IMMEDIATE DELIVERY to our customers from stock on all standard parts.

PLATING FINISH

STANDARD—.0002 SILVER PLATE, GOLD FLASH
1—.0002 SILVER, .000005 GOLD FLASH
2—.000005 GOLD OVER .0002 SILVER
3—STANDARD ELECTRO SOLDER PLATE (40% TIN/60% LEAD)
4—SPECIAL—(FINISH REQUIREMENTS AS PER YOUR SPECIFICATIONS)

COLOR CODE SUFFIX

Add to Catalog Number as required

— 101 WHITE	— 106 ORANGE
— 102 RED	— 107 YELLOW
— 103 BLACK	— 108 BROWN
— 104 GREEN	— 112 PURPLE
— 105 BLUE	— 113 GREY

*Reg. Trademark E. I. DuPont Co.

TEFLON* SPAGHETTI TUBING



COLOR CODE CHART

— 101 WHITE	— 107 YELLOW
— 102 RED	— 108 BROWN
— 103 BLACK	— 112 PURPLE
— 104 GREEN	— 113 GREY
— 105 BLUE	— 115 NATURAL
— 106 ORANGE	

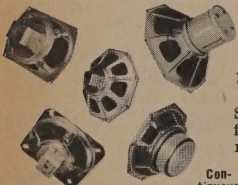
(If no color is specified, Natural Teflon (-115) will be supplied.)

Meets and exceeds MIL-P-22129B. Ideal for alignment insulation, and provides greater reliability and resistance to high temperatures. Shrink-back in virtually eliminated. Individually packed in dust-proof bags.

SPECIFY COLOR

CAT. NO.	AWG WIRE SIZE	NOM. I.D.	NOM. WALL THK.	STD. PKG. FT.	NET WT. LB.
STANDARD WALL					
7701-24	24	.022	.012	100	\$11.68
7701-22	22	.027	.012	100	12.95
7701-20	20	.034	.016	100	17.75
7701-19	19	.038	.016	100	19.38
7701-18	18	.042	.016	100	20.88
7701-17	17	.047	.016	100	22.93
7701-16	16	.053	.016	100	24.63
7701-15	15	.059	.016	100	25.30
7701-14	14	.066	.016	100	27.32
7701-13	13	.075	.016	100	30.30
7701-12	12	.085	.016	100	32.75
7701-11	11	.095	.016	100	36.38
7701-10	10	.106	.016	100	40.00
7701-9	9	.118	.020	100	57.10
7701-81	1/8"	.125	.020	100	61.00
7701-08	8	.133	.020	50	31.25
7701-07	7	.148	.020	50	33.69
7701-06	6	.166	.020	50	36.44
7701-05	5	.186	.020	50	40.10
7701-04	4	.208	.020	50	43.56
7701-03	3	.234	.020	50	49.88
7701-02	2	.263	.020	50	54.82
7701-01	1	.294	.020	50	60.94
7701-51	5/16"	.312	.020	50	67.50
7701-00	0	.330	.020	50	68.97
THINWALL					
7702-30	30	.012	.009	100	\$10.53
7702-28	28	.015	.009	100	9.20
7702-26	26	.018	.009	100	8.88
7702-24	24	.022	.010	100	10.75
7702-22	22	.027	.010	100	10.75
7702-20	20	.034	.012	100	13.63
7702-19	19	.038	.012	100	14.68
7702-18	18	.042	.012	100	15.75
7702-17	17	.047	.012	100	17.38
7702-16	16	.053	.012	100	19.00
7702-15	15	.059	.012	100	19.63
7702-14	14	.066	.012	100	21.00
7702-13	13	.075	.012	100	22.88
7702-12	12	.085	.012	100	25.50
7702-11	11	.095	.012	100	28.38
7702-10	10	.106	.012	100	30.50
7702-09	9	.118	.015	100	40.00
7702-81	1/8"	.125	.015	100	45.00
7702-08	8	.133	.015	50	24.32
7702-07	7	.148	.015	50	26.63
7702-06	6	.166	.015	50	28.75
7702-05	5	.186	.015	50	32.50
7702-04	4	.208	.015	50	36.75
7702-03	3	.234	.015	50	40.75
7702-02	2	.263	.015	50	43.75
7702-01	1	.294	.015	50	45.50
7702-51	5/16"	.312	.015	50	50.69
7702-00	0	.330	.015	50	55.12
LIGHTWEIGHT					
7703-28	28	.015	.006	100	\$ 7.53
7703-26	26	.018	.006	100	6.75
7703-24	24	.022	.006	100	8.13
7703-22	22	.027	.006	100	9.38
7703-20	20	.034	.006	100	11.13
7703-19	19	.038	.006	100	12.38
7703-18	18	.042	.006	100	13.38
7703-17	17	.047	.006	100	14.88
7703-16	16	.053	.006	100	16.13
7703-15	15	.059	.006	100	16.75
7703-14	14	.066	.006	100	18.50
7703-13	13	.075	.008	100	22.25
7703-12	12	.085	.008	100	24.38
7703-11	11	.095	.008	100	27.38
7703-10	10	.106	.008	100	29.50
7703-9	9	.118	.010	100	36.63
7703-81	1/8"	.125	.008	50	17.88
7703-08	8	.133	.008	50	18.44
7703-07	7	.148	.008	50	20.00
7703-06	6	.166	.008	50	22.38
7703-05	5	.186	.010	50	28.38
7703-04	4	.208	.010	50	31.38
7703-03	3	.234	.010	50	34.50
7703-02	2	.263	.010	50	37.37
7703-01	1	.294	.010	50	41.19
7703-51	5/16"	.312	.012	50	48.69
7703-00	0	.330	.012	50	49.63

*Reg. Trademark E. I. DuPont Co.



Norelco Loudspeakers

featuring The World's Most Powerful Magnets

Standard EIA mounting. • Tropic-proof cadmium-plated frames. • Designed for use in original equipment and as replacements in Radio, TV, Hi-Fidelity, Car Radio, etc.

Smith No.	Size	Shape	Imped. Ohms	Continuous Power Watts	Height	Width	Depth	Freq. Resp.	Free Air Reso. cps	Cone Types	Magnet Type	Magnet Wgt. Oz.	Std. Pkg.	NET Each
4300	2 1/2"	Round	3.2	0.3	2 1/4"	2 1/4"	1 1/4"	500-4500	590	Single	Tic.	0.36	3	\$2.16
4301	2 1/2"	Round	8	0.5	2 1/4"	2 1/4"	1 1/4"	400-7000	350	Single	Fer.	0.72	3	2.22
4302	3"	Square	3.2	2.0	3 1/4"	3 1/4"	1 1/4"	200-7000	275	Single	Fer.	0.72	6	2.22
4303	3"	Square	3.2	1.0	3 1/4"	3 1/4"	1 1/4"	265-6000	285	Single	Fer.	1.44	6	2.40
4304	4"	Square	3.2	3.0	4 1/4"	4 1/4"	1 1/4"	140-16500	165	Single	Tic.	0.72	6	2.22
4305	4"	Square	3.2	1.0	4 1/4"	4 1/4"	1 1/4"	200-6000	250	Single	Fer.	1.44	6	2.40
4306	4"	Square	3.2	3.0	4 1/4"	4 1/4"	1 1/4"	170-7000	165	Single	Fer.	5.35	6	3.36
4307	5"	Octag.	3.2	3.0	4 1/4"	4 1/4"	2"	100-14000	130	Single	Tic.	0.27	3	2.34
4308	5"	Octag.	3.2	3.0	4 1/4"	4 1/4"	2"	95-18000	124	Dual	Fer.	5.00	3	3.27
4309	8"	Octag.	3.2	6.0	7 3/4"	7 3/4"	3 1/4"	60-18000	72	Dual	Tic.	1.50	3	3.27
4310	8"	Octag.	8	0.6	7 3/4"	7 3/4"	2 7/8"	60-18000	72	Dual	Fer.	5.00	3	\$3.84
4311	8"	Octag.	8	6.0	7 3/4"	7 3/4"	4 5/8"	55-18000	60	Dual	Tic.	13.20	1	14.40
4312	10"	Round	8	10.0	10 1/4"	10 1/4"	5 1/4"	45-18000	50	Dual	Tic.	15.10	1	15.75
4313	12"	Round	3.2	10.0	12 3/4"	12 3/4"	4 1/4"	40-18000	45	Dual	Tic.	9.30	1	10.65
4314	12"	Round	8	20.0	12 3/4"	12 3/4"	6 1/4"	35-17000	45	Dual	Tic.	15.10	1	16.05
4315	3x8	Oval	3.2	3.0	8 3/4"	3 1/4"	2 1/4"	120-12000	130	Single	Tic.	2.50	1	3.84
4316	4x6	Oval	3.2	3.0	6 1/4"	4 1/4"	2 1/4"	110-11000	130	Single	Tic.	1.50	3	2.70
4317	4x6	Oval	3.2	2.0	6 1/4"	4 1/4"	2 1/4"	105-18000	124	Dual	Fer.	5.00	3	3.36
4318	5x7	Oval	3.2	3.0	7 1/4"	5 1/4"	2 1/4"	50-15000	90	Dual	Tic.	1.50	3	3.24
4319	5x7	Oval	3.2	6.0	7 1/4"	5 1/4"	2 1/4"	50-18000	90	Dual	Fer.	5.00	3	3.75
4320	6x9	Oval	3.2	6.0	9 1/4"	6 3/4"	3 1/4"	65-18000	77	Dual	Tic.	1.50	3	3.99
4321	6x9	Oval	3.2	6.0	9 1/4"	6 3/4"	2 7/8"	65-18000	80	Dual	Fer.	5.00	3	4.50

† Tic. = Ticonal; Fer. = Ferroducture.

* DOUBLE these ratings for PEAK power.

Specify SMITH

HERMAN H. SMITH, INC.



ELECTRONIC COMPONENTS

EQUIPMENT HANDLES

MATERIALS AND FINISH

SPECIFICATIONS

Specifications are met by all panel handles, and hardware where applicable.

Materials:

conformance with Federal Spec. QQ-B-626, Com. 27, 1/2 Hard.
in accordance with Federal Spec. QQ-A-365, Type A, Type 3.
Cold-Rolled, in accordance with QQ-S-638b, Grade 30.

PANEL HANDLES

Brass Panel Handles, finished as shown, with internal 10-32 thread. Individually packaged. Std. Pks. 10

Mtg. Ctrs. (A)	Height (B)	Tap Depth (C)	Finish	NET Ea.
1-5/16"	7/16"		Nickel Plate	.90
1-5/16"	7/16"		Black Oxide	.90
1-1/2"	9/16"		Nickel Plate	.90
1-1/2"	9/16"		Black Oxide	.90
1-1/2"	9/16"		Nickel Plate	.95
1-1/2"	9/16"		Black Oxide	.95
1-1/2"	9/16"		Nickel Plate	1.00
1-1/2"	9/16"		Black Oxide	1.00
1-3/4"	9/16"		Nickel Plate	1.25
1-3/4"	9/16"		Black Oxide	1.25

PANEL HANDLES

Brass Panel Handles, finished as shown with male threaded stud. Supplied complete with matching ferrules, and brass, nickel plated hex nuts. Mount in 1/4" panel holes. Individually packaged. Std. Pks. 10

Mtg. Ctrs. (A)	Height (B)	Finish	NET Ea.
2 3/4"	2 3/4"	Nickel Plate	1.20
3"	2 3/4"	Black Oxide	1.20
3 1/4"	2 3/4"	Nickel Plate	1.25
3 1/4"	2 3/4"	Black Oxide	1.25
4"	2 3/4"	Nickel Plate	1.30
4"	2 3/4"	Black Oxide	1.30
4 1/4"	2 3/4"	Nickel Plate	1.35
4 1/4"	2 3/4"	Black Oxide	1.35
5"	2 3/4"	Nickel Plate	1.40
5"	2 3/4"	Black Oxide	1.40

PANEL HANDLES

1/4" Diameter panel handles, Brass and Aluminum, finished as shown, with internal 8-32 thread. Individually packaged. Std. Pks. 10

Mtg. Ctrs. (A)	Height (B)	Material	Finish	NET Ea.
1 1/2"	1 1/2"	Brass	Nickel Plate	.80
1 1/2"	1 1/2"	Brass	Black Oxide	.80
1 1/2"	1 1/2"	Aluminum	Satin	.60
1 1/2"	1 1/2"	Aluminum	Bk. Anodize	.65
1 1/2"	1 1/2"	Brass	Nickel Plate	.85
1 1/2"	1 1/2"	Brass	Black Oxide	.85
1 1/2"	1 1/2"	Aluminum	Satin	.65
1 1/2"	1 1/2"	Aluminum	Bk. Anodize	.70
1 1/2"	1 1/2"	Brass	Nickel Plate	.90
1 1/2"	1 1/2"	Brass	Black Oxide	.90
1 1/2"	1 1/2"	Aluminum	Satin	.70
1 1/2"	1 1/2"	Aluminum	Bk. Anodize	.75
1 1/2"	1 1/2"	Brass	Nickel Plate	.95
1 1/2"	1 1/2"	Brass	Black Oxide	.95
1 1/2"	1 1/2"	Aluminum	Satin	.75
1 1/2"	1 1/2"	Aluminum	Bk. Anodize	.80

PANEL HANDLES

5/16" Diameter panel handles, Brass and Aluminum, finished as shown, with internal 4-40 thread. Individually packaged. Std. Pks. 10

Mtg. Ctrs. (A)	Height (B)	Material	Finish	NET Ea.
1 1/2"	1 1/2"	Brass	Nickel Plate	.70
1 1/2"	1 1/2"	Brass	Black Oxide	.70
1 1/2"	1 1/2"	Aluminum	Satin	.65
1 1/2"	1 1/2"	Aluminum	Bk. Anodize	.70
1 1/2"	1 1/2"	Brass	Nickel Plate	.75
1 1/2"	1 1/2"	Brass	Black Oxide	.75
1 1/2"	1 1/2"	Aluminum	Satin	.70
1 1/2"	1 1/2"	Aluminum	Bk. Anodize	.75
1 1/2"	1 1/2"	Brass	Nickel Plate	.80
1 1/2"	1 1/2"	Brass	Black Oxide	.80
1 1/2"	1 1/2"	Aluminum	Satin	.75
1 1/2"	1 1/2"	Aluminum	Bk. Anodize	.80

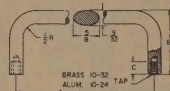
Finishes:

Nickel Plate: Polished Nickel Plate, in accordance with Federal Spec. QQ-N-250, Class 1, Type VI.
Black Oxide: in accordance with MIL-F-495A.
Satin Etch: Commercial Finish.
Black Anodize: in accordance with MIL-A-8625A.
Optical Black: Color in accordance with Fed. Std. 595, Type 37038. Paint complies with Fed. Spec. TT-E-527.

Note:

Aluminum Handles, either round or oval, and matching ferrules, can be supplied anodized in colors per MIL-A-8625A on special order.

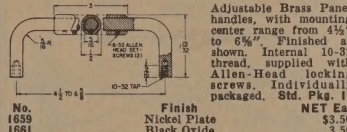
OVAL PANEL HANDLES



Flat, oval panel handles in Brass and Aluminum, finished as shown, Brass handles have internal 10-32 thread, Aluminum handles have internal 10-24 thread. Individually packaged. Std. Pks. 10

No.	Mtg. Ctrs. (A)	Height (B)	Tap Depth (C)	Material	Finish	NET Ea.
1644	3"	1 1/2"	1/2"	Brass	Nickel Plate	1.60
1645	3"	1 1/2"	1/2"	Brass	Black Oxide	1.60
1646	3"	1 1/2"	1/2"	Aluminum	Bk. Anodize	1.50
1647	3"	1 1/2"	1/2"	Brass	Nickel Plate	2.00
1648	3"	1 1/2"	1/2"	Brass	Black Oxide	2.00
1649	3"	1 1/2"	1/2"	Aluminum	Bk. Anodize	1.60
1650	3"	1 1/2"	1/2"	Brass	Nickel Plate	2.25
1651	3"	1 1/2"	1/2"	Brass	Black Oxide	2.25
1652	3"	1 1/2"	1/2"	Aluminum	Bk. Anodize	1.90
1653	3"	1 1/2"	1/2"	Brass	Nickel Plate	2.50
1654	3"	1 1/2"	1/2"	Brass	Black Oxide	2.50
1655	3"	1 1/2"	1/2"	Aluminum	Bk. Anodize	2.00
1656	3"	1 1/2"	1/2"	Brass	Nickel Plate	2.00
1657	3"	1 1/2"	1/2"	Brass	Black Oxide	2.00
1658	3"	1 1/2"	1/2"	Aluminum	Bk. Anodize	2.00

ADJUSTABLE HANDLES



Adjustable Brass Panel handles, with mounting center range from 1/4" to 3/4". Finished as shown. Internal 10-32 thread, supplied with Allen-Head locking screws. Individually packaged. Std. Pks. 10

No.	Finish	NET Ea.
1659	Nickel Plate	\$3.50
1661	Black Oxide	3.50

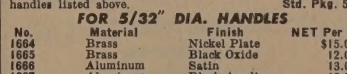
FOLDING HANDLES



Folding Brass panel handles, with spring-loaded detents which snap into upright or left-or-right folded position. Finished as shown. Supplied with brass, nickel plated hex nuts. Mounts in 1/2" panel holes. Individually packaged. Std. Pks. 10

No.	Finish	NET Ea.
1662	Nickel Plate	4.00
1663	Black Oxide	4.00

FERRULES



No.	Material	Finish	NET Per C
1664	Brass	Nickel Plate	\$15.00
1665	Brass	Black Oxide	12.00
1666	Aluminum	Satin	13.00
1667	Aluminum	Black Anodize	13.00

FOR 5/32" DIA. HANDLES

No.	Material	Finish	NET Per C
1668	Brass	Nickel Plate	\$15.00
1669	Brass	Black Oxide	12.00
1670	Aluminum	Satin	13.00
1671	Aluminum	Black Anodize	13.00

FOR 1/4" DIA. HANDLES

No.	Material	Finish	NET Per C
1672	Brass	Nickel Plate	\$15.00
1673	Brass	Black Oxide	13.00
1674	Aluminum	Satin	18.00
1675	Aluminum	Black Oxide	18.00

FOR 5/16" DIA. HANDLES

No.	Material	Finish	NET Per C
1676	Brass	Nickel Plate	\$15.00
1677	Brass	Black Oxide	13.00
1678	Aluminum	Satin	18.00
1679	Aluminum	Black Oxide	18.00

HANDLES

Steel handles painted with Optical Black Finish. Std. Pks. 10

MOLDED GRIP HANDLES

HANDLE: Molded High Impact styrene.
HDWRE: Steel, nickel plated.
DESCR.: Designed for economy and rugged use. Std. Pks. 10

No.	Color	NET Per C
2096	Black	\$60.00
2097	Grey	60.00

ATTACHES WITH RIVETS OR SCREWS

No.	Color	NET Per C
2098	Black	95.00
2099	Grey	95.00

ATTACHES WITH THREADED STUD

No.	Color	NET Per C
2098	Black	95.00
2099	Grey	95.00

MOLDED GRIP HANDLES

HANDLE: Molded high Impact Styrene. Fungus Resistant.
HDWRE: Steel, Nickel plated.
DESCR.: Rounded palm fitting design. Attaches to case with machine screws. Std. Pks. 10

No.	Color	Ea.
2085	Black	\$1.15
2086	Grey	1.15

HANDLE: Molded high impact

Styrene. Fungus Resistant.
HDWRE: Steel, Nickel plated.
DESCR.: Rounded palm fitting design. Attaches to case with machine screws. Std. Pks. 10

No.	Color	Stud Lth.	NET Ea.
2087	Black	7/16"	\$1.15
2088	Grey	7/16"	1.15

SPRING GLIDE HANDLE

HANDLE: Genuine leather, contoured BLACK, matching stitching, 6" long.
CAPS: Steel, chrome plated.
DESCR.: Strong, silent spring glide, frequency of deceleration will not induce handle rattle. Handle moves up for comfortable carrying down when not in use. Std. Pks. 10

No.	Color	NET Ea.
2089	Black	\$2.50

RETRACTO-LINK HANDLES

HANDLE: Genuine leather, matching stitching, BLACK.
HDWRE: Steel, nickel plated.
DESCR.: Assemblies are shaped with all hardware installed except for decorative cover caps which are packed separately. Supplied in two styles—different lengths. Std. Pks. 10

No.	Length	Ea.
2090	4 1/2"	\$2.25
2091	5 1/2"	2.25
2092	6 1/2"	2.25

ATTACHES WITH PRONGS THAT BEND INSIDE CASE

No.	Length	Ea.
2093	4 1/2"	\$2.25
2094	5 1/2"	2.25
2095	6 1/2"	2.25

ATTACHES WITH RIVETS OR SCREWS

No.	Length	Ea.
2093	4 1/2"	\$2.25
2094	5 1/2"	2.25
2095	6 1/2"	2.25

OVAL HANDLE

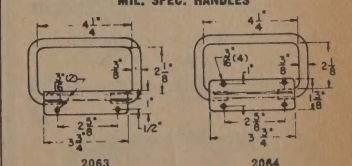
Die Cast Zamac Handle. Brush chrome plated. Std. Pks. 10

No.	Thread	O.D.	Mtg. Center	Color	NET Per C
2096	8-32	4 1/4"	2 1/2"	Black	\$15.50
2281	8-32	4 1/4"	2 1/2"	Red	17.50

BAKELITE HANDLE

No.	Thread	O.D.	Mtg. Center	Color	NET Per C
2096	8-32	4 1/4"	2 1/2"	Black	\$15.50
2281	8-32	4 1/4"	2 1/2"	Red	17.50

MIL. SPEC. HANDLES



No.	Material	Finish	NET Ea.
2063	Aluminum	Satin	\$1.65
2064	Aluminum	Black Anodize	1.65
2065	Aluminum	Black Anodize	1.65
2066	Aluminum	Black Anodize	1.65
2067	Aluminum	Black Anodize	1.65
2068	Aluminum	Black Anodize	1.65
2069	Aluminum	Black Anodize	1.65
2070	Aluminum	Black Anodize	1.65
2071	Aluminum	Black Anodize	1.65
2072	Aluminum	Black Anodize	1.65
2073	Aluminum	Black Anodize	1.65
2074	Aluminum	Black Anodize	1.65
2075	Aluminum	Black Anodize	1.65
2076	Aluminum	Black Anodize	1.65
2077	Aluminum	Black Anodize	1.65
2078	Aluminum	Black Anodize	1.65
2079	Aluminum	Black Anodize	1.65
2080	Aluminum	Black Anodize	1.65
2081	Aluminum	Black Anodize	1.65
2082	Aluminum	Black Anodize	1.65
2083	Aluminum	Black Anodize	1.65
2084	Aluminum	Black Anodize	1.65
2085	Aluminum	Black Anodize	1.65
2086	Aluminum	Black Anodize	1.65
2087	Aluminum	Black Anodize	1.65
2088	Aluminum	Black Anodize	1.65
2089	Aluminum	Black Anodize	1.65
2090	Aluminum	Black Anodize	1.65
2091	Aluminum	Black Anodize	1.65
2092	Aluminum	Black Anodize	1.65
2093	Aluminum	Black Anodize	1.65
2094	Aluminum	Black Anodize	1.65
2095	Aluminum	Black Anodize	1.65
2096	Aluminum	Black Anodize	1.65
2097	Aluminum	Black Anodize	1.65
2098	Aluminum	Black Anodize	1.65
2099	Aluminum	Black Anodize	1.65
2100	Aluminum	Black Anodize	1.65

specify **SMITH**

HERMAN H. SMITH, INC.

ELECTR
COMPON

JUMPER CORDS

Male Phono Plug with finger grip handle on each end. Std. Pkg. 6

No.	Length	NET Ea.
631	18 inches	\$.75
632	24 inches	.78
633	36 inches	.84
634	48 inches	.96
635	72 inches	1.05
636	120 inches	1.50
745	180 inches	1.78

Right Angle Phono Plug to Right Angle Phono Plug. Std. Pkg. 6

No.	Length	NET Ea.
2720	18 inches	\$.75
2721	24 inches	.78
2722	36 inches	.84
2723	48 inches	.96
2724	72 inches	1.05
2725	120 inches	1.50
2726	180 inches	1.78

EXTENSION CORDS

Male Phono Plug with finger grip handle one end; Female In-line Jack other end. Std. Pkg. 6

No.	Length	NET Ea.
641	18 inches	\$.99
642	24 inches	1.02
643	36 inches	1.08
644	48 inches	1.20
645	72 inches	1.29
646	120 inches	1.62

Right Angle Phono Plug to In-line Jack. Std. Pkg. 6

No.	Length	NET Ea.
2728	18 inches	\$.99
2729	24 inches	1.02
2730	36 inches	1.08
2731	48 inches	1.20
2732	72 inches	1.20
2733	120 inches	1.62

Male Phono Plug one end; In-line Jack other end. Std. Pkg. 6

No.	Length	NET Ea.
639	72 inches	NET ea. \$1.44

Right Angle Phono Plug to In-line Jack. Std. Pkg. 6

No.	Length	NET Ea.
2740	72 inches	NET ea. \$1.44

INPUT-OUTPUT CORDS

Male Phono Plug with finger grip handle one end; Male Phono Plug other end. Std. Pkg. 6

No.	Length	NET Ea.
662	72 inches	NET Ea. \$1.38

Right Angle Phono Plug to Straight Phono Plug. Std. Pkg. 6

No.	Length	NET Ea.
2786	6 feet	NET Ea. \$1.38

Male Phono Plug with Molded Finger grip handle one end; Miniature Phono Plug other end. Std. Pkg. 6

No.	Length	NET Ea.
715	72 inches	NET Ea. \$1.38

Right Angle Phono Plug to Phone Plug. Std. Pkg. 6

No.	Length	NET Ea.
2739	72 inches	NET Ea. \$1.38

Right Angle Phone Plug to Right Angle Phone Plug. Std. Pkg. 6

No.	Length	NET Ea.
2787	6 feet	NET Ea. \$1.38

Right Angle Phone Plug to Miniature Phone Plug. Std. Pkg. 6

No.	Length	NET Ea.
2741	72 inches	NET Ea. \$1.38

STEREO CONNECTOR CABLES

Twinn shielded audio cables, individually color coded with molded connectors, for neat, simultaneous connections of both channels in Stereo Hi-Fi equipment.

Male Phono Plugs with finger grip handle on each end.

No.	Length	NET Each
754	36 inches	\$1.80
755	72 inches	2.04
756	144 inches	2.70

Male Phono Plugs with finger grip handle, one end. Other end stripped and tinned with color-coded insulation.

No.	Length	NET Each
757	36 inches	\$1.59
758	72 inches	1.74
759	144 inches	2.25

Male Phono Plugs with finger grip handle, one end. Female molded in-line jacks other end.

No.	Length	NET Each
760	36 inches	\$2.25
761	72 inches	2.40
762	144 inches	3.00

PHONO PLUG CONNECTOR CORDS

Male Phono Plug with finger grip handle one end; Spade Lugs other end. Std. Pkg. 6

No.	Length	NET Ea.
668	72 inches	NET Ea. \$.72

Male Phono Plug with finger grip handle one end; other end stripped and tinned. Std. Pkg. 6

No.	Length	NET Ea.
637	36 inches	\$.66
638	72 inches	.84

Male Phono Plug with finger grip handle one end; Insulated Alligator Clips other end. Std. Pkg. 6

No.	Length	NET Ea.
673	36 inches	\$.72
674	72 inches	.90

Right Angle Phono Plug to Spade Lugs. Std. Pkg. 6

No.	Length	NET Ea.
2734	72 inches	NET Ea. \$.72

Right Angle Phono Plug to stripped and tinned ends. Std. Pkg. 6

No.	Length	NET Ea.
2735	36 inches	\$.66
2736	72 inches	.84

Right Angle Phono Plug to Insulated Alligator Clips. Std. Pkg. 6

No.	Length	NET Ea.
2737	36 inches	\$.72
2738	72 inches	.90

PHONE PLUG JUMPER CORDS

Male Phone Plugs on each end. Std. Pkg. 6

No.	Length	NET Ea.
677	72 inches	NET Ea. \$1.38

Right Angle Phone Plug to Right Angle Phone Plug. Std. Pkg. 6

No.	Length	NET Ea.
2784	6 feet	\$1.38
2785	10 feet	1.71

Right Angle Phone Plug to Straight Phone Plug. Std. Pkg. 6

No.	Length	NET Ea.
2783	6 feet	NET Ea. \$1.38

PHONE PLUG EXTENSION CORDS

Male Phone Plug one end; Female In-line Jack other end. Std. Pkg. 6

No.	Length	NET Ea.
663	72 inches	NET Ea. \$1.38

Right Angle Phone Plug to In-line Phone Jack. Std. Pkg. 6

No.	Length	NET Ea.
2788	6 feet	NET Ea. \$1.38

Male Phone Plug one end; In-line Jack other end. Std. Pkg. 6

No.	Length	NET Ea.
669	72 inches	NET Ea. \$1.38

Right Angle Phone Plug to In-line Phone Jack. Std. Pkg. 6

No.	Length	NET Ea.
2789	6 feet	NET Ea. \$1.38

PHONE PLUG CONNECTOR CORDS

Male Phone Plug one end; Spade Lugs other end. Std. Pkg. 6

No.	Length	NET Ea.
665	72 inches	NET Ea. \$.72

Male Phone Plug one end; other end stripped and tinned. Std. Pkg. 6

No.	Length	NET Ea.
667	72 inches	NET Ea. \$.66

Male Phone Plug one end; insulated Alligator Clips other end. Std. Pkg. 6

No.	Length	NET Ea.
664	72 inches	NET Ea. \$.72

Right Angle Phone Plug to Insulated Spade Lugs. Std. Pkg. 6

No.	Length	NET Ea.
2780	6 feet	NET Ea. \$1.38

Right Angle Phone Plug to Stripped and Tinned Ends. Std. Pkg. 6

No.	Length	NET Ea.
2781	6 feet	NET Ea. \$1.38

Right Angle Phone Plug to Insulated Alligator Clips. Std. Pkg. 6

No.	Length	NET Ea.
2782	6 feet	NET Ea. \$1.38

Specify SMITH

HERMAN H. SMITH, INC.


ELECTRONIC COMPONENTS
"Y" CONNECTOR ADAPTERS

ult, fully shielded connectors for parallel input, and mixing various styles of audio cable terminal connectors are American made, precision die-cast bright nickel plated finish. Std. Pkg. 10


MIKE CONNECTORS TO PHONE PLUG

Two Male threaded Microphone connectors, Std. Pkg. 100
Single two-circuit phone plug.

NET Each \$1.14
MIKE CONNECTORS TO MIKE CONNECTOR

Two Male threaded Microphone connectors, Std. Pkg. 100
Single Female threaded Microphone connector, ring.

NET Each \$.99
PHONE JACKS TO PHONE PLUG

Two standard phone jacks, paralleled.
Single two-circuit phone plug.

NET Each \$1.14
PHONE JACKS TO PHONE PLUG

Two standard phone jacks, paralleled.
Single standard phone plug.

NET Each \$1.05
PHONE JACKS TO PHONE JACK

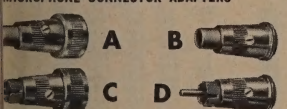
Two standard phone jacks, paralleled.
Single standard phone plug.

NET Each \$1.05
MIKE CONNECTORS TO PHONE PLUG

Two Male threaded Microphone connectors, Std. Pkg. 100
Single standard phone plug.

NET Each \$.99
PHONE JACKS TO MIKE CONNECTOR

Two standard phone jacks, paralleled.
Single Female threaded Microphone connector, ring.

NET Each \$1.14
MICROPHONE CONNECTOR ADAPTERS


Standard phone jack. Std. Pkg. 10
Female microphone connector, with captive ring.
NET Each \$.75

Standard phone jack.
Male threaded microphone connector.
NET Each \$.75

Female Microphone connector, with captive ring.
Standard phone plug.
NET Each \$.60

Male threaded Microphone connector.
Standard phone plug.
NET Each \$.60

MICROPHONE CABLES

Coaxial Extension Cable

Length	NET Ea.
36 inches	\$1.44
72 inches	1.80
144 inches	2.58

Coaxial Jumper Cable

Length	NET Ea.
36 inches	\$1.62
72 inches	1.98
144 inches	2.52

PHONO PLUGS

RCA Type Phone Plug. For use with record players, recording and reproducing equipment, etc. Extra large hole in cap (1.175") for coaxial cable. Std. Pkg. 100
No. Type NET Per C
1201 Long Pin (1" overall) \$3.60
1202 Short Pin (13/16" overall) 3.60

PHONO JACKS

Female for No. 1201 plug. Single prong positive grip jack mounted on 1/16" bakelite with 11/16" mounting centers. Std. Pkg. 100
No. NET Per C
1203 \$4.20
1203-1 Insulating Washer 1.80

Small, compact . . . where space is at a premium. 7/16" Mig. Ctrs. Std. Pkg. 100
No. NET Per C
1223 \$7.20

Space Saver . . . Rivets and grounds to chassis. Mounts in 19/64" hole. Std. Pkg. 50
No. NET Per C
1233 \$6.60

PANEL MOUNT PHONO JACK

Mounts in 29/64" hole (.453) with nut and washer. Easy installation for the home Hi-Fi enthusiast. Std. Pkg. 50
No. NET Per C
1247 \$39.00

HANDY GRIP PHONO PLUG

Quick connect: strip wire, solder inner conductor to pin and either solder braid to lug or crimp to lug. Fits all standard phone jacks. Std. Pkg. 100
No. NET Per C
1246 \$9.00

SHIELDED EXTENSION JACK

Brass shell, cadmium plated, 1 7/8" long, with black bakelite insert. Provides insulation for solder-coated positive grip contact. Uses No. 1201 phono plug. Std. Pkg. 50
No. NET Per C
1237 \$27.00

PHONE ADAPTERS

Phono Plug to Phone Plug

Adapts standard phono plug to phone plug with built in resistor to adapt either crystal or magnetic pickups. Std. Pkg. 10
No. Description NET Ea.
707 With Resistor \$1.59
708 Without Resistor .90

Min. Jack to Std. Plug

Adapter, miniature phone jack to standard phone plug. Std. Pkg. 10
No. NET Ea.
764 \$7.50

FEED THRU

Accepts Phono Plug on Each End. Std. Pkg. 10
No. NET Ea.
661 \$7.20

TV ANTENNA LUG

Solderless Type

A secure, swift, positive and permanent method of connecting TV wire to antenna. Simply strip wire, coil around groove and fold over. Insure positive contact. Std. Pkg. 100
No. Type Length Hole NET Per C
1461 Double Cup 1 1/2" 3/16" \$2.64
1462 Double Cup 1 1/2" 3/16" \$3.00

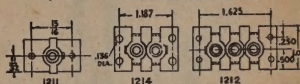
"OFF-THE-SHELF"

SMITH Standard Products are stocked nationally on the shelves of every major Parts Distributor. That's ONE reason why Engineers, Technicians and Purchasing Agents agree:

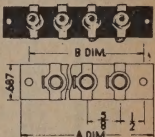
"IT'S SOUND PLANNING TO SPECIFY SMITH!"

PHONO JACKS

Used on recording units, phono plays, etc. Std. pkg. 50

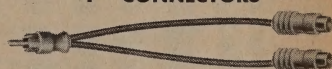


No. NET Per C
1211—Single Jack \$7.20
1214—Double Jack 9.60
1212—Triple Jack 15.00
1214-1—Insulating Washer for No. 1214.. 2.40

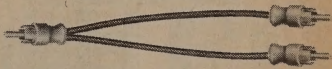
MULTIPLE PHONO JACKS


Individual phono jacks (no interconnected grounds) mounted on narrow width bakelite strip. Std. Pkg. 50

No.	No. of Jacks	Dimensions "A"	Dimensions "B"	NET Per C
1261	1	1 1/2"	1.000	\$4.80
1262	2	2"	1.625	5.70
1263	3	2 3/4"	2.250	14.10
1264	4	3 1/4"	2.875	17.10
1265	5	3 3/4"	3.500	21.60
1266	6	4 1/4"	4.125	23.20
1267	7	5 1/4"	4.750	29.40
1268	8	5 3/4"	5.375	38.60

"Y" CONNECTORS


Flexible "Y" connector, male phono plug to twin female phono jacks. 4" shielded wire. Std. Pkg. 6
No. 751 NET Ea. \$1.20



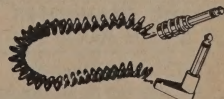
Flexible "Y" connector, male phono plug to twin female phono plugs. 4" shielded wire. Std. Pkg. 6
No. 752 NET Ea. \$1.20



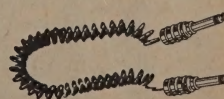
Flexible "Y" connector, female phono jack to twin male phono plugs. 4" shielded wire. Std. Pkg. 6
No. 753 NET Ea. \$1.20

ELECTRIC GUITAR CABLES

Rubber covered spring-back type, designed for professional use with guitars, and other stringed instruments, accordions, electronic organs, etc. Std. Pkg. 6



Right-angle phone plug one end, straight phone plug other end. Expanded Length
No. 2715 15-ft. NET Each \$4.50
2716 20-ft. 5.70



Straight phone plug at each end. Expanded Length
No. 2717 15-ft. NET Each \$4.50
2718 20-ft. 5.70

specify SMITH

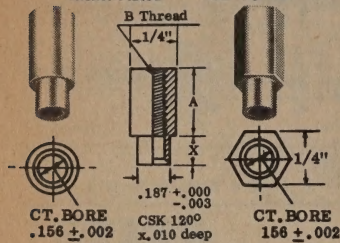
HERMAN H. SMITH INC.



BRASS THREADED SWAGE STANDOFFS

Nickel Plated

Std. Pkg. 100



No.	NET Per C	A	B	X	No.	NET Per C
4100	1.25	3/4	4/40	.105	4200	2.50
4101	6.50	3/4	4/40	.135	4201	7.50
4102	6.50	3/4	4/40	.165	4202	7.50
4103	7.50	3/4	4/40	.105	4203	8.50
4104	7.50	3/4	4/40	.135	4204	8.50
4105	7.50	3/4	4/40	.165	4205	8.50
4106	8.50	1/2	4/40	.105	4206	10.00
4107	8.50	1/2	4/40	.135	4207	10.00
4108	8.50	1/2	4/40	.165	4208	10.00
4109	10.00	3/4	4/40	.105	4209	11.50
4110	10.00	3/4	4/40	.135	4210	11.50
4111	10.00	3/4	4/40	.165	4211	11.50
4112	11.50	3/4	4/40	.105	4212	12.50
4113	11.50	3/4	4/40	.135	4213	12.50
4114	11.50	3/4	4/40	.165	4214	12.50
4115	15.50	1	4/40	.105	4215	15.50
4116	15.50	1	4/40	.135	4216	15.50
4117	15.50	1	4/40	.165	4217	15.50
4118	6.50	3/4	6/32	.105	4218	7.50
4119	6.50	3/4	6/32	.135	4219	7.50
4120	6.50	3/4	6/32	.165	4220	7.50
4121	7.50	3/4	6/32	.105	4221	8.50
4122	7.50	3/4	6/32	.135	4222	8.50
4123	7.50	3/4	6/32	.165	4223	8.50
4124	8.50	1/2	6/32	.105	4224	10.00
4125	8.50	1/2	6/32	.135	4225	10.00
4126	8.50	1/2	6/32	.165	4226	10.00
4127	10.00	3/4	6/32	.105	4227	11.50
4128	10.00	3/4	6/32	.135	4228	11.50
4129	10.00	3/4	6/32	.165	4229	11.50
4130	11.50	3/4	6/32	.105	4230	12.50
4131	11.50	3/4	6/32	.135	4231	12.50
4132	11.50	3/4	6/32	.165	4232	12.50
4133	15.50	1	6/32	.105	4233	15.50
4134	15.50	1	6/32	.135	4234	15.50
4135	15.50	1	6/32	.165	4235	15.50



These brass bushings are ideal for use in raising sub panels, chassis, condensers, transformers, etc. Hole in bushing to accommodate #1, #6, or #8 screw.

1/4" O.D.

Length "L"	for #4 Screw No.	for #6 Screw No.	for #8 Screw No.	NET Per C
.125	8700	8701	8702	\$2.50
.187	8703	8704	8705	2.80
.250	2540	2500	2105	3.30
.312	8706	8707	8708	3.70
.375	2541	2501	2106	4.30
.437	8709	8710	8711	4.70
.500	2542	2102	2107	5.20
.562	8712	8713	8714	5.50
.625	8715	8716	8717	5.70
.687	8718	8719	8720	6.00
.750	2543	2103	2108	6.30
.812	8721	8722	8723	6.70
.875	8724	8725	8726	6.90
.937	8727	8728	8729	7.20
1.000	2544	2104	2109	7.20

3/8" O.D.

Length "L"	for #4 Screw No.	for #6 Screw No.	for #8 Screw No.	NET Per C
.125	8730	8731	8732	\$4.20
.187	8733	8734	8735	4.50
.250	2115	2116	2117	4.50
.312	8736	8737	8738	5.50
.375	2546	2111	2116	6.30
.437	8740	8741	8742	6.70
.500	2547	2112	2117	7.00
.562	8742	8743	8744	7.00
.625	8745	8746	8747	7.00
.687	8748	8749	8750	7.00
.750	2548	2113	2118	10.90
.812	8751	8752	8753	11.70
.875	8754	8755	8756	12.50
.937	8757	8758	8759	13.40
1.000	2549	2114	2119	14.20

BRASS THREADED SPACERS

Cadmium Plated

1/4" O.D.

Length "L"	THD 4-40	THD 8-32	THD 8-32	NET Per C
.125	8760	8761	8762	\$2.80
.187	8763	8764	8765	3.30
.250	2520	2120	2125	3.90
.312	8766	8767	8768	4.30
.375	2521	2121	2126	4.90
.437	8769	8770	8771	5.50
.500	2522	2122	2127	6.00
.562	8772	8773	8774	6.50
.625	8775	8776	8777	7.00
.687	8778	8779	8780	7.80
.750	2523	2123	2128	8.40
.812	8781	8782	8783	9.20
.875	8784	8785	8786	9.50
.937	8787	8788	8789	10.00
1.000	2524	2124	2129	10.40

BRASS HEX SPACERS

Cadmium Plated

1/4" HEX

Length "L"	for #4 Screw No.	for #6 Screw No.	for #8 Screw No.	NET Per C
.125	8790	8791	8792	\$3.00
.187	8793	8794	8795	3.20
.250	2380	2300	2305	3.30
.312	8796	8797	8798	4.40
.375	2381	2301	2306	4.60
.437	8800	8801	8802	4.60
.500	2382	2302	2307	5.50
.562	8802	8803	8804	5.50
.625	8805	8806	8807	5.50
.687	8808	8809	8810	6.40
.750	2383	2303	2308	6.75
.812	8811	8812	8813	7.00
.875	8814	8815	8816	7.30
.937	8817	8818	8819	7.50
1.000	2384	2304	2309	7.80

3/8" HEX

Length "L"	THD 4-40	THD 8-32	THD 8-32	NET Per C
.125	8850	8851	8852	\$4.40
.187	8853	8854	8855	5.00
.250	2385	2310	2315	6.18
.312	8858	8859	8860	5.58
.375	2386	2311	2316	7.20
.437	8859	8860	8861	7.90
.500	2387	2312	2317	8.25
.562	8862	8863	8864	10.00
.625	8865	8866	8867	10.90
.687	8868	8869	8870	11.70
.750	2388	2313	2318	12.50
.812	8871	8872	8873	13.40
.875	8874	8875	8876	14.20
.937	8877	8878	8879	14.50
1.000	2389	2314	2319	15.90

BRASS THREADED HEX SPACERS

Cadmium Plated

1/4" HEX

Length "L"	THD 4-40	THD 8-32	THD 8-32	NET Per C
.125	8820	8821	8822	\$3.30
.187	8823	8824	8825	4.30
.250	2320	2320	2325	4.30
.312	8826	8827	8828	4.70
.375	2321	2321	2326	5.20
.437	8829	8830	8831	5.50
.500	2322	2322	2327	6.30
.562	8832	8833	8834	7.50
.625	8835	8836	8837	8.45
.687	8838	8839	8840	8.90
.750	2323	2323	2328	9.20
.812	8841	8842	8843	10.00
.875	8844	8845	8846	10.40
.937	8847	8848	8849	10.90
1.000	2324	2324	2329	11.20

ALUMINUM SPACERS

Irridite 14-2 per MIL-C-5541

Std. Pkg. 100

ROUND—CLEAR HOLE

Length "L"	for #4 Screw No.	for #6 Screw No.	for #8 Screw No.	NET Per C
.125	8400	8401	8402	\$7.75
.250	8403	8404	8405	10.50
.375	8406	8407	8408	11.75
.500	8409	8410	8411	12.50
.625	8412	8413	8414	14.25
.750	8415	8416	8417	14.50
.875	8418	8419	8420	15.50
1.000	8421	8422	8423	16.00
1.250	8424	8425	8426	20.00
1.500	8427	8428	8429	21.50
1.750	8430	8431	8432	21.75
2.000	8433	8434	8435	22.50
2.500	8436	8437	8438	24.00
3.000	8439	8440	8441	25.50
3.500	8442	8443	8444	25.50
4.000	8445	8446	8447	32.00
5.000	8448	8449	8450	40.00
6.000	8451	8452	8453	44.00

ROUND—TAPPED HOLE

Length "L"	for #4 Screw No.	for #6 Screw No.	for #8 Screw No.	NET Per C
.125	8320	8340	8360	\$7.75
.250	8321	8341	8361	12.00
.375	8322	8342	8362	12.50
.500	8323	8343	8363	13.50
.625	8324	8344	8364	14.75
.750	8325	8345	8365	15.50
.875	8326	8346	8366	16.00
1.000	8327	8347	8367	16.00
1.250	8328	8348	8368	19.50
1.500	8329	8349	8369	20.25
1.750	8330	8350	8370	21.50
2.000	8331	8351	8371	21.75
2.500	8332	8352	8372	24.00
3.000	8333	8353	8373	25.50
3.500	8334	8354	8374	29.00
4.000	8335	8355	8375	32.00

HEX—CLEAR HOLE

Length "L"	for #4 Screw No.	for #6 Screw No.	for #8 Screw No.	NET Per C
.125	8560	8561	8562	\$7.75
.250	8563	8564	8565	12.25
.375	8566	8567	8568	12.00
.500	8569	8570	8571	13.50
.625	8572	8573	8574	14.50
.750	8575	8576	8577	15.50
.875	8578	8579	8580	16.00
1.000	8581	8582	8583	16.00
1.250	8584	8585	8586	19.50
1.500	8587	8588	8589	20.25
1.750	8590	8591	8592	21.50
2.000	8593	8594	8595	21.75
2.500	8596	8597	8598	24.00
3.000	8599	8600	8601	25.50
3.500	8602	8603	8604	29.00
4.000	8605	8606	8607	32.00

HEX—TAPPED HOLE

350 0-D					10-32
LENGTH "L"	4-40		8-32		NET Per C
	THD	THD	THD	THD	
.125	8440	8440	8440	8440	\$11.00
.250	8441	8441	8441	8441	12.00
.375	8442	8442	8442	8442	13.50
.500	8443	8443	8443	8443	14.00
.625	8444	8444	8444	8444	15.25
.750	8445	8445	8445	8445	16.00
.875	8446	8446	8446	8446	16.00
1.000	8447	8447	8447	8447	16.50
1.250	8448	8448	8448	8448	17.25
1.500	8449	8449	8449	8449	18.00
1.750	8441	8431	8450	8450	21.00
2.00	8411	8431	8451	8451	22.50
2.50	8412	8432	8452	8452	26.00
3.00	8413	8433	8453	8453	28.00
3.50	8414	8434	8454	8454	30.00
4.00	8415	8435	8455	8455	31.00

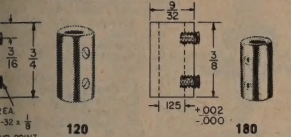
Specify SMITH

HERMAN H. SMITH, INC.

ELECTRONIC
COMPONENTS

COUPLERS

Brass and Insulated



Std. Pkg. 25	Material	NET Per C
With Two Set Screws		
A B	O.D.	
1/4" - 1/4"	Brass N.P.	\$18.00
1/4" - 1/4"	Fibre	20.00
1/4" - 1/4"	Brass N.P.	18.00
1/4" - 1/4"	Fibre	20.00
1/4" - 1/4"	Brass N.P.	18.00
1/4" - 1/4"	Fibre	20.00
With Four Set Screws		
1/4" - 1/4"	Brass N.P.	28.00
MINIATURE COUPLER		
With Allen Head Set Screws		
1/4" - 1/4"	Brass N.P.	\$40.00

EXTENDERS

Brass and Insulated



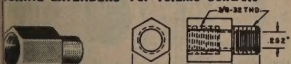
Std. Pkg. 25	Material	NET Per C
Long Shaft Type		
A B	O.D.	
1/4" - 1/4"	Brass N.P.	\$25.00
1/4" - 1/4"	Fibre	30.00
1/4" - 1/4"	Brass N.P.	25.00
1/4" - 1/4"	Fibre	30.00
Short Shaft Type		
A B	O.D.	
1/4" - 1/4"	Brass N.P.	\$22.00
1/4" - 1/4"	Fibre	22.00
1/4" - 1/4"	Brass N.P.	22.00
1/4" - 1/4"	Fibre	22.00
URE EXTENDER With Allen Head Set Screws		
1/4" - 1/4"	Brass N.P.	\$25.00

SHAFT EXTENDERS For Volume Controls



Std. Pkg. 25	Material	NET Per C
Full Round		
A B	O.D.	
1/4" - 1/4"	Brass N.P.	\$21.00
1/4" - 1/4"	Fibre	27.00
1/4" - 1/4"	Brass N.P.	27.00
1/4" - 1/4"	Fibre	21.00
WITH FLAT		
A B	O.D.	
1/4" - 1/4"	Brass N.P.	\$24.00
1/4" - 1/4"	Fibre	27.00
1/4" - 1/4"	Brass N.P.	21.00
1/4" - 1/4"	Fibre	24.00
1/4" - 1/4"	Brass N.P.	27.00
1/4" - 1/4"	Fibre	27.00

FISHING EXTENDERS For Volume Controls



Std. Pkg. 25	Material	NET Per C
Full Round		
A B	O.D.	
1/4" - 1/4"	Brass N.P.	\$36.00
1/4" - 1/4"	Fibre	50.00
1/4" - 1/4"	Brass N.P.	36.00
1/4" - 1/4"	Fibre	50.00
WITH FLAT		
A B	O.D.	
1/4" - 1/4"	Brass N.P.	\$36.00
1/4" - 1/4"	Fibre	50.00
1/4" - 1/4"	Brass N.P.	36.00
1/4" - 1/4"	Fibre	50.00

BRASS THREADED RODS

Std. Pkg. 10	2-Ft. Length	NET Ea.
Threaded	No.	
5/32	6-32	\$1.80
3/8	8-32	1.40
1/2	10-32	1.40
5/8	12-32	1.40

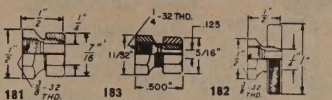
NYLON THREADED RODS

Std. Pkg. 10	2-Ft. Length	NET Ea.
Threaded	No.	
5/32	6-32	\$1.80
1.02	8-32	1.40
1.50	10-32	1.40
1.80	12-32	1.40

Std. Pkg. 10	2-Ft. Length	NET Ea.
Threaded	No.	
5/32	6-32	\$1.80
1.02	8-32	1.40
1.50	10-32	1.40
1.80	12-32	1.40

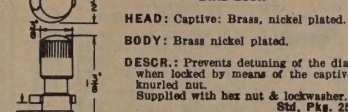
Std. Pkg. 10	1/4" DIA	NET Ea.
Brass N.P.	6"	\$1.40
Brass N.P.	12"	1.40
Fibre	6"	1.40
Fibre	12"	1.40
Nylon	6"	1.40
Nylon	12"	1.40

SHAFT LOCKS Brass Nickel Plated



No.	Shaft	Std. Pks.	NET Per C
181	Wrench Type	25	\$24.00
183	Miniature Wrench Type	25	24.00
182	Thumb Type	25	\$9.00

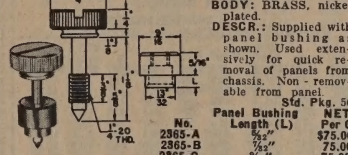
DIAL LOCK



No.	Std. Pks.	NET Per C
199	25	\$66.00

CAPTIVE SCREW & BUSHING

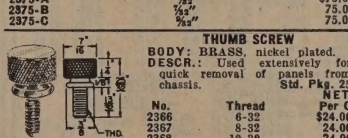
Large Head



No.	Panel Bushing	Std. Pkg. 50	NET Per C
2375-A	Length (L)	Per C	
2375-B	1/2"	\$75.00	
2375-C	3/4"	75.00	
	1"	75.00	

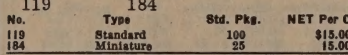
CAPTIVE SCREW & BUSHING

Small Head



No.	Thread	Std. Pks.	NET Per C
2366	6-32	25	\$24.00
2367	8-32	25	24.00
2368	10-32	25	24.00

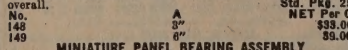
THUMB SCREW



No.	Thread	Std. Pks.	NET Per C
2366	6-32	25	\$24.00
2367	8-32	25	24.00
2368	10-32	25	24.00

PANEL BEARINGS

Brass, Nickel Plated



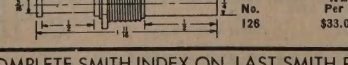
No.	Type	Std. Pks.	NET Per C
119	Standard	100	\$15.00
184	Miniature	25	15.00

PANEL BEARING ASSEMBLY



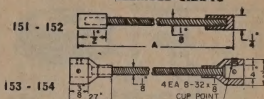
No.	Type	Std. Pks.	NET Per C
148	Standard	100	\$15.00
149	Miniature	25	15.00

MINIATURE PANEL BEARING ASSEMBLY



No.	Type	Std. Pks.	NET Per C
148	Standard	100	\$15.00
149	Miniature	25	15.00

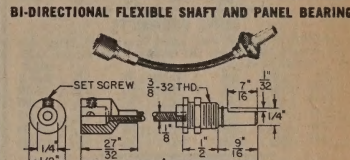
FLEXIBLE SHAFTS



High quality phosphor bronze non-magnetic, non-rusting flexible shafts. Remove control when necessary to mount condensers and potentiometers away from panel at unusual angles. Turns at any angle up to 90°; free from back lash. Std. Pkg. 25

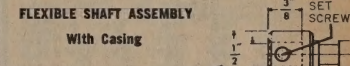
No.	Size "A"	Description	NET Per C
151	2"	With 1/4" hub	\$45.00
152	3"	With 1/4" hub	45.00
153	3"	With 1/4" coupler	90.00
154	3"	With 1/4" coupler	105.00

BI-DIRECTIONAL FLEXIBLE SHAFT AND PANEL BEARING



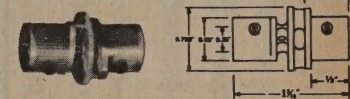
No.	Length "A"	NET Ea.
165	4 1/4"	\$1.85
166	7 1/4"	1.50

FLEXIBLE SHAFT ASSEMBLY



No.	Length	NET Ea.
165	4 1/4"	\$6.00
166	7 1/4"	6.30

NYLON FLEXIBLE SHAFT COUPLING



DESCR.: Molded nylon with molded-in brass bushings. Hi-temp nylon not influenced by moisture. Designed for long reach shaft coupling. Supplied with 2 Allen head set screws. Std. Pkg. 25

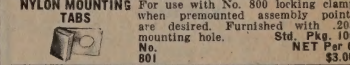
SHAFT WRENCH



Specially designed offset, double-end wrenches for most hex sizes encountered in electronic construction. Made of heavy gauge, cadmium plated steel, clearly marked with size. No. 999 is especially useful for Toggle Switch and Volume Control mounting nuts. Std. Pkg. 25

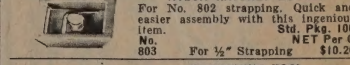
No.	For Nut Sizes	NET Per C
997	Set of 2	\$42.00
998	3/16" - 3/8"	21.00
999	1/2" - 9/16"	21.00

NYLON LOCKING CLAMP



No.	Std. Pkg.	NET Per C
800	100	\$9.00

NYLON MOUNTING TABS



No.	Std. Pkg.	NET Per C
801	100	\$5.00

NYLON PERFORATING STRAPPING



No.	Std. Pkg.	NET Per C
802	100	\$16.00

NYLON RATCHET BUCKLE

No.	Std. Pkg.	NET Per C
803	100	\$18.00

TIGHTENING TOOL

No.	Std. Pkg.	NET Ea.
804	100	\$18.00

specify SMITH

HERMAN H. SMITH, INC.



ELECTRONIC COMPONENT

RUBBER GROMMETS

No.	A	B	C	D	E	Std. Pkg. 100	NET Per C	NET Per M
2185	3/8"	1/2"	3/8"	1/4"	1/8"	1/8"	\$2.31	
2172	3/8"	1/2"	3/8"	1/4"	1/8"	1/8"	1.98	
2170	3/8"	1/2"	3/8"	1/4"	1/8"	1/8"	2.31	
2174	3/8"	1/2"	3/8"	1/4"	1/8"	1/8"	2.16	
2175	3/8"	1/2"	3/8"	1/4"	1/8"	1/8"	2.31	
2177	3/8"	1/2"	3/8"	1/4"	1/8"	1/8"	2.16	
2186	1/2"	3/4"	1/2"	3/8"	3/16"	3/16"	4.80	
2187	1/2"	3/4"	1/2"	3/8"	3/16"	3/16"	4.20	
2188	1/2"	3/4"	1/2"	3/8"	3/16"	3/16"	4.20	
2189	1"	3/4"	3/4"	7/8"	3/4"	3/4"	5.10	

VINYL GROMMETS

DESCR.: Exceptional aging qualities. High dielectric properties. Oil resistant. Durable hard-ness up to 85.

No.	A	B	C	D	E	Std. Pkg. 100	NET Per C	NET Per M
2145	1/2"	3/4"	1/2"	3/8"	3/16"	3/16"	\$.90	
2146	1/2"	3/4"	1/2"	3/8"	3/16"	3/16"	.96	
2147	1/2"	3/4"	1/2"	3/8"	3/16"	3/16"	1.32	
2148	1/2"	3/4"	1/2"	3/8"	3/16"	3/16"	1.50	
2149	1/2"	3/4"	1/2"	3/8"	3/16"	3/16"	2.28	

GROMMETS

Formerly listed by Radio Essentials, Inc., and American Radio Hardware Inc. (Their catalog numbers as below, minus first digit.)

No.	A	B	C	D	E	Std. Pkg. 100	NET Per C	NET Per M
9100	3/8"	1/2"	3/8"	1/4"	1/8"	1/8"	\$7.50	
9101	3/8"	1/2"	3/8"	1/4"	1/8"	1/8"	13.20	
9102	3/8"	1/2"	3/8"	1/4"	1/8"	1/8"	3.15	
9103	3/8"	1/2"	3/8"	1/4"	1/8"	1/8"	3.00	
9104	3/8"	1/2"	3/8"	1/4"	1/8"	1/8"	6.50	
9105	3/8"	1/2"	3/8"	1/4"	1/8"	1/8"	6.60	
9107	3/8"	1/2"	3/8"	1/4"	1/8"	1/8"	5.30	
9108	3/8"	1/2"	3/8"	1/4"	1/8"	1/8"	7.50	
9109	3/8"	1/2"	3/8"	1/4"	1/8"	1/8"	18.50	
9110	3/8"	1/2"	3/8"	1/4"	1/8"	1/8"	6.30	
9111	3/8"	1/2"	3/8"	1/4"	1/8"	1/8"	7.00	
9112	3/8"	1/2"	3/8"	1/4"	1/8"	1/8"	7.05	
9113	3/8"	1/2"	3/8"	1/4"	1/8"	1/8"	2.85	
9114	3/8"	1/2"	3/8"	1/4"	1/8"	1/8"	2.34	
9115	3/8"	1/2"	3/8"	1/4"	1/8"	1/8"	6.50	
9116	3/8"	1/2"	3/8"	1/4"	1/8"	1/8"	4.35	
9117	3/8"	1/2"	3/8"	1/4"	1/8"	1/8"	3.15	
9118	3/8"	1/2"	3/8"	1/4"	1/8"	1/8"	2.40	
9119	3/8"	1/2"	3/8"	1/4"	1/8"	1/8"	2.55	
9120	3/8"	1/2"	3/8"	1/4"	1/8"	1/8"	3.00	
9121	3/8"	1/2"	3/8"	1/4"	1/8"	1/8"	2.85	
9122	3/8"	1/2"	3/8"	1/4"	1/8"	1/8"	2.95	
9123	3/8"	1/2"	3/8"	1/4"	1/8"	1/8"	5.18	
9124	3/8"	1/2"	3/8"	1/4"	1/8"	1/8"	3.45	

RECESS RUBBER BUMPERS

No.	A	B	C	D	E	Std. Pkg. 100	NET Per C	NET Per M
2192	1"	3/4"	1/2"	3/8"	3/16"	3/16"	\$1.50	
2193	1"	3/4"	1/2"	3/8"	3/16"	3/16"	1.93	
2194	1"	3/4"	1/2"	3/8"	3/16"	3/16"	3.00	
2195	1"	3/4"	1/2"	3/8"	3/16"	3/16"	4.80	

No.	A	B	C	D	E	Std. Pkg. 100	NET Per C	NET Per M
2196	1"	3/4"	1/2"	3/8"	3/16"	3/16"	\$6.60	
2197	1"	3/4"	1/2"	3/8"	3/16"	3/16"	6.90	
2198	1"	3/4"	1/2"	3/8"	3/16"	3/16"	7.50	
2199	1"	3/4"	1/2"	3/8"	3/16"	3/16"	7.50	
2195	1"	3/4"	1/2"	3/8"	3/16"	3/16"	8.30	

Supplied complete with 1/8" mounting screw and hex nut for panels up to 1/8" thick. Specify longer screw for thicker panels.

No.	A	B	C	D	E	Std. Pkg. 100	NET Per C	NET Per M
2196	1"	3/4"	1/2"	3/8"	3/16"	3/16"	\$6.60	
2197	1"	3/4"	1/2"	3/8"	3/16"	3/16"	6.90	
2198	1"	3/4"	1/2"	3/8"	3/16"	3/16"	7.50	
2199	1"	3/4"	1/2"	3/8"	3/16"	3/16"	7.50	
2195	1"	3/4"	1/2"	3/8"	3/16"	3/16"	8.30	

FIBRE WASHERS

No.	A	B	C	D	E	Std. Pkg. 100	NET Per C	NET Per M
2150	1/4"	3/8"	1/4"	1/8"	1/16"	1/16"	\$8.40	
2151	1/4"	3/8"	1/4"	1/8"	1/16"	1/16"	\$2.70	
2152	1/4"	3/8"	1/4"	1/8"	1/16"	1/16"	6.00	
2153	1/4"	3/8"	1/4"	1/8"	1/16"	1/16"	6.60	
2154	1/4"	3/8"	1/4"	1/8"	1/16"	1/16"	7.20	
2155	1/4"	3/8"	1/4"	1/8"	1/16"	1/16"	8.40	
2156	1/4"	3/8"	1/4"	1/8"	1/16"	1/16"	9.60	
2157	1/4"	3/8"	1/4"	1/8"	1/16"	1/16"	1.09	
2158	3/8"	1/2"	3/8"	1/4"	1/8"	1/8"	1.12	

No.	A	B	C	D	E	Std. Pkg. 100	NET Per C	NET Per M
2150	1/4"	3/8"	1/4"	1/8"	1/16"	1/16"	\$8.40	
2151	1/4"	3/8"	1/4"	1/8"	1/16"	1/16"	\$2.70	
2152	1/4"	3/8"	1/4"	1/8"	1/16"	1/16"	6.00	
2153	1/4"	3/8"	1/4"	1/8"	1/16"	1/16"	6.60	
2154	1/4"	3/8"	1/4"	1/8"	1/16"	1/16"	7.20	
2155	1/4"	3/8"	1/4"	1/8"	1/16"	1/16"	8.40	
2156	1/4"	3/8"	1/4"	1/8"	1/16"	1/16"	9.60	
2157	1/4"	3/8"	1/4"	1/8"	1/16"	1/16"	1.09	
2158	3/8"	1/2"	3/8"	1/4"	1/8"	1/8"	1.12	

All material based on N.E.M.A. Standard and A.S.P.M. Spec. D-710.

No.	A	B	C	D	E	Std. Pkg. 100	NET Per C	NET Per M
2150	1/4"	3/8"	1/4"	1/8"	1/16"	1/16"	\$8.40	
2151	1/4"	3/8"	1/4"	1/8"	1/16"	1/16"	\$2.70	
2152	1/4"	3/8"	1/4"	1/8"	1/16"	1/16"	6.00	
2153	1/4"	3/8"	1/4"	1/8"	1/16"	1/16"	6.60	
2154	1/4"	3/8"	1/4"	1/8"	1/16"	1/16"	7.20	
2155	1/4"	3/8"	1/4"	1/8"	1/16"	1/16"	8.40	
2156	1/4"	3/8"	1/4"	1/8"	1/16"	1/16"	9.60	
2157	1/4"	3/8"	1/4"	1/8"	1/16"	1/16"	1.09	
2158	3/8"	1/2"	3/8"	1/4"	1/8"	1/8"	1.12	

NYLON WASHERS

MATERIAL: Natural Nylon per MIL-P-20693A.

No.	A	B	C	D	E	Std. Pkg. 100	NET Per C	NET Per M
2660	1/4"	3/8"	1/4"	1/8"	1/16"	1/16"	\$18.00	
2661	1/4"	3/8"	1/4"	1/8"	1/16"	1/16"	1.90	
2662	1/4"	3/8"	1/4"	1/8"	1/16"	1/16"	1.90	
2663	1/4"	3/8"	1/4"	1/8"	1/16"	1/16"	2.05	
2664	1/4"	3/8"	1/4"	1/8"	1/16"	1/16"	2.15	
2665	1/4"	3/8"	1/4"	1/8"	1/16"	1/16"	2.25	
2666	1/4"	3/8"	1/4"	1/8"	1/16"	1/16"	2.35	
2667	1/4"	3/8"	1/4"	1/8"	1/16"	1/16"	2.45	
2668	1/4"	3/8"	1/4"	1/8"	1/16"	1/16"	2.55	

FLAT WASHERS

No.	(Hole Size)	A.	D.	Thickness	NET Per C	NET Per M
2514	No. 4	.115	.281	o/47	\$1.80	\$12.90
2570	No. 6	.138	.250	1/16	1.60	12.80
2571	No. 4	.110	.250	1/16	1.60	12.80
2572	No. 6	.140	.375	1/16	2.20	16.30
2515	No. 6	.140	o/47	.08	1.60	12.80
2573	No. 8	.172	.375	1/16	2.25	18.00
2516	No. 8	.170	.375	.062	2.10	16.00
2574	No. 10	.198	.375	1/16	2.05	16.30
2575	No. 10	.200	.500	1/16	2.25	18.00
2576	1/4"	.250	.500	1/16	2.25	18.00
2577	1/4"	.250	.500	3/32	2.65	21.00
2518	1/4"	.260	.682	.062	2.40	24.00
2578	3/8"	.312	.500	1/16	2.25	18.00
2579	3/8"	.385	.500	1/16	2.45	21.00
2580	5/8"	.75	.75	1/16	2.20	18.00

Specify SMITH

HERMAN H. SMITH, INC.

ELECTRONIC
COMPONENTS

ROUND HEAD STEEL MACHINE SCREWS

CADMIUM PLATED

No.	Net per C	No.	Net per M
11746	.52	1173M	\$5.30
11752	.72	1175M	6.50
11766	.76	1176M	6.85
11776	.62	1177M	5.60
11786	.65	1178M	5.85
1183C	.68	1183M	6.15
1184C	.87	1184M	7.85
1185C	1.00	1185M	9.00
1350C	.62	1350M	5.60
1351C	.65	1351M	5.85
1352C	.68	1352M	6.20
1353C	.74	1353M	6.65
1354C	1.01	1354M	9.00
1000C	.70	1000M	5.85
1001C	.84	1001M	7.00
1002C	.94	1002M	7.80
1355C	.88	1355M	8.00
1356C	1.04	1356M	9.40
1357C	1.08	1357M	9.80
1358C	1.95	1358M	17.55
1006C	.84	1006M	7.00
1007C	.97	1007M	8.10
1008C	1.02	1008M	8.50
1359C	1.21	1359M	10.90
1360C	1.24	1360M	11.20
1361C	1.46	1361M	13.15
1362C	1.63	1362M	14.70

BRASS MACHINE SCREWS

Round Head Nickel Plated

No.	Net per C	No.	Net per M
1044C	\$1.02	1044M	\$8.50
1045C	.94	1045M	7.80
1046C	1.32	1046M	11.20
1047C	1.06	1047M	8.80
1048C	1.26	1048M	10.50
1049C	1.32	1049M	11.20
1050C	1.56	1050M	13.00
1051C	1.62	1051M	13.50
1052C	1.92	1052M	12.50
1056C	1.92	1056M	16.00
1057C	2.30	1057M	19.20
1058C	2.70	1058M	22.50

BINDING HEAD STEEL MACHINE SCREWS

CADMIUM PLATED

No.	Net per C	No.	Net per M
1369C	\$.59	1369M	\$5.30
1370C	.62	1370M	5.60
1371C	.72	1371M	6.50
1372C	.62	1372M	5.60
1373C	.69	1373M	6.20
1374C	1.01	1374M	9.10
1375C	.72	1375M	6.50
1425C	.77	1425M	6.40
1426C	.84	1426M	7.00
1427C	.85	1427M	7.15
1376C	.98	1376M	7.95
1377C	1.04	1377M	9.10
1428C	.77	1428M	6.40
1378C	.96	1378M	8.65
1429C	.97	1429M	8.10
1430C	1.01	1430M	8.40
1379C	1.21	1379M	10.90
1380C	1.24	1380M	11.20
1381C	1.34	1381M	12.10

STEEL SPADE BOLTS

No.	Net per C	No.	Net per M
1500C	1.25	1500M	10.20

CABLE CLAMPS

Steel Cadmium Plated
with No. 8 Mtx. Hole,
Std. Pkg. 100

Length	Width	Cable	NET Per C
1/2"	3/8"	1/8"	\$7.8
3/4"	1/2"	3/16"	.84
1"	5/8"	1/2"	.90

SELF TAPPING SCREWS

ROUND HEAD—TYPE A—Sharp Point

Size	No.	NET per C	No.	NET per M
4 x 1/2"	1801C	.77	1801M	\$6.00
6 x 1/4"	1802C	.83	1802M	6.60
6 x 3/8"	1803C	.87	1803M	7.00
6 x 1/2"	1804C	.94	1804M	8.10
8 x 3/8"	1805C	.92	1805M	7.50
8 x 1/2"	1806C	1.12	1806M	9.45

ROUND HEAD—TYPE Z—Blunt Point

Size	No.	NET per C	No.	NET per M
4 x 1/2"	1807C	.87	1807M	\$7.00
6 x 1/4"	1808C	.87	1808M	7.00
6 x 3/8"	1809C	.87	1809M	7.00
6 x 1/2"	1810C	.98	1810M	8.10
8 x 3/8"	1811C	.92	1811M	7.50
8 x 1/2"	1812C	1.12	1812M	9.45

SLOTTED HEX HEAD—TYPE Z Blunt Point

Size	No.	NET per C	No.	NET per M
6 x 1/4"	1830C	\$1.12	1830M	\$9.45
6 x 3/8"	1831C	1.12	1831M	9.45
6 x 1/2"	1832C	1.12	1832M	9.45
8 x 3/8"	1833C	.92	1833M	7.50
8 x 1/2"	1834C	1.12	1834M	9.45

PAN HEAD SHEET METAL SCREWS

CADMIUM PLATED

Size	No.	Net per C	No.	Net per M
4 x 1/2"	1389C	\$1.13	1389M	\$10.20
6 x 1/2"	1390C	1.13	1390M	10.20
6 x 3/8"	1391C	1.17	1391M	10.55
6 x 1/2"	1392C	1.20	1392M	10.80
6 x 3/4"	1393C	1.30	1393M	11.70
8 x 1/2"	1394C	1.30	1394M	11.70
8 x 3/4"	1395C	1.37	1395M	12.35
8 x 1"	1396C	1.40	1396M	12.60
8 x 1 1/8"	1397C	1.80	1397M	16.20

ROUND HEAD STEEL WOOD SCREWS

Size	No.	Net per C	No.	Net per M
4 x 1/2"	1384C	\$1.01	1384M	\$9.10
4 x 3/4"	1385C	1.17	1385M	10.50
6 x 1/2"	1386C	1.26	1386M	11.35
6 x 1"	1387C	1.56	1387M	14.00
8 x 1 1/4"	1388C	1.50	1388M	13.50

OVAL HEAD STEEL NICKEL PLATED RACK SCREWS

Size	No.	Net per C	No.	Net per M
6-32 x 3/4"	1382C	\$.98	1382M	\$8.85
8-32 x 3/4"	1383C	1.24	1383M	11.20
10-32 x 1/2"	1111C	1.14	1111M	9.50
10-32 x 3/4"	1112C	1.16	1112M	9.74

COUNTER SUNK WASHERS BRASS

NICKEL PLATED

Size	No.	Net per C	No.	Net per M
#6	1115C	\$.61	1115M	\$5.75
#8	1116C	.91	1116M	6.70
#10	1117C	.94	1117M	7.80

FAHNESTOCK SPRING BATTERY CLIPS

Clips are made of brass, nickel
plated and are available in the
single and double clip types.
Std. Pkg. 100

No.	Type	Length	NET Per C
539	Single	3/8"	\$2.80
538	Single	1/2"	2.80
534	Single	1"	4.00
585	Double	1 1/8"	11.00
536	Double	2 1/8"	13.00



HEXAGON NUTS

Brass Nickel Plated

Size	No.	NET per C	No.	NET per M
4-36 x 1/4"	1188C	\$1.10	1188M	\$9.33
4-40 x 1/4"	1168C	1.10	1168M	9.25
6-32 x 1/4"	1189C	1.68	1189M	14.00
6-32 x 1/2"	1190C	1.28	1190M	11.08
8-32 x 1/2"	1192C	1.28	1192M	11.08
10-32 x 1/2"	1193C	1.38	1193M	12.08
1/4-32"	1187C	1.20	1187M	10.00

Steel Nickel Plated

Size	No.	NET per C	No.	NET per M
1/4-32"	1186C	1.50	1186M	\$13.20



HEX NUTS STEEL

CADMIUM PLATED

Size	No.	Net per C	No.	Net per M
2-56 x 3/8"	1363C	.68	1363M	5.05
3-48 x 3/8"	1364C	.68	1364M	5.05
4-36 x 1/4"	1365C	.67	1365M	5.00
6-32 x 1/4"	1179C	.70	1179M	5.25
6-32 x 1/2"	1180C	.72	1180M	5.55
8-32 x 1/2"	1366C	.73	1366M	5.60
8-32 x 3/4"	1181C	.86	1181M	6.10
10-32 x 3/4"	1367C	.97	1367M	8.00
1/4-20 x 3/4"	1368C	1.33	1368M	11.50
1/4-32 x 3/4"	1186C	.75	1186M	6.00



VOL CONTROL & TOGGLE SWITCH NUTS

Nickel Plated

Type	No.	NET Per C	No.	NET Per M
Vol. Cont. Brass*	1195C	\$1.65	1195M	\$15.00
Vol. Cont. Steel*	1196C	1.32	1196M	12.00
Toggle Sw. Hex†	1196C	1.98	1196M	18.00
Toggle Sw. Ring†	1197C	3.30	1197M	30.00

*3/8-32 x 1/2 x 3/32 †1 1/2 x 3/8 x 3/4 ‡1 1/2 x 3/8 x 1/4

FLAT STEEL WASHERS

NICKEL PLATED

Size	No.	Net per C	No.	Net per M
For #2 Screw	1138C	.65	1138M	4.80
For #4 Screw	1149C	1.02	1149M	8.50
For #6 Screw	1150C	.83	1150M	6.60
For #8 Screw	1151C	.65	1151M	4.80
For #10 Screw	1152C	.83	1152M	6.60
For 1/4" Screw	1147C	.83	1147M	6.60
For 3/8" Screw	1148C	.90	1148M	7.25



INTERNAL TOOTH LOCKWASHERS STEEL

CADMIUM PLATED

Size	No.	Net per C	No.	Net per M
#6	1127C	.51	1127M	3.50
#8	1128C	.51	1128M	3.50
#10	1129C	.55	1129M	3.83
#12	1130C	.55	1130M	3.83
1/4"	1132C	.67	1132M	5.00
3/8"	1131C	1.02	1131M	8.50
Narrow Rim 3/8"	1145C	1.02	1145M	8.50
Narrow Rim 1/2"	1146C	1.02	1146M	8.50



EXTERNAL TOOTH LOCKWASHERS STEEL

CADMIUM PLATED

Size	No.	Net per C	No.	Net per M
#4	1139C	.51	1139M	3.50
#6	1140C	.51	1140M	3.50
#8	1141C	.55	1141M	3.83
#10	1142C	.55	1142M	3.83
1/4"	1144C	.67	1144M	5.00
3/8"	1143C	1.02	1143M	8.50



ANGLES

Size	No.	Net per C	No.	Net per M
L1	1141C	.51	1141M	3.83
L2	1142C	.55	1142M	3.83
T	1143C	.55	1143M	3.83
W	1144C	.67	1144M	5.00
Std. Pkg. 100				

STEEL, Cadmium Plated

No.	L1	L2	H1	H2	W	T	A	B	Per C	Per M
1444	1/8	1/8	1/8	1/8	1/8	.032	3/8	3/8	4.1	\$.72
1445	1/8	1/8	1/8	1/8	1/8	.050	3/8	3/8	4.1	.90
1446	1/8	1/8	1/8	1/8	1/8	.032	3/8	3/8	4.1	.90
1447	1/8	1/8	1/8	1/8	1/8	.050	3/8	3/8	4.1	1.02
1476	1 1/8	1 1/8	1 1/8	1 1/8	1 1/8	.032	6	6	6	1.50

Note: No. 1476 has Hot Tin Dipped finish

BRASS, Nickel Plated

No.	L1	L2	H1	H2	W	T	A	B	Per C	Per M
1474	1/8	1/8	1/8	1/8	1/8	.025	3/8	3/8	1.80	
1475	1/8	1/8	1/8	1/8	1/8	.050	3/8	3/8	3.80	

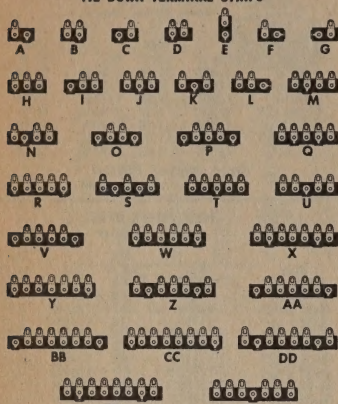
specify SMITH

HERMAN H. SMITH, INC.



ELECTROCOMPONENTS

TIE DOWN TERMINAL STRIPS

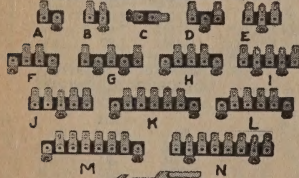


Standard Type
LUG: Steel, Cadmium plated.
Spaced 3/8" centers.
STRIP: X.P. Bakelite, 5/16" wide x .062 thick.
MOUNT: .140 I.D. for No. 6 screw.

Std. Pkg. 100

No.	III.	NET Per C
861	A	\$2.20
862	B	2.40
813	C	2.50
820	D	2.50
849	E	3.00
828	F	2.40
821	G	2.40
830	H	2.80
829	I	2.80
864	J	3.00
865	K	3.00
846	L	3.50
850	M	4.00
879	N	4.00
867	O	4.50
853	P	4.50
868	Q	5.00
847	R	5.50
865	S	4.50
886	T	3.50
855	U	5.10
869	V	5.50
854	W	6.50
878	X	6.50
859	Y	6.00
871	Z	5.50
860	AA	6.00
848	BB	6.70
900	CC	6.50
856	DD	7.00
670	EE	7.20
901	FF	6.00

"QUICK-CONNECT" TERMINAL STRIPS

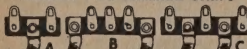


No.	III.	NET Per C	No.	III.	NET Per C	No.	III.	NET Per C
1085	A	1.576	1090	F	1.576	1095	K	1.576
1086	B	3.10	1091	G	5.70	1097	L	7.50
1087	C	3.50	1092	H	5.70	1098	M	8.50
1088	D	3.30	1093	I	6.30	1099	N	9.50
1089	E	3.50	1094	J	5.00			

Terminal Strip Connectors

Std. Pkg. 100

BRACKET TYPE TERMINAL STRIPS



No.	III.	NET Per C	No.	III.	NET Per C	No.	III.	NET Per C
1077	A	2	1082	B	4	1088	C	6
1079	B	3						
1080	C	5						
1081	D	5						
1082	E	6						
1083	F	6						

LUGS: STEEL, cadmium plated, spaced 3/8" centers.
BRACKETS: Brass, cadmium plated.
STRIPS: X.P. Bakelite 5/16" wide x .062 thick.
MOUNT: .140 I.D. for No. 6 screw.

Std. Pkg. 100

TERMINAL STRIP ASSEMBLY



LUG: STEEL, cadmium plated.
BASE: STEEL, cadmium plated. Mounting holes for No. 6 screw.
STRIP: X.P. Bakelite.

No.	Terminals	Dimensions "A"	Dimensions "B"	Std. Pkg. 100 Per C
3002	2	1.000	1 1/2"	\$6.00
3003	3	1.312	1 3/4"	6.90
3004	4	1.625	1 7/8"	7.80
3005	5	1.937	2"	8.70
3006	6	2.250	2 1/8"	9.60
3007	7	2.562	2 1/4"	10.50
3008	8	2.875	2 3/8"	11.40
3009	9	3.187	2 1/2"	12.30
3010	10	3.500	3"	13.20
3011	11	3.812	3 1/8"	14.10
3012	12	4.125	3 1/4"	15.00

SCREW TYPE TERMINAL BOARD

LUGS: BRASS, hot tinned, spaced 3/8" centers.
SCREW: Steel, cadmium plated 8-32 x 1/2".
STRIP: X.P. Bakelite 5/16" wide x .062 thick.

No.	Terminals	Mounting	NET Per C
914	1	7/8"	50 \$ 6.50
872	2	1 1/8"	50 7.00
873	3	1 3/8"	50 10.50
874	4	2 1/8"	50 12.50
875	5	2 3/8"	25 16.50
876	6	3 1/8"	25 18.50
877	7	3 3/8"	25 22.50
928	8	3 7/8"	25 24.00
929	9	4 3/8"	25 28.00
930	10	4 7/8"	25 32.00

878 Shorting Link 1.80

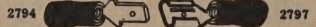
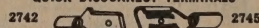


HEAVY DUTY TERMINAL BOARDS

LUG: BRASS, cadmium plated .042 thick spaced 3/8" centers. Terminals numbered.
STRIP: X.P. Bakelite 5/16" wide x 3/8" thick, numbered.
SCREW: Brass, nickel plated 8-32 x 3/4".

No.	Terminals	Mtg. Center	NET Per C
902	2	1 1/2"	\$20.00
903	3	1 3/4"	22.00
904	4	2"	24.00
905	5	2 1/4"	26.00
906	6	2 1/2"	28.00
907	7	2 3/4"	30.00
908	8	3"	32.00
909	9	3 1/4"	34.00
910	10	3 1/2"	36.00
911	11	3 3/4"	38.00
912	12	4"	40.00

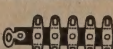
QUICK DISCONNECT TERMINALS



Terminals of pure electrolytic copper. Resists corrosion and insures their life. Beveled entry for easy wire threading and improved Y-ridges for wire protection. Male tongue width .258/.261, female entry .235 Min.

No.	Terminals	Non-Insulated	Insulated	Std. Pkg. 100
2742	2	22-10	22-10	\$2.10
2743	3	22-10	22-10	2.10
2744	4	22-10	22-10	2.10
2794	2	22-16	22-16	4.50
2795	3	22-16	22-16	4.50
2796	4	22-16	22-16	4.50

"T" TYPE TERMINAL STRIPS



No.	Terminals	Lugs	Std. Pkg. 100
815	1	3"	\$3.20
816	2	3"	4.40
817	3	3"	5.60
818	4	3"	6.80
819	5	3"	8.00

SOLDER TYPE LUGS—Hot Tinned



No.	Material	Length	Thick.	Hole
1484	Ph. Br.	5/8"	.020"	No. 6
1485-4	Ph. Br.	17/32"	.012"	No. 6
1485-6	Ph. Br.	17/32"	.012"	No. 6
1485-10	Ph. Br.	17/32"	.012"	No. 6
1486-4	Ph. Br.	13/16"	.012"	No. 4
1486-6	Ph. Br.	13/16"	.012"	No. 6
1486-8	Ph. Br.	13/16"	.012"	No. 8
1486-10	Ph. Br.	13/16"	.012"	No. 10
1487-4	Brass	3/4"	.020"	No. 4
1491	Copper	15/16"	.020"	No. 10
1493	Brass	1-1/8"	.020"	No. 8
1494-6	Brass	5/8"	.020"	No. 6
1494-8	Brass	5/8"	.020"	No. 8
1495	Brass	5/8"	.020"	No. 8
1496	Brass	3/4"	.020"	No. 8
1497	Brass	7/8"	.017"	No. 8

SOLDER LUG ASSORTMENT

A complete assortment of the most widely used Solder types, with hole sizes from #24 thru #210. Packed in re-usable clear plastic compartment box.

Approx. Quantity of Terminals 1400

LOCKING TYPE TERMINAL LUGS



No.	Length	Thick	Hole
1410-4	1/2"	.018"	No. 4
1410-6	1/2"	.018"	No. 6
1410-8	1/2"	.018"	No. 8
1410-10	1/2"	.018"	No. 10
1410-14	13/16"	.018"	No. 14
1411-4	1/2"	.020"	No. 4
1411-6	1/2"	.020"	No. 6
1411-8	1/2"	.020"	No. 8
1412-4	1/2"	.018"	No. 4
1412-6	1/2"	.018"	No. 6
1412-8	1/2"	.018"	No. 8
1413-4	1/2"	.018"	No. 4
1413-6	1/2"	.018"	No. 6
1413-8	1/2"	.018"	No. 8
1414-4	1/2"	.018"	No. 4
1414-6	1/2"	.018"	No. 6
1414-8	1/2"	.018"	No. 8
1414-10	1/2"	.018"	No. 10
1415-4	1/2"	.018"	No. 4
1415-6	1/2"	.018"	No. 6
1415-8	1/2"	.018"	No. 8
1416-4	1/2"	.020"	No. 4
1416-6	1/2"	.020"	No. 6
1416-8	1/2"	.020"	No. 8

LOCKING TYPE TERMINAL LUGS

Brass Electro Plated

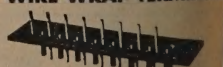
No.	Hole Size	Thick	Length
1465	No. 4	.020"	1 1/2"
1466	No. 6	.020"	1 1/2"
1467	No. 8	.020"	1 1/2"
1468	No. 10	.020"	1 1/2"

LOCKING TERMINAL LUG ASSORTMENT

A complete assortment of the most widely used Locking Terminal types, with hole sizes from #24 thru #210. Packed in a re-usable clear plastic compartment box.

Approx. Quantity of Terminals 900

LAMINATED TERMINAL STRIPS WITH WIRE WRAP TERMINAL



No.	Term.	(A) Mfg Ctrs.	Std. Pkg. 100
941	8	3 1/4"	3 1/4"
942	10	4 1/4"	4 1/4"
943	12	5 1/4"	5 1/4"

Specify S M I T H

HERMAN H. SMITH, INC.

ELECTRONIC
COMPONENTS

SOLDERLESS TERMINALS

AMP



A B C

"PLASTI-GRIP"
Insulated

terminal designed for use with solid, or irregularly shaped wires, or combination wires. Corrosion resistant, high strength, and versatile — widely adaptable.

Std. Pkg. 100

RING TONGUE (A)

No.	AMP No.	Stud Size	Tong. Size	O'all Stud W.	Clear.	NET Per C
32898	4	1/32	1/32	1/32	1/32	\$4.20
34194	6	1/32	1/32	1/32	1/32	4.20
32990	8	1/32	1/32	1/32	1/32	4.80
33214	10	1/32	1/32	1/32	1/32	4.80
33425	1/4	1/32	1/32	1/32	1/32	6.60
33452	3/8	1/32	1/32	1/32	1/32	6.60
33453	3/8	1/32	1/32	1/32	1/32	6.60
32991	1/4	1/32	1/32	1/32	1/32	\$4.80
34197	6	1/32	1/32	1/32	1/32	4.80
32992	8	1/32	1/32	1/32	1/32	4.80
32003	10	1/32	1/32	1/32	1/32	4.80
33218	1/4	1/32	1/32	1/32	1/32	6.60
33454	3/8	1/32	1/32	1/32	1/32	6.60
33455	3/8	1/32	1/32	1/32	1/32	6.60

SPADE TONGUE (B)

No.	AMP No.	Stud Size	Tong. Size	O'all Stud W.	Clear.	NET Per C
32897	6	1/32	5/8	1/32	1/32	\$4.20
32898	8	1/32	5/8	1/32	1/32	4.20
32899	10	1/32	5/8	1/32	1/32	4.20
32903	6	1/32	5/8	1/32	1/32	\$4.20
32904	8	1/32	5/8	1/32	1/32	4.20
32905	10	1/32	5/8	1/32	1/32	4.20

BUTT CONNECTOR (C)

No.	AMP No.	Stud Size	Tong. Size	O'all Stud W.	Clear.	NET Per C
31818	22-16	1/40 I.D.	3/64	1/40	1/40	\$5.10
31819	16-14	.170 I.D.	3/64	1/40	1/40	5.10

SOLDERLESS TERMINAL ASSORTMENTS

A basic assortment of the most commonly used Ring Tongue and Spade Terminals for wire sizes 22 thru 14. Packed in a re-useable clear plastic compartmented box.

Qty. Quantity	Style	NET
200	"PLASTI-GRIP"	\$16.20
300	"PLASTI-GRIP"	22.80
200	"SOLISTRAND"	12.00
300	"SOLISTRAND"	18.00
200	"P.I.D.G."	21.00
300	"P.I.D.G."	30.00

AMP



A B C D E F

Pre-Insulated
Diamond Grip

Color-coded for wire size.

Std. Pkg. 100

RING TONGUE (A)

Wire Size	AMP No.	Stud Size	Tong. Size	Overall Width	Length	Clear.	NET Per C
22	1550	320882	4	3/16	2 1/2	3/32	\$9.00
	1551	31881	6	3/16	2 1/2	3/32	9.00
	1553	31886	8	3/16	2 1/2	3/32	9.00
	1553	31887	10	3/16	2 1/2	3/32	9.00
16	1554	31894	1/4	1/2	1 1/2	3/64	9.60
14	1555	32441	4	1/4	1 1/4	1/64	9.00
	1556	32442	6	1/4	1 1/4	1/64	9.00
	1557	31802	8	1/4	1 1/4	1/64	9.00
16	1558	322238	10	3/4	2 1/2	3/32	9.00
10	1559	31906	1/4	1/2	1 1/2	3/64	9.00

FLANGED SPADE (B)

Wire Size	AMP No.	Stud Size	Tong. Size	Overall Width	Length	Clear.	NET Per C
22-16	1560	32562	6	1/4	1 1/4	1/64	\$9.00
	1561	32498	8	1/4	1 1/4	1/64	9.00
14-16	1562	320861	6	1/4	2 1/4	1/64	9.00
	1563	320862	8	1/4	2 1/4	1/64	9.00
	1564	320863	10	1/4	2 1/4	1/64	9.00

SPADE TONGUE (C)

Wire Size	AMP No.	Stud Size	Tong. Size	Overall Width	Length	Clear.	NET Per C
22-16	1565	34541	6	1/4	1 1/4	1/64	\$9.00
	1566	32053	8	1/4	1 1/4	1/64	9.00
	1567	32054	10	1/4	1 1/4	1/64	9.00
14-16	1568	33559	6	1/4	2 1/4	1/64	9.00
	1569	321233	8	1/4	2 1/4	1/64	9.00
	1570	32160	10	1/4	2 1/4	1/64	9.00

HOOK TONGUE (D)

Wire Size	AMP No.	Stud Size	Tong. Size	Overall Width	Length	Clear.	NET Per C
22-16	1571	34313	6	1/4	1 1/4	1/64	\$9.00
	1572	32456	8	1/4	1 1/4	1/64	9.00
14-16	1573	320381	6	1/4	2 1/4	1/64	9.00
	1574	320306	8	1/4	2 1/4	1/64	10.20
	1575	34341	10	1/4	2 1/4	1/64	10.20

BUTT CONNECTOR (E)

Wire Size	AMP No.	Stud Size	Tong. Size	Overall Width	Length	Clear.	NET Per C
18-14	1576	42781-2	.250	Faston Receptacle			\$ 3.90
				w/insulation support			
22-16	1548	320558	1/50 I.D.				36.00
16-14	1549	320562	1/50 I.D.				38.00

BUTT CONNECTOR (F)

Wire Size	AMP No.	Stud Size	Tong. Size	Overall Width	Length	Clear.	NET Per C
22-16	1548	320558	1/50 I.D.				36.00
16-14	1549	320562	1/50 I.D.				38.00

HAND CRIMPING TOOL



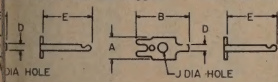
Makes strong, solderless connections; cuts and strips wire, and has threaded bolt cutter.

No.	Type	NET Ea.
1579	For P.I.D.G. & P.G.	\$7.20
2872	For Solistrand Type	7.20

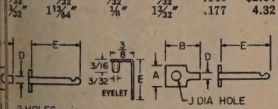
BARRIER TERMINAL LUGS & HARDWARE

BARRIER TERMINAL BENT LUGS

AL: Brass, Hot-tin Dipped. Std. Pkg. 100



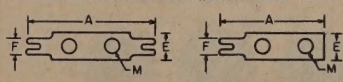
Series	AMP No.	Stud Size	Tong. Size	Overall Width	Length	Clear.	NET Per C
13167	3/16	1/32	3/16	1/32	1/32	1/32	\$2.64
	3/8	1/32	3/8	1/32	1/32	1/32	4.54
	1/2	1/32	1/2	1/32	1/32	1/32	6.32
	3/4	1/32	3/4	1/32	1/32	1/32	8.10
	1	1/32	1	1/32	1/32	1/32	9.90
	1 1/4	1/32	1 1/4	1/32	1/32	1/32	11.70
	1 1/2	1/32	1 1/2	1/32	1/32	1/32	13.50



Series	AMP No.	Stud Size	Tong. Size	Overall Width	Length	Clear.	NET Per C
13168	3/16	1/32	3/16	1/32	1/32	1/32	\$2.64
	3/8	1/32	3/8	1/32	1/32	1/32	4.54
	1/2	1/32	1/2	1/32	1/32	1/32	6.32
	3/4	1/32	3/4	1/32	1/32	1/32	8.10
	1	1/32	1	1/32	1/32	1/32	9.90
	1 1/4	1/32	1 1/4	1/32	1/32	1/32	11.70
	1 1/2	1/32	1 1/2	1/32	1/32	1/32	13.50

BARRIER TERMINAL LUGS

MATERIAL: Brass, Hot-tin Dipped. Std. Pkg. 100



Series	AMP No.	Stud Size	Tong. Size	Overall Width	Length	Clear.	NET Per C
73104	3/16	1/32	3/16	1/32	1/32	1/32	\$2.64
	3/8	1/32	3/8	1/32	1/32	1/32	4.54
	1/2	1/32	1/2	1/32	1/32	1/32	6.32
	3/4	1/32	3/4	1/32	1/32	1/32	8.10
	1	1/32	1	1/32	1/32	1/32	9.90
	1 1/4	1/32	1 1/4	1/32	1/32	1/32	11.70
	1 1/2	1/32	1 1/2	1/32	1/32	1/32	13.50

Series	AMP No.	Stud Size	Tong. Size	Overall Width	Length	Clear.	NET Per C
73115	3/16	1/32	3/16	1/32	1/32	1/32	\$2.64
	3/8	1/32	3/8	1/32	1/32	1/32	4.54
	1/2	1/32	1/2	1/32	1/32	1/32	6.32
	3/4	1/32	3/4	1/32	1/32	1/32	8.10
	1	1/32	1	1/32	1/32	1/32	9.90
	1 1/4	1/32	1 1/4	1/32	1/32	1/32	11.70
	1 1/2	1/32	1 1/2	1/32	1/32	1/32	13.50

JUMPERS

BRASS, Nickel Plated
Std. Pkg. 100

Smith No.	A	B	C	D	E	F	G	H	NET Per C
73150	$\frac{27}{64}$	$\frac{1}{32}$	$\frac{3}{16}$	$\frac{1}{32}$	$\frac{1}{32}$	$\frac{1}{32}$	$\frac{1}{32}$	.091	\$2.10
73151	$\frac{7}{16}$	$\frac{1}{32}$	$\frac{3}{16}$	$\frac{1}{32}$	$\frac{1}{32}$	$\frac{1}{32}$	$\frac{1}{32}$	.062	2.10
73152	$\frac{21}{32}$	$\frac{1}{32}$	$\frac{1}{2}$	$\frac{1}{32}$	$\frac{3}{16}$	$\frac{1}{32}$	$\frac{1}{32}$	.145	2.10
73153	$\frac{21}{32}$	$\frac{1}{32}$	$\frac{3}{4}$	$\frac{1}{32}$	$\frac{3}{16}$	$\frac{1}{32}$	$\frac{1}{32}$	.145	2.10
73154	$\frac{3}{4}$	$\frac{1}{32}$	$\frac{3}{4}$	$\frac{1}{32}$	$\frac{3}{16}$	$\frac{1}{32}$	$\frac{1}{32}$	.156	2.40
73155	$\frac{5}{8}$	$\frac{1}{32}$	$\frac{5}{8}$	$\frac{1}{32}$	$\frac{11}{32}$	$\frac{1}{32}$	$\frac{1}{32}$	.180	2.70
73156	$1\frac{1}{4}$	$\frac{1}{32}$	$1\frac{1}{4}$	$\frac{1}{32}$	$\frac{1}{2}$	$\frac{1}{32}$	$\frac{1}{32}$	.201	3.30
73157	$1\frac{1}{2}$	$\frac{1}{32}$	$1\frac{1}{2}$	$\frac{1}{32}$	$\frac{13}{32}$	$\frac{1}{32}$	$\frac{1}{32}$	.234	4.50
73158	$1\frac{3}{4}$	$\frac{1}{32}$	$1\frac{3}{4}$	$\frac{1}{32}$	$\frac{5}{8}$	$\frac{1}{32}$	$\frac{1}{32}$	.266	6.00
73159	$2\frac{1}{4}$	$\frac{1}{32}$	$2\frac{1}{4}$	$\frac{1}{32}$	$\frac{3}{2}$	$\frac{1}{32}$	$\frac{1}{32}$	.156	2.40

STRADDLE PLATES

BRASS, Nickel Plated
Std. Pkg. 100

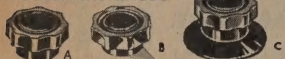
Smith No.	A	B	D	G	NET Per C
STAINLESS STEEL					
73160	3/8"	.250	3/16"	.125	\$2.10
73161	7/16"	.312	3/32"	.144	2.10
73162	2 3/32"	.421	1/16"	.148	2.40
73163	7/8"	.500	1/32"	.189	2.70
BRASS, NICKEL PLATED					
73164	1 1/4"	.625	2 3/8"	.165	4.50
73165	1 1/2"	.750	2 3/4"	.187	9.00
73166	1 3/4"	.875	3"	.209	12.00

specify **SMITH**

HERMAN H. SMITH, INC.

ELECTRONIC
COMPONENTS

INSTRUMENT KNOBS



Plain With Pointer With Skirt
Molded black bakelite instrument knobs with molded in brass insert for $\frac{1}{4}$ " shafts. Style B pointer knobs have white vinyl pointer. Style C skirt type have white indicator line. Style D same as style A except with protruding brass insert for mounting special dials and pointers.

No.	Style	O.D.	Pointer Size	Height	Std. Pkg. 10	NET Per C
2200	A	1 1/4"		1 1/2"	\$30.00	
2201	A	1 1/4"		1 1/2"	31.00	
2202	A	1 1/4"		1 1/2"	36.00	
2203	A	1 1/4"		1 1/2"	53.00	
2204	B	1 1/4"	3/4" pointer	1 1/2"	47.00	
2205	B	1 1/4"	1 1/4" pointer	1 1/2"	48.00	
2206	B	1 1/4"	1 3/4" pointer	1 1/2"	52.00	
2207	B	1 1/4"	1 3/4" pointer	1 1/2"	70.00	
2208	C	1 1/4"	1 1/4" Skirt	1 1/2"	58.00	
2209	C	1 1/4"	1 1/4" Skirt	1 1/2"	60.00	
2210	C	1 1/4"	1 3/4" Skirt	1 1/2"	71.00	
2211	C	1 1/4"	1 3/4" Skirt	1 1/2"	92.00	
2212	D	1 1/4"		1 1/2"	38.00	
2213	D	1 1/4"		1 1/2"	39.00	
2214	D	1 1/4"		1 1/2"	43.00	
2215	D	1 1/4"		1 1/2"	60.00	

No.	Style	O.D.	Skirt Only	Height	Std. Pkg. 10	NET Per C
2216	1 1/4"		Skirt only	1 1/2"	8.00	
2217	1 1/4"		Skirt only	1 1/2"	14.00	
2218	1 1/4"		Skirt only	1 1/2"	16.00	
2219	1 1/4"		Skirt only	1 1/2"	19.00	

Matte Finish — Made to Meet MS-91531
Molded Black, Matte finish bakelite instrument knobs, with molded-in brass insert for $\frac{1}{4}$ " shafts. All knobs supplied with two (2) Allen-head screws. Style B pointer knobs have white vinyl pointer. Style C skirt knobs have white indicator line on skirt.

No.	Style	O.D.	Pointer size	Height	Std. Pkg. 10	NET Per C
2460	A	1 1/4"		1 1/2"	\$ 87.00	
2461	A	1 1/4"		1 1/2"	106.00	
2462	A	1 1/4"		1 1/2"	128.00	
2463	B	1 1/4"	3/4" pointer	1 1/2"	98.00	
2464	B	1 1/4"	1 1/4" pointer	1 1/2"	113.00	
2465	B	1 1/4"	1 3/4" pointer	1 1/2"	143.00	
2466	C	1 1/4"	1 1/4" skirt	1 1/2"	139.00	
2467	C	1 1/4"	1 3/4" skirt	1 1/2"	172.00	
2468	C	1 1/4"	1 3/4" skirt	1 1/2"	210.00	

FLUTED INSTRUMENT KNOBS



Molded black bakelite fluted instrument knobs, supplied with white-filled line on crown and skirt, opposite set-screw. Supplied with $\frac{1}{4}$ " plain hole with set-screw.

No.	Style	O.D.	Skirt Dia.	Height	Std. Pkg. 10	NET Per C
2301	A	1 1/4"		1 1/2"	\$27.00	
2302	A	1 1/4"		1 1/2"	31.00	
2303	A	1 1/4"		1 1/2"	34.00	
2304	A	1 1/4"		1 1/2"	35.00	
2305	A	1 1/4"		1 1/2"	48.00	

With $\frac{1}{4}$ " plain hole with set-screw. 28.00

CONCENTRIC FLUTED

Molded black and Red bakelite dual-concentric fluted instrument knobs. Outside knob is black with white filled line on skirt. Inner knob is red with white-filled line on skirt and crown. Both knobs supplied with set-screw.

No.	Style	O.D.	Height	Std. Pkg. 10	NET Per C
2397					\$55.00

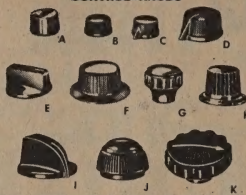
POINTER KNOBS



Molded bakelite pointer knobs, supplied with $\frac{1}{4}$ " plain hole or brass insert. Complete with set screw.

No.	Style	Type Hole	Color	NET Per C
2220	A	1/4" Plain	Black	\$11.00
2221	A	1/4" Plain	Walnut	12.00
2222	A	1/4" Plain	Ivory	13.00
2223	A	1/4" Brass Insert	Black	17.50
2224	A	1/4" Brass Insert	Walnut	18.00
2225	A	1/4" Brass Insert	Red	19.00
2226	B	1/4" Plain	Black	22.00
2227	B	1/4" Plain	Walnut	23.00
2228	B	1/4" Plain	Red	28.00
2229	B	1/4" Brass Insert	Walnut	28.50
2230	C	1/4" Plain	Black	14.00
2231	C	1/4" Plain	Walnut	15.00

CONTROL KNOBS

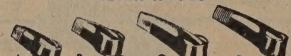


Molded bakelite control knobs. Supplied with $\frac{1}{4}$ " molded hole; complete with set screw. Recessed for locknut.

No.	Style	O.D.	Height	Color	NET Per C
2240	A	3/4"	1 1/2"	Black	\$15.00
2241	A	3/4"	1 1/2"	Walnut	15.50
2242	B	1 1/4"	1 1/2"	Black	10.00
2243	B	1 1/4"	1 1/2"	Walnut	10.50
2244	B	1 1/4"	1 1/2"	Black	14.00
2245	B	1 1/4"	1 1/2"	Walnut	15.00
2246	C	1 1/4"	1 1/2"	Black	23.00
2247	C	1 1/4"	1 1/2"	Red	25.00
2248	C	1 1/4"	1 1/2"	Walnut	10.00
2249	C	1 1/4"	1 1/2"	Walnut	11.00
2250	E	1 1/4"	1 1/2"	Black	23.00
2251	E	1 1/4"	1 1/2"	Red	25.00
2252	F	1 1/4"	1 1/2"	Walnut	10.00
2253	F	1 1/4"	1 1/2"	Walnut	10.00
2254	F	1 1/4"	1 1/2"	Ivory	21.50
2255	G	7/8"	3/4"	Black	16.00
2256	G	7/8"	3/4"	Walnut	17.00
2257	H	7/8"	3/4"	Black	18.00
2258	H	7/8"	3/4"	Red	19.00
2259	I	7/8"	3/4"	Black	14.00
2260	J	1 1/4"	1 1/2"	Red	15.00
2261	K	7/8"	3/4"	Black	22.00
2262	L	7/8"	3/4"	Red	23.00
2263	L	7/8"	3/4"	Black	25.00
2264	L	7/8"	3/4"	Walnut	27.00

† Supplied with brass insert.

LEVER KNOBS



Molded bakelite lever knobs with $\frac{1}{4}$ " brass insert, complete with set screw.

No.	Style	Length	Height	Color	NET Per C
2232	A	1 1/4"	1 1/2"	Black	\$25.00
2233	A	1 1/4"	1 1/2"	Walnut	26.00
2234	B	1 1/4"	1 1/2"	Black	44.00
2235	B	1 1/4"	1 1/2"	Walnut	45.00
2236	C	2 1/4"	1 1/2"	Black	26.00
2237	C	2 1/4"	1 1/2"	Walnut	27.00
2238	D	2 1/4"	1 1/2"	Black	45.00
2239	D	2 1/4"	1 1/2"	Walnut	46.00

KNOB DIAL PLATES



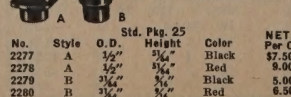
DIAL: BRASS, chrome silver, 1 1/2" O.D.
KNOB: Molded bakelite black (no 2250).
DESCR.: For matching dial on instruments, receivers, amplifiers. Dial has clear black etched numerals. Knob fits 1/4" shaft.

No.	Type	NET. Each
2261	10 to 0 180 Degrees	7.75
2262	10 to 0 270 Degrees	7.75
2263	10 to 0 180 Degrees	4.5
2264	10 to 0 270 Degrees	4.5

DIAL: Nickel silver, 1 1/2" O.D.
KNOB: Molded bakelite.

DESCR.: Engraved numerals, varnish coated. 10 to 0, in 360 degrees. Knob fits $\frac{1}{4}$ " shaft. Std. Pkg. 10

No.	Style	O.D.	Height	Color	NET Per C
2270	A	1 1/4"	1 1/2"	Black	\$7.50
2271	A	1 1/4"	1 1/2"	Red	8.00
2272	B	1 1/4"	1 1/2"	Black	5.00
2273	B	1 1/4"	1 1/2"	Red	6.50

PUSH BUTTON
KNOBS

No.	Style	O.D.	Height	Color	NET Per C
2274	A	1 1/4"	1 1/2"	Black	\$7.50
2275	A	1 1/4"	1 1/2"	Red	8.00
2276	B	1 1/4"	1 1/2"	Black	5.00
2277	B	1 1/4"	1 1/2"	Red	6.50

CONTROL PLATES

MATERIAL: Brass Black
Satin Finish. Etched silver
numerals.
DIMENSION: 13/32" I.D. x
O.D. as specified. x .929"
thick. Std. Pkg. 5



Clock- Calib.	Counter- Clockwise Calib.	No.	No.	Degrees	Total Gradu- ations	O.D.	NET Per C
0-100	100-0	2900	2906	180	20	2"	\$50.00
		2901	2907	270	30	2"	56.00
		2902	2908	325	20	2"	58.00
		2903	2909	180	100	3 1/4"	100.00
		2904	2910	270	100	3 1/4"	100.00
		2905	2911	325	100	3 1/4"	100.00



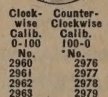
DIAL PLATES

MATERIAL: Brass Chrome
Silver Finish. .020"
thick.
DESCR.: Mounting Holes
9/64". Std. Pkg. 5

Clock- Calib.	Counter- Clockwise Calib.	No.	No.	Degrees	A	B	NET Per C
0-100	100-0	2912	2928	180	1 1/4"	3/4"	\$45.00
		2913	2929	270	1 1/4"	3/4"	45.00
		2914	2930	325	1 1/4"	3/4"	45.00
		2915	2931	360	1 1/4"	3/4"	45.00
		2916	2932	180	1 3/4"	3/4"	60.00
		2917	2933	270	1 3/4"	3/4"	60.00
		2918	2934	325	1 3/4"	3/4"	60.00
		2919	2935	360	1 3/4"	3/4"	60.00
		2920	2936	180	2 3/4"	3/4"	75.00
		2921	2937	270	2 3/4"	3/4"	75.00
		2922	2938	325	2 3/4"	3/4"	75.00
		2923	2939	360	2 3/4"	3/4"	75.00
		2924	2940	180	4"	3/4"	120.00
		2925	2941	270	4"	3/4"	120.00
		2926	2942	325	4"	3/4"	120.00
		2927	2943	360	4"	3/4"	120.00

DIAL AND KNOB ASSEMBLY

DIAL: Brass Chrome Silver
Finish. .020" thick.
KNOB: Molded Bakelite with
 $\frac{1}{4}$ " brass insert. Std. Pkg. 5



Clock- Calib.	Counter- Clockwise Calib.	No.	No.	Degrees	O.D.	NET Each
0-100	100-0	2967	2976	180	1 1/4"	\$1.35
		2968	2977	270	1 1/4"	1.35
		2969	2978	325	1 1/4"	1.35
		2970	2979	360	1 1/4"	1.35
		2971	2980	180	1 3/4"	1.41
		2972	2981	270	1 3/4"	1.41
		2973	2982	325	1 3/4"	1.41
		2974	2983	360	1 3/4"	1.41
		2975	2984	180	2 3/4"	3.00
		2976	2985	270	2 3/4"	3.00
		2977	2986	325	2 3/4"	3.00
		2978	2987	360	2 3/4"	3.00
		2979	2988	180	4"	3.45
		2980	2989	270	4"	3.45
		2981	2990	325	4"	3.45
		2982	2991	360	4"	3.45

VERNIER DIAL MARKERS

MATERIAL: Brass Chrome Silver
Finish. Supplied with
hardware. Std. Pkg. 3



No.	For °Dials	Dial O.D.	Each
2944	180	1 1/4"	\$55.00
2945	270	1 1/4"	55.00
2946	325	1 1/4"	55.00
2947	360	1 1/4"	55.00
2948	180	1 3/4"	55.00
2949	270	1 3/4"	55.00
2950	325	1 3/4"	55.00
2951	360	1 3/4"	55.00
2952	180	2 3/4"	55.00
2953	270	2 3/4"	55.00
2954	325	2 3/4"	55.00
2955	360	2 3/4"	55.00
2956	180	4"	55.00
2957	270	4"	55.00
2958	325	4"	55.00
2959	360	4"	55.00

BINDING
POST
KNOBS

KNOBBS

Std. PKs.

threaded 8-32 brass inserts

No. Style O.D. Height Color

2271 A 3/4" 1 1/2" Black \$ 9.00

2272 A 3/4" 1 1/2" Red 11.00

2285 B 1 1/4" 2 1/4" Red 9.00

2286 B 1 1/4" 2 1/4" Black 9.00

2287 C 1 1/2" 2 1/2" Red 9.00

2288 C 1 1/2" 2 1/2" Black 9.00

pecify

SMITH

HERMAN H. SMITH, INC.

ELECTRONIC
COMPONENTS

CUTLER-HAMMER SWITCHES

TOGGLE SWITCHES

STANDARD DUTY

15 Amps. 125 Volts — 10 Amps. 250 Volts
UL Approved 15/32" shank slow-make
and break; bakelite case. AC rated only for longer
and greater capacity. Std. Pkg. 10

BACK CONNECTED
LUG TERMINALS

No.	C-H No.	Type	NET Each
966	7501K13	SPST	\$.69
967	7505K4	DPDT	.81
968	7501K14	DPST	1.08
969	7505K5	DPDT	1.26
970	7611K2	TPST	2.19
971	7611K2	TPDT	2.70

BACK CONNECTED
SCREW TERMINALS

No.	C-H No.	Type	NET Each
972	7500K14	SPST	\$.81
973	7504K5	DPST	.96
974	7508K5	DPST	1.26
975	7504K6	DPDT	1.56
976	7610K2	TPST	2.55
977	7614K2	TPDT	3.24

CENTER OFF STANDARD
DUTY TOGGLE SWITCHESBACK CONNECTED
LUG TERMINALS

No.	C-H No.	Type	NET Each
978	7503K13	SPDT	\$.81
979	7505K4	DPDT	1.26
980	7613K2	TPDT	2.70

BACK CONNECTED
SCREW TERMINALS

No.	C-H No.	Type	NET Each
981	7502K13	SPDT	\$.96
982	7502K4	DPDT	1.56
983	7612K2	TPDT	3.24

TOGGLE SWITCHES

LIGHT DUTY

AC-DC, UL Approved; 15/32" shank; quick make — quick break; bakelite case. Unusually small size for electrical capacity. Std. Pkg. 10

BACK CONNECTED LUG TERMINALS

SMALL BAT HANDLE 15/32" LONG

C-H No.	Current Rating	Type	125 V. 250 V. NET Each
8280K16	SPST	3 Amps.	\$.69
8281K3	SPST	6 Amps.	.81
8282K14	SPDT	3 Amps.	.87
8284K14	2 Circ.	3 Amps.	.93
8286K1	DPST	6 Amps.	1.26
8270K7	DPST	6 Amps.	1.38
8263K7	DPDT	3 Amps.	1.44
8273K7	DPDT	6 Amps.	1.56

STANDARD BAT HANDLE 1 1/2" LONG

C-H No.	Current Rating	Type	125 V. 250 V. NET Each
8280K38	SPST	3 Amps.	\$.69
8281K38	SPST	6 Amps.	.81
8280K48	SPDT	3 Amps.	.87
8280K49	2 Circ.	3 Amps.	.93
8280K48	DPST	6 Amps.	1.26
8280K47	DPST	6 Amps.	1.38
8280K38	DPDT	3 Amps.	1.44
8280K43	DPDT	6 Amps.	1.56

SIDE CONNECTED

SCREW TERMINALS

C-H No.	Current Rating	Type	125 V. 250 V. NET Each
8280K38	SPST	3 Amps.	\$.69
8281K38	SPST	6 Amps.	.81
8280K48	SPDT	3 Amps.	.87
8280K49	2 Circ.	3 Amps.	.93
8280K48	DPST	6 Amps.	1.26
8280K47	DPST	6 Amps.	1.38
8280K38	DPDT	3 Amps.	1.44
8280K43	DPDT	6 Amps.	1.56

WIRE LEADS — SIX INCHES LONG

Small Bat Handle 15/32" Long

C-H No.	Current Rating	Type	125 V. 250 V. NET Each
8280K16	SPST	3 Amps.	\$.69
8281K3	SPST	6 Amps.	.81

PUSH BUTTON
MOMENTARY SWITCHES

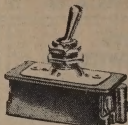
Std. Pkg. 10

AC-DC, UL Approved; 15/32" shank; rated at 3/4 Amp. 125 volts — 3/4 Amp. 250 volts.

No.	C-H No.	Type	Term.	NET Each
992	8411K4	SP Norm.	On	\$.48
993	8411K3	SP Norm.	Off	.56
994	8411K3	SP Norm.	On	.56
995	8411K7	SP Norm.	On	.39

TOGGLE SWITCHES

HEAVY DUTY

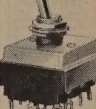


AC-DC, UL Approved; 15/32" shank; quick make; quick break; bakelite case. Screw Terminals.

Std. Pkg. 10

No.	C-H No.	Current Rating	Type	125 V. 250 V. NET Each
994*	7311K3	SPST 12 A	6 A	\$1.41
995*	7320K3	DPST 12 A	6 A	1.41
996*	7316K5	SPST 15 A	10 A	2.46
997*	7360K8	DPST 15 A	10 A	2.46
998**	7402K4	DPST	20 A	3.24

* 1 Hp. — 125/250V. +1 1/2 Hp. — 125/250V.
±1 1/2 Hp. — 125V. 2 Hp. — 250V.

FOUR POLE
SWITCHES

AC-DC GOVERNMENT APPROVED PER MIL-S-6745, 15/32" shank. Rated 10 volts, 115 volt AC—20 amps, 38 volts DC (Nominal rating per pole). SEALED LEVER. Std. Pkg. 5

SOLDER LUGS

No.	C-H No.	"MS" No.	Type	Circuit	NET Each
944	7601K5	—	4PDT	A-B-A	\$5.16
945	7603K4	—	4PDT	A-D-A	6.30
946	7609K4	—	4PST	A-D-E	7.10
947	7611K4	—	4PDT	A-B-C	7.50
948	7613K4	—	4PDT	C-B-C	7.80
949	7615K4	—	4PDT	A-D-C	7.80

CENTER OFF

4PDT A-B-A 6.30

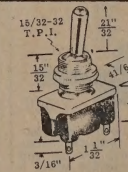
SCREW TERMINALS (Per MIL-S-3950)

No.	C-H No.	"MS" No.	Type	Circuit	NET Each
944	7601K12	MS2508-23	4PST	A-B-B	\$7.00
947	7604K5	MS2508-23	4PDT	A-D-A	7.00
946	7609K13	MS2508-24	4PST	A-B-D	5.60
947	7609K6	MS2508-24	4PDT	A-D-C	5.60
948	7609K9	MS2508-28	4PST	D-B-C	7.60
949	7609K7	MS2508-25	4PST	A-C-D	7.60
950	7609K6	MS2508-28	4PDT	D-B-C	8.40
951	7612K5	MS2508-27	4PDT	C-B-C	8.40
952	7614K5	MS2508-26	4PDT	A-D-C	8.40

CENTER OFF

4PDT A-B-A 7.00

†Circuit Code: A = On B = Off C = Momentary On D = None E = Momentary Off



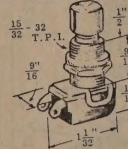
MIDGET

TOGGLE

SWITCH

Bat. lever. Molded phenolic base. 15/32 x 1 1/2" long. Slotted sleeve, nickel finish. Supplied with hex nut and knurled nut. Back connected silver plated solder contacts. Rated 1 amp—250 volts; 3/4 amp—125 volts.

No.	Circuit	NET Each
920	SPST	\$.99
921	SPDT	1.19
922	2 Circ.	1.23
923	DPST	1.46
924	DPDT	1.68



MIDGET

MOMENTARY

SWITCH

SLOW MAKE

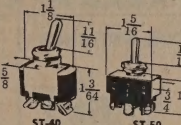
AND BREAK

Molded Phenolic Base 15/32 x 3/4" slotted sleeve. Nickel Finish. Supplied with hex nut and knurled nut. Side connected silver plated solder contacts. Rated at 3/4 amp—120 volts A.C. Supplied less button; order button separately. Std. Pkg. 10

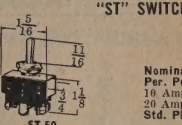
No.	Circuit	NET Each
925	SPST	\$.82
926	2 Circ.	.88
927	DPST	1.23
928	DPDT	1.46

Additional C-H Push Button
Switches on Smith Page 46

"ST" SWITCHES



ST-40



ST-50

Nominal Rating
Per Pole:
10 Amps. 115 V. AC
20 Amps. 25V. DC
Std. Pkg. 10

ST-40 SERIES — Single Pole

With Screw Terminals

HHS	C-H	JAN Type	Circuit	Each	
1720	8801K13	ST40A	SPST	On-None-Off	\$1.90
1721	8813K12	ST40B	SPST	On-None-Mom-Off	2.10
1722	8811K12	ST40C	SPST	On-None-Mom-On	2.10
1723	8810K12	ST40D	SPDT	On-None-On	2.30
1724	8800K13	ST40E	SPDT	On-Off-On	2.30
1725	8804K12	ST40F	SPDT	On-None-Mom-On	2.50
1726	8812K12	ST40G	SPDT	Mom-On-Off-Mom-On	2.50
1727	8809K13	ST40H	SPDT	Off-On-Mom-On	2.50

All ST-40 Switches have Sealed Lever.

ST-42 SERIES — Single Pole

With Solder Lugs

HHS	C-H	JAN Type	Circuit	Each	
1730	8803K6	ST42A	SPST	On-None-Off	\$1.62
1731	8819K3	ST42B	SPST	On-None-Mom-Off	1.62
1732	8817K3	ST42C	SPST	On-None-Mom-On	1.73
1733	8816K3	ST42D	SPDT	On-None-On	1.68
1734	8802K6	ST42E	SPDT	On-Off-On	1.68
1735	8805K3	ST42F	SPDT	Mom-On-None-Mom-On	1.83
1736	8818K3	ST42G	SPDT	Mom-On-Off-Mom-On	1.83
1737	8815K6	ST42H	SPDT	Mom-Off-Mom-On	1.83

ST-50 SERIES — Double Pole

With Screw Terminals

HHS	C-H	JAN Type	Circuit	Each	
1740	8822K8	ST50K	DPST*	On-None-Off	\$2.55
1741	8828K5	ST50L	DPST	On-None-Mom-Off	3.10
1742	8826K5	ST50M	DPST	Off-None-Mom-On	3.10
1743	8824K8	ST50N	DPDT*	On-None-On	3.10
1744	8820K10	ST50P	DPDT*	On-Off-On	3.10
1745	8830K5	ST50R	DPDT	On-None-Mom-On	3.33
1746	8834K4	ST50S	DPDT*	Mom-On-Off-Mom-On	3.33
1747	8832K4	ST50T	DPDT*	On-Off-Mom-On	3.33

* These switches are equipped with Sealed Lever.

ST-52 SERIES — Double Pole

With Solder Lugs

HHS	C-H	JAN Type	Circuit	Eac	
1760	8823K5	ST52K	DPST	On-None-Off	\$1.80
1761	8829K3	ST52L	DPST	On-None-Mom-Off	1.90
1762	8827K3	ST52M	DPST	Off-None-Mom-On	1.90
1763	8825K5	ST52N	DPDT	On-None-On	1.90
1764	8821K3	ST52P	DPDT	On-Off-On	1.90
1765	8815K3	ST52R	DPDT	On-None-Mom-On	2.20
1766	8835K3	ST52S	DPDT	Mom-On-Off-Mom-On	2.20
1767	8833K3	ST52T	DPDT	On-Off-Mom-On	2.20

"MS" SERIES Made to Spec. MIL-S-3950B

Supersedes all previous specifications. Made to meet MIL-S-3950B. Provided with sealed lever for protection against sand, dust and moisture. Std. Pkg. 10

SINGLE POLE

No.	C-H No.	"MS" No.	Type	Circuit	NET Each
3900	8800K16	MS3505-21	SPST	A-B-A	\$2.30
3901	8801K22	MS3508-22	SPST	A-D-B	1.90
3902	8810K13	MS3508-23	SPST	A-D-A	2.30
3903	8801K28	MS3508-24	SPDT	A-B-D	1.90
3904	8813K18	MS3508-25	SPDT	A-E-D	2.10
3905	8804K13	MS3508-26	SPDT	A-D-C	2.50
3906	8812K18	MS3508-27	SPDT	C-B-C	2.50
3907	8811K18	MS3508-28	SPDT	D-B-C	2.10
3908	8813K17	MS3508-29	SPDT	A-D-E	2.10
3909	8811K17	MS3508-30	SPDT	B-D-C	2.10
3910	8809K16	MS3508-31	SPDT	A-B-C	2.50

DOUBLE POLE

No.	C-H No.	"MS" No.	Type	Circuit	NET Each
3911	8820K16	MS3508-21	DPDT	A-B-A	\$3.00
3912	8822K20	MS3508-22	DPDT	A-D-B	2.50
3913	8824K14	MS3508-23	DPDT	A-D-A	3.00
3914	8822K21	MS3508-24	DPDT	A-B-D	2.50
3915	8826K12	MS3508-25	DPDT	A-E-D	3.00
3916	8830K13	MS3508-26	DPDT	A-D-C	3.30
3917	8834K5	MS3508-27	DPDT	C-B-C	3.30
3918	8836K14	MS3508-28	DPDT	A-B-C	3.30
3919	8828K13	MS3508-29	DPDT	A-D-E	3.00
3920	8826K15	MS3508-30	DPDT	B-D-C	3.00
3921	8825K6	MS3508-31	DPDT	A-B-C	3.30

†Circuit Code: A = On B = Off C = Momentary On D = None E = Momentary Off

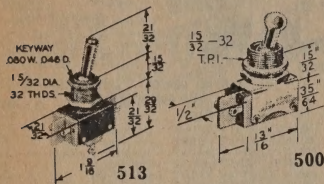
specify **SMITH**

HERMAN H. SMITH, INC.

ELECTRIC
COMPANY

ARROW HART & HEGEMAN SWITCHES

SMALL CANOPY TYPE SWITCHES



Laminated type 15/32-32 slotted sleeve, nickel finish. Supplied with hex nut and knurled nut. Solder terminals. SPST rated at 3 amps-250 volts AC-DC; all others rated at 1 amp-250 volts, 3 amps-125 volts AC-DC. Std. Pkg. 10

BAT LEVER POSITIVE ACTION

15/32" long shaft	NET Each	CIRCUIT	1 3/8" long shaft	NET Each
No.	\$.75	SPST	No.	\$.75
510	.95	SPDT	584	.95
511	1.00	2 C.Cir.	585	1.00
512	1.36	DPST	587	1.36
513	1.56	DPDT	588	1.56

BAT LEVER MOMENTARY ACTION

15/32" long shaft	NET Each	CIRCUIT	1 3/8" long shaft	NET Each
Normally Closed (ON)			Normally Open (OFF)	
1020	\$1.20	SPST	1024	\$1.20
1021	1.40	SPDT	1025	1.81
1022	1.80	DPST		
1023	2.02	DPDT		

BALL LEVER POSITIVE ACTION

15/32" long shaft	NET Each	CIRCUIT	3/4" long shaft	NET Each
500	\$.75	SPST	501	\$.90
502	.95	SPDT	503	1.20
540	1.00	2 C.Cir.	541	1.15
504	1.36	DPST	505	1.61
506	1.56	DPDT	507	1.51

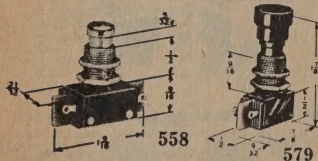
It's Sound Planning to SPECIFY SMITH FOR SWITCHES

To assist you in planning your prototypes and production, Smith maintains an inventory of all switches listed here —

IN STOCK — IN DEPTH

to meet your Immediate Requirements!

MOMENTARY PUSH SWITCHES



Laminated type 15/32-32 x 9/16" slotted sleeve, nickel finish. Supplied with hex nut and knurled nut. All switches accept snap on button. SPST rated at 3 amps-250 volts AC-DC. All others rated at 1 amp-250 volts, 3 amps-125 volts AC-DC. Std. Pkg. 10

SUPPLIED LESS BUTTON: ORDER BUTTON SEPARATELY.

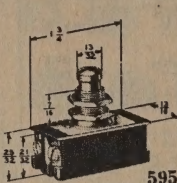
QUICK MAKE AND BREAK

Normally Closed (ON)	NET Each	CIRCUIT	Normally Open (OFF)	NET Each
552	\$1.46	SPST	555	\$1.46
556	1.68	SPDT		
557	1.72	2 C.Cir.		
564	2.03	DPST	558	2.03
559	2.38	DPDT		

SLOW MAKE AND BREAK

Rated at 1 amp.-125 volts AC	NET Each	CIRCUIT	Normally Open (OFF)	NET Each
Normally Closed (ON)				
382	\$.82	SPST	579	\$.82
580	1.05	2 C.Cir.		

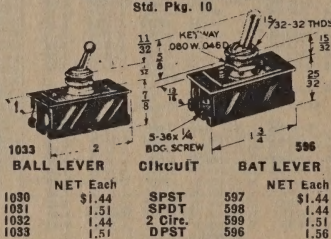
STANDARD DUTY MOMENTARY PUSH SWITCHES



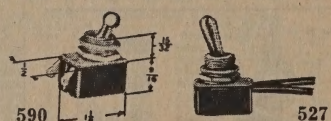
Normally Closed (ON)	NET Each	CIRCUIT	Normally Open (OFF)	NET Each
1026	\$2.23	SPST	544	\$2.13
1027	2.23	SPDT		
1028	2.37	2 C.Cir.		
1029	2.23	DPST	595	2.23

STANDARD DUTY TOGGLE SWITCHES QUICK MAKE AND BREAK

Std. Pkg. 10



MIDGET SIZE TOGGLE SWITCHES



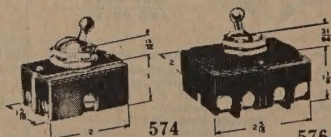
Molded phenolic base, 15/32-32 x 15/32" long slotted sleeve, nickel finish. Side connected silver plated solder contacts. Supplied with hex nut and knurled nut. SPST rated at 3 amps-250 volts; 6 amps.-125 volts; all others rated at 1 amp-250 volts, 6 amps.-125 volts. Std. Pkg. 10

BALL LEVER	NET Each	CIRCUIT	BAT LEVER	NET Each
590	\$.86	SPST	591	\$.86
589	1.06	SPDT	592	1.06
594	1.03	2 C.Cir.	593	1.03

BALL LEVER	NET Each	CIRCUIT	BAT LEVER	NET Each
526	\$.91	SPST	527	\$.91
528	1.27	SPDT	528	1.27
543	1.40	2 C.Cir.	514	1.40

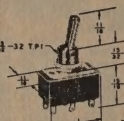
EXTRA HEAVY DUTY POWER SWITCHES

3 POSITION—POSITIVE CENTER OFF



Slotted sleeve 3/4-32, nickel finish. Screw terminals. Supplied with 2 hex nuts. Rated at 5 amps-250 volts, 10 amps-125 volts plus HP rating shown below.	NET Each
574 DPDT 3/4 HP 250 volts AC-DS	\$ 5.30
575 TPDT 1/2 HP 115/230 volts AC, 3 phase	8.20
576 APDT 1/2 HP 115/230 volts AC, 2 phase	10.90

INTERMEDIATE SIZE TOGGLE SWITCHES

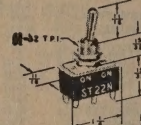


523

BAT LEVER

POSITIVE ACTION	NET Each	CIRCUIT	MOMENTARY ACTION	NET Each
520	\$.99	SPST	524 OFF	\$1.43
521	1.19	SPDT	549	1.63
583	1.23	2 C.Cir.	587 OFF	2.05
523	1.46	DPST	587 OFF	2.05
522	1.68	DPDT	525	2.23

ST TYPE TOGGLE SWITCHES

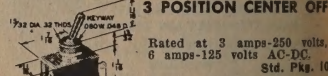


548

No.	AWS No.	CIRCUIT	Position	NET Each
545	ST 12A	SPST	OFF-ON	\$1.38
546	ST 12B	SPDT	ON-ON	1.53
1040	ST 12V	2 C.Cir.	ON-OFF	1.61
547	ST 22K	DPST	OFF-ON	2.01
548	ST 22N	DPDT	ON-ON	2.89

MOMENTARY POSITIVE ACTION

1041	ST 12C	SPST	OFF-ON	\$1.76
1042	ST 22M	DPST	OFF-ON	2.31



567

CIRCUIT

NET Each

567

567

567

567

567

567

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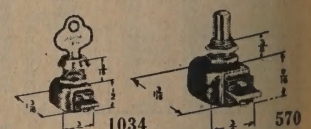
567

567

567

CANOPY TYPE

ROTARY SWITCHES



1034

570

Laminated type, 11/32-32 x 15/32" sleeve, nickel finish. Solder lugs. Supplied with hex nut and knurled nut. SPST rated at 3 amps-250 volts AC-DC, all others rated at 1 amp-250 volts, 3 amps-125 volts AC-DC. Key removable in OFF position only on SPST and DPST—key removable in both positions on all other 1 1/2" shaft. Std. Pkg. 10

KEY TYPE	NET Each	CIRCUIT	ROTARY TYPE	NET Each
1034	\$1.77	SPST	570	\$1.62
1035	1.82	SPDT	571	2.04
1036	1.87	2 C.Cir.		
1037	2.24	DPST	572	1.55
1038	2.25	DPDT	573	1.93

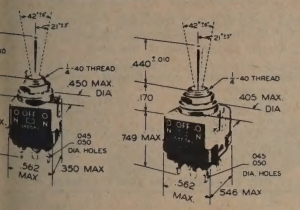
SWITCH ACCESSORIES



No.	Description	Std. Pkg.	NET Each
508	ON-OFF name plate	50	\$.40
509	HI-LO name plate	20	1.60
1046	Snap-On Button (Red or Black)	20	2.02
1149	Narrow Rim Lockwasher	50	2.00
1170	Key—Remove off position	50	2.00
1171	Key—Remove both positions	50	2.10
1172	Locking Ring	50	2.10
1196	Hex Nut—Brass N.P.	100	1.88
1197	Ring Nut—Brass N.P.	100	3.38
1198	Dress Nut—Brass N.P.	100	18.00

Specify **SMITH**

HERMAN H. SMITH, INC.

ELECTRONIC
COMPONENTSCUTLER-HAMMER
MINIATURE MILITARY SWITCHES

ly compact, highly reliable power or dry circuit
Usable as a pre-set switch in aircraft recognition
for walkie-talkies; for electronic instruments and
communications systems.
S: Res. Load 4 Amps. @ 28 V.D.C. 1 Amp @ 50
S: 8 Amps. @ 115 V.A.C.
M: RATING: 25 Microamps. @ 5 Millivolts.

SINGLE POLE

Code: T = 5 Grams.
CONTENT: .147 cubic inches "behind panel" volume.
Std. Pkg. 5
.440 LEVER APPROVED TO MIL-S-8834

H No.	"MS" No.	Type	Circuit	NET Each
8868K1	MS24655-211	SPDT	A-B-A	\$6.80
8868K2	MS24655-271	SPDT	C-B-C	7.65
8868K3	MS24655-311	SPDT	A-B-C	7.65
8868K4	MS24655-321	SPDT	A-D-A	6.80
8868K5	MS24655-241	SPST	D-B-D	7.65
8868K6	MS24655-281	SPST	D-B-C	7.65
8868K7	MS24655-221	SPST	A-D-B	6.80

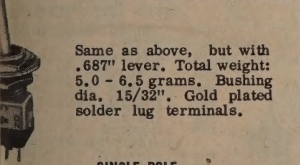
DOUBLE POLE

Code: T = 6.5 grams.
CONTENT: .230 cubic inches "behind panel" volume.
Std. Pkg. 5
.440 LEVER APPROVED TO MIL-S-8834

H No.	"MS" No.	Type	Circuit	NET Each
8868K1	MS24656-211	DPDT	A-B-A	\$8.50
8868K2	MS24656-271	DPDT	C-B-C	9.90
8868K3	MS24656-311	DPDT	A-B-C	9.90
8868K4	MS24656-321	DPDT	A-D-A	8.50
8868K5	MS24656-241	DPST	D-B-D	9.90
8868K6	MS24656-281	DPST	D-B-C	9.90
8868K7	MS24656-221	DPST	A-D-B	8.50

Code: O = On B = Off C = Momentary On
D = None E = Momentary Off

C-H MINIATURE MILITARY SWITCHES



Same as above, but with
.687" lever. Total weight:
5.0 - 6.5 grams. Bushing
dia. 15/32". Gold plated
solder lug terminals.

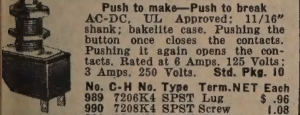
SINGLE POLE

C-H No.	Type	Circuit	NET Each
8868K1	SPDT	A-B-A	\$6.90
8868K2	SPDT	C-B-C	7.80
8868K3	SPDT	A-B-C	7.80
8868K4	SPDT	A-D-A	6.90
8868K5	SPST	D-B-D	7.80
8868K6	SPST	D-B-C	7.80
8868K7	SPST	A-D-B	6.90

DOUBLE POLE

C-H No.	Type	Circuit	NET Each
8869K1	DPDT	A-B-A	\$8.60
8869K2	DPDT	C-B-C	10.00
8869K3	DPDT	A-B-C	10.00
8869K4	DPDT	A-D-A	8.60
8869K5	DPST	D-B-D	10.00
8869K6	DPST	D-B-C	10.00
8869K7	DPST	A-D-B	8.60

Code: A = On B = Off C = Momentary On
D = None E = Momentary Off

PUSH BUTTON
SWITCHES

Push to make—Push to break
AC-DC, UL Approved, 11/16"
shank; bakelite case. Pushing the
button opens the contacts.
Pushing it again opens the con-
tacts. Rated at 2 Amps, 125 Volts
3 Amps, 250 Volts. Std. Pkg. 10

No. C-H No. Type Term. NET Each
889 720K4 SPST Wire \$.96
990 720K4 SPST Screw 1.08
991 720K4 SPST Wire 1.08

QUALIFIED SALES ENGINEERS

men and their organizations comprising the
wide network of SMITH REPRESENTATIVES
technically qualified and eager to consult with
you on your requirements for standard or special
components manufactured by Herman H. Smith Inc.

ROCKER-ACTUATED TOGGLE SWITCHES

Combines advantages of Toggle Switch circuitry and current capacity with pushbutton control. Snag-proof keys prevent false actuation. Translucent plastic keys feature edge light indication. Lower half of key emits soft glow from light source in panel. Enables easy identification of actuator position. Translucent plastic keys mounted above flush. An insert with signs, symbols or letters can be placed under the key.
Temperature range -55°F to +160°F. Sealed between bushing and rocker actuator, and between cover and case.
Std. Pkg. 10

Circuit	Circuit	Circuit	Circuit
1 ON-OFF-ON	8 OFF-NONE-ON(MOM)	10 ON-NONE-ON(MOM)	11 ON-OFF(MOM)-NONE
2 ON-NONE-OFF	9 ON(MOM)-OFF-ON	12 ON(MOM)-ON-NONE	13 NONE-OFF-ON(MOM)
3 ON-NONE-ON			
4 ON-OFF-NONE			
5 ON-ON-NONE			
6 ON-NONE-OFF(MOM)			
7 ON-OFF-ON(MOM)			

RATING: CURRENT CAPACITY (AMPS)

	CON- TINU- OUS	RESISTIVE			LOAD		LAMP		INDUCTIVE	
		30 vdc	115 vdc	250 vdc	115 vdc	230 vac	30 vdc	115 vac	30 vdc	115 vac
A	45	20	.75	.5	15	6	5	3	15	10
B	45	15	.75	.5	15	6	4	2	10	7
C	40	20	.75	.5	15	6	7	4	15	15
D	40	18	.75	.5	11	6	5	2	10	8
E	40	20	.75	.5	15	6	5	4	12	15
F	40	18	.75	.5	11	6	4	2	10	8

HHS MICRO

"MS" No.

Circuit

Rating

NET

Each

1 POLE				
TRANSLUCENT KEY				
3401	ITP1-1	1	A	\$ 7.29
3402	ITP1-2	2	A	7.29
3403	ITP1-3	3	A	7.29
3404	ITP1-21	4	A	7.29
3405	ITP1-31	5	A	7.29
3406	ITP1-4	6	B	7.29
3407	ITP1-5	7	B	7.29
3408	ITP1-6	8	B	7.29
3409	ITP1-7	9	B	7.29
3410	ITP1-8	10	B	12.63
3411	ITP1-41	11	B	13.02
3412	ITP1-51	12	B	13.05
3413	ITP1-61	13	B	7.29

TRANSPARENT KEY

3414	ITP4-1	1	A	\$ 7.29
3415	ITP4-2	2	A	7.29
3416	ITP4-3	3	A	7.29
3417	ITP4-21	4	A	15.57
3418	ITP4-31	5	A	15.57
3419	ITP4-4	6	B	7.29
3420	ITP4-5	7	B	7.29
3421	ITP4-6	8	B	7.29
3422	ITP4-7	9	B	7.29
3423	ITP4-8	10	B	15.15
3424	ITP4-41	11	B	15.57
3425	ITP4-51	12	B	15.63
3426	ITP4-61	13	B	13.02

TRANSPARENT KEY

TRANSLUCENT KEY				
3427	2TP1-1	1	C	\$ 8.40
3428	2TP1-2	2	C	8.40
3429	2TP1-3	3	C	8.40
3430	2TP1-21	4	C	8.40
3431	2TP1-31	5	C	8.40
3432	2TP1-4	6	D	16.17
3433	2TP1-5	7	D	8.40
3434	2TP1-6	8	D	8.40
3435	2TP1-7	9	D	14.61
3436	2TP1-8	10	D	8.40
3437	2TP1-41	11	D	15.03
3438	2TP1-51	12	D	15.21
3439	2TP1-61	13	D	15.03



TRANSPARENT KEY

3440	2TP4-1	1	C	\$ 8.40
3441	2TP4-2	2	C	8.40
3442	2TP4-3	3	C	8.40
3443	2TP4-21	4	C	17.58
3444	2TP4-31	5	C	17.58
3445	2TP4-4	6	D	17.19
3446	2TP4-5	7	D	8.40
3447	2TP4-6	8	D	17.19
3448	2TP4-7	9	D	8.40
3449	2TP4-8	10	D	8.40
3451	2TP4-51	12	D	17.73
3452	2TP4-61	13	D	17.58

TRANSPARENT KEY

TRANSLUCENT KEY				
3453	4TP1-1	1	E	\$ 9.90
3454	4TP1-2	2	E	9.90
3455	4TP1-3	3	E	9.90
3456	4TP1-21	4	E	9.90
3457	4TP1-31	5	E	9.90
3458	4TP1-4	6	F	18.00
3459	4TP1-5	7	F	9.90
3461	4TP1-7	9	F	9.90
3462	4TP1-8	10	F	15.03
3463	4TP1-11	11	F	15.21
3464	4TP1-51	12	F	15.03



| TRANSPARENT KEY | | | | |

TRANSPARENT KEY

3465	4TP4-2	2	E	9.90
3468	4TP4-3	3	E	9.90
3469	4TP4-21	4	E	20.16
3470	4TP4-1	5	E	22.05
3471	4TP4-4	6	F	18.77
3472	4TP4-5	7	F	9.90
3474	4TP4-7	9	F	9.90
3475	4TP4-8	10	F	19.89
3476	4TP4-41	11	F	20.91
3477	4TP4-51	12	F	22.44
3478	4TP4-61	13	F	20.16

BUSHING-MOUNTED TOGGLE SWITCHES

Tested and approved under MIL-S-3950A. Silicone sealed between cover and case, and between bushing and toggle lever. Integral terminals provide stronger wiring connections. Wide temperature range of -55°F to +250°F.
Std. Pkg. 10

Circuit	Circuit	Circuit	Circuit
1 ON-OFF-ON	8 OFF-NONE-ON(MOM)	10 ON-NONE-ON(MOM)	11 ON-OFF(MOM)-NONE
2 ON-NONE-OFF	9 ON(MOM)-OFF-ON	12 ON(MOM)-ON-NONE	13 NONE-OFF-ON(MOM)
3 ON-NONE-ON			
4 ON-OFF-NONE			
5 ON-ON-NONE			
6 ON-NONE-OFF(MOM)			
7 ON-OFF-ON(MOM)			

RATING: CURRENT CAPACITY (AMPS)

	CON- TINU- OUS	RESISTIVE LOAD				LAMP LOAD			INDUC- TIVE LOAD	
		30 vdc	115 vdc	250 vdc	115 vdc	230 vdc	115 vdc	30 vac	115 vac	
A	45	20	.75	.5	15	6	5	3	15	10
B	45	15	.75	.5	15	6	4	2	10	7
C	40	20	.75	.5	15	6	7	4	15	15
D	40	18	.75	.5	11	6	5	2	10	8

HHS MICRO "MS" No.

Circuit

Rating

NET

Each

	3104	1TL1-21	MS24523-24	4	A	5.97
	3105	1TL1-31	MS24523-33	5	A	5.97
	3106	1TL1-4	MS24523-29	6	B	5.13
	3107	1TL1-5	MS24523-31	7	B	5.13
	3108	1TL1-6	MS24523-30	8	B	5.13
	3109	1TL1-7	MS24523-27	9	B	5.13
	3110	1TL1-8	MS24523-26	10	B	5.13
	3111	1TL1-41	MS24523-25	11	B	5.97
	3112	1TL1-51	MS24523-51	12	B	5.97
	3113	1TP1-61	MS24523-28	13	B	5.97

2 POLE (MS 24524)

1 POLE (MS 24523)	2 POLE (MS 24524)	3 POLE (MS 24525)	4 POLE (MS 24526)
3114	ITL1-1	MS24524-21	1
3115	ITL1-2	MS24524-22	2
3116	ITL1-3	MS24524-23	3
3117	ITL1-4	MS24524-24	4
3118	ITL1-5	MS24524-25	5
3119	ITL1-6	MS24524-26	6
3120	ITL1-7	MS24524-27	7
3121	ITL1-8	MS24524-28	8
3122	ITL1-9	MS24524-29	9
3123	ITL1-10	MS24524-30	10
3124	ITL1-11	MS24524-31	11
3125	ITL1-12	MS24524-32	12
3126	ITL1-13	MS24524-33	13

C	\$8.43
C	8.43
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D	8.43
D	8.43

4 POLE (MS 24525)

3127	ITL1-1	MS24525-21	1	C	\$13.35
3128	ITL1-2	MS24525-22	2	C	13.35
3129	ITL1-3	MS24525-23	3	C	13.35
3130	ITL1-21	MS24525-24	4	C	13.35
3131	ITL1-31	MS24525-33	5	C	13.35
3132	ITL1-4	MS24525-26	6	D	13.35
3133	ITL1-5	MS24525-31	7	D	13.35
3134	ITL1-6	MS24525-30	8	D	13.35
3135	ITL1-7	MS24525-31	9	D	13.35
3136	ITL1-8	MS24525-26	10	D	13.35
3137	ITL1-41	MS24525-25	11	D	13.35
3139	ITL1-51	MS24525-32	12	D	13.35
3139	ITL1-61	MS24525-28	13	D	13.35



specify SMITH

HERMAN H. SMITH, INC.



ELECTRONIC COMPONENTS

MICRO TOGGLE SWITCHES

"TS" TOGGLE SWITCHES "UL" LISTED

"UL" listed "Commercial" type are identical to military type except for but handle finish. Bright chrome plated to enhance panel appearance. Also certified by the Canadian Standards Association (CSA). Std. Pkg. 10

Circuit Code #	Circuit	Circuit Code #	Circuit
1	ON-OFF-ON	8	OFF-NONE-ON (MOM)
2	ON-NONE-OFF	9	ON (MOM)-OFF-ON
3	ON-NONE-ON	10	ON-NONE-ON (MOM)
4	ON-OFF-NONE	11	ON-OFF (MOM)-NONE
5	ON-OFF-ON (MOM)	12	NONE-OFF-ON (MOM)
6	ON-OFF-ON (MOM)	13	NONE-OFF-ON (MOM)
7	ON-OFF-ON (MOM)		

RATING "A"	RATING "B"	RATING "C"
15 Amps., 125-250 VAC	10 Amps., 125-250 VAC	15 Amps., 125-250 VAC
1/2 HP, 125 VAC	1/4 HP, 125 VAC	1/2 HP, 125 VAC
1 HP, 250 VAC	1/4 HP, 250 VAC	1/2 HP, 250 VAC

HHS	MICRO	Circuit Rating	Net Ea.
-----	-------	----------------	---------

1 POLE

SCREW TERMINALS

3331	11TS15-1	1	A	\$2.18
3332	11TS15-2	2	A	1.82
3333	11TS15-3	3	A	2.18
3334	11TS15-4	4	B	2.02
3335	11TS15-61	13	B	2.02
3336	11TS15-7	9	B	2.37

QUICK DISCONNECT TERMINALS

3337	11TS15-1	1	A	\$2.11
3338	11TS15-2	2	A	1.76
3339	11TS15-3	3	A	1.76
3340	11TS15-4	4	A	1.81
3341	11TS15-6	6	B	2.15
3342	11TS15-5	7	B	2.31
3343	11TS15-6	8	B	1.95
3344	11TS15-61	13	B	1.95
3345	11TS15-7	9	B	2.31
3346	11TS15-8	10	B	2.31

SOLDER TERMINALS

3347	11TS15-1	1	A	\$2.05
3348	11TS15-2	2	A	1.72
3349	11TS15-3	3	A	2.05
3350	11TS15-4	4	B	1.92
3351	11TS15-7	9	B	2.24

2 POLE

SCREW TERMINALS

3352	12TS15-1	1	A	\$2.93
3353	12TS15-2	2	A	2.44
3354	12TS15-3	3	A	2.44
3355	12TS15-4	4	B	2.33
3357	12TS15-5	7	C	3.15
3359	12TS15-61	13	C	2.93
3360	12TS15-7	9	C	3.15
3361	12TS15-8	10	C	3.15

QUICK DISCONNECT

3362	12TS15-1	1	A	\$2.76
3363	12TS15-2	2	A	2.31
3365	12TS15-3	3	A	2.76
3366	12TS15-4	4	B	2.63
3367	12TS15-5	7	C	3.02
3370	12TS15-6	8	C	3.02

SOLDER TERMINALS

3372	12TS15-1	1	A	\$2.63
3373	12TS15-2	2	A	2.24
3374	12TS15-3	3	A	2.24
3375	12TS15-4	4	B	2.63
3376	12TS15-6	6	C	2.73
3377	12TS15-5	7	C	2.89
3378	12TS15-6	8	C	2.73
3379	12TS15-61	13	C	2.73
3380	12TS15-7	9	C	2.89
3381	12TS15-8	10	C	2.89

3-HOLE MOUNT "TS" TOGGLE SWITCHES

"Any" Type tested and approved under MIL specs. "JAN" Type conform to JAN-8-23—Sealed Lever. Std. Pkg. 10

Circuit Code #	Circuit	Circuit Code #	Circuit
1	ON-OFF-ON	8	OFF-NONE-ON (MOM)
2	ON-NONE-OFF	9	ON (MOM)-OFF-ON
3	ON-NONE-ON	10	ON-NONE-ON (MOM)
4	ON-OFF-NONE	11	ON-OFF (MOM)-NONE
5	ON-OFF-ON (MOM)	12	NONE-OFF-ON (MOM)
6	ON-OFF-ON (MOM)	13	NONE-OFF-ON (MOM)
7	ON-OFF-ON (MOM)		

RATING: CURRENT CAPACITY (AMPS)

CON-TINU-ous	RESISTIVE	LAMP LOAD	INDUCTIVE
vdc	vdc	vdc	vdc
A	55	40	7.5
B	55	40	7.5
C	55	40	7.5
D	55	40	7.5

1 POLE (MIL-S-6745)

HHS	MICRO	Circuit Rating	Net Ea.
3301	31TS1-1	3022-1	ST45H 1 A \$2.57
3302	31TS1-2	3022-2	ST45A 2 A 2.11
3303	31TS1-3	3022-3	ST45D 3 A 2.57
3304	31TS1-4	3022-4	ST45H 4 A 2.11
3305	31TS1-4	3022-9	ST45B 6 B 2.34
3306	31TS1-5*	3022-10	ST45H 7 B 2.76
3307	31TS1-6	3022-11	ST45C 8 B 2.34
3308	31TS1-7	3022-7	ST45G 9 B 2.76
3309	31TS1-8	3022-11	ST45F 10 B 2.76
3310	31TS1-9	3022-6	ST45C 11 B 2.96
3311	31TS1-61	3022-13	ST45C 13 B 2.34

*Has a jumper across the stationary contact terminals.

2 POLE (MIL-S-3950A)

HHS	MICRO	Circuit Rating	Net Ea.
3312	532TS1-1	MS25103-21	1 A \$5.33
3313	532TS1-3	MS25103-23	3 C 5.33
3314	532TS1-21	MS25103-24	4 A 4.45
3315	532TS1-1	MS25103-21	7 D 5.33
3316	532TS1-7	MS25103-27	9 D 5.79
3317	532TS1-8	MS25103-28	10 D 5.79
3319	532TS1-61	MS25103-28	13 D 5.23

RATING: CURRENT CAPACITY (AMPS)

CON-TINU-ous	RESISTIVE	LAMP LOAD	INDUCTIVE
vdc	vdc	vdc	vdc
E	30	25	22
F	30	25	22
G	30	25	22

3 POLE (MIL-S-3950A)

HHS	MICRO	Circuit Rating	Net Ea.
3320	533TS1-1	MS25105-21	1 E \$4.97
3321	533TS1-3	MS25105-23	3 E 4.97
3322	533TS1-21	MS25105-24	4 E 4.16

4 POLE (MIL-S-6745)

HHS	MICRO	Circuit Rating	Net Ea.
3323	34TS1-1	3227-1	1 F \$6.66
3324	34TS1-2	3227-2	2 F 5.33
3325	34TS1-3	3227-3	3 F 6.66
3326	34TS1-21	3227-4	4 F 7.83
3327	34TS1-5	3227-5	5 G 6.03
3328	34TS1-6	3227-8	8 G 7.22
3329	34TS1-7	3227-7	9 G 6.03
3330	34TS1-61	3227-10	13 G 7.22

SEALED "TS" TOGGLE SWITCHES

These switches have a panel seal in addition to all other "TS" features. When mounted, the seal provides a dust-tight and moisture seal at the panel. Std. Pkg. 10

Circuit Code #	Circuit	Circuit Code #	Circuit
1	ON-OFF-ON	7	ON-OFF-ON (MOM)
2	ON-NONE-OFF	8	ON (MOM)-OFF-ON
3	ON-NONE-ON	9	ON-NONE-ON (MOM)
4	ON-OFF-NONE	10	ON-OFF (MOM)-NONE
5	ON-OFF-ON (MOM)	11	NONE-OFF-ON (MOM)
6	ON-OFF-ON (MOM)	12	NONE-OFF-ON (MOM)
7	ON-OFF-ON (MOM)	13	NONE-OFF-ON (MOM)

RATING: CURRENT CAPACITY (AMPS)

CON-TINU-ous	RESISTIVE	LAMP LOAD	INDUCTIVE
vdc	vdc	vdc	vdc
A	40	20	7.5
B	40	20	7.5
C	40	20	7.5
D	40	20	7.5

1 POLE

SCREW TYPE TERMINALS

HHS	MICRO	Circuit Rating	Net Ea.
3201	21TS1-1	1	A \$3.44
3202	21TS1-2	2	A 3.44
3203	21TS1-3	3	A 3.44
3206	21TS1-5	7	B 3.44
3207	21TS1-6	8	B 3.44
3209	21TS1-8	10	B 3.44

SOLDER TYPE TERMINALS

3211	21TS1-1	1	A \$3.44
3212	21TS1-2	2	A 3.44
3213	21TS1-3	3	A 3.44
3215	21TS1-4	4	B 3.44
3216	21TS1-5	7	B 3.44
3217	21TS1-6	8	B 3.44
3218	21TS1-7	9	B 3.44
3219	21TS1-8	10	B 3.44

2 POLE

SCREW TYPE TERMINALS

HHS	MICRO	Circuit Rating	Net Ea.
3221	21TS1-1	1	C \$4.16
3222	21TS1-2	2	C 4.16
3223	21TS1-3	3	C 4.16
3224	21TS1-21	4	C 4.16
3225	21TS1-4	4	D 4.16
3226	21TS1-5	7	D 4.16
3227	21TS1-6	8	D 4.16
3228	21TS1-7	9	D 4.16
3229	21TS1-8	10	D 4.16

SOLDER TYPE TERMINALS

3231	21TS1-1	1	C \$3.44
3232	21TS1-2	2	C 3.44
3233	21TS1-3	3	C 3.44
3236	21TS1-5	7	D 4.00
3237	21TS1-6	8	D 4.00
3238	21TS1-7	9	D 4.00
3239	21TS1-8	10	D 4.00

ARROW H & H "SNAP-ACTING" Momentary Contact Switches

TERMINAL CODE:

S = solder lugs
L = screws, lock washers

Std. Pkg. 5

C = screws, cup washers
Q = quick connect

HIGH SENSITIVITY PIN TYPE (A)

LIMIT LOAD 0.1 to 10 Amps, 125 V., A.C.
or 10 Watts, 25 V., D.C.

WITH TERMINALS	S.P. NORM. OPEN		S.P. NORM. CLOSED		S.P.D.T.	
	No.	NET Ea.	No.	NET Ea.	No.	NET Ea.
S	4701	\$5.82	4705	\$5.82	4709	\$6.08
C	4702	5.84	4706	5.94	4710	6.15
L	4703	5.94	4707	5.94	4711	6.15
Q	4704	5.82	4708	5.82	4712	6.06

ADJUSTABLE RIGID LEVER (B)

Heavy Duty 20 Amp

RATINGS				Operating Characteristics			
20 A., 480 V., A.C.		¼ A., 250 V., D.C.		Operating Force. 2½ oz. max.			
5 A., 125 V., A.C.		1 H.P., 120 V., A.C.		Pretravel ¾" max.			
5 A., 125 V., D.C.		2 H.P., 240 V., A.C.		Overtravel ..... .05" max.			
				Dist. Travel ..... .105" max.			
WITH TERMINALS		S.P. NORM. OPEN		S.P. NORM. CLOSED		S.P.D.T.	
		No. NET EA.		No. NET EA.		No. NET EA.	
S		4721	\$2.64	4725	\$2.64	4729	\$2.88
C		4722	2.76	4726	2.76	4730	3.00
L		4723	2.76	4727	2.76	4731	3.00
Q		4724	2.64	4728	2.64	4732	2.88

ROLLER LEAF ACTUATOR (C)

General Purpose 15 Amp

	15 Amp. 480 V. A.C.	Operating Force..... 500 max
	1/4 Amp. 125 V. D.C.	Pretravel..... 5/32 max
	1/4 Amp. 250 V. D.C.	Overtravel..... not over 1/16 in
		Dist. Travel..... .050 max
S.P. NORM. OPEN		S.P. NORM. CLOSED
WITH TERMINALS	No. Net Ea.	No. Net Ea.
S	4501 \$2.15	4535 \$2.15
C	4502 2.25	4534 2.25
L	4503 2.25	4535 2.25
Q	4504 2.15	4536 2.15

Heavy Duty 20 Amp

20 A. 480 V. A.C.	1/4 A. 250 V. D.C.	Operating Force	50% max
10 A. 125 V. A.C. "T" Load	1 H.P. 120 V. A.C.	Pretravel	not over 1 1/2" max
1/4 A. 125 V. D.C.	2 H.P. 240 V. A.C.	Overtravel	not over 1/8" max
		Diff. Travel	not over 1/8" max

WITH TERMINALS	S.P. NORM. OPEN		S.P. NORM. CLOSED		S.P. D.T.	
	No.	Net Ea.	No.	Net Ea.		
S	4601	\$2.25	4633	\$2.25	4605	\$2.25
C	4602	2.31	4634	2.31	4606	2.31
L	4603	2.31	4635	2.31	4607	2.31
Q	4604	2.25	4636	2.25	4608	2.25

RATINGS				Operating Characteristics			
10 A. 250 V., D.C.		1/4 A. 250 V., D.C.		Pretravel		1/2" max	
10 A. 125 V., A.C.		1 H.P., 120 V., A.C.		Overtravel		1/32" min	
1/4 A. 125 V., D.C.		2 H.P., 240 V., A.C.		Dry Travel		3/64" min	
WITH TERMINALS		S.P. NORM. OPEN		S.P. NORM. CLOSED		S.P.D.T.	
	No.	NET \$	NET \$	No.	NET \$	No.	NET \$
S	4617	\$2.64	4649	\$2.64	4681	\$3.00	
C	4618	2.70	4650	2.70	4682	3.06	
Q	4619	2.65	4651	2.70	4683	3.06	
Q	4620	2.64	4652	2.64	4684	3.00	

specify SMITH

HERMAN H. SMITH, INC.



ELECTRONIC COMPONENTS



SINGLE RECORD

33-1/3 R.P.M.

TEN LESSONS

UP TO 15 WORDS

PER MINUTE

Complete on Two Sides

This twelve inch long play record contains all ten of the Code Course Lessons listed above, five on each side. 20-Page SMITH Instruction Book is included, and the record is housed in attractive, sturdy jacket with International Morse Code table on reverse side.

No. 2420 **NET Each \$4.80**



ADVANCED CODE COURSE

Single Record—
33 1/3 R.P.M.
TWELVE LESSONS
16 to 25 Words
Per Minute

Specially prepared to increase skills in copying code at high speeds. 12 step-by-step lessons are provided plus specific directions with each.

20 page Advanced Code Instruction Book included. Record comes in sturdy jacket with International Morse Code table on reverse side.

No. 2435 Advanced Code Course complete with 20 page instruction Book **NET \$4.80**

BEGINNERS AND ADVANCED CODE COURSES IN COMBINATION PACKAGE

Advanced Code Course #2435 PLUS Beginners' Code Course #2420 (see above) both complete with 20-page instruction books, attractively packaged in combination carton.

No. 2436 **NET \$9.00**



CODE PRACTICE OSCILLATOR & MONITOR

Ideal for the beginner as well as the experienced operator, this versatile instrument can be used as a code practice oscillator, as a keying monitor check ICW signals, or as a monitor for phone signals.

Two tubes are used, in an up to date circuit that provides continuously variable tone and volume. Self-contained PM speaker affords ample volume for group use, with phone jack available for individual headphone listening.

The handsome Hammettone finish cabinet has additional provision for wall mounting, an exclusive SMITH feature that eliminates need for valuable desk space. The unit is designed for use on 110 Volts AC or DC, and is supplied complete with two tubes.

No.	Description	Kit	NET Each
2425			\$13.50
2426		Wired	18.00



INTERLOCK PLUGS

No.	Std. Pkg. 100	NET Per C
1208	Recessed	\$7.80
1228	Flush	5.40

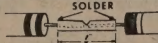


AMERICAN-FOREIGN PLUG ADAPTERS

Streamlined bakelite plug adapters. Adapts from American to Foreign type.

No.	Female End	Male End	NET Per C
852	American	Continental	\$24.00
856	American	British	24.00
851		Continental Plug	18.00

"CLEAPS" (Connectors for Joining Severed Wires)

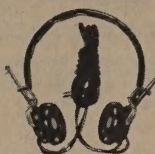


MATERIAL: Brass, anodized plated.
WIRE SIZE: For wires, .010" to .050" (B&S Gauge 16 to 30).

DESIGN: Used to splice cut leads of condensers, resistors, etc., in process of troubleshooting. Insert wire in each tapered end and solder thru center opening. Std. Pkg. 100

No. 1270 **NET Per C \$1.00**

HIGH SENSITIVITY HEADPHONES



The latest in deluxe design, with many features of more expensive types. Featherweight construction assures fatigue-free use. Alnico V magnets, dual coil construction provide excellent tonal fidelity. Adjustable vinyl covered headband, molded plastic cases. Cord equipped with phone clip.

No.	Description	Ohms	NET Each
2441	Single	1000	\$1.89
2440	Double	2000	3.45
2446	Single	2-4	1.89
2447	Double	4-8	3.45
2448	Single	2000	2.10
2449	Double	4000	3.75

FOR STEREO USE

Same as above, except each Phone has leads brought out separately.

No.	Description	Ohms	NET Each
2477	Double	2000	\$3.75
2478	Double	4-8	3.75
2479	Double	4000	4.20

RUBBER EAR CUSHIONS

Finest quality soft rubber ear cushions, fit all standard ear-phones. For comfortable listening over long periods of time.

No. 2410 **Per Pair \$1.08**

"UNIVERSAL" FOREIGN ADAPTER PLUGS

Year	Male Plug	Female Socket	NET Per C
1991	Continental	Universal	\$31.00
1992	American	Universal	35.00
1993	Bayonet	Universal	60.00
1994	Screw	Universal	60.00
1995	Kit of 4 Adapters, 1 each of above		210.00

Permits operation of American, British or Continental electric shavers, radios, record players and other small appliances, from any electrical outlet, anywhere in the world supplying the required voltage. All plugs are rated at 15 Amps/117 V. 7.5 Amps/220 V.

No.	Male Plug	Female Socket	NET Per C
1991	Continental	Universal	\$31.00
1992	American	Universal	35.00
1993	Bayonet	Universal	60.00
1994	Screw	Universal	60.00
1995	Kit of 4 Adapters, 1 each of above		210.00

HEX AND SPLINE KEYS

Made of special alloy steel, tempered to avoid brittleness and impose maximum resistance to torsional strain. Ends ground for easy insertion.

HEX KEYS		Std. Pkg. 50
No.	Screw	O.D. NET Per C
340	No. 2	.034 \$7.80
341	No. 3.4	.050 7.80
342	No. 5.6	.082 7.80
343	No. 8	.078 7.80
344	No. 10	.093 9.00
345	No. 14"	.125 9.00
346	No. 1/8"	.156 9.00
SPLINE KEYS		
No.	Screw	O.D. NET Per C
370	No. 4	.058 \$7.80
371	No. 5	.068 7.80
372	No. 6	.075 7.80
373	No. 8	.093 7.80
374	No. 10	.109 9.00
375	No. 14"	.143 9.00
376	No. 1/8"	.182 9.00

SPLINE KEYS



HEX AND SPLINE KEY KITS

Attractive tearproof vinyl plastic kit with individual pockets for each of six keys in kit.

HEX AND SPLINE KEY KITS

Attractive tearproof vinyl plastic kit with individual pockets for each of six keys in kit.

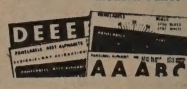
No.	Kit	NET Per C
3850	Kit of 6 hex keys for screws from No. 3 to 5/16"	\$60.00
3851	Kit of 6 spline keys for screws from No. 5 to 5/16"	60.00
3852	Kit of 6 spline keys for screws from No. 5 to 5/16"	60.00
3853	Kit of 7 hex keys for screws from No. 2 to 5/16" and 4 spline keys Nos. 4, 6, 8, and 10.	\$120.00
3854	Kit of 7 hex keys for screws from No. 2 to 5/16" and 4 spline keys Nos. 4, 6, 8, and 10.	120.00

DISPLAY CARDS

No.	Display Card	NET Each
335D	Display of 24 Hex Kits No. 355	\$14.40
385D	Display of 24 Spline Kits No. 385	14.40
386D	Display of 24 Comb. Kits No. 386	14.40
385D	Display of 20 Comb. Kits No. 385	24.00

"PANELABELS"

Modern Panel Title Decals



New size type face on word titles to match modern instrument and sound equipment.

Packaged individually in clear plastic boxes. Instant selection.

Itself can be used as water tray for applying the Standard Packages of 6.

Please order by catalog number.

NET, EACH PACKAGE

TRANSMITTER

For industrial prototype use, Hams, Citizens' Band and Also for Microwave and Broadcast stations.

RECEIVER

Hams, Citizens' Banders, Industrial prototypes, H and Experimentar applications.

DIALS

For all uses in transmitters, Ham and Citizens' Band industrial prototypes, Hi-Fi, electricians, experimenters.

ALPHABETS

Most popular item in the line! For all general uses above.

TRANSISTORS

HI-FI AND STEREO

SOUND SYSTEMS

TRANSISTORS AND DIODES

ELECTRONIC DISTRIBUTION

BOOKLET OF COMPLETE TITLE LISTS OF ALL PANELABELS AVAILABLE ON REQUEST

DRILL & TAP KIT for

HAMS

LABORATORIES

SERVICEMEN

SPECIALLY DESIGNED FOR ELECTRONIC BENCH DUTY, THIS KIT CONTAINS THE MOST POPULAR SIZES OF TAPS AND CORRESPONDING BODY DRILLS FOR PRECISE AND SPEEDY WORK. DRILL AND TAP IDENTIFICATIONS ARE ENGRAVED ON THE STEEL CANTILEVER PLATED DRILL STAND, TO FACILITATE CORRECT REPLACEMENT. CONTAINS: 4-40, 6-32, 8-32, 10-32 Taps with corresponding tap and body drill.

NET

Kit

Stand Only

750

750

750

750

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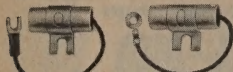
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specify **SMITH**

HERMAN H. SMITH, INC.

ELECTRONIC
COMPONENTS

AUTO RADIO CONDENSERS



Eliminates radio interference caused by electrical system. Fits all cars. Proven quality — Guaranteed long life. Std. Pkg. 25

No.	Cap.	Type	NET Per C
811	.5 MFD	General	\$35.00
812	.5 MFD	Universal	\$40.00

ANTENNA
CONNECTOR

For use as connection of auto radio antenna lead-in to auto radio receiver. Std. Pkg. 50
No. 1300\$10.20 Per C

FUSE
RETAINER

Recommended for use in auto radio power supply cables. Std. Pkg. 50
No. 1301NET Per C \$13.20

PARTS FOR CONNECTOR & RETAINER

No.	Type	NET Per C
1305	Male Cap for #1300 & #1301	\$7.00
1306	Female Shell for #1300	2.31
1307	Contact for #1300 & #1301	3.30
1308	Spring for #1300 & #1301	.66
1309	Washer for #1300 & #1301	.33
1310	Insulating Tube for #1301	.66
1311	Female Shell for #1301	5.40

TV SNAP-ON FUSE HOLDER



Snap fuse clip over burned out fuse. Insert new fuse without soldering. Std. Pkg. 50
No. 529NET Each \$.16
529DDisplay of 24 No. 529 3.89

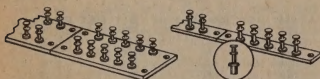
FUSE MOUNTING BASES



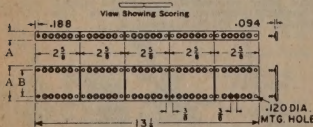
Black bakelite, panel mount type. Will accommodate the 3 A G Auto type cartridge fuse. Std. Pkg. 25

No.	Type	NET Per C
530	Single	\$12.00
531	Double	24.00

SCORED TERMINAL BOARDS

featuring
SNAP-APART SEPARATION
ASSEMBLED WITH
TERMINAL LUGS & MOUNTING HOLES

SMITH Scored Boards are fabricated in PBE material per MIL-P-31156, Temp. 250° F. Max., Type XXXP. Terminals are securely staked and are made of Brass per QQ-626 comp. 22, half-hard with hot-tinned dip solder finish, per MIL-F-14072 Type 221. Smith type 2008. Std. Pkg. 6



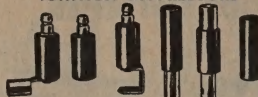
Cat. No.	Dimensions	Terminals	Net Each
2810	1/2" Single Row	25	\$1.30
2811	1 1/2" 1"	50	2.30
2812	2" 1 1/2"	50	2.34
2813	2 1/2" 2"	50	2.50
2814	3" 2 1/2"	50	2.50

SCRATCH AWL



Scratch awl with unbreakable amber handle. Overall length 5". A "must" in a serviceman's tool kit.

No.	Std. Pkg.	NET Per C
814		\$40.00

"IT'S SOUND PLANNING
TO SPECIFY SMITH!"Auto Radio
IGNITION SUPPRESSORS

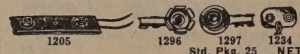
Cat. No.	Type	NET Per C
805	Snap-On Type Suppressor	\$40.00
806	Unit, Type with Double Thrd.	40.00
807	Angle Type Suppressor	40.00
808	Distributor Screw Type	50.00
809	Distributor Plug-in Type	50.00
810	Double Screw Type	25.00

MOTOROLA PLUGS & JACKS



Std. Pkg. 50	Type	NET Per C
1200	Motorola Type Plug	\$10.20
1201	Antenna Connector	
1202	Takes 1200 Plug	18.00
1204	Lead-in Adapter, converts Motorola pin plug to Delco	9.00
1235	Female for #1200 plug, without flange	7.20

BATTERY CONNECTING STRIPS



No.	Spacing	Eveready	Burgess	Std. Pkg. 25	NET Per C
1205	1-1/2"	455,467, 457,468	XX30, XX43 K45, V451	V8065, V8016, V8082, V8125	\$18.00
1206	2-1/2"	490	N60	V8090	24.00
1210	15/16"	437,495, 447,235	XX30, N60X P43, C6X	V8117, V8118, V8119, V8125, V8131, V8136, V8138, V8139, V8140, V8141, V8142, V8143, V8144, V8145, V8146, V8147, V8148, V8149, V8150, V8151, V8152, V8153, V8154, V8155, V8156, V8157, V8158, V8159, V8160, V8161, V8162, V8163, V8164, V8165, V8166, V8167, V8168, V8169, V8170, V8171, V8172, V8173, V8174, V8175, V8176, V8177, V8178, V8179, V8180, V8181, V8182, V8183, V8184, V8185, V8186, V8187, V8188, V8189, V8190, V8191, V8192, V8193, V8194, V8195, V8196, V8197, V8198, V8199, V8200	18.00
1217	1-1/4"	707	D5	V8315	18.00
1218	1-5/8"	274,276	4D4, D6	V8306	18.00
1219	15/16"	245	323	V8324	24.00
1234	1/2"	E126,415, 216,416	H126, U30, 216, U435, 246	V8328, V8329, V8330, V8331, V8332, V8333, V8334, V8335, V8336, V8337, V8338, V8339, V8340, V8341, V8342, V8343, V8344, V8345, V8346, V8347, V8348, V8349, V8350, V8351, V8352, V8353, V8354, V8355, V8356, V8357, V8358, V8359, V8360, V8361, V8362, V8363, V8364, V8365, V8366, V8367, V8368, V8369, V8370, V8371, V8372, V8373, V8374, V8375, V8376, V8377, V8378, V8379, V8380, V8381, V8382, V8383, V8384, V8385, V8386, V8387, V8388, V8389, V8390, V8391, V8392, V8393, V8394, V8395, V8396, V8397, V8398, V8399, V8400	24.00
CONNECTOR STRIPS					
1296	Female	228,228	P6, P318	V8300A, V8329, V8330	5.00
1297	Male	2709		V8326	9000

CERAMIC STANDOFFS



MADE TO
JAN. SPECS.
Grade L-6 Ceramic made to
JAN 1-8 and JAN 1-10
Specs. Outside of ceramic is
glazed. Std. Pkg. 50

No.	Type	A	B	C	Thd.	NET Per C
2601	NL633W01-004	1/2"	3/8"	3/4"	6-32	\$16.70
2601	NL633W01-005	1/2"	3/8"	1/2"	6-32	18.20
2602	NL633W01-006	3/4"	3/8"	1/2"	6-32	19.00
2603	NL633W01-008	1"	3/8"	3/4"	6-32	19.70
2604	NL633W01-010	1 1/4"	3/8"	3/4"	6-32	21.80
2605	NL633W01-012	1 1/2"	3/8"	3/4"	6-32	22.70
2606	NL633W01-016	2"	3/8"	3/4"	6-32	25.00
2607	NL633W02-005	3/4"	1/2"	1/2"	8-32	16.70
2608	NL633W02-008	3/4"	1/2"	1/4"	8-32	17.20
2609	NL633W02-008	3/4"	1/2"	3/8"	8-32	17.40
2610	NL633W02-016	1 1/4"	1/2"	3/8"	8-32	22.70
2611	NL633W02-012	1 1/2"	1/2"	3/8"	8-32	25.00
2612	NL633W02-016	2"	1/2"	3/8"	8-32	25.40
2613	NL633W02-020	2 1/2"	1/2"	3/8"	8-32	28.00
2614	NL633W02-024	3"	1/2"	3/8"	8-32	31.50
2615	NL633W02-008	1"	3/4"	10-32	28.00	
2616	NL633W03-010	1 1/4"	3/4"	10-32	28.00	
2617	NL633W03-012	1 1/2"	3/4"	10-32	34.40	
2618	NL633W03-016	2"	3/4"	10-32	38.00	
2619	NL633W03-020	2 1/2"	3/4"	10-32	46.00	
2620	NL633W03-024	3"	3/4"	10-32	45.00	
2621	NL633W03-032	4"	3/4"	10-32	56.80	
2622	NL633W04-010	1 1/4"	1"	1/4-20	31.20	
2623	NL633W04-012	1 1/2"	1"	1/4-20	44.00	
2624	NL633W04-016	2"	1"	1/4-20	46.00	
2625	NL633W04-020	2 1/2"	1"	1/4-20	54.00	
2626	NL633W04-024	3"	1"	1/4-20	58.00	
2627	NL633W04-032	4"	1"	1/4-20	72.00	
2628	NL633W04-040	5"	1"	1/4-20	75.00	
2629	NL633W04-048	6"	1"	1/4-20	80.00	

CERAMIC
STANDOFFS

COMMERCIAL
Grade L5 Ceramic with out-
side glazed. Std. Pkg. 50

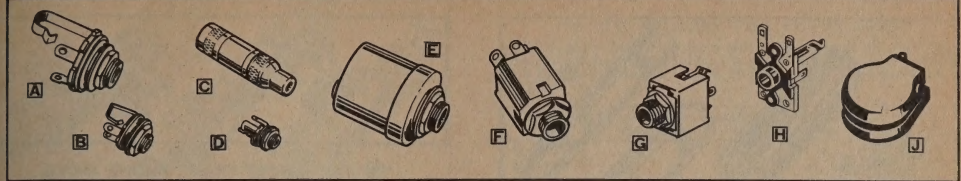
No.	A	B	C	Thd.	NET Per C
2640	1 1/4"	1 1/4"	Thru	6-32	\$13.40
2641	1 1/2"	1 1/4"	3/8"	6-32	13.70
2642	3/8"	3/8"	3/8"	6-32	14.20
2643	1 1/2"	3/8"	3/8"	6-32	16.00
2644	1 1/2"	3/8"	1/2"	6-32	18.50
2645	3/4"	1 1/2"	1/4"	6-32	19.50
2646	1"	1 1/2"	3/8"	6-32	21.50
2647	1 1/2"	1 1/2"	3/8"	6-32	24.50
2648	2"	1 1/2"	3/8"	6-32	26.70
2649	2 1/2"	3/4"	3/4"	1/4-20	35.40
2650	4"	3/4"	3/4"	1/4-20	49.20

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SWITCHCRAFT

Phone Jacks



"LITTEL-JAX" PHONE JACKS

A Quality phone jacks that mate with standard $\frac{1}{4}$ " phone plugs. Notched insulating washers mechanically interlock springs and solder lugs. "V" bend in tip spring firmly "holds" mating plug. Minimum space requirements. Economical. Mount in single $\frac{1}{2}$ " hole, panels up to $\frac{1}{2}$ " thick, except L-11 and L-12A in panels up to $\frac{1}{4}$ " thick.

Nos. C-11 and C-12A mate with No. 440 (PJ-055B) Plug; C-12B, S-12B and S-13B mate with No. 480 (JAN-PJ-068) or No. 484 (W.E. No. 309) Plug. Nos. C-11 and C-12B have locating pins (non-turn devices). No. S-11 similar to No. 11 except .210" I.D. sleeve. C-11, C-12B and C-12A per JAN-PJ-641. All others mate with standard $\frac{1}{4}$ " dia. plugs.

No. 14B Stereo Littell-Jax, switches-out speakers when connecting stereo headphones. Dual, N.O. switch contacts, open both stereo circuits independently when a 3-conductor plug is inserted.

TWO-CONDUCTOR TYPES

Part No.	Schematic No.	Typical Mating Plug	Mil-Type	U.S.A. List Price
11	I	250	—	\$.045
C-11	I	440	JJ-034	.65
L-11	I	250	—	.55
S-11	I	S-250	—	.50
12A	III	250	—	.50
C-12A	III	440	JJ-089	.80
L-12A	III	250	—	.60
13	V	250	—	1.00
13A	V	250	—	.90
13E	IX	250	—	1.00

THREE-CONDUCTOR TYPES

12B	IV	267	—	.60
C-12B	IV	480	JJ-033	1.05
L-12B	IV	267	—	.75
S-12B	IV	480	—	.75
S-13B	VIII	267	—	.85
S-13B	VIII	480	—	1.05
14B	X	267	—	1.05

"TINI-JAX" MINIATURE PHONE JACKS

B Miniature 2-conductor Jacks, approximately $\frac{1}{8}$ " the size of the "Littell-Jax"; otherwise similar in construction. Mount in $\frac{1}{4}$ " dia. hole; panel up to $\frac{1}{8}$ " thick. No. 43A has a unique spring design that requires a part shaped tip, such as Switchcraft "Tini-Plug" No. 750.

Part No.	Schematic No.	Typical Mating Plug	Conductors	U.S.A. List Price
41	I	750	2	\$.045
42A	III	750	2	.50
43A	VI	750	2	.80

"TINI-EXTENSION JAX"

C An extension or cable jack to mate with "Tini-Plug". Two-conductor. Metal housing for ruggedness and electrical shielding. Solder lug terminals.

Switchcraft Part No. 125 U.S.A. List Price \$1.35

"MICRO-JAX" SUB-MINIATURE PHONE JACKS

D Precision manufactured jack for miniaturized applications. Two-conductor, single closed circuit. See Schematic Circuit III. Silver plating on special tempered nickel silver springs. Internally keyed nylon insulation interlocks springs and solder lugs to eliminate shorts. Fits .190" dia. hole in panels to $\frac{1}{8}$ " thick. Only $\frac{1}{25}$ " the size of standard phone jacks. Mates with "Micro-Plug", Series 850, 880.

Switchcraft Part No. TR-2A U.S.A. List Price \$0.50

"SHIELDED JAX"

E A unique modification of the "Littell-Jax". The shield is assembled into and made part of the jack. Ideal for high impedance circuits.

Part No.	Schematic No.	Typical Mating Plug	Conductors	U.S.A. List Price
CN-11	I	250	2	\$.090
CN-12A	III	250	2	.95
CN-12B	IV	267	3	1.05
CN-13B	VIII	267	3	1.30

"HI-D JAX" PHONE JACKS

F New smaller, more compact phone jacks, mate with std. $\frac{1}{4}$ " phone plugs. Molded box body protects integral silver-plated, nickel silver springs. Low contact resistance and electrical leakage with little capacity between the springs. Mount on $\frac{3}{8}$ " centers in single $\frac{1}{2}$ " hole in panels up to $\frac{1}{2}$ " thick, depth behind panel $1\frac{1}{2}$ ". All part Nos. with "H" prefix mount in panels up to $\frac{1}{4}$ " thick; part Nos. with "N" prefix feature a threaded nylon bushing to provide complete insulation of jack sleeve from mtg. panel. Stereo "HI-D Jax", Nos. 114B, L-114B, N-114B, switches out speakers when connecting stereo headphones. Dual N.O. switch contacts open both stereo circuits independently when a 3 cond. plug is inserted.

TWO CONDUCTOR TYPES

Part No.	Schematic	Typical Mating Plug	U.S.A. List Price
111	I	250	\$.045
L-111	I	250	.60
N-111B	I	250	.60
112A	III	250	.65
L-112A	III	250	.65
N-112A	III	250	.65
113	V	250	1.00
113D	VI	250	1.00
113E	IX	250	1.00

THREE CONDUCTOR TYPES

112B	IV	267	.55
L-112B	IV	267	.70
N-112B	IV	267	.70
113B	VIII	267	.75
L-113B	VIII	267	.80
N-113B	VIII	267	.80
113F	X	267	.75
114B	X	267	.85
L-114B	X	267	.95
N-114B	X	267	.95

"TINI-D JAX" SUBMINIATURE PHONE JACKS

G New, small completely enclosed, molded phone jack. Mate with Switchcraft "Tini-Plug", No. 750 etc. Phenolic housing protects the bifurcated beryllium copper springs from being bent during mounting. No. 142A has threaded bushing for conventional mtg.: No. PC-142A, with plain bushing. Both have tip spring terminals that "snap-in" P.C. boards. Mount on $\frac{3}{8}$ " centers, in $\frac{1}{4}$ " dia. hole in panels up to $\frac{1}{8}$ " thick. Depth behind panel $\frac{1}{8}$ ".

Part No.	Conductors	Schematic	Typical Mating Plug	U.S.A. List Price
142A	2	III	750	\$.050
PC-142A	2	III	750	.55

"R-JAX" ECONOMY PHONE JACKS

H Radically new jack design. Simple mounting needs only two (2) $\frac{1}{4}$ " dia. rivets to fasten securely to mounting panel. Accept standard $\frac{1}{4}$ " dia. phone plugs.

Part No.	Schematic No.	Typical Mating Plug	Conductors	U.S.A. List Price
1	I	250	2	\$.040
2A	II	250	2	.45
2B	IV	267	3	.50
3A	VI	250	2	.70
3B	VIII	267	3	.60
3E	IX	250	2	.80
3F	VII	267	3	.60
4B	X	267	3	.70

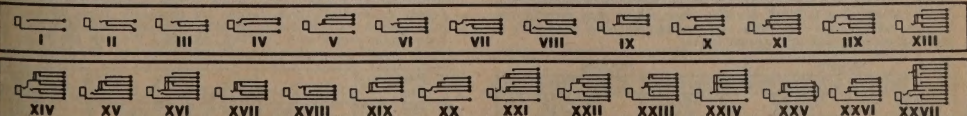
JACK COVERS

J Handy, rugged, spring-load phone jack covers. Covers jack openings when phone plug is removed. Protects against dust and moisture.

Series 500—Use with standard $\frac{3}{8}$ "-32 threaded bushing type phone jacks.

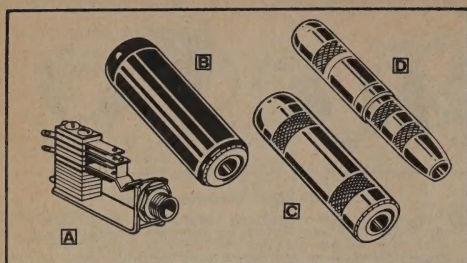
Series 600—Use with certain type tip jacks with $\frac{1}{4}$ " mounting; height of tip jack head $\frac{3}{8}$ " to $\frac{1}{2}$ ". Also used as covers for "Tini-Jax".

Part No.	Color	U.S.A. List Price	Part No.	Color	U.S.A. List Price
510	Olive Drab	\$1.15	610	Olive Drab	\$1.00
512	Bright Nickel	1.15	612	Bright Nickel	.85
515	Black	1.15	615	Black	1.00
520	Navy Gray	1.15	620	Navy Gray	1.00



The above are strictly electrical schematics and do not necessarily indicate relative solder lug positions.

Phone Jacks

SWITCHCRAFT
INC.


"LF-JAX" LONG FRAME JACKS

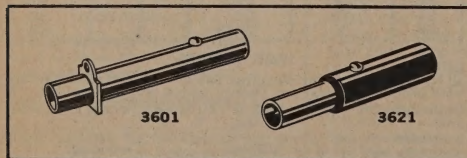
A Quality long frame phone jacks with a ground lug that is an integral part of the frame. Fine silver contacts rated at 3 amp., 300 watts, A.C., non-inductive load. Frame also available with a non-turn device, prefix Part No. with letter "R". Standard types mount in single $\frac{1}{4}$ " dia. hole in panels up to $\frac{1}{4}$ " thick. Depth behind panel, only $2\frac{3}{4}$ ".

Part No.	Schematic No.	Typical Mating Plug	Conductors	U.S.A. List Price
31	I	250	2	\$0.80
32	II	250	2	1.05
32A	III	250	2	1.05
32B	IV	267	3	1.05
33	V	250	2	1.15
33A	VI	250	2	1.15
33B	VII	267	3	1.15
33C	VIII	267	3	1.15
33E	IX	267	2	1.15
34	X	267	3	1.30
34A	XI	250	2	1.30
34B	XII	267	3	1.30
35	XIII	250	2	1.60
36	XIV	267	3	1.85

"EXTENSION JAX" CABLE EXTENSION JACKS

Standard $\frac{1}{4}$ ", 2 and 3-conductor extension phone jacks with solder lugs or screw type terminals. Size $\frac{1}{4}$ " O.D., $2\frac{3}{4}$ " long; 121 and 131 $\frac{1}{4}$ " O.D., $2\frac{1}{4}$ " long. Black handles are durable plastic. Shielded handles are brass, bright nickel plated.

Part No.	Fig.	Cond.	Typical Mating Plug	Term.	Handle	U.S.A. List Price
80	B	2	250	Screw	Black	\$1.25
88	B	2	250	Solder	Black	1.10
120	C	2	270	Screw	Shielded	1.70
121	D	2	270	Solder	Shielded	1.80
126	C	2	R-280	Solder	Shielded	1.90
128	C	2	270	Solder	Shielded	1.55
S-128	C	2	S-250	Solder	Shielded	1.65
131	D	3	290	Solder	Shielded	2.25
830	B	3	267	Screw	Black	1.70
S-830	B	3	480	Screw	Black	2.25
838	B	3	267	Solder	Black	1.55
1230	C	3	290	Screw	Shielded	2.20
S-1230	C	3	480	Screw	Shielded	2.75
1238	C	3	290	Solder	Shielded	2.00



CV JAX AND PLUGS

High quality coaxial-video jacks and plugs designed for use in patching high frequency signals, microwave, telemetry and data transmitting applications. Jacks are made for 50 and 70 ohm circuits and use standard RG cables. No. 3601 accepts RG59/U; No. 3602 accepts RG62/U. Mate with Switchcraft CV Plugs. Mount in single $\frac{1}{4}$ " hole. Depth behind panel is $2\frac{3}{4}$ ". No. 3621, terminating plug with 75 ohm $\pm 1\%$ $\frac{1}{4}$ watt resistor; No. 3622, feed through plug; No. 3623 same as 3621 but with tip jack for incircuit testing.

JACKS		PLUGS	
Part No.	U.S.A. List Price	Part No.	U.S.A. List Price
3601	\$10.00	3621	\$ 4.75
3602	10.00	3622	4.25
		3623	5.75



"SF-JAX" SHORT FRAME PHONE JACKS

E Series 20—High quality commercial jacks, solder lugs parallel to mounting surface. Mount in $\frac{1}{4}$ " dia. holes, panels up to $\frac{1}{4}$ " thick.

F Series 50—Similar to Series 20, except solder lug location necessitates more depth but requires less panel space. Mount in panels up to $\frac{1}{4}$ " thick.

Series C-20 and C-50—MIL Types with Military insulation and finishes, otherwise similar to commercial Series 20 and 50; both will mount in panels up to $\frac{1}{4}$ " thick.

SERIES 20 and C-20

Part No.	Schematic No.	Typical Mating Plug	MIL-Type	U.S.A. List Price
21	I	250	—	\$0.70
22	II	250	—	.90
22A	III	250	—	.90
22B	IV	267	—	.90
23	V	250	—	1.05
C-23	V	440	JJ-099	1.50
23A	VI	250	—	1.05
C-23A	VI	440	JJ-098	1.50
23B	VII	267	—	1.05
23C	VIII	267	—	1.05
23E	IX	250	—	1.05
C-23E	IX	440	JJ-102	1.50
24	X	267	—	1.20
24A	XI	250	—	1.20
24B	XII	267	—	1.20
25	XIII	250	—	1.45
26	XIV	267	—	1.55

SERIES 50 and C-50

51	I	250	—	\$0.70
C-51	I	440	JJ-096	1.30
52	II	250	—	.90
52A	III	250	—	.90
C-52A	III	440	JJ-097	1.45
52B	IV	267	—	.90
C-52B	IV	482	JJ-103	1.45
53	V	250	—	1.05
53A	VI	250	—	1.05
C-53A	VI	440	JJ-092	1.70
53B	VII	267	—	1.05
53C	VIII	267	—	1.05
53E	IX	250	—	1.05
54	X	267	—	1.20
54A	XI	250	—	1.20
C-54A	XI	440	JJ-093	1.75
54B	XII	267	—	1.20
C-54B	XII	482	JJ-101	1.75
55	XIII	250	—	1.45
C-55B	XV	482	JJ-095	2.05
56	XIV	267	—	1.55



"LAMP JAX" SWITCHBOARD PANEL TYPES

G Quality long frame panel type lamp jacks. No. LT-47, black nylon lamp housing completely insulates lamp from frame. Interchangeable with W.E. Nos. 47A, 47B. *Accepts std. lamps and lamp caps, W.E. Nos. 2, 72, etc. No. LT-48, new Ballast Lamp-Jax for use in circuits subjected to increasing temperature and wattage. Steel frame and bushing, Teflon sleeve. Accepts std. telephone lamps or ballast lamp No. 60XA. Both lamp jacks mount in tele. Switchcraft jack panels.

Switchcraft Part No. LT-47 U.S.A. List Price \$1.40
Switchcraft Part No. LT-48 U.S.A. List Price \$2.00

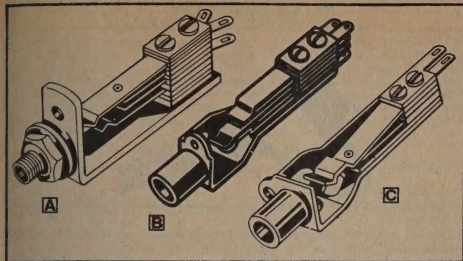
"THICK PANEL JAX"

H Phone jacks with long bushing. Mount in single $\frac{1}{4}$ " dia. hole in panels up to $1\frac{1}{4}$ " thick. Solder lug terminals. Ideal for use with microphones; extra shielding virtually eliminates audio hum. No. 151, 2-conductor mates with 240, 245, 250, 255, 270 and 280 Plugs. No. 152B, 3-conductor mates with 260, 267, 269 and 297 Plugs.

Part No.	Description	U.S.A. List Price
151	2-cond. Brass Nickel Plated	\$1.50
152B	3-cond. Brass Nickel Plated	1.65

SWITCHCRAFT

Phone Jacks and Plugs

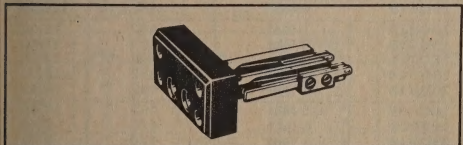


"T-JAX" TELEPHONE TYPE PHONE JACKS

Long frame, switchboard type, phone jacks. For high quality communication equipment. Springs of nickel silver alloy for maximum life and corrosion resistance. Fine silver contacts are standard. Available in two frame designs. Part numbers in chart cover "A" frame design as shown in Fig. C. For frame design "C" as shown in Fig. B, add prefix letter "C" to part numbers. All jacks listed mate with standard $\frac{1}{4}$ " dia. phone plugs.

Part No.	Schematic No.	Typical Mating Plug	Conductors	U.S.A. List Price
T-331	I	250	2	\$1.05
T-332A	III	250	2	1.20
T-332B	IV	267	3	1.20
T-332C	XVIII	250	2	1.45
T-333	V	250	2	1.35
T-334A	XI	250	2	1.50
T-334B	XII	267	3	1.60
T-334C	XVII	250	2	1.50
T-334F	XIX	250	2	1.50
T-335	XIII	250	2	1.60
T-336	XXVI	250	2	1.75

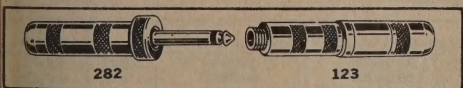
"DUAL-JACK BLOCKS"



Molded black phenolic jack blocks for mounting "MT-JAX" and "T-JAX" long frame phone jacks, on $\frac{3}{4}$ " centers. Can be rack panel mounted individually or in multitudes. Blocks are $2\frac{3}{4}$ " W. x $1\frac{1}{4}$ " H. x $\frac{3}{4}$ " D. Mount with four No. 8-32 flat head screws.

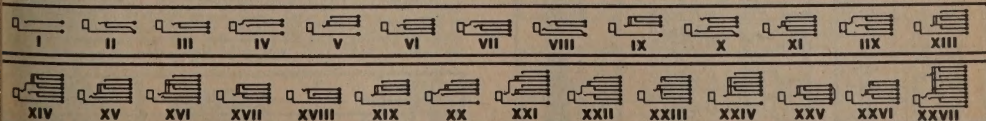
Part No.	Description	U.S.A. List Price
2300	Jack Block, less jacks	\$1.50
2331	Two MT-331 jacks	4.00
2332A	Two MT-332A jacks	4.40
2332B	Two MT-332B jacks	4.40
2333	Two MT-333 jacks	4.90

"LOCK PLUG AND EXTENSION JAX"



Standard size $\frac{1}{4}$ ", 2 and 3 conductor phone plugs and mating cable extension jacks with built-in device. Plug has coupling ring that can be threaded to the bushing of a "Littel-Jax" or to the mating end of the "Lock Extension Jax". Lock Plug handle, $1\frac{1}{4}$ " long; $\frac{1}{2}$ " dia. Lock Extension Jax, $\frac{1}{2}$ " O.D.; $2\frac{1}{2}$ " long. All have solder lug terminals.

Part No.	Description	U.S.A. List Price
282	2-Conductor Lock Plug	\$1.50
298	3-Conductor Lock Plug	2.00
123	2-Conductor Extension Jax	2.00
133	3-Conductor Extension Jax	2.50



The above are strictly electrical schematics and do not necessarily indicate relative solder lug positions.

"M-JAX" MILITARY TYPE PHONE JACKS

Very heavy long frame jacks often referred to as the Navy Jack. Ideal for industrial and Military equipment. Long heavy duty springs with fine silver contacts. Mounts on single $\frac{3}{4}$ " hole, in panels up to $\frac{1}{4}$ " thick.

Part No.	Schematic No.	Adjusted for Plug	Mil-Type No.	U.S.A. List Price
M-441	I	250	—	\$1.50
M-442A	III	440	JJ-107	1.70
M-443A	VI	440	JJ-105	1.95
M-443B	VII	482	JJ-106	2.10
M-444*	XII	484 & 480	JJ-083	2.30
M-444B	XII	482	JJ-082	2.20
M-445	XIII	440	JJ-104	2.75
M-446	XIV	482	JJ-079	3.50
M-446A	XVI	482	JJ-081	3.90

*Bushings, .2085".

"MT-JAX" MILITARY TELEPHONE JACKS

Long frame, telephone switchboard jacks designed for high quality communication and military equipment. Springs are of a special nickel silver alloy with welded cross bar palladium contacts. MT-Jax are available in two frame designs, namely "A" & "C". Part numbers in chart cover "A" frame design as shown in Fig. C. For frame design "C" as shown in Fig. B, add prefix letter "C" to part numbers.

Part No.	Schematic No.	Adjusted for Plug	Mil-Type No.	U.S.A. List Price
MT-331	I	440*	JJ-086	\$1.25
MT-332	II	440	—	1.45
MT-332A	III	440	JJ-024	1.45
MT-332B	IV	482†	JJ-022	1.45
MT-332C	XVIII	440	JJ-016	1.70
MT-333	V	440	JJ-084	1.70
MT-333B	VII	482	—	1.70
MT-333E	IX	440	—	1.70
MT-334A	XI	440	—	1.75
MT-334B	XII	482	JJ-042	1.75
MT-334C	XVII	440	JJ-072	1.75
MT-334E	XXV	440	JJ-085	1.75
MT-334F	XIX	440	JJ-035	1.75
MT-335	XIII	440	—	2.00
MT-335A	XXVI	440	JJ-017	2.00
MT-336	XX	482	JJ-074	2.00
MT-336A	XIV	482	JJ-075	2.50
MT-336B	XXI	482	JJ-077	2.50
MT-336C	XXII	482	JJ-073	2.50
MT-336E	XXIII	440	—	2.50
CMT-336E	XXIII	440	JJ-019	2.50
MT-337	XXIV	440	JJ-087	2.50
CMT-337	XXIV	440	JJ-015	2.50
MT-339	XXVII	482	JJ-078	3.75
MT-342B§	IV	480†	—	1.70
MT-344B§	XII	480	—	2.00

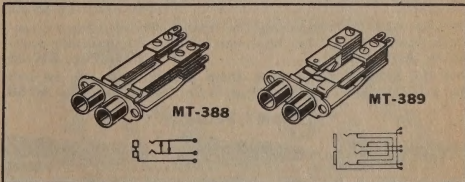
*MIL Type PJ-055.

†MIL Type PJ-051B.

‡MIL Type PJ-068.

§Bushings, .2085".

"TWIN JAX" DUAL MILITARY JACKS



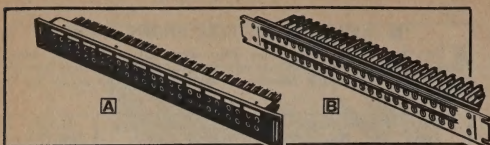
Similar in design to "MT-Jax" except frame is double width, with two mounting ears on $1\frac{1}{4}$ " centers; bushings are on $\frac{3}{4}$ " centers. MT-388, MIL-Type No. JJ-088, mates with Nos. 411, 412, 413, 420 and 425 plugs. MT-389 has two 3-conductor jacks interconnected; mates with No. 482 Plug.

Switchcraft Part No. MT-388 U.S.A. List Price \$4.50

Switchcraft Part No. MT-389 U.S.A. List Price 5.00

Jack Panels, Plugs, Patch Cords

"JACK PANELS"



Rugged, heavy-duty jack panels for switching, distribution and control of audio signals in broadcasting stations, theaters, P. A. systems installations, etc. **Series 1200**, Fig. A, black phenolic panels reinforced with steel for the utmost rigidity. Mounting brackets slotted to fit all standard 19" relay racks. Panel includes plastic covered designation strips. **Series 2800**, Fig. B, clear anodized aluminum panel. Extremely rugged, yet lightweight. Includes new narrow designation strip for each row. Add Prefix "X" to part numbers to indicate offset ground lugs on jacks. Aluminum panels available only with offset lugs.

Part No.	Fig.	Rows	Number of Jacks	Size, In. W x D x H	U.S.A. List Price
1200	A	Single	24 *	19x1 1/4 x 1 1/2	\$ 14.50
1232A	A	Single	24 T-332A	19x1 1/4 x 1 1/2	40.00
1332A	A	Single	24 MT-332A	19x1 1/4 x 1 1/2	45.00
1400	A	Single	26 *	19x 5/8 x 1 1/2	15.00
1432A	A	Single	26 T-332A	19x 5/8 x 1 1/2	43.00
1532A	A	Single	26 MT-332A	19x 5/8 x 1 1/2	49.00
2400	A	Double	48 *	19x1 1/4 x 2 1/2	15.00
2432A	A	Double	48 T-332A	19x1 1/4 x 2 1/2	70.00
2532A	A	Double	48 MT-332A	19x1 1/4 x 2 1/2	83.00
2600	A	Double	52 *	19x 5/8 x 2 1/2	18.00
2632A	A	Double	52 T-332A	19x 5/8 x 2 1/2	79.00
2732A	A	Double	52 MT-332A	19x 5/8 x 2 1/2	92.00
2800	B	Double	48 *	19x 5/8 x 1 1/2	40.00
X2832A	B	Double	48 T-332A	19x 5/8 x 1 1/2	95.00
X2932A	B	Double	48 MT-332A	19x 5/8 x 1 1/2	108.00

*Supplied less jacks.

MILITARY TYPE "TWIN-PLUGS"



412

Meet exact industrial and military requirements. No. 411, both design and materials, is manufactured in accordance with MIL-P-642(A) specs. Nos. 412 and 413, use identical materials. "Twin-Plug" sleeves spaced 3/4" center to center with self-aligning feature.

Part No. 411—Two electrically independent 2-conductor plugs in black plastic handle. Has provision for Cord Clamp No. S-2674. Military Type **PJ-327** (Old Navy No. 491242). Interchangeable with W.E. 327..... U.S.A. List Price **\$5.25**

Part No. 412—Two electrically independent 2-conductor plugs in black plastic handle. Has external cord clamp. Old Military Type **PJ-289**. Similar to W.E. 289B..... U.S.A. List Price **\$4.90**

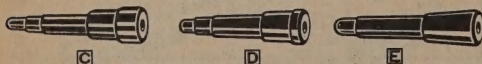
Part No. 413—Three circuit plug with two electrically independent tip circuits in heavy duty die cast frame. Molded black phenolic handle notched to indicate polarity. Interchangeable with MIL-Type **PJ-421** and W.E. 241..... U.S.A. List Price **\$4.90**

Part No. 414—Six circuit plug. Two electrically independent 3 conductor 1/4" dia. fingers. Black polarized handle. Interchangeable with WE-338A..... U.S.A. List Price **\$9.25**

Part No. 415—Six circuit plug. Two electrically independent 3 conductor fingers. One 1/4" dia. finger, one .206" dia. For automatic polarization. Black handle..... U.S.A. List Price **\$10.25**

Part No. S-2674—Strain relief clamp, natural brass. For use with Nos. 411, 414, 415 "Twin-Plug". Pkg. of 10..... U.S.A. List Price **\$0.50**

"DUMMY PLUGS"

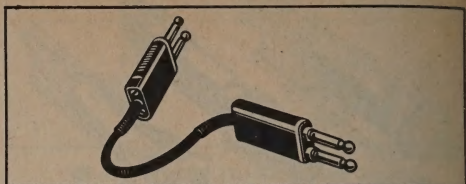


Low cost, 2- and 3-conductor molded plastic, dummy plugs for use in switchboards, jack panels. Inserts in jack as does a phone plug to switch circuits, but can not couple incoming signals. Can also be used to plug up unused phone jacks to prevent accidental insertion of a phone plug. Series 491, 3-conductor, .207" dia. finger. Series 492, 3-conductor, .250" dia. finger. Series 493, 2-conductor, .250" dia. finger.

Part No.	Fig.	Handle	Typical Mating Jack	U.S.A. List Price
491-01	C	Red	MT-342B	\$0.50
491-02	C	Black	MT-342B	.50
491-05	C	White	MT-342B	.50
492-01	D	Red	MT-332B	.50
492-02	D	Black	MT-332B	.50
492-05	D	White	MT-332B	.50
493-01	E	Red	MT-331	.50
493-02	E	Black	MT-331	.50
493-05	E	White	MT-331	.50

SWITCHCRAFT INC.

PATCH CORD SETS



All patch cords are constructed of bronze tinsel conductors, insulated and shielded, with a heavy black nylon braid overall.

Series 17Q—2-conductor patch cords have No. 413 "Twin-Plug" at each end with shields grounded both ends.

Series 17P—Same as 17Q, except shield grounded one plug only.

Series 18Q—2-conductor patch cords use Military Plug **PJ-051** (Switchcraft Part No. 482) at each end with shields grounded both ends.

Series 19Q—Single conductor patch cords utilize Military Plug **PJ-047B** (Switchcraft Part No. 420) connected to each end with shield grounded both ends.

Part No.	Length	Plugs Used	U.S.A. List Price
17QA17	6 inch	413	\$11.00
17QB17	1 foot	413	11.25
17QD17	2 feet	413	11.50
17QF17	3 feet	413	11.75
17QH17	4 feet	413	12.15
17QK17	6 feet	413	13.00
17QN17	10 feet	413	13.75
17PA17	6 inch	413	11.00
17PB17	1 foot	413	11.25
17PD17	2 feet	413	11.50
17PF17	3 feet	413	11.75
17PH17	4 feet	413	12.15
17PK17	6 feet	413	13.00
17PN17	10 feet	413	13.75
18QA18	6 inch	482	11.50
18QB18	1 foot	482	12.00
18QD18	2 feet	482	12.50
18QF18	3 feet	482	13.00
18QH18	4 feet	482	13.50
18QK18	6 feet	482	14.50
18QN18	10 feet	482	16.50
19QA19	6 inch	420	6.00
19QB19	1 foot	420	6.25
19QD19	2 feet	420	6.75
19QF19	3 feet	420	7.25
19QH19	4 feet	420	7.75
19QK19	6 feet	420	9.10
19QN19	10 feet	420	10.50

REPLACEMENT PATCH CORDS

Patch cords are made of bronze tinsel conductors, insulated and shielded, with a heavy black nylon braid overall. Cords designed for use with Switchcraft plugs 413, 420 and 482 or equivalents. When used with No. 420, clip off unnecessary lead.

Series 89Q—2-conductor shielded cord with shield termination at both ends.

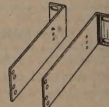
Series 89P—2-conductor shielded cord with shield termination at one end only.

Part No.	Both Ends Shielded	One End Shielded	Length	U.S.A. List Price
89QA89		89PA89	6 inch	\$2.25
89QB89		89PB89	1 foot	2.75
89QD89		89PD89	2 feet	3.00
89QF89		89PF89	3 feet	3.25
89QH89		89PH89	4 feet	3.50
89QK89		89PK89	6 feet	4.50
89QN89		89PN89	10 feet	6.50

JACK PANEL ACCESSORIES



HOLE PLUG



BRACKET KIT

Hole Plug, P-1801, molded nylon, fits all Switchcraft jack panels. Series 1200, 1400, 2400, 2600, 2800. Designed to plug unused holes in jack panels. Bracket Kit, K-107, consists of 2 long L-shaped steel, stand-off brackets and eight No. 6-32 self-tapping screws. To hold jack panels, Series 1400, 2600, 7" in front of mounting rack.

Part No.	Description	U.S.A. List Price
P-1801	Hole Plug	\$0.30
K-107	Bracket Kit	4.50

Phone Plugs

"LITTEL PLUG" PHONE PLUGS

Small size phone plugs fit standard $\frac{1}{4}$ " phone jacks except *Nos. S-250, S-280, S-280 and S-290 which have a .206" dia. sleeve. **Nos. C-240, C-245 and C-270 feature an integral cable clamp with screw terminals. †No. R-280 has short sleeve for Revere Recorders. ‡No. 288 has a wide insulator between tip and sleeve for use in a 3-conductor jack to perform a 2-conductor function without shorting. Plugs with solder terminals have built-in cable clamp. Shielded metal handles are nickel plated brass; others are molded of durable plastic; $\frac{3}{8}$ " long x $\frac{1}{4}$ " dia.

TWO-CONDUCTOR TYPE

Part No.	Fig.	Typical Mating "Littel-Jax"	Handle	Terminals	U.S.A. List Price
240	A	11	Black	Screw	\$0.85
C-240**	A	11	Black	Screw	1.00
245	A	11	Red	Screw	.85
C-245**	A	11	Red	Screw	1.00
250	A	11	Black	Solder	.80
255	A	11	Red	Solder	.80
270	B	11	Shielded	Screw	1.20
C-270**	B	11	Shielded	Screw	1.35
280	B	11	Shielded	Solder	1.15
288†	B	11	Shielded	Solder	1.20
S-250	A	S-11	Black	Solder	.85
S-280	B	S-11	Shielded	Solder	1.15
R-280†	B	—	Shielded	Solder	1.50

THREE-CONDUCTOR TYPE

260	A	12B	Black	Screw	\$1.35
S-260*	A	S-12B	Black	Screw	1.90
267	A	12B	Black	Solder	1.20
269	A	12B	Red	Solder	1.20
290	B	12B	Shielded	Screw	1.60
S-290*	B	S-12B	Shielded	Screw	2.15
297	B	12B	Shielded	Solder	1.50

STANDARD $\frac{1}{4}$ " PHONE PLUGS

Available with phenolic or shielded, nickel plated over brass handle.

TWO-CONDUCTOR TYPE—SCREW TERMINALS

Typical mating jack "Littel-Jax" No. 11. Nos. 49 and 169 feature circuit closing device. Nos. 170 and 475 (MIL PJ-636) have two-piece handle with built-in clamp for $\frac{1}{4}$ " cable. No. 180 has wide insulator between tip and sleeve for use in a 3-conductor jack to perform a 2-conductor function without shorting.

Part No.	Fig.	Handle	Length & Dia.	U.S.A. List Price
40	A	Black	$2\frac{1}{2} \times \frac{3}{4}$	\$0.85
45	A	Red	$2\frac{1}{2} \times \frac{3}{4}$	.85
49	B	Black	$2\frac{1}{2} \times \frac{3}{4}$	1.75
70	B	Shielded	$2\frac{1}{2} \times \frac{3}{4}$	1.40
160	C	Shielded	$1 \times \frac{1}{2}$	1.10
169	C	Shielded	$1 \times \frac{3}{4}$	2.00
170	D	Shielded	$2\frac{1}{2} \times \frac{1}{2}$	1.85
180	—	Shielded	$1 \times \frac{3}{4}$	1.25
475	D	Shielded	$1 \times \frac{3}{4}$	2.20

THREE-CONDUCTOR TYPE—SOLDER TERMINALS

Typical mating jack "Littel-Jax" No. 12B. No. 190A has two-piece handle with built-in cable clamp for $\frac{1}{4}$ " cable.

60	A	Black	$2\frac{1}{2} \times \frac{1}{2}$	\$1.15
90	C	Shielded	$1 \times \frac{1}{2}$	1.50
190	B	Shielded	$2\frac{1}{2} \times \frac{1}{2}$	1.75
190A	D	Shielded	$2\frac{1}{2} \times \frac{1}{2}$	2.20

"LUG-PLUG" PHONE PLUGS

Low cost, two-conductor phone plugs. Fit all $\frac{1}{4}$ " phone jacks.

No. 385 Plug has a .206" dia. sleeve and mates with S-11 "Littel-Jax". All have solder lug terminals. Handle: Shielded metal or phenolic.

Part No.	Fig.	Typical Mating "Littel-Jax"	Handle	Length & Dia.	U.S.A. List Price
350	A	11	Black	$1\frac{1}{2} \times \frac{1}{2}$	\$0.65
355	A	11	Red	$1\frac{1}{2} \times \frac{1}{2}$	.65
380	A	11	Shielded	$1\frac{1}{2} \times \frac{1}{2}$	.85
385	—	S-11	Shielded	$1 \times \frac{1}{2}$	1.10

"TINI-PLUG" MINIATURE PHONE PLUGS

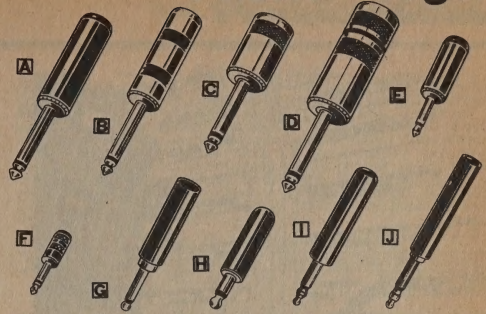
Miniature 2-conductor phone plugs for use with "TINI-JAX" only $\frac{1}{32}$ " the size of standard phone plugs. Handle $1\frac{1}{8}$ " overall length, are plastic or brass, nickel plated.

Part No.	Fig.	Terminal	Handle	U.S.A. List Price
740	E	Screw	Black	\$0.85
745	E	Screw	Red	.85
750	E	Solder	Black	.80
755	E	Solder	Red	.80
770	F	Screw	Shielded	1.15
780	F	Solder	Shielded	1.15

"MICRO-PLUG" SUB-MINIATURE PHONE PLUGS

Sub-miniature 2-conductor phone plugs, only $\frac{1}{16}$ " long; $\frac{1}{4}$ " O.D., .097" dia. sleeve. Mate with No. TR-2A. Have screw-on handles in black, red or natural anodized aluminum; accommodates cables up to $\frac{1}{8}$ " dia. All plugs have integral cable clamps.

Part No.	Fig.	Description	U.S.A. List Price
850	F	Black Handle	\$0.75
855	F	Red Handle	.75
860	F	Natural Handle	.75



MILITARY TYPE

"LITTEL-PLUG" AND EXTENSION JACK

Designed to meet exact industrial and military requirements. Plugs are made in accordance with MIL-P-642(A) specifications. One-piece tip rod and one-piece sleeve and plug body provide internal interlock to prevent parts shifting in position. Type 820 Extension Jack meets MIL-J-641A specifications and mates with "Littel-Plug" No. 430. No. 470 has shielded handle; all others plastic; †Red; ‡Black. All plugs have screw terminals.

Part No.	Fig.	Mil-Type No.	Typical Mating Jack	Cond.	U.S.A. List Price
420†	G	PJ-047B	MT-388	2	\$1.75
425†	G	PJ-047R	MT-388	2	1.75
430†	H	PJ-054B	820	2	1.50
435†	H	PJ-054R	820	2	1.50
440†	—	PJ-055B	MT-331	2	1.50
445†	—	PJ-055R	MT-331	2	1.50
450†	H	PJ-540B	820	2	1.50
455†	H	PJ-540R	820	2	1.50
470	—	PJ-055M	MT-331	2	2.10
480†	I	PJ-06B	MT-342B	3	3.60
482†	J	PJ-051R	MT-332B	3	4.00
483†	J	PJ-051B	MT-332B	3	4.00
484†	J	PJ-309	M-444	3	3.60
820†	—	JJ-026	430 Plug	2	2.00

Switchcraft Part No. P-1074-1—Strain Relief Clamp. Nickel Plate Brass. Package of 25.....U.S.A. List Price \$0.85

TYPE 410 PLUG AND TYPE 810 JACK

Miniature 2-conductor extension jack and mating plug; often referred to as "Throat Microphone Plug and Jack". Plug is Military Type PJ-291; jack is Type JJ-048. Each is of two-piece molded construction. Plug has solder-cup terminals; jack has solder lugs. After wiring, shells must be cemented and clamped till dry. Overall size (engaged), $2\frac{3}{8}$ " x $\frac{1}{2}$ " x $\frac{3}{8}$ ".

Switchcraft Part No. 410 Plug.....U.S.A. List Price \$1.00
Switchcraft Part No. 810 Jack.....U.S.A. List Price 1.20

"FLAT PLUG" PHONE PLUGS



$\frac{1}{4}$ " phone plugs featuring flat, space-saving handles. Ideal for applications where conventional plugs would protrude too far. Nos. 220, 225 have adapter clips which make them convenient to clamp standard phone tips to terminals. Shielded flat plugs, Nos. 228 and 238 have nickel plated steel handles; all others have red or black plastic handles. Nos. S-230 and S-235 have .206" dia. sleeve.

TWO-CONDUCTOR TYPE

Part No.	Fig.	Typical Mating Jack	Handle	Terminals	U.S.A. List Price
220	K	11	Black	Screw	\$1.25
225	K	11	Red	Screw	1.25
227	K	11	Black	Solder	1.00
228	L	11	Shielded	Solder	1.10
229	K	11	Red	Solder	1.00

THREE-CONDUCTOR TYPE

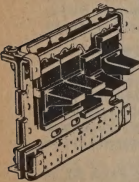
230	K	12B	Black	Screw	\$1.55
S-230	K	S-12B	Black	Screw	2.00
235	K	12B	Red	Screw	1.55
S-235	K	S-12B	Red	Screw	2.00
237	K	12B	Black	Solder	1.50
238	L	12B	Shielded	Solder	1.65
239	K	12B	Red	Solder	1.50



Switchcraft switches give you unlimited latitude in the selection of switching functions and actuations for customizing your equipment designs. Whether you choose pushbutton, slide or lever actuated switches, OUR specialized sales personnel can aid you in the selection and specification of the proper switch to fill your particular requirements. Call on us. We can supply any lever switch, or any size "Multi-Slide" and/or "Multi-Switch", with virtually unlimited functions, from stock, immediately, at factory prices.

"MULTI-SLIDE" SWITCHES

SERIES 39000

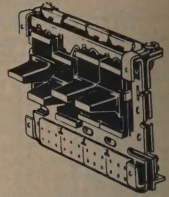


Revolutionary compact switching method provides versatile multiple station slide switching. Allows 1 to 18 stations per row standard on all but all-lock function which is limited to 12 stations. Requires only $\frac{3}{4}$ " depth behind panel. Narrow frame design permits mounting on compact electronic equipment without sacrificing versatility or function. Three standard functions available: **Interlock**: actuating slidebutton automatically restores previously actuated station to normal. Only one slidebutton can be actuated

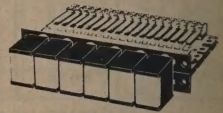
at a time with standard interlock function. **Nonlock**: each station has momentary action with no interaction between stations. **All-lock**: all stations, except release, lock when depressed—restore to normal when release button is actuated. Special slide-to-release cancelling feature in interlock and all-lock frames permits immediate correction of switching error without cancelling actuated switches. Slidebuttons are on $\frac{3}{8}$ " centers. Up to 3 miniature switch stacks, rated at 3 amps; 300 watts max., AC non-inductive load, can be mounted at each station for a minimum of 1-A (SPDT) to a max. of 3-C (SPDT) per station. To order, refer to "SWITCH STACKS", Series 80P, 80UP. For power switching, snap switch

Only Switchcraft offers 3 complete lines of slide, multiple station pushbutton, and lever switches . . . 3 proven solutions to man-machine interface problems.

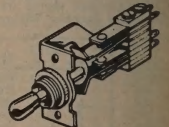
SLIDE ACTION . . . Series 39000 "Multi-Slide" switches provide design engineers with an entirely new switching method to solve man-machine system problems. "Multi-Slide" switches help eliminate operating confusion inherent in constant manipulation of pushbutton matrices by providing slide-switch variety. **Series 39000 Switches** offer 3 types of actuation: Interlock, all-lock, non-lock.



PUSHBUTTON ACTION . . . Whatever your requirements for switching, you will find Switchcraft "Multi-Switch" switches enable you to design a cybernetically correct, error-reducing panel. Both illuminated and non-illuminated types are available with non-lock, all-lock, interlock, push-to-lock, push-to-release functions. Illuminated types offer single or multiple lighting effects. **Series 7000 and 21000** frames are available from 1 to 37 stations in a row. Little "Multi-Switch" **Series 35000, 36000, 37000**, are compact switching units offering 1 to 18 stations in a row.



LEVER ACTION . . . Switchcraft offers the largest selection of illuminated and non-illuminated lever-type switches in the industry. They come in a wide choice of sizes, 2 or 3 position, locking and non-locking types. They range in size and style from miniaturized "Feather Lever", featuring changeable push-on color knobs to "Lever-Lite", a 3-color illuminated type lever switch; to the industry standard "Telever", a telephone type switch featuring field changeable functions.



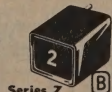
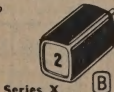
modules can be mounted to each station. Refer to "PIGGY BACK" SNAP-SWITCH MODULES, Series SA, SC and SD under "Little" "Multi-Switch" listing. Switch frames mount on panels up to $\frac{1}{2}$ " thick. End brackets have four 6-32 tapped mtg. holes. A black slidebutton is furnished for each station and a red slidebutton is supplied when switch requires a release. A kit of chromatic legend tabs, **Part No. K-120**, is available for positive color coding of an actuated station. Kit consists of 10 tabs each of 6 colors: Red, black, green, blue, white and yellow. Pressure sensitive tabs mount easily in recess of slidebutton; can be hot-stamped for identification. The following part numbers cover basic frame only. To complete assembly, order switch stacks for each station and/or snap-switch modules, as required. Only the most commonly used frames are listed here. For complete engineering information on Series 39000 switches, request Switchcraft Bulletin 158.

Part No. For Functions				Part No. For Functions			
Inter-Lock*	Non-Lock	All-Lock	No. of Stations	Inter-Lock*	Non-Lock	All-Lock	No. of Stations
39021	39022	39023	2	39081	39082	39083	8
39041	39042	39043	4	39101	39102	39103	10
39061	39062	39063	6	39121	39122	39123	12

*With lock-out feature.

"GLO-BUTTONS"

SERIES X, Y, Z



Economy of non-illuminated buttons with the vivid color-legend display of illuminated buttons. "Glo-Buttons" look and function like an illuminated button, but require no lamp or power. Mount on all pushbutton switches with std. .050" x .187" plungers, as Switchcraft Series 7000, 8000, and 35000 "Multi-Switch", and other switches having maintained plunger action with a max. of $\frac{1}{2}$ " failback. "Glo-Buttons" have a translucent front screen on which a legend is marked in an opaque color. The opaque color provides a background for the legend while the legend itself remains clear (Figs. A). An internal fluorescent illuminator is carried on a pusher which has two legs extending from the rear. When the

button is depressed, the rear legs of the pusher bring the fluorescent illuminator flush with the screen which then lights up due to reflected ambient light, and projects a clearly visible legend, see Figs. B. All "Glo-Buttons" have black button housings and are available with std. legends: "A" thru "Z", "0" thru "99", and "ON", "OFF". Eight basic types of buttons are offered: To order, specify part number and add suffix letter or numeral to part number which describes desired legend. Example: To order $\frac{1}{2}$ " sq. "Glo-Button" with black screen, orange-red illuminator and numeral "7", part number would read X21248-7.

Series No.	Size	Screen Color	Illuminator Color
X21248	$\frac{1}{2}$ " square	Black	Orange-Red
X51248	$\frac{1}{2}$ " square	White	Orange-Red
Y21248	$\frac{1}{2}$ " x $\frac{3}{4}$ " w.	Black	Orange-Red
Y28248	$\frac{3}{8}$ " h. x $\frac{3}{4}$ " w.	Black	Chartreuse
Y51248	$\frac{3}{8}$ " h. x $\frac{3}{4}$ " w.	White	Orange-Red
Z21248	$\frac{3}{8}$ " h. x $\frac{3}{4}$ " w.	Black	Orange-Red
Z28248	$\frac{3}{8}$ " h. x $\frac{3}{4}$ " w.	Black	Chartreuse
Z51248	$\frac{3}{8}$ " h. x $\frac{3}{4}$ " w.	White	Orange-Red

"MULTI-SWITCH" SWITCHES

SWITCH STACKS

C Interchangeable switch stacks for mounting to "Multi-Switch" frames. Two types listed: **Series 70** stacks, fine silver contacts; **Series 70P**, welded cross-bar palladium contacts. Use where the switching circuits of a released station will return to normal before contacts of a newly operated station are actuated. Both series are rated at 3 amps, 300 watts, max., AC non-inductive load. Should more than one circuit be required, specify two (or more) stacks in order to balance the load on the plunger. With each switch, two mounting screws and one pressure plate is furnished. In addition to Series 70 and Series 70P Switch Stacks, four other Series are available, from stock.

SERIES 70—SILVER CONTACTS

Part No.	Circuits	Part No.	Circuits	Part No.	Circuits
71	1-A	73D	1-D	76	2-C
72	1-B	74	2-A	76D	2-D
73	1-C	75	2-B		

SERIES 70P—PALLADIUM CONTACTS

Part No.	Circuits	Part No.	Circuits	Part No.	Circuits
71P	1-A	73PD	1-D	76P	2-C
72P	1-B	74P	2-A	76PD	2-D
73P	1-C	75P	2-B		

LOCK-OUT BAR "K" SERIES

D Prevents operation of more than one switching station at a time. Mounts on back of standard "Multi-Switch" Series 7000, 8000, 21000 and 22000 frames with two screws (furnished). Available from 2 to 37 stations for a single frame. Lock-Out Bars listed are for $\frac{3}{8}$ " center plunger only; for $\frac{1}{2}$ " centers, order special.

Part No.	Stations	Part No.	Stations	Part No.	Stations
K-02	2	K-06	6	K-10	10
K-03	3	K-07	7	K-11	11
K-04	4	K-08	8	K-12	12
K-05	5	K-09	9		

SOLENOID RELEASE—"J" SERIES

E Two, simple solenoid assemblies are available that can be easily added on the end of a standard frame assembly by two screws. **Part No. J-1** is for use on interlocked switches; **Part No. J-3**, for use on all-lock switches with up to 12 stations. Both are for use in 115 volt, 60 cycle AC circuits. Complete with mounting bracket and screws.

LIGHTING STACKS

Prepackaged lighting stacks convert standard stock **Series 21000** frames from "L" type lighting to "M" or "N" lighting in the field. Use "NB" type stack to complete lighting circuit with all three types of lighting "L", "M", "N". All mount easily to frame. Two mounting screws and one pressure plate furnished with each switch. Order one stack per station.

Part No.	Type of Lighting
LL	"L"—light on in "IN" position
MM	"M"—light on in "OUT" position
NN	"N"—light on in "IN" and "OUT" positions
NB	Completes lighting circuit

COMBINATION SWITCH STACKS

Consists of a lighting stack with a switching stack in a single pre-assembled pile-up. Designed to provide additional switching circuitry on **Series 21000** frames. Replaces original lighting stacks as furnished with frames. Available in all three lighting arrangements with fine silver contacts, **Series 70**; or, with welded cross-bar palladium contacts, **Series 70P**. Both rated at 3 amps, 300 watts, max., AC non-inductive load. Supplied with mounting screws and pressure plate.

Part No.	Circuits	Lighting	Part No.	Circuits	Lighting
LL71	1-A	L	LL71P	1-A	L
NN71	1-A	M	MM71P	1-A	M
NN71	1-A	N	NN71P	1-A	N
NB71	1-A	.....	NB71P	1-A	.....
LL73	1-C	L	LL73P	1-C	L
NN73	1-C	M	MM73P	1-C	M
NN73	1-C	N	NN73P	1-C	N
NB73	1-C	.....	NB73P	1-C	.....

"PIGGY-BACK" SNAP SWITCH MODULES

Two snap switch modules **Part Nos. 735A** and **735B** provide power switching for "Multi-Switch" and "Push-Push" Switches. Module consists of snap-action switch, actuator, mounting bracket and screws. **No. 735A** mounts on Series 7000, 8000, 21000, 22000 frames and Series 5000 "Push-Push" Switch. **No. 735B** 15000 "Push-Push" Switch. Both rated at 15 amps, $\frac{1}{2}$ HP, 125/250 VAC. Each module provides a 1-C circuit. Supplied with mounting hardware and instruction sheet.

ESCUTCHEON PLATES

Attractive escutcheon plates for **Series 7000** non-illuminated "Multi-Switch". Black satin finish over a $\frac{1}{2}$ " thick aluminum plate; back side has paper backing, which when removed exposes a pressure sensitive adhesive which "sticks" plate to panel. Listed below are standard lengths.

Part No.	Stations	Part No.	Stations
ES-04	4	ES-12	12
ES-06	6	ES-18	18
ES-08	8		

SERIES 7000 NON-ILLUMINATED FRAMES

A Heavy gauge steel switch frames mount on panels up to $\frac{3}{4}$ " thick, with $\frac{3}{4}$ " depth behind the panel. Rugged, welded end-mounting brackets have four 8-32 tapped holes for ease of panel mounting. Attractive, round brown push-on-buttons supplied for each station, plus extra red button for use when switch requires a release station. Center-to-center distance between buttons is $\frac{3}{4}$ ". Steel plunger .050" x .187" accepts standard push-on-buttons and "Glo-Buttons". Standard plunger is $1\frac{1}{2}$ " long, but can be supplied up to $5\frac{1}{4}$ " long on special order. Switch frames with buttons on $\frac{3}{4}$ " centers are available in Series 8000 which has all the same features as Series 7000. **Series 7000** "Multi-Switch" frames are available with from 1 to 37 stations; **Series 8000** from 1 to 31 stations. When ordering Series 8000 add 10% to prices. Only the most commonly used frames are listed below. For more detailed information, request Switchcraft catalog S-306.

Part No.	No. of Stations	Part No.	No. of Stations	Part No.	No. of Stations
7100	1	7500	5	7900	9
7200	2	7600	6	71000	10
7300	3	7700	7	71100	11
7400	4	7800	8	71200	12

SERIES 21000 ILLUMINATED FRAMES

B Similar in switching functions and characteristics to non-illuminated "Multi-Switch", but, with these outstanding features: modern square button design with bright uniform front and side illumination provided by lamp diffusers; knurled retaining collar for quick easy front-of-panel lamp replacement. Two lamp voltages: 6 V and 28 V. Buttons with white jewels and white diffusers are furnished for switching and release stations. Standard frames listed below provide "L" type lighting (pushbuttons light in "IN" position). To have pushbutton light in "OUT" position, prefix part No. with M (e.g., M21100). To have them light in both the "IN" and "OUT" positions, prefix with N. To avoid ordering "specials", order lighting stacks listed in next column to provide "M" and "N" lighting. Center-to-center distance between buttons is $\frac{3}{4}$ ". For **Series 21000**, available with up to 37 stations in a row; **Series 22000**, buttons on $\frac{1}{2}$ " centers, available up to 31 stations only. Add 10% to price of Series 21000 when ordering Series 22000. Only the most commonly used frames are listed below. For more detailed information request Switchcraft catalog S-306. All frames are supplied less lamps and stack switches.

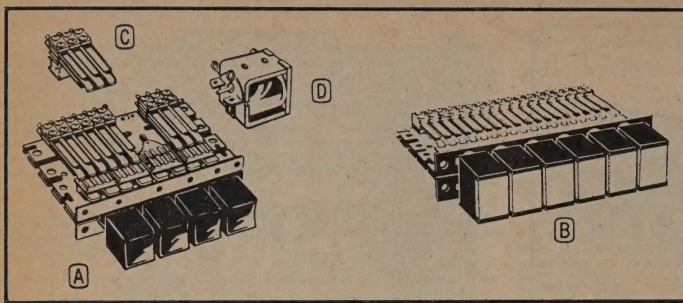
Part No.	No. of Stations	Part No.	No. of Stations	Part No.	No. of Stations
21100	1	21500	5	21900	9
21200	2	21600	6	211000	10
21300	3	21700	7	211100	11
21400	4	21800	8	211200	12

LAMPS FOR "MULTI-SWITCH" SWITCHES

Lamps are not furnished with **Series 21000** switches. For initial order or replacement specify **Part No. P-1593-1**, 28 V flange base lamp, Ind. No. 327; or, **Part No. P-1593-2**, 6 V flange base lamp, Ind. No. 328.

SWITCHRAFT

littel "MULTI-SWITCH" SWITCHES



SERIES 35000 NON-ILLUMINATED FRAMES

A Switch frames mount on panels up to $\frac{1}{4}$ " thick. Permits 6 PDT switching in .6 sq. in. Narrow rectangular silhouette permits stacking in parallel rows on $\frac{3}{4}$ " centers. Only $2\frac{1}{2}$ " depth behind panel. End brackets have four 6-32 tapped mounting holes. A square black pushbutton is furnished for each station and an extra red button is supplied for use when switch requires a release. The following part numbers cover basic frames only. To complete assembly, order switch stacks for each station, solenoid releases, and snap-switch modules if required. Only the most commonly used frames are listed here:

Part Numbers For Functions

Interlock	Non-Lock	All-Lock	Push-to-Lock, Push-to-Release	No. of Stations
35021	35022	35023	35027	2
35041	35042	35043	35047	4
35061	35062	35063	35067	6
35081	35082	35083	35087	8
35101	35102	35103	35107	10
35121	35122	35123	35127	12

SERIES 37000 SINGLE LAMP ILLUMINATED FRAMES

B Identical in switching functions and characteristics as non-illuminated Series 35000, but feature large rectangular shaped pushbuttons which serve as a color or legend coded panel indicator light which actuates up to 6 PDT switching. Switch frames mount in parallel rows from 1" centers and up. Depth behind panel $2\frac{1}{2}$ ". Pushbuttons with large transparent clear display screen and white legend insert, which can be hot stamped or engraved, are furnished for switching and release stations. A single 5 V or 28 V lamp can be used at each station. Lighting, such as "L"—pushbuttons light in "IN" position; "M"—pushbuttons light in "OUT" position; and "N"—pushbuttons light in both "IN" and "OUT" positions, can be effected by direct wiring to the lamp terminals or through the use of Series H Lighting Stacks. The following part numbers cover basic frames only. To complete assembly, order switch stacks, lighting stacks, and lamps for each station. Only the most commonly used frames are listed here:

Part Numbers For Functions

Interlock	Non-Lock	All-Lock	Push-to-Lock, Push-to-Release	No. of Stations
37021	37022	37023	37027	2
37041	37042	37043	37047	4
37061	37062	37063	37067	6
37081	37082	37083	37087	8
37101	37102	37103	37107	10
37121	37122	37123	37127	12

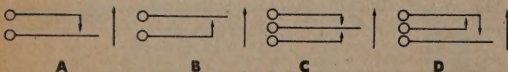
SERIES 38000 TWIN LAMP ILLUMINATED FRAMES

B Same compact assembly and versatility as Series 37000, except feature twin lamp illumination at each station for redundant or two color, split-face lighting. Uses Series H lighting stacks and two long life Part No. P-1890, 6 V lamps for choice of "L", "M", or "N" lighting. Each button serves as a color legend coded indicator light which actuates up to 3 PDT switching where Series H lighting stacks are used. Switches can be stacked in parallel rows on 1" centers with only $2\frac{1}{2}$ " depth behind panel. The following part numbers cover basic frames only. For complete assembly, order switch stacks, lighting stacks, lamps for each station, plus solenoid release, if needed. Only the most commonly used frames are listed here:

Part Numbers For Functions

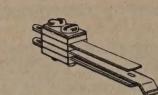
Interlock	Non-Lock	All-Lock	Push-to-Lock, Push-to-Release	No. of Stations
38021	38022	38023	38027	2
38041	38042	38043	38047	4
38061	38062	38063	38067	6
38081	38082	38083	38087	8
38101	38102	38103	38107	10
38121	38122	38123	38127	12

BASIC CONTACT FORMS



Compact, versatile, low-cost multiple station pushbutton switches. Four standard functions available: **Interlock**—actuating a button automatically restores to normal the button previously actuated. **Lock-Out**—prevents operation of more than one button at a time. This feature is included on all interlock frames. **Non-Lock**—each button has momentary action. **All-Lock**—all buttons, except release, lock when depressed. All buttons restored to normal by actuating release button. **Push-to-Lock, Push-to-Release**—button locks when depressed and is released when again depressed. Buttons on $\frac{3}{4}$ " centers. Frames available from 1 to 18 stations.

SWITCH STACKS



C Interchangeable switch stacks for littel "Multi-Switch" switches. Series 35000, 37000, 38000. Series 80P, constructed with cross-bar welded palladium contacts. For use where switch contacts of a released station will return to normal before contacts of a newly operated station are actuated. Series 800P, same as 80P, except designed to be used on push-to-lock, push-to-release function. Both Series rated 3 amps, 300 watts max., AC non-inductive load. Switch stacks fasten direct to removable switch mounting brackets. Supplied with two mounting screws and one pressure plate.

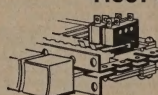
Series 80P Part No.	Series 800P Part No.	Circuits	Series 80P Part No.	Series 800P Part No.	Circuits
81P	801P	1-A	83P	803P	1-C
82P	802P	1-B	83PD	803PD	1-D

LIGHTING SWITCH STACKS



Two lighting switch stacks. Part Nos. H-83P and H-803P are available for convenient rear-of-frame lamp circuit wiring on Series 37000 and 38000 frames. Stacks consist of standard Series 80P and 800P switch stacks with an extra long contact leaf spring on top. Use No. H-83P for all functions except push-to-lock, push-to-release; No. H-803P for push-to-lock, push-to-release. Each provide 1-C circuitry. Furnished with two screws and pressure plate.

"PIGGY-BACK" SNAP-SWITCH MODULES



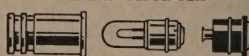
Increases the switching load capacity of littel "Multi-Switch" switches from 3 amps to 15 amps. Module consists of snap-action switch, actuator and mounting bracket. Two types available: Miniature types No. 83SA, for all switching functions except push-to-lock, push-to-release; No. 803SA, for push-to-lock, push-to-release function. Both rated at 15 amps, $\frac{1}{4}$ HP, 125/250 VAC. Subminiature types Nos. 83SC and 803SD, are similar to No. 83SA in function, and Nos. 803SC, 803SD are similar to No. 803SA in function. Subminiature types are rated at 10 amps, $\frac{1}{4}$ HP, 125 VAC. All supplied with mounting hardware. Solder terminals.

Part No.	SPDT Circuits	Part No.	SPDT Circuits	Part No.	SPDT Circuits
83SA	1	83SC	1	803SC	1
803SA	1	83SD	2	803SD	2

SERIES NJ SOLENOID RELEASE

D A simple solenoid assembly which can be added to the end of a standard Series 35000, 37000, or 38000, littel "Multi-Switch" frame to provide electrical release of actuated stations. No. NJ-1 designed for use with up to 18 interlock stations; No. NJ-3 will handle up to 12 all-lock stations. Both are for use in 115 V, 60 cycle AC circuits. Mounting instructions and hardware furnished with each solenoid.

LAMP ADAPTER



Lamp Adapter, Part No. T-1, converts Series 21000 and 37000 lamp sockets that accommodate P-1593-2, -1 lamps, to accept the P-1890 subminiature lamps. Order a Part No. T-1 lamp adapter for each station of a Series 21000 and 37000 if long-life P-1890 lamp is specified.

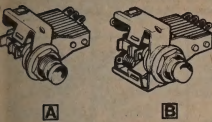
LAMPS FOR littel "MULTI-SWITCH" SWITCHES

Lamps are not furnished with Series 37000, or 38000 switches. Series 37000 will accept lamps P-1593-2 (6 V) and P-1593-1 (28 V). Series 37000 uses long life P-1890 (6 V) lamp when used with T-1 lamp adapter. Series 38000 accepts only the P-1890 lamp. For initial order or replacement, specify: Part No. P-1593-2, 6 V flange base lamp—Ind. No. 328; Part No. P-1890, subminiature 6 V flange base lamp—Ind. No. 718; Part No. P-1593-1, 28 V flange base lamp—Ind. No. 327.



Pushbutton Switches

NEW ILLUMINATED "NF-LITE" SWITCHES



Series 4100, Fig. A, uses single miniature lamp, 6V or 28V. Light from lamp is filtered through color chip to clear plastic push-button. Various colored chips can be inserted at any time. Series 4200, Fig. B, same as Series 4100, except utilizes two lamps for greater illumination or color coding of two circuit conditions. Both series require $\frac{1}{4}$ " min., $\frac{1}{16}$ " max. depth behind panel depending on size of stack; mounts in $\frac{3}{8}$ " hole in panels up to $\frac{1}{4}$ " thick. Series 4100 furnished with one kit of 4 color chips (red, amber, green, and yellow). Series 4200 furnished with two kits. Lamps must be purchased separately. See lamp listing below.

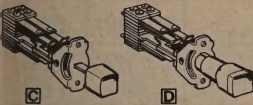
SERIES 4100

Part Number	Action	Schematic Circuit	U.S.A. List Price
4101	S.P.S.T.n.o.	1-A	\$ 1.95
4103	S.P.D.T.	1-C	2.10
4104	D.P.S.T.n.o.	2-A	2.20
4106	D.P.D.T.	2-C	2.45
4109	3 P.D.T.	3-C	3.00

SERIES 4200

4201	S.P.S.T.n.o.	1-A	\$2.85
4203	S.P.D.T.	1-C	3.00
4204	D.P.S.T.n.o.	2-A	3.10
4206	D.P.D.T.	2-C	3.35
4209	3 P.D.T.	3-C	3.90

"PUSH-PUSH" SWITCHES



Push-to-lock, push-to-release or momentary action push-button switches. Welded cross-bar palladium contacts rated at 3 amps, 300 watts, max., non-inductive load. Mount with two 3-48 screws (not supplied) on $\frac{3}{8}$ " centers.

Depth behind panel, 2 $\frac{1}{2}$ ". Series 5000, Fig. C, non-illuminated, supplied with square brown button. Series 15000, Fig. D, illuminated; available in three lighting arrangements, "I" button lights in "IN" position; "M" button lights in "OUT" position; "N" button lights in "IN" and "OUT" positions. Series 15000 part numbers listed below provide "I" type lighting. For "M" type prefix part no. with "M"; for "N" type prefix part no. with "N". Series 15000 supplied less lamp. 6V or 28V lamps can be used.

*Add suffix letter "L" to part number to indicate locking type.

NON-ILLUMINATED SERIES 5000

Part Number Non-locking*	Action	Schematic Circuit	U.S.A. List Price
5003	S.P.D.T.	1-C	\$ 6.00
5004	D.P.S.T.n.o.	2-A	6.50
5006	D.P.D.T.	2-C	6.75
5008	4 P.S.T.n.o.	4-A	7.60
5009	3 P.D.T.	3-C	7.75
5012	4 P.D.T.	4-C	9.00

ILLUMINATED SERIES 15000

15003	S.P.D.T.	1-C	\$ 8.50
15004	D.P.S.T.n.o.	2-A	9.00
15006	D.P.D.T.	2-C	9.25
15008	4 P.S.T.n.o.	4-A	10.00
15009	3 P.D.T.	3-C	10.25
15012	4 P.D.T.	4-C	11.50

LAMPS FOR ILLUMINATED SWITCHES

The "NF-Lite", "Littel-Lite" and "Push-Push" Switches are not supplied with lamps. When ordering these switches, be sure to specify:

Part No.	Used with Switch	Voltage	Lamp Base	Ind. No.	U.S.A. List Price
P-1217	NF-Lite	6	Screw	1768	\$1.20
P-1218	Littel-Lite	28	Screw	335	2.00
P-1593-1	NF-Lite	28	Flange	327	1.50
P-1593-2	Push-Push	6	Flange	328	1.20

"TINY SWITCH" PUSH-BUTTON SWITCHES

Series 950, red button, and Series 960, black button, sub-miniature push-button switches for limited space applications. Integral contacts suitable for low level circuits where contact resistance is not important. Mounts in $\frac{1}{8}$ " hole in panels up to $\frac{1}{4}$ " thick; depth behind panel $\frac{3}{8}$ ".

Part Number		Action	Schematic Circuit	U.S.A. List Price
Red Button	Black Button			
951	961	S.P.S.T.n.o.	1-A	\$0.95
952	962	S.P.S.T.n.c.	1-B	.95
953	963	S.P.D.T.	1-C	1.10

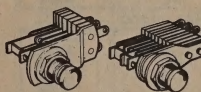
NEW ILLUMINATED "LITTEL-LITE" SWITCHES



Series 210 "Littel-Lite" Switches are unusually small, momentary contact, illuminated push-button types. Requires minimum panel space; ideal for limited space applications and press-to-test circuits. One-piece, clear plastic button and shaft is illuminated by a single miniature lamp, 6V or 28V. Lamps are not furnished, see lamp listing below. Includes kit of 4 color chips (red, amber, green, and yellow), can be inserted in switch at any time. Nickel silver spring contacts are recommended for low level circuits where contact resistance is not important. Also available, fine silver contacts (Part No. suffix "S") rated at 3 amps, 300 watts, max., A.C. non-inductive load. Lighting circuit is independent of switching circuit. Mounts in single $\frac{3}{8}$ " hole in panels up to $\frac{1}{4}$ " thick; depth behind panel $\frac{1}{16}$ ".

Part Number	Action	Schematic Circuit	U.S.A. List Price
211	S.P.S.T.n.o.	1-A	\$1.70
212	S.P.S.T.n.c.	1-B	1.70
213	S.P.D.T.	1-C	2.00
211S	S.P.S.T.n.o.	1-A	1.95
212S	S.P.S.T.n.c.	1-B	1.95
213S	S.P.D.T.	1-C	2.25

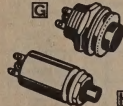
NON-LOCKING FLAT FRAME SWITCHES



FF Switches, Fig. E, Series 1000. Flat frame construction provides multiple pole switching with minimum depth behind panel. Fine silver contacts rated at 3 amps, 300 Watts Max., A.C., non-inductive load. One piece black button and shaft. $\frac{3}{8}$ " diameter threaded shank; mounts in panels up to $\frac{1}{4}$ " thick. NF Switches, Fig. F, Series 4000, same as FF Switches, except smaller spring design, ideal for mounting in ultra-compact equipment. Only $\frac{1}{4}$ " W.; $1\frac{1}{2}$ " L.; mounts in $\frac{3}{8}$ " hole in panels up to $\frac{1}{4}$ " thick.

Part Numbers		Action	Schematic Circuit	U.S.A. List Price
Series 1000	Series 4000			
1001	4001	S.P.S.T.n.o.	1-A	\$1.15
1002	4002	S.P.S.T.n.c.	1-B	1.15
1003	4003	S.P.D.T.	1-C	1.30
1004	4004	D.P.S.T.n.o.	2-A	1.45
1005	4005	D.P.S.T.n.c.	2-B	1.45
1006	4006	D.P.D.T.	2-C	1.70
1009	4009	3 P.D.T.	3-C	2.30

"BUTTON SWITCH" SWITCHES



Series 903, 923. Unusually small, momentary action push button switches. Enclosed in metal housing; black or red plastic button. Series 903, Fig. G, back panel mounting; $\frac{1}{8}$ " hole, mounts in panels up to $\frac{1}{4}$ " thick. Series 923, Fig. H, front panel mounting; $\frac{1}{8}$ " hole, mounts in panels up to $\frac{1}{4}$ " thick. Both rated at 250 mills, A.C. non-inductive load, 30 watts max.

Part Nos.		Action	Schematic Circuit	U.S.A. List Price
Red Button	Black Button			
903	913	S.P.D.T.	1-C	\$1.40
903D	913D	"Break-Make" S.P.D.T.	1-D	1.40
923	933	"Make-Break" S.P.D.T.	1-C	1.50
923D	933D	"Break-Make" S.P.D.T.	1-D	1.50
		"Make-Break"		

"LITTEL-SWITCH" SWITCHES

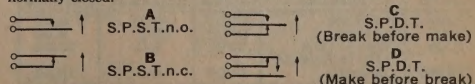


Series 100, 200, tiny momentary contact push button switches. Rugged, dependable action. All contacts insulated from panel bushing with interlocking phenolic washers. Series 100 and 200, springs are of nickel silver, recommended only for low level circuits where contact resistance is unimportant. Series 100S and 200S have fine silver contacts rated at 3 amps or 300 watts max., A.C., non-inductive load. One-piece plastic button and shaft in red or black. Mounts in $\frac{3}{8}$ " hole in panels up to $\frac{1}{4}$ ".

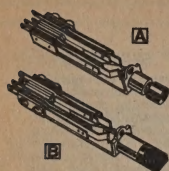
Part Nos.		Action	Schematic Circuit	U.S.A. List Price
Red Button	Black Button			
101	201	S.P.S.T. n.o.	1-A	\$0.95
101S	201S	S.P.S.T. n.o.	1-A	1.15
102	202	S.P.S.T. n.c.	1-B	.95
102S	202S	S.P.S.T. n.c.	1-B	1.15
103	203	S.P.D.T.	1-C	1.10
103S	203S	S.P.D.T.	1-C	1.35

BASIC SCHEMATIC CIRCUITS

Switch circuitry can be described as combinations of basic schematic circuits as shown below. N.O. means normally open; N.C. means normally closed.



Pushbutton Switches



"T-SWITCH" SWITCHES

Rugged, long frame switches for quality communication equipment. Welded cross bar palladium contacts rated at 3 amps, 300 watts max., A.C., non-inductive load. Requires minimum of panel space, only $\frac{1}{4} \times \frac{1}{4} \times \frac{1}{4}$ inch, 2 1/4" depth behind panel. Series 11000, Fig. A, push button T-switch. Available in momentary action and push-to-lock, push-to-release action. Series 11200, Fig. B, two position turn button T-switch. Available in non-locking and locking action. Black button with white arrow to indicate switching position.

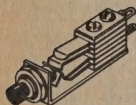
*Add Suffix "L" to Part Numbers to Indicate Locking Type.

A PUSH BUTTON—SERIES 11000

Part No. Non-Locking*	Action	Schematic Circuit	U.S.A. List Price
11001	S.P.S.T. n.o.	1-A	\$3.50
11002	S.P.S.T. n.c.	1-B	3.50
11003	S.P.D.T.	1-C	4.00
11003D	S.P.D.T.	1-D	4.00
11004	D.P.S.T. n.o.	2-A	4.50
11005	D.P.S.T. n.c.	2-B	4.50
11006	D.P.D.T.	2-C	5.00
11006D	D.P.D.T.	2-D	5.00
11008	4 P.S.T. n.o.	4-A	5.60
11009	3 P.D.T.	3-C	6.00
11012	4 P.D.T.	4-C	6.80

B TURN BUTTON—SERIES 11200

11201	S.P.S.T. n.o.	1-A	\$3.50
11202	S.P.S.T. n.c.	1-B	3.50
11203	S.P.D.T.	1-C	4.00
11203D	S.P.D.T.	1-D	4.00
11204	D.P.S.T. n.o.	2-A	4.50
11205	D.P.S.T. n.c.	2-B	4.50
11206	D.P.D.T.	2-C	5.00
11206D	D.P.D.T.	2-D	5.00
11208	4 P.S.T. n.o.	4-A	5.60
11209	3 P.D.T.	3-C	6.00
11212	4 P.D.T.	4-C	6.80



MINIATURE "TF" BUTTON SWITCHES

"Tiny Frame" switches. Small, sturdily constructed, provides simple, direct acting push button switching for use where space is at a premium. Available in Series 970L push-to-lock, pull-to-release; or Series 970, momentary action. Nickel silver springs, integral contacts, recommended for low level circuits where contact resistance is unimportant.

Requires only $1\frac{1}{4}$ " depth behind panel; mounts in single $\frac{1}{8}$ " hole in panels up to $\frac{1}{2}$ " thick.

SERIES 970—NON-LOCKING

Part No.	Action	Schematic Circuit	U.S.A. List Price
974	D.P.S.T. n.o.	2-A	\$1.30
975	D.P.S.T. n.c.	2-B	1.30
976	D.P.D.T.	2-C	1.30

SERIES 970L—LOCKING

974L	D.P.S.T. n.o.	2-A	\$1.55
975L	D.P.S.T. n.c.	2-B	1.55
976L	D.P.D.T.	2-C	1.55

"CordMASTER" PENDANT SWITCH



Fig. A



Fig. B

Extremely versatile pendant (cord) switch with top or edge operated pushbutton operation, illuminated and non-illuminated. Attractively patterned stainless steel sheath fits over white shock resistant thermoplastic switch housing to provide greater strength. Series 42000, Fig. A, has top operated pushbutton action. Three standard functions available: non-lock—momentary action; locking—push-to-lock when depressed, releases when side button is depressed; push-to-lock, push-to-release—button locks when depressed and is released when depressed again. Series 42000E, Fig. B, has edge operation; supplied with "L" type illumination (top jewel lights when button is depressed). Illumination supplied by Ind. No. 377, 6 V miniature, T-1 1/4 flange base lamp (not supplied with switch). Part No. listed has locking function with front button release. Both Series have spring tempered nickel silver contact springs with cross-bar welded palladium contacts rated at 2 amps, 200 watts, max. A.C., non-inductive load. This switch is not recommended for 120 V. A.C. line switching. Switches accept cables up to .270" dia. Overall dimensions: $1\frac{1}{2} \times \frac{1}{2} \times \frac{3}{16}$ L. x $\frac{1}{4}$ H.

Part No.	Function	Action	Schematic	U.S.A. List Price
42206	Non-Lock	DPDT	2-C	\$ 9.00
42306	Locking	DPDT	2-C	9.50
42706	Push-to-Lock, Push-to-Release	DPDT	2-C	10.00
42306E	Locking	DPDT	2-C	10.50

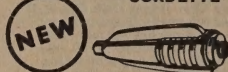


"CORD SWITCHES"

An attractive bright nickel plated housing supports Series 903 and 913 button switches. Ideal for cord mounted or pendant switch on remote control applications. Sleeve $\frac{1}{4}$ " diameter, 2 1/4" long.

Part Nos. Red Button	Black Button	Action	Schematic Circuit	U.S.A. List Price
E-903	E-913	"S.P.D.T."	1-C	\$2.25
E-903D	E-913D	"Break-Make"	1-D	2.25
		"Make-Break"		

"CORDETTE" PENDANT SWITCH



Small lightweight pendant, momentary action (cord) switch provides remote switching of industrial and commercial instrumentation and control devices. Attractive one-piece grey molded body protects switching controls from dirt and dust. Switch has 1-A (S.P.S.T.)

circuit. Integral brass, hard gold contacts rated at 500 MA., 50 watts max., A.C. non-inductive load. Not recommended for use in high voltage circuits. Photo jack termination is molded to body. Mates with Switchcraft molded cable assemblies with photo plug terminations or industry standard photo plugs, 3501, 3501MC, etc. Overall dimensions $1\frac{1}{2} \times \frac{1}{2} \times \frac{1}{4}$ wide by $2\frac{1}{4}$ long.

Switchcraft Part No. 921..... U.S.A. List Price \$4.25

"HI-D SWITCH" SWITCHES



Series H-100, H-200—compact momentary action switches. Molded box body protects contact springs. Low electrical leakage, low capacity. Integral fine-silver plated contacts for use in circuits where contact resistance is not critical. One piece plastic button and shaft in Red—Series H-100, and Black—Series H-200. Mounts on $\frac{3}{8}$ " centers in either of two planes; in a single $\frac{1}{8}$ " hole in panels up to $\frac{1}{2}$ " thick. Depth behind panel $1\frac{1}{2}$ ".

Part Nos. Red Button	Black Button	Action	Schematic Circuit	U.S.A. List Price
H-101	H-201	S.P.S.T.n.o.	1-A	\$1.00
H-102	H-202	S.P.S.T.n.c.	1-B	1.00
H-103	H-203	S.P.D.T.	1-C	1.15
H-103D	H-203D	S.P.D.T.	1-D	1.15

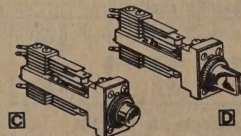
SERIES DA SWITCH



Series DA. Completely enclosed, momentary action push-button switch. Anodized aluminum body protects switch contacts from dirt, dust and from being bent. A-B contact arrangement provides a 1-A, 1-B or 1-C circuit when externally wired. Integral hard gold plated contacts rated at 300 MA., 50 watts max., A.C., non-inductive load. Terminals accept AMP Series 53 taper pins. Mount in $\frac{3}{8}$ " hole on $\frac{1}{2}$ " centers. Depth behind panel $\frac{1}{2}$ ".

Part No.	Button Color	Part No.	Button Color	U.S.A. List Price
DA-01-3	Red	DA-04-3	Blue	\$2.25
DA-02-3	Black	DA-05-3	White	2.25
DA-03-3	Green	DA-08-3	Yellow	2.25

"T-LITE" SWITCHES



Series 32000, 32000TL. High-quality illuminated switches, ideal for instrumentation, communication equipment and telephone apparatus. Lightweight, extremely rugged aluminum "T-Beam" frame construction. Frame includes a non-turn device. "Frosted" plastic push-buttons give quick visual indication of switching function or circuit condition. Series 32000, Fig. C, momentary action, pushbutton can be engraved. Series 32000TL, Fig. D, momentary push with turn-to-lock feature. Button has black indicator line to indicate switching position. Utilize T-2 telephone slide base lamp. Relamp from front of panel. Lamps not supplied with switch. Long leaf nickel silver springs with cross-bar palladium contacts rated at 3 amps, 300 watts, max., A.C. non-inductive load. Mount in single $\frac{3}{8}$ " hole on $\frac{1}{2}$ " centers in panels $\frac{1}{2}$ " thick. Depth behind panel $\frac{3}{4}$ ".

SERIES 32000 PUSHBUTTON

Part No.	Action	Schematic Circuit	U.S.A. List Price
32004	D.P.S.T.n.o.	2-A	\$10.00
32006	D.P.S.T.	2-C	10.75
32008	4P.S.T.n.o.	4-A	11.50
32012	4P.D.T.	4-C	13.00

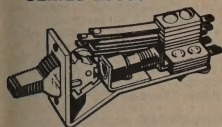
SERIES 32000TL TURN BUTTON

32004TL	D.P.S.T.n.o.	2-A	10.50
32006TL	D.P.D.T.	2-C	11.25
32008TL	4P.S.T.n.o.	4-A	12.00
32012TL	4P.D.T.	4-C	13.50

SWITCHCRAFT

3-COLOR ILLUMINATED LEVER SWITCHES

"LEVER-LITE" SWITCHES SERIES 25000



UP POSITION
1st Color Shows



NEUTRAL POSITION
2nd Color Shows



DOWN POSITION
3rd Color Shows

"Lever-Lite," Series 25000. Illuminated switches indicate positions at a glance. Individual color chips can be inserted in each switch position. Available in 2 or 3 positions, locking and non-locking types. Reduces panel space; minimizes costly wiring. Supplied with 6V miniature screw base lamp and six color chips, Red, Green, Amber, Yellow, Blue and White; 28V lamp also available. See lamp listing below. Nickel-silver springs, silver contacts rated 3 amps, 300 watts max., A.C., non-inductive load. Requires only $2\frac{1}{4}$ " depth behind panel, can be mounted on $\frac{1}{8}$ " centers in panels up to $\frac{1}{2}$ " thick.

Size: $2\frac{1}{4}$ " L. x $\frac{3}{4}$ " W. x $1\frac{1}{2}$ " H. *Add suffix letter "L" to Part No. to indicate locking type.

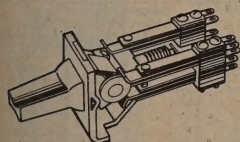
TWO POSITION TYPES

Part No. Non-Locking*	Action	Schematic Circuit Pos. 1 Pos. 2	U.S.A. List Price
25201	S.P.S.T. n.o.	1-A	\$4.00
25203	S.P.D.T.	1-C	4.25
25206	D.P.D.T.	2-C	5.00
25209	3 P.D.T.	3-C	5.75

THREE POSITION TYPES

25304	S.P.S.T. n.o. Ea. Sec.	1-A	1-A	\$4.50
25306	S.P.D.T. Ea. Sec.	1-C	1-C	5.00
25308	D.P.S.T. n.o. Ea. Sec.	2-A	2-A	5.50
25312	D.P.D.T. Ea. Sec.	2-C	2-C	6.00

"LEVER-LITE" SWITCHES SERIES 27000



"Lever-Lite," Series 27000 illuminated lever switch, three color lighting identical to Series 25000, but utilizes a larger, contoured lever and larger, factory installed color filters. Available in 2 or 3 position, locking and non-locking types. Mounts on $\frac{1}{4}$ " centers, in panels up to $\frac{1}{2}$ " thick. Depth behind panel $2\frac{3}{4}$ ". Nickel silver springs with fine silver contacts rated at 3 amps, 300 watts, max., A.C., non-inductive load. On standard 2 position type AMBER lights in the "NEUTRAL" position; GREEN lights in the "DOWN" position. On 3 position types, RED lights in the "UP" position, AMBER in "NEUTRAL" position and GREEN in the "DOWN" position. Supplied with a 6 V lamp, $\frac{1}{8}$ " n.o. center position off. *Add suffix "L" to part number to indicate locking type.

TWO POSITION TYPES

Part No. Non-locking*	Action	Schematic Circuit Pos. 1 Pos. 2	U.S.A. List Price
27206	D.P.D.T.	2-C	\$6.50
27212	4 P.D.T.	4-C	8.00

THREE POSITION TYPES

27306	S.P.D.T. ea. sec.	1-C	1-C	6.50
27307	S.P.D.T. n.o. ea. sec.	1-C†	1-C†	6.65
27312	D.P.D.T. ea. sec.	2-C	2-C	8.00

LAMPS FOR "LEVER-LITE" SWITCHES

Lamps are mounted in a "snap-out" frame assembly. A 6V lamp is furnished with each of the above listed switches. Specify the following part numbers when ordering replacement lamps:

Part No.	Voltage	Base	Ind. No.	U.S.A. List Price
P-1217	6V	Screw	1768	\$1.20
P-1218	28V	Screw	Hudson 369	2.00

ESCUTCHEON PLATES FOR "LEVER-LITE" SWITCHES

For easy and convenient mounting of Series 25000 and 27000 Switches. Satin black finish. Eliminates punching rectangular hole in mounting panel. Part No. 531 for Series 25000, complete with two No. 3-48 black machine screws. Part No. 532 for Series 27000, complete with two No. 2-56 machine screws.

Switchcraft Part No. 531 U.S.A. List Price \$0.15

Switchcraft Part No. 532 U.S.A. List Price 0.25

AMBIENT LIGHT SHIELD

For use where "LEVER-LITE" Series 27000 switches are mounted on minimum centers. Shield gives positive separation of lighting between switches. Shield is placed between panel and switch, held in place by mounting screws. Two shields can be used per switch if desired.

Switchcraft Part No. P-1864 U.S.A. List Price \$0.10

Lever Switches

"LEV-R" SWITCHES

3000



13000



Small lever action switches in two and three position types, locking and non-locking action. Requires half the space usually needed for a lever switch; frame bushing and shaft nickel plated brass. Supplied with locknut and screw on black knob. Fine silver contacts rated at 3 amps, 300 watts, max. A.C. non-inductive load. Non-locking types have spring return. Series 3000 mounts in panels up to $\frac{1}{2}$ " thick; Series 13000 mounts in panels up to $\frac{1}{4}$ " thick. Both Series are $\frac{3}{4}$ " wide; requires $2\frac{1}{4}$ " behind panel; mounts in single $\frac{1}{2}$ " dia. hole. $\frac{1}{16}$ " n.o. center position off. Inter-communications "Talk-Listen" switches, lever locks on one side of neutral and operates non-locking on the other side. *Add suffix letter "L" to Part No. to indicate locking type.

SERIES 3000 TWO POSITION TYPES

Part No. Non-Locking*	Action	Schematic Circuit Pos. 1 Pos. 2	U.S.A. List Price
3001	S.P.S.T. n.o.	1-A	\$2.00
3002	S.P.S.T. n.c.	1-B	2.00
3003	S.P.D.T.	1-C	2.35
3003D	S.P.D.T.	1-D	2.50
3004	D.P.S.T. n.o.	2-A	2.60
3005	D.P.S.T. n.c.	2-B	2.60
3006	D.P.D.T.	2-C	2.85
3006D	D.P.D.T.	2-D	3.00
3009	3 P.D.T.	3-C	3.65

THREE POSITION TYPES

3033	S.P.D.T. n.o.	1-C†	1-A	\$2.60
3034	S.P.S.T. n.o. Ea. Sec.	1-A	1-A	2.70
3035	S.P.S.T. n.c. Ea. Sec.	1-B	1-B	2.70
3036	S.P.D.T. Ea. Sec.	1-C	1-C	3.00
3036D	S.P.D.T. Ea. Sec.	1-D	1-D	3.35
3037	S.P.D.T. n.o. Ea. Sec.	1-C†	1-C†	3.05
3037D	S.P.D.T. n.o. Ea. Sec.	2-C	2-C	4.00
30313	D.P.D.T. n.o. Ea. Sec.	2-C†	2-C†	4.00

SERIES 13000 TWO POSITION TYPES

13001	S.P.S.T. n.o.	1-A	\$2.20
13002	S.P.S.T. n.c.	1-B	2.20
13003	S.P.D.T.	1-C	2.50
13003D	S.P.D.T.	1-D	2.60
13004	D.P.S.T. n.o.	2-A	2.75
13005	D.P.S.T. n.c.	2-B	2.75
13006	D.P.D.T.	2-C	2.85
13006D	D.P.D.T.	2-D	3.00
13009	3 P.D.T.	3-C	4.00

THREE POSITION TYPES

13033	S.P.D.T. n.o.	1-C†	\$2.75
13034	S.P.S.T. n.o. Ea. Sec.	1-A	2.85
13035	S.P.S.T. n.c. Ea. Sec.	1-B	2.85
13036	S.P.D.T. Ea. Sec.	1-C	3.35
13036D	S.P.D.T. Ea. Sec.	1-D	3.50
13037	S.P.D.T. n.o. Ea. Sec.	1-C†	3.35
130312	D.P.D.T. Ea. Sec.	2-C	4.25
130313	D.P.D.T. n.o. Ea. Sec.	2-C†	4.25

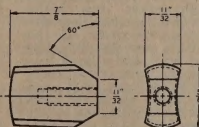
INTER-COM SWITCHES: SERIES 3000

Part No. Non-Locking*	Action	Schematic Circuit Pos. 1 Pos. 2	U.S.A. List Price
3033T	S.P.D.T. n.o.	1-C†	\$2.60
3037T	S.P.D.T. n.o. Ea. Sec.	1-C† 1-C†	3.05

SERIES 13000

13033T	S.P.D.T. n.o.	1-C†	\$2.75
13037T	S.P.D.T. n.o. Ea. Sec.	1-C† 1-C†	3.35

CONTOUR KNOBS FOR LEVER SWITCHES



Attractive contour knobs designed for today's modern equipment. Series M-1177 knobs, 8-32" tapped hole for use with "LEVER-R" switches Series 3000, 12000 and 13000. Series M-1178 knobs, 6-32" tapped hole for use with "TEL-EVER" switches Series 6000 and 16000.

Part No. Series 1177	Part No. Series 1178	Color	U.S.A. List Price Per Pkg. of 10
M-1177-1	M-1178-1	Red	\$3.50
M-1177-2	M-1178-2	Black	3.50
M-1177-15	M-1178-15	White	3.50

SPECIAL WRENCHES



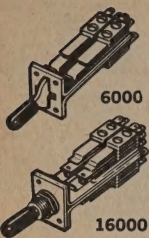
Special Switchcraft wrenches designed to assemble knurled locknuts normally furnished with lever and button switches and jacks. A-1070 wrench fits $\frac{1}{4}$ "-32 locknuts; A-1071 for use with $\frac{1}{8}$ "-32 knurled locknuts.

Part No. A-1070	U.S.A. List Price \$7.50
Part No. A-1071	U.S.A. List Price 7.50

Lever Switches

SWITCHCRAFT
INC.

"TELEVER" SWITCHES



Series 6000 and 16000. Rugged telephone type lever switches featuring "T-Beam" frame construction which results in a relatively light construction with sturdiness of a structural "T-Beam". Available in two and three positions, locking and non-locking types. Nylon rollers on the lever actuate the special nickel silver springs, providing smooth action; assures long dependable spring life. Welded cross bar palladium contacts are standard, rated at 3 amps, 300 watts max., A.C., non-inductive load. Series 6000 mounts with four No. 3-48 machine screws. Mounting centers $\frac{1}{4}$ " x $\frac{1}{4}$ ", mounts in panels up to $\frac{1}{4}$ " thick. Series 16000 features single hole mounting; $\frac{1}{2}$ "-32 threaded bushing. Mounts in $\frac{1}{2}$ " dia. hole in panels up to $\frac{1}{4}$ " thick. Part No. 545, "Stop Plate" provides positive "stops" for two position action. Part No. 540, "Stop Plate" provides non-locking or momentary action. The "Stop Plates" can be changed in the field. Both Series switches supplied with black insulated knob. All have timed solder lug terminals. *Add suffix letter "L" to Part No. to indicate locking type. Series 16000 non-locking type can be converted to locking type by removing "Stop Plate".

SERIES 6000 TWO POSITION TYPES

Part No. Non-Locking*	Action	Schematic Circuit Pos. 1 Pos. 2	U.S.A. List Price
6006	D.P.D.T.	2-C	\$5.00
6006D	D.P.D.T.	2-D	5.60
6008	4 P.S.T. n.o.	4-A	6.00
6009	3 P.D.T.	3-C	6.00
60012	4 P.D.T.	4-C	6.80
60012D	4 P.D.T.	4-D	7.50
60024	8 P.D.T.	8-C	10.00

THREE POSITION TYPES

6036	S.P.D.T. Ea. Sec.	1-C	1-C	\$5.00
6036D	S.P.D.T. Ea. Sec.	1-D	1-D	5.60
6038	D.P.S.T. n.o. Ea. Sec.	2-A	2-A	5.60
60312	D.P.D.T. Ea. Sec.	2-C	2-C	6.80
60312D	D.P.D.T. Ea. Sec.	2-D	2-D	7.50
60316	4 P.S.T. n.o. Ea. Sec.	4-A	4-A	8.80
60324	4 P.D.T. Ea. Sec.	4-C	4-C	10.00

SERIES 16000 TWO POSITION TYPES

16006	D.P.D.T.	2-C	\$5.00
16006D	D.P.D.T.	2-D	5.60
16008	4 P.S.T. n.o.	4-A	5.60
16009	3 P.D.T.	3-C	6.00
160012	4 P.D.T.	4-C	6.80
160012D	4 P.D.T.	4-D	7.50
160024	8 P.D.T.	8-C	10.00

THREE POSITION TYPES

16036	S.P.D.T. Ea. Sec.	1-C	1-C	\$5.00
16036D	S.P.D.T. Ea. Sec.	1-D	1-D	5.60
16038	D.P.S.T. n.o. Ea. Sec.	2-A	2-A	5.60
160312	D.P.D.T. Ea. Sec.	2-C	2-C	6.80
160312D	D.P.D.T. Ea. Sec.	2-D	2-D	7.50
160316	4 P.S.T. n.o. Ea. Sec.	4-A	4-A	8.80
160324	4 P.D.T. Ea. Sec.	4-C	4-C	10.00

Part No. 530 Escutcheon Plate. For Series 6000 Telever switches with 4 mounting screws. U.S.A. List Price \$0.60

Part No. 540 Stop Plate. For Series 16000 Telever switches. To convert from locking to non-locking action. Includes two mounting screws. U.S.A. List Price \$0.25

Part No. 545 Stop Plate. For Series 16000 Telever switches. To convert from 3-position to 2-position. Includes two mounting screws. U.S.A. List Price \$0.25

"LEV-R" SWITCHES



"LEV-R Switches." Series 28000. Compact, lever action switch in two and three position, locking and non-locking types. Smooth, easier lever action assured with special nylon roller. Supplied with locknut, non-turn ring (slips over slotted bushing which is molded directly to the lever. Eliminates loose or lost knobs. Fine silver contacts rated at 3 amps, 300 watts, max., A.C., non-inductive load. Mounts on $\frac{1}{4}$ " centers in panels up to $\frac{1}{4}$ " thick. Requires only one $\frac{1}{4}$ " dia. mounting hole for bushing and one $\frac{1}{4}$ " dia. hole for non-turn device; depth behind panel, $\frac{3}{4}$ ". *Add suffix letter "L" to Part No. to indicate locking type. *Center position open (OFF).

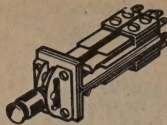
TWO POSITION TYPES

Part No. Non-Locking*	Action	Schematic Circuit Pos. 1 Pos. 2	U.S.A. List Price
28201	S.P.S.T. n.o.	1-A	\$2.80
28203	S.P.D.T.	1-C	3.25
28204	D.P.S.T. n.o.	2-A	3.50
28206	D.P.D.T.	2-C	2.75

THREE POSITION TYPES

28304	S.P.S.T. n.o. Ea. sec.	1-A	1-A	\$3.60
28306	S.P.D.T. ea. sec.	1-C	1-C	3.90
28307	S.P.D.T. n.o. Ea. sec.	1-C†	1-C†	3.95
28312	D.P.D.T. ea. sec.	2-C	2-C	4.75

SERIES 26000 "LEVER-LOCK" SWITCHES



Rugged telephone-type lever switches. "Lever-Lock" feature guards against accidental switching due to shock, vibrations, operator fatigue, or unintended operation. Ideal for mobile communication equipment. Index bracket and release plunger "locks" lever in any position. Turning actuator knob to extreme left actuator will be permanently locked. To unlock, turn knob to the right. Pressing release plunger frees actuator from index bracket and allows actuator to be moved to another switching position. Welded cross bar palladium contacts rated at 3 amps, 300 watts max., A.C., non-inductive load. Mounts with four No. 3-48 screws in panels up to $\frac{1}{4}$ " thick. Requires $\frac{3}{4}$ " depth behind panel.

TWO POSITION TYPES

Part No. Locking Type Only	Action	Schematic Circuits Pos. 1 Pos. 2	U.S.A. List Price
26206L	D.P.D.T.	2-C	\$8.50
26208L	4 P.S.T. n.o.	4-A	9.10
26212L	4 P.D.T.	4-C	10.30
26212DL	4 P.D.T.	4-D	11.00

THREE POSITION TYPES

26306L	S.P.D.T. Ea. Sec.	1-C	1-C	\$8.50
26308L	D.P.S.T. n.o. Ea. Sec.	2-A	2-A	9.10
26312L	D.P.D.T. Ea. Sec.	2-C	2-C	10.30
26312DL	D.P.D.T. Ea. Sec.	2-D	2-D	11.00
26316L	4 P.S.T. n.o. Ea. Sec.	4-A	4-A	12.30
26324L	4 P.D.T. Ea. Sec.	4-C	4-C	13.50



"LEV-R" SWITCHES, SERIES 12000

Small right-angle action switches requiring minimum of depth behind panel. Available in two and three position, locking and non-locking types. Long leaf-type springs insure long switch life. Fine silver contacts rated at 3 amps, 300 watts max., A.C., non-inductive load. Requires only $\frac{1}{4}$ " depth behind panel; single $\frac{1}{4}$ " dia. mounting hole; mounts in panels up to $\frac{1}{4}$ " thick. Supplied with nickel plated locknut, removable black plastic knob. *Add suffix letter "L" to Part No. to indicate locking type.

TWO POSITION TYPES

Part No. Non-Locking*	Action	Schematic Circuit Pos. 1 Pos. 2	U.S.A. List Price
12001	S.P.S.T. n.o.	1-A	\$1.00
12002	S.P.S.T. n.c.	1-B	1.80
12003	S.P.D.T.	1-C	2.10
12003D	S.P.D.T.	1-D	2.35
12004	D.P.S.T. n.o.	2-A	2.35
12005	D.P.S.T. n.c.	2-B	2.35
12006	D.P.D.T.	2-C	2.60
12006D	D.P.D.T.	2-D	2.85

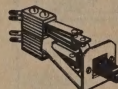
THREE POSITION TYPES

12033	S.P.D.T. n.o.	1-C†	\$2.35
12034	S.P.S.T. n.o. Ea. Sec.	1-A	2.45
12035	S.P.S.T. n.c. Ea. Sec.	1-B	2.45
12036	S.P.D.T. Ea. Sec.	1-C	2.75
12036D	S.P.D.T. Ea. Sec.	1-D	2.95
12037	S.P.D.T. Ea. Sec.	1-C†	2.85

THREE POSITION TYPES

LOCKING ONE SIDE—NON-LOCKING OTHER SIDE

12033T	S.P.D.T. n.o.	1-C†	\$2.35
12037T	S.P.D.T. Ea. Sec.	1-C†	2.85



"LK" LITTEL-KEY SWITCHES

Series 23000. Short frame lever-type switches available in 2 or 3 positions, locking or non-locking types. Ideal for applications where panel mounting space and depth behind panel is at a premium. Fine silver contacts, rated at 3 amps, 300 watts max., A.C., non-inductive load. Frame has 2 tapped No. 3-48 holes for easy mounting. Mounts in panels up to $\frac{1}{4}$ " thick. Depth behind panel only $\frac{3}{4}$ ". *Add suffix letter "L" to Part No. to indicate locking type.

TWO POSITION TYPES

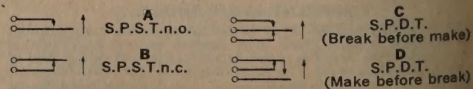
Part No. Non-Locking*	Action	Schematic Circuit Pos. 1 Pos. 2	U.S.A. List Price
23201	S.P.S.T. n.o.	1-A	\$1.75
23203	S.P.D.T.	1-C	2.10
23206	D.P.D.T.	2-C	2.40

THREE POSITION TYPE

23304	S.P.S.T. n.o. Ea. Sec.	1-A	1-A	\$2.25
23306	S.P.D.T. Ea. Sec.	1-C	1-C	2.40
23308	D.P.S.T. n.o. Ea. Sec.	2-A	2-A	2.60

BASIC SCHEMATIC CIRCUITS

Switch circuitry can be described as combinations of basic schematic circuits as shown below. N.O. means normally open; N.C. means normally closed.



side prevents accidental actuator by-pass of switching positions. Switch has rigid "U"-shaped, twin girder frame. Its parallel steel members terminate in an interlocked box where spring combinations are mounted. The special long life, nickel-silver springs can be individually fastened to any one of the frame's four switch stacks mounting positions. Welded cross bar palladium contacts rated at 3 amps, 250 volts AC, 1000 cycles. Includes 4000 counts and 41000 counts on 1" centers in a $\frac{1}{8}$ " dia. hole in panels up to $\frac{1}{4}$ " thick. Requires only $2\frac{1}{2}$ " depth behind panel. The bushing includes a keyway to accept the non-turning ring which prevents switch turning or twisting in panel. Add suffix "L" to Part No. to indicate locking type.

Part No. Non-Locking*	Action	Schematic Circuits		U.S.A.
		Pos. 1	Pos. 2	List Price
41203	S.P.D.T.	1-C		\$4.00
41206	D.P.D.T.	2-C		5.00
41208	4 P.S.T. n.o.	4-A		5.50
41212	4 P.S.T.	4-C		6.75

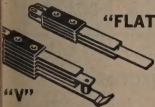
41306	S.P.D.T. Ea. Sec.	1-C	1-C	\$5.00
41308	D.P.S.T. n.o. Ea. Sec.	2-A	2-A	5.50
41312	D.P.D.T. Ea. Sec.	2-C	2-C	6.75
41324	4 P.D.T. Ea. Sec.	4-C	4-C	10.00



Experimental kits of component parts for assembling switch stacks. Designed to speed the assembly of engineering samples in the lab, aid maintenance men in the field and save time in general replacement. Ideal for mechanical engineers and coin machine servicing; used in relays, electronic organs, etc. Each kit consists of **136 springs** in different thicknesses, over **152 phenolic spacers** and insulators in various sizes, hard-rubber insulating tubing, two sets of stack assembling pins, two roller assemblies, assorted contacts, etc. **Kit No. K-119**, consisting of "Tini-

plug" components, are miniature variations of standard switch stacks, sockets, spacers, etc. All in compartmented plastic box.

(Kit No. K-101. Assorted 1/4" and 3/8" mtg. center contact springs and associated parts	NET \$11.10
(Kit No. K-102. Assorted 1/4" mtg. center contact springs and associated parts	NET 11.10
(Kit No. K-103. Assorted 3/8" mtg. center contact springs and associated parts	NET 11.10
(Kit No. K-119. "Tini-Stack". Assorted 3/16" mtg. center contact springs and associated parts	NET 11.10

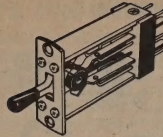


“FLAT”

General purpose stack switch assemblies made from a pile-up of various actuator springs, contact springs and lifters. These stack switch assemblies can be used on manually operated devices where switching is operated by cams, levers, push buttons, and other mechanical devices. General purchasable with a "Flat" or "V" actuator spring. Cross bar welded contacts are standard, rated 1/2 A.C., non-inductive load. Supplied with 5-40 screws; mount on 3/8" centers. Height 1 1/2" minimum. 1-B circuit 2 1/4" H., min.; 2-C

FLAT ACTUATOR SPRING				
Part No.	Contact Material	Action	Schematic Circuit	U.S.A. List Price
AA01AA	Silver	S.P.S.T. n.o.	1-A	\$0.80
AA01AB	Palladium	S.P.S.T. n.o.	1-A	.90
AA02AA	Silver	S.P.S.T. n.c.	1-B	.80
AA02AB	Palladium	S.P.S.T. n.c.	1-B	.90
AA03AA	Silver	S.P.D.T.	1-C	1.00
AA03AB	Palladium	S.P.D.T.	1-C	1.10
AA06AA	Silver	D.P.D.T.	2-C	1.45
AA06AB	Palladium	D.P.D.T.	2-C	1.75

"V" FORMED ACTUATOR SPRING				
AA01BA	Silver	S.P.S.T. n.o.	1-A	\$0.90
AA01BB	Palladium	S.P.S.T. n.o.	1-A	1.00
AA02BA	Silver	S.P.S.T. n.c.	1-B	.90
AA02BB	Palladium	S.P.S.T. n.c.	1-B	1.00
AA03BA	Silver	S.P.S.T. n.c.	1-C	1.10
AA03BB	Palladium	S.P.S.T. n.c.	1-C	1.30
AA06BA	Silver	D.P.D.T.	2-C	1.65
AA06BB	Palladium	D.P.D.T.	2-C	1.85



Series 10000. Low-capacity lever actuated switches, previously referred to as Federal Anti-Capacity switches. Specially designed flat actuator springs and round contact springs are wide spaced in a large molded insulating block.

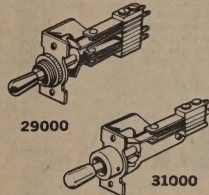
This construction minimizes the build-up of induced alternating current between springs. Rugged "U" shaped aluminum frame. Roller actuation for easy lever operation. Available in 2 and 3 position models, locking and non-locking types. Actuator springs have fine silver contacts rated at 1000 watts, 120 VAC, 60 Hz, non-inductive load. Supplied with polished chrome scribe/etch plate. Mounts with two No. 6-32 flat head screws (not supplied). Mounting centers 1 1/8". Depth behind panel 3/4". t.n.o. center position off.

*Add suffix letter "L" to Part No. to indicate locking type.

Part No. Non-Locking*	Old Federal No.**	Action	Schematic Circuit Pos. 1 Pos. 2	U.S.A. List Price
10204	1427	D.P.S.T.n.o.	2-A	\$ 6.80
10205	1426	D.P.S.T.n.o.	2-B	6.80
10206	—	D.P.D.T.	2-C	7.00

10306	—	S.P.D.T.Ea.Sec.	1-C	1-C	7.00
10307	1425	S.P.D.T.n.o.Ea.Sec.	1-C†	1-C†	7.00
10312	—	D.P.D.T.Ea.Sec.	2-C	2-C	7.50
10313	1424	D.P.D.T.n.o.Ea.Sec.	2-C†	2-C†	7.50
10324	—	4P.D.T.Ea.Sec.	4-C	4-C	16.50
10325	12494	4P.D.T.n.o.Ea.Sec.	4-C†	4-C†	16.50

****Old Federal Part No. refer to locking type switches only.**



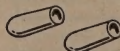
Miniature lever switches, lightweight, compact, mount on $\frac{1}{16}$ " centers. Available in 2 and 3 position, locking and non-locking types. Actuator designed with nylon roller for smoother, easy lever operation over entire life of switch. Rugged steel frame withstands rough usage, shock, vibration. Mini-

pin springs with fine silver contacts, rated at 2 amperes, 200 watts, max., A.C., non-inductive load. Supplied with black plastic push-on knob. Other push-on knobs, available in 10 colors. See listing below. **Series 29000**, with bushing, mounts in $\frac{3}{8}$ " O.D. panel hole. Supplied with locknut. **Series 31000**, mounts with 2 No. 2-56 machine screws. Both Series supplied with black push-on knob. Require only $1\frac{1}{2}$ " depth behind panel, mount in panels up to $\frac{1}{8}$ " thick, no., center position off. Inter-communications "Talk-Listen" switches, lever locks on one side of neutral and operates non-locking on the other side. Add suffix letter "L" to Part No. to indicate locking type.

Part No. Non-Locking*		Action	Schematic Circuit		U.S.A. List Price
29000	31000		Pos. 1	Pos. 2	
29201	31201	S.P.S.T. n.o.	1-A		\$1.95
29203	31203	S.P.D.T.	1-C		2.25
29204	31204	D.P.S.T. n.o.	2-A		2.50
29206	31206	D.P.D.T.	2-C		2.75

29303	31303	S.P.D.T. n.o.	1-C†	\$2.50
29304	31304	S.P.S.T. n.o. ea. sec.	1-A 1-A	2.60
29306	31306	S.P.D.T. ea. sec.	1-C 1-C	2.90
29307	31307	S.F.D.T. n.o. ea. sec.	1-C† 1-C†	2.95
29312	31312	D.P.D.T. ea. sec.	2-C 2-C	3.75

29303T	31303T	S.P.D.T. n.o.	¹ -C†	\$2.50
29307T	31307T	S.P.D.T. n.o. ea. sec.	1-C 1-C	2.95



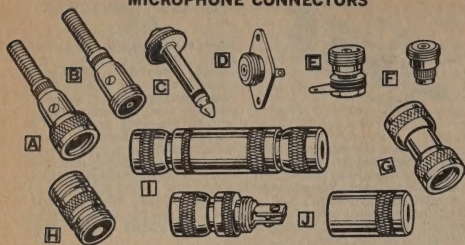
Kit of molded plastic knobs. Available in 10 colors. For "Feather-Lever" Switches, Series 29000, 31000. Knobs can be changed quickly—simply pull off present knob and push-on new one. For permanence, use plastic cement.

Part No.	Color	Part No.	Color	U.S.A. List Price Per Pkg. of 10
K-108	One of ea. color	K-114	Brown	\$0.80
K-109	Red	K-115	Orange	0.80
K-110	Black	K-116	Yellow	0.80
K-111	Green	K-117	Ivory	0.80
K-112	Blue	K-118	Gray	0.80
K-113	White	—	—	0.80

SWITCHCRAFT

Connectors and Switches

MICROPHONE CONNECTORS

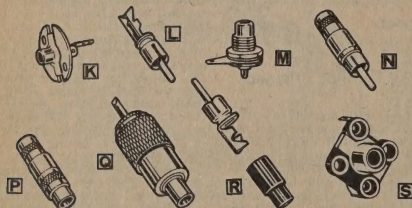


Standard connectors with 5/8"-27 threads. Designed for use with single conductor microphone cable with 1/8" max. O.D. **Coupling ring** on 2501F removable for fast change of female to male type. Spring assembled into body, cable braid and spring clamped by hollow set screw. No. 44 1/2" long. 1/2" standard 2-conductor, phone jack. 2501MT accepted hole in 385 dia. hole. No. 2501MT, coupler, two female connectors at each end. No. 2501MT, coupler, two male connectors at each end. No. 2501FL, 2501FS, for attaching cable to female connector without soldering; spring terminals. No. 2501MB, insulated male panel receptacle. No. 2501MM, male panel receptacle for PRESS-FIT mounting.

*Cable clamp

Part No.	Fig.	Description	U.S.A. List Price
2501F	A	Female Connector	\$.65
2501M	B	Male Connector	.50
44	C	Phone Plug Adapter	.55
2501MBL	D	Panel Receptacle	.60
2501MP	E	Panel Receptacle	.50
2501MPC	E	Panel Receptacle	.60
2501MPF	E	Panel Receptacle	.50
2501FT	G	Double Female Connector	1.25
2501MT	H	Double Male Connector	1.25
**2501FL	I	Screw Term. Female Connector	2.50
2501FS	J	Screw Term. Female Connector	1.80

PHONO JACKS AND PLUGS



Low cost 2-cond. jacks and plugs for record players, FM-AM tuners, tape recorders, test equipment, etc. **3501MRC** has $\frac{3}{4}$ " O.D. shell and table clamp. **3501FFP** for front panel mount in $\frac{1}{2}$ " hole, in panels up to $\frac{3}{4}$ " thick. **3501FR** for rear panel mount in $\frac{1}{2}$ " hole, in panels up to $\frac{3}{4}$ " thick. **3502** has unique cable clamp with $\frac{1}{2}$ " O.D. shielded removable handle. **3503** ext. jack has shielded removable handle, $\frac{1}{2}$ " O.D. with cable clamp. **3508 Series**, new color coded phone plugs with 100 ohm impedance, 1000 cycles per sec. to 20,000 cps. **3509 Series 3511 "4-Leaf Clover"** Jax. Molded phone jack with dual contact surfaces for minimum shunt resistance, greater reliability. Open and closed circuit types. Mate with all Switchcraft phone plugs.

Part No.	Fig.	Description	U.S.A. List Price
3501F	K	Chassis jack	\$0.15
3501M	M	Plug, less cable clamp	.10
3501MC	L	Plug with cable clamp	.15
3501FP	M	Chassis jack	.35
3501FR	N	As above, chassis jack	.40
3502	N	Plug	.50
3503	P	Extension jack	.65
3508-1	R	Plug, Red handle	.25
3508-2	R	Plug, Black handle	.25
3508-5	R	Plug, White handle	.25
3511	S	Chassis jack, open circuit	.30
3511A	S	Chassis jack, open circuit, grounded	.30
3512	S	Chassis jack, closed circuit	.35
3512A	S	Chassis jack, closed circuit, grounded	.35

RF-JACKS and RF-PLUGS

Standard phono jacks and plugs with nylon insulation. For use in radio frequency applications—low cost, max. insulation resistance. No. 3504M, $\frac{3}{8}$ " O.D. No. 3505F mounts front of panel in $\frac{3}{8}$ " hole—fits panel up to $1\frac{1}{4}$ " thick. No. 3506 adapter has coaxial connector (Amphenol 83-1SP) one end; 3505F at other end. No. 3507 has $1\frac{1}{2}$ " O.D. shielded, screw-on handle with cable clamp.

Part No.	Fig.	Description	U.S.A. List Price
3504M	L	Plug	\$0.20
3505F	M	Chassis jack	.60
3506	Q	Adapter	2.25
3507	N	Plug	.80



CRADLE SWITCH

High quality Handset Cradle Switch holds W.E. and other standard telephone industry handsets. Sturdy housing is flexible enough to withstand shocks and vibrations. Housing includes Switchcraft's dependable "Hook Switch" (See Hook Switch listing below), with a 4C (4P-D.T.) contact arrangement. Switch has long nickel silver springs with gold alloy contacts rated at 1 amp, 100 watts max, A.C. non-inductive load. Ideal for use in critical low level audio circuits such as in communication and instrumentation applications.

Part No.	Description	U.S.A. List Price
14412G	Handset Cradle Switch. Black housing. 4-C (4P.D.T.) circuit.	\$8.00
14512G	As above, except beige.	8.00
14612G	As above, except white.	8.00



"HOOK SWITCH" SWITCHES

Quality constructed leaf-type switch actuated by a hook (or hanger). Ideal for equipment where it is necessary to actuate a circuit by hanging an accessory on a "hook", as a headset, telephone or microphone. Fine silver contacts, rated at 3 amps, 300 watts, max., A.C., non-inductive load. Requires only $\frac{1}{4}$ " depth behind panel.

Part No.	Action	Schematic Circuit	U.S.A. List Price
14004	D.P.S.T. n.o.	2-A	\$2.75
14005	D.P.S.T. n.c.	2-B	2.75
14006	D.P.D.T.	2-C	3.00
14012	4 P.D.T.	4-C	3.85



"RS-SWITCH" SWITCHES

 Rugged rotary switches, available in various multiple circuits, two and three position types, locking or non-locking action. Ideal for communication, musical and test equipment applications. **Fibre cam** actuates long, leaf-type springs resulting in easy action; good wiping action of contacts. Fine silver contacts rated at 3 amps, 300 watts max. AC, non-inductive load. Requires only $\frac{1}{4}$ " depth behind panel, mounts in single $\frac{3}{4}$ " hole in panels up to $\frac{1}{4}$ " thick.

*Add suffix letter "L" to part number to indicate locking type.

TWO POSITION TYPES

Part No. Non-Locking*	Action	Schematic Circuit		U.S.A. List Price
		Pos. 1	Pos. 2	
2001	S.P.S.T. n.o.	1-A		\$1.40
2002	S.P.S.T. n.c.	1-B		1.40
2003	S.P.D.T.	1-C		1.65
2004	D.P.S.T. n.o.	2-A		1.65
2005	D.P.S.T. n.c.	2-B		1.65
2006	D.P.D.T.	2-C		2.15

THREE POSITION TYPES

2034	S.P.S.T. n.o. Ea. Sec.	1-A	1-A	\$1.65
2035	S.P.S.T. n.c. Ea. Sec.	1-B	1-B	1.65
2036	S.P.D.T. Ea. Sec.	1-C	1-C	2.15

"MINI-CON" MINIATURE CONNECTORS

Popular "Mini-Con" microphone-type connectors used with miniaturized audio equipment, lapel microphones, musical instruments, etc. About $\frac{1}{2}$ the size of standard microphone connectors. Accepts single conductor shielded cables up to $\frac{1}{8}$ " O.D. Nickel plated brass bodies.

Coupling ring on 5501F removable for quick change of female to male type. Cable-braid spring clamped to body by hollow pin set screw.

5501MF mounts by lock-nut front side of panel, in $\frac{1}{8}$ " dia. hole.

5501MP mounts back side of panel in $\frac{1}{8}$ " dia. hole. 5501MPC same as 5501MP except shorting type

Part Number	Fig.	Description	U.S.A. List Price
5501F	A	Female Cord Connector	\$0.65
5501M	B	Male Cord Connector	.50
5501MF	C	Panel Connector, Male	.50
5501MP	D	Panel Connector, Male	.40
5501MPC	D	Panel Connector, Male	.80



Audio Connectors



Patent No. 3,219,961

AUDIO CONNECTORS WITH COMPLETE GROUNDING PROVISIONS!

Switchcraft's "Quick-Ground" connectors feature a separate "Ground-Terminal" electrically integral with the connector shell. Ground continuity between mating plugs automatically accomplished through the exclusive "Ground Connectors." Possible loss of insert screw is eliminated by new "Captive Design" Insert Screw. Socket and pin assemblies utilize "wedge-action" to insure firm, reliable positioning in connector shell. Q-G* Series 3 and 4-contact audio connectors, offer 4 and 5-contact versatility when "Ground Terminal" is utilized. Can be used interchangeably with Cannon type XLR-3, XLR-4 and Amphenol type 91-850 Series. *Number of insert contacts or pins must be specified to complete Part Number.

A(*)F CORD PLUGS



Fresh, streamlined design includes rugged, diecast zinc body, satin nickel finish, high-impact resistant thermosetting plastic socket insert, molded latchlock, dual pressure plates, keyed neoprene relief bushing. Features "Ground Terminal" and "Ground Connectors" offers 4 and 5-contact versatility. Mates with Switchcraft A(*)M and other connectors with similar contact arrangements. Takes 1/4" O.D. cable. Overall length 3 1/4"; dia. 3/4".

Part No.	Insert Contacts	U.S.A. List Price
A3F	3	\$2.30
A4F	4	2.85

A(*)M CORD PLUGS



Has "Captive Design" insert screw, one-piece pin insert assembly easily removable for fast soldering. Polarizing groove. Die-cast zinc shell, satin nickel finish. Mates with Switchcraft A(*)F and other connectors with similar contact arrangements. Brass, silver plated chrome dipped pins to resist tarnishing. Overall length 2 3/4"; dia. 3/4".

Part No.	Insert Pins	U.S.A. List Price
A3M	3	\$2.00
A4M	4	2.10

B(*)M RECEPTACLES



For panel or chassis mounting; locknut accommodates panels up to 1/4" thick. Single hole mounting, can be keyed by using "D" shaped panel hole or S-3519 mounting adapter. Pin insert features "Captive Design" insert screw and "Ground Terminal." Mates with Switchcraft A(*)F and other connectors with similar contact arrangements. Diecast zinc shell, satin nickel finish. Dimensions: Flange 1 1/8" dia.; Barrel 1 3/8" overall; pin extensions 1/2".

Part No.	Insert Pins	U.S.A. List Price
B3M	3	\$2.30
B4M	4	3.00

C(*)M RECEPTACLES



Mounts on wall, panel or chassis with three .136" dia. mounting holes. High impact, thermosetting plastic pin insert. "Captive Design" insert screw, "Ground Terminal." Pins, brass, silver plated, chrome dipped; resists tarnishing. Mates with Switchcraft A(*)F and other connectors with similar contact arrangements. Dimensions: Flange 1 1/8" dia.; Barrel 1 3/8" overall; pin extensions 1/2".

Part No.	Insert Pins	U.S.A. List Price
C3M	3	\$1.50
C4M	4	1.50

C(*)F RECEPTACLES



For panel or chassis mounting; has socket insert, push-type latch locking device. Flange has three .136" holes for mounting screws. Mates with Switchcraft A(*)M and other connectors with similar contact arrangements. Dimensions: Flange 1 1/8" dia.; Barrel 1 3/8" overall; pin extension 1/4".

Part No.	Insert Pins	U.S.A. List Price
C3F	3	\$3.10
C4F	4	3.20

D(*)F RECEPTACLES



Rectangular flange design receptacle permits close mounting on crowded panel or chassis. Features "Captive Design" loss-proof insert screw, positive latch locking device and high impact thermosetting socket insert. Mates with Switchcraft A(*)M and other connectors with similar contact arrangements. Dimensions: Flange 1 1/8" dia.; Barrel 1 3/8" overall; pin extension 1/4".

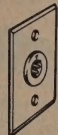
Part No.	Insert Contacts	U.S.A. List Price
D3F	3	\$3.20
D4F	4	3.30

D(*)M RECEPTACLES



Narrow, rectangular flange design receptacle for mounting on compact panel or chassis. Mates with Switchcraft A(*)F and other connectors with similar contact arrangements. Dimensions: Flange 1 1/8" dia.; Barrel 1 3/8" overall; pin extension 1/4".

Part No.	Insert Pins	U.S.A. List Price
D3M	3	\$3.00
D4M	4	2.00



G(*)M TYPE WALL PLATES

Single gang wall plates with a B(*)M male receptacle. Fits standard electrical outlet box. Wall plates available in brushed brass or brushed stainless steel. Dimensions: Wall Plate 4 1/2" H x 2 3/4" W.

Part No.	Finish	Insert Pins	U.S.A. List Price
G3M	Brass	3	\$5.00
G4M	Brass	4	4.75
G3MS	Stainless Steel	3	5.00
G4MS	Stainless Steel	4	5.25



H(*)M TYPE WALL PLATES

Two gang wall plates with two B(*)M male receptacles. Mounts in standard electrical switch box (single). Wall plates available in brushed brass or brushed stainless steel. Dimensions: Wall Plate 4 1/2" H x 2 3/4" W. Six contacts.

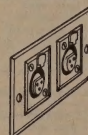
Part No.	Finish	Insert Pins	U.S.A. List Price
H3M	Brass	3 ea.	\$6.50
H4M	Brass	4 ea.	7.00
H3MS	Stainless Steel	3 ea.	7.00
H4MS	Stainless Steel	4 ea.	7.50



J(*)F TYPE WALL PLATES

Single gang wall plates with a D(*)F female receptacle. Fits standard electrical outlet box. Wall plates available in brushed brass or brushed stainless steel. Dimensions: 4 1/2" H x 2 3/4" W.

Part No.	Finish	Insert Contacts	U.S.A. List Price
J3F	Brass	3	\$4.70
J3FS	Stainless Steel	3	5.20
J4F	Brass	4	4.95
J4FS	Stainless Steel	4	5.45



K(*)F TYPE WALL PLATES

Two gang wall plates with two D(*)F female receptacles. Mounts in standard electrical outlet junction box. Wall plates available in brushed brass or stainless steel. Dimensions: 4 1/2" H x 2 3/4" W.

Part No.	Finish	Insert Contacts	U.S.A. List Price
K3F	Brass	3 ea.	\$6.90
K3FS	Stainless Steel	4 ea.	7.40
K4F	Brass	3 ea.	7.40
K4FS	Stainless Steel	4 ea.	7.90



MOUNTING ADAPTER

For use with B3M panel and chassis receptacle. Eliminates necessity of providing a flattened "D" shaped hole in panel to prevent turning of receptacle.

Switchcraft Part No. S-3519 U.S.A. List Price \$0.40

"SLIM-LINE" CONNECTORS



New, small 4-contact connectors for audio and communication equipment. Barrel insert assembly of high-impact, thermoplastic. No. 2504M; Fig. "D" shaped barrel assembly polarized for proper mating. Large, husky cable clamp. No. 2504FP, Fig. B, 4-contact female receptacle, only 9/16" dia., 3/8" depth behind panel. For front panel mount. No. 2504FR, same as 2504FP, except rear panel mount. All "Slim-Line" connectors bright nickel plated.

Switchcraft Part No. 2504M	U.S.A. List Price \$2.50
Switchcraft Part No. 2504FP	U.S.A. List Price \$2.50
Switchcraft Part No. 2504FR	U.S.A. List Price \$2.50

AC RECEPTACLES

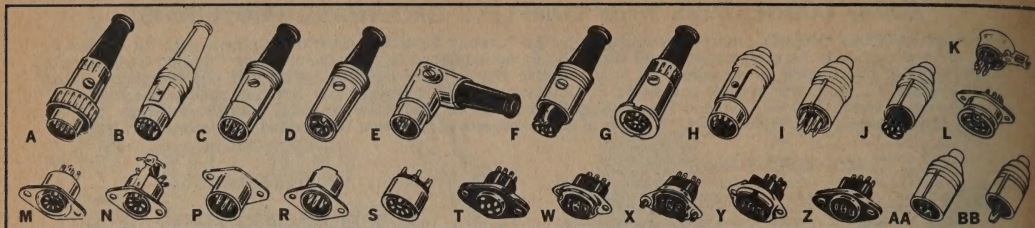


Highly dependable 3-pin receptacles for use in all electrical/electronic equipment. "Chassis hugging" recessed type mounting. Brass contact pins are silver plated, chrome dipped. No. AC3, ungrounded; No. AC3G, grounded, includes self-aligning feature. Pins #1 and #3 move, #2 is stationary. Receptacles mate with Belden cord No. 17258. Rating: 115V, 7 amps.

Switchcraft Part No. AC3	U.S.A. List Price \$0.80
Switchcraft Part No. AC3G	U.S.A. List Price .75

SWITCHCRAFT INC. Preh

Audio Connectors



Here is the most complete low-cost family of miniature audio connectors available today. Exact replacements for plugs and receptacles used on most foreign built tape recorders, radios and dictation equipment. Switchcraft/Preh 2 to 7 contact connectors include male and female plugs and receptacles with bright nickel-plated shells and plastic snap-on shells. Check these outstanding features . . . lock-ring coupling, silver plated contact pins for low contact resistance, contact friction coupling for low mechanical interference noise, exclusive "automatic" grounding and polarization provisions. Thirteen receptacles offer some form of internal switching. Positioning "Ground Key-Rib" or "Ground Contact"—electrically integral with the connector shell—is provided in each plug and receptacle (except those with plastic housings or shells) to ground or shield the connector shell. Designed for low level circuitry, they have unlimited use in commercial, industrial, consumer and military applications.

PLUGS

STRAIGHT CORD PLUGS with 30° Lock Ring

Part No.	Fig.	Description	Pin or Contact arrangement	U.S.A. List Price
03CL2M	A	2 pins with insulated switch actuator.	1	\$1.75
05CL3M	B	3 pins at 180°	2	1.75
05CL5M	C	5 pins at 180°	5	1.55
09CL4M	D	4 pins at 210°	3	1.85
12CL5M	A	5 pins at 240°	4	1.55

STRAIGHT CORD PLUG with Shielded Barrel

05GM3M	B	3 pins at 180°. Gray shell and strain relief	2	\$1.10
05GM5M	B	5 pins at 180°. Gray shell and strain relief.	5	1.30
09GM4M	B	4 pins at 210°. Gray shell and strain relief.	3	1.20
12GM5M	B	5 pins at 240°. Gray shell and strain relief.	4	1.30
12HM5M	B	5 pins at 240°. Beige shell and strain relief.	4	1.30
15GM7M	B	7 pins at 210°. Gray shell and strain relief.	7	1.50

STRAIGHT CORD PLUG with Extended Barrel

03BL2M	C	2 pins with insulated switch actuator	1	1.65
05BL3M	C	3 pins at 180°	2	1.65
05BL5M	C	5 pins at 180°	5	1.85
09BL4M	C	4 pins at 210°	3	1.75
12BL5M	C	5 pins at 240°	4	1.85
12BL6M	C	6 pins at 240°	6	1.95

STRAIGHT CORD PLUG with Flush Socket Insert

04AL2F	D	2 contacts with closed-circuit switch. (Schematic +4)	A	1.65
06AL3F	D	3 contacts at 180°	B	1.65
06AL5F	D	5 contacts at 180°	F	1.85
10AL4F	D	4 contacts at 210°	D	1.75
13AL5F	D	5 contacts at 240°	E	1.85
13AL6F	D	6 contacts at 240°	G	1.95

RIGHT ANGLE CORD PLUG with 8 Position Barrel

03DL2M	E	2 pins with insulated switch actuator	1	2.00
05DL3M	E	3 pins at 180°	2	2.00
05DL5M	E	5 pins at 180°	5	2.20
09DL4M	E	4 pins at 210°	3	2.10
12DL5M	E	5 pins at 240°	4	2.20

STRAIGHT CORD PLUG with Extended Socket

07FL3F	F	3 contacts at 180°	B	1.60
11FL4F	F	4 contacts at 210°	D	1.70
14FL5F	F	5 contacts at 240°	E	1.80

STRAIGHT CORD PLUG with Lock Flange

06EL3F	G	3 contacts at 180°	B	1.55
06EL5F	G	5 contacts at 180°	F	1.85
10EL4F	G	4 contacts at 210°	D	1.75
13EL5F	G	5 contacts at 210°	E	1.85

STRAIGHT CORD PLUG with Snap-Lock Plastic Shell

05LK3M	H	3 contacts at 180°	2	.90
05LK5M	H	5 pins at 180°	5	1.10
09LK4M	H	4 pins at 210°	3	1.00
12LK5M	H	5 pins at 240°	4	1.10

STRAIGHT CORD PLUG with Short Plastic Shell

05QK3M	I	3 pins at 180°	2	.60
05QK5M	I	5 pins at 180°	5	.80
09QK4M	I	4 pins at 210°	3	.70
12QK5M	I	5 pins at 240°	4	.80
12QK6M	I	6 pins at 240°	6	.90

STRAIGHT CORD PLUG with Extended Socket and Shell

07QK3F	J	3 contacts at 180°	B	.60
07QK5F	J	5 contacts at 180°	F	.80
08QK3F	J	3 contacts at 180°	C	.60
		2 extra blanks		
11QK4F	J	4 contacts at 210°	D	.70
14QK5F	J	5 contacts at 240°	E	.80
14QK6F	J	6 contacts at 240°	G	.90

RIGHT ANGLE CORD PLUG with Insulated Plastic Shell

05UK3M	K	3 pins at 180°	2	.60
05UK5M	K	5 pins at 180°	5	.80

RECEPTACLES

RECEPTACLE for Locking Plugs

55HA2F	L	2 contacts with closed circuit switch. (Schematic +4)	A	1.00
57HA3F	L	3 contacts at 180°	B	1.10
60HA4F	L	4 contacts at 210°	D	1.10
61HA4F	L	5 contacts at 240°	E	1.20

RECEPTACLE for Shielded and Extended Barrel Plugs

55GA2F	M	2 contacts plus closed circuit switch. (Schematic +4)	A	.70
57GA3F	M	3 contacts at 180°	B	.70
57GB5F	M	5 contacts at 180°	F	.90
57NC5F	N	5 contacts at 180°. Printed circuit terminals.	F	.80
58NC3F	N	3 contacts at 180°. 2 extra blanks. Printed circuit terminals.	C	.60
59GB3F	P	3 contacts at 180° plus closed-circuit switch. (Schematic +5)	B	1.30
59GB5F	P	5 contacts at 180° plus closed-circuit switch. (Schematic +5)	F	1.50

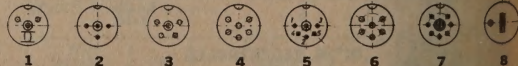
RECEPTACLE for Flush and Extended Socket Plugs

56KD2M	R	2 pins with insulated switch actuator.	1	1.00
57KD3M	R	3 pins at 180°	2	1.00
57KD5M	R	5 pins at 180°	5	1.20
60KD4M	R	4 pins at 210°	3	1.10
61KD5M	R	5 pins at 240°	4	1.20

RECEPTACLE with Recessed Mounting for Extended Socket Plugs

57JD3M	S	3 pins at 180°	2	1.00
60JD4M	S	4 pins at 210°	3	1.10
61JD5M	S	5 pins at 240°	4	1.20

PIN ARRANGEMENTS



RECEPTACLE for Short and Right Angle Plastic Shell Plugs

57LA3F	T	3 contacts at 180°.	C	.40
60LA4F	T	4 contacts at 210°.	D	.50
61LA5F	T	5 contacts at 240°.	E	.60
61LA6F	T	6 contacts at 240°.	G	.70

CONTROL AND SWITCHING PLUG RECEPTACES FOR 01QK2M PLUG

Each receptacle includes an elongated center contact for positive polarization. When inserting mating plug, contact is made to terminals 1 and 2. Receptacle's built-in closed-circuit switch is not actuated. Plug may then be turned 180°, without a polarity change, and re-inserted to open switch and make contact to terminal 2. Convertible feature available in Nos. 51DA2F, 52BA2F, 52CA2F and 52DA2F.

RECEPTACLE with Metal Mounting Flange

52DA2F	W	2 contacts (Schematic +2) with closed-circuit switch. Convertible.	J	.65
53DA2F	W	2 contacts	K	.55
54DA2F	W	2 contacts (Schematic +3) with closed-circuit switch. Not Convertible.	L	.60

RECEPTACLE with Metal Rivet Mounting Flange

52BA2F	X	2 contacts (Schematic +2) with closed-circuit switch. Convertible.	J	.70
53BA2F	X	2 contacts	K	.60
54BA2F	X	2 contacts (Schematic +3) with closed-circuit switch. Not Convertible.	L	.65

RECEPTACLE with 1-C Circuit

51DA2F	Y	2 contacts (Schematic +1) with make-break circuit. Convertible.	M	.80
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RECEPTACLE with Insulated Plastic Body

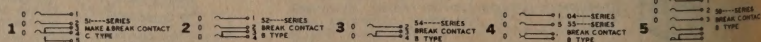
52CA2F	Z	2 contacts (Schematic +2) with closed-circuit switch. Convertible.	J	.60
53CA2F	Z	2 contacts	K	.50
54CA2F	Z	2 contacts (Schematic +3) with closed-circuit switch. Not Convertible.	L	.55

CONTROL AND SWITCHING PLUGS

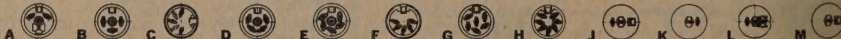
PLUGS with Snap-On Plastic Shells

01QK2M	AA	Male plug. 2 contacts	8	.40
02QK2F	BB	Female plug. 2 contacts	8	.50

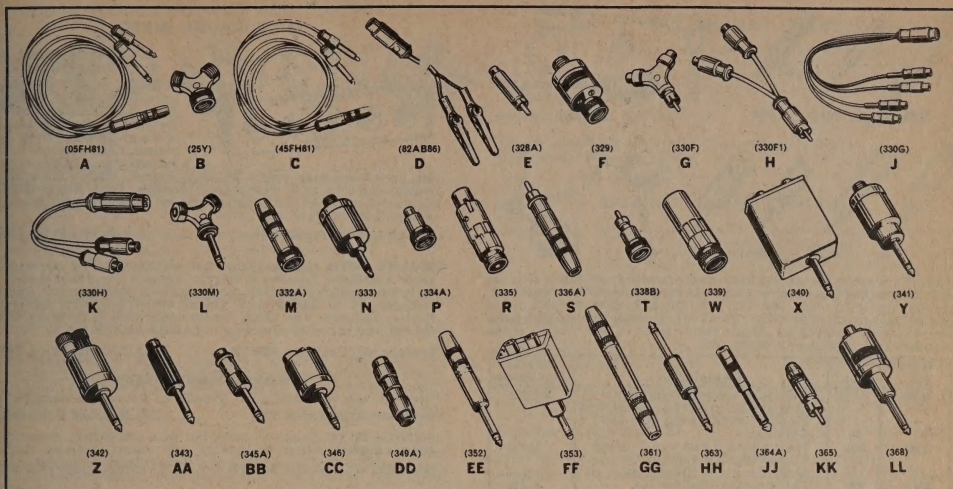
SCHEMATIC CIRCUITS



CONTACT ARRANGEMENTS



Adapters

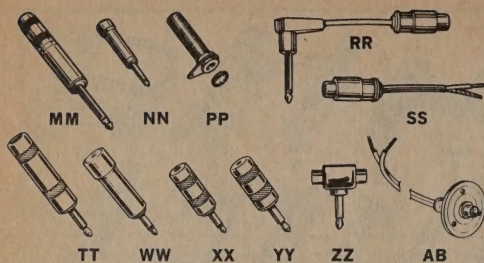
SWITCHCRAFT
INC.


A versatile and complete line of adapters for interconnecting components that do not have mating jacks and/or plugs. For hi-fi stereo, phonographs, tuners, tape recorders, amplifiers, P.A. systems, etc. Positive mating contacts of high quality material prevent resistive line-losses. Nickel plated finish for long life. No. 328A, audio equalizer; converts ceramic phono cartridge to magnetic input. No. 329 Volume Control Adapter for use in high impedance circuits. No. 330G adapts European-type 5-contact sockets to standard Switchcraft phono plugs, color coded. Fits Norelco, Korting, Grundig, Sony, Elber tape recorders; Grundig radios. No. 330H, adapts 3-pin European type plug to standard Switchcraft phono plugs. No. 335 has unshielded internal wire at one end to permit user to convert terminal needed. No. 341, silent plug adapter, includes a circuit closing device to eliminate amplifier "squeals" when disconnecting. No. 352, converts stereo headphones and/or microphones to a monaural input. No. 353 adapts stereo recorder for two headphones. Nos. 332A, 334A, 338B can be used as male or female connector; coupling ring screws back; converting to male mike connector.

Part No.	Fig.	Description	U.S.A. List Price	Part No.	Fig.	Description	U.S.A. List Price
05FH81	A	Stereo Headphone Adapter Cable. Two std. 2-cond. phone plugs wired to a 3-cond. phone jack. Shielded, 4 ft. stereo cable.	\$4.80	336A	S	2-cond. phone jack input to phono plug output. Shielded.	\$1.95
25Y	B	Y-Adapter, two male mike connectors in parallel to one female mike connector.	2.10	336B	—	Same as above, but 2-cond. phone jack input to phono jack output.	1.95
45FH81	C	Stereo Headphone Adapter Cable. Similar to 05FH81, except two 2-cond. "Tini-Plugs" wired to a 3-cond. std. ¼" phone jack. Shielded.	4.30	338A	—	Phono plug input to male mike connector output. Shielded. Similar to 338B.	1.25
82AB86	D	Speaker Adapter Cable. Two alligator clips to a molded phono extension jack. 12" cable. Shielded.	1.20	338B	T	Phono plug input to female mike connector output. Shielded.	1.40
328A	E	Audio Equalizer. Phone jack input to phone plug output.	3.30	339	W	Same as 335, but output connector Switchcraft 2501F to input connector Cannon XL-3-12.	3.50
329	F	Volume Control, female mike connector to male mike connector.	6.95	340	X	Two 2-cond. phone jack inputs in parallel to a 2-cond. phone plug output. Shielded.	4.00
330F	G	Y-Adapter. Two phono jacks in parallel to a phono plug. Shielded.	1.95	341	Y	Silent-Plug Adapter. 2-cond. phone jack input to 2-cond. phone plug output.	3.30
330F1	H	Flexible Y-Adapter, phono plug in parallel to 2 phono jacks. Shielded 4" cable.	2.25	342	Z	Dual purpose binding post/banana jack input to 2-cond. phone plug output.	2.95
330F2	—	Same as above, but phono plug and phono jack to a phono plug.	2.25	343	AA	Phono jack input to phone plug output. Built-in limiting resistor for Webcor tape recorders.	1.95
330F3	—	Same as above, but 2 phono plugs to 1 phono plug.	2.25	345A	BB	Phone plug output to phono jack input.	1.45
330G	J	Stereo Adapter Cable. 5-pin European-type plug to four phono jacks. Shielded stereo cables, each 1 ft.	6.00	346	CC	Tip jack input to 2-cond. phone plug output.	2.50
330H	K	Flexible Y-Adapter. 3-pin European-type plug to 2 phono jacks. Shielded 5" cable.	3.75	349A	DD	Phono plug coupler, mates with phono plug at each end. Shielded.	1.25
330M	L	Y-Adapter, two male mike connectors in parallel to a 2-cond. phone plug.	2.25	352	EE	Stereo to monaural adapter. 3-cond. phone jack to 2-cond. phone plug output. Shielded.	2.25
330PJ	—	Y-Adapter, as above, except two phono jacks in parallel to a 2-cond. phone plug. Shielded.	2.25	353	FF	Stereo headphone adapter. 3-circuit plug wired to two 3-circuit jacks. Housed in shielded, metal case, tan finish.	4.75
332A	M	Phone jack input to female mike connector output.	1.95	361	GG	Coupler. 2-cond. phone jack at each end. Shielded.	2.50
333	N	Phone jack input to special 2-cond. plug for American Geloso recorders.	2.60	362	—	Same as above, but 3-cond. phone jack at each end.	3.00
334A	P	Phono jack input to female mike connector output. Shielded.	1.60	363	HH	Coupler, 2-cond. phone plug at each end. Shielded.	2.25
334B	—	Same as above, but phono jack input to male mike connector output. Shielded.	1.45	364A	JJ	2-cond. "Tini-Jax" 9/64" dia. sleeve, to 2-cond. ¼" O.D. phone plug. Shielded.	1.75
335	R	2-cond. Input has Switchcraft 2501MF to output connector Cannon XL-3-11.	3.50	365	KK	2-cond. "Tini-Jax" (as above) input to phono jack output. Shielded.	1.75
				368	LL	Input volume control. Phono jack input to a 2-cond. phone plug output. Shielded.	4.95

SWITCHCRAFT

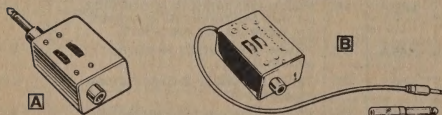
Adapters and Mixers



Versatile adapters for interconnecting components and cables that do not have mating jacks and/or plugs. Positive mating contacts prevent resistive line-losses. Nos. 369, 374, 375, 376, 377, have shielded, nickel plated brass handles. No. 378, "Tini-Tec", provides dual output jacks for two separate earphones. Allows two to listen at once from a single transistorized radio, tape recorder, etc.

Part No.	Fig.	Description	U.S.A. List Price
369	MM	2-cond. Reverse/Wollensak phone jack input to a standard 2-cond. phone plug output. Shielded.	\$2.25
370	NN	Phono jack input to a 2-cond. "Tini-Plug" (9/64" dia. finger) output. Shielded.	1.40
371	PP	Thick panel adapter for 3501P phono jack. Permits mounting of jack in panels up to 1 1/2" thick.	1.25
372	RR	2-cond. molded right angle phone plug to a molded phono jack. 2" shielded cable.	1.95
373	SS	2-cond. molded phono jack to 3" shielded cable, stripped and tinned leads.	.90
374	TT	Phone jack input to a 2-cond. "Tini-Plug" (9/64" dia. finger) output.	1.95
375	WW	Phono jack input to a 2-cond. "Micro-Plug" (.097 dia. finger) output.	1.75
376	XX	"Tini-Jax" input to a 2-cond. "Micro-Plug" (.097" dia. finger) output.	1.75
377	YY	"Micro-Jax" input to a 2-cond. "Tini-Plug" (9/64" dia. finger) output.	1.75
378	ZZ	"Tini-Tec" Adapter. 2-cond. "Tini-Plug" input to two 2-cond. "Tini-Jax" outputs.	2.40
379	AB	Speaker enclosure phono jack. Molded flanged phono jack to stripped and tinned leads. 24" cable.	1.50
381	—	Adapter Cable. 11' 2-cond. shielded cable from 3-cond. right angle phone plug to "Y" junction. Two single cond. shielded 1' cables from "Y" junction to two 2-cond. phone plugs.	7.00

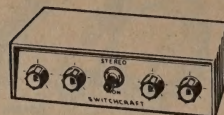
"MIX-AMP" MINIATURE TRANSISTORIZED AMPLIFIERS



Substitute gain for loss with "MIX-AMP" battery powered transistor amplifiers. Part No. 501 for use in high impedance microphone circuits. Provides 3 db gain and accepts signals up to 2 V when used with "Mini-Mix". "On-Off" Switch, "Hi-Lo" impedance switch. Frequency response 20 to 20,000, c.p.s. 9 volt battery included. Part Nos. 503 and 504 specially designed for use with miniature tape recorders. Provides a high signal to noise ratio; up to 25 db gain at "LO" impedance. Zero hum and noise—20,000 c.p.s. Single 1.5 V penlite cell powers 503 and 504. "ON-OFF" and impedance matching "LO"—"HI" switches.

Part No.	Fig.	Description	U.S.A. List Price
501	A	2-cond. phone jack input to extra long 2-cond. phone plug output to fit recorders with recessed jacks.	\$20.00
503	B	2-cond. phone jack input to a 12" cable with 2-cond. "Tini-Plug" to fit most miniature tape recorders. Includes No. 364A adapter to convert "Tini-Plug" to std. 2-cond. phone plug.	16.50
504	A	Same as 503, but 2-cond. phone jack to a 2-cond. long shoulder phone plug.	14.50

MICROPHONE MIXERS



STEREOPHONIC MIXERS

MODEL 306. Two channel stereophonic, high impedance microphone mixers. Extremely versatile, feeds up to two pairs of stereo signals such as microphones, tuners, phones into two outputs to a recorder or amplifier. With a flip of a lever, converts to 4 monophonic channels. Four standard 2-cond. phone jack inputs on rear panel; two phone jacks for output to amplifier or tape recorder. Size: 2"x3"x6".

Switchcraft Part No. 306 U.S.A. List Price \$25.00

MODEL 306TR. same as above, but with two battery operated transistor amplifiers. Provides 6 db gain. Permits use of microphone with up to 30' of cable without loss. Low noise level, low distortion, frequency response: 20 to 20,000 c.p.s. On-Off switch lengthens battery life. Battery included. Tan finish, brown knobs with gold inserts. Rubber feet on base prevents scratching of finished surfaces.

Switchcraft Part No. 306TR U.S.A. List Price \$40.00

MONOPHONIC MIXERS

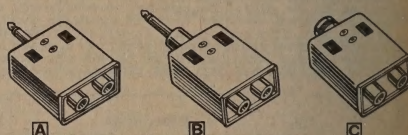
MODEL 301 (not illustrated). Similar to 306, except monaural only.

Switchcraft Part No. 301 U.S.A. List Price \$22.00

MODEL 301TR. Same as above, but with one battery powered transistor-amplifier. Battery included.

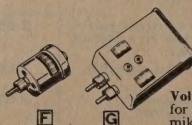
Switchcraft Part No. 301TR U.S.A. List Price \$32.50

"MINI-MIX" AUDIO MIXERS



Miniature, high impedance microphone mixers. "Mini-Mix" accommodates two high impedance inputs with low loss factor. Feeds 2 signals into a single output. Each channel has separate gain controls to regulate audio input. Controls recessed in housing. Size 2 1/4" x 1 1/8" x 1 1/8".

Part No.	Fig.	Description	U.S.A. List Price
310	A	Two 2-cond. phone jack inputs to 2-cond. phone plug output.	\$8.95
311	B	As above, but has long plug output to fit recorders with recessed jacks.	9.95
312	B	Similar to above, except has special size plug and jacks for use with American Geloso recorders.	9.95
313	B	Similar to No. 311, except has short Reverse plug and jacks for standard or short phone plugs.	9.95
315	C	Two 2-cond. phone jack inputs to a female mike connector.	8.95
316	—	(Not illustrated.) Two phono jack inputs to a phono plug output.	8.95
320	C	Similar to No. 315, except 2 male mike connector inputs to a female mike connector output.	8.95
326	B	Two 3-cond. phone jack inputs to long 2-cond. phone plug output. Internal resistor network for use with Webcor recorders.	10.95



STEREO LINE BALANCE CONTROLS

Volume Control Adapter, Fig. F. Single channel for high impedance circuits only, such as crystal mike, phono, etc. Ideal for use in balancing stereo channels; used in pairs for dual stereo channel control. Phono jack input to phono plug output. Shielded. Nickel plated.

Switchcraft Part No. 366 U.S.A. List Price \$4.25

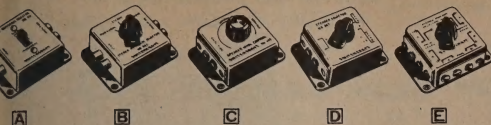
Dual Volume Control Adapter, Fig. G. Twin-channel for high impedance circuits. Same as above, but two phono jack inputs and two phono plug outputs with recessed volume controls for each channel. Shielded housing, tan finished. Size: 2 1/8" x 1 1/8" x 1 1/8".

Switchcraft Part No. 367 U.S.A. List Price \$7.95

Hi-Fi Switches, Controls

SWITCHCRAFT

HI-FI, STEREO SWITCHES AND CONTROLS



Quality Switchcraft Hi-Fi and Stereo volume controls and selector switches are completely wired and ready for use. Attractive tan finished metal housing. 2"x2"x1". Each unit is complete with mounting hardware and instruction sheet.

Stereo-Monaural Selector. Fig. A. Fast switching from monaural to stereo. Two phono jack inputs and two phono jack outputs.
Switchcraft Part No. 661.....U.S.A. List Price \$3.50

Stereo-Monaural Selector with Reverse. Fig. B. Same as above, but provides channel reversing.
Switchcraft Part No. 662.....U.S.A. List Price \$4.50

Phono-Tuner Adapter. Fig. A. Modernizes old sound equipment. Provides amplifier with two inputs for phono and tuner, etc. Switch selects either input. Phono jack output for amplifier; two phono jack inputs for phono and tuner.
Switchcraft Part No. 663.....U.S.A. List Price \$2.95

Multiple Selector Control. Fig. B. Accepts up to 5 input circuits. Switch selects any one of the five inputs labeled AM, FM, Phono, Tape, AUX to amplifier output. Five phono jack inputs to one phono jack output.
Switchcraft Part No. 664.....U.S.A. List Price \$5.95

Speaker Phase Control. Fig. A. Provides proper phasing in stereo and other speaker installations. Slide switch alters phasing. Screw terminals.
Switchcraft Part No. 665.....U.S.A. List Price \$2.95

Speaker Volume Control with L-Pad. Fig. C. For volume control of remote or extra speakers. 5 watts peak, 8 ohm, screw terminals.
Switchcraft Part No. 666.....U.S.A. List Price \$6.95

Speaker Selector Switch. Fig. D. Connects remote or FM, extra speakers to radio, T.V. or Hi-Fi set. Three position switch selects either one or both speakers at same time. Screw terminals. Shielded housing.
Switchcraft Part No. 667.....U.S.A. List Price \$4.95

Stereo Selector Switch. Fig. B. Switch permits selection of both channels of any one of three stereo sources such as FM tuner, tape recorder and record player to one pair of outputs such as a stereo amplifier. Three pairs of phono jack inputs to one pair of phono jack outputs.
Switchcraft Part No. 668.....U.S.A. List Price \$6.95

Stereo Volume Control. Fig. C. Specially matched tandem control for high impedance circuits. Use as a master gain control for ceramic type stereo cartridges, stereo tape decks, etc., when connected to separate amplifiers. One pair of phono jack inputs to one pair of phono jack outputs.
Switchcraft Part No. 669.....U.S.A. List Price \$6.95

Stereo Speaker Selector Switch. Fig. E. Designed to connect two remote pairs of stereo speakers to a stereo amplifier. Three position switch selects either pair of stereo speakers or both pairs at the same time. Screw terminals.
Switchcraft Part No. 670.....U.S.A. List Price \$6.95

Monaural Speaker Selector Switch. Fig. B. Five position tap switch selects any one of five monaural speakers. Inputs labeled 1 through 5. Five phono jack inputs to one phono jack output for amplifier.
Switchcraft Part No. 671.....U.S.A. List Price \$6.25



LISTENING STATIONS

PRIVATE LISTENING STATION—Fig. F. Designed for individual listening when wired to TV or radio. For 600 ohm headphones or higher impedance. Consists of 10,000 ohm volume control and 2-cond. phone jack for headphone. Features special built-in resistor to prevent any possible damage to control. Two alternate input terminations: standard phono jack on one side and screw-type term. on other side. Shielded enclosed in an attractive tan finish metal housing, 2" x 2" x 1". Completely enclosed in an attractive tan finish metal housing, 2" x 2" x 1". Four mtg. screws included.

Switchcraft Part No. 672.....U.S.A. List Price \$5.00

AUDIO JUNCTION BOX—Fig. G. A small compact junction box that provides four auxiliary outputs for multiple headphone use. Consists of four 2-cond. phone jacks wired in parallel and two side panel grommets for multiple wiring. Sturdy metal cabinet finished in an lacquer, 2" x 2" x 1". Shielded. Complete with four mtg. screws.
Switchcraft Part No. 676.....U.S.A. List Price \$4.25



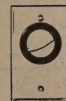
STEREO SPEAKER SELECTOR SWITCH

7-position stereo speaker selector switch mtd. on wall plate. Selects any one, two or three pairs of stereo speakers, or any combination of three. Ivory and black dial; brushed brass wall plate. Screw terminals. Size: 4 1/2" x 2 3/4" x 1 1/4".

Switchcraft Part No. 657.....U.S.A. List Price \$9.95

Same as above, except brushed stainless steel wall plate.

Switchcraft Part No. 657-S.....U.S.A. List Price \$9.95



SPEAKER VOLUME CONTROLS

Designed for custom installations. Constant impedance "T"-pad controls speaker volume. Rated at 10 watts (20 watts, peak). Mounts in standard electrical outlet boxes, mounting center 2 1/2", 8 ohms. Brushed brass wall plate; ivory and black dials. Screw terminals; mounting screws and instructions. Plate size: 2 3/4" x 4 1/2" x 1 1/4".

Switchcraft Part No. 651.....U.S.A. List Price \$10.95

Same as above, except brushed stainless steel wall plate.

Switchcraft Part No. 651-S.....U.S.A. List Price \$10.95

Constant impedance "T"-pad speaker volume control switch. All features of No. 651, but 16 ohms. Use with single 16 ohm speaker or two 8 ohm speakers in series. Brushed brass wall plate.

Switchcraft Part No. 652.....U.S.A. List Price \$10.95

Same as No. 652, except brushed stainless steel wall plate.

Switchcraft Part No. 652-S.....U.S.A. List Price \$10.95



SPEAKER VOLUME CONTROLS WITH JACK CONNECTION

Mounts in standard electrical wall outlet box. Constant impedance "T"-pad controls volume of speakers. Phone jack mounted on wall plate permits use of external speaker or headphones: accepts standard 2-cord phone plug. Rated at 4 watts. Brushed brass wall plate; ivory and black dial. 8 ohms. Wall plate size: 4 1/2" x 2 3/4" x 1 1/4".

Switchcraft Part No. 653.....U.S.A. List Price \$12.95

Same as above, but 16 ohm impedance.

Switchcraft Part No. 654.....U.S.A. List Price \$12.95



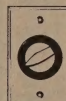
MULTI-SPEAKER SELECTOR SWITCH

7-position switch mounted on wall plate; fits standard outlet box. Selects any combination of three speakers. Ivory and black dial; brushed brass plate. Screw terminals. Maintains constant impedance regardless of switch position. Size: 4 1/2" x 2 3/4" x 1 1/4".

Switchcraft Part No. 655.....U.S.A. List Price \$5.95

Same as above, except brushed stainless steel wall plate.

Switchcraft Part No. 655-S.....U.S.A. List Price \$5.95



SPEAKER VOLUME CONTROL WITH QUALITY L-PAD

Specially designed "T"-pad volume control to prevent mismatch to amplifier at different volume settings. Brushed brass wall plate, ivory and black dial. Fits standard electrical outlet boxes. Solder lug terminals. Rated at 10 watts of peak audio power. 8 ohms. Size: 4 1/2" x 2 3/4" x 1 1/4".

Switchcraft Part No. 656.....U.S.A. List Price \$7.50

Same as above, except brushed stainless steel wall plate.

Switchcraft Part No. 656-S.....U.S.A. List Price \$7.50

AUDIO JUNCTION BOX. Same as Part 676, but with two phono jacks for easy "plug-in" of additional audio input boxes. For multiple hook-ups, use Switchcraft molded cable assemblies.

Switchcraft Part No. 677.....U.S.A. List Price \$5.00

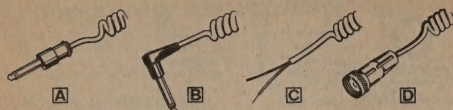
DELUXE PRIVATE LISTENING STATION—Fig. H. Designed for use as a headphone monitor control with public address systems and tape recorders. Consists of a 10,000 ohm volume control to allow for full adjustment of headphone audio level and two phono jacks for feeding in and out for multiple hook-ups. A 2-cond. phone jack is mtd. on top of the cabinet. Completely enclosed tan lacquer finished metal housing, 2" x 2" x 1". Shielded. Four mtg. screws furnished.

Switchcraft Part No. 678.....U.S.A. List Price \$5.00

DELUXE PRIVATE LISTENING STATION—Fig. I. Similar to Model 678 except it features a 2-cond. phone jack and a 6-ft. shielded cable with molded 2-cond. straight phone plug in place of the phone jack.
Switchcraft Part No. 679.....U.S.A. List Price \$6.50

SWITCHCRAFT

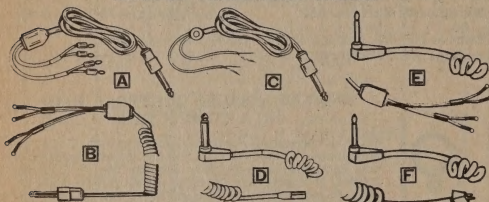
MOLDED COILED CORD ASSEMBLIES



Shielded, coiled cord assemblies with molded terminations and/or stripped and tinned ends. Various extended lengths from 4 ft. to 20 ft. extended lengths. Single conductor shielded cable with black neoprene jacket. Coiled cord flexes to maximum length and retracts positively each time it is used.

Part No.	Terminations		Extended Length	U.S.A. List Price
	End No. 1	End No. 2		
05LH84	A	C	4 ft.	\$ 3.60
15LH84	B	C	4 ft.	3.60
87LH84	D	C	4 ft.	3.70
05LP05	A	A	12 ft.	8.25
05LP15	A	A	12 ft.	8.25
05LP87	A	A	12 ft.	8.40
05LT05	A	A	20 ft.	11.50
05LT15	A	A	20 ft.	11.55
05LT87	A	D	20 ft.	11.70

MOLDED HEADPHONE CABLES



Replace worn-out headphone cords with new molded cords from Switchcraft. Part Nos. 05NJ88, 05NN88, 05KF88, 05KJ88, 13NJ88 and 13NN88 are direct replacements for cords used on Brush BA-200, BA-205, BA-206 headphones; RCA MI-38107B headphone. Standard Switchcraft straight or right angle 2-cond. phone plugs to color coded eyelet lugs. Part Nos. 13NN78 and 13NJ78 are direct replacements of cables used on Cleveite ED-300 and other headphones terminated with a Switchcraft "Micro-Plug". Part No. 50MJ74 ideal for earphones used on dictation and office equipment. Part No. 10FJ84 is a direct replacement for cords used on JENSEN HS-10, KNIGHT KN-840, SHARPE HA-8 and HA-10 Stereo Headphones.

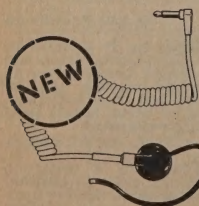
Part No.	Fig.	Description	U.S.A. List Price
05KF88	A	Molded Headphone Cord. 2', 2-cond. cable from phone plug to "Y" junction. 1' cable from "Y" junction to eyelet lugs. Parallel wired.	\$3.30
05KJ88	A	Same as above, except 4 ft. cable from phone plug to "Y" junction.	3.50
05NJ88	B	Straight 2-cond. phone plug to eyelet lugs. 5' (extended) coiled cord.	4.10
05NN88	B	Same as above except 10' (extended).	5.10
10FJ84	C	Molded Stereo Headphone Cord. 4' cable from phone plug to "molded band". 1' cable from band to stripped and tinned leads.	3.25
13NJ78	D	Right angle 2-cond. phone plug to "Micro-Extension Jack". 5' (extended) coiled cord.	3.70
13NN78	D	As above, but 10' (extended).	4.75
13NJ88	E	Right angle 2-cond. phone plug to eyelet lugs. 5' (extended) coiled cord.	4.10
13NN88	E	As above, but 10' (extended).	5.10
50MJ74	F	Right angle "Tini-Plug" 2-cond. output, (5/64" dia. finger) to 2-cond. polarized ear receiver plug. Tinsel coiled cord extends to 5'.	3.60

PERSONAL EARPHONE KIT

Ideal for use with transistor radio, tape recorder or any audio source with a "Tini-Jax" output. Consists of dynamic type, full fidelity (2000 ohm impedance) earphone with hygienic earpiece and flexible, tangle-free 5' (extended) coiled cord. Coiled cord has 2-cond. "Tini-Plug" at one end to a 2-cond. polarized ear receiver plug. Use with Switchcraft's new "Tini-Tee" adapter, Part No. 378, so two can listen privately from the same audio source.

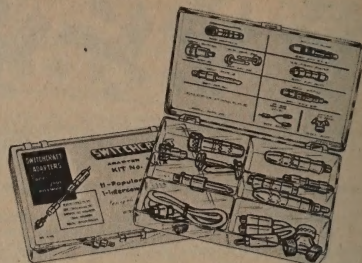
Switchcraft Part No. 3843

U.S.A. List Price \$9.35



Coiled Cords, Headphone Cords

ADAPTER AND CONNECTOR KITS



ADAPTER KIT NO. 331A

"Universal-Aplication" Kit featuring 11 of the most frequently used audio adapters and one molded interconnecting cord in a handy reusable plastic box. Solves 90% of the problems of interconnecting two pieces of equipment that do not have mating connectors.

Kit includes one each of Nos. 25AF25, 25Y, 330F1, 332A, 334A, 336B, 345A, and two each of 44 and 349A.

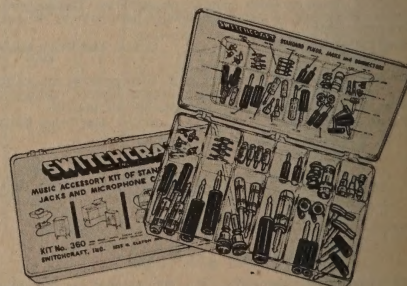
Switchcraft Part No. 331A..... U.S.A. List Price \$16.00



CONNECTOR ACCESSORY KIT NO. 359

New, larger adapter-conductor Kit for microphone connector adaptations in addition to interconnecting equipment, such as: Hi-Fi and Stereo, Tape Recorders, Sound and P.A. Equipment and Test Equipment. Kit contains one each of Nos. 334A, 338B, 336A, 332A, 361, 25Y, 330F, 330M, 330PJ; two each of 349A, 44, and 345A... all in a heavy duty plastic box.

Switchcraft Part No. 359..... U.S.A. List Price \$25.00



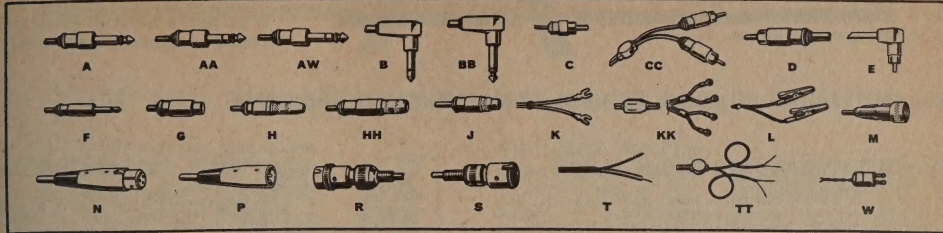
CONNECTOR ACCESSORY KIT NO. 360

Contains all phono plugs and jacks, phone plugs and jacks and microphone connectors and receptacles needed for most applications. Also included is Switchcraft's "Silent Plug", No. 169, with the special circuit closing device that eliminates "squeals" in audio circuits when the plug is disconnected.

There's 40 pieces in all—4 No. 3501FP phono jacks; 4 No. 3501MC phono plugs; 3 No. 3502 phono plugs; 1 No. 3503 phono extension jack; 2 No. 2501FS microphone adapters; 2 No. 2501F microphone connectors; 4 "Mini-Con" connectors; 8 "Littel-Plugs"; 2 each of Nos. 240, 250, and 280; 3 phone plugs; 1 Silent Plug; 2 No. 11 "Littel-Jax"; and 4 "Flat-Plugs" Nos. 228, 220.

Switchcraft Part No. 360..... U.S.A. List Price \$32.50

HI-FI MOLDED CABLES

SWITCHCRAFT
INC.

Only Switchcraft quality molded cable assemblies offer built-in cable clamps to support cable and eliminate strain—functionally designed handles to provide an easy grip. Cable is chrome grey (unless otherwise specified) with matching plastic handles. Fig. AW Phone Plug with Resistor, 3-Conductor. Fig. M Microphone Connector—Female. Fig. N Switchcraft Q-G 3-Pin Audio Connector—Female. Fig. P Switchcraft Q-G 3-Pin Audio Connector—Male. Fig. R Amphenol 3-Pin Connector—Female. Fig. S Amphenol 3-Pin Connector—Male. Fig. W Ear-Receiver Plug.

Terminations

Part Number	End No. 1 Fig.	End No. 2 Fig.	U.S.A. Length	List Price
STRAIGHT 2-CONDUCTOR PHONE PLUG TO VARIOUS CONNECTIONS				
05AC05	A	A	18"	\$1.75
05AD05	A	A	24"	1.95
05AK05	A	A	6'	2.85
05AN05	A	A	10'	3.85
05AU05	A	A	25'	5.10
05AR05	A	A	15'	4.35
05AK15	A	BB	6'	2.85
05AK15	A	BB	10'	3.85
05AR15	A	BB	15'	4.35
05AK25	A	C	6'	2.20
05AN25	A	C	10'	3.00
05AR25	A	C	15'	3.30
05AK30	A	E	6'	2.20
05AN30	A	E	10'	3.00
05AK80	A	H	6'	2.85
05AN80	A	H	10'	3.85
05AR80	A	H	15'	4.40
05AU80	A	H	25'	5.10
05AK82	A	G	6'	2.40
05AN82	A	G	10'	3.30
05AR82	A	G	15'	3.60
05AK87	A	M	6'	2.85
05AN87	A	M	10'	3.85
05AR87	A	M	15'	4.35
05AU87	A	M	25'	5.10
05AK84	A	T	6'	1.95
05AN84	A	T	10'	2.50
05AR84	A	T	15'	3.00
05CK84*	A	T	6'	1.55
05CN84*	A	T	10'	2.10
05CK85*	A	K	6'	1.65
05CN85*	A	K	10'	2.20
05CK86*	A	L	6'	1.65
05CN86*	A	L	10'	2.65
05CR86*	A	L	15'	2.90
05CT86*	A	L	20'	3.30

STRAIGHT 3-CONDUCTOR PHONE PLUG TO VARIOUS CONNECTIONS

10BD10	AA	AA	24"	\$3.60
10BF10	AA	AA	36"	4.00
10BK10	AA	AA	6'	5.30
10BN10	AA	AA	10'	6.60
10BU10	AA	AA	25'	9.65
10BK81	AA	H	6'	5.30
10BN81	AA	H	10'	6.60
10BU81	AA	H	25'	9.65

Stereo Cable Assembly for use with stereo tape recorders using 3-conductor dual microphone inputs—Norelco, Webcor, Revere, Wollensak.

10FK25	AA	CC	6'	\$4.40
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Webcor cable assemblies. 3-Cond. phone plug with internal resistor to various connections.

11AK26	AW	D	6'	\$3.60
11AN26	AW	D	10'	4.40
11CN86	AW	L	10'	3.60

2-Conductor Revere and Wollensak cables with R.A. Phone Plug to various connections.

12HK25	B	B	6'	\$2.75
12HB79	B	HH	12'	3.60
12HR79	B	HH	15'	5.50
12HU79	B	HH	25'	6.55
12HD80	B	H	24'	4.35

RIGHT ANGLE 2-CONDUCTOR PHONE PLUG TO VARIOUS CONNECTIONS

15AK15	BB	BB	6'	\$2.85
15AN15	BB	BB	10'	3.85

Terminations

Part Number	End No. 1 Fig.	End No. 2 Fig.	U.S.A. Length	List Price
STRAIGHT PHONO PLUG TO VARIOUS CONNECTIONS				
15AU15	BB	BB	25'	\$5.10
15AK25	BB	C	6'	2.20
15AN25	BB	C	10'	3.00
15AR25	BB	C	15'	3.30
15AK30	BB	E	6'	2.20
15AN30	BB	E	10'	3.00
15AK80	BB	H	6'	2.85
15AN80	BB	H	10'	3.85
15AR80	BB	H	15'	5.10
15AK82	BB	G	6'	2.40
15AN82	BB	G	10'	3.30
15AR82	BB	G	15'	3.60
15AK87	BB	R	6'	2.85
15AN87	BB	R	10'	3.85
15AR84	BB	T	10'	2.50
15AR84	BB	T	15'	3.00
15CN84*	BB	T	10'	2.10
15CK85*	BB	K	6'	1.65
15CN85*	BB	K	10'	2.20
15CK86*	BB	L	6'	2.10
15CN86*	BB	L	10'	2.65

STRAIGHT PHONO PLUG TO VARIOUS CONNECTIONS

25AC25	C	C	18"	\$1.15
25AF25	C	C	36"	1.30
25AH25	C	C	4'	1.50
25AK25	C	C	6'	1.65
25AN25	C	C	10'	2.20
25AR25	C	C	15'	2.75
25AT25	C	C	20'	3.30
25AU25	C	C	25'	3.85
25AC30	C	E	18"	1.15
25AF30	C	E	36"	1.30
25AH30	C	E	4'	1.55
25AK30	C	E	6'	1.65
25AN30	C	E	10'	2.20
25AR30	C	E	15'	2.75
25AT30	C	E	20'	3.30
25AU30	C	E	25'	3.85
25AK80	C	H	6'	2.20
25AN80	C	H	10'	3.00
25AR80	C	H	15'	3.60
25AC82	C	G	18"	1.30
25AF82	C	G	36"	1.50
25AH82	C	G	4'	1.75
25AK82	C	G	6'	1.95
25AN82	C	G	10'	2.20
25AR82	C	G	15'	2.75
25AT82	C	G	20'	3.30
25AU82	C	G	25'	3.85
25AC84	C	T	18"	.90
25AF84	C	T	36"	1.05
25AH84	C	T	4'	1.10
25AK84	C	T	6'	1.25
25AN84	C	T	10'	1.80
25AR84	C	T	15'	2.50
25AT84	C	T	20'	3.00
25AU84	C	T	25'	3.60
25CF84*	C	T	36"	.85
25CK84*	C	T	6'	1.00
25CN84*	C	T	10'	1.55
25CK85*	C	K	6'	1.10
25CN85*	C	K	10'	1.65
25CK86*	C	L	6'	1.95
25CN86*	C	L	10'	2.50
25CR86*	C	L	15'	2.85
25CT86*	C	L	25'	3.60
25AN87	C	M	6'	2.70
25AR87	C	M	10'	3.70
25AU87	C	M	25'	5.00

Special Stereo Cables. Two shielded insulated cables inside a common grey plastic jacket. Provides two isolated channels for all stereo applications. Phono plugs color coded.

25FF25	CC	CC	36"	\$3.60
25FK25	CC	CC	6'	4.15
25FN25	CC	CC	10'	4.95
25FF84	CC	TT	36"	3.20
25FK84	CC	TT	6'	3.60
25FN84	CC	TT	10'	4.15

STRAIGHT PHONO PLUG (LONG HANDLE) TO VARIOUS CONNECTIONS

26AF26	D	D	36"	\$1.45
26AK26	D	D	6'	1.75

Terminations

Part Number	End No. 1 Fig.	End No. 2 Fig.	U.S.A. Length	List Price
RIGHT ANGLE PHONO PLUG TO VARIOUS CONNECTIONS				
26AN26	D	D	10'	\$2.30
26AR26	D	D	15'	2.85
26AK05	D	A	6'	2.40
26AN05	D	A	10'	3.00
26AF82	D	A	36"	1.65
26AK82	D	G	6'	2.15
26AN82	D	G	10'	2.50
26AR82	D	G	15'	3.00
26AF84	D	T	36"	1.20
26AK84	D	T	6'	1.45
26AN84	D	T	10'	2.00

RIGHT ANGLE PHONO PLUG TO VARIOUS CONNECTIONS

30AC30	E	E	18"	\$1.15
30AF30	E	E	36"	1.30
30AK30	E	E	4'	1.50
30AN30	E	E	10'	2.20
30AR30	E	E	15'	2.75
30AT30	E	E	20'	3.30
30AU30	E	E	25'	3.85
30AK80	E	H	6'	2.20
30AN80	E	H	10'	3.00
30AR82	E	G	18"	1.40
30AF82	E	G	36"	1.50
30AK82	E	G	6'	1.95
30AN82	E	G	10'	2.20
30AR82	E	G	15'	2.75
30AT82	E	G	20'	3.30
30AU82	E	G	25'	3.85
30AF84	E	T	36"	1.05
30AK84	E	T	6'	1.25
30AN84	E	T	10'	1.80
30CF84*	E	T	36"	.85
30CK84*	E	T	6'	1.00
30CN85*	E	K	10'	1.65
30CK86*	E	L	6'	1.95
30CN86*	E	L	10'	2.50

STRAIGHT TINI-PLUG TO VARIOUS CON.

40DK05	F	A	6'	\$3.00
40DF25	F	C	36"	2.30
40DK25	F	C	6'	2.75
40DK40	F	C	6'	2.75
40DK80	F	H	6'	3.00
40DK82	F	G	6'	2.75
40DK83	F	J	6'	3.00
40DN83	F	J	10'	3.60
40DF84	F	T	36"	1.95
40DK84	F	T	6'	2.20
40DN84	F	T	10'	2.75
40DN86	F	W	10'	2.75
41EF75*	F	W	36"	2.20
41EH75*	F	W	4'	2.50
45AN25	F	C	10'	3.00
45AR25	F	C	15'	3.60
45AU25	F	C	25'	4.70

EXTENSION JACK CORDS

82AC82	G	G	G	18"	\$1.65
82AF82	G	G	G	36"	1.80
82AK82	G	G	G	6'	2.15
83DK05	J	A	A	6'	3.00

CORDS w/ SPADE PLUGS, ALLIGATOR CLIPS

85CN85*	K	K	K	20'	\$1.00
85CT85*	K	K	K	25'	1.65
85CU85*	K	K	K	25'	2.00
86CN86*	L	L	L	10'	1.95
86CU86*	L	L	L	25'	2.80

MICROPHONE CONNECTOR TO VARIOUS CONNECTIONS

87AF84	M	T	36"	\$1.65
87AK84	M	T	6'	2.00
87AN84	M	T	10'	2.50
87AU84	M	T	25'	4.70
87AF87	M	M	36"	2.75
87AK87	M	M	6'	3.85
87AU87	M	M	25'	5.50
91BU92	N	P	25'	13.75
93BU94	R	S	25'	10.75

*Parallel unshielded cable.

†Hearing Aid Tinsel Cord. All other cables shielded.

TRIMM / INC.

A SELECTED LISTING FROM OVER 2
TRIMM - MANUFACTURED COMPONENTS

PLUGS AND JACKS: General Purpose Audio, Miniature, Adapters

"511" and "513" STANDARD PHONE PLUGS

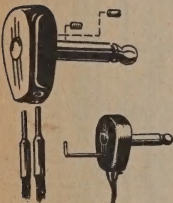
General purpose. To fit standard 0.250" I.D. jacks. "511" two-conductor plugs have screw terminals and ribbed bakelite or knurled metal shell. The "513" three-conductor plugs use an identical shell, but the terminals are solder lug type only. All metal parts are bright plated brass. Stay cord anchorage is provided.

Two-Circuit Type

511 Black plastic shell	\$.70
511-1 Red plastic shell	.70
511-2 Metal one piece shell	1.20
511-3 Metal two piece shell (With cable clamp)	1.65
511-4 Metal stubby shell	.90
511-5 Metal stubby. Has 1.05 long tip to sleeve insulator which leaves "ring" spring open when inserted in 3-ckt. jack.	

Three-Circuit Type

513 Black plastic shell	\$1.05
513-1 Red plastic shell	1.05
513-2 Metal, one piece shell	1.50
513-3 Metal, two piece shell (With cable clamp)	1.95
513-4 Metal stubby shell	1.30
515 Adapter. Couples Amphenol mike plug to standard jacks.	.50



"512" FLAT PLUG

Compact, non protruding. Adapts phone pin tips, or any two conductors, to a two-circuit plug. One piece molded phenolic plastic. Fits standard jacks 0.250" I.D.

512 Black	\$.90	512-2 With headset	
512 Red	.90	hanger	\$1.35

"514" MIN-A-PLUG

Small size for use with shielded microphone cable. Two and three conductor types, plastic or metal shell, solder or screw terminals. Types to fit jacks 0.250" I.D. or 0.206" I.D. Shield connection clamp.

Two Conductor Types (0.250" dia.) Solder Terminals

	List
514 Black plastic	\$.70
514-1 Red plastic	.70

Two Conductor Types (0.250" dia.) Solder Terminals

	List
514-2 Shielded	\$1.00
514-4 Shielded, stubby	.90

"518" PLUG — "562" JACK

Two circuit miniature disconnect plug and jack. Unshielded. Parallel pin plug locks into jack springs. No. 518 and 562 acetate shells are cemented together. No. 518-7 and 562-7 bakelite shells are held together with screws. No. 518-8 plug set is polarized (one male and one female terminal per plug).

518 Plug	\$.60	518-7 Plug	\$.80	518-8	\$1.00
562 Jack	.80	562-7 Jack	1.00		



No. 562 No. 518

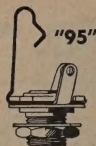


No. 562-7 No. 518-7

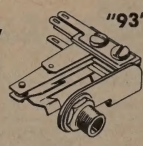
"525" CONNECTOR

Adapts headset cords, or any two wires, to single contact microphone plugs — such as Amphenol 75MC series. Same shell as No. 511.

525 Black Plastic	\$1.30
525-1 Red Plastic	1.30
525-2 Shielded one piece shell	1.70
525-3 Shielded, two piece shell (With cable clamp)	\$2.25
525-4 Shielded stubby shell	1.65

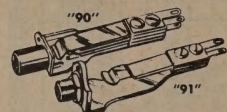


95-01 Open ckt., two conductor	\$.40
95-02 Closed ckt., two conductor	.48
95-25 Open ckt., three conductor (0.250" dia. plugs)	.55
95-50 Open ckt., three conductor (0.206" dia. plugs)	.65



"93" and "95" JACKS

Threaded bushing 3/8" in diam. mounts jack to panel or chassis. Is for limited space and depth. The "93" is only 1/4" deep behind panel. "93" is offset to one side. Nickel silver springs, tinned terminals. Jack circuit described below.



90SN-01	\$1.05	90SN09B	\$1.50
90SN-02B	1.20	90SN-14B	2.75
90SN-06B	1.35	90SN-25	1.20
90SN-07B	1.50	90SN-26B	1.60
90SN-08B	1.45	90SN-27B	1.90

"90" and "91" JACKS

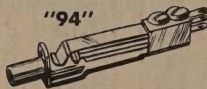
Commonly known as the telephone. The "90" series nickel plated bush fits a 3/8" dia. mounting hole and jack is held to the panel with a mounting screw. The "91" series has a threaded bushing for mounting and the standard mounting screw hole. Screws or nuts and washers are furnished. Cadmium plated frame, nickel silver springs and tinned terminals.



92-1009B	\$2.00	92N-1009B	\$2.00
92-1009BG	2.20	92N-1009BG	2.20
92-1030B	2.80	92N-1030B	2.80
92-1030BG	3.20	92N-1030BG	3.20
92-25	2.00		

"92" JACKS

Twin jacks on a single frame used in toll carrier frequency systems. 92-1009B provides balanced normal through circuitry while 92-1030 provides balanced normal through circuitry between jacks. A single plug inserted into either side the jack opens circuit up to jack for testing up that point. Brass bushing as in 92-1009B, or nickel plated as in 92N-1009B. G indicates gold contacts.



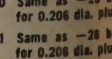
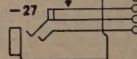
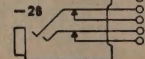
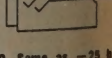
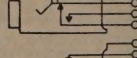
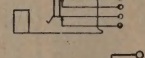
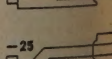
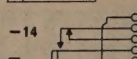
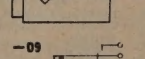
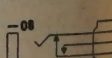
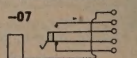
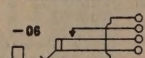
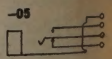
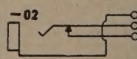
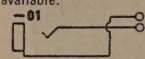
94S-01	\$1.05	94S-08B	\$1.45	94S-26B	\$1.50
94S-02B	1.20	94S-25	1.20		

"94" MINIATURE JACKS

Uses one half the space of conventional jacks. Fits new 96700 miniature mounting strips. Same high reliable Cadmium plated steel frame. Welded crossbar contacts on nickel silver springs.

JACK CIRCUIT DIAGRAMS

Standardized coding: The jack series number PLUS a DASH NUMBER indicate the spring arrangement. This is a limited listing of the many circuits available.



TRIMM INC.

A SELECTED LISTING FROM OVER 2500
TRIMM - MANUFACTURED COMPONENTS.

PATCH CORDS, JACK PANELS AND TELEPHONE PLUGS: Audio, Broadcast, Miniature

patch cords feature telephone type plugs on cords to withstand hard use. Two or more conductors of these are covered with numerous layers of insulating waterproofing. The cords are color coded, shielded and then covered with a final braid of nylon to long service. The nylon is standard black unless a specific. Available at a slight extra charge are: L, Brown (BR), Green (GR), Red (RD), Slate Gray (GY) (WH). PP indicates the cord has a plug at both ends.

"840" PATCH CORDS

Standard type "506" twin plugs at both ends. Conductors are shielded to tip and the shield (when used) is connected to ground. Commonly supplied with shield at one end only. Available without shield (W in number), or with shield attached at both ends (X in number). PP indicates the cord has a plug at both ends.

Standard Shielding				"X" Shielding			
4-PP	\$10.90	840-4-PP	\$11.80	840-05X-PP	\$10.90	840-4X-PP	\$11.80
5-PP	11.00	840-5-PP	12.10	840-1X-PP	11.00	840-5X-PP	12.10
6-PP	11.25	840-6-PP	12.40	840-2X-PP	11.25	840-6X-PP	12.40
10-PP	11.50	840-10-PP	13.80	840-3X-PP	11.50	840-10X-PP	13.80
				Without Shield			
				840-2W-PP	\$11.25	840-3W-PP	\$11.50

"851" SPACESAVERS

patch cords use two No. 517 triple circuit plugs of broadcast design. The unique plug tip contour re-clicks in service. Conductors are wired to tip and shield (if used) is wired to plug shaft. 851 patch cords use No. 516 triple circuit plugs with standard ball tip. Both types commonly have shield connected at one end only.

1-1-PP	\$9.80	841-6-PP	\$12.00	851-4-PP	\$10.70
1-2-PP	10.20	841-10-PP	13.60	851-5-PP	11.20
1-3-PP	10.60	851-01-PP	9.50	851-6-PP	11.70
1-4-PP	11.00	851-2-PP	9.90	851-10-PP	13.30
1-5-PP	11.50	851-3-PP	10.30		
"X" Shielding					
841-1X-PP \$9.50		851-1X-PP \$9.80			
841-2X-PP 9.80		851-2X-PP 10.20			
Without Shield					
851-2W-PP \$9.90					
851-3W-PP 10.30					

"867" MINIATURE PATCH CORDS

two conductor (866) and three conductor (867) patch cords using new miniature and "537" plugs. Have same high quality construction details and features as standard patch cords. Same coding. Contact your distributor for literature line prices.

6-1-PP	\$9.80	867-1-PP	\$12.00	866-5-PP	\$10.70
6-2-PP	10.20	867-2-PP	13.60	866-10-PP	11.20
6-3-PP	10.60	867-3-PP	10.30	866-5-PP	11.70
6-4-PP	11.00	867-4-PP	11.20	866-10-PP	13.30
6-5-PP	11.50	867-5-PP	12.10	866-10-PP	13.80

TELEPHONE TYPE PLUGS

"517" PLUGS

The three circuit 516 has been the accepted standard for telephone switchboards, instrument systems, and in other communication areas. Supplied on TRIMM 851 series patch cords, Red, black or gray shell which can be attached without removing cord. Interchangeable with WE 310. The three-circuit 517 plugs are identical with 516 types, but with a special tip contour that reduces "clicks" in service.

Red	\$1.50	517 Red	\$1.70	516-10 Red, marked PJ-051	\$1.60
Black	1.50	517 Black	1.70	516-11 Black, marked PJ-051B	1.60

"506" TWIN 3-CKT. PLUG

A broadcast standard now widely used in instrumentation and missile control. Supplied on 840 patch cords. Electrically common plug shafts spaced $\frac{1}{8}$ " C to C. Self indicating. Bakelite shell notched on one edge to indicate polarization. Interchangeable with WE 241 and MIL PJ-241.

506 Black	\$2.60	Net
506-1 Red	\$2.60	Net

"96" JACK PANELS

$\frac{1}{8}$ " thick bakelite panel with end brackets, side reinforcing strips and designation strips. Complete with jacks mounted and choice of jack circuits.

All jacks insulated from each other. Ordinarily supplied with jack ground lug offset (to reduce wiring time). Straight ground lugs are available to duplicate W.E. jacks. Types 96-71 through 96-77 are three circuit types for No. 516 or 517 plugs. Types 96-01 through 96-07 usually used with No. 506 twin plugs although other standard two-circuit plugs will fit.

Code No.	Rows	No. of Jacks	Jack Type	Jack Mounting Strip Type	Width	List
96-01	1	24	90LN-02B	96-21	1 3/4"	\$45.50
96-02	2	48	90LN-02B	96-22	2 1/4"	76.00
96-03	2	48	90LN-02B	96-23	3 1/2"	80.00
96-04	2	48	90LN-02B	96-24	3 1/2"	82.00
96-06	1	26	90LN-02B	96-26	1 3/4"	50.00
96-07	2	52	90LN-02B	96-27	1 3/4"	86.00
96-71	1	24	90LN-26B	96-21	1 3/4"	56.50
96-72	2	48	90LN-26B	96-22	2 1/4"	98.00
96-74	2	48	90LN-26B	96-24	3 1/2"	104.00
96-76	1	26	90LN-26B	96-26	1 3/4"	61.00
96-77	2	52	90LN-26B	96-27	1 3/4"	108.00

"96-700" MINIATURE JACK MOUNTING STRIPS

Bakelite panels $\frac{3}{8}$ " thick, $1\frac{3}{4}$ " wide. Fits standard 19" panel mountings. One or two rows of mounting holes for the installation of one or two rows of miniature jacks, 48 or 52 jacks per row. Standard designation strip is JP-35. Contact your distributor for miniature line prices.

Code No.	Rows	Total Jacks	No. Desig. Strips	Code No.	Rows	Total Jacks	No. Desig. Strips
96-721-1	1	48	1	96-726	1	52	1
96-721-2	2	96	2	96-727	2	104	2

"96" JACK MOUNTING STRIPS—WITHOUT JACKS

Used as a mounting base where non-standard arrangements of jacks, lamp sockets, turn or push keys and coaxial jacks are combined on one panel. Supplied with end brackets, designation strips and side reinforcing strips mounted. Available in numerous other types than those listed.

Code No.	Rows	Jack Holes per Row	Width	Desig. Qty.	Strip Type	List
96-21	1	24	1 3/4"	1	JP-30	\$15.50
96-22	2	24	2 1/4"	1	JP-30	16.40
96-23	2	24	3 1/2"	1	JP-30	22.00
96-24	2	24	3 1/2"	2	JP-30	24.00
96-26	1	26	1 3/4"	1	JP-34	17.00
96-27	2	26	1 3/4"	2	JP-34	18.00

DESIGNATION STRIPS

Manufactured in varying lengths and widths to meet all panel requirements. Choice of black (JP-30, 33, 34 & 35) or bright nickel plated (JP-31, 32 & 37).

"536" - "537" MINIATURE PLUGS

Used with "94" series jacks and "866" "867" patch cords. Both two-circuit 536 and three-circuit 537 have molded in place insulation and screw terminals. Contact your distributor for miniature line prices.

536	Black
536-1	Red

537	Black
537-1	Red

"500" and "501" (PJ-055) TWO-CIRCUIT PLUGS

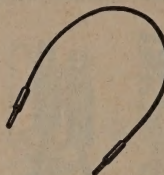
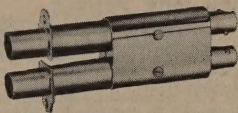
The 500 telephone plug—long the two-circuit switchboard standard has been replaced, for the most part, by the slightly shorter 501. The 501 has been widely used on high quality military communication equipment. Commonly referred to as PJ-055. Black or Red plastic shell or nickel plated brass for shielded types.

501 Black	.....	\$2.72	501-10 Black, marked PJ-055B	\$7.96
501-1 Red	.....	.72	501-11 Red, marked PJ-055R	.76
501-2 Metal shell	.....	1.00	501-12 Metal, marked PJ-055M	1.00
500 Red		.90	500-10 Red, marked PJ-047R	.95
500-1 Black		.90	500-11 Black, marked PJ-047B	.95

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COAXIAL JACKS, PLUGS AND PANELS: Video Patch Cords, Hybrid Audio/Visual



COAXIAL JACKS: "89" SERIES

Developed for a wide range of RF applications including video frequencies, carrier and UHF frequencies. Triple layer plating of silver, palladium and hard gold on female contact assures extremely low contact resistance and long wear.

SINGLE JACKS	Net	89-32	Female BNC fitting	7.00
89-01 RG 58 Cable	\$ 6.00	89-33	Female C fitting	16.00
89-02 RG 59 Cable	6.00	89-715	(*)	5.25
89-04 RG 62 Cable	6.00	89-731	(*) Fem. UHF fitting	20.00
89-05 RG 11 Cable	6.25	89-732	(*) Fem. BNC fitting	7.00
89-06 RG 8, 9 Cable	6.25	89-733	(*) Fem. C fitting	16.00
89-07 RG 54 (Also fits WE 724, Belden 8281. Jack similar to WE 477B.	6.25	(*) RCA Compatible, otherwise WE		
89-08 RG 54 Cable Jack similar to WE 477C	15.00	TWIN TYPES, Non-Switching		
89-09 RG 2-59 Paralleling 2-RG-59	6.25	89-51	RG 58 Cable	13.00
89-11 RG 187	\$ 6.00	89-52	RG 59 Cable	13.00
89-12 RG 11, 13	6.25	89-57	RG 54, WE 724, Belden 8281. Equiv. WE 465C	13.50
89-14 Amphenol 2-597	6.00	89-825	Single BNC at rear for paralleling	15.50
89-15 Equiv. to WE 470B	5.00	TWIN TYPES, Switching		
89-31 Female UHF fitting	20.00	89-132	Double BNC rear	17.50
		89-1010	Single BNC plus turret terminal	17.00
		89-1011	Double turret terminal at rear	16.50

COAXIAL PLUGS: "530" SERIES



For use with "89" series jacks. Assembled on cords to form "849" series patch cords. Silver and hard gold plated contact pin assures minimum resistance and long wear.

Part No.	Cable	Notes	Net
530-1	RG-58		\$4.60
530-2	RG-59		4.60
530-4	RG-62		4.60
530-5	RG-11		5.00
*530-6	RG-54 Belden 8281	Equiv. to W.E. 358A	3.60
530-7	RG-8 & 9		5.00
*530-9	RG-59	Similar to W.E. 337C	16.00
530-10	RG-55		5.00
*530-15	RG-58 & 59		4.20
*530-32	N/A	Mates with male BNC connection at rear end	5.00
†530-701	RG-58		4.60
†530-702	RG-59		4.60
†530-705	RG-11 & 13		5.00

†Compatible with RCA; other types W.E.

COAXIAL BRIDGING PLUG: "531"

A twin coaxial plug (sometimes called a looping plug). Internally wired to connect two adjacent coaxial jacks spaced $\frac{1}{2}$ " C to C. Two plugs essentially similar to "530" series mounted in a plastic handle-like shell.



Part No.	Imp.	Notes	Net	Part No.	Imp.	Net
531-1	52 ohm	Compatible	\$7.30	531-702	75 ohm	\$7.30
531-2	75 ohm	with and	7.30	531-7	75 ohm	29.00
531-3	90 ohm	Equiv. to	7.60	531-707	75 ohm	29.00
531-701	50 ohm	W.E. 477B	7.30			

COAXIAL PATCH CORDS: "849"

The following cords use two, 530-2 (for W.E. two 530-702 (for RCA), plugs and RG59B/U (75 ohm).

W.E.	Net	RCA	
849-05X-PPG	\$ 9.60	849-1X-700PPG	\$
849-1X-PPG	9.60	849-105X-700PPG	
849-105X-PPG	9.60	849-2X-700PPG	1
849-2X-PPG	10.00	849-3X-700PPG	1
849-3X-PPG	10.00		
849-4X-PPG	10.00		

The following cords, as above, but with RG-58C/U cable (50 ohm).

W.E.	Net	RCA
84-1X58-PPG	\$ 9.60	849-1X58-700PPG
849-105X58-PPG	9.60	849-105X58-700PPG
849-2X58-PPG	10.00	849-2X58-700PPG
849-3X58-PPG	10.00	849-3X58-700PPG

HYBRID PATCH CORDS: "869" SERIES

Audio and Video patch cord. Twin plug contains a coax and a three-circuit telephone plug. On $\frac{1}{2}$ " centers. Will fit combination panels with "89" series coaxial jacks and "90" series telephone jacks. 75 ohm cable on section (RG-187) and audio is carried by two additional conductors with shield overall (but not common to coax shield).

	Net
869-1X-PPG	\$30.00
869-105X-PPG	30.00
869-2X-PPG	30.00

COAXIAL JACK PANEL ASSEMBLIES

The "89" series coaxial jacks can be mounted on the "96" or "99" series strips in almost any specified configuration. Listed below are some of the most standard types already produced. Consult factory for information regarding price or your special requirements.

W.E.	RCA	Qty/Row	Rows	Jack Type	Jack M Strip
99-80		12	1	89-32	99-20
	99-780	12	1	89-732	99-20
98-84		24	2	89-02	96-24
	96-784	24	2	89-702	96-24
*96-94-2		24	2	89-02	96-24
	*96-794-2	24	2	89-702	96-24
96-85		12	2	89-02	96-25
	96-785	12	2	89-702	96-25
*96-95-2		12	2	89-02	96-25
	*96-795-2	12	2	89-702	96-25
*96-98-2		Top 24 Bottom 12	2	89-02	96-28
	*96-798-2	Top 24 Bottom 12	2	89-702	96-28

*Denotes sub-chassis with 24 UHF connectors.

COAXIAL JACK MOUNTING STRIPS—LESS JACKS

The "96" Series Panels, described and listed on a previous page, are readily adaptable for coaxial use. In addition to the panels previously listed, the following ones are also available in this series.

Code No.	No. of Rows	Holes/Row	Jack Hole Spacing c. to c. Left to right	Width	Designation Strip Qty.	Type
96-20	1	12	1 1/4"	1 3/4"	1	JP-30
96-20-1	1	12	5/8" - 2 1/4" - 5/8"	1 3/4"	1	JP-35
96-28	2	upper 24 lower 24	5/8" - 3/4" - 5/8"	3 1/4"	2	JP-35
96-32	2	24	5/8" - 3/4" - 5/8"	2 1/4"	2	JP-33
*96-38	1	32	5/8"	1 3/4"	1	JP-34-3
*96-39	2	32	5/8"	1 3/4"	2	JP-34-3

*Fits 23" racks having 22 1/4" spacing between mounting screw holes.

ALUMINUM JACK MTG. STRIPS—LESS JACKS

The "99" series features a front aluminum panel $\frac{3}{4}$ " thick separated from rear sub-panel $\frac{1}{4}$ " thick to which the jacks are mounted. Overall thickness $\frac{1}{2}$ ". Sub-panel forms common ground for jacks. Fits 19" rack. The "99-2" series backs the aluminum front panel with a $\frac{3}{4}$ " bakelite strip to isolate jacks from each other. Total thickness of $\frac{5}{8}$ ".

Code No.	Rows	Jacks/Row	Jack Hole Spacing c. to c.	Width	Designation Strip Qty.	Type	Notes
99-20	1	12	1 1/4"	1 3/4"	1	JP-37	\$26.28
99-20-1	1	12	5/8" - 2 1/4" - 5/8"	1 3/4"	1	JP-37	28.28
99-21	1	24	5/8" - 3/4" - 5/8"	1 3/4"	1	JP-37	27.34
99-22	2	24	5/8" - 3/4" - 5/8"	2 1/4"	1	JP-30	34.40
99-22-1	2	24	5/8" - 3/4" - 5/8"	2 1/4"	2	JP-33	40.40
99-22-2	2	23	5/8" - 3/4" - 5/8"	2 1/4"	2	JP-33	2
99-24	2	24	5/8" - 3/4" - 5/8"	3 1/4"	2	JP-37	1
99-26	1	26	5/8"	1 3/4"	1	JP-34	27.38
99-27	2	26	5/8"	1 3/4"	2	JP-34	1

NOTES 1. Designation strip above top, and below bottom row.
2. Designation strip above each row.

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MINAL BLOCKS, TURN AND PUSH KEYS, LAMP SOCKETS: Related Panel Equipment



TERMINAL BLOCKS

Originally developed for telephone and telegraph exchange use, now are quite generally found in broadcast and microwave relay stations, large instrument systems—wherever very large numbers of circuits need convenient places of termination.

"421 SERIES"

of black phenolic plastic material, including base. Provides 20 terminals in two banks of ten, with up to ten rows. Base $6\frac{1}{4}$ " long x 3" wide. Has mounting strip inset in groove in base, with standard mounting dimensions accommodating #10-24 screws.

is of 0.040" tin plated brass, and are removable without disassembly. Have "butterfly" notched design assuring better retention of wire. of terminals in three graduated lengths for ease of wiring, and are identified by numbering along top row. (Not illustrated). Interchangeable with W.E. "L" series, as indicated by () following TRIMM No.

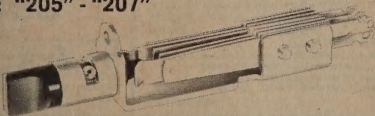
Part No.	No. Rows	No. Term	Base
C-1	1	20	\$ 4.40
C-2	2	40	5.00
C-3 (L34)	3	60	5.75
C-4 (L4A)	4	80	6.50
C-5 (L5A)	5	100	7.30
C-6 (L6A)	6	120	8.00
C-7	7	140	8.80
C-8 (L8A)	8	160	9.60
C-9	9	180	11.20
C-10	10	200	12.00

OTHER SERIES

ized below are terminal arrangements and base dimensions for other available. All bases $\frac{5}{8}$ " hard maple. Available in 1 to 10 rows. Write for full information.

Part No.	Term per Row	Base Dim.	Notes
20	20	$6\frac{1}{4}$ x $2\frac{5}{8}$ "	Eq. to W.E. "M" Type
22	22	8 x $2\frac{5}{8}$ "	Fits Cook Elec. Frame
24	24	$7\frac{1}{2}$ x $2\frac{5}{8}$ "	
26	26	8 x $2\frac{5}{8}$ "	Fits Cook Elec. Frame
28	28	8 x $3\frac{1}{4}$ "	

TURN KEYS: "205" - "207"



ame rotating cam type keys or switches. Intended to be assembled standard $\frac{5}{8}$ " thick jack mounting strips having $\frac{3}{4}$ " dia. jack bushing hole for #6-32 screw $\frac{3}{8}$ " off center provided. Entirely interchangeable with telephone type jacks, and essentially similar to W.E. "552" series. See below for cross reference.

molded black nylon, has two flat areas on each side to provide cone in turning. White filled line on front of knob readily identifies in of two positions key has been turned. $\frac{1}{8}$ " depth behind panel.

LOCKING TYPE, "205"

Part No.	Base	Part No.	Base	Part No.	Base	Part No.	Base
A	\$2.10	205-2A	\$2.50	205-3A	\$3.00	205-2A2B	\$3.10
B	2.10	205-2B	2.50	205-3C	3.50	205-1A2C	3.30
C	2.30	205-2C	3.00	205-4A	3.50	205-1000	3.50
D	2.30	205-2D	3.10	205-4C	4.10	205-1001	3.80

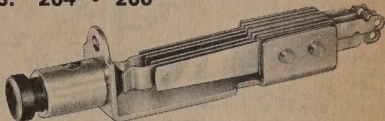
NON-LOCKING TYPE, "207"

Part No.	Base	Part No.	Base	Part No.	Base
A	\$2.10	207-1B	\$2.10	207-2C	\$3.00

CROSS REFERENCE W.E. TO TRIMM

W.E. Code	W.E. Type	TRIMM Code	W.E. Type
1-2C	552A	205-1000	552E
1-3A	552B	205-10	552G
1-1001	552C	205-2C1A	552H
1-2B 2C	552D		

PUSH KEYS: "204" - "206"



Long frame push button type key very similar to turn keys. The usual applications for push button type keys are as an impulse switch for relays, or motor starters; buzzer signals, test circuits requiring momentary contact, etc. Mounting, dimensional and contact data, similar to turn keys. Available in non-locking and locking forms. Knob of black plastic material with depressed dimple for finger.

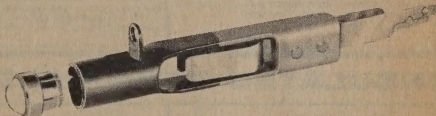
LOCKING TYPE, "204"

Part No.	Base	Part No.	Base
204-1A	\$2.10	204-2A	\$2.50

NON-LOCKING TYPE, "206"

Part No.	Base	Part No.	Base
206-1A	\$2.10	206-2A	\$2.50
206-1B	2.10	206-2B	2.50
206-1C	2.30	206-2C	3.00
206-1D	2.30	206-3C	3.50
		206-4A	3.50

LAMP SOCKET: "247"



Switchboard type lamp socket; intended for use with standard No. 2 switchboard lamps, and to be assembled on to standard $\frac{5}{8}$ " thick jack mounting strips with $\frac{3}{4}$ " dia. jack bushing holes. Has lug for #6-32 mounting screw $\frac{3}{8}$ " off center line. May be mounted $\frac{1}{8}$ " c. to c. horizontally.

Frame, one piece steel construction. Springs nickel silver insulated from frame and each other with XXXP phenolic laminated spacers. Lamp mounts close to lens of lamp cap, giving maximum illumination.

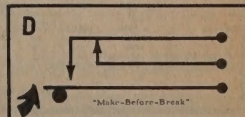
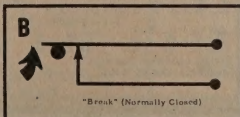
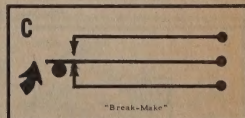
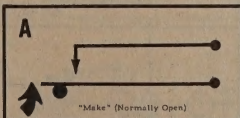
247	Lamp Socket	47B	.80
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"240" GLASS LAMP CAP

		W.E.EQ.	Base
240-AY	Lamp Cap White Opalescent	2-AY	.22
240-H	Lamp Cap Red Opalescent	2-H	.22
240-L	Lamp Cap Green Opalescent	2-L	.22
240-U	Lamp Cap Amber	2-U	.22
240-W	Lamp Cap Blue	2-W	.22

SWITCH DIAGRAMS

Basic switching for Turn Keys and Push Keys is described by these diagrams. Other combinations are available. Coding: The series number of the switch followed by a dash number. 205-4C is then a locking type Turn Key with a stacking of four 'C' switches.





SECTION 2100

STANDARDIZED ELECTRONIC HARDWARE

LITTON INDUSTRIES/USECO DIVISION

INSULATED TERMINALS • Alkyd

Part No. 1417	Part No. 1418	Part No. 1419	Part No. 1421
Part No. 1422	Part No. 1423	Part No. 1409	Part No. 1411
Part No. 1412	Part No. 1413	Part No. 1414	Part No. 1424
Part No. 1425	Part No. 1426	Part No. 1427	Part No. 1428
Part No. 1429	Part No. 1450	Phenolic Part No. 1401 Phenolic Part No. 1410	

INSULATED TERMINALS • Diallyl Phthalate

Part No. 1430	Part No. 1433	Part No. 1435
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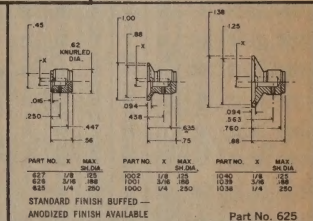
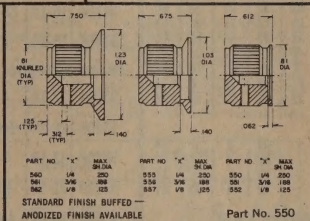
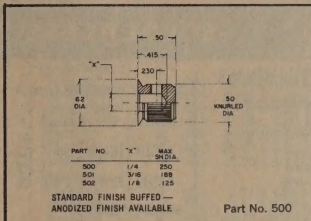
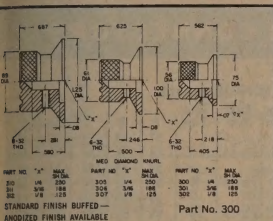
Plating: Terminal, 0.00010/0.00020 gold over 0.00030/0.00050 silver; Base, 0.00030/0.00050 cadmium
Tolerance: .XXX ± .010; .XX ± .016 before plating



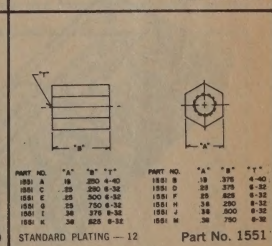
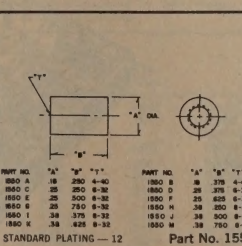
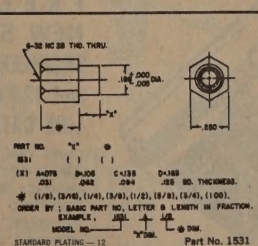
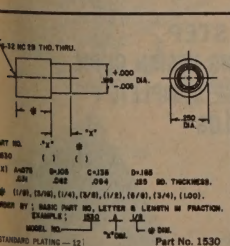
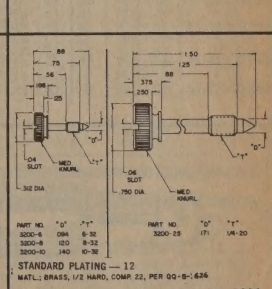
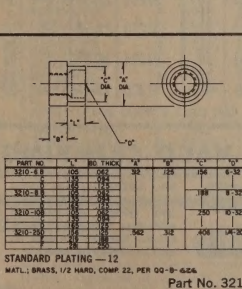
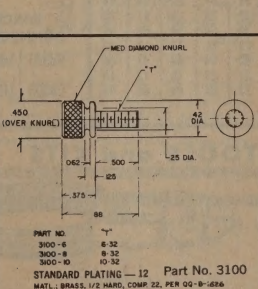
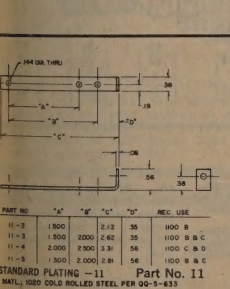
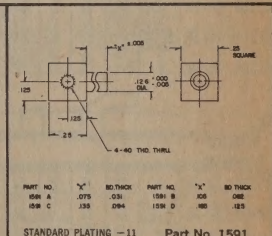
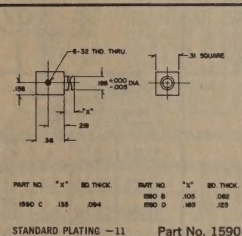
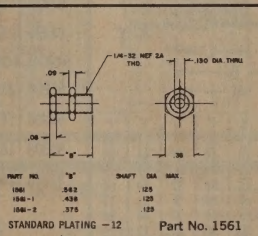
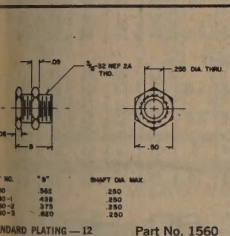
STANDARDIZED ELECTRONIC HARDWARE

LITTON INDUSTRIES/USECO DIVISION

INSTRUMENT PANEL HARDWARE • Knobs



Accessory Hardware



Tolerance: .XXX $\pm$.010; .XX $\pm$.016 before plating



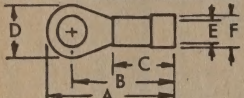
"C" PAK contains 100 terminals of a number and convenient for larger quantity users. Each carton readily identifiable from outside.



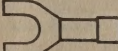
"MB" PAK contains 1000 terminals providing minimum terminal cost to large quantity users.

SOLDERLESS TERMINALS and CONNECTORS

DOUBLE-GRIP SOLDERLESS TERMINALS



RING TONGUE		Catalog Number	Wire Size	Stud Size	A	B	C	D	E	F
41204	22-18	4	47	5	13	32	32	32	5	11
41205	22-18	5-6	64	8	13	32	32	32	5	11
41206	22-18	5-6	16	64	32	32	32	32	5	11
41208	22-18	8	13	21	13	21	5	11	11	11
41210	22-18	10	16	32	32	32	32	32	5	11
41304	16-14	4	23	19	13	15	3	13	16	64
41305	16-14	5-6	32	32	32	32	32	32	16	64
41306	16-14	5-6	53	21	13	21	3	13	16	64
41308	16-14	8	64	32	32	32	32	32	16	64
41310	16-14	10	55	45	13	21	3	13	16	64
41311	16-14	10	64	64	32	32	32	32	16	64
41314	16-14	12-4	164	16	32	32	32	32	16	64
41338	16-14	8	13	15	13	17	3	13	16	64



SPADE TONGUE		Catalog Number	Wire Size	Stud Size	A	B	C	D	E	F
43204	22-18	4	23	9	13	15	5	11	16	64
43206	22-18	5-6	49	39	13	19	5	11	16	64
43208	22-18	8	51	39	13	11	5	11	16	64
43210	22-18	10	64	64	32	32	32	32	16	64
43306	16-14	4-6	3	19	13	19	3	13	16	64
43308	16-14	8	51	5	13	11	3	13	16	64

SPADE TONGUE (cont.)

Catalog Number	Wire Size	Stud Size	A	B	C	D	E	F
43310	16-14	10	27	21	13	13	3	13
44206	22-18	4-6	32	32	32	32	16	64
			27	5	13	19	5	11
			32	8	32	64	32	64

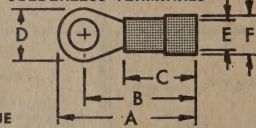
HOOK TONGUE

Catalog Number	Wire Size	Stud Size	A	B	C	D	E	F
45208	22-18	4-8	7	45	13	11	5	11
45306	16-14	4-6	8	64	32	32	32	64
45308	16-14	8	3	19	13	19	3	13
45310	16-14	10	4	32	32	64	16	64
			51	5	13	11	3	13
			64	8	32	32	16	64
			27	21	13	13	3	13

QUICK CONNECTORS

Catalog Number	Wire Size	Stud Size	A	B	C	D	E	F
48301	16-14	29	32	13	1	3	16	64
48302	16-14	16	13	32	1	5	11	11
			16	32	4	32	64	64

INSULATED DOUBLE-GRIP SOLDERLESS TERMINALS



RING TONGUE

Catalog Number	Wire Size	Stud Size	A	B	C	D	E	F
91204	22-18	4	51	11	29	7	11	13
91205	22-18	5-6	64	16	64	32	64	64
91206	22-18	5-6	55	47	29	9	11	13
91208	22-18	8	64	64	64	32	64	64
91210	22-18	10	7	23	29	21	11	13
91304	16-14	4	25	21	29	15	13	15
91305	16-14	5-6	32	32	64	64	64	64

RING TONGUE (cont.)

Catalog Number	Wire Size	Stud Size	A	B	C	D	E	F
91306	16-14	5-6	57	23	29	21	13	13
91308	16-14	8	64	32	64	64	64	64
91310	16-14	10	59	49	29	21	13	13
91314	16-14	12-4	64	64	64	64	64	64
91338	16-14	8	59	49	29	21	13	13
			64	64	64	64	64	64
			1	1	29	29	29	13
			17	32	64	64	64	13
			3	8	29	29	29	13

SPADE TONGUE

Catalog Number	Wire Size	Stud Size	A	B	C	D	E	F
93204	22-18	4	3	5	29	15	11	11
93206	22-18	5-6	4	8	64	64	64	64
93208	22-18	8	53	43	29	19	11	11
93210	22-18	10	64	64	64	64	64	64
93306	16-14	4-6	27	43	29	11	11	11
93308	16-14	8	32	64	64	32	64	64
93310	16-14	10	29	45	29	13	11	11
94206	22-18	4-6	13	21	29	19	11	11
			16	32	64	64	64	64
			55	11	29	11	13	13
			64	16	64	32	64	64
			29	45	29	13	13	13
			10	32	64	32	64	64
			57	11	29	19	11	11
			64	16	64	64	64	64

HOOK TONGUE

Catalog Number	Wire Size	Stud Size	A	B	C	D	E	F
95208	22-18	4-8	15	49	29	11	11	11
95306	16-14	4-6	16	64	64	32	64	64
95308	16-14	8	13	21	29	19	13	13
95310	16-14	10	16	32	64	64	64	64
			55	11	29	11	13	13
			64	16	64	32	64	64
			29	45	29	13	13	13
			32	64	64	32	64	64

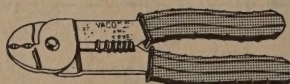
QUICK CONNECTOR

Catalog Number	Wire Size	Stud Size	A	B	C	D	E	F
98301	16-14	61	64	29	1	13	13	13
98302	16-14	7	64	64	4	1	13	13
		8	64	64	4	64	64	64

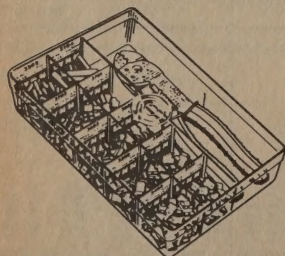
VACO CRIMPING TOOLS and KITS



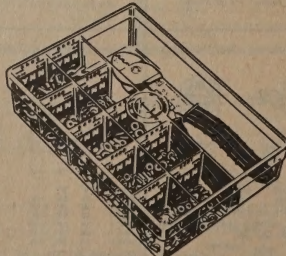
No. 1900 cuts wire, strips wire from 22 to 10 gauge, and crimps non-insulated solderless terminals. Plastic comfort handles are used on all Vaco crimping tools.



No. 1906 cuts and strips wire 22 to 10 gauge and crimps insulated solderless terminals. All Vaco tools are chrome plated, high quality steel.



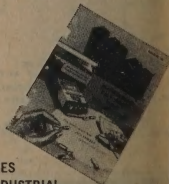
No. 2195 Service Kit for Radio-TV and General Purpose Use. Contains No. 1900 crimping tool and one bin each of the following numbers: 11205, 11206, 11210, 11305, 11306, 11310, 14206, 13306, 13310, 15208.



No. 3185 Service Kit for Appliance, Automotive and Electrical Use. Contains No. 1900 crimping tool plus popular assortment of quick-connect terminals and adapters as follows: 18301, 18302, 18303, 18304, 18001, 18002, 18008, 18007, 19301, 19302.

FREE NEW 5 STEP ENGINEERING DESIGN GUIDE and 12-PAGE COMPLETE LINE CATALOG

SAVES TIME, GUARANTEES ACCURACY IN SPECIFYING SOLDERLESS TERMINALS AND CONNECTORS COVERS 6 BASIC CLASSES SERVING OVER 90% INDUSTRIAL AND MILITARY NEEDS



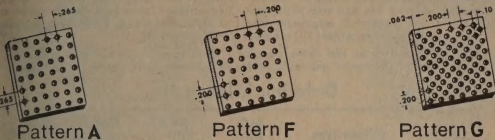


Vector Electronic Company

INCORPORATED



VECTORBORD



Pattern	Spacing	Pattern	Spacing	Pattern	Spacing
A	.265 Centers	B	.188 Centers	H	.100 Centers
C	.200 Centers	E	.141 Centers	G	.20 x 10
		F	.200 Centers	L	.250 Centers

Vectorbord (Pre-Punched Terminal Board) has precision pre-punched holes at various spacings on tan XXXP phenolic type PBE-P (Mil-P-31158), ivory EXXP Epoxy Paper type PEE (Mil-P-22324), G-10 Epoxy Glass type GEE (Mil-P-18177), Copper clad G-10 Epoxy Glass type FL-GE (Mil-P-13949C), copper clad XXXP phenolic type PP (Mil-P-13949B) and copper clad Epoxy Paper (Mil-P-13949B). Ideal for prototypes and many production uses. Vector Push-In Terminals or standard turned terminals and eyelets fit pre-punched holes. User can make own etched circuits with listed copper clad boards. May be sawed, drilled or punched.

Cat. No.	Pat-tern	Hole Size	Dimensions	No. of Holes	Price 1-19
XXXP Phenolic					
18A18	A	.093	4.80 x 4.80 x 1/16	18 x 18	\$.43
32A9	A	.093	8.51 x 2.41 x 1/16	32 x 9	.45
32A18	A	.093	8.51 x 4.80 x 3/32	32 x 18	.84
64A18	A	.093	4.8 x 16.99 x 1/16	64 x 18	1.25
64A18	A	.093	4.8 x 16.99 x 3/32	64 x 18	1.60
64A432	A	.092	16.99 x 8.51 x 3/32	64 x 32	2.45
45B30	B	.062	8.51 x 5.69 x 1/16	45 x 30	.84
90B30	B	.062	16.97 x 5.69 x 1/16	90 x 30	1.62
85C24	C	.093	16.99 x 4.80 x 1/16	85 x 23	1.25
95G175	G	.062	35.00 x 19.00 x 1/16	(94 x 175) x 2	7.62
18L26	L	.093	4.5 x 6.5 x 1/16	18 x 26	.75
19L34	L	.093	4.8 x 8.5 x 3/32	19 x 34	.84
19L167	L	.093	4.8 x 17.0 x 3/32	19 x 67	1.60
34L67	L	.093	8.5 x 17.0 x 3/32	34 x 67	2.45

Cat. No.	Pat-tern	Hole Size	Dimensions	No. of Holes	Price 1-19
Epoxy Paper					
32A18EP	A	.093	8.51 x 4.80 x 3/32	32 x 18	1.40
64A18EP	A	.093	16.99 x 4.80 x 3/32	64 x 18	2.73
64A432EP	A	.093	16.99 x 8.51 x 3/32	64 x 32	4.39
85F24EP	F	.062	16.99 x 4.80 x 1/16	85 x 23	2.06
85G24EP	G	.062	16.99 x 4.80 x 1/16	(85 x 23) x 2	2.06
85G24EP	G	.062	16.99 x 8.5 x 1/16	(85 x 42) x 2	3.17
120E33EP	E	.062	16.99 x 4-13/16 x 1/16	120 x 33	2.23

Cat. No.	Pat-tern	Hole Size	Dimensions	No. of Holes	Price 1-19
Epoxy Glass					
32A18WE	A	.093	8.51 x 4.80 x 1/16	32 x 18	1.89
42G24WE	G	.062	8.5 x 4.80 x 1/16	(42 x 23) x 2	1.94
85G24WE	G	.062	16.99 x 4.80 x 1/16	(85 x 23) x 2	3.81
170H45WE/032	H	.062	17.00 x 4.80 x 1/16	170 x 47	3.57
120E33WE	E	.062	16.99 x 4-13/16 x 1/16	120 x 33	3.99

Cat. No.	Pat-tern	Hole Size	Dimensions	No. of Holes	Price 1-19
Copper Clad XXXP Phenolic					
3106-1XXXP	F	.062	3 x 4 1/2	18 x 14	.45
3106-2XXXP	F	.062	3 x 4 1/2	18 x 14	.55
3070-1XXXP	F	.062	4 1/2 x 6 1/2	28 x 22	.84
3070-2XXXP	F	.062	4 1/2 x 6 1/2	28 x 22	1.04
42F22C1*	F	.062	4.5 x 8.5	42 x 22	1.05
42F22C2**	F	.062	4.5 x 8.5	42 x 22	1.32

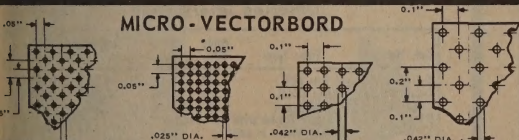
Cat. No.	Pat-tern	Hole Size	Dimensions	No. of Holes	Price 1-19
Copper Clad Epoxy Paper					
3070-1EP	F	.062	4.5 x 6.5 x 1/16	28 x 22	1.39
3070-2EP	F	.062	4.5 x 6.5 x 1/16	28 x 22	1.67

Cat. No.	Pat-tern	Hole Size	Dimensions	No. of Holes	Price 1-19
Copper Clad Epoxy Glass					
42G22WEC1*	G	.062	8.5 x 4.5 x 1/16	(42 x 22) x 2	2.55
42G22WEC2**	GG	.062	8.5 x 4.5 x 1/16	(42 x 22) x 2	2.60
85F42WEC1*	F	.062	16.99 x 8.51 x 1/16	85 x 42	9.33
85F42WEC2**	F	.062	16.99 x 8.51 x 1/16	85 x 42	10.25

Cat. No.	Pat-tern	Hole Size	Dimensions	No. of Holes	Price 1-19
Copper Clad Unperforated					
4 1/2" x 3"	XXXP Phenolic	CU45/30-1*	.30 CU45/30-2**	.40	
6 1/2" x 4 1/2"	XXXP Phenolic	CU65/45-1*	.60 CU65/45-2**	.77	
8 1/2" x 4 1/2"	XXXP Phenolic	CU85/45-1*	.70 CU85/45-2**	.98	
4 1/2" x 3"	Epoxy Glass	CU45/30WE-1*	.63 CU65/45WE-2**	1.52	
6 1/2" x 4 1/2"	Epoxy Glass	CU65/45WE-1*	1.34 CU85/45WE-2**	1.95	
8 1/2" x 4 1/2"	Epoxy Glass	CU85/45WE-1*	1.71		

* Indicates 2 oz. Copper Clad 1 Side

** Indicates 2 oz. Copper Clad 2 Sides



MICRO-VECTORBORD

Pattern "K" Pattern "M" Pattern "P" Pattern "Q"

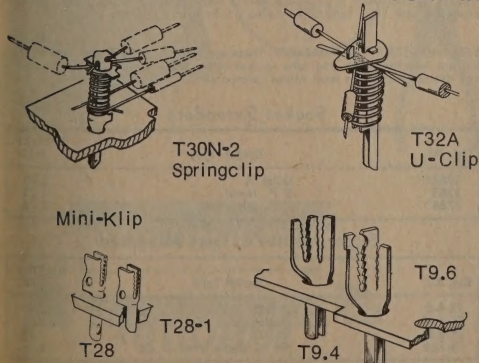
Micro-Vectorbord has been specially designed for the denser packaging required by cordwood construction and mounting micro-miniature components. All boards listed are 1/32" thick G-10 Epoxy Glass type GEE (Mil-P-18177) or copper clad G-10 Epoxy Glass type FL-GE (Mil-P-13949C). Other thicknesses available on order.

Cat. No.	Pat-tern	Hole Size	Dimension	No. of Holes	Price 1-19
59P19/032	P	.042"	6" x 2" x 1/32"	59 x 19	\$1.09
169P59/032	P	.042"	17" x 6" x 1/32"	169 x 59	4.82
29Q5/032	Q	.042"	6" x 1" x 1/32"	(29 x 9) x 2	.90
84Q29/032	Q	.042"	17" x 6" x 1/32"	(84 x 29) x 2	4.39
76M38/032	M	.025"	4" x 2" x 1/32"	76 x 38	1.52
336M76/032	M	.025"	17" x 4" x 1/32"	336 x 76	8.50
38K19/032	K	.025"	4" x 2" x 1/32"	(38 x 19) x 2	1.30
168K38/032	K	.025"	17" x 4" x 1/32"	(168 x 38) x 2	6.42

EPOXY GLASS COPPER CLAD ONE SIDE

Cat. No.	Pat-tern	Hole Size	Dimension	No. of Holes	Price 1-19
169P59/032C1	P	.042"	17" x 6" x 1/32"	169 x 59	6.61
336M76/032C1	M	.025"	17" x 4" x 1/32"	336 x 76	9.69

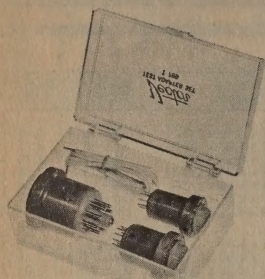
PUSH-IN TERMINALS



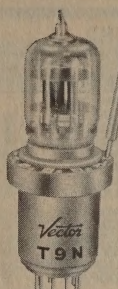
SOLDERLESS SPRINGCLIP TERMINALS—Reliable truly solderless terminals for fast setup of experimental circuitry. May be used over and over—permits reusing expensive components by eliminating heat damage. Extremely low contact resistance less than .002 ohms for T30-2. Order insertion tool P-92A for easy insertion in .093" holes. Suggested board thickness 3/32" for best support of terminal.

Cat. No.	Fits Holes	Description	Quan. Per Bag
T9.4	.093"	Brass, Tin Pltg.	100
T9.4A	.093"	Brass, Tin Pltg.	100
P122		Inserting tool for T9.4 & T9.4A	1
T9.6	.093"	Brass, Tin Pltg.	100
T28	.062"	Beryllium Copper, Tin Pltg.	100
T28S	.062"	Beryllium Copper silver Pltg.	100
T28-1	.062"	Beryllium Copper, Tin Pltg.	100
P91		Inserting tool for T28 series	1
T30-2	.093"	Brass, Silver Pltg.	10
T30-2	.093"	Brass, Silver Pltg.	100
T30N-2	.093"	Brass, Nickel Pltg.	10
T30N-2	.093"	Brass, Nickel Pltg.	100
P92A		Inserting tool for T30-2 series	1
T32A	.093"	Side Entry U-Clip (Solderless Springclip)	100

TUBE SOCKET TEST ADAPTERS



T-789



T9N

TUBE SOCKET TEST ADAPTERS are ideal for making voltage resistance and wave form measurements from the tube side of electronic equipment. To use, insert adapter between tube and socket, and replace tube in adapter socket. Special test tabs are recessed on the adapter skirt and have a hole to grip test probe and protect operator's fingers during insertion and withdrawal. Regular alligator test-clipped probes also hold on tab and socket. Castings are low loss phenolic and fit all shield bases for miniature and noval type or into standard tube clamps. Reduced body diameter permits insertion into new telescoping shields. Adapter socket contacts are beryllium copper, silver plated for long life and low resistance. Electrostatic capacity between adjacent leads of the adapter is approximately 1 micro-micro-farad. Flash over voltage between adjacent terminals is in excess of 1500 volts DC.

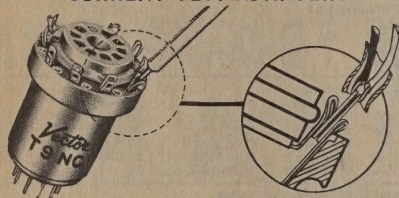
Kit T789 consists of the three popular "must have" sizes, 7-pin miniature 8-pin octal, 9-pin noval and a P1 probe in a handy clear plastic carrying case.

Ordering Information

Cat. No.	Tube Type	Body Dia.	Skirt Dia.	Length Less Prongs	Price 1-19
T-4	4 Pin	1.26	1.56	1.50	3.04
T-5	5 Pin	1.26	1.56	1.50	3.10
T-6	6 Pin	1.26	1.56	1.50	3.18
T-7-0	7 Pin Small	1.26	1.56	1.50	3.25
T-7-L	7 Pin Large	1.45	1.75	1.50	3.25
T-7-M	7 Pin Min.	0.75	1.03	1.50	1.65
T-8-0	8 Pin Octal	1.25	1.56	1.50	1.75
T-9-N	9 Pin Noval	0.87	1.16	1.50	1.85
T789	Set of types T-7-M, T-8-0, T-9-N, P1, in case.				5.90
P1	Plug-in Probe with 30" lead.				.52

Special Adapters Designed to Customer Specifications—Write Factory.

CURRENT TEST ADAPTERS



Versatile VECTOR CURRENT TEST ADAPTERS make possible tube circuit current or voltage measurements without cutting leads or making computations. All measurements may be made from the tube side of the electronic equipment without disturbing the chassis.

Cat. No.	Type	Net Price 1-19
T-7-M-C	7 Pin Min.	2.53
T-8-0-C	8 Pin Octal	3.19
T-9-N-C	9 Pin Noval	2.70
P-2	Dual Sided Plug-in Probe, Required for above	.83
T-789-C	Set of Above 3 Adapters With P-2 Probe in Case	9.74

EXTENDED TUBE SOCKET TEST ADAPTERS

For most work the short, unshielded adapters are adequate. For hard to reach locations or where surrounding equipment restricts use of regular test adapters, the 3 to 4 inch extended adapter may be used. In these the leads between plug and socket are individually shielded to minimize coupling. The shield is brought out to a lug on the wall of the adapter and should be connected to the chassis being tested. Capacity to shield is approx. 8 mmf. per lead.



T7MS

Ordering Information

Cat. No.	Tube Type	Body Dia.	Skirt Dia.	Length Less Prongs	Price 1-19
T-7-M-S	7 Pin Min.	0.75	1.03	3.25	5.91
T-8-0-S	8 Pin Octal	1.25	1.56	4.00	5.56
T-9-N-S	9 Pin Noval	0.87	1.16	3.25	6.60
P1	Plug-in Probe with 30" lead				.52
T-789-S	Set of above in case				19.00

SOCKET EXTENDERS EXPERIMENTER'S TEST ADAPTERS

Socket extenders provide a replaceable unit for use in tube testers and expensive meters. Wear is shifted from the socket in the tester to the one in the extender so that when it is worn out a new one can be easily inserted. Sockets have beryllium copper silver plated contacts for long life. An all molded outside shell is used with socket leads soldered to plug pins. All units provided with 1 3/4" long screw to hold unit firmly in place if desired.

EXPERIMENTER'S TEST ADAPTERS. These are similar to the Socket Test Adapter but are less the shells and tabs so that connections can be cross-connected in any desired way. User must solder connections.

Socket Extenders

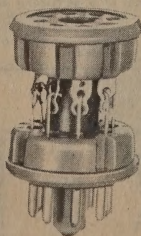
Cat. No.	Socket Type	Net Price 1-19
1262	Octal 8	1.75
1263	9 P. Noval	1.75
1264	7 P. Miniature	1.75

Experimenter's Test Adapters

Cat. No.	Socket Type	Net Price 1-19
TX-8-0	Octal	1.43
TX-7-M	Miniature	.88
TX-9-N	Noval	.94
TX-789	Set of above three in kit	3.58

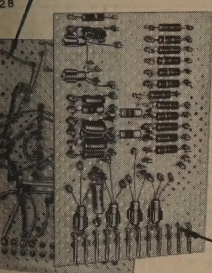


1262

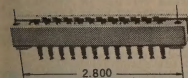


TX-8-0

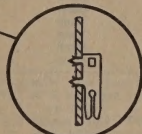
VECTOR PLUGBORDS



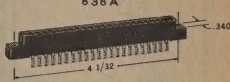
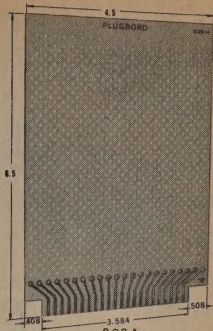
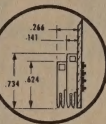
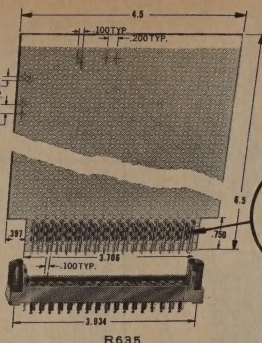
837 (WIRED)



B612-1



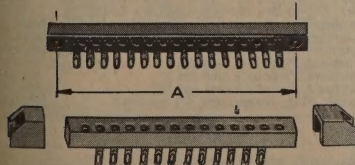
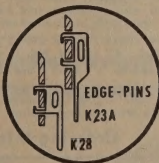
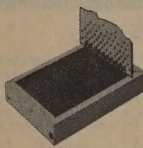
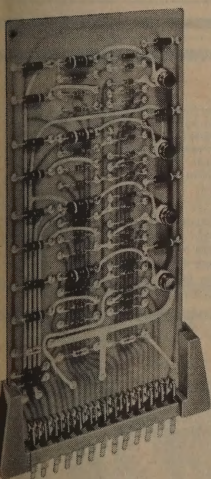
VARICON
CONTACT



Ordering Information

Cat. No.	Description	Net Price 1-13
812	4 1/4" x 6 1/2" Epoxy Paper, 16 Varicon Contacts	2.73
812WE	4 1/4" x 6 1/2" Epoxy Glass, 16 Varicon Contacts	3.22
R51-1	Receptacle for 812, 812WE	2.03
837	3" x 4 1/4" Epoxy Paper, 12 Varicon Contacts	2.14
837WE	3" x 4 1/4" Epoxy Glass, 12 Varicon Contacts	2.36
R612-1	Molded Receptacle for 837, 837WE	1.64
838	4 1/4" x 6 1/2" Epoxy Paper, 43 Etched Contacts, 2 Sides	3.46
838A	4 1/4" x 6 1/2" Epoxy Paper, 22 Etched Contacts, 1 Side	2.57
838AWE	4 1/4" x 6 1/2" Epoxy Glass, 22 Etched Contacts, 1 Side	3.19
838WE	4 1/4" x 6 1/2" Epoxy Glass, 43 Etched Contacts, 2 Sides	3.92
838PWE	4 1/4" x 6 1/2" Epoxy Glass, Etched Pads, 1 side	2.56
R635	Receptacle for 838 (fits all above etched boards)	3.65
848WE	4 1/4" x 6 1/4" Epoxy Glass, 35 Varicon Contacts	5.58
R645	Receptacle for 848WE	4.46

VECTORCONN CONNECTORS



VERSATILE NEW VECTORCONN CONNECTORS

(For .040" diameter round pins)
Contact Reliability • Large Variety of Sizes • Top, Bottom, or Side Mounting
Styles • Solder Tab or Printed Circuit Tab • Optional Card Guide Ends

VECTORCONNS employ wrap around contacts with outstanding reliability time proven in the tube socket industry. Receptacles accept available Vector Edgebord and Inbord pins or any .040" diameter round pins.

With a piece of "G" pattern Vectorbord and Edge Pins, user can quickly make any size plugbord required to fit various VECTORCONN Receptacles listed below.

MANY SIZES Standard off-the-shelf sizes are offered with .2" spaced contacts in single tiers of 4, 8, 12, 16, 20 or 41 contacts or double tiers (0.1" tier spacing) of contacts in blocks of 9, 17, 25, 33, or 41 contacts.

TAILOR-MAKE YOUR OWN Additional sizes with fewer contacts can be made from larger sizes by cutting off castings and installing end pieces.

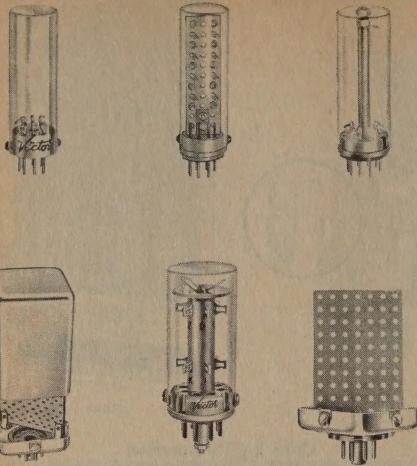
Receptacles can also be used as: Multiple test points on printed circuit boards. Front panel test points, in-out jacks, patch points.

Castings, end pieces and card guides are Diallyl Phthalate, glass filled per MIL-M-14 type SDG. Contacts are beryllium copper or phosphor bronze, nickel and gold plated.

Ordering Information

Cat No.	Description	A
	.296" Square Casting	
R112-S	12 Contact Single Row Solder Tab	2.742
R116-S	16 Contact Single Row Solder Tab	3.546
R217-S	17 Contact Double Row Solder Tab	1.942
R233-S	33 Contact Double Row Solder Tab	3.546
	.450 Square Casting	
RW120-S	20 Contact Single Row Solder Tab	
RW241-S	41 Contact Double Row Solder Tab	
	Accessories	
K-23A	Lower Row Edge Pin—Bags of 50	
K-28	Upper Row Edge Pin—Bags of 50	
P-93	Staking Pliers for K-23A, K-28	
B-61	End Brackets, Small for side mounting—Pkg. 10	
	and cut down VECTORCONNS—Pkg. 10	
B-60	Card Guide Brackets, Pkg. of 5 Pr.	

SMALL ROUND AND SQUARE PLUG-INS



C12-K1.02 (with 514) G2-10-T-1 C12-K1.02 (with 511)

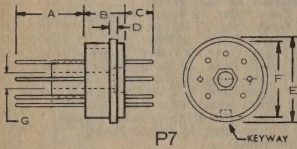
SMALL ROUND AND SQUARE PLUG-INS are ideal for packaging hand wired, printed, or solid state plug-in modules. Aluminum cases provide shielding and strength. Wide variety of internal structures eases circuit wiring. Plugs are standard tube base style with case sizes as follows:

"B" type 8-pin Octal 1.42" square; "C" type 8-pin Octal 2" square; G2, 8-pin Octal 1 1/4" diameter; G2.1 9 pin Noval; G2.2 7 pin miniature Plug Key in square Octal based units points toward case corner.

Catalog No.	Type of Socket	Internal Structure	Height	Net Price 1-49
B-8	None	None	2"	\$1.46
B-10	None	None	2 1/2"	1.30
B-10-N	7 p. Min.	Turret	2 1/2"	2.46
B-10-T	None	Turret	2 1/2"	1.90
B-10-4	None	Strip "A"	2 1/2"	2.19
C-10	None	None	2 1/2"	1.41
C-12	None	None	3"	1.44
C-12K1.02	None	None	3"	1.05
511*	None	None	3"	.69
514*	None	None	3"	.91
C-12-T	None	Turret	3"	2.11
C-12-4	None	Strip "A"	3"	3.14
G2-10	None	None	2 1/2"	1.16
G2-10-T-1	None	Wafer	2 1/2"	1.94
G2-10-4	None	Strip "D"	2 1/2"	2.24
G2-1-8F	None	None	2"	1.49
G2-1-8-4	None	Strip "E"	2"	2.09
G2-2-8F	None	None	2"	1.49
G2-2-8-4	None	Strip "E"	2"	2.07

NOTE: *Indicates wall w/mtg. brackets attached for use in C-12-K1.02. 511 has holes per strip A — .093 holes spc. .265". 514 has 1/16" holes per strip G — Alternate .10" grid. To fit JEDEC Transistor leads. Strip "D" has .093" holes spaced 0.2" x 0.25". "Wafer" is 1" diameter used on Transistor Turret 654. Strip "E" has 1/16" holes spaced .141".

TUBE BASE PLUGS



P7

KEYWAY

K1.434

VECTOR TUBE BASE PLUGS fit standard 7-pin miniature, 9-pin noval, and 14-pin relay sockets. Round metal cans may be attached with side screws in units with recessed 1/72" inserts in side with "KF" number. Plastic caps can also be apoxied in place. Plugs are mica-filled phenolic with phosphor bronze .040" diameter flared pins. All except K1.14 have center screw hole 1/8" and recessed cavity for small pattern hex nut on underside.

Ordering Information

Catalog No.	Type	DIMENSIONS							Net Price 1-49
P7	7 p. min.	17/32	.300	.265	1/16	.621	.575	.125	.47
P9	9 p. nov.	17/32	.300	.265	1/16	.748	.700	.125	.52
K1.402	(same as P9 except no center post)								.52
K1.334	7 Pin hooked		.300	.265	1/16	.621	.575	.125	.53
K1.434	9 Pin hooked		.300	.265	1/16	.748	.700	.125	.58
KR1.334	(same as K1.334 except with retaining ring)								.62
KR1.434	(same as K1.434 except with retaining ring)								.67
K1.14	14 pin	17/32	.300	.265	1/16	.750	.700		.63

PATCHBOARDS

All boards are marked front and back with horizontal rows lettered alphabetically and vertical columns numbered. Brackets for mounting are supplied. Holes for plugs are .093" diameter, spaced on .265" centers. Front panels are removable and may be changed if necessary. Larger contact systems can be made by mounting standard panels adjacent. Special sizes, special marking and screening in colors are made to order at minimum cost.

SPECIFICATIONS:

Panels: Black XXPP phenolic, Type PBE-P, Grade 810 per MIL-P 3115, .093" thick with printed white numbers and letters. PB1010-1 has epoxy paper, ivory color, .093" thick with black numbers and letters.

Contacts: Beryllium copper, nickel plated gold flashed, 2 holes for soldering on leads. Add letter "A" to Cat. No. if wire wrap tabs are desired.

Dimensions: All boards 1" thick. See Description column for width and length.

Patchcords: Plugs .087" — .091" diameter x .468" long, nickel plated with standard #20 gage wire vinyl insulation. 6" black, 9" yellow, 15" blue.

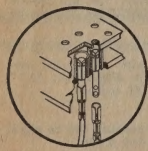
Ordering Information

Cat. No.	No. of Contacts	Hole Layout	Size	Net Price 1-49
PB33-2	9	3 x 3	1.130 x 1.130	\$ 2.95
PB110-2	10	10 x 1	2.985 x .600	3.25
PB210-2	20	20 x 2	2.985 x .865	4.25
PB510-2	50	10 x 5	2.985 x 1.660	6.45
PB1010-1	100	10 x 10	3.250 x 3.250	10.85
PB1010-2	100	10 x 10	2.985 x 2.985	10.85
PB1020-2	200	20 x 10	5.635 x 2.985	21.60
PB1520-2	300	20 x 15	5.635 x 4.310	32.35
*K2.06	Patchcord, single contact ea. end 6"	(25 per bdl.)		bdl/2.60
*K2.09	Patchcord, single contact ea. end 9"	(25 per bdl.)		bdl/2.68
*K2.15	Patchcord, single contact ea. end 15"	(25 per bdl.)		bdl/3.08
*K9.06	Patchcord, Piggy-back each end 6"			ea. .93
*K9.09	Patchcord, Piggy-back each end 9"			ea. .93
*K9.15	Patchcord, Piggy-back each end 15"			ea. .93
*K9.21	Jumper Plug, Jumper type (25 per bdl.)			bdl/2.95

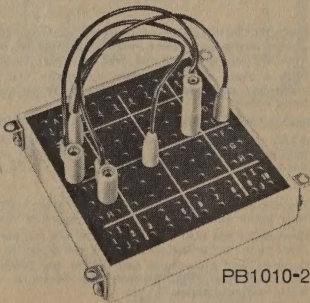
*Net any quantity

†Net price 1-999

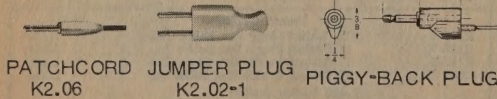
Removable Pre-Programming Patchboard and patchcords also available with 204, 300, 450, 600 and 1200 contacts. Write factory.



DETAIL



PB1010-2



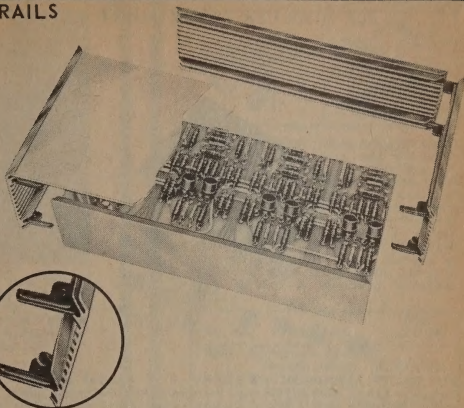
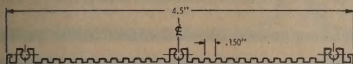
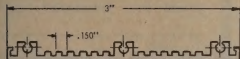
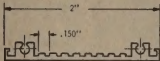
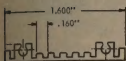
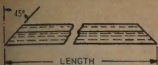
PATCHCORD JUMPER PLUG K2.06 K2.02-1

PIGGY-BACK PLUG

Vector Fixed Panel style Patchboards provide simple but reliable low-cost units for multiple connection, single conductor patching for test panels, automation and telemetry equipment, low cost computers, numerical control equipment, paging and speaker systems or other equipment where economy and connection multiplicity are desired.

Extremely low contact resistance (less than .001 ohms) and long contact life (over 2000 insertions per contact without resistance change) assures reliability.

FRAME-LOC RAILS



Make handsome, sleek aluminum cases for circuit boards in seconds with these new extruded aluminum rails. Each rail has extruded grooves running lengthwise so boards may be "stacked" if desired or shielded between with aluminum plates. Unique corner brackets and screws furnished with all mitred rails fasten corners together for chassis or complete boxes, or furnish your own covers. 24" unmilled pieces supplied for making required lengths.

FRAME-LOC CASE AND CHASSIS RAILS FOR 1/16" AND 3/32" BOARDS

Overall length /062 Series	1" Wide	1.6" Wide	2" Wide For 1/16" Boards	2" Wide For 3/32" Boards	3" Wide	4.5" Wide
24"	SR1-24/062 \$ 2.10	SR1.6-24/062 \$ 2.34	SR2-24/062 \$ 2.52	SR2-24/093(24") \$ 2.52	SR3-24/062 \$ 4.08	SR4.5-24/062 \$ 5.10
3.1" *Mitred	SR1-3.1/062 \$.90	SR1.6-3.1/062 \$.96	SR2-3.1/062 \$ 1.02	SR2-3 /093(3.1") \$ 1.02	SR3-3.1/062 \$ 1.20	SR4.5-3.1/062 \$ 1.32
4.6"	SR1-4.6/062 \$ 1.02	SR1.6-4.6/062 \$ 1.08	SR2-4.6/062 \$ 1.14	SR2-4.8/093(4.8") \$ 1.14	SR3-4.6/062 \$ 1.38	SR4.5-4.6/062 \$ 1.62
6.6"	SR1-6.6/062 \$ 1.14	SR1.6-6.6/062 \$ 1.20	SR2-6.6/062 \$ 1.26	SR2-6.6/093(6.5") \$ 1.26 SR2-8.5/093(8.5") \$ 1.38	SR3-6.6/062 \$ 1.68	SR4.5-6.6/062 \$ 1.98
10.0"	SR1-10/062 \$ 1.38	SR1.6-10/062 \$ 1.44	SR2-10/062 \$ 1.50	SR2-10/093(10") \$ 1.50	SR3-10/062 \$ 2.16	SR4.5-10/062 \$ 2.64
14.0"	SR1-14/062 \$ 1.50	SR1.6-14/062 \$ 1.68	SR2-14/062 \$ 1.80	SR2-14/093(13.9") \$ 1.80 SR2-17/093(17") \$ 2.10	SR3-14/062 \$ 2.64	SR4.5-14/062 \$ 3.74

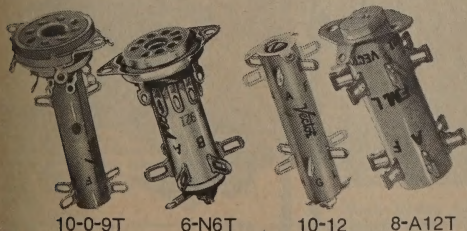
* 24" Lengths supplied square cut and no fasteners — all other mitred with corner brackets and screws.

Prices are per pair 1-49.

COVER PLATES (.064" Thick Aluminum)

Catalog No.	Length	Width	Price Each	Catalog No.	Length	Width	Price Each
PL2746	4.5	2.750	\$.96	PL4597	9.7	4.500	2.32
PL4546	4.5	4.500	1.22	PL8097	9.7	8.000	3.28
PL8046	4.5	8.000	1.97	PL27140	14.0	2.750	1.76
PL2766	6.5	2.750	1.13	PL45140	14.0	4.500	2.81
PL4566	6.5	4.500	1.51	PL80140	14.0	8.000	4.37
PL8066	6.5	8.000	2.48	PL4.8/17	17.0	4.800	1.28
PL4.8/8.5	8.5	4.8	.76	PL8.5/17	17.0	4.800	1.96
PL2797	9.7	2.750	1.39				

POST SOCKET TURRETS



Vector Socket, Terminal and Transistor Turrets simplify electronic construction. Faster wiring, greater component density and higher reliability are assured by their use. Transistor sockets accommodate 3-in-line or "top-hat" transistors. Commercial types have mica filled sockets, hot tin dipped steel saddles and XXXP phenolic turret posts with brass tinned terminals. Military types (premium grade) have MIL sockets with beryllium copper silver plated socket contacts, brass nickel plated hot tin dipped saddles and glass silicone turret posts with tinned brass terminals.

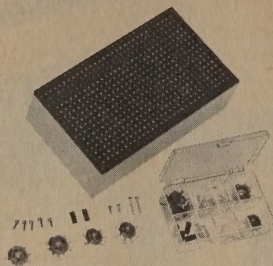
Catalog Numbers	Comm. Types	Military Types	Turret Details	Height	No. of Term.	No. of Rings	Space Between Rings	Net Price Comm. Type 1-49
OCTAL SOCKET TURRETS								
*8-0-9T	681	2"	9	2	1"			\$.65
*10-0-9T	683	2 1/2"	9	2	1 1/2"			.69
7-PIN SOCKET TURRETS								
*6-M-6T	687	1 1/2"	6	1	—			.69
*8-M-9T	688	2"	9	2	1"			.76
9-PIN SOCKET TURRETS								
*6-N-6T	693	1 1/2"	6	1	—			.69
*8-N-9T	694	2"	9	2	1"			.76
TERMINAL TURRETS								
8-12	677	1-27/32"	12	2	1"			.58
10-12		2"	12	2	1 1/2"			.62
TRANSISTOR TURRETS								
8-A-12T	678	2-11/32"	12	2	1 1/2"			1.19

Note: Tolerance on dimensions 1/16"

*Indicates preferred types.

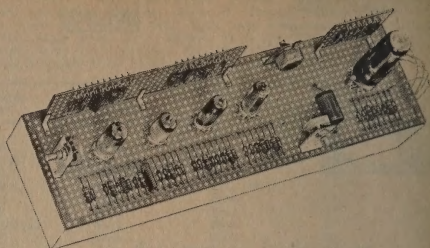
Longer or shorter types and other terminal configuration to order.

20X STARTER ASSORTMENT



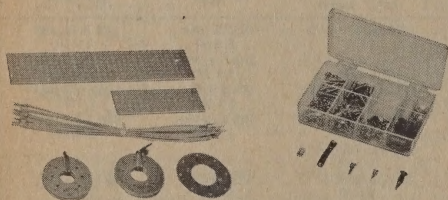
20X STARTER ASSORTMENT—4.8 x 8½ x 2" extruded aluminum Frame-Loc Chassis with 3/32" thick Vectorbord deck plus many other parts including: 3 each 7 and 9 pin tube sockets and 2 octal sockets with mounting hardware, 75 patented T9.4 Zip Push-In Terminals, 20 new T30N-2 Solderless Springclip with hand insertion tool, 3 sheets layout paper, 54 assorted screws, nuts, spacers. Ideal for beginners or simple circuits. \$6.75

21X BASIC MODEL KIT

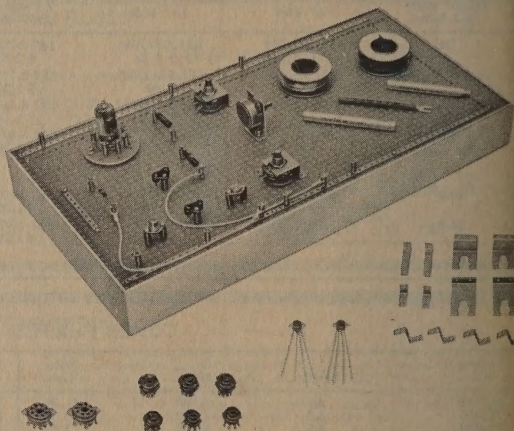


21X KIT BASIC MODEL FOR LABS—Large 4.8" x 17" x 2" new extruded aluminum Frame-Loc Rail chassis with 3/32" Vectorbord deck. Besides main deck, includes 2 extra Vectorbord pieces, more terminals and sockets. Detailed contents follow: 6 Transistor sockets include 2 power and 4 universal type; 3 each 7 and 9 pin sockets and 2 octal, 100 "Zip" Push-In Terminals, 50 solderless Springclips, 8 hookup patchcords, bus strip, terminal installing tools, grid layout paper, 4 pot and switch brackets, bare and insulated hookup wires, assorted screws, nuts, brackets, spacers. \$16.75

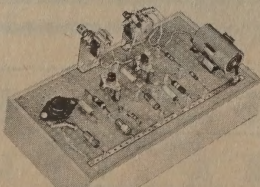
25X SOLDERLESS TUBE AND TRANSISTOR EXPERIMENTER'S CHASSIS KIT



25X SOLDERLESS TUBE AND TRANSISTOR EXPERIMENTER'S CHASSIS KIT—\$11.45 Dual type solderless kit with full complement of tube and transistor sockets. Belongs in every electronics lab. Differs from other Vector kits because it includes large number of Solderless U-Clip terminals and special solderless connectors for pots and switches, plus more of all other components. Detail of contents: 8½" x 17" x 2" Extruded Aluminum chassis frame with 3/32" Vectorbord deck, 2 power and 6 universal transistor sockets with pigtails, 3 each 7 and 9 pin tube sockets, 2 8 pin octal, 104 Zip Push-In Terminals, 90 Solderless Springclip terminals, 10 Solderless U-Clips, 10 hookup patchcords, bus strip, 8 wafers to make solderless sockets, terminal installing tools, bare and insulated wire, grid layout paper, 4 pot and switch brackets, 204 assorted screws, nuts, brackets.



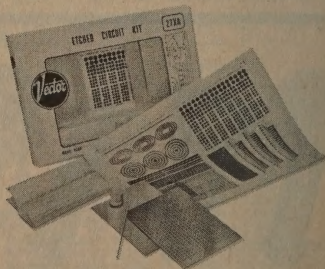
22X, 22XA TRANSISTOR CIRCUITRY KIT



22X KIT FOR TRANSISTOR CIRCUITRY—Special parts assortment for transistor circuitry. 4.8" x 8½" x 2" extruded aluminum Frame-Loc Chassis rail with 3/32" Vectorbord deck. Transistor sockets include 2 power type, 6 universal type, 75 Zip Push-In Terminals, 20 Solderless Springclip terminals, 6 hookup patchcords, bus strip, terminal installing tools, bare and insulated hookup wire, 4 pot and switch brackets, 134 assorted screws, nuts, spacers, brackets. \$11.50

22XA—\$21.00 (Not illustrated)—Larger professional sized version of 22X above. Chassis extruded Aluminum Frame-Loc type 17" x 8½" x 2" with Vectorbord deck. Includes 2 power transistor sockets, 6 universal type transistor sockets with pig tail leads, 124 Zip Push-In Terminals, 100 Solderless Springclips, 18 Solderless U-Clips, 14 hookup patchcords, bus strip, terminal installing tools, bare and insulated wire, layout paper, 4 pot and switch brackets, 160 assorted brackets, screws, nuts.

27XA ETCHED CIRCUIT KIT



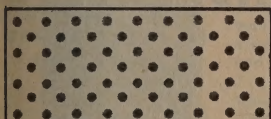
27XA ETCHED CIRCUIT KIT—\$6.50

LOW COST—FAST—HAS EVERYTHING EXCEPT HOT WATER. Specially designed for lab use in making uncomplicated etched circuits. Kit built around Vectoresist, Vector's rub-on resist transfer sheet. Resist lines, dots, or connector pattern transfer by rubbing to furnished 2 oz. copper clad prepunched boards in minutes. Then etch in etchant furnished in heavy plastic bag with special activator in as little as 30 minutes. Kit includes 2 copper clad boards, 4½" x 6½", 2 centers, 2 bags of etchant, 8½" x 11" sheet rub-on Vectoresist, layout paper, complete instructions. See Kit Accessories page for Vectoresist details.

VECTOR "NUMLET"	CAT. NO. R393A-1
AAAAAA	123456 32
BBBBBB	12 32
EE	33 34 35 64
FF	33 64
YY	97 128
ZZZZZZ	97 128

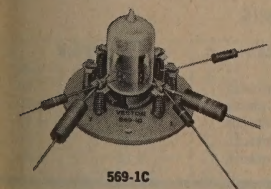
COMBINATION RESIST AND DISPLAY TYPE
Semi transparent 10" x 15" sheets of 3/32" high letters and numbers spaced .265" intervals A through Z, AA to FF, 1-128 with duplicate lines of lower numbers and beginning letters. May be used on copper clad boards for resist in etching or for display use on prepunched Vectorbord with .265" spaced holes. Figures are "sharp" and transfer readily when sheet rubbed with ball pen or soft pencil. New white ink sheets can be used to specially label Vector Fixed Panel Patchboards with black surface.

Cat. No.	Description	Price per Sheet
R393A-1	Letters and numbers, black ink	
R393A-2	Letters and etch use	\$2.00
	Display and etch use	2.00



Light weight tracing paper overprinted with dots corresponding to hole layout of prepunched Vectorbord. Dots "wash out" in copying machine leaving circuit in relief. Saves time in circuit and component layout on pre-punched Vectorbord.

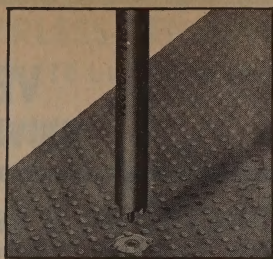
Cat. No.	Description	Price per Pad
R173G	Pad 50 sheets 8 1/2" x 11" "G" pattern	\$1.45
R173F	Pad 50 sheets 8 1/2" x 11" "F" pattern	2.00
R173A	Pad 50 sheets 8 1/2" x 11" "A" pattern	1.45
R173A-1	Pad 50 sheets 8 1/2" x 11" "A" pattern	2.50
R173H	Pad 50 sheets 8 1/2" x 11" "H" pattern	2.67



569-1C

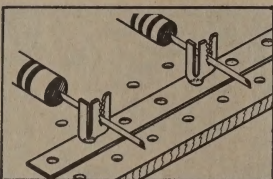
SOLDERLESS SOCKETS save experimental time. Multiple connections can be made to any pin by connecting wires to corresponding **SOLDERLESS SPRINGCLIP TERMINAL** which is permanently connected to socket contact. Tube socket types mount on Vectorbord with furnished hardware; 570B press fits.

Cat. No.	Description	Price
567-1C	Solderless Octal Socket	\$1.50
568-1C	Solderless Noval (9 pin) Socket	1.65
569-1C	Solderless Miniature (7 pin) Socket	1.35
570B	Solderless Universal Transistor Socket	1.20



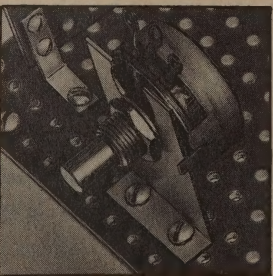
Use for isolating terminals from rest of copper cladding. Pilot pin fits .062 holes. Tool cuts ring of 3/16" or 1/4" diameter and leaves center copper "donut" around hole to provide solder tie for terminal. Tool shank fits any hand or machine drill chuck accepting 3/16" or 1/4" drill.

Cat. No.	Description	Price
P 116	Pad cutter tool cuts 3/4" ring	\$1.85
P 116A	Pad cutter tool cuts 3/16" ring	1.98



Prepunched narrow brass finned strip mounts to prepunched boards with Zip Push-In terminals or screws. Make connections wherever required quickly. New T104 type has .2" spaced holes for convenient mounting on "E", "F", "G", or "H" pattern prepunched Vectorbord.

Cat. No.	Description	Price
T57	16" long. .093" holes spaced .265"	\$1.10/Pkg. 10
T58	8" long. .093" holes spaced .265"	.70/Pkg. 10
T104	17" long. .062" holes spaced .2"	1.10/Pkg. 10



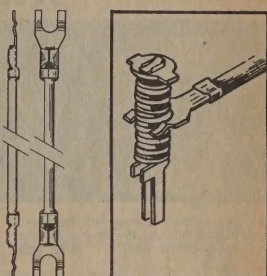
Handy brackets punched to accept 1/8" or 1/2" diameter shafts provide easy convenient mounts for "pots" or switches in vertical or horizontal position on prepunched chassis. Attach with screws through two 1/8" diameter holes spaced .265" in base.

Cat. No.	Description	Price
B-20	Vertical Mount	\$.58/Pkg. 4
B-20A	Horizontal Mount	.46/Pkg. 4



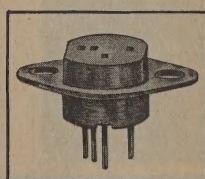
RUB-ON RESIST for making prototype etched circuits. Eliminates messy tape and eliminates undercutting at circuit junctions. Resist ink is printed on semitransparent film sheets 10" x 15" and transfers onto copper clad board when back is rubbed with ball point pen. Available in multipurpose printed sheets with assortment of various width lines, pads, circles and 43 contact connector with .156" spaced contacts or specialized sheets shown below. Works in ferric chloride or ammonium persulfate etchant.

Cat. No.	Description	Price per Sheet
R322	All purpose sheet with connect. pattern	\$2.00/sheet
R405	Sheet of assorted straight lines 1/64" to 1/4" wide	2.00/sheet
R406	Transistor Pad patterns, 3/32" and 1/4" pads	2.00/sheet



INTERCONNECTION BETWEEN SPRINGCLIP TERMINALS QUICK, EASY. Corrugated spade lug slips between spring coils of T30N Springclip or T32 U-Clip for fast interconnections. Vinyl insulated 20 gage wire, plated brass lugs.

Cat. No.	Description	Price
K6.06	6" Overall Lug as. end	\$3.00/25
K6.09	9" Overall Lug as. end	3.00/25
K6.15	15" Overall Lug as. end	3.00/25



RA4.5

Mica-clad phenolic coatings with beryllium copper silver plated contacts. Extra long socket tabs provide easy connection. Contact arrangement accepts 3 in-line or JEDEC based configuration with leads on .2 circle. Model RA4.51 has 4" pigtail leads attached to each contact for direct connection to terminals.

Cat. No.	Description	Price
RA4	Like RA4.5 except no saddle	\$.27
RA4.5	Dual type transistor socket with saddle	.25
RA4.51	Same as RA4.51 with 4" contact leads	.39



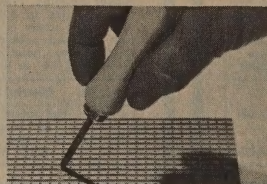
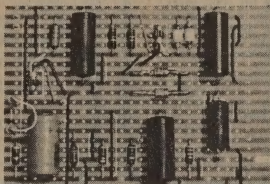
ELECTRONICS INC

VEROBOARD VEROBOARD KITS UNIVERSAL WIRING BOARDS

BUILD ANY CIRCUIT IN 2 EASY STEPS NO ETCHING—NO WIRES—NO TERMINALS

STEP NO. 1

Lay out components on the back (plain) side of the Veroboard across the copper strips inserting leads into appropriate holes. You have now connected your components as required using the copper strips as your interconnectors. Leads may be soldered directly to the strips using a light, printed circuit type iron. Careful soldering will enable you to remove components and replace them if required.



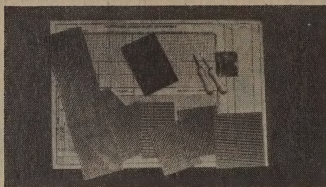
STEP NO. 2

Break the circuit where required by breaking the copper strips with the Vero spot-face cutter provided in your kit. The cutter is a precision hardened steel tool which has a pin that fits into any hole, and cutting edges. Simply turn the cutter several times and the copper strip in the area of the chosen hole will be removed. Your circuit is now complete.

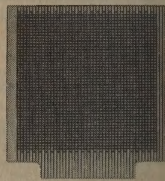
WITH THESE VEROBOARD KITS



Model BK-6 contains 6 assorted Veroboard universal wiring boards, the Vero spot face cutter and instruction sheet. **Price \$35**



Model BK-7 contains 8 assorted Veroboards up to 18" long, plain Veroboard with staggered grid, spot face cutter, terminal pin insertion tool, 500 terminal pins, reproducible design sheet and instructions. **Price \$295**



Model MC-9 Micro-circuit Veroboard consists of two plug-in boards, single and double sided 2.95" x 2.65" with 30 gold plated contacts as well as two fully pierced 6"x6" single and double sided and one plain board 6"x6" make up the introductory pak together with the spot face cutter. **Price \$225**

FULLY PIERCED VEROBOARD XXXP

PART	SIZE	MATRIX	PRICE		PART	SIZE	MATRIX	PRICE	
			1-5	6-25				1-5	6-25
No. 3	4.8x5.8	.2x.2	1.75	1.55	No. 91	3.59x17	.156x.1	4.05	3.55
No. 20	3x4.5	.2x.1	1.75	1.55	No. 103	4.7x6.4	.156x.1	2.55	2.25
No. 21	3x8	.2x.1	2.90	2.55	No. 6-2	2.5x4	.156x.1	.60	.52
No. 25	4.5x6.5	.2x.1	2.65	2.25	No. 6-3	2.5x5.9	.156x.1	.80	.70
No. 6-1	3.3x3.5	.2x.2	.75	.66	No. 6-4	2.5x6.9	.156x.1	.95	.85
					No. 125	4.7x5.9	.1x.1	2.50	2.20

PLUG-IN VEROBOARD XXXP

PART	SIZE	MATRIX	CONTACTS	PRICE	
				1-5	6-25
No. 205	5x5.8	.2x2	24 gold contacts	4.00	3.50
No. 282	3.59x5.1	.156x.1	22 gold contacts	3.70	3.25
No. 292	4.7x7.85	.156x.1	22 gold contacts	4.85	4.25
No. 305	4.3x5.1	1x.1	18 gold contacts	3.25	2.85
No. 310	5x7.85	1x.1	32 gold contacts	5.15	4.50

VERO PAD BOARDS XXXP

	PART	SIZE	MATRIX	CONTACTS	PRICE	
					1-5	6-25
Fully Pierced	No. 120	4.7x6.4	.156x.1		2.75	2.40
	No. 121	7.05x8.3	.156x.1		5.00	4.35
	No. 320	4.7x7.85	.156x.1	22 gold contacts	5.15	4.45
Plug-In	No. 321	7.05x7.85	.156x.1	36 gold contacts	6.60	5.50

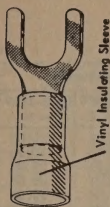
SPOT FACE CUTTERS

No. 2020 for .2 and .156 Veroboard with .052 holes— 1.50

No. 2021 for .1 Veroboard with .040 holes— 2

WALDOM**SOLDERLESS TERMINALS AND CONNECTORS****COMPLETE LINE...IN STOCK FOR IMMEDIATE DELIVERY****KRIMP TITE®**

non-insulated electroplated copper terminal. One-piece construction for maximum strength and conductivity.

**INSULKRIMP®**

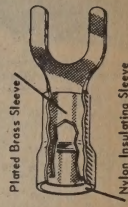
All advanced features of KrimpTite, plus permanently attached rigid vinyl plastic insulating sleeve for increased vibration resistance.

**VERSAKRIMP®**

Advantageous features of KrimpTite plus the higher tensile strength afforded by BRAZED BARREL construction.

**VIBRAKRIMP®**

Particularly suitable where high vibration is a factor. KrimpTite construction plus seamless annealed electro-tin plated brass sleeve.

**AVIKRIMP®**

All VIBRAKRIMP features, tin-plated brass sleeve plus permanently attached overlapping nylon insulating sleeve.

Plated terminals color coded: 22-18 Red, 16-14 Blue, 12-10 Yellow, 8 Red, 6 Blue

BASIC TERMINAL CONSTRUCTION DETAILS

Material: Annealed electrolytic copper, electro-tin finish. Modern one-piece design for maximum strength and conductivity. With strength gusset, open end rapid inspection, beveled edge to facilitate wire insertion. Circumferential serrations for maximum contact area and grip. Full 1/4 inch barrel length, wide crimping area, easy location.

Wire ranges 22-18, .032 stock. Wire Ranges 12-10, .040 stock. Terminals 16-14 and 12-10 wire ranges. Are available with 5/32" barrel by adding "S" to front of part desired. Listed by Underwriter Labs., Inc.

FOR CRITICAL APPLICATIONS - VERSAKRIMP® AND AVIKRIMP® TERMINALS**SPADE TONGUE TERMINALS (FIG. A)**

Basic Dimensions				Versakrimp®					Avikrimp®				
Wire Size	Stud Width	Stud Clearance	Length	Part No.	100-999 Per C	1000-4999 Per M	5000 Up Per M	Length	Part No.	100-999 Per C	1000-4999 Per M	5000 Up Per M	Length
18-6	5/64"	7/32"	5/8"	B-3118	3.18	25.44	19.08	13/16"	N-5118	6.55	53.19	39.91	13/16"
18-10	5/16"	5/16"	3/4"	B-3032	3.18	25.44	19.08	15/16"	N-5032	6.55	53.19	39.91	15/16"
18-14	5/8"	7/32"	5/8"	B-3123	3.18	25.44	19.08	13/16"	SN-5123	6.55	53.19	39.91	13/16"
14-14	23/64"	9/32"	3/4"	B-3016	3.18	25.44	19.08	15/16"	SN-5016	6.55	53.19	39.91	15/16"

FLANGED SPADE TERMINALS (FIG. B)

18-6	5/64"	7/32"	5/8"	B-3080	3.18	25.44	19.08	13/16"	N-5080	6.55	53.19	39.91	13/16"
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RING TONGUE TERMINALS (FIG. C)

18-12	7/32"	5/32"	33/64"	B-3099	3.18	25.44	19.08	45/64"	N-5099	6.55	53.19	39.91	45/64"
18-14	7/32"	5/32"	33/64"	B-3047	3.18	25.44	19.08	45/64"	N-5047	6.55	53.19	39.91	45/64"
18-16	7/32"	5/32"	33/64"	B-3001	3.18	25.44	19.08	45/64"	N-5001	6.55	53.19	39.91	45/64"
18-8	9/32"	1/4"	41/64"	B-3097	3.18	25.44	19.08	53/64"	N-5097	6.55	53.19	39.91	53/64"
18-10	9/32"	1/4"	41/64"	B-3098	3.18	25.44	19.08	53/64"	N-5098	6.55	53.19	39.91	53/64"
18-14	15/32"	.400"	57/64"	B-3004	4.43	35.59	26.68	1-5/64"	N-5004	8.20	65.61	49.22	1-5/64"
14-14	11/32"	5/16"	47/64"	B-3095	3.18	25.44	19.08	59/64"	N-5095	6.55	53.19	39.91	59/64"
14-16	1/4"	7/32"	19/32"	B-3006	3.18	25.44	19.08	45/64"	SN-5006	6.55	53.19	39.91	45/64"
14-10	5/16"	9/32"	45/64"	B-3008	3.18	25.44	19.08	13/16"	SN-5008	6.55	53.19	39.91	13/16"
14-14	1/4"	.400"	57/64"	B-3009	4.43	35.59	26.68	1-3/64"	N-5009	8.20	65.61	49.22	1-3/64"
10-10	3/8"	5/16"	59/64"	B-3011	4.43	35.59	26.68	1-3/64"	N-5011	8.20	65.61	49.22	1-3/64"
10-12	17/32"	13/32"	61/64"	B-3202	6.99	61.41	52.64	1-7/32"	N-5100	8.38	66.99	50.26	1-7/32"
14-14	15/32"	11/32"	61/64"	B-3203	6.99	61.41	52.64						
3/8-18	19/32"	13/32"	1-5/64"	B-3208	9.33	81.63	69.97						
10-10	5/8"	1/2"	1-1/4"	B-3228	10.81	94.58	81.07						
1/4-8	5/8"	1/2"	1-1/4"	B-3229	10.81	94.58	81.07						
3/8-10	5/8"	1/2"	1-1/4"	B-3231	10.81	94.58	81.07						
10-10	21/32"	1/2"	1-5/16"	B-3251	15.50	135.64	116.27	22-16	S-1165	2.05	14.77	11.54	22-16
1/4-14	21/32"	1/2"	1-5/16"	B-3252	15.50	135.64	116.27	22-16	S-1167	2.05	14.77	11.54	22-16
3/8-14	21/32"	1/2"	1-5/16"	B-3254	15.50	135.64	116.27	22-16	S-1168	2.05	14.77	11.54	22-16
1/4-14	5/8"	43/64"	1-17/32"	B-3281	20.76	181.69	155.74	16-14	S-1172	2.26	16.25	12.76	16-14
1/4-14	13/16"	5/8"	1-59/64"	B-3307	25.81	226.77	194.37	16-14	S-1173	2.26	16.25	12.76	16-14
1/4-14	29/32"	5/8"	1-15/16"	B-3322	32.92	289.24	247.92	12-10	S-1177	3.01	21.67	17.01	12-10

HIGH TEMPERATURE TERMINALS - RING TONGUE (FIG. D)

Wire Range	Stud Size	Part No.	100-999 Per C	1000-4999 Per M	5000 Up Per M
22-16	5-6	S-1165	2.05	14.77	11.54
22-16	8	S-1167	2.05	14.77	11.54
22-16	10	S-1168	2.05	14.77	11.54
16-14	5-6	S-1170	2.26	16.25	12.76
16-14	8	S-1172	2.26	16.25	12.76
16-14	10	S-1173	2.26	16.25	12.76
12-10	10	S-1177	3.01	21.67	17.01

MS TERMINALS AVAILABLE FROM STOCK FOR IMMEDIATE DELIVERY

Only a partial listing of more than 2000 items in the WALDOM line of solderless terminals and connectors. Includes many more sizes and types, including Heavy Duty, Flared Insulation, Military Types, Terminal Block Terminals, Flag Terminals, insulation sleeve and many more. Write for WALDOM CATALOG #6F5.

WALDOM**KRIMPTITE® AND INSULKRIMP® TERMINALS****SPADE TONGUE TERMINALS (FIG. A)**

Basic Dimensions				Krimptite®					Insulkrimp®				
Wire Range	Stud Size	Width	Stud Clearance	Length	Part No.	100-999 Per C	1000-4999 Per M	5000 Up Per M	Length	Part No.	100-999 Per C	1000-4999 Per M	5000 Up Per M
22-18	3-4	1/4"	7/32"	5/8"	S-1116	1.96	14.12	11.03	13/16"	T-2116	4.06	30.05	23.48
22-18	5-6	1/4"	7/32"	5/8"	S-1118	1.96	14.12	11.03	13/16"	T-2118	4.06	30.05	23.48
22-18	5-6	19/64"	7/32"	5/8"	S-1014	1.96	14.12	11.03	13/16"	T-2014	4.06	30.05	23.48
22-18	5-6	5/16"	5/16"	3/4"	S-1029	1.96	14.12	11.03	15/16"	T-2029	4.06	30.05	23.48
22-18	8	19/64"	7/32"	5/8"	S-1030	1.96	14.12	11.03	13/16"	T-2030	4.06	30.05	23.48
22-18	8	5/16"	5/16"	3/4"	S-1031	1.96	14.12	11.03	15/16"	T-2031	4.06	30.05	23.48
22-18	10	5/16"	5/16"	3/4"	S-1032	1.96	14.12	11.03	15/16"	T-2032	4.06	30.05	23.48
16-14	5-6	19/64"	7/32"	5/8"	S-1015*	2.05	14.77	11.54	13/16"	T-2015	4.06	30.05	23.48
16-14	8	19/64"	7/32"	5/8"	S-1033	2.05	14.77	11.54	13/16"	T-2033	4.06	30.05	23.48
16-14	10	23/64"	9/32"	3/4"	S-1016*	2.05	14.77	11.54	15/16"	T-2016*	4.06	30.05	23.48
12-10	10	3/8"	5/16"	25/32"	S-1017	2.85	20.52	16.03	1-3/32"	T-2017	5.26	38.93	30.41

HOOK TONGUE TERMINALS (FIG. B)

22-18	5-6	5/16"	5/16"	23/32"	S-1018*	1.96	14.12	11.03	29/32"	T-2018	4.06	30.05	23.48
16-14	5-6	23/64"	9/32"	23/32"	S-1038	2.05	14.77	11.54	29/32"	T-2038	4.06	30.05	23.48

FLANGED SPADE TERMINALS (FIG. C)

22-18	5-6	19/64"	7/32"	5/8"	S-1080*	1.96	14.12	11.03	13/16"	T-2080†	4.06	30.05	23.48
22-18	8	19/64"	7/32"	5/8"	S-1081*	1.96	14.12	11.03	13/16"	T-2081†	4.06	30.05	23.48
22-18	10	3/8"	1/4"	23/32"	S-1582	1.96	14.12	11.03	29/32"	T-2582	4.06	30.05	23.48
16-14	5-6	19/64"	7/32"	5/8"	S-1083	2.05	14.77	11.54	13/16"	T-2083	4.06	30.05	23.48
16-14	8	19/64"	7/32"	5/8"	S-1084	2.05	14.77	11.54	13/16"	T-2084	4.06	30.05	23.48
16-14	10	3/8"	1/4"	23/32"	S-1585	2.05	14.77	11.54	29/32"	T-2585	4.06	30.05	23.48
12-10	10	3/8"	5/16"	3/4"	S-1088	2.85	20.52	16.03	1-1/16"	T-2088	5.26	38.93	30.41

RING TONGUE TERMINALS (FIG. D)

22-18	1-2	7/32"	5/32"	33/64"	S-1099	1.96	14.12	11.03	45/64"	T-2099	4.06	30.05	23.48
22-18	3-4	7/32"	5/32"	33/64"	S-1047	1.96	14.12	11.03	45/64"	T-2047	4.06	30.05	23.48
22-18	5-6	7/32"	5/32"	33/64"	S-1001	1.96	14.12	11.03	45/64"	T-2001	4.06	30.05	23.48
22-18	5-6	9/32"	1/4"	41/64"	S-1002*	1.96	14.12	11.03	53/64"	T-2002†	4.06	30.05	23.48
22-18	8	9/32"	1/4"	41/64"	S-1097	1.96	14.12	11.03	53/64"	T-2097	4.06	30.05	23.48
22-18	8	5/16"	5/16"	23/32"	S-1021	1.96	14.12	11.03	29/32"	T-2021	4.06	30.05	23.48
22-18	10	9/32"	1/4"	41/64"	S-1098	1.96	14.12	11.03	53/64"	T-2098	4.06	30.05	23.48
22-18	10	5/16"	5/16"	23/32"	S-1003*	1.96	14.12	11.03	29/32"	T-2003†	4.06	30.05	23.48
22-18	1/4	15/32"	.400"	57/64"	S-1004	2.69	19.36	15.13	1-5/64"	T-2004	5.26	38.93	30.41
22-18	5/16	15/32"	.400"	57/64"	S-1005	2.69	19.36	15.13	1-5/64"	T-2005	5.26	38.93	30.41
22-18	3/8	9/16"	9/16"	17/64"	S-1143	3.54	25.49	19.91	1-19/64"	T-2143	5.26	38.93	30.41
16-14	3-4	1/4"	7/32"	19/32"	S-1048	2.05	14.77	11.54	25/32"	T-2048	4.06	30.05	23.48
16-14	3-4	11/32"	5/16"	47/64"	S-1095	2.05	14.77	11.54	59/64"	T-2095	4.06	30.05	23.48
16-14	5-6	1/4"	7/32"	19/32"	S-1006*	2.05	14.77	11.54	25/32"	T-2006†	4.06	30.05	23.48
16-14	5-6	5/16"	9/32"	45/64"	S-1007	2.05	14.77	11.54	57/64"	T-2007	4.06	30.05	23.48
16-14	8	5/16"	9/32"	45/64"	S-1024	2.05	14.77	11.54	57/64"	T-2024	4.06	30.05	23.48
16-14	10	5/16"	9/32"	45/64"	S-1008*	2.05	14.77	11.54	57/64"	T-2008†	4.06	30.05	23.48
16-14	1/4	15/32"	.400"	57/64"	S-1009	2.69	19.36	15.13	1-5/64"	T-2009	5.26	38.93	30.41
16-14	5/16	15/32"	.400"	57/64"	S-1041	2.69	19.36	15.13	1-5/64"	T-2041	5.26	38.93	30.41
16-14	3/8	9/16"	9/16"	17/64"	S-1147	3.54	25.49	19.91	1-19/64"	T-2147	5.26	38.93	30.41
12-10	5-6	3/8"	5/16"	3/4"	S-1049	2.85	20.52	16.03	1-1/16"	T-2049	5.26	38.93	30.41
12-10	8	3/8"	5/16"	3/4"	S-1050	2.85	20.52	16.03	1-1/16"	T-2050	5.26	38.93	30.41
12-10	10	3/8"	5/16"	3/4"	S-1011*	2.85	20.52	16.03	1-1/16"	T-2011†	5.26	38.93	30.41
12-10	1/4	17/32"	13/32"	59/64"	S-1100	3.76	27.08	21.15	1-15/64"	T-2100	5.57	41.22	32.20
12-10	5/16	17/32"	13/32"	59/64"	S-1101	3.76	27.08	21.15	1-15/64"	T-2101	5.57	41.22	32.20
12-10	3/8	11/32"	31/64"	1-1/32"	S-1013	4.14	29.81	23.29	1-11/32"	T-2013	6.19	45.81	35.79

QUICK DISCONNECTS - PUSH-ON TYPE (FIG. E & F)

18-14	Male .250"	21/32	S-1089*	2.25	16.21	12.66	27/32	T-2089†	4.36	32.28	25.21
18-14	Female .250"	41/64	SS-1090*	2.25	16.21	12.66	27/32	ST-2090†	4.36	32.28	25.21
18-14	Female .187"	17/32	SS-1187	2.25	16.21	12.66	47/64	ST-2187	4.36	32.28	25.21
18-14	Female .110-.125"	29/64	SS-1186	2.25	16.21	12.66	21/32	ST-2186	4.36	32.28	25.21

SNAP PLUG & RECEPTACLE (FIG. FF)

16-14	Snap Plug	19/32	S-1055	1.85	13.33	10.41	27/32	T-2055	4.06	30.05	23.48
16-14	Plug Receptacle	1-3/8	PR-1426	7.77	55.98	43.60					

BUTT CONNECTORS (FIG. G)

22-18	9/16	S-1019*	2.16	15.56	12.15	15/16	T-2019†	4.80	35.52	27.75
16-14	9/16	S-1020	2.16	15.56	12.15	15/16	T-2020	4.80	35.52	27.75
12-10	9/16	S-1046	3.84	27.65	21.60	1-1/16	T-2046	6.55	48.48	37.88

NYLON INSULATED CLOSED END CONNECTORS (FIG. H)

Wire Range	O.D.	Barrel Length	I.D.	Circular Mil Area	Length	Part No.	100-999 Per C	1000-4999 Per M	5000 Up Per M
22-14	5/16	11/32	1/4	600-5,180	39/64	CE-2214	3.36	24.20	18.90
16-10	7/16	3/8	3/8	2,400-13,000	23/32	CE-1610†	4.92	35.43	27.68

ASSORTMENTS (FIG. I)

Assortment K-170 (Fig. I) - Contains 215 Krimptite® (non-insulated) terminals of types indicated by asterisks (*) in listings above, plus Universal Crimping Tool

Net Each. \$ 8.95

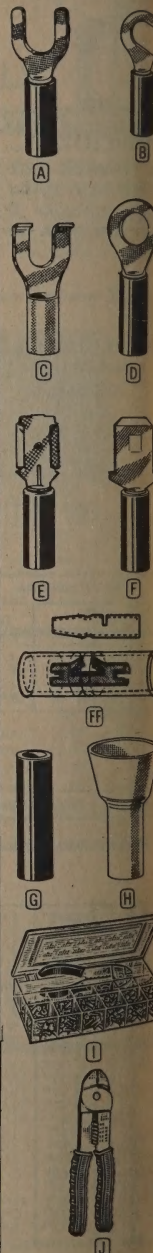
Assortment K-180 (Fig. I) - Contains 138 Insulkrimp® (insulated) terminals of types indicated by daggers (†) in above listings plus Universal Crimping Tool.

Net Each. \$10.95

UNIVERSAL CRIMPING TOOL (FIG. J)

Part No. CT-4050 - Crimps both insulated and non-insulated terminals, wire sizes 22 thru 10. Cuts and strips wire.

Net Each. \$ 3.95

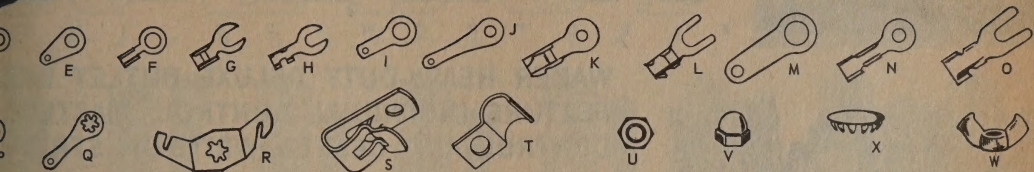


Only a partial listing of more than 2000 items in the WALDOM line of solderless terminals and connectors. Includes many more sizes and types, including Heavy Duty, Flared Insulation, Military Types, Terminal Block Terminals, Flag Terminals, insulation sleeve and many more.

Write for WALDOM CATALOG 8AF5.

WALDOM

ELECTRONIC HARDWARE



TERMINAL AND SPADE LUGS

Terminal lugs for all applications. Supplied with hot-tin plating in brass, copper or steel as specified in Material (Mtl.) column below.

Waldom No.	Fig.	Mtl., In.	Hole Size	Length, In.	Pkg. of 100	Per 1000
					1000-4999	5000 Up
1	D	.020B	#6	1/2	\$0.76	\$ 4.23
2	D	.020B	#8	13/16	.82	6.72
3	D	.020B	#10	13/16	.82	6.72
4	E	.020B	#6	9/16	.88	7.22
5	E	.015C	#8	17/32	.97	7.95
6	F	.032C	#6	1/2	.94	7.71
7	G	.020B	#8	41/64	.80	6.56
8	H	.020B	#8	21/32	.88	7.22
9	H	.020B	#8	21/32	.88	7.22
10	I	.015B	#8	47/64	.86	7.05
11	J	.025B	#6	1	.98	8.04
12	J	.025B	#8	1	.98	8.04
13	K	.020C	#6	15/16	1.62	13.28
14	K	.020C	#8	15/16	1.62	13.28
15	K	.020C	#10	15/16	1.62	13.28
16	L	.020B	3/16"	25/32	.94	7.71
17	M	.020B	#10	1-5/32	1.56	12.55
18	N	.032B	#8	15/16	2.81	23.04
19	N	.032B	#10	15/16	3.10	25.42
20	O	.032B	#8	1	4.25	34.85

LOCKING-TYPE LUGS

Locking-type construction eliminates need for additional washer. Fabricated from .018 phosphor bronze and tinned for ease in soldering.

Waldom No.	Fig.	Screw Size	Length, In.	Pkg. of 100	Per 1000
				1000-4999	5000 Up
T-194	P	#6	5/8	\$1.09	\$ 7.89
T-195	P	#8	5/8	1.09	7.89
T-196	Q	#4	7/8	1.16	8.04
T-197	Q	#6	7/8	1.16	8.04
T-198	Q	#8	7/8	1.16	8.04
T-223	Q	#10	7/8	1.18	8.15

CONTROL AND SWITCH MTG. HEX NUTS (FIG. U)

		Pkg. of 100	Per 1000
		1000-4999	5000 Up
F-565	3/8-32x 1/2x3/32	\$1.47	\$12.05
F-566	15/32-32	1.80	14.76
F-567*	475-32X19/32x1/16	3.40	27.24

*Knurled ring nut (Fig. J)

ACORN NUTS NICKEL-PLATED (FIG. V)

		Pkg. of 100	Per 1000
		1000-4999	5000 Up
F-574	6-32	\$2.74	\$22.47
F-575	8-32	2.91	23.86
F-576	10-32	3.52	28.86

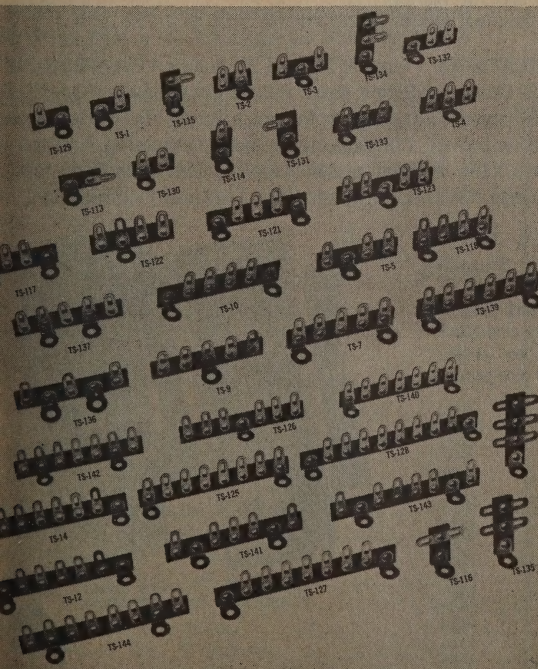
WING NUTS NICKEL-PLATED (FIG. W)

		Pkg. of 100	Per 1000
		1000-4999	5000 Up
F-571	6-32	\$2.63	\$21.88
F-572	8-32	2.63	21.88
F-573	10-32	2.63	21.88

SNAP BUTTON HOLE PLUGS (FIG. X)

		Pkg. of 100	Per 1000
		1000-4999	5000 Up
HP-1	1/4" hole	\$2.20	\$18.04
HP-2	3/8" hole	2.50	20.50
HP-3	1/2" hole	2.40	19.68
HP-4	3/4" hole	3.30	27.06
HP-5	1" hole	4.40	36.08

TERMINAL STRIPS



STANDARD TERMINAL STRIPS

Standard type lug mounting terminal strips. Fabricated from X Grade bakelite 1/16" thick, 3/8" wide. Square barrelled construction prevents twisting and slippage. End terminals are spaced 3/16" from end of strip. All strips are furnished with lug holes spaced 3/8" center to center.

Catalog No.	Bag of 25	100-Over per/C	Catalog No.	Bag of 25	100-Over per/C
2 and 3 Position			4, 5 and 6 Position		
TS-1	.58	1.58	TS-123	1.18	3.08
TS-129	.58	1.58	TS-9	1.18	3.15
TS-2	.63	1.65	TS-137	1.38	3.68
TS-130	.63	1.65	TS-7	1.38	3.68
TS-113	.68	1.92	TS-10	1.50	4.05
TS-114	.68	1.92	TS-139	1.55	4.18
TS-115	.68	1.92	7, 8 and 9 Position		
TS-131	.58	1.58	TS-131	1.70	4.55
TS-3	.80	2.08	TS-12	1.70	4.55
TS-132	.80	2.08	TS-126	1.55	4.08
TS-4	.80	2.15	TS-142	1.75	4.68
TS-133	.80	2.15	TS-140	1.75	4.68
TS-134	.80	2.08	TS-143	1.88	5.05
4, 5 and 6 Position			TS-14	1.88	5.05
TS-117	1.13	3.05	TS-144	1.95	5.18
TS-5	.95	2.58	TS-125	1.95	5.18
TS-122	1.00	2.65	TS-127	2.08	5.55
TS-118	1.20	3.18	TS-128	2.25	6.05
TS-136	1.33	3.55	TS-116	.88	2.30
TS-121	1.33	3.55	TS-135	1.33	3.53
			TS-138	1.80	4.75

WABER DELUXE OUTLET BOXES

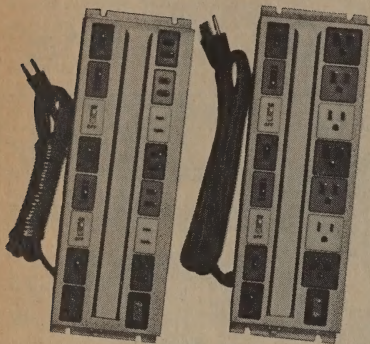
waber

E L E C T R O N I C S I N C .

WABER HEAVY-DUTY DELUXE OUTLET BOX FEATURE INDIVIDUAL CONTROL, MASTER CONTROL AND CENTER WRITE-ON STRIP

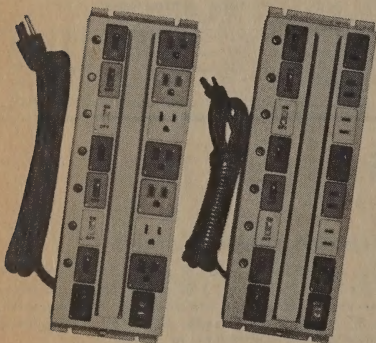
Waber Deluxe Models 25 and 35 provide 7 color-keyed switch-outlet groups, a panel mounted fuse or circuit breaker, pilot light, and master "on-off" switch. These models feature a center "write-on" strip for immediate identification. The 25 series is the "U" gro type with your choice of a 6 or 15-foot Waber neoprene cord. Model 35 is the 2-wire type with 10-foot neoprene cord-set.

Waber Deluxe Models 25P and 35P series have the same construction as the 25 and 35, with the addition of a bright pilot light on each switch-outlet set. All Waber outlet boxes are pre-wired, ready for use.



MODEL 35 SERIES

MODEL 25 SERIES



MODEL 25P SERIES

MODEL 35P SERIES

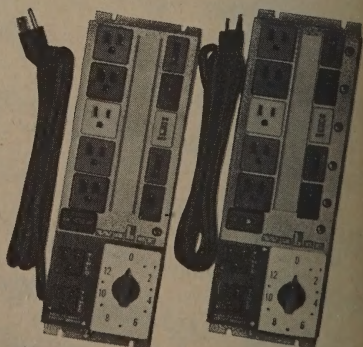
Model 25 (fuse, 6' cord-set)	.....	\$
Model 25-15 (fuse, 15' cord-set)	.....	
Model 25CB (circuit breaker, 6' cord-set)	.....	
Model 25CB-15 (circuit breaker, 15' cord-set)	.....	
Model 35 (fuse, 10' cord-set)	.....	
Model 35CB (circuit breaker, 10' cord-set)	.....	
Model 25P (fuse, 6' cord-set)	.....	
Model 25P-15 (fuse, 15' cord-set)	.....	
Model 25PCB (circuit breaker, 6' cord-set)	.....	
Model 25PCB-15 (circuit breaker, 15' cord-set)	.....	
Model 35P (fuse, 10' cord-set)	.....	
Model 35PCB (circuit breaker, 10' cord-set)	.....	

SPECIFICATIONS Models 25 and 35 Series ■ Panel-Mounted Fuse or Circuit Breaker ■ Bright Neon Pilot Light ■ Master "On-off" Switch ■ 7 Color-Keyed Switch Outlet Groups ■ Tough Waber Neoprene Cord ■ UL-approved Components ■ 12¾" Mounting Centers ■ 13½"x4¾"x1½" ■ Rated at 15 Amperes, 130 Volts Continuous Duty ■ Steel Case Finished in Silver Gray Textured Hammertone.

NEW! These Waber Deluxe Units Now Equipped With Timers

Now you can have the popular Waber Deluxe Models with timers. You can set the timer for up to 12 hours. Two types are available. The timer in Model 26 Series turns power to the unit "on" at the end of the preset time and Model 27 is designed to turn power off at the end of the pre-set time.

	NET
Model 26 (fuse, 6' cord-set)	\$24.00
Model 26-15 (fuse, 15' cord-set)	25.00
Model 26CB (circuit breaker, 6' cord-set)	25.00
Model 26CB-15 (circuit breaker, 15' cord-set)	26.00
Model 26P (fuse, 6' cord-set)	28.00
Model 26P-15 (fuse, 15' cord-set)	29.00
Model 26PCB (circuit breaker, 6' cord-set)	29.00
Model 26PCB-15 (circuit breaker, 15' cord-set)	30.00
Model 27 (fuse, 6' cord-set)	24.00
Model 27-15 (fuse, 15' cord-set)	25.00
Model 27CB (circuit breaker, 6' cord-set)	25.00
Model 27CB-15 (circuit breaker, 15' cord-set)	26.00
Model 27P (fuse, 6' cord-set)	28.00
Model 27P-15 (fuse, 15' cord-set)	29.00
Model 27PCB (circuit breaker, 6' cord-set)	29.00
Model 27PCB-15 (circuit breaker, 15' cord-set)	30.00

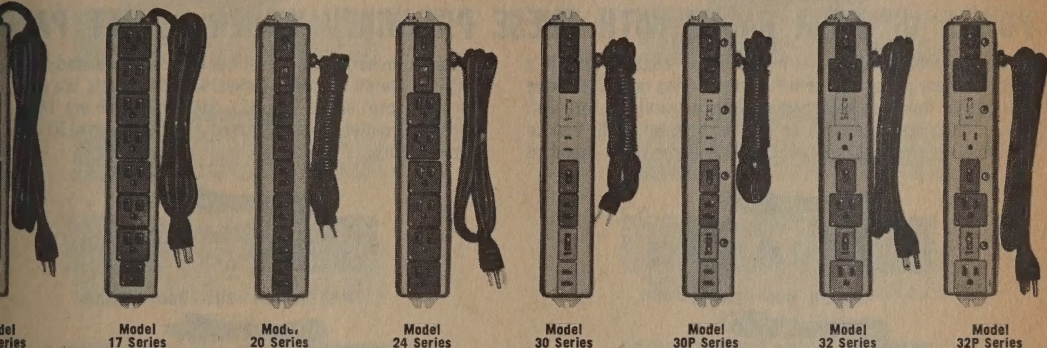
26 SERIES
27 SERIES26P SERIES
27P SERIES

WABER
ELECTRONICS
INC.

w a b e r

L E C T R O N I C S I N C

WABER HEAVY DUTY OUTLET BOXES



THESE POPULAR WABER HEAVY-DUTY ELECTRICAL OUTLET BOXES COMPLETELY WIRED FOR INSTANT USE...IDEAL FOR LAB, SCHOOL OR INDUSTRY

There are eight series of Waber Models of proven utility. Models 17 and 32 are in-line units designed for series stringing with a male plug-in base on one end and the cord-set coming out of the other. Model 15 is the control unit, with "on-off" switch, pilot light, fuse or circuit breaker, and seven "U" ground outlets. Model 17 is the slave unit, with 9 "U" ground outlets only.

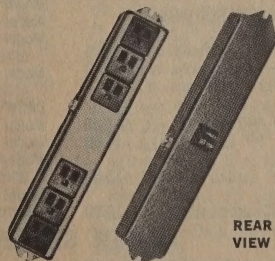
Waber Models 20 and 24 have 6 outlets controlled by an "on-off" switch, pilot light, and panel-mounted fuse or circuit breaker. Model 20 is of the 2-wire type and Model 24 is the 3-wire "U" ground type.

Waber Models 30 and 32 feature 4 color-coded switch-outlet sets, protected by either a fuse or circuit breaker. Model 30 is the 2-wire type and Model 32 is the 3-wire "U" ground type. These same units are available with a pilot light for each switch-outlet group in the Models 30P and 32P series.

SPECIFICATIONS Panel-mounted fuse or circuit breaker ■ Tough Neoprene cord set ■ All snap-in components, fuse posts, circuit breakers, cord-sets UL approved ■ Rated 15 amperes 130 volts continuous duty ■ 12 $\frac{3}{4}$ " mounting centers ■ Size: 13 $\frac{1}{8}$ "x2 $\frac{3}{8}$ "x1 $\frac{1}{2}$ " ■ Steel case finished in silver gray textured hammertone ■ Convenient mounting ears.

	NET
Model 15 (fuse, 6' cord-set)	\$ 8.75
Model 15-15 (fuse, 15' cord-set)	9.75
Model 15CB (circuit breaker, 6' cord-set)	9.75
Model 15CB-15 (circuit breaker, 15' cord-set)	10.75
Model 17 (6' cord-set)	6.75
Model 17-15 (15' cord-set)	7.75
Model 20 (fuse, 10' cord-set)	5.95
Model 20CB (circuit breaker, 10' cord-set)	6.95
Model 24 (fuse, 6' cord-set)	8.50
Model 24-15 (fuse, 15' cord-set)	9.50
Model 24CB (circuit breaker, 6' cord-set)	9.50
Model 24CB-15 (circuit breaker, 15' cord-set)	10.50
Model 30 (fuse, 10' cord-set)	5.95
Model 30CB (circuit breaker, 10' cord-set)	6.95
Model 30P (fuse, 10' cord-set)	7.50
Model 30PCB (circuit breaker, 10' cord-set)	8.50
Model 32 (fuse, 6' cord-set)	8.50
Model 32-15 (fuse, 15' cord-set)	9.50
Model 32CB (crct. brkr., 6' cord-set)	9.50
Model 32CB-15 (crct. brkr., 15' cord-set)	10.50
Model 32P (fuse, 6' cord-set)	10.50
Model 32P-15 (fuse, 15' cord-set)	11.50
Model 32PCB (crct. brkr., 6' cord-set)	11.50
Model 32PCB-15 (crct. brkr., 15' cord-set)	12.50

MAKE 6 OUTLETS FROM 1 WALL OUTLET WITH THIS NEW WABER MODEL 19



Male plug-in base enables you to multiply your outlets. Plug-in male outlet and secure mounting ears. You get 6 heavy duty "U" ground outlets, protected by a panel mounted fuse or circuit breaker.

Model 19 (fuse)	\$6.75
Model 19CB (circuit breaker)	7.75
Model 19B (no fuse or crct. brkr.)	6.25

WABER
ELECTRONICS INC.

WABER RACK MOUNT OUTLET BOXES

w a b e r

E L E C T R O N I C S I N C

POWER UP YOUR RACKS WITH THESE PRE-WIRED WABER OUTLET PANELS

Waber pre-wired, ready-to-use, master power controls provide a quick and easy power source for standard relay racks. You have your choice from this great variety of configurations with outlets on the outside, inside, or combinations of both. Choose the Waber pre-wired panel you need from the many standard

units shown here. UL Cord-set has neoprene-insulated conductors with an overall neoprene jacket. All rack panels are 3½" x 11½" in size except series 903, 911, 912, 913 which are 1¾" x 11½". All Waber outlet boxes are rated at 15 amperes, 130 volts continuous duty.



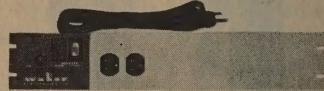
WABER 900 SERIES



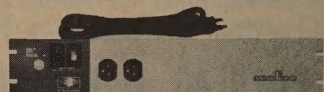
WABER 901 SERIES



WABER 903 SERIES



WABER 904 - 905 - 906 SERIES



WABER 907 - 908 - 909 SERIES



WABER 911 - 912 - 913 SERIES

WABER MODEL 900 SERIES RACK PANEL OUTLET BOXES

These units feature an "on-off" switch, pilot light, fuse or push-to-reset circuit breaker, 6 "U" ground outlets, and your choice of a 6 or 15-foot neoprene cord-set. All component parts UL approved.

	Net
Model 900 (fuse, 6' cord-set)	\$10.95
Model 900-15 (fuse, 15' cord-set)	11.95
Model 900CB	
(circuit breaker, 6' cord-set)	11.95
Model 900CB	
(circuit breaker, 15' cord-set)	12.95

WABER 901 RACK MOUNT FEATURES AC VOLTMETER

This unit has all of the features of the 900 series, plus a handsome, edgewise reading AC Voltmeter for monitoring voltages of from 0 to 150 volts AC.

Model 901 (fuse, 6' cord-set)	\$14.50
Model 901-15 (fuse, 15' cord-set)	15.50
Model 901CB	
(circuit breaker, 6' cord-set)	15.50
Model 901CB-15	
(circuit breaker, 15' cord-set)	16.50

Waber Model 903 series features 6 "U" ground outlets (in the front) "on-off" switch, pilot light, fuse or circuit breaker, 6 or 15-foot neoprene cord-set. Models 911, 912, 913 have the same features except that the outlets are in the back and are available in "U" ground, locking, or crow's foot types. Component parts UL approved. Size: 1¾"x19".

**WANT SOMETHING
SPECIAL?
WE'LL MANUFACTURE
TO YOUR SPECS.**

WABER MODEL 904 SERIES IN "U" GROUND, CROW'S FOOT, OR LOCKING TYPE

This popular series features an "on-off" switch pilot light, fuse or push-to-reset circuit breaker, 6 or 15-foot neoprene cord-set, and 6 outlets (2 in front and 4 in back). Size: 3½"x19". All component parts UL approved.

"U" GROUND TYPE	Net
Model 904 (fuse, 6' cord-set)	\$12.95
Model 904-15 (fuse, 15' cord-set)	13.95
Model 904CB	
(circuit breaker, 6' cord-set)	13.95
Model 904CB-15	
(circuit breaker, 15' cord-set)	14.95
LOCKING TYPE	
Model 905 (fuse, 6' cord-set)	23.95
Model 905-15 (fuse, 15' cord-set)	24.95
Model 905CB	
(circuit breaker, 6' cord-set)	24.95
Model 905CB-15	
(circuit breaker, 15' cord-set)	25.95
CROW'S FOOT TYPE	
Model 906 (fuse, 6' cord-set)	24.95
Model 906-15 (fuse, 15' cord-set)	25.95
Model 906CB	
(circuit breaker, 6' cord-set)	25.95
Model 906CB-15	
(circuit breaker, 15' cord-set)	26.95

WABER SPACE-SAVER MODELS ONLY 1¾" WIDE

	Net
Model 903 (fuse, 6' cord-set)	\$10.95
Model 903 (fuse, 15' cord-set)	11.95
Model 903CB	
(circuit breaker, 6' cord-set)	11.95
Model 903CB-15	
(circuit breaker, 15' cord-set)	12.95
"U" GROUND TYPE	
Model 911 (fuse, 6' cord-set)	12.95
Model 911-15 (fuse, 15' cord-set)	13.95
Model 911CB	
(circuit breaker, 6' cord-set)	13.95
Model 911CB-15	
(circuit breaker, 15' cord-set)	14.95

WABER MODELS 907-908-909 EQUIPPED WITH AC VOLTMETER

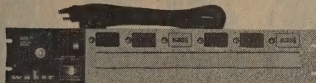
These Waber Models have all of the features of the 904-905-906 series with the addition of an edgewise reading 0-150 volt AC voltmeter.

"U" GROUND TYPE	N
Model 907 (fuse, 6' cord-set)	\$16.95
Model 907-15 (fuse, 15' cord-set)	17.95
Model 907CB	
(circuit breaker, 6' cord-set)	17.95
Model 907CB-15	
(circuit breaker, 15' cord-set)	18.95
LOCKING TYPE	
Model 908 (fuse, 6' cord-set)	27.95
Model 908-15 (fuse, 15' cord-set)	28.95
Model 908CB	
(circuit breaker, 6' cord-set)	28.95
Model 908CB-15	
(circuit breaker, 15' cord-set)	29.95
CROW'S FOOT TYPE	
Model 909 (fuse, 6' cord-set)	28.95
Model 909-15 (fuse, 15' cord-set)	29.95
Model 909CB	
(circuit breaker, 6' cord-set)	29.95
Model 909CB-15	
(circuit breaker, 15' cord-set)	30.95

LOCKING TYPE	N
Model 912 (fuse, 6' cord-set)	\$23.95
Model 912-15 (fuse, 15' cord-set)	24.95
Model 912CB	
(circuit breaker, 6' cord-set)	24.95
Model 912CB-15	
(circuit breaker, 15' cord-set)	25.95
CROW'S FOOT TYPE	
Model 913 (fuse, 6' cord-set)	24.95
Model 913-15 (fuse, 15' cord-set)	25.95
Model 913CB	
(circuit breaker, 6' cord-set)	25.95
Model 913CB-15	
(circuit breaker, 15' cord-set)	26.95



MODELS 914 - 915 - 916



MODELS 917 - 918 - 919



MODEL 920

WABER MODEL 914 SERIES DELUXE RACK PANEL

Color-coded switches provide individual control for outlets on the inside, with individual pilot lights and write-on strip. Master switch and pilot light control the entire unit. Choice of 6 or 15-foot neoprene cord-set, and on or push-to-reset circuit breaker. Sturdy metal panel finished in silver gray textured hammertone. Rated at 15 amperes, 130 volts continuous duty.

GROUND TYPE	Net
Model 914 (fuse, 6' cord-set)	\$22.00
Model 914-15 (fuse, 15' cord-set)	23.00
Model 914CB	
Circuit breaker, 6' cord-set	23.00
Model 914CB-15	
Circuit breaker, 15' cord-set	24.00

LOCKING TYPE	
Model 915 (fuse, 6' cord-set)	32.00
Model 915-15 (fuse, 15' cord-set)	33.00
Model 915CB	
Circuit breaker, 6' cord-set	33.00
Model 915CB-15	
Circuit breaker, 15' cord-set	34.00

U"V" TYPE	
Model 916 (fuse, 6' cord-set)	33.00
Model 916-15 (fuse, 15' cord-set)	34.00
Model 916CB	
Circuit breaker, 6' cord-set	34.00
Model 916CB-15	
Circuit breaker, 15' cord-set	35.00

WABER MODEL 917 DELUXE UNIT WITH METER

This model has all of the features of the 914 model, with the addition of a 0 to 150 volts AC Voltmeter.

GROUND TYPE	Net
Model 917 (fuse, 6' cord-set)	\$25.45
Model 917-15 (fuse, 15' cord-set)	26.45
Model 917CB	
Circuit breaker, 6' cord-set	26.45
Model 917CB-15	
Circuit breaker, 15' cord-set	27.45



MODEL 921



MODELS 922 - 923



MODELS 924 - 925

LOCKING TYPE	Net
Model 918 (fuse, 6' cord-set)	\$40.00
Model 918-15 (fuse, 15' cord-set)	41.00
Model 918CB	
Circuit breaker, 6' cord-set	41.00
Model 918CB-15	
Circuit breaker, 15' cord-set	42.00

CROW'S FOOT TYPE	
Model 919 (fuse, 6' cord-set)	41.00
Model 919-15 (fuse, 15' cord-set)	42.00
Model 919CB	
Circuit breaker, 6' cord-set	42.00
Model 919CB-15	
Circuit breaker, 15' cord-set	43.00

WABER MODEL 920 HAS DELUXE FEATURES

6 color-coded switch and "U" ground outlet sets with individual pilot lights are featured in this deluxe model. The entire unit is controlled by a master switch and pilot light. You have a choice of fuse or push-to-reset circuit breaker, and 6 or 15-foot neoprene cord-set. Unit is rated at 15 amperes, 130 volts continuous duty.

	Net
Model 920 (fuse, 6' cord-set)	\$18.50
Model 920-15 (fuse, 15' cord-set)	19.50
Model 920CB	
Circuit breaker, 6' cord-set	19.50
Model 920CB-15	
Circuit breaker, 15' cord-set	20.50

WABER MODEL 921 HAS AC VOLTMETER

This unit has all of the features of the Model 920, with the addition of a 0 to 150 volt AC Voltmeter.

	Net
Model 921 (fuse, 6' cord-set)	\$21.95
Model 921-15 (fuse, 15' cord-set)	22.95
Model 921CB	
Circuit breaker, 6' cord-set	22.95
Model 921CB-15	
Circuit breaker, 15' cord-set	23.95

WABER MODELS 922 AND 923 ARE TIMER CONTROLLED

Put a timer model (up to 12 hours) to work for you in many different ways. These models have 6 "U" ground outlets and a master pilot light, plus 2 extra "always-on" outlets. You have your choice of fuse or push-to-reset circuit breaker protection, 6 or 15-foot neoprene

cord-set. Model 922 is designed to turn power off after the timed interval, while Model 923 turns power on. Rated at 15 amperes, 130 volts continuous duty.

	Net
Model 922 (fuse, 6' cord-set)	\$20.55
Model 922-15 (fuse, 15' cord-set)	21.55
Model 922CB	
Circuit breaker, 6' cord-set	21.55
Model 922CB-15	
Circuit breaker, 15' cord-set	22.55
Model 923 (fuse, 6' cord-set)	20.55
Model 923-15 (fuse, 15' cord-set)	21.55
Model 923CB	
Circuit breaker, 6' cord-set	21.55
Model 923CB-15	
Circuit breaker, 15' cord-set	22.55

WABER MODELS 924 AND 925 FEATURE 12-HOUR TIMER

These Models feature 6 heavy-duty "U" ground outlets, 2 "always-on" in the front and 4 timed outlets in the back. A bright neon pilot light shows when power is on. You have a choice of fuse or push-to-reset circuit breaker protection, and 6 or 15-foot neoprene cord-set. Model 924 utilizes the up-to-12-hour timer to turn power off after the timed interval, and Model 925 is designed to turn power on. Rating is 15 amperes, 130 volts continuous duty. Size is 3½"x19".

	Net
Model 924 (fuse, 6' cord-set)	\$22.55
Model 924-15 (fuse, 15' cord-set)	23.55
Model 924CB	
Circuit breaker, 6' cord-set	23.55
Model 924CB-15	
Circuit breaker, 15' cord-set	24.55
Model 925 (fuse, 6' cord-set)	22.55
Model 925-15 (fuse, 15' cord-set)	23.55
Model 925CB	
Circuit breaker, 6' cord-set	23.55
Model 925CB-15	
Circuit breaker, 15' cord-set	24.55

DUST AND SAFETY COVERS 4.00

DC-5 FOR MODELS 900, 901, 920, 921
DC-1 FOR 904, 907, 922, 923, 924, 925
Other 3½" models have dust covers attached

STEEL PANELS FINISHED IN
TEXTURED HAMMERTONE GRAY

WABER

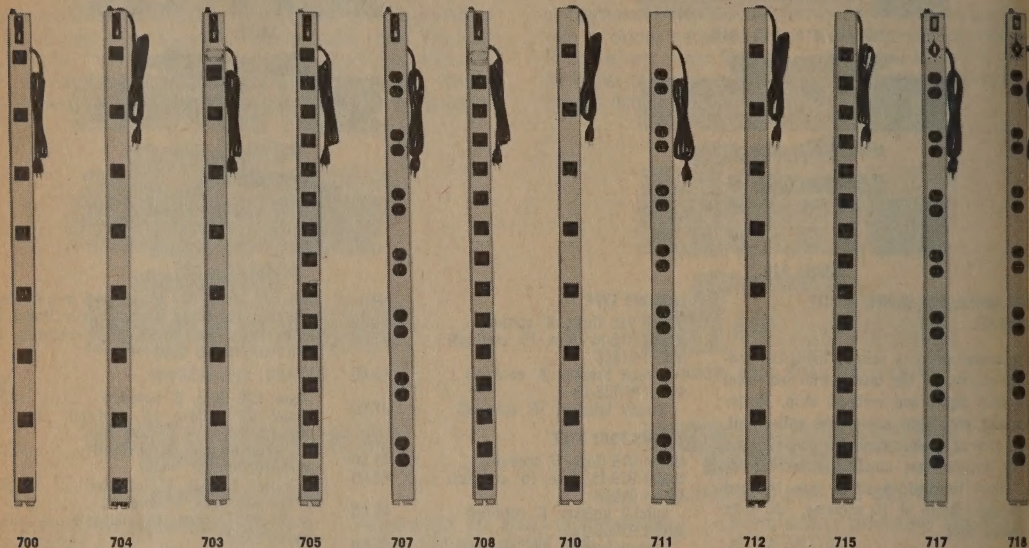
"LONG JOHN"

OUTLET BOXES

w a b e r

E L E C T R O N I C S I N C

STURDY WABER "READY-TO-PLUG-IN" 4-FOOT HEAVY DUTY OUTLET BOX



700

704

703

705

707

708

710

711

712

715

717

718

WABER MODEL 700 SERIES

This popular model has 8 "U" ground outlets, on-off switch, pilot light and your choice of fuse or circuit-breaker protection, and 6- or 15-foot neoprene cord-set. Component parts are UL approved.

	Net
Model 700 (fuse, 6' cord-set)	\$14.95
Model 700-15 (fuse, 15' cord-set)	15.95
Model 700CB	
(circuit breaker, 6' cord-set)	15.95
Model 700CB-15	
(circuit breaker, 15' cord-set)	16.95

WABER MODEL 704 SERIES

This unit has the same features as the "700" with the addition of an outlet on one end and the cord-set coming out the other end for "in-line" series stringing.

Model 704 (fuse, 6' cord-set)	\$15.95
Model 704-15 (fuse, 15' cord-set)	16.95
Model 704CB	
(circuit breaker, 6' cord-set)	16.95
Model 704CB-15	
(circuit breaker, 15' cord-set)	17.95

WABER MODEL 703 SERIES

This unit has all of the quality features of the Model 700 with the addition of a 0 to 150 volt edgewise reading AC Voltmeter.

Model 703 (fuse, 6' cord-set)	\$18.50
Model 703-15 (fuse, 15' cord-set)	19.50
Model 703CB	
(circuit breaker, 6' cord-set)	19.50
Model 703CB-15	
(circuit breaker, 15' cord-set)	20.50

SPECIFICATIONS Tough neoprene cord-set ■ Steel case finished in textured silver gray hammertone ■ Convenient mounting ears ■ Rated at 15 amperes 130 volts ■ Mounting centers 48 3/4" ■ Size: 49"x2"x1 1/2" ■ All units pre-wired for instant use.

WABER MODEL 705 SERIES

This unit has 15 "U" ground outlets, on-off switch, bright pilot light, your choice of fuse or push-to-reset circuit breaker protection, and 6 or 15-foot neoprene cord-set. Component parts are UL approved.

	Net
Model 705 (fuse, 6' cord-set)	\$18.95
Model 705-15 (fuse, 15' cord-set)	19.95
Model 705CB	
(circuit breaker, 6' cord-set)	19.95
Model 705CB-15	
(circuit breaker, 15' cord-set)	20.95

WABER MODEL 707 SERIES

This series features 14 "U" ground outlets, on-off switch, bright pilot light, your choice of fuse or circuit breaker protection, and 6 or 15-foot neoprene cord-set. Components are UL approved.

Model 707 (fuse, 6' cord-set)	\$15.75
Model 707-15 (fuse, 15' cord-set)	16.75
Model 707CB	
(circuit breaker, 6' cord-set)	16.75
Model 707CB-15	
(circuit breaker, 15' cord-set)	17.75

WABER MODEL 708 SERIES

This unit has all of the features of the "705" series with the addition of a 0 to 150 volt AC edgewise-reading Voltmeter.

Model 708 (fuse, 6' cord-set)	\$22.50
Model 708-15 (fuse, 15' cord-set)	23.50
Model 708CB	
(circuit breaker, 6' cord-set)	23.50
Model 708CB-15	
(circuit breaker, 15' cord-set)	24.50

WABER MODEL 710 SERIES

This unit has 8 "U" ground outlets only.

Model 710 (6' cord-set)	\$12.95
Model 710-15 (15' cord-set)	13.95

WABER MODEL 711 SERIES

This series features 14 "U" ground outlets the duplex type.

Model 711 (6' cord-set)	\$13.95
Model 711-15 (15' cord-set)	14.95

WABER MODEL 712 SERIES

Model 712 is an in-line series stringing unit with 8 "U" ground outlets plus a "U" ground outlet on one end and cord-set on other end. Designed as a slave unit for Model 704.

Model 712 (6' cord-set)	\$13.95
Model 712-15 (15' cord-set)	14.95

WABER MODEL 715 SERIES

This unit features 15 "U" ground outlets only.

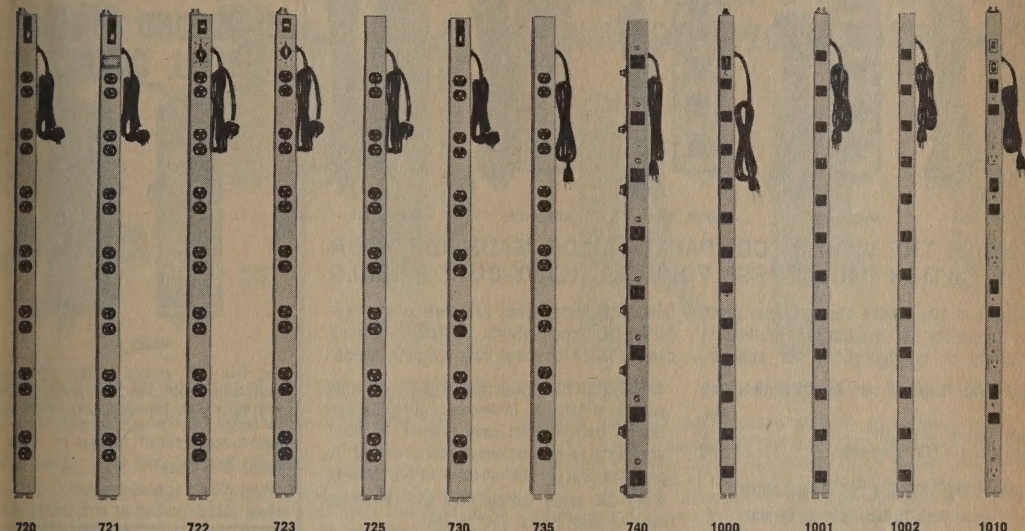
Model 715 (6' cord-set)	\$18.95
Model 715-15 (15' cord-set)	19.95

WABER MODELS 717 AND 718 SERIES

These units feature 14 "U" ground outlets, pilot light, your choice of fuse or circuit breaker protection, and 6 or 15-foot neoprene cord-set. Also included is a timer with provisions for up to 12-hour control. Model 717 is designed to turn power off after the time interval. Model 718 turns power on.

Model 717 (fuse, 6' cord-set)	\$24.95
Model 717-15 (fuse, 15' cord-set)	25.95
Model 717CB	
(circuit breaker, 6' cord-set)	25.95
Model 717CB-15	
(circuit breaker, 15' cord-set)	26.95
Model 718 (fuse, 6' cord-set)	24.95
Model 718-15 (fuse, 15' cord-set)	25.95
Model 718CB	
(circuit breaker, 6' cord-set)	25.95
Model 718CB-15	
(circuit breaker, 15' cord-set)	26.95

WABER
ELECTRONICS INC.



WABER MODEL 720 SERIES

This unit provides 14 locking-type outlets, an on-off switch, neon pilot light, fuse or push-to-reset circuit breaker, and 6 or 15-foot neoprene cord-set. Components are UL approved.

	Net
Model 720 (fuse, 6' cord-set)	\$32.95
Model 720-15 (fuse, 15' cord-set)	33.95
Model 720CB	
Model 720CB-15	
Model 720CB-15 (circuit breaker, 6' cord-set)	33.95
Model 720CB-15 (circuit breaker, 15' cord-set)	34.95

WABER MODEL 721 SERIES

Some of the features of the Model 720 Series are included in this unit, with the addition of an anti-reverse-reading 0 to 150 volt AC Voltmeter.

Model 721 (fuse, 6' cord-set)	\$36.50
Model 721-15 (fuse, 15' cord-set)	37.50
Model 721CB	
Model 721CB-15	
Model 721CB-15 (circuit breaker, 6' cord-set)	37.50
Model 721CB-15 (circuit breaker, 15' cord-set)	38.50

WABER MODELS 722 AND 723

These handsome units feature 14 locking-type outlets, neon pilot light, fuse or push-to-reset circuit breaker and 6 or 15-foot neoprene cord-set. In addition, a 12-hour timer provides automatic power control. Model 722 is designed to turn power off and Model 723 on.

Model 722 (fuse, 6' cord-set)	\$44.50
Model 722-15 (fuse, 15' cord-set)	45.50
Model 722CB	
Model 722CB-15	
Model 722CB-15 (circuit breaker, 6' cord-set)	45.50
Model 722CB-15 (circuit breaker, 15' cord-set)	46.50
Model 723 (fuse, 6' cord-set)	44.50
Model 723-15 (fuse, 15' cord-set)	46.50
Model 723CB	
Model 723CB-15	
Model 723CB-15 (circuit breaker, 6' cord-set)	46.50
Model 723CB-15 (circuit breaker, 15' cord-set)	46.50

WABER MODEL 725 SERIES

This model contains 14 duplex outlets of the locking type only.

	Net
Model 725 (6' cord-set)	\$31.95
Model 725-15 (15' cord-set)	32.95

WABER MODEL 730 SERIES

14 crow's foot outlets are featured in this unit with on-off switch, pilot light, fuse or push-to-reset circuit breaker, and 6 or 15-foot cord-set. Component parts are UL approved.

Model 730 (fuse, 6' cord-set)	\$32.95
Model 730-15 (fuse, 15' cord-set)	33.95
Model 730CB	
Model 730CB-15	
Model 730CB-15 (circuit breaker, 6' cord-set)	33.95
Model 730CB-15 (circuit breaker, 15' cord-set)	34.95

WABER MODEL 735 SERIES

This model has 14 crow's foot outlets only.

Model 735 (6' cord-set)	\$31.95
Model 735-15 (15' cord-set)	32.95

WABER MODEL 740 SERIES

This unique outlet box has 8 "U" ground outlets with each outlet individually fused. Each outlet also has its own neon indicator.

Model 740 (6' cord-set)	\$19.75
Model 740-15 (15' cord-set)	20.75

WABER "STRING BEAN" FOUR—FOOTERS, 1 1/8" DEEP, 1 1/2" WIDE

WABER MODEL 1000 SERIES

This unit provides 12 "U" ground outlets, "on-off" switch, neon pilot light, fuse or push-to-reset circuit breaker, and 6 or 15-foot neoprene cord-set.

	Net
Model 1000 (fuse, 6' cord-set)	\$15.95
Model 1000-15 (fuse, 15' cord-set)	16.95
Model 1000CB	
Model 1000CB-15	
Model 1000CB-15 (circuit breaker, 6' cord-set)	16.95
Model 1000CB-15 (circuit breaker, 15' cord-set)	17.95

WABER MODEL 1001 SERIES

Provided with this model are 12 "U" ground outlets, with fuse or circuit breaker protection, and 6 or 15-foot neoprene cord-set.

Model 1001 (fuse, 6' cord-set)	\$14.95
Model 1001-15 (fuse, 15' cord-set)	15.95
Model 1001CB	
Model 1001CB-15	
Model 1001CB-15 (circuit breaker, 6' cord-set)	15.95
Model 1001CB-15 (circuit breaker, 15' cord-set)	16.95

WABER MODEL 1002 SERIES

This unit has 12 "U" ground outlets only. UL approved components.

Model 1002 (6' cord-set)	\$13.95
Model 1002-15 (15' cord-set)	14.95

WABER DELUXE MODEL 1010 SERIES

This handsome model has 8 outlets, each individually controlled by its own switch and pilot light, with a master "on-off" switch and neon indicator. Fuse or push-to-reset circuit breaker, and choice of 6 or 15-foot neoprene cord-set.

Model 1010 (fuse, 6' cord-set)	\$19.95
Model 1010-15 (fuse, 15' cord-set)	20.95
Model 1010CB	
Model 1010CB-15	
Model 1010CB-15 (circuit breaker, 6' cord-set)	20.95
Model 1010CB-15 (circuit breaker, 15' cord-set)	21.95

SPECIFICATIONS Sturdy steel case finished in silver gray textured hammertone. Size: 4 1/2 x 1 1/2 x 1 1/2" = 4 3/4" mounting centers rated at 15 amperes, 130 volts continuous duty.

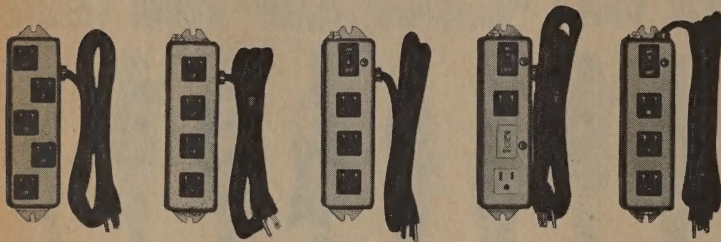


WABER Compact OUTLET BOXES

SECTION 2100

w a b e r

E L E C T R O N I C S I N C



MODEL 602 MODEL 603 MODEL 605 MODEL 606 MODEL 608

CHOOSE THE WABER "COMPACT" TAILOR MADE FOR YOUR APPLICATION FROM THESE POPULAR HEAVY-DUTY MODELS

Compact in size, these sturdy Waber units provide quality "U" ground type outlets in a variety of configurations for schools,

MODEL 602 SERIES, 5 "U" Ground Outlets Only

	Net
Model 602 (6' cord-set)	\$4.80
Model 602-15 (15' cord-set)	5.80

MODEL 603 SERIES, 4 "U" Ground Outlets,

Fuse or Push-To-Reset Circuit Breaker

Model 603 (fuse, 6' cord-set)	\$5.25
Model 603-15 (fuse, 15' cord-set)	6.25
Model 603CB (circuit breaker, 6' cord-set)	6.25
Model 603CB-15 (circuit breaker, 15' cord-set)	7.25

MODEL 605 SERIES, 3 "U" Ground Outlets,

Pilot Light, On-Off Switch, Fuse or Push-To-Reset Circuit Breaker

Model 605 (fuse, 6' cord-set)	\$5.95
Model 605-15 (fuse, 15' cord-set)	6.95
Model 605CB (circuit breaker, 6' cord-set)	6.95
Model 605CB-15 (circuit breaker, 15' cord-set)	7.95

MODEL 606 SERIES, 2 Color-Coded Sets

(Switch, Pilot Light, Outlet)

Fuse or Push-To-Reset Circuit Breaker

Model 606 (fuse, 6' cord-set)	\$5.95
Model 606-15 (fuse, 15' cord-set)	6.95
Model 606CB (circuit breaker, 6' cord-set)	6.95
Model 606CB-15 (circuit breaker, 15' cord-set)	7.95

MODEL 608 SERIES, Pilot Light, On-Off Switch,

Fuse or Push-To-Reset Circuit Breaker,

and 4 "U" Ground Outlets. Outlet On One End and Cord-Set Out Other End For Series-String Wiring.

Model 608 (fuse, 6' cord-set)	\$6.50
Model 608-15 (fuse, 15' cord-set)	7.50
Model 608CB (circuit breaker, 6' cord-set)	7.50
Model 608CB-15 (circuit breaker, 15' cord-set)	8.50

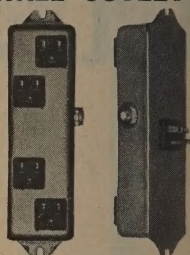
labs, or industry. They are particularly useful for OEM applications. Custom variations can be made to meet your specific needs.

SPECIFICATIONS

Tough Neoprene UL approved cord-set ■ Rated at 15 amperes, 130 volts continuous duty ■ Steel case finished in silver gray textured hammertone ■ Your choice of UL approved fuse or push-to-reset circuit breaker ■ All 600 series models have 8 3/4" mounting centers, Size 8 3/8" x 2 1/4" x 1 1/2".

NEW!

U-GROUND PLUG-IN WALL OUTLET

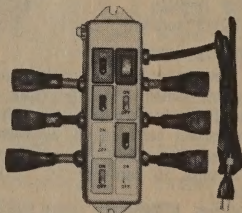


MODEL 611

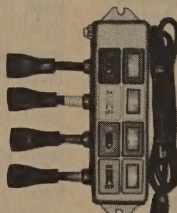
Get four "U" ground outlets from one wall outlet with this new Waber Model 611 outlet box. Mounting ears enable you to fasten unit to wall securely. Fuse or push-to-reset circuit breaker.

Model 611 (fuse)	\$4.75
Model 611CB (circuit breaker)	5.75
Model 611B (no fuse or crct. brkr.)	4.25

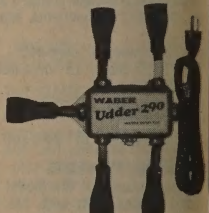
NEW! WABER "UDDER" TYPE OUTLET BOXES



MODEL 609



MODEL 610



MODEL 290

PLENTY OF QUALITY FEATURES ARE PACKED INTO THESE NEW WABER HEAVY-DUTY UDDER MODEL

Flexible "U" ground outlets are the big feature in the new Waber "Udder" Line. Model 609 has 6 color-coded switch-outlet sets with master switch and pilot light and choice of 6 or 15-foot cord-set, fuse or push-to-reset circuit breaker.

Waber Model 610 gives you 4 color-coded switch-outlet sets with individual pilot lights. Your choice of 6 or 15-foot cord-set, fuse or push-to-reset circuit breaker.

Waber Model 290 provides five "Udder" "U" ground color-coded outlets in a same case, size 4 3/4" x 2 1/8" with 4 3/8" mounting centers.

	Net		Net
Model 609 (fuse, 6' cord-set)	\$13.50	Model 610-15 (fuse, 15' cord-set)	\$13.
Model 609-15 (fuse, 15' cord-set)	14.50	Model 610CB (circuit breaker, 6' cord-set)	13.
Model 609CB (circuit breaker, 6' cord-set)	14.50	Model 610CB-15 (circuit breaker, 15' cord-set)	14.
Model 609CB-15 (circuit breaker, 15' cord-set)	15.50	Model 290 (6' cord set)	5.
Model 610 (fuse, 6' cord-set)	12.50	Model 290-15 (15' cord-set)	6.

**ALL WABER MODELS
COMPLETELY WIRED
Ready To Plug In!**

w a b e r

L E C T R O N I C S I N C

WABER METER AND TIMER OUTLET BOXES



Model
220M



Model
230M



Model
607M



Model
24M

NEW! WABER 15-AMP MODELS NOW EQUIPPED WITH TIMERS!



Model 42
Model 43



Model 18
Model 19



Model 613
Model 614

WABER LINE VOLTAGE MONITORING METER MODELS FOR CONTINUOUS CHECKING

WABER MODEL 220M LINE VOLTAGE CHECKER

Crystal clear, easy to read, wide angle edgewise reading illuminated Voltmeter in a handsome chrome plated case. Reads from 0 to 150 volts. 6-foot cord-set. Size: 4 1/4" x 2 1/2" with 4 3/8" mounting centers. Model 220M Net \$5.95

WABER MODEL 230M OUTLET BOX FEATURES ILLUMINATED AC VOLTMETER

Continuous monitoring of AC line voltage is feature of this new model with the illuminated edgewise reading of from 0 to 150 volts. Unit includes "on-off" switch, "U" ground outlet, and your choice of 6 or 15-foot neoprene cord-set, fuse or push-to-reset circuit breaker. Case handsomely chrome plated. Size: 4 1/4" x 2 1/2" x 4 3/8" mounting centers. Net

Model 230M (fuse, 6' cord-set)	\$7.50
Model 230M-15 (fuse, 15' cord-set)	8.50
Model 230MCB (circuit breaker, 6' cord-set)	8.50
Model 230MCB-15 (circuit breaker, 15' cord-set)	9.50

WABER MODEL 607M OUTLET BOX WITH ILLUMINATED AC VOLTMETER

This highly useful outlet box features an "on-off" switch with three "U" ground outlets, with an illuminated edgewise reading 0 to 150 volts AC Voltmeter for continuous line voltage checks. Your choice of a 6 or 15-foot neoprene cord-set, fuse or push-to-reset circuit breaker protection. Size: 8 3/8" x 2 1/4" x 1 1/2" with 8 1/4" mounting centers. Net

Model 607M (fuse, 6' cord-set)	\$ 8.95
Model 607M-15 (fuse, 15' cord-set)	9.95
Model 607MCB (circuit breaker, 6' cord-set)	9.95
Model 607MCB-15 (circuit breaker, 15' cord-set)	10.95

WABER MODEL 24M OUTLET BOX FEATURES ILLUMINATED AC VOLTMETER

Popular Model 24 series, now available with an illuminated voltmeter, provides continuous check of AC line voltage. The illuminated edgewise reading meter monitors from 0 to 150 AC Volts. Included also are an "on-off" switch, 6 "U" ground outlets, and your choice of a 6 or 15-foot neoprene cord-set, fuse or circuit breaker. Net

Model 24M (fuse, 6' cord-set)	\$11.95
Model 24M-15 (fuse, 15' cord-set)	12.95
Model 24MCB (circuit breaker, 6' cord-set)	12.95
Model 24MCB-15 (circuit breaker, 15' cord-set)	13.95

WABER MODEL 42 AND 43 SERIES WITH UP TO 12-HOUR TIMER

5 "U" ground outlets, neon pilot light, your choice of 6 or 15-foot neoprene line cord, fuse or push-to-reset circuit breaker, and a reliable timer with settings of up to 12 hours. Model 42 is designed to turn power off at the conclusion of the timed interval, and Model 43 is designed to turn power on. Size: 1 3/8" x 2 3/8" x 1 3/8" with 1 1/4" mounting centers. Net

Model 42 (fuse, 6' cord-set)	\$17.00
Model 42-15 (fuse, 15' cord-set)	18.00
Model 42CB (circuit breaker, 6' cord-set)	18.00
Model 42CB-15 (circuit breaker, 15' cord-set)	19.00
Model 43 (fuse, 6' cord-set)	17.00
Model 43-15 (fuse, 15' cord-set)	18.00
Model 43CB (circuit breaker, 6' cord-set)	18.00
Model 43CB-15 (circuit breaker, 15' cord-set)	19.00

WABER MODEL 18 AND 19 SERIES TIMER MODELS

These popular units provide up to 12 hours of timing, and have a neoprene cord-set. The 6 outlets are timer-controlled. Model 18 turns power off at the end of the timed interval, and Model 19 turns power on. Size: 1 3/8" x 2 3/8" x 1 1/8" with 1 1/4" mounting centers. Net

Model 18 (6' cord-set)	\$15.00
Model 18-15 (15' cord-set)	16.00
Model 19 (6' cord-set)	16.00
Model 19-15 (15' cord-set)	17.00

WABER MODEL 613 AND 614 COMPACT SERIES TIMER MODELS

2 timed outlets, fuse or push-to-reset circuit breaker, and your choice of 6 or 15-foot neoprene cord-set are featured in this compact unit with up to 12-hour timer control. Model 613 turns power off at the end of the preset interval. Model 614 turns power on. Size: 8 3/8" x 2 1/4" x 1 1/2" with 8 1/4" mounting centers. Net

Model 613 (fuse, 6' cord-set)	\$13.00
Model 613-15 (fuse, 15' cord-set)	14.00
Model 613CB (circuit breaker, 6' cord-set)	14.00
Model 613CB-15 (circuit breaker, 15' cord-set)	15.00
Model 614 (fuse, 6' cord-set)	13.00
Model 614-15 (fuse, 15' cord-set)	14.00
Model 614CB (circuit breaker, 6' cord-set)	14.00
Model 614CB-15 (circuit breaker, 15' cord-set)	15.00

Need Outlets In A Hurry?

ALL WABER MODELS ARE PRE-WIRED . . .
JUST PLUG IN!

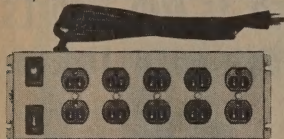


OUTLET BOXES MOTOR SPEED CONTROLLERS

w a b e r

E L E C T R O N I C S I N C

WABER 800 SERIES IN "U" GROUND, LOCKING, OR CROW'S FOOT TYPES



Ten duplex outlets, available in "U" ground, locking, or crow's foot types (with matching plug), are provided with "on-off" switch, neon pilot light, panel mounted fuse or circuit breaker, and your choice of a 6' or 15' Waber neoprene cord-set.

On-off Switch • Bright Pilot Light • Tough Neoprene Cord Set • UL Approved Components • Rated at 15 Amperes, 130 Volts Continuous Duty

• Steel Case Finished in Silver Gray Textured Hammertone • Your Choice of Fuse or Push to Reset Circuit Breaker • 12 $\frac{7}{8}$ x 2 $\frac{7}{8}$ " Mounting Centers • Size: 13 $\frac{1}{4}$ x 4 $\frac{1}{4}$ x 1 $\frac{1}{2}$ ".

MODEL 800 SERIES, "U" GROUND OUTLETS

	Net
Model 800 (fuse, 6' cord-set)	\$13.50
Model 800-15 (fuse, 15' cord-set)	14.50
Model 800CB (crct. brkr., 6' cord-set)	14.50
Model 800CB-15 (crct. brkr., 15' cord-set)	15.50

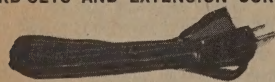
MODEL 801 SERIES, LOCKING TYPE OUTLETS

Model 801 (fuse, 6' cord-set)	29.95
Model 801-15 (fuse, 15' cord-set)	30.95
Model 801CB (crct. brkr., 6' cord-set)	30.95
Model 801CB-15 (crct. brkr., 15' cord-set)	31.95

MODEL 802 SERIES, CROW'S FOOT TYPE OUTLETS

Model 802 (fuse, 6' cord-set)	34.95
Model 802-15 (fuse, 15' cord-set)	35.95
Model 802CB (crct. brkr., 6' cord-set)	35.95
Model 802CB-15 (crct. brkr., 15' cord-set)	36.95

WABER SUPERB QUALITY CORD-SETS AND EXTENSION CORDS



All Waber cord-sets and extension cords are UL approved and rated at 15 amperes. Insulation is finest heat and oil resistant neoprene. All plugs and receptacles are molded on.

Part No.	Net
3071 (6', 16-3 "U" Ground Cord-set)	\$2.25
3072 (15', 16-3 "U" Ground Cord-set)	4.20
3073 (7', 16-3 "U" Ground Extension Cord)	2.61
3074 (16', 16-3 "U" Ground Extension Cord)	4.43
3075 (10', 16-2 Cord-set)	1.56



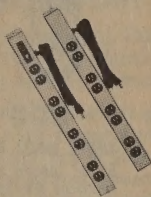
Need A Special?
Custom Outlet Boxes
To Your Requirements

NEW! WABER COMPLETELY WIRED — READY TO USE — 68 INCHER!

Here is a completely new unit with the extra length that makes it so practical, so useful, for work benches and full length racks. The 1040 series has an on-off switch, bright pilot light, "U" ground outlets; your choice of a 6 or 15 foot cord-set, fuse or push-to-reset circuit breaker. You get all of this in the same slim design as the 1000 series. Mounting centers are 67" overall size is 68 x 1 $\frac{1}{2}$ x 1 $\frac{1}{4}$ ". All component parts are UL approved and the sturdy steel case finished in silver gray textured hammertone. Rating is 15 amperes, 130 volts.

Model 1040 (fuse, 6' cord-set)	\$13.50
Model 1040-15 (fuse, 15' cord-set)	14.50
Model 1040CB (circuit breaker, 6' cord-set)	14.50
Model 1040CB-15 (circuit breaker, 15' cord-set)	15.50

WABER "SHORT JOHN" MODELS PACK GIANT FEATURES IN A STURDY TWO FOOT LENGTH



The new Waber 764 and 770 "Short John" series are similar to Waber series 707 and 711. This convenient two foot length provides a sizeable in-between length to supplement our one foot and four series. These new units are ideal for racks, benches, and test sets where its 24x21 $\frac{1}{2}$ " size is advantageous. Mounting centers are 23"

Model 764 (fuse, 6' cord-set)	\$13.50
Model 764-15 (fuse, 15' cord-set)	14.50
Model 764CB (circuit breaker, 6' cord-set)	14.50
Model 764CB-15 (circuit breaker, 15' cord-set)	15.50

Model 770 (6' cord-set)	13.50
Model 770-15 (15' cord-set)	14.50

NEW! WABER VARI-FINE SOLID STATE AC-DC MOTOR SPEED CONTROLLERS

NOW AVAILABLE IN HIGH CURRENT RATINGS AND NEW TWIN FOR TEST AND PRODUCTION WHERE IDENTICAL TWIN UNITS IN A MODERN PACKAGE CAN PROVIDE SPACE SAVING CONVENIENCE.

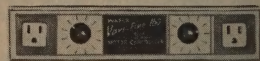
Waber Vari-Fine Controllers are solid state devices for speed and light control, featuring stepless change from zero to maximum. They provide infinite control of motor speed and light intensity, and can be used to vary the speed of AC/DC motors of the universal type. They handle load currents up to the maximum rating at 117 volts 60 cps. These self contained units may be plugged into any wall outlet and are fused for circuit protection. They are compact and portable. Waber Vari-Fine Controllers have many applications in the home, laboratory, school, or factory where the regulation of motor or light is desirable.



MODEL 201



MODEL 200



MODEL 202



MODEL 203

	Net		Net
Model 200 (Rated at 7 amperes, 117 volts)	\$14.95	Model 202 (Twin, rated 7 amperes each half)	\$26.95
Model 201 (Rated at 12 amperes, 117 volts)	19.95	Model 203 (Twin, rated 12 amperes each half)	34.95

waber

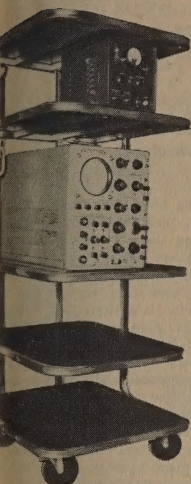
L E C T R O N I C S I N C

LAB-ON-WHEELS PHOTO SWITCHES

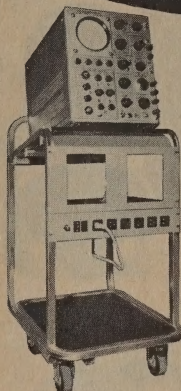
SINGLE CANTILEVER

Lab on Wheels

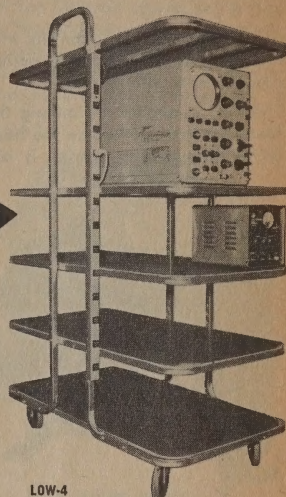
DOUBLE CANTILEVER



LOW-3



LOW-5



LOW-4

FEEL IT IN
FEEL IT OUT...
YOUR CONVENIENCE

WABER "Lab On Wheels" will easily expand your present work area, rolls effortlessly, and will provide ample space for your instruments, supplies, assemblies, breadboards, prototypes, etc. Provisions available for mounting a WABER Outlet Box (1,000 series) to supply power to the unit.

Shelves are adjustable to make any inch count. Each shelf is covered with tempered hardboard. Size: 28"Lx26"Wx66"H. This unit would prove a real workhorse for school, lab, or industrial plant. WABER Model LOW-3

Net
Outlet box) \$149.00

NEW! STURDY WABER "SCOPE" DOLLY EASILY TAKES ALL SIZES

This versatile scope dolly is designed to handle the big scopes and oversized test equipment with ease. The spacious non-skid deck, inclined at 22°, accommodates all instruments. The welded square tubing combines rigidity with functional design to permit the user free access to controls and an uncluttered view. It also allows 900 Series rack panels to be mounted as required. Size: 19¼"Wx29½"Lx36½"H.

Net
LOW-6 \$89.00
Accessory shelf and outlet box not included.

THIS WABER DOLLY HAS THE UTILITY YOU NEED

Transport stocks, instruments, assemblies with ease with this low cost WABER Basic Dolly. You can make your own adaptations to serve many purposes in your projects, where mobility would be desirable. Size: 32"Lx18½"Wx37½"H. Here is one of the most versatile and rugged units available to serve the needs of the lab, school or industry.

Net
WABER Model LOW-5 \$48.00

FEATURES:

1 INCH SQUARE STEEL TUBING FOR RIGIDITY, STRENGTH AND DURABILITY • ZINC PLATED WITH A CLEAR, IRRIDITE POST PLATE TREATMENT • HEAVY DUTY 5" WHEELS WITH HEAVY PLATE CASTERS. QUIET, FAST, EASY SWIVELING • PROVISIONS FOR MOUNTING WABER OUTLET BOXES.

PAYS FOR ITSELF IN TIME SAVED...IN CONVENIENCE

This double cantilevered carrier is built to hold greater load capacities with sway-free rigidity, strength and durability. The tremendous area available will accommodate your projects with ease, and provisions for a WABER 1000 series Outlet Box will "power-up" the carrier. When your projects are held-up you can wheel it out of the way and your lab tables are cleared for action. When you're ready to go again, wheel it back in.

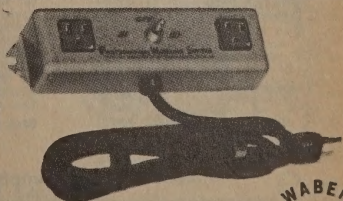
Size of the WABER Double Cantilevered Carrier is 48"Lx26"Wx71"H. Tempered hardboard is provided with each of the five shelves, and the shelves are adjustable.

WABER MODEL LOW-4
(less outlet box) \$188.00

TWO WABER MODELING SWITCHES NEWEST PHOTO STUDIO ACCESSORIES

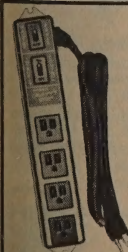
Photofloods last longer...lots, lots longer! And it licks the heat problem, too. Flick the switch to "low" and you have the shadows you need to properly position and focus your subject. When you're ready to shoot, flick the switch to "high" and the lights come on at maximum brilliance.

Net
Model 210 (for two bulbs of the same type.
Up to 1650 watts, total.) \$5.97
Model 211 (for up to four bulbs of any type.
Max. 1650 watts, total.) 10.89



MODEL 210

WABER
ELECTRONICS INC.

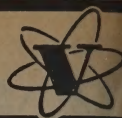


MODEL 211



BRISTOL MOTORS

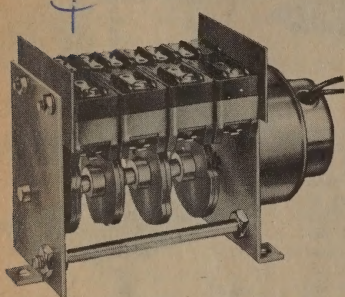
DIVISION OF VOCALINE



SYNCHRONOUS MOTORS AND TIMERS

Versatility is the characteristic which design engineers need — and find — in Bristol Synchronous Motors and Timing Devices. Bristol's unusually broad experience and range of design and manufacturing skills are particularly valuable where special requirements must be met.

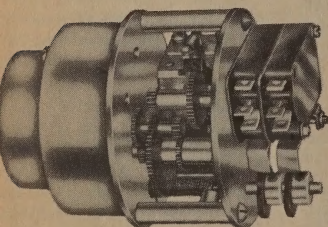
The devices shown are among the most widely used. All can be mounted in any position, and take a minimum of space. Materials are selected on the basis of their suitability to provide long service, and perform well under a variety of conditions. Bristol engineering service is available for applications that require custom design and manufacture.



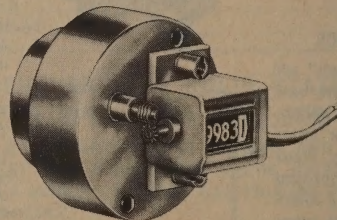
SERIES 31 REPEAT CYCLE TIMER. Low-cost multi-contact timer with high repeat accuracy. For vending machines, home appliances, industrial program controls. Speed Ranges: 1 Revolution Per Second to 1 Revolution Per Month. Motors standard, or high torque reversible. Switch Rating: 20 amp. at 115-230 V AC (also in 1/2 hp. at 125 V AC). Switches: enclosed snap action SPDT type. Cams: dual cams with set screws for field adjustment. Cut cams available on special order. Bulletin B-22.
One Switch Model \$8.00
Four Switch Model \$16.50



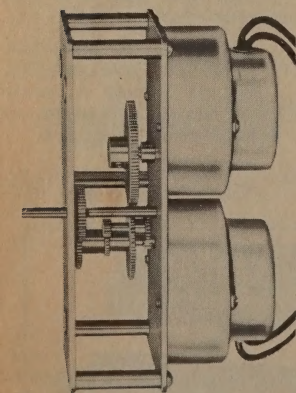
SERIES 6100 TIME DELAY RELAY. Universal Time Delay Relay provides holding solenoid starting with adjustable timed contact operation. Type 6100 provides three types of load contacts which give seven types of load circuit operation in a single unit. This motor may be wired up to one of four basic types of operation: momentary start, automatic reset; momentary start, manual reset; sustained switching; and tandem or cascaded operation. Size 3" diameter by 5 1/4" long. Timer case base 1 1/2" thick x 3 3/8" inches square. Universal mounting allows standard 3-stud or stud panel mounting. For further information request Bulletin No. B-11. \$44.00 approx.



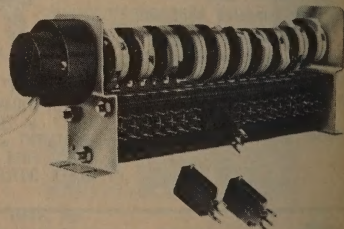
SERIES 21 TIME DELAY RELAY. General timer for instantaneous reset-type action, such as timers for photography, electronic safety, alarms, signals, etc. (Life expectancy over 1 million cycles.) Compact. Quick reset time (well under 1/5 second). Repeat accuracy better than 1% full scale. Time setting: 15 seconds to 3 months full scale. Rating: 10 amp (non-inductive load), Voltage: 115 V AC, 60 cycles standard. Optional adjustment feature available. Bulletin B-21.
One Switch Model \$18.50 approx.
Two Switch Model \$22.00 approx.



SERIES 41 ELAPSED TIME INDICATOR. Adaptable panel or unit mounting. This low-cost series features simple installation, and choice of four models with non-reset or reset counter. Maximum readings on both units from 9,999.9 minutes to 99,999 hours. 115 V AC, 60 Cycle standard. 50 Cycles and other voltages available. For further information on the three models above request Bulletin B-2. Non-reset \$14.00
Reset \$20.00



MODEL 42 DUAL SPEED UNIT. Consists of two motors assembled to a common output shaft through a differential. Output speed is the sum of the two motor input speeds. Therefore, two different speed unidirectional motors provide a choice of 3 output speeds (either motor speed or the sum of the two motor speeds). Available with reversible motors for further variations in output speed. Standard units also available incorporating 3 and 4 motors providing up to 40 output speeds by electrical switching. Dimensions depend on the design of the unit in question. For further information request Bulletin B-24.
Basic Unit \$18.00



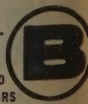
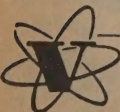
SERIES 47 REPLACEABLE SWITCH REPEAT CYCLE TIMER is a multi-contact program timer which permits easy switch replacement without the necessity of disassembling. In addition one turn of the calibrating adjusting screw provides a 2% variation of cam timing sequence. Switches are rated at 6 amps-115 volts. Available in a wide range of switches and speed combinations. Request Bulletin B-20
Two Switch Model \$14.00
Six Switch Model \$24.00

For Complete Bristol Line Write for Catalog

VOCALINE COMPANY OF AMERICA, INC., BRISTOL MOTOR/TIMER DIVISION

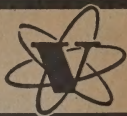
Timers and Motors to meet special applications are available from distributors. See Vocaline Bristol Motors Catalog for complete line of motors and timers.

IMMEDIATE DELIVERY FROM FRANCHISED VOCALINE/BRISTOL MOTORS DISTRIBUTORS



BRISTOL MOTORS

DIVISION OF VOCALINE

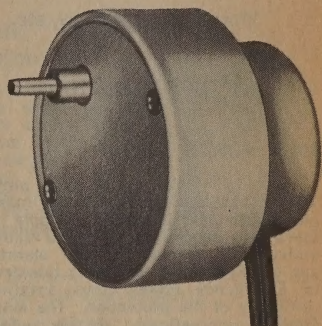
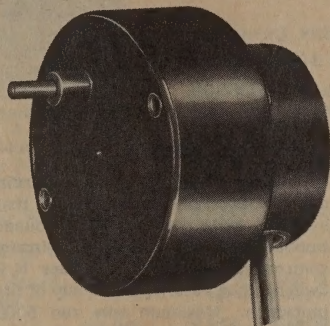
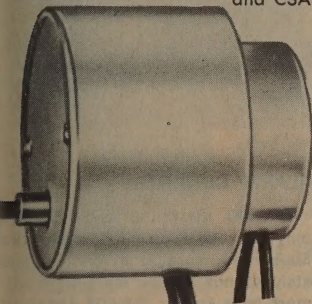

 CATALOGED IN
MASTER

MOTOR FEATURES:

STANDARDS AVAILABLE
"OFF THE SHELF" AT
FRANCHISED DISTRIBUTORS

SYNCHRONOUS MOTORS AND TIMERS

Speeds from 1800 RPM to as low as 1 Revolution Per Month for 60-cycle operation • High starting torque with running torque considerably higher • Exceptionally compact size—the motor is 2 inches in diameter • May be operated in any position • Impregnated bronze-graphite rotor bearings • Most gears hobbled for efficient operation and long life • Moisture and dust-proof type construction throughout • All standard motors are approved by UL and CSA except Models 647 and 830.



REVERSIBLE SYNCHRONOUS MOTOR. A versatile, low-cost motor for remote control and high torque applications. This motor operates by means of a condenser phase shift network, and offers positive reversibility in the following ratings:*

Model	Watts	Rated Starting Torque at 1 RPM
530	5	45 in. oz.
830	8	100 in. oz.

These are 2 inches in diameter, and 2 inches long.

*Torque ratings are developed motor torque. All standard gear trains are rated for 20 in. oz. maximum continuous running, 5 in. lbs., static torque rating. \$7.00 approx.

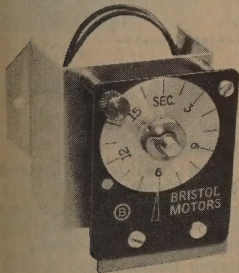
MODEL 350 INTERNAL SHIFT MOTOR. The rotor is disengaged from the gear train when de-energized permitting resting. A built-in solenoid assures positive engaged and disengagement of the clutch in all positions. Output torque rated at 16 in. oz. Available in speeds of 1/24 RPM to 240 RPM. Dimensions 2" dia. x 1-25/64" long. (Similar shift type action available on Type 830 reversible motor.) \$7.00 approx.

For further information on the models above request Bulletin B-10.

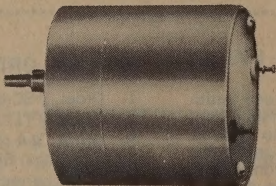
BASIC TIMING MOTOR. The standard Bristol motor for light and medium duty in uni-directional use, 2 in. diameter x 1 3/4" long, with through hole mounting. Available in a wide variety of output shafts and the following torque ratings:*

Model	Watts	Rated Starting Torque at 1 RPM
247	2.5	16 in. oz.
425	4	16 in. oz.
444	4	25 in. oz.
447	4	40 in. oz.
647	6	50 in. oz.

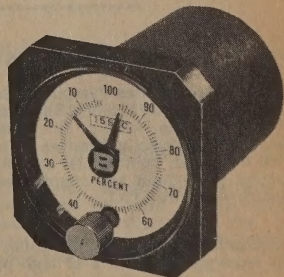
\$5.00 approx.



BRISTOL SERIES 55 DELAY TIMER, the low cost timer with the adjustable dial. For use when short time-delays are called for. This Delay Timer has a progress pointer which indicates the progress of a cycle, automatically resets when power to the duty-matched synchronous motor is interrupted and is manually adjusted by a selective dial which can be reset at will. The standard motor is for 115v/60 cycle, other voltages are available at small extra cost. Switch is SPDT rated 20 Amps resistive load at 115-230 VAC. Delay Timers are available in 15, 30, 60 and 120 second time delays. Bulletin B-32. \$13.50 approx.



MODEL 317 AND 319 TRANSISTORIZED DC MOTOR. This DC motor consists of a synchronous hysteresis motor with a transistorized inverter circuit. Ideal for long, reliable use in high humidity or saline atmosphere, with no objectionable radio noise. Speed ranges from 1 Rev per Month to 1500 RPM. Speed accuracy $\pm 10\%$; 16 in. oz. starting torque at 1 RPM. Suitable for ambient temperatures ranging from -10 degrees C to $+65$ degrees C. Model 317 dimensions 3 3/4" wide x 3" high x 1 3/8" deep. Model 319: 2" in diameter x 2 3/8" long. For further information request Bulletin B-26. \$30.00 approx.



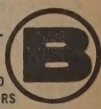
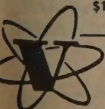
SERIES 63 PERCENTAGE TIMER has a progress indicator which always shows the present position of the timer. This is an easily adjustable repeat cycle timer which makes or breaks an electrical circuit for an adjustable percentage of the full time cycle. Available in 7.5 second to 31 day time ranges, they are ideal for control of blowers, ovens, dryers, heaters, pumps, etc. Have repeat accuracy within 1/4%. Panel mount. Automatic re-cycle. For complete information, request Bulletin B-30. \$27.00 approx.

SEND FOR COMPLETE MOTOR AND TIMER CATALOG

VOCALINE COMPANY OF AMERICA, INC., BRISTOL MOTOR/TIMER DIVISION

Timers and Motors to meet special applications are available from distributors. See Vocaline Bristol Motors Catalog for complete line of motors and timers.

IMMEDIATE DELIVERY FROM FRANCHISED VOCALINE/BRISTOL MOTORS DISTRIBUTORS



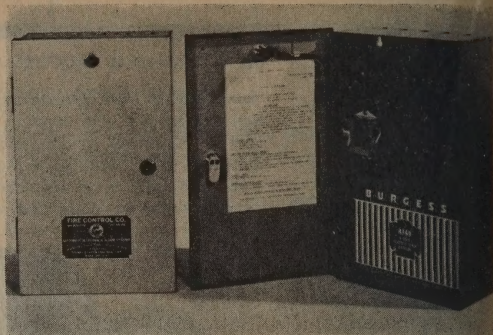
AUTOMATIC FIRE DETECTION & ALARM SYSTEMS

#SC-600R CONTROL UNIT

UNDERWRITERS' LABORATORIES APPROVED
MEETS & EXCEEDS NATIONAL FIRE CODES

FOR: Homes, Schools, Churches, Recreation Centers, Public Buildings, Nursing Homes, Restaurants, Stores, Motels, Clubs, Factories, Warehouses, Military, etc.

#SC-600R CONTROL UNIT\$192.00



MAIN POWER SUPPLY

Input 115 V/AC, 60 cy. 0.25 amp. Transformed/rectified to 6 V/DC, maximum load 2.0 amp. The Supply is **Electrically Supervised**, so that a failure immediately sounds trouble alarms, and the System automatically transfers to Emergency Power, thus assuring continuity of fire protection. The Main Supply automatically returns when power is restored. Use #14 approved wire.

EMERGENCY POWER SUPPLY

6 Volt Battery: Burgess #4F4H; Eveready #706; or equivalent. Maximum load under alarm condition 2.0 amp. Obtain from local electrical or radio wholesale house.

CABINET

14" x 9" x 4". Gray Hammertone. Surface mount. Cylinder lock, 2 keys.

DETECTOR CIRCUIT

6 V/DC, 0.15 amp. Safety-Loop Circuit is **Electrically Supervised**, so that a wire break immediately sounds trouble alarms. Emergency circuits compensate for such fault (See N/E Switch), thus assuring continuity of fire protection. Maximum wire run 5000 ft. #FA-18/2 Approved Fire Detector Cable.

NORMAL/EMERGENCY SWITCH

Provides Emergency Operation:

- Compensates for wire break in Detector Loop, **permitting full response from all detectors until repairs are made.**
- Silences Trouble Buzzer, but maintains Red Lamp to show the emergency condition.

ALARM CIRCUITS

6 V/DC, maximum load 1.5 amp. only one bell is used, it is **Electrically Supervised**, so that a failure immediately sounds trouble alarms. If two or more bells and/or #A-604 Annunciators are used, they are alternately connected to the two alarm circuits provided and the last operable alarm device is **Electrically Supervised**. Use #14 approved wire.

TEST/RESET/SILENCE SWITCH

Provides Simple Test Procedure:

- Test The System (once monthly)
- Silence all Firegongs.
- Reset to normal operation.

APPROVED FIRE ALARM SYSTEM

National Fire Codes Pamphlet 72A details the 'Local Automatic Fire Protective Signalling System' and its installation, acceptable to the Board of Fire Underwriters, and to Federal, State and Municipal authorities. This Standard is applicable to all industrial, commercial and military installations. Best practice throughout the country uses it in homes as well. Consult your Fire Chief.

Equipment bearing the UL Label has passed rigid inspection requirements and is of high professional quality.

Proper and correct tally of Automatic Fire Detectors is basic. The Code requires detectors in each room, hall, closet, stairwell, storage area, furnace room, basement, attic, loft, shaft, chute, etc. Do not exceed the space ratings given for each type of detector.

All wiring should be done in conduit as the best insurance for longevity and trouble-free service.

PRICING: FOB FACTORY

Pricing shown is Net. Standard Trade Discount to Electrical Contractors and Dealer-Installers. Subject to change without notice.

FIRE CONTROL CO.

HOW TO ORDER

- Order #SC-600R Control Unit.
- Order #T111N Disconnect Switch Unit.
- Order #A-(6"; 8"; 10" gong size) Inside Undermount Firegongs. Specify #AP for Weatherproof.
- Order correct tally of Automatic Fire Detectors. Use Sp Fire Locators for industrial, commercial, and military installations. Use FyrGuard Detectors for homes.
- Order #FA-18/2 Fire Detector Cable. A 250 ft. reel will cover the average three bedroom ranch home.
- Optional equipment: #A-604 Annunciator; #529 Manual Stations; #SFA-1 Smoke/Fire Alarms; #AR- Adapter Plates; etc.

TERMS

Net 30 days to accredited accounts. Check with order to others.

Our sole warranty is to repair or replace any equipment found defective in workmanship or materials within one year of invoice date. Tampering voids this obligation.

No merchandise may be returned without prior authorization from the Factory.

SPOT FIRE LOCATORS

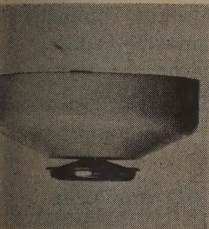
UL APPROVED

Famous dual-action Rate-of-Rise & Fixed-Temperature Automatic Fire Detector. Standard in the industry. Specified in industrial, commercial, and military installations.

Rated coverage: 2500 sq. ft. (Room 50 ft. x 50 ft.).

SE #501 (136°) in offices, showrooms, closets, halls.
SE #502 (190°) in furnace room, kitchen, attic.

POT FIRE LOCATORS\$5.20



FYRGUARD DETECTORS

UL APPROVED

Fixed-Temperature Automatic Fire Detector. A small, unobtrusive and economical unit widely used in home installations. Self-resetting.

Rated coverage: 900 sq. ft.

(Room 30 ft. x 30 ft.).

SE #2S (135°) in living rooms, bedrooms closets, halls.
SE #2H (175°) in furnace room, kitchen, attic.

RGUARD DETECTORS\$3.20



MANUAL PULL STATION

UL APPROVED

Non-coded fire stations. Modern design. Mounts on standard switch-box. Wire into the detector circuit exactly as an automatic fire detector. With 2 spare discs and key. Specify #BB Back Box for surface mount.

29 MANUAL PULL STATION\$12.00

UNDERDOME FIREGONG

UL APPROVED

Finest quality Underdome Firegongs made today. Clear pitch, firm tone. Low current draw. Flush easy-mount on all standard outlet boxes.

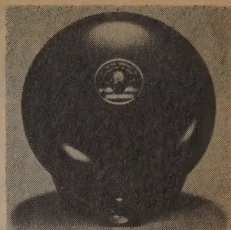
Specify 6 V/DC; 115 V/AC; other.

Add \$4.00 for #AP Weather-proof.

#A-6" INSIDE UNDERDOME FIREGONG\$28.00

#A-8"\$32.00

#A-10"\$36.00



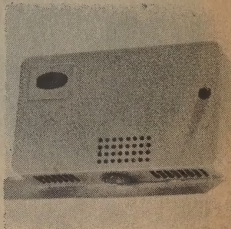
SMOKE/FIRE ALARM

SOLID-STATE CIRCUITRY

New dual unit detects Smoke and Fire before they reach danger levels! Sounds early warning alarm to save life! Simply hang on wall and plug into a 115 V/AC outlet. Has own alarm and can be used by itself, or easily tied into the detector circuit of a standard fire alarm system.

USE one unit in each bedroom, and one in the center hall on each floor (best near the stair landing).

#SFA-1 SMOKE/FIRE ALARM\$49.95

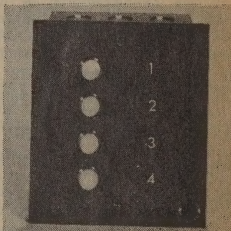


4-ZONE ANNUNCIATOR

UL APPROVED

For use in large installations which require quick identification of the fire area. All detector circuits are Electrically Supervised. Easy tie connections to #SC-600R Control Unit.

#A-604 4-ZONE ANNUNCIATOR\$80.00



FA-18/2 FIRE DETECTOR CABLE\$16.00

UL Approved Low-Energy Cable specified for Detector Circuits. Ivory plastic parallel cord. One tinned and one copper conductor for quick polarity identification. 250 ft. reel.

T11N DISCONNECT SWITCH UNIT\$10.00

Required by Code. Includes Box, Padlock, Disconnect Switch, Adapter with non-interchangeable Fuse, Spare. Mount adjacent to and take 115 V/AC from Line Side of Load center, through Fuse to Terminals 1 & 2 in #SC-600R Control Unit. Use #14 approved wire.

AR-2 ADAPTER PLATES80c

To easy-mount Spot Fire Locators on 3" or 4" octagon boxes. For conduit installations.

IVORY INSULATED STAPLES80c

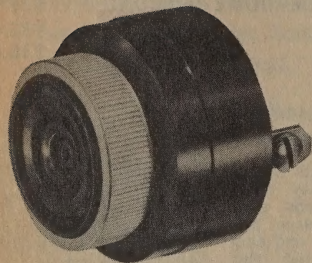
Decorator type. To secure Detector Cable to baseboards, moldings, rafters, etc. Box of 200.

FIRE CONTROL CO.

MALLORY

Sonalert®

electronic audible signal



Sonalert is a startling innovation in the audible signal-warning field. It produces a penetrating sound by purely electronic means. Circuitry is all "solid-state" for maximum efficiency, lowest current requirements, and highest reliability. Because circuitry is solid-state, there is no arcing, no RF noise, and no mechanical wear.

Sonalert is very compact, very light, and highly versatile. Consuming less current than a normal indicator light, the device can be utilized to complement visual signals. Thus, positive audible warnings are instantly given in fault alarms for computers, fire signals, instruments, medical electronics, appliances, communications as well as telephone signals and protection equipment.

STANDARD SONALERT SIGNALS

Catalog Number	Sound Freq. (cps)*	Oper. Voltage VDC VAC	Oper. Current (ma)	Sound Intensity (db)	Vol. (in.)	Wt. (oz.)	Oper. Temp. (°F)	L (in.)	Net (ea.)
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STOCKED BY FRANCHISED MALLORY DISTRIBUTORS

SC628	2800	6-28	—	3-14	68-80	2.9	1.25	-40+120	.781	\$ 5.5
SC628H	4500	6-28	—	3-14	68-80	2.9	1.25	-40+120	.781	6.3
SC628P	2800†	6-28	—	3-14	68-80†	4	2	-40+120	1.38	9.9
SC628A	2800	6-28	6-28	3-14	68-80	4	2	-40+120	1.38	8.7
SC628S†	2800	6-28	—	3-14	68-80	2.9	1.25	-40+185	.781	6.7
SC110	2800	110	110	14	80	4	2	-40+120	1.38	8.7

AVAILABLE ON SPECIAL ORDER FROM MALLORY DISTRIBUTORS

SC628HP	4500†	6-28	—	3-14	68-80†	4	2	-40+120	1.38	10.8
SC628AH	4500	6-28	6-28	3-14	68-80	4	2	-40+120	1.38	9.6
SC628AP	2800†	6-28	6-28	3-14	68-80	5.1	2.75	-40+120	1.94	13.2
SC628AHP	4500†	6-28	6-28	3-14	68-80†	5.1	2.75	-40+120	1.94	14.1
SC110H	4500	110	110	14	80	4	2	-40+120	1.38	9.6
SC110P	2800†	110	110	14	80†	5.1	2.75	-40+120	1.94	13.2
SC110HP	4500†	110	110	14	80†	5.1	2.75	-40+120	1.94	14.1
SC110S†	2800	110	110	14	80	4	2	-40+185	1.38	10.1
SC628SH†	4500	6-28	—	3-14	68-80	2.9	1.25	-40+185	.781	7.6
SC628SP†	2800†	6-28	—	3-14	68-80†	4	2	-40+185	1.38	11.2
SC628SHP†	4500†	6-28	—	3-14	68-80†	4	2	-40+185	1.38	12.1
SC628W*	2800*	6-28	—	3-14	68-80*	4	2	-40+120	1.38	10.8

*Tolerance: 2800 ± 300 cps, 4500 ± 500 cps

†Pulsating: 3 to 5 cps

‡Furnished with special silicon transistors

*Warbler unit, use with SC628H

Suffix: None = 2800 cps; H = 4500 cps; A = AC current model; S = Silicon transistor

P = Pulsating model; W = Warbling model

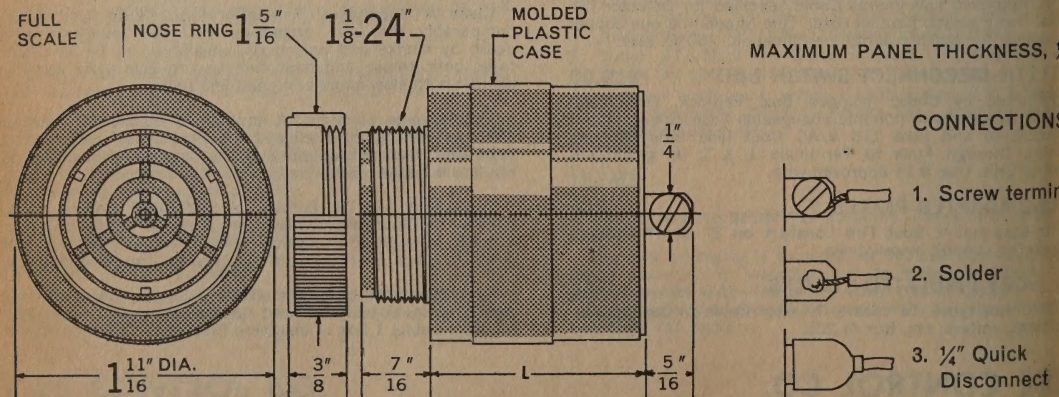
Note: Custom models to fit special applications also available.

MILITARY APPLICATIONS

Sonalert signals are not covered by detailed military specifications as such. However, Sonalert signals are employed in many types of military electronic equipment. The signals* meet or exceed the following requirements:

1. Vibration, per MIL-C-5422
2. Humidity, per MIL Standard 202A, Method 106A
3. Salt Spray, per MIL-E-4970
4. High Impact, per MIL-S-901B (Units with-stand 600G impact).
5. Environmental, Per MIL-E-5400 with Class I equipment covering these criteria;
 - a. Low temperature storage
 - b. Low temperature operation
 - c. High temperature storage
 - d. High temperature operation
 - e. Altitude
 - f. High temperature humidity

*NOTE: Models SC628S, SC628SH, and SC110S are preferred types for military applications.



MAXIMUM PANEL THICKNESS, 1/4"

CONNECTIONS

1. Screw terminal
2. Solder
3. 1/4" Quick Disconnect

HARREL

PRECISION SOLID STATE TEMPERATURE CONTROLLERS

GENERAL

Harrel temperature controllers are intended for the precision temperature control of ovens, test fixtures, and all kinds of industrial machinery. They are arranged for easy mounting on any panel and are designed to require minimum panel space.

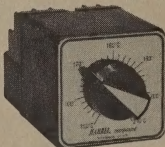
Temperature sensing is by means of a wire-type resistance sensor. This gives long-term stability and sensitivity which cannot be equalled by any other method of temperature sensing. The temperature sensor may be located as much as several hundred feet from the controller if desired. No special lead wires or shielding are required between controller and sensor.

ON-OFF RELAY CONTROLLERS

Utilize a rugged, solid state amplifier controlling a 10-ampere relay. Relay is easily replaceable in the field.

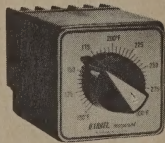
TIME PROPORTIONING RELAY TYPES

Similar to regular on-off controller, but controller operates on a regular cycle of on to off and back again, and it is the proportion of on-to-off time which is varied to control the temperature. Gives a characteristic which approximates true proportional control and in general gives greatly improved performance over regular on-off controllers.



TRUE PROPORTIONAL TYPES

Completely solid state. No relays, contacts, moving parts whatsoever in the power control circuits. Output does not cycle on and off but remains steady at exactly the amount necessary to hold the temperature at exactly the desired value. True stepless control gives closest temperature control of any type of controller. Elimination of contacts and moving parts means life measured in years.

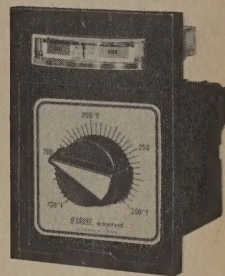


STANDARD MODELS 115 volt, 60 cycle operation

Form			Temperature Range	Switching or Proportional Band*	Power Output	Price	
Non-indicating	Indicating	Type				Non-indicating	Indicating
TC-115Q	TC-115S	on-off	100-300°F	1°C	0 amps	75.00	92.00
TC-115R	TC-115T	on-off	100-500°F	1°C	10 amps	75.00	92.00
TC-116L	—	Time Proportioning, Relay	100-300°F	1.5°C	10 amps	80.00	—
TC-116M	—	Time Proportioning, Relay	100-500°F	1.5°C	10 amps	80.00	—
TC-396D	TC-496D	True Proportional	100-300°F	1.5°C	1000 watts**	149.00	166.00
TC-396E	TC-496E	True Proportional	100-500°F	1.5°C	1000 watts**	149.00	166.00

*For on-off, temperature change at sensor to go from on to off and vice versa. For time proportioning, temperature change for 30% to 75% power output. For true proportional, temperature change from 10% to 80% full power output. Note that temperature performance for proportional types will in general be much better than figure shown; full proportional band is seldom required to compensate for changes in external conditions.

**At 25°C ambient temperature. Derate linearly to zero at 100°C ambient temperature. For indicating types, heater must be arranged so that steady state power output (that is the power other than during warm-up and cool-down) is between 5% and 75% of full power output.



Indicating Controller

INDICATING FORMS

The system of display employed on indicating forms of the controller is designed especially for automated systems. The temperature is both set and read out on the large easy-to-read dial. The indicator is separate, and is of the go/no-go type which gives a visual alarm whenever the actual temperature is not at the set point. No skill or knowledge is required of the operator. All he has to do is be sure that the indicator stays out of the two red zones. Indicating forms are mounted on an attractive escutcheon arranged for easy panel mounting or indicator may be located remotely if desired.

SENSORS

A number of different forms of sensors are available for the above

- Patch Sensor:** For measuring the temperature of surfaces. Thin and flexible; may be attached by means of an adhesive or with tape (supplied).
- Oval:** Sensors wound on oval hollow ceramic core. Bracket mount for sensing air temperature.
- Tubular:** Cylindrical sensors in aluminum or stainless steel protecting jackets. May be mounted in solids, liquids, or gases.

SENSORS

Form	Type	Max. Temperature	Dimensions	Price
TS-100B	Patch	300°F	3/4" x 3/4" x 1/8"	\$19.80
TS-100F	Patch	500°F	1" x 1" x 3/16"	23.75
TS-103G	Oval	500°F	2" x 1/2" x 3/16"	4.50
TS-103J	Tubular, Aluminum Jacket	500°F	3/4" dia. x 1 1/2" long	9.35
TS-103K	Tubular, Stainless Jacket	500°F	3/4" dia. x 1 1/2" long	11.75

Other products manufactured by Harrel, Inc. — High Precision Proportional Temperature Controllers (ten-turn potentiometer forms), Laboratory-Style Temperature Controllers, Controllers for Thermoelectric Coolers, Programmable Controllers, Solid State Thermostats, Temperature-Controlled Enclosures, Temperature Indicators, Temperature Recorders, Temperature Sensors, Heaters. Write for further information.

All specifications and prices subject to change without notice.

HARREL, incorporated

PRECISION TEMPERATURE CONTROLS

• Recorders

• Indicators

• Sensors

• Heaters

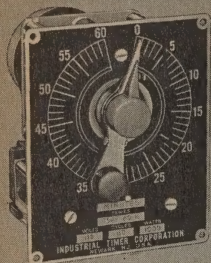
• Programmers

• Alarms

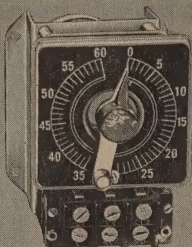
• Thermoelectric Controllers

• Enclosures

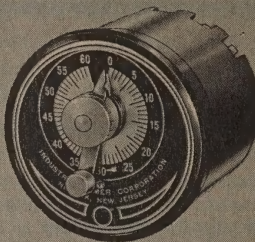
INDUSTRIAL TIMER CORPORATION



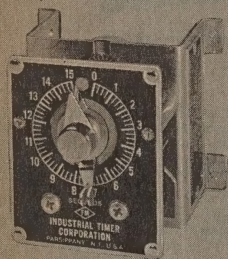
TDAF



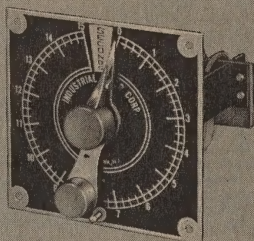
TDAB



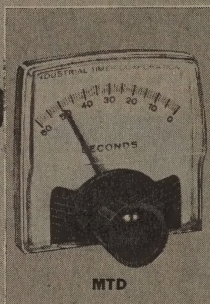
TD



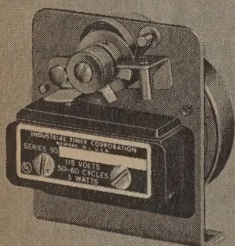
SF



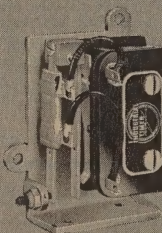
"H"



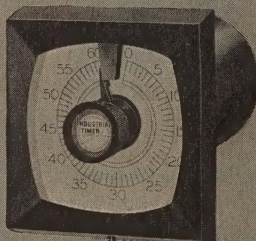
MTD



90



TH



GTD

DELAY TIMERS

This type of timer introduces a pre-determined time delay between the closing of a switch and the opening or closing of a load switch. The sequence is: The timer is started by a switch closure, the load switch remains in normal condition until commencement of time delay, at which time it is operated.

TDAF (BULLETIN #300) Time cycles from 1/60 second to 3 hours, instant reset, 10 amp contact rating, panel mounting, extremely accurate. **\$43.00**

TDAB (BULLETIN #300) Time cycles from 1/60 second to 3 hours, instant reset, 10 amp contact rating, back mounted or available in housing, extremely accurate. **\$43.00**

TD (BULLETIN #305) Time cycles from 1/10 second to 5 minutes, 10 amp contact rating, auto-reset, mounts through a round hole. **\$30.50**

SF (BULLETIN #305) Time cycles from 1/10 second to 5 minutes, 10 amp contact rating, panel mounted, auto-reset. **\$23.00**

"H" (BULLETIN #305) Time cycles from 1/10 second to 5 minutes, 10 amp contact rating, panel mounted, auto-reset. **\$26.50**

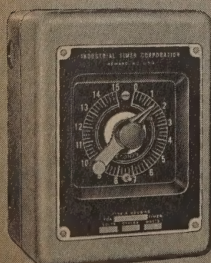
MTD (BULLETIN #304) Time cycles from 6 seconds to 3 hours. Automatic reset. 10 amp contact rating. Matches modern panel instruments. Plastic face. **\$30.50**

90 (BULLETIN #305) Time cycles from 1/2 second to 90 seconds. 10 amp contact rating, auto-reset. **\$17.00**

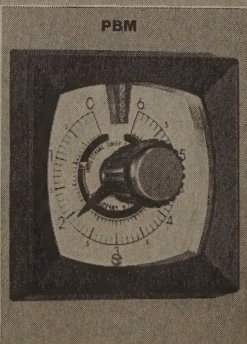
TH (BULLETIN #305) Thermal Time delay switch, snap action contact rated at 10 amps. Time cycles from 15 seconds to 2 minutes, temperature compensated, adjustable. **\$8.50**

GTD (BULLETIN #302) Automatic reset, available in 11 models ranging in time cycles from 3 seconds to 3 hours. 10 amp isolated load contacts. Unit mounts through 3 inch hole in panel and features built-in self locking feature that eliminates mounting screws. A.C. voltages of 115 or 220. **\$39.50**

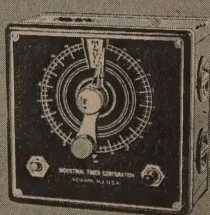
PAB



PBM



P & M



INTERVAL TIMERS

An Interval Timer closes (or opens) a load switch at the beginning of a time cycle; at the end of the time interval the load circuit is returned to its original condition.

PAB (BULLETIN #400) Time Intervals from 1/60 second to 3 hours. 15 amp non-inductive. Instant automatic reset. Available with housing. Momentary starting. **\$55.00**

PBM (BULLETIN #404) Time cycles from 1/10 seconds to 3 hours. 25 amp non-inductive. Auto-reset. Combination set-start pushbutton knob with interval progress dial indicator. **\$19.75**

P & M (BULLETIN #400) "P" Series—1/10 second to 5 minutes, remote momentary start, auto-reset, 15 amp load rating. **\$33.00**

"M" Series—1 second to 1 minute, push button start, auto-reset, 10 amp contact rating. **\$26.50**

INDUSTRIAL TIMER CORPORATION



PROGRAMMING CAM TIMERS

A Recycling Timer opens and closes an electrical circuit in a continuous pre-set sequence.

TANDEM (BULLETIN #500) Interchangeable timing elements provide individual time cycles from 1/10 seconds to 3 hours. Elements operate in sequence. 15 amp load rating. **\$142.50 complete**

CM (BULLETIN #200) Single switch rated at 10 amps. Adjustable cam provides 2% to 98% "ON"—"OFF" of any of 600 available time cycles. Each model has 50 available time cycles through use of interchangeable gear racks, cycles continuously. **\$20.50**

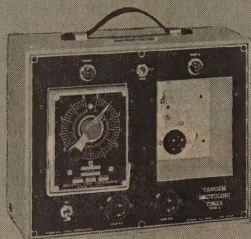
RC (BULLETIN #200) Similar to Series MC, but starts from momentary pulse, makes 1 revolution of cam shaft and stops. The timer recycles from a sustained start. Time cycles from 2/3 second to 72 hours are available, switch rating is 10 amps. **\$30.50 to \$198.50**

600 (BULLETIN #203) Simplified Recycling Cam Timer available with up to 7 switches from 15 seconds to 60 hours. **\$17.00 to \$53.00**

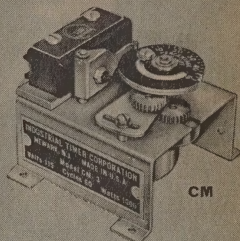
PC (BULLETIN #500) Opens and closes a 15 amp load switch continuously. Adjustable from 3% to 97% of time cycles from 15 seconds to 24 hours. Available in housing. **\$31.00**

MC (BULLETIN #200, 201, 202) Available with up to 20 individual load circuits. Time cycles from 2/3 second to 72 hours. 10 amp load rating, available in Kit for prototype assembly, or with shaft extension for external drive.

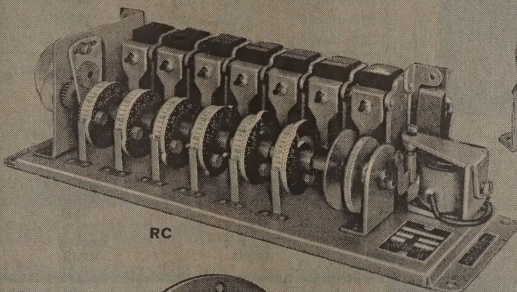
\$35.50 for 2 sw. unit
up to \$191.50 for
20 load switches



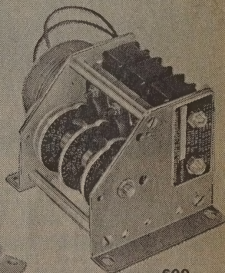
TANDEM



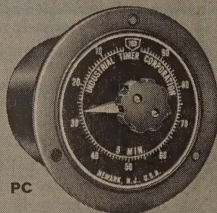
CM



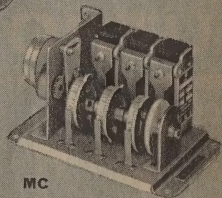
RC



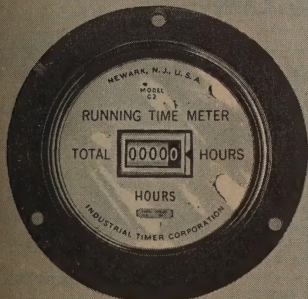
600



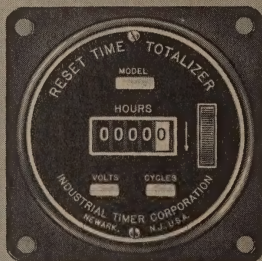
PC



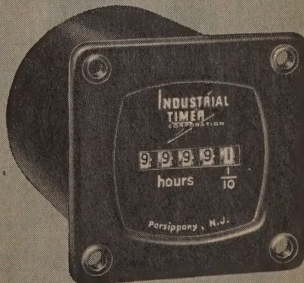
MC



C-2



C-5



C-8 D.C.

TIME MEASUREMENT DEVICES
The running Time Meters and Reset Time Totalizers are used to record the operating time of equipment requiring periodic maintenance.

C-2 (BULLETIN #700) The Series C-2 Running Time Meter is available in counts from 1/10 second to 1 hour. Total accumulation ranges are 10,000 seconds to 100,000 hours. **\$20.50**

C-5 (BULLETIN #700) This is a cased type instrument, mounted in a black, baked-finish housing. With heavy steel mounting flange. Screw terminals on back. Model C-5 incorporates a special type of counter that permits resetting to zero at any time. Offered for 115 and 220 volts, 60, 50, and 25 cycles. **\$42.50**

C-8 D.C. (BULLETIN #701) The C-8 is a compact Running Time Meter for use on equipment using D.C. voltages. Available for 6, 12, 24, 28 or 32 VDC. Mounts through round 2-3/16" hole in panel, secures with 4 screws. The C-8 accumulates up to 9999.9 hours with a minimum count of 1/10 hour. **\$19.25**

LUTRON**SPEEDIAL[®] MOTOR SPEED CONTROLS**

MK-II/III

Clip-on Back
For Use on
Belt or Wall

OPERATION: To be used on Universal (AC-DC) and on Series DC motors ONLY. Do not use on AC motors. Electric hand tools have Universal motors. May also be used on electric clutches and brakes requiring DC voltage.

TYPICAL APPLICATIONS: Mixing Liquids (Paints, Chemicals, etc.) Feeders, Flame Cutting Machines, Winding Machines, Controls, Electric Clutches and Brakes, Screwdrivers, Paper Cutters, Paper Pulp Mixing, Conveyor Belts, Also Mixers, Stirrers, Blenders.

SPEEDIAL MOTOR SPEED CONTROLS electronically vary the speed of any Universal (AC-DC) motor driven tool from zero to full speed without loss of power. Electronic feedback increases power as load increases.

Speed control saves drill bits, makes cleaner cuts, holes and sanded surfaces possible with inexpensive tools.

FOR HANDYMAN AND HOBBYIST

MODELS	MAXIMUM MOTOR NAMEPLATE RATING	50-60 CPS INPUT VOLTS	APPROXIMATE MAX. H.P.	APPROX. MAX. DRILL SIZE	TRADE NET
MK-II	5 Amps	120	.4 H.P.	1/4", 3/8"	\$11.96
MK-III	10 Amps	120	.8 H.P.	1/2"	19.46

INDUSTRIAL — PROFESSIONAL — SCIENTIFIC MODELS

(Housed in 4 1/2" x 2 1/2" DEEP CAST ALUMINUM CASE)

MODELS	MAXIMUM MOTOR NAMEPLATE RATING	50-60 CPS INPUT VOLTS	APPROXIMATE MAX. H.P.	APPROX. MAX. DRILL SIZE	TRADE NET
MK-5	5 Amps	120	.4 H.P.	1/4", 3/8"	\$19.46
MK-10	10 Amps	120	.8 H.P.	1/2"	29.96
MK-15	15 Amps	120	1.2 H.P.	5/8"	42.96
MK-250-5	5 Amps	208-250	.8 H.P.	1/2"	24.00
MK-250-10	10 Amps	208-250	1.6 H.P.	5/8"	36.00
MK-250-15	15 Amps	208-250	2.5 H.P.		51.75

ONE INEXPENSIVE SPEED CONTROL FOR DOZENS OF DIFFERENT TOOLS

Electric Drills



Electric Saws



Electric Sanders



Motors in the Factory and Laboratory

LUTRON**LIGHT DIMMERS****CAPRI****ELECTRONIC LIGHT CONTROLS**

Continuous dimming controls for residential, commercial and industrial use. A popular accessory for hi-fi and TV rooms, dining rooms, kitchen, nurseries, bedroom and office. Excellent for use in equipment and visual displays. Quick and easily installed in the same manner as an ordinary switch, they fit standard depth wall boxes. For single or multi-ganged installation.

INCANDESCENT DIMMERS***FLUORESCENT DIMMERS****HIGH POWER INCANDESCENT DIMMERS**

MODEL NO.	DESCRIPTION	INSTALLATION	TRADE NET	MODEL NO.	DESCRIPTION	INSTALLATION	TRADE NET	
D-6P	600 Watts, Push On, Push Off	Single Gang Box 2 Wires	\$ 7.47	FD-600	3 to 12 forty watt lamps or 600 watts incandescent	Single Gang Box 3 Wires	\$ 24.75	
D-63P	600 Watts, 3-Way Push On, Push Off	Single Gang Box 3 Wires	\$ 11.97	FD-900	10 to 18 forty watt lamps or 900 watts incandescent	Single Gang Box 3 Wires	\$ 37.46	• Manual and Motor Driven
D-600P	600 Watts (UL) Push On, Push Off	Single Gang Box 2 Wires	\$ 8.97	FD-1800	10 to 36 forty watt lamps or 1800 watts incandescent	Remote Control Single Gang Box	\$108.75	• 2500 to 75,000 Watts Incandescent
D-603P	600 Watts (UL) Push On, Push Off	Single Gang Box 3 Wires	\$ 12.72	FD-3600	10 to 72 forty watt lamps or 3600 watts incandescent	Remote Control Single Gang Box	\$148.50	• An Extremely New Approach
D-10P	1000 Watts Push On, Push Off	Single Gang Box 2 Wires	\$ 29.96					• Both Modular and Expandable
D-103P	1000 Watts, 3-Way Push On, Push Off	Single Gang Box 3 Wires	\$ 32.96					• Control up to 75,000 Watts Incandescent from one or more locations!
D-1000	1000 Watts (UL)	Single Gang Box 2 Wires	\$ 29.96					• Write for High Power Bulletin
D-1800	1800 Watts	Double Gang Box 2 Wires	\$ 63.75					
D-2500	2500 Watts	Remote Control Single Gang Box	\$ 97.40					
D-3600	3600 Watts	Remote Control Single Gang Box	\$144.00					

For proper fluorescent dimming, one of the following dimming ballasts must be used:
Universal #661, #535, #550A, #502A,
GE #665001, #663670, #896718, #665007
Advance #DIM-140L or RSD-140
Jefferson #254-1171

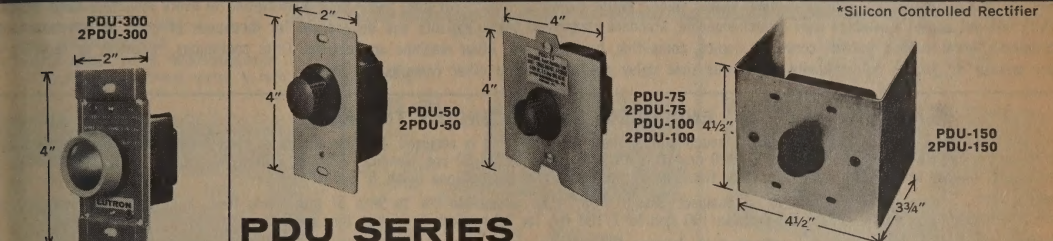
*Will control fluorescent and incandescent separately or together

LUTRON

POWERDIAL®

SCR* POWER CONTROLS

*Silicon Controlled Rectifier



PDU-300
2PDU-300

PDU-50
2PDU-50

PDU-75
2PDU-75
PDU-100
2PDU-100

PDU-150
2PDU-150

PDU SERIES

PDU Series is suitable for panel mounting. — May be wired for AC or DC output. Two wire connection.

MODEL	MAX. AC WATTS	RMS. AMPS. AC	RMS. AMPS. DC	AC INPUT VOLTS	AC OUTPUT VOLTS	RMS-DC OUTPUT VOLTS	WEIGHT LBS.	TRADE NET
PDU-50	600	0-5	0-5	120	0-120	0-85	.25	\$ 15.75
PDU-75	900	0-7.5	0-7.5	120	0-120	0-85	.34	18.75
PDU-100	1200	0-10	0-7.5	120	0-120	0-85	.53	30.00
PDU-150	1800	0-15	0-10	120	C-120	0-85	1.0	60.00
PDU-300	3600	0-30	0-20	120	0-120	0-85	12.0	127.50
2PDU-50	1200	0-5	0-5	240	0-240	0-170	.25	30.00
2PDU-75	1800	0-7.5	0-7.5	240	0-240	0-170	.34	33.00
2PDU-100	2400	0-15	0-7.5	240	0-240	0-170	.53	39.00
2PDU-150	3600	0-15	0-10	240	0-240	0-170	1.0	78.00
2PDU-300	7200	0-30	0-20	240	0-240	0-170	12.0	162.00

NOTE: Above units are 60 cycle service. Please send 400 cycle or other special unit inquiries to our Engineering Dept.

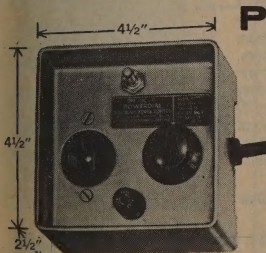
POWERDIAL FEATURES

- Output is continuously adjustable AC or DC
- No brushes to burn out or wear
- Rugged, reliable, solid state circuitry
- Lower installed cost
- 1/10 the weight, 1/2 the size of conventional variable auto-transformer controls

POWERDIAL WILL CONTROL:

- Universal and Series DC Motors
- Voltage
- Shaded Pole Motors*
- Current
- Permanent Split Capacitor Motors*
- Resistive Heaters & Infra-Red Lamps
- Lamps
- Soldering Irons
- Electric Solenoids & Brakes, D.C. Clutches
- Electroplaters
- Electric Punches & Actuators
- Vibratory Feeders
- Centrifuges

*Used only on fan and light loads, or where torque is proportional to speed.



PD SERIES

MODEL	MAX. AC WATTS	RMS. AMPS. AC OUT	RMS. AMPS. DC OUT	AC INPUT VOLTS	AC OUTPUT VOLTS	RMS-DC OUTPUT VOLTS	WEIGHT LBS.	TRADE NET
PD-50	600	0-5	0-5	120	0-120	0-85	2.0	\$24.00
PD-75	900	0-7.5	0-7.5	120	0-120	0-85	2.0	27.00
PD-100	1200	0-10	0-7.5	120	0-120	0-85	2.3	30.00
PD-150	1800	0-15	0-10	120	0-120	0-85	2.6	60.00
2PD-50	1200	0-5	0-5	240	0-240	0-170	2.0	33.00
2PD-75	1800	0-7.5	0-7.5	240	0-240	0-170	2.0	36.00
2PD-100	2400	0-10	0-7.5	240	0-240	0-170	2.3	39.00
2PD-150	3600	0-15	0-10	240	0-240	0-170	2.6	81.00

PD Series — Simply Switch to AC, DC or off. All units have fuse, 3 wire cord and receptacle.

Typical Waveforms

AC Output

DC Output

SCR Firing Angle 45° (low output) 90° (medium output) 170° (high output)

LUTRON ELECTRONICS CO., INC.

THORDARSON MEISSNER

"SWITCHMASTER" TIME CYCLE CONTROLLERS

Automatically control and program machinery and processes in every phase of manufacturing. Total time cycle available up to 24 hours and down to fraction of a second. Simple tool adjustment gives "on-off" period from 2% to 98% of total cycle time for adaption to every industrial need. Rugged self-contained design assembled from interchangeable, standard component parts. Reliable and dependable for thousands of users for machine tool, chemicals, steel, rubber, plastic, conveyor, liquids, computing, packaging and other machine applications. Offer continuous, repeating or recycling any number of circuits automatically; eliminates time delay mechanisms and other complex devices.

ENCLOSED, SINGLE-CIRCUIT TIMERS

For controlling single-circuit processes where frequent or periodic time changing is required. Lifetime lubricated gear train and motor. **Switch:** heavy duty, snap-action switch rated 15 amps, 110, 220 or 440 v. AC. **Motor:** 110 v. AC, 60 cps standard; 220 and 440 v. AC, and 25 or 50 cps available at extra cost. Speeds as noted for each type. **Case:** Heavy-gauge steel with gray hammertone finish; 5" x 6½" x 4".

MODEL 201—Gives split-second timing in compact design. "On" time adjustable 2% to 98% of total cycle time. Split cam directly driven and easily adjusted. Synchronous motor available in 100 rpm to 1/168 rph for 0.6 seconds to 1 week time cycles.

MODEL 101—Basic type with dial calibrated in degrees for accuracy. "On-off" time changed easily without tools. Patented, slip-action cam drive directly from high-torque, fully enclosed motor. Two-way clutch prevents gear damage during reset. "On-off" time adjustable to 50% of total time cycle. Motor speeds of 1, 2, 3, 4 or 5 rpm for 60, 30, 20, 15 or 10 seconds cycle time.

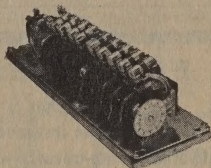
MODEL 101-1—Same as Model 101, but timing dial calibrated in seconds. For lab or manufacturing use. Ideal for hopper control, automatic livestock feeding, etc. Slipping clutch type cam adjusts instantly to 50% of total cycle time for "on-off."

SPST RECYCLING SEQUENCE TIMERS AND DRUM CONTROLLERS

Two basic drum controllers combine with various motor and cam combinations for recycling sequence timers to meet every need. Come with end-mount timing dials and shock absorbing base (except Drum controllers 7-circuit size or below, which have rigid base); horizontal surface mounting by four ¼ screws. **Switches:** Staley Metal mercury types rated 20, 12, 7 and 5 amps non-inductive at 125, 250, 440 and 550 v. AC respectively. **Cycle Time:** From 0.6 seconds to 1 hour. **Motors:** Shaded-pole gear type for 110 v. AC, 60 cps, 35 watts. Drum controllers not supplied with motors. **Cams:** 3-piece split, single-lobe type. **Times Adjustment:** 1¼% to 98¼% of total cycle time for 12-second cycles or longer; "On" or "Off"; 3¼% to 96¼% for 3 to 12-second cycles. **Cam Switch Repeatability:** ±½° for 12-second and longer cycles, ±5° for 0.6-second cycle. **Number of SPST Circuits:** Up to 60—see individual models for particulars. **Specify, when ordering:** Number of circuits required, time cycle and optional equipment must be specified when ordering. See price list cost variations and options available.

MODEL 200

Workhorse of the line. Versatile unit performs all required controller functions in 80% of all applications. Comes with single, mounted motor. Available in from 1 to 30 SPST circuit styles.



MODEL 635

Operated by two geared motors of different speeds. The faster motor is coupled to the cam shaft through overriding clutches to provide quick recycling. Automatic recycling is achieved with a switch on the controller itself. Comes with two, mounted motors. Available in from 2 to 30 SPST circuit styles.

MODEL 802

Actually two controllers (or more) in one. Employs two cam shafts on a single motor with compound gear assembly for automatic control of two time cycles. Standard cycle times from 0.6 second to one hour on one shaft; up to 64 times as long on the other. Complete with single, mounted motor. Available in from 2 to 30 SPST circuit styles.

MODEL 702

Vertical stacking model for applications where limited horizontal space is available. Comes with single, mounted motor. Choice of from 2 to 60 SPST circuits arranged on 2, 3, or 4 levels.



MODEL 648 CONTROLLER

Same as Model 200 timer, but without motor. Used where on external power source, supplied by the equipment being controlled, is available. Without motor. Shaft ¾" dia., extends 1½" beyond base. Available in from 1 to 30 SPST circuits (up through 7 circuits with rigid base; others, shock-absorbing base).



MODEL 748 CONTROLLER

Same as Model 702 timer, but without motor for use with external power sources; and where horizontal space is limited so as to require vertical stacking of cams. Without motor. Shaft, ¾" dia., extends 1½" beyond base. Available in from 2 to 60 circuits arranged on 2, 3, or 4 levels (2-14 circuits on 2-level, 3-21 circuits on 3-level, and 4-28 circuits on 4-level versions come with rigid base; other, shock-absorbing base).

MODEL 300 SPDT SEQUENCE CONTROLLER

Used to control a number of electrical circuits in a predetermined sequence. Employing various motor speeds and gear combinations, any time cycle from 0.6 sec. to 24 hours can be arranged. High torque (1 in.-lbs.) motor drives a continuously rotating (as long as motor is energized) cam shaft. Adjustable cams determine the point of closing or opening of a switch on each cam revolution. Special terminal board permits changing snap-action switch in 3 minutes without disconnecting wiring or dismantling controller. Oversize, molded plastic cams adjustable to extreme accuracy with an allen wrench. Cam setting made easily with 360° dial for split-second timing. **Contacts:** Rated 15 amps, 115, 220 and 440 v. AC. Inrush loads to 30 amps on NC contacts. 15 amps NO contacts. Load circuits closed 50-98% of total time cycle are connected to NO contacts; if open less than 50%, connected to NC contacts. **Mounting:** May be wall or surface mounted; rigid base has 4 mounting holes.



MODEL TMK CONTROLLER KIT

Includes all parts for construction of one each of a 3, 6, 9 and 12-circuit controller, with operating times from fractions of a second to 24 hours. Rugged design, for permanent or experimental use. Five heavy duty motors range from 1/6 rph to 20 rpm, with an adequate supply of change gears for any time cycle. Constructed in minutes without special tools.

T-M Switchmaster Model TMK Controller Kit.



MODEL 400 COMPACT SPDT TIME CYCLE CONTROLLER

Control from 1 to 10 circuits with dependable accuracy. Precision built with large cams of molded Delrin® and 360° dial for precise timing. Cam setting may be made with an allen wrench. Synchronous motor rotates a cam shaft continuously. Adjustable cams permit close, accurate timing with "on-off" time as close as 1/180 of a time cycle. Two-way clutch is built into gear box for manual resetting of cams. SPDT switches are snap-action type rated 20 amps, 110, 220 and 440 v. AC. **Standard Time Cycles:** 6, 10, 12, 15, 20, 30, 60, and 90 seconds; 2, 3, 4, 5, 10, 12, 15, 20, 30, and 60 minutes; 12 and 24 hours.

Enclosures: Supplied on Models 101, 101-1 and 201. Available for Models 200, 300, 400, 635 and 648 at extra cost. To order, specify; price method same as for controller.

ASK ABOUT BRAKES, OVERRIDE CLUTCHES & OTHER OPTIONAL EQUIPMENT

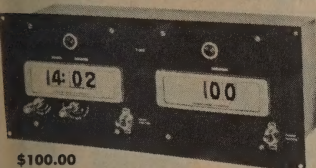


TYMETER GRADINETIC®

DIGITAL READ-OUT CLOCKS ELAPSED TIME COMPUTERS INTERVAL, COUNT DOWN, IMPULSE TIMERS

Featuring:

- FRONT PANEL MOUNT
- DESK OR BENCH USE
- DIGITS RESETTABLE INDIVIDUALLY
- CSA and UL approved motor & cord



\$100.00

DIGITAL CLOCK SECOND BY SECOND

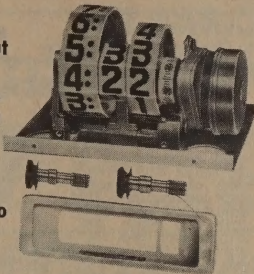
Time registered on 5 polygonal drums. One Hour drum, one 10-minute drum, one minute drum, two seconds drums. 4 1/2" h, 12" w, 3 1/4" d. Wt. 6 lbs. Anodized metal dustproof case.

- # 110-12H 12 Hour
110-24H 24 Hour

MOVEMENT

6-Digit Read Out

3" high
5 1/2" wide
3 1/2" deep
Wt. 2 lbs.

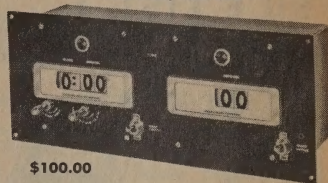


\$16.00

Consists of Tymeter Digital Clock Movement, mounting bracket, window escutcheon assembly, 2 time reset assemblies

- # 130-12H 12 Hour
131-24H 24 Hour

All Tymeters available in:
120 VAC, 50 or 60 CPS
240 VAC, 50 or 60 CPS
115 VAC, 400 CPS



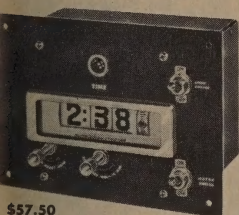
\$100.00

ELAPSED TIME DIGITAL COMPUTER

Automatically calculates and registers elapsed time in hours, 10 minutes, minutes and seconds. Second by second. 4 1/2" h, 12" w, 3 1/2" d. Wt. 6 lbs.

Available In:

- #115 12 Hour
30 Minute
60 Minute 24 Hour



\$57.50

DIGITAL CLOCK

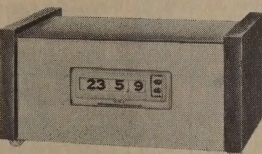
12 and 24 hour 6 digit read out ... minutes, 10 minutes and hours. Rotating visual 1 RPM calibrated seconds drum. 4 1/2" h, 6" w, 3 1/4" d. Wt. 3 1/2 lbs. Anodized metal dustproof case.

- # 160-12H 12 Hour
161-24H 24 Hour

24-HOUR DIGITAL READ OUT CLOCK

Calculates time automatically. Stainless steel case with walnut wood ends. 3 7/8" h, 7 3/4" w, 3 3/4" d. Wt. 3 lbs. 110V 60 Cy. AC.

- # 920-24 Hour \$24.50*
920-12 Hour 19.95*



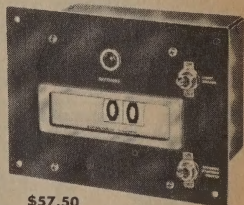
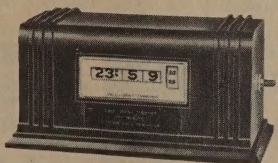
PAT. No. 2587277 Other Pats. Pend.

CALL-IDENT

24-HOUR CLOCK with 10-MINUTE STATION CALL REMINDER

Walnut or ebony plastic case. 4" h, 7 3/4" w, 4" d. Wt. 3 lbs.

- # 124 22.50*



\$57.50

ELAPSED TIME DIGITAL COMPUTER

Automatically calculates and registers elapsed time in seconds. Second by second 2 digit read out ... 00-59. 4" h, 6" w, 3 1/4" d. Wt. 3 1/2 lbs. Anodized metal dustproof case.

- # 10-60S 60 Seconds



DIGITAL TIMER

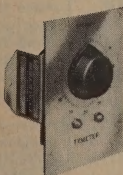
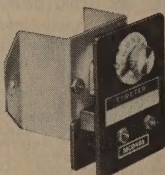
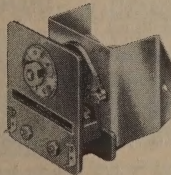
for All-Purpose

Laboratory & Industrial TEST TIMING

Automatically calculates and registers elapsed time ... and repeats. Grey or ebony plastic case. Self starting electric. 3 3/4" h, 5 5/8" w, 3 1/4" d. Wt. 3 lbs. 120V 60 cy. AC. Ranges available: 60 seconds, 10 minutes, 30 minutes, 60 minutes, 12 hour and 24 hour. UL approved motor and cord.

- # 80 \$17.50*

TIME DELAY, CYCLE, INTERVAL TIMERS

PN-11P** Time
Delay TimerPN-11 Time
Delay TimerPN-21 Time
Delay Timer

PN-11P

PN-11

PN-21

Delay Ranges

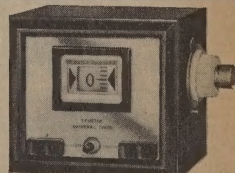
0-14 sec.
0-57 sec.
0-4.5 min.

0.14 sec.
0-57 sec.
0-4.5 min.

0-14 sec.
0-57 sec.
0-4.5 min.
0-9.5 min.

** Optional Private Label on small and large requirements

Complete Line of Timers in All Ranges & Voltages.
Catalog and Specifications on Request



DIGITAL TIMER for All-Purpose Laboratory & Industrial TEST TIMING

Adjustable reset stop to enable rapid repeat timing. Closes load circuit during OR after a preset interval. Buzzer sounds at end of interval. 120V 60 cy. AC. Ranges available: 60 seconds, 60 minutes, 6 hours, 12 hours, 24 hours and 60 hours. 5" h, 5 1/2" w, 3 1/2" d. Wt. 3 1/2 lbs.

- # 90 \$22.50*

WRITE FOR CATALOG OF COMPLETE LINE SHOWING SPECIFICATIONS

TYMETER ELECTRONICS-PENNWOOD NUMECHRON CO.

PR Crystals

- AMATEUR • AIRCRAFT
- CITIZENS BAND • INDUSTRIAL
- RADIO CONTROL • DIATHERMY
- FREQUENCY STANDARD

PRICE LIST

Effective July 1, 1966
Subject to Change Without Notice

• MINIMUM ORDER \$10.00

FOR AMATEUR SERVICE



Z-9C



Z-9A

Z-9C and Z-9A Crystals are supplied ONLY in the following bands and calibrated INTEGRAL KILOCYCLES only, NO FRACTIONS. All Z-9C crystals are calibrated with a load of 32 mmfd.

Type	Frequency Range	For	Price
	1750 to 2000 Kc.	160M.	
	±250 Cycles		
Z-9C Fundamental	3500 to 4000 Kc.	80M.	\$2.95
	7000 to 7425 Kc.	40M.	
	8000 to 8222 Kc.	2M.	
	8334 to 9000 Kc.	6M.	
	±500 Cycles		

Type	Frequency Range	Price
Z-9A 3rd Overtone	24000 to 24666 Kc. ±3 Kc. 25000 to 27000 Kc.	\$3.95
Z-9A 5th Overtone	28000 to 29700 Kc. ±5 Kc.	
	50000 to 54000 Kc. ±15 Kc.	\$4.95

CITIZENS BAND

Supplied in all 23 assigned frequencies. Be sure to specify channel desired, with name of manufacturer and model of equipment. Type Z-9R Z-9R Crystals have .486" pin spacing; .050" pin diameter; .758" height above pins; width .720" and depth .309". Z-13 Crystals have .192" pin spacing; .040" pin diameter; .530" height above pins; width .402" and thickness .150". Z-13P Crystals are same as Z-13 except for having .017" wire leads instead of pins.



Z-13

Calibrated	0.05% .002%
Type Z-9R — Transmitter	\$2.95 \$3.95
Type Z-13 — Transmitter	2.95 3.95
Type Z-13P — Transmitter	2.95 3.95
Type Z-9R — Receiver	2.95 3.95
Type Z-13 — Receiver	2.95 3.95
Type Z-13P — Receiver	2.95 3.95

Type Z-9R, RADIO CONTROL

Supplied in all FCC assigned frequencies. Calibrated .005%. In ordering, be sure to specify frequency desired, with manufacturer and model number of equipment.



Type Z-9R — Radio Control	0.05% \$2.95
Type Z-9R — Radio Control	0.002% 3.95

Type Z-1, TV MARKER

Channels 2 through 13	\$6.45
4.5 Mc. Intercarrier, .01%	2.95
5.0 Mc. Signal Generator, .01%	2.95
10.7 Mc. FM, IF, .01%	2.95

VHF Types, AIRCRAFT

For Lear, Narco and similar equipment operating in the 121 Mc. region, requiring crystals in 30 Mc. range. Z-9R Crystals have .486" pin spacing; .050" pin diameter; .758" height above pins; width .720" and depth .309". Z-13 Crystals have .192" pin spacing; .040" pin diameter; .530" height above pins; width .402" and thickness .150". Z-13P Crystals are same as Z-13, except for having .017 wire leads instead of pins.

Type Z-9R—Aircraft	\$4.95
Type Z-13—Aircraft	4.95
Type Z-13P —Aircraft	4.95



Type Z-6A, FREQUENCY STANDARD

Correlated in oscillator having load capacity of 32 mmfd. .486" pin spacing; .050" pins.

Type Z-6A — 100 Kc (.050" Pins) \$6.95

Z-1, MARS and CAP

Calibrated to .005% with 32 mmfd. crystal load capacity. Official assigned transmitter frequencies in the range.

1600 to 10000 Kc.\$3.45



2XP, EXPERIMENTAL

Suitable for converters, experimental, etc.

1600 to 12000 Kc. ± 5 Kc. (Fund.)\$3.45

12001 to 25000 Kc. ±10 Kc. (3rd Overtone)4.45

TRANSISTOR OSCILLATORS



Specify tolerance. Fully wired.

PR-455 — Frequency range 455 Kc. to 1 Mc. Less Crystal\$4.95

PR-1-5 — Frequency range 1 Mc. to 5 Mc. Less Crystal\$4.95
(Available to 17 Mc.)

PR-100 TRANSISTORIZED OSCILLATOR



PR-100 — With Crystal\$12.95

Temp. range -0°C./+35°C. Power req. 9V DC ±10% @ 4 Ma. Min. R.F. voltage no load, 2V. 1-1.5V with max. load of 15 K ohms. Width 2", depth 2", height 1 1/4". Matching crystal required for frequency desired.

Fully wired, ready to install. Includes a Z-6A 100 Kc. Crystal. With it you can check harmonics from 100 Kc. through 54 Mc. Base 1 1/2 x 2 1/4".

COMMERCIAL TYPES



Z-1



Z-9, Z-9R



Z-13

SPECIFICATIONS

Type	Pin Spacing	Pin Diameter	Height Above Pins
Z-1	.486"	.093"	1 1/4"
Z-1A	3/4"	.125"	1 3/8"
Z-1B	3/4"	.125"	1 3/8"
Z-1D	1/2"	.125"	1 3/8"
Z-1H	3-Pin W.E.	.157"	2 1/4"
Z-1M	7/8"	Std. Banana	2 1/2"
Z-1R	1/2"	.093"	1 3/4"
Z-9	.486"	.050"	.758"
Z-9R	.486"	.050"	.758"
Z-13	.192"	.040"	.530"
Z-13P	.192"	.017 wire	.530"
E-1	Interchange with FT-164 and AC-95		
Z-21	3-Pin W.E.	.157"	2"
Z-22	3/4"	.125"	1 1/4"
Z-24	1/2"	.125"	1 1/4"
Z-30	3/4"	.125"	1 1/4"

Note: Z-1A can be supplied with Standard Banana Pins. Specify when ordering. Z-9 and Z-9R can be supplied with .093 Pins. All Fundamental Crystals are correlated in oscillator having load capacity of 32 mmfd. unless otherwise specified.

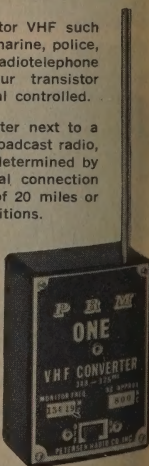
Commercial Type Crystals are available from 800 Kc. to 150 Mc. Prices depend upon specifications and quantities. Ask for quotations.

PRM COMPACT CONVERTERS

With it you can monitor VHF such as aircraft, business, marine, police, railroad, taxicab, radiotelephone and others, with your transistor broadcast radio. Crystal controlled.

Place the PRM Converter next to a good 6-10 transistor broadcast radio, tuned to a frequency determined by the crystal. No internal connection needed. Performance of 20 miles or more under good conditions.

Powered by 9-volt transistor battery. Case 2 1/8 x 1 1/8 x 4 inches. Antenna extends to 36 inches. Weight 8 1/2 ounces complete. Specify VHF frequency to be received, also broadcast frequency desired on transistor radio.

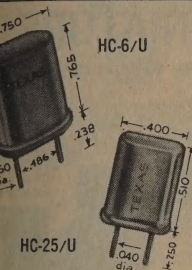


THREE FREQUENCY RANGES: PRM ONE — 148-175 mc.; PRM TWO — 25-50 mc. AM or FM; PRM THREE — 108-136 mc.

LESS BATTERY — \$24.95

PRICE LIST • Subject to Change without Notice • **MINIMUM ORDER \$10.00**

TEXAS CRYSTALS... FOR EVERY PURPOSE



2⁹⁵
EACH

CLASS "D" CITIZEN BAND CRYSTALS

23 Frequencies — 3rd Overtone — .005% Tol.

All "Citizen Band" crystals supplied in Hermetically sealed holders for all 23 channels and C.A.P.

When ordering, specify make and Model of UNIT and CHANNEL NUMBERS desired.

We supply crystals for every popular make of Citizen Band Transceivers.

FT243 PRESSURE TYPE CRYSTALS MADE TO ORDER

1,001 to 1,600 KC .005% TOL. \$4.50
1,601 to 2,000 KC .005% TOL. 3.55

2,001 to 11,000 KC .005% TOL. 3.25

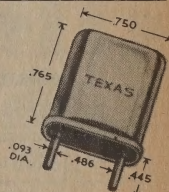
All TEXAS CRYSTALS are cut, lapped, and etched to exact frequencies. They are supplied for oscillator circuits having 32 MMFD capacity, unless otherwise ordered, as the crystal frequency will vary with capacity of the circuit.

Low frequency crystals from 1001 KC to 2100 KC are space mounted — all others are pressure mounted. The advantage of the pressure mount crystal is its ability to handle more current (up to 50 Milliwatts) without capacity (if known) or type of equipment in which it is to be used.

HERMETICALLY SEALED CRYSTALS MADE TO ORDER

In recent years, manufacturers have engineered new equipment utilizing the hermetically sealed plated crystal (HC6/U). This crystal is either gold or silver plated, the plating acting as electrodes. These crystals should be used in circuits designed for them as the maximum current capacity is 10 milliwatts (5 milliwatts for overtone type). High stability of frequency is a characteristic of this crystal. All TEXAS CRYSTALS are made to conform with military specifications. When ordering for G.E.,

Motorola, Link, etc., for split channel operation, a sample of both transmitting and receiving crystals known to be correct, be sent us with order specifying exact crystal frequency desired. We will correlate crystals and return your samples. Type HC6/U has .050 pins and fits CE-1 socket. Type HC17/U is the same physical size except the pins are .093 diameter. Specify type circuit, if known. Order by fundamental frequency, type circuit, type holder. All plated crystals are .005% tolerance.



FUNDAMENTAL FREQUENCY

800KC thru	999KC	\$9.50
1000KC thru	1399KC	\$8.50
1400KC thru	1600KC	\$5.50
1601KC thru	1900KC	\$5.00
1901KC thru	6500KC	\$4.50
6501KC thru	15,000KC	\$3.50
15,001KC thru	20MC	\$5.50

OVERTONE FREQUENCY

15MC thru	51,999KC (3rd Overtone)	\$4.00
52MC thru	100MC (5th Overtone)	\$6.00
101MC to	125MC	Price on Request

Add \$2.00 per crystal when used in oven.

NOTE:

When ordering Fundamental Frequency Crystals, specify Crystal Load Capacity. For tolerance of .01% and .02%, also for quantities of more than 100 of the same frequency, write for quotations.

MINIATURE CRYSTALS HC18/U

Miniature Type

Sub Miniature Crystals will operate in the circuits as HC6/U and HC17/U Crystals. They are designed for use where space is a factor. Supplied in either Pin or Wire Leads (1/2" length soldering directly into circuit).

Specify Pin Type or Leads.

FUNDAMENTAL FREQUENCY	
800 KC thru 9999 KC	\$8.50
1000 KC thru 8000 KC	\$6.00
1000 KC thru 20 MC	\$4.50
OVERTONES	
C thru 51,999 KC (3rd Overtone)	\$4.25
C thru 51,999 KC (5th Overtone)	\$4.75
C thru 100 MC (5th Overtone)	\$6.00

BARREL TYPE CRYSTALS

CR24/U



Designed for the Armed Services the CR24/U is a Pressure Type plated crystal. From 15 to 25 MC "AT" Crystal which will accommodate more current than the plated crystal. From 15 to 25 MC the crystal is a third overtone — From 25.001 to 60 MC the crystal is a fifth overtone.

All Frequencies from 15 MC to 50 MC \$5.95

TEXAS AMATEUR CRYSTALS

All Texas amateur crystals are lapped and etched to frequency and supplied in FT 243 holders \$2.25 ea.

MARINE CRYSTALS

Supplied in 4 types of holders — FT243, MC7, CR1/AR, HC6/U. .005% tolerance. Order by frequency for transmitter for transmitter types and actual crystal frequency for receiver (including 455 KC IF).

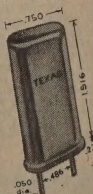
ANY MARINE FREQUENCY FROM 2000 KC to 3200 KC IN FT243, MC7 or CR1/AR \$3.25

HERMETICALLY SEALED CRYSTALS FOR MARINE IN ANY FREQUENCY. (Specify either .050 or .093 pins) \$4.50

TEXAS LOW FREQUENCY CRYSTALS

Our own manufacture at military tolerances in HC6/U and HC13/U holders.

25 to 79 KC	Prices on Request
80 to 99 KC	\$8.00
100 to 199 KC	7.00
200 to 1000 KC	6.00



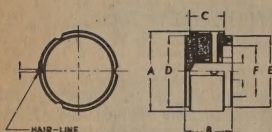
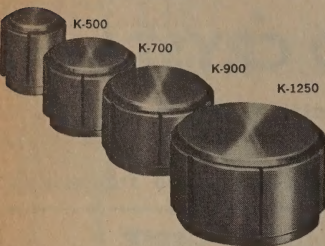
TEXAS CRYSTALS

DIVISION OF WHITEHALL ELECTRONICS

ALCOKNOB ALUMINUM INSTRUMENT KNOBS MADE TO EXACTING REQUIREMENTS

STANDARD

ANODIZED



DIMENSIONS

	A	B	C	D	E	F
K-500	.500	.625	.492	.358	.433	.354
K-700	.750	.625	.429	.608	.608	.473
K-900	.937	.625	.429	.795	.795	.592
K-1250	1.250	.750	.554	1.108	1.108	.796

DESIGNATIONS

K-	1250	A
MODEL	KNOB DIAMETER	TREATMENT (COLOR)

COLOR GUIDE

A Aluminum Clear Anodizing, Black Pointer
B Black Anodizing, White Pointer
G Gold Anodizing, Red Pointer

K SERIES

Upgrade your equipment with new, modernized decorative knobs of fabricated aluminum. 1-piece construction offers superior appearance, moderate pricing, and expensive styling.

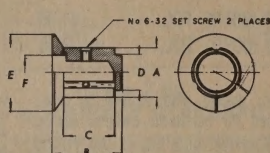
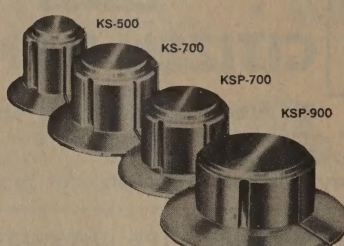
INDUSTRIAL NET PRICE SCHEDULE

MODEL	SIZE	SHAFT	One-99	100-249	250-999
K-500	.500	1/4	.45	.39	.37 .35
K-700	.750	1/4	.49	.44	.41 .38
K-900	.937	1/4	.55	.49	.47 .45
K-1250	1.250	1/4	.65	.59	.56 .53

Quantity prices are for each individual type. Choice of stock colors at same prices.

SKIRTED

ACRYLIC OR ALUMINUM SKIRTS



DIMENSIONS

	A	B	C	D	E	F
KS-500	.500	.625	.429	.358	.750	.354
KS-700	.750	.625	.429	.608	1.125	.473
KSP-700	.750	.625	.429	.608	1.125	.473
KSP-900	.937	.725	.429	.795	1.406	.592

DESIGNATIONS

KSP	500	A
MODEL	KNOB DIAMETER	TREATMENT (COLOR)

COLOR GUIDE

A Aluminum Clear Anodizing, Black Pointer
B Black Anodizing, White Pointer
G Gold Anodizing, Red Pointer

KS SERIES AND KSP SERIES

Decorative knobs with skirts of natural or black aluminum, or acrylic plastic. Knobs have exceptional styling for the space-age look, yet are priced attractively for production use.

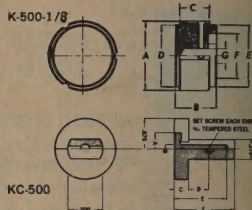
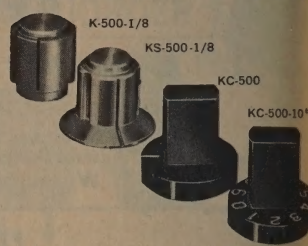
INDUSTRIAL NET PRICE SCHEDULE

MODEL	SIZE	SHAFT	One-99	100-249	250-999
KS-500A	.500	1/4	.60	.55	.51 .49
KS-500B	.500	1/4	.60	.55	.51 .49
KS-700A	.750	1/4	.65	.59	.56 .53
KS-700B	.750	1/4	.65	.59	.56 .53
KSP-700A	.750	1/4	.60	.55	.51 .49
KSP-700B	.750	1/4	.60	.55	.51 .49
KSP-900A	.937	1/4	.65	.59	.56 .53
KSP-900B	.937	1/4	.65	.59	.56 .53

Quantity prices are for each individual type.

MINIATURE

ANODIZED, WITH 1/8" SHAFTS



DIMENSIONS

	A	B	C	D	E	F
K-500	.500	.625	.492	.358	.433	.354
KC-500	.473	.125	.195	.295	.748	.867

DESIGNATIONS

KC	500	A
MODEL	KNOB DIAMETER	TREATMENT (COLOR)

K-1/8 SERIES

Machined aluminum knobs with anodized finish. Modern styling and hairline indicator. Usable with switches and potentiometers having a 1/8" dia. shaft.

KC SERIES

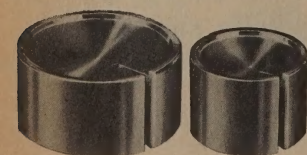
A new series of skirted knobs designed for MRA series Alcoswitches. Machined aluminum anodized with hairline indicator and 2 screws. 1/8" shafts only.

INDUSTRIAL NET PRICE SCHEDULE

MODEL	DESCRIPTION	One-99	100-249	250-999
K-500A-1/8	Natural Aluminum	.45	.39	.37
K-500B-1/8	Black Anodized	.45	.39	.37
K-500C-1/8	Gold Anodized	.45	.39	.37
KS-500A-1/8	Natural Aluminum	.60	.55	.51
KS-500B-1/8	Black Anodized	.60	.55	.51
KC-500A	Natural Aluminum	.55	.49	.47
KC-500B	Black Anodized	.55	.49	.47
KC-500-10	Black Anodized	.65	.59	.56

*Engraved numerals 0-10

DELUXE KNOBS with a CUSTOM LOOK



ALCOKNOBS with unique, notched pointers are designed for consumer products. The emphasis is on style to enhance the overall equipment appearance. Surveys show customers first touch, twist, and use knobs when purchasing hi-fi/stereo products, tape recorders, test equipment, lab and medical instruments. These knobs are available from stock and have the custom design appearance. High quality throughout, yet allows the equipment manufacturer to reduce costs.

INDUSTRIAL NET PRICE SCHEDULE

MODEL	SIZE	SHAFT	One-99	100-249	250-999
KHF-500A	.500	1/4	.45	.39	.37
KHF-500G	.500	1/4	.45	.39	.37
KHF-700A	.750	1/4	.50	.44	.41
KHF-700G	.750	1/4	.50	.44	.41
KHF-900A	.937	1/4	.55	.49	.47
KHF-900G	.937	1/4	.55	.49	.47
KHF-1250A	1.250	1/4	.65	.59	.56
KHF-1250G	1.250	1/4	.65	.59	.56

ALCOKNOB ELECTRONIC PRODUCTS, INC.

Instant Lettering

®

THE REVOLUTIONARY METHOD FOR MARKING ELECTRONIC EQUIPMENT

JUST RUB...and it's printed!



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INSTANT LETTERING® marking kits bring you all the necessary elements for completely marking electronic equipment, prototypes, drawings, etc. in this fast new easy-to-use form. There's even a new drafting symbol kit for better more readable schematics.

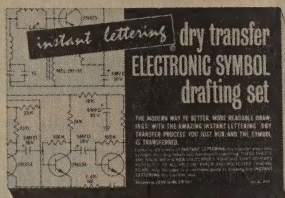
Words, letters, numerals, switch patterns, arcs, drafting symbols, etc. are printed on a special transparent carrier film. Rubbing over one of these elements with a ballpoint pen releases it from the carrier film and adheres it to your working surface.

INSTANT LETTERING® words and symbols transfer to almost any surface including glass, plastic, even painted and bare metals. Now you can quickly mark all panels, even especially calibrated two-color nomenclatures, pilot light jewels, sub-assemblies, circuit boards, etc. Reproduction quality **INSTANT LETTERING®** transfers are clean and sharp, leave no background haze or film, make prototypes look like finished production equipment and give all equipment and drawings a professional look.



TITLES FOR ELECTRONIC EQUIPMENT
Hundreds of preprinted titles researched to give up to 95% of all electronic marking. For labeling, marking, titling all electronic control panels, drawings, prototypes, etc.

No. 958—Black	\$4.95
No. 959—White	\$4.95
No. 960—Refill Set (12 sheets, black alphabets)	\$2.50
No. 961—Refill Set (12 sheets, white alphabets)	\$2.50
No. 962—Refill Set (12 sheets, black numerals)	\$2.50
No. 963—Refill Set (12 sheets, white numerals)	\$2.50



dry transfer ELECTRONIC SYMBOL DRAFTING SET

The quicker way to more readable schematics. Contains 40 sheets of electronic symbols including letters and numerals. These sheets are made with a new diazo-proof adhesive that adheres perfectly to all vellum, paper and polyester tracing films. Also included is a complete guide to drawing with dry transfer symbols. Designed to conform with MIL-STD-15-1.

No. 970—Electronic Symbol Drafting Set	\$15.95
No. 970-2 Electronic Symbol Drafting Kit w/pen	\$18.95
No. 970R Refill Set for 970 Set (4 identical sheets—specify sheet No. on Order)	\$ 2.00



TERMINAL & CHASSIS MARKING KIT

All the necessary letters, letter combinations and numerals for marking chassis, printed circuit and terminal boards, rotating components, etc.

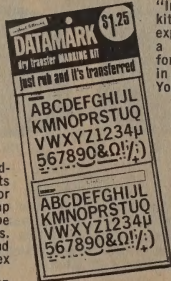
No. 966—Black	\$4.95
No. 967—White	\$4.95



METER & DIAL MARKING KIT

Arcs, dial patterns, lines, wedges, graduation lines, switch symbols, alphabets and numerals in black, white and red for marking standard and special rotary tap switches, potentiometers and prototype and especially calibrated meter dials. Colors provide contrast on scales and switches simplifying usage of complex instruments.

No. 968—Meter & Dial Marking Kit	\$4.95
No. 968R—Refill Set for 968 Kit	\$2.00
(4 identical sheets—specify sheet No. on Order)	



"Instant Lettering" quality and speed in handy, economical Kits at only \$1.25 each. These Kits are ideal for the home experimenter, student, hobbyist—in fact, almost anyone with a lettering or marking problem. Datamark Kits are also good for the industrial user who needs selected preset words, etc. in quantity and at a reasonable price, for marking equipment. You'll find a Datamark kit to solve your marking problems.

K58B	Audio, TV & Hi-Fi (black)
K58W	Audio, TV & Hi-Fi (white)
K59B	Amateur Radio & CB (black)
K59W	Amateur Radio & CB (white)
K60B	Experimenter, Home & Intercom (black)
K60W	Experimenter, Home & Intercom (white)
K61B	Test & Industrial Equipment (black)
K61W	Test & Industrial Equipment (white)
K62	Marks & Switch Patterns (blk. & wht. asstd.)
K63	Alphabets & Numerals, 1/8" (blk., wht. & gold asstd.)
K64	Alphabets & Numerals, 1/4" (blk., wht. & gold asstd.)
K65	Alphabets & Numerals, 1/2" (blk., wht. & gold asstd.)
	\$1.25 Each

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Clear Protective Coating

DATAKOAT protective coating is specially designed for "Instant Lettering." It is water-clear, dries quickly and protects "Instant Lettering" from abrasion and weathering.

DATAKOAT Protective Coating Kit contains a 1 ounce bottle of DATAKOAT with applicator brush in the cap and a 1 ounce bottle of Thinner. No. 04176 \$1.00

DATAKOAT Spray Coating is the handy spray can form of DATAKOAT. 16 ounce spray can. No. 04177 (Glossy) \$2.95 No. 04178 (Matte) 2.95

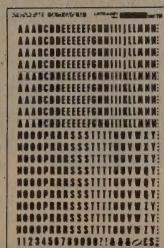
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The amazing new "Instant Lettering" method of dry transfer lettering brings you unequalled quality and speed. By shading over the letter with a ballpoint pen anyone can produce reproduction quality lettering instantly!

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Standard 10" x 15" sheets are available in complete alphabets and/or numerals in a wide variety of type faces and colors. Letter sizes range from 8 point to 3 inch display letters.

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"Instant Lettering" sheets can be made to meet all your own special needs. Hundreds of companies all over the country have had their logo, drawings, symbols, etc. made in "Instant Lettering." They have found that "Instant Lettering" saves time and money. Hundreds of lettering and marking problems that were impossible or too expensive become possible and inexpensive with "Instant Lettering."

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THE DATAK CORPORATION

HARRY DAVIES MOLDING CO.

MOLDERS OF PLASTICS

POINTER AND BAR KNOBS



No. 2350



No. 2300



No. 2150



No. 1550



No. 1500, 1510 & 1520



No. 2100-P & 2110-P



No. 2100 & 2110

No. 2350

Length 2", hgt. $\frac{5}{16}$ ", $\frac{1}{4}$ " molded hole or metal insert, set screw mounting, locknut recess.

No. 2300

Length $1\frac{1}{4}$ ", hgt. $\frac{5}{16}$ ", $\frac{1}{4}$ " molded hole, also $\frac{1}{4}$ " metal insert, set screw or knurled hole mounting, locknut recess.

No. 2150

Length $1\frac{1}{4}$ ", hgt. $\frac{3}{16}$ ", $\frac{1}{4}$ " molded hole, set screw mounting, locknut recess.

No. 1550

Dia. $1\frac{1}{8}$ ", hgt. $\frac{5}{16}$ ", $\frac{1}{4}$ " molded hole or metal insert, set screw, spring or knurled hole mounting, locknut recess.

No. 1500

Dia. $1\frac{1}{8}$ ", hgt. $\frac{3}{16}$ ", $\frac{1}{4}$ " molded hole. Set screw mounting. Locknut recess. Indicator line filled or unfilled.

No. 1510

Dia. $\frac{3}{4}$ ", Hgt. $\frac{3}{16}$ ", $\frac{1}{8}$ ", $\frac{3}{16}$ " or $\frac{1}{4}$ " Molded Hole and Set Screw, $\frac{1}{4}$ " Knurled Hole Mounting.

No. 1520

Dia. $1\frac{1}{2}$ ", Hgt. $\frac{3}{4}$ ", $\frac{1}{4}$ " Molded Hole or Brass Insert with Set Screw.

No. 2100-P

Length $2\frac{1}{2}$ ", hgt. $\frac{5}{16}$ ", width $\frac{3}{4}$ ", $\frac{1}{4}$ " metal insert and $\frac{3}{16}$ " pointer, set screw mounting.

No. 2110-P

Length $1\frac{1}{2}$ ", hgt. $\frac{1}{16}$ ", width $\frac{3}{4}$ ", $\frac{1}{4}$ " metal insert and $\frac{3}{16}$ " pointer, set screw mounting.

No. 2100

Length $2\frac{1}{2}$ ", hgt. $\frac{5}{16}$ ", width $\frac{3}{4}$ ", $\frac{1}{4}$ " molded hole or metal insert, set screw mounting, locknut recess.

No. 2110

Length, $1\frac{1}{2}$ ", hgt. $\frac{1}{16}$ ", width $\frac{3}{4}$ ", $\frac{1}{4}$ " molded hole or metal insert, set screw or knurled hole mounting, locknut recess.

CONTROL KNOBS



No. 1400



No. 1450



No. 1470



No. 1475



No. 1600



No. 1610

No. 1400

Dia. $1\frac{1}{8}$ ", hgt. $\frac{1}{32}$ ", $\frac{1}{8}$ " or $\frac{1}{4}$ " molded hole or brass insert, set screw, spring or knurled hole mounting.

No. 1450

Dia. $1\frac{1}{8}$ ", hgt. $\frac{1}{32}$ ", $\frac{1}{8}$ " or $\frac{1}{4}$ " molded hole or brass insert, set screw, spring or knurled hole mounting.

No. 1470

Dia. 1", hgt. $\frac{1}{2}$ ", $\frac{1}{4}$ " molded hole or brass insert, set screw, spring or knurled hole mounting, indicator line filled or unfilled, locknut recess.

No. 1475

Dia. 1", hgt. $\frac{1}{2}$ ", $\frac{1}{4}$ " molded hole or brass insert, set screw, spring or knurled hole mounting, locknut recess.

No. 1600

Dia. $1\frac{1}{2}$ ", hgt. $1\frac{1}{8}$ ", $\frac{1}{4}$ " molded hole or metal insert, set screw mounting, locknut recess, indicator line filled or unfilled.

No. 1610

Dia. $1\frac{3}{8}$ ", hgt. $\frac{5}{16}$ ", $\frac{1}{8}$ " or $\frac{1}{4}$ " molded hole or metal insert, set screw mounting, locknut recess, indicator line filled or unfilled.

No. 1700

Dia. $\frac{3}{4}$ ", hgt. $\frac{1}{32}$ ", $\frac{1}{4}$ " molded hole or brass insert, set screw, spring or knurled hole mounting.

No. 2500

Dia. $\frac{3}{4}$ ", hgt. $\frac{3}{4}$ ", $\frac{1}{4}$ " molded hole, set screw, spring or knurled hole mounting.

No. 2600

Dia. $\frac{7}{8}$ ", hgt. $\frac{7}{8}$ ", $\frac{1}{4}$ " molded hole, set screw, spring or knurled hole mounting.



No. 1700



No. 2500 & 2600

PUSH BUTTONS



No. 5149-A



No. 1800



No. 1750 & 1770

No. 5149-A Hgt. $\frac{3}{16}$ ", oval touch tuning. Push-on to fit flattened shaft .050" x .187".

No. 1800 Dia. $\frac{1}{4}$ ", hgt. 1" to $1\frac{1}{8}$ ", touch tuning, plain or recessed top, push-on, to fit

flatted shaft .050" x .187 patented friction fit. Also with studs of various lengths.

No. 1750 Dia. $\frac{3}{16}$ ", hgt. $\frac{1}{8}$ " to $\frac{1}{4}$ ", touch tuning, push-on, to fit flatted shaft .050" x .187".



No. 2960

No. 1770

Dia. $\frac{3}{16}$ ", hgt. $\frac{1}{2}$ " to $\frac{7}{16}$ ", 6-32 or 8-32 female metal insert. 8-32 male stud.

No. 2960

Dia. $\frac{7}{16}$ ", hgt. $\frac{3}{4}$ ", 8-32 or 10-32 female metal insert, 10-24 or 10-32 male stud.



No. 2710, 2720, & 2730

No. 2710 Dia. $\frac{3}{4}$ ", hgt. $\frac{1}{2}$ ", 8-32, 10-32, 10-24 metal insert.

No. 2720 Dia. $\frac{5}{8}$ ", Hgt. $\frac{3}{4}$ ", 10-24, 10-32 Female Metal Insert.

No. 2730 Dia. $\frac{1}{2}$ ", Hgt. $\frac{3}{4}$ ", 10-24, 10-32 Female Metal Insert, 10-32 Male Stud.

TERMINAL NUTS

METER CASE AND COVERS



No. 240 Case

2" hgt. x $\frac{3}{4}$ " wide x $\frac{1}{16}$ " long. (Outside Dimensions) $\frac{1}{16}$ " (Wall Thickness).

No. 220 Case

$1\frac{1}{8}$ " hgt. x $2\frac{7}{8}$ " x $4\frac{1}{2}$ " long (Outside Dimensions) .109" (Wall Thickness).

No. 260 Case

$2\frac{3}{4}$ " hgt. x $5\frac{1}{2}$ " w x $6\frac{3}{4}$ " L (Outside Dimensions)— $\frac{1}{16}$ " (Wall Thickness).

No. 241

Mating cover with interlocking lip for No. 24 series cases.

No. 261

Mating cover v interlocking for No. 260 cases.

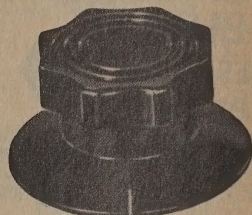
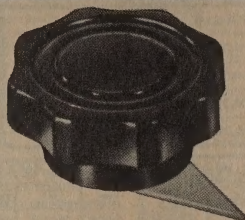
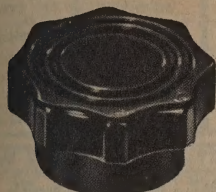
No. 221

Mating cover 220 case. Labeled phenolics nests inside of

HARRY DAVIES MOLDING CO.

MOLDERS OF PLASTICS

INSTRUMENT KNOBS



Part No.	Knob Dia.	Knob Hgt.
4100	1 1/8"	3/8"
4101	1 3/8"	1 1/4"
4102	1 5/8"	3/4"
4103	2 3/8"	7/8"

Entire series available with 1/4" molded hole or metal insert. Set screw mounting.

Part No.	Knob Dia.	Knob Hgt.
4100 W/PTR	1 1/8"	5/8"
4101 W/PTR	1 3/8"	1 1/4"
4102 W/PTR	1 5/8"	3/4"
4103 W/PTR	2 3/8"	7/8"

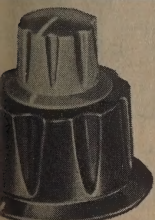
White vinylite pointer available. Pointer lengths 5/8", 3/4", 7/8", 1 1/4", 1 3/8".

Part No.	Knob Dia.	Skirt Dia.
4104	1 1/8"	1 1/2"
4107	1 3/8"	1 3/4"
4108	1 5/8"	2 1/4"
4109	2 3/8"	3"

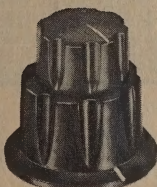
Skirt available with or without indicator line filled. Branding stamps constructed to your specifications.

This series can be furnished in compliance with MS 91531.

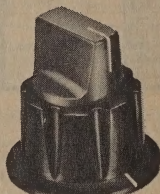
NEW FLUTED INSTRUMENT KNOBS



No. 1915 & 1935



No. 1916



No. 1917



No. 1925-SS



No. 1913



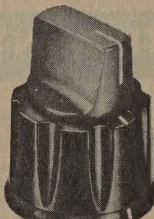
No. 1914



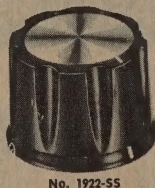
No. 1905



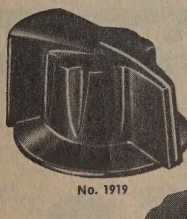
No. 1906



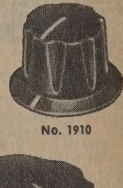
No. 1907



No. 1922-SS



No. 1919



No. 1910

925 control, dia. 1 1/2", hgt. 1 1/4". See 1930 and for mountings.

918 control, dia. 1 1/4", hgt. 1 1/4". See 1925 and for mountings.

905 control, dia. 1 3/8", hgt. 1 1/4". See 1922 and for mountings.

1916 Dual Control, Dia. 1 1/4", hgt. 1 1/4". See 1915 and 1914 for mountings.

1904 Dual Control, Dia. 1 1/4", hgt. 1 1/4". See 1915 and 1914 for mountings.

No. 1917 Dual Control, Dia. 1 1/4", hgt. 1 1/4". See 1925 and 1910 for Mountings.

No. 1907 Dual Control, Dia. 1 1/4", hgt. 1 1/4". See 1922 and 1910 for Mountings.

No. 1913 Dia. 1 1/8", hgt. 5/8". 1/4" molded hole or brass insert. Set screw mounting 1/4" CRL knurl.

No. 1919 Length 1 1/4", hgt. 5/8". 1/4" molded hole or brass insert. Set screw mounting.

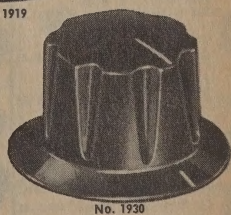
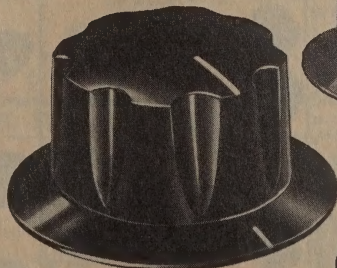
No. 1914 Dia. 3/4", hgt. 1/2", 5/8", 3/4", 1/4" molded hole or insert.

No. 1910 Dia. 3/4", hgt. 1/2", 5/8", 3/4" or 1/4", molded hole or brass insert, set screw, spring or knurled hole mounting.

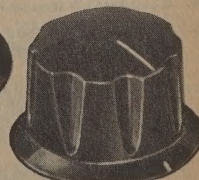
No. 1930 Dia. 1 1/2", hgt. 7/8", 1/4" molded hole or brass insert, set screw.

No. 1940 Dia. 2", hgt. 1 3/8", 1/4" molded hole or brass insert. Set screw mounting.

No. 1920 Dia. 1 1/4", hgt. 3/4", 1/4" molded hole or brass insert, set screw, spring or knurled hole mounting.



No. 1930



No. 1920

Please specify if paint filled indicator line is desired on top of knob and/or on skirt of knob.

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GEE-LAR KURZ-KASCH INSTRUMENT & POINTER KNOBS

BAKELITE POINTER KNOB 13 1/16" Length, 3 1/4" Height, Fits 1 1/4" shafts. Set Screw Cat. No. 24-512... Walnut... Net \$.18 24-514... Black... .18	 Set Screw Cat. No. 24-538... Black... Net \$.20 24-540... Walnut... .20 24-542... Red... .20 24-544... Ivory... .20	No Insert-Set Screw Cat. No. 24-570... Walnut... Net \$.18 24-572... Black... .18 24-576... Ivory... .18	BAKELITE KNOB 1-1/4" Diameter, 5 8" Height, Fits 1 1/4" shaft. Set Screw-No Insert Cat. No. 24-796... Walnut... Net \$.28 24-798... Black... .28 Brass Insert-Set Screw Cat. No. 24-800... Walnut... Net \$.32 24-802... Black... .32
TENITE POINTER KNOB 1-1/4" Diameter, 9 16" Height, Fits 1 1/4" shafts. Set Screw Cat. No. 24-516... Walnut... Net \$.27 24-518... Black... .27 24-522... White... .27	BAKELITE BRASS INSERT 2" Length, 5 8" Height, Fits 1 1/4" shafts No Insert-Set Screw Cat. No. 24-546... Black... Net \$.33 24-548... Walnut... .33 24-550... Red... .33 24-552... Ivory... .33	PLASTIC POINTER KNOB 15 1/16" Diameter, 1 1/2" Shank extension for 1 1/4" knurled shaft. Knurl Cat. No. 24-586... Walnut... Net \$.12 24-588... Ivory... .12	BAKELITE KNOB 1" Diameter, 11 16" Height, Fits 1 1/4" shaft. Knurl Cat. No. 24-780... Walnut... Net \$.13 24-782... Ivory... .13
BAKELITE POINTER KNOB 1-1/4" Length, 11 16" Height, Fits 1 1/4" shafts. Set Screw Cat. No. 24-524... Black... Net \$.25 24-526... Red... .25 24-528... Ivory... .25	Brass Insert-Set Screw Cat. No. 24-554... Black... Net \$.42 24-556... Walnut... .42 24-558... Red... .42 24-560... Ivory... .42	Spring Type Cat. No. 24-788... Ivory... Net \$.13 BAKELITE KNOB 7 8" Diameter, 5 8" Height, Fits 1 1/4" shaft. Set Screw Cat. No. 24-788... Walnut... Net \$.30 24-790... Ivory... .30	BAKELITE KNOB 5 8" Diameter, 13 32" Height, Fits 1 1/4" shaft. Set Screw-No Insert Cat. No. 24-812... Walnut... Net \$.15 24-814... Black... .15 24-816... Red... .17 24-818... Ivory... .17
BAKELITE POINTER KNOB 1-1/4" Length, 9 16" Height, Fits 1 1/4" shafts. Set Screw Cat. No. 24-530... Black... Net \$.22 24-532... Walnut... .22 24-534... Red... .22 24-536... Ivory... .22	BAKELITE BRASS INSERT 1-1/4" Length, 5 8" Height, Fits 1 1/4" shafts. Set Screw Cat. No. 24-562... Black... Net \$.27 24-566... Red... .27	BAKELITE KNOB 7 8" Diameter, 5 8" Height, Fits 1 1/4" shaft. Set Screw Cat. No. 24-792... Walnut... Net \$.15	BAKELITE KNOB 1" Diameter, 12 1/2" Height, Fits 1 1/4" shaft. Set Screw-No Insert Cat. No. 24-804... Black... Net \$.25 24-806... Red... .25
BAKELITE POINTER KNOB 1-1/4" Length, 5 8" Height, Fits 1 1/4" shafts.	BAKELITE POINTER KNOB 1-1/4" Length, 5 8" Height, Fits 1 1/4" shafts.		BAKELITE KNOB 5 8" Diameter, 13 32" Height, Fits 1 1/4" shaft. Set Screw-No Insert Cat. No. 24-822... Walnut... Net \$.22 24-824... Red... .22 24-826... Ivory... .22

GENERAL PURPOSE KNOBS

BAKELITE KNOB 2-1/2" Length, 5 8" Height, Fits 1 1/4" shafts. No Insert-Set Screw Cat. No. 24-590... Black... Net \$.28	PLASTIC KNOB 15 1/16" Diameter, 1 1/2" Shank Extension for 1 1/4" knurled shaft. Knurl Cat. No. 24-628... Ivory... Net \$.12	TENITE KNOB 15 1/16" Diameter, 7 16" Height, Fits 1 1/4" shaft. Knurl Cat. No. 24-674... Walnut... Net \$.12 24-676... Ivory... .12	Set Screw With Arrow Cat. No. 24-720... Walnut... Net \$.23 24-722... Black... .23 24-724... Red... .23 24-726... Ivory... .23
BAKELITE KNOB 1-5/8" Length, 19 32" Height, Fits 1 1/4" shaft. Set Screw Cat. No. 24-598... Black... Net \$.25 24-600... Walnut... .25	PLASTIC KNOB MIDGET TYPE 3/4" Diameter, 3/8" Shank Extension, Fits 1/4" shafts. Knurl Cat. No. 24-634... Walnut... Net \$.12 24-636... Ivory... .12	Spring Type Cat. No. 24-678... Walnut... Net \$.12 24-680... Ivory... .12	BAKELITE KNOB 1" Diameter, 1 1/2" Height, Fits 1 1/4" shafts. Set Screw Cat. No. 24-728... Black... Net \$.25 24-732... Ivory... .25
BAKELITE BRASS INSERT 1-5/8" Length, 19 32" Height, Fits 1 1/4" shafts. Set Screw Cat. No. 24-602... Black... Net \$.37 24-604... Walnut... .37	TENITE KNOB 1-1/8" Diameter, 1 1/2" Height, Fits 1 1/4" shafts. Knurl Cat. No. 24-642... Walnut... Net \$.12 24-644... Ivory... .12	Spring Type Cat. No. 24-646... Walnut... Net \$.18 24-648... Ivory... .18	Set Screw Cat. No. 24-734... Black... Net \$.22 24-736... Ivory... .22
TENITE KNOB 1-3/16" Shank, 1-1/8" Diameter, 7 16" Height, Fits 1 1/4" shafts. Knurl Cat. No. 24-606... Walnut... Net \$.18 24-608... Ivory... .18	TENITE KNOB 1" Diameter, 7 16" Height, Fits 1 1/4" shafts. Knurl Cat. No. 24-654... Walnut... Net \$.12 24-656... Ivory... .12	Spring Type Cat. No. 24-658... Walnut... Net \$.15 24-660... Ivory... .15	TENITE KNOB 1-1/16" Diameter, 1 1/2" Height, Fits 1 1/4" shaft. Knurl Cat. No. 24-740... Walnut... Net \$.13 24-742... Ivory... .13
TENITE KNOB 15 1/16" Diameter, 7 16" Height, 1/2" Shank Extension, Fits 1 1/4" shafts. Knurl Cat. No. 24-610... Walnut... Net \$.13 24-612... Ivory... .13	TENITE KNOB 3/4" Diameter, 7 16" Height, 1/2" Shank Extension, Fits 1 1/4" shafts. Knurl Cat. No. 24-610... Walnut... Net \$.13 24-612... Ivory... .13	Spring Type Cat. No. 24-704... Walnut... Net \$.12 24-706... Ivory... .12	Set Screw Cat. No. 24-708... Walnut... Net \$.18 24-710... Ivory... .18
TENITE KNOB 1-3/16" Diameter, 7 16" Height, 1/2" Shank Extension, Fits 1 1/4" shafts. Knurl Cat. No. 24-620... Ivory... Net \$.12	TENITE KNOB 13 32" Diameter, 13 32" Height, Fits 1 1/4" shaft. Knurl Cat. No. 24-666... Walnut... Net \$.12 24-668... Ivory... .12	BAKELITE KNOB 11 1/16" Diameter, 13 32" Height, Fits 1 1/4" shafts. Set Screw Cat. No. 24-712... Black... Net \$.17 24-714... Walnut... .17 24-716... Red... .17 24-718... Ivory... .17	BAKELITE KNOB 7 8" Diameter, 1 1/2" Height, Fits 1 1/4" shaft. Set Screw Cat. No. 24-752... Walnut... Net \$.23 24-754... Black... .23 24-756... Ivory... .25

GENERAL ELECTRIC KNOB REPLACEMENTS

CHANNEL SELECTOR KNOB Original Mig's Part No. G 1002, Color Black & Silver. Cat. No. 27-066 Channel Knob Net \$.32	FINE TUNING KNOB Original Mig's Part No. WT43x40 (RDK222), Color Fawn. Cat. No. 27-074 Fine Tuning Net \$.57	CHANNEL SELECTOR KNOB Original Mig's Part No. WT43x54 (RDK264), Color Brown & Fawn. Cat. No. 27-084 Channel Knob Net \$1.50	CHANNEL SELECTOR KNOB Original Mig's Part No. WT43x159 (RDK469), Color Brown Cat. No. 27-096 Channel Knob Net \$1.77
FINE TUNING KNOB Original Mig's Part No. G 1003, Color Silver. Cat. No. 27-068 Fine Tuning Net \$.32	OFF-ON VOLUME KNOB Original Mig's Part No. WT43x41 (RDK223), Color Fawn. Cat. No. 27-076 Off-On Volume Net \$.75	CHANNEL SELECTOR KNOB Original Mig's Part No. WT43x76 (RDK331), Color Brown & Gold. Cat. No. 27-086 Channel Knob Net \$1.92	ON-OFF VOLUME OR BRIGHTNESS Original Mig's Part No. WT43x158 (RDK467), Color Mahogany & Gold. Cat. No. 27-452 Off-On Volume Net \$1.27
CHANNEL SELECTOR KNOB Original Mig's Part No. GWT43x246, Color Green & Gold. Cat. No. 27-070 Channel Knob Net \$1.25	CHANNEL SELECTOR KNOB Original Mig's Part No. WT43x42 (RDK224), Color Fawn. Cat. No. 27-078 Channel Knob Net \$.87	CHANNEL SELECTOR KNOB Original Mig's Part No. WT43x152 (RDK455), Color Brown. Cat. No. 27-090 Channel Knob Net \$2.85	ON-OFF VOLUME OR BRIGHTNESS Original Mig's Part No. WT43x163 (RDK473), Color Brown. Cat. No. 27-464 On-Off Volume Net \$1.00
CHANNEL SELECTOR KNOB Original Mig's Part No. GWT43x269, Color Clear & Gold. Cat. No. 27-072 Channel Knob Net \$2.10	PICTURE VOLUME KNOB Original Mig's Part No. WT43x43 (RDK225), Color Fawn. Cat. No. 27-080... Net \$.57 Picture Volume	CHANNEL SELECTOR KNOB Original Mig's Part No. WT43x139 (RDK434), Color Brown & Gold. Cat. No. 27-092 Channel Knob Net \$2.10	ON-OFF VOLUME KNOB Original Mig's Part No. WT43x165 (RDK475), Color Mahogany & Gold. Cat. No. 27-468 On-Off Volume Net \$1.27
	OFF-ON VOLUME KNOB Original Mig's Part No. WT43x53 (RDK263), Color Brown & Fawn. Cat. No. 27-082 Off-On Volume Net \$1.00	CHANNEL SELECTOR KNOB Original Mig's Part No. WT43x147 (RDK438), Color Fawn & Gold. Cat. No. 27-094 Channel Knob Net \$2.28	UHF CHANNEL SELECTOR KNOB Original Mig's Part No. WT43x169 (RDK479), Color Mahogany & Gold. Cat. No. 27-470 UHF Channel Knob Net \$1.77



REPLACEMENT KNOBS

GENERAL ELECTRIC KNOB REPLACEMENTS

 UHF CHANNEL SELECTOR KNOB Original Mig.'s Part No. WT43X176 (RDK521), Color Mahogany & Gold. Cat. No. 27-474 UHF Channel Net \$1.77	 CONTRAST TUNING KNOB Original Mig.'s Part No. WT43X184 (RDK530), Color Clear. Cat. No. 27-480 Contrast Tuning Net \$.90	 UHF CHANNEL SELECTOR KNOB Original Mig.'s Part No. WT43X194 (RDK552), Color Peacock Blue & Gold. Cat. No. 27-486 UHF Channel Net \$1.77	 VHF CHANNEL SELECTOR KNOB Original Mig.'s Part No. WT43X204 (RDK587), Color Cream & Gold. Cat. No. 27-492 VHF Channel Net \$1.77
 CHANNEL SELECTOR KNOB Original Mig.'s Part No. WT43X179 (RDK524), Color Mahogany. Cat. No. 27-476 Channel Knob Net \$1.50	 UHF CHANNEL SELECTOR KNOB Original Mig.'s Part No. WT43X187 (RDK540), Color Navy Blue. Cat. No. 27-482 UHF Channel Net \$1.17	 BRIGHTNESS KNOB Original Mig.'s Part No. WT43X209 (RDK569), Color Navy Blue. Cat. No. 27-488 Brightness Knob Net \$1.00	 UHF CHANNEL SELECTOR KNOB Original Mig.'s Part No. WT43X202 (RDK599), Color Green & Gold. Cat. No. 27-494 UHF Channel Net \$1.77
 UHF CHANNEL SELECTOR KNOB Original Mig.'s Part No. WT43X182 (RDK527), Color Gold. Cat. No. 27-478 UHF Channel Net \$1.77	 UHF CHANNEL SELECTOR KNOB Original Mig.'s Part No. WT43X192 (RDK550), Color Bronze & Gold. Cat. No. 27-484 UHF Channel Net \$1.77	 UHF CHANNEL SELECTOR KNOB Original Mig.'s Part No. WT43X207 (RDK567), Color Cream & Gold. Cat. No. 27-490 UHF Channel Net \$1.77	 BRIGHTNESS KNOB Original Mig.'s Part No. WT43X202 (RDK609), Color Clear. Cat. No. 27-496 Brightness Knob Net \$1.00

RCA EXACT TV REPLACEMENT KNOBS

 CHANNEL SELECTOR KNOB Original Mig.'s Part No. 76770, Color Dark Maroon & Gold. Cat. No. 27-200 Channel Knob Net \$.76	 CHANNEL SELECTOR KNOB Original Mig.'s Part No. 100944, Color Dark Wine. Cat. No. 27-218 Channel Knob Net \$1.25	 BRIGHTNESS KNOB Original Mig.'s Part No. 101124, Color Clear & Gold. Cat. No. 27-710 Brightness Net \$1.17	 CONTRAST KNOB Original Mig.'s Part No. 104386, Color Maroon. Cat. No. 27-736 Contrast Knob Net \$1.17
 FINE TUNING KNOB Original Mig.'s Part No. 77707, Color Brown with Polished Brass Shell. Cat. No. 27-202 Fine Tuning Net \$1.57	 FINE TUNING KNOB Original Mig.'s Part No. 101015, Color Gold & Clear. Cat. No. 27-220 Fine Tuning Net \$1.26	 FINE TUNING KNOB Original Mig.'s Part No. 100639, Color Brown. Cat. No. 27-712 Fine Tuning Net \$1.26	 BRIGHTNESS KNOB Original Mig.'s Part No. 79080, Color Beige. Cat. No. 27-738 Brightness Net \$1.17
 CHANNEL SELECTOR KNOB Original Mig.'s Part No. 77708, Color Red with Polished Brass Shell. Cat. No. 27-204 Channel Knob Net \$1.50	 CHANNEL SELECTOR KNOB Original Mig.'s Part No. 101150, Color Dark Wine. Cat. No. 27-222 Channel Knob Net \$.90	 CONTRAST-BRIGHTNESS KNOB Original Mig.'s Part No. 79470, Color Mahogany. Cat. No. 27-714 Contrast-Bright Net \$1.50	 VOLUME KNOB Original Mig.'s Part No. 79445, Color Beige & Gold. Cat. No. 27-742 Volume Knob Net \$1.17
 ON-OFF VOLUME KNOB Original Mig.'s Part No. 77710, Color Black with Polished Brass Shell. Cat. No. 27-206 On-Off Volume Net \$1.57	 FINE TUNING KNOB Original Mig.'s Part No. 101154, Color Gold & Maroon. Cat. No. 27-224 Fine Tuning Net \$1.00	 HORIZONTAL CONTROL KNOB Original Mig.'s Part No. 101010, Color Maroon. Cat. No. 27-716 Horizontal Net \$.82	 VOLUME KNOB Original Mig.'s Part No. 79471, Color Mahogany & Gold. Cat. No. 27-744 Volume Knob Net \$1.17
 FINE TUNING KNOB Original Mig.'s Part No. 79464, Color Gold & Maroon. Cat. No. 27-208 Fine Tuning Net \$1.26	 FINE TUNING KNOB Original Mig.'s Part No. 101276, Color Gold & Maroon. Cat. No. 27-226 Fine Tuning Net \$1.26	 FINE TUNING KNOB Original Mig.'s Part No. 79864, Color Brown. Cat. No. 27-718 Fine Tuning Net \$1.26	 FINE TUNING KNOB Original Mig.'s Part No. 79077, Color Beige. Cat. No. 27-746 Fine Tuning Net \$1.17
 CHANNEL SELECTOR KNOB Original Mig.'s Part No. 79466, Colors Amber, Gray, Maroon & Gold. Cat. No. 27-210 Channel Knob Net \$1.77	 FINE TUNING KNOB Original Mig.'s Part No. 77717, Color Beige & Gold. Cat. No. 27-702 Fine Tuning Net \$1.35	 CONTRAST KNOB Original Mig.'s Part No. 100622, Color Mahogany. Cat. No. 27-720 Contrast Net \$.82	 BRIGHTNESS KNOB Original Mig.'s Part No. 77718M, Color Mahogany & Gold. Cat. No. 27-748 Brightness Net \$1.17
 CHANNEL SELECTOR KNOB Original Mig.'s Part No. 100627, Color Maroon & Polished Brass. Cat. No. 27-212 Channel Knob Net \$2.70	 ON-OFF VOLUME KNOB Original Mig.'s Part No. 101138, Color Brown. Cat. No. 27-708 On-Off Volume Net \$.57	 CHANNEL SELECTOR KNOB Original Mig.'s Part No. 104304, Color Mahogany. Cat. No. 27-724 Channel Knob Net \$1.35	 CHANNEL SELECTOR KNOB Original Mig.'s Part No. 79222BL, Color Black. Cat. No. 27-752 Channel Knob Net \$1.17
 FINE TUNING KNOB Original Mig.'s Part No. 100629, Color Clear with Gold Edge. Cat. No. 27-214 Fine Tuning Net \$1.27	 CHANNEL SELECTOR KNOB Original Mig.'s Part No. 100637, Color Brown. Cat. No. 27-216 Channel Knob Net \$1.77	 UHF CHANNEL SELECTOR KNOB Original Mig.'s Part No. 104305, Color Mahogany. Cat. No. 27-726 Channel Knob Net \$1.35	 CHANNEL SELECTOR KNOB Original Mig.'s Part No. 79222, Color Mahogany. Cat. No. 27-754 Channel Knob Net \$1.17
		 UHF CHANNEL SELECTOR KNOB Original Mig.'s Part No. 104306, Color Gray. Cat. No. 27-728 Channel Knob Net \$1.35	 ON-OFF VOLUME KNOB Original Mig.'s Part No. 77710B, Color Beige & Gold. Cat. No. 27-756 On-Off Volume Net \$1.17
		 CHANNEL SELECTOR KNOB Original Mig.'s Part No. 102503, Color Gray. Cat. No. 27-730 Channel Knob Net \$3.00	 CHANNEL SELECTOR KNOB Original Mig.'s Part No. 77708B, Color Beige & Gold. Cat. No. 27-758 Channel Knob Net \$1.17
		 CHANNEL SELECTOR KNOB Original Mig.'s Part No. 102502, Color Mahogany. Cat. No. 27-732 Channel Knob Net \$3.00	 CHANNEL SELECTOR KNOB Original Mig.'s Part No. 77708M, Color Brown & Gold. Cat. No. 27-760 Channel Knob Net \$1.17
		 CHANNEL SELECTOR KNOB Original Mig.'s Part No. 104303, Color Gray. Cat. No. 27-734 Channel Knob Net \$1.35	

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LATEST
TV KNOBS

 PHILCO CHANNEL SELECTOR Orig. Mig. No. 424-8332 No. 27-198.....Net 2.10	 G.E. CHANNEL SELECTOR Original Mig. No. 43X405 No. 27-088.....Net 2.37	 EMERSON CHANNEL SELECTOR Original Mig. No. 461707 No. 27-053.....Net 1.80	 EMERSON CHANNEL SELECTOR Original Mig. No. 461701 No. 27-057.....Net 1.80	 EMERSON CHANNEL SELECTOR Original Mig. No. 4615 No. 27-061.....Net 1.80
 PHILCO CHANNEL SELECTOR Orig. Mig. No. 424-8332 No. 27-198.....Net 2.10	 G.E. FINE TUNER Original Mig. No. 43X480 No. 27-098.....Net 1.77	 PHILCO FINE TUNER Orig. Mig. No. 424-8178 No. 27-196.....Net 2.57	 PHILCO FINE TUNER Orig. Mig. No. 424-8178 No. 27-196.....Net 2.57	 PHILCO FINE TUNER Orig. Mig. No. 424-8178 No. 27-196.....Net 2.57
 SILVERTONE CHANNEL SELECTOR Original Mig. No. 52-1750 No. 27-1012.....Net 1.95	 RCA CONTRAST BRIGHT Vertical - Horizontal Original Mig. No. 107605 No. 27-201.....Net .90	 RCA ON-OFF-VOLUME Original Mig. No. 112676 No. 27-203.....Net 1.65	 RCA CHANNEL SELECTOR Original Mig. No. 112570 No. 27-205.....Net 2.70	 SILVERTONE FINE TUNER Original Mig. No. 52-1750 No. 27-1010.....Net 1.95
 SILVERTONE CHANNEL SELECTOR Original Mig. No. 52-1750 No. 27-1012.....Net 1.95	 SILVERTONE CHANNEL SELECTOR Original Mig. No. 52-1049 No. 27-1014.....Net 2.10	 SILVERTONE CHANNEL SELECTOR Original Mig. No. 52-1405 No. 27-1015.....Net 1.80	 ZENITH ON-OFF VOLUME Original Mig. No. 46-1335 No. 27-229.....Net 2.87	 ZENITH CHANNEL SELECTOR Original Mig. No. 53 No. 27-301.....Net 1.95

DRI-TRANSFER® LETTERING

- Easiest and most economical method of applying letters, symbols and illustrations to all dry smooth surfaces, many rough surfaces, most flat or curved objects.
- A special wax-free adhesive assures lasting permanence and a crisp, clear transfer every time.
- Once applied, a DRI-TRANSFER® image will not peel, crack or blister when exposed to heat, chemicals or mechanical action of copy machines.
- Titles, captions and notations down to the smallest letters and numbers are always sharply defined.
- Perfect for prints, spec sheets, layouts, files, folders, cards, name plates, slides, equipment marking, identification, printed circuit artwork, prototypes, control panels, etc.
- Errors easily rectified with rubber cement or k-up or eraser.
- Clear lacquer spray gives ultimate permanence when transferred to metal or glass surfaces.
- Color: Black only.

Four Step Method — Simple and Quick

1. After folding away the backing sheet, position the letter, number or symbol exactly where you want it.
2. Burnish lightly with a pen or pencil.
3. Peel away the carrier sheet.
4. Burnish with backing sheet.

THAT'S ALL THERE IS TO IT!

Order by Catalog Number
Sheet size — 8 1/4" x 13 1/4"

1-5 Sheets \$1.69 ea.

6-11 Sheets 1.59 ea. Assorted type faces
12 or more Sheets 1.49 ea. and sizes

Stock sheets come individually packaged in flat polyethylene bags with stiff backing for ease of storage, inventory and handling. Sheets are clearly marked with type face size and part number for quick identification.

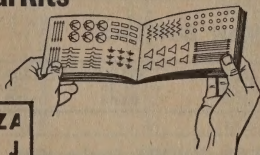
POINT SIZE COMPARISON TABLE

Point size	Approximate size in inches	Point size	Approximate size in inches
8	3/16"	48	1 1/2"
10	1/8"	60	5/8"
12	3/16"	72	3/4"
16	1/4"	96	1"
24	1/2"	120	1 1/4"
36	3/4"	180	1 3/4"
42	3/8"		

Cat. #F0860-C/60 Pt. Capital Letters Only	Cat. #F672-C/72 Pt. Capital Letters Only	Cat. #FDB72-C/72 Pt. Capital Letters Only
Cat. #F0860-L/60 Pt. Lower Case Letters Only	Cat. #F672-L/72 Pt. Lower Case Letters Only	Cat. #FDB72-L/72 Pt. Lower Case Letters Only
Cat. #F0848-C/48 Pt. Capital Letters Only	Cat. #F660-C/60 Pt. Capital Letters Only	Cat. #FDB60-C/60 Pt. Capital Letters Only
Cat. #F0836-C/36 Pt. Capital Letters Only	Cat. #F660-L/60 Pt. Lower Case Letters Only	Cat. #FDB60-L/60 Pt. Lower Case Letters Only
Cat. #F0830-CL/30 Pt. Capitals And Lower Case	Cat. #F648-C/48 Pt. Capital Letters Only	Cat. #FDB48-C/48 Pt. Capital Letters Only
Cat. #F0824-CL/24 Pt. Capitals And Lower Case	Cat. #F648-L/48 Pt. Lower Case Letters Only	Cat. #FDB48-L/48 Pt. Lower Case Letters Only
Cat. #F0812-CL/12 Pt. Capitals And Lower Case	Cat. #F636-C/36 Pt. Capital Letters Only	Cat. #FDB36-C/36 Pt. Capital Letters Only
Cat. #N0848-C/48 Pt. Capital Letters Only	Cat. #F618-CL/18 Pt. Capitals And Lower Case	Cat. #FDB30-CL/30 Pt. Capitals And Lower Case
Cat. #N0848-L/48 Pt. Lower Case Letters Only	Cat. #F600-C/60 Pt. Capital Letters Only	Cat. #FDB24-CL/24 Pt. Capitals And Lower Case
Cat. #N0842-CL/42 Pt. Capitals And Lower Case	Cat. #F600-L/60 Pt. Lower Case Letters Only	Cat. #FDB12-L/12 Pt. Lower Case Letters Only
Cat. #N0836-CL/36 Pt. Capitals And Lower Case	Cat. #F576-C/48 Pt. Capital Letters Only	Cat. #FDB12-L/12 Pt. Lower Case Letters Only
Cat. #N0824-CL/24 Pt. Capitals And Lower Case	Cat. #F576-L/48 Pt. Lower Case Letters Only	Cat. #FDB12-L/12 Pt. Lower Case Letters Only
Cat. #N0816-CL/16 Pt. Capitals And Lower Case	Cat. #F564-C/48 Pt. Capital Letters Only	Cat. #FDB12-L/12 Pt. Lower Case Letters Only
Cat. #C0848-C/48 Pt. Capital Letters Only	Cat. #F564-L/48 Pt. Lower Case Letters Only	Cat. #FDB12-L/12 Pt. Lower Case Letters Only
Cat. #C0848-L/48 Pt. Lower Case Letters Only	Cat. #F544-C/48 Pt. Capital Letters Only	Cat. #FDB12-L/12 Pt. Lower Case Letters Only
Cat. #C0842-CL/42 Pt. Capitals And Lower Case	Cat. #F544-L/48 Pt. Lower Case Letters Only	Cat. #FDB12-L/12 Pt. Lower Case Letters Only
Cat. #C0836-CL/36 Pt. Capitals And Lower Case	Cat. #F544-L/48 Pt. Lower Case Letters Only	Cat. #FDB12-L/12 Pt. Lower Case Letters Only
Cat. #C0824-CL/24 Pt. Capitals And Lower Case	Cat. #F544-L/48 Pt. Lower Case Letters Only	Cat. #FDB12-L/12 Pt. Lower Case Letters Only
Cat. #C0816-CL/16 Pt. Capitals And Lower Case	Cat. #F544-L/48 Pt. Lower Case Letters Only	Cat. #FDB12-L/12 Pt. Lower Case Letters Only

DRI-TRANSFER® LETTERING

ELECTRONIC MarKits®



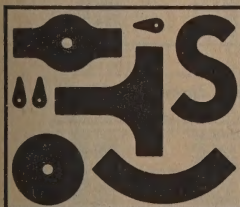
Electronic Words MarKit®

An electronics glossary containing 27 3" x 6" pages with over a thousand words from "AC" to "zooms" in alphabetical order for easy application to control panels, prototypes, drawings, terminal boards, electrical and mechanical components. In loose leaf form with plastic spiral ring.

Printed Circuit Pads MarKit®

27 3" x 6" pages containing thousands of printed circuit pads: circles (with center hole), teardrops, teardrops (with vanishing point), double end teardrops, double end teardrops (with vanishing points), elbows, elbow (terminal), T-connectors, fillets, ovals. In loose leaf form with plastic spiral ring.

ON JUMP IONIZA
IZATION JACKS J
A B C D E F G H
A B C D E F G H
A B C D E F G H
1 1 1 2 2 3 3 4 4 5
1 1 1 2 2 3 3 4 4 5



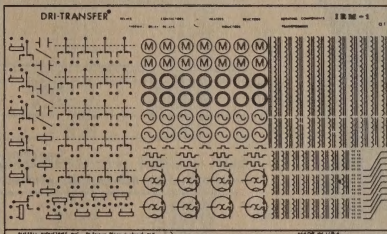
Prices — 1-5 MarKits, \$4.95 ea; 6-11 MarKits, \$4.50 ea. (assorted); 12 or more MarKits, \$4.25 ea. (assorted).

SPECIAL DRI-TRANSFER® SHEETS

Logotypes, symbols, headings, trademarks, designs, drawings, labels codes, original lettering and images of any kind are available on special order in a variety of colors. Write for complete catalog.

ELECTRONICS SYMBOL

DRI-TRANSFER® SHEETS



Sheet Size
8 1/4 x 13 1/4
Black Only

Prices

1-5 \$169
6-11 \$159
Asst.
12 \$149
or more
Asst.

Individually packaged in flat polyethylene bags with stiff backing for ease of storage, inventory and handling. Clearly marked with part number for quick identification.

DST-1 Thermistors, Photocells, Zener Diodes, SCR's.
RCT-1 Capacitors, Tubes, Resistors, Potentiometers, Varistors.
IRM-1 Relays, Contactors, Heaters, Reactors, Rotating Components, Thermal Delay Relays, Inductors, Transformers.
CC-1 Grounds, Shields, Contactors, Connections.
BRS-1 Bridge Rectifiers, Diodes, SCR's.
BFP-1 Plugs, Jacks, Switches, Lights, Fuses.
LAB-1 Antennas, Amplifiers, Speakers, Mikes, Boxes.
UNP-1 FET; Unijunction, NPN and PNP Transistors.

MarKits® 27 3" x 6" pages in loose leaf form with special ring binder. Per MarKit.

PRICES 1-5 \$495
6-11 \$450
Asst.
12 \$425
or more
Asst.

ALPHABET		NUMERALS		SIZE
BLACK	WHITE	BLACK	WHITE	
AM-1	AM-1W	NM-1	NM-1W	1 1/8"
AM-2	AM-2W	NM-2	NM-2W	1 1/4"
AM-3	AM-3W	NM-3	NM-3W	3/8"
AM-4	AM-4W	NM-4	NM-4W	1 1/2"
AM-5	AM-5W	NM-5	NM-5W	2 1/2"
AM-6	AM-6W	NM-6	NM-6W	3 1/2"

Russell Industries, Inc.



KURZ-KASCH INSTRUMENT and CONTROL KNOBS

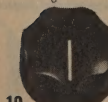
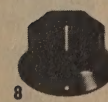
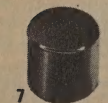
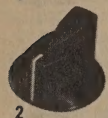
"WARRANTED FOR LIFE"

*KURZ-KASCH "Exclusive Warranty" — Exclusive in the industry, Kurz-Kasch, Inc. warrants all Kurz-Kasch knobs for the life of the product on which they are used.

KURZ-KASCH, Inc. manufactures thermosetting plastic knobs for all instrument and control requirements. Kurz-Kasch offers the most versatile and complete line available.

Material: Black type CFG phenolic to meet MIL-M-14E specifications is standard.
Set Screws: Slotted head set screws supplied standard.

POINTERS and BAR KNOBS



PART NO.	SIZE (inches)		NET per 1000		
	OD	HEIGHT	1-99	100-499	500-999
1 S-292-1L	1-1/4	5/8	\$106.50	\$ 79.90	\$ 74.55
S-292-3L	1-1/4	5/8	159.20	119.40	111.45
S-293-1L	2-1/4	5/8	179.65	134.70	125.75
S-293-3L	2-1/4	5/8	269.75	202.35	188.85
S-246-1L	1-1/2	7/8	205.05	153.85	143.55
S-246-3L	1-1/2	7/8	283.35	212.55	198.33
1 AN-3219-1	1-1/4	5/8	\$225.40	\$169.05	\$157.80
AN-3220-1	1-1/2	7/8	322.00	241.50	225.40
AN-3220-3	1-1/2	7/8	230.20	172.65	161.15
2 S-658-1L	1-1/8	11/16	\$123.10	\$ 91.95	\$ 85.80
3 S-626-1L	1-1/2	5/8	\$191.35	\$143.55	\$133.95
4 S-400-1L	15/16	3/4	\$394.50	\$295.85	\$276.15
5 S-657-1L	1-1/8	5/8	\$227.95	\$171.00	\$159.65
S-657-3L	1-1/8	5/8	285.35	214.00	199.75
6 S-1657-1L	1-1/8	5/8	\$426.40	\$319.80	\$277.15
S-1657-3L	1-1/8	5/8	498.20	373.65	323.85

PUSH BUTTONS

7 S-328-30	1/2	15/32	\$85.90	\$64.45	\$60.15
S-330-30	7/16	15/32	91.45	68.60	63.95
S-343-30	7/16	5/8	91.45	68.60	63.95

INSTRUMENT KNOBS Series 600

Supplied standard with white indicator line, may be ordered without indicator line.

S-645-1L	3/4	7/16	\$166.65	\$125.00	\$116.65
S-645-3L	3/4	7/16	231.20	173.40	161.80
S-645-5L	3/4	7/16	231.20	173.40	161.80
S-645-21L	3/4	7/16	166.65	125.00	116.65
S-647-1L	1	19/32	168.30	126.25	117.85
S-647-3L	1	19/32	228.45	171.35	159.90
S-648-1L	1-1/4	21/32	175.10	131.35	122.55
S-648-3L	1-1/4	21/32	235.21	176.45	164.67
S-653-1L	1-1/2	3/4	191.05	143.30	133.75
S-653-3L	1-1/2	3/4	262.90	197.15	184.00
S-649-1L	2	7/8	456.80	342.65	296.95
S-649-3L	2	7/8	546.00	409.55	354.90

INSTRUMENT KNOBS Series 1600 (with decorative aluminum inlay)

Supplied standard with white indicator line, may be ordered without indicator line.

S-1645-1L	3/4	7/16	\$331.15	\$248.35	\$231.80
S-1645-3L	3/4	7/16	401.55	300.35	280.30
S-1645-5L	3/4	7/16	402.40	301.20	281.15
S-1645-21L	3/4	7/16	331.15	248.35	231.80
S-1647-1L	1	19/32	332.80	249.60	232.25
S-1647-3L	1	19/32	397.70	298.30	278.40
S-1648-1L	1-1/4	21/32	356.30	267.25	249.40
S-1648-3L	1-1/4	21/32	421.65	316.25	295.15
S-1653-1L	1-1/2	3/4	374.10	280.55	261.90
S-1653-3L	1-1/2	3/4	451.25	338.45	293.30
S-1649-1L	2	7/8	660.25	495.15	429.15
S-1649-3L	2	7/8	755.35	566.50	491.00

INSTRUMENT KNOBS Series 700

Supplied standard with white indicator line, may be ordered without indicator line.

S-745-1L	5/8	7/16	\$230.60	\$173.00	\$161.45
S-745-3L	5/8	7/16	299.25	224.45	209.45
S-745-5L	5/8	7/16	299.25	224.45	209.45
S-745-21L	5/8	7/16	230.60	173.00	161.45
S-747-1L	13/16	19/32	239.60	179.70	167.70
S-747-3L	13/16	19/32	301.80	226.35	211.25
S-748-1L	1	21/32	251.95	188.95	176.35
S-748-3L	1	21/32	314.30	235.75	220.00
S-753-1L	1-1/4	3/4	272.55	204.40	190.75
S-753-3L	1-1/4	3/4	346.75	260.05	242.60
S-749-1L	1-5/8	7/8	546.60	410.00	355.30
S-749-3L	1-5/8	7/8	638.45	478.85	415.00

KURZ-KASCH INSTRUMENT and CONTROL KNOBS

"WARRANTED FOR LIFE"*

INSTRUMENT KNOBS Series 1700 (with decorative aluminum inlay)
Supplied standard with white indicator line, may be ordered without indicator line.

PART NO.	SIZE (inches)		NET per 1000		
	OD	HEIGHT	1-99	100-499	500-999
S-1745-1L	5/8	7/16	\$395.10	\$296.35	\$276.55
S-1745-3L	5/8	7/16	468.50	351.40	304.55
S-1745-5L	5/8	7/16	468.50	351.40	304.55
S-1745-21L	5/8	7/16	395.10	296.35	276.55
S-1747-1L	13/16	19/32	404.05	303.05	282.85
S-1747-3L	13/16	19/32	471.05	353.20	306.20
S-1748-1L	1	21/32	433.10	324.85	281.55
S-1748-3L	1	21/32	500.75	375.55	325.45
S-1753-1L	1-1/4	3/4	455.55	341.70	296.15
S-1753-3L	1-1/4	3/4	535.10	401.30	347.80
S-1749-1L	1-5/8	7/8	749.95	562.50	487.45
S-1749-3L	1-5/8	7/8	847.80	635.85	551.05

WING KNOB SERIES

S-1750-3L-BB, S-1751-3L-BB with decorative aluminum inlay

S-1750-3L-BB	1-1/4	3/4	\$604.70	\$453.55	\$393.10
S-1751-3L-BB	1-1/2	3/4	626.40	469.85	407.20
S-1750-3L-BB	1-1/4	3/4	\$826.80	\$620.10	\$537.40
S-1751-3L-BB	1-1/2	3/4	848.00	636.00	551.20

CONCENTRIC SERIES

S-656-1L*	1	39/64	\$312.70	\$234.55	\$221.95
S-656-3L*	1	39/64	392.60	294.45	274.85
S-750-3L-BB/**CONCT.	1-1/4	3/4	\$718.10	\$538.60	\$466.75
S-751-3L-BB/**CONCT.	1-1/2	3/4	739.90	554.95	480.95

*Use with S-645, 1645 as top knob

**Use with S-745, 1745 as top knob

HEAVY DUTY INSTRUMENT KNOBS Series 300

Skirted knobs supplied standard with white indicator line, may be ordered without indicator line.

S-319-3	1	5/8	\$226.30	\$169.75	\$158.40
S-308-3	1-1/8	5/8	230.85	173.15	161.60
S-385-3	1-3/8	11/16	360.60	270.45	252.85
S-309-3	1-5/8	3/4	306.85	230.20	214.80
S-310-3	2-3/8	7/8	468.95	351.70	304.80
S-380-3L	1-1/8	13/16	\$618.80	\$464.10	\$402.20
S-381-70L	1-3/8	27/32	757.40	568.05	492.30
S-311-3L	1-5/8	7/8	690.00	517.50	448.50
S-312-70L	2-3/8	15/16	1209.20	906.90	786.00

HEAVY DUTY INSTRUMENT KNOBS Series 1300 (with decorative aluminum inlay)

S-1319-3	1	5/8	\$412.75	\$309.60	\$288.95
S-1308-3	1-1/8	5/8	419.25	314.45	293.45
S-1385-3	1-3/8	11/16	613.75	460.30	398.95
S-1309-3	1-5/8	3/4	526.40	394.80	342.15
S-1310-3	2-3/8	7/8	722.30	541.70	469.50

ALUMINUM KNOBS Series 1000

Supplied standard with white indicator line, may be ordered without indicator line.

S-1000-21L	7/16	5/8	\$ 875.00	\$ 656.25	\$ 568.75
S-1001-21L	3/4	9/16	1000.00	750.00	650.00
S-1001-1L	3/4	9/16	1000.00	750.00	650.00
S-1002-1L	1	11/16	1125.00	843.75	731.25
S-1003-1L	1-1/4	3/4	1500.00	1125.00	975.00
S-1004-1L	1-1/2	13/16	1675.00	1256.75	1088.75

GEAR and CONTROL BALLS

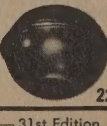
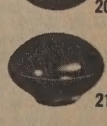
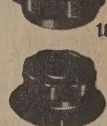
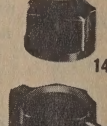
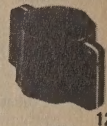
Supplied standard with molded threads.

PART NO.	SIZE (inches)		THREAD	NET per 1000		
	OD	HEIGHT		1-99	100-499	500-999
S-446-3	1-3/4	1-3/4	3/8-16	\$363.70	\$272.80	\$254.60
S-446-5	1-3/4	1-3/4	1/2-13	363.70	272.80	254.60
S-442-4	2	1-5/16	3/8-24	\$268.75	\$201.90	\$188.15
S-801-15C	1	1	5/16-18	\$154.70	\$116.05	\$108.30
S-801-15D	1	1	#10-32	135.25	101.45	94.65
S-801-15E	1	1	#10-24	135.25	101.45	94.65
S-801-15F	1	1	3/8-24	154.70	116.05	108.30
S-801-15G	1	1	#8-32	135.25	101.45	94.65
S-801-15Q	1	1	1/4-28	154.70	116.05	108.30
S-801-15T	1	1	1/4-20	154.70	116.05	108.30
S-801-15Z	1	1	5/16-24	154.70	116.05	108.30
S-801-15EE	1	1	3/8-16	154.70	116.05	108.30

SUFFIX

FEATURE

—1	Molded hole for 1/4" shaft
—3	Brass insert for 1/4" shaft
—5	Brass insert for 1/8" shaft
—21	Molded hole for 1/8" shaft
—30	Flatted to .052 x 3/16"
—70	Heavy duty brass insert for 1/4" shaft
—BB	2 slotted head set screws available at extra cost 1-99 \$80.00 per 1000, 100-499 \$60.00 per 1000, 500-999 \$56.00 per 1000





TEKNI-LABELS • TEK-TITLES

NEW "99 LINE" PACKAGED TEKNI-LABELS

Amateur Radio Equipment	
42-100.....	White
42-101.....	Black
Citizens Band Radio	
42-102.....	White
42-103.....	Black
Mobile Radio Units	
42-104.....	White
42-105.....	Black
Radio Teletype	
42-106.....	White
42-107.....	Black
Audio and Intercom Systems	
42-108.....	White
42-109.....	Black
Electrical Distribution	
42-114.....	White
42-115.....	Black

Computer and Digital	
42-116.....	White
42-117.....	Black
Transistor	
42-118.....	White
42-119.....	Black
Radio Control Models	
42-120.....	White
42-121.....	Black
Instruments	
42-122.....	White
42-123.....	Black
Oscilloscope and Video	
42-124.....	White
42-125.....	Black
Dials and Marks	
42-126.....	White
42-127.....	Black

Repairmen's Titles	
42-128.....	White
42-129.....	Black
Stereo and Hi-Fi	
42-130.....	White
42-131.....	Black
Dial Labels	
42-132.....	White
42-133.....	Black
Alphabet and Numerals, Large	
42-134.....	White
42-135.....	Black
Alphabet and Numerals, Medium	
42-136.....	White
42-137.....	Black
Alphabet and Numerals, Small	
42-138.....	White
42-139.....	Black

NET
PER PKG.
\$.99



Complete sets of professional appearing titles all engineering and experimental electronic applications. Decal-type application. Especially suitable for designers, Hi-Fi enthusiasts, do-it-yourself group.

WALSCO WIRE MARKERS

Letters or numbers for identification of wiring, resistors, condensers, etc. *Permanent, legible, foolproof.* Made of durable, vinyl cloth with plastic coating. Pre-cut to exact size. Meets MIL-E-5272-A.

Cat. No.	Description	Net
2210	Numbers 1 to 33.....	.38
2211	Numbers 34 to 66.....	.38
2212	Numbers 67 to 99.....	.38
2213	Letters A to Z.....	.38

WALSCO UNIVERSAL DECALS

Every package contains a large assortment of most frequently used titles, numerals and designs for Radio, TV Receivers, and other equipment.

Cat. No.	Description	Net
2201	1 package - White.....	1.50
2201-D	Display box of 10 pgs.....	
2202	1 package - Black.....	1.50
2202-D	Display box of 10 pgs.....	
2203	1 package - Gold.....	1.50
2203-D	Display box of 10 pgs.....	



WALSCO DIAL CORDS • CABLES • PRINTED CIRCUIT AIDS

Same quality as used on original equipment, in variety of sizes and conveniently packaged.



"SPECIAL THIN"

Diameter .025", Breaking Strength 15 lbs.	
Cat. No. 656-02	25 feet Net \$.75
Cat. No. 656-10	100 feet Net 2.37
Cat. No. 656-50	500 feet Net 8.58

MEDIUM

Diameter .040", Breaking Strength 35 lbs.	
Cat. No. 652-02	25 feet Net \$.75
Cat. No. 652-10	100 feet Net 2.37
Cat. No. 652-50	500 feet Net 10.57

PHOSPHOR BRONZE CABLE

42-strand, .032" diameter, 40 lb. breaking strength. Numerous strands give cable extra-ordinary flexibility.	
Cat. No. 662-02	25 feet Net \$ 1.23
Cat. No. 662-10	100 feet Net 3.52
Cat. No. 662-50	500 feet Net 16.20

FLAT NYLON LACING CORD

Waxed and fungus resistant flat cord for tying harnesses, wrapping coils, etc. Breaking strength 50 lbs., approx. width, .085", approx. thickness, .0125".	
Cat. No. 666-15	Net \$2.97
150 ft. spool	
Cat. No. 666-75	Net \$9.00
750 ft. spool	

STANDARD LACING CORD

Meets specifications JAN T-713-type N—Class 3. In natural gray color. Approximately .040". Min. tensile strength 32 lbs., low stretch.	
Cat. No. 660-10	Net \$1.05
100 ft. spool	
Cat. No. 665-45	Net 2.00
450 ft. spool	
Cat. No. 665-80	Net 6.60
1800 ft. spool	

BRAIDED BRONZE CABLE	
16-strand, .039" O.D., 50 lb. breaking strength. Good flexibility, excellent abrasion resistance.	
Cat. No. 660-02	25 feet Net \$.97
Cat. No. 660-10	100 feet Net 2.70
Cat. No. 660-50	500 feet Net 12.00

STANDARD

Diameter .028", Breaking Strength 20 lbs.	
Cat. No. 654-02	100 feet Net \$.75
Cat. No. 654-10	100 feet Net 2.37
Cat. No. 654-50	500 feet Net 8.58

HEAVY

(Used on many Philco and Majestic sets.) Diameter .060".	
Cat. No. 650-02	100 feet Net \$ 1.02
Cat. No. 650-10	100 feet Net 2.97

THIN BRONZE CABLE

An extra-thin cable with diameter of only .022". Surprisingly strong and flexible. Non-ravelling.	
Cat. No. 664-02	25 feet Net \$.97
Cat. No. 664-10	100 feet Net 2.70
Cat. No. 664-50	500 feet Net 12.00

DIAL CORD CLIPS

This assortment of 24 WalSCO Dial Cord Clips contains the proper sizes for all standard thicknesses of cords.	
Cat. No. 7745-F	Net \$.39



WALSCO SAFETY GLASS REMOVER



Chrome plated, steel handle is combined with two powerful, long lasting suction cups to insure trouble free removal of safety glass on TV sets

Cat. No. 2575 ... Net \$.90



PRINTED CIRCUIT REPAIR SOLDER — Especially compounded 11' solder wire with flux core to give a perfect solder joint and flow quickly and easily at lower temperatures required for printed circuit work.

Cat. No. 649..... Net \$.52



PRINTED CIRCUIT REPAIR FOIL — Copper foil with thermo-plastic backing 24 sq. in. For use in repair of damaged or burned out sections of a printed circuit. Bonds permanently to panel with heat of soldering iron.

Cat. No. 647..... Net \$.48



PRINTED CIRCUIT SOLDER WASHERS — Supplies the exact amount solder and flux when replacing components on printed circuit board. Center hole permits passage of most standard wire leads. Box of 60 washers

Cat. No. 648..... Net \$.50



PRINTED CIRCUIT INSULATING VARNISH — A special formula insulating varnish designed for the protection of printed circuits after they have been worked upon in repair or replacement of parts.

Cat. No. 120-02W... Net \$1.30
2 oz. bottle with brush
Cat. No. 120-06... Net \$2.42
6 oz. spray can

INSULATING VARNISH SOLVENT

Excellent for dissolving and removing insulating varnish from printed circuits, etc. Also thinner for the WalSCO Printed Circuit insulating Varnish.

Cat. No. 205-02 2 oz. Net \$.45 each



WALSCO SILVER AN "COPPER PRINT" — The same "Pure Silver" or Copper compound as used in Printed Circuit design.

Cat. No. 36..... Net \$3.12

1-2 Troy oz. Silver Print

Cat. No. 36-1..... Net \$5.12

1 Troy oz. Silver Print

Cat. No. 37-02..... Net \$1.92

2 oz. bottle Copper Print

PRINTED CIRCUIT SOLDER-AID

Has probe on one end for tightening contacts, etc., and a fork on opposite end for insulating wires or wire lead while soldering and unsoldering. 8 long plastic handle.

Cat. No. 2530..... Net \$1.00



STANDARD PRINTED CIRCUIT REPAIR KIT

Contains one box each of foil, solder washers, solder wire, 1 solder-eat tool, fiber glass brush, printed circuit insulating varnish and solvent, tweezers and complete instructions.

Cat. No. 13-K..... Net \$5.32



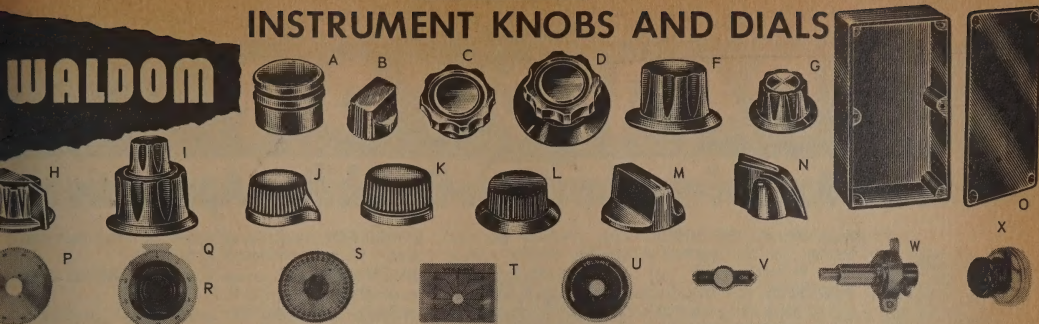
MASTER PRINTED CIRCUIT REPAIR KIT

Contains all items above plus 1 U g soldering iron with 1 special tool and a 6 oz. spray can of printed circuit insulating varnish. Also includes practice wiring board.

Cat. No. 12-K..... Net \$19.12

INSTRUMENT KNOBS AND DIALS

WALDOM



MODERN KNOBS - FIG. A

1/4" brass insert, slotted set screw					
No.	Diameter	Height	1-99 Ea.	100-Up	
Red	5/8"	7/16"	.25	.20	
	5/8"	7/16"	.29	.23	
	5/8"	19/32"	.40	.32	

BAR KNOB - FIG. B

No.	1 1/16"	1 1/2"	1-99 Ea.	100-Up
B	.31	.25		

FULL FLUTED KNOBS - FIG. C

Black bakelite, 3/4" brass insert, slotted set screw					
No.	Diameter	Height	1-99 Ea.	100-Up	
100	1-1/8"	5/8"	.35	.28	
101	1-3/8"	1 1/16"	.63	.54	
102	1-5/8"	3/4"	.41	.33	
103	2"	7/8"	.59	.47	

W/Skirt - FIG. D

No.	Diameter	Height	1-99 Ea.	100-Up
104	1-1/2"	5 1/4"	.56	.45
107	1-3/4"	5 5/8"	.63	.50
108	2"	5 7/8"	.73	.58
109	2 1/4"	6"	.95	.75

W/Pointer (plastic) - FIG. E

No.	Diameter	Height	1-99 Ea.	100-Up
P	1-1/8"	5/8"	.63	.50
P	1-3/8"	1 1/16"	.68	.54
P	1-5/8"	3/4"	.73	.58
P	2"	7/8"	.98	.78

LATEST SERIES INSTRUMENT KNOBS

Black bakelite, slotted set screw, white marker line on skirt					
No.	Diameter	Height	1-99 Ea.	100-Up	

No.	Diameter	Height	1-99 Ea.	100-Up
01	3/4"	1 1/2"	F .22	.17
01B	3/4"	1 1/2"	F .22	.23
01C	3/4"	1 1/2"	F .23	.18
02	1-1/8"	5/8"	F .32	.25
02B	1-1/8"	5/8"	F .32	.25
03	1-1/4"	3/4"	F .25	.20
03B	1-1/4"	3/4"	F .33	.26
04	1-1/2"	7/8"	F .27	.21
04B	1-1/2"	7/8"	F .36	.29
05	2"	1 1/2"	F .47	.37
05B	2"	1 1/2"	F .58	.46
06	1-1/4"	3/4"	G .40	.32
06G	1-1/4"	3/4"	G .40	.32
09	1-1/4"	5/8"	H .31	.25
09B	1-1/4"	5/8"	H .39	.31

Brass insert, 1/8" molded hole, all other molded hole. S-Silver inlay. G-Gold inlay.

DUO CONCENTRIC KNOB

all knob WA-101C - large knob for 1/4" shaft					
No.	Diameter	Height	1-99 Ea.	100-Up	
07	1-1/4"	1-3/16"	C .49	.39	

HIGH QUALITY DIALS - FIG. P*

Aluminum w/hand spun finish. Black numerals.					
No.	Calibration	Diameter	1-49 Ea.	100-Up	
15	0-100/180°	1-1/8"	.45	.36	
16	0-100/270°	1-1/8"	.45	.36	
17	0-100/325°	1-1/8"	.45	.36	
18	0-100/360°	1-1/8"	.45	.36	
2	0-100/180°	1-3/4"	.60	.48	
2	0-100/270°	1-3/4"	.60	.48	
19	0-100/325°	1-3/4"	.60	.48	
20	0-100/360°	1-3/4"	.60	.48	
3	0-100/180°	2-3/4"	.75	.60	
4	0-100/270°	2-3/4"	.75	.60	
5	0-100/325°	2-3/4"	.75	.60	
6	0-100/360°	4"	1.20	.96	
7	0-100/180°	4"	1.20	.96	
22	0-100/270°	4"	1.20	.96	
8	0-100/325°	4"	1.20	.96	
8A	0-100/360°	4"	1.20	.96	

AZIMUTH DIALS - FIG. S

Precision Test Dial. Outer numbers 0-360 in counter-clockwise direction; inner letters 0-360 in clockwise direction. Etched in heavy aluminum. Complete attached knob, indicator.					
No.	Diameter	Height	1-99 Ea.	100-Up	
10	6" dia. 3/8" shaft d.		4.50	3.60	
11	6" dia. 1/4" shaft d.		4.50	3.60	
12	4" dia. 1/4" shaft		3.29	2.53	

reverse calibration add suffix R to type or part number.

POINTER AND LEVER CONTROL KNOBS - FIG. N

Black bakelite, white filled pointer For 1/4" shaft, set screw					
Part No.	Diameter	Height	1-99 Ea.	100-Up	

WA-2300	1-1/4"	5/8"	.13	.10
WA-2300A	1-1/4"	5/8"	.20	.16
WA-2350	2"	5/8"	.26	.27
WA-2350A	2"	5/8"	.33	.26

*Brass insert

STANDARD KNOBS - FIG. J

Small Pointer knob - 1 1/16" dia., 13/32" high					
Part No.	Diameter	Height	1-99 Ea.	100-Up	
WA-1400	1/4" molded hole	.11	.09		
WA-1400W	1/4" brass insert	.28	.22		
WA-1400R	1/8" molded hole	.17	.13		

Pointer knob - 1" diameter 1/2" high - FIG. J

WA-1470	1/4" molded hole	.22	.17
WA-1470C	1/4" brass insert	.30	.24

Small Round knob - 1 1/16" diameter, 13/32" high - FIG. K

WA-1450	1/4" molded hole	.11	.09
WA-1450W	1/4" brass insert	.28	.22
WA-1450G	1/8" molded hole	.17	.13

Round knob - 1" diameter, 1/2" high - FIG. K

WA-1475	1/4" molded hole	.17	.13
WA-1475C	1/4" brass insert	.25	.20

SKIRTED KNOBS - FIG. L

WA-1600	1 1/2" O.D. x 3/4" high	.22	.17
WA-1600A	1/4" brass insert	.26	.21

7/8" diameter x 9/16" high

WA-1610	1/4" molded hole	.20	.16
WA-1610A	1/4" brass insert	.26	.21

MATCHING BAR AND POINTER KNOBS

Black bakelite, set screw, white indicator line. For 1/4" shaft. 1-1/8" diameter, 9/16" high.					
Part No.	Diameter	Height	1-99 Ea.	100-Up	

WA-1500	Bar knob - Fig. M	.19	.15
WA-1550	Pointer knob	.15	.12

INSTRUMENT CASES - PANELS - COVERS - FIG. O

Wall thickness 1/8" w/highly polished finish. Will withstand rugged usage.					
Type	Description	1-49 Ea.	100-Up		

BC-138	6" L x 3 1/2" W x 1-7/8" D	.92	.65
BC-138B1	W/Brass inserts in 4 corners	1.03	.72
BP-137	Flat panel for above	.56	.39
BP-137A	Molded cover for above	.61	.43
BC-140	6 1/2" L x 4-3/16" W x 2-5/32" D	1.22	.85
BC-140B1	W/Brass inserts in 4 corners	1.35	.94
BP-138	Flat panel for above	.75	.53
BP-139A	Molded cover for above	.82	.57

ALUMINUM DIAL PLATES - FIG. T

2-3/16" H. x 2-5/8" W.					
Part No.	Description	Calibration	1-49 Ea.	100-Up	
410	Title	0-10	.34	.27	
426	Volume	0-10	.34	.27	

ROUND ALUMINUM CONTROL PLATES - FIG. U

1-3/4" Diameter					
No.	Volume	Calibration	1-49 Ea.	100-Up	
25	Volume		.28	.22	
56	Off-Tone Control		.28	.22	
269	0-100 thru 180°		.28	.22	
905	0-100 thru 270°		.28	.22	

HORIZONTAL SWITCH PLATE - FIG. V

"Off-On" Switch Plate. Etched aluminum with black background and polished aluminum letters and border. 1 1/16" x 1 1/16".					
No.	Calibration	1-49 Ea.	100-Up		
278		.17	.14	.14	

AUXILIARY PLANETARY DRIVES - FIG. W

Fits 1/4" shafts: Operates at 5:1 ratio. Maximum smoothness with adequate torque. 2 Speed drive. Slow speed 5:1, High Speed 1:1					
Part No.	1-24 Ea.	25-99 Ea.	100-Over-Ea.		

599	8.00	7.50	6.30		
-----	------	------	------	--	--

Single speed. Threaded sleeve w/shoulder for mounting dial or pointer					
27067	7.60	7.15	5.85		

PAIR OF KNOBS - FIG. X

Duo-Concentric knobs for 599					
Part No.	1-99 Ea.	100-Over			
6665	1.00	.72			

DIRECT DRIVE DIAL ASSEMBLIES - FIG. R*

Above dials with knob attached and supplied complete w/indicator. Dials under 2-3/4" supplied with knob only, others w/knob and skirt.

Part No.	Calibration	Diameter	1-49 Ea.	100-Up
27084	0-100/180°	1-1/8"	1.30	1.04
27085	0-100/270°	1-1/8"	1.30	1.04
27086	0-100/325°	1-1/8"	1.30	1.04
27087	0-100/360°	1-1/8"	1.30	1.04
27068	0-100/180°	1-3/4"	1.40	1.12
27069	0-100/270°	1-3/4"	1.40	1.12
27080	0-100/325°	1-3/4"	1.40	1.12
27081	0-100/360°	1-3/4"	1.40	1.12
294	0-100/180°	2-3/4"	2.30	1.84
295	0-100/270°	2-3/4"	2.30	1.84
27082	0-100/325°	2-3/4"	2.30	1.84
303	0-100/360°	2-3/4"	2.30	1.84
292	0-100/180°	4"	3.00	2.40
293	0-100/270°	4"	3.00	2.40
27083	0-100/325°	4"	3.00	2.40
302	0-100/360°	4"	3.00	2.40
302A	0-360/360°	4"	3.00	2.40

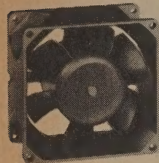
INDICATORS - FIG. Q*

Dials below 2-3/4" D take SL-1, 2-3/4 & 4" Dials take calibrated indicator matched w/its number

SL-1	Single line indicator	1-10	.08
VI-3	For DO-3	.30	.24
VI-4	For DO-4	.30	.24
VI-21	For DO-21	.30	.24
VI-5	For DO-5	.30	.24
VI-6	For DO-6	.30	.24
VI-7	For DO-7	.30	.24
VI-22	For DO-22	.30	.24
VI-8	For DO-8	.30	.24
VI-8A	For DO-8A	.30	.24

PAMOTOR

Miniature Axial Fans for High-Reliability Applications



ALL METAL CONSTRUCTION: Precision die cast housing, hub and impellers • Corrosion resistant • Warp free • Natural heat sink

POWERFUL MOTOR: Shaded pole and induction types • Hand fitted sleeve bearings • Extremely low internal heat rise • Impedance protected • Efficient inside-out design

LONG LIFE: 20,000 + operational hours, continuous duty at 45° C (115° F) without maintenance

RELIABILITY: Precision engineered and tested • Large oil lubrication reservoir • Dynamically balanced rotor

EFFICIENCY: Maximum air delivery at higher back pressures • 60 cycle performance at 50 cycles

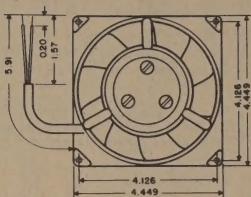
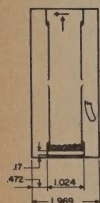
SPECIFICATIONS: Tested to applicable portions of MIL specifications • Tested to U. L. acceptance

INTERCHANGEABILITY: Universal 4 1/2" mounting on all 4 1/2" models

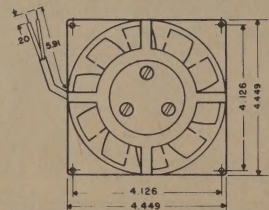
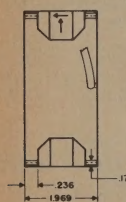
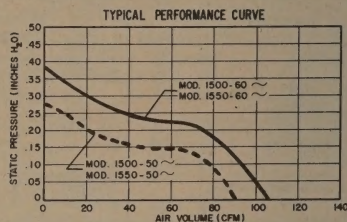
VERSATILITY: 50, 60, and 400 cycle operation • 110 or 220 volt • 3 1/2", 4 1/2", and 5 1/2" size • 2" maximum depth

WARRANTY: 1 full year against defects in workmanship and materials

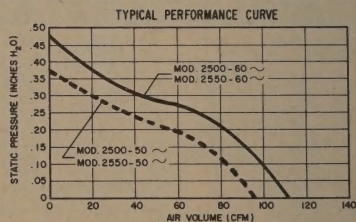
SHADED-POLE TYPES



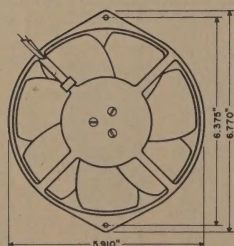
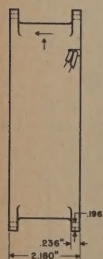
4 1/2"
Models
1500
1550



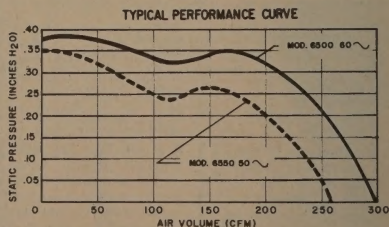
4 1/2"
Models
2500
2550



Characteristic	MODEL 1500		MODEL 1550		MODEL 2500		MODEL 2550	
Voltage	115 volts	115 volts	220 volts	220 volts	115 volts	115 volts	220 volts	220 volts
Frequency	60 cycle	50 cycle	60 cycle	50 cycle	60 cycle	50 cycle	60 cycle	50 cycle
Air Flow	105 cfm	90 cfm	105 cfm	90 cfm	115 cfm	95 cfm	115 cfm	95 cfm
Speed	3400 rpm	2850 rpm	3400 rpm	2850 rpm	3400 rpm	2850 rpm	3400 rpm	2850 rpm



5 1/2"
Models
6500
6550



Characteristic	MODEL 6500	MODEL 6550
Voltage	115 volts	220 volts
Frequency	60 cycle	50 cycle
Air Flow	300 cfm	260 cfm
Speed	3000 rpm	2700 rpm

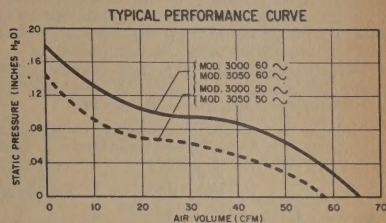
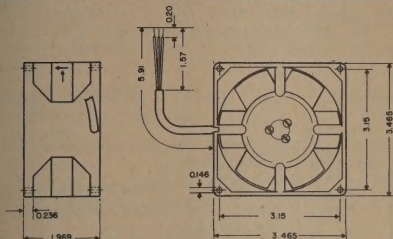
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PAMOTOR INC.

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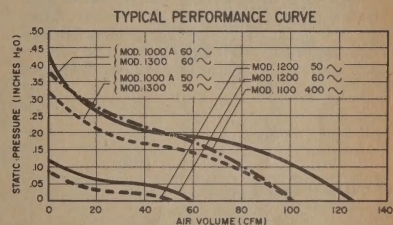
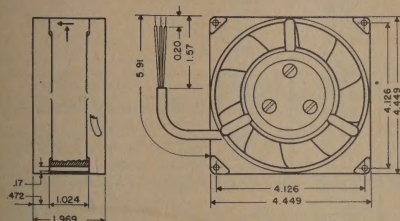
INDUCTION TYPES

3 1/2"
Models
3000
3050



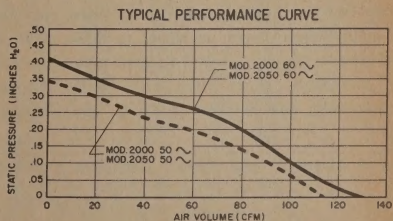
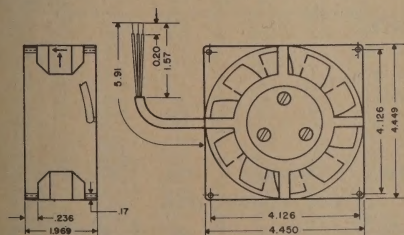
Characteristic	MODEL 3000		MODEL 3050	
Voltage	115 volts	115 volts	220 volts	220 volts
Frequency	60 cycle	50 cycle	60 cycle	50 cycle
Air Flow	65 cfm	58 cfm	65 cfm	58 cfm
Speed	3200 rpm	2800 rpm	3200 rpm	2800 rpm

4 1/2"
Models
1000A
1100
1200
1300



Characteristic	MODEL 1000A		MODEL 1100	MODEL 1200		MODEL 1300	
Voltage	115 volts	115 volts	115 volts	115 volts	115 volts	220 volts	220 volts
Frequency	60 cycle	50 cycle	400 cycle	60 cycle	50 cycle	60 cycle	50 cycle
Air Flow	125 cfm	100 cfm	100 cfm	60 cfm	50 cfm	125 cfm	110 cfm
Speed	3400 rpm	2900 rpm	3200 rpm	1700 rpm	1450 rpm	3400 rpm	2900 rpm

4 1/2"
Models
2000
2050



Characteristic	MODEL 2000		MODEL 2050	
Voltage	115 volts	115 volts	220 volts	220 volts
Frequency	60 cycle	50 cycle	60 cycle	50 cycle
Air Flow	130 cfm	110 cfm	134 cfm	116 cfm
Speed	3500 rpm	2900 rpm	3500 rpm	2900 rpm

PAMOTOR FANS ARE STOCKED FOR IMMEDIATE DELIVERY FROM LEADING ELECTRONICS DISTRIBUTORS THROUGHOUT THE UNITED STATES AND CANADA. CONTACT YOUR LOCAL DISTRIBUTOR FOR COMPLETE ENGINEERING DATA AND PRICES.

PAMOTOR INC.


**CORNELL-
DUBILIER**

Radio Interference Filter

RESIDENTIAL, LIGHT COMMERCIAL RFI FILTERS

These QUIETONE® Radio Interference filters are designed for residential and light commercial applications on appliances and office machines. Noise from small portable electrical appliances can usually be reduced through use of a circuit 1 filter. The circuit 2 filter, IF-6, will provide slightly more reduction. The greatest attenuation will be achieved through the use of circuit 4 filters — IF-18 and 19.

CDE Type	Circuit Diagram	Voltage	Cap. Mfd.	Current	Description
IF-4	1	110 AC/DC	.1	5	Plastic cylindrical filter with plug and receptacle
IF-6	2	110 AC/DC	2 x .1	5	Plastic cylindrical filter with plug, receptacle and side ground terminal
IF-18	4	115 AC/DC	2 x .25	5	Rectangular plastic cased filter with line cord and plug, receptacle and ground terminal.
IF-19	4	115 AC/DC	2 x .1	5	Smaller rectangular plastic cased filter with line cord and plug, receptacle and ground terminal.

COMMERCIAL RADIO INTERFERENCE FILTERS

The NF-1C230 is designed for installation in vacuum cleaners, floor polishers, etc. Other filters listed are UL listed for fluorescent fixtures but are frequently applied to other equipment. The vehicular filters listed on the following page also find wide industrial applications.

CDE Type	Voltage	Cap. (Mfd.)	Current	Description
IF-24	110 AC/DC	2 x .1	—	Cylindrical metal cased with flexible leads and bracket
IF-54	110-220 AC/DC	2 x .25	2	Rectangular metal cased filter with flexible leads
NF-10431	280 AC/DC	2 x .02 each line	2 x 3.5	Fluorescent light filter rectangular metal case with flexible leads
NF-10431-1	280 AC/DC	2 x .02 each line	2 x 3.5	Same as NF10431, but with mounting for direct replacement of GE Catalog 89G365
NF-1C230	125 AC/DC	.09 line to line 2 x .005 line to grd.	—	Cardboard cased filter for vacuum cleaners and other light appliances
NF-10280-1	125 AC/300 DC	2 x 1.0 each line	2 x 2.5	Fluorescent light filter with solder lug terminals

VEHICULAR FILTERS

The most frequent Radio Interference problem encountered by the service technician is the improvement in signal to noise ratio in mobile applications of Citizen's Band, commercial, and amateur high frequency communications equipment. The vehicular filters listed will solve the problems encountered provided good grounding and bonding practices are followed and use made of suppressors.

CDE Type	Voltage	Capacitance	Amperes	List Price	Net Price
FEED-THROUGH TYPES					
NFF-055B-1	50v DC	.5 mfd.	40	\$3.90	\$2.35
NFF-315D	600v DC	.1 mfd.	20	2.95	1.77
NFT-1F246	115v AC	.25 mfd.	20	6.10	3.66
BY-PASS TYPES					
MC-8D98	100v DC	.1 mfd.	—	2.40	1.44
IC-2P5C	200v DC	.5 mfd.	—	.90	.54
IN-2P5-6	200v DC	.5 mfd.	—	1.10	.68
INS-2W1	200v DC	1.0 mfd.	—	2.10	1.26
ICH-2W1A	200v DC	1.0 mfd.	—	2.10	1.26

ALL-NYLON FASTENINGS — Screws and Nuts - Washers - Standoffs

Cable and Tubing Clamps - Wire Ties

ALL NYLON FASTENINGS

Ytel 101 per MIL P 20693 Spec., MIL S 7742 Spec. Birmbach All-Nylon Fastenings are made of Zytel 101, a Polyamide plastic of the Nylon 6.6 Type. They offer outstanding insulating properties plus resistance to heat, shock, vibration and chemical solvents plus lightness elasticity and superior torque strength. In most cases, because of their high dielectric strength, they eliminate the need of bushings, washers or other insulation. They are corrosion resistant, non-magnetic and good torque strength over a wide temperature range. Continuous service temperature to 300°F (150°C). Stock color: Natural. Additional colors & types available to order. Ytel 101 per MIL-D-7019B.— All parts are manufactured to American Thread Standards to a class 2A or 2B fit. B 18.2 (hex nuts), B 18.6 (machine screws), 1.1 (thread specs.) *Reg. T.M. of DuPont

ALL NYLON MACHINE SCREWS

STANDARD PKG.: 100, 1000			
No.	Size	Type	
640	2-56x $\frac{1}{4}$ "	Round Head	
640A	2-56x $\frac{1}{4}$ "	Fillister Head	
640B	2-56x $\frac{1}{4}$ "	Binding Head	
641	2-56x $\frac{3}{8}$ "	Round Head	
641A	2-56x $\frac{3}{8}$ "	Fillister Head	
641B	2-56x $\frac{3}{8}$ "	Binding Head	
650	2-56x $\frac{1}{2}$ "	Round Head	
650A	2-56x $\frac{1}{2}$ "	Fillister Head	
650B	2-56x $\frac{1}{2}$ "	Binding Head	
643	4-40x $\frac{1}{4}$ "	Round Head	
643A	4-40x $\frac{1}{4}$ "	Fillister Head	
643B	4-40x $\frac{1}{4}$ "	Binding Head	
644	4-40x $\frac{3}{8}$ "	Round Head	
644A	4-40x $\frac{3}{8}$ "	Fillister Head	
644B	4-40x $\frac{3}{8}$ "	Binding Head	
652	4-40x $\frac{1}{2}$ "	Round Head	
652A	4-40x $\frac{1}{2}$ "	Fillister Head	
652B	4-40x $\frac{1}{2}$ "	Binding Head	
646	6-32x $\frac{1}{4}$ "	Round Head	
646A	6-32x $\frac{1}{4}$ "	Fillister Head	
646B	6-32x $\frac{1}{4}$ "	Binding Head	
653	6-32x $\frac{3}{8}$ "	Round Head	
653A	6-32x $\frac{3}{8}$ "	Binding Head	
655	6-32x $\frac{1}{2}$ "	Fillister Head	
656	6-32x $\frac{3}{4}$ "	Flat Head	
657	6-32x $\frac{1}{2}$ "	Round Head	
658	6-32x $\frac{1}{4}$ "	Binding Head	

ALL NYLON MACHINE SCREWS

STANDARD PKG.: 100, 1000			
Cat. No.	Size	Type	
6559	6-32x $\frac{1}{4}$ "	Fillister Head	
6560	6-32x $\frac{1}{2}$ "	Flat Head	
6648	6-32x $\frac{3}{4}$ "	Round Head	
6648A	6-32x $\frac{3}{4}$ "	Fillister Head	
6648B	6-32x $\frac{3}{4}$ "	Binding Head	
6561	6-32x $\frac{1}{2}$ "	Round Head	
6561C	6-32x $\frac{1}{2}$ "	Flat Head	
6650	8-32x $\frac{1}{4}$ "	Round Head	
6650A	8-32x $\frac{1}{4}$ "	Fillister Head	
6650B	8-32x $\frac{1}{4}$ "	Binding Head	
6562	8-32x $\frac{1}{2}$ "	Round Head	
6563	8-32x $\frac{3}{4}$ "	Binding Head	
6564	8-32x $\frac{3}{4}$ "	Flat Head	
6565	8-32x $\frac{1}{2}$ "	Fillister Head	
6566	8-32x $\frac{1}{2}$ "	Round Head	
6567	8-32x $\frac{1}{4}$ "	Binding Head	
6568	8-32x $\frac{1}{2}$ "	Flat Head	
6569	8-32x $\frac{1}{2}$ "	Fillister Head	
6570	8-32x $\frac{3}{4}$ "	Round Head	
6571	8-32x $\frac{3}{4}$ "	Fillister Head	
6572	8-32x $\frac{3}{4}$ "	Round Head	
6572A	8-32x $\frac{3}{4}$ "	Fillister Head	
6572B	8-32x $\frac{3}{4}$ "	Binding Head	
6573	8-32x $\frac{1}{2}$ "	Flat Head	
6573A	8-32x $\frac{1}{2}$ "	Fillister Head	
6574	10-32x $\frac{1}{4}$ "	Round Head	
6575	10-32x $\frac{1}{2}$ "	Round Head	
6576	10-32x $\frac{1}{4}$ "	Flat Head	
6577	10-32x $\frac{1}{2}$ "	Round Head	
6578	10-32x $\frac{1}{2}$ "	Round Head	
6579	10-32x $\frac{1}{2}$ "	Flat Head	

BIRNBACH NYLON BUSHINGS AND SPACERS

Designed with wide flanges to completely isolate screw from mounting surface. Useful where hi tensile and torque requirements require high strength non-insulating screws. Natural color.

Used with		Dimensions			
Cat. No.	Screw Size	W	T	H	D
6549A	# 1	.140"	.290"	$\frac{3}{16}$ "	.170"
6549B	# 2	.173"	.341"	$\frac{1}{4}$ "	.205"
6549C	# 10	.200"	.399"	$\frac{1}{4}$ "	.260"
6549D	$\frac{1}{4}$ "	.260"	.513"	$\frac{3}{8}$ "	.312"
6549	# 4	.115"	.235"	$\frac{1}{4}$ "	.146"

Birmbach All-Nylon Hex Nuts

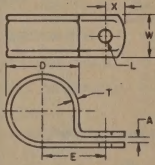
STANDARD PKG.: 100, 1000			
Cat. No.	Size	Cat. No.	Size
6585	2-56	6588	8-32
6586	4-40	6589	10-32
6587	6-32	6590	$\frac{1}{4}$ -20

Birmbach All-Nylon Washers

STANDARD PKG.: 100, 1000		Fits			
Cat. No.	Screw	O.D.	I.D.	Thick-	ness
6592	2	$\frac{1}{4}$ "	$\frac{3}{16}$ "	.018"	
6593	4	$\frac{1}{2}$ "	$\frac{7}{16}$ "	.018"	
6594	6	$\frac{3}{4}$ "	$\frac{1}{2}$ "	.031"	
6595	8	$\frac{7}{8}$ "	$\frac{1}{2}$ "	.031"	
6596	10	$\frac{1}{2}$ "	.195"	.031"	
6597	$\frac{1}{4}$ "	$\frac{3}{4}$ "	$\frac{1}{2}$ "	.063"	

NYLON CABLE AND TUBING CLAMPS MEETS MIL-P-20693A

Meets MIL-P-20693A
DuPont Nylon Formula FM 10001 (Zytel 101) used as a clamp, strain relief, clip fastener, strap, etc. nylon cable clamps are light and tough. Have both non-abrasive surfaces, rounded edges will chafe conductors or cause shorts or grounds in cable. Insoluble in solvents, oils, gasoline, alcohol, caustic fluids, alkalis, acids. Temperature resistant from -60°F to +300°F. Do not support compression. Moisture and heat resistant. Inside matte finish surfaces prevent slippage under vibration and self aligning when tightened by screw. Snaps onto cable. Meets MIL-P-20693A specs. Fungus resistant.

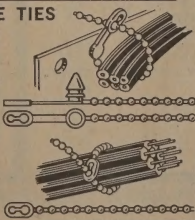


Cat. No.	Put-Up	To Fit Size	D	E	W	T	L	X	A
25	100	$\frac{1}{4}$ "	.125	.316	$\frac{3}{16}$	.050	.177	.227	.062
26	100	$\frac{3}{8}$ "	.187	.378	$\frac{1}{2}$	.050	.177	.227	.062
27	100	$\frac{1}{2}$ "	.250	.409	$\frac{3}{4}$	.050	.177	.227	.062
28	100	$\frac{3}{4}$ "	.312	.441	$\frac{1}{2}$	.050	.177	.227	.062
29	100	$\frac{1}{2}$ "	.375	.471	$\frac{3}{4}$	.050	.177	.227	.062
30	100	$\frac{3}{4}$ "	.437	.519	$\frac{1}{2}$	.050	.177	.227	.062
31	100	$\frac{1}{2}$ "	.500	.550	$\frac{3}{4}$	.050	.177	.227	.062
32	100	$\frac{3}{4}$ "	.563	.625	$\frac{1}{2}$	.060	.177	.227	.062
33A	100	$\frac{1}{2}$ "	.625	.634	$\frac{1}{2}$	.060	.177	.227	.062
32A	100	$\frac{1}{2}$ "	.687	.752	$\frac{1}{2}$	.060	.177	.227	.062
33	100	$\frac{3}{4}$ "	.750	.718	$\frac{1}{2}$	.060	.177	.227	.062
34	100	$\frac{1}{2}$ "	.875	.760	$\frac{1}{2}$	.060	.177	.227	.062
35	100	1"	1.000	.802	$\frac{1}{2}$	.060	.177	.227	.062
36	100	1 $\frac{1}{2}$ "	1.125	.968	$\frac{1}{2}$	.062	.204	.250	.125
37	100	1 $\frac{1}{2}$ "	1.250	1.156	$\frac{1}{2}$	.062	.204	.250	.125
38	100	1 $\frac{1}{2}$ "	1.500	1.188	$\frac{1}{2}$	.070	.204	.250	.125

PUSH BUTTON-EZ WIRE TIES

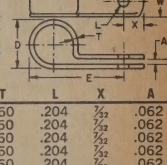
Wire Button Ties useful for harnessing wires; saves labor; eliminates screws and usual time required for string tying. Measures $\frac{1}{4}$ " in length. Is adjustable to 30 different diameters. Insert tie in the hole for anchoring; wires can be secured or added by loosening the tie and pulling it again. Constructed of tough Polyethylene; chemically inert, heat resistant; breaking point 250-265 lbs. Push button ties are designed to fit .250"-.265" hole in a .031 to .140 thick panel.

No. Color (Specify) Std. Pkg.
T-4 Push Button Red, Blue, Yellow 100, 1000
MATERIAL CONFORMS TO SPEC. LP 590
T-5 EZ Red, Blue, Yellow 100, 1000



ETHYL CELLULOSE PLASTIC CABLE & TUBING CLAMPS

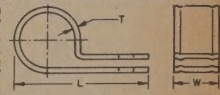
Recommended for general use. They withstand age, shock and vibration. Moisture and corrosion. This tough, lightweight and durable clamp withstands temperatures from -60° to +175°F. Approved for 7-21-44 Army-Navy aeronautical AN-742. Approved for inside-outside, hi-tension, primary and secondary. Standard pkg. 100, 1000.



Cat. No.	Size	D	E	T	L	X	A
715	$\frac{1}{4}$ "	.125	.325	$\frac{1}{2}$	.060	.204	$\frac{3}{16}$.062
715A	$\frac{3}{8}$ "	.188	.390	$\frac{1}{2}$	.060	.204	$\frac{3}{16}$.062
715B	$\frac{1}{2}$ "	.250	.421	$\frac{1}{2}$	.060	.204	$\frac{3}{16}$.062
715C	$\frac{3}{4}$ "	.313	.457	$\frac{1}{2}$	.060	.204	$\frac{3}{16}$.062
715D	$\frac{1}{2}$ "	.375	.483	$\frac{1}{2}$	.060	.204	$\frac{3}{16}$.062
715E	$\frac{3}{4}$ "	.438	.531	$\frac{1}{2}$	.060	.204	$\frac{3}{16}$.062
716	$\frac{1}{2}$ "	.500	.562	$\frac{1}{2}$	.060	.204	$\frac{3}{16}$.062
716A	$\frac{3}{4}$ "	.563	.625	$\frac{1}{2}$	.060	.204	$\frac{3}{16}$.062
716B	$\frac{1}{2}$ "	.625	.610	$\frac{1}{2}$	.060	.204	$\frac{3}{16}$.062
716C	$\frac{3}{4}$ "	.688	.666	$\frac{1}{2}$	.060	.204	$\frac{3}{16}$.062
716D	$\frac{1}{2}$ "	.750	.766	$\frac{1}{2}$	.060	.204	$\frac{3}{16}$.062
716E	$\frac{3}{4}$ "	.875	.813	$\frac{1}{2}$	.060	.204	$\frac{3}{16}$.062
717	1"	1.000	.906	$\frac{1}{2}$	.060	.204	$\frac{3}{16}$.062
717A	1 $\frac{1}{4}$ "	1.125	.969	$\frac{1}{2}$	.060	.204	$\frac{3}{16}$.062
717B	1 $\frac{1}{2}$ "	1.250	1.156	$\frac{1}{2}$	.060	.204	$\frac{3}{16}$.062
717C	1"	1.5	1.0625	$\frac{3}{8}$	.070	.204	$\frac{3}{16}$.062
717D	2"	2.0	1.3	$\frac{3}{8}$	.070	.204	$\frac{3}{16}$.062
717E	2 $\frac{1}{2}$ "	2.5	1.563	$\frac{3}{8}$	.070	.204	$\frac{3}{16}$.062

BIRNBACH ALUMINUM CABLE AND TUBING CLAMPS

These Tube Clamps are made of hard drawn aluminum and are found to be extremely desirable when mounting resonant lines, or elements of directive beam antennas. The $\frac{1}{4}$ " thru $\frac{3}{4}$ " clamps have a clearance for No. 10 Screw. The $\frac{3}{4}$ " to the $\frac{1}{4}$ " clamps have a clearance for $\frac{1}{4}$ " bolts.



Cat. No.	To Fit Tube	Width "W"	Length "L"	Thickness "T"	Std. Pkg.
51A	$\frac{1}{4}$ "	$\frac{3}{16}$ "	$\frac{3}{4}$ "	.050"	100
51	$\frac{3}{8}$ "	$\frac{1}{2}$ "	$\frac{3}{4}$ "	.050"	100
52	$\frac{1}{2}$ "	$\frac{3}{4}$ "	$\frac{3}{4}$ "	.050"	100
53	$\frac{3}{4}$ "	$\frac{1}{2}$ "	1"	.050"	100
54	$\frac{1}{2}$ "	$\frac{1}{2}$ "	1 $\frac{1}{4}$ "	.050"	100
54A	$\frac{1}{2}$ "	$\frac{1}{2}$ "	1 $\frac{1}{4}$ "	.050"	50
55	1"	$\frac{1}{2}$ "	1 $\frac{1}{2}$ "	.090"	50
56	1"	$\frac{3}{4}$ "	1 $\frac{3}{4}$ "	.090"	50
56A	1 $\frac{1}{4}$ "	$\frac{1}{2}$ "	2"	.090"	50
56B	1 $\frac{1}{4}$ "	$\frac{3}{4}$ "	2"	.090"	50

FOR MORE INFORMATION ON COMPLETE LINES, WRITE FOR NEW CATALOG.

BIRNBACH

RADIO COMPANY INC.

SHAFT ACCESSORIES & HANDLES



SHAFT COUPLINGS REDUCERS & EXTENDERS

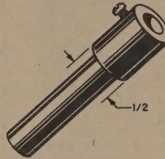
By use of these units all $\frac{1}{4}$ " and $\frac{3}{4}$ " dia. shafts and knobs can be assembled together. The insulated units are for use where electrical isolation is desired. Furnished complete with set screws shown. Be sure to specify whether Brass or Insulated is desired.

SHAFT COUPLINGS

Cat. No.	Cat. No.	Shaft	Hole	O.D.
Brass	Insulated	A	B	C
534	634	$\frac{1}{4}$ "	$\frac{1}{4}$ "	$\frac{1}{4}$ "
535	635	$\frac{1}{4}$ "	$\frac{1}{4}$ "	$\frac{3}{8}$ "
536	636	$\frac{1}{4}$ "	$\frac{1}{4}$ "	$\frac{1}{2}$ "
537		Reducer for $\frac{3}{4}$ " Diam. Hole to $\frac{1}{4}$ " Diam. Hole		
		$\frac{1}{4}$ "	$\frac{1}{4}$ "	$\frac{3}{4}$ "
COUPLINGS				
531	631	$\frac{1}{4}$ "	$\frac{1}{4}$ "	$\frac{1}{4}$ "
532	632	$\frac{1}{4}$ "	$\frac{3}{8}$ "	$\frac{3}{8}$ "
533	633	$\frac{3}{4}$ "	$\frac{1}{4}$ "	$\frac{3}{8}$ "

EXTENDERS

Cat. No.	Overall Length	Shaft Length	I.O.	Shaft O.D.
538 Brass	$1\frac{3}{4}$ "	$1\frac{1}{2}$ "	$\frac{1}{4}$ "	$\frac{1}{4}$ "
539 Insulated	$1\frac{3}{4}$ "	$1\frac{1}{2}$ "	$\frac{1}{4}$ "	$\frac{1}{4}$ "
BRASS SHAFTING				
Cat. No.	Dia.	Length		
540	$\frac{1}{4}$ "	6"		
541	$\frac{1}{4}$ "	12"		
542	$\frac{3}{4}$ "	8"		
FIBRE SHAFTING				
Cat. No.	Dia.	Length		
543	$\frac{1}{4}$ "	6"		
544	$\frac{1}{4}$ "	12"		
545	$\frac{3}{4}$ "	8"		



MINIATURE SHAFT ACCESSORIES

Brass Nickel plated for $\frac{1}{8}$ " shafts

MINIATURE BRASS COUPLER

with allen head set screws

Cat. No. 531A

MINIATURE SHAFT EXTENDER

with allen head set screws

Cat. No. 538A

BIRNBACH BRASS BUSHINGS & SPACERS

An ideal brass bushing for raising sub panels, chassis, condensers, transformers, etc. Hole will accommodate a No. 6 or No. 8 screw.

$\frac{1}{4}$ " O.D.			
For No. 6 Cat. No.	Length	For No. 8 Cat. No.	
1125	$\frac{1}{2}$ "	1130	
1126	$\frac{3}{4}$ "	1131	
1127	$\frac{1}{2}$ "	1132	
1128	$\frac{3}{4}$ "	1133	
1129	1"	1134	
$\frac{3}{8}$ " O.D.			
1135	$\frac{1}{2}$ "	1140	
1136	$\frac{3}{4}$ "	1141	
1137	$\frac{1}{2}$ "	1142	
1138	$\frac{3}{4}$ "	1143	
1139	1"	1144	

BIRNBACH THREADED RODS

These brass nickel plated threaded rods are standard parts of our insulator assemblies.

Cat. No.	Length	Thread
16	4"	$\frac{1}{4}$ -20
17	5 $\frac{1}{2}$ "	$\frac{1}{4}$ -20
18	10"	$\frac{1}{4}$ -20
113	15"	$\frac{1}{4}$ -20
114	1 $\frac{3}{4}$ "	10-32
115	1 $\frac{1}{2}$ "	10-32
116	2 $\frac{1}{2}$ "	10-32
117	8"	10-32
118	8"	8-32
119	8"	6-32
15	2"	6-32

THREADED BRASS SPACERS $\frac{1}{4}$ " O.D.

For No. 6-32 Cat. No.	Length	For No. 8-32 Cat. No.
1125T	$\frac{1}{4}$ "	1130T
1126T	$\frac{3}{4}$ "	1131T
1127T	$\frac{1}{2}$ "	1132T
1128T	$\frac{3}{4}$ "	1133T
1129T	1"	1134T

BIRNBACH INSULATED FIBRE BUSHINGS & SPACER $\frac{1}{4}$ " O.D.

For No. 6 Cat. No.	Length	For No. 8 Cat. No.
1145	$\frac{1}{2}$ "	1149
1146	$\frac{3}{4}$ "	1150
1147	$\frac{1}{2}$ "	1151
1148	$\frac{3}{4}$ "	1152

HANDLES

Material: BRASS
Finish: NICKEL PLATED
Has 10-32 thread.

Cat. No.	A	B
1065-3	3"	$1\frac{1}{4}$ "
1065-4	$4\frac{1}{4}$ "	$1\frac{1}{2}$ "
1065-6	6 $\frac{1}{4}$ "	$1\frac{3}{4}$ "
1065-9	9"	$1\frac{3}{4}$ "

CABINET HANDLE

Material: BRASS
Finish: NICKEL PLATED
Mounts in $\frac{3}{4}$ " Hole.
Supplied with Hex Nut and Washer.
Cat. No. 1066 Handle

FRONT PANEL BEARING

Nickel plated brass for panels up to $\frac{3}{4}$ " in thickness and for dia. shafts. The No. 551 and No. 552 are complete assemblies of No. 550 and $\frac{1}{4}$ " dia. brass shaft nickel plated.

Cat. No.	A	B	C
551	3"	$1\frac{3}{4}$ "	$\frac{1}{4}$ "
552	6"	$4\frac{3}{4}$ "	$\frac{1}{4}$ "



No. 550

No. 550 A

(Same as used on No. 551 and No. 552)

Cat. No.	Description	Cat. No.	Description
550	Front Panel Bearing, threaded length $\frac{3}{4}$ "	550C	Front Panel Bearing, threaded length $\frac{3}{4}$ "
550A	Front Panel Bearing, threaded length $\frac{1}{2}$ "		Miniature $\frac{1}{4}$ -32 length $\frac{3}{4}$ " O.L. opening $\frac{1}{2}$ " hex.
550B	Front Panel Bearing, threaded length $\frac{3}{4}$ " O.L.	551	Front Panel Bearing, $\frac{1}{4}$ " Shaft, 3" long
		552	Front Panel Bearing, $\frac{1}{4}$ " Shaft, 6" long

SHAFT LOCKS

WRENCH TYPE

Brass, nickel plated. $\frac{1}{4}$ " length overall. Rear: $\frac{1}{4}$ " hex brass with $\frac{3}{4}$ -32 thread. Front: $\frac{1}{4}$ " hex brass.

Cat. No. 546 For $\frac{1}{4}$ " Shaft

D — THUMB TYPE

Brass, nickel plated. $\frac{1}{4}$ " length overall. Rear: $\frac{1}{4}$ " hex brass with $\frac{3}{4}$ -32 thread. Front: 1" diam. knurled nut.

Cat. No. 547 For $\frac{1}{4}$ " Shaft

MINIATURE WRENCH TYPE

Brass Nickel plated for $\frac{1}{8}$ " shafts

MINIATURE LOCK — WRENCH TYPE

Cat. No. 546A

BIRNBACH FLEXIBLE SHAFTS

Modern construction calls for more compact arrangement of parts. At times there is difficulty getting the controls to the proper position on the panel. With couplings and these flexible shafts, locations can be made with ease on an offset and angles up to 90°. The flexible shafts are made of phosphor bronze and fitted into $\frac{1}{4}$ " dia. hubs.

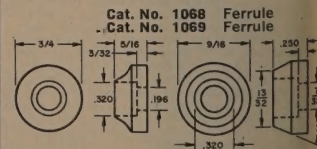
Cat. No. 553 Flexible Shaft 3" long

Cat. No. 554 Flexible Shaft 6" long

FERRULE

Material: BRASS
Finish: NICKEL PLATED

Used for mounting handles.



FOR MORE INFORMATION ON COMPLETE LINES, WRITE FOR NEW CATALOG.

BIRNBACH

RADIO COMPANY INC.

SECTION 2800

SCREWS - NUTS - WASHERS

ROUND HEAD MACHINE SCREWS

STANDARD PKG. 1000

Steel Nickel Plated		Brass Nickel Plated	
Cat. No.	Size	Cat. No.	Size
300	2-56 x 3/8"	6400	4-36 x 1/4"
301	2-56 x 1/2"	6401	4-36 x 3/8"
302	2-56 x 3/4"	6402	4-36 x 1/2"
303	3-48 x 3/4"	6403	4-36 x 3/4"
304	4-36 x 1"	6404	4-36 x 1"
305	4-36 x 1 1/4"	6312	4-40 x 1/4"
306	4-36 x 1 1/2"	6313	4-40 x 1/2"
307	4-40 x 1/4"	6314	4-40 x 1/2"
308	4-40 x 1/2"	6315	4-40 x 3/4"
309	4-40 x 3/4"	6405	6-32 x 1/4"
420	6-32 x 1/4"	6406	6-32 x 1/2"
421	6-32 x 1/2"	6407	6-32 x 3/4"
422	6-32 x 3/4"	6408	6-32 x 1"
423	6-32 x 1"	6409	6-32 x 1 1/4"
424	6-32 x 1 1/4"	6410	6-32 x 1 1/2"
425	8-32 x 1/4"	6410A	6-32 x 1 1/2"
426	8-32 x 1/2"	6411	6-32 x 1 1/2"
427	8-32 x 3/4"	6412	6-32 x 1 1/2"
428	8-32 x 1"	6413	8-32 x 1 1/4"
429	8-32 x 1 1/4"	6414	8-32 x 1 1/2"
430	8-32 x 1 1/2"	6415	8-32 x 1 3/4"
431	8-32 x 1 3/4"	6416	8-32 x 2"
432	8-32 x 1 3/4"	6417	8-32 x 2 1/4"
433	10-32 x 1/4"	6418	8-32 x 1"
434	10-32 x 1/2"	6316	10-32 x 1/4"
435	10-32 x 3/4"	6317	10-32 x 1/2"
436	10-32 x 1"	6318	10-32 x 3/4"
437	10-32 x 1 1/4"	6319	10-32 x 1"
438	10-32 x 1 1/2"	6319A	12-24 x 1"
439	1/4-20 x 1/2"	6320	10-32 x 1"
310	1/4-20 x 1 1/4"	6320A	1/4-20 x 3/8"
311	1/4-20 x 2 1/2"	6320B	1/4-20 x 1 1/4"
		6320C	1/4-20 x 1 1/2"

BINDING HEAD MACHINE SCREWS

Steel Nickel Plated

Cat. No.	Size	Cat. No.	Size
321	6-32 x 1/4"	6324	8-32 x 1/4"
322	6-32 x 3/8"	6325	8-32 x 3/8"
323	6-32 x 1/2"	6326	8-32 x 1/2"

OVAL HEAD RACK SCREWS

Steel Nickel Plated

Widely used for mounting panels on racks and cabinets. Screws are nickel-plated steel.

STANDARD PKG. 1000

Cat. No.	Size	Cat. No.	Size
600	6-32 x 1/4"	6607	8-32 x 1"
601	6-32 x 1/2"	6608	10-32 x 1/4"
602	6-32 x 3/4"	6609	10-32 x 1/2"
603	6-32 x 1"	6610	10-32 x 3/4"
604	8-32 x 1/4"	6611	10-32 x 1"
605	8-32 x 1/2"	6611A	10-32 x 1 1/4"
606	8-32 x 3/4"		

FINISHING RACK WASHERS

Brass Nickel Plated
STANDARD PKG. 1000

Cat. No.	Size
6612	6-32 Cup Washer
6613	8-32 Cup Washer
6614	10-32 Cup Washer

SHEET METAL SELF TAPPING SCREWS

Steel Cadmium Plated
Type A — Sharp Point
STANDARD PKG. 144

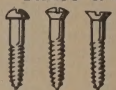
Cat. No.	Size	Cat. No.	Size
500	#4 x 1/2"	6541	#8 x 1/2"
501	#6 x 1/2"	6505	#8 x 1"
502	#6 x 3/4"	6542	#10 x 3/4"
503	#6 x 1"	6543	#10 x 1"
504	#6 x 3/4"	6506	#10 x 3/4"
540	#8 x 3/4"	6507	#10 x 1"

HEX HEAD SELF TAPPING SCREWS

Type B — Blunt Point Slotted
Steel Cadmium Plated
STANDARD PKG. 144

Cat. No.	Size	Cat. No.	Size
6510	#6 x 3/4"	6515	#8 x 1/2"
6511	#6 x 1/2"	6516	#8 x 3/4"
6512	#6 x 3/4"	6517	#8 x 1"
6513	#8 x 3/4"	6518	#10 x 1/2"
6514	#8 x 1"	6519	#10 x 1"

BRASS & STEEL WOOD SCREWS



Available in round, flat and oval heads.

STANDARD PKG. 144

Brass Nickel Plated		Steel Nickel Plated	
Cat. No.	Size	Cat. No.	Size
6460	3/4" x #4	6470	3/4" x #4
6461	1/2" x #4	6471	1/2" x #4
6462	3/8" x #5	6472	3/8" x #5
6463	1/4" x #5	6473	3/8" x #5
6464	1/4" x #5	6474	1" x #5
6465	1 1/4" x #6	6477	1" x #6
6466	1 1/2" x #6	6475	1 1/2" x #6
		6476	1 1/2" x #6
		6478	3/4" x #8

SET SCREWS



Made of steel and hardened with a plain finish. Sold only in standard packages of 100.

STANDARD PKG. 100

Cat. No.	Size	Cat. No.	Size
6525	6-32 x 1/8"	6530	8-32 x 1/4"
6526	6-32 x 1/4"	6531	8-32 x 3/8"
6527	6-32 x 1/2"	6532	8-32 x 1/2"
6528	8-32 x 1/4"	6533	8-32 x 3/8"
6529	8-32 x 3/8"	6534	10-32 x 1/4"

HEXAGON MACHINE SCREW NUTS

Brass — Nickel Plated

STANDARD PKG. 1000



Cat. No.	Thread Size	Width Across Flats	Thickness
6440	4-36	1/4"	3/16"
6442	4-40	1/4"	3/16"
6441	6-32	1/4"	3/16"
6443	6-32	1/2"	3/16"
6444	8-32	1/2"	3/16"
6445	10-32	1/2"	3/16"
6446	10-32	3/4"	3/16"
6447	1/4-20	3/4"	1/4"

WING NUTS



It is a high quality brass nickel plated wing nut used extensively on portable and test instruments.

STANDARD PKG. 100

Cat. No.	Thread	Cat. No.	Thread
6	6-32	10	10-32
8	8-32	11	1/4-20

HEXAGON STEEL MACHINE SCREW NUTS

Nickel Plated
STANDARD PKG. 1000

Cat. No.	Thread Size	Width Across Flats	Thickness
6330	2-56	3/16"	1/16"
6331	3-48	3/16"	1/16"
6332	4-36	1/4"	2/16"
6333	4-40	1/4"	2/16"
6334	6-32	1/4"	2/16"
6449	6-32	1/2"	2/16"
6334	8-32	1/2"	2/16"
6450	8-32	3/4"	2/16"
6335	10-32	3/4"	1/4"
6336	1/4-20	3/4"	1/4"



VOLUME CONTROL AND TOGGLE NUTS

Brass — Nickel Plated
STANDARD PKG. 1000

Cat. No.	Type	Size
6337	Volume Control-Brass	3/4-32 x 1/2 x 3/8"
6337A	Volume Control-Steel	3/4-32 x 1/2 x 3/8"
6338	Toggle Switch	15-32 x 3/8 x 3/4"
6339	Toggle Ring Nut	15-32 x 3/8 x 1/4"



BRASS NICKEL PLATED FLAT WASHERS

STANDARD PKG. 1000

Cat. No.	Fits Screw No.	Hole Size	O.D.	Thickness
6479	4	.118"	3/16"	.025"
6480A	6	.145"	3/16"	.025"
6480	6	.145"	3/16"	.025"
6481	8	.172"	3/8"	.032"
6482	10	.203"	7/16"	.036"
6483	1/4-20	.265"	7/16"	.040"



SHAKEPROOF LOCKWASHERS

Internal Teeth

STANDARD PKG. 1000

Cat. No.	Screw Size	Cat. No.	Screw Size
6355	2	6491	8
6356	3	6492	10
6357	4	6493	1/4
6490	6	6494	3/4

6494/1 Narrow rim control shaft lockwasher 3/8"
6494/2 Narrow rim toggle switch lockwasher 1/32"



SHAKEPROOF LOCKWASHERS

External Teeth

STANDARD PKG. 1000

Cat. No.	Screw Size	Cat. No.	Screw Size
6358	4	6361	10
6359	6	6362	1/4
6360	8	6363	3/4



STEEL KANTLINK LOCKWASHERS

STANDARD PKG. 1000

Cat. No.	Screw Size	O.D.	Thickness
6484	4	3/16"	1/16"
6485	6	3/16"	1/16"
6486	8	1/2"	.025"
6487	10	5/8"	.050"
6488	1/4	7/8"	3/4"



SPEED NUTS

Tempered Steel
— Parkerized

Self Locking — speed assembly time. Vibration proof, no washer necessary. Two types available — For use with machine or sheet metal screws. For use with machine screws.

STANDARD PKG. 1000

Cat. No.	Thread Size	Length	Width	Thickness
6350	4-36	3/4"	1/4"	.012"
6351	6-32	3/4"	3/8"	.017"
6352	8-32	1/2"	3/8"	.017"
6353	10-24	3/4"	3/8"	.022"
6354	1/4-20	3/4"	1/2"	.025"



SPEED NUTS

Tempered Steel
— Parkerized

For use with sheet metal screws.

STANDARD PKG. 1000

Cat. No.	Thread Size	Length	Width	Thickness
6350A	4A	3/4"	3/4"	.022"
6351A	6A	1/2"	3/8"	.025"
6352A	8A	5/8"	13/16"	.028"
6353A	10A	3/4"	1/2"	.031"
6354A	14A	1/2"	3/8"	.037"

FOR MORE INFORMATION ON COMPLETE LINES, WRITE FOR NEW CATALOG.

BIRNBAUGH

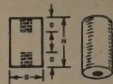
RADIO COMPANY INC.

DABURN**DABURN ELECTRONICS & CABLE CORP.**
NYLON FASTENINGS • STEATITE STANDOFFS • TEFLON* TERMINALS**DABURN NYLON FASTENINGS**
ZYTEL 101 PER MIL-P-17019B

Has outstanding insulation specs. Hi-resistance to heat, shock, vibration, chemical. Is light in weight, superior torque strength. Corrosion resistant, non magnetic. Continuous service temperature to 300°F. All parts made to American thread standards to Class 2A or 2B fit. B18.2 (hex nuts), B18.6 (machine screws), B1.1 (thread specs.).

DABURN STEATITE STANDOFFS
JAN-I-8 AND JAN-I-10 SPECS.

These threaded Steatite pillars are made of 15 glazed Steatite with threaded holes on both sides have one hole mounting. COLOR: White

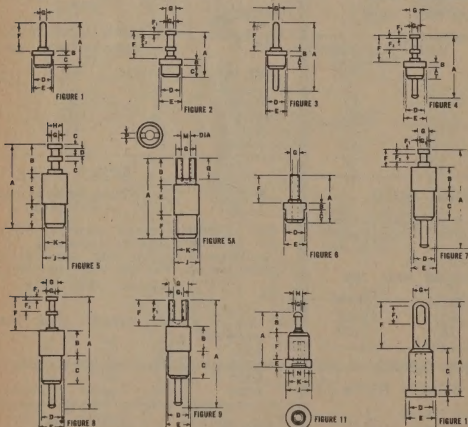


DABURN No.	Conforms to NEW Type	Hgt.	Diam.	L'gth. of Thread	Thread	Std. Pkg.
14-41		3/4"	1/2"	All	6-32	100
14-41B		3/8"	1/4"	3/4"	6-32	100
14-41A		1/2"	1/4"	3/4"	6-32	100
14-44A		3/4"	1/4"	1/4"	6-32	100
14-45A		1"	1/4"	1/4"	6-32	100
14-42		3/8"	3/8"	3/4"	6-32	100
14-42A	NL633W01-004	1/2"	3/8"	3/4"	6-32	100
14-43A	NL633W01-005	3/8"	3/8"	1/4"	6-32	100
14-44B	NL633W01-006	3/4"	3/8"	1/4"	6-32	100
14-45B	NL633W01-008	1"	3/8"	3/4"	6-32	100
14-46B	NL633W01-010	1 1/4"	3/8"	3/4"	6-32	100
14-46A	NL633W01-012	1 1/2"	3/8"	3/4"	6-32	100
14-46C	NL633W01-016	2"	3/8"	3/4"	6-32	100
14-43		1 1/2"	1/2"	1/4"	6-32	100
14-44		3/4"	1/2"	1/4"	6-32	100
14-45		1"	1/2"	3/4"	6-32	100
14-46		1 1/2"	1/2"	3/4"	6-32	100
14-47		2 1/2"	1/2"	3/4"	6-32	100
14-40	NL633W02-005	3/8"	1/2"	3/4"	8-32	100
14-40A	NL633W02-006	3/4"	1/2"	1/4"	8-32	100
14-40B	NL633W02-008	1"	1/2"	3/4"	8-32	100
14-40C	NL633W02-010	1 1/4"	1/2"	3/4"	8-32	100
14-40D	NL633W02-012	1 1/2"	1/2"	3/4"	8-32	100
14-40E	NL633W02-016	2"	1/2"	3/4"	8-32	100
14-40F	NL633W02-020	2 1/2"	1/2"	3/4"	8-32	100
14-40G	NL633W02-024	3"	1/2"	3/4"	8-32	100
14-44C		3/4"	3/4"	1/4"	10-32	100
14-45C	NL633W03-002	1"	3/4"	3/4"	10-32	100
14-45D	NL633W03-010	1 1/4"	3/4"	3/4"	10-32	100
14-45E	NL633W03-012	1 1/2"	3/4"	3/4"	10-32	100
14-45F	NL633W03-016	2"	3/4"	3/4"	10-32	100
14-45G	NL633W03-020	2 1/2"	3/4"	3/4"	10-32	100
14-45H	NL633W03-024	3"	3/4"	3/4"	10-32	100
14-45S	NL633W03-032	4"	3/4"	3/4"	10-32	100
14-47B	NL633W04-012	1 1/2"	1"	1/2"	1/4-20	50
14-47B	NL633W04-012	1 1/2"	1"	1/2"	1/4-20	50
14-47D	NL633W04-020	2 1/2"	1"	5/8"	1/4-20	50

STOCK COLOR: Natural

Additional sizes available to order.

Std. Pkg.: 100, 1000

SUB-MINIATURE TEFLON* TERMINALS

Material, pure virgin Teflon, conforms to MIL-P-19468 and AMS 3651B spec. This terminals series provides instant mounting without any extra fastening hardware. Easily inserted into punched or drilled holes, self locking, unaffected by soldering. Resistant to thermal-mechanical shock, vibration, corrosion moisture. Speeds up assembly — cuts production costs. Suitable for crowded assemblies. Brass meets QQ-B-626 comp. 1/2 H.

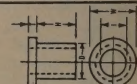
Daburn No.	Fig.	Cap. MMF.	A	B	C	D	E	F	G
11-56	1	.41	.35	.04	.10	.148	.172	.210	.040
11-57	1	.39	.41	.04	.16	.148	.172	.210	.040
11-58	1	.32	.50	.04	.25	.148	.172	.210	.040
11-59	2	.41	.35	.04	.10	.148	.172	.210	.040
11-60	2	.36	.375	.04	.125	.148	.172	.210	.040
11-61	2	.36	.38	.04	.100	.179	.200	.210	.040
11-60-01	2	.45	.428	.093	.125	.148	.172	.210	.040
11-10-02	2	.37	.50	.040	.250	.148	.172	.210	.040
11-10-01	5	.58	.522	.125	.150	.165	.187	.250	.040
11-15	3	.55	.443	.04	.100	.148	.172	.210	.040
11-14	3	.73	.515	.04	.100	.148	.172	.210	.045

Std. Pkg.: 100, 1000

DABURN NYLON SPACER/BUSHINGS

Wide flange isolates screw from mounting surface. Has hi-tensile and torque strength.

COLOR: Natural. Std. Pkg.: 100, 1000.



Daburn No.	Screw Size	A	B	C	D
14-79	# 4 (.115")	.235"	3/4"	1/4"	.145"
14-79A	# 6 (.140")	.290"	3/4"	1/4"	.170"
14-79B	# 8 (.173")	.344"	3/4"	3/8"	.205"
14-79C	#10 (.200")	.399"	3/4"	3/8"	.260"
14-79D	1/4" (.260")	.513"	3/4"	3/8"	.312"

DABURN NYLON HEX NUTS

Daburn No.	Size	Daburn No.	Size
14-85	2-56	14-88	8-32
14-86	4-40	14-89	10-32
14-87	6-32	14-90	1/4-20

COLOR: Natural

S'd. Pkg.: 100, 1000

**DABURN NYLON FLAT WASHERS**

Daburn No.	For Screw Size	I.D.	O.D.	Thickness
14-92	2	3/8"	1/4"	.016"
14-93	4	1/2"	3/4"	.016"
14-94	6	3/4"	1"	.031"
14-95	8	1 1/4"	1 1/2"	.031"
14-96	10	1 3/4"	2"	.031"
14-97	1/4	3/4"	1"	.063"

COLOR: Natural

Std. Pkg.: 100, 1000

JACK MATERIAL: Beryllium copper with .000030 min. gold flash over .0003 min. silver plate.

PLATING: Solder finish electro solder plate. Available in all other platings.

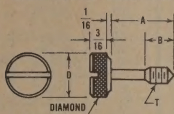
COLOR: Natural (White).

Std. Pkg.: 100, 1000.

Daburn No.	Fig.	Cap. MMF.	A	B	C	D	E	F	G
11-16	3	.71	.725	.04	.100	.148	.172	.210	.040
11-18	4	.62	.500	.04	.100	.148	.172	.210	.040
11-19	4	.69	.500	.04	.165	.148	.172	.210	.040
11-17	6	.193	.025	.063	.125	.150	.105	.040	
11-20	7	.80	.540	.063	.171	.171	.187	.230	.040
11-21	8	.72	.836	.187	.165	.148	.172	.250	.040
11-22	9	.81	.821			.171	.187	.203	.148
11-25-01	11	.70	.637	.050	.04	.185	.218	.187	.054
11-25-02	11	.80	.437	.046	.271	.185	.218	.187	.054
11-25-03	11	.50	.345	.046	.179	.148	.172	.120	.046
11-23	12	.50	.687	.046	.287	.185	.218	.354	.105

DABURN**DABURN ELECTRONICS & CABLE CORP.**

WIRE • CABLE • TUBING • MIL/COMM • SWITCHES • ELECTRONIC HARDWARE

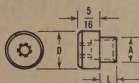
CAPTIVE HARDWARE - WASHERS - ASS'T SPAGHETTI - ANTENNA KIT**CAPTIVE SCREW**

DABURN Cat. No.	A	B	D	T	Material
14-555	3/4	3/4	3/8	6-32	Brass
14-555SS	3/4	3/4	3/8	6-32	St. St.
14-556	3/4	3/4	3/8	8-32	Brass
14-556SS	3/4	3/4	3/8	8-32	St. St.
14-557	7/8	3/4	5/8	10-32	Brass
14-557SS	7/8	3/4	5/8	10-32	St. St.
14-558	7/8	3/4	5/8	1/4-20	Brass
14-558SS	7/8	3/4	1/2	1/4-20	St. St.

MATERIAL: Brass per QQB-626A, Comp. 22, 1/2 Hard.

FINISH: Nickel Plate and Polish per MIL-QQN-290, Type VI.

Stainless Steel per QQS-763, Class 7, Type A available. Standard Package 100

CAPTIVE BUSHING

DABURN Cat. No.	D	A	L	T	Panel Thickness
14-560	3/8	3/4	3/32	6-32	1/8
14-561	3/8	3/4	3/32	8-32	1/8
14-562	3/8	13/32	3/32	10-32	1/8
14-563	3/8	13/32	3/32	1/4-20	1/8
14-564	3/8	3/4	3/32	6-32	3/8
14-565	3/8	3/4	3/32	8-32	3/8
14-566	3/8	13/32	3/32	10-32	3/8
14-567	3/8	13/32	3/32	1/4-20	3/8
14-568	3/8	3/4	3/32	6-32	1/4
14-569	3/8	3/4	3/32	8-32	1/4
14-570	3/8	13/32	3/32	10-32	1/4
14-571	3/8	13/32	3/32	1/4-20	1/4

MATERIAL: Brass per QQB-626A, Comp. 22, 1/2 Hard.

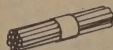
FINISH: Nickel Plate per MIL-QQN-290, Type VI.

Available in Stainless Steel, add suffix -S to part number.

SPECIAL SIZES ALSO AVAILABLE. Standard Package 100

DABURN ASSORTED SPAGHETTI PACKS

25-9" lengths per pack consists of varnished sleeving of assorted sizes and colors.



DABURN Cat. No.	Pack	Standard Package
9-07	Pack	25
9-08	25 Packs in Display Carton	1

DABURN ALL-WAVE ASSEMBLED ANTENNA KIT

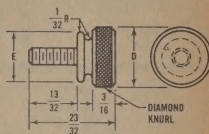
Designed for reception of overseas radio signals & programs. Utilizes the Hertz principle — balanced line consists of:

- 2-30' coils 7/24 copper wire
- 40' coil transmission cable
- Center insulator
- Porcelain Insulators
- Lead-in strips
- Ground clamp
- Nail-on knobs



DABURN Cat. No.	Standard Package
9-09	All Wave Kit 12

Additional DABURN Products in Sections 2100, 3100, 5100 and 6000

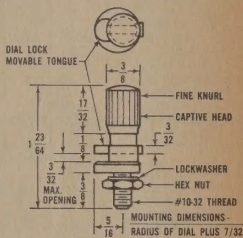
THUMB SCREW

DABURN Cat. No.	D	E	Thread
14-501	3/8	3/4	6-32
14-502	3/8	3/4	8-32
14-503	3/8	3/4	10-32
14-504	3/8	3/4	6-32
14-505	3/8	3/4	8-32
14-506	3/8	3/4	10-32
14-507	1/2	3/4	6-32
14-508	1/2	3/4	8-32
14-509	1/2	3/4	10-32

MATERIAL: Brass per QQB-626A, Comp. 22, 1/2 Hard.

FINISH: Nickel Plate per MIL-QQN-290, Type VI.

Std. Pkg. 100

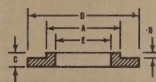
DIAL LOCK

MATERIAL: Brass per QQB-626A, Comp. 22, 1/2 Hard.

FINISH: Nickel Plate per MIL-QQN-290, Type VI.

DABURN Cat. No. 14-500.

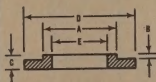
Standard Package 100

DABURN NYLON SHOULDER WASHERSNatural Nylon Per MIL-P-20693A
Standard Package 1000

DABURN Cat. No.	E	Hole Size	D	C	B	A
14-540	.140	6	.375	.093	.031	.237
14-541	.110	4	.250	.062	.031	.187
14-542	.136	6	.250	.093	.031	.187
14-543	.136	6	.312	.093	.031	.187
14-544	.250	1/4"	.500	.068	.028	.312
14-545	.172	8	.375	.093	.031	.246
14-546	.196	10	.375	.093	.031	.308
14-547	.265	1/4"	.500	.097	.031	.365
14-548	.375	3/8"	.750	.093	.031	.500
14-549	.385	3/8"	.625	.093	.031	.500

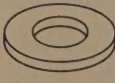
FIBRE SHOULDER WASHERS

Fibre Material Per NEMA Standard and ASTM Spec. D-710



DABURN Cat. No.	E	Hole Size	D	C	B	A
14-530	.140	6	.375	.093	.031	.237
14-531	.110	4	.250	.062	.031	.187
14-532	.136	6	.250	.093	.031	.187
14-533	.136	6	.312	.093	.031	.187
14-534	.250	1/4"	.500	.068	.028	.312
14-535	.172	8	.375	.093	.031	.246
14-536	.196	10	.375	.093	.031	.308
14-537	.265	1/4"	.500	.097	.031	.365
14-538	.375	3/8"	.750	.093	.031	.500
14-539	.385	3/8"	.625	.093	.031	.500

Standard Package 1000

FLAT FIBRE WASHERS

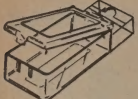
DABURN Cat. No.	Hole Size	I.D.	O.D.	Thickness
14-510	6	.136	.250	1/16
14-511	4	.110	.250	1/16
14-512	6	.140	.375	1/16
14-513	8	.172	.375	1/16
14-514	10	.196	.375	1/16
14-515	1/4"	.250	.500	1/16
14-516	1/4"	.250	.500	3/32
14-517	3/4"	.312	.500	1/16
14-518	3/8"	.385	.625	1/16
14-519	3/8"	.375	.750	1/16

Standard Package 1000



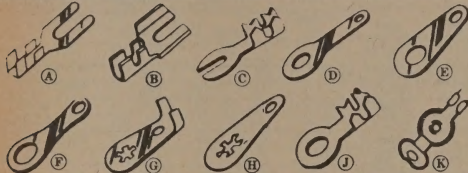
RADIO & TV HARDWARE

ALL 50 LINE BOXES - 39 Net



50 LINE

HINGED COVER
PLASTIC BOXES
— 50 LINE —
Dir. Net Price, 39c
Per Box



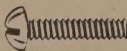
No. 1020, 100 Asst. Dir. Net. \$.57 **GC SOLDERING LUGS TINNED**

Description and Spec.	50-Line No.	Qty. In Box	Part No.	Net Per 100	No.	Net Per M
No. 6, 5/8" Length (A)	H100-F	30	8466-C	\$ 1.74	8466-M	\$ 13.89
No. 6, 3/4" Length (B)			8467-C	3.10	8467-M	24.75
No. 6, 1" Length (C)	H104-F	25	8468-C	2.92	8468-M	23.27
No. 6, 1 1/8" Length (D)			1021-BC	1.16	1021-BM	9.24
No. 8, 3/4" Length (E)	H106-F	25	7445-C	1.32	7445-M	10.53
No. 8, 1" Length (F)			8473-C	1.29	8473-M	10.23
No. 10, 3/4" Length (G)	H108-F	30	5708-C	1.85	5708-M	14.85
No. 10, 1" Length (H)			5704-C	1.85	5704-M	14.85
No. 10, 1 1/8" Length (I)	H112-F	30	5705-C	1.85	5705-M	14.85
No. 10, 1 1/4" Length (J)			1021-CC	1.02	1021-CM	8.12
No. 6, 1 1/8" Length (K)	H113-F	30	7451-C	1.01	7451-M	7.68
No. 6, 1 1/4" Length (L)			7454-C	.74	7454-M	5.86
No. 8, 1 1/8" Length (M)	H117-F	25	7455-C	.95	7455-M	7.15
No. 8, 1 1/4" Length (N)			7456-C	.95	7456-M	7.15
No. 10, 1 1/4" Length (O)	H118-F	25	7458-C	2.04	7458-M	16.34
No. 10, 1 1/2" Length (P)			7460-C	2.06	7460-M	16.37
No. 6, 1 1/2" Length (Q)	H122-F	20	7461-C	1.18	7461-M	9.37
No. 6, 1 1/4" Length (R)			7463-C	1.18	7463-M	9.37
No. 8, 1 1/2" Length (S)	H124-F	25	5706-C	1.85	5706-M	14.85
No. 8, 1 1/4" Length (T)			5707-C	1.85	5707-M	14.85
No. 10, 1 1/2" Length (U)	H134-F	25	7508-C	1.85	7508-M	14.85
No. 10, 1 1/4" Length (V)			7441-C	1.30	7441-M	10.40
No. 10, 1 1/8" Length (W)	H102-F	25	7442-C	1.24	7442-M	10.03
No. 10, 1 1/4" Length (X)			1021-AC	1.24	1021-AM	10.03
Solderless TV Line Lug (K)	H225-F	10	8633-C	1.82	8633-M	14.44



GC CABLE HOLDER CLAMPS NICKEL PLATED

Description and Spec.	50-Line No.	Qty. In Box	Part No.	Net Per 100	No.	Net Per M
Assorted	H500-F	20				
To Fit Cable Mounting Hole						
1/8" to 3/4"	H502-F	25	6251-C	\$ 1.08	6251-M	\$ 8.61
3/4" to 1"	H503-F	20	6252-C	1.23	6252-M	9.77
1" to 1 1/8"	H504-F	15	6253-C	1.30	6253-M	11.14
1 1/8" to 1 1/2"	H506-F	15	6253-C	1.40	6253-M	11.14
Baseboard Clips Blk.	H509-F	20	8345-C	2.28	8345-M	17.79



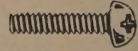
GC ROUND HEAD MACHINE SCREWS STEEL-NICKEL PLATED

Description and Spec.	50-Line No.	Qty. In Box	Part No.	Net Per 100	No.	Net Per M
Assorted Screws	H1000-F	35				
Assorted Screws & Nuts	H1001-F	40				
Assorted Screws & Nuts	H1002-F	35				
Assorted 4-36 Screws	H1010-F	40				
Assorted 8-32 Screws	H1012-F	40				
Assorted 8-32 Screws	H1016-F	40				
Assorted 10-32 Screws	H1018-F	25				

Description and Spec.	50-Line No.	Qty. In Box	Part No.	Net Per 100	No.	Net Per M
2-56 x 1/4"	H1022-F	40	7130-C	\$.50	7130-M	\$
2-56 x 1/2"	H1024-F	40	7131-C	.53	7131-M	
2-56 x 3/4"	H1026-F	40	7132-C	.61	7132-M	
3-48 x 3/4"	H1028-F	40	7124-C	.64	7124-M	
4-36 x 1/4"	H1032-F	40	6005-IC	.53	6005-M	
4-36 x 3/8"	H1033-F	35	7138-C	.55	7138-M	
4-36 x 1/2"	H1034-F	35	6008-C	.57	6008-M	
4-36 x 5/8"		35	5651-C	.96	5651-M	
4-36 x 3/4"	H1036-F	35	6007-C	.85	6007-M	
4-40 x 1/4"	H1042-F	40	6005-AC	.53	6005-AM	
4-40 x 1/2"	H1044-F	35	6005-BC	.58	6005-BM	
4-40 x 3/8"		35	5652-C	.63	5652-M	
4-40 x 1/2"	H1046-F	35	6005-CC	.86	6005-CM	
6-32 x 1/4"	H1062-F	40	6008-C	.58	6008-M	
6-32 x 1/2"	H1064-F	30	6009-C	.68	6009-M	
6-32 x 3/8"		30	5653-C	.75	5653-M	
6-32 x 1/2"	H1066-F	30	6010-C	.88	6010-M	
6-32 x 1"	H1068-F	30	6011-C	.91	6011-M	
6-32 x 1 1/4"	H1070-F	30	7141-C	1.10	7141-M	
6-32 x 1 1/2"	H1076-F	20	7148-C	1.65	7148-M	
8-32 x 1/4"	H1082-F	30	6013-C	.77	6013-M	
8-32 x 3/8"	H1083-F	25	6014-C	.86	6014-M	
8-32 x 1/2"	H1084-F	25	6015-C	.90	6015-M	
8-32 x 3/4"		25	5654-C	.96	5654-M	
8-32 x 1"	H1086-F	25	6016-C	1.02	6016-M	
8-32 x 1 1/4"	H1088-F	20	6017-C	1.18	6017-M	
8-32 x 1 1/2"	H1090-F	20	7142-C	1.35	7142-M	
10-32 x 1/2"	H1104-F	20	6020-C	1.05	6020-M	
10-32 x 3/4"		20	5655-C	1.13	5655-M	
10-32 x 1"	H1106-F	20	6021-C	1.23	6021-M	
10-32 x 1 1/4"	H1108-F	17	6022-C	1.38	6022-M	
10-32 x 1 1/2"	H1112-F	15	7143-C	1.82	7143-M	

GC ROUND HEAD MACHINE SCREWS BRASS-NOT PLATED

Description and Spec.	50-Line No.	Qty. In Box	Part No.	Net Per 100	No.	Net Per M
Assorted	H1210-F	30				
2-56 x 1/4"			5657-C	.77	5657-M	\$
2-56 x 1/2"			5658-C	.92	5658-M	
2-56 x 3/4"			5660-C	1.08	5660-M	
3-48 x 3/4"			5661-C	1.21	5661-M	
4-36 x 1/4"			5662-C	.92	5662-M	
4-36 x 1/2"			5663-C	1.18	5663-M	
4-36 x 3/8"			5664-C	1.28	5664-M	
4-36 x 1"			5665-C	1.08	5665-M	
4-40 x 1/4"			5666-C	1.18	5666-M	
4-40 x 1/2"			5667-C	1.65	5667-M	
4-40 x 3/8"			5668-C	1.46	5668-M	
6-32 x 1/4"			5669-C	1.24	5669-M	
6-32 x 1/2"			8501-C	1.33	8501-M	
6-32 x 3/8"			5670-C	1.51	5670-M	
6-32 x 1"			8502-C	1.65	8502-M	
6-32 x 1 1/4"			5671-C	1.83	5671-M	
6-32 x 1 1/2"			8503-C	2.07	8503-M	
6-32 x 1"			5672-C	2.52	5672-M	
8-32 x 1/4"			5673-C	4.24	5673-M	
8-32 x 1/2"			8505-C	1.85	8505-M	
8-32 x 3/8"			5674-C	1.94	5674-M	
8-32 x 1/2"			8506-C	2.22	8506-M	
8-32 x 3/4"			5675-C	2.45	5675-M	
8-32 x 1"			8507-C	2.72	8507-M	
8-32 x 1 1/4"			8508-C	3.23	8508-M	
10-32 x 1/4"			5676-C	1.60	5676-M	
10-32 x 1/2"			5677-C	2.81	5677-M	
10-32 x 3/8"			5678-C	3.12	5678-M	
10-32 x 1"			5679-C	3.41	5679-M	
10-32 x 1 1/4"			5680-C	4.07	5680-M	
10-32 x 1 1/2"			5681-C	5.54	5681-M	



GC PHILLIPS TYPE ROUND HEAD MACHINE SCREWS STEEL-NICKEL PLATED

Description and Spec.	50-Line No.	Qty. In Box	Part No.	Net Per 100	No.	Net Per M
Assorted	H1180-F	25				
6-32 x 1/4"			8511-C	1.30	8511-M	\$
6-32 x 1/2"			8512-C	1.18	8512-M	
6-32 x 3/8"			8513-C	1.34	8513-M	
6-32 x 1"			8514-C	1.51	8514-M	
6-32 x 1 1/4"			8515-C	1.13	8515-M	
8-32 x 1/4"			8516-C	1.40	8516-M	
8-32 x 1/2"			5690-C	1.35	5690-M	
8-32 x 3/4"			8517-C	1.46	8517-M	
8-32 x 1"			8518-C	1.60	8518-M	



RADIO & TV HARDWARE

ALL 50 LINE BOXES - 39 Net



GC BINDING HEAD MACHINE SCREWS STEEL-NICKEL PLATED

Description and Spec.	50-Line No.	Qty. In Box	Part No.	Net Per 100	No.	Net Per M
Assorted						
36 x 1/4"	H1168-F	35	7154-C	.58	7154-M	\$ 4.62
32 x 3/8"	H1170-F	35	7151-C	.58	7151-M	4.62
32 x 1/4"						
32 x 3/8"	H1172-F	35	7152-C	.58	7152-M	4.62
32 x 3/8"						
32 x 3/8"	H1174-F	30	7153-C	.63	7153-M	4.95
32 x 3/8"						
32 x 3/8"			7155-C	1.73	7155-M	13.73
32 x 3/8"			7158-C	.96	7158-M	8.15

GC BINDING HEAD MACHINE SCREWS BRASS-NICKEL PLATED

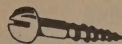
Description and Spec.	Part No.	Net Per 100	No.	Net Per M
2-56x1/4"	7160-1-C	\$.97	7160-1-M	8.06
2-56x1/2"	7161-1-C	1.11	7161-1-M	9.56
2-56x3/4"	7162-1-C	1.29	7162-1-M	11.03
4-36x1/4"	7163-1-C	1.12	7163-1-M	9.61
4-36x1/2"	7164-1-C	1.38	7164-1-M	11.76
4-36x3/4"	7165-1-C	1.62	7165-1-M	13.90
4-40x1/4"	7170-1-C	1.12	7170-1-M	9.61
4-40x1/2"	7171-1-C	1.38	7171-1-M	11.76
4-40x3/4"	7172-1-C	1.62	7172-1-M	14.04
5-36x1/4"	7154-1-C	1.62	7154-1-M	14.04
6-32x1/4"	7151-1-C	1.55	7151-1-M	13.24
6-32x1/2"	7152-1-C	1.46	7152-1-M	12.58
6-32x3/4"	7153-1-C	1.56	7153-1-M	13.33
6-32x1 1/2"	7118-1-C	1.75	7118-1-M	14.89
6-32x3 1/2"	7173-1-C	2.11	7173-1-M	18.07
8-32x1/4"	7174-1-C	2.13	7174-1-M	18.14
8-32x3/8"	7119-1-C	2.24	7119-1-M	19.23
8-32x1/2"	7120-1-C	2.54	7120-1-M	21.71
8-32x3/4"	7158-1-C	2.17	7158-1-M	18.71
8-32x1 1/2"	7175-1-C	3.11	7175-1-M	26.74
10-32x1/2"	7176-1-C	2.94	7176-1-M	25.18
10-32x3/4"	7177-1-C	3.96	7177-1-M	34.08

GC DUAL HEAD RACK AND CABINET SCREWS STEEL-NICKEL PLATED

Description and Spec.	50-Line No.	Qty. In Box	Part No.	Net Per 100	No.	Net Per M
Assorted						
32 x 1/2"	H1005-F	15	6540-C	.68	6540-M	\$ 5.42
32 x 3/8"			5691-C	.96	5691-M	8.17
32 x 3/4"			6541-C	.80	6541-M	6.38
32 x 5/8"			5692-C	1.05	5692-M	8.69
32 x 3/4"			6542-C	1.02	6542-M	8.16
0-32 x 1/2"			8848-C	1.29	8848-M	10.23
0-32 x 3/8"			5693-C	1.13	5693-M	9.15
0-32 x 3/4"			6543-C	1.23	6543-M	9.82

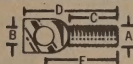
GC ORNAMENTAL HEAD SCREWS STEEL-BRONZE PLATED

Description and Spec.	50-Line No.	Qty. In Box	Part No.	Net Per 100	No.	Net Per M
Assorted						
32 x 3/4"	H1250-F	20	1097-C	1.41	1097-M	\$ 11.30
32 x 1 1/2"	H1252-F	20	1098-C	1.54	1098-M	12.41
32 x 1 1/4"	H1253-F	20	1099-C	2.44	1099-M	16.83
32 x 1 1/4"	H1255-F	12				



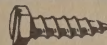
GC ROUND HEAD WOOD SCREWS STEEL-NICKEL PLATED

Description and Spec.	50-Line No.	Qty. In Box	Part No.	Net Per 100	No.	Net Per M
Assorted	H1502-F	25				
No. 4 x 1/2"			6114-C	.86	6114-M	\$ 6.85
No. 4 x 3/8"			5694-C	.99	5694-M	8.06
No. 4 x 3/4"			6115-C	.99	6115-M	7.92
No. 6 x 3/4"			6116-C	1.07	6116-M	8.50
No. 6 x 1"			6117-C	1.32	6117-M	10.53
No. 8 x 3/4"			6118-C	1.27	6118-M	10.07
No. 8 x 1 1/4"			8071-C	1.74	8071-M	13.95
No. 10 x 1 1/2"			8073-C	2.33	8073-M	18.64
No. 12 x 1 1/2"			8075-C	2.97	8075-M	23.76
No. 14 x 1 3/4"			8076-C	4.18	8076-M	33.50



GC SPADE BOLTS OR MOUNTING SCREWS STEEL-NICKEL PLATED

Description and Spec.	50-Line No.	Qty. In Box	Part No.	Net Per 100	No.	Net Per M
Assorted	H1570-F	15				
A B C D E						
6-32 6 3/2" 1 1/4" 3/4"			6081-C	1.27	6081-M	\$ 10.07
6-32 6 1 1/2" 3/8" 1 1/4"			6082-C	1.93	6082-M	16.13
8-32 8 3/4" 1 1/2" 1 1/4"			6084-C	3.22	6084-M	25.74



GC SHEET METAL SCREWS POINTED TYPE "A" HEX HEAD-SLOTTED-SELF-TAPPING NICKEL PLATED

Description and Spec.	50-Line No.	Qty. In Box	Part No.	Net Per 100	No.	Net Per M
Assorted	H1300-F	25				
No. 4 x 1/2"	H1350-F	35	6090-C	.96	6090-M	\$ 7.68
No. 6 x 1/4"	H1362-F	30	6091-C	.96	6091-M	7.68
No. 6 x 3/8"	H1363-F	25	6092-C	.99	6092-M	8.43
No. 6 x 1/2"	H1364-F	25	6093-C	1.01	6093-M	8.53
No. 6 x 3/4"	H1366-F	20	6094-C	1.10	6094-M	8.80
No. 8 x 1/4"	H1382-F	20	6102-C	1.10	6102-M	8.80
No. 8 x 3/8"	H1383-F	20	6095-C	1.16	6095-M	9.16
No. 8 x 1/2"	H1384-F	20	6096-C	1.19	6096-M	9.49
No. 8 x 5/8"			5696-C	1.21	5696-M	9.66
No. 8 x 1"	H1388-F	15	6097-C	1.52	6097-M	12.13
No. 10 x 3/8"	H1403-F	15	6098-C	1.38	6098-M	11.00
No. 10 x 1/2"	H1404-F	15	6099-C	1.93	6099-M	15.35
No. 10 x 3/4"	H1405-F	12	6100-C	1.54	6100-M	12.29



GC ROUND HEAD-SLOTTED ESCUTCHEON PLATE SCREWS BRONZE PLATED

Description and Spec.	50-Line No.	Qty. In Box	Part No.	Net Per 100	No.	Net Per M
Assorted	H1500-F	25				
No. 2 x 1/4"			1091-C	.96	1091-M	\$ 7.68
No. 2 x 3/8"			1093-C	.88	1093-M	7.27



GC RADIO KNOB SET SCREWS SLOTTED-HEADLESS-CUP POINT STANDARD

Description and Spec.	50-Line No.	Qty. In Box	Part No.	Net Per 100	No.	Net Per M
Assorted	H1605-F	15				
6-32 x 3/4"	H1623-F	15	6072-C	\$ 1.98	6072-M	\$ 15.84
8-32 x 3/4"	H1633-F	15	6075-C	1.98	6075-M	15.84
8-32 x 1/4"	H1634-F	15	6076-C	1.98	6076-M	15.84
10-32 x 1/4"			6079-C	1.98	6079-M	15.84



RADIO & TV HARDWARE

ALL 50 LINE BOXES - 39 Net



GC ALLEN HEX SET SCREWS

STEEL - HEADLESS

Description and Spec.	50-Line No.	Qty. In Box	Part No.	Net Per 100	No.	Net Per M
Asstd. Lengths, 4-36	H1674-F	5				
Asstd. Lengths, 6-32	H1676-F	5				
Asstd. Lengths, 8-32	H1678-F	5				
8-32 x 1/8"			7201-C	\$5.42	7201-M	\$43.40
8-32 x 3/16"			7202-C	5.42	7202-M	43.40



GC PHONO CARTRIDGE MOUNTING SCREWS

STEEL - NICKEL PLATED

Description and Spec.	50-Line No.	Qty. In Box	Part No.	Net Per 100	No.	Net Per M
Assorted	H1560-F	60				
4-36 x 1/4"	H1562-F	40	6005-1C	.53	6005-M	\$4.26
4-40 x 1/4"	H1564-F	40	6005-AC		6005-AM	4.26

GC PHONOGRAPH NEEDLE & STYLUS SET SCREWS

STEEL - BRONZE PLATED

Description and Spec.	50-Line No.	Qty. In Box	Part No.	Net Per 100	No.	Net Per M
Assorted	H1550-F	12				
2-56 x 1/16"	H1551-F	12				
2-64 x 3/32"	H1553-F	12				
1-72 x 5/32"	H1555-F	5				

GC HEXAGON NUTS

STEEL - NICKEL PLATED

Description and Spec.	50-Line No.	Qty. In Box	Part No.	Net Per 100	No.	Net Per M
Assorted	H1800-F	30				
Thread Width Thickness						
2-56 3/16" 1/16"	H1802-F	30	7225-C	\$.75	7225-M	\$ 6.07
3-48 1/8" 1/8"	H1803-F	30	7226-C	.75	7226-M	6.07
4-36 1/4" 3/16"	H1805-F	30	6041-C	.74	6041-M	5.81
4-40 1/4" 3/16"	H1804-F	30	6041-AM	.74	6041-AM	5.81
5-40 3/8" 1/2"			6045-BC	.80	6045-BM	6.40
6-32 1/2" 3/4"	H1806-F	30	6042-C	.75	6042-M	6.07
6-32 3/4" 3/4"	H1807-F	30	7230-C	.80	7230-M	6.40
8-32 1 1/8" 3/4"	H1803-F	30	6043-C	.80	6043-M	6.40
8-32 1 1/8" 3/4"	H1809-F	30	7233-C	.80	7233-M	6.40
10-32 1 3/8" 7/8"	H1810-F	30	6044-C	1.07	6044-M	8.45
10-32 3/8" 1/2"			6049-C	.96	6049-M	7.68
10-32 1/2" 3/4"			7235-C	1.46	7235-M	11.68
1 1/4-32 3/4" 1 1/2"	H1820-F	25	7236-C	2.15	7236-M	17.16
3/8-32 3/4" 1 1/2"	H1923-F	15	6050-AC	1.62	6050-AM	12.87
1 1/4-27 3/4" 1 1/2"	H1924-F	10	7238-C	3.63	7238-M	29.04
1 3/4-27 3/4" 1 1/2"			6050-BC	1.98	6050-BM	15.84

GC BRASS HEXAGON NUTS

NOT PLATED

Description and Spec.	50-Line No.	Qty. In Box	Part No.	Net Per 100	No.	Net Per M
Thread Width Thickness						
2-56 3/16" 1/16"			7241-C	\$1.13	7241-M	\$ 9.04
3-48 1/8" 1/8"			7242-C	1.05	7242-M	8.24
4-36 1/4" 3/16"	H1842-F	35	7243-C	1.36	7243-M	10.88
4-40 1/4" 3/16"	H1844-F	25	7244-C	1.35	7244-M	10.78
6-32 1/2" 3/4"			7245-C	1.35	7245-M	10.78
6-32 3/4" 3/4"			5697-C	1.62	5697-M	12.91
8-32 1 1/8" 3/4"			5693-C	1.35	5698-M	10.78
8-32 1 1/8" 3/4"	H1848-F	15	7248-C	1.62	7248-M	12.93
10-32 1 3/8" 7/8"	H1850-F	15	7249-C	1.77	7249-M	14.17
1 1/4-20 3/4" 1 1/2"			5699-C	3.62	5699-M	28.90



GC MOUNTING NUTS

STEEL - NICKEL PLATED

Description and Spec.	50-Line No.	Qty. In Box	Part No.	Net Per 100	No.
Assorted	H1920-F	12			
Thread Width Thickness					
1 1/4-32 (Rotary Switch Size) 3/4"			7236-C	\$ 2.15	7236-M
3/8-32 (Volume Control Size) 3/4"	H1923-F	15	6050-AC	1.62	6050-AM
3/4-27 (Pilot Light Size) 1 1/4"			7238-C	3.63	7238-M
1 1/4-32 (Toggle Switch Size) 3/4"	H1924-F	10	6050-BC	1.98	6050-BM
1 3/4-32 (Toggle Switch Size) Round Ring Nut 1 1/4"	H1926-F	8	6050-CC	3.82	6050-CM



GC TINNEMAN SPEED NUTS

Description and Spec.	50-Line No.	Qty. In Box	Part No.	Net Per 100	No.
Assorted	H1960-F	30			
No. 4			6051-C	\$.73	6051-M
No. 6			6052-C	.86	6052-M
No. 8			6053-C	.86	6053-M



GC ACORN NUTS

SOLID BRASS - NICKEL PLATED

Description and Spec.	50-Line No.	Qty. In Box	Part No.	Net Per 100	No.
Assorted	H1950-F	10			
6-32			6031-C	\$3.10	6031-M
8-32			6032-C	3.30	6032-M
10-32			6033-C	3.99	6033-M



GC KNURLED THUMB NUTS

BRASS - NICKEL PLATED

Description and Spec.	50-Line No.	Qty. In Box	Part No.	Net Per 100	No.
Assorted	H1941-F	10			
6-32	H1943-F	8	6655-C	\$2.50	6655-M
8-32	H1944-F	8	6656-C	2.50	6656-M
10-32	H1945-F	5	6657-C	5.48	6657-M



GC WING NUTS NICKEL PLATED

Description and Spec.	50-Line No.	Qty. In Box	Part No.	Net Per 100	No.
Assorted	H1931-F	10			
6-32	H1933-F	10	6658-C	\$3.64	6658-M
8-32	H1934-F	10	6659-C	2.70	6659-M
10-32	H1935-F	8	6660-C	3.00	6660-M



GC METAL WASHERS NICKEL PLATED

Description and Spec.	50-Line No.	Qty. In Box	Part No.	Net Per 100	No.
Asstd. Screw Size	H870-F	80			
Hole No. Size O.D. Thickness					
4 1/8" 3/8" 1/2"			H874-F	80	6154-C
6 3/8" 3/8" 1/2"			H876-F	80	6155-C
8 1/2" 3/8" 1/2"			H878-F	80	6156-C
10 1 1/2" 3/8" 1/2"			H880-F	70	7306-C
12 1 3/4" 3/8" 1/2"					7307-C
14 1 3/4" 3/8" 1/2"					7308-C
16 2 1/4" 3/8" 1/2"					7309-C
18 2 3/4" 3/8" 1/2"					7310-C
20 3 1/4" 3/8" 1/2"					7311-C
22 3 3/4" 3/8" 1/2"					7312-C



RADIO & TV HARDWARE

ALL 50 LINE BOXES - .39 Net



GC INTERNAL LOCK WASHERS

CADMIUM PLATED

Description and Spec.	50-Line No.	Qty. In Box	Part No.	Net Per 100	No.	Net Per M
1. All Types Internal Screw Washers	H918-F	45				
2. O.D.	H920-F	50				
3. 1/8" x 1/4"	H922-F	35	7322-C	\$.79	7322-M	\$ 6.36
4. 1/8" x 3/16"			7323-C	.69	7323-M	5.53
5. 1/8" x 1/2"			7324-C	.50	7324-M	3.89
6. 1/8" x 5/8"	H924-F	50	7326-C	.50	7326-M	3.99
7. 1/8" x 3/4"	H928-F	50	7328-C	.55	7328-M	4.38
8. 1/8" x 7/8"	H930-F	45	7330-C	.55	7330-M	4.38
9. 1/4" x 1/4"			7332-C	.72	7332-M	5.78
10. 1/4" x 3/16"			7333-C	.90	7333-M	7.18
11. 1/4" x 1/2"			7334-C	1.21	7334-M	9.66
12. 1/4" x 5/8"	H938-F	25	7335-C	1.38	7335-M	10.98
13. 1/4" x 3/4"			7338-C	1.74	7338-M	13.89

GC EXTERNAL LOCK WASHERS

CADMIUM PLATED

Description and Spec.	50-Line No.	Qty. In Box	Part No.	Net Per 100	No.	Net Per M
1. H950-F		60				
2. 1/8" x 1/4"			7354-C	\$.50	7354-M	\$ 3.99
3. 1/8" x 3/16"			7356-C	.50	7356-M	3.99
4. 1/8" x 1/2"			7358-C	.55	7358-M	4.38
5. 1/8" x 5/8"			7360-C	.51	7360-M	4.26
6. 1/8" x 3/4"			7361-C	.72	7361-M	5.74
7. 1/8" x 7/8"			7363-C	1.07	7363-M	8.45

GC SPLIT TYPE LOCK WASHERS

CADMIUM PLATED

Description and Spec.	50-Line No.	Qty. In Box	Part No.	Net Per 100	No.	Net Per M
1. H960-F		60				
2. O.D. Thick.			6503-C	\$.63	6503-M	\$ 4.95
3. 1/8" x 1/4"			6504-C	.53	6504-M	4.29
4. 1/8" x 3/16"			6505-C	.52	6505-M	4.07
5. 1/8" x 1/2"			6506-C	.58	6506-M	4.75
6. 1/8" x 5/8"			6507-C	.88	6507-M	7.02

GC SPRING FRICTION WASHERS

Description and Spec.	50-Line No.	Qty. In Box	Part No.	Net Per 100	No.	Net Per M
1. H750-F		12				
2. 1/8" x 1/4"			7385-C	\$ 2.15	7385-M	\$ 17.16
3. 1/8" x 3/16"			7386-C	1.82	7386-M	15.26
4. 1/8" x 1/2"			7387-C	1.78	7387-M	14.22
5. 1/8" x 5/8"			7389-C	2.06	7389-M	16.25

GC CUP FINISHING WASHERS

NICKEL PLATED

Description and Spec.	50-Line No.	Qty. In Box	Part No.	Net Per 100	No.	Net Per M
1. H1005-F		15				
2. H805-F		40				
3. H806-F		45	6161-C	\$.52	6161-M	\$ 4.16
4. H808-F		45	6162-C	.58	6162-M	4.62
5. H810-F		35	6163-C	.61	6163-M	4.92

GC "C" WASHERS AND RETAINING RINGS

STEEL-CADMIUM PLATED

Description and Spec.	50-Line No.	Qty. In Box	Part No.	Net Per 100	No.	Net Per M
1. H770-F		25				
2. H772-F		15	6182-C	\$ 1.05	6182-M	\$ 9.32
3. H774-F		15	6183-C	1.18	6183-M	9.44
4. H778-F		50	6184-C	1.21	6184-M	10.81
5. H778-F		50	6185-C	.46	6185-M	3.63



GC HAIR PIN COTTERS

Description and Spec.	50-Line No.	Qty. In Box	Part No.	Net Per 100	No.	Net Per M
1. H380-F		50				
2. Asstd. A B C						
3. 1/8" x 1/4"			7375-C	\$.53	7375-M	\$ 4.29
4. 1/8" x 3/16"			7376-C	.46	7376-M	3.63
5. 1/8" x 1/2"			7377-C	.52	7377-M	4.16
6. 1/8" x 5/8"			7378-C	.53	7378-M	4.29
7. 1/8" x 3/4"			7379-C	.55	7379-M	4.40



GC FLAT FIBRE WASHERS

Description and Spec.	50-Line No.	Qty. In Box	Part No.	Net Per 100	No.	Net Per M
1. H820-F		35				
2. Asstd. Screw Size I.D. O.D. Thick.						
3. 6 1/8" x 1/4" x 1/32"	H824-F	30	6513-C	\$.55	6513-M	\$ 4.40
4. 8 1/8" x 3/8" x 1/32"	H825-F	30	6514-C	.55	6514-M	4.40
5. 10 1/8" x 1/2" x 1/32"	H826-F	30	6515-C	.55	6515-M	4.40
6. 14 1/8" x 1/2" x 1/32"	H827-F	24	6516-C	.58	6516-M	4.62
7. 18 1/8" x 3/4" x 1/32"	H828-F	20	6517-C	.85	6517-M	6.73
8. 22 1/8" x 1/2" x 1/32"			6518-C	.85	6518-M	6.73



GC EXTRUDED FIBRE WASHERS

Description and Spec.	50-Line No.	Qty. In Box	Part No.	Net Per 100	No.	Net Per M
1. H854-F		30				
2. Asstd. Extruded & Flat Asstd. Extruded	H855-F	30				
3. Screw Size A B C D						
4. 6 1/8" x 1/4" x .187" x .140" x .039"			6525-C	\$.96	6525-M	\$ 7.59
5. 8 1/8" x 3/8" x .250" x .169" x .031"			6526-C	.96	6526-M	7.59
6. 10 1/8" x 1/2" x .255" x .196" x .032"			6527-C	1.05	6527-M	8.28
7. 14 1/8" x 1/2" x .375" x .250" x .032"			6528-C	1.05	6528-M	8.28
8. 18 1/8" x 3/4" x .437" x .380" x .031"	H864-F	20	6529-C	1.08	6529-M	8.71



GC SNAP BUTTON HOLE PLUGS

NICKEL PLATED

Description and Spec.	50-Line No.	Qty. In Box	Part No.	Net Per 100	No.	Net Per M
1. H300-F		8				
2. No. 1710 Asstd. 50 Plugs in Box Dir. Net \$3.05						
3. 1/4" x 1/2" x 1/4" x 1/4" x 1/4"	H306-F	8	1711-AC	\$ 2.48	1711-AM	19.80
4. 3/8" x 3/4" x 3/8" x 3/8" x 3/8"			1711-BC	2.64	1711-BM	21.12
5. 1/2" x 1/2" x 1/2" x 1/2" x 1/2"	H308-F	8	1711-C	3.39	1711-M	27.06
6. 3/4" x 3/4" x 3/4" x 3/4" x 3/4"	H310-F	6	1712-C	3.39	1712-M	27.06
7. 1" x 1" x 1" x 1" x 1"	H312-F	6	1713-C	3.63	1713-M	29.04
8. 1 1/4" x 1 1/4" x 1 1/4" x 1 1/4" x 1 1/4"	H314-F	5	1714-C	3.96	1714-M	31.68
9. 1 1/2" x 1 1/2" x 1 1/2" x 1 1/2" x 1 1/2"	H316-F	5	1715-AC	5.08	1715-AM	40.59
10. 1 3/4" x 1 3/4" x 1 3/4" x 1 3/4" x 1 3/4"			1715-BC	5.45	1715-BM	43.56
11. 2" x 2" x 2" x 2" x 2"			1715-C	6.32	1715-M	50.54
12. 2 1/4" x 2 1/4" x 2 1/4" x 2 1/4" x 2 1/4"			5700-C	7.10	5700-M	56.76
13. 2 1/2" x 2 1/2" x 2 1/2" x 2 1/2" x 2 1/2"			5701-C	7.84	5701-M	62.70
14. 2 3/4" x 2 3/4" x 2 3/4" x 2 3/4" x 2 3/4"			5702-C	8.00	5702-M	64.02
15. 3" x 3" x 3" x 3" x 3"				10.32		82.50



GC SNAP-IN VENTILATING PLUGS

NICKEL PLATED

Description and Spec.	50-Line No.	Qty. In Box	Part No.	Net Per 100	No.	Net Per M
1. H334-F		4				
2. 1" Punched Holes	H334-F	4	1709-C	\$ 8.91	1709-M	\$ 71.68
3. 1" Screen Vent			1708-C	23.52	1708-M	188.09

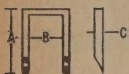
ALL 50 LINE BOXES - .39 Net



Description and Spec.			50-Line	Qty. In Box	Part No.	Net Per 100	No.	Net Per M
Assorted L	W	Hole Wire	H590-F	12				
(A) 1/2"	3/4"	4 16	H592-F	15	6301-C	1.65	6301-M	14.36
(B) 3/4"	1"	6 14	H594-F	14	6302-C	1.90	6302-M	15.38
(C) 1 1/2"	3/4"	8 10			6303-C	3.27	6303-M	26.24
(D) 1 1/2"	3/4"	6 10			6304-C	12.12	6304-M	107.87
(E) 3/4"	3/4"	6 14			6306-C	4.43	6306-M	35.51



Description and Spec.	50-Line No.	Qty. In Box	Port No.	Net Per 100	No.	Net Per M
No. 1720 Asst. 100 Trimounts Net Price \$.82 Assorted	H370-F	20				
To Fit Hole.						
A	B					
1/4"	3/8"	3/8"				
5/8"	1 1/8"	1 1/8"				
1 1/8"	1 3/4"	1 3/4"				
1 3/8"	2 1/8"	2 1/8"				
1 3/4"	2 3/4"	2 3/4"				
2"	3 1/4"	3 1/4"				
2 1/8"	3 1/2"	3 1/2"				
2 1/4"	3 3/4"	3 3/4"				
2 3/4"	4"	4"				
3"	4 1/4"	4 1/4"				
3 1/4"	4 1/2"	4 1/2"				
3 1/2"	4 3/4"	4 3/4"				
3 3/4"	5"	5"				
4"	5 1/4"	5 1/4"				
4 1/4"	5 1/2"	5 1/2"				
4 1/2"	5 3/4"	5 3/4"				
4 3/4"	6"	6"				
5"	6 1/4"	6 1/4"				
5 1/4"	6 1/2"	6 1/2"				
5 1/2"	6 3/4"	6 3/4"				
5 3/4"	7"	7"				
6"	7 1/4"	7 1/4"				
6 1/4"	7 1/2"	7 1/2"				
6 1/2"	7 3/4"	7 3/4"				
6 3/4"	8"	8"				
7"	8 1/4"	8 1/4"				
7 1/4"	8 1/2"	8 1/2"				
7 1/2"	8 3/4"	8 3/4"				
7 3/4"	9"	9"				
8"	9 1/4"	9 1/4"				
8 1/4"	9 1/2"	9 1/2"				
8 1/2"	9 3/4"	9 3/4"				
8 3/4"	10"	10"				
9"	10 1/4"	10 1/4"				
9 1/4"	10 1/2"	10 1/2"				
9 1/2"	10 3/4"	10 3/4"				
9 3/4"	11"	11"				
10"	11 1/4"	11 1/4"				
10 1/4"	11 1/2"	11 1/2"				
10 1/2"	11 3/4"	11 3/4"				
10 3/4"	12"	12"				
11"	12 1/4"	12 1/4"				
11 1/4"	12 1/2"	12 1/2"				
11 1/2"	12 3/4"	12 3/4"				
11 3/4"	13"	13"				
12"	13 1/4"	13 1/4"				
12 1/4"	13 1/2"	13 1/2"				
12 1/2"	13 3/4"	13 3/4"				
12 3/4"	14"	14"				
13"	14 1/4"	14 1/4"				
13 1/4"	14 1/2"	14 1/2"				
13 1/2"	14 3/4"	14 3/4"				
13 3/4"	15"	15"				
14"	15 1/4"	15 1/4"				
14 1/4"	15 1/2"	15 1/2"				
14 1/2"	15 3/4"	15 3/4"				
14 3/4"	16"	16"				
15"	16 1/4"	16 1/4"				
15 1/4"	16 1/2"	16 1/2"				
15 1/2"	16 3/4"	16 3/4"				
15 3/4"	17"	17"				
16"	17 1/4"	17 1/4"				
16 1/4"	17 1/2"	17 1/2"				
16 1/2"	17 3/4"	17 3/4"				
16 3/4"	18"	18"				
17"	18 1/4"	18 1/4"				
17 1/4"	18 1/2"	18 1/2"				
17 1/2"	18 3/4"	18 3/4"				
17 3/4"	19"	19"				
18"	19 1/4"	19 1/4"				
18 1/4"	19 1/2"	19 1/2"				
18 1/2"	19 3/4"	19 3/4"				
18 3/4"	20"	20"				
19"	20 1/4"	20 1/4"				
19 1/4"	20 1/2"	20 1/2"				
19 1/2"	20 3/4"	20 3/4"				



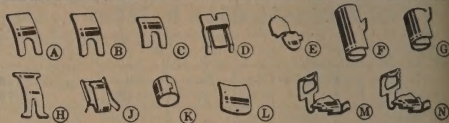
Description and Spec.				50-Line No.	Qty. In Box	Part No.	Net Per 100	No.	Net Per M
Used on Card No.									
75-75A	1/4"	3/8"	3/8"	H745-F	30	6221-C	\$.75	6221-M	\$ 5.37
74-74L	1/4"	3/8"	3/8"	H746-F		6222-C	.85	6222-M	6.30
73-73X	3/16"	3/16"	3/16"			6223-C	.86	6223-M	6.88



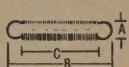
Description and Spec.	50-Line No.	Qty. In Box	Part No.	Net Per 100	
Assorted	H250-F	4			
1 Lug			1781-C	\$ 2.97	
2 Lugs			1782-C	2.97	
3 Lugs			1783-C	3.10	
4 Lugs			1784-C	4.28	
5 Lugs			1785-C	4.95	
6 Lugs			1786-C	5.28	
7 Lugs			1787-C	9.57	
8 Lugs			1788-C	10.56	



Description and Spec.			50-Line No.	Part No.	Net Per 100	No.	Net Per M
Assorted			H1966-F				
(Groove D Wd.)							
A	B	C					
3/8"	.120	3/8"	3/8"	6057-AC	5.08	6057-AM	40.67
3/4"	.067	3/4"	3/4"	6057-BC	7.54	6057-BM	60.37
1"	.168	1"	1"	6057-CC	9.34	6057-CM	74.72
.620	.128	.620	.620	6057-DC	10.23		82.24
.860	.128	.860	.860	6057-FC	12.65	6057-EM	141.17



Description and Spec.	50-Line No.	Qty. In Box	Part No.	Net Per 100	No.	P
Asst.	H480-F	18				
TV Spring Asst.	H460-F	12				
No. 1050 Kit of 35 Springs						
No. 1051 Kit of 100 Springs						
Width						
Length						
For Knob Shaft Dia.						
(A) $\frac{3}{32}$ " Light	$\frac{3}{16}$ " $\frac{1}{4}$ "	H482-F	20	6460-C	1.16	6460-M
(B) $\frac{3}{32}$ " Heavy	$\frac{3}{16}$ " $\frac{1}{4}$ "	H484-F	20	6461-C	1.21	6461-M
(C) $\frac{1}{8}$ "	$\frac{3}{16}$ " $\frac{1}{4}$ "	H487-F	20	6462-C	.97	6462-M
(D) $\frac{3}{16}$ "	$\frac{3}{8}$ " $\frac{1}{4}$ "	H489-F	10	6463-C	1.30	6463-M
(E) $\frac{1}{2}$ "	$\frac{1}{2}$ " $\frac{1}{4}$ "			6464-C	2.04	6464-M
(F) $\frac{5}{16}$ "	$\frac{3}{8}$ " $\frac{1}{4}$ "	H492-F	8	6465-C	2.59	6465-M
(G) $\frac{1}{2}$ "	$\frac{1}{2}$ " $\frac{1}{4}$ "			6466-C	3.08	6466-M
(H) $\frac{5}{8}$ "	$\frac{1}{2}$ " $\frac{1}{4}$ "			6467-C	1.40	6467-M
(J) $\frac{7}{8}$ "	$\frac{3}{8}$ " $\frac{1}{4}$ "	H494-F	10	6468-C	1.65	6468-M
(K) $1\frac{1}{2}$ "	$\frac{1}{4}$ " $\frac{1}{4}$ "			6469-C	2.59	6469-M
(L) $\frac{3}{8}$ "	$\frac{3}{8}$ " $\frac{1}{4}$ "	H497-F	10	6470-C	1.65	6470-M
(M) $\frac{3}{8}$ "	$\frac{3}{8}$ " $\frac{1}{4}$ "	H498-F	10	6471-C	2.81	6471-M
(N) $\frac{3}{8}$ "	$\frac{3}{8}$ " $\frac{3}{8}$ "	H499-F	10	6472-C	2.56	6472-M
TV Knob Spring	.202" Shaft	H462-F	10			
TV Knob Spring	$\frac{3}{8}$ " Flat Shaft					
		H464-F	10	8542-C	1.67	8542-M



Description and Spec.			50-Line No.	Qty. In Box	Part No.	Net Per 100	No.
Asst. Reg. Dial Drive							
Asst. Small Dial Drive							
No. 1055 Kit of 25 Asst. Net \$1.23			H401-F	8			
No. 1056 Kit of 100 Asst. Net \$3.57			H400-F	10			
Asst. Lge. Tension Spgs.			H421-F	10			
Asst. Sm. Tension Spgs.			H420-F	10			
A	B	C	Wire Size				
1/8"	1/4"	1/4"	.019	H403-F	10	6450-C	\$ 5.53
3/8"	1"	3/4"	.019	H406-F	8	6451-C	4.66
3/8"	1"	9/8"	.020	H408-F	8	6452-C	4.15
1/2"	1 3/8"	1"	.020	H410-F	6	6453-C	4.76
1/2"	1 1/2"	1"	.026	H412-F	6	6454-C	6.16
1 1/4"	2"	1 1/2"	.026			6455-C	7.61



Description and Spec.	50-Line No.	Qty. In Box	
Asst. Small	H440-F	20	
Asst. Large	H441-F	15	



Description and Spec.	50-Line No.	Qty. In Box	Part No.	Net Per 100	No.	P
For 1/4" Fuses, No. 6 Mounting Hole TV Fuse Clip, No. 8618 (\$.25 Net)	H600-F	12	6311-C	\$ 2.30	6311-M	\$



Description and Spec.		Part No.	Net Per 100	No.	P
Wire No. of O.D. Lgth. Size Coils					
1" x 1/2"	13/4" .079 4	7497-C	\$ 3.49	7497-M	\$



RADIO-TV HARDWARE

ALL 50 LINE BOXES - 39 Net



GC EYELETS BRASS

Description and Spec.	50-Line No.	Qty. In Box	Part No.	Net Per 100	No.	Net Per M
Rivets and Eyelets Eyelets and Clamps et Asst.	H526-F H744-F H510-F	55 60 50				
Length Under Head Head Dia.						
1/8" 1/4" .145			7251-C	\$.32	7251-M	\$ 2.62
1/8" 3/8" .145			7252-C	.41	7252-M	3.30
1/8" 1/2" .145			7253-C	.54	7253-M	3.70
1/8" 3/4" .180			7254-C	1.24	7254-M	10.04
1/8" 1" .187			7257-C	.58	7257-M	4.60
23 3/8" .195	H515-F	50	7259-C	.46	7259-M	3.70
23 1/2" .195			7260-C	.61	7260-M	4.83
23 3/4" .195			7261-C	.62	7261-M	4.91
25 3/4" .289			7264-C	1.07	7264-M	8.44
27 1/2" .222			7265-C	1.30	7265-M	10.32
27 3/4" .315			7269-C	.37	7269-M	2.93

GC RIVETS NICKEL PLATED

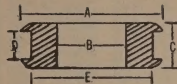
Description and Spec.	50-Line No.	Qty. In Box	Part No.	Net Per 100	No.	Net Per M
Rivets and Eyelets Assortment Interlock Receptacle Rivets	H526-F H525-F H527-F	55 50 Asst.				
Length Under Head Head Dia.						
3/32" 1/4" .59			7276-C	\$.97	7276-M	\$ 7.68
3/32" 1/2" .60			7277-C	.97	7277-M	7.68
3/32" 3/4" .88			7278-C	.64	7278-M	5.19
3/32" 1" .98			7280-C	1.05	7280-M	8.28
21 3/8" .85			7283-C	1.08	7283-M	8.71
21 1/2" .85			7286-C	.85	7286-M	6.82
21 3/4" .523			7288-C	.66	7288-M	5.23
21 1/2" .627			7290-C	.77	7290-M	6.27
21 3/4" .567			7293-C	.72	7293-M	5.67
46 3/4" .751			7296-C	.90	7296-M	7.51

GC GRID CAPS NICKEL PLATED

Description and Spec.	50-Line No.	Qty. In Box	Part No.	Net Per 100	No.	Net Per M
Grid Type, Asstd. High-Voltage	H609-F	8				
High-Voltage	H610-F		8838- IRC 8838- 2RC	4.18 4.37	8838- IRM 8838- 2RM	33.39 34.93
Insulated High-Voltage Insulated High-Voltage	H612-F H614-F	1 1	8834-C 8835-C	27.64 27.64	8834-M 8835-M	251.86 251.86

GC RUBBER GROMMETS

Description and Spec.	50-Line No.	Qty. In Box	Part No.	Net Per 100	No.	Net Per M
Soft Grommets 1040 Kit of 50	H025-F	15				
Grommets Net \$.75 B C D E						
1/4" 3/8" 1/4" 1/4"	H030-F	16	1041-2C	\$ 1.23	1041-2M	\$ 9.82
1/4" 1/2" 1/4" 1/4"	H032-F	14	1041-C	1.40	1041-M	11.09
1/4" 3/4" 1/4" 1/4"	H034-F	12	1042-C	1.84	1042-M	14.85
1/4" 1" 1/4" 1/4"	H036-F	10	1043-C	2.09	1043-M	16.66
3/8" 1/2" 3/8" 3/8"			5710-C	4.18	5710-M	37.57
3/8" 3/4" 3/8" 3/8"			7566-C	2.70	7566-M	21.48
3/8" 1" 3/8" 3/8"			5711-C	3.88	5711-M	35.00
3/8" 1 1/4" 3/8" 3/8"			5712-C	5.67	5712-M	45.34
3/8" 1 1/2" 3/8" 3/8"			5713-C	3.17	1043-IM	29.04
3/8" 1 3/4" 3/8" 3/8"	H038-F	8	7569-C	6.33	7569-M	50.52
3/8" 2" 3/8" 3/8"			5715-C	7.48	5715-M	59.80
3/8" 2 1/4" 3/8" 3/8"			5716-C	6.30	5716-M	50.49
3/8" 2 1/2" 3/8" 3/8"			5717-C	12.70	5717-M	108.31



GC PURE GUM GROMMETS

Soft rubber grommets for shock dampening. For mounting tuning condensers, sockets, phono motors, etc.

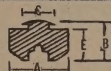
Description and Spec.	50-Line No.	Qty. In Box	Part No.	Net Per 100	No.	Net Per M
Asst. No. 7581 Kit of 100 Asst. Grommets. \$1.62	H040-F	12				
A B C D E 3/4" 3/4" 3/4" 3/4" 3/4"	H042-F	12	7582-C	1.78	7582-M	14.19
3/4" 3/4" 3/4" 3/4" 3/4"	H043-F	10	7584-C	2.53	7584-M	20.22

GC RADIO KNOB FELTS

Description and Spec.	50-Line No.	Qty. In Box	Part No.	Net Per 100	No.	Net Per M
3/4" O.D. x 1/4" Hole, Brown	H760-F	40	1065-C	.42	1065-M	3.54

GC RUBBER FEET SCREW TYPE

Description and Spec.	50-Line No.	Qty. In Box	Part No.	Net Per 100	No.	Net Per M
O.D. High 3/8" 3/8"	H050-F	8				
1/2" 1/2"	H052-F	8	1075-BC	1.45	1075-BM	11.88
3/4" 3/4"	H054-F	8	1075-CC	1.91	1075-CM	15.84
1" 1"	H056-F	8	1075-FC	2.71	1075-FM	21.89



GC RUBBER BUTTON BUMPERS

Description and Spec.	50-Line No.	Qty. In Box	Part No.	Net Per 100	No.	Net Per M
A B C E O.D. Height Hole Height						
3/8" 3/8" 3/8" 3/8"	H058-F	8	7596-C	1.57	7596-M	12.65
1/2" 1/2" 1/2" 1/2"			7597-C	2.31	7597-M	18.54
3/4" 3/4" 3/4" 3/4"			7598-C	3.72	7598-M	29.81

GC RUBBER TACK BUMPERS

Description and Spec.	50-Line No.	Qty. In Box	Part No.	Net Per 100	No.	Net Per M
3/8" O.D.	H071-F	10	1075-C	2.04	1075-M	16.26

GC FELT PADS

Description and Spec.	50-Line No.	Qty. In Box	Part No.	Net Per 100	No.	Net Per M
Asstd. Felt Pads 1/2" O.D. x 1/4" Thick Felt Pads	H074-F	40				
			1071-C	.33	1071-M	2.62

GC CORD STRAIN RELIEFS

Description and Spec.	50-Line No.	Qty. In Box	Part No.	Net Per 100	No.	Net Per M
Will Fit P.O.S.J. Cord	H048-F	5	6675-C	5.80	6675-M	46.32

GC ANGLES AND BRACKETS

Description and Spec.	50-Line No.	Qty. In Box	Part No.	Net Per 100	No.	Net Per M
Asstd.	H570-F	12				
A B C Hole Size						
1/4" 1/4" 1/4" 6			6261-C	1.23	6261-M	9.87
3/8" 3/8" 3/8" 6			6262-C	1.54	6262-M	12.23
1/2" 1/2" 1/2" 6			6263-C	1.74	6263-M	13.95



ELECTRONIC HARDWARE

**WALSCO
BINDING
HEAD
MACHINE
SCREWS**
—
**STEEL
NICKEL PLATED**



SIZE	BOX OF 100 PART NO. NET/100	BOX OF 1000 PART NO. NET/1000
2-56 x 1/4"	8151-C .69	8151-M 5.86
2-56 x 1/2"	8152-C .69	8152-M 5.86
2-56 x 3/4"	8154-C .69	8154-M 5.86
4-36 x 1/4"	8155-C .69	8155-M 5.86
4-36 x 1/2"	8156-C .69	8156-M 5.86
4-36 x 3/4"	8157-C .69	8157-M 5.86
4-40 x 1/4"	8158-C .69	8158-M 5.86
4-40 x 1/2"	8159-C .69	8159-M 5.86
4-40 x 3/4"	8160-C .70	8160-M 5.89
5-36 x 1/4"	8161-C .58	8161-M 4.62
6-32 x 3/4"	8162-C .58	8162-M 4.62
6-32 x 1/2"	8163-C .58	8163-M 4.62
6-32 x 3/8"	8164-C .63	8164-M 4.95
6-32 x 1/4"	8166-C .72	8166-M 5.63
6-32 x 3/16"	8167-C .79	8167-M 6.34
7-32 x 1/4"	8165-C 1.73	8165-M 13.73
8-32 x 1/4"	8168-C .79	8168-M 6.18
8-32 x 3/8"	8169-C .83	8169-M 6.44
8-32 x 1/2"	8170-C .86	8170-M 6.90
8-32 x 3/4"	8171-C .96	8171-M 8.15
8-32 x 1/2"	8172-C 1.05	8172-M 8.33
10-32 x 1/4"	8173-C 1.09	8173-M 8.72
10-32 x 3/4"	8174-C 1.27	8174-M 10.12

**WALSCO
BINDING
HEAD
MACHINE
SCREWS**
—
**BRASS
NICKEL PLATED**



SIZE	BOX OF 100 PART NO. NET/100	BOX OF 1000 PART NO. NET/1000
2-56 x 1/4"	8151-C .57	8151-M 4.06
2-56 x 1/2"	8152-C 1.11	8152-M 9.36
2-56 x 3/4"	8154-C 1.29	8154-M 11.03
4-36 x 1/4"	8155-C 1.12	8155-M 9.81
4-36 x 1/2"	8156-C 1.38	8156-M 11.76
4-36 x 3/4"	8157-C 1.62	8157-M 13.81
4-40 x 1/4"	8158-C 1.12	8158-M 9.36
4-40 x 1/2"	8159-C 1.38	8159-M 11.03
4-40 x 3/4"	8160-C 1.62	8160-M 13.24
5-36 x 1/4"	8161-C 1.62	8161-M 13.24
6-32 x 1/2"	8162-C 1.55	8162-M 12.59
6-32 x 3/4"	8163-C 1.46	8163-M 12.59
6-32 x 1/4"	8164-C 1.56	8164-M 13.33
6-32 x 3/8"	8166-C 1.75	8166-M 14.85
6-32 x 1/2"	8167-C 2.11	8167-M 18.07
8-32 x 1/4"	8168-C 2.13	8168-M 18.14
8-32 x 3/8"	8169-C 2.24	8169-M 19.22
8-32 x 1/2"	8170-C 2.54	8170-M 21.71
8-32 x 3/4"	8171-C 2.17	8171-M 18.77
8-32 x 1/2"	8172-C 3.11	8172-M 26.70
10-32 x 1/4"	8173-C 2.94	8173-M 25.15
10-32 x 3/4"	8174-C 3.96	8174-M 34.08

**HEX NUTS
BRASS**



Thread	Width Across Flats	Thickness	8802-1-C	1.13	8802-1-M	9.04
2-56	3/4"	3/16"	8845-C	1.36	8845-M	10.88
4-36	1/2"	3/16"	8844-C	1.35	8844-M	10.78
4-40	1/2"	3/16"	8846-C	1.35	8846-M	10.78
6-32	1/2"	3/16"	8825-1-C	1.62	8826-1-M	12.91
6-32	3/4"	3/16"	8848-C	1.62	8848-M	12.91
8-32	3/4"	3/16"	8850-C	1.77	8850-M	14.17
10-32	3/4"	3/16"				

**HEX NUTS
STEEL
NICKEL PLATED**



Thread	Width Across Flats	Thickness	8802-C	.75	8802-M	5.01
2-56	3/4"	3/16"	8824-C	.74	8824-M	6.87
4-36	1/2"	3/16"	8804-C	.74	8804-M	5.81
4-40	1/2"	3/16"	8806-C	.75	8806-M	5.81
6-32	1/2"	3/16"	8826-C	.80	8826-M	6.40
6-32	3/4"	3/16"	8808-C	.80	8808-M	6.44
8-32	3/4"	3/16"	8828-C	.80	8828-M	6.45
10-32	3/4"	3/16"	8810-C	1.07	8810-M	8.49
10-32	3/4"	3/16"	8830-C	.96	8830-M	7.68

WALSCO 50 LINE HARDWARE

DIMENSIONS

WALSCO CABLE CLAMPS	1/8" to 3/4" cable diameter	Mtg. Hole Size #6-#8
	3/4" to 1 1/4" cable diameter	#8
	1 1/4" to 3 1/4" cable diameter	#8



VINYL GROMMETS

A	B	C	D	E
1 1/2"	1 1/2"	1 1/2"	1 1/2"	1 1/2"
3/4"	3/4"	3/4"	3/4"	3/4"
1/2"	1/2"	1/2"	1/2"	1/2"
3/8"	3/8"	3/8"	3/8"	3/8"
1/4"	1/4"	1/4"	1/4"	1/4"

CABINET FEET — SCREW TYPE	Diameter	Height
Made of synthetic rubber. Easily installed with wood screws, metal screws or tacks. Screw type is supplied with wood screws on "50" and "99" line packages.	3/8"	3/4"
	1/2"	1 1/4"
	3/4"	1 3/4"
	1"	2"

TACK TYPE	Diameter
Same as above, but with handy tacks molded in feet.	3/8"
	1/2"
	3/4"
	1"

WALSCO INSULATING WASHERS (Flat and Extruded)	Fits Screw Size	A	B	C	D
#8	3/8"	1/4"	.169	1/2"	.140
#10	3/8"	.308	.195	1/2"	.140
1/4"	1/2"	1 1/2"	.250	1/2"	.140
3/8"	3/4"	1 1/2"	.380	1/2"	.140

WALSCO SPADE BOLTS	Size	A	B	C	D
6-32 Straight	3/4"	3/4"	3/4"	3/4"	1 1/4"
6-32 Offset	3/4"	3/4"	3/4"	3/4"	1 1/4"

WALSCO SNAP-HOLE PLUGS	The quickest, simplest way ever devised to cover a hole in chassis or panel. Spring flanges hold polished nickel-plated flat-head button firmly in place. Use Walsco Snap-Hole Plugs to seal adjustments, cover unused holes, etc.	Fits Hole Diameter
		1/8"
		3/16"
		1/4"
		3/8"
		1/2"
		3/4"
		1"
		1 1/4"
		Assorted

VENTILATING HOLE PLUGS	Fig. No.	Type	Hole Size	Finish
	1	Screened	1"	Steel
	2	Eyelet	1 1/2"	Brass—Not Plated
	2	Eyelet	3/4"	Brass
				Assorted

50 LINE

Cat. No.	Qty. Pkg.	100 Pack	BULK PACK	Std. Pack	Net Per 1000
7502-F	25	7502-C 100	\$ 1.08	7502-M 1000	\$ 8.61
7503-F	20	7503-C 100	1.23	7503-M 1000	10.00
7505-F	16	7505-C 100	2.29	7505-M 1000	18.33
7500-F	20				
7030-F	14	7030-C 100	\$ 1.10	7030-M 1000	\$ 8.39
7032-F	12	7032-C 100	1.38	7032-M 1000	11.00
7034-F	12	7034-C 100	1.51	7034-M 1000	11.91
7036-F	10	7036-C 100	1.62	7036-M 1000	12.90
7038-F	8	7038-C 100	2.50	7038-M 1000	20.44
7025-F	12				
7052-F	8**	7052-C 100**	\$ 1.45	7052-M* 1000	\$ 11.81
7054-F	8**	7054-C 100**	1.91	7054-M* 1000	15.81
7056-F	8**	7056-C 100**	2.71	7056-M* 1000	21.81
		7058-C 100**	3.10	7058-M* 1000	24.81
7050-F	8**	** Wood screws included		* No screws included	
7071-F	100	7071-C 100	\$ 2.04	7071-M 1000	\$ 16.20
7072-F	100	7072-C 100	2.15	7072-M 1000	17.11
7070-F	8				
7824-F	30	7856-C 100	\$.96	7856-M 1000	\$ 7.50
7825-F	30	7836-C 100	.46	7836-M 1000	3.69
7826-F	30	7858-C 100	.96	7858-M 1000	7.50
7827-F	24	7838-C 100	.46	7838-M 1000	3.69
7828-F	20	7860-C 100	1.05	7860-M 1000	8.20
		7840-C 100	.46	7840-M 1000	3.69
		7862-C 100	1.05	7862-M 1000	8.20
		7842-C 100	.52	7842-M 1000	4.00
		7864-C 100	1.08	7864-M 1000	8.20
		7844-C 100	.85	7844-M 1000	6.71
8572-C	100	8572-C 100	\$ 1.34	8572-M 1000	\$ 10.44
8573-C	100	8573-C 100	2.81	8573-M 1000	22.33
8570-F	15				
7306-F	8	7306-C 100	\$ 2.48	7306-M 1000	\$ 20.20
7308-F	8	7308-C 100	3.39	7308-M 1000	27.81
7310-F	6	7310-C 100	3.38	7310-M 1000	27.70
7312-F	6	7312-C 100	3.63	7312-M 1000	29.00
7314-F	5	7314-C 100	3.96	7314-M 1000	31.61
7316-F	4	7316-C 100	5.08	7316-M 1000	40.50
7318-F	4	7318-C 100	5.45	7318-M 1000	43.90
7320-F	6	7320-C 100	6.52	7320-M 1000	52.50
7331-C			\$ 23.52	7331-M	\$ 188.00
7332-C			5.20	7332-M	46.71
7333-C			7.36	7333-M	66.11
7330-F	3				

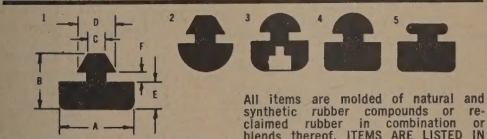


GROMMETS

All items are molded of natural and synthetic rubber compounds or reclaimed rubber in combination or blends thereof. Items are listed in ascending order of diameter and height.

Part No.	A O.D.	B I.D.	C Height	D Groove Width	E Groove Diam.	PRICES	
						Per 100 100/999	Per 100 1000/4999
GDB-2101	3/4	1/4	1/4	1/2	3/4	\$1.95	\$1.56
GDB-2104	1 1/2	3/4	3/4	1/2	3/4	1.35	1.08
GDB-2105	1 1/2	3/4	3/4	1/2	3/4	1.50	1.20
GDB-2110	1 1/2	3/4	3/4	1/2	3/4	2.70	2.16
GDB-2118	1 1/2	3/4	3/4	1/2	3/4	1.80	1.44
GDB-2157	3/4	1/4	3/4	1/2	3/4	1.95	1.56
GDB-2156	3/4	1/4	3/4	1/2	3/4	1.95	1.56
GDB-215	3/4	1/4	3/4	1/2	3/4	1.80	1.44
GDB-415	3/4	1/4	3/4	1/2	3/4	1.95	1.56
GDB-2160	3/4	1/4	3/4	1/2	3/4	1.80	1.44
GDB-2161	3/4	1/4	3/4	1/2	3/4	1.80	1.44
GDB-2153	1 1/2	3/4	3/4	1/2	3/4	2.10	1.68
GDB-2151	1 1/2	3/4	3/4	1/2	3/4	1.80	1.44
GDB-2154	1 1/2	3/4	3/4	1/2	3/4	1.80	1.44
GDB-2174	1 1/2	3/4	3/4	1/2	3/4	2.70	2.16
GDB-2171	1 1/2	3/4	3/4	1/2	3/4	2.10	1.68
GDB-2173	1 1/2	3/4	3/4	1/2	3/4	2.25	1.80
GDB-217	1 1/2	3/4	3/4	1/2	3/4	2.25	1.80
GDB-2172	1 1/2	3/4	3/4	1/2	3/4	2.25	1.80
GDB-219	1 1/2	3/4	3/4	1/2	3/4	2.85	2.28
GDB-2191	1 1/2	3/4	3/4	1/2	3/4	2.85	2.28
GDB-2201	1 1/2	3/4	3/4	1/2	3/4	2.85	2.28
GDB-220	1 1/2	3/4	3/4	1/2	3/4	2.40	1.92
GDB-221	1 1/2	3/4	3/4	1/2	3/4	2.40	1.92
GDB-2211	1 1/2	3/4	3/4	1/2	3/4	2.85	2.28
GDB-321	1 1/2	3/4	3/4	1/2	3/4	2.85	2.28
GDB-323	1 1/2	3/4	3/4	1/2	3/4	2.85	2.28
GDB-324	1 1/2	3/4	3/4	1/2	3/4	2.85	2.28
GDB-3241	1 1/2	3/4	3/4	1/2	3/4	2.85	2.28
GDB-2253	3/4	1/4	3/4	1/2	3/4	3.35	2.68
GDB-2254	3/4	1/4	3/4	1/2	3/4	3.15	2.52
GDB-2260	3/4	1/4	3/4	1/2	3/4	3.75	3.00
GDB-2251	3/4	1/4	3/4	1/2	3/4	4.50	3.60
GDB-2251	3/4	1/4	3/4	1/2	3/4	4.50	3.60
GDB-2257	3/4	1/4	3/4	1/2	3/4	3.60	2.88
GDB-2255	3/4	1/4	3/4	1/2	3/4	3.90	3.12
GDB-2352	3/4	1/4	3/4	1/2	3/4	2.85	2.28
GDB-2252	3/4	1/4	3/4	1/2	3/4	3.60	2.88
GDB-225	3/4	1/4	3/4	1/2	3/4	2.85	2.28
GDB-2258	3/4	1/4	3/4	1/2	3/4	2.85	2.28
GDB-226	3/4	1/4	3/4	1/2	3/4	3.75	3.00
GDB-2261	3/4	1/4	3/4	1/2	3/4	3.90	3.12
GDB-3262	3/4	1/4	3/4	1/2	3/4	5.10	4.08
GDB-3261	3/4	1/4	3/4	1/2	3/4	4.95	3.96
GDB-1101-1	3/4	1/4	3/4	1/2	3/4	4.05	3.24
GDB-1101	3/4	1/4	3/4	1/2	3/4	4.80	3.84
GDB-230	3/4	1/4	3/4	1/2	3/4	6.00	4.80
GDB-2274	3/4	1/4	3/4	1/2	3/4	6.00	4.80
GDB-2272	3/4	1/4	3/4	1/2	3/4	6.30	5.05
GDB-2271	3/4	1/4	3/4	1/2	3/4	8.70	6.96
GDB-1102-5	1 1/4	3/4	1 1/2	3/4	3/4	7.05	5.64
GDB-1102	1 1/4	3/4	1 1/2	3/4	3/4	7.05	5.64
GDB-1102-2	1 1/4	3/4	1 1/2	3/4	3/4	10.20	8.16
GDB-2301	1 1/4	3/4	1 1/2	3/4	3/4	10.50	8.40
GDB-1103	1 1/4	3/4	1 1/2	3/4	3/4	10.50	8.40
GDB-1105	1 1/4	3/4	1 1/2	3/4	3/4	21.90	17.52
GDB-1104	2 1/4	1 1/4	3/4	3/4	3/4		

NOTE: 1. A full range of AN Grommets and MS-35489 Grommets (to specification: MIL G-3036) for military use are available for immediate shipment.
2. Prices on military and special commercial grommets are available on request.



BUTTON BUMPERS

All items are molded of natural and synthetic rubber compounds or reclaimed rubber in combination or blends thereof. ITEMS ARE LISTED IN ASCENDING ORDER OF DIAMETER AND HEIGHT FOR EACH FIGURE NUMBER.

Part No.	Max. Diam.	Hgt.	Insert Head	Base	Channel Width	PRICES	
						Per 100 100/999	Per 100 1000/4999
BUT-3169	3/8	1/4	1/4	3/4	1/8	\$1.20	\$1.35
BUT-3062	3/8	1/4	1/4	3/4	1/8	1.05	1.35
BUT-3061	3/8	1/4	1/4	3/4	1/8	1.05	1.35
BUT-4082	3/8	1/4	1/4	3/4	1/8	1.20	1.50
BUT-4161	3/8	1/4	1/4	3/4	1/8	1.05	1.35
BUT-4162	3/8	1/4	1/4	3/4	1/8	1.20	1.50
BUT-4163	3/8	1/4	1/4	3/4	1/8	1.50	1.80
BUT-4282	3/8	1/4	1/4	3/4	1/8	1.35	1.50
BUT-3068	3/8	1/4	1/4	3/4	1/8	1.65	1.95
BUT-3168	3/8	1/4	1/4	3/4	1/8	1.35	1.50
BUT-4164	3/8	1/4	1/4	3/4	1/8	1.35	1.50
BUT-4083	3/8	1/4	1/4	3/4	1/8	1.20	1.50
BUT-3063	3/8	1/4	1/4	3/4	1/8	1.50	1.95
BUT-3072	1/2	3/4	3/4	3/4	1/8	1.65	1.95
BUT-4071	1/2	3/4	3/4	3/4	1/8	1.95	2.35
BUT-4078	1/2	3/4	3/4	3/4	1/8	1.80	1.95

BUTTON BUMPERS (Continued)										
Part No.	Max. Diam.	B Hgt.	C Insert Head	D Insert Head Base	E Base Hgt.	F Channel Width	PRICES			
							Per 100 100/999		Per 1000 1000/4999	
BUT-4157	1/2	3/4	3/4	3/4	1/4	3/4	1.65	1.95	1.32	1.56
BUT-4171	1/2	3/4	3/4	3/4	1/4	3/4	1.65	1.95	1.32	1.56
BUT-4176	1/2	3/4	3/4	3/4	1/4	3/4	1.80	2.10	1.44	1.68
BUT-4185	1/2	3/4	3/4	3/4	1/4	3/4	1.80	2.10	1.44	1.68
BUT-4075	1/2	3/4	3/4	3/4	1/4	3/4	1.95	2.40	1.56	1.96
BUT-3058	1/2	3/4	3/4	3/4	1/4	3/4	1.65	1.95	1.35	1.56
BUT-3056	1/2	3/4	3/4	3/4	1/4	3/4	1.65	1.95	1.35	1.56
BUT-4081	3/4	1/2	3/4	3/4	1/4	3/4	1.80	2.25	1.44	1.80
BUT-4085	3/4	1/2	3/4	3/4	1/4	3/4	2.25	2.40	1.80	1.92
BUT-4082	3/4	1/2	3/4	3/4	1/4	.025	2.70	3.60	2.16	2.80
BUT-4084	3/4	1/2	3/4	3/4	1/4	.040	2.70	3.60	2.16	2.80
BUT-1160	3/4	1/2	.480	3/4	1/4	.050	2.70	3.75	2.16	3.00
BUT-1161	3/4	1/2	.480	3/4	1/4	.050	2.70	3.75	2.16	3.00
BUT-611	7/8	1/2	3/4	3/4	1/4	3/4	3.75	4.65	3.00	3.72

FIG. 2

Part No.	Max. Diam.	Hgt.	Insert Head	Base	Channel Width	PRICES	
						Per 100 100/999	Per 100 1000/4999
BUT-4076	1/2	3/4	3/4	3/4	1/8	1.50	1.80
BUT-3167	3/8	1/4	3/4	3/4	1/8	1.65	1.95
BUT-3064	3/8	1/4	3/4	3/4	1/8	1.35	1.50
BUT-4087	3/8	1/4	3/4	3/4	1/8	1.35	1.50
BUT-3065	3/8	1/4	3/4	3/4	1/8	1.35	1.50
BUT-6112	1 1/2	3/2	1/4	3/4	3/4	3.15	2.52

FIG. 3

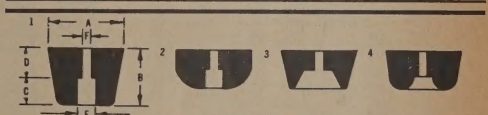
Part No.	Max. Diam.	Hgt.	Insert Head	Base	Channel Width	PRICES	
						Per 100 100/999	Per 100 1000/4999
BUT-306	3/8	3/8	3/4	3/4	.040	1.50	1.65
BUT-406	3/8	3/8	3/4	3/4	.040	1.50	1.65
BUT-417	3/8	3/8	3/4	3/4	.040	1.80	2.55
BUT-307	1/2	3/4	1/4	1/2	1/4	1.65	2.55
BUT-317	1/2	3/4	1/4	1/2	1/4	1.35	2.55
BUT-408	5/8	3/4	3/8	1/2	1/4	3.75	4.05

FIG. 4

Part No.	Max. Diam.	Hgt.	Insert Head	Base	Channel Width	PRICES	
						Per 100 100/999	Per 100 1000/4999
BUT-4068	3/8	1/4	3/4	3/4	3/4	1.20	1.50
BUT-4166	3/8	1/4	3/4	3/4	3/4	1.50	1.80

FIG. 5

Part No.	Max. Diam.	Hgt.	Insert Head	Base	Channel Width	PRICES	
						Per 100 100/999	Per 100 1000/4999
BUT-3166	3/8	3/8	1/4	3/8	1/8	1.50	1.65
BUT-4083	3/8	3/8	1/4	3/8	1/8	2.55	3.30



RECESSED BUMPERS

Part No.	Max. Diam.	Hgt.	C Screw Depth	D Screw Depth	E Screw Base	F Screw Shaft	PRICES	
							Per 100 100/999	Per 100 1000/4999
REC-2062	3/8	1/4	3/4	1/4	3/4	3/4	\$1.80	\$2.40
REC-2082	3/8	1/2	2 1/2	1/4	1/4	3/4	2.10	2.60
REC-2082S	3/8	1/2	1/4	1/4	3/4	3/4	3.60	4.50
REC-2090	3/8	3/8	3/4	3/4	3/4	1/47	3.30	4.50
REC-2090S	3/8	3/8	3/4	3/4	3/4	1/47	4.55	6.30
REC-2184	3/4	1/4	1/4	3/4	3/4	3/4	3.45	4.05
REC-2184S	3/4	1/4	1/4	3/4	3/4	3/4	6.00	6.60
REC-2084	3/4	3/4	3/4	3/4	3/4	3/4	3.60	5.10
REC-2096	3/4	3/4	3/4	3/4	3/4	3/4	6.15	7.50
REC-2084S	3/4	3/4	3/4	3/4	3/4	3/4	6.75	9.30
REC-2096S	3/4	3/4	3/4	3/4	3/4	3/4	3.60	12.00

FIG. 2

REC-206	3/8	3/8	3/4	3/4	3/4	3/4	.90	1.20	.72	.96
REC-2061	3/8	3/8	3/4	3/4	3/4	3/4	1.35	1.65	1.08	1.32
REC-2061S	3/8	3/8	3/4	3/4	3/4	3/4	3.45	4.05	2.76	3.24
REC-207	1/2	1/4	1/4	1/4	1/4	1/4	1.50	1.80	1.44	1.68
REC-207S	1/2	1/4	1/4	1/4	1/4	1/4	2.55	3.00	2.04	2.40
REC-208	3/8	3/8	3/4	3/4	3/4	3/4	2.25	3.00	1.80	2.40
REC-2081	3/8	3/8	3/4	3/4	3/4	3/4	1.95	2.70	1.56	2.16
REC-2081S	3/8	3/8	3/4	3/4	3/4	3/4	3.30	3.24	2.76	3.36
REC-2088	3/8	3/8	3/4	3/4	3/4	3/4	1.95	2.70	1.56	2.16
REC-2088S	3/8	3/8	3/4	3/4	3/4	3/4	3.60	4.20	2.88	3.36
REC-209S	3/4	3/8	3/8	3/8	3/8	3/8	3.00	3.00	2.40	4.08
REC-2095S	3/4	3/8	3/8	3/8	3/8	3/8	4.50	6.15	3.00	4.92
REC-2095S	3/4	1/2	1/4	1/4	1/4	1/4	3.75	5.10	3.00	4.08
REC-209S	3/4	3/8	3/8	3/8	3/8	3/8	6.15	7.35	4.92	5.88
REC-2097	1	1	1	1	1/4	1/4	7.65	10.50	6.12	8.40
REC-2097S	1	1	1	1	1/4	1/4	9.90	12.66	7.10	9.78
REC-2099	1	1 1/2	3/8	3/8	7/8	7/8	10.50	13.50	8.40	10.80
REC-2099S	1	1 1/2	3/8	3/8	7/8	7/8	14.75	17.10	11.76	13.68

WALDOM Electronic Hardware

ROUND HEAD STEEL
MACHINE SCREWS
Nickel Plated

		PKG. OF 100	1000- 4999 PER M	5000 OVER PER M
F-579	2-56 x 1/8"	.64	4.70	3.59
F-461	2-56 x 1/4"	.47	3.54	2.70
F-462	2-56 x 1/2"	.50	3.85	2.94
F-463	2-56 x 3/4"	.58	4.47	3.41
F-464	3-48 x 3/4"	.58	4.47	3.41
F-465	4-36 x 1/4"	.50	3.85	2.94
F-466	4-36 x 3/8"	.52	4.03	3.08
F-467	4-36 x 1/2"	.54	4.18	3.19
F-580	4-36 x 5/8"	.57	4.51	3.44
F-468	4-36 x 3/4"	.64	5.00	3.81
F-469	4-40 x 1/4"	.50	3.85	2.94
F-581	4-40 x 3/8"	.52	4.03	3.07
F-470	4-40 x 1/2"	.54	4.18	3.19
F-582	4-40 x 5/8"	.57	4.54	3.44
F-471	4-40 x 3/4"	.64	5.00	3.81
F-472	6-32 x 1/4"	.53	4.25	3.24
F-583	6-32 x 3/8"	.57	4.50	3.43
F-473	6-32 x 1/2"	.62	4.92	3.75
F-584	6-32 x 5/8"	.68	5.41	4.13
F-474	6-32 x 3/4"	.72	5.87	4.48
F-475	6-32 x 1"	.83	6.64	5.07
F-476	6-32 x 1-1/4"	1.00	8.04	6.13
F-477	6-32 x 2"	1.50	12.06	9.20
F-478	8-32 x 1/4"	.70	5.58	4.26
F-479	8-32 x 3/8"	.78	6.15	4.69
F-480	8-32 x 1/2"	.82	6.56	5.00
F-585	8-32 x 5/8"	.87	6.97	5.32
F-481	8-32 x 3/4"	.93	7.38	5.63
F-482	8-32 x 1"	1.07	8.50	6.48
F-483	8-32 x 1-1/4"	1.23	9.95	7.59
F-484	10-32 x 1/2"	.95	7.54	5.75
F-586	10-32 x 5/8"	1.03	8.20	6.26
F-485	10-32 x 3/4"	1.12	8.98	6.85
F-486	10-32 x 1"	1.25	9.92	7.57
F-487	10-32 x 1-1/2"	1.65	13.12	10.01
F-587	12-24 x 3/4"	1.49	12.22	9.32
F-588	12-24 x 1"	1.73	14.60	11.14
F-589	12-24 x 1-1/2"	2.30	18.86	14.39
F-590	12-24 x 2"	2.71	22.22	16.95
F-488	1/4-20 x 1/2"	1.81	14.84	11.32
F-489	1/4-20 x 3/4"	2.06	16.89	12.88
F-490	1/4-20 x 1"	2.35	19.27	14.69
F-491	1/4-20 x 1-1/4"	2.67	21.89	16.70
F-492	1/4-20 x 1-3/4"	3.24	26.57	20.27
F-493	1/4-20 x 2-1/2"	4.08	33.40	25.53

BRASS ROUND HEAD
MACHINE SCREWS
Nickel Plated

		PKG. OF 100	1000- 4999 PER M	5000 OVER PER M
F-461B	2-56 x 1/4"	.70	5.49	4.19
F-462B	2-56 x 1/2"	.80	6.45	4.92
F-463B	2-56 x 3/4"	.93	7.63	5.82
F-464B	3-48 x 3/4"	1.05	8.61	6.57
F-465B	4-36 x 1/4"	.80	6.45	4.92
F-466B	4-36 x 3/8"	1.02	8.10	6.18
F-467B	4-36 x 1/2"	1.12	8.36	6.38
F-580B	4-36 x 5/8"	1.20	9.02	6.88
F-468B	4-36 x 3/4"	1.27	9.84	7.51
F-469B	4-40 x 1/4"	.80	6.45	4.92
F-470B	4-40 x 1/2"	1.02	8.10	6.18
F-582B	4-40 x 5/8"	1.20	9.02	6.88
F-471B	4-40 x 3/4"	1.27	9.84	7.51
F-472B	6-32 x 1/4"	1.08	8.63	6.58
F-583B	6-32 x 3/8"	1.15	9.22	7.03
F-473B	6-32 x 1/2"	1.30	10.38	7.92
F-584B	6-32 x 5/8"	1.51	11.47	8.75
F-474B	6-32 x 3/4"	1.58	12.76	9.67

BRASS ROUND HEAD
MACHINE SCREWS
(Continued)

		PKG. OF 100	1000- 4999 PER M	5000 OVER PER M
F-475B	6-32 x 1"	1.88	15.00	11.44
F-476B	6-32 x 1-1/4"	2.18	17.82	13.18
F-477B	6-32 x 2"	3.68	29.40	22.43
F-478B	8-32 x 1/4"	1.69	13.12	10.01
F-479B	8-32 x 3/8"	1.68	13.43	10.25
F-480B	8-32 x 1/2"	1.92	15.37	11.73
F-481B	8-32 x 5/8"	2.24	17.36	13.25
F-482B	8-32 x 3/4"	2.35	18.75	14.30
F-483B	8-32 x 1-1/4"	3.28	26.25	20.03
F-484B	10-32 x 1/2"	2.43	19.50	14.88
F-586B	10-32 x 5/8"	2.70	21.67	16.53
F-485B	10-32 x 3/4"	2.95	23.55	17.97
F-486B	10-32 x 1"	3.52	28.08	21.42

BINDER HEAD STEEL
MACHINE SCREWS
Nickel Plated

		PKG. OF 100	1000- 4999 PER M	5000 OVER PER M
F-591	2-56 x 1/8"	.64	4.70	3.59
F-592	2-56 x 1/4"	.47	3.54	2.70
F-593	2-56 x 1/2"	.50	3.85	2.94
F-594	2-56 x 5/8"	.58	4.43	3.38
F-020	4-40 x 1/4"	.50	3.85	2.94
F-021	4-40 x 1/2"	.54	4.18	3.19
F-022	4-40 x 3/4"	.64	5.00	3.81
F-502	6-32 x 3/16"	.55	4.26	3.25
F-503	6-32 x 1/4"	.53	4.25	3.24
F-504	6-32 x 3/8"	.57	4.50	3.43
F-014	6-32 x 1/2"	.62	4.92	3.75
F-015	6-32 x 3/4"	.72	5.87	4.48
F-621	6-32 x 5/8"	.68	5.41	4.13
F-023	8-32 x 1/4"	.70	5.55	4.23
F-505	8-32 x 5/8"	.78	6.15	4.69
F-024	8-32 x 3/8"	.78	6.15	4.69
F-025	8-32 x 1/2"	.82	6.56	5.00
F-026	8-32 x 3/4"	.93	7.38	5.63
F-577	10-32 x 1/2"	.95	7.54	5.75
F-578	10-32 x 3/4"	1.12	8.98	6.85

BINDER HEAD BRASS
MACHINE SCREWS
Nickel Plated

		PKG. OF 100	1000- 4999 PER M	5000 OVER PER M
F-503B	6-32 x 1/4"	1.08	8.63	6.58
F-504B	6-32 x 3/8"	1.15	9.22	7.03
F-014B	6-32 x 1/2"	1.30	10.38	7.92
F-015B	6-32 x 3/4"	1.58	12.67	9.67
F-023B	8-32 x 1/4"	1.60	13.12	10.01
F-024B	8-32 x 3/8"	1.68	13.43	10.25
F-025B	8-32 x 1/2"	1.92	15.37	11.73
F-026B	8-32 x 3/4"	2.35	18.75	14.30
F-020B	4-40 x 1/4"	.80	6.45	4.92
F-021B	4-40 x 1/2"	1.02	8.10	6.18
F-022B	4-40 x 3/4"	1.27	9.84	7.51

FLAT HEAD STEEL
MACHINE SCREWS
Nickel Plated

		PKG. OF 100	1000- 4999 PER M	5000 OVER PER M
F-622	4-40 x 1/4"	.50	3.85	2.94
F-623	4-40 x 3/8"	.52	4.03	3.07
F-624	4-40 x 1/2"	.54	4.18	3.19
F-625	6-32 x 1/4"	.53	4.25	3.24
F-626	6-32 x 3/8"	.57	4.50	3.43
F-627	6-32 x 1/2"	.62	4.92	3.75
F-628	6-32 x 3/4"	.72	5.87	4.48
F-629	8-32 x 3/8"	.78	6.15	4.69
F-630	8-32 x 1/2"	.82	6.56	5.00
F-631	8-32 x 3/4"	.93	7.38	5.63
F-632	10-32 x 1/2"	.95	7.54	5.75

OVAL HEAD STEEL
MACHINE SCREWS
Nickel Plated

		PKG. OF 100	1000- 4999 PER M	5000 OVER PER M
F-506	6-32 x 1/2"	.62	4.92	3.75
F-507	6-32 x 3/4"	.72	5.87	4.48
F-508	8-32 x 3/4"	.93	7.38	5.63
F-509	10-32 x 1/2"	.95	7.54	5.75
F-510	10-32 x 3/4"	1.12	8.98	6.85

PHILLIPS HEAD
ROUND STEEL M.S.
Cadmium Plated

		PKG. OF 100	1000- 4999 PER M	5000 OVER PER M
F-494	6-32 x 1/4"	1.18	9.35	7.13
F-018	6-32 x 5/16"	1.18	9.51	7.26
F-495	6-32 x 1/2"	1.07	8.61	6.57
F-496	6-32 x 3/4"	1.22	9.68	7.39
F-497	6-32 x 1"	1.37	10.91	8.32
F-019	8-32 x 1/4"	1.30	10.66	8.15
F-499	8-32 x 1/2"	1.22	9.75	7.44
F-500	8-32 x 3/4"	1.33	10.58	8.07
F-501	8-32 x 1"	1.48	12.14	9.26

SLOTTED HEX HEAD
SHEET METAL SCREWS
(Type A)

		PKG. OF 100	1000- 4999 PER M	5000 OVER PER M
F-016	4 x 3/8"	.77	6.25	4.77
F-523	4 x 1/2"	.82	6.72	5.13
F-524	6 x 1/4"	.87	7.25	5.53
F-525	6 x 3/8"	.89	7.30	5.57
F-526	6 x 1/2"	.94	7.75	5.91
F-595	6 x 5/8"	.95	7.80	5.95
F-527	6 x 3/4"	1.00	7.95	6.06
F-528	8 x 1/4"	1.00	7.95	6.06
F-529	8 x 3/8"	1.05	8.36	6.38
F-530	8 x 1/2"	1.08	8.61	6.57
F-017	8 x 5/8"	1.10	8.77	6.69
F-531	8 x 1"	1.41	11.13	8.49
F-532	10 x 3/8"	1.17	9.35	7.13
F-533	10 x 1/2"	1.27	10.09	7.70
F-534	10 x 3/4"	1.40	11.15	8.51

HEX WASHER HEAD
SHEET METAL SCREW
(Type A)

		PKG. OF 100	1000- 4999 PER M	5000 OVER PER M
F-056	6 x 1/4"	.91	7.38	5.63
F-057	6 x 3/8"	.94	7.75	5.91
F-050	6 x 1/2"	.99	7.89	6.02
F-058	6 x 5/8"	1.02	8.36	6.38
F-054	6 x 1"	1.07	8.77	6.69
F-051	8 x 1/4"	1.07	8.77	6.69
F-052	8 x 3/8"	1.12	9.18	7.00
F-053	8 x 1/2"	1.16	8.51	6.49
F-055	8 x 5/8"	1.18	9.68	7.39
F-059	8 x 3/4"	1.32	10.82	8.26

PAN HEAD SHEET
METAL SCREWS
(Type A)

		PKG. OF 100	1000- 4999 PER M	5000 OVER PER M
F-596	4 x 1/2"	.77	6.25	4.77
F-033	6 x 1/4"	.82	6.72	5.13
F-597	6 x 3/8"	.84	6.89	5.26
F-034	6 x 1/2"	.89	7.30	5.57
F-035	6 x 3/4"	.97	7.85	5.99
F-036	8 x 1/4"	.97	7.85	5.99
F-598	8 x 3/8"	1.02	8.25	6.29
F-037	8 x 1/2"	1.05	8.36	6.38
F-038	8 x 1"	1.34	10.99	8.38

WALDOM ELECTRONICS INC.

WALDOM Electronic Hardware

ROUND HEAD STEEL WOOD SCREWS	PKG. OF 100	1000- 4999 PER M	5000 OVER PER M
Nickel Plated			
514 4 x 1/2"	.78	6.26	4.78
515 4 x 3/4"	.90	7.23	5.52
516 6 x 3/4"	.97	7.76	5.92
517 6 x 1"	1.20	9.60	7.32
518 8 x 3/4"	1.15	9.18	7.00
519 8 x 1"	1.33	11.07	8.45
519 8 x 1-1/4"	1.58	12.72	9.70
520 10 x 1-1/2"	2.12	16.99	12.96
521 12 x 1-1/2"	2.70	21.67	16.53
522 14 x 1-3/4"	3.80	30.53	23.29



STEEL CUP WASHERS
Nickel Plated

	PKG. OF 100	1000- 4999 PER M	5000 OVER PER M
CW-6 For #6 Oval Head or Flat Head Screws	.46	3.78	2.88
CW-8 For #8 Oval Head or Flat Head Screws	.49	4.05	3.09
CW-10 For #10 Oval or Flat Head Screws	.55	4.35	3.32



FLAT STEEL WASHERS
Nickel Plated

Screw Size	I.D.	O.D.	Thick.	PKG. OF 100	1000- 4999 PER M	5000 OVER PER M
MW-400 #2	.092	7/32"	.018	.43	3.55	2.71
MW-401 #4	.125	9/32"	.025	.33	2.75	2.10
MW-402 #6	.150	3/8"	.032	.33	2.75	2.10
MW-403 #8	.170	3/8"	.032	.33	2.75	2.10
MW-404 #10	.204	7/16	.032	.37	3.12	2.38
MW-408 1/4	.281	5/8"	.050	.67	5.33	4.07
MW-410 3/8	.392	1-1/16"	.060	.70	5.63	4.30



FLAT BRASS WASHERS
Nickel Plated

Screw Size	I.D.	O.D.	Thick.	PKG. OF 100	1000- 4999 PER M	5000 OVER PER M
MW-400B #2	.092"	7/32"	.018"	.45	3.70	2.82
MW-401B #4	.125"	9/32"	.025"	.47	3.85	2.94
MW-402B #6	.150"	3/8"	.032"	.62	4.92	3.75
MW-403B #8	.170"	3/8"	.032"	.62	4.92	3.75
MW-404B #10	.204"	3/8"	.032"	.67	5.33	4.07

HEX STEEL NUTS	PKG. OF 100	1000- 4999 PER M	5000 OVER PER M
Nickel Plated			
Thrd. Width Thk.			
2-56 x 3/16 x 1/16"	.68	5.41	4.13
3-48 x 3/16 x 1/16"	.68	5.41	4.13
4-36 x 1/4 x 3/32"	.67	5.33	4.07
4-40 x 1/4 x 3/32"	.67	5.33	4.07
6-32 x 1/4 x 3/32"	.67	5.33	4.07
6-32 x 5/16 x 7/64"	.73	5.82	4.44
8-32 x 1/4 x 3/32"	.67	5.33	4.07
8-32 x 5/16 x 7/64"	.73	5.82	4.44
10-32 x 3/8 x 1/8"	.85	6.80	5.19
12-24 x 7/16 x 5/32"	1.13	9.27	7.07
14-20 x 7/16 x 3/16"	1.22	9.76	7.44
3-32 x 1/2 x 3/32"	1.47	12.05	9.19

Insulating Fibre Washers - Precision made insulating washers, both flat and extruded, for insulation of components and controls from chassis or from each other.



Screw Size	I.D.	O.D.	Thick.	PKG. OF 100	1000- 4999 PER M	5000 OVER PER M
FW-374 #4	.020"	1/4"	1/32"	.44	3.60	2.75
FW-375 #6	.145"	1/4"	1/32"	.44	3.60	2.75
FW-376 #8	3/16"	3/8"	1/32"	.47	3.85	2.94
FW-377 #10	.192"	1/2"	1/32"	.47	3.85	2.94
FW-378 1/4	.255"	3/8"	1/32"	.52	4.03	3.07
FW-379 3/8	3/8"	5/8"	1/32"	.77	6.15	4.69
FW-380 7/16	.440"	3/4"	1/32"	.83	6.75	5.15

HEX BRASS NUTS	PKG. OF 100	1000- 4999 PER M	5000 OVER PER M
Nickel Plated			
Thrd. Width Thk.			
2-56 x 3/16 x 1/16"	.98	7.86	6.00
3-48 x 3/16 x 1/16"	.89	7.18	5.48
4-36 x 1/4 x 3/32"	1.18	9.45	7.21
4-40 x 1/4 x 3/32"	1.17	9.36	7.14
6-32 x 1/4 x 3/32"	1.16	9.33	7.12
6-32 x 5/16 x 7/64"	1.40	11.26	8.59
8-32 x 1/4 x 3/32"	1.16	9.33	7.12
8-32 x 5/16 x 7/64"	1.40	11.26	8.59
10-32 x 3/8 x 1/8"	1.53	12.32	9.40



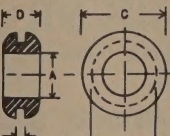
EXTRUDED

Screw Size	A	B	C	D	E	PKG. OF 100	1000- 4999 PER M	5000 OVER PER M
FW-384 #4	9/32"	13/64"	1/8"	1/32"	5/64"	.87	6.89	5.26
FW-385 #6	5/16"	7/32"	9/64"	1/32"	5/64"	.87	6.89	5.26
FW-386 #8	3/8"	1/4"	11/64"	1/32"	3/32"	.87	6.89	5.26
FW-387 #10	7/16"	9/32"	13/64"	1/32"	3/32"	.95	7.54	5.75
FW-388 1/4"	1/2"	.375"	.256"	1/32"	3/32"	.95	7.54	5.75
FW-389 3/8"	5/8"	.437"	.375"	1/32"	3/32"	.98	7.79	5.94

STEEL LOCK WASHERS -
(INTERNAL AND EXTERNAL)
Cadmium Plated

INTERNAL Screw Size	PKG. OF 100	1000- 4999 PER M	5000 OVER PER M
MW-428 #2	.73	4.51	3.13
MW-416 #4	.44	2.88	2.00
MW-417 #6	.44	2.88	2.00
MW-418 #8	.48	2.98	2.07
MW-419 #10	.48	2.98	2.07
MW-420 1/4	.63	4.04	2.80
MW-421 3/8	.94	7.10	4.93

EXTERNAL Screw Size	PKG. OF 100	1000- 4999 PER M	5000 OVER PER M
MW-422 #4	.44	2.88	2.00
MW-423 #6	.44	2.88	2.00
MW-424 #8	.48	2.98	2.07
MW-425 #10	.48	2.98	2.07
MW-426 1/4	.63	4.04	2.80
MW-427 3/8	.94	7.10	4.93



*These grommets were tested by Underwriters Laboratories in a circulating air oven at 212 degree F. for seven days with no visible change.

Cat. No.	A	B	C	D	E	PKG. OF 100	1000- 4999 PER M	5000 OVER PER M
G-401 1/8	1/16	11/32	3/16	1/4		.90	7.40	5.65
G-402 3/16	1/16	7/16	7/32	5/16		.99	8.25	6.29
G-403 1/4	1/16	9/16	1/4	3/8		1.32	9.51	7.26
G-404 5/16	1/16	5/8	1/4	7/16		1.44	10.17	7.76
G-405 3/8	1/16	5/8	1/4	1/2		1.44	10.17	7.76
G-406 1/2	1/16	13/16	9/32	5/8		2.27	17.71	13.51
G-407 5/8	1/16	1-1/8	9/32	7/8		3.71	30.42	23.21

NY-GRIP NYLON CABLE CLAMPS

- Made of tough nylon with a sharp melting point, below which it remains relatively rigid.
- Ideal for applications at temperatures below 300°F. (150°C). When subjected to load, the service temperature should not exceed 275°F. (135°C), and may go as low as -60°F. (-51°C).
- Solvent-resistant nylon is insoluble in common solvents, alcohols, dilute mineral acids, and most organic acids.
- Unaffected by petroleum oils and greases at temperatures as high as 300°F. (150°C), and lubricants are unaffected by the nylon.
- My-Grip nylon cable clamps meet MIL-P-17091A and Amendment 2, MIL-P-17091B, MIL-P-20693, Type I, MIL-STD-242A (SHIPS) MIL-STD-242B (SHIPS) MS-9014 (ORD).
- Available for immediate delivery in natural nylon; special quotations for color coding.



Part No.	D	D1	E	Pkg. of 100 or as Shown	1000 TO OR 4999 OVER
CCN-31 1/8	.115	.310	2.85	24.30	19.24
CCN-32 3/16	.172	.373	3.00	25.72	20.36
CCN-33 1/4	.234	.407	3.30	28.12	22.26
CCN-34 5/16	.287	.448	3.66	31.06	24.59
CCN-35 3/8	.359	.479	2.03 (50)	32.65	25.85
CCN-36 7/16	.422	.510	2.11 (50)	34.53	27.34
CCN-37 1/2	.484	.542	2.23 (50)	36.75	29.09
CCN-38 9/16	.547	.623	1.70 (25)	45.37	35.93
CCN-39 5/8	.609	.654	1.80 (25)	53.16	42.08
CCN-40 1 1/16	.672	.752	1.62 (20)	57.70	45.68
CCN-41 3/4	.734	.783	1.73 (20)	63.09	49.94
CCN-42 7/8	.859	.845	1.84 (20)	68.35	54.10
CCN-43 1	.984	.908	1.63 (15)	77.00	60.95

Width: Up to CCN-37, 3/8". All others are 1/2". 3/8" width have .167 mounting hole, 1/2" width have 1/32" mounting hole. 3/8" width are .040 thickness, 1/2" width are .060 thickness.

BUTRAC CABLE CLAMPS

- Ideal for outdoor and indoor use; ultra-violet stabilized for extreme weather resistance.
- Butylate formula used in making these cable clamps is approved under Military Specification L-P-349B, Type III, Class MH.



Part No.	D	D1	E	Pkg. of 100 or as Shown	1000 TO OR 4999 OVER
CCB-1 1/8	.115	.360	1.87	16.03	12.69
CCB-2 3/16	.172	.423	1.89	16.14	12.78
CCB-3 1/4	.234	.457	2.08	17.79	14.09
CCB-4 5/16	.297	.498	1.21 (50)	19.63	15.55
CCB-5 3/8	.359	.529	1.26 (50)	21.69	16.35
CCB-6 7/16	.422	.580	1.09 (40)	22.54	17.85
CCB-7 1/2	.484	.592	1.24 (40)	24.00	19.00
CCB-8 9/16	.547	.623	1.23 (30)	28.09	22.54
CCB-9 5/8	.609	.654	1.14 (20)	31.81	25.24
CCB-10 1 1/16	.672	.752	1.14 (20)	34.59	27.38
CCB-11 3/4	.734	.783	1.17 (20)	36.25	28.70
CCB-12 7/8	.859	.845	1.24 (20)	39.16	31.15
CCB-13 1	.984	.908	1.12 (15)	41.79	33.08
CCB-14 1-1/8	1.102	.970	1.12 (15)	41.91	35.31
CCB-15 1-1/4	1.227	1.062	1.27 (10)	47.14	37.31

Thickness .060. Width 1/2". Mounting Hole 1/32", 7/32" from end of clamp.

- Ethyl Cellulose clamps also available at similar pricing. Change prefix to CCE when ordering.

WALDOM Skru-Box

**VARIETY ASSORTMENTS
SCREWS & NUTS**



ROUND HEAD MACHINE SCREWS, NUTS, SHEET METAL SCREWS, R.H.S.M.S.
4-40 x 1/2, 6-32 x 1/4, 6-32 x 3/4, 8-32 x 1/2, Sheet Metal Screw #5 x 1/2, Nuts 4-40, 6-32, 8-32, 265 Total Pieces.
No. HD-4013 Net 1.59

BINDER-HEAD SCREWS - Same assortment as above, but machine screws have binder-head.
No. HD-4014 Net 1.59

SHEET METAL SCREWS - Slotted Hex Head Sheet Metal Screws Type A in 4 x 3/8", 6 x 1/4", 6 x 1/2", 6 x 3/4", 8 x 3/8", 8 x 1/2", 8 x 5/8".
165 Total Pieces.
No. HD-4015 Net 1.59

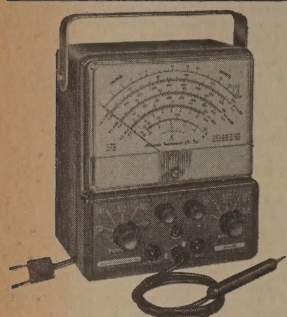
WASHER-HEAD SHEET METAL SCREWS - Slotted Hex Head Type A w/flat washer attached, sizes 6 x 1/4, 6 x 3/8, 6 x 1/2, 6 x 3/4, 8 x 1/4, 8 x 3/8, 8 x 1/2, 8 x 5/8, 120 Total Pieces.
No. HD-4011 Net 1.59

WOOD SCREW ASSORTMENT - Round Head Wood Screws 4 x 1/2, 6 x 3/4, 6 x 1, 8 x 3/4, 8 x 1 1/4, Flat Head 8 x 1, 8 x 1 1/4, 139 Total Pieces.
No. HD-4019 Net 1.59

GENERAL HARDWARE KIT - 280 Fasteners - Round Head, Binder Head, and Phillips Head Machine Screws, Hex Steel Nuts, Flat Head (slotted) and Hex Washer Head (slotted) Sheet Metal Screws, Flat Head and Round Head Wood Screws. All popular diameters and lengths.
No. HD-4020 Net 1.59

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COMPARE PRICES, FEATURES AND SPECIFICATIONS WITH ANY OTHER LINE OF TESTERS, DOMESTIC OR FOREIGN!



Model 152
A Modern, Streamlined

SENIOR V.T.V.M.

FEATURES GIANT 6½" METER

Only \$29.95 COMPLETE! Not a kit . . . the 152 is a completely Wired and Calibrated Tester . . . Ready to use!

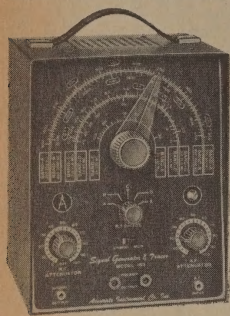
MODEL 152 FEATURES AND SPECIFICATIONS

● **D.C. VOLTmeter:** Ranges: 0 to 3, 30, 150, 300, 1500 volts; Accuracy $\pm 3\%$ of full scale; Input resistance: 11 megohms. ● **ZERO CENTER VOLTmeter** (for discriminator alignment): Ranges: 0 to 1.5, 15, 75, 150, 750 volts; Accuracy $\pm 3\%$ of full scale. Input resistance: 11 megohms. ● **A.C. VOLTmeter:** R.M.S. Ranges: 0 to 3, 30, 150, 300, 1500 volts; Peak to Peak Ranges: 0 to 8, 80, 400, 800 volts; Accuracy: $\pm 3\%$ of full scale.

● **OHMMeter:** Ranges: 0 to 1000 megohms (5 overlapping ranges); Center Scale Values: 10, 100, 1000, 100,000 ohms, 10 megohms. ● **DECIBEL Meter** (for audio measurements): Ranges —10 to +5, +6 to +20, +26 to +45 decibels. All based on zero db at 1 volt on 500 ohm line; ● **Pilot light** indicates when unit is "on"; ● Housed in beautiful grey high-impact case, with color matched etched aluminum panel and portable handle.

Model 152 comes complete with D.C. V.T.V.M. Probe and cable, pair of standard test leads for all other services, detailed instructions. Net Price

\$29.95



Model 153—A Combination

SIGNAL GENERATOR and SIGNAL TRACER

The true test of the claim "two instruments in one!" is: can each of the two units be used separately as well as in conjunction with each other? In the case of this versatile combination instrument, the answer is emphatically yes, for, the Signal Generator will function as a full service instrument with a range of 250 Kilocycles to 120 Megacycles and the Signal Tracer will follow any signal whether generated by a broadcasting station or injected by the

Signal Generator section of Model 153. When used in combination with no dependence on outside signals, the compatibility of Model 153 provides ideal service, for, unlike any standard signal tracer, the Model 153 injects its own signal then traces that controllable signal to locate the source of trouble whether due to component or circuit by standard signal tracing technique.

SPECIFICATIONS:

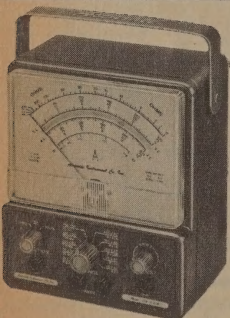
SIGNAL TRACER: ● Hi-gain cascode pre-amplifier ● Pre-amplifier output available at front panel jacks for use with VTVM, oscilloscope or phones. ● Low distortion triode output stage. ● Audio Attenuator provided to prevent high signal overloading. ● 4½ inch permanent magnet speaker. ● Separate R.F. and Audio Signal tracing probes.

SIGNAL GENERATOR ● Covers from 250 KC to 120 MC in

5 bands. ● All popular and most used frequencies marked on panel in color. ● High stability electron coupled R.F. oscillator. ● Attenuator used on both R.F. and Audio circuits.

Model 153 comes complete with all necessary probes. Net Price

\$28.40



Model 154, A Modern, Streamlined

20,000 OHMS-PER-VOLT V.O.M.

FEATURES GIANT 6½" METER . . . only \$29.95 COMPLETE!

The 20,000 Ohms-per-Volt-V.O.M. has been the one "must have" tester for all Radio and TV technicians since 1935 . . . and now . . . we proudly announce the most recent,

streamlined edition of this all-around useful standard with a 6½" meter and at an unbelievably low price.

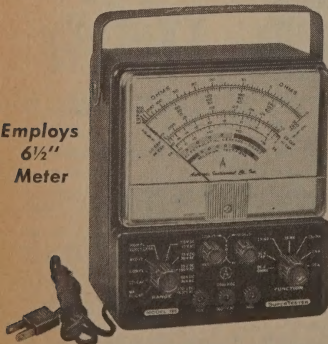
Model 154 Features and Specifications

● Mirrored Scale permits fine accurate measurements where fractional readings are important. ● Selected resistors are used as multipliers to assure unchanging accurate readings on all ranges. ● **6 D.C. VOLTAGE RANGES** (at 20,000 Ohms per Volt) 0 to 15/75/150/300/750/3000 Volts. **6 A.C. VOLTAGE RANGES** (at 5,000 Ohms per Volt) 0 to 15/75/150/300/750/3000 Volts.

● **5 RESISTANCE RANGES:** 0 to 2000/2000/200,000 Ohms 0 to 2/20 Megohms. ● **5 D.C. CURRENT RANGES:** 0 to 750 Microamperes; 0 to 75/75 Milliamperes; 0 to 7 Amperes. ● **3 DECIBEL RANGES:** —6 db to +18 db; +14 db to +38 db; +28 db to +52 db.

Model 154 comes complete with operating instructions and test leads. Net Price

\$29.95



Employs 6½" Meter

New Model 155—Combination

VOLT-OHM MILLIAMMETER

plus CAPACITY, REACTANCE, INDUCTANCE and DECIBEL MEASUREMENTS

Also Tests

SELENIUM and SILICON RECTIFIERS, SILICON and GERMANIUM DIODES.

SPECIFICATIONS:

● **D.C. Volts:** 0 to 7.5/15/75/150/750/1,500. ● **A.C. Volts:** 0 to 15/30/150/300/1,500/3,000. ● **D.C. Current:** 0 to 1.5/15/150 Ma.; 0 to 1.5/15 Amperes. ● **Resistance** 0 to 2,000/200,000 Ohms. 0 to 20 Megohms. ● **Capacity:** .001 to 1 Mfd. 1 to 20 Mfd. ● **Reactance:** 130 to 2,600 Ohms, 2600 Ohms to 2.6 Meg. ohms. ● **Inductance:** .35 to 7 Henries, 7 to 7,000 Henries. ● **Decibels:** —6 to +18, +14 to +38, +34 to +58.

The following components are all tested for QUALITY at appropriate test potentials. Two separate BAD-GOOD scales on the meter are used for direct readings. ● All Electrolytic Condensers from 1 Mfd. to 1000 Mfd. ● All Selenium Rectifiers ● All Silicon Rectifiers ● All Germanium Diodes ● All Silicon Diodes

Model 155 comes complete with operating instructions and test leads. Use it on the bench—use it on calls. Complete with all instructions and leads. Net Price

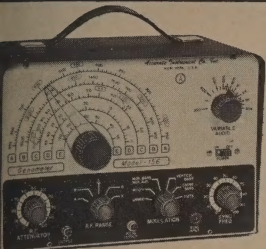
\$28.40

Manufactured By:

ACCURATE INSTRUMENT CO., INC.

THE NEW ACCURATE LINE . . .

COMPARE PRICES, FEATURES AND SPECIFICATIONS WITH ANY OTHER LINE OF TESTERS, DOMESTIC OR FOREIGN!



Model 156 comes absolutely complete shielded leads and operating instructions. Net Price

\$3850

New Model 156 SEVEN (7) SIGNAL GENERATORS IN ONE!

- R.F. Signal Generator for A.M. • R.F. Signal Generator for F.M. • Audio Freq. Generator • Bar Generator • Cross Hatch Generator • Color Dot Pattern Generator • Marker Generator

SPECIFICATIONS:

R. F. SIGNAL GENERATOR: The Model 156 Genometer provides complete coverage for A.M. and F.M. alignment. Generates Radio Frequencies from 250 Kilocycles to 45 Megacycles on fundamentals and from 35 Megacycles to 120 Megacycles on powerful harmonics.

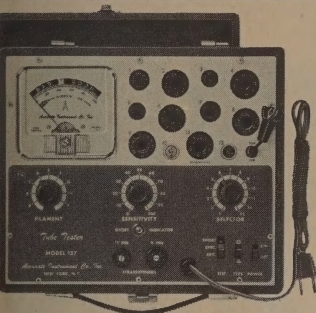
CROSS HATCH GENERATOR: The Model 156 Genometer will project a cross-hatch pattern on any TV picture tube.

VARIABLE AUDIO FREQUENCY GENERATOR: In addition to a fixed 400 cycle sine-wave audio, the Model 156 Genometer provides a variable 300 cycle to 20,000 cycle peaked wave audio signal.

DOT PATTERN GENERATOR (FOR COLOR TV): The Dot Pattern projected on any color TV Receiver tube by the Model 156 will enable you to adjust for proper color convergence.

BAR GENERATOR: The Model 156 projects an actual Bar Pattern on any TV Receiver Screen. Pattern will consist of 4 to 16 horizontal bars or 7 to 20 vertical bars.

MARKER GENERATOR: The Model 156 includes all the most frequently needed marker points. The following markers are provided: 282 Kc., 456 Kc., 600 Kc., 1000 Kc., 1600 Kc., 2500 Kc., 3.579 Mc., 4.5 Mc., 10.7 Mc., (3.579 Mc is the color burst frequency.)



Model 157, A Modern, Streamlined

Not a kit . . . The Model 157 is a completely wired and calibrated Tester . . . Ready to use!

TESTS ALL MODERN TUBES INCLUDING THE NEW

- ✓ Novars ✓ Nuvisors ✓ Compactrons ✓ 10 Pins ✓ Magnovals

MODEL 157 FEATURES AND SPECIFICATIONS:

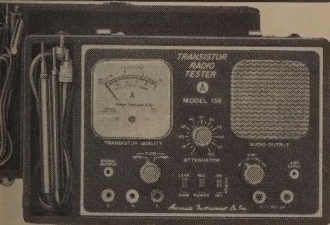
- Tests over 1,000 tube types. • Makes all necessary tests. Checks for shorts and leakages between all elements; tests for filament continuity; indicates the quality (emission) of all tubes. • Checks all modern tubes including 7-pin miniatures; octals; lock-ins, 9-pin noval miniatures; new T-9 types; novars, nuvisors, compactrons; 10 pins, magnovals. • Speedy operation assured by use of a new improved circuit which enables us to use a single rotary switch in place of the one-at-a-time slide switches previously used. • 7 and 9 pin tube

- straighteners permanently mounted on front panel. • Employs a rugged, accurate, highly damped meter movement with sealed air-damping chamber. • Comes housed in a beautiful portable carrying case with slip-on cover.

Model 157 comes complete — absolutely no extras. Net Price

\$2840

PICTURE TUBE ADAPTER DESIGNED ESPECIALLY FOR MODEL 157 . . . ONLY \$3.85



Model 158 comes housed in a handsome portable carrying case. Complete with a set of clip-on cables for testing transistors; an R.F. diode probe for R.F. and signal tracing; an audio probe for amplifier testing and a signal injector cable.

Complete. Nothing else to buy! Net Price

\$2995

TEST ALL TRANSISTORS . . . EXCEPTION . . . AND ALL . . . TRANSISTOR OPERATED DEVICES

With New Model 158 TRANSISTOR RADIO TESTER

SEE Read the relative gain and leakage of any transistor directly on the meter. HEAR All audio stage signals through the front panel speaker

Simplified procedure —

Model 158 ① Injects a signal ② Follows the injected signal through each and every stage including all transistors!

Specifications:

TESTING TRANSISTORS WITH MODEL 158

The Model 158 will test all transistors including NPN and PNP, Silicon and Germanium types, without referring to characteristic data sheets. The time-saving advantage of this method is self-evident. A further benefit of this service is that it will enable you to test new transistors as they are released, since no characteristic sheets are required.

TESTING TRANSISTOR RADIOS AND OTHER TRANSISTOR DEVICES WITH MODEL 158

An R.F. signal source modulated by an audio tone is injected into the transistor radio from the antenna through the R.F. stage past the mixer into the I.F. amplifier and detector stages and on to the audio amplifier. This injected signal is followed and traced through the receiver by means of the signal tracing section incorporated in the Model 158. The injected signal is heard on the front panel speaker as it is followed through the various stages.

Model 159 TESTS AND REJUVENATES ALL PICTURE TUBES

ALL BLACK AND WHITE TUBES . . .

From 50 degree to 110 degree types — from 8" to 30" types.

ALL COLOR TUBES . . .

Test ALL picture tubes — in the carton — out of the carton — in the set!

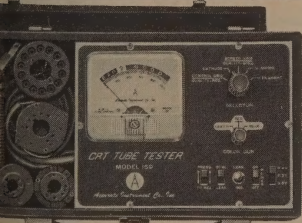
Specifications:

Provides separate filament operating voltages for the older 6.3 types and the newer 8.4 types.

Properly tests the red, green and blue sections of color tubes individually — for each section of a color tube contains its own filament, plate, grid and cathode.

Detects tubes which are apparently good but require rejuvenation. Such tubes will provide a picture seemingly good but lacking in proper definition, contrast and focus.

Rejuvenation: Model 159 applies a selective low voltage uniformly to assure increased life with no danger of cathode damage.



Model 159 comes housed in a beautiful portable carrying case. Complete with sockets for black and white tubes and color tubes. Net price

\$2995

Manufactured By: **ACCURATE INSTRUMENT CO., INC.**

**It's so easy to order
from this catalog...**

When ordering products shown in this book
or writing for additional information, please
be sure to specify:

- 1. Manufacturer's Catalog Numbers
and Page Numbers.**
- 2. The Year and Edition of This
MASTER.**

This will avoid confusion and expedite delivery.

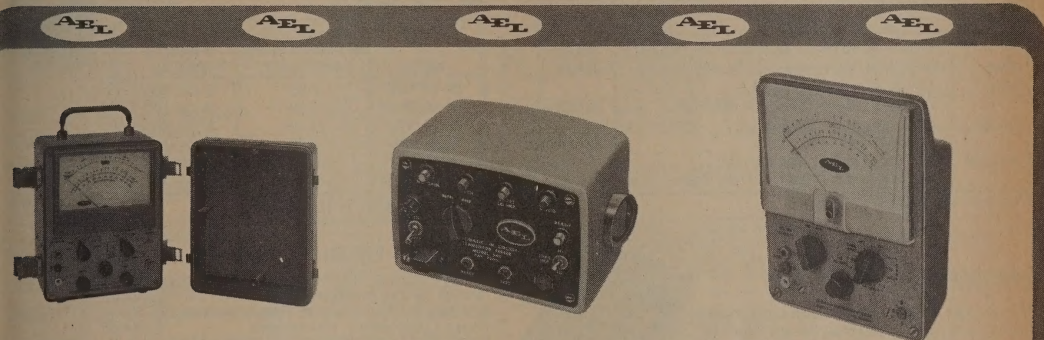
Thank you!



AEL SEMICONDUCTOR TESTERS

- featuring**
- IN-CIRCUIT MEASURING CAPABILITY
 - SIMPLICITY... AUTOMATIC LEAD SELECTION
 - COMPLETE SAFETY... CANNOT DAMAGE SEMICONDUCTORS

*for quantitative and qualitative testing
of transistors... diodes... rectifiers*



MODEL 259 SEMICONDUCTOR TESTER

Measures transistors, diodes and F.E.T.'s, in-circuit, for reverse leakage down to 500 ohms of loading. Also measures F.E.T.'s for transconductance (Gm) to 10,000 micromhos. Both high and low power transistors may be measured for 1000 cycles Beta (h_{fe}) within a range of 1 to 1000. Unit is housed in a splash-proof, high impact plastic case and cover. It is lightweight, portable and battery operated (uses type "C" batteries). Also available is Model 259C which includes automatic Beta calibration circuit.*

Prices: Model 259 \$280.
Model 259C \$345.

Optional accessory...
Model 246 In-Circuit Test Probe.

*Sets collector current of transistor under test at 1 milliamperes

MODEL 240 IN-CIRCUIT TEST SET

This tester features qualitative checks of virtually every type of transistor both in-circuit and out-of-circuit. It indicates presence of gain, shorts and opens. This is a sequential, logic device featuring automatic lead finding in-circuit transistor checking. Lead orientation or device polarity need not be known; test set automatically applies proper voltage and completes test in less than three (3) seconds. Lights show GO—NO—GO indication and fault finding. Makes every operator an expert in finding catastrophic failures quickly.

Price: Model 240 \$425.

Optional accessory...
Model 242 In-Circuit Test Probe

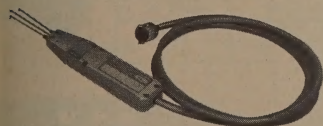
MODEL 245 SEMICONDUCTOR TESTER

Measures high and low-power transistors, diodes and rectifiers both in- or out-of-circuit in wide range of Beta measurements (1 to 1000). Transistors with a Beta between one and one hundred may be measured in-circuit, with as low as 50 ohms of loading between emitter and base electrodes with $\pm 10\%$ accuracy. Transistor shorts and opens are immediately detected by inability to measure Beta. Only three controls. Easy to read measurements. No critical nulling adjustments required. Completely safe for all semiconductor.

Price: Model 245 \$175.

Optional accessory...
Model 246 In-Circuit Test Probe

IN-CIRCUIT TEST PROBES



Developed by AEL, these In-Circuit test probes are designed specifically for tests conducted on printed-circuit boards. Three stainless steel probe tips are controlled by two conveniently located thumb wheels, which can be operated by one hand. Adjustments provide a lateral spread up to $\frac{5}{8}$ ", and a vertical extension up to $\frac{3}{4}$ " on the center contact, which is insulated to prevent shorting.

Model 242 Probe (shown here) ... for use with Model 240 Semiconductor Tester.

Model 246 Probe ... for use with Models 245, 259, and 259C Semiconductor Testers.

Price: Models 242 and 246 Probes ... \$29.50.



AMPROBE® INSTRUMENT

DIVISION OF SOSS MANUFACTURING COMPANY

*REGISTERED TRADEMARK OF AMPROBE INSTRUMENT, DIVISION OF SOSS MANUFACTURING COMPANY

ROTARY SCALE MODELS

Offer you these outstanding features. • Only the Ohms scale plus one voltage scale or current scale is visible at any one time, providing greater reading speed and accuracy; on models other than RS-3 or RS-1000 only scale selected appears. • Magnified unbreakable window. • Pointer-lock "freezes" pointer at reading. • Accurate within $\pm 3\%$ full scale reading. • One hand operation.

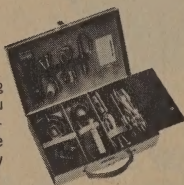


MODEL	RANGES	PRICE
RS-1	0-6/15/40/100 Amps A.C. 0-150/600 Volts A.C.	\$43.85
RS-2	0-6/15/40/100 Amps A.C. 0-150/300 Volts A.C.	\$43.85
RS-3	0-6/15/40/100/300 Amps A.C. 0-150/300/600 Volts A.C. 25 Ω Mid-Scale	\$57.50
RS-300	0-6/15/40/100/300 Amps A.C. 0-150/300/600 Volts A.C.	\$52.50
RS-1000	0-15/40/100/300/1000 Amps A.C. 0-150/300/600 Volts A.C. 25 Ω Mid-Scale	\$76.50

Price includes Carrying Case and Test Leads.

AMPROBE® TEST-MASTER KITS

Truly the sign of the professional, these good-looking rugged, sturdy cases contain all the equipment you need to do all your electrical testing jobs with precision and accuracy. The Test-Master has a separate covered section to hold your small hand tools easily within reach.



CONTAINS:	Model TM-33	Model TM-43	Model TM-53
RS-1	—	—	—
RS-3	one	one	one
PSA-1	—	one	one
Energizer	one	one	one
Deca-Tran A50-1	one	one	—
Price	\$94.50	\$103.85	\$76.85



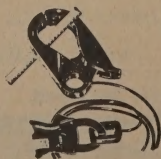
PHASE SEQUENCE ADAPTOR

The Model PSA-1 Phase Sequence Adaptor is used to determine the phase sequence of polyphase circuits. When used in conjunction with any AMPROBE RS model it permits you to determine phase sequence of motors and other electrical equipment using three phase lines up to 550 volts. Price w/ case: **\$11.85**

AMPROBE® DECA-TRAN

The Model A-50-1 AMPROBE Deca-Tran can be used with any model AMPROBE to extend the amperage ranges 10 times up to 1200 amps, intermittent, 600 amps continuous.

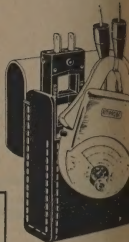
Model A-50-1 w/2' Line Cord Price: \$30.50



AMPROBE® JUNIOR TEST-MASTER KITS

The AMPROBE Jr. Test-Master Kit consists of a specially designed leather case that contains one of the all new YO AMPROBE Jr. voltage testers, an AMPROBE Energizer, battery attachment and test leads.

The New YO models are the only precision instruments in their price class that measure voltage, amperage and resistance, instantly and accurately on a calibrated scale. Price: \$37.85



MODEL	3 AMMETER RANGES (full scale) BASIC INST.	2 VOLTAGE RANGES
TM-YO "525"	0-25	0-150/600
TM-YO "550"	0-50	0-150/600
TM-YO "500"	0-100	0-150/600
TM-YO "25"	0-25	0-125/250
TM-YO "50"	0-50	0-125/250
TM-YO "100"	0-100	0-125/250

OHMMETER RANGE: 25 Ohms Mid-Scale
Frequency—60 cycles A.C. (other frequencies available)

AMPROBE® JUNIOR "YO" MODELS

The only precision instruments in their price class that measure voltage, amperage and resistance instantly and accurately on a calibrated scale. Price w/test leads: \$27.50 P-1 and K cases available. Order separately.

MODEL	AMPS, AC	VOLTS, AC
YO "525"	0-25	0-150/600
YO "550"	0-50	0-150/600
YO "500"	0-100	0-150/600
YO "50"	0-50	0-125/250

OHMMETER RANGE: 25 Ohms Mid-Scale

AMPROBE® JUNIOR

An advanced snap-around volt-ammeter that everyone can afford. Price w/test leads: \$22.50 P-1 and K cases available. Order separately.

MODEL	AMPS, AC	VOLTS, AC
Y25	0-25	0-125/250
Y50	0-50	0-125/250
Y500	0-100	0-150/600
Y525	0-25	0-150/600
Y550	0-50	0-150/600



AMPROBE® JUNIOR LINE-PROBE

Unique, versatile four-in-one pocket-sized tester. Not only lets one man trace up to 10 circuits at one time... it measures voltage ($\pm 3\%$ FS)... gives current readings "in-a-snap"... and checks for continuity. Pick from four models... all furnished with 10 station markers, two station marker holders, voltage leads, grounding leads, fused battery attachment and case.

Price: \$38.50

MODEL	VOLTS, AC	AMPS, AC
ALP50	0-125/250	0-50
ALP550	0-150/600	0-50



AMPROBE® ENERGIZER

The Model A-45L ENERGIZER permits current readings on permanently wired low-current electrical equipment by simplifying series connection. It increases the sensitivity of your ammeter 5x or 10x for more precise readings directly at outlets by "splitting" double conductor line cords while the appliance is connected to the line. Capacity 10 amps. Price w/weatherproof pouch: \$6.75




AMPROBE®

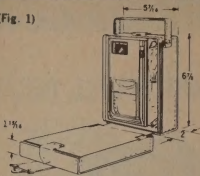
DIVISION OF SOSS MANUFACTURING COMPANY

INSTRUMENT
SERVICE & INDUSTRIAL RECORDERS

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LEATHER-CASED MODELS (Fig. 1)

Supplied with permanently attached motor line cord and one roll each of necessary strip charts. Meter line cord, extensions, adaptors, transducers, etc. supplied when indicated.



Indicates the availability of this model in flush-mount version. Ranges and Prefix letter "L" of model number indicates Leather Cased. Prefix letter "F" indicates Flush-Mounting.

AC VOLTMETERS

Model No.	Description	Range
LAV2X*	Dual Range, Expanded Scale AC Voltmeter.	95-130 Volts AC 190-260 Volts AC
LAV3X*	Three Range, Expanded Scale AC Voltmeter.	95-130 Volts AC 190-260 Volts AC 380-520 Volts AC
LAV6000*	Three Range, AC Voltmeter. 13800/V	0-150/300/600 Volts AC

AC AMMETERS All models supplied with appropriate transducer.

LAA81*	AC Ammeter. With A-70FL Transducer	0-10/50/250/500 Amps AC
LAA82*	AC Ammeter. With A-60FL Transducer	0-5/25/100/250 Amps AC
LAA830*	AC Ammeter. Scale: 0-150/300/600	0-5 Amps AC
LAA840*	AC Ammeter. For use with external current transformer 2VA (not supplied).	0-5 Amps AC Scale: 0-200/400/800
LAA850*	AC Ammeter. Scale: 0-100/250/500	0-5 Amps AC

AC VOLT/AMMETERS All models supplied with appropriate transducer.

LAVA81*	AC Volt/Ammeter. With A-70FL Transducer	Volts: 95-130; 190-260 Amps: 0-10/50/250/500
LAVA82*	AC Volt/Ammeter. With A-60FL Transducer	Volts: 95-130; 190-260 Amps: 0-5/25/100/250
LAVA83*	AC Volt/Ammeter. With A-70FL Transducer	Volts: 95-130; 190-260; 380-520 Amps: 0-10/50/250/500
LAVA84*	AC Volt/Ammeter. With A-60FL Transducer	Volts: 95-130; 190-260; 380-520 Amps: 0-5/25/100/250

TEMPERATURE RECORDERS

I models supplied with appropriate probe.

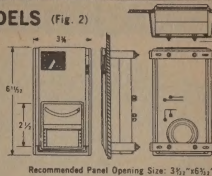
LT8100*	Dual Range Temperature Recorder. With FL-RBT-1 Probe.	-50° to +100°F +50° to +250°F
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C WATTMETERS Furnished with calibrated transducer, energizer, leads and probe tips.

LAW50	Basic Four Range AC Wattmeter	0 to 2.5 kw (115v, 0 to 25 Amps); 0-5 kw (115v, 20-50 Amps); 0-5 kw (230v, 0-25 Amps); 0-10kw (230v, 20-50 Amps).
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FLUSH-MOUNTING MODELS (Fig. 2)

Supplied with one roll each of necessary strip charts and mounting hardware. Transducers, probes, etc. supplied when indicated. Motor leads not furnished.


DC MICROAMMETERS

Model No.	Description	Range
LDC850*	DC Microammeter (Tautband Movement). Resistance: 900Ω	0-50ua DC
LDC8100*	DC Microammeter. Resistance: 2750Ω	0-100ua DC
LDC8500*	DC Microammeter. Resistance: 103Ω	0-500ua DC

DC MILLIAMMETERS

LDB81*	DC Milliammeter. Resistance: 30Ω	0-1 ma DC
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DC AMMETERS For use with 50 mv shunts. Furnished with calibrated (0.065Ω) five foot leads.

LDM830*	DC Millivoltmeter. Resistance: 10Ω	0-50 mv DC Scale: 0-30 Amps DC
LDM840*	DC Millivoltmeter. Resistance: 10Ω	0-50 mv DC Scale: 0-40 Amps DC
LDM850*	DC Millivoltmeter. Resistance: 10Ω	0-50 mv DC Scale: 0-50 Amps DC

PYROMETERS Not supplied with Thermocouples.

LP8400*	Three Range Pyrometer. (External Resistance: 3.50Ω) Uses Iron-Constantan Type J Thermocouples.	0° to 400°F 0° to 800°F 0° to 1200°F
LP81000*	Pyrometer. (External Resistance: 6.07Ω) Uses Iron-Constantan Type J Thermocouples.	0° to 1000°F 0° to 530°C
LP82000*	Pyrometer. (External Resistance: 10.34Ω) Uses Chromel Alumel Type K Thermocouples.	0° to 2000°F 0° to 1080°C

"SELECTRO-PRINT" RECORDERS Designed to print only on a signal from an external source.

These Recorders are available in most of the above flush-mounting models. Write factory for details on prices and specifications.

EVENTS RECORDERS Designed to monitor and document from one to 10 separate operations.

LEV10*	Events Recorder, 10 channel operation.	
LDL10	DIRECT-O-LOG® Recorder. Features 10 self-clearing channel selector buttons with lights.	

AMPROBE® RECORDER STRIP CHARTS

Individually packaged 30" chart rolls packed six (6) to a box. Sold in multiples of six (6) only.

Type	Cat. No.	Description	For Use With Model No.
Voltage	835X3A	Marked: 95-130/190-260/380-520 Volts AC	LAV2X, FAV2X, LAV3X, FAV3X, LAVA81, FAVA81, FAVA82, LAVA82, FAVA83, LAVA83, FAVA84, LAVA84
	830AV600	Marked: 0-150/300/600 Volts AC	LAV8600, FAV8600
Current	850A	Marked: 0-5/25/100/250 Amps AC	LAA81, FAA81, LAA82, FAA82, LAA83, FAA83, LAA84, FAA84, LAA85, FAA85
	830AA	30 Division for AC Amperes. Marked: 0-150/300/600/1200	LDM850, FDM850, LDC850, FDC850, LDB81, FDB81
	840AA	40 Division for AC Amperes. Marked: 0-200/400/800	LDM840, FDM840
	850AA	50 Division for AC Amperes. Marked: 0-100/250/500	LDM830, FDM830
	850D	50 Division for DC variables. (Millivolts, Milliamperes, Microamps). Marked: 0-1/5/25; 25-0-25	
DC Variable	840D	40 Division for DC variables. (Millivolts, Milliamperes, Microamps). Marked: 0-20/40/80; 20-0-20	
	830D	30 Division for DC variables. (Millivolts, Milliamperes, Microamps). Marked: 0-15/30/60; 15-0-15	
Kilowatts, AC	850AW	Marked: 0-2.5/0-5/0-10 KW, AC	LAW50
	840F	Marked: 0°F to 400°F; 0°F to 800°F; 0°F to 1200°F	LP8400, FP8400
Pyrometer	850P1&2	Marked: 0°F to 1000°F; 0°F to 2000°F	LP81000, FP81000, LP82000, FP82000
	856C1	Marked: 0 to 530°C	LP81000, FP81000
	857C2	Marked: 0 to 1080°C	LP82000, FP82000
Temperature	823T1	Marked: -50°F to +100°F	LT8100, FT8100
	833T2	Marked: +50°F to +250°F	LT8100, FT8100
Events	EV10	Marked from 0 to 10	LEV10, FEV10, LDL10

SPECIFICATIONS
Accuracy:

DC Instruments: $\pm 2\%$ FS
AC Ammeters: $\pm 3\%$ FS
AC Expanded Scale Voltmeters: $\pm 1.25\%$ FS
AC Voltmeters: $\pm 3\%$ FS
AC Wattmeters: $\pm 5\%$ FS
Pyrometers: $\pm 3\%$ FS
Temperature Recorders:
High Range: $+50^\circ\text{F}$ to $+250^\circ\text{F}$: $\pm 5^\circ\text{F}$
Low Range: -50°F to $+20^\circ\text{F}$: $\pm 4^\circ\text{F}$
 $+20^\circ\text{F}$ to $+100^\circ\text{F}$: $\pm 3^\circ\text{F}$

Strip Chart Size: $2\frac{1}{2}$ " wide x 30' long.

Standard Chart Speeds: 1 inch or 12 inches per hour. (Other speeds available.) Unless otherwise specified 12 inches per hour chart speed will be shipped.

Impression Rate: Once every 5 seconds at 12 inches per hour.
Once every minute at 1 inch per hour.

Power Requirements: 115v AC, 60 cycles. 2.5 Watts. (Unless otherwise specified.)

AAD-39R

Beckman®**TEST and MEASURING INSTRUMENTS****RESISTANCE DECADES Model DR Series**

High-Precision and Stability • Low Zero-Resistance • Long-Life Switches.

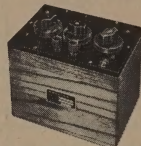
DR units provide convenient selection of precise resistance values. Typical applications are found in the areas of circuit design in simulation of various factors, and as standards in bridge-type measurements.

Standard units are available with 3, 5, or 7-dials. Each decade inserts a precise ohmic resistance in series with the terminals. The basic ohmic value on any decade may be multiplied by factors of 0, 1, 2, 3, thru 10, by setting its dial at the appropriate step.

Switches are 12 position, 360-degree type. Actual resistance is the sum of zero-resistance and indicated resistance. Model DR units provide zero-resistance of less than 0.003 ohm per decade.

Model No.	Maximum Resistance	Decade Steps
DR-1D	1,110,000	10 x (1K+10K+100K)
DR-2D	111,000	10 x (100+1K+10K)
DR-3D	11,100	10 x (10+100+1K)
DR-4D	1,110	10 x (1+10+100)
DR-50D	11,111	10 x (0.1+1+10+100+1K)
DR-51D	11,111	10 x (1+10+100+1K+10K)
DR-52D	1,111,100	10 x (10+100+1K+10K+100K)
DR-70D	1,111,111	10 x (0.1+1+10+100+1K+10K+100K)
DR-71D	11,111,110	10 x (1+10+100+1K+10K+100K+1M)

Model No.	Accuracy	Overall Dimensions	Weight Lbs. Net	Ship	Price
DR-1D	±0.1%	8 x 5½ x 4½	4	6	\$78.00
DR-2D	±0.1%	8 x 5½ x 4½	4	6	67.00
DR-3D	±0.1%	8 x 5½ x 4½	4	6	65.00
DR-4D	±0.25 ± ±0.1%	8 x 5½ x 4½	4	6	65.00
DR-50D	±0.25 ± ±0.01%	9 x 6 x 4½	5	7	95.00
DR-51D	±0.25 ± ±0.1%	9 x 6 x 4½	5	7	100.00
DR-52D	±0.1%	9 x 6 x 4½	5	7	112.00
DR-70D	±0.25 ± ±0.1%	17¼ x 5 x 4½	6	8	165.50
DR-71D	±0.25 ± ±0.1%	17¼ x 5 x 4½	6	8	215.25

CAPACITANCE DECADES Model DK Series

Model DK units provide convenient selection of precise capacitance values with direct reading on the dial. Typical applications are found in bridge measurements and in experimental work such as circuit design. Standard units are 3-dial types. Paralleling switches provide steps of 0 to 10 by combining four capacity values. All capacitance is connected across the terminals.

Capacitors are adjusted to the accuracies listed. That increments are correctly indicated on the dial. Zero-capacitance is less than 35 pf. Silver-mica mylar dielectrics are used to obtain low-loss, high stability characteristics.

Model	Maximum Capacity μf	Decade Steps μf	Accuracy	Power Factor	Peak Volts	Dielectric
DK-2A	1.11	10x 0.001 0.01 0.1	All $\pm 1\%$	All 0.2%	700 700 500	All Silver Mica
DK-4	1.11	10x 0.001 0.01 0.1	$\pm 1\%$ $\pm 1\%$ $\pm 3\%$	0.2% 0.2% 1%	700 700 400	Silver Mica Silver Mica Mylar
DK-5A	11.1	10x 0.01 0.1 1.0	$\pm 1\%$ $\pm 3\%$ $\pm 3\%$	0.2% 1% 1%	700 400 400	Silver Mica Mylar Mylar
DK-11A	11.1	10x 0.01 0.1 1.0	$\pm 0.5\%$ $\pm 0.5\%$ $\pm 2\%$	0.2% 0.2% 1%	700 500 400	Silver Mica Silver Mica Mylar
DK-10	0.111	10x 0.0001 0.001 0.01	$\pm 10 \mu\text{f}$ $\pm 0.5\%$ $\pm 0.5\%$	0.2% 0.2% 0.2%	700 700 700	All Silver Mica

Model	Overall Dimensions	Weight Lbs. Net	Ship	Price
DK-2A	8 x 5½ x 7½	8	10	\$175.00
DK-4	8 x 5½ x 7½	8	10	80.00
DK-5A	10¾ x 7¾ x 7½	10	12	95.00
DK-11A	10¾ x 7¾ x 7½	10	12	185.00
DK-10	8 x 5½ x 7½	8	10	95.00

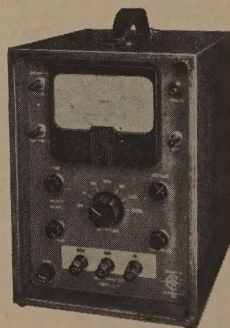
WHEATSTONE BRIDGES TYPE RN



Universally used for the measurement of all types of resistance devices and circuits where high accuracy is required. Models available for performing Murray-Varley Loop tests.

Model	Total Resistance of Decade	Ratio Dial Settings	Circuits	Dimensions	Price
RN-1	9x(1+10+100+1000)	.001, .01, .1, 1, 10, 100, 1000	.....	9"x8"x6½"	\$176.50
RN-2	9x(1+10+100+1000)	.001, .01, .1, 1, 10, 100, 1000, 10000, 100000, 1000000, 10000000	Murray & Varley	9"x8"x6½"	193.25
RN-3	10x(1+10+100+1000)	1/1000, 1/100, 1/10, 1/9, 1/4, 1/3, 1/2, 1, 10, 100, 1000, 10000, 100000, 1000000	Murray & Varley	9½"x8"x6½"	226.00

TYPE L MEGOHMMETER



Type L Megohmmeters are used for both laboratory and high speed production testing of motor and transformer winding insulation, cable insulation, high value resistors, capacitor insulation, and for the measurement of surface and volume leakage of insulating materials. The instruments meet the requirements for testing insulation resistance in accordance with ASTM D-257, and Federal Specification LP-406B, Method 4041.

ELECTRICAL SPECIFICATIONS AND PRICES

Model	TEST Voltage	RANGE Low in meg.	High in meg.	POWER Consumption	WEIGHT Net Ship.	Size	Price
L-4A	200 and 500 fixed	1	100,000	50 Watts	14 17	15"x8"x10"	2
L-6B	100 to 600*	1	100,000	80 Watts	15 18	15"x8"x10"	3
L-7	100 to 600*	1	5x10 ¹¹	75 Watts	20 24	8"x10½"x11½"	3

*Continuously variable, built-in voltmeter for accurate setting.

Beckman®

INSTRUMENTS, INC.

CEDAR GROVE OPERATING

Beckman®

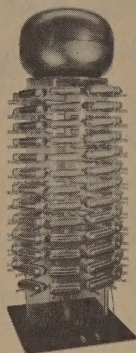
TEST and MEASURING INSTRUMENTS

VOLTMETERS

MEASURE 100,000 VOLTS AC OR DC



VOLTMETER

MODEL
DV-100KV
DIVIDER

A rugged 6 inch precision mirror scale meter, ideal for use in lab or testing. Completely transistorized with stabilized anti-drift circuitry in sensitivity in the order of a few microamperes. Battery operated using long life, self-contained mercury batteries. Panel mounted meters provide for recalibration when required. Uses fast spike bypass circuit and a novel automatic voltage coefficient compensator for the piers. Special high voltage probes supplied with instrument. The low voltage probe is used on the 5 and 10 KV range, with the larger high voltage probe used in the higher ranges. The accuracy of the basic instrument is $\pm 1\%$ of full scale on DC, $\pm 2\%$ of full scale on 60 cycles. The accuracy is $\pm 2\%$ on the 5 and 10 KV range and $\pm 4\%$ on the 50 and 100 KV range.

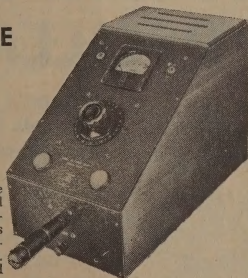
For greater than the usual accuracy is required a Model DV-100KV Standard Divider is available as an accessory for use with the Model 50 60 KV meter. The Model DV-100KV Divider is used in place of the normally supplied with the instrument. This unit consists of a series of re-wound standard resistors arranged in a spiral with a special corona ring. Accuracy $\pm 0.05\%$.

ES: 0 to 5,000/10,000/50,000/100,000 volts DC or 60 cycles AC.

Model 60 - DC only	Model 50 - AC and DC	Model DV-100KV
\$350.00	\$400.00	\$2850.00

TYPE P—VOLTAGE
BREAKDOWN
TESTERS

Type P Series Voltage Breakdown Testers are rugged, accurate and fast test instruments for testing materials, components and circuits both in the laboratory and on the production line. Types have self-contained high-voltage power supply with safety features including interlock keys and pilot warning lights. Load current limited to values shown in table below. Output voltage continuously variable over range listed in each model.



ELECTRICAL SPECIFICATIONS AND PRICES

VOLTAGE RANGE		CURRENT RANGE		Price
AC volts RMS	DC volts	AC	DC	
	0-4000		5 ma (max)*	\$218.00
0-3000	0-4000	7 ma (max)	5 ma (max)*	264.00
0-8000	0-10,000	60 ma (max)	50 ma (max)*	488.00

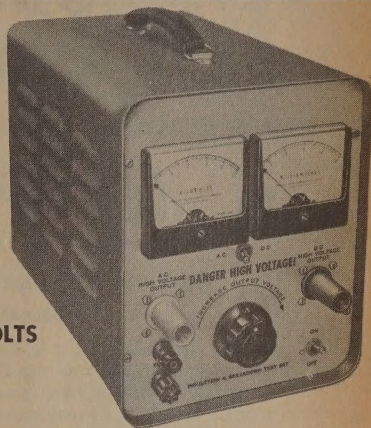
Models P1, P2 and P38 incorporate a variable series resistance which limits short circuit current independently of quotation.

For power supplies up to 100 KV can be supplied to your specifications. Send complete details for quotation.

C.P., Inc.

INSULATION
TEST SETSAC
or
DC
up
to

100,000 VOLTS



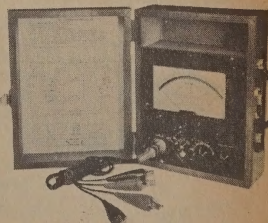
Used in testing insulation where AC voltages are desired. Dual instruments are also available which provide choice of AC or DC output. Includes kilovoltmeter, current meter and automatic overload limiter circuits. Metering accuracies are $\pm 3\%$.

The basic model number covers A.C. types. Add the prefix AC/DC to the basic model number for the dual output type.

MODEL	VOLTAGE	VA	AC	AC and DC
3000	0 to 3,000	75	\$165.00	\$ 250.00
3010	0 to 3,000	300	250.00	400.00
3050	0 to 3,000	1,500	500.00	650.00
3100	0 to 6,000	3,000	700.00	1,100.00
5000	0 to 5,000	75	175.00	300.00
1000	0 to 10,000	75	250.00	375.00
1500-AC	0 to 15,000	75	285.00	AC only
2500-AC	0 to 25,000	75	400.00	AC only
2500-DC	0 to 25,000	2.5	DC only	420.00
4000-DC	0 to 40,000	2.5	DC only	600.00
F-6100-T	0 to 100,000	10.0	DC only	1300.00

TYPE LRO-1
LOW
RESISTANCE
OHMMETER

The Type LRO-1 Low Resistance Ohmmeter is useful for the measurement of resistance of sensitive relay contacts, fuses, bus-bars and connections, rail joints, pipe or conduit, switch contacts, transformer windings, motor windings, bonding, grounding and similar applications. The current through the unknown resistance never exceeds 110 ma.



Price \$156.00

FEATURES: Extreme accuracy for the most critical measurements. • Entirely self-contained, including 1½ volt flashlight battery • Ranges: .1 ohm, 1 ohm and 10 ohms, 100 meter scale divisions. • Accuracy of plus/minus 1½% on LRO-1 based on full scale values. • Full Scale Readings. • Maximum current through piece under test = 0.11 amp.

• Other electrical test equipment manufactured by Beckman Instruments, Inc., Cedar Grove Operations can be found in current editions of the MASTER. For complete technical details and specifications on test equipment listed here and others request a copy of Catalog 29.

Beckman®

INSTRUMENTS, INC.

CEDAR GROVE OPERATIONS

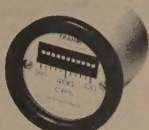
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The MASTER — 31st Edition • Page 843

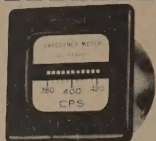
for **FRAHM**

RESONANT REED FREQUENCY METERS

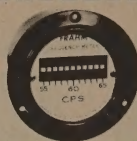
NEW... 1½", 5, 7, or 9 reeds, 60 and 400 cycle Frahm Miniature Frequency Meter with metal case, hermetically sealed.



Catalog No. 2997-2½", 11 reeds, 400 cycle Frahm Miniature Frequency Meter with metal case.



Catalog No. 4997-2-3½", 11 reeds, 400 cycle, Frahm Frequency Meter with square plastic case.



Catalog No. 4967-3½", 11 reeds, 60 cycle, Frahm Frequency Meter with plastic case.

3½" meters available in round plastic, or metal (sealed or unsealed), or round plastic with square bezel. Portable instrument available in all ranges shown with 3½" cases.

15 to 1500 cps (Special up to 1700 cps) 2 to 63 reeds.

Molded Plastic or Metal Cases. Sealed if Required.

1½" to 8½" • Panel Mounting or Portable.

The first resonant reed instrument in the U.S.A. was introduced 50 years ago by James G. Biddle Co. We have maintained this leadership ever since, to place at your service the greatest knowledge of materials, processes, and controls—the finest facilities to produce quality instruments for unfailing accuracy and long life.

Basic specifications are shown in the table at right.

Specially designed instruments will be made to your requirements.

Write or phone if you have applications which require special modifications of range, methods of actuating, scale graduations or other design characteristics.

For standard specs and prices
write or phone for **BULLETIN 32 REM.**

Cat. Number	Range Cycles	Number of Reeds	Interval Between Reeds Cycles	Type of Case	Sealed	Accuracy %
2864	58-62	9	0.5	1½" metal	Yes	0.3
2896	380-420	9	5.0	1½" metal	Yes	0.3
2955	45-55	11	1.0	2½" metal	Yes	0.3
2956	47.5-52.5	11	0.5	" "	Yes	0.3
2966	57.5-62.5	11	0.5	" "	Yes	0.3
2967	55-65	11	1.0	" "	Yes	0.3
2997	380-420	11	4.0	" "	Yes	0.3
4850	49-51	21	0.1	3½" metal	Yes	0.1
4860	59-61	21	0.1	" "	Yes	0.1
4861	58-62	21	0.2	" "	Yes	0.1
4890	390-410	21	1.0	" "	Yes	0.1
4956	47.5-52.5	11	0.5	3½" plastic	No	0.3
4957	48.0-52	11	0.4	" "	No	0.3
4959	48.0-52.0	10	1.0	" "	No	0.3
	58.0-62.0		1.0	" "	No	0.3
4964	58.0-62.0	9	0.5	" "	No	0.3
4965	56.0-64.0	9	1.0	" "	No	0.3
4966a	58.0-62.0	11	0.4	" "	No	0.3
4966	57.5-62.5	11	0.5	" "	No	0.3
4967	55.0-65.0	11	1.0	" "	No	0.3
4996	375-425	11	5	" "	No	0.3
4997	380-420	11	4	" "	No	0.3

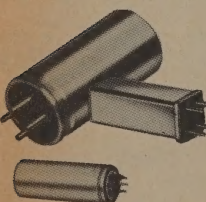
Volts 100 to 150 v—D.C. resistance 100 ohms per volt. Instruments meet MIL Specifications. Cases meet ASA standard diameter dimensions.



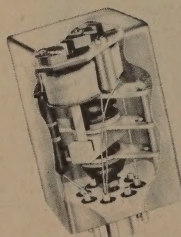
for **FREQUENCY SENSITIVE RELAYS and OSCILLATORS**

Resonant Reed Relays...

simplify and improve the transmission of information over a single communication circuit of any type. For example, in the range 200-500 cps, up to 16 channels can be operated with no interference between channels. Reed relays can be supplied with any nominal frequency between 200 and 1100 cps. Your inquiries are invited on special requirements.



Write for
BULLETIN 33 REM



Write for
BULLETIN 34 REM

Resonant Reed Oscillator Controls Electro-Mechanical Band Pass Filters

Maintain the output frequency of electric oscillator circuits within close limits. Made with any or nominal control frequency between 20 and 2400 cps—constant within ± 0.15% of the nominal control frequency.

New Transistorized Oscillator and Band Pass Filters

Relay Type	Input Impedance Range	Frequency Range	Typical Input Millivolt-Amperes
RR1	1 to 10,000 ohms depending on selection of coil and frequency	67 to 640 cps	Varies over wide range depending on selection of coil and frequency
RR10	12.5 ohms d-c	300-1100 cps	

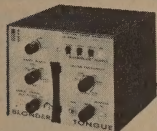
JAMES G. BIDDLE CO.

Electrical Testing and Speed Measuring Instruments

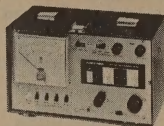
BLONDER-TONGUE

"Standards for Industry" Lab-Line

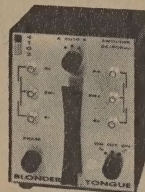
Designed specifically for the cable distribution industry and for those working with RF in research, development and production. All items are designed to match to 75 ohms and are not merely an adaptation of 50-ohm gear to our standard impedance. Units are of wide band design to cover all TV channels.



4122



FSM-2



4102

4122 U/V Sweep Generator—Solid-state all channel sweep generator has two switch-selected, electronically swept ranges: entire UHF TV Spectrum (470 to 890 mc); entire VHF TV Spectrum including sub-channels (20 to 240 mc).

Sweep widths are continuously variable from 5 mc to the entire VHF or UHF range in one sweep. Center frequency can be tuned across the complete band on each range regardless of the sweep width setting. An output level attenuator is adjustable over a 60 db range. Automatic Level Control (ALC) on both ranges assures constant output. Fully regulated power supply for stable operation.

The sweep oscillator is varactor-tuned (no moving parts) for silent operation and long life. For VHF output, the UHF sweep is mixed with a fixed oscillator signal and the resultant difference signal is amplified and level controlled to cover the complete VHF TV spectrum. The horizontal sweep rate of 60 cps derived from the power line, is available as a sine-wave at the front panel for connection to the oscilloscope. Use of the sine-wave horizontal permits oscilloscopes to be fed by available local line voltage for summation sweeps of large distribution systems. This feature makes the 4122 ideal for feeding a production test line. \$595.

4114 UHF Sweep Generator—Same features as Model 4122, but the range of 470-890 mc only. Provision is made for sweep widths down to a few mc or up to the complete 420-mc range. The center frequency can be tuned across the complete range. \$325.

FSM-2 UHF/VHF Field Strength Meter—Instantly convertible from VHF to UHF with the flip of a switch. Accurate and portable. Measures RF signals at 75 ohms impedance (VHF/UHF balun supplied for 300 ohm measurements) in two ranges: VHF (54-216 mc) and UHF (470-890 mc). Sensitivity variable from 100 microvolts to 3 v for full scale meter deflection. Reads both average and peak level by means of separate built-in detectors. Solid state circuitry. Very stable in operation. Battery and power line operation. Fully regulated power supply. \$395.

4102 R. F. Switcher—Double-pole, double-throw, 75-ohm coaxial switch with a frequency range of DC-900 mc. It can be operated manually or automatically at a 30-cps rate. Fully solid state.

Ideally suited for making direct, immediate comparisons between input and output voltages of any circuit under test; for precisely measuring VSWR, amplifier gain or attenuation; and other application involving equipment performance evaluation against given standards. It can serve as a general laboratory oscilloscope switch. It permits two signals to be simultaneously displayed on an oscilloscope. Switching between the two signals is at the rate of 30 cps.

Either signal can be seen independently, or both may be seen superimposed. Employs four hermetically sealed S.P.S.T. switches, activated by solid state circuitry for accurate, dependable performance. Comparison measurements are free from errors due to scope calibration, nonlinearity or detector law characteristics. Provision for 360° phase adjustment. \$250.

4107 Delay Line—Precision 75-ohm coaxial delay line for use as a match cable for impedance measurements and other laboratory applications where a standard cable of superior quality is required. Provides an accurate impedance standard for making fast and accurate VSWR measurements over a very wide bandwidth. \$125.

4113 50/75 ohm Matchpad (DC-900mc)—Precision resistive, minimum loss, 50 to 75-ohm matchpad for the frequency range DC-900 mc. Used to match other test equipment with 50-ohm impedance to 75-ohm equipment. \$25.

4111 Fixed Attenuators (DC-900mc)—Precision attenuator pads for 75-ohm applications available in values of 1, 2, 3, 6, 10 and 20 db attenuation. Accuracy: 1 db $\pm$ 0.1 db thru 20 db $\pm$ 1 db. \$20.00.

4121 UHF/VHF Switch Attenuator (DC-900mc)—Covers entire UHF/VHF frequency range. 62 db total attenuation, switchable in 1 db steps. 75-ohm impedance. BTF connectors are used with mating male connectors supplied. \$40.

4123 High Output Detector (20-216mc)—Extremely sensitive, enables VSWR measurement of some devices without using external amplifier and gives usable output from extremely small input signals. \$50.

4124 VHF Return Loss Bridge (30-216mc)—Fast, accurate wide band measurement of return loss (VSWR). Especially useful when the return loss is high. Standard 75-ohm impedance. \$50.

4105 75/300 ohm Matching Transformer (10-216mc)—Wide band VHF transformer for precision applications. Matches balanced signals at 300 ohm to unbalanced signals at 75 ohms, or vice versa. \$30.

4104 75-Ohm Detector (10-900mc)—Sensitive, thru-line type, RF detector used for insertion into a line or as terminated detector (precision termination plug supplied). Type BTF coax connectors. \$40.

4103 50-75 ohm Transformer (10-216mc)—Wide band VHF 50- to 75-ohm transformer for critical laboratory applications. Matches test equipment with 50-ohms impedance to 75-ohm equipment. \$30.

4112 UHF Matching Transformer (470-900mc)—Low-loss, wide band, UHF, 75- to 300-ohm transformer (balun). Matches balanced UHF signals at 300-ohms impedance, to unbalanced signals at 75-ohms impedance, or vice-versa. \$35.

4106 75-ohm Two-Way Hybrid Splitter/Mixer (10-216mc)—VHF 75-ohm, two-way hybrid splitter/mixer. Useful for critical lab test set-ups where low VSWR and high isolation are needed. \$30.

Tracks 'em Down Dead or Alive

ONLY THE VERSATILE



Circuitracer*

GIVES YOU A 3-IN-1 ELECTRICAL TEST LABORATORY

Satisfaction Unconditionally Guaranteed

DON'T SEND A MAN TO DO A BOY'S JOB!

Are the technicians in your laboratories and shops using expensive meters and instruments for sample continuity and voltage checks? Speed up production through the use of the tool specifically designed for this application. A meter should be used only when the value of voltage, resistance or current must be known. Under any other conditions a Circuitracer will provide the required information faster and easier than expensive, bulky meters.

CIRCUIT TESTING WITH A CIRCUITRACER IS FASTER because the signal light is in the tip at the point of contact. This makes it possible to determine the existence of a circuit or voltage without removing the eyes from the test point to read a meter.



LIST PRICE

\$4.95

Weights only 2 1/2 ozs.

SAVE METER REPAIR MONEY BY USING DESCO CIRCUITRACERS. An overvoltage across a meter usually results in extensive damage which takes the meter out of service until repaired or replaced. The worst that can happen to your Circuitracer is a burned out lamp that can be replaced by the operator in less than a minute. Total cost, ten or fifteen cents for the lamp!

The **CIRCUITRACER** is the only electrical tester (other than expensive meters) that can test dead circuits, low voltage live circuits **AND** high voltage live circuits. It is made of the finest materials available and is designed for long life.

DESCO TEST PROBE ADAPTERS

INSURE CONNECTOR RELIABILITY

Manual probing of harness connectors while circuit testing can damage connectors and impair reliability. Desco Test Probe Adapters were developed to provide a test fitting identical to the pins and sockets in the connectors being tested. They make the same electrical and mechanical contact as the mating connector, and insure against scratching, bending and warping.



WS-12
Socket to fit 12 ga. connector pin



WS-16
Socket to fit 16 ga. connector pin



WS-20
Socket to fit 20 ga. connector pin



WP-12
Pin to fit 12 ga. connector socket



WP-16
Pin to fit 16 ga. connector socket



WP-20
Pin to fit 20 ga. connector socket

WRITE FOR CATALOG WITH FULL INFORMATION

*T.M. Reg.

The adapters are made in three sizes to fit connectors using #12, #16 and #20 wire gauges. The sockets are gold plated copper with a brass sheath which retains a beryllium copper spring. The pins are stainless steel to insure long life. All are made to rigid MIL-SPECS. The adapters will fit Desco Jumper Wires and the Desco Circuitracer® Tester interchangeably.

DESCO

Several aircraft and missile manufacturers specify Desco Test Probe Adapters for most manual test connections. (Names on request)

DESCO MFG. CO.

Transistor—Tube Testers



MODEL 212—TRANSISTOR ANALYZER Checks DC current gain (BETA) in 3 ranges to 200; leakage on 3 colored scale; all transistors—high or low power for gain and leakage; all transistors as AC current amplifiers (OSCILLATOR CHECK); and all transistors in circuit without removing them. Can be used to signal trace AF, IF or RF circuits; measure battery voltage on 0-12 volt scale; measure DC current drain on 0-80 milliamperes scale. Checks condition of diodes. Supplied with 3 external leads and socket for checking transistors. Comes complete with instruction manual and transistor listing. Size: 3 3/4"x6 1/4"x2". Weight: 1 1/2 lbs.

Wired \$19.50 Kit form \$13.50



MODEL 213—TUBE TESTER Checks all the new 12 prong (compactron), nuvistor, novar and 10 prong tubes, in addition to octal, local, miniature, and 9 prong tubes. Tests each tube for shorts, leakages intermittents, and quality. Tube quality is indicated directly on a three color metal dial. Each section of a multi-purpose tube is checked separately. Magic eye, voltage regulator and hi-fi tubes are also tested. Unique switching arrangement makes the checker obsolescent proof. Panel is etched for long wear. Comes complete with instructions and tube charts in ring-bound manual. Size: 8 1/2"x7 1/2"x4". Weight: 4 1/2 lbs.

MODEL 213 (in high impact bakelite case with strap). Wired \$28.90, Kit \$18.90. **MODEL 213P** (illustrated in wood carrying case). Wired \$32.25. Kit \$21.90. **MODEL CRT** picture tube adapter \$4.50.



MODEL 206AP—DYNAMIC MUTUAL CONDUCTANCE TUBE TESTER This completely flexible model, using lever-type switches, offers extremely accurate results with ease of operation. Checks all compactrons, novar, nuvistor, 10 pin octal and local tubes; mutual conductance on a calibrated micromho and "reject-good" scale; checks tubes for gas content; detects both shorted and open elements. Complete switching flexibility allows all present and future tubes to be tested. Tests tubes for radio frequency and other noise. Size: 6"x14 1/4"x15". Weight: 13 1/2 lbs.

MODEL 206AP (With hand-rubbed oak carrying case) \$93.90. **MODEL CTA** (Cathode ray tube adapter for MODEL 206AP) \$4.50.



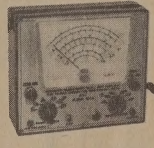
MODEL 102A—VOLTMETER Features a 3 1/2" 2% accurate—800 microamperes D'Arsonval type plastic front meter with 3 AC current ranges, and the same zero adjustment for both resistance ranges. A sturdy, durable pocket instrument from EMC's economy line is housed in a molded bakelite case. AC VOLTAGE—5 RANGES: 0 to 12-120-600-1200-3000 volts. DC VOLTAGE: 5 RANGES: 0 to 6-60-300-600-3000 volts. AC CURRENT—3 RANGES: 0 to 30-150-600 ma. DC CURRENT—4 RANGES: 0 to 6-30-130 ma. 0 to 1.2 amps. TWO RESISTANCE RANGES: 0 to 1000 ohms, 0 to 1 megohms. Weight: 1 lb. 5 oz. Size: 3 3/4"x6 1/4"x2".

MODEL 102A—With Diode Protected Meter. Wired \$16.95. Kit form \$14.40



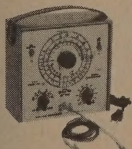
MODEL 109A—VOLTMETER Features 20,000 OHMS volts DC sensitivity and 10,000 OHMS per volt AC sensitivity. Uses a 4 1/2", 40 micro-ampere meter, with 3 AC current ranges; and 3 resistance ranges to 20 megohms. DC VOLTAGE: 5 ranges (20,000 ohms per volt): 0 to 6-60-300-600-3000 volts. AC VOLTAGE: 5 ranges (10,000 ohms per volt): 0 to 12-120-600-1200-3000 volts. DC CURRENT: 3 ranges—0 to 6-60-600 ma. AC CURRENT: 3 ranges—0 to 30-300 ma. 0 to 3 amps. 3 RESISTANCE RANGES: 0 to 20K, 0 to 200K, 0 to 20 meg. 5 DB RANGES: —4 to +67 db. Weight: 2 lbs. 5 oz. Size: 5 1/4"x6 3/4"x2 7/8".

MODEL HVT — 30,000 Volt Probe for MODEL 109A \$7.95. **MODEL 109A — With Diode Protected Meter** \$28.95. **MODEL 109AK** \$21.15.



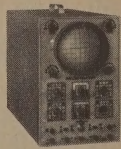
MODEL 107A—PEAK TO PEAK VACUUM TUBE VOLT-OHM CAPACITY METER Direct p-p measurements of complex wave forms; capacity and resistance measurements; 6" meter cannot burn out. P-P AC VOLTS—6 Ranges: 0 to 4, 28, 84, 280, 840, 2800 V. Input res. 1.5 megohms. AC RMS VOLTS—6 Ranges: 0 to 1.5, 10, 30, 100, 300, 1000 V. Input res. 1.5 megohms. CAPACITY—6 Ranges: 0.0005 to .005 mfd.; 1.0005 to .05, .005 to .5, .05 to 5, 5 to 500, 50 to 5000 mfd. RESISTANCE—6 Ranges: 0-1000, 10,000, 1 meg, 10 meg, 1000 meg. 10 meg center on 1000 meg range. DC VOLTS—6 Ranges: 0 to 1.5, 10, 30, 100, 300, 1000 V. (up to 30,000 V with accessory probe). Input res. 16.5 meg or 1 1/2 megohms per volt. 1 meg isolating resistor in probe. Size: 8 1/4"x7 1/4"x3 1/2" deep. Weight: 4 1/2 lbs.

107A Wired \$51.40. **Kit** \$36.50. **RFP HIGH FREQUENCY PROBE** (useful to 200mc) \$6.95. **PROBE HVP — 30,000 Volt Probe** \$8.75.



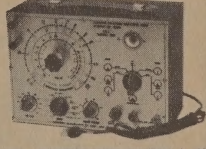
MODEL 502—RF SIGNAL GENERATOR Has 6 bands from 115 kc to 110 mc on fundamentals and up to 220 mc on second harmonic. Individual slug tuned coils for each band. Colpitts RF oscillator for high stability. Planetary drive tuning condenser for fine adjustment of frequencies. 400 cycle internal modulation available. RF accuracy within 1 1/2%. 2-color etched panel for long durability. Provision made for external modulation. Compact: 6 5/8"x6 5/8"x4" deep. Supplied with RF output lead, Cathode follower output and RF attenuator. Weight: 4 lbs.

MODEL 502 wired is priced at \$26.95 and in kit form \$18.95.



MODEL 601—WIDE BAND OSCILLOSCOPE For Color TV and Monochrome. Full 5 mc bandwidth for color TV servicing. Push-pull vertical amplifier with sensitivity of .02 volts per inch. Retrace blanking amplifier eliminates confusion and gives clearer pictures. Multivibrator sweep from 15 cycles to over 75 kilocycles. 5UPI cathode ray. SWEEP GENERATOR—Multivibrator type: frequency range 15 to over 75,000 cycles. VERTICAL AMPLIFIER—Maximum sensitivity: .02 volts RMS per inch; frequency response: flat within 1.5 db from 15 cycles to 5 megacycles; input impedance: 2 megohms—30 mmfd. SYNCHRONIZATION—Positive or negative from vertical amplifier or from external source; 105-130 volts 50/60 cycles 50 watts. Size: 8 3/4" wide x 14" high x 15 1/2" deep. Weight: 29 lbs.

MODEL D Direct Probe \$3.95. **MODEL DEM — Demodulator Probe** \$5.75. **MODEL LC — Low Capacity Probe** \$5.75. **MODEL 601 — Wired** \$117.90.



MODEL 801—COMPARATOR BRIDGE & IN-CIRCUIT CAPACITY CHECKER Comprehensive resistance and capacity checker. Measures condensers for actual value, leakage, and power factor. As an in-circuit checker, detects open condensers above 50 mmfd not shunted by an excessively low resistance value; detects shorted condensers up to 20 mfd that are not shunted by less than 10 ohms; detects condensers that are intermittent in operation. Checks: capacity values in 4 ranges from 10 mmfd to 5000 mfd; resistance in 4 ranges from .5 ohm to 500 meg; ratio between any two capacitors, inductors or resistors or transformer windings having a ratio of 20 to 1 or less; power factor from 0 to 60% on condensers between 1 mfd and 5000 mfd; leakage of all types of condensers at rated voltages between 0 and 500 VDC. Uses 2-color deep-etched, satin finish, aluminum panel. Size: 10"x7"x5" deep. Weight: 7 lbs.

Wired \$38.95.

Kit \$24.95.

EMC

ELECTRONIC MEASUREMENTS CORPORATION

EMICO

PRECISION-PLUS

PRECISION

the Recognized Leader..

PRICE LIST

PRICES—Prices listed are net and include all hardware and individual boxing. Resistance approximate. If important request factory engineering confirmation.

DC AMMETERS

Range	Approximate Resist. Ohms	MODEL NF-2C Catalog Number	Dealers' Net Price	MODEL RF-2C Catalog Number	Dealers' Net Price	MODEL RF-24/C Catalog Number	Dealers' Net Price	Approximate Resist. Ohms	MODEL 13 Catalog Number	Dealers' Net Price
0-1	.15	2101	\$1.90	2201	\$2.00	2301	\$2.30			
0-3	.032	2101-A	1.90	2201-A	2.00	2301-A	2.30			
0-5	.016	2102	1.90	2202	2.00	2302	2.30			
0-10	.00115	2103	1.90	2203	2.00	2303	2.30	.0025	2403	\$2.30
0-15	.00115	2103-A	1.90	2203-A	2.00	2303-A	2.30	.0025	2403-A	2.30
0-20	.00115	2104	1.90	2204	2.00	2304	2.30			
0-25	.00115	2104-A	1.90	2204-A	2.00	2304-A	2.30			
0-30	.00115	2105	1.90	2205	2.00	2305	2.0	.0006	2405	2.30
0-60	.000116	2106-A	2.60	2206-A	2.70	2306-A	3.00			
1-0-1	.08	2109	1.90	2209	2.00	2309	2.30			
3-0-3	.00115	2110	1.90	2210	2.00	2310	2.30			
6-0-6	.00115	2111	1.90	2211	2.00	2311	2.30			
10-0-10	.00115	2112	1.90	2212	2.00	2312	2.30			
15-0-15	.00115	2113	1.90	2213	2.00	2313	2.30			
20-0-20	.00115	2114	1.90	2214	2.00	2314	2.30	.0006	2414	2.30
30-0-30	.00115	2115	1.90	2215	2.00	2315	2.30	.0006	2415	2.30
75-0-75	.000116	2116-A	2.95	2216-A	3.05	2316-A	3.35			

DC MILLIAMMETERS

Range	Approximate Resist. Ohms	MODEL NF-2C Catalog Number	Dealers' Net Price	MODEL RF-2C Catalog Number	Dealers' Net Price	MODEL RF-24/C Catalog Number	Dealers' Net Price	Approximate Resist. Ohms	MODEL 13 Catalog Number	Dealers' Net Price
0-1	850	2120	\$3.70	2220	\$3.75	2320	\$4.05	950	2420	\$4.05
0-3	425	2121	2.60	2221	2.65	2321	2.95	130	2425	2.70
0-5	925	2125	2.35	2225	2.40	2325	2.70	75	2426	2.55
0-10	300	2126	2.20	2226	2.25	2326	2.55	23	2427	2.30
0-20	95	2127	1.90	2227	2.00	2327	2.30			
0-20	105	2127-A	1.90	2227-A	2.00	2327-A	2.30	12	2428	2.30
0-25	65	2128	1.90	2228	2.00	2328	2.30	5.5	2429	2.30
0-30	37	2129	1.90	2229	2.00	2329	2.30	1.8	2430	2.30
0-30	45	2130	1.90	2230	2.00	2330	2.30	1.0	2430-A	2.30
0-50	14.5	2130-A	1.90	2230-A	2.00	2330-A	2.30	.5	2430-B	2.30
0-100	18.0	2130-B	1.90	2230-B	2.00	2330-B	2.30	.35	2431	2.30
0-100	7.0	2131	1.90	2231	2.00	2331	2.30	.12	2432	2.30
0-100	8.3	2132	1.90	2232	2.00	2332	2.30			
0-150	1.8									
0-150	2.15									
0-200	1.5									
0-200	1.7									
0-300	.61									
0-300	.8									
0-500	.21									
0-500	.27									

DC VOLTMETERS (HIGH RESISTANCE)

(100 ohms/volt except 150 and 300 volt ranges are 200 ohms per volt)

Range	Approximate Resist. Ohms	MODEL NF-2C Catalog Number	Dealers' Net Price	MODEL RF-2C Catalog Number	Dealers' Net Price	MODEL RF-24/C Catalog Number	Dealers' Net Price
0-10	1050	2140	\$2.75	2240	\$2.85	2340	\$3.15
0-30	2800	2141	2.75	2241	2.85	2341	3.15
0-50	4000	2142	2.95	2242	3.05	2342	3.35
0-150	28000	2143	3.10	2243	3.20	2343	3.60
0-300	55000	2144	3.20	2244	3.30	2344	3.60

DC VOLTMETERS (LOW RESISTANCE)

Range	Approximate Resist. Ohms	MODEL NF-2C Catalog Number	Dealers' Net Price	MODEL RF-2C Catalog Number	Dealers' Net Price	MODEL RF-24/C Catalog Number	Dealers' Net Price
0-1	33	2134	\$1.90	2234	\$2.00	2334	\$2.30
0-3	100	2135	1.90	2235	2.00	2335	2.30
0-3-0	30	2136	1.90	2236	2.00	2336	2.30
0-5	140	2136-A	1.90	2236-A	2.00	2336-A	2.30
0-8	225	2136-B	1.90	2236-B	2.00	2336-B	2.30
0-10	280	2137	1.90	2237	2.00	2337	2.30
0-15	450	2137-A	1.90	2237-A	2.00	2337-A	2.30
0-20	600	2137-B	1.90	2237-B	2.00	2337-B	2.30
0-30	1000	2137-C	1.90	2237-C	2.00	2337-C	2.30
0-50	1400	2138	1.90	2238	2.00	2338	2.30

AC AMMETERS

Range	Approximate Resist. Ohms	MODEL NF-2C Catalog Number	Dealers' Net Price	MODEL RF-2C Catalog Number	Dealers' Net Price	MODEL RF-24/C Catalog Number	Dealers' Net Price
0-1	.365	6101	\$3.05	6201	\$3.15	6301	\$3.45
0-3	.078	6102	3.05	6202	3.15	6302	3.45
0-5	.023	6103	3.05	6203	3.15	6303	3.45
0-10	.013	6104	3.05	6204	3.15	6304	3.45

AC MILLIAMMETERS

Range	Approximate Resist. Ohms	MODEL NF-2C Catalog Number	Dealers' Net Price	MODEL RF-2C Catalog Number	Dealers' Net Price	MODEL RF-24/C Catalog Number	Dealers' Net Price
0-25	750	6125	\$3.05	6225	\$3.15	6325	\$3.45
0-50	175	6126	3.05	6226	3.15	6326	3.45
0-100	58	6127	3.05	6227	3.15	6327	3.45
0-250	12	6128	3.05	6228	3.15	6328	3.45
0-500	1.75	6129	3.05	6229	3.15	6329	3.45

AC VOLTMETERS

Range	Approximate Resist. Ohms	MODEL NF-2C Catalog Number	Dealers' Net Price	MODEL RF-2C Catalog Number	Dealers' Net Price	MODEL RF-24/C Catalog Number	Dealers' Net Price
0-5	50	6135	\$3.05	6235	\$3.15	6335	\$3.45
0-10	175	6136	3.05	6236	3.15	6336	3.45
0-15	300	6137	3.05	6237	3.15	6337	3.45
0-25	920	6137-A	3.05	6237-A	3.15	6337-A	3.45
0-50	1800	6138	3.05	6238	3.15	6338	3.45
0-150	9530	6139	3.60	6239	3.70	6339	4.00
0-300	32000	6140	4.20	6240	4.25	6340	4.55

ELECTRO-MECHANICAL INSTRUMENT CO., INC.

METERS

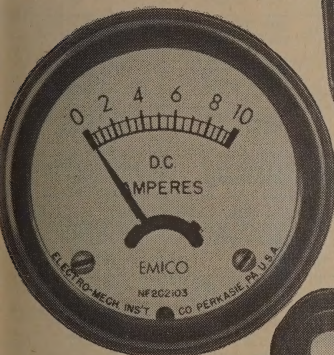
in Precision Products

EMICO

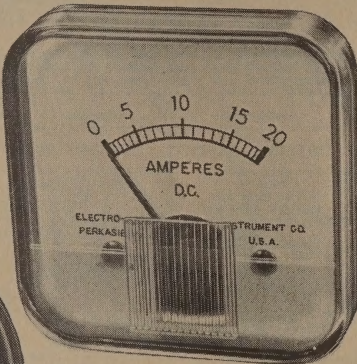
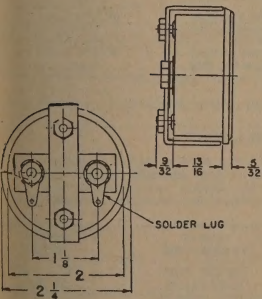
PRECISION-PLUS



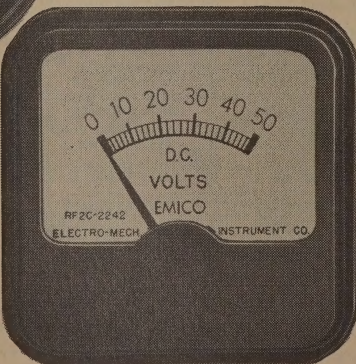
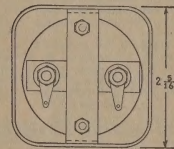
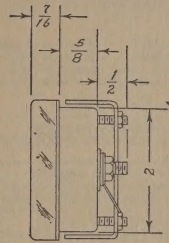
MODEL 13
Edge Reading Type



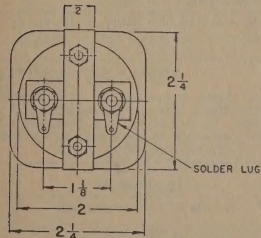
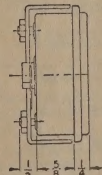
MODEL NF2C



MODEL RF2 1/4 C



MODEL RF2C



Precision instruments engineered for

- accuracy
- long life
- economy

**EMICO Miniature
Circuit Indicator
MODEL 801**

Gives snap-action response at .001 (milliwatt) to monitor all circuit malfunctions on on-off conditions. Dependable after millions of on-off cycles. Simplified panel installation.

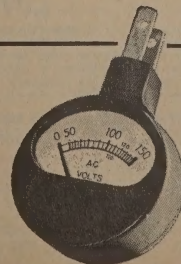
Dealer's Net \$5.00



EMICO A.C. Voltage Tester

Accurate, precision mechanism plug-in type with damped meter movement. Convenient 90° swivel prongs for ease of reading from any position.

Dealer's Net \$3.45

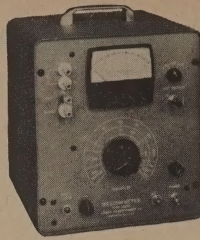


ELECTRO-MECHANICAL INSTRUMENT CO., INC.

FREED TRANSFORMER CO., INC.



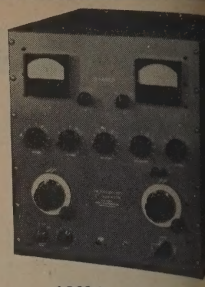
1620-A-B-C-E



1020-C



2030



1030-A

MEGOHMMETERS

Freed manufactures a complete range of insulation resistance measuring equipment with fixed and variable d.c. test voltages from 5 to 2500 volts. Insulation and leakage measurements can

be made on transformers, motors, cables, electronic assemblies and components, dielectric materials, electrical appliances and tools, capacitors and resistors.

Type	Resistance Range	Test Voltage	Accuracy	Power and Requirements	Size and Weight
1620	0.1 to 4,000,000 megohms 1 to 2,000,000 megohms @ 500 volts	Variable 50 to 1000 volts d.c.	±5% at full scale	105-125 volts 50-60 cycles	15" x 9" x 7½" 24 lbs.
1620-A	0.01 to 4,000,000 megohms 0.1 to 200,000 megohms @ 50 volts 1 to 2,000,000 megohms @ 500 volts	Variable 5-100 volts d.c. 100-1000 volts d.c.	±5% at full scale	105-125 volts 50-60 cycles	15" x 9" x 7½" 24 lbs.
1620-B	1 to 2,000,000 megohms 10 to 2,000,000 megohms @ 2500 volts	Variable 250-2500 volts d.c.	±5% at full scale	105-125 volts 50-60 cycles	15" x 9" x 7½" 24 lbs.
1620-C	All features same as Type 1620 with additional circuitry for capacitor measurements	Variable 50 to 1000 volts d.c.	±5% at full scale	105-125 volts 50-60 cycles	15" x 9" x 7½" 24 lbs.
1620-E	10K ohms to 0.4 teraohms 100K ohms to 0.02 teraohms @ 50 volts 1 megohm to 0.2 teraohms @ 500 volts	Variable 5-100 volts d.c. 100-1000 volts d.c.	±5% at full scale except highest range ±10%	105-125 volts 50-60 cycles	15" x 9" x 7½" 25 lbs.
1020-C	0.1 to 2,000,000 megohms 0.1 to 200,000 megohms @ 50 or 100 volts d.c. 1 to 2,000,000 megohms @ 500 volts d.c.	Fixed 50, 100, 500 volts Regulated	±3% all ranges except highest range ±5%	105-125 volts 50-60 cycles	9½" x 10½" x 8" 18 lbs. **
1020-D	0.1 to 2,000,000 megohms 0.1 to 200,000 megohms @ 100 or 200 volts d.c. 1 to 2,000,000 megohms @ 500 volts d.c.	Fixed 100, 200, 500 volts Regulated	±3% all ranges except highest range ±5%	105-125 volts 50-60 cycles	9½" x 10½" x 8" 18 lbs. **
2030-A	10 to 2,000,000 megohms	Fixed 500 volts d.c.	±5% full scale	battery operated transistor supply	6" x 8" x 4" 8 lbs.
2030-B	1 to 20,000,000 megohms	Fixed 500 volts d.c.	±5% full scale	battery operated transistor supply	6" x 8" x 4" 8 lbs.
2030-C	1 to 2,000,000 megohms	Fixed 50 volts d.c.	±5% full scale	battery operated transistor supply	6" x 8" x 4" 8 lbs.
2030-D	1 to 2,000,000 megohms	Fixed 100 volts d.c.	±5% full scale	battery operated transistor supply	6" x 8" x 4" 8 lbs.
2030-E	1 to 2,000,000 megohms	Fixed 200 volts d.c.	±5% full scale	battery operated transistor supply	6" x 8" x 4" 8 lbs.
2035	10,000 ohms to 10,000 megohms single scale, no multiplier	Fixed 50 volts d.c.	±20%	battery operated transistor supply	6" x 8" x 4" 8 lbs.

*Rack models available, 19" x 10½" x 9½". Weight 25 lbs.

**1020 Series 19" x 7" x 9½". Weight 18 lbs.

Freed invites requests for quotations on special insulation testing instruments, either deviations of above listed standard units or new designs for system application.

NON-DESTRUCTIVE D.C. VOLTAGE BREAKDOWN EQUIPMENT

Freed can supply non-destructive voltage breakdown testers for applications where the d.c. test voltage must be removed within microseconds in the event of a breakdown. Simultaneously the component under test is short circuited to prevent it from being damaged by its own capacitive charge.

The instrument contains a variable slope ramp generator to apply the test voltage in applications where the capacitive current in the test sample exceeds the preset leakage current limit. An indicating voltmeter holds the reading of the breakdown voltage until reset.

Type	Leakage Current	Test Voltage	Output Accuracy	Power Requirements	Size and Weight
1625	10, 100 & 500 microamperes	*2500 volts d.c.	±5% Full Scale	105-125 volts 50-60 cycles	19" x 8¾" x 25 lbs.

*Other test voltages available. Write for specifications.

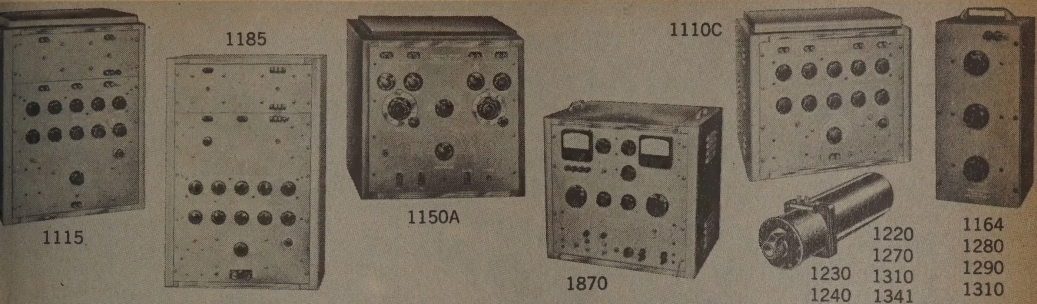
LOW FREQUENCY "Q" INDICATORS

Direct indication of "Q" at low frequencies, inductance, distributed capacity, impedance and dielectric loss can also be measured. Instrument may be used to study the magnetic properties of iron core material for stability as a function of applied voltage and losses as a function of the frequency.

Two units are available, the 1030-A indicates "Q" as a product of meter readings multiplied by dial settings, the 1030-B displays "Q" directly in digital readout.

Type	Test Frequency	Q Range	Accuracy	Test Voltage	Power Requirements	Dimensions and Weight
1030-A	20 cycles to 200 K.C.	1-1000	±5% 20 cycles to 50 KC— to 200 KC at reduced accuracy	Voltage to series circuit, 0.01 to 10 volts voltage across coil variable to 100 volts	105-125 volts 50-60 cycles	21" x 23" x 15" 120 lbs.

REED TRANSFORMER CO., INC.



INCREMENTAL INDUCTANCE BRIDGES

ect in-line readings of inductance and conductance of iron core component audio frequencies with or without superimposed direct current. The bridge s the Owens circuit with provisions for measuring the series or parallel inductance and conductance of the unknown inductor; five precision resistance

and capacitance decades are provided to indicate these values. "Q" or storage factor can be measured as the product of the inductive reactance and the conductance.

Type	Inductance Range	Conductance Range	Frequency Range	D.C. Current	Accuracy	Dimensions and Weight
1110-C	111.1 h to 1 mh 5 decades 1.1 h to 1 μ h 2 decades	0.015 μ mho—100 mho "Q" = 600 max @ 100 cycles	20 cycles to 10 KC	up to 2 amperes	$\pm 5\%$ to 5 KC $\pm 2\%$ to 10 KC	21 $\frac{3}{4}$ " x 17 $\frac{1}{2}$ " x 15 $\frac{1}{4}$ " 50 lbs.
1115	111.1 h to 100 μ h 5 decades 0.11 h to 0.1 μ h 2 decades	0.15 μ mho—1000 mho "Q" = 600 max @ 100 cycles	20 cycles to 10 KC	up to 15 amperes	$\pm 1\%$ to 5 KC $\pm 3\%$ to 10 KC	21 $\frac{3}{4}$ " x 28" x 15 $\frac{1}{4}$ " 80 lbs.
1185	111.1 h to 100 μ h 5 decades 0.11 h to 0.1 μ h 2 decades	0.15 μ mho—1000 mho "Q" = 600 max @ 100 cycles	20 cycles to 10 KC	up to 30 amperes	$\pm 1\%$ to 5 KC $\pm 3\%$ to 10 KC	21 $\frac{3}{4}$ " x 33 $\frac{1}{2}$ " x 15 $\frac{1}{4}$ " 100 lbs.
1115-A	Same specifications as type 1115 except excitation range to 1000 volts.					

UNIVERSAL BRIDGE

Free Type 1150-A Universal Bridge offers the laboratory a combination of ht bridges in one instrument. This bridge will measure the reactive and istive component of impedances, capacitance, resistance and phase angle.

In the Hay and/or Owen bridge configuration the incremental permeability of an inductance can be measured.

Type	Inductance Range	Capacitance Range	Resistance Range	"D" Hay Bridge
1150-A	5 μ h 1110 h	5 pf-10 mf	0.05 Ω -1 M Ω	0.001-10 Q = 0.1-1000
	"Q" Maxwell 0.01-50	"Q" Series Owen 0.01-600 @ 100 cycles	"Q" Parallel Owen 80 @ 100 cycles	"Q" Parallel Resistor-Condenser Bridge 0.01-11.1
Accuracy Inductance $\pm 5\%$ up to 1 KC. $\pm 2\%$ to 10 KC. Capacitance $\pm 1\%$ @ 1 KC. "D", "Q" $\pm 5\%$ @ 1 KC. Resistance (ac.) $\pm 1\%$ @ 1 KC.				Dimensions and Weight 21 $\frac{3}{4}$ " x 24 $\frac{1}{2}$ " x 17" 65 lbs.

INDUCTANCE COMPARISON BRIDGE

complete production unit for comparing transformer and inductor impedances er dynamic conditions against a standard resistor. The instrument has a t-contained metered 500 Ma. d.c. supply, metered 135 volt a.c. source and

a direct reading percentage deviation indicator, provision for connecting external test frequencies up to 10 KC. is provided.

Type	Inductance Range	Deviation Range	Test Frequency	D.C. Current Range	Dimensions and Weight
1870	25 mh - 100 h	$\pm 20\%$, accuracy 1% $\pm 30\%$, accuracy 5%	60-10,000 cycles	0.5 ma., 0-25 ma., 0-100 ma., 0-500 ma.	22" x 19 $\frac{1}{2}$ " x 15" 150 lbs.

NUL DETECTORS

Sensitive null detectors for bridge measurements, with self contained selective filters to limit the amplifier characteristics at various bridge measur- ing frequencies.

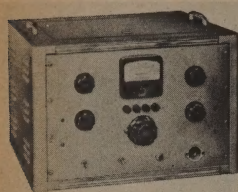
Type	Sensitivity	Frequency Range	Filter	Power Requirements	Dimensions and Weight
1140-B	10 μ volts @ 1 KC for 15% meter deflection filter in	20 to 20,000 cycles	Fixed 60, 400, 1000 cycles Adjustable $\pm 5\%$ of center Other frequencies available	105-125 volts 50-60 cycles	Cabinet 12" x 8 $\frac{1}{2}$ " x 10" 18 lbs. Rack—19" x 6" x 10"
2076	1 μ volts @ 1 KC for 15% meter deflection filter in	20 to 20,000 cycles	Fixed 60, 400, 1000 cycles Adjustable $\pm 5\%$ of center Other frequencies available	Transistorized Battery operated	Cabinet—8" x 6" x 8" Rack—19" x 5 $\frac{1}{4}$ " x 8"

NUL DETECTOR—VACUUM TUBE VOLTMETER

Designed primarily for a.c. bridge measurements, a dual purpose instrument for indicating bridge balance and the a.c. excitation across the unknown.

Type	Null Sensitivity	Frequency Range	Filter	Power Requirements	Dimensions and Weight
1210-B	10 M volts @ 1 KC for 15% meter deflection	20-20,000 cycles	Fixed 60, 400, 1000 cycles provision for other frequencies	105-125 volts 50-60 cycles	21" x 17" x 13" 37 lbs.
	Voltage Range 0.1 to 150 volts a.c. 0.15-1.5-15-150 volts full scale	Input Impedance 50 K Ω parallel with 25 PF.	Frequency Range 20 to 20,000 cycles ± 1 db	Accuracy 2% of full scale	

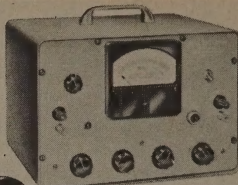
FREED TRANSFORMER CO., INC.



1170A



1210A



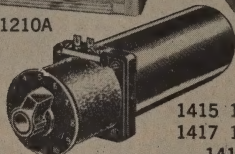
1140B



1250



RAC-1.5/3

1415 1416
1417 1418
1419

1351

D.C. SUPPLY

A constant voltage transformer regulated current source designed for use with the Freed Incremental Inductance Bridges. Solid state bridge rectification, L-C

filters and low internal impedance provides good current regulation with minimum of circuit complexity.

Type	Current Ranges	Voltage Ranges	Regulation	Power Requirement	Dimensions and Weight
1170-A	4 ranges, 0-5, 25, 100 and 1000 milliamperes	Maximum no load voltage, 1000 Ma, 270V, 100 Ma, 270V, 25 Ma, 85 V, 5 Ma, 48 V	±1% for line variation 105-125 V	105-125 volts 60 cycles	19" x 10½" x 13½" 66 lbs.

A.C. LINE REGULATOR

A distortion free 60/400 cycle electromechanical a.c. line regulator. Features a tubeless fast response phase reversible magnetic preceded by a transistor comparison amplifier with zener reference.

Type	Nominal Input Voltage	Input Frequency	Output Voltage	Regulation Accuracy	Dimensions and Weight
RAC-1.5/3	115 volts	60 or 400 cycles	Adjustable 110-120 volts	±0.25% for a ±10% Regulation Range ±50% for a ±20% Regulation Range	19" x 7" x 13" 45 lbs.
KVA Rating and Regulation Range		Regulation Accuracy		Response Speed volts/sec.	
3 KVA for a Regulation Range of ±10% 1.5 KVA for a Regulation Range of ±20%		±0.25% for ±10% Regulation Range ±0.5% for ±20% Regulation Range		10 @ ±10% 20 @ ±20%	

DECADE INDUCTORS

Each unit is an assembly of four toroids wound on a stabilized Molybdenum permalloy dust core. The coils have a nominal inductance of 1-2-3-4 and are connected in series and switched to vary the inductance from 0-10.

Type	Frequency Range, Cycles	Maximum Q*	Inductance per Step	Total Inductance	Accuracy	Dimensions and Weight
1220	500-20,000	230 @ 4 KC	0.001 h	0.01 h	±2%	3" x 3" x 9" 4½ lb
1230	500-20,000	280 @ 3 KC	0.01 h	0.1 h	±1%	3" x 3" x 9" 4½ lb
1240	500-20,000	260 @ 3 KC	0.1 h	1 h	±0.5%	3" x 3" x 9" 4½ lb
1270	500-20,000	190 @ 2 KC	1 h	10 h	±0.25%	3" x 3" x 9" 4½ lb
1341	100-2,000	100 @ 1 KC	10 h	100 h	±0.25%	3" x 3" x 9" 4½ lb
1280	500-20,000	280 @ 3 KC	0.001 h	1.11 h	See note	13¾" x 6¼" x 5½" 16 lbs
1290	500-20,000	280 @ 3 KC	0.001 h	11.11 h	See note	15" x 7" x 5½" 20 lbs
1310	500-20,000	280 @ 3 KC	0.01 h	11.1 h	See note	13¾" x 6¼" x 5½" 16 lbs
1164†	30-2,000	60 @ 300	0.1 h	111 h	±1%	15" x 7" x 5½" 28 lbs

†Type 1164 inductors are wound on special nickel alloy laminated cores.

Inductance per step:	1 mh	10 mh	100 mh	1 h	10h
Nominal Accuracy:	±2%	±1%	±0.5%	±0.25%	±0.25%

*Maximum Q depending on inductance value and a.c. voltage across coil.

DECADE CAPACITORS

The Freed series of Decade Capacitors cover a wide range of values and can be supplied as individual decades from 0.0001 PF. per step to 1 mf. per step or in

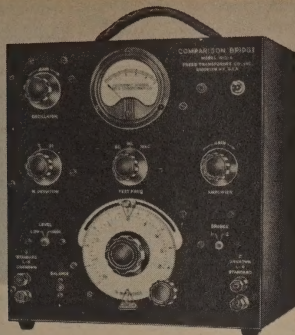
various combinations of assembled decade boxes. All capacitors are inductively wound and heat treated for stability.

Type	Total Capacity	Dielectric	Dissipation Factor	Accuracy	Dimensions and Weight
1415	10 µf in steps of 1 µf	Mylar	<0.005	±1%	3" x 3" x 7" 2 lbs.
1416	1 µf in steps of 0.1 µf	Polystyrene	<0.0002	±1%	3" x 3" x 7" 2 lbs.
1417	0.1 µf in steps of 0.01 µf	Polystyrene	<0.0002	±1%	3" x 3" x 7" 2 lbs.
1418	0.01 µf in steps of 0.001 µf	Polystyrene	<0.0002	±1%	3" x 3" x 7" 2 lbs.
1419	0.001 µf in steps of 0.0001 µf	Polystyrene	<0.0002	±1%	3" x 3" x 7" 2 lbs.
1250	1.110 µf in steps of 0.001 µf	Polystyrene	<0.0002	±1%	13¾" x 6" x 4½" 8 lbs.
1351	11.111 µf in steps of 0.0001 µf plus 100 pf variable air capacitor	Mylar Polystyrene Air	<0.005	±1%	19" x 10¾" x 8" 25 lbs.
1352	1.111 µf in steps of 0.0001 µf	Polystyrene	<0.0002	±1%	19" x 5¼" x 10" 13 lbs.
1353	11.111 µf in steps of 0.0001 µf	Mylar Polystyrene	<0.005	±1%	19" x 5¼" x 10" 14 lbs.

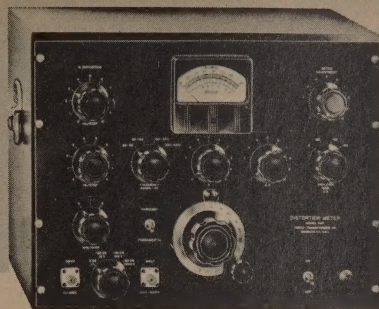
Maximum operating voltage, 500 VDC or peak. Capacitors can be supplied to better than ±1%, write for complete information.

REED TRANSFORMER CO., INC.

1010A



1410



COMPARISON & LIMIT BRIDGE

A rapid and convenient method for laboratory or production testing of resistors, capacitors and inductors. Components may be sorted for tolerances up to $\pm 20\%$ or selected in matched pairs.

Type	Inductance Range	Capacitance Range	Resistance Range	Test Frequency	Accuracy	Dimensions and Weight
1010-A	10 μ h-100 h	10 Pf-100 mf.	1 Ω -20 M Ω	50 or 60 cycles 1 KC-10 KC	$\pm 0.1\%$ on 5% range	10 $\frac{1}{2}$ " x 12" x 12" 17 lbs.

IMPEDANCE & ADMITTANCE BRIDGE

An audio frequency bridge for measuring the complex impedances of inductors, transformers, filter networks and capacitors.

Type	Frequency Range	Impedance and Admittance	Accuracy	Maximum Applied Voltage	Dimensions and Weight
1120	20 to 20,000 cycles	XL, XC and R up to 1000 ohms, BL, BC and G up to 1000 microhms	R: $\pm 1\%$ G: $\pm 2\%$ X: $\pm 1\%$ up to 5 KC B: $\pm 1\%$ up to 5 KC	125 Volts	10 $\frac{1}{2}$ " x 12" x 12" 25 lbs.

DISTORTION METERS

type 1410 Distortion Meter measures distortion in the ultra-sonic or carrier frequency range and features high input impedance with high sensitivity. Having

a wide input voltage range it can be used for distortion measurements in low output oscillators, carrier frequency amplifiers and transmitters.

Type	Frequency Range	Input Impedance	Input Voltage	Sensitivity	Power Requirements	Dimensions and Weight
1410	20 KC to 1 MC	50 K Ω shunted by 70 Pf	0.2 to 1000 volts	Distortion level of 0.1% for 0.2 volts input	105-125 volts 50-60 cycles	21" x 16 $\frac{1}{4}$ " x 15" 60 lbs.

The type 1970 Distortion Meter is a wide range low input impedance instrument, designed with passive circuitry resulting in high stability, low residual distortion and hum levels.

Type	Frequency Range	Input Impedance	Input Voltage	Sensitivity	Dimensions and Weight
1970	20 cycles to 1 megacycle	75-150 300-600	1 to 200 volts	Distortion level of 0.02% for 1 volt input	19" x 10 $\frac{1}{2}$ " x 12" 30 lbs.

PRICE LIST

RAC-1.5/3	AC Line Regulator	\$ 425.00
1010-A	Comparison Bridge	350.00
1020-C	Megohmmeter	280.00
1020-D	Megohmmeter	290.00
1030-A	Low Frequency "Q" Indicator	1250.00
1110-C	Incremental Inductance Bridge	525.00
1120	Impedance and Admittance Bridge	455.00
1115	Incremental Inductance Bridge	825.00
1140-B	Null Detector Amplifier	250.00
1150-A	Universal Bridge	825.00
1164	Decade Inductor	285.00
1170-A	D.C. Supply	350.00
1180	A.C. Supply	115.00
1185	Incremental Inductance Bridge	1250.00
1210-B	Null Detector — UTUM	350.00
1220	Decade Inductor	100.00
1230	Decade Inductor	95.00
1240	Decade Inductor	100.00
1250	Decade Capacitor	180.00
1270	Decade Inductor	110.00
1280	Decade Inductor	325.00
1290	Decade Inductor	425.00
1310	Decade Inductor	325.00

1341	Decade Inductor	\$ 120.00
1351	Decade Capacitor	305.00
1352	Decade Capacitor	220.00
1353	Decade Capacitor	275.00
1410	Distortion Meter	875.00
1415	Decade Capacitors	40.00
1416	Decade Capacitors	55.00
1417	Decade Capacitors	40.00
1418	Decade Capacitors	40.00
1419	Decade Capacitors	45.00
1620	Megohmmeter	350.00
1620-A	Megohmmeter	365.00
1620-B	Megohmmeter	395.00
1620-C	Megohmmeter	375.00
1620-D	Megohmmeter	415.00
1625	Non Destructive Breakdown Tester	795.00
1820	Inductance Comparison Bridge	550.00
1970	Distortion Meter	525.00
2030-A	Megohmmeter	205.00
2030-B	Megohmmeter	250.00
2030-C	Megohmmeter	225.00
2030-D	Megohmmeter	225.00
2030-E	Megohmmeter	225.00
2076	Null Detector — Amplifier	295.00

We reserve the right to change specifications or design, without incurring any obligation to incorporate new features in instruments sold.

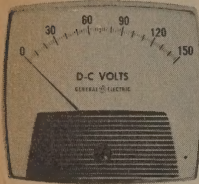
REED TRANSFORMER COMPANY, INC.



PANEL METERS



ELECTRONIC
INNOVATIONS
IN ACTION



BIG LOOK

BIG LOOK PANEL METERS

Accurate, quick reading with wide, border-to-border scales; free from shadows. Most popular meter design with low-profile, easy-to-read sense. Aluminum frame holds reflections to a minimum. Big, bold numerals over clearly marked divisions for fast reading. Tapered pointers assure high accuracy. Taut-band suspension provided on all models except $1\frac{1}{2}$ " size. Standard $2\frac{1}{2}$ " and $3\frac{1}{2}$ " models come with sealed cases to protect against hair, dust, chemicals or other foreign particles. Self-shielded DC mechanisms; Snap-on, snap-off covers.

Handsome, easy-to-read meters in two styles for all panel and control applications. All DC meters have self-shielded movement with pivot and jewel or taut-band suspension. Taut-band designs give great resistance to shock and increased sensitivity. Zener-diode, expanded-scale voltmeters available for improved narrow-range accuracy on $3\frac{1}{2}$ " and $4\frac{1}{2}$ " sizes. Snap-on, snap-off covers on meters. All types meet ASA Specification C-39.1.

Accuracy: $\pm 2\%$ FS, all DC and AC iron vane; $\pm 3\%$ FS, AC rectifier type (with 60-cycle sine wave at 25° C); $\pm 0.5\%$ of midspan, expanded-scale types. **Overload:** 20% momentary and sustained; voltmeters; 10 times rated current for 10 consecutive intervals of $\frac{1}{2}$ -sec. with 1-min. interval between successive applications, momentary; 20% for 8 hours, sustained, ammeters. **Scale:** Pivot and jewel, 90° rotation; taut-band, 100°.

Insulation: 2600 V rms hi-pot for all but $1\frac{1}{2}$ " models (1600 V rms). **Response Time:** Meet or exceed ASA requirements: 3 sec. max. for microammeters; 2 sec. max. all other DC ratings; 2.5 sec. max. AC ratings. **Damping:** 40% max. overshoot; 2.5 min. damping factor. **Burden:** 5 amps, 0.5 VA, 0.5 power factor for AC ammeter; unity power factor, AC voltmeter.



HORIZON LINE

HORIZON LINE PANEL METERS

Distinctive, low profile design for sophisticated styling. Best readab with swept-back windows to deflect light from line of sight. Both $3\frac{1}{2}$ " and $4\frac{1}{2}$ " meters may be mounted semi-flush or back-of-panel, recessed face silhouetted by half-bezel frame to conserve space and improve readability. DC types have core-magnet d'Arsonval movement with pivot and jewel, or taut-band suspensions; self-shielded for use on any panel. Zener-diode, expanded-scale voltmeters available. Snap-on, snap-off covers supplied on $4\frac{1}{2}$ " size.

G.E. No. 1012K11702 Bezel — For flush mtg. $2\frac{1}{2}$ " size. List.....\$
G.E. No. 1012K11700 Bezel — For flush mtg. $3\frac{1}{2}$ " size. List.....\$
G.E. No. 1012K11701 Bezel — For flush mtg. $4\frac{1}{2}$ " size. List.....\$

Meter Size and Type	Scale Length		Max. Meter Dimensions, Inches				
	Pivot Jewel	Taut-band	Face Size H. x W.	Cutout O.D.	Back* Depth	Front* Depth	
$1\frac{1}{2}$ " DW-90	1.400"	.....	1.750 x 1.750	1.530	1.230	0.375	
$2\frac{1}{2}$ " DW-91S	2.100"	2.300"	2.702 x 2.702	2.195	2.002	0.478	
$3\frac{1}{2}$ " DO-91†	2.900"	3.200"	3.512 x 3.512	2.786	2.002	0.478	
$4\frac{1}{2}$ " DO-92‡	3.930"	4.360"	4.408 x 4.846	2.786	1.965	0.573	

§Or AW-91. †Or AO-91. ‡Or AO-92. *Back-of-panel and front-of-panel, respectively.

Meter Size and Type	Scale Length		Max. Meter Dimensions, Inches				
	Pivot Jewel	Taut-band	Face Size H. x W.	Cutout O.D.	Back* Depth	Front* Depth	
$2\frac{1}{2}$ " NO. 157	2.013"	2.284"	2.256 x 2.892	2.031	2.048	0.5	
$3\frac{1}{2}$ " NO. 167	2.725"	3.060"	3.006 x 3.756	2.781	1.963	0.7	
$4\frac{1}{2}$ " NO. 178	3.502"	3.800"	3.756 x 4.632	2.781	1.963	0.7	

*Back-of-panel and front-of-panel, respectively.

DC VOLTMETERS ZERO-LEFT, SELF CONTAINED

Scale Volts	Scale Div.	Term. Resis., Ohms	S Add Suffix	BIG LOOK List Price				HORIZON LINE List Price			
				$1\frac{1}{2}$ " DW-90 Prefix: 50-188 011S	$2\frac{1}{2}$ " DW-91 Prefix: 50-152 011S	$3\frac{1}{2}$ " DO-91 Prefix: 50-162 011S	$4\frac{1}{2}$ " DO-92 Prefix: 50-171 011S	$2\frac{1}{2}$ " No. 157 Prefix: 50-157 011S	$3\frac{1}{2}$ " No. 167 Prefix: 50-167 011S	$4\frac{1}{2}$ " No. 178 Prefix: 50-178 011S	
0-1	50		LALA	\$18.00	\$18.00	\$19.00	\$21.00	\$18.00	\$19.00	\$21.00	
0-1.5	75†		LCLC	18.00	18.00	19.00	21.00	18.00	19.00	21.00	
0-3	60		LJLJ	18.00	18.00	19.00	21.00	18.00	19.00	21.00	
0-5	50		LSLS	18.00	18.00	19.00	21.00	18.00	19.00	21.00	
0-8	40		MJMJ	18.00	18.00	19.00	21.00	18.00	19.00	21.00	
0-10	50		MTMT	18.00	18.00	19.00	21.00	18.00	19.00	21.00	
0-15	75†	1000	NDND	18.00	18.00	19.00	21.00	18.00	19.00	21.00	
0-30	60	ohms	NLNL	18.00	18.00	19.00	21.00	18.00	19.00	21.00	
0-50	50	per volt	NTNT	18.00	18.00	19.00	21.00	18.00	19.00	21.00	
0-100	50		PDPD	18.00	18.00	19.00	21.00	18.00	19.00	21.00	
0-150	50		PKPK	18.00	18.00	19.00	22.00	18.00	19.00	22.00	
0-200	75†		PZPZ	18.00	18.00	19.00	22.00	18.00	19.00	22.00	
0-250	50		RSRS	18.00	18.00	19.00	22.00	18.00	19.00	22.00	
0-300	60		RXR X	19.00	19.00	20.00	23.00	19.00	20.00	23.00	
0-500	50		SFSF	.....	.....	21.00	24.00	.....	21.00	24.00	
0-600	60		SJSJ	.....	.....	21.00	24.00	.....	21.00	24.00	
0-500*	50	125	FASF	17.00	17.00	.....	.....	17.00	.....	.....	
0-600*	60	125	FASJ	17.00	17.00	.....	.....	17.00	.....	.....	
0-750*	75†	125	FASM	17.00	17.00	18.00	20.00	17.00	18.00	20.00	

ZERO-CENTER, SELF CONTAINED

Scale Volts	Scale Div.	Term. Resis., Ohms	S Add Suffix	BIG LOOK List Price				HORIZON LINE List Price			
				$1\frac{1}{2}$ " DW-90 Prefix: 50-188 012S	$2\frac{1}{2}$ " DW-91 Prefix: 50-152 012S	$3\frac{1}{2}$ " DO-91 Prefix: 50-162 012S	$4\frac{1}{2}$ " DO-92 Prefix: 50-171 012S	$2\frac{1}{2}$ " No. 157 Prefix: 50-157 012S	$3\frac{1}{2}$ " No. 167 Prefix: 50-167 012S	$4\frac{1}{2}$ " No. 178 Prefix: 50-178 012S	
5-0-5	50		LSLS	\$18.00	\$18.00	\$19.00	\$21.00	\$18.00	\$19.00	\$21.00	
10-0-10	40		MTMT	18.00	18.00	19.00	21.00	18.00	19.00	21.00	
30-0-30	60	1000	NLNL	18.00	18.00	19.00	21.00	18.00	19.00	21.00	
50-0-50	50	ohms	NTNT	18.00	18.00	19.00	21.00	18.00	19.00	21.00	
80-0-80	40	per volt	PDPD	18.00	18.00	19.00	21.00	18.00	19.00	21.00	
150-0-150	60		PZPZ	18.00	18.00	19.00	22.00	18.00	19.00	22.00	
300-0-300	60		RXR X	19.00	19.00	20.00	23.00	19.00	20.00	23.00	
500-0-500	50		SFSF	.....	.....	21.00	24.00	.....	21.00	24.00	
600-0-600	60		SJSJ	.....	.....	21.00	24.00	.....	21.00	24.00	
500-0-500*	50	64	FASF	17.00	17.00	.....	.....	17.00	.....	.....	
600-0-600*	60	64	FASJ	17.00	17.00	.....	.....	17.00	.....	.....	
750-0-750*	60	64	FASM	17.00	17.00	18.00	20.00	17.00	18.00	20.00	

EXPANDED-SCALE, SELF CONTAINED

Zener-diode type. Accuracy $\pm 0.5\%$ of mid-span.

Scale Volts	Scale Div.	Term. Resis., Ohms	S Add Suffix	BIG LOOK List Price				HORIZON LINE List Price			
				$1\frac{1}{2}$ " DW-90 Not Available	$2\frac{1}{2}$ " DW-91 Not Available	$3\frac{1}{2}$ " DO-91 \$52.00	$4\frac{1}{2}$ " DO-92 \$53.00	$2\frac{1}{2}$ " No. 157 Available	$3\frac{1}{2}$ " No. 167 \$52.00	$4\frac{1}{2}$ " No. 178 \$53.00	
24-30	60	100	NNNN	.....	.....	52.00	53.00	.....	52.00	53.00	
110-130	40	ohms/volt	NNNN	.....	.....	52.00	53.00	.....	52.00	53.00	
220-260	40	volt	RTRT	.....	.....	52.00	53.00	.....	52.00	53.00	

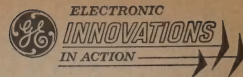
*Not self contained, for use with external resistor, not supplied; rated 0-1 mADC (or 1-0-1 mADC, center scale types); when ordering, change last prefix indicator to 111 or 112 (i.e., 50-152 111 FASF; 50-162 112 FASF; etc.).

†75 divisions on all $3\frac{1}{2}$ " and $4\frac{1}{2}$ " meters; 30 divisions on $2\frac{1}{2}$ " and $1\frac{1}{2}$ ".

§When ordering show complete number, prefix plus suffix; example: 50-157 012 LSLS for 5-0-5 self contained $2\frac{1}{2}$ " HORIZON LINE DC voltmeter.

†Trade-mark of General Electric Co.

PANEL METERS



DC MICROAMMETERS

ZERO-LEFT, PIVOT AND JEWEL TYPE

Scale μA	Scale Div.	Term. Resis., Ohms	S Add Suffix	BIG LOOK List Price				HORIZON LINE List Price		
				1½" DW-90 Prefix: 50-188 111\$	2½" DW-91 Prefix: 50-152 111\$	3½" D0-91 Prefix: 50-162 111\$	4½" D0-92 Prefix: 50-171 111\$	2½" No. 157 Prefix: 50-157 111\$	3½" No. 167 Prefix: 50-167 111\$	4½" No. 178 Prefix: 50-178 111\$
0-20	40	3400	CFCF	\$30.00	\$30.00	\$31.00	.....	\$30.00	\$31.00	.....
0-50	50	1600	CYCY	24.00	24.00	25.00	\$28.00	24.00	25.00	\$28.00
0-100	50	1525	DRDR	20.00	20.00	21.00	24.00	20.00	21.00	24.00
0-200	40	690	EAEA	18.00	18.00	19.00	22.00	18.00	19.00	22.00
0-500	50	220	EMEM	17.00	17.00	18.00	20.00	17.00	18.00	20.00

ZERO-LEFT, TAUT-BAND TYPE

taut-band suspension is also available in other DC ratings; prices on request.

Scale μA	Scale Div.	Term. Resis., Ohms	S Add Suffix	BIG LOOK List Price				HORIZON LINE List Price		
				1½" DW-90 Not Available	2½" DW-91 Prefix: 50-156 111\$	3½" D0-91 Prefix: 50-166 111\$	4½" D0-92 Prefix: 50-173 111\$	2½" No. 157 Prefix: 50-192 111\$	3½" No. 167 Prefix: 50-193 111\$	4½" No. 178 Prefix: 50-194 111\$
0-20	40	3400	CFCF	.....	\$33.00	\$34.00	\$37.00	\$33.00	\$34.00	\$37.00
0-50	50	2600	CYCY	.....	27.00	28.00	31.00	27.00	29.00	31.00
0-100	50	1170	DRDR	.....	23.00	24.00	27.00	23.00	24.00	27.00

ZERO-CENTER, PIVOT AND JEWEL TYPE

Scale μA	Scale Div.	Term. Resis., Ohms	S Add Suffix	BIG LOOK List Price				HORIZON LINE List Price		
				1½" DW-90 Prefix: 50-188 112\$	2½" DW-91 Prefix: 50-152 112\$	3½" D0-91 Prefix: 50-162 112\$	4½" D0-92 Prefix: 50-171 112\$	2½" No. 157 Prefix: 50-157 112\$	3½" No. 167 Prefix: 50-167 112\$	4½" No. 178 Prefix: 50-178 112\$
20-0-20	40	3380	CFCF	27.00	\$27.00	\$28.00	.....	\$27.00	\$28.00	.....
50-0-50	50	1525	CYCY	20.00	20.00	21.00	\$24.00	20.00	21.00	\$24.00
00-0-100	40	690	DRDR	18.00	18.00	19.00	22.00	18.00	19.00	22.00
000-0-200	40	221	EAEA	17.00	17.00	18.00	21.00	17.00	18.00	21.00
000-0-500	50	64	EMEM	17.00	17.00	18.00	20.00	17.00	18.00	20.00

DC MILLIAMMETERS

ZERO-LEFT, PIVOT AND JEWEL TYPE

Scale mA	Scale Div.	Term. Resis., Ohms	S Add Suffix	BIG LOOK List Price				HORIZON LINE List Price		
				1½" DW-90 Prefix: 50-188 111\$	2½" DW-91 Prefix: 50-152 111\$	3½" D0-91 Prefix: 50-162 111\$	4½" D0-92 Prefix: 50-171 111\$	2½" No. 157 Prefix: 50-157 111\$	3½" No. 167 Prefix: 50-167 111\$	4½" No. 178 Prefix: 50-178 111\$
0-1	50	64	FAFA	\$17.00	\$17.00	\$18.00	\$20.00	\$17.00	\$18.00	\$20.00
0-1.5	75†	64	FDFF	17.00	17.00	18.00	20.00	17.00	18.00	20.00
0-3	60	2.5	FNFN	17.00	17.00	18.00	20.00	17.00	18.00	20.00
0-5	50	2.5	FXFX	17.00	17.00	18.00	20.00	17.00	18.00	20.00
0-10	50	1.8	GZGZ	17.00	17.00	18.00	20.00	17.00	18.00	20.00
0-20	40	1.5	HFHF	17.00	17.00	18.00	20.00	17.00	18.00	20.00
0-25	50	2.0	HJHJ	17.00	17.00	18.00	20.00	17.00	18.00	20.00
0-30	60	1.67	HHHM	17.00	17.00	18.00	20.00	17.00	18.00	20.00
0-50	50	0.20	HYHY	17.00	17.00	18.00	20.00	17.00	18.00	20.00
0-80	40	0.62	JJJJ	17.00	17.00	18.00	20.00	17.00	18.00	20.00
0-100	50	0.50	JRJR	17.00	17.00	18.00	20.00	17.00	18.00	20.00
0-150	75†	0.33	JXJX	17.00	17.00	18.00	20.00	17.00	18.00	20.00
0-200	40	0.25	KAKA	17.00	17.00	18.00	20.00	17.00	18.00	20.00
0-250	50	0.20	KDKD	17.00	17.00	18.00	20.00	17.00	18.00	20.00
0-300	60	0.167	KGGG	17.00	17.00	18.00	20.00	17.00	18.00	20.00
0-500	50	0.100	KMKM	17.00	17.00	18.00	20.00	17.00	18.00	20.00
0-800	40	0.062	KWKW	17.00	17.00	18.00	20.00	17.00	18.00	20.00

ZERO-CENTER, PIVOT AND JEWEL TYPE

Scale mA	Scale Div.	Term. Resis., Ohms	S Add Suffix	BIG LOOK List Price				HORIZON LINE List Price		
				1½" DW-90 Prefix: 50-188 112\$	2½" DW-91 Prefix: 50-152 112\$	3½" D0-91 Prefix: 50-162 112\$	4½" D0-92 Prefix: 50-171 112\$	2½" No. 157 Prefix: 50-157 112\$	3½" No. 167 Prefix: 50-167 112\$	4½" No. 178 Prefix: 50-178 112\$
1-0-1	40	64	FAFA	\$17.00	\$17.00	\$18.00	\$20.00	\$17.00	\$18.00	\$20.00
3-0-3	60	2.6	FNFN	17.00	17.00	18.00	20.00	17.00	18.00	20.00
5-0-5	50	1.8	FXFX	17.00	17.00	18.00	20.00	17.00	18.00	20.00
10-0-10	40	1.5	GZGZ	17.00	17.00	18.00	20.00	17.00	18.00	20.00
20-0-20	40	1.25	HFHF	17.00	17.00	18.00	20.00	17.00	18.00	20.00
25-0-25	50	1.0	HJHJ	17.00	17.00	18.00	20.00	17.00	18.00	20.00
30-0-30	60	0.83	HHHM	17.00	17.00	18.00	20.00	17.00	18.00	20.00
50-0-50	50	0.50	HYHY	17.00	17.00	18.00	20.00	17.00	18.00	20.00
00-0-100	40	0.25	JRJR	17.00	17.00	18.00	20.00	17.00	18.00	20.00
50-0-150	60	0.167	JXJX	17.00	17.00	18.00	20.00	17.00	18.00	20.00
00-0-200	40	0.125	KAKA	17.00	17.00	18.00	20.00	17.00	18.00	20.00
50-0-250	50	0.100	KDKD	17.00	17.00	18.00	20.00	17.00	18.00	20.00
00-0-300	60	0.083	KGGG	17.00	17.00	18.00	20.00	17.00	18.00	20.00
00-0-500	50	0.050	KMKM	17.00	17.00	18.00	20.00	17.00	18.00	20.00

DC AMMETERS

ZERO-LEFT, SELF-CONTAINED

Scale Amps	Scale Div.	Term. Resis., Ohms	S Add Suffix	BIG LOOK List Price				HORIZON LINE List Price		
				1½" DW-90 Prefix: 50-188 111\$	2½" DW-91 Prefix: 50-152 111\$	3½" D0-91 Prefix: 50-162 111\$	4½" D0-92 Prefix: 50-171 111\$	2½" No. 157 Prefix: 50-157 111\$	3½" No. 167 Prefix: 50-167 111\$	4½" No. 178 Prefix: 50-178 111\$
0-1	50	.0500	LALA	\$17.00	\$17.00	\$18.00	\$20.00	\$17.00	\$18.00	\$20.00
0-1.5	75†	.0333	LCCL	17.00	17.00	18.00	20.00	17.00	18.00	20.00
0-2	40	.0250	LELE	17.00	17.00	18.00	20.00	17.00	18.00	20.00
0-3	60	.0167	LJLJ	17.00	17.00	18.00	20.00	17.00	18.00	20.00
0-5	50	.0100	LSLS	17.00	17.00	18.00	20.00	17.00	18.00	20.00
0-10	50	.0050	MTMT	17.00	17.00	18.00	20.00	17.00	18.00	20.00
0-15	75†	.0033	NDND	17.00	17.00	18.00	20.00	17.00	18.00	20.00
0-20	40	.0025	NGNG	17.00	17.00	18.00	20.00	17.00	18.00	20.00
0-30	60	.00167	NLNL	17.00	17.00	18.00	20.00	17.00	18.00	20.00
0-50	50	.00100	NTNT	17.00	17.00	18.00	20.00	17.00	18.00	20.00

5 divisions on 3½" and 4½" sizes; 30 divisions on 1½" and 2½" sizes.

When ordering show complete number, prefix plus suffix; example: 50-188 111 LALA

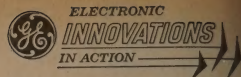
or BIG LOOK 1½" DW-90 zero-left, self-contained DC ammeter with 0-1 scale.

Trade-mark of General Electric Co.

GENERAL  ELECTRIC



PANEL METERS



DC AMMETERS (CONT'D) ZERO-LEFT, SHUNT-RATED

For use with 2-way shunt-lead resistance .065 ohm. Does not include shunt or shunt leads.

				BIG LOOK List Price				HORIZON LINE List Price		
Scale Amps	Scale Div.	Term. Resis., Ohms	S Add Suffix	1½" DW-90 Prefix: 50-188 121\$	2½" DW-91 Prefix: 50-152 121\$	3½" D0-91 Prefix: 50-162 121\$	4½" D0-92 Prefix: 50-171 121\$	2½" No. 157 Prefix: 50-157 121\$	3½" No. 167 Prefix: 50-167 121\$	4½" No. 178 Prefix: 50-178 121\$
0-20	40	50 mV shunt- rated 12.5 ohms	ECNG	\$17.00	\$17.00	\$18.00	.....	\$17.00	\$18.00	\$20.00
0-30	60		ECNL	17.00	17.00	18.00	.....	17.00	18.00	20.00
0-50	50		ECNT	17.00	17.00	18.00	\$20.00	17.00	18.00	20.00
0-75	75†		ECPB	17.00	17.00	18.00	20.00	17.00	18.00	20.00
0-100	50		ECPK	17.00	17.00	18.00	20.00	17.00	18.00	20.00
0-150	75†		ECPZ	17.00	17.00	18.00	20.00	17.00	18.00	20.00
0-200	40		ECRL	17.00	17.00	18.00	20.00	17.00	18.00	20.00
0-250	50		ECRS	17.00	17.00	18.00	20.00	17.00	18.00	20.00
0-300	60		ECRX	17.00	17.00	18.00	20.00	17.00	18.00	20.00
0-400	40		ECSC	17.00	17.00	18.00	20.00	17.00	18.00	20.00
0-500	50	100 mV shunt- rated 25 ohms	ECSE	17.00	17.00	18.00	20.00	17.00	18.00	20.00
0-600	60		ECSE	17.00	17.00	18.00	20.00	17.00	18.00	20.00
0-800	40		ECSN	17.00	17.00	18.00	20.00	17.00	18.00	20.00
0-1000	50		ECVA	17.00	17.00	18.00	20.00	17.00	18.00	20.00
0-1500	75†		ECVC	17.00	17.00	18.00	20.00	17.00	18.00	20.00
0-2000	40		ECVE	17.00	17.00	18.00	20.00	17.00	18.00	20.00
0-20	40		GBNG	17.00	17.00	18.00	.....	17.00	18.00	20.00
0-40	60		GBNP	17.00	17.00	18.00	.....	17.00	18.00	20.00
0-50	50		GBNT	17.00	17.00	18.00	20.00	17.00	18.00	20.00
0-75	75†		GBPB	17.00	17.00	18.00	20.00	17.00	18.00	20.00
0-100	50	25 ohms	GBPC	17.00	17.00	18.00	20.00	17.00	18.00	20.00
0-150	75†		GBPD	17.00	17.00	18.00	20.00	17.00	18.00	20.00
0-200	40		GBPE	17.00	17.00	18.00	20.00	17.00	18.00	20.00
0-250	50		GBPF	17.00	17.00	18.00	20.00	17.00	18.00	20.00
0-300	60		GBPG	17.00	17.00	18.00	20.00	17.00	18.00	20.00
0-400	40		GBPH	17.00	17.00	18.00	20.00	17.00	18.00	20.00
0-500	50		GBPI	17.00	17.00	18.00	20.00	17.00	18.00	20.00
0-600	60		GBPJ	17.00	17.00	18.00	20.00	17.00	18.00	20.00
0-800	40		GBPK	17.00	17.00	18.00	20.00	17.00	18.00	20.00
0-1000	50		GBPL	17.00	17.00	18.00	20.00	17.00	18.00	20.00
0-2000	40		GBVE	17.00	17.00	18.00	20.00	17.00	18.00	20.00

ZERO-CENTER, SELF CONTAINED

				BIG LOOK List Price				HORIZON LINE List Price		
Scale Amps	Scale Div.	Term. Resis., Ohms	S Add Suffix	1½" DW-90 Prefix: 50-188 112\$	2½" DW-91 Prefix: 50-152 112\$	3½" D0-91 Prefix: 50-162 112\$	4½" D0-92 Prefix: 50-171 112\$	2½" No. 157 Prefix: 50-157 112\$	3½" No. 167 Prefix: 50-167 112\$	4½" No. 178 Prefix: 50-178 112\$
1-0-1	40	.0500	LALA	\$17.00	\$17.00	\$18.00	\$20.00	\$17.00	\$18.00	\$20.00
2-0-2	40	.0250	LELE	17.00	17.00	18.00	20.00	17.00	18.00	20.00
5-0-5	50	.010	LSLS	17.00	17.00	18.00	20.00	17.00	18.00	20.00
10-0-10	40	.0050	MTMT	17.00	17.00	18.00	20.00	17.00	18.00	20.00
15-0-15	60	.0033	NDND	.....	17.00	18.00	20.00	17.00	18.00	20.00
20-0-20	40	.0025	NGNG	.....	17.00	18.00	20.00	17.00	18.00	20.00
30-0-30	60	.00167	NLNL	.....	17.00	18.00	20.00	17.00	18.00	20.00
50-0-50	50	.00100	NTNT	.....	.....	18.00	20.00	17.00	18.00	20.00

ZERO-CENTER, 50 mV SHUNT-RATED

For use with 2-way shunt-lead resistance of .065 ohm. Does not include shunt or shunt leads.

				BIG LOOK List Price				HORIZON LINE List Price		
Scale Amps	Scale Div.	Term. Resis., Ohms	S Add Suffix	1½" DW-90 Prefix: 50-188 122\$	2½" DW-91 Prefix: 50-152 122\$	3½" D0-91 Prefix: 50-162 122\$	4½" D0-92 Prefix: 50-171 122\$	2½" No. 157 Prefix: 50-157 122\$	3½" No. 167 Prefix: 50-167 122\$	4½" No. 178 Prefix: 50-178 122\$
20-0-20	40	25 ohms	ECNG	\$17.00	.....	.....	.....	.....	.....	.....
50-0-50	50		ECNT	17.00	\$17.00	\$18.00	\$20.00	\$17.00	\$18.00	\$20.00
75-0-75	60		ECPB	17.00	17.00	18.00	20.00	17.00	18.00	20.00
100-0-100	40		ECPK	17.00	17.00	18.00	20.00	17.00	18.00	20.00
150-0-150	60		ECPZ	17.00	17.00	18.00	20.00	17.00	18.00	20.00

AC VOLTMETERS SELF CONTAINED, IRON VANE

				BIG LOOK List Price				HORIZON LINE List Price		
Scale Volts	Scale Div.	Term. Resis., Ohms	S Add Suffix	1½" DW-90 Not Available	2½" AW-91 Prefix: 50-152 031\$	3½" A0-91 Prefix: 50-162 031\$	4½" A0-92 Prefix: 50-171 031\$	2½" No. 157 Prefix: 50-157 031\$	3½" No. 167 Prefix: 50-167 031\$	4½" No. 178 Prefix: 50-178 031\$
0-3	60	11.1	LJLJ	.....	\$16.00	\$17.00	\$20.00	\$16.00	\$17.00	\$20.00
0-5	50†	29	LSLS	.....	16.00	17.00	20.00	16.00	17.00	20.00
0-10	50	110	MTMT	.....	16.00	17.00	20.00	16.00	17.00	20.00
0-15	75†	251	NDND	.....	16.00	17.00	20.00	16.00	17.00	20.00
0-30	60	779	NLNL	.....	16.00	17.00	20.00	16.00	17.00	20.00
0-50	50	2,500	NTNT	.....	17.00	18.00	21.00	17.00	18.00	21.00
0-150	75†	15,000	PZPZ	.....	18.00	19.00	22.00	18.00	19.00	22.00
0-300	60	70,260	RXRK	.....	20.00	21.00	24.00	20.00	21.00	24.00
0-500	50	117,260	SFSF	.....	.....	26.00	29.00	.....	26.00	29.00
0-600	60	140,000	SJSJ	.....	.....	26.00	29.00	.....	26.00	29.00

SELF CONTAINED, 400 CYCLES

				BIG LOOK List Price				HORIZON LINE List Price		
Scale Volts	Scale Div.	Term. Resis., Ohms	S Add Suffix	1½" DW-90 Not Available	2½" AW-91 Prefix: 50-152 061\$	3½" A0-91 Prefix: 50-162 061\$	4½" A0-92 Prefix: 50-171 061\$	2½" No. 157 Prefix: 50-157 061\$	3½" No. 167 Prefix: 50-167 061\$	4½" No. 178 Prefix: 50-178 061\$
0-150	75†	15,000	PZPZ	.....	\$18.00	\$19.00	\$22.00	\$18.00	\$19.00	\$22.00
0-300	60	70,260	RXRK	.....	20.00	21.00	24.00	20.00	21.00	24.00

†75 divisions, 3½" and 4½" sizes; 30 divisions, 1½" and 2½" sizes.

‡50 divisions, 3½" and 4½" sizes; 25 divisions, 2½" size.

\$When ordering show complete number, prefix plus suffix; example: 50-171 031 LJLJ for 4½" BIG LOOK 0-3 voltmeter.

†Trade-mark of General Electric Co.



PANEL METERS

AC VOLTMETERS (CONT'D) TRANSFORMER-RATED, 0-150 VOLTS



ELECTRONIC
INNOVATIONS
IN ACTION

				BIG LOOK List Price			HORIZON LINE List Price			
Scale Volts	Scale Div.	Term. Resis., Ohms	\$ Add Suffix	1½" DW-90 Not Available	2½" AW-91 Prefix: 50-152 031\$	3½" AO-91 Prefix: 50-162 031\$	4½" AO-92 Prefix: 50-171 031\$	2½" No. 157 Prefix: 50-157 031\$	3½" No. 167 Prefix: 50-167 031\$	4½" No. 178 Prefix: 50-178 031\$
0-600	60	15,000	PZSJ	*****	\$18.00	\$19.00	\$22.00	\$18.00	\$19.00	\$22.00
0-750	75†	15,000	PZSM	*****	18.00	19.00	22.00	18.00	19.00	22.00
0-3000	60	15,000	PZVJ	*****	18.00	19.00	22.00	18.00	19.00	22.00

Accuracy ±3% (60-cycle sine wave, 25°C).

SELF CONTAINED, RECTIFIER TYPE

Scale Volts	Scale Div.	Term. Resis., Ohms	\$ Add Suffix	BIG LOOK List Price			HORIZON LINE List Price			
				1½" DW-90 Prefix: 50-188 051\$	2½" AW-91 Prefix: 50-152 051\$	3½" AO-91 Prefix: 50-162 051\$	4½" AO-92 Prefix: 50-171 051\$	2½" No. 157 Prefix: 50-157 051\$	3½" No. 167 Prefix: 50-167 051\$	4½" No. 178 Prefix: 50-178 051\$
0-10	50	1000 ohms per volt	MTMT	\$23.00	\$23.00	\$24.00	\$27.00	\$23.00	\$24.00	\$27.00
0-15	75†		NDND	23.00	23.00	24.00	27.00	23.00	24.00	27.00
0-20	40		NGNG	23.00	23.00	24.00	27.00	23.00	24.00	27.00
0-25	50		NJNJ	23.00	23.00	24.00	27.00	23.00	24.00	27.00
0-30	60		NLNL	23.00	23.00	24.00	27.00	23.00	24.00	27.00
0-50	50		NTNT	23.00	23.00	24.00	27.00	23.00	24.00	27.00
0-80	40		PDPD	23.00	23.00	24.00	27.00	23.00	24.00	27.00
0-100	50		PKPK	24.00	24.00	25.00	28.00	24.00	25.00	28.00
0-150	75†		PZPZ	24.00	24.00	25.00	28.00	24.00	25.00	28.00
0-200	40		RRLR	*****	*****	25.00	28.00	*****	25.00	28.00
0-250	50		RSRS	*****	*****	25.00	28.00	*****	25.00	28.00
0-300	60		RXR X	*****	*****	26.00	29.00	*****	26.00	29.00

Accuracy ±0.5% of mid-span.

Scale Volts	Scale Div.	Term. Resis., Ohms	\$ Add Suffix	Not Available	Not Available	Prefix: 50-162 071\$	Prefix: 50-171 071\$	Not Available	Prefix: 50-167 071\$	Prefix: 50-178 071\$
10-130	40	100	PNPN	*****	*****	\$52.00	\$55.00	*****	\$52.00	\$55.00
05-125	40	ohms/V	PTPT	*****	*****	52.00	55.00	*****	52.00	55.00

AC AMMETERS (SELF CONTAINED, 25-400 CYCLES)

Scale Amps	Scale Div.	Term. Resis., Ohms	\$ Add Suffix	BIG LOOK List Price			HORIZON LINE List Price			
				1½" DW-90 Not Available	2½" AW-91 Prefix: 50-152 141\$	3½" AO-91 Prefix: 50-162 141\$	4½" AO-92 Prefix: 50-171 141\$	2½" No. 157 Prefix: 50-157 141\$	3½" No. 167 Prefix: 50-167 141\$	4½" No. 178 Prefix: 50-178 141\$
0-1	50	0.16	LALA	.....	\$17.00	\$18.00	\$21.00	\$17.00	\$18.00	\$21.00
0-3	60	0.015	LJLJ	.....	17.00	18.00	21.00	17.00	18.00	21.00
0-5	50†	0.007	LSLS	.....	17.00	18.00	21.00	17.00	18.00	21.00
0-8	40	0.003	MJMJ	.....	17.00	18.00	21.00	17.00	18.00	21.00
0-10	50	0.0024	MTMT	.....	17.00	18.00	21.00	17.00	18.00	21.00
0-15	75†	0.0016	NDND	.....	17.00	19.00	22.00	17.00	18.00	21.00
0-20	40	0.001	NGNG	.....	18.00	19.00	22.00	18.00	19.00	22.00
0-30	60	0.0006	NLNL	.....	18.00	21.00	24.00	18.00	19.00	22.00
0-50*	50	0.0004	NTNT	.....	.....	21.00	24.00	.....	21.00	24.00
0-80*	.....	0.0004	PDPD	.....	.....	24.00	27.00	.....	24.00	27.00

TRANSFORMER-RATED, 0-5 AMPERES, 25-400 CYCLES

0-10	50	0.007	LSMT	.....	\$17.00	\$18.00	\$21.00	\$17.00	\$18.00	\$21.00
0-15	75†		LSND	.....	17.00	18.00	21.00	17.00	18.00	21.00
0-20	40		LSNG	.....	17.00	18.00	21.00	17.00	18.00	21.00
0-30	60		LSNL	.....	17.00	18.00	21.00	17.00	18.00	21.00
0-40	40		LSNP	.....	17.00	18.00	21.00	17.00	18.00	21.00
0-50	50		LSNT	.....	17.00	18.00	21.00	17.00	18.00	21.00
0-75	75†		LSPB	.....	17.00	18.00	21.00	17.00	18.00	21.00
0-80	40		LSPD	.....	17.00	18.00	21.00	17.00	18.00	21.00
0-100	50		LSPK	.....	17.00	18.00	21.00	17.00	18.00	21.00
0-150	75†		LSPZ	.....	17.00	18.00	21.00	17.00	18.00	21.00
0-200	40	0.007	LSRL	.....	17.00	18.00	21.00	17.00	18.00	21.00
0-300	60		LSRX	.....	17.00	18.00	21.00	17.00	18.00	21.00
0-400	40		LSSC	.....	17.00	18.00	21.00	17.00	18.00	21.00
0-500	50		LSSJ	.....	17.00	18.00	21.00	17.00	18.00	21.00
0-600	60		LSSJ	.....	17.00	18.00	21.00	17.00	18.00	21.00
0-800	40		LSSN	.....	17.00	18.00	21.00	17.00	18.00	21.00
0-1000	50		LSVA	.....	17.00	18.00	21.00	17.00	18.00	21.00
0-1200	60		LSVB	.....	17.00	18.00	21.00	17.00	18.00	21.00
0-1500	75†		LSVC	.....	17.00	18.00	21.00	17.00	18.00	21.00
0-2000	40		LSVE	.....	17.00	18.00	21.00	17.00	18.00	21.00
0-3000	60		LSVJ	.....	17.00	18.00	21.00	17.00	18.00	21.00

AC MILLIAMMETERS (SELF CONTAINED, 25-400 CYCLES)

-10 mA	50	2158	GZGZ	*****	\$17.00	\$18.00	\$21.00	\$17.00	\$18.00	\$21.00
-25 mA	50	341	HJHJ	*****	17.00	18.00	21.00	17.00	18.00	21.00
-50 mA	50	84	HYHY	*****	17.00	18.00	21.00	17.00	18.00	21.00
-100 mA	50	21	JRJR	*****	17.00	18.00	21.00	17.00	18.00	21.00
-200 mA	40	4.1	KAKA	*****	17.00	18.00	21.00	17.00	18.00	21.00
-500 mA	50	0.7	KMKM	*****	17.00	18.00	21.00	17.00	18.00	21.00

AC MILLIAMMETERS AND MICROAMMETERS (RECTIFIER TYPE)

Accuracy ±3% (60-cycle sine wave, 25°C).

				BIG LOOK List Price			HORIZON LINE List Price			
Scale mA	Scale Div.	Term. Resis. Ohms	S Add Suffix	1½" DW-90 Not Available	2½" AW-91 Prefix: 50-152 151\$	3½" AO-91 Prefix: 50-162 151\$	4½" AO-92 Prefix: 50-171 151\$	2½" No. 157 Prefix: 50-157 151\$	3½" No. 167 Prefix: 50-167 151\$	4½" No. 179 Prefix: 50-178 151\$
-1 mA	50	570	FAFA	.....	\$22.00	\$23.00	\$26.00	\$22.00	\$23.00	\$26.00
-1.5 mA	75†	375	FDFD	.....	22.00	23.00	26.00	22.00	23.00	26.00
-2 mA	40	325	FGFG	.....	22.00	23.00	26.00	22.00	23.00	26.00
-3 mA	60	197	FNFN	.....	22.00	23.00	26.00	22.00	23.00	26.00
-5 mA	50	139	FXFX	.....	22.00	23.00	26.00	22.00	23.00	26.00
-10 mA	50	90	GZGZ	.....	22.00	23.00	26.00	22.00	23.00	26.00
-20 mA	40	62	HFHF	.....	22.00	23.00	26.00	22.00	23.00	26.00
-500 μA	50	985	EMEM	.....	22.00	23.00	26.00	22.00	23.00	26.00
-800 μA	40	655	EW EW	.....	22.00	23.00	26.00	22.00	23.00	26.00

Divisions, except 30 on 1 1/2" and 2 1/2" sizes.

Divisions, except 25 on 2 1/2" size.

When ordering show complete number, prefix plus suffix; example: 50-171 151 EMEM

1 1/2" and 2 1/2" BIG LOOK AC ammeter.

Trade-mark of General Electric Co.

* Do not have sealed terminal studs.

† With external magnetic shield assembled to meter base.

GENERAL ELECTRIC



PANEL METERS

GE ELECTRONIC INNOVATIONS IN ACTION

NEW 185 SERIES EDGEWISE METERS

Slim, miniature design can be mounted individually or in space-saving clusters. Choice of horizontal or vertical placement. Flush sides assure tight, case-to-case stacking without mechanism bulge. Magnetically shielded to prevent interaction between meters; no need for special calibration. Optional bezel and mounting brackets available for one, two or three-unit stacking. Meet applicable portions of ASA C-39.1. Accuracy: $\pm 2\%$ of full scale, DC meters; $\pm 3\%$ with 60-cycle sine wave at 25°C, AC rectifier-type meters. Overload: 20% momentary and sustained; voltmeter; 1000% momentary and sustained; ammeter. Insulation: 1800 V rms hi-pot.

Scale: 1.785" long, 53° rotation. Response Time and Damping: Meet or exceed ASA requirements. Response time 3 sec. max., μ A meters; 2 sec. max., all other DC ratings; 2.5 sec. max., AC ratings. Damping 40% max. overshoot; damping factor ≥ 2.5 minimum. Size: 0.92" w. x 2.258" lg. x 3.44" D., overall. Bezel 1.255" x 3.005" lg., single; 2.155" w., double; 3.055" w., triple-unit mounting.

DC VOLTMETERS (SELF CONTAINED)

Scale Range	Term. Resis., Ohms	Horizontal Zero-Left* Number	Vertical Zero-Bottom* Number	List Price
0-10		50-185 011 MTMT	50-185 013 MTMT	\$19.00
0-15		50-185 011 NDND	50-185 013 NDND	19.00
0-30	1000	50-185 011 NLNL	50-185 013 NLNL	19.00
0-50		50-185 011 NTNT	50-185 013 NTNT	19.00
0-100	volt	50-185 011 PKPK	50-185 013 PKPK	19.00
0-150		50-185 011 PZPZ	50-185 013 PZPZ	19.00
0-300		50-185 011 RXXR	50-185 013 RXXR	20.00
15-0-15	2000	50-185 012 NDND	50-185 014 NDND	19.00
50-0-50	ohms/v	50-185 012 NTNT	50-185 014 NTNT	19.00
150-0-150	volt	50-185 012 PZPZ	50-185 014 PZPZ	20.00

DC VOLTMETERS (FOR EXTERNAL RESISTORS)

Rated 0-1 mA for use with external resistor, not supplied.

0-500	40	50-185 111 FASF	50-185 113 FASF	\$18.00
0-600	40	50-185 111 FASJ	50-185 113 FASJ	18.00
0-750	40	50-185 111 ASJM	50-185 113 ASJM	18.00

DC MICROAMMETERS (SELF CONTAINED)

0-20	2030	50-185 111 CFCF	50-185 113 CFCF	\$31.00
0-50	1625	50-185 111 CYCY	50-185 113 CYCY	25.00
0-100	1350	50-185 111 DRDR	50-185 113 DRDR	21.00
0-500	200	50-185 111 EMEM	50-185 113 EMEM	21.00
50-0-50	1350	50-185 112 CYCY	50-185 114 CYCY	21.00
500-0-500	40	50-185 112 EMEM	50-185 114 EMEM	18.00

DC MILLIAMMETERS (SELF CONTAINED)

0-1	40	50-185 111 FAFA	50-185 113 FAFA	\$18.00
0-5	2.0	50-185 111 FAFX	50-185 113 FAFX	18.00
1-10	0.099	50-185 111 GZGZ	50-185 113 GZGZ	18.00
0-20	0.5	50-185 111 HFHF	50-185 113 HFHF	18.00
0-50	1.0	50-185 111 HYHY	50-185 113 HYHY	18.00
0-100	0.5	50-185 111 JRJR	50-185 113 JRJR	18.00
0-300	0.167	50-185 111 KGKG	50-185 113 KGKG	18.00
0-500	0.099	50-185 111 KMKM	50-185 113 KMKM	18.00
10-0-10	1.0	50-185 112 FAFX	50-185 114 FAFX	18.00
10-0-50	0.5	50-185 112 GZGZ	50-185 114 GZGZ	18.00
50-0-50	0.5	50-185 112 HYHY	50-185 114 HYHY	18.00
500-0-500	0.049	50-185 112 KMKM	50-185 114 KMKM	18.00

DC AMMETERS (SELF CONTAINED)

0-1	0.049	50-185 111 LALA	50-185 113 LALA	\$18.00
0-5	0.0099	50-185 111 LSL5	50-185 113 LSL5	18.00
0-10	0.0049	50-185 111 MTMT	50-185 113 MTMT	18.00
5-0-5	0.0049	50-185 112 LSL5	50-185 114 LSL5	18.00

DC AMMETERS (50 mV SHUNT-RATED)

Shunt not supplied. Calibrated for use with 2-way shunt-lead resistance of 0.065 ohm.

0-20	12.5	50-185 121 ECNG	50-185 123 ECNG	\$18.00
0-50	12.5	50-185 121 ECNT	50-185 123 ECNT	18.00
0-300	12.5	50-185 121 ECRX	50-185 123 ECRX	18.00
0-500	12.5	50-185 121 ECF5	50-185 123 ECF5	18.00

AC RECTIFIER TYPE INSTRUMENTS

Self-contained with linear scale. Accuracy, $\pm 3\%$.

0-10 V		50-185 051 MTMT	50-185 053 MTMT	\$24.00
0-15 V		50-185 051 NDND	50-185 053 NDND	24.00
0-30 V	1000	50-185 051 NLNL	50-185 053 NLNL	24.00
0-50 V	ohms/v	50-185 051 NTNT	50-185 053 NTNT	24.00
0-100 V	volt	50-185 051 PKPK	50-185 053 PKPK	25.00
0-150 V		50-185 051 PZPZ	50-185 053 PZPZ	25.00
0-50 μ A	985	50-185 151 EMEM	50-185 153 EMEM	23.00
0-1 mA	570	50-185 151 FAFA	50-185 153 FAFA	23.00
0-5 mA	139	50-185 151 FAFX	50-185 153 FAFX	23.00
0-10 mA	90	50-185 151 GZGZ	50-185 153 GZGZ	23.00
0-20 mA	62	50-185 151 HFHF	50-185 153 HFHF	23.00

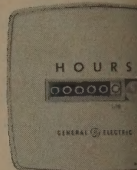
*Zero-center as listed.

†Trade-mark of General Electric Co.

TYPE 236

BIG LOOK™ ELAPSED TIME METERS

Offers distinctive appearance and excellent readability; designed to match ammeters and voltmeters with "Big Look" styling. Models are available for every time-measuring application. Both 2 1/2" and 3 1/2" sizes for panel mounting, plus 2 1/2" size for use with conduit type case or portable stand. All panel mounted timers meet requirements of ASA specification C39.1 for four-stud mounting. Available in reset and non-reset types, measuring either minutes or hours. Types listed are 60 cps operation, for 50 cps, add \$1.00 to list price. For 208-volt type specify model desired and add \$1.50 to list price of 240-volt model.



NONRESET TYPE — COMMERCIAL CASE

G.E. Model Number	Size In.	Voltage VAC	List Price
Minutes			
50-236401AAAA1	2 1/2	120	\$2.00
50-236401ABAA1	2 1/2	240	2.00
50-236401ACAA1	2 1/2	480	2.00
Hours			
50-236402AAAA1	2 1/2	120	\$2.00
50-236402ABAA1	2 1/2	240	2.00
50-236402ACAA1	2 1/2	480	2.00

SEALED CASE

G.E. Model Number	Size In.	Voltage VAC	List Price
Minutes			
50-236421AAAA1	2 1/2	120	\$2.00
50-236421ABAA1	2 1/2	240	2.00
50-236421ACAA1	2 1/2	480	2.00
Hours			
50-236321AAAA1	3 1/2	120	2.00
50-236321ABAA1	3 1/2	240	2.00
50-236321ACAA1	3 1/2	480	2.00

RESET KNOB TYPE — COMMERCIAL CASE

G.E. Model Number	Size In.	Voltage VAC	List Price
Minutes			
50-236411AAAA1	2 1/2	120	\$3.00
50-236411ABAA1	2 1/2	240	3.00
50-236411ACAA1	2 1/2	480	3.00
Hours			
50-236311AAAA1	3 1/2	120	3.00
50-236311ABAA1	3 1/2	240	3.00
50-236311ACAA1	3 1/2	480	3.00

TYPE KT-11 TIME METERS

Ideal indicator for proper servicing and preventive maintenance in industry or for catalog component line. Available in 2 1/2" and 3 1/2" sizes, round or square cases, for mounting on panel board or in equipment case. Diecast zinc bezel with aluminum face. Wide temperature operating range 6-digit register. Extra large counter number white on black background for excellent readability. Last digit in contrasting color indicates tenths. Bezel and plastic case provide dust-resistant enclosure for mechanism. Available with or without reset knob. ASA panel mounting specifications. For 50 cps operation, add \$1.00 to list price. For 208-volt type specify model desired and add \$1.50 to list price of 240-volt model.

NON-RESET TYPE — ROUND CASE

G.E. Model Number	Size In.	Voltage VAC	List Price
Minutes			
50-235011AAAA1	2 1/2	120	\$2.00
50-235011ABAA1	2 1/2	240	2.00
50-235011ACAA1	2 1/2	480	2.00
Hours			
50-235091AAAA1	3 1/2	120	2.00
50-235091ABAA1	3 1/2	240	2.00
50-235091ACAA1	3 1/2	480	2.00

SQUARE CASE

G.E. Model Number	Size In.	Voltage VAC	List Price
Minutes			
50-235051AAAA1	2 1/2	120	\$2.00
50-235051ABAA1	2 1/2	240	2.00
50-235051ACAA1	2 1/2	480	2.00
Hours			
50-235131AAAA1	3 1/2	120	2.00
50-235131ABAA1	3 1/2	240	2.00
50-235131ACAA1	3 1/2	480	2.00

RESET KNOB TYPE — ROUND CASE

G.E. Model Number	Size In.	Voltage VAC	List Price
Minutes			
50-235021AAAA1	2 1/2	120	\$3.00
50-235021ABAA1	2 1/2	240	3.00
50-235021ACAA1	2 1/2	480	3.00
Hours			
50-235101AAAA1	3 1/2	120	3.00
50-235101ABAA1	3 1/2	240	3.00
50-235101ACAA1	3 1/2	480	3.00

SQUARE CASE

G.E. Model Number	Size In.	Voltage VAC	List Price
Minutes			
50-235061AAAA1	2 1/2	120	\$3.00
50-235061ABAA1	2 1/2	240	3.00
50-235061ACAA1	2 1/2	480	3.00
Hours			
50-235141AAAA1	3 1/2	120	3.00
50-235141ABAA1	3 1/2	240	3.00
50-235141ACAA1	3 1/2	480	3.00

METER RELAYS

TYPE 195 METER RELAYS



General Electric 195 Meter Relays feature a **mid-state, light-sensitive switch** for optimum control simplicity and reliability. This switch controls load relay directly; no amplifiers, no pointer contacts... no mechanical interference with meter movement. Pointer travel is unrestricted across the entire scale... you get **continuous indication** above and below the setpoints! Control action is dependable and repeatable over entire range!

Unique **piggy-back control modules** on 3½-inch 4½-inch 195's, eliminate mounting and wiring

of separate components... speed up and simplify installation. Control mounts directly on rear of indicator; no soldering, no complicated connections... just plug-in and they're mated! Control module may be removed without interrupting measurement circuit.

Other 195 features include: **ON-OFF** (automatic reset) or **Alarm** (manual reset) **Control... 120-volt A-c Operation!** No special power supply needed... **Long Lamp Life!** Conservatively estimated at 5 years... **Fail-safe Operation.**



Rating and Scale	Meter Size		
	2½-inch*	3½-inch	4½-inch
	List Price (With Single Set-point)†		

VOLTMETERS, ZERO-CENTER

Use with external resistors. (Resistors included.)

50-0-500 Volts	\$112	.....	.....
50-0-600 Volts	112	109	112
50-0-750 Volts	112	\$108	\$110

MICROAMMETERS, ZERO-LEFT

20 ua	\$123	.....	.....
50 ua	119	\$115	.....
100 ua	115	111	\$114
200 ua	113	109	112
500 ua	112	108	110

MICROAMMETERS, ZERO-CENTER

50-0-50 ua	\$115	\$111	\$114
100-0-100 ua	113	109	112
200-0-200 ua	112	108	110
500-0-500 ua	112	108	110

MILLIAMMETERS, ZERO-LEFT

1 Ma	\$112	\$108	110
1.5 Ma	112	108	110
3 Ma	112	108	110
5 Ma	112	108	110
10 Ma	112	108	110
20 Ma	112	108	110
25 Ma	112	108	110
30 Ma	112	108	110
50 Ma	112	108	110
80 Ma	112	108	110
100 Ma	112	108	110
150 Ma	112	108	110
200 Ma	112	108	110
250 Ma	112	108	110
300 Ma	112	108	110
500 Ma	112	108	110
800 Ma	112	108	110

VOLTMETERS, ZERO-LEFT

1.0 Volts	\$113	\$109	\$111
1.5 Volts	113	109	111
3 Volts	113	109	111
5 Volts	113	109	111
8 Volts	113	109	111
10 Volts	113	109	111
15 Volts	113	109	111
30 Volts	113	109	111
50 Volts	113	109	111
80 Volts	113	109	111
100 Volts	113	109	112
150 Volts	113	109	112
200 Volts	113	109	112
250 Volts	113	109	112
300 Volts	114	110	113
500 Volts	.....	111	114
600 Volts	.....	111	114

VOLTMETERS, ZERO-LEFT

Use with external resistors. (Resistors included.)

500 Volts	\$112	.....	.....
600 Volts	112	109	111
750 Volts	112	\$108	\$110

VOLTMETERS, ZERO-CENTER

5-0-5 Volts	\$113	\$109	\$111
10-0-10 Volts	113	109	111
30-0-30 Volts	113	109	111
50-0-50 Volts	113	109	111
30-0-80 Volts	113	109	111
50-0-150 Volts	113	109	112
20-0-300 Volts	114	110	113
50-0-500 Volts	.....	111	114
20-0-600 Volts	.....	111	114

Two and one-half-inch meter relays include mounting bracket and six-foot plug-in lead — necessary kit 1012K10G701.
Prices listed are for meter relays with single set-point. For double set-point, add \$25.

Rating and Scale	Meter Size		
	2½-inch*	3½-inch	4½-inch
	List Price (With Single Set-point)†		

D-C MILLIAMMETERS, ZERO-CENTER

1-0-1 Ma	\$112	\$108	\$110
3-0-3 Ma	112	108	110
5-0-5 Ma	112	108	110
10-0-10 Ma	112	108	110
20-0-20 Ma	112	108	110
25-0-25 Ma	112	108	110
30-0-30 Ma	112	108	110
50-0-50 Ma	112	108	110
100-0-100 Ma	112	108	110
150-0-150 Ma	112	108	110
200-0-200 Ma	112	108	110
250-0-250 Ma	112	108	110
300-0-300 Ma	112	108	110
500-0-500 Ma	112	108	110

D-C AMMETERS, ZERO-LEFT

1 Amp	\$112	\$108	\$110
1.5 Amp	112	108	110
2 Amp	112	108	110
3 Amp	112	108	110
5 Amp	112	108	110
10 Amp	112	108	110
15 Amp	112	108	110
20 Amp	112	108	110
30 Amp	112	108	110
50 Amp	.....	108	110

D-C AMMETERS, 50-MV SHUNT-RATED, ZERO-LEFT (Shunt and leads not included)

20 Amp	\$112	\$108	.....
30 Amp	112	108	.....
50 Amp	112	108	\$110
75 Amp	112	108	110
100 Amp	112	108	110
150 Amp	112	108	110
200 Amp	112	108	110
250 Amp	112	108	110
300 Amp	112	108	110
400 Amp	112	108	110
500 Amp	112	108	110
600 Amp	112	108	110
800 Amp	112	108	110
1 KA	112	108	110
1.5 KA	112	108	110
2.0 KA	112	108	110

D-C AMMETERS, 100-MV SHUNT-RATED, ZERO-LEFT (Shunt and leads not included)

20 Amp	\$112	\$108	\$110
40 Amp	112	108	110
50 Amp	112	108	110
75 Amp	112	108	110
100 Amp	112	108	110
150 Amp	112	108	110
200 Amp	112	108	110
250 Amp	112	108	110
300 Amp	112	108	110
400 Amp	112	108	110
500 Amp	112	108	110
600 Amp	112	108	110
800 Amp	112	108	110
1 KA	112	108	110
2 KA	112	108	110

D-C AMMETERS, ZERO-CENTER

1-0-1 Amp	\$112	\$108	\$110
2-0-2 Amp	112	108	110
5-0-5 Amp	112	108	110
10-0-10 Amp	112	108	110
15-0-15 Amp	112	108	110
20-0-20 Amp	112	108	110
30-0-30 Amp	112	108	110
50-0-50 Amp	.....	108	110

Rating and Scale	Meter Size		
	2½-inch*	3½-inch	4½-inch
	List Price (With Single Set-point)†		

D-C AMMETERS, 50-MV SHUNT-RATED, ZERO-CENTER (Shunt & leads not included)

50-0-50 Amp	\$112	\$108	\$110
75-0-75 Amp	112	108	110
100-0-100 Amp	112	108	110
150-0-150 Amp	112	108	110

A-C VOLTMETERS, RECTIFIER-TYPE

10 Volts	\$118	\$114	\$117
15 Volts	118	114	117
20 Volts	118	114	117
25 Volts	118	114	117
30 Volts	118	114	117
50 Volts	118	114	117
80 Volts	118	114	117
100 Volts	119	115	118
150 Volts	119	115	118
200 Volts	.....	115	118
250 Volts	.....	116	119
300 Volts	.....	116	119

A-C MICROAMMETERS, RECTIFIER-TYPE

500 ua	\$117	\$113	\$116
800 ua	117	113	116

A-C MILLIAMMETERS, RECTIFIER-TYPE

1 Ma	\$117	\$113	\$116
1.5 Ma	117	113	116
2 Ma	117	113	116
3 Ma	117	113	116
5 Ma	117	113	116
10 Ma	117	113	116
20 Ma	117	113	116

A-C AMMETERS, RECTIFIER-TYPE

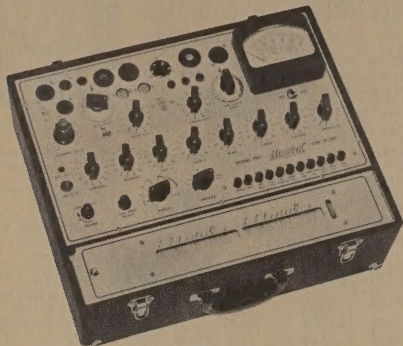
(Rectifier-type milliammeter with external 5A/20 ma transformer included)

Combined Rating 5 Amp	\$129	\$125	\$128
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TRANSFORMER-RATED AMMETERS (Same as above except scales marked as follows):

10 Amp	\$129	\$125	\$128
15 Amp	129	125	128
20 Amp	129	125	128
30 Amp	129	125	128
40 Amp	129	125	128
50 Amp	129	125	128
75 Amp	129	125	128
80 Amp	129	125	128
100 Amp	129	125	128
150 Amp	129	125	128
200 Amp	129	125	128
300 Amp	129	125	128
400 Amp	129	125	128
500 Amp	129	125	128
600 Amp	129	125	128
800 Amp	129	125	128
1 KA	129	125	128
1.2 KA	129	125	128
1.5 KA	129	125	128
2.0 KA	129	125	128
3.0 KA	129	125	128

GENERAL ELECTRIC

HICKOK**TUBE TESTERS****MODEL 580A****Laboratory and Industrial Portable Tube Tester**

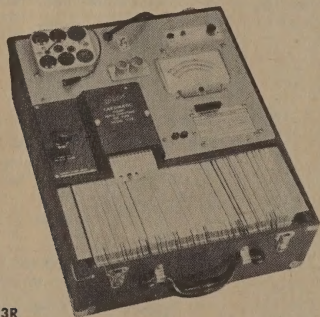
An entirely new instrument which can be set up directly to any tube test condition without having to rely upon the built-in roll chart. All tube potentials individually variable. Accommodates 4, 5, 6, 7-pin, octal, 7, 9 and 10-pin miniature, 7 and 8-pin sub-miniature, 5 and 7-pin Nuvistors, Compactrons and Novars. Leakage test sensitivity to 50 megohms. Gas test circuit detects grid current to 0.05 microamperes. Gm ranges to 60,000 umhos. Cathode reserve test. Push button feature speeds check on dual section tubes. In black leatherette portable case, 19" x 15½" x 7". 105-125v, 60 cycles. 60 watts. Shipping weight, 35 lbs.

Model 580A Laboratory and Industrial Portable Tube Tester—Net Each..... \$585.00

**MODEL 539C****New Industrial and Laboratory Portable Tube Tester**

Tests VR tubes, low power thyristors, "4 digit" types. VR test evaluates voltage regulator tubes under actual operating conditions. Tests Nuvistors, Novars, Compactrons, 10-pin types. Provision for separate monitoring of plate current. Panel terminals provide access to grid, plate, cathode and heater circuits, permitting direct measurement of voltages and current for "non-standard" or "tailored" tests. Covers 600 to 60,000 umhos in six ranges. Dual leakage readings: directly on meter or by neon short indicators (Sensitivity to 50 megohms). Complete with socket savers. In black leatherette portable case, 16¼" x 18¾" x 7½". 105-125v, 50-400 cycles, 40 watts. Shipping weight, 35 lbs.

Model 539C Industrial and Laboratory Tube Tester—Net Each..... \$525.00

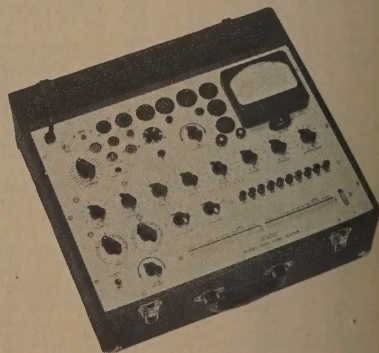
**MODEL 123R****Cardmatic® Automatic Tube Tester**

Ideal for industrial and laboratory application. A genuinely complete tube tester, card-programs complete "fringe" tests, saturation and cut-off tests, in addition to basic Gm measurement. Gm ranges: 500-26,000 umhos; Current ranges: 100 ua to 510MA. Complete with pin straighteners, socket savers and 500 selected cards. In black leatherette portable case, 19½" x 16½" x 9¼". 105-125v, 50-60 cycles, 55 watts. Shipping weight, 57 lbs.

Model 123R—Cardmatic® Automatic Tube Tester—Net Each..... \$595.00

Model 121 Cardmatic® Automatic Tube Tester. Low-priced version of the Model 123R. Measures Gm plus saturation, cut-off and important "fringe" tests. Also Tests transistors and diodes. Supplied with 342 selected cards covering popular entertainment tube types. In red leatherette portable case, 19¾" x 13¼" x 8". Shipping weight, 39 lbs.

Net Each \$359.50

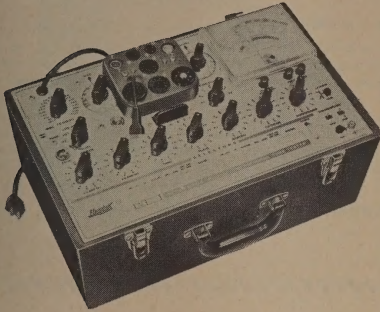
**NEW MODEL 752A****New Industrial Communications Portable Tube Tester**

Designed for use in maintaining communications equipment and industrial electronic apparatus. New voltage regular test circuit tests VR tubes to handbook specifications, including firing point, regulating voltage and current range. Tests Nuvistors, Compactrons, Novars, 10-pin types. Push button test for dual-section tubes speeds selection of tubes for balanced or matched characteristics. Covers 1500 to 30,000 umhos in five ranges. Interelement leakage read directly on the meter (Sensitivity to 10 megohms). Illuminated meter and roll chart. Complete with socket savers and pin-straighteners. In black leatherette portable case, 18¾" x 16¼" x 7½". 105-125v, 50-60 cycles, 40-70 watts. Shipping weight, 27 lbs.

Model 752A Industrial and Communication Portable Tube Tester—Net Each..... \$365.00

THE HICKOK ELECTRICAL INSTRUMENT CO.

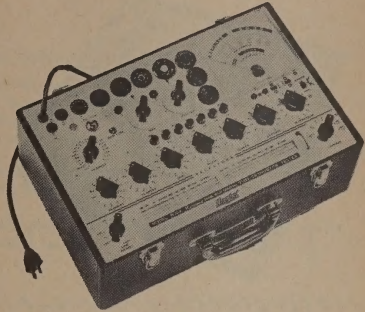
TUBE TESTERS

HICKOK**MODEL 6000A**

Service Technician's Deluxe Portable Tube and Transistor Tester

Has replaceable socket plate for obsolescence protection. Sensitive, instantaneous inter-element leakage and shorts test (Sensitivity—in excess of 3 megohms) filament continuity test. Covers 3,000 to 15,000 umhos in 3 ranges. Tests Compactrons, Nuvisors, Novars and 10-pin types. 14-position selector switches, no paralleled elements. Also tests transistors and diodes. In red leatherette portable case, 16 $\frac{1}{4}$ " x 11 $\frac{3}{4}$ " x 7 $\frac{1}{2}$ ". 105-125v, 50-70 cycles, 40 watts. Shipping weight, 21 lbs.

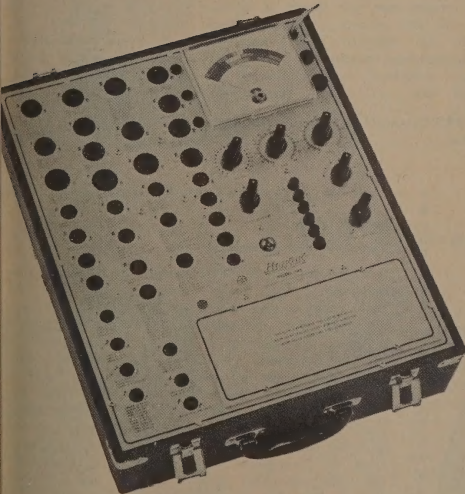
Model 6000A Deluxe Portable Tube and Transistor Tester—Net Each \$239.50

**MODEL 800A**

Service Technician's Portable Tube, Transistor and Diode Tester

Tests 4, 5, 6, 7-pin, octal, loctal, compactrons, 10-pin "headers," 5 and 7-pin Nuvisors and Novars. 14-position selector switches, no paralleled elements. Provides direct meter reading of inter-element leakage and shorts. New filament continuity test speeds test of series string tubes. Also tests transistors and diodes. Complete with test leads. In red leatherette portable case, 16 $\frac{1}{4}$ " x 11 $\frac{3}{4}$ " x 7 $\frac{1}{2}$ ". Shipping weight, 21 lbs.

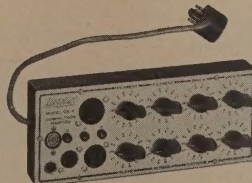
Model 800A Portable Tube, Transistor and Diode Tester—Net Each \$219.95

NEW!**MODEL 799**

"Mustang" Multi-Socket Tube Tester

Mutual Conductance tests in a unique solid-state design. Transistorized sensing circuit provides 50 megohm leakage tests, 0.1 ua gas and emission tests. 39 sockets including new decal 10-pin socket. Color-coded "permutator" switch triples effective socket coverage. Two continuously variable Gm ranges to 20,000 umhos. Replaceable panel plate accommodates socket assembly for future tube additions, 15 $\frac{1}{2}$ " x 18 $\frac{1}{2}$ " x 6 $\frac{1}{2}$ ". Shipping weight, 21 lbs.

Model 799 Multi-Socket Tube Tester—Net Each \$199.95

**MODEL CA-4**

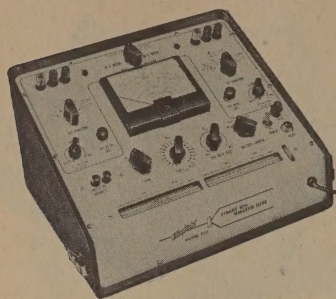
Universal Adapter

For testing Compactrons, Novars, 5- and 7-pin Nuvisors, 10-pin types. No paralleled connections — gives an honest, complete mutual conductance test when used with a Hickok

Tube Tester. Suitable for Cardmatic models and most other models except Models 532, 533, 534, 536, 538, 539A, 546, 600 and 605. Shipping weight, 6 lbs.

Model CA-4 Universal Adapter—Net Each \$59.50

THE HICKOK ELECTRICAL INSTRUMENT CO.

HICKOK**TRANSISTOR TESTERS****MODEL 870****Dynamic Beta Transistor Tester**

Measures AC and DC Beta. Collector test current variable up to 2 amperes, permitting Beta measurement on power transistors rated 5 amperes or more. Variable collector voltage and current permit tests according to manufacturers' specifications—Tests switching transistors, measures large signal DC Beta on power transistors—small signal AC Beta on low and medium power transistors. I_{co} Ranges: 100ua, 1ma, 10ma; Beta Ranges: 0-100, 0-300. Complete with replaceable roll chart and test leads in black leatherette portable case 14 $\frac{1}{2}$ " x 11 $\frac{1}{2}$ " x 7 $\frac{1}{8}$ ". 115v-60 cycles, 40 watts. Shipping weight, 22 lbs.

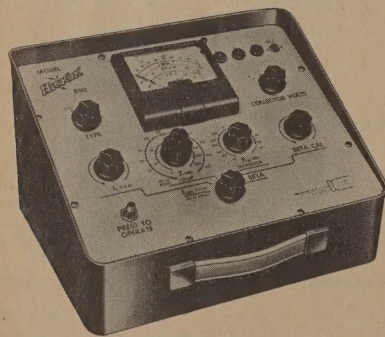
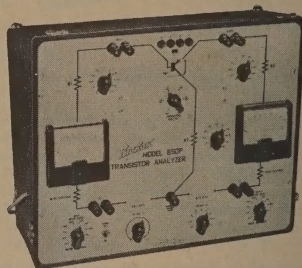
Model 870 DYNAMIC BETA Transistor Tester—Net Each \$355.00

MODEL 850P**Engineer's Portable Transistor Analyzer**

Ideal for use as a "breadboard" in transistor circuit design and development. Checks basic transistor parameters in any of three configurations; common base, common emitter and common collector. Identical input and output meters cover 100ua to 1 ampere in 5 ranges. Battery operated. Furnished complete with leads in black leatherette portable case, 16 $\frac{1}{2}$ " x 8" x 13 $\frac{1}{2}$ ". Shipping weight 20 lbs.

Model 850P Engineer's Portable Transistor Analyzer—Net Each

\$169.50

**MODEL 890****Dynamic Beta In-Circuit Transistor Test**

Utilizes unique new test circuit to measure AC Beta in OR OUT of circuit with 5% accuracy. Measures these in-circuit parameters: AC Beta, I_c, R_{in} (transistor input impedance), Z Ohms (base-emitter circuit impedance). Measures AC Beta, I_c, R_{in} and I_{co} out of circuit. Portable, completely self-contained, fully-transistorized — battery operated. 10 $\frac{3}{4}$ " x 9" x 6 $\frac{1}{2}$ ". Shipping weight 8 lbs.

Model 890 Dynamic Beta In-Circuit Transistor Tester—Net Each.....

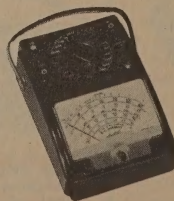
\$155.00

MODEL 455A**Burn-Out Proof Volt—Ohm—Milliammeter**

Has Hickok's exclusive overload cut-out and protection system providing complete safety against burn-outs for the meter and all multipliers, shunts and other components. 20,000 ohms/volt AC and DC. AC/DC Volts: 3, 15, 60, 150, 600, 1200v; Resistance, 0-100 megohms in 4 ranges; Center Scale Ranges: 5, 500, 5000, 500,000 ohms. Current Ranges: 50ua, 1, 10, 100, 100 MA, 10 amperes. Attractive, streamlined case, large easy to read meter. Battery operated. 8 $\frac{1}{2}$ "L x 5 $\frac{1}{8}$ "W x 3"H tapering to 1 $\frac{3}{4}$ "H. Complete with leads. Shipping weight (two per carton), 12 lbs.

Model 455A Burn-Out Proof Volt-Ohm-Milliammeter—Net Each

\$89.50

**MODEL 470A****Electronic Volt-Ohmmeter**

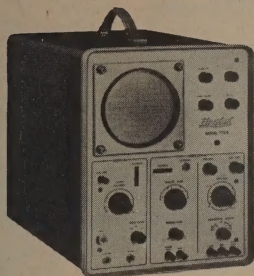
A major advance in VTVM design, the 470A provides increased ranges in all functions—using just two basic scales to cover eight ranges. AC and DC values are read from the same scales—AC errors due to crowding are eliminated. Ranges: DC, AC rms and AC peak-to-peak, 0.5-1500v. New AC-DC—Ohms single unit probe eliminates the need for multiple leads. Ohmmeter: Center Scale, 10 Ohms, Ohms X1, X10, X100, X1000, X10,000, X100,000, X1M, X10M. Readability 0.2 ohms to 100 megohms. Input impedance DC volts 15 megohms, AC volts 15 megohms. DC resistance paralleled with approximately 150 uufd. 105-125v, 50-400 cycles, 15 watts, 6 $\frac{3}{4}$ " x 7 $\frac{1}{2}$ " x 4 $\frac{1}{2}$ ". Complete with single unit probe and test leads. Shipping weight, 8 lbs.

Model 470A Electronic Volt-Ohmmeter—

Net Each..... \$89.50

THE HICKOK ELECTRICAL INSTRUMENT CO.

VTVM - VOM - OSCILLOSCOPES

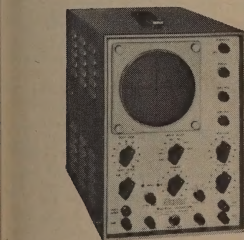
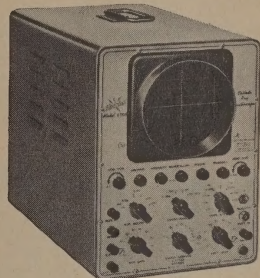
HICKOK**MODEL 770A****5", Wide-band Industrial and General Purpose Oscilloscope.**

Calibrated 4MC DC vertical amplifier has Gaussian roll-off for optimum pulse response. Eight-step attenuator with ranges from 0.01V to 50V/div accurate to within 5%. Built-in square calibrator accurate to $\pm 3\%$. Time base with 5X magnifier, provides 18 calibrated writing speeds from 0.2 usec/div to 1.5 sec/div at $\pm 3\%$ accuracy. Choice of free-running, driven, or automatic sweep modes is also provided. Has flat-face, post-accelerated CRT, illuminated graticule. 13 $\frac{3}{4}$ " x 11" x 17 $\frac{1}{2}$ ". Shipping weight, 57 lbs.

Model 770A 5". Wide-band Industrial and General Purpose Oscilloscope—Net Each..... \$585.00

MODEL 675A**Wide Band, High Sensitivity Oscilloscope**

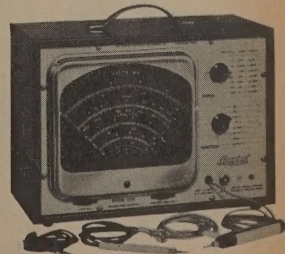
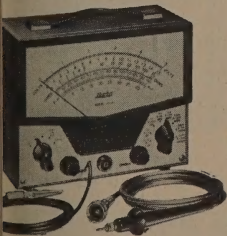
5" scope with an illuminated, calibrated screen. Vertical amplifier response within 3 db, DC through 4.5MC, flat through 3.58MC color burst frequency. Astigmatic control provides a new standard of undistorted trace detail. 105-125v, 50-400 cycles, 125 watts. In steel case, 10" x 16" x 13" complete with low capacity probe and ground lead. Shipping weight 45 lbs.

Model 675A, Wide Band, High Sensitivity Oscilloscope—**Net Each..... \$345.00****MODEL 677****Wide-Band Service Technicians 5" AC Oscilloscope**

5 cps to 4.5MC within 3db. New 1-2-3 circuit approach simplifies peak-to-peak measurements. Pre-set horizontal and vertical sweep positions. Sharp, bright trace with astigmatic correction, facilitates detailed observations of TV sync wave forms, including 3.58MC color burst. Furnished complete with detailed application and instruction book and test leads. 14" x 9 $\frac{1}{2}$ " x 18 $\frac{1}{2}$ ". Shipping weight, 36 lbs.

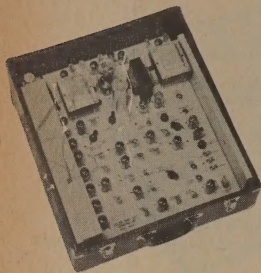
Model 677 Wide-Band Service Technicians 5"**Oscilloscope—Net Each..... \$214.50****MODEL 209C****True Vacuum Tube Volt-Ohm-Milliamperes and Capacitance Meter**

New 500 millivolt range plus 8 additional ranges to 1,500 volts DC. Seven AC ranges from 1.5 to 1,500 volts with response within 3 db from 10 cycles to 200 mc. Seven resistance ranges, 10 ohms to 10 megohms center scale. Seven capacitance ranges cover approximately 50 pf to 2000 ufd. Ohmmeter applies no more than $\frac{1}{2}$ volt, safe for all semiconductor usage. Input impedance, 11 megohms DC, 11 megohms at 5 pf AC. 18" x 13 $\frac{1}{2}$ " x 8". Shipping weight, 26 lbs.

Model 209C True Vacuum Tube Volt-Ohm-Milliamperes and Capacitance**Meter—Net Each..... \$184.50****THE HICKOK ELECTRICAL INSTRUMENT CO.**

HICKOK

SIGNAL GENERATORS



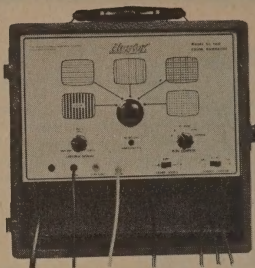
MODEL 656XC
Color Bar-White Dot
Generator

Produces 100% fully-saturated NTSC standard patterns. Provides complete range of signals for chroma alignment, including R-Y, B-Y, G-Y demodulation systems. 105-125v, 60 cycles, 40 watts. Furnished in black leatherette portable case,

16 $\frac{1}{4}$ " x 18 $\frac{3}{4}$ " x 7 $\frac{1}{4}$ ", complete with cable. Shipping weight, 48 lbs.

Model 656XC Color Bar-White Dot TV Generator—

Net Each \$549.50



MODEL GC660

Color Bar
Dot/Crosshatch Generator

A completely new design that sets a new standard of stability through liberal use of high-speed silicon switch devices and unijunction transistors. Uses 300-dot, short-step timer system to assure complete screen coverage especially important on rectangular tubes. "No flicker" crosshatch pattern because of 60-cycle time base. Dot size based on 0.1 usec pulse

only one line thick and one line wide for maximum convergence accuracy. Standard 10-bar pattern with controllable chroma level for color sync and killer threshold checks. Gun killer permits fast purity checks and actually allows use of picture tube as a 'scope for chroma demodulator alignment. Tuneable RF output at 300 ohms $\pm$ video output, special sync output for Zenith receivers. 10 $\frac{1}{2}$ " x 10 $\frac{1}{2}$ " x 5". Shipping weight, 6 $\frac{1}{4}$ lbs.

Model GC660 Color Bar Dot/Crosshatch Generator—

Net Each \$149.50

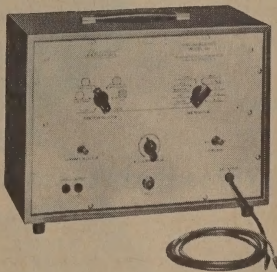
MODEL 661

Chrom-Aligner NTSC Color
Bar-White Dot Generator

Generates individual 100% saturated color bars to NTSC standards. Provides the following demodulator alignment signals: R-Y, B-Y, G-Y, G-Y at 90°, RF output on channels 3 or 4. Crystal-controlled chroma and sync.

Separate video output. 110v, 60 cycles, 20 watts. Complete with leads and 3.58MC crystal. Shipping weight, 20 lbs.

Model 661 Chrom-Aligner Generator—Net Each \$349.50



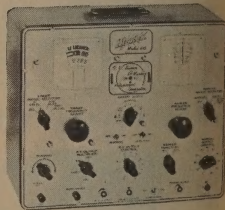
MODEL 615

Sweep and Marker
Alignment Generator

For complete TV, IF and RF alignment, including color TV alignment. Also provides harmonic output on UHF. All electronic Sweep with no moving parts. Amplitude modulation less than 0.1db/MC. 110-120v, 60 cycles, 40 watts. Furnished in steel carrying case, 16 $\frac{1}{4}$ " x 8" x 13 $\frac{1}{2}$ " complete with leads. Shipping weight 39 lbs.

Model 615 Sweep and Marker Alignment Generator—

Net Each \$359.50

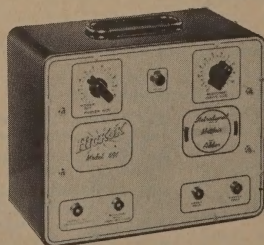
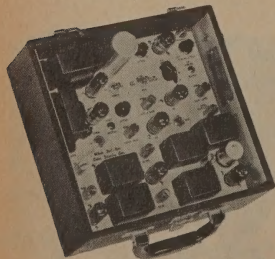


MODEL 660

White Dot/Color Display Generator

A stable, crystal-controlled white dot and crosshatch generator employing the same dot and sync generating circuitry as the Model 656XC described above. Color display is rainbow type. Lightweight and portable for installation, convergence and in-home service. 105-125 v, 60 cycles, 40 watts. 10 $\frac{1}{2}$ " x 10 $\frac{1}{2}$ " x 5 $\frac{1}{4}$ ", complete with crystal and output cable. Shipping weight, 21 lbs.

Model 660 White Dot/
Color Display Generator—
Net Each \$245.00



MODEL 691

Heterodyne Marker-Adder

Provides continuously visible marker (including trap points) that will not distort the receiver's response curve. Functions with any marker and sweep equipment with output capability of 0.5 volts, or more. 105

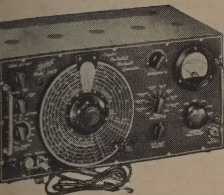
125v, 50-60 cycles, 25 watts. Furnished in steel case, 11 $\frac{1}{4}$ " x 7" x 8 $\frac{1}{4}$ ", complete with leads. Shipping weight, 16 lbs.

Model 691 Heterodyne Marker Adder—Net Each \$129.50

THE HICKOK ELECTRICAL INSTRUMENT CO.

SIGNAL GENERATORS

HICKOK



MODEL 295X
Microvolt and Crystal
Controlled Generator

Provides continuous frequency coverage in 8 bands from 125KC to 175 MC. Calibrated, metered output from 0.1 to 100,000 microvolts. 1% Dial calibration accuracy. Built-in 1MC crystal standard. Precision step attenuator, direct reading, vernier tuning. 105-125v, 50-400 cycles, 90 watts in steel case 19" x 12½" x 9".

Complete with 1MC crystal, 48-inch output cable with 2 connectors. Shipping weight, 47 lbs.

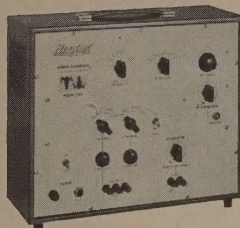
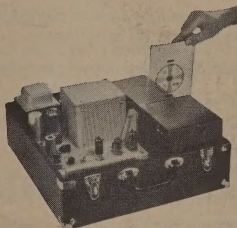
Model 295X Microvolt and Crystal Controlled Generator—Net Each \$655.00

MODEL 760
Video Scanner

Generates and scans of the 25 line, 60 field 30 frame system. Produces slide pictures for closed circuit television systems. Uses high definition, flying spot scanning method, providing 450 line resolution (5MC band width).

Choice of video or RF output. Crystal-controlled Sync generator. Complete with output cable, pattern slides. 17" x 18¾" x 8½". Shipping weight, 51 lbs.

Model 760 Video Scanner—Net Each \$455.00



MODEL 725
Stereo Standard FM
Multiplex Generator

Generates complete composite FM Multiplex signal to FCC specifications. Can be externally modulated with a stereo mike, tape player or record player to demonstrate FM Stereo. 16¼" x 13¼" x 7". Shipping weight, 27 lbs.

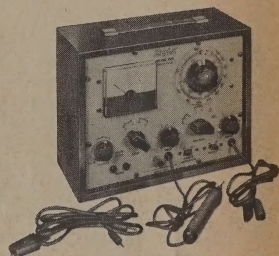
Model 725 Stereo Standard FM Multiplex Generator—Net Each \$495.00

MODEL 860
"Injecto-Tracer"
Signal Tracer

An all solid-state instrument for complete trouble shooting of all types of AM and FM radios, including auto radios, and TV sound circuits. Unlike other signal tracers that only inject the test signal, the 860 also picks up, amplifies and detects signals through a tuneable amplifier and allows a complete job of signal tracing. Covers range from 200 KC to 1700 KC, plus 10.7

MC IF. Regulated, high-current power supply is variable to permit checking distortion, oscillator drop-out, etc. 11" x 8½" x 5½". Shipping weight, 9½ lbs.

Model 860 "Injecto-Tracer" Signal Tracer—Net Each \$149.50



MODEL 288AX
Crystal Controlled AM-FM Sweep and Marker Generator

A complete alignment instrument with built-in decibel meter and crystal frequency standard (100KC and 1000KC). Covers 35KC to 110MC in 8 bands frequency modulated and 35KC to 160MC in 8 bands amplitude modulated. Includes new ultrasonic range from 35KC to 125KC. Supplied with 100KC/1000KC crystal leads. Case size, 16" x 7"

al, cable assembly and meter leads. Shipping weight, 33 lbs.

Model 288AX Crystal Controlled AM-FM Sweep and Marker Generator—Net Each \$315.00



MODEL CR-35
CRT Analyzer/Rejuvenator

A complete picture tube tester, analyzer, rejuvenator and repair instrument covering both black-and-white and color picture tubes, including the new GE color tube. Checks gas, emission, shorts, opens, grid cut-off and cathode life. Also rejuvenates, repairs shorts and determines booster effectiveness. Continuously variable, meter-monitored, test

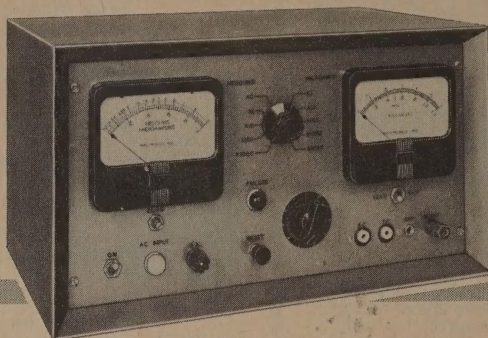
voltages assure protection against obsolescence. This includes heater voltage which is supplied through an SCR circuit, assuring correct heater temperature so critical in color tubes. All solid-state. 10¾" x 10½" x 5¼". Shipping weight, 9 lbs.

Model CR-35 CRT Analyzer/Rejuvenator—Net Each \$99.95

THE HICKOK ELECTRICAL INSTRUMENT CO.

HIPOTRONICS AC/DC HIPOT TESTERS & MEGOHMMETER

MODEL 306B



300 SERIES

The 300 series of Hipot Testers and Megohmmeters are voltage test sets which perform three different functions. They may be used for AC Hipot, DC Hipot and DC megohm tests. The "A" units perform IR tests to 1000 megohms and the "B" units to 100,000 megohms at 500 volts. Megohms at any other voltage may be determined from the volt and current meter readings.

- The sensitive thyatron operated overload relay adjustable from 20 microamperes to 5 milliamperes, will in many applications, permit non-destructive hipot tests to be performed.
- When the overload is set to 20 ua, the high voltage will generally trip on the build-up of leakage current before actual arc-over occurs.
- The "B" series has a quadruple range current meter which permits leakage currents as low as 0.01 ua to be read.
- The "A" series permits the reading of currents down to 1.0 ua.
- The KV meter has two ranges and is connected directly at the output for maximum accuracy.
- Other features include an AC input switch, fuse and pilot light, front panel output jacks, continuously adjustable output control, guard circuit on "B" series, and a failure light with reset button.
- Housed in a totally enclosed dust-proof cabinet.

Size: 17" W x 9½" H x 11" D

Weight: 115 volts, 60 cps, 1 ampere — all models

Input: 20 pounds

- Voltage to 6 KV, megohms to 100,000
- Overload adjustable from 20 microamperes to 5 ma.
- Performs non-destructive quantitative tests.
- continuously adjustable output from 0 to maximum
- Overload light with reset button, 2% meter accuracies

SPECIFICATIONS & MODELS

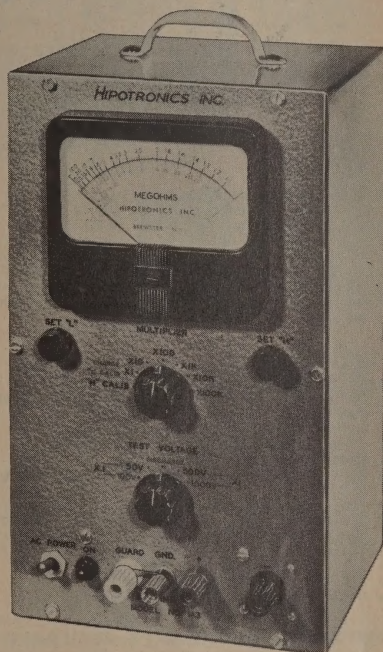
Model No.	Voltage		DC Current Meter ua.	AC Current Meter	Megohms at 500V	Size		
	DC	RMS				Ranges	W x H x D"	Price
301A	1.5 KV	1.0 KV	0-50/500	5 ma.	1-1000	2	17 x 9½ x 11	\$390
301B	1.5	1.5	0-.5/5/50/500	5 ma.	1-100,000	4	17 x 9½ x 11	510
303A	3	2.5	0-50/500	5 ma.	1-1000	2	17 x 9½ x 11	410
303B	3	2.5	0-.5/5/50/500	5 ma.	1-100,000	4	17 x 9½ x 11	530
306A	6	5	0-50/500	5 ma.	1-1000	2	17 x 9½ x 11	440
306B	6	5	0-.5/5/50/500	5 ma.	1-100,000	4	17 x 9½ x 11	565

HIPOTRONICS, INC.

HIPOTRONICS MEGOHMMETERS

Hipotronics megohmmeters are precision instruments for use in production or laboratory testing of cables, capacitors, printed circuits, transformers, electronic assemblies, etc.

- The output voltages are both regulated with a ferro-resonant line and a solid state electronic regulator. Even with large capacitive loads on the 20 million range, there is no bounce.
- The indicating device is a high quality Weston with better than 2% accuracies on all ranges below 1 million and 3% on 10 million. The VTVM circuit driving the meter on the higher range models has no zero shift on any range.
- The short circuit protection is such that the output may be continuously shorted without injury to any component.
- Self contained calibrating resistors in the quadruple range models permit the operator to periodically verify the calibration.
- A three terminal output network (positive, negative and guard) permits grounded or ungrounded tests to be made.
- Dual color scale on multiple output voltage models improves readability.
- The units also contain a resistor and switch position for discharging both the internal and load capacitance.
- Available in 7 models, all with 115 Volt, 60 cps input and AC input switch, fuse and pilot light.



OUTPUT VOLTAGES	MEG OHMS	RANGES	MODEL	PRICE
500	1-1000	2	M-1	\$150
1000	2-2000	2	M-2	160
500/1000	1-2000	2	M-4	170
50/500	1-100 50V	2	M-1A	160
	1-1000 500V	2		
100/1000	2-200 100V	2	M-2A	175
	2-2000 1000V	2		
50/100/500	1-10 million	4	M-6	235
50/100/500/1000	1-20 million	4	M-3	295

OPTIONAL EXTRAS

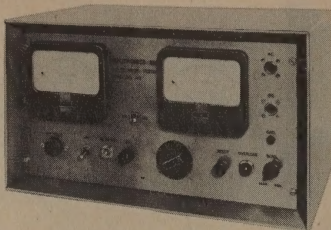
Lever switches for mandatory two hand hold operation and rapid discharge . \$25

HIPOTRONICS, INC.

HIPOTRONICS NON-DESTRUCTIVE HIPOT & INSULATION TESTERS

NON-DESTRUCTIVE HIPOT TESTERS

Non destructive hipot tests may be made on many materials, components, test specimens etc. if a sensitive overload, coupled with a high speed HV cut-off is incorporated into an insulation tester. Hipotronics 100 series of hipot testers have a thyatron operated overload relay which cuts-out the HV in 5 milliseconds or less with leakage currents as low as 20 microamperes. The overload, when set on 20 μ a, will generally trip the HV on corona and leakage currents which precede an actual breakdown, puncture or flash-over. The overload is continuously adjustable from 20 μ a to 5 ma which enables the user to draw 5 milliampers for capacitor charging, cable testing, power supply etc.



Hipotronics 100 series of hipot testers have a thyatron operated overload relay which cuts-out the HV in 5 milliseconds or less with leakage currents as low as 20 microamperes. The overload, when set on 20 μ a, will generally trip the HV on corona and leakage currents which precede an actual breakdown, puncture or flash-over. The overload is continuously adjustable from 20 μ a to 5 ma which enables the user to draw 5 milliampers for capacitor charging, cable testing, power supply etc.

FEATURES

- AC input switch, fuse and pilot light
- Continuously adjustable output control from zero to maximum
- Output connected KV meter, 2% accuracy
- Current meter in HV return, 2% accuracy
- Meter re-calibration facilities
- Continuously adjustable overload relay from 20 μ a. to 5 ma.
- Failure light with reset button
- Re-entrant output jacks with shielded HV output lead and plug
- AC/DC meter switch on AC/DC units
- Surge limiting resistor in DC output
- 115 volt, 60 cps input
- Deluxe 17" W x 9" H x 11" D cabinet

FEATURES — OPTIONALLY AVAILABLE

- Zero start interlock with HV on and off push buttons — compels operator to always raise voltage from zero \$30
- Triple range KV Meter \$20
- Triple range current meter, 50/500/5000 μ a on DC models \$20
- Output shorting relay with discharge resistor — A "must" when testing capacitive loads with DC \$30
- Audible failure signal \$15
- HV test probe \$10
- Rack Mount on 19" x 8 3/4" panel \$10

AC OUTPUT

VOLTAGE	MODEL	PRICE
0-2.5KV @ 5 ma.	102A	\$200
0-5KV @ 5 ma.	105A	225
0-10KV @ 5 ma.	110A	275
0-25KV @ 5 ma.	125A	500
0-15KV @ 500 va.	115A	500

DC OUTPUT

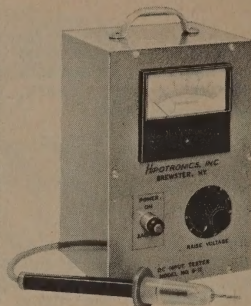
VOLTAGE	MODEL	PRICE
0-3 @ 5 ma	103D	\$200
0-6 @ 5 ma	106D	220
0-12 @ 5 ma	112D	290
0-20 @ 5 ma	120D	350
0-30 @ 5 ma	130D	400
0-50 @ 5 ma	150D	600

AC/DC OUTPUT

VOLTAGE	MODEL	PRICE
0-3 DC, 2.5 AC	103	\$230
0-6 DC, 5 AC	106	250
0-15 DC, 10 AC	115	330
0-25 DC, 10 AC	125	425
0-40 DC, 15 AC	140	600

All have 5 ma. capacity. Heavier current models available.

PRODUCTION HIPOT TESTERS



Model B12

Designed for use by inexperienced production personnel for mass testing of components, transformers, U.L. appliances etc. Simple to operate; arcing and leakage lights readily discernable. The short circuit current is limited to a maximum of 18 ma. on AC units and 5 ma. on DC models.

FEATURES

- Continuously adjustable output from zero to maximum
- Output connected KV meter for maximum accuracy
- Arc light employing corona pick-up network — much more sensitive than usual method
- Leakage current lamp factory set to fire on 1 ma. (\$5 extra for continuously adjustable light from 500 μ a. to 5 ma.)
- Three wire grounding cord and plug
- Shielded output lead
- AC input switch, fuse and pilot light

AC MODELS

KV	MODEL	PRICE
0-1	A1	\$100
0-3	A3	110
0-5	A5	120
0-10	A10	150
0-15	A15	210

DC MODELS

KV	MODEL	PRICE
0-1.5	B1	\$110
0-4	B4	125
0-6	B6	145
0-12	B12	185
0-20	B20	235
0-30	B30	335

OPTIONAL EXTRAS

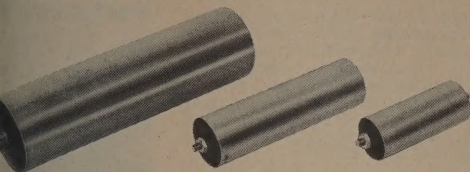
- Audible Failure Signal \$40
- Test Probe \$10
- Continuously adjustable leakage light. 500 μ a to 5 ma \$ 5

SIZE

Units with outputs of 12 KV and below in 5" W x 6" D x 9" H cabinet.
15 KV and up in 6" x 7" x 12" cabinet
30 KV model in 7" x 9" x 15" cabinet

HIPOTRONICS, INC.

HIPOTRONICS HIGH VOLTAGE COMPONENTS



CAPACITORS

Bakelite tubes with studs

.01 mfd at 10 KV	\$ 4.00
.03 mfd at 10 KV	6.00
.02 mfd at 15 KV	7.00
.02 mfd at 20 KV	8.50
.02 mfd at 30 KV	15.00
.01 mfd at 60 KV	50.00

Mylar wraps, epoxy end seal for oil or epoxy encapsulation

.05 mfd at 5 KV	\$ 4.00
.01 mfd at 15 KV	5.00
.01 mfd at 25 KV	10.00



3.6 ma air type
with pigtails

5 KV PIV	\$2.25
10 KV PIV	4.00
15 KV PIV	6.00
20 KV PIV	8.00

SELENIUM RECTIFIERS

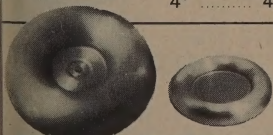
7 ma oil type, pigtailed	
15 KV PIV	\$6.00
20 KV PIV	8.00

1 ma air 2 ma oil	
12 KV PIV	\$2.00
25 KV PIV	\$20.00 each

CORONA HARDWARE SPHERES

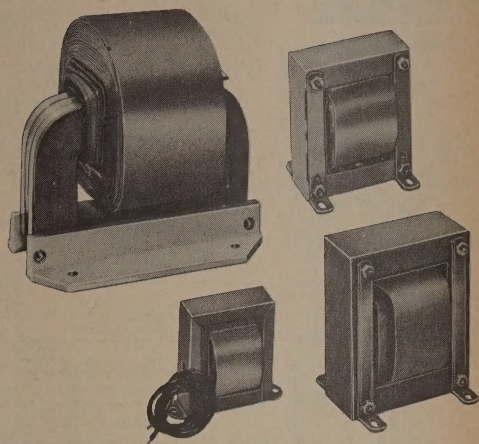
Nickel plated with threaded insert

Diameter		Diameter	
1"	\$1.50	6"	\$ 8.00
2"	2.50	8"	20.00
3"	3.50	10"	40.00
4"	4.50	12"	50.00



TOROIDS

Cross Section Diameter	Outside Diameter	Inside Diameter	Price
3/16"	1/2"	1/4"	\$ 1.00 Doz.
1/8"	5/8"	3/8"	\$ 1.00 Doz.
2"	10"	6"	\$ 30.00
5"	20"	10"	\$200.00



TRANSFORMERS

All Primaries for 115 volts, 60 cycles

Air type, start insulated 1000 volts

1 KV rms, 10 ma	\$ 8.00
2.5 KV rms, 10 ma	10.00
5 KV rms, 10 ma	15.00
10 KV rms, 7 ma	25.00
(Full wave doubler type, makes 25 KV DC supply)	
25 KV, 25 ma	125.00

Oil type — one end near ground

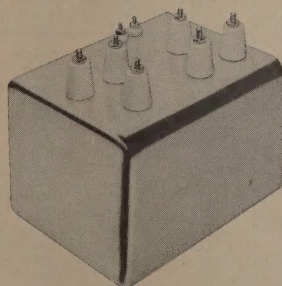
115 Volts, 60 cps primary

30 KV rms, 20 ma	\$ 85.00
40 KV rms, 20 ma	110.00
50 KV rms, 20 ma	150.00

TANKED UNIT WITH OIL — Apply for prices

Oil type for full wave doubler

25 KV rms, 20 ma	\$ 75.00
50 KV rms, 20 ma	200.00



HV RELAYS

24 volt DC coil, oil insulated

S.P.D.T. 20 KV, 2 amp	\$20.00
D.P.D.T. 20 KV, 2 amp	35.00

HIPOTRONICS, INC.

Hoyt

SINCE 1904

PRICES
SUBJECT
TO CHANGE

HOYT ELECTRICAL INSTRUMENTS

For Original Equipment and Replacement Applications

HOYT moving-coil Meters are built on the d'Arsonval principle using carefully selected jewel bearings and polished steel pivots. Accuracy within 2%. Alnico Magnets with soft-iron pole-pieces of uniform flux density used in all movements. Permanently correct balance assured by HOYT "cross arm" spiral wire balance. High torque to weight ratio. Quick response and good damping under all conditions. Choice of "knife-edge" or "lance" type pointers. Full 100° movements standard on most models. Many special type cases available. Inquiries invited.

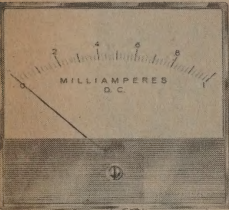
PRICE LIST:

PANEL MOUNTING

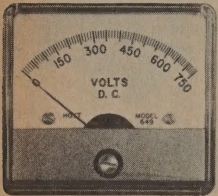
Size:	1½"	2½"	3½"	3¾"	4½"	6"	8"	6¾"—8½"	3" x 4"	5"
					#2045					
		#2025	#2035		#1045					
		#1025	#1037		#574					
		#173	#171		#641					
		#635	#653	#673	#645					
		#595	#582	#570	#600					
		#649	#597	#607	#647	#2060				
Range	Approx. #668					#1060	#2080			

MODEL 680 D.C., 681 A.C.

ROUND PANEL METER PORTABLE METERS
#583* #602* #578* #595*
*Prices on request.



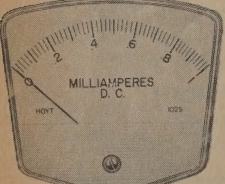
MODEL Nos. 2025, 2035, 2045, 2046, 2080 DC/2026, 2036, 2046, 2061, 2081 AC—Clear Plastic Styrene Cases, Available with Bezel for mounting behind panel (2)



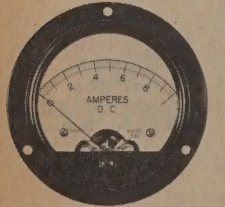
MODEL No. 649, 653, 645 DC/650, 654, 646 AC Clear Plastic Styrene Case



Model No. 673 D.C., 674 AC MODEL No. 673/5 Edgewise Meters



MODEL Nos. 1025, 1037, 1045, 1060 DC/1026, 1038, 1046, 1061 A.C. Clear Plastic Styrene Case.



MODEL Nos. 582 & 17/3, D.C. MODEL Nos. 584 and 552, A.C.

D.C. MILLIAMMETERS

0/1	60	\$12.00	\$11.30	\$12.00	\$12.55	\$13.25	\$15.85
Above prices also apply to 0/3, 0/5, 0/10, 0/15 MA Standard ranges.							
0/25	1.7	12.30	11.60	12.30	12.85	13.55	16.35
Above prices also apply to 0/25, 0/30, 0/50, 0/100, 0/150, 0/200, 0/300, 0/500 MA Standard ranges.							

D.C. MICROAMMETERS

0/20	3000	20.15	20.90	21.55	22.15	—	—
0/50	2000	17.10	17.65	18.25	18.90	—	—
0/100	2000	15.45	14.90	15.45	16.05	16.70	19.35
0/200	1000	13.40	12.70	13.40	13.95	14.65	17.25
0/500	200	12.70	12.10	12.70	13.25	13.95	16.55

Zero center microammeters available for most models in 25/0, 25/50, 0/50, 100/0, 100, 500/0, 500 U.A. Prices on request.

D.C. MILLIVOLTMETERS

0/50	3	12.00	11.30	12.00	12.55	13.25	15.85
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D.C. AMMETERS

0/1	0.005	12.00	11.30	12.00	12.55	13.25	15.85
0/5	0.004	12.35	11.75	12.35	12.95	13.65	16.65

Above prices for 0/5 amp. range also apply to standard ranges of 0/10, 0/15, 0/25, 0/30, 0/50, 0/50* amps on all models. No. 668 uses external shunt over 5 amps. See Shunt Table below.

D.C. VOLTMETERS

0/1	1000 Ω/V	12.80	12.25	12.80	13.40	14.05	16.65
Above prices also apply to standard ranges of 0/3, 0/5, 0/10, 0/15, 0/25, 0/30*, 0/50*, 0/100, 0/150*, 0/300* volts on all models.							
0/500	2000 Ω/V	12.80	12.80	13.05	14.05	14.75	17.40

Above prices also apply to standard ranges at 0/600, 0/750 volts on all models except #668.

METER SIZE	MODEL	DC	AC	CASE TYPE	PANEL MTG.	SCALE LENGTH	FLANGE	BODY DIAM.	BODY DEPTH
1½"	668	—	669R	Styrene Sq.	—	1.800"	1.740"	1.500"	1.000"
1½"	(2) 2015B	—	—	Styrene Sq.	—	1.800"	1.740"	1.500"	1.000"
2½"	17/3	552	—	Bakelite Rd.	—	2.015"	2.690"	2.200"	1.375"
2½"	(2) 1025	1026	—	Styrene	—	2.500"	2.87" x 2.59"	2.160"	1.120"
2½"	(2) 2025	2026	—	Styrene	—	2.500"	2.81" x 2.37"	2.160"	1.120"
2½"	635	636	—	Bakelite Sq.	—	2.015"	2.375"	2.200"	1.400"
2½"	649	650	—	Styrene Sq.	—	2.480"	2.625" x 2.375"	2.200"	1.125"
2½"	673-S	674	—	Styrene Edgewise	—	2.500"	3.25" x 1.00"	2.500"	3.210"
3½"	(1) 17/L	560	—	Metal Rd. Flush	—	2.480"	3.219"	2.500"	1.500"
3½"	582	584	—	Bakelite Rd.	—	2.720"	3.500"	2.750"	1.375"
3½"	1037	1038	—	Styrene	—	3.812"	3.500"	2.750"	1.125"
3½"	(2) 2035	2036	—	Styrene	—	3.435"	3.50" x 2.97"	2.750"	1.100"
3½"	597	598	—	Bakelite Sq.	—	2.720"	3.000"	2.750"	1.375"
3½"	653	654	—	Styrene Sq.	—	3.435"	3.375" x 3.125"	2.750"	1.125"
3½"	(1) 580	580	—	Metal Rd. Flush	—	2.850"	3.750"	3.000"	1.688"
3¾"	607	610	—	Bakelite Sq.	—	2.850"	3.625" x 3.313"	2.250"	1.063"
4½"	641	642	—	Styrene	—	4.250"	4.500" x 3.844"	2.750"	1.125"
4½"	(1) 574	617	—	Metal Rd. Flush	—	3.875"	4.500"	3.750"	1.594"
4½"	600	601	—	Bakelite Sq.	—	4.034"	4.500" x 4.000"	2.750"	1.063"
4½"	645	646	—	Styrene Sq.	—	4.470"	4.625" x 4.188"	2.750"	1.125"
4½"	647	648	—	Bakelite Sq.	—	4.470"	4.500" x 4.188"	2.750"	1.125"
4½"	680	681	—	Bakelite Sq.	—	4.470"	4.652" x 4.188"	2.750"	1.125"
4½"	1045	1046	—	Styrene	—	4.500"	4.81"	2.750"	1.125"
4½"	(2) 2045	2046	—	Styrene	—	4.500"	4.50" x 4.03"	2.750"	1.090"
6"	1060	1061	—	Styrene	—	5.375"	6.000" x 4.500"	2.750"	1.100"
6"	2060	2061	—	Styrene	—	5.375"	5.72" x 4.49"	2.750"	1.100"
8"	2080	2081	—	Lucite	—	9.125"	7.75" x 6.36"	3.500"	1.100"

STANDARD SWITCHBOARD SHUNTS AND AMMETER RANGES

On High Current Ammeters, add 0/50 millivoltmeter price to external shunt price below. Shunts include 3 ft. leads. Standard Ammeter and Shunt Ranges on types 17/3, 582 and 647 only; others listed are special ranges at slight extra cost.

0/25 —\$9.50	0/30 —\$9.50	0/50 —\$ 8.35	0/75 —\$ 8.35	0/100 —\$ 8.35	0/150 —\$ 8.35
0/200 —\$8.35	0/300 —\$9.70	0/500 —\$14.60	0/600 —\$17.55	0/800 —\$22.20	0/1000 —\$32.25

Hoyt

SINCE 1904

HOYT ELECTRICAL INSTRUMENT WORKS, INC.

BURTON-ROGERS COMPANY SALES DIVISION

HOYT ELECTRICAL INSTRUMENTS

Precision Quality and Craftsmanship Since 1904

PRICES
SUBJECT
TO CHANGE

Hoyt
SINCE 1904

HOYT A.C. Meters for indicating 60 cycle Voltage and Current are of the repulsion type with pneumatic damping. Furnished in the same case styles and sizes as HOYT D.C. meters, they match the D.C. meter where both types are used on the same panel. See A.C. Specification Chart on opposite page. Accuracy is 2%. A choice of pointers is available, and special shields can be supplied at additional cost.

METERS, with "A" scale, available in #649, #653, #645, #647, and #680 case styles. Prices on request. TE: A.C. Meters calibrated at any special frequency. Prices on request.

RICE LIST:

PANEL MOUNTING

PORTABLE

Size:	2½"	3½"	3¾"	4½"	6"	8"	3" x 4"	5" x 4"
		#2036		# 617			#562*	#517*
		#2026		# 601			*Prices on request	
		#1026		# 648				
		# 552		# 642				
		# 636		# 646				
Approx.		# 584	# 580	#1046	#1061			
Resist.		# 598	# 610	#2046	#2061	#2081		
							model no. \$1.95 extra.	



MODEL 647 D.C., 648 A.C.

5% RECTIFIER TYPE VOLTMMETERS

Available in the following ranges: 0/5, 0/10, 0/15, 0/25, 0/30, 0/50, 0/100, 0/150, 0/300 volts.

Above ranges apply to models #584-R, #598-R, #634-R at \$17.00 ea.

Above ranges apply to models #642-R, #646-R, #648-R at \$18.85 ea.

	6000	\$12.10	\$12.95	\$13.55	\$14.40	—	—
0	2700	10.90	11.80	12.40	13.25	15.85	—
es for ranges:	0/30, 0/50, 0/100, 0/150, 0/200, 0/300, 0/500 MA for all models —	same as 0/10 MA. range above					

A.C. MILLIAMMETERS

A.C. AMMETERS

Above prices also apply to all models of standard single ammeter ranges—0/3, 0/5, 0/10, 0/15, 0/25, 0/30*, 0/50* amps. A.C. Ammeters are self-contained 0 to 50 amps.

For High Current Ranges—See Transformer Section below.

A.C. VOLTMETERS (Repulsion Type)

	1476	11.30	11.80	12.55	13.25	15.85	—
Above prices also apply to all models in standard ranges of 0/30, 0/50, 0/100 volts.	50*	25,000	12.35	13.00	13.60	14.40	16.90
00*	50,000	12.35	13.00	13.60	14.40	18.20	—
00	83,300	—	18.75	19.30	19.95	22.65	—
00*	99,960	—	18.75	19.30	19.95	22.65	—

*These ranges carried IN STOCK on Models #584, #598 and #648 only (calibrated for non-magnetic panels). NOTE: If "in-between" ranges are required, add \$5.00 to next higher price as shown above (add \$5.00, if above 150 volts). Standard calibration is for non-magnetic panels. Steel panel calibration at no extra charge if order specifies thickness of steel and size of panel hole. Please specify type of meter case.

DIAL COSTS: Standard range dials only—\$1.00 each; special hand drawn single range dials Prices on Request; other custom dials on special order.

HIGH CURRENT DONUT TYPE TRANSFORMERS (In Stock)

For prices on HIGH CURRENT AC AMMETERS, add price of ammeter model above to transformer price below, plus an additional \$4.00 except on model #552, #584, and #648. Transformers have 2-ft. leads and 2 VA burden. Other ranges available on request.

	\$10.10	100/5	\$10.10	200/5	\$10.10	500/5	\$18.20
5	10.10	150/5	10.10	300/5	10.10	600/5	18.20

MOVING MAGNET INDICATORS

Feature long scales, accuracy within 5%. Attractive appearance with sturdy movement; round or square cases at low cost. Standard finish on metal cases is black. Chrome Plate is available at slight additional cost. Many types of mounting arrangements available.



MODEL No. 640, D.C.
2¼" Metal Case

MODEL	AC	CASE TYPE	SCALE LENGTH	FLANGE	BODY DIA.	BODY DEPTH
DC		PANEL MTG.	DC		DC	DC
640	531AC	Nar. Metal Rd.	1.400"	2.281"	2.000"	1.078"
640	531AC	Metal Surface	1.400"	2.375"	2.000"	—
693	594	Metal Sq.	1.400"	2.625"	2.000"	0.563"
793†	794	Plastic Sq.	1.715"	2.375"	2.000"	0.500"
740	741	Plastic Rd.	1.715"	2.375"	2.000"	0.520"
795	796	Plastic Sq.	1.715"	2.375"x2.81	2.000"	0.520"

D.C. MILLIAMMETERS

Range	Approx. Resist.	#640	#693	#740	#793†
0/1	1000	\$4.45	\$4.50	\$4.85	—
0/3	700	3.40	3.40	3.70	—
0/5	480	3.05	3.10	3.40	—
0/10	180	2.85	2.75	3.20	—
0/15	130	2.40	2.45	2.85	—

Prices for 0/25, 0/30, 0/50, 0/100, 0/150, 0/200, 0/300, 0/500 MA. ranges:

\$2.35 \$2.40 \$2.80

† or 793-M Masked Front - Specify

D.C. AMMETERS

Range	#640	#693	#740	#793†
0/1	\$2.35	\$2.40	\$2.80	—
Above prices also apply to 1/0.1, 3/0.3, 0/5, 5/0.5, 0/10, 10/0.10, 0/15 amp. ranges.	20/0.20	3.00	3.05	3.30
Above prices also apply to 0/25, 0/30, 30/0.30 amp. ranges.	0/50	3.20	3.25	3.55
	50/0.50	3.20	3.25	3.55
	0/75	3.70	3.80	4.20
	0/100	4.30	4.40	4.75

D.C. VOLTMETERS

Range	Approx. Resist.	#640	#693	#740	#793†
0/1		\$2.35	\$2.40	\$2.80	—
Above prices also apply to 0/3, 0/5, 0/10, 0/15 volt ranges.	0/25	1375	2.80	2.85	3.15
	0/30	1650	2.80	2.85	3.15
	0/50	2200	3.00	3.05	3.30
	0/100	20,000	3.00	3.05	3.30
	0/150	30,000	3.05	3.10	3.40
	0/300	60,000	4.10	4.20	4.50

MODEL No. 793 D.C., Shown.
No. 793-M type masked front.

Also available, 2¼" Metal Case, or Metal Look with Rectangular Plastic Front, Model 795.

NOTE: A.C. Vane Meters are furnished in quantity only. Prices on request.

NOTE: If in-between ranges are required—add \$5.00 to next higher range price; for "zero-center" ranges, add \$5.00 to same range price.

NOTE: D.C. Ammeters up to 100 amps, have internal shunts.

HOYT ELECTRICAL INSTRUMENT WORKS, INC.

BURTON-ROGERS COMPANY SALES DIVISION

Hoyt
SINCE 1904



VIBRATING REED FREQUENCY METERS

J-B-T INSTRUMENTS, INC.

• **USES** — J-B-T Vibrating Reed Frequency Meters are used extensively in radio, telephone, and television service, on engine generator sets, in laboratories, in many types of electronic equipment, on panel and control boards, in inspection set-ups—wherever constant or known frequency is important to efficient operation of equipment. More than 25 years of continuous experience covering many thousands of these instruments are your assurance of quality for both commercial and defense applications.

• **OPERATING PRINCIPLE** — The patented, simplified design used in the J-B-T meter operates on AC or interrupted DC. Each reed is adjusted to respond by resonance to but one frequency. As the current excites the driving coil, the reed "in tune" with the frequency in the coil will respond by vibrating rapidly because of permanent magnet polarization and induced magnetism from the coil. The instrument is adapted to specified operating voltage by a series resistor. To determine frequency, simply read the reed.

• **RESPONSE PATTERNS** — These patterns differ with the increments of frequency between reeds. For example, at 60 cycles, half-cycle steps give the broad response shown below at left, whereas full cycle steps bring the sharp response at right. In general, the lower the frequency the greater the amplitude, the higher the frequency the less the amplitude. Thus a 12 cycle reed normally will have substantially greater amplitude than a 1000 cycle reed.



• **ADVANTAGES** — Guaranteed accuracy at reference temperatures of 77°F is $\pm 0.3\%$ or better of the AC frequency being measured, unless otherwise stated. Accuracy on interrupted DC may be somewhat less. High fatigue safety factor for continuous operation. Temperature compensations are not required as temperature coefficient of reeds is only approximately 75 parts per million per degree F., negative.

• **STABILITY** — All meters are permanently calibrated at the factory and do not require subsequent adjustment. J-B-T reeds have relatively high Q characteristics, an especially desirable factor in electronic circuits. Wave form or external fields do not ordinarily have an adverse effect. Built with no pivoted parts and with lock washers at every critical point, these rugged meters can take rougher treatment than many instruments.

• **TRUST THE METER** — If a meter plugged in on a 60-cycle AC power line does not indicate exactly 60 cycles, trust the meter! Power supply may momentarily be off-frequency due to changing load conditions. All J-B-T Frequency Meters are meticulously calibrated at the factory, entirely independent of frequency of power supply. Production and inspection equipment are checked regularly against National Bureau of Standards frequency signals.

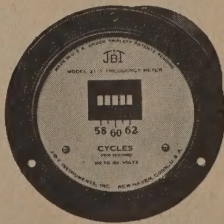
5 OR 7 REEDS

Used on standby power equipment. Handy for accurately measuring frequency of power source, 5 reeds (as illustrated), 58-62 cycles, or 7 reeds, 57-63 cycles, 100-130 volts. Other characteristics and accuracy same as Model 30-F. See Table of Dimensions, lines 4 and 5.

31-F, (illustrated) 58-62 cy., 5 reeds, 3-1/4" metal case \$26.65

31-FX, 58-62 cy., 5 reeds, 3-1/2" Molded case, MIL-M-6B mtg. \$23.65

31-FX-7, 57-63 cy., 7 reeds, 3-1/2" Molded case, MIL-M-6B mtg. \$25.85

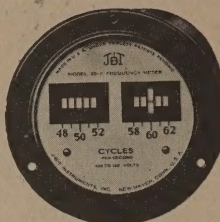


3" SQUARE-CASED FREQUENCY METERS

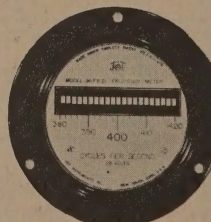
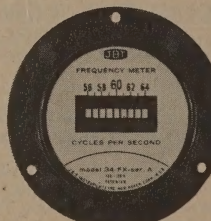
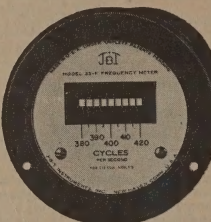
The meters described above are also available with square black molded cases designated as **FS series** per print SK-59, Rev. E. For example, 30-FS is same as 30-FX except for the case.

REVISED DIAL APPEARANCE

Certain shipments during the life of this catalog will contain different dials from those pictured on these pages. Dials are being modified to show the revised J-B-T trademark adopted during the Silver Anniversary Year. At the same time, some 3 1/2" frequency meters may also carry the phrase Series A after the model number (as in 34-FX below) to denote improved ruggedness and sensitivity. Such instruments are completely interchangeable as to mounting dimensions and circuit requirements with the meters in this publication.



(Meter operating at 60 cycles)



36-FX-21, (as illustrated), 380-420 cycles, 21 reeds, 28 volts operating, 3 1/2" Molded Case; 18 ohms per volt; 1.6 watts power consumption \$26.65

36-FX-21-115, 380-420 cycles, 21 reeds, 100-130 volts; 90 ohms per volt; 1.5 watts power consumption \$26.65

30-FX-18, (not illustrated), 48-54 and 56-64 cycles, 18 reeds in one dial with two groupings, 100-130 volts; 320 ohms per volt; 0.35 watts power consumption \$23.65

10 REEDS

Range: 48-52 and 58-62 cycles. Double window for ease of reading all range. Often specified for expansion 100-130 volts; 130 ohms per volt; 1.5 watts power consumption. Other voltages available on special order. Accuracy $\pm 0.3\%$ at reference temperature. Flush panel mounting. See Table of Dimensions, lines 4 and 5.

30-F, (illustrated), 48-52 and 58-62 cy., 3 1/4" Metal Case. \$26.65

30-FX, 48-52 and 58-62 cy., 3 1/2" Molded Case, MIL-M-6B mtg. \$23.65

9 REEDS — 400 CY.

Used for measuring frequency of high cycle power sources, particularly aircraft. Accuracy $\pm 0.3\%$ at reference temperature. Nine reeds, 380-420 cycle range, 100-130 volts; 90 ohms per volt; 1.5 watts power consumption. Other voltages available on special order. Flush panel mounting. See Table of Dimensions, lines 4 and 5.

33-F, (illustrated), 380-420 cy., 3 1/4" Metal Case. \$26.65

33-FX, 380-420 cy., 3 1/2" Molded Case, MIL-M-6B mtg. \$23.65

9 REEDS — 60 CY.

Covers a broad frequency band, 10 reeds, 56-64 cycles, or in half-cycle steps (accuracy $\pm 0.2\%$) 58-62 cycles, 100-130 volts; 110 ohms per volt; 1.5 watts power consumption. Flush panel mounting. See Table of Dimensions, lines 4 and 5.

34-F, 56-64 cy., 3 1/4" Metal Case 10 steps. \$26.65

34-FX, (illustrated), 56-64 cy., 3 1/2" Molded Case, MIL-M-6B mtg. \$23.65

34-F-2, 58-62 cy., 3 1/4" Metal Case 1/2-cycle steps. \$26.65

34-FX-2, 58-62 cy., 3 1/2" Molded Case, MIL-M-6B mtg. \$23.65

18 OR 21 REEDS

Advanced design offers 21 reeds in an interchangeable 3 1/2" panel meter with 2-cycle intervals for close reading over the band of 380 to 420 cycles per second. Accuracy $\pm 0.3\%$ at reference temperature. The reed flag is necessarily smaller than in a 9-400-cycle meter, such as the model 33-FX, but the 21 reeds are located on an enlarged window 2" wide and flags 3/8" high x 1/4" wide to give maximum readability. A patented internal construction for mounting the reeds one clamp assures ruggedness. The instruments and their variations are particularly useful where unusual close indication of frequency through out the band is desirable. See Table of Dimensions, line 5. All have Molded Case, MIL-M-6B mounting \$26.65

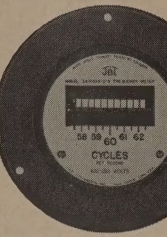
VIBRATING REED FREQUENCY METERS

J-B-T INSTRUMENTS, INC.

J-B-T
 28th Year[®]

3 1/2" SEALED FREQUENCY METERS

X TYPE Sealed meters, glass-steel construction, with solder flange and detachable flange, supersede the former FHX sealed meters. While JAN-I-6, MIL-M-6B, MIL-M-10304B (Type MR36) do refer specifically to frequency meters, the FHXX series uses front mounting dimensions of the specifications, and meets or exceeds the sealing and electrical requirements including 3000 volt breakdown. Electrical characteristics and accuracy are the same as corresponding F models with the HHX designation. Sampling procedure includes a test in which the absolute pressure of the air above the water is reduced to 2.5 inches of mercury (approx. 57,000 ft. altitude) and is maintained for one minute. For dimensions, see Table, Line 8, and Print 1 Rev. E. Standard voltage is 100-130.



HHX, 10 reeds, 48-52 cy. and 58-62 cy.	\$34.30
HHX, 5 reeds, 58-62 cy.	30.45
HHX, 9 reeds, 380-420 cy.	40.90
HHX, 9 reeds 56-64 cy.	34.05
HHX-11, 11 reeds, 55-65 cy.	36.25
HHX-2-11, illustrated, 11 reeds, 57.5-62.5 cy.	37.50
HHX-21, 21 reeds, 380-420 cy., 28 volts	50.55
HHX-21-115, 21 reeds, 380-420 cy., 100-130 volts	51.80

2 1/2" SEALED METERS

manufactures 2 1/2" sealed frequency meters which are similar to 3 1/2" sealed above, except with dimensions per Line 3 of Table.

HHX, 5 reeds, 58-62 cy., 100-130 volts	\$34.85
HHX, 5 reeds, 380-420 cy., 100-130 volts (normally stocked)	\$39.80

1 1/2" SEALED METERS

DEL 15-FHAC. Widely used as the frequency standard on audio-oscillators, the illustrated operates 2 reeds, 60 and 400 cps, at approximately 8-10 volts on 0.04 ohms for a cathode follower circuit. Accuracy $\pm 0.5\%$ at 77°F. Steel case has telescopic black finish, solder terminals. Barrel 1/2" diameter. 2-3/32" detachable flange covers glass-to-metal seal. See Table of dimensions, line 1.

FHAC \$20.30

15-FH METERS (lower photo) also use the black metal case with 2-3/32" detachable flange and glass-to-metal seal. The 15-series features 5 reeds in a row for 30 volt operation. Specified where size weight are important. Same sampling procedure as FHXX types above. Standard reeds, but not regularly stocked. See Table of dimensions, line 1.

15-FH \$25.85

15-FH \$25.85

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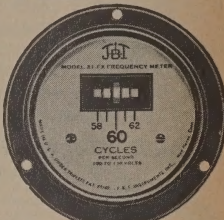
NOTE ON METER VOLTAGE

J-B-T Vibrating Reed Frequency Meters of all sizes normally are made with two studs and are designed to be connected across one phase of a multi-phase line. The single phase voltage where the meter will be used thus becomes the voltage to be specified for the meter. Special meters with extra studs are made for the purpose of using at two or more voltages, not additional phases.

2 1/2" METERS — 5 REEDS

MODEL 21-FX, 23-FX. Matches other 2 1/2" panel instruments. Meets ASA C39-1-1951 and MIL-M-6B (Type MR 24 or MR 25) in depth of case and mounting dimensions. Weighs only 4 1/2 ozs.; 5 reeds, 58-62 cycles, 100-130 volts, 600 ohms per volt, 0.25 watt power consumption. At 400 cycles, 120 ohms per volt, 0.7 watts power consumption. Flush panel mounting; see print MD-20, Rev. B, also Table of Dimensions, Line 2.

21-FX, 58-62 cy., 2-1/16" Molded Case, 1 cy. steps	\$22.55
23-FX-54, 380-420 cy., 2-1/16" Molded Case, 5 cy. steps	\$27.50
23-FX, 380-420 cy., 2-1/16" Molded Case, 10 cy. steps	\$27.50

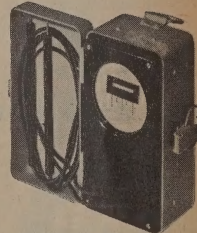
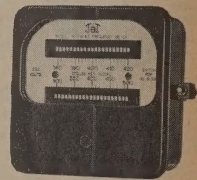


(Operating at 60 cycles)

400 CYCLE BROAD AND VERNIER INDICATORS

MODEL 41-FX-42 (supersedes Model 41-FX) Widely used in commercial and military testing, this model provides two windows for 300-500 cycles, 21 reeds in 10-cycle steps, and, for a vernier effect, 380-420 cycles with 21 reeds in 2-cycle steps. Black molded case, flush front is 4 1/4" high x 4 1/4" wide x 2 1/2" deep behind panel over studs, 100-130 volts is standard; also made with 4 studs for 200-240, 115 and 30 volts, 4.5 watts at 115 volts, 7.7 watts at 200 volts, 2 watts at 30 volts. For mounting, see Print MD-38-11.

41-FX-42, 100-130 volts	\$125.00
41-FX-42, 3 voltages, without switch	140.00



PORTABLE FREQ. TESTERS

FP SERIES, METAL OR MOLDED CASE. Accuracy $\pm 0.3\%$ meets the exacting test requirements of aviation, signal, and communication equipment. **M-Types** use anodized gray aluminum case, 6 3/4" long x 4 1/4" wide x 3 9/32" deep. Leads permanently attached. See Print SK-63-10. With pertinent name plate, **33-FP-9M** is known as **TS-328 A/U, I-Types**, sturdy molded case within top grain leather carrying case 6-3/32" x 4 1/4" x 2 1/2". 4" leads with 5' test picks and banana plugs.

33-FP-9M, (illustrated) 380-420 cy., 9 reeds, 100-130 volts, 70 ohms per volt, 1.5 watts power consumption, coml. quality and packing	\$49.25
34-FP-9M, 56-64 cy., 9 reeds, 100-130 volts, 130 ohms per volt, 1 watt power consumption, coml. quality and packing	\$42.35
33-FP-9L, 380-420 cy., 9 reeds, 100-130 volts	\$47.60
34-FP-9L, 56-64 cy., 9 reeds, 100-130 volts	\$40.70

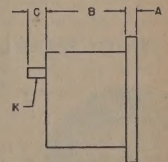
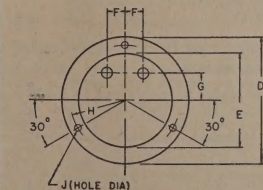
RUGGEDIZED AND ILLUMINATED METERS

el with "RUG"—Sealed vibrating reed frequency meters and sealed glass panel meters are available, when so ordered, to the intent of MIL-10304B which covers ruggedization of other kinds of meters. The feature usually is specified only for extra-severe shock and vibration.

Construction—Requirements for lighted meter dials have led to illuminating the 3 1/2" FHXX Series of sealed meters. Light from a source and the panel is admitted through a sealed window built into the case. Inquiries are invited.

400 CYCLES, IN 1 CYCLE STEPS; 800 CYCLES

ing the variations which J-B-T produces on special order, are 21-reed, 10 cycles in 3 1/2" case; and 11-reed, 780-820 cycles with 4-cycle meters. Quotations on request.



FREQUENCY METERS AND FREQUENCY — TIME METERS, TABLE OF DIMENSIONS, INCHES

MODEL	MIL-M-6B* MOUNTING	A	B	C	D	E	F	G	H	J	K	TERMINAL DESCRIPTION
Line 1 15-FH Series	—	1/4+	1 1/4	3/4	2 3/4	1 1/2	3/4	3/4	0.875	0.125	Solder, 1/4" dia. hole	
Line 2 21-FX and 23-FX Series	MR24, MR25	3/4	1 3/4	3/4	2 1/4	2 3/4	3/4	3/4	1.220	0.116	10-32 NF-2A studs	
Line 3 21-FHXX, 23-FHXX Series	MR26**	3/4+	1 3/4	3/4	2 1/4	2 1/4	3/4	3/4	1.220	0.125	Solder, 3/4" dia. hole	
Line 4 30-F to 34-F Series	—	3/4	2 3/4	3/4	3 1/4	2 3/4	3/4	3/4	1.453	0.150	10-32 NF-2A studs	
Line 5 30-FX to 36-FX Series	MR34, MR35	3/4	2	3/4	3 1/2	2 1/4	3/4	3/4	1.580	0.150	10-32 NF-2A studs	
Line 6 31-FE Series	—	3/4	3 3/4	3/4	3 1/2	2 1/4	3/4	3/4	1.453	0.150	10-32 NF-2A studs	
Line 7 31-FEX-1 Series	MR34, MR35	3/4	3 3/4	3/4	3 1/2	2 1/4	3/4	3/4	1.580	1.150	10-32 NF-2A studs	
Line 8 30-FHXX to 36-FHXX Series	MR36**	3/4+	2 1/4	3/4	3 1/2	2 1/4	3/4	3/4	1.580	0.150	Solder, 3/4" dia. hole	

*Also JAN-I-6 and ASA C39-1-1951 Mounting

**Also MIL-M-10304B Mounting

†Without gasket

Prices Net, F.O.B. Factory; Individually Boxed, Domestic Packed, Effective January 1, 1966



ELAPSED TIME METERS AND REED RELAYS

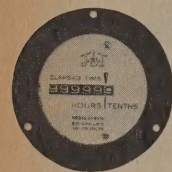
J-B-T INSTRUMENTS, INC.

BASIC 3 1/2" ELAPSED TIME METERS

• USES AND ADVANTAGES OF ELAPSED (OR RUNNING) TIME METERS

To record operating time of AC electrical and electronic equipment, these self-starting synchronous instruments normally register in 1/10th hour steps to 9,999.9 or 99,999.9 hours, then automatically reset. They are widely used for tube life, TV equipment, punch presses, conveyors; oil burners, ground support equipment, maintenance schedules, etc. J-B-T engineers recommend the AC type of elapsed time meter for superior accuracy, especially where voltage or ambient temperature vary widely.

6-Digit WIDE-NUMERAL ELAPSED TIME METERS



MODEL 31-EXW. Newest most easily-read, and most versatile of J-B-T elapsed time meters is Model 31-EXW, illustrated. Easily-read, wide 6-digit numerals register to 99,999.9 hours then automatically reset. Distinctive contemporary dial shows tenths in black on white, and units in white on black. The 3 1/2" black molded case is interchangeable with Model 31-EX and FX types of frequency meters. Print SK-125 gives mounting information.

Model 31-EXW, 6-digits, 0-99,999.9 hours, 60 cy., 110-125 volts. \$16.95

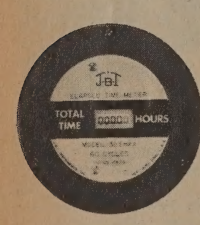
SQUARE-CASED ELAPSED TIME METERS

MODEL 31-ES. A square black molded case, matching other 3" x 3" meters, differentiates this model from the round 31-EX. Ask for Print SK-110, Rev. F showing standard rear mounting 2 1/4" bet. centers of molded-in studs, near rugged case with overall depth 3-11/32" behind flange, and electrical studs on center line. Variations can be made for 99,999 hours (suffix U), 230 volts, minutes, matte finish, or 50 cycles.

31-ES, 60 cy., 110-125 volts, 0-9,999.9 hours. \$17.50



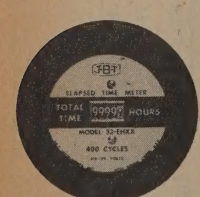
3 1/2" SEALED ELAPSED TIME METERS - 60 Cycles



MODEL 31-EHXX. Where rugged requirements make a completely sealed elapsed time meter desirable, this glass-to-metal construction with flat glass front and 3 1/2" diameter separable flange, often is specified. Heavy-duty solder terminals are supplied. Every instrument is checked in a vacuum chamber. Over-all dimensions and appearances match the FHXX series sealed frequency meters. Maximum voltage between terminals and case, 1,000 volts, R.M.S. The meter registers in 1/10 hour steps to 9,999.9 hours, then automatically resets. Tenths indicator is red on white, all others in white on black. Mount according to SK-85, Rev. C.

31-EHXX, 60 cy., 110-125 volts. \$19.75

3 1/2" SEALED ELAPSED TIME METERS - 400 Cycles



MODEL 31-EHXX. This stable, self-starting 400-cycle elapsed time meter is extensively used for preventive maintenance and for reliability testing and checking in a wide variety of equipment. The instrument is entirely enclosed in a 3 1/2" flanged case, glass-to-metal sealed construction with separable flange, heavy-duty solder terminals; flat glass front. 1/10 hours are shown in red on white, all other numerals white on black. The external appearance matches FHXX frequency meter series. For dimensional details see SK-61, Rev. B.

33-EHXX, 400 cy., 0-9,999.9 hours, 1/10 hour steps, 110-125 volts. \$58.00

2 1/2" SEALED ELAPSED TIME METERS

MODEL 21-EHXX. A full size counter reading 9,999.9 hours in 1/10 hour steps and a rugged self-starting synchronous motor are built into this 2 1/2" sealed meter. Its front mounting dimensions are the same as Type MR26 electrical indicating instruments in MIL-M-6B. Glass-to-metal seal makes the instrument completely tamper-proof. Ask for Print SK-68, Rev. G. (2 1/2" 400-cycle meter, **Model 23-EHXX** also is made on special order.)

21-EHXX, 60 cy., 110-125 volts. \$26.00

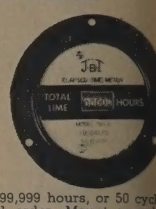
MODEL 31-EX. This self-starting instrument registers to 9,999.9 hours in 1/10 hour steps before automatically resetting. Red numerals on white are used for tenths, all others are white on black. Black molded case matches FX series 3 1/2" frequency meters and completely encloses all parts. This case, with centered terminals, meets type MR34 or MR35 mounting dimensions of MIL-M-6B, also JAN-1-6. Referring to line 5 of the Table of Dimensions on the preceding page, barrel depth (B) is 2 1/4", stud height above center (G) is zero, dimension (F) is 1/2", and all other measurements are as shown. Types for 99,999 hours, or 50 cycles or special voltages are available on special order. Mount according to SK-80, Rev. E.

31-EX, 60 cy., 110-125 volts. \$16.95

31-EX-200, 60 cy., 230 volts (not regularly stocked) \$17.50

New MODEL 31-EXW-5. This model with five wide numerals electrically and mechanically interchangeable with Model 31-EX is highly recommended for new equipment. Because of its superior visibility, rugged construction, and attractive price, it is expected to supplant the 31-EX. Mounting is also the same as Model 31-EXW, 1 Print SK-125.

31-EXW-5, 60 cy., 110-125 volts. \$16.95



ELAPSED TIME METERS - Tenths of Minutes

MODEL 31-EXM. 60 cycles, 110-125 volts, reading 0-9,999.9 minutes; short-run applications or readings at closer intervals than 31-EX. Tenths of minutes in red on white, minutes in white on black numerals; otherwise identical with 31-EX. \$17.50

CLEAR-PLASTIC ELAPSED TIME METERS

EPL TYPE. The modern clear-plastic front gathers light from every side and is compatible with many other instruments. A sturdy metal case with solder terminals is used behind the panel. The 2 1/2" size is 2-19/32" wide x 2 3/4" high with 2 1/2" diam. meter barrel, per print SK-102, Rev. C. The 3 1/2" is per print SK-108, Rev. C.

21-EPL, 2 1/2" size (illus.), 60 cy., 110-125 v., 0-9,999.9 hrs. \$25.75

31-EPL, 3 1/2" size (not illus.), 60 cy., 110-125 v., 0-9,999.9 hrs. \$28.75



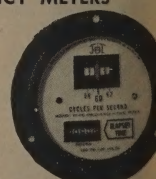
RUGGEDIZED METERS TO MIL-M-7793C

This specialized specification at present omits the popular 3 1/2" sealed sizes, J-B-T 2 1/2" and 3 1/2", round sealed and ruggedized types can be certified as to various test conditions under present MIL-M-7793C and General Meter Specification MIL-M-10304B. Inquiries are invited on smaller sizes to MIL-M-7793C and subsequent revisions as they are released.

ELAPSED TIME - FREQUENCY METERS

31-FE SERIES. To conserve panel space and centralize information, this panel instrument combines elapsed time or running time meter with frequency reads. It is used on motor generator sets and on electrical equipment where maintenance routine calls for periodic servicing. The J-B-T design, proved by years of field experience, uses a separate exciting coil for the reeds to achieve close control of reed amplitude and frequency. Reads 0-9,999.9 hours and 58-62 cy. with 5 reads, for 100-130 volt operation; self starting. Tenths shown in red on white, all other numerals in white on black. Black metal case with front mounting per Table of Dimensions, line 6. Power consumption is 4.7 watts. For variations having 7, 9, or 11 reads, regularly stocked, such as Model 34-FE, see print SK-45, Rev. D.

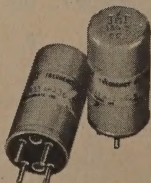
31-FE, 3 1/2" metal case 4-19/32" deep. \$39.00
31-FEX-1, (per print SK-44 Rev. F-not regularly stocked) like Mo. \$34.00
31-FE, except with 3 1/2" metal flange permanently attached to the M-6B front mounting per line 7, Table of Dimensions. \$34.00



RESONANT - REED RELAYS (Decoders AND OSCILLATOR CONTROLS (Encoder

Typical Frequency Sensitive Relays RR-A11A-136.5

Typical Sealed Oscillator Control RO-B10B-188.0



For technical description of J-B-T frequency-sensitive electromechanical control devices, see Bulletins 162R and D654A; for representative models and prices, see Section 5100 of this book.

TEMPERATURE TESTERS AND ACCESSORIES

J-B-T INSTRUMENTS, INC.

J-B-T

28th Year

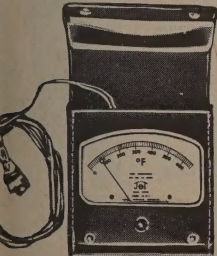
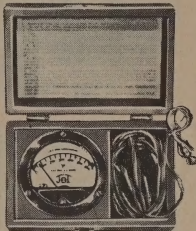
FOR APPLIANCE SERVICING, QUALITY INSPECTION, AND LABORATORY SET-UPS

OVEN OR HEAT CHAMBER TESTERS



MODEL 23-JP-1. This popular portable indicating pyrometer saves time and furnishes reliable information in testing and setting thermostats on electric or gas ranges and other appliances by showing oven temperatures as they change. Standard size dial, 0-650°F, with 2 3/4" scale arc reading, is used but covered by clear-plastic in black metal front. The indicator is mounted on a black metal panel affixed inside a pocket-sized, black top-grain leather case 4 1/2" x 2 7/8" x 4 1/4" over hardware. Characteristic of more expensive pyrometers, the 23-JP-1 is automatically compensated for ambient temperature. Thus the eliminates calculations, avoids likelihood of serious error as temperature changes inside the instrument itself, and provides reliable direct readings. Supplied attached SA-116, 5 1/2" calibrated thermocouple, clip, and convection shield \$26.00

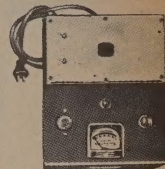
MODEL 32-JP-3. This time-tested model uses a dual scale carrying case 8" x 3 7/8" x 3 3/8". The glass-covered indicator shows 0-650°F. In 10° divisions readable to 2 1/2°. 1/2" scale arc. Exceptionally fast, consistent response. Automatic compensation for ambient temperature is a valuable feature whether the tester is used for work, sales demonstration or education. Attached SA-116, 5 1/2" thermocouple, clip for affixing to grill and convection shield included \$28.00



NEWEST MODEL 32-JP-7. Most versatile, and easiest to read of J-B-T temperature testers, Model 32-JP-7 offers a 650°F scale more than 4" long. Automatic compensation for ambient temperature is included, so that temperatures are read directly and without calculations. The 32-JP-7 also provides color-coded external binding posts. These permit quick attachment or interchanging of various J-B-T thermocouples placed in one or more of the heat zones to be checked. An SA-116 5 1/2" thermocouple with attachment clip and convection shield is supplied and is left attached when the tester is carried. For maximum usefulness in checking irons, washers, toasters, clothes dryers, etc., use appropriate accessory thermocouples. Tester price includes stitched ready case, 5" wide x 5 1/2" high x 2 3/4" deep, of sturdy, soft black vinyl. \$29.50

IRON TESTER

MODEL 32-JIT. Self-contained bench-type tester; checks all makes of irons; measures thermostat temperatures; shows open or short circuits. Automatically compensated for room temperature. Also indicates operating temperature of the scale plate (working surface) on non-electric or cordless irons. Black metal base; overall size 10" x 12" x 5 1/2", scale 0-650°F, 15 amp fuse, 6' cord, 110 volt, 50-60 cycles. \$34.50



MULTI-PURPOSE TESTER

MODEL 61-JRT. A 9-in-1 tester to speed accurate temperature adjustment and electrical analysis of ranges, refrigerators, test apparatus, etc. Rapidly reads four cold zones —100°F, +80°F, up to 14" distant; two heat zones 0-600°F, up to 5 1/2" distant; one voltage range 0-300 AC; and, with transformer, two current ranges, 0.30 and 0.60 amps, AC. Sturdy, polished walnut case, 15 1/2" x 10-3/16" x 4 1/4". Two color etched metal panel. Separate switches protect bulb and ammeter circuits. Requires one standard flashlight cell, replaceable in the field. Temperature accuracy ±2% of full scale; rectified AC readings ±5%. Accessories as listed may be added for testing appliances. Includes two SA-162 resistance bulbs, two SA-116 thermocouples, electrical leads, and AS-TR-2 built-in transformer. \$124.00

MODEL 61-JRT (LESS TRANSFORMER). Same unit, same scales except no reading in amperes; AS-TR-2 transformer omitted. \$110.00

HEAT INDICATORS

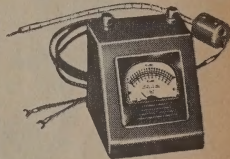
MODEL 32-J PYROMETER IN SN-7 STAND. Mounted in sloping front black metal stand, 4 1/4" high x 4 3/8" deep x 4 1/8" wide. Compensated for ambient temperature. Medium resistance system, damped for quick reading on 2 3/4" scale, assures ruggedness and pointer stability. For ±2% accuracy, use only the type and resistance of thermocouple and lead provided; if extra length—coil it—to maintain calibration. A protection tube usually is not required. For convenience keep an extra thermocouple and lead on hand.

MODEL 32-J IN SN-7 STAND (Supersedes SN-3 Stand)
0° — 650°F/350°C, includes SA-91 thermocouple, SA-84 lead, and CB-1 connector block \$39.50

0°-1200°F/650°C, includes SA-87, SA-82, and CB-1 \$39.50

0°-2000°F/1100°C, includes SA-87, SA-82, and CB-1 \$39.50

MODEL 32-J IN SN-8 STAND (not illustrated). With 3 binding posts to accommodate flexible extra lead and thermocouple for hard-to-reach locations. 0°-650°F including SA-91 thermocouple, SA-84 lead, CB-1 connector block, and SA-86 flexible leads and thermocouple. \$37.50



TEMPERATURE TESTER ACCESSORIES

Model No.	Range F°	CONDUCTORS				Use With	Construction	Price
		Length	Wire Gauge Size	Positive	Negative			
WIRE								
82	194°	6'	14 Ga. Stranded	Red-Copper	Yellow-Const.	32-J in SN-7; 60-JP; 60-JPS	Compensating Lead for use with chromel-alumel thermocouples;	\$1.70
83	194°	26"	14 Ga. Stranded	Red-Copper	Yellow-Const.	32-J in SN-7; 32-J in SN-8	flexible duplex with moisture and flameproof outer braid.	5.35
84	392°	6'	14 Ga. Stranded	White-Iron*	Red-Const.	70-J	Extension lead for use with iron-constantan thermocouples; flexible duplex with moisture and flame-proof outer braid.	5.35
85	392°	26"	14 Ga. Stranded	White-Iron*	Red-Const.	70-J		
HERMOCUPLE								
TH-1	0-1200	30"	20 Ga. Solid	Iron-Black*	Const.-Yellow	31-JPP; 31-JPP-C	Welded inside seamless steel tube 3/4" O.D. for immersion in molten metal.	On Appl.
1	0-650	7"	20 Solid	Iron-Black*	Const.-Yellow	32-JP-7; 61-JRT	Accessory Iron Tester, same as 32-JIT except there is no meter.	18.00
87	0-1200, 0-2000	12"	14 Solid	Chromel	Alumel	32-J in SN-8; 60-JP, 60-JPS	General purpose combination thermocouple and lead.	2.05
88	0-1200, 0-2000	24"	14 Solid	Chromel	Alumel	32-J in SN-7; 32-J in SN-8	For high temperatures, insulated and protected with 2-hole ceramic beads; fits 3/4" hole.	4.25
89	0-650, 0-1200	12"	14 Solid	Iron-Black*	Const.-Yellow	32-J in SN-7; 32-J in SN-8	For intermediate temperatures, insulated and protected with 2-hole ceramic beads; fits 3/4" hole.	2.90
90	0-650, 0-1200	24"	14 Solid	Iron-Black*	Const.-Yellow	32-J in SN-7; 32-J in SN-8	For intermediate temperatures, insulated and protected with 2-hole ceramic beads; fits 3/4" hole.	3.75
113	0-650	35"	20 Ga. Solid	Iron-Black*	Const.-Yellow	Former Model 32-J	Disc-type junction for attachment flush to surface.	5.75
114	0-650	35"	20 Ga. Solid	Iron-Black*	Const.-Yellow	Former Model 32-J	Needle-type junction for soft material or crevices.	5.75
115	0-650	35"	20 Ga. Solid	Iron-Black*	Const.-Yellow	Former Model 32-J	Ball-type, all-purpose junction.	2.00
116	0-650	35"	20 Ga. Solid	Iron-Black*	Const.-Yellow	Former Model 32-J	Conversion shield & clip for attachment.	2.00
117	0-650	5 1/2"	22 Ga. Solid	Iron-Black*	Const.-Yellow	23-JP-1;	Ball-type tip, for roasters, waffle irons, etc.	1.60
176	0-650	5 1/2"	22 Ga. Solid	Iron-Black*	Const.-Yellow	60-JRT; 61-JRT	Disc-type tip, for toasters, etc.	3.00
177	0-650	5 1/2"	22 Ga. Solid	Iron-Black*	Const.-Yellow	60-JRT; 61-JRT	Copper tube encloses tip, for automatic washers, etc.	4.50
179	0-650	5 1/2"	22 Ga. Solid	Iron-Black*	Const.-Yellow		Shield and clip, duplex nonfraying glass braid, for frequent use above 400° F.	2.65
300	0-650	5'	22 Ga. Solid	Iron-Black*	Const.-Yellow		Spring type in transitie tip with handle, for rapid reading of surfaces.	8.00
304	0-650	25'	20 Ga. Solid	Iron-Black*	Const.-Yellow	32-JD in SN-7	Disc-type junction for attachment flush to surface.	5.25
305	0-650	25'	20 Ga. Solid	Iron-Black*	Const.-Yellow	32-JD in SN-7	Needle-type junction for soft material or crevices.	5.25
306	0-650	25'	20 Ga. Solid	Iron-Black*	Const.-Yellow	32-JD in SN-7	Ball-type, all-purpose junction.	5.00
RESISTANCE BULBS								
142	-100 to +160	14"	Polyethylene Ribbon Lead	No Polarity	60-JRT only	Thin, flat, copper clad bulb 3x3/4"x3/4"; with polyethylene ribbon lead. Doors of appliances may be closed without damaging it.	6.50	
143	-100 to +160	14"				Thin, fast-responding, plastic-sheathed bulb.	6.50	
144	-100 to +160	8"					5.25	
308	-100 to +160	8"					4.50	
CONNECTOR BLOCKS								
CB-1	0-2000	1 1/2"lg. x 1 1/8"dia.	—	As marked	As marked	All ceramic bead type thermocouples	Lava block, includes heavy brass connectors for low contact resistance.	1.85

*Iron constantan is RP1080 calibration. For best results thermocouples and leads should be as stated on instrument dials.

**Has plug terminals; all other accessories have spade terminals.

Prices Net, F.O.B. Factory; Individually Boxed, Domestic Packed, Effective January 1, 1968

J-B-T INSTRUMENTS, INC.

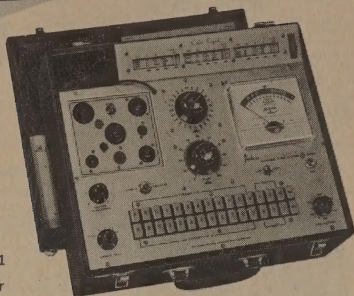
Electrical Instruments, Testers,
Switches and Other Components

For other J-B-T Products,
see Sec. 5100.

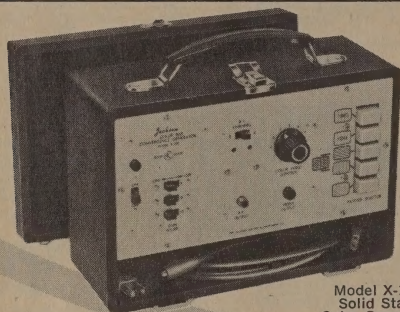
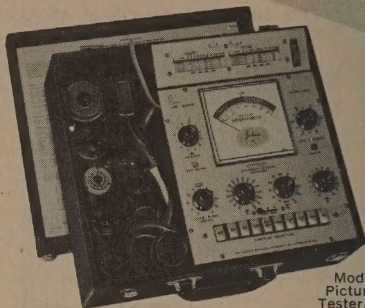
"Serviced Engineered" Test Equipment

Jackson

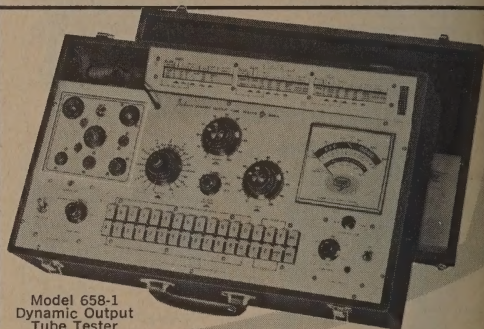
Model 648-1
Dynamic
Tube Tester



Model 825
Picture Tube
Tester/Booster



Model X-100
Solid State
Color Generator



Model 658-1
Dynamic Output
Tube Tester

Model 648-1 DYNAMIC TUBE TESTER

The Model 648S reflects over fourteen years of constant improvement and development. Its outstanding quality and versatility has been proven right in the field by thousands of servicemen.

- Exclusive color keyed panel makes this unit faster to set up—easier to use... and applicable for *do-it-yourself* operation • Best for servicemen... more accurate and completely versatile for all new tubes • First with push-button sequence switching... makes set-up time less than tube warm-up time • Semi-conductor rectifier for instant warm-up • 23 separate heater voltages from .75 to line voltage • Variable sensitivity shorts test... up to 2 megohms • Automatic line voltage indicator • Angled view zig-zag exclusive color coded roll chart. Size: 16¼"Wx14"Dx6¾"H.

Shipping Wt. 21½ lbs. Dealer Net **\$179.95**

Model 825 PICTURE TUBE TESTER/BOOSTER

The Model 825 is designed to test and repair both black/white and color picture tubes. It has features most desired by the TV servicemen. It will make more accurate checks than any other make. Color keyed... pushbutton operation for fast, easy use.

- 12 separate heater voltages, including color • Continuity and leakage checks • Line indicator control for accurate voltages • FM tuning eye tube indicates continuity or leakage... no separate lights to interpolate • Emission test • Picture tube cut-off test • Life test • Removes shorts • Welds cathodes • Boosts picture tubes back to life • Grid guard limits peak current for protection of picture tube • Separate variable voltages applied to G1-G2 of picture tube • Angled view roll chart... tube set-up information always at your finger tips • Checks each color gun separately • Plug-in socket cable for easy replacement or repair • Easy to keep up-dated. Size: 14¾"Wx13½"Dx5¾"H.

Shipping Wt. 16 lbs. Dealer Net **\$119.95**

Model 658-1 DYNAMIC OUTPUT TUBE TESTER

The Model 658-1 was designed for the engineer, laboratory technician and serviceman who wants the finest tube tester available. It features the Jackson Dynamic Output test, which applies variable DC bias and AC signal voltage to the control grid, variable DC voltages to the plate and screen. A *low impedance bridge circuit* measures only the AC component of the plate current. This is the most valid kind of test as it checks the entire output curve of the tube. • Dynamic output merit test on all tube types • AC rectification test for diodes • 231 heater voltage settings • Grid leakage test up to 80 megohms • Actual operation 'eye' tubes • Tests striking point and operating range for regular and reference tubes • Push-button sequence switching for rapid set-up • Famous Jackson life-line test • Triple shorts sensitivity test • Angled view zig-zag roll chart • Line voltage control. Size: 20¾"Wx13"Dx7¾"H. Shpg. Wt. 25 lbs. Dealer Net **\$234.95**

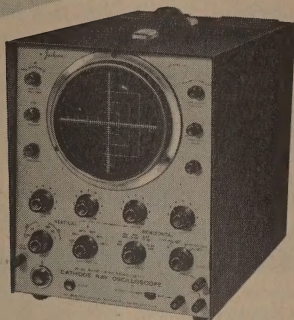
Model X-100 SOLID STATE COLOR GENERATOR

The Model X-100 provides an extraordinary range of patterns enabling the serviceman to install and troubleshoot Color faster and more accurately. • Convenient push-button selector switches • Solid State Circuit • Crystal controlled... 3.58 Mc color signal... 315 KC oscillator for positive stability • Color bars (NTSC colors)... each button provides 3 colors • Crutch provides perfect square for linearity adjustments • Horizontal lines can be adjusted from double to single line thickness • Small uniform dot pattern for more simple and accurate convergence • Gun killer switches • Lead piercing clips • Color video control • Blank raster • Video output • RF output channel 3 or 4 controlled with convenient slide switch—adjust for channel 5 through opening on panel • Line isolated. Size: 10"Wx6¼"Hx4½"D. Shipping Wt. 9 lbs. Dealer Net **\$149.95**

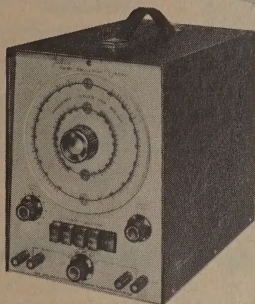
Complete with Gun Kit

JACKSON ELECTRICAL INSTRUMENT COMPANY

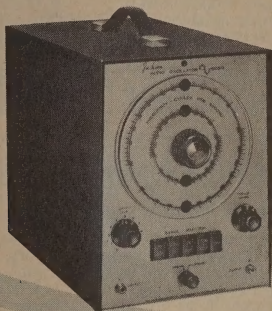
...for Service - Laboratory - Industry



Model CRO-3
5-Inch Wide-Band
Sensitivity
Oscilloscope



Model 655D
Wide Range
Audio Oscillator



Model 605D
Audio Sine/Square
Wave Oscillator



Model 607D
Variable Regulated
Power Supply

Model CRO-3 5-INCH WIDE-BAND SENSITIVITY OSCILLOSCOPE

Model CRO-3 is a laboratory quality scope with highly accurate circuitry. It includes every feature required for accurate black and white TV work. Also widely used in many laboratory and industrial applications.

• Wide Band Amplifier, flat within 1 db 20 cycles to 5 mc • Two-plate vertical deflection sensitivity from 0.018 rms volts-per-inch • Highly stable amplifier circuits...no balancing required • Positive or negative internal horizontal sync • Linear sawtooth generator, 20 cycles through 50 kc • Input calibrating voltage, 10 peak-to-peak • Vertical polarity reversal • Vertical sweep control • Return trace blanking • Z-axis modulation—internal, external or 60-cycle • Direct connection to deflection plates • No external probe required • Includes LC10-P High Voltage Low Capacity Probe • P Demodulation Probe.

Shipping Wt. 23 lbs. Dealer Net \$254.95

Model 655D WIDE RANGE AUDIO OSCILLATOR

• Push-button range selection • Exceptionally stable RC tuned wave generator • Frequency range 20 cycles to 200,000 cycles in 4 steps • Up to 500 milliwatt output • Output impedances of 250, 500, or 5,000 ohms plus resistive output • Frequency characteristic within 1 db 30 to 15,000 cycles on transformer • Accuracy, 3% or 1 cycle, whichever is greater • Sine Waveform • Hum level down 60 db at maximum output • Arithmetic calibration curve • Continuously variable output • Factory-calibrated for guaranteed accuracy. Shipping Wt. 21½ lbs. 7% "Wx13½" "Dx10½" "H. Dealer Net \$179.95

Model 605D AUDIO SINE/SQUARE WAVE OSCILLATOR

The Model 605D is a precision audio generator with a choice of either sine wave or true square wave output. Square wave is not a clipped sine wave but is generated by a special Schmitt Trigger circuit. Features push-button range selection and variable output.

Range: 20 cycles to 200,000 cycles, sine or square wave in 4 ranges • Accuracy: 3% or 1 cycle, whichever is greater • Output: High impedance, continuously variable. Sine wave 0 to 5.0 RMS volts, Square Wave 20 mv to 7.0 P-P • Sine Waveform: Less than 1% distortion • Output Level Characteristic: ± 1 db over full range • Hum Level: Down more than 50 db at all output levels • Square Wave Rise Time: Less than 0.2 μ sec • Square Wave Tilt: 5% at 60 cycles. Less than 1% above 200 cycles. Size: 7% "Wx13½" "Dx10½" "H.

Shipping Wt. 17½ lbs. Dealer Net \$144.95

Model 607D VARIABLE REGULATED POWER SUPPLY

The Model 607D is a compact, easy-to-use, complete laboratory power supply which provides heater bias and variable regulated B+ voltages in one compact package.

DC Regulated Output: Low position 150 to 225 VDC, 0 to 100 ma. maximum, High position 225 to 300 VDC, 0 to 100 ma. Regulation—within 1.5%, no load to 100 ma. at 300 volts • Ripple Content: Bias supply—less than 0.003% at 20 ma. Regulated supply—less than 0.005% at 100 ma. • Metered Output: For Bias and Regulated B+ supply • AC Heater Output: 6.3 VAC at 3 amps maximum • DC Bias Output: 30 to 275 VDC, no load, 15 to 150 VDC at 20 ma. Size: 5½" "Wx10½" "Dx7½" "H.

Shipping Wt. 11½ lbs. Dealer Net \$79.95

Prices and specifications subject to change without notice.

JACKSON ELECTRICAL INSTRUMENT COMPANY



TUBE TESTERS FOR EVERY PURPOSE



Available
KIT and
WIRED

Model 1101 TUBE TESTER

A deluxe tube tester...will test the new DECALS, the new MAGNOVALS, new 7-PIN NUVISTORS and all popular PICTURE TUBES

Also tests Novars, Nuvistors, Compactrons, 10-pin types, battery type tubes, auto radio tubes, foreign and hi-fi tubes and most industrial tube types • Tests all tubes for dynamic cathode emission, shorts, grid leakage and gas • Exclusive 2-point test principle, greatest safeguard against obsolescence...assures full test of all sections of multi-section tubes • Shorts are detected in tubes even where internal pins are tied or heater is tapped • Long lasting phosphor bronze tube sockets • Two tone etched aluminum panel: Size 8 $\frac{1}{8}$ "x11 $\frac{1}{8}$ "x3 $\frac{3}{4}$ " Shipping Wt. 6 lbs.

KIT Dealer Net **\$3995** • WIRED Dealer Net **\$6995**

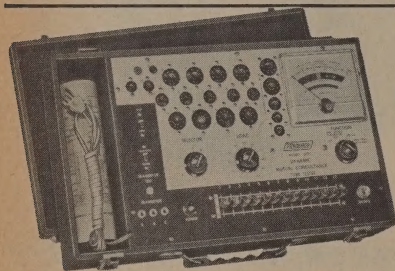
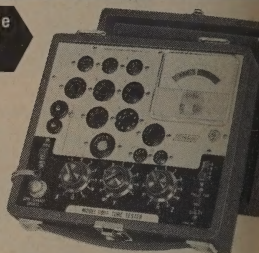
Model 1100A TUBE TESTER

Available
KIT and
WIRED

A dependable, professional performing tube tester at an economy price!

Tests more tube types than any other tester in its price range... Novars and Nuvistors, Compactrons and 10-pin types, Battery type, foreign and hi-fi tubes, Auto radio hybrid tubes and most industrial types • Tests all tubes for dynamic cathode emission, shorts, grid leakage and gas • Checks each section of multi-section tubes separately • Will detect any short in a tube, even where internal pins are tied or heater is tapped • Exclusive meter bridge circuit provides accuracy found only in more expensive testers • Size: 9"x8 $\frac{1}{4}$ "x3 $\frac{3}{4}$ "... Shipping Wt. 6 lbs.

KIT Dealer Net **\$2495**
WIRED Dealer Net **\$3495**



Model 2000 MUTUAL CONDUCTANCE TUBE TESTER

...engineered to test all the latest tube types...plus transistors

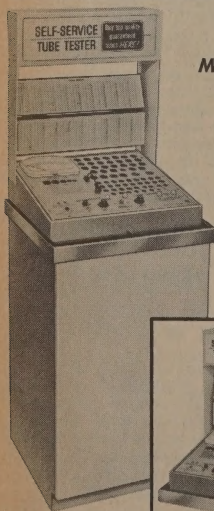
Tests all tube types, old and new, including the new Magnovals—new 7-Nuvistors—new 10-pin Decals—Compactrons, Novars, 10-pin types, foreign hi-fi tubes, voltage regulators, battery type tubes, auto radio hybrid tubes, transistors and industrial tube types • Tests transistors • Tests tubes for true dynamic mutual conductance (GM) • Tests for shorts, leakage and gas • Tests Color B/W picture tubes with the use of the MH-3 Multi-Head Adapter (optional) • Leaky switch test principle overcomes obsolescence • Automatic line voltage regulation • Long lasting phosphor bronze tube sockets • Two tone aluminum panel: Size 18 $\frac{1}{4}$ "x10 $\frac{3}{4}$ "x4 $\frac{3}{4}$ "... Shipping Wt. 12 $\frac{1}{2}$ lbs.

No additional charge for gun killers WIRED Dealer Net **\$9995**

MERCURY SELF-SERVICE TUBE TESTERS

Modern eye-stopping testers...big income producers in any location

Here is everything you want in self-service tube testers at down-to-earth prices. **VERSATILITY**—Tests emission, shorts and gas of over 1700 tube types including the very latest NUVISTORS, NOVARS, COMPACTRONS, 10-PIN type, etc.... Also tests fuses, pilot lights, 6 and 12 volt auto radio vibrators. **SMART APPEARANCE**—Modern cabinet design finished in rich 2 tone color combination. **QUALITY FEATURES**—Completely self-service...only two easy-to-use controls are required to test any tube...Easy-to-read quick flip tube charts list over 1700 tube types...Engineered to accommodate new tube types as they are introduced...Handsome aluminum panel always retains its rich appearance...68 phosphor-bronze and beryllium tube sockets assure positive contacts and long life.

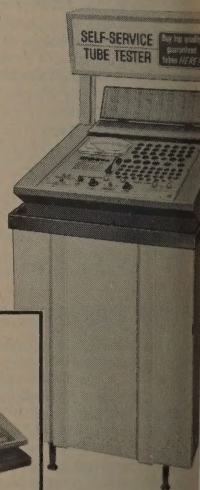


Model 204LB
(Lo-Boy Floor Model)
Dealer Net **\$20995**

Model 204C
(Counter Model)
Dealer Net **\$15995**

Model 204X
(Deluxe Lo-Boy Floor Model)
Dealer Net **\$23995**

Model 204XC
(Deluxe Counter Model)
Dealer Net **\$18995**



All prices and specifications subject to change without notice

UL and CSA approved

MERCURY ELECTRONICS CORP.



Technician Approved Test Equipment...TOPS in PERFORMANCE...QUALITY... and VALUE

Model 1900 SOLID STATE COLOR GENERATOR

Offers every essential feature needed to install and service Color TV

EXCLUSIVE FEATURE! Line width adjuster...enables you to select vertical and horizontal line thickness—or dot size from the smallest to the largest • Provides more flexibility in choice of patterns than units costing much more • Crystal controlled red rainbow color display • Color coded gun killer switches conveniently located on panel • Connects easily to TV antenna • **EXCLUSIVE...** all calibrations can be made quickly without removing unit from cabinet • Lead piercing clips for quick and positive connections • Line isolated to prevent shock hazard • High RF output on channels 4 or 5...factory set at channel 3...adjusts for channels 4 or 5 without removing unit from cabinet • Size 10"x6¼"x4½"

Wired Dealer Net \$9995

Shipping Wt. 8 lbs. No additional charge for gun killers



Available
KIT and WIRE

Model 501 COMPONENT SUBSTITUTOR

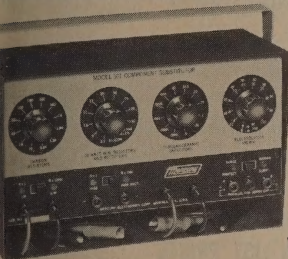
Places a complete range of components at your fingertips for fast substitution

CARBON RESISTORS: 24 values from 10 ohms to 5,600,000 ohms • **POWER RESISTORS:** 20 values from 2.5 ohms to 15,000 ohms • **ELECTROLYTICS:** 17 values from 4 mfd. to 230 mfd. • **RECTIFIERS—(Universal):** Crystal diodes—all general purpose low voltage types Selenium power rectifiers—up to 500 ma., 800 PIV Silicon power rectifiers—up to 750 ma., 800 PIV

KIT Dealer Net \$2995

Wired Dealer Net \$4495

SPECIAL FEATURES: Substitutes up to 4 different components at the same time • A surge protector switch prevents arcing, sparking or heating of electrolytics • Electrolytics are discharged automatically • Size 10"x6¼"x4½". Shipping Wt. 7 lbs.



Model 1400 IN-CIRCUIT CAPACITOR TESTER

Eliminates the time consuming method of unsoldering and resoldering when checking capacitors...

Available
KIT and
WIRE

EXCLUSIVE—HI-LEAK TEST

Checks those hard-to-find leaky capacitors (out-of-circuit)...leakage sensitivity to 150 megohms.

EXCLUSIVE

Special low test voltage of 2.9 volts provided to prevent damage to the low voltage electrolytics used in transistorized equipment.

SPECIFICATIONS

SHORTS TEST—Detects shorted capacitors of all types in-circuit with shunt resistance as low as 6 ohms.

OPEN TEST—Detects open capacitors for all values in-circuit down to 7 mfd., with shunt resistance as low as 150 ohms.

VALUE TEST—Indicates value of electrolytics in-circuit from 2 mfd. to 450 mfd.

HI-LEAK TEST—Detects those hard-to-find leaky capacitors out-of-circuit: Sensitive to 150 megohms...Tests made at 300V D.C. Size: 10"x6¼"x4½". Shipping Wt. 7 lbs.

KIT Dealer Net \$2495

Wired Dealer Net \$3995



Wired Dealer Net \$3995

Model 1500 SIGNAL GENERATOR

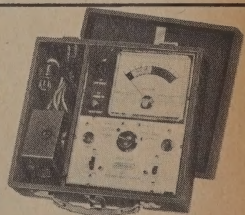
For troubleshooting Black/White and Color TV, AM-FM and Transistor Radio, Communications and Hi-Fi Equipment. Separate high level 400 cycle output for troubleshooting Hi-Fi and video amplifiers • Seven overlapping bands cover all popular frequencies...115KC to 110MC on fundamentals...much higher on harmonics • Accurate marker generator for alignment work • A switch controls generator output from pure RF to 400 cycle AM modulated RF • Modulated signals to check RF, IF, converter and detector • Line isolated. Size: 10"x6¼"x4½". Wt. 7½ lbs.

Model 801A COLOR CRT TESTER-REACTIVATOR

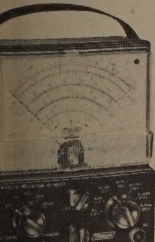
Tests, repairs and reactivates all B/W and all Color Picture Tubes.

TESTS—cathode emission, inter-element leakage, screen grid continuity, opens and visual life expectancy • **REPAIRS**—inter-element shorts and open elements • **REACTIVATES**—low emission tubes to restore brightness • **SPECIAL FEATURES**—reactivation process indicated on the meter • No adapters required • Provides 2V, 8V and 12V filament voltages.

Size: 11"x9½"x4½". Wt. 6 lbs.



Wired Dealer Net \$6495



Model 1700 VACUUM TUBE VOLTMETER

An advanced design VTVM to meet the technician's most rigid requirements.

AC RANGES: 0 to 1.5, 5, 15, 50, 150, 1500V • **Peak to Peak**—0.4, 14, 40, 140, 400, 1400, 4000V • **Output (DBM)**—20db to 65db • **ODB**—1mw across 600Ω • **Input Impedance**—1.4 megohms • **Accuracy**—within 5% • **DC RANGES:** 0-1.5, 5, 15, 50, 150, 500, 1500V • **Input Impedance**—11 megohms • **Accuracy**—2% • **RESISTANCE RANGES:** 0-1k, 10k, 100k, 1 meg, 10 meg, 100 meg • **Accuracy**—2% • Size: 7½"x6½"x4¼". Wt. 4 lbs.

KIT Dealer Net \$2995

Wired Dealer Net \$3995

Available
KIT and
WIRE

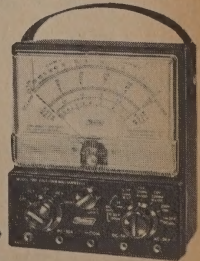
Model 1800 VOLT-OHM MILLIAMMETER

AC VOLT: 0-2.5, 10, 50, 250, 1000, 5000V. • **Input Resistance**—5k Ohms/Volt • **Accuracy**—Better than 5% • **DC VOLTAGE:** 0-0.25, 1, 2.5, 10, 50, 250, 1000, 5000V • **Input Resistance**—20,000 Ohms/Volt • **Accuracy**—2% • **DC CURRENT:** 0-50ua, 1ma, 10ma, 100ma, 500ma, 10a • **Accuracy**—2% • **OUTPUT:** Decibels—20 to +10db, -8 to +22db, +6 to +36db, +20 to +50db • **ODB**—1mw across 600Ω load • **RESISTANCE:** 0-2k, 20k, 20 megohms • **Accuracy**—2% • Size: 7½"x6½"x4¼". Wt. 4 lbs.

KIT Dealer Net \$2695

Wired Dealer Net \$3495

Available
KIT and
WIRE



MERCURY ELECTRONICS CORP.

PRICES

DISCOUNTS

ORDERING

INVENTORY

Prices in this MASTER should not be considered as final. INQUIRE ABOUT LATEST PRICES AND DELIVERY.

Trade discounts apply in most cases where LIST PRICES are shown.

Since previous editions of the MASTER are frequently referred to, it is important, when ordering, to mention specifically the edition and page number, also the catalog number of each item. This will avoid possible confusion and delay.

While most distributors maintain a large and varied stock, they do not represent that they stock all manufacturers' products shown in this MASTER catalog.

Fast, accurate point to point circuit testing

PARAGON PRO-GLO Circuit Testers are simple, inexpensive, easy-to-use instruments for checking non-energized circuits. This little pen-size unit accurately checks for polarity, shorts and opens and continuity in circuits with resistance up to 10 ohms.

The PARAGON PRO-GLO tester consists simply of a plastic case containing two AA penlight batteries and a #222 lamp, a pointed probe and a three-ft. lead wire with alligator. The lead wire holds a new probe protector.

Servicemen and home repairmen appreciate the ease of use of this simple tester.

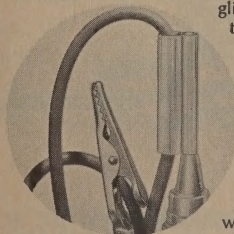
Signal light at point of contact eliminates necessity for shifting eyes to read meter. Speed and accuracy of testing is increased.

Low cost of device makes it practical for mass distribution in large service centers. Long operating life is assured—probe and battery contact spring are tin-plated beryllium copper, case is high-impact plastic and wire is heavy-duty, flexible test lead. **DEALER NET PRICE \$1.33**

- FOR SERVICE SHOPS • HOME TESTING • GARAGES • HOBBYISTS
- FARM USES

Probe-Protector Included

New! Vinyl extrusion Probe - Protector glides easily on the cord—can't be mislaid. Slips over Probe when circuit tester is not being used. This prevents accidental contact with metal that could create a circuit thus minimizing unnecessary battery burn-out.




PARAGON[®]
 ELECTRIC COMPANY, INC.
 Subsidiary of American Machine & Foundry Co.

RCA TEST EQUIPMENT

FOR SERVICE, INDUSTRY, SCHOOLS, LABORATORIES

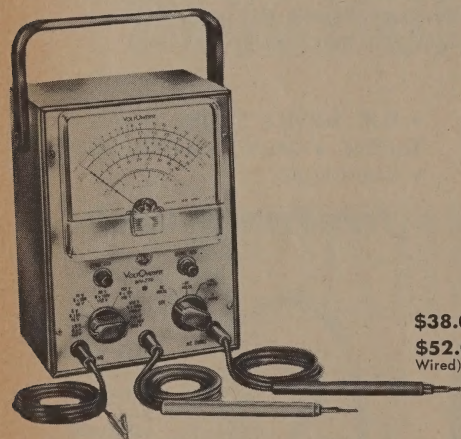
Application: provides direct reading of peak-to-peak voltages of complex waveforms found in video, sync and deflection circuits. Includes an improved circuit providing $\pm 3\%$ accuracy full scale on both ac and dc measurements with less than 1% tracking error. Separate color-coded, peak-to-peak and rms-voltage scales in two distinctive colors simplify readings. Features die-cast aluminum case; high input resistance; electronic protection against burnout; rugged 200-microampere meter movement; precision multiplier resistors with accuracy of $\pm 1\%$ and 0.5-volt full-scale dc range for checking transistor circuits.

NEW . . . MIRRORRED SCALE

- Large $6\frac{1}{2}$ " easy-to-read, full vision meter (26 sq. in.).
- Measures complex waveforms directly from 0.2 volt to 4200 volts peak-to-peak in 7 overlapping ranges.
- Measures rms values of sine waves from 0.1 volt to 1500 volts in 7 overlapping ranges.
- Measures from 0.02 volt to 1500 volts dc on two scales in 7 overlapping "3-to-1" ranges.

- INPUT RESISTANCE — 11 megohms on all dc ranges.
- Measures resistance from 0.2 ohm to 1000 megohms on single scale, with 7 overlapping ranges.
- FREQUENCY RESPONSE — 30 cps to 250 Mc with WG-301A Crystal-Diode Accessory Probe.
- Compact design: 7" wide, $3\frac{3}{4}$ " deep, $6\frac{1}{2}$ " high.

WV-77E VoltOhmyst® (Kit or Wired)



The WV-77E features flat frequency response $\pm 5\%$ from 40 cps to Mc on the 1.5, 5, and 15-volt rms ranges and the 4, 14, and 40-volt peak-to-peak ranges. The WV-77E measures dc from 0.02 volt to 1500 volts, rms ac from 0.1 volt to 1500 volts, peak-to-peak ac from 0.2 volt to 4000 volts, and resistance from 0.2 ohm to 1000 megohms—all in seven overlapping ranges! Full-scale accuracy is $\pm 3\%$ on dc and $\pm 5\%$ on ac. Meter is electronically protected against burnout. Separate scales are provided for low ac measurements. Input resistance is standard megohms. Width 5", Height 7", Depth 4", Weight 5 lbs.

- Fuse in ohms circuit prevents accidental burnout
- Circuit minimizes effect of residual gas in bridge tube
- Color-coded scales for easier, faster readings
- Ultra-slim probes and extra-flexible cables

\$38.00* WV-77E(K) VoltOhmyst Kit
\$52.00* WV-77E VoltOhmyst (Factory-Wired)

(Prices for WV-77E(K) and WV-77E include probe and cable, ac/ohms probe and cable, ground lead and clip, and instruction booklet. Assembly instruction sheet is provided with the WV-77E(K) VoltOhmyst Kit.)

WV-76A HIGH-SENSITIVITY AC VACUUM-TUBE VOLTMETER

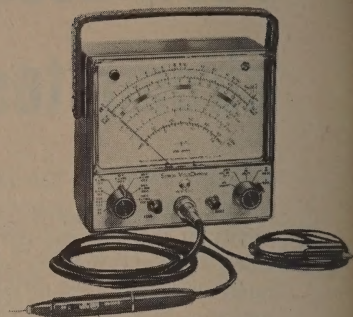
This RCA high-sensitivity AC Vacuum-Tube Voltmeter is designed for audio application in industry, laboratories and schools. It is also useful in broadcast, design and development, production, and servicing applications. Typical uses include frequency response test of pre-amplifiers, power amplifiers and tone-control circuits; feedback circuit design, signal tracing, audio-level and power-level measurements, gain measurements, amplifier balancing application and general audio voltage measurements.

- Nine overlapping AC voltage ranges — from 10 millivolts to 100 volts full scale. When the WG-300B input probe is set in the "Low-Cap" position, up to 500 volts or ± 56 db may be measured.
- Frequency response is flat from 10 cps to 500 Kc with "Low-Cap" probe, 10 cps to 1.5 Mc with "Direct" probe.
- May be used as preamplifier: 38 db maximum gain on 10-millivolt range
- High input impedance—permits measurements in circuits sensitive to loading
- Probe and cable shielded throughout its length—eliminates pick-up from stray fields
- Feedback loop from metering circuit provides additional stability and linearity
- Heavy filtering in power-supply section keeps hum to extremely low level

EQUIPMENT SUPPLIED:

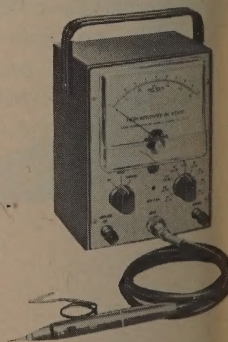
The RCA WG-300B shielded direct/low capacitance probe and cable is supplied with the WV-76A. A switch in the probe housing provides for switching from direct to low-capacitance input. In "DIRECT" position, probe measures up to 100 volts; in "LOW-CAP" position, probe can be used to measure up to 500 volts or ± 56 db.

WV-98C Senior VoltOhmyst (Kit or Wired)



\$57.95* WV-98C(k) Senior VoltOhmyst Kit.
\$84.00* WV-98C Senior VoltOhmyst (Factory Wired).

Kit features pre-assembled DC/AC-OHMS Probe



\$79.95* factory wired and calibrated.

*Optional distributor resale price. All prices are subject to change without notice. Prices may be slightly higher in Alaska, Hawaii and the W.

RCA TEST EQUIPMENT

FOR SERVICE, INDUSTRY, SCHOOLS, LABORATORIES

WV-38A V-O-M (KIT or WIRED)

W FEATURES:

meter movement protected against burnout
new 2-color front panel
voltage divider network fuse-protected. Easier-to-read scales on extra-large 5 1/4 inch meter. Polarity reversal switch. Full-wave bridge rectifier. No circuit loading. Standard dbm ranges.
extra 1-volt and 0.25-volt (250 mv) ranges.
removable clips accommodate probes and test leads for extra carrying convenience.

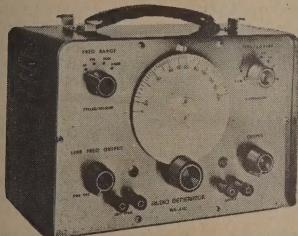
The WV-38A VOM has an input resistance of 20,000 ohms-per-volt on ac and 5,000 ohms-per-volt on dc and an accuracy of $\pm 3\%$ of full scale dc, $\pm 5\%$ of full scale on ac. Regular scales: 2.5, 10, 50, 250, 1000, 50 volts, ac and dc; 50 μ amp, 1, 10, 100, 500 ma, 10 amps (dc); plus extra scales of 250 mv and 1-volt (dc)! Frequency response (ac), flat from 10 cps to 50 Kc with usable response at 500 Kc. Ohms—3 ranges—1 (0-2,000 ohms), R x 100 (0-200,000 ohms), R x 10,000 (0-20,000 ohms). Dimensions: W 5 1/4" x H 6 1/2" x D 3 1/2".

\$3.00* WV-38A(K) VOM Kit

\$2.00* WV-38A VOM (factory wired and calibrated)

WA-44C AUDIO SIGNAL GENERATOR

SINE/SQUARE WAVE OUTPUT



\$98.50* Complete with 20 page instruction booklet.

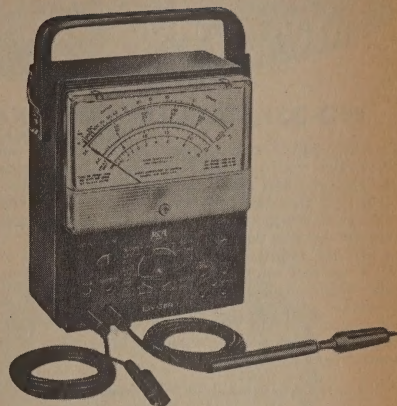
WR-64B COLOR-BAR/DOT/CROSSHATCH GENERATOR



\$189.50*

Complete with RF output cable, cable-carrying bracket attachment and instruction booklet.

Additional distributor resale price. All prices subject to change without notice. Prices may be slightly higher in Alaska, Hawaii and the West.



WG-270A Accessory Carrying Case for WV-38A VOM \$4.95*

The Compact WA-44C is ac operated from a 50-to-60 cycle, 105-125 volt source, and covers in four bands a range from 20 cps to 200,000 cps. Can be used for a wide variety of applications, including the measurement of frequency response characteristics of audio amplifiers, and the testing of loudspeakers and enclosures or finding the impedance of LC combinations. Width 10 1/16", Height 7", Depth 6 1/8".

The circuit of the sine-wave function consists of a "Bridged-T" oscillator with a cathode follower output stage. The square-wave output is developed by using the sine-wave oscillator output to drive a clipping and shaping circuit. Produces a stable signal with an amplitude variation of not more than ± 1.5 db. Total harmonic distortion is limited to 0.25% over the range of 30 cps to 15 kc.

- Switch selection for sinewave or squarewave output
- Simple one-scale dial
- Separate 60 cps output for intermodulation distortion measurements
- Wide frequency range, 20 cps to 200,000 cps.
- Less than 1% of 1% distortion over the audio-frequency range

NEW FEATURES:

- Crystal-controlled RF oscillator for stable picture carrier
- Convenient front-panel gun killing switches.

For checking over-all operation of Color-TV receivers. A "must" for adjusting and trouble-shooting color phasing and matrixing circuits. Generates signals for producing ten bars of different colors simultaneously. Also provides extremely stable fine-line crosshatch and dot patterns free from "jitter" and "crawl". Fixed number of bars and dots facilitate adjustment of over-scan (height and width) and linearity in both color and black-and-white sets.

The Color-Bar and Dot/Crosshatch generating functions require no external sync connections. All three patterns are RF outputs, factory set to channel 3 (can be set to channel 4). A sound carrier is provided to permit accurate adjustment of the fine-tuning control on the receiver.

The WR-64B features a chroma control helpful in checking color sync lock and color AFC alignment. The color sub-carrier frequency, the horizontal sync-pulse frequency, and the "bar" frequency are all crystal controlled. A shielded output cable is provided with the instrument. Width 13 1/2", Height 10", Depth 7 1/2". Weight only 13 pounds.

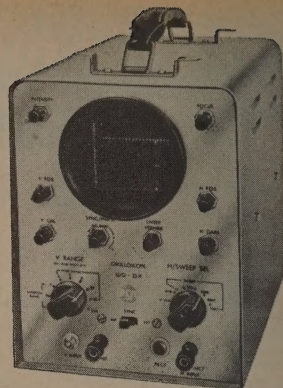
RCA TEST EQUIPMENT

FOR SERVICE, INDUSTRY, SCHOOLS, LABORATORIES

WO-33A OSCILLOSCOPE (Kit or Wired)

The WO-33A 3-inch Oscilloscope is the "all purpose" scope! All the bandwidth you need for servicing color-TV, video broadcast monitors and cameras; and for square-wave testing of audio and ultrasonic equipment! All the gain you need for low-level audio work — servicing pickups, microphones, preamps; plus signal-tracing radios, amplifiers—trouble shooting communications signaling systems, ham radio and hi-fi equipment, industrial electronics machinery and other applications. With vertical amplifier in narrow-band position, sensitivity is 3 rms millivolts/inch; bandwidth within -3 db, 20 cps to 150 Kc. Wide band position: sensitivity 100 rms millivolts/inch; bandwidth within -3 db, 5.5 cps to 5.5 Mc. Sweep circuit: Sawtooth range from 15 cps to 75 Kc; sync — external, $\pm$ internal; line sweep — 160° adjustable phase; sync range—to 4.5 Mc.

- for accuracy—frequency-calibrated frequency-compensated, 3-to-1 step attenuator
- for measurements—scaled graph screen and calibrating voltage source allows direct reading of peak-to-peak voltages
- for stability—"plus-minus" internal sync... holds sync to 4.5 Mc
- for completeness—shielded input cable with low-capacitance probe included
- for portability—compact size—W 6½" x H 8¾" x D 10¼"—weight only 14 lbs. Plus built-in brackets to hold power cord and cables

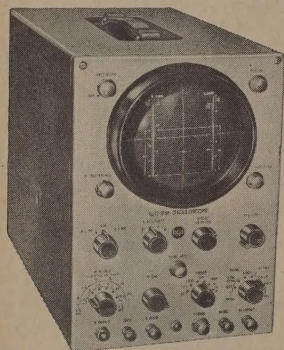


\$99.00*—WO-33A(K) Oscilloscope Kit

\$139.00*—WO-33A Oscilloscope

(Prices for the WO-33A(K) and WO-33A include Direct Low-Cap probe and cable, and instruction booklet.

WO-91B 5" OSCILLOSCOPE



\$269.00* complete with WG-300B two-way Direct/Low-Capacitance Probe and Cable; alligator clip and insulator, ground cable; green graph screen, Instruction booklet.

NEW FEATURE:

- Provision for connecting signals directly to the vertical deflection plates of the

Application: for production and servicing both black-and-white and color receivers. Used to measure color burst signals and for trouble-shooting wide band color circuits, signal tracing and aligning wide-band video amplifiers, chrominance circuits. A multi-scale graph screen makes peak-to-peak volt measurements as simple as with a VTVM. Response: Wide-band within $\pm$ from 10 cps to 4.5 Mc; High sensitivity within -1 db from 10 cps to 0.5 within -6 db to 1.5 Mc. Sensitivity: 0.05 volt peak-to-peak per inch (0. volts rms) in high-sensitivity position; 0.15 volt peak-to-peak per inch (0. rms volts in wide-band position).

- Voltage - calibrated, frequency - compensated, 3-to-1 step attenuator for "V" amplifier.
- Shielded vertical-input connector and shielded cable minimize hum, stray field pickup.
- Input Resistance—1 megohm shunted by 40 μ f. Low capacitance position—10 megohm shunted by 11 μ f.
- Z-Axis input 12 volts for blanking.
- Preset "V" and "H" sweep position.
- "Plus" or "Minus" internal-sync selector.
- Positive-lock internal sync.
- Sweep Frequency: 10 cps to 100 cps.
- Maximum ac input: 600 volts peak-to-peak.
- Weight: 30 lbs. Size 13½" x 16" x 9".

WR-50B SIGNAL GENERATOR (Kit or Wired)

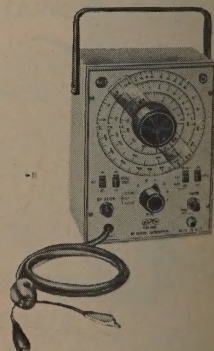
The RCA WR-50B RF Signal Generator is a highly versatile, readily portable test instrument designed for use in the shop or in the field for general television and radio servicing and other applications which require a continuous-wave or modulated RF sine-wave signal from 85 kHz to 40 MHz.

The unit is particularly well suited for such applications as alignment and signal tracing of AM, FM, High-Fidelity and Citizens' Band receivers, alignment of low-frequency IF amplifiers in television receivers, and signal tracing and trouble-shooting in nearly all sections of television receivers.

- Wide frequency range—continuous coverage 85 kHz to 40 MHz in 6 overlapping ranges
- Built-in crystal calibrating oscillator circuit with front panel crystal socket
- Internal 400 Hz audio oscillator
- Sweep output at 10.7 MHz with return trace blanking for sweep alignment of FM receivers
- Sweep output at 455 kHz with return trace blanking for sweep alignment of AM receivers
- Built-in DC blocking capacitors
- Two-step RF attenuator switch plus a continuously variable attenuator control
- Additional switch for further attenuation of the crystal oscillator output

\$65.00*—WR-50B RF Signal Generator

\$45.00*—WR-50B(K) RF Signal Generator Kit



*Optional distributor resale price. All prices subject to change without notice. Prices may be slightly higher in Alaska, Hawaii and the U.S.P.

RCA TEST EQUIPMENT

FOR SERVICE, INDUSTRY, SCHOOLS, LABORATORIES

WR-52A—STEREO FM SIGNAL SIMULATOR

The RCA WR-52A Stereo FM Signal Simulator is a compact, lightweight instrument designed to generate the signals necessary for complete service and maintenance of stereo multiplex FM receivers and adaptors.

COMPOSITE STEREO OUTPUT—for direct connection to multiplex circuit

- Choice of left stereo and right stereo signals

RF OUTPUT—for connection to receiver antenna terminals

- 100 Mc carrier, tuneable
- Choice of FM signals—left stereo, right stereo, monaural FM, internal test and 60 cycle FM sweep
- FM stereo deviation adjustable from 0-100%
- 100 Mc sweep signal adjustable from 0 to more than 750 Kc at a 60 cps rate
- RF output attenuator

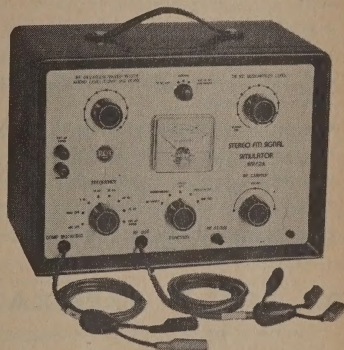
CRYSTAL-CONTROLLED 19 Kc SUBCARRIER ($\pm .01\%$)

FINE WAVE FREQUENCIES

- Three low distortion frequencies—400 cps, 1 Kc, 5 Kc
- Two crystal-controlled frequencies—19 and 38 Kc
- Additional frequencies—67 and 72 Kc for trap alignment

EASILY PORTABLE—weighs only 12¾ pounds, measures 13¼" by 10" by 8"

COMPLETE WITH CONNECTING CABLES

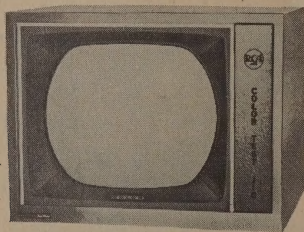


\$227.00*

11A1015 COLOR TEST JIG

A "must" for any serviceman now servicing or planning to service Color TV receivers, the RCA Color Test Jig makes a one man service call out of costly two man cabinet pulling jobs. Eliminates necessity of removing picture tube from cabinet and of reconverging tube when chassis is returned. Convergence control panel provides dynamic as well as state convergence.

- Versatile—Can be used with CTC-4, 5, 7, 9, 10, 11 and 12 chassis.
- Safe—Supplied with factory-installed safety glass and kine mask.



\$135.00*

Includes kit with all necessary components, hardware and instructions for installation of an RCA Tri-Color Kinescope (Kine not included).

SERVICE ACCESSORIES AVAILABLE FOR USE WITH RCA COLOR TEST JIG:

- 13A-100 High Voltage Extension Cable
- 13A-101 High Voltage Extension Cable
- 205-W1 Degaussing Coil
- 220-X1 Kinescope Socket Extension Cable
- 221-X1 Deflection Yoke Extension Cable
- 222-X1 Convergence Magnet Extension Cable

- 223-X1 High Voltage Extension Cable
- 224-X1 Convergence Magnet Extension Cable
- 225-X1 High Voltage Extension Cable
- 226-X1 Grid Shunt Switch & Cable
- 238-X1 Deflection Yoke Extension Cable
- 237-X1 Color Equalizer Magnet Kit

Optional distributor resale price. All prices subject to change without notice. Prices may be slightly higher in Alaska, Hawaii and the West.

RCA TEST EQUIPMENT

FOR SERVICE, INDUSTRY, SCHOOLS, LABORATORIES

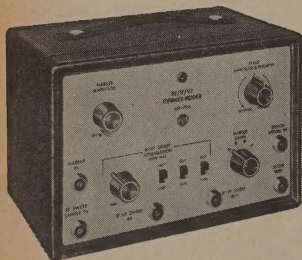
WR-99A CRYSTAL-CALIBRATED MARKER GENERATOR



\$256.50* complete with rf output cable, instruction booklet.

- At least 0.1 volt output, into 95 ohms terminated.
- Provides signals for adjusting vertical or horizontal linearity.
- Precision matched impedance/resistance pad attenuator, 0-60 db in 5 db steps.
- Special modulation input available for re-transmission.
- Provision for use as Heterodyne Frequency Meter.
- Provides dual markers for band-width checks and rf alignment.
- Triple markers for sound-if alignment and band-width checks.
- Adjustable dial pointer for accurate registration with crystal-calibration check points.

WR-70A RF/IF/VF MARKER ADDER



\$87.00* complete with four coaxial cables and instruction booklet.

Application: for rf, if and video sweep alignment of both color and black-and-white TV receivers. Provides sharp, easy-to-read markers for alignment. A choice of four different marker shapes is available, permitting use of marker type best suited to the response curve. Designed for use with conventional marker and sweep generators, such as the RCA WR-39 and WR-89 series marker generators and the WR-59 and WR-69 series TV sweep generators. With the WR-70A, the marker signal is added to the sweep-response curve after the sweep signal is taken out of the receiver under test.

- Eliminates or reduces distortion of sweep curve by the marker.
- Permits trap alignment without marker "suckout."
- Hi-Q markers — high in amplitude, narrow in width.
- Four marker choices — positive peak, negative peak, positive and negative peaks (wide band), positive and negative peaks (narrow band).
- Voltage stabilized for rock-steady trace display.

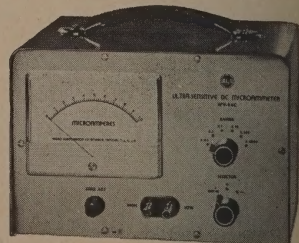
SPECIFICATIONS

IF/VF sweep input — 50 to 50 Mc. RF input — Mc to 250 Mc.

**MINIMUM INPUT VOL-
AGES** — IF/VF — 0.1 v
rms. RF Sweep sample
put—0.005 volts rms. Mar-
input—0.1 volts rms. Min-
um demodulator signal
put—8 volts peak-to-peak

**MAXIMUM SIGNAL OU-
PUT** — Marker signal —
volts rms. Demodulator
nal — 10 volts peak-to-pe-
input and output imp-
ances all 100 ohms exc-
demodulator signal input
0.5 megohm.
Weight: 8 lbs. Size: 7 1/2"
10 1/2" x 6 1/4".

WV-84C ULTRA-SENSITIVE DC MICROAMMETER



\$110.00* includes 50- and 950-megohm multiplier resistors, instruction booklet.
(less batteries)

- Over-all microammeter accuracy on .01 range $\pm 1\%$ or better; accuracy on all other ranges $\pm 4\%$ or better.
- Size 7 1/2" x 10 1/2" x 6 1/4". Weight: 10 lbs. Includes batteries.

*Optional distributor resale prices. All prices subject to change without notice. Prices may be slightly higher in Alaska, Hawaii and the West.

Application: a battery-operated vacuum tube microammeter designed for measuring minute direct currents, for making current and voltage measurements in electrolysis and corrosion investigations, and for checking currents in light meters, ultra-violet and infrared detectors, and spectrophotometric devices. Self-contained batteries permit use almost anywhere. Low-drain tubes extend battery life and protect the delicate meter against burnout due to accidental overloads. When used as a voltmeter, it is especially suited to measurements in circuits where loading is a critical factor. Can also be used as an ohmmeter to measure extremely high resistances, such as leakage and insulation resistance.

- Six direct-current ranges for measuring currents from 0.0002 to 1000 microamperes.
- Can be used as ohmmeter to measure resistance in the order of billions of ohms.
- Voltage drop for full-scale deflection only 0.5 volts.
- Input resistance of 100 megohms for measurement of voltages from 0.1 to 1 volt; 1000 megohms input resistance for voltages from 1 to 10 volts, 1005 megohms for voltages from 1 to 100 volts.

RCA TEST EQUIPMENT

FOR SERVICE, INDUSTRY, SCHOOLS, LABORATORIES

WT-115A COLOR PICTURE TUBE TESTER



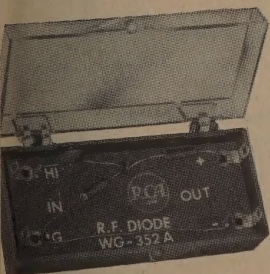
The RCA WT-115A Color Picture Tube Tester is designed specifically for the testing of color picture tubes, including types 21AXP22, 21AXP22A, 21CYP22, 21CYP22A, 21FBP22, 21FKP22, and 21FJP22. The RCA WT-115A offers a quick, reliable means of testing each gun of the color picture tube for emission quality (including warm-up performance), interelectrode leakage, and shorted elements. Readily portable, the WT-115A provides distributors and dealers with an accurate instrument for the testing of color picture tubes in the customer's home or in the store.

- Designed specifically for testing TV color picture tubes
- Tests each gun for emission quality, interelectrode leakage, and shorts
- Large, 3-color, sensitive meter with two scales:
 - Red/green "quality" scale, with reference marks from 0 to 10
 - Separate yellow scale to indicate interelectrode leakage
- Sensitive meter and cut-off adjustment control for evaluating the true emission of each gun
- Neon shorts indicator
- AC line-voltage adjustment for accurate measurements
- Test procedure includes 2-minute and 4-minute tests for determining warm-up performance of tube
- Tests color picture tube in-set or out-of-set
- Built-in cable and socket assembly

\$89.50* Complete with sturdy laminated vinyl case with convenient cable storage compartment.

*User Price (Optional)

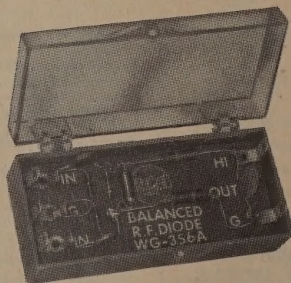
WG-352A
RF DIODE



The RCA WG-352A RF Diode is designed for use with the RCA WV-38A or WV-38A(K) Volt-Ohm-Milliammeter in rf applications from approximately 100 kc to 100 Mc. When the WG-352A is connected in a high frequency circuit, it will provide rectified output which can be read directly from the meter scales of the WV-38A.

\$2.95*

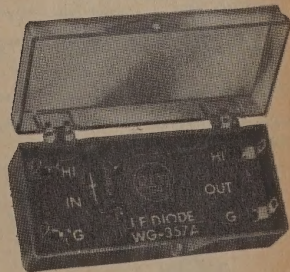
WG-356A
BALANCED RF DIODE



The RCA WG-356A Balanced RF Diode is designed for use with an oscilloscope, such as the RCA WO-33A or WO-91A, in measuring the voltage output of sweep-frequency generators having balanced, 300-ohm output circuits, and for checking the bandpass and gain characteristics of VHF TV rf preamplifiers and antenna distribution amplifiers. The diode is useful through the video/it/rf frequency range up to approximately 250 Mc.

\$3.95*

WG-357A
IF DIODE



The RCA WG-357A IF Diode is an unbalanced detector-demodulator designed primarily for use with an oscilloscope, such as the RCA WO-33A or WO-91A, in displaying the sweep output from an if video sweep generator having an unbalanced output circuit. The WG-357A, which is usable up to approximately 100 Mc, can also be used to observe the rf/lf response of individual amplifier stages. It has a maximum input signal rating of 20 rms volts, and a maximum dc voltage rating of 250 volts.

\$3.95*

Optional distributor resale price. All prices subject to change without notice. Prices may be slightly higher in Alaska, Hawaii and the West.

RCA TEST EQUIPMENT

FOR SERVICE, INDUSTRY, SCHOOLS, LABORATORIES

WR-69A

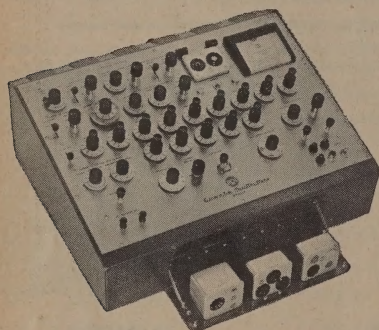
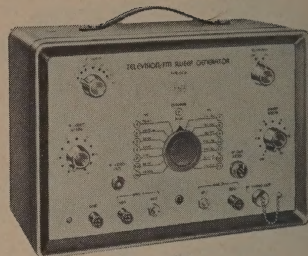
TELEVISION/FM SWEEP GENERATOR

Tops for visual alignment of both TV and FM receivers, the WR-69A has preset switch positions for all VHF TV channels, the FM broadcast band, and TV video, chrominance, and if frequencies. VHF output is on fundamental frequencies only; no beat notes or harmonics are used. Exceptionally good linearity is provided by a precision vibrator capacitor. Continuously adjustable sweep width and flat output make for accurate sweep response portrayals. The WR-69A is especially suited to alignment of color receivers. Special sample-voltage terminal on panel permits use with marker-adder units in alignment. Dual-piston attenuator provides smooth even attenuation over 60 db range. Width 13", Height 10", Depth 7".

- IF/Video output frequency continuously tunable from 50 Kc to 50 Mc.
- Sweep-frequency bandwidth continuously adjustable from 50 Kc to 20 Mc on if/video and fm - 12 Mc max. on TV channels.
- Return trace blanking.
- Two adjustable bias voltages available on front panel.

(complete with RF Output cable, IF/Video Output cable and instruction booklet.)

\$295.00



WT-100A Electron-Tube MicroMhoMeter

A precision laboratory measuring instrument which tests tubes under typical operating conditions as specified in the tube manufacturers' technical data manuals. It is particularly useful in production line testing design and development work, pre-selecting for critical application quality control programs, and preventive maintenance. MEASUREMENTS PERFORMED: ac heater current from 0.02 ampere to 10 amperes • dc filament current up to 250 ma • voltage drop across rectifier tubes and semiconductor diodes • transconductance from 1 micromhos to 100,000 micromhos. Within the range of its facilities will test: vacuum tubes—diodes, triodes, tetrodes, pentodes, heptodes, spetodes, octodes, and multi-unit types; gas tubes—thyratrons, voltage regulators, cold-cathode and hot cathode rectifiers; in these bases are envelopes—bases with 4, 5, and 6 pins, lock-in, miniature, sub-miniature pencil and lighthouse; and semi-conductor diodes—small dry-disc rectifiers, germanium and silicon diode types. Size: W 23½" x H 8" x 18½". Weight: 50 lbs.

\$989.00* Electron-Tube MicroMhoMeter

(complete with 4 multiple-socket plug-in units, instruction booklet.)

- measures transconductance to an accuracy of better than $\pm 3\%$
- accurate measurement of "hybrid" auto receiver tube types under actual operating conditions
- built-in shorts test for any combination of tube elements

- measures transconductance up to 100,000 micromhos in six ranges
- measures both control-grid-to-plate and suppressor-grid-to-plate transconductance
- built-in calibrating circuit—no null meters or extra devices required
- meter completely burnout-proof
- regulated power supplies for dc plate and screen test voltages

WP-25A TV ISOTAP

Speeds up servicing, prevents damage to test equipment, minimizes shock hazard, cuts down costly returns. The WP-25A may be used as a high-medium-low voltage isolation transformer or as an auto-transformer for testing radio and TV receivers at various settings of line voltage. Supplies outputs of 130, 115, and 105 volts at maximum load and is tapped to match line voltages from 105 to 130 volts in six steps **\$27.50***

WG-304B RF MODULATOR

An accessory used to check the over-all frequency response of TV receivers from antenna picture tube grid. The unit permits modulation of an rf marker signal from a marker generator (such as WR-89A or WR-99A) by a signal from a video sweep generator (such as WR-59C or WR-69A).

\$16.50

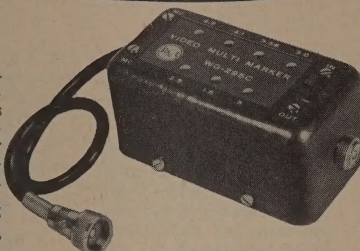
*Optional distributor resale prices. All prices subject to change without notice. Prices may be slightly higher in Alaska, Hawaii and the West.

RCA TEST EQUIPMENT ACCESSORIES

WG-295C VIDEO MULTIMARKER

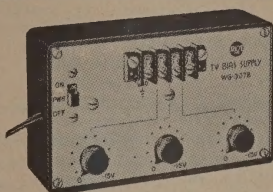
Provides seven simultaneous absorption-type markers accurately pre-tuned frequencies for marking video response curves in color receivers. Markers are at 0.5 Mc (For (O, R-Y, Y, G-Y filters).

0.5 Mc (for J filter), 2.5 Mc (for bandpass filter), 3.58 Mc (color carrier frequency), 3 and 4.1 Mc (video and bandpass amplifiers), and 4.5 Mc (sound-trap frequency). Each marker is identified simply by touching a corresponding contact on the WG-295C case. This reduces the amplitude of the particular marker. The WG-295C connects between the IF/VF output on the sweep generator and the video output cable. Equipped with a timing switch. With instruction booklet **\$32.50***



WG-307B(K) TV BIAS SUPPLY KIT

Three separate dc output voltages each adjustable from 0 to -15 V. Panel isolated from all circuits. Measures 6 1/2" x 3 3/4" x 2". Weight: 22 ounces.



\$11.95*

WG-301A CRYSTAL-DIODE PROBE

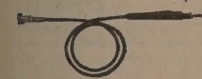
"Slip-on" type for use with the WG-299A, B or C DC/AC Ohms Probe and Cable extending the frequency range of VoltOhmysts® to 250 Mc.

\$7.75*



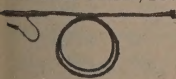
WG-299D DC/AC OHMS PROBE AND CABLE

The WG-299D is a single-unit probe for use with Volt Ohmysts® except WV-77E. Switch provides instant selection of dc or ac/ohms operation. The WG-299D replaces the WG-299A, WG-299B and WG-299C. **\$7.95***



WG-300B DIRECT/LOW CAPACITANCE PROBE AND CABLE

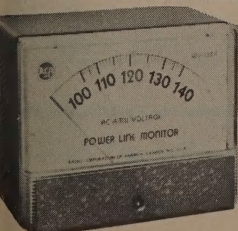
Designed for use with the RCA Scopes. Cable is 48" long, completely shielded from microphone connector to probe tip to minimize hum and stray field pick-up. Built-in switch provides instant selection of direct or low-capacitance operation. Input characteristics: 10 megohms resistance, less than 12.5 μf capacitance in low capacitance position. Includes ground lead and clip. **\$9.95***



WV-120A POWER LINE MONITOR

For constant indication of power line voltage

Features: • expanded scale 100 to 140 volts indicates true rms values • accuracy ±2% at 120 volts, ±3% at 100 and 140 volts • readable from 10 feet or more • plugs in to power line outlet • wide frequency range, 25 to 400 cps. H 3 3/8", W 5", D 3 1/8". Weight: 1 1/2 lbs. **\$16.50***



WG-289, WG-297 HIGH-VOLTAGE PROBES

The WG-289 extends the dc-voltage range of the WV-77A, WV-77B, WV-77C, WV-87A, WV-87B, WV-97A, WV-98A and WV-98B VoltOhmysts to 50,000 volts. The WG-297 extends the range of the WV-77E VoltOhmyst® and WV-38A volt-ohms-milliammeter to 50,000 volts dc.

The WG-289 is provided with a microphone-type connector, and the WG-297 is provided with banana-plugs for use with appropriate VoltOhmysts and other VTVM's, VOM's.

A choice of three multiplier resistors is available, enabling these probes to be used with many popular electronic and non-electronic volt-ohm-meters! WG-206—1090-megohm multiplier resistor for VTVM's having 11-megohm input (multiplying factor 100).

WG-210—900-megohm resistor multiplies 5000-volt dc range of 20,000-ohms-per-volt VOM's by a factor of 10.

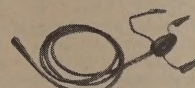
WG-211—495-megohm resistor multiplies 250-volt dc range of 20,000-ohms-per-volt VOM's by a factor of 100.

WG-289 or WG-297, Probe Only **\$11.95***

WG-206, WG-210, or WG-211, Multiplier Resistor Only (each) ... **\$ 3.50***

*User Price (Optional)

WG-349A DIRECT/LOW-CAPACITANCE PROBE



A 48-inch, small diameter, extremely flexible shielded cable designed for use with the WO-33A Oscilloscope. The probe consists of three short leads with alligator clips for ground, direct, and low-capacitance connections. For convenient use, the WG-349A eliminates the need for switching. It connects to the oscilloscope by means of a miniature-type microphone connector. Input characteristics: 10 megohms, 12 uuf capacitance, when used with the WO-33A and WO-33A(K). **\$5.95***

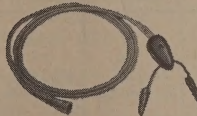
WG-302A RF/IF/VF SIGNAL TRACING PROBE



"Slip-on" type high-frequency probe designed for use with the WG-300A and B probe and cable to permit visual signal tracing for rapid isolation

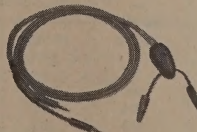
of trouble in radio receivers and in television if and video stages. **\$8.50***

WG-350A DEMODULATOR PROBE



For use with the WO-33A Super-Portable Oscilloscope for demodulation and signal tracing of radio/TV rf and if signals. **\$4.95***

WG-351A CRYSTAL DIODE PROBE



For extending the rf measuring capability of the WV-77E VoltOhmyst, and WV-77E(K) VoltOhmyst Kit, to over 100 Mc. **\$4.95***

WG-360A PHASE CHECKER

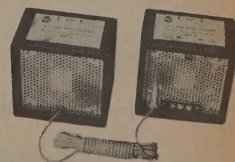
Used for a dynamic check of phasing in any audio system from input to the output of the speakers.

Features:

- sound powered; requires no external voltage source
- any VOM, VTVM, or oscilloscope may be used as the indicator

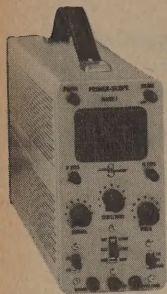
\$14.95*

*Optional distributor resale prices. All prices subject to change without notice. Prices may be slightly higher in Alaska, Hawaii and the West.

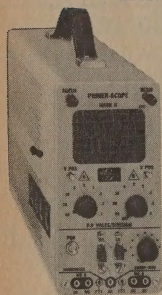




PRECISION OSCILLOSCOPES FOR EVERY PURPOSE



PRIMER SCOPE
MARK I



PRIMER SCOPE
MARK II

PRIMER-SCOPES

PRIMER-SCOPES are the ideal choice for all applications where portability, simplicity and reliability are required. Students, hi-fi fans, amateur radio operators, electronics enthusiasts and servicemen will welcome these versatile, factory-wired, factory-tested and guaranteed oscilloscopes with features usually found only on expensive industrial models.

The skillfully engineered **PRIMER-SCOPE** line is American-made with American parts assembled under exacting quality control, and the cathode ray tube is shielded for maximum protection from interference. Controls are simple to operate and clearly marked. All units come in professional-quality industrial gray cases with convenient carrying handles attached for easy portability.

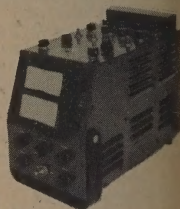
POCKETSCOPES

The Schaevitz **POCKET-SCOPE** line of industrial oscilloscopes has for years been the choice of exacting engineers and technicians. Quality-engineered to precise standards, the rugged **POCKETSCOPE** line offers versatility, accuracy and reliability sufficient for the most demanding industrial application.

Controls on all models have been operationally simplified and functionally laid out to insure quick, convenient handling. Rugged construction insures low maintenance under a wide range of environmental conditions. All models come with a convenient leather carrying handle attached. Optional probes are available.



S-11-A



S-15-A



S-16-A

	PRIMER-SCOPES		POCKETSCOPES					CRAFTSCOPE
	MARK I	MARK II	S-11-A	S-14-A	S-14-B	S-14-C	S-15-A	S-16-A
CRT Size — inches	3	3	3	3	3	3	1¼x3*	5"
Vert. Sensitivity — mv rms/Div.	6	36*	50	6	25	35†	6*	2.5
Vert. Sensitivity — mv DC/Div.	25	100*	140	14	70	100	14*	100
Vert. Response — Hz-3db	DC-75K	DC-75K	DC-200K	DC-180K	DC-700K	DC-700K	DC-180K	DC-5M
Vert. Input — Z-ohms-pf	0.5 Meg-100	1 Meg-90	0.5 Meg-35 or 10 Meg-10	1 Meg-25	1 Meg-25	1 Meg-25	1 Meg-25	1 Meg-40
Horz. Sensitivity — mv rms/Div.	150	150	50	8	75	—	500	10
Horz. Sensitivity — mv DC/Div.	—	—	140	21	210	—	1400	—
Horz. Response — Hz-3db	20-75K	20-75K	DC-200K	DC-180K	DC-200K	—	DC-150K	3-180K
Sweep — Hz	20-20K	20-20K	3-50K	0.5-50K	0.5-50K	20µ S-2S	0.5-50K	5-50K
Line Voltage	117	117	117	117	117	117	117	117
Frequency — Hz	60	60	50-400	50-400	50-400	50-400	50-400	50-400
Watts	30	60	30	50	65	85	75	68
Height — inches	7¼	7¼	7	7	7	7	7	10½
Width — inches	3½	3½	5	6	6	6	6	6¾
Depth — inches	11½	13½	11	12	12	12	12	12¾
Weight — pounds	5	7¼	8¾	12¼	14	16	16¼	18
Shipping Wt. — pounds	7	9	10	16	17	19	19	21
Net Prices	99.00	189.00	169.75	282.75	277.75	289.00	195.00	265.00

*Both Channels †Accessory Amplifier Probe Improves Ten Times

Engineers and developers of oscilloscopes, indicators and electronic test equipment.

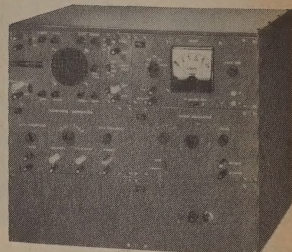


schaevitz®
m · c · d

POLYLAB SOLID STATE INSTRUMENTS



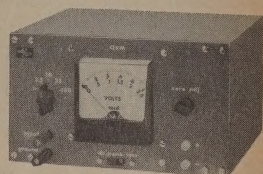
POLYLAB is a self contained, **SOLID STATE** electronic test center, designed by Schaevitz M.C.D. to fill the electronic requirements of a school or medical lab — a technician's or engineer's test bench. For the first time, a QVM (**SOLID STATE VTVM**), a **SOLID STATE** oscilloscope, a **SOLID STATE** function generator and a **SOLID STATE** sine-square wave oscillator, packaged with a common power supply, for less than the cost of any single **SOLID STATE** component presently available. Each component may be purchased separately with its own, built-in power supply.



Model QEL 100

POLYLAB QVM is a **SOLID STATE** voltmeter which automatically indicates + DC, —DC or AC without switching. High impedance input and four selectable full-scale ranges for 0 to 100 V measurements.

RANGES: 0.1, 2.5, 10, 25, 100 volts DC-PEAK-RMS
ACCURACY: $\pm 3\%$ of full scale nominal
INPUT IMPEDANCE: 10 megohms



Model QVM 101

POLYLAB 3" OSCILLOSCOPE is a **SOLID STATE** DC oscilloscope for both AC and DC measurements, with identical vertical and horizontal amplifiers for all scope applications to 100 KC. Internal repetitive sweeps with excellent linearity and intensity modulation. Extended range when used with Polylab Function Generator, QFG 101, below.

VERTICAL or HORIZONTAL

Bandpass: DC — 100 KHz or 10 Hz — 100 KHz

Sensitivity: 40 mv/div. to 4 v/div.

Centering Range: 2 diameters

Phase Linearity: V to H $\pm 3^\circ$ to 100 KC

SWEEP

10 Hz to 10 KHz in 3 ranges

SYNC:

+ int, + ext or + line

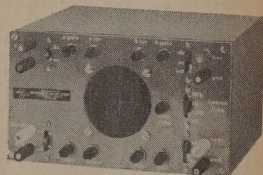
Sensitivity: 600 mv to sync

INTENSITY MODULATION

Sensitivity: 800 mv

Bandpass: 30 Hz — 20 KHz

Polarity: either (selectable)



Model QOS 101

POLYLAB FUNCTION GENERATOR, a **SOLID STATE**, multi-wave form output generator, covers sub-sonic frequencies. Sine, square and triangular outputs cover from 0.1 to 10 seconds. Sweep (sawtooth) output from 0.05 to 5 seconds. All outputs are synchronous.

SINE WAVE OUTPUT: 0-1 volt p-p

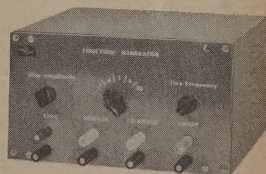
SQUARE WAVE OUTPUT: 0-1 volt p-p

TRIANGULAR WAVE OUTPUT: 0-1 volt p-p

RANGE: .1 — 10 Hz in four ranges

SWEEP (sawtooth): 0-1 volt p-p (sweep frequency is $\frac{1}{2}$ signal frequency)

RANGE: 0.05 — 5 Hz in four ranges



Model QFG 101

POLYLAB SINE-SQUARE WAVE GENERATOR is a precision, **SOLID STATE** audio generator with a choice of either sine wave or square wave output. It features a clearly readable dial with range selection and variable output.

RANGE: 20 Hz — 20 KHz in three ranges

SINE WAVE OUTPUT: 0-1 volt p-p

SQUARE WAVE OUTPUT: 0-1 volt p-p



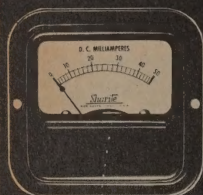
Model QAG 101

Engineers and developers of oscilloscopes, indicators and electronic test equipment.

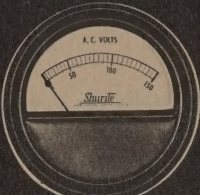


Schaevitz®
m . c . d

PANEL *Shurite* METERS



MODEL 950 SERIES
WITH ZERO ADJUSTER
(metal-case)



MODEL 550 SERIES
(Rimless Round)
(metal-case)

• **SHURITE** makes attractive, rugged, dependable instruments with accuracy well within $\pm 5\%$, and the ability to duplicate readings. DC meters are polarized-vane solenoid type (moving-magnet or bridge-type construction where indicated): AC meters are double-vane repulsion type with jeweled bearing. The jewel construction costs more to build, but it pays off in continuing accuracy during a longer useful life. Models 550 and 950 fit 2-5/32" hole; Model 850 fits 2-5/32" to 2-1/32" hole. All are guaranteed.

*** **NEW PRODUCTS**—More sensitive meters without sacrifice of ruggedness, include: *A) three 0-500 DC Microammeters with 1000 ohms int. res.; *B) a 0-1 DC Milliammeter, Stock No. 8334, 800 ohms int. res., with Bridge-Type design to minimize effect of external magnetic forces; and *C) a Field Strength Meter, Stock No. 89032. Not cataloged but produced in quantity at extra cost are expanded scale meters, such as 10-12.5 DC Volts, accuracy $\pm .125$ Volt. A handy new Cold Zone Tester is announced on the next page.

FEATURES

GUARANTEE: Meters are guaranteed to users against defective workmanship and material, and will be repaired or replaced if sent to the factory postpaid with 50¢ handling charge within one year after purchase . . . **ALL METAL DIALS**—age and moisture resistant, lithographed in black on white for high visibility . . . **STURDY DESIGN**—with husky coil frames designed to prevent breakage, rigidly mounted in cases with anti-turning square head studs . . . **VISCOSITY DAMPING**—careful application of new silicone compound on bearing surfaces damps pointer overtravel . . . **WIDE SELECTION**—Shurite offers the broadest line of standard meters in the economy-priced field. Distributor stocks are backed by an extensive factory inventory.

CLEAR PLASTIC INSTRUMENTS

. . . The 850 snap-on front of crystal-clear high temperature polystyrene 2-17/32" wide by 2-5/16" high, admits light from all sides and accentuates the appearance of the dial which has the longest scale arc in its field. The case back is black, but of similar high-temperature, high-impact material.

TYPICAL USES

Amateur radio rigs . . . Citizens Band equipment . . . battery eliminators . . . battery chargers . . . volt-ohm-milliammeters and kits . . . model train equipment . . . tuning circuits for stereo and tape recorders . . . burglar, fire alarm, or emergency lighting systems . . . transistor testers . . . plating equipment . . . voltage regulators . . . detergent strength analyzers . . . demonstrators . . . many other applications.

DC MICROAMMETERS

RANGE	RESIST.	Model 550*	Model 950*	Model 850*
Ua.	Approx. Ohms	Stock No.	Net Each	Stock No.
0-500**	1000	5902	9902	\$4.10 8902

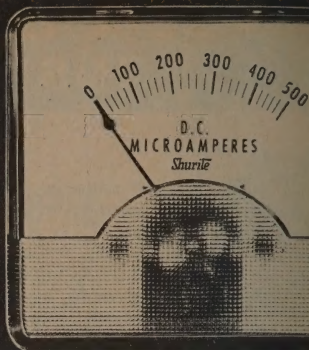
* For zero adjuster, add 35¢ to price and Z to stock number.
** Sensitive type, note internal resistance. DC bridge-type construction.

MODEL
850

(Actual Size)

MICRO-
AMMETER
SHOWN

ZERO
ADJUSTER
OPTIONAL



DC MILLIAMMETERS

RANGE	RESIST.	Model 550*	Model 950*	Model 850*
Ma.	Approx. Ohms	Stock No.	Net Each	Stock No.
0-1#	800	—	—	8334
0-1**	1000	5300Z	9300Z	8300Z
0-3L**	500	5332Z	9332Z	8332Z
0-3	4500	5301	9301	8301
0-5	3650	5302	9302	8302
0-10	920	5303	9303	8303
0-15	485	5304	9304	8304
0-25	172	5305	9305	8305
0-50	46	5306	9306	8306
0-100	10.4	5307	9307	8307
0-150	4.7	5308	9308	8308
0-200	2.8	5309	9309	8309
0-300	1.5	5310	9310	8310
0-400	.46	5311	9311	8311
0-500	.30	5312	9312	8312

Bridge-type construction; recommended to minimize effects of external magnetic forces. Price does not include zero adjuster.

* For zero adjuster, add 35¢ to price and Z to stock number.

** Sensitive type, moving-magnet construction; zero adjuster built-in.

AC MILLIAMMETERS

RANGE	RESIST.	Model 550	Model 950	Model 850
Ma.	Approx. Ohms	Stock No.	Net Each	Stock No.
0-10	4800	5607	9607	8607
0-25	750	5601	9601	8601
0-50	150	5602	9602	8602
0-100	37	5603	9603	8603
0-250	5.4	5604	9604	8604
0-500	1.34	5605	9605	8605

NO ZERO ADJUSTER ON AC METERS, EXCEPT ON MODEL 850.

* For zero adjuster add 35¢ to price and Z to stock number.

DC AMMETERS

RANGE	RESIST.	Model 550*	Model 950*	Model 850*
Amps.	Approx. Ohms	Stock No.	Net Each	Stock No.
0-1	.105	5201	9201	8201
0-3	.02 Max.	5202	9202	8202
0-5	.02 Max.	5203	9203	8203
0-8	.02 Max.	5204	9204	8204
0-10	.02 Max.	5205	9205	8205
0-15	.02 Max.	5206	9206	8206
0-25	.02 Max.	5207	9207	8207
0-50	.02 Max.	5208	9208	8208
3-0-3	.02 Max.	5210	9210	8210
5-0-5	.022 Max.	5211	9211	8211
6-0-6	.02 Max.	5212	9212	8212
10-0-10	.02 Max.	5213	9213	8213
20-0-20	.02 Max.	5214	9214	8214
30-0-30	.02 Max.	5215	9215	8215
50-0-50	.02 Max.	5216	9216	8216

* For zero adjuster, add 35¢ to price and Z to stock number.

AC AMMETERS

RANGE	RESIST.	Model 550	Model 950	Model 850*
Amps.	Approx. Ohms	Stock No.	Net Each	Stock No.
0-1	.42 Max.	5501	9501	8501
0-3	.072 Max.	5502	9502	8502
0-5	.041 Max.	5503	9503	8503
0-10	.02 Max.	5504	9504	8504
0-15	.02 Max.	5505	9505	8505
0-30	.02 Max.	5506	9506	8506
0-50	.02 Max.	5507	9507	8507

NO ZERO ADJUSTER ON AC METERS, EXCEPT ON MODEL 850.

* For zero adjuster add 35¢ to price and Z to stock number.

Prices in Effect Since Sept. 1, 1963; F.O.B. Factory; Individually Boxed.

DC VOLTMETERS

GE	RESIST.	MODEL 550*	MODEL 950*	MODEL 850*
	Approx.	Stock	Stock	Stock
	Ohms	No.	No.	No.
	10	5101	9101	8102
	93	5102	9102	8102
	250	5103	9103	8102
	300	5104	9104	8104
	390	5105	9105	8105
	600	5106	9106	8106
	880	5107	9107	8107
	2370	5108	9108	8108
	3500	5121	9121	8121
	1420	5109	9109	8109
	5000	5110	9110	8110
	2920	5122	9122	8122
	10000	5111	9111	8111
	4280	5112	9112	8112
	5740	5113	9113	8113
	20000	5114	9114	8114
	8500	5115	9115	8115
	30000	5116	9116	8116
	60000	5117	9117	8117
	100000	5118	9118	8118
	154000	5119	9119	8119

For zero adjuster add 35c to price and Z to stock number.
denotes high resistance.
Applied with external resistors.

AC VOLTMETERS

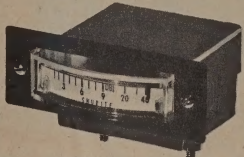
GE	RESIST.	MODEL 550	MODEL 950	MODEL 850*
	Approx.	Stock	Stock	Stock
	Ohms-Volt	No.	No.	No.
	11	5401	9401	8403
	15.8	5402	9402	8403
	27	5403	9403	8403
	35	5404	9404	8404
	53	5412	9412	8412
	96	5405	9405	8405
	100	5406	9406	8406
	100	5407	9407	8407
	100	5408	9408	8408
	100	5409	9409	8409

ZERO ADJUSTOR ON AC METERS, EXCEPT ON MODEL 850
For zero adjuster add 35c to price and Z to stock number.
Applied with external resistors.

GEWISSE

MODEL 350

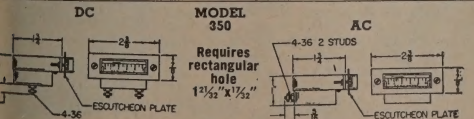
Temperature crystal polystyrene
adds beauty to panel designs
1/2" scale length offers easy
ing. Uses less than half the
space of other Shurite meters.
Frontal mounting; weight under
load; accuracy well within $\pm 5\%$;
black escutcheon plate supplied.
back normally black; available in light-transmitting frosted
styrene on special order.



STOCK NO. 3333

Applied with external resistors.

RANGE	Resistance Approx. Ohms	Stock No.	Net Each
DC Milliamperes	500	3300	\$3.70
DC Milliamperes	3100	3302	3.45
DC Milliamperes	700	3303	3.45
DC Milliamperes	150	3305	3.35
DC Milliamperes	28	3306	3.35
DC Milliamperes	7	3307	3.35
DC Milliamperes	3	3309	3.35
DC Milliamperes	2	3310	3.35
DC Milliamperes	1.5	3312	3.35
AC Milliamperes	32	3603	3.45
DC Amperes	.02 Max.	3202	3.35
DC Amperes	.02 Max.	3203	3.35
DC Amperes	.02 Max.	3205	3.45
10 DC Amperes	.02 Max.	3213	3.55
AC Amperes	.04	3503	3.45
DC Volts	725	3104	3.35
DC Volts	1200	3107	3.35
DC Volts	2200	3108	3.35
AC Volts	728	3404	3.45
AC Volts	14000	3406	4.10
Meter —20 to +3 VU	1400	3801	5.50
eter 0-40 db	1000	3333	3.45



POCKET TYPE METERS

See ask for Catalog 94-F which describes 13 types of battery testers
pocket meters.) Their stock numbers begin with the digit 4. Typical is
Stock No. 4151, 0-7 DC volts, approx. res. 670 ohms. \$3.00

Prices in Effect Since Sept. 1, 1963; F.O.B. Factory; Individually Boxed.

Shurite®
COLD-ZONE TESTER

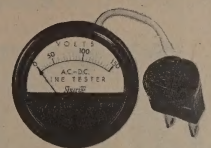
PRICED UNDER \$20.00

STOCK NO. 8380-RT—Place the thin, flat resistance bulb inside a refriger-
ator, deep freezer, air conditioner
or other cooling equipment, close
the door on the polyethylene ribbon
lead, allow the bulb temperature to
stabilize, and get a direct reading
from —40 to +120°F. Saves time,
builds customer confidence. Red
pointer; 2 1/4" scale arc, readable to
 $\pm 2^\circ$; accuracy well within com-
mercially accepted standards of $\pm 5^\circ$
($\pm 3\%$). For further details, ask for
Bulletin CT-1. Tester comes in gray
vinyl case 5"x3"x4 1/2" complete with
8 ft. detachable bulb and 7 1/2 volt
standard battery **\$19.50**



Interchangeable 14 ft. extra
bulb **\$6.50**

HANDY AC-DC LINE VOLTAGE TESTER



Per meter

STOCK NO. 5406-LT—Plug-in to read line
voltage, then find (and demonstrate)
voltage drop or inadequate wiring by
plugging in TV set, iron, toaster, washer,
air-conditioner, shop equipment, etc. Fea-
tures of this tester: (a) attached plug-
receptacle, permits continuing reading
while loads are changed; (b) reads 150
V AC or DC; (c) cord allows convenient
angle for reading; (d) jewel bearing con-
struction provides continuing accuracy.
Standard package of 6 meters comes
with convenient counter display. **\$4.25**

VU, S, and FIELD STRENGTH METERS

VU METERS—Read volume levels in audio transmission circuits; scale
—20 to +3 VU, red and black. AC rectifier type; pointer normally at
—20 VU; 1400 ohms $\pm 5\%$ int. res., see Bulletin VUS-63 for application
circuitry. **\$5.85**

STOCK NO. 8801Z, Model 850, zero adjuster included **\$5.85**

S METERS—To measure relative signal strength; black and red
scale, basic movement is 0-5 Ma. DC with 1000 ohms int. res. $\pm 5\%$;
for application notes and circuits, see Bulletin VUS-63.

STOCK NO. 3333, Model 350 as illustrated, pointer normally at
40 **\$3.45**

STOCK NO. 9333Z, 850 Series case, 0-60 db, pointer normally at
60. (Formerly supplied with pointer at zero) **\$3.35**

* For zero adjuster, add 35c to price and Z to stock number.

FIELD STRENGTH METER—When this variation of a 0-1 D.C. milli-
ammeter is built into an elementary circuit (supplied on request),
antenna systems may be easily checked, tuned, phased, or matched to
transmission lines. **\$3.95**

STOCK NO. 8803Z, Model 850, Topside marked .1, .5, 1, 2, 3,
4, 5, 7, 10; bottom scale marked 2, 4, 6, 8, 10; zero adjuster
included; meter only **\$3.95**

RESISTANCE METERS

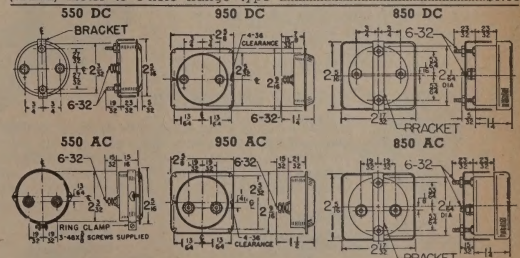
RANGE	MODEL 550*	MODEL 950*	MODEL 850*
	Stock	Stock	Stock
	No.	No.	No.
Ohms	5701	9701	8701
Volts	4.5**	5701	9701

* For zero adjuster add 35c to price and Z to stock number.

** Requires 3 flashlight cells for resistance readings but does not re-
quire resistor for voltage readings.

3-HOLE MOUNTING ADAPTER

Model 5-A, 2 3/4" black flange attaches from front, converts Model 550
(round) meter to 3-hole flange type **\$0.18**



IMPORTANT — HOW TO ORDER

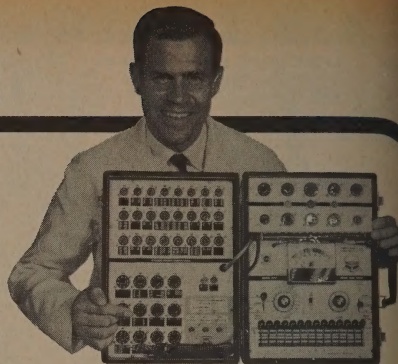
Give (1) Model Number, (2) Range, (3) Stock Number.
ZERO ADJUSTER (Z) 35c extra; see footnotes as to availability.
PANEL CALIBRATION (S) Normally for non-metallic panels. If steel
panel mounting, give thickness and size; add S to stock number.
SEE YOUR DISTRIBUTOR Authorized Shurite distributors carry most
models and can obtain your other needs promptly.

Shurite® METERS

SECO TEST EQUIPMENT AND SERVICE AIDS

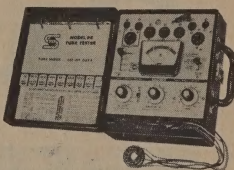
Deluxe! Only tester with "eye" tube to spot momentary shorts; constant voltage transformer for greatest stability and accuracy!

Here's the unit that gives you speed, sensitivity and reliability in a compact, portable tester. Instantaneous "eye" tube spots momentary shorts which normal meter lag misses—constant voltage transformer eliminates need for "line-adjust", provides proper filament and test voltages for greatest accuracy! Patented Grid Circuit Test makes up to 11 simultaneous checks for leaks, shorts and grid emission—locates hard-to-find faults. Dynamic Mutual Conductance and Cathode Emission Tests, too. 38 socket pre-wired panel accommodates 80 base arrangements for testing more than 1000 tubes without setup. Replaceable 10-socket plug-in panel permits complete test on all modern TV, Radio, Hi-Fi, Industrial and Foreign Tubes, including novar, nuvistor, compactron, 10-pin, magnoval, decal and low voltage hybrid types. Size: 13"x9"x7". Shipping Wt.: 12 lbs. **Model 107C...\$189.50 NET**



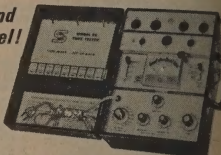
Popular low cost Grid Circuit and Tube Merit Tester!

Complete coverage of all popular receiving tubes including novars, nuvistors, newest 10-pin types, compactrons, decal and magnovals—PLUS adaptor with 12-pin socket for more than 400 picture tubes, including 110° deflection types. Patented Grid Circuit Test makes up to 11 simultaneous checks for leaks, shorts and grid emission—plus Tube Merit and Filament Continuity Tests. Complete with speed-indexed setup data. Size: 9"x10½"x5". Shipping Wt.: 6 lbs. **Model 88...\$74.50 NET**



Grid Circuit, Heater Current and Merit Tester—replaceable panel!

Comprehensive analysis of all modern TV and Radio tubes—measures heater current for series string tubes. Tests over 400 picture tubes, including 110° deflection types. Plug-in panel is replaceable for new tubes or customized uses! Covers novars, nuvistors, new 10-pin types, compactrons, decal and magnovals. Patented Grid Circuit; Tube Merit; and Heater Current Tests—dial controls isolate or transpose tube circuits and select test current. Removeable cover with speed-indexed setup data. Size: 9½"x12"x5½". Shipping Wt.: 10 lbs. **Model 98...\$99.50 NET**



COLOR BAR GENERATOR

Rugged, completely solid-state, the 900's unique circuitry provides: bright, "rock-solid" single burst dots; and purest color quality with positive gradation from color-to-color. Single trace horizontal lines are bright and sharp. All-transistor circuit delivers highest reliability and instant operation with no warm-up. Zener regulated power supply and crystal controlled oscillators provide outstanding stability. Channel Tuner permits exact match of generator frequency to receiver for precise channel tuning. With combination Tilt Bracket/Carrying Handle. Size: 8"x10½"x3½". Shipping Wt.: 7 lbs. **Model 900...\$129.95 NET**



SCR ANALYZER

Yields rapid information on: Gate Firing Voltage and Current; Peak Forward Voltage; and Peak Reverse Voltage. Analyzes critical SCR properties to match voltage and current parameters, or for sorting to matched pairs or threes for full wave or three phase applications. Size: 9"x10½"x5". Shipping Wt.: 8 lbs. **Model 240...\$144.50 NET**

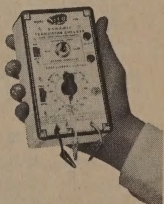
TRANSISTOR ANALYZER

Provides safe, fast and accurate method for analyzing power and signal transistors under conventional circuit conditions. Provides Dynamic go-no-go test without removing transistor from circuit—immediately lets you identify NPN and PNP types as well as lead connections. Beta test accurately measures DC gain—Iceo and Iebo Tests provides direct reading of leakage. Size: 8¾"x7¾"x4¼". Shipping Wt.: 5 lbs. **Model 260...\$69.50 NET**



DYNAMIC TRANSISTOR CHECKER

Safely, automatically tests PNP and NPN transistors "in or out" of circuit. No set-up necessary. Covers small signal, including "drift" types; medium power and power types. Positive check for "opens" shorts and gain. Also provides go-no-go test at practical collector currents. Size: 3¼"x6¼"x2¼". Shipping Wt.: 1½ lbs. Powered by 1.5 V "C" cell. **Model 100...\$19.95 NET**



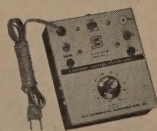
BATTERY ELIMINATOR

Variable 0 to 15 volts. Cannot be damaged by short circuit. Replaces battery normally used to power transistor equipment, or for equipment check under varying conditions. With plug-in jack for ext. volt meter. Size: 4½"x5"x1½". Shipping Wt.: 2 lbs. **Model PS-2...\$19.95 NET**



VARIABLE DC POWER SUPPLY

Variable 0 to 25 volts. Delivers clean, filtered DC at up to 100 MA average, with no hum or "motor-boating". Transistor circuit maintains constant voltage over wide load range. Size: 4½"x5½"x7¾". Shipping Wt.: 2 lbs. **Model RPS-2...\$26.95 NET**



ANTENNA TESTER

Provides direct reading of forward or reflected power and SWR. For: 50 ohm lines and equipment in 3½" to 160 MC range. 1000 watts maximum RF output. Negligible insertion loss—may be left in line. Size: 6¾"x5¼"x2¼". Shipping Wt.: 2½ lbs. **Model 520A...\$49.95 NET**



AM TRANSMITTER TESTER

For Citizens Band and low power transmitters, 3½" to 160 MC, 5 watts max. RF output to self-contained dummy load. Provides direct reading of positive and negative modulation percentage and RF power output. Size: 6¾"x5¼"x2¼". Shipping Wt.: 2 lbs. **Model 510B...\$48.95 NET**



SECO ELECTRONICS CORPORATION

Insulation Testers

WRITE FOR DATA SHEETS ON THE INSTRUMENTS SHOWN... ALL ARE STANDARD PRODUCTION MODELS, AVAILABLE FOR IMMEDIATE DELIVERY FROM STOCK... LET US QUOTE ON YOUR REQUIREMENTS FOR MODIFIED UNITS OR SPECIAL TEST EQUIPMENT.

SLAUGHTER
Company
TEST WITH CONFIDENCE

High-voltage Leakage Tester

checks insulation for...leakage
...grounds
...arcing



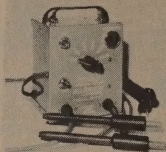
MODEL
122

16 lb. Portable
for lab and
field work

VARIABLE VOLTAGE RATINGS TO 5 KV
AC & DC. DUAL RANGE LEAKAGE METER
0/100/1000... CAPACITY COMPEN-
SATION... MEASURES INSULATION RES-
ISTANCE, CAPACITY, POWER FACTOR.

High-voltage Insulation Tester

with buzzer signal on breakdowns
...grounds
...shorts



MODEL
101

Watch what you
are doing...
not the tester

SIX TEST VOLTAGES... 500 to 2500 V.A.C.
PRICED SO YOU CAN AFFORD TO SPOT A
FEW ALONG YOUR ASSEMBLY LINES.

High-voltage Leakage Tester

audibly signals excess leakage
...grounds
...arcing



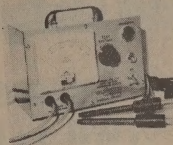
MODEL
103

Measures Leakage
...not capacity
current

TEST VOLTAGE CONTINUOUSLY VARIABLE
ADJUSTABLE LEAKAGE LIMIT... CAPACITY
COMPENSATION ON AC TESTS... RATINGS
TO 10,000 VOLTS AC & DC... LIMITED
ENERGY... NON-DESTRUCTIVE... FOR LAB
AND PRODUCTION LINE SERVICE.....

Adjustable High-voltage Tester

with buzzer signal on breakdowns
...grounds
...shorts



MODEL
106

Voltmeter
shows actual
Test Voltage

CONTINUOUSLY VARIABLE TEST VOLTAGE
RATINGS TO 10,000 VOLTS AC & DC...
RECOMMENDED FOR BREAKDOWN TESTING
AT FINAL ASSEMBLY AND INSPECTION

Automatic H-V Insulation Tester

for precision checking... breakdowns
...leakage
...grounds



MODEL
103-MP

Automatic
Test Cycle

FULLY AUTOMATIC TEST CYCLE... CON-
TROLLED RATE-OF-RISE... ADJUSTABLE
TEST VOLTAGE, DWELL TIME, & LEAK-
AGE LIMIT... CAPACITY COMPENSATION
ON AC TEST... FOR PRECISION TEST
OF CRITICAL PARTS & ASSEMBLIES...

Inspection Stroboscope

...with extra high intensity daylight lamp



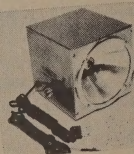
MODEL
167

0/600
Flashes per
Minute

SUPER INTENSITY TRIGGERED FLASH
UNIT... PUSH-TO-SEE SWITCH...
FOR INSPECTION ON-THE-GO UNDER
HIGH AMBIENT LIGHT CONDITIONS.

Inspection Stroboscope

....with high intensity daylight lamp



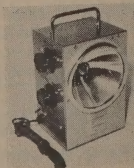
MODEL
161

0/2,000
Flashes per
Minute

LIGHT WEIGHT INEXPENSIVE TRIG-
GERED FLASH UNIT... PUSH-TO-SEE
SWITCH... INTENSE WHITE LIGHT
FOR INSPECTION ON-THE-GO

Universal Stroboscope

...with high intensity daylight lamp



MODEL
163

50/16,000
Flashes per
Minute

UNIVERSAL UNIT FOR MOTION STUDY
& INSPECTION ON-THE-GO... INSTANT
STARTING... HIGH INTENSITY WHITE
LIGHT... TRIGGER EXTERNALLY OR
OPERATE FROM INTERNAL OSCILLATOR

Stroboscopes

WRITE FOR DATA SHEETS ON THE INSTRUMENTS SHOWN... ALL ARE STANDARD PRODUCTION MODELS, AVAILABLE FOR IMMEDIATE DELIVERY FROM STOCK... LET US QUOTE ON YOUR REQUIREMENTS FOR MODIFIED UNITS OR SPECIAL TEST EQUIPMENT.

SLAUGHTER
Company
TEST WITH CONFIDENCE

Metered Precision Stroboscope

....with high intensity daylight lamp

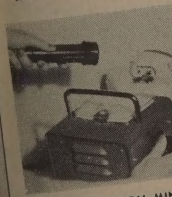


MODEL
165

50/16,000
Flashes per
Minute

PRECISION STROBOSCOPE TACHOMETER
INSTANT STARTING... HIGH INTENSITY
WHITE LIGHT... OPERATES FROM EX-
TERNAL CONTACTS OR INTERNAL OSCIL-
LATOR... EASILY SYNCHRONIZED... OUT-
PUT JACKS TO COUPLE SCOPE, ETC....

MIDGET STROBOSCOPE FLASH HEAD



MODEL
166

0/10,000
Flashes per
Minute

FOR WORK ON MINIATURIZED EQUIP-
MENT... FOR PRINTING TRADES...
FOR BIO-MEDICAL WORK... ADAPTS
TO ANY SLAUGHTER STROBOSCOPE...

Simpson

VOMs

All Prices Net

World Famous 260® VOM TWO VERSIONS

- New Diode Overload Protection
- New Self-Shielded Movement
- New Higher Accuracy: 2% DC, 3% AC
- New Ruggedness from Spring-Backed Jewels
- Greater Repeatability
- Increased Linearity and Stability
- Input Protected with Internal 1-amp fuse

OTHER FEATURES

- Converts to 9 Different Testers (See Adapters on next page.)
- Over a Million Purchased... Recognized Reliability
- 20,000 opv, DC; 5,000 opv, AC
- Adjust-A-Vue Handle
- Polarity Reversing Switch
- 50 Microampere-250 Millivolt Range
- Easy-to-Read Scales: Black and red, spread out for faster reading, less errors.
- Popular DBM Ranges: -20 Dbm to +50 Dbm, one milliwatt in 600 ohms!
- Improved Frequency Response in AC Measurements: 5 to 500,000 cps.
- Full-Wave Bridge Rectifier System.

VOLTAGE RANGES

DC: 0-250mv; 0-2.5v; 0-10v; 0-50v; 0-250v; 0-1000v; 0-5000v.
AC: 0-2.5v; 0-10v; 0-50v; 0-250v; 0-1000v; 0-5000v.

AF: 0-2.5v; 0-10v; 0-50v; 0-250v.

DB (1MW-600Ω): -20 to +10 db; -8 to +22 db; +6 to +36 db; +20 to +50 db.

CURRENT RANGES

DC: 0-50ua; 0-1ma; 0-10ma; 0-100ma; 0-500ma; 0-10 amps.

RESISTANCE RANGES

0-2000Ω (12Ω ctr.); 0-200KΩ (1200Ω ctr.); 0-20 meg. (120KΩ ctr.)

FREQUENCY RESPONSE

Essentially flat through 50,000 cps.

ACCURACIES

DC Volts $\pm 2\%$ of full scale. DC current $\pm 1.5\%$ of full scale. AC Volts $\pm 3\%$ of full scale. DC resistance $\pm 2\%$ of arc length.

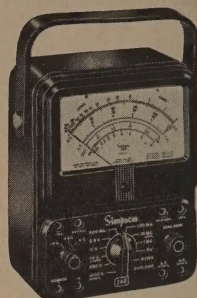
Size: 5 1/4" x 7" x 3 1/8" ... Net Wt.: 3 1/2 lbs.

260 (Series 5) with Std. Scale complete with test leads No. 7500 and operator's manual... \$55.00 (in roll-top case... \$61.00)

260 (Series 5M) with MIRROR SCALE complete with No. 7500 lead and operator's manual... \$57.00 (in roll-top case... \$63.00)

ACCESSORIES

Leads, Probes and Cases	Part No.	Price
Banana plugs and alligator clip	7500	\$ 2.10
Banana plugs and test prods	7538	2.50
10,000 VDC High voltage probe	0507	10.20
25,000 VDC High voltage probe	0508	11.50
50,000 VDC High voltage probe	0509	12.50
10,000 VAC High voltage probe	0161	11.75
Leather Carrying Case	1818	9.00
Ever-Redy Carry Case	0805	10.00
Roll-top safety case only for 260, Series 3, 4, 4M, 5, 5M and model 261	0249	10.00



Series 5
(Std. Scale)



Series 5M
(Mirror Scale)

260® VOM

Increased Accuracy MODEL 261 VOM

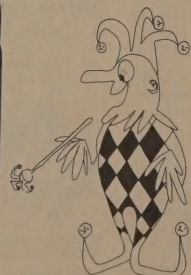
ACCURACY (77°F): DCV, 0-1000 v, $\pm 1\frac{1}{2}\%$ F.S.; 5000 v, $\pm 2\frac{1}{2}\%$ F.S.; DC MA & AMP, $\pm 1\frac{1}{2}\%$ F.S.; ACV, $\pm 3\%$; ohms, $\pm 1\frac{1}{2}\%$ of linear arc.

OTHER SPECIFICATIONS: See 260 VOM.

PRICE: Complete with leads and manual\$65.00



GOOF-PROOF VOM 260-5P



FOR RANGES: SEE 260 VOM ABOVE

This Simpson Instrument has built-in meter protection approaching 100% which virtually makes this VOM GOOF-PROOF. The 260-5P will be of particular value in situations where the instrument may be used by inexperienced people; students, apprentices, and employees. Technicians, too, will find the instrument ideal for exploring unfamiliar equipment, especially when lack of a schematic diagram poses the hazard of encountering unexpected high voltages when making tests.

Combined protection not found in any other VOM.

1. Reset button pops out to indicate overload.
2. You cannot reset circuits while overload is present.
3. Protective circuit does not require massive overloads which can cause hidden damage to the instrument.
4. All ranges are protected except those not feasible in a portable instrument — 10 and 5000 volts DC and AC; 10 Amps DC.

The 260-5P has the same ranges and takes the same accessories as the Simpson 260-5VOM.

Complete with test leads 7500 and operator's manual.

260-5P Protected (GOOF-PROOF)\$85

260-5PRT Protected Roll Top\$91

SIMPSON ELECTRIC CO.

Simpson

VOMs (cont'd)

All Prices Net

NEW AND UNUSUAL VOMs

Model 255
\$90.00

Model 250 — \$60.00



COMBINATION ELECTRICAL AND TEMPERATURE TESTER — MODEL 255

Model 255 is well suited for the servicemen in many fields, such as gas appliance servicing and installation, electrical utilities, and heating service and installation. This tester includes the important VOM functions of the 260 as well as providing a temperature range of $+100^{\circ}\text{F}$ to $+1050^{\circ}\text{F}$. A low millivolt drop is provided for the direct current ranges. By using the AC clamp-on adapter, currents through 250 amperes can be checked without disconnecting the leads or otherwise opening the circuit. ADJUST-A-VUE HANDLE.

Complete with test leads with prods (Cat. No. 0115), 5 Ft. thermocouple lead (0163), and operator's manual.

Model 255\$90.00

AC Clamp-on Adapter, Cat. No. 0531.....\$30.00

1000 VAC High Voltage Probe, Cat. No. 0161.....\$11.75

NEW... 50 MILLIVOLT DROP VOM... MODEL 250

This is Simpson's answer to transistor circuitry testing requiring a VOM with a low millivolt drop on current ranges. Model 250 contains all of the built-in features of the World's Largest Selling VOM, the 260, plus the provision for using the add-a-tester adapters, the 260 high voltage probes and other accessories. ADJUST-A-VUE HANDLE.

Complete with test leads and operator's manual.

Model 250\$60.00

VOLT-OHM-MILLIAMMETER SPECIFICATIONS 20,000 Ω/V DC • 5,000 Ω/V AC

RANGES:	250	255
DC VOLTS	0-0.050; 0-0.250; 0-2.5; 0-10; 0-50; 0-250; 0-500; 0-1000	0-0.050; 0-0.250; 0-1; 0-2.5; 0-10; 0-50; 0-250; 0-1000
AC VOLTS	0-2.5; 0-10; 0-50; 0-250; 0-500; 0-1000	0-2.5; 0-10; 0-50; 0-250; 0-1000
DC MICROAMPERES	0-50 (Both 50 and 250 MV Drop)	
DC MILLIAMPERES	0-1; 0-10; 0-100; 0-500 (50 MV Drop)	
DC AMPERES	0-10 (50 MV Drop)	NONE
AC AMPERES	NONE	0-250
DB SCALE (1MW-600 Ω)	-20 to +10; -8 to +22; +6 to +36; +20 to +50	NONE
OUTPUT RANGES	NONE	NONE
RESISTANCE RANGES	R $\times$ 1 0-200 Ω (120 Ω center) R $\times$ 10K 0-20 meg Ω (120K Ω center)	R $\times$ 100 0-200K Ω (1200 Ω center) R $\times$ 10K 0-20 meg Ω (120K Ω center)
TEMPERATURE RANGE	NONE	+100 $^{\circ}\text{F}$. to +1050 $^{\circ}\text{F}$.
ACCURACIES:		
0-50 MV; 0-250 MV; 0-2.5 to 0-1000 V DC	$\pm 2\%$ F.S.	$\pm 2\%$ F.S.
0-5000 V DC	—	—
0-50 MICROAMPERES	$\pm 1\%$ F.S.	$\pm 1\%$ F.S.
0-1 MA to 0-10 A DC	$\pm 2\%$ F.S.	$\pm 2\%$ F.S.
R $\times$ 1 R $\times$ 100, R $\times$ 10,000	$\pm 2.5^{\circ}$ of Arc $\pm 2.0^{\circ}$ of Arc	$\pm 2.5^{\circ}$ of Arc $\pm 2.0^{\circ}$ of Arc
0-2.5 to 0-1000 V AC	$\pm 3\%$ F.S.	$\pm 3\%$ F.S.
0-5000	—	—
MOVEMENT TYPE	Self Shielding Annular — Taut Band	
TEMPERATURE COMPENSATED	NO	NO
DIODE PROTECTED	YES	YES
MIRROR SCALE	NO	NO
SCALE LENGTH	4.2 Inches	
DIMENSIONS	5 1/4" x 7" x 3 1/8"	
NET WEIGHT	3 1/2 lbs.	
PRICE	\$60.00	\$90.00

270 Series 3 — HIGH ACCURACY VOM

Annular TAUT BAND, Self-Shielded Movement.

Spring-Backed Jewels

Diode Overload Protection

Special Calibration Circuit for Increased Accuracy

Mirror Scale, Knife-Edge Pointer

Gold Bonded Diodes for AC

Excellent Repeatability

Greater Accuracy Predictable Over a Wide

Temperature Range

DC Accuracy, $1\frac{1}{4}\%$ * Full Scale

AC Accuracy, 2% * Full Scale

Resistance Accuracy, $\pm 1^{\circ}$ of Arc

at Ambient Temperature of 77°F

RANGES

Voltage (20,000 ohm/v): 0-250 mv; 0-2.5 v; 0-10 v; 0-50 v; 0-250 v; 0-1000 v; 0-5000 v.

AC Voltage (5000 ohms-per-volt): 0-2.5 v; 0-10 v; 0-50 v; 0-250 v; 0-1000 v; 0-5000 v.

AF Output Voltage (With .1 mfd. int. series capacitor): 0-2.5 v; 0-10 v; 0-50 v; 0-250 v.

Volume Level, Decibels (Zero DB equal to 1 mw across a 600 ohm line): -20 to +10 DB; -8 to +22 DB; +6 to +36 DB; +20 to +50 DB.

DC Resistance: 0-2000 ohms (12 ohms center); 0-200,000 ohms (1200 ohms center); 0-20 megohms (120,000 ohms center).

Direct Current: 0-50 ma a; 0-1 ma; 0-10 ma; 0-100 ma; 0-500 ma; 0-10 amp.

270, Series 3, complete with test leads and Operator's Manual\$68.00

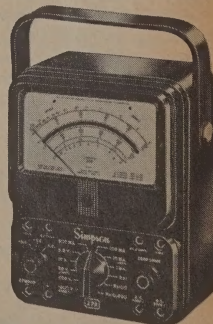
270 RT, in Roll-Top Case 74.00
See accessories under 260 VOM on preceding page.

270 SERIES 3 VOM

CONVERTS TO
9 DIFFERENT
TESTERS
WITH
ADAPTERS
BELOW



ADJUST-A-VUE
HANDLE



ADD-IN ADAPTERS FOR ALL 260®, 250, 255, 261 AND 270 VOMs ABOVE

Transistor Testers, Model 650\$35.00

VTVM, Model 651 40.00

Temperature Tester, Model 652 40.00

Ammeter, Model 653 23.00

Battery Tester, Model 656 23.00

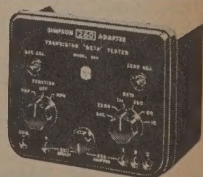
Microvolt Attenuator, Model 655\$23.00

Audio Wattmeter, Model 654 25.00

Millicohmmeter, Model 657 45.00

DC Ammeter, Model 661 25.00

See your distributor or write for Bulletin 2072A giving specifications



SIMPSON ELECTRIC CO.

Simpson VOLT-OHM-MILLIAMMETERS

All Prices Net

Dual Sensitivity VOM, Model 263

Overlapping ranges offer greater accuracy expressed as a percentage of reading. Diode overload protection (Prevents movement burn-out even on 200,000% overload). External battery compartment makes battery replacement easier. Uses 1½ volt alkaline battery.

Complete with test leads No. 0115 and operator's manual

\$85.00**RANGES**

DC Volts: 0-0.15 / 0-75 / 0-3 / 0-7.5 / 0-30 / 0-75 / 0-300 / 0-750 / 0-3000 @ 20KΩ/V... 0-0.3 / 0-1.5 / 0-6 / 0-15 / 0-60 / 0-150 / 0-600 / 0-1500 / 0-6000 @ 10KΩ/V
AC Volts: 0-2.5 / 0-7.5 / 0-30 / 0-150 / 0-750 @ 10KΩ/V... 0.5 / 0-15 / 0-60 / 0-300 / 0-1500 @ 5KΩ/V
DC Microamperes: 0-75 @ 150 MV; 0-150 @ 300 MV
DC Milliampers: 0-0.75 / 0-7.5 / 0-75 / 0-750 @ 150 MV; 0-1.5 / 0-15 / 0-150 @ 300 MV

DC Amperes: 0-7.5 @ 150 MV; 0-1.5 / 0-15 @ 300 MV

DB Scale (11MW-600): -20 to +75.5 db in 10 ranges

Output Ranges: 0.1 mfd capacitor in series with all AC Voltage ranges through 300 Volts
Resistance Ranges (4.5Ω center): R×1 0-500Ω, R×10 0-5000Ω, R×100 0-50KΩ, R×1K 0-500KΩ, R×10K 0-5 megΩ, R×100K 0-50 megΩ

ACCURACIES

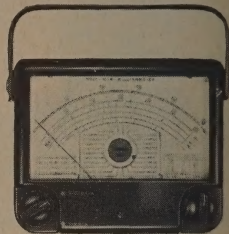
DC Volts: 0-0.15 to 1500 ±1½%; 0-3000 to 6000 ±2½%
AC Volts: ±3%
DC Current: ±1½%
R×1: ±3° of Arc
R×10, R×100K: ±2½° of Arc

ACCESSORIES

High Voltage Probes: 30KV @ 10KΩ/V, 15KV @ 20KΩ/V
Cat. No. 0141 **\$12.00**

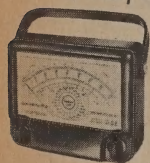
Carrying Cases: Ever-Redy Vinyl Carrying Case

Cat. No. 5262 **\$12.00**



20,000 Ω/VDC
 10,000 Ω/VDC
 10,000 Ω/VAC
 5,000 Ω/VAC

AC/DC VOLT-OHM-MILLIAMMETERS AND TESTERS*



NEW, IMPROVED
 MODEL 269-2 VOM
 100,000 ohm/volt

MODEL 269-2**VOLTAGE RANGES**

DC: 1.6v; 8v; 40v; 160v; 400v; 800v; 1600v; 4000v.

AC: 3v; 8v; 40v; 160v; 400v; 800v.

DB: (11MW-600Ω): -12 to +45.5 db in four ranges.

CURRENT RANGES

DC: 0-16ua; 0-160ua; 0-1.6ma; 0-16ma; 0-160ma; 0-1.6 amps; 0-8 amps.

RESISTANCE RANGES (12 Ω Center)

0-200Ω; 0-20KΩ; 0-200KΩ; 0-2 megΩ; 0-20 megΩ; 0-200 megΩ.

ACCURACIES

DC Volts ±2% and ±3% of full scale. **DC Current** ±2%. **AC Volts** ±3% of full scale. **DC Resistance** ±2.5% and ±3% of arc length.

Complete with test leads No. 0115, 4000 V DC probe extension and operator's manual.

\$90.00**MODEL 267**

DC Volts: 0-25/2.5/10/50/250/500/1000.

AC Volts: 0-2.5/10/50/250/500/1000.

DC Microamperes: 0-50.

DC Milliampers: 0-1/10/100/500.

DC Amperes: 0-10.

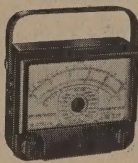
DB Scale: -20 to +10, 1 mw, 600 ohms.

Output Ranges: AC volt ranges to 250 V with .1/mfd condenser in series.

RESISTANCE RANGES

0-2000Ω (12Ω ctr.); 0-200KΩ (1200Ω ctr.); 0-20 meg. (120KΩ ctr.)

*See "ACCESSORIES" Section for carrying cases, etc.



MODEL 267 VOM
 20,000 ohm/volt

FREQUENCY RESPONSE

2.5/10 VAC 20 cps — 500 KC ±5%
 50 VAC 20 cps — 150 KC ±5%

ACCURACY

DC V, Milliampers, Amperes ±3% F.S.; **DC Mics** ±2% F.S.; **AC Volts** ±5% F.S.; **Ohms** ±2.5 and ±3% of linear arc.

Complete with test leads No. 7500 and operator's manual

\$60.00**MODEL 262-3****VOLTAGE RANGES**

DC: 1.6v; 8v; 40v; 160v; 400v; 1600v; 4000v.

AC: 3v; 8v; 40v; 160v; 800v.

AF: 3v; 8v; 40v; 160v.

DB: (11 MW-600Ω): -12 to +45.5 db in four ranges.

CURRENT RANGES

DC: 80ua; 160 ua; 1.6 ma; 16 ma; 160 ma; 1.6 amps; 16 amps.

RESISTANCE RANGES

DC: 0-500Ω (4.5Ω ctr.); 0-5KΩ (45Ω ctr.); 0-50KΩ (450Ω ctr.); 0-500KΩ (4,500Ω ctr.); 5 megΩ (45Ω ctr.); 0-50 megΩ (450KΩ ctr.).

FREQUENCY RESPONSE

Essentially flat through 50 kc.

ACCURACIES

DC Volts ±3% of full scale. **AC Volts** ±5% of full scale. **DC Resistance** ±2.5% and ±3% of arc length. Complete with test leads No. 8463, 4000 V DC probe extension and operator's manual.

\$70.00

MODEL 268 VOM
 20,000 ohm/volt

MODEL 268

AC Volts: 0-3/12/60/300/600/1200

DC Volts: 0-3/12/60/300/600/1200

DC Microamperes: 0-60.

DC Milliampers: 0-1.2/12/120

DC Amperes: 0-12

DB Scale: -12 to +11, 1 mw, 600 ohms

OUTPUT RANGES

AC Volt: Ranges to 300 V with .1/mfd condenser in series

RESISTANCE RANGES

0-2000Ω (12Ω ctr.); 0-200KΩ (1200Ω ctr.); 0-20 meg (120KΩ ctr.)

FREQUENCY RESPONSE

2.5/10 VAC 20 cps — 500 kc ±5%; 50 VAC 20 cps — 150 kc ±5%

ACCURACY

DC V, Milliampers, Amperes ±3% F.S.; **DC Mics** ±2% F.S.; **AC Volts** ±5% F.S.; **Ohms** ±2.5% and ±3% of linear arc.

Complete with test leads No. 7500 and operator's manual

\$60.00

WRITE FOR BULLETIN 2072

SIMPSON ELECTRIC CO.

Simpson

INSTRUMENTS

All Prices Net

NEW! Voltage-Current Recorder

MULTICORDER®

FEATURES:

- A permanent record of range and measured value.
- Inkless recording via fast sequential impressions on pressure sensitive strip chart paper (no pen and ink maintenance problems).
- A high torque meter movement, with a shock-proof taut band suspension moving coil system.

SIMPSON MULTICORDER Model 604 contains a unique range marking system that indicates the range being used as the value is being recorded. Compact, rugged design, easy-to-operate and accurate, the Multicorder is an indicating instrument with a wide band of ranges and functions for measurements that eliminates the need for a separate recorder for each of the functions and ranges. You get visual readout in addition to the recording action that offers three chart speeds: 1 1/3"/12" per hour. This Simpson Multicorder is the only multi-function recorder available for less than \$200.00.

RANGES:

D. C. Volts: 0-1/5/2.5/10/25/100/250/500 @ 20,000 ohms per volt.

A. C. Volts: 0-10/25/100/250/500 @ 5,000 ohms per volt.

Direct Current: 0-50/250 Mics, 1/5/25 Milliamps, 1/25/1.0 Amps. 350 MV Drop maximum.

Alternating Current: 0-25 Milliamps. 450 MV drop. Complete with test leads (#7500) and two rolls of Chart Paper.

Model 604 Multicorder\$200.00

Additional Chart Paper #02612.....\$2.50 ea. (Box of 10).....\$30.00

Special Gear Unit 301/60/90 in/hr. Cat. #0683.....\$29.95

RECORDER: Chart paper and chopper bar action can be driven either by the self-contained synchronous motor or by external driving means.

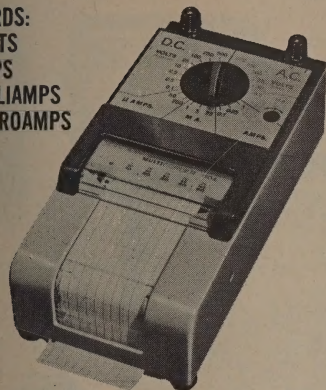
MOTOR DRIVE: Self-starting synchronous motor, 115 volts, 60 cps, contained in recorder. Grounded line cord is provided with recorder.

CHART SPEED: 1/3/12 inch/hour. Chart impressions are made every two seconds.

CHART PAPER: Type—Pressure sensitive paper. Width of recording—2.3 inches. Length of paper on roll—50 feet approximately. Divisions—50.

SIZE: 9 3/4" x 4 3/4" x 4". **NET WEIGHT:** 5 1/2 lbs.

CORDS:
VOLTS
AMPS
MILLIAMPS
MICROAMPS



IFICATIONS

ACCURACY OF INDICATION:	
DC	±1.5% F.S.
AC (45 to 65 cps Sine Wave)	±1.5% F.S.
ACCURACY OF RECORDING:	
	±2.5% F.S.

PERATURE INFLUENCE:

DC — for 10°C change (18°F)	1 max (% of true value)
AC — for 10°C change (18°F)	1 max

Influence is positive from 20°C to 0, (68°F to 32°F) and negative from 20 to 50°C. (68 to 122°F)

UENCY INFLUENCE:

at from 15 to 10,000 cps.
5% of full scale from 10,000 to 20,000 cps.

HAND-SIZE MICROTESTERS — DIMENSIONS, 3" x 5 7/8" x 2 1/2"



DC Volt-Ohm-Milliammeter, Model 240 — 0 ohms per volt, AC and DC.

Volts: 15, 150, 750, 3000.

Volts: 15, 75, 300, 750, 3000.

Milliamperes: 15, 150, 750.

DC Volt-Ohm-Milliammeter, Model 230 — 0-3000 (center scale 30); 0-300,000 (center scale 3000). With Leads.....\$35.00

DC Volt-Ohm-Milliammeter, Model 230 — Volts: 10, 250, 1000 (400 ohms per volt)

AC Volts: 10, 50, 250, 1000 (1000 ohms per volt) — DC Milliampers: 10, 50, 250 —

Volts: 0-1000, 0-100,000 — With Leads.....\$34.00

Ammeter, Model 375 — 0-1, 2.5, 5, 10, 25

Volts: 10, 250, 1000 (400 ohms per volt)

AC Volts: 10, 50, 250, 1000 (1000 ohms per volt) — DC Milliampers: 10, 50, 250 —

Volts: 0-1000, 0-100,000 — With Leads.....\$34.00

Ammeter, Model 375 — 0-1, 2.5, 5, 10, 25

Volts: 10, 250, 1000 (400 ohms per volt)

AC Volts: 10, 50, 250, 1000 (1000 ohms per volt) — DC Milliampers: 10, 50, 250 —

Volts: 0-1000, 0-100,000 — With Leads.....\$34.00

Ammeter, Model 375 — 0-1, 2.5, 5, 10, 25

Volts: 10, 250, 1000 (400 ohms per volt)

AC Volts: 10, 50, 250, 1000 (1000 ohms per volt) — DC Milliampers: 10, 50, 250 —

AC Ammeter, Model 370 — 0-1, 0-2.5, 0-5, 0-10, 0-25 amps\$26.00

AC Milliammeter (Self-contained transformer), Model 378 — 0-5, 25, 100, 250, 1000 ma\$30.00

DC Voltmeter (Res. 1000 ohms per volt), Model 377 — 0-1, 2.5, 5, 10, 25, 50, 100, 250, 500, 1000 DC volts\$30.00

Millivoltmeter, Model 387 — 10, 30, 100, 1000 mv; with leads and manual\$30.00

AC Voltmeter (Rec. Type — 1000 ohms per volt), Model 376 — 0-5, 10, 25, 50, 100, 250, 500, 1000 AC volts\$28.00

AC Voltmeter, Model 371 — 0-150, 0-300, 0-600 volts\$26.00

Ohmmeter, Model 372 — 0-500 ohms (5 ohms center); 0-5000 ohms (50 ohms center); 0-50,000 ohms (500 ohms center); 0-500,000

ohms (5000 ohms center); 0-5 meg. (50,000 ohms center); 0-50 meg. (500,000 ohms center) — with Leads\$33.00

Low Ohmmeter, Model 362 — 0-5, 0-25 ohms, with Leads and Manual\$28.00

AC-DC Volt-Wattmeter, Model 391 — AC or DC — Volts: 0-130, 0-260 — Watts: 0-1500, 0-3000 — with Cord and Plug\$50.00

AC-DC Volt-Wattmeter, Model 392 — AC or DC — Volts: 0-130, 0-260 — Watts: 0-1000, 0-5000 — with Cord and Plug\$55.00

Battery Tester, Model 379 — (Separate arcs for Radio A Batteries, Hearing Aid A Batteries, and for all B Batteries) — with Leads.....\$30.00

ohms (5000 ohms center); 0-5 meg. (50,000 ohms center); 0-50 meg. (500,000 ohms center) — with Leads\$33.00

Low Ohmmeter, Model 362 — 0-5, 0-25 ohms, with Leads and Manual\$28.00

AC Volt-Amp-Wattmeter, Model 390 — Volts: 0-150, 300 — Amps: 0-0.3, 15 — Watts: 0-300, 600, 1500, 3000 — with break-in plug and Leads\$55.00

AC-DC Volt-Wattmeter, Model 391 — AC or DC — Volts: 0-130, 0-260 — Watts: 0-1500, 0-3000 — with Cord and Plug\$50.00

AC-DC Volt-Wattmeter, Model 392 — AC or DC — Volts: 0-130, 0-260 — Watts: 0-1000, 0-5000 — with Cord and Plug\$55.00

Battery Tester, Model 379 — (Separate arcs for Radio A Batteries, Hearing Aid A Batteries, and for all B Batteries) — with Leads.....\$30.00

AC-DC Volt-Wattmeter, Model 391 — AC or DC — Volts: 0-130, 0-260 — Watts: 0-1500, 0-3000 — with Cord and Plug\$50.00

AC-DC Volt-Wattmeter, Model 392 — AC or DC — Volts: 0-130, 0-260 — Watts: 0-1000, 0-5000 — with Cord and Plug\$55.00

Battery Tester, Model 379 — (Separate arcs for Radio A Batteries, Hearing Aid A Batteries, and for all B Batteries) — with Leads.....\$30.00

AC-DC Volt-Wattmeter, Model 391 — AC or DC — Volts: 0-130, 0-260 — Watts: 0-1500, 0-3000 — with Cord and Plug\$50.00

AC-DC Volt-Wattmeter, Model 392 — AC or DC — Volts: 0-130, 0-260 — Watts: 0-1000, 0-5000 — with Cord and Plug\$55.00

Battery Tester, Model 379 — (Separate arcs for Radio A Batteries, Hearing Aid A Batteries, and for all B Batteries) — with Leads.....\$30.00

SIMPSON ELECTRIC CO.

Simpson

VTVMs

All Prices Net

NEW...VTVM offers 40% less circuit loading than most conventional VTVMs

INPUT RESISTANCE IS 16 MEGOHMS, NOT THE USUAL 11

This instrument has a large easy-to-read seven-inch scale and was especially designed to meet today's solid state circuitry requirements with a 1/2 volt range and improved AC accuracies of $\pm 3\%$ of full scale.

MODEL 312 with AC ohms/DC probe No. 0150 and operator's manual\$85.00
 R. F. Probe, Cat. No. 0152.....\$ 8.75
 High Voltage Probe, Cat. No. 0155.....\$11.75
 Carrying Case, Vinyl with Lead Storage Space, Cat. No. 0577....\$13.00

LINE VOLTAGE

105/125V, 50/60 cps. Size: 7 3/4" x 6 3/4" x 3 3/4". Weight: 4 3/4 lbs.

VOLTAGE RANGES

DC: 0-0.5, 1.5, 5, 15, 50, 150, 500, 1500 (16 Megohms input impedance).
 AC: (R.M.S.): 0-1.5, 5, 15, 50, 150, 500, 1500 (1 Megohm minimum input impedance).

AC: (Peak to Peak): 0-4, 14, 40, 140, 400, 1400, 4000.

RESISTANCE RANGES

RX1, RX10, RX100, RX1K, RX10K, RX100K, RX1M (10 ohm center).

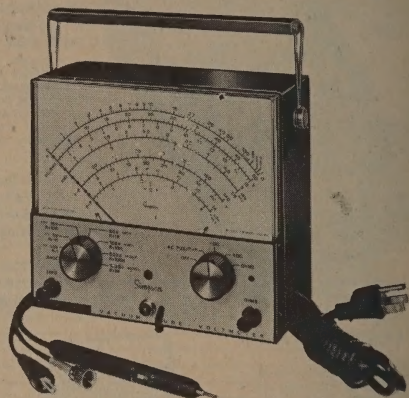
FREQUENCY RESPONSE

$\pm 3\%$ from 15 cps to 3 megacycles per second on all AC voltage ranges through 150 volts.

With R.F. Probe: 10KC to 250 MC ± 1 db. R.F. probe usable up to 40 volts rms.

ACCURACIES

DC: $\pm 3\%$ of full scale; AC: $\pm 3\%$ of full scale; Resistance: $\pm 3^\circ$ of arc.



AC/DC VTVM — Model 312

\$85.00

OTHER SIMPSON VACUUM TUBE VOLT-OHMMETERS*

MODEL 311 VOLTAGE RANGES

DC: 0-1.5v; 5v; 15v; 50v; 150v; 500v; 1500v.
 (22 meg Ω input impedance)
 AC: 0-1.5v; 5v; 15v; 50v; 150v; 500v; 1500v;
 (RMS) (Min. 2.2 meg Ω input impedance)
 PP: 0-4v; 14v; 40v; 140v; 400v; 1400v; 4000v.
 (Min. 2.2 meg Ω input impedance)
 AF: 0-1.5v; 5v; 15v; 50v; 150v; 500v; 1500v.
 (30 cycles to 100Kc $\pm 5\%$)
 RF: 1.5v; 5v; 15v; 50v; 150v.
 with probe (50 cycles to 100mc, 0-150 VRMS)

RESISTANCE RANGES

1K Ω (10 Ω center); 10K Ω (100 Ω center); 100K Ω (1K Ω center); 1 meg Ω (10K Ω center); 10 meg Ω (100K Ω center); 100 meg Ω (1 meg Ω center); 1000 meg Ω (10 meg Ω center).

FREQUENCY RESPONSE

$\pm 5\%$ to 100 kc (with RF probe, usable to 250 mc)

LINE VOLTAGE

105/125 v, 50/60 cycles.

ACCURACIES

DC Volts: $\pm 3\%$ of full scale.
 AC Volts: $\pm 5\%$ of full scale.
 DC Resistance: $\pm 3\%$ of arc length (resistance).

Model 311 with AC/DC ohms probe No. 0734, ground lead No. 0733 and operator's manual.

\$75.00

MODEL 303 VOLTAGE RANGES

AC DC: 1.2v; 12v; 60v; 300v; 1200v.
 AF: 1.2v; 12v; 60v.

MODEL 311
AC-DCMODEL 303
AC-DCMODEL 715
AC ONLY

RF: 20 volts maximum. (With RF Probe)
 DB: -20 to +63 db in five ranges.

RESISTANCE RANGES

1K Ω (10 Ω center); 100K Ω (1000 Ω center);
 1 meg Ω (10K Ω center); 10 meg Ω (100K Ω center);
 1000 meg Ω (10 meg Ω center).

INPUT IMPEDANCE

10 megohms (all ranges) on DCV; 275K ohms shunted by 210 uuf on ACV.

FREQUENCY RESPONSE

AF: Flat to 100 Kc on the three low AC ranges
 RF: 20 Kc to 100 Mc (with RF probe)

LINE VOLTAGE

105/125 v, 50/60 cycles.

ACCURACIES

DC Volts: $\pm 3\%$ of full scale.
 AC Volts: $\pm 5\%$ of full scale.
 DC Resistance: $\pm 3\%$ of arc length (resistance).
 Model 303 with DCV probe No. 0067, ACV-ohm probe No. 0068, ground lead No. 0069 and operator's manual. \$85.00

Model 303RT (in roll top safety case) \$90.00

MODEL 715 RANGES

Volts: 0-.01/.03/.1/.3/1/3/10/30/100/300 rms.
 Decibels: Total Range -52 to +52 DBM.
 Zero DBM: 1 millivolt in 600 ohms.
 Scale Markings: -12 to +2 DB.

ACCURACY

$\pm 5\%$ of full scale.

TESTER SENSITIVITY

10 millivolts full scale on lowest range.

INPUT IMPEDANCE

Minimum 1 meg @ 1 KC shunted by 25 uuf

INTERNAL MULTIPLIERS

$\pm 1\%$ precision resistors.

FREQUENCY RESPONSE

10 cps to 400 KC ± 1 DB.

INPUT POWER REQUIREMENTS

110 to 125 VRMS, 50/60 cps @ 10 watt
 Complete with operator's manual and shielded input cable. \$70.00

*Also See "ACCESSORIES" Section.

SIMPSON ELECTRIC CO.

Simpson

TEST EQUIPMENT and ACCESSORIES

All Prices Net

TEMPERATURE TESTERS



Model 385-3L

Models 388-3L
and 389-3L

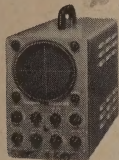
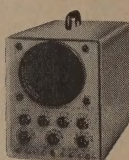
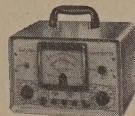
MODEL 385-3L — Accuracy: $\pm 1^\circ\text{F}$ about center scale; $\pm 2^\circ\text{F}$ at either end. For measuring temperatures from $+70^\circ\text{F}$ to as low as -50°F . Available in 3 lead model only. Supplied with one No. 0010 15 ft. thermistor probe and operator's manual. **\$36.00***

MODEL 388-3L — Therm-O-Meter — Measures Temperatures -50°F to $+1000^\circ\text{F}$. **Accuracy:** $\pm 1/2$ scale divisions. Standard models have combination Fahrenheit and Centigrade scale. Sensing Element: Thermocouple (Iron-Constanan). Supplied with internal battery and one 8" general purpose probe No. 0190, and operator's manual. Order additional probes as required. Model 388-3L: For three probes. **\$70.00***

MODEL 389-3L — This dual range instrument provides a means for temperature measurements between -50°F and $+100^\circ\text{F}$ and between $+100^\circ\text{F}$ and $+250^\circ\text{F}$. **Accuracy is** $\pm 2^\circ\text{F}$. Supplied with internal battery and one 15' thermistor type probe (No. 0010). Order additional probes as required. Model 389-3L (for 3 leads). **\$65.00***

* See accessories for other types of probe leads.

SCOPES, COLOR BAR GENERATOR, CAPACITOR LEAKAGE TESTER

Model 466
General Purpose ScopeModel 458
Color ScopeModel 383A Capacitor
Leakage Tester

Model 466 GENERAL PURPOSE SCOPE

Resp. of Vert. Ampl.: From 15 cycles/sec to 100 Kc/sec, flat within ± 1 db; 6 db down at 50 Kc/sec; usable to 1 Mc/sec.

Minimum Vertical Deflection Sensitivity: 30 volts RMS/inch.

Frequency Response of Horizontal Amplifier: 15 cycles/sec to 20 Kc, flat within ± 1 db down at 100 Kc/sec.

Minimum Horizontal Deflection Sensitivity: 1 volt RMS/inch.

Input Sensitivity (Voltage Required to Excite Beam): 20 volts RMS.

Operating Voltage (at 117.5 VAC power supply): 1 volt P-P $\pm 10\%$.

Minimum Input Voltage: 400 volts peak.

Resistance: 0.1 Meg (at atten. x 1); 0.5 (at atten. x 100).

Capacitance: 40 uuf (at atten. x 1); 35 (at atten. x 100).

Sawtooth Sweep Range: 15 cps to 80 Kc/sec.

Size: 7 7/8" x 12 1/4" x 16 1/8". **Net Wt:** 19 lbs.

For use on 110 volts, 60 cycles.

Complete with input cable No. 0100 and operator's manual ... **\$170.00**

Dual Voltage Model for 220/110 volts, 50/60 cycle ... \$180.00

MODEL 458 COLOR SCOPE

- 7" Cathode Ray Tube.
- Wide band operation, the frequency response is flat within ± 1.0 db to 4.5 Mc. Faithfully displays **COLOR BURST** frequency with a sensitivity greater than 40 Mv rms per inch of vertical deflection.
- Narrow band operation, the frequency response is flat within ± 2 db from 10 cycles to 300 Kc with a sensitivity greater than 15 Mv rms per inch.
- Good square wave response provides accurate representation of sync pulses and composite wave-form pattern for trouble-shooting video, sync, and sweep circuits.

- Horizontal sweep, to 250 Kc, for expansion of high frequency wave-form detail and color burst.
- Vernier and Compensated Decimal Step Attenuator for better signal controls.
- Provision for Intensity Modulation of CRT.
- 1 volt peak calibrating voltage.

Line Voltage: 105/125v, 50/60 cycle.

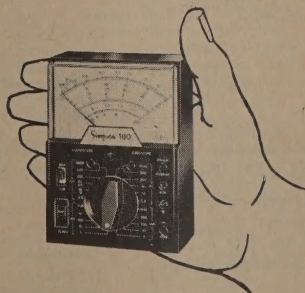
Size: 11" x 16 1/2" x 14 1/2". **Weight:** 29 lbs. Complete with operator's manual ... **\$375.00**

Model 383A CAPACITOR LEAKAGE TESTER

- Measures the leakage resistance of defective paper, mica, or ceramic capacitors. Indicates directly the capacitance of good paper, mica, or ceramic capacitors over a range of 10.0 mmf to 10.0 mf.

Pulse technique detects many marginal capacitors. All measurements are made under load conditions. No adjusting of a bridge circuit and balancing controls. **Line Voltage:** 105/125 v, 60 cycle only. Complete with test leads and operator's manual ... **\$100.00**

NEW HAND-SIZE VOM



SIMPSON 160

3 3/8" x 4 1/8" x 1 1/8"

Compact version of world famous 260® VOM. Improved range coverage. Meter is diode overload protected. Polarity reversal switch. Taut band meter movement. Separate battery compartment. Complete with leads manual..... **\$50.00**

RANGES

DC VOLTS: 0-0.25 / 1.0 / 2.5 / 10 / 50 / 250 / 500 / 1000 @ 20,000 ohms/V.

AC VOLTS: 0-2.5 / 10 / 50 / 250 / 500 / 1000 @ 5,000 ohms/V.

DC MILLIAMPS: 0-50 ua / 1 / 10 / 100 / 250 / 500 @ 250 MV drop.

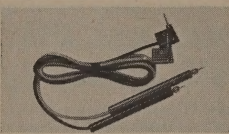
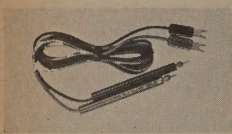
RESISTANCE: Rx 1 / 10 / 100 / 1K / 10K ohms (30 ohms center).

ACCURACY: 3% DC; 4% AC.

SIMPSON ELECTRIC CO.

Simpson

TEST EQUIPMENT ACCESSORIES and METERS



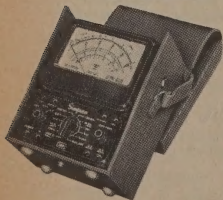
LEADS

For Models	Cat. No.	Price
260 Series 3, 4, 5, 261, 270 Banana plugs and alligator clip	7500	\$2.10
260 Series 3, 267, 268 Banana plugs and test prods....	7538	2.50
355 Test prods.	8600	2.10
255 only, thermocouple lead (5 ft.)	0163	4.00
385-3L, 389-3L Free Air Temperature Probe	0789	7.45
385-3L, 389-3L, 15 ft. Thermistor lead	0010	5.50
385-3L, 389-3L, 30 ft. Thermistor lead	0216	6.45
385-3L, 389-3L, 50 ft. Thermistor lead	0415	7.60
385-3L, 389-3L, 100 ft. Thermistor lead	0416	10.40
385-3L, 389-3L, 150 ft. Thermistor Lead	0417	12.90
388-3L Rugged Service Lead (8 ft.)	0496	7.00
388-3L General purpose thermocouple	0190	5.00
388-3L Surface temperature thermocouple (300°F. Max.)	0187	8.90
385-3L, 389-3L Surface temperature probe	0790	6.00
650 Test Lead	7545	1.20
651 Ground Lead	7547	1.20
466, 715 Input cable	0100	2.85
Test prods and elbow terminals 230/240/260-2/372	8381	2.50
Test prods and spade terminals — all microtesters....	8379	2.50
Alligator clips and elbow terminals — 230/240/260-2/372	8375	1.75
Alligator clips and spade terminals — all microtesters	8376	1.75
Combination test prods with removable alligator clips and elbow terminals 262/269	8463	2.30
263, 269-2 Combination test prods with removable alligator clips and elbow terminals	0115	2.30
"SAFE/GUARD" VOM METER OVERLOAD PROTECTOR	12621	1.95

PROBES (High Voltage Types) & MULTIPLIERS

For Models	Cat. No.	Price
221 (30,000v)	0009	\$12.55
260 Series 2 (25,000v)	0007	10.75
260 Series 2 (50,000v)	0179	12.50
260 Series 3, 4, 4M, 5, 5M, 250, 255, 261, 267, 270 (10,000 V DC)	0507	10.20

CARRYING CASES FOR SIMPSON TEST EQUIPMENT



Model 55ET



Model 57ET

These meters use self-starting synchronous clock motors. They indicate up to 99999.9, then recycle and begin again at 00000.0. Molded bakelite case.

3 1/2" ELAPSED TIME METERS

Range	Model 55 ET	Model 57 ET
120V-60 cps	\$20.85	\$20.85
240V-60 cps	21.15	21.15

For Models	Cat. No.	Price
260 Series 3, 4, 4M, 5, 5M, 250, 255, 261, 267, 270 (25,000 V DC)	0508	\$12.50
260 Series 3, 4, 4M, 5, 5M, 250, 255, 261, 267, 270 (50,000 V DC)	0509	12.50
260 Series 3, 4, 4M, 5, 5M, 250, 255, 261, 267, 270 (10,000 V AC)	0161	12.50
262, Series 1 and 2 (16,000v)	0172	12.50
262, Series 1 and 2 (40,000v)	0180	12.50
263, 30 KV at 10K Ω /V and 15 KV at 20 Ω /V	0141	12.50
267 2500 V DC Multiplier	8568	12.50
267 5000 V DC Multiplier	8569	12.50
267 2500 V AC Multiplier	8570	12.50
267 5000 V AC Multiplier	8571	12.50
267 10,000 V DC	0507	10.20
267 25,000 V DC	0508	11.50
267 50,000 V DC	0509	12.50
268 3000 V DC Multiplier	8572	12.50
268 6000 V DC Multiplier	8573	12.50
268 3000 V AC Multiplier	8574	12.50
268 6000 V AC Multiplier	0004	12.50
268 12,000 V DC	0510	12.50
268 30,000 V DC	0511	12.50
269, Series 1 (16,000v)	0173	12.50
269, Series 1 (40,000v)	0181	12.50
269, Series 2 (16,000v)	0119	12.50
269, Series 2 (40,000v)	0120	12.50
270 (10,000v)	0507	10.20
270 (25,000v)	0508	11.50
270 (50,000v)	0509	12.50
303 (30,000v)	0074	12.50

PROBES — Miscellaneous Types

For Models	Cat. No.	Price	For Models	Cat. No.	Price
303 High frequency	0073	\$8.75	312 High Frequency	0152	\$12.50
303 AC Probe	0068	3.55	312 High Voltage	0155	12.50
303 DC Probe	0067	3.55	2610 Low Capacity..	0299	12.50
303 Ground lead	0069	1.00	Voltage Doubler	0740	12.50
311 High Frequency	0731	11.50	Low Capacitance	0741	12.50
311 High voltage	0732	11.75	100:1 Voltage Divider	0742	12.50
311 DC-AC/OHMS	7594	8.50	Direct Resistive Dual Purpose	0743	12.50
311 Ground lead	0733	1.50			
312 DC/AC ohms....	0150	8.50			

OSCILLOSCOPE PROBE KIT — Model 739

For use with Model 458 Oscilloscope. Includes *low capacity probe, voltage doubler, detector, 100:1 voltage divider and dual direct resistive. (isolation)

Complete with 4 probes, plastic roll, and operator's manual.....\$45.00

*For Model 458 only.

For	Cat. No.	Price
250, 255, 260s, 261, 270, 303 — Utility Vinyl	0549	\$12.50
0549 Snap-on High Voltage Probe Case	0574	12.50
260, 261, 270 — Leather	1818	5.00
250, 255, 260s, 261, 270, 303 — Ever-Redy Leather....	0805	10.00
262, 267, 268, 269, 388-3L, 289-3L — Every-Redy Vinyl	5262	10.00
312 Vinyl	0577	13.00
385-3L — Ever-Redy Leather	8073	8.00
391, 392 — Leatherette-Covered	3413	8.00
355 — Ever-Redy Leather	6355	4.00
All Microtesters — Ever-Redy Leather	4299	9.00
All Microtesters — Leatherette-Covered	3011	6.00
Roll Top Safety Case For 260-2, 9, 10, 880's	6192	10.00
Roll Top Safety Case for 260-3, 261, 270	0249	10.00
Roll Top Safety Case For 303	6379	10.00

SIMPSON ELECTRIC CO.

All Prices Net



Size	Model No.	Accuracy	Scale Length
1½"	1212	±2% of full scale	1.5" @ 90° Arc (38.1 mm)
	1214	±3% F. S. @ 25°C. & 60 cy. Sine Wave	
2½"	1227	±2% of full scale	2.5" (63.8 mm)
	1257		
3½"	1327	±2% of full scale	3.04" (77.2 mm)
	1337		
	1347	±3% F. S. @ 25°C. & 60 cy. Sine Wave	
	1357	±2% of full scale	
4½"	1329	±2% of full scale	3.93" (100 mm)
	1339	±2% of full scale	
	1349	±3% F. S. @ 25°C. & 60 cy. Sine Wave	
	1359	±2% of full scale	

RF AMMETERS (Continued)

0-3	.10	—	—	\$17.55	\$20.10
0-2.5	.08	—	—	17.55	20.10
0-5	.045	—	—	17.55	20.10
0-8	.031	—	—	17.55	20.10
0-10	.023	—	—	17.55	20.10

0-500	.63	—	—	\$20.70	\$23.40
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Resistance	1½" Model 1212	2½" Model 1227	3½" Model 1327	4½" Model 1329
1000 ohms	\$14.10	\$15.30	\$15.75	\$17.40
Per volt	—	—	15.75	17.40
2000 ohms	14.10	15.30	15.75	17.40
Per volt	14.10	15.30	15.75	17.40
3000 ohms	14.10	15.30	15.75	17.40
Per volt	14.10	15.30	15.75	17.40
4000 ohms	—	15.30	15.75	17.40
Per volt	—	15.30	15.75	17.40
5000 ohms	—	15.30	15.75	17.40
Per volt	—	15.30	15.75	17.40

Range	(ohms) Approx. Resistance	1½" Model 1212	2½" Model 1227	3½" Model 1327	4½" Model 1329
0-200	0.5	14.10	\$14.55	\$15.30	\$16.50
0-250	0.4	14.10	14.55	15.30	16.50
0-300	0.33	14.10	14.55	15.30	16.50
0-500	0.2	14.25	14.55	15.30	16.50
0-750	0.13	—	—	15.30	16.50
0-1000	0.05	—	14.55	15.30	16.50

DC MICROAMMETERS Self-Shielded Movement					
0-50 $\bar{7}$	1800	\$17.85	\$18.45	\$18.90	\$20.40
0-100	1800	15.90	16.50	17.25	19.20
0-200	1100	14.40	15.15	15.75	17.40
0-500	90	14.10	14.85	15.45	16.80
25-0-25	1800	18.00	—	19.05	20.55
50-0-50	1800	—	16.80	17.40	19.35
100-0-100	1100	14.55	15.30	15.90	17.55
500-0-500	43	13.80	14.40	15.15	15.90

0-50	10	\$14.10	\$14.40	\$15.15	\$16.50
50-0-50	20	—	—	15.15	16.50

Simpson VU meters meet all the Electrical and Ballistics specifications established by Bell Laboratories and American Standards Association as required by broadcasting, communication and sound engineers. They are available with either type A or B scales. Type A scale stresses the level in VU for monitoring wire lines. Type B scale stresses per cent use of transmitter output and is the standard for broadcast service.

Zero Power Level—6 MW. 500 Ohm Line—
Core Magnet Type Movement

Range	1½" Model 1214	2½" Model 1247	3½" Model 1347	4½" Model 1349
General-Purpose				
5000 ohms	—	\$20.40	\$21.60	\$22.35

Reference Level—I MW. 600 Ohms Line. External Magnet Type Movement except Model 1214C which is core magnet type movement.

Range	1½" Model 1214	2½" Model 1247	3½" Model 1347	4½" Model 1349
A—Scale	\$21.90	\$24.15	\$24.75	\$26.85
B—Scale	—	—	24.75	26.85

Scale	Sensitivity Micro- Amperes	Resist- ance (ohms)	1½" Model 1212	2½" Model 1227	3½" Model 1327	4½" Model 1329
50-0-50	500-0-500	43	\$13.80	\$14.25	\$15.15	\$15.90
50-0-50	75-0-75	1800	14.55	15.45	16.80	18.45

Range Amperes	(ohms) Approx. Resistance	1½" Model 1212	2½" Model 1237	3½" Model 1337	4½" Model 1339
0-1	.343	—	—	\$17.55	\$20.10
0-1.5	.200	—	—	17.55	20.10
0-2	.120	—	—	17.55	20.10

Ranges listed without prices (—) are available on special order only. †1½" DC Millimeters all self contained. Voltage drop 150 MV or less. ‡Resistance of Model 1212 0-50 MIC Meter is 5300 ohms.

Range	(ohms) Approx. Resistance	2½" Model 1257	3½" Model 1357	4½" Model 1359
0-5	33	—	\$14.40	\$16.20
0-10	133	\$13.80	14.40	16.20
0-15	300	13.80	14.40	16.20
0-25	833	13.80	14.40	16.20
0-50	3,333	13.80	14.40	16.20
0-100	16,666	14.10	15.15	16.20
0-150	25,000	14.40	15.45	16.50
0-250	41,166	14.40	15.45	16.50
0-300	50,000	14.40	15.45	16.50
0-500	83,333	18.45	19.65	21.00

0-1	.287	\$12.75	\$13.50	\$15.90
0-1.5	.185	12.75	13.50	15.90
0-2	.115	—	13.50	15.90
0-3	.027	12.75	13.50	15.90
0-5	.012	12.75	13.50	15.90
0-10	.0031	12.75	13.50	15.90
0-15	.0022	12.75	13.50	15.90
0-25	.0003	13.05	13.80	16.50
0-30	.0003	13.05	13.80	16.50
0-50	.0006	13.05	13.80	16.50
0-75	.012	—	13.50	15.90
0-100	.012	12.75	13.50	15.90
0-150	.012	12.75	13.50	15.90
0-200	.012	12.75	13.50	15.90
0-300	.012	—	13.50	15.90

2½" AC ammeters are self contained through 50 amps.
3½" and 4½" AC ammeters self contained through 75
amps. Higher range AC ammeters are 5 amp meters to
be used with external current transformer.

0-10	2,000	\$12.75	—	\$15.90
0-50	80	12.75	\$13.50	15.90
0-100	20	12.75	13.50	15.90
0-250	5	12.75	13.50	15.90
0-500	.9	12.75	13.50	15.90

Range Volts	Resistance	1½" Model 1214	2½" Model 1247	3½" Model 1347	4½" Model 1349
0-5		19.50	18.15	\$20.85	\$22.95
0-10	2000	19.50	18.15	20.85	22.95
0-15	ohms	—	—	20.85	22.95
0-50	per	—	—	20.85	22.95
0-150	volt	14.10	14.40	20.85	22.95
0-300		14.10	14.40	20.85	22.95

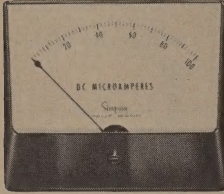
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Simpson

METERS and METER RELAYS

All Prices Net

WIDE-VUE METERS—TAUT BAND and WATTMETERS



TAUT BAND—DC MICROAMMETERS
Self-Shielded TAUT BAND Movement

Range	Resist- ance	1 1/2" Model 1212T	2 1/2" Model 1227T	3 1/2" Model 1327T	4 1/2" Model 1329T	5" Model 128T
0-5	5750	—	—	—	—	\$37.50
0-10	4900	—	\$29.75	\$35.25	33.45	—
0-15	1960	\$26.85	26.85	27.75	30.30	—
0-25	1960	25.05	25.50	26.70	29.10	\$33.60
0-50	1100	19.50	20.10	20.55	22.05	29.55
0-100	500	17.55	18.15	18.90	20.85	28.50
0-200	234	16.20	17.10	17.70	19.50	—

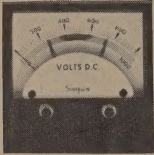
NOTE: Wattmeters calibrated for either magnetic or nonmagnetic panels and for frequency range of 25-125 cycles.

WATTMETERS, Dynamometer Type,
Single Phase

Watts	Range Volts	Max. Amps	2 1/2" Model 1277	3 1/2" Model 1377	4 1/2" Model 1377
0-75	150	1.0	—	—	\$38.00
0-150	150	2.0	—	—	38.00
0-300	150	4.0	—	—	38.00
0-750	150	10.0	—	—	41.00
0-600	300	4.0	—	—	41.00
0-1500	300	10.0	—	—	41.00
0-3000	300	20.0	—	—	51.00
0-10	300	0.175	—	—	51.00
0-20	300	0.400	—	—	51.00
0-30	300	0.650	—	—	51.00

Compensated Wattmeters

CONTACTLESS METER RELAYS—Self-Contained, 3 1/2"



RUGGED SEAL CONSTRUCTION

Set points are adjusted thru external, front-adjusted gear drive. Set point is indicated by separate lance pointers. Sensing is accomplished thru an infinite life lamp and photoconductors. A solid state switching circuit and D.P.D.T. slave relay are provided (internally)

for each control point. Slave relays will switch 10 amperes @ 115 volts A.C.

ELECTRICAL SPECIFICATIONS

Calibration Accuracy: $\pm 2\%$ of full scale.

Control Point Adjustment: Control points are externally adjustable over 95% of the scale arc. Control point indication is within 2% of actual switching.

Control Point Differential: Difference between "on" and "off" is within .5% of full scale.

Power Requirements: 115 Volts A.C.; 50-500 CPS.

Output: D.P.D.T. relay contacts for each control point. Contacts rated @ 10 amperes, 115 volts A.C. resistive.

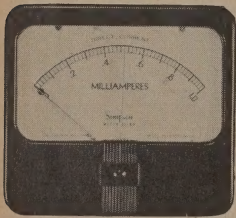
Meter Indication: Continuous, unaffected control point setting.

Control Circuitry: Fail-safe. Both slave relays "open" in event of power failure.

CONTACTLESS TYPE—MODEL 3324XA

Range	Resist. Approx. Ohms	Price	Price
0-50	3000	\$99.00	\$136.00
0-100	1300	96.15	133.00
0-200	570	96.15	133.00
0-500	220	96.15	133.00
0-1	80	95.10	132.00
0-50	10	95.40	132.00

4 1/2" METER RELAY—FRONT ADJUSTABLE—MODEL 29XA



General: Model 29XA Relays are of the D'Arsonval Type. Externally adjusted limit setting contacts are non-locking and intended for circuits with external locking provisions or for light duty non-locking applications.

Calibration: Accuracies $\pm 2\%$ of full scale.

Contacts: Gold Alloy. For use @ 15 volts DC @ 10 milliamperes maximum on resistive or diode protected inductive loads.

Contact Adjustment: Contacts are externally adjustable over 95% of 100° scale arc, and within 5° of each other. The pointer will indicate the contact make position within 2° of actual contact intercept.

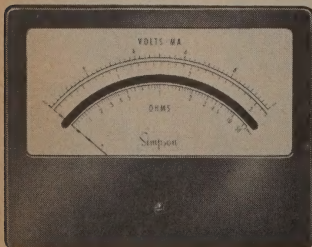
Contact Differential: Normally, contacts will close within 2% of full scale value and break within 10% of full scale value.

Insulation: Breakdown 300 volts AC from Relay contacts to meter circuit. 3 KV AC from Relay terminals to mounting panel. (All Tests at 50 cycles.)

Range	Description	Approx. Resistance (ohms)	Price
0-50	DC Microammeter	5200	\$46.00
0-100	DC Microammeter	1800	46.00
0-200	DC Microammeter	1000	42.00
0-500	DC Microammeter	280	42.00
0-1	DC Millivoltmeter	140	42.00
0-50	DC Millivoltmeter	10	42.00

1% AND 2% PANEL METERS—6" SIZE

Red knife-edge pointers; 1/4-28 studs; front surface glass mirrors on 1% meters; molded black phenolic case; scale length, 4.6" (114.8 mm).



6 INCH RECTANGULAR PANEL METERS—1% & 2% Tolerance—Self Shielding Movement

Range	Approx. Resist.	DC Volt- meters Model 1150	Resist. (ohms)	2%	DC Milli- volt- meters Model 1150	Resist. (ohms)	2%	DC Am- meters Model 1150	Resist. (ohms)	2%
0-1	—	—	—	—	—	—	—	—	—	—
0-5	—	—	—	—	—	—	—	—	—	—
0-10	\$20.85	—	—	—	—	—	—	—	—	—
0-15	—	—	—	—	—	—	—	—	—	—
0-25	1000	20.85	—	—	—	—	—	—	—	—
0-30	OHMS	—	—	—	—	—	—	—	—	—
0-50	PER	20.85	10	\$21.75	.0016	21.75	—	—	—	—
0-100	VOLT	20.85	—	—	—	—	—	—	—	—
0-150	—	20.85	—	—	—	—	—	—	—	—
0-200	—	—	—	—	—	—	—	—	—	—
0-300	—	20.85	—	—	—	—	—	—	—	—
0-500	2000 Ω/V	21.45	—	—	—	—	—	—	—	—

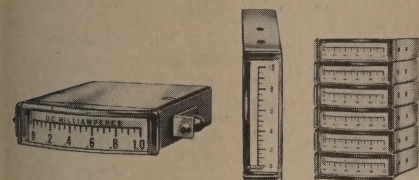
Range	Approx. Resist.	DC Milli- ammeters Model 1150	Resist. (ohms)	2%	DC Micro- ammeters Model 1150	Resist. (ohms)	2%
0-1	46	\$20.85	\$26.25	—	—	—	—
0-10	10	20.85	—	—	—	—	—
0-15	—	—	—	—	5500	\$33.00	—
0-25	—	—	—	—	5500	29.55	—
0-50	2.0	20.85	—	—	5000	27.00	\$33.00
0-100	1.0	20.85	26.25	2800	25.80	31.00	—
0-200	—	—	—	—	1200	22.50	27.00
0-500	.2	20.85	26.25	200	21.90	27.00	—

SIMPSON ELECTRIC CO.

Simpson

EDGEWISE METERS BEHIND-PANEL BEZELS

NEW! STACKABLE EDGEWISE METERS 1½", 2½" Horizontal and Vertical



Our miniature edgewise meters have a unique Self-shielding core magnet movement* that eliminates the need for a protruding barrel. Extremely compact. Full scale extends nearly the full width and height of the meter. Accuracy, $\pm 2\%$ F. S. Steel housing, chrome plated finish; dustproof construction.

Patent Pending

DC VOLTMETER

Range	(Ohms) Approx. Resistance	1½" Model 1921	2½" Model 1622
0-10	500 Ohms	\$18.45	\$19.50
0-15	per Volt	18.45	19.50
0-25	Volt	18.45	19.50
0-50	500 Ohms	18.45	19.50
0-150	per Volt	18.45	19.50
0-500	Volt	—	19.65

DC MILLIAMMETERS

0-1	18.0	\$18.15	\$19.35
0-5	2.0	18.15	19.35
0-10	5.0	18.15	19.35
0-25	2.0	18.90	20.10
0-50	1.0	18.90	20.10
0-100	0.5	18.90	20.10
0-500	0.1	18.90	20.10

DC MILLIVOLTMETERS

0-50	400 Ohms/volt	\$19.20	\$20.40
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DC MICROAMMETERS

0-25	7760	\$23.70	\$24.75
0-50	2020	23.40	24.45
0-100	1060	21.00	22.20
0-200	310	19.20	20.40
0-500	63	18.75	19.80

AC VOLTMETERS — Rectifier Type

Range	(Ohms) Approx. Resistance	1½" Model 1941	2½" Model 1642
0-150	5000 ohms/volt	\$22.95	\$24.15

EDGEWISE METERS — 1½" and 2½" Horizontal Barrel Type Construction



Where your panel designs call for making every square inch count, or where saving weight is important, choose a Simpson edgewise meter. Supplied with complete hardware. Accuracy: DC $\pm 2\%$ of full scale; AC rectifier type $\pm 3\%$ of full scale @

25° and 60 cycle sine wave. Self shielding meter movement. Case Construction: Dustproof, molded acrylic.

DC VOLTMETERS

Range	(Ohms) Approx. Resistance	1½" Model 1521	2½" Model 1522
0-10	1000 ohms/volt	\$15.45	\$16.50
0-15	1000 ohms/volt	15.45	16.50
0-25	1000 ohms/volt	15.45	16.50
0-50	1000 ohms/volt	15.45	16.50
0-150	1000 ohms/volt	15.45	16.50
0-500	2000 ohms/volt	15.60	16.80

DC MILLIAMMETER

0-1	20.0	\$15.30	\$16.35
0-5	2.5	15.30	16.35
0-10	13.5	15.30	16.35
0-25	5.4	15.90	17.10
0-50	2.7	15.90	17.10
0-100	1.35	15.90	17.10
0-500	.27	15.90	17.10

DC AMMETERS

0-5	0.010	—	\$17.40
0-25	0.002	—	17.40

DC MILLIVOLTMETERS

0-50	10 ohms	\$16.20	\$17.40
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DC MICROAMMETER

0-25	3150	\$23.40	\$24.45
0-50	1800	20.40	21.45
0-100	1100	18.00	19.20
0-200	290	16.20	17.40
0-500	90	15.75	16.95

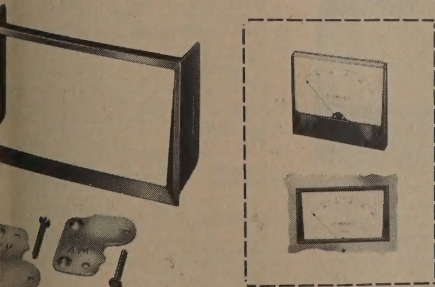
VOLUME LEVEL INDICATORS (VU METERS)

Range	(Ohms) Approx. Resistance	1½" Model 1541	2½" Model 1542
"A" SCALE	—	—	\$27.30
"B" SCALE	—	—	27.30

AC VOLTMETERS — Rectifier Type

0-150	1000 ohms/volt	\$20.10	\$21.15
0-300	1000 ohms/volt	—	21.15

NEW! BEHIND-PANEL BEZEL KITS FOR 3½" & 4½" WIDE-VUE METERS



Mounting bezels are made for Wide-Vue panel meters but are interchangeable with flush and recess type meters of many popular styles. Designed for behind panel mounting on material thickness of ½" to ¾". Groove and flange style construction. Each bezel of die cast metal has an attractive black enamel satin finish and is supplied with mounting hardware and template.

Bezel Mount Kit consists of bezel brackets and screws and installation instructions.

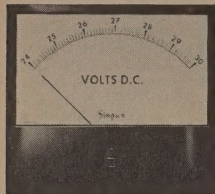
Meter Size	For Meter Models	Part No.	Price
3½"	1327, 1337, 1347, 1357	1253	\$1.65
4½"	1329, 1339, 1349, 1359, 1379	1123	1.65

SIMPSON ELECTRIC CO.

Simpson

"RUGGED SEAL" and SEGMENTAL VOLTMETERS

"RUGGED SEAL" METERS—3½", 4½", 4" x 6" (Sq. and Rect.)



Completely sealed and commercially ruggedized. Metal cased and shielded. Not affected by steel panel mounting. DC meters have $\pm 2\%$ F.S. accuracy; AC meters, $\pm 2\%$ F.S. at 25°C and 60-cycle sine wave. Scale lengths: 3½" meter, 2.9" (74 mm); 4½" meter, 3.9" (101 mm); 4" x 6" meter, 4.7" (120 mm).

Movement is external magnet type shielded by metal case. All AC meters are rectifier type, and maintain accuracy from 25 to 2000 cps (except AC ammeter, 50 to 500 cps).

DC VOLTMETERS

Range	Approx. Resist.	3½" Model 3323	4½" Model 3324	4" x 6" Model 3326
0-1.5		\$18.90	\$20.55	\$22.50
0-10	(1000 ohms)	18.90	20.55	22.50
0-15	ohms	18.90	20.55	22.50
0-25	per volt	18.90	20.55	22.50
0-50	volt	18.90	20.55	22.50
0-100		18.90	20.55	22.50
0-500		18.90	20.55	22.50

DC AMMETERS

0-5	(Inf. shunt)	\$19.20	\$20.85	\$23.10
0-10	75 mv. max.)	19.20	20.85	23.10

DC MILLIAMMETERS

0-1	80 ohms	\$18.15	\$19.80	\$22.05
0-100	0.5 ohms	19.50	20.85	23.10

DC MICROAMMETERS

0-50	3000 ohms	\$24.45	\$26.10
0-100	1300 ohms	22.20	23.85

AC VOLTMETERS, RMS SENSING (RECT. TYPE)

Range	Approx. Resist.	3½" Model 3343	4½" Model 3344
0-150	(1000 ohms per volt)	\$22.80	\$24.15
0-300		22.80	24.15

AC AMMETERS (RECT. TYPE)

0-1	(Inf. Trans. Burden, 0.5 VA Max.)	\$28.50	\$29.70
0-5		28.50	29.70

AC MILLIAMMETERS (Rect. TYPE)

0-1	600 ohms	\$22.50	\$23.85
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AC MICROAMMETER (RECT. TYPE)

0-100	4000 ohms	\$23.85	\$24.75
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SEGMENTAL VOLTMETERS — "Rugged Seal" Construction



The significant portion of the overall voltage scale of these meters is expanded to occupy the full scale length. In addition to the stock expansions and accuracies shown, special segmental voltmeters can be built on order.

Meters are completely sealed and commercially ruggedized; metal cased and shielded; and are not affected by mounting on steel panels. Movement is external magnet type shielded by the metal case.

Accuracies shown are in percent of center scale value.

All of these AC segmental voltmeters are the RMS sensing type which are preferred when working with distorted waveforms.

AC VOLTMETERS, RMS SENSING, RECTIFIER (ROUND)

Center Scale Value — 115 V

Range	Sensitivity	Accuracy	2½" Model 3282	3½" Model 3283	4½" Model 3284
100-130	50 opv	1.0%	\$77.10	\$70.95	\$78.75
105-125	65 opv	0.5%	77.10	70.95	78.75
110-120	80 opv	0.3%	77.10	70.95	78.75

DC VOLTMETERS (ROUND)

Range	Center Scale Value	Accuracy	2½" Model 3222	3½" Model 3223	4½" Model 3224
24-30	27 V	0.5%	\$66.00	\$60.15	\$67.65

FREQUENCY METERS (ROUND)

Range cps	Center Scale cps	Accuracy	3½" Model 3283	4½" Model 3284
380-420	400	0.25%	\$167.85	\$175.50

AC VOLTMETERS, RMS SENSING, RECTIFIER (RECTANGULAR)

Center Scale Value — 115 V

Range	Sensitivity	Accuracy	3½" Model 3383	4½" Model 3384
100-130	50 opv	1.0%	\$64.95	\$71.55
105-125	65 opv	0.5%	64.95	71.55
110-120	80 opv	0.3%	64.95	71.55

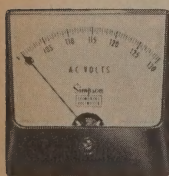
DC VOLTMETERS (RECTANGULAR)

Range	Center Scale Value	Accuracy	Model 3323	Model 3324
24-30	27 V	0.5%	\$54.15	\$60.75

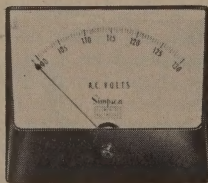
FREQUENCY METERS (RECTANGULAR)

Range cps	Center Scale cps	Accuracy	3½" Model 3383	4½" Model 3384
380-420	400	0.25%	\$163.20	\$168.30

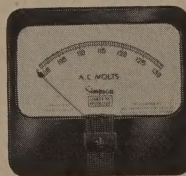
SEGMENTAL VOLTMETERS (Average Sensing) 100-130 AC Volts



3½" Model 1347
Wide-Vue



4½" Model 1349
Wide-Vue



4½" Model 49
Rectangular

WIDE-VUE

Size	(Single Range) Model	Price	(Multi-Range) Model	Price
3½"	1347	\$45.00	—	—
4½"	1349	45.15	1349	\$55.80

RECTANGULAR

Model	Price (Single Range)
49	\$44.55

Simpson Segmental AC Voltmeters improve meter accuracy and readability over most conventional type meters. Used primarily in monitoring line voltage, these segmental Voltmeters increase the efficiency, reliability and life of costly components.

MODEL NO.	1347	1349	49
Scale Length	3.14" (79.7 mm)	3.93" (100 mm)	4.7" (119.3 mm)
Operating Frequency Range	20-2000 cps		
Accuracy	$\pm 5\%$ of Center scale value 25°C and 60 cps sine wave		
Movement Type	Core Magnet Meter Movement		
Frequency Influence	Less than 0.5% of Center scale value for temperature range $\pm 20^\circ$ from 25°C.		
Sensitivity	150 to 100 ohms/volt end values. Sensitivity decreases input voltage increases.		
Intermittent Input Voltage (max.)	150 volt RMS for 10 seconds		

SIMPSON ELECTRIC CO.

Simpson

2 1/2", 3 1/2", 4 1/2" ROUND AND RECTANGULAR

PANEL METERS

All Prices Net

AC VOLTMETERS—RECTIFIER TYPE

Ohms	2 1/2" Models 145/147	3 1/2" Models 45/47	4 1/2" Model 49
—	\$20.70	\$22.65	
—	20.70	22.65	
—	20.70	22.65	
2000 ohms	20.70	22.65	
per volt	20.70	22.65	
—	20.70	22.65	
—	20.70	22.65	
—	20.70	22.65	

AC MILLIAMMETERS—RECTIFIER TYPE

600	—	\$19.80	\$21.45
400	—	19.80	21.45
200	—	19.80	21.45

AC MICROAMMETERS—RECTIFIER TYPE

3400	—	\$22.65	\$24.30
2400	—	—	21.90
1800	—	19.80	21.45
1200	—	19.50	21.15

AC VOLTMETERS

Approx. Resistance	2 1/2" Models 155/157	3 1/2" Models 55/57	4 1/2" Model 59
3 ohms	—	—	\$16.20
133	—	\$14.10	16.20
300	—	—	16.20
12	—	14.10	16.20
33	\$13.50	14.10	16.20
833	13.50	14.10	16.20
3,333	13.50	14.10	15.60
16,666	14.55	15.30	16.20
25,000	14.25	15.15	16.35
41,166	14.25	15.15	16.35
50,000	14.25	15.15	16.35
83,333	19.20	19.50	20.25
125,000	—	21.30	22.20
166,666	—	22.95	24.00

AC AMMETERS

.287	\$12.75	\$13.50	\$15.90
.185	—	13.50	15.90
.115	12.75	13.50	15.90
.027	12.75	13.50	15.90
.012	12.75	13.50	15.90
.003	12.75	13.50	15.90
.0022	12.75	13.50	15.90
.0003	13.05	13.80	16.50
.0003	13.05	13.80	16.50
.0006	13.05	13.80	16.50
.0005	—	14.55	17.40
.012	12.75	13.50	15.90
.012	12.75	13.50	15.90
.012	12.75	13.50	15.90
.012	12.75	13.50	15.90
.012	12.75	13.50	15.90
.012	12.75	13.50	15.90

AC MILLIAMMETERS

2,000 ohms	\$12.75	\$13.50	\$15.90
875	—	13.50	—
390	—	13.50	15.90
80	12.75	13.50	15.90
20	12.75	13.50	15.90
5	12.75	13.50	15.90
.9	12.75	13.50	15.90

Meters are self-contained. Higher range AC ammeters can be supplied with external current transformers and include 2 foot leads. External current transformers should be ordered separately. DC ammeters are self-contained for ranges up to and including 50 amperes. Higher range DC ammeters (50MA) listed above can be supplied with external leads and include 5 foot leads. *These meters use the HI Flux magnet and cannot be recalibrated for use on steel panels.

ACCURACY: DC METERS OR AC IRON VANE TYPE METERS $\pm 2\%$ OF FULL SCALE; RECTIFIER TYPE $\pm 3\%$ OF FULL SCALE @ 25°C. AND 60 CYCLE SINE WAVE.



2 1/2" Models 125, 135, 145, 155, 175, 3 1/2" Models 25, 35, 45, 55, 75



3 1/2" Models 127, 137, 147, 157, 177, 4 1/2" Models 29, 39, 49, 59, 79, 142



All DC meters listed below, except wattmeters, have the Simpson self shielding movement. Calibration not affected by stray magnetic fields or magnetic mounting. All AC meters have iron vane movement. Wattmeters listed below have the Simpson dynamometer movement calibrated for either magnetic or non-magnetic panels and for a frequency range of 25–125 cycles.

DC VOLTMETERS

Range	(ohms) Approx. Resistance	2 1/2" Models 125/127	3 1/2" Models 25/27	4 1/2" Model 29
0-1.5	1000	\$14.40	\$14.85	\$16.35
0-3	1000	14.40	14.85	16.35
0-5	1000	14.40	14.85	16.35
0-8	1000	14.40	14.85	16.35
0-10	1000	14.40	14.85	16.35
0-15	1000	14.40	14.85	16.35
0-25	1000	14.40	14.85	16.35
0-30	1000	14.40	14.85	16.35
0-50	1000	14.40	14.85	16.35
0-100	1000	14.40	14.85	16.35
0-150	1000	14.40	14.85	16.35
0-200	1000	14.40	14.85	16.35
0-250	1000	14.40	14.85	16.35
0-300	1000	14.40	14.85	16.35
0-500	2000	15.25	15.60	16.95
0-750	2000	—	15.60	16.95
0-1000	2000	—	19.35	21.15
0-1500	2000	—	19.65	21.45
0-2000	2000	19.35	20.10	21.90
0-2500	2000	—	20.40	22.20
0-3000	2000	—	20.70	22.50
0-4000	2000	—	21.30	22.80
0-5000	2000	—	21.70	23.10

DC MILLIAMMETERS

0-1	43	\$13.50	\$14.10	\$15.45
0-1.5	2.0	13.50	14.10	15.45
0-3	2.0	13.50	14.10	15.45
0-5	2.0	13.50	14.10	15.45
0-10	10.0	13.50	14.10	15.45
0-15	6.6	13.50	14.10	15.45
0-20	5.0	—	14.10	15.45
0-25	4.0	14.25	14.70	16.35
0-50	2.0	14.25	14.70	16.35
0-75	1.3	—	14.70	16.35
0-100	1.0	14.25	14.70	16.35
0-150	.66	—	14.70	16.35
0-200	.5	14.25	14.70	16.35
0-250	.4	14.25	14.70	16.35
0-300	.33	14.25	14.70	16.35
0-500	.2	14.25	14.70	16.35
0-750	.13	—	14.70	16.35
0-1000	.05	14.25	14.70	16.35

DC AMMETERS

0-1	.050	\$14.25	\$14.70	\$16.35
0-1.5	.033	14.25	14.70	16.35
0-2	.025	14.25	14.70	16.35
0-3	.0166	14.25	14.70	16.35
0-5	.010	14.25	14.70	16.35
0-10	.005	14.25	14.70	16.35
0-15	.0033	14.25	14.70	16.35
0-25	.0020	14.25	14.70	16.35
0-30	.0017	14.25	14.70	16.35
0-50	.001	14.25	14.70	16.35
0-75	10.0	13.80	14.25	15.90
0-100	10.0	13.80	14.25	15.90
0-150	10.0	13.80	14.25	15.90
0-200	10.0	13.80	14.25	15.90
0-250	10.0	13.80	14.25	15.90
0-300	10.0	13.80	14.25	15.90
0-500	10.0	13.80	14.25	15.90
0-750	10.0	—	14.25	15.90
0-1000	10.0	—	14.25	15.90
15-0-15	.0033	—	15.15	16.80
30-0-30	.0017	14.55	15.15	16.80
50-0-50	.001	14.55	15.15	16.80

DC MICROAMMETERS

0-50	1800	\$18.90	\$19.35	\$20.85
0-100	1800	16.25	17.10	19.05
0-200	1100	14.55	15.45	17.10
0-500	90	14.10	15.15	16.35
25-0-25	1800	19.20	19.50	21.00
50-0-50	1800	16.50	17.25	19.20
100-0-100	1100	14.25	15.60	17.40
500-0-500	43	13.65	14.25	15.60

(TAUT BAND) DC MICROAMMETERS

0-5	57.50	—	\$35.70	\$37.95
0-10	4900	\$30.45	31.65	33.90
0-15	1960	27.15	28.35	30.80
0-25	1960	26.10	27.15	29.85
0-50	1100	20.55	21.00	22.50
0-100	500	18.00	18.75	20.70

DC MILLIVOLTMETERS

0-50	10	\$13.80	\$14.25	\$15.60
0-100	20	—	14.25	15.60

RF AMMETERS—Internal Thermocouple Type

Range	Approx. Resistance	2 1/2" Model 135/137	3 1/2" Model 35/37	4 1/2" Model 39
0-1	343 ohms	\$15.60	\$16.50	\$19.05
0-1.5	200	15.60	16.50	19.05
0-2	120	15.60	16.50	19.05
0-2.5	10	15.60	16.50	19.05
0-3	.08	15.60	16.50	19.05
0-5	.045	15.60	16.50	19.05
0-8	.031	15.60	16.50	19.05
0-10	.023	15.60	16.50	19.05

RF MILLIAMMETERS 0-100 linear scale

0-115	4.0 ohms	—	\$31.20	\$32.85
0-150	4.5	—	19.80	22.50
0-250	3.5	—	19.80	22.50
0-500	.63	—	19.80	22.50

VOL. LEVEL INDICATORS—DECIBEL METERS

Zero Power Level—6 MW 500 Ohm Line

Range	2 1/2" Model 145/147	3 1/2" Model 45/47	4 1/2" Model 49
—10 to +6 db 5000 ohms	\$20.25	\$20.40	\$22.20

VOLUME LEVEL INDICATORS—VU METERS

Reference Level—1 MW 600 Ohm Line

Range Scale	2 1/2" Model 145/147	3 1/2" Model 45/47	4 1/2" Model 49
"A" Scale; Not Illuminated	—	\$24.60	\$26.70
"B" Scale; Not Illuminated	—	24.60	26.70
"A" Scale; Illuminated	—	—	29.40
"B" Scale; Illuminated	—	—	29.40

WATTMETERS—DYNAMOMETER TYPE

Single Phase

Range Watts	Max. Volts	Max. Amps.	2 1/2" Model 125/127	3 1/2" Model 25/27	4 1/2" Model 29
0-70	150	1.0	\$28.95	\$30.45	\$37.35
0-150	150	2.0	28.95	30.45	37.35
0-300	150	4.0	28.95	30.45	37.35
0-750	150	10.0	28.95	30.45	37.35
0-400	300	4.0	31.65	33.00	40.20
0-1500	300	10.0	31.65	33.00	40.20
0-3000	300	20.0	31.65	33.00	40.20

COMPENSATED WATTMETERS—Single Phase

0-10	300	.175	—	\$48.60	\$50.40
0-20	300	.400	—	48.60	50.40
0-20	500	.175	—	48.60	50.40
0-30	300	.450	—	48.60	50.40
0-30	500	.300	—	48.60	50.40
0-50	500	.500	—	48.60	50.40

DC GALVANOMETERS

Scale	Sensitivity Micro-Amperes	Res. Ohms	2 1/2" Model 125/127	3 1/2" Model 25/27	4 1/2" Model 29
0-0-50	75-0-75	1800	\$15.15	\$16.50	\$17.10
50-0-50	500-0-500	43	14.10	14.55	16.35

SPRAGUE TEST EQUIPMENT

TO-6 TEL-OHMIKE® CAPACITOR ANALYZER



The TO-6 TEL-OHMIKE capacitor analyzer is a must for checking all capacitors. It is a moderately priced instrument with laboratory quality and accuracy—the highest accuracy of any instrument of its type available to the service trade!

- **CAPACITANCE BRIDGE** measures up to 2000 μF . Five overlapping ranges include exclusive 1 pF to 100 pF range. Special shielded transformer for bridge voltage. Extremely low AC voltage; 1.35 volts for electrolytic capacitors, 2.85 for all others, permits safe testing of all low voltage capacitors.
- **INSULATION RESISTANCE** of papers, ceramics and mica directly read on large meter. No guessing with neon lamps. Dual range—to 10KM Ω @ 30V for low voltage units . . . to 50KM Ω @ 150V for higher voltage components. Fast charge feature speeds testing of high capacitance units.

- **LEAKAGE CURRENT** of electrolytics measured directly on meter. Four ranges; .06, .6, 6, and 60mA. Three ranges of voltage (continuously variable within each range) permit testing capacitors at exact rated voltage up to 600 volts.
- **POWER FACTOR** of electrolytics, up to 50% measured on Wien Bridge.
- **METER PROTECTOR** of solid-state design allows safe accidental over-loads without burn-outs.
- **MAGIC-EYE TUBE** simplifies bridge balancing for capacitance and power factor measurements. High gain amplifier provides greatly improved sensitivity.
- **PUSH-BUTTONS** color-keyed for instant range selection.
- **MODERN CASE:** Silver-grey hammertone finish, panel charcoal grey with highly contrasting white designations. Measures 8 7/8" high, 14 1/2" wide, 6 1/8" deep. Weight only 10 pounds.

MODEL TO-6 115 VAC/50-60 cy
MODEL TO-6S 115-230V/50 cy

Call Your Sprague Distributor for Current Prices

TEL-OHMIKES FOR RACK MOUNTING

Electrically identical to TO-6 and TO-6S. These rack-mounting models have a standard 19" w. x 10 1/2" h. panel so that it can be mounted in standard relay racks.

MODEL TO-6RM 115 VAC/50-60 cy
MODEL TO-6SRM 115-230 V/50 cy

Call Your Sprague Distributor for Current Prices

TCA-1 TRANSFARAD®



The Transfarad is specifically designed to safely test all low-voltage, low-leakage aluminum, tantalum, film, paper, and ceramic capacitors used in transistorized circuits. A must for modern industrial laboratories and electronic service shops.

SAFELY TESTS TRANSISTOR CIRCUIT CAPACITORS INCLUDING TANTALUM TYPES

- The only analyzer which gives the complete story on tantalum and other low leakage current capacitors.
- **CAPACITANCE BRIDGE** measures 1 μF to 2000 μF in five overlapping ranges. Only 0.5 volt is applied to the bridge from a continuously adjustable power supply. The voltage across the capacitor is less than this applied voltage, the amplitude depending on the capacitance being measured. No possibility of overheating or deforming any low voltage capacitor during measurements.

- **INSULATION RESISTANCE** directly read from 50 megohms to 20,000 megohms. Only 25v d-c is applied, permitting measurements on low voltage ceramic, and film capacitors. IR of ceramics rated below 25v may be calculated from leakage current measurement at exact rated voltage.
- **LEAKAGE CURRENT** measured directly on meter at exact rated d-c voltage of capacitor. Sensitive circuit makes full scale measurements from 0.6 μA to 600 μA in seven ranges.
- **POWER FACTOR** measured by Wien bridge from 0 to 50 per cent.
- **MAGIC EYE** null detector in high-gain amplifier has sensitivity control permitting accurate measurement of small capacitors.
- **SHORT-TIME STABILITY** is assured by dual regulation of the power supply. Specially processed etched circuits and complete encapsulation of the critical bridge-null amplifier insure long-time stability.
- **BINDING POSTS** are shielded against strays, assuring greater accuracy during low capacitance measurements.
- **FOR SAFETY** the capacitor under test is automatically discharged after testing. Three wire line cord grounds instrument case.
- **OPERATING PROCEDURES** are clearly shown on convenient pull-out slide.

MODEL TCA-1 TRANSFARAD 115 VAC/60cy
MODEL TCA-1S TRANSFARAD 115/230 VAC, 50cy

Call Your Sprague Distributor for Current Prices

TRANSFARADS FOR RACK MOUNTING

Electrically identical to the above instruments, these rack-mounting models have a standard 19" w. x 10 1/2" h. panel so that they can be mounted in the conventional relay rack.

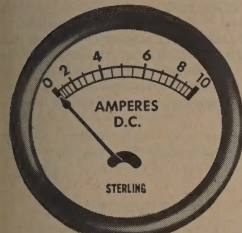
MODEL TCA-1RM 115VAC/60cy
MODEL TCA-1SRM 115/230 VAC, 50cy

Call Your Sprague Distributor for Current Prices



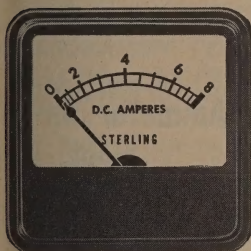
MODEL 95

1-15/32" clear plexiglas face. Fits mounting hole 1-27/32" x 25/32".



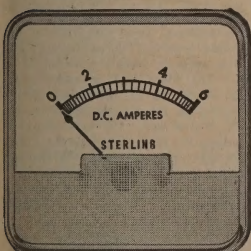
MODEL 80

2-5/32" dia. flange, flush case. Fits mounting hole 2-1/32" dia. Black enamel finish.



MODEL 75

2-1/4" square flange, fits mounting hole 2-1/32" dia. Black enamel finish.



MODEL 55

2-1/4" clear plastic face. Fits mounting hole 2-1/32" dia.

All Sterling meters have rugged, time-proven linear-power movement. Calibration accuracy is within 5%. Back clamp mounting is provided.



STERLING PANEL METERS

PRICE LIST

D.C. AMMETERS							
Range	Approximate Ohms Resist.	Model 55 Part No.	Model 95 Part No.	NET PRICE	Model 75 Part No.	Model 80 Part No.	NET PRICE
0-1	.02 Max.	55-855	95-855	\$2.05	75-855	80-855	\$1.80
0-3	.02 Max.	55-856	95-856	2.05	75-856	80-856	1.80
0-6	.02 Max.	55-857	95-857	2.05	75-857	80-857	1.80
0-8	.02 Max.	55-928	95-928	2.05	75-928	80-928	1.80
0-10	.02 Max.	55-858	95-858	2.05	75-858	80-858	1.80
0-15	.02 Max.	55-864	95-864	2.05	75-864	80-864	1.80
0-25	.02 Max.	55-865		2.05	75-865	80-865	1.80
0-50	.02 Max.	55-866		2.65	75-866	80-866	2.40
3-0-3	.02 Max.	55-860	95-860	2.05	75-860	80-860	1.80
10-0-10	.02 Max.	55-862	95-862	2.05	75-862	80-862	1.80
20-0-20	.02 Max.	55-863		2.05	75-863	80-863	1.80
30-0-30	.02 Max.	55-867		2.05	75-867	80-867	1.80
50-0-50	.02 Max.	55-925		2.85	75-925	80-925	2.55
D.C. VOLTMMETERS							
0-1	105	55-801	95-801	\$2.05	75-801	80-801	\$1.80
0-3	520	55-802	95-802	2.05	75-802	80-802	1.80
0-5	945	55-804	95-804	2.05	75-804	80-804	1.80
0-10	1925	55-807	95-807	2.05	75-807	80-807	1.80
0-15	3425	55-808	95-808	2.05	75-808	80-808	1.80
0-25	4825	55-809	95-809	2.05	75-809	80-809	1.80
0-50	10,000	55-811	95-811	2.05	75-811	80-811	1.80
0-100	20,000	55-813	95-813	2.35	75-813	80-813	2.10
0-150	30,000	55-815	95-815	2.55	75-815	80-815	2.25
0-300	100,000	55-817		3.30	75-817	80-817	3.00
0-500	160,000	55-818		3.85	75-818	80-818	3.60
D.C. MILLIAMMETERS							
0-1	1000	55-834	95-834	\$3.85	75-834	80-834	\$3.60
0-2	500	55-835	95-835	2.95	75-835	80-835	2.70
0-5	125	55-836	95-836	2.55	75-836	80-836	2.25
0-10	28	55-837	95-837	2.40	75-837	80-837	2.10
0-15	12	55-838	95-838	2.05	75-838	80-838	1.80
0-25	4.5	55-839	95-839	2.05	75-839	80-839	1.80
0-50	1.3	55-840	95-840	2.05	75-840	80-840	1.80
0-100	.37	55-841	95-841	2.05	75-841	80-841	1.80
0-150	.14	55-842	95-842	2.05	75-842	80-842	1.80
0-200	.09	55-843	95-843	2.05	75-843	80-843	1.80
0-300	.04	55-844	95-844	2.05	75-844	80-844	1.80
0-400	.03	55-845	95-845	2.05	75-845	80-845	1.80
0-500	.02	55-848	95-848	2.05	75-848	80-848	1.80
A.C. VOLTMMETERS							
0-5	28	55-871		\$3.15	75-871	80-871	\$2.85
0-10	104	55-872		3.15	75-872	80-872	2.85
0-15	210	55-873		3.15	75-873	80-873	2.85
0-25	1750	55-910		3.15	75-910	80-910	2.85
0-50	2750	55-879		3.15	75-879	80-879	2.85
0-150	11,500	55-874		3.90	75-874	80-874	3.60
0-300	19,400	55-875		4.35	75-875	80-875	4.05
0-500	34,400	55-913		4.95	75-913	80-913	4.65
A.C. AMMETERS							
0-1	.7	55-886		\$3.15	75-886	80-886	\$2.85
0-3	.09	55-887		3.15	75-887	80-887	2.85
0-5	.04	55-888		3.15	75-888	80-888	2.85
0-10	.02	55-889		3.15	75-889	80-889	2.85
0-15	.02	55-917		3.15	75-917	80-917	2.85
0-30	.02	55-892		3.30	75-892	80-892	3.00
A.C. MILLIAMMETERS							
0-100	104	55-882		\$3.15	75-882	80-882	\$2.85
0-250	16	55-883		3.15	75-883	80-883	2.85
0-500	3	55-884		3.15	75-884	80-884	2.85

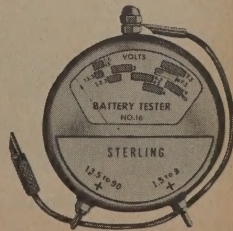
* For meters with special scales, ranges or construction, contact the factory or local Sterling representative.

POCKET METER BATTERY TESTERS

No. 10 Dual A and B for Hearing Aids. Has 2-0-2 and 50-0-50 scales.	Net Price \$3.30
No. 13 Transistor Hearing Aid tester. Has 0-7 volt scale.	Net Price \$3.90
No. 24 Ammeter 0-35 amp. for No. 6 dry cells. Scale has 1 amp. divisions.	Net Price \$2.25
No. 34 Voltmeter for "hot-shot" batteries. 0-10 volt scale with 1/5 volt divisions.	Net Price \$2.40
No. 16 General voltmeter. Has green color zones for batteries from 1.5 to 90 volts.	Net Price \$4.05
No. 44 Voltammeter. 0-35 amp. scale, 1 amp. divisions, 0-10 volt scale, 1/5 volt divisions.	Net Price \$2.76

SEND FOR CATALOGS OF OUR COMPLETE LINE OF POCKET METERS AND PORTABLE BATTERY TESTERS.

THE STERLING MANUFACTURING COMPANY



NO. 16 GENERAL TESTER

WORLD'S MOST POPULAR MINIATURE V-O-M

Volt-Ohm-Milliammeter

MODEL 310

RANGES

DC Volts: 0-3-12-60-300-1,200 (at 20,000 ohms per volt). **AC Volts:** 0-3-12-60-300-1,200 (at 5,000 ohms per volt). **Ohms:** 0-20,000-200,000. **Megohms:** 0-2-20. **DC Microamperes:** 0-600 at 250 millivolts. **DC Milliamperes:** 0-6-60-600 at 250 millivolts. **Weight**—Approx. 14 oz., complete with batteries.

Case—Molded, black, 2 3/4" x 4 1/4" x 1 1/2".

Complete with leads, battery and instruction manual. Shipping wt. 2 lbs.

\$40.00

Volt-Ohm-Milliammeter

MODEL 310-C

New 310-C is the same as Model 310, above, (except 600 volt ranges replace 1200 volt ranges of Model 310) plus the following features:

1. Fully enclosed lever range switch.
2. 15,000 Ohms per volt AC (20,000

O/V DC same as 310). 3. Reversing switch for DC measurements. Handsize and lightweight, but with the features of a full size V-O-M.

\$50.00

V-O-M and Clamp-On Ammeter Set

MODEL 100

Handsomely packaged set includes: Model 310 V-O-M, Model 10 Clamp-On Ammeter Adapter; Model 101 Line Separator; Model 379 Leather Case; Model 311 Leads. (\$73.50 Value Separate Unit Purchase Price.)

MODEL 100, as above, you save **\$3.50**. Shipping wt. 7 lbs.

MODEL 100-C Same as above but with Model 310-C. **\$80.00**

Clamp-On Adapter

MODEL 10

CHECKS LINE LOADS WITH MODEL 310 OR 310-C

(Also can be used with Models 630, 630-A, 630-NA, 631, 630-PL, 630-APL, 630-M, 630-NS, 630-PLK, 630-L by means of 611 leads.)

Checks all line loads instantly, accurately, safely—without breaking the circuit or interrupting work. Easy range switching. Model 10 Clamp-On Adapter AC Ammeter ranges: 0-6-12-30-60-120-300. Clips around single wire to read A.C.

Amperes direct. Used with Adapter 101 to divide instantly two-conductor cords. A lever securely locks the Model 10 to Model 310 when used in combination. Model 10 can be left attached to Model 310 when the latter tester is used as an AC-DC V-O-M only. The only change is to remove the lead plug from the Model 310 V-O-M jack and insert it in the jack provided in the Model 10 housing.

Case black molded plastic with engraved white markings. **\$17.00**

No. 611 LEADS

In addition to use with the Model 310, the No. 10 Adapter also can be used as a Clamp-On Ammeter with any Volt-Ohm-Milliammeter having a 3 AC Volt scale at 5,000 Ohms per Volt or above, such as Triplet Models 630, 630-A, 630-

NA, 630-PL, 630-APL, 630-NS, 630-M, 630-PLK, 630-L, 631, etc. (see illustration). This is done by means of a long lead attachment (No. 611) making possible easy readings in difficult locations. **\$2.50**

No. 311 LEADS

The Model 10 can be separated from the Model 310 (in the same way as above) by using No. 311 lead attach-

ment. This permits readings in difficult locations. **\$2.50**

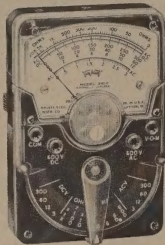
Line Separator

MODEL 101

Plugs into AC outlet to divide instantly two-conductor cords. Increases ammeter sensitivity 10X and 20X. Use up to 30 AC Amperes from 0.3 to 30 in nine steps. Also has provision for Voltmeter

prods for voltage measurements. Case, black molded plastic with engraved markings. **\$7.00**

310



Model 10

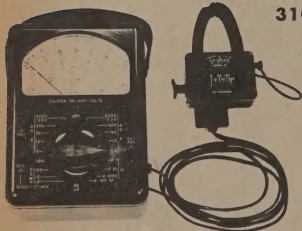
310-C



100



310-10



630 Series VOM & Model 10

Model 101



611 Leads



All Prices Are Suggested U.S.A. User Not Subject To Change. Specifications Subject To Revision. (Slightly Higher West of Rockies and in Canada)

TRIPLETT ELECTRICAL INSTRUMENT COMPANY

THE WORKHORSE OF THE ELECTRONIC INDUSTRY

Volt-Ohm-Milliammeter

MODEL 630

1. One selector switch minimizes chance of incorrect settings and burnouts. 2. 5,000 ohms per volt AC sensitivity; 20,000 DC. 3. Four resistance ranges to 100 megohms.

Popular streamlined tester with long meter scales arranged for easy reading. Outstanding resistance ranges: low reading .1 ohm, high 100 megs. Fuse affords protection to the resistors in the ohmmeter circuit, especially the X1 setting.

Spring-backed instrument jewels for ruggedness. Accuracy $\pm 2\%$ DC, $\pm 3\%$ AC.

RANGES

DC Volts: 0-3-12-60-300-1,200-6,000 at 20,000 ohms per volt.

AC Volts: 0-3-12-60-300-1,200-6,000 at 5,000 ohms per volt.

Ohms: 0-1,000-10,000.

Megohms: 0-1-100.

DC Microamperes: 0-60 at 250 millivolts.

DC Milliamperes: 0-1.2-12-120 at 250 millivolts.

DC Amperes: 0-12.

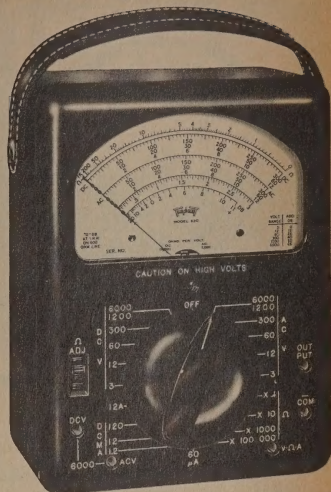
DB: -20 to +77 (600 ohm line at 1 MW).

Output Volts: 0-3-12-60-300-1,200; jack with condenser in series with AC ranges.

Usable with frequencies through 500 Kc.

CASE—Molded, black, 3-7/32" x 5 1/2" x 7 1/2".

Complete with leads, alligator clips, rubber feet, batteries and instruction manual. Shipping wt. 5 lbs. **\$55.00**



630

LABORATORY TYPE V-O-M Volt-Ohm-Milliammeter

MODEL 630-A TYPE 2

1. New Rugged 5 1/2" suspension meter with 4 1/4" mirror scale. 2. $\pm 1 1/2\%$ DC, $\pm 3\%$ AC accuracy. 3. A laboratory type V-O-M with 1/2% resistors for greater accuracy.

Other features same as described for Model 630 above.

RANGES

DC Volts: 0-3-12-60-300-1,200-6,000 at 20,000 ohms per volt.

AC Volts: 0-3-12-60-300-1,200-6,000 at 5,000 ohms per volt.

Ohms: 0-1,000-10,000.

Megohms: 0-1-100.

DC Microamperes: 0-60 at 250 millivolts.

DC Milliamperes: 0-1.2-12-120 at 250 millivolts.

DC Amperes: 0-12.

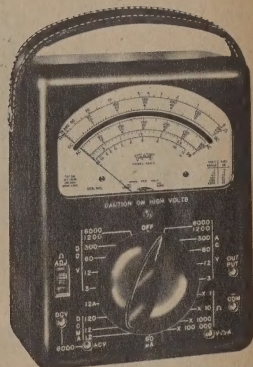
DB: -20 to +77 (600 ohm line at 1 MW).

Output Volts: 0-3-12-60-300-1,200; jack with condenser in series with AC ranges.

Usable with frequencies through 500 Kc.

CASE—Molded, black, 3-7/32" x 5 1/2" x 7 1/2".

Complete with leads, alligator clips, rubber feet, batteries and instruction manual. Shipping wt. 5 lbs. **\$65.00**



630-A

Combination V-O-M and VTVM

MODEL 631

1. One selector switch. 2. Complete V-O-M in combination with battery operated VTVM. 3. 11 megohm input to VTVM.

Two fundamental units at the price of a single tester; VTVM stability assured by long life battery operation.

Sensitivity plus — sensitivity of the 1.2 volt (VTVM) range is equal to over nine million ohms per volt. Usable with frequencies through 500 Kc.

A V-O-M for general use and a VTVM when needed; ranges entirely adequate for servicing needs. Large meter easy to read; unbreakable meter face.

Spring-backed instrument jewels for ruggedness. Accuracy 3% DC, 4% AC, VTVM 4%.

V-O-M RANGES

DC Volts: 0-3-12-60-300-1,200 (20,000 ohms per volt).

AC Volts: 0-3-12-60-300-1,200 (5,000 ohms per volt).

Ohms: 0-1,500-15,000.

Megohms: 0-1.5-150.

DC Microamperes: 0-60 at 250 MV.

DC Milliamperes: 0-1.2-12-120 at 250 MV.

DC Amperes: 0-12 at 250 MV.

DB: -20 to +63. (600 ohm line at 1 MW).

Output Volts: 0-3-12-60-300-1,200; jack with condenser in series with AC ranges.

VTVM RANGES

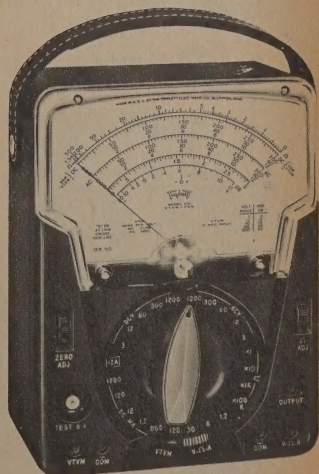
DC Volts: 0-1.2-6-30-120.

Case: Molded, black, 3-11/32" x 5 1/2" x 7 1/2".

Complete with leads, alligator clips, rubber feet, batteries and instruction manual. Shipping wt. 5 lbs. **\$75.00**

RF PROBE FOR 631

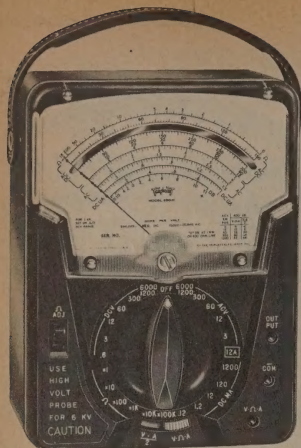
With this probe and Model 631 RF measurements can be made up to 20 volts at 250 MC. Pt. T-79-A-145 **\$8.50**



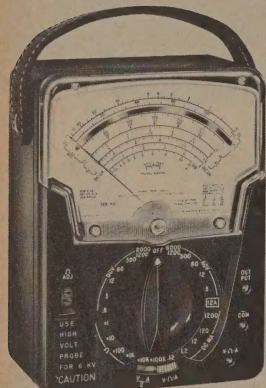
631

All Prices Are Suggested U.S.A. User Net Subject To Change. Specifications Subject To Revision. (Slightly Higher West of Rockies and in Canada)

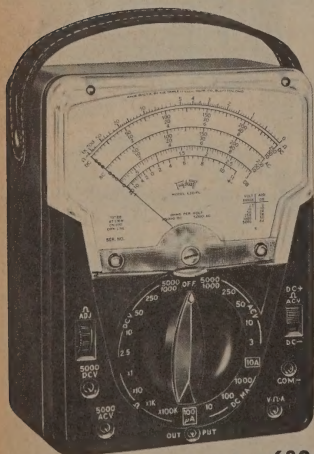
TRIPLETT ELECTRICAL INSTRUMENT COMPANY



630-M



630-NS



630-PL



630-APL

ONE MILLION OHMS PER VOLT SENSITIVITY

Volt-Ohm-Milliammeter

MODEL 630-M
TYPE 1

1. 1,000,000 Ohms per volt DC for greater accuracy on high resistance circuits. 20,000 ohms per volt AC.

2. $1/2$ Suspension Meter Movement. No pivots, bearings, or rolling friction. Extremely rugged. Greater sensitivity and repeatability.

3. 61 Ranges, usable with frequencies through 100 Kc. Temperature compensated, $1\frac{1}{2}\%$ DC accuracy, 3% AC in horizontal position.

Now the input impedance of a VTVM with the convenience of a V-O-M. Reads as low as 20 nanampere. Components mounted on quality glass epoxy etched circuit board. Meter protected by diodes against accidental overload.

RANGES

DC Volts: 0-0.6-3-12-60-300 at 500,000 Ohms/Volt.
0-0.3-1.5-6-30-150 at 1,000,000 Ohms/Volt.
0-1200 at 125,000 Ohms/Volt.

0-600 at 250,000 Ohms/Volt.

AC Volts: 0-3-12-60-300-1200 at 10,000 Ohms/Volt.

0-1.5-6-30-150-600 at 20,000 Ohms/Volt

DB: -20 to +63 in 10 ranges

DC Microamperes: 0-1 at 300 M.V.

0-60-600 at 300 M.V.

0-120 at 600 M.V.

DC Milliamperes: 0-6-60-600 at 300 M.V.

0-1.2-12-120-1200 at 600 M.V.

DC Amperes: 0-6 at 300 M.V.

0-12 at 600 M.V.

Ohms: 0-1K-10K-100K (4.4-44-440 at center scale)

Megohms: 0-1-10-100 (4400-44,000-440,000 Ohms center scale)

Output: Condenser in series with AC Volt ranges

\$200.00

CASE—Heavy, molded black case, 3-11/32" x 5 1/2" x 7 1/2", with removable black leather strap handle. Shipping wt. 5 lbs.

NOT 20,000 BUT 200,000 OHMS PER VOLT

Volt-Ohm-Milliammeter

MODEL 630-NS

1. 200,000 ohms per volt DC for greater accuracy on high resistance circuits. 20,000 ohms per volt AC.

2. Suspension Meter Movement. No pivots, no bearings, no hairsprings; no rolling friction. Extremely rugged. Greater sensitivity and repeatability.

3. 62 ranges. Temperature and frequency compensated. The unit is precision designed to give maximum coverage, to withstand accidental overloads and to offer greater reading accuracy. Usable with frequencies through 100 Kc. Accuracy $1\frac{1}{2}\%$ DC, 3% AC.

RANGES

DC Volts: 0-0.6-3-12-60-300-1200 at 100,000 Ohms/Volt.
0-0.3-1.5-6-30-150-600 at 200,000 Ohms/Volt.

0-0.150 at 60 microamperes.

AC Volts: 0-3-12-60-300-1200 at 10,000 Ohms/Volt.

0-1.5-6-30-150-600 at 20,000 Ohms/Volt

DB: -20 to +63 in 10 ranges

DC Microamperes: 0-60-600 at 150 Mv

0-5-120 at 300 Mv

DC Milliamperes: 0-6-60-600 at 150 Mv

0-1.2-12-120-1200 at 300 Mv

DC Amperes: 0-6 at 150 Mv

0-12-300 Mv

Ohms: 0-1K-10K-100K (4.4-44-440 at center scale)

Megohms: 0-1-10-100 (4400-44,000-440,000 Ohms center scale)

Output: Condenser in series with AC Volt ranges

\$100.00

CASE—Molded, black, 3-11/32" x 5 1/2" x 7 1/2". Shipping wt. 5 lbs.

Volt-Ohm-Milliammeter

MODEL 630-PL
TYPE 2

1. Meter movement diode protected against instantaneous overloads. 2. One selector switch minimizes chance of incorrect settings and burnouts. 3. Four outstanding resistance ranges, from .1 ohm to 100 megs.

Polarity reversing switch. Tester usable with frequencies through 500 Kc. Instant-vision, wider spread scales; streamlined case, handsome modern design. Unbreakable plastic window.

Fuse affords extra protection to the resistors in the ohmmeter circuit, especially the X1 setting. Spring-backed instrument jewels for ruggedness.

High Sensitivity: 5,000 ohms per volt AC; 20,000 ohms per volt DC. Accuracy $\pm 2\%$ DC, $\pm 3\%$ AC.

RANGES

DC Volts: 0-2.5-10-50-250-1,000-5,000—at 20,000 ohms/volt.
0-0.25 at 100 microamperes.

AC Volts: 0-3-10-50-250-1,000-5,000—at 5,000 ohms/volt.

Decibels: -20 to +11, +21, +35, +49, +61, +75; "0" DB at 1 MW on 600 ohm line.

DC Microamperes: 0-100—at 250 millivolts.

DC Milliamperes: 0-10-100-1,000—at 250 millivolts.

DC Amperes: 0-10—at 250 millivolts.

Ohms: 0-1,000-10,000—(4.4-44 at center scale).

Megohms: 0-1-100—(4,400-44,000 at center scale).

Output ∇ [AC]: 0-3-10-50-250-1,000—at 5,000 ohms/volt, jack with condenser in series with AC ranges.

CASE: Molded, black, 3-11/32" x 5 1/2" x 7 1/2".

Complete with leads, alligator clips, rubber feet, batteries and instruction manual. Shipping wt. 5 lbs. **\$55.00**

Laboratory Type V-O-M

MODEL 630-AP
TYPE 3

1. New rugged $5\frac{1}{2}$ " suspension meter with $4\frac{1}{2}$ " mirror scale. 2. Meter movement diode protected against instantaneous overloads. 3. $\pm 1\frac{1}{2}\%$ DC, $\pm 3\%$ AC accuracy.

A laboratory type V-O-M featuring $\frac{1}{2}\%$ resistors for greater accuracy. Range and other features same as Model 630-PL above. **\$65.00**

OVERLOAD PROTECTED V-O-M

10-Ohm-Milliammeter

MODEL 630-PLK
TYPE 2

comprehensive overload protection. selector switch minimizes chance of incorrect settings. 3. Polarity reversal.

torized electronic switching circuit (pending) guards against accidental burn-outs. Now you can virtually bent pointers, burned-out re-damaged pivots, overheated, burned-out coils, changes in accuracy due to overheating, in fact nearly need for repairs. Life of transistor battery is nearly that of shelf life. Automatically checked by using X100K range. Overload protection on mechanical tests.

cy $\pm 2\%$ on DC, $\pm 3\%$ AC. High accuracy: 20,000 O/V DC; 5,000 O/V shipping weight 5 lbs.

RANGES

10-2.5-10-50-250-1,000-5,000 at

20,000 ohms/volt; 0-0.25 at 100 microamperes.

AC Volts: 0-3-10-50-250-1,000-5,000 at 5,000 ohms/volt.

Decibels: -20 to +11, +21, +35, +49, +61, +75; "0" DB at 1 MW on 600 ohm line.

DC Microamperes: 0-100 at 250 Mv.

DC Milliamperes: 0-10-100-1000 at 250 Mv.

DC Amperes: 0-10 at 250 Mv.

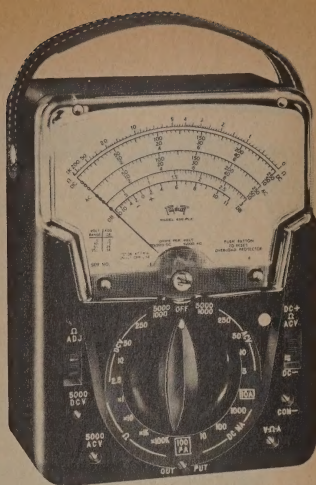
Ohms: 0-1,000-10,000 (4.4-44 at center scale).

Megohms: 0-1-100 (4,400-440,000 at center scale).

Output Volts (AC): 0-3-10-50-250-1,000 at 5,000 ohms/volt; jack with condenser in series with AC ranges.

Case: Molded, black, 3-11/32" x 5 1/2" x 7 1/2".

Complete with leads, alligator clips, rubber feet, batteries and instruction manual. Shipping wt. 5 lbs. \$85.00



630-PLK

LABORATORY TYPE V-O-M

WITH OVERLOAD PROTECTION

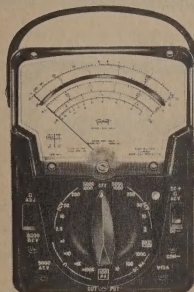
10-Ohm-Milliammeter

MODEL 630-APLK
TYPE 1

comprehensive overload protection. Polarity reversing switch. Suspension movement. 3. One selector switch minimizes chance of incorrect settings. Error scale. Lab type V-O-M with resistors for greater accuracy.

$\pm 1\frac{1}{2}\%$ DC, $\pm 3\%$ AC accuracy. Other features same as described for Model 630-PLK above.

Complete with leads, alligator clips, rubber feet, batteries and instruction manual. Shipping wt. 5 lbs. \$95.00



630-APLK

10-Ohm-Milliammeter

MODEL 630-L

low power ohms ranges (X1 and X10) 140 Mv. ohmmeter circuit voltage. selector switch minimizes chance of incorrect settings. 3. Exclusive shielded R-RING movement. Accuracy $\pm 2\%$ on AC. Sensitivity: 20,000 C, 5,000 O/V AC.

RANGES

10-2.5-10-50-250-1,000-5,000 ohms/volt.

Ohms: 0-3-10-50-250-1,000-5,000 at 5,000 ohms per volt.

Decibels: -20 to +75; "0" Db at 1 600 ohm line.

DC Microamperes: 0-100 at 120 millivolts.

DC Milliamperes: 0-10-100-1000 at 120 millivolts.

DC Amperes: 0-10 at 120 millivolts.

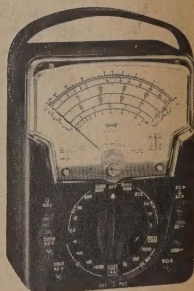
Ohms: 0-1,000-10,000 (13-130 at center scale).

Megohms: 0-1-100 (4,400-440,000 at center scale).

Output V (AC): 0-3-10-50-250-1,000 at 5,000 ohms/volt, jack with condenser in series with AC ranges.

Case: Black molded, 3-11/32" x 5 1/2" x 7 1/2". \$60.00

630-L



10-Ohm-Milliammeter

MODEL 630-NA

selector switch. 2. 70 ranges: DC accuracy on meter; with mirror and overload protection. 3. Frequency and frequency compensation.

per deluxe of V-O-Ms. Usable with frequencies through 500 Kc.

open front meter easy to read. readable window. Mirror scale.

has special diode protection against the most severe overloads. A special protection to resistors in the meter circuit (especially the X1 set) should too high a voltage be applied.

backed instrument jewels for ruggedness. Accuracy 1 1/2% DC, 3% AC.

RANGES

10-0.6-3-12-60-300-1,200-6,000 ohms per volt.

5-6-30-150-600-3,000 at 20,000 ohms per volt.

0-60 microamperes.

AC Volts: 0-3-12-60-300-1,200-6,000 at 5,000 ohms per volt.

0-1.5-6-30-150-600-3,000 at 10,000 ohms per volt.

Ohms: 0-1K-10K-100K.

Megohms: 0-1-10-100.

DC Microamperes: 0-120 at 240 millivolts.

0-60-600 at 120 millivolts.

DC Milliamperes: 0-1.2-12-120-1,200 at 240 millivolts.

0-6-60-600 at 120 millivolts.

DC Amperes: 0-12 at 240 millivolts.

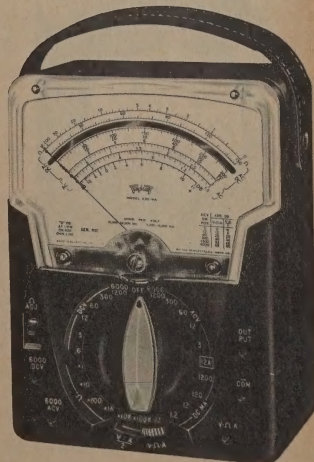
0-6 at 120 millivolts.

DB: -20 to +77 (600 ohm line at 1 MW).

Output Volts: 0-3-12-60-300-1,200; jack with condenser in series with AC ranges.

Case: Molded, black, 3-11/32" x 5 1/2" x 7 1/2".

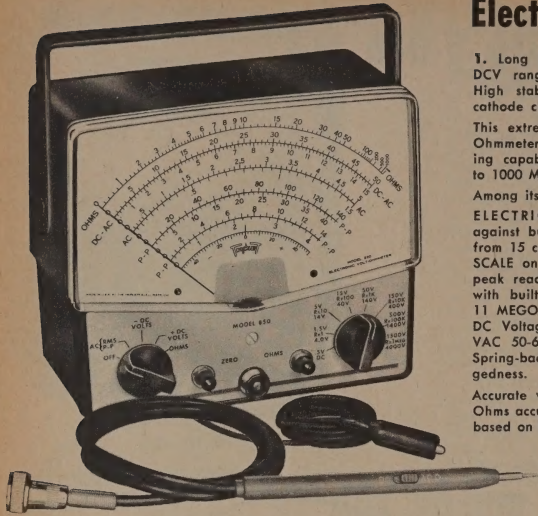
Complete with leads, alligator clips, rubber feet, batteries and instruction manual. Shipping wt. 5 lbs. \$85.00



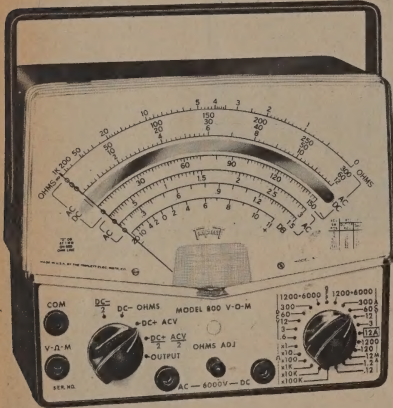
630-NA

Electronic Volt-Ohmmeter

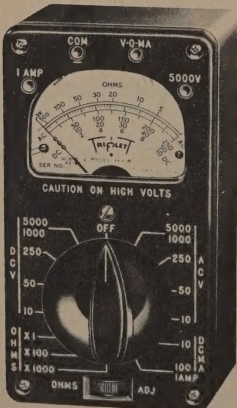
MODEL 850



850



800



666-R

1. Long 7" easy-to-read scale. 2. .5 DCV range for transistor circuits. 3. High stability — meter connected in cathode circuit of 12AU7.

This extremely versatile Electronic Volt-Ohmmeter has superior voltage measuring capabilities, plus resistance ranges to 1000 Megohms.

Among its outstanding features:

ELECTRICAL PROTECTION of meter against burnout. **FREQUENCY RANGE**—from 15 cps to 3 Megacycles. **SEPARATE SCALE** on easy-view meter for Peak-to-peak readings. **SINGLE UNIT PROBE**—with built-in switch for AC/DC/OHMS. **11 MEGOHM INPUT RESISTANCE** on all DC Voltage ranges. Line voltage: 115 VAC 50-60 cycles. Ground type plug. Spring-backed instrument jewels for ruggedness.

Accurate within $\pm 3\%$ on AC and DC. Ohms accurate within $\pm 3\%$ of full scale based on DC scale.

RANGES

Eight DC Volts Ranges: 0-5-1.5-5-15-50-150-500-1500. **Seven AC RMS Volts Ranges:** 0-1.5-5-15-50-150-500-1500. **Seven Peak-to-Peak Volts Ranges:** 0-4-14-40-140-400-1400-4000. **Seven Resistance Ranges:** 0-1000-10,000-100,000-1 Meg-10 Meg-100 Megohms-1000 Megohms. **Frequency Range:** CPS to 3 MC; (Up to 250 MC with accessory diode probe available extro). **Input Impedance:** DC Volts 11 Megohms; AC Volts minimum of .83 Megohms. **CASE**—Molded black case, 7 1/4" x 6 1/4" x 3 3/4". Carrying handle also can be used to place the tester at 25° angle for ease in reading. **PANEL**—Etched aluminum. Shipping wt. 7 lbs. **\$85.00**

MODEL 850 (Foreign — 220V, 50 to 60 N) **\$90.00**

Auxiliary Diode Probe for voltages to 20 volts with frequencies to 250 MC. Pt. T-79-215 **\$8.00**

High Voltage Probe for DC Voltages to 50 KV. Pt. 79B-196 **\$23.00**

Volt-Ohm-Milliammeter MODEL 800 TYPE 2

1. 8" Suspension Meter with 6.95" mirror scale for greater readability plus diode overload protection.

2. 1 1/2% DC and 3% AC accuracy with temperature and frequency compensation.

3. 67 Ranges with a DC polarity reversing switch and fused ohmmeter circuit. No other V-O-M offers all the Deluxe features of the Model 800. 3% AC ACCURACY to 1200 volts; mirror and knife-edge pointer to eliminate parallax; USABLE with frequencies to 100 Kc; WIRED CIRCUIT (not printed); HIGH FLUX BARRING self shielded magnet; DUAL SENSITIVITY provides extra ranges; DC volts at 20,000 and 10,000 ohms per volt, AC at 10,000 and 5,000 ohms per volt. Shatter-proof meter window, molded transparent plastic; fully antistat treated.

RANGES

DC Volts: 0-0.6-3-12-60-300-1200-6000

at 10,000 Ohms per Volt. 0-0.3-1.5-6-30-150-600-3000 at 20,000 Ohms per Volt. 0-120 at 60 Microamperes. **AC Volts:** 0-3-12-60-300-1200-6000 at 5,000 Ohms per Volt. 0-1.5-6-30-150-600-3000 at 10,000 Ohms per Volt. **DB:** -20 to +70 in 10 ranges. **DC Microamperes:** 0-60-600 at 120 MV. 0-120 at 240 MV. **DC Milliamperes:** 0-6-60-600 at 120 MV. 0-1.2-12-120-1200 at 240 MV. **DC Amperes:** 0-6 at 120 MV. 0-12 at 240 MV. **Ohms:** 0-1K-10K-100K (4.4-40-440 at center scale). **Megohms:** 0-1-10-100 (4400-44,000-440,000 Ohms center scale). **Output:** Condenser in series with AC volt ranges.

CASE—Heavy, molded black case, 7 1/4" x 6 1/4" x 3 3/4", with an insulated, movable handle, which can also serve as a tester stand. Shipping wt. 7 lbs. **\$100.00**

Pocket Volt-Ohm-Milliammeter

MODEL 666-R

1. One selector switch. 2. Three resistance ranges to 3 megohms. 3. Five volt ranges to 5,000 AC & DC volts.

Hand-size—the ideal tester for electrical maintenance. Recessed range knob enables tester to fit in tool kit.

AC rectifier pre-calibrated unit for easy replacement.

Banana jacks at top of the panel lessen possibility of leads falling over the meter dial. Accuracy 3% DC, 4% AC.

RANGES

DC Volts: 0-10-50-250-1,000-5,000 at

1,000 ohms per volt. **AC Volts:** 0-10-50-250-1,000-5,000 at 1,000 ohms per volt. **Ohms:** 0-3,000-300,000. **Megohms:** 0-3. **DC Milliamperes:** 0-10-100 at 250 MV. **Output Volts:** 0-10-50-250-1,000. **CASE**—Black molded, streamlined, handy pocket size, 3 1/8" x 5 7/8" x 2 7/8".

Complete with leads, alligator clips, batteries and instruction manual. Shipping wt. 3 lbs. **\$40.00**

All Prices Are Suggested U.S.A. User Net Subject To Change. Specifications Subject To Revision. (Slightly Higher West of Rockies and in Canada)

MODEL 3444

TRIPLET

TEST EQUIPMENT

TRUE DYNAMIC MUTUAL CONDUCTANCE TUBE ANALYZER MODEL 3444

The only tube tester under \$1,000 that is simple and fast to operate and 1. Will measure tube characteristics at KNOWN readable potentials. 2. Provides readings to: (a) Plot the tube characteristic curves. (b) Measure grid current at known potentials. (c) Compare cutoff characteristics of dual tubes. 3. Reads directly in micromhos with a self checking Gm circuit. CHECKS PLATE current cutoff. CHECKS GAS under actual operating conditions (measures to approximately one UA of gas current). CHECKS RECTIFIERS under load.

CHECKS THYRATRON firing voltage and grid current. (To 50 ma. anode current.) CHECKS DUAL section tubes with only one lever movement. PROVIDES SHORTS and leakage measurements from 0-10 megohms using a filtered DC supply of 85 volts. PROVIDES cut off measurements on voltage amplifiers. RECESSED SOCKET SAVERS (under-the-panel-mounted) are easily removable for replacement.

Case: Wood, gray leatherette covered, $15\frac{3}{8}" \times 18\frac{1}{8}" \times 7\frac{3}{4}"$. Shipping wt. 30 lbs. **\$350.00**

FASTER, FLEXIBLE TUBE TESTER MODEL 3414

1. Rapid easy testing-setups can be made while tube is heating. 2. Input filament continuity test. 3. Modified circuit for better correlation on Gm. Rejects burned out tubes instantly without waiting for the filaments to heat. NEON INDICATOR SHORTS TEST, new, fast and accurate. Full range filament voltages—.065 to 117 in 23 steps. Improved lever switching for complete control of each tube element. Quick-change roll chart. TV

picture tube test by means of adapter (available extra, see below) without removing tube from receiver. Large, clearview meter has three-color GOOD?-BAD scale.

COUNTER-PORTABLE TYPE CASE. Ultra-professional appearance; Wood, dark gray leatherette covered; $15\frac{3}{8}" \times 11\frac{1}{2}" \times 6\frac{1}{2}"$. Hinged removable cover. Chrome hardware and feet. Etched panel. Shipping wt. 17 lbs. **\$120.00**

NEW TRANSISTOR ANALYZER FOR COMPLETE TRANSISTOR ANALYSES MODEL 3490-A

1. Reads leakage current down to 100 nanoamperes on a dca full scale meter. 2. Analyzes both power & signal types at specified voltages and currents. 3. Continuous current—up to 30 amp collector—and voltage control for transistor supply electrodes. Test DC Beta, AC Beta at 1KC, leakages (Ico, Ieo, Iceo), Alpha, Reach Through Voltage, Saturation Voltage, Floating Potential. The 3490-A's flexibility allows plotting of transistor characteristic curves along with setting up nearly any type of transistor test. Input bias reversing switch gives added versatility. THREE INDEPENDENT Power Supplies. Model 3490-A also tests diodes, rectifiers, zener diodes, SCR, etc.

RANGES

Input Current (Emitter or Base): 0-100-300 ua, 0-1-3-10-30 Ma, 0-1-3-1-3 Amp. Collector Current: 0-300 ua, 0-1-3-10-30 Ma, 0-1-3-1-3-10-30 Amp. Ico, Ieo (Icbo): 0-6 Ma, 0-600 ua, 0-60 ua, 0-6 ua. Collector Voltage: 0-120 V, 0-60 V, 0-30 V, 0-12 V, 0-6 V, 0-3 V, 0-1.2 V. Emitter or Base Voltage: 0-12 V, 0-1.2 V. Tetraode: 0-10 V Calibrated Control. Shipping wt.: 30 lbs. Case: Wood, gray leatherette covered, $18\frac{1}{2}" \times 15\frac{1}{8}" \times 8"$ with removable cover, and sloping etched aluminum panel. **\$400.00**

TRANSISTOR TESTER MODEL 2590

1. Tests Beta amplification, ICBO, ICEO for both power and signal type transistors. Tests for shorts and leakage. Checks leakage and forward currents on diodes. 2. Simulated operating test conditions. 3. Simple and straightforward operation. No roll chart or special data needed, always up-to-date.

Case: $11\frac{1}{8}" \times 8\frac{1}{8}" \times 5\frac{1}{8}"$.

FIVE SCALES

0-1 MA for Signal Transistor ICEO
0-100 MA for Power Transistor ICEO
0-500 Microamp for Signal Transistor ICBO
0-1 MA for Power Transistor ICBO
5-100 Beta Range; also shows on GOOD?—BAD scale
Shipping wt. 9 bs. Power—115 volts, 50-60 cycle AC. **\$65.00**

SIGNAL GENERATOR MODEL 3432-A

Complete frequency coverage 160 KC to 10 MC fundamental with seven bands (220 MC harmonics). R.F. circuits are double shielded with copper steel shields. Large easily read etched aluminum dial. Cathode follower output provides good stability by acting as a buffer to the oscillator. 400 cycle audio frequency with variable control for 0-100 per cent modulation.

Band

A160-370 KC
B360-735 KC

C715-1875 KC
D1825-4950 KC
E4.85-13 MC
F12.5-35 MC
G34-110 MC
G (Harmonics)68-220 MC

Case: Metal with black baked enamel suede finish, $15\frac{1}{8}" \times 11\frac{1}{8}" \times 6\frac{1}{4}"$. Black leather strap handle, rubber feet. Shipping wt. 30 lbs.

\$130.00

MODEL 3432-A

All Prices Are Suggested U.S.A. User Net Subject To Change. Specifications Subject To Revision.

Leather Cases

For Testers 630, 630-A, 630-PL, 630-APL, 630-NA, 630-M, 630-NS, 631, 630-L, 630-PLK, 630-APLK



639-N

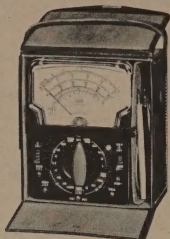
MODEL 639-N

Model 639-N black cowhide leather carrying case. Center-cover flaps snap back allowing full view of scales and permitting complete access to instrument without removal from case. Tester stand is included at no extra cost. **\$11.00**



639/639-P

Model 639 black leather case. **\$11.00**
Model 639-P black cowhide leather carrying case lined with $\frac{3}{8}$ " sponge rubber. **\$16.00**



639-05

Model 639-05 — Black leather case, has built-in stand on back. Flaps open to permit use of tester in case. Compartment for accessories. **\$13.00**

For Models 310-310-C



369-5

LEATHER CASE

Model 369-5 leather carrying case for use with Models 310 or 310-C. Has removable leather shoulder strap. The case flap folds back to form a handy stand. Contains a retractable hook for hanging from nails, pipes, etc., freeing both hands. Test leads store in case and remain plugged into tester jacks while flap is closed keeping your 310 or 310-C ready for instant use. Soft shock absorbent lining. **\$9.00**



379

Model 379 as above, large enough for 310-10 in combination. Has pocket for 101. **\$7.00**

Model 369-T Neckstrap Carrying Case for Model 310. **\$8.50**

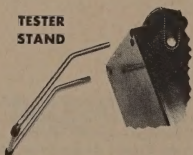


369

369-T

Model 369 — Handsome black cowhide leather carrying case for Model 310. Trouser belt slips through loop on back of the case for out-of-the-way carrying. **\$3.50**

TESTER STAND



EXTERNAL SHUNTS—For 630, 630-A
 Pt. T-91-247 30 Amperes (Plug-in)**\$11.00**
 Pt. T-91-248 60 Amperes (Portable)**\$14.50**
 Pt. T-91-255 120 Amperes (Portable)**\$14.50**

EXTERNAL SHUNTS FOR 631
 Pt. T-91-248 60 Amperes (Portable)**\$14.50**
 Pt. T-91-255 120 Amperes (Portable)**\$14.50**

EXTERNAL SHUNTS FOR 630-NA, 800
 Pt. T-91-429
 0-15-30 Amperes (Plug-in)**\$15.00**
 Pt. T-91-430
 0-30-60 Amperes (Portable)**\$20.00**
 Pt. T-91-431
 0-60-120 Amperes (Portable)**\$20.00**

EXTERNAL SHUNTS FOR 666-R, 630-PL, 630-APL, 630-PLK
 Pt. T-91-243 25 Amperes (Plug-in)**\$11.00**
 Pt. T-91-244 50 Amperes (Portable)**\$14.50**
 Pt. T-91-191 100 Amperes (Portable)**\$14.50**

REPLACEMENT LEADS
LEADS for Models 630, 630-A, 630-PL, 630-APL, 630-PLK, 630-APLK, 631, 666-R, 630-NA, 630-M & 630-NS Rubber (T-79-127)**\$2.50**
REPLACEMENT LEADS for Models 310, 310-C, T-79A-153. Suggested U. S. A. User Net **\$2.50**

REPLACEMENT AC-DC — Ohms probe for Model 850 Pt. #T-79-192, lead assembly. **\$6.50**
REPLACEMENT LEADS for Model 631 Pt. #T-79-142**\$6.00**

RF PROBE FOR 631

With this probe and Model 631 RF measurements can be made up to 20 volts at 250 MC. Pt. T-79-145. **\$8.50**

HIGH VOLTAGE PROBES

Completely insulated polystyrene test probe with guard-type handle. Probe is $11\frac{1}{2}$ " long, with 48" hi-voltage wire lead with banana plug at tester end.

MODELS 630, 630-A, and 631
 Part T-79-70.....0-30,000 D.C. Volts**\$16.00**
 Part T-79-71.....0-30,000 A.C. Volts**\$16.00**
 Part T-79-152.....0-60,000 A.C. Volts**\$16.00**
Models 630-PL, 630-APL, 630-PLK, 630-L
 Part T-79-83.....0-10,000 D.C. Volts**\$16.00**
 Part T-79-130.....0-25,000 D.C. Volts**\$16.00**
 Part T-79-166.....0-25,000 A.C. Volts**\$16.00**

Models 630-NA and 800
 Part T-79-152.....0-30,000 D.C. Volts**\$16.00**
 Part T-79-71.....0-30,000 A.C. Volts**\$16.00**
 Part T-79-152.....0-60,000 A.C. Volts**\$16.00**

For Model 630-NS

Part T-79-229.....0- 6,000 D.C. Volts**\$16.00**
 Part T-79-230.....0- 6,000 A.C. Volts**\$16.00**
 Part T-79-152.....0-30,000 A.C. Volts**\$16.00**

For Model 630-M

Part T-79-152.....0-30,000 A.C. Volts**\$16.00**
 Part T-79-230.....0- 6,000 A.C. Volts**\$16.00**
 Part T-79-247.....0- 6,000 D.C. Volts**\$16.00**

TESTER STAND

Metal stand holds Model 630, 630-A, 630-PL, 630-APL, 630-NA, 630-NS, 630-PLK, 630-APLK, 631, 630-M or 630-L tester in approximately a 45° angle; will enable you to make easier readings.

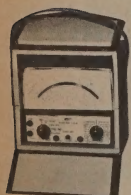
STAND ONLY—Pt. T-255-A-35
 Shipping wt. 1 lb. **\$1.50**

PROBES FOR MODELS 310 AND 310-C
PROBE EXTENSIONS for 310 & 310-C leads, insulated, 3 inches long. Pt. 11254-A (Red) Pt. 11255A (Black)**\$1.50**
MINIATURE ALLIGATOR CLIPS for use with 310-310-C Probe extensions. Pt. 2451-57 (black), 2451-58 (red).**\$5.00**

PROBES FOR MODEL 850

Auxiliary Diode Probe for voltages to 20 volts with frequencies to 250 MC. Pt. T-79-215. **\$8.00**

High Voltage Probe for DC Voltages to 50 KV. Pt. T-79-196. **\$23.00**



Model 859-OP

Black Leather Carrying Case, lined with sponge rubber. Flaps open to permit use of tester without removal from case. Built-in stand on back. Model 859-OP. **\$21.00**

859-OP

For Model 666-R

Model 669 black leather case for 666-R. (Similar to Model 639 above). **\$7.50**

Model 669-05 black leather case for Model 666-R. Tester can be used in the case. Built-in stand on back. **\$8.00**

669-05



All Prices Are Suggested U.S.A. User Net Subject To Change. Specifications Subject To Revision. (Slightly Higher West of Rockies and in Canada)

TRIPPLET INSTRUMENTS

NEW! G/P SERIES

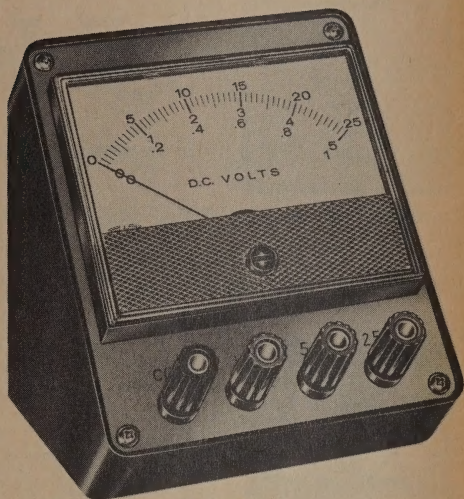
PORTABLE INSTRUMENTS

For School, Lab, or Shop.

1. Wide clear view plastic meter, with Bar-Ring DC movements.
2. Overload protection on all models. (Diodes on DC, Fused AC)
3. Unbreakable molded black plastic cases with aluminum panels.

Now you can make all types of electrical measurements right in your own lab or shop set-up with these new economically priced portable instruments. Rugged case and movement construction safeguards against rough handling. Overload protection of all models guards against electrical damage from misuse.

These instruments are of the highest quality and contain the craftsmanship of 60 years of instrument manufacturing. Use them for... complete shop set-ups... with breadboard wiring devices... to supplement limited training devices... production line checking... professional lab use. All these and many other uses are available with the Triplett G/P SERIES portables.



SPECIFICATIONS

52 Standard ranges available in 23 units.

±2% accuracy on DC and AC Iron Vane Type.

±3% accuracy on AC Rectifier Type and Ohms.

Wide clear view plastic 3½" Model 320-G panel instrument.

Bar-Ring construction in DC movements assures self-shielding.

- Five-way binding posts.
- Knife-edge pointers.
- Diodes protect against instantaneous overloads on DC movements.
- AC movements are fuse protected.
- Unbreakable black molded ¼" x 3⅞" x 4¼" plastic case.

RANGES AND PRICES

320-G/P

1-5-25 Volts (1000 ohms/volt).....	\$29.30
25-100-500 Volts (1000 ohms/volt).....	30.00
5-60-600 Volts (1000 ohms/volt).....	30.00
10-50-250 Microamperes (Suspension Type).....	56.10
50 Microamperes.....	27.30
0-25-0-25-500 Microamperes.....	30.90
25-1-5 Milliampere.....	28.50
25-100-500 Milliampere.....	28.90
1-10-100 Milliampere.....	28.90
1-5-25 Amperes.....	29.30
50-100-250 Millivolts (125 ohms/volt).....	28.90

RECTIFIER TYPE 350-G/P

5-60-600 Volts (1000 ohms per volt).....	\$47.60
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AC IRON VANE TYPE 330-G/P

0-120-600 Volts (83 ohms/volt) & 0-12 Milliampere.....	\$39.60
0-5-25 Volts (4 ohms/volt) & 0-250 Milliampere.....	29.60
0-30-120 Volts (17 ohms/volt) & 0-60 Milliampere.....	30.80
0-150 Volts (125 ohms/volt).....	23.50
0-1 Ampere.....	22.30
0-5 Amperes.....	22.30
0-25 Amperes.....	22.30

OHMS 320-G/P

0-1K-100K (10-1000 at center scale) Includes 1.5 V battery and test leads.....	\$32.50
0-1Meg-100Meg (5K-500K at center scale) Includes 30 V battery and test leads.....	37.50

R. F. VOLTS 340-G/P

0-2.5 Volts (240 ohms per volt).....	\$45.10
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WATTS 360-G/P

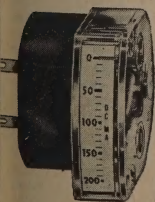
0-150 Watts (Max. 150 volts 2 amperes).....	\$47.70
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Special ranges to customer requirements on request.

Special charges will apply.

Test Leads (pt. no. T-79-127) are available for use with the G/P SERIES portables.....\$2.50

NOTE: The 0-50-100-250 DC millivolt model may be used with any of several standard switchboard shunts to extend range into higher current areas.



MINIATURE EDGEWISE PANEL INSTRUMENTS

If space on your panel is at a premium here is a miniature meter that will fit into even the most restricted area—yet give you the readability, performance and reliability you expect from the conventional 2¼" sizes.

Weighing only four ounces this meter also is of value to the user who has a weight limitation factor on his hands.

Accuracy—DC 2% of full scale; AC Rectifier type 3% of full scale.

Self-Shielded Bar-Ring Magnet—Not affected by magnetic panels. High torque, exceedingly rugged and accurate.

Mounting—Horizontal, zero at left and barrel down is standard.

Vertical mounting or other special adaptations in quantity orders.

Panel Hole Required—Only ⅞" x 1⅞".

DC-MA	Suggested U.S.A. User Net	DC-UA	Suggested U.S.A. User Net
0-1	\$12.00	0-50	\$18.00
0-10	12.00	0-100	15.70
0-25	12.40	0-200	13.40
0-50	12.40		
0-100	12.40	DC-AM	
0-150	12.40	0-10	\$13.00
0-200	12.40	AC-VM (Rect. Type)	
0-300	12.40	0-150	\$21.70
0-500	12.40	0-300	22.80
DC-VM		VU Meters	
0-10	\$13.00	A or B Scales	\$24.10
0-50	13.00		
0-150	13.00		

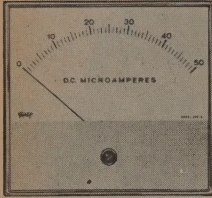
ALL PRICES ARE SUGGESTED U.S.A. USER NET, SUBJECT TO CHANGE. MODELS SUBJECT TO REVISION.

TRIPPLET ELECTRICAL INSTRUMENT COMPANY

TRIPLET

INSTRUMENTS

DC MILLIVOLTMETERS

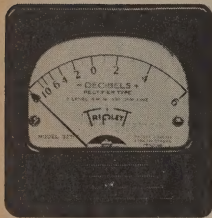


DC 220-G, 320-G, 420-G

AC 230-G, 330-G, 430-G

Range	Approx. Res.	Scale Div.	1 1/2" Model 120-M	2 1/2" Models 220-G 221-T 227-T	2 1/2" Models 220-M 227-PL	3 1/2" Models 320-M 321-T 327-T	3 1/2" Models 320-G 327-PL	4 1/2" Model 420-G 420	4 1/2" Models 420-M 420-PL
0-50	6.7	50	\$12.00	\$12.00	\$12.00	\$12.80	\$12.80	\$14.10	\$14.10
0-100	13.5	50	12.00	12.00	12.00	12.80	12.80	14.10	14.10
0-150	20.2	75(30)**	12.00	12.00					

DC VOLTMETERS (1000 Ohms per Volt) — FILM TYPE RESISTORS



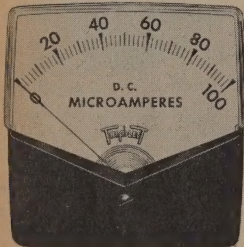
DC 227-T, 327-T

AC 237-S, 337-S

Range	Scale Div.	1 1/2" Model 120-M 120-G	2 1/2" Models 220-G 221-T 227-T	2 1/2" Models 220-M 227-PL	3 1/2" Models 320-G 321-T 327-T	3 1/2" Models 320-M 327-PL	4 1/2" Models 420-M 420-PL
0-1	50	\$13.00	\$13.00	\$13.00	\$13.50	\$13.50	\$14.90
0-3	60(30)**	13.00	13.00	13.00	13.50	13.50	14.90
0-5	50	13.00	13.00	13.00	13.50	13.50	14.90
0-10	50	13.00	13.00	13.00	13.50	13.50	14.90
0-15	75(30)**	13.00	13.00	13.00	13.50	13.50	14.90
0-25	50	13.00	13.00	13.00	13.50	13.50	14.90
0-50	50	13.00	13.00	13.00	13.50	13.50	14.90
0-100	50	13.00	13.00	13.00	13.50	13.50	14.90
0-150	75(30)**	13.00	13.00	13.00	13.50	13.50	14.90
0-200	40	13.00	13.00	13.00	13.50	13.50	14.90
0-250	50	13.00	13.00	13.00	13.50	13.50	14.90
0-300	60(30)	13.00	13.00	13.00	13.50	13.50	14.90
0-500	50	15.50***	15.50***	15.50***	14.30	14.30	15.60
0-750	75(30)**	16.10	16.10	16.10	14.30***	14.30***	15.60
0-1000	50	16.40	16.40	16.40	17.10	17.10	18.40
0-2000	40	17.10	17.10	17.10	17.80	17.80	19.10
0-3000	60(30)**	17.80	17.80	17.80	18.50	18.50	19.80
0-5000	50	20.70	20.70	20.70	19.30	19.30	20.60

DC MICROAMMETERS (PIVOT & JEWEL TYPE)

DC MICROAMMETERS (SUSPENSION)



DC 120-M, 220-M, 320-M, 420-M

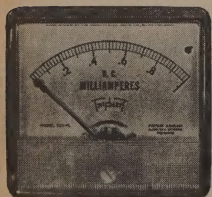
AC 230-M, 330-M, 430-M

To be discontinued January, 1968

Range	Approx. Reg.	Scale Div.	1 1/2" Model 120-M 120-G	2 1/2" Models 220-G 221-T 227-T	3 1/2" Models 320-M 327-PL	4 1/2" Models 420-M 420-PL	Range	Approx. Res.	Scale Div.	2 1/2" Models 220-G 221-T 227-T	3 1/2" Models 320-M 327-PL	4 1/2" Models 420-M 420-PL
0-50	2300	50	\$18.00	\$18.00	\$18.80	\$20.10	0-5	15000	50	\$36.10	\$36.70	\$37.90
0-100	825	50	15.70	15.70	16.50	17.80	0-10	7500	50	32.10	32.70	33.90
0-200	360	40	13.40	13.40	14.20	15.50	0-20	2500	40	25.00	25.70	26.90
0-500	156	50	12.90	12.90	13.60	15.00	0-50	825	50	23.00	23.70	24.90
500-0-500	825	50	15.70	15.70	16.50	17.80	0-100	360	50	20.90	21.60	22.80
100-0-100	360	50	13.40	13.40	14.20	15.50	0-200	156	40	18.80	19.50	20.70
500-0-500	55	50	12.00	12.00	12.80	14.10	0-500	40	50	18.30	19.00	20.20
							500-0-5	360	50	20.90	21.60	22.80
							100-0-100	156	50	18.80	19.50	20.70
							500-0-500	12.5	50	17.50	18.20	19.40
							0-1000†	12.5	50	17.50	18.20	19.40

†SCALE READS 0-1 Ma.

DC MILLIAMMETERS



DC 227-PL, 327-PL

AC 237-PL, 337-PL

To be discontinued January, 1968

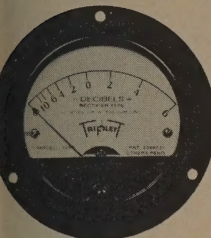
Range	Approx. Res.	Scale Div.	1 1/2" Model 120-M 120-G	1 1/2" Models 220-G 221-T 227-T	2 1/2" Models 220-M 227-T	3 1/2" Models 320-G 321-T 327-T	3 1/2" Models 320-M 327-PL	4 1/2" Models 420-G 420	4 1/2" Models 420-M 420-PL
0-1	55	50	\$12.00	\$12.00	\$12.00	\$12.80	\$12.80	\$14.10	\$14.10
0-1.5	30	75(30)**	12.00	12.00	12.00	12.80	12.80	14.10	14.10
0-3	14	60(30)**	12.00	12.00	12.00	12.80	12.80	14.10	14.10
0-5	8.5	50	12.00	12.00	12.00	12.80	12.80	14.10	14.10
0-10	3.1	50	12.00	12.00	12.00	12.80	12.80	14.10	14.10
0-15	3.3	75(30)**	12.00	12.00	12.00	12.80	12.80	14.10	14.10
0-25	2	50	12.40	12.40	12.40	13.20	13.20	14.50	14.50
0-50	1	50	12.40	12.40	12.40	13.20	13.20	14.50	14.50
0-75	0.67	75(30)**	12.40	12.40	12.40	13.20	13.20	14.50	14.50
0-100	0.50	50	12.40	12.40	12.40	13.20	13.20	14.50	14.50
0-150	0.33	75(30)**	12.40	12.40	12.40	13.20	13.20	14.50	14.50
0-200	0.25	40	12.40	12.40	12.40	13.20	13.20	14.50	14.50
0-250	0.20	50	12.40	12.40	12.40	13.20	13.20	14.50	14.50
0-300	0.17	60(30)**	12.40	12.40	12.40	13.20	13.20	14.50	14.50
0-400	0.12	40	12.40	12.40	12.40	13.20	13.20	14.50	14.50
0-500	0.10	50	12.40	12.40	12.40	13.20	13.20	14.50	14.50
0-750	0.07	75(30)**	12.40	12.40	12.40	13.20	13.20	14.50	14.50
0-1000	0.1	50	12.40	12.40	12.40	13.20	13.20	14.50	14.50

ALL PRICES ARE SUGGESTED U.S.A. USER NET, SUBJECT TO CHANGE, SPECIFICATIONS SUBJECT TO REVISION.

TRIPLET ELECTRICAL INSTRUMENT COMPANY

TRIPLET

INSTRUMENTS



DC AMMETERS

Range	Scale Div.	1½" Model 120-G 120-M	2½" Models 221-T, 227-T	2½" Models 220-G, 220-M, 227-PL	3½" Models 321-T, 327-T	3½" Models 320-G, 320-M, 327-PL	4½" Model 420, 420-G	4½" Models 420-M, 420-PL
0-1	50	\$12.40	\$12.40	\$12.40	\$13.20	\$13.20	\$14.50	\$14.50
0-3	60(30)**	12.40	12.40	12.40	13.20	13.20	14.50	14.50
0-5	50		13.00	13.00	13.50	13.50	14.90	14.90
0-10	50		13.00	13.00	13.50	13.50	14.90	14.90
0-15	75(30)**		13.00	13.00	13.50	13.50	14.90	14.90
0-25	50		13.00	13.00	13.50	13.50	14.90	14.90
0-30	60(30)**		13.00	13.00	13.50	13.50	14.90	14.90
0-50	50		13.00	13.00	13.50	13.50	14.90	14.90

D.C. Ammeters are self-contained up to and including 50 Amperes. Shunts 75 Amperes (50 M.V.) and higher are switch-board type with 5 ft. leads. NA—Not available in 227-PL, 327-PL, and 420-PL.

D.C. 221-T, 321-T
A.C. 231-S, 331-S

AC VOLTMETERS

Range	Approx. Ohms/Volt	Scale Div.	2½" Models 231-S, 237-S	2½" Models 230-G, 237-PL, 230-M	3½" Models 331-S, 337-S	3½" Models 330-G, 337-PL, 330-M	4½" Model 430	4½" Models 430-G, 430-PL, 430-M
1.5	1.33	75(30)**	\$12.50	\$12.50	\$13.30	\$13.30	\$14.10	\$14.10
1	3.33	60(30)**	12.50	12.50	13.30	13.30	14.10	14.10
0.5	4	50	12.50	12.50	13.30	13.30	14.10	14.10
0.1	50	50	12.50	12.50	13.30	13.30	14.10	14.10
0.15	16	75(30)**	12.50	12.50	13.30	13.30	14.10	14.10
0.25	20	50	12.50	12.50	13.30	13.30	14.10	14.10
0.5	50	50	12.50	12.50	13.30	13.30	14.10	14.10
1.0	91	50	12.50	12.50	13.30	13.30	14.10	14.10
1.5	125	75(30)**	13.80	13.80	14.50	14.50	15.30	15.30
2.5	144	50	14.40	14.40	15.20	15.20	15.80	15.80
5.0	144	60(30)**	15.00	15.00	15.70	15.70	16.50	16.50
10.0	125	50	19.50	19.50	20.20	20.20	21.00	21.00
15.0	125	75(30)**	22.60	22.60	23.30	23.30	24.10	24.10
1000*	125	50	24.30	24.30	25.10	25.10	25.90	25.90

These A.C. Voltmeters are for use on frequencies from 25 to 133 cycles. *Supplied with external resistor boxes at prices shown above. All other instruments are self-contained.

AC AMMETERS

Range	Approx. Res.	Scale Div.	2½" Models 231-S, 237-S	2½" Models 230-G, 237-PL, 230-M	3½" Models 331-S, 337-S	3½" Models 330-G, 337-PL, 330-M	4½" Models 430, 430-G	4½" Models 430-PL, 430-M
1	.38	50	\$12.50	\$12.50	\$13.30	\$13.30	\$14.10	\$14.10
0.2	.092	40	12.50	12.50	13.30	13.30	14.10	14.10
0.1	.039	60(30)**	12.50	12.50	13.30	13.30	14.10	14.10
0.05	.014	50	12.50	12.50	13.30	13.30	14.10	14.10
0.01	.004	50	12.50	12.50	13.30	13.30	14.10	14.10
0.005	.003	75(30)**	12.50	12.50	13.30	13.30	14.10	14.10
0.002	.002	50	12.50	12.50	13.30	13.30	14.10	14.10
0.001	.001	60(30)**	12.50	12.50	13.30	13.30	14.10	14.10
0.0005	.00035	50	12.50	12.50	13.30	13.30	14.10	14.10
0.0001	.00020	75			14.60		16.00	

AC MILLIAMMETERS

Range	Approx. Res.	Scale Div.	2½" Models 231-S, 237-S	2½" Models 230-G, 237-PL, 230-M	3½" Models 331-S, 337-S	3½" Models 330-G, 337-PL, 330-M	4½" Models 430, 430-G	4½" Models 430-PL, 430-M
10	4000	50	\$12.50	\$12.50	\$13.30	\$13.30	\$14.10	\$14.10
1.5	1600	75(30)**	12.50	12.50	13.30	13.30	14.10	14.10
0.5	470	50	12.50	12.50	13.30	13.30	14.10	14.10
0.25	120	50	12.50	12.50	13.30	13.30	14.10	14.10
0.1	50	50	12.50	12.50	13.30	13.30	14.10	14.10
0.05	9.5	40	12.50	12.50	13.30	13.30	14.10	14.10
0.02	5.9	50	12.50	12.50	13.30	13.30	14.10	14.10
0.01	1.55	50	12.50	12.50	13.30	13.30	14.10	14.10

THERMO AMMETERS (R.F.)

Range	Approx. Res.	Scale Div.	2½" Models 240-G, 240-M, 247-PL, 241-T, 247-T	3½" Models 341-T, 347-T	3½" Models 340-G, 340-M, 347-PL	4½" Models 440, 440-G	4½" Models 440-PL, 440-M
0.5 Amps	.93	50	\$13.30	\$14.10	\$14.10	\$15.40	\$15.40
1 Amps	.35	50	13.30	14.10	14.10	15.40	15.40
1.5 Amps	.21	75(30)**	13.30	14.10	14.10	15.40	15.40
2.5 Amps	.13	50	13.30	14.10	14.10	15.40	15.40
5 Amps	.06	50	13.30	14.10	14.10	15.40	15.40
10 Amps	.03	50	13.30	14.10	14.10	15.40	15.40

Internal couples are normally furnished at prices shown. If external couples are required, please specify on order, adding \$6.10 net to price of instrument shown above. External couples only less meter, with leads, \$7.30 net each.

**Scale divisions for 2-inch Models in parentheses.

***Supplies with external resistors.

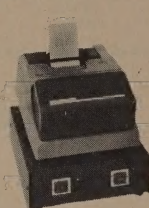
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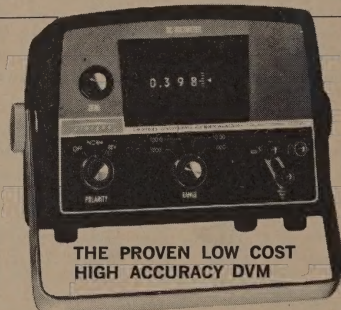
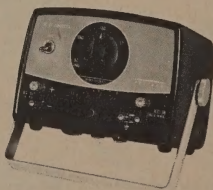
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- *000.0° C to 100.0° C
- *Any Specified 40° F. or 20° C Span
- *15 Interchangeable Thermistor Probes
- *Platinum resistance model - 390° to +1000° F
- *Thermocouple model - 300° to +2000° F

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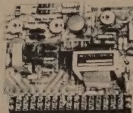
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Two Compact MODULES Provide "BUILT-IN"
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LOW COST. Outstanding performance is provided in a low cost instrument providing digital readout.

ACCURACY. Warranted accuracy is maintained for all internal contributing factors and the listed external conditions.

(1) Ambient Temperature—60° to 115° F.
(2) Power Source—105 to 125 V—50 to 60 CPS.

READING AMBIGUITY. There is no ambiguity or reading (even for small changes) and no allowance need be made. Bi-directional voltage variations are followed without distracting backtracking.

RESOLUTION AND REPEATABILITY. The instrument can be easily read and is sensitive to small voltage changes. For short term observation, under stabilized ambient conditions, unit will repeat and is easily read to .05% or less. Thus, for many applications, the instrument can be used to a comparative accuracy of .05% full scale.

CALIBRATION EASE. High input impedance permits direct calibration with Standard Cells. Under normal usage, recalibration is required only at 6 month intervals.

RELIABILITY. High reliability is achieved by a silicon transistor amplifier and the absence of stepping switches and relays. Normal overloads or incorrect polarity will not damage instrument.

READING SPEED. Instrument comes to reading balance quickly and without annoying creep. Average reading time is approximately 2 seconds.

INPUT. A 3-terminal color coded input group is furnished whereby choice is provided for grounded or floating input. A jumper link is furnished so that either negative or positive side of the input can be grounded.

DECIMAL POINT. Decimal points are illuminated by a single, long-life easy-to-replace bulb. The decimal point shifts with range selector.

OTHER USES. By use of compatible transducers, the DigiTec can be used to display readings of current, pressure, speed, position, flow, angle or any parameter. Current adaptors are available to provide readings of from .1 μ A to 2 AMP.

READING RETENTION. A jack is located on the rear of the case to permit holding of a displayed voltage by means of an external switch. Suitable switches complete with cord and plug are available as optional accessories.

CARRYING HANDLE. For the portable models, the convenient carrying handle also serves to set the viewing angle for optimum readability.

Certificate of Accuracy furnished with each instrument (traceable to NBS).



READING RETENTION. A jack is located on the rear of the case to permit holding of a displayed voltage by means of an external switch. Suitable switches complete with cord and plug are available as optional accessories.

CARRYING HANDLE. For the portable models, the convenient carrying handle also serves to set the viewing angle for optimum readability.

Certificate of Accuracy furnished with each instrument (traceable to NBS).

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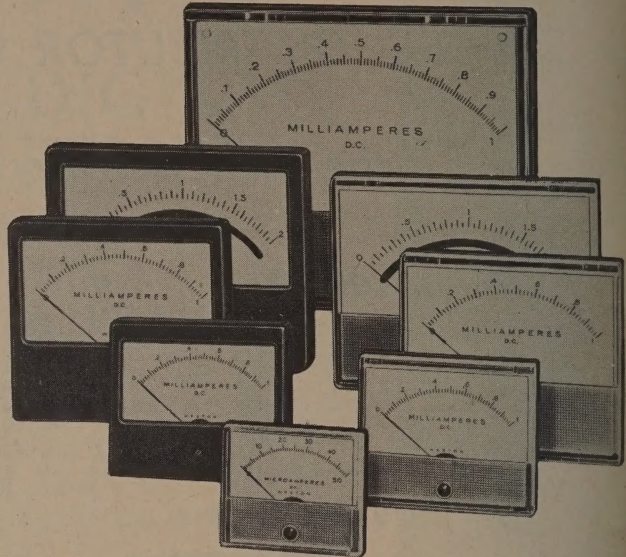
WESTON INSTRUMENTS, INC.

MODEL 1900 PANEL INSTRUMENT SERIES

GENERAL

The 1900 Series is an integrated line of a-c and d-c panel instruments, providing a carefully selected choice of sizes, case styles, accuracies, pointers, scales and ranges. Particular attention has been paid to designing instruments that will present an overall appearance of harmony, even when random sizes are mounted side by side. Mounting bezels provide three types of mounting—recess, flush and conventional.

One of the many features of this new Weston series is the method of construction which provides quick interchangeability of fronts and easy access for adjustment or service, if ever required. From their spring-backed jewels to their unique fastening clips, the 1900 Series incorporate the fine workmanship and quality that has always been associated with Weston.



SPECIFICATIONS

2 1/2" SIZE	Function & Mechanism	Accuracy (Full scale value)	Scale Length (100° arc)	Pointer	Type Scale	Case Front
Model 1921	D-C CORMAG®	2%	2.3"	Lance	Plain	Plastic/Bakelite
Model 1922	A-C Rect. CORMAG®	3%**	2.3"	Lance	Plain	Plastic/Bakelite
Model 1924	A-C Iron Vane	2%	2.3"	Lance	Plain	Plastic/Bakelite
3 1/2" SIZE						
Model 1931	D-C CORMAG®	2%	2.7"	Lance	Plain	Plastic/Bakelite
Model 1932	A-C Rect. CORMAG®	3%**	2.7"	Lance	Plain	Plastic/Bakelite
Model 1934	A-C Iron Vane	2%	2.7"	Lance	Plain	Plastic/Bakelite
Model 1936	D-C Ext. Mag.	2%	2.7"	Lance	Plain	Plastic/Bakelite
4 1/2" SIZE						
Model 1941	D-C CORMAG®	2%*	3.9"	Lance	Plain	Plastic/Bakelite
Model 1942	A-C Rect. CORMAG®	2%**	3.9"	Lance	Plain	Plastic/Bakelite
Model 1944	A-C Iron Vane	2%	3.9"	Lance	Plain	Plastic/Bakelite
Model 1946	D-C Ext. Mag.	1%	3.9"	Knife-edge	Mirrored	Plastic/Bakelite
5 1/2" SIZE						
Model 1951	D-C CORMAG®	2%*	4.7"	Lance	Plain	Plastic/Bakelite
Model 1954	A-C Iron Vane	2%	4.7"	Lance	Plain	Plastic/Bakelite
Model 1956	D-C Ext. Mag.	1%	4.7"	Knife-edge	Mirrored	Plastic/Bakelite
7 1/2" SIZE						
Model 1971	D-C CORMAG®	1%†	7.2"	Lance	Plain	Plastic
Model 1976	D-C Ext. Mag.	1%†	7.2"	Lance	Plain	Plastic

*1% when knife-edge pointer and mirrored scale is specified.

**on sine wave 60 cycle source at normal room temperature of 25 C.

†1/2% with knife-edge pointer and mirrored scale on special order ONLY.

NOTE: If Models 1924, 34, 36, 44, 46, 54, 56 and 76 are used on steel panels, order should specify panel thickness to assure proper adjustment.

PRICE SUBJECT TO CHANGE WITHOUT NOTICE

WESTON INSTRUMENTS, INC.

MODEL 1900 STOCK PANEL INSTRUMENT SERIES

D-C (Cormag) MODELS 1921 - 2½"/1931, 1931T - 3½"/1941, 1941T - 4½"/1951*, 1951T - 5½"/1971**, 1971T** - 7½"/
Pivot & Jewel; 1209 PMS Taut Band

Ranges	Nominal Resistance Ohms					P R I C E S					
	1921 1931	1931T 1%	1941	1941T 1951T 1%	1209	1921	1931	1931T 1%	1941	1941T 1%	1951T 1%
μa											
50	4800	1950	2500	950	5700	\$18.60	\$19.15	\$21.00	\$20.10	\$22.10	—
100	1225	538	2500	950	1160	17.40	17.90	19.70	18.80	26.75	\$31.80
200	600	440	850	350	231	16.60	17.10	18.80	18.10	26.30	30.80
500	240	—	240	40	73	15.60	16.10	—	17.10	24.80	—
25-0-25	—	—	2500	—	—	—	—	—	20.10	—	—
50-0-50	1225	—	2500	—	1160	17.40	17.90	—	18.80	—	—
100-0-100	600	—	850	—	—	16.60	17.10	—	18.10	—	—
500-0-500	88	—	115	—	—	14.60	15.10	—	16.10	—	—

* 1 & 2 ma., 115 & 16 ohms respectively, Model 1951 at \$24.30.

** 100 & 200 μa., 4650 & 200 ohms respectively, Model 1971 at \$45.20; 1 ma., 95 ohms, Model 1971T at \$44.30.

ma†											
1	88	29	115	12.5	21	\$14.60	\$15.10	\$16.60	\$16.10	\$23.90	\$27.80
2	45	—	16	4.9	8.6	14.60	15.10	—	16.10	23.90	—
3	—	—	16	—	—	—	—	—	16.10	—	—
5	8.5	3.3	11	3.0	3.96	14.60	15.10	16.60	16.10	23.90	—
10	2.5	—	2.7	2.4	2.3	14.60	15.10	—	16.10	23.90	27.80
15	2.3	—	2.7	—	—	14.60	—	—	16.10	—	—
20	2.2	—	2.7	2.4	2.2	14.60	15.10	—	16.10	23.90	—
50	2.0	1.0	2.0	2.0	2.0	14.60	15.10	16.60	16.10	23.90	—
100	1.0	—	1.0	1.0	—	14.60	15.10	—	16.10	23.90	27.80
200	.5	2.5	.5	.5	—	14.60	15.10	16.60	16.10	23.90	—
300	.33	—	.33	—	—	14.60	15.10	—	16.10	—	—
500	.2	1.0	.2	.2	—	14.60	15.10	16.60	16.10	23.90	—

amps†											
1	↓	↓	↓	↓	—	\$14.60	\$15.10	\$16.60	\$16.10	\$23.90	\$28.60
2	↓	↓	↓	↓	—	14.60	15.10	16.60	16.10	23.90	—
5	↓	↓	↓	↓	—	14.60	15.10	16.60	16.10	23.90	—
10	↓	↓	↓	↓	—	14.60	15.10	16.60	16.10	23.90	—
20	↓	↓	↓	↓	—	14.60	15.10	16.60	16.10	23.90	28.60
25	Approx. 50mv drop	Approx. 50mv drop	Approx. 50mv drop	Approx. 50mv drop	—	—	15.10	—	16.10	23.90	—
30	↑	↑	↑	↑	—	14.60	15.10	16.60	16.10	23.90	—
100	↑	↑	↑	↑	—	14.60	15.10	—	16.10	—	—
200	↑	↑	↑	↑	—	14.60	15.10	—	16.10	—	—
300	↑	↑	↑	↑	—	—	15.10	—	—	—	—
500	↑	↑	↑	↑	—	—	15.10	—	—	—	—

50 mv range to be used with external shunts and .065 ohm leads.

volts											
50mv	↓	↓	↓	↓	—50—	—	—	—	—	—	—
1	↓	↓	↓	↓	↓	—	—	—	—	—	—
2	↓	↓	↓	↓	↓	\$15.40	\$15.90	\$17.40	\$16.90	\$24.65	—
5	↓	↓	↓	↓	↓	15.40	15.90	—	16.90	24.65	—
10	↓	↓	↓	↓	↓	15.40	15.90	—	16.90	24.65	—
15	↓	↓	↓	↓	↓	15.40	15.90	17.40	16.90	24.65	28.60
20	1000 Ohms Per Volt	1000 Ohms Per Volt	1000 Ohms Per Volt	1000 Ohms Per Volt	1000 Ohms Per Volt	15.40	15.90	—	16.90	24.65	—
25	↑	↑	↑	↑	↑	15.40	15.90	—	16.90	24.65	—
30	↑	↑	↑	↑	↑	15.40	15.90	17.40	16.90	24.65	28.60
50	↑	↑	↑	↑	↑	15.40	15.90	17.40	16.90	24.65	28.60
100	↑	↑	↑	↑	↑	15.40	15.90	17.40	16.90	24.65	—
150	↑	↑	↑	↑	↑	15.40	15.90	17.40	16.90	24.65	28.60
200	↑	↑	↑	↑	↑	15.40	—	—	16.90	24.65	—
300	↑	↑	↑	↑	↑	15.40	15.90	17.40	16.90	24.65	—
500	↑	↑	↑	↑	↑	15.40	15.90	17.40	16.90	24.65	—

‡ NOTE: Range of 50 ma. and up are shunted and have a drop of approximately 50 mv on Model 1971, and 100 mv on Models 1921, 1931, 1941 and 1951.

† For ranges above 30 amps use 50 mv instrument, with required external shunt.

D-C (External magnet) MODELS 1936T - 3½"/1946T - 4½"/Taut Band — 1946/1947 Pivot Jewel - 7½"

Ranges	Nominal Resistance Ohms				P R I C E S			
	1936T	1946 1%	1946T	1976	1936T	1946	1946T	1976
μa								
5	13500	—	13500	—	\$32.00	—	\$35.00	—
10	5300	—	5300	—	28.00	—	31.00	—
20	2100	5400	2100	—	24.00	\$24.00	27.00	—
50	—	2180	870	2720	—	30.50	33.60	\$56.00
100	—	870	320	—	—	29.80	32.70	—

* Available with knife-edge pointer and ½% accuracy at \$63.70 list.

PRICE SUBJECT TO CHANGE WITHOUT NOTICE

WESTON INSTRUMENTS, INC.

MODEL 1900 STOCK PANEL INSTRUMENT SERIES

RECTIFIER TYPE A-C (Cormag) — MODELS 1922 - 2½" / 1932 - 3½" / 1942 - 4½"

Types	Nominal Resistance Ohms			P R I C E S		
	1922	1932	1942	1922	1932	1942
	4000	—	—	\$22.50	—	—
	2000	—	—	22.50	—	—
	800	—	—	22.50	—	—
	475	—	—	\$19.30	—	—
	1000 ohms	—	1000 ohms	\$20.20	—	\$21.70
	per volt	—	per volt	20.20	—	21.70
	—	—	—	20.20	—	—

A-C (Iron Vane) MODELS 1924 - 2½" / 1934 - 3½" / 1944 - 4½" / 1954 - 5½"

Approximate Resistance Ohms		P R I C E S			
Types	1924 1934 1944 1945	1924	1934	1944	1945
	2550	\$14.35	\$14.65	\$15.40	—
	100	14.35	14.65	15.40	—
	25	14.35	14.65	15.40	—
	6.33	14.35	14.65	—	—
	4.0	14.35	14.65	—	—
	1.0	14.35	14.65	15.40	—
aps	.25	\$14.35	\$14.65	\$15.40	—
	.062	14.35	14.65	—	—
	.025	14.35	14.65	15.40	—
	.016	14.35	14.65	15.40	—
	.0045	14.35	14.65	15.40	—
	.0025	14.35	14.65	—	—
	.0011	14.35	14.65	15.40	—
	.0011	14.35	14.65	15.40	—
	.00056	14.35	14.65	15.40	—
	.00027	14.35	14.65	15.40	—
	.016	14.35	14.65	15.40	—
	.016	14.35	14.65	—	—
	.016	14.35	14.65	—	—

ampere range for use with current transformer.

Types	Approximate Resistance Ohms			P R I C E S		
	1924 1934	1944	1954	1924	1934	1944
	6	10.5	10.5	\$15.00	\$15.40	\$16.15
	—	—	—	—	—	16.15
	37	35	—	15.00	15.40	16.15
	—	—	—	—	—	—
	66.5	66.5	—	15.00	15.40	16.15
	150	143	143	15.00	15.40	16.15
	500	500	—	15.00	15.40	16.15
	600	560	560	15.00	—	16.15
	1665	1665	—	15.00	15.40	16.15
	3750	—	—	15.00	—	—
	—	6700	—	—	—	16.15
	—	—	—	—	—	—
	15,000	14,300	14,300	15.00	15.40	16.15
	60,000	56,000	56,000	15.00	15.40	16.15
	100,000	93,500	—	15.00	—	16.15

PRICE SUBJECT TO CHANGE WITHOUT NOTICE

WESTON INSTRUMENTS, INC.

MODELS 201/301 PANEL INSTRUMENT SERIES

MODELS 201/301

D-C VOLTMETERS—1000 OHMS PER VOLT

Range	Scale Div.	201	301	Price
1.5	30	75	\$13.90	\$14.90
3	30	60	14.90	14.90
5	25	50	13.90	14.90
8	40	40	13.90	14.90
10	20	50	13.90	14.90
15	30	75	13.90	14.90
25	30	75	13.90	14.90
30	30	60	13.90	14.90
50	25	50	13.90	14.90
100	20	50	13.90	14.90
150	30	75	13.90	14.90
200	40	40	14.40	15.40
350	25	50	14.40	15.40
500	25	50	14.40	15.40
1KV	—	50	14.90	15.40

MODELS 201/301—D-C MILLIAMMETERS

Range	Scale Div.	201	301	Approx. Resis. Ohms	Price
1.5	20	50	100	88	\$13.40
1	—	75	—	88	14.40
2	40	40	40	45	13.40
3	—	60	—	45	14.40
5	25	50	6	8	13.40
10	20	50	2.5	2.5	13.40
15	30	75	2.5	2.5	13.40
20	40	40	2.5	2.5	13.40
30	30	60	2.5	2.5	13.40
50	25	50	2	2	13.40
100	20	50	1	1	13.40
150	30	75	0.66	0.66	13.40
200	—	40	—	0.5	14.40
300	—	60	—	0.33	14.40
500	25	50	0.2	0.2	14.40
1-0-1	40	40	45	13.40	14.40
10-0-10	—	50	—	2.5	13.40
50-0-50	—	40	—	2.0	14.40
100-0-100	40	50	1	1	13.40

MODELS 201/301—D-C AMMETERS

Range	Scale Div.	201	301	Price
1	20	50	\$13.40	\$14.40
1.5	30	75	13.40	14.40
3	40	40	13.40	14.40
5	30	60	13.40	14.40
10	20	50	13.40	14.40
15	30	75	14.40	15.40
20	40	40	14.40	15.40
30	30	60	14.40	15.40
50	25	50	14.40	15.40
75*	—	—	—	14.40
100*	—	—	13.20	14.40
150*	—	—	—	14.40
200*	—	—	13.20	14.40
300*	—	—	13.20	14.40
500*	—	—	13.20	14.40
10-0-10	—	40	—	15.40
30-0-30	—	—	—	15.40
50-0-50	—	50	—	15.40

*50 mv range to be used with external shunts and .065 ohm leads.

MODELS 201/301—206*/306* D-C MICROAMMETERS

Range	Scale Div.	206	306	Approx. Resis.	Price
20	40	—	1480	5500	1480
30	—	60	—	5500	—
50	25	50	4150	1175	4800
100	20	50	870	1230	660
200	40	40	600	—	600
500	25	50	160	—	230
10-0-10	—	40	—	5500	—
25-0-25	—	50	4150	—	4800
50-0-50	—	20	50	870	1230
100-0-100	—	40	40	600	—
500-0-500	—	20	50	100	88

*External magnet type, unshielded

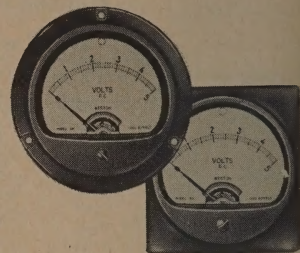
MODEL 302 RECTIFIER TYPE A-C VOLTMETER

1000 ohms per volt

Range	Scale Div.	302	Price
1*	30	50	\$21.30
5	—	50	20.70
10	—	50	20.70
15	—	75	20.70
30	—	60	20.70
50	—	50	20.70
100	—	50	20.70
150	—	75	20.70
300	—	60	21.30

*200 ohms per volt

- 2½" and 3½" Sizes
- 2% Accuracy Full Scale
- Spring Back Jewels
- Long Term Stability
- Self Shielded Mechanism
- Cases Sealed Against Dust
- Minimum Power Consumption
- Minimum Response Time
- Note: Specify Round or Square Case



MODEL 302 RECTIFIER TYPE A-C MILLIAMMETER

Range	Scale Div.	302	Approx. Resis.	Price
1	50	—	470	\$20.70
2	40	—	270	20.70
5	50	—	150	20.70
0.5	50	—	1030	20.70

MODELS 202/302

RECTIFIER TYPE A-C MICROAMMETERS

Range	Scale Div.	302	Approx. Resis.	Price
100	50	—	3400	\$24.40
200	—	—	2400	—
300	—	—	2000	—
500	50	—	1030	20.70

MODELS 204/304—A-C VOLTMETERS—25-125 CYCLES

Range	Scale Div.	204	OHMS/V	304	Price
1.5	30	—	—	3	\$14.10
3	30	—	—	15	14.10
5	50	26	26	13.35	14.10
10	50	100	100	13.35	14.10
15	30	250	250	13.35	14.10
30	—	—	—	790	14.10
50	50	2124	2124	13.35	14.10
75	25	5074	5074	13.35	14.10
100	50	10065	10065	13.35	14.10
130	26	—	—	13065	14.45
150	30	20295	20295	13.75	14.45
300	30	81550	81550	13.75	14.45
500	50	—	—	131550	17.50

MODELS 204/304—A-C AMMETER—25-500 CYCLES

Range	Amps Scale	204	Scale Div.	304	Approx. Resis.	204	Price	304
1	1	1	50	50	0.130	0.130	\$12.95	\$13.75
1.5	—	1.5	—	30	—	0.055	—	13.75
2	2	2	40	40	0.026	0.026	12.95	13.75
3	3	3	30	30	0.013	0.013	12.95	13.75
5	5	5	50	50	0.005	0.005	12.95	13.75
10	10	10	50	50	0.0014	0.0014	12.95	13.75
15	15	15	30	30	0.0015	0.0015	12.95	13.75
20	20	20	40	40	0.0005	0.0005	12.95	13.75
30	30	30	30	30	0.0004	0.0004	12.95	13.75
50	50	50	50	50	0.0002	0.0002	12.95	13.75
100*	—	100	—	50	—	0.005	—	13.75
200*	—	200	—	40	—	0.005	—	13.75
300*	—	300	—	30	—	0.005	—	13.75

*For use with Current Transformer. Above prices do not include Transformer.

MODELS 204/304—A-C MILLIAMMETERS

Range	Scale Div.	204	304	Approx. Resis.	204	Price	304
50	—	50	—	34	—	\$13.75	—
100	—	50	—	8.5	—	13.75	—
500	50	50	—	0.42	0.42	12.95	13.75

MODELS 208/308—THERMO-AMMETERS

Range	Scale Div.	208	Price	308	Range	Scale Div.	208	Price	308
1	—	50	\$29.30	—	5	25	50	\$28.40	\$29.30
3	—	60	29.30	—	8	—	40	—	29.30
					10	—	50	—	29.30
					15	—	60	—	29.30

PRICE SUBJECT TO CHANGE WITHOUT NOTICE

WESTON INSTRUMENTS, INC.

THIN LINE PANEL METER MODEL 111

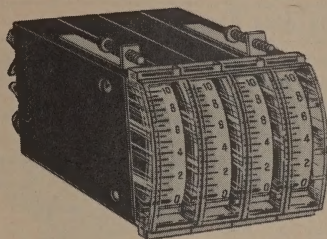
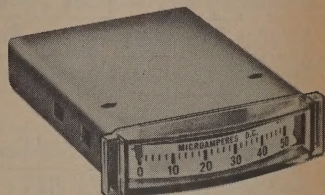
Completely Flat — Can Be Stacked Side-by-Side

New Self-Shielded Mechanism

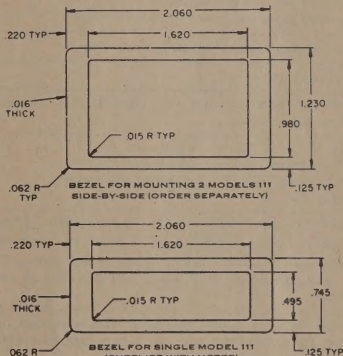
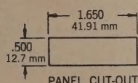
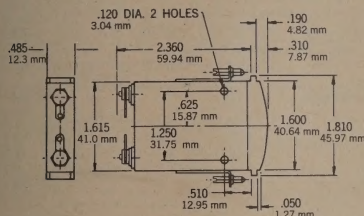
Saves Panel Space

Designed to Meet ASA C39.1 Specifications

The Model 111 utilizes a completely new mechanism design. This is the only edgewise instrument incorporating a CORMAG mechanism design for shielding purposes. The magnet is inside the moving coil as in all Weston CORMAG® designs and the resulting inherent shielding allows mounting on magnetic or non-magnetic panels without need for adjustment, as well as the ability to "stack" meters side-by-side without any interaction. The mechanism also has a shock absorption jewel arrangement to assure long life.



ALL DIMENSIONS ARE APPROXIMATE



SPECIFICATIONS

Accuracy: 2% of full scale value for DC
3% of full scale value for AC
Rectifier Type

Scale Length: 1.25 inches

Mounting: Red Lance Type

Mounting: New self shielded thin line CORMAG mechanism. Shock mounted jewel arrangement.

Ranges: Voltage: 50 mv minimum
300 volts maximum
self-contained

Current: 50 ua minimum
2 amps maximum
self-contained

Mounting: Meter can be mounted either horizontally or vertically. Order proper meter in price list for the required type mounting. Most ranges stocked for horizontal mounting.

Mounting: Mounting clips fasten to meter behind panel screws on front of panel. For "stacking", thru-holes are provided so stack can be bolted together.

D-C VOLTMETERS	Ranges RESISTANCE
0-10	5000 Ω/v
0-25	5000 Ω/v
0-50	5000 Ω/v
0-100	5000 Ω/v
0-150	5000 Ω/v
0-300	5000 Ω/v
D-C MILLIAMMETERS	RANGES RESISTANCE
0-1	.39 Ohms
0-5	.52 Ohms
0-10	2 Ohms
0-25	2 Ohms
0-100	.5 Ohms
0-150	.33 Ohms
0-250	.20 Ohms
0-500	.10 Ohms

D-C MICROAMMETERS	Ranges RESISTANCE
0-5	.2300 Ohms
0-100	900 Ohms
0-200	600 Ohms
0-500	134 Ohms
50-0-50	900 Ohms

D-C AMMETERS	RESISTANCE
0-1	.05 Ohms

AC VOLTMETERS (Rectifier Type)	RESISTANCE
0-150	2000 Ω/v
0-300	2000 Ω/v

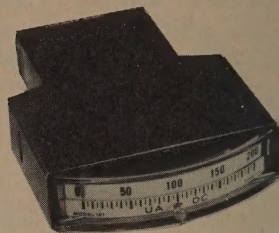
All resistances are approximate

WESTON INSTRUMENTS, INC.

THIN LINE PANEL METERS

MODEL 121 EDGEWISE

- Completely Flat—Can Be Stacked Side-by-Side
- Parallax Eliminated—In-Line Pointer and Scale
- New Self-Shielded Mechanism
- Saves Panel Space
- Illumination Available (Self-Contained)
- Designed to Meet ASA C39.1 Specifications
- Front Mounted Zero Corrector



The Model 121 is basically a 2½ inch flat edgewise meter offering many benefits not generally offered in this type of meter. To eliminate parallax normally associated with edgewise meters an "in-line" scale is standard; a red pointer increases readability. For those requiring lighting, self-contained illumination is available as an optional feature. The bulbs are removable while the meters are mounted in the panel—even when "stacked" side-by-side. • The Model 121 utilizes a completely new mechanism design. This is the only edgewise instrument incorporating a true flat CORMAG mechanism design for shielding purposes. The magnet is inside the moving coil as in all Weston Cormag designs and the resulting inherent shielding allows mounting on magnetic or non-magnetic panels without need for adjustment, as well as the ability to "stack" meters side-by-side without any interaction. The mechanism also has a shock absorption jewel arrangement to assure long life.

SPECIFICATIONS

Accuracy: 2% of full scale value for DC
3% of full scale value for AC rectifier Type

Scale Length: 1.9 inches; Anti-parallax in-line scale

Pointer: Red Lance Type

Movement: New self shielded thin line Cormag mechanism. Shock mounted jewel arrangement.

Ranges: Voltage 50 mv minimum 500 volts maximum self-contained
Current: 50 ua minimum 20 amps maximum self-contained

Mounting: Meter can be mounted either horizontally or vertically. Order proper meter from price list for the required type mounting. Mounting clips fasten to meter behind panel—no screws show on front of panel. For "stacking" thru holes are provided so stack can be bolted together.

Illumination: Two G.E. 328 lamps are used. Recommended operating voltage—5 volts (less than 200 ma per bulb). Expected life greater than 5,000 hours.

Dielectric: 2000 volts RMS

RANGES

DC VOLTMETERS

0-10	5000 Ω/v
0-25	5000 Ω/v
0-50	5000 Ω/v
0-100	5000 Ω/v
0-150	5000 Ω/v
0-300	5000 Ω/v

DC MILLIAMMETERS

0-1	39 Ohms
0-5	5.2 Ohms
0-10	.2 Ohms
0-25	.2 Ohms
0-100	.5 Ohms
0-150	.33 Ohms
0-250	.20 Ohms
0-500	.10 Ohms

DC MICROAMMETERS

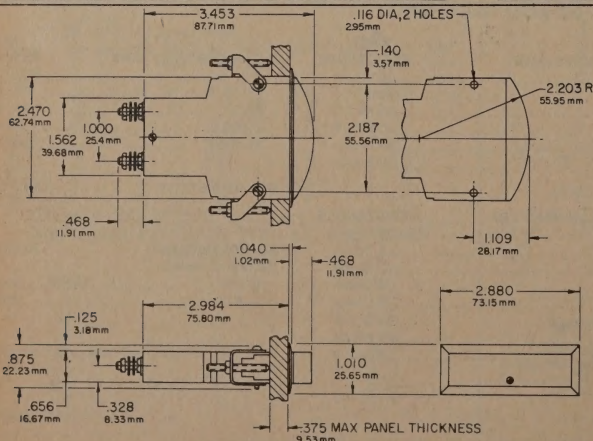
0-50	2300 Ohms
0-100	900 Ohms
0-200	600 Ohms
0-500	134 Ohms
50-0-50	900 Ohms

DC AMMETERS

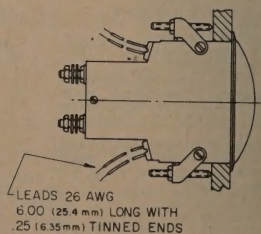
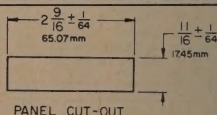
0-1	.05 Ohms
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AC VOLTMETERS (Rectifier type)

0-150	2000 Ω/v
0-300	2000 Ω/v



All Dimensions Are Approximate.



View showing illumination feature

WESTON INSTRUMENTS, INC.

FLAT SCALE EDGEWISE PROJECTED MOVING POINTER

Model 1201

True Flat Scale Presentation

No Parallax

1% Accuracy (Horizontal or Vertical)

Thermosetting Plastic Case with Glass Window

Designed to Meet ASA C39.1

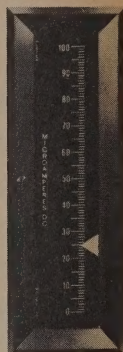
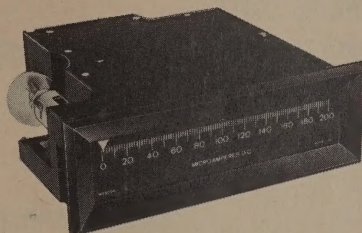
10,000 Hours Bulb Life

Shielded Cormag® Mechanism

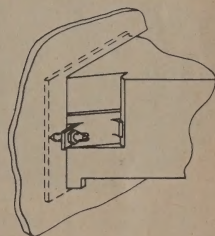
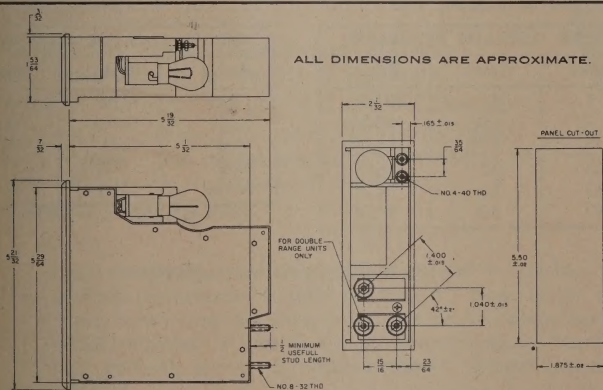
Glass Optical System

The basic mechanism is of the standard Weston CORMAG design which offers inherent self-shielding. This means that these units will be unaffected by panel material, normal magnetic fields created by current carrying conductors and can be mounted side-by-side with no loss of accuracy.

SPECIAL FEATURE: Filters may be placed behind the scale so that the pointer will change color at a fixed point. Up to 10 colors (plus a white pointer area) can be provided. Standard colors are red, green or amber.



ALL DIMENSIONS ARE APPROXIMATE.



No mounting screws are visible from front of the panel—two clips behind the panel securely lock the meter in place.

SPECIFICATIONS

Accuracy: 1% of full scale value*
2% of full scale value for AC Rectifier

Scale Length: 4 1/2 inches
Scale Color: White figures and divisions on black background.
Pointer: White, triangular shape. Colored filters available.

Movement: Self-shielding CORMAG mechanism.

Ranges: 50 Microamperes through 50 Amperes D-C self-contained; 50 Millivolts through 50 Volts D-C self-contained/Rectifier and thermocouple types available.
Mounting: Horizontal or Vertical. Specify mounting position when ordering. Most ranges stocked for horizontal mounting.
Mounting screws are visible from front of the panel—two clips behind the panel securely lock the meter in place.
Example: G.E. No. 5 operated at 5 Volts, 2.86 amperes, A-C or D-C, 10,000 hours minimum projected life.

D-C AMPERES

Ranges up to 50 Amperes can be self-contained. For higher ranges meters with approx. 50 mv drop can be supplied for use with standard switchboard shunts.

D-C MILLIAMPERES

	Ranges
0-1	18.8
0-10	2.3
0-20	5.0
0-50	2.0
0-500	2

D-C MICROAMPERES

	RESISTANCE
0-50	2300
0-100	640
0-200	415
0-500	88
50-0-50	640

D-C VOLTS

	Ranges
0-1	1000 Ohms/Volt
0-5	1000 Ohms/Volt
0-10	1000 Ohms/Volt
0-20	1000 Ohms/Volt
0-50	1000 Ohms/Volt
0-100	1000 Ohms/Volt
0-500	1000 Ohms/Volt

A-C VOLTS (rectifier type)

	RESISTANCE
0-150	1000 Ohms/Volt
0-300	1000 Ohms/Volt

WESTON INSTRUMENTS, INC.

MODEL 1209 SERIES (Projected Moving Scale Meter)

...8" OF SCALE IN A 2½" FRONT

- RETAINS ALL THE ADVANTAGES OF AN 8-INCH METER
- ELIMINATES PARALLAX
- 1% ACCURACY (½% OPTIONAL)
- SELF-ILLUMINATED SCALE
- REQUIRES ONLY 7 SQUARE INCHES PANEL SPACE
- SELF-SHIELDED MECHANISM
- SELF-CONTAINED



Standard meters use black background scales with white figures. White background scales available.

APPLICATIONS

For the first time, designers can standardize on one meter which fills the complete range of requirements: small size • long scale length • accuracy • self illumination • versatility in styling (proprietary bezels available at a normal cost). With Weston's new PMS instruments, equipment dimensions can now be based on optimum space requirements rather than on meter size.

DC VOLTMETERS

MODEL 1209 (1% ACCURACY)		
Range	Resis.	Price
50 MV	5 Ohms	\$57.00
1	↑ 1000 Ohms Per Volt ↓	58.00
2		58.00
5		58.00
10		58.00
20		58.00
50		58.00
100		58.00
200		58.00
500		58.00

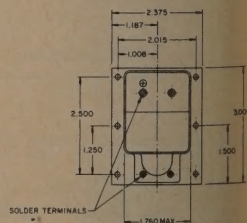
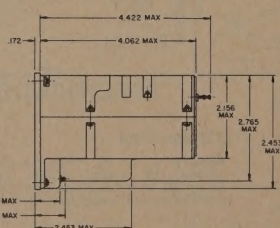
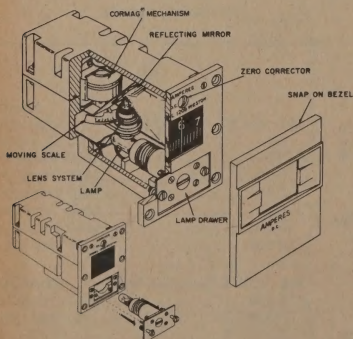
DC MILLIAMMETERS

MODEL 1209 (1% ACCURACY)		
Range	Resis.	Price
1	21	\$55.00
2	8.6	55.50
5	3.96	55.50
10	2.3	55.50
20	2.2	55.50
50	2.0	57.00

DC MICROAMMETERS

MODEL 1209 (1% ACCURACY)		
Range	Resis.	Price
50	5700	\$61.50
100	1160	60.00
200	231	58.50
500	73	57.00
50-0-50	1160	60.00

Note: All Resistance Values Are Approximate.



HOW THE PMS MODEL 1209 WORKS

A simple optical system projects a moving scale onto a coated window. The scale is rotated by a self-shielded Weston Cormag mechanism. Proven design and reliability. Pivot roll is eliminated in PMS panel meters, because the mechanical axis is vertical.

WESTON INSTRUMENTS, INC.

RUGGEDIZED PANEL INSTRUMENTS

Ammeters — Voltmeters — Milliammeters — Microammeters

A-C and D-C 2½" and 3½"

2½" Size	3½" Size	Mechanism	Accuracy (full scale value)	Scale Arc
Model 2521	Model 2531	Permanent Magnet Moving Coil	2%	100°
Model 2522	Model 2532	A-C Rectifier	3%†	100°
Model 2524	Model 2534	A-C Moving Iron	2%	100°

Spring-back jewels with locking nuts for fine adjustments

Specially treated Alnico 5 magnets for long term stability

Die cast parts in critical structural members assure complete interchangeability, permanent alignment

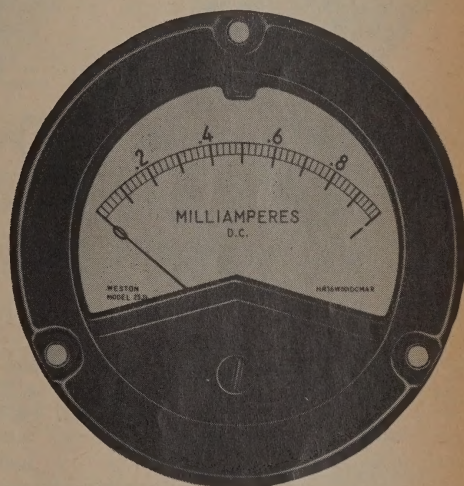
Designed for minimum power consumption — minimum response time

2½" and 3½" sizes, in both A-C and D-C have 100° scale arcs for uniformity of appearance

Identical case depth for both A-C and D-C models

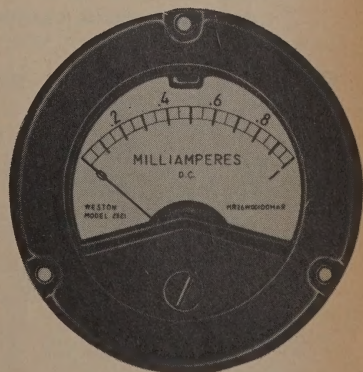
Designed to meet new MIL-M-1030B specification. Many functions and ranges are Qualified Products Listed, others are in process of approval.

Highest QPL sensitivities.



This completely new 2521/2531 Series of Weston ruggedized instruments is built to "take-it". New design concepts, new materials insure dependable, accurate service under extremes of shock, vibration, temperature, humidity and general abuse. Simplified design allows moderate prices.

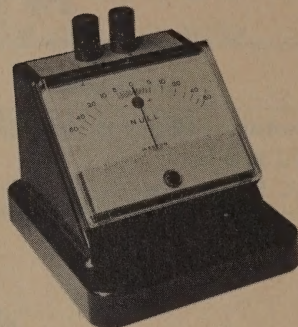
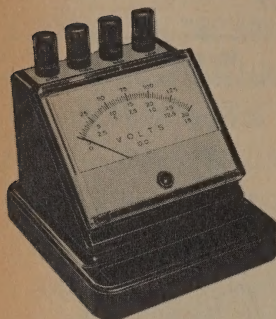
Designed to comply with MIL-M-10304B, they are made from non-brittle materials...all components are secured with demountable and reusable fasteners...scale plate, mechanism and shatter-proof mounting base are easily removed as a complete sub-assembly for quick repair. The 2521/2531 Series is another example of famous Weston quality, and is keynoted by the fact that even 20 microampere sensitivities are ruggedized. For applications in the vicinity of strong rf fields, these meters can be completely shielded by specifying conductive glass windows.



WESTON INSTRUMENTS, INC.

LABORATORY-PRODUCTION BENCH TESTERS

Model 2930 Series

STANDARDS
PORTABLES

FEATURES

- TOP QUALITY COMPONENTS FOR LONG SERVICE
- RUGGED MECHANISM — SPRING BACK JEWELS WITH LOCKING NUTS FOR FINE ADJUSTMENT
- SLOPED PANEL FOR EASE OF READING
- LARGE SCALE — READABLE AT A DISTANCE
- COLOR CODED FOR DC AND AC APPLICATIONS
- ZERO CORRECTOR PROVIDED

GENERAL

2930 Series comprises a group of AC and DC panel meters mounted in a sloped front mounting base constructed of high impact resistant plastic. These instruments are primarily designed for "bench testing" requirements both in educational and industrial laboratories. They use quality components throughout — the indicating instrument is one of the well known Weston 1900 Series of panel meters which have a proven history of accuracy and reliability.

The ranges listed are stocked by authorized Weston Distributors and special ranges can be obtained through local Weston Modification Centers. The cataloged meters are supplied with standard scales and lance type points except the null indicators, which have a knife edge point and mirror dot at null.

A colored plastic insert is supplied on all units — yellow denotes a DC unit and red an AC unit.

DC RANGES — MODEL 2931
(Self-shielded CORMAG® Mechanism) 2% Accuracy

Function	Range	Approx. Resistance	Scale Div.
Volts	150/15/1.5 30/15/3 30/3/1.5 15	1000Ω/v	75 60 60 75
↓			
Millivolts	50*	.....	50(0-100)** 75(0-150)
↓			
Amps	30/3/1.5 15 3	 50 mv 50 mv	60 75 60

AC RANGES — MODEL 2932
(Rectifier Type—Shielded Mechanism) 2% Accuracy

Function	Range	Approx. Resistance	Scale Div.
Volts	300/150/30	1000Ω/v	60
Volts	150/15/3	1000Ω/v	75

* For use with external shunts adjusted for standard 0.065Ω, 5 foot shunt leads. See circular 01-407 for available shunts.

AC RANGES — MODEL 2934
(Iron Vane Type Mechanism) 2% Accuracy

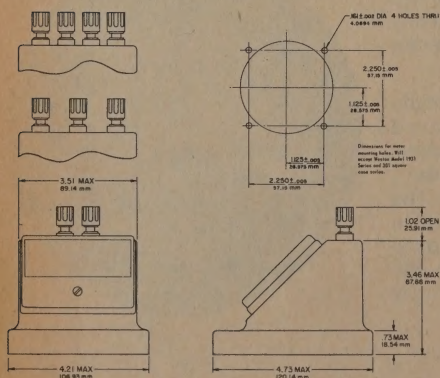
Function	Range	Approx. Resistance	Scale Div.
Amps	30	.00056Ω	60
↓	5	.016Ω	50(0-100)** 75(0-150)**

** Double scale for use with external accessories (eliminates interpolation problems).

NULL INDICATORS

Model	Scale	ua/mm and Division	Resistance of Moving Coil	End Scale Sensitivity	External Critical Damping Resistance
2931	30-0-30	2.5 ua/mm 2 ua/div	1200Ω ± 20%	60-0-60 ua ± 2%	50,000 Ω
2936	30-0-30	1.25 ua/mm 1 ua/div	2000Ω ± 20%	30-0-30 ua ± 2%	50,000 Ω
2936	See Scale Mod. 2936	0.4 ua/mm 0.5 ua/div	2300Ω ± 20%	†	35,000 Ω

† This unit has a special characterized mechanism (approx. Sq. Law). Current values are: 10 ua (±10%) at ±20° deflection points.
60 ua (±20%) at ±50° deflection points.

DIMENSIONAL DRAWINGS
(all dimensions are approximate)

TWO TERMINAL ASSEMBLED BASE — MODEL 9986

Includes base, terminals, internal leads from terminals to meter (meter not supplied) — Part No. 187269-901.

ANGULAR DEFLECTION-DEGREES
LINEAR MECHANISM
ANGULAR DEFLECTION-DEGREES
CHARACTERIZED MECHANISM

MOUNTING BASE PARTS

BASE ONLY—MODEL 9999

No. of Terminal Holes*	Part No.
2	187233-901
3	187234-901
4	187235-901

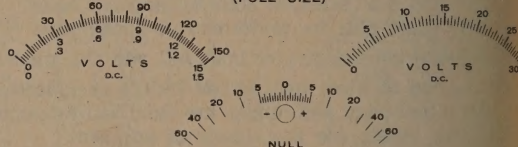
5 WAY BINDING POSTS—MODEL 9999

Color	Part No.
Red	ND 37919-901
Black	ND 37919-902

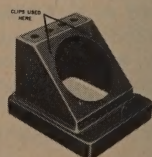
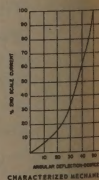
TERMINAL IDENTIFICATION FOILS—
MODEL 9999

Terminals	Part No.
Two	187255-901
Three	187256-901
Four	187257-901
Two	187258-901

* Terminal cut outs are keyed for binding posts, listed at right.

TYPICAL SCALES
(FULL SIZE)

DEFLECTION CURVES

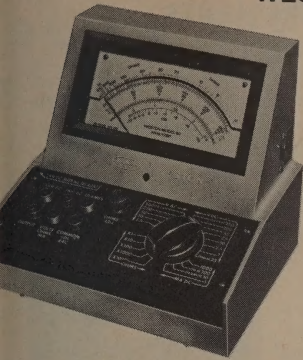


MOUNTING CLIPS MODEL 9999
(Two required per base).
Part No. ND 38664
Minimum Package of 20.

WESTON INSTRUMENTS, INC.

WESTON MULTI-RANGE ANALYZERS

MODEL 80 SERIES



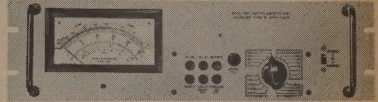
— FEATURE FOR FEATURE —

ACCURACY — High accuracy capabilities—see individual specifications.

READABILITY — Console type presentation provides optimum readability of scale and control deck, whether sitting or standing; large 5½" meter.

RELIABILITY — Sound, basic design, with hi-impact ABS plastic cases, spring backed jewels, precision components.

PARALLAX CORRECTION — Unique refractive-type anti-parallax scale for "on the mark" readings.



SPECIFICATIONS

DEL 80 — VOLT-OHM-MILLIAMMETER
Accuracy—1% DC, 1.5% AC Ohmmeter—1% of Linear Scale 1 & 5 KV—2% DC and 2.5% AC.
Scale Length—4.9".
Ranges—DC Volts—0.25/1/2.5/10/25/50/100/250/1 KV/5 KV @ 20,000Ω/volt.
AC Volts—2.5/10/50/250/500/1 KV/5 KV/ @ 5,000 Ω/volt.
DC Current—50μa/1/10/100 ma/1 and 10 amps.
Ohmmeter—Five Ranges: 2 k to 20 meg, full scale; 20 to 200 k center scale.
DB Scale—10 to +10 DB.

Price—Cat. No. 80-9008001 s\$79.50

DEL 80 TYPE R — RACK MOUNTING
Model 80 Type R for rack mounting has the same specification as Model 80 except that the 5,000 volt ranges have been eliminated.

Size—19" wide x 5½" high x 3½" deep.
Price—Cat. No. 80-9008002s\$94.50

DEL 81 — DC VOLT-METER
Accuracy—1% except 2.0% on the 1000 volt range.
Scale—50 divisions.
Ranges—0.25/1/2.5/5/10/25/50/100/250/1000.
Sensitivity—20,000 ohms per volt.
Price—Cat. No. 81-9008102 s\$68.50

MODEL 81 — D-C MILLIAMMETER/AMMETER

Accuracy—1 %.

Scale—100 and 60 divisions. NOTE: The 10 ma range has a drop of 50 mv so that the meter can be used with external shunts.
Ranges—10/30/100/300 milliamperes, 1/3/10 amperes.

Price—Cat. No. 81-9008101 s\$68.50

MODEL 81 — D-C MICROAMMETER/ MILLIAMMETER

Accuracy—1%.

Scale—100 and 60 divisions.

Resistance—2500/1390/475/164/50/16.6/5 ohms.

Ranges—1/3/1/3/10/30/100 milliamperes.
Price—Cat. No. 81-90081003 s\$68.50

MODEL 82 — A-C VOLT-METER

Accuracy—1.5% The combination of resistors and selected germanium diodes results in temperature and frequency error usually less than 1% for a change of 10°C and frequencies from 25 to 2000 cycles. Ranges below 250V are useable to 15kc.

MODEL 82 — A-C VOLT-METER (Cont.)

Scale—50 divisions.

Ranges—2.5/10/50/250/500/1000 volts.

Sensitivity—5000 ohms per volt.

Type—Rectifier Type.

Price—Cat. No. 82-9008201 s\$71.50

MODEL 82 — A-C MILLIAMMETER/ AMMETER

Accuracy—2% from 60 to 400 cps; from 25 to 1000 cps the frequency error is 1.5%. The instrument is useable to 5 kc.

Loss—From approximately 0.5 va for the low ranges up to 1.5 va for the 5 ampere range at 60 cps.

Scale—100 divisions.

Ranges—50/100/200/500 milliamperes, 1/2/5 amperes.

Type—Transformer—rectifier.

Price—Cat. No. 82-9008202 s\$71.50

MODELS 432 - 433 - 931 PORTABLE INSTRUMENTS

MATCHED A-C AND D-C PORTABLE INSTRUMENTS

MODEL 433—A-C INSTRUMENTS
Scale Length 4.04"—Accuracy within ¾ 1% —Movable Iron Type—Shielded Case Size 5¼" x 5¼" x 3¼"—Weight ½ lbs.—Hand Calibrated Mirror Scales —Bakelite Case with Carrying Strap.
Note: These instruments are calibrated for use in a horizontal position.

A-C VOLT-METERS
Made with single, double and triple ranges. For use on frequencies from 25 to 125 cycles.

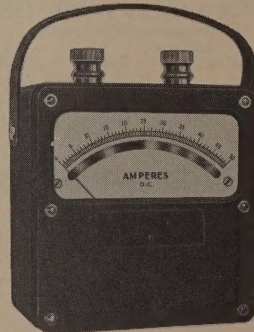
Range	Price
30/150	\$103.00
150/75	103.00
300/150	103.00
600/300/150	121.00
750/300/150	121.00

A-C MILLIAMMETERS
Made in single and double ranges only, or use on frequencies from 25 to 500 cycles.

Range	Price
30/500	\$95.00
150/75	108.00
500/250	108.00

A-C AMMETERS
Made in single, double and triple ranges or use on frequencies from 25 to 500 cycles. All instruments have two binding posts; double and triple range instruments are provided with a range selector switch.

Range	Price
5	\$96.00
50	96.00
10/5	110.00
10/5/1	151.00
50/20/5	151.00



MODEL 432—D-C AND SINGLE PHASE A-C WATTMETERS

Double voltage and single or double current ranges, self-contained up to 300 volts and 50 amperes, frequencies from 25 to 125 cycles.

Electrodynamometer Type
Accuracy ½ of 1%...Scale Length 4.04"

Case Size 5¼" x 5¼" x 3¼".....Wt. 3¼ lbs.

Normal Volts	Normal Amps	Price
150/75	1	\$216.00
Double Current Ranges		
300/150	5/2.5	\$239.00

MODEL 931—D-C INSTRUMENTS

Scale Length 4.04"—Accuracy within ½ of 1% Core Magnet Moving Coil Type.
Case Size: 5¼" x 5¼" x 3¼"—Weight 2 lbs.—Hand Calibrated Mirror Scales —Bakelite Case with Carrying Strap.

Note: These instruments are calibrated for use in a horizontal position.

D-C VOLT-METERS

Range	1,000 Ohms Per Volt	5,000 Ohms Per Volt
3/15/150	\$109.00	\$122.00
300/150/3	109.00	122.00
750/300/150	109.00	122.00

D-C AMMETERS

Range	Price
.1/1/10	\$110.00
.05/5/5	110.00
50/20/5	110.00

Self-contained up to 50 amperes inclusive, but can be supplied with external 50 mv shunts and 5 ft. leads.

D-C MILLIAMMETERS

Range	Price
1.5/15/150	\$107.00
1500/150/15	107.00
15/15/15	119.00

Single range, Milliammeters with ranges above can be supplied with external 50 mv shunts and 30 ma are shunted and have a drop of 50 mv ±5%.

D-C MICROAMMETERS

High Resistance Approx. Res.	Low Resistance Approx. Res.	Price
Range Ohms	Range Ohms	Price
30 2300	30 2300	\$119.00
100 2000	100 2000	107.00
200 600	200 600	107.00

PRICE SUBJECT TO CHANGE WITHOUT NOTICE

WESTON INSTRUMENTS, INC.

MODELS 901/904/905 PORTABLE INSTRUMENTS

1/4 - 1/2% ACCURACY

Size: 7 1/2" x 7 1/4" x 3 3/8"

Scale Length: 5 1/2"

D-C 901, 1/4% Accuracy, Self Shielded Permanent Magnet Moving Coil Type

A-C 904, 1/2% Accuracy, Movable Iron Type

These modern style instruments are used for general testing and for checking other meters in daily use in industry where easy reading and high shielding are desired. Long 5 1/2" hand calibrated mirror scales combined with knife-edge pointers eliminate reading errors. Leather carrying cases are available, specify instrument model and range—Price \$24.50.

D-C VOLTmeter (7 RANGE)—Model 901

(5000 ohms per volt)

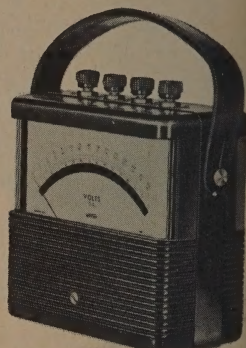
Range (Volts)	Price
750/300/150/75/30/15/3	\$197.00

D-C AMMETER—Model 901

Range (Amperes)	Price
50 mv/20/5/2	\$179.00

D-C MILLIAMMETERS (7 RANGE)—Model 901

Range (Ma)	Approx. Res. Ohms	Price
1000/500/200/100/50/20/10	.049/.099/.244/.475/.9/1.88/2.5	\$186.00
100/50/20/10/5/2/1	1.49/2.96/7.28/14.1/26.4/52.5/60	186.00



Model 901

A-C VOLTmeter—Model 904

Range (Volts)	Approx. Res. Ohms	Price
750/300/150*	3400/13,600/5,800	\$174.00
750/300/150/75/30/15/7.5/3**	117,500/18,400/5180/1145/182/46/11.1/1.76	267.00

†Other frequency ranges available. Prices on request.

*Frequency 25-125 cps.

**Frequency 50-125 cps, accuracy 1/2%; 125-450 cps, accuracy 1%.

A-C MILLIAMMETERS—Model 904

(Frequency 25 to 500 cycles)

Range (Ma)	Approx. Res. Ohms	Price
150/75	16/64	\$191.00
300/150*	4/16	191.00

*Also stocked for 25-1000 cycles at \$191.50.

A-C AMMETERS—Model 904

Range (Amperes)	Price
200/100/50/20/10/5/2**	\$240.00
(Frequency 25 to 1000 cycles)	
50/20/10/5/2/1	233.00

**Frequency is 50-450 cps.

D-C AND SINGLE PHASE A-C WATTMETERS—Model 905

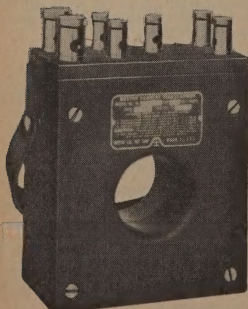
(Frequency 25-60 cycles)

Volts		Amperes		Watts		Price
Normal	Max.	Normal	Max.	High Range	Low Range	
200/100	300/150	25 5	50 10	5 KW 1 KW	2.5 KW .5 KW	\$213.00
		10/5 5/2.5	20/10 10/5	2/1 KW 1000/500	1/1.5 KW 500/250	\$213.00 \$229.00 \$229.00

MODEL 461 CURRENT TRANSFORMERS

Size: 7.97" x 6.63" x 2.75" Weight: Type 1—8 lbs.; Type 2—8.4 lbs. Core Opening: 2.12"

Models 461 are used with A-C instruments as multipliers. Four self-contained primary ranges are brought out to binding posts. A secondary short circuiting switch is provided. Black bakelite case.



Range (Amps)	Type*	Price	Range (Amps)	Type*	Price
800/400/200/ 100/50/20/10 Pri. to 5 Sec.	1	\$127.00	1000/500/250/ 100/50/25/10 Pri. to 5 Sec.	2	\$159.00
800/400/200/ 100/50/20/10 Pri. to 5 Sec.	2	159.00	500/250/100/ 50/25/10/5/ 2.5/1/0.5 Pri. to 5 Sec.	5	170.00
1000/500/250/ 100/50/25/10 Pri. to 5 Sec.	1	127.00	*Type 1—Primarily used for Ammeter applications.		
			Type 2—Primarily used for Wattmeter applications.		
			Type 5—Similar to Type 2 except for additional ranges.		

PRICE SUBJECT TO CHANGE WITHOUT NOTICE

WESTON INSTRUMENTS, INC.

D-C PORTABLE INSTRUMENTS MODEL 1 (Class 50)

Accuracy, 0.25% of Full Scale Value
Horizontal Position.....Scale 5.18" (132 mm)
Self-Shielded Core Magnet Type

(Shielded from External Magnetic Fields)

Approx. Size { $6\frac{1}{2} \times 6 \times 3\frac{1}{2}$ " }.....Approx. Weight { 3 lbs.
170 x 152 x 89 mm }.....1.4 kgs.

D-C VOLTMETERS — MODEL 1 (Class 50)

500 Ohms per Volt

Ranges	Scale Div.
0/150/3 volts.....	150
50/300/150/15/3 volts.....	150
1000 Ohms per Volt	
0/30/15/7.5/3 volts.....	150
0/300/150/75/15 volts.....	150

contained up to 1000 volts inclusive. For higher ranges use multiplier.
higher sensitivities use Model 622 (see Circular A-20).

D-C MILLIVOLTMETERS — MODEL 1 (Class 50)

Ranges	Resistance	Scale Div.
0 mv.....	10 ohms	100/150
0/20 mv.....	20 ohms	100/150
0/20 mv.....	200 ohms per volt.	100
0/100/50/20 mv.....	200 ohms per volt	100

Supplied with 5' (0.026 ohm) leads

These instruments are for use with external shunts and are normally supplied having scale captions of "AMPERES DIRECT CURRENT". Unless otherwise specified, scales are supplied having dual calibrations figured 0-100 and 0-150 for greater versatility. Portable testing and rotary switch shunts are adjusted to a 50 millivolt drop. Portable precision shunts are of the 0 mv variety. Selection of instrument should be based on the millivolt drop of shunt or shunts with which the instrument is to be used.

D-C AMMETERS — MODEL 1 (Class 50)

Self-Contained Type

contained type ammeters have an accuracy of 0.25%.

Ranges	Scale Div.
1 ampere.....	100
5 amperes.....	100
10 amperes.....	100
50 amperes.....	100
150 amperes.....	150
500 amperes.....	100
5/5/1 amperes.....	100

Usually supplied self-contained up to and including 500 amperes. Ammeters up to and including 150 amperes have a drop of 50 mv $\pm 5\%$; 500 amperes a drop of 40 mv $\pm 5\%$.

*External Shunt Type

External Shunt Type ammeters using 50 mv portable test external shunts or portable multiple range rotary switch shunts have an accuracy of 0.33% (combination of instrument and shunt). Those using 100 mv precision shunts have an accuracy of 0.25%.

External shunts are listed on Next Page.

D-C MILLIAMMETERS—MODEL 1 (Class 50)

Ranges	Scale Div.
0/30 ma.....	150
0/50 ma.....	150
0/200/50/10/2 ma.....	100
0/150/15 ma.....	150

microammeters and multi-range milliammeters other than those listed, Model 622 is recommended (see Circular 06-202).

DIRECT READING OHMMETERS—MODEL 1 (Class 50)

Approx. Size { $6\frac{1}{2} \times 8\frac{3}{8} \times 3\frac{1}{2}$ " }.....Approx. Weight { 3.6 lbs.
170 x 213 x 89 mm }.....1.7 kgs.

For resistance measurements where direct reading and accuracy are essential. Operated on ordinary dry cells, the changes in voltage are compensated for by means of a self-contained adjustable rheostat.

Ohm Ranges	Scale Div.	Volts Necessary to Operate
0-2.5, 0-25, 25-50	125	1.5
0-10, 0-50, 50-100	100	1.5
0-100, 0-500, 500-1000	100	3.0

Higher as well as lower ohmmeters can be provided, but are subject to individual negotiation.

ELECTROLYSIS INSTRUMENTS—MODEL 1 (Class 50)

Approx. Size { $9\frac{1}{2} \times 11 \times 4\frac{3}{4}$ " }.....Approx. Weight { 9 lbs.
237 x 279 x 121 mm }.....4 kgs.

Especially designed for locating and measuring stray currents in pipes, cables, steel structures, etc. Electrolysis instruments are mounted in a sturdy oak carrying case with a removable cover. Request Circular 06-205 for further details on Portable Electrolysis Instruments.

D-C VOLT-AMMETERS

All ranges are $\frac{1}{2}$ zero advanced — 300 Ohms per Volt

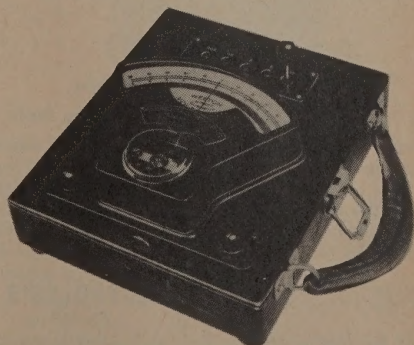
Ranges	Scale Div.
(50-0-100) (5-0-10) (0.5-0-1) } (.005-0-.01) volts } (50-0-100) 5-0-10 (.5-0-1) amperes }	150

D-C VOLT-MILLIVOLTMETERS

All ranges are zero center — 400 Ohms per Volt

Scale Division 100, 50 Each Side of Zero

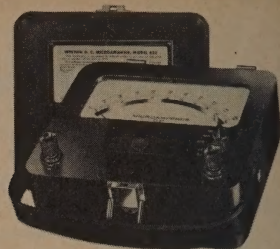
Ranges
(50-0-50) (5-0-5) (.5-0-5) (.05-0-.05) (.005-0-.005) volts



Model 1 — Volt-Millivoltmeter

WESTON INSTRUMENTS, INC.

Model 622 D-C Instruments

Accuracy $\frac{1}{2}$ of 1%.....Scale Length 6.1" (155 mm)Dimensions { 8.75" x 7.75" x 4.06" } Approx. { 8.5 lbs
222 x 197 x 103 mm } Weight { 4 kgsPermanent Magnet Moving Coil Type — Molded Bakelite Case
Electrostatically and Magnetically Shielded)

D-C VOLTMETERS

1,000 Ohms Per Volt — Multi-Range with 4 Binding Posts

1000 Ohms Per Volt

Multi-Range with 4 Binding Posts

Ranges	Scale Div.
75/30/7.5	150
150/15/3	150
300/150/3	150
750/300/150	150

Multi-Range with Range Changing Switch and 2 Binding Posts

Ranges	Scale Div.
300/150/75/30/15/7.5/3/1.5	150
500/200/100/50/20/10/5/2	100
750/300/150/75/30/15/7.5/3/1.5	150
1000/500/200/100/50/20/10/5/2	100

Available at higher sensitivities. Correspondence invited.

D-C MILLIVOLTMETERS

Multi-Range with Range Changing Switch and 2 Binding Posts

Ranges	Resistance Ohms	Scale Div.
50/20/10/5/2	250/100/50/25/10	100
500/100/20/5/1	2500/500/100/25/5	100
500/100/50/20/5	2500/500/250/100/25	100
1000/200/50/10/1	5000/1000/250/50/5	100
2000/500/100/20/2	10,000/2500/500/100/10	100
1000/200/50/10/2	5000/1000/250/50/10	100

Each millivoltmeter includes 1 pair of 5 foot leads.

D-C MILLIAMMETERS

Multi-Range — Low Resistance Type

With Range Changing Switch and 2 Binding Posts

Ranges	Approx. Res. Ohms	Scale Div.
30/3/0.3/0.03	3.4/33.2/306/556	150
100/10/1/0.1	0.20/1.98/18.4/40.0	100
200/20/2/0.2	0.099/0.99/9.1/10	100
200/20/2/0.2	(10 ohms for all ranges)	100
500/50/5/0.5	0.10/1.0/9.8/80	100

D-C MICROAMMETERS

Model 622 microammeters, low resistance type, are designed to function on the lowest amount of energy consistent with reasonable performance. They should be used in circuits when but little energy may be abstracted by the instrument such as in the output of vacuum thermocouples.

High resistance microammeters should be used wherever circuit conditions will permit. They will stand more severe service and in general are more rapid in indication than low resistance instruments.

Single Range with 2 Binding Posts

Range	Scale Divs.	Low Res. Type Approx. Resis. Ohms	High Res. Type Approx. Resis. Ohms
* 5	100	4000	.....
* 10	100	3900	.....
* 15	150	2600	.....
20	100	280	2600
30	150	150	1800
50	100	90	1100
100	100	45	600
150	150	30	240
200	100	10	175

* These instruments have a scale length of 5.2"

Multi-Range with Range Changing Switch and 2 Binding Posts

Ranges	Resistance
**1000/500/200/100/50	96/184/400/600/400 ohm
1000/500/200/100/20	618/1214/2870/5160/3150 ohm

** Can be supplied with resistance of 100 ohms for all ranges. Recommended for telephone and PHOTRONIC® photo-electric cell circuits.

20 RANGE D-C VOLT-MILLIAMMETER

This instrument has 2 range changing switches and 2 binding posts marked (—), 50 millivolts, 100 millivolts (volts-milliamperes).

Accuracy $\frac{1}{4}$ of 1%.

Voltage Ranges (200 ohms per volt): 750/300/150/75/30/15/7.5/3/1.5 volts; 100/50 mv*

Current Ranges: 3000/1500/750/300/150/75/30/15/7.5/3/1.5 ma.

Resistance (approx.): 0.33/0.066/0.132/0.332/0.655/1.2/3.0/5.35/8 ohms.

Scale Divisions: 150 for 300/150/75 volt — milliamperes d-c.

*For use with external shunts.

ELECTROLYSIS VOLT-MILLIVOLTMETERS

Model 622 D-C Instruments can be provided with a selection of ranges covering practically all electrolysis and corrosion investigations and cathodic protection testing. Request

"Portable Electrolysis Instruments" circular for complete details.

Only the most commonly used ranges are listed — any practical range can be supplied.

WESTON INSTRUMENTS, INC.

Model 622 Thermo Instruments

Accuracy within $\frac{1}{2}$ of 1% on a-c of frequencies stated and within 1% on d-c at 25°C.; within 1% on a-c of frequency stated and 1.5% on d-c from 20° to 30°C — Scale length 1" (155 mm).

Dimensions { 8.75 x 7.75 x 4.06" } Approx. Weight { 8.5 lbs. 222 x 197 x 103 mm } 4 kgs.

Thermocouple Type — Molded Bakelite Case

Model 622 thermo instruments are basically ultra-sensitive temperature compensated d-c millivoltmeters calibrated with replaceable thermoelements.

Plug-in vacuum type elements, in which the heater and couple are contained in an evacuated glass bulb, are used in thermo milliammeters and thermo voltmeters. The overload capacity of these thermoelements as used in Model 622 is excep-

tionally high, at least 2 times normal for all ranges.

External compensated type elements are used for the thermo ammeters. Temperature compensation is obtained through use of compensating strips which maintain the cold ends of the thermocouples at the temperature of the heater blocks. Overload rating is 1.5 times normal.

THERMO AMMETERS

External Thermoelement Type

Supplied with one Type C thermoelement of range desired. 5 foot shielded leads for connecting thermocouple to instrument. Multi-range combinations obtained by use of additional thermoelements of ranges desired. Instrument scales are directly calibrated to original thermoelements, or average data where additional couples are supplied for multi-range combinations. Can be used on d-c and a-c ranges below 20 amperes; on a-c only for higher ranges. Frequency ranges less than $\frac{1}{2}$ of 1% up to 35 megacycles and less than 2% up to 65 megacycles.

Range	Scale Div.
5	100
10	100
25	125
50	100

THERMO MILLIAMMETERS

Plug-In Thermoelement Type

Instrument scale is directly calibrated to the original Type V thermoelement. Multi-range combinations available by use of additional thermoelements of desired ranges. Instrument scales are calibrated to average data for the multi-range combinations and correction charts are supplied to obtain guaranteed accuracy of $\frac{1}{2}$ of 1% on d-c and a-c of any frequency up to 2000 kilocycles.*

Range	Scale Div.	Approx. MV Drop
1.5	150	2250
2	100	1650
7.5	150	300
10	100	250
50	100	180
150	150	110
500	100	110

Low loss adapter providing direct connection to the couple is recommended for plug-in couples for frequencies above 2000 kilocycles. Low loss adapter P/N D-80804.

Calibrated heater Type V-1 thermoelements are also available.

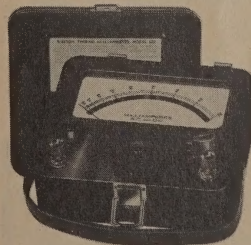
THERMO MILLIAMMETERS

Plug-In, Shunted Type

With Range Changing Switch and 2 Binding Posts

Ring type shunt is incorporated in instrument, making possible several ranges with a single plug-in element. This type milliammeter is limited to d-c and audio frequencies, to 15 kilocycles, and is calibrated directly with the replaceable element supplied.

Range	Scale Div.	Approx. Res. Ohms
100/50/10/5	100	19.8/37/120/80
500/100/20/5	100	4/19.3/80/80
1000/200/50/10	100	.7/3.3/12.3/40
500/200/100/50	100	.9/2.1/4.2/8



Model 622 Thermo Instrument
(Type V Element Plugged In)

THERMO VOLTMETERS

Plug-In Thermoelement Type

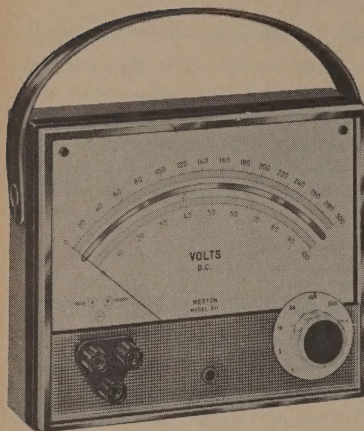
Multi-Range with Range Changing Switch and 2 Binding Posts
Directly calibrated with single Type V thermoelement. Regularly supplied for d-c and a-c frequencies to 5000 cycles, on special order to 15,000 cycles.

Range	Scale Div.	Sensitivity In Ohms per Volt
20/5/2/0.5	100	50
50/10/5/1	100	100
100/20/10/2	100	100
100/50/10/5	100	500

WESTON INSTRUMENTS, INC.

MODELS 911/912 PORTABLE/PANEL INSTRUMENTS

Newly designed Weston Portable/Panel instruments now provide a combination of features never before offered in portable test equipment. Equally valuable in shop or field, these units feature high accuracy, long-scale length and modern styling. And, these instruments are designed for . . . Panel or switchboard mounting without special adaptors or attachments! Simply remove meter from case and mount on panel . . . all hardware is supplied. The compact steel case may be attached behind panel when mechanical protection is required.



Model 911/912

SPECIFICATIONS

ACCURACY— $\pm 1\%$ of full scale value on d-c voltmeters and milliammeters ($\pm 2\%$ of full scale value on 300 and 1000 volts d-c).

$\pm 2\%$ of full scale value on rectifier type a-c voltmeters 10 through 300 volts.

$\pm 3\%$ of full scale value on rectifier type a-c voltmeters for 1000 volt range and 3 volt range above mid-scale.

COMPACT CASE—Modern designed instrument front of clear durable plastic provides unlimited natural illumination which, coupled with knife-edge pointers and mirror scale, provide unexcelled readability. The instrument is cased in heavy duty, grey finished steel. Handle can be swung under instrument so that it may be tilted for easy reading. Size: $7\frac{1}{2}'' \times 6\frac{1}{2}'' \times 2\frac{3}{8}''$.

COMPONENTS—Weston VAMISTOR® precision metal film resistors and other long-life components are used.

Adjustable resistors provide for easy calibration, if required.

BINDING POSTS—Screw type with captive heads can use all types of leads. Triangular base allows greater torque when securing leads. Wide $\frac{3}{4}''$ spacing permits use of plug type leads. Cross hole located so fine wire is not cut.

SCALE—Large $7.2''$ mirror back with knife-edge pointer.

MECHANISM—CORMAG® self-shielding, with spring-backed jewels.

RANGE SWITCH—Large, sure-grip knob.

SIZE— $7\frac{1}{2}'' \times 6\frac{1}{2}'' \times 2\frac{3}{8}''$.

RANGES AND PRICES

Model 911 D-C VOLTmeter (20,000 ohms per volt)	
1000/300/100/30/10/3/1 Volts	Price \$68.50
Model 911 D-C AMMETER	
10/3/1 amps., 300/100/30/10 ma	Price \$68.50
Model 911 D-C MILLIAMMETER	
100/30/10/3/1/3/1 milliamperes	Price \$68.50
Model 912 A-C VOLTmeter (5,000 ohms per volt)	
1000/300/100/30/10/3 Volts	Price \$78.50
Model 912 A-C AMMETER	
5/2/1 (Amperes) 500/200/100/50 (ma)	Price \$78.50

MODEL 1477 D-C MILLIVOLT/MICROAMMETER

Size: $7\frac{1}{2}'' \times 6\frac{1}{2}'' \times 4\frac{3}{8}''$ Weight: $5\frac{1}{2}$ lbs.Scale Length: $7.2''$

A portable test instrument designed to measure potentials and currents in the low-level millivolt and microampere ranges. No energy is drawn from the input circuit during steady-state operation. Only with an initial input application is there a small current taken during the transient period prior to steady state indication.

D-C Input Ranges

Millivolts	1/2/5/10/20/50/ 100/200/500/1000
Microamperes	10/20/50/100/200/500/1000

D-C Output

(Rear Terminals)	1 MA DC for full scale input (into a load up to 5000 ohms)
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Power Requirements

120 volts AC, 50 or 60 cycles,

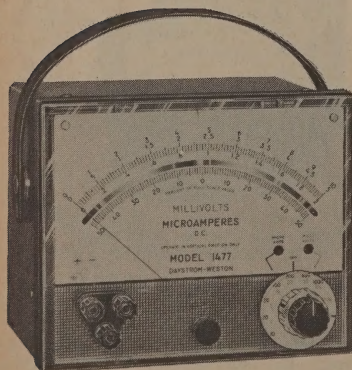
19 watts

Accuracy

Panel Indicator (Both Scales)	$\pm 1\%$ of full-scale value on ranges of 2-1000 MV and 20-1000 μ A $\pm 2\%$ of full scale value on ranges of 1 MV and 10 μ A
1 MA Output	$\pm 0.25\%$ on ranges of 5-1000 MV and 50-1000 μ A $\pm 0.5\%$ on ranges of 1-2 MV and 10-20 μ A

Operating Position Vertical

Cat. No. 1477-9900001 Price \$513.25



PRICE SUBJECT TO CHANGE WITHOUT NOTICE

WESTON INSTRUMENTS, INC.

MODEL 779 SUPER-SENSITIVE ANALYZER

ACCURACY: A-C within 3%; D-C within 2% to 250 volts; 3% on 1,000 volt range.

Size: 6 $\frac{3}{8}$ " x 9 $\frac{1}{4}$ " x 4 $\frac{7}{8}$ " (162 x 232 x 124 mm)

Approx. Wt.: 6 lbs. (2.72 kgs.)

A compact 26 range ultra-sensitive analyzer with five d-c voltage ranges at a sensitivity of either 1,000 or 20,000 ohms per volt. A-C temperature compensated; precision resistors throughout. Supplied in a rugged solid oak case with a removable cover and convenient carrying handle. Test leads are provided.



RANGES

Volts		Current		Decibels	Ohms
D-C	A-C	D-C Only			
2.5	2.5	.1 Ma	— 14 to + 2*		0-3000
10	10	1 Ma	— 2 to + 14*		0-30,000
50	50	10 Ma	+ 12 to + 28*		0-300,000
250	250	50 Ma	+ 26 to + 42†		0-30 Meg
1000	1000	250 Ma	+ 38 to + 54††		
		1 Amp	(6 milliwatts,		
		10 Amp	500 ohms, zero level)		

*Substantially flat to 10,000 cycles.

†Substantially flat to 3,000 cycles. ††Substantially flat to 1,000 cycles.

Model 779 Type 8

Price.....\$194.25

MODEL 799 INSULATION TESTER

ACCURACY: Within $\frac{1}{8}$ " of scale length.

SCALE: 2.375" (60.3 mm)

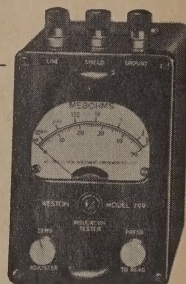
Size: 3 $\frac{3}{8}$ " x 5 $\frac{1}{4}$ " x 5" (86 x 133 x 127 mm)

Approx. Wt.: 3.8 lbs. (1.7 kgs.)

For leakage measurements up to 10,000 megohms at low voltage at a maximum test potential 50 volts. Test leads, tubes, batteries and oak case are supplied.

RANGES: 0-10,000 megohms (Logarithmic scale)

Price.....\$108.75



Model 799

MARK II ANALYZER

The new thin-line Mark II is a highly sensitive and extremely rugged volt-ohm-milliammeter designed for a wide range of accurate test measurements in the electronic field.

Famous CORMAG® mechanism protects the instrument against false readings due to magnetic disturbances. Electrostatic shielding assures

accurate measurements at high d-c voltages. Fuses in the low ohmmeter circuits prevent burnout if voltages are mistakenly applied. Interchangeable parts eliminate all need for parts selection in the event replacements are ever necessary. The breakproof case will withstand dropping and thus eliminate the major source of repair and maintenance costs.

FEATURES

- Modern Thin-Line Design
- Spring Back Jewels for Maximum Shock Resistance
- Fused Resistance Ranges
- Transit Switch Position to Dampen Movement During Transportation

- Fully Insulated Crack-proof Case
- Single Selector Knob for all Functions and Ranges
- Wide Angle Scale for Maximum Visibility
- Precision Components —No Parts Selection Required

- Single Board Etched Wiring Circuit for Easy Maintenance
- Static Shielded for Accurate High Voltage Measurement
- 4-Way Combination Tilt Stand and Protective Cover Available

SPECIFICATIONS

Accuracy: 2%, d-c; 3%, a-c & 4000 v d-c.

Scale Length: 4.63"

Ranges:

D-C Volts: 1.6, 8, 40, 160, 400, 800,

4000 ... at 20,000 ohms/volt.

A-C Volts: 1.6, 8, 40, 160, 400, 1600

... at 1,000 ohms/volt.

DB Range: —15 db to +54 db (in six ranges).

D-C Amperes: 8

D-C Milliamperes: 1.6, 8, 80, 800.

D-C Microamperes: 80.

Ohms Range Center Scale Full Scale

R x 1 25 1,000

R x 10 250 10,000

R x 100 2,500 100,000

R x 1,000 25,000 1 megohms

R x 10,000 250,000 10 megohms

Case: Black impact resistant plastic, with carrying strap.

Panel: Black impact resistant plastic with engraved white markings.

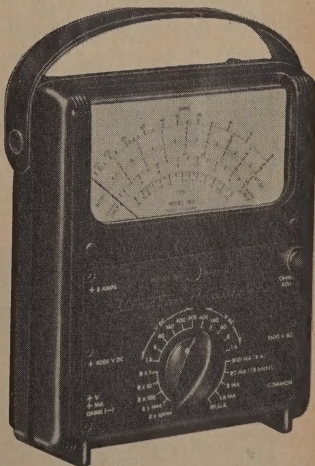
Size: 6.25" x 7.50" x 3.0".

Approx. Weight: 2.5 lbs.

Ohms: Five decade ranges: 1K to 10

meg full scale; 25 ohms to 250K

center scale



Model 980 Mark II

Price.....\$53.50

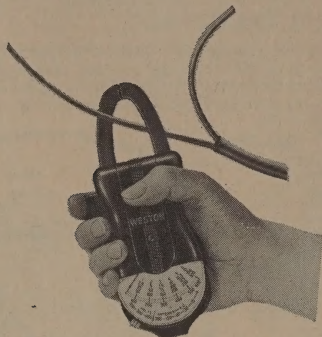
Combination protective front cover and tilt stand\$5.50

Eveready leather carrying case—Model 9959—Part No. 249350.....\$9.75

PRICE SUBJECT TO CHANGE WITHOUT NOTICE

WESTON INSTRUMENTS, INC.

Model 749 Miniature Clamp Volt-Ammeter



Light weight and rugged pocket-size instrument for quick easy servicing. Has self-shielded core magnet mechanism with spring backed jewels, and shatter-proof Plexiglas window. Only one scale for all ranges and functions. Jaws take up to 1" round, or $1\frac{3}{4}$ " x $\frac{3}{8}$ " rectangular conductors. Furnished with test leads in scuff proof case.

Plug-In Adapter available for making both current and voltage measurements... has female receptacles on both sides for plugging in load without disturbing circuit being tested... convenient for lead insertion for voltage checks... serves as 10 to 1 divider for low current measurements.

RATED ACCURACY: (Model 749) $\pm 3\%$ full scale deflection.

RANGES: Current 300/150/60/30/15/6 amperes a-c.
Voltage 600/300/150 volts a-c.

Model 749—\$51.50 complete

Plug-In Adapter—\$6.00

Model 633 Clamp Volt-Ammeter and Clamp- Ammeter



Model 633 Type VA-1

Model 633 Type VA-1 (Incl. Potential Leads)—1000/250/
100/25/10 amperes a-c 700/350/175 volts a-c \$141.50

Model 633 Type A-3—2000/1000/500/250/100/50 amperes
a-c 133.50

Model 9958, 50 foot Extension Cable, Plug & Receptacle
for Model 633 Type A-3 79.25

Leather Carrying Case (Model 633 Types VA-1, A-3) 13.50

Leather Carrying Case (Model 9958—Cable, Plug and
Receptacle) 22.50

NOTE—Model 633 instruments may be used for continuous duty
up to 500 amperes.

Approximate Dimensions and Weights

Model 633 Types VA-1, A-3 $15\frac{5}{8}$ " x $4\frac{3}{8}$ " x $2\frac{1}{2}$ " 3 $\frac{3}{4}$ lbs.

Leather Carrying Case (Types VA-1, A-3) $14\frac{1}{2}$ " x $5\frac{1}{2}$ " x $3\frac{3}{8}$ " 2 $\frac{1}{4}$ lbs.

Model 9958, 50 Foot Extension Cable, Plug &
Receptacle 4 $\frac{1}{4}$ lbs.

Leather Carrying Case (Model 9958—Cable, Plug &
Receptacle) 14 " x $8\frac{1}{2}$ " x $3\frac{3}{4}$ " 4 $\frac{1}{4}$ lbs.

Model 614 — Foot-Candle Meters

Size: $7\frac{3}{8}$ " x $3\frac{3}{8}$ " x $2\frac{1}{4}$ "

Scale Length: 2.36"

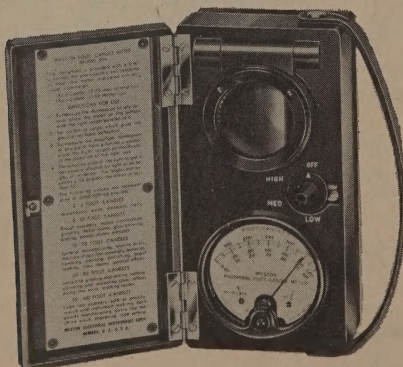
Weight: 1 lb. 13 ozs.

This unit is ideal for general commercial lighting surveys where wide ranges of light values exist. Completely self-contained, no outside power or batteries being required. Available for checking two different light situations.

†VISCOR filtered, 0-60/120/600 foot-candles, for visual correction for color Price \$160.00

†VISCOR and Cosine correction filtered, 0-100/250/500 foot-candles for visual correction for color and direction correction.

Price \$164.00



Model 614

Model 703 — Sightmeters

Size: $4\frac{5}{8}$ " x $2\frac{5}{8}$ " x $1\frac{1}{4}$ "

Scale Length: 1.57"

$\pm 75\%$ of full scale accuracy

This pocket sized meter is ideal for checking illumination levels at work stations. It is available for checking three different light situations. Leather case available Price \$3.25

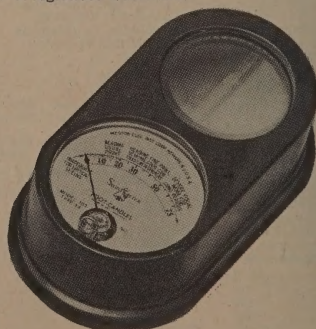
Unfiltered, Type 3A, 0-75 foot-candles Price \$52.00

†VISCOR filtered, Type 6A, 0-75 foot-candles for visual response correction for color Price \$65.00

†VISCOR and Cosine correction filters Type 7, 0-100 foot-candles for visual response correction for color and direction correction Price \$69.00

Model 9924 Multiplier Disc fits Type 3A and Type 6A and multiplies scale readings by 10 Price \$2.20

†VISCOR—A registered trademark.



Model 703

PRICE SUBJECT TO CHANGE WITHOUT NOTICE

PRICES

Prices in this MASTER should not be considered as final. INQUIRE ABOUT LATEST PRICES AND DELIVERY.

DISCOUNTS

Trade discounts apply in most cases where LIST PRICES are shown.

ORDERING

Since previous editions of the MASTER are frequently referred to, it is important, when ordering, to mention specifically the edition and page number, also the catalog number of each item. This will avoid possible confusion and delay.

INVENTORY

While most distributors maintain a large and varied stock, they do not represent that they stock all manufacturers' products shown in this MASTER catalog.

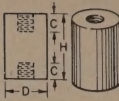
FEEDTHRU - STEATITE PILLARS - CORRUGATED CERAMIC - STANDOFF INSULATORS



BIRNBACH STEATITE PILLARS

JAN-1-8 and JAN-1-10 SPECS. (Less Hardware)

In many constructions, these unmounted threaded Steatite pillars will facilitate assembly because of the one hole mounting and parallel mounting surfaces. They are made of L5 glazed Steatite with threaded holes on both sides.

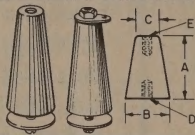


Cat. No.	Old Jan Type Designation	New Mil Type Designation	H	D	Thread	Length of Thread
441			1 1/4"	1 1/4"	All	6-32
441B			1 1/2"	1 1/2"	1/2"	6-32
441A			1 3/4"	1 3/4"	3/4"	6-32
444A			2"	2"	1"	6-32
445A			2 1/4"	2 1/4"	1 1/4"	6-32
442			3/4"	3/4"	3/4"	6-32
442A	NSW0104	NL633W01-004	1 1/4"	1 1/4"	1/2"	6-32
443A	NSW0105	NL633W01-005	1 1/2"	1 1/2"	3/4"	6-32
444B	NSW0106	NL633W01-006	1 3/4"	1 3/4"	1"	6-32
445B	NSW0108	NL633W01-008	2"	2"	1 1/4"	6-32
446B	NSW0110	NL633W01-010	2 1/4"	2 1/4"	1 1/4"	6-32
446A	NSW0112	NL633W01-012	1 1/4"	1 1/4"	3/4"	6-32
446C	NSW0116	NL633W01-016	1 1/2"	1 1/2"	3/4"	6-32
443			1 1/4"	1 1/4"	3/4"	6-32
444			1 1/2"	1 1/2"	3/4"	6-32
445			1 3/4"	1 3/4"	1"	6-32
446			2"	2"	1 1/4"	6-32
447			2 1/4"	2 1/4"	1 1/4"	6-32
440	NSW0205	NL633W02-005	3/4"	3/4"	3/4"	8-32
440A	NSW0206	NL633W02-006	1"	1"	1"	8-32
440B	NSW0208	NL633W02-008	1 1/4"	1 1/4"	3/4"	8-32
440C	NSW0210	NL633W02-010	1 1/2"	1 1/2"	3/4"	8-32
440D	NSW0212	NL633W02-012	1 3/4"	1 3/4"	1"	8-32
440E	NSW0216	NL633W02-016	2"	2"	1 1/4"	8-32
440F	NSW0220	NL633W02-020	2 1/4"	2 1/4"	1 1/4"	8-32
440G	NSW0224	NL633W02-024	3"	3"	1 3/4"	8-32
444C			1 1/4"	1 1/4"	3/4"	10-32
445C	NSW0308	NL633W03-008	1 1/4"	1 1/4"	3/4"	10-32
445D	NSW0310	NL633W03-010	1 1/2"	1 1/2"	3/4"	10-32
445E	NSW0312	NL633W03-012	1 3/4"	1 3/4"	1"	10-32
445F	NSW0316	NL633W03-016	2"	2"	1 1/4"	10-32
445G	NSW0320	NL633W03-020	2 1/4"	2 1/4"	1 1/4"	10-32
445H	NSW0324	NL633W03-024	3"	3"	1 3/4"	10-32
445S	NSW0332	NL633W03-032	4"	4"	2 1/4"	10-32
448			2 1/4"	2 1/4"	1 1/4"	1/2-20
449			4"	4"	2 1/4"	1/2-20
447A	NSW0410	NL633W04-010	1 1/4"	1 1/4"	3/4"	1/2-20
447B	NSW0412	NL633W04-012	1 1/2"	1 1/2"	3/4"	1/2-20
447D	NSW0416	NL633W04-016	1 3/4"	1 3/4"	1"	1/2-20
447E	NSW0420	NL633W04-020	2"	2"	1 1/4"	1/2-20
447F	NSW0424	NL633W04-024	2 1/4"	2 1/4"	1 1/4"	1/2-20
447G	NSW0432	NL633W04-032	3"	3"	1 3/4"	1/2-20
447H	NSW0440	NL633W04-040	4"	4"	2 1/4"	1/2-20
447J	NSW0448	NL633W04-048	6"	6"	3"	1/2-20

BIRNBACH CONE STANDOFF INSULATORS

(Steatite)

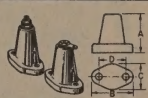
Made of low absorption high tensile strength steatite with a smooth glaze. All heights except the No. 430 are available with a Jack or a threaded hole top. Available in a white glaze and are complete with screws, metal & cork washers.



Cat. No.	Height A	Base Dimensions B C	Threaded Holes D	E	Mounting Holes
430	3/4"	5/8" 7/8"	6-32	6-32	5/32"
431	1"	1 1/8" 1 1/4"	8-32	8-32	3/16"
431J	1 1/4"	1 3/8" 1 1/2"	8-32	No. 403 Jack	3/16"
432	1 1/2"	1 5/8" 1 3/4"	10-32	10-32	7/32"
432J	1 3/4"	1 7/8" 1 5/8"	10-32	No. 403 Jack	7/32"
433	2"	2 1/8" 1 3/4"	1/2-20	1/2-20	9/32"
433J	2 1/4"	2 3/8" 1 5/8"	1/2-20	No. 395 Jack	9/32"

BIRNBACH STANDOFF INSULATORS

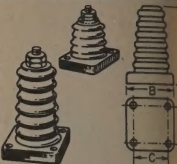
Made of highly vitrified low absorption glazed porcelain. No washers necessary—mounting surface is ground flat; for No. 966 it is advisable to use cork washers which are available. All brass nickel-plated hardware supplied.



Cat. No.	Height A	Base Dimension B C	D	Mounting Holes	Hardware
405	5/8"	1" 1 1/8"	1 1/8"	5/8"	6-32
965	1"	1 1/4" 1 1/2"	1 1/4"	1"	8-32
966	1 1/4"	1 3/4" 1 5/8"	1 3/4"	1 1/4"	8-32
966J	1 1/2"	1 5/8" 1 3/4"	1 5/8"	No. 403 Jack	8-32
866	1 1/2"	1 3/4" 1 1/2"	1 1/2"	No. 403 Jack	6-32
866J	1 3/4"	1 5/8" 1 3/4"	1 5/8"	No. 395 Jack	6-32
4275	2 1/4"	2 3/4" 2"	2 1/4"	1/2-20	1/2-20
4275J	2 3/4"	3" 2 1/2"	2 3/4"	No. 399 Jack	1/2-20
4450	4"	4 1/2" 3 1/2"	4"	1/2-20	1/2-20
4450J	4 1/2"	5" 3 3/4"	4 1/2"	No. 399 Jack	1/2-20

BIRNBACH METAL BASE INSULATORS

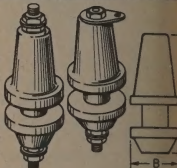
Designed to replace conventional porcelain insulators where base cracks when fastened down. Corrugated surface provides long leakage path. Made of high tensile strength low absorption porcelain fully glazed. Supplied with nickel-plated brass screws and nuts, cadmium plated drawn steel bases.



Cat. No.	Height A	Base Dimension B	C	Mounting Screw D	Hardware
867	1 1/2"	1 1/2" x 1 1/2"	1 1/2"	2 No. 8	10-32
867J	1 3/4"	1 3/4" x 1 3/4"	1 3/4"	2 No. 8	No. 403 Jack
4176	2"	2" x 2"	2"	4 No. 10	1/2-20
4176J	2 1/4"	2 1/4" x 2 1/4"	2 1/4"	4 No. 10	No. 395 Jack
4451	4 1/2"	2 1/2" x 2 1/2"	1 3/4"	4 No. 10	1/2-20
4451J	4 3/4"	2 1/2" x 2 1/2"	1 3/4"	4 No. 10	No. 395 Jack

BIRNBACH FEEDTHRU INSULATORS

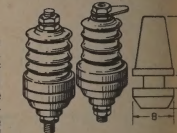
Made of highly vitrified, low absorption porcelain smoothly glazed to prevent accumulation of dust or dirt. Maximum strength is achieved by the proper proportions and flat mounting surfaces. Long insulating sleeves on the lower part of the insulator contribute much to their performance on high voltages. Brass nickel-plated hardware.



Cat. No.	Height A	Dimen. B	C	Mounting Hole D	Hardware
458	5/8"	1 1/2"	1 1/2"	5/8"	6-32
478	1"	1 3/8"	1 3/8"	1"	10-32
478J	1 1/4"	1 5/8"	1 5/8"	1 1/4"	No. 403 Jack
4125	1 1/2"	2"	2"	1 1/2"	10-32
4125J	1 3/4"	2 1/4"	2 1/4"	1 3/4"	No. 403 Jack
4234	2 1/4"	2"	2"	1"	1/2-20
4175	2 3/4"	1 1/2"	1 1/2"	3/4"	1/2-20
4175J	2 1/2"	1 1/2"	1 1/2"	3/4"	No. 394 Jack

CORRUGATED FEEDTHRU INSULATORS

The six new corrugated type feedthru insulators have more than twice the leakage path of the straight type because of increased surface of the corrugations and recommends itself where a straight side insulator of equal height is not satisfactory because of its shorter leakage path. Brass nickel-plated hardware and cork mounting washers supplied.



Cat. No.	Height A	Dimen. B	C	Mounting Hole D	Hardware
479	1 1/2"	1 1/2"	1 1/2"	5/8"	10-32
479J	1 3/4"	1 1/2"	1 1/2"	5/8"	No. 403 Jack
4276	2 1/4"	1 3/4"	1"	3/4"	1/2-20
4276J	2 3/4"	1 3/4"	1"	3/4"	No. 394 Jack
4452	4 1/4"	2 1/8"	1 1/2"	1"	1/2-20
4452J	4 1/2"	2 1/8"	1 1/2"	1"	No. 394 Jack

HIGH VOLTAGE FEEDTHRU INSULATOR

This insulator has been designed to meet the demand for an insulator having high dielectric and mechanical strength. The extra long leakage path is made possible by the corrugations on the top insulator. The bottom sleeve taper from a base dia. of 1 1/8" where the electric stress is greatest.



Cat. No.	Height A	Base Dia. B	Mounting Hole C	Hardware
4233	1 1/8"	2"	1 1/4"	1/2-20

STEATITE PILLARS

Have great tensile strength with extremely low losses at very high frequencies. Tapped on both ends; supplied with nickel plated mounting base and top hardware.

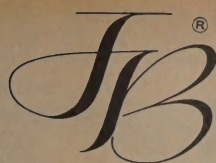


Cat. No.	Height A	Dimen. B	C	Base Dia. D	Hardware
450	1"	1 1/2"	1 1/2"	7/8"	6-32
450J	1 1/4"	1 3/4"	1 3/4"	1"	No. 403 Jack
451	1 1/2"	1 5/8"	1 5/8"	1 1/8"	6-32
451J	1 3/4"	1 3/4"	1 3/4"	1 1/8"	No. 403 Jack
452	2 1/2"	2 1/2"	1 1/2"	1 1/8"	6-32
452J	2 3/4"	2 1/2"	1 1/2"	1 1/8"	No. 403 Jack
453	2 1/2"	2 1/2"	1 1/2"	1 1/8"	1/2-20
453J	2 3/4"	2 1/2"	1 1/2"	1 1/8"	No. 395 Jack
454	4"	4"	1 1/2"	1 1/8"	1/2-20
454J	4 1/4"	4"	1 1/2"	1 1/8"	No. 395 Jack

FOR MORE INFORMATION ON COMPLETE LINES, WRITE FOR NEW CATALOG.

BIRNBACH

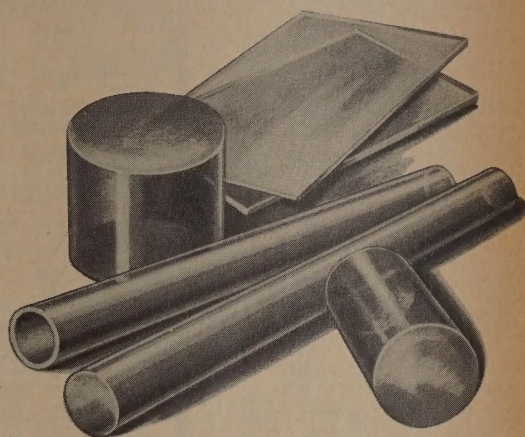
RADIO COMPANY INC.



Polystyrene

ROD TUBING SHEET

radio and electronic applications, because of its very low loss factor at ultra high frequencies, Polystyrene is an ideal material for insulators, coil forms, shields, etc. Its excellent arc resistance, is non-tracking and has excellent insulating properties. Because its water absorption is practically zero it has excellent dimensional stability.



POLYSTYRENE ROD — Transparent

AVAILABLE IN 12" OR 48" LENGTHS

Catalog Number	Diameter	Net Price	
		12" lgth.	48" lgth.
JB-100	1/8"	\$.03	\$.12
JB-101	3/16"	.07	.28
JB-102	1/4"	.12	.48
JB-103	5/16"	.18	.72
JB-104	3/8"	.26	1.04
JB-106	1/2"	.48	1.92
JB-107	5/8"	.72	2.88
JB-108	3/4"	1.00	4.00
JB-109	7/8"	1.42	5.68
JB-110	1"	1.90	7.60
JB-111	1 1/8"	2.50	10.00
JB-112	1 1/4"	3.00	12.00
JB-113	1 3/8"	3.60	14.40
JB-114	1 1/2"	4.30	17.20
JB-116	1 3/4"	6.00	24.00
JB-118	2"	7.50	30.00

POLYSTYRENE TUBING — Satin Finish

AVAILABLE IN 12" OR 48" LENGTHS

Catalog Number	O.D.	I.D.	Net Price	
			12" lgth.	48" lgth.
JB-201	1/4"	1/8"	\$.10	\$.40
JB-202	3/16"	3/16"	.14	.56
JB-203	3/8"	1/4"	.18	.72
JB-205	1/2"	3/8"	.26	1.04
JB-206	5/8"	1/2"	.32	1.28
JB-207	3/4"	5/8"	.40	1.60
JB-208	1"	7/8"	.56	2.24
JB-220	1 1/2"	1 1/4"	1.50	6.00
JB-222	2"	1 3/4"	2.20	8.80

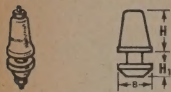
POLYSTYRENE SHEET*

Catalog Number	Thickness	Sheet Size	Net Price
JB-125	1/16"	12" x 12"	\$ 4.15
JB-126	3/32"	12" x 12"	4.80
JB-127	1/8"	12" x 12"	5.50
JB-128	3/16"	12" x 12"	7.15
JB-129	1/4"	12" x 12"	8.15
JB-245	1/16"	12" x 24"	7.80
JB-246	3/32"	12" x 24"	9.15
JB-247	1/8"	12" x 24"	10.50
JB-248	3/16"	12" x 24"	13.15
JB-249	1/4"	12" x 24"	15.65
JB-315	1/32"	24" x 24"	9.65
JB-301	1/16"	24" x 24"	11.15
JB-302	3/32"	24" x 24"	13.00
JB-303	1/8"	24" x 24"	14.80
JB-304	3/16"	24" x 24"	18.75
JB-305	1/4"	24" x 24"	23.00
JB-309	3/8"	24" x 24"	31.25
JB-311	1/2"	24" x 24"	38.65
JB-317	5/8"	24" x 24"	50.00
JB-318	3/4"	24" x 24"	69.25
JB-319	1"	24" x 24"	94.15

*Sheets are all crystal clear with smooth surfaces fully protected against abrasion by masking paper on both sides.

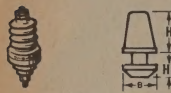
JULIUS BLUM & CO., INC.



DABURN**DABURN ELECTRONICS & CABLE CORP.**
CERAMIC STANDOFFS • INSULATORS • GUYWIRE • COMPONENT CLIPS**DABURN FEED-THRU INSULATORS**

These are quality porcelain insulators smoothly glazed. Heavy nickel plated brass hardware used. Cushion washers supplied.

DABURN No.	Hgt. H	B	H ₁	Mounting Hole	H'dwe	Std. Pkg.
10-58	5/8"	1 1/4"	1/4"	3/4"	6-32	50
10-78	1"	1 3/4"	3/4"	1/4"	10-32	25
10-125	1 1/4"	7/8"	3/8"	10-32	25	
10-234	2 3/4"	2"	1"	1 1/4"	1/4-20	10

CORRUGATED FEED-THRU INSULATOR

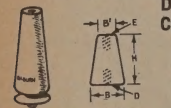
These numbers have twice the leakage path of the straight type due to the increased surface area. Brass nickel plated hardware and cushion washers supplied.

DABURN No.	Hgt. H	B	H ₁	Mounting Hole	H'dwe	Std. Pkg.
10-79	1 3/8"	1 1/4"	1 1/4"	3/4"	10-32	25
10-76	2 3/4"	1 1/4"	1"	3/4"	1/4-20	10
10-52	4 1/2"	2 3/8"	1 1/2"	1"	1/4-20	5

DABURN METAL**BASE INSULATORS**

Made of hi tensile strength, low absorption ceramic, fully glazed corrugated surface. Provides longer leakage path. Drawn metal bases.

DABURN No.	Hgt. H	B	D	Mtg. Screw	H'dwe	Std. Pkg.
10-67	1 3/8"	1 7/8" x 1 5/8"	1 1/2"	2 #8	10-32	25
10-176	2 3/4"	1 3/4" x 1 3/4"	1 3/8"	4 #10	1/4-20	10
10-451	4 1/2"	2 1/4" x 2 1/4"	1 3/4"	4 #10	1/4-20	5

**DABURN STEATITE CONE INSULATORS**

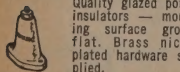
Steatite cones have smooth glaze white. Come complete with brass nickel plated screws and cushion washers

DABURN No.	Hgt. H	B	B ₁	T	Mtg. Hole	Std. Pkg.
10-30	5/8"	5/8"	3/4"	6-32	3/4"	100
10-31	1"	1 1/4"	1/2"	8-32	3/4"	50
10-32	1 1/2"	1 1/4"	5/8"	10-32	3/4"	50
10-33	2 3/4"	1 1/4"	3/4"	1/4-20	3/4"	25

DABURN LEADIN INSULATORS

Sections are each 2 3/4" high hi vitrified porcelain glazed. Comes thru with 2 additional bushings 1/4" and 1/2" long, permitting complete insulation of the threaded rod of any length in multiples of 1/4". Complete with brass nickel plated hardware. Lead and cushion washers permit a water tight seal.

DABURN No.	Description	Std. Pkg.
10-237	10" Rod/Bushings	10
10-238	15" Rod/Bushings	10

DABURN STANDOFF INSULATORS

Quality glazed porcelain — mounting surface ground flat. Brass nickel plated hardware supplied.

DABURN No.	H	B	B ₁	D	Hole	Mtg. H'dwe	Std. Pkg.
10-16	1"	1 3/8"	7/8"	1"	3/4"	8-32	50
10-17	1 1/2"	1 3/8"	1 1/4"	1 1/4"	3/4"	10-32	25

DABURN FIBERGLASS GUY WIRE

Gives complete isolation for any antenna system. Non-radiating, non-absorbing, no rot, no shrink, no sag. This non metallic guy wire has an overall (PVC) polyvinylchloride jacket.

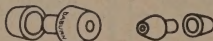
Daburn No.	Put-Up	Tensile Strength	Color	Nom. O.D.
10-01	100', 500', 1000'	500 lbs.	Green	.125"
10-02	100', 500', 1000'	1000 lbs.	Gray	.218"
10-03	100', 500', 1000'	2500 lbs.	White	.313"

Doubling the cable will double the strength.

STEATITE FEED-THRU INSULATORS

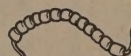
Suitable for hi-dielectric and mechanical strength. Made of L5 glazed Steatite. No hardware included.

Daburn No.	Figure	Hgt. H	Base Diam.	Screw Size Max.	Std. Pkg.
10-200	I	7/8"	1 1/4"	10-32	25
10-201	I	1 1/8"	1 3/4"	1/4-20	25
10-202	II	1 5/8"	2 1/2"	3/8-16	25
10-203	III	1"	3 3/8"	8-32	12

DABURN STEATITE FEED-THRU INSULATORS

Feedthrus come thru with tops and bottoms for chassis, panel, shields, rack mounting. No hardware included. Made of L5 glazed Steatite.

Daburn No.	Hgt. Top	Diam.	Hole Panel	T'kness To	Screw Size Max.	Std. Pkg.
10-204	1/8"	1/2"	3/4"	1/8"	6-32	50
10-205	3/32"	5/8"	3/16"	3/8"	8-32	50
10-206	3/8"	1/2"	1/4"	3/4"	6-32	50
10-207	3/8"	5/8"	3/8"	3/8"	8-32	50
10-208	3/4"	1 1/8"	3/4"	3/8"	10-32	50
10-209	1 5/8"	1 1/4"	1 1/2"	10	10-32	50

DABURN FISH SPINE BEADS

Made of L5 Steatite. Suitable for buss and heavy lines insulation. Beads follow bends and curves because of ball and socket style interlocks. Four beads cover approximately 1". 100 will cover 25" of wire. Size: 3/4" O.D. x 1/8" I.D. Beads treated with Dow Corning compound to prevent accumulation of surface moisture.

Daburn No.	Description	Std. Pkg.
10-215	Fish Spine Beads	100, 1000

DABURN AIRPLANE INSULATORS

Suitable for mobile and aircraft or guy wire application. compression type strain insulators. Nos.

10-73, 10-74 made of white glazed low absorption porcelain. No. 10-72 made of wet process porcelain.

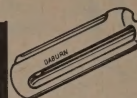


10-73, 10-74



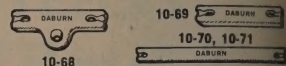
10-72

Daburn No.	Description	Std. Pkg.
10-73	2" White	100
10-74	1 1/2" White	100
10-72	2 1/4" Brown	25

**DABURN STEATITE AIRPLANE INSULATOR**

Compression type Steatite insulator has small wind resistance. Fully glazed.

Daburn No.	Description
10-63	1 1/2" Lgth.; 1 1/2" Diam. 3/4" Line Spacing

ANTENNA STRAIN INSULATORS

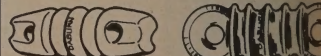
Porcelain glazed to prevent moisture absorption. Have long leakage path — small cross section strength under continuous tension — white glaze prevents accumulation of dirt and ice.

Daburn No.	Description
10-68	4 1/2" Long Center Ins.
10-69	4 1/4" Long
10-70	7" Long
10-71	12" Long

FEEDER SPREADER INSULATORS

Made of highly vitrified — low absorption — hi tensile strength porcelain, with white glaze overall.

Daburn No.	Description
10-62	2" Long Spreader
10-64	4" Long Spreader
10-65	6" Long Spreader

ANTENNA INSULATORS

Daburn No.	Description
10-0	Glass Insulator
10-06	Porcelain Insulator — White

DABURN COMPONENT CLIPS

Hold and insulate, electrical and electronic components, accessories — spare parts. Holds firmly and still permits fast and easy insertion. Convenient for fastening. Clips and retainers for transistors, batteries, fuses, capacitors, resistors, lamps, etc. These Daburn clips are made of black vinyl (polyvinylchloride). Has high dielectric strength. Can be mounted with screws, rivets or other fastening means.

MATERIAL: Rigid Vinyl.
TEMPERATURE RANGE: -20° to +165°F.
STANDARD PACKAGE: 100, 1000.

Daburn Stock Number	Diam.	H Height	L L'gth.	E Diam. of Hole	Dis. Be. Holes
600-1/4"	1/4"	1 3/4"	1 1/2"	3/4"	—
600-3/4"	3/4"	1 5/8"	1 1/2"	3/4"	—
600-3/8"	3/8"	1 1/2"	1 1/2"	3/4"	—
600-1/2"	1/2"	1 1/2"	1 1/2"	3/4"	—
600-3/16"	3/16"	1 1/2"	1 1/2"	3/4"	—
600-1/8"	1/8"	1 1/2"	1 1/2"	3/4"	—
600-9/16"	9/16"	1 1/2"	1 1/2"	3/4"	—
600-1 1/16"	1 1/16"	3/4"	1 1/2"	3/4"	—
600-3/4"	3/4"	7/8"	1 1/2"	3/4"	—
600-7/8"	7/8"	1"	1 1/2"	3/4"	—
600-1"	1"	1 1/4"	1 1/4"	3/4"	3/4"
600-1 3/8"	1 3/8"	1 1/2"	1 1/4"	3/4"	3/4"

VINYL ELECTRICAL TAPE



IRC, Inc.



- Saves space in confined areas . . . ends "twice-around" wraps with bulky tapes,
- Provides a tight insulated plastic seal . . . resistant to abrasion, water, acids, alkalis, corrosion and aging.
- Gives a neater wrap . . . adheres readily to irregular surfaces and contours.
- Makes an excellent wrap for insulating tools.

TAPE-AND-TEAR DISPENSER. For one-hand taping IRC Vinyl Electrical Tape comes in a sturdy tape-and-tear dispenser that keeps tape clean and prevents stretching. Cutting blade is shielded. Dispenser is loaded with 66 feet of $\frac{3}{4}$ " tape. Also Available in cellophane wrapped rolls:

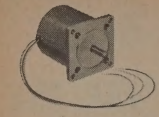
STOCK NUMBER	SIZE	PACKAGING
VT 104 "All-Weather"	$\frac{3}{4}$ " x 66'	Dispenser
VT 103	$\frac{3}{4}$ " x 66'	Dispenser
VT 103	$\frac{3}{4}$ " x 20'	Cellophane Wrapped
VT 103	$\frac{3}{8}$ " x 20'	Cellophane Wrapped
VT 103	$\frac{3}{8}$ " x 36 YDS.	Cellophane Wrapped

PROPERTIES OF IRC VINYL ELECTRICAL TAPE

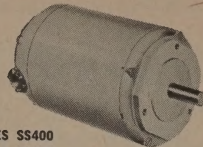
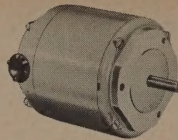
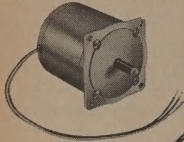
DESCRIPTION	GENERAL PURPOSE TYPE 103	ALL-WEATHER TYPE 104
PHYSICAL PROPERTIES		
Thickness	.007"	.0085"
Tensile Strength	19 lb./in. of width	22 lb./in. of width
Elongation at Break	150%	200%
Adhesion to Steel	32 oz./in. of width	20 oz./in. of width
Low Temperature (4 hrs. @ 0°F)		Unrolling & Application Satisfactory
ELECTRICAL PROPERTIES		
Dielectric Strength	10,000v/mil (min.)	10,000v/mil (min.)
Power Factor @ 60 Cycles	.07	.07
Power Factor @ 10 ⁶ Cycles	.03	.03
Dielectric Constant at 60 Cycles	3.2	3.2
Dielectric Constant at 10 ⁶ Cycles	2.3	2.3
Insulation Resistance	Over 10 ⁴ Megohms	Over 10 ⁴ Megohms
Electrolytic Corrosion Factor	1.0	1.0
Resistance to Penetration at Elevated Temperatures	90°C (Avg.)	90°C (Avg.)
CHEMICAL PROPERTIES		
Sunlight	Not Affected	Not Affected
Corrosive Effect on Electrical Conductors	None	None
Resistance to Water	Excellent	Excellent
Resistance to Acids	Excellent	Excellent
Resistance to Alkalies	Excellent	Excellent
Resistance to Oils	Excellent	Excellent
Resistance to Aging at Room Temperature	Excellent	Excellent

Types 103 and 104 Meet MIL-I-7798A

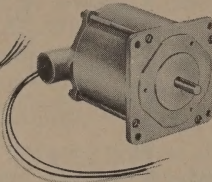
SAVES TIME. Quicker than friction and rubber tape combinations. Takes only one operation instead of two. Adheres readily to irregular surfaces and contours. Makes a neater job.

SLO-SYN

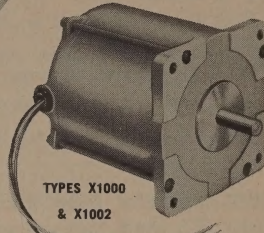
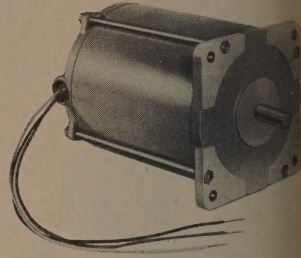
TYPE SS25

TYPES SS400
& SS402TYPES SS150
& SS152

TYPES HS50 & HS52



TYPES X250 & X252

TYPES X1000
& X1002

TYPES SS1800 & SS1802

A-C OPERATION — Standard SLO-SYN Synchronous/Stepping Motors are permanent magnet a-c motors having extremely rapid starting, stopping and reversing characteristics and a slow basic shaft speed of 72 rpm synchronous with a line frequency of 60 cycles. Three-lead types need only a single-pole, three-position switch for complete forward, reverse and "off" control. No excessive inrush current when energized because starting and operating current are nearly identical. Can be completely stalled without overheating and with no harmful effects on components. Starts or stops in less than 5° of shaft rotation; no need for mechanical or electrical braking. When used with an auxiliary high speed motor, the SLO-SYN motor can remain coupled to the load and safely overdriven. Phase shifting resistor and capacitor must be used when operating from a single-phase source but not from two-phase. All standard motors are rated for continuous duty at maximum ambient temperature of 40°C. Types

SS150 and SS152 use Class A insulation; all others have Class B.

D-C STEPPING — When used for phase-switched d-c stepping, the motors can be connected to provide either 100 or 200 steps per revolution. Accuracy of the steps is $\pm .09^\circ$ non-cumulative. Three-lead types require a center-tapped d-c supply and single-pole, double-throw switching; four-lead types require a single-ended power supply and single pole, double-throw switching. Bifilar motors can also be used with transistorized switching circuits. With a suitable control potentiometer instead of switches, a SLO-SYN motor can be made to rotate steplessly, permitting extremely accurate positioning. All motors have lubricated-for-life bearings.

Types TS50 and TS52 are similar to standard models but operate at synchronous speeds of 200 rpm and take 36 or 72 steps per revolution when used for d-c stepping.

RATINGS AND SPECIFICATIONS FOR A-C APPLICATIONS

TYPE	MAXIMUM AMPERES	TORQUE (Oz-In)	MAXIMUM MOMENT OF INERTIA OF A RIGIDLY ATTACHED LOAD (Lb-In ²)	PHASE-SHIFTING COMPONENTS*				APPROXIMATE MOTOR WEIGHT (POUNDS)	
				RESISTOR	RESISTOR PART NUMBER	CAPACITOR	CAPACITOR PART NUMBER	NET	SHIPPING
120 Volts, 50/60 Cycles, 1 Phase, 200 RPM at 60 Cycles									
TS50	0.3	50	0.25	300 ohm $\pm 5\%$, 25 watt	R-TS50	3.75 mfd $\pm 6\%$, 330 VAC	C-SS150/TS50	4 3/4	5 3/4
120 Volts, 50/60 Cycles, 1 Phase, 72 RPM at 60 Cycles									
SS25	0.1	25	0.25	500 ohm $\pm 5\%$, 5 watt	R-SS25	0.75 mfd $\pm 6\%$, 330 VAC	C-SS25	1 1/4	1 1/2
SS50	0.3	50	0.5	250 ohm $\pm 5\%$, 25 watt	R-SS50/150	2.6 mfd $\pm 6\%$, 330 VAC	C-SS50	3	3 1/2
SS50M†	0.3	50	0.5	250 ohm $\pm 5\%$, 25 watt	R-SS50M/150M	2.6 mfd $\pm 6\%$, 330 VAC	C-SS50M	3	3 1/2
SS150	0.4	150	1.5	250 ohm $\pm 5\%$, 25 watt	R-SS50/150	3.75 mfd $\pm 6\%$, 330 VAC	C-SS150/TS50	6 1/2	8
SS150M†	0.4	150	1.5	250 ohm $\pm 5\%$, 25 watt	R-SS50M/150M	3.75 mfd $\pm 6\%$, 330 VAC	C-SS150M	6 1/2	8
SS250	0.6	250	3	150 ohm $\pm 5\%$, 50 watt	R-SS250/400	6.5 mfd $\pm 6\%$, 330 VAC	C-SS250/400	6 1/2	8
SS250M†	0.6	250	3	150 ohm $\pm 5\%$, 50 watt	R-SS250M	6.5 mfd $\pm 6\%$, 330 VAC	C-SS250M	6 1/2	8
X250‡	0.6	250	3	150 ohm $\pm 5\%$, 50 watt	R-SS250/400	6.5 mfd $\pm 6\%$, 330 VAC	C-SS250/400	7 3/4	9
SS400	0.6	400	4.5	150 ohm $\pm 5\%$, 50 watt	R-SS250/400	6.5 mfd $\pm 6\%$, 330 VAC	C-SS250/400	12 1/4	13 3/4
X1000§	3.0	1000	9	65 ohm $\pm 5\%$, 160 watt	R-X1000	30 mfd $\pm 5\%$, 330 VAC	C-X1000	31	33
SS1800§	4.0	1800	16	40 ohm $\pm 5\%$, 375 watt	R-SS1800	60 mfd $\pm 6\%$, 330 VAC	C-SS1800	45	50
240 Volts, 50/60 Cycles, 1 Phase, 200 RPM at 60 Cycles									
TS52	0.2	50	0.25	1200 ohm $\pm 5\%$, 25 watt	R-SS152/TS52	1.0 mfd $\pm 6\%$, 660 VAC	C-SS152/TS52	4 3/4	5 3/4
240 Volts, 50/60 Cycles, 1 Phase, 72 RPM at 60 Cycles									
SS52§	0.2	50	0.5	1000 ohm $\pm 5\%$, 10 watt	R-SS52	0.67 mfd $\pm 6\%$, 660 VAC	C-SS52	3	3 1/2
SS152	0.2	150	1.5	1200 ohm $\pm 5\%$, 25 watt	R-SS152/TS52	1.0 mfd $\pm 6\%$, 660 VAC	C-SS152/TS52	6 1/2	8
SS252	0.3	250	3	500 ohm $\pm 5\%$, 50 watt	R-SS252/402	1.75 mfd $\pm 6\%$, 660 VAC	C-SS252/402	6 1/2	8
X252‡	0.3	250	3	500 ohm $\pm 5\%$, 50 watt	R-SS252/402	1.75 mfd $\pm 6\%$, 660 VAC	C-SS252/402	7 3/4	9
SS402	0.3	400	4.5	500 ohm $\pm 5\%$, 50 watt	R-SS252/402	1.75 mfd $\pm 6\%$, 660 VAC	C-SS252/402	12 1/4	13 3/4
X1002§	1.5	1000	9	250 ohm $\pm 5\%$, 200 watt	R-X1002	8 mfd $\pm 6\%$, 660 VAC	C-X1002	31	33
SS1802	2.0	1800	16	130 ohm $\pm 5\%$, 320 watt	R-SS1802	15 mfd $\pm 6\%$, 660 VAC	C-SS1802	45	50

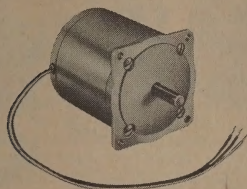
* External resistor and capacitor must be ordered separately. † Militarized. ‡ Explosion-proof. § For 60 cycles. Other phase-shifting components required for 50 cycles.

**THE SUPERIOR ELECTRIC COMPANY**

SEE OTHER SUPERIOR ELECTRIC PRODUCTS

Asynchronous / Stepping Motors

FOR A-C CONSTANT SPEED • FOR D-C STEPPING



TYPES LS50 & LS52

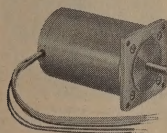
24 RPM

When used as an a-c motor, a type LS50 or LS52 motor has a shaft speed of 24 rpm synchronous with a line frequency of 60 cycles. When used for d-c stepping the motors take 600 incremental steps to make one shaft revolution. These 0.6° steps are accurate within $\pm 0.03^\circ$ noncumulative. Ratings for stepping applications are 30 volts d-c, 0.25 amp. per winding for type LS50; 60 volts d-c, 0.15 amp. per winding for type LS52 and 3 volts d-c, 4.0 amp. per winding for type LS50-1001. Ratings for a-c applications shown in chart.

TYPE	INPUT VOLTS	FREQUENCY (CYCLES)	MAX. AMPERES	TORQUE (OZ-IN)	SHAFT SPEED (RPM)	MAX. INERTIA OF RIGID LOAD (LB-IN ⁴)	NET WEIGHT (LBS)	PHASE SHIFTING COMPONENTS	
								RESISTOR	CAPACITOR*
50	120	60	0.4	75	24 at 60 cycles†	1.5	4 3/4	300 ohm $\pm 5\%$, 25 watt	3.75 mfd $\pm 6\%$, 330 VAC
52	240	60	0.2	75	24 at 60 cycles†	1.5	4 3/4	1200 ohm $\pm 5\%$, 25 watt	1.0 mfd $\pm 6\%$, 660 VAC

Resistor and capacitor must be ordered separately.

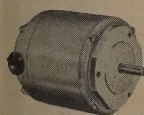
†20 RPM at 50 cycles.



TYPE HS25

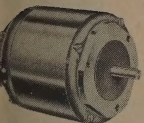
PRECISION STEPPING

For phase-switched d-c stepping, types HS25 and HS50 make 200 precise steps per shaft revolution. Each 1.8° step is accurate within $\pm 3\%$ (0.6°) noncumulative. May be operated at speeds greater than 500 steps per second if accelerating and decelerating circuits are used. With proper circuitry, the motors may be operated at speeds of 1000 steps per second or higher without missing any steps. Ratings for d-c stepping are 5.4 volts d-c, 1.3 amp. per winding for type HS25 and 3 volts d-c, 4 amp. per winding for type HS50.



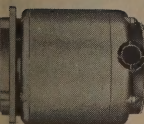
BIFILAR

Used for d-c stepping where use of push-pull circuitry and center-tapped power supply is not possible or where increased torque at high stepping speeds is required.



SPECIAL ENVIRONMENT

High Vacuum types for vacuums to 10^{-6} Torr; High Temperature types for temperatures to 130°C ; High Radiation types withstand dosage of 3,000 megarads. All available from 50 to 1800 oz-in; High Vacuum 25 oz-in also.

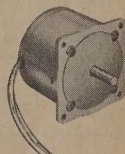


PLANETARY GEAR

Basic 50 and 150 oz-in types and type X250 available with planetary gear assemblies in speeds of 16.6, 3.32, 0.665, 0.133 or 0.027 rpm; 16.6 rpm available in other 250 and on 400 oz-in types.

FOUR-LEAD

Designed for d-c stepping to provide the flexibility needed for use with equipment requiring isolated windings with no common connection.



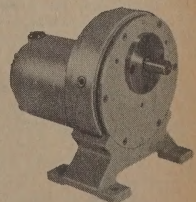
DOUBLE END

Three-lead, bifilar and four-lead types with output shaft at each end of motor available in all listed torque ratings. 50, 150 and 250 oz-in types available also with planetary gear assemblies in 16.6, 3.32, 0.665, 0.133 or 0.027 rpm speeds.



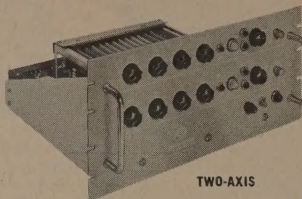
HIGH TORQUE GEARMOTORS

Speeds from 0.5 to 36 rpm, torque ratings from 25 to 1600 lb-in. Consist of single- or double-reduction, parallel-shaft gearbox driven by a SLO-SYN motor. Face or foot mounting possible.



SLO-SYN[®] Preset Indexers

Provide precise control of digital indexing in applications using SLO-SYN motors for positioning. Desired indexing movement up to 99,999 steps of 1.8° each can be preset on the control panel. Speed adjustable from 4 steps/second to maximum possible with motors used. Either manual or automatic recycling possible. Single- and two-axis types offered. Two-axis types are also available with backlash take-up circuit.



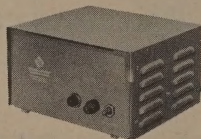
TWO-AXIS



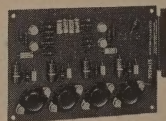
ONE AXIS

SLO-SYN *Translators, Adjustable Speed Drives and Translators Modules*

Pulse-to-step converters for use with bifilar SLO-SYN motors connected for incremental stepping. Used in programmed positioning, indexing and indicating operations. Translators use an external signal source; Adjustable Speed Drivers have oscillator to provide signals; Translator Modules are plug-in printed circuit boards with logic capabilities for stepping SLO-SYN motors.



TRANSLATOR

ADJUSTABLE
SPEED DRIVETRANSLATOR
MODULE

POWERSTAT DC Motor Speed Controllers

Provide continuously adjustable speed control of d-c shunt-wound motors from a-c power lines. Full rated torque available at any speed. Feature instantaneous start, stop and reverse, tubeless transient-protected circuitry. Instantly resettable, fast-opening overload protection is provided in

the armature circuit in addition to fuse protection.

Rated for 120 volt, 60 cycle single phase input. Type MSC16 for motors to 1/8 hp, type MSC33 to 1/2 hp and type MSC75 to 3/4 hp. NEMA frame, 1725 rpm, dc motors in 1/8, 1/4 and 3/4 hp also available.



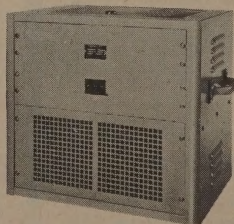
TYPE MSC33

POWERSTAT Automatic DC Motor Speed Controllers

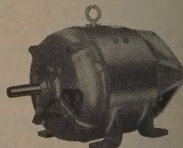
Automatically maintain a preset d-c motor speed regardless of output load variations. Provide adjustable speed drive for heavy-duty equipment. Feature a speed range of 30:1 at constant torque, speed regulation of $\pm 1\%$ of selected speed over the range from zero to full load at nominal input voltage. Have adjustable acceleration control, transient-protected circuitry. Magnetic circuit breaker protects against a suddenly stalled rotor or transient overload. Have built-in synthesized tachometer feedback circuit. Models to 100 hp can be supplied.



OPERATOR'S STATION



POWER AND CONTROL UNIT



MOTOR



THE SUPERIOR ELECTRIC COMPANY

SEE OTHER SUPERIOR ELECTRIC PRODUCT PAGES IN SECTIONS 2100, 4000 AND 5600

NEW

Hurst 600 In. Oz. Model GA

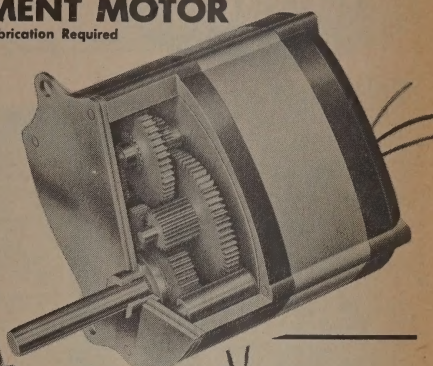
HYSTERESIS REVERSIBLE SYNCHRONOUS INSTRUMENT MOTOR

● Heavy Duty Gearing ● Can Be Stalled Without Overheating ● No Lubrication Required

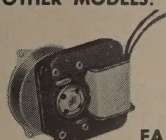
RATED 600 INCH-OUNCE AT 1 RPM (GA Series) Dimensions: 2 1/4" diam. x 3".

OUTPUT SPEEDS: 1, 2, 3, 4, 5, 6, 10, 18, 30, 60, 100, 120, 150, 180, 225, 300 and 3600 RPM (3600 direct drive, no gear train, 1/8" shaft).

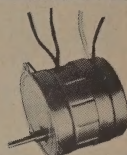
QUANTITY	1 RPM THRU 10 RPM	10 RPM THRU 50 RPM	60 RPM THRU 300 RPM	3600 RPM
1- 9	\$30.50	\$28.65	\$26.45	\$20.40
10-24	28.98	27.22	25.13	19.38
25-49	27.46	25.79	23.81	18.36
50-74	25.94	24.36	22.49	17.34
75-99	24.42	22.93	21.17	16.32
100-249	21.37	20.07	18.52	14.28



OTHER MODELS:



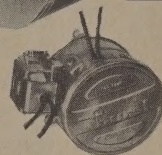
EA



CA



DA
SM



PC-DA
PC-SM
AR-DA
AR-SM

150 INCH-OUNCE (EA Series) — open frame) shaded pole. Completely accurate clockwise rotation. An extremely cool running timing motor with same gear units specified above. Torque, 150 inch-ounce at 1 RPM. Dimensions, 3 1/2" long x 2 3/4" wide x 1 1/4" high. Output shaft 3/8" dia. x 1" long flattened. (Exception: 3600 RPM speed has 1/2" output shaft x 1" long flattened. Shipping Wt., 1 lb. 3 oz.

OUTPUT SPEEDS: 1, 2, 4, 6, 8, 10, 12, 20, 30, 60 and 120 RPM.

EA	Net Each, Lots of				
	1-9	10-24	25-49	50-99	100-249
PRICE	\$ 9.35	8.41	7.99	7.59	7.21
3600 RPM Only	\$ 6.93	6.24	5.93	5.63	5.35

120 INCH-OUNCE REVERSIBLE (DA Series) Instantly reversible (with SPDT switching). Completely accurate both clockwise and counter-clockwise. 100g shock resistance. Vibration resistant, accurate synchronization of 10-55 cps at .065" excursion. Good magnetic shielding. Torque, 120 inch-ounce at 1 rpm. Case dimensions, 2 1/2" dia. x 1 3/4". Output shaft 3/8" dia. x 1" long flattened. Shipping Wt., 1 lb. 1 oz.

OUTPUT SPEEDS: 1, 2, 4, 6, 8, 10, 12, 20, 30, 60 and 120 RPM.

DA	Net Each, Lots of				
	1-9	10-24	25-49	50-99	100-249
PRICE	\$14.60	13.14	12.48	11.86	11.27

(Price includes capacitor)

POSITIVE CLUTCH DA SERIES. Basic DA motor with Positive Clutch and Instantaneous Brake. Starts in 20 milliseconds — stops 60 rpm shaft in 12", 1 rpm, 1/5". Shipping Wt. 1 lb. 5 oz.

OUTPUT SPEEDS: 1, 2, 4, 6, 8, 10, 12, 20, 30, 60 and 120 RPM.

PC-DA	Net Each, Lots of				
	1-9	10-24	25-49	50-99	100-249
PRICE	\$20.18	18.16	17.25	16.39	15.57

(Price includes capacitor)

POSITIVE CLUTCH SM SERIES. Basic SM motor with Positive Clutch and Instantaneous Brake. Starts in 20 milliseconds — stops 60 rpm shaft in 12", 1 rpm 1/5".

OUTPUT SPEEDS: 1/2, 1, 2, 3, 4, 5, 6, 10, 15, 30 and 60 RPM.

PC-SM	Net Each, Lots of				
	1-9	10-24	25-49	50-99	100-249
PRICE	\$17.86	16.07	15.27	14.50	13.78

PRICES SUBJECT TO CHANGE WITHOUT NOTICE

100 INCH-OUNCE REVERSIBLE (CA Series) Instantly reversible (with SPDT switching). Completely accurate both clockwise and counter-clockwise. 1200 rpm rotor speed for quiet performance. Torque, 100 inch-ounce at 1 rpm. Case dimensions, 2 1/2" dia. x 2 1/4". Output shaft 3/8" dia. x 1" long flattened. Shipping Wt., 1 lb. 2 oz. Most versatile and economical motor in its field

OUTPUT SPEEDS: 1/2, 1, 1 1/2, 2, 2 1/2, 3, 4, 5, 6, 8, 10, 12, 15, 16, 20, 24, 25, 30, 32, 33 1/3, 40, 48, 50, 60, 64, 80, 100, 120, 150, 160, 200, 240, 400, 600, 800 and 1000 RPM.

CA	Net Each, Lots of				
	1-9	10-24	25-49	50-99	100-249
PRICE	\$12.51	11.26	10.70	10.17	9.67

(Price includes capacitor)

40 INCH-OUNCE UNIDIRECTIONAL (SM Series) Shaded pole. Clockwise rotation. Instant start at full torque at 40 inch-ounce at 1 rpm. 100g shock resistance. Vibration resistant, accurate synchronization at 10-55 cps at .065" excursion. Case dimensions, 2 1/2" dia. x 1 3/4". Output shaft 3/8" dia. x 1" long flattened. Shipping Wt., 1 lb.

OUTPUT SPEEDS: 1/2, 1, 2, 3, 4, 5, 6, 10, 15, 30 and 60 RPM.

SM	Net Each, Lots of				
	1-9	10-24	25-49	50-99	100-249
PRICE	\$12.28	11.05	10.50	9.98	9.48

100 INCH-OUNCE REVERSIBLE (AR-DA Series) or 40 INCH-OUNCE UNIDIRECTIONAL (AR-SM Series) Each is an Automatic Reset motor when a return spring is attached to the output shaft. When clutch is de-energized the shaft is free for manual or automatic reset. Note: The clutch mechanism is lubricated and completely enclosed. AR Series is designed for heavy applications and will easily handle full torque on model SM or DA (either directional rotation). Physical size and appearance same as PC Series. Accurate within 1/5 second at 1 RPM and more accurate at higher speeds. Max. error in seconds .5625. Case dimensions, 2 1/2" dia. x 2 1/4". Clutch actuator RPM

3/4" height x 1 1/4" width. Output shaft 3/8" dia. x 1" long flattened. Mounting same as standard motor shown in sketch. Shipping Wt., 1 lb. 6 oz.

OUTPUT SPEEDS: 1, 4, 6, 10, 30 and 60 RPM.

AR-DA	Net Each, Lots of				
	1-9	10-24	25-49	50-99	100-249
PRICE	\$23.80	21.42	20.35	19.33	18.36

AR-SM	Net Each, Lots of				
	1-9	10-24	25-49	50-99	100-249
PRICE	\$21.50	19.35	18.38	17.46	16.59

SUPSEDES PREVIOUS LISTING

hurst MANUFACTURING CORP.

AUTOTRON



Page 1

Transistorized A725 ON/OFF Control A750 and A750DA Timing Controls

AUTOTRON, INC.

Features of

A725, A750 and A750DA

One connection changes from LIGHT- to DARK-energized operation (or vice versa). 5.8, 4.7, 3.3, 2.5, 2.2 and 1.1 Light Source Voltages makes available minimum suitable voltage for maximum lamp life and maximum speed of sensing cell response.

Rugged, 5-amp DPDT Plug-in Relay.

a. Plug-in mounting permits replacement in seconds without special skill or tools

b. Transparent enclosure protects against dust, physical injury and tampering.

Rectified output current for positive and QUIET operation of control relay.

Transistors protected from transient voltages.

Cad Cells are exceptionally well shielded from extraneous light.

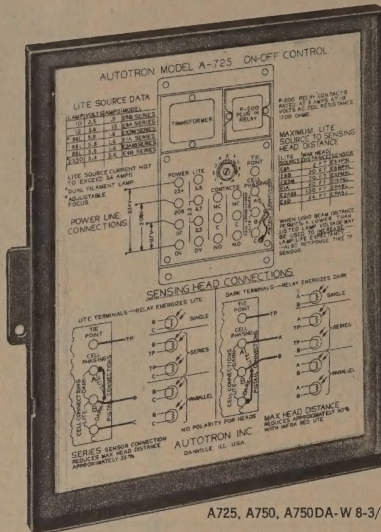
All circuit components are securely mounted on a modern circuit board.

All contacts of the DPDT Relay wired to large, screw type terminals.

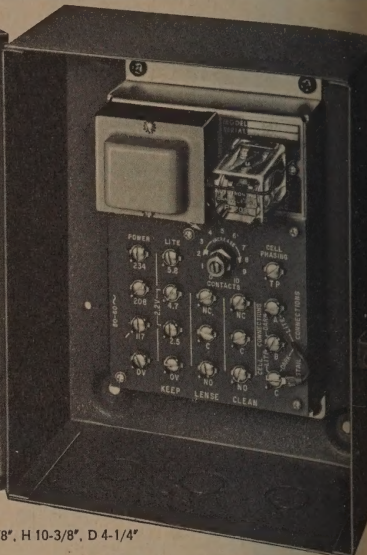
Operate at ambient temperatures to 115°F.

In JIC enclosures at \$12.50 extra.

Operate from 234, 208 and 117 V, 50-60 c.



A725, A750, A750DA-W 8-3/8", H 10-3/8", D 4-1/4"



A725 ON/OFF Control

FAST ACTING — .025 sec. light time and .025 sec. dark time minimum.

SENSITIVE — Adjustment has shaft lock.

Power Consumption, 15 watts.

Energizes LIGHT connected to LIGHT terminals.

Energized DARK connected to DARK terminal.

A725 ON/OFF Control less heads.....\$69.50

Control-Pak Numbers Control-Sensor-Light Source	Max. Feet betw. heads	Control-Pak Net Price
A725-E8AP9LC-E8AC	2	\$102.50#
A725-E8AP9LC-E8AC	2	102.50#
A725-E8BAP9LC-E8BAC	15	102.50#
A725-E8BP9LC-E8BC	30	102.50#
A725-EXPM9LC-EX3ME	70	109.50
A725-EIAP6LC-EIAE	60	104.50
A725-EPA9LC-E2A88E	150	109.50
A725-EPA9LC-E4BE	24	127.50
A725-EL10LH	†12	▲38.25

†Distance between Scanner Lens and Reflector

‡When used with No. P380 Retro-Reflector

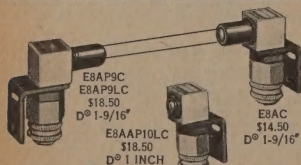
▲No. P380 Retro-Reflector, 3" diameter, \$1.50 additional.

□ A750P has sensitivity adjustment with shaft lock.

#Mounting bracket and cord grip are standard. Furnished with cord assembly potted inside housing, without mounting bracket at no extra charge when specified.

Use of infrared filters reduces maximum distance between heads approximately 50%

E8AP/E8A Remote Heads



Series E8A and E8B Construction

Housings are machined from aluminum. Lenses are ground and polished. Lens assemblies are easily removed without dismounting to provide accessibility for inspection or replacement of cell or lamp.

Heads can be turned to any position in the mounting brackets. Overall height, including bracket, 2 1/4"; including cord grip, approx. 2 1/2"; overall width, including bracket, 15/16". Dimensional diagrams on request.

A750 Timing Control

Timing Ranges (specify)

Range No. .7 adjustable 1 to 8 seconds, approx. Range No. 1.0-2 to 16 seconds, approx.

(other ranges available—tell us what you need) Timing adjustment has shaft lock.

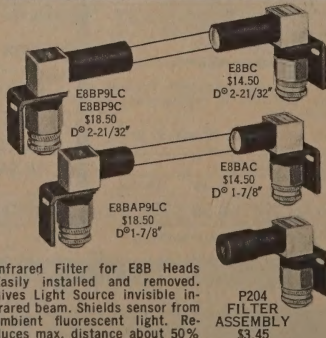
Energizes LIGHT and times out DARK connected to LIGHT terminal. Recycle time is almost instant (.015 sec. max.) and is independent of light level on the sensing cell. Timing control is voltage regulated and variation in timing between 100 and 130 volts is negligible.

Energizes DARK and times out LIGHT connected to DARK terminal. Recycle time is 50 milliseconds min. depending on light intensity on the sensing cell. For minimum recycle time reduce light intensity to minimum operating value. Power consumption 15 watts

A750 Timing Control less heads.....Net \$88.00

Control-Pak Numbers Control-Sensor-Light Source	Max. Feet betw. heads	Control-Pak Net Price
A750-E8AP9LC-E8AC	1	\$121.00#
A750-E8AP9LC-E8AC	1	121.00#
A750-E8BAP9LC-E8BAC	7.5	121.00#
A750-E8BP9LC-E8BC	15	121.00#
A750-EXPM9LC-EX3ME	35	128.00
A750-EIAP6LC-EIAE	30	123.00
A750-EPA9LC-E2A88E	75	128.00
A750-EPA9LC-E4BE	12	146.00
□ A750P-EL10LH	†12	▲126.75

E8BP/E8B Remote Heads



Infrared Filter for E8B Heads
Easily installed and removed.
Gives Light Source invisible infrared beam. Shields sensor from ambient fluorescent light. Reduces max. distance about 50%

P204
FILTER
ASSEMBLY
\$3.45

A750DA Impulse Timing Control

Timing Ranges (specify)

Range No. .7 adjustable 1 to 8 seconds, approx. Range No. 1.0-2 to 16 seconds, approx.

(other ranges available—tell us what you need) Timing adjustment has shaft lock.

A750DA is an impulse actuated Photoelectric Timing Control. Connected to LIGHT terminal the control relay energizes instantaneously when LIGHT strikes the cell and remains energized through the pre-set timing period even though the cell goes DARK. When LIGHT comes again before timing period expires the relay remains energized through another complete timing period. When connected to the DARK terminal operation is the same except LIGHT and DARK are reversed.

Power consumption 20 watts.

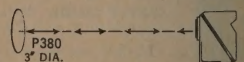
A750DA Timing Control less heads.....\$134.00

Control-Pak Numbers Control-Sensor-Light Source	Max. Feet betw. heads	Control-Pak Net Price
A750DA-E8AP9LC-E8AC	2	\$157.00#
A750DA-E8AP9LC-E8AC	2	157.00#
A750DA-E8BAP9LC-E8BAC	15	157.00#
A750DA-E8BP9LC-E8BC	30	157.00#
A750DA-EXPM9LC-EX3ME	70	164.00
A750DA-EIAP6LC-EIAE	60	159.00
A750DA-EPA9LC-E2A88E	150	164.00
A750DA-EPA9LC-E4BE	24	182.00
A750DA-EL10LH	†12	▲152.75

‡Dimension in direction of Light Beam

EL10H Retro-Reflective Sensing Head

Lamp and sensing cell are in the same housing. Light projected through the lens strikes a retro-reflective surface, and returns through the same lens to the sensing cell. The retro-reflective surface may be tilted up to 15° from perpendicular to the light path.



Distances on the charts are based on use of No. P380 3" diameter Retro-Reflector. Retro-reflective paint, etc. may be used—the reflective quality of the target affects the operating distance.

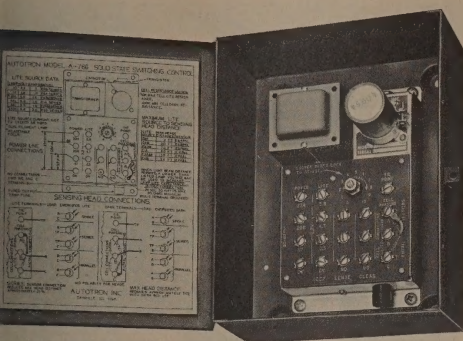
Gasket-sealed, cast-aluminum case, with 6-ft. multi-conductor factory-connected cable. Flange at front and bottom have four .201" mount holes on .62 x 2.87 centers. Width, including flanges, 3.43"; height, 3.59".

A766 Photo-Control with Solid State Switching

A741B High-Speed Counting Eye

Page 2

AUTOTRON



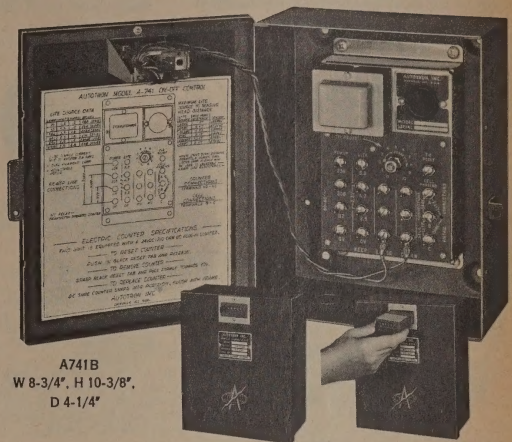
W 8-3/4", H 10-3/8", D 4-1/4"

A766 Transistorized Photo Control with Solid State Switching

A766 Photoelectric Control uses Solid State Switching instead of conventional relays, thereby avoiding weaknesses inherent with mechanical contactors.

Features

VDC Fused Output, 30 watt max.—20-ohm load min.
T- or DARK-actuated—a single connection adjusts phasing.
ACTING—.04 second DARK time; .02 second LIGHT time.
Velocity Adjustment with shaft lock.
 Motors are protected from transient voltage.
 Range of 5.8, 4.7, 3.3, 2.5, 2.2 and 1.1 Light Source Voltage provides an operating voltage for prolonged lamp life and increased speed of cell response.
 Circuit components are securely mounted on printed circuit board.
 Operates at ambient temperatures up to 115°F.
 Housed in JIC enclosures at \$12.50 extra.
 Power consumption, 45 watts, maximum.
 Operates from 234, 208, and 117 V, 50-60 C.
 Control without pick-up.....\$88.50



A741B
 W 8-3/4", H 10-3/8",
 D 4-1/4"

A741B Hi-Speed Transistorized Counting Eye

Rectified output current for positive DC actuation of F043 Counter—no relay contacts to maintain.

25 counts per sec. (.015 sec. min. Light, .025 sec. min. Dark).
 Instant Reset 6-digit Plug-in Counter—counts up to 40 million counts without missing a count. Life expectancy 150 million counts. Easily removed for inspection or replacement.

Provides 5.8, 4.7, 3.3, 2.5, 2.2, and 1.1 Light Source Voltages.

Transistors are protected from transient voltages.

All circuit components are securely mounted on printed circuit board.

Operate at ambient temperatures up to 115°F.

Operate from 234, 208 and 117 v, 50-60 c.

Power Consumption 200 watts.

A741B—Includes A741 Control with F043C Counter, Socket and Frame assembly mounted in Control Door Panel and wired as illustrated. \$111.75

Control-Pak Numbers —Sensor-Light Source	Max. Feet betw. heads	Control-Pak Net Price
EA9PC-E8AC	1 ft.	\$121.50*
EB9PC-E8BC	8 ft.	121.50#
EXPM9C-EX3ME	15 ft.	128.50
E1AP6C-E1AE	10 ft.	123.50
EA9C-E2A8BE	30 ft.	128.50
EA9C-E4BE	12 ft.	146.50

Reflective Sensors

E8L1P11G*	11 1/2 ft.	117.25
E8S11G*	13 in.	117.25
E8S11G-6A*	13 3/4 in.	120.75
E8S11G-4A*	1 1/2 in.	120.75

*Described on page 3
 †Distance between Scanner Lens and Reflector
 #When used with No. P380 Retro-Reflector
 ‡No. P380 Retro-Reflector, 3" diameter, \$1.50 additional.

#Mounting bracket and cord grip are standard.
 Furnished with cord assembly potted inside housing, without mounting bracket at no extra charge when specified.

Use of infrared filters reduces maximum distance between heads approximately 50%.

All sensing, light source and reflector type heads are equipped with factory installed 6-foot cables for connecting to controls.

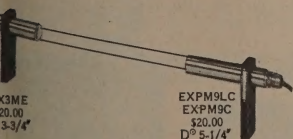
Do Dimension in direction of Light Beam

Control-Pak Numbers —Control-Sensor-Light Source	Max. Feet betw. heads	Control-Pak Net Price
A741B-E8AP9C-E8AC	1 ft.	\$144.75*
A741B-E8BP9C-E8BC	8 ft.	144.75#
A741B-EXPM9C-EK3ME	15 ft.	151.75
A741B-E1AP6C-E1AE	10 ft.	146.75
A741B-EPA9C-E2A8BE	30 ft.	151.75
A741B-EPA9C-E4BE	12 ft.	169.75

Reflective Sensors

A741B-E8L1P11G*	13 in.	140.50
A741B-E8S11G*	13 in.	140.50
A741B-E8S11G-6A*	13 3/4 in.	144.00
A741B-E8S11G-4A*	1 1/2 in.	144.00

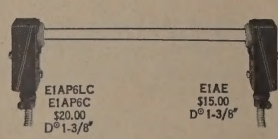
EXPM/EX3M Remote Heads



EXPM9C \$20.00
 EX3ME \$3.94
 D° 5-1/4"

Adjustable Focus Light Source has light adjustable from focal size of 1/4" x 3/4" at focal length to 7/16" x 1" focal size at 6" length. Also adjustable to straight light No. 88, 1.6 ampere lamp is housed with lens in brass tube mounted in aluminum bracket. Height 4 3/4", width 1 1/2".

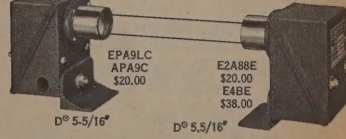
E1AP/E1A Remote Heads



E1AP6C \$20.00
 E1AE \$15.00
 D° 1-3/8"

Series E1A heads have 3/4" diameter lenses mounted in flexible silicon rubber. Gasket sealed aluminum cases are tapped for 1/2" conduit. May be adjusted with rigidly positioned on 1/2" pipe or conduit with lock nut. Case easily opened for inspection of lamp or cell with mounting undisturbed. Depth of case in direction of light beam, 1 3/8"; width, 1-7/16"; height 3 3/8".

EPA/E2A-E4B Remote Heads



EPA9C \$20.00
 E2A8BE \$20.00
 E4BE \$38.00
 D° 5-1/6" D° 5/16" D° 5/16"

EPA9C, E2A8BE, and E4BE each has 1 1/2" diameter lens mounted in a gasket-sealed cast aluminum case with adjustable mounting bracket tapped for 1/2" conduit. Width 4"; height 5 1/4". E2A8BE Light Source has 88L lamp. E4BE has No. 2330B pre-focused two-filament lamp and extra low voltage connection. The pre-focused lamp permits replacement with minimum change in light beam. The dual filaments provide protection against shutdowns—when one filament fails, the other lights up instantly, and a signal light in the housing comes on.

AUTOTRON

Page 3

Miniature Photo Reflective Heads and 800B Transistorized Control

E8LP11G Scanner Head

Dotted line represents path of reflection—not the light beam

reflective surface

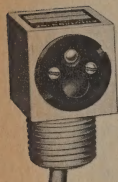
E8LP11G Scanner Head for specular reflective control. Responds to ordinary reflective surface and light beam must be directed perpendicular to the reflective surface for light to bounce back and strike the light sensing cell.

E8S11G Scanner Head

Dotted line represents path of reflection—not the light beam

retro-reflective surface

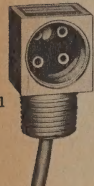
E8S11G Coaxial Scanner responds to retro-reflective surface (tape, chalk, ink, paint, etc.). Light beam need not be perpendicular to the surface; with an angle of incidence up to 45° and more light bounces straight back to the source.



E8LP11G Miniature Scanner Head

For high speed scanning service in minimum space. E8LP11G Scanner Head combines the fast acting cadmium selenide cell and the light source lamp in a single miniature housing (approximately 1/8 inch in all three dimensions plus 3/8" male pipe thread connection. See dimensional diagram below.)

The light sensing element is a fast response, cadmium selenide cell. The lamp has a built-in lens. An infrared filter helps protect against ambient light. The lamp rating is 2.5 volts at .5 amperes-life expectancy up to 75,000 hours depending on operating voltage.



Unique Design—Rugged Construction

- Housing (1) is precision machined from bar aluminum for ruggedness and stability. In production quantities can be furnished in specified colors.
- Removing a ring nut (2) releases capsule (3) containing cadmium selenide cell and light source lamp.
- Removing two screws from capsule (not visible in photo) permits replacement of cell and lamp.
- Polarized design assures correct position on four spring loaded contacts (4) when capsule is inserted in the head.
- 6-foot cable is factory-connected to terminals in housing.
- Cable, terminal connections and contact base are encapsulated in the housing with epoxy resin.

E8LP11G Scanner Head including mounting bracket, also 6-foot factory-connected cable with cable grip and seal for connecting to 800 control. \$28.75



Dimensions, Diagram 181

For use with retro-reflective tape or other retro-reflective material. Is used with a retro-reflective mirror when it acts as a sort of limit switch or for detecting or identifying objects with retro-reflective markings, code marks, labels, etc.

The light beam does not need to be perpendicular to the retro-reflective surface; beams at angles up to 15° and more (depending on condition) bounce straight back to the cell.

E8S11G Scanner Head† with mounting bracket, 6-foot factory connected cable, cable grip and seal for connection to the control. \$32.25

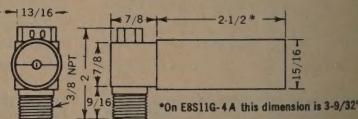
E8S11G-6A Coaxial Scanner Head†

For use with retro-reflective surfaces. Has a pin-point type beam. Focal length is 3 1/4" (from the end of the Neoprene Light Shield). Focal size is 1/16 x 5/16. Complete with mounting bracket, 6-foot factory connected cable, cable grip and seal. \$32.25

focal length 3 1/4" focal size 1/16 x 5/16

E8S11G-4A Coaxial Scanner Head†

For use with retro-reflective surfaces. Has a pin-point light beam. Focal length is 7/8" (from the end of the Neoprene Light Shield). Focal size is 1/32 x 1/8. Complete with mounting bracket, 6-foot factory connected cable, cable seal and grip. \$32.25



*On E8S11G-4A this dimension is 3-9/32"

800B Transistorized Control-Paks

Control	Scanner	Distance	Price
800B	E8LP11G	17 in.	96.25
800B	E8S11G	60 in.	96.25
800B	E8S11G-6A	*3 1/4 in.	99.75
800B	E8S11G-4A	*7/8 in.	99.75

For 115/230 volts, 50-60 Cycles.

*focal length

Other controls used with E8LP11G and E8S11G shown on page 2.

800B Sensitive Transistor Photo Control

for use with E8LP11G and E8S11G Scanner Heads and other remote cad cell heads where extra sensitivity is needed.

FEATURES

Chatter free relay operation—due to square wave signal sent to relay coil.

The latest silicon transistors assure extreme temperature stability not obtainable with ordinary transistors.

FAST ACTING—.025 second light time; .025 second dark time, minimum.

EXTREMELY SENSITIVE—Sensitivity adjustment has shaft lock.

Rugged 5-ampere DPDT Relay, plug-in mounted with "see thru" plastic cover.

A. Cover protects against foreign matter, physical injury and tampering.

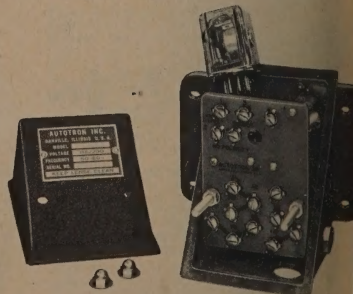
B. Plug-in mounting permits replacement in seconds without tools or special skill. Transistors are protected from transient voltage.

All Circuit components are securely mounted on a modern circuit board.

All contacts of the DPDT relay wired to large, easily accessible, screw type terminals. Splashproof cast aluminum case tapped for 3/4" conduit.

Power consumption, 5 watts. Shipping weight 2 1/2 pounds.

800B ON/OFF Control.....\$67.50



800B Transistor Photo Control

High Sensitivity, Transistorized, Compact Photoelectric Controls

Page 4



A579B, A579BA ON/OFF and A579BP Timing Controls

atures of above controls

transistorized.
ful Cad Cell is shock-protective
ated in fixed alignment.

Cell is exceptionally well shielded
extraneous light.

Acting — .02 second light; .03
dark time, minimum.

ive—5 fc minimum light.

ed, 5-ampere DPDT plug-in re-
n plastic enclosure.

Rectified output for positive and
QUIET DC control relay operation.

Transistors are protected from tran-
sient voltage.

All circuit components are securely
mounted on printed circuit board.

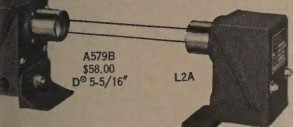
All relay contacts are wired to large,
screw type terminals.

Cast aluminum case is gasket-sealed.

Maximum ambient temperature is
115°F.



A579B ON/OFF Control



Control relay energizes when light is on the cell;
de-energizes when light beam is interrupted.
1/2" diameter lens mounted in brass lens tube.
Terminals for 2.5 V Light Source.

Delay is easily added by connecting capaci-
tors to marked terminals. The delay times out
of DARK (delays de-energizing of control relay
when light beam is interrupted). Instructions in-
cluded with each control.

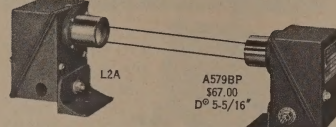
Power consumption, 5 watts.

Gasket-sealed cast aluminum case, tapped for 3/4"
conduit, has adjustable mounting bracket. D°
5-5/16", W 4" H (less bracket) 5 1/4". Weight
3 lbs. For 115/230v, 50-60c.

Control-Pak lenses	max. ft. between lenses	Control- Pak NET	With Y Feature Control-Pak Number	NET
3-1A	15	\$76.50	A579B-L1AY	\$81.50
3-1A	30	79.80	A579B-L2AY	84.80
3-4	(N —) (L 6)	107.50	.....	.....
3-4	adj.F.	87.30	A579B-L3AY	92.30

Light Sources are described on page 5.

A579BP Timing Control



Relay energizes LIGHT: times out DARK (when
light beam is interrupted timing elapses before
relay de-energizes) Time Delay adjustment from
outside case; equipped with shaft lock.

Repeat accuracy 4%.

Adjustable! No. 0.4: 0.1 to 5 sec.

Timing Ranges! No. 2.0: 1.0 to 20 sec.

1 1/2" diameter lens housed in brass lens tube.

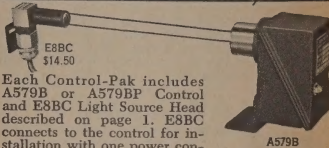
Power consumption, 5 watts.

Gasket-sealed cast aluminum case, tapped for 3/4"
conduit, has adjustable mounting bracket. D°
5-5/16", W 3-15/16", H 5 1/4", weight 3 lbs.
For 115/230v, 50-60c.

Control- Pak Numbers	max. ft. between lenses	Control- Pak NET	With Y Feature Control-Pak Number	NET
A579BP-L1A	15	\$ 85.50	A579BP-L1AY	\$90.50
A579BP-L2A	30	88.80	A579BP-L2AY	93.80
A579BP-L4	(N —) (L 6)	116.50	.....	.....
A579BP-L3A	adj.F.	96.30	A579BP-L3AY	101.30

Light Sources are described on page 5.

A579B and A579BP-E8BC C-Paks

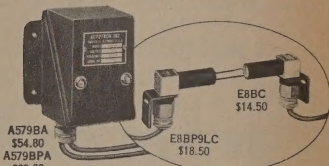


Each Control-Pak includes
A579B or A579BP Control
and E8BC Light Source Head
described on page 1. E8BC
connects to the control for in-
stallation with one power con-
nection. Power consumption, 5 watts. For
115/230v, 50-60c.

A579B-E8BC ON/OFF Control-Pak Net \$72.50
maximum distance between lenses, 6 feet

A579BP-E8BC Timing Control-Pak Net \$81.50
maximum distance between lenses, 8 feet

A650 and A650A Control-Paks



A579BA and A579BPA Controls have same fea-
tures as A579B and A579BP except sensing el-
ement is omitted; and they have terminals for
connecting E8BP9LC and E8BC Heads described
on page 1. 115/230v, 50-60c. Power Consump-
tion 5 watts.

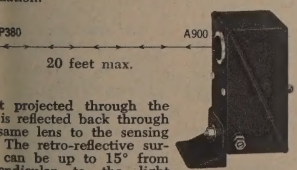
Gasket-sealed cast aluminum case, tapped for
3/4" conduit, has mounting flanges on both sides.
D 3 3/8", W, including flanges, 6-3/16", H 5 3/8".
Four mounting holes for 1/4" bolts on 3 by 5 1/2"
centers. Shipping weight 2 1/2 lbs.

A650 ON/OFF Control-Pak—includes A579BA,
E8BP9LC, and E8BC.....Net \$87.80
max. distance between heads, 12 feet

A650A Timing Control-Pak—includes A579BPA,
E8BP9LC and E8BC.....Net \$96.80
max. distance between heads, 6 feet

00 ON/OFF and A900P Timing Retro-reflective Photo Controls

P380 and A900P each is a Control-Pak in one
Sensing cell, light source, amplifiers, sensi-
tivity adjustment and control relay are all in the
housing. Only one connection to power is re-
quired. A retro-reflective surface completes the
circuit.



Light projected through the
lens is reflected back through
same lens to the sensing
cell. The retro-reflective sur-
face can be up to 15° from
perpendicular to the light
beam. Retro-reflective quality of the target affects
sensing distance.

A900 and A900P Features

High Sensitivity with Sensitivity Adjustment from
outside the case. Provides dependable operation
when objects block the light beam; also with
limited light change such as may be provided
by retro-reflective tape on a moving carton.

Transistorized.

Rugged 5-amp DPDT plug-in relay, with dust
cover.

Rectified output for DC operation of Relay.

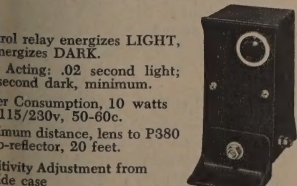
Transistors protected from transient voltage.

All circuit components securely mounted on
modern printed circuit board.

All Relay Contacts wired to screw type terminals.
Maximum ambient operating temperature, 115°F.

Gasket-sealed cast aluminum case, tapped for
3/4" conduit, has adjustable mounting bracket;
D (direction of light beam) 3 3/8", W 4", H 6 1/8".
Shipping weight, 3 1/2 lbs.

A900 ON/OFF Control



Control relay energizes LIGHT,
de-energizes DARK.
Acting: .02 second light;
second dark, minimum.

Power Consumption, 10 watts
115/230v, 50-60c.

Maximum distance, lens to P380
30 feet.

Sensitivity Adjustment from
outside of case

Retro-Reflective ON/OFF Control \$65.00*

A900P Timing Control

Control relay energizes LIGHT,
Times out DARK.

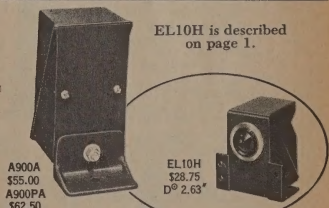
Timing Ranges
No. 0.5 — 0.5 to 4.5 seconds
No. 0.7 — 1 to 8 seconds
Timing Adjustment and Sensitivity
Adjustment from outside
of case.

Power Consumption, 10 watts
For 115/230v, 50-60c.

Maximum distance, lens to
P380, 20 feet.

A900P Retro-Reflective Timing Control \$72.50*
*P380 Retro-reflector is \$1.50 additional.

A900A and A900PA-EL10H C-Paks



EL10H is described
on page 1.

A900A

\$55.00

A900PA

\$62.50

EL10H

\$28.75

D° 2.63"

A900A and A900PA have the same features,
and the same cases as A900 and A900P respectively,
except the sensing element is omitted and ter-
minals are provided for connecting EL10H Retro-
reflective Sensing Head. For 115/230v, 50-60c.
Power consumption, 10 watts.

Maximum distance, EL10H lens to P380, 20 feet.

A900A-EL10H ON/OFF Control-Pak

A900A has sensitivity adjustment with shaft lock.
Control Relay energizes LIGHT, de-energizes
DARK.

.02 second light; .03 second dark, minimum.

A900A-EL10H ON/OFF Control-Pak...\$83.75*

A900PA-EL10H Timing Control-Pak

A900PA has timing and sensitivity adjustments
with shaft locks.

Control Relay energizes LIGHT, times out
DARK.

Timing Range: No. 0.5 - 0.5 to 4.5 seconds.

A900PA-EL10H Timing Control-Pak...\$91.25*

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Light Sources for use with Photoelectric Controls Compact Photoelectric Controls

Series L1 Light Sources

Series L1 Light Sources have $\frac{3}{4}$ " lens mounted in flexible silicon rubber and housed in gasket-sealed cast aluminum cases. Covers of all cases are easily removed for access to lamps with mounting undisturbed.

L1A Light Source

D ϕ 3-3/4", W 4", H 5-1/4"

Gasket-sealed cast aluminum case, tapped for $\frac{1}{2}$ " conduit, has adjustable mounting bracket. Weight 2½ lbs. For 115/230v, 50-60 c.



Model	L1A	L1AY	L1AR	L1ARY
Net each	\$18.50	\$23.50	\$30.50	\$35.50

L1B and L1C Light Sources

L1B and L1C: D ϕ 3-3/4", W 4", H 5-1/4"

L1B and L1C Light Sources have 3-way adjustment for aligning lamp with control without moving case. Mounting adjustment permits focusing lamp for straight beam or pin-point beam. Low voltage operation extends lamp life.

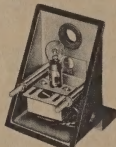
High voltage tap is provided for extremely dirty conditions. Gasket-sealed cast aluminum case is tapped for $\frac{1}{2}$ " conduit. Weight 2½ lbs. For 115/230v, 50-60 c.

L1B Light Source has mounting holes in the bottom of the case and has no mounting bracket.

L1B Light Source Net \$18.50

L1C Light Source has adjustable Mounting Bracket.

L1C Light Source Net \$19.75



L1C with cover removed

L1D Light Source

L1D: D ϕ 1.93", W 3.28", H 5.62"

Space-saving gasket-sealed cast aluminum case has mounting flanges front and bottom. Front flanges have four mounting slots; bottom flanges have four mounting holes for $\frac{1}{4}$ " bolts on $\frac{7}{8}$ " x 2½" centers.

Lamp operates at low voltage for extended life. Case is tapped for $\frac{1}{2}$ " conduit. For 115/230V 50-60C. Weight 1½ lbs.

L1D Light Source Net \$18.50



L1DA Light Source

L1DA: D ϕ 2.18", W 1.96", H 5.62"

Another space saver—Gasket-sealed cast aluminum case is tapped in center of bottom for $\frac{3}{4}$ " pipe. Use of lock nut permits rigid positioning. Adjustable bracket described below. For 115/230V 50-60C. Weight 1½ lbs.

Lamp operates at low voltage for extended life.

L1DA Light Source Net \$18.50



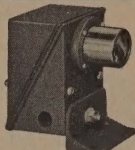
Adjustable Mounting Bracket

For L1DA Light Source and BC3A Control. Clamp fits $\frac{3}{4}$ " pipe which screws into tapped opening in bottom of above housings. Pipe may be raised, lowered and rotated. Two socket-head set screws lock pipe in desired position.



P381 Adjustable Mounting Clamp.....Net \$2.95

L2A Light Source

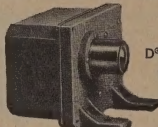


L2A: D ϕ 5-5/16", W 4", H 5-1/4"

L2A Light Source has $\frac{1}{2}$ " lens mounted in brass lens tube. Gasket-sealed cast aluminum case, tapped for $\frac{1}{2}$ " conduit, has adjustable mounting bracket. Operates from 115/230 V, 50-60 cycles. Weight 2½ lbs.

Model No.	L2A	L2AY	L2AR	L2ARY
Net each	\$21.80	\$26.80	\$33.80	\$38.80

L4 Dual Filament Light Source



L4
D ϕ 6", W 7-1/4", H 5-1/4"
Weight, 7 lbs.

L4 Light Source has $\frac{1}{2}$ " lens mounted in brass lens tube.

Has prefocused, two-filament lamp, extra low voltage connection and $\frac{1}{2}$ " OD straight fixed beam. The prefocused lamps permit replacement with minimum change in the light beam. The dual filaments provide protection against shut-downs—when one filament fails the other lights up and a signal light in the housing comes on indicating that the lamp should be replaced as soon as convenient. Splashproof cast aluminum case with rigid mounting feet, tapped for $\frac{1}{2}$ " conduit. Operates from 115/230 V, 50-60 C.

L4 Light Source.....Net \$49.50

L6 Hi Intensity Light Source

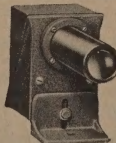


L6
D ϕ 6",
W 7-1/4"
H 5-1/4"

Has high intensity spot beam for extremely adverse conditions such as steam, vapor, fog, heavy rainfall, etc. The #4515 sealed-beam spot lamp is swivel-mounted for directional adjustment of the beam. Lamp life expectancy; 3000 hours at normal voltage, 10000 hours at low voltage. See footcandle rating in table below. Gasket sealed cast aluminum case tapped for $\frac{1}{2}$ " conduit. 115/230 V, 50-60 C. Weight 7 lbs.

L6 Light Source.....Net \$36.00

L3A Adjustable Focus Light Source



L3A
D ϕ 8", W 4", H 5-1/4"

Has $\frac{1}{2}$ " lens with light beam adjustment from a minimum focal length of 4' and corresponding focal size of 5/16 x $\frac{1}{4}$ " to a straight light beam of $\frac{1}{2}$ " O.D. Light output at twice the focal distance exceeds 30 foot-candles.

Increasing the focal length increases the focal size. For example at 6' focal length the focal size is $\frac{1}{2}$ x $\frac{3}{4}$ " and at 12' focal length the focal size is $\frac{1}{2}$ " (straight light beam).

Splashproof cast aluminum case with adjustable bracket; tapped for $\frac{1}{2}$ " conduit.

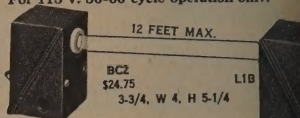
115/230v. 50-60 cycles. Weight 3 lbs.

Model No.	L3A	L3AY	L3AR	L3ARY
Net each	\$29.30	\$34.30	\$41.30	\$46.30

D ϕ Dimension in direction of Light Beam

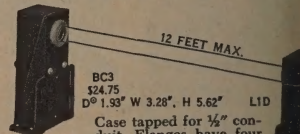
BC2, BC3 and BC3A Controls

Light-Energized. Cad Cell sensing element. $\frac{3}{4}$ " lens mounted in flexible silicone rubber. Min. dark time .06 sec.; min. light time .06 sec. Contacts SPDT, 3-amps at 115 VAC resistive. Relay plastic enclosed. Power Consumption. Gasket-sealed cast aluminum cases. For 115 v. 50-60 cycle operation only.



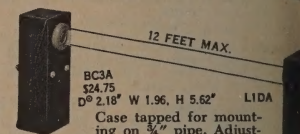
tapped for $\frac{1}{2}$ " conduit, 3-mounting holes in bottom. Weight 2 lb.

BC2-L1B Control-Pak.....\$43.25



Case tapped for $\frac{1}{2}$ " conduit. Flanges have four .76" mounting slots on $\frac{7}{8}$ " x 2½" centers. Weight 1½ lbs.

BC3-L1D Control-Pak.....\$43.25



Case tapped for mounting on $\frac{3}{4}$ " pipe. Adjustable mounting bracket shown on page 5. Weight 1½ lb.

BC3A-L1DA Control-Pak.....\$43.25

Lamp Life Chart

Lamp No.	Light Source	Life Expectancy in Hours			
		6 V.	5 V.	3.8 V.	2.5 V.
88L	{L1A, L2A, L3A, E1A, E2A88, EX3M}	2500	8000	15000	.....
12	E8A	5000	15000	indefinite	.....
10	E8B	.....	.....	.....	5000
2330	L4, E4A	500	4000	8000	.....

Light Source Features

Y Feature—Beam intensity adjustable. Light Source has a sliding resistor inside case for adjusting intensity of source lamp. Operating with reduced intensity prolongs lamp life.

R Feature—SAFETY RELAY built into the Light Source energizes when the line comes on; de-energizes when the line or power fails. Relay Contacts are SPST, rated 5 amps at 115 VAC, non-inductive. The relay may be used to operate a chime, close a valve, operate a signal, etc.

Control Features

R Feature—SAFETY RELAY built into the control energizes when power comes on; de-energizes if a tube filament burns out or power goes off. Relay contacts are SPDT, rated 5 amp. at 115 VAC, non-inductive.

Photoelectric ON/OFF Controls and Timing Controls

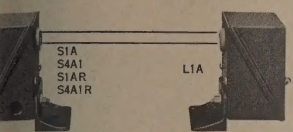
Page 6



S Series ON/OFF Photoelectric Controls

Industrial Photoelectric Controls, moderately sensitive, factory adjusted for use where it interrupts light beam 100%. Minimum time, .06 second; minimum light time, .06 seconds.

A and S4A1 ON/OFF Controls



Above controls have 3/4" lens mounted in clear silicon rubber—require 20 foot-candles minimum light.

h (direction of light beam) 3 1/4"; width, 4"; height, 5 1/4"; weight, 2 lbs.

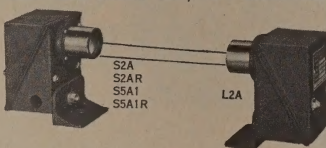
Control	LIGHT† energized	50-60 cycles VOLTS	NET each
S4A1	115/220	\$43.75	
S4A1R*	115 or 220 (specify)	\$55.75	

Plate Relay Contacts, SPDT, rated 8 amperes at 115 VAC non-inductive load.

Splashproof cast aluminum case with adjustable bracket; tapped for 1/2" conduit.

Power consumption 10 watts.

S2A and S5A1 ON/OFF Controls



All above controls have 1 1/2" lens mounted in brass lens tube—require 10 foot-candle minimum light.

Depth (direction of light beam) 5-5 1/16"; width, 4"; height, 5 1/4". Weight 3 lbs.

Control	LIGHT† energized	50-60 cycles VOLTS	NET each
S2A	115/230	\$49.75	
S2AR*	115 or 230 (specify)	\$61.75	

S Series Control-Paks

Control-Paks energized lenses		max. ft. between lenses	Min. Dark Time	Min. Light Time	Net per Set
DARK	LIGHT				
S1A-L1A	S4A1-L1A	8	.06	.06	\$62.25
S2A-L1A	S5A1-L1A	12	.06	.06	68.25
S2A-L2A	S5A1-L2A	20	.06	.06	71.50
S2A-L4	S5A1-L4	{ N 12 } { L 4 }	.06	.06	99.25

Light Sources are described on page 5.

Notes

Also see page 5

*R suffix designates built-in SAFETY Relay that energizes when power comes on; de-energizes if power fails or tube filament burns out. (See page 5).

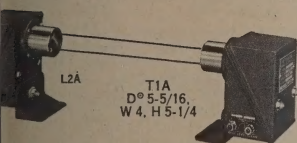
†DARK energized controls energize when the tube is dark. (See page 5).

†LIGHT energized controls energize when light is on the tube. (See page 5).

H Feature—built-in heating element to prevent condensation inside the housing where subjected to humidity and abrupt temperature changes.

T Series Photoelectric Timing Controls

T1A Timing Control



energizes DARK—unit times out DARK. delay with shaft lock adjustment from 10 seconds. Repeat accuracy 4%. Minimum 40 foot-candles. Plate relay: Contacts T, rated 8 amps at 115 v. AC, non-inductive. Splashproof aluminum case, tapped for 1/2" conduit. Adjustable mounting bracket. Lens diameter 1 1/2". Weight 3 lbs.

Timing Control.....NET \$57.50

T3A and T5A Timing Controls

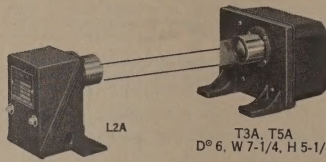


Plate Relay: Contacts DPDT, rated 8 amps at 115 v. AC, non-inductive load. Time delay adjustment has shaft lock. Splashproof cast aluminum case tapped for 1/2" conduit. Lens diameter 1 1/2". 115/230 v., 50-60 cycles. Power consumption 20 watts. Weight 8 lbs.

T3A and T5A Timing Ranges (specify)

No. 0.1	.03 to 3 sec.	No. 1.	.5 to 15 sec.
No. 0.2	.06 to 3 sec.	No. 2.	1. to 25 sec.
No. 0.5	.1 to 6 sec.	No. 2.5	1.5 to 50
No. 3.			

No. 30. 30 to 300.

T3A Timing Control

Relay energizes LIGHT—unit times out with LIGHT. Timing accuracy, 2%. Minimum light 10 foot candles.

T3A Timing Control.....Net \$72.50

T3AR—Above with Safety Relay.....Net \$84.50

T5A Timing Control

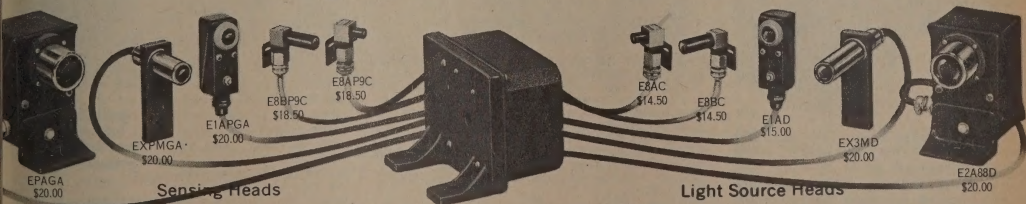
Relay energizes DARK—unit times out with DARK. Timing accuracy 2%. Minimum light, 10 foot candles.

T5A Timing Control.....Net \$82.50

T5AR—Above with Safety Relay.....Net \$94.50

Control-Paks	max. ft. between lenses	Min. dark time	Min. light time	Price per set
T1A-L1A	5 ft.	---	.5	\$76.00
T1A-L2A	10 ft.	---	.5	79.30
T3A-L1A	12 ft.	.005	---	91.00
T3A-L2A	20 ft.	.005	---	94.30
T5A-L1A	12 ft.	---	.005	101.00
T5A-L2A	20 ft.	---	.005	104.30

Series Photoelectric Timing Controls with Remote Sensing and Light Source Heads



IEVA and T3A1EVA have the same indications as T5A and T3A (above), but add of built-in sensing elements they have actions for remote Sensing and Light Source Heads. H Feature available with all models—order add Suffix "H" to Model number and \$7.50 to price.

Sensing and Light Source Heads are used in matched pairs for convenience. For combinations are practical when used.

Remote Head general descriptions and dimensions, see pages 1 and 2

Sensing and light source heads are equipped with factory installed 6-foot cables for connecting to controls.

Model Number			Max. Ft. Between Heads	Min. Dark Time	Min. Light Time	Price	With R Feature				Ship. Wt. Lbs.
Control	Sensing Head	Light Source					Control	Sensing Head	Light Source	Price	
DARK-ENERGIZED—ENERGIZE DELAY (115/230 V, 50-60 C)											
T5A1EVA-EPAGA-E2A8D	23	delay	.005	\$132.50	T5A1ERVA-EPAGA-E2A8D	\$144.50	11				
T5A1EVA-E1APGA-E1AD	5	delay	.005	127.50	T5A1ERVA-E1APGA-E1AD	139.50	9				
T5A1EVA-EXPMGA-EX3MD	5	delay	.005	132.50	T5A1ERVA-EXPMGA-EX3MD	144.50	9				
T5A4EVE-EBAP9C-E8AC	1.2	delay	.01	125.50	T5A4ERVA-EBAP9C-E8AC	137.50	9				
T5A1EVF-EBBP9C-E8BC	5	delay	.005	125.50	T5A4ERVF-EBBP9C-E8BC	137.50	9				
LIGHT-ENERGIZED—ENERGIZE DELAY (115/230 V, 50-60 C)											
T3A1EVA-EPAGA-E2A8D	23	.005	delay	\$132.50	T3A1ERVA-EPAGA-E2A8D	\$144.50	11				
T3A1EVA-E1APGA-E1AD	5	.005	delay	127.50	T3A1ERVA-E1APGA-E1AD	139.50	9				
T3A1EVA-EXPMGA-EX3MD	5	.005	delay	132.50	T3A1ERVA-EXPMGA-EX3MD	144.50	9				
T3A4EVE-EBAP9C-E8AC	1.2	.05	delay	125.50	T3A4ERVA-EBAP9C-E8AC	137.50	9				
T3A1EVF-EBBP9C-E8BC	5	.025	delay	125.50	T3A4ERVF-EBBP9C-E8BC	137.50	9				

Net

The MASTER—31st Edition • Page 955

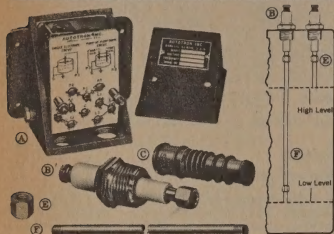
AUTOTRON



Page 7

Specialized Electronic Controls

Electronic Liquid Level Control



For use with liquids up to 750,000 ohms resistance such as acids, bases, salts, milk, beer, water, alcohols, ammonia, distilled water, anti-biotics.

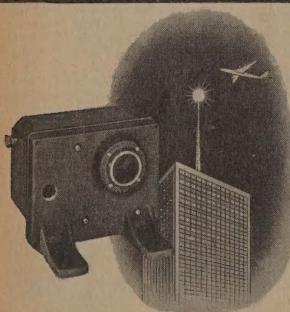
① A744 Control supplies 20VDC (safe for personnel) maximum probe voltage. Stepless sensitivity adjustment with shaft lock. Plug-in 5 amp. SPDT relay, plastic enclosed. Gasket-sealed cast aluminum case 6-3/16" wide, 5 3/4" high, 3 3/4" deep. 4 mounting holes for 1/4" bolts on 5 1/2" x 3" centers. Power Consumption, 5 W. For 115 or 230v (specify) 50-60c..... Each \$74.50

- ② P-304 Electrode has 1/4" pipe threads—may be installed in top or side of tank..... Each \$10.60
- ③ P-305 Elastic Seal for electrode wiring connection..... Each \$1.00
- ④ P-310 hex nut, stainless steel, 5" long—1/4-20 thread..... Each \$1.00
- ⑤ P-309 18-8 stainless steel rod 1/4" x 12"—1/4-20 thread both ends..... Each \$1.50

Type of System Components	One Electrode Quan.	Price	Two Electrode Quan.	Price
① A744 Control	1	\$74.50	1	\$74.50
② P-304 Electrode	1	10.60	2	21.20
③ P-305 Dri-Seal	1	1.00	2	2.00
④ Connecting Cable 10 ft.	3.00	20 ft.	6.00	
Price Totals		\$89.10*		\$103.70*

*P-309 Rod and P-310 Nuts not included

A2BX Solar ON/OFF Control



Automatically turns lights "ON" at preset light value—and turns lights "OFF" when light exceeds preset value.

DPDT Control Relay energizes when light exceeds intensity for which control is set; de-energizes when light falls below the preset level.

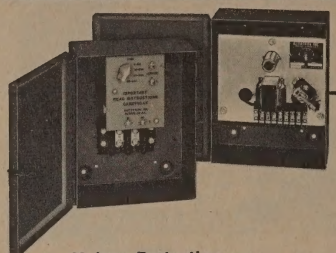
In case of tube failure the relay de-energizes; providing same control action as when light falls below preset level.

Dual Time Delays prevent operation by either momentary light flashes or shadows. Modern, simple circuitry uses one rugged, premium type power tube. Light intensity adjustment from outside of housing. Gasket-sealed cast aluminum housing, tapped for 1/2" conduit. For 115/230 v, 50-60 c. Power consumption, 20 watts

Available with three adjustment ranges:
No. A2BX-2; 1 to 5 fc for street lighting, parking lots
No. A2BX-5; 15 to 50 fc for signs, parking lots
No. A2BX-1; 20 to 150 fc for obstruction or tower lights

A2BX Solar Control (all models) Net \$76.95

Current Surge Overload Protection



Unique Protection for tools, equipment, personnel

The Surj-Switch uses electronic amplification for instant reaction to variations from normal load current. Easily adjusted on the job to operate at the desired value.

The 10-amp. SPDT Control Relay may operate a warning signal, a lubricating circuit, feeding rate control, etc. without interrupting operation or may be used to stop operation.

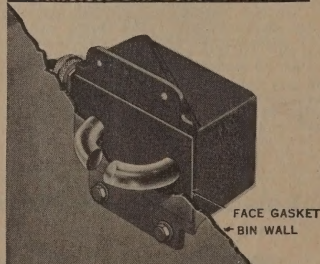
Used on surface grinders to warn when excessive pressures are applied; on machine tools to warn when tools become dull; on automated installations; whenever load change indicates trouble.

Model K1 Surj-Pick-up. Required for operation of Surj-Switch Controls—for 50-60 cycle, 0 to 80 amperes, one or 3-phase, any voltage.....\$35.00

Model J Surj-Switch. For overloads.....\$55.00

Model JA Surj-Switch. For under loads.....\$65.00

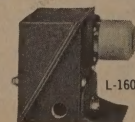
Tubeless Bin Level Control



Tubeless Photoelectric actuation—unaffected by pressure of material in the bin. Only rigid, non-moving Lucite probes project into the bin. Cast aluminum, gasket-sealed housing mounts to bin wall as shown. Removal of cover makes all parts accessible. Dust-covered plug-in DPDT 8-ampere relay provides ON/OFF control for either high or low bin level. All wiring connections brought out of case in 3-foot oil-proof cable. For 115/230V, 50-60 C.

A700—Relay operates from cad cell output, light-energized. Power Consumption, 10 watts.....Net \$68.00

A700S—has transistor circuit and sensitivity adjustment—dark-energized. Power Consumption, 5 watts.....Net \$98.75
Includes 3-ft cable, face gasket and template.



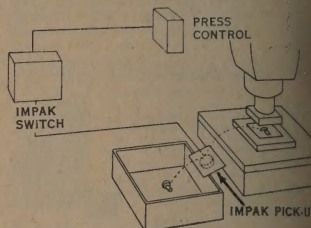
L-160

For burglar alarms, safety applications, etc. Controls and Light Sources are designed for use in pairs as listed.

CONTROL		LIGHT SOURCE		Max. ft. between lenses	CONTACTS combination	Rating in amps.	Ship. wt. lbs.
No.	Net Each	No.	Net Each				
A392B	\$52.50	L-160	\$30.65	15	SPDT	8	5 1/2
A435	83.50	L-148	46.50	50	DPDT	10	14

A392B

Impak-Switch Die Protection



In the above diagram each piece properly ejected from the die strikes the impact sensing plate which actuates the Impak Control and the Control re-cycles the press control for another stroke.

The impact of falling parts against the sensing plate of the Impak-Pick-up activates the Impak Switch. Objects may be of practically any reasonably uniform size, ranging from ball bearings to heavy stampings, etc.

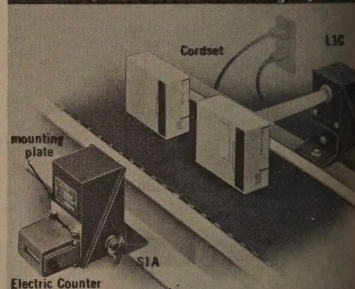
In other die protection applications the Impak Control has time delay set to barely exceed complete stroke cycle of the press. Each proper ejected piece re-cycles the Impak Control before the timing period expires.

Model V Impak-Pick-up—with 6-ft. shielded plastic-covered cable.....Net \$30.00

Model Z Impak-Switch—for use where impact not less than one ounce falling 2 inches and where object strikes only once.....Net \$60.00

Model C3 Impak-Switch—for use where impact force is limited, where high speed is required where objects may strike more than once.....Net \$145.00

AUTOTRON Counting Eye

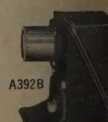


Counts anything—Automatically—without touching the object. Each object must interrupt the light beam .06 second or more. Space between objects must permit restoration of the light beam .06 second or more. Max. distance between lenses, 8 feet.

Counting Eye Components
S1A Photoelectric Control (see page 1)
L1A Light Source (see page 1)
Cordset: two 6-foot rubber covered cords with plugs and attachment clamps
Plate and hardware for mounting counter (4 mounting holes on 3-15/16 x 1-23/64" centers)
CE-600AS602 Electric Counter (6-digit, knob reset)

A-138A Counting Eye, 115v, 50-60c. Net \$90.00
Includes above items wired ready to plug in.

Photoelectric Controls with Infrared Light Beams



LARGEST MANUFACTURER OF CdS and CdSe PHOTOCONDUCTIVE CELLS

25 CdSe and 32 CdS Selected Photoconductive Cells

Photocell ordering abbreviation	SPECIAL DESCRIPTION	Diam. X Length (inches)	Resistance @ 2 fc ± 33 1/3%	Minimum resistance ratio from 2 fc to Dark within 5 sec.	Maximum voltage	Power ⁴ Dissipation @ 25° C (mw)	
CL5M2	Type 2 CdS (photosensitive material designated by last number in ordering abbreviation, i.e. CL5M2). Peak spectral response 5150 angstroms, bluest response photosensitive material, high stability, lowest temperature error. Can be used in applications requiring sharp differentiation in the blue green spectrum. For use with either fluorescent or incandescent lamps.	.55 X .18	55K	1:100	300	2000-500 ¹	
CL602		.25 X .5	1 meg.		300	75	
CL702		.36 X .18	1 meg.		300	125	
CL902		.21 X .15	1 meg.		250	50	
CL503	Type 3 CdSe, peak spectral response 7350 angstroms, fast response, and very high light-to-dark resistance ratio. Can be used for high speed switching or counting. Sensitive to near infra red. For use with incandescent or neon lamps.	.5 X .5	7.2K	1:10,000	250	500-250 ¹	
CL5M3		.55 X .18	7.2K		300	2000-500 ¹	
CL603		.25 X .5	133K		300	75	
CL603A		.25 X .5	75K		300	75	
CL603AL		.25 X .5	3.5K		170	75	
CL703		.36 X .18	133K		300	125	
CL703A		.36 X .18	67K		300	125	
CL703L		.36 X .18	2.7K		170	125	
CL903		.21 X .15	133K		250	50	
CL903A		.21 X .15	67K		250	50	
CL903L		.21 X .15	5.9K		170	50	
CL504	Type 4 CdSe, peak spectral response 6900 angstroms, lowest resistance photocells available. Can be used for "on-off" applications when low resistance is desired. For use with incandescent or neon lamps.	.5 X .5	1.5K	1:1000	250	500-250 ¹	
CL5M4		.55 X .18	1.5K		300	2000-500 ¹	
CL504L		.5 X .5	0.25K		170	500-250 ¹	
CL5M4L		.55 X .18	0.25K		170	2000-500 ¹	
CL604		.25 X .5	30K		300	75	
CL604L		.25 X .5	1.5K		170	75	
CL704		.36 X .18	30K		300	125	
CL704L		.36 X .18	0.6K		170	125	
CL904		.21 X .15	30K		250	50	
CL904L		.21 X .15	2K		100	50	
CL505	Type 5 CdS, peak spectral response 5500 angstroms (closely matches the human eye), most stable, lowest memory photocell available. Can be used in light measuring applications and precision low speed switching. For use with incandescent, fluorescent or neon lamps.	.5 X .5	9K	1:100	250	500-250 ¹	
CL5M5		.55 X .18	9K		300	2000-500 ¹	
CL505L		.5 X .5	1.5K		170	500-250 ¹	
CL5M5L		.55 X .18	1.5K		170	2000-500 ¹	
CL605		.25 X .5	166K		300	75	
CL605L		.25 X .5	7.5K		170	75	
CL705		.36 X .18	166K		300	125	
CL705L		.36 X .18	3.3K		170	125	
CL905		.21 X .15	166K		250	50	
CL905L		.21 X .15	10K		100	50	
CL705HL	Type 5H CdS, peak spectral response 5500 angstroms (closely matches the human eye). Combines high speed, stability, linearity, and uniform color temperature response. Can be used for high speed switching or high stability measuring applications. For use with incandescent, fluorescent or neon lamps.	.36 X .18	28K	1:1000	170	125	
CL905HL		.21 X .15	100K		100	50	
CL905HN		.21 X .15	700K		100	50	
CL507	Type 7 CdS, peak spectral response 6150 angstroms, moderate speed and ratio. Can be used in general beam breaking applications. For use with incandescent, neon or fluorescent lamps.	.5 X .5	7.2K	1:1000	250	500-250 ¹	
CL5M7		.55 X .18	7.2K		300	2000-500 ¹	
CL607		.25 X .5	133K		300	75	
CL707		.36 X .18	133K		300	125	
CL707L		.36 X .18	2.7K		170	125	
CL907		.21 X .15	133K		250	50	
CL907N		.21 X .15	66K		100	50	
DUAL ELEMENT ²							
CL703/2	Type 3 CdSe	.36 X .18	50K	1:10,000	300	125	
CL703L/2	Photocells contain two separate elements with two separate leads and one common lead.	.36 X .18	6.5K	1:10,000	170	125	
CL704/2		Type 4 CdSe	.36 X .18	17K	1:1000	300	125
CL704L/2		Type 4 CdSe	.36 X .18	1.5K	1:1000	170	125
CL705/2		Type 5 CdSe	.36 X .18	166K	1:100	300	125
CL705L/2		Type 5 CdS	.36 X .18	7.5K	1:100	170	125
CL707H		Type 7H CdS Peak Spectral response 6150 Angstroms. Very fast decay time coupled with low resistance and high linearity. Ideal for beam breaking applications.	.36 X .18	500K	1:1000	300	125
CL707HM	.36 X .18		100K		250	125	
CL707HL	.36 X .18		10K		170	125	
CL907H	.21 X .15		600K		250	50	
CL907HN	.21 X .15		300K		100	50	
CL907HL	.21 X .15		24K		100	50	

This listing represents less than half of the Clairrex standard and special photocells available. A 16-page design manual is available on request.

BOTH METAL
AND
GLASS PACKAGESALL PHOTOS
ACTUAL SIZE

CL500



CL600



CL700



CL5M



CL900

FOOTNOTES

¹ with and without heat sink

² Additional data on request.

PHOTOCONDUCTIVE CELLS...

Write for name of your nearest Clairrex representative or distributor.

WORNER
FOTOELECTRIC
CONTROLS
WORNER ELECTRONIC DEVICES
NET PRICES
INDUSTRIAL APPLICATIONS
EASY-TO-FOLLOW INSTALLATION INSTRUCTIONS • REQUEST ENGINEERING BULLETIN

THREE-UNIT CONTROLS

For All General Applications

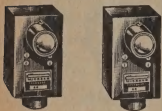
Model 63 Series represents a line of four¹/₂" high speed, precision Amplifiers; each engineered for a highly specialized use. Selection enables the user to get the amplification his application requires. Each amplifier is designed for amplification of energy developed by one set of Series 33/23 Fotoelectric Heads listed below. Each Amplifier will also respond to light radiance (other than light projected from a Light Source unit) when reflected to the Photocell. Model 63 Series Amplifiers are heavy duty construction throughout, size 9¹/₄" x 1¹/₂" x 5". Engineered for 110/120v. 50/60 cy. a.c.



Model 63 Amplifier
Door removed to
show components.

Model 63, the Worner Master Unit, serves most industrial uses. It is generally recommended for supervising fast moving objects and will operate normally up to 750 times a minute.....Each \$137.19
 Model 63-A, equipped with Time Delay Circuit giving delay from 0 to 45 seconds.....Each \$153.12
 Model 63-B, has added amplification to operate on less active change of light.....Each \$163.68
 Model 63-C, same as Model 63 but is "dark-energized", and operates when the photocell is dark.....Each \$139.78
 Model 4, Economy Unit. Operates up to 450 times a minute.....Each \$79.98

WIDE RANGE OF FOTOELECTRIC HEADS



Series 33 Light Sources
Series 23 Photocells

Sharp Detection

Selection of any of the following seven combinations, with current flow amplified by a choice of any of the above Amplifiers, provides unbeatable control supervision. Both units are alike externally. Mounting brackets supplied.

Model 33 Series Light Sources and Model 23 Series Photocells are heavy duty units. Components are housed in solid metal castings equipped with conduit fitting. Size of case 3" x 3" x 4¹/₂".

CROSS-OVER BEAM supervises small objects under 2" square at high speed. Distances listed are from lens to (cross-over) point of supervision. Moisture-proof units.

DISTANCE	LIGHT SOURCE	EACH	PHOTOCELL	EACH
Up to 3"	Model 33-3	\$28.95 use with Model 23-3		\$36.00
3" to 6"	Model 33-6	28.95 use with Model 23		28.80
6" to 9"	Model 33-9	28.95 use with Model 23		28.80
9" to 12"	Model 33-12	28.95 use with Model 23		28.80

DIRECTIONAL BEAM for objects over 2" square. Distances listed cover area of supervision (between units).

DISTANCE	LIGHT SOURCE	EACH	PHOTOCELL	EACH
1 to 10 ft.	Model 33-10	\$23.40 use with Model 23-10		\$28.80
Made moisture-proof upon order at \$7.50 per unit.				
10 to 25 ft.	Model 33-25w	\$39.79 use with Model 23-25w		\$40.32
These units are moisture-proof.				

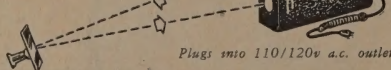
FOR SUPERVISING LARGE OBJECTS UP TO 100 FT.

Model 33-C Light Source and Model 23-C Photocell supervise over an indoor distance over 25 ft. up to 100 ft. from unit to unit. Size: 6¹/₄" x 7" x 4¹/₂". Use with any of the above Amplifiers.

Model 33-C.....each \$23.88.....use with Model 23-C.....each \$32.76

THE ELECTRONIC RECEPTIONIST

Model 61 Fotoelectric Announcer is a three-piece set. Projects light beam across entrance to signal entry or departure of persons. Breaking beam activates Chime, located where signal is desired. Efficient grid controlled rectifier circuit. Mirror reflects beam to Photocell in the unit. Case 8¹/₄" x 6¹/₄" x 3³/₄". Lamp-life rating 1000 hours.



Model 61 Fotoelectric Announcer.....Per Set \$46.88
 Model 61-T. Fully transistorized. Size 7¹/₄" x 5¹/₄" x 3³/₄". Per Set \$54.00

Prices Are Slightly Higher West of Rockies

AMPLIFIERS FOR MINIATURE HEADS

Model 66/67 Series Amplifiers are available in a choice of four units. For positive and accurate performance, the maximum speed rating of each unit can be regulated provided light projected to the Photocell will have an "on-period" equal to the "off-period" with wiring to Photocell having zero (0) capacity. 110/120v. 50/60 cy. a.c.

Model 67 Amplifier for general applications where fine detection at high speeds is not a factor or Relay is not required to operate in excess of 450 times per minute.....Each \$88.89

Model 66 Amplifier, operates up to 900 counts a minute. Double-pole, double-throw relay with contact rating 110v. 60 cy. a.c., 10 amp.-non-inductive and 5 amp. inductive. Has light beam intensity control.....Each \$147.84



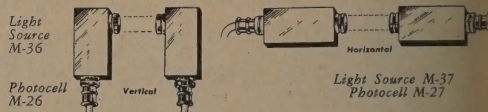
Model 66 Amplifier
Door removed to show components.

Model 66-A Amplifier, designed for use with ultra high speed electronic decade counters. Accurate counts of light beam interruption or variation of intensity up to 10,000 counts per minute. Output pulses up to 50 v. d.c. regulated by the sensitivity control.....Each \$157.84

Model 66-T Amplifier, same operating features as Model 66 with add Time Delay circuit to give regulated time delay from 0 to 45 seconds. Efficient for synchronizing operations.....Each \$170.84

"MINIATURE" FOTOELECTRIC HEADS

Designed for use with Models 66/67 Amplifiers



Machined out of solid aluminum blocks. Light weight, unbreakable, piece, dependable. Only 1¹/₄" x 2¹/₂" x 3¹/₄". Unsurpassed for pin-point detection. Distance to cross-over point 3" to 12". Distance of direct beam up to 8 feet. For desired speed, select Amplifier accordingly. Foot cable equipped both ends with prong-type connectors having screw band tighteners. For 110/120v. 50/60 cy. a.c.

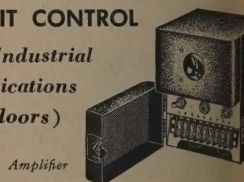
Model M-36 Vertical Light Source.....	\$3
Model M-26 Vertical Photocell Receiver.....	3
Model M-37 Horizontal Light Source.....	3
Model M-27 Horizontal Photocell Receiver.....	3

TWO-UNIT CONTROL

For Industrial
Applications
(Indoors)



Light
Source

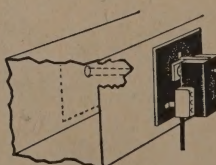


Amplifier

Amplifier includes photocell, Relay and components. Efficient for ranges from a few inches to 75 ft. For use where Relay is not required to operate over 400 times a minute, such as; counting, sorting light objects; limit switches; start, stop operations; opening doors, etc.

Model 62 R & L "Two-Unit Set".....Per Set \$100.00

STOP FIRE BEFORE IT SPREADS



Automatic Control when
light beam projected across
duct, detects smoke.

Most catastrophic fires are due to smoke drawn into or originating in air-conditioning ducts, resulting in flames fan-driven throughout a building. The Worner Motor Stop minimizes this hazard by a detection, stopping of fans and sound alarm. Consists of Light Source, Photo Receiver and Control Cabinet. Meets requirements of National Board of Fire derwriters, Factory Insurance Ass'n. L. by U.L. Send for Bulletin 650.

VORNER
FOTOELECTRIC
PROTECTION

WORNER ELECTRONIC DEVICES

NET PRICES

BURGLAR ALARM SYSTEMS

EASY-TO-FOLLOW INSTALLATION INSTRUCTIONS • REQUEST ENGINEERING BULLETINS

THE WORNER MASTER CONTROL SYSTEM

MODEL 9000 SERIES

Model 9000-S Master Control Panel. Can use ONE to FOUR Light Source and Photoelectric Sets, hereafter referred to as "Fotoelectric Sets".

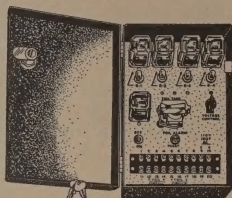
Separate circuit, the Master Control Panel will supervise foil tape, door traps and window systems. Both circuits operate independently simultaneously. Sounds continuous alarm (until when either of these detection circuits is wired or wiring of Fotoelectric system is tampered

control panel prevents false alarms should fail or drop momentarily and resets automatically when power is restored. Also operates with other electrical devices employed by professional alarm companies.

Unit contains Relays which energize alarm circuit. Cabinet size is 7" x 10 1/4" x 4 3/4" and its front is safeguarded by a pick-proof lock. The unit is installed remotely. Designed for 110/120v. a.c.

Unit shows FOUR Relay plug-in location for 1 and 4 Relays as needed; one Relay for each Fotoelectric (Detection) Set used. Model 9000-S Master Control Panel is listed priced "less Relays," as only Relays are automatically supplied with each Model 9000 series Fotoelectric Set ordered.

9000-S Master Control Panel.....	Each \$82.50
Range Fotoelectric Set Per Set	
100 ft. Light Source & Photocell.....	\$122.43
150 ft. Light Source & Photocell.....	138.57
75 ft. Light Source & Photocell.....	142.56
250 ft. Light Source & Photocell.....	152.79
500 ft. Light Source & Photocell.....	164.01



LIGHT SOURCE & PHOTOCELL SETS

All light beams are infra-red (invisible) light.

Sets for 100 and 150 ft. ranges are for indoor use. Sets for 75, 250, and 500 ft. ranges are for both indoor and outdoor use.

Sets for 75, 150, 250 and 500 ft. ranges have unwanted light rejector for maximum daytime operating efficiency.

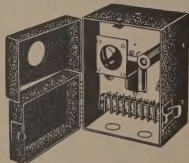
Some cases are similar, but circuits vary greatly.



Light Sources and Photocell Units for 100 ft. Ranges. Models: 9100, 7100, 5100.



Light Sources for 150 ft. Range. Models: 9150, 7150, 5150.



Photocells for 150 ft. Range. Models: 9150, 7150, 5150.



Sets for 75, 250 and 500 foot ranges have hooded weather-proof cases. Photocell cases have locks.

MODEL 7000 SERIES

Units (Light Source and Photocell) Fotoelectric that operate in conjunction with burglar alarm units' central control equipment. The Fotoelectric units do not interfere with operation of Central Companies', foil tapes or window traps. For 110v. 50/60 cy. a.c. For 24v. 60 cy. use Worner own Transformer.

Range Fotoelectric Set Per Set	
100 ft. Light Source & Photocell.....	\$122.43
150 ft. Light Source & Photocell.....	138.57
75 ft. Light Source & Photocell.....	142.56
250 ft. Light Source & Photocell.....	152.79
500 ft. Light Source & Photocell.....	164.01

MODEL 5000 SERIES

are 2 Models. Each model has Light Source and Photocell units. The Photocell unit of each Model is all amplifier components. Thus each Model is a Two-Unit alarm set. Each is designed for indoor use not intended for use with foil systems, etc. In-line switch, phone jack to test plate current, battery control. Lock. Alarm can be turned off or reset only by the possessor of the key. For 110/120v. 50/60 cy. a.c.

Range Fotoelectric Set Per Set	
100 ft. Two-Unit System	\$122.43
150 ft. Two-Unit System	138.57

BURGLAR DETECTION UNITS CONCEALED IN THE WALL

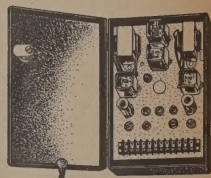
Light Source and Photocell Receiver units concealed behind light-switch-type face plates. Projects invisible light beam ranging up to 30 feet (indoors). Standard size wall plates concealing Fotoelectric detection units are high finish stainless steel. Light bulb rated 2000 hours. For guaranteed efficiency Model 81/82 Fotoelectric sets must be used only with specially engineered Amplifiers listed below. Complete installation instructions enable any electrician to install.

Model 81 "In-Wall" Light Source.....	each \$29.70
Model 82 "In-Wall" Photocell Receiver.....	each 34.71

AMPLIFIERS FOR ABOVE FOTOELECTRIC SET

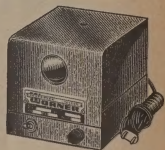
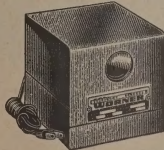
Two specially engineered units for amplifying the energy of the above concealed units.

Circuits with no-voltage control relay prevent false alarms due to line voltage irregularities and will sound alarm if tampered with. Standard alarm continuous. Regulated warning signal "special" upon order. For 110/120v. 60 cy. a.c.



Model 86-1 is a single channel Amplifier Panel that will amplify current flow of one Fotoelectric Set.....each \$134.07

Model 86-2 is a dual channel Amplifier Panel that will amplify current flow of two Fotoelectric Sets, guarding separate areas. Will also supervise one Fotoelectric Set, providing for future addition of a second Fotoelectric Set.....each \$204.60



TWO-UNIT WORNER WATCHMAN

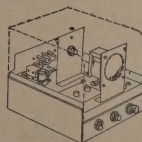
This Two-Unit Set consists of a Light Source and a Photocell unit that supplies 6-volt energy for activating the alarm circuit.

The Light Source is equipped with removable infrared filter providing visible light beam ranging up to 50 feet. The Photocell unit is equipped with toggle switch for either continuous alarm or to sound only while light beam is broken. Extraneous light rejector maintains daylight range. Two-piece case construction enables removal of cover without mounting. Identical cases 5" x 5" x 5 1/2" welded steel, mahogany hammerloid finish. For indoor use; 110/120v. 60 cycle a.c.

Model 4000 Two-Unit Watchman (Indoors).....	Per Set \$ 77.28
Model 4100 Two-Unit Alarm (Weatherproof).Per Set	142.56

TRANSISTORIZED BURGLAR ALARM

Two-Unit Combination. Indoor Use.



Photocell - Amplifier has 2-piece case for convenient installation and servicing.

The Photocell unit supplies 6-volt a.c. energy to activate a 6-volt a.c. alarm, thus providing a Two-Unit alarm set.

Alarm may be sounded at one or more remote locations. Knob control for continuous, limited or reset alarm. Built-in device minimizes unwanted light. Infrared filter provides invisible light beam ranging up to 50 feet. Both units are externally alike, 5" x 5" x 5 1/2". Two-piece hammerloid cases simplify installation and servicing.

Model 8002 R & L, Transistorized Burglar Alarm Set.....\$99.00

Prices Are Slightly Higher West of Rockies

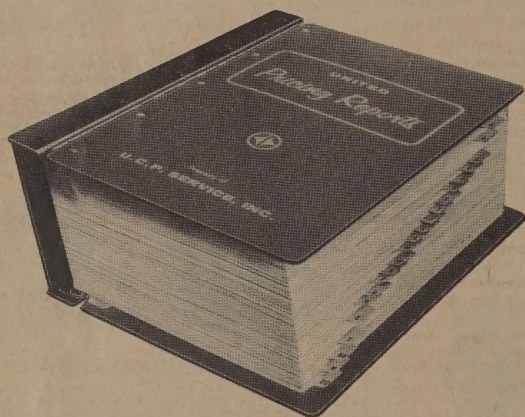
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All prices listed in The MASTER are subject to change without notice — they should not be considered final.

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DELIVERY

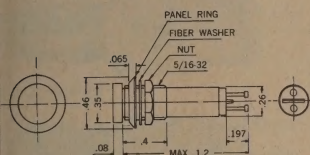
Delivery is often dependent on availability of raw materials. Check with your distributor for delivery information at the time you place your order.

ALCO ELECTRONIC PRODUCTS

MANUFACTURED TO MEET
HIGH STANDARDS OF QUALITY

BNE SERIES

NEON PILOTS



Featuring a one-piece body construction, this miniature neon pilot is ideally suited to indicate toggle switch positions, or for other display configurations with space limitations. A particular characteristic of this model is the compact lens system protruding slightly above the panel. Available less series resistor only. This model is provided with a high intensity neon for maximum light output.

SPECIFICATIONS

Operating Voltage:
75 VAC maximum or 115 VAC with a 33K external resistor (not supplied).

Operating Current:
1.5 milliampere

Temperature Range:
-10°C to +70°C

Mounting Requirement:
Single $\frac{1}{16}$ " hole ($\frac{5}{16}$ -32 thread).

Shock Test:
Will withstand a drop of 3½ feet.

Vibration:
Harmonic Frequency 25 $\pm$ 2 cps.
Amplitude $\pm$ 0.04
Time 2 minutes

Tolerance:
 $\pm$ 0.010"

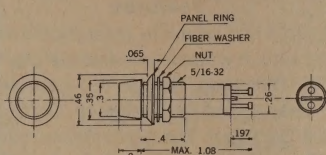
INDUSTRIAL NET PRICE SCHEDULE

MODEL	COLOR*	ONE.	25.	100.	500.
BNE-2	Red	.49	.33	.29	.24
BNE-2	Amber	.49	.33	.29	.24
BNE-2	Clear	.49	.33	.29	.24
BNE-2	White	.49	.33	.29	.24

*Note: Indicate color; This model available less series resistor only.

BNF SERIES

NEON PILOTS



Similar to the BNE Series except that the lens system extends a greater distance beyond the panel for relatively greater illumination. As in the BNE Series this model has a permanent built-in neon, but no series resistor is supplied for 115 volt operation. Turret type lugs are used for simplified hookup.

SPECIFICATIONS

Operating Voltage:
75 VAC maximum or 115 VAC with a 33K external resistor (not supplied).

Operating Current:
1.5 Milliampere

Temperature Range:
-10°C to +70°C

Mounting Requirement:
Single $\frac{1}{16}$ " hole ($\frac{5}{16}$ -32 thread).

Shock Test:
Will withstand a drop of 3½ feet.

Vibration:
Harmonic Frequency 25 $\pm$ 2 cps.
Amplitude $\pm$ 0.04
Time 2 minutes

Tolerance:
 $\pm$ 0.010"

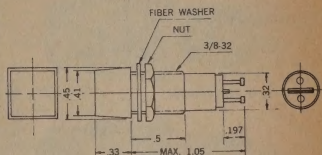
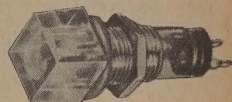
INDUSTRIAL NET PRICE SCHEDULE

MODEL	COLOR*	ONE.	25.	100.	500.
BNF-2	Red	.49	.33	.29	.24
BNF-2	Amber	.49	.33	.29	.24
BNF-2	Clear	.49	.33	.29	.24
BNF-2	White	.49	.33	.29	.24

*Note: Indicate color; This model available less series resistor only.

BND SERIES

NEON PILOTS



Combines an entirely new look in a space-saving pilot assembly. The neon protrudes beyond the panel to provide maximum light intensity. This model is available with and without built-in series resistor for 115 volt operation, and also available as standard or high intensity models as listed below.

SPECIFICATIONS

Operating Voltage:
75 VAC maximum (115 VAC operations with series resistors indicated below).

Operating Current:
(Low Intensity) 0.3 ma.
(High Intensity) 1.5 ma.

Built-in Resistors (for 115 VAC operation):
(Low Intensity) 150K
(High Intensity) 33K

Temperature Range:
-10°C to +70°C

Mounting Requirement:
 $\frac{3}{8}$ " hole ($\frac{3}{8}$ -32 thread)

Vibration:
Same as other models

Tolerance:
0.010"

INDUSTRIAL NET PRICE SCHEDULE

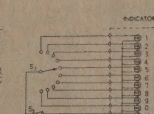
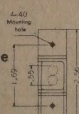
MODEL	DESCRIPTION	ONE.	25.	100.	500.
BND-2	Std. Less Res.	.49	.33	.29	.24
BND-2	Std. With Res.	.59	.39	.35	.29
BND-3	Hi-Int Less Res.	.39	.39	.35	.29
BND-3	Hi-Int With Res.	.69	.46	.41	.35

*Note: Indicate color: Red, Amber, Clear or White

MINIATURE NUMERIC READOUT INDICATORS

NEW low-priced miniature numeric readout indicators feature compact size, large digital displays. Principle of operation relies on an engraved lucite plate which is edge lighted by an incandescent lamp. Figures are marked as a series of white dots and are clearly displayed. 6 or 14 volt models.

- Type 2181 or 2182 lamps are securely soldered in place to eliminate improper contact problems.
- Extremely long life lamps used for virtually trouble free operation. 30,000 to 50,000 hours life.
- Lamps physically mounted in odd and even sectors to simplify design & wiring of decimal or binary systems.



INDUSTRIAL NET PRICE SCHEDULE	MODEL RK-6 RK-14
----------------------------------	------------------------

LAMP NO.	VOLTS	MA.	HR. LIFE	ONE.	10.	25.	50.
2181	6.3	200	30,50,000	9.95	7.45	6.95	6.25
2182	14.	80	30,50,000	9.95	7.45	6.95	6.25

ALCO ELECTRONIC PRODUCTS, INC.

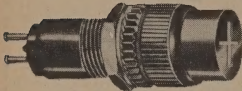
THE COMPLETE LINE OF

DIALCO®**INDICATOR LIGHTS**Foremost Manufacturer of Indicator Lights
DIALIGHT CORPORATION

(Illustrations are approx. actual size)

DATALITES® — Ultra-Miniature Indicator Lights**INCANDESCENT DATALITES
WITH DATACAPS****NEON DATALITES
WITH DATACAPS****Mount in 3/8" Clearance Hole****Features:**

A screw-on, rotatable, cylindrical outer-cap with or without **hot-stamped legend**. The Datalamp Holder accommodates a clear, colorless Datalamp Cartridge and Data Cap. These assemblies reduce down time since no hot-stamped legends are required on replacement cartridges. Reduces costs too!



250-8738-1471-504



250-8738-3331-504



250-8745-1631-504



250-8745-3331-504

INCANDESCENT ■ COMPLETE ASSEMBLIES WITH TURRET TERMINALS		
▲ DATA CAP LENS COLOR	SHORT CYLINDRICAL FOR USE WITH HOT-STAMPED LEGENDS (TRANSLUCENT)	SHORT CYLINDRICAL WITH DIFFUSING RINGS (TRANSPARENT)
Red	250-8738-1471-504	250-8738-3331-504

■ To obtain solder cup terminals change "87" in catalog number to "75". For amp "53" taper pin receptacles, change to "90".
Example: 250-9038-1471-504.

▲ Lens Color: To obtain Data Cap with color other than red, change digit before last dash in catalog number (-1471-) to: Green-2; Amber-3; White Translucent-5; Clear Colorless-7.

Example: 250-8738-1473-504 (Amber).

NEON ■ COMPLETE ASSEMBLIES WITH TURRET TERMINALS			
DATA CAP LENS SHAPE	▲ LENS COLOR	ACCOMMODATES CARTRIDGES WITH BUILT-IN RESISTOR	ACCOMMODATES CARTRIDGES WITH NO RESISTOR
Long Cylindrical	Red	250-8745-1631-504	250-8738-1631-504
Short Cylindrical	Red	250-8745-3331-504	250-8738-3331-504

■ To obtain solder cup terminals change "87" in catalog number to "75". For amp taper pin receptacles, change to "90".
Example: 250-9038-3331-504.

▲ Lens Color: To obtain Data Cap with color other than red, change digit before last dash in catalog number (-1631- or -3331-) to: Amber-3; White Translucent-5; Clear Colorless-7.
Example: 250-8745-3333-504 (Amber).

INCANDESCENT DATALAMP CARTRIDGES FOR USE IN DATA CAP ASSEMBLIES					
NEW CATALOG NOS. SHORT CYLINDRICAL LENS SHAPE TRANSPARENT-COLORLESS	OLD CATALOG NOS. SHORT CYLINDRICAL LENS SHAPE TRANSPARENT-COLORLESS	VOLTS	MA.	C.P.*	LIFE HOURS
LONG LIFE—HIGH RELIABILITY					
507-3907-1437-600	39L-6.304-1437	6.3	40	.03	50,000
507-3909-1437-600	39L-6.3-1437	6.3	200	.40	50,000
507-3914-1437-600	39L-14-1437	14.0	80	.30	50,000
507-3918-1437-600	39L-28-1437	28.0	40	.30	25,000
LOW POWER RATINGS					
507-3901-1437-600	39-1.35-1437	1.35	60	.006	500
507-3903-1437-600	39-2.7-1437	2.7	60	.04	500
507-3904-1437-600	39-3.015-1437	3.0	15	.005	10,000
507-3910-1437-600	39-10-1437	10.0	14	.004	100,000
507-3911-1437-600	39-10.04-1437	10.0	40	.08	5,000
507-3912-1437-600	39-14-1437	14.0	17	.03	50,000
507-3915-1437-600	39-28-1437	18.0	20	.08	20,000
STANDARD RATINGS					
507-3902-1437-600	39-2.52-1437	2.5	200	.20	500
507-3906-1437-600	39-6-1437	6.0	200	.60	1,000
507-3908-1437-600	39-6.3075-1437	6.3	75	.23	500
507-3913-1437-600	39-14-1437	14.0	80	.50	750
507-3916-1437-600	39-18-1437	18.0	40	.15	1,000
507-3917-1437-600	39-28-1437	28.0	40	.34	1,000

*C.P. is the mean spherical candle power of the lamp used. Values are useful for relative effectiveness.

HOT-STAMPED OR ENGRAVED LEGENDS

Short and Long Cylindrical Datacaps can be hot-stamped with one to three digits of standard size, as follows:

- 1 DIGIT, $1\frac{3}{64}$ " high (18 pt. type)
- 2 DIGITS, $1\frac{1}{64}$ " high (14 pt. type)
- 3 DIGITS, $\frac{3}{64}$ " high (12 pt. type)

These standard sizes of Legends will be provided in a uniform manner per order — i.e., the size of type will be determined by the longest legend in each individual order. Standard—BLACK. White, red, green or blue hot-stamping can be supplied to order. Also available — colored legends on black or grey lenses.

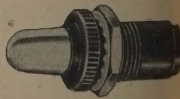
NEON DATALAMP CARTRIDGES

LAMP BRIGHTNESS	*CARTRIDGES WITH BUILT-IN RESISTOR	*CARTRIDGES WITH NO RESISTOR
HIGH	507-4538-0937-610	507-3836-0937-600
STANDARD	507-4537-0937-610	507-3835-0937-600

*To obtain cartridge with short cylindrical lens shape, change -09 in catalog number to -14. Example: 507-3836-1437-600.

DATALITES with PERMANENT LAMPS

249-7841-0931-554
(with built-in resistor)



249-7840-0931-504
(without built-in resistor)

Built-in (not replaceable): Neon Lamps NE-2E or NE-2H (high brightness) and required current-limiting resistor. Units mount in $\frac{3}{8}$ " clearance hole from back of panel; two terminals; fully insulated; 5 lens colors; conform to applicable MIL. Specifications: No. 249-7841-0931-554 with built-in resistor. Available — shorter unit, without resistor. No. 249-7840-0931-504. For assemblies with high brightness lamp — **without resistor** — change -7840- to -7865-; **with resistor** — change -7841- to -7866-
Examples: 249-7865-0931-504; 249-7866-0931-514.

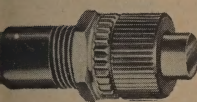
THE COMPLETE LINE OF

INDICATOR LIGHTS

DIALCO®

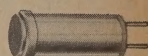
Foremost Manufacturer of Indicator Lights
DIALIGHT CORPORATION

(Illustrations are approx. actual size)

DATALITES® — Ultra-Miniature Indicator Lights
Incandescent Datalites — For use on 1.35V-60V Circuits**38-504
3909-1471-600250-8738-14-504
W/507-3909-1471-600

TERMINAL TYPE*	DATALAMP HOLDER WITH COLLAR	DATALAMP HOLDER WITHOUT COLLAR
Turret	508-8738-504	250-8738-14-504

*To obtain Datalamp Holder with other than turret terminals change "87" in catalog No. to "75" (solder cup terminals). For amp "53" taper pin receptacles, change to "90".
Example: 508-9038-504.



507-3909-0371-600



507-3909-1471-600

Mount in 3/8" Clearance Hole

Incandescent Datalite Indicator Lights consist of: **Datalamp Cartridges** — a plug-in, replaceable light source, with either short cylindrical or flat lens shape (see chart at right); accommodated by (2) **Datalamp Holders** — with or without collar (see chart above). **Standard Finish:** Aluminum, black anodize finish. To obtain optional clear anodize finish, change the first dash in the catalog number suffix from -5 to -6. Example: 508-8738-604.

Datalamp Cartridges are also available with T-2 type bases in a range of voltages from 6-60V. For more information, request *Catalog L-160*.

COLOR: The digit **before** the last dash in the catalog number indicates that the color of the Datalamp cartridge is RED. When color other than red is desired change this digit to a figure from the listing below. — 1; Green — 2; Yellow (Amber) — 3; Blue — 4; Red Translucent — 5; Yellow — 6; Clear (Colorless) — 7. Example: 507-3901-1473-600 (yellow amber).

Mount in 3/8" Clearance Hole

Datalite Indicator Lights consist of: **Datalamp Cartridges** — a plug-in, replaceable light source, with either stovepipe or long cylindrical lens shape — or without built-in current limiting resistor (see recommended resistance values and appropriate code nos. below). Accommodated by **Datalamp Holders** of shorter length when cartridge **without** built-in resistor is used; by Datalamp holders of longer length when cartridges **with** built-in resistor are used. See charts at right for available selections.

Standard Finish: Black anodize. To obtain optional clear anodize finish, change the first dash in the catalog number suffix from -5 to -6.

Example: 508-8745-604.

COLOR: The digit **before** the last dash in the catalog number indicates that the color of the Datalamp Cartridge is RED. When color other than red is desired, change this digit to a figure from the listing below.

Blue or green lens colors are not available for use with Neon light sources.

— 1; Yellow (Amber) — 3; White Translucent — 5; Clear (Colorless) — 7. Example: 507-4538-1533-610 (yellow amber)

NEON DATALITES

For use on

**105-125V AC-DC or
110-125V AC CIRCUITS**

NEON DATALAMP CARTRIDGES		
LENS SHAPE	BUILT-IN RESISTOR HIGH BRIGHTNESS	BUILT-IN RESISTOR STANDARD BRIGHTNESS
Stovepipe	507-4538-0931-610	507-4537-0931-640
Long Cylindrical	507-4538-1531-610	507-4537-1531-640

TERMINAL TYPE*	DATALAMP HOLDER WITH COLLAR	DATALAMP HOLDER WITHOUT COLLAR
Turret	508-8745-504	250-8745-15-504

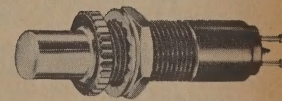
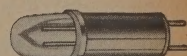
*To obtain Datalamp Holder with other than turret terminals change "87" in catalog No. to "75" (solder cup terminals). For amp "53" taper pin receptacles, change to "90".
Example: 250-9045-15-504.

▲ NEON DATALAMP CARTRIDGES WITHOUT BUILT-IN RESISTOR		
LENS SHAPE	HIGH BRIGHTNESS	STANDARD BRIGHTNESS
Stovepipe	507-3836-0931-600	507-3835-0931-600
Long Cylindrical	507-3836-1531-600	507-3835-1531-600

▲ These Datalamp Cartridges are accommodated by Datalamp Holders listed in table for Incandescent Datalites.

NEON LAMPS and RESISTOR VALUES				
Neon Lamp	Volts Applied to Terminals	Bright Light		Long Life
		Resistor and Approx. Life		Resistor and Approx. Life
NE-2E Stand. Bright.	105-125 AC or DC	56K	3000 hrs.	100K 10000 hrs.
NE-2H High Bright.	110-125 AC only	22K	5000 hrs.	33K 20000 hrs.

Change 2nd digit in code no. suffix as follows: (56K) — 640; (22K) — 610; (100K) — 670; (33K) — 630; Example: 507-4538-0931-630.

508-8745-504
W/507-4538-0931-610250-8745-15-504
W/507-4538-0931-610507-3836-0931-600
(without built-in resistor)507-4538-1531-610
(with built-in resistor)

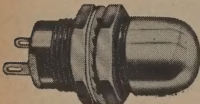
THE COMPLETE LINE OF

DIALCO®

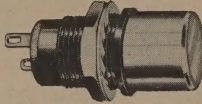
INDICATOR LIGHTS

Foremost Manufacturer of Indicator Lights
DIALIGHT CORPORATION

(Illustrations are approx. actual size)

Sub-Miniature Indicator Lights for T-1 $\frac{3}{4}$ Bulbs**LENS COLORS:** For detailed description, see note at the bottom of the right hand column of the facing page.MOUNT IN $\frac{1}{32}$ " CLEARANCE HOLE
FRONT OR BACK OF PANEL INSERTION
WITH MOVABLE FLANGE

101-3830-0931-201

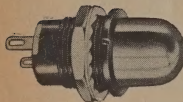
MOUNT IN $\frac{1}{32}$ " CLEARANCE HOLE
FRONT OF PANEL INSERTION
WITH FIXED FLANGE

140-8430-1471-201

TYPE MOUNTING	LENS SURFACE	CATALOG NUMBER STOVEPIPE LENS SHAPE	CATALOG NUMBER CYLINDRICAL LENS SHAPE
Front or Back Mtg. in 15/32" Clearance Hole	Transparent	101-3830-0931-201	140-3830-1431-201
	Translucent	101-3830-0971-201	140-3830-1471-201
Front Mtg. in 17/32" Clearance Hole	Transparent	101-5030-0931-201	140-5030-1431-201
	Translucent	101-5030-0971-201	140-5030-1471-201
Front Mtg. in 15/32" Clearance Hole	Transparent	101-8430-0931-201	140-8430-1431-201
	Translucent	101-8430-0971-201	140-8430-1471-201

MOUNT IN $\frac{1}{32}$ " CLEARANCE HOLE
FRONT OF PANEL INSERTION
WITH FIXED FLANGE

MS25256 2-12



162-8430-0931-502

Note: The inclusion of lamp MS25237-327 in MS25256, formerly designated by the use of odd numbered suffixes, -1 through -11 inclusive, is now superseded by suffix -327 (28 volts .04 amp) or -328 (6 volts .20 amp) after the even numbered dash number. Examples: MS25256-2-327; MS25256-10-328.

CATALOG NUMBER	MS. NO. WITHOUT LAMP*	LENS CAP COLOR**
162-8430-0931-502	MS25256-2	Aviation Yellow
162-8430-0932-502	MS25256-4	Aviation Green
162-8430-0931-502	MS25256-6	Identification Red
162-8430-0937-502	MS25256-8	Aviation White
162-8430-0975-502	MS25256-10	Translucent White
162-8430-0934-502	MS25256-12	Aviation Blue

*Marking: Part number marked on the assembly is the part number for the complete assembly less lamp. ** All lens cap colors are transparent with the exception of white.

ROTATABLE LENS

Specially designed spring mounting facilitates rotation of lens and alignment of legend — after installation of the Indicator Light.



134-3830-0351-201

LENS SHAPE	LENS FINISH	CATALOG NO. (FRONT OR BACK MOUNTING) 15/32" CLEARANCE HOLE	CATALOG NO. (FRONT MOUNTING) 17/32" CLEARANCE HOLE	CATALOG NO. (FRONT MOUNTING) 15/32" CLEARANCE HOLE
FLAT	Transparent	134-3830-0331-201	134-5030-0331-201	134-8430-0331-201
	Translucent	134-3830-0351-201	134-5030-0351-201	134-8430-0351-201
CONVEX	Unfrosted	134-3830-0131-201	134-5030-0131-201	134-8430-0131-201
	Back Frosted	134-3830-0111-201	134-5030-0111-201	134-8430-0111-201
FACETED	Unfrosted	134-3830-0431-201	134-5030-0431-201	134-8430-0431-201

■ Specify translucent colors as follows: Red — 0351 . . .
Green — 0352 . . . Yellow (Amber) — 0373 . . . Blue — 0374 . . .
White — 0375 . . . Light Yellow — 0376.

Two Terminals — Fully Insulated

Meet or exceed environmental and operational requirements of MIL-L-6723 and MIL-L-3661.

RUGGED CONSTRUCTION

Lamp, socket, and all connections are completely insulated from the bushing and panel to which it is attached. The use of phenolic material for military specification grade assures permanent isolation from ground. These assemblies are solidly made to withstand usual vibration and corrosion resistance tests.

Order Complete with Lamp.
Specify Lamp Number.

DIMMERS —

MECHANICAL or POLAROID

Choice of mechanical or polaroid dimming device. Polaroid produces some reduced intensity at all settings, but gives full diameter opening.

Mechanical varies opening size to complete blackout or has permanent small opening as in "semi-blackout" type.

DIMMER TYPE	GLASS LENS TYPE	LENS SURFACE	CATALOG NO. (FRONT OR BACK MOUNTING) 15/32" CLEARANCE HOLE	CATALOG NO. (FRONT MOUNTING) 17/32" CLEARANCE HOLE	CATALOG NO. (FRONT MOUNTING) 15/32" CLEARANCE HOLE
Complete Blackout	Convex	Unfrosted	108-3830-0131-201	108-5030-0131-201	108-8430-0131-201
		Back Frosted	108-3830-0111-201	108-5030-0111-201	108-8430-0111-201
Semi-Blackout	Convex	Unfrosted	109-3830-0131-201	109-5030-0131-201	109-8430-0131-201
		Back Frosted	109-3830-0111-201	109-5030-0111-201	109-8430-0111-201
Polaroid	Convex	Unfrosted	112-3830-0131-201	112-5030-0131-201	112-8430-0131-201
		Back Frosted	112-3830-0111-201	112-5030-0111-201	112-8430-0111-201

MIDGENT FLANGED BASE
INDEXED INCANDESCENT

LAMP NO.	VOLTS	AMPERES	HOURS
331	1.35	.06	
338	2.7	.06	
375	3.0	.015	
328	6.0	.20	
345	6.0	.04	
349	6.3	.20	
380	6.3	.04	
381	6.3	.20	
344	10.0	.014	
387	10.0	.04	
330	14.0	.08	
382	14.0	.08	
370	18.0	.04	
*327	28.0	.04	
*387	28.0	.04	

*Conforms to MS25237.
*MS18209 (BuShips)

MOUNT IN $\frac{1}{32}$ " CLEARANCE HOLE
FRONT OR BACK OF PANEL INSERTION
WITH MOVABLE FLANGE

108-3830-0111-201

NON-DIMMING TYPE	GLASS LENS TYPE	LENS SURFACE	COMPLETE ASSEMBLIES
Front or Back Mtg. in 15/32" Clearance Hole	Convex	Unfrosted	111-3830-0131-201
		Back Frosted	111-3830-0111-201
Front Mtg. in 17/32" Clearance Hole	Convex	Unfrosted	111-5030-0131-201
		Back Frosted	111-5030-0111-201
Front Mtg. in 15/32" Clearance Hole	Convex	Unfrosted	111-8430-0131-201
		Back Frosted	111-8430-0111-201

WATER-TIGHT ASSEMBLIES

Water-tight construction: These Sub-Miniature Lights are completely water-tight on the face of the panel. Water-tightness is achieved by means of retained O-ring seals. One O-ring is retained within the back of the lens cap, the other behind the flange on the mounting bushing.

MOUNT IN $\frac{1}{32}$ " CLEARANCE HOLE
FRONT OF PANEL INSERTION
WITH FIXED FLANGE

177-8430-0931-201

WATER-TIGHT DIMMERS

On the Dimmer type assembly, a third O-ring is mounted within the dimmer cap — so positioned as to assure absolutely no leakage through the dimmer slot. For data, request Catalog L-178.

LENS COLOR	COMPLETE ASSEMBLIES
	TRANSPARENT COLORS
Red	177-8430-0931-503
Green	177-8430-0932-503
Yellow (Amber)	177-8430-0933-503
Blue	177-8430-0934-503
White (Translucent)	177-8430-0935-503
Light Yellow	177-8430-0936-503
Clear (Colorless)	177-8430-0937-503



Sub-Sub-Miniatures

New . . . Series 252-9951-0971

Conforms to Drawing MS25446 2-7 . . . Requires only .193" P
Mounting Clearance Hole . . . For complete data, refer to Catalog L-178.

THE COMPLETE LINE OF

INDICATOR LIGHTS

DIALCO®

Foremost Manufacturer of Indicator Lights
DIALIGHT CORPORATION

Prices are approx. actual size

Connecting a Neon Light to a Circuit Having One Side Grounded, Always Connect the Hot Side of the Circuit to the Terminal Marked + (Center Contact).

b-Miniature Indicator Lights for NEON Lamps

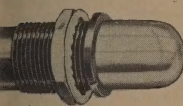
NE-2D (regular)

NE-2J (high brightness)

TWO TERMINALS — FULLY INSULATED . . . Meet or exceed environmental and operational requirements of MIL-L-6723 and MIL-L-3661.

FEATURES: Omnidirectional Stovepipe Lens: Molded of high heat c, gives 180° light spread. Heavy wall of lens is reinforced by eaded brass insert. This fitting receives the lamp and screws the internal thread of the bushing. The bulb enters well into latic lens for best effectiveness. The shank of the lens holder mped in 3 evenly spaced places to secure the lamp.

AT IN 1/4" CLEARANCE HOLE
ONT OF PANEL INSERTION
WITH FIXED FLANGE



36-0931-552

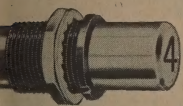
With Built-in Resistor

(A patented DIALCO feature—
U.S. Pat No. 2,421,321)

Conform to MS25257

Accommodates a T-2 Neon Glow Lamp:
NE-2D (MS25252) for 105-125 Volts A.C. or D.C.; for Catalog Numbers see below
NE-2J (High Brightness) for 110-125 Volts — A.C. only.

CATALOG NO. WITHOUT LAMP	MS NO. WITHOUT LAMP	MS NO. WITH LAMP	LENS COLOR
17-8836-0933-552	MS25257-2	MS25257-1	Aviation Yellow
17-8836-0931-552	MS25257-4	MS25257-3	Identification Red
17-8836-0937-552	MS25257-6	MS25257-5	Clear (Colorless)

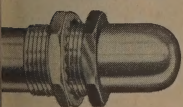


36-1531-552

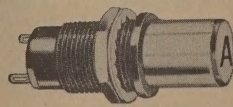
These assemblies are similar in every respect to the MS assemblies (137-8836-0931-552 Series) above, except that they offer optional features not covered by MS. Finishes: Standard — black anodize; optional — clear anodize. Lamps — NE-2D (standard brightness) for 105-125 volts AC or DC; NE-2J (high brightness) for 110-125 Volts — A.C. only.

COLOR	COMPLETE ASSEMBLIES			
	ACCOMMODATE NE-2D LAMP	ACCOMMODATE NE-2J LAMP	STOVEPIPE	CYLINDRICAL
Aviation Red	137-8836-0931-552	137-8836-1531-552	137-8864-0931-512	137-8864-1531-512
Yellow (Amber)	137-8836-0933-552	137-8836-1533-552	137-8864-0933-512	137-8864-1533-512
White	137-8836-0935-552	137-8836-1535-552	137-8864-0935-512	137-8864-1535-512
Light Yellow	137-8836-0936-552	137-8836-1536-552	137-8864-0936-512	137-8864-1536-512
Clear (Colorless)	137-8836-0937-552	137-8836-1537-552	137-8864-0937-512	137-8864-1537-512

WITHOUT BUILT-IN RESISTOR



36-0931-201



137-8536-1531-201

ASSEMBLY TYPE	LENS FINISH	CATALOG NUMBER	
		LENS SHAPE STOVEPIPE	LENS SHAPE CYLINDRICAL
Front or Back Mtg. in 15/32" Clearance Hole	Transparent	137-7236-0931-201	137-7236-1531-201
Front Mtg. in 17/32" Clearance Hole	Transparent	137-7336-0931-201	137-7336-1531-201
Front Mtg. in 15/32" Clearance Hole	Transparent	137-8536-0931-201	137-8536-1531-201

LENS COLOR: The final figure before the last dash in the Catalog Number indicates that the lens has RED color. When color other than red is desired, change this digit to a figure from the listing below. Note that white lenses are translucent and are always furnished unfrosted. (For example 137-8536-1535-201).

Red — 1 . . . Yellow (Amber) — 3 . . . White Translucent — 5 . . . Light Yellow — 6 . . . Clear (Colorless) — 7.

Example: 138-5036-1433-201 (Yellow Amber)

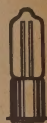
Green and Blue are not recommended for use with Neon lamps.

The LIGHT SOURCE: Tiny Neon Glow Lamps NE-2D or NE-2J

Recommended resistor values:

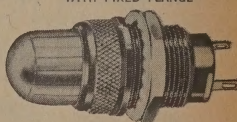
FOR NE-2D AT 105-125 VOLTS AC OR DC	
Bright Light	Long Life
■ 62,000 ohms	100,000 ohms
FOR NE-2J (HIGH BRIGHTNESS) AT 110-125 VOLTS AC ONLY	
Bright Light	Long Life
■ 22,000 ohms	33,000 ohms

■ Standard values of patented built-in resistors; other values optional.

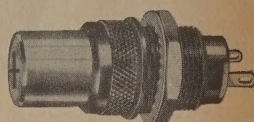
STOVEPIPE or
ROTATABLE
CYLINDRICAL LENS

This omnidirectional stovepipe lens is molded of high heat plastic to a special design. About two-thirds of the lens is "fluted," and the remaining portion is smooth. This produces clear light framed by a sparkling "halo" when viewed from the front. Softer light is afforded along the "fluted" sides. The NE-2D or NE-2J Neon Lamp enters high into the lens for best effectiveness. Whether used on the front insertion or the back insertion assembly, the stovepipe or cylindrical lens cap is readily removable from the front of the panel, thus making the lamp accessible for easy replacement.

MOUNT IN 1/4" CLEARANCE HOLE
FRONT OF PANEL INSERTION
WITH FIXED FLANGE



145-5036-0991-201



138-5036-1431-201

LENS COLOR	CATALOG NUMBER STOVEPIPE OR BACK MOUNTING SERIES		CATALOG NUMBER FRONT MOUNTING SERIES	
	STOVEPIPE LENS	CYLINDRICAL LENS	STOVEPIPE LENS	CYLINDRICAL LENS
Red	145-5036-0991-201	138-5036-1431-201	145-5036-0991-201	138-5036-1431-201
Yellow (Amber)	145-5036-0993-201	138-5036-1433-201	145-5036-0993-201	138-5036-1433-201
White	145-5036-0995-201	138-5036-1435-201	145-5036-0995-201	138-5036-1435-201
Light Yellow	145-5036-0996-201	138-5036-1436-201	145-5036-0996-201	138-5036-1436-201
Clear (Colorless)	145-5036-0997-201	138-5036-1437-201	145-5036-0997-201	138-5036-1437-201

WATER-TIGHT NEON INDICATOR LIGHTS
with RETAINED O-RING SEALS

WATER-TIGHT, OIL-TIGHT, DUST TIGHT
ON THE FACE OF THE PANEL

Two Terminals — Fully Insulated

- MATERIALS AND FINISHES**
- **Mounting Bushing:** Aluminum, black anodize finish. Optional — clear anodize finish.
 - **Internal-tooth Lockwasher and Mounting Nut:** Steel, cadmium plated with yellow iridescent chromate finish.
 - **Terminals:** Brass, hot tinned elongated slot.

MOUNT IN 1/4" CLEARANCE HOLE
FRONT OF PANEL INSERTION
WITH FIXED FLANGE
With Built-in Resistor



181-8836-0931-553

LENS COLOR	COMPLETE ASSEMBLIES		
	WITH BUILT-IN RESISTOR		WITHOUT BUILT-IN RESISTOR
	ACCOMMODATE NE-2D LAMP	ACCOMMODATE NE-2J LAMP	
Red	181-8836-0931-553	181-8864-0931-513	181-8536-0931-503
Yellow (Amber)	181-8836-0933-553	181-8864-0933-513	181-8536-0933-503
White (Translucent)	181-8836-0935-553	181-8864-0935-513	181-8536-0935-503
Light Yellow	181-8836-0936-553	181-8864-0936-513	181-8536-0936-503
Clear (Colorless)	181-8836-0937-553	181-8864-0937-513	181-8536-0937-503

THE COMPLETE LINE OF



INDICATOR LIGHTS

Foremost Manufacturer of Indicator Lights
DIALIGHT CORPORATION

(Illustrations are approx. actual size)

When Connecting a Neon Light to a Circuit Having One Side Grounded, Always Connect the Hot Side of the Circuit to the Terminal Marked + (Center Contact)

ASSEMBLIES with BUILT-IN RESISTORS (U. S. Patent No. 2,421,321)

"Recognized under the component program of Underwriters' Labs Inc."
75W., 125V — 75W., 250V



For the T-3¼ NEON GLOW LAMP FOR VOLTAGES UP TO 250

For operation on 105-125V. or 210-250V. . . The required resistor is an integral part of the unit — BUILT IN. Assemblies conform to MIL-L-3661.

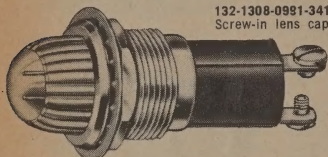
BUILT-IN RESISTOR VALUES (in ohms) for the NE-51 TYPE GLOW LAMPS

NE-51H (High Brightness)		NE-51 (Standard Brightness)	
Circuit volts applied to terminals 110-125 AC 210-250 AC-DC		Circuit volts applied to terminals 105-125 AC-DC	
BRIGHT LIGHT	22,000	BRIGHT LIGHT	56,000
LONG LAMP LIFE	33,000	LONG LAMP LIFE	100,000

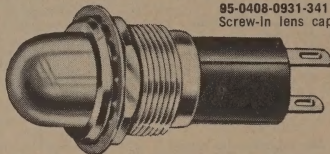
■ Standard values of patented built-in resistors.

PROPER CHOICE OF LAMP AND BUILT-IN RESISTOR VALUES: The NE-51 glow lamp types are shown with resistor table. Lamps are the standard brightness NE-51 and the high brightness NE-51H. The latter may be operated at about three times the level of current that may be applied to the standard lamp and it will produce more than 8 times as much

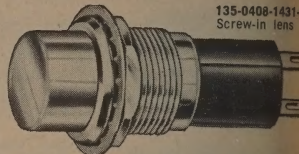
External resistors will be furnished which will permit use of these lights on voltages higher than 250 volts.



132-1308-0991-341
Screw-in lens cap



95-0408-0931-341
Screw-in lens cap



135-0408-1431-
Screw-in lens cap

LENS HOLDER AND PLASTIC LENS STYLE	LENS FINISH	FOR NE-51H—110-125V. AC		FOR NE-51—105-125V. AC-DC	
		CATALOG NO. WITH SCREW TERMINALS	CATALOG NO. WITH SOLDER TERMINALS	CATALOG NO. WITH SCREW TERMINALS	CATALOG NO. WITH SOLDER TERMINALS
STOVEPIPE (Screw-in)	Internal Fluting	52-1363-0991-311	52-0463-0991-311	52-1308-0991-341	52-0408-0991-341
STOVEPIPE (Screw-in)	Special Internal Fluting	132-1363-0991-311	132-0463-0991-311	132-1308-0991-341	132-0408-0991-341
CYLINDRICAL (Screw-in)	Transparent	135-1363-1431-311	135-0463-1431-311	135-1308-1431-341	135-0408-1431-341
FLAT (Screw-in)	Transparent	81-1363-0331-311	81-0463-0331-311	81-1308-0331-341	81-0408-0331-341
STOVEPIPE (Screw-in)	Transparent	95-1363-0931-311	95-0463-0931-311	95-1308-0931-341	95-0408-0931-341
DOME (Screw-on)	Transparent	85-1363-1231-311	85-0463-1231-311	85-1308-1231-341	85-0408-1231-341
	Matted Back	85-1363-1241-311	85-0463-1241-311	85-1308-1241-341	85-0408-1241-341
STOVEPIPE (Screw-on)	Internal Fluting	169-1363-1191-311	169-0463-1191-311	169-1308-1191-341	169-0408-1191-341
	Transparent	169-1363-1131-311	169-0463-1131-311	169-1308-1131-341	169-0408-1131-341

WATER-TIGHT CONSTRUCTION: The assemblies on this page may be made water-tight on the face of the panel. To specify, change the last digit in the catalog number suffix to 3. Example: 95-1308-0931-343.

HOW TO DESIGNATE THE THREE DIGIT CATALOG NUMBER SUFFIX (-XXX)

FINISH	RESISTOR	HARDWARE
-1 white nickel	1-22K	1-brass
-2 black nickel	3-33K	3-water-tight
-3 polished chrome	4-56K	on the face
-4 satin chrome	6-68K	of the panel.
	7-100K	

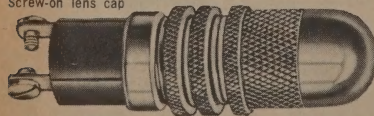
NOTE: The part numbers given in this catalog indicate standard indicator lights. The table at left provides the standard and optional designations for **Finish, Resistor and Hardware** where appropriate. Example: 85-1308-1231-273 (black nickel finish, 100K resistor, water-tight construction).

LENS COLOR:—The last digit before the 3 digit catalog number suffix indicates that the lens is RED. W color other than red is desired, change this digit to figure from the listing below.

Red — 1; Yellow (Amber) — 3; White Translucent — Light Yellow — 6; Clear (Colorless) — 7.

9/16" Assemblies mount from BACK of panel only

17-1308-1131-245
Screw-on lens cap



Optional Finishes: The catalog number suffix designates an assembly with standard black nickel finish. To specify optional finish, change the first digit of the catalog number suffix to -3 (polished chrome finish), or -4 (satin chrome finish).

Example: 17-1308-1131-345.

**SAMPLES ON REQUEST
AT ONCE — NO CHARGE**

WITH SCREW-ON LENS CAP

LENS STYLE	LENS FINISH	FOR NE-51H—110-125V. AC		FOR NE-51—105-125V. AC-DC	
		CATALOG NO. WITH SCREW TERMINALS	CATALOG NO. WITH SOLDER TERMINALS	CATALOG NO. WITH SCREW TERMINALS	CATALOG NO. WITH SOLDER TERMINALS
STOVEPIPE	Transparent	17-1363-0931-215	17-0463-0931-215	17-1308-0931-245	17-0408-0931-245
	Internal Fluting	17-1363-0991-215	17-0463-0991-215	17-1308-0991-245	17-0408-0991-245
STOVEPIPE	Transparent	70-1363-1131-215	70-0463-1131-215	70-1308-1131-245	70-0408-1131-245
	Internal Fluting	70-1363-1191-215	70-0463-1191-215	70-1308-1191-245	70-0408-1191-245
FLAT	Transparent	37-1363-0331-215	37-0463-0331-215	37-1308-0331-245	37-0408-0331-245

Standard Hardware: 3 knurled rings.

Optional Hardware: 1 ring, 1 lockwasher, 1 mounting nut. To designate an assembly with "optional hardware", change the last digit in the catalog number suffix to 8. Example: 37-0408-0331-246.

THE COMPLETE LINE OF

INDICATOR LIGHTS

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Foremost Manufacturer of Indicator Lights
DIALIGHT CORPORATION

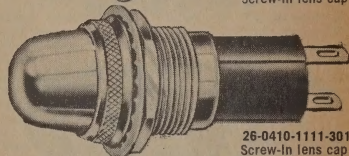
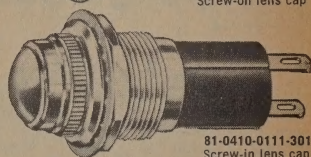
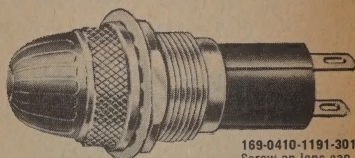
For details, refer to Catalog L-161.

(Illustrations are approx. actual size)

ASSEMBLIES for T-3¼ BULB with MINIATURE BAYONET BASE INCANDESCENT — 2 to 55 Volts

Mount in 11/16" Clearance Hole For Front of Panel Insertion

LENS STYLE	LENS FINISH	CATALOG NO. WITH SCREW TERMINALS	CATALOG NO. WITH SOLDER TERMINALS	CATALOG NO. WITH QUICK CONNECT TERMINALS
STOVEPIPE	Transparent	95-1310-0931-301	95-0410-0931-301	95-5710-0931-301
	Translucent	95-1310-0971-301	95-0410-0971-301	95-5710-0971-301
STOVEPIPE	Internal Fluting	52-1310-0991-301	52-0410-0991-301	52-5710-0991-301
STOVEPIPE	Special Internal Fluting	132-1310-0991-301	132-0410-0991-301	132-5710-0991-301
	Transparent	135-1310-1431-301	135-0410-1431-301	135-5710-1431-301
CYLINDRICAL▲	Unfrosted	81-1310-0131-301	81-0410-0131-301	81-5710-0131-301
	Back Frosted	81-1310-0111-301	81-0410-0111-301	81-5710-0111-301
CONVEX *	Back Frosted	81-1310-0211-301	81-0410-0211-301	81-5710-0211-301
	Unfrosted	81-1310-0231-301	81-0410-0231-301	81-5710-0231-301
FLAT *	Translucent	81-1310-0351-301	81-0410-0351-301	81-5710-0351-301
	Transparent	81-1310-0331-301	81-0410-0331-301	81-5710-0331-301
FLAT▲	Unfrosted	26-1310-1131-301	26-0410-1131-301	26-5710-1131-301
	Back Frosted	26-1310-1111-301	26-0410-1111-301	26-5710-1111-301
STOVEPIPE *	Internal Fluting	26-1310-1191-301	26-0410-1191-301	26-5710-1191-301
	Transparent	169-1310-1131-301	169-0410-1131-301	169-5710-1131-301
STOVEPIPE *	Internal Fluting	169-1310-1191-301	169-0410-1191-301	169-5710-1191-301
	Transparent	85-1310-1231-301	85-0410-1231-301	85-5710-1231-301
DOME	Translucent	85-1310-1241-301	85-0410-1241-301	85-5710-1241-301
	Matted Back			



Recognized under the
Dental program of
Dental Writers' Labs Inc."

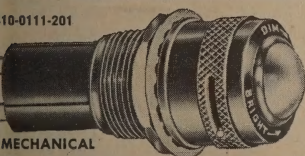
75W.
125V.

▲ LEGENDS:
Not-stamped or
engraved letters,
number or sym-
bols can be sup-
plied only on
these lenses.

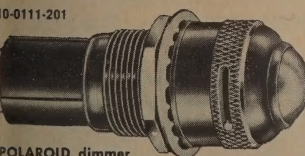
Assemblies should be specified when lamps rated
2 watts are used.
Specify translucent colors as follows: Red — 0351; Green
0352; Yellow (Amber) — 0373; Blue — 0374; Light
Yellow — 0376. Example: 81-1310-0374-301.

LENS COLOR: The final figure before the last dash in the above numbers indicates that the lens has RED color. When color other than red is desired, change this digit to a figure from the listing below. Note that white lenses are translucent and are always furnished unfrosted. Red — 1; Green — 2; Yellow (Amber) — 3; Blue — 4; White Translucent — 5; Light Yellow — 6; Clear (Colorless) — 7.

10-0111-201



10-0111-201



Mechanical and Polaroid Dimmers

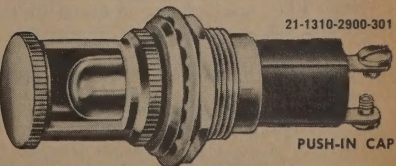
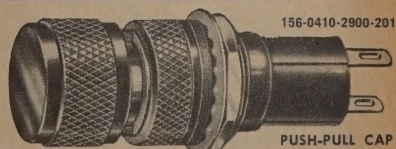
LENS STYLE AND FINISH	MECHANICAL DIMMER TYPE	WITH ROUND FLANGE			
		CATALOG NO. WITH SCREW TERMINALS	CATALOG NO. WITH SOLDER TERMINALS	CATALOG NO. WITH SCREW TERMINALS	CATALOG NO. WITH SOLDER TERMINALS
		WITH SCREW-IN LENS CAP			
CONVEX Unfrosted	Semi-Blackout Water-Tight	*204-1310-0131-203	*204-0410-0131-203	*204-5910-0131-203	*204-2210-0131-203
	Semi-Blackout Not Water-Tight	*204-1310-0131-201	*204-0410-0131-201	*204-5910-0131-201	*204-2210-0131-201
	Complete Blackout Water-Tight	*203-1310-0131-203	*203-0410-0131-203	*203-5910-0131-203	*203-2210-0131-203
	Complete Blackout Not Water-Tight	*203-1310-0131-201	*203-0410-0131-201	*203-5910-0131-201	*203-2210-0131-201
	Semi-Blackout Water-Tight	*204-1310-0111-203	*204-0410-0111-203	*204-5910-0111-203	*204-2210-0111-203
CONVEX Back Frosted	Semi-Blackout Not Water-Tight	*204-1310-0111-201	*204-0410-0111-201	*204-5910-0111-201	*204-2210-0111-201
	Complete Blackout Water-Tight	*203-1310-0111-203	*203-0410-0111-203	*203-5910-0111-203	*203-2210-0111-203
	Complete Blackout Not Water-Tight	*203-1310-0111-201	*203-0410-0111-201	*203-5910-0111-201	*203-2210-0111-201
	Semi-Blackout Water-Tight	*204-1310-0111-203	*204-0410-0111-203	*204-5910-0111-203	*204-2210-0111-203
	Complete Blackout Water-Tight	*203-1310-0111-203	*203-0410-0111-203	*203-5910-0111-203	*203-2210-0111-203

To obtain assemblies with screw-on lens cap, change 204- to 208-; 203- to 207-. Note: Assemblies with screw-on lens caps are not available with watertight construction.

LENS COLOR: See Description above.

Assemblies with Light Shield Caps

TYPE OF LIGHT SHIELD CAP	SIZE OF OPENING IN CAP	CATALOG NO. WITH SCREW TERMINALS	CATALOG NO. WITH SOLDER TERMINALS
PUSH-IN CAP WITH SNAP LOCK (1 Opening)	3/16" x 9/16"	89-1310-2900-301	89-0410-2900-301
	3/32" x 1/2"	22-1310-2900-301	22-0410-2900-301
	3/16" x 1/2"	90-1310-2900-301	90-0410-2900-301
PUSH-PULL ACTION (Variable Opening)	1/2" x 1/2"	21-1310-2900-301	21-0410-2900-301
	From 0" to 1/4" x 3/8"	156-1310-2900-201	156-0410-2900-201



Finishes: **Push-In Cap** — Standard Finish is polished chrome. To obtain optional finish, change the first digit in the catalog number suffix to 2- black nickel or 4- satin chrome. **Push-Pull Cap** — Standard finish 2- black nickel. Optional — 3- polished chrome.

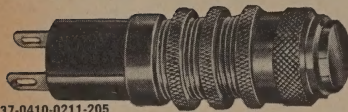
Examples: 89-1310-2900-201; 156-0410-2900-301.

THE COMPLETE LINE OF

DIALCO®**INDICATOR LIGHTS**Foremost Manufacturer of Indicator Lights
DIALIGHT CORPORATION

(Illustrations are approx. actual size)

For details, refer to Catalog L-151.

**ASSEMBLIES for T-3¼ BULB with MINIATURE BAYONET BASE
INCANDESCENT — 2 to 55 Volts****Mount from Rear in 9/16" Clearance Hole**37-0410-0211-205
(Screw-on Cap)70-0410-1191-206
(Screw-on Cap)17-1310-0931-205
(Screw-on Cap)

LENS STYLE	LENS FINISH	CATALOG NO. WITH SCREW TERMINALS	CATALOG NO. WITH SOLDER TERMINALS
STOVEPIPE	Transparent	17-1310-0931-205	17-0410-0931-205
	Internal Fluting	17-1310-0991-205	17-0410-0991-205
FLAT	Back Frosted	37-1310-0211-205	37-0410-0211-205
	Transparent	70-1310-1131-205	70-0410-1131-205
STOVEPIPE	Internal Fluting	70-1310-1191-205	70-0410-1191-205
	Back Frosted	70-1310-1111-205	70-0410-1111-205

"Recognized under
component program
Underwriters' Lab."

75W., 125V.



The catalog numbers given indicate complete assemblies with **standard hardware**. **Standard Hardware** — 3 knurled rings. **Optional Hardware**: 1 ring, 1 lockwasher, 1 mounting nut. To specify optional hardware, change the last digit in the catalog number to 6. Example: 70-0410-1191-206.

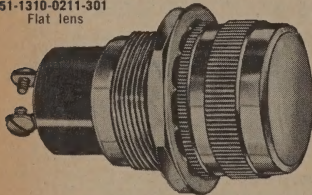
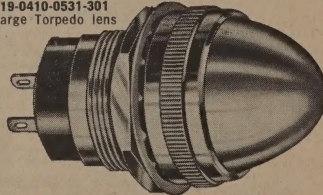
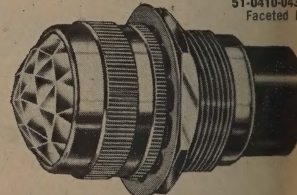
For your convenience, DIALCO'S 506-0562 Wrench can be furnished to permit secure fastening of these indicator lights on mounting panels.



506-0562 WRENCH

Mount in 1" Clearance Hole

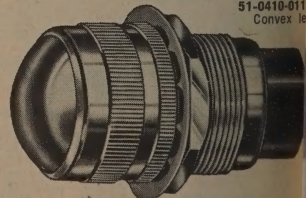
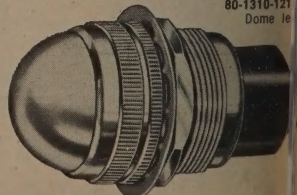
(Illustrations approx. 95% actual)

51-1310-0211-301
Flat lens19-0410-0531-301
Large Torpedo lens51-0410-0431
Faceted

LENS STYLE	LENS FINISH	CATALOG NO. WITH SCREW TERMINALS	CATALOG NO. WITH SOLDER TERMINALS
FLAT	Unfrosted	51-1310-0231-301	51-0410-0231-301
	Back Frosted	51-1310-0211-301	51-0410-0211-301
TORPEDO	Unfrosted	80-1310-0531-301	80-0410-0531-301
	Back Frosted	80-1310-0511-301	80-0410-0511-301
LARGE CONVEX	Unfrosted	61-1310-0231-301	61-0410-0231-301
	Back Frosted	61-1310-0211-301	61-0410-0211-301
DOME	Unfrosted	80-1310-1231-301	80-0410-1231-301
	Back Frosted	80-1310-1211-301	80-0410-1211-301
CONVEX	Unfrosted	51-1310-0131-301	51-0410-0131-301
	Back Frosted	51-1310-0111-301	51-0410-0111-301
FACETED	Transparent	51-1310-0431-301	51-0410-0431-301
TORPEDO FACETED	Unfrosted	80-1310-1331-301	80-0410-1331-301
LARGE TORPEDO	Unfrosted	19-1310-0531-301	19-0410-0531-301

LENS COLOR: The last digit **before** the 3 digit catalog number suffix indicates that the lens is RED. When color other than red is desired, change this digit to a figure from the listing below. Note that white lenses are translucent and are always furnished unfrosted.

RED — 1; Green — 2; Yellow (Amber) — 3; Blue — 4; White Translucent — 5; Light Yellow — 6; Clear (Colorless) — 7.

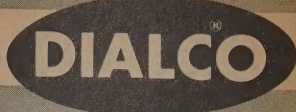
51-0410-0111
Convex lens80-1310-1211
Dome lens

The catalog numbers listed indicate complete assemblies with screw-on lens cap. These assemblies may also be obtained with **water-tight construction**. To specify, change the **last digit** in the catalog number to 3. Example: 80-1310-1331-303. These assemblies are also available with **friction-fit** or **bayonet lock** lens caps . . . but can not be furnished with water-tight construction.

The catalog numbers given indicate Standard finish. To obtain optional finishes, see description on facing page.

THE COMPLETE LINE OF

INDICATOR LIGHTS



Foremost Manufacturer of Indicator Lights
DIALIGHT CORPORATION

(Dimensions are approx. actual size)

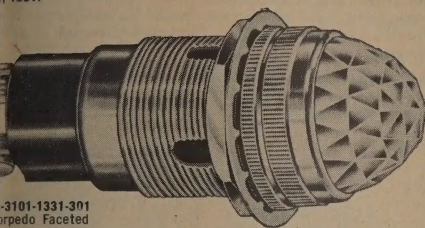
Recognized under the
component program of
Sylvania's Labs Inc."

ASSEMBLIES for INCANDESCENT LAMPS

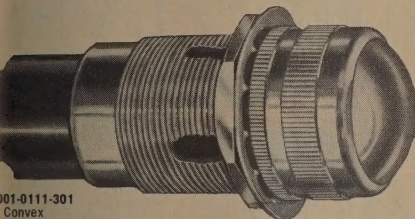
(with double contact bayonet base or candelabra screw base)

Mount in 1" Clearance Hole • Range of Voltage 6 to 145V • Refer to Cat. L-161

125V.



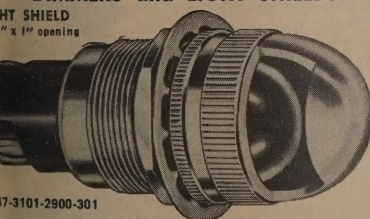
3101-1331-301
Torpedo Faceted



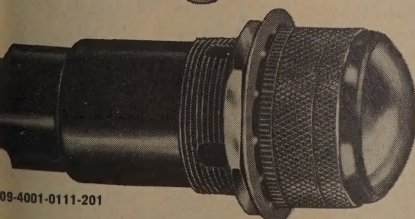
001-0111-301
Convex

STYLE	LENS FINISH	CATALOG NO. WITH FIXED SCREW TERMINALS	CATALOG NO. WITH FIXED SCREW TERMINALS	CATALOG NO. WITH QUICK CONNECT TERMINALS
FLAT	Back Frosted	51-3202-0211-301	51-3402-0211-301	51-6602-0211-301
CONVEX	Unfrosted	51-3202-0131-301	51-3402-0131-301	51-6602-0131-301
	Back Frosted	51-3202-0111-301	51-3402-0111-301	51-6602-0111-301
LARGE CONVEX	Unfrosted	61-3202-0231-301	61-3402-0231-301	61-6602-0231-301
	Back Frosted	61-3202-0211-301	61-3402-0211-301	61-6602-0211-301
TORPEDO	Unfrosted	19-3202-0531-301	19-3402-0531-301	19-6602-0531-301
	Back Frosted	80-3202-1231-301	80-3402-1231-301	80-6602-1231-301
	Back Frosted	80-3202-1211-301	80-3402-1211-301	80-6602-1211-301
DOMED TORPEDO FACETED	Unfrosted	80-3202-1331-301	80-3402-1331-301	80-6602-1331-301

DIMMERS and LIGHT SHIELDS



07-3101-2900-301



09-4001-0111-201

ORDER COMPLETE WITH LAMP so that you will be assured of receiving
indicator light and correct lamp at one time for immediate use.

D.P., Inc.

G-6 with Double Contact Bayonet Base—6 to 32 volts max, 8-6 (at 6 watts) with
Double Contact Bayonet Base or Candelabra Screw Base—6, 12, 24, 32, 48, 70-80,
125, 130, 135 and 145 volts.

Accommodate S-6 Bulb with Candelabra Screw Base

LENS STYLE	LENS FINISH	CATALOG NO. WITH SCREW TERMINALS (SIDE POSITION)	CATALOG NO. WITH SCREW TERMINALS (PROTRUDING)	CATALOG NO. WITH SOLDER TERMINALS	CATALOG NO. WITH QUICK CONNECT TERMINALS
CONVEX	Unfrosted	51-0901-0131-301	51-3101-0131-301	51-4001-0131-301	51-6701-0131-301
	Back Frosted	51-0901-0111-301	51-3101-0111-301	51-4001-0111-301	51-6701-0111-301
FLAT	Unfrosted	51-0901-0231-301	51-3101-0231-301	51-4001-0231-301	51-6701-0231-301
	Back Frosted	51-0901-0211-301	51-3101-0211-301	51-4001-0211-301	51-6701-0211-301
LARGE CONVEX	Unfrosted	61-0901-0231-301	61-3101-0231-301	61-4001-0231-301	61-6701-0231-301
	Back Frosted	61-0901-0211-301	61-3101-0211-301	61-4001-0211-301	61-6701-0211-301
TORPEDO	Unfrosted	80-0901-0531-301	80-3101-0531-301	80-4001-0531-301	80-6701-0531-301
	Back Frosted	80-0901-0511-301	80-3101-0511-301	80-4001-0511-301	80-6701-0511-301
DOME	Unfrosted	80-0901-1231-301	80-3101-1231-301	80-4001-1231-301	80-6701-1231-301
	Back Frosted	80-0901-1211-301	80-3101-1211-301	80-4001-1211-301	80-6701-1211-301
TORPEDO FACETED	Unfrosted	80-0901-1331-301	80-3101-1331-301	80-4001-1331-301	80-6701-1331-301
LARGE TORPEDO	Unfrosted	19-0901-0531-301	19-3101-0531-301	19-4001-0531-301	19-6701-0531-301
FACETED	Unfrosted	51-0901-0431-301	51-3101-0431-301	51-4001-0431-301	51-6701-0431-301

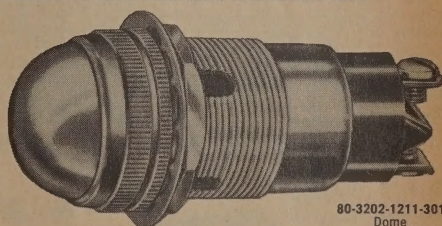
Standard Finish—Polished Chrome. To specify optional finish, change the first
digit of the catalog number suffix to -2 (black nickel finish) or -4 (satin chrome
finish). Example: 51-0901-0231-201.

LENS COLOR: The last digit before the catalog number suffix indicates that the
lens is RED. When color other than red is desired, change this digit to a figure
from this listing. Red—1; Green—2; Yellow (Amber)—3; Blue—4; White
Translucent—5; Light Yellow—6; Clear (Colorless)—7.
Example 19-6701-0533-301 (Yellow Amber)

Accommodate S-6 Bulb with Double Contact Bayonet Base

To obtain assemblies
with water-
tight construction,
change the last digit
in Cat. No. to 3.

Example:
61-3202-0211-303



80-3202-1211-301
Dome

Accommodate S-6 Bulb with Candelabra Screw Base

TYPE OF LIGHT SHIELD CAP	SIZE OF OPENING IN CAP	CATALOG NO. WITH SCREW TERMINALS (PROTRUDING)	CATALOG NO. WITH SOLDERING TERMINALS	CATALOG NO. WITH QUICK CONNECT TERMINALS
DOME (With 1 Opening)	1/8" x 1"	50-3101-2900-301	50-4001-2900-301	50-6701-2900-301
	1/4" x 1"	49-3101-2900-301	49-4001-2900-301	49-6701-2900-301
	3/8" x 1"	47-3101-2900-301	47-4001-2900-301	47-6701-2900-301
	9/16" x 1"	151-3101-2900-301	151-4001-2900-301	151-6701-2900-301

The catalog numbers given indicate standard finish. To obtain optional finishes,
change the first digit in the catalog number suffix to: 1—white nickel; 2—black
nickel; 3—polished chrome; 4—satin chrome. Examples: 47-3101-2900-401;
209-4001-0111-301.

LENS STYLE AND FINISH	MECHANICAL DIMMER TYPE	CATALOG NO. WITH SCREW TERMINALS	CATALOG NO. WITH SOLDER TERMINALS	CATALOG NO. WITH SCREW TERMINALS (SIDE POSITION)
CONVEX Back Frosted	Semi-Blackout Water-Tight	*210-3101-0111-203	*210-4001-0111-203	*210-0901-0111-203
	Semi-Blackout Not Water-Tight	*210-3101-0111-201	*210-4001-0111-201	*210-0901-0111-201
	Complete Blackout Water-Tight	*209-3101-0111-203	*209-4001-0111-203	*209-0901-0111-203
	Complete Blackout Not Water-Tight	*209-3101-0111-201	*209-4001-0111-201	*209-0901-0111-201
CONVEX Unfrosted Back Frosted	Polaroid	78-3101-0131-201	78-4001-0131-201	78-0901-0131-201
	Polaroid	78-3101-0111-201	78-4001-0111-201	78-0901-0111-201

* New Cat. Nos.; see P. 11 of Cat. L-161.

SAMPLES ON REQUEST—AT ONCE—NO CHARGE

THE COMPLETE LINE OF

DIALCO**INDICATOR LIGHTS**Foremost Manufacturer of Indicator Lights
DIALIGHT CORPORATION

(Illustrations are approx. actual)

"Recognized under the
component program of
Underwriters' Labs Inc."

75W., 125V.

OIL-TIGHT INDICATOR LIGHTS**OIL-TIGHT • WATER-TIGHT • DUST-TIGHT**

With Retained "O" Ring Seal Construction • Mount in 1" Clearance Hole

Assemblies for Incandescent Lamps (S6 Bulb with Candelabra Screw Base)

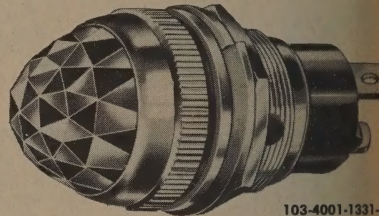
LENS TYPE	LENS SURFACE	CATALOG NO. with SCREW terminals in protruding position	CATALOG NO. with SCREW terminals in side position	CATALOG NO. with SOLDERING terminals
FLAT	unfrosted back (with disc)	215-3101-0231-403	215-901-0231-403	215-4001-0231-403
	back frosted	104-3101-0211-403	104-901-0211-403	104-4001-0211-403
	unfrosted	103-3101-0531-403	103-901-0531-403	103-4001-0531-403
TORPEDO	back frosted	103-3101-0511-403	103-901-0511-403	103-4001-0511-403
	unfrosted	103-3101-1331-403	103-901-1331-403	103-4001-1331-403
TORPEDO FACETED	unfrosted	103-3101-1231-403	103-901-1231-403	103-4001-1231-403
	back frosted	103-3101-1211-403	103-901-1211-403	103-4001-1211-403

Rugged, designed for severe vibration conditions. 3 types of Incandescent Lamps are used: S-6 with Candelabra Screw Base or with Double Contact Bayonet Base; 10C7/1DC with Double Contact Bayonet Base. The latter is designed to withstand severe vibration and shock.

Assemblies Feature: 3 retained oil-proof elastometer seals (1 gasket and 2 "O" ring) high impact phenolic insulation; use of legend discs inserted behind a flat lens shield to display letters, numbers or symbols.

Assemblies for Incandescent Lamps (S6 Bulb with Double Contact Bayonet Base)

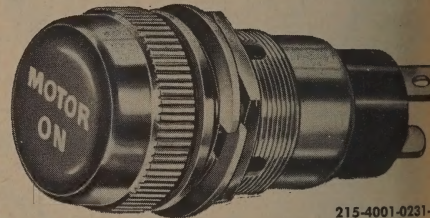
LENS TYPE	LENS SURFACE	CATALOG NO. with MOVABLE SCREW terminals	CATALOG NO. with FIXED SCREW terminals	CATALOG NO. with MOVABLE SOLDER terminals	CATALOG NO. with FIXED SOLDER terminals
FLAT	unfrosted back (with disc)	215-3502-0231-403	215-3202-0231-403	215-3602-0231-403	215-3402-0231-403
	back frosted	104-3502-0211-403	104-3202-0211-403	104-3602-0211-403	104-3402-0211-403
	unfrosted	103-3502-0531-403	103-3202-0531-403	103-3602-0531-403	103-3402-0531-403
TORPEDO	back frosted	103-3502-0511-403	103-3202-0511-403	103-3602-0511-403	103-3402-0511-403
	unfrosted	103-3502-1331-403	103-3202-1331-403	103-3602-1331-403	103-3402-1331-403
TORPEDO FACETED	unfrosted	103-3502-1231-403	103-3202-1231-403	103-3602-1231-403	103-3402-1231-403
	back frosted	103-3502-1211-403	103-3202-1211-403	103-3602-1211-403	103-3402-1211-403



103-4001-1331

Assemblies for Incandescent Lamps (C7 Bulb with Double Contact Bayonet Base)

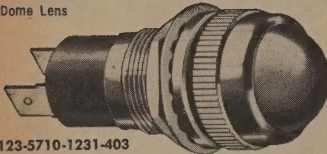
LENS TYPE	LENS SURFACE	CATALOG NO. with MOVABLE SCREW terminals	CATALOG NO. with FIXED SCREW terminals	CATALOG NO. with MOVABLE SOLDER terminals	CATALOG NO. with FIXED SOLDER terminals
FLAT	unfrosted back (with disc)	215-3527-0231-403	215-3227-0231-403	215-3627-0231-403	215-3427-0231-403
	back frosted	104-3527-0211-403	104-3227-0211-403	104-3627-0211-403	104-3427-0211-403
	unfrosted	103-3527-0531-403	103-3227-0531-403	103-3627-0531-403	103-3427-0531-403
TORPEDO	back frosted	103-3527-0511-403	103-3227-0511-403	103-3627-0511-403	103-3427-0511-403
	unfrosted	103-3527-1331-403	103-3227-1331-403	103-3627-1331-403	103-3427-1331-403
TORPEDO FACETED	unfrosted	103-3527-1231-403	103-3227-1231-403	103-3627-1231-403	103-3427-1231-403
	back frosted	103-3527-1211-403	103-3227-1211-403	103-3627-1211-403	103-3427-1211-403



215-4001-0231

**ASSEMBLIES for T-3¼ BULB with MIN. BAYONET BASE
INCANDESCENT or NEON****For Mounting in 11/16" Clearance Hole**

Dome Lens



123-5710-1231-403

In these Oil-Tight Indicator Lights, a high degree of resistance to shock and vibration is achieved by the use of the rugged Neon lamps on 120 and 240 V; and by choosing low voltage Incandescent lamps with short filaments, such as No. 44 or No. 1866 for circuits powered by transformers stepping down to 6.3 V.

Exclusive Features: Assemblies for use with NE-51 Neon Glow Lamps have "built-in" resistors—an exclusive Dialco feature (U.S. Pat. No. 2,421,321). Options include: binding screw, soldering or quick connect terminals. 7 lens colors are available; see bottom of page 965 for method of specifying color.

Incand.

Neon
NE-51
NE-51H
(High Bright)

Assemblies for the T-3¼ BULB with Miniature Bayonet Base—INCANDESCENT

LENS TYPE	LENS SURFACE	CATALOG NO. with SCREW terminals	CATALOG NO. with SOLDER terminals	CATALOG NO. with QUICK CONNECT terminals
DOME	unfrosted	123-1310-1231-403	123-0410-1231-403	123-5710-1231-403
	back frosted	123-1310-1211-403	123-0410-1211-403	123-5710-1211-403
	unfrosted	125-1310-1191-403	125-0410-1191-403	125-5710-1191-403
STOVEPIPE	back frosted	125-1310-1111-403	125-0410-1111-403	125-5710-1111-403
	inside fluted	125-1310-1191-403	125-0410-1191-403	125-5710-1191-403

ASSEMBLIES FOR USE WITH NE-51H NEON GLOW LAMP

LENS TYPE	LENS SURFACE	CATALOG NO. with SCREW terminals (210-250V. AC-DC)	CATALOG NO. with SOLDER terminals (210-250V. AC-DC)	CATALOG NO. with QUICK CONNECT terminals (210-250V. AC-DC)
DOME	unfrosted	123-9363-1231-463	123-9463-1231-463	123-5863-1231-463
	unfrosted	125-9363-1191-463	125-9463-1191-463	125-5863-1191-463
	inside fluted	125-9363-1191-463	125-9463-1191-463	125-5863-1191-463

ASSEMBLIES FOR USE WITH NE-51H NEON GLOW LAMP

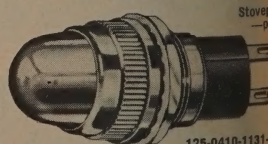
LENS TYPE	LENS SURFACE	CATALOG NO. with SCREW terminals (110-125V. AC)	CATALOG NO. with SOLDER terminals (110-125V. AC)	CATALOG NO. with QUICK CONNECT terminals (110-125V. AC)
DOME	unfrosted	123-1363-1231-413	123-0463-1231-413	123-5763-1231-413
	unfrosted	125-1363-1191-413	125-0463-1191-413	125-5763-1191-413
	inside fluted	123-1363-1191-413	125-0463-1191-413	125-5763-1191-413

OPTIONAL FINISHES

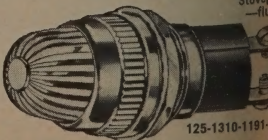
(All assemblies on this page)

The part numbers given indicate standard satin chrome finish. To specify optional finish, change the first digit in the catalog number suffix to -2 black nickel finish; or -3 polished chrome finish. Examples: 103-3502-1231-203; 125-9363-1191-363.

When Connecting a Neon Light to a circuit Having One Side Grounded, Always Connect the Hot Side of the Circuit to the Terminal Marked + (Center Contact)



125-0410-1331



125-1310-1191

THE COMPLETE LINE OF

INDICATOR LIGHTS

DIALCO[®]Foremost Manufacturer of Indicator Lights
DIALIGHT CORPORATION

(Illustrations are approx. 4/5 actual size)

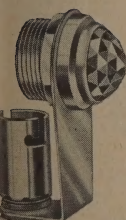
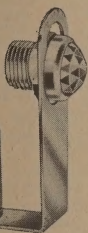
OPEN TYPE INDICATOR LIGHTS

ACCOMMODATE T-3¼ BULB
with MINIATURE BAYONET BASE

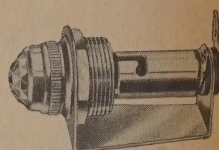
INCANDESCENT — 2 TO 55V

The assemblies in this grouping can be furnished
with one terminal, ground to shell.

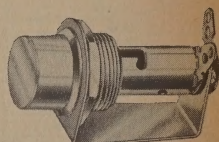
502-2131-102



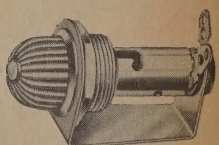
502-2526-0431-302



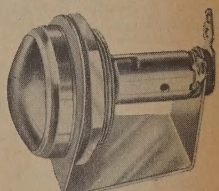
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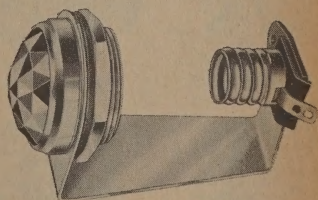
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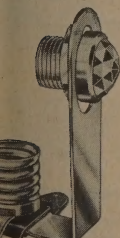
502-5236-0991-102



502-3241-0111-302



502-3214-0431-302

gnized under the
nent program of
writers' Labs Inc."75W.,
125V.

2-1010-2131-102



2-5211-0431-302

ACCOMMODATE S-6 BULB with CANDELABRA SCREW BASE
INCANDESCENT — 6 TO 145V

TAMPER PROOF

LENS TYPE	LENS DIAM.	LENS FINISH	CAT. NO. WITH SOLDER TERMINALS	FOR MTG. CLEAR. HOLE
FLAT	1/2"	Unfrosted	502-1010-0231-102	7/16"
		Back Frosted	502-1010-0211-102	7/16"
CONVEX	1/2"	Unfrosted	502-1010-0131-102	7/16"
FACETED	1/2"	Back Frosted	502-1010-0111-102	7/16"
		Unfrosted	502-1010-2131-102	7/16"

Lens Holder Finish: White Nickel

TAMPER PROOF

LENS TYPE	LENS DIAM.	LENS FINISH	CAT. NO. WITH SOLDER TERMINALS	FOR MTG. CLEAR. HOLE
CONVEX	5/8"	Unfrosted	502-2511-0131-302	11/16"
		Back Frosted	502-2511-0111-302	11/16"
FACETED	5/8"	Unfrosted	502-2511-0431-302	11/16"

Lens Holder Finish: Polished Chrome

LENS TYPE	LENS DIAM.	LENS FINISH	CAT. NO. WITH SOLDER TERMINALS	FOR MTG. CLEAR. HOLE
FACETED	1"	Unfrosted	502-3214-0431-302	1"
CONVEX	1"	Back Frosted	502-3214-0111-302	1"
FLAT	1"	Back Frosted	502-3214-0211-302	1"

Lens Holder Finish: Polished Chrome

ORDER COMPLETE WITH LAMP so that you will be assured of
receiving the indicator light and correct lamp at one time for
immediate use.

LENS COLOR: The last digit before the 3 digit catalog number suffix indicates that the lens is RED. When color other than red is desired, change this digit to a figure from the listing below. Note that white lenses are translucent and are always furnished unfrosted.

Red — 1; Green — 2; Yellow (Amber) — 3; Blue 4; White Translucent — 5; Light Yellow — 6; Clear (Colorless) — 7.

SAMPLES ON REQUEST AT ONCE — NO CHARGE

THE COMPLETE LINE OF

DIALCO®**INDICATOR LIGHTS**Foremost Manufacturer of Indicator Lights
DIALIGHT CORPORATION

(Illustrations are approx. 4/5 actual)

Lens Cap Assemblies for Panel Mounting

514-0408-0331-100



514-0608-2131-100



514-0512-2131-102



514-3806-0631-100



514-1012-2131-102

LENS DIAM.	CATALOG NUMBER WITH			SHANK O.D. ▲	SHANK LENGTH
	FLAT LENS	CONVEX LENS	FACETED LENS		
11/32"	514-0408-0331-100	514-0408-0631-100	514-0408-2131-100	.276	1/4"
11/32"	514-0508-0331-102	514-0508-0631-102	514-0508-2131-102	9/32"-32 Thd.	1/4"
11/32"	514-0512-0331-102	514-0512-0631-102	514-0512-2131-102	9/32"-32 Thd.	3/8"
11/32"	514-0608-0331-100	514-0608-0631-100	514-0608-2131-100	.285	1/4"
11/32"	514-0710-0331-102	514-0710-0631-102	514-0710-2131-102	3/8"-24 Thd.	5/16"
1/2"	514-3806-0331-100	514-3806-0631-100	514-3806-2131-100	.373	3/16"
1/2"	514-1008-0331-102	514-1008-0631-102	514-1008-2131-102	7/16"-27 Thd.	1/4"
1/2"	514-1012-0331-102	514-1012-0631-102	514-1012-2131-102	7/16"-27 Thd.	3/8"

▲Decimals ± .005

OPTIONAL FINISHES

The first digit in the catalog number suffix designates **standard finish** (extension 95-; 132- and 135-series), standard and three optional finishes are available for each series and be specified by changing this digit to (white nickel); -2 (black nickel); (polished chrome) or -4 (satin chrome).
Examples: 514-2512-0111-102;
514-0608-2131-100.

LENS DIAM.	LENS SHAPE	CATALOG NUMBER	SHANK O.D.	SHANK LENGTH
1/2"	FLAT	81-0331-300	9/16"-27 Thd.	3/16"
1/2"	CONVEX	81-0631-300	9/16"-27 Thd.	3/16"
1/2"	FACETED	81-2131-300	9/16"-27 Thd.	3/16"
5/8"	CONVEX	514-2512-0111-302	11/16"-27 Thd.	3/8"
5/8"	FACETED	514-2512-2131-302	11/16"-27 Thd.	3/8"
5/8"	STOVEPIPE	■ 132-0991*	9/16"-27 Thd.	3/16"
5/8"	STOVEPIPE	■ 95-0931*	9/16"-27 Thd.	3/16"
5/8"	CYLINDRICAL	■ 135-1431*	9/16"-27 Thd.	3/16"

*Specify 505-8112-102 Bushing Assembly for use with these lens cap assemblies (see illus.).
■ To obtain translucent lens, change "3" in the catalog number suffix to "7". Example: 95-0972 (green).

***LENS COLOR:** (132-, 95- and 135- series lens caps only) — The last digit in the catalog number designates the lens color. Change this digit for desired color as follows: Red — 1; Green — 2; Yellow (Amber) — 3; Blue — 4; White Translucent — 5; Light Yellow — 6; Clear (Colorless) — 7.

81-2131-300



135-1431



95-0931



514-2512-0111-302



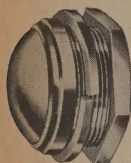
132-0991



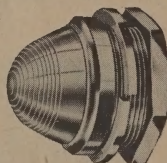
505-8112-102

BUSHING ASSEMBLY

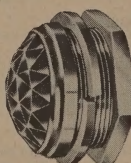
Mounts in 1/4" clearance hole. Shank length 3/8". Furnished with and lockwasher.



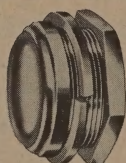
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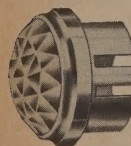
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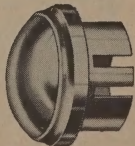
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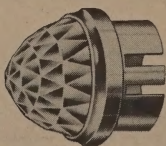
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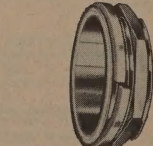
31-0431-300



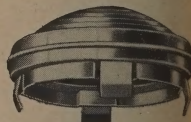
31-0111-300



31-1331-300



503-3112-102 (Bushing Assembly)



34-0831-300

LENS DIAM.	LENS SHAPE	CATALOG NUMBER	MFG. CL. HOLE
1 1/2"	FACETED	34-0431-300	1 3/8"
1 1/2"	DOME	34-0831-300	1 3/8"

BUSHING ASSEMBLY:

Mounts in 1" clearance hole. Shank length 3/8". Furnished with nut and lockwasher.

LENS DIAM.	LENS SHAPE	CATALOG NUMBER	SHANK O.D. ▲	SHANK LENGTH
1"	FLAT	514-7612-0211-302	1"-27 Thd.	3/8"
1"	CONVEX	514-7612-0111-302	1"-27 Thd.	3/8"
1"	FACETED	514-7612-0431-302	1"-27 Thd.	3/8"
1"	TORPEDO	514-7612-0511-302	1"-27 Thd.	3/8"
1"	FLAT	**31-0211-300	.885	5/16"
1"	CONVEX	**31-0111-300	.885	5/16"
1"	FACETED	**31-0431-300	.885	5/16"
1"	DOME	**31-1211-300	.885	5/16"
1"	TORPEDO FACETED	**31-1331-300	.885	5/16"

*Specify 505-3112-102 Bushing Assembly for use with this series lens cap assembly (see illus.).

▲Decimals ± .005

LENS COLOR: The last digit before the 3 digit catalog number indicates that the lens is RED. When color other than red is desired, change this digit to a figure from the listing below. Note that all lenses are translucent and are always furnished unfrosted.

Red — 1; Green — 2; Yellow (Amber) — 3; Blue — 4; White Translucent — 5; Light Yellow — 6; Clear (Colorless) — 7.

ORDER COMPLETE WITH LAMP so that you will be assured of receiving the indicator light and correct lamp at one time for immediate use.

SAMPLES ON REQUEST AT ONCE — NO CHARGE

MINIATURE LAMPS

PANEL, PILOT, AND FLASHLIGHT LAMPS



Bulb	Base§	Design		Net Price	
		Volts	Amps.	Each	Box 10
B-3 1/2	S.C. Min. flanged	2.38	0.50	\$0.19	\$1.16
B-3 1/2	S.C. Min. flanged	3.57	.50	.19	1.16
B-3 1/2	S.C. Min. flanged	2.33	.27	.19	1.16
B-3 1/2	S.C. Min. flanged	2.47	.30	.19	1.16
B-3 1/2	S.C. Min. flanged	3.7	.30	.24	1.44
B-3 1/2	S.C. Min. flanged	5.95	.50	.19	1.16
G-4 1/2	S.C. Min. flanged	4.75	.50	.19	1.16
S-8	D.C. bayonet	6.4	3.00	.34	1.99
S-8	D.C. bayonet	8.0	2.20	.34	1.99
G-3 1/2	Min. two-pin	2.5	.50	.25	1.51
G-3 1/2	Min. screw	3.7	.30	.16	.99
G-3 1/2	Min. screw	2.47	.30	.16	.99
G-4 1/2	Min. screw	4.9	.30	.16	.99
G-4 1/2	Min. screw	6.15	.30	.21	1.26
T-3 1/4	Min. bayonet	6.3	.36	.34	1.89
T-3 1/4	Min. screw	6.3	.35	.14	.81
T-3 1/4	Min. screw	2.5	.20	.21	1.27
T-3 1/4	Min. bayonet	2.5	.50	.21	1.27
T-3 1/4	Min. bayonet	6.3	.25	.14	.81
T-3 1/4	Min. bayonet	3.2	.35	.17	1.06
T-3 1/4	Min. screw	6.3	.25	.14	.81
T-3 1/4	Min. bayonet	6.3	.15	.14	.81
T-3 1/4	Min. screw	2.0	.06	.21	1.27
T-3 1/4	Min. bayonet	2.0	.17	1.06	
G-3 1/2	Min. screw	7.5	.22	.15	.87
G-3 1/2	Min. bayonet	7.5	.22	.13	.79
G-3 1/2	Min. bayonet	14.4	.12	.13	.79
G-4 1/2	Min. bayonet	7.0	.41	.13	.79
G-4 1/2	Min. bayonet	14.0	.24	.13	.79
G-4 1/2	Min. bayonet	14	.24	.17	1.01
G-6	S.C. bayonet	13.5	.59	.17	1.01
G-6	Candelabra screw	13.5	.41	.43	2.51
G-6	Candelabra screw	22	.18	.34	1.89
T-3 1/4	Min. screw	1.2	.12	.16	.99
G-3 1/2	Min. screw	1.25	.30	.16	.99
G-3 1/2	Min. screw	1.3	.10	.17	1.06
G-4 1/2	Min. screw	1.25	.60	.19	1.16
T-3 1/4	Wedge	6.3	.15	.21	1.26
TL-3	Min. screw	2.25	.25	.16	.99
FE-3 1/4	Min. screw	2.25	.25	.19	1.16
TL-2 3/4	Special 1 1/2-turn thd.	2.15	.22	.19	1.16
G-3 1/2	Min. screw	2.33	.27	.19	1.16
TL-3	Min. screw	2.33	.27	.19	1.16
T-3 1/4	Wedge	6.3	.25	.19	1.16
T-3 1/4	Min. bayonet	28	.17	.30	1.78
T-3 1/4	Min. bayonet	28	.04	.70	4.15
T-1 3/4	S.C. midjet flanged	6	.20	.54	3.25
T-1 3/4	S.C. midjet flanged	1.35	.06	.84	5.01
T-1 3/4	S.C. midjet flanged	2.7	.06	.84	5.01
T-1 3/4	S.C. midjet flanged	6	.04	1.45	8.76
G-4 1/2	Min. bayonet	14	.20	.21	1.26
G-4 1/2	Min. screw, flasher	1.25	.22	.35	1.99
G-4 1/2	Min. screw, flasher	6.5	.50	.27	1.67
G-4 1/2	Min. screw, flasher	2.6	.30	.22	1.33
G-4 1/2	Min. screw, flasher	4.9	.30	.20	1.22
G-4 1/2	Min. screw	5	.50	.19	1.16
G-4 1/2	Min. screw	12.5	.15	.16	.99
G-4 1/2	Min. bayonet	14	.25	.26	1.58
G-4 1/2	Min. screw	18	.25	.21	1.26
G-4 1/2	Min. screw	18	.25	.34	1.89
G-4 1/2	Min. screw	18	.25	.26	1.58
G-4 1/2	Min. bayonet	18	.25	.26	1.58
G-4 1/2	Min. screw	5.1	.15	.16	.99
G-6	Candelabra screw	24	.18	.26	1.58
G-4 1/2	Min. screw	6.15	.50	.19	1.16
T-4 1/2	Min. screw	9.84	.50	.24	1.45
RP-11	D.C. bayonet	6.2	3.87	1.11	6.65
S-8	D.C. indexing	12.8	1.80	.34	2.01
S-8	D.C. indexing (2-pos. taillight)	14	.51	.38	2.26
S-8	D.C. indexing (2-pos. taillight)	7.0	.75	.52	3.13
G-6	Candelabra screw	32	.16	.52	3.13
G-16 1/2	D.C. prefocus	32	.35	1.84	10.99
G-6	S.C. bayonet	10	.09	.47	2.82
T-3 1/4	Min. bayonet	10	.13	.26	1.58
G-3 1/2	Min. screw	12	.20	.24	1.45
G-3 1/2	Min. screw	8	.15	.19	1.16
G-3 1/2	Min. screw	14	.20	.15	.94
G-3 1/2	Min. screw	25	.26	.38	2.18
G-5	Min. bayonet	14	.17	.34	2.03
T-3	Min. screw	18	.17	.43	2.51
T-3 1/4	Min. screw	24	.17	.52	3.13
T-3 1/4	Min. screw	14	.20	.24	1.45
T-3 1/4	Min. bayonet	14	.15	.26	1.58
T-3 1/4	Min. bayonet	3.2	.16	.17	1.06
S-8	D.C. bayonet	3.4	.80	.47	2.82
S-8	D.C. bayonet	6.5	2.75	1.02	6.08
S-8	D.C. prefocus	6.5	2.75	1.36	8.10
S-11	S.C. bayonet	5	.60	.63	3.77
S-11	S.C. prefocus	6.1	4.50	.84	5.01
T-13 1/4	Midjet screw	6	4.10	1.20	7.60
T-13 1/4	Midjet screw	2.5	.20	.84	5.01
T-13 1/4	Midjet screw	6.3	.075	.84	5.01
T-3 1/4	Min. bayonet	2	.06	.52	3.13
T-3 1/4	Min. bayonet	10	.10	.24	1.45
T-3 1/4	Min. bayonet	14	.20	.19	1.16

Lamp No.	Bulb	Base§	Design		Net Price	
			Volts	Amps.	Each	Box 10
1819*	T-3 1/4	Min. bayonet	28	.04	\$0.35	\$2.07
1822	T-3 1/4	Min. bayonet	36	.10	.58	3.48
1828	T-3 1/4	Min. bayonet	37.5	.05	.63	3.77
1829*	T-3 1/4	Min. bayonet	28	.07	.34	2.03
1835	T-3 1/4	Min. bayonet	55	.05	.63	3.77
1847*	T-3 1/4	Min. bayonet	6.3	.15	.17	1.06
1850	T-3 1/4	Min. bayonet	5	.09	.24	1.45
1855	T-4 1/2	Min. bayonet	6.3	.80	.34	1.89
1866	T-3 1/4	Min. bayonet	6.3	.25	.21	1.26
1881	T-3 1/4	Min. bayonet	15.5	.24	.18	1.07
1891*	T-3 1/4	Min. bayonet	14.4	.12	.16	.96
1892	T-3 1/4	Min. bayonet	14.4	.12	.24	1.46
1898	T-3 1/4	Min. bayonet	14	.33	.34	2.05

*Outside coated red. †Outside coated green. S.C. indicates single contact; D.C., double contact; Min., miniature. •Popular Types.

NEON INDICATING GLOW LAMPS

Gaseous-discharge type for use as indicators. Average useful life, 25,000 hours AC; Types NE-17, 45, 48, 57, 58, 7,500 hours; Types NE-30, 34, 56, 79, 10,000 hours; Type NE-51, 15,000 hours. DC is approximately 60% of AC values. Ambient Temperature: Not to exceed 300°F.

Lamp No.	Nom. Watts	Volts (Circ.)	Bulb (Clear)	Base	Res.† Ohms	Net Each
A1B	1/25	110-125	T-2	Wire term.	200K	\$0.13
A1C†	1/25	110-125	T-2	Wire term.	68K	.13
NE-2 (A1A)	1/25	110-125	T-2	Wire term.	150K	.10
NE-2A (A2A)	1/25	110-125	T-2	Wire term.	200K	.10
NE-2D (C7A)	1/25	110-125	T-2‡	SC Mid.Fig.	150K	.78
NE-2E (A9A)	1/25	110-125	T-2‡	Wire term.	100K	.10
NE-2H (C2A)†	1/25	110-125	T-2‡	Wire term.	30K	.11
NE-2J (C9A)†	1/25	110-125	T-2‡	SC Mid.Fig.	30K	.78
NE-2M (K2A)	1/25	110-125	T-2‡	Wire term.	150K	.32
NE-2P (K3A)†	1/25	110-125	T-2‡	Wire term.	33K	.32
NE-2V (A8A)	1/25	110-125	T-2	Wire term.	100K	.13
NE-17 (B2B)	1/4	110-125	T-4 1/2	DC Bay.	30K	.86
NE-30 (J5A)	1	110-125	S-11	Med. Scr.†	None	1.14
NE-32 (J5A)	1	110-125	G-10	DC Bay.	7.5K	1.14
NE-34 (R2A)	2	110-125	S-14	Med. Scr.	None	1.76
NE-40 (R6A)	3	110-125	S-14	Med. Scr.	None	2.56
NE-45 (B7A)	1/4	110-125	T-4 1/2	Cand. Scr.	None	.81
NE-48 (B9A)	1/4	110-125	T-4 1/2	DC Bay.	30K	.67
NE-51 (B1A)	1/25	110-125	T-3 1/4	Min. Bay.	200K	.20
NE-51H (B2A)†	1/25	110-125	T-3 1/4	Min. Bay.	47K	.22
NE-56 (J9A)	1/2	220-250	S-11	Med. Scr.	None	1.19
NE-57 (F3A)	1/4	110-125	T-4 1/2	Cand. Scr.†	None	.94
NE-58 (F4A)	1/4	220-250	T-4 1/2	Cand. Scr.	None	.90
NE-79 (R1A)	1	110-125	S-7	DC Bay.	7.5K	1.28
NE-84 (K1A)†	1/4	110-125	T-2‡	Tel. slide	30K	.61

AC-DC ARGON INDICATOR LAMPS

AR-9C ARGON INDICATOR LAMPS						
AR-1 (W1A)	2	110-125	S-14	Med. Scr.	None	\$1.90
AR-3 (J2A) π	$\frac{1}{4}$	110-125	T-4 $\frac{1}{2}$	Cand. Scr.	None	.85
AR-4 (J3A) π	$\frac{1}{4}$	110-125	T-4 $\frac{1}{2}$	DC Bay.	15K	.75
AR-9 (K4A)	$\frac{1}{25}$	110-125	T-2	Wire term.	200K	.20

†Lamps with screw base have proper ballast built-in. Those with bayonet base or wire terminals do not have them, but are to be supplied and attached by user. Resistance shown for normal operation at indicated circuit volts. ‡Formed tip bulb. †Use 135 v. minimum for satisfactory DC operation. †Round end bulb. †Center electrode connected to base shell.

CIRCUIT COMPONENT NEON LAMPS

For use as voltage indicators, regulators, switching, etc. All ratings below are DC; all bulb types are T-2 except: NE-51S, NE-67 (T-4 1/2). All have parallel-post electrodes (W-11), except NE-16, fireman's hat electrodes (P-3). Ambient Temperature: -00° F +165° F, limit.

Lamp No.	Starting Volts DC	Operating Volts DC	DC Ma	Base	Net Each
NE-2A5 (AAA)	60-90	55°	.03	Wire term.	\$0.20
NE-23 (5AB)	60-90	59°	0.3	Wire term.	.16
NE-68A (5AC)	60-90	52-65	0.3	Wire term.	.40
NE-68AA (5AD)	60-90	52-65	1-1.3	Wire term.	.38
NE-75 (3AC)	60-90	55°	0.4	Wire term.	.50
NE-76A (5AG-A)	68-76	50-60	0.4	Wire term.	.50
NE-77 (5BA)	Triode	Avg. 85	0.5	Wire term.	.55
NE-80A (5AF)	60-80	50-58	0.1	Wire term.	.63
NE-81A (5AG)	60-80	50-60	0.1	Wire term.	.40
NE-83A (5AH)	60-100	65°	10.0	Wire term.	.20
NE-86A (5AJ)	55-90	55°	1.5	Wire term.	.16
NE-96 (5AB)	120-150	60-80	0.5	Wire term.	.20
NE-97 (4AC)	110-140	60-80	0.5	Wire term.	.20
NE-3 (8AA)	55-90	55°	0.3	Tel. Slide	.63
NE-4 (8AB)	60-90	59°	0.3	Tel. Slide	.40
NE-5 (8AC)	120-150	60-80	0.5	Tel. Slide	.43
NE-51S (6AB)	55-90	55°	0.2	Min. Bay.	.30
NE-67 (6AC)	55-90	56°	0.2	Min. Bay.	.20
NE-16 (7AA)	67-87	53-65	1.5	DC Bay.	.63

†Average, after 100 hours burning at rated current. individual lots may vary from average. †Leads are tinned. †Average greater than indicated value. †With 140-180 v. DC on outer electrode, lamp trigger with 140 v. DC trigger to cathode.

DRAKE

INDICATOR LIGHTS

"DELUXE MOLDED" Series
MINIATURE BAYONET BASE
INDICATOR LIGHTS

Polished chrome finish (MIL units are black nickel plated), molded (Glaslok) housing give the appearance, never deplacable. All "DELUXE MOLDED" units have Drake's B-2-25 die for quick assembly with Drake No. 39 wrench. Install lamps and mount units from front of panel up to $\frac{1}{4}$ " thick, in $\frac{1}{4}$ " dia. mounting hole on $\frac{1}{4}$ " centers. Units with built-in $\frac{1}{4}$ " watt series resistors take lamp actual size.

(ALL ILLUSTRATIONS APPROX. $\frac{1}{2}$ ACTUAL SIZE)

Fig. No.	Drake Number	MIL Style Number	Lens Dia.	Length In Front of Panel	Length Behind Panel Face	Legs	Build-In Resistor (Ohms)	Net Each Lb. Of
A	2300-332-101		$\frac{1}{4}$ "	$\frac{1}{4}$ "	$\frac{1}{4}$ "	Solder	1.22	1.11 1.03
B	2300-332-102		$\frac{1}{4}$ "	$\frac{1}{4}$ "	$\frac{1}{4}$ "	Solder	1.22	1.11 1.03
C	2300-332-104		$\frac{1}{4}$ "	$\frac{1}{4}$ "	$\frac{1}{4}$ "	Solder	1.22	1.11 1.03
D	2300-332-106		$\frac{1}{4}$ "	$\frac{1}{4}$ "	$\frac{1}{4}$ "	Solder	1.22	1.11 1.03
E	2300-332-108		$\frac{1}{4}$ "	$\frac{1}{4}$ "	$\frac{1}{4}$ "	Solder	1.22	1.11 1.03
F	2300-332-110		$\frac{1}{4}$ "	$\frac{1}{4}$ "	$\frac{1}{4}$ "	Solder	1.22	1.11 1.03
G	2300-332-112		$\frac{1}{4}$ "	$\frac{1}{4}$ "	$\frac{1}{4}$ "	Solder	1.22	1.11 1.03
H	2300-332-114		$\frac{1}{4}$ "	$\frac{1}{4}$ "	$\frac{1}{4}$ "	Solder	1.22	1.11 1.03
I	2300-332-116		$\frac{1}{4}$ "	$\frac{1}{4}$ "	$\frac{1}{4}$ "	Solder	1.22	1.11 1.03
J	2300-332-118		$\frac{1}{4}$ "	$\frac{1}{4}$ "	$\frac{1}{4}$ "	Solder	1.22	1.11 1.03
K	2300-332-120		$\frac{1}{4}$ "	$\frac{1}{4}$ "	$\frac{1}{4}$ "	Solder	1.22	1.11 1.03
L	2300-332-122		$\frac{1}{4}$ "	$\frac{1}{4}$ "	$\frac{1}{4}$ "	Solder	1.22	1.11 1.03
M	2300-332-124		$\frac{1}{4}$ "	$\frac{1}{4}$ "	$\frac{1}{4}$ "	Solder	1.22	1.11 1.03
N	2300-332-126		$\frac{1}{4}$ "	$\frac{1}{4}$ "	$\frac{1}{4}$ "	Solder	1.22	1.11 1.03
O	2300-332-128		$\frac{1}{4}$ "	$\frac{1}{4}$ "	$\frac{1}{4}$ "	Solder	1.22	1.11 1.03
P	2300-332-130		$\frac{1}{4}$ "	$\frac{1}{4}$ "	$\frac{1}{4}$ "	Solder	1.22	1.11 1.03
Q	2300-332-132		$\frac{1}{4}$ "	$\frac{1}{4}$ "	$\frac{1}{4}$ "	Solder	1.22	1.11 1.03
R	2300-332-134		$\frac{1}{4}$ "	$\frac{1}{4}$ "	$\frac{1}{4}$ "	Solder	1.22	1.11 1.03
S	2300-332-136		$\frac{1}{4}$ "	$\frac{1}{4}$ "	$\frac{1}{4}$ "	Solder	1.22	1.11 1.03
T	2300-332-138		$\frac{1}{4}$ "	$\frac{1}{4}$ "	$\frac{1}{4}$ "	Solder	1.22	1.11 1.03
U	2300-332-140		$\frac{1}{4}$ "	$\frac{1}{4}$ "	$\frac{1}{4}$ "	Solder	1.22	1.11 1.03
V	2300-332-142		$\frac{1}{4}$ "	$\frac{1}{4}$ "	$\frac{1}{4}$ "	Solder	1.22	1.11 1.03
W	2300-332-144		$\frac{1}{4}$ "	$\frac{1}{4}$ "	$\frac{1}{4}$ "	Solder	1.22	1.11 1.03
X	2300-332-146		$\frac{1}{4}$ "	$\frac{1}{4}$ "	$\frac{1}{4}$ "	Solder	1.22	1.11 1.03
Y	2300-332-148		$\frac{1}{4}$ "	$\frac{1}{4}$ "	$\frac{1}{4}$ "	Solder	1.22	1.11 1.03
Z	2300-332-150		$\frac{1}{4}$ "	$\frac{1}{4}$ "	$\frac{1}{4}$ "	Solder	1.22	1.11 1.03

LENS DESCRIPTION CODE (last three Drake Number digits). See explanation—"DRAKE LENS CODE NUMBER DATA".

Black Finish.



"DELUXE MOLDED" MINIATURE BAYONET BASE INDICATOR LIGHTS

with Friction Fit Lens Shank, for Easy Legend Alignment
Other features are same as those of units listed above.

Fig. No.	Drake Number	MIL Style Number	Lens Dia.	Length In Front of Panel	Length Behind Panel Face	Legs	Build-In Resistor (Ohms)	Net Each Lb. Of
A	2300-332-152		$\frac{1}{4}$ "	$\frac{1}{4}$ "	$\frac{1}{4}$ "	Solder	1.22	1.11 1.03
B	2300-332-154		$\frac{1}{4}$ "	$\frac{1}{4}$ "	$\frac{1}{4}$ "	Solder	1.22	1.11 1.03

LENS DESCRIPTION CODE (last three Drake Number digits). See explanation—"DRAKE LENS CODE NUMBER DATA".



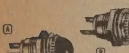
"DELUXE MOLDED" MINIATURE BAYONET BASE INDICATOR LIGHTS

with Mechanical Dimmer Lens Assembly: Type 5207 for Complete Blackout, Type 5208 for Partial Blackout
Other features are same as those of units listed above.

Fig. No.	Drake Number	MIL Style Number	Lens Dia.	Length In Front of Panel	Length Behind Panel Face	Legs	Build-In Resistor (Ohms)	Net Each Lb. Of
A	2300-332-156		$\frac{1}{4}$ "	$\frac{1}{4}$ "	$\frac{1}{4}$ "	Solder	1.22	1.11 1.03
B	2300-332-158		$\frac{1}{4}$ "	$\frac{1}{4}$ "	$\frac{1}{4}$ "	Solder	1.22	1.11 1.03
C	2300-332-160		$\frac{1}{4}$ "	$\frac{1}{4}$ "	$\frac{1}{4}$ "	Solder	1.22	1.11 1.03
D	2300-332-162		$\frac{1}{4}$ "	$\frac{1}{4}$ "	$\frac{1}{4}$ "	Solder	1.22	1.11 1.03
E	2300-332-164		$\frac{1}{4}$ "	$\frac{1}{4}$ "	$\frac{1}{4}$ "	Solder	1.22	1.11 1.03
F	2300-332-166		$\frac{1}{4}$ "	$\frac{1}{4}$ "	$\frac{1}{4}$ "	Solder	1.22	1.11 1.03
G	2300-332-168		$\frac{1}{4}$ "	$\frac{1}{4}$ "	$\frac{1}{4}$ "	Solder	1.22	1.11 1.03
H	2300-332-170		$\frac{1}{4}$ "	$\frac{1}{4}$ "	$\frac{1}{4}$ "	Solder	1.22	1.11 1.03
I	2300-332-172		$\frac{1}{4}$ "	$\frac{1}{4}$ "	$\frac{1}{4}$ "	Solder	1.22	1.11 1.03
J	2300-332-174		$\frac{1}{4}$ "	$\frac{1}{4}$ "	$\frac{1}{4}$ "	Solder	1.22	1.11 1.03
K	2300-332-176		$\frac{1}{4}$ "	$\frac{1}{4}$ "	$\frac{1}{4}$ "	Solder	1.22	1.11 1.03
L	2300-332-178		$\frac{1}{4}$ "	$\frac{1}{4}$ "	$\frac{1}{4}$ "	Solder	1.22	1.11 1.03
M	2300-332-180		$\frac{1}{4}$ "	$\frac{1}{4}$ "	$\frac{1}{4}$ "	Solder	1.22	1.11 1.03
N	2300-332-182		$\frac{1}{4}$ "	$\frac{1}{4}$ "	$\frac{1}{4}$ "	Solder	1.22	1.11 1.03
O	2300-332-184		$\frac{1}{4}$ "	$\frac{1}{4}$ "	$\frac{1}{4}$ "	Solder	1.22	1.11 1.03
P	2300-332-186		$\frac{1}{4}$ "	$\frac{1}{4}$ "	$\frac{1}{4}$ "	Solder	1.22	1.11 1.03
Q	2300-332-188		$\frac{1}{4}$ "	$\frac{1}{4}$ "	$\frac{1}{4}$ "	Solder	1.22	1.11 1.03
R	2300-332-190		$\frac{1}{4}$ "	$\frac{1}{4}$ "	$\frac{1}{4}$ "	Solder	1.22	1.11 1.03
S	2300-332-192		$\frac{1}{4}$ "	$\frac{1}{4}$ "	$\frac{1}{4}$ "	Solder	1.22	1.11 1.03
T	2300-332-194		$\frac{1}{4}$ "	$\frac{1}{4}$ "	$\frac{1}{4}$ "	Solder	1.22	1.11 1.03
U	2300-332-196		$\frac{1}{4}$ "	$\frac{1}{4}$ "	$\frac{1}{4}$ "	Solder	1.22	1.11 1.03
V	2300-332-198		$\frac{1}{4}$ "	$\frac{1}{4}$ "	$\frac{1}{4}$ "	Solder	1.22	1.11 1.03
W	2300-332-200		$\frac{1}{4}$ "	$\frac{1}{4}$ "	$\frac{1}{4}$ "	Solder	1.22	1.11 1.03
X	2300-332-202		$\frac{1}{4}$ "	$\frac{1}{4}$ "	$\frac{1}{4}$ "	Solder	1.22	1.11 1.03
Y	2300-332-204		$\frac{1}{4}$ "	$\frac{1}{4}$ "	$\frac{1}{4}$ "	Solder	1.22	1.11 1.03
Z	2300-332-206		$\frac{1}{4}$ "	$\frac{1}{4}$ "	$\frac{1}{4}$ "	Solder	1.22	1.11 1.03

LENS DESCRIPTION CODE (last three Drake Number digits). See explanation—"DRAKE LENS CODE NUMBER DATA".

OEM PRICES ON REQUEST ★ UNITS CAN BE ORDERED WITH LAMP INSTALLED ★ SPECIFY LENS COLOR

"TINYLITE" MIDJET SCREW BASE INDICATOR LIGHTS
SMALLEST INDICATOR LIGHTS WITH REPLACEABLE LAMP

Fully enclosed. Supplied with midjet lamp installed. Lamp replaced and units mounted from front of panels up to $\frac{1}{4}$ " thick, in $\frac{1}{4}$ " dia. mounting hole on $\frac{1}{4}$ " centers. Precision die prevents lamp from loosening in use.

Fig. No.	Drake Number	MIL Style Number	Lens Dia.	Length In Front of Panel	Length Behind Panel Face	Legs	Build-In Resistor (Ohms)	Net Each Lb. Of
A	121-2-204		$\frac{1}{4}$ "	$\frac{1}{4}$ "	$\frac{1}{4}$ "	Solder	1.22	1.11 1.03
B	121-2-206		$\frac{1}{4}$ "	$\frac{1}{4}$ "	$\frac{1}{4}$ "	Solder	1.22	1.11 1.03
C	121-2-208		$\frac{1}{4}$ "	$\frac{1}{4}$ "	$\frac{1}{4}$ "	Solder	1.22	1.11 1.03
D	121-2-210		$\frac{1}{4}$ "	$\frac{1}{4}$ "	$\frac{1}{4}$ "	Solder	1.22	1.11 1.03
E	121-2-212		$\frac{1}{4}$ "	$\frac{1}{4}$ "	$\frac{1}{4}$ "	Solder	1.22	1.11 1.03
F	121-2-214		$\frac{1}{4}$ "	$\frac{1}{4}$ "	$\frac{1}{4}$ "	Solder	1.22	1.11 1.03
G	121-2-216		$\frac{1}{4}$ "	$\frac{1}{4}$ "	$\frac{1}{4}$ "	Solder	1.22	1.11 1.03
H	121-2-218		$\frac{1}{4}$ "	$\frac{1}{4}$ "	$\frac{1}{4}$ "	Solder	1.22	1.11 1.03
I	121-2-220		$\frac{1}{4}$ "	$\frac{1}{4}$ "	$\frac{1}{4}$ "	Solder	1.22	1.11 1.03
J	121-2-222		$\frac{1}{4}$ "	$\frac{1}{4}$ "	$\frac{1}{4}$ "	Solder	1.22	1.11 1.03
K	121-2-224		$\frac{1}{4}$ "	$\frac{1}{4}$ "	$\frac{1}{4}$ "	Solder	1.22	1.11 1.03
L	121-2-226		$\frac{1}{4}$ "	$\frac{1}{4}$ "	$\frac{1}{4}$ "	Solder	1.22	1.11 1.03
M	121-2-228		$\frac{1}{4}$ "	$\frac{1}{4}$ "	$\frac{1}{4}$ "	Solder	1.22	1.11 1.03
N	121-2-230		$\frac{1}{4}$ "	$\frac{1}{4}$ "	$\frac{1}{4}$ "	Solder	1.22	1.11 1.03
O	121-2-232		$\frac{1}{4}$ "	$\frac{1}{4}$ "	$\frac{1}{4}$ "	Solder	1.22	1.11 1.03
P	121-2-234		$\frac{1}{4}$ "	$\frac{1}{4}$ "	$\frac{1}{4}$ "	Solder	1.22	1.11 1.03
Q	121-2-236		$\frac{1}{4}$ "	$\frac{1}{4}$ "	$\frac{1}{4}$ "	Solder	1.22	1.11 1.03
R	121-2-238		$\frac{1}{4}$ "	$\frac{1}{4}$ "	$\frac{1}{4}$ "	Solder	1.22	1.11 1.03
S	121-2-240		$\frac{1}{4}$ "	$\frac{1}{4}$ "	$\frac{1}{4}$ "	Solder	1.22	1.11 1.03
T	121-2-242		$\frac{1}{4}$ "	$\frac{1}{4}$ "	$\frac{1}{4}$ "	Solder	1.22	1.11 1.03
U	121-2-244		$\frac{1}{4}$ "	$\frac{1}{4}$ "	$\frac{1}{4}$ "	Solder	1.22	1.11 1.03
V	121-2-246		$\frac{1}{4}$ "	$\frac{1}{4}$ "	$\frac{1}{4}$ "	Solder	1.22	1.11 1.03
W	121-2-248		$\frac{1}{4}$ "	$\frac{1}{4}$ "	$\frac{1}{4}$ "	Solder	1.22	1.11 1.03
X	121-2-250		$\frac{1}{4}$ "	$\frac{1}{4}$ "	$\frac{1}{4}$ "	Solder	1.22	1.11 1.03
Y	121-2-252		$\frac{1}{4}$ "	$\frac{1}{4}$ "	$\frac{1}{4}$ "	Solder	1.22	1.11 1.03
Z	121-2-254		$\frac{1}{4}$ "	$\frac{1}{4}$ "	$\frac{1}{4}$ "	Solder	1.22	1.11 1.03

LENS DESCRIPTION CODE (last three Drake Number digits). See explanation—"DRAKE LENS CODE NUMBER DATA".

REPLACEMENT LAMPS
NO. 323 (2V) NO. 748 (7V) NO. 1448 (14V)

(ALL ILLUSTRATIONS APPROX. $\frac{1}{2}$ ACTUAL SIZE)

"ME" INDICATOR LIGHTS
FOR USE WITH MIDGET PLUG BASE LAMPS IN MIL STANDARD OR COMMERCIAL APPLICATIONS

Small but sturdy—only $\frac{1}{4}$ " max. dia. MIL units, black anodized finish; other units, clear finish. Lamp replaced and units mounted from front of panel, in $\frac{1}{4}$ " dia. mounting hole on $\frac{1}{4}$ " centers. Built-in series resistor takes NE2D neon lamp; other units take T-14 bulb.

Fig. No.	Drake Number	MIL Style Number	MIL Number	Lens Dia.	Length In Front of Panel	Length Behind Panel Face	Build-In Resistor (Ohms)	Max. Panel Thickness	Net Each Lb. Of		
									19	10-5	15-59
A	121-2-256	121-2-256	M523186	$\frac{1}{4}$ "	$\frac{1}{4}$ "	$\frac{1}{4}$ "	43K	.149	1.59	1.58	1.91
B	121-2-258	121-2-258		$\frac{1}{4}$ "	$\frac{1}{4}$ "	$\frac{1}{4}$ "			1.11	1.03	1.24
C	121-2-260	121-2-260		$\frac{1}{4}$ "	$\frac{1}{4}$ "	$\frac{1}{4}$ "			1.11	1.03	1.24
D	121-2-262	121-2-262		$\frac{1}{4}$ "	$\frac{1}{4}$ "	$\frac{1}{4}$ "			1.11	1.03	1.24
E	121-2-264	121-2-264	M523187	$\frac{1}{4}$ "	$\frac{1}{4}$ "	$\frac{1}{4}$ "	43K	.149	1.59	1.58	1.91
F	121-2-266	121-2-266		$\frac{1}{4}$ "	$\frac{1}{4}$ "	$\frac{1}{4}$ "			1.11	1.03	1.24
G	121-2-268	121-2-268		$\frac{1}{4}$ "	$\frac{1}{4}$ "	$\frac{1}{4}$ "			1.11	1.03	1.24
H	121-2-270	121-2-270		$\frac{1}{4}$ "	$\frac{1}{4}$ "	$\frac{1}{4}$ "			1.11	1.03	1.24
I	121-2-272	121-2-272	M523188	$\frac{1}{4}$ "	$\frac{1}{4}$ "	$\frac{1}{4}$ "	43K	.149	1.59	1.58	1.91
J	121-2-274	121-2-274		$\frac{1}{4}$ "	$\frac{1}{4}$ "	$\frac{1}{4}$ "			1.11	1.03	1.24
K	121-2-276	121-2-276		$\frac{1}{4}$ "	$\frac{1}{4}$ "	$\frac{1}{4}$ "			1.11	1.03	1.24
L	121-2-278	121-2-278		$\frac{1}{4}$ "	$\frac{1}{4}$ "	$\frac{1}{4}$ "			1.11	1.03	1.24
M	121-2-280	121-2-280	M523189	$\frac{1}{4}$ "	$\frac{1}{4}$ "	$\frac{1}{4}$ "	43K	.149	1.59	1.58	1.91
N	121-2-282	121-2-282		$\frac{1}{4}$ "	$\frac{1}{4}$ "	$\frac{1}{4}$ "			1.11	1.03	1.24
O	121-2-284	121-2-284		$\frac{1}{4}$ "	$\frac{1}{4}$ "	$\frac{1}{4}$ "			1.11	1.03	1.24
P	121-2-286	121-2-286		$\frac{1}{4}$ "	$\frac{1}{4}$ "	$\frac{1}{4}$ "			1.11	1.03	1.24
Q	121-2-288	121-2-288	M523190	$\frac{1}{4}$ "	$\frac{1}{4}$ "	$\frac{1}{4}$ "	43K	.149	1.59	1.58	1.91
R	121-2-290	121-2-290		$\frac{1}{4}$ "	$\frac{1}{4}$ "	$\frac{1}{4}$ "			1.11	1.03	1.24
S	121-2-292	121-2-292		$\frac{1}{4}$ "	$\frac{1}{4}$ "	$\frac{1}{4}$ "			1.11	1.03	1.24
T	121-2-294	121-2-294		$\frac{1}{4}$ "	$\frac{1}{4}$ "	$\frac{1}{4}$ "			1.11	1.03	1.24
U	121-2-296	121-2-296	M523191	$\frac{1}{4}$ "	$\frac{1}{4}$ "	$\frac{1}{4}$ "	43K	.149	1.59	1.58	1.91
V	121-2-298	121-2-298		$\frac{1}{4}$ "	$\frac{1}{4}$ "	$\frac{1}{4}$ "			1.11	1.03	1.24
W	121-2-300	121-2-300		$\frac{1}{4}$ "	$\frac{1}{4}$ "	$\frac{1}{4}$ "			1.11	1.03	1.24
X	121-2-302	121-2-302		$\frac{1}{4}$ "	$\frac{1}{4}$ "	$\frac{1}{4}$ "			1.11	1.03	1.24
Y	121-2-304	121-2-304	M523192	$\frac{1}{4}$ "	$\frac{1}{4}$ "	$\frac{1}{4}$ "	43K	.149	1.59	1.58	1.91
Z	121-2-306	121-2-306		$\frac{1}{4}$ "	$\frac{1}{4}$ "	$\frac{1}{4}$ "			1.11	1.03	1.24
AA	121-2-308	121-2-308		$\frac{1}{4}$ "	$\frac{1}{4}$ "	$\frac{1}{4}$ "			1.11	1.03	1.24
AB	121-2-310	121-2-310		$\frac{1}{4}$ "	$\frac{1}{4}$ "	$\frac{1}{4}$ "			1.11	1.03	1.24

Eldema

CORPORATION

INDICATORS FOR INDUSTRY

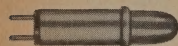
REPRESENTATIVES IN ALL PRINCIPAL CITIES

(Illustrations are approx. actual size)

C-LITES MINIATURE NEON AND INCANDESCENT LAMP CARTRIDGES

ELDEMA MINIATURE C-LITE CARTRIDGES EASILY INSERTED FROM FRONT OF THE PANEL. NEON TYPES AVAILABLE WITH BUILT-IN RESISTOR. TWO TERMINAL — COMPLETE INSULATION FROM THE PANEL. HIGH IMPACT PLASTIC LENS, CLEAR ANODIZED ALUMINUM CASE, HIGH DIELECTRIC INSULATOR, STAINLESS STEEL TERMINALS. MEETS MIL-L-3661.

INCANDESCENT C-LITES—TYPE CF



CF01
STOVEPIPE



CF02
FLUSH



CF03
SHORT FLAT

LENS COLORS

ACS — Amber Clear
ATS — Amber Translucent
BCS — Blue Clear
BTS — Blue Translucent
CCS — Cloudy Clear
GCS — Green Clear
GTS — Green Translucent
RCS — Red Clear
RTS — Red Translucent
WCS — Water Clear
WTS — White Translucent
YTS — Yellow Translucent

NEON C-LITES—TYPE CG

CG01
CG01R
STOVEPIPE



CG04
CG04R
LONG FLAT



LENS COLORS

ACS — Amber Clear
CCS — Cloudy Clear
RCS — Red Clear
WCS — Water Clear
YCS — Yellow Clear

LAMP TYPES

CG01 and CG04 — No Resistor
NE2H — High Brightness
NE2E — Standard Brightness

CG01R and CG04R — Built-in Resistor
A1C-47K, High Brightness, 110 VAC
A1B-150K, Std. Brightness, 90 VDC

TO ORDER — SPECIFY STYLE, COLOR, AND LAMP TYPE. FOR EXAMPLE:
CG01-ACS-NE2E
CG04R-RCS-A1B-150K

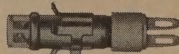
NEW SHORT CARTRIDGE

CG03
SHORT FLAT



Uses Short Neon Lamps — A1C High Brightness, A1B Std. Brightness
Specify As Above — CG03 - ACS - A1B

CLIP/SOCKET MOUNT



#10905 Spring Steel Clip and
2K Socket for C-Lite
Mounting in $\frac{1}{8}$ " Hole.

D-HOLDERS

RUGGED BLACK ANODIZED ALUMINUM HOLDER, STEEL HEX NUT AND LOCK WASHER — CADMIUM PLATED AND IRRIDITATED, HIGH DI-ELECTRIC INSULATOR. GOLD PLATED SOLDER CUP OR TIN PLATED SOLDER LUG TERMINALS. MEETS MIL-L-3661 SPECIFICATIONS.

SINGLE LAMPHOLDER

Style DH — Mounts in $\frac{3}{8}$ " Hole



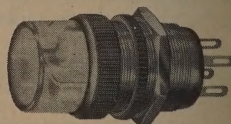
DHAB-14B, LAMPHOLDER



DHKB-15B LAMPHOLDER

with CF03 C-Lite Installed
DUAL LAMPHOLDER

Style DF — Mounts in $\frac{3}{4}$ " Hole



DFKB-17WCB, CLEAR LENS,

with Clear Anodized Aluminum
Light Barrier Between Lamps

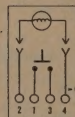
MOMENTARY SWITCH-LITE

Style DS — Mounts in $\frac{3}{8}$ " Hole



DSA1B SWITCH-LITE, GOLD PLATED TURRET PINS AND

CONTACTS. CF03 C-LITE INSTALLED.



The DSA1B is momentary, normally open switch-lite with separate light circuit. Rated at $\frac{1}{2}$ amp load.

LAMP TYPES

LAMP NO.	VOLTS	AMPS (MA)	LIFE HOURS
680	5	60	50,000
1730	6	40	1,000
2114	6	60	3,000
1784	6	200	1,000
2180	6.3	40	50,000
2181	6.3	200	50,000
1869	10	14	20,000
2107	10	40	5,000
1705	14	80	750
2182	14	80	50,000
2102	18	40	1,000
1762	28	40	1,000

TO ORDER — SPECIFY STYLE, COLOR, AND LAMP TYPE. FOR EXAMPLE:
CF03-RTS-1762



EG01



EG03

E-LITES PERMANENT NEON LAMP INDICATORS MILITARY TYPE — 25,000 HOUR LIFE — $\frac{3}{8}$ " MOUNTING

BLACK ANODIZED ALUMINUM BODY, TIN PLATED TERMINALS
HIGH IMPACT PLASTIC LENS
MEETS MIL-L-3661
OPTIONAL BUILT-IN RESISTOR

STYLE

EG01 (Dome)
EG03 (Flat)

COLOR

ACB (Amber)
CCB (Cloudy)
RCB (Red)
WCB (Clear)

LAMP/RESISTOR

NE2E
NE2E-100K
NE2H
NE2H-33K

SPECIFY STYLE - COLOR - LAMP/RESISTOR
EXAMPLE — EG03-ACB-NE2E-100K

PILOT LITES FOR ALL APPLICATIONS **Eldema** CORPORATION

SUBSIDIARY OF GENISCO TECHNOLOGY CORPORATION

B-LITES

COMMERCIAL NEON INDICATORS PERMANENT CLIP MOUNTING

REQUIRES ONLY 1/16-INCH PANEL HOLE

TYPE
BG90

TYPE
BG20

TYPE
BG03

Types BG90 and BG20 moulded of high impact plastic. Available with attached resistor for 110 volt operation.

STYLE
BG20 (Dome)
BG90 (Flat)

COLOR
AC - Amber
CC - Cloudy
RC - Red
WC - Clear

LAMP
NE2E - Standard Brightness
NE2H - High Brightness
NE2H-33K - For 110 volt

SPECIFY SHAPE - COLOR - LAMP - EXAMPLE: BG90-RC-NE2H

**SERIES BG03 - INSULATED LEADS
BUILT-IN RESISTOR FOR 110 VOLTS**

HIGH IMPACT PLASTIC LENS,
BRIGHT METAL COLLAR, NYLON
BODY, 6-INCH LEADS.

PART NUMBER

BG03-ACS-NE2H-33K
BG03-CCS-NE2H-33K
BG03-RCS-NE2H-33K
BG03-WCS-NE2H-33K

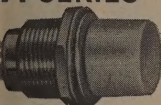
LENS COLOR

Amber
Cloudy
Red
Clear

LAMP HOLDERS FOR REPLACEABLE T-1 3/4 INCANDESCENT LAMPS

A-SERIES

FRONT MOUNT IN 1/32" HOLE OR REAR MOUNT IN 1/8" HOLE - NICKEL PLATED BRASS BODY AND HARDWARE - PHENOLIC INSULATION - TINNED TERMINALS - PLASTIC LENS



AB112-A22AT



AC111-A21RC

HOLDER PART NUMBERS

AB111 Front Mount, Black
AB112 Front Mount, Bright
AC111 Rear Mount, Black
AC112 Rear Mount, Bright

DOME LENS

A21AC
A21AT
A21BT
A21CC
A21GC
A21GT
A21RC
A21RT
A21WC
A21WT
A21YT

COLOR

Amber Clear
Amber Translucent
Blue Translucent
Cloudy Clear
Green Clear
Green Translucent
Red Clear
Red Translucent
Water Clear
White Translucent
Yellow Translucent

FLAT LENS

A22AC
A22AT
A22BT
A22CC
A22GC
A22GT
A22RC
A22RT
A22WC
A22WT
A22YT

**COMPLETELY INSULATED TWO
TERMINAL UNITS. LENS AND
LAMP EASILY REPLACED FROM
FRONT OF THE PANEL.**

M-SERIES

FRONT MOUNT IN 1/32" HOLE - BLACK ANODIZED ALUMINUM BODY - STEEL MOUNTING HARDWARE - PHENOLIC INSULATION - TINNED TERMINALS - HIGH IMPACT PLASTIC LENS



MA111-M12RC

Sub-Miniature
Holder and Lens

MA311-M13RC

Watertight Unit
with Two 1/16" O Rings
to Seal to Panel Face

STANDARD ASSEMBLY

MA111-M12AC
MA111-M12BC
MA111-M12GC
MA111-M12RC
MA111-M12WC
MA111-M12WT
MA111-M12YT

COLOR

Amber Clear
Blue Clear
Green Clear
Red Clear
Water Clear
White Translucent
Yellow Translucent

WATERTIGHT ASSEMBLY

MA311-M13AC
MA311-M13BC
MA311-M13GC
MA311-M13RC
MA311-M13WC
MA311-M13WT
MA311-M13YT

SERIES UNITS MEET MIL-L-3661 AND MS25256 SPECIFICATIONS AND PART NUMBERS

R-SERIES

REAR MOUNTS IN 3/8" DIAMETER HOLE - 1/8" PANEL - ALUMINUM HOUSING AND MOUNTING NUT - PHENOLIC INSULATION - TINNED TERMINALS - HIGH IMPACT PLASTIC LENS



RLD6B-L09WC

HOLDER NUMBER

RLD6B (Black)
RLD6S (Silver)

FRESNEL RING LENS

L09AC Amber
L09CC Cloudy
L09GC Green
L09RC Red
L09WC Clear

SMOOTH FACE LENS

L10AT Amber
L10BT Blue
L10GT Green
L10RT Red
L10WT White
L10YT Yellow

**NEW SUB-MINIATURE LAMP ASSEMBLY
193 PANEL HOLE MOUNT - MEETS MS25446**



5 volt - 60 ma - 100,000 hour lamp
Stainless steel body and nut
High strength plastic lens
Insulated leads

J-SERIES

ASSEMBLY

JK511-J21AT
JK511-J21BT
JK511-J21GT
JK511-J21RT
JK511-J21WC
JK511-J21WT
JK511-J21YT

COLOR

Amber (Yellow)
Blue
Green
Red
Clear
White
Light Yellow



INDUSTRIAL DEVICES, Inc.

OMNI-GLOW PILOT LIGHT

For use on instrument panels, appliances, switchboards, all electrical and electronic apparatus. OMNI-GLOW will last in excess of 10,000 to 25,000 hours of operating life.

With built-in glow lamp and current limiting resistor, all mechanical spring contacts are eliminated, providing a cost-saving, rugged unit relatively free from failure due to vibration or shock.

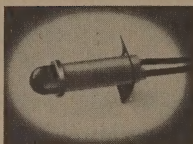
Easy mounting—only a $\frac{1}{2}$ " hole required for any panel thickness. Instant fastening—speed nut assures permanent shock and vibration-proof attachment.

Drawing less than 1/10 watt at 115 volts, long life, high reliability operation is provided over the 75-150 volt range; can also be used at higher voltage with decreased life.

Nylon body and acrylic lens assembly is $1\frac{3}{4}$ " long overall. Lens extends $\frac{1}{2}$ " in front of panel. Black plastic (105°C) leads are $4\frac{1}{2}$ " long, stripped and tinned $\frac{1}{2}$ ".

Four standard models have red (Model #1010A1), clear (Model #1010A2), amber (Model #1010A3), or white translucent (Model #1010A4) lenses.

Furnished complete with lamp and speed nut. OMNI-GLOW is UL approved—CSA Approval No. 13346.

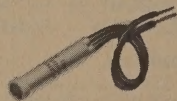


Catalog Number	Description	Net
1010A*	OMNI-GLOW Pilot Light	\$.54

* Note (1) red, (2) clear, (3) amber, (4) white.

GLO-DOT PILOT LIGHT

Small and attractive pilot light mounts in $\frac{5}{16}$ " hole with speed nut (provided). Built-in resistor assures long life while strain-relief provides added protection. Entire series UL & CSA approved. $4\frac{1}{2}$ " leads, 22 AWG stranded 105°C insulation supplied stripped $\frac{1}{2}$ ". Top ring is .340 dia. by .140" high while length of body under shoulder is $1\frac{3}{4}$ " overall.

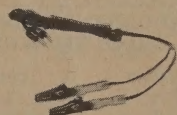


Catalog Number	Description	Net
2110A-*	GLO-DOT w/(see note) lens	\$.51

* Note: (1) red, (2) clear, (3) amber, (4) white

SAFE-T-KORD Model 1480

- A safe convenient way to apply line voltage to assemblies and components for test and experimentation.
- Eliminates accidental shocks and shorts to avoid blowing the main fuses.
- Consists of two nylon-insulated Safe-T-Klips, each with type AGX-5 ampere fuse and six foot line cord.
- Fast fuse check possible with see-thru Lexan fuse housing.



Catalog Number	Description	Net
1480	SAFE-T-KORD	\$1.65

MINI-VOLT VOLTMETER

(U.S. Pat. 2,644,134)

MINI-VOLT is an "abuse-proof" voltmeter; sufficiently accurate to indicate a 2 or 3 volt drop on 110 volt line. Virtually burn-out proof, this rugged unit is used by electricians, radio and TV repairmen, refrigerator and air-conditioning servicemen, experimenters, lab technicians, handyman.

MINI-VOLT has wide application for all equipment whose proper operation requires correct voltage.

In addition to measuring the exact voltage over the range from 65 to 660 volts, Model #400B is used to identify AC or DC lines, check rectifiers, filter capacitors, chokes; test for blown fuses, grounded components, DC polarity, measure voltage drops with load, and 1001 other uses.



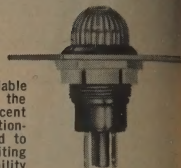
Catalog Number	Description	Net
400B	Range 65 to 660 volts	\$2.25

MINI-SLIDE

Series 2800 Pilot Lights

Series 2800 Mini-slide Pilot Lights are available with brilliant, multi-colored lenses and feature the ease and convenience of slide-base incandescent lamps. Lenses screw into the socket for vibration-proof installation. The socket itself is secured to the panel by a unique self-locking torque-limiting nut (Pat. Pending) which eliminates the possibility of stripping either the nut or the socket.

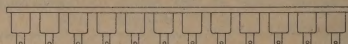
- Lamps available from 6v to 120v
- Solder or quick-connect receptacles
- Easy relamping from front of panel—no tools required.



Catalog Number	Description	Net
2800*	Series 2800 Pilot Light	\$.63

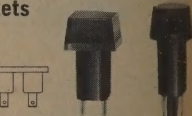
*Specify color—red, clear, amber, white, green, blue, or yellow. Prices shown are less lamp.

Pilot Lights—Individual Sockets Multi-Socket Strips



Brilliant, multi-color panel lighting slide base lamps. Attractive, yet economical to buy and install, MINI-SLIDE design permits you to use these rugged long-lived lamps in Pilot Lights, Individual Sockets, and Multi-Socket Strips.

- Lenses in a full range of colors.
- Easy relamping from front of panel.
- No special tools needed.
- Lenses can be imprinted.
- U.L. approved (3060 & 3060A)



Catalog Number	Description	Net
3001A	Individual socket or "Indicator" lamp (round)	\$.24
3002A	Individual socket or "Indicator" lamp (rectangular)	.24
3060A	Individual socket for "Pilot" lamp	.30
3003	12 socket strip, $\frac{3}{4}$ " centers, common ground contact	3.75
3004	12 socket strip, $\frac{3}{4}$ " centers, individual ground contacts	3.99
3005	12 socket strip, $\frac{1}{2}$ " centers, common ground contact	3.75
3006	12 socket strip, $\frac{1}{2}$ " centers, individual ground contacts	3.99
3060/*	Complete pilot light assembly - uses "Pilot" lamps	.42
3040/*	Complete pilot light assembly - uses "Indicator" lamps	.39

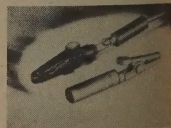
*Specify lens shape and color. Prices shown are less lamp.

SAFE-T-KLIP

(U.S. Patent 2,754,490)

New convenience and safety are realized through the use of 100% insulation on these test clips. Tough nylon insulation covers the entire clip, including the nose, without the bulkiness of rubber boots or insulating tape. Danger of short circuit due to clips touching each other or other components is eliminated, and test leads may be changed from one connection to another without cutting the power in the equipment.

Available in pairs (one red, one black) SAFE-T-KLIP incorporates a cadmium plated steel alligator clip and provides shock-proof, short-circuit proof operation in excess of 600 volts. Width of the clips is $\frac{3}{16}$ "; maximum height is $\frac{3}{8}$ ". Six models are available.



Catalog Number	Description	Net
1410A	SAFE-T-KLIP for use with lead wire provides screw terminal or solder	\$1.08 pr.
1410B	SAFE-T-KLIP for use with standard .080" test prod	.90 pr.
1410C	SAFE-T-KLIP for use with banana plug	.72 pr.
1410D	SAFE-T-KLIP for Signal Corps use	.84 pr.
1410F	SAFE-T-KLIP with type AGX 5 amp fuse	1.38 pr.
1410M	SAFE-T-KLIP Miniature for lead wire	.72 pr.

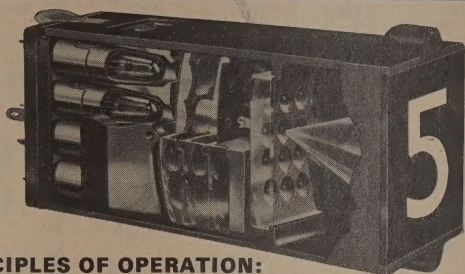
Note: Safe-T-Klips are also available individually. Use suffix 1 for black, 2 for red. Price for each is one half pair price.

IEE INDUSTRIAL ELECTRONIC ENGINEERS, INC. IEE

REAR-PROJECTION, SINGLE-PLANE, 12-POSITION READOUTS

FEATURES:

- Single-plane presentation for crispness, not visual hash.
- Bold, bright indications for high readability at wide angles, long distances, in brightest light.
- 12 message positions per readout. Colors, polarity, decimal points available.
- No moving parts for unlimited unit life; lamps easily replaceable.
- Low voltage operation.
- No filters, screens, or shades required.



PRINCIPLES OF OPERATION:

Cut-away of IEE Series 10 readout shows basic principles of IEE's patented rear-projection, single-plane operation. Photographic film containing up to 12 individual messages is mounted in front of 12-lamp assembly. As one or more of these lamps is lighted, the corresponding message is projected on the front viewing screen by a set of lenses. Because the presentation is entirely single-plane, only the message being displayed is visible; the other messages are totally invisible.

AVAILABLE FROM YOUR DISTRIBUTOR WITH THREE STANDARD MESSAGE DISPLAYS

Model Number	1	2	3	4	5	6	7	8	9	0	.	
100000	1	2	3	4	5	6	7	8	9	0	.	
100011	1	2	3	4	5	6	7	8	9	0	+	-
100052	1	2	3	4	5	6	7	8	9	0	UNIT CLOCK	UNIT CLOCK
Terminal Number	1	2	3	4	5	6	7	8	9	10	11	12

RECOMMENDED LAMPS (Available Separately at Your Distributor's)

Lamp Number	Voltage	Current (ma)	Wattage/Lamp	Life At Rated Voltage (hours)	Average Character Brightness*
44	6.3	250	1.6	3000	75
47	6.3	150	.9	3000	42
1815	14	200	2.8	3000	60
1820	28	100	2.8	1000	32

*Values in foot lamberts as measured with spot-light meter

SPECIFICATIONS:

SIGNAL INPUT: Straight decimal (one lamp per message position).

VIEWING DISTANCE: to 50 feet.

VIEWING ANGLE: 160° included angle, both vertical and horizontal.

POWER REQUIREMENT: .9 to 2.8 watts
40 ma. to 250 ma.
6.3 to 28 V AC or DC
2 3/4" H x 1 1/4" W x 5 1/2" D (terminals included).

SIZE: 12 ounces

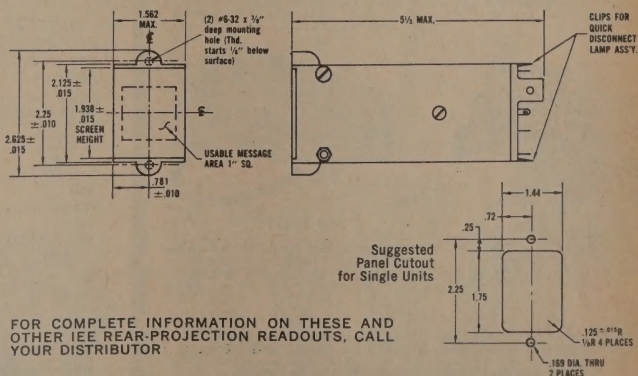
WEIGHT: 1" maximum

CHARACTER HEIGHT: 20 characters per second.

MAXIMUM OPERATING SPEED: Quick Disconnect Lamp Assembly for instant lamp replacement is standard feature with all units.

SPECIAL FEATURE: 1 to 9 units (less lamps), \$19.50
Decreasing scale for quantity.

MOUNTING DIMENSIONS:



FOR COMPLETE INFORMATION ON THESE AND OTHER IEE REAR-PROJECTION READOUTS, CALL YOUR DISTRIBUTOR

©1966 IEE

IEE INDUSTRIAL ELECTRONIC ENGINEERS, INC. IEE



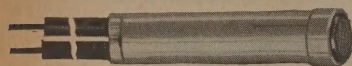
INDICATOR LIGHTS

NEON PILOT LIGHTS and SPECIAL ASSEMBLIES



TINEON INDICATOR LIGHTS

- Long life High Brightness Neon Lamps • Press fit into $\frac{9}{16}$ " hole
- Rated 110-250V • Nylon housing in colors (white standard)
- Speed nut furnished • Plastic lens in colors
- Legends • Built-in Resistor • Insulated Leads.



No. 36N2311

3600 SERIES
(with built-in resistor)

STANDARD 3600 SERIES — 110-125 VOLTS*

Nylon Housing Color	Lens Color			
	Red	Amber	White	Clear
Black	36N1311	36N1313	36N1315	36N1317
White	36N2311	36N2313	36N2315	36N2317
Red	36N3311	36N3313	36N3315	36N3317
Yellow	36N6311	36N6313	36N6315	36N6317
Gray	36N7311	36N7313	36N7315	36N7317

* If 210-250 V. is required, add H after second digit in catalog number, Example: 36HN3311



No. 41N1315

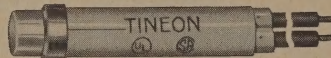
4100 SERIES
(less resistor)

STANDARD 4100 SERIES

Nylon Housing Color	Lens Color			
	Red	Amber	White	Clear
Black	41N1311	41N1313	41N1315	41N1317
White	41N2311	41N2313	41N2315	41N2317
Red	41N3311	41N3313	41N3315	41N3317
Yellow	41N6311	41N6313	41N6315	41N6317
Gray	41N7311	41N7313	41N7315	41N7317

with ALUMINUM BEZEL

All Tineons may be furnished with aluminum bezel. Please specify when ordering.


 No. 36EN2111 (Hi-Hat red lens)
With aluminum bezel

RECTANGULAR INDICATOR LIGHTS

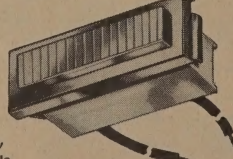
- Long Life High Brightness Neon Lamps • Snap into panel securely without additional hardware • Choice of lens colors • Series 3100 has chrome bezel and plastic lens • Series 47 has one-piece plastic lens and body • Complete range of voltages • UL and CSA listed.

No. 47-3P

For $1\frac{3}{8}$ "
x $\frac{5}{8}$ " hole



No. 31-2115TL



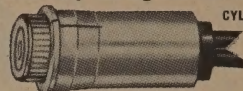
No. 31-2111

Lens Color	3100 Series 110 V Wire Leads	3100H Series 250 V Wire Leads	3100T Series 110 V 1/4" Tabs	3100HT Series 250 V 1/4" Tabs
Red	31-2111	31H2111	31-2111T	31H2111T
Amber	31-2113	31H2113	31-2113T	31H2113T
Clear	31-2117	31H2117	31-2117T	31H2117T
White (Translucent)	31-2115	31H2115	31-2115T	31H2115T

Write for catalog. Prototype samples available on request.

SNAPLITE INDICATOR LIGHTS

SNAPLITES contain long life neon lamps of the high brightness types. Within the housing are resistors chosen suit the applied circuit voltage and to provide the required lamp life so that replacement of the lamp will be unnecessary during the life of the equipment.



CYLINDRICAL LENS — No. 32-2111



FLUSH LENS — No. 32-1315T

STOVEPIPE LENS
No. 32-2217

No additional hardware needed

FEATURES: Snaps into place in $\frac{1}{2}$ " hole with no additional hardware... Wide variety of Lens and Housing colors... Incandescent-like brightness... Tab or Solder Terminals; or Wire Leads.

HOUSING COLORS: When color other than white is desired, please specify.

CHROME RINGS

These units are also available with chrome rings for those applications where a decorative ring, or bezel, is desired instead of a specific housing color.

HOW TO ORDER SNAPLITES WITH RINGS:

For Hole Size .500 to .513: Add letter "R" after Series Number in place of the dash (—)... Example: 32-2111 with Ring becomes 32R2111. For Hole Size .514 to .519: Add letters "CR" after Series Number in place of the dash (—)... Example: 35-2131T with Ring becomes 35CR2131T.

HOW TO ORDER LEECRAFT INDICATORS WITH INCANDESCENT LAMP Incandescent lamps to meet low voltage characteristics may be supplied in place of neon lamps with all indicators illustrated on this page. To specify incandescent in place of neon lamps insert lamp code number.

CURRENT (Milliamperes)	VOLTAGE (Volts)	CODE LAMP
200	6	G1
40	6	G2
14	10	G6
80	14	G3
40	28	G5

EXAMPLE: 41N2313 with 14 Volt 80 Mil. Lamp becomes 41N-G3-2313.
32-2111 with 6 volt 200 mA LAMP becomes 32-G1-2111

Leeecraft Series	Volts	Terminations
3200	110-125	insulated wire leads
3500	210-250	insulated wire leads
3200T	110-125	.187 tab terminals
3500T	210-250	.187 tab terminals



CATALOG NUMBERS with CYLINDRICAL LENS

Lens Color	3200 Series Wire Leads	3500 Series Wire Leads	3200T Series .187 Tabs	3500T Series .187 Tabs
Red	32-2111	35-2111	32-2111T	35-2111T
Amber	32-2113	35-2113	32-2113T	35-2113T
Clear	32-2117	35-2117	32-2117T	35-2117T
White (Translucent)	32-2115	35-2115	32-2115T	35-2115T

CATALOG NUMBERS with FLUSH LENS

Lens Color	3200 Series Wire Leads	3500 Series Wire Leads	3200T Series .187 Tabs	3500T Series .187 Tabs
Red	32-2311	35-2311	32-2311T	35-2311T
Amber	32-2313	35-2313	32-2313T	35-2313T
Clear	32-2317	35-2317	32-2317T	35-2317T
White (Translucent)	32-2315	35-2315	32-2315T	35-2315T

CATALOG NUMBERS with STOVEPIPE LENS

Lens Color	3200 Series Wire Leads	3500 Series Wire Leads	3200T Series .187 Tabs	3500T Series .187 Tabs
Red	32-2211	35-2211	32-2211T	35-2211T
Amber	32-2213	35-2213	32-2213T	35-2213T
Clear	32-2217	35-2217	32-2217T	35-2217T
White (Translucent)	32-2215	35-2215	32-2215T	35-2215T



Leecraft

MANUFACTURING CO., INC.

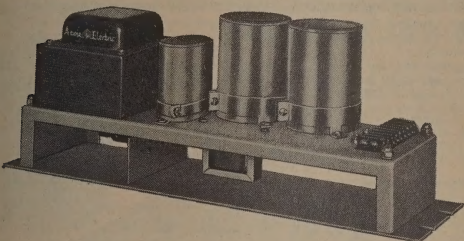
Acme Electric

DC REGULATED POWER SUPPLIES CONSTANT VOLTAGE STABILIZERS MAGNETIC AMPLIFIERS VOLTAGE ADJUSTORS

DC REGULATED POWER SUPPLIES

Continuous duty magnetic power supplies. No tubes. Output voltage adequately maintained. Rapid recovery from input line variations and/or sudden load changes. Current limited. Units feature constant voltage transformer, resonant capacitor, electrolytic filter, silicon rectifiers, adequate bleeder. Bulletin 174.

100-130 volts, 60 cycles, input
Output ripple voltage less than 1% RMS



Catalog Number	Volts	DC Output Amps	Watts
PS-47509	10	4	40
PS-47508	15	2	30
PS-41422	24	2	48
PS-41423	24	6	144
PS-47173	24	25	600
PS-1-47127	24	50	1200
PS-1-47461	24	75	1800
PS-1-47200	24	100	2400
PS-47638	28	8	224
PS-47712	28	25	700
PS-41424	48	4	192
PS-47519	48	10	480
PS-47718	100	4	400
PS-47457	125	6	750
PS-41427	200	1	200
PS-41428	250	1	250

UNFILTERED, NON REGULATED POWER SUPPLIES

Sturdily built, economically priced, manual regulation, silicon rectifiers provide full-wave d-c output. Bulletin 174.

Input 100-120 volts, 60 cycles.

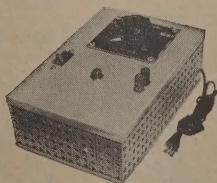
Catalog No.	Watts	D.C. Volts	Amps
PS-39887	300	0-100	3
PS-39888	500	0-100	5
PS-39889	1000	0-100	10
PS-39890	2000	0-100	20

ADJUSTABLE DC POWER SUPPLIES

Portable or Rack Models

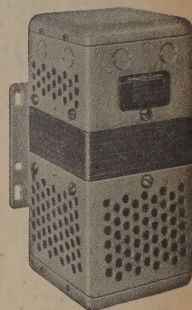
95-130 volts, 60 cycle. Direct current output stabilized and adjustable from 0-45 volts, current outputs 0.25 amp, and 0-5 amps. Voltage regulation approximately 5% between full load and no load.

Available in portable, plug-in model or standard rack type. Bulletin 174.



CONSTANT VOLTAGE STABILIZERS

Catalog Number	VA Output Capacity	Input Voltage Range	Output Voltage $\pm 1\%$
T-31936	15	95-130	120*
T-31937	30	95-130	120*
T-31938	60	95-130	120*
T-31939	120	95-130	120*
T-31940	250	95-130	120*
T-31941	350	95-130	120*
T-31942	500	95-130	120*
T-31943	500	175-235x 190-260x 380-520	120x 240
T-31944	750	95-130	120*
T-31945	750	175-235x 190-260x 380-520	120x 240
T-31946	1000	95-130	120*
T-31947	1000	175-235x 190-260x 380-520	120x 240
T-31948	2000	95-130x 175-235x 190-260	120x 240
T-31949	3000	95-130x 190-260	120*
T-31950	3000	95-130x 190-260	240*
T-31951	3000	175-235x 190-260x 380-520	240*
T-31952	3000	380-520 190-260x 380-520	480*
T-31953	5000	95-130x 190-260	120*
T-31954	5000	95-130x 190-260	240*
T-31955	5000	175-235x 190-260x 380-520	240*
T-31956	5000	190-260x 380-520	480*



* Indicates that stabilizer has special output tap for rectifier connection. All standard units listed have a voltage correction response time of less than 2 cycles, stabilizing output voltage $\pm 1\%$ under $\pm 15\%$ variation of input voltage. Bulletin 09.

MAGNETIC AMPLIFIERS

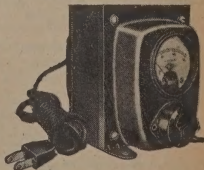
Combine solid state electronic components with magnetic reactors and advanced circuitry. Bias control winding is converted from input line, to provide self saturation of core. Independent gain control operates from 0-5 ma signal. Independent potentiometers permit individual adjustment of bias or gain control. Bulletin 24.



Catalog No.	Watts	Dc Output Volts	Amps	AC Input
MA-42900	5	24	0.21	120
MA-42901	40	80	0.5	120
MA-42902	80	80	1.0	120
MA-42903	125	80	1.6	120
MA-42904	250	80	3.2	120
MA-42905	500	80	6.4	120
MA-42906	500	160	3.2	240
MA-42907	1000	80	12.8	120
MA-42908	1000	160	6.4	240

MANUAL VOLTAGE ADJUSTORS

An inexpensive voltage adjustor that increases a low voltage or reduces a high voltage condition to 115 volts. Seven steps of adjustment from 95 to 125 volts input to approximately 115 volts output. Units supplied with integrally mounted tap-switch, cord and plug-in receptacle for outlet connection. Write for Bulletin 091.

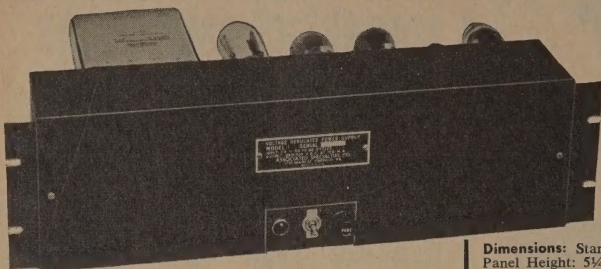


ACME ELECTRIC CORPORATION

SAA 3887-3177

Acme Electric

Associated Specialties Co.



ELECTRONICALLY REGULATED D.C. CONSTANT VOLTAGE POWER SUPPLIES

RELAY RACK MOUNTING TYPES

- BK (BLACK RIPPLE FRONT PANEL)
- GR (GRAY RIPPLE FRONT PANEL)

Input: 105-125 volts AC, 50-60 cycles.

Regulation of DC Voltage: Better than 1% for loads of 0 to 100 ma. and line voltage variations from 105 to 125 volts.

Isolated Output: Both positive and negative sides of the output are isolated from ground. Either side may be grounded or the output may be left floating.

AC Output for Filaments: An isolated AC voltage of 6.3 volts AC at 3 amperes is available at the output terminal connections.

Overload Protection: A fuse mounted on the front panel protects supply against external overloads or internal failure.

Input and Output Connections: All input and output connections are made to a single terminal strip conveniently located on the rear of the chassis.

Dimensions: Standard 19" relay rack mounting. Panel width: 19 inches. Panel Height: 5 1/4 inches; Depth Behind Panel: 7 1/4 inches.

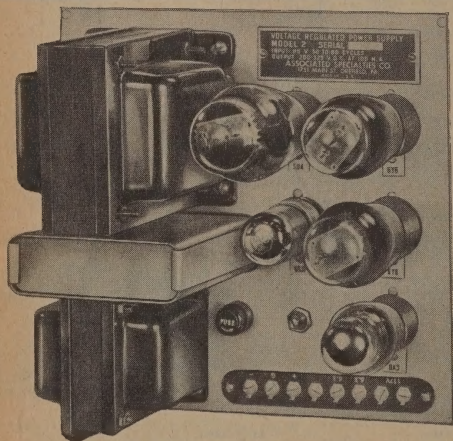
Cabinet Finish: Standard Black ripple enamel.

Controls: Rear Chassis—DC output voltage control. Front Panel—Pilot light, input power switch, and fuse.

High Quality Components: Only components of the highest quality are used in this equipment insuring you years of trouble-free dependable operation.

Accessibility: By removing two small screws, the front panel may be removed while the supply stays mounted on a relay track or cabinet. This allows quick and easy inspection.

MODEL	OUTPUT VOLTAGE	RIPPLE
1	200-325 V.D.C.	10 M.V. MAX.
11	75-200 V.D.C.	5 M.V. MAX.



SUB-CHASSIS MOUNTING

Sub-chassis mounting type regulated power supplies are designed to save space and money. They can be mounted on a chassis along with other components and thereby save space which would be used by a relay rack mounting supply. Savings are made in the size and cost of the cabinet required for a job along with the lower cost of the sub-chassis mounting supplies.

SAME AS MODEL 1 AND 11 EXCEPT

Dimensions: 9" wide, 8 3/4" long, 4 3/4" high above chassis, 1 3/4" clearance required below chassis. Size of cut-out required, 8 1/4" wide x 8" high. Location of four mounting holes: 8 5/8" wide x 8 1/2" high.

Chassis Finish: Aluminum.

Controls: DC output voltage control adjustable from the top side of the chassis.

MODEL	OUTPUT VOLTAGE	RIPPLE
2	200-325 V.D.C.	10 M.V. MAX.
12	75-200 V.D.C.	5 M.V. MAX.



CABINET MOUNTING

An ideal unit for bench work or assembly into equipment.

SAME AS MODEL 1 AND 11 EXCEPT

Input Connections: A line cord at rear of cabinet.

Output Connections: 5 way binding posts.

Dimensions: 5" wide, 7" high, 16" deep.

Panel Finish: Aluminum.

Cabinet Finish: Gray enamel.

Controls: D.C. output voltage on front panel.

Meters: Output voltage.

MODEL	OUTPUT VOLTAGE	RIPPLE
3	200-325 V.D.C.	10 M.V. MAX.
13	75-200 V.D.C.	5 M.V. MAX.

MODEL P2 PANEL \$9.00

Mounts two Model 2 or 12 power supplies side by side in a 19 inch relay rack space 8 3/4" high.

OUTPUT	MOUNTING	SIZE	WEIGHT	COLOR	MODEL	PRICE
200-325 V.D.C., 0-100 M.A. REGULATION LINE BETTER THAN 1% LOAD BETTER THAN 1% RIPPLE 10 MV R.M.S. MAX.	RACK MOUNTED	SEE ABOVE	20 POUNDS	GRAY COVER	1-GR	\$69.50
	RACK MOUNTED	SEE ABOVE	20 POUNDS	BLACK COVER	1-BK	\$69.50
	SUB-CHASSIS MOUNTING	SEE ABOVE	15 POUNDS	ALUMINUM CHASSIS	2	\$64.50
	CABINET	SEE ABOVE	20 POUNDS	GRAY	3	\$79.50
75-200 V.D.C., 0-100 M.A. REGULATION LINE BETTER THAN 1% LOAD BETTER THAN 1% RIPPLE 5 MV R.M.S. MAX.	RACK MOUNTED	SAME AS 1-GR	20 POUNDS	GRAY COVER	11-GR	\$79.50
	RACK MOUNTED	SAME AS 1-BK	20 POUNDS	BLACK COVER	11-BK	\$79.50
	SUB-CHASSIS MOUNTING	SAME AS 2	15 POUNDS	ALUMINUM CHASSIS	12	\$74.50
	CABINET	SAME AS 3	20 POUNDS	GRAY	13	\$89.50

Beckman®

HIGH VOLTAGE POWER SUPPLIES

PORTABLE HIGH VOLTAGE DC POWER SUPPLIES



One of the most popular power supplies on the market. Completely redesigned for greater ruggedness and convenience of operation. Widely used for powering electronic equipment and for routine breakdown and insulation testing. Output voltage is well filtered D.C. which is adjustable with convenient front panel control. Input is 115 Volt, 60 cycle A.C. Larger 6" precision 1% mirror scale movement available on order. Regulated models offer closely stabilized output voltage regardless of line or load changes.

NOTE: Regulated power supplies are of the radio frequency type (RF) and adjust from approximately 20% to full rated voltage. Regulation is in the order of $\pm 1\%$ over most of the range. These supplies are rated at 100 microamps. Transformer operated unregulated supplies are available in 5 milliampere types and have a range of zero to full voltage output. These are recommended for industrial service applications. When ordering add the proper prefix to the basic model number, for example, RF, or 5 MA, depending on your requirements.

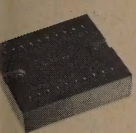
Model	Max. Voltage	RF	5 MA
6000-1	1 KV	—	\$200.00
6000	2.5 KV	\$175.00	225.00
6005	5 KV	185.00	250.00
6010	10 KV	200.00	275.00
6015	15 KV	225.00	300.00
6025	25 KV	275.00	350.00

OPTIONS: Mirror Scale Higher Accuracy Meter. Recommended for more exact calibration or test purposes. (Illustrated) \$50.00. Additional Built-in Current Meter (both meters are 3 inch size), including automatic meter protector circuit \$50.00.

PACKAGED POWER SUPPLIES AND ZENER REGULATIONS



PACKAGED POWER SUPPLY



ZENER REGULATOR

These new low-cost units make D.C. voltage problems easy. Just wire input and output connections, and the unit is ready to operate. Building block construction provides a basic transformer, a rectifier and filter, and where necessary a regulating device. These three elements bolt together quickly and maintenance is simplified should any of the components fail. Each of the three basic building blocks are mechanically constructed in a molded Dialyl Phthalate shell and encapsulated with epoxy resin.

The output is completely isolated and either post may be grounded or the unit operated as a floating supply. The D.C. voltage is filtered and provides 5% or less ripple. Output may be varied from full rating down to zero by simply inserting a small adjustable transformer in the input. Most units are rated for 5 MA current. Power supplies 7.5 KV and higher have modified mechanical construction from that described above. Input 115 V, 60 cycle.

Use with High Voltage Zener Regulators to obtain 1% line and load regulation.

* If necessary, insert a series resistor to limit zener current to under 5 MA.

Simply connect in parallel* with any high voltage power supply and automatically obtain line and load voltage regulation as well as ripple reduction. Nominal current rating is 0.5 to 1 MA for better than 1% stabilization. Regulation over range of 0 to 5 MA is 3%. Can be wired in series for high voltage service (five 4,000 volt types to regulate a 20,000 volt power supply). Twenty built-in taps included, each provides a regulated voltage to an accuracy of 20%. Ideal for photomultiplier tubes. Use as a high voltage reference in conjunction with regulator amplifier circuitry.

Model	Output Voltage	Price
15-0-15-500 MA	15-0-15 volts	\$45.00
30-0-30-100 MA	30-0-30 volts	45.00
05-KV-5 MA	500 volts DC	45.00
1-KV-5 MA	1-KV-DC	50.00
2-KV-5 MA	2-KV-DC	55.00
3-KV-5 MA	3-KV-DC	60.00
5-KV-5 MA	5-KV-DC	65.00
7.5-KV-5 MA	7.5-KV-DC	90.00
10-KV-5 MA	10-KV-DC	95.00
15-KV 5 MA	15-KV-DC	105.00
20-KV-5 MA	20-KV-DC	150.00
30-KV-5 MA	30-KV-DC	190.00

Model	Total Voltage	Volts at Each Tap	Price
ZA-1K	1,000 volts	50 volts	\$50.00
ZA-2K	2,000 volts	100 volts	60.00
ZA-3K	3,000 volts	100 & 200	70.00
ZA-4K	4,000 volts	200 volts	85.00
ZA-5K	5,000 volts	200 volts	100.00



HEAVY DUTY DC POWER SUPPLIES

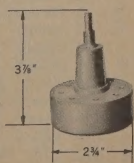
These industrial type power supplies are built for service and efficiency. All are of the transformer type and employ husky components that have been selected for their power handling capacity. Controls are arranged so that operation is simple and the units contain a number of safety features for protection of personnel and equipment. Output is continuously variable from zero to full rated values. These supplies are unregulated and standard ripple is 5% or less. Ripple of from 0.01% to 1% and regulated supplies are available on special order. All power supplies have automatic overload cutout control circuits.

Model	Voltage	Current	Price
F-100V	0-100	10 Amp.	\$ 650.00
F-500V	0-500	3 Amp.	800.00
F-6001	0-1000	2 Amp.	900.00
F-6002	0-2000	1 Amp.	985.00
F-6003-A1	0-3000	100 MA.	500.00
F-6003-AV	0-3000	500 MA.	600.00
F-6003-AK	0-3000	1 Amp.	1100.00
F-6005-A1-H	0-5000	100 MA.	550.00
F-6005-AV	0-5000	500 MA.	800.00
F-6005-A1K	0-5000	1 Amp.	1200.00
F-6010-A1	0-10,000	100 MA.	800.00
F-6010-AV	0-10,000	500 MA.	2000.00
F-6020-A05	0-20,000	50 MA.	975.00
F-6030-A3	0-30,000	300 MA.	3500.00
F-6050-T	0-50,000	1/2 MA.	600.00
F-6100-T	0-100,000	.1 MA.	1300.00

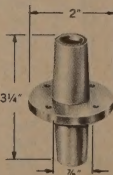
HIGH VOLTAGE SWITCHES

high voltage, low current circuits requiring complete isolation; nominal 5,000 volts (D.C. or A.C.). Model A or D may be used in lower duty circuits to 10,000 volts D.C. Steady state current rating 500 milliamperes—5 MA on switching, isolated for 15,000 volts D.C. test to ground...made of Dialyl Phthalate.

Model	TYPE	Price
2	Pole reversible (for polarity reversing of power supplies)	\$20.00
3	P.D.T.	22.00
4	P.D.T.	25.00
4	Position (1 Gang)	20.00
6	Position (1 Gang)	22.00
8	Position (1 Gang)	24.00
10	Position (1 Gang)	26.00

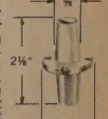


HIGH VOLTAGE CONNECTORS



Price \$10.00 Each
Sample Kit of 10
(1 of each color)
\$60.00

Modified Dialyl Phthalate construction for superior arc resistance and low power factor; convenient miniature size with extra long air paths; sealed center conductor handles up to 20 amperes; neoprene gasket for mounting on oil filled tanks. For quick disconnect (easily mated with standard banana jack) or for permanent service with 10/32" machine bolt; neat styling — available in 10 colors — ideal for mounting on front panels. Model C-1 rated for 25,000 volts D.C. max. Model C-0 rated for 5,000 volts D.C.



Price \$5.00 Each
Sample Kit of 10
(1 of Each Color)
\$30.00

Beckman INSTRUMENTS, INC.

CEDAR GROVE OPERATIONS

BURGESS BATTERIES



P6



2U6



Hg-9



2



Y15



4FH

BURGESS Number	NEDA Number	Other	Volts	Terminal Type	Overall Dimensions			Unit Pack- age Quan- tities	Weight of Unit Package in Pounds	Sugg. Dealer Each	List Pri Each
					L	W	H				
BURGESS ACTIVATORS FOR TRANSISTOR CIRCUITS											
130	14	1035	1½	Flashlight	$\frac{63}{64}$ (diam.)	$1\frac{11}{16}$		12		\$.19	\$.30
1306	1306	333	4½	Flat Contacts	$\frac{43}{64}$ (diam.)	$1\frac{11}{32}$		1	1 oz.	.62	.85
2MN6	1604D	222	9	Snap Type	1	$\frac{3}{4}$	$1\frac{1}{8}$	12	1	.65	.98
2N6	1602	246	9	Snap Type	$1\frac{1}{8}$	$1\frac{1}{8}$	$2\frac{3}{4}$	1	$\frac{3}{10}$	1.30	1.85
2U6	1604	216	9	Snap Type	1	$\frac{3}{4}$	$1\frac{1}{8}$	12	1	.48	.65
2Z3	1610	243	4½	Snap Type	$1\frac{1}{8}$	$1\frac{1}{8}$	$2\frac{3}{4}$	1	$\frac{3}{10}$	1.36	1.95
230	13	1050	1½	Flashlight	$1\frac{1}{8}$ (diam.)	$2\frac{1}{2}$	$\frac{3}{4}$	24	$5\frac{1}{4}$	.19	.30
930	15	1015	1½	Flashlight	$\frac{35}{64}$ (diam.)	$1\frac{11}{32}$		12	$\frac{1}{2}$	.155	.25
A4	-----	-----	6	Flat Contacts	$1\frac{1}{32}$	$1\frac{1}{2}$	$2\frac{1}{2}$	1	$\frac{1}{4}$	.78	1.15
C6X	1612	2356	9	Snap Type	$2\frac{1}{8}$	$1\frac{1}{32}$	$6\frac{1}{8}$	1	$\frac{5}{8}$	1.64	2.35
D5	26	707	7½	Snap Type	$2\frac{1}{8}$	2	$2\frac{1}{2}$	1	$\frac{7}{8}$	1.15	1.65
D6	1603	276	9	Snap Type	$2\frac{1}{8}$	2	$3\frac{1}{2}$	1	1	1.36	1.95
D6PI	1601	2506	3, 6, 9	Socket	$2\frac{1}{32}$	$1\frac{1}{8}$	$7\frac{1}{2}$	1	1½	1.92	2.75
D6S	1608	2761	9	Socket	$2\frac{1}{4}$	$1\frac{1}{4}$	$7\frac{1}{2}$	1	$1\frac{1}{8}$	2.45	3.50
L6	1611	206	9	Flat Contacts	$\frac{4}{64}$ (diam.)	$1\frac{1}{32}$		6	$\frac{1}{2}$	.62	.85
M6	1605	266	9	Snap Type	$1\frac{1}{8}$	$1\frac{1}{8}$	$2\frac{1}{8}$	1	$\frac{2}{5}$	1.36	1.95
NE	910	E340	1½	Flashlight	$\frac{7}{16}$ (diam.)	$1\frac{1}{8}$	$\frac{3}{4}$	6	$\frac{1}{8}$	.08	.12
P6	1600	226	9	Snap Type	1	(diam.)	$1\frac{1}{8}$	6	$\frac{3}{8}$	.62	.85
PM6	1600D	-----	9	Snap Type	1	(diam.)	$1\frac{1}{8}$	6	$\frac{5}{8}$	.80	1.15
PM8	1810	228	12	Snap Type	1	(diam.)	$2\frac{1}{8}$	1	$\frac{1}{8}$	1.05	1.50
XX9	1900	239	9, 13½	Socket	$1\frac{1}{32}$	$\frac{29}{32}$	$2\frac{1}{2}$	1	$\frac{1}{8}$	1.77	2.55
Y6 (Y16)	1606	-----	9	Snap Type	$\frac{3}{5}$	$\frac{2}{5}$	$1\frac{1}{10}$	12	$\frac{1}{2}$	.83	1.20

BURGESS MERCURY ACTIVATORS

Information on additional Mercury Batteries not listed below is available.

Hg-1	1100	E1	1.4	Flat	$\frac{5}{8}$ (diam.)	$2\frac{1}{32}$		4	.13	.52	.75
Hg-1R		E1N	1.35	Flat	$\frac{5}{8}$ (diam.)	$2\frac{1}{32}$		4	.13	.64	.95
Hg-3R		E3	1.35	Flat	1	(diam.)	$2\frac{1}{32}$	4	.30	1.05	1.50
Hg-4R		E4	1.35	Flat	$1\frac{1}{32}$ (diam.)	$2\frac{1}{32}$		4	.45	1.31	1.95
Hg-9	15M	E9	1.4	Flat	$1\frac{1}{32}$ (diam.)	$1\frac{1}{32}$		12	.90	.64	.95
Hg-12	1101	E12	1.4	Flat	$\frac{5}{8}$ (diam.)	2		2	.25	.87	1.25
Hg-12R		E12N	1.35	Flat	$\frac{5}{8}$ (diam.)	2		2	.25	1.05	1.50
Hg-42R		E42N	1.35	Flat	$1\frac{1}{32}$ (diam.)	$2\frac{1}{8}$		1	.50	3.15	4.50
H113R		E113	4.05	Flat	$\frac{5}{64}$ (diam.)	$2\frac{1}{32}$		2	.15	1.72	2.50
H114R		E114	5.4	Flat	$\frac{4}{64}$ (diam.)	$1\frac{1}{32}$		2	.15	1.85	2.65
H115R		E115N	6.75	Flat	$\frac{4}{64}$ (diam.)	$1\frac{1}{32}$		2	.15	2.06	2.75
H126	1611M	E126	8.4	Flat	$\frac{4}{64}$ (diam.)	$1\frac{1}{32}$		12	1.00	1.31	1.95
H132R		E132N	2.7	Flat	$\frac{4}{64}$ (diam.)	$1\frac{1}{8}$		2	.15	1.17	1.65
H133	1306M	E133	4.2	Flat	$\frac{2}{32}$ (diam.)	2		12	1.20	1.17	1.75
H133R		E133N	4.05	Flat	$2\frac{1}{32}$ (diam.)	2		2	.20	1.35	1.95
H134R		E134N	5.4	Flat	$\frac{4}{64}$ (diam.)	$2\frac{1}{8}$		2	.25	1.72	2.50
H135R		E135N	6.75	Flat	$\frac{4}{64}$ (diam.)	$3\frac{1}{32}$		2	.30	2.00	2.95
H136R		E136N	8.1	Flat	$\frac{4}{64}$ (diam.)	$3\frac{1}{8}$		2	.35	2.40	3.50
H137R		E137N	9.45	Flat	$\frac{4}{64}$ (diam.)	$4\frac{1}{32}$		1	.20	2.76	3.95
H145		E145	7.0	Flat	$2\frac{1}{32}$ (diam.)	$1\frac{1}{64}$		2	.15	1.72	2.50
H146X	1604M	E146X	8.4	Snap	$1\frac{1}{32}$	$2\frac{1}{32}$	$1\frac{3}{4}$	6	.75	1.31	1.95
H152R		E152N	2.7	Flat	$\frac{3}{32}$ (diam.)	$1\frac{1}{64}$		2	.075	1.05	1.50
H153R		E153N	4.05	Flat	$\frac{3}{32}$ (diam.)	$1\frac{1}{64}$		2	.075	1.35	1.95
H162R		E162	2.7	Flat	$\frac{4}{64}$ (diam.)	$\frac{5}{64}$		2	.15	1.05	1.50
H163	1305	E163	4.2	Flat	$2\frac{1}{32}$ (diam.)	$1\frac{1}{8}$		2	.15	1.17	1.65
H163R		E163N	4.05	Flat	$2\frac{1}{32}$ (diam.)	$1\frac{1}{8}$		2	.15	1.29	1.85
H164	1404	E164	5.6	Flat	$2\frac{1}{32}$ (diam.)	$1\frac{3}{4}$		12	.80	1.31	1.95
H164R		E164N	5.4	Flat	$2\frac{1}{32}$ (diam.)	$1\frac{3}{4}$		2	.20	1.57	2.25
H165	1500	E165	7.0	Flat	$2\frac{1}{32}$ (diam.)	$2\frac{1}{64}$		2	.20	1.70	2.50
H165R		E165N	6.75	Flat	$2\frac{1}{32}$ (diam.)	$2\frac{1}{64}$		2	.20	1.90	2.75
H177	1606M		9.8	Snap	$\frac{3}{64}$ (diam.)	$1\frac{1}{32}$		12	.30	1.31	1.95
H233	1300	E233	4.2	Flat	$1\frac{1}{64}$ (diam.)	$1\frac{1}{32}$		1	.20	2.27	3.25
Hg-312		E312	1.4	Flat	$\frac{5}{16}$ (diam.)	$\frac{3}{64}$		6	.024	.24	.35
Hg-400	1106	E400	1.4	Flat	$2\frac{1}{64}$ (diam.)	$\frac{3}{64}$		6	.024	.24	.35
Hg-400R		E400N	1.35	Flat	$2\frac{1}{64}$ (diam.)	$\frac{3}{64}$		6	.024	.35	.50
Hg-401	910M	E401	1.4	Flat	$2\frac{1}{64}$ (diam.)	$1\frac{1}{8}$		3	.09	.51	.75
Hg-401R		E401N	1.35	Flat	$2\frac{1}{64}$ (diam.)	$1\frac{1}{8}$		2	.05	.60	.85
Hg-450R		E450	1.35	Flat	$2\frac{1}{64}$ (diam.)	$\frac{3}{16}$		4	.01	.53	.75
Hg-502R		E502	1.35	Flat	$1\frac{1}{32}$ (diam.)	$1\frac{1}{32}$		2	.16	.87	1.25
Hg-520		E520	1.40	Flat	$\frac{1}{2}$ (diam.)	$\frac{3}{32}$		6	.024	.17	.25
Hg-575			1.4	Flat	$2\frac{1}{64}$ (diam.)	$\frac{1}{8}$		6	.05	.24	.34
Hg-601R		E601	1.35	Flat	$\frac{5}{8}$ (diam.)	$1\frac{3}{4}$		2	.16	.83	1.30
Hg-625		E625	1.4	Flat	$\frac{5}{8}$ (diam.)	$\frac{1}{4}$		4	.05	.42	.60
Hg-625R		E625N	1.35	Flat	$\frac{5}{8}$ (diam.)	$\frac{1}{4}$		4	.05	.53	.75
Hg-630	1104	E630	1.4	Flat	$\frac{5}{8}$ (diam.)	$\frac{1}{4}$		4	.05	.42	.60
Hg-630R		E630N	1.35	Flat	$\frac{5}{8}$ (diam.)	$\frac{1}{4}$		4	.05	.53	.75
Hg-640	1105	E640	1.4	Flat	$\frac{5}{8}$ (diam.)	$\frac{3}{16}$		4	.15	.42	.60
Hg-640R		E640N	1.35	Flat	$\frac{5}{8}$ (diam.)	$\frac{3}{16}$		4	.15	.53	.75
Hg-675		E675	1.4	Flat	$2\frac{1}{64}$ (diam.)	$1\frac{3}{4}$		6	.022	.32	.45
302157			1.35	Socket	$2\frac{1}{64}$	$1\frac{1}{8}$	$4\frac{1}{8}$	1	.844	12.50	17.75

BURGESS BATTERIES

BURGESS Number	NEDA Number	Other	Volts	Terminal Type	Overall Dimensions			Unit Pkg.	Wgt. Unit	Sugg. Dealer Each	List Price Each
					L	W	H	Quant.	Pkg. in Lbs.		

BURGESS SEALED RECHARGEABLE NICKEL CADMIUM CELLS AND BATTERIES

Information on additional Nickel Cadmium Batteries not listed below is available.

CD1			1.25		.460 (diam.)	.225		1		\$ 1.05	\$ 1.50
CD2			1.25		.610 (diam.)	.236		1		.74	1.06
CD8			1.25		.984 (diam.)	.232		1		.85	1.21
CD8L		*(L indicates types	1.25		.984 (diam.)	.257		1		.95	1.36
CD3			1.25		.984 (diam.)	.275		1		.87	1.24
CD3L		with solder lugs	1.25		.984 (diam.)	.300		1		.97	1.39
CD4			1.25		.984 (diam.)	.350		1		.88	1.26
CD4L		on terminals).	1.25		.984 (diam.)	.375		1		1.03	1.47
CD5			1.25		1.700 (diam.)	.300		1		1.47	2.10
CD5L			1.25		1.700 (diam.)	.325		1		1.60	2.29
CD6(AA)			1.25		.560 (diam.)	1.950		1		1.82	2.60
CD6L(AA)			1.25		.560 (diam.)	2.275		1		1.92	2.74
CD9			1.25		.550 (diam.)	3.680		1		3.01	4.30
CD7(D)			1.25		1.310 (diam.)	2.425		1		4.03	5.76
CD7L(D)			1.25		1.310 (diam.)	2.775		1		4.09	5.84
CD10(D)			1.25		1.300 (diam.)	2.425		1		5.71	8.16
CD10L(D)			1.25		1.300 (diam.)	2.775		1		5.84	8.34
CD11(D)			1.25		1.300 (diam.)	2.425		1		4.53	6.50
12 (short C)			1.25		.876 (diam.)	1.672		1		2.51	3.59
12L(short C)			1.25		.876 (dia.)	1.672 + L		1		2.57	3.67
13 (half D)			1.25		1.273 (diam.)	1.440		1		4.03	5.76
13L(half D)			1.25		1.273 (dia.)	1.440 + L		1		4.16	5.94
CD14 (C)			1.25		1.01 (diam.)	1.945		1		3.40	4.85
CD21			6		1.065 (diam.)	1.525		1		5.32	7.60
CD22			6		1.065 (diam.)	2.650		1		5.32	7.60
CD23			6		1.800 (diam.)	1.725		1		9.48	13.54
CD24			9.6		1.065 (diam.)	3.200		1		9.22	13.17
CD25			9.6		1.065 (diam.)	1.975		1		9.16	13.09
CD25L			9.6		1.065 (diam.)	3.200		1		9.09	12.99
CD26			9.6		1.800 (diam.)	2.575		1		15.52	22.17
CD27			12		1.065 (diam.)	2.925		1		11.04	15.77
CD28			12		1.065 (diam.)	3.600		1		11.82	16.89
CD29			12		1.800 (diam.)	3.100		1		17.86	25.51
CD30			6		1 1/2 1 1/2 3 3/8			1		19.96	28.51
CD31			6		3 3/8 1 1/2 3 3/8			1		25.65	36.64
CD100			1.25		1.36 .75 3.36			1		6.43	9.19
CD101			1.25		1.36 1.36 2.40			1		6.05	8.64
CD102			1.25		1.36 1.36 3.36			1		7.12	10.17
CD104			1.25		1.93 1.67 3.13			1		9.35	13.36
CD105			1.25		1.93 1.67 3.65			1		10.19	14.56
CD106S			1.25		1.57 1.48 4.01			1		13.43	19.19
CD107			1.25		1.93 1.67 4.25			1		11.17	15.96
CD108			1.25		3.56 1.05 4.90			1		13.83	19.76
CD109			1.25		3.56 1.34 4.90			1		16.56	23.66
CD110			1.25		3.56 1.66 4.90			1		19.87	28.39
CD111			1.25		3.56 1.97 4.90			1		22.92	32.74

BURGESS INDUSTRIAL - ELECTRONIC - TRANSISTOR - RADIO "A" BATTERIES

2BBP	...	...	1 1/2	Binding Post	1 1/2 2 1/2 2 1/2		1	1/4	\$1.16	\$1.65
2D	18	720	1 1/2	Socket	2 1/2 1 1/2 2 1/2		1	3/8	1.15	1.65
2D	11	W353	1 1/2	Socket	2 1/2 1 1/2 4 1/4		1	3/4	1.22	1.75
2F2BP	...	...	3	Binding Post	5 1/4 1 1/2 4 3/4		1	1 1/4	5.35	7.65
2F2H	703	W356	3	Binding Post	2 1/2 2 1/2 4 1/4		5	7	1.75	2.50
2F4 (2FBP)	700	711	1 1/2	Binding Post	2 1/2 1 1/2 4 1/4		5	3 3/8	.79	1.15
2F4	1	718	6	Socket	4 2 1/2 5 1/4		1	2 1/2	2.87	4.10
2R	813	950	1 1/2	Flashlight	1 1/2 (diam.) 2 1/2		48	11	.13	.20
2Z	...	1016E	1 1/2	Flashlight	1 1/2 1 1/2 1 1/4			1 oz.	.65	.95
2R1F	719	740	1 1/2	Socket	7 1/2 (diam.) 6 1/4			6 1/4	7.65	10.95
210	20	964	1 1/2	Flashlight	1 1/4 (diam.) 4 1/4		1	2 1/2	.42	.60
37	...	...	1 1/2	Flashlight	1 1/2 (diam.) 6 1/4		1	1 1/4	.97	1.40
4D	...	...	1 1/2	Socket	2 1/2 2 1/2 2 1/2		1	7/8	1.35	1.93
4D4	1400	274	6	Snap	2 1/2 2 1/2 2 1/2		1	2 1/2	4.02	5.75
422	4	742	1 1/2	Socket	2 1/2 2 1/2 4 1/2		1	1 1/2	1.15	1.65
422	704	750	3	Brass Straps	1 1/2 1 1/2 2 1/2		1	2 ozs.	.79	1.15
422	705	751	4 1/2	Brass Straps	1 1/2 1 1/2 2 1/2		1	3 ozs.	.87	1.25
5R	...	...	1 1/2	Flashlight	1 1/2 (diam.) 2 1/2		1	3/4	.48	.69
532	706	703	4 1/2	Brass Straps	2 1/2 1 1/2 2 1/2		1	1 1/4	1.36	1.95
5F	5	743	1 1/2	Socket	4 1/2 2 1/2 4 1/2		1	2 1/2	2.69	3.85
5F	17	741	1 1/2	Socket	3 1/2 2 1/2 5 1/2		1	3	2.76	3.95
5R	23	960P	1 1/2	Socket	1 1/2 (diam.) 3 1/2		1	1 1/4	.87	1.25
52BP	...	...	3	Binding Post	1 1/2 1 1/2 2 1/2		1	1 1/4	2.42	3.45
55	8	713	7 1/2	Socket	3 1/2 1 1/2 2 1/2		1	1 1/2	2.27	3.25
55	9	717	7 1/2	Socket	2 1/2 1 1/2 3 1/2		6	4 3/4	1.23	1.75
C3	19	726	4 1/2	Socket	3 1/2 1 1/2 2 1/2		1	3/4	1.23	1.75
2F2BP	701	W352	3	Binding Post	2 1/2 1 1/2 4 1/2		5	4	1.33	1.90
F3	3	736	4 1/2	Socket	4 1 1/2 4 1/2		1	1	1.23	1.75
4FBP	915	510S	6	Binding Post	2 1/2 2 1/2 4		1	1 1/2	.92	1.39
4FPI	6	744	6	Socket	2 1/2 2 1/2 4 1/2		1	1 1/2	1.15	1.65
G3	7	746	4 1/2	Socket	4 1/2 1 1/2 4 1/2		1	1 1/2	1.57	2.25
Z4	2	724	6	Flat Contacts	1 1/2 1 1/2 2 1/2		1	1 1/2	.87	1.25



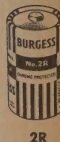
CD3



CD7



CD25



2R



C5



XX45



P45

(Continued on next page)

BURGESS BATTERIES



6A60



F2BP



XX30PI



5308



5540



5360

BURGESS Number	NEDA Number	Other	Volts	Terminal Type	Overall Dimensions			Unit Pkg.	Wgt. Unit	Sugg. Dealer Each	List Price Each
					L	W	H	Quant.	Pkg. in Lbs.		
BURGESS INDUSTRIAL - ELECTRONIC - TRANSISTOR - RADIO "B" BATTERIES											
10308SC	716	W363F	45	Spring Clip	8 $\frac{1}{32}$	4 $\frac{1}{32}$	7 $\frac{1}{16}$	1	12	\$7.30	\$10.40
10308PI	726	W363P	45	Socket	8 $\frac{1}{32}$	4 $\frac{1}{32}$	7 $\frac{1}{16}$	1	11 $\frac{1}{2}$	7.66	10.95
21308SC	715	W364F	45	Spring Clip	8 $\frac{1}{8}$	4 $\frac{1}{32}$	7 $\frac{1}{32}$	1	12-4/5	7.50	10.70
21308PI	727	W364P	45	Socket	8 $\frac{1}{8}$	4 $\frac{1}{32}$	7 $\frac{1}{32}$	1	12-4/5	7.66	10.95
2308SC	723	W365F	45	Spring Clip	8 $\frac{3}{32}$	2 $\frac{1}{32}$	7 $\frac{1}{4}$	1	7 $\frac{1}{2}$	7.10	10.15
2308PI	717	W365P	45	Socket	8 $\frac{3}{32}$	2 $\frac{1}{32}$	7 $\frac{1}{4}$	1	7-4/5	7.40	10.60
4156	710	763	22 $\frac{1}{2}$	Binding Post	3 $\frac{1}{32}$	2 $\frac{1}{8}$	2 $\frac{25}{32}$	1	1	1.61	2.35
5156SC	721	768	22 $\frac{1}{2}$	Socket	4 $\frac{1}{64}$	2 $\frac{3}{8}$	2 $\frac{25}{64}$	1	1 $\frac{3}{8}$	4.16	5.95
5156PI	708	778	22 $\frac{1}{2}$	Spring Clip	4 $\frac{1}{8}$	2 $\frac{1}{2}$	2 $\frac{3}{4}$	5	8	4.16	5.95
5308	709	762S	45	Binding Post	4 $\frac{1}{16}$	2 $\frac{3}{8}$	5 $\frac{1}{8}$	1	2 $\frac{1}{2}$	3.05	4.35
A30	206	W359	45	Socket	3 $\frac{1}{16}$	2 $\frac{1}{4}$	4 $\frac{5}{8}$	2	3 $\frac{1}{2}$	2.92	4.19
A60	...	...	90	Socket	4 $\frac{1}{16}$	3 $\frac{3}{8}$	4 $\frac{1}{2}$	1	3 $\frac{3}{8}$	14.50	20.75
B30	207	484	45	Socket	4 $\frac{1}{16}$	2 $\frac{1}{2}$	5 $\frac{1}{8}$	2	4 $\frac{1}{2}$	3.47	4.95
D30	...	487	45	Socket	5 $\frac{1}{16}$	2 $\frac{1}{2}$	7 $\frac{1}{8}$	1	4 $\frac{1}{2}$	4.20	6.00
K10	224	417	15	Flat Contact	1 $\frac{1}{4}$	3 $\frac{1}{8}$	1 $\frac{1}{32}$	1	2 ozs.	1.28	1.75
K15	225	420	22 $\frac{1}{2}$	Flat Contact	1 $\frac{1}{4}$	3 $\frac{1}{8}$	2 $\frac{1}{32}$	1	2 ozs.	1.44	1.95
K20	226	430	30	Flat Contact	1 $\frac{1}{4}$	1 $\frac{1}{8}$	2 $\frac{1}{32}$	1	3 ozs.	1.72	2.35
K45	203	457	67 $\frac{1}{2}$	Snap Type	2 $\frac{1}{16}$	1 $\frac{1}{8}$	2 $\frac{1}{4}$	1	1 $\frac{1}{2}$	2.70	4.25
M30	202	482	45	Socket	3 $\frac{1}{8}$	1 $\frac{3}{4}$	5 $\frac{1}{2}$	1	2	2.97	4.25
N60X	216	495	90	Snap Type	1 $\frac{7}{8}$	1 $\frac{1}{2}$	7 $\frac{1}{4}$	1	1	3.47	4.95
P45	211	477	67 $\frac{1}{2}$	Snap Type	1 $\frac{29}{32}$	1	5 $\frac{1}{32}$	6	3 $\frac{3}{4}$	2.70	3.85
P60	214	479	90	Snap Type	1 $\frac{29}{32}$	1	7 $\frac{1}{32}$	1	4 $\frac{1}{5}$	2.97	4.25
U10	208	411	15	Flat Contact	1	3 $\frac{39}{64}$	1 $\frac{1}{16}$	1	1 oz.	.81	1.15
U15	215	412	22 $\frac{1}{2}$	Flat Contact	1	3 $\frac{39}{64}$	1 $\frac{1}{32}$	1	1 oz.	1.05	1.50
U20	210	413	30	Flat Contact	1	3 $\frac{39}{64}$	2 $\frac{1}{32}$	1	2 ozs.	1.23	1.75
U200	722	493	300	Pin Jacks	2 $\frac{3}{4}$	2 $\frac{1}{8}$	3 $\frac{7}{8}$	1	1	8.37	11.95
U30	213	415	45	Snap Type	1 $\frac{3}{32}$	1 $\frac{1}{8}$	3 $\frac{1}{32}$	1	1 $\frac{1}{8}$	1.75	2.50
UX45	217	416	67 $\frac{1}{2}$	Snap Type	1 $\frac{3}{32}$	1 $\frac{1}{8}$	3 $\frac{1}{32}$	1	1 $\frac{1}{4}$	2.07	2.95
V45	200C	468	67 $\frac{1}{2}$	Snap Type	2 $\frac{1}{4}$	1 $\frac{1}{2}$	3 $\frac{3}{4}$	6	4 $\frac{1}{2}$	2.77	3.95
V60	204	490	90	Snap Type	3 $\frac{13}{32}$	1 $\frac{13}{32}$	3 $\frac{1}{16}$	1	1-3/10	3.15	4.50
W20PI	...	...	30	Socket	1 $\frac{1}{8}$	1 $\frac{1}{8}$	3 $\frac{1}{32}$	1	1 $\frac{1}{2}$	5.15	7.35
W30	...	...	45	Binding Post	3	1 $\frac{1}{4}$	3 $\frac{1}{32}$	1	3 $\frac{5}{8}$	2.62	3.75
W30BPX	...	W358	45	Binding Post	3	1 $\frac{1}{4}$	3 $\frac{1}{32}$	1	3 $\frac{5}{8}$	6.05	8.65
XX15	...	425P	22 $\frac{1}{2}$	Socket	1 $\frac{11}{32}$	1 $\frac{1}{8}$	3 $\frac{7}{8}$	1	1 $\frac{1}{4}$	1.56	2.25
XX22	...	433P	33	Socket	2 $\frac{1}{32}$	1 $\frac{1}{8}$	3 $\frac{1}{8}$	1	1 $\frac{1}{2}$	2.27	3.25
XX30	201	455	45	Snap Type	2 $\frac{1}{32}$	1 $\frac{1}{8}$	3 $\frac{1}{32}$	1	1 $\frac{1}{2}$	2.27	3.25
XX30PI	...	455P	45	Socket	2 $\frac{1}{32}$	1 $\frac{1}{8}$	4 $\frac{1}{32}$	1	1 $\frac{1}{2}$	2.27	3.25
XX45	200	467	67 $\frac{1}{2}$	Snap Type	2 $\frac{1}{4}$	1 $\frac{1}{2}$	3 $\frac{3}{4}$	1	3 $\frac{1}{4}$	2.70	3.85
XX50	212	437	75	Snap Type	1 $\frac{1}{32}$	1 $\frac{1}{8}$	6 $\frac{1}{16}$	1	9/10	3.15	4.50
XX69	227	W361	103 $\frac{1}{2}$	Flashlight	1 $\frac{11}{32}$	1 $\frac{1}{32}$	11 $\frac{1}{32}$	1	1	4.86	6.95
Y10	220	504	15	Flat Contact	1 $\frac{1}{32}$	1 $\frac{1}{8}$	1 $\frac{1}{32}$	1	1 oz.	.81	1.15
Y15	221	505	22 $\frac{1}{2}$	Flat Contact	1 $\frac{1}{32}$	1 $\frac{1}{8}$	1 $\frac{1}{32}$	1	1 oz.	1.05	1.50
Y20	223	506	30	Flat Contact	1 $\frac{1}{32}$	1 $\frac{1}{8}$	1 $\frac{1}{32}$	1	1 oz.	1.30	1.85
Y20S	222	507	30	Flat Contact	1 $\frac{1}{32}$	1 $\frac{1}{8}$	2 $\frac{1}{16}$	1	1 oz.	1.30	1.85
Z30	205	738	45	Socket	3	2 $\frac{1}{8}$	4 $\frac{1}{16}$	1	1 $\frac{1}{4}$	2.76	3.95
Z30NX	711	W350	45	Binding Post	3 $\frac{1}{32}$	1 $\frac{1}{8}$	4 $\frac{1}{32}$	5	7 $\frac{3}{8}$	2.69	3.85
Z30T	...	...	45	Socket	3	2 $\frac{1}{8}$	4 $\frac{1}{8}$	1	1 $\frac{1}{10}$	2.62	3.75
BURGESS INDUSTRIAL AND ELECTRONIC "C" BATTERIES											
2156	702	766T	22 $\frac{1}{2}$	Spring Clips	6 $\frac{1}{32}$	4 $\frac{1}{16}$	2 $\frac{1}{32}$	1	3	9.20	13.25
2370	712	761T	4 $\frac{1}{2}$	Binding Post	3 $\frac{1}{16}$	1 $\frac{1}{8}$	2 $\frac{7}{8}$	5	3 $\frac{1}{10}$	2.10	3.00
2370PI	718	771	4 $\frac{1}{2}$	Socket	4 $\frac{1}{64}$	1 $\frac{1}{16}$	2 $\frac{29}{64}$	1	3 $\frac{1}{4}$	2.14	3.05
5360	714	781	4 $\frac{1}{2}$	Binding Post	2 $\frac{1}{32}$	1 $\frac{1}{32}$	2 $\frac{1}{32}$	1	1 $\frac{1}{4}$	1.23	1.75
5540	713	773	7 $\frac{1}{2}$	Bndg Post Neg	4	7 $\frac{1}{8}$	2 $\frac{3}{4}$	5	1 $\frac{9}{10}$	1.80	2.50
A3BPX	---	---	4 $\frac{1}{2}$	Binding Post	1 $\frac{1}{32}$	1 $\frac{1}{32}$	2 $\frac{1}{4}$	1	1 $\frac{1}{4}$	4.60	6.60
A8BP	---	---	12	Binding Post	2 $\frac{29}{32}$	1 $\frac{1}{32}$	2 $\frac{1}{32}$	1	1 $\frac{1}{2}$	10.20	14.60
W5BP	---	W362	7 $\frac{1}{2}$	Binding Post	2 $\frac{1}{32}$	1 $\frac{1}{32}$	1 $\frac{1}{4}$	6	4 $\frac{1}{5}$	2.05	2.95
BURGESS "A & B" PACKS FOR RADIO AND OTHER ELECTRONIC APPLICATIONS											
4TZ60	425	729	1 $\frac{1}{2}$ A, 90B	Socket	7 $\frac{5}{8}$	2 $\frac{1}{8}$	3 $\frac{3}{4}$	1	3 $\frac{3}{8}$	5.33	7.65
6TA60	410	W369	1 $\frac{1}{2}$ A, 90B	Socket	9 $\frac{1}{32}$	2 $\frac{1}{4}$	4 $\frac{1}{16}$	1	4 $\frac{9}{8}$	6.96	9.95
G6B60	400	752	9A, 90B	Recessed Plug	13 $\frac{3}{32}$	2 $\frac{1}{16}$	4 $\frac{1}{32}$	1	6 $\frac{1}{10}$	6.35	9.25
BURGESS POCKET TAPE RECORDER BATTERIES											
2VT8(3XX7)	1700	.....	12	Flat Contact	1 $\frac{1}{8}$	1 $\frac{1}{8}$	3 $\frac{1}{32}$	1	3 $\frac{1}{8}$	2.00	3.00
2X62X	.....	.....	1 $\frac{1}{2}$, 9	Snap Type	2 $\frac{1}{2}$	1 $\frac{1}{32}$	2 $\frac{1}{32}$	1	1 $\frac{1}{2}$	3.20	4.60
2X7	.....	.....	10 $\frac{1}{2}$	Snap Type	2 $\frac{1}{2}$	1 $\frac{1}{32}$	2 $\frac{1}{32}$	1	1 $\frac{1}{2}$	1.82	2.60
BURGESS ALKALINE BATTERIES											
AL-1	14A	E93	1 $\frac{1}{2}$	Flat Contact	4 $\frac{3}{64}$ (diam.)	1 $\frac{1}{16}$		6	1	.50	.75
AL-133	1306A	523	4 $\frac{1}{2}$	Flat Contact	2 $\frac{1}{32}$ (diam.)	2		12	1	.84	1.25
AL-2	13A	E95	1 $\frac{1}{2}$	Flat Contact	1 $\frac{1}{64}$ (diam.)	2 $\frac{1}{32}$		24	8	.65	.95
AL-7	24A	E92	1 $\frac{1}{2}$	Flat Contact	1 $\frac{1}{32}$ (diam.)	1 $\frac{1}{4}$		12	1 $\frac{1}{4}$	.33	.50
AL-9	15A	E91	1 $\frac{1}{2}$	Flat Contact	1 $\frac{1}{32}$ (diam.)	1 $\frac{1}{32}$		12	1	.33	.50
AL-N	910A	E90	1 $\frac{1}{2}$	Flat Contact	2 $\frac{1}{64}$ (diam.)	1 $\frac{1}{8}$		3	1 oz.	.27	.40
APX-19	1307	531	4 $\frac{1}{2}$	Snap Type	2 $\frac{1}{32}$ (diam.)	2 $\frac{1}{32}$		2	3 $\frac{1}{8}$	.84	1.25
APX-21	.....	523	4 $\frac{1}{2}$	Flat Contact	2 $\frac{1}{32}$ (diam.)	2 $\frac{1}{32}$		2	3 $\frac{1}{8}$	.84	1.25
APX-24	.....	532	3	Flat Contact	2 $\frac{1}{64}$ (diam.)	2		2	3 $\frac{1}{8}$	.67	1.00
APX-825	.....	.....	1 $\frac{1}{2}$	Flat Contact	2 $\frac{1}{32}$ (diam.)	1 $\frac{1}{64}$		2	1 oz.	.33	.50

BURGESS BATTERIES

BURGESS Number	NEDA Number	Other	Volts	Terminal Type	Overall Dimensions			Unit Pkg.	Wgt. Unit	Sugg. Dealer	List Price
					L	W	H	Quant.	Pkg. in Lbs.	Each	Each
BURGESS FLASHLIGHT AND LANTERN BATTERIES											
24V)	13F	950	1½	Flashlight	1 ¹ / ₂ "	(diam.)	2 ³ / ₄ "	48	10½"	\$.13	\$.20
50 Bulk)	13F	950	1½	Flashlight	1 ¹ / ₂ "	(diam.)	2 ³ / ₄ "	50	10½"	.13	.20
0 (24V)	13C	1050	1½	Flashlight	1 ¹ / ₂ "	(diam.)	2 ³ / ₄ "	48	11	.155	.25
0 (50 Bulk)	13C	1050	1½	Flashlight	1 ¹ / ₂ "	(diam.)	2 ³ / ₄ "	50	10¾"	.155	.25
AB(6 Pack)	.....	.....	1½	Flashlight	1 ³ / ₄ "	(diam.)	2 ³ / ₄ "	144	31	.13	.20
.....	14F	935	1½	Flashlight	6 ³ / ₄ "	(diam.)	1½"	24	2½"	.13	.20
.....	15E	515	1½	Flashlight	3 ⁵ / ₈ "	(diam.)	1 ¹³ / ₃₂ "	12	½	.095	.15
10 (AA)	15E	515	1½	Flashlight	3 ⁵ / ₈ "	(diam.)	1 ¹³ / ₃₂ "	24	1	.13	.20
.....	24F	912	1½	Flashlight	1 ¹³ / ₃₂ "	(diam.)	1¾"	12	¾	.095	.15
1 (Bare)	910F	904	1½	Flashlight	1 ¹¹ / ₁₆ "	(diam.)	1 ¹¹ / ₁₆ "	12	½	.08	.125
4M (Metal)	908	509	6	Spring	2½"	2½"	4¾"	12	19	.92	1.39
4BP	915	510S	6	Binding Post	2½"	2½"	4	1	1½"	.92	1.39
4SC	917	510F	6	Spring Clip	2½"	2½"	4½"	1	1¼"	.92	1.39
W1	918	731	6	Binding Post	5¾"	2½"	4 ¹ / ₂ "	1	3½"	1.96	2.95
W1-X	.....	.....	6	Binding Post	5¾"	2½"	4 ¹ / ₂ "	1	3½"	2.40	3.75
W2	926	732	12	Binding Post	5¾"	2½"	4 ¹ / ₂ "	1	3½"	1.96	2.95
46	.....	.....	2	Flat Contract	2½"	2½"	8½"	2	6¼"	2.93	4.40

BURGESS IGNITION - TELEPHONE AND PROTECTIVE SYSTEM BATTERIES

* Battery also available with spring clip terminals

** Battery also available with screw terminals

F8H	.....	.....	12	Binding Post	8 ¹ / ₂ "	2 ¹ / ₂ "	5 ¹ / ₂ "	1	6 ¹ / ₄ "	4.25	6.35
G8H	922	1463	12	Binding Post	10 ¹ / ₂ "	2 ³ / ₄ "	7 ¹ / ₂ "	1	7 ¹ / ₂ "	4.01	5.98
FH	900E	.....	1½	Screw Terminal	2 ³ / ₄ "	2 ³ / ₄ "	4	12	16	.84	1.25
F2H	901	W357	3	Spring Clip	3 ³ / ₄ "	2 ¹ / ₂ "	5 ¹ / ₂ "	1	2 ³ / ₄ "	1.92	2.75
F4H	902	706	6	Binding Post	8 ¹ / ₂ "	2 ¹ / ₂ "	5 ¹ / ₂ "	1	6 ¹ / ₄ "	3.70	5.50
F5H	903	715	7½	Binding Post	7 ³ / ₄ "	3 ¹ / ₂ "	5 ¹ / ₂ "	1	7 ³ / ₄ "	4.86	7.25
F6H	904	716	9	Binding Post	8 ¹ / ₂ "	3 ¹ / ₂ "	5 ¹ / ₂ "	1	9	5.53	8.25
Ign.	905	6 Ign. S	1½	Screw Terminal	2 ¹ / ₂ "	2 ¹ / ₂ "	6 ¹ / ₄ "	12	21 ¹ / ₂ "	.91	1.35
Tel.	906	6 GL	1½	Spring Clip	2 ¹ / ₂ "	2 ¹ / ₂ "	6 ¹ / ₄ "	12	24 ¹ / ₂ "	.91	1.35
Ind.	911	6 R.R.	1½	Screw Terminal	2 ¹ / ₂ "	2 ¹ / ₂ "	6 ¹ / ₄ "	12	25	.90	1.35
461	907	1461	6	Binding Post	10 ¹ / ₂ "	2 ³ / ₄ "	7 ¹ / ₂ "	4	37 ¹ / ₂ "	3.70	5.50

BURGESS PHOTO-FLASH BATTERIES

20	14P	835	1½	Flashlight	1	1 ¹ / ₂ "	2 ¹ / ₂ "	24	2 ¹ / ₄ "	.19	.30
20	13P	850	1½	Flashlight	1 ¹ / ₂ "	2 ¹ / ₂ "	2 ¹ / ₂ "	12	2 ¹ / ₂ "	.19	.30
20	24P	812	1½	Flashlight	1 ¹ / ₂ "	2 ¹ / ₂ "	2 ¹ / ₂ "	24	2 ¹ / ₄ "	.13	.20
20	15P	815	1½	Flashlight	3 ¹ / ₄ "	2 ¹ / ₂ "	2 ¹ / ₂ "	24	1	.13	.20
15	215	412	22½	Flat Contact	3 ¹ / ₄ "	¾	1 ¹ / ₂ "	1	1 oz.	1.05	1.50
10	220	504	15	Flat Contact	1 ¹ / ₂ "	1 ¹ / ₂ "	1 ¹ / ₂ "	1	1 oz.	.81	1.15
10	221	505	22½	Flat Contact	1 ¹ / ₂ "	1 ¹ / ₂ "	1 ¹ / ₂ "	1	1 oz.	1.05	1.50
15	208	411	15	Flat Contact	1	¾	1 ¹ / ₂ "	1	1 oz.	.81	1.15
20	210	413	30	Flat Contact	1	¾	2 ¹ / ₂ "	1	2 ozs.	1.23	1.75
X150	.....	489	225	Pin Jacks	4 ¹ / ₂ "	2 ³ / ₄ "	4 ¹ / ₂ "	1	2 ¹ / ₂ "	7.20	10.25
160	.....	491	240	Flat Contact	2 ¹ / ₂ "	1 ¹ / ₂ "	4 ¹ / ₂ "	1	¾	7.20	10.25
1150	.....	492	225	Pin Jacks	3 ¹ / ₂ "	2 ³ / ₄ "	4 ¹ / ₂ "	1	2 ¹ / ₂ "	7.65	10.95
320	.....	497	510	Flat Contact	2 ¹ / ₂ "	1 ¹ / ₂ "	5 ¹ / ₂ "	1	1 ¹ / ₂ "	13.00	18.50
30P-K	.....	.....	45	Battery & Bulb	.....	.....	.....	1	¾	1.67	2.50

BURGESS RADAR LIGHTS NOTICE: All Radar Lights are packed in individual cartons complete with battery.

GESS Number	Description	Unit Pkg. Quan.	Wt. of Un. Pkg. in Lbs.	Sugg. Dealer Complete	LIST PRICE EACH		
					Head Only	Battery	Complete
W3	Radar-Lite Spot-Flasher (Lamp 4546, 407)	1	5 ¹ / ₂ "	\$8.96	\$11.00	\$2.95	\$13.95
W4	Radar-Lite Spot-Without Flasher (Lamp 4546)	1	4 ³ / ₄ "	7.06	8.55	2.95	11.50
W7	Radar-Lite Chrome-Finish (Lamp 1651), TW8 Copper-Finish	1	4 ¹ / ₂ "	6.36	7.00	2.95	9.95
W9	Radar Bearcat Focusing Lantern (Lamp 425 or 502)	1	4 ¹ / ₂ "	4.67	4.50	2.95	7.45
W11	Radar-Lite (Bulb Reflector Model) (Lamp 425)	1	4 ³ / ₄ "	5.68	6.20	2.95	9.15
W12	12 Volt Radar-Lite (Uses TW2 Battery) (Lamp 965)	1	5	6.88	8.20	2.95	11.15
W36	Power Failure Operated Lantern (Flood Beam) (Lamp 4512)	1	6	13.61	17.50	2.95	20.45
W34	Radar-Flash (Lamp 407)	1	4	4.49	3.95	2.95	6.90

BURGESS SAFARI LITE, DOLPHIN, RADAR-MATE AND FLASHLIGHTS (less batteries)

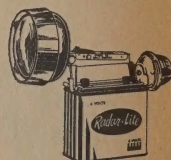
GESS Number	Description	Unit Pkg. Quan.	Wt. of Un. Pkg. in Lbs.	Sugg. Dealer Each	List Price Each	
					Head Only	Battery
65	Safari-Lite Fluorescent Light, Uses 2 No. Z46 batteries listed under Lantern Batteries (Lamp No. FBTS-CW)	1	4 ¹ / ₄ "	\$12.45	\$20.75	
64	Dolphin Lantern, Uses 1 No. F4M battery (Lamp PR13)	1	½	1.97	2.95	
R1	4½ Volt Radar-Mate Lantern, Uses 3 No. 2 (Size D) batteries (Lamp PR3)	6	7 ¹ / ₂ "	3.32	4.98	
61	Magnet Flashlight—2 Cell Prefocused (Lamp PR2 or PR4)	6	3	1.33	1.99	
63	Tuffy-Plastic Flashlight—2 Cell Prefocused (Lamp PR2 or PR4)	6	1 ¹ / ₂ "	.69	.99	
57	Satellite Torch—2 Cell Junior Prefocused (Lamp PR2 or PR4)	3	1	1.30	1.95	
57	Satellite Torch—2 Cell Prefocused (Lamp PR2 or PR4)	6	2 ³ / ₄ "	1.30	1.95	
63	2 Cell Magnet-Tough Plastic Industrial Flashlight (Lamp PR2)	6	2 ¹ / ₂ "	1.33	1.99	
53	2 Cell Industrial—Safety Light (Lamp PR2)	1	½	3.33	5.00	
63	Penlight (AAA size) (Lamp 224)	12	1½	.82	1.25	
63	Penlight (Heavy Duty AA size) (Lamp 222)	12	1½	.82	1.25	
63	Snap-Lite Pocket Light (AAA size) (Lamp 224)	12	1½	.82	1.25	



TW1

No. 6
Ignition

220



TW3



357



165

DC-AC CONVERTERS

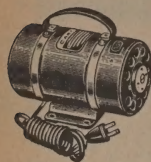
FREQUENCY CHANGERS

Carter

Motor

FHP MOTORS

TACH-GENERATORS



"MARK II" SUPER CONVERTERS

Designed for high PF non-inductive AC loads such as amplifiers, lab and medical equipment, standby emergency lighting, telephone and marine communications. Not damaged by intermittent transients or sudden overloads. 70% PF models available. Will not operate refrigerators, large AC motors, or low PF transformers. For manual frequency control and meter, add \$72.00 to list. For 230 v. AC or 50 cy. output add \$6.00 to list. For built in capacitor filter add \$8.80 to list. Ball bearing, con. duty. Size 8 1/4" x 4 1/2" x 5" high. Weight 13 lbs.

STANDARD 100% PF CONVERTERS

Carter Number	DC Input		Watts, AC at 60 cps, 115 v.	List Price
	Volts	Amps		
D1040CB	115	7	40	\$134.00
D1010CB	115	1.7	100	138.00
D1015CB	115	2.0	150	140.00
B1040CB	12	8	40	123.00
B1015CB	12	15	100	126.00
B1010CB	12	23	150	128.00

Mark II Heavy Duty Super Converter. Continuous duty, less filter, 10 1/2" long, 4 1/2" wide, 5" high. Weight, 19 lbs.

D1020CB	115	2.6	200	\$152.00
D1025CB	115	3.2	250	154.00
B1020CB	12	30	200	144.00
B1025CB	12	34	250	146.00



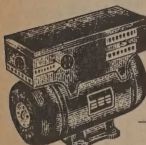
"MONARCH" CONVERTERS

1000 - 1500 and 2000 watt output, 24 to 230 volt input models. The Monarch series is ideal for heavy-duty industrial service, machine tools, crane and railroad communications. Slow speed (1800 rpm), long life, 4-pole design; ball bearing equipped. No filter is necessary for most applications. Size: 19" x 11" x 12" high. Three-phase output available, add \$60 to list. 24 and 28 v. Input available at 1500 w. rating.

Carter Number	DC Input		Watts, AC at 60 cps, 115 v.	List Price
	Volts	Amps		
J10150M	28	80	1500	\$725.00
C10150M	28	60	1500	725.00
W10200M†	48	60	2000	775.00
H10200M†	64	45	2000	775.00
D10200M†	115	25	2000	775.00
K10200M†	230	12.5	2000	775.00

†Reduced voltage starters necessary, add \$159.50 to list price.
‡Reduced voltage starters necessary, add \$103.40 to list price.

REFRIGERATOR-APPLIANCE MARINE CONVERTERS



Operates standard refrigerators, compressors (up to 1/2 hp only), vacuum cleaners and other appliances from DC; for use aboard commercial and pleasure boats. Converter operates only when power is called for. Has handy AC outlet to run most appliances from DC input, from 24 to 230 v. DC. Size: 14" x 6 1/2" x 11" high. Net Weight, 65 lbs. 750 w. con. duty rating.

Number	Input	List	Number	Input	List
RF24	24 v.	\$495.00	RF48	48 v.	\$495.00
RF28	28 v.	495.00	RF115	115 v.	495.00
RF34	34 v.	495.00	RF230	230 v.	495.00

"ECLIPSE" TACHOMETER GENERATORS



Converts rotation rate into reference voltage for speed indication. Ideal for motor controllers and various industrial applications such as variable speed drives, textile machines, machine tools etc. Couples direct to drive motor, requires no belts or gears. 2 lead, reversible. Linearity below 1%. May be connected to a DC meter calibrated for RPM, PPM, GPH or other measurements. Size 1 1/2" x 2 1/2" plus shaft .118 dia. 19/32" long.

M 176T1	2.5 v. per 1000 RPM	\$51.00
M 176T2	5 v. per 1000 RPM	53.00
M 176T3	12 v. per 1000 RPM	56.00
M 176T4	20 v. per 1000 RPM	70.00
M 176T5	1.25v. per 1000 RPM	51.00



"ECLIPSE" MOTOR-TACHOMETERS

Combines both PM DC motor and a tach generator in a compact unit. Ideal for limited space where both a small PM DC motor plus a tach reference voltage are required. 4 lead reversible, 2 motor leads, 2 generator leads. Motor rated 1/150 HP max. tach output 2.5 v. per 1000 RPM. Shaft .118 dia. 19/32" long.

MT 114J1	28 v. DC input	\$90.00
MT 114C1	32 v. DC input	90.00
MT 114W1	48 v. DC input	90.00

"CLASSIC" MOTORS & GEARMOTORS



Available up to 1/7 hp. Gearmotors from 1 to 750 RPM, up to 8 in. lbs. torque, continuous duty. Universal and DC shunt models, induction and variable speed types, base or flange mounted. Ball bearing, high quality die cast construction. Ideal for SCR motor controllers, pumps, lab stirrers, dental drills. 3-5/16" dia. 6-1/16" long. Ask for Classic catalog.



"CUSTOM" CONVERTERS

Dependable rotary power for operating office business machines, professional tape recorders, railroad, mobile and marine radio and radar equipment. Finest construction. Sealed ball bearings require no lubrication. Long life, continuous duty, high efficiency on all models. Only popular models listed here. For 50-cycle output, add \$6.00 to list price. All models 100% power factor. Size: 200 watts, 12 1/2" w. x 6 1/2" d. x 7 1/2" h.; 210 and 300 watts, 11 1/2" w.; 500 watts, 12 1/2" w. x 7 1/2" h.; 750 watts, 13 1/2" w. x 7 1/2" h.

Carter Number	DC Input		List Price	Carter Number	DC Input		List Price
	Volts	Amps			Volts	Amps	
KSX1020CSP	230†	1.3†	\$270.00	D1030CP	115‡	4.6‡	\$220.00
DSX1020CSP	115†	2.6†	263.00	E1030CP	241	33†	254.00
HSX1020CSP	64†	5†	263.00	C1030CP	32†	25†	254.00
OSX1020CSP	32†	9†	263.00	W1030CP	48†	19†	254.00
BR1021CP*	12†	29†	306.00	D1050CP	115†	7†	254.00
B1030CP	12‡	45‡	220.00	C1075CP	32‡	32‡	285.00
E1030CP	24‡	22‡	220.00	D1075CP	115‡	8.8‡	285.00
C1030CP	32‡	19‡	220.00	K1075CP	230‡	4.4‡	296.00

Watts At 115 v. AC. 60 cps: †200 \$300 ‡500 +750.

*Equipped with manual frequency control. On all other models, add \$90.00 to list prices. Filter available; add \$50.00 to list price. Add \$8.80 for built in capacitor filter. Automatic starting circuit available if AC power fails. Ideal for school and hospital paging systems. Write.



"CUSTOM" DYNAMOTORS

For railroad and marine radio-telephone, industrial communications systems, telephoning equipment, emergency standby power, etc. Heavy duty construction. Low rpm speed, small temperature rise assure extra long life. Filter not normally required. Size: 12 1/2" x 6-11/16" x 7 1/4". Weight, 47 lbs.

Carter Number	Input Range	Output Volts	Output Recv.	Amps Trans.	List Price
KSI1220P	236-264	12.8	5	18	\$275.00
DS1220P	118-132	12.8	5	18	263.00
HS1220P	67-74	12.8	5	18	263.00
CS1220P	33-37	12.8	5	18	263.00
WS1220P	45-50	12.8	5	18	263.00
DS640P	118-132	6.3	15	40	263.00
HS640P	67-74	6.3	15	40	263.00
CS640P	33-37	6.3	15	40	263.00
B2820P	14	28	—	20	263.00

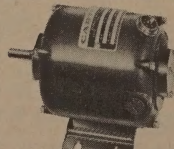
AC TO AC FREQUENCY CHANGERS



Produces 115 v. 50 or 60 cycle AC output from 25 to 400 cycle input. For operation standard equipment on non-standard frequencies. Standard units are for single phase input and output. Three-phase output available on order. 70% PF models to run tape recorders, optional at no extra cost. For frequency control (meter), add \$30.00 to list price. Not regulated.

Carter Number	Output Watts*	List Price	Carter Number	Output Watts*	List Price
FC1020L	20	\$340.00	FC1025CP	250	\$650.00
FC1040L	40	350.00	FC1050CP	500	685.00
FC1060L	60	365.00	FC1075CP	750	715.00
FC1080C	80	490.00	FC10100M	1000	1310.00
FC1010C	100	500.00	FC10150M	1500	1375.00
FC1015C	150	510.00	FC10200M	2000	1450.00
FC1020C	200	520.00			

*60 cy. output. 50 cy. available.



"CLASSIC" PM DC TACH-GENERATORS

A high output DC Tachometer-Generator for slow speed industrial and commercial purposes. Barium ferrite magnet. Couples to motor shaft and to meter for direct readings without belts or gears to step up speed. Requires no batteries, transistors or other external excitation. 2 lead, reversible.

Code No.	DC output Volts per 1000	Mounting	Max. Speed RPM	List Price
CTA60AA	60	base	5000	\$78.00
CTA60BA	60	face	5000	80.00
CTA60CA	60	flange	5000	78.00
CTA50AA	50	base	6000	76.00
CTA50BA	50	face	6000	78.00
CTA50CA	50	flange	6000	82.00
CTA25AA	25	base	10000	74.00
CTA25BA	25	face	10000	74.00
CTA25CA	25	flange	10000	80.00

Models rated less than 4000 RPM maximum speed supplied with built-in capacitor filter to assure ripple of less than 3%. Unfiltered models will average 5% or less AC ripple.



"REGENT" FHP MOTORS

Universal motor 1/4 to 1/2 hp. 5000-10000 RPM Models for 12 v. to 220 v. input. DC tachometer from 12 v. to 115 v. DC, 1800 to 5000 RPM. 1/4 to 1/2 hp. Face, base or resilient mount. Ideal for machine tool drives, grinders, SCR motor controllers. 3 1/2" dia. 6-5/32" long. Ask for Regent bulletin.

HIGH VOLTAGE POWER SUPPLIES

COMPACT PSL SERIES

PSL SERIES of compact power supplies are designed to operate from the most commonly used line frequencies 50 CPS to 500 CPS. Input voltages 118V, 220V, 230V, and 240V*.

PSL SERIES Power Supplies have the important features:

Input Voltage 0 to rated input voltage* at 50 to 500 CPS.

Output Ratings 0 to 10 milliamperes in accordance with the rating of the power pack.

Ripple 1% RMS or 2.75% peak to peak at rated voltage.

Output Voltage can be varied from 0 to rated voltage and load by means of a variable auto transformer.

Two Output Terminals are isolated from the container, permitting either terminal or both to be operated away from ground.

Ambient Temperature Range is minus 55°C to plus 85°C (with limited ratings).

Mounting Position: Any.

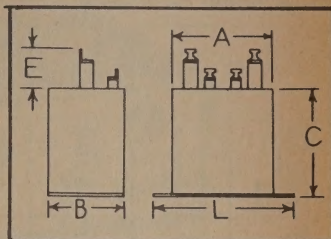
Altitude up to 10,000 feet operating 50,000 feet non-operating.

Design Life 40,000 hours at 35°C and 25,000 hours at 65°C at rated output. Life is 5000 hours at 85°C if the output current is no more than 80% of the rated current. Useful life is generally double the figure given above if an approximately 3% drop in voltage is tolerable.

CONDENSER PRODUCTS has designed and built high voltage D. C. power supplies for:

- Electrostatic Equipment
- Airborne Equipment
- Shipboard Installations
- 380 to 1,000 CPS Applications
- High voltage output from 1 to 250 KV with current ratings up to 50 ma.
- and many other varied applications

Let CONDENSER PRODUCTS engineers solve your high voltage power supply problems.



PART NUMBER	KV RANGE	MAX. MA.	DIMENSIONS				MOUNTING AREA		WEIGHT
			A	B	C	E	W	L	LBS.
PSL2-1.5M	0-2	1.5	3 3/4	1 3/4	3 3/4	3/8	1 3/4	5/4	2
PSL5-1.5M	0-5	1.5	3 3/4	2 1/4	3 3/8	5/8	2 1/4	5/4	2
PSL10-1.5M	0-10	1.5	3 3/4	3 3/8	4 1/2	1 1/4	3 3/8	5/4	4
PSL15-1.5M	0-15	1.5	3 3/4	3 3/8	5 1/2	1 1/4	3 3/8	5/4	5
PSL20-1.5M	0-20	1.5	3 3/4	4 3/8	5 7/8	2 1/8	4 3/8	5/4	9
PSL30-1.5M	0-30	1.5	3 3/4	4 3/8	7 1/2	3 3/4	4 3/8	5/4	11
PSL50-1.5M	0-50	1.5	4 1/4	6	8 1/2	4 3/8	6	6 1/4	18
PSL75-1.5M	0-75	1.5	5 5/8	7 7/8	12 1/2	7 1/2	7 7/8	7 1/4	26
PSL2-5M	0-2	5	3 3/4	2 1/4	3 3/8	3/8	2 1/4	5/4	2
PSL5-5M	0-5	5	3 3/4	2 1/4	3 3/8	5/8	2 1/4	5/4	3
PSL10-5M	0-10	5	3 3/4	4 3/8	5 7/8	1 1/4	4 3/8	5/4	8
PSL15-5M	0-15	5	3 3/4	4 3/8	6 7/8	1 1/4	4 3/8	5/4	9
PSL20-5M	0-20	5	3 3/4	4 3/8	8	2 1/8	4 3/8	5/4	12
PSL30-5M	0-30	5	4 1/4	6	8 1/2	3 3/4	6	6 1/4	18
PSL50-5M	0-50	5	5 5/8	7 7/8	12 1/2	4 3/8	7 7/8	7 1/4	26
PSL75-5M	0-75	5	11 1/4	14 1/4	16 1/4	7 1/2	14 1/4	11 1/4	124
PSL1-10M	0-1	10	3 3/4	2 1/4	3 3/8	3/8	2 1/4	5/4	2
PSL2.5-10M	0-2.5	10	3 3/4	2 1/4	3 3/8	5/8	2 1/4	5/4	3
PSL5-10M	0-5	10	3 3/4	4 3/8	5 7/8	5/8	4 3/8	5/4	8
PSL10-10M	0-10	10	3 3/4	4 3/8	8	1 1/4	4 3/8	5/4	12
PSL15-10M	0-15	10	4 1/4	6	8 1/2	1 1/4	6	6 1/4	18
PSL25-10M	0-25	10	5 5/8	7 7/8	12 1/2	3 3/4	7 7/8	7 1/4	26

- Vibration 10 to 55 CPS with a total of 0.06 inches for 2 hours in each plane for all power packs which have a base dimension (the A and B dimensions of 3 3/4" x 1 3/4" or less. Larger units are designed for bench handling, general laboratory use, and equipment not subject to excessive shock and handling.
- Salt Spray per MIL-Q-151 for 50 hours.
- Rectifiers are long life selenium type, properly selected and used under de-rated conditions to assure long life.
- Filter Capacitors are special film types and designed in particular for long life.
- Hermetically Sealed Container Sealing is accomplished with seamed and soldered CP70 type container, and solder seal bushings.
- Oil Filled Container prevents corona. The oil is inhibited, degassed and filtered.
- Container Finish Zinc chromate primer and light blue-gray lacquer per MIL-L-7178.
- Terminals are seatite, solder seal type with solder lug terminals.

POWER SUPPLIES TYPE PST

INQUIRE ABOUT SUB-MINIATURE SILICON HIGH VOLTAGE POWER SUPPLIES EXTREME SIZE AND WEIGHT REDUCTIONS!

These Self-Contained, Sub-Miniature Solid-State Power Supplies are Specifically Designed for High Voltage, Low Current DC Applications.

Miniaturization of high voltage, low current solid state power supplies are an accomplished fact with Condenser Products Co. Reductions up to 60% in volume have been achieved!

Advantages of the PST Series:

- Smallest size, longest lasting possible
- Highest operating ambient temperature to 105°C without de-rating
- Lightest weight possible for voltage output with greatest possible power factor

Catalog No.	Output Voltage KVDC	Rated Output Current Ma.	Max. Output Current Ma.	% Ripple At Rated Current	Circuit	Case Dimensions	Approx. Weight Pounds
PST2-M60	0-2.	2.	3.00	0.5	Half Wave	3 3/4 x 2 1/4 x 3 1/2" HI	2.5
PST5-2M60	0-5.	2.	3.00	0.5	Full Wave Doubler	3 3/4 x 2 1/4 x 3 1/2" HI	2.5
PST10-1M60	0-10.	1.	1.75	1.0	Full Wave Doubler	3 3/4 x 3 3/4 x 4" HI	4.5
PST15-1M60	0-15.	1.	1.75	1.0	Full Wave Doubler	4 1/4 x 3 3/4 x 5 1/2" HI	8.5
PST20-1M60	0-20.	1.	1.75	1.0	Full Wave Doubler	4 1/4 x 3 3/4 x 5 1/2" HI	8.5

OTHER SOLID-STATE SUB-MINIATURE SUPPLIES CAN BE DESIGNED FOR A SPECIFIC APPLICATION

CONDENSER PRODUCTS COMPANY

THIS IS ONLY A SMALL LISTING OF SIZES, VOLTAGE AND AVAILABLE TYPES . . . FOR COMPLETE INFORMATION . . . SEND FOR BULLETIN No. 6 . . .

Vibrators

AUTO RADIO & SPECIAL PURPOSE VIBRATORS

CDE Type	Voltage	Freq. (cps)	Max. Load Amps	Plug Base	Circuit Diagram	Size (Inches—DxL)
INTERRUPTER TYPES						
5301	6	115	5	4	A-1	1½ x 2⅞
5371	6	115	5	4	A-1	1½ x 2⅞
5372	6	115	5	4	D-2	1½ x 2⅞
5560H ■	6	60	6	4	A-2	1½ x 3⅜
5562H ■	6	59	6	4	A-2	1½ x 3⅜
6301	12	115	3.5	4	A-1	1½ x 2⅞
6330	12	115	3.5	3 Spcl.	DA	1½ x 2⅞
6371	12	115	3.5	4	A-1	1½ x 2⅞
6372	12	115	3.5	4	D-2	1½ x 2⅞
6514	12	180	3.5	4	A-4	1½ x 2⅞
6560H ■	12	60	4	4	A-2	1½ x 2⅞
6562H ■	12	59	4	4	A-2	1½ x 2⅞

UNIVERSAL REPLACEMENT TYPES

CDE Type	Voltage	Freq. (cps)	Max. Load Amps	Plug Base	Circuit Diagram	Size (Inches—DxL)
V64	6	115	6	4	A-1	1½ x 2⅞
V123	12	115	4	3 Spcl.	DA	1½ x 2⅞
V124	12	115	4	4	A-1	1½ x 2⅞

VIBRATORS FOR FOREIGN CAR RADIOS

CDE Type	Voltage	Blaupunkt Part No.	Plug Base
5730	6	SM0702-01Z	5 Special (DB)
6730	12	SM0702-02Z	5 Special (DB)

■ Close frequency adjusted ± 1 CPS.

COMMUNICATIONS VIBRATORS

CDE Type	Voltage	Freq. (cps)	Max. Load Amps	Plug Base	Circuit Diagram	Size D x L
INTERRUPTER TYPES						
5715A	6	115	12	4	A-3	1½ x 2⅞
5718A	6	115	12	6	Y-2	1½ x 2⅞
5722/6722	6/12	100	12/7	7	AF-2	1½ x 3
5725A	6	115	12	5 Rev.	HZ-1	1½ x 2⅞
6715A	12	115	7	4	A-4	1½ x 2⅞
6715AS	12	115	7	4	A-3	1½ x 2⅞
6718A	12	115	7	6	Y-1	1½ x 2⅞
6718AS	12	115	7	6	Y-1	1½ x 2⅞

SYNCHRONOUS TYPES

CDE Type	Voltage	Freq. (cps)	Max. Load Amps	Plug Base	Circuit Diagram	Size D x L
5805	6	115	6	5 Rev.	AD-1	1½ x 2⅞
5820	6	115	6	5 Rev.	AB-3	1½ x 2⅞
5822A	6	100	9	7	AE-2	1½ x 3
6805	12	115	5	5 Rev.	AD-1	1½ x 2⅞
6820	12	115	5	4 Spcl.	AB-1	1½ x 2⅞

SMALL POWER SUPPLY VIBRATORS

Type	Voltage	Frequency Cps.	Max. Amps.	Base	Construction	Size (Inches) WxLxH or DxL
2532	12	60 $\pm$ 3	5	A1	Vert. ARV	1½ x 2⅞
2563	6/12	60 $\pm$ 3	15/7	HZ-1	Vert. ARV	1½ x 2⅞
6565	12	60 $\pm$ 3	8	A-3	Vert. ARV	1½ x 2⅞
6567	12	60 $\pm$ 3	8	None	Wire-leads	1½ x 2⅞

* Current ratings are maximum based on reasonable vibrator life in CDE approved circuits.

CIRCUIT DIAGRAMS



A-1



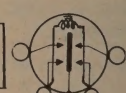
A-2



A-3



A-4



AB-1



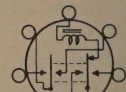
AB-3



AD-1



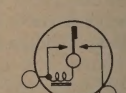
AE-2



AF-2



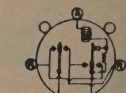
D-2



DA



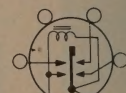
DB



HY



HZ-1



Y-1



Y-2

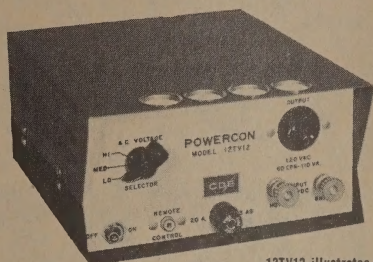
POWERCON® Class 251 • 00

POWERCON® INVERTERS

POWERCON® inverters feature all new designs and attractive styling to provide the ultimate in inverter power supplies for providing AC power in autos, trucks, aircraft and boats. Units are ideal for operating a wide variety of electronic entertainment devices as well as small appliances and lighting equipment.

The 12TV12 illustrated, has met with enthusiastic acceptance. This model is intended for operation of portable TV sets as well as other household appliances within the rating. Other models in the POWERCON® line feature the same attractive styling as the 12TV12. The combination of attractive design and superior power supply design features makes the POWERCON® Line the outstanding buy in mobile, aircraft and marine power supplies.

Models are available with either square wave or sine wave outputs. Square wave models have stable 110v AC under various loads due to built in capacity and conservative ratings. Intermittent loads will not damage the unit. Intermittent ratings are for loads with 70-100% power factor. Square wave units feature superior filtering and solid mechanical and electrical design to give hash-free output for interference free TV, radio and shortwave reception.



12TV12 illustrates the modern styling of the POWERCON® inverter line.

The sine-wave units have added reactors and capacitors to provide true sine-wave power — indistinguishable from commercial power. These units are recommended for electronic equipment where optimum performance is required. The sine-wave units control output voltage between 110 and 120v AC with up to 15% input variation. Units feature automatic load regulation for heavy or light loads. Sine-Wave units will operate inductive loads as low as 25% power factor without power factor correction as long as the wattage rating is not exceeded and the inrush VA does not exceed the intermittent ratings.

Model Type	Typical Applications	Replacement Vibrators	Input VDC	Watts		Overall Dimension Deep x W x High	Shipping Weight Approx. lbs.	Net Price
				Continuous	Intermittent			
ZSP2A	Electric Shavers. NOTE: Intermittent duty only.	None	12	None	20	3 7/8 x 2 7/8 x 2 3/8	2	\$ 8.79
2A4	Test gear, small dictating machines, shavers, phonographs.	6567	12	40	50	6 1/4 x 4 1/4 x 3 3/8	6	18.84
2B8	Smallest portable TV, small tape recorders, stereo amplifiers.	6565	12	80	100	8 3/4 x 7 7/8 x 3 7/8	12	33.56
2B10	Office machines, calculators, typewriters, adders.	12VB6H	12	100	125	8 3/4 x 7 7/8 x 3 7/8	14	42.79
20SW10	SINE-WAVE, any PF load.	12VB6H	12	100	125	10 3/8 x 9 7/8 x 5 1/2	22	73.99
2TV12	TV, special for portable TV, also for radios, phonographs.	12VB6H	12	120	140	8 3/4 x 7 7/8 x 3 7/8	16	34.57
2D15	Small induction soldering guns, all office machines.	12VD6H	12	150	175	10 3/8 x 9 7/8 x 5 1/2	26	64.70
2D22	Multi-use, ideal for camp trailer, small tools, CB, TV.	12VD6H	12	220	250	10 3/8 x 9 7/8 x 5 1/2	31	80.99
2ESW25	SINE-WAVE, SSB, large PA systems, 100 watt amplifiers.	12VD6H	12	250	300	12 1/4 x 9 7/8 x 5 1/2	31	103.13
8D15	Aircraft, marine, trucks, other systems using 24 VDC.	28VB6H	28	150	175	10 3/8 x 9 7/8 x 5 1/2	26	78.99
10B15 10D25	110V DC input units used for emergency power, for AC applications where commercial DC available; apartments, larger boats, and merchant vessels. The 110F40 is the largest unit and is dual RFI filtered.	110VB6H	110	100	150	8 3/4 x 7 7/8 x 3 7/8	11	—
		110VB6H	110	150	200	8 3/4 x 7 7/8 x 3 7/8	13	51.07
		110VB6H	110	250	325	10 3/8 x 9 7/8 x 5 1/2	26	61.21
		110VC6H	110	400	600	14 1/8 x 11 1/4 x 6 1/4	49	—

ACCESSORY KITS FOR POWERCON® INVERTERS

These accessory kits are designed for use with the model POWERCON® inverter power supplies. They provide maximum flexibility in mounting and control of the units. The following types of accessory kits are available:

REMOTE CONTROL UNITS Consist of under dash or post mounting control head with switch, pilot light and AC outlet. Includes 4 wire cable from control socket.

FUSE KITS Provides maximum protection to power supply. Cable fuse block for 2" cartridge fuse should be used with heavy cable for remote installations. Last two digits of the number indicate ampere rating of fuse.

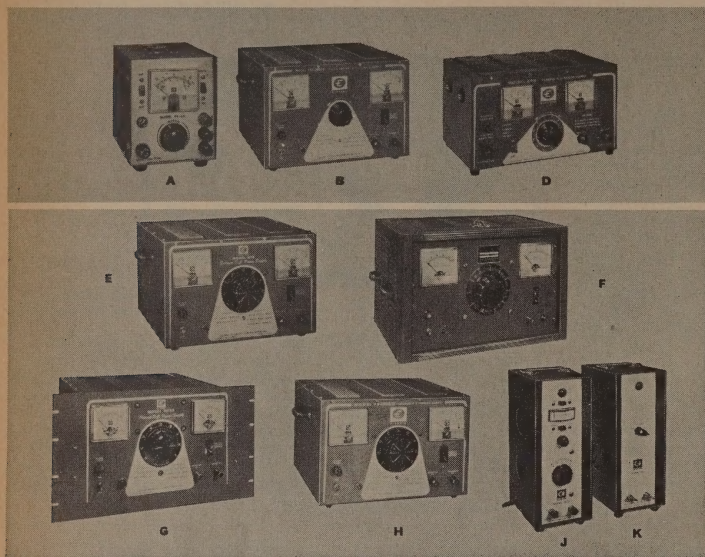
MOUNTING KITS Heavy flanged plate for bulkhead or floor mounting. Supplied with hardware and instructions.

BATTERY CLAMP KITS Two cables with heavy lugs to fit under the battery clamp screw or starter solenoid.

For Power-con® Model	Mounting Kits		Lead Kits		Remote Control Kits		Fuse Kits	
	Type	Net Price	Type	Net Price	Type	Net Price	Type	Net Price
12A4	None	—	LK-1016	\$3.93	RK-112	\$7.07	FK-220	\$2.29
12B8	MK-3544-4	3.57	LK-1016	3.93	RK-112	7.07	FK-220	2.29
12B10	MK-3544-4	3.57	LK-816	5.00	RK-112	7.07	FK-220	2.29
12D15	MK-3544-5	3.86	LK-816	5.00	RK-112	7.07	FK-240	2.86
12D22	MK-3544-5	3.86	LK-616	7.86	RK-112	7.07	FK-240	2.86
28D15	MK-3544-5	3.86	LK-1016	—	RK-112	—	FK-220	—
12TV12	MK-3544-5	3.57	LK-1016	5.00	RK-112	7.07	FK-220	3.27
12DSW10	MK-3544-5	3.86	LK-816	5.00	RK-112	7.07	FK-220	2.29
12ESW25	MK-3544-5	3.86	LK-616	7.86	RK-112	7.07	FK-250	2.86



ELECTRO POWER SUPPLIES



PRECISION BUILD

Electro offers a large selection of well constructed DC power supplies used in design and development testing and servicing (auto, aircraft, marinecraft radio and electronic equipment)... production line applications, industrial and educational laboratory work and many other applications.

The line offers a wide range of DC output up to 125 volts with adequate filtering requirements ranging from critical transistor circuitry to applications permitting up to 5% ripple.

Every model is engineered to give unusual performance life per dollar. Each has adjustable output voltage range. Meter indicating voltage and current are large and easy to read. Controls clearly marked. Output terminals are isolated from the cabinet... several are rack mounted. A one-year warranty on every Electro power supply.

For full details on models listed below, see Selection Guide on facing page.

REGULATED

Model PS-3A (Fig. A) regulated power supply for transistor circuit development and experimental use. Output continuously variable. Regulation $\pm 0.02\%$ line or load. Maximum ripple: 0.002%. Front panel controls.

Model PSR-500 Series (Fig. B) delivers 500 watts of DC power,

with output voltage regulated to less than 1% for both line and load changes. Maximum ripple less than 1%. All solid-state circuitry. Uses silicon rectifiers and SCR regulation. Full input, circuit-breaker output protection. Three models with output voltage ranges: 2-32v, 2-55v, and 2-125v.

INDUSTRIAL

Model EF (Fig. D) provides variable voltage 0-28v or 0-14v at 5 amps continuous, 10 amps intermittent load. Ripple less than 1%. Uses selenium rectifiers.

Models EFB and EFBR (Figs. D, G) designed for very low ripple requirements of transistor work. Continuously variable voltage control. Selenium rectifiers. Employs chokes and capacitors in ripple filter. Model EFB Federal stock number 6130-957-1450. Model EFBR (Fig. G) same except with standard EIA rack panel.

Models NFB and NFBR (Figs. E, G) for continuous heavy-duty. Continuously variable output, 0-32v for loads to 15 amps. Ripple: less than 0.75% at 15 amps. Ripple filter circuit uses chokes and capacitors. Variable autotransformer for smooth control. Bridge type silicon rectifiers. Model NFBR same except with standard EIA rack panel. Model NFBR Federal stock number 6130-853-3127.

Models GFL, GFLR and GL (Figs. E, G) low cost, semi-regulated, low ripple, higher voltage. Ideal for designing and testing DC

appliances, telephone circuits, relays and solenoids; laboratory work. Continuously variable output 0-125v DC at 5 amp. Ripple: 0.5%. Silicon rectifiers. Overload protection. Model GFLR same except with standard EIA rack panel. Model GL same as GFL unit above, but with less filtering. Ripple: 5% at 5 amps.

Models PS-5 and PS-5R (Figs. E, G) specially designed for 48-volt applications. Delivers 550 watts well-filtered DC output continuously variable 0-55v DC. Ripple: 0.5% rms at 10 amp. Silicon rectifiers. Model PS-5R same except with standard EIA rack panel.

Models PS-1000-32 and PS-1000-55 (Fig. H) similar to Model NFB and PS-5 above, except twice the output power.

Model PS-1000-32 delivers 0-32v DC at 30 amps.

Model PS-1000-55 delivers 0-55v DC at 20 amps. See table for other specifications.

GENERAL PURPOSE

Model D-612T and Model H (Fig. D) low ripple; for servicing transistor auto and portable radios. Max. output power in this price range. Ideal for citizens' band transceivers, battery charging, solenoids, etc., requiring up to 16v DC. **Model H** heavy duty; dual range. Ideal as storage battery replacement in school laboratories, thermoelectric power source, and other high-current, low-voltage applications. Similar to Model D-612T in appearance.

Model EC-1 (Fig. K) reliable, low cost. 12v DC with 5 amp. output for school labs and industrial research, production testing, etc. Low-cost source for FM and AM auto radio demonstrations. Max. ripple 0.5%. EPL patented rectifier conduction cooling. Used vertically or horizontally.

Model EC-2 (Fig. J) low priced unit for auto radio and transistor portable servicing. Ideal for wide applications in research and development. Continuously variable voltage adjustment provides versatility. Max. ripple 0.5% at 5 amperes. Patent conduction cooling. Used vertically or horizontally.

Models PS-30 and PS-50 (Fig. E) heavy duty adjustable 12-v unit for servicing auto, truck, aircraft and marine communications equipment. Very useful in industrial and educational labs, thermoelectric cooling power source, etc. Max. ripple maximum current 1%. 8-position tap switch output voltage adjust. Heavy overload capacity. **Model PS-50** delivers 50 amperes continuously and **Model PS-30** delivers 30 amperes continuously.

REGULATED • INDUSTRIAL • GENERAL PURPOSE



Selection Guide — Power Supplies for every need

Model	Figure	Voltage Output	Amps. Output	Load Regulation* (V/A) †	Max. Ripple%	Meters‡	DC Impedance (ohms)*	Size (HxWxD) inches	Weight lbs. (net)	Price (net)
REGULATED										
-3A	A	0-25	0-200MA	.02%	0.002	0-25V/200MA	.05	6-1/4 x 5 x 6	3-1/2	\$105.00
R-500-32	B	2-32	0-15	Less than 1%	Less than 1	0-50V, 0-25A	.02	9-3/4 x 14-1/4 x 14-1/4	76	375.00
R-500-65	B	2-55	0-10	Less than 1%	Less than 1	0-75V, 0-10A	.06	9-3/4 x 14-1/4 x 14-1/4	65	375.00
R-500-125	B	2-125	0-5	Less than 1%	Less than 1	0-150V, 0-5A	.25	9-3/4 x 14-1/4 x 14-1/4	80	395.00
INDUSTRIAL										
	D	0-28 0-14	0-5 0-5	0.9 (1-5A) 0.6 (1-5A)	1	0-50V, 0-5A	0.9 (1-5A) 0.6 (1-5A)	7 x 12 x 8-1/2	21	115.00
	D	0-32 0-16	0-4 0-8	1.25 1.0	0.1 0.1	0-40/20V, 0-10A	1.25 1.0	7 x 12 x 8-1/2	31	160.00
	G	0-32 0-16	0-4 0-8	1.25 1.0	0.1 0.1	0-40/20V, 0-10A	1.25 1.0	8-3/4 x 19 x 8-1/2	34	160.00
	F	0-125	0-10	1.6	1.0	0-150V, 0-10A	1.6	14-1/4 x 22 x 15-3/4	150	575.00
	E	0-125	0-5	1.5	0.5	0-150V, 0-5A	1.5	9-3/4 x 14-1/4 x 14-1/4	75	290.00
	G	0-125	0-5	1.5	0.5	0-150V, 0-5A	1.5	10-1/2 x 19 x 14-1/4	79	315.00
	E	0-125	0-5	1.5	5.0	0-150V, 0-5A	1.5	9-3/4 x 14-1/4 x 14-1/4	65	270.00
	E	0-32	0-15	0.3	0.75	0.50V, 0-25A	0.3	9-3/4 x 14-1/4 x 14-1/4	71	275.00
	G	0-32	0-15	0.3	0.75	0.50V, 0-25A	0.3	10-1/2 x 19 x 14-1/4	82	295.00
	E	0-55	0-10	0.8	0.5	0-75V, 0-10A	0.8	9-3/4 x 14-1/4 x 14-1/4	60	275.00
	G	0-55	0-10	0.8	0.5	0-75V, 0-10A	0.8	10-1/2 x 19 x 14-1/4	71	295.00
-1000-32	H	0-32	0-30	0.2	0.75	0-50V, 0-50A	0.2	9-3/4 x 14-1/4 x 14-1/4	85	398.00
-1000-55	H	0-55	0-20	0.5	0.5	0-75V, 0-25A	0.5	9-3/4 x 14-1/4 x 14-1/4	85	398.00
GENERAL PURPOSE										
12T	D	0-16 0-8	0-10 0-5	0.44 (3-10A) 0.3 (3-10A)	0.5@5A 2@10A	0-20V, 0-10A	0.44 (3-10A) 0.3 (3-10A)	7 x 12 x 8-1/2	20	72.50
	D	12 (adj.) 6 (adj.)	0-10 0-20	0.23 (3-10A) 0.15 (3-20A)	5 5	0-20V, 0-30A	0.23 (3-10A) 0.15 (3-20A)	7 x 12 x 8-1/2	29	99.50
-1	K	12 (adj.)	0-5	1.4	0.5	None	1.4	10-3/4 x 4-3/8 x 6-1/2	10	37.50
-2	J	0-16	0-5	1.8	0.5	0-20V/10A	1.8	10-3/4 x 4-3/8 x 6-1/2	9	49.95
-30	E	12 (adj.)	0-30	0.12 (3-30A)	1	0-20V, 0-50A	0.27	9-3/4 x 14-1/4 x 14-1/4	56	198.00
-50	E	12 (adj.)	0-50	0.17	1	0-20V, 0-50A	0.17	9-3/4 x 14-1/4 x 14-1/4	75	298.00

Output voltage continuously variable except where shown.

† Input voltage change for each ampere of output current change.
‡ All 2% accuracy except 5% for general purpose units.

*No-load to full-load unless otherwise specified.

† All 2% accuracy except 5% for general purpose units.

Rectifiers: Selenium and Silicon ("avalanche" characteristics on Industrial units).

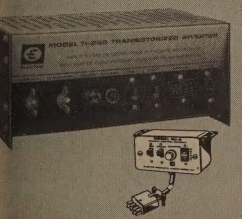


ELECTRO DC TO AC TRANSISTORIZED INVERTERS

Convert 12v DC to 117v AC from car, boat or plane battery. Ample power for TV sets, lights, recorders, PA systems, etc.



Model TI-100A



Model TI-250. Inset shows remote control console available.

Model TI-100A. Compact, low cost—converts 12v DC to 117v AC, 125 watts 60 cy. Plug for use with vehicle cigarette lighter.

Model TI-100TR. Same except with (1) compensating switch to assure proper frequency for tape-recorders and other low power factor loads, (2) battery charge indicator light.

Model TI-250 has 250/300 watt output for a wider range of applications. Features (1) electronic overload protection, (2) start switch, (3) battery indicator light, (4) includes cables for connection to battery or DC source, (5) remote control console available.

Electro Inverters have several outstanding features: (1) heavy components for higher overload capacity, (2) charge indicator light in some models shows condition of battery by giving low-charge warning, shows that unit is delivering power and is not overloaded, (3) first line Jetec transistors, (4) unique power transformer construction for safe, trouble-free performance, (5) automatic electronic overload protection turns off unit with no damage to inverter or equipment being operated, (6) mount in any position, (7) "start" switch in some models facilitates starting hard-to-start loads such as incandescent lights, some motors, etc., (8) considerably smaller than vibrator types, (9) eliminate vibrator maintenance.

INVERTERS							
Model	Conversion	Output	Volt Reg.	Freq. Reg.	Size (in.)	Ship. Wt. (lbs.)	Price
TI-100A	12v DC to	125w. cont.	20v NL-FL	5 cy/sec. NL to FL	3 1/2 x 6 1/4 x 5 1/4	7	\$37.20
TI-100TR	12v DC to	125w. cont.	20v NL-FL	5 cy/sec. NL to FL	3 1/2 x 6 1/4 x 5 1/4	7	43.75
TI-250	117v AC 60 cy.	250w. cont. 300w. inter.	11% NL	4 cy/sec. NL to FL	4 1/2 x 10 7/8 x 7 1/2	11	69.95
ACCESSORIES							
Model	Description				Size (in.)	Ship. Wt. (lbs.)	Price
RC-2	Remote Control Console for Model TI-250 (with 7-ft. cord for operation from remote location)				5 1/4 x 2 1/2 x 2 1/2	5	\$12.50
BCA-1	Battery Clip Adaptor for Models TI-100A & TI-100TR (clip directly to battery terminals)				4 ft. cable	1	2.10
BCA-2	Battery Clip Adaptor for Model TI-250				4 ft. cable	1	4.40

Get at your electronic distributor. Write for full-line catalog. Prices and models subject to change without notice.

ELECTRO PRODUCTS LABORATORIES, INC.

Since 1936—Pioneers in Low Voltage Power Supplies

EVEREADY®

FLASHLIGHTS, LANTERNS and BATTERIES

the world's most trusted brand for over 50 years!

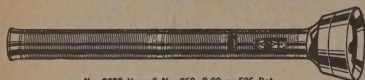
ALL PRICES WITHOUT BATTERIES.

"CAPTAIN" FLASHLIGHTS... Classic Design

- Heavy-Duty Copper/Nickel/Chrome/Plated Steel
- Exclusive 3-Way Lock Switch and Flasher
- End-Loading... Ring Hanger



No. 9951 Magnet Lite. Uses 2 No. 950, D-99 or E95 Batteries, No. PR2 Lamp.



No. 9652 Uses 6 No. 950, D-99 or E95 Batteries, No. PR18 Lamp. Also available: No. 9352—Uses 3 No. 950, D-99 or E95 Batteries, No. PR3 Lamp.



No. 9251 Uses 2 No. 950, D-99 or E95 Batteries, No. PR2 Lamp. Also available: No. 9351—Uses 3 No. 950, D-99 or E95 Batteries, No. PR3 Lamp and No. 9231—Uses 2 No. 935 or E93 Batteries, No. PR4 Lamp.



No. 3300 Rechargeable Flashlight—Twice the Light of standard 2-Cell Flashlights... never needs batteries! Uses rechargeable battery, No. PR3 Lamp.

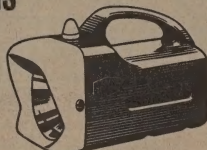
	No. 3300	No. 9231	No. 9251	No. 9351	No. 9352	No. 9652	No. 9951
List Each	\$14.95	\$2.29	\$2.29	\$2.95	\$3.95	\$5.95	\$2.95
Sugg. Dealer	9.96	1.53	1.53	1.97	2.64	3.81	1.97

WEATHERPROOF LANTERNS



No. 100 "Big Jim" Lantern w/flasher. Uses 1 No. 731 Battery, No. 4546 Lamp, No. 407 Signal Lamp.

No. 101 Same without flasher.

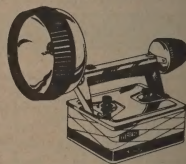


No. 108 All American Lantern. "Cordahide" polyethylene construction. Uses 1 No. 509 Battery, No. PR13 Lamp.

No. 68 Display—Contains 3 No. 108 All American Lanterns in Colors (white, red, black).



No. 109WB Heavy-Duty All American lantern complete with 1 No. 731 Battery, "Cordahide" polyethylene construction. Uses No. PR13 Lamp.



No. 150 "Captain" Stainless Steel Lantern. Uses 1 No. 520 Alkaline Battery and No. 4618 1-ampere Lamp for Double Brilliance, Longer Service, No. 407 Signal Lamp.

No. 151 Same without flasher.

	No. 68	No. 100	No. 101	No. 108	No. 109WB	No. 150	No. 151
List Each	\$11.37	\$10.75	\$8.00	\$3.79	\$7.89	\$14.00	\$12.00
Sugg. Dealer	7.59	6.45	4.80	2.53	5.24	8.39	7.19

"CORDAHIDE" polyethylene FLASHLIGHTS—

Insulated, Withstand Abuse,
Resists Oils, Greases,
Most Chemicals.



No. 330 Utility Lite. Uses 2 No. 950, D-99 or E95 Batteries, No. PR2 Lamp. Available individually boxed (No. 330) or in display of 6 (No. 67).



No. 337 Magnet Utility Lite. Uses 2 No. 950, D-99 or E95 Batteries, No. PR2 Lamp. Available individually boxed (No. 337) or in display of 12 (No. 51) in Colors.



No. 349 Handy Lite. Uses 2 No. 935 or E93 Batteries, No. PR4 Lamp. Available in assortment of 6 (No. 48) in Colors.

	No. 49	No. 51	No. 67	No. 330	No. 337
List Each	\$5.94	\$16.88	\$5.94	\$0.99	\$1.39
Sugg. Dealer	4.14	11.16	4.14	0.70	0.94

INDUSTRIAL and SPECIAL PURPOSE LITES



Industrial Flashlights

No. 1251—2 Cell, No. PR6 Lamp. No. 1351—3 Cell, No. PR7 Lamp. Uses Nos. 950, 1050, D99 or E95 Batteries. Will not shatter crack or dent.

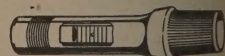


Safety Flashlights

No. 1250—2 Cell, No. PR6 Lamp. No. 1350—3 Cell, No. PR7 Lamp. Uses Nos. 950, 1050, D99 or E95 Batteries. Approved by U.S. Bureau of Mines, Listed by Underwriters' Laboratories, Inc.



No. 3452 Head-Lite. Uses 1 No. 510S Battery and No. PR13 Lamp. Rainproof pouch also available (No. 1348).



Torch Lite

No. 273—3" wand, No. 275—5" wand. Uses 2 No. 950, D99 or E95 Batteries and No. PR2 Lamp.

	No. 273	No. 275	No. 1251	No. 1250	No. 1348	No. 1351	No. 1350	No. 3452
List Each	\$1.49	\$1.50	\$2.89	\$4.15	\$0.69	\$3.29	\$4.35	\$3.29
Sugg. Dealer	.99	1.05	1.93	2.74	0.46	2.19	2.89	2.14

HEAVY-GUAGE, CHROME-PLATED METAL FLASHLIGHTS



America's Standard

No. 2251 All-Purpose Flashlight—2 Cell, No. PR2 Lamp. Use Nos. 950, D-99 or E95 Batteries. Available individually boxed. No. 5MF available in display of 6 with Selling Tags (No. 6-SMF) or display of 6 with Counter Card (No. 14).



Magnet Lites

No. 5MF Magnet Lite—2 Cell, No. PR2 Lamp, No. 7MF—3 Cell, No. PR3 Lamp. Use Nos. 950, D-99 or E95 Batteries. Available individually boxed. No. 5MF available in display of 6 with Selling Tags (No. 6-SMF) or display of 6 with Counter Card (No. 14).



Leader Lites

No. 328 Leader Lite—Uses 2 No. 950, D-99 or E95 Batteries. No. PR2 Lamp. Available in Display No. 18 (containing 12 No. 326 Lites)



No. 358 "Highlander II" Lite—Uses 2 No. 950, D-99 or E95 Batteries. No. PR2 Lamp. Available in No. 27-A Display—containing 7 No. 350 Lites.

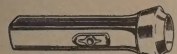


All American

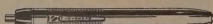
No. 3250 All American Lites—Uses 2 No. 950, D-99 or E95 Batteries. No. PR2 Lamp. Available in Counter Display of 12 Lites (No. 1311). Also available No. 338—Uses 2 No. 935 or E93 Batteries. No. PR4 Lamp. Display No. 39C contains 6 No. 339 Lites with Selling Tags.

	No. 5MF	No. 6-SMF	No. 7MF	No. 14	No. 16	No. 39C	No. 131	No. 2251	No. 2351
List Each	\$1.99	\$11.94	\$2.49	\$11.94	\$11.88	\$7.14	\$14.28	\$1.95	\$2.35
Sugg. Dealer	1.33	7.98	1.66	7.98	7.56	4.68	\$8.48	1.30	1.57

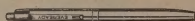
MINIATURE FLASHLIGHTS



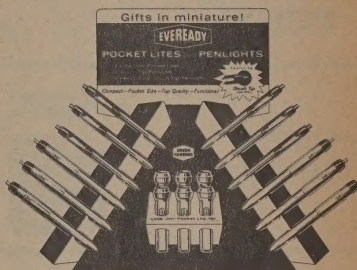
No. 115 "Little Jim" Pocket Lite—Uses 1 No. 915 or E91 Battery, No. 112 Lamp. Available in Counter Display of 12 (No. 18).



No. 315 Heavy-Duty Penlite. Uses 2 No. 915 or E91 Batteries and No. 222 Lamp. Available individually boxed or in Counter Display of 12 (No. 22).



No. 312 Slim Penlite. Uses 2 No. 912 or E92 Batteries and No. 224 Lamp. Available individually boxed or in Counter Display of 12 (No. 12).



No. 178 Display-combination miniature-lite assortment contains: 6 each of Slim and Heavy Duty Penlites and 6 "Little Jim" Pocket Lites.

	No. 12	No. 15	No. 22	No. 170	No. 312	No. 315
List Each	\$15.48	\$9.48	\$15.48	\$20.22	\$1.29	\$1.29
Sugg. Dealer	10.20	6.30	10.20	13.35	.85	0.85

EVEREADY®

BATTERIES with POWER TO SPARE

(See complete line listing for prices)

POPULAR FLASHLIGHT BATTERIES



No. 915
Size AA



No. 935
Size C



No. 950
Size D



No. D99
Heavy-Duty
Size B

ENERGIZERS FOR TRANSISTOR RADIOS and other electronic applications



No. 206
9 Volts



No. 216
9 Volts



No. 226
9 Volts



No. 333
4 1/2 Volts



No. 1035
Size C
1 1/2 Volts



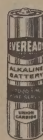
No. 1015
Size AA
1 1/2 Volts

SUPER POWER ALKALINE BATTERIES

for radios,
cameras, toys,
flashlights, and high
drain applications,
rechargeable TV



No. E90
Size N
1 1/2 Volts



No. E91
Size AA
1 1/2 Volts



No. E92
Size AAA
1 1/2 Volts



No. 523
4 1/2 Volts



No. 563
4 1/2 Volts



No. E93
Size C
1 1/2 Volts



No. 561
15 Volts



No. E95
Size D
1 1/2 Volts

EVEREADY

COMPLETE LINE SPECIFICATIONS

EVEREADY

MERCURY
BATTERIESNo. E9
1.4 VoltsNo. E146X
8.4 VoltsNo. E133
4.2 VoltsSEALED
NICKEL CADMIUM
RECHARGEABLE
BATTERIESB50
1.25 VoltsC450
1.25 VoltsCH4
1.25 VoltsR2
1.25 VoltsLANTERN
BATTERIESNo. 509—Spring
No. 510S—Screws
No. 510F—Fahnestock
6 VoltsNo. 731
6 VoltsNo. 520
6 Volts
AlkalineOTHER
BATTERIESNo. 6 "Ignitor"
1 1/2 Volts"HOT SHOT"
No. 1461 6 Volts
No. 1462 6 Volts
No. 1463 12 Volts
No. 1462 7 1/2 Volts
No. 1462 9 VoltsEMERGENCY
LIGHTING
No. 715 6 Volts
No. 705 6 Volts
No. 716 9 Volts

"Eveready" Battery Number	NEDA Number	Chemical System	Overall Dimensions in Inches L W H	Terminals & Voltages	Battery Weight lbs. ozs.	Unit Pkg. Quan.	Sugg. Dealer Each	List Each	Major Use
B1	—	Nickel Cad.	1.980 Diam. x 0.394	Flat Contacts—, +1.25	— 2.0	1	2.66	3.80	
*B1T	—	Nickel Cad.	1.980 Diam. x 0.406	Solder Tabs—, +1.25	— 2.0	1	2.79	4.00	
BH1	—	Nickel Cad.	1.980 Diam. x 0.394	Flat Contacts—, +1.25	— 2.0	1	2.79	4.00	Instr., Hobby, Trans. Appl., Misc.
*BH1T	—	Nickel Cad.	1.980 Diam. x 0.406	Solder Tabs—, +1.25	— 2.0	1	2.92	4.20	
E1	1100	Mercury	0.625 Diam. x 0.650	Flat Contacts—, +1.35	— 0.43	4	0.52	0.75	
E1N	—	Mercury	0.625 Diam. x 0.650	Flat Contacts—, +1.35	— 0.43	4	0.64	0.95	Meters, Instr., Misc.
EPX-1	—	Mercury	0.625 Diam. x 0.650	Flat Contacts—, +1.35	— 0.43	4	0.66	0.95	
CH1.2	—	Nickel Cad.	0.900 Diam. x 1.684	Flat Contact—Solder Tab +1.25	— 1.7	1	5.70	8.15	Camera Light Meter
*CH1.2T	—	Nickel Cad.	0.900 Diam. x 1.689	Solder Tabs—, +1.25	— 1.7	1	5.70	8.15	
CH1.5	—	Nickel Cad.	1.031 Diam. x 1.969	Flat Contact—Solder Tab +1.25	— 2.3	1	4.06	5.80	
*CH1.5T	—	Nickel Cad.	1.031 Diam. x 1.974	Solder Tabs—, +1.25	— 2.3	1	4.19	6.00	
RH1.6	—	Nickel Cad.	1 1/4 x 3/4 x 2 1/2	Nut & Stud—, +1.25	— 4.1	1	3.53	5.00	
B2	—	Nickel Cad.	1.984 Diam. x 0.689	Flat Contact—, +1.25	— 3.3	1	4.69	6.70	
*B2T	—	Nickel Cad.	1.984 Diam. x 0.701	Solder Tabs—, +1.25	— 3.3	1	4.82	6.90	
C2	—	Nickel Cad.	1.344 Diam. x 2.406	Flat Contact—Solder Tab +1.25	— 5.0	1	4.06	5.80	Instr., Hobby, Trans. Appl., Misc.
*C2T	—	Nickel Cad.	1.344 Diam. x 2.416	Solder Tabs—, +1.25	— 5.0	1	4.19	6.00	
R2	—	Nickel Cad.	1 3/4 x 1 3/4 x 2 1/2	Nut, Stud & Tab—, +1.25	— 6.0	1	5.97	8.50	
RH2.6	—	Nickel Cad.	1 1/4 x 3/4 x 4 1/4	Nut & Stud—, +1.25	— 6.8	1	5.51	7.95	
B3	—	Nickel Cad.	1.984 Diam. x 0.984	Flat Contacts—, +1.25	— 5.0	1	5.70	8.15	
*B3T	—	Nickel Cad.	1.984 Diam. x 0.996	Solder Tabs—, +1.25	— 5.0	1	5.83	8.35	
E3	—	Mercury	0.985 Diam. x 0.660	Flat Contacts—, +1.35	— 0.93	4	1.05	1.50	Meters, Instr., Misc.
R3.5	—	Nickel Cad.	1 3/4 x 1 3/4 x 3 1/4	Nut, Stud & Tab—, +1.25	— 9.2	1	7.12	10.15	
CH4	—	Nickel Cad.	1.344 Diam. x 2.406	Flat Contact—Solder Tab +1.25	— 5.4	1	5.69	8.15	Instr., Hobby, Trans. Appl., Misc.
*CH4T	—	Nickel Cad.	1.344 Diam. x 2.416	Solder Tabs—, +1.25	— 5.4	1	5.82	8.35	
E4	—	Mercury	1.125 Diam. x 0.660	Flat Contacts—, +1.25	— 1.6	4	1.31	1.95	Meters, Instr., Misc.
EPX-4	—	Mercury	0.662 Diam. x 1.965	Flat Contacts—, +5.4	— 1.16	1	1.57	2.25	Camera
RH4	—	Nickel Cad.	1 1/4 x 3/4 x 4 1/4	Nut & Stud—, +1.25	— 9.5	1	8.40	12.00	
R4.5	—	Nickel Cad.	1 1/2 x 1 1/4 x 3 1/2	Nut & Stud—, +1.25	— 13.4	1	9.35	13.35	Instr., Trans. Appl., Misc.
No. 6 "Ignitor" Gen. Purpose	905	Carb. Zinc	2 1/2 Diam. x 6 3/4	**Knurled Nut & Screw—, +1.5	2 2.0	1	0.91	1.35	Ign. Lighting
No. 6 "Gray Label" Telephone	914	Carb. Zinc	2 1/2 Diam. x 6 3/4	**Fahnestock—, +1.5	2 2.0	1	0.91	1.35	Tele.
No. 6 Railroad & Industrial	911	Carb. Zinc	2 1/2 Diam. x 6 3/4	**Knurled Nut & Screw—, +1.5	2 2.0	1	0.94	1.40	Ign., Tele.
EPX-6	—	Mercury	0.662 Diam. x 4.415	Flat Contacts—, +4.05, +8.1	— 1.6	1	2.75	3.95	Camera
R6	—	Nickel Cad.	2 1/4 x 1 1/4 x 3 3/4	Nut & Stud—, +1.25	— 15.7	1	10.21	14.60	
RH7	—	Nickel Cad.	1 1/4 x 1 3/4 x 4 1/4	Nut & Stud—, +1.25	— 14.7	1	11.96	17.10	Instr., Trans. Appl., Misc.
R7.5	—	Nickel Cad.	2 1/4 x 1 1/4 x 4 1/4	Nut & Stud—, +1.25	— 1 2.0	1	11.17	15.95	
E9	15M	Mercury	0.550 Diam. x 1.968	Flat Contacts—, +1.4	— 1.05	4	0.64	0.95	Trans. Radio

*NEDA number same as an "Eveready" battery number on a different battery.

Omitted to prevent errors in shipping.

**Equipped with screw terminals unless Fahnestock spring terminals are specified.

***Equipped with Fahnestock spring terminals unless screw terminals are specified.

•Items differ from corresponding sizes in that they have tabs enabling user to solder leads to battery without damage.

□ Flashlight types.

EVEREADY

COMPLETE LINE SPECIFICATIONS

EVEREADY

Battery Number	NEDA Number	Chemical System	Overall Dimensions Inches L W H	Terminals & Voltages	Battery Weight lbs. ozs.	Unit Pks. Quan.	Surg. Dealer Each	List Each	Major Use
1	—	Nickel Cad.	3 1/2 x 1 1/2 x 4 3/4	Nut & Stud., +1.25	1	12.0	1	13.79	Instr., Trans. Appl., Misc.
2	1101	Mercury	0.640 Diam. x 1.968	Flat Contacts., +1.4	—	1.6	2	0.87	Trans. Radio
2N	—	Mercury	0.640 Diam. x 1.968	Flat Contacts., +1.35	—	1.6	2	1.05	Instr., Misc.
X-13	—	Mercury	0.615 Diam. x 0.238	Flat Contacts., +1.35	—	0.14	4	0.50	0.75
X-14	—	Mercury	0.655 Diam. x 0.607	Flat Contacts., +2.7	—	0.27	1	1.05	1.50
15	—	Nickel Cad.	3 1/2 x 1 1/2 x 4 3/4	Nut & Stud., +1.25	2	3.0	1	16.78	23.95
15	—	Nickel Cad.	3 1/2 x 1 1/2 x 4 3/4	Nut & Stud., +1.25	1	11.0	1	21.57	30.75
15	—	Nickel Cad.	3 1/2 x 1 1/2 x 4 3/4	Nut & Stud., +1.25	2	10.0	1	19.90	28.45
15	—	Nickel Cad.	0.457 Diam. x 0.213	Flat Contacts., +1.25	—	0.4	1	1.93	1.20
15	—	Nickel Cad.	0.457 Diam. x 0.223	Solder Tabs., +1.25	—	0.4	1	1.18	1.70
15	—	Mercury	0.590 Diam. x 0.767	Flat Contacts., +5.6	—	0.12	4	0.60	0.85
15	—	Nickel Cad.	3 1/2 x 2 1/2 x 4 3/4	Nut & Stud., +1.25	3	2.0	1	22.94	32.75
15	—	Carb. Zinc	1 1/2 Diam. x 1 1/4	Flat Contacts., +1.5	—	1.4	6	0.39	0.60
15	—	Silver	0.455 Diam. x 0.165	Flat Contacts., +1.5	—	0.06	6	0.27	0.40
15	—	Mercury	1 1/2 Diam. x 2.390	Flat Contacts., +1.4	—	5.85	1	2.44	3.50
15	—	Mercury	1 1/2 Diam. x 2.390	Flat Contacts., +1.35	—	5.85	1	2.76	3.95
15	—	Nickel Cad.	0.610 Diam. x 0.235	Flat Contacts., +1.25	—	0.12	1	0.70	1.00
15	—	Nickel Cad.	0.610 Diam. x 0.245	Solder Tabs., +1.25	—	0.12	1	0.83	1.20
15	—	Carb. Zinc	1 1/2 Diam. x 2 1/2	Flat Contacts., +1.5	—	3.3	6	0.48	0.75
15	—	Nickel Cad.	2.81 x 2.81 x 1.32	Spade Terminals., +14.4	—	26.60	1	38.00	45.00
15	—	Nickel Cad.	7.32 x 3.1 x 1.46	Socket., +13.75	1	11.0	1	101.28	145.00
15	—	Nickel Cad.	1 1/4 x 1 1/4 x 4 3/4	Wire Leads., +6.25	1	8.3	1	18.38	26.50
15	—	Nickel Cad.	3 1/2 x 1 1/2 x 4 3/4	Wire Leads., +6.25	1	12.0	1	29.62	42.50
15	—	Silver	0.455 Diam. x 0.200	Flat Contacts., +1.5	—	0.08	6	0.30	0.45
15	—	Alkaline	0.470 Diam. x 1.130	Flat Contacts., +1.5	—	0.35	3	0.27	0.40
15	15A	Alkaline	0.470 Diam. x 1.130	Flat Contacts., +1.5	—	0.35	3	0.27	0.40
15	24A	Alkaline	0.410 Diam. x 1.745	Flat Contacts., +1.5	—	4	12	0.325	0.50
15	14A	Alkaline	1 1/2 Diam. x 1 1/4	Flat Contacts., +1.5	—	2.2	12	0.39	0.60
15	927	Alkaline	1 1/2 Diam. x 1 1/4	Flat Contacts., +1.5	—	1.8	12	0.325	0.50
15	13A	Alkaline	1 1/2 Diam. x 2 1/2	Flat Contacts., +1.5	—	4.2	12	0.49	0.75
15	130	Carb. Zinc	1 1/2 Diam. x 2 1/2	Flat Contacts., +1.5	—	3.3	48	0.19	0.30
15	—	Nickel Cad.	0.992 Diam. x 0.252	Flat Contacts., +1.25	—	0.32	1	0.70	1.10
15	—	Nickel Cad.	0.992 Diam. x 0.264	Solder Tabs., +1.25	—	0.31	1	0.90	1.30
15	—	Mercury	0.660 Diam. x 0.845	Flat Contacts., +4.05	—	0.45	1	1.72	2.50
15	—	Mercury	0.660 Diam. x 1.08	Flat Contacts., +5.40	—	0.59	1	1.85	2.65
15	—	Mercury	0.660 Diam. x 1.4	Flat Contacts., +7	—	0.73	1	2.06	2.95
15	—	Mercury	0.660 Diam. x 1.4	Flat Contacts., +6.75	—	0.73	1	2.06	2.75
15	161M	Mercury	0.724 Diam. x 2	Flat Contacts., +8.4	—	1.65	1	1.31	1.95
15	1200	Mercury	0.662 Diam. x 1.315	Flat Contacts., +2.8	—	0.9	2	1.05	1.50
15	—	Mercury	0.662 Diam. x 1.315	Flat Contacts., +2.7	—	0.9	2	1.17	1.65
15	1306M	Mercury	0.662 Diam. x 1.965	Flat Contacts., +4.2	—	1.4	12	1.17	1.65
15	—	Mercury	0.662 Diam. x 1.965	Flat Contacts., +4.05	—	1.4	2	1.35	1.95
15	—	Mercury	0.662 Diam. x 2.620	Flat Contacts., +5.4	—	1.9	2	1.57	2.25
15	—	Mercury	0.662 Diam. x 2.620	Flat Contacts., +5.4	—	1.9	2	1.72	2.50
15	—	Mercury	0.662 Diam. x 3.275	Flat Contacts., +7	—	2.4	1	2.06	2.75
15	—	Mercury	0.662 Diam. x 3.275	Flat Contacts., +6.75	—	2.4	1	2.06	2.95
15	—	Mercury	0.662 Diam. x 3.930	Flat Contacts., +8.4	—	2.9	1	2.27	3.25
15	—	Mercury	0.662 Diam. x 3.930	Flat Contacts., +8.1	—	2.9	1	2.40	3.50
15	—	Mercury	0.662 Diam. x 4.585	Flat Contacts., +9.8	—	3.3	2	2.80	3.75
15	—	Mercury	0.662 Diam. x 4.585	Flat Contacts., +9.45	—	3.3	2	2.80	4.00
15	—	Mercury	3/4 Diam. x 1 1/4	Flat Contacts., +7	—	0.7	1	1.72	2.50
15	1604M	Nickel Cad.	1 1/2 x 3/4 x 2	Min. Snap., +8.4	—	1.6	6	1.31	1.95
15	—	Nickel Cad.	0.992 Diam. x 0.272	Flat Contacts., +1.25	—	0.4	1	0.80	1.15
15	—	Nickel Cad.	0.992 Diam. x 0.284	Solder Tabs., +1.25	—	0.4	1	0.93	1.30
15	—	Mercury	0.485 Diam. x 1.140	Flat Contacts., +2.8	—	0.42	1	0.87	1.25
15	—	Mercury	0.485 Diam. x 1.140	Flat Contacts., +2.7	—	0.42	1	1.05	1.50
15	—	Mercury	0.485 Diam. x 1.708	Flat Contacts., +4.2	—	0.6	1	1.17	1.65
15	—	Mercury	0.485 Diam. x 1.708	Flat Contacts., +4.5	—	0.6	1	1.39	2.00
15	—	Carb. Zinc	2 1/2 x 1 1/4 x 4 3/4	Snap Type., +180	—	12.0	1	5.65	8.10
15	—	Mercury	0.662 Diam. x 0.887	Flat Contacts., +2.7	—	0.58	1	1.05	1.50
15	1305	Mercury	0.662 Diam. x 1.327	Flat Contacts., +4.2	—	0.87	2	1.17	1.65
15	—	Mercury	0.662 Diam. x 1.327	Flat Contacts., +4.05	—	0.87	2	1.31	1.95
15	1404	Mercury	0.662 Diam. x 1.767	Flat Contacts., +5.6	—	1.16	12	1.31	1.95
15	—	Mercury	0.662 Diam. x 1.767	Flat Contacts., +5.4	—	1.16	2	1.57	2.25
15	1500	Mercury	0.662 Diam. x 2 1/2	Flat Contacts., +7	—	1.45	2	1.70	2.30
15	—	Mercury	0.662 Diam. x 2 1/2	Flat Contacts., +6.75	—	1.45	2	1.90	2.75
15	1901	Mercury	0.622 Diam. x 3 3/4	Flat Contacts., +12.6	—	3.5	4	3.50	4.95
15	1501	Mercury	3/4 Diam. x 1 1/2	Flat Contacts., +7	—	1.0	10	1.05	1.50
15	1606A	Alkaline	3/4 Diam. x 1 1/2	Min. Snap., +9	—	0.67	1	1.29	1.98
15	1611	Carb. Zinc	3/4 Diam. x 2	Flat Contact, Neg. Recess., +9	—	1.2	6	0.62	0.89
15	1604	Carb. Zinc	1 1/2 x 3/4 x 1 1/2	Min. Snap., +9	—	1.3	12	0.48	0.69
15	1604D	Carb. Zinc	1 1/2 x 3/4 x 1 1/2	Min. Snap., +9	—	1.3	12	0.64	0.98
15	—	Nickel Cad.	0.992 Diam. x 0.35	Flat Contacts., +1.25	—	0.45	1	0.83	1.20
15	—	Nickel Cad.	0.992 Diam. x 0.363	Solder Tabs., +1.25	—	0.45	1	0.97	1.40
15	—	Nickel Cad.	0.992 Diam. x 0.358	Flat Contacts., +1.25	—	0.46	1	0.97	1.40
15	—	Nickel Cad.	0.992 Diam. x 0.370	Solder Tabs., +1.25	—	0.46	1	1.10	1.60
15	1600	Carb. Zinc	1 Diam. x 1 1/4	Snap Type., +9	—	2.0	6	0.62	0.89
15	1810	Carb. Zinc	1 Diam. x 2 1/2	Snap Type., +12	—	2.3	12	1.05	1.50
15	1300	Mercury	1 1/2 Diam. x 1 1/2	Flat Contacts., +4.2	—	3.0	1	2.27	3.25
15	—	Mercury	1 1/2 Diam. x 1 1/2	Flat Contacts., +4.05	—	3.0	1	2.62	3.75
15	—	Mercury	1 1/2 Diam. x 2 1/2	Flat Contacts., +5.6	—	3.88	1	2.76	3.95
15	—	Mercury	1 1/2 Diam. x 2 1/2	Flat Contacts., +5.4	—	3.88	1	3.15	4.50
15	—	Mercury	1.015 Diam. x 3 3/4	Flat Contacts., +6.75	—	5.0	1	3.64	5.50
15	—	Mercury	1.015 Diam. x 3 3/4	Flat Contacts., +6.1	—	5.0	1	5.6	9.95
15	1900	Carb. Zinc	1 1/2 x 1 1/2 x 2 1/2	Socket., +9, +13.5	—	3.0	1	1.30	1.85
15	1610	Carb. Zinc	1 1/2 x 1 1/2 x 2 1/2	Min. Snap., +4.5	—	4.5	1	1.30	1.85
15	1602	Carb. Zinc	1 1/2 x 1 1/2 x 2 1/2	Min. Snap., +9	—	4.5	1	1.30	1.85
15	1605	Carb. Zinc	1 1/2 x 1 1/2 x 2 1/2	Snap Type., +9	—	7.0	1	1.36	1.95
15	1400	Carb. Zinc	2 1/2 x 1 1/2 x 7 3/4	Snap Type., +6	—	2	7.0	4.02	5.75
15	—	Carb. Zinc	2 1/2 x 2 1/2 x 3 3/4	Snap Type., +9	—	15.0	1	1.36	1.95
15	—	Mercury	1 Diam. x 1 1/4	Flat Contacts., +8.4	—	1.6	6	1.35	1.95
15	1810M	Mercury	1 Diam. x 1 1/4	Snap Type., +12.6	—	3.6	6	2.27	3.25
15	—	Mercury	0.312 Diam. x 0.140	Flat Contacts., +1.4	—	0.02	6	0.24	0.35
15	1306	Carb. Zinc	0.662 Diam. x 1.965	Flat Contacts., +4.5	—	0.9	6	0.62	0.89
15	—	Carb. Zinc	3 1/4 x 1 1/2 x 4 3/4	Knurled Nut & Screw., +22.5+45	—	14.5	1	2.63	3.85
15	701	Carb. Zinc	2 1/2 x 1 1/2 x 4 3/4	Knurled Nut & Screw., +22.5+45	—	12.5	1	1.33	1.90
15	—	Carb. Zinc	2 1/2 x 1 1/2 x 4 3/4	Socket., +1.5	—	12.5	1	1.22	1.75
15	—	Carb. Zinc	2 1/2 x 2 1/2 x 4 3/4	Knurled Nut & Screw., +3	—	1	6.0	1.75	2.50
15	901	Carb. Zinc	3 3/4 x 2 1/2 x 5 1/4	Fahnestock., +3	—	2	12.0	1.92	2.75
15	—	Carb. Zinc	2 1/2 x 1 1/2 x 4 3/4	Knurled Nut & Screw., +45	—	8.75	1	3.46	4.95
15	—	Carb. Zinc	3 3/4 x 2 1/2 x 4 3/4	Socket., +45	—	11.8	1	3.15	4.50
15	227	Carb. Zinc	1 1/2 x 1 1/2 x 1 1/2	Flat Contacts., +103.5	—	1	4.0	1	4.86

EDA number same as an "Eveready" battery number on a different battery.
 omitted to prevent errors in shipping.

*Items differ from corresponding sizes in that they have tabs enabling the user to solder leads to battery without damage.

◆Furnished with Fahnestock spring terminals. If socket terminals required specify W-363P, W-364P, W-365P.

flashlight types.

EVEREADY**COMPLETE LINE SPECIFICATIONS****EVEREADY**

"Eveready" Battery Number	NEDA Number	Chemical System	Overall Dimensions in Inches L W H	Terminals & Voltages	Battery Weight lbs. ozs.	Unit Pkg. Quan.	Sugg. Dealer Each	List Each	Major Use
W-362	—	Carb. Zinc	2 7/8 x 1 3/8 x 1 3/8	Knurled Nut & Screw—, +4.5, —7.5	— 1.5	1	2.05	2.95	Radio "C"
W-363F	—	Carb. Zinc	8 5/8 x 4 1/4 x 7 3/8	Fahnestock—, +22.5, +45	10 5.0	1	7.66	10.95	Heavy Duty Radio "B"
W-364F	—	Carb. Zinc	8 5/8 x 4 1/4 x 7 3/8	Fahnestock—, +22.5, +45	11 14.0	1	7.62	10.95	Instr. "B"
W-365F	723	Carb. Zinc	8 5/8 x 2 1/2 x 4 3/8	Fahnestock—, +22.5, +45	7 7.5	1	7.66	10.95	
W-369	410	Carb. Zinc	9 1/8 x 2 1/4 x 4 3/8	Socket—, +A, +1.5 "A", —B", +90 "B"	4 5.0	1	6.96	9.95	Instr. Model Ign.
W-371	—	Carb. Zinc	1 3/8 x 1 3/8 x 2 3/8	Socket (including plug)—, +3	— 2.2	1	1.05	1.50	
E400	1106	Mercury	0.455 Diam. x 0.135	Flat Contacts—, +1.4	— 0.04	6	0.24	0.35	
E401N	910M	Mercury	0.455 Diam. x 0.135	Flat Contacts—, +1.35	— 0.04	3	0.35	0.50	Trans. Appl.
E401N	—	Mercury	0.470 Diam. x 0.130	Flat Contacts—, +1.4	— 0.4	3	0.44	0.65	
409	908C	Carb. Zinc	2 5/8 x 2 5/8 x 4 1/8	Flat Contacts—, +1.35	— 0.4	1	0.60	0.85	Lanterns
409	—	Carb. Zinc	1 1/2 x 5/8 x 1 3/4	Coil Springs—, +6	1 6.5	1	—	—	
412	208	Carb. Zinc	1 1/2 x 5/8 x 1 3/4	Flat Contacts—, +15	— 0.95	1	0.81	1.15	
413	215	Carb. Zinc	1 1/2 x 5/8 x 2	Flat Contacts—, +22.5	— 1.3	1	1.05	1.50	
413	—	Carb. Zinc	1 1/2 x 5/8 x 2 1/8	Flat Contacts—, +30	— 1.6	1	1.23	1.75	
416	213	Carb. Zinc	1 3/4 x 5/8 x 3 1/8	Min. Snap—, +45	— 2.5	1	1.75	2.50	Port. Radio "B" Instr.
417	217	Carb. Zinc	1 3/4 x 5/8 x 3 1/8	Min. Snap—, +67.5	— 4.0	1	2.07	2.95	
420	224	Carb. Zinc	1 3/4 x 5/8 x 3 1/8	Flat Contacts—, +15	— 1.8	1	1.23	1.75	
425P	225	Carb. Zinc	1 3/4 x 5/8 x 3 1/8	Flat Contacts—, +22.5	— 2.5	1	1.37	1.95	
430	—	Carb. Zinc	1 3/4 x 1 1/4 x 3 1/8	Socket—, +22.5	— 3.7	1	1.85	3.35	Instr. Port. Radio "B"
430P	—	Carb. Zinc	1 3/4 x 1 1/4 x 3 1/8	Socket—, +30	— 3.2	1	1.65	2.35	Instr.
433P	—	Carb. Zinc	2 3/8 x 1 1/4 x 3 1/8	Socket—, +33	— 6.0	1	2.27	3.25	
437	212	Carb. Zinc	1 1/4 x 1 1/8 x 6 1/8	Snap Type—, +75	— 14.8	1	3.15	4.50	Port. Radio "B"
B450	—	Nickel Cad.	1.697 Diam. x 0.315	Flat Contacts—, +1.25	— 1.17	1	1.47	2.10	
B450T	—	Nickel Cad.	1.697 Diam. x 0.315	Solder Tabs—, +1.25	— 1.17	1	1.60	2.10	Instr., Hobby, Trans. Appl., M
C450	—	Nickel Cad.	0.563 Diam. x 1.969	Flat Contacts—, +1.25	— 0.8	1	2.10	3.75	
C450T	—	Nickel Cad.	0.563 Diam. x 1.969	Solder Tabs—, +1.25	— 0.8	1	2.10	3.75	
E450	—	Mercury	0.455 Diam. x 0.570	Flat Contacts—, +1.35	— 0.18	4	0.53	0.75	Instr.
E455	—	Carb. Zinc	2 3/8 x 1 x 3 1/4	Snap Type—, +45	— 7.8	1	2.27	3.25	Port. Radio "B"
E455P	—	Carb. Zinc	2 3/8 x 1 1/4 x 3 1/8	Sockets—, +45	— 8.6	1	2.27	3.25	Instr.
E459	203	Carb. Zinc	2 1/8 x 1 1/8 x 2 3/8	Snap Type—, +67.5	— 7.4	1	2.70	3.95	Port. Radio "B"
E460	—	Carb. Zinc	2 1/8 x 1 1/8 x 2 3/8	Flat Contacts—, +45	— 5.3	6	1.57	5.00	Photoflash
E467	200	Carb. Zinc	2 1/8 x 1 1/8 x 3 3/8	Snap Type—, +67.5	— 12.0	1	2.70	3.85	Port. Radio "B"
E468	200C	Carb. Zinc	2 1/8 x 1 1/8 x 3 3/8	Snap Type—, +67.5	— 12.0	1	2.77	3.95	Radio, Electr. Dev.
E477	211	Carb. Zinc	1 3/8 x 5/8 x 5 1/8	Snap Type—, +67.5	— 8.6	1	2.70	3.85	
E479	214	Carb. Zinc	1 3/8 x 1 1/8 x 5 1/8	Snap Type—, +90	— 12.0	1	2.97	4.25	Port. Radio "B"
E482	282	Carb. Zinc	3 3/8 x 1 1/8 x 5 1/8	Socket—, +45	— 15	1	2.97	4.25	
E484	207	Carb. Zinc	3 3/8 x 2 1/8 x 5 1/8	Socket—, +45	— 3	2	3.47	4.95	Fluor. Lantern
E487	—	Carb. Zinc	5 1/8 x 2 1/4 x 7 1/8	Socket—, +22.5, +45	4 2.0	1	3.84	5.50	Farm Radio "B"
E489	—	Carb. Zinc	4 1/8 x 2 1/4 x 4 3/8	Socket—, +225	— 2	12.0	6.96	9.95	Electr. Flash
E490	204	Carb. Zinc	3 3/8 x 1 1/8 x 3 3/8	Snap Type—, +90	— 15.0	1	3.15	4.50	Port. Radio "B"
E491	—	Carb. Zinc	2 1/8 x 1 1/8 x 4 1/8	Flat Recessed & Socket—, +240	— 13.0	1	5.56	7.95	Electr. Flash
E492	—	Carb. Zinc	3 1/8 x 2 3/8 x 4 3/8	Socket—, +180, +225	— 2	8.0	15.56	10.95	
E493	722	Carb. Zinc	2 1/8 x 2 1/8 x 3 3/8	Pinjacks—+300	— 14.5	1	8.37	11.95	Geiger Counter
E495	—	Carb. Zinc	1 1/4 x 1 1/8 x 5 1/8	Snap Type—, +90	— 1	—	3.47	4.95	Port. Radio "B"
E497	—	Carb. Zinc	3 x 1 1/8 x 7 1/8	Flat Recessed—, +180, +510	1 10.0	1	11.16	15.95	Electr. Flash
BH500	—	Nickel Cad.	1.360 Diam. x 0.394	Flat Contacts—, +1.25	— 1.0	1	1.75	2.50	Instr., Hobby, Trans. Appl., M
BH500T	—	Nickel Cad.	1.360 Diam. x 0.416	Solder Tabs—, +1.25	— 1.0	1	1.88	2.70	Trans. Appl.
E502	—	Mercury	0.550 Diam. x 1.968	Flat Contacts—, +1.35	— 1.05	1	0.81	1.15	
E504	220	Carb. Zinc	5/8 x 1 1/8 x 1 3/8	Flat Contacts—, +15	— 0.6	1	0.81	1.15	
E505	221	Carb. Zinc	5/8 x 1 1/8 x 1 3/8	Flat Recessed—, +22.5	— 0.8	1	1.05	1.50	Instr.
E506	223	Carb. Zinc	1 1/4 x 5/8 x 1 3/8	Flat Contacts—, +30	— 0.9	1	1.30	1.85	
E507	—	Carb. Zinc	5/8 x 1 1/8 x 2.605	Flat Contacts—, +30	— 0.9	1	1.30	1.85	
E509	908	Carb. Zinc	2 5/8 x 2 5/8 x 4 1/8	Coil Springs—, +6	1 5.0	1	0.92	1.39	Lantern
E510F	917	Carb. Zinc	2 5/8 x 2 5/8 x 4 1/8	Fahnestock—, +6	1 4.0	1	0.92	1.39	Misc.
E510S	—	Carb. Zinc	2 5/8 x 2 5/8 x 4 1/8	Knurled Nut & Screw—, +6	1 7.0	1	0.92	1.39	
E515	15E	Carb. Zinc	3 3/8 Diam. x 1 1/8	Flat Contacts—, +1.5	— 0.5	24	0.095	0.15	Flashlight, Toys
E520	930	Alkaline	5 1/8 x 4 3/8 x 2 3/8	Ins. Screw—, +6	2 8.0	1	3.31	4.95	Lanterns
E520	—	Mercury	0.495 Diam. x 0.286	Flat Contacts—, +1.4	— 0.07	6	0.17	0.25	Trans. Appl.
E530	1306A	Alkaline	0.662 Diam. x 1.965	Flat Contacts—, +4.5	— 1.17	1	0.82	1.25	Photoflash, Trans. Radio
E531	1307	Alkaline	0.664 Diam. x 2.290	Flat Contacts—, +4.5	— 1.25	1	0.82	1.25	Automatic Camera
E532	1308	Alkaline	0.664 Diam. x 1.670	Snap Type—, +3	— 0.8	1	0.10	1.00	Electr. Dev.
E560	—	Alk. Sec.	2 3/8 x 1 1/8 x 7 3/8	Socket—, +7.5	1 9.0	1	4.33	6.50	
E561	—	Alk. Sec.	8 5/8 x 2 1/4 x 7 3/8	Socket—, +15	— 6	1	10.62	15.95	
E564	—	Alk. Sec.	1 3/4 Diam. x 5 1/8	Flat Contacts—, +4.5	— 15.0	3	2.76	4.15	Micro Television
E564	—	Alk. Sec.	8 5/8 x 2 1/4 x 5 1/8	Socket—, +13.5	— 5	8.0	14.94	14.94	
E596	—	Alk. Sec.	1.375 Diam. x 3.713	Flat Contacts—, +1.5	— 1.22	10	1.20	1.75	
E601	—	Mercury	0.627 Diam. x 1.140	Flat Contacts—, +1.35	— 1.22	1	0.83	1.30	Instr.
E621	—	Carb. Zinc	2 5/8 Diam. x 1.3	Knurled Nut & Screw—, +3	4 10.0	1	3.18	4.75	Fishing Buoy
E625	—	Mercury	0.615 Diam. x 0.238	Flat Contacts—, +1.4	— 0.15	4	0.42	0.60	Trans. Appl.
E625N	—	Mercury	0.615 Diam. x 0.238	Flat Contacts—, +1.35	— 0.15	4	0.53	0.75	Camera Light Meter
EPK-625	—	Mercury	0.615 Diam. x 0.238	Flat Contacts—, +1.4	— 0.15	4	0.51	0.75	
E630	1104	Mercury	0.615 Diam. x 0.238	Flat Contacts—, +1.4	— 0.17	4	0.42	0.60	Trans. Radio
E630N	—	Mercury	0.615 Diam. x 0.238	Flat Contacts—, +1.35	— 0.17	4	0.53	0.75	Instr.
E640	1105	Mercury	0.625 Diam. x 0.440	Flat Contacts—, +1.4	— 0.38	4	0.42	0.60	Trans. Radio
E640N	—	Mercury	0.625 Diam. x 0.440	Flat Contacts—, +1.35	— 0.38	4	0.53	0.75	Instr.
E675	—	Mercury	0.455 Diam. x 0.210	Flat Contacts—, +1.4	— 0.07	6	0.32	0.45	
E702	—	Carb. Zinc	2 1/8 x 5/8 x 3 1/8	Socket—, +4.5	— 5.0	1	3.42	4.95	Shot Firing
E703	—	Carb. Zinc	2 1/8 x 5/8 x 3 1/8	Spring—, +4.5	— 5.0	1	1.36	1.95	Instr.
E706	902	Carb. Zinc	8 3/8 x 2 1/4 x 6 1/8	Ins. Screw—, +6	5 14.0	1	4.01	5.98	Ign., Emerg. Lighting
E707	26	Carb. Zinc	2 5/8 x 2 1/8 x 2 1/8	Snap Type—, +7.5	— 12.0	1	1.15	1.65	Port. Radio "A"
E711	700	Carb. Zinc	2 5/8 x 1 1/8 x 4 1/8	Knurled Nut & Screw—, +1.5	— 12.0	1	0.79	1.15	Model Ign. "Glo-Plug"
E713	8	Carb. Zinc	3 3/8 x 1 1/8 x 2 3/8	Socket—, +7.5	— 12.3	1	2.27	3.25	Port. Radio "A"
E714	—	Carb. Zinc	3 3/8 x 1 1/8 x 2 3/8	Knurled Nut & Screw—, +4.5	— 14	1	2.15	3.25	Tele. Test Set
E715	903	Carb. Zinc	7 1/4 x 4 1/8 x 6 7/8	Ins. Screw—, +7.5	7 10.0	1	4.86	7.25	Ign., Emerg. Lighting
E716	—	Carb. Zinc	8 3/4 x 4 1/8 x 6 7/8	Ins. Screw—, +9	8 8.0	1	5.53	8.25	
E717	9	Carb. Zinc	2 5/8 x 1 1/8 x 3 1/8	Socket—, +7.5	— 8.0	6	1.23	1.75	
E718	1	Carb. Zinc	3 3/8 x 2 1/8 x 5 1/8	Socket—, +1.5	— 2	4.0	2.87	4.10	
E720	18	Carb. Zinc	2 5/8 x 1 1/8 x 3 3/8	Socket—, +6	— 6.5	1	1.15	1.65	Port. Radio "A"
E724	2	Carb. Zinc	1 3/8 x 1 1/8 x 2 1/8	Flat Contacts—, +6	— 2	1	0.81	1.25	
E726	19	Carb. Zinc	4 1/8 x 1 1/8 x 2 1/8	Socket—, +4.5	— 10.5	1	1.23	1.75	
E727	428	Carb. Zinc	8 7/8 x 2 1/4 x 3 3/8	Recessed Plug—"A", +9 "A", —B", +90 "B"	— 2	14.0	5.22	7.45	Port. Radio "A-B"
E729	425	Carb. Zinc	3 3/8 x 2 1/8 x 7 3/8	Socket—"A", +1.5 "A", —B", +90 "B"	2 7.0	1	4.38	6.25	Port. Radio "A-B"
E731	918	Carb. Zinc	5 1/8 x 2 1/8 x 4 1/8	Ins. Screw—, +6	3 4.0	1	1.96	2.95	Lantern
E732	926	Carb. Zinc	5 1/8 x 2 1/8 x 4 1/8	Ins. Screw—, +12	3 4.0	1	1.96	2.95	Lantern
E735	900	Carb. Zinc	2 5/8 x 2 1/8 x 4 3/8	Knurled Nut & Screw—, +1.5	1 7.0	1	0.84	1.25	Model Ign. "Glo-Plug"
E736	3	Carb. Zinc	3 3/8 x 1 1/8 x 4	Socket—, +4.5	— 1	—	1.23	1.75	Port. Radio "A"
E738	205	Carb. Zinc	3 x 2 1/8 x 4 1/8	Socket—, +22.5, +45	1 3.0	1	2.76	3.95	Port. Radio "B"
E740	719	Carb. Zinc	4 3/8 x 3 1/4 x 7 3/8	Socket—, +1.5	6	—	7.65	10.95	Farm Radio "A"

*NEDA number same as an "Eveready" battery number on a different battery. Omitted to prevent errors in shipping.

**Equipped with screw terminals unless Fahnestock spring terminals are specified.

***Equipped with Fahnestock spring terminals unless screw terminals are specified.

*Items differ from corresponding sizes in that they have tabs enabling user to solder leads to battery without damage.

□Flashlight types.

□Furnished with Fahnestock spring terminals. If socket terminals required, specify W-363P, W-364P, W-365P.

†Contains 1 "Eveready" No. 460 battery, and 1 No. 428 lamp.

COMPLETE LINE SPECIFICATIONS

17	Carb. Zinc	3 $\frac{3}{4}$ x 2 $\frac{1}{4}$ x 5 $\frac{3}{4}$	Socket, +1.5	2	10.0	1	2.76	3.95	
4	Carb. Zinc	2 $\frac{3}{4}$ x 2 $\frac{3}{4}$ x 3 $\frac{3}{4}$	Socket, +1.5	1	6.0	1	1.15	1.65	
5	Carb. Zinc	3 $\frac{1}{4}$ x 2 $\frac{3}{4}$ x 4 $\frac{3}{4}$	Socket, +1.5	1	15.0	1	2.69	3.85	Port. Radio "A"
7	Carb. Zinc	3 $\frac{1}{4}$ x 1 $\frac{1}{4}$ x 4 $\frac{3}{4}$	Socket, +6	1	6.0	1	1.15	1.65	
*	Carb. Zinc	1 $\frac{1}{2}$ x 1 $\frac{1}{4}$ x 2 $\frac{3}{4}$	Socket, +4.5	1	3.0	1	1.57	2.25	
—	Nickel Cad.	0.900 Diam. x 1.684	Spring, +3	1	2.0	1	0.79	1.15	Instr.
750	Nickel Cad.	0.900 Diam. x 1.689	Flat Contacts, +1.25	1	1.7	1	2.58	3.60	Instr., Trans. Appl., Misc.
750	Nickel Cad.	0.900 Diam. x 1.689	Solder Tabs, +1.25	1	1.7	1	2.71	3.80	
750	Carb. Zinc	2 x 1 $\frac{1}{4}$ x 2 $\frac{3}{4}$	Spring, +4.5	—	3.0	1	0.87	1.25	Instr.
400	Carb. Zinc	1 $\frac{1}{4}$ x 2 $\frac{1}{4}$ x 4 $\frac{1}{4}$	Recessed Plug, "A", +9 "A", "B", +90 "B"	6	2.0	1	5.78	8.25	
401	Carb. Zinc	9 $\frac{1}{2}$ x 2 $\frac{3}{4}$ x 4 $\frac{1}{4}$	Socket, "A", +7.5 "A", +9 "A", "B", +90 "B"	4	12.0	1	5.43	7.75	
402	Carb. Zinc	10 $\frac{1}{2}$ x 3 $\frac{1}{4}$ x 4	Socket, "A", +7.5 "A", +9 "A", "B", +90 "B"	6	1.0	1	6.97	9.95	Port. Radio "A-B"
403	Carb. Zinc	8 $\frac{1}{4}$ x 3 $\frac{3}{4}$ x 2 $\frac{1}{4}$	Socket, "A", +6 "A", +7.5 "A", "B", +75 "B"	3	9.0	1	5.08	7.25	
405	Carb. Zinc	8 $\frac{1}{4}$ x 2 $\frac{1}{4}$ x 3 $\frac{3}{4}$	Socket, "A", +7.5 "A", +9 "A", "B", +90 "B"	2	14.0	1	4.87	6.95	
406	Carb. Zinc	9 $\frac{1}{2}$ x 2 $\frac{3}{4}$ x 4 $\frac{1}{4}$	Recessed Plug, "A", +9 "A", "B", +90 "B"	4	12.0	1	5.57	7.95	
*	Carb. Zinc	15 $\frac{1}{2}$ x 4 $\frac{1}{2}$ x 6 $\frac{1}{4}$	Socket, "A", +1.5 "A", — "B", +90 "B"	16	4.0	1	7.95	10.65	Farm Radio "A-B"
712	Carb. Zinc	4 $\frac{1}{4}$ x 1 $\frac{1}{2}$ x 3 $\frac{1}{4}$	Knurled Nut & Screw, +1.5, +3, +4.5	—	14.0	1	1.76	2.50	Tele. Test Sets
709	Carb. Zinc	4 $\frac{1}{4}$ x 2 $\frac{1}{4}$ x 5 $\frac{1}{4}$	Knurled Nut & Screw, +22.5, +45	2	12.0	1	3.05	4.35	Instr.
710	Carb. Zinc	3 $\frac{1}{2}$ x 2 $\frac{1}{4}$ x 3 $\frac{1}{4}$	Knurled Nut & Screw, +22.5, Fahnestock, +16.5, +18,	—	14.0	1	1.61	2.35	
*	Carb. Zinc	6 $\frac{1}{2}$ x 4 $\frac{1}{4}$ x 3 $\frac{1}{4}$	+19.5, +21, +22.5	4	10.0	1	5.56	7.95	Switchbld. Testing
*	Carb. Zinc	3 $\frac{3}{4}$ x 1 $\frac{1}{4}$ x 3 $\frac{1}{4}$	Socket, +3, —4.5	—	13.0	1	2.07	2.95	Radio "C"
*	Carb. Zinc	3 $\frac{3}{4}$ x $\frac{1}{2}$ x 3 $\frac{1}{4}$	5 Knurled Nut & Screws, 1 wire+, —1.5, —3, —4.5, —6, —7.5	—	9.0	1	1.75	2.50	
*	Carb. Zinc	7 $\frac{1}{2}$ x 4 $\frac{1}{4}$ x 9 $\frac{1}{4}$	Socket Recessed Plug, "A", +7.5 "A", +9 "A", — "B", +90 "B"	14	12.0	1	11.16	15.95	Home Rec. "A-B"
*	Carb. Zinc	4 $\frac{1}{4}$ x 2 $\frac{1}{2}$ x 3 $\frac{1}{4}$	Fahnestock, —3, —4.5, —6, —9, —10.5, —16.5, —22.5	1	8.0	1	4.16	5.95	Instr.
431	Carb. Zinc	2 $\frac{1}{2}$ x $\frac{1}{4}$ x 3	Knurled Nut & Screw, +4.5	—	5.0	1	1.23	1.75	
—	Carb. Zinc	8 $\frac{1}{4}$ x 3 $\frac{3}{4}$ x 2 $\frac{1}{4}$	Socket, "A", +7.5 "A", "B", +75 "B"	2	12.0	1	6.12	8.75	Port. Radio "A-B"
—	Carb. Zinc	5 $\frac{1}{4}$ x 1 $\frac{1}{4}$ x 3 $\frac{1}{4}$	Flat Contacts, +3	1	1.5	1	2.97	4.25	Fingerprint Camera
24P	Carb. Zinc	8 $\frac{1}{4}$ x 4 $\frac{1}{4}$ x 8 $\frac{1}{4}$	Fahnestock, +22.5, +45, +49.5	13	5.0	1	10.47	14.95	Camera Cranking
15P	Carb. Zinc	1 $\frac{1}{2}$ Diam. x 1 $\frac{1}{2}$	Flat Contacts, +1.5	—	0.3	12	0.13	0.20	
—	Carb. Zinc	1 $\frac{1}{2}$ Diam. x 1 $\frac{1}{2}$	Flat Contacts, +1.5	—	0.6	24	0.16	0.25	
—	Alkaline	0.905 Diam. x 0.228	Flat Contacts, +1.5	—	0.03	2	0.33	0.40	Photoflash
14P	Carb. Zinc	1 $\frac{1}{4}$ Diam. x 1 $\frac{1}{4}$	Flat Contacts, +1.5	—	1.4	24	0.19	0.30	
13P	Carb. Zinc	1 $\frac{1}{4}$ Diam. x 2 $\frac{1}{4}$	Flat Contacts, +1.5	—	3	12	0.19	0.30	
—	Nickel Cad.	$\frac{1}{4}$ Diam. x 3 $\frac{3}{4}$	Solder Tabs, +1.25	—	1.4	1	3.17	4.55	Trans. Appl.
910F	Carb. Zinc	0.455 Diam. x 1.180	Flat Contacts, +1.5	—	0.22	6	0.08	0.125	Novelties
24F	Carb. Zinc	$\frac{1}{2}$ Diam. x 1 $\frac{1}{4}$	Flat Contacts, +1.5	—	0.3	12	0.095	0.15	
15F	Carb. Zinc	$\frac{1}{2}$ Diam. x 1 $\frac{1}{4}$	Flat Contacts, +1.5	—	7.0	24	0.13	0.20	Flashlight, Toys
14F	Carb. Zinc	$\frac{1}{2}$ Diam. x 1 $\frac{1}{4}$	Flat Contacts, +1.5	—	1.4	24	0.13	0.20	
13F	Carb. Zinc	$\frac{1}{2}$ Diam. x 2 $\frac{1}{4}$	Flat Contacts, +1.5	—	3.0	48	0.13	0.20	Port. Radio "A"
23	Carb. Zinc	$\frac{1}{2}$ Diam. x 4 $\frac{1}{4}$	Socket, +1.5	—	5.0	1	0.87	1.25	
20	Carb. Zinc	$\frac{1}{2}$ Diam. x 4	Flat Contacts, +1.5	—	5.9	1	0.42	0.60	Port. Tools
—	Nickel Cad.	6 $\frac{1}{2}$ x 3 $\frac{3}{4}$ x 2 $\frac{1}{4}$	Socket, +10	3	13.0	1	42.00	50.00	Model Ign. "Glo-Plug"
—	Nickel Cad.	2 $\frac{1}{4}$ x 1 $\frac{1}{4}$ x 3 $\frac{1}{4}$	Ins. Screw, +1.25	—	4.0	1	5.30	7.95	
15	Carb. Zinc	$\frac{1}{4}$ Diam. x 1 $\frac{1}{4}$	Flat Contacts, +1.5	—	0.6	24	0.155	0.25	Trans. Radio
14	Carb. Zinc	$\frac{1}{4}$ Diam. x 1 $\frac{1}{4}$	Flat Contacts, +1.5	—	1.4	12	0.19	0.30	
13	Carb. Zinc	$\frac{1}{4}$ Diam. x 2 $\frac{1}{4}$	Flat Contacts, +1.5	—	3.3	48	0.19	0.30	Ind. Flashlights
13C	Carb. Zinc	$\frac{1}{4}$ Diam. x 2 $\frac{1}{4}$	Flat Contacts, +1.5	—	3.3	48	0.19	0.30	Ign., Fence Cont.
907	Carb. Zinc	10 $\frac{1}{4}$ x 7 $\frac{1}{4}$ x 7 $\frac{1}{4}$	Knurled Nut & Screw, +6	9	4.0	1	3.70	5.50	Ign., Lights
922	Carb. Zinc	5 $\frac{1}{4}$ x 5 $\frac{1}{4}$ x 7 $\frac{1}{4}$	Knurled Nut & Screw, +6	9	7.0	1	4.01	5.98	Trans. Radio
907	Carb. Zinc	10 $\frac{1}{4}$ x 7 $\frac{1}{4}$ x 7 $\frac{1}{4}$	Knurled Nut & Screw, +12	7	8.0	1	4.01	5.98	Trans. Radio
*	Carb. Zinc	7 $\frac{1}{2}$ x 4 $\frac{1}{4}$ x 7 $\frac{1}{2}$	Knurled Nut & Screw, +7 $\frac{1}{2}$	11	4.0	1	4.86	7.25	Flasher, Misc.
913	Carb. Zinc	7 $\frac{1}{4}$ x 5 $\frac{1}{2}$ x 7 $\frac{1}{4}$	Knurled Nut & Screw, +9	13	8.0	1	5.53	8.25	Lighting, Misc.
1612	Carb. Zinc	2 $\frac{3}{4}$ x 1 $\frac{1}{2}$ x 6 $\frac{1}{4}$	Snap Type, +9	—	11.0	1	1.64	2.35	Trans. Radio
1601	Carb. Zinc	8 x 2 $\frac{1}{4}$ x 1 $\frac{1}{4}$	Socket, +3, +6, +9	1	8.0	1	1.92	2.75	Flasher, Misc.
1613	Carb. Zinc	1 $\frac{1}{2}$ x $\frac{1}{4}$ x 4 $\frac{1}{4}$	Snap Type, +9	—	2.5	1	1.05	1.50	Rad. Det. Equip.
1403	Carb. Zinc	1 $\frac{1}{2}$ x $\frac{1}{4}$ x 4 $\frac{1}{4}$	Min. Snap, +6	—	3.5	1	1.05	1.50	
1303	Carb. Zinc	2 $\frac{1}{4}$ x 1 $\frac{1}{4}$ x 8 $\frac{1}{4}$	Socket, +4.5	1	9.0	1	2.76	3.95	Trans. Radio
920	Carb. Zinc	2 $\frac{1}{4}$ x 2 $\frac{1}{4}$ x 3 $\frac{3}{4}$	Socket, +6	1	7.0	1	0.85	1.29	Flasher, Misc.
924	Carb. Zinc	2 $\frac{1}{4}$ x 2 $\frac{1}{4}$ x 4 $\frac{3}{4}$	Coil Spring, +6	1	7.0	1	0.85	1.29	Lighting, Misc.
925	Carb. Zinc	2 $\frac{1}{4}$ x 2 $\frac{1}{4}$ x 4 $\frac{3}{4}$	Flat Contacts, +9.8	—	1.0	1	2.06	2.95	Trans. Radio
1608	Carb. Zinc	2 $\frac{3}{4}$ x 1 $\frac{1}{4}$ x 7 $\frac{1}{4}$	Socket, +9	1	3.0	1	2.45	3.50	Flasher, Misc.
1609	Carb. Zinc	2 $\frac{1}{4}$ x 1 $\frac{1}{4}$ x 8 $\frac{1}{4}$	Socket, +9	1	9.0	1	2.76	3.95	Trans. Radio
923	Carb. Zinc	5 $\frac{1}{2}$ x 2 $\frac{3}{4}$ x 4 $\frac{3}{4}$	Socket, +12	3	—	1	2.37	3.40	Flasher, Misc.
2157	Mercury	2 $\frac{1}{4}$ x 1 $\frac{1}{4}$ x 4 $\frac{1}{4}$	Socket, +1.35	—	13.5	1	12.50	17.75	Rad. Det. Equip.
2280	Mercury	$\frac{1}{4}$ Diam. x 1 $\frac{1}{2}$	Tab, —9.45	—	1.0	1	3.15	4.50	Fire Alarm
2351	Mercury	1 $\frac{1}{4}$ Diam. x 2 $\frac{1}{4}$	Flat Contacts, +5.4	—	1.0	1	6.30	9.00	Rad. Det. Equip.
2358	Mercury	$\frac{3}{4}$ Diam. x 2 $\frac{1}{4}$	Wire Leads, +10.8	—	0.87	1	4.10	5.95	Trans. Radio
2362	Mercury	$\frac{3}{4}$ Diam. x 2 $\frac{1}{4}$	Wire Leads, +16.2	—	1.13	1	5.60	8.00	Flasher, Misc.
2435	Mercury	$\frac{1}{4}$ Diam. x 1 $\frac{1}{2}$	Flat Contacts, +6.75	—	0.75	1	3.46	4.95	Trans. Radio
2462	Mercury	2 $\frac{1}{4}$ x 1 $\frac{1}{2}$ x 6 $\frac{1}{4}$	Wire Leads, +97.2	2	1.0	1	40.00	56.00	Transmt. "B"
2465	Mercury	2 $\frac{1}{4}$ x 2 $\frac{1}{4}$ x 3 $\frac{3}{4}$	Wire Leads, +47.25	1	1.0	1	22.50	32.00	Geophys.
2478	Mercury	1 $\frac{1}{2}$ Diam. x 2 $\frac{1}{4}$	Flat Contacts, +9.8	—	9.0	1	6.90	9.80	Wire Recorder
2497	Mercury	1 $\frac{1}{2}$ Diam. x 4 $\frac{1}{4}$	Screw, +6.75	—	6.0	1	8.75	12.50	Test Equip.
2579	Mercury	1 $\frac{1}{2}$ x $\frac{1}{4}$ x 3 $\frac{1}{4}$	Wire Leads, +29.7	—	5.0	1	12.50	18.00	
2580	Mercury	2 $\frac{1}{4}$ x 2 $\frac{1}{4}$ x 3 $\frac{3}{4}$	Sockets, +27.0	2	1.6	1	33.60	48.00	Instr.
2642	Mercury	1 $\frac{1}{2}$ Diam. x 2 $\frac{1}{4}$	Flat Contacts, +7	—	5.0	1	5.20	7.40	Geophys.
2702	Mercury	1 $\frac{1}{4}$ Diam. x 2 $\frac{1}{4}$	Special Leads, +1.35	—	6.14	1	4.80	6.90	Meter
2904	Mercury	1 $\frac{1}{2}$ Diam. x 1 $\frac{1}{2}$	Wire Leads, +2.7	—	2.0	1	3.80	5.40	Test Equip.
2905	Mercury	1 $\frac{1}{2}$ Diam. x 2 $\frac{1}{4}$	Wire Leads, +5.4	—	6.0	1	6.75	9.95	Instr.
2907	Mercury	1 $\frac{1}{2}$ Diam. x 3 $\frac{1}{4}$	Wire Leads, +6.75	—	9.0	1	8.05	11.50	Rad. Det. Equip.
2908	Mercury	1 $\frac{1}{2}$ Diam. x 4 $\frac{1}{4}$	Wire Leads, +9.45	—	11.6	1	10.50	15.00	Geophys.
3145	Mercury	1 $\frac{1}{2}$ Diam. x 5 $\frac{1}{4}$	Wire Leads, +10.8	—	12.0	1	11.50	16.50	Radio Conv. (FM)
3219	Mercury	2 $\frac{1}{4}$ x $\frac{1}{4}$ x 4 $\frac{1}{4}$	Snap Type, +8.4	—	8.2	1	9.95	14.50	Comm. Sys.
3236	Mercury	5 $\frac{1}{2}$ Diam. x 1 $\frac{1}{2}$	Flat Contacts, +9.8	—	1.0	1	2.06	2.95	Paging Sys.
3314	Mercury	2 $\frac{1}{4}$ x 2 $\frac{1}{4}$ x 1 $\frac{1}{2}$	Flat Contacts, +4.2	—	1.28	1	1.26	1.80	Cable Recorder
3394	Mercury	2.81 x 2.85 x 1.320	Recessed Flat Contacts, +16.8	—	13.0	1	10.80	15.40	
—	Mercury	2 $\frac{1}{4}$ x 1 $\frac{1}{4}$ x 2 $\frac{1}{4}$	Snap Type, +11.2	—	14.0	1	10.15	14.50	

A number same as an "Eveready" battery number on a different battery. Omitted to prevent errors in shipping.

These complete line specifications contain the basic data on all "Eveready" batteries in production at the time of preparation. Since the characteristics of individual batteries are sometimes modified, manufacturers who are designing their product to use a particular battery should contact the nearest Union Carbide Consumer Products Division Sales Office for verification of specifications.

PRICES

DISCOUNTS

ORDERING

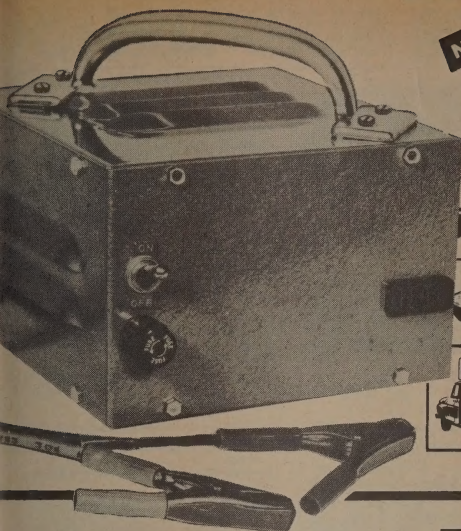
INVENTORY

Prices in this MASTER should not be considered as final. INQUIRE ABOUT LATEST PRICES AND DELIVERY.

Trade discounts apply in most cases where LIST PRICES are shown.

Since previous editions of the MASTER are frequently referred to, it is important, when ordering, to mention specifically the edition and page number, also the catalog number of each item. This will avoid possible confusion and delay.

While most distributors maintain a large and varied stock, they do not represent that they stock all manufacturers' products shown in this MASTER catalog.



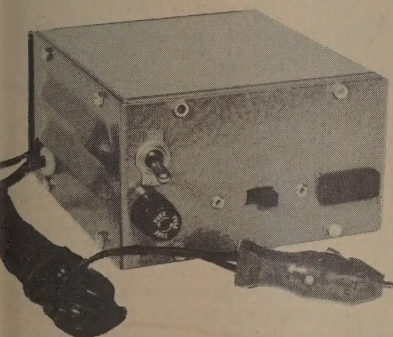
Converts 12 Volts DC from any car or boat battery to 110 Volts AC at Full 185 Watts Continuous Power

INVERTER LEADS EASILY CLIP TO BATTERY TERMINALS

Heavy Duty 185 Watts Continuous Power

Operate TV sets, recorders, CB units, Ham gear, small appliances, radios—hundreds of items. Perfect for home or on the go! This new inverter is ruggedly constructed, compact, complete with carrying handle—the most versatile inverter on the market. Makes it possible to view TV in boat, auto or trailer.

No. 26-910 Portable TV Inverter **NET 39.95**



TRANSISTORIZED COMBINATION BATTERY CHARGER & INVERTER

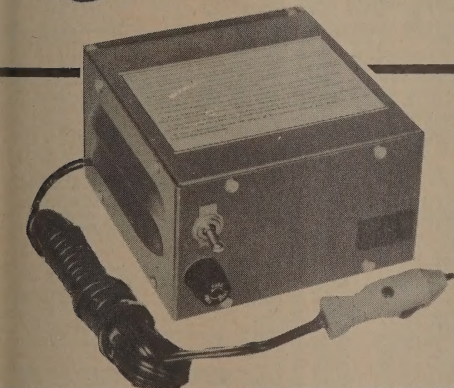
125 Watt Intermittent & 100 Watt Continuous Power Inverter

CHARGES AUTO OR BOAT BATTERY BATTERY CHARGER

Complete with AC and Auto Lighter Plugs

Double duty unit: Plug into standard AC outlet, flip a switch on inverter, and it becomes a battery charger that will overnight charge up to 5 amps. For the boat and auto owner, the inverter plugs into cigarette lighter and converts 12 volts DC to 110 volts AC which will operate small appliances.

No. 26-902 Battery Charger/Inverter.....NET 32.95



TRANSISTORIZED INVERTER

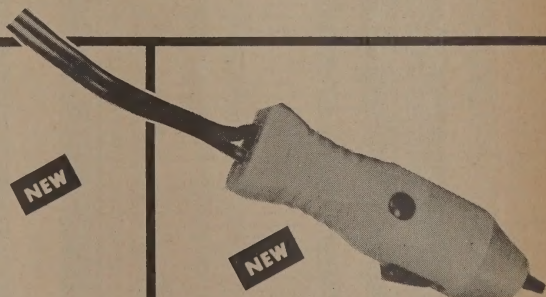
OPERATES ALL SMALL APPLIANCES

Converts 12 Volts AC to 110 Volts AC Automatically!

100 Watts Continuous Duty • 125 Watts Intermittent

plugs into cigarette lighter of any 12 volt vehicle, converts 12 volts DC to 115 Volts AC. Unit features excellent frequency stability . . . is highly efficient. Hundreds of small appliances may be operated from this inverter. Turn knob to twist . . . no adjustment to set.

00 Inverter **NET 29.95**



AUTO LIGHTER ADAPTER PLUG

**For Replacing Broken Plugs or Creating
Electrical Plug-in Auto Accessories
With Solderless (Crimp-Type) Terminals**

Supplied fully assembled; made of hi-heat methylstyrene red plastic. Especially made for trouble lights, transistorized inverters, portable spot lights, etc. The GC auto lighter adaptor plug is made to S.A.E. specifications and fits all makes of Cosco, Cumo, Rochester, Sinko, Santay lighter receptacles, including Rochester "Kool-Kup" model.

No. 1790 Auto Lighter Adapter Plug..... **NET .57**

GATES POWER SUPPLIES

SILICON POWER RECTIFIER



For transistor circuits & electronic equipment
MODEL 692F

INPUT: 115 volts AC 60 cycles, 1 phase
OUTPUT: 32 Volts DC, 0-10 Amperes D.C. continuous duty
REGULATION: No load to full load 15%
RIPPLE: Less than 0.5% RMS
METERS: 2% Accuracy

PRICE: \$169.50 NET

*Also available in 5 Amperes
PRICE: \$114.50 NET

INDUSTRIAL POWER UNITS



MODEL A10

INPUT 115 or 230 AC Volts, 60 cycles—Single Phase.
DC OUTPUT 115 Volts DC 125 Watts

APPLICATION: Power sources for operating DC Motors, Relays, Solenoids, Magnetic Chucks.
DIMENSIONS: 11" H x 9" W x 6 1/2" D

PRICE \$63.00 NET

Higher Wattage Available

SELENIUM POWER SUPPLY

INPUT: 115 Volts AC 60 Cycles—Single Phase

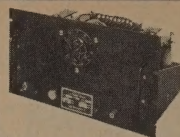
OUTPUT: 0-48 Volts DC, 0-6 Amperes

CONTROL: Continuously variable over entire range

RIPPLE: 1% RMS

DIMENSIONS: 19" W x 13" D x 10 1/4" H, Fits RETMA, Western Electric racks

PRICE: \$190.00 NET



MODEL G48-6FM

SILICON POWER SUPPLY

INPUT: 115 Volts AC, 1 Phase, 60 cycles

OUTPUT: 0-14 Volts DC, 0-15 Amperes, continuous duty

RIPPLE: Less than 1% RMS

METER ACCURACY: 2%

DIMENSIONS: 9" H x 17 1/2" W x 9" D

PRICE: \$159.50 NET



MODEL #6S 14-15F

SILICON RACK MOUNT SUPPLY

INPUT: 115 Volts AC 60 Cycles, Single Phase

OUTPUT: 26, 28, 30 Volts DC 0-10 Amperes Continuous Duty

REGULATION: 10% No Load to Full Load

RIPPLE: Below 0.5% RMS

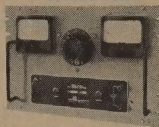
DIMENSIONS: 8 3/4" H x 19" W x 10" D

PRICE: \$137.50 NET



MODEL #GX30-10

AIRCRAFT BATTERY ELIMINATOR



MODEL #G101F

INPUT: 115 Volts AC 60 cycles, single phase

OUTPUT: 0-30 Volts DC, 0-20 Amperes, continuous duty

RIPPLE: 0.5% RMS

Unique overload device prevents needle slam and shows overload condition

REGULATION: D.C.V. at full load: 30 D.C.V. at 1/10 load: 35

METERS: 2% Accuracy

PRICE: \$275.00 NET

May be used for Rack or Bench

ECONOMY RANGE DC POWER SUPPLIES

1% Ripple - Good Regulation - Cabinets - Meters - Heavy Duty

Construction - Powerstat - Fused 1% Meters - 115 Vac Input

MODEL GT 12-5:	Output 0-12V, 5A	\$ 120.
MODEL GT 12-10:	Output 0-12V, 10A	\$ 130.
MODEL GT 12-15:	Output 0-12V, 15A	\$ 145.
MODEL GT 12-25:	Output 0-12V, 25A	\$ 154.
MODEL GT 12-100:	Output 0-12V, 100A	\$ 250.
MODEL GT 14-5:	Output 0-14V, 5A	\$ 120.
MODEL GT 14-15:	Output 0-14V, 15A	\$ 135.
MODEL GT 14-20:	Output 0-14V, 20A	\$ 135.
MODEL GT 14-30:	Output 0-14V, 30A	\$ 276.
MODEL GT 14-40:	Output 0-14V, 40A	\$ 231.
MODEL GT 14-50:	Output 0-14V, 50A	\$ 350.
MODEL GT 14-75:	Output 0-14V, 75A	\$ 375.
MODEL GT 14-100:	Output 0-14V, 100A	\$ 425.
MODEL GT 16-5:	Output 0-16V, 5A	\$ 85.
MODEL GT 16-10:	Output 0-16V, 10A	\$ 90.
MODEL GT 16-25:	Output 0-16V, 25A	\$ 155.
MODEL GT 16-30:	Output 0-16V, 30A	\$ 195.
MODEL GT 16-40:	Output 0-16V, 40A	\$ 260.
MODEL GT 16-50:	Output 0-16V, 50A	\$ 370.
MODEL GT 16-70:	Output 0-16V, 70A	\$ 390.
MODEL GT 16-80:	Output 0-16V, 80A	\$ 405.
MODEL GT 28-5:	Output 0-28V, 5A	\$ 90.
MODEL GT 28-12:	Output 0-28V, 12A	\$ 135.
MODEL GT 28-24:	Output 0-28V, 24A	\$ 255.
MODEL GT 32-5:	Output 0-32V, 5A	\$ 105.
MODEL GT 32-8:	Output 0-32V, 8A	\$ 149.
MODEL GT 32-12:	Output 0-32V, 12A	\$ 185.
MODEL GT 32-15:	Output 0-32V, 15A	\$ 194.
MODEL GT 32-24:	Output 0-32V, 24A	\$ 225.
MODEL GT 32-30:	Output 0-32V, 30A	\$ 325.
MODEL GT 32-50:	Output 0-32V, 50A	\$ 400.
MODEL GT 32-60:	Output 0-32V, 60A	\$ 561.
MODEL GT 48-5:	Output 0-48V, 5A	\$ 138.
MODEL GT 48-10:	Output 0-48V, 10A	\$ 164.
MODEL GT 48-15:	Output 0-48V, 15A	\$ 170.
MODEL GT 48-25:	Output 0-48V, 25A	\$ 250.
MODEL GT 48-35:	Output 0-48V, 35A	\$ 300.
MODEL GT 48-50:	Output 0-48V, 50A	\$ 350.
MODEL GT 48-60:	Output 0-48V, 60A	\$ 425.
MODEL GT 48-80:	Output 0-48V, 80A	\$ 500.
MODEL GT 48-100:	Output 0-48V, 100A	\$ 550.
MODEL GT 80-5:	Output 0-80V, 5A	\$ 220.
MODEL GT 80-10:	Output 0-80V, 10A	\$ 275.
MODEL GT 80-20:	Output 0-80V, 20A	\$ 450.
MODEL GT 115-5:	Output 0-115V, 5A	\$ 240.

PRICES SUBJECT TO CHANGE

MODEL GT 115-10:	Output 0-115V, 10A	\$ 250.
MODEL GT 115-15:	Output 0-115V, 15A	\$ 250.
MODEL GT 115-20:	Output 0-115V, 20A	\$ 250.
MODEL GT 115-25:	Output 0-115V, 25A	\$ 250.
MODEL GT 115-30:	Output 0-115V, 30A	\$ 250.
MODEL GT 115-40:	Output 0-115V, 40A	\$ 250.
MODEL GT 115-50:	Output 0-115V, 50A	\$ 250.
MODEL GT 115-60:	Output 0-115V, 60A	\$ 250.
MODEL GT 115-70:	Output 0-115V, 70A	\$ 250.
MODEL GT 130-2:	Output 0-130V, 2A	\$ 120.
MODEL GT 120-5:	Output 0-120V, 5A	\$ 120.
MODEL GT 130-5:	Output 0-130V, 5A	\$ 120.
MODEL GT 130-10:	Output 0-130V, 10A	\$ 120.
MODEL GT 200-10:	Output 0-220V, 10A	\$ 120.
MODEL GT 80-50:	Output 0-80V, 50A	\$ 120.
MODEL GT 80-100:	Output 0-80V, 100A	\$ 120.

3 PHASE MODEL POWERSTAT METERS

MODEL GP 125-40:	Output 40A, 0-125V	\$ 120.
MODEL GP 125-40:	Output 40A, 0-125V	\$ 120.
MODEL GP 125-125:	Output 125A, 0-125V	\$ 120.
MODEL GP 250-15:	Output 15A, 0-250V	\$ 120.
MODEL GP 250-25:	Output 25A, 0-250V	\$ 120.
MODEL GP 250-40:	Output 40A, 0-250V	\$ 120.
MODEL GP 250-75:	Output 75A, 0-250V	\$ 120.
MODEL GP 500-50:	Output 50A, 0-500V	\$ 120.
MODEL GP 500-10:	Output 10A, 0-500V	\$ 120.
MODEL GP 500-25:	Output 25A, 0-500V	\$ 120.
MODEL GP 500-35:	Output 35A, 0-500V	\$ 120.

LOW-COST BASIC / OEM SUPPLIES

MODEL L6-3-30	6.3VDC @ 30A/1%	\$ 1.00
MODEL L12-12	12VDC @ 12A/Rip. 1mV/.01%	\$ 1.00
MODEL L12-15	12VDC @ 15A/1%	\$ 1.00
MODEL L12-24	12VDC @ 24Amp.	\$ 1.00
MODEL L12-24	12VDC @ 24A/1%	\$ 1.00
MODEL L12-50	12VDC @ 50Amp.	\$ 1.00
MODEL L12-50	12VDC @ 50A/Rip. 1%	\$ 1.00
MODEL L24-30	24VDC @ 30A/Rip. 1%	\$ 1.00
MODEL L28-1	28VDC @ 1A/0.5%	\$ 1.00
MODEL L28-2	28VDC @ 1A/Rip. 10mV/.05%	\$ 1.00
MODEL L28-5	28VDC @ 5Amp.	\$ 1.00
MODEL L28-8	28VDC @ 8Amp. (N.F.)	\$ 1.00
MODEL L28-12	28VDC @ 12Amp.	\$ 1.00
MODEL L28-24	28VDC @ 24Amp. (N.F.)	\$ 1.00
MODEL L28-30	28VDC @ 30Amp.	\$ 1.00
MODEL L28-50	28VDC @ 50Amp. (N.F.)	\$ 1.00
MODEL L28-50	28VDC @ 50Amp. -1% R.	\$ 1.00
MODEL L28-100	28VDC @ 100Amp.	\$ 1.00
MODEL L115-2.5	115VDC @ 2.5A	\$ 1.00
MODEL L115-5	115VDC @ 5A	\$ 1.00
MODEL L115-10	115VDC @ 10A (N.F.)	\$ 1.00
MODEL L115-10	115VDC @ 10A	\$ 1.00
MODEL L220-5	220VDC @ 5A	\$ 1.00
MODEL L220-10	220VDC @ 10A	\$ 1.00
MODEL L440-5	440VDC @ 5A	\$ 1.00

(N.F.) means not filtered

12 VOLT POWER SUPPLIES

MODEL GS 12-1:	Output 1A, 12V	\$ 25.
MODEL GS 12-3:	Output 3A, 12V	\$ 40.
MODEL GS 12-5:	Output 5A, 12V	\$ 65.
MODEL GS 12-10:	Output 10A, 12V	\$ 130.
MODEL GS 12-15:	Output 15A, 12V	\$ 150.
MODEL GS 12-20:	Output 20A, 12V	\$ 170.
MODEL GS 12-25:	Output 25A, 12V	\$ 190.
MODEL GS 12-30:	Output 30A, 12V	\$ 190.

GATES

ELECTRONIC COMPANY, INC.

HIGHEST QUALITY-LOWEST PRICE



SILICON POWER SUPPLY Model GX24-1

INPUT: 115 Volts AC, 60 cycles, 1 phase
OUTPUT: 24 Volts DC, 0-1 ampere DC,
continuous duty
RIPPLE: 0.4% RMS
REGULATION: 10% no load to full load
PRICE: \$50.00
0-2 Amps PRICE: \$55.00



PORTABLE S'IL'CON BATTERY CHARGER Model G612-20

INPUT: 115 volts AC, 60 cycles, 1 phase
OUTPUT: 6/12 Volts DC, 20 amperes
continuous duty
METER: Amp. meter 2% Accuracy
DIMENSIONS: 11"H x 9"W x 6 1/2"D
PRICE: \$57.50

BENCH PLATING RECTIFIER Model G10-8

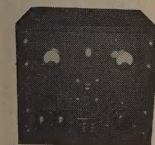
INPUT: 115 Volts, 50-60 cycles, 1 phase
OUTPUT: 10 amperes, 0-8 Volts DC
RECTIFIER: Full wave selenium rectifier
VOLTAGE CONTROL: Powerstat
METERS: 2% Accuracy volt meter, amp. meter
PRICE: \$85.00



BENCH PLATING RECTIFIER Model G30-8

INPUT: 115 Volts, 50-60 cycles, 1 phase
OUTPUT: 30 amperes, 0-8 Volts DC
RECTIFIER: Full wave selenium rectifier
VOLTAGE CONTROL: Powerstat
METERS: 2% Accuracy, volt meter, amp. meter
PRICE: \$115.00

BENCH PLATING RECTIFIER Model G50-8



INPUT: 115 volts, 50-60 cycles,
1 phase
OUTPUT: 50 amperes, 0-8 Volts
DC
RECTIFIER: Full wave selenium
rectifier
VOLTAGE CONTROL: Powerstat
METERS: 2% Accuracy, volt meter,
amp. meter
PRICE: \$175.00

BENCH PLATING RECTIFIER Model G100-8



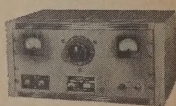
INPUT: 115 Volts, 50-60 cycles,
1 phase
OUTPUT: 100 amperes, 0-8 Volts
DC
RECTIFIER: Full wave selenium
rectifier
VOLTAGE CONTROL: Powerstat
METERS: 2% Accuracy, volt meter,
amp. meter
PRICE: \$275.00

BENCH PLATING RECTIFIER Model G200-6



INPUT: 115 Volts, 50-60 cycles,
1 phase
OUTPUT: 200 amperes, 0-6 Volts
DC
RECTIFIER: Full wave selenium
rectifier
COOLING: Fan
VOLTAGE CONTROL: Powerstat
METERS: 2% Accuracy, volt meter,
amp. meter
PRICE: \$395.00

BENCH PLATING RECTIFIER Model G50-15



INPUT: 115 Volts, 50-60 cycles,
1 phase
OUTPUT: 50 amperes, 0-15 Volts
DC
RECTIFIER: Full wave selenium
rectifier
VOLTAGE CONTROL: Powerstat
METERS: 2% Accuracy, volt meter,
amp. meter
PRICE: \$210.00

ON RECTIFIERS FOR EXITATION OF SYNCHRONOUS RS. HEAVY DUTY, INDUSTRIAL CONSTRUCTION. PROVEN RE.

V 125 DCV	28 DCA	\$ Inquire
V 125 DCV	40 DCA	\$ Inquire
V 125 DCV	56 DCA	\$ Inquire
V 125 DCV	80 DCA	\$ Inquire
V 125 DCV	56 DCA	\$ Inquire
V 125 DCV	168 DCA	\$ Inquire
V 125 DCV	440 DCA	\$ Inquire

CURRENT POWER SUPPLIES†

G 300 Output	300A, 24-30V	\$ Inquire
G 500 Output	500A, 24-30V	\$ Inquire
G 1000 Output	1000A, 24-30V	\$ Inquire

ETIC AMP. REG. UNITS CONTROL

reg. 1%		
DC 40A 115VAC In.		\$ Inquire
DC 50A 220VAC In. 1φ		\$ Inquire
DC 75A 208VAC In. 3φ		\$ Inquire

H MODEL PLATING SUPPLIES

GI 10-6	6V	10A	\$ 62.00
GI 10-6*	6V	10A	\$ 96.00
GI 10-9	9V	10A	\$ 76.00
GI 10-9F	9V	10A	\$ 100.00
GI 10-12	12V	10A	\$ 88.00
GI 10-12F	12V	10A	\$ 112.00
GI 25-6	6V	25A	\$ 96.00
GI 25-6F	6V	25A	\$ 120.00
GI 25-9	9V	25A	\$ 104.00
GI 25-9F	9V	25A	\$ 128.00
GI 25-12	12V	25A	\$ 124.00
GI 25-12F	12V	25A	\$ 152.00
GI 25-18	18V	25A	\$ 156.00
GI 25-18F	18V	25A	\$ 184.00
GI 25-24	24V	25A	\$ 172.00
GI 25-24F	24V	25A	\$ 196.00
GI 35-6	6V	35A	\$ 108.00
GI 35-6F	6V	35A	\$ 140.00
GI 35-9	9V	35A	\$ 120.00
GI 35-9F	9V	35A	\$ 148.00
GI 35-12	12V	35A	\$ 132.00

MODEL GI 35-12F	12V	35A	\$160.00
MODEL GI 35-18	18V	35A	\$164.00
MODEL GI 35-18F	18V	35A	\$192.00
MODEL GI 35-24	24V	35A	\$184.00
MODEL GI 35-24F	24V	35A	\$208.00
MODEL GI 50-6	6V	50A	\$128.00
MODEL GI 50-6F	6V	50A	\$168.00
MODEL GI 50-9	9V	50A	\$132.00
MODEL GI 50-9F	9V	50A	\$176.00
MODEL GI 50-12	12V	50A	\$144.00
MODEL GI 50-12F	12V	50A	\$188.00
MODEL GI 50-18	18V	50A	\$176.00
MODEL GI 50-18F	18V	50A	\$220.00
MODEL GI 75-6	6V	75A	\$156.00
MODEL GI 75-6F	6V	75A	\$204.00
MODEL GI 75-9	9V	75A	\$172.00
MODEL GI 75-9F	9V	75A	\$220.00
MODEL GI 75-12	12V	75A	\$176.00
MODEL GI 75-12F	12V	75A	\$234.00
MODEL GI 75-18	18V	75A	\$236.00
MODEL GI 75-18F	18V	75A	\$284.00
MODEL GI 100-6	6V	100A	\$180.00
MODEL GI 100-6F	6V	100A	\$238.00
MODEL GI 100-9	9V	100A	\$188.00
MODEL GI 100-9F	9V	100A	\$244.00
MODEL GI 100-12	12V	100A	\$302.00
MODEL GI 100-12F	12V	100A	\$302.00
MODEL GI 100-18	18V	100A	\$288.00
MODEL GI 100-18F	18V	100A	\$348.00
MODEL GI 150-6	6V	150A	\$248.00
MODEL GI 150-6F	6V	150A	\$308.00
MODEL GI 150-9	9V	150A	\$280.00
MODEL GI 150-9F	9V	150A	\$340.00
MODEL GI 150-12	12V	150A	\$296.00
MODEL GI 150-12F	12V	150A	\$356.00
MODEL GI 200-9	9V	200A	\$292.00
MODEL GI 200-9F	9V	200A	\$352.00
MODEL GI 200-12	12V	200A	\$316.00
MODEL GI 200-12F	12V	200A	\$372.00

* FILTERED (F)

PRICES SUBJECT TO CHANGE

TECHNICIAN SPECIALS

MODEL G28-2	28V	2A	1% R	\$37.50
MODEL G48-3	48V	3A	1% R	\$39.50
MODEL G115-1	115V	1A	1% R	\$49.50

ALL TYPES OF POWER SUPPLIES

SILICON POWER RECTIFIER

Model G50-50R

INPUT: 220 Volts AC, 60 cycles, 3 phase

OUTPUT: 0-50 volts DC, 0-50 amperes continuous duty

RIPPLE: 0.5% RMS

REGULATION: No Load to Full Load 8%

METERS: 2% Accuracy



SILICON INDUSTRIAL POWER UNIT

Model G30-100

INPUT: 220 Volts AC, 60 cycles, 3 phase

OUTPUT: 0-30 Volts DC, 0-100 amperes continuous duty

RIPPLE: .5% RMS

REGULATION: 5-8% 1/10th load to full load with constant input and at maximum output voltage setting

METERS: 2% Accuracy

SILICON AIRCRAFT BATTERY ELIMINATOR

Model G30-200



INPUT: 220 Volts AC, 60 cycles, 3 phase

OUTPUT: 0-30 Volts DC, 0-200 amperes continuous duty also avail. 300A

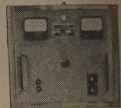
RIPPLE: 1% RMS

REGULATION: 5-8% 1/10th load to full load with constant input and maximum output voltage setting

METERS: 2% Accuracy

SILICON REGULATED POWER SUPPLY

Model G530-40M



INPUT: 115 Volts AC, 60 cycles, 1 phase

OUTPUT: 5-30 Volts DC, 0-40 amperes

RIPPLE: 1% RMS

REGULATION: $\pm 1\%$ from no load to full load

METERS: 2% Accuracy

SELENIUM POWER SUPPLY



MODEL GX 30-5

INPUT: 115 Volts AC 60 cycles, single phase

OUTPUT: 30 Volts DC, 0-5 Amperes, DC Continuous Duty

REGULATION: 12% No Load to Full Load

RIPPLE: Below 1% RMS

DIMENSIONS: 5" W x 13 1/2" L x

Overall Height 10"

PRICE: \$85.00 NET

SILICON GENERAL PURPOSE RECTIFIER



MODEL G-115

INPUT: 115 Volts AC 60 cycles, 1 Phase

OUTPUT: 0-32 Volts DC, 0-50 Amperes DC, Continuous duty variable over entire range

RIPPLE: 1% RMS

DIMENSIONS: 22"H x 19"W x 15"D

PRICE: \$522.00 NET

DC POWER SUPPLY



MODEL G94F

INPUT: 115 Volts AC 60 cycles, 1 Phase DC

OUTPUT: 0-300 Volts DC Continuous Variable 0-1 Amperes.

RIPPLE: 3 MV RMS

DIMENSIONS: Rack 8 3/4" H x 19" L x 9 1/2" D

CABINET: 10 1/2"H x 22"L x 12"D

PRICE: \$275.00

Also 0-2 Amp. PRICE: \$340.00

SILICON POWER SUPPLY



MODEL GX30-20

INPUT: 115 Volts, 1 Phase, cycles

OUTPUT: 0-34, Volts, DC 0-20 Amperes, continuous duty

REGULATION: No load to full load 18%

RIPPLE: Below 1%

Silicon Rectifiers, High Efficiency

DIMENSIONS: 10" x 17" x 3"

PRICE: \$185.00 NET

3 PHASE — BENCH MODEL PLATING SUPPLIES

MODEL GL 6-50	6V	50A	\$204.00
MODEL GL 9-50	9V	50A	\$212.00
MODEL GL 12-50	12V	50A	\$220.00
MODEL GL 18-50	18V	50A	\$236.00
MODEL GL 6-75	6V	75A	\$256.00
MODEL GL 9-75	9V	75A	\$264.00
MODEL GL 12-75	12V	75A	\$276.00
MODEL GL 18-75	18V	75A	\$292.00
MODEL GL 6-100	6V	100A	\$268.00
MODEL GL 9-100	9V	100A	\$284.00
MODEL GL 12-100	12V	100A	\$300.00
MODEL GL 18-100	18V	100A	\$316.00
MODEL GL 6-150	6V	150A	\$300.00
MODEL GL 9-150	9V	150A	\$328.00
MODEL GL 12-150	12V	150A	\$352.00
MODEL GL 18-150	18V	150A	\$372.00
MODEL GL 6-200	6V	200A	\$330.00
MODEL GL 9-200	9V	200A	\$352.00
MODEL GL 12-200	12V	200A	\$372.00
MODEL GL 6-250	6V	250A	\$372.00
MODEL GL 9-250	9V	250A	\$396.00
MODEL GL 12-250	12V	250A	\$460.00

24 VOLT POWER SUPPLIES

MODEL G 24-6R	24VDC	6A	\$ 95.00
MODEL G 24-15R	24VDC	15A	\$105.00
MODEL G 24-25R	24VDC	25A	\$125.00
MODEL G 24-50R	24VDC	50A	\$210.00

GR LINE REGULATED POWER SUPPLIES

Meters & Regulation 1% Ripples Less Than 1%

MODEL GR 12-5	0-12V	5A	Inquire
MODEL GR 12-10	0-12V	10A	Inquire

PRICES SUBJECT TO CHANGE

MODEL GR 12-20	0-12V	20A	Inquire
MODEL GR 12-30	0-12V	30A	\$185.00
MODEL GR 16-5	0-16V	5A	\$ 50.00
MODEL GR 16-10	0-16V	10A	\$ 70.00
MODEL GR 8-10	0-8V	10A	\$ 50.00
MODEL GR 24-100	0-24V	100MA	\$ 20.00
MODEL GR 25-200	0-25V	200MA	\$ 70.00
MODEL GR 28-5	0-28V	5A	\$ 80.00
MODEL GR 14-5	0-14V	5A	\$ 113.00
MODEL GR 32-4	0-32V	4A	\$ 130.00
MODEL GR 16-8	0-16V	8A	\$ 122.00
MODEL GR 32-15	0-32V	15A	\$221.00
MODEL GR 55-10	0-55V	10A	\$21.00
MODEL GR 125-5	0-125V	5A	\$21.00
MODEL GR 125-10	0-125V	10A	\$47.00

INDUSTRIAL POWER UNITS — SINGLE PHASE

MODEL GK 115-125A	Output 115V	125W	Input 115V	\$ 60.00
MODEL GK 115-125B	Output 115V	125W	Input 230V	\$ 60.00
MODEL GK 115-125C	Output 115V	125W	Input 440V	\$ 60.00
MODEL GK 115-250A	Output 115V	250W	Input 115V	\$ 70.00
MODEL GK 115-250B	Output 115V	250W	Input 230V	\$ 70.00
MODEL GK 115-250C	Output 115V	250W	Input 440V	\$ 70.00
MODEL GK 115-375A	Output 115V	375W	Input 115V	\$ 80.00
MODEL GK 115-375B	Output 115V	375W	Input 230V	\$ 80.00
MODEL GK 115-375C	Output 115V	375W	Input 440V	\$ 80.00
MODEL GK 115-500A	Output 115V	500W	Input 115V	\$100.00
MODEL GK 115-500B	Output 115V	500W	Input 230V	\$100.00
MODEL GK 115-500C	Output 115V	500W	Input 440V	\$100.00
MODEL GK 115-750A	Output 115V	750W	Input 115V	\$130.00
MODEL GK 115-750B	Output 115V	750W	Input 230V	\$130.00
MODEL GK 115-750C	Output 115V	750W	Input 440V	\$130.00
MODEL GK 115-1000A	Output 115V	1000W	Input 115V	\$150.00
MODEL GK 115-1000B	Output 115V	1000W	Input 230V	\$150.00
MODEL GK 115-1000C	Output 115V	1000W	Input 440V	\$150.00
MODEL GK 230-125A	Output 230V	125W	Input 115V	\$ 60.00
MODEL GK 230-125B	Output 230V	125W	Input 230V	\$ 60.00
MODEL GK 230-125C	Output 230V	125W	Input 440V	\$ 60.00
MODEL GK 230-250A	Output 230V	250W	Input 115V	\$ 70.00
MODEL GK 230-250B	Output 230V	250W	Input 230V	\$ 70.00
MODEL GK 230-250C	Output 230V	250W	Input 440V	\$ 70.00
MODEL GK 230-375A	Output 230V	375W	Input 115V	\$110.00
MODEL GK 230-375B	Output 230V	375W	Input 230V	\$110.00
MODEL GK 230-375C	Output 230V	375W	Input 440V	\$110.00
MODEL GK 230-500A	Output 230V	500W	Input 115V	\$110.00
MODEL GK 230-500B	Output 230V	500W	Input 230V	\$110.00
MODEL GK 230-500C	Output 230V	500W	Input 440V	\$110.00
MODEL GK 230-750A	Output 230V	750W	Input 115V	\$170.00
MODEL GK 230-750B	Output 230V	750W	Input 230V	\$170.00
MODEL GK 230-750C	Output 230V	750W	Input 440V	\$170.00
MODEL GK 230-1000A	Output 230V	1000W	Input 115V	\$180.00
MODEL GK 230-1000B	Output 230V	1000W	Input 230V	\$180.00
MODEL GK 230-1000C	Output 230V	1000W	Input 440V	\$180.00

GATES
ELECTRONIC COMPANY, INC.

VOLTAGE DC POWER SUPPLIES

Ripple. Good Regulation - Cabinets - Meters Heavy Duty
 Input - Powerstat - Fused 1% Meters - 115 Vac Input -
 Duty Line Cord.

GP 32-5	Input 115V, 60c,	1ph. Output 0-32V	@ 5A	.....	Inquire
GP 32-10	Input 115V, 60c,	1ph. Output 0-32V	@ 10A	.....	Inquire
GP 32-20	Input 115V, 60c,	1ph. Output 0-32V	@ 20A	.....	Inquire
GP 32-40	Input 115V, 60c,	1ph. Output 0-32V	@ 40A	.....	Inquire
GP 32-100	Input 220V, 60c,	3ph. Output 0-32V	@ 100A	.....	Inquire
GP 32-150	Input 220V, 60c,	3ph. Output 0-32V	@ 150A	.....	Inquire
GP 60-6	Input 115V, 60c,	1ph. Output 0-60V	@ 6A	.....	Inquire
GP 60-10	Input 115V, 60c,	1ph. Output 0-60V	@ 10A	.....	Inquire
GP 60-12	Input 115V, 60c,	1ph. Output 0-60V	@ 12V	.....	Inquire
GP 60-20	Input 115V, 60c,	1ph. Output 0-60V	@ 20A	.....	Inquire
GP 60-50	Input 220V, 60c,	3ph. Output 0-60V	@ 50A	.....	Inquire
GP 60-80	Input 220V, 60c,	3ph. Output 0-60V	@ 80A	.....	Inquire
GP 60-250	Input 220V, 60c,	3ph. Output 0-60V	@ 250A	.....	Inquire
GP 125-2.5	Input 117V, 60c,	1ph. Output 0-125V	@ 2.5A	.....	Inquire
GP 125-3	Input 117V, 60c,	1ph. Output 0-125V	@ 3A	.....	Inquire
GP 125-5	Input 117V, 60c,	1ph. Output 0-125V	@ 5A	.....	Inquire
GP 125-10	Input 117V, 60c,	1ph. Output 0-125V	@ 10A	.....	Inquire
GP 125-20	Input 117V, 60c,	1ph. Output 0-125V	@ 20A	.....	Inquire
GP 125-24	Input 220V, 60c,	3ph. Output 0-125V	@ 24A	.....	Inquire
GP 125-40	Input 220V, 60c,	3ph. Output 0-125V	@ 40A	.....	Inquire
GP 125-80	Input 220V, 60c,	3ph. Output 0-125V	@ 80A	.....	Inquire
GP 125-120	Input 220V, 60c,	3ph. Output 0-125V	@ 120A	.....	Inquire

MODEL GP 250-5	Input 117V, 60c,	1ph. Output 0-250V	@ 5A	.....	Inquire
MODEL GP 250-10	Input 117V, 60c,	1ph. Output 0-250V	@ 10A	.....	Inquire
MODEL GP 250-12	Input 220V, 60c,	3ph. Output 0-250V	@ 12A	.....	Inquire
MODEL GP 250-20	Input 220V, 60c,	3ph. Output 0-250V	@ 20A	.....	Inquire
MODEL GP 250-40	Input 220V, 60c,	3ph. Output 0-250V	@ 40A	.....	Inquire
MODEL GP 250-60	Input 220V, 60c,	3ph. Output 0-250V	@ 60A	.....	Inquire
MODEL GP 300-1	Input 220V, 60c,	3ph. Output 0-250V	@ 1A	.....	275.
MODEL GP 300-1.5	Input 220V, 60c,	3ph. Output 0-250V	@ 1.5A	.....	310.
MODEL GP 300-2	Input 220V, 60c,	3ph. Output 0-250V	@ 2A	.....	350.
MODEL GP 300-3	Input 220V, 60c,	3ph. Output 0-250V	@ 3A	.....	450.
MODEL GP 300-5	Input 220V, 60c,	3ph. Output 0-250V	@ 5A	.....	645.
MODEL GP 500-1	Input 220V, 60c,	3ph. Output 0-500V	@ 1A	.....	305.
MODEL GP 500-1.5	Input 220V, 60c,	3ph. Output 0-500V	@ 1.5A	.....	360.
MODEL GP 500-2	Input 220V, 60c,	3ph. Output 0-500V	@ 2A	.....	425.
MODEL GP 500-3	Input 220V, 60c,	3ph. Output 0-500V	@ 3A	.....	525.
MODEL GP 500-5	Input 220V, 60c,	3ph. Output 0-500V	@ 5A	.....	725.
MODEL GP 500-10	Input 220V, 60c,	3ph. Output 0-500V	@ 10A	.....	Inquire
MODEL GP 500-20	Input 220V, 60c,	3ph. Output 0-500V	@ 20A	.....	Inquire
MODEL GP 500-30	Input 220V, 60c,	3ph. Output 0-500V	@ 30A	.....	Inquire

GATES ELECTRONIC CO., INC.

LICON RECTIFIERS

FULL WAVE BRIDGE

Type	AC Input Volts up to	Volts up to DC Output	Max. Amps Self Cooled	Max. Amps Fan Cooled	User Net Price
Bridge	140	125	1	—	\$ 5.50
Bridge	280	250	1	—	\$ 5.75
Bridge	140	125	2	—	\$ 8.50
Bridge	280	250	2	—	\$ 10.50
Bridge	36	32	6	12	\$ 15.50
Bridge	140	125	6	12	\$ 27.50
Bridge	280	250	6	12	\$ 36.50
Bridge	36	32	10	20	\$ 20.50
Bridge	140	125	10	20	\$ 35.50
Bridge	280	250	10	20	\$ 43.50
Bridge	36	32	20	40	\$ 23.50
Bridge	140	125	20	40	\$ 39.50
Bridge	280	250	20	40	\$ 47.50
Bridge	36	32	50	100	\$ 30.00
Bridge	72	64	50	100	\$ 34.00
Bridge	140	125	50	100	\$ 64.00
Bridge	280	250	50	100	\$ 95.00
Bridge	36	32	70	140	\$ 35.00
Bridge	72	64	70	140	\$ 45.00
Bridge	140	125	70	140	\$ 70.00
Bridge	280	250	70	140	\$ 110.00

Type	AC Input Volts up to	Volts up to DC Output	Max. Amps Self Cooled	Max. Amps Fan Cooled	User Net Price
1φ Bridge	36	32	40	80	\$ 28.00
1φ Bridge	72	64	40	80	\$ 33.00
1φ Bridge	140	125	40	80	\$ 58.00
1φ Bridge	280	250	40	80	\$ 85.00
1φ Bridge	36	32	100	200	\$ 55.00
1φ Bridge	72	64	100	200	\$ 61.00
1φ Bridge	140	125	100	200	\$ 80.00
1φ Bridge	280	250	100	200	\$ 135.00
1φ Bridge	36	32	200	400	\$ 95.00
1φ Bridge	72	64	200	400	\$ 105.00
1φ Bridge	140	125	200	400	\$ 160.00
1φ Bridge	280	250	200	400	\$ 240.00
1φ Bridge	72	64	400	800	\$ 250.00
1φ Bridge	28	25	400	800	\$ 545.00
1φ Bridge	36	48	75	150	\$ 55.00
1φ Bridge	72	96	95	150	\$ 80.00
1φ Bridge	105	144	75	150	\$ 110.00
1φ Bridge	140	188	75	150	\$ 165.00
1φ Bridge	220	220	75	150	\$ 205.00
1φ Bridge	220	220	100	200	\$ 225.00
1φ Bridge	220	220	200	400	\$ 270.00
1φ Bridge	220	220	400	800	\$ 340.00

SELENIUM RECTIFIERS

FULL WAVE, HIGH DENSITY, SMALL SIZE

Max. Amps.	18V In 14V Out	36V In 28V Out	54V In 42V Out	130V In 100V Out
1/2	\$.75	\$ 1.15	\$ 2.05	\$ 3.45
1	.85	1.75	2.75	7.25
2	1.75	2.35	3.75	8.75
3	2.25	3.45	5.25	12.75
4	3.15	5.75	8.25	21.75
6	3.65	7.30	9.75	29.00
10	5.85	11.45	14.75	36.00

Max. Amps.	18V In 14V Out	36V In 28V Out	54V In 42V Out	130V In 100V Out
12	\$ 7.75	\$ 14.00	\$ 19.00	\$ 40.00
15	8.00	17.00	23.00	51.00
20	11.00	20.00	33.00	66.00
24	14.00	28.00	39.00	73.00
30	18.00	35.00	50.00	—
36	19.00	43.00	—	—

ALYTRIC CAPACITORS

MFD.	WVDC	PRICE	MFD.	WVDC	PRICE	MFD.	WVDC	PRICE
2,000	40	\$ 3.75	2,000	100	\$ 12.90	750	300	\$ 16.75
4,000	40	4.68	4,000	100	15.50	1,000	300	17.75
12,000	50	10.44	1,000	200	14.25	250	350	13.25
1,000	75	\$ 9.80	2,000	200	\$ 18.75	500	350	\$ 14.75
2,000	75	10.50	250	300	12.25	1,000	500	19.00
7,000	75	16.25	500	300	14.75			

* Primary 115 vac 60C, tapped to deliver 36, 38 and 40 vac. ** Provide two 18V secondary windings.
 (taps 9, 18, 27, 36 V.) Primary tapped for 100, 105, 110, and 115 V on 12, 24, 30, and 50 amp models.
 *** Center tapped secondary.

TRANSFORMERS

36, 38 and 40 VOLTS*			36V. CENTER TAPPED**			56V. CENTER TAPPED***		
Model No.	Amps	Price	Model No.	Amps	Price	Model No.	Amps	Price
GT 36-2	2	6.00	XF 36-1	1	4.75	AM 56-2	2	7.50
GT 36-5	5	7.60	XF 36-2	2	6.45	AH 56-4	4	11.50
GT 36-8	8	13.00	XF 36-4	4	7.75	AH 56-6	6	21.50
GT 36-10	10	14.75	XF 36-8	8	14.10	AH 56-12	12	29.00
GT 36-12	12	15.00	XF 36-12	12	15.50	SEC 165, 160, 150, 125V	@ 5A	\$ 50.
GT 36-15	15	21.50	XF 36-24	24	34.05	SEC 165, 160, 150, 125V	@ 10A	\$ 80.
GT 36-20	20	28.50	XF 36-30	30	42.50	SEC 330, 320, 300, 250V	@ 5A	\$ 70.
GT 36-30	30	41.00	XF 36-50	50	56.75	SEC 330, 320, 300, 250V	@ 10A	\$ 115.
GT 36-50	50	55.00						

FUSES

No.	Amps	Hy	Ohms	Price	Model No.	Amps	Hy	Ohms	Price	Model No.	Amps	Hy	Ohms	Price
1	1	.1	1.5	4.75	GH-10	10	.015	.05	12.50	GH-24	24	.004	.025	25.00
2	2	.04	.9	5.50	GH-12	12	.01	.1	14.20	GH-30	30	.003	.01	35.00
4	4	.07	.6	6.45	GH-15	15	.006	.01	14.75	GH-50	50	.001	.001	43.00
5	5	.03	.02	6.60	GH-20	20	.004	.05	15.00	GH-100	100	.0005	.005	53.00
8	8	.03	.3	11.00										



AC VOLTAGE STABILIZERS

For Electronic and Electric Equipment

General Electric a-c voltage stabilizers are static-magnetic transformer-type products which provide voltage maintained within $\pm 1\%$ variation while input line voltage fluctuates $\pm 15\%$. They are offered in the following variations:

Unfiltered output: output voltage waveform is relatively flat-topped, with harmonic content from 15 to 20%.

Harmonic filtered output: output voltage is filtered to near sinusoidal waveshape, with a maximum of 3% harmonic content.

Enclosed construction: completely metal enclosed for safe external mounting.

Open construction: for installation within electronic or electric equipment.

SINGLE PHASE—Magnetic-capacitor circuitry is frequency sensitive. Stabilizers designed for one frequency are not suitable for use on another.

THREE PHASE—Standard single-phase a-c voltage stabilizers can be connected for 3-phase, 4-wire loads with input connected delta. However, single-phase models cannot be connected for 3-phase, 3-wire loads: select from 3-phase delta-delta models.

Single Phase

Volt-amp Output Capacity	Input Voltage Range	Stabilized Output Voltage	Unfiltered Output		Harmonic Filtered Output	
			Model Number	List Price	Model Number	List Price
ENCLOSED — FOR 60 CYCLES						
15	95-130	118	9T91Y4070	\$14.70		
30	95-130	118	9T91Y4090	16.80		
60	95-130	118	9T91Y4110	22.10		
120	95-130	118	9T91Y4130	30.50		
250	95-130	118	9T91Y4140	50.90	9T91Y7140	\$52.50
250	190-260	118	9T91Y4142	50.90		
250	190-260/380-520	118/236	9T91Y4144	56.50		
250	380-520	118	9T91Y4145	50.90		
500	95-130	118	9T91Y4150	79.80	9T91Y7150	82.40
500	190-260	118	9T91Y4152	79.80		
500	380-520	118	9T91Y4155	79.80		
1000	95-130	118	9T91Y4170	122.00	9T91Y7170	126.00
1000	95-130X175-235X190-260	118/236			9T91Y7173	126.00
1000	190-260	118	9T91Y4172	122.00	9T91Y7172	142.00
1000	190-260/380-520	118/236			9T91Y7174	140.00
1000	380-520	118	9T91Y4175	122.00		
2000	95-130X175-235X190-260	118/236	9T91Y4183	246.00	9T91Y7183	257.00
2000	190-260/380-520	118/236	9T91Y4184	242.00	9T91Y7184	253.00
2000	380-520	236/472	9T91Y4186	235.00		
3000	95-130X175-235X190-260	118/236	9T91Y4193	330.00	9T91Y7193	347.00
3000	190-260/380-520	118/236	9T91Y4194	323.00		
3000	380-520	236/472	9T91Y4196	315.00		
5000	190-260/380-520	118/236	9T91Y4204	498.00	9T91Y7204	536.00
5000	95-130X175-235X190-260	118/236	9T91Y4203	506.00	9T91Y7203	525.00
5000	380-520	236/472	9T91Y4206	483.00		
7500	95-130X175-235X190-260	118/236	9T91Y4213	754.00		
7500	190-260/380-520	118/236	9T91Y4214	740.00	9T91Y7214	816.50
10000	95-130X175-235X190-260	118/236	9T91Y4224	965.00	9T91Y7224	1082.00
10000	190-260/380-520	118/236		965.00	9T91Y7224	1061.00
10000	190-260/380-520	118/236	9T91Y4244	1418.00	9T91Y7244	1565.00

OPEN — FOR 60 CYCLES

15	95-130	118	9T91Y5070	\$13.90	.....	.....
30	95-130	118	9T91Y5090	15.80	.....	.....
60	95-130	118	9T91Y5110	20.70	.....	.....
120	95-130	118	9T91Y5130	28.60	.....	.....
250	95-130	118	9T91Y5140	47.90	9T91Y8140	\$49.40
250	190-260	118	9T91Y5142	47.90	.....	.....
500	95-130	118	9T91Y5150	75.10	9T91Y8150	77.50
500	190-260	118	9T91Y5152	75.10	.....	.....
750	95-130	118	9T91Y5160	94.80	9T91Y8160	97.70
1000	95-130	118	9T91Y5170	115.00	9T91Y8170	118.00
1000	190-260	118	9T91Y5172	115.00	9T91Y8172	118.00
1500	95-130	118	9T91Y5010	159.00	9T91Y8010	167.00
2000	95-130X175-235X190-260	118/236	9T91Y5183	230.00	9T91Y8183	242.00

ENCLOSED — FOR 50 CYCLES

250	95-130	118	9T91Y4147	\$58.60	9T91Y7147	\$60.40
250	95-130X175-235X190-260	118/236	9T91Y4148	66.30	9T91Y7148	68.30
250	95-130X175-235X190-260	118/236	9T91Y4158	104.00	9T91Y7158	107.00
500	190-260/380-520	118/236	9T91Y4159	102.00	9T91Y7159	105.00
1000	95-130X175-235X190-260	118/236	9T91Y4178	159.00	9T91Y7178	164.00
2000	95-130X175-235X190-260	118/236	9T91Y4188	283.00	9T91Y7188	296.00
3000	95-130X175-235X190-260	118/236	9T91Y4198	380.00	9T91Y7198	398.00
5000	95-130X175-235X190-260	118/236	9T91Y4208	583.00	9T91Y7208	612.00
7500	95-130X175-235X190-260	118/236	9T91Y4218	866.00	9T91Y7218	952.00
7500	190-260/380-520	118/236	9T91Y4219	851.00	9T91Y7219	937.00

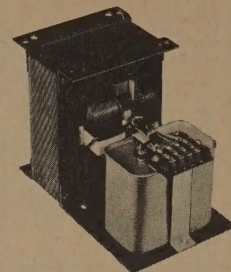
* Can be used with adapter kit for quick conversion to a cord and receptacle unit.

3 Phase Delta Delta

Freq.	VA	Input Voltage Range	Stabilized Output Voltage*	Model Number	List Price
ENCLOSED					
60	6000†	190 to 260/380 to 520 delta	230/236 delta	9T91Y3506	\$1066
60	10000†	190 to 260 delta	236 delta	9T91Y3501G2	1537
50	10000†	190 to 260 delta	236 delta	9T91Y3510	1680

* Maximum harmonic content — 5%.

† Minimum recommended load — 20% of rated.



Open — small ratings



Enclosed — small ratings

Cord/Receptacle Units

Integral single-phase units with a 2-prong cord set and female receptacle in the case.

Volt-amp Output Capacity	Input Voltage Range	Stabilized Output Voltage	Model Number	List Price
ENCLOSED — UNFILTERED OUTPUT — FOR 60 CYCLES				
15	95-130	118	9T91Y4070G19	\$16.80
30	95-130	118	9T91Y4090G19	18.90
60	95-130	118	9T91Y4110G19	24.20
120	95-130	118	9T91Y4130G19	32.50

Adapter kits are available for use with 250 and volt-amp stabilizers to provide quick conversion to cord and receptacle unit.

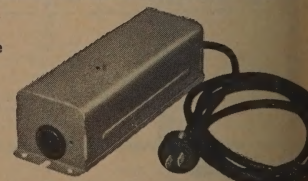
For Use With Stabilizer Model Number	Order Adapter Kit Model Number		List Price
	2-prong	3-prong	
9T91Y4140	9T91Y4140G55	9T91Y4140G75	2-prong Kits \$2.10
9T91Y4142	9T91Y4140G55	9T91Y4140G75	
9T91Y4144	9T91Y4140G55	9T91Y4140G75	
9T91Y4145	9T91Y4140G55	9T91Y4140G75	
9T91Y4147	9T91Y4140G55	9T91Y4140G75	
9T91Y4148	9T91Y4140G55	9T91Y4140G75	3-prong Kits \$2.60
9T91Y4150	9T91Y4140G55	9T91Y4140G75	
9T91Y4152	9T91Y4140G55	9T91Y4140G75	
9T91Y4155	9T91Y4140G55	9T91Y4140G75	
9T91Y7140	9T91Y7140G55	9T91Y7140G75	
9T91Y7150	9T91Y7150G55	9T91Y7150G75	3-prong Kits \$2.60
9T91Y7147	9T91Y7147G55	9T91Y7147G75	
9T91Y7148	9T91Y7147G55	9T91Y7147G75	

Filament Ratings—Single Phase—60 Cycles

For stabilized power for 6-volt nominal filaments, the stabilizers are suitable for operation with other 6-volt loads of rated or lower output current requirements. Current-limiting characteristic protects cold filament from high current surges.

Volt-amp Output Capacity	Input Voltage Range	Output		Model Number	List Price
		Volts	Amps		
ENCLOSED					
15	95-130	6	2.5	9T91Y366	\$14.00
15	95-130	6.3	2.4	9T91Y368	14.00
OPEN					
15	95-130	6	2.5	9T91Y365	13.00
15	95-130	6.3	2.4	9T91Y367	13.00
31.5	95-130/190-260	6.3	5.0	9T91Y369	15.00
63	95-130/190-260	6.3	10.0	9T91Y370	20.00
94.5	95-130/190-260	6.3	15.0	9T91Y371	23.00
157.5	95-130/190-260	6.3	25.0	9T91Y372	34.00

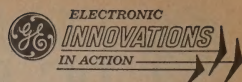
Typical cord/receptacle unit



GENERAL ELECTRIC

STABILTRON* AC VOLTAGE STABILIZERS

For Electronic and Electric Equipment Requiring PRECISE Voltage Control



General Electric Stabiltron a-c voltage stabilizers can be used in a wide variety of electronic equipment applications where precise control of voltage is required. The Stabiltron consists entirely of static components—there are no tubes to burn out and no moving parts to replace or maintain.

Stabiltron senses deviations from predetermined output voltage level by a detector. The error signal, through a feedback-controlled rectifier circuit, augments the voltage stabilizer action and provides almost instantaneous correction of output voltage.

Typical applications include computers, communications equipment, industrial process control, and X-ray equipment.

Voltage—The most common power supply voltages can be handled by the Stabiltron models listed. Stabiltron units are also provided for special voltage levels upon request.

Voltage—Stabiltron voltage stabilizers maintain extremely precise voltage in spite of wide fluctuations of line voltage, frequency, load, load power factor, and ambient temperatures.

Table below illustrates the effect of output of the maximum steady state conditions, within rated limits of some of the variables.

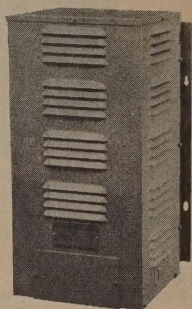
— TYPICAL OUTPUT VOLTAGE CHARACTERISTICS

	Excursion	Output Voltage Bandwidth†
Regulation	95 to 130	0.02 to 0.2%
Frequency	57 to 63 cycles	0.15 to 0.4%
Load	0 to 100% rated load	0.02 to 0.1%
Power	0.4 lagging to unity	0.01 to 0.1%
Temperature	-25C to 40C	0.01%/degree C

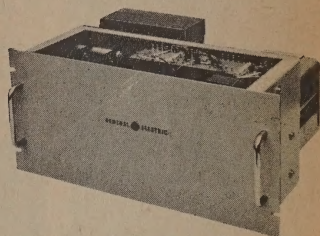
† As indicated because exact amounts are dependent on the static level of other variables. The Stabiltron unit is operated at less than rated load, the line voltage can be reduced considerably below 95 volts without serious deterioration of the output voltage.

Response—Under transient line or load conditions, elapsed time for correction of output voltage and transient excursion are normal bandwidth are key components to equipment operation.

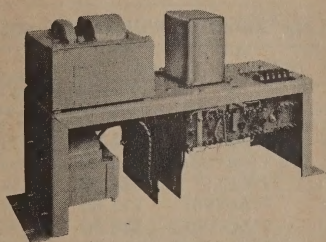
© General Electric Co.



ENCLOSED CONSTRUCTION—2-kva units are suitable for either wall or floor mounting; 5- and 10-kva units for floor mounting only.



PANEL CONSTRUCTION is suitable for standard 19-inch rack mounting.



OPEN CONSTRUCTION is suitable for horizontal or vertical mounting surfaces in equipment enclosures.

57-63 CPS; 3% HARMONIC; 0.4 LAG TO UNITY LOAD PF

Kva	Model Number	List Price	Input Voltage Range	Output Voltage (Adjustable $\pm 4\%$)	Approx. Net Weight (Pounds)	Construction Type	Approx. Dim. (In.)		
							H	W	D
0.5	9T91Y3021	\$410	95-130/190-260	118	70	Panel	7	19	14 3/4
0.5	9T91Y3021G2	402	95-130/190-260	118	70	Open	7	19	13 3/4
1.0	9T91Y3022	483	95-130/190-260	118	125	Panel	8 3/4	19	15 1/2
1.0	9T91Y3022G2	476	95-130/190-260	118	125	Open	8 3/4	19	14
2.0	9T91Y3023	646	95-130/190-260	118/236	185	Enclosed	25	14 1/2	11 1/4
2.0	9T91Y3023G2	635	95-130/190-260	118/236	180	Open	23 1/2	14 1/2	10 1/4
5.0	9T91Y3027	1386	95-130/175-235/190-260	118/236	570	Enclosed	26 1/2	28	14
10.0	9T91Y3030	2142	190-260/380-520	118/236	975	Enclosed	28	39	17

The Stabiltron provides fast response and small transient excursion through its unique combination of solid state and magnetic circuitry.

TABLE 2 — TYPICAL TRANSIENT RESPONSE CHARACTERISTICS

Transient Change	Percent Peak Output Voltage Excursion	Response Time	Total Recovery Time
0 to 115V input	14%	4 cycles	13 cycles
95 to 130V input	14%	3 cycles	8 cycles
130 to 95V input	9%	5 cycles	9 cycles
0 to 100% rated load	24%	1 cycle	2 cycles
20% to 100% rated load	21%	1 cycle	2 cycles
100% to 20% rated load	34%	1 cycle	10 cycles

† The time required for the output to recover 63.3% from its maximum excursion.

§ The time required for the output to recover to normal bandwidth limits.

Harmonic Content—Under all rated ranges of line variation and most load conditions, the total harmonic content of the output wave form will not exceed three percent for a sine wave power source. Even under adverse conditions, when the power source is not a sine wave, the Stabiltron voltage stabilizer will correct the wave form to the load to approximately three percent harmonic content.

Rectifier-filter Loading—Since the output wave form is low in harmonic content, the Stabiltron voltage stabilizer can be connected successfully to a rectifier (capacitor input) filter load to the input of a d-c power supply having capacitor input filters.

GENERAL ELECTRIC



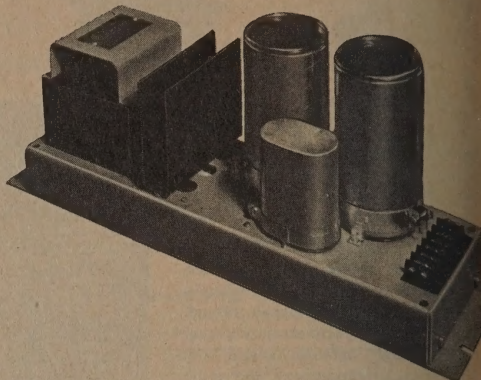
REGULATED DC POWER SUPPLIES

**ELECTRONIC
INNOVATIONS**
IN ACTION

Improve Performance of Computers and Other Electronic Equipment

These component power supplies can be used in a wide variety of applications where relatively constant d-c voltage is required despite fluctuating line voltages. Computers, process control equipment, and electronic measuring devices are typical applications where demands for accuracy require constant regulation of voltage.

Performance-proved G-E d-c power supplies can be designed to suit your needs for either 50- or 60-cycle power sources.



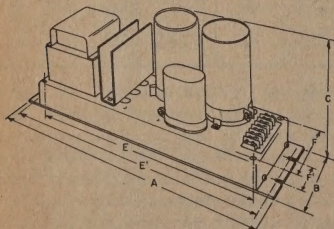
60-CYCLE, 97- TO 130-VOLT INPUT RANGE, 40C AMBIENT

DC OUTPUT†		MODEL NO.	LIST PRICE (Lots 1-4)	LOAD REGULATION‡		Dimensions (See sketch below)								MOUNTING	W	L
						OVER-ALL			Rack							
Volts	Amps					100% to 50% load	100% to 20% load	A	B	C	Chassis		Rack			
							F	E	F'	E'						
12	5.0	9T66Y51	\$135.00	5%	6%	19	3½	7⅞	2¾	16¼	3	18%				
12	15.0	9T66Y53	162.00	5%	7%	19	5¼	8	4½	16¼	2¼	18%				
18	5.0	9T66Y61	124.00	4%	5%	19	3½	7⅞	2¾	16¼	3	18%				
24	2.5	9T66Y987	117.50	4%	6%	19	3½	6⅞	2¾	16¼	3	18%				
24	6.0	9T66Y988	138.50	3%	5%	19	5¼	6½	4½	16¼	2¼	18%				
24	10.0	9T66Y989	161.00	3%	5%	19	5¼	8	4½	16¼	2¼	18%				
24	20.0	9T66Y990	210.00	3%	5%	19	7	9⅞	6¼	16¼	4	18%				
24	50.0	9T66Y991	360.00	3%	5%	19	10½	11⅞	9¾	16¼	8	18%				
28	8.0	9T66Y83	153.00	3%	5%	19	5¼	8	4½	16¼	2¼	18%				
48	4.0	9T66Y93	122.00	3%	5%	19	5¼	8	4½	16¼	2¼	18%				
48	10.0	9T66Y94	180.00	2%	4%	19	5¼	8	4½	16¼	2¼	18%				
125	2.0	9T66Y980	134.00	2%	3%	19	5¼	6½	4½	16¼	2¼	18%				
150	2.0	9T66Y981	144.00	2%	3%	19	5¼	6½	4½	16¼	2¼	18%				
200	1.0	9T66Y982	124.00	2%	3%	19	5¼	6½	4½	16¼	2¼	18%				

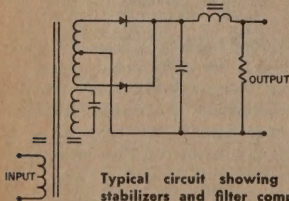
† Ripple 1% RMS. All standard units come equipped with a plate for 19-inch rack mounting.

‡ Indicates approximate percent increase in output voltage due to increase of load current from full load.

§ Rack mounting plate has four mounting slots on each end. Distance between centers of two outer slots is 7½ in., between two inner slots 3 in.



Mounting holes suitable for ¼-20 screws. Length of screw may vary with chassis height.



Typical circuit showing voltage stabilizers and filter components.

EFFECT OF INPUT VOLTAGE VARIATION

D-c power supplies can be designed for various input voltages and ranges. With all other variables constant, the output voltage will not vary more than ± 1 percent for a change in input voltage over the rated range of 97 to 130 volts input.

EFFECT OF TEMPERATURE CHANGE

For every 40C change in the ambient temperature, the output voltage level will change approximately one percent.

EFFECT OF FREQUENCY

A change of one percent in frequency will change output voltage level approximately one and one-half percent.

ISOLATION

All d-c power supplies provide electrical isolation between the a-c power source and the d-c load.

POLARITY

G-E d-c power supplies can be signed with the polarity you require. All standard units listed can be installed with either plus or minus grounded.

RIPPLE

Ripple levels of one percent meet most requirements. However, levels of ripple content can be designed into G-E power supplies.

EFFICIENCY

Efficiency ranges from 70 to 85 percent for normal output voltage levels. For unusually low output voltages at low power ratings, some decrease in efficiency may occur.

REGULATION

Load regulation characteristics depend on the rated output voltage and the power level of the power supply.

Prices subject to change without notice.

GENERAL ELECTRIC

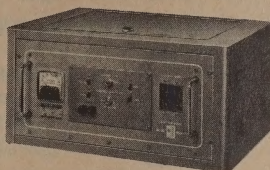
volt-pac[®] VOLTAGE REGULATORS



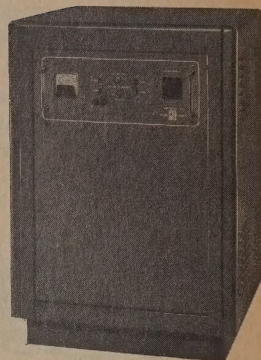
- New solid-state control
- Precise output voltage control
- Fast voltage-correction rate
- Cabinet or rack-mounted models
- Magnetic circuit-breaker protection

General Electric's new automatic voltage regulator line provides regulated output voltages from varying input voltages. Models normally include a motor-operated Volt-Pac variable transformer, associated buck-boost transformers which handle the full range of input-voltage variation, and a new solid-state control.

Automatic regulators maintain a preselected output voltage level within 1 percent bandwidth, and are temperature compensated from -20 to +40C. They can be bench or floor mounted, or in smaller sizes, mounted in standard relay racks.



Single-Phase



Three-Phase

Output Voltage Range	Nom. Output Voltage	Adjustable Output†		Correction Rate	Load		Rack-mounted						Cabinet-mounted					
		Volts/Sec.	Max. Amps		KVA ‡	List Price	Approximate Dimensions (In.)			Net Wt.	Model No.	List Price	Approximate Dimensions (In.)			Net Wt.		
							Width	Height	Depth				Width	Height	Depth			
OLTS — SINGLE-PHASE																		
135	115	110	120	10.4	10	1.15	9T92Y100G25	\$430	19	6 3/4	12 1/4	50	9T92Y100G24	\$460	22 1/2	9 1/2	17	70
135	115	110	120	10.4	25	2.9	9T92Y101G25	460	19	8 3/4	15 1/4	70	9T92Y101G24	490	22 1/2	10 7/8	17	95
135	115	110	120	10.4	50	5.75	9T92Y102G25	515	19	8 3/4	15 1/4	100	9T92Y102G24	545	22 1/2	10 7/8	17	125
135	115	110	120	10.4	100	11.5	9T92Y103G25	625	19	12 1/4	19 1/4	120	9T92Y103G24	655	22 1/2	14	18 1/4	150
135	115	110	120	10.4	150	17.2	9T92Y104G25	700	21 1/2	20	18 1/4	170	9T92Y104G24	700	21 1/2	20	18 1/4	170
OLTS — SINGLE-PHASE																		
260	230*	220	240	17.2	13	3.0	9T92Y105G25	\$515	19	8 3/4	15 1/4	70	9T92Y105G24	\$545	22 1/2	10 7/8	17	95
260	230*	220	240	17.2	32.5	7.5	9T92Y106G25	570	19	8 3/4	15 1/4	100	9T92Y106G24	600	22 1/2	10 7/8	17	125
260	230*	220	240	17.2	52	12.0	9T92Y107G25	660	19	12 1/4	19 1/4	120	9T92Y107G24	690	22 1/2	14	19 1/4	150
260	230*	220	240	17.2	130	30.0	9T92Y108G25	800	22 1/2	20	18 1/4	170	9T92Y108G24	800	22 1/2	20	18 1/4	170
OLTS — SINGLE-PHASE																		
520	460	440	480	34.4	13	6.0	9T92Y109G25	\$675	19	8 3/4	18 1/4	85	9T92Y109G24	\$705	22 1/2	10 1/2	19 3/4	110
520	460	440	480	34.4	32.5	15.0	9T92Y110G25	745	19	8 3/4	18 1/4	115	9T92Y110G24	775	22 1/2	10 1/2	19 3/4	140
520	460	440	480	34.4	52	24.0	9T92Y111G25	890	21 1/2	20	18 1/4	220	9T92Y111G24	920	21 1/2	20	18 1/4	240
520	460	440	480	34.4	130	60.0	9T92Y112G25	1110	25 1/4	30 3/4	18 1/2	350	9T92Y112G24	1110	25 1/4	30 3/4	18 1/2	350
OLTS — THREE-PHASE																		
260	230*	220	240	17.2	12.5	5.0	9T92Y113G25	\$995	19	8 3/4	18 1/4	75	9T92Y113G24	\$985	22 1/2	10 1/2	19 3/4	100
260	230*	220	240	17.2	34	13.5	9T92Y114G25	1095	25 1/4	13 1/4	17 1/4	140	9T92Y114G24	1095	25 1/4	13 1/4	17 1/4	200
260	230*	220	240	17.2	68	27.0	9T92Y115G25	1325	25 1/4	13 1/4	17 1/4	200	9T92Y115G24	1325	25 1/4	13 1/4	17 1/4	240
260	230*	220	240	17.2	136	54.0	9T92Y116G25	1755	20 1/4	30 3/4	18 1/2	300	9T92Y116G24	1755	20 1/4	30 3/4	18 1/2	300
260	230*	220	240	17.2	170	67.5	9T92Y117G25	1950	25 1/4	30 3/4	18 1/2	500	9T92Y117G24	1950	25 1/4	30 3/4	18 1/2	500
OLTS — THREE-PHASE																		
520	460	440	480	34.4	13	10.4	9T92Y118G25	\$1115	25 1/4	13 1/4	17 1/4	140	9T92Y118G24	\$1115	25 1/4	13 1/4	17 1/4	200
520	460	440	480	34.4	32.5	26.0	9T92Y119G25	1245	25 1/4	13 1/4	17 1/4	200	9T92Y119G24	1245	25 1/4	13 1/4	17 1/4	240
520	460	440	480	34.4	52	41.5	9T92Y120G25	1600	20 1/4	30 3/4	18 1/2	300	9T92Y120G24	1600	20 1/4	30 3/4	18 1/2	300
520	460	440	480	34.4	100	80.0	9T92Y121G25	1900	25 1/4	30 3/4	18 1/2	500	9T92Y121G24	1900	25 1/4	30 3/4	18 1/2	500
520	460	440	480	15.0	130	104.0	9T92Y122G25	2000	28 3/4	30 3/4	18 1/2	600	9T92Y122G24	2000	28 3/4	30 3/4	18 1/2	600

† Nominal output voltage operation requires no change in power connection, but does require selecting correct control transformer ratio. When operated at nominal 208 volts output, the regulator will correct for an input range of 181 to 236 volts, with the output voltage adjustable from 199 to 217 volts.

† Specified input voltage range is applicable for nominal output voltage. When operating at any other output voltage within specified range, the input voltage will change proportionately with the change in output voltage level selected.

† Kva based on nominal output voltage.

Waveform Distortion

Harmonic waveform distortion is introduced at any load or with any voltage. The output voltage waveform is a precise reproduction of input waveform.

Output Voltage

Output voltage for units nominally rated 115 volts is adjustable from 110 volts. Output voltage also is adjustable from 220 to 240 volts for rated 230 volts; from 440 to 480 volts for nominally rated units of 460 volts. Please note that the specified input-voltage range is applicable for nominal output voltage. When operating at any other output voltage within specified range, the input voltage range shifts in proportion with the change in output voltage.

Static-sensing Control

Static-sensing control combined with the new Sylvan-Ketter static-sensing circuit achieves the optimum in automatic accuracy. The voltage regulator is controlled automatically by a dead-band-type voltage-sensitive control circuit, either lamp or zener bridges. The circuit includes magnetic input breakers and an output voltmeter.

For more information is available from your nearest G-E Electronic Components Sales Office or by writing to Section 998-52, General Electric Company, Schenectady, N. Y.

TYPICAL SPECIFICATIONS

Regulation Accuracy	±1.0%
Speed of correction	10.4 volt/sec
Output voltage	Adjustable from 110-120 volts
Input voltage	95 to 135, single-phase
Frequency	60-cycle
Load Range	Zero to full load
Efficiency	Up to 99%
Power Factor Range	0 to 100%
Wave Form Distortion	None
Output Meter	0-150 Volts AC
Ambient Temperature	-20C to +40C
Operating Range	
Protection	Magnetic Circuit Breaker in Power Input Line—Control Circuitry Fused

Prices subject to change without notice.

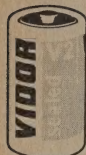
GENERAL ELECTRIC



VIDOR BATTERIES

IRC, Inc.

These fine British quality batteries meet or exceed any American manufactured equivalent. Crafted by Britain's finest technicians you're assured of a high standard of quality and performance.



V2
(D)

EV 950
RCA VSO36
BUR 2
NEDA 13F



V11
(C)

EV 935
RCA VSO35
BUR 1
NEDA 14F

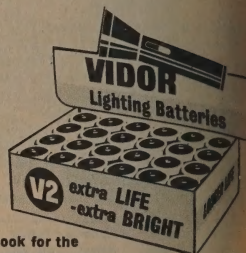


V12
(AA)

EV 915
RCA VSO34
BUR 2
NEDA 15F

VIDOR GENERAL PURPOSE BATTERIES

For Flashlights, Toys and General Purpose use. Carbon Zinc construction. Your best buy for everyday use.



Look for the
VIDOR Display

CAT. NO.	CHEMICAL SYSTEM	VOLTS	STD. DISPLAY BOX		STD. MASTER CTN.		COMPARABLE DEALER	PRICES* RETAIL
			QUANTITY	WEIGHT	QUANTITY	WEIGHT		
V2	Carbon Zinc	1.5	24	4 lbs. 6 oz.	288	53 lbs. 2 oz.	\$.13 ea.	\$.20 ea.
V11	Carbon Zinc	1.5	24	2 lbs. 1 oz.	288	25 lbs. 12 oz.	.13 ea.	.20 ea.
V12	Carbon Zinc	1.5	24	14 oz.	288	10 lbs. 8 oz.	.13 ea.	.20 ea.

*Based on published prices of leading U.S. battery manufacturers.

An IRC quality product from Great Britain

VIDOR TRANSISTOR BATTERIES



VT3
(9 Volt)

EV 216
RCA VS323
BUR 206
NEDA 1604



VT12
(D)

EV 1050
RCA VS336
BUR 230
NEDA 13



VT13
(C)

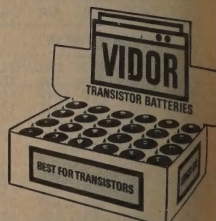
EV 1035
RCA VS335
BUR 130
NEDA 14



VT14
(AA)

EV 1015
RCA VS334
BUR 930
NEDA 15

Especially designed for radios and transistorized Electronic devices. Also for photoflash. Electrolytic Manganese construction — Longer Lasting — More Energy — Sustains High Current Drains.



Look for the
VIDOR Display

CAT. NO.	CHEMICAL SYSTEM	VOLTS	STD. DISPLAY BOX		STD. MASTER CTN.		COMPARABLE DEALER	PRICES* RETAIL
			QUANTITY	WEIGHT	QUANTITY	WEIGHT		
VT3	Electrolytic Manganese	9	12	1 lb.	288	23 lbs. 9 oz.	\$.32 ea.	\$.69 ea.
VT12	Electrolytic Manganese	1.5	24	5 lbs.	288	62 lbs.	.19 ea.	.30 ea.
VT13	Electrolytic Manganese	1.5	12	1 lb. 4 oz.	288	34 lbs. 7 oz.	.19 ea.	.30 ea.
VT14	Electrolytic Manganese	1.5	24	14 oz.	288	10 lbs. 8 oz.	.15½ ea.	.25 ea.

*Based on published prices of leading U.S. battery manufacturers.

An IRC quality product from Great Britain

IRC, INC. • CONSUMER AND DISTRIBUTOR PRODUCTS DIVISION

VIDOR BATTERIES



IRC, Inc.

VIDOR HI-POWER BATTERIES

HP2
(D)HP11
(C)HP14
(AA)HP16
(AAA)

Exclusive in the U.S. from IRC. A rugged *super-battery* that gives you outstanding life for high-drain applications such as photoflash and motor driven recorders and toys. Specially engineered for stability, stamina, and longevity. Electrolytic Manganese construction.



Look for the
VIDOR Display

	CHEMICAL SYSTEM	VOLTS	STD. DISPLAY BOX		STD. MASTER CTN.		SUGGESTED DEALER	PRICES RETAIL
			QUANTITY	WEIGHT	QUANTITY	WEIGHT		
1	Electrolytic Manganese	1.5	24	5 lbs.	288	62 lbs.	\$.37 ea.	\$.55 ea.
4	Electrolytic Manganese	1.5	24	2 lbs. 14 oz.	288	34 lbs. 8 oz.	.37 ea.	.55 ea.
6	Electrolytic Manganese	1.5	24	12 oz.	288	10 lbs. 3 oz.	.33 ea.	.50 ea.
	Electrolytic Manganese	1.5	24	9 oz.	288	7 lbs. 8 oz.	.27 ea.	.40 ea.

An IRC quality product from Great Britain

VIDOR PHOTOFLASH BATTERIES



For direct photoflash equivalent of U.S. manufacturers, use VIDOR Transistor batteries—For superior performance to U.S. photoflash batteries, use VIDOR Hi-Power batteries—up to 3 times the life.

insist on

VIDOR



Quality British Batteries

FOR ALL RADIOS • FLASHLIGHTS • TOYS • APPLIANCES

Look for the
VIDOR Display

	CHEMICAL SYSTEM	VOLTS	REPLACEMENT INFORMATION	SUGGESTED DEALER	PRICES RETAIL
2	Electrolytic Manganese	1.5	Replaces EV850, BU220, RCA VS736 (D Cell)	\$.19 ea.	\$.30 ea.
3	Electrolytic Manganese	1.5	Replaces EV835, BU120, RCA VS735 (C Cell)	.19 ea.	.30 ea.
4	Electrolytic Manganese	1.5	Replaces EV815, BU920, RCA VS734 (AA Cell)	.15½ ea.	.25 ea.
5	Electrolytic Manganese	1.5	Replaces EV850, BU220, RCA VS736 (D Cell)	.37 ea.	.55 ea.
6	Electrolytic Manganese	1.5	Replaces EV835, BU120, RCA VS735 (C Cell)	.37 ea.	.55 ea.
7	Electrolytic Manganese	1.5	Replaces EV815, BU920, RCA VS734 (AA Cell)	.33 ea.	.50 ea.
8	Electrolytic Manganese	1.5	Replaces EV812, (AAA Cell)	.27 ea.	.40 ea.

An IRC quality product from Great Britain

IRC, INC. • CONSUMER AND DISTRIBUTOR PRODUCTS DIVISION

MALORY Batteries

MERCURY POWER-PAK BATTERIES

Mail. No.	Volts	Cap.*	Use	Terminals	Net
302157	1.35	28,000	Radiation eqpt.	Socket	\$12.50
302250	9.45	250	Radiation eqpt.	Tab	2.90
302351	5.4	2,200	Fire alarm	Flat	5.40
302358	10.8	250	Radiation eqpt.	Leads	4.10
302362	16.2	250	Radiation eqpt.	Leads	5.60
302435	6.75	250	Radiation eqpt.	Flat	3.40
302462	97.2	1,000	Transmitter "B"	Leads	40.00
302465	4.75	1,000	Geophysical	Leads	3.60
302478	9.8	2,400	Recorder	Flat	6.90
302497	6.75	2,200	Test equipment	Posts	7.85
302579	29.7	250	Test equipment	Leads	12.50
302580	27	3,400	Electronic	Socket	33.60
302642	7.0	2,400	Fire alarm	Flat	10.50
302651	1.35	14,000	Electronic	Leads	4.80
302702	2.7	2,200	Geophysical	Leads	3.80
302904	5.4	3,400	Meter	Leads	6.75
302905	6.75	3,400	Test equipment	Leads	8.05
302907	9.45	3,400	Electronic	Leads	10.40
302908	10.8	3,400	Radiation eqpt.	Leads	11.50
303145	8.4	3,600	Depth finder	Snap	6.75
303219	9.8	175	Electronic	Flat	2.06
303236	4.2	1,000	Electronic	Flat	1.26
303314	16.8	2,400	Transceiver	Flat	10.80
303394	11.2	3,600	Electronic	Snap	3.20
303431	11.2	1,000	Dilation	Snap	3.50

ALKALINE DURACELL★ BATTERIES

Mailory No.	Volts	Use	Wt., Oz.	Net Each
MN1300†	1.5	All Purpose "D"	5 1/4	65c
MN1306†	4.5	Transistor radio	1 1/2	84c
MN1400†	1.5	All Purpose "C"	2 3/8	50c
MN1500†	4.5	All Purpose "AA"	3 1/2	82c
MN1604†	9.0	Transistor radio	1 1/4	84c
MN2400†	1.5	All Purpose "AAA"	.4	33c
MN9100†	1.5	All Purpose "N"	.34	24c

SILVER OXIDE BATTERIES

Mailory Number	Volts	Size, in.	Net Each
MS13	1.5	.21 x .31	27c
MS41	1.5	.16 x .46	27c
MS76	1.5	.21 x .46	30c

PHOTO BATTERIES

For flashguns, electronic flash, photocells, meters, Wink-lites®, etc. Mercury type with flat terminals except as otherwise noted.

Mailory Number	Volts	Wt., Oz.	Net Each	Mailory Number	Volts	Wt., Oz.	Net Each
PX1	1.35	0.6	\$0.66	PX24*	3.0	1.0	\$ 0.75
PX4	5.6	3.2	1.57	PX450	1.35	0.3	.51
PX6	8.1	4.0	2.75	PF489†	225	12	6.96
PX13B	1.35	0.14	.50	PF491†	240	13	5.56
PX14	2.7	0.3	1.05	PF492†	225	40	7.65
PX16*	4.5	5.3	4.05	PF497†	510	28	11.16
PX18*	1.0	1.2	.84	PX525	1.35	0.15	.51
PX21*†	4.5	1.2	.84	PX640	1.35	0.38	.51
PX23	5.6	2.0	.60	PX675B	1.35	0.07	.42

ZINC-CARBON BATTERIES

Mailory No.	Nom. Volts	Use	Size, Inches L. x W. x H.	Wt., Oz.	Net Each
M3	1.5	Radio "A"	a 2 3/8 x 2 3/8 x 3 3/8	24	\$1.15
M9	7.5	Radio "B"	b 1 1/2 x 1 1/2 x 3 3/8	8	1.23
M13F†	1.5	Flashlight "D"	b 1 1/2 x 1 1/2 x 2 1/2	3.3	.13
M13P	1.5	Photo "D"	b 1 1/2 x 1 1/2 x 2 1/2	3.3	.19
M13R	1.5	Radio "D"	b 1 1/2 x 1 1/2 x 2 1/2	3.3	.19
M13X	1.5	Industrial "D"	b 1 1/2 x 1 1/2 x 2 1/2	3.3	.19
M14F†	1.5	Flashlight "C"	b 1 1/2 x 1 1/2 x 1 1/2	1.5	.13
M14P†	1.5	Photo "C"	b 1 1/2 x 1 1/2 x 1 1/2	1.5	.19
M14R†	1.5	Radio "C"	b 1 1/2 x 1 1/2 x 1 1/2	1.5	.19
M15F	1.5	"AA" penlight	b 3/4 x 1 1/2 x 1 1/2	0.5	.13
M15P†	1.5	Photo "AA"	b 3/4 x 1 1/2 x 1 1/2	0.5	.16
M15R†	1.5	Radio penlight	b 3/4 x 1 1/2 x 1 1/2	0.5	.155
M20	1.5	Ignition	b 1 1/2 x 1 1/2 x 4 1/2	0.4	.42
M24F	1.5	"AAA" penlight	b 3/4 x 1 1/2 x 1 1/2	0.4	.19
M200	67.5	Radio "B"	c 2 1/2 x 1 1/2 x 1 1/2	12	2.70
M208	15	Electronic "B"	b 1 1/2 x 3/4 x 1 1/2	1.0	.81
M210	30	Electronic "B"	b 1 1/2 x 3/4 x 2 1/2	1.8	1.23
M214P	67.5	Radio "B"	c 1 1/2 x 1 1/2 x 5 1/2	9	2.70
M215	22.5	Electronic "B"	b 3/4 x 1 1/2 x 1 1/2	0.8	.81
M504	15	Electronic "B"	b 3/4 x 1 1/2 x 1 1/2	0.8	.81
M505	22.5	Electronic "B"	b 3/4 x 1 1/2 x 1 1/2	0.8	1.05
M506	30	Electronic "B"	b 1 1/2 x 3/4 x 2 1/2	0.9	1.30
M507	30	Electronic "B"	b 3/4 x 1 1/2 x 1 1/2	0.9	1.30
M900	1.5	Ignition	e 7/8 x 2 1/2 x 1 1/2	24	4.86
M903	7.5	Lighting	e 7/8 x 4 1/2 x 6 1/2	122	4.86
M904	9	Lighting	e 7/8 x 4 1/2 x 6 1/2	152	5.53
M905F	1.5	Ignition	f 2 3/4 x 1 1/2 x 6 3/4	29	.84
M905S	1.5	Ignition	f 2 3/4 x 1 1/2 x 6 3/4	29	.84
M906F	1.5	Telephone	f 2 3/4 x 1 1/2 x 6 3/4	29	.84
M906S	1.5	Telephone	f 2 3/4 x 1 1/2 x 6 3/4	29	.84
M907	6	Industrial	e 10 1/2 x 2 1/2 x 7 1/2	163	3.34
M908	6	Metal lantern	d 2 1/2 x 2 1/2 x 4 1/2	21	.81
M910F	1.5	Flashlight "N"	b 3/4 x 1 1/2 x 1 1/2	0.22	.08
M911F	1.5	R.K., Indust.	f 2 3/4 x 1 1/2 x 6 3/4	34	.90
M911S	1.5	R.K., Indust.	f 2 3/4 x 1 1/2 x 6 3/4	34	.90
M915	6	Lighting	e 5 1/2 x 2 1/2 x 4 1/2	21	.83
M918	6	Lighting	e 5 1/2 x 2 1/2 x 4 1/2	52	1.96
M1600†	9	Radio	c 1 dia. x 1 1/2	1.8	.62
M1602	9	Radio	c 1 1/2 x 1 1/2 x 2 1/2	4.5	1.30
M1603	9	Radio	c 2 1/2 x 2 1/2 x 3 1/2	15	1.36
M1604†	9	Radio	c 1 1/2 x 1 1/2 x 1 1/2	1.3	.48
M1605	9	Radio	c 1 1/2 x 1 1/2 x 2 1/2	1.3	1.36
M1611†	9	Radio	b 3/4 x 1 1/2	1.2	.62

*Alkaline, †Zinc-carbon. ‡Snap term. Available in: †Bilster pack; ‡hang pack. *mAh. *Terminals: a, socket; b, flat; c, snap; d, coil spring; e, screw; f, Fahnestock clip. @Polaroid Corp. TM.



MERCURY DURACELL★ BATTERIES

Mercury batteries offer more power per unit of volume than any other type. They are available in a very wide range of sizes, voltages and shapes. Voltage stability is excellent throughout operating life. "R" types rated 1.35 volts per cell, "non-R" at 1.4 V. Mercury batteries cost less per unit of volume than ordinary zinc-carbon types. Alkaline batteries are "Best Buy" for lighting and photoflash. Zinc-carbon types are used where low price is more important than long-life economy. Mercury batteries listed below have flat terminals unless otherwise noted. Types with T suffix have solder tabs.

Mailory Number	Volts	Cap., mAh	Use	Size, Inches L. x W. x H.	Wt., Oz.	Net Each
RM1	1.4	1000	Phys. hndcp.	3/8 dia. x 1 1/2	0.43	\$0.52
RM1R	1.35	1000	Electronic	3/8 dia. x 1 1/2	0.43	.64
RM1RT†	1.35	1000	Electronic	3/8 dia. x 1 1/2	0.43	.64
RM1RT2†	1.35	1000	Electronic	3/8 dia. x 1 1/2	0.43	.74
RM3R	1.35	2200	Electronic	1 dia. x 1 1/2	0.93	1.05
RM4R	1.35	3400	Electronic	1.2 dia. x 1 1/2	1.6	1.31
RM4RT†	1.35	3400	Electronic	1.2 dia. x 1 1/2	1.6	1.36
RM4Z	1.4	2400	Electronic	1.2 dia. x 1 1/2	1.2	1.00
RM12	1.4	3600	Tape rrdrr.	3/8 dia. x 1 1/2	2.0	.47
RM12R	1.35	3600	Tachometer	3/8 dia. x 1 1/2	2.0	1.85
RM12RT†	1.35	3600	Electronic	3/8 dia. x 1 1/2	2.0	1.10
RM12RT2†	1.35	3600	Electronic	3/8 dia. x 1 1/2	2.0	1.15
RM24	1.4	1000	Radio AAA	0.4 dia. x 1 1/2	0.5	.53
RM42	1.4	14000	Elec. "D"	1.2 dia. x 2 3/8	5.9	2.76
RM42R	1.35	14000	Elec. "D"	1.2 dia. x 2 3/8	5.9	2.76
RM42RT†	1.35	14000	Elec. "D"	1.2 dia. x 2 3/8	5.9	2.81
RM42RT2†	1.35	14000	Elec. "D"	1.2 dia. x 2 3/8	5.9	2.86
RM312	1.4	36	Phys. hndcp.	3/8 dia. x 1 1/2	0.02	.24
RM400	1.4	80	Phys. hndcp.	3/8 dia. x 1 1/2	0.04	.24
RM400R	1.35	80	Electronic	3/8 dia. x 1 1/2	0.04	.35
RM400RT†	1.35	80	Electronic	3/8 dia. x 1 1/2	0.04	.45
RM401†	1.4	800	Electronic	3/8 dia. x 1 1/2	0.4	.51
RM401R	1.35	800	Electronic	3/8 dia. x 1 1/2	0.4	.60
RM411	14	160	Electronic	1 x 1 1/2 x 1 1/2	1.08	2.00
RM412	22	160	Electronic	1 x 1 1/2 x 1 1/2	1.65	2.76
RM413	28	160	Electronic	1 x 1 1/2 x 1 1/2	2.04	3.46
RM415*	42	160	Electronic	1 x 1 1/2 x 1 1/2	3.03	5.10
RM450R	1.35	350	Electronic	3/8 dia. x 1 1/2	0.18	.53
RM502R	1.35	2400	Electronic	3/8 dia. x 1 1/2	1.05	.77
RM520	1.4	130	Phys. hndcp.	3/8 dia. x 1 1/2	0.07	.24
RM575	1.4	100	Phys. hndcp.	.455 dia. x .129	.005	.24
RM601R	1.35	1800	Electronic	3/8 dia. x 1 1/2	1.2	.83
RM625	1.4	350	Phys. hndcp.	3/8 dia. x 1 1/2	0.15	.42
RM625R	1.35	250	Electronic	3/8 dia. x 1 1/2	0.15	.53
RM625RT†	1.35	250	Electronic	3/8 dia. x 1 1/2	0.15	.58
RM625RT2†	1.35	250	Electronic	3/8 dia. x 1 1/2	0.15	.63
RM630	1.4	350	Phys. hndcp.	3/8 dia. x 1 1/2	0.17	.42
RM630R	1.35	250	Electronic	3/8 dia. x 1 1/2	0.17	.53
RM640	1.4	500	Radio	3/8 dia. x 1 1/2	0.26	.42
RM640R	1.35	500	Electronic	3/8 dia. x 1 1/2	0.26	.53
RM640RT†	1.35	500	Electronic	3/8 dia. x 1 1/2	0.26	.58
RM675	1.4	160	Phys. hndcp.	3/8 dia. x 1 1/2	0.07	.32
TR113R	4.05	250	Electronic	1 1/2 dia. x 1 1/2	0.45	1.72
TR114R	5.4	250	Electronic	1 1/2 dia. x 1 1/2	0.59	1.85
TR114RT2†	5.4	250	Electronic	1 1/2 dia. x 1 1/2	0.59	1.95
TR115	7.0	350	Dictating	1 1/2 dia. x 1 1/2	0.73	2.60
TR15R	6.75	250	Electronic	1 1/2 dia. x 1 1/2	0.73	2.60
TR126†	8.4	600	Radio	3/4 dia. x 2	1.6	1.31
TR132†	2.8	1000	Paging	3/8 dia. x 1 1/2	1	1.05
TR132R	2.7	1000	Electronic	3/8 dia. x 1 1/2	1	1.17
TR133†	4.2	1000	Radio, Pag.	1 1/2 dia. x 2	1.4	1.17
TR133R	4.05	1000	Radio, Pag.	1 1/2 dia. x 2	1.4	1.35
TR134	5.6	1000	Gar. door	1 1/2 dia. x 2 1/2	1.9	1.57
TR134T2†	5.6	1000	Electronic	1 1/2 dia. x 2 1/2	1.9	1.67
TR134R	5.4	1000	Electronic	1 1/2 dia. x 2 1/2	1.9	1.72
TR135	7.0	1000	Gar. door	1 1/2 dia. x 3 1/2	2.4	2.06
TR135R	6.75	1000	Electronic	1 1/2 dia. x 3 1/2	2.4	2.06
TR136	8.4	1000	Gar. door	1 1/2 dia. x 3 1/2	2.9	2.40
TR136R	8.1	1000	Electronic	1 1/2 dia. x 3 1/2	2.9	2.40
TR137	9.8	1000	Electronic	1 1/2 dia. x 4 1/2	3.4	2.62
TR137R	9.45	1000	Electronic	1 1/2 dia. x 4 1/2	3.4	2.76
TR145	7	250	Electronic	1 1/2 dia. x 1 1/2	0.58	.72
TR146X*	8.4	575	Radio	1 x 1 1/2 x 1 1/2	2.0	1.87
TR152	2.8	350	Electronic	3/8 dia. x 1 1/2	0.42	.87
TR152R	2.7	350	Electronic	3/8 dia. x 1 1/2	0.42	1.05
TR153	4.2	350	Electronic	3/8 dia. x 1 1/2	0.6	1.17
TR153R	4.05	350	Electronic	3/8 dia. x 1 1/2	0.6	1.35
TR162R	2.7	500	Electronic	3/8 dia. x 1 1/2	0.68	1.05
TR163	5.6	500	TV tuner	1 1/2 dia. x 1 1/2	3.88	2.67
TR163R	4.05	500	Electronic	1 1/2 dia. x 1 1/2	3.88	2.67
TR164	5.6	500	Radio	1 1/2 dia. x 1 1/2	1.16	1.31
TR164R	5.40	500	Electronic	1 1/2 dia. x 1 1/2	1.16	1.57
TR165	7	500	TV tuner	1 1/2 dia. x 2 1/2	1.45	1.70
TR165R	6.75	500	Electronic	1 1/2 dia. x 2 1/2	1.45	1.87
TR166	12.6	500	Electronic	1 1/2 dia. x 2 1/2	2.88	3.05
TR175	7	350	Radio	1 1/2 dia. x 1 1/2	0.6	1.05
TR177*	9.8	160	Radio	1 1/2 dia. x 1 1/2	0.67	1.31
TR233	4.2	2200	Radio	1 1/2 dia. x 1 1/2	3	2.27
TR233R	4.05	2200	Electronic	1 1/2 dia. x 1 1/2	3	2.62
TR234	5.6	2200	Electronic	1 1/2 dia. x 2 1/2	3.88	2.67
TR234R	5.4	2200	Electronic	1 1/2 dia. x 2 1/2	3.88	2.67
TR235R	6.75	2200	Electronic	1 1/2 dia. x 3 1/2	4.63	3.67
TR236R	8.10	2200	Electronic	1 1/2 dia. x 3 1/2	4.76	4.15
TR286*	8.4	750	Radio	1 dia. x 1 1/2	1.6	1.35
TR289*	12.6	750	CB radio	1 dia. x 2 1/2	3.6	3.95
TR431*	11.2	2400	Dictation	1 1/2 dia. x 3 1/2	5	5.64
TR431R	1.4	2400	Radio "AA"	1 1/2 dia. x 3 1/2	5	5.64
ZM12	1.4	3600	Radio	3/8 dia. x 2	2.0	.47



HIGH VOLTAGE POWER PACKS



COMPACT "M" SERIES 2 TO 75 KVDC

"M" series Power Packs are a completely new design. They are a small package directed to the use of the latest techniques and advanced materials. Many features have been incorporated with the highest quality materials, at the same time maintaining economy of cost.

Standard input voltage is 118 at frequencies from 50 to 500 cycles per second inclusive. Available also are input voltages of 220, 230 and 240 volts from 50 to 500 cycles per second inclusive. For 220 volts suffix the desired part number with "X", 230 volts "Y" and 240 Volts "Z". All units may be modified for other input voltages.

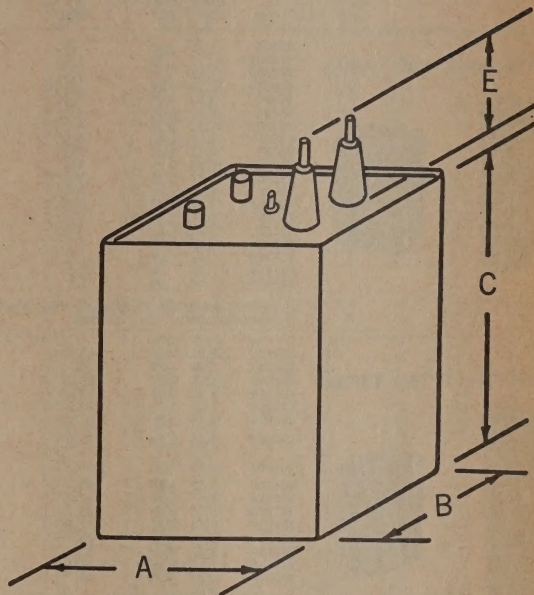
Output is filtered DC and standard potentials and current ratings are listed below. All units can be modified to provide any required potential and current below the values listed in the listing. The output potential can be varied from zero to the rated voltage and load by means of an autotransformer at the primary.

Output is 1% RMS or 2.75% peak to peak at rated current and voltage.

Life is 40,000 hours at 35°C and 5,000 hours at 50°C.

Finish is light blue gray lacquer per MIL-L-7178.

Units except the 75 KV, have two output terminals located from the container, permitting either terminal to be connected to ground or an intermediate point between terminals can be tied to ground. The 75 KV unit has a single output terminal for the output. The Power Pack is furnished to deliver a positive output potential relative to ground. If a negative output is desired it can be obtained as such from the factory upon request. The polarity can be easily reversed as required by opening the access port and reversing the selenium rectifier board. The remaining output terminal at low potential is left unconnected so that the lead current be monitored if required.



NUMBER	KV RANGE	MAX. MA.	DIMENSIONS				MOUNTING AREA		WEIGHT LBS.
			A	B	C	E	L	W	
0-152M	0-2	1.5	3 3/4	1 3/4	3 3/8	3 3/8	1 3/4	5 1/4	2 LBS.
0-152M	0-5	1.5	3 3/4	2 1/4	3 3/8	5 3/8	2 1/4	5 1/4	2 LBS.
0-152M	0-10	1.5	3 3/4	3 3/8	4 1/2	1 1/2	3 3/8	5 1/4	4 LBS.
0-152M	0-15	1.5	3 3/4	3 3/8	5 1/2	1 1/2	3 3/8	5 1/4	5 LBS.
0-152M	0-20	1.5	3 3/4	4 3/8	5 3/8	2 1/8	4 3/8	5 1/4	9 LBS.
0-152M	0-30	1.5	3 3/4	4 3/8	7 1/2	3 3/4	4 3/8	5 1/4	11 LBS.
0-152M	0-50	1.5	4 1/4	6	8 1/2	4 3/8	6	6 1/4	18 LBS.
0-152M	0-75	1.5	5 3/8	7 3/8	12 3/8	7 1/2	7 3/8	7 1/4	45 LBS.
0-502M	0-2	5	3 3/4	2 1/4	3 3/8	3 3/8	2 1/4	5 1/4	2 LBS.
0-502M	0-5	5	3 3/4	2 1/4	3 3/8	5 3/8	2 1/4	5 1/4	3 LBS.
0-502M	0-10	5	3 3/4	4 3/8	5 3/8	1 1/2	4 3/8	5 1/4	8 LBS.
0-502M	0-15	5	3 3/4	4 3/8	6 3/8	1 1/2	4 3/8	5 1/4	10 LBS.
0-502M	0-20	5	3 3/4	4 3/8	8	2 3/8	4 3/8	5 1/4	14 LBS.
0-502M	0-30	5	4 1/4	6	8 1/2	3 3/4	6	6 1/4	22 LBS.
0-502M	0-50	5	5 3/8	7 3/8	12 3/8	4 3/8	7 3/8	7 1/4	45 LBS.
0-502M	0-75	5	11 1/2	14 3/8	16 1/4	7 1/2	14 1/8	11 1/2	124 LBS.
0-103M	0-1	10	3 3/4	2 1/4	3 3/8	3 3/8	2 1/4	5 1/4	2 LBS.
0-103M	0-2.5	10	3 3/4	2 1/4	3 3/8	5 3/8	2 1/4	5 1/4	3 LBS.
0-103M	0-5	10	3 3/4	4 3/8	5 3/8	5 3/8	4 3/8	5 1/4	10 LBS.
0-103M	0-10	10	3 3/4	4 3/8	8	1 1/2	4 3/8	5 1/4	14 LBS.
0-103M	0-15	10	4 1/4	6	8 1/2	1 1/2	6	6 1/4	22 LBS.
0-103M	0-25	10	5 3/8	7 3/8	12 3/8	3 3/4	7 3/8	7 1/4	45 LBS.
0-103M	0-37.5	10	11 1/2	14 3/8	16 1/4	4 3/8	14 1/8	11 1/2	124 LBS.

SURFACE AREA REQUIRED FOR MOUNTING INCLUDING AREA REQUIRED FOR FOOTED BRACKETS

SEE SECTION 1500, PAGES 385-387

HIGH & LOW VOLTAGE CAPACITORS

Plastic Capacitors, Inc.

RCA BATTERIES

RADIO • FLASHLIGHT
FARM • TRANSISTOR
INDUSTRIAL • PHOTO FLASH

JULY 1, 1964

Type	Distr. Resale Price Ea.*	List Price Ea.*	Volts	Suggested Current Range Ma.	Max. Dimensions L. W. or Overall Dia. Ht.	Standard Package Units	NEDA* Type No.	Eveready	Burgess	Molten	Replaces
PORTABLE "A" TYPES											
VS004	1.15	1.65	1 1/2	0-1000	2 3/4	3 3/4	12	17	4	742	4F
VS034A♦	.13	.20	1 1/2	0-25	—	1 1/2	144	5.3	815	915	2
VS035A♦	.13	.20	1 1/2	0-30	—	1 1/2	240	24	814	935	1
VS036♦	.13	.20	1 1/2	0-150	—	1 1/2	192	39	813	950	2 or 2R
VS065	1.23	1.75	7 1/2	0-70	2 3/4	1 1/2	12	7.3	9	717	C5
VS067	1.23	1.75	4 1/2	0-250	3 1/4	1 1/2	6	6	3	736	F3
VS068♦	.87	1.25	6	0-25	1 1/2	1 1/2	6	1	2	724	Z4
VS069	1.15	1.65	1 1/2	0-300	2 3/4	1 1/2	6	3	18	720	2D
VS070	.87	1.25	1 1/2	0-250	—	1 1/2	6	4.5	23	960P	8R
VS072	1.23	1.75	4 1/2	0-150	4 3/4	1 1/2	3	2.2	19	726	D3
VS129	2.27	3.25	7 1/2	0-50	3 3/4	2 3/4	6	2.5	9	713	B5
VS141	1.22	1.75	1 1/2	0-500	2 1/2	1 1/2	6	4.5	11	W353	2F
VS236♦	.42	.60	1 1/2	0-300	—	1 1/2	12	4.5	20	964	21R
VS315A	1.15	1.65	7 1/2	0-80	2 3/4	2 3/4	6	4.7	26	707	D5
VS343	.19	.30	1 1/2	0-150	—	1 1/2	192	40	130	D99	—
VS345	1.16	1.65	6	0-250	2 3/4	2 3/4	12	17	6	744	F4P1
VS734♦	.16	.25	1.5	0-25	—	1 1/2	144	5.4	—	815	920
VS735♦	.19	.30	1.5	0-80	—	1 1/2	72	7	—	835	120
VS736♦	.16	.25	1.5	0-150	—	1 1/2	72	13	—	850	220

♦ National Electronic Distributors Association.
▲ 2 snap-fasteners. * Optional.

♦ Flashlight-type terminals.

PORTABLE "B" TYPES



VS013	2.97	4.25	45	0-40	3 1/4	1 1/2	5 1/2	6	13.8	202	482	M30	M202
VS014	3.46	4.95	45	0-40	3 3/4	2 1/4	4 1/2	5	9.5	206	W359	A30	M206
VS015	2.76	3.95	22 1/2, 45	0-25	3	2 1/4	4 1/2	5	6.5	205	738	Z30	M205
VS016A	2.70	3.85	67 1/2	0-10	2 1/4	1 1/2	3 3/4	12	10.5	200	467	XX45	M200
VS055A	2.27	3.25	45	0-10	2 3/4	1	3 1/4	12	6.7	201	455	XX30	M201
VS082A	2.70	3.85	67 1/2	0-6	2 3/4	1 1/2	2 1/2	12	6.3	203	457	K45	M203
VS084♦	1.05	1.50	22 1/2	0-2.5	1 1/4	3/4	2	12	1	215	412	U15	M215
VS086A	1.75	2.50	45	0-4	1 1/4	3/4	3 1/4	12	2	213	415	U30	M213
VS090A	3.15	4.50	90	0-10	3 3/4	1 1/2	3 3/4	6	6.5	204	490	N60	M204
VS125A	2.27	3.25	67 1/2	0-10	2 1/4	1 1/2	3 3/4	12	10.0	200	468	V45	M200
VS217A	3.15	4.50	75	0-10	1 1/4	1 1/2	6 1/2	12	12.6	212	437	XX50	M212
VS218A	2.70	3.85	67 1/2	0-8	1 1/2	1	5 1/2	12	6.4	211	477	P45	M211
VS219A	2.97	4.25	90	0-8	1 1/4	1 1/2	7 1/2	12	9.1	214	479	P60	M214
VS316A	3.47	4.95	90	0-10	1 1/4	1 1/2	7 1/2	6	6.5	216	495	N60X	M216
VS318A	2.07	2.95	67 1/2	0-3	1 1/4	1	3 1/2	6	1.5	217	416	U45	M217
VS344	3.47	4.95	45	0-70	3 3/4	2 1/2	5 1/2	6	19.3	207	484	B30	M207

♦ National Electronic Distributors Association.
* Optional.

▲ 2 snap-fasteners.

♦ Flashlight-type terminals.

PORTABLE "A-B" TYPES



		A	B	A	B								
VS019	5.43	7.75	7 1/2, 9	90	0-50	0-15	9 1/4	2 3/4	4 1/4	1	5.3	401	753
VS047	5.78	8.25	9	90	0-50	0-15	14 1/4	2 1/4	4 1/4	1	6.5	400	752
VS050	5.08	7.25	6 7/2, 9	75	0-50	0-12	8 3/4	2 1/4	3 3/4	1	2.4	403	755
VS057W	4.87	6.95	7 1/2, 9	90	0-50	0-12	8 3/4	2 1/4	3 3/4	1	2.9	405	756
VS058	5.57	7.95	9	90	0-50	0-11	9 3/4	2 1/4	4 1/4	1	5.5	406	757
VS059	5.22	7.45	9	90	0-50	0-11	9 3/4	2 1/4	4 1/4	1	2.8	423	758
VS060	6.12	8.75	7 1/2	75	0-50	0-12	8 3/4	2 1/4	3 3/4	1	2.8	431	759
VS064	4.38	6.25	1 1/2	90	0-300	0-14	3 3/4	2 1/2	3 3/4	1	2.3	425	729

TYPES FOR TRANSISTOR APPLICATIONS



VS1	.52	.75	1.4	0-75	—	0.627	0.650	20	2	1100	E1	Hg1	RM1
VS9	.64	.95	1.4	0-200	—	0.555	1.968	24	1 1/2	15M	E9	930	ZN9
VS12	.87	1.25	1.4	0-250	—	0.640	1.968	10	1 1/4	1101	E12	Hg12	RM12
VS126	1.31	1.95	8.4	0-50	—	0.730	2.000	24	2	1611M	E126	H126	TR12
VS132	1.05	1.50	2.8	0-75	—	0.662	1.315	10	3/4	1200	E132	H132	TR13
VS133	1.17	1.75	4.2	0-75	—	0.662	1.965	24	2.3	1306M	E133	H133	TR13
VS146X	1.31	1.95	8.4	0-30	1.031	0.660	1.641	24	1 1/4	1604M	E146X	H146X	TR14
VS163	1.17	1.65	4.2	0-50	—	0.662	1.307	10	6	1604	E163	H163	TR16
VS164	1.35	1.95	5.6	0-30	—	0.662	1.767	24	2 1/4	1404	E164	H164	TR16
VS165	1.70	2.50	7	0-50	—	0.662	2.212	10	1	1500	E165	H165	TR16
VS177	1.31	1.95	9.8	0-10	—	0.547	1.906	24	1	1606M	E177	H177	TR17
VS233	2.27	3.25	4.2	0-60	—	1.016	1.969	10	2.5	1300	E233	H233	TR23
VS300A	.62	2.75	3, 6, 9	0-150	8	1 1/2	2 1/4	6	8	1601	2506	D6P1	M160
VS304	1.30	1.85	9, 13, 5	0-10	1 1/2	1 1/2	2 1/4	12	2.3	1900	239	XX9	M190
VS305	1.30	1.85	9	0-15	1 1/2	1 1/2	2 1/4	12	3.8	1602	246	2N6	M160
VS306	1.36	1.95	9	0-30	2 1/4	2 1/2	3 3/4	6	5.6	1603	276	D6	M160
VS322	1.36	1.95	9	0-20	1 1/2	1 1/2	2 1/4	12	5.3	1605	266	M6	M160
VS323	.48	.69	9	0-50	1 1/2	1 1/2	2 1/4	12	6	1604	216	2U6	M160
VS324	1.30	1.85	4.5	0-40	1 1/2	1 1/2	2 1/4	6	1.5	1610	243	223	M161
VS327	.62	.89	9	0-7	—	3/4	2	12	1	1611	206	L6	M161
VS329	1.05	1.50	12	0-80	—	1	2 1/4	12	1.8	1810	228	PM8	TR8
VS330	1.64	2.35	9	0-9	2 1/4	1 1/2	6 1/4	6	6.5	1612	2356N	CEX	—
VS331	2.45	3.50	9	0-30	2 1/4	1 1/2	7 1/2	6	8 1/4	1608	E163	D6S	—
VS332	.62	.89	4.5	0-12	—	0.662	1.965	12	0.9	1306	333	AL133	MN13
VS334	.55	.25	1.5	0-25	—	3/4	1 1/2	144	5.5	15	1015	930	M15
VS335	.19	.30	1.5	0-80	—	1 1/2	1 1/2	72	7	14	1035	130	M14
VS336	.19	.30	1.5	0-150	—	1 1/2	2 1/2	192	40	13	A100	230	M13
VS337	2.76	3.95	4.5	0-200	2 1/4	1 1/2	8 1/2	6	15.5	1303	2731N	—	—
VS338	1.05	1.50	6	0-25	1 1/2	1 1/2	4 1/4	6	1.4	1403	2713N	—	—
VS339	1.05	1.50	9	0-20	1 1/2	1 1/2	4 1/4	6	1.5	1613	2709N	—	—
VS400	.24	.35	1.4	0-7	—	0.455	0.135	60	1/2	1106	E400	Hg400	RM40
VS401	.50	.75	1.4	0-50	—	0.470	1.130	24	1	910M	E401	Hg401	RM40
VS630	.42	.60	1.4	0-20	—	0.615	0.238	40	1/2	1104	E630	Hg630	RM63
VS640	.42	.60	1.4	0-50	—	0.625	0.440	20	3/4	1105	E640	Hg640	RM64
VS675	.32	.45	1.4	0-10	—	0.210	0.455	60	0	—	E675	Hg675	RM67

♦ National Electronic Distributors Association.
* Optional.

♦ Flashlight Type Terminals.

▲ Mercury Types.

RCA BATTERIES

RADIO • FLASHLIGHT
FARM • TRANSISTOR
INDUSTRIAL • PHOTO FLASH

Type	Distr. Resale Price Ea.*	List Price Ea.*	Volts	Suggested Current Range Ma.	Max. Dimensions Inches		Standard Package Units	Lbs. (Appr.)	NEDA Type (Appr.)	Replaces		
					L.	W. or Overall Dia.	Ht.			Eveready	Burgess	Mallory
VS034A	.13	.20	1½	0-25	—	¾	1½	144	5.3	815	915	Z
VS035A	.13	.20	1½	0-80	—	1½	1½	240	24	814	835	I
VS036	.13	.20	1½	0-150	—	1½	2½	192	37.5	813	950	2R
VS040C	.92	1.39	6	0-250	2½	2½	4½	12	17	908	509	F4H
VS040S	.92	1.39	6	0-250	2½	2½	4½	12	18	915	510S	F4BP
VS073	.08	.125	1½	0-20	—	0.445	1.180	96	1½	910	904	N
VS074	.095	.15	1½	0-20	—	¾	1¾	120	2.5	912	7	M910F
VS103	4.01	5.98	6	0-1000	8½	2½	6½	4	26	902	705	4F4H
VS134	.79	1.15	3	0-25	1½	¾	2½	1	704	750	422	—
VS138	1.92	2.75	3	0-1000	3½	2½	5½	5	13.5	901	W357	4F2H
VS139	4.86	7.25	7½	0-1000	7¼	4¼	6¼	4	30	903	715	4F5H
VS140	5.53	8.25	9	0-1000	8¾	4¼	6¼	4	37	904	716	4F6H
VS142	.87	1.25	4½	0-25	1½	¾	2½	1	1.5	705	432	—
VS317	1.95	2.95	6	0-500	5½	2½	4½	6	20	918	731	TW1
VS342	1.96	2.95	12	0-250	5½	2½	4½	6	20	925	732	TW2
VS343	.19	.30	1½	0-150	—	1½	2½	192	40	140	099	—

LANTERN TYPES



FARM TYPES

INDUSTRIAL and
SPECIAL PURPOSE
TYPES

PHOTO FLASH



ALKALINE TYPES



Type	Distr. Resale Price Ea.*	List Price Ea.*	Volts	Suggested Current Range Ma.	Max. Dimensions Inches		Standard Package Units	Lbs. (Appr.)	NEDA Type (Appr.)	Replaces		
					L.	W. or Overall Dia.	Ht.			Eveready	Burgess	Mallory
VS022	7.95	10.65	1½	0-250	15½	4½	6¼	1	16.5	415	759	17GD60
VS119	11.16	15.95	7½	0-90	0-300	0-12	15½	4½	9¼	415	759	SD600
VS1	.52	.75	1.4	0-75	—	0.627	0.650	40	2	1100	E1	Hg1
VS12	.87	1.25	1.5	0-250	—	0.540	1.968	10	1¼	1101	E12	RM12
VS006C	.91	1.35	1.5	0-1500	—	2½	6½	12	26	906	661	6TEL
VS006S	.91	1.35	1.5	0-1500	—	2½	6½	12	25	905	61GN	M905
VS028	1.23	1.75	4.5	0-50	2½	2½	3	5	1½	714	781	5360
VS029	1.75	2.50	1.5, 3, 4.5, 6, 7.5	0-50	3½	2½	3	5	2½	713	773	5540
VS039	3.34	4.98	6	0-1500	10½	2½	7½	4	37.5	907	1461	5461
VS040C	.92	1.39	6	0-250	2½	2½	4½	12	17	908	509	F4H
VS040S	.92	1.39	6	0-250	2½	2½	4½	12	18	915	510S	F4BP
VS070	.87	1.25	1.5	0-250	—	1½	4¼	6	4.5	23	960P	8R
VS083	.81	1.15	1.5	0-2.5	1½	¾	1¾	1	6	4.0	208	411
VS084	1.05	1.50	22.5	0-2.5	1½	¾	2	12	1	215	412	U15
VS093	1.32	1.75	3	0-25	1½	¾	2½	12	1	210	413	U20
VS093	8.37	11.95	300	0-2.5	2½	2½	3½	4	3.7	722	493	U200
VS100	1.33	1.90	3	0-250	2½	1½	4¼	5	3.5	707	W352	F2BP
VS101	.79	1.15	1.5	0-500	2½	1½	4¼	5	4	700	711	F2BP
VS102	1.61	2.35	22.5	0-40	3½	2½	3½	5	4	710	763	4156
VS103	4.01	5.98	6	0-1000	8¼	2½	6½	4	26	902	706	4F4H
VS106	.84	1.25	1.5	0-1000	2½	2½	4½	12	18	900	735	4FH
VS112	3.05	4.35	22.5, 45	0-50	4½	2½	5¼	5	16.9	709	762S	5308
VS114	2.69	3.85	22.5, 45	0-20	3¼	1¾	4¼	5	5	711	W350	230NC
VS127W	7.66	10.95	22.5, 45	0-250	8½	4¼	7½	4	44	724	W363F	10308SC
VS130	1.76	2.50	1.5, 3, 4.5	0-150	4½	1½	3½	5	4.5	712	761T	2370ST
VS131	4.16	5.95	10.5, 16.5, 22.5	0-50	4	2½	3½	4	6.5	708	778	5156SC
VS132	1.05	1.50	2.8	0-75	—	0.662	1.315	10	¾	1200	E132	H132
VS133	1.17	1.75	4.2	0-75	—	0.662	1.965	24	2.3	1306M	E133	H133
VS134	.79	1.15	3	0-25	1½	¾	2½	10	1	704	750	422
VS136	1.75	2.50	3	0-500	2½	2½	4½	5	7.5	103	W356	212H
VS138	1.92	2.75	3	0-1000	3½	2½	5½	5	13.5	901	W357	4F2H
VS139	4.86	7.25	7.5	0-1000	7¼	4¼	6¼	4	30	903	715	4F5H
VS140	5.53	8.25	9	0-1000	8¾	4¼	6¼	4	37	904	716	4F6H
VS142	.87	1.25	4.5	0-25	1½	¾	2½	10	1.5	705	751	432
VS157W	7.66	10.95	22.5, 45	0-300	8½	4¼	7½	4	51	715	W364F	21308SC
VS163	1.17	1.65	4.2	0-50	—	0.662	1.327	10	¾	1305	E163	H163
VS164	1.35	1.95	5.6	0-50	—	0.662	1.767	24	2¼	1404	E164	H164
VS317	1.96	2.95	6	0-500	5½	2½	4½	6	20	918	731	TW1
VS340	4.01	5.98	12	0-600	10½	2½	7½	4	32	922	1463	2G8H
VS342	1.96	2.95	12	0-250	5½	2½	4½	6	20	926	732	TW2
VS400	.24	.35	1.4	0-7	—	2½	3½	1	3	703	537	—
VS530	.42	.60	1.4	0-20	—	0.455	0.135	60	½	1106	E630	Hg400
VS640	.42	.60	1.4	0-50	—	0.615	0.238	40	½	1104	E630	Hg630
VS640	.42	.60	1.4	0-50	—	0.625	0.440	20	¾	1105	E640	Hg640

♦ Flashlight-type terminals.

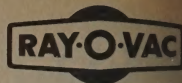
• National Electronic Distributors Association.

* Optional.



Ray-O-Vac Division

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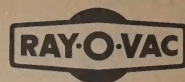
FLASHLIGHTS & LANTERNS

RAY-O-VAC NUMBER	DESCRIPTION	BATT. USED	BULB USED	DLR. UNIT	RETAIL EACH	DEALER EACH	DIST. EACH
SPORTSMAN® FLASHLIGHTS . . . PREMIUM GRADE LIGHTING INSTRUMENTS							
S21F	2 Cell Chrome Knurled Compact, with Ring Hanger, Ind. Box	2-1C	PR-4	1	2.29	1.53	1.18
S22F	2 Cell Chrome Knurled, with Ring Hanger, Ind. Box	2-2D,5D	PR-2	1	2.29	1.53	1.18
SPORTSMAN SEARCHLIGHT . . . PREMIUM GRADE LIGHTING INSTRUMENTS							
S33F	3 Cell Chrome Knurled Searchlight with Ring Hanger, Ind. Box	3-2D,5D	PR-3	1	3.95	2.64	2.05
NITE HAWK® FLASHLIGHTS							
C2	2 Cell Chromed Steel Flashlight, Ind. Box	2-2D,5D	PR-2	1	.99	.65	.48
C3	Chromed Steel Magnet Light, Ind. Box	2-2D,5D	PR-2	1	1.39	.92	.69
PENLIGHTS							
P20	2 Cell Pen Size, Ind. Box	2-#400	224	1	.98	.67	.53
Z21P	2 Cell Size "AA", Ind. Box	2-7AA, 7R	222	1	.98	.67	.53
ALL PURPOSE FLASHLIGHTS							
Z22R	2 Cell Flashlight, Ind. Box	2-2D,5D	PR-2	1	1.85	1.23	.95
ML22	2 Cell Regular Magnet Light, Ind. Box	2-2D,5D	PR-2	1	1.99	1.33	1.03
HEAVY DUTY INDUSTRIAL FLASHLIGHTS							
BR22	2 Cell with three-position switch, Ind. Box	2-3D, 2D or 5D	PR-2	1	1.98	1.34	1.04
G22	2 Cell with Replaceable Switch, Ind. Box	2-3D, 2D or 5D	PR-6	1	3.15	2.10	1.63
N22	2 Cell, Replaceable Lock Switch, Ind. Box	2-3D, 2D or 5D	PR-6	1	3.25	2.17	1.68
N22T	N22 with continuity tester in removable end cap. Ind. Box	2-3D, 2D or 5D	PR-6	1	6.75	4.54	3.50
WF22	2 Cell, Replaceable Slide Switch, Switch Protector, Ind. Box	2-3D, 2D or 5D	PR-6	1	2.15	1.44	1.10
SPORTSMAN LANTERNS . . . PREMIUM GRADE LIGHTING INSTRUMENTS							
301	Sealed Beam. Includes Battery. Ind. Box	1-918	4546, 4506	1	10.95	6.95	5.25
303	Sealed Beam, Red Signal Flasher, Includes Battery. Ind. Box	1-918	4546, and 407	1	12.95	8.28	6.45
304	Prefocused. Swivel head. Includes Battery. Ind. Box	1-918	PR-12, PR-13	1	9.95	6.37	4.81
305	Prefocused, Swivel Head, Red Flasher, Includes Battery. Ind. Box	1-918	PR-12, PR-13 and 407	1	11.95	7.35	5.55
306	Heavy Duty, Sealed Beam. Water and Corrosion-Proof. Includes No. 9185 Battery. Ind. Box	1-9185	4546, 4506	1	19.95	13.00	9.75
AUTOMATIC EMERGENCY LANTERN . . . COMES ON WHEN LIGHTS GO OUT							
AL1	Sealed Beam. Battery Extra. Ind. Box	1-918	4546, 4506	1	15.95	10.63	7.97
BR1	Wall Hanging Bracket for AL1.	-	-	1	1.50	1.00	.75
NITE HAWK LANTERNS & HEADLIGHTS							
L295	Floating Unbreakable Lantern. Weatherproof Switch. Ind. Box	1-941	PR-12, PR-13	1	2.95	1.97	1.36
L400	Floating Lantern with Weatherproof Switch and Red Signal Flasher. Ind. Box	1-941	PR-12, PR-13 and 407	1	3.95	2.64	1.86
L298	Headlight, 3" Reflector. Battery Pouch Separate. Ind. Box	1-942	PR-12, PR-13	1	3.29	2.14	1.63
L19	Battery Pouch for L298. Ind. Box			1	1.00	.67	.50



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BATTERIES

VAC ER	NEDA NUMBER	DESCRIPTION	MAXIMUM DIMENSIONS (INCHES)				BATT. WT.		TERMINALS	DLR. UNIT	RETAIL EACH	DEALER EACH	DIST. EACH
			Diameter	Length	Width	Overall Height	Lbs.	Ozs.					
FLASHLIGHT BATTERIES													
	14F	Display, Size "C", FACTORY-SEAL, Prepriced	1- 1/32	-----	----	1-31/32	0	1.6	Flat Contacts	24	.20	.13	.095
	13F	Display, Size "D", Prepriced, FACTORY-SEAL	1-11/32	-----	----	2-13/32	0	3.4	Flat Contacts	48	.20	.13	.095
	13C	Plain, Size "D", INDUS- TRIAL, FACTORY-SEAL	1-11/32	-----	----	2-13/32	0	3.5	Flat Contacts	48	.25	.155	.115
	13D	SPORTSMAN® Size "D", FACTORY-SEAL, Prepriced	1-11/32	-----	----	2-13/32	0	3.5	Flat Contacts	48	.30	.19	.14
PENLIGHT BATTERIES													
	15F	Standard Penlight, Size "AA", Prepriced, Sealed-In-Steel	9/16	-----	----	1-31/32	0	0.6	Flat Contacts	24	.20	.13	.095
	15E	Standard Penlight, Size "AA", Prepriced	9/16	-----	----	1-31/32	0	1	Flat Contacts	24	.15	.095	.0725
	24F	Pen-Size Penlight, Size "AAA", Prepriced	13/32	-----	----	1- 3/4	0	0.3	Flat Contacts	12	.15	.095	.0725
	910F	Novelty Battery, Size "N"	29/64	-----	----	1- 3/16	0	0.2	Flat Contacts	6	.125	.08	.06125
LANTERN BATTERIES													
	908	Spring Terminals, 6-volt	----	2-11/16	2-11/16	4- 3/8	1	10	Coil Springs	1	1.39	.92	.69
	915	Screw Terminals, 6-volt	----	2-11/16	2-11/16	4- 1/4	1	10	Screw	1	1.39	.92	.69
	917	Clip Terminals, 6-volt	----	2-11/16	2-11/16	4- 3/8	1	10	Clip	1	1.39	.92	.69
	918	SPORTSMAN, 2 Post, 6-volt	----	5- 3/8	2-13/16	4- 7/8	3	0	Screw	1	2.95	1.96	1.51
	--	SPORTSMAN, 2 Post, 6-volt Pressurized	----	5- 3/8	2-13/16	4- 7/8	3	8	Screw	1	3.05	2.05	1.58
	926	SPORTSMAN, 2 Post, 12-volt	----	5- 3/8	2-13/16	4- 7/8	3	0	Screw	1	2.95	1.96	1.51
IGNITION & MULTIPLE BATTERIES													
	900	1½-volt Glow Plug	----	2-11/16	2-11/16	3- 7/8	1	8	Screw	1	1.25	.84	.65
	901	3-volt Spring Clip Terminals	----	3-13/16	2-11/16	5-15/16	2	8	Clip	1	2.75	1.92	1.44
	902	6-volt Screw Terminals	----	8- 9/32	2-25/32	6- 3/16	6	0	Screw	1	5.98	4.01	3.09
	903	7½-volt Emergency Lighting	----	7- 5/16	4	6- 5/16	7	8	Screw	1	7.25	4.86	3.74
	904	9-volt Emergency Lighting	----	8- 9/16	4	6-17/32	9	5	Screw	1	8.25	5.53	4.26
	920	6-volt Barricade Lighting	----	2-11/16	2-11/16	3- 7/8	1	8	Socket	1	1.29	.85	.64
	921	6-volt Barricade Lighting	----	3- 7/8	2- 3/4	5- 1/2	2	12	Socket	1	2.66	1.83	1.41
	922	12-volt	----	10- 3/8	2-13/16	7- 3/8	6	11	Screw	1	5.98	4.01	3.09
crew	905	1½-volt Dry Cell	2- 5/8	-----	----	6- 3/4	2	0	Screw	1	1.35	.91	.70
lip	914	1½-volt Dry Cell	2- 5/8	-----	----	6- 3/4	2	0	Clip	1	1.35	.91	.70
	911	1½-volt Heavy Duty	2- 5/8	-----	----	6- 3/4	2	0	Screw (clip available)	1	1.40	.94	.73
lip	906	1½-volt (screw terminals available)	2- 5/8	-----	----	6- 3/4	2	0	Clip (screw available)	1	1.35	.91	.70
	907	4 cell, 6-volt Multiple Ignition (electric fence battery)	----	10- 1/2	2-13/16	7-13/32	11	0	Screw	1	5.50	3.70	2.77



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BATTERIES

RAY-O-VAC NUMBER	NEDA NUMBER	SIZE - VOLTAGE	MAXIMUM DIMENSIONS (INCHES)				BATTERY WEIGHT		TERMINALS	DEALER UNIT	RETAIL EACH	DEALER EACH
			Diameter	Length	Width	Overall Height	Lbs.	Ozs.				
TRANSISTOR BATTERIES												
13	13	D- 1½	1-11/32	-----	----	2-13/32	0	3.4	Flat Contacts	12	.30	.19
14	14	C- 1½	1- 1/32	-----	----	1-31/32	0	1.6	Flat Contacts	12	.30	.19
15	15	AA- 1½	9/16	-----	----	1-31/32	0	0.6	Flat Contacts	24	.25	.16
1600	1600	9	31/32	-----	----	1-31/32	0	4	Snap Type	6	.89	.62
1601	1601	9	-----	8	1- 9/16	2- 3/4	1	8	Socket	1	2.75	1.92
1602	1602	9	-----	1- 3/8	1- 3/8	2- 3/4	0	5	Snap Type	1	1.85	1.30
1603	1603	9	-----	2- 9/16	2- 1/32	3- 3/32	0	15	Snap Type	1	1.95	1.36
1604	1604	9	-----	1- 1/64	41/64	1-29/32	0	1.5	Snap Type	12	.69	.48
1605	1605	9	-----	1-13/16	1-13/16	2- 7/16	0	7.5	Snap Type	1	1.95	1.36
1606	1606	9	35/64	-----	----	1-57/64	0	0.72	Snap Type	12	1.98	1.29
1608	1608	9	-----	2- 9/32	1- 1/4	7-31/32	1	6	Socket	1	2.75	1.93
1900	1900	9-13½	-----	1- 1/4	7/8	2- 9/16	0	2.5	Socket	1	1.85	1.30
TRANSISTOR BATTERIES — MERCURY												
15M	15M	AA- 1½	0.532	-----	----	1.960	0	1	Flat Contacts	4	.95	.64
1600M	1600M	9	0.968	-----	----	1.960	0	2	Snap Type	1	1.75	1.23
1604M	1604M	9	-----	1.010	.605	1.906	0	1.3	Snap Type	1	1.95	1.31
1611M	1611M	9	0.695	-----	----	1.973	0	1.25	Flat Contacts	6	.98	.68
1810M	1810M	12	0.968	-----	----	2.395	0	3	Snap Type	1	2.70	1.78
T132M	1200	2.8	0.662	-----	----	1.315	0	0.94	Flat Contacts	2	1.50	1.05
T133M	1306M	4.2	0.662	-----	----	1.965	0	1.42	Flat Contacts	2	2.20	1.53
T134M	—	5.6	0.662	-----	----	2.590	0	1.90	Flat Contacts	2	2.75	1.92
T401M	910M	1.4	0.470	-----	----	1.125	0	0.5	Flat Contacts	3	.75	.50
T625M	—	1.4	0.609	-----	----	0.238	0	0.16	Flat Contacts	4	.60	.42
T640M	1105	1.4	0.625	-----	----	0.440	0	0.26	Flat Contacts	4	.60	.42
T675M	—	1.4	0.456	-----	----	0.210	0	0.07	Flat Contacts	6	.45	.32
TRANSISTOR BATTERIES — MANGANESE ALKALINE												
815	15A	AA- 1½	9/16	-----	----	1-31/32	0	0.75	Flat Contacts	12	.50	.325
RADIO "A" BATTERIES												
A4	4	1½	-----	2-11/16	2-11/16	3- 7/8	1	4	Socket	1	1.65	1.15
A6	6	6	-----	2-11/16	2-11/16	3- 7/8	1	4	Socket	1	1.65	1.15
9	9	7½	-----	2- 3/16	1-15/16	3	0	12	Socket	1	1.75	1.23
20	20	1½	1- 3/8	-----	----	4- 9/64	0	6	Flat Contacts	6	.60	.42
RADIO "B" BATTERIES												
200	200	67½	-----	2-11/16	1- 3/8	3-11/16	0	14	Snap Type	1	3.85	2.70
201	201	45	-----	2-21/32	1	3-11/16	0	7	Snap Type	1	3.25	2.27
202	202	45	-----	3- 9/16	1-13/16	5- 1/2	2	0	Socket	1	4.25	2.97
A210	210	30	-----	1- 1/64	39/64	2-17/32	0	2	Flat Contacts	1	1.75	1.23
215	215	22½	-----	1- 1/64	39/64	1-63/64	0	1.5	Socket	1	1.50	1.05
RADIO "AB" BATTERIES												
413	413	1½-90	-----	15- 3/4	4- 1/4	6-13/16	15	8	Socket	1	10.65	7.95
PHOTOFLASH BATTERIES												
210	13P	D- 1½	1-11/32	-----	----	2-13/32	0	3.4	Flat Contacts	12	.30	.19
110	14P	C- 1½	1- 1/32	-----	----	1-31/32	0	1.6	Flat Contacts	24	.30	.19
710	15P	AA- 1½	9/16	-----	----	1-31/32	0	0.6	Flat Contacts	24	.25	.16
410	24P	AAA- 1½	13/32	-----	----	1- 3/4	0	0.3	Flat Contacts	12	.20	.13
215	215	22½	-----	1- 1/64	39/64	1-63/64	0	1.5	Socket	1	1.50	1.05
220	220	15	-----	5/8	19/32	1- 3/8	0	0.4	Flat Contacts	1	1.15	.81
221	221	22½	-----	5/8	19/32	1-63/64	0	0.5	Flat Contacts	1	1.50	1.05
722	722	300	-----	2- 5/8	2- 5/32	3-13/16	1	6	Pin Jacks	1	11.95	8.37
N150	—	225	-----	4- 7/16	2- 3/4	4- 1/8	3	0	Pin Jacks	2	9.95	6.96
1010	—	240	-----	2-19/32	1- 5/16	4- 1/2	0	14	Flat Recessed & Socket	1	7.95	5.56
1011	—	225	-----	3- 9/16	2-29/32	4-29/32	3	12	Pin Jacks	1	10.95	7.65
1012	—	510	-----	3	1-19/32	5- 5/8	1	11	Flat Recessed	1	15.95	11.16



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BATTERIES

NEDA NUMBER	VOLTAGE	MAXIMUM DIMENSIONS (INCHES)				BATTERY WEIGHT		TERMINALS	RETAIL EACH	DEALER EACH	DIST. EACH
		Diameter	Length	Width	Overall Height	Lbs.	Ozs.				
1	4	35/64	-----	-----	1- 1/32	0	.34	Snap	1.30	.87	.65
2	6	-----	3- 7/8	2- 3/4	5- 1/2	2	12	ET1A104	4.10	2.87	2.24
3	4 1/2	-----	1- 5/32	1- 5/32	2-11/32	0	4	Flat	1.25	.87	.63
5	1 1/2	-----	4	1- 3/8	4- 1/8	1	0	ET1A103	1.75	1.23	.90
7	4 1/2	-----	3-15/16	2-11/16	3- 7/8	1	12	ET1A101			
10	7 1/2	-----	4	1- 3/8	4-11/16	1	2	ET1A103			
8	7 1/2	-----	2- 9/16	2- 9/16	4- 1/16	1	0	ET1A105			
11	1 1/2	-----	3- 7/8	13/16	2-27/32	0	7	ET1A105	3.25	2.27	1.68
12	1 1/2	-----	2- 9/16	1- 5/16	4- 1/4	0	11	ET1A101	1.75	1.22	.91
16	6	-----	3- 3/4	1- 3/8	5-11/16	1	4	ET1A101			
17	1 1/2	-----	3- 7/8	1- 7/16	10- 3/4	2	11	ET1A104			
18	1 1/2	-----	3- 7/8	2- 3/4	5- 7/16	2	9	ET1A101	3.95	2.76	2.07
19	4 1/2	-----	2- 9/16	1- 5/16	2-13/16	0	6	ET1A101			
23	1 1/2	-----	3- 7/8	1- 3/8	3	0	12	ET1A103			
26	7 1/2	-----	4-11/16	2-13/16	4- 5/8	1	13	ET1A105	2.62	1.83	1.30
27	6	-----	1- 5/16	-----	4- 1/16	0	6	ET1A101	1.25	.87	.65
203	6 1/2	-----	2- 9/16	2- 1/32	2-13/16	0	13	Snap	1.65	1.15	.85
204	90	-----	3- 7/8	2- 3/4	5- 1/2	2	12	ET1A105	3.19	2.14	1.66
205	22 1/2	-----	2- 3/4	1- 3/8	2- 1/2	0	11	Snap	3.85	2.70	1.98
206	45	-----	3-11/16	1- 3/8	3- 3/4	1	0	Snap	4.50	3.15	2.31
207	45	-----	2-15/16	2- 1/4	4- 1/16	1	13	ET1A111	3.95	2.76	2.16
208	15	-----	3- 7/16	2- 1/4	4- 9/16	1	10	ET1A111	4.50	3.15	2.36
211	6 1/2	-----	4- 1/8	2- 5/8	5- 5/16	2	11	ET1A110	4.95	3.47	2.71
212	75	-----	1- 1/64	39/64	1- 7/16	0	1	Flat	1.15	.81	.59
213	45	-----	1- 7/8	1	5-15/32	0	9	Snap	3.85	2.70	1.98
214	90	-----	1-13/16	1- 3/8	6- 1/4	0	13 1/2	Snap	4.50	3.15	2.31
217	6 1/2	-----	1- 3/64	35/64	3- 9/16	0	3	Snap	2.50	1.75	1.29
400	90, 9	-----	1- 7/8	1	7-15/32	0	9	Snap	4.25	2.97	2.16
401	90, 9, 7 1/2	-----	1-21/64	63/64	3- 1/2	0	4	Snap	2.95	2.07	1.52
405	90, 9, 7 1/2	-----	13- 5/8	2- 3/4	4- 5/8	7	8	Plug First ET1A115	8.25	5.78	4.51
406	90, 9	-----	9- 3/16	2-23/32	4- 3/8	5	2	ET1A116			
407	63, 1 1/2	-----	8-11/16	2- 3/16	3- 3/4	3	8	ET1A116			
410	90, 1 1/2	-----	9- 1/2	2-23/32	4- 3/8	5	2	Plug First ET1A115			
415	90, 9, 7 1/2	-----	9- 1/8	2	4- 3/4	3	8	ET1A122			
425	90, 1 1/2	-----	10	2- 5/16	4-13/16	4	8	ET1A115			
719	22 1/2, 21, 19 1/2, 9, 4 1/2	-----	8- 1/4	4- 1/2	13- 7/8	20	0	Socket & Plug ET1A116	14.95	10.47	8.17
710	22 1/2	-----	11- 7/8	6- 7/16	1- 1/2	4	13	ET1A122			
716	45, 22 1/2	-----	4- 5/16	3- 3/4	6- 3/8	4	0	ET1A116			
727	103 1/2	-----	3-11/16	2- 1/4	7- 3/4	3	5	ET1A115			
728	7 1/2, 4 1/2	-----	7-11/16	2-13/16	7	0	0	ET1A101			
729	22 1/2, 21, 19 1/2, 9, 4 1/2	-----	8- 1/4	4- 9/16	7-15/16	11	0	Clip	7.99	5.59	4.44
730	4 1/2	-----	4	1- 7/16	3- 1/2	0	12	Screw	1.90	1.32	1.04
731	22 1/2, 21, 19 1/2, 18, 16 1/2	-----	6- 3/4	4- 1/8	3-15/16	4	0	Clip	3.62	2.52	2.01
732	24	-----	3- 1/2	2- 3/32	3- 1/16	1	0	Clip	2.82	1.98	1.58
733	22 1/2, 21, 19 1/2, 9, 4 1/2	-----	4- 3/16	2- 5/8	3- 1/2	1	11	Clip			
734	45, 43 1/2, 42, 40 1/2, 22 1/2, 18, 12, 6	-----	8- 1/4	4- 9/16	7-15/16	11	8	Clip	7.97	5.58	4.44
735	22 1/2	-----	3- 3/8	2- 1/8	2- 3/4	1	4	Screw	2.35	1.61	1.21
736	45, 22 1/2	-----	8	4	7- 3/8	10	8	Clip	9.95	6.96	5.22
737	7 1/2, 4 1/2	-----	2- 3/4	5/8	1- 3/4	0	2 1/2	Screw	2.95	2.05	1.60
738	103 1/2	-----	1- 3/8	1- 3/8	11-23/32	1	2	Flat			
739	1 1/2	-----	1- 9/32	-----	3- 1/2	0	5	Flat	.52	.35	.27
740	3	-----	1-19/32	29/32	3	0	3	Screw			
741	3	-----	3- 7/8	2- 5/8	5- 1/4	2	10	Screw	1.95	1.30	1.01
742	3	-----	5- 1/8	1- 5/16	4- 3/16	1	4	Screw			
743	4 1/2, 3	-----	2- 1/16	3/4	2-19/32	0	5	Screw	2.50	1.76	1.32
744	4 1/2	-----	2- 3/8	13/16	3- 7/16	0	5	Recessed Contacts	3.45	2.42	1.89
745	9	-----	2- 5/8	-----	12- 5/8	4	8	Screw	4.06	2.86	2.23
746	1 1/2	-----	7- 7/8	5- 1/4	7- 1/8	14	0	Screw	10.10	7.55	6.30
747	3	-----	2- 5/8	1- 3/8	4- 9/16	0	11	Screw	1.15	.79	.59
748	3	-----	2- 5/8	1- 3/8	4- 9/16	0	11	Screw	1.90	1.33	1.00
749	3	-----	2-11/16	2-11/16	4- 3/8	1	4	Screw	2.35	1.64	1.23
750	4 1/2	-----	1- 3/8	3/4	2- 9/16	0	1.5	Flat Springs	1.15	.79	.59
751	4 1/2	-----	2	3/4	2- 5/8	0	5	Flat Springs			
752	4 1/2	-----	2-15/32	13/16	3- 1/16	0	6	Flat Springs	1.95	1.36	1.02
753	22 1/2, 16 1/2, 10 1/2, 5, 6, 4 1/2, 3	-----	4- 1/8	2- 1/2	3- 5/16	1	12	Clip	5.95	4.16	3.12
754	45, 22 1/2	-----	4- 1/8	2- 5/8	5- 7/16	2	7	Screw	4.35	3.05	2.38
755	45, 22 1/2	-----	2-31/32	1-27/32	4-15/16	1	10	Screw	3.85	2.69	2.02
756	4 1/2, 3, 1 1/2	-----	3-15/16	1- 3/8	3	1	0	Screw	2.50	1.76	1.37
757	7 1/2, 6, 4 1/2, 3, 1 1/2	-----	3-15/16	7/8	3	0	8	5 Screws, 1 Wire	2.50	1.75	1.31
758	4 1/2	-----	2-15/32	13/16	2- 7/8	0	6	Screw	1.75	1.23	.91
759	45, 22 1/2	-----	8- 1/8	4- 5/8	7-11/16	13	0	Clip	9.95	6.96	5.22
760	45, 22 1/2	-----	8- 1/16	3- 3/16	7- 3/16	6	8	ET1A107	9.95	6.96	5.22
761	22 1/2, 16 1/2, 4 1/2, 3	-----	4	2- 1/2	3	1	3	ET1A113			
762	900	-----	2- 5/8	2- 5/32	3-13/16	1	6	Tip Jack	11.95	8.37	6.54
763	45, 22 1/2	-----	8- 1/8	3- 1/4	7- 9/16	8	8	Clip			
764	6	-----	5- 1/8	1- 5/16	4- 3/16	1	4	Screw	3.79	2.65	1.98
765	45, 22 1/2	-----	8- 1/16	4- 5/16	7- 3/16	11	0	ET1A107			
766	45, 22 1/2	-----	8- 1/16	4- 1/2	7- 7/16	13	0	ET1A107	9.95	6.96	5.22
767	1 1/2	-----	2- 5/8	2- 5/8	2-13/16	0	13	ET1A101	1.93	1.35	1.04
909	9	-----	4- 1/16	2-13/16	3	1	6	Screw	3.10	2.16	1.62

Net

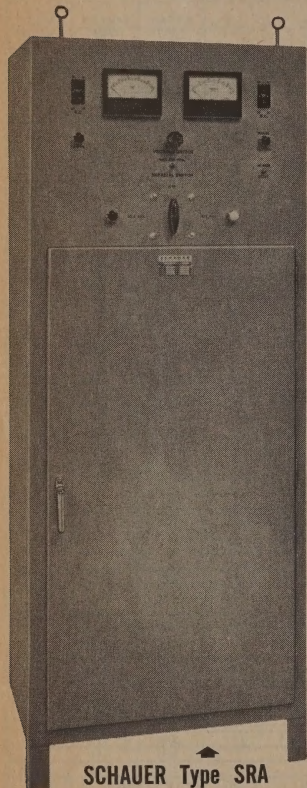
SCHAUER POWER SUPPLIES

New in design and applied engineering technology are Schauer standard and custom-engineered power supplies for communication, industrial and laboratory use. Among a wide range of types are fully transistorized series regulated and magnetic amplifier regulated, output regulated and non-regulated units. Illustrated here are but a few of the types and designs that are available.

Special features that can be incorporated include alarm cir-

cuits, current limiting circuit, bus switching, etc. All units are built of quality components, conservatively rated and completely wired for maximum reliability under continuous duty conditions.

Your power supply problems can be readily solved by consulting with Schauer — manufacturers of quality products since 1907. Ask your distributor for Schauer Catalog No. 640.

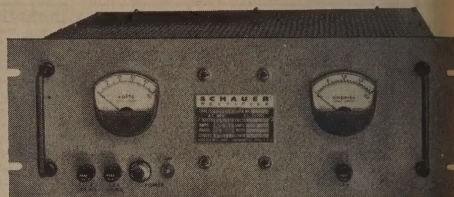


**SCHAUER Type SRA
Power Supply**

Magnetic amplifier regulated input and output with alarm circuit and provisions for switching to either positive or negative bus of a 3-wire D.C. system. Regulation is maintained within 1% total band for load variations from no load to 125% of full load and for input voltage variations of $\pm 10\%$. Available in capacities from 10 through 250 amperes in 48, 60 and 125 volt models for 3 phase, 60 cycle input lines at standard commercial voltages.

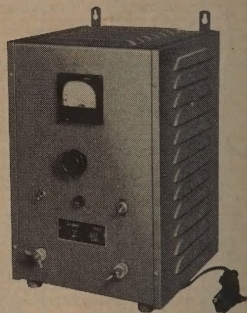
SCHAUER Type TRPS Power Supply

Transistorized regulated power supply for relay rack mounting, providing exceptionally close output regulation. Can be supplied in capacities up to 25 amperes maximum at voltage ratings up to 125 volts D.C. and in a variety of packaging and mounting arrangements.



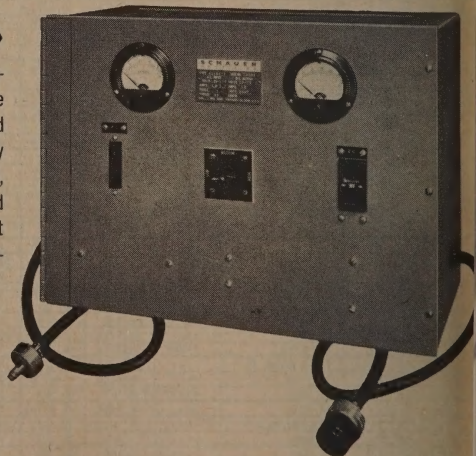
SCHAUER Type SA48006 Power Supply

For operating and testing AM and FM 2-way and marine radios. Provides maximum 48 amperes at 6 volts D.C. or 24 amperes at 12 volts D.C. by switching. Output adjustable by multiple tap switch. The ventilated steel case for bench or wall mounting is 10" wide x 9½" deep x 15" high.



SCHAUER Type SK Power Supply

General purpose power supplies for applications where close output regulation and a highly filtered D.C. supply are not required. Bench, wall and floor mountings and many variations in output and characteristics are possible.



Rectifier Division

SCHAUER MANUFACTURING CORP.

SOLA ELECTRIC

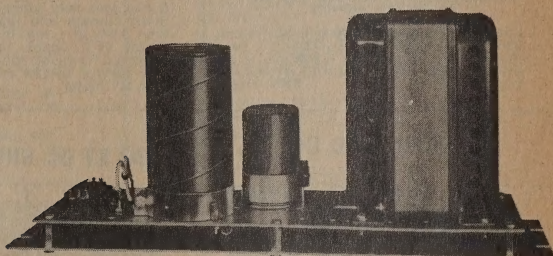


DIVISION OF SOLA BASIC INDUSTRIES

Sola CVDC Power Supplies

FAST, RELIABLE VOLTAGE REGULATION FROM A LOW-COST SOURCE

CVDC circuitry is so trim and simple that it can offer the utmost in performance and reliability. The constant-voltage transformer (originated by Sola) offers inherent current-limiting action that allows utilization of efficient, economical semiconductor rectifiers with low forward voltage drop. CVDC has these specific advantages:



Constant-voltage Sola transformer provides $\pm 1\%$ regulation for line-voltage variations as great as $\pm 15\%$, serves as the heart of CVDC power supplies for voltage-sensitive equipment.

Fast, dependable line-voltage regulation: within $\pm 1\%$ for fluctuations of $\pm 15\%$; voltage will return to regulation envelope in approximately 50 milliseconds.

Load regulation: from $\frac{1}{2}\%$ to 8% , one half to full load.

Automatic current limiting: short circuit protection; withstands load faults; high overloads cannot damage power supply or equipment components.

High efficiency: upwards of 75% ; low input-power requirements.

Simplified operation: no adjustments or maintenance; continuous duty.

Convection cooling.

Ripple: 1% rms maximum.

Ambient operating temperature: 40°C maximum.

Fixed output for fixed, intermittent, variable, or pulse loads.

All inputs 100-130 volts, 60 cps.

STANDARD CODE LISTING

Model No.	Volts	Amps.	VA	Load Regulation F.L.	Regulation F.L.	Ht.	Shipping Wt.	Price 1-4
1513-1	6	10	60	9	7	3 1/2	27	\$150.00
2123	6	15	90	9	7	5 1/4	*38	175.00
1514-1	12	5	60	7	5	3 1/2	18	115.00
2124	12	10	120	7	5	5 1/4	*31	150.00
1845	12	15	180	7	5	5 1/4	50	195.00
1515-1	18	5	90	5	4	3 1/2	20	120.00
2125	18	10	180	7	5	5 1/4	*45	175.00
1024-1	24	6	144	5	4	5 1/4	30	145.00
2126	24	10	240	6	4	5 1/4	*48	180.00
1203	24	15	360	5	4	8 3/4	64	250.00
2127	24	25	600	6	4	7**	*72	335.00
1525	28	8	224	6	4	5 1/4	42	180.00
2128	28	15	420	7	5	7	*55	250.00
1048	48	4	192	3.5	2.5	5 1/4	32	135.00
1561	48	10	480	4	2	5 1/4	48	185.00
2129	48	20	960	3	2	8 3/4	*95	275.00
1125	125	2	250	2.5	1.5	5 1/4	44	145.00
1150	150	2	300	2	1.5	5 1/4	48	145.00
1200	200	1	200	3	2	5 1/4	39	140.00
1250	250	1	250	3	2	5 1/4	45	150.00

Weights ± 3 lbs.
Could change to 8 3/4.

Supplies furnished with panel for 19" rack mounting.

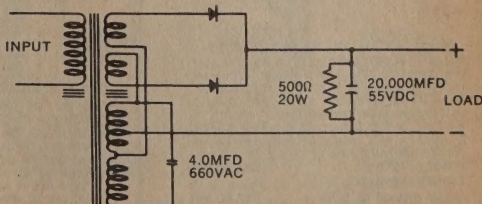
CVDC

CVT
TRANSFORMER

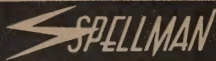
RECTIFIER

H-C
FILTER

OUTPUT



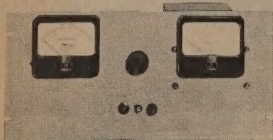
Typical schematic diagram for Sola CVDC power supply.



HIGH VOLTAGE RF TYPE DC

POWER SUPPLIES

UNREGULATED 0-60 KV SOLID STATE

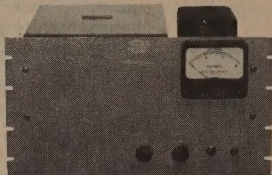


MODEL ST-60

CONTINUOUSLY VARIABLE 0-60 KV
DC POWER SUPPLY

Continuously variable from 0-60 KV;
250 microamps; 1 ma. @ 20KV.
Input: 117 V 60 cycles. 19"W x
8 3/4"H x 12"D. Complete with HV and
current meters. \$350 net

20-40 KV DC REGULATED

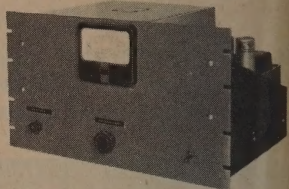


MODEL RG-40

CONTINUOUSLY VARIABLE 20-40 KV
REGULATED DC POWER SUPPLY WITH
FOCUS VOLTAGE TAP 4-9 KV

Continuous duty supply with highly filtered
outputs and regulations better
than 0.5% at 1 ma. for line and load.
Ripple .05%. Input: 117 V 60 cycles.
Designed for flying spot and projection
use. 19"W x 10 1/2"H x 13"D.
With HV meter\$385 net

12-40 KV DC UNREGULATED



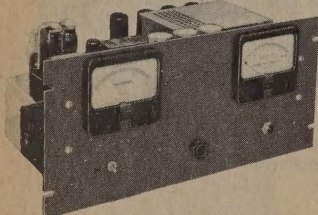
MODEL 2040

12-40 KV DC POWER SUPPLY

A highly filtered, rugged supply ideal
for precipitators, spot knocking, elec-
trostatic flocking and spraying and in-
sulation breakdown testing. Voltage
range variable 12 to above 40 KV. Cur-
rent output 1 ma. at 30 KV. Input:
117 V-60 cycles. 19"W x 12 1/4"H x 13"D.

With HV meter\$235 net

REGULATED DC

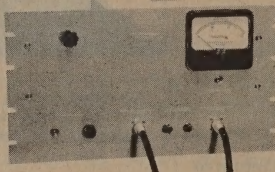


CONTINUOUSLY VARIABLE

Output current 2 ma. Input: 117
V 60 cycles. Regulated against line and
load better than 0.5%. Complete with
current and volt meters. Dimensions:
Panel height 8 3/4", width 19", depth
13".

VOLTAGE RANGE	MODEL	PRICES
2-6 KV	RG-5	\$260 net
5-12 KV	RG-10	270 net
10-18 KV	RG-15	285 net

0-30 KV DC UNREGULATED



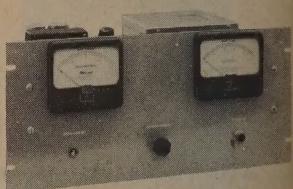
MODEL PN-30

REVERSIBLE POLARITY
0-30 KV DC POWER SUPPLY

Continuously variable—reversible 0-30
KV unregulated. Current output approx.
2 ma. at 20 KV; 1 ma. at 30 KV. Ripple
0.1%. Input: 117 V 60 cycles. 19"W x
10 1/2"H x 13"D.

With HV meter\$275 net

1-15 KV DC REGULATED



MODEL LAB-10 PN CONTINUOUSLY VARIABLE

REVERSIBLE POLARITY 1-15 KV
REGULATED DC SUPPLY

Output current 2 ma. Regulations line
and load better than 0.5%. Input: 117 V
60 cycles. Complete with HV and cur-
rent meters. 19"W x 8 3/4"H x 13"D\$385 net

MODEL LAB-10 — Same specifications
as above except not reversible \$285 net

5 KV UNREGULATED

MODEL 4575



5 KV — 1 ma. DC POWER SUPPLY
For an output voltage of 5 KV DC at 1
milliampere, the low voltage input re-
quirement is 250 V at 50 milliamperes.
By varying the DC input the output
voltage can be varied from approx. 1
KV to 7 1/2 KV. Dimensions: 5 1/2" high x
5" deep x 4 1/4" wide. In completely en-
closed metal housing

MODEL 4575\$32.50 net

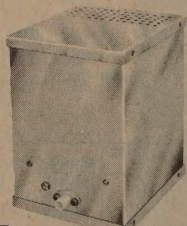
MODEL 4575-2 — same as above with
2 ma. output at 5 KV ...\$42.50 net

MODEL 4575PN — Reversible polarity.
High voltage secondary floating or can
be grounded. 1 ma. at 5 KV \$42.50 net

MODEL 4575-2PN—Reversible polarity.
2 ma. at 5 KV\$52.50 net

7 1/2-12 KV UNREGULATED

MODEL 7512



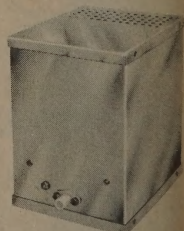
7 1/2-12KV —
1 ma. DC Power Supply

Voltage output of approx. 7.5 to
12 KV. 1 ma. of current may be
drawn throughout the voltage
range. To obtain an output vol-
tage of 7.5 KV at 1 ma., low vol-
tage input requirement is 300 V
DC at 50 ma. By varying the DC
input, the output voltage can be
increased. Maximum input vol-
tage of 425 V at 100 ma. will
give an output of 12 KV at 1 ma.
5 3/4" W., 8 1/4" H., 6 3/4" D.

\$42.50 net

10-20 KV UNREGULATED

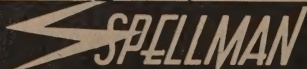
MODEL 7516



10-20 KV —
.5 ma.
DC POWER
SUPPLY

Voltage output of approx. 10 to 20 KV.
To obtain output voltage of 10 KV at
1 ma., low voltage input requirement is
300 V DC at 50 ma. Maximum input
voltage of 425 V at 100 ma. will give an
output of 20 KV at .5 ma.
5 3/4" W x 8 1/4" H x 6 3/4" D

\$48.50 net

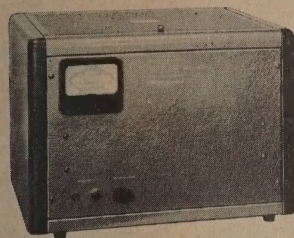


HIGH VOLTAGE CO., INC.

SPELLMAN

HIGH VOLTAGE RF TYPE - DC

POWER SUPPLIES



MODEL LAB-30P

DC POWER SUPPLY
REVERSIBLE
POLARITY
CONTINUOUSLY
VARIABLE
1 TO 30 KV

Regulated DC Power Supply with regulations of 0.5% at 2 milliamperes. Polarity reversible from front panel. Input: 117 V 60 cycles.

Standard Rack Model — 19" wide x 12" high x 13" deep.
Standard Bench Model — 21" wide x 14" high x 15" deep.

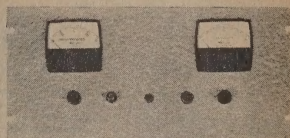
With HV meter \$645. Net

MODEL LAB-30 is a positive polarity output regulated High Voltage DC Power Supply with same electrical characteristics and dimensions as the LAB-30PN. Available in either positive or negative polarity.

With meter \$545. Net

SPECIAL MODELS up to 5 ma. output AVAILABLE

5-35 KV TRANSISTORIZED COMPLETELY SOLID STATE DC POWER SUPPLY

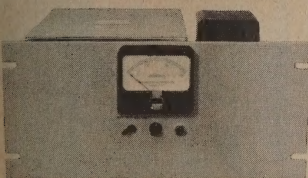


Continuously variable 5-35 KV regulated power supply with regulated focus voltage tap 4-9 KV.

A continuous duty DC supply with highly filtered outputs and regulated against line and load better than 0.05% at 1 ma. Ripple less than 0.05%. Input: 117V 60 cycles.

Dimensions: 19" W x 8 3/4" H x 15" D.

MODEL TR-135 Complete with HV and Current Meters \$575 Net



MODEL RG-30

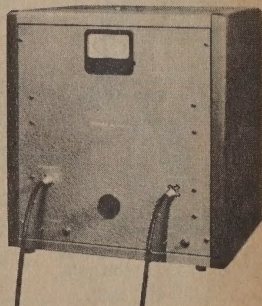
CONTINUOUSLY
VARIABLE
15-30 KV
REGULATED
DC POWER SUPPLY
WITH
REGULATED FOCUS
VOLTAGE TAP

continuous duty DC supply with highly filtered outputs and regulations against line and load and drift better than 0.25% at 1 ma. Ripple less than 0.5%. A variable focus tap 4-6 KV for use with flying spot tubes. 19" wide x 8 3/4" high x 13" deep. 117 V 60 cycles.

With HV meter \$375. Net

MODEL LAB-60PN

REVERSIBLE POLARITY
CONTINUOUSLY VARIABLE
0-60 KV DC REGULATED
POWER SUPPLY



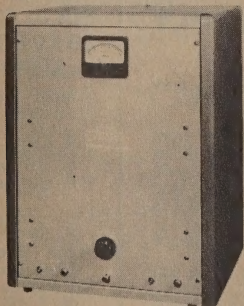
Current output 1 ma. at 60 KV 2 ma. may be drawn from 50 KV down. Regulations — no load to full load 0.5% at 1 ma. Input: 117 V 60 cycles. Dimensions in cabinet: 23 3/4" high x 21" wide x 18" deep.

LAB-60PN — Reversible polarity — either positive or negative output controlled through switch on front panel. \$820 Net

LAB-60 — Same as above not reversible. Specify polarity when ordering. \$765 Net

MODEL LAB-90

1-90 KV REGULATED
DC POWER SUPPLY

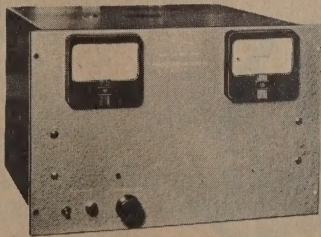


Continuously variable 1 to 90 KV DC Power Supply. Output current 1 ma. at 90 KV.

2 ma. from 40 KV down. Voltage regulations better than 0.5% throughout entire range. Dimensions in cabinet: 28" high x 21 3/4" wide x 18" deep. 117 V 60 cycles.

LAB-90 — Complete with HV meter \$945 Net
Specify polarity output — positive or negative.

MODEL LAB-90C — Same as above except automatic overload cut-out and reset button provided. Adjustable sensitivity. 5 ma. to 2.5 ma. \$995 Net



MODEL LAB-20

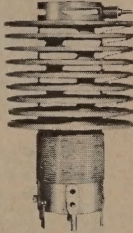
CONTINUOUSLY
VARIABLE
0-20 KV
REGULATED
RF TYPE DC
POWER SUPPLY

Current output: 4 ma. @ 20 KV; 10 ma. from 10 KV down. Regulations against line, load and drift, better than 0.5% at 4 ma. Ripple .05%. 19" W x 12 1/4" H x 15" D. 117 V 60 cycles.

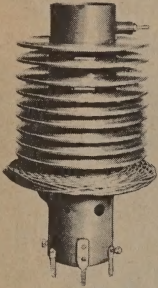
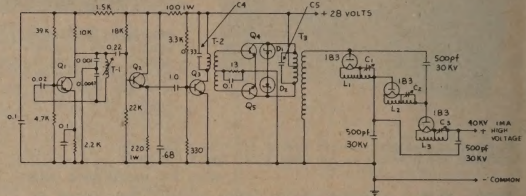
Complete with HV and current meters. \$545 Net

SPELLMAN

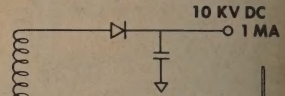
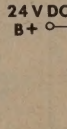
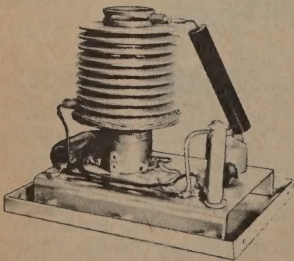
HIGH VOLTAGE CO., INC.

SPELLMAN**HIGH VOLTAGE**
RF TYPE - DC**COILS and POWER SUPPLIES****TRANSISTORIZED HIGH VOLTAGE STEP-UP COIL****OUTPUT 15KV @ 2 ma.****MODEL TRF-15**Complete with operational circuit diagram and data
\$15.00 net

- Coil driven by pair of transistors in push-pull.
- Secondary Output Voltage — 15 KV
- Coil Height — 4 1/4"
- Secondary Current — 5 Milliamperes
- Diameter — 2 5/8"
- Approx. Frequency With Single Rectifier — 120 KC
- In tripler circuit — 78 KC

**MODEL TRF-10**Complete with operational circuit diagram and data
\$15.00 net**TRANSISTORIZED HIGH VOLTAGE STEP-UP COIL****OUTPUT 10 KV DC @ 1 ma.**

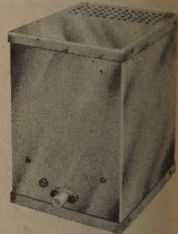
- Coil driven by single self-oscillating transistor
- Input voltage 24 V DC approx. 1 amp.
- Coil height — 4 1/4"
- Diameter — 3"
- Approx. operating frequency — 120 KC

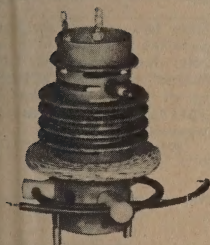
**ALSO AVAILABLE****HIGH FREQUENCY SILICON RECTIFIER**
30 KV PIVDimensions: 3" long x 1 1/2" dia.
MODEL PIV-30 \$20.00 net**DC to DC COMPLETELY SOLID STATE**
10 KV HIGH VOLTAGE POWER SUPPLY

- Input — 24 V DC approx. 1 amp
 - Output — 10 KV DC @ 1 ma.
 - Ripple less than 0.05%
 - HV output may be varied from 1 KV to 10 KV by controlling the DC input voltage. For example: for a 5 KV output @ 1 ma., an input voltage of 14V is required.
 - High frequency unit—frequency approx. 120 KC
 - Completely shielded in an enclosed housing
 - Dimensions—6" W x 6" H x 5" D
- SHOWN LESS HOUSING**
MODEL TR-110

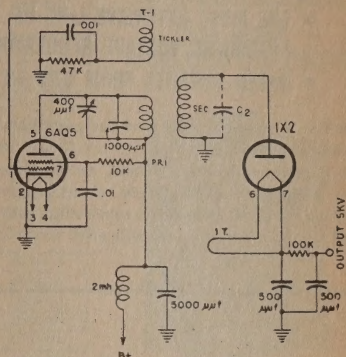
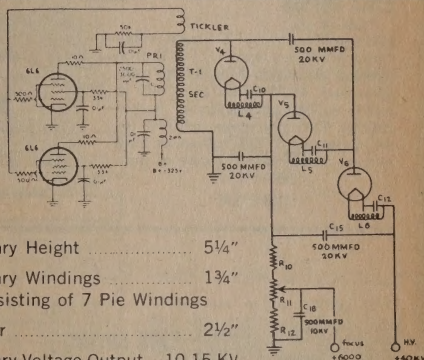
\$65.00 net**DC to DC**
SOLID STATE
20KV POWER SUPPLY

- Input — 24 V DC approx. 1.8 amps.
 - Output — 20 KV @ 0.5 ma.
 - Ripple less than .01%
 - HV output may be varied from 1 KV to 20 KV by controlling the DC input voltage. For example: for a 10 KV output @ 1 ma. an input voltage of 15 volts @ 1.6 amps is required. For a 5 KV output @ 1 ma. an input voltage of 9 volts @ 1.7 amps is required.
 - High frequency unit — frequency approx. 120 KC
 - Completely shielded in enclosed housing
 - Dimensions — 5 3/4" W x 8 1/4" H x 6 1/4" D
- MODEL TR-120 \$75.00 net**

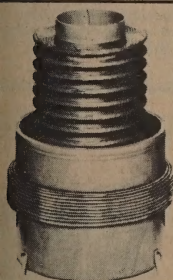
**SPELLMAN** **HIGH VOLTAGE CO., INC.**

SPELLMAN**HIGH VOLTAGE****STEP-UP COILS****FOR RF POWER SUPPLIES****COIL MODEL 5 KV**

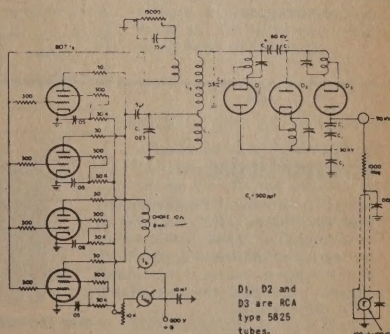
Secondary Height	3 1/2"
Secondary Windings	1 3/4"
Consisting of 4 Pie Windings	
Primary Diameter	2 1/4"
Secondary Voltage Output	5 KV
Secondary Current	2 Milliamperes
Approx. Frequency	300 KC
5KV Coil	\$8.50 Net

**COIL MODEL 10-15 KV**0-15 KV
15.00 Net**COIL MODEL 10-15 KV-1**10-15 KV-1 with filament winding for
single 1B3 rectifier \$15.25 Net
10-15 KV-2 with 2 filament windings for
two 1B3 rectifiers \$15.50 Net**COIL MODEL 10-15 KV-2**

Secondary Height	5 1/4"
Secondary Windings	1 3/4"
Consisting of 7 Pie Windings	
Diameter	2 1/2"
Secondary Voltage Output	10-15 KV
Secondary Current	2 Milliamperes
Approx. Frequency	175 KC

L4, L5, L6 are
Spellman RF
Filament TransformersTECHNICAL INFORMATION
AND
CIRCUIT DIAGRAMS
FURNISHED WITH
EACH COIL**COIL MODEL 35 KV**

Secondary Height	7"
Secondary Windings	3" dia.
Consisting of 10 Pie Windings	
Primary (separate from secondary)	
Height	4"
Diameter	4 1/4"
Secondary Voltage Output	35 KV
Secondary Current	5 Milliamperes
Approx. Frequency	70 KC
35KV Coil	\$46.20 Net
25KV—Same as 35 KV except	
Secondary Height	6"
25KV Coil	\$39.60 Net
70KV—Same as 35KV except Sec.	
height 10", 12 pie windings 4" dia.,	
Primary height 4", Diameter 5", Approx.	
Frequency 70 KC	
70KV Coil	\$82.50 Net



L4, L5, L6 are Spellman RF Filament Transformers

**RF FILAMENT TRANSFORMERS**

A self-resonant auto transformer for
use with type 1B3 Rectifier tube.
Complete with instructions.

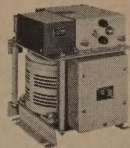
Will operate with Spellman HV coils.....\$1.75 Net
Tuning Padder for Filament Transformer... .70 Net

SPELLMAN HIGH VOLTAGE CO., INC.

STABILINE[®] automatic VOLTAGE REGULATORS

- THE MOST EXTENSIVE LINE OF
AUTOMATIC VOLTAGE REGULATORS
- RATED OUTPUTS FROM 0.25 TO 275 KVA

Deliver a constant output voltage regardless of variations in input voltage or changes in load current. Conservatively rated, ruggedly built, precision products. Submit specifications for ratings desired but not given in the charts. Input voltage ranges shown are at nominal output voltage; input voltage range shifts with output voltage setting. All are cabinet types; those with other construction also are indicated.



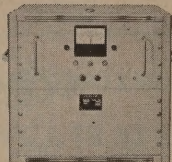
TYPE EMT4104BUT

Types EMT4104B, (U), (UT)

Have two primary windings for parallel or series (120 or 240 volt) duty. Type EMT4104B is cabinet enclosed; EMT4104BUT is of open construction. EMT4104BUT has component screened or enclosed.

EMT series

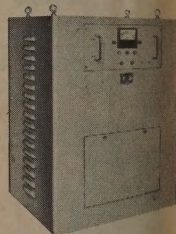
Electro Mechanical Transistorized types in ratings from 2.3 to 118 kva. Control circuit is completely transistorized. POWERKOTE Coils in power section permit higher output ratings. Rated accuracy $\pm 0.75\%$ for all variations of line voltage or load current within stated range of unit.



TYPE EMT4115B

EMS series

Electro Mechanical Transistorized types for single or three phase duty with ratings from 25 to 275 kva. Several types available with individual line control for greater application flexibility. Plug-in transistorized control circuit permits quick replacement in event of malfunction.



TYPE EMS42100



TYPE EMK4105R

EMK series

Electro Mechanical high speed, high accuracy assemblies in ratings of 2.5/5.0 KVA. Accuracy $\pm 1.0\%$ of nominal output voltage.



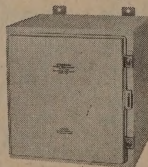
TYPE IES9101

IES series

Solid-state types with accuracy within 100 millivolts bandwidth, efficiency up to 95%, fast response, low distortion and wide operating frequency range. No vacuum tubes, motors, blowers or relays are used. All units have provision for remote sensing and have removable plug-in solid-state circuit boards.

All-boost Marine

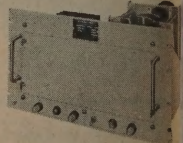
Electro Mechanical Transistorized type EMT10228 is fully enclosed in a weatherproof cabinet. Well suited for marine or industrial applications where equipment must withstand effects of dust and moisture. Has 6 KVA rated output.



TYPE EMT10228

Militarized

Standard Electro Mechanical and Electro Mechanical Transistorized types that meet the requirements of applicable military specifications. Type EMTH41007MH is $3\frac{1}{2} \times 6 \times 4\frac{1}{2}$ " type EM4108MCR fits standard 19" relay rack. Accuracy $\pm 1.0\%$.



TYPE EM4108MCR



THE SUPERIOR ELECTRIC COMPANY

SEE OTHER SUPERIOR ELECTRIC PRODUCT PAGES

EMT SERIES

MINIMUM INPUT VOLTAGE	OUTPUT VOLTAGE (ADJUSTABLE)	INPUT VOLTAGE RANGE†	MAXIMUM OUTPUT AMPERES	RATED OUTPUT KVA	CORRECTION RATE AT 60 CYCLES (SECONDS/VOLT)	TYPE
50/60 CYCLE, SINGLE PHASE OPERATION						
115	110-120	95-135	20	2.3	0.075	EMT4102B1
			57	6.6	0.075	EMT4106CS
		90-115	52	6.0	0.12	EMT1022B
			105-125	114	13.0	0.15	EMT4112B5*
120†	110-120	95-135	144	16.6	0.125	EMT4115B
		108-137	35	4.2	0.10	EMT4104B†
			36	8.3	0.083	EMT4207B
230†	220-240	195-255	93	21.4	0.083	EMT4220
			205-250	130	29.9	0.111	EMT4228C
		228-256	35	8.4	0.10	EMT4104B†
460†	440-480	400-520	20	9.2	0.041	EMT4407B
			45	20.7	0.041	EMT4418B

50/60 CYCLE, THREE PHASE OPERATION						
230†	220-240	195-255	33	13.1	0.083	EMT6210YB
			48	19.1	0.083	EMT6215YB
			63	25.1	0.083	EMT6220YB
			145	57.8	0.25	EMT6245YB
			188	74.9	0.25	EMT6270DB
460	440-480	400-520	18	14.3	0.041	EMT6412YB
			24	19.1	0.041	EMT6417YB
			35	27.9	0.041	EMT6425YB
			75	59.8	0.125	EMT6450YB
			100	75.0	0.125	EMT6475YB
			420-500	148	0.188	EMT64100YB

EMS SERIES

50/60 CYCLE, SINGLE PHASE, 2-WIRE						
115	110-120	103.5-126.5	833	100	0.65	EMS41100
230†	220-240	218.5-241.5	435	100	0.22	EMS42100†

50/60 CYCLE, SINGLE PHASE, 3-WIRE, INDIVIDUAL LINE CONTROL						
120	230-250/115-125	204-276/102-138	104	25.0	.03/.06	EMS14225
			250	60.0	.03/.06	EMS14260
	220-240/110-120	228-252/114-126	417	100	.10/.21	EMS142100†

50/60 CYCLE, THREE PHASE, SINGLE CONTROL						
230†	220-240	203-257	339	135	0.28	EMS62135Y†
460	440-480	445-495	230	180	0.30	EMS64180Y
			347	275	0.30	EMS64275Y

50/60 CYCLE, THREE PHASE, INDIVIDUAL LINE CONTROL						
120	191-217/115-125	177-239/102-138	250	90.0	.08/.14	EMS16290Y
		165-233/95-135	525	190	.37/.22	EMS162190Y†

EMK SERIES

50/60 CYCLE, SINGLE PHASE						
115	110-120	95-135	23	2.6	0.02	EMK4105†
		105-125	46	5.3	0.04	

IES SERIES

50/60 CYCLE, SINGLE PHASE						
115	110-120	95-135**	4.4	0.5	—	IES91005
			8.7	1.0	—	IES9101
			26.1	3.0	—	IES9103
			52.2	6.0	—	IES9106
			130	15.0	—	IES9115
230	220-240	195-255**	13	3.0	—	IES9203
			26.1	6.0	—	IES9206
			65	15.0	—	IES9215

MILITARIZED TYPES

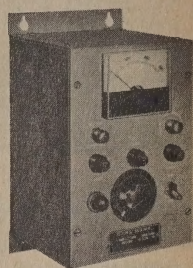
5-60 CYCLE, SINGLE PHASE						
120	115-125	105-135	66.6	8.0	0.10	EM4108MCR
80-420 CYCLE, SINGLE PHASE						
115	115	103.5-126.5	6	0.69	0.13▲	EMTH41007MH

▲At 400 cycles.
 †Also available as rack model (suffix R when ordering).
 *For 60 cycle operation only.
 ‡Also available as rack (suffix R when ordering) or wall mounted (suffix H when ordering) models.
 †Unit can be converted for 208 volt operation by simple tap changes. Input and output voltage ranges change proportionally.
 *At nominal output. Shifts with output voltage setting but not proportionally.
 †Also available in open construction (suffix U) and with screened and enclosed (suffix UT) construction.
 †At nominal output. Shifts proportionally with output voltage setting.

SECTIONS 2100, 3500 AND 5600

STABILINE®

FULL RANGE REGULATED CONTROLLERS



TYPE FR500MP

For use with any motor-driven

POWERSTAT®
Variable
Transformer
to provide
full range:

1

REGULATED AC VOLTAGE

—Regulates output voltage from any motor-driven 120 or 240 volt 50/60 cycle, single phase POWERSTAT Variable Transformer. For three phase, the unit monitors one line-to-neutral or one line-to-line voltage. Can be used for 480 volt duty by using step-down transformer. Output voltage remains within a 2-volt band on 120 volts and within 4-volt band on 240 volts.

2

REGULATED AC CURRENT

—Combined with POWERSTAT Variable Transformer, current/voltage transformer and current transformer, the unit will maintain constant output current accurate within $\pm 1\%$ of the maximum current setting.

3

REGULATED DC VOLTAGE—

Combined with a POWERSTAT Variable Transformer and a user-supplied d-c power supply, the unit provides regulated d-c voltage. Can be supplied for d-c use or can be modified by user.

terado DC-AC Inverters, Chargers, Relays, Voltage Adjusters

60 CYCLE INVERTERS

Change battery current to 110 volt, 60 cycle AC. Frequency stable within 1/2 cycle, with change in load and input voltage.

TRANSISTORIZED

Frequency Stabilized

DUAL CONTINENTAL

Converts 12 v. D.C. to 110 v. 60 cycle 550 to 600 watts. Complete with battery cables and remote control with variable A.C. output. Filtered for tape recorder. Frequency stable within 1/2 cycle with changing input voltage and load. Size 10 1/2" w. x 13 1/2" d. x 6" h. Shpg. Wt. 60 lbs.

Terado No. 50202—Net Each.....\$307.77

CONTINENTAL (Transistorized, 300 watts)

Same features as DUAL above, but has capacity of 275 to 300 watts. Size 10 1/2" x 6" x 6". Shpg. Wt. 30 lbs.

Terado No. 50191—Net Each.....\$153.13

ATLAS (Transistorized, 200 watts)

Same features as CONTINENTAL above, but has capacity of 175 to 200 watts. Size 10 1/2" x 6" x 6". Shpg. Wt. 21 lbs.

Terado No. 50200—Net Each.....\$114.53

TITAN (Transistorized, 175 watts)

Same features as ATLAS above less remote control, but with on-off switch and A.C. receptacle in case. Capacity 150 to 175 watts. Size 10 1/2" x 6" x 6". Shpg. Wt. 20 lbs.

Terado No. 50201—Net Each.....\$100.51

TRANSISTORIZED

Frequency Not Stabilized

GEMINI

(Transistorized, 450 to 500 watts)

Transistorized 12 V. D.C. to 110 V. A.C. Designed to operate equipment not sensitive to frequency change. Size 12 1/2" x 6" x 6". Shpg. Wt. 20 lbs.

Terado No. 50-128—Net Each.....\$97.17

Remote control No. 50-130—Net Each.....\$11.50

FALCON

(Transistorized, 275 to 300 watts)

Transistorized 12 V. D.C. to 110 V. A.C. Designed to operate equipment not sensitive to frequency change. Size 12 1/2" x 6" x 6". Shpg. Wt. 20 lbs.

Terado No. 50-129—Net Each.....\$74.25

Remote control No. 50-130—Net Each.....\$11.50

GALAXY (Transistorized, 175 watts)

Converts 12 v. DC to 110 v. AC, 140-175 watts filtered. Adjustable voltage and frequency. Ideal where frequency is not critical. Size: 10 1/2" w. x 6" d. x 6" h. Shpg. Wt. 9 1/2 lbs.

Terado No. 50205—Net Each.....\$36.76

TEMPEST

Transistorized 12 v. DC to 110 v. AC. 125-150 watts. Ideal where frequency is not important. Size: 10 1/2" w. x 6" d. x 6" h. Shipping Weight, 9 1/2 lbs.

Terado No. 50-170—Net Each.....\$32.96

60 CY. VIBRATOR TYPES

Frequency Stabilized

SUPREME

Converts 12 v. DC to A.C. power output, 175-200 watts, filtered. Remote control has variable A.C. output switch and signal light indicating proper A.C. output voltage. Steel case. Size: 10 1/2" w. x 6" d. x 6" h. Shpg. Wt. 25 lbs.

Terado No. 50153—Net Each.....\$84.07

RECORDER

150-175 watt version of SUPREME, less remote control. Plugs into cigarette lighter. Hi-low voltage selector switch to maintain proper output voltage. Filtered. Size: 10 1/2" w. x 4" d. x 6" h. Shpg. Wt. 21 lbs.

Terado No. 50175—Net Each.....\$76.67

CHIEF

Ventilated steel case. Size: 9 1/2" w. x 6 1/2" d. x 4" h. Shipping Weight 8 lbs.

Terado No. 50137—Voltage input, 8 v. AC Power Output, 75-100 watts. Net.....\$33.96

Terado No. 50138—Voltage input, 12 v. AC Power Output, 100-125 watts. Net.....\$53.90

AUTOMATIC

Operates automatically from 6 or 12 v. DC without vibrator change or switching (6 v., 55-75 watts; 12 v., 85-110 watts). Easy installation into cigarette lighter. Steel case. Seal brown baked enamel. Size: 3 1/2" w. x 6 1/2" d. x 4" h. Shipping Weight 8 lbs.

Terado No. 50134—Net Each.....\$44.52

SUPER

Single input version of AUTOMATIC. Size: 3 1/2" w. x 6 1/2" d. x 4" h. Shpg. Wt. 8 lbs.

Terado No. 50126—Voltage input, 8 v. AC Power Output, 60-75 watts. Net.....\$38.47

Terado No. 50127—Voltage input, 12 v. AC Power Output, 75-100 watts. Net.....\$38.47

MASTER

Easy to install into cigarette lighter. Steel case. Seal brown baked enamel. Size: 3 1/2" w. x 6 1/2" d. x 4" h. Shipping Weight, 6 lbs.

Terado No. 50122—Voltage input, 12 v. AC Power Output, 60-75 watts. Net.....\$31.96

ELECTRAL

Glove compartment size inverter, available in 6 v. or 12 v. input. Easy installation into cigarette lighter. Vinyl coated steel case with leatherette appearance. Size: 3" w. x 2 1/4" d. x 5 1/4" h. Shpg. Wt., 3 lbs.

Terado No. 50167—Voltage input, 12 v. AC Power Output, 42-52 watts. Net.....\$20.77

SENIOR

Operates radios, lights, phonographs and small tape recorders. Available in 6 v. or 12 v. input. Simple to install into cigarette lighter. Aluminum case. Seal brown baked enamel. Size: 2 1/2" w. x 4 1/2" d. x 2 1/4" h. Shipping Weight, 3 lbs.

Terado No. 50115—Voltage input, 6 v. AC Power Output, 35-40 watts. Net.....\$18.47

Terado No. 50116—Voltage input, 12 v. AC Power Output, 40-50 watts. Net.....\$18.47

DYNAMO

Permits operating AC radios on 12 v. DC battery source, such as cars or boats. Can also operate electric shavers. Plug into cigar lighter. Includes generator condenser and ignition suppressor. Power output, 25-30 watts. Size: 2" x 2" x 3 1/2" Shpg. Wt., 2 lbs.

Terado No. 50196—For 12 v. batteries only. Net Each.....\$9.95

AUTO SHAVER

Operate all electric shavers. Available in 6 v. or 12 v. input. Plugs into cigarette lighter. Potentiometer non-breakable case. Size: 3 1/4" w. x 2 1/4" d. x 4 1/4" h. Shpg. Wt., 2 lbs.

AC Power Output, 15-20 watts. Net Each.....\$9.31

PORTABLE POWER SUPPLY

TRAVELER

Operates anything using 117 v. AC, 60 cps from 250 rechargeable wet storage battery enclosed. Capacity, 175 watts; 125 watts continuous. Frequency stable within 1/2 cps with load change. Plugs into AC outlet or car cigarette lighter to recharge battery. Charger has automatic overcharge protection. Meter shows charge rate and hours of anticipated output. Size: 12" x 5 1/2" x 8". Wt. Net, 30 lbs. including battery; shpg., 35 lbs.

Terado No. 50-160—Net Each.....\$60.63

BATTERY CHARGERS

Electronically engineered full wave silicon rectifier chargers. Miniaturization with full power charge rate.

DYN-A-MITE

Baked seal brown paint over aluminum case. Charge rate 1 amp, both 6 and 12 volts. Size: 3 1/2" x 1 1/2" x 5 1/4" Wt., 1 lb.

Terado No. 50185—Net Each.....\$5.90

TINY GIANT

Copper clad steel case. Charge rate 1 1/2 amps, both 6 and 12 volts. Warning buzzer for improper connection. Size: 2 1/16" x 3" x 5 1/4". Weight, 1 1/4 lbs.

Terado No. 50185—Net Each.....\$7.66

LEADER

Copper clad steel case. Charge rate 3 amps, 12 volts only. Warning buzzer for improper connection. Size: 2 1/4" x 3" x 5 1/4". Weight, 2 lbs.

Terado No. 50187—Net Each.....\$10.47

CHAMPION

Copper clad steel case. Charge rate 4 amps, both 6 and 12 volts. Automatic circuit breaker protection. Size: 2 1/4" x 3" x 5 1/4". Weight, 2 lbs.

Terado No. 50188—Net Each.....\$13.27

HI-POWER

Copper clad steel case. Charge rate 5 amps, 12 volts only. Cigarette lighter plug-in. Charge indicator light shows condition of battery. Size: 2 1/4" x 3" x 5 1/4". Weight, 3 lbs.

Terado No. 50180—Net Each.....\$13.97

CHALLENGER

Brown baked enamel, ventilated steel case. Charge rate 6 amps, both 6 and 12 volts. Charge rate meter. Brackets for colling wire provided. Size: 4" x 5" x 6". Weight, 5 lbs.

Terado No. 50189—Net Each.....\$20.27

SUPER CHARGER

Brown baked enamel, ventilated steel case. Charge rate 10 amps, both 6 and 12 volts. Color coded meter shows condition of battery and charge rate. Size: 4" x 5" x 6". Weight, 7 1/2 lbs.

Terado No. 50181—Net Each.....\$25.87

POWERHOUSE

Heavy duty, heavy copper clad, ventilated steel case with handle. Full fast 20 amp charge rate on either 6 or 12 volt batteries, plus trickle charge. Full wave type with 4 silicon rectifiers. Complete with charge rate meter and 6 ft. cable with battery clamps. Size: 11" x 6" x 6". Ship. Wt., 20 lbs.

Terado No. 50183—Net Each.....\$48.97

VOLTAGE ADJUSTERS

For TV, hi-fi and AC motorized equipment. Change high or low voltage over range of 95-135 volts to normal. Input: 110 volt AC line. Size: 5 1/2" x 3" x 2 1/4".

PLANET

Cap. 150 w. const., 300 w. int. Wt., 2 lbs.

Terado No. 50203—Net Each.....\$7.80

POLARIS

Cap. 300 w. const., 500 w. int. Wt., 3 lbs.

Terado No. 50204—Net Each.....\$9.20

SATURN

Built-in visible A.C. voltmeter. Cap. 300 w. const., 500 w. int. Wt., 8 lbs.

Terado No. 50172—Net Each.....\$14.65

APOLLO

Cap. 1200 w. Const. 1500 w. int. Wt. 8 lbs. Size 4" x 5" x 6".

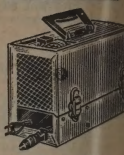
Terado No. 50-141—Net Each.....\$22.75

INVERTERS



SUPREME, CONTINENTAL AND ATLAS

PORTABLE POWER SUPPLY



TRAV-ELECTRIC BATTERY CHARGERS



RECORDER AND TITAN, GEMINI AND FALCON



TINY GIANT



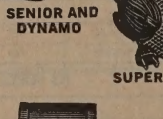
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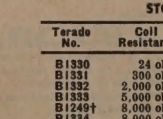
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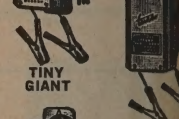
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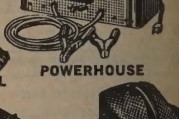
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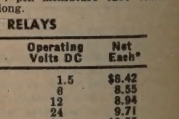
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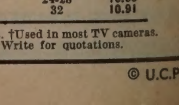
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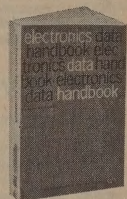
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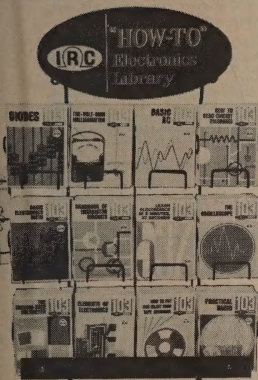
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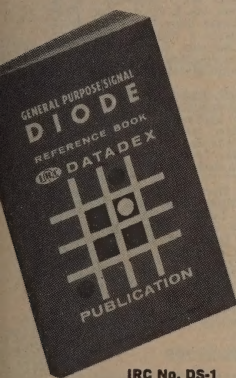
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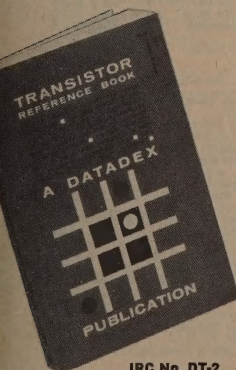
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1	32	E
NUMBER OF JUNCTIONS (1=DIODE)		
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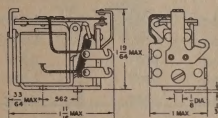
ALLIED CONTROL COMPANY INC.

RELAYS AND SOCKETS

RELAY TYPE ¹	COIL VOLTAGE OR CURRENT	CONTACTS FORMS AMPS ²	COIL POWER AT 25°C	COIL RESIST. OHMS ³	NET PRICE	OUTLINE DRAWING	DESCRIPTION
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AS-3A	115v a-c	SPDT	5	3.5 va	850	\$4.70
AS-3D	26.5v d-c	SPDT	5	1.3 w	528	4.60



Compact design, single hole mounting, terminal board on the front and contacts on top for easy inspection.

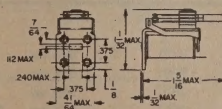
Terminals: .078 x .107 hook

Weight: 2.0 ounces max.

Mounting: (1) 6-32 NC-2B
tapped hole
7-32 deep



TAT-2C	6v d-c	DPDT	2	700 mw	52	3.08
TAT-2C	12v d-c	DPDT	2	700 mw	185	3.08
TAT-2C	24v d-c	DPDT	2	700 mw	700	3.08
TAT-2C	48v d-c	DPDT	2	700 mw	2500	3.08
TAT-2C	115v d-c	DPDT	2	700 mw	15000	4.55



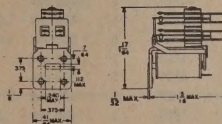
Subminiature with the performance of a miniature plus extra long life

Terminals: Elongated holes
.080 x .040

Weight: 0.70 ounces max.

Mounting: (4) 4-48 NF-2B
tapped holes

TAT-4C	6v d-c	4PDT	2	700 mw	52	\$3.48
TAT-4C	12v d-c	4PDT	2	700 mw	185	3.48
TAT-4C	24v d-c	4PDT	2	700 mw	700	3.48
TAT-4C	48v d-c	4PDT	2	700 mw	2500	3.48
TAT-4C	115v d-c	4PDT	2	700 mw	15000	4.95



Subminiature with the performance of a miniature plus extra long life

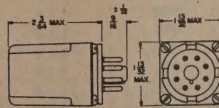
Terminals: Elongated holes
.080 x .040

Weight: 0.75 ounces max.

Mounting: (4) 4-48 NF-28
tapped holes



TFMDO-2C	6 v d-c	DPDT	5	700 mw	52	\$6.02
TFMDO-2C	12 v d-c	DPDT	5	700 mw	185	6.02
TFMDO-2C	24 v d-c	DPDT	5	700 mw	700	6.02
TFMDO-2C	115 v d-c	DPDT	5	700 mw	15000	7.49
TEFDO-2C	6 v a-c	DPDT	5	1.2 va	6.4	\$4.92
TEFDO-2C	12 v a-c	DPDT	5	1.2 va	31.8	4.92
TEFDO-2C	24 v a-c	DPDT	5	1.2 va	112.5	4.92
TEFDO-2C	115 v a-c	DPDT	5	1.2 va	2580.0	4.92
TEFDO-2C	220 v a-c	DPDT	5	1.2 va	6000.0	5.42



Enclosed in a transparent polycarbonate cover and rigidly secured to base.

Enclosure: Dust cover

Weight: 2.5 ounces

Socket: Any std. RETMA or EIA octal



ALLIED CONTROL

ALLIED CONTROL COMPANY INC.

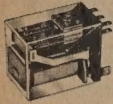
GENERAL PURPOSE RELAYS

RELAY TYPE ¹	COIL VOLTAGE OR CURRENT	CONTACTS FORMS	AMPS ²	COIL POWER AT 25°C	COIL RESIST. OHMS ³	NET PRICE
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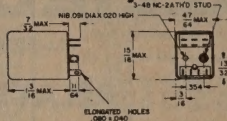
OUTLINE DRAWING

DESCRIPTION

TF154-2C



TF154-2C	6v d-c	DPDT	5	700 mw	52	\$3.52
TF154-2C	12v d-c	DPDT	5	700 mw	185	3.52
TF154-2C	24v d-c	DPDT	5	700 mw	700	3.52
TF154-2C	48v d-c	DPDT	5	700 mw	2500	3.52
TF154-2C	115v d-c	DPDT	5	700 mw	15000	4.99



Features no internal wiring. Contact arms extended to form combination solder and plug in terminals.

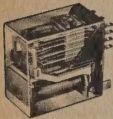
Terminals: Elongated holes .080 x .040

Enclosure: Dust cover

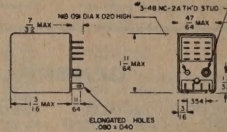
Weight: 0.80 ounces max.

Socket: Allied type 30055-1

TF154-4C



TF154-4C	6v d-c	4PDT	5	700 mw	52	\$4.02
TF154-4C	12v d-c	4PDT	5	700 mw	185	4.02
TF154-4C	24v d-c	4PDT	5	700 mw	700	4.02
TF154-4C	48v d-c	4PDT	5	700 mw	2500	4.02
TF154-4C	115v d-c	4PDT	5	700 mw	15000	5.49



Features no internal wiring. Contact arms extended to form combination solder and plug in terminals.

Terminals: Elongated holes .080 x .040

Enclosure: Dust cover

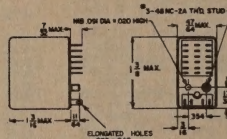
Weight: 0.95 ounces max.

Socket: Allied type 30055-2

TF154-6C



TF154-6C	6v d-c	6PDT	5	1.5 w	25	\$5.25
TF154-6C	12v d-c	6PDT	5	1.5 w	90	5.25
TF154-6C	24v d-c	6PDT	5	1.5 w	430	5.25
TF154-6C	48v d-c	6PDT	5	1.5 w	1550	5.25
TF154-6C	115v d-c	6PDT	5	1.5 w	9000	6.15



Features no internal wiring. Contact arms extended to form combination solder and plug in terminals.

Terminals: Elongated holes .080 x .040

Enclosure: Dust cover

Weight: 1.0 ounces max.

Socket: Allied type 30055-20

CRADLE MAGNETIC LATCHING

T351—SINGLE COIL

T351-2C	6v d-c	DPDT	1	900 mw	40	\$6.10
T351-2C	12v d-c	DPDT	1	900 mw	166	6.10
T351-2C	24v d-c	DPDT	1	900 mw	630	6.10
T351-2C	48v d-c	DPDT	1	900 mw	2640	6.30
T351-2C	110v d-c	DPDT	1	900 mw	13800	7.00
TF351-2C	6v d-c	DPDT	5	900 mw	40	6.50
TF351-2C	12v d-c	DPDT	5	900 mw	166	6.50
TF351-2C	24v d-c	DPDT	5	900 mw	630	6.50
TF351-2C	48v d-c	DPDT	5	900 mw	2640	6.70
TF351-2C	110v d-c	DPDT	5	900 mw	13800	7.40
T351-4C	6v d-c	4PDT	1	900 mw	40	6.50
T351-4C	12v d-c	4PDT	1	900 mw	166	6.50
T351-4C	24v d-c	4PDT	1	900 mw	630	6.50
T351-4C	48v d-c	4PDT	1	900 mw	2640	6.70
T351-4C	110v d-c	4PDT	1	900 mw	13800	7.40



Designed for pulse operation. In the single coil version a pulse of 10 milliseconds minimal duration is required to activate the armature.

Weight: 2C-2 oz.
4C-4 oz.

Socket: 2C-30055-1
4C-30055-2

T351—DUAL COIL

T351-2C	2/6v d-c	DPDT	1	1.2 w	31.5	\$7.10
T351-2C	2/12v d-c	DPDT	1	1.2 w	134	7.10
T351-2C	2/24v d-c	DPDT	1	1.2 w	485	7.10
T351-2C	2/48v d-c	DPDT	1	1.2 w	1760	7.30
T351-2C	2/110v d-c	DPDT	1	1.2 w	9600	9.05
T351-4C	2/6v d-c	4PDT	1	1.2 w	31.5	7.50
T351-4C	2/12v d-c	4PDT	1	1.2 w	134	7.50
T351-4C	2/24v d-c	4PDT	1	1.2 w	485	7.50
T351-4C	2/48v d-c	4PDT	1	1.2 w	1760	7.70
T351-4C	2/110v d-c	4PDT	1	1.2 w	9600	9.40
TF351-2C	2/6v d-c	DPDT	5	1.2 w	31.5	7.50
TF351-2C	2/12v d-c	DPDT	5	1.2 w	134	7.50
TF351-2C	2/24v d-c	DPDT	5	1.2 w	485	7.50
TF351-2C	2/48v d-c	DPDT	5	1.2 w	1760	7.70
TF351-2C	2/110v d-c	DPDT	5	1.2 w	9600	9.45

The dual coil functions similarly to the single wound version except that while the armature is actuated by a pulse applied to one winding it is reset by pulsing the second winding.

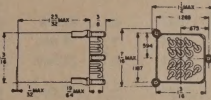
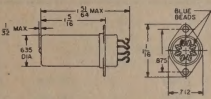
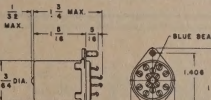
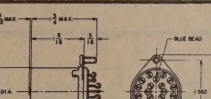
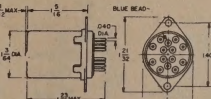
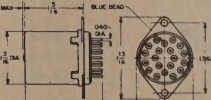
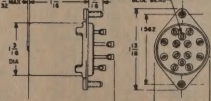
Weight: 2C-2 oz.
4C-4 oz.

Socket: 2C-30055-1
4C-30055-2

ALLIED CONTROL

ALLIED CONTROL COMPANY INC.

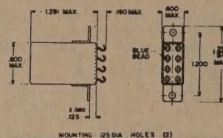
MINIATURE TYPE RELAYS

	RELAY TYPE ¹	COIL VOLTAGE OR CURRENT	CONTACTS FORMS	CONTACTS AMPS ²	COIL POWER AT 25°C	COIL RESIST. OHMS ³	NET PRICE	OUTLINE DRAWING	DESCRIPTION
CH	CH-12D	26.5v d-c	4PDT	10	4.0 w	180	\$30.00		Vibration: 20g to 2000 cps Shock: 50g operational Operate: 15 milliseconds Release: 10 milliseconds Temp: -65°C to +125°C Weight: 5.0 ounces max. Mounting: (3) 6-32 NC-2A thd. studs
MH-6	MH-6D	26.5v d-c	DPDT	5	1.75 w	400	\$14.25		Vibration: 15g to 1000 cps Shock: 50g operational Operate: 8 milliseconds Release: 5 milliseconds Temp. MH: -55°C to +85°C MHB: -65°C to +125°C Weight: 2.0 ounces max. Mounting: (2) 0.125 dia. holes
	MHB-6D	26.5v d-c	DPDT	5	1.25 w	325	14.25		
MH-12*	MH-12D	26.5v d-c	4PDT	5	2.5 w	300	\$20.90		Vibration 15g to 1000 cps Shock: 50g operational Operate: 10 milliseconds Release: 5 milliseconds Temp. MH: -55°C to +85°C MHB: -65°C to +125°C Weight: 3.0 ounces max. Mounting: (3) 6-32 NC-2A thd. studs
	MHB-12D	26.5v d-c	4PDT	5	3.0 w	250	20.90		
MH-18*	MH-18D	26.5v d-c	6PDT	5	3.0 w	240	\$23.75		Vibration 15g to 1000 cps Shock: 50g operational Operate: 10 milliseconds Release: 5 milliseconds Temp. MH: -55°C to +85°C MHB: -65°C to +125°C Weight: 4.2 ounces max. Mounting: (3) 6-32 NC-2A thd. studs
	MHB-18D	26.5v d-c	6PDT	5	3.5 w	200	23.75		
MHUO-12	MHUO-12D	26.5v d-c	4PDT	5	2.5 w	300	\$20.90		Vibration: 15g to 1000 cps Shock: 50g operational Operate: 10 milliseconds Release: 5 milliseconds Temp: -55°C to +85°C Weight: 3.0 ounces max. Mounting: (2) .144 dia. holes Socket: Allied type 16188-1 above chassis mtg.
MHUO-18	MHUO-18D	26.5v d-c	6PDT	5	3.0 w	240	\$23.75		Vibration: 15g to 1000 cps Shock: 50g operational Operate: 10 milliseconds Release: 5 milliseconds Temp: -55°C to +85°C Weight: 4.2 ounces max. Mounting: (2) .144 dia. holes Socket: Allied type 16189-1 above chassis mtg.
MHY	MHY-12D	26.5v d-c	4PDT	10	3.5 w	200	\$25.41		Vibration: 20g to 500 cps Shock: 50g operational Operate: 10 milliseconds Release: 5 milliseconds Temp: -65°C to +125°C Weight: 4.2 ounces max. Mounting: (2) #6-32 NC-2A thd. studs

* available as MHJ-12D & MHJ-18D for 20G up to 2000 CPS vibration.

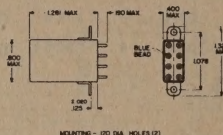
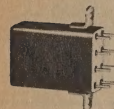
ALLIED CONTROL COMPANY INC.

RELAY TYPE ¹	COIL VOLTAGE OR CURRENT	CONTACTS FORMS	AMPS ²	COIL POWER AT 25°C	COIL RESIST. OHMS ³	
WJS-3D	3.2 ma d-c	SPDT	3	25 mw	2500	\$11.57
WJS-3D	2.2 ma d-c	SPDT	3	25 mw	5000	11.57
WJS-3D	1.6 ma d-c	SPDT	3	25 mw	10000	13.50
WJS-6D	4.0 ma d-c	DPDT	3	40 mw	2500	11.83
WJS-6D	2.8 ma d-c	DPDT	3	40 mw	5000	11.83
WJS-6D	2.0 ma d-c	DPDT	3	40 mw	10000	13.83



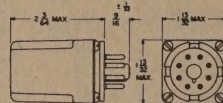
Vibration: 15g to 2000 cps
Shock: 50g operational
Operate: 15 milliseconds
Release: 10 milliseconds
Temp: -65°C to +125°C
Weight: 1.0 ounces max.
Welded Construction

WJSO-6D 2.8 ma d-c	DPDT	3	40 mw	5000	11.83
WJSO-6D 2.0 ma d-c	DPDT	3	40 mw	10000	13.83



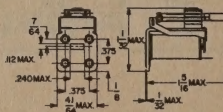
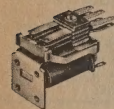
Vibration: 15g to 2000 cps
Shock: 50g operational
Operate: 15 milliseconds
Release: 10 milliseconds
Temp: -65°C to +125°C
Weight: 1.0 ounces max.
Socket: Armel type HRC-1 or equiv.
Welded Construction

TFMDO-2C	9.5 ma d-c	DPDT	5	220 mw	2500	6.33
TFMDO-2C	7.0 ma d-c	DPDT	5	250 mw	5000	6.83
TFMDO-2C	5.5 ma d-c	DPDT	5	300 mw	10000	7.23



Inclosed in a transparent polycarbonate cover and rigidly secured to base.
Enclosure: Dust cover
Weight: 2.5 ounces max.
Socket: Any std. RETMA or EIA octal

TFT-2C	9.5 ma d-c	DPDT	5	220 mw	2500	3.49
TFT-2C	7.0 ma d-c	DPDT	5	250 mw	5000	3.99
TFT-2C	5.5 ma d-c	DPDT	5	300 mw	10000	4.39



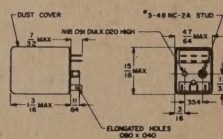
Subminiature with small size moving parts resulting in quick release and exceptional contact rating.

Terminals: Elongated holes
.080 x .040

Weight: 0.70 ounces max.

Mounting: (4) 4-48NF 2B
tapped holes

TS154-2C 5.8 ma d-c	DPDT	1	85 mw	2500	3.73
TS154-2C 4.1 ma d-c	DPDT	1	85 mw	5000	4.23
TS154-2C 3.1 ma d-c	DPDT	1	85 mw	10000	4.63



Features no internal wiring. Contact arms extend to form combination solder and plug in terminals.

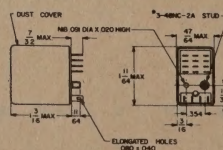
Terminals: Printed circuit
available as
type TSP-154

Enclosure: Dust cover

Weight: 0.80 ounces max.

Socket: Allied type 30055-1

TS154-4C	8.4 ma d-c	4PDT	1	175 mw	2500	4.17
TS154-4C	6.2 ma d-c	4PDT	1	175 mw	5000	4.67
TS154-4C	4.5 ma d-c	4PDT	1	175 mw	10000	5.07



Features no internal wiring. Contact arms extend to form combination solder and plug in terminals.

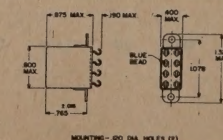
Terminals: Printed circuit available as type TSP-154

Enclosure: Dust cover

Weight: 0.95 ounces max.

Socket: Allied type 30055-2

WKJ-6D	6v d-c	DPDT	3	1.5 w	40	\$10.08
WKJ-6D	12v d-c	DPDT	3	1.5 w	150	10.08
WKJ-6D	26.5v d-c	DPDT	3	1.5 w	600	10.08
WKJ-6D	48v d-c	DPDT	3	1.5 w	2320	10.58
WKJ-6D	115v d-c	DPDT	3	1.5 w	10000	11.80
WKJ0-6D	26.5v d-c	DPDT	3	1.5 w	600	10.08

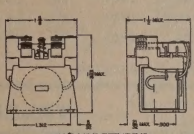
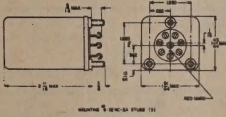
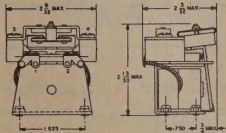
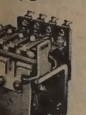
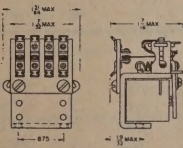
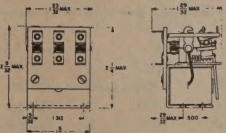
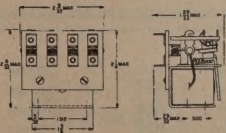


Vibration: 20g to 2000 cps
Shock: 100g operational
Operate: 5 milliseconds
Release: 3 milliseconds
Temp: 65°C to +125°C
Weight: 0.5 ounces max.
Plug-in: Type WKJO (not shown)
Socket: Armel type HRC-1 or equivalent

ALLIED CONTROL

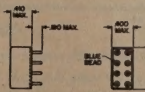
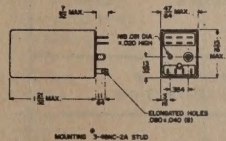
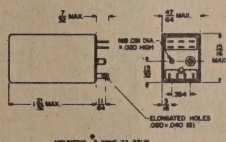
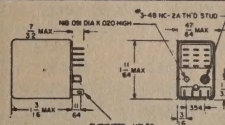
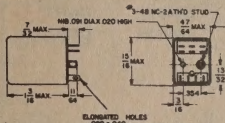
ALLIED CONTROL COMPANY INC.

POWER RELAYS

	RELAY TYPE ¹	COIL VOLTAGE OR CURRENT	CONTACTS FORMS	AMPS ²	COIL POWER AT 25°C	COIL RESIST. OHMS ³	NET PRICE	OUTLINE DRAWING	DESCRIPTION
	BO-6A	6v a-c	DPDT	15	5.0 va	1.07	\$ 5.50		Compact, rugged design for industrial control applications. Terminals: .096 diameter holes, tin dipped Weight: 5.5 ounces max. Mounting: (4) 6-32 elastic stop nuts
	BO-6A	24v a-c	DPDT	15	5.0 va	17	5.50		
	BO-6A	115v a-c	DPDT	15	5.0 va	445	5.50		
	BO-6A	220v a-c	DPDT	15	5.0 va	1700	5.62		
	BO-6D	6.3v d-c	DPDT	15	2.5 w	14.2	5.05		
	BO-6D	13.2v d-c	DPDT	15	2.5 w	70	5.05		
	BO-6D	26.5v d-c	DPDT	15	2.5 w	230	5.05		
	BO-6D	115v d-c	DPDT	15	2.5 w	5000	5.60		
	BO-6A	6v a-c	DPDT	15	5.0 va	1.07	\$5.24		
	BO-6A	24v a-c	DPDT	15	5.0 va	17	5.24		
	BOHR-6A	115v a-c	DPDT	15	5.0 va	445	5.24		Compact, rugged design for industrial control applications. Terminals: .096 diameter holes, tin dipped Weight: 5.0 ounces max. Mounting: #6-32NC-2B tapped holes (4)
	BOHR-6A	115v a-c	DPDT	15	5.0 va	445	5.24		
	BOHR-6A	220v a-c	DPDT	15	5.0 va	1700	5.36		
	BOHR-6D	6v d-c	DPDT	15	2.5 w	14.2	4.79		
	BOHR-6D	12v d-c	DPDT	15	2.5 w	70	4.79		
	BOHR-6D	26.5v d-c	DPDT	15	2.5 w	230	4.79		
	BOHR-6D	110v d-c	DPDT	15	2.5 w	5000	5.34		
	BOHR-6A	115v a-c	DPDT	10	5.0 va	445	11.33		
	BOHR-6D	26.5v d-c	DPDT	10	2.5 w	230	10.88		
	BOHR-6A	115v a-c	DPDT	15	5.0 va	445	11.33		
	CNA-13A	115v a-c	SPST NO DB	25	10.5 va	145	8.00		Heavy duty, compact relay with double break contact construction eliminating pigtails. Terminals: Coil (1 & 2) 3-32 dia. holes Contacts (3 & 4) 10-32 screw type Weight: 9.5 ounces max. Mounting: (4) 6-32 elastic stop nuts
	CNAS-13A	115v a-c	SPST NO DB	50	10.5 va	145	10.00		
	CNA-13A	115v a-c	SPST NO DB	25	10.5 va	145	8.00		
	CNAS-13A	115v a-c	SPST NO DB	50	10.5 va	145	10.00		
	CNA-13A	115v a-c	SPST NO DB	25	10.5 va	145	8.00		
	CNAS-13A	115v a-c	SPST NO DB	50	10.5 va	145	10.00		
	CNA-13A	115v a-c	SPST NO DB	25	10.5 va	145	8.00		
	CNAS-13A	115v a-c	SPST NO DB	50	10.5 va	145	10.00		
	CNA-13A	115v a-c	SPST NO DB	25	10.5 va	145	8.00		
	CNAS-13A	115v a-c	SPST NO DB	50	10.5 va	145	10.00		
	PB-9A	115v a-c	3PDT	10	6.0 va	380	7.90		Small design with semi-balanced armature construction Operate: 25 milliseconds Release: 4 milliseconds Temp: -55°C to +71.5°C Weight: 4.0 ounces max.
	PB-12A	115v a-c	4PDT	10	6.0 va	380	8.80		
	PB-9A	115v a-c	3PDT	10	6.0 va	380	7.90		
	PB-12A	115v a-c	4PDT	10	6.0 va	380	8.80		
	PB-9A	115v a-c	3PDT	10	6.0 va	380	7.90		
	PB-12A	115v a-c	4PDT	10	6.0 va	380	8.80		
	PB-9A	115v a-c	3PDT	10	6.0 va	380	7.90		
	PB-12A	115v a-c	4PDT	10	6.0 va	380	8.80		
	PB-9A	115v a-c	3PDT	10	6.0 va	380	7.90		
	PB-12A	115v a-c	4PDT	10	6.0 va	380	8.80		
	PO-9A	24v a-c	3PDT	15	10.5 va	8.0	6.40		Low cost, compact, multi pole Terminals: .079 x .164 hook, tin dipped Weight: 7.5 ounces max. Mounting: (4) 6-32 tapped holes (as shown) Type PON-(4) 6-32 elastic stop nuts
	PO-9A	115v a-c	3PDT	15	10.5 va	145.0	6.40		
	PO-9D	13.2v d-c	3PDT	15	2.5 w	70	6.00		
	PO-9D	24v d-c	3PDT	15	2.5 w	230	6.00		
	PO-9D	115v d-c	3PDT	15	2.5 w	5000	6.42		
	PO-9A	24v a-c	3PDT	15	10.5 va	8.0	6.40		
	PO-9A	115v a-c	3PDT	15	10.5 va	145.0	6.40		
	PO-9D	13.2v d-c	3PDT	15	2.5 w	70	6.00		
	PO-9D	24v d-c	3PDT	15	2.5 w	230	6.00		
	PO-9D	115v d-c	3PDT	15	2.5 w	5000	6.42		
	PO-12A	115v a-c	4PDT	15	10.5 va	145	7.16		Low cost, compact, multi pole Terminals: .079 x .164 hook, tin dipped Weight: 8.0 ounces max. Mounting: (4) 6-32 tapped holes (as shown) Type PON-(4) 6-32 elastic stop nuts
	PO-12D	13.2v d-c	4PDT	15	2.5 w	70	6.60		
	PO-12D	24v d-c	4PDT	15	2.5 w	230	6.60		
	PO-12A	115v a-c	4PDT	15	10.5 va	145	7.16		
	PO-12D	13.2v d-c	4PDT	15	2.5 w	70	6.60		
	PO-12D	24v d-c	4PDT	15	2.5 w	230	6.60		
	PO-12A	115v a-c	4PDT	15	10.5 va	145	7.16		
	PO-12D	13.2v d-c	4PDT	15	2.5 w	70	6.60		
	PO-12D	24v d-c	4PDT	15	2.5 w	230	6.60		
	PO-12A	115v a-c	4PDT	15	10.5 va	145	7.16		



Technical drawing of a rectangular plate. The drawing includes two views: a front view on the left and a side view on the right. The front view shows a plate with a width of 1 3/16 MAX. and a height of 1 1/8 MAX. A dimension of 7/32 MAX. is indicated for a small feature on the top edge. The side view shows a plate with a thickness of 1/8 MAX. and a width of 1 1/8 MAX. A dimension of 3/16 MAX. is indicated for a small feature on the side edge. The drawing also includes a note: "HOLE DIA. = .020 HOLE" and a note: "3-48 NC-2A THD STUD".

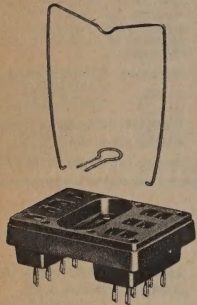




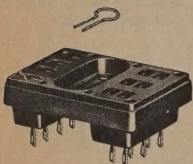
ALLIED CONTROL

ALLIED CONTROL COMPANY INC.

SOCKETS - RETAINERS

**SOCKET
NUMBER**
**RELAY
TYPE**


30055-1	T154-2C
30055-1	T163-2C
30055-1	T351-2C
30055-2	T154-4C
30055-2	T163-4C
30055-2	T351-4C
30055-20	T154-6C
30055-20	T163-6C



30054-1	T154-2C
30054-1	T163-2C
30054-1	T255-2C
30054-2	T154-4C
30054-2	T163-4C
30054-2	T255-4C
30054-20	T154-6C
30054-20	T163-6C

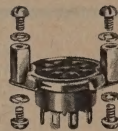


30040-1	T154-2C
30040-1	T163-2C
30040-2	T154-4C
30040-2	T163-4C
30040-3	T154-6C
30040-3	T163-6C
30040-4	T255-2C
30040-5	T255-4C

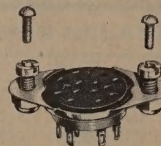
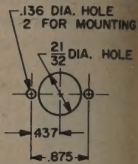
NOTE: STANDARD PACKAGE FOR SOCKETS—20
STANDARD PACKAGE FOR RETAINERS—100

DESCRIPTION

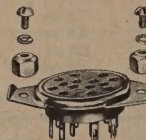
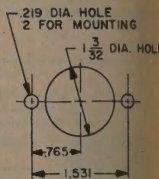
Hardware: Ground wire
Hardware Material: Stainless steel 18-8, Type 302
Contacts: Beryllium copper, gold plated
Insulator: Black phenolic per Mil-P-14D CFG
Chassis Thickness: .062 recommended

**SOCKET
NUMBER**
**RELAY
TYPE**
PANEL LAYOUT


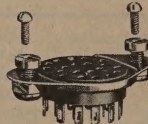
16479-1 MH0-6D
(Above chassis mtg.)



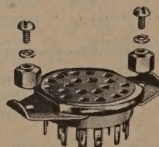
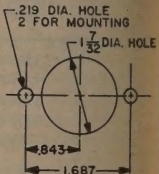
16185-1 MH0-12D
(Below chassis mtg.)



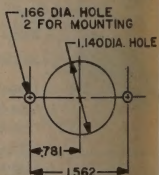
16188-1 MH0-12
(Above chassis mtg.)



16187-1 MH0-18D
(Below chassis mtg.)



16189-1 MH0-18
(Above chassis mtg.)



DESCRIPTION

Hardware: Saddle, spacers, screws and washers
Hardware Finish: Cadmium plated
Contacts: Beryllium copper, silver plated, tin dipped
Insulator: Mica-filled phenolic
Chassis Thickness: .062 recommended

GENERAL INFORMATION

- 1—Relay type—the letter H designates a hermetically sealed unit.
- 2—Contact ratings are for a resistive load at 29 volts, d-c. Low level contacts are available except on Power Relays and Types AS, BJ, CH, MHY and MHY0.
- 3—Ohms—d-c resistance, standard tolerance $\pm 10\%$
- 4—Contact ratings are for a resistive load at 29 volts d-c or 115 volts a-c
- 5—Other mounting variations are available.

How to order: Specify Allied relay type and coil voltage or current Example: MHY0-12D 26.5v d-c TS154-4C 8.4 ma d-c

BOURNS TRIMPOT® SUB-MINIATURE RELAYS AND MINIATURE, ADJUSTABLE TIME-DELAYS

SUB-MINIATURE RELAYS

TRIMPOT® relays feature single-coil design, rotary balanced armature, self-cleaning contacts and hermetically sealed case. Every unit goes through a 5000-operation run-in and

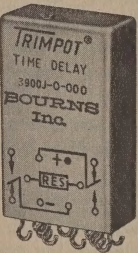
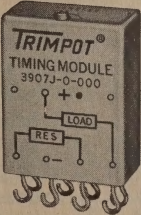
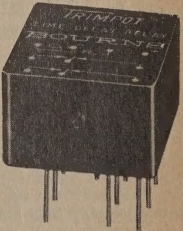
100% final inspection, including mass-spectrometer leak testing, for all important characteristics.

			
	Model 3100	Model 3101	Model 3105 (with integral diode bridge for direct use in AC circuits)
Size	0.2" x 0.4" x 0.6"	0.2" x 0.4" x 0.6"	0.2" x 0.4" x 0.6"
Contacts	SPDT	DPDT	DPDT
Contact rating	1.0 amp resistive at 26.5 VDC	1.0 amp resistive at 26.5 VDC	1.0 amp, 28 VDC or 0.75 amp, 115 VAC
Pick-up sensitivity	100 mw	160 mw	180 mva
Coil resistance	50 to 2000Ω	65 to 2000Ω	28 VAC, 400/800 cps
Nominal voltage	4.2 to 26.5 VDC	6.0 to 33.4 VDC	MIL-R-5757D
Environmental specification	MIL-R-5757D	MIL-R-5757D	MIL-R-5757D
Terminal styles	Plug-in pins, solder hooks, 1½" straight leads	Plug-in pins, solder hooks, 1½" straight leads	Plug-in pins, solder hooks, 1½" straight leads
Ambient temperature range	-65 to +125°C	-65 to +125°C	-65 to +85°C

MINIATURE TIME-DELAY RELAYS adjustable up to 200 seconds

BOURNS TRIMPOT® time-delay relays have integral adjustment from 0.1 to 1.5 seconds. Addition of an external resistor or resistor-capacitor combination can increase adjustability to 200 seconds. Units are protected against accidental polarity

reversal and against transients up to 200% of line voltage. All models have welded circuitry and are vacuum-potted. MIL-Spec models have repeatable accuracy of ±5% max.

			
	Model 3900	Model 3907	Model 3908
Size	0.4" x 0.8" x 1.31"	0.4" x 0.8" x 1.0"	1.0" x 1.0" x 0.7"
Output	DPDT relay	SPST NO—solid state	DPDT relay
Contact rating	1.0A resistive at 26.5 VDC	0.05A resistive at 26.5 VDC	1.0A resistive at 26.5 VDC
Time delay range	0.1 to 200 sec.	0.1 to 200 sec.	0.1 to 200 sec.
Nominal voltage	20 to 30 VDC	20 to 30 VDC	20 to 30 VDC
Repeatability	±5% max.	±5% max.	±10% max.
Environmental specification	MIL-R-5757D	MIL-R-5757D	Industrial
Terminal styles	Plug-in pins, solder hooks, 1½" straight leads	Plug-in pins, solder hooks, 1½" straight leads	Plug-in pins
Ambient temp. range	-55 to +120°C	-55 to +120°C	-40 to +85°C

ALL BOURNS RELAYS AND TIME-DELAYS ARE AVAILABLE OFF THE SHELF.

OR BOURNS TRIMPOT® ADJUSTMENT POTENTIOMETERS,
SEE PAGES 1176, 1177.
OR BOURNS® PRECISION POTENTIOMETERS,
SEE PAGES 1174, 1175.



BOURNS, INC., TRIMPOT DIVISION

POT® AND PRECISION POTENTIOMETERS — RELAYS — MICROCOMPONENTS: TRANSFORMERS, INDUCTORS, RESISTORS AND CAPACITORS

THERMOSTATIC

AMPERITE

DELAY RELAYS

GLASS ENCLOSED • HERMETICALLY SEALED • A.C., D.C., OR PULSATING CURRENT



AMPERITE THERMOSTATIC DELAY RELAYS

Amperite Thermostatic Delay Relays are manufactured on automatic high production equipment — resulting in a low price — and top quality. Quality is not sacrificed at any point. For example, although contacts are rated 3 amps, 10 amp contacts are actually used. Similarly with all other parts—only the best available are used.

Amperite Thermostatic Delay Relays are actuated by a heater . . . and therefore can be used on A.C., D.C., pulsating current. Being hermetically sealed, Amperite Relays are not affected by altitude, moisture, or other atmospheric conditions. **REPLACED AS EASILY AS A RADIO TUBE.**

CIRCUITS SPST: Available only — normally open or normally closed.

HEATER VOLTAGES AVAILABLE: 2.5, 5.0, 6.3, 12.6, 26, 50, 115V.

For 220V use a 6500 ohm-5 watt resistor in series, with 115V heater.

HEATER WATTAGE: Standard and Miniature Relays—all voltages—2w prox. All heaters may be operated continuously. Heaters will not be damaged by a 50% voltage overload for duration of 1 hour or less.

ARIATION OF DELAY WITH HEATER VOLTAGE

FIG. 1—Effect of change in heater voltage on delay in seconds. Only low voltage heaters (2.5 to 26 V.) incorporate heater voltage regulations as shown in diagram.

For 22 to 30 V. supply: We recommend Amperite Delay Relays with 26 V. heaters for airplanes and similar power supplies. These heaters are regulated for battery variation of 22 to 30 V. as shown in this diagram.

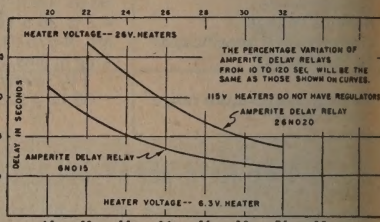


Figure 1

CONTACT RATING

	Delay	Contact Rating Non-Inductive	DC Voltage Contact-to-Contact	Breakdown Heater-to-Contact
STANDARD RELAYS	2 to 10 Sec.	115V - 3a AC	250V	500V
	15 to 180 Sec.	115V - 3a AC	800V	800V
		220V - 1a AC	800V	800V
MINIATURE RELAYS	2 to 10 Sec.	115V - 2a AC	250V	500V
	15 to 180 Sec.	115V - 2a AC	800V	800V
		220V - 1a AC	800V	800V
FLASHERS		1/2a AC		

CONTACT DROP: — 0.1V — Prox. at 1A.

DELAYS AVAILABLE:—From 2 to 180 seconds. Relays can be used in series to obtain longer delays. The delay of any individual relay up to 120 seconds can be increased up to 25% by using a resistor in series with the heater. Delays above 120 seconds cannot be increased. Relays with short delays such as 2 to 5 seconds can be increased 50%.

LIFE of any individual relay will depend on the service the contacts are subjected to. With a 115V — 2A A.C. non inductive load the contacts will withstand at least 250,000 operations. **SHELF LIFE** of Amperite Delay Relays is over 10 years.

INDUCTIVE A.C. LOADS: When breaking an inductive A.C. load, use a condenser of .01 to .1 mfd across contacts. In some cases putting a 20,000 ohm, 5w. resistor across the contacts reduces the arcing considerably.

Relay Contacts should not be used on voltages above 220V.

FOR INSTANTANEOUS RECYCLE AND ELIMINATION OF CHATTER

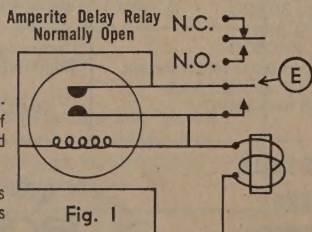


Fig. 1

For instantaneous recycle and elimination of chatter. Cannot be used with Sensitive Relays.

Magnetic Relay requires extra N.O. contact as shown at 'E'.

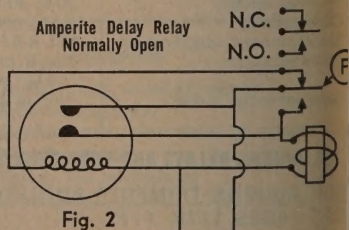


Fig. 2

For instantaneous recycle and elimination of chatter when Sensitive Relay is used.

Magnetic Relay requires an extra SPDT contact as shown at 'F'.

INSTANTANEOUS RECYCLE: This can be obtained by using a normally open Amperite Delay Relay in conjunction with a Magnetic Relay as shown above. If normally closed is required — use a normally open Amperite Delay Relay — and use the NC contacts on the magnetic relay. Choose the Amperite Delay Relay for the voltage required and the delay required (e.g. — 115N030 — would be used on 115 volt supply — for a 30 second delay).

LONG CYCLE RELAYS: are also available. For example, Amperite Delay Relay 115N07T has a delay in closing of 3 to 7 seconds. After heater is connected, contacts will remain closed for 30 seconds minimum. Write us about your requirements.

THERMOSTATIC

AMPERITE

DELAY RELAYS

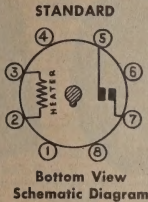
GLASS ENCLOSED • HERMETICALLY SEALED • A.C., D.C., OR PULSATING CURRENT



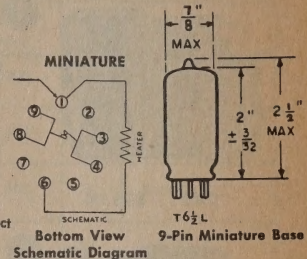
BREAKING D.C. CURRENT: When Relay contacts open D.C. Current above 50 volts, a condenser with a resistor in series with the condenser must be connected across the contacts. The following condenser values are approximate.

	50 V. D.C.	115 V. D.C.	230 V. D.C.
0 to .5 Amp.	None	.1 MF	.25 MF
.5 to 1.5 Amps.		.25 "	.25 "
1.5 to 3 Amps.	.25 MF	1 "	.5 "

SPECIFICATIONS:



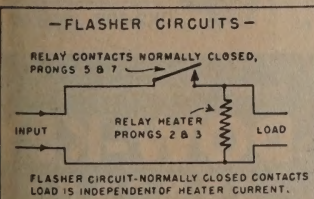
Standard Octal Base



STANDARD AND MINIATURE TYPES OF AMPERITE DELAY RELAYS AND FLASHERS... Net \$2.40 each
STANDARD RELAYS: Available in 2 to 180 Seconds Delay. **MINIATURE RELAYS:** Available in 2 to 120 Seconds Delay.
 Types shown in Bold type in the chart below are more popular relays and are more readily available.

MINIATURE TYPES: Designated by letter T (e.g. 6N05T)

Tolerance Seconds at 20°C	NORMALLY OPEN CONTACTS							NORMALLY CLOSED CONTACTS						
	HEATER VOLTAGES							HEATER VOLTAGES						
	2.5 V.	5.0 V.	6.3 V.	12.6 V.	26 V. (22-30)	50 V.	115 V.	2.5 V.	5.0 V.	6.3 V.	12.6 V.	26 V. (22-30)	50 V.	115 V.
± 1½	2N02	5N02	6N02	12N02	26N02	50N02	115N02	2C2	5C2	6C2	12C2	26C2	50C2	115C2
± 1½	2N03	5N03	6N03	12N03	26N03	50N03	115N03	2C3	5C3	6C3	12C3	26C3	50C3	115C3
± 2½	2N05	5N05	6N05	12N05	26N05	50N05	115N05	2C5	5C5	6C5	12C5	26C5	50C5	115C5
± 3	2N08	5N08	6N08	12N08	26N08	50N08	115N08	2C8	5C8	6C8	12C8	26C8	50C8	115C8
± 4	2N010	5N010	6N010	12N010	26N010	50N010	115N010	2C10	5C10	6C10	12C10	26C10	50C10	115C10
± 4	2N015	5N015	6N015	12N015	26N015	50N015	115N015	2C15	5C15	6C15	12C15	26C15	50C15	115C15
± 5	2N020	5N020	6N020	12N020	26N020	50N020	115N020	2C20	5C20	6C20	12C20	26C20	50C20	115C20
± 10	2N030	5N030	6N030	12N030	26N030	50N030	115N030	2C30	5C30	6C30	12C30	26C30	50C30	115C30
± 10	2N045	5N045	6N045	12N045	26N045	50N045	115N045	2C45	5C45	6C45	12C45	26C45	50C45	115C45
± 15	2N060	5N060	6N060	12N060	26N060	50N060	115N060	2C60	5C60	6C60	12C60	26C60	50C60	115C60
± 15	2N075	5N075	6N075	12N075	26N075	50N075	115N075	2C75	5C75	6C75	12C75	26C75	50C75	115C75
± 20	2N090	5N090	6N090	12N090	26N090	50N090	115N090	2C90	5C90	6C90	12C90	26C90	50C90	115C90
± 35	2N0120	5N0120	6N0120	12N0120	26N0120	50N0120	115N0120	2C120	5C120	6C120	12C120	26C120	50C120	115C120
± 35	2N0150	5N0150	6N0150	12N0150	26N0150	50N0150	115N0150	2C150	5C150	6C150	12C150	26C150	50C150	115C150
± 45	2N0180	5N0180	6N0180	12N0180	26N0180	50N0180	115N0180	2C180	5C180	6C180	12C180	26C180	50C180	115C180



Flashers operate approximately ⅓ on, ⅔ off. The percentage time on can be increased by reducing voltage of heater.

Flashers available only in quantities of 12 or less. Cannot be supplied in production quantities.

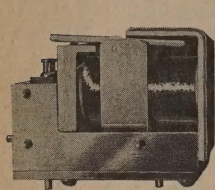
Normally closed flashers are standard, and are indicated by the letter "F." The number following letter "F" denotes flashes per minute. For example a 6F30 flasher, has 6.3V heater, normally closed 30 FPM with a ± 15 flashes per minute tolerance. A 6F30T, would be the same type but in 9-pin miniature. Flashers are available from 30 to 90 Flashes per minute with tolerances as shown in the chart below:

FLASHERS have contact rating of ½ a 115V AC, non-inductive.

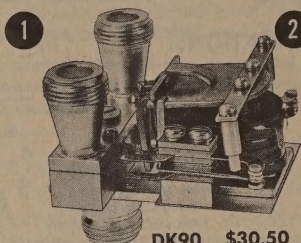
Tol.	FPM — 20°C	Standard Flashers Available		
30 ± 15	6F30	26F30	115F30	
45 ± 15	6F45	26F45	115F45	
60 ± 20	6F60	26F60	115F60	
75 ± 20	6F75	26F75		
90 ± 25	6F90	26F90		

COAXIAL

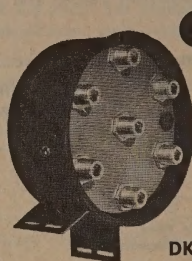
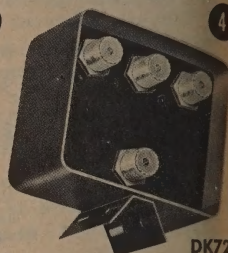
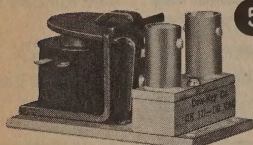
DOW-KEY COMPANY . . . NO. 1 SOURCE



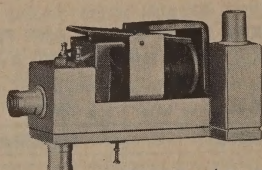
DK61 \$33.00



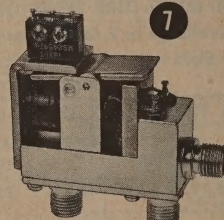
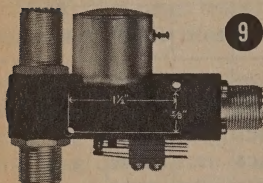
DK90 \$30.50

DK71
\$43.85DK72
\$20.2

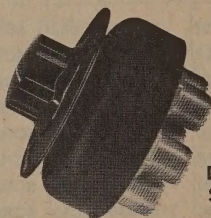
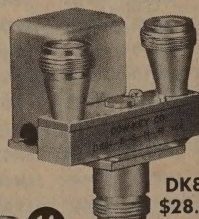
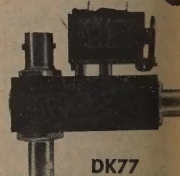
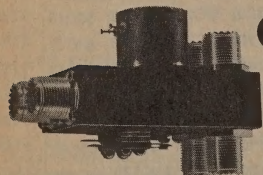
DK111 \$16.75



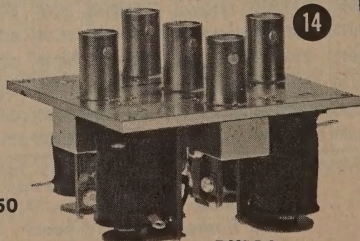
DK119 \$44.40

DK89
\$24.50

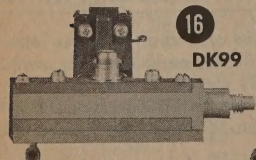
DK2-60-2C \$20.80

DK78-6
\$12.80DK84
\$28.50DK77
\$11.00

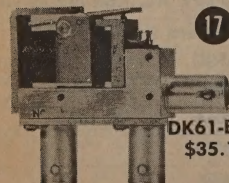
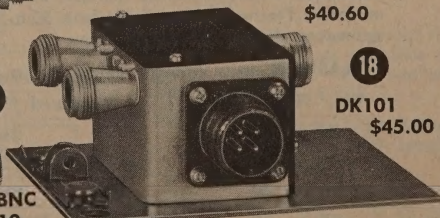
DK60-G2C \$31.00

DK116
\$40.60

DK2-60B \$28.00



DK99 \$24.50

DK61-BNC
\$35.10DK101
\$45.00

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ON ALL DOW-KEY PRODUCTS

RELAYS



STANDARD AND SPECIAL APPLICATIONS!

BELOW ARE DOW-KEY SPECIFICATIONS FOR PICTURED UNITS. SPECIAL UNITS AVAILABLE!

NO.	Part No.	Connectors Available	Coil Voltages Available	Type	rf Power (W)	Coil Power	Freq. (mc)	Wt. Oz.	Termination Available
1.	DK61	Solder Type With Hood	6, 12, 28, 48, or 110 VDC	SPDT	100	2.8 W	1000	4	Open
2.	DK90	N	6, 12, 28, 48, or 110 VDC	SPDT-rf DPDT-Aux	100	2.5 W	4000	6	Open or Shorting
3.	DK71	UHF, N, BNC, TNC, C, or F	All Std. AC or DC Voltages	SP6T	1000	2 W 6 VA	500	48	Shorting
4.	DK72	UHF, N, BNC, TNC, C, or F	All Std. AC or DC Voltages	SP3T	1000	2 W 6 VA	500	24	Shorting
5.	DK111	BNC or TNC	All Std. AC or DC Voltages	SPDT	100	2.5 W 6 VA	2500	5	Open, Shorting or Resistor
6.	DK119	Mate with Selectro 51-005	6, 12, 28, 48, or 110 VDC	SPDT	100	3 W	1000	4	Open
7.	DK61-1C-M5	BNC, TNC, or TM	6, 12, 28, 48, or 110 VDC	SPDT-rf SPDT-Aux	100	3 W	1000	4	Open
8.	DK89	BNC or TNC	6, 12, 28, 48, or 110 VDC	SPDT	200	2.5 W	1000	6	Open
9.	DK60-G2C	UHF, N, BNC, TNC, C, or F	All Std. AC or DC Voltages	SPDT-rf DPDT-Aux	20 N.C. 1000 N.O.	2 W 6 VA	500	9	Open
10.	DK78-6	UHF, N, BNC, TNC, C, or F	Manual	SP6T	100	—	500	12	Open
1.	DK84	N	6, 12, 28, 48, or 110 VDC	SPDT	100	2.5 W	4000	6	Open or Shorting
2.	DK77	BNC, TNC, or Phono	6, 12, 28, 48, or 110 VDC	SPDT	250	2.5 W	1000	3.5	Open
3.	DK2-60-2C	UHF, N, BNC, TNC, C, or F	All Std. AC or DC Voltages	DPDT-rf DPDT-Aux	1000	2 W 6 VA	500	12	Open
4.	DK116	BNC or TNC	6, 12, 28, 48, or 110 VDC	SP4T	100	2.5 W	3000	13	Open or Shorting
5.	DK2-60B	UHF, N, BNC, TNC, C, or F	All Std. AC or DC Voltages	BYPASS	1000	2 W 6 VA	500	12	Open
6.	DK99	As Shown	28 VDC	SPDT	100	2.8 W	400	5	Shorting
7.	DK61-BNC	BNC, TNC, MD, S, or TM	6, 12, 28, 48, or 110 VDC	SPDT	100	2.8 W	1000	4	Open
8.	DK101	N	28 VDC	SPDT	100	5 W	1000	14	Shorting

DKF-2 DK60-P DK201 DK202 DK204 DK210 DK211 DK212



.92 .84 \$1.30 \$1.00 \$1.70 \$1.50 \$1.60 \$1.70

UHF CONNECTORS — ADAPTERS

Left: UHF Double Male; UHF Panel Mount Female; UHF Panel Mount Male; UHF Double Female; Motorola to UHF Female; UHF Female to Male Phono; UHF Male to Male Phono; UHF Female to BNC Female.

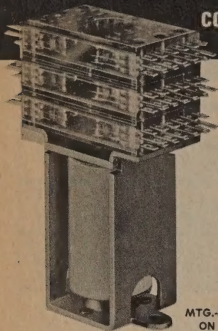
DOW-KEY COMPANY

electronic
controls, inc.



T-BAR® Switch/Relays

**T-BARS are for switching
more circuits in less space
...up to 60 circuits
simultaneously!**



MTG.-2-#6-32 NF HOLES
ON 1.375 CENTERS

SERIES 801 T-BAR RELAY COIL CHARACTERISTICS*

	12 POLES 1 WAFER RELAY Wt: 4.5 oz.			24 POLES 2 WAFER RELAYS Wt: 6.75 oz.			36 POLES 3 WAFER RELAYS Wt: 7.25 oz.			48 POLES** 4 WAFER RELAYS Wt: 8.5 oz.			60 POLES 5 WAFER RELAYS Wt: 9 oz.		
Voltage	Resist. amps	Current amps	Power Watts	Resist. amps	Current amps	Power Watts	Resist. amps	Current amps	Power Watts	Resist. amps	Current amps	Power Watts	Resist. amps	Current amps	Power Watts
6 VDC	11.9	0.504	3.01	11.09	0.541	3.24	7	0.857	5.06	5.5	1.09	6.54	5.5	1.09	6.54
12 VDC	49.1	0.244	2.96	45	0.267	3.19	28	0.429	5.15	22	0.545	6.54	22	0.545	6.54
24 VDC	193	0.124	2.88	174	0.138	3.32	111	0.216	6.15	94	0.255	6.12	94	0.255	6.12
28 VDC	258	0.109	3.03	227	0.123	3.44	150	0.187	5.23	120	0.233	6.52	120	0.233	6.52
48 VDC	778	0.062	2.98	674	0.071	3.41	438	0.110	5.26	350	0.137	6.58	350	0.137	6.58
110 VDC	3963	0.028	3.05	3450	0.032	3.54	2355	0.047	5.18	1930	0.057	6.27	1930	0.057	6.27
115 VAC**	2963	0.024	2.80	3450	0.027	3.10	2355	0.041	4.72	1930	0.049	5.62	1930	0.049	5.62

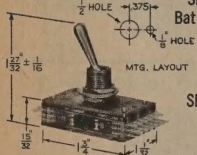
*All characteristics are nominal and subject to normal manufacturing tolerances, other voltages available on special order.

**115 VAC units are made with a full wave bridge rectifier and use the same coils as listed under 110 VDC units.

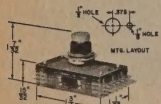
***Four-wafer relays with all "A" form contacts use three-wafer relay coils.

NOTE 1: ONE WAFER RELAYS USE A SHORTER ACTUATOR ASSY. - INSTEAD OF 2-1/2" AS SHOWN. THE ACTUATOR IS 1-15/32" HIGH.

SERIES 802 Bat Handle T-Bar Switches



SERIES 803 Push Button Switch



Series 802 & 803	
No. of Poles	Weights Oz. Approx.
12	2.0
24	2.5
36	3.0

Ganged T-Bar Switches

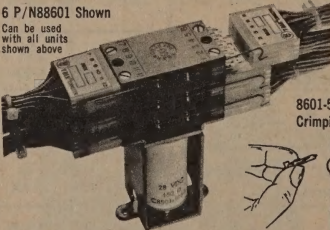


Toggles may be ganged for controlling additional circuits... 48, 72, 108, etc. Shown here, 108 poles.

T-BAR Connectors save time and reduce installation costs using individual snap-in crimp terminals crimped to pre-stripped wire and then snapped into a contact block, which forms the connector. The connector is pushed onto the wafer terminals, eliminating soldering. Because we offer a connector, rather than a receptacle, harness work can be completed outside the chassis and therefore no fancy chassis work is required to accept a receptacle. It not only makes the metal work simpler, but it also saves layout engineering and drafting time. Since T-Bar Switch/Relays are so easily mounted, they are often found on the back of meter panels or on their own brackets.

6 P/N8601 Shown

Can be used with all units shown above



8601-51
Crimping Tool

PHYSICAL PROPERTIES:

Wire Accommodated: (1) #18, #20, #22, #24, #26, STD (2) #22, #24, #26 STR

Connector Material: Nylon Zytel or Lexan®

Snap-in Contact Material: Phosphor Bronze

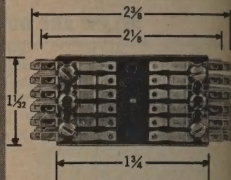
Snap-in Contact Finish: Tin Plated (other on request)

Retaining Clip Material: Stainless Steel

Connector Weight: Approximately 0.3 oz.

Manufactured under 1 or more of the following patents: 3,206,990, 3,226,508

© "T-Bar" - Reg. T.M.



GENERAL FEATURES:

The series 801 T-Bar Relays are solenoid actuated multi-pole relays with a unique design permitting stack-up of enclosed contact "wafers." Each wafer has a maximum of 12 pole double throw contacts thereby allowing ECI to supply the 801 relay with any combination from 4 to 60 poles.

CONTACT RATING:

3 amp, resistive load 150 watt maximum
5 amp, 500 watt maximum carry.

CONTACT MATERIAL:

Gold bonded, fine silver, standard. Others available on special order.

CONTACT FORMS:

"A" single throw N.O.
"B" single throw N.C.
"C" double throw, break before make
"D" double throw, make before break

NUMBER OF POLES (RELAYS):

One Wafer - 12 poles
Two Wafers - 24 poles
Three Wafers - 36 poles
Four Wafers - 48 poles
Five Wafers - 60 poles

("A" form only)

OPERATE VOLTAGE:

Min. voltage: 80% of nominal at 25°C

RELEASE VOLTAGE:

Max. voltage: 20% of nominal at 25°C

OPERATE TIME:

One Wafer Relay - 15 ms. max.
Two Wafer Relay - 25 ms. max.
Three Wafer Relay - 30 ms. max.
Four Wafer Relay - 35 ms. max.
Five Wafer Relay - 40 ms. max.

RELEASE TIME:

5 ms. max. (36 pole) - 10 ms. max. (12 pole)

TERMINALS:

Solder tab that also mates with T-Bar connector P/N 8601 (two required per wafer)

ENCLOSURE:

Contacts enclosed in dust tight plastic enclosure that is separated from the actuator assembly. Withstands Mil. Std. - 202 method 106B moisture resistance test.

LIFE:

Mechanical - 20,000,000 operations minimum for relay
Electrical - 20,000,000 operations minimum at 100 milliamps to 100,000 minimum at 3 amps, 150 watts resistive load.

DIELECTRIC:

1000 vrms terminals to case at sea level and 25°C
1000 vrms terminal to terminal at sea level and 25°C
1000 vrms coil to case at sea level and 25°C

TEMPERATURE RANGE:

-55°C to +85°C

INSULATION RESISTANCE:

5,000 megohms @ 25°C minimum

ORDERING INFORMATION:

Specify Series No. - number of poles plus contact form letter-circuit voltage. For example a 36 pole double throw relay with a 24 VDC coil is: 801-360-24



MANUFACTURED BY:

electronic controls, inc.

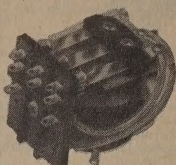
T-Bar Switch/Relay Div. •

GLOBE RELAYS

TYPE "W" MIDGET GENERAL PURPOSE

This relay offers high reliability at a minimum cost. The silver cadmium-plated contacts are mounted on beryllium copper blades.** There is good contact wiping action. This unit operates well in ambient temperatures to 125° C.

CONTACTS: 5 amps @ 24 VDC or 115 VAC, 10 amps @ 24 VDC or 115 VAC, Arrangement 1, 2 or 3 PDT.
COIL: D-C applications up thru 120 VDC, A-C applications up thru 230 VAC.
MOUNTING: One 6-32 screw and keying boss to prevent turning.



TYPE "WC" MIDGET GENERAL PURPOSE WITH DUSTITE ENCLOSURE

This relay is identical to type "W." However, the unit provides a clear dust-protective polystyrene case on Octal type plug-in base. Operating temperatures to 85° C ambient. Variation of voltage or a hermetically sealed can be provided on request. This unit is in standard Globe wiring. For special wiring to meet existing installations specify "WZ" wiring.

CONTACTS: 5 amps @ 24 VDC or 115 VAC, 10 amps @ 24 VDC or 115 VAC, Arrangement 1, 2 or 3 PDT.
COIL: D-C applications up thru 120 VDC, A-C applications up thru 230 VAC.
MOUNTING: Octal plug-in.



MIDGET SERIES

TYPE "WP" MIDGET PRINTED CIRCUIT

Relay is identical to the "W" type using the same integrally moulded parts. The terminals are designed for direct mounting into printed circuit boards. They will fit into .050 inch diameter holes and project 1/2 inch beyond an 1/8 inch thick circuit board. Base plate area on the board is only 1.070 x .890 inches. Dimensional artwork for hole configuration is available.

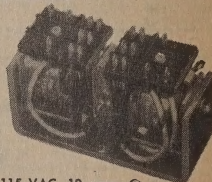
CONTACTS: 5 amps @ 24 VDC or 115 VAC, 10 amps @ 24 VDC or 115 VAC, Arrangement 1, 2 or 3 PDT.
COIL: D-C applications up thru 120 VDC, A-C applications up thru 120 VAC.
MOUNTING: Soldered into printed circuit boards.



TYPE "WL" MIDGET LATCHING

This latching relay may be had with either coil to operate at any specified voltage. It is designed that either coil may be used to operate the contacts into a latched position. The other coil will latch or unlatch the contacts into the opposite position.

CONTACTS: 5 amps @ 24 VDC or 115 VAC, 10 amps @ 24 VDC or 115 VAC.
COIL: D-C applications up thru 120 VDC, A-C applications up thru 230 VAC on either coil.
MOUNTING: 2 holes for #6 screws in center of frame.

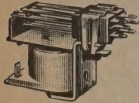


PRICES (SUBJECT TO CHANGE)

Voltage	Coil Current	D-C Resistance	5 Ampere Contacts				10 Ampere Contacts			
			"W" "WP" Open		"WC" Dustite		"W" "WP" Open		"WC" Dustite	
			Part No.	Price(Net)	Part No.	Price(Net)	Part No.	Price(Net)	Part No.	Price(Net)
115V. PLATE	9 to 30MA	2,500 Ω	1W1	\$3.50	1WC1	\$5.50	1W20	\$3.75	1WC20	\$5.80
			2W1	4.20	2WC1	6.60	2W20	4.45	2WC20	6.75
			3W1	4.90	3WC1	8.10	3W20	5.95	3WC20	8.55
115V. PLATE	7 to 20MA	5,000 Ω	1W2	3.95	1WC2	5.95	1W21	4.20	1WC21	6.25
			2W2	4.60	2WC2	7.00	2W21	4.85	2WC21	7.15
			3W2	5.45	3WC2	8.45	3W21	5.70	3WC21	8.90
115V. PLATE	4 to 14MA	10,000 Ω	1W3	4.35	1WC3	6.35	1W22	4.60	1WC22	6.65
			2W3	5.00	2WC3	7.40	2W22	5.25	2WC22	7.55
			3W3	5.85	3WC3	8.85	3W22	6.10	3WC22	9.30
115V. D-C	200MA	30 Ω	1W4	3.05	1WC4	5.10	1W23	3.50	1WC23	5.55
			2W4	3.35	2WC4	5.65	2W23	3.80	2WC23	6.10
			3W4	3.75	3WC4	6.95	3W23	4.40	3WC23	7.60
115V. D-C	120MA	100 Ω	1W5	3.05	1WC5	5.10	1W24	3.50	1WC24	5.55
			2W5	3.35	2WC5	5.65	2W24	3.80	2WC24	6.10
			3W5	3.75	3WC5	6.95	3W24	4.40	3WC24	7.60
115V. D-C	53MA	450 Ω	1W6	3.05	1WC6	5.10	1W25	3.50	1WC25	5.55
			2W6	3.35	2WC6	5.65	2W25	3.80	2WC25	6.10
			3W6	3.75	3WC6	6.95	3W25	4.40	3WC25	7.60
115V. D-C	15MA	8,000 Ω	1W7	3.55	1WC7	5.65	1W26	4.00	1WC26	6.05
			2W7	3.85	2WC7	6.15	2W26	4.30	2WC26	6.60
			3W7	4.55	3WC7	7.45	3W26	5.20	3WC26	8.40
115V. A-C	400MA	5 Ω	1W8	3.05	1WC8	5.15	1W27	3.50	1WC27	5.60
			2W8	3.55	2WC8	5.75	2W27	4.00	2WC27	6.40
			3W8	4.05	3WC8	7.05	3W27	4.70	3WC27	7.70
115V. A-C	150MA	20 Ω	1W9	3.05	1WC9	5.15	1W28	3.50	1WC28	5.60
			2W9	3.55	2WC9	5.75	2W28	4.00	2WC28	6.40
			3W9	4.05	3WC9	7.05	3W28	4.70	3WC28	7.70
115V. A-C	120MA	70 Ω	1W10	3.05	1WC10	5.15	1W29	3.50	1WC29	5.60
			2W10	3.55	2WC10	5.75	2W29	4.00	2WC29	6.40
			3W10	4.05	3WC10	7.05	3W29	4.70	3WC29	7.70
115V. A-C	25MA	1,500 Ω	1W11	3.05	1WC11	5.15	1W30	3.50	1WC30	5.60
			2W11	3.55	2WC11	5.75	2W30	4.00	2WC30	6.40
			3W11	4.05	3WC11	7.05	3W30	4.70	3WC30	7.70
115V. A-C	8MA	8,000 Ω	1W12	3.55	1WC12	5.75	1W31	4.00	1WC31	6.10
			2W12	4.05	2WC12	6.25	2W31	4.50	2WC31	6.90
			3W12	4.25	3WC12	7.55	3W31	5.20	3WC31	8.20



GUARDIAN® ELECTRIC



SERIES 900 & 910 10 AMP RELAY

- Underwriters' Laboratories Listed
- Designed with reduced number of parts for long, trouble-free service
- Has keyed and locked lifters

Series 910 is exactly the same as the 900 relay, both electrically and mechanically, but with $\frac{3}{4}$ quick disconnects instead of soldered termination.

Dependable, low cost, DPDT relay featuring new, trouble-free design that incorporates a minimum of parts. Contacts all rated 10 amps, 115V., AC resistive load. Has molded switches, one-piece mounting clip and return spring; molded bobbin and coil cover. Average shpg. wt., 6 oz.

SIZE: $2\frac{1}{4}" \times 1\frac{1}{4}" \times 1\frac{3}{8}"$

Guardian No.	Coil Voltage	QUANTITIES		
		1-9	10-24	25-49
900-2C-24A	24 AC	\$1.75	\$1.66	\$1.49
900-2C-115A	115 AC	1.75	1.66	1.49
900-2C-230A	230 AC	1.75	1.66	1.49
905-2C-6D	6 DC	1.75	1.66	1.49
905-2C-12D	12 DC	1.75	1.66	1.49
905-2C-24D	24 DC	1.75	1.66	1.49

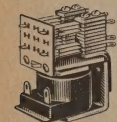
*U/L Recognition File #E-23524B

SIZE: $2\frac{1}{4}" \times 1\frac{1}{4}" \times 1\frac{3}{8}"$

Guardian No.	Coil Voltage	QUANTITIES		
		1-9	10-24	25-49
910-2C-24A	24 AC	\$1.75	\$1.66	\$1.49
910-2C-115A	115 AC	1.75	1.66	1.49
910-2C-230A	230 AC	1.75	1.66	1.49
915-2C-6D	6 DC	1.75	1.66	1.49
915-2C-12D	12 DC	1.75	1.66	1.49
915-2C-24D	24 DC	1.75	1.66	1.49

*U/L Recognition File #E-23524B

Further savings are available when Series 900 relays are purchased in bulk packs of 50 units. Relays are supplied nested in new, convenient "form fitted" assembly line trays... one package of 50—\$70.00; 2 and up—\$61.50 ea.



ALL PURPOSE ECONOMY RELAY IR-640U AC—IR-645U DC—10 AMPERE

A compact, lightweight relay capable of unusually heavy power control for its size. Long life, high quality relay available in a variety of AC and DC voltages with a selection of contact combinations.

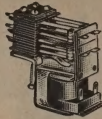
All contact ratings are 10 amps. Contact ratings at 60 cycles, 115V., non-inductive load. 8-32 single screw, center pole mounting. Shpg. wt., 3.5 oz.

*U/L Recognition File #E-17260

SIZE: $1\frac{1}{4}" \times 1\frac{1}{4}" \times 1"$

Guardian No.	Coil Res.	Coil Voltage	Cont. Comb.	QUANTITIES			
				1-24	25-49	50-99	100-249 250-up
IR-640U-A-6A	1.7	6AC	SPST*	\$2.90	\$2.61	\$2.47	\$2.32
IR-640U-C-6A	1.7	6AC	SPDT	3.15	2.84	2.68	2.52
IR-640U-2C-6A	1.7	6AC	DPDT	3.40	3.06	2.89	2.72
IR-640U-4C-6A	1.7	6AC	4PDT	5.00	4.50	4.25	4.00
IR-640U-A-24A	24	24AC	SPST*	2.90	2.61	2.47	2.32
IR-640U-C-24A	24	24AC	SPDT	3.15	2.84	2.68	2.52
IR-640U-2C-24A	24	24AC	DPDT	3.40	3.06	2.89	2.72
IR-640U-4C-24A	24	24AC	4PDT	5.00	4.50	4.25	4.00
IR-640U-A-115A	550	115AC	SPST*	2.90	2.61	2.47	2.32
IR-640U-C-115A	550	115AC	SPDT	3.15	2.84	2.68	2.52
IR-640U-2C-115A	550	115AC	DPDT	3.40	3.06	2.89	2.72
IR-640U-4C-115A	550	115AC	4PDT	5.00	4.50	4.25	4.00
IR-640U-2C-230A	2,950	230AC	DPDT	4.20	3.78	3.57	3.36
IR-640U-A-6D	12	6DC	SPST*	2.90	2.61	2.47	2.32
IR-645U-C-6D	12	6DC	SPDT	3.15	2.84	2.68	2.52
IR-645U-2C-6D	12	6DC	DPDT	3.40	3.06	2.89	2.72
IR-645U-4C-6D	12	6DC	4PDT	5.00	4.50	4.25	4.00
IR-645U-A-12D	50	12DC	SPST*	2.90	2.61	2.47	2.32
IR-645U-C-12D	50	12DC	SPDT	3.15	2.84	2.68	2.52
IR-645U-2C-12D	50	12DC	DPDT	3.40	3.06	2.89	2.72
IR-645U-4C-12D	50	12DC	4PDT	5.00	4.50	4.25	4.00
IR-645U-A-24D	200	24DC	SPST*	2.90	2.61	2.47	2.32
IR-645U-C-24D	200	24DC	SPDT	3.15	2.84	2.68	2.52
IR-645U-2C-24D	200	24DC	DPDT	3.40	3.06	2.89	2.72
IR-645U-4C-24D	200	24DC	4PDT	5.00	4.50	4.25	4.00
IR-645U-A-110D	4,000	110DC	SPST*	3.40	3.06	2.89	2.72
IR-645U-C-110D	4,000	110DC	SPDT	3.70	3.33	3.15	2.96
IR-645U-2C-110D	4,000	110DC	DPDT	3.95	3.56	3.36	3.16
IR-645U-4C-110D	4,000	110DC	4PDT	5.25	4.73	4.46	4.20

*Normally Open.



SERIES 240U AC—245U DC

Designed for contact ratings up to 15 amps, Series 240 AC and 245 DC relays are compact, reliable and inexpensive. Factory pretested and adjusted to be ready for assembly into your product. Contact rating is 15 amp, 115V., 60 cycles non-inductive load. Easy assembly with 8-32 single-screw, center-hole mounting. Shpg. wt., 4.5 oz.

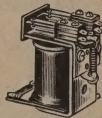
*U/L Recognition File #E-23524A

SIZE: (4PDT) $2\frac{3}{8}" \times 1\frac{3}{8}" \times 2\frac{3}{8}"$

Guardian No.	Coil Res.	Coil Voltage	Cont. Comb.	QUANTITIES			
				1-24	25-49	50-99	100-249 250-up
240U-A-6A	3	6AC	SPST*	\$3.15	\$2.84	\$2.68	\$2.52
240U-2C-6A	3	6AC	DPDT	3.95	3.56	3.36	3.16
240U-4C-6A	1.7	6AC	4PDT	5.80	5.22	4.93	4.64
240U-A-24A	48	24AC	SPST*	3.15	2.84	2.68	2.52
240U-2C-24A	48	24AC	DPDT	3.95	3.56	3.36	3.16
240U-4C-24A	24	24AC	4PDT	5.80	5.22	4.93	4.64
240U-A-115A	1,400	115AC	SPST*	3.15	2.84	2.68	2.52
240U-2C-115A	1,400	115AC	DPDT	3.95	3.56	3.36	3.16
240U-4C-115A	550	115AC	4PDT	5.80	5.22	4.93	4.64
245U-A-6D	25	6DC	SPST*	3.15	2.84	2.68	2.52
245U-2C-6D	25	6DC	DPDT	3.95	3.56	3.36	3.16
245U-4C-6D	12	6DC	4PDT	5.80	5.22	4.93	4.64
245U-A-12D	100	12DC	SPST*	3.15	2.84	2.68	2.52
245U-2C-12D	100	12DC	DPDT	3.95	3.56	3.36	3.16
245U-4C-12D	50	12DC	4PDT	5.80	5.22	4.93	4.64
245U-A-24D	400	24DC	SPST*	3.15	2.84	2.68	2.52
245U-2C-24D	400	24DC	DPDT	3.95	3.56	3.36	3.16
245U-4C-24D	200	24DC	4PDT	5.80	5.22	4.93	4.64

*Normally Open.

PLATE CIRCUIT DC RELAY IR-625—10 AMPERE



Has extra long coil for greater sensitivity. Adaptable voltage operation as well as sensitive plate circuit control installations. Coil impregnated for reliability and long life. Average power requirement, 0.2 watt. Contacts, fine silver. Contact ratings, 10 amps. Mounting: One 8-32 (NC-2) center hole. Shpg. wt., 5.5 oz.

SIZE: $2\frac{1}{4}" \times 2" \times 1\frac{1}{2}"$

Guardian No.	Oper. Mils.	Coil Res.	Cont. Comb.	QUANTITIES			
				1-24	25-49	50-99	100-249 250-up
IR-625-2.5	9 M.A.	2,500	DPDT	\$4.45	\$4.01	\$3.78	\$3.56
IR-625-5	6.3 M.A.	5,000	DPDT	4.75	4.28	4.04	3.80
IR-625-10	4.5 M.A.	10,000	DPDT	5.80	5.22	4.93	4.64

HEAVY DUTY INDUSTRIAL AC RELAY IR-220—20 AMPERE



This rugged unit makes and breaks up to 20 amps, 230 volts. Armature is equipped with phenolic contact mounting block carrying $\frac{3}{4}"$ dual contacts. Phenolic tested at 1500 volts breakdown to ground. Contacts silver alloy. Relay is available in dual SPST, normal open contact combination only. Contact rating 20 amp at 60 cycles, 230V., AC, non-inductive load. Mounting holes—clearance for 8-32 with $2\frac{1}{2}"$ center. Shpg. wt., 5.5 oz.

SIZE: $3" \times 1\frac{1}{4}" \times 1\frac{1}{4}"$

Guardian No.	Coil Voltage	Coil Res.	Cont. Comb.	QUANTITIES			
				1-24	25-49	50-99	100-249 250-up
IR-220-A-24A	24AC	25	SPST*	\$4.50	\$4.05	\$3.83	\$3.60
IR-220-A-115A	115AC	600	SPST*	5.05	4.55	4.29	4.04
IR-220-A-230A	230AC	2,500	SPST*	5.55	5.00	4.72	4.44

*Normally Open.



SMALL SIZE—EFFICIENT MEDIUM POWER AC-DC RELAY—1200 AC—1205 DC—10 AMPERE

Small-sized, highly efficient relay applicable to automation, communications, remote control, switching devices and experimental uses. Heavy solder lug type terminals molded in phenolic block, with barriers for over-surface insulation. Contacts rated 10 amps at 60 cycles, 115V., AC, non-inductive load. Mounting hole, 6-32 TAP. Shpg. wt., 2.5 oz. Recognition File #E-17260A (AC only)

SIZE: 1½" x 1" x 1¼"				QUANTITIES					
Guardian No.	Coil Res.	Coil Voltage	Cont. Comb.	1-24	Net Each, Lots of 25-49	50-99	100-249	250-up	
2C-6A	2	6AC	DPDT	\$3.75	\$3.38	\$3.19	\$3.00	\$2.63	
3C-6A	2	6AC	3PDT	4.25	3.83	3.61	3.40	2.98	
2C-24A	33	24AC	DPDT	3.75	3.38	3.19	3.00	2.63	
3C-24A	33	24AC	3PDT	4.25	3.83	3.61	3.40	2.98	
2C-115A	1000	115AC	SPDT	3.50	3.15	2.98	2.80	2.45	
3C-115A	1000	115AC	DPDT	3.75	3.38	3.19	3.00	2.63	
3C-115A	1000	115AC	3PDT	4.25	3.83	3.61	3.40	2.98	
2C-230A	3500	230AC	DPDT	4.00	3.60	3.40	3.20	2.80	
3C-230A	3500	230AC	3PDT	4.50	4.05	3.83	3.60	3.15	
2C-6D	12	6DC	DPDT	3.40	3.06	2.89	2.72	2.38	
3C-6D	12	6DC	3PDT	3.85	3.47	3.27	3.08	2.70	
2C-12D	48	12DC	DPDT	3.40	3.06	2.89	2.72	2.38	
3C-12D	48	12DC	3PDT	3.85	3.47	3.27	3.08	2.70	
2C-24D	192	24DC	SPDT	3.20	2.88	2.72	2.56	2.24	
3C-24D	192	24DC	DPDT	3.40	3.06	2.89	2.72	2.38	
3C-24D	192	24DC	3PDT	3.85	3.47	3.27	3.08	2.70	
2C-110D	4075	110DC	DPDT	3.75	3.38	3.19	3.00	2.63	
3C-110D	4075	110DC	3PDT	4.25	3.83	3.61	3.40	2.98	



ENCLOSED PLUG-IN RELAY 1210 AC—1215 DC—10 AMPERE

A powerful and economical relay enclosed in a transparent, lightweight Lexan case which has high impact strength, unaffected by weather, and is resistant to temperatures of 200°F. Relay available with 8 pin octal plug for DPDT and 11 pin for 3PDT. Contacts rated for 10 amps at 60 cycles, 115V., AC, non-inductive load.

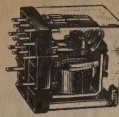
or DPDT 11 pin for 3PDT Shpg. wt., 3.5 oz.

Recognition File #E-17260A (AC only)

SIZE: 2½" x 1¾" x 1¾"				QUANTITIES					
Guardian No.	Coil Voltage	Coil Res.	Cont. Comb.	1-24	Net Each, Lots of 25-49	50-99	100-249	250-up	
2C-6A	6AC	2	DPDT	\$6.00	\$5.40	\$5.10	\$4.80	\$4.20	
3C-6A	6AC	2	3PDT	7.50	6.75	6.38	6.00	5.25	
2C-24A	24AC	33	DPDT	6.00	5.40	5.10	4.80	4.20	
3C-24A	24AC	33	3PDT	7.50	6.75	6.38	6.00	5.25	
2C-115A	115AC	1,000	DPDT	6.00	5.40	5.10	4.80	4.20	
3C-115A	115AC	1,000	3PDT	7.50	6.75	6.38	6.00	5.25	
2C-230A	230AC	5,230	DPDT	6.25	5.63	5.31	5.00	4.38	
3C-230A	230AC	5,230	3PDT	7.75	6.98	6.59	6.20	5.43	
2C-6D	6DC	12	DPDT	6.00	5.40	5.10	4.80	4.20	
3C-6D	6DC	12	3PDT	7.50	6.75	6.38	6.00	5.25	
2C-12D	12DC	75	DPDT	6.00	5.40	5.10	4.80	4.20	
3C-12D	12DC	75	3PDT	7.50	6.75	6.38	6.00	5.25	
2C-24D	24DC	300	DPDT	6.00	5.40	5.10	4.80	4.20	
3C-24D	24DC	300	3PDT	7.50	6.75	6.38	6.00	5.25	
2C-110D	110DC	6,500	DPDT	6.50	5.85	5.53	5.20	4.55	
3C-110D	110DC	6,500	3PDT	8.00	7.20	6.80	6.40	5.60	

ENCLOSED PLATE CIRCUIT PLUG-IN RELAY

SIZE: 2½" x 1¾" x 1¾"				QUANTITIES					
Guardian No.	Oper. Mills	Coil Res.	Cont. Comb.	1-24	Net Each, Lots of 25-49	50-99	100-249	250-up	
2C-2.5	10 MA	2,500	DPDT	\$6.20	\$5.58	\$5.27	\$4.96	\$4.34	
3C-2.5	12 MA	2,500	3PDT	7.25	6.53	6.16	5.80	5.08	
2C-5	7.2 MA	5,000	DPDT	6.30	5.67	5.36	5.04	4.41	
3C-5	8.5 MA	5,000	3PDT	7.50	6.75	6.38	6.00	5.25	
2C-10	5 MA	10,000	DPDT	6.50	5.85	5.53	5.20	4.55	
3C-10	6 MA	10,000	3PDT	7.75	6.98	6.59	6.20	5.43	



VERSATILE ENCLOSED RELAY • PLUG-IN • SOLDER TO • OR QUICK CONNECT TERMINALS 1220 AC—1225 DC—10 AMPERE

Newly designed relay is reduced in height and cost by the elimination of the radio-type plug, extra wiring and sub-assembly between relay and plug. Features "UNI-GUARD," continuous loop moving blades; snap lock cover, and terminals that can be used as solder lug, AMP Faston 110 Series quick connect or socket plug-in. The 1220 Relay comes complete with mounting bracket.

*U/L Recognition File #E-23524

SIZE: 1½" x 1½" x 1½"				QUANTITIES					
Guardian No.	Coil Voltage	Coil Res.	Cont. Comb.	1-24	Net Each, Lots of 25-49	50-99	100-249	250-up	
IR-1220-2C-6A	6AC	2.4	DPDT	\$4.00	\$3.60	\$3.40	\$3.20	\$2.80	
IR-1220-2C-24A	24AC	48	DPDT	4.00	3.60	3.40	3.20	2.80	
IR-1220-2C-115A	115AC	1,000	DPDT	4.00	3.60	3.40	3.20	2.80	
IR-1220-2C-230A	230AC	4,030	DPDT	4.25	3.83	3.61	3.40	2.98	
IR-1220-3C-6A	6AC	2.4	3PDT	4.50	4.05	3.83	3.60	3.15	
IR-1220-3C-24A	24AC	48	3PDT	4.50	4.05	3.83	3.60	3.15	
IR-1220-3C-115A	115AC	1,000	3PDT	4.50	4.05	3.83	3.60	3.15	
IR-1220-3C-230A	230AC	4,030	3PDT	4.75	4.28	4.04	3.80	3.33	
IR-1225-2C-6D	6DC	18	DPDT	4.00	3.60	3.40	3.20	2.80	
IR-1225-2C-12D	12DC	75	DPDT	4.00	3.60	3.40	3.20	2.80	
IR-1225-2C-24D	24DC	300	DPDT	4.00	3.60	3.40	3.20	2.80	
IR-1225-2C-110D	110DC	6,500	DPDT	4.25	3.83	3.61	3.40	2.98	
IR-1225-3C-6D	6DC	18	3PDT	4.50	4.05	3.83	3.60	3.15	
IR-1225-3C-12D	12DC	75	3PDT	4.50	4.05	3.83	3.60	3.15	
IR-1225-3C-24D	24DC	300	3PDT	4.50	4.05	3.83	3.60	3.15	
IR-1225-3C-110D	110DC	6,500	DPDT	4.75	4.28	4.04	3.80	3.33	



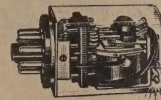
1R-1220—SOCKET

Net 1-9...60c each Net 10-up...59c each

The 1220 snap-in socket has U/L component recognition. Socket terminal lugs can be soldered to or will accept AMP Series 110 quick connects.

ENCLOSED PLUG-IN AC RELAY—1210-N

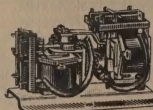
With Built-in Neon Lamp to Indicate Circuit Faults—10 AMPERE



This plug-in relay utilizes a miniature neon lamp connected across coil terminals. The lamp lights each time the coil is energized, or indicates a circuit fault when lamp is "dark." Ideal for detecting circuit faults in relay banks, mass relay arrangements, or where relays are visibly located at intermediate switching points of the circuitry. Precludes the use of circuit testers. Available with 8 pin octal plug for DPDT and 11 pin for 3PDT. Contacts rated 10 amps at 115V., AC, 60 cycles, non-inductive load. Shpg. wt., 3.5 oz.

SIZE: 2½" x 1¾" x 1¾"				QUANTITIES					
Guardian No.	Coil Voltage	Coil Res.	Cont. Comb.	1-24	Net Each, Lots of 25-49	50-99	100-249	250-up	
1210N-2C-115A	115AC	1,000	DPDT	\$6.75	\$6.08	\$5.74	\$5.40	\$4.73	
1210N-3C-115A	115AC	1,000	3PDT	8.00	7.20	6.80	6.40	5.60	

INTERLOCKING RELAY—AC IR-1200/1200—10 AMPERE

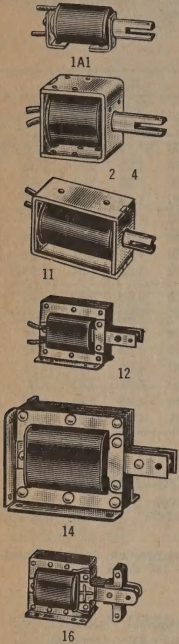


Two interlocking AC relays in sturdy metal frame bracket. Used to maintain circuits continuously without coil power consumption. Unit is electrically pulse operated with mechanical hold and electrical release. Contacts rated for 10 amps, at 60 cycles, 115V., AC, non-inductive load. Coil resistance is 800 ohms. Shpg. wt., 5.5 oz.

SIZE: 1½" x 1½" x 3½"				QUANTITIES					
Guardian No.	Cont. Comb.	Coil Voltage		1-24	Net Each, Lots of 25-49	50-99	100-249	250-up	
IR-1200/1200-4C-115A	4PDT	115AC		\$10.40	\$9.36	\$8.84	\$8.32	\$7.28	

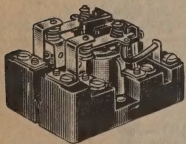
GUARDIAN® ELECTRIC

GUARDIAN SOLENOIDS AC - DC



MFG. NO.	VOLTS AC	DUTY	OHMS	MINIMUM—MAXIMUM STROKES and LIFT	SIZE, INCHES L. X W. X H.	SHPG. WT. OZS.	NET EACH, LOTS OF					
							1-24	25-49	50-99	100-249	250 Up	
1A1	115A	Inter.	300	8 oz. at 1/8"	2 oz. at 1/2"	1 3/4 x 1 1/4 x 1 1/4	4.5	\$3.15	\$2.84	\$2.68	\$2.52	\$2.21
1A1	115A	Cont.	675	3 oz. at 1/8"	.5 oz. at 3/8"	1 3/4 x 1 1/4 x 1 1/4	4.5	3.15	2.84	2.68	2.52	2.21
2	115A	Inter.	60	33 oz. at 1/8"	4.5 oz. at 3/8"	1 1/4 x 1 1/4 x 1 1/4	10	3.68	3.31	3.13	2.94	2.58
2	115A	Cont.	166	10.5 oz. at 1/8"	3 oz. at 3/8"	1 1/4 x 1 1/4 x 1 1/4	10	3.68	3.31	3.13	2.94	2.58
2HD	115A	Inter.	39	38 oz. at 1/8"	16 oz. at 3/4"	1 1/2 x 1 1/4 x 1 1/4	13	8.66	7.79	7.36	6.93	6.06
2HD	115A	Cont.	113	17 oz. at 1/8"	4 oz. at 3/4"	1 1/2 x 1 1/4 x 1 1/4	13	8.66	7.79	7.36	6.93	6.06
4	115A	Inter.	37	24 oz. at 1/8"	22 oz. at 1"	2 x 1 1/4 x 1 1/4	14.5	4.20	3.78	3.57	3.36	2.94
4	115A	Cont.	133	8 oz. at 1/8"	6 oz. at 1"	2 x 1 1/4 x 1 1/4	14.5	4.20	3.78	3.57	3.36	2.94
11	24A	Inter.	5.1	26 oz. at 1/8"	3 oz. at 1"	1 1/4 x 1 1/2 x 1 1/4	7.5	3.15	2.84	2.68	2.52	2.21
11	24A	Cont.	12	10 oz. at 1/8"	3 oz. at 1"	1 1/4 x 1 1/2 x 1 1/4	7.5	3.15	2.84	2.68	2.52	2.21
11	115A	Inter.	125	26 oz. at 1/8"	3 oz. at 1"	1 1/4 x 1 1/2 x 1 1/4	7.5	3.15	2.84	2.68	2.52	2.21
11	115A	Cont.	300	10 oz. at 1/8"	3 oz. at 1"	1 1/4 x 1 1/2 x 1 1/4	7.5	3.15	2.84	2.68	2.52	2.21
12	115A	Inter.	100	32 oz. at 1/8"	4 oz. at 1"	1 1/4 x 1 1/4 x 1 1/4	6	4.46	4.01	3.79	3.57	3.12
12	115A	Cont.	150	22 oz. at 1/8"	3 oz. at 3/8"	1 1/4 x 1 1/4 x 1 1/4	6	4.46	4.01	3.79	3.57	3.12
14	115A	Inter.	11	110 oz. at 1/8"	52 oz. at 1 1/2"	2 1/4 x 1 1/4 x 2 1/4	19	6.04	5.44	5.13	4.83	4.23
14	115A	Cont.	18	65 oz. at 1/8"	37 oz. at 1 1/2"	2 1/4 x 1 1/4 x 2 1/4	19	6.04	5.44	5.13	4.83	4.23
16	115A	Inter.	41	96 oz. at 1/8"	35 oz. at 3/4"	1 1/4 x 1 1/4 x 1 1/4	7.5	3.68	3.31	3.13	2.94	2.58
16	115A	Cont.	85	50 oz. at 1/8"	10 oz. at 3/4"	1 1/4 x 1 1/4 x 1 1/4	7.5	3.68	3.31	3.13	2.94	2.58
16	230A	Inter.	200	96 oz. at 1/8"	35 oz. at 3/4"	1 1/4 x 1 1/4 x 1 1/4	7.5	3.94	3.55	3.35	3.15	2.76
16	230A	Cont.	350	50 oz. at 1/8"	10 oz. at 3/4"	1 1/4 x 1 1/4 x 1 1/4	7.5	3.94	3.55	3.35	3.15	2.76
18	115A	Inter.	8.8	280 oz. at 1/8"	80 oz. at 1"	2 1/2 x 1 1/4 x 2 1/4	16.5	4.99	4.49	4.24	3.99	3.49
18	115A	Cont.	19.7	145 oz. at 1/8"	40 oz. at 1"	2 1/2 x 1 1/4 x 2 1/4	16.5	4.99	4.49	4.24	3.99	3.49
18	230A	Inter.	45	280 oz. at 1/8"	80 oz. at 1"	2 1/2 x 1 1/4 x 2 1/4	16.5	5.25	4.73	4.46	4.20	3.68
18	230A	Cont.	78	145 oz. at 1/8"	40 oz. at 1"	2 1/2 x 1 1/4 x 2 1/4	16.5	5.25	4.73	4.46	4.20	3.68
24	115A	Inter.	310	16 oz. at 1/8"	3 oz. at 3/8"	1 1/4 x 1 1/4 x 1 1/4	3	3.41	3.07	2.90	2.73	2.39
24	115A	Cont.	500	10.5 oz. at 1/8"	2 oz. at 3/8"	1 1/4 x 1 1/4 x 1 1/4	3	3.41	3.07	2.90	2.73	2.39
28	24A	Inter.	7.5	35 oz. at 1/8"	5 oz. at 1/2"	1 1/4 x 1 1/4 x 1 1/4	3.5	3.15	2.84	2.68	2.52	2.21
28	24A	Cont.	17.4	20 oz. at 1/8"	2.5 oz. at 1/2"	1 1/4 x 1 1/4 x 1 1/4	3.5	3.15	2.84	2.68	2.52	2.21
28	115A	Inter.	220	35 oz. at 1/8"	5 oz. at 1/2"	1 1/4 x 1 1/4 x 1 1/4	3.5	3.41	3.07	2.90	2.73	2.39
28	115A	Cont.	400	20 oz. at 1/8"	2.5 oz. at 1/2"	1 1/4 x 1 1/4 x 1 1/4	3.5	3.41	3.07	2.90	2.73	2.39
34	115A	Inter.	400	15 oz. at 1/8"	1 oz. at 1/2"	1 1/4 x 1 3/4 x 1 1/4	2.5	2.31	2.08	1.96	1.85	1.62
34	115A	Cont.	865	7 oz. at 1/8"	.5 oz. at 1/2"	1 1/4 x 1 3/4 x 1 1/4	2.5	2.31	2.08	1.96	1.85	1.62

GUARDIAN POWER RELAYS



U/L Recognition File #E23524

60 cycles. Coil drain approximately .080 amperes at 115 volts, 60 cycles. Approximate weight of replacement coil assemblies is 6 ounces.

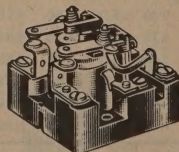
MOUNTING: 2 holes .196" dia. on 1 1/4" centers.

2200U DPDT

Contacts: double pole, double throw.
Size: 3 3/8" L. x 2 1/2" W. x 2 3/8" H. Shipping Weight: 11 ounces.

25 Amperes

Series 2200 and 2210 power relays are rated at 25 amperes, continuous duty at 230 Volts AC, with 75% power factor. Operating power requirement for AC is 9.5 volt amperes.



U/L Recognition File #E23524

2210U DPSTNO

Contacts: double pole, single throw, normally open. Size: 2 1/16" L. x 2 3/8" W. x 2 3/8" H. Shipping Weight: 10 ounces.

25 Amperes

2200 AND 2210 POWER RELAYS

Guardian No.	Volts	QUANTITIES				
		1-24	25-49	50-99	100-249	250-UP
2200U-DPDT-6	6AC	\$6.75	\$6.08	\$5.74	\$5.40	\$4.73
2200U-DPDT-24	24AC	6.75	6.08	5.74	5.40	4.73
2200U-DPDT-115	115AC	6.75	6.08	5.74	5.40	4.73
2200U-DPDT-230	230AC	7.25	6.53	6.16	5.80	5.08

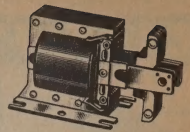
2200 AND 2210 POWER RELAYS

Guardian No.	Volts	QUANTITIES				
		1-24	25-49	50-99	100-249	250-UP
2210U-DPST-N.O.-6	6AC	\$5.75	\$5.18	\$4.89	\$4.60	\$4.03
2210U-DPST-N.O.-24	24AC	5.75	5.18	4.89	4.60	4.03
2210U-DPST-N.O.-115	115AC	5.75	5.18	4.89	4.60	4.03
2210U-DPST-N.O.-230	230AC	6.10	5.49	5.19	4.88	4.27

sides available in both intermittent and continuous duty types. Intermittent types should not be energized for more than 15 minutes, or be permitted to rise more than 85° C. above 24° C. ambient, without giving sufficient time between operation cycles. Continuous duty types are designed so they will not rise more than 85° C. above the ambient temperature when operated at rated load. Plunger has slotted end with $\frac{1}{16}$ " diameter hole for coupling.

Ordering give the following information: (1) Solenoid Number; (2) Operating voltages and AC or DC current; (3) Intermittent or intermittent duty (if intermittent, give the cycle of operation, length of time current will be passed through the coil, and any other pertinent information); (4) Maximum stroke and maximum pull required.

Data listed in this bulletin obtained during "cold" operation.

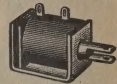


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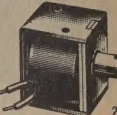
VOLTS DC	DUTY	OHMS	MINIMUM—MAXIMUM STROKES and LIFT		SIZE, INCHES L. X W. X H.	SHPG. WT. OZS.	NET EACH, LOTS OF				
							1-24	25-49	50-99	100-249	250 Up
24D	Inter.	42.6	5 oz. at $\frac{1}{8}$ "	1 oz. at $\frac{3}{8}$ "	$1\frac{1}{2}$ x $\frac{1}{4}$ x $1\frac{1}{4}$	4.5	\$2.89	\$2.60	\$2.46	\$2.31	\$2.02
24D	Cont.	74.4	2 oz. at $\frac{1}{8}$ "	.5 oz. at $\frac{3}{8}$ "	$1\frac{1}{2}$ x $\frac{1}{4}$ x $1\frac{1}{4}$	4.5	2.89	2.60	2.46	2.31	2.02
115D	Inter.	803	5 oz. at $\frac{1}{8}$ "	1 oz. at $\frac{3}{8}$ "	$1\frac{1}{2}$ x $\frac{1}{4}$ x $1\frac{1}{4}$	4.5	3.41	3.07	2.90	2.73	2.39
115D	Cont.	2070	2 oz. at $\frac{1}{8}$ "	.5 oz. at $\frac{3}{8}$ "	$1\frac{1}{2}$ x $\frac{1}{4}$ x $1\frac{1}{4}$	4.5	3.41	3.07	2.90	2.73	2.39
24D	Inter.	1.2	120 oz. at $\frac{1}{8}$ "	5 oz. at $\frac{3}{8}$ "	$1\frac{1}{2}$ x $\frac{1}{4}$ x $1\frac{1}{4}$	13	8.93	8.04	7.59	7.14	6.25
24D	Cont.	.4	60 oz. at $\frac{1}{8}$ "	1 oz. at $\frac{3}{8}$ "	$1\frac{1}{2}$ x $\frac{1}{4}$ x $1\frac{1}{4}$	13	8.93	8.04	7.59	7.14	6.25
24D	Inter.	15	90 oz. at $\frac{1}{8}$ "	4 oz. at $1\frac{1}{2}$ "	$2\frac{1}{4}$ x $1\frac{1}{2}$ x $1\frac{1}{2}$	14.5	4.20	3.78	3.57	3.36	2.94
24D	Cont.	50	55 oz. at $\frac{1}{8}$ "	2.5 oz. at $\frac{3}{8}$ "	$2\frac{1}{4}$ x $1\frac{1}{2}$ x $1\frac{1}{2}$	14.5	4.20	3.78	3.57	3.36	2.94
115D	Inter.	346	90 oz. at $\frac{1}{8}$ "	4 oz. at $\frac{3}{8}$ "	$2\frac{1}{4}$ x $1\frac{1}{2}$ x $1\frac{1}{2}$	14.5	4.46	4.01	3.79	3.57	3.12
115D	Cont.	1210	55 oz. at $\frac{1}{8}$ "	2.5 oz. at $\frac{3}{8}$ "	$2\frac{1}{4}$ x $1\frac{1}{2}$ x $1\frac{1}{2}$	14.5	4.46	4.01	3.79	3.57	3.12
24D	Inter.	15	156 oz. at $\frac{1}{8}$ "	21 oz. at $\frac{3}{8}$ "	$2\frac{1}{4}$ x $1\frac{1}{2}$ x $1\frac{1}{2}$	15	6.41	5.77	5.45	5.13	4.49
24D	Cont.	50	86 oz. at $\frac{1}{8}$ "	1 oz. at $\frac{3}{8}$ "	$2\frac{1}{4}$ x $1\frac{1}{2}$ x $1\frac{1}{2}$	15	6.41	5.77	5.45	5.13	4.49
110D	Inter.	330	156 oz. at $\frac{1}{8}$ "	21 oz. at $\frac{3}{8}$ "	$2\frac{1}{4}$ x $1\frac{1}{2}$ x $1\frac{1}{2}$	15	6.41	5.77	5.45	5.13	4.49
110D	Cont.	1200	86 oz. at $\frac{1}{8}$ "	1 oz. at $\frac{3}{8}$ "	$2\frac{1}{4}$ x $1\frac{1}{2}$ x $1\frac{1}{2}$	15	6.41	5.77	5.45	5.13	4.49
6D	Inter.	2	34 oz. at $\frac{1}{8}$ "	2 oz. at $\frac{3}{8}$ "	$1\frac{1}{2}$ x $1\frac{1}{2}$ x $1\frac{1}{2}$	7.5	3.15	2.84	2.68	2.52	2.21
6D	Cont.	5	25 oz. at $\frac{1}{8}$ "	1 oz. at $\frac{3}{8}$ "	$1\frac{1}{2}$ x $1\frac{1}{2}$ x $1\frac{1}{2}$	7.5	3.15	2.84	2.68	2.52	2.21
24D	Inter.	32	34 oz. at $\frac{1}{8}$ "	2 oz. at $\frac{3}{8}$ "	$1\frac{1}{2}$ x $1\frac{1}{2}$ x $1\frac{1}{2}$	7.5	3.15	2.84	2.68	2.52	2.21
24D	Cont.	72	25 oz. at $\frac{1}{8}$ "	1 oz. at $\frac{3}{8}$ "	$1\frac{1}{2}$ x $1\frac{1}{2}$ x $1\frac{1}{2}$	7.5	3.15	2.84	2.68	2.52	2.21
6D	Inter.	4.7	24 oz. at $\frac{1}{8}$ "	1 oz. at $\frac{3}{8}$ "	$1\frac{1}{2}$ x $\frac{3}{4}$ x $\frac{3}{4}$	2.5	2.94	2.65	2.50	2.35	2.06
6D	Cont.	9	13 oz. at $\frac{1}{8}$ "	.5 oz. at $\frac{3}{8}$ "	$1\frac{1}{2}$ x $\frac{3}{4}$ x $\frac{3}{4}$	2.5	2.94	2.65	2.50	2.35	2.06
24D	Inter.	60	24 oz. at $\frac{1}{8}$ "	1 oz. at $\frac{3}{8}$ "	$1\frac{1}{2}$ x $\frac{3}{4}$ x $\frac{3}{4}$	2.5	2.94	2.65	2.50	2.35	2.06
24D	Cont.	144	13 oz. at $\frac{1}{8}$ "	.5 oz. at $\frac{3}{8}$ "	$1\frac{1}{2}$ x $\frac{3}{4}$ x $\frac{3}{4}$	2.5	2.94	2.65	2.50	2.35	2.06
6D	Inter.	3.3	41 oz. at $\frac{1}{8}$ "	2 oz. at $\frac{3}{8}$ "	$1\frac{1}{2}$ x $1\frac{1}{2}$ x $1\frac{1}{2}$	3.5	2.94	2.65	2.50	2.35	2.06
6D	Cont.	7.7	24 oz. at $\frac{1}{8}$ "	1 oz. at $\frac{3}{8}$ "	$1\frac{1}{2}$ x $\frac{1}{4}$ x $1\frac{1}{2}$	3.5	2.94	2.65	2.50	2.35	2.06
12D	Inter.	13	41 oz. at $\frac{1}{8}$ "	2 oz. at $\frac{3}{8}$ "	$1\frac{1}{2}$ x $1\frac{1}{2}$ x $1\frac{1}{2}$	3.5	2.94	2.65	2.50	2.35	2.06
12D	Cont.	27	24 oz. at $\frac{1}{8}$ "	1 oz. at $\frac{3}{8}$ "	$1\frac{1}{2}$ x $1\frac{1}{2}$ x $1\frac{1}{2}$	3.5	2.94	2.65	2.50	2.35	2.06
24D	Inter.	50	41 oz. at $\frac{1}{8}$ "	2 oz. at $\frac{3}{8}$ "	$1\frac{1}{2}$ x $1\frac{1}{2}$ x $1\frac{1}{2}$	3.5	2.94	2.65	2.50	2.35	2.06
24D	Cont.	104	24 oz. at $\frac{1}{8}$ "	1 oz. at $\frac{3}{8}$ "	$1\frac{1}{2}$ x $1\frac{1}{2}$ x $1\frac{1}{2}$	3.5	2.94	2.65	2.50	2.35	2.06
6D	Inter.	4.3	17 oz. at $\frac{1}{8}$ "	1 oz. at $\frac{3}{8}$ "	$1\frac{1}{2}$ x $\frac{1}{4}$ x $1\frac{1}{2}$	2.5	2.31	2.08	1.96	1.85	1.62
6D	Cont.	9.1	8.5 oz. at $\frac{1}{8}$ "	.5 oz. at $\frac{3}{8}$ "	$1\frac{1}{2}$ x $\frac{3}{4}$ x $1\frac{1}{2}$	2.5	2.31	2.08	1.96	1.85	1.62
24D	Inter.	66	17 oz. at $\frac{1}{8}$ "	1 oz. at $\frac{3}{8}$ "	$1\frac{1}{2}$ x $\frac{1}{4}$ x $1\frac{1}{2}$	2.5	2.31	2.08	1.96	1.85	1.62
24D	Cont.	145	8.6 oz. at $\frac{1}{8}$ "	.5 oz. at $\frac{3}{8}$ "	$1\frac{1}{2}$ x $\frac{3}{4}$ x $1\frac{1}{2}$	2.5	2.31	2.08	1.96	1.85	1.62



22



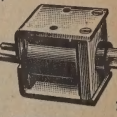
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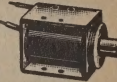
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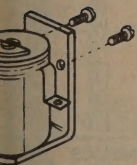
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2HD



4HD



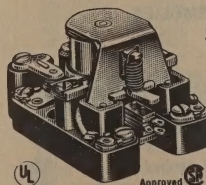
Interchangeable Coil Assemblies (No Solder Connections) . . . By removing two easily accessible screws, coil assembly can be replaced by coil of another value. Complete instructions for this operation are included with each unit. Solder connections are not required when changing coils.

REPLACEMENT COILS FOR EITHER RELAY

Guardian No.	Volts	QUANTITIES				
		1-24	25-49	50-99	100-249	250-UP
2200-6A	6AC	\$2.35	\$2.12	\$2.00	\$1.88	\$1.65
2200-24A	24AC	2.35	2.12	2.00	1.88	1.65
2200-115A	115AC	2.35	2.12	2.00	1.88	1.65
2200-230A	230AC	2.65	2.39	2.25	2.12	1.86

Relay Replacement Contact Switch Parts—Available for Series 2200, only. Replacement Contact Switch Parts for easy right or left SPDT assembly. No needed. Package contains one normally open and one normally closed contact, complete moving blade and terminal. Left or Right Switch Assemblies lined by viewing relay from armature hinge end with contacts up.

Guardian No.	QUANTITIES				
	1-24	25-49	50-99	100-249	250-UP
S-2200—LEFT	\$1.95	\$1.76	\$1.66	\$1.56	\$1.37
S-2200—RIGHT	1.95	1.76	1.66	1.56	1.37



UL

Approved

GUARDIAN SERIES 2400U AC SERIES 2405 DC POWER RELAY

15 Amperes

Size: $3\frac{1}{2}$ " x $2\frac{1}{2}$ " x $2\frac{1}{8}$ ". Shipping Weight: 8 ounces. Mounting: Two .196" Diam. holes on $1\frac{1}{2}$ " centers.

In power applications that require up to 15 ampere contacts the Guardian Series 2400 AC, or Series 2405 DC Power Relays are specified.

Both have standard DPDT contacts rated for 15 amperes non-inductive, or 1 HP at 115/230 volts, 60 cycles. Series 2400 standard coil voltages are 6, 12, 24 and 115 VAC. Series 2405 standard coil voltages are 6, 12, 24 and 110 VDC. Inverted coil construction protects armature and contacts. Armature extension permits manual circuit testing. Screw type terminals easily accessible for top or bottom connections. Easy to mount recessed auxiliary switch, up to SPDT for 10 ampere operation, available for both AC and DC versions.

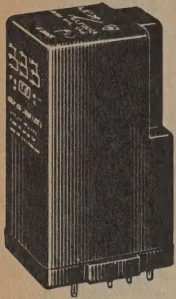
*U/L Recognition File #E-23524

Guardian No.	Volts	Rating Amps.	QUANTITIES				
			1-24	25-49	50-99	100-249	250-UP
2400U-DPDT-6	6AC	15	\$6.25	\$5.63	\$5.31	\$5.00	\$4.38
2400U-DPDT-24	24AC	15	6.25	5.63	5.31	5.00	4.38
2400U-DPDT-115	115AC	15	6.25	5.63	5.31	5.00	4.38
2400U-DPDT-230	230AC	15	6.50	5.85	5.53	5.20	4.55
2405-DPDT-6	6DC	15	6.25	5.63	5.31	5.00	4.38
2405-DPDT-12	12DC	15	6.25	5.63	5.31	5.00	4.38
2405-DPDT-24	24DC	15	6.25	5.63	5.31	5.00	4.38
2405-DPDT-110	110DC	15	6.75	6.08	5.74	5.40	4.73
2400-SPDT-AUX- Auxiliary Switch		10	1.35	1.22	1.15	1.08	.95

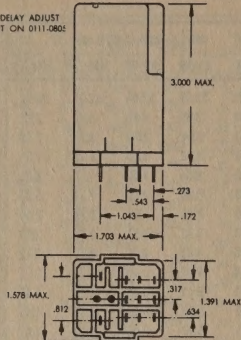
GUARDIAN® ELECTRIC

TIME DELAY RELAYS

SERIES TD



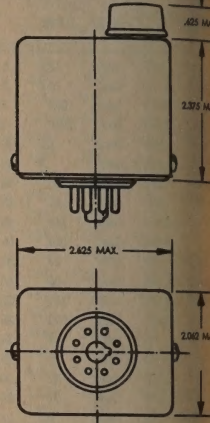
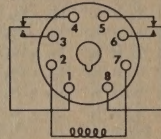
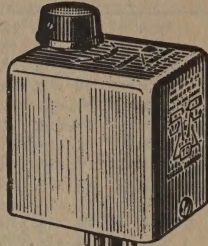
TIME DELAY ADJUST
EXCEPT ON D111-0802



This is the most accurate and compact solid-state time-delay available commercially from stock. 3PDT contacts handle up to 10 amp resistive load. Six standard model relays for 24V., DC and 115V., AC 50/60 cycles provide delays from 1 to 180 seconds. All units utilize silicon semi-conductors and precision tantalum capacitors for reliability. 15-turn screw-type potentiometer furnishes high resolution and accuracy. Accurate to 5% of a nominal setting over its complete temperature and voltage range. Repeatability is 2% after a line interruption of 50 milliseconds. Termination can be quick disconnects, socket or solder connections. Size: 3"x1½"x1¼". Shpg. wt., 5 oz.

Guardian No.	Coil Voltage	Adjustment Range	Net Each, Lots of		
			1-49	50-99	100-UD
TD33C15-24D	24VDC ±10%	1 to 15 sec.	\$24.20	\$21.88	\$19.69
TD33C60-24D	24VDC ±10%	10 to 60 sec.	25.19	22.67	20.40
TD33C180-24D	24VDC ±10%	50 to 180 sec.	32.09	29.88	26.90
TD63C15-115A	115VAC ±10%	1 to 15 sec.	29.70	26.73	24.06
TD63C60-115A	115VAC ±10%	10 to 60 sec.	30.06	27.54	24.79
TD63C180-115A	115VAC ±10%	50 to 180 sec.	36.85	33.16	29.84

SERIES TDO

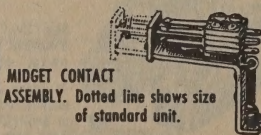
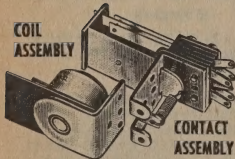


Incorporates many features of more expensive units, but is the most economical 5 amp DPDT 115V., AC solid-state adjustable time-delay relay ever offered. Delay is adjustable from 0.5 to 30 seconds on attract and is controlled by 10-turn potentiometer for high resolution, easy reset and accuracy. U terminates in octal plug. Accurate within 10% of a nominal setting over entire temperature and voltage range. Repeatability is within 2% after a line interruption of 100 milliseconds. Size: 3"x2½"x2¼". Shpg. wt., 8 oz.

Guardian No.	Coil Voltage	Adjustment Range	Net Each, Lots of		
			1-49	50-99	100-UD
TDO-62C30-115A	115V ±10%	50/60 cycle 0.5 to 30 sec.	\$16.32	\$15.69	\$14.10

SERIES 200 RELAY

WITH COMPLETELY INTERCHANGEABLE
COIL AND CONTACT ASSEMBLIES



The coil assembly consists of the coil and field piece; the contact assembly consists of switch blades, armature, return spring and mounting bracket. The Guardian Midget Contact Assembly is interchangeable with the standard Series 200 coil assembly. Available with SPDT, DPDT or 4PDT contact switch assemblies, each interchangeable with all AC or DC coils.

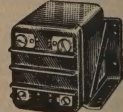
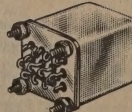
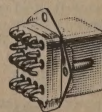
Guardian No.	Volts	Coil	Net Each, Lots of				
			1-24	25-49	50-99	100-249	250-UD
200-6A	6	AC	\$1.85	\$1.67	\$1.57	\$1.48	\$1.39
200-12A	12	AC	1.85	1.67	1.57	1.48	1.39
200-24A	24	AC	1.85	1.67	1.57	1.48	1.39
200-115A	115	AC	2.15	1.94	1.83	1.72	1.61
200-230A	230	AC	2.85	2.57	2.42	2.28	2.09
200-6D	6	DC	2.00	1.80	1.70	1.60	1.49
200-12D	12	DC	2.00	1.80	1.70	1.60	1.49
200-24D	24	DC	2.00	1.80	1.70	1.60	1.49
200-32D	32	DC	2.00	1.80	1.70	1.60	1.49
200-110D	110	DC	2.65	2.39	2.25	2.12	1.89
200-5,000D	†	DC	2.30	2.07	1.96	1.84	1.69
200-10,000D	†	DC	2.65	2.39	2.25	2.12	1.89

†Plate.

CONTACT SWITCH ASSEMBLIES

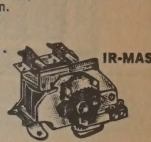
Guardian No.	Type	Cont. Amps	Cont. Comb.	Net Each, Lots of			
				1-24	25-49	50-99	100-249 250-UD
200-1	Standard	8	SPDT	\$1.60	\$1.44	\$1.36	\$1.28 \$1.19
200-2	Standard	8	DPDT	2.10	1.89	1.79	1.68 1.58
200-3	Standard	8	DPDT	1.60	1.44	1.36	1.28 1.19
200-4	Standard	12.5	DPDT	2.35	2.12	2.00	1.88 1.71
200-5	Standard	8	4PDT	3.70	3.33	3.15	2.96 2.71
200-M1	Midget	10	SPDT	1.50	1.35	1.28	1.20 1.11
200-M2	Midget	10	DPDT	1.85	1.67	1.57	1.48 1.39
200-M3	Midget	10	DPDT	1.60	1.44	1.36	1.28 1.19
200-M5	Midget	8	4PDT	3.00	2.70	2.55	2.40 2.21

AEROSPACE AND MILITARY RELAYS



Hermetically Sealed Relays complying with specifications for guided missiles, aircraft and similar application

GUARDIAN SERIES	NO.	GOVERNMENT DESIGNATION	CONTACTS COMB.	AMPS.	TYPE	OPERATION CYCLES	PR
4005	A410-161059-00	MS27255-2	4PDT	10 AMP	HOOK	20g to 2000 CPS	\$21.10
3315	A410-168378-00	MS24149-D1	2PDT	10 AMP	SCREW	10g to 1500 CPS	11.10
3005	A410-159243-00	MS24568-D1	4PDT	10 AMP	SCREW	10g to 2000 CPS	21.10
455	A410-154555-00	MS25035-1	SPST N.O.	25 AMP	SCREW	10g to 55 CPS	21.10
335	A410-157763-00	MS25024-2	4PDT	10 AMP	SCREW	10g to 55 CPS	21.10



circuit selection wiper on Continuous Rotation Stepper moves in one direction only, upon energization of the step coil. This type of stepper is available in standard 24 point (MC) or 40 point (PC). The new MC Midget Continuous Rotation Stepper is fully adaptable to repetitive sequence function. The 24 bridging contact deck is evenly divisible into eight possible sequences. The PC stepper features stepping speeds up to 30 steps per second and an average life expectancy of over 4,000,000 steps.

Pepper contact points are rated 1½ amps
ive, at 115 V., 60 cps. Coil* Voltages are
AC, 24 DC 60 cps.

The circuit selecting wiper on Electrical Reset Steppers can be reset to zero or home from any desired position, by energization of the reset magnet. They are frequently employed to record counts by various numerical groups, then resetting automatically.

Type M.E.R. A direct drive (steps on energization) with positive mechanical reset interlock actuated by the reset magnet and unlocked on the first energization of the step magnet. Assures positive reset on as short a pulse as one-hundredth of a second. By interconnecting two or more Steppers, count can be increased to any desired total counting by tens, or any convenient multiple. Will control a sequence of operation and then automatically reset to starting position.

Type P.E.R. Operation same as M.E.R. but with up to 36 active contacts.

Add and subtract steppers are basically continuous rotation types with the added feature of being able to reserve the movement of the selecting wiper when required.

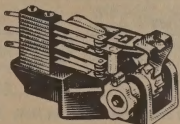
Type IR-MAS A midget add and subtract stepper incorporating a cam actuated switch which operates at zero position. Used primarily to indicate a zero balance between pulses supplied to the "add" coil as compared to pulses received by the "subtract" coil.

Type IR-RAS These are bi-directional steppers whereby the selector wiper moves in either direction depending on which of the coils are energized. The RAS is frequently used as a drive control for potentiometers or variable transformers.

Model No.	Watts	Volt Amperes	No. of Points	No. of Active Contacts***	Max. Steps Per Second	Shipping Weight Ounces	SIZE			QUANTITIES				
							Length	Width	Height	1-24	25-49	50-99	100-249	250-up
R-115 AC	30	40	40	24	20	17	3 3/4	3 3/4	3 1/2	\$19.95	\$17.96	\$16.96	\$15.96	\$13.97
R-115 AC	35-77	30	24	24	20	9 1/2	3 3/4	3	2 3/4	14.75	13.28	12.54	11.80	10.32
R-115 AC	35-77	50-100	40	36	20	22	3	3 3/4	2 3/4	26.25	23.63	22.31	21.00	18.37
R-115 AC	20-88	35-99	24	22	20	11 1/2	2 3/4	3 3/4	2 3/4	15.75	14.18	13.39	12.60	11.03
24DC	20-88	35-99	24	22	20	22	2 3/4	3 3/4	2 3/4	15.75	13.39	12.60	11.80	10.32
S-115 AC	45	100	40	38	10	29 1/2	4 3/4	3 3/4	3	26.25	23.63	22.31	21.00	18.38
S-115 AC	9	12	30	****	10	11	3 3/4	3 1/4	1 3/4	17.35	15.62	14.75	13.88	12.15

*Steppers will operate satisfactorily at 15% below or 10% above rated voltage. **Listings are for stepping coil and reset coil, respectively. ***Includes Zero position. ****Zero (0) position switch only.

An entirely new concept in stepper design, the Guardian "Rotomite" is first with maximum stepper control in minimum space. Offering high contact rating of 3 amps resistive, 1 amp inductive (50% PF). Featuring continuous duty operation with life well in excess of one million steps, the completely enclosed Rotomite is geared for continuous rotation of 12 positions. A few Rotomite applications presently include computers, business machines, lighting and vending controls, counting and sorting devices, and model trains. Shpg. wt. 5 oz.



Intended to perform switching operations in a desired, repetitive sequence. Each electrical impulse moves the relay contacts to the next position in the sequence. Applications include lights, signs, motors, lifts. Contacts rated up to 12½ amps, 115V., 60 cycles, wt., 8 oz. Mounting: 4 holes 8-32 (NC-2B)

appliances and similar units. Contacts rated up to 12½ amps, 115V., 60 cycles non-inductive load. Shpg. wt., 8 oz. Mounting: 4 holes 8-32 (NC-2B).

SIZE: 2" Long x 1½" Dia.		QUANTITIES					
Cardian No.	No. Points	Coil Voltage	1-24	25-49	50-99	100-249	250-up
-12P-6D	12	6DC	\$6.60	\$5.94	\$5.61	\$5.28	\$4.62
-12P-12D	12	12DC	6.60	5.94	5.61	5.28	4.62
-12P-24D	12	24DC	6.60	5.94	5.61	5.28	4.62

Midget Latching Relay with single coil and 5 amp contact rating for SPST, or SPDT, contact combinations. Recommended for positive ON/OFF control of positioning devices, remote controls, lighting circuits and many additional applications. Impulse as short as 20 M.S. energizes coil to reverse position of snap-action switches. Holds last position of switch with coil de-energized. Contacts rated for 5 amps, at 60 cycles, 115 V., AC, non-inductive load. Shpg. wt., 4 oz.



SIZE: 2 1/4" x 1 1/4" x 1 1/4"		QUANTITIES					
Cardian No.	Cont. Comb.	Coll Voltage	1-24	25-49	50-99	100-249	250-up
DL-A-115A	SPST	115AC	\$4.45	\$4.01	\$3.78	\$3.56	\$3.12
DL-C-115A	SPDT	115AC	4.75	4.28	4.04	3.80	3.33

nsable to those who design, build or test electrical controls. Contains
ssortment of switch blades, contacts, separators, adapters, fish paper,
s, etc.



er's Switch Kit—Net Ea **\$11.50**



Group selector relay can simultaneously make common up to 32 circuits. All circuits insulated from ground. Contact blades molded in thermosetting phenolic. All contacting members completely enclosed. Shipping weight 6 oz.

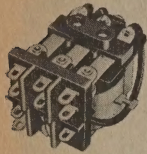
SIZE: 2½" x 1½" x 2¼"			QUANTITIES				
Guardian No.	Coil Voltage	Coil Res.	1-24	25-49	50-99	100-249	250-up
IR-805-S	24VDC	72	\$5.00	\$4.50	\$4.25	\$4.00	\$3.50



LINE ELECTRIC COMPANY

RELAYS • BUZZERS • FOOT SWITCHES

GENERAL PURPOSE RELAYS



MINIATURE OPEN TYPE (SERIES MK)

Open type relay in standard contact arrangements up to 3PDT. 5 or 10 amp contact rating. Voltages up to 230 volts, A.C. or D.C. Factory adjusted to pull in at 75% max. of nominal voltage D.C. and 80% max. of nominal voltage A.C. Designed to pass 1,000 volt A.C. Hipot test between all elements. UL File #36213

AC	5 amp contact rating	6, 12, 24, 115V	220V
	MK1A SPDT	\$3.10	\$3.55
	MK2A DPDT	3.75	4.15
	MK3A 3PDT	4.15	4.55



All models available in 10 amps. DIMENSIONS: 1-11/16 × 1-3/16 × 29/32
All models available in 10 amps. Ask for series MKO.

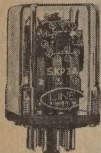
PLATE CIRCUIT RELAYS

5 amp.
open type

	2500Ω	5000Ω	10,000Ω	20,000Ω
MKC-1 SPDT	\$3.15	\$3.25	\$3.80	\$4.05
MKC-2 DPDT	3.65	3.80	4.30	4.55
MKC-3 3PDT	4.10	4.20	4.75	5.00

10 amp models ask for series MKCO

DC	5 amp contact rating	6, 12, 24V	110V
	MK1D SPDT	\$3.05	\$3.45
	MK2D DPDT	3.40	3.85
	MK3D 3PDT	3.85	4.25



MINIATURE PLUG-IN (SERIES MKP)

Plug-in type relay, same factory tested, quality features as above. Will operate continuously in ambient temperature ranges of 45° to 75°C. for D.C. coils and -45° to 55°C. for A.C. coils. Metal or clear C-11 Styrene dust cover.

UL File #36213

AC	5 amp contact rating	6, 12, 24, 115V	220V
	MKP1A SPDT	\$5.45	\$5.90
	MKP2A DPDT	6.05	6.45
	MKP3A 3PDT	7.50	7.95



All models available in 10 amps. Ask for series MKH. DIMENSIONS: 2-1/4 × 1-5/8 × 1-3/8

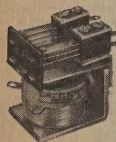
PLATE CIRCUIT RELAYS

5 amp.
enclosed type

	2500Ω	5000Ω	10,000Ω	20,000Ω
MKF-1 SPDT	\$5.90	\$6.00	\$6.40	\$6.65
MKF-2 DPDT	6.30	6.40	6.80	7.10
MKF-3 3PDT	7.75	7.90	8.40	8.65

10 amp models ask for series MKFO

DC	5 amp contact rating	6, 12, 24V	110V
	MKP1D SPDT	\$5.40	\$5.85
	MKP2D DPDT	6.00	6.40
	MKP3D 3PDT	7.45	7.90

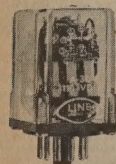


MINIATURE MULTIPLE LEAF (SERIES MW)

A small, versatile relay available in a variety of contact configurations consisting of forms A, B, C or D (make before break), up to a maximum of 12 springs. Coils can be supplied for operation on D.C. or A.C. 60 cps. Operation on 400 cps. source is available with self-contained rectifiers on relays with covers.

	10 amp contact rating	6, 12, 24, 115V	220V
AC	MW1A SPDT	\$2.70	\$3.10
	MW2A DPDT	3.30	3.75
	MW3A 3PDT	3.80	4.20
	MW14A 4PDT	6.35	6.75
		6, 12, 24V	110V
DC	MW1D SPDT	\$2.60	\$3.10
	MW2D DPDT	3.25	3.65
	MW3D 3PDT	3.75	4.15
	MW14D 4PDT	6.35	6.80

DIMENSIONS: 1-17/32 × 1-21/32 × 1-0

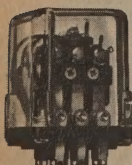


SPOTLIGHT RELAYS (SERIES A)

High quality, general purpose plug-in relay with built-in circuit indicator lamp. Available in C-11 Styrene colored cases for circuit identification or in metal can. Saves panel space, reduces costly labor. UL File #36213.

	5 amp contact rating	6, 12, 24, 115V	220V
AC	A-1A SPDT	\$6.40	\$6.85
	A-2A DPDT	7.00	7.40
	A-3A 3PDT	8.45	8.85
		6, 12, 24V	110V
DC	A-1D SPDT	\$6.35	\$6.75
	A-2D DPDT	6.95	7.35
	A-3D 3PDT	8.40	8.80

All models available in 10 amps. AH series.
DIMENSIONS: 2-1/4 × 1-3/8 × 1-3/8



SPOTLIGHT RELAYS. LOW COST. (SERIES ATR)

A plug-in relay which is identical in construction to our miniaturized low profile SERIES MKTR (see page 3) but with built-in circuit indicator lamp. It can be used in conjunction with our 92-67 or 92-82 sockets and 91-49 spring clip. UL File #36213.

	5 amp contact rating	6, 12, 24, 115V	220V
AC	ATR1A SPDT	\$5.25	\$5.60
	ATR2A DPDT	5.90	6.30
	ATR3A 3PDT	6.35	6.80
		6, 12, 24V	110V
DC	ATR1D SPDT	\$5.15	\$5.55
	ATR2D DPDT	5.55	6.00
	ATR3D 3PDT	6.05	6.45

All models available in 10 amps AHTR Series.
DIMENSIONS: 1-3/16 × 1-3/8 × 1-3/8



LINE ELECTRIC COMPANY

RELAYS • BUZZERS • FOOT SWITCHES

GENERAL PURPOSE RELAYS



PRINTED CIRCUIT or TAPER TAB (SERIES MKT)

Printed circuit type relay incorporating coil, frame and load contacts of standard Series MK. Connector lugs fit standard amp terminal #41355. Series MKTE is the MKT with plastic dust cover. Available with studs for chassis mount or taper tab connectors. Price same as MKTR. UL File #36213

	5 amp contact rating	6, 12, 24, 115V	220V
AC	MKT1A SPDT	\$3.25	\$3.65
	MKT2A DPDT	3.95	4.35
	MKT3A 3PDT	4.40	4.85
		6, 12, 24V	110V
DC	MKT1D SPDT	3.20	\$3.60
	MKT2D DPDT	3.60	4.05
	MKT3D 3PDT	4.10	4.50

All models available in 10 amps. Series MKTO
DIMENSIONS: 2-1/32 × 1-7/32 × 29/32
Also available as a Plate Circuit Relay



QUICK CONNECT TERMINAL RELAYS (SERIES MKA)

Quick connect terminal type miniature relay incorporating coil, frame and load contacts of the standard Series MK. The connector lugs fit standard .110" quick connect terminals. UL File #36213

(SERIES MKD)

The MKD has the same quality features as our SERIES MK (see page 1) but the panel is wider and .187 quick connect lugs are used throughout the series. This is also an open type relay. UL File #36213

	5 amp contact rating	6, 12, 24, 115V	220V
AC	MKA1A SPDT	\$3.25	\$3.65
	MKA2A DPDT	3.95	4.35
	MKA3A 3PDT	4.40	4.85
DC	MKA1D SPDT	\$3.20	\$3.60
	MKA2D DPDT	3.60	4.05
	MKA3D 3PDT	4.10	4.50

All models available in 10 amps. DIMENSIONS: 29/32 × 1-7/32 × 1-11/16
Also available as a Plate Circuit Relay



SERIES MKD. OPEN TYPE WITH .187 QUICK CONNECT LUGS

	5 amp contact rating	6, 12, 24, 115V	220V		5 amp contact rating	6, 12, 24V	110V
AC	MKD-1A SPDT	\$3.25	\$3.65	DC	MKD-1D SPDT	\$3.20	\$3.60
	MKD-2A DPST	3.95	4.35		MKD-2D DPDT	3.60	4.05
	MKD-3A 3PDT	4.40	4.80		MKD-3D 3PDT	4.10	4.50
	MKD-4A SPST-NO	3.20	3.60		MKD-4D SPST-NO	3.15	3.55
	MKD-5A DPST-NO	3.85	4.25		MKD-5D DPST-NO	3.50	3.95
	MKD-6A 3PST-NO	4.25	4.65		MKD-6D 3PST-NO	3.95	4.35
	MKD-7A SPST-NC	3.20	3.60		MKD-7D SPST-NC	3.15	3.55
	MKD-8A DPST-NC	3.85	4.25		MKD-8D DPST-NC	3.50	3.95
	MKD-9A 3PST-NC	4.25	4.65		MKD-9D 3PST-NC	3.95	4.35

SERIES MKDO. OPEN TYPE WITH .187 QUICK CONNECT LUGS

	10 amp contact rating	6, 12, 24, 115V	220V		10 amp contact rating	6, 12, 24V	110V
AC	MKDO-1A SPDT	\$3.30	\$3.75	DC	MKDO-1D SPDT	\$3.25	\$3.65
	MKDO-2A DPDT	4.05	4.45		MKDO-2D DPDT	3.75	4.15
	MKDO-3A 3PDT	4.55	5.00		MKDO-3D 3PDT	4.25	4.65
	MKDO-4A SPST-NO	3.25	3.70		MKDO-4D SPST-NO	3.20	3.60
	MKDO-5A DPST-NO	3.95	4.35		MKDO-5D DPST-NO	3.65	4.05
	MKDO-6A 3PST-NO	4.40	4.85		MKDO-6D 3PST-NO	4.10	4.50
	MKDO-7A SPST-NC	3.25	3.70		MKDO-7D SPST-NC	3.20	3.60
	MKDO-8A DPST-NC	3.95	4.35		MKDO-8D DPST-NC	3.65	4.05
	MKDO-9A 3PST-NC	4.40	4.85		MKDO-9D 3PST-NC	4.10	4.50

SERIES MKDC. PLATE CIRCUIT RELAYS WITH .187 QUICK CONNECT LUGS

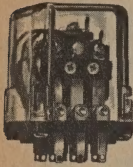
	5 amp open type	2500 Ω	5000 Ω	10,000 Ω	20,000 Ω		10 amp open type	2500 Ω	5000 Ω	10,000 Ω	20,000 Ω
AC	MKDC-1 SPDT	\$3.30	\$3.45	\$4.05	\$4.30	DC	MKDCO-1 SPDT	\$3.35	\$3.50	\$4.10	\$4.35
	MKDC-2 DPDT	3.85	4.00	4.55	4.85		MKDCO-2 DPDT	3.95	4.10	4.65	4.95
	MKDC-3 3PDT	4.25	4.60	5.00	5.25		MKDCO-3 3PDT	4.40	4.75	5.15	5.40
	MKDC-4 SPST-NO	3.25	3.40	4.00	4.25		MKDCO-4 SPST-NO	3.30	3.45	4.05	4.30
	MKDC-5 DPST-NO	3.75	3.90	4.45	4.75		MKDCO-5 DPST-NO	3.85	4.00	4.55	4.85
	MKDC-6 3PST-NO	4.10	4.45	4.85	5.10		MKDCO-6 3PST-NO	4.25	4.60	5.00	5.25
	MKDC-7 SPST-NC	3.25	3.40	4.00	4.25		MKDCO-7 SPST-NC	3.30	3.45	4.05	4.30
	MKDC-8 DPST-NC	3.75	3.90	4.45	4.75		MKDCO-8 DPST-NC	3.85	4.00	4.55	4.85
	MKDC-9 3PST-NC	4.10	4.45	4.85	5.10		MKDCO-9 3PST-NC	4.25	4.60	5.00	5.25



LINE ELECTRIC COMPANY

RELAYS • BUZZERS • FOOT SWITCHES

GENERAL PURPOSE RELAYS



MINIATURE PLUG-IN LOW PROFILE LOW COST (SERIES MKTR)

Despite its compact size this new totally enclosed, low cost, low profile miniature relay has not compromised the high quality of its progenitor the Series MK open relay. The low mounting profile (dust cover included) has been made possible by incorporating the frame of the relay with the connector-header. Thus a certain basic hardware has been eliminated resulting in important size reduction. Versatility is also assured since the standard terminals can be used with Amp snap-on connectors, printed circuits, or plug-in receptacles. Also available with studs for chassis mounting. Termination can be used for soldered connections. The plug-in-receptacle is true 10 ampere construction. Lugs can be used for either solder or snap-on connections. UL File #36213 10 Amps series MKTR0

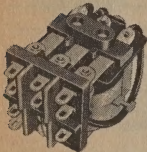
	5 amp contact rating	6, 12, 24, 115V	220V
AC	MKTR1A SPDT	\$4.25	\$4.65
	MKTR2A DPDT	4.95	5.35
	MKTR3A 3PDT	5.40	5.85
		6, 12, 24V	110V
DC	MKTR1D SPDT	\$4.20	\$4.60
	MKTR2D DPDT	4.60	5.05
	MKTR3D 3PDT	5.10	5.50

AVAILABLE 3 WAYS: Plate circuit relay. Spotlight relay (with or without colored dust cover). Hermetic seal or any combination.
DIMENSIONS: 1-27/32 X 1-3/8 X 1-3/8

92-67 RECEPTACLE .30 net.

92-82 Clip-on Receptacle .50

91-49 Hold down Spring .12



NEW MINIATURE SENSITIVE RELAYS (SERIES SK) 60 MILLIWATTS PER POLE

This entire series of SK type relays is identical in construction to our MK series miniature relays, with one essential difference—the special alloy used in pole and frame increases the magnetic

flux many times thus making the relays very sensitive to very low power levels—only 60 milliwatts per pole.

UL File #39077

SERIES SKT PRINTED CIRCUIT TYPE 5 AMPS

	up to 2500Ω	5000Ω	10,000Ω	15,000Ω	20,000Ω
SKT-1 SPDT	\$4.30	\$4.45	\$5.10	\$5.10	\$5.30
SKT-2 DPDT	4.85	5.00	5.55	5.55	5.85
SKT-3 3PDT	5.25	5.40	6.00	6.00	6.25
SKT-4 SPST-NO	4.25	4.40	5.05	5.05	5.25
SKT-5 DPST-NO	4.75	4.90	5.45	5.45	5.75
SKT-6 3PST-NO	5.10	5.25	5.85	5.85	6.15
SKT-7 SPST-NC	4.25	4.40	5.05	5.05	5.25
SKT-8 DPST-NC	4.75	4.90	5.45	5.45	5.75
SKT-9 3PST-NC	5.10	5.25	5.85	5.85	6.15

SERIES SK OPEN TYPE 5 AMPS

	up to 2500Ω	5000Ω	10,000Ω	15,000Ω	20,000Ω
SK-1 SPDT	\$4.15	\$4.25	\$4.80	\$4.80	\$5.05
SK-2 DPDT	4.65	4.80	5.30	5.30	5.55
SK-3 3PDT	5.10	5.20	5.75	5.75	6.00
SK-4 SPST-NO	4.10	4.20	4.75	4.75	5.00
SK-5 DPST-NO	4.55	4.70	5.20	5.20	5.45
SK-6 3PST-NO	4.95	5.05	5.60	5.60	5.85
SK-7 SPST-NC	4.10	4.20	4.75	4.75	5.00
SK-8 DPST-NC	4.55	4.70	5.20	5.20	5.45
SK-9 3PST-NC	4.95	5.05	5.60	5.60	5.85

SERIES SKD OPEN TYPE 5 AMPS .187 QUICK CONNECT LUGS

	up to 2500Ω	5000Ω	10,000Ω	15,000Ω	20,000Ω
SKD-1 SPDT	\$4.30	\$4.45	\$5.05	\$5.05	\$5.30
SKD-2 DPDT	4.85	5.00	5.55	5.55	5.85
SKD-3 3PDT	5.25	5.40	6.00	6.00	6.25
SKD-4 SPST-NO	4.25	4.40	5.00	5.00	5.25
SKD-5 DPST-NO	4.75	4.90	5.45	5.45	5.75
SKD-6 3PST-NO	5.10	5.25	5.85	5.85	6.15
SKD-7 SPST-NC	4.25	4.40	5.00	5.00	5.25
SKD-8 DPST-NC	4.75	4.90	5.45	5.45	5.75
SKD-9 3PST-NC	5.10	5.25	5.85	5.85	6.15

SERIES SKA OPEN TYPE 5 AMPS .110 QUICK CONNECT LUGS

	up to 2500Ω	5000Ω	10,000Ω	15,000Ω	20,000Ω
SKA-1 SPDT	\$4.30	\$4.45	\$5.05	\$5.05	\$5.30
SKA-2 DPDT	4.85	5.00	5.55	5.55	5.85
SKA-3 3PDT	5.25	5.40	6.00	6.00	6.25
SKA-4 SPST-NO	4.25	4.40	5.00	5.00	5.25
SKA-5 DPST-NO	4.75	4.90	5.45	5.45	5.75
SKA-6 3PST-NO	5.10	5.25	5.85	5.85	6.10
SKA-7 SPST-NC	4.25	4.40	5.05	5.05	5.25
SKA-8 DPST-NC	4.75	4.90	5.45	5.45	5.75
SKA-9 3PST-NC	5.10	5.25	5.85	5.85	6.10

SERIES SKP PLUG-IN PLASTIC HOUSING 5 AMPS

	up to 2500Ω	5000Ω	10,000Ω	15,000Ω	20,000Ω
SKP-1 SPDT	\$6.90	\$7.00	\$7.40	\$7.40	\$7.65
SKP-2 DPDT	7.30	7.40	7.80	7.80	8.10
SKP-3 3PDT	8.75	8.90	9.40	9.40	9.65
SKP-4 SPST-NO	6.85	6.95	7.35	7.35	7.60
SKP-5 DPST-NO	7.20	7.30	7.70	7.70	8.00
SKP-6 3PST-NO	8.60	8.75	9.25	9.25	9.50
SKP-7 SPST-NC	6.85	6.95	7.35	7.35	7.60
SKP-8 DPST-NC	7.20	7.30	7.70	7.70	8.00
SKP-9 3PST-NC	8.60	8.75	9.25	9.25	9.50

SERIES SKTR LOW COST PLATE CIRCUIT RELAYS

PLUG-IN TYPE

5 AMP. DC	Up to 2500Ω	5000Ω	10,000Ω	20,000Ω
SKTR1 SPDT	\$5.30	\$5.45	\$6.05	\$6.15
SKTR2 DPDT	5.85	6.00	6.55	6.65
SKTR3 3PDT	6.25	6.60	7.00	7.15

PRINTED CIRCUIT TYPE ENCLOSURE

5 AMP. DC	Up to 2500Ω	5000Ω	10,000Ω	20,000Ω
SKTE1 SPDT	\$5.30	\$5.45	\$6.05	\$6.15
SKTE2 DPDT	5.85	6.00	6.55	6.65
SKTE3 3PDT	6.25	6.60	7.00	7.15



Type SKTR



LINE ELECTRIC COMPANY

RELAYS • BUZZERS • FOOT SWITCHES

GENERAL PURPOSE RELAYS

MINIATURE 4-POLE RELAY

(SERIES JA)



The series JA is a high quality, miniature 4PDT relay for AC or DC operation. The JA relay features nylon dust cover, gold flashed fine silver contacts rated at 3 amps. This imported relay features exceptional quality and rugged design to meet the most exacting requirements. It is excellent for computers, logic systems and data processing. Standard configuration features solder terminals and 3-48, 23/64" mounting stud. Can be used with our 92-79 solder lug socket or 92-80 P.C. socket (50c each)

	Voltage	Resistance	Nominal Power	Price
DC	6 VDC	40 OHMS	800 MW	\$4.10
	12 VDC	160 OHMS	800 MW	4.10
	24 VDC	650 OHMS	800 MW	4.10
	48 VDC	2500 OHMS	800 MW	4.20
	90 VDC	10000 OHMS	800 MW	4.90
	110 VDC	10000 OHMS	800 MW	4.90
AC	6 VAC	10.5 OHMS	1.1 VA	\$4.40
	12 VAC	43 OHMS	1.1 VA	4.40
	24 VAC	160 OHMS	1.1 VA	4.40
	115 VAC	3900 OHMS	1.1 VA	4.90

MEDIUM POWER RELAY OPEN TYPE

(SERIES LR)



Open type, heavy-duty type relay designed for many applications. Standard fine silver contacts rated at 10

amperes, optional Silver Cadmium load contacts rated at 15 amps. Ambient temperature operating range, continuous duty: A.C., -45° to 55°C.; D.C., -45° to 75°C.

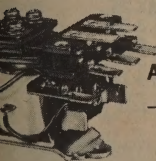
AC	10 amp contact rating	6, 12, 24, 115V	220V
	LR1A SPDT	\$4.00	\$4.20
	LR2A DPDT	4.85	5.05
	LR12A SPDT-DB(15A)	5.05	5.25

DC	10 amp contact rating	6, 12, 24V	110V
	LR1D SPDT	\$3.80	\$4.00
	LR2D DPDT	4.65	4.85
	LR12D SPDT-DB(15A)	5.85	5.05

DIMENSIONS: 2-3/8 × 1-1/2 × 1-21/32

MEDIUM POWER RELAY OPEN TYPE

(SERIES LRT)



Same quality features of the LR series (above) but in a special configuration utilizing .250 quick connect terminals.

AC	10 amp contact rating	6, 12, 24, 115V	220V
	LRT-1A SPDT	\$4.50	\$4.70
	LRT-2A DPDT	5.35	5.55
	LRT-12A SPDT-DB	5.55	5.75

DC	10 amp contact rating	6, 12, 24V	110V
	LRT-1D SPDT	\$4.30	\$4.50
	LRT-2D DPDT	5.15	5.35
	LRT-12D SPDT-DB	5.35	5.55

NEW

MEDIUM POWER RELAY PLUG-IN TYPE

(SERIES LRP)



This relay is available in either metal or plastic enclosures, equipped with a standard octal plug in header

for single and double pole types. Eleven pin headers are also available. The standard LRP plastic enclosure is a clear C-11 Styrene, colors are available at no extra charge. Female sockets for 8 and 11 pin headers are also available.

AC	10 amp contact rating	6, 12, 24, 115V	220V
	LRP1A SPDT	\$7.00	\$7.10
	LRP2A DPDT	8.20	8.50
	LRP12A SPDT-DB(15A)	8.80	9.00

DC	10 amp contact rating	6, 12, 24V	110V
	LRP1D SPDT	\$6.80	\$7.00
	LRP2D DPDT	8.00	8.40
	LRP12D SPDT-DB(15A)	8.70	8.80

DIMENSIONS: 3-1/4 × 1-15/16 × 1-15/16

HEAVY DUTY RELAY OPEN TYPE

(SERIES LG)



Open type relay, specifically designed for extremely heavy-duty applications. Standard Fine Silver load contacts are rated at 15 amps. with optional Silver Cad-

mium Oxide contacts where larger inrush loads are encountered. Loads are rated at 115/60 non-inductive. All load contacts are factory gold-flashed to prevent contact oxidation prior to use.

AC	15 amp contact rating	6, 12, 24, 115V	220V
	LG1A SPDT	\$4.30	\$4.50
	LG2A DPDT	4.85	5.05
	LG3A 3PDT	5.40	5.60

DC	15 amp contact rating	6, 12, 24V	110V
	LG1D SPDT	\$4.20	\$4.40
	LG2D DPDT	4.75	4.95
	LG3D 3PDT	5.30	5.60

DIMENSIONS: 1-1/2 × 2-3/8 × 1-13/16



LINE ELECTRIC COMPANY

RELAYS • BUZZERS • FOOT SWITCHES

GENERAL PURPOSE RELAYS



HEAVY DUTY RELAY PLUG-IN TYPE (SERIES LGP)

Plug-in type relay, with same quality features as above. Also available in either metal or clear bC-11 Styrene

AC	10 amp contact rating	6, 12, 24, 115V	220V
LGP1A SPDT		\$7.30	\$7.50
LGP2A DPDT		7.85	8.05
LGP3A 3PDT		8.40	8.60

enclosure. Ambient temperature operating range, continuous duty; A.C., —45° to 55°C.; D.C., —45° to 75°C.

DC	10 amp contact rating	6, 12, 24V	110V
LGP1D SPDT		\$7.20	\$7.40
LGP2D DPDT		7.75	8.05
LGP3D 3PDT		8.40	8.60



HEAVY DUTY POWER RELAYS* (SERIES STA)

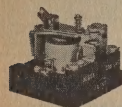
A 25 amp. power relay ideally suited for starting motors up to 1 hp, elevator controls, and many other applications which require high current or high voltage switching with maximum dependability. One piece molded base, sturdy two-hole mounting. Top removable coil.

Available with one or two auxiliary 5 ampere contacts.

* See new miniature power relay (series PF) on Pg. 7 of this listing.

AC	25 amp contact rating	6, 12, 24, 115V	220V
STA2A DPDT		\$6.55	\$6.85
STA3A (1. aux. con.)		8.55	8.85
STA14A (2. aux. con.)		10.05	10.35
DC	25 amp contact rating	6, 12, 24VDC	110VDC
STA2D DPDT		\$6.55	\$6.85
STA3D (1. aux. con.)		8.55	8.85
STA14D (2. aux. con.)		10.05	10.35

DIMENSIONS: 2-1/2 × 2-15/16 × 3-3/8



HEAVY DUTY POWER RELAYS (SERIES STM)

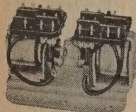
Same quality features as Series ST, but assembled on a compact base. Available with one or two auxiliary 5 amp contacts.

AC	25 amp contact rating	6, 12, 24, 115V	220V
STM1A SPDT		\$4.25	\$4.75
STM4A SPST NO		3.90	4.40
STM5A DPST NO		4.65	5.15
STM7A SPST NC		3.90	4.40
STM10A SPST NO DB		4.15	4.65
STMCC AVAILABLE WITH 1 AUX. CON.			
STMCC AVAILABLE WITH 2 AUX. CON.			

DC	25 amp contact rating	6, 12, 24V	110V
STM1D SPDT		\$4.25	\$4.95
STM4D SPST NO		3.90	4.50
STM5D DPST NO		4.65	5.50
STM7D SPST NC		3.90	4.50
STM10D SPST NO DB		4.15	4.75

DIMENSIONS: 2-1/8 × 2-1/2 × 2-5/16

MECHANICAL LATCH RELAYS



OPEN TYPE (SERIES RL)

Open type for use where a sustained relay closure is required, and current drain of a relay coil is to be eliminated. Incorporates two coils, one to close load con-

tacts, the other to reset them. Requires only momentary electrical contact to operate or release. Provides positive mechanical latch, eliminating chatter during sustained relay closure.

AC	5 amp contact rating	6, 12, 24, 115V	220V
RL1A SPDT		\$7.15	\$8.00
RL2A DPDT		8.25	9.00
RL3A 3PDT		9.15	9.95
RL14A 4PDT		10.45	11.30
RL15A 5PDT		11.45	12.30
RL16A 6PDT		12.55	13.35

DC	5 amp contact rating	6, 12, 24V	110V
RL1D SPDT		\$6.50	\$7.75
RL2D DPDT		7.50	8.75
RL3D 3PDT		8.50	9.75
RL14D 4PDT		9.50	10.75
RL15D 5PDT		10.50	11.75
RL16D 6PDT		11.50	12.75

Available in 10 amp contact rating. ASK FOR SERIES RLO DIMENSIONS: 2-11/16 × 1-3/4 × 1-3/4



PLUG-IN TYPE (SERIES RLP)

Plug-in type, same factory-tested quality features as above. Available in clear C-11 Styrene enclosure up to 5PDT.

AC	5 amp contact rating	6, 12, 24, 115V	220V
RLP1A SPDT		\$9.40	\$10.25
RLP2A DPDT		10.50	11.30
RLP3A 3PDT		14.75	15.60
RLP14A 4PDT		16.15	17.00
RLP15A 5PDT		17.25	18.00

DC	5 amp contact rating	6, 12, 24V	110V
RLP1D SPDT		\$8.75	\$10.05
RLP2D DPDT		9.85	11.15
RLP3D 3PDT		14.10	15.40
RLP14D 4PDT		15.55	16.80
RLP15D 5PDT		16.65	17.90

All models available 3PDT, 4PDT, 5PDT, and in 10 amp contact rating.

ASK FOR SERIES



LINE ELECTRIC COMPANY

RELAYS • BUZZERS • FOOT SWITCHES

HERMETICALLY SEALED RELAYS



PLUG-IN TYPE

(Series HKP)

The Series HKP relay incorporates the basic MK frame into hermetically sealed plug-in configuration. All units are thoroughly vacuum baked and out-gassed and back filled with nitrogen before sealing. The HK series will fit any standard octal based receptacle and is in the classification of a general purpose relay.

	5 amp contact rating	6, 12, 24, 115V	220V
AC	HKP1A SPDT	\$8.45	\$8.90
	HKP2A DPDT	9.05	9.45
	HKP3A 3PDT	10.50	10.95
	6, 12, 24V	110V	
DC	HKP1D SPDT	\$8.40	\$8.85
	HKP2D DPDT	9.00	9.40
	HKP3D 3PDT	10.45	10.90

PLATE CIRCUIT RELAYS 5 Amp

	2500Ω	5000Ω	10,000Ω	20,000Ω
HKF1 SPDT	\$8.90	\$9.00	\$9.40	\$9.65
HKF2 DPDT	9.30	9.40	9.80	10.10
HKF3 3PDT	10.75	10.90	11.40	11.65

	10 amp contact rating	6, 12, 24, 115V	220V
AC	HKH1A SPDT	\$8.50	\$8.95
	HKH2A DPDT	9.15	9.55
	HKH3A 3PDT	10.60	11.10
	6, 12, 24V	110V	
DC	HKH1D SPDT	\$8.45	\$8.90
	HKH2D DPDT	9.10	9.50
	HKH3D 3PDT	10.60	10.95

DIMENSIONS: 2-1/16 x 1-21/32 x 1-7/16

PLUG-IN TYPE.

LOW COST

(Series HKTR. 5 AMP) (Series HKTRO. 10 AMP)

These relays are hermetically sealed counterparts of our MKTR relays (see page 3) but they are especially designed for use with our 92-67 socket. Low profile general purpose applications.

	5 amp contact rating	6, 12, 24, 115V	220V
AC	HKTR-1A SPDT	\$ 8.45	\$ 8.90
	HKTR-2A DPDT	9.05	9.45
	HKTR-3A 3PDT	10.50	10.95
	HKTR-4A SPST-NO	8.40	8.85
DC	HKTR-5A DPST-NO	8.95	9.35
	HKTR-6A 3PST-NO	8.10	10.80
	HKTR-7A SPST-NC	8.40	8.85
	HKTR-8A DPST-NC	8.95	9.35
	HKTR-9A 3PST-NC	8.10	10.80

	5 amp contact rating	6, 12, 24V	110V
AC	HKTR-1D SPDT	\$ 8.40	\$ 8.85
	HKTR-2D DPDT	9.00	9.40
	HKTR-3D 3PDT	10.45	10.90
	HKTR-4D SPST-NO	8.35	8.80
DC	HKTR-5D DPST-NO	8.90	9.30
	HKTR-6D 3PST-NO	10.30	10.75
	HKTR-7D SPST-NC	8.35	8.80
	HKTR-8D DPST-NC	8.90	9.30
	HKTR-9D 3PST-NC	10.45	10.75

	10 amp contact rating	6, 12, 24, 115V	220V
AC	HKTRO-1A SPDT	\$ 8.50	\$ 8.95
	HKTRO-2A DPDT	9.15	9.55
	HKTRO-3A 3PDT	10.60	11.10
	HKTRO-4A SPST-NO	8.45	8.90
DC	HKTRO-5A DPST-NO	9.05	9.45
	HKTRO-6A 3PST-NO	10.45	10.95
	HKTRO-7A SPST-NC	8.45	8.90
	HKTRO-8A DPST-NC	9.05	9.45
	HKTRO-9A 3PST-NC	10.45	10.95

	10 amp contact rating	6, 12, 24V	110V
AC	HKTRO-1D SPDT	\$ 8.45	\$ 8.90
	HKTRO-2D DPDT	9.10	9.50
	HKTRO-3D 3PDT	10.60	10.95
	HKTRO-4D SPST-NO	8.40	8.85
DC	HKTRO-5D DPST-NO	9.00	9.40
	HKTRO-6D 3PST-NO	10.45	10.80
	HKTRO-7D SPST-NC	8.40	8.85
	HKTRO-8D DPST-NC	9.00	9.40
	HKTRO-9D 3PST-NC	10.45	10.80

PRINTED CIRCUIT TYPE. LOW COST

(Series HKT. 5 AMP) (Series HKTO. 10 AMP)

The same construction as HKTR and HKTRO (on left) but especially designed for use on printed circuit boards, mounting by means of .030 diameter pins.

	5 amp contact rating	6, 12, 24, 115V	220V
AC	HKT-1A SPDT	\$ 8.25	\$ 8.65
	HKT-2A DPDT	9.95	9.35
	HKT-3A 3PDT	10.40	10.85
	HKT-4A SPST-NO	8.20	8.60
DC	HKT-5A DPST-NO	9.85	9.25
	HKT-6A 3PST-NO	10.25	10.70
	HKT-7A SPST-NC	8.20	8.60
	HKT-8A DPST-NC	9.85	9.25
	HKT-9A 3PST-NC	10.25	10.70

	5 amp contact rating	6, 12, 24V	110V
AC	HKT-1D SPDT	\$ 8.20	\$ 8.60
	HKT-2D DPDT	9.60	10.00
	HKT-3D 3PDT	10.10	10.50
	HKT-4D SPST-NO	8.15	8.55
DC	HKT-5D DPST-NO	9.50	9.90
	HKT-6D 3PST-NO	9.95	10.35
	HKT-7D SPST-NC	8.15	8.55
	HKT-8D DPST-NC	9.50	9.90
	HKT-9D 3PST-NC	9.95	10.35

	10 amp contact rating	6, 12, 24, 115V	220V
AC	HKTO-1A SPDT	\$ 8.25	\$ 8.65
	HKTO-2A DPDT	9.70	10.10
	HKTO-3A 3PDT	10.25	10.65
	HKTO-4A SPST-NO	8.20	8.60
DC	HKTO-5A DPST-NO	9.65	10.00
	HKTO-6A 3PST-NO	10.10	10.50
	HKTO-7A SPST-NC	8.20	8.60
	HKTO-8A DPST-NC	9.65	10.00
	HKTO-9A 3PST-NC	10.10	10.50

	10 amp contact rating	6, 12, 24V	110V
AC	HKTO-1D SPDT	\$ 8.20	\$ 8.60
	HKTO-2D DPDT	9.50	9.90
	HKTO-3D 3PDT	10.10	10.50
	HKTO-4D SPST-NO	8.15	8.55
DC	HKTO-5D DPST-NO	9.40	9.80
	HKTO-6D 3PST-NO	9.95	10.35
	HKTO-7D SPST-NC	8.15	8.55
	HKTO-8D DPST-NC	9.40	9.80
	HKTO-9D 3PST-NC	9.95	10.35



LINE ELECTRIC COMPANY

RELAYS • BUZZERS • FOOT SWITCHES

TIME DELAY RELAYS

PLUG-IN TYPE (SERIES TRP)

The series TRP Time Delay Relay provides a pre-set delay between the closing of one set of contacts and the subsequent operation of a set of SPDT load contacts.

The series TRP initiates from a sustained switch closure to L1 and L2. The unit resets instantaneously when this circuit is opened; ready for another timing operation.

The series TRP is available in two operational options:

Type "A"—If sustained closure is interrupted during time cycle, unit will not reset. When closure is again made, timing will continue to give originally selected time delay.

Type "B"—If sustained closure is interrupted during time cycle, unit will instantaneously reset.

Information Required When Ordering
Time Cycle selected from chart.

\$18.50
List

SPECIFICATIONS

Plug in only using standard 8 pin octal receptacle.

TIME CYCLES

Model	Minimum Setting	Maximum Setting
TRP-5	0.1 sec.	5 seconds
TRP-10	0.1 sec.	10 seconds
TRP-15	0.1 sec.	15 seconds
TRP-30	0.1 sec.	30 seconds
TRP-60	0.1 sec.	60 seconds

Note: Time Cycles exceeding 60 seconds available, contact factory for details.

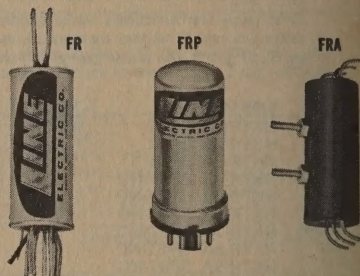
Voltagess 115/60 only.

Load Contacts SPDT rated at 5 amps., non-inductive — Note: 10 amp. available, contact factory.

REED RELAYS — 3 STANDARD TYPES

In computer, data processing and guidance system development, design engineers are enthusiastically applying dry reed relays in place of switching diodes. The reasons: miniature profile—life expectancy exceeding 100,000,000 operations—less heat generated compared with switching diodes—3 millisecond operating time and very high resistance in the open contact stage.

To efficiently serve the growing demand for dry reed relays in these and other applications, Line Electric now stocks these 3 standard types for immediate delivery in prototype quantities.



Open Coil Type—Series FR

6 VDC & 12 VDC & 24 VDC. 6 Contact Arrangements

FR1-SPDT, \$ 5.50 ea. FR4-SPST NO, \$3.30 ea.

FR2-2PDT, \$ 9.00 ea. FR5-2PST NO, \$4.50 ea.

FR3-3PDT, \$12.75 ea. FR6-3PST NO, \$5.50 ea.

Plug-In Type—Series FRP

6 VDC & 12 VDC & 24 VDC. 6 Contact Arrangements

FRP1-SPDT, \$ 8.50 ea. FRP4-SPST NO, \$6.00 ea.

FRP2-2PDT, \$12.00 ea. FRP5-2PST NO, \$7.50 ea.

FRP3-3PDT, \$16.00 ea. FRP6-3PST NO, \$8.50 ea.

Lug Mount Type—Series FRA

6 VDC & 12 VDC & 24 VDC. 2 Contact Arrangements

FRA1-SPDT, \$7.50 ea. FRA4-SPST NO, \$4.50 ea.

SPECIFICATIONS

CONTACT RATING
10 volt-amperes resistive
3 watts D.C. resistive

MAXIMUM CURRENT
0.5 amperes

DIELECTRIC STRENGTH
250 volts
60 cps R.M.S.

MAXIMUM VOLTAGE
110 volts

LIFE EXPECTANCY

Rated load - - -
1 x 10⁶ operations
Dry circuit - - -
100 x 10⁶ operations

OPERATE TIME
3 milliseconds
maximum, including bounce

CONTACT RESISTANCE
50 milliohms

INSULATION RESISTANCE
1000 megohms
minimum

RELEASE TIME
5 milliseconds
maximum, including bounce

NEW MINIATURE POWER RELAY (SERIES PF)

The PF Series Relays are especially designed for applications where limited space is a factor. This relay, although small in size, is ideally suited for heavy duty industrial control applications where long life and fast action are a requirement. The PF Relay is supplied with 1/4" quick connect terminals on the contacts for ease of installation. Other type terminals are available upon request. Consult factory for details.

CONTACTS

Material 1/4" dia. silver cadmium oxide gold flashed.

Contact Terminals 1/4" quick connect. Pierced for soldering.

COILS

Dielectric Strength 750 V.R.M.S.

Nominal Power D.C. relays - 1.1 watts avg.
A.C. relays - 2.5 volt amps avg.

Over-Voltage D.C. - 140% of nominal. A.C. - 125% of nominal.

Operate Time 15 milliseconds or less.

Weight 3 ounces

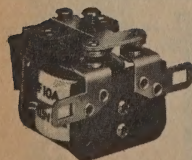
Temperature Range -40° C. to +50° C.

Coil Terminals Solder type.

25 amp. contact rating 6-12-24-115V

AC PF10A SPST-NO-DB \$3.90

DC PF10D SPST-NO-DB 3.70





LINE ELECTRIC COMPANY

RELAYS • BUZZERS • FOOT SWITCHES

MINIATURE TELEPHONE RELAYS



(SERIES GT)

Fast acting miniature telephone type relay. Highly versatile, supplied in contact arrangements up to 6PDT, and in a variety of styles including open, dust cover, and hermetically sealed. Factory will supply enclosure details.

AC

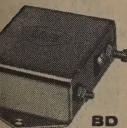
	6, 12, 24V	115V
GT1A SPDT	\$5.55	\$5.95
GT2A DPDT	6.50	6.75
GT3A 3PDT	7.00	7.45
GT14A 4PDT	7.40	7.85
GT15A 5PDT	8.10	8.50
GT16A 6PDT	8.80	9.30

DC

	6, 12, 24V	110V
GT1D SPDT	\$3.55	\$4.00
GT2D DPDT	4.50	4.75
GT3D 3PDT	5.00	5.45
GT14D 4PDT	5.40	5.85
GT15D 5PDT	6.10	6.50
GT16D 6PDT	6.80	7.30

DIMENSIONS: Max. 1-9/16 × 17/32 × 3/4

BUZZERS D.C. - A.C.



VARIABLE SOUND AND PITCH D.C. - A.C.

The series BD buzzers are designed for use in offices, plants, etc., where quality, good appearance and dependable operation is demanded. Three sizes of buzzers are available, each size varying in tone and volume of sound. However, the volume of sound and pitch of each size buzzer can be varied by means of double, locking adjustments. The three sizes of buzzers are equipped with phosphor bronze springs and pure hard-drawn silver contacts. They are bug and dust-proof with tight-fitting polished chrome covers.



Model No.	6-8VDC	12VDC	24VDC	48VDC
BD-0	\$3.25	\$3.50	\$3.75	\$5.25
BD-1	3.15	3.25	3.40	4.80
BD-2	3.25	3.50	3.75	5.20

(BD-0 Low tone, BD-1 Medium tone, BD-2 Loud tone)

Hermetic Seal

Model No.	6-8VDC	12VDC	24VDC	48VDC
BDH	8.50	9.00	9.50	10.00

DIMENSIONS: BD0—1-5/8 × 1-1/8 × 1-1/2

BD1—2-1/8 × 2 × 11/16

BD2—2-7/8 × 2-1/2 × 1

BDH—1-9/16 × 3-13/16 × 2-13/16



MD



AC BUZZERS

Available for 6, 12, 24, 115, 220, and 440 volts A.C. 60 cps operation, these buzzers are ideally suited for paging, warning, starting and dismissal signals. These buzzers are a non-contact type therefore suitable for continuous duty, providing a clear, penetrating signal.



MC



MA

6, 12, 24, 115 VAC/60 cy 220VAC/60 cy

MA	\$2.25	\$2.80
MB	2.50	3.05
MC	3.15	3.70
MD	1.60	2.40
MCH		
Hermetic Seal	10.00	11.00

PEDALINE FOOT SWITCH



The Pedaline is a compact light weight foot operated switch. The single switch type weighs only 7 ounces; the double switch type 7½ ounces. Baked on light gray hammertone enamel finish with black foot pad. Available with a single pole snap action switch or two single pole double throw switches which operate in sequence.

#PL1 single switch only	\$3.15
#PL-1C single switch w/line cord	\$4.45
#PL5 double switch	\$4.80
#PL-5C double switch w/line cord	\$5.65

DIMENSIONS: 3-1/2 × 2-5/8 × 1

LINE ELECTRIC CO.

Division of Industrial Timer Corporation

IN CANADA: Sperry Gyroscope Ottawa Ltd.

MAGNECRAFT RELAYS

The relays you can rely on

MAGNECRAFT ELECTRIC CO.

All prices and specifications effective August 1, 1966 and subject to change without notice.

All prices are NET for 1 to 9 Relays except Mercury-Wetted Contact and Dry Reed Relay prices are NET for 1 to 24.

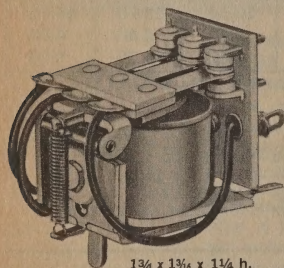
All contact ratings based on 115 VAC or 32 VDC, non-inductive load.

Voltage operated relays pull in at 85% of nominal voltage.

ORDER BY CATALOG NUMBER. Labels on MAGNECRAFT STOCK RELAY CARTONS carry Catalog Number, contact combination and rating; coil voltage or current.

All enclosed relays are identified by catalog number and wiring diagram.

NOTE. Order MAGNECRAFT STOCK RELAYS from STOCKING DISTRIBUTORS. Their stocks are supplemented by complete stocks maintained at the MAGNECRAFT plant in Chicago.



1 3/4 x 1 1/8 x 1 1/4 h.

Class 88

AC and DC
Small, 10-amp.
General Purpose
Relay

Open Type Relay. Has 10 ampere silver alloy contacts. Tinned solder terminals, spaced for easy wiring. One #6-32 tapped mounting hole with locating boss. Weight 2 ounces.

The General Purpose Relay with Telephone Type Reliability

The MAGNECRAFT 88 Relay is an abrupt departure in clapper type relay design. Dimensionally interchangeable with relays made by others the 88 has been developed to provide Telephone Type Relay reliability at general purpose relay prices.

Unique in relays of this type MAGNECRAFT 88 Relays have rugged, precision-built hinge-pin armature bearings with oversize bearing surfaces—the same construction used in the finest telephone type relays for lowest friction and maximum contact effectiveness with stabilized adjustment over long life.

Glass insulation provides great di-electric strength unaffected by humidity and temperature changes.

Molded Nylon bobbins with ruggedized coil terminal inserts eliminate possibility of shorts.

Built-in contact wipe with riveted contacts further advance reliability through long life.

The many refinements, plus MAGNECRAFT Quality Control and Inspection Standards, give you hidden values beyond price—unseen values that keep making friends through years of dependable service.

When you inspect and compare you will soon see that many MAGNECRAFT 88 extra values are not hidden.

Wiring diagrams for Class 88 Plug-in Mounted Relay



WD-1 SPDT, 8-pin



WD-2 DPDT, 8-pin



WD-3 DPDT, 11-pin

h* is overall dimension above socket WD is abbreviation for Wiring Diagram *Voltage operated relays pull in at 85% of nominal voltage.

400 different Relay Models

Immediate Delivery from STOCKING DISTRIBUTORS

Catalog 267, Page 1



Class 88CP

AC and DC
Small, Plug-in
in Crackproof
plastic cover

See wiring diagrams

1 3/8 x 1 1/8 x 2 1/8 h*

Enc. 40-279 **CRACKPROOF**, clear as glass, tough as steel dust coat of polycarbonate resin housing Class 88 relay with 8- or 11-pin standard octal plug. Silver alloy contacts, 10 amp. rating. Weight, 3 ounces.

contact arrangement	COIL		10 ampere silver alloy contacts					
			OPEN RELAY		with Enclosure 40-279			
	volt. or current	res. ohms	nominal power	Stock Part No.	Price 1 to 9	Stock Part No.	Plug	Price 1 to 9
alternating current voltage actuated								
SPDT WD-1	6VAC	3 VA		W88AX1	3.45	W88ACPX1	8-pin	5.3
	12VAC			W88AX2	3.45	W88ACPX2		5.3
	24VAC			W88AX3	3.50	W88ACPX3		5.3
	115VAC			W88AX4	3.65	W88ACPX4		5.3
	230VAC		W88AX34	4.12	W88ACPX76		6.6	
DPDT WD-2	6VAC	3 VA		W88AX5	4.07	W88ACPX5	8-pin	6.6
	12VAC			W88AX6	4.07	W88ACPX6		6.6
	24VAC			W88AX7	4.12	W88ACPX7		6.6
	115VAC			W88AX8	4.27	W88ACPX8		6.6
	230VAC		W88AX32	4.27	W88ACPX32		6.6	
3PDT WD-3	6VAC	3 VA		W88AX9	4.56	W88ACPX9	11-pin	7.7
	12VAC			W88AX10	4.56	W88ACPX10		7.7
	24VAC			W88AX11	4.62	W88ACPX11		7.7
	115VAC			W88AX12	4.77	W88ACPX12		7.7
	230VAC		W88AX36	5.26	W88ACPX39		7.8	
direct current voltage actuated								
SPDT WD-1	6VDC	25	1.5W	W88X2	3.20	W88CPX1	8-pin	5.3
	12VDC	100		W88X3	3.20	W88CPX2		5.3
	24VDC	400		W88X4	3.28	W88CPX3		5.3
	110VDC	8000		W88X5	3.85	W88CPX4		5.3
DPDT WD-2	6VDC	25	1.5W	W88X6	3.73	W88CPX5	8-pin	5.3
	12VDC	100		W88X7	3.73	W88CPX6		5.3
	24VDC	400		W88X8	3.79	W88CPX7		5.3
	110VDC	8000		W88X9	4.36	W88CPX8		5.3
3PDT WD-3	6VDC	25	1.5W	W88X10	4.17	W88CPX9	11-pin	7.7
	12VDC	100		W88X11	4.17	W88CPX10		7.7
	24VDC	400		W88X12	4.21	W88CPX11		7.7
	110VDC	8000		W88X13	4.77	W88CPX12		7.7
DC current actuated for plate circuit operation								
SPDT WD-1	7.2 MA	2500	125MW	W88X14	3.75	W88CPX13	8-pin	5.3
	5.0 MA	5000		W88X15	3.85	W88CPX14		6.6
	3.6 MA	10000		W88X16	4.25	W88CPX15		6.6
DPDT WD-2	10 MA	2500	250MW	W88X17	4.01	W88CPX16	8-pin	6.6
	7.2 MA	5000		W88X18	4.11	W88CPX17		6.6
	5 MA	10000		W88X19	4.51	W88CPX18		6.6
3PDT WD-3	12.3 MA	2500	375MW	W88X20	4.44	W88CPX19	11-pin	7.7
	8.7 MA	5000		W88X21	4.54	W88CPX20		7.7
	6.1 MA	10000		W88X22	4.94	W88CPX21		7.7

Class 88HP—Hermetically Sealed Enclosure Plug-in Mounted—10 amps.—AC and DC

40-180 enclosure, hermetically sealed, housing Class 88 high reliability relay (see above) with standard 8-pin octal plug. Silver alloy contacts, 10-ampere rating. Weight 5 ounces.

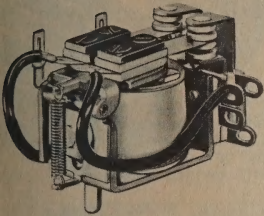
88HP

Stock Part No.	contacts 10 amps.	COIL ±Volts	Ohms	nom. power	Price 1 to 9
W88AHPX-21	DPDT WD-2	6VAC	—	3VA	8.59
W88AHPX-22		12VAC	—		8.59
W88AHPX-23		24VAC	—		8.64
W88AHPX-24		115VAC	—		8.79
W88HPX-32	DPDT WD-2	6VDC	25	1.5W	8.19
W88HPX-33		12VDC	100		8.19
W88HPX-34		24VDC	400		8.24
W88HPX-35		110VDC	8000		9.29
W88AHPX-36	3PDT WD-3	115VAC	—	3VA	10.60
W88HPX-51		24VDC	400		10.03

1-1/16 diameter x 2-1/8

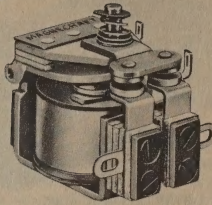
MAGNECRAFT RELAYS

Catalog 267, Page 2

**Power, Latching
and Coaxial**
Small—Power—AC and DC—15 amps.
Power—AC and DC—50 amps.
Latch-in—AC and DC—Small
88R

1 1/8 x 1-15/32 x 1-5/32 high

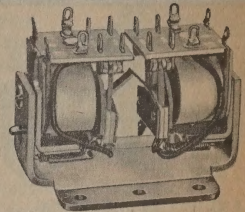
The 88R extra quality, high reliability per type relay with 15 ampere heavy silver alloy contacts for industrial applications. Has the exclusive quality features of Class 88 relays described on page one. Tinned solder terminals. One 1/2 tapped mounting hole and locating hole. Weight 3 ounces.

Stock No.	contacts 10 amps.	COIL		nominal power	Price 1 to 9
		volts	ohms		
88RX1	DPDT	6VAC	—	3VA	5.97
88RX2		12VAC	—		5.97
88RX3		24VAC	—		6.02
88RX4		115VAC	—		6.17
88X1	DPDT	6VDC	25	1.5W	5.90
88X2		12VDC	100		5.90
88X3		24VDC	400		5.95
88X4		110VDC	8000		6.40

88D

1-13/16 x 1 1/4 (less soldering tabs) x 1-7/16 high

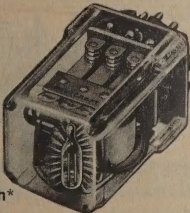
The popular high reliability Class 88 Relay (see page 1) specially designed with 50-ampere SPST, Double Break, Normally Open contacts. Developed especially for switching heavy current in minimum space reliably and economically. Unique contact structure provides positive wiping action. One 6-32 tapped mounting hole and locating boss. Weight, 3 ounces.

Stock Part No.	contacts 50 amps.	COIL		nominal power	Price 1 to 9
		volts	ohms		
W88ADX-1	50 amperes SPST	24VAC	—	3VA	5.15
W88ADX-2		115VAC	—		5.25
W88ADX-3		230VAC	—		5.70
W88DX-1		6VDC	25	1.5W	4.65
W88DX-2	double break Normally Open	12VDC	100		4.65
W88DX-3		24VDC	400		4.70
W88DX-4		110VDC	8000		5.94

88L

2-11/16 max. x 1 3/4 x 1-15/16 high max.

Two class 88 relays (see page 1) with interlocking latch-in levers mounted on a common base. Each armature latches when pulled in. Energizing one armature releases (rests) the other. Each relay is complete with independent operating coil. Contacts are silver alloy, 10 ampere rating. Relay coils are designed for continuous duty operation. Weight 6 1/2 ounces.

Stock Part No.	contacts 10 amps.	COIL		nominal power	Price 1 to 9
		volts	ohms		
W88ALX-2	4PDT	6VAC	—	6VA	10.60
W88ALX-3		24VAC	—	6VA	10.60
W88ALX-4		115VAC	—	6VA	10.60
W88ALX-5		6VAC	—	6VA	12.80
W88ALX-6	6PDT	24VAC	—	6VA	12.80
W88ALX-7		115VAC	—	6VA	12.80
W88LX-1		6VDC	12	3W	9.65
W88LX-2		12VDC	50		9.65
W88LX-3	4PDT	24VDC	200	3W	9.65
W88LX-4		110VDC	4000		10.85
W88LX-5		6VDC	12		11.75
W88LX-6		12VDC	50		11.75
W88LX-7	6PDT	24VDC	200	3W	11.75
W88LX-8		110VDC	4000		12.95

Small—AC—10-amp.—plug-in relay with neon "ON" light
88ANCP
CRACKPROOF
 as glass
 as steel!

1 1/8 x 1 1/8 x 2 1/8 h*

40-279 CRACKPROOF, clear as glass, as steel dust cover of polycarbonate with 8- or 11-pin standard octal plug wiring Class 88 high reliability relay (see page 1) with built-in neon circuit indicator. Indicator light comes on when coil is energized.

Eliminates need for expensive pilot lamp assemblies

Circuit condition can be seen at a glance
 • Saves panel space
 Silver alloy contacts, 10 ampere rating.
 Weight, 3 ounces.

Stock No.	contacts 10 amps.	wiring diagrams	tvolts AC	nominal power	Price 1 to 9
88ANCPX-1	SPDT	WD-1*	115	6.64	
88ANCPX-2	DPDT	WD-2*	115	7.29	
88ANCPX-3	DPDT	WD-3*	115	8.81	

Page operated relays pull in at 85% of nominal voltage at 25°C.

Class 128 Coaxial Relays for RF Switching

Small compact relay combining a heavy duty coaxial cavity and the MAGNECRAFT 88 Relay structure described on page one.

The precision-built, hinge-pin type armature bearings of the Class 88 assure consistent pull-in power with maximum reliability over long life.

The coaxial contact structure is enclosed in a heavy duty precision machined brass cavity with removable plug for convenient inspection of contacts.

SPDT RF switching contacts are silver cadmium oxide, gold flashed, conservatively rated 100 watts of RF power; impedance matched to 50 ohm cable using standard type UHF connectors. VSWR 1.25: 1 maximum from 0 to 500 megacycles.

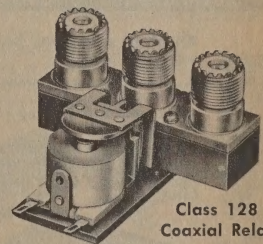
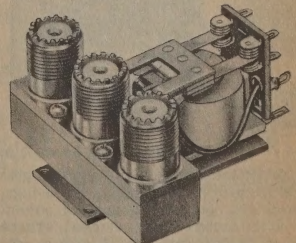
Operate time, 25 ms maximum

Release time, 25 ms maximum

Overall dimensions. 2 5/8 x 2 7/8 x 1 7/8

Stock Part No.	Coaxial Contacts	COIL		Price 1 to 9
		†Volts	Ohms	
Class 128 Relay				
W128AX-7	SPDT	115 VAC		18.47
W128X-9	SPDT	12 VDC	100	18.13
W128X-10	SPDT	24 VDC	400	18.20

Class 128 Relay with DPDT Auxiliary Contacts				
W128AX-11	SPDT	115 VAC		20.85
W128X-14	SPDT	12 VDC	100	20.02
W128X-15	SPDT	24 VDC	400	20.08


**Class 128
Coaxial Relay**

**Class 128 Coaxial Relay with
DPDT Auxiliary Contacts.**

For Low Capacitance RF Switching Relay see Class 33F, page 4.

Send for complete 50-page Engineering Catalog

MAGNECRAFT ELECTRIC CO.

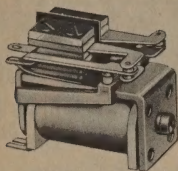
Telephone Type

MAGNECRAFT RELAYS

Catalog 267, Page 3

Sub-miniature—DC—3 amps.

33



1-11/32 x 11/16 x 1 3/4 h. max.

Class 33 midjet sub-miniature; the smallest telephone type MAGNECRAFT Relay and one of the smallest telephone type relays on the market. Class 33 is also the fastest operating and inherently more shock resistant and vibration resistant. Long life, reliability and accuracy fit Class 33 relays for a wide range of small space requirements. They are extensively used for aircraft, computer and mobile applications where small size, light weight and resistance to shock and vibration are essential. Palladium contacts; 3 ampere rating. Four 4-40 tapped mounting holes on 3/8 x 3/8 centers. Weight, 1 ounce.

Stock Part No.	contacts 3 amps.	COIL VVolts	DC ohms	nominal power	Price 1 to 9
W33X237	DPDT	6VDC	17	2.0W	4.87
W33X238		12VDC	75		4.87
W33X239		24VDC	280		4.92
W33X240		110VDC	6500		5.50
W33X241	4DPT	6VDC	17	2.0W	6.58
W33X242		12VDC	75		6.58
W33X243		24VDC	280		6.63
W33X244		110VDC	6500		7.23

22TPM Direct Plug-in Assemblies with Twin Contacts Snap-on Cover

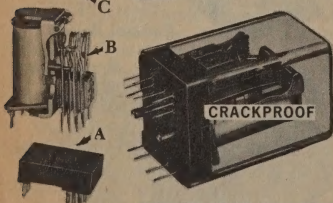


Effect big saving over factory-wired plug-ins.

A. You wire the precision built socket

B. Plug the 22TPM Relay into the socket

C. Snap-on CRACKPROOF clear as glass, tough as steel polycarbonate resin dust cover.



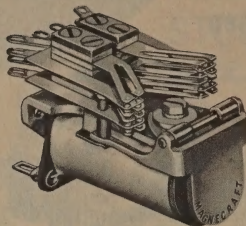
1-21/32 x 2-45/64 x 2 5/8 h.

Class 22TPM direct plug-in assemblies give you all the plug-in advantages with savings, compactness and convenience not obtainable with factory-wired plug-ins. These stock assemblies have twin palladium contacts rated 4 amps at 115 VAC or 32 VDC non-inductive load. Part Numbers and prices include complete assembly—socket with screws, 22TPM Relay and snap-on dust cover.

Stock Part No.	contacts 4 amps.	COIL VVolts	DC ohms	nominal power	Price 1 to 9
W22ATPMX-1	DPDT	115VAC	—	5VA	8.35
W22ATPMX-2		115VAC	—		11.52
W22TPMX-1	DPDT	24VDC	500	1.5W	8.10
W22TPMX-2		24VDC	500		10.87

Small—AC and DC—Twin Contacts

22T



2-1/16 x 1-3/32 x 1 3/4 h. max.

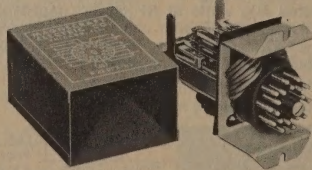
Class 22T—miniature long form relay with accuracy reliability and long life equal and sometimes superior to larger relays. A unique, pin type armature hinge of heavy duty design and precision construction assures stabilized adjustment through millions of operations. Twin Palladium contacts with long, flexible bifurcated contact springs assure the ultimate in switching reliability.

Twin Palladium contacts, 4 ampere rating. All mounting and wiring at heel end. Tinned solder terminals with easy-to-wire spacing. Two #6-32 tapped mounting holes on 3/8 centers. Weight, 5 ounces.

Stock Part No.	contacts 4 amps.	COIL V or C ohms		nominal power	Price 1 to 9
alternating current voltage actuated					
W22ATX12	DPDT	115VAC		5VA	5.94
direct current voltage actuated					
W22TX267	4PDT	6VDC	20	2.0W	8.44
W22TX268		12VDC	80	2.0W	8.44
W22TX269		24VDC	375	1.5W	8.49
W22TX270		110VDC	8000	1.5W	9.97
W22TX271	6PDT	6VDC	12		11.87
W22TX272		12VDC	50	3.0W	11.87
W22TX273		24VDC	250		11.92
W22TX274		110VDC	5000		12.91
DC current actuated for plate circuit operation					
W22TX276	SPDT	4.5 MA	5000		5.91
W22TX277		6.0 MA	2700	100MW	5.24
W22TX278		3.2 MA	10000		6.18
W22TX275	DPDT	4.5 MA	10000	200MW	6.93

Small—DC—Plug-in with removable dust cover

22CP



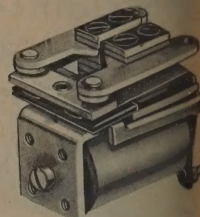
1-9/16 x 2-11/16 x 3-13/32 h*

45-176 removable dust cover with Class 22 relay and 20-pin octal plug. Hold-down bracket permits mounting in any position. Internal bracket supports cover. One screw holds cover. Rubber gasket seals out dust. Silver alloy contacts, 5 ampere rating. Hold down bracket has two mounting holes for 6-32 screws on 2 1/8 centers. Weight, 8 ounces.

Stock Part No.	contacts 5 amps.	COIL VVolts	DC ohms	nominal power	Price 1 to 9
W22CPX61	6PDT	6VDC	12	3.0W	16.72
W22CPX62		12VDC	50		16.72
W22CPX63		24VDC	225		16.77
W22CPX64		110VDC	5000		17.35

Miniature Power—DC 50 amps.—SPST-NO-D8

11D



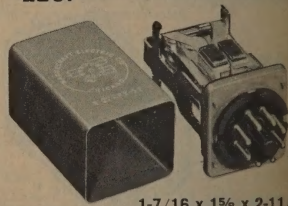
1 5/8 x 15/16 x 1-7/16 h.

Class 11D miniature telephone type relay with heavy brass contact arms and large 50-ampere silver alloy, single pole, single throw, normally open, double break contacts. The Class 11 is a small size relay with big relay reliability accuracy and long life. Solder terminals, spaced for easy wiring. Four 4-40 tapped mounting holes on 3/8 centers. Weight, 3 ounces.

Stock Part No.	contacts 50 amps.	COIL VVolts	ohms	nominal power	Price 1 to 9
W11DX38	SPST-NO double break	6VDC	25	1.5W	5.39
W11DX39		12VDC	100		5.45
W11DX40		24VDC	400		5.45
W11DX41		110VDC	9000		6.08

Small—AC and DC—Plug-in with removable dust cover

22CP



1-7/16 x 1 5/8 x 2-11/16 h.

40-284 enclosure with removable dust cover housing Class 22 relay with 8- or 11-pin standard octal plug. Internal bracket supports cover and protects relay. One screw holds cover in place. Silver alloy contacts, 5 ampere rating. Weight, 6 ounces.

Stock Part No.	contacts 5 amps.	COIL VVolts	ohms	nominal power	Price 1 to 9
W22CPX60	DPDT	115VAC	—	5VA	10.87

alternating current voltage actuated					
W22CPX46	SPDT	6VDC	20	2.0W	8.35
W22CPX47		12VDC	80	2.0W	8.35
W22CPX48		24VDC	375	1.5W	8.49
W22CPX49	DPDT	6VDC	20	2.0W	9.97
W22CPX50		12VDC	80	2.0W	9.97
W22CPX51		24VDC	375	1.5W	11.87
W22CPX52	3DPT	6VDC	20	2.0W	11.87
W22CPX53		12VDC	80	2.0W	11.87
W22CPX54		24VDC	375	1.5W	11.92
W22CPX55	SPDT	4.5 MA	5000	100MW	5.91
W22CPX56		6.0 MA	2700	100MW	5.24
W22CPX57		3.2 MA	10000	200MW	6.18
W22CPX58	DPDT	4.5 MA	10000	200MW	6.93
W22CPX59		4.5 MA	10000	200MW	6.93

*h is overall dimension above socket

MAGNECRAFT RELAYS

Catalog 267, Page 4

Hermetically Sealed

Hermetically Sealed
Sub-miniature
DC—5 amps.

33HS

31/32 x 1-11/32
x 1-41/64 h*



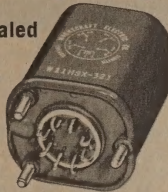
57 enclosure, hermetically sealed, housing Class 33 miniature relay with 8- or 14-pin high compression, glass insulated, or terminal header. Silver alloy contacts, 5-ampere rating. Three 4-40 tapped mounting holes on 1/2 x 1 centers. Weight, 0.5 ounces.

Stock No.	contacts 5 amps.	COIL—DC volts	ohms	nominal power	Price 1 to 9
W11HSX177	6VDC	17	13.21		
W11HSX178	12VDC	280	13.21	2.0W	
W11HSX179	24VDC	280	13.26		
W11HSX180	110VDC	6500	13.87		
W11HSX181	6VDC	17	16.65		
W11HSX182	12VDC	75	16.65	2.0W	
W11HSX183	24VDC	280	17.70		
W11HSX184	110VDC	6500	17.36		

Hermetically Sealed
Miniature
DC—5 amps.

11HS

1 5/8 x 1 3/4
x 2-1/16 h*



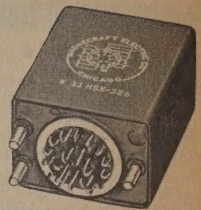
40-102 enclosure, hermetically sealed, housing Class 11 miniature relay with 14-pin high compression, glass insulated solder terminal header. Silver alloy contacts, 5 ampere rating. Three #6-32 NC-2 threaded mounting studs on 1/2 x 1 1/2 centers. Weight, 6 ounces.

Stock Part No.	contacts 5 amps.	COIL—DC TV or C.	ohms	nominal power	Price 1 to 9
W11HSX321	6VDC	25	15.92		
W11HSX322	12VDC	100	15.97	1.5W	
W11HSX323	24VDC	400	15.37		
W11HSX324	110VDC	9000	17.96		

DC current actuated for plate circuit operation
W11HSX325 1 DPDT 1 5 MA 10000 1250MW 13.70
WD-8

Hermetically Sealed
Miniature
DC
5 amps.

11HS



1-15/64 x 1-47/64 x 2 3/8 h*

40-188 enclosure, hermetically sealed, housing Class 11 miniature relay with 20-pin high compression glass insulated solder terminal header. Silver alloy contacts, 5 ampere rating. Three #6-32 NC-2 threaded mounting studs on 1/2 x 1 1/2 centers. Weight, 6 ounces.

Stock Part No.	contacts 5 amps.	COIL—DC volts	ohms	nominal power	Price 1 to 9
W11HSX326	6VDC	13	19.91		
W11HSX327	12VDC	56	19.91	2.5W	
W11HSX328	24VDC	280	19.96		
W11HSX329	110VDC	5000	20.18		



Hermetically Sealed—small—
AC and DC—5 amps.

40-158 enclosure, hermetically sealed, housing Class 22 relay with 14-pin glass insulated solder terminal header. Silver alloy contacts, 5 ampere rating. Three #6-32 threaded mounting studs on 1/2 x 1 1/2 centers. Weight, 7 ounces.

Stock Part No.	contacts 5 amps.	COIL volts	ohms	nominal power	Price 1 to 9
alternating current voltage actuated					
W22HSX32	4PDT WD-9	115VAC	500	5VA	17.30
direct current voltage actuated					
W22HSX144	6VDC	20	17.00		
W22HSX145	12VDC	80	2.0W		
W22HSX146	24VDC	375	17.05		
W22HSX147	110VDC	8000	1.5W	18.03	

22HS

1-7/16 x 1 3/8
x 2-11/16 h*

Class 33F, RF Switching, Subminiature

33 telephone type relay designed especially for lowest capacitance between springs and minimum losses at high frequencies. Suitable for antenna change-over switching. Contact springs have ceramic insulation. Contacts are Palladium, 2 ampere rating. Tinned solder terminals. Four #4-40 tapped mounting holes on 3/8 x 3/8 centers. Weight, 1 ounce. 1 1/2 x 1 1/8 x 1 1/4 h.



33F

Dimension above mounting base. WD is abbreviation for Wiring Diagram operated relays pull in at 85% of nominal voltage.

Stock Part No.	contacts 2 amps.	COIL—DC volts	ohms	nominal power	Price 1 to 9
W33FX20	6VDC	28	4.06		
W33FX21	12VDC	100	4.11	1.5W	
W33FX22	24VDC	500	4.16		
W33FX23	110VDC	6500	4.69		

44



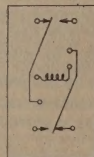
Enc. 40-227
plug-in header
no bracket

Enc. 40-222
solder terminals
no bracket

Enc. 40-224
solder terminals
side bracket

Enc. 40-234
solder terminals
flange bracket

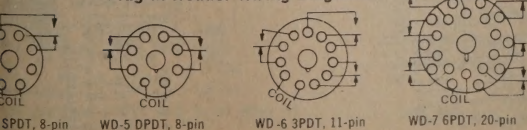
Case Dimensions .875 x .797 x .359



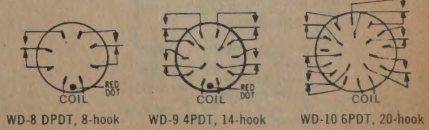
Standard
Contact
Arrangement

COIL—DC volts	ohms	noml. power	Stock Part No.	Price 1 to 9	Stock Part No.	Price 1 to 9
6.5	34		Enc. 40-227		Enc. 40-222	
11	92		W44HPX-34	17.60	W44HSX-103	17.60
26.5	552	1.2W	W44HPX-35	17.60	W44HSX-104	17.60
38.5	1278		W44HPX-36	17.60	W44HSX-105	17.60
76	5000		W44HPX-37	18.00	W44HSX-106	18.00
			W44HPX-38	19.90	W44HSX-107	19.90
6.5	34		Enc. 40-224		Enc. 40-234	
11	92		W44HSX-108	17.95	W44HSX-113	17.95
26.5	552	1.2W	W44HSX-109	17.95	W44HSX-114	17.95
38.5	1278		W44HSX-110	17.95	W44HSX-115	17.95
76	5000		W44HSX-111	18.35	W44HSX-116	18.35
			W44HSX-112	20.25	W44HSX-117	20.25

Plug-in Header Wiring Diagrams



Solder Terminal Header Wiring Diagrams



Series 101, Form A Miniature Reed

MAGNECRAFT RELAYS

Catalog 267, Page 5

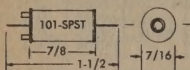
101 SPST-NO, Miniature

Open type miniature
dry reed relay
with solder terminals.

Nom. Power, 600MW
Weight, 1 oz.

Operate, 1 ms. aver. Release, 1/2 ms. aver.
Contact Bounce, less than 1/2 ms. aver.
Contact Load Rating, 12VA at .25 amp. max.
or 100VAC max., non-inductive.
Contact Resistance, 150 milliohms aver.
Life Expectancy, 5 million cycles at full
load; 20 million at 1/2 load.
Capacitance across contacts, 0.3 pf. aver.
Operates in any position.

Stock Part No.	Contacts	COIL—DC MA ∇ Volts	Ohms	Price 1 to 24
W101X-1	SPST-NO	— 6V	100	3.29
W101X-2		— 12V	250	3.29
W101X-3		— 24V	500	3.85
W101X-4		9MA	2500	4.25



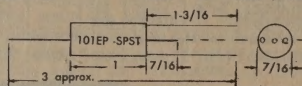
101EP SPST-NO, Miniature

Encapsulated
dry reed relay
with axial leads.

Nominal Power, 600MW
Weight, 1 oz.

Operate, 1 ms. aver. Release, 1/2 ms. aver.
Contact Bounce, less than 1/2 ms. aver.
Contact Load Rating, 12VA at .25 amp. max.
or 100VAC max., non-inductive.
Contact Resistance, 150 milliohms aver.
Life Expectancy, 5 million cycles at full
load; 20 million at 1/2 load.
Capacitance across contacts, 0.5 pf. aver.
Operates in any position.

Stock Part No.	Contacts	COIL—DC MA ∇ Volts	Ohms	Price 1 to 24
W101EPX-5	SPST-NO	— 6V	65	3.62
W101EPX-6		— 12V	225	3.62
W101EPX-7		— 24V	1000	4.24
W101EPX-8		8MA	5000	4.68



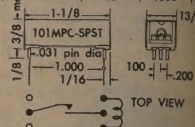
101MPC SPST-NO, Miniature

MPC high reliability
Printed Circuit
Construction
described on page 6

Nom. Power, 500MW
Weight, 1 oz.

Operate, 1 ms. aver. Release, 1/2 ms. aver.
Contact Bounce, less than 1/2 ms. aver.
Contact Load Rating, 12VA at .25 amp. max.
or 100VAC max., non-inductive.
Contact Resistance, 150 milliohms aver.
Life Expectancy, 5 million cycles at full
load; 20 million at 1/2 load.
Capacitance across contacts, 0.8 pf. aver.
Operates in any position.

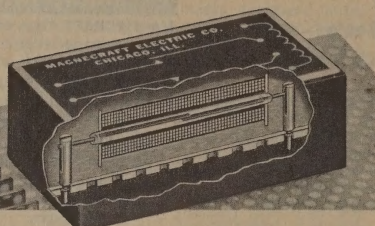
Stock Part No.	Contacts	COIL—DC ∇ Volts	Ohms	Price 1 to 24
W101MPCX-1	SPST-NO	6	70	3.60
W101MPCX-2		12	300	3.60
W101MPCX-3		24	1100	3.63
W101MPCX-4		48	4300	3.77



Ultra-Reliable Encapsulated Printed Circuit Reed Relays

1. Reed contact leads are soldered stress-free to rugged terminal posts.
2. Terminal posts extend through the terminal board as printed circuit pins.
3. The complete assembly is encapsulated, which provides:

- a. Mechanical protection for the glass capsule, contact leads and coil.
- b. Full protection against tampering and contaminating atmosphere.
- c. Rigid positioning of terminal supports and printed circuit pins; stresses on circuit pins cannot transmit to the reed contact leads and affect relay adjustment.



The package illustrated is a Class 102PC, DPST-NO Standard Size Relay (page 7) cut away to show typical assembly of one reed.

Construction of miniature encapsulated printed circuit reed relays (pages 5 and 6) is similar to the standard size.

101PC SPST-NO, Miniature

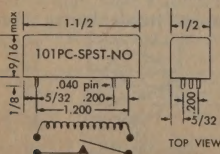
Ultra-reliable
encapsulated
printed circuit
construction
described above.

Nom. Power 600MW
Weight, 1 oz.



Operate, 1 ms. aver. Release, 1/2 ms. aver.
Contact Bounce, less than 1/2 ms. aver.
Contact Load Rating, 12VA at .25 amp. max.
or 100VAC max., non-inductive.
Contact Resistance, 150 milliohms aver.
Life Expectancy, 5 million cycles at full
load; 20 million at 1/2 load.
Capacitance across contacts, 0.8 pf. aver.
Operates in any position.

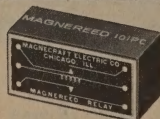
Stock Part No.	Contacts	COIL—DC MA ∇ Volts	Ohms	Price 1 to 24
W101PCX-5	SPST-NO	— 6V	65	5.11
W101PCX-6		— 12V	250	5.16
W101PCX-7		— 24V	1000	5.26
W101PCX-8		8MA	5000	5.68



101PC DPST-NO, Miniature

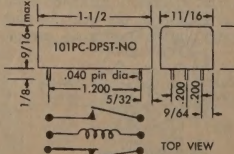
Ultra-reliable
encapsulated
printed circuit
construction
described above.

Nom. Power, 900MW
Weight, 2 oz.



Operate, 1 ms. aver. Release, 1/2 ms. aver.
Contact Bounce, less than 1/2 ms. aver.
Contact Load Rating, 12VA at .25 amp. max.
or 100VAC max., non-inductive.
Contact Resistance, 150 milliohms aver.
Life Expectancy, 5 million cycles at full
load; 20 million at 1/2 load.
Capacitance across contacts, 1.0 pf. aver.
Operates in any position.

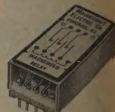
Stock Part No.	Contacts	COIL—DC MA ∇ Volts	Ohms	Price 1 to 24
W101PCX-9	DPST-NO	— 6V	40	7.15
W101PCX-10		— 12V	150	7.18
W101PCX-11		— 24V	650	7.24
W101PCX-12		8MA	5000	7.69



101MPC 3PST-NO, Miniature

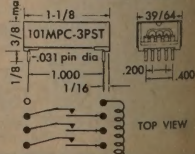
MPC high reliability
Printed Circuit
Construction
described on page 6

Nom. Power, 700MW
Weight, 1 oz.



Operate, 1 ms. aver. Release, 1/2 ms. aver.
Contact Bounce, less than 1/2 ms. aver.
Contact Load Rating, 12VA at .25 amp. max.
or 100VAC max., non-inductive.
Contact Resistance, 150 milliohms aver.
Life Expectancy, 5 million cycles at full
load; 20 million at 1/2 load.
Capacitance across contacts, 1.0 pf. aver.
Operates in any position.

Stock Part No.	Contacts	COIL—DC ∇ Volts	Ohms	Price 1 to 24
W101MPCX-5	3PST-NO	6	50	6.75
W101MPCX-6		12	220	6.75
W101MPCX-7		24	850	6.79
W101MPCX-8		48	3300	6.85

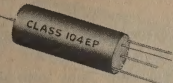


MAGNECRAFT RELAYS

Catalog 267, Page 6

104EP SPDT, Miniature—Encapsulated with Axial Leads

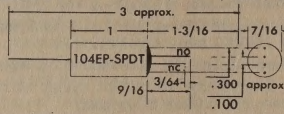
Encapsulated
reed relay
axial leads.
Power, 600MW
Weight, 1 oz.



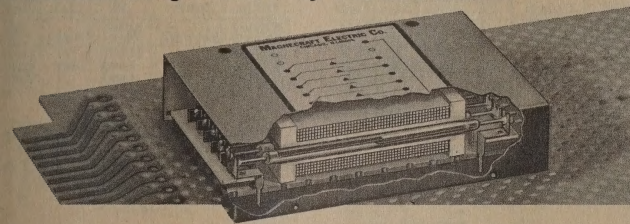
True form C, no biasing magnet.
Operate, 1 ms. aver. Release, 1 ms. aver.
Contact Bounce, less than 1/2 ms. aver. N.O.
contacts; less than 2 ms. aver. N.C. contacts.
Contact Load Rating, 3 VA max. at .25 amp.
max. or 28 V max., non-inductive.
Contact Resistance, 150 milliohms, aver.

Capacitance across contacts, 1.5 pf. aver.
Life Expectancy, 10 million cycles at full
load. Operating position, any.

Stock Part No.	Contacts	COIL—DC			Price 1 to 24
		MA	Volts	Ohms	
W104EPX-2	SPDT	—	6	65	7.37
W104EPX-3		—	12	225	7.37
W104EPX-4		—	24	1000	8.05
W104EPX-5		—	8	5000	8.55



104PC—The Low Profile Printed Circuit Reed Relay Package that combines High Reliability and Low Cost



Reed Relay contacts are hermetically
sealed with inert gas in glass capsule;
completely protected from contamination,
tampering.

Contact leads are soldered (or welded)
lead-free to rigidly positioned terminal
ports.

The combination circuit board pins and
terminal supports are securely fastened to

terminal board; stresses on circuit board
pins cannot transmit to contact leads and
affect relay adjustment.

4. Integrally molded Nylon bobbin and
mounting base combine electrical insulation
and mechanical protection for the glass
capsule.

5. Snap-on steel cover adds mechanical
protection and magnetic shielding.

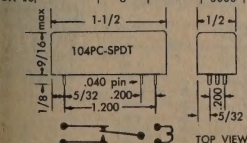
104PC SPDT, Miniature

Ultra-Reliable
encapsulated
printed circuit
construction
described on page 5.



Nom. Power, 600MW
Weight, 1 oz.
True form C, no biasing magnet.
Operate, 1 ms. aver. Release, 1 ms. aver.
Contact Bounce, less than 1/2 ms. aver. N.O.
contacts; less than 2 ms. aver. N.C. contacts.
Contact Load Rating, 3 VA max. at .25 amp.
max. or 28V max., non-inductive.
Contact Resistance, 150 milliohms, aver.
Capacitance across contacts, 1.5 pf. aver.
Life Expectancy, 10 million cycles at full
load. Operating position, any.

Stock No.	Contacts	COIL—DC			Price 1 to 24
		MA	Volts	Ohms	
CX-7	SPDT	—	6V	65	10.07
CX-8		—	12V	225	10.12
CX-9		—	24V	1000	10.22
CX-10		—	8	5000	10.64



Operated relays pull in at 85% of
nominal voltage at 25°C.

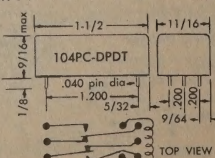
104PC DPDT, Miniature

Ultra-Reliable
encapsulated
printed circuit
construction
described on page 5.



Nom. Power, 900MW
Weight, 3 oz.
DPDT, true 2 Form C, no biasing magnet.
Operate, 1 ms. aver. Release, 1 ms. aver.
Contact Bounce, less than 1/2 ms. aver. N.O.
contacts; less than 2 ms. aver. N.C. contacts.
Contact Load Rating, 3 VA max. at .25 amp.
max. or 28V max., non-inductive.
Contact Resistance, 150 milliohms, aver.
Capacitance across contacts, 2.0 pf. aver.
Life Expectancy, 10 million cycles at full
load. Operating position, any.

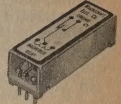
Stock Part No.	Contacts	COIL—DC			Price 1 to 24
		MA	Volts	Ohms	
W104PCX-3	DPDT	—	6V	40	14.59
W104PCX-4		—	12V	150	14.62
W104PCX-5		—	24V	650	14.68
W104PCX-6		—	8	5000	15.13



Series 104, Form C Miniature Reed

104MPC SPDT, Miniature

MPC high reliability
Printed Circuit
Construction
described at left.



Nom. Power, 500MW
Weight, 1 oz.

SPDT, true form C, no biasing magnet.
Operate, 1 ms. aver. Release, 1 ms. aver.
Contact Bounce, less than 1/2 ms. aver. N.O.
contacts; less than 2 ms. aver. N.C. contacts.

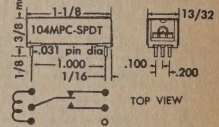
Contact Load Rating, 3 VA max. at .25 amp.
max. or 28V max., non-inductive.

Contact Resistance, 150 milliohms, aver.

Capacitance across contacts, 1.5 pf. aver.

Life Expectancy, 10 million cycles at full
load. Operating position, any.

Stock Part No.	Contacts	COIL—DC			Price 1 to 24
		Volts	Ohms		
W104MPCX-1	SPDT	6	70	6.82	
W104MPCX-2		12	300	6.83	
W104MPCX-3		24	1100	6.85	
W104MPCX-4		48	4300	6.98	

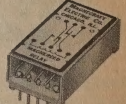


The package illustrated is a Class 102MPC
6PST-NO Standard Size Relay (page 7) cut
away to show typical assembly of one reed.

Construction of miniature MPC packages
(pages 5 and 6) and sub-miniature MPC
packages (page 9) is similar in principle to
the standard size MPC package illustrated.

104MPC DPDT, Miniature

MPC high reliability
Printed Circuit
Construction
described at left.



Nom. Power, 700MW
Weight, 2 oz.

DPDT, true 2 Form C, no biasing magnet.
Operate, 1 ms. aver. Release, 1 ms. aver.
Contact Bounce, less than 1/2 ms. aver. N.O.
contacts; less than 2 ms. aver. N.C. contacts.

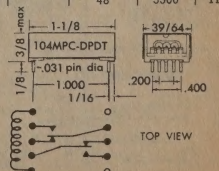
Contact Load Rating, 3 VA max. at .25 amp.
max. or 28V max., non-inductive.

Contact Resistance, 150 milliohms, aver.

Capacitance across contacts, 2.0 pf. aver.

Life Expectancy, 10 million cycles at full
load. Operating position, any.

Stock Part No.	Contacts	COIL—DC			Price 1 to 24
		Volts	Ohms		
104MPCX-5	DPDT	6	50	11.62	
104MPCX-6		12	220	11.63	
104MPCX-7		24	850	11.65	
104MPCX-8		48	3300	11.73	



Series 102, Form A Standard Size Reed

MAGNECRAFT RELAYS

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102PC SPST-NO, Standard Size

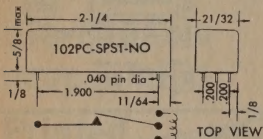
Ultra-Reliable
encapsulated
printed circuit
construction
described
on page 5.



Nom. Power, 400MW Weight, 1 oz.

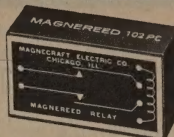
Operate, 3 ms. aver. Release, 1/2 ms. aver.
Contact Bounce, less than 1 ms. aver.
Contact Load Rating, 15VA at 1 amp. max.
or 250VAC max., non-inductive.
Contact Resistance, 100 milliohms, aver.
Life Expectancy, 20 million cycles at full
load; 100 million at 1/2 load.
Capacitance across contacts, 1.0 pf. aver.
Operating position, any.

Stock Part No.	Contacts	COIL—DC			Price 1 to 24
		MA	Volts	Ohms	
W102PCX-1	SPST-NO	—	6V	100	4.77
W102PCX-2		—	12V	400	4.83
W102PCX-3		—	24V	1500	4.87
W102PCX-4		6.5MA	—	5000	5.32



102PC DPST-NO, Standard Size

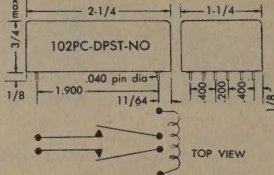
Ultra-Reliable
encapsulated
printed circuit
construction
described
on page 5.



Nom. Power, 700MW
Weight, 2 oz.

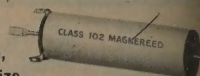
Operate, 3 ms. aver. Release, 1/2 ms. aver.
Contact Bounce, less than 1 ms. aver.
Contact Load Rating, 15VA at 1 amp. max.
or 250VAC max., non-inductive.
Contact Resistance, 100 milliohms, aver.
Life Expectancy, 20 million cycles at full
load; 100 million at 1/2 load.
Capacitance across contacts, 1.2 pf. aver.
Operating position, any.

Stock Part No.	Contacts	COIL—DC			Price 1 to 24
		MA	Volts	Ohms	
W102PCX-5	DPST-NO	—	6V	50	6.22
W102PCX-6		—	12V	200	6.28
W102PCX-7		—	24V	800	6.33
W102PCX-8		9MA	—	5000	6.78



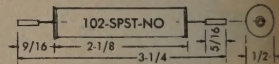
102 SPST-NO, Standard Size

Open type,
standard size,
dry reed relay with solder terminals.
Nom. Power, 300MW Weight, 1 oz.



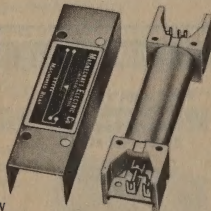
Operate, 3 ms. aver. Release, 1/2 ms. aver.
Contact Bounce, less than 1 ms. aver.
Contact Load Rating, 15VA at 1 amp. max.
or 250VAC max., non-inductive.
Contact Resistance, 100 milliohms, aver.
Life Expectancy, 20 million cycles at full
load; 100 million at 1/2 load.
Capacitance across contacts, 0.9 pf. aver.
Operating position, any.

Stock Part No.	Contacts	COIL—DC			Price 1 to 24
		MA	Volts	Ohms	
W102X-1	SPST-NO	32MA	6V	100	2.5
W102X-2		23MA	12V	200	2.5
W102X-3		14.5MA	24V	500	2.5
W102X-4		7.5MA	24V	2000	2.7
W102X-5		4.6MA	—	5000	3.2



102MPC SPST-NO, Standard Size

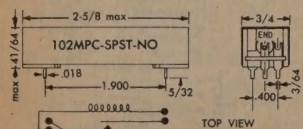
MPC,
high reliability
printed circuit
construction
described
on page 6.



Nom. Power, 500MW
Weight, 1 oz.

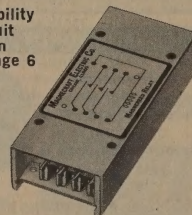
Operate, 3 ms. aver. Release, 1/2 ms. aver.
Contact Bounce, less than 1 ms. aver.
Contact Load Rating, 15VA at 1 amp. max.
or 250VAC max., non-inductive.
Contact Resistance, 100 milliohms, aver.
Life Expectancy, 20 million cycles at full
load; 100 million at 1/2 load.
Capacitance across contacts, 1.0 pf. aver.
Operating position, any.

Stock Part No.	Contacts	COIL—DC			Price 1 to 24
		MA	Volts	Ohms	
W102MPCX-5	SPST-NO	140	—	30	—
W102MPCX-6		85	6VDC	70	—
W102MPCX-7		48	12VDC	250	3.29
W102MPCX-8		24	24VDC	1000	—
W102MPCX-9		12	48VDC	4000	3.46
W102MPCX-10		9	—	7000	4.14



102MPC 3PST-NO, Standard Size

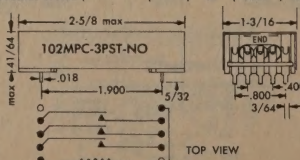
MPC high reliability
printed circuit
construction
described on page 6



Nom. Power, 750MW
Weight, 2 oz.

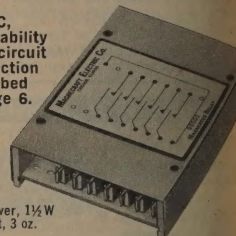
Operate, 3 ms. aver. Release, 1/2 ms. aver.
Contact Bounce, less than 1 ms. aver.
Contact Load Rating, 15VA at 1 amp. max.
or 250VAC max., non-inductive.
Contact Resistance, 100 milliohms, aver.
Life Expectancy, 20 million cycles at full
load; 100 million at 1/2 load.
Capacitance across contacts, 1.2 pf. aver.
Operating position, any.

Stock Part No.	Contacts	COIL—DC			Price 1 to 24
		MA	Volts	Ohms	
W102MPCX-48	3PST-NO	—	6	50	5.62
W102MPCX-49		—	12	175	5.63
W102MPCX-50		—	24	750	5.77
W102MPCX-51		—	48	3000	5.97



102MPC 6PST-NO, Standard Size

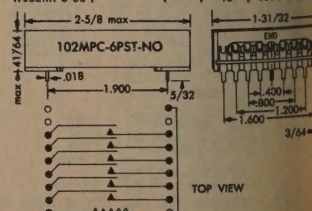
MPC,
high reliability
printed circuit
construction
described
on page 6.



Nom. Power, 1 1/2 W
Weight, 3 oz.

Operate, 3 ms. aver. Release, 1/2 ms. aver.
Contact Bounce, less than 1 ms. aver.
Contact Load Rating, 15VA at 1 amp. max.
or 250VAC max., non-inductive.
Contact Resistance, 100 milliohms, aver.
Life Expectancy, 20 million cycles at full
load; 100 million at 1/2 load.
Capacitance across contacts, 1.2 pf. aver.
Operating position, any.

Stock Part No.	Contacts	COIL—DC			Price 1 to 24
		MA	Volts	Ohms	
W102MPC-52	6PST-NO	—	6	25	9.1
W102MPC-53		—	12	100	9.3
W102MPC-54		—	24	375	9.3
W102MPC-55		—	48	1500	9.4



MAGNECRAFT RELAYS

Catalog 267, Page 8

Series 103, Form C Standard Size Reed

103PC SPDT, Standard Size

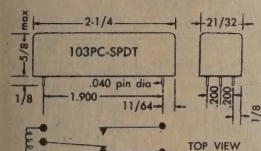
Ultra-Reliable
encapsulated
printed circuit
construction
described on
page 5.



Nom. Power, 400MW Weight, 1 oz.

True Form C, no biasing magnet.
Operate, 2 ms. aver. Release, 1/2 ms. aver.
Contact Bounce, 4 ms. average on release,
normally closed contacts.
Contact Load Rating, 10VA at 1/2 amp. max.
or 250VAC max., non-inductive.
Contact Resistance, 100 Milliohms, aver.
Life Expectancy, 25 million cycles at full
load; 50 million at 1/2 load.
Capacitance across contacts, 2.0 pf. aver.
Operating Position, any.

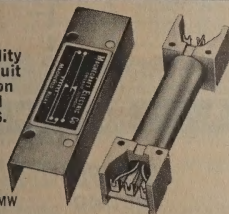
Stock Part No.	Contacts	COIL-DC			Price 1 to 24
		MA	Volts	Ohms	
103PC-1	SPDT	—	6V	100	7.22
103PC-2		—	12V	400	7.27
103PC-3		—	24V	1500	7.32
103PC-4		6.5MA	—	5000	7.76



TOP VIEW

103MPC SPDT, Standard Size

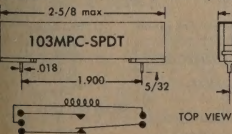
MPC,
high reliability
printed circuit
construction
described on
page 6.



Nom. Power, 500MW
Weight, 1 oz.

True Form C, no biasing magnet.
Operate, 2 ms. aver. Release, 1/2 ms. aver.
Contact Bounce, 4 ms. average on release,
normally closed contacts.
Contact Load Rating, 10VA at 1/2 amp. max.
or 250VAC max., non-inductive.
Contact Resistance, 100 Milliohms, aver.
Life Expectancy, 25 million cycles at full
load; 50 million at 1/2 load.
Capacitance across contacts, 2.0 pf. aver.
Operating Position, any.

Stock Part No.	Contacts	COIL-DC			Price 1 to 24
		MA	Volts	Ohms	
103MPC-1	SPDT	140	—	30	5.83
103MPC-2		85	6	70	5.83
103MPC-3		48	12	250	5.83
103MPC-4		24	24	1000	5.83
103MPC-5		12	48	4000	6.00
103MPC-6		9	—	7000	6.68

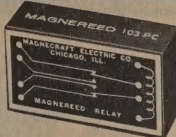


TOP VIEW

Standard operated relays pull in at 85% of nominal voltage at 25°C.

103PC DPDT, Standard Size

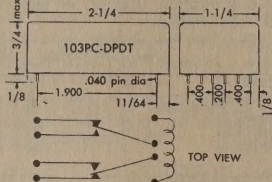
Ultra-Reliable
encapsulated
printed circuit
construction
described on
page 5.



Nom. Power, 700MW
Weight, 2 oz.

DPDT, true 2 Form C, no biasing magnet.
Operate, 2 ms. aver. Release, 1/2 ms. aver.
Contact Bounce, 4 ms. average on release,
normally closed contacts.
Contact Load Rating, 10VA at 1/2 amp. max.
or 250VAC max., non-inductive.
Contact Resistance, 100 Milliohms, aver.
Life Expectancy, 25 million cycles at full
load; 50 million at 1/2 load.
Capacitance across contacts, 3.0 pf. aver.
Operating Position, any.

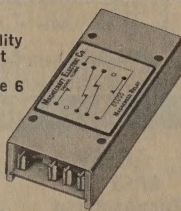
Stock Part No.	Contacts	COIL-DC			Price 1 to 24
		MA	Volts	Ohms	
103PCPX-5	DPDT	—	6V	50	10.77
103PCPX-6		—	12V	200	10.79
103PCPX-7		—	24V	800	10.84
103PCPX-8		9MA	—	5000	11.31



TOP VIEW

103MPC DPDT, Standard Size

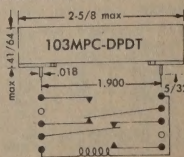
MPC high reliability
printed circuit
construction
described on page 6



Nom. Power, 750MW
Weight, 1 oz.

DPDT, true 2 Form C, no biasing magnets.
Operate, 2 ms. aver. Release, 1/2 ms. aver.
Contact Bounce, 4 ms. average on release,
normally closed contacts.
Contact Load Rating, 10VA at 1/2 amp. max.
or 250VAC max., non-inductive.
Contact Resistance, 100 Milliohms, aver.
Life Expectancy, 25 million cycles at full
load; 50 million at 1/2 load.
Capacitance across contacts, 3.0 pf. aver.
Operating Position, any.

Stock Part No.	Contacts	COIL-DC			Price 1 to 24
		MA	Volts	Ohms	
103MPCPX-30	DPDT	—	6	50	8.33
103MPCPX-31		—	12	175	8.33
103MPCPX-32		—	24	750	8.47
103MPCPX-33		—	48	3000	8.67



TOP VIEW

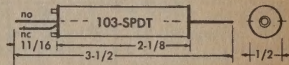
103 SPDT, Standard Size

Open type,
standard size,
dry reed relay with solder terminals.

Nom. Power, 300MW Weight, 1 oz.

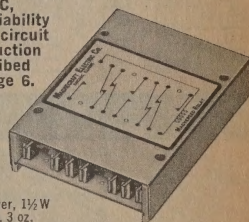
SPDT, true Form C, no biasing magnet.
Operate, 2 ms. aver. Release, 1/2 ms. aver.
Contact Bounce, 4 ms. average on release,
normally closed contacts.
Contact Load Rating, 10VA at 1/2 amp. max.
or 250VAC max., non-inductive.
Contact Resistance, 100 Milliohms, aver.
Life Expectancy, 25 million cycles at full
load; 50 million at 1/2 load.
Capacitance across contacts, 1.5 pf. aver.
Operating Position, any.

Stock Part No.	Contacts	COIL-DC			Price 1 to 24
		MA	Volts	Ohms	
103SX-8	SPDT	32MA	—	100	4.54
103SX-9		23MA	6V	200	4.75
103SX-10		14.5MA	12V	500	5.22
103SX-11		7.5MA	24V	2000	5.66
103SX-12		4.6MA	—	5000	5.79



103MPC 4PDT, Standard Size

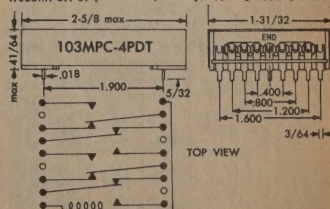
MPC,
high reliability
printed circuit
construction
described on
page 6.



Nom. Power, 1 1/2 W
Weight, 3 oz.

4PDT, 4 true Form C, no biasing magnets.
Operate, 2 ms. aver. Release, 1/2 ms. aver.
Contact Bounce, 4 ms. average on release,
normally closed contacts.
Contact Load Rating, 10VA at 1/2 amp. max.
or 250VAC max., non-inductive.
Contact Resistance, 100 Milliohms, aver.
Life Expectancy, 25 million cycles at full
load; 50 million at 1/2 load.
Capacitance across contacts, 3.0 pf. aver.
Operating Position, any.

Stock Part No.	Contacts	COIL-DC			Price 1 to 24
		MA	Volts	Ohms	
103MPCX-34	4PDT	—	6	25	14.60
103MPCX-35		—	12	100	14.70
103MPCX-36		—	24	375	14.77
103MPCX-37		—	48	1500	14.88



TOP VIEW

Mercury-Wetted and Dry Reed

MAGNECRAFT RELAYS

Catalog 267, Page 9

Mercury Wetted Reed Relays for Printed Circuit Applications

131PC SPST-NO Miniature

Nom. Power
600MW
weight 1 oz.



131PC DPST-NO Miniature

Nom. Power
900MW
weight 2 oz.



Mercury-Wetted Reed Relay performance in ultra-reliable encapsulated printed circuit assembly described on page 5.

Operate, 1 ms. aver. Release, 1 ms. aver.

Contact Bounce, none

Contact Load Rating, 28VA, 1 amp. max. or 100V max., non-inductive.

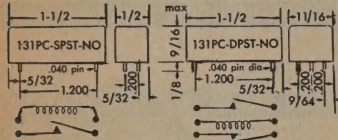
Contact Resistance, 50 milliohms aver.

Capacitance across contacts, 1.0 pf. aver.

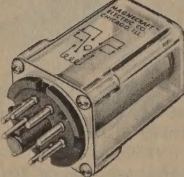
Life Expectancy, 100 million cycles at rated load.

Operating Position, Upright, not more than 30° from vertical.

Stock Part No.	Contacts	COIL—DC			Price 1 to 24
		MA	Volts	Ohms	
W131PCX-8	SPST-NO	—	6	65	8.38
W131PCX-9		—	12	250	8.44
W131PCX-10		—	24	1000	8.55
W131PCX-11		8	—	5000	9.01
W131PCX-12	DPST-NO	—	6	40	10.62
W131PCX-13		—	12	150	10.66
W131PCX-14		—	24	650	10.71
W131PCX-15		8	—	5000	11.21



103CP Dry Reed Relay Plug-in Assemblies



Dimensions: 1 3/4 x 1 3/4 x 2 1/2 in. Weight 5 oz.

Each plug-in assembly includes two or three standard size, Form C, break before make switching capsules with operating coil in plastic dust cover.

Operate, 2 ms. aver.—Release, 1/2 ms. aver.

Contact Bounce, 4 ms. average on release (normally closed contact).

Contact Load Rating, 10VA at 1/2 amp. max., or 250VAC max., non-inductive.

Contact Resistance, 100 milliohms aver.

Capacitance across contacts, 4.0 pf. aver.

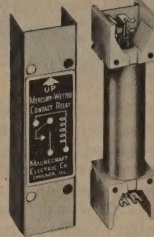
Life Expectancy, 25 million cycles at rated load; 100 million cycles at low load level.

Stock Part No.	contacts	COIL—DC			Price 1 to 24
		MA	Volts	ohms	
W103CPX-7	DPST WD-2	—	6V	75	12.92
W103CPX-8		—	12V	300	12.95
W103CPX-9		—	24V	1000	13.01
W103CPX-10		8MA	—	5000	13.57
W103CPX-11	3DPT WD-3	—	6V	40	16.77
W103CPX-12		—	12V	150	16.83
W103CPX-13		—	24V	650	16.95
W103CPX-14		10MA	—	5000	17.50

132MPC SPST-NO Standard Size

MPC high reliability
Printed Circuit
Construction
described on page 6

Nom. Power
500MW
weight 2 oz.



Operate, 2 ms. aver. Release, 2 ms. aver.

Contact bounce, none.

Contact Load Rating, 50VA at 3.0 amps., max. or 400V max., non-inductive.

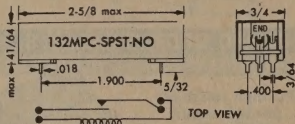
Contact Resistance, 50 milliohms average.

Capacitance across contacts, 1.0 pf. aver.

Life Expectancy, 25 million cycles at full load; 1 billion at low load.

Operating Position, Upright, not more than 30° from vertical.

Stock Part No.	Contacts	COIL—DC			Price 1 to 24
		MA	Volts	Ohms	
W132MPCX-1	SPST-NO	140	—	30	5.83
W132MPCX-2		85	6VDC	70	
W132MPCX-3		48	12VDC	250	
W132MPCX-4		24	24VDC	1000	
W132MPCX-5		12	48VDC	4000	
W132MPCX-6		9	—	7000	



133MPC SPDT Standard Size

MPC high reliability
Printed Circuit
Construction
described on page 6

Nom. Power
500MW
weight 2 oz.



Operate, 2 ms. aver. Release, 2 ms. aver.

Contact bounce, none.

Contact Load Rating, 50VA at 2.0 amps. max. or 400V max., non-inductive.

Contact Resistance, 50 milliohms average.

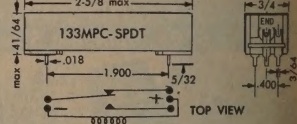
Capacitance across contacts, 3.0 pf. aver.

Life Expectancy, 25 million cycles at full load; 1 billion at low load.

Operating Position, Upright, not more than 30° from vertical.

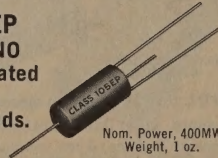
Magnetically biased, observe coil polarity

Stock Part No.	Contacts	COIL—DC			Price 1 to 24
		MA	Volts	Ohms	
W133MPCX-1	SPDT	140	—	30	8.42
W133MPCX-2		85	6VDC	70	
W133MPCX-3		48	12VDC	250	
W133MPCX-4		24	24VDC	1000	
W133MPCX-5		12	48VDC	4000	
W133MPCX-6		9	—	7000	



Micro-Miniature, Form A, Dry Reed Relays

105EP SPST-NO Encapsulated with axial leads.



Nom. Power, 400MW
Weight, 1 oz.

Micro-Miniature Reed Switch Capsule and Operating Coil are completely encapsulated in epoxy resin. Highly resistant to mechanical shock. Thoroughly protected from humidity and corrosive atmosphere.

Operate, 1/4 ms. aver.—Release, 1/2 ms. aver.

Contact Bounce, 1/2 ms. average.

Contact Load Rating, 0.1 VA max. at 10 MA max. or 12V max., non-inductive.

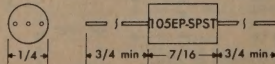
Contact Resistance, 200 milliohms, aver.

Capacitance across contacts, 0.5 pf. aver.

Life Expectancy, 10 million cycles at rated load.

Operating Position, any.

Stock Part No.	Contacts	COIL—DC			Price 1 to 24
		Volts	Ohms		
W105EPX-1	SPST-NO	6VDC	90	6.18	6.18
W105EPX-2		12VDC	350	6.18	
W105EPX-3		24VDC	1300	6.30	



105MPC SPST-NO

MPC high reliability
Printed Circuit
Construction
described on page 6

Nom. Power, 300MW
Weight, 1 oz.



Operate, 1/4 ms. aver.—Release, 1/2 ms. aver.

Contact Bounce, 1/2 ms. average.

Contact Load Rating, 0.1 VA max. at 10 MA max. or 12V max., non-inductive.

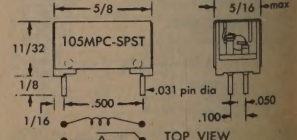
Contact Resistance, 200 milliohms, aver.

Capacitance across contacts, 0.5 pf. aver.

Life Expectancy, 10 million cycles at rated load.

Operating Position, any.

Stock Part No.	Contacts	COIL—DC			Price 1 to 24
		Volts	Ohms		
W105MPCX-1	SPDT-NO	6VDC	120	5.45	5.45
W105MPCX-2		12VDC	500	5.47	
W105MPCX-3		24VDC	2000	5.58	

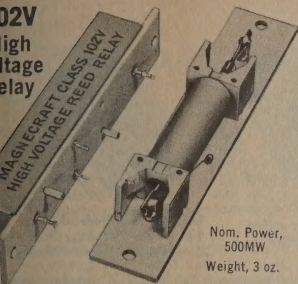


MAGNECRAFT RELAYS

Dry Reed and
Time Delay

Catalog 267, Page 10

Special Purpose Dry Reed Relays with High Reliability MPC Packaging



102V
High
Voltage
Relay

Nom. Power,
500MW
Weight, 3 oz.

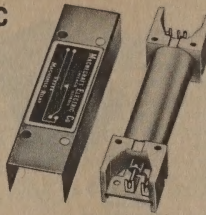
SPST-NO Contacts of special material hold up to 5000VDC with reed relay reliability. Capsule and coil assembly is similar to MPC construction, page 6. Contact pins are soldered to rigid terminal posts in epoxy resin terminal board. Internally plated metal cover provides magnetic shielding.
Rate, 3 ms. aver. Release, 0.5 ms. aver.
Contact Load Rating, 50VA at 5000VDC max or 3 amps. max., resistive.
Expectancy, 20 million cycles at rated load. Operates in any position.
Nominal Power Required, 500, MW.
Weight, approx. 4½ x 1½ x 7/8. Weight 3 oz.

Stock Part No.	Contacts	COIL—DC			Price 1 to 24
		MA	Volts	Ohms	
2VX-9	—	140	—	30	13.69
2VX-10	—	6	70	13.69	
2VX-11	SPST-NO	—	12	250	13.73
2VX-12	—	24	1000	13.78	
2VX-13	—	48	4000	14.15	
2VX-14	—	9	—	7000	14.58

102RMPC

3-amp.
Power
Relay

Nom. Power
500MW
Weight, 1 oz.



Developed especially to switch higher currents with reed relay reliability and the MPC low circuit board profile.

SPST-NO Contacts of special material. MPC construction with printed circuit terminals described on page 6. Dimensions and Wiring same as 102MPC SPST-NO described on page 7.

Operate, 1 ms. aver. Release, 1 ms. aver.
Contact Bounce, 0.5 ms. average.
Contact Resistance, 150 milliohms, aver.
Contact Load Rating, 100VA, 3 amperes max., or 250 volts, max.

Operating Position, any.

Dimensions same as 102MPC, Page 7.

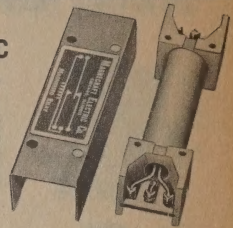
†Voltage operated relays pull in at 85% of nominal voltage at 25°C.

Stock Part No.	Contacts	COIL—DC			Price 1 to 24
		Volts	Ohms		
W102RMPCX-1	6VDC	70	7.87		
W102RMPCX-2	12VDC	250	7.88		
W102RMPCX-3	24VDC	1000	7.93		
W102RMPCX-4	48VDC	4000	8.18		

103LMPC

Magnetic
Latching
Relay

Nom. Power
150MW
Weight, 1 oz.



Ideal for memory applications. Bi-stable SPDT Contacts—biased permanent magnet holds either contact position without coil power until coil polarity is reversed.

MPC Construction with printed circuit terminals described on page 6. Dimensions and wiring same as 103MPC, page 8.

Operate, 2 ms. aver. Bounce, 3 ms. max.

Contact Resistance, 150 milliohms, aver.

Contact Load Rating, 10VA, 0.2 amp. max. or 200V max., non-inductive.

Life Expectancy, 25 million cycles at rated load. Operating Position, any.

Single Wound Coils					
W103LMPCX-3		40	—	70	7.07
W103LMPCX-4		—	6	250	7.07
W103LMPCX-5	SPDT	—	12	1000	7.07
W103LMPCX-6		—	24	4000	7.26
W103LMPCX-7		4	—	7000	8.01
Double Wound Coils					
W103LMPCX-8		80	—	30/30	8.22
W103LMPCX-9		—	6	120/120	8.33
W103LMPCX-10	SPDT	—	12	460/460	8.33
W103LMPCX-11		—	24	1800/1800	9.00
W103LMPCX-12		8	—	3000/3000	10.04

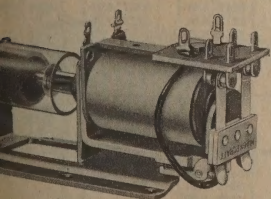
Class 110 Air Dashpot Time Delay—Operate Delay adjustable 0.2 to 45 sec.

Reliability and long life assured by proven relay contacts and construction.

Dashpot Timer precision built of non-wearing, low friction material.

Solenoid Assembly completes magnetic circuit.

Plug-in Type with Solder Terminals



Mounting holes: two holes with 6-32 and spaced 1½ x 2½ diagonally; two .156 dia. spaced 1½ x 2½ diagonally; holes .156 dia. spaced 1½.
Dimensions: 3½ long, 1½ high, 1½ wide. Weight, 6 oz.

Stock Part No.	Contacts	COIL			Price 1 to 9
		Volts	Ohms		
10X-9	24VDC	100	17.75		
10X-10	110VDC	2500	18.34		
10AX-9	115VAC*	—	20.31		

Operate Time Delay-adjustable 0.2 to 45 Seconds

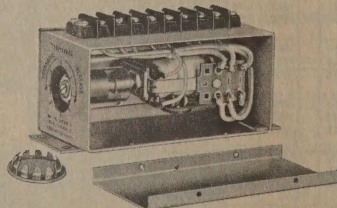
†Voltage operated relays pull in at 85% of nominal voltage at 25°C.

circuit instantaneously for positive switching that protects contacts from chattering and fritting.

Operate Delay—adjustable 0.2 to 45 seconds.

Instant Release: Air dashpot reaches

Screw Terminals—40-348 Cover



Heavy metal enclosure with snap-on cover. Snap-on cap access to timing adjustment. Screw terminals with phenolic barriers. Wiring diagram, contact specifications, coil voltage and part number on cover. Four mounting holes, .177 dia. on 4½ x 1½ centers. Dim: 5 x 2½ x 2½. Weight, 15 oz.

Stock Part No.	Contacts	COIL			Price 1 to 9
		Volts	Ohms		
W110CSX-1	24VDC	100	28.56		
W110CSX-2	110VDC	2500	29.22		
W110ACSX-1	115VAC*	—	30.07		

Operate Time Delay-adjustable 0.2 to 45 Seconds

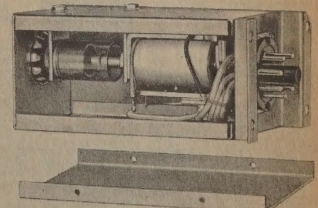
“START” position within 0.2 second.

Operates in any position. (Timing should be set in installed position.)

Timing Repeat Accuracy, ±10%.

Power Consumption, DC, 4W; AC, 7VA.

Plug-in with 40-347 Dust Cover



Phenolic octal plug with hold down bracket. Heavy metal enclosure with snap-on cover. Snap-on cap access to timing adjustment. Wiring diagram, contact specifications, coil voltage and part number on cover. Bracket has four holes, .177 dia. on 1½ x 2½ centers. Dimensions: 3½ x 2½ x 4½. Weight, 15 oz.

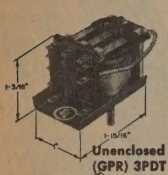
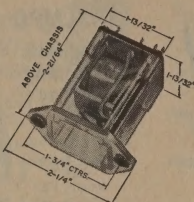
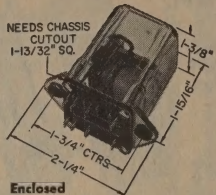
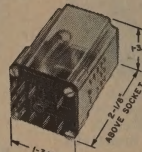
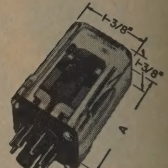
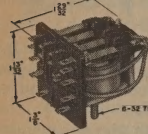
Stock Part No.	Contacts	COIL			Price 1 to 9
		Volts	Ohms		
W110CPX-10	DPDT	24VDC	100	26.78	
W110CPX-11	110VDC	2500	27.44		
W110ACPX-9	WD-2	115VAC*	—	29.79	

Operate Time Delay-adjustable 0.2 to 45 Seconds

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MODEL GPR GENERAL PURPOSE RELAYS

Unenclosed
(GPR) 3PDTEnclosed
Above-Chassis
(GPRTA)Enclosed
Thru-Chassis
(GPRTT)Enclosed for socket
mfg. (GPRTS)Enclosed Plug-Base (GPRTP)
1 & 2 pole A = 2 7/16, Octal Plug
3 pole A = 2 5/16, 11-Pin PlugUnenclosed
(GPR) 4PDT

Includes Indicator, Plate, Thyatron
and Latching Versions in Unenclosed
and Enclosed Types

Simple, rugged, low cost relays handling substantial power for small size. Uncomplicated design provides unusual flexibility for making and changing connections and mounting. Stock includes relays in versatile enclosures, some with indicator light, also plate, thyatron and latching versions. Wide commercial and industrial use where economy and versatility are important.

Basic (Unenclosed) Relay: All connections terminate on barrier-type terminal panel on combination solder—quick-connect

(push-on) lugs which accept AMP 110 female connectors. The terminal panel is conveniently incorporated into printed circuit boards. Fixed contacts are integral inlay on terminal itself. Normally furnished with a 6-32 x 1/2" mounting stud and non-tum boss (or lug for 4-pole relays). A 6-32 threaded hole is optional. Unenclosed relays can also be mounted by plugging their panels into Ohmite SOGPR sockets. See "Socket" following.

Contact Ratings: Two ratings—fine silver contacts, 5 amps at 115 VAC or 32 VDC; silver-cadmium contacts, 10 amps.

Insulation: Tested at 1500 VAC.

Coil Wattle: 1.4 watts DC operation; 160 watts (2.0 volt-amps) AC except 2.4 watts (3.70 volt-amps) for 4-pole AC and AC latching relays.

ENCLOSED RELAYS (GPRTA-, GPRTT-, GPRTS-, GPRTP-). Four types of clear plastic enclosures as follows:

Chassis Mounting Types: "GPRTA—" ("Terminals-Above-Chassis" type) has terminal panel opposite to mounting flange; "GPRTT—" ("Terminals-Through-Chassis" type) has terminal panel on same end as mounting flange, requires chassis cutout; "GPRTS" type (Terminals for Socket Use) is similar to GPRTT but has no mounting flanges. It is intended strictly for plug-in mounting in Ohmite socket "SOGPR" (see "Socket" below).

Plug Base Type: "GPRTP"—employs octal plug for 1 and 2 pole relays; 11-pin plug for 3-pole. The octal plug base is integral with relay for rigidity—is designed with recessed pins which meet UL spacing requirements (150V).

(Continued on next page)

STOCK GPR RELAYS*

5 AMP CONTACTS

10 AMP CONTACTS

Contacts	COIL DATA			Unen-		Enclosed		Enclosed		Enclosure		Enclosure		Unen-		Enclosure		Enclosure		Indicator	
				closed	Net	Above	Net	Thru-	Net	for SOGPR	Net	Plug	Net	closed	Net	for SOGPR	Net	Plug	Net	Base	Net
	Volts	Amps	Ohms	GPR	1-24	Chassis	1-24	Chassis	1-24	GPRTS	1-24	Base	1-24	GPR	1-24	GPRTS	1-24	Base	1-24	GPRTP	1-24
SPDT	6VAC	.334	4.2	-3T	3.18	-3T	5.19	-3T	5.19	-3T	5.43	-3T	5.43	-203T	3.23	-203T	3.23	-224T	5.94	-224T	5.52
DPDT	6VAC	.334	4.2	-6T	3.84	-6T	5.84	-6T	5.84	-6T	5.75	-6T	6.03	-206T	3.93	-206T	3.93	-226T	5.84	-226T	6.22
3PDT	6VAC	.334	4.2	-9T	4.24	-9T	6.74	-9T	6.74	-9T	6.85	-9T	7.48	-209T	4.38	-209T	4.38	-229T	6.84	-229T	7.77
4PDT	6VAC	.550	2.5	-103T	4.98	-103T	4.98	-103T	4.98	-103T	7.90	-103T	7.90	-438T	5.18	-438T	5.18	-458T	5.18	-458T	5.18
SPDT	12VAC	.167	17	-13T	3.18	-13T	5.19	-13T	5.19	-13T	5.19	-13T	5.43	-212T	3.23	-212T	3.23	-232T	5.94	-232T	5.52
DPDT	12VAC	.167	17	-15T	3.84	-15T	5.84	-15T	5.84	-15T	5.75	-15T	6.03	-215T	3.93	-215T	3.93	-235T	5.84	-235T	6.22
3PDT	12VAC	.167	17	-18T	4.24	-18T	6.74	-18T	6.74	-18T	6.85	-18T	7.48	-218T	4.38	-218T	4.38	-238T	6.84	-238T	7.77
4PDT	12VAC	.309	10	-106T	4.98	-106T	4.98	-106T	4.98	-106T	7.90	-106T	7.90	-436T	5.18	-436T	5.18	-456T	5.18	-456T	5.18
SPDT	24VAC	.084	65	-21T	3.18	-21T	5.19	-21T	5.19	-21T	5.43	-21T	5.43	-221T	3.23	-221T	3.23	-241T	5.94	-241T	5.52
DPDT	24VAC	.084	65	-24T	3.84	-24T	5.84	-24T	5.84	-24T	5.75	-24T	6.03	-224T	3.93	-224T	3.93	-244T	5.84	-244T	6.22
3PDT	24VAC	.084	65	-27T	4.24	-27T	6.74	-27T	6.74	-27T	6.85	-27T	7.48	-227T	4.38	-227T	4.38	-247T	6.84	-247T	7.77
4PDT	24VAC	.155	40	-104T	4.98	-104T	4.98	-104T	4.98	-104T	7.90	-104T	7.90	-434T	5.18	-434T	5.18	-454T	5.18	-454T	5.18
SPDT	115VAC	.0174	1600	-30T	3.18	-30T	5.19	-30T	5.19	-30T	5.43	-30T	5.43	-230T	3.23	-230T	3.23	-250T	5.94	-250T	5.52
DPDT	115VAC	.0174	1600	-33T	3.84	-33T	5.84	-33T	5.84	-33T	5.75	-33T	6.03	-233T	3.93	-233T	3.93	-253T	5.84	-253T	6.22
3PDT	115VAC	.0174	1600	-36T	4.24	-36T	6.74	-36T	6.74	-36T	6.85	-36T	7.48	-236T	4.38	-236T	4.38	-256T	6.84	-256T	7.77
4PDT	115VAC	.0325	1000	-112T	4.98	-112T	4.98	-112T	4.98	-112T	7.90	-112T	7.90	-442T	5.18	-442T	5.18	-462T	5.18	-462T	5.18
SPDT	230VAC	.0087	7000	-39T	3.58	-39T	5.58	-39T	5.58	-39T	5.82	-39T	5.82	-239T	3.62	-239T	3.62	-259T	5.91	-259T	5.91
DPDT	230VAC	.0087	7000	-42T	4.23	-42T	6.23	-42T	6.23	-42T	6.14	-42T	6.42	-242T	4.32	-242T	4.32	-262T	6.33	-262T	6.33
3PDT	230VAC	.0087	7000	-45T	4.83	-45T	7.13	-45T	7.13	-45T	7.04	-45T	7.57	-245T	4.77	-245T	4.77	-265T	7.33	-265T	7.33
4PDT	230VAC	.0147	4000	-115T	4.98	-115T	4.98	-115T	4.98	-115T	8.28	-115T	8.28	-445T	5.52	-445T	5.52	-465T	5.58	-465T	5.58
SPDT	6VDC	.23	26	-48T	3.04	-48T	5.04	-48T	5.04	-48T	5.30	-48T	5.38	-248T	3.08	-248T	3.08	-268T	5.49	-268T	5.47
DPDT	6VDC	.23	26	-51T	3.38	-51T	5.38	-51T	5.38	-51T	5.30	-51T	5.38	-251T	3.48	-251T	3.48	-271T	5.49	-271T	5.47
3PDT	6VDC	.23	26	-54T	3.84	-54T	6.34	-54T	6.34	-54T	6.25	-54T	6.43	-254T	3.98	-254T	3.98	-274T	6.54	-274T	6.52
4PDT	6VDC	.23	26	-118T	4.70	-118T	4.70	-118T	4.70	-118T	7.61	-118T	7.61	-448T	4.84	-448T	4.84	-468T	7.90	-468T	7.90
SPDT	12VDC	.114	105	-57T	3.04	-57T	5.04	-57T	5.04	-57T	5.30	-57T	5.38	-257T	3.08	-257T	3.08	-277T	5.49	-277T	5.47
DPDT	12VDC	.114	105	-60T	3.38	-60T	5.38	-60T	5.38	-60T	5.30	-60T	5.38	-260T	3.48	-260T	3.48	-280T	6.54	-280T	6.52
3PDT	12VDC	.114	105	-63T	3.84	-63T	6.34	-63T	6.34	-63T	6.25	-63T	6.43	-263T	3.98	-263T	3.98	-283T	7.54	-283T	7.52
4PDT	12VDC	.114	105	-121T	4.70	-121T	4.70	-121T	4.70	-121T	7.61	-121T	7.61	-451T	4.84	-451T	4.84	-471T	7.90	-471T	7.90
SPDT	24VDC	.060	400	-68T	3.04	-68T	5.04	-68T	5.04	-68T	5.30	-68T	5.38	-268T	3.08	-268T	3.08	-288T	5.49	-288T	5.47
DPDT	24VDC	.060	400	-71T	3.38	-71T	5.38	-71T	5.38	-71T	5.30	-71T	5.38	-271T	3.48	-271T	3.48	-291T	6.54	-291T	6.52
3PDT	24VDC	.060	400	-74T	3.84	-74T	6.34	-74T	6.34	-74T	6.25	-74T	6.43	-274T	3.98	-274T	3.98	-294T	7.54	-294T	7.52
4PDT	24VDC	.060	400	-124T	4.70	-124T	4.70	-124T	4.70	-124T	7.61	-124T	7.61	-454T	4.84	-454T	4.84	-474T	7.90	-474T	7.90
SPDT	110VDC	.010	10,000	-75T	2.63	-75T	5.63	-75T	5.63	-75T	5.97	-75T	5.97	-275T	3.67	-275T	3.67	-295T	6.08	-295T	6.08
DPDT	110VDC	.010	10,000	-78T	2.98	-78T	5.98	-78T	5.98	-78T	5.98	-78T	6.57	-278T	4.07	-278T	4.07	-298T	6.76	-298T	6.76
3PDT	110VDC	.010	10,000	-81T	3.43	-81T	6.43	-81T	6.43	-81T	6.43	-81T	6.57	-281T	4.57	-281T	4.57	-301T	7.81	-301T	7.81
4PDT	110VDC	.010	10,000	-127T	5.39	-127T	5.39	-127T	5.39	-127T	8.20	-127T	8.20	-457T	5.43	-457T	5.43	-477T	8.49	-477T	8.49
Approx. weight				2.5 oz.		3.0 oz.		3.0 oz.		3.0 oz.		3.5 oz.		2.5 oz.		3.5 oz.		3.5 oz.		3.5 oz.	

* Column heads carry symbols to indicate UL or CSA (Canadian Standards Assn.) approval. The grey tint indicates that relay is recognized under UL "components program" (File No. E33069, Guide No. 380W1.14C, Assignment No. 62C355A). CSA File No. is 21909. See explanation in "UL and CSA Approval."

† 4-Pole GPRTS relays are not covered by CSA.

‡ GPRTA and GPRTT types as listed by UL, differ slightly from the stock versions above and consequently, are made to order. These UL versions have a "U" added to the catalog number, such as in "GPRTAU." They also have CSA approval.

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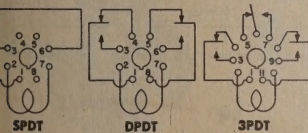
MODEL GPR GENERAL PURPOSE RELAYS

Socket (SOGPR): Unique socket fits the terminal panels of all GPR relays and provides over-the-surface spacing to meet requirements for 150 volts. Requires chassis cut-out to mount. Hold down lugs (see illustration) for unenclosed and enclosed relays, are provided with a socket but are not required except under conditions of vibration or shock. Socket solder terminals will also accept TP 110 quick-connectors. See socket list.

Indicator Relay: Incorporates light bulb to indicate energized condition of coil. Checked only in GPRTP enclosures described in preceding. Neon bulb furnished with coil ratings 70 volts and above; incandescent bulbs for coil ratings below 70 volts.

Plate Relays: Feature same physical construction as standard general purpose relays but are adjusted for greater sensitivity and can be used as electronic circuit components, i.e., in the plate circuits of standard vacuum tubes.

Thyratron Plate Relay: Designed specifically for plate circuit of thyratron tubes 2050 and 2D21 with 115 VAC supply (see diagram). Also suitable for operation in series with silicon controlled rectifiers in a 115 VAC supply. Ready to work, no capacitors or adjustments required, no solder. Available unenclosed and in most GPR enclosures.



Plug wiring schemes for
plug base (GPRTP) relays

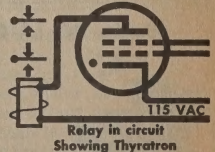
5 AMP CONTACTS

Unenclosed GPR	Enclosed Above-Chassis GPR	Enclosed Thru-Chassis GPR	Enclosed for SOGPR Socket	Enclosed Plug-Base GPRTP
Net \$ 1-24	Net \$ 1-24	Net \$ 1-24	Net \$ 1-24	Net \$ 1-24
GPRX-191T 3.35	GPRTX-191T 5.35	GPRTX-191T 5.35	GPRTX-191T 5.35	GPRTX-191T 5.35
-192T 4.00	-192T 6.00	-192T 6.00	-192T 6.00	-192T 6.00
-193T 4.40	-193T 6.80	-193T 6.80	-193T 6.80	-193T 6.80
-473T 5.15			-473T 8.06	

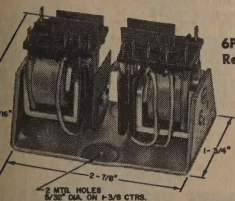
STOCK GPR THYRATRON RELAYS

10 AMP CONTACTS

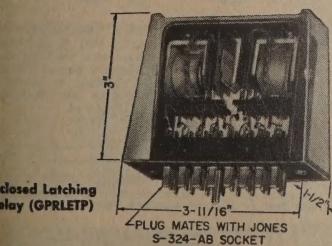
Unenclosed GPR	Enclosed Above-Chassis GPR	Enclosed Thru-Chassis GPR	Enclosed for SOGPR Socket	Enclosed Plug-Base GPRTP
Net \$ 1-24	Net \$ 1-24	Net \$ 1-24	Net \$ 1-24	Net \$ 1-24
GPRX-391T 3.39	GPRTX-391T 5.39	GPRTX-391T 5.39	GPRTX-391T 5.39	GPRTX-391T 5.39
-392T 4.09	-392T 6.09	-392T 6.09	-392T 6.09	-392T 6.09
-393T 4.54	-393T 6.54	-393T 6.54	-393T 6.54	-393T 6.54
-483T 5.29			-483T 8.35	



Relay in circuit
Showing Thyratron



6PDT Latching
Relay (GPRLE)



Enclosed Latching
Relay (GPRLETP)

3-11/16"
PLUG MOUNTS WITH JONES
S-324-AB SOCKET

STOCK "GPR" LATCHING RELAYS - 5 AMP CONTACTS

COIL DATA - (Each Coil)		Unenclosed GPRLE	Enclosed Plug-Base GPRLETP	Net \$ 1-24	Net \$ 1-24
Volts	Amps.	Net \$ 1-24	Net \$ 1-24	Net \$ 1-24	Net \$ 1-24
4PDT 6VAC	.650	2.5	GPRLEXP-1T 10.47	GPRLETPX-1T 10.47	10.47
6PDT 6VAC	.650	2.5	GPRLEXP-2T 12.57	GPRLETPX-2T 12.57	12.57
4PDT 12VAC	.309	10.0	GPRLEXP-3T 10.47	GPRLETPX-3T 10.47	10.47
6PDT 12VAC	.309	10.0	GPRLEXP-4T 12.57	GPRLETPX-4T 12.57	12.57
4PDT 24VAC	.155	40.0	GPRLEXP-5T 10.47	GPRLETPX-5T 10.47	10.47
6PDT 24VAC	.155	40.0	GPRLEXP-6T 12.57	GPRLETPX-6T 12.57	12.57
4PDT 115VAC	.0325	1000	GPRLEXP-7T 10.47	GPRLETPX-7T 10.47	10.47
6PDT 115VAC	.0325	1000	GPRLEXP-8T 12.57	GPRLETPX-8T 12.57	12.57
4PDT 230VAC	.0147	4000	GPRLEXP-9T 11.25	GPRLETPX-9T 11.25	11.25
6PDT 230VAC	.0147	4000	GPRLEXP-10T 13.35	GPRLETPX-10T 13.35	13.35
4PDT 6VDC	.23	26	GPRLEXP-11T 9.42	GPRLETPX-11T 9.42	9.42
6PDT 6VDC	.23	26	GPRLEXP-12T 11.42	GPRLETPX-12T 11.42	11.42
4PDT 12VDC	.114	105	GPRLEXP-13T 9.42	GPRLETPX-13T 9.42	9.42
6PDT 12VDC	.114	105	GPRLEXP-14T 11.42	GPRLETPX-14T 11.42	11.42
4PDT 24VDC	.060	400	GPRLEXP-15T 9.42	GPRLETPX-15T 9.42	9.42
6PDT 24VDC	.060	400	GPRLEXP-16T 11.42	GPRLETPX-16T 11.42	11.42
4PDT 110VDC	.0110	10,000	GPRLEXP-17T 10.80	GPRLETPX-17T 10.80	10.80
6PDT 110VDC	.0110	10,000	GPRLEXP-18T 12.60	GPRLETPX-18T 12.60	12.60

Approx. weight

7.0 oz.

11.3 oz.

†See paragraph, "UL & CSA Approval."

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semiconductor devices • r.f. chokes

ALL-PURPOSE RELAYS (Also see Model GPR Relays)

MODEL DO RELAY AC or DC OPERATION



Ideal for mobile equipment applications where severe shock and vibration are encountered. Coil drain: 3-watts DC, 6 watts 60 cycle AC. Contact ratings: 10 amps. at 115 v. AC; 32 volt DC resistive load. Insulation tested at 1500 v. AC. Size, (4 pole) $2\frac{1}{2} \times 1\frac{1}{4} \times \frac{1}{2}$; (3 pole) $2\frac{1}{2} \times 1\frac{1}{4} \times \frac{1}{2}$.

Stock No.	Type	Coil Data		Net 1-24	Stock No.	Type	Coil Data		Net 1-24
		V.A.C. Amps.	Volts				V.D.C. Amps.	Volts	
DOX-50T	3PDT	6	2.33	8.65	DOX-145T	3PDT	6	4.87	7.47
DOX-180T	4PDT	6	2.33	8.65	DOX-186T	4PDT	6	4.87	8.65
DOX-49T	3PDT	12	1.28	8.65	DOX-51T	3PDT	12	2.61	7.47
DOX-184T	4PDT	12	1.28	8.65	DOX-102T	4PDT	12	2.31	8.65
DOX-181T	3PDT	24	.57	8.65	DOX-141T	3PDT	24	1.05	7.47
DOX-185T	4PDT	24	.57	8.65	DOX-137T	4PDT	24	1.05	8.65
DOX-226T	1PST	115	110	8.60	DOX-93T	3PDT	110	.022	8.07
DOX-227T	1PST	115	110	9.78	DOX-187T	4PDT	110	.022	9.25
DOX-34T	4PST	115	110	7.94	DOX-182T	3PDT	220	.014	8.75
DOX-228T	4PST	115	110	9.02	DOX-184T	4PDT	220	.014	9.93
DOX-46T	3PDT	115	110	8.65					
DOX-227T	1PST	115	110	8.65					
DOX-228T	4PST	115	110	8.65					
DOX-31T	4PST	115	110	9.98					
DOX-53T	4PDT	115	110	9.85					
DOX-33T	4PDT	115	110	11.03					
DOX-61T	3PDT	230	.070	9.05					
DOX-130T	4PDT	230	.070	10.25					

† Normally open

† AC Voltage is 60 cycle

* Double Break Contacts — 20 Amp.

† Listed by UL.

MODEL DOB RELAY AC or DC OPERATION



Quality, general-purpose relays originally designed to meet rigorous aircraft specs. Extremely compact yet rugged. Coil drain: 1.5 watt DC, 3 watts at 60 cycles AC. Contact ratings: DP, 15 amps. at 115 v. AC or 32 v. DC resistive load; SP, 25 amps. Molded phenolic insulation; tested at 1500 v. AC. $1\frac{1}{2} \times 1\frac{1}{4} \times \frac{1}{2}$.

Stock No.	Type	Coil Data		Net 1-24	Stock No.	Type	Coil Data		Net 1-24
		V.A.C. Amps.	Volts				V.D.C. Amps.	Volts	
DOSX-229T	1PST	6	.890	4.84	DOSX-158T	DPDT	6	.550	4.84
DOSX-230T	1PST	6	.890	4.94	DOSX-66T	DPDT	12	.210	4.84
DOSX-30T	DPDT	6	.890	5.46	DOSX-37T	DPDT	24	1.05	4.84
DOSX-16T	3PDT	12	.460	5.46	DOSX-237T	1PST	110	.022	4.84
DOSX-231T	1PST	24	.269	4.84	DOSX-238T	1PST	110	.022	5.85
DOSX-232T	1PST	24	.269	4.94	DOSX-59T	DPDT	110	.022	5.50
DOSX-162T	DPDT	24	.269	5.46	DOSX-177T	DPDT	220	.013	6.14
DOSX-233T	1PST	115	.043	4.84					
DOSX-34T	1PST	115	.043	6.02					
DOSX-234T	1PST	115	.043	4.94					
DOSX-31T	1PST	115	.043	6.13					
DOSX-7T	DPDT	115	.043	5.46					
DOSX-33T	1PST	115	.043	6.84					
DOSX-235T	1PST	230	.030	5.24					
DOSX-236T	1PST	230	.030	5.34					
DOSX-12T	DPDT	230	.030	5.86					

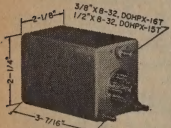
† Normally open

† AC Voltage is 60 cycle

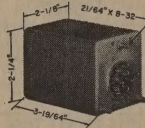
* Double Break Contacts — 25 Amp.

† Listed by UL.

DO RELAYS IN HERMETIC ENCLOSURES



DOHPX-16T, 3PDT,
14 Prongs
DOHPX-15T, 4PDT,
20 Prongs



DOHX-22T, 3PDT,
14 Terminals
DOHX-23T, 4PDT,
14 Terminals

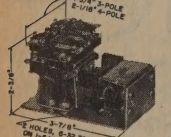
Stock DO relays with 115 volt coil in hermetically sealed metal enclosures, filled with dry nitrogen. Both 3 and 4-pole DO relays are supplied in these enclosures with plug (DOHPX-) or solder terminal (DOHX-) connectors as illustrated.

Weights: 3-pole hermetic relay approx. 14 oz.; 4-pole approx. 15 oz.

10 AMP. CONTACTS

Stock No.	Type	Coil Data		Net 1-24
		Volts	Amps.	
DOHPX-16T	3PDT	115VAC	.110	21.95
DOHPX-15T	4PDT	115VAC	.110	27.95
DOHX-22T	3PDT	115VAC	.110	21.31
DOHX-23T	4PDT	115VAC	.110	22.90

MODEL DO LATCHING RELAY (DOLEX-)



DOLEX-3T, 3PDT
DOLEX-5T, 4PDT

Consists of Model DO relay and a "reset magnet" with both armatures mechanically latched so that the normally open contacts of the relay remain closed when the relay energizing voltage is removed. The relay releases to normal position when the reset coil is pulsed. Permits "holding" of circuits without continuous coil current. Coils of stock units (both relays and reset coils) are 115VAC. Available with 3 or 4-pole relays. Weights: 3-pole—16.5 oz.; 4-pole—17 oz.

10 AMP. CONTACTS

Stock No.	Type	Coil Data		Net 1-24
		Volts	Amps.	
DOLEX-3T	3PDT	115VAC	.110	15.17
DOLEX-5T	4PDT	115VAC	.110	16.37

† Coil data applies to relay part of latching assembly. Reset magnet operates on 115VAC, 60 cycle also.

MODEL DOSY RELAY FOR PLATE CIRCUIT OPERATION



The high operating sensitivity makes the DOSY relay adaptable to a wide range of electronic control circuits, such as plate circuit controls, etc.

The insulation is of high grade, molded phenolic material. At 115 v. AC or 32 v. DC resistive load, Model DOSY relay has a contact rating of 15 amperes.

There are two DPDT types, one having 10,000 ohms coil resistance (maximum pull-in current of 8 ma. DC); the other having 5,000 ohms coil resistance. Dimensions are same as for Model DOSX next column.

Stock No.	Type	Coil Data		Net Each 1-24
		D.C. Ohms	Max. Pull-In Current	
DOSYX-67T	DPDT	10,000	8 MA	6.09
DOSYX-68T	DPDT	5,000	11 MA	6.09
DOSYX-69T	SPDT	10,000	5 MA	5.62
DOSYX-70T	SPDT	5,000	7 MA	5.62

MODEL DOS PLUG-IN & ENCL. TYPES



DOSPX-1T

DOSEPX-5T

Model DOS, DPDT relay with standard octal pin base, unenclosed or enclosed types. Enclosed type has drawn aluminum cover. Overall dimensions, exclusive of plug: DOSPX-1T— $1\frac{1}{2} \times 1\frac{1}{4} \times \frac{1}{2}$; DOSEPX-5T— $2\frac{1}{2} \times 1\frac{1}{4} \times \frac{1}{2}$. Contacts—15 amps. Similar to DOSX-7T shown under "DOS Relays" above.

Stock No.	Type	Coil Data		Net 1-24
		V.A.C.	Amps.	
DOSPX-1T Unenclosed	DPDT	115	.043	7.26
DOSEPX-5T Enclosed	DPDT	115	.043	8.30

DOS RELAYS IN HERMETIC ENCLOSURES



Hermetic Enclosures with 8 Terminals
DOSHX-39T, 115VDC
DOSHX-40T, 115VAC



Hermetic Enclosures with Octal Plugs
DOSHPX-46T, 115VDC
DOSHPX-47T, 115VAC

Hermetically Sealed non-removable enclosures, filled with dry nitrogen, are also available to provide protection under adverse ambient conditions. DOS relays with 115-volt AC or DC coils are provided in these enclosures with either octal plug (DOSHPX-) or solder-terminal (DOSHX-) connectors as illustrated. Weights: 8 oz. each approx.

15 AMP. CONTACTS

Stock No.	Type	Coil Data		Net 1-24
		Volts	Amps.	
DOSHX-40T	DPDT	115VAC	.043	13.58
DOSHPX-47T	DPDT	115VAC	.043	13.66
DOSHX-39T	DPDT	110VDC	.022	13.66
DOSHPX-46T	DPDT	110VDC	.022	13.76

MODEL DOS LATCHING RELAY (DOSLEX-)



DOSLEX-1T

Consists of Model DOS relay and a "reset magnet" with both armatures mechanically latched so that the normally open contacts of the relay remain closed when the relay energizing voltage is removed. The relay releases to normal position when the reset coil is pulsed. Permits "holding" of circuits without continuous coil current. Coils of stock units (both relay and reset magnet) are 115VAC. Weight: 14.2 oz.

15 AMP. CONTACTS

Stock No.	Type	Coil Data		Net 1-24
		Volts	Amps.	
DOSLEX-1T	DPDT	115VAC	.043	11.98

† Coil data applies to relay part of latching assembly. Reset magnet operates on 115VAC, 60 cycle also.

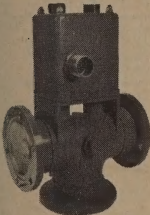
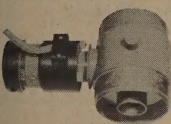
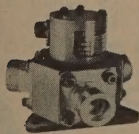
ITT Jennings VACUUM TRANSFER AND COAXIAL RELAYS



Vacuum Transfer Relays

Relay Type	RJ1A	RF10A	RB1	RB2A	RB3	RB4	RE6B
Contact arrangement	SPDT	SPDT	SPDT	2PDT	2PDT	4PDT	SPDT
Rated operating voltage— 50 or 60 cycle	2.0 kv pk	15 kv pk	12 kv pk	20 kv pk	12 kv pk	15 kv pk	25 kv pk
Rated voltage—60 cycle peak	5 kv pk	20 kv pk	18 kv pk	25 kv pk	15 kv pk	17 kv pk	30 kv pk
Continuous current—rms—amps— 50 cycle		75 amps	15 amps	20 amps	30 amps	20 amps	25 amps
60 cycle		50 amps	10 amps	12 amps	10 amps	10 amps	13 amps
60 cycle		30 amps	6 amps	6 amps	6 amps	6 amps	8 amps
Contact resistance	.010 ohms max.	.012 ohms max.	.012 ohms max.	.01 ohms max.	.01 ohms max.	.01 ohms max.	.012 ohms max.
Contact capacitance	2 pf nom.	.5 pf nom.	0.5 mmfd nom.	1 mmfd nom.	1 mmfd nom.	1 mmfd nom.	1.0 mmfd nom.
Capacitance to ground	2.5 pf nom.	1.5 pf nom.	1.0 mmfd nom.	2.5 mmfd nom.	2.5 mmfd nom.	2.5 mmfd nom.	2.0 mmfd nom.
Operate times	8 msec max.	22 msec max.	18 ms max.	20 ms max.	20 ms max.	45 ms max.	25 ms max.
Release times	335 msec max.	10 msec max.	8ms max.	10 ms max.	8 ms max.	10 ms max.	10 ms max.
Actuating coil—resistance +10%		65 ohms	265 ohms	225 ohms	120 ohms	131 ohms	120 ohms
Coil voltage	26.5 vdc	26.5 vdc	26.5 vdc	26.5 vdc	26.5 vdc	26.5 vdc	26.5 vdc
Coil inductance	50G-11 ms	30G-11 ms	50G-11 ms	30G-11 ms	30G-11 ms	30G-11 ms	30G-11 ms
Operating rate	10G to 2000 cps	5G 55-2000 cps	5G to 2000 cps	5G to 2000 cps	5G to 2000 cps	5G to 2000 cps	10G to 400cps

Vacuum Coaxial Relays

FOR 50 OHM 3/4 LINES	MECHANICAL CHARACTERISTICS	ELECTRICAL CHARACTERISTICS
 RC21	TYPE RC21 SPDT LATCHING VACUUM RELAY Line Size: 3/4 inch Fittings: "EIA," Flange type Inner Connector: Anchor type, "EIA" Bullet to Jennings spring type. Configuration "T". May be installed in place of "EIA" 50 ohm standard elbow without modification of existing coaxial line. Actuation: Permanent magnet latching, electrical or manual. Indicator: DPDT auxiliary contacts and visual indicator. Transfer time: Less than 40 millisec. Weight: 14 lbs. (approx.)	Impedance: 50 ohms Frequency: 0-500 mc Power Rating: 20 kw cw at 500 mc. 3 megawatt pk. (special order) Insertion Loss: 0.01 db max. Crosstalk: Greater than 35 db. isolation at 500 mc. VSWR: 1.1:1 max 0 to 500 mc.
 RC10	TYPE RC10 SPST LATCHING VACUUM RELAY Line Size: 3/4 inch A SPST latching relay for use at frequencies up to 100 mc. Simple fittings are available that permit assembling multiple units in crossbar networks in a minimum of space. As an example a 4 x 5 (4 inputs, 5 outputs) network can be assembled occupying less than 9 cu. ft. of space.	Characteristic Impedance: 50 ohms Power rating: 90 kw cw to 30 mc Frequency Range: 0 to 100 mc VSWR: 1.02 max. at 30 mc; 1.05 max. at 60 mc Crosstalk: Greater than 65 db isolation at 30 mc Actuating Voltage: 26.5 V DC Actuator: Latching type Position Indicators: DPDT Auxiliary Contacts
 RC5	TYPE RC5 SPST LATCHING VACUUM RELAY Line Size: 1 1/4 inch A SPST latching relay for use at frequencies up to 100 mc. The RC 5 relay has been designed to provide an extremely flexible means of remotely switching coaxial lines. Simple fittings are available for assembly of multiple units in crossbar networks in a minimum of space.	Characteristic Impedance: 50 ohms Power Rating: 25 kw cw at 30 mc Frequency Range: 0 to 100 mc VSWR: 1.02 max. at 30 mc; 1.05 max. at 60 mc Crosstalk: Greater than 70 db isolation at 30 mc Actuation: Permanent magnet latching electrical/manual Actuating Voltage: 26.5 V DC Position Indicators: DPDT Auxiliary Contacts
 RC43	RC40 SERIES VACUUM COAXIAL RELAYS These are SPDT relays for use at frequencies up to 600 mc. The RC40 series utilizes type RB1 transfer relays in specially designed and compensated housings. Three different sizes are available to accommodate a variety of standard coaxial connectors. Housings are available with the following connectors: BNC, TNC, N, UHF, HN, C, SC, and LC.	MODEL RC43 Characteristic Impedance: 50 ohms Power Rating: 15 kw peak, 1 kw cw at 600 mc, 5 kw cw at 30 mc Frequency Range: 0 to 600 mc VSWR: 1.1:1 max. Crosstalk: Greater than 30 db isolation at 300 mc Insertion Loss: 0.1 db max. Actuating Voltage: 26.5 or 115 V DC Height: 3 1/2 inches

JENNINGS RADIO MANUFACTURING CORPORATION



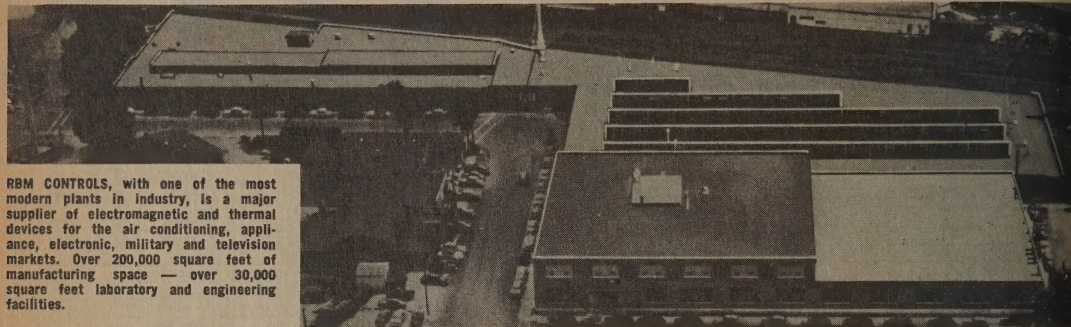
RBM CONTROLS

DIVISION OF ESSEX WIRE CORPORATION

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RBM CONTROLS

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RBM CONTROLS

PART NUMBER INDEX AND PRICES

PART						SUGGESTED PRICE						PART						SUGGESTED PRICE					
NUMBER	PG.	1-24	25-49	50-99	100-249	NUMBER	PG.	1-24	25-49	50-99	100-249	NUMBER	PG.	1-24	25-49	50-99	100-249	NUMBER	PG.	1-24	25-49	50-99	100-249
9-901	11	3.42	3.08	2.74	2.40	84D-901	11	3.05	2.75	2.44	2.14	93-910	6	3.65	3.29	2.92	2.56	93-901	6	5.50	4.95	4.40	3.85
9-902		4.12	3.71	3.30	2.89	84D-902		3.05	2.75	2.44	2.14	93-911		4.35	3.92	3.48	3.05	93-902		6.15	5.54	4.92	4.31
9-903		4.12	3.71	3.30	2.89	84D-903		3.05	2.75	2.44	2.14	93-912		4.80	4.32	3.84	3.36	93-903		7.65	6.89	6.12	5.36
9-904		3.42	3.08	2.74	2.40	84TD-901	7.57	6.82	6.06	5.30	93-913	3.10		2.79	2.48	2.17	93-904	5.50		4.95	4.40	3.85	
9-905	12	4.12	3.71	3.30	2.89	84TD-902	7.57	6.82	6.06	5.30	93-914	3.50	3.15	2.80	2.45	93-905	6.15	5.54		4.92	4.31		
9-906		4.12	3.71	3.30	2.89	84TD-903	7.57	6.82	6.06	5.30	93-915	4.00	3.60	3.20	2.80								
9-901		12	2.70	2.43	2.16	1.89	84TE-901	7.57	6.82	6.06	5.30	93-916	3.10	2.79	2.48	2.17							
9-902			2.70	2.43	2.16	1.89	84TE-902	7.57	6.82	6.06	5.30	93-917	3.50	3.15	2.80	2.45							
9-903	2.70		2.43	2.16	1.89	84TE-903	7.57	6.82	6.06	5.30	93-918	4.00	3.60	3.20	2.80								
9-904	2.70		2.43	2.16	1.89						93-919	3.10	2.79	2.48	2.17								
9-901	12	3.74	3.37	3.00	2.62	85-901	8	10.80	9.72	8.64	7.56	93-920	6	3.50	3.15	2.80	2.45						
9-902		3.74	3.37	3.00	2.62	85-902		10.80	9.72	8.64	7.56	93-921		4.00	3.60	3.20	2.80						
9-903		3.74	3.37	3.00	2.62	85-903		10.80	9.72	8.64	7.56	93-922		3.70	3.33	2.96	2.59						
9-904		3.74	3.37	3.00	2.62						93-923	4.10		3.69	3.28	2.87							
9-905	12	5.97	5.37	4.77	4.18	91-180-1	5	.60	.54	.48	.42	93-924	6	4.60	4.14	3.68	3.22						
9-906		5.97	5.37	4.77	4.18	91-901		5.14	4.63	4.11	3.60	93-931		3.20	2.88	2.56	2.24						
9-907		5.97	5.37	4.77	4.18	91-902		5.37	4.84	4.30	3.76	93-932		3.85	3.47	3.08	2.70						
9-908		5.97	5.37	4.77	4.18	91-903	5.57	5.02	4.46	3.90	93-933	4.25		3.83	3.40	2.98							
9-909	12	9.54	8.59	7.64	6.68	91-904	5	4.94	4.45	3.96	3.46	93-934	6	3.20	2.88	2.56	2.24						
9-910		9.54	8.59	7.64	6.68	91-905		5.17	4.66	4.14	3.67	93-935		3.85	3.47	3.08	2.70						
9-911		9.54	8.59	7.64	6.68	91-906		5.37	4.84	4.30	3.76	93-936		4.25	3.83	3.40	2.98						
9-912		9.54	8.59	7.64	6.68	91-907	4.84	4.36	3.87	3.39	93-937	3.20		2.88	2.56	2.24							
9-901	8	4.59	4.13	3.67	3.21	91-908	12	5.07	4.57	4.06	3.55	93-938	6	3.85	3.47	3.08	2.70						
9-902		4.59	4.13	3.67	3.21	91-909		5.27	4.75	4.22	3.69	93-939		4.25	3.83	3.40	2.98						
9-903		4.59	4.13	3.67	3.21	91D-901		4.84	4.36	3.87	3.39	93-940		3.60	3.24	2.88	2.52						
9-904		4.59	4.13	3.67	3.21	91D-902	4.84	4.36	3.87	3.39	93-941	4.25		3.83	3.40	2.98							
9-905	8	4.59	4.13	3.36	3.21	91D-903	12	4.84	4.36	3.87	3.39	93-942	6	4.65	4.19	3.72	3.26						
9-906		4.59	4.13	3.36	3.21	91D-911		4.96	4.47	3.97	3.48	93-943		3.05	2.75	2.44	2.14						
9-907		4.59	4.13	3.36	3.21	91D-912		4.96	4.47	3.97	3.48	93-944		3.40	3.06	2.72	2.38						
9-908		4.59	4.13	3.36	3.21	91D-913	4.96	4.47	3.97	3.48	93-945	3.40		3.06	2.72	2.38							
9-901	8	7.27	6.54	5.82	5.09	92-901	5	5.87	5.29	4.70	4.11	93-946	6	3.85	3.47	3.08	2.70						
9-902		7.27	6.54	5.82	5.09	92-902		6.07	5.47	4.86	4.25	93-947		3.05	2.75	2.44	2.14						
9-903		7.27	6.54	5.82	5.09	92-903		6.24	5.62	5.00	4.37	93-948		3.40	3.06	2.72	2.38						
9-904		7.27	6.54	5.82	5.09	92-904	5.79	5.21	4.63	4.05	93-949	3.85		3.47	3.08	2.70							
9-901	13	8.42	7.58	6.74	5.90	92-905	5	5.99	5.39	4.79	4.19	93-950	6	3.05	2.75	2.44	2.14						
9-902		8.42	7.58	6.74	5.90	92-906		6.14	5.53	4.92	4.30	93-951		3.40	3.06	2.72	2.38						
9-903		8.42	7.58	6.74	5.90	92-907		5.70	5.13	4.56	3.99	93-952		3.85	3.47	3.08	2.70						
9-904		8.42	7.58	6.74	5.90	92-908	5.90	5.31	4.72	4.13	93-953	3.65		3.29	2.92	2.56							
9-901	5	2.85	2.57	2.28	2.00	92-909	12	6.05	5.45	4.84	4.24	93-954	6	4.45	4.01	3.56	3.12						
9-902		2.90	2.61	2.32	2.03	92-910		5.64	5.08	4.51	3.95	93-955		3.40	3.06	2.72	2.38						
9-903		3.05	2.75	2.44	2.14	92-911		5.84	5.26	4.67	4.09	93-956		4.00	3.60	3.20	2.80						
9-904		3.35	3.02	2.68	2.35	92-912	5.99	5.39	4.80	4.20	93-957	3.85		3.47	3.08	2.70							
9-905	5	3.00	2.70	2.40	2.10	92D-901	12	5.84	5.26	4.67	4.09	93-958	6	3.20	2.88	2.56	2.24						
9-906		3.20	2.88	2.56	2.24	92D-902		5.84	5.26	4.67	4.09	93-959		3.85	3.47	3.08	2.70						
9-907		3.35	3.02	2.68	2.35	92D-903		5.84	5.26	4.67	4.09	93-960		3.20	2.88	2.56	2.24						
9-908		3.59	3.24	2.87	2.52	92D-911	6.04	5.44	4.84	4.23	93-961	3.85		3.47	3.08	2.70							
9-912	5	2.90	2.61	2.32	2.03	92D-912	12	6.04	5.44	4.84	4.23	93-962	6	4.25	3.83	3.40	2.98						
9-913		3.05	2.75	2.44	2.14	92D-913		6.04	5.44	4.84	4.23	93-963		3.05	2.75	2.44	2.14						
9-914		3.35	3.02	2.68	2.35							93-964		3.40	3.06	2.72	2.38						
9-915		3.20	2.88	2.56	2.24	93-153-1	.60	.54	.48	.42	93-965	3.85		3.47	3.08	2.70							
9-917	5	3.35	3.02	2.68	2.35	93-901	6	3.25	2.93	2.60	2.28	93-966	6	3.05	2.75	2.44	2.14						
9-918		3.59	3.24	2.87	2.52	93-902		3.95	3.56	3.16	2.74	93-967		3.40	3.06	2.72	2.38						
9-922		2.90	2.61	2.32	2.03	93-903		4.40	3.96	3.52	3.08	93-968		3.85	3.47	3.08	2.70						
9-923		3.05	2.75	2.44	2.14	93-904	3.25	2.93	2.60	2.28	93-969	3.05		2.75	2.44	2.14							
9-924	5	3.35	3.02	2.68	2.35	93-905	6	3.95	3.56	3.16	2.74	93-970		6	5.50	4.95	4.40	3.85					
9-925		3.20	2.88	2.56	2.24	93-906		4.40	3.96	3.52	3.08	93-971	6.15		5.54	4.92	4.31						
9-926		3.35	3.02	2.68	2.35	93-907		3.25	2.93	2.60	2.28	93-972	7.65		6.89	6.12	5.36						
9-927		3.59	3.24	2.87	2.52	93-908	3.95	3.56	3.16	2.74	93-973	5.50	4.95		4.40	3.85							
9-928		3.59	3.24	2.87	2.52	93-909	4.40	3.96	3.52	3.08	93-974	6.15	5.54		4.92	4.31							

CONSULT YOUR RBM CONTROLS AUTHORIZED STOCKING DISTRIBUTOR FOR FACTORY PRICES IN LARGER QUANTITIES

PART NUMBER	PG.	SUGGESTED PRICE			
		1-24	25-49	50-99	100-249
93P-906		7.65	6.89	6.12	5.36
93P-907		5.50	4.95	4.40	3.85
93P-908		6.15	5.54	4.92	4.31
93P-909		7.65	6.89	6.12	5.36
93P-910		5.90	5.31	4.72	4.13
93P-911		6.55	5.90	5.24	4.59
93P-912		8.05	7.25	6.44	5.64
93P-913		5.45	4.91	4.36	3.82
93P-914		6.10	5.49	4.88	4.27
93P-915	6	7.60	6.84	6.08	5.32
93P-916		5.45	4.91	4.36	3.82
93P-917		6.10	5.49	4.88	4.27
93P-918		7.60	6.84	6.08	5.32
93P-919		5.45	4.91	4.36	3.82
93P-920		6.10	5.49	4.88	4.27
93P-921		7.60	6.84	6.08	5.32
93P-922		6.05	5.45	4.84	4.24
93P-923		6.70	6.03	5.36	4.69
93P-924		8.20	7.38	6.56	5.74
93P-931		5.45	4.91	4.36	3.82
93P-932		6.05	5.45	4.84	4.24
93P-933		7.50	6.75	6.00	5.25
93P-934		5.45	4.91	4.36	3.82
93P-935		6.05	5.45	4.84	4.24
93P-936		7.50	6.75	6.00	5.25
93P-937		5.45	4.91	4.36	3.82
93P-938		6.05	5.45	4.84	4.24
93P-939		7.50	6.75	6.00	5.25
93P-940		5.85	5.27	4.68	4.10
93P-941		6.45	5.81	5.16	4.52
93P-942	6	7.90	7.11	6.32	5.53
93P-943		5.40	4.86	4.32	3.78
93P-944		6.00	5.40	4.80	4.20
93P-945		7.45	6.71	5.96	5.22
93P-946		5.40	4.86	4.32	3.78
93P-947		6.00	5.40	4.80	4.20
93P-948		7.45	6.71	5.96	5.22
93P-949		5.40	4.86	4.32	3.78
93P-950		6.00	5.40	4.80	4.20
93P-951		7.45	6.71	5.96	5.22
93P-952		6.00	5.40	4.80	4.20
93P-953		6.60	5.94	5.28	4.62
93P-954		8.05	7.25	6.44	5.64
93Q-901		3.75	3.38	3.00	2.63
93Q-902		4.50	4.05	3.60	3.15
93Q-903		5.00	4.50	4.00	3.50
93Q-904		3.75	3.38	3.00	2.63
93Q-905		4.50	4.05	3.60	3.15
93Q-906		5.00	4.50	4.00	3.50
93Q-907		3.75	3.38	3.00	2.63
93Q-908		4.50	4.05	3.60	3.15
93Q-909		5.00	4.50	4.00	3.50
93Q-910		4.15	3.74	3.32	2.91
93Q-911		4.90	4.41	3.92	3.43
93Q-912		5.40	4.86	4.32	3.78
93Q-913		4.60	4.14	3.68	3.22
93Q-914	6	4.05	3.65	3.24	2.84
93Q-915		4.60	4.14	3.68	3.22
93Q-916		3.60	3.24	2.88	2.52
93Q-917		4.05	3.65	3.24	2.84
93Q-918		4.60	4.14	3.68	3.22
93Q-919		3.60	3.24	2.88	2.52
93Q-920		4.05	3.65	3.24	2.84
93Q-921		4.60	4.14	3.68	3.22
93Q-922		4.20	3.78	3.36	2.94
93Q-923		4.65	4.19	3.72	3.26
93Q-924		5.20	4.68	4.16	3.64
93Q-931		3.70	3.33	2.96	2.59
93Q-932		4.40	3.96	3.52	3.08
93Q-933		4.85	4.37	3.88	3.40
93Q-934		7.70	6.93	6.16	5.39
93Q-935		4.40	3.96	3.52	3.08
93Q-936		4.85	4.37	3.88	3.40
93Q-937		3.70	3.33	2.96	2.59
93Q-938		4.40	3.96	3.52	3.08
93Q-939		4.85	4.37	3.88	3.40
93Q-940		4.10	3.69	3.28	2.87
93Q-941	6	4.80	4.32	3.84	3.36
93Q-942		5.25	4.73	4.20	3.68
93Q-943		3.55	3.20	2.84	2.49
93Q-944		3.95	3.56	3.16	2.74
93Q-945		4.45	4.01	3.56	3.12
93Q-946		3.55	3.20	2.84	2.49
93Q-947		3.95	3.56	3.16	2.74
93Q-948		4.45	4.01	3.56	3.12
93Q-949		3.55	3.20	2.84	2.49
93Q-950		3.95	3.56	3.16	2.74
93Q-951		4.45	4.01	3.56	3.12

PART NUMBER	PG.	SUGGESTED PRICE			
		1-24	25-49	50-99	100-249
93Q-952		4.15	3.74	3.32	2.91
93Q-953		4.55	4.10	3.64	3.19
93Q-954		5.05	4.55	4.04	3.54
129-901		3.89	3.50	3.11	2.72
129-902		3.94	3.55	3.16	2.76
129-903		4.05	3.65	3.24	2.84
129-904		4.14	3.73	3.31	2.90
129-905	5	4.32	3.89	3.46	3.03
129-906		4.37	3.94	3.50	3.06
129-907		4.50	4.05	3.60	3.15
129-908		4.59	4.14	3.68	3.22
129A-901		6.64	5.98	5.31	4.65
129A-902		6.94	6.25	5.55	4.86
129A-903		7.25	6.53	5.80	5.08
129A-904	5	7.24	6.52	5.80	5.07
129A-905		7.54	6.79	6.04	5.28
129A-906		7.85	7.07	6.28	5.50
129TD-901		8.57	7.72	6.86	6.00
129TD-902	11	8.57	7.72	6.86	6.00
142TE-901		18.00	16.20	14.40	12.60
142TE-902		18.00	16.20	14.40	12.60
142TE-903		18.00	16.20	14.40	12.60
142TE-911		18.00	16.20	14.40	12.60
142TE-912	11	18.00	16.20	14.40	12.60
142TE-913		18.00	16.20	14.40	12.60
142TE-921		18.00	16.20	14.40	12.60
142TE-922		18.00	16.20	14.40	12.60
142TE-923		18.00	16.20	14.40	12.60
143-901		4.78	4.30	3.83	3.35
143-902		4.78	4.30	3.83	3.35
143-903		4.78	4.30	3.83	3.35
143-911		4.78	4.30	3.83	3.35
143-912		4.78	4.30	3.83	3.35
143-913		4.78	4.30	3.83	3.35
987-901		3.90	3.51	3.12	2.73
987-902		4.10	3.69	3.28	2.87
987-903		4.20	3.78	3.36	2.94
987-904		4.44	4.00	3.55	3.11
987-905		4.02	3.62	3.22	2.82
987-906		4.22	3.80	3.38	2.96
987-907		4.35	3.92	3.48	3.05
987-908		4.55	4.10	3.64	3.19
987-909		4.47	4.02	3.58	3.13
987-910		4.66	4.20	3.73	3.26
987-911		4.79	4.32	3.83	3.36
987-912		4.99	4.50	4.00	3.50
987-913		5.02	4.52	4.02	3.52
987-914		5.22	4.70	4.18	3.66
987-915		5.35	4.82	4.28	3.75
987-916		5.55	5.00	4.44	3.89
BRM-901		1.25	1.13	1.00	.88
BRM-902	15	1.35	1.22	1.08	.95
BRMR1-901		5.11	4.60	4.09	3.58
BRMR1-902	16	5.16	4.64	4.13	3.61
BRMR1-903		5.26	4.73	4.21	3.68
BRMR2-901		7.15	6.43	5.72	5.00
BRMR2-902	16	7.18	6.46	5.74	5.03
BRMR2-903		7.24	6.52	5.79	5.07
BRMR4-901		11.22	10.10	8.98	7.86
BRMR4-902	16	11.25	10.13	9.00	7.88
BRMR4-903		11.31	10.18	9.05	7.92
BRS-901		1.25	1.13	1.00	.88
BRSR1-901		4.77	4.30	3.82	3.34
BRSR1-902	16	4.83	4.35	3.87	3.39
BRSR1-903		4.87	4.39	3.90	3.41
BRSR2-901		6.22	5.60	4.98	4.36
BRSR2-902	16	6.28	5.65	5.03	4.40
BRSR2-903		6.33	5.70	5.07	4.44
BRSR4-901		9.12	8.21	7.30	6.39
BRSR4-902	16	9.18	8.27	7.35	6.43
BRSR4-903		9.23	8.31	7.39	6.47
BRSR6-901		12.02	10.82	9.62	8.42
BRSR6-902	16	12.08	10.88	9.67	8.46
BRSR6-903		12.13	10.92	9.71	8.50
CA-901		5.76	4.33	4.33	4.33
CA-902		7.80	5.85	5.85	5.85
CA-903	10	10.40	7.80	7.80	7.80
CA-904		9.66	7.25	7.25	7.25
C15-901		19.80	17.82	15.84	13.86
C15-902		19.80	17.82	15.84	13.86
C15-903	9	19.80	17.82	15.84	13.86
C15-904		19.80	17.82	15.84	13.86

PART NUMBER	PG.	SUGGESTED PRICE			
		1-24	25-49	50-99	100-249
CR15-901	9	24.30	38.88	34.56	30.24
CR15-902		43.20	38.88	34.56	30.24
CR15-903		43.20	38.88	34.56	30.24
C30-901	9	24.30	21.87	19.44	17.01
C30-902		24.30	21.87	19.44	17.01
C30-903		24.30	21.87	19.44	17.01
CR30-901	9	52.10	46.89	41.68	36.47
CR30-902		52.10	46.89	41.68	36.47
CR30-903		52.10	46.89	41.68	36.47
C50R-901	9	26.00	23.40	20.80	18.20
C50R-902		26.00	23.40	20.80	18.20
C50R-903		26.00	23.40	20.80	18.20
C50R-904		26.00	23.40	20.80	18.20
MC-901	10	4.68	3.51	3.51	3.51
MC-902		4.68	3.51	3.51	3.51
MC-903		4.68	3.51	3.51	3.51
MC-904		4.68	3.51	3.51	3.51
MC-905		4.68	3.51	3.51	3.51
MC-911		4.82	3.62	3.62	3.62
MC-912		4.82	3.62	3.62	3.62
MC-913		4.82	3.62	3.62	3.62
MC-914		4.82	3.62	3.62	3.62
MC-915	4.82	3.62	3.62	3.62	
MS25-901	13	3.25	2.93	2.60	2.28
MS25-902		3.38	3.05	2.71	2.36
MS25-903		3.84	3.46	3.07	2.69
MS25-904	13	3.56	3.21	2.85	2.49
MS25-905		4.10	3.69	3.28	2.87
MS25-906		5.05	4.55	4.04	3.54
MS25P-901	13	5.76	5.19	4.61	4.04
MS25P-902		5.90	5.31	4.72	4.13
MS25P-903		6.37	5.74	5.10	4.46
MS25P-904		6.00	5.40	4.80	4.20
MS25P-905		6.45	5.76	5.18	4.45
MS25P-906		7.35	6.62	5.88	5.15
MS50-901	14	4.10	3.69	3.28	2.87
MS50-902		4.15	3.74	3.32	2.91
MS50-903		4.20	3.78	3.36	2.95
MS50-904		4.38	3.94	3.53	3.07
MS50-905		4.92	4.43	3.94	3.44
MS50-906		5.87	5.28	4.70	4.11
MS50-921		5.00	4.50	4.00	3.50
MS50-922		5.03	4.53	4.03	3.52
MS50-923		5.08	4.57	4.06	3.55
MS50-924		5.29	4.76	4.23	3.70
MS50-925		5.82	5.24	4.66	4.07
MS50-926		6.77	6.09	5.42	4.74
MS50P-901	14	6.14	5.53	4.92	4.30
MS50P-902		6.19	5.58	4.96	4.34
MS50P-903		6.30	5.67	5.04	4.41
MS50P-904		6.40	5.76	5.12	4.48
MS50P-905		6.80	6.12	5.44	4.76
MS50P-906		8.25	7.43	6.60	5.77
MS50P-921		7.35	6.61	5.88	5.15
MS50P-922		7.38	6.64	5.90	5.17
MS50P-923		7.43	6.68	5.94	5.20
MS50P-924	7.85	7.07	6.28	5.55	
MS50P-925	8.25	7.43	6.60	5.78	
MS50P-926	9.15	8.23	7.33	6.40	
MS64-901	14	2.37	2.13	1.90	1.66
MS64-902		2.44	2.20	1.96	1.71
MS64-903		2.82	2.54	2.27	1.97
MS64-904		2.96	2.66	2.37	2.07
MS64-911		2.43	2.19	1.95	1.70
MS64-912		2.51	2.26	2.02	1.75
MS64-913	8	2.85	2.60	2.32	2.02
MS64-914		3.00	2.71	2.42	2.12
RP-901	10	4.28	3.22	3.22	3.22
RP-902		7.82	5.92	5.99	5.19
RP-903		7.82	5.87	5.87	5.87
S30-901	8	11.55	10.40	9.24	8.09
S30-902		11.55	10.40	9.24	8.09
S30-903		11.55	10.40	9.24	8.09
S40-901	8	13.10	11.79	10.48	9.17
S40-902		13.10	11.79	10.48	9.17
S40-903		13.10	11.79	10.48	9.17
TRM-901	15	6.50	5.85	5.20	4.55
TRMR1-901	10	10.07	9.06	8.06	7.05
TRMR1-902		10.12	9.11	8.10	7.08
TRMR1-903		10.22	9.20	8.18	7.15
TRMR2-901	16	14.59	13.13	11.67	10.21
TRMR2-902		14.62	13.16	11.70	10.23
TRMR2-903		14.68	13.21	11.74	10.28
UE-901	10	6.00	5.40	4.80	4.20

RBM CONTROLS

CONTACT RATING SELECTOR

4

ALTERNATING CURRENT CONTROLS

GENERAL PURPOSE RELAYS—GENERAL REPLACEMENT RELAYS—TIME DELAY RELAYS—POWER & INDUSTRIAL CONTACTORS

MAXIMUM CONTINUOUS LOAD IN AMPERES (INDUCTIVE)	NUMBER OF POLES											
	SINGLE POLE			TWO POLE			THREE POLE			FOUR POLE		
	CLASSIFICATION	TYPE	PAGE	CLASSIFICATION	TYPE	PAGE	CLASSIFICATION	TYPE	PAGE	CLASSIFICATION	TYPE	PAGE
LOW LEVEL arma-couple, at lights, etc.	Time Delays	*84T	11	General Purpose	*91	5	General Purpose	92 93	5 6	General Replacement	*987	7
3	Time Delays	*84T 59	11	General Purpose General Replacement	*91 *987	5 7	General Purpose	*92	5	General Replacement	*987	7
5	General Purpose	*93	6	General Purpose	*93	6	General Purpose	*93	6			
8	General Purpose	84	5									
10	General Purpose	93	6	General Purpose Time Delays	93 142T	6 11	General Purpose	*93	6			
12				General Purpose	91	5						
15	General Replacement	987	7	General Replacement	987	7				Industrial Contactors	C15 CR15	9
18	General Purpose Time Delays	129 129T	5 11	Power Contactors	143 75	7 8	General Purpose	92	5			
25				Power Contactors 25 amp. Type 143 Resistive Only	80 143	8 7	Power Contactors	85	8			
30							Power Contactors Industrial Contactors	S30 C30 CR30	8 9			
40							Power Contactors	S40	8			
50 (Resistive Only)										Industrial Contactors	CSOR	9

UNIVERSAL ENCLOSURE, REPLACEMENT CONTACTS, CONTACT BLOCK AND CARRIER, MAGNET COILS, MAGNET AND ARMATURE ASSEMBLIES FOR TYPE C CONTACTORS—PAGE 10

Indicates relays have special alloy contacts—designed expressly for low level current.

DIRECT CURRENT CONTROLS

REED SWITCHES—REED RELAYS—CURRENT SENSITIVE RELAYS—COMPUTER RELAYS—GENERAL PURPOSE RELAYS

MAXIMUM CONTINUOUS LOAD IN AMPERES (INDUCTIVE)	NUMBER OF POLES											
	SINGLE POLE			TWO POLE			THREE POLE			FOUR POLE		
	CLASSIFICATION	TYPE	PAGE	CLASSIFICATION	TYPE	PAGE	CLASSIFICATION	TYPE	PAGE	CLASSIFICATION	TYPE	PAGE
CIRCUIT TO 0.125	Reed Switches	*BRM *BRS *TRM	15	Reed Relays	*BRMR2 *BRSR2 *TRMR2	16	Current Sensitive	*MS50 *MS50P	14	Reed Relays	*BRMR4 *BRSR4	16
	Reed Relays	*BRMR1 *BRSR1 *TRMR1	16							Computer	*81	13
	Current Sensitive	*MS25 *MS25P *MS64	13	Current Sensitive	*MS50 *MS50P	14						
0.250	Reed Switches	*BRS *TRM	15	Reed Relays	*BRSR2 *TRMR2	16	Current Sensitive	*MS50 *MS50P	14	Reed Relays	*BRSR4	16
	Reed Relays	*BRMR1 *BRSR1 *TRMR1	16							Computer	*81	13
	Current Sensitive	*MS25 *MS25P *MS64	13	Current Sensitive	*MS50 *MS50P	14						
1.0	Reed Switches	*BRS	15	Reed Relays	*BRSR2	16	Current Sensitive	*MS50 *MS50P	14	Reed Relays	*BRSR4	16
	Reed Relays	*BRMR1 *BRSR1 *TRMR1	16							Computer	*81	13
	Current Sensitive	*MS25 *MS25P *MS64	13	Current Sensitive	*MS50 *MS50P	14						
2.0	Current Sensitive	*MS25 *MS25P *MS64	13	Current Sensitive	*MS50 *MS50P	14	Current Sensitive	*MS50 *MS50P	14	Computer	*81	13
3.0	General Purpose	84D	11	General Purpose	*91D	12	General Purpose	*92D	12			
5.0 (Resistive Only)				Time Delays	142T	11						
10 (Resistive Only)				General Purpose	91D	12	General Purpose	92D	12			

SINGLE POLE POWER CONTACTORS (7½ TO 80 AMPERES).....PAGE 12

Indicates relays have special alloy contacts—designed expressly for low level current.

TYPE 84



FIGURE 1

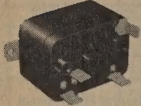


FIGURE 2

APPROX. OVERALL DIMENSIONS
2 3/8" x 1 1/8" x 1 1/2"

Totally Enclosed
Screw or Quick Connect Terminals
Operates any Position

SINGLE POLE NORMALLY OPEN and SINGLE POLE DOUBLE THROW

COIL VOLTAGE (50/60 cy)	PART NUMBER FIGURE 1		CONTACT RATING 125/250 V. A.C.	
	1PNO	1PDT	INDUCTIVE	RESISTIVE
6	84-901	84-905	N.O. 8 AMPS. CONTINUOUS 25 AMP. INRUSH	N.O. 16 AMPS. CONTINUOUS
24	84-902	84-906		
115/120	84-903	84-907		
230/240	84-904	84-908		
COIL VOLTAGE (50/60 cy)	PART NUMBER FIGURE 2		D.T. 8 AMPS. CONTINUOUS 18 AMPS. INRUSH	D.T. 8 AMPS. CONTINUOUS
	1PNO	1PDT		
24	84-912	84-916		
115/120	84-913	84-917		
230/240	84-914	84-918		
24	84-922	84-926	3 AMPS. @ 125 V. A.C. OR 1.5 AMPS. @ 250 V. A.C. PILOT DUTY	
115/120	84-923	84-927		
230/240	84-924	84-928		

*See Type 84D for D.C. Contact Ratings. Quick Connect Wiring Terminals Included.

TYPE 129



FIGURE 1

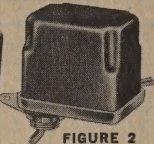


FIGURE 2

APPROX. OVERALL DIMENSIONS
FIG. 1. 2 3/8" x 1 1/8" x 1 1/8"
FIG. 2. 2 3/4" x 2 1/8" x 3 1/4"

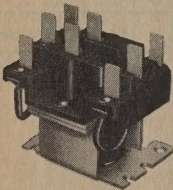
Totally Enclosed
Operates any Position

SINGLE POLE NORMALLY OPEN and SINGLE POLE DOUBLE THROW

COIL VOLTAGE (50/60 cy)	PART NUMBER				CONTACT RATING 250 V. A.C. MAX.	
	FIGURE 1		FIGURE 2		INDUCTIVE	RESISTIVE
6	129-901	129-905			18 AMP. CONTINUOUS 1 H.P.-125V. 1 1/2 H.P.	18 AMP. CONTINUOUS
24	129-902	129-906	129AR-901	129AR-904		
115/120	129-903	129-907	129AR-902	129AR-905		
208/230	129-904	129-908	129AR-903	129AR-906		

FIG. 2 FITS ANY 1/2" KNOCK-OUT. MEETS STANDARD CODE REQUIREMENTS.
*Underwriters Lab. white card listed. File E121390 184N13.13 7/17/63.
Aluminum die-cast base and bushing. High impact phenolic enclosure.
Locknuts and position locking washer included. Color coded 8" lead wires.
All contact terminals must be wired same polarity.

TYPE 91

TYPE
91-180-1
SOCKET

APPROX. OVERALL DIMENSIONS
2 1/8" x 1 1/8" x 2 1/8"

Quick-Connect Terminals
Enclosed Contacts
Operates Any Position
Solenoid Action
Plug-in Quick-Connect Socket Available
Prevents Improper Assembly

TWO POLE DOUBLE THROW

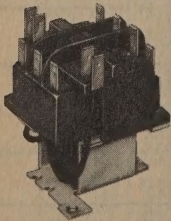
COIL VOLTAGE (60 cy)	PART NUMBER	CIRCUIT RATING TERMINALS		POWER RATING (A)	
		1-2-3	4-5-6	INDUCTIVE	RESISTIVE
24	91-901			12 AMP. CONT. 60 AMP. INRUSH 125 V. A.C.	15 AMP. 277 V. A.C. MAX.
115/120	91-902	(A)	(A)		
208/230/240	91-903				
24	91-904			6 AMP. CONT. 35 AMP. INRUSH 250 V. A.C.	*PILOT RATING (B) INDUCTIVE 125 V.A. 1/10 H.P. 125/250 V. A.C.
115/120	91-905	(A)	(B)		
208/230/240	91-906				
24	91-907			INDUCTIVE 125 V.A. 1/10 H.P. 125/250 V. A.C.	RESISTIVE 3 AMP. 277 V. A.C. MAX.
115/120	91-908	(B)	(B)		
208/230/240	91-909				

CONTACT TERMINAL ARRANGEMENT

Mounting Hole Side			Coil Terminal Side		
1	2	3	4	5	6
COMMON	N.C.	N.O.	COMMON	N.C.	N.O.

Quick-Connect Wiring Terminals Included.
*See Type 91D—For D.C. Contact Rating.

TYPE 92



APPROX. OVERALL DIMENSIONS
2 3/8" x 2 3/8" x 2 3/8"

Quick-Connect Terminals
Enclosed Contacts
Operates Any Position
Solenoid Action
Manual Operating Button

THREE POLE DOUBLE THROW

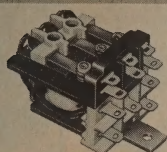
COIL VOLTAGE (60 cy)	PART NUMBER	CIRCUIT RATING TERMINALS			POWER RATING (A)	
		X	Y	Z	INDUCTIVE	RESISTIVE
24	92-901				12 AMP. CONT. 90 AMP. INRUSH 125 V. A.C.	15 AMP. 277 V. A.C. MAX.
115/120	92-902	(A)	(A)	(A)		
208/230/240	92-903					
24	92-904				6 AMP. CONT. 35 AMP. INRUSH 250 V. A.C.	*PILOT RATING (B) INDUCTIVE 125 V.A. 1/10 H.P. 125/250 V. A.C.
115/120	92-905	(A)	(B)	(A)		
208/230/240	92-906					
24	92-907				INDUCTIVE 125 V.A. 1/10 H.P. 125/250 V. A.C.	RESISTIVE 3 AMP. 277 V. A.C. MAX.
115/120	92-908	(B)	(A)	(B)		
208/230/240	92-909					
24	92-910				INDUCTIVE 125 V.A. 1/10 H.P. 125/250 V. A.C.	RESISTIVE 3 AMP. 277 V. A.C. MAX.
115/120	92-911	(B)	(B)	(B)		
208/230/240	92-912					

CONTACT TERMINAL ARRANGEMENT

Circuit-X			Circuit-Y			Circuit-Z		
C1	NC2	NO3	C4	NC5	NO6	C7	NC8	NO9

Quick-Connect Wiring Terminals Included.
*See Type 92D—For D.C. Contact Rating.

TYPE 93

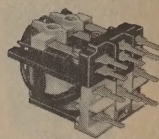
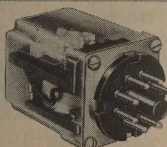
Solder Terminals
(Fig. 1a)

(1) OPEN TYPE

Solder Terminal Relay designed for front mounting. Relay suitable also for single hole screw or stud rear mounting.

APPROXIMATE OVERALL DIMENSIONS

Fig. 1a. $1\frac{3}{8}'' \times 1\frac{3}{8}'' \times 1\frac{3}{8}''$
Fig. 1b. $1\frac{3}{8}'' \times 1\frac{3}{8}'' \times 1\frac{3}{8}''$

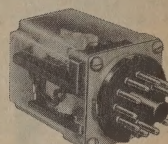
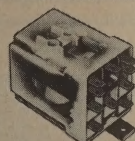
Printed Circuit
(Fig. 1b)8 Pin Plug In
(Fig. 2)

PLUG-IN

8 pin octal base for single & two pole—11 pin base for three pole.

APPROXIMATE OVERALL DIMENSIONS

$2\frac{1}{4}'' \times 1\frac{3}{8}'' \times 1\frac{3}{8}''$

11 Pin Plug In
(Fig. 2)Quick-Connect
(Fig. 3)

(2) QUICK CONNECT

Enclosed relay designed for front mounting. Panel board polarized sockets are available.

APPROXIMATE OVERALL DIMENSIONS

$2\frac{1}{4}'' \times 1\frac{3}{8}'' \times 1\frac{3}{8}''$

(3) Relay Receptacles
(Fig. 4)

Kit No.
93-153-1
Panel
Mount

</

1. Relay has threaded core. Screw machine stud included. May be front mounted.
2. Quick connect wiring terminals included.
3. Socket kits include wiring terminals. Polarized to prevent improper assembly.
May be controlled by SCR providing firing angle no more than 10 degrees.

CONSULT FACTORY FOR U/L AND CSA LISTINGS • SEE PAGE 19 FOR ADDITIONAL DESIGN AND APPLICATION DATA • FOR PRICES SEE PAGES 2 & 3

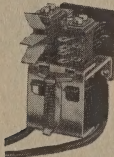
TYPE 987

APPROX. OVERALL DIMENSIONS $2\frac{1}{8}'' \times 1'' \times 2''$

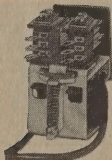
TYPE 987

APPROX. OVERALL DIMENSIONS $2\frac{1}{8}'' \times 1'' \times 2''$

TYPE 987

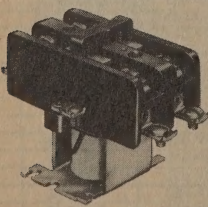
APPROX. OVERALL DIMENSIONS $2\frac{1}{8}'' \times 1'' \times 2''$

TYPE 987

APPROX. OVERALL DIMENSIONS $2\frac{1}{8}'' \times 1'' \times 2''$

RBM CONTROLS

NEW! TYPE 143

APPROX. OVERALL DIMENSIONS $3\frac{1}{4}'' \times 2\frac{3}{8}'' \times 2\frac{1}{2}''$

TWO POLE DOUBLE THROW

COIL VOLTAGE (60 CY.)	PART NUMBER	CONTACT RATING (NON-INDUCTIVE)	
		125/250 V. A.C.	
		LEFT HAND STACK	RIGHT HAND STACK
6	987-901	15 AMP. 1PDT	3 AMP. 1PDT
24	987-902		
115/120	987-903		
230/240	987-904		

TWO POLE DOUBLE THROW

VOLTAGE (60 CY.) COIL	PART NUMBER	CONTACT RATING (NON-INDUCTIVE)	
		125/250 V. A.C.	
		LEFT HAND STACK	RIGHT HAND STACK
6	987-905	15 AMP. 1PDT	15 AMP. 1PDT
24	987-906		
115/120	987-907		
230/240	987-908		

THREE POLE DOUBLE THROW

VOLTAGE (60 CY.) COIL	PART NUMBER	CONTACT RATING (NON-INDUCTIVE)	
		125/250 V. A.C.	
		LEFT HAND STACK	RIGHT HAND STACK
6	987-909	15 AMP. 1PDT	3 AMP. 2PDT
24	987-910		
115/120	987-911		
230/240	987-912		

FOUR POLE DOUBLE THROW

VOLTAGE (60 CY.) COIL	PART NUMBER	CONTACT RATING (NON-INDUCTIVE)	
		125/250 V. A.C.	
		LEFT HAND STACK	RIGHT HAND STACK
6	987-913	3 AMP. 2PDT	3 AMP. 2PDT
24	987-914		
115/120	987-915		
230/240	987-916		

A.C. POWER CONTACTORS

TWO POLE NORMALLY OPEN — 18 AMP. 250 V.

AUXILIARY QUICK CONNECT TERMINALS — STRAIGHT-THROUGH WIRING (50/60 CY. CLASS B COIL)			
COIL VOLTAGE	PART NUMBER	CONTACT RATING	
		INDUCTIVE	RESISTIVE
24	143-901	18 AMP. FL. 90 AMP. L.R. @ 250 V. A.C. INDUCTIVE ONLY	
120	143-902		
208/240	143-903		
24	143-911		25 AMP. @ 277 V. A.C. RESISTIVE ONLY
120	143-912		
208/240	143-913		

ALL RELAYS HAVE 9" COIL LEAD WIRES • FEMALE QUICK-CONNECT WIRING
TERMINALS INCLUDED • MOUNTING BRACKET INCLUDED TO PERMIT FRONT
OR REAR MOUNTING

TYPE 75

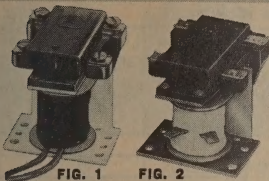
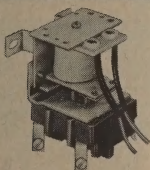


FIG. 1 FIG. 2
APPROX. OVERALL DIMENSIONS
2 1/2" x 2 1/8" x 2 1/4"

TYPE 80



APPROX. OVERALL DIMENSIONS
3 1/8" x 2 5/8" x 2 7/8"

TYPE 85



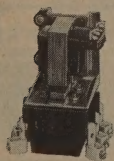
APPROX. OVERALL DIMENSIONS
3 1/2" x 2 7/8" x 2 5/8"

TYPE S30



APPROX. OVERALL DIMENSIONS
3 7/8" x 2 3/8" x 2 1/2"

TYPE S40



APPROX. OVERALL DIMENSIONS
3 7/8" x 2 3/8" x 2 1/2"

TWO POLE NORMALLY OPEN

SCREW POWER TERMINALS—NO. 8 SOLID WIRE MAX. COIL LEAD WIRE OR QUICK CONNECT TERMINALS				
COIL VOLTAGE (60 CY.)	PART NUMBER FIG. 1	PART NUMBER FIG. 2	CONTACT RATING (A.C.)	
			INDUCTIVE	RESISTIVE
24	75-901	75-904	1 H.P. Per Pole 115/230 V.	20 AMP. 240 V. Per Pole
115/120	75-902	75-905	2 Pole Rating 2 H.P.—230V. or 15 amp. Cont.	
230/240	75-903	75-906	75 amp. Inrush	

TWO POLE NORMALLY OPEN

SCREW POWER TERMINALS—NO. 8 SOLID WIRE MAX. • COIL LEAD WIRE TERMINATION • DOUBLE BREAK "NO-KISS" CONTACT ACTION • HI-DIELECTRIC ARC RESISTANT MOLDED CONTACT BLOCK AND CARRIER

COIL VOLTAGE (60 CY.)	PART NUMBER	CONTACT RATING (A.C.)
		INDUCTIVE
24	80-901	25 AMP. CONTINUOUS 150 AMP. INRUSH 250 V. MAX.
120	80-902	
208	80-903	
240	80-904	

THREE POLE NORMALLY OPEN

SCREW TERMINALS—NO. 6 SOLID WIRE MAX. • DOUBLE BREAK "NO-KISS" CONTACT ACTION • AUXILIARY WIRING TERMINALS • STRAIGHT-THRU WIRING • HI-DIELECTRIC ARC RESISTANT MOLDED CONTACT BLOCK & CARRIER • RESILIENT MOUNTING

COIL VOLTAGE (50/60 CY.)	PART NUMBER	CONTACT RATING (A.C.)	
		INDUCTIVE	
		250 V.	600 V.
24	85-901	25 AMP. CONT. 150 AMP. INRUSH	12.5 AMP. CONT. 75 AMP. INRUSH
120	85-902		
208/230	85-903		

THREE POLE NORMALLY OPEN

SOLENOID ACTUATED • ENCLOSED CONTACTS • DOUBLE BREAK "NO-KISS" CONTACTS • CAST ALUMINUM BASE • RESILIENT MOUNTING • LAMINATED "C" MAGNET & SELF ALIGNING "T" ARMATURE • HIGH DI-ELECTRIC ARC RESISTANCE MOLDED CONTACT BLOCK & CARRIER • EPOXY-CLAD MAGNET COIL.

COIL VOLTAGE (50/60 CY.)	PART NUMBER	CONTACT RATING (A.C.)		
		INDUCTIVE		
		VOLTAGE CONTINUOUS INRUSH		
24	S30-901	250	30 AMP.	180 AMP.
115	S30-902			
230	S30-903	600	15 AMP.	90 AMP.

Screw Power Terminals, No. 8 Solid Wire Max.

THREE POLE NORMALLY OPEN

SOLENOID ACTUATED • ENCLOSED CONTACTS • DOUBLE BREAK "NO-KISS" CONTACTS • CAST ALUMINUM BASE • RESILIENT MOUNTING • LAMINATED "C" MAGNET & SELF ALIGNING "T" ARMATURE • HIGH DI-ELECTRIC ARC RESISTANCE MOLDED CONTACT BLOCK & CARRIER • EPOXY-CLAD MAGNET COIL.

COIL VOLTAGE (50/60 CY.)	PART NUMBER	CONTACT RATING (A.C.)
		INDUCTIVE
24	S40-901	40 AMP. CONTINUOUS 200 AMP. INRUSH 250 V. MAX.
115	S40-902	
230	S40-903	

Pressure Connector Power Terminals, No. 6 Solid Wire Max.

UNIQUE DESIGN PERMITS COMMON BASE, COIL & MAGNET FOR CONTACTOR RATINGS FROM 15 TO 50 AMPERES • DOUBLE BREAK "NO-KISS" CONTACT ACTION • REPLACEABLE CONTACTS & COIL • EPOXY SEALED MOLDED MAGNET COIL HOUSING • LAMINATED CORROSION RESISTANT E-TYPE MAGNET & SELF-ALIGNING ARMATURE • HI-DIELECTRIC ARC RESISTANT MOLDED CONTACT BLOCK & CARRIER • 50/60 CYCLE MAGNET COIL • RESILIENT MOUNTING.

TYPE C15



APPROX. OVERALL DIMENSIONS
3 5/8" x 2 3/4" x 3 3/8"

15 AMP.
600 V.

Pressure
Connector
Power Terminals.
No. 10 Solid
Wire Max.

FOUR POLE NORMALLY OPEN

COIL VOLTAGE (50/60 CY.)	NUMBER PART	CONTACT RATING (A.C.)		
		HORSEPOWER		
		VOLTAGE	SINGLE PHASE	THREE PHASE
24	C15-901	110	1	1 1/2
110	C15-902	220	1 1/2	2
220	C15-903	600	1 1/2	2
440	C15-904	RESISTIVE 15 AMP. 600 V. MAX. (Per Pole)		

All contacts can be converted to normally closed with screw driver. No special parts required. See page 10.

TYPE C30



APPROX. OVERALL DIMENSIONS
3 5/8" x 2 3/4" x 3 3/8"

30 AMP.
600 V.

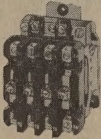
Pressure
Connector
Power Terminals.
No. 6 Solid
Wire Max.

THREE POLE NORMALLY OPEN
WITH 15 AMP. AUXILIARY NORMALLY OPEN* CONTACT

COIL VOLTAGE (50/60 CY.)	PART NUMBER	CONTACT RATING (A.C.)		
		HORSEPOWER		
		VOLTAGE	SINGLE PHASE	THREE PHASE
24	C30-901	110	2	3
110	C30-902	220	3	7 1/2
220	C30-903	600	5	10
440	C30-904	RESISTIVE 30 AMP.—600 V. (Per Pole)		

*Auxiliary pole can be converted to normally closed with screw driver. No special parts required. See page 10.

TYPE C50R



APPROX. OVERALL DIMENSIONS
3 5/8" x 2 3/4" x 3 3/8"

50 AMP.
480 V.
RESISTIVE
ONLY

Pressure
Connector
Power Terminals.
No. 6 Stranded
Wire Max.

FOUR POLE NORMALLY OPEN

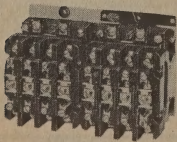
COIL VOLTAGE (50/60 CY.)	PART NUMBER	CONTACT RATING (A.C.)		
		RESISTIVE ONLY FOR ELECTRIC HEATING 50 AMP. 480 VOLT MAX.		
24	C50R-901			
110	C50R-902			
220	C50R-903			
440	C50R-904			

RBM CONTROLS

A.C. REVERSING INDUSTRIAL
CONTACTORS

TWO TYPE C CONTACTORS MOUNTED SIDE BY SIDE ON COMMON STEEL BASE • RESILIENT MOUNTING • HARDENED STEEL MECHANICAL INTERLOCK PREVENTS SIMULTANEOUS CLOSING OF BOTH CONTACTORS • NO CROSS-PHASE WIRING • SUITABLE FOR MOTOR REVERSING & TRANSFORMER TAP CHANGING APPLICATION.

TYPE CR15



APPROX. OVERALL DIMENSIONS
3 5/8" x 5 1/4" x 3 3/8"

15 AMP.
600 V.

Pressure
Connector
Power Terminals.
No. 10 Solid
Wire Max.

FOUR POLE NORMALLY OPEN REVERSING

COIL VOLTAGE (50/60 CY.)	PART NUMBER	CONTACT RATING (A.C.)		
		HORSEPOWER		
		VOLTAGE	SINGLE PHASE	THREE PHASE
110	CR15-901	110	1	1 1/2
220	CR15-902	220	1 1/2	2
440	CR15-903	600	1 1/2	2

All contacts can be converted to normally closed with screw driver. No extra parts required. See page 10.

TYPE CR30



APPROX. OVERALL DIMENSIONS
3 5/8" x 5 1/4" x 3 3/8"

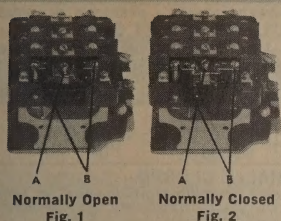
30 AMP.
600 V.

Pressure
Connector
Power Terminals.
No. 6 Stranded
Wire Max.

THREE POLE NORMALLY OPEN REVERSING
(Each Contactor Has 15 AMP. Auxiliary Normally Open* Contact)

COIL VOLTAGE (50/60 CY.)	PART NUMBER	CONTACT RATING (A.C.)		
		HORSEPOWER		
		VOLTAGE	SINGLE PHASE	THREE PHASE
110	CR30-901	110	2	3
220	CR30-902	220	3	7 1/2
440	CR30-903	600	5	10

*Auxiliary contact can be converted to normally closed with screwdriver. No special parts required. See page 10.



All 15 ampere contact assemblies on RBM standard type C contactors are normally open. To convert to normally closed—

1. Remove movable contact assembly and lock washer by backing off terminal nut "A".

2. Loosen screws "B" and remove stationary contact assemblies.
3. Invert movable contact assembly, and replace on contactor with flat "T" spring resting on contact block. Contacts facing out.
4. Remove screws "B" from, and reinsert into opposite end of, stationary contact assembly. Re-install stationary contact assemblies; holding contacts in alignment with movable contacts while tightening screws.

UNIVERSAL ENCLOSURE AND
TYPE C REPLACEMENT PARTS

PART NUMBER UE-901

This heavy gauge enclosure has tapped holes (with identification template) to permit mounting of all power relays and contactors listed below. Other features include:

Baked enamel finish.
Removable hinge-in cover.
Self-locking quarter-turn cover screw.
Cover padlock hasp.

Knock-outs—top, bottom and sides.
Meets standard code requirements.
Mounting bosses to clear contactor mounting screws.
Contactor mounting screws included.

ENCLOSURE WILL ACCOMMODATE FOLLOWING TYPES—
129, 75, 80, 85, 143, S30, S40, C15, C30 & C50R.

APPROX. OVERALL DIMENSIONS
8 $\frac{5}{8}$ " x 5 $\frac{3}{4}$ " x 4 $\frac{3}{8}$ "

MAGNET COILS

Figure 4

VOLTAGE (50/60 CY.)	*STANDARD		*SPECIAL	
	PART NUMBER	REPLACES	PART NUMBER	REPLACES
24	MC-901	45225-5	MC-911	45225-35
110	MC-902	45225-1	MC-912	45225-31
220	MC-903	45225-2	MC-913	45225-32
440	MC-904	45225-3	MC-914	45225-33
550	MC-905	45225-4	MC-915	45225-34

*Do not substitute standard for special coils or vice versa.

CONTACT ASSEMBLIES

Figure 1

FOR CONTACTOR TYPE	USE CONTACT ASSEMBLY	
	PART NUMBER	REPLACES
C15, CR15*	CA-901	45997-3 45997-4
C30, CR30*	CA-902	45997-5
C50R	CA-903	45997-22
†109153 †109453	CA-904	45997-16 45997-20

ARMATURE & MAGNET

Figure 3

PART NUMBER
RP-901

CONTACT BLOCK
& CARRIER

Figure 2

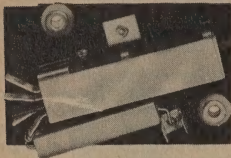
4 POLE		5 POLE	
PART NUMBER		PART NUMBER	
RP-902		RP-903	

*Reversing type—2 sets required. †Not standard catalog items.

FOR PRICES SEE PAGES 2 & 3

A.C. TIME DELAY RELAYS

TYPE 59



APPROX. OVERALL DIMENSIONS
3 3/8" x 2 1/8" x 7/8"

THERMAL

Ambient
Compensated.
Quick-Connect
Terminals.
Resilient
Mounting.

AFTER ENERGIZATION • AFTER DE-ENERGIZATION
THERMAL & RECTIFIER/CAPACITOR TYPES
FIXED TIMING CYCLE • NOT INSTANTANEOUS RESET
PILOT DUTY AND HORSEPOWER RATINGS • OPERATES ANY POSITION
SINGLE POLE NORMALLY OPEN

TIME DELAY TO CLOSE—AFTER ENERGIZATION—15 TO 45 SECS.

OPERATING		PART NUMBER	CONTACT RATING
VOLTAGE (50/60 CY.)	WATTS		
24	3.0	59-901	3 AMP. 125/250 V. A.C. PILOT DUTY
115/120	7.0	59-902	
230/240	10.0	59-903	

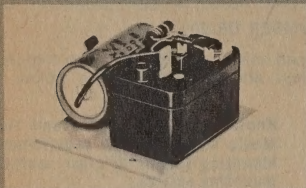
SINGLE POLE NORMALLY CLOSED

TIME DELAY TO OPEN—AFTER ENERGIZATION—APPROX. 30 SECS.

		PART NUMBER	CONTACT RATING
VOLTAGE (50/60 CY.)	WATTS		
24	3.0	59-904	3 AMP. 125/250 V. A.C. PILOT DUTY
115/120	7.0	59-905	
230/240	10.0	59-906	

Quick-Connect Wiring Terminals Included.
Reset Time Approximately 60 seconds.

TYPE 84T



APPROX. OVERALL DIMENSIONS
2 5/8" x 2 1/4" x 1 1/2"

RECTIFIER/
CAPACITOR

Totally Enclosed
Relay.
Quick-Connect
Terminals.

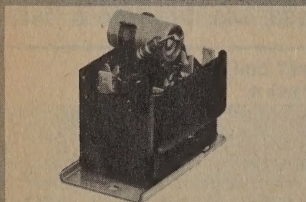
SINGLE POLE DOUBLE THROW

COIL VOLTAGE (50/60 CY.)	CONTACT ACTION		PART NUMBER	TIME DELAY IN SECONDS ±25%	CONTACT RATING (A.C.) INDUCTIVE
	1-DELAY AFTER COIL ENERGIZED	2-DELAY AFTER COIL DE-ENERGIZED			
24	X	—	84TE-901	1	3 AMP. 125 V. 1.5 AMP. 250 V. CONTINUOUS
115/120	X	—	84TE-902	2	
230/240	X	—	84TE-903	2	
24	—	X	84TD-901	1	
115/120	—	X	84TD-902	2	
230/240	—	X	84TD-903	2	

Quick-Connect Wiring Terminals Included.

†Reset Time Approximately 4 Seconds. (For Capacitor Discharge).

TYPE 129T



APPROX. OVERALL DIMENSIONS
3 1/8" x 2" x 3"

RECTIFIER/
CAPACITOR

Totally Enclosed
Relay.
Quick-Connect
Terminals.
Non-Positional
Mounting.

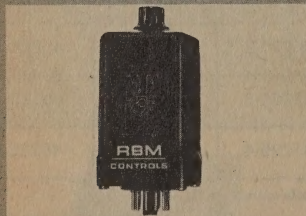
SINGLE POLE NORMALLY OPEN

TIME DELAY TO OPEN—AFTER DE-ENERGIZATION—2 SECONDS ±25%

COIL VOLTAGE (50/60 CY.)	PART NUMBER	CONTACT RATING 250 V. A.C. MAX.	
		INDUCTIVE	RESISTIVE
115/120	129TD-901	18 AMP. CONTINUOUS	18 AMP. CONTINUOUS
230/240	129TD-902	1 H.P.—125 V. 2 H.P.—250 V.	

Quick-Connect Wiring Terminals Included.

TYPE 142TE



APPROX. OVERALL DIMENSIONS
1 1/8" x 1 1/8" x 3 1/2" (3 5/8" over knob)

SOLID
STATE

Adjustable.
Relay built-in.
Reset time—
100 ms. max.

TWO POLE DOUBLE THROW

CONTACT RATING — 5 AMP.—115/230 V. A.C.
(RESISTIVE) OR 28 V. D.C.

COIL VOLTAGE	CONTACT ACTION		
	TIME DELAY AFTER COIL ENERGIZED		
	0.1-1.0 SECONDS	1.1-10.0 SECONDS	10.1-300.0 SECONDS
PART NUMBER	PART NUMBER	PART NUMBER	PART NUMBER
24 (50/60 CY.)	142TE-901	142TE-911	142TE-921
120 (50/60 CY.)	142TE-902	142TE-912	142TE-922
24 D.C. 384 ohms	142TE-903	142TE-913	142TE-923

Repeat Accuracy 2% at nom. voltage—25°C. 10% over voltage & temperature range.

RBM CONTROLS

D.C. GENERAL PURPOSE RELAYS

TYPE 84D



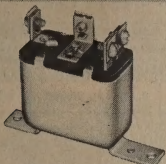
APPROX. OVERALL DIMENSIONS
2 3/8" x 1 5/8" x 1 1/2"

Totally Enclosed.
Screw Terminals.
Operates Any
Position.

SINGLE POLE DOUBLE THROW

COIL VOLTAGE (D.C.)	RESISTANCE IN OHMS @ 25°C	PART NUMBER	CONTACT RATING (D.C.)	
			INDUCTIVE	
			VOLTAGE	CURRENT
6	17.5	84D-901	6	3 AMP.
12	90	84D-902	12	3 AMP.
24	280	84D-903	24	1.5 AMP.

TYPE 60



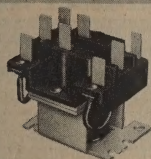
APPROX. OVERALL DIMENSIONS
2 7/8" x 1 1/8" x 2 5/8"

Metal
Enclosure.
Screw
Terminals.

SINGLE POLE NORMALLY OPEN

COIL VOLTAGE (D.C.)	RESISTANCE IN OHMS @ 25°C	PART NUMBER	CONTACT RATING D.C.	
			INDUCTIVE	
			VOLTAGE	CURRENT
6	11	60-901	6	15 AMP.
12	35	60-902	12	15 AMP.
24	160	60-903	24	7.5 AMP.
32	300	60-904	32	7.5 AMP.

TYPE 91D



APPROX. OVERALL DIMENSIONS
2 1/8" x 1 7/8" x 2 3/4"

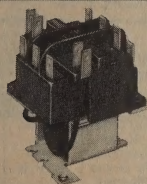
Quick-Connect
Terminals.
Enclosed
Contacts
Operates Any
Position.
Solenoid
Action.

TWO POLE DOUBLE THROW

COIL VOLTAGE (D.C.)	RESISTANCE IN OHMS @ 25°C	CROSS-BAR CONTACTS PART NUMBER	D.C. CONTACT RATING (INDUCTIVE)	BUTTON CONTACTS PART NUMBER	D.C. CONTACT RATING (RESISTIVE)
6	665	91D-901	3 AMP.	91D-911	10 AMP. 32 V. MAX.
12	1300	91D-902	6 AND 12 V.	91D-912	
24	2500	91D-903	1.5 AMP. 24 V.	91D-913	

Quick-connect wiring terminals included. See Page 5 for quick connect socket.

TYPE 92D



APPROX. OVERALL DIMENSIONS
2 3/8" x 2 3/8" x 2 3/4"

Quick-Connect
Terminals.
Enclosed
Contacts.
Operates Any
Position.
Solenoid
Action.
Manual "Test"
Button.

THREE POLE DOUBLE THROW

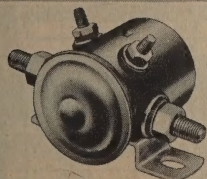
COIL VOLTAGE (D.C.)	RESISTANCE IN OHMS @ 25°C	CROSS-BAR CONTACTS PART NUMBER	D.C. CONTACT RATING (INDUCTIVE)	BUTTON CONTACTS PART NUMBER	D.C. CONTACT RATING (RESISTIVE)
6	600	92D-901	3 AMP.	92D-911	10 AMP. 32 V. MAX.
12	1200	92D-902	6 AND 12 V.	92D-912	
24	2400	92D-903	1.5 AMP. 24 V.	92D-913	

Quick-connect wiring terminals included.

TYPE 70 DC POWER CONTACTORS

DRAWN STEEL DUST PROOF ENCLOSURE
• COPPER STUD POWER & COIL TERMINALS • DOUBLE BREAK ROTATING DISC MOVABLE CONTACT • ISOLATED COIL TERMINALS • SOLENOID ACTUATED
• SUGGESTED MOUNTING—CAP DOWN

NORMALLY OPEN



APPROX. OVERALL DIMENSIONS
2 1/2" x 3 1/2" x 2 1/2"

CONTACT RATING
D.C. INDUCTIVE LOAD

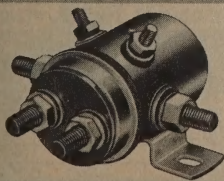
VOLTAGE (D.C.)	NORMALLY OPEN		NORMALLY CLOSED	
	CONTINUOUS	INRUSH	CONTINUOUS	INRUSH
6	80 AMP.	300 AMP.	60 AMP.	100 AMP.
12	80 AMP.	150 AMP.	60 AMP.	60 AMP.
24	50 AMP.	50 AMP.	30 AMP.	30 AMP.
32	50 AMP.	50 AMP.	30 AMP.	30 AMP.

SINGLE POLE NORMALLY OPEN

COIL VOLTAGE (D.C.)	RESISTANCE IN OHMS @ 25°C	PART NUMBER	CONTACT MATERIAL
6	4	70-901	COPPER
12	19	70-902	
24	60	70-903	
36	114	70-904	SILVER
6	4	70-905	
12	19	70-906	
24	60	70-907	
36	114	70-908	

Terminal nuts and lock washers included.

DOUBLE THROW



APPROX. OVERALL DIMENSIONS
3 3/4" x 3 1/2" x 2 1/2"



SINGLE POLE DOUBLE THROW

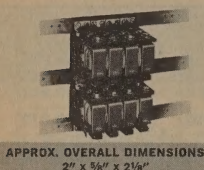
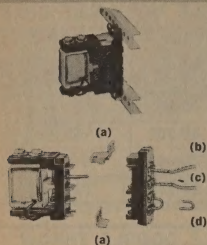
COIL VOLTAGE (D.C.)	RESISTANCE IN OHMS @ 25°C	PART NUMBER	CONTACT MATERIAL
6	4	70-909	SILVER
12	19	70-910	
24	60	70-911	
36	114	70-912	

Terminal nuts and lock washers included.
Coil and contacts isolated.

13 RBM CONTROLS

COMPUTER RELAYS

TYPE 81



APPROX. OVERALL DIMENSIONS
2" x 5/8" x 2 1/4"

COMPUTERS • BUSINESS MACHINES • OFFICE EQUIPMENT
DURABLE—200,000,000 OPERATIONS
FAST—6 MILLISECONDS OPERATE TIME

CONTACT PERFORMANCE GUIDE*

RESISTIVE LOAD—NO ARC SUPPRESSION—48 V. D.C.

ELECTRICAL LIFE

CONTACT LOAD (AMPERES)	0.025	0.100	0.500	1.0	3.0
Number of Operations (Million)	200	100	20	5	Carry Only, No Make or Break.

*Based on tests with relay operating rate 30 per second. Consult factory for life expectancy for inductive loads—with or without arc suppression, giving contact loads, frequency of operation and "on time" ratio.

FOUR POLE DOUBLE THROW

D.C. OPERATING VOLTAGE @ 25°C			PART NUMBER
NOMINAL	RESISTANCE IN OHMS	PICK-UP	
24	260	18	81-901
48	1040	36	81-902
115	4600	87	81-903

†includes mounting straps (a), terminal block (b), wiring terminals (c) and jumpers (d).

RBM CONTROLS

MINIATURE DIRECT CURRENT SENSITIVE RELAYS

1PDT-40MW AND 50MW; 2PDT-125MW; 3PDT-200MW;
COIL RESISTANCE—1500 OHMS MAX.
ISOLATED CONTACTS—PROTECTIVE COVERS,
PRINTED CIRCUIT, OPEN AND PLUG-IN TYPES
MOLDED COMBINATION COIL BOBBIN & TERMINAL BLOCK
(HI-DIELECTRIC WITH MINIMUM MOISTURE ABSORPTION)
MINUS 55 TO PLUS 85° OPERATING AMBIENT

SINGLE POLE DOUBLE THROW—TWO POLE DOUBLE THROW
THREE POLE DOUBLE THROW

ELECTRICAL LIFE			MECHANICAL LIFE	OPERATE TIME (Incl. Bounce)	VIBRATION	SHOCK
NON-INDUCTIVE LOAD	0.5 Amp.	1.0 Amp.	2.0 Amp.	100,000,000 At 180 Operations Per Minute (No Load)	20 Milli-Seconds	2G Operate, 10G 10-55 Cycles
NUMBER OPERATIONS	1,000,000	300,000	100,000			Non-Operate

TYPE MS64

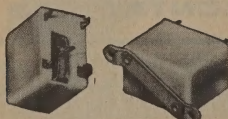


FIG. 1 FIG. 2

APPROX. OVERALL DIMENSIONS
1 3/4" x 3/4" x 1 1/4"

Printed Circuit
Terminals Or
Bracket
Mounting

Snap-on
Cover

SINGLE POLE DOUBLE THROW—ENCLOSED TYPE

CONTACT RATING		COIL POWER	
2 Amp. Non-Inductive 28 V. D.C.—115 V. A.C.		Minimum Required	0.050 Watts
		Maximum Capacity	1.5 Watts
D.C. MAGNET AT 25°C			PART NUMBER FIG. 1
NOMINAL VOLTAGE OR CURRENT	*MAX. PICK-UP VOLTAGE OR CURRENT	†RESISTANCE IN OHMS	
6 V.	4.5 V.	400	MS64-901
12 V.	9.0 V.	1600	MS64-902
24 V.	18.0 V.	6500	MS64-903
3. MA.	2.3 MA.	10000	MS64-904
			MS64-911
			MS64-912
			MS64-913
			MS64-914

*Nominal Drop-out Approximately 35% of Pick-up.

†Nominal $\pm 10\%$.

TYPE MS25



Solder
Terminals

APPROX. OVERALL DIMENSIONS
1 1/4" x 1 1/2" x 1 1/4"

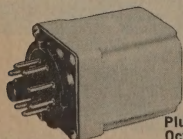
SINGLE POLE DOUBLE THROW—OPEN TYPE

CONTACT RATING		COIL POWER	
2 Amp. Non-Inductive 28 V. D.C.—115 V.A.C.		Minimum Required	0.040 Watts
		Maximum Capacity	1.5 Watts
D.C. MAGNET AT 25°C			PART NUMBER
NOMINAL VOLTAGE OR CURRENT	*MAX. PICK-UP VOLTAGE OR CURRENT	†RESISTANCE IN OHMS	
6 V.	4.5 V.	510	MS25-901
12 V.	9.0 V.	2025	MS25-902
24 V.	18.0 V.	8100	MS25-903
3.7 MA.	2.8 MA.	5000	MS25-904
2.7 MA.	2.0 MA.	10000	MS25-905
2.1 MA.	1.6 MA.	15000	MS25-906

*Nominal Drop-out Approximately 35% of Pick-up.

†Nominal $\pm 10\%$.

TYPE MS25P



Plug-in
Octal Base

APPROX. OVERALL DIMENSIONS
2" x 1 1/4" x 1 1/4"

SINGLE POLE DOUBLE THROW—PLUG IN

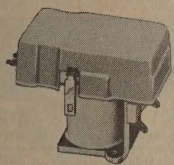
D.C. MAGNET COIL AT 25°C			PART NUMBER
NOMINAL VOLTAGE OR CURRENT	*MAX. PICK-UP VOLTAGE OR CURRENT	†RESISTANCE IN OHMS	
6 V.	4.5 V.	510	MS25P-901
12 V.	9.0 V.	2025	MS25P-902
24 V.	18.0 V.	8100	MS25P-903
3.7 MA.	2.8 MA.	5000	MS25P-904
2.7 MA.	2.0 MA.	10000	MS25P-905
2.1 MA.	1.6 MA.	15000	MS25P-906

*Nominal Drop-out Approximately 35% of Pick-up.

†Nominal $\pm 10\%$.

CONSULT FACTORY FOR U/L AND CSA LISTINGS • SEE PAGE 19 FOR ADDITIONAL DESIGN AND APPLICATION DATA • FOR PRICES SEE PAGES 2 & 3

TYPE MS50



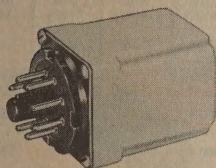
APPROX. OVERALL DIMENSIONS
1 5/8" x 1 1/8" x 1 3/8"

TWO POLE DOUBLE THROW—OPEN TYPE

CONTACT RATING		COIL POWER	
2 Amp. Non-Inductive 28 V. D.C.—115 V. A.C.	Minimum Required		0.125 Watts
	Maximum Capacity		1.5 Watts
D.C. MAGNET COIL AT 25°C			PART NUMBER
NOMINAL VOLTAGE OR CURRENT	*MAX. PICK-UP VOLTAGE OR CURRENT	†RESISTANCE IN OHMS	
6V.	4.5 V.	160	MS50-901
12V.	9.0 V.	650	MS50-902
24V.	18.0 V.	2600	MS50-903
6.7V.	5.0 MA.	5000	MS50-904
4.7 MA.	3.5 MA.	10000	MS50-905
3.9 MA.	2.9 MA.	15000	MS50-906

*Nominal Drop-out Approximately 35% of Pick-up. †Nominal $\pm 10\%$.

TYPE MS50P



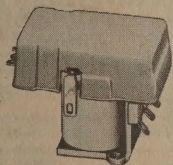
APPROX. OVERALL DIMENSIONS
2" x 1 3/8" x 1 3/8"

TWO POLE DOUBLE THROW—PLUG-IN

D.C. MAGNET COIL AT 25°C			PART NUMBER
NOMINAL VOLTAGE OR CURRENT	*MAX. PICK-UP VOLTAGE OR CURRENT	†RESISTANCE IN OHMS	
6 V.	4.5 V.	160	MS50P-901
12 V.	9.0 V.	650	MS50P-902
24 V.	18.0 V.	2600	MS50P-903
6.7 MA.	5.0 MA.	5000	MS50P-904
4.7 MA.	3.5 MA.	10000	MS50P-905
3.9 MA.	2.9 MA.	15000	MS50P-906

*Nominal Drop-out Approximately 35% of Pick-up. †Nominal $\pm 10\%$.

TYPE MS50



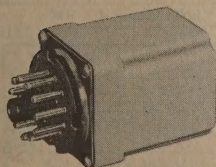
APPROX. OVERALL DIMENSIONS
1 5/8" x 1 1/8" x 1 3/8"

THREE POLE DOUBLE THROW—OPEN TYPE

CONTACT RATING		COIL POWER	
2 Amp. Non-Inductive 28 V. D.C.—115 V. A.C.		Minimum Required	0.200 Watts
		Maximum Capacity	1.5 Watts
D.C. MAGNET COIL AT 25°C			
NOMINAL VOLTAGE OR CURRENT	*MAX. PICK-UP VOLTAGE OR CURRENT	†RESISTANCE IN OHMS	PART NUMBER
6 V.	4.5 V.	100	MS50-921
12 V.	9.0 V.	400	MS50-922
24 V.	18.0 V.	1600	MS50-923
8.5 MA.	6.4 MA.	5000	MS50-924
6.0 MA.	4.5 MA.	10000	MS50-925
4.9 MA.	3.7 MA.	15000	MS50-926

*Nominal Drop-out Approximately 35% of Pick-up. †Nominal $\pm 10\%$.

TYPE MS50P



APPROX. OVERALL DIMENSIONS
2" x 1 3/8" x 1 3/8"

THREE POLE DOUBLE THROW—PLUG-IN

D.C. MAGNET COIL AT 25°C			PART NUMBER
NOMINAL VOLTAGE OR CURRENT	*MAX. PICK-UP VOLTAGE OR CURRENT	†RESISTANCE IN OHMS	
6 V.	4.5 V.	100	MS50P-921
12 V.	9.0 V.	400	MS50P-922
24 V.	18.0 V.	1600	MS50P-923
8.5 MA.	6.4 MA.	5000	MS50P-924
6.0 MA.	4.5 MA.	10000	MS50P-925
4.9 MA.	3.7 MA.	15000	MS50P-926

*Nominal Drop-out Approximately 35% of Pick-up. †Nominal $\pm 10\%$.

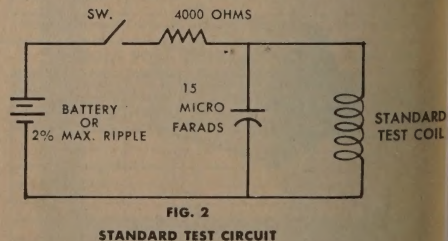
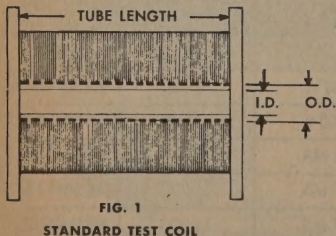
15 RBM CONTROLS

GLASS REED SWITCHES



CONTACT FORM		SINGLE POLE NORMALLY OPEN (BI-REED)						SINGLE POLE DOUBLE THRU (TRI-REED)		
		MINIATURE			STANDARD			MINIATURE		
PART NUMBER		BRM-901 (Special Alloy Contacts)		BRM-902 (Special Alloy Contacts)		BRS-901 (Special Alloy Contacts)		TRM-901 (Special Alloy Contacts)		
NON-INDUCTIVE CONTACT RATING	Make and Break	12 VA. A.C.—4 WATTS D.C. 1/8 AMP. MAXIMUM UP TO 250 VOLTS		15 VA. A.C.—5 WATTS D.C. 1/4 AMP. MAXIMUM UP TO 250 VOLTS		15 VA. A.C.—15 WATTS D.C. 1.0 AMP. MAXIMUM UP TO 250 VOLTS		15 VA. A.C.—5 WATTS D.C. 1/4 AMP. MAXIMUM UP TO 125 V. A.C. OR 32 V. D.C.		
	No Make or Break	1.0 AMP. 250 V.		1.0 AMP. 250 V.		5 AMP. 250 V.		1 AMP. 125 V. A.C. OR 32 V. D.C.		
CONTACT LIFE Based on 10 Ohm Miss Test	Resistive Load (D.C.)	10 MICRO-AMP @ 10 MILLI-VOLTS	1/8 AMP. @ 32 VOLTS	10 MICRO-AMP. @ 10 MILLI-VOLTS	1/8 AMP. @ 32 VOLTS	10 MICRO-AMP. @ 10 MILLI-VOLTS	1/8 AMP. @ 32 VOLTS	10 MICRO-AMP. @ 10 MILLI-VOLTS	1/8 AMP. @ 32 VOLTS	10 MICRO-AMP. @ 10 MILLI-VOLTS
	Number Operations	100,000,000	5,000,000	100,000,000	10,000,000	200,000,000	125,000,000	100,000,000	10,000,000	10,000,000
APPROXIMATE OVERALL DIMENSIONS		Over Leads	Glass Length	Glass Diameter	Over Leads	Glass Length	Glass Diameter	Over Leads	Glass Length	Glass Diameter
		1.5"	0.75"	0.100"	3.35"	2.1"	0.200"	1.5"	0.60"	0.125"
Weight		0.315 GRAMS			2.5 Grams			0.295 Grams		
MINIMUM BREAKDOWN VOLTAGE (60 Cy. R.M.S.)		250 V.			500 V.			250 V.		
MINIMUM INSULATION RESISTANCE (Megohms)		500 K.			500 K.			100 K.		
INITIAL CONTACT RESISTANCE (Milliohms Max.)		150		150		50		150		
MAXIMUM OPERATE TIME (Milliseconds)		Pull-In (Including Bounce)		Release		Pull-In (Incl. Bounce)		Release		Pull-In (Incl. Bounce)
		1.0		0.5		2.0		0.5		1.0
*AMPERE-TURNS TO OPERATE		Pull-In		Drop Out		Pull-In		Drop Out		Pull-In
		Nominal	Minimum			Nominal	Minimum	Drop Out	Nominal	Minimum
		50 ± 15	20	50% OF P.U.		100 ± 20	60	30% OF P.U.	50 ± 15	35
NOMINAL COIL POWER		0.335 WATTS			0.360 WATTS			0.335 WATTS		
VIBRATION		15G—2000 C.P.S.			20G—750 C.P.S.			15G—2000 C.P.S.		
SHOCK (JAN S-44)		50G (MIN.)			40G (MIN.)			50G (MIN.)		
AMBIENT TEMPERATURE RANGE		—55° TO +85°C			—55° TO +85°C			—55° TO +85°C		
STANDARD TEST COIL SPECIFICATIONS See Fig. 1	Wire Size	#44			#36			#44		
	Number Turns	10,000			10,000			10,000		
	Tube I.D.	0.150"			0.210"			0.150"		
	Tube O.D.	0.200"			0.375"			0.200"		
	Tube Length	0.75"			1.75"			0.75"		

*To correlate operate specifications—use standard test circuit, (Fig. 2)



RBM CONTROLS

GLASS REED RELAYS

16

NORMALLY OPEN — STANDARD

MAGNETICALLY SHIELDED

Contact Rating (Non-Inductive)		Contact Life (Based On 10 Ohm Miss Test)		Operate Sensitivity				Operate Time—Milliseconds						
Make and Break	15 VA. A.C.—15 Watts D.C. 1 Amp. Max. Up to 250 Volts	Resistive Load (D.C.)	10 Micro-Amp. @ 10 Milli-Volts	1/8 Amp. @ 32 Volts	Contact Form	1PNO	2PNO	4PNO	6PNO	Pull-In (Incl. Bounce)	1PNO	2PNO	4PNO	6PNO
											2	3	3.5	4
No Make or Break	5.0 Amp. 250 Volts	Number Operations	200,000,000	125,000,000	Milliwatts (Nominal)	125	250	400	680	Release	0.5 (Max.)			

TYPE BRSR1

1PNO
APPROX. OVERALL DIMENSIONS
.55" x .675" x .625"
(PLUS LEADS)
25 MW.—NOMINAL PICK-UP
2.0 WATT MAX. COIL POWER



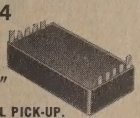
TYPE BRSR2

2PNO
APPROX. OVERALL DIMENSIONS
2.55" x .925" x .625"
(PLUS LEADS)
250 MW.—NOMINAL PICK-UP
1.25 WATTS MAX. COIL POWER



TYPE BRSR4

4PNO
APPROX. OVERALL DIMENSIONS
2.55" x 1.4" x .625"
(PLUS LEADS)
400 MW.—NOMINAL PICK-UP
1.65 WATTS MAX. COIL POWER



TYPE BRSR6

6PNO
APPROX. OVERALL DIMENSIONS
2.55" x 1.87" x .625"
(PLUS LEADS)
680 MW.—NOMINAL PICK-UP
2.0 WATTS MAX. COIL POWER



NORMALLY OPEN — MINIATURE

MAGNETICALLY SHIELDED

Make and Break	Contact Rating (Non-Inductive)	Resistive Load (D.C.)	Contact Life (Based On 10 Ohm Miss Test)		Operate Sensitivity				Operate Time—Milliseconds			
			10 Micro Amp. @ 10 Milli-Volt	1/8 Amp. @ 32 Volt	Contact Form	1PNO	2PNO	4PNO	Pull-In (Incl. Bounce)	1PNO	2PNO	4PNO
No Make or Break	12 VA, A.C.—4 WATTS D.C. 1/8 Amp. Max. Up to 250 Volt	1.0 Amp. 250 Volt	100,000,000	50,000,000	Milliwatts (Nominal)	100	150	300	Release	1	1	2

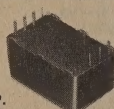
TYPE BRMR1

1PNO
APPROX. OVERALL DIMENSIONS
.14" x .56" x .54"
(PLUS LEADS)
10 MW.—NOMINAL PICK-UP
0.5 WATT MAX. COIL POWER



TYPE BRMR2

2PNO
APPROX. OVERALL DIMENSIONS
1.14" x .73" x .54"
(PLUS LEADS)
150 MW.—NOMINAL PICK-UP
1.5 WATTS MAX. COIL POWER



TYPE BRMR4

4PNO
APPROX. OVERALL DIMENSIONS
1.14" x 1.0" x .54"
(PLUS LEADS)
300 MW.—NOMINAL PICK-UP
3.0 WATTS MAX. COIL POWER



DOUBLE THROW — MINIATURE

MAGNETICALLY SHIELDED. NON-POLARIZED... FORM C CONTACT IN ONE CAPSULE... POSITIVE BREAK BEFORE MAKE

	Contact Rating (Non-Inductive)	Contact Life (Based On 10 Ohm Miss Test)		Operate Sensitivity			Operate Time—Milliseconds			
Make and Break	15 VA, A.C.—5 Watts D.C. ¼ Amp. Max. Up To 125 V. A.C.—32 V. D.C.	Resistive Load (D.C.)	10 Micro-Amp. @ 10 Milli-Volts	1/4 Amp. @ 32 Volts	Contact Form	1PDT	2PDT	Pull-In (Incl. Bounce)	1PDT	2PDT
									1	1
No Make or Break	1.0 Amp. 125 V. A.C. or 32 V. D.C.	Number Operations	100,000,000	10,000,000	Milliwatts (Nominal)	150	250	Release	0.5 (Max.)	

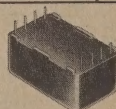
TYPE TRMR1

1PDT
APPROX. OVERALL DIMENSIONS
.14" x .56" x .54" (PLUS LEADS)
10 MW.—NOMINAL PICK-UP
0.5 WATT MAX. COIL POWER



TYPE TRMR2

2PDT
APPROX. OVERALL DIMENSIONS
1.14" x .73" x .54" (PLUS LEADS)
250 MW.—NOMINAL PICK-UP
1.5 WATTS MAX. COIL POWER



D.C. COIL SPECIFICATIONS

STANDARD

Nominal Voltage	Max. Pick-up Voltage	Minimum Drop-out Voltage	Max. Pick-up Current	Resistance in Ohms	Part Number
SINGLE POLE NORMALLY OPEN					
6 V.	4.5 V.	0.55 V.	43.0 MA.	115	BRSR1-901
12 V.	9.0 V.	1.10 V.	22.5 MA.	445	BRSR1-902
28 V.	18.0 V.	2.50 V.	7.8 MA.	2550	BRSR1-903
TWO POLE NORMALLY OPEN					
6 V.	4.5 V.	0.51 V.	86.5 MA.	58	BRSR2-901
12 V.	9.0 V.	1.00 V.	45.0 MA.	220	BRSR2-902
28 V.	18.0 V.	2.10 V.	13.3 MA.	1500	BRSR2-903
FOUR POLE NORMALLY OPEN					
6 V.	4.5 V.	0.50 V.	107.0 MA.	47	BRSR4-901
12 V.	9.0 V.	0.95 V.	58.0 MA.	172	BRSR4-902
28 V.	18.0 V.	2.00 V.	22.8 MA.	877	BRSR4-903
SIX POLE NORMALLY OPEN					
6 V.	4.5 V.	0.48 V.	204.0 MA.	24	BRSR6-901
12 V.	9.0 V.	0.95 V.	83.0 MA.	113	BRSR6-902
28 V.	18.0 V.	2.00 V.	34.2 MA.	580	BRSR6-903

† Nominal $\pm 10\%$

MINIATURE

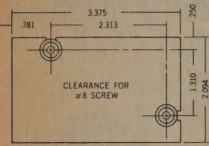
Nominal Voltage	Max. Pick-up Voltage	Minimum Drop-out Voltage	Max. Pick-up Current	Resistance in Ohms	Part Number
SINGLE POLE NORMALLY OPEN					
6 V.	3.25 V.	0.8 V.	27.0 MA.	105	BRMR1-901
12 V.	6.5 V.	1.0 V.	15.5 MA.	420	BRMR1-902
28 V.	15.2 V.	2.5 V.	6.5 MA.	2350	BRMR1-903
TWO POLE NORMALLY OPEN					
6 V.	3.25 V.	0.8 V.	46.5 MA.	70	BRMR2-901
12 V.	6.5 V.	1.0 V.	25.2 MA.	280	BRMR2-902
28 V.	15.2 V.	2.5 V.	9.8 MA.	1540	BRMR2-903
FOUR POLE NORMALLY OPEN					
6 V.	3.25 V.	0.8 V.	93.0 MA.	35	BRMR4-901
12 V.	6.5 V.	1.0 V.	46.5 MA.	140	BRMR4-902
28 V.	15.2 V.	2.5 V.	19.7 MA.	770	BRMR4-903
SINGLE POLE DOUBLE THROW					
6 V.	4 V.	1.5 V.	42 MA.	105	TRMR1-901
12 V.	8 V.	3 V.	21 MA.	420	TRMR1-902
28 V.	19 V.	6 V.	8 MA.	2350	TRMR1-903
TWO POLE DOUBLE THROW					
6 V.	4 V.	1.5 V.	64 MA.	70	TRMR2-901
12 V.	8 V.	3 V.	32 MA.	280	TRMR2-902
28 V.	19 V.	6 V.	12 MA.	1540	TRMR2-903

INSULT FACTORY FOR U/L AND CSA LISTINGS • SEE PAGE 19 FOR ADDITIONAL DESIGN AND APPLICATION DATA • FOR PRICES SEE PAGES 2 & 3

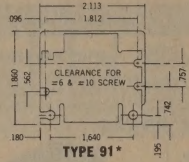
17 RBM CONTROLS

A.C. CONTROLS
MOUNTING DIMENSIONS

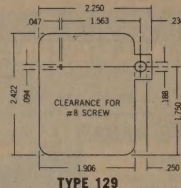
DIMENSIONS ARE APPROX. CONSULT FACTORY FOR EXACT DIMENSIONS. *ASTERISK DENOTES BOTTOM VIEW—ALL OTHERS TOP VIEW



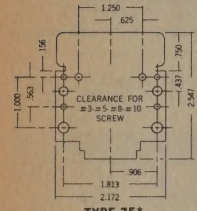
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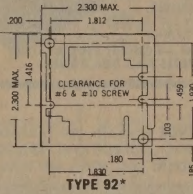
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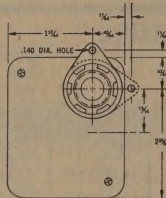
TYPE 129

TYPE 987*
FRONT

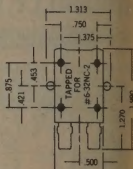
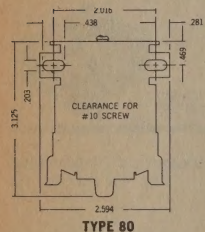
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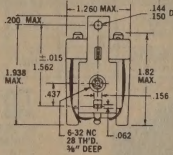
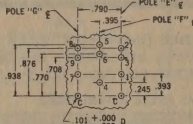
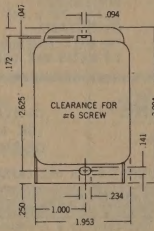
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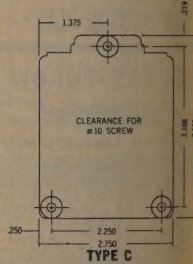
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TYPE 987*
REAR

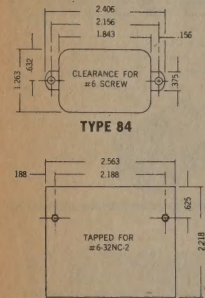
TYPE 80

TYPE 93*
SOLDER TERMINALTYPE 93
PRINTED CIRCUIT
TEMPLATE

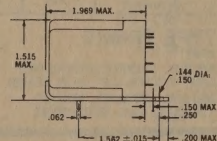
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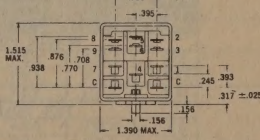
TYPE C



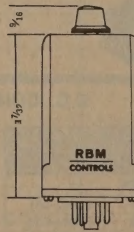
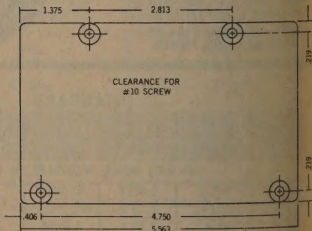
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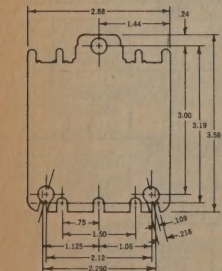
TYPE 93Q, SIDE VIEW



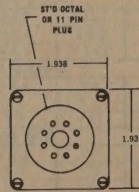
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TYPE 142T
(SEE TYPE 93P
FOR BOTTOM VIEW)

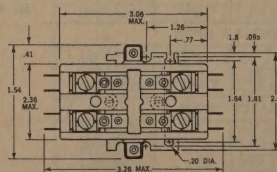
TYPE CR



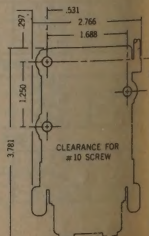
TYPE 85



TYPE 93P

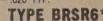


TYPE 143



TYPE S

*ASTERISK DENOTES BOTTOM VIEW—ALL OTHERS TOP VIEW



ALTERNATING CURRENT

TYPE	MAGNET COIL RATING (VOLT AMPERES)			OPERATION IN % OF NOM. COIL VOLTAGE		BREAKDOWN VOLTAGE ALL TERMINALS - 60 Cy. RMS			CONTACT MATERIAL		**ELECTRICAL LIFE		**MECHANICAL LIFE		Maximum Operating Ambient Degrees Fahrenheit
	Inrush	Sealed		Pick-up	*Max. Safe Operate	Opposite Polarity	Open Contacts Same Polarity	To Ground	Power Rating	Pilot Rating	Oper. At Rated Load	Oper. Per Min.	Oper. At No Load	Oper. Per Min.	
		Nom.	Max.												
59	No Magnet Coil			85%	110%	1500	1000	1500	—	Fine Silver	100,000	1	1,000,000	1	140
75	16	10	12	85%	110%	1500	1000	1500	Silver Alloy	—	†100,000	6	1,000,000	60	140
80	27	15.6	17	85%	110%	1500	1500	1500	Silver Alloy	—	†100,000	3	500,000	10	105
84	4	2.8	3	85%	110%	1500	1000	1500	Silver Alloy	Fine Silver	100,000	6	1,000,000	60	140
84T	9	2.8	3	85%	110%	1500	1000	1500	—	*Gold Alloy	100,000	6	1,000,000	60	140
85	90	19	23	85%	110%	2200	2200	2200	Silver Alloy	—	†100,000	3	500,000	10	105
91	22	8	10	85%	110%	1500	1000	1500	Fine Silver	*Gold Alloy	†100,000	6	750,000	60	130
92	24	8.9	12	85%	110%	1500	1000	1500	Fine Silver	*Gold Alloy	†100,000	6	750,000	60	130
93	4.5	3.0	4	85%	110%	1500	1000	1500	Fine Silver	*Gold Alloy	100,000	6	10,000,000	60	160
129	10	4.5	5	85%	110%	1500	1000	1500	Silver Alloy	—	†100,000	3	500,000	10	105
129AR	10	4.5	5	85%	110%	1500	1000	1500	Silver Alloy	—	†100,000	3	500,000	10	105
129T	10	4.5	5	85%	110%	1500	1000	1500	Silver Alloy	—	†100,000	3	500,000	10	105
142TE	4.5	3.2	4	85%	110%	1500	1000	1500	Fine Silver	—	100,000	1	10,000,000	60	160
143	24	8.9	12	85%	110%	1500	1000	1500	Silver Alloy	—	†100,000	6	500,000	60	130
987	9	5.5	6.5	85%	110%	1500	1000	1500	Fine Silver	*Gold Alloy	100,000	6	1,000,000	60	140
C	90	18	21	85%	110%	2200	2200	2200	Silver Alloy	—	†100,000	3	1,000,000	10	105
CR	90	18	21	85%	110%	2200	2200	2200	Silver Alloy	—	†100,000	3	1,000,000	10	105
S	50	14.5	17	85%	110%	2200	2200	2200	Silver Alloy	—	†100,000	3	500,000	10	105

*Magnet coils designed for continuous duty. Do not operate at rate higher than indicated under Mechanical Life.

**Based on steady state test under laboratory environmental conditions. Consult factory if application involves unusual load, speed of operation, off-on ratio, environmental or operating conditions. Electrical life substantially greater when operated below rated load.

†Load tests—making inrush ratings (0.4 to 0.5 P.F.)—breaking 125% continuous rating (0.65 to 0.8 P.F.).

•Cross-bar contacts.

DIRECT CURRENT

TYPE	MAGNET COIL RATING (WATTS)	OPERATION IN % OF NOM. COIL RATING		BREAKDOWN VOLTAGE ALL TERMINALS - 60 CY. RMS			CONTACT MATERIAL		**ELECTRICAL LIFE		**MECHANICAL LIFE		Maximum Operating Ambient Degrees Fahrenheit
		Pick-up	*Max. Safe Operate	Opposite Polarity	Open Contacts Same Polarity	To Ground	Power Rating	Pilot Rating	Oper. At Rated Load	Oper. Per Min.	Oper. At No Load	Oper. Per Min.	
60	2	75%	110%	1000	1000	1000	Fine Silver	—	100,000	4	250,000	4	122
70	9	75%	110%	500	500	500	Copper or Silver	—	100,000	4	250,000	4	122
B1	4	75%	110%	1250	750	1250	—	Eutectic Alloy (Silver-Copper)	1,000,000	1800	200,000,000	1800	122
84D	3	75%	110%	1500	1000	1500	—	Silver Alloy	100,000	6	1,000,000	60	140
91D	6.5	75%	110%	1500	1000	1500	Fine Silver	*Gold Alloy	100,000	6	750,000	60	140
92D	7	75%	110%	1500	1000	1500	Fine Silver	*Gold Alloy	100,000	6	750,000	60	140
93	1.5	75%	110%	1500	1000	1500	Fine Silver	*Gold Alloy	100,000	6	10,000,000	60	160
142TE	1.5	85%	110%	1500	1000	1500	Fine Silver	—	100,000	1	10,000,000	60	160
BRM	Switch Only—No Magnet Coil			500	250	250	—	Special Alloy	5,000,000	60	2,000,000,000	7200	185
BRMR1	0.100	60%	110%	500	250	500	—	Special Alloy	2,000,000	60	2,000,000,000	7200	185
BRMR2	0.150	60%	110%	500	250	500	—	Special Alloy	2,000,000	60	2,000,000,000	7200	185
BRMR4	0.300	60%	110%	500	250	500	—	Special Alloy	2,000,000	60	2,000,000,000	7200	185
BRS	Switch Only—No Magnet Coil			500	500	500	—	Special Alloy	20,000,000	60	2,000,000,000	7200	185
BRSR1	0.125	75%	110%	500	500	500	—	Special Alloy	20,000,000	60	2,000,000,000	7200	185
BRSR2	0.250	75%	110%	500	500	500	—	Special Alloy	20,000,000	60	2,000,000,000	7200	185
BRSR4	0.400	75%	110%	500	500	500	—	Special Alloy	20,000,000	60	2,000,000,000	7200	185
BRSR6	0.680	75%	110%	500	500	500	—	Special Alloy	20,000,000	60	2,000,000,000	7200	185
MS25-MS25P	Current Sensitive			1000	1000	1000	—	*Gold Alloy	100,000	60	100,000,000	180	185
MS50-MS50P (2 Pole)	Current Sensitive			1000	1000	1000	—	*Gold Alloy	100,000	60	100,000,000	180	185
MS55-MS50P (3 Pole)	Current Sensitive			1000	1000	1000	—	*Gold Alloy	100,000	60	100,000,000	180	185
MS64				1000	1000	1000	—	*Gold Alloy	100,000	60	100,000,000	180	185
TRM	Switch Only—No Magnet Coil			250	250	250	—	Special Alloy	2,000,000	60	2,000,000,000	7200	185
TRMR1	0.150	70%	110%	250	250	250	—	Special Alloy	2,000,000	60	2,000,000,000	7200	185
TRMR2	0.250	70%	110%	250	250	250	—	Special Alloy	2,000,000	60	2,000,000,000	7200	185

*Magnet coils designed for continuous duty. Do not operate at rate higher than indicated under Mechanical Life.

**Based on steady state test under laboratory environmental conditions. Consult factory if application involves unusual load, speed of operation, off-on ratio, environmental or operating conditions. Electrical life substantially greater when operated below rated load.

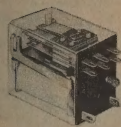
•Cross-bar contacts.



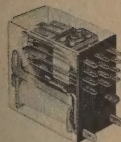
PHILLIPS-ADVANCE CONTROL CO.

MINIATURE INDUSTRIAL RELAYS

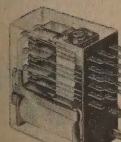
"VersaPac" 67 Designed for industrial applications requiring 1 to 8 form C where space, weight, and cost are important. Single and bifurcated contacts rated at 3 and 5 amps are available. The use of armco magnetic ingot iron and a one piece frame and core provide for unusually precise adjustments. Mechanical life expectancy is in excess of 100 million operations. A plastic cover protects the relay, and sockets are available.



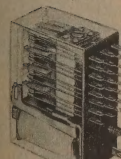
2 Form C
1 1/8 x 3/4 x 1 1/8



4 Form C
1 1/8 x 3/4 x 1 1/8



6 Form C
1 1/8 x 3/4 x 1 1/8



8 Form C
1 1/8 x 3/4 x 1 1/8

POWER ADJUSTMENT

2 FORM C	Nominal Voltage (DC)	Coil Res. (Ohms)	Contact Rating (Amps)	Net
67DP-A-2C3	6	52	3	\$3.40
67DP-D-2C3	12	185	3	3.40
67DP-G-2C3	24	700	3	3.40
67DP-K-2C3	48	2500	3	3.40
67DP-N-2C3	115	15,000	3	4.80
67DP-A-2C5	6	52	5	3.50
67DP-D-2C5	12	185	5	3.50
67DP-G-2C5	24	700	5	3.50
67DP-K-2C5	48	2500	5	3.50
67DP-N-2C5	115	15,000	5	4.90
67DP-A-2C3B	6	52	3*	3.80
67DP-D-2C3B	12	185	3*	3.80
67DP-G-2C3B	24	700	3*	3.80
67DP-K-2C3B	48	2500	3*	3.80
67DP-N-2C3B	115	15,000	3*	5.20
67DP-A-2C5B	6	52	5*	3.90
67DP-D-2C5B	12	185	5*	3.90
67DP-G-2C5B	24	700	5*	3.90
67DP-K-2C5B	48	2500	5*	3.90
67DP-N-2C5B	115	15,000	5*	5.30

*Denotes Bifurcated Contacts.

4 FORM C	Nominal Voltage (DC)	Coil Res. (Ohms)	Contact Rating (Amps)	Net
67DP-A-4C3	6	52	3	\$3.80
67DP-D-4C3	12	185	3	3.80
67DP-G-4C3	24	700	3	3.80
67DP-K-4C3	48	2500	3	3.80
67DP-N-4C3	115	15,000	3	5.20
67DP-A-4C5	6	52	5	4.00
67DP-D-4C5	12	185	5	4.00
67DP-G-4C5	24	700	5	4.00
67DP-K-4C5	48	2500	5	4.00
67DP-N-4C5	115	15,000	5	5.40
67DP-A-4C3B	6	52	3*	4.30
67DP-D-4C3B	12	185	3*	4.30
67DP-G-4C3B	24	700	3*	4.30
67DP-K-4C3B	48	2500	3*	4.30
67DP-N-4C3B	115	15,000	3*	5.70
67DP-A-4C5B	6	52	5*	4.45
67DP-D-4C5B	12	185	5*	4.45
67DP-G-4C5B	24	700	5*	4.45
67DP-K-4C5B	48	2500	5*	4.45
67DP-N-4C5B	115	15,000	5*	5.85

*Denotes Bifurcated Contacts.

POWER ADJUSTMENT

6 FORM C	Nominal Voltage (DC)	Coil Res. (Ohms)	Contact Rating (Amps)	Net
67DP-B-6C3	6	25	3	\$4.90
67DP-E-6C3	12	90	3	4.90
67DP-H-6C3	24	430	3	4.90
67DP-L-6C3	48	1550	3	4.90
67DP-P-6C3	115	9000	3	5.85
67DP-B-6C5	6	25	5	5.20
67DP-E-6C5	12	90	5	5.20
67DP-H-6C5	24	430	5	5.20
67DP-L-6C5	48	1550	5	5.20
67DP-P-6C5	115	9000	5	6.15
67DP-B-6C3B	6	25	3*	5.40
67DP-E-6C3B	12	90	3*	5.40
67DP-H-6C3B	24	430	3*	5.40
67DP-L-6C3B	48	1550	3*	5.40
67DP-P-6C3B	115	9000	3*	6.35
67DP-B-6C5B	6	25	5*	5.60
67DP-E-6C5B	12	90	5*	5.60
67DP-H-6C5B	24	430	5*	5.60
67DP-L-6C5B	48	1550	5*	5.60
67DP-P-6C5B	115	9000	5*	6.55

8 FORM C	Nominal Voltage (DC)	Coil Res. (Ohms)	Contact Rating (Amps)	Net
67DP-C-8C3	6	20	3	\$7.00
67DP-F-8C3	12	72	3	7.00
67DP-J-8C3	24	350	3	7.00
67DP-M-8C3	48	1250	3	7.00
67DP-R-8C3	115	8000	3	7.95
67DP-C-8C5	6	20	5	7.40
67DP-F-8C5	12	72	5	7.40
67DP-J-8C5	24	350	5	7.40
67DP-M-8C5	48	1250	5	7.40
67DP-R-8C5	115	8000	5	8.35
67DP-C-8C3B	6	20	3*	7.70
67DP-F-8C3B	12	72	3*	7.70
67DP-J-8C3B	24	350	3*	7.70
67DP-M-8C3B	48	1250	3*	7.70
67DP-R-8C3B	115	8000	3*	8.65
67DP-C-8C5B	6	20	5*	7.90
67DP-F-8C5B	12	72	5*	7.90
67DP-J-8C5B	24	350	5*	7.90
67DP-M-8C5B	48	1250	5*	7.90
67DP-R-8C5B	115	8000	5*	8.85

SENSITIVE ADJUSTMENT

	Operate Current (Amps)	Coil Res. (Ohms)	Contact Rating (Amps)	Net
67DS-S-2C3	.0085	1000	3	\$3.70
67DS-K-2C3	.0058	2500	3	3.70
67DP-T-2C3	.0041	5000	3	4.20
67DP-V-2C3	.0031	10,000	3	4.60
67DP-N-2C3	.0026	15,000	3	4.60
67DS-S-4C3	.0130	1000	3	4.15
67DS-K-4C3	.0084	2500	3	4.15
67DS-T-4C3	.0062	5000	3	4.65
67DS-V-4C3	.0045	10,000	3	5.05
67DS-N-4C3	.0035	15,000	3	5.05

MOUNTING HARDWARE

(Includes Socket, Retaining Clip and Ground Clip)

Part No.	Description	Net
6-1313-9	2 Pole Solder Terminal	\$ 55
6-1313-10	2 Pole Printed Circuit Terminal	.65
6-1313-11	4 Pole Solder Terminal	.60
6-1313-12	4 Pole Printed Circuit Terminal	.70
6-1313-13	6 Pole Solder Terminal	.95
6-1313-14	6 Pole Printed Circuit Terminal	1.05
6-1313-15	8 Pole Solder Terminal	1.30
6-1313-16	8 Pole Printed Circuit Terminal	1.40

ALL SOCKET TERMINALS ARE GOLD PLATED

MOUNTING HARDWARE

IMMEDIATE IN STOCK DELIVERY THROUGH LEADING INDUSTRIAL ELECTRONIC DISTRIBUTORS

PHILLIPS-ADVANCE CONTROL CO.

TELEPHONE RELAYS

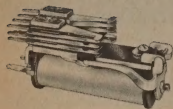
TYPE 2 Dependable and versatile, the Type 2 is the "workhorse" of relays. It operates millions of times with reliability and requires little attention during its long life. An unusually large number of variations in contact assembly, contact materials, coils, adjustments, and mounting arrangements are available.

On special order:

Operating Voltage: Up to 750 volts DC. Up to 440 volts AC, 60 cycles.

Resistance: Up to 50,000 ohms, single or double wound.

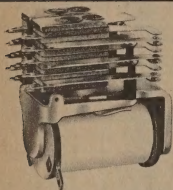
Standard Contacts: 18 ga. palladium, rated 3 amps, 150W. resistive. (Gold Flashed)



LONG FRAME

TYPE (DC)	Coil Voltage	Contact Arrange.	Coil Res. (Ohms)	Operate Curr. (Amps)	Operate Time (Sec.)	Net
2DC-6-2C	6	DPDT	50	.048	.030	7.20
2DC-6-6C	6	6PDT	50	.090	.065	11.20
2DC-24-2C	24	DPDT	600	.015	.025	7.50
2DC-24-6C	24	6PDT	600	.024	.050	11.50
2DC-48-4C	48	4PDT	2,000	.011	.040	7.70
2DC-48-6C	48	6PDT	2,000	.013	.050	11.70
2DC-115-1C	115	SPDT	3,600	.0045	.010	7.00
2DC-115-3C	115	3PDT	3,600	.008	.015	9.25
2DC-230-2C	230	DPDT	10,000	.004	.010	8.80
2DC-230-4C	230	4PDT	10,000	.006	.050	10.80

TYPE (AC)	Coil Voltage	Contact Arrange.	Coil Res. (Ohms)	Curr. Drain (Amps)	Pick-up Volt. (V)	60 Cy.
2AC-6-1C	6	SPDT	0.2	1	4.5	7
2AC-6-4C	6	4PDT	0.2	1	4.5	8
2AC-24-2C	24	DPDT	4	.24	21	7
2AC-24-4C	24	4PDT	4	.24	21	8
2AC-115-1C	115	SPDT	100	.08	100	7
2AC-115-3C	115	3PDT	100	.08	100	9



SHORT FRAME

TYPE 4C Relays constructed on the same general design of compact assembly and possess similar specifications. The helpline, armature and coil core are made of annealed magnetic iron, with the helpline acting as a return path for the magnetic circuit. The armature is pivoted on long-life bearings to insure constant pickup and drop-out adjustment. Standard relays are supplied with solder terminals for contact springs and coils.

Standard Contacts: 18 ga. palladium, rated 3 amps, 150W. resistive. (Gold Flashed)

TYPE (DC)	CONTACT ARRANGE.	COIL RES. OHMS	NET
4CDC-6-2C	DPDT	30	5.30
4CDC-12-2C	DPDT	75	5.30
4CDC-24-2C	DPDT	425	5.30
4CDC-115-2C	DPDT	6500	5.80
4CDC-6-4C	4PDT	30	7.05
4CDC-12-4C	4PDT	75	7.05

TYPE (DC)	CONTACT ARRANGE.	COIL RES. OHMS	NET
4CDC-24-4C	4PDT	425	7.05
4CDC-115-4C	4PDT	6500	7.05
4CDC-12-6C	6PDT	75	8.60
4CDC-24-6C	6PDT	425	8.60
4CDC-115-6C	6PDT	6500	9.20

TYPE 8 Small versatile multi-contact telephone type relays. Available with many variations in coils, contact assemblies, contact ratings, adjustments, terminal arrangements and mountings for a variety of applications. Standard contact blades are made of spring temper nickel silver, designed to give true independent twin contact operation.

Coil Characteristics:

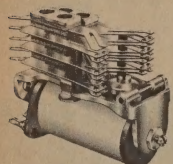
Operating Voltage: Up to 300 volts D. C., 115 volts A. C., 60 or 400 cycles.

Resistance: Up to 21,000 ohms, single or double wound.

Standard Contacts: Twin palladium, rated 4 amps, 175W. resistive. (Gold Flashed)

TYPE (DC)	COIL RES. (OHMS)	OPERATE CURR. (AMPS)	WATTS	OPERATE TIME (SEC.)	NET
8DC-12-4C	100	.072	.518	.022	8.25
8DC-12-6C	100	.100	1.0	.030	11.30
8DC-24-4C	300	.046	.635	.029	8.25
8DC-24-6C	300	.064	1.23	.025	11.30
8DC-115-4C	8000	.010	.80	.023	9.80
8DC-115-6C	8000	.012	1.15	.023	12.15

TYPE (AC)	COIL RES. (OHMS)	CURR. DRAIN (AMPS)	PICK-UP VOLT. (V)	60 CY.
8AC-115-2C	400	.075	95	6.3
8AC-115-4C	400	.075	95	8.5



MEDIUM FRAME

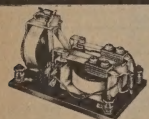
POWER RELAYS

TYPE LE The LE Series relays are employed in industrial and power control applications where it is desirable to eliminate continuous use of current consumption by the duty coil.

The latching mechanism in these relays is positive, and assures consistent performance. The units are assembled on a heavy bakelite base.

Dimensions: H. 2 3/8", W. 2 1/2", L. 3 3/8".

Mounting Data: 2 holes .152 dia.; clearance for 6-32 NC-2 screws; 2" centers.



LATCHING

Type	Coil Resistance	Contacts*	Net
LE/2C/115VA	160 ohms	DPDT 15 amps	12.00
LE/2C/24VD	100 ohms	DPDT 15 amps	11.65

TYPE PC Compact and positive-acting relays for either AC or DC. Used in air conditioning and lighting systems, small motor starting, transformers, garage door openers—wherever dependable circuit switching is necessary. Contacts rated at 15 Amps resistive, 5 Amps inductive at 115VAC or 26.5 VDC.

Dimensions: H. 1 3/8", W. 1 3/8", L. 2 3/8"—1 & 2 pole.
H. 1 3/8", W. 2 3/8", L. 3 3/8"—3 & 4 pole.

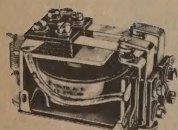
Mounting Data: 2 tapped holes 6-32 NC-2; 2" centers.

Weight: 8 oz.

TYPE	COIL RESISTANCE (OHMS)	CONTACTS FORM	RATING (AMPS)	NET
PC/1C/6VA	1.6	SPDT	15	3.95
PC/1C/12VA	4	SPDT	15	3.95
PC/1C/24VA	16	SPDT	15	3.95
PC/1C/115VA	450	SPDT	15	3.95
PC/1C/220VA	1600	SPDT	15	4.95
PC/1C/6VD	1.6	SPDT	15	3.95
PC/1C/12VD	63	SPDT	15	3.95
PC/1C/24VD	250	SPDT	15	3.95
PC/1C/110VD	4000	SPDT	15	4.45
PC/2C/6VA	1.6	DPDT	15	5.95
PC/2C/12VA	4	DPDT	15	5.95
PC/2C/24VA	16	DPDT	15	5.95

TYPE	COIL RESISTANCE (OHMS)	CONTACTS FORM	RATING (AMPS)	NET
PC/2C/115VA	450	DPDT	15	5.95
PC/2C/220VA	1600	DPDT	15	6.95
PC/2C/6VD	1.6	DPDT	15	5.95
PC/2C/12VD	63	DPDT	15	5.95
PC/2C/24VD	250	DPDT	15	5.95
PC/2C/110VD	4000	DPDT	15	6.55
PC/3C/6VA	1.6	3PDT	15	8.45
PC/3C/24VA	16	3PDT	15	8.45
PC/3C/115VA	450	3PDT	15	8.45
PC/3C/220VA	1600	3PDT	15	9.65
PC/3C/6VD	1.6	3PDT	15	8.45
PC/3C/12VD	63	3PDT	15	8.45
PC/3C/24VD	250	3PDT	15	8.45
PC/3C/110VD	4000	3PDT	15	8.95
PC/4C/6VA	1.6	4PDT	15	10.95
PC/4C/24VA	16	4PDT	15	10.95
PC/4C/115VA	450	4PDT	15	10.95
PC/4C/220VA	1600	4PDT	15	12.45
PC/4C/6VD	1.6	4PDT	15	10.95
PC/4C/12VD	63	4PDT	15	10.95
PC/4C/24VD	250	4PDT	15	10.95
PC/4C/110VD	4000	4PDT	15	11.45

Note: PC/3C and PC/4C not available in 12 volts AC.



HILLIPS-ADVANCE CONTROL CO.



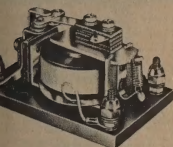
TYPE PG A continuous duty general purpose relay, available in AC or DC with DPDT (2C) and SPDT-DB (1Z) contact arrangements. Excellent for general industrial power control circuits and withstand vibration and shock because of special armature and frame design. 30 amp contact rating is achieved on the PG/1Z by including a jumper between blades, effecting a single pole design.

Dimensions: H. 1 1/8", W. 1 1/8", L. 1 1/8".

Mounting Data: 4 tapped holes 6-32 NC-2; 1/2" x 1-5/16" centers.

Weight: 4.4 oz.

TYPE	COIL RESISTANCE (OHMS)	FORM	CONTACTS RATING (AMPS)	NET
PG/2C/6VA	1.4	DPDT	15	7.50
PG/2C/24VA	25	DPDT	15	7.50
PG/2C/115VA	400	DPDT	15	7.50
PG/2C/220VA	1600	DPDT	15	7.95
PG/2C/6VD	16	DPDT	15	6.90
PG/2C/12VD	63	DPDT	15	6.90
PG/2C/24VD	250	DPDT	15	6.90
PG/1Z/6VD	16	SPDT	30	8.95
PG/1Z/115VA	400	SPDT	30	10.40



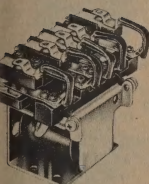
TYPE PV Very heavy-duty power-transfer relays—excellent for motor starting, lighting circuits and numerous applications where heavy double make contacts are needed. "T" blade is equipped with two 3/4" silver-cadmium oxide contacts, with ample contact gap. These contacts minimize pitting and burning under heavy non-inductive or inductive loads.

Dimensions: H. 1 1/8", W. 2 1/4", L. 3 1/4".

Mounting Data: 2 holes .169 dia. clearance for 8-32 NC-2 screws, 1 1/8" centers.

Weight: 6.8 oz.

TYPE	COIL RESISTANCE (OHMS)	FORM	CONTACTS RATING (AMPS)	NET
PV/1X/6VD	16	SPST-NO	30	7.35
PV/1X/115VA	450	SPST-NO	30	7.70
PV/1Z/6VD	16	SPDT	30	8.55
PV/1Z/115VA	450	SPDT	30	8.70



AVAILABLE THRU FORM C (AC OR DC)

TYPE 33B Designed and constructed with a variety of features which contribute to the sensitivity and longevity of this relay. Contacts and terminals are mounted on molded phenolic blocks with integral barriers. Moveable contact blades are made of spring temper phosphor bronze for high conductivity and long life. Adjusting screws on each blade permit close adjustment in the factory for contact gap, over-travel, and pressure. Armature pivots on machined phosphor bronze bearing pins and pivot holes are precision reamed. Adjustment of the armature and yoke assembly allows proper alignment between the armature and pole face. Four 6-32 N. C. tapped mounting holes in the base allow easy mounting on chassis or bracket.

Dimensions: H. 2 3/4", W. 2 3/4" (5 Pole), L. 2".

Mounting Data: 4 Tapped Holes 6-32NC-2, 1/2" x 1 1/8" centers.

Weight: 6 ounces max.

Contact Rating: Code 14—20 Amps Resistive at 115 VAC.

Stock Numbers are coded: 33BDC-24-5C-14.

A Type 33 relay for 24 volt DC operation with a 5C contact assembly using code number 14 contacts.

Type (DC)	Coil Res. (Ohms)	Operate Curr. (Amps)	Watts	Operate Time (Sec.)	Contact Arrangement	Net
33BDC-6-3C-14	18	.185	.62	.019	3PDT	6.60
33BDC-6-5C-14	18	.225	.91	.025	5PDT	8.10
33BDC-24-3C-14	250	.064	1.02	.025	3PDT	6.60
33BDC-24-5C-14	250	.070	1.22	.029	5PDT	8.10
33BDC-230-3C-14	10,000	.010	1.0	.014	3PDT	8.60
33BDC-230-5C-14	10,000	.011	1.21	.016	5PDT	10.10

Type (AC)	Coil Res. (Ohm —DC)	Curr. Drain (Amps)	Pick-up Volt. (60 Cy.)	Contact Arrangement	Net
33BAC-6-3C-14	1	.720	4.5	3PDT	6.60
33BAC-6-5C-14	1	.720	4.5	5PDT	8.10
33BAC-24-3C-14	9	.390	21	3PDT	6.60
33BAC-24-5C-14	9	.390	21	5PDT	8.10
33BAC-115-3C-14	215	.070	100	3PDT	6.60
33BAC-115-5C-14	215	.070	100	5PDT	8.10

GENERAL PURPOSE RELAYS

TYPE 12 Low cost general purpose relay with multiple contacts. Used widely in commercial applications such as industrial controls, communications equipment, and automatic vending machines. On special order available in resistances up to 12,000 ohms. AC or DC, 230 volts, maximum. Coil dissipation, 3 watts maximum.

Dimensions: H. 2 3/4", L. 1 7/8", W. 1".

Mounting: 4 6-32 tapped holes on 3/4" x 7/8" centers.

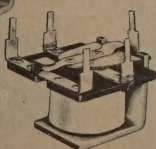
Standard Contacts: 3/4" silver. Rated 10 amperes resistive at 115 VAC.

TYPE	COIL VOLTAGE (DC)	CONTACT ARRANGE.	RATING (AMPS)	NET
12DC-6-2C-10	6	DPDT	10	2.30
12DC-12-2C-10	12	DPDT	10	2.40
12DC-24-2C-10	24	DPDT	10	2.50
12DC-115-2C-10	115	DPDT	10	2.80
12DC-6-3C-10	6	3PDT	10	2.65
12DC-12-3C-10	12	3PDT	10	2.75
12DC-24-3C-10	24	3PDT	10	2.80
12DC-115-3C-10	115	3PDT	10	3.15
12DC-6-4C-10	6	4PDT	10	3.00
12DC-12-4C-10	12	4PDT	10	3.10
12DC-24-4C-10	24	4PDT	10	3.15
12DC-115-4C-10	115	4PDT	10	3.50
12DC-6-6C-10	6	6PDT	10	3.50
12DC-12-6C-10	12	6PDT	10	3.60
12DC-24-6C-10	24	6PDT	10	3.65
12DC-115-6C-10	115	6PDT	10	4.00

TYPE	COIL VOLTAGE (AC)	CONTACT ARRANGE.	RATING (AMPS)	NET
12AC-6-2C-10	6	DPDT	10	2.40
12AC-12-2C-10	12	DPDT	10	2.50
12AC-24-2C-10	24	DPDT	10	2.55
12AC-115-2C-10	115	DPDT	10	2.70
12AC-6-3C-10	6	3PDT	10	2.70
12AC-12-3C-10	12	3PDT	10	2.80
12AC-24-3C-10	24	3PDT	10	2.90
12AC-115-3C-10	115	3PDT	10	3.10
12AC-6-4C-10	6	4PDT	10	3.10
12AC-12-4C-10	12	4PDT	10	3.15
12AC-24-4C-10	24	4PDT	10	3.20
12AC-115-4C-10	115	4PDT	10	3.40
12AC-6-6C-10	6	6PDT	10	3.60
12AC-12-6C-10	12	6PDT	10	3.65
12AC-24-6C-10	24	6PDT	10	3.70
12AC-115-6C-10	115	6PDT	10	3.90



SOLDER TERMINAL



PRINTED CIRCUIT

TYPE 15 A small economical unit designed for printed circuit or screw mounting. 200 milliwatts nominal operating power. Available form 1C only.

Dimensions: H. 0.781"; L. 1 1/8"; W. 1".

Mounting: Single 1/2" tapped hole.

SOLDER TERMINAL

TYPE	COIL VOLTAGE	COIL RES.	CONTACT RATING (AMPS)	NET
15-6-1CT	6	85	1	1.50
15-12-1CT	12	300	1	1.50
15-24-1CT	24	1100	1	1.50

PRINTED CIRCUIT

TYPE	COIL VOLTAGE	COIL RES.	CONTACT RATING (AMPS)	NET
15-6-1C	6	85	1	1.50
15-12-1C	12	300	1	1.50
15-24-1C	24	1100	1	1.50

PHILLIPS-ADVANCE CONTROL CO.

TYPES—GHA—GHP

Low-cost continuous-duty general purpose relay. Contacts rated at 5 amps resistive load. Available as an open relay (GHA) or with a dustite plastic enclosure (GHP). Enclosed types with SPDT and DPDT contacts have 8 pin octal plug-in bases while the 3PDT types use 11 pin plug-in bases. Open relays supplied with axial type solder lugs. UL (Underwriters Laboratories) approval granted on types GHA1C and GHA2C.

Dimensions: Open Style— $1\frac{1}{4}" \times 1\frac{1}{4}" \times 1\frac{3}{4}"$.
Enclosed Style— $1\frac{1}{2}" \times 1\frac{1}{2}" \times 2\frac{1}{2}"$.

TYPE	COIL RESISTANCE (OHMS)	CONTACTS FORM	RATING (AMPS)	NET
GHA/1C/6VA	4	SPDT	5	3.05
GHA/1C/12VA	16	SPDT	5	3.05
GHA/1C/24VA	63	SPDT	5	3.05
GHA/1C/115VA	1600	SPDT	5	3.05
GHA/1C/220VA	5000	SPDT	5	3.55
GHA/1C/6VD	25	SPDT	5	3.05
GHA/1C/12VD	100	SPDT	5	3.05
GHA/1C/24VD	400	SPDT	5	3.05
GHA/1C/110VD	8000	SPDT	5	3.55
GHA/2C/6VA	4	DPDT	5	3.55
GHA/2C/12VA	16	DPDT	5	3.55
GHA/2C/24VA	63	DPDT	5	3.55
GHA/2C/115VA	1600	DPDT	5	3.55
GHA/2C/220VA	5000	DPDT	5	4.05
GHA/2C/6VD	25	DPDT	5	3.35
GHA/2C/12VD	100	DPDT	5	3.35
GHA/2C/24VD	400	DPDT	5	3.35
GHA/2C/110VD	8000	DPDT	5	3.85
GHA/3C/6VA	4	3PDT	5	4.05
GHA/3C/12VA	16	3PDT	5	4.05
GHA/3C/24VA	63	3PDT	5	4.05
GHA/3C/115VA	1600	3PDT	5	4.05

TYPE	COIL RESISTANCE (OHMS)	CONTACTS FORM	RATING (AMPS)	NET
GHA/3C/220VA	5000	3PDT	5	4.05
GHA/3C/6VD	25	3PDT	5	4.05
GHA/3C/12VD	100	3PDT	5	4.05
GHA/3C/24VD	400	3PDT	5	4.05
GHA/3C/110VD	8000	3PDT	5	4.05
GHP/1C/6VA	4	SPDT	5	3.05
GHP/1C/12VA	16	SPDT	5	3.05
GHP/1C/24VA	63	SPDT	5	3.05
GHP/1C/115VA	1600	SPDT	5	3.05
GHP/1C/6VD	25	SPDT	5	3.05
GHP/1C/12VD	100	SPDT	5	3.05
GHP/1C/24VD	400	SPDT	5	3.05
GHP/1C/110VD	8000	SPDT	5	3.05
GHP/2C/6VA	4	DPDT	5	3.05
GHP/2C/12VA	16	DPDT	5	3.05
GHP/2C/24VA	63	DPDT	5	3.05
GHP/2C/115VA	1600	DPDT	5	3.05
GHP/2C/220VA	5000	DPDT	5	3.05
GHP/2C/6VD	25	DPDT	5	3.05
GHP/2C/12VD	100	DPDT	5	3.05
GHP/2C/24VD	400	DPDT	5	3.05
GHP/2C/110VD	8000	DPDT	5	3.05
GHP/3C/6VA	4	3PDT	5	3.05
GHP/3C/24VA	63	3PDT	5	3.05
GHP/3C/115VA	1600	3PDT	5	3.05
GHP/3C/220VA	5000	3PDT	5	3.05
GHP/3C/6VD	25	3PDT	5	3.05
GHP/3C/12VD	100	3PDT	5	3.05
GHP/3C/24VD	400	3PDT	5	3.05
GHP/3C/110VD	8000	3PDT	5	3.05

TYPE LGA Used in industrial and power control applications where it is desirable to eliminate continuous use of current consumption by the duty coil. Latching mechanism is positive and assures consistent performance. Both operate and reset coils are electrically operated.

Dimensions: $1\frac{3}{4}" \times 1\frac{3}{4}" \times 3\frac{1}{2}"$.
Two 6-32 mounting holes on $1\frac{3}{8}"$ centers.

TYPE	COIL RESISTANCE (BOTH COILS) (OHMS)	CONTACTS FORM	RATING (AMPS)	NET
LGA/4C/24VA	40	4PDT	5	10.0
LGA/4C/115VA	1000	4PDT	5	10.0
LGA/4C/6VD	16	4PDT	5	9.0
LGA/4C/12VD	63	4PDT	5	9.0
LGA/4C/24VD	250	4PDT	5	9.0
LGA/4C/110VD	5000	4PDT	5	10.0
LGA/6C/24VA	40	6PDT	5	12.0
LGA/6C/115VA	1000	6PDT	5	12.0
LGA/6C/6VD	16	6PDT	5	11.0
LGA/6C/12VD	63	6PDT	5	11.0
LGA/6C/24VD	250	6PDT	5	11.0
LGA/6C/110VD	5000	6PDT	5	12.0

TYPES GHB—GHH Similar in size and mounting to the GHA and GHP types shown above with contacts rated at 10 amps resistive. GHB is open style with axial leads and GHH utilizes plastic enclosure and plug-in base. UL Listing granted on types GHB/1C and GHB/2C.

Dimensions: Open Style— $1\frac{1}{4}" \times 1\frac{1}{4}" \times 1\frac{3}{4}"$.
Enclosed Style— $1\frac{1}{2}" \times 1\frac{1}{2}" \times 2\frac{1}{2}"$.

TYPE	COIL RESISTANCE (OHMS)	CONTACTS FORM	RATING (AMPS)	NET
GHB/1C/6VA	4	SPDT	10	3.50
GHB/1C/24VA	63	SPDT	10	3.50
GHB/1C/115VA	1600	SPDT	10	3.50
GHB/1C/6VD	25	SPDT	10	3.50
GHB/1C/12VD	100	SPDT	10	3.50
GHB/1C/24VD	400	SPDT	10	3.50
GHB/2C/6VA	4	DPDT	10	4.05
GHB/2C/24VA	63	DPDT	10	4.05
GHB/2C/115VA	1600	DPDT	10	4.05
GHB/2C/6VD	25	DPDT	10	3.80
GHB/2C/12VD	100	DPDT	10	3.80
GHB/2C/24VD	400	DPDT	10	3.80
GHB/3C/6VA	4	3PDT	10	4.60

TYPE	COIL RESISTANCE (OHMS)	CONTACTS FORM	RATING (AMPS)	NET
GHB/3C/24VA	63	3PDT	10	4.60
GHB/3C/115VA	1600	3PDT	10	4.60
GHB/3C/6VD	25	3PDT	10	4.60
GHB/3C/12VD	100	3PDT	10	4.60
GHB/3C/24VD	400	3PDT	10	4.60
GHH/2C/6VA	4	DPDT	10	6.0
GHH/2C/24VA	63	DPDT	10	6.0
GHH/2C/115VA	1600	DPDT	10	6.0
GHH/2C/6VD	25	DPDT	10	5.0
GHH/2C/12VD	100	DPDT	10	5.0
GHH/2C/24VD	400	DPDT	10	5.0
GHH/3C/6VA	4	3PDT	10	7.0
GHH/3C/12VA	16	3PDT	10	7.0
GHH/3C/24VA	63	3PDT	10	7.0
GHH/3C/115VA	1600	3PDT	10	7.0
GHH/3C/6VD	25	3PDT	10	7.0
GHH/3C/12VD	100	3PDT	10	7.0
GHH/3C/24VD	400	3PDT	10	7.0

TYPE GHE A plate circuit current operated unit having extremely good sensitivity. Standard GHE enclosed in dustite plastic enclosure and mounts with either an 8 pin or 11 pin plug-in base. Nominal power of 130 milliwatts per 1C (single pole) is required.

Dimensions: $1\frac{1}{2}" \times 1\frac{1}{2}" \times 2\frac{1}{2}"$.

TYPE	COIL RESISTANCE (OHMS)	COIL CURRENT	CONTACTS FORM	RATING (AMPS)	NET
GHE 1C/2500D	2500	7.2 MA	SPDT	5	4.0
GHE 1C 5000D	5000	5.0 MA	SPDT	5	4.0
GHE 1C 10000D	10000	3.6 MA	SPDT	5	5.0
GHE 2C 2500D	2500	10.0 MA	DPDT	5	5.0
GHE 2C 5000D	5000	7.2 MA	DPDT	5	5.0
GHE 2C 10000D	10000	5.0 MA	DPDT	5	5.0
GHE 3C 2500D	2500	11.8 MA	3PDT	5	5.0
GHE 3C 5000D	5000	8.3 MA	3PDT	5	5.0
GHE 3C 10000D	10000	5.8 MA	3PDT	5	5.0

PHILLIPS-ADVANCE CONTROL CO.



TYPE MK Ultra-small and feather-light, these direct current devices require less than $\frac{1}{2}$ cubic inch mounting space. All switching is entirely above ground - insulated material is silicone glass. Beryllium copper armature hinges assure stable performance under vibration and shock.

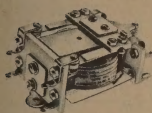
Dimensions: H. $\frac{3}{16}$ ", W. $\frac{1}{4}$ ", L. $\frac{3}{16}$ ".

Mounting Data: Relay supplied with single 2-56 NC-2 machine screw.

Weight: 11 grams.

TYPE	COIL RESISTANCE	CONTACTS			NET
		FORM	RATING (AMPS)		
MK/1C/6VD	50	SPDT	1	4.95	
MK/1C/12VD	200	SPDT	1	4.95	
MK/1C/24VD	800	SPDT	1	4.95	
MK/2C/6VD	30	DPDT	1	5.95	
MK/2C/12VD	120	DPDT	1	5.95	
MK/2C/24VD	500	DPDT	1	5.95	
MK/2C/5000D	5000	DPDT	1	6.95	

ANTENNA • COAXIAL RELAYS

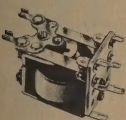


TYPE AH A changeover relay designed specifically for RF operation. The small size of this relay makes it ideal for use in compact sets where the load does not exceed $\frac{1}{2}$ KW. Low-Loss handling of RF energy is assured by the Steatite insulation used throughout, and by adequate spacing between contacts. Units are fast and positive in action, and will operate in any position.

Dimensions: H. $1\frac{1}{4}$ ", W. $1\frac{1}{8}$ ", L. $2\frac{3}{4}$ ".

Mounting Data: 2 tapped holes; 6-32 NC-2; 2" centers.

TYPE	COIL RES. (OHMS)	CONTACTS			NET
		FORM	RATING (AMPS)		
AH/2C/6VD	16	DPDT	10	11.75	
AH/2C/12VD	63	DPDT	10	11.75	
AH/2C/24VD	250	DPDT	10	11.75	
AH/2C/115VA	450	DPDT	10	13.00	
AH/2C1C/115VA	450	DPDT & SPDT (aux)	10	14.25	



TYPE AM Space-saving "transmit-receive" antenna relays for many different low-power RF applications. They fill the need for 300-ohm circuit switching in mobile, marine, aircraft, television, communication and fixed-station service. Conically-shaped silver contacts assure low resistance paths for either "receive" or "transmit" positions.

Dimensions: H. $1-9/16$ ", W. $15/16$ ", L. $1-15/16$ ".

Mounting Data: Relay supplied with single 6-32 NC-2 mounting stud with hex nut.

Weight: 2 oz.

TYPE	COIL RES. (OHMS)	CONTACTS			NET
		FORM	RATING (AMPS)		
AM/2C/6VA	4	DPDT	2	4.70	
AM/2C/115VA	1600	DPDT	2	5.05	
AM/2C/6VD	25	DPDT	2	4.20	
AM/2C/12VD	100	DPDT	2	4.20	
AM/2C/24VD	250	DPDT	2	4.20	



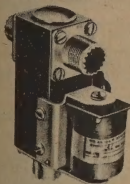
TYPE AT For heavy-duty RF transmitter antenna changeover applications. Primarily designed for fixed-station usage, with a conservative 1-kilowatt RF rating. Insulated with ceramic Steatite. Excellent wiping action of contacts assures flow of most minute currents for receiving positions. High efficiency. Available with auxiliary single-pole, normally open contacts.

Dimensions: H. $1-11/16$ ", W. $2-13/16$ ", L. $3-9/16$ ".

Mounting Data: 4 holes .157 dia.; clearance for 6-32 screws.

Weight: 12.6 oz.

TYPE	COIL RES. (OHMS)	CONTACTS			NET
		FORM	RATING (AMPS)		
AT/2C/115VA	450	DPDT	10	13.20	



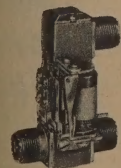
TYPE CB Unsurpassed for meeting problems of coaxial cable switching. Designed for use on 52-ohm coaxial lines. Low standing-wave ratios permit usage on frequencies up to 300 megacycles. Units operate equally well in any position. The CB/1000 is a kit for converting CB/1C to CB/1C2C contact arrangement. All types CB, with exception of CB/1C2C/115VA(N), supplied with SO-239 connectors. CB/1C2C/115VA(N) supplied with "N" connectors.

Dimensions: H. $1\frac{1}{8}$ ", W. $3\frac{3}{4}$ ", L. $3\frac{3}{8}$ ".

Mounting Data: 2 tapped holes 6-32 NC-2; $1\frac{1}{4}$ " centers.

Weight: 11.1 oz.

TYPE	COIL RESISTANCE (OHMS)	CONTACTS			NET
		FORM	RATING (AMPS)		
CB/1C/6VD	18	SPDT	5	20.00	
CB/1C/12VD	70	SPDT	5	20.00	
CB/1C/24VD	280	SPDT	5	20.00	
CB/1C/115VA	280	SPDT	5	21.00	
CB/1C2C/6VD	18	SPDT (int) DPDT (aux)	5	23.60	
CB/1C2C/12VD	70	SPDT (int) DPDT (aux)	5	23.60	
CB/1C2C/24VD	280	SPDT (int) DPDT (aux)	5	23.60	
CB/1C2C/115VA	280	SPDT (int) DPDT (aux)	5	24.55	
CB1000		DPDT	5	5.00	
CB/1C2C/115VA (N)	1280	SPDT (int) DPDT (aux)	5	24.55	



TYPE CE Designed for coaxial line switching where space is a problem. The standing wave ratio is extremely low for efficient transfer of RF energy. These relays are ideally suited for use in mobile, aircraft, marine, experimental, and fixed-station communications equipment. The CE relay is designed for performance on 52 ohm coaxial lines but may also be used on lines of other impedances. This unit is rated for continuous duty operation in any position. The $\frac{3}{16}$ " dia. silver internal contacts are rated at 2 amps resistive and external contacts of 2 form C max. are available with 2 amp rating for auxiliary circuit switching.

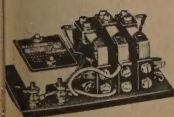
Dimensions: H. $1\frac{1}{8}$ ", W. $2\frac{1}{8}$ ", L. 3" (Including connectors).

Mounting Data: 2 Tapped Holes 6-32NC-2; $\frac{3}{8}$ " centers.

Weight: 4 ounces max.

TYPE	Coil Res. (Ohms)	Form	CONTACTS		Net
			Rating (Amps)		
CE/1C/6VD	20	SPDT	2	\$21.70	
CE/1C/12VD	80	SPDT	2	21.70	
CE/1C/24VD	300	SPDT	2	21.70	
CE/1C/115VA	750	SPDT	2	24.55	
CE/1C2C/6VD	20	SPDT (Int) DPDT (Aux)	2	23.10	
CE/1C2C/12VD	80	SPDT (Int) DPDT (Aux)	2	23.10	
CE/1C2C/24VD	300	SPDT (Int) DPDT (Aux)	2	23.10	
CE/1C2C/115VA	750	SPDT (Int) DPDT (Aux)	2	24.30	

TIME DELAY • SENSITIVE • HIGH VOLTAGE RELAYS



TYPES DB & DM With their adjustable time-delay range, these relays excellent for use in preheating tube filaments; for specialized lighting circuits; photographic controls, protection applications, etc. DB provides time-delay before break. DM provides delay before make. Both series utilize bi-metal thermal units which can be adjusted for delays from 5 to 60 seconds. Cooling of the thermal units for proper re-cycling requires 8 to 10 times the delay period.

Dimensions: H. $1\frac{1}{8}$ ", W. $2\frac{3}{8}$ ", L. $3\frac{3}{8}$ ".

Mounting Data: 2 holes .152 dia.; $3\frac{3}{8}$ " centers.

Weight: 7.8 oz.

TYPE	COIL RES. (OHMS)	FORM	CONTACTS		NET
			Rating (AMPS)		
DB 2C 115VA	450	DPDT	15	13.60	
DM 2C 115VA	450	DPDT	15	14.35	

PHILLIPS-ADVANCE CONTROL CO.



TIME DELAY

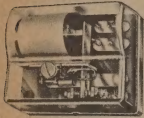
TYPE DT Efficient, low-cost units used in conjunction with various relays for delayed making or breaking of controlled circuits. Applicable wherever a time delay of 5 to 60 seconds is needed. Units are adjustable with a range of 8 to 20 cycles per minute. Operating on the bi-metal thermal principle, these types are housed in unglazed porcelain, and are obtainable with either normally-open or normally-closed contacts.

Dimensions: H. $1\frac{1}{4}$ " W. $1\frac{1}{4}$ " L. $1\frac{1}{4}$ ".

Mounting Data: 2 holes .154 dia. for 6-32 NC-2 screws; $1\frac{1}{2}$ " centers.

Weight: 1.4 oz.

TYPE	COIL VOLT	CONTACTS FORM	RATING (AMPS)	N
DT/1A/115VA	115VAC	SPST	2	2
DT/1B/115VA	115VAC	SPST-NC	2	2



SENSITIVE

TYPE SV For use in any DC circuit restricted to a few thousandths of a watt power consumption.

Transparent, molded plastic cover guards against dust or dirt reaching the contacts or other working parts.

Adjustments are quickly made with the vernier screws which vary relay sensitivity from the 5-milliwatt factory setting. Both the two stationary contacts and the spring tension can be accurately and permanently set—yet easily changed.

Dimensions: H. $1\frac{1}{2}$ " W. 2" L. $2\frac{1}{4}$ ".

Mounting Data: 2 holes .52 dia.

Weight: 6.5 oz.

Sensitivity: 5 Milliwatts.

TYPE	COIL RESISTANCE (OHMS)	COIL CURRENT (MA)	CONTACTS FORM	RATING (AMPS)	N
SV/1C/005D	.005	1000	SPDT	1	7
SV/1C/1000D	1000	2.25	SPDT	1	8
SV/1C/1600D	1600	1.80	SPDT	1	8
SV/1C/2200D	2200	1.50	SPDT	1	8
SV/1C/3500D	3500	1.20	SPDT	1	8
SV/1C/5500D	5500	0.95	SPDT	1	8
SV/1C/8700D	8700	0.75	SPDT	1	9
SV/1C/10000D	10000	0.70	SPDT	1	9
SV/1C/14000D	14000	0.60	SPDT	1	10
SV/1C/20000D	20000	0.50	SPDT	1	11
SV/1C/30000D	30000	0.40	SPDT	1	11
SV/1C/40000D	40000	0.35	SPDT	1	13



HIGH VOLTAGE

TYPE HV Applicable where "standard" design high voltage units occupy too much space. Contact assembly mounted on Steatite to insure high insulation and low energy loss. Will break up to 5000 volts RMS at 200 milliamperes current. Available in SPDT (double break-double make DM-DB) contact arrangement.

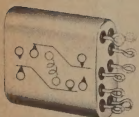
Dimensions: $1\frac{1}{2}$ " x $2\frac{1}{2}$ " x $3\frac{1}{4}$ ".

Mounting data: 2 holes $\frac{3}{4}$ " diameter on $1\frac{1}{4}$ " centers.

TYPE	COIL RESISTANCE	CONTACTS	NET
HV/1Z/24VD	120 Ohms	SPDT DB-DM	17.6
HV/1Z/110VD	3000 Ohms	SPDT DB-DM	18.2

MICRO-MINIATURE RELAYS

TYPE MV Hermetically sealed rotary action DPDT (2 Form C) DC relay for severe military and industrial applications. All units are designed to meet requirements of MIL-R-5757 D. Occupies $\frac{1}{4}$ cubic inch. Contains new spring leaf contact blades which insure longer life with rapid heat dissipation. This Series, is available from stock with wide variety of terminal and mounting arrangements.



CRYSTAL CAN

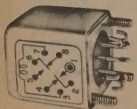
Type	Mounting	Coil Res. (Ohms)	Nominal Volts	Net
MV/2C/300-13	Sol. Head. w/Side Brkt. (2 Hole)	30	6	\$13.50
MV/2C/300-15	Sol. Head. w/Side Brkt. (4 Hole)	30	6	13.50
MV/2C/300-24	Plug In—Plain Can	30	6	13.50
MV/2C/300-34	3" Leads—Plain Can	30	6	13.80
MV/2C/1200-11	Solder Header w/2 Side Studs	120	12	13.50
MV/2C/1200-12	Solder Header w/2 Top Studs	120	12	13.50
MV/2C/1200-13	Sol. Head. w/Side Brkt. (2 Hole)	120	12	13.50
MV/2C/1200-16	Solder Header w/2 Mtg. Brkts.	120	12	13.50
MV/2C/1200-24	Plug In—Plain Can	120	12	13.50
MV/2C/1200-26	Plug In w/2 Mtg. Brackets	120	12	13.50
MV/2C/1200-31	3" Leads w/2 Side Studs	120	12	13.80
MV/2C/1200-33	3" Leads w/Side Brkt. (2 Hole)	120	12	13.80
MV/2C/1200-34	3" Leads—Plain Can	120	12	13.80
MV/2C/6000-11	Solder Header w/2 Side Studs	600	26	13.50
MV/2C/6000-12	Solder Header w/2 Top Studs	600	26	13.50
MV/2C/6000-13	Sol. Head. w/Side Brkt. (2 Hole)	600	26	13.50
MV/2C/6000-14	Solder Header—Plain Can	600	26	13.50
MV/2C/6000-15	Sol. Head. w/Side Brkt. (4 Hole)	600	26	13.50

Type	Mounting	Coil Res. (Ohms)	Nominal Volts	Net
MV/2C/6000-16	Solder Header w/2 Mtg. Brkts.	600	26	13.50
MV/2C/6000-21	Plug In w/2 Side Studs	600	26	13.50
MV/2C/6000-22	Plug In w/2 Top Studs	600	26	13.50
MV/2C/6000-24	Plug In—Plain Can	600	26	13.50
MV/2C/6000-31	3" Leads w/2 Side Studs	600	26	13.50
MV/2C/6000-33	3" Leads w/Side Bracket (2 Hole)	600	26	13.50
MV/2C/6000-34	3" Leads—Plain Can	600	26	13.50
MV/2C/10000-11	Solder Header w/2 Side Studs	1000	35	13.50
MV/2C/10000-12	Solder Header w/2 Top Studs	1000	35	13.50
MV/2C/10000-13	Solder Header w/Side Brkt. (2 Hole)	1000	35	13.50
MV/2C/10000-15	Solder Header w/Side Brkt. (4 Hole)	1000	35	13.50
MV/2C/10000-17	Solder Header w/Flange Bracket	1000	35	13.50
MV/2C/10000-24	Plug In—Plain Can	1000	35	13.50
MV/2C/25000-12	Solder Header w/2 Top Studs	2500	55	13.50
MV/2C/25000-13	Solder Header w/Side Brkt. (2 Hole)	2500	55	13.50
MV/2C/25000-24	Plug In—Plain Can	2500	55	13.50
MV/2C/50000-16	Solder Header w/2 Mtg. Brkts.	5000	78	13.50
MV/2C/50000-21	Plug In w/2 Side Studs	5000	78	13.50
MV/2C/50000-24	Plug In—Plain Can	5000	78	13.50
MV/2C/-10,000-13	Solder Header w/Side Brkt. (2 Hole)	10,000	110	18
MV7033	Conforms to RY4NA3B3L02 of MIL-R-5757D	600	26.5	13.50

TYPE NM Hermetically sealed SPDT (form C) DC relay for missiles, aircraft, control equipment and printed circuits. Occupying only 0.04 of a cubic inch, it is ideal where space is at a minimum and long life is important. Contact resistance is extraordinarily low, making it invaluable in dry circuit switching. Available from stock with a screw down mounting bracket or a bend-over-tab mounting bracket for printed circuit board use.

TYPE	RESISTANCE (OHMS)	PULL-IN CURRENT MAX. (MA)	COIL NOMINAL VOLTAGE (VDC)	N
NM/1C/50	50	44	4	21
NM/1C/200	200	22	8	21
NM/1C/500	500	14	12	21
NM/1C/1K	1,000	10	16	21
NM/1C/2K	2000	7	24	21
6B 346000	Two hole Bracket			
6B 347000	Tab Bracket			

NEOMITE



TYPE VGS Miniature sealed rotary action DPDT (2 form C) relay for missile and aircraft use. A more sensitive version of its forerunner, the VG. VGS occupies less than a cubic inch of space and withstands 15 G's to 2000 cycles vibration, utilizing only 1.25 milliwatts of power at 25 degrees C. Contacts rated at 5 amps resistive at 115 VAC or 26.5 VDC. Contact material is silver magnesium nickel alloy, gold flashed.

TYPE	COIL RESISTANCE (OHMS)	N
VGS/2C/2000D	2000	2

HILLIPS-ADVANCE CONTROL CO.

TYPE VR A 0.2 inch grid-spaced hermetically sealed relay, designed to meet the requirements of Military Specification MIL-R-5757D. Will withstand 35 G's vibration and 100 G's shock. The standard catalog item has a pull-in power of 250 milli-watts at 25 degrees C, and a nominal operating power of 1.25 watts. The double-pole double-throw contacts are of silver magnesium nickel, gold plated and have a rating of 3 amperes resistive at 28 volts DC or 115 volts AC.

Type	Mounting	Coil Res. (Ohms)	Nominal Volts	Net
VR/2C/35D-10	Solder Header w/2 Mtg. Brkts.	35	6.3	\$13.00
VR/2C/35D-24	Plug In—Plain Can	35	6.3	13.00
VR/2C/125D-10	Solder Header w/2 Mtg. Brkts.	125	12.5	13.00
VR/2C/125D-12	Solder Header w/2 Top Studs	125	12.5	13.00
VR/2C/125D-13	Solder Header w/Side Bracket	125	12.5	13.00
VR/2C/125D-14	Solder Header—Plain Can	125	12.5	13.00
VR/2C/125D-24	Plug In—Plain Can	125	12.5	13.00
VR/2C/125D-31	3* Leads w/Side Studs	125	12.5	13.00

Type	Mounting	Coil Res. (Ohms)	Nominal Volts	Net
VR/2C/125D-34	3* Leads—Plain Can	125	12.5	13.30
VR/2C/675D-10	Solder Header w/2 Mtg. Brkts.	675	26.5	13.00
VR/2C/675D-11	Solder Header Side Studs	675	26.5	13.00
VR/2C/675D-12	Solder Header w/2 Top Studs	675	26.5	13.00
VR/2C/675D-13	Solder Header w/Side Bracket	675	26.5	13.00
VR/2C/675D-14	Solder Header—Plain Can	675	26.5	13.00
VR/2C/675D-20	Plug In w/2 Mtg. Brackets	675	26.5	13.00
VR/2C/675D-24	Plug In—Plain Can	675	26.5	13.00
VR/2C/675D-33	3* Leads w/Side Bracket	675	26.5	13.30
VR/2C/675D-34	3* Leads—Plain Can	675	26.5	13.30
VR/2C/1500D-24	Plug In—Plain Can	1500	48.0	13.00
VR/2C/2450D-14	Solder Header—Plain Can	2450	60.0	13.10
VR/2C/2450D-24	Plug In—Plain Can	2450	60.0	13.10
VR/2C/9100D-24	Plug In—Plain Can	9100	110.0	14.00
VR/2C/9100D-31	3* Leads w/Side Studs	9100	110.0	14.30

HIGH SHOCK AND VIBRATION CRYSTAL CAN

TYPE 30 Phillips micro-miniature Type 30 provides rugged, dependable performance from a compact, hermetically sealed relay. It is ideal for applications involving computer systems, missile or aircraft control circuits, communications equipment and general electronic circuitry.

Quality controlled production and precision components assembled and tested under dust-free, super clean manufacturing conditions assures you that the Phillips micro-miniature Type 30 will uphold the high quality standards of your products. Conforms to MIL-5757 D. Meets the following low level requirements: 30 microvolts open circuit voltage; 10 microamperes contact current.

Type	Mounting	Coil Res. (Ohms)	Nominal Volts	Net
30-01D	Solder Header w/2 Mtg. Brkts.	200	12.6	\$7.25
30-01G	Solder Header w/2 Mtg. Brkts.	700	26.5	7.25
30-01M	Solder Header w/2 Mtg. Brkts.	9100	110.0	8.25
30-02D	Solder Header w/Side Bracket	200	12.6	7.25
30-02G	Solder Header w/Side Bracket	700	26.5	7.25
30-02M	Solder Header w/Side Bracket	9100	110.0	8.25
30-04D	Solder Header w/2 Side Studs	200	12.6	7.25
30-04G	Solder Header w/2 Side Studs	700	26.5	7.25

Type	Mounting	Coil Res. (Ohms)	Nominal Volts	Net
30-04M	Solder Header w/2 Side Studs	9100	110.0	8.25
30-05D	Solder Header w/2 Top Studs	200	12.6	7.25
30-05G	Solder Header w/2 Top Studs	700	26.5	7.25
30-05M	Solder Header w/2 Top Studs	9100	110.0	8.25
30-07D	Plug In—Plain Can	200	12.6	7.25
30-07G	Plug In—Plain Can	700	26.5	7.25
30-07M	Plug In—Plain Can	9100	110.0	8.25

CRYSTAL CAN MEETS MIL-R-5757/10

TYPE 62 A unique half-size microminiature relay having these eleven specific advantages: (1) diagonally mounted coil allows larger coil for greater sensitivity; (2) uniquely designed armature assures maximum sensitivity and magnetic uniformity; (3) massive pole pieces provide higher heat dissipation; (4) contacts of gold-flashed silver magnesium nickel for high temperature stability and low level performance; (5) single coil design provides greater reliability; (6) single stamping forms integral return spring and back stop. Fewer parts, greater dependability; (7) Welded, spade-type coil terminations; (8) greater rigidity thru unitized, welded construction; (9) designed for optimum magnetic characteristics; (10) balanced armature provides higher resistance to vibration and shock; (11) sensitivity level below 200 milliwatts.

Dimensions: H. 0.400"; L. 0.390"; W. 0.800".

Type	Mounting	Coil Res. (Ohms)	Nominal Volts	Net
62-01D	Solder Header w/Mtg. Brackets	145	12.0	\$14.25
62-01G	Solder Header w/Mtg. Brackets	700	26.5	14.25
62-02D	Solder Header w/Mtg. Brackets	145	12.0	14.25

Type	Mounting	Coil Res. (Ohms)	Nominal Volts	Net
62-02G	Solder Header w/Mtg. Bracket	700	26.5	14.25
62-07D	Plug In—Plain Can	145	12.0	14.25
62-07G	Plug In—Plain Can	700	26.5	14.25

HALF SIZE MEETS MIL-R-5757/9

TYPE 64 The Type 64 embodies engineering advances truly unique among today's four-pole, double throw relays—twice the versatility of conventional 2PDT's, half the size of conventional 4PDT's, with no sacrifice in performance. Designed specifically to meet aero-space needs, the Type 64 features all-welded construction and "Thermo-Dry" nitrogen backfilling to assure contamination-free operation. Symmetrical circuitry simplifies wiring. Available in various coil resistances and all popular header styles. Meets MIL-R-5757/12A.

Type	Mounting	Coil Res. (Ohms)	Nominal Volts	Net
64-01E	Solder Header w/Mtg. Brackets	120	12.6	\$24.50
64-01H	Solder Header w/Mtg. Brackets	500	26.5	24.50
64-01Q	Solder Header w/Mtg. Brackets	11300	110.0	24.50

Type	Mounting	Coil Res. (Ohms)	Nominal Volts	Net
64-07E	Plug In—Plain Can	120	12.6	24.50
64-07H	Plug In—Plain Can	500	26.5	24.50
64-07Q	Plug In—Plain Can	11300	110.0	24.50

4 POLE—HALF SIZE MEETS MIL-R-5757/12

TYPE 80 A 40 milliwatt micro-miniature relay using latest manufacturing techniques, including back-filling with "Thermo-Dry" nitrogen and precise adjustments to obtain an operate time of less than 10 milliseconds. This unit meets all requirements of military specifications, MIL-R-5757/13A. Vibration, 20 G's through 2000 cps. Shock, 65 G's for 11 milliseconds. Operating temperature range, —65 C to +125 C.

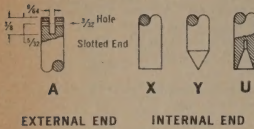
Type	Mounting	Coil Res. (Ohms)	Operating Current (Amps)	Net
80-01A	Solder Header w/2 Mount. Brackets	20	.0450	\$13.00
80-01M	Solder Header w/2 Mount. Brackets	1000	.0064	13.00
80-01P	Solder Header w/2 Mount. Brackets	2000	.0045	13.00
80-01Q	Solder Header w/2 Mount. Brackets	2500	.0040	13.00
80-01R	Solder Header w/2 Mount. Brackets	4000	.0035	13.00
80-01S	Solder Header w/2 Mount. Brackets	5000	.0030	13.00
80-01T	Solder Header w/2 Mount. Brackets	8000	.0025	13.00
80-01U	Solder Header w/2 Mount. Brackets	10,000	.0020	13.00
80-07A	Plug In—Plain Can	20	.0450	13.00
80-07M	Plug In—Plain Can	1000	.0064	13.00
80-07P	Plug In—Plain Can	2000	.0045	13.00
80-07Q	Plug In—Plain Can	2500	.0040	13.00

Type	Mounting	Coil Res. (Ohms)	Operating Current (Amps)	Net
80-07R	Plug In—Plain Can	4000	.0035	13.00
80-07S	Plug In—Plain Can	5000	.0030	13.00
80-07T	Plug In—Plain Can	8000	.0025	13.00
80-07U	Plug In—Plain Can	10,000	.0020	13.00
80-09A	3* Leads—Side Strap	20	.0450	13.30
80-09M	3* Leads—Side Strap	1000	.0064	13.30
80-09P	3* Leads—Side Strap	2000	.0045	13.30
80-09Q	3* Leads—Side Strap	2500	.0040	13.30
80-09R	3* Leads—Side Strap	4000	.0035	13.30
80-09S	3* Leads—Side Strap	5000	.0030	13.30
80-09T	3* Leads—Side Strap	8000	.0025	13.30
80-09U	3* Leads—Side Strap	10,000	.0020	13.30

SENSITIVE MEETS MIL-R-5757/13

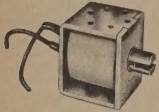
PHILLIPS-ADVANCE CONTROL CO.

SOLENOIDS

STANDARD PLUNGER
STYLES AVAILABLE

TYPES 38, 39, 40, 41, 42, 51 Solid frame solenoids using high-grade steel in all parts of the magnetic circuit. Carefully controlled annealing, after all machining operations are completed, assures maximum efficiency. The frame is dovetailed and staked to the end plate, adding mechanical strength and increasing the performance of the magnetic circuit. Plungers and plunger stops, which are made of annealed and specially processed steel, are available in standard types for specific operating requirements. Type 51 is a laminated frame solenoid and has been designed and engineered to meet all of the requirements of the highest quality A. C. solenoid. Special production technique and rigid quality control combine to provide a highly efficient unit. The frame is composed of silicon steel laminations securely riveted to a steel frame. Pole faces are precision ground and equipped with copper shading rings. Silicon steel laminations are also used for the plunger.

Type	41	42	38	39	40	51
size	1 x 1 1/2 x 1 1/4	1 x 1 1/2 x 2	1 1/4 x 1 1/2 x 1 1/2	1 1/4 x 1 1/2 x 2 1/2	1 1/4 x 1 1/2 x 2 1/2	2 1/4 x 1 1/4
weight (oz.)	6	8	12	16	20	16
coil watts max. at 25°C.	3	6	10	12	15	60 V
std. plunger	AC DC AX AX	AC DC AX AU	AC DC AX AY	AC DC AX AY	AC DC AX AY	AC DC AX AY
max. stroke inches	1/4"	1/2"	1/2"	1/2"	1/2"	1"
plunger dia.	7/16"	7/16"	1/2"	1/2"	1/2"	1/2"

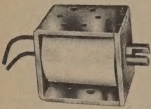


DC SOLENOIDS TYPE 38

CONTINUOUS DUTY				25% INTERMITTENT DUTY*			
Type	Volt.	Coil Res.	Net	Type	Volt.	Coil Res.	Net
38C06DC-AY	6	6	4.50	—	—	—	—
38C12DC-AY	12	21	4.50	382512DC-AY	12	6	4.50
38C24DC-AY	24	66	4.50	382524DC-AY	24	21	4.50
38C48DC-AY	48	300	4.50	382548DC-AY	48	66	4.50
38C15DC-AY	115	1500	4.50	382515DC-AY	115	400	4.50

AC SOLENOIDS

CONTINUOUS DUTY				25% INTERMITTENT DUTY*			
Type	Volt.	Coil Res.	Net	Type	Volt.	Coil Res.	Net
38C0660-AX	6	0.75	4.50	—	—	—	—
38C1260-AX	12	2.5	4.50	38251260-AX	12	0.75	—
38C2460-AX	24	10	4.50	38252460-AX	24	2.5	—
38C1560-AX	115	135	4.50	38251560-AX	115	50	—
38C23060-AX	230	470	4.50	382523060-AX	230	135	—

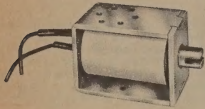


DC SOLENOIDS TYPE 39

CONTINUOUS DUTY				25% INTERMITTENT DUTY*			
Type	Volt.	Coil Res.	Net	Type	Volt.	Coil Res.	Net
39C06DC-AY	6	4	5.10	—	—	—	—
39C12DC-AY	12	10	5.10	392512DC-AY	12	4	5.10
39C24DC-AY	24	60	5.10	392524DC-AY	24	10	5.10
39C48DC-AY	48	250	5.10	392548DC-AY	48	60	5.10
39C15DC-AY	115	1600	5.10	392515DC-AY	115	300	5.10

AC SOLENOIDS

CONTINUOUS DUTY				25% INTERMITTENT DUTY*			
Type	Volt.	Coil Res.	Net	Type	Volt.	Coil Res.	Net
39C0660-AX	6	4	5.10	—	—	—	—
39C1260-AX	12	1.5	5.10	39251260-AX	12	4	—
39C2460-AX	24	7	5.10	39252460-AX	24	1.5	—
39C1560-AX	115	105	5.10	39251560-AX	115	30	—
39C23060-AX	230	400	5.10	392523060-AX	230	105	—

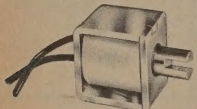


DC SOLENOIDS TYPE 40

CONTINUOUS DUTY				25% INTERMITTENT DUTY*			
Type	Volt.	Coil Res.	Net	Type	Volt.	Coil Res.	Net
40C06DC-AY	6	3.6	6.00	—	—	—	—
40C12DC-AY	12	12	6.00	402512DC-AY	12	3.6	6.00
40C24DC-AY	24	47.5	6.00	402524DC-AY	24	12	6.00
40C48DC-AY	48	225	6.00	402548DC-AY	48	47.5	6.00
40C15DC-AY	115	1570	6.00	402515DC-AY	115	417	6.00

AC SOLENOIDS

CONTINUOUS DUTY				25% INTERMITTENT DUTY*			
Type	Volt.	Coil Res.	Net	Type	Volt.	Coil Res.	Net
40C0660-AX	6	0.8	6.00	—	—	—	—
40C1260-AX	12	1.5	6.00	40251260-AX	12	0.8	—
40C2460-AX	24	8.8	6.00	40252460-AX	24	1.5	—
40C1560-AX	115	84	6.00	40251560-AX	115	25	—
40C23060-AX	230	417	6.00	402523060-AX	230	84	—

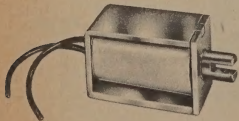


DC SOLENOIDS TYPE 41

CONTINUOUS DUTY				25% INTERMITTENT DUTY*			
Type	Volt.	Coil Res.	Net	Type	Volt.	Coil Res.	Net
41C06DC-AU	6	12	4.10	—	—	—	—
41C12DC-AU	12	60	4.10	412512DC-AU	12	12	4.10
41C24DC-AU	24	200	4.10	412524DC-AU	24	60	4.10
41C48DC-AU	48	830	4.10	412548DC-AU	48	200	4.10
41C15DC-AU	115	4500	4.10	412515DC-AU	115	1400	4.10

AC SOLENOIDS

CONTINUOUS DUTY				25% INTERMITTENT DUTY*			
Type	Volt.	Coil Res.	Net	Type	Volt.	Coil Res.	Net
41C0660-AX	6	1	4.10	—	—	—	—
41C1260-AX	12	10	4.10	41251260-AX	12	1	—
41C2460-AX	24	45	4.10	41252460-AX	24	10	—
41C1560-AX	115	740	4.10	41251560-AX	115	230	—
41C23060-AX	230	2700	4.10	412523060-AX	230	740	—

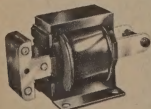


DC SOLENOIDS TYPE 42

CONTINUOUS DUTY				25% INTERMITTENT DUTY*			
Type	Volt.	Coil Res.	Net	Type	Volt.	Coil Res.	Net
42C06DC-AU	6	8	4.50	—	—	—	—
42C12DC-AU	12	30	4.50	422512DC-AU	12	8	4.50
42C24DC-AU	24	115	4.50	422524DC-AU	24	30	4.50
42C48DC-AU	48	420	4.50	422548DC-AU	48	115	4.50
42C15DC-AU	115	2300	4.50	422515DC-AU	115	675	4.50

AC SOLENOIDS

CONTINUOUS DUTY				25% INTERMITTENT DUTY*			
Type	Volt.	Coil Res.	Net	Type	Volt.	Coil Res.	Net
42C0660-AX	6	1	4.50	—	—	—	—
42C1260-AX	12	3.5	4.50	42251260-AX	12	1	—
42C2460-AX	24	30	4.50	42252460-AX	24	3.5	—
42C1560-AX	115	370	4.50	42251560-AX	115	125	—
42C23060-AX	230	1100	4.50	422523060-AX	230	370	—

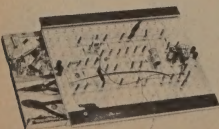


TYPE 51 AC SOLENOIDS

CONTINUOUS DUTY				25% INTERMITTENT DUTY*			
Type	Volt.	Coil Res.	Net	Type	Volt.	Coil Res.	Net
51C11560	115	30	7.20	512511560	115	15	7.20
51C23060	230	150	7.20	512523060	230	65	7.20
51C46060	460	650	7.20	512546060	460	285	7.20

*DUTY BASED ON
4 MINUTE CYCLE

CIRCUIT DESIGNER'S BREADBOARD The latest advance in circuit breadboard design... the ideal electronic workbench for schools and industry. Circuit diagrams may be drawn on schematic transferal board and viewed thru transparent work surface. 14K gold plated spring connectors assure perfect electrical contacts, instantly and without solder. Features: sturdy aluminum frame on rubber cushions; binding posts, 100 spring connectors included; solid 1/4" Plexiglas circuit panel; built-in ground rail for alligator clips; partitioned drawer for tools and parts; slide-out schematic board doubles as cover, includes Ohms Law, color code, symbol charts. Size, 14" by 17". Weight, 4 3/4 pounds. Net, \$34.95.



ISSUED AUGUST 1966

QUALITY RELAYS BY POTTER & BRUMFIELD FOR EVERY APPLICATION

ORDERING INSTRUCTIONS — File-O-Matic Sec. 23

All relay contacts are rated at 120 volt-60 cycle, non inductive load.

When ordering specify relay type and coil voltage or resistance.

Example: PR5AY, 120 Volts AC, 60 cycles or LB5, 2500 ohms resistance.

To operate 110V DC relays on 220V DC use a 5 watt wire-wound

resistor of a value approximately the relay coil resistance in series with the relay coil.

CONTACT LEGEND: S-Single; D-Double; P-Pole; T-Throw; N-Normally; O-Open; C-Closed; B-Break; M-Make.

Prices and Specifications subject to change without notice. For latest prices refer to United Pricing Service.

ALPHABETICAL INDEX

Relay	Page	Relay	Page	Relay	Page	Relay	Page	Relay	Page
AB	4	GP	6	KRP	7	MH	2	PW	3
ABC	4	GP Kit	6	KRP-N	7	ML	2	RS	3
AP	8	HC	5	KT	8	MR	4	SA	9
BS	1	JM	10	KUP	7	MS	9	SC, SCG	5
BS Cover 1	JR	9	LB	3	MS/MR	SL, SLG	5		
BU	8	KA, KAP	6	LM	3	Cover 4, 11	SM	3	
CD/CH	11	KB	8	LS, LSP	1	PC	9	SS	3
FC, FL	5	KCP	3	MB	2	PM	4	TL	5
GA	5	KHP, KHS	6	MC	2	PR	4	"P" Case	7
GB	2	KL	6	MDP	12	PM & PR	Hold Down		
GF	4	KM	8	MG	2	Cover 4	Spring		
GM	8	KR3-H	7						

eem File System Sec.
Electronic engineers master 4500

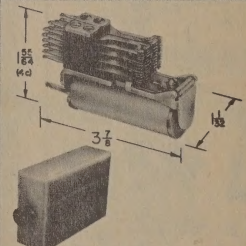
KEY TO SUFFIXES

SUFFIX	STANDS FOR	EXAMPLE
A	Alternating Current	BS17A
D	Direct Current	BS17D
DD	DC in a sealed "D" can	MH23DD
G	Silver Cad.-Oxide Contacts	KRP5AG
L	Plate Circuit	SM5L
M	Sealed in "M" can	MH17DM
N	Neon Light	KRP11AN
P	Enclosed in Plastic Dust Cover	MG11DP
R	With Built-in Rectifier	MH17AMR
S	Sealed in can	PW5DS, SM5DS
T	Sealed in "T" can	MG11DT
Y	U/L Listed	AB11AY

IN STOCK AT LEADING ELECTRONIC PARTS DISTRIBUTORS

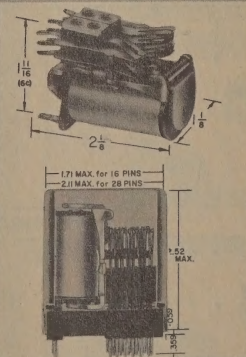
BS SERIES Long coil telephone type, for computer and automatic test equipment applications requiring large numbers of Tinned, pierced solder type terminals for panel wiring. Mounting: Two No. NC 2B tapped holes on $\frac{3}{16}$ " centers. Contacts: Bifurcated with $\frac{1}{16}$ " dia. twin palladium contacts. Weight: Approximately 4 ozs.

MUST COVER Two sizes of sheet enclosures. Small size for BS relays up to 10 C (6PDT, BS23), measures: H: $W: 1\frac{1}{4}"$, L: $3\frac{5}{16}"$ exclusive $\frac{3}{16}"$ knob; 6.5 ozs. Medium size for up to 10 C, measures: H: $2\frac{1}{2}"$, other dimensions as small size; weight: 7 ozs.
8, Small size NET \$2.00
9, Medium size NET \$2.00



BS SERIES Short springs and light weight are provide fast action without sacrifice reliability and long life. Stainless steel bearing designed to give 100 million operations. Tinned, pierced solder type terminals. Mounting: Two No. 6-32 tapped on $\frac{3}{16}$ " centers. Bifurcated contact arms $\frac{1}{16}"$ dia. twin palladium contacts. Weight: Approximately 4 ozs.

LSP version has identical specifications as BS, except that it is enclosed in a high clear plastic cover and is provided with rectangular socket with combination plug or solder terminations. Enables plug-in any other plug-in component. Two sockets and covers are available: 16 C Form C (4PDT) or 28-pin for 6 C (6PDT). Dimensions: LSP17D: $2.39" \times 2.52"$ seated; weight: 4 ozs. D: $2.11" \times 1.39" \times 2.52"$ seated; weight: 4 1/4 ozs.



TELEPHONE TYPE RELAYS

TYPE	COILS			CONTACTS		SUGG. RESALE PRICE
	Voltage or Current	Resistance in Ohms	Nominal Power	Arrangement	Rate in Amps	
BS17A	120V	71	17.9VA	4PDT	4	\$ 9.65
BS17D	24V	1,000	576MW	4PDT	4	7.90
BS17D	110V	6,500	1.8W	4PDT	4	8.55
BS17L	5.5MA	10,000	300MW	4PDT	4	8.55
BS23A	120V	71	17.9VA	6PDT	4	11.25
BS23D	24V	1,000	576MW	6PDT	4	9.60
BS23D	110V	6,500	1.8W	6PDT	4	10.15
BS23L	7.6MA	10,000	600MW	6PDT	4	10.15

SPECIFY COIL VOLTAGE OR RESISTANCE WHEN ORDERING

LS17D	24V	300	1.8W	4PDT	4	5.95
LS17D	48V	1,300	1.8W	4PDT	4	6.35
LS17D	110V	8,000	1.8W	4PDT	4	6.35
LS23D	24V	300	1.8W	6PDT	4	7.20
LS23D	48V	1,300	1.8W	6PDT	4	7.35
LS23D	110V	8,000	1.8W	6PDT	4	7.65
LSP17D	24V	300	1.8W	4PDT	4	7.80
LSP17D	48V	1,300	1.8W	4PDT	4	7.90
LSP17D	110V	8,000	1.8W	4PDT	4	8.20
LSP23D	24V	200	2.9W	6PDT	4	9.65
LSP23D	48V	800	2.9W	6PDT	4	9.75
LSP23D	110V	4,200	2.9W	6PDT	4	10.05

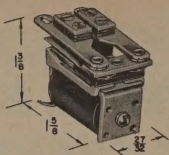


POTTER & BRUMFIELD

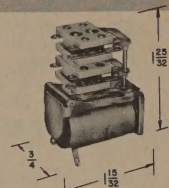
DIVISION OF AMERICAN MACHINE & FOUNDRY COMPANY

Potter & Brumfield Relays

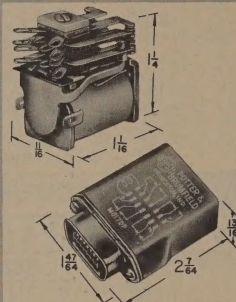
MB SERIES Miniature DC contactor. Designed for very high current applications. Extra rugged construction insures long life. Handles 150 ampere surges for 0.3 sec. Contact arms: Stationary, heavy brass, 1/4" dia. silver contacts pierced solder terminals. Movable, 1/4" x 1 1/2", silver bar contact. Mounting: Four No. 3-48 tapped holes on 3/8" x 3/8" centers. Weight: 2 ozs.



MC SERIES Built with ceramic contact spaces for RF switching to minimize losses at high frequencies. Intercontact capacitance 1.5 mmfd. max. Tinned, pierced solder type terminals. Mounting: Four No. 3-48 tapped holes on 3/8" x 3/8" centers. Contacts: 3/32" dia. palladium. Weight: 2 ozs.

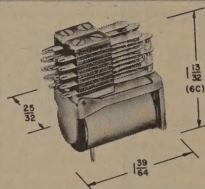


MG SERIES Sub-miniature telephone type relay for aircraft, computer and other applications requiring good shock and vibration characteristics. Furnished open, sealed or in nylon dust cover. Mounting: Open model has four No. 3-48 tapped holes on 3/8" x 3/8" centers. Sealed model has three No. 4-40 threaded studs on 1" x 3/4" centers. Dust cover model has plug-in header that fits Amphenol receptacle No. 57-20140 or similar. Contacts: 3/32" dia. silver. Weight: Open 1.2 ozs.; Dust cover 2.0 ozs.; Sealed 2.75 ozs.

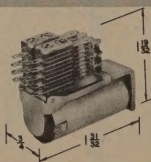


MH SERIES MINIATURE TYPE

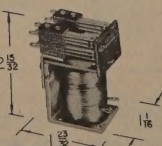
Ideal for miniature program applications where space and weight are factors. Mounting: Open model, MH11L, one No. 6-32 threaded stud 1 1/2" long plus locating boss. All other open models have four No. 3-48 holes on 3/8" x 3/8" centers. Sealed models, M enclosures, three 6-32 NC 2 threaded studs on 1 1/4" x 1/2" centers. D enclosures, three 6-32 threaded studs on 1 1/16" x 1 1/16" centers. All sealed models have hook end solder terminals. All models have 1/8" dia. gold-flashed silver contacts. Weight: Open models 2 1/2 oz, max. Sealed models 5 ozs, max.



ML SERIES A small telephone type relay having excellent sensitivity with outstanding switching capabilities. Ideal for transistorized computer networks, telephone systems and battery powered communications equipment. Single contact arms have 1/8" dia. gold-flashed silver contacts rated at 3 amps for 100,000 operations. Pierced solder terminals. Mounting: Four 3-48 holes on 3/8" centers. Weight: 2.5 ozs.



GB SERIES (See GA series for similar voltage actuated relays.) Sensitivity 115 milliwatts for single pole and 275 milliwatts for 4 pole. Medium cost, high quality relay. Pull-in not adjustable. Mounting: No. 8-32 tapped core and locating boss. Contacts: 3/16" dia. silver. Weight: Approximately 5 ozs.



TELEPHONE TYPE RELAYS

TYPE	COILS			CONTACTS		SUGG. RESALE PRICE
	Voltage or Current	Resistance in Ohms	Nominal Power	Arrangement	Rate in Amps	
MB3D	6V	13.3	2.7W	SPST-NO-DB	60	\$ 5.65
MB3D	12V	62.3	2.7W	SPST-NO-DB	60	5.80
MB3D	24V	245	2.7W	SPST-NO-DB	60	5.80
MB3D	110V	5,000	2.7W	SPST-NO-DB	60	6.20

MC5A	6V	2.5	4.6VA	SPDT	1	5.50
MC5A	120V	800	4.6VA	SPDT	1	5.50
MC5D	12V	96	1.6W	SPDT	1	4.85
MC5D	24V	365	1.6W	SPDT	1	4.85
MC11A	120V	6,80	4.6VA	DPDT	1	7.60
MC11D	12V	96	1.6W	DPDT	1	7.00
MC11D	24V	365	1.6W	DPDT	1	7.00
MC11D	110V	6,200	1.6W	DPDT	1	7.55

SPECIFY COIL VOLTAGE OR RESISTANCE WHEN ORDERING

MG11D	6V	23	1.6W	DPDT	2	5.45
MG11D	12V	90	1.6W	DPDT	2	5.45
MG11D	24V	365	1.6W	DPDT	2	5.45
MG11D	110V	7,560	1.6W	DPDT	2	5.95
MG11D†	24V	365	1.6W	DPDT	2	11.05
MG17D	6V	23	1.6W	4PDT	2	7.30
MG17D	12V	90	1.6W	4PDT	2	7.30
MG17D	24V	365	1.6W	4PDT	2	7.30
MG17D	110V	7,560	1.6W	4PDT	2	7.65
MG17DPS	6V	23	1.6W	4PDT	2	12.15
MG17DPS	12V	90	1.6W	4PDT	2	12.15
MG17DPS	24V	365	1.6W	4PDT	2	12.15
MG17DPS	110V	7,560	1.6W	4PDT	2	12.75
MG17D†	24V	365	1.6W	4PDT	2	13.25
MG17D†	110V	7,560	1.6W	4PDT	2	13.85

MH11L	4.5MA	10,000	200MW	DPDT	3	6.25
MH11L†	4.5MA	10,000	200MW	DPDT	3	10.60
MH17D	6V	23	1.6W	4PDT	5	6.25
MH17D	12V	96	1.6W	4PDT	5	6.25
MH17D	24V	365	1.6W	4PDT	5	6.25
MH17D†	6V	23	1.6W	4PDT	5	12.65
MH17D†	12V	96	1.6W	4PDT	5	12.65
MH17D†	24V	365	1.6W	4PDT	5	12.65
MH17D†	120V	6,200	2VA	4PDT	5	20.65
MH23D	6V	13.3	2.5W	6PDT	5	7.90
MH23D	12V	62.3	2.5W	6PDT	5	7.90
MH23D	24V	245	2.5W	6PDT	5	7.90
MH23D	110V	5,000	2.5W	6PDT	5	8.40
MH23D†	12V	62.3	2.5W	6PDT	5	16.80
MH23D†	24V	245	2.5W	6PDT	5	16.80
MH23D†	110V	5,000	2.5W	6PDT	5	17.40

ML11D	4.0MA	2,500	40MW	DPDT	3	6.65
ML11D	2.83MA	5,000	40MW	DPDT	3	6.80
ML11D	2.0MA	10,000	40MW	DPDT	3	7.15
ML17D	5.65MA	2,500	80MW	4PDT	3	8.10
ML17D	4.0MA	5,000	80MW	4PDT	3	7.90
ML17D	2.83MA	10,000	80MW	4PDT	3	8.40
ML23D	3.53MA	2,500	120MW	6PDT	3	9.15
ML23D	4.95MA	2,500	120MW	6PDT	3	9.15
ML23D	3.46MA	10,000	120MW	6PDT	3	9.45

PLATE CIRCUIT and SENSITIVE RELAYS

GB5D	6.8MA	2,500	115MW	SPDT	5	3.60
GB5D	4.8MA	5,000	115MW	SPDT	5	3.80
GB5D	3.4MA	10,000	115MW	SPDT	5	4.30
GB11D	7MA	2,500	125MW	DPDT	5	5.10
GB11D	5MA	5,000	125MW	DPDT	5	5.20
GB11D	3.53MA	10,000	125MW	DPDT	5	5.70
GB17D	10.5MA	2,500	275MW	4PDT	5	6.10
GB17D	7.4MA	5,000	275MW	4PDT	5	6.25
GB17D	5.25MA	10,000	275MW	4PDT	5	6.70

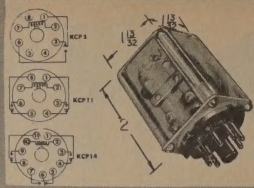
†Sealed Relay
‡Enclosed Relay

See ordering information on page

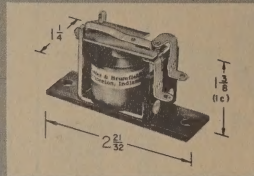
Potter & Brumfield Relays

PLATE CIRCUIT and SENSITIVE RELAYS

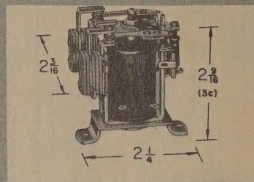
KCP SERIES Low cost plate circuit relay enclosed in clear high impact plastic cover. Sensitivity 125 mw single pole; 250 mw double pole; 375 mw three pole. Mounting: Standard octal plug-in type. Eight pin for KCP5 and KCP11. Eleven pin for KCP14. Contacts: $\frac{1}{16}$ " dia. gold-flashed silver. Weight: Approximately 3 ozs. Use KCP-KRP hold down spring when vibration, inverted or horizontal mounting are factors (see page 7).



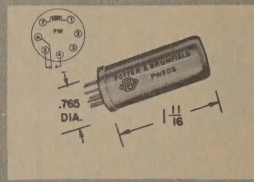
LB SERIES Designed for top performance, long life at an unusually low cost. Each coil wound with a given coil resistance and factory adjusted to operate on minimum current requirements. Mounting: Two $\frac{7}{16}$ " dia. holes $\frac{1}{16}$ " centers. Contacts: $\frac{1}{16}$ " dia. silver. Weight: Approximately 2 ozs.



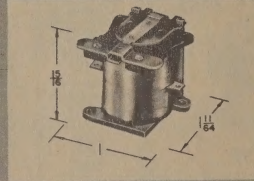
LM SERIES (See KL for similar voltage actuated relays.) Sensitivity 100 milliwatts single pole and 200 milliwatts for double pole. Medium cost, high quality relay with $\frac{1}{16}$ " dia. silver contacts. Pull-in adjustable tail spring adjusting screw. Mounting: Two No. 6-32 tapped holes on $1\frac{1}{16}$ " centers. Weight: Approximately 5 ozs. DC Coils only.



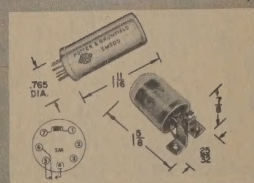
PW SERIES (In both voltage and current actuated models.) Sensitivity 40 mw for current actuated models. 180 mw for voltage actuated models. Precision, light weight, hermetically sealed relay for aircraft and missile applications. Will withstand 10g vibration to 100 Hz. Mounting: Standard 7-pin miniature tube base. Weight: Approx. 1 oz.



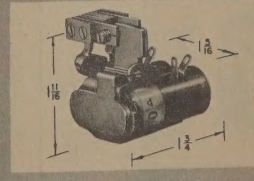
RS SERIES (In both voltage and current actuated models.) 60 mw sensitivity. Low cost, small, light weight, sensitive relay for on-sonde, light dimmer and model applications. Mounting: Two No. 4-40 tapped holes on diagonal $\frac{3}{16}$ " x $\frac{3}{16}$ " centers. Contacts: palladium. Weight: $1\frac{1}{2}$ ozs.



SM SERIES (In both voltage and current actuated models.) Sensitivity 75 mw for current actuated models. Medium cost, light weight, dust covered (right) or hermetically sealed (left) relay for light contact loads used in computers, model airplanes and similar applications. Extremely low mechanical life because of reed armature. Mounting: Standard 7-pin miniature tube socket. Cover, two $\frac{7}{16}$ " dia. holes on $1\frac{1}{16}$ " centers. Contacts: Stationary silver; movable palladium. Weight: 1 oz. max.



SS SERIES Ultra sensitive precision relay with 10 mw sensitivity. Dual series-connected coils with balanced armature on needle-point springs for all low energy circuits such as instruments and bridge balancing. May also be used as a differential relay by connecting two coils in separate circuits. Mounting: Two No. 6-32 tapped holes on $2\frac{3}{16}$ " centers. Contacts: $\frac{1}{16}$ " dia. silver. Weight: Approx. 2 ozs.



TYPE	COILS			CONTACTS		SUGG. RESALE PRICE
	Voltage or Current	Resistance in Ohms	Nominal Power	Arrangement	Rate in Amps	
KCP5S	7.2MA	2,500	125MW	SPDT	2	\$ 6.20
KCP5S	5MA	5,000	125MW	SPDT	2	6.30
KCP5S	3.6MA	10,000	125MW	SPDT	2	6.70
KCP11S	10MA	2,500	250MW	SPDT	2	6.60
KCP11S	7.2MA	5,000	250MW	DPDT	2	6.70
KCP11S	5MA	10,000	250MW	DPDT	2	7.15
KCP14S	12.3MA	2,500	375MW	3PDT	2	8.15
KCP14S	8.7MA	5,000	375MW	3PDT	2	8.25
KCP14S	6.1MA	10,000	375MW	3PDT	2	8.65

SPECIFY COIL VOLTAGE OR RESISTANCE WHEN ORDERING

LBS	9MA	2,500	200MW	SPDT	5	2.70
LBS	6.3MA	5,000	200MW	SPDT	5	2.90
LBS	4.5MA	10,000	200MW	SPDT	5	3.15

LMS	6.3MA	2,500	100MW	SPDT	5	4.15
LMS	4.5MA	5,000	100MW	SPDT	5	4.35
LMS	3.2MA	10,000	100MW	SPDT	5	4.65
LM11	9MA	2,500	200MW	DPDT	5	5.90
LM11	6.3MA	5,000	200MW	DPDT	5	6.10
LM11	4.5MA	10,000	200MW	DPDT	5	6.70

PW5DS†	6V	202	180MW	SPDT	1	11.30
PW5DS†	12V	810	180MW	SPDT	1	11.30
PW5DS†	24V	3,240	180MW	SPDT	1	11.30
PW5LS†	2.8MA	5,000	40W	SPDT	1	11.65
PW5LS†	2.0MA	10,000	40W	SPDT	1	12.10

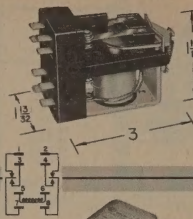
RS5D	6V	335	110MW	SPDT	2	2.75
RS5D	12V	1,350	110MW	SPDT	2	2.90
RS5D	5MA	2,500	60W	SPDT	2	3.00
RS5D	3.5MA	5,000	60W	SPDT	2	3.30
RS5D	2.5MA	10,000	60W	SPDT	2	3.80

SM5DS†	6V	80	500MW	SPDT	.25	6.90
SM5DS†	12V	360	500MW	SPDT	.25	6.90
SM5DS†	24V	900	500MW	SPDT	.25	6.90
SM5LS†	2.7MA	10,000	75W	SPDT	.25	6.55
SM5LS†	3.9MA	5,000	75W	SPDT	.25	7.20
SM5LS†	2.7MA	10,000	75W	SPDT	.25	7.70

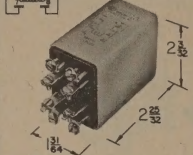
SS5D	1MA	10,000	10MW	SPDT	2	14.50
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Potter & Brumfield Relays

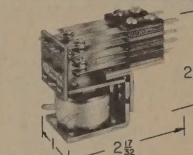
AB SERIES For appliance and general purpose applications where rugged construction, long life and quiet operation are required. All equipped with terminals to fit snap-on connectors and may also be applied to printed circuits using dip soldering. Snap-on screw adaptors packed with each relay. All AC models carry U/L component recognition (File No. E29244) and CSA* listing. Mounting: Two No. 8-32 tapped holes, on $1\frac{1}{4}$ " centers. Weight: Approx. 5 ozs. Silver contacts.



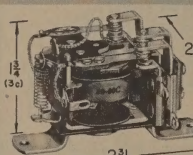
ABC SERIES Medium duty power relay with dust cover. For small motors, industrial control and similar applications. All equipped with terminals to fit snap-on connectors and may also be applied to printed circuits using dip soldering. Snap-on screw adaptors packed with each relay. All AC models carry U/L component recognition (File No. E29244) and CSA* listing. Mounting: One No. 8-32 threaded stud $\frac{3}{16}$ " long and locating tab on $\frac{9}{16}$ " centers. Contacts: $\frac{1}{4}$ " dia. silver. Weight: Approx. 7 ozs.



GF SERIES Medium duty power relay for industrial control applications. Long contact arms have $\frac{1}{4}$ " dia. silver contacts rated at 10 amps at 120V AC or 28V DC resistive. Contacts have excellent wipe or self-cleaning action. Tinned, pierced solder terminals. Mounting: 8-32 tapped cover with locating boss. Weight: 4.75 ozs. (See GA series for similar voltage actuated relays.)



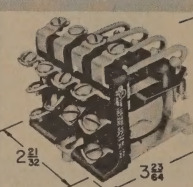
MR SERIES A medium duty power relay that can handle small motors, transmitters, and general purpose applications. Mounting: Two $\frac{9}{16}$ " dia. holes on $2\frac{1}{4}$ " centers for MR3 and $1\frac{1}{2}$ " $\frac{5}{8}$ " centers for MR2, 5 and 14. Contacts: $\frac{1}{2}$ " dia. silver. Weight: 4 ozs.



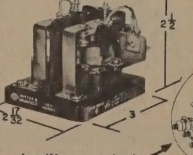
MS/MR Metal dust cover similar to PM/PR shown below. $3\frac{3}{8}$ " x $2\frac{3}{8}$ " x $2\frac{1}{2}$ " weight: 7.5 ozs.

35D130 fits MS/MR NET \$2.10

PM SERIES A compact heavy duty 4PDT power relay for polyphase and heavy duty switching applications. Screw terminals. Has $\frac{1}{4}$ " silver-cadmium-oxide contacts rated at 25 amps at 120 V., 25 amps at 240 V. 50/60 Hz resistive AC, 1 HP per movable arm at 120V, or 240V. AC single phase, U/L (File No. E22575) and CSA* listed, except 480V. Mounts by one front key-hole and two rear channel slots for 8-32 screws on $2\frac{1}{2}$ " x $2\frac{1}{2}$ " triangular centers. Weight: 14 ozs. 9PM1 Adapter plates for mounting PM on PR mounting holes. Box of 10 Net \$1.65. For metal enclosure see below.

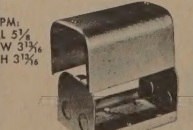


PR SERIES Heavy duty relay for industrial control applications requiring long life and fast action. Heavy duty screw type terminals. All AC and DC models except PR11A1.5 carry U/L (File No. E22575) and CSA* listing. Mounting: Two $\frac{9}{16}$ " dia. holes on $1\frac{1}{2}$ " centers. Weight: 11 ozs. max. Contacts: $\frac{1}{2}$ " dia. silver. Enclosure: See "PR" cover. The PR11A1.5 relay is equipped with $\frac{3}{16}$ " dia. silver SPDT auxiliary contacts rated at 5 amps.



PM and PR DUST COVERS These dust covers have a sheet metal base with knockouts for $\frac{3}{8}$ " dia. conduit and an aluminum cover fitted with two screws. Finished in gray hammertone. Mounting: Three No. 10 holes on $1\frac{1}{2}$ " x $\frac{1}{4}$ " centers. Approx. weight: 1 lb.

35D227 Metal cover for PM only NET \$3.30
35D013 Metal cover for PR only NET \$3.30



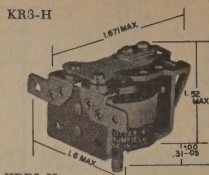
POWER TYPE RELAYS

TYPE	COILS			CONTACTS		SUGG. RESALE PRICE
	Voltage or Current	Resistance in Ohms	Nominal Power	Arrangement	Rate in Amps	
AB11AY	6V	1.3	6.4VA	DPDT	10	\$ 5.55
AB11AY	24V	23	6.4VA	DPDT	10	5.55
AB11AY	120V	510	6.4VA	DPDT	10	5.70
AB11AY	240V	2,050	6.4VA	DPDT	10	6.00
AB11D	12V	72	2.0W	DPDT	10	5.45
AB11D	24V	288	2.0W	DPDT	10	5.45
AB11D	110V	6,050	2.0W	DPDT	10	6.00
AB11AYs	6V	1.3	6.4VA	DPDT	10	6.70
AB11AYs	24V	23	6.4VA	DPDT	10	6.70
AB11AYs	120V	510	6.4VA	DPDT	10	6.70
AB11AYs	240V	2,050	6.4VA	DPDT	10	7.15
AB11Ds	6V	18	2.0W	DPDT	10	6.60
AB11Ds	12V	72	2.0W	DPDT	10	6.60
AB11Ds	24V	288	2.0W	DPDT	10	6.60
AB11Ds	110V	6,050	2.0W	DPDT	10	7.15
GF17A	6V	1.7	6VA	4PDT	10	7.00
GF17A	12V	6.8	6VA	4PDT	10	7.00
GF17A	24V	24	6VA	4PDT	10	7.00
GF17A	120V	690	6VA	4PDT	10	7.00
GF17A	240V	2,950	6VA	4PDT	10	7.40
GF17D	6V	18	2.0W	4PDT	10	7.00
GF17D	12V	72	2.0W	4PDT	10	7.00
GF17D	24V	288	2.0W	4PDT	10	7.00
GF17D	110V	6,050	2.0W	4PDT	10	7.45
MR3A	6V	2.75	3.25VA	SPST-NO-DB	10	4.10
MR3A	120V	50	3.25VA	SPST-NO-DB	10	4.10
MR3A	240V	1,250	3.25VA	SPST-NO-DB	10	4.10
MR3D	12V	96	1.6W	SPST-NO-DB	10	3.70
MR3D	24V	360	1.6W	SPST-NO-DB	10	3.70
MR3D	110V	8,000	1.6W	SPST-NO-DB	10	4.10
MR5A	12V	13.25	3.25VA	SPDT	8	3.65
MR5A	24V	50	3.25VA	SPDT	8	3.65
MR5A	120V	1,250	3.25VA	SPDT	8	3.65
MR5A	240V	4,600	3.25VA	SPDT	8	4.10
MR5D	6V	24	1.6W	SPDT	8	3.40
MR5D	12V	96	1.6W	SPDT	8	3.40
MR5D	24V	360	1.6W	SPDT	8	3.40
MR5D	110V	8,000	1.6W	SPDT	8	3.90
MR11A	6V	2.75	3.25VA	SPDT	8	3.15
MR11A	12V	13.25	3.25VA	SPDT	8	3.15
MR11A	24V	50	3.25VA	SPDT	8	3.15
MR11A	120V	1,250	3.25VA	SPDT	8	3.15
MR11A	240V	4,600	3.25VA	SPDT	8	3.55
MR11D	6V	24	1.6W	SPDT	8	2.90
MR11D	12V	96	1.6W	SPDT	8	2.90
MR11D	24V	360	1.6W	SPDT	8	2.90
MR11D	110V	8,000	1.6W	SPDT	8	3.40
MR14A	6V	2.75	3.25VA	3PDT	8	6.15
MR14A	12V	13.25	3.25VA	3PDT	8	6.15
MR14A	24V	50	3.25VA	3PDT	8	6.15
MR14A	120V	1,250	3.25VA	3PDT	8	6.15
MR14A	240V	4,600	3.25VA	3PDT	8	6.35
MR14D	6V	24	1.6W	3PDT	8	5.80
MR14D	12V	96	1.6W	3PDT	8	5.80
MR14D	24V	360	1.6W	3PDT	8	5.80
MR14D	110V	8,000	1.6W	3PDT	8	6.30
PM17AY	6V	3.7	14VA	4PDT	25	12.95
PM17AY	12V	14	14VA	4PDT	25	12.95
PM17AY	24V	50	14VA	4PDT	25	12.95
PM17AY	120V	1,280	14VA	4PDT	25	13.40
PM17AY	240V	587	14VA	4PDT	25	13.40
PM17AY	480V	1,790	14VA	4PDT	25	14.30
PM17DY	6V	8.2	4.4W	4PDT	25	12.40
PM17DY	12V	33	4.4W	4PDT	25	12.40
PM17DY	24V	132	4.4W	4PDT	25	12.40
PM17DY	110V	2,760	4.4W	4PDT	25	13.00
PR1AY	24V	12	9.8VA	SPST-NO-DB	25	4.25
PR3AY	6V	0.86	9.8VA	SPST-NO-DB	25	4.35
PR3AY	12V	3.2	9.8VA	SPST-NO-DB	25	4.35
PR3AY	24V	12	9.8VA	SPST-NO-DB	25	4.35
PR3AY	120V	290	9.8VA	SPST-NO-DB	25	4.35
PR3AY	240V	1,200	9.8VA	SPST-NO-DB	25	4.75
PR3DY	6V	18	2.0W	SPST-NO-DB	25	4.35
PR3DY	12V	71	2.0W	SPST-NO-DB	25	4.35
PR3DY	24V	288	2.0W	SPST-NO-DB	25	4.35
PR3DY	120V	6,050	2.0W	SPST-NO-DB	25	4.35
PR5AY	6V	0.86	9.8VA	SPDT	25	4.55
PR5AY	12V	3.2	9.8VA	SPDT	25	4.55
PR5AY	24V	12	9.8VA	SPDT	25	4.55
PR5AY	120V	290	9.8VA	SPDT	25	4.55
PR5AY	240V	1,200	9.8VA	SPDT	25	5.00
PR5DY	6V	18	2.0W	SPDT	25	4.55
PR5DY	12V	71	2.0W	SPDT	25	4.55
PR5DY	24V	288	2.0W	SPDT	25	4.55
PR5DY	120V	6,050	2.0W	SPDT	25	5.00
PR7AY	6V	0.86	9.8VA	DPST	25	5.15
PR7AY	12V	3.2	9.8VA	DPST	25	5.15
PR7AY	24V	12	9.8VA	DPST	25	5.15
PR7AY	120V	290	9.8VA	DPST	25	5.15
PR7AY	240V	1,200	9.8VA	DPST	25	5.60
PR7DY	6V	18	2.0W	DPST	25	5.15
PR7DY	12V	71	2.0W	DPST	25	5.15
PR7DY	24V	288	2.0W	DPST	25	5.15
PR7DY	120V	6,050	2.0W	DPST	25	5.60
PR11AY	6V	0.86	9.8VA	DPST	25	6.75
PR11AY	12V	3.2	9.8VA	DPST	25	6.75
PR11AY	24V	12	9.8VA	DPST	25	6.75
PR11AY	120V	290	9.8VA	DPST	25	6.75
PR11AY	240V	1,200	9.8VA	DPST	25	7.20
PR11AY	480V	4,500	9.8VA	DPST	25	8.20
PR11A1.5	6V	0.86	9.8VA	DPST	20	8.55
PR11A1.5	12V	3.2	9.8VA	DPST	20	8.55
PR11A1.5	24V	12	9.8VA	DPST	20	8.55
PR11A1.5	120V	290	9.8VA	DPST	20	8.55
PR11A1.5	240V	1,200	9.8VA	DPST	20	8.55
PR11D	6V	18	2.0W	DPST	25	6.75
PR11D	12V	71	2.0W	DPST	25	6.75
PR11D	24V	288	2.0W	DPST	25	6.75
PR11D	110V	6,050	2.0W	DPST	25	7.40

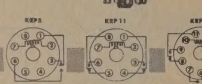
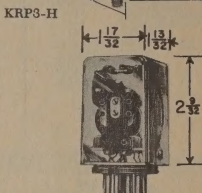
*Canadian Standards Association File No. LR-15734

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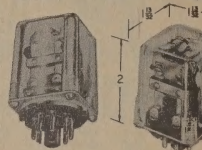
KR3-H SERIES Ruggedly constructed of small size, the KR3-H is a heavy duty, especially designed for applications where limited space is a factor. Its heavy duty, braided shielded cable carrier has twin die, silver-cadmium-oxide contacts rated at 15 amps @ 120V AC 60 Hz resistive, or 28V AC, 1 HP 120/240V 60 Hz. Contact arrangement is 1 Form X (SPST-NO-DB) terminals: suitable for $\frac{1}{4}$ " quick connect, also solder, for contacts; solder only for coil. Size: $1.3671" \times 1.52"$. Seated height: 1.21". Mounting: One 6-32 stud on .437" center. Weight: 2 ozs.



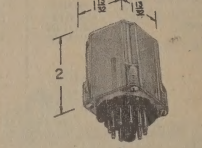
KRP3-H SERIES All electrical specifications listed above for the KR3-H series re-apply to the KRP3-H. However, the KRP3-H is enclosed in a clear, high impact plastic dust cover and features an octal plug-base. Weight: Approximately 3 ozs.



LAMP RELAY A general purpose relay incorporating a lamp to indicate current or voltage availability in power circuit. Contacts: 1/2" dia. silver cadmium-oxide. Enclosure: clear, high impact plastic dust cover. Mounting: Standard octal plug. Weight: Approx. 3 oz. See KCP-KRP Hold Down Spring for special mountings.

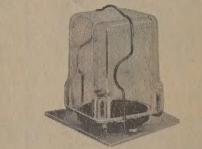


1" - CASE A clear high impact plastic case for mounting rectifiers, capacitors, relays or a combination of these. Available in octal-type plug with 8 or 11-pins. Comes complete with four screws. Weight: .5 ozs. See KCP-KRP Hold Down Spring for circular mounting applications.



0070 Case (8-pin plug)	NET \$.80
0072 Case (11-pin plug)	NET \$.75

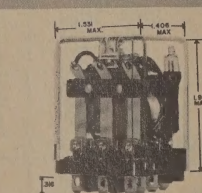
igned to insure secure mounting of relay in any position. Fits all KCP or KRP plug-in relays. Durable stainless steel spring can be used aside for relay removal or installation. Mounting: Two $\frac{5}{32}$ " dia. holes on $1\frac{1}{16}$ " centers; will accommodate machine screws or nuts. Available in quantities of 50 per box. Weight: 3 ozs. per box.



R-15 NET \$5.50

for industrial control is available with a net that is also rated 10 amperes. The "terminals of the relay are of the quick-connect/solder type. Sockets are priced separately and their terminals are of the pierced type. The KUP is enclosed in a clear, impact plastic dust cover. Silver-niobium-oxide contacts assure long contact life.

Operation: Continuous. Weight: 3 ozs.



11 sockets for KUP relays. Rated 10 am-
s, molded nylon, pierced solder terminals.

of 5, NET \$3.75

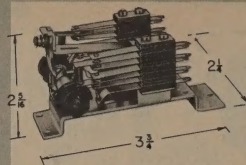
TYPE	COILS				CONTACTS		SUGG. RETAIL PRICE
	Voltage or Current	Resistance in Ohms	Nominal Power	Arrangement	Rate in Amps		
33AH	6V	6	2VA	SPST-NO-DB	20	4.10	
33AH	12V	21	2VA	SPST-NO-DB	20	4.10	
33AH	24V	75	2VA	SPST-NO-DB	20	4.10	
33AH	120V	2,250	2VA	SPST-NO-DB	20	4.10	
33DH	6V	32	1.2W	SPST-NO-DB	20	3.90	
33DH	12V	120	1.2W	SPST-NO-DB	20	3.90	
33DH	24V	472	1.2W	SPST-NO-DB	20	3.90	
33DH	110V	10,000	1.2W	SPST-NO-DB	20	4.50	
33AH	6V	6	2VA	SPST-NO-DB	20	6.65	
33AH	12V	21	2VA	SPST-NO-DB	20	6.65	
33AH	24V	75	2VA	SPST-NO-DB	20	6.65	
33AH	120V	2,250	2VA	SPST-NO-DB	20	6.65	
33DH	6V	32	1.2W	SPST-NO-DB	20	6.65	
33DH	12V	120	1.2W	SPST-NO-DB	20	6.65	
33DH	24V	472	1.2W	SPST-NO-DB	20	6.65	
33DH	110V	10,000	1.2W	SPST-NO-DB	20	7.10	
PSA1	6V	6	2VA	SPDT	5	3.70	
PSA1	24V	75	2VA	SPDT	5	3.70	
PSA1	120V	2,250	2VA	SPDT	5	3.70	
PSA1	240V	9,110	2VA	SPDT	10	5.85	
PSD1	6V	75	2VA	SPDT	10	3.80	
PSD1	120V	2,250	2VA	SPDT	10	5.85	
PSD1	240V	9,110	2VA	SPDT	10	5.85	
PSD1	12V	120	1.2W	SPDT	5	5.60	
PSD1	24V	472	1.2W	SPDT	5	5.60	
PSD1	110V	10,000	1.2W	SPDT	5	5.60	
PSD1	6V	32.1	1.2W	SPDT	10	5.80	
PSD1	12V	120	1.2W	SPDT	10	5.80	
PSD1	24V	472	1.2W	SPDT	10	5.80	
PSD1	110V	10,000	1.2W	SPDT	10	6.40	
PIA1	6V	6	2VA	DPDT	5	6.35	
PIA1	12V	21	2VA	DPDT	5	6.35	
PIA1	24V	75	2VA	DPDT	5	6.35	
PIA1	120V	2,250	2VA	DPDT	5	6.35	
PIA1	240V	9,110	2VA	DPDT	10	8.20	
PIA1	6V	6	2VA	DPDT	10	6.35	
PIA1	12V	21	2VA	DPDT	10	6.35	
PIA1	24V	75	2VA	DPDT	10	6.35	
PIA1	120V	2,250	2VA	DPDT	10	6.35	
PIA1	240V	9,110	2VA	DPDT	10	6.35	
PIA1	12V	120	1.2W	DPDT	5	7.00	
PIA1	24V	472	1.2W	DPDT	5	7.00	
PIA1	110V	10,000	1.2W	DPDT	5	7.00	
PIA1	6V	32.1	1.2W	DPDT	10	6.50	
PIA1	12V	120	1.2W	DPDT	10	6.50	
PIA1	24V	472	1.2W	DPDT	10	6.50	
PIA1	110V	10,000	1.2W	DPDT	10	7.15	
PIA1	6V	6	2VA	3PDT	5	7.90	
PIA1	12V	21	2VA	3PDT	5	7.90	
PIA1	24V	75	2VA	3PDT	5	7.90	
PIA1	120V	2,250	2VA	3PDT	5	7.90	
PIA1	240V	9,110	2VA	3PDT	10	8.20	
PIA1	6V	6	2VA	3PDT	10	8.20	
PIA1	12V	21	2VA	3PDT	10	8.20	
PIA1	24V	75	2VA	3PDT	10	8.20	
PIA1	120V	2,250	2VA	3PDT	10	8.20	
PIA1	240V	9,110	2VA	3PDT	10	8.20	
PIA1	6V	32.1	1.2W	3PDT	5	7.80	
PIA1	12V	120	1.2W	3PDT	5	7.80	
PIA1	24V	472	1.2W	3PDT	5	7.80	
PIA1	110V	10,000	1.2W	3PDT	5	7.80	
PIA1	6V	32.1	1.2W	3PDT	10	8.15	
PIA1	12V	120	1.2W	3PDT	10	8.15	
PIA1	24V	472	1.2W	3PDT	10	8.15	
PIA1	110V	10,000	1.2W	3PDT	10	8.15	
PIA1	6V	6	2VA	DPDT	10	7.50	
PIA1	12V						

Potter & Brumfield Relays

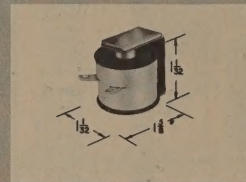
SPECIAL PURPOSE RELAYS

AP SERIES RATCHET, IMPULSE

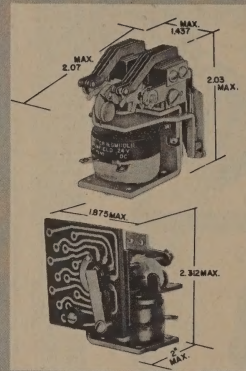
A reliable compact unit for applications requiring on-off or reversing action on alternate operations. Positive ratchet operation at all speeds on impulses as short as 60 ms. Intermittent operation only. Mounting: Three $\frac{3}{16}$ " dia. holes on $3\frac{3}{4}$ " x $\frac{1}{8}$ " triangular centers. Contacts: $\frac{3}{16}$ " dia. silver. Weight: 7 ozs. Coils for intermittent duty only.



BU BUZZER AC operated coil with a spring steel armature which buzzes when coil is energized. Used extensively in test equipment, laboratories and a host of other applications where a small light weight, dependable buzzer is required. Weight: 1 1/2 ozs. Mounting: No. 6-32 tapped core.



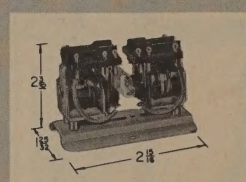
GM SERIES Unusually versatile switching makes this impulse/sequencing relay especially suitable for single coil latching. The 2 Form C contact arrangement is switched alternately by cam action during drop-out of the armature. It can also be furnished with additional 2 Form C auxiliary contacts (designated by "L"). AC version operates on a 50% coil duty cycle (5 Min. max.). Mounting: 8-32 tapped core with locating boss. Weights: With aux. contacts 4 1/2 ozs. Without aux. contacts 4 ozs.



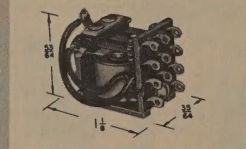
The GM1N10 and GM1N12 AC or DC use the basic GM structure with uni-directional printed circuit boards with 10 or 12- steps, respectively. The board is attached to an extension of the ratchet shaft. The movable contact arm advances one position each time the armature drops out. Contact rating: .25 amps. Contact arrangement: SP-10 pos. and SP-12 pos. Size: 2.312" x 1.875" x 2".

KB SERIES LATCHING RELAY

Both release and trip coils must be for the same voltage. One coil operates relay to set latch and other coil releases it. Ideal for memory work and overload applications. Operates on momentary impulse to either coil. Mounting: Two $\frac{3}{16}$ " dia. holes on 1 1/2" centers. Weight: 6 ozs. Contacts: $\frac{1}{16}$ " dia. silver rated 5 amps; "C" suffix indicates silver cadmium-oxide contacts on movables rated 10 amps. AC relays with 5 amp. Contacts carry U/L component recognition (File No. 29244) and are CSA* listed. AC coil for intermittent duty only.

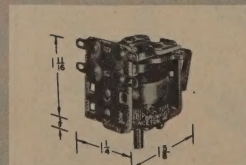


KM SERIES Subminiature relay for applications requiring unusually small relays with up to 3-poles, $\frac{3}{16}$ " dia. silver contacts. Withstands 30g mechanical shock and .08" excursion 10 to 55 Hz mechanical vibration. Used extensively in small business machines, alarm systems, automatic toys and communications systems. Mounting: One 2-56 tapped core and locating half-punch. Solder terminals. Weight: .58 ozs.



KT SERIES ANTENNA SWITCHING RELAY

Glass base insulation for minimum RF loss to switch 300 ohm line. Mounting: One No. 6-32 threaded stud. Contacts: $\frac{1}{16}$ " dia. gold-fashed silver. Weight: 1 1/2 ozs.



TYPE	COILS			CONTACTS		SUGG. RESALE PRICE
	Voltage or Current	Resistance in Ohms	Nominal Power	Arrangement	Rate in Amps	
AP11A	6V	0.6	18.5VA	DPDT	5	\$ 9.20
AP11A	12V	2.28	18.5VA	DPDT	5	9.20
AP11A	24V	8.8	18.5VA	DPDT	5	9.20
AP11A	120V	240	18.5VA	DPDT	5	9.20
AP11A	240V	900	18.5VA	DPDT	5	9.70
AP11D	6V	4.0	9.0W	DPDT	5	9.20
AP11D	24V	65	9.0W	DPDT	5	9.20
AP11D	110V	1,350	9.0W	DPDT	5	9.90
AP17A	24V	8.8	18.5VA	4PDT	5	11.15
AP17A	120V	240	18.5VA	4PDT	5	11.15
AP17D	12V	15.5	9.0W	4PDT	5	11.15
AP17D	24V	65	9.0W	4PDT	5	11.15
AP17D	110V	1,350	9.0W	4PDT	5	11.85
BU	6V	2.75	4.6VA	-	-	1.85
BU	12V	13.25	4.6VA	-	-	1.85
BU	24V	50	4.6VA	-	-	1.85
BU	115V	1,250	4.6VA	-	-	1.85

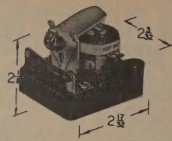
SPECIFY COIL VOLTAGE OR RESISTANCE WHEN ORDERING

GM11A	24V	16	9.4VA	DPDT	3	7.60
GM11A	120V	420	9.4VA	DPDT	3	7.60
GM11ALL1	24V	16	9.4VA	DPDT/DPDT	3	10.80
GM11ALL1	12V	420	9.4VA	DPDT/DPDT	3	10.80
GM11D	24V	36	4W	DPDT	3	7.30
GM11D	110V	144	4W	DPDT	3	7.20
GM11D	12V	3025	4W	DPDT	3	7.80
GM11DLL1	24V	36	4W	DPDT/DPDT	3	10.60
GM11DLL1	110V	144	4W	DPDT/DPDT	3	10.60
GM11DLL1	12V	3030	4W	DPDT/DPDT	3	11.10
GM1N10A	120V	510	9.4VA	SP-10 pos.	.25	9.40
GM1N12A	120V	510	9.4VA	SP-12 pos.	.25	9.30
GM1N10D	24V	144	4W	SP-10 pos.	.25	9.15
GM1N12D	24V	144	4W	SP-12 pos.	.25	9.30
KB17AY	6V	2.3	5VA	4PDT	5	11.05
KB17AY	12V	10	5VA	4PDT	5	11.05
KB17AY	24V	42	5VA	4PDT	5	11.05
KB17AY	120V	1,030	5VA	4PDT	5	11.05
KB17AY	240V	4,100	5VA	4PDT	5	11.85
KB17AG	6V	2.3	5VA	4PDT	10	11.15
KB17AG	12V	10	5VA	4PDT	10	11.15
KB17AG	24V	42	5VA	4PDT	10	11.15
KB17AG	120V	1,030	5VA	4PDT	10	11.15
KB17AG	240V	4,100	5VA	4PDT	10	11.95
KB17D	6V	13.1	2.7W	4PDT	5	9.90
KB17D	12V	52.0	2.7W	4PDT	5	9.90
KB17D	24V	230	2.7W	4PDT	5	11.20
KB17D	110V	4,560	2.7W	4PDT	5	11.20
KB17DG	6V	13.1	2.7W	4PDT	10	10.15
KB17DG	12V	52.0	2.7W	4PDT	10	10.15
KB17DG	24V	230	2.7W	4PDT	10	10.15
KB17DG	110V	4,560	2.7W	4PDT	10	11.40
KB23AY	24V	27	7.8VA	6PDT	5	13.25
KB23AY	120V	700	7.8VA	6PDT	5	13.25
KB23AG	24V	27	7.8VA	6PDT	10	13.45
KB23AG	120V	700	7.8VA	6PDT	10	13.45
KB23D	24V	230	2.7W	6PDT	5	12.80
KB23DG	24V	230	2.7W	6PDT	10	12.35
KB23DG	110V	4,560	2.7W	6PDT	10	13.60
KM50	6V	36	1.1W	SPDT	2	3.60
KM50	12V	144	1.1W	SPDT	2	3.60
KM50	24V	500	1.1W	SPDT	2	3.60
KM11D	6V	36	1.1W	DPDT	2	3.95
KM11D	12V	144	1.1W	DPDT	2	3.95
KM11D	24V	500	1.1W	DPDT	2	3.95
KM14D	6V	36	1.1W	3PDT	2	4.55
KM14D	12V	144	1.1W	3PDT	2	4.55
KM14D	24V	500	1.1W	3PDT	2	4.55
KT11A	6V	6	2VA	DPDT	5	3.90
KT11A	120V	2,250	2VA	DPDT	5	3.90
KT11D	6V	32.1	1.2W	DPDT	5	3.90
KT11D	12V	120	1.2W	DPDT	5	3.90

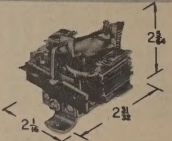
Potter & Brumfield Relays

MS SERIES MOTOR STARTING RELAYS

For starting capacitor start, induction-run motors. Operates on back EMF of start winding. Armature gap can be altered to change pull-in. Carries U/L component recognition (File No. 29245). Mounting: Two $\frac{3}{32}$ " dia. holes on $1\frac{1}{16}$ " centers. Contacts: $\frac{1}{2}$ HP, $\frac{3}{4}$ " dia. fine silver, 3 HP, $\frac{1}{32}$ " dia. silver cadmium. Weight: 5 ozs. max. MS/MR Metal dust cover similar to PM/PR shown on page 4. $3\frac{3}{8}$ " x $2\frac{3}{8}$ " x $2\frac{1}{16}$ ". Weight: 7.5 ozs. SD130 fits MS/MR Net \$1.90

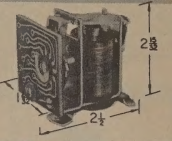


MR SERIES Single coil impulse latching relay for on-off and current reversal switching on alternate pulses. Operates on 30 millisecond pulses to the coil. Mounting: Two $\frac{3}{32}$ " dia. holes on $2\frac{1}{8}$ " centers. Weight: 5 ozs. Contacts: $\frac{1}{2}$ HP, gold-flashed silver cadmium. Coils for intermittent duty only.



SA SERIES STEPPING SWITCH

twelve position stepping relay with circuit strips to switch currents up to 250 milliamperes. Armature-driven pawl operates a ratchet wheel to drive the movable contact in steps of 30 degrees over 12 positions. Used widely for audio-level switching TV remote control units, scoreboards and chess controls. Mounting: Two 6-32 holes $1\frac{1}{16}$ " centers. Weight: 4 ozs. AC coil for intermittent duty only.



SPECIAL PURPOSE RELAYS

TYPE	COILS			CONTACTS		SUGG. RESALE PRICE
	Voltage or Current	Resistance in Ohms	Nominal Power	Arrangement	Rate in Amps	
MS2AY	120V	530	5.9VA	SPST-NC	3/4HP	3.80
MS2AY	240V	2,100	5.9VA	SPST-NC	3/4HP	4.25
MS4AY	120V	530	5.9VA	SPST-NC-DB	3HP	4.45
MS4AY	240V	2,100	5.9VA	SPST-NC-DB	3HP	4.85
PC11A	6V	0.6	18.5VA	DPDT	7.5	5.90
PC11A	12V	2.28	18.5VA	DPDT	7.5	5.90
PC11A	24V	8.8	18.5VA	DPDT	7.5	5.90
PC11A	120V	240	18.5VA	DPDT	7.5	5.90
PC11D	6V	4.0	9.0W	DPDT	7.5	5.70
PC11D	12V	15.5	9.0W	DPDT	7.5	5.70
PC11D	24V	65.0	9.0W	DPDT	7.5	5.70
PC17A	24V	8.8	18.5VA	4PDT	7.5	8.15
PC17A	120V	240	18.5VA	4PDT	7.5	8.15
PC17D	24V	65	9.0W	4PDT	7.5	7.95

SA-1N-12A	115V	140	20VA	12-steps	.25	7.00
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POTTER & BRUMFIELD

IS A MEMBER OF THE

NATIONAL ASSOCIATION OF RELAY MANUFACTURERS



JR Series Dry Reed Relays

fast response, reliable performance, small size and long life, together with high sensitivity recommend Potter & Brumfield JR Series dry reed relays for data processing, computer equipment, logic circuitry and various other sophisticated control circuits.

TWO TYPES OF CAPSULES

reed glass capsules with two types of contact arrangements, Form A (SPST-NO) and Form C (SPDT) are available. When used with a permanent magnet Form A is

Form A

changed to a Form B (SPST-NC): This arrangement requires that coil polarity be observed; it uses a two-cavity bobbin. By combining one Form A with one Form B, a single Form C (SPDT) break before make arrangement can be furnished; it uses a ree-cavity bobbin.

True Form C (SPDT) uses a reed switch with two stationary and one movable contact.

Form C

the movable contact is normally closed until the coil is energized, causing a true Form C (SPDT) break before make; it uses a single-cavity bobbin.

SPECIFICATIONS

Insulating Materials: Glass Supported Nylon, polyester film and glass.

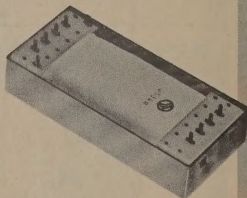
Breakdown Voltage @ Sea Level: 500 volts rms 60 Hz between all insulated points. 250 volts rms 60 Hz between open contacts.

Set Time: 3 ms (incl. bounce), @ nominal voltage @ 25°C.

Release Time: .5 ms @ 25°C.

Power: Applies to all coil voltages and is based upon nominal coil voltage and resistance. 1 capsule—240 mw; 2 capsules—360 mw; 3 capsules—720 mw; 4 capsules—960 mw; 5 capsules—1.5 watts.

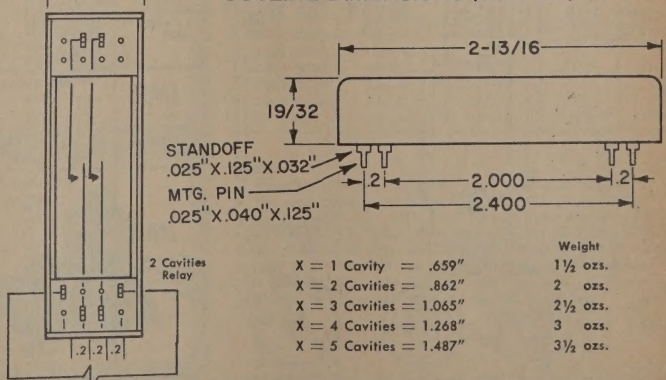
FOUR CAPSULE
(Four Cavities)
RELAY
ASSEMBLY



TYPE	NUMBER OF CAVITIES	COILS		CONTACTS		SUGG. RESALE PRICE
		Sugg. Nominal Voltage	Resistance in Ohms	Arrangement	Reed Rating	
JR1000	1	6	150	1A	15	\$2.65
JR1001	2	6	100	2A	15	3.55
JR1003	4	6	37.5	4A	15	4.95
JR1004	3	6	50	1A & 1B	15	4.40
JR1040	1*	6	150	1C	10	6.65
JR1020	1	6	150	1A	50	3.75
JR1021	2	6	100	2A	50	5.75
JR1005	1	12	600	1A	15	2.65
JR1006	2	12	400	2A	15	7.55
JR1008	4	12	150	4A	15	4.95
JR1086	3	12	200	1A & 1B	15	4.40
JR1045	1*	12	600	1C	10	6.65
JR1025	1	12	600	1A	50	3.75
JR1026	2	12	400	2A	50	5.75
JR1010	1	24	2,400	1A	15	3.10
JR1011	2	24	1,600	2A	15	3.80
JR1013	4	24	600	4A	15	5.20
JR1088	3	24	800	1A & 1B	15	4.65
JR1030	1*	24	2,400	1C	10	6.95
JR1030	1	24	2,400	1A	50	4.00
JR1031	2	24	1,600	2A	50	6.00

*True Form C

OUTLINE DIMENSIONS (NOMINAL)



MERCURY-WETTED CONTACT JM SERIES RELAYS

Rare long life, high speed, and unvarying dependability—all are the result of the basic component of these relays: a hermetically sealed glass capsule. It contains the contact arrangement and a small reservoir of mercury sealed in a high pressure hydrogen atmosphere. A film of mercury is renewed for every operation—that's why you can think in terms of billions of operations without contact bounce, pits or welds.

TWO TYPES OF CAPSULES

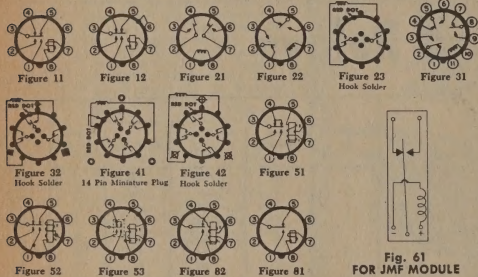
The capsule used in JMF modules and JML relays has a SPDT, break-before-make (Form C), non-bridging contact arrangement. Each capsule used in JMP, and JM1 to JM4 relays has a SPDT, make-before-break (Form D), bridging contact arrangement. JMF, JML and JMP series achieve a high rate of sensitivity by factory-adjusted magnet biasing.

CONTACT RATINGS

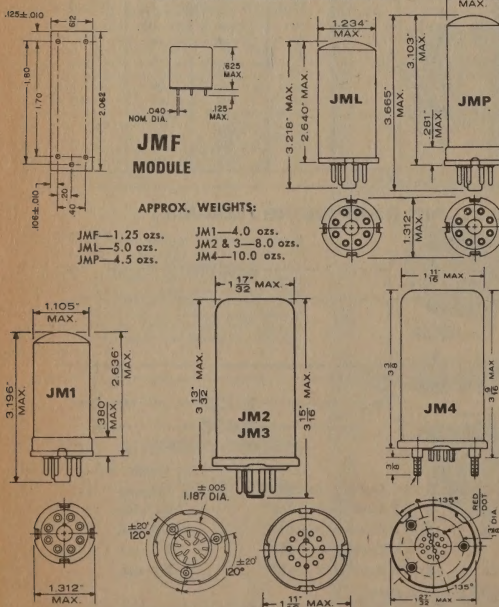
JMF and JML: 500V max., and 2 amps max., 100VA max.*
JMP and JM1 to JM4: 500V max., and 5 amps max., 250 VA max.*

*With contact protection unless in a low level circuit. Details of a simple protection circuit consisting of resistor and capacitor in series are packed with each relay.

TERMINATIONS



OUTLINE DIMENSIONS



	SERIES			COIL CHARACTERISTICS				SUGG. RESALE PRICE
	Capsule	Coil	Terminal Figure No.	Resistance in Ohms ± 10%	Soak* ma DC	MUST OPERATE ma DC	MUST RELEASE ma DC	
JMF PRINTED CIRCUIT MODULE, SENSITIVE FORM C NON-BRIDG.	SINGLE-SIDE-STABLE							
	JMF 1020	61		65	—	38.1	5.3	\$9.40
	JMF 1070	61		450	—	12.9	2.1	9.40
	JMF 1080	61		675	—	11.6	1.9	9.40
	JMF 1120	61		1425	—	8.4	1.4	9.40
	JMF 1150	61		2400	—	7.8	1.3	9.40
	JMF 1160	61		4000	—	4.0	0.67	9.90
	BI-STABLE							
	JMF 5080	61		675	—	+5.4	-5.4	9
	SINGLE-SIDE-STABLE							
JML SENSITIVE FORM C NON-BRIDG.	JML 1061	81		40	36.0	9.75	1.48	12.70
	JML 1110	81		350	19.1	3.56	0.61	12.20
	JML 1160	81		1000	8.1	2.21	0.38	12.20
	JML 1190	81		2500	4.0	1.43	0.17	13.00
	JML 1200	81		4000	3.4	1.25	0.25	13.00
	JML 1240	81		11000	2.6	0.72	0.12	13.00
	JML 1260	81		25000	1.9	0.52	0.09	13.00
	JML 1440	82	(1) 4000 (2) 8000		2.7	0.86	0.10	14.30
	BI-STABLE							
	JML 5160	81		1000		+1.24	-1.24	12.70
JMP POLARIZED FORM D BRIDGING	JML 5200	81		4000		+0.53	-0.53	13.00
	JML 5430	82	(1) 1100 (2) 1100			+1.76	-1.76	14.30
	CHOPPER							
	JML 8130	81		600		Voltage RMS 60 Hz 6.3V		12.70
	SINGLE-SIDE-STABLE							
	JMP 1081	11		90	46.25	16.0	1.3	15.95
	JMP 1160	11		1000	16.2	5.60	0.40	15.95
	JMP 1200	11		4000	8.55	2.96	0.24	17.10
	JMP 1260	11		25000	3.77	1.32	0.12	17.10
	JMP 1340	52	(1) 700 (2) 3300		33.80	14.20	2.80	18.10
JM1 FORM D BRIDGING 1 CAPSULE SPDT	JMP 1470	53	(1) 1020 (2) 970		25.2	14.0	6.0	19.90
	BI-STABLE							
	JMP 5200	11		4000		+1.0	-1.0	17.10
	JMP 5340	52	(1) 700 (2) 3300			+6.0	-6.0	18.65
	CHOPPER							
	JMP 8120	12		500		Voltage RMS 60 Hz 6.3V		16.50
	JMP 8200	12		4000		18.5V		17.65
	JMP 8240	11		11000		117.0V with 1200 ohm (1-5%) 1/2 watt resistor in series with coil		17.65
	SPDT Dual Coil							
	JM1 405	51	(1) 700 (2) 3300		(1) 32.0 (2) 12.0	(1) 37.4 (2) 8.10		17.00
JM2 FORM D BRIDGING 2 CAPSULES DPDT	SPDT Single Coil							
	JM2 104	22		50	110.0	6.04	12.25	23.95
	JM2 106	21		140	66.5	10.00	20.5	23.95
	JM2 109	22		315	44.0	15.30	30.7	23.95
	JM2 110	22		500	34.8	19.20	38.8	23.95
	JM2 111	22		700	30.5	23.50	45.8	23.95
	JM2 112	22		1250	22.1	30.40	61.2	23.95
	JM2 112	23		1250	22.1	30.40	61.2	23.95
	JM2 115	21		5000	11.3	62.10	122.0	23.95
	JM2 115	22		5000	11.3	62.10	122.0	23.95
JM3 FORM D BRIDGING 3 CAPSULES 3PDT	3PDT Single Coil							
	JM3 109	31		315	44.0	15.30	30.7	31.00
	JM3 110	31		500	34.8	19.20	38.7	31.00
	JM3 112	31		700	30.5	23.50	45.8	31.00
	JM3 112	31		1250	22.1	30.40	61.2	31.00
	JM3 115	31		5000	11.3	62.10	122.0	31.00
	JM3 115	32		5000	11.3	62.10	122.0	31.00
	4PDT Single Coil							
	JM4 106	41		65	100.0	7.15	15.1	39.90
	JM4 110	41		390	42.0	18.00	37.0	39.90
JM4 FORM D BRIDGING 4 CAPSULES 4PDT	JM4 110	42		390	42.0	18.00	37.0	39.90
	JM4 112	41		35	40.0	22.20	46.5	39.90
	JM4 114	41		1400	23.0	35.40	70.0	39.90
	JM4 114	42		1400	23.0	35.40	70.0	39.90
	JM4 117	41		4000	15.6	68.50	118.0	39.90
	JM4 117	42		4000	15.6	68.50	118.0	39.90
	JM4 118	41		6500	10.5	75.00	151.0	39.90
	JM4 118	42		6500	10.5	75.00	151.0	39.90
	JM4 119	41		10000	8.6	94.30	187.0	39.90
	JM4 119	42		10000	8.6	94.30	187.0	39.90

*Octal style plugs, except Fig. 23, 32, 42 (Hook Solder), Fig. 41 (14-Pin miniature plug).

SOLID STATE

TIME DELAY RELAYS

AS LOW AS \$17.50



CH SERIES

CH series solid state time delay relays are engineered for a wide range of industrial applications where not-too-critical performance suffices and where economy is a factor. Enclosed in a molded white nylon dust cover, CH time delays are knob-adjustable and equipped with plug-in octal-type terminals. A quality P&B DPDT relay is mounted internally.

CD SERIES GENERAL PURPOSE

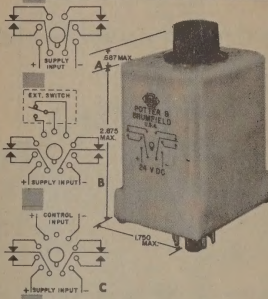
A wide selection of operational configurations, all with accurate time delay values, fast reset time and excellent repeatability, are available in the CD series solid state time delay relays. Three modes of timing are available: knob-adjustable, resistor-adjustable and fixed, CD types with delay "on operate" or delay "on release" are listed. Designed for the most sophisticated accuracy requirements.

DESCRIPTION

CH-38 and CD-38. Knob-adjustable delay "on operate" with internally mounted DPDT relay with contacts rated to 10 amps. Diagram A.

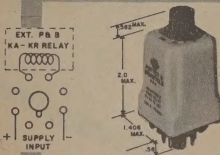
CHB-38-30001 CDB-38-70003
CHB-38-30003 CDB-38-70004
CHB-38-70001 CDB-38-70005
CHB-38-70003 CDD-38-30003
CHD-38-30001 CDD-38-30004
CHD-38-30003 CDD-38-30005

Delay "on release" CH requires auxiliary SPDT switch or relay contacts: CHB-38-70011, CHB-38-70013, CHD-38-30011, CHD-38-30013; Diagram B. CD "release" occurs when "Control" circuit is de-energized; supply circuit must be on continuously: CDB-38-70012, CDD-38-30012; Diagram C.



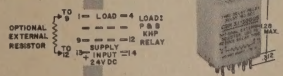
CD-21. Knob-adjustable. Use with P&B KRP relays (see page 7) as listed under Note 2.

CDB-21-70003
CDB-21-70001
CDD-21-30003
CDD-21-30001



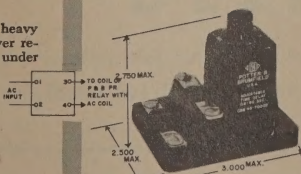
CD-31. Fixed time delay. Adjustable with external resistor (not furnished). Use with KHP relay (see page 6), Note 4.

CDH-31-30005



CD-45. Knob-adjustable. For heavy duty when used with PR power relay (see page 4) as listed under Note 6.

CDB-45-70002



SPECIFICATIONS

Dial Setting

Temperature Range

Accuracy Over Temperature and Voltage Range

Transient Protection

Inherent False Operation

Reset Time

Repeatability

Polarity Reversal Protection on DC

CH SERIES	CD SERIES
Reference scale	Time-calibrated
—10°C to +55°C	±5% of full scale
±10% of nominal	—40°C to +55°C
Twice rated input voltage for 8 milliseconds	±5% of nominal
Contacts transfer momentarily if timing interval is interrupted	Tested to 1000V— ½ cycle surges (on all 120V AC models)
100 milliseconds	None
±2%	60 milliseconds
Yes	±1%
	Yes

APPROX. WEIGHTS: SERIES CD-31 2.00 ozs. SERIES CD-45 6.00 ozs.
SERIES CD-21 4/25 ozs. SERIES CD-38 8.25 ozs. SERIES CH-38 4.00 ozs.

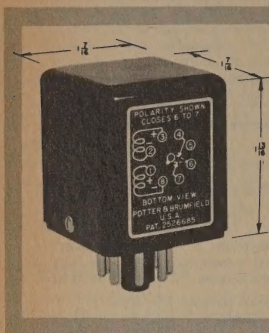
WIDE SELECTION OF TIME DELAY RANGES

TYPE	TIME DELAY IN SECONDS	INPUT VOLTAGE	NOTES	SUGG. RESALE PRICE
CHB38-30001	1.0—10	24V AC	1	\$18.50
CHB38-30003	1.0—180	24V AC	1	18.50
CHB38-70001	1.0—10	120V AC	1	18.50
CHB38-70003	1.0—180	120V AC	1	18.50
CHD38-30001	1.0—10	24V DC	1	17.50
CHD38-30003	1.0—180	24V DC	1	17.50
CHB38-70011	1.0—10	120V AC	1 & 7	22.50
CHB38-70013	1.0—180	120V AC	1 & 7	22.50
CHD38-30011	1.0—10	24V DC	1 & 7	20.50
CHD38-30013	1.0—180	24V DC	1 & 7	20.50
CDB38-70003	0.1—10	120V AC	1	43.80
CDB38-70004	0.6—60	120V AC	1	43.80
CDB38-70005	1.8—180	120V AC	1	43.80
CDD38-30003	0.1—10	24V DC	1	41.55
CDD38-30004	0.6—60	24V DC	1	41.55
CDD38-30005	1.8—180	24V DC	1	41.55
CD21-70003	0.1—10	120V AC	2	38.70
CD21-70001	1.8—180	120V AC	2	38.70
CD21-30003	0.1—10	24V DC	3	38.35
CD21-30001	1.8—180	24V DC	3	38.35
CDH31-30005	180 Max.	24V DC	4 & 5	38.90
CDB45-70002	0.6—60	120V AC	6	37.05
CDB38-70012	0.6—60	120V AC	1 & 7	52.45
CDD38-30012	0.6—60	24V DC	1 & 7	49.50

NOTES

- Has internal relay with DPDT contacts rated at 10 amperes, 120V AC.
- Use with Potter & Brumfield relay KRP5AG—120V AC, KRP11AG—120V AC or KRP14AG—120V AC.
- Use with Potter & Brumfield KRP5DG—24V DC, KRP11DG—24V DC or KRP14DG—24V DC relay.
- Use with Potter & Brumfield KHP17D11—24V DC relay.
- Supplied with 180 seconds delay; adjustable to 1.8 seconds with external resistor.
- Use with Potter & Brumfield PR11AY—120V AC relay.
- Provides delay on release; all others have delay on operate.

See ordering information on page 1.



MDP-900-1 and MDP-930-1
Replace Western Electric
Type 255

- Sensitive
- High Speed
- Bounce-free

For Bi-Stable or Center-Stable Operation

Small size, ultra-sensitivity and high speed switching together with efficient, bounce-free contact action characterize P&B MDP polarized relays. Their operation depends on both the magnitude and direction of the coil current. Two types of contact arrangements provide the following action when the coils are de-energized: *Bi-stable* — armature remains in its last energized position; *Center-stable* — armature remains in center-off position with contacts open. Contact materials as listed. Temperatures: -60°C to $+85^{\circ}\text{C}$. Measuring only $1\frac{1}{16}"$ sq. by $1\frac{1}{16}"$ high (seated), MDP relays are equipped with a plastic dust cover and 8 or 12-pin plugs. Weight: $4\frac{1}{4}$ ozs.

Types MDP-900-1 and MDP-930-1 (with extra long life contacts) will directly replace Western Electric Type 255 relays. $2\text{-}11/16"$ square x $3\text{-}3/4"$ overall height. Weight: 10 ozs.

9MDP51 Hold-down Bracket to adapt MDP relays to Barber-Colman socket. Box of 10 Net \$2.75

MDP SERIES SMALL POLARIZED RELAYS

TYPE	COILS			CONTACTS		SUGG. RES. & PRICE
	Pull-In Current In MA	Resistance In Ohms Each Coil*	Pull-In Power In Micro Watts	Arrangement	Rate In Amps Resistive	
Center-stable: MDP-306-5	1.5	250 (4)	562	1 Form K①	.005-.5A† 5-150V	33.40
Bi-stable: MDP-300-1	1.5	150 (2)	338	1 Form C②	.01-.1A† 25-150V	22.35
MDP-900-1	2.0	150 (2)	600	1 Form C③	.01-.1A† 25-150V	29.00
MDP-930-1	2.4	150 (2)	863	1 Form C③	.01-.1A† 25-150V	29.55
MDP-1300-1	1.4	150 (2)	294	1 Form C②	.01-.1A† 25-150V	22.35
MDP-1300-8	0.28	4000 (2)	314	1 Form C②	.01-.1A† 25-150V	22.35
Center-stable: MDP-1001	1.75	12 (1)	36.8	1 Form K①	3 @ 28 VDC	25.55
MDP-1004	0.49	130 (1)	31.2	1 Form K①	3 @ 28 VDC	25.55
MDP-1006	0.32	330 (1)	33.8	1 Form K①	3 @ 28 VDC	25.55
MDP-1007	0.27	480 (1)	35.0	1 Form K①	3 @ 28 VDC	25.55
MDP-1008	0.23	900 (1)	47.6	1 Form K①	3 @ 28 VDC	25.55
MDP-1009	0.18	1460 (1)	47.3	1 Form K①	3 @ 28 VDC	25.55
MDP-1011	0.10	3500 (1)	35.0	1 Form K①	3 @ 28 VDC	25.55
MDP-1013	0.067	7200 (1)	32.3	1 Form K①	3 @ 28 VDC	25.55
MDP-2001	3.50	6 (2)	73.5	1 Form K①	3 @ 28 VDC	25.55
MDP-2008	0.46	360 (2)	75.2	1 Form K①	3 @ 28 VDC	25.55
MDP-2009	0.32	1000 (2)	102.0	1 Form K①	3 @ 28 VDC	25.55
MDP-2011	0.17	2300 (2)	66.5	1 Form K①	3 @ 28 VDC	25.55
MDP-2101	5.30	6 (2)	169	1 Form K①	3 @ 28 VDC	25.55
MDP-2107	0.80	240 (2)	154	1 Form K①	3 @ 28 VDC	25.55
MDP-2112	0.22	3300 (2)	160	1 Form K①	3 @ 28 VDC	25.55

*Number of coils shown in () parenthesis.

†With suitable arc suppression

Contact materials shown in ① circles:

① Silver.

② Tungsten and Paliney.

③ Silver-tungsten-carbide.

See ordering information on page 1

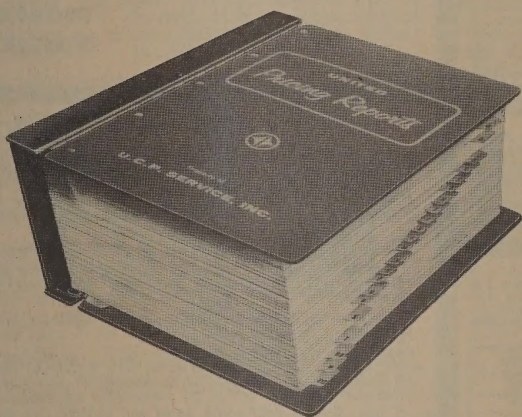
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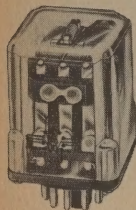
DELIVERY

Delivery is often dependent on availability of raw materials. Check with your distributor for delivery information at the time you place your order.



SCHRACK RELAYS

CAD SERIES

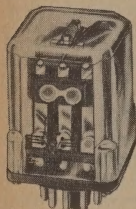


Contacts	10 Amp. Rating		
	SPDT	DPDT	3PDT
Relay Type	CAD5A10	CAD11A10	CAD14A10
6 volts a.c.			
12 volts a.c.	\$4.95	\$5.55	\$6.75
24 volts a.c.			
115 volts a.c.			
230 volts a.c.	\$5.50	\$5.95	\$7.15
Relay Type	CAD5D10	CAD11D10	CAD14D10
6 volts d.c.			
12 volts d.c.	\$4.95	\$5.55	\$6.75
24 volts d.c.			
110 volts d.c.	\$5.50	\$5.95	\$7.15

5 AMP ALSO AVAILABLE

Same basic design as CA series; however, with clear plastic dust cover and octal-type plug-in base. Case is secured firmly to base by 4 "upset" plastic studs. Contact carrier plate is self-centering. Contact carrier is made of "KERIPOLE," a polyester material with glass fibre filling.

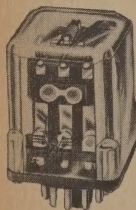
CSD SERIES



A plate circuit relay, similar to the CAD Type; however with increased sensitivity (125 MW per movable arm).

Contacts	SPDT	2 Amp. Rating	
		DPDT	3PDT
Relay Type	CSD5	CSD11	CSD14
2500 ohms	\$5.20	\$5.60	\$6.80
5000 ohms	\$5.30	\$5.70	\$6.90
10,000 ohms	\$5.70	\$6.10	\$7.30

SENSITIVE RELAY — CMD SERIES



In this series there are eleven types in three classifications.

No.	Coil	List Price
CMD-5D	600Ω	\$4.95
CMD-5D	2400Ω	4.95
CMD-5D	9600Ω	5.20
CMD-11D	450Ω	6.10
CMD-11D	1890Ω	6.10
CMD-11D	7300Ω	6.10
CMD-5A	540Ω	5.00
CMD-5A	234Ω	4.75
CMD-5A	1000Ω	4.75
CMD-5A	3850Ω	4.75
CMD-5A	6900Ω	5.30

1. D.C. Relays with one form C contact Type CMD 5D—Pull-in sensitivity 40 mw; Coil Windings — 600 ohm, 2400 ohm, 9600 ohm

2. D.C. Relays with two form C contacts Type CMD 11D — Pull-in sensitivity 60 mw; Coil Windings — 450 ohm, 1890 ohm, 7300 ohm

3. A.C. Relays with one form C contact Type CMD 5A — Pull-in sensitivity 80 MVA; Coil Windings — 540 ohm, 234 ohm, 1000 ohm, 3850 ohm, and 6900 ohm

Contact ratings are 2 amps at 115 VAC.
Contact points are gold-flashed silver.

NEW MINIATURE UNIVERSAL TYPE RA

A precision piece of equipment at a commercial price —



1.515" high, 0.847" wide with dust cover

designed for use in computers, data processing equipment, communications equipment, process control applications, and other equally important systems.

Type RA is a four pole universal type relay for 4 PDT or double-make, double-break (DPDT-DB) action. $\frac{3}{32}$ " contacts rated at 3A — normally supplied in gold-flashed silver. Also available in silver cadmium oxide, gold nickel, silver palladium, etc.

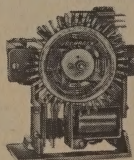
STANDARD COIL DATA

DC Voltage	Resistance in Ohms $\pm 10\%$ at 25°C	AC Voltage	Average AC current in MA (relay closed)
6	40	6	200
12	160	12	100
24	650	24	52
48	2,600	48	25
90	9,000	115	10.5
110	11,000		

Sockets Available

From this relay
you can expect
100,000,000
OPERATIONS

ROTARY STEPPING SWITCH TYPE RT



The SCHRACK Rotary Stepping Switch is a combination of three reliable components:

1. Standard Relay with 1 Form C heavy-duty contact.
2. Ratchet driven Rotary Switch consisting of four banks of twelve or ten points each with sliding bifurcated wipers.
3. Ratchet driven Stepping Relay with two cams which actuate one Form C contact each.

Schrack Rotary Stepping Switches have a highly efficient magnetic circuit and a driving mechanism designed for maximum operating safety. All components are mounted on a rigid die-cast light metal frame and contacts are permanently molded in a sturdy melamine plastic.

ROTARY SWITCH terminals are arranged in a circular pattern with four groups of twelve points each. A conversion can make it operate with 3 groups of 16 each. An alternate version with 4 x 10 points is available for applications requiring decimal counting. Each group occupies a quadrant of the circle and contains a common bus which is connected to the twelve or ten insulated points in sequence by means of a sliding wiper as the switch is operated.

The sliding contacts are bifurcated spring phosphor bronze wipers. The wiper contact assemblies are insulated electrically from each other and the wipers are of the non-bridging type.

The contacts of the rotary switch bank are capable of carrying .5 amps on a steady state basis and of interrupting 1 amps at 110 volts DC with a resistive load or .2 amps at 115 volts AC. Coil Voltages 12, 24, 48 or 110 DC.

TYPE RT 304 — 4 x 12 Contact Points \$19.00 ea.

TYPE RT 404 — 4 x 10 Contact Points \$19.00 ea.

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SCHRACK ELECTRICAL SALES CORPORATION



SCHRACK

RELAYS

SINGLE COIL-TYPE CRD MAGNETIC LATCHING RELAY —

This is a bi-stable power relay held in operated position by a strong residual magnetism of the coil core after the coil is de-energized. The coil core is of a special alloy having sufficient remnant magnetic force to hold the armature locked-in for an indefinite period of time after being energized momentarily.

This Schrack relay has only one coil winding. In operation this coil is energized by half-wave rectified AC obtained in series with the relay coil and mounted in the circuit outside the relay case. For de-magnetizing, to return the armature to its normal position, the same relay coil is energized by full-wave A.C., however, with reduced amplitude obtained by a series-connected resistor. The effect is to destroy the remnant magnetism in the coil core and ready the relay for another pull-in operation.

Sockets Available

by means of a diode such as Type IN3255 connected in series with the relay coil and mounted in the circuit outside the relay case. For de-magnetizing, to return the armature to its normal position, the same relay coil is energized by full-wave A.C., however, with reduced amplitude obtained by a series-connected resistor. The effect is to destroy the remnant magnetism in the coil core and ready the relay for another pull-in operation.

Although AC operation is recommended, it is possible to operate the Schrack Magnetic Latching Relay with a D.C. pulse using reduced levels and by reversing polarity as shown in technical data sheets.

In design, this magnetic latching relay is identical with the Schrack Type CAD plug-in relay. Contacts are rated at 5 or 10 amps depending on materials used. DPDT (2 form C) or 3PDT (3 form C) versions are available.

As can be readily seen, this relay has distinct advantages over the mechanical type since there are no parts subject to wear and friction. Long, trouble-free service and freedom from maintenance may be expected. Since Type CRD is plug-in, chassis may be pre-wired, and its compact design requires less than half the space of the conventional mechanical design. An indefinite "memory" storage and safe programming of complex circuits open up a wide range of potential uses for this most advanced relay design which is being offered at an unusually low commercial price.

LATCHING RELAY — TYPE CBT



A dual coil mechanical latching relay. Each relay operates on a momentary impulse on either coil and is held in the set position until released by an impulse on the other coil. Both coils must be for the same voltage and are continuously rated.

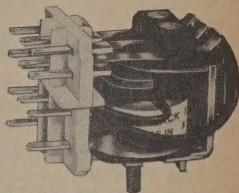
Contact rating: 10 amps. (Based on 600 operations per hour at 115 volts AC 60 cy. resistive load).

May be operated continuously at 1000 cycles per hour.

The CBT relays have a transparent dust cover and a sturdy base plate of insulating material. Screw-type terminals are provided for all contact and coil connections. Available in voltages from 6-230 AC and 6-110 DC.

OPEN RELAY TYPE CA

Recognized under the components program of Underwriters Laboratories, Inc.



5 AMP RATING

	CA5A5	CA11A5	CA14A5
6 volts a.c.			
12 volts a.c.	\$2.60	\$3.00	\$3.85
24 volts a.c.			
115 volts a.c.	2.95	3.40	4.20
230 volts a.c.			

10 AMP RATING

	CA5A10	CA11A10	CA14A10
6 volts a.c.			
12 volts a.c.	\$2.65	\$3.05	\$3.90
24 volts a.c.			
115 volts a.c.	3.00	3.45	4.30
230 volts a.c.			

CA5D5 CA11D5 CA14D5

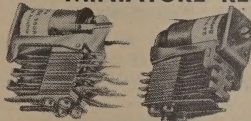
6 volts d.c.	\$2.60	\$3.00	\$3.80
12 volts d.c.			
24 volts d.c.			
60 volts d.c.	2.95	3.40	4.15
110 volts d.c.			

CA5D10 CA11D10 CA14D10

6 volts d.c.	\$2.65	\$3.05	\$3.85
12 volts d.c.			
24 volts d.c.			
60 volts d.c.	3.00	3.45	4.25
110 volts d.c.			

A robust and dependable open-type relay, equipped with lugs suitable for soldering and for mounting of AMP-FASTON Connectors, Series 110. Contact rating: 5 amps or 10 amps; according to contact material. Standard coils available: 6, 12, 24, 115, 230 volts a.c.; 6, 12, 24, 110 volts d.c. Standard versions include 1, 2, or 3 Form C contacts. Optional: solder lugs for printed circuit boards.

MINIATURE RELAY TYPE RK



A small comb-actuated relay (laminated phenolic blade lifter plate) with remarkably high performance figures in spite of its small dimensions. A well-designed magnetic circuit and ample winding space result in high contact pressure up to 18 grams using low operating power.

The RK Type Relay is available with DC or AC coils (50 to 60 c.p.s.). The standard contact material is fine silver (gold-plated), with a rating of 3 amps. Special contact materials on request. Coils are vacuum impregnated with high quality electrical varnish. The SCHRACK Miniature Relay, Type RK, is also available with a clear transparent plastic dust cover, protecting the contact pile-up against contamination and mechanical damage.

Pierced solder lug terminals are standard. Special lugs for printed circuits are available on special order. Maximum contact pile-up 6 C's.

DATA FOR SOME TYPICAL RELAYS • RK TYPE

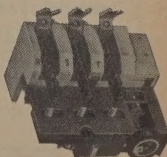
	Contact Pile-Up	Voltage Range	Coil Resistance	List Price
RK 522007	2 Form C	4.2-12.5 V.D.C.	80-Ω	3.35
RK 522008	2 Form C	5.5-17 V.D.C.	142-Ω	3.35
RK 522009	2 Form C	7.5-23 V.D.C.	265-Ω	3.45
RK 522010	2 Form C	10.5-32 V.D.C.	500-Ω	3.45
RK 524010	4 Form C	14-32 V.D.C.	500-Ω	4.20
RK 524011	4 Form C	17-38 V.D.C.	750-Ω	4.20
RK 524012	4 Form C	22-49 V.D.C.	1200-Ω	4.35
RK 526010	6 Form C	19-32 V.D.C.	500-Ω	4.95
RK 526011	6 Form C	23-38 V.D.C.	750-Ω	4.95

LOW COST PROTECTION AGAINST SINGLE PHASING IN A THREE WAY SYSTEM

Operates by the use of bi-metallic strips and dissimilar coefficients of expansion under temperature changes.

When temperature increases due to overload, a microswitch is activated in any leg of a three phase circuit.

Microswitch is normally placed in series with the solenoid of any switching device in the 3 phase line. Reset button may be manually or automatically operated.



WRITE FOR COMPLETE SPECIFICATIONS & APPLICATIONS.

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SCHRACK ELECTRICAL SALES CORPORATION



RESISTORS

±1% PRECISION CARBOFILM AND AEROMET RESISTORS

CARBOFILM PRECISION RESISTORS



Precision deposited carbon resistors designed for circuits calling for the accuracy and stability of wire-wound resistors with the marked economy of carbon resistors. The exclusive Aeroglaze conformal coating offers mechanical protection superior to any other coating eliminating the need for special tubes, sleeves and jackets. Aeroglaze coating will meet all moisture requirements of MIL-R-10509B. Carbofilm resistors offer outstanding stability, low voltage coefficient, low capacitance and inductance in high frequency applications.

CARBOFILM CHARACTERISTICS

TESTING: All Tests conducted in accordance with MIL-R-10509B requirements.

TEMPERATURE COEFFICIENT: Approximately 200 ppm per degree C in the lower resistance ranges and not exceeding 500 ppm per degree C in the highest values specified by MIL-R-10509B.

MOISTURE RESISTANCE: Will meet or surpass the requirements of MIL-R-10509B.

LOAD LIFE: When tested for more than 1,000 hours at full load operation in 40°C ambient temperature, maximum changes are less than 1% with an average change of less than 0.5%.

TEMPERATURE CYCLING: After 5 complete temperature cycles there is an average change of 0.21% with a maximum change of less than 0.5%.

SHORT TIME OVERLOAD: When subjected to 2.5 times the rated working voltage, but not exceeding 2 times the maximum rated voltage for 5 seconds, changes are less than 0.25% with an average change of 0.13%.

LOW TEMPERATURE OPERATION: Maximum changes are less than 1%.

ACCURACY: Guaranteed tolerance of plus/minus 1% at 25°C. (77°F.)

AGING: Due to manufacturing process and control, changes attributed to aging are negligible. The average change in resistance for self-aging is approximately 0.2% per year.

VOLTAGE COEFFICIENT: Does not exceed .002% per volt.

For full technical information request Bulletin NPJ-115-16 Rev. 2

CARBOFILM

TYPE	SIZES	STD. MIN. OHMS	STD. MAX. MEG OHMS	Availability		MIL-R-10509B Max DC Voltage	Equiv. to MIL-R-10509B			MARKING
				Comm. Value	MIL-BELL Value		Type	Char.	Tol.	
CPSX $\frac{1}{2}$	.203 x $\frac{1}{16}$	10	2.2	✓	✓	350	RN20	X	1%	RN20 Number
CPX $\frac{1}{2}$	.260 x $\frac{3}{16}$	2,210,000	5.0	✓	✓	350	---	--	---	Type, Value, Tolerance
CPLX $\frac{1}{2}$	.260 x 1	5,100,000	7.5	✓	✓	500	---	--	---	Type, Value, Tolerance
*CPX 1	.328 x $\frac{1}{8}$	10	15	✓	✓	500	RN25	X	1%	Type, Value, Tolerance
**CPX 2	.328 x $\frac{1}{4}$	50	100†	✓	✓	750	RN30	X	1%	Type, Value, Tolerance and RN30 Number

† Only stock value above 50 megohms is 100 megohms furnished in ±2% tolerance.

* Values from 10.1 meg to 15 meg will be furnished at ±2% only.

** Values from 30.1 meg to 100 meg will be furnished at ±2% only.

AEROMET

Aeromet Stocked In MIL BELL Values Only

TYPE	SIZE		STD. MIN. OHMS	STD. MAX. OHMS	MIL-R-10509F MAX. D.C. VOLTS	EQUIV. TO MIL-R-10509F			MARKING
	DIA. (MAX)	BODY LENGTH				TYPE	CHAR.	TOL.	
CPFX1/10	.100	.281	49.9	100,000	250	RN55	C,E	F	RN55 No.
CPFX1/8	.115	.320	49.9	499,000	250	RN60	C,E	F	RN60 No.
CPFX $\frac{1}{4}$	.203	.620	49.9	1,000,000	300	RN65	C,E	F	RN65 No.
CPFX $\frac{1}{2}$	.260	.750	24.9	1,000,000	350	RN70	C,E	F	RN70 No.



RESISTORS

±1% PRECISION CARBOFILM AND AEROMET RESISTORS

COMMERCIAL STOCK VALUES ±1% TOLERANCE

OHMS	OHMS	OHMS	OHMS	OHMS	OHMS	OHMS	OHMS	OHMS	OHMS	OHMS	MEG- OHMS	MEG- OHMS	MEG- OHMS
0.0	36	82	300	820	2950	7000	20,000	62,000	220,000	650,000	2.0	6.2	27.0
1.0	39	85	330	850	3000	7450	22,000	65,000	225,000	680,000	2.2	6.5	30.0
2.0	40	89.5	350	900	3300	7500	22,500	68,000	240,000	700,000	2.225	6.8	33.0
2.5	43	90	360	910	3500	8000	24,000	70,000	250,000	750,000	2.4	7.0	36.0
3.0	44.5	91	390	1000	3600	8200	25,000	75,000	270,000	800,000	2.5	7.5	39.0
4.5	45	99.5	400	1100	3900	8500	27,000	80,000	300,000	820,000	2.7	8.0	43.0
5.0	47	100	430	1200	4000	8950	30,000	82,000	330,000	850,000	3.0	8.2	47.0
6.0	50	110	450	1250	4300	9000	33,000	85,000	350,000	900,000	3.3	8.5	50.0
7.5	51	120	470	1300	4450	9100	35,000	90,000	360,000	910,000	3.5	9.0	100.0†
8.0	55	130	500	1450	4500	9950	36,000	91,000	390,000		3.6	9.1	
10.0	56	150	510	1500	4700	10,000	39,000	100,000	400,000	MEGOHMS	3.9	10.0	
20.0	59.5	160	550	1600	5000	11,000	40,000	110,000	430,000		4.0	12.0	
25.0	60	175	560	1750	5100	12,000	43,000	120,000	450,000	1.0	4.3	12.5	
4.0	62	180	600	1800	5500	12,500	45,000	125,000	470,000	1.1	4.5	13.0	
5.0	65	200	620	2000	5600	13,000	47,000	130,000	500,000	1.2	4.7	15.0	
7.0	68	220	650	2200	5950	13,500	50,000	150,000	510,000	1.25	5.0	16.0	
9.5	70	225	680	2250	6000	15,000	51,000	160,000	550,000	1.3	5.1	18.0	
10.0	74.5	240	700	2400	6200	16,000	55,000	175,000	560,000	1.5	5.5	20.0	
3.0	75	250	750	2500	6500	17,500	56,000	180,000	600,000	1.6	5.6	22.0	
5	80	270	800	2700	6800	18,000	60,000	200,000	620,000	1.8	6.0	25.0	

AEROGLAZE® CARBOFILM ± 1%
RESISTORS
MIL-BELL VALUES**

	Net Price†
CPX½ (RN20X)	
10 ohms to 49.9 ohms	.64
50 ohms to 2.2 meg	.54
CPX½	
2.21 meg to 5.0 meg	.83
CPLX½	
5.1 meg to 7.5 meg	.90
CPX-1 (RN25X)	
10 ohms to 99.9 ohms	.94
100 ohms to 5.0 meg	.81
5.01 meg to 10.0 meg	.89
10.1 meg to 15.0 meg*	1.03
CPX-2 (RN30X)	
50 ohms to 199 ohms	1.20
200 ohms to 10.0 meg	.97
10.1 meg to 30.0 meg	1.13
30.1 meg to 50.0 meg*	1.25
100 meg*	1.62

Only stock value above 50 megohms is 100 megohms furnished in ±2% tolerance.

†Request O.E.M. Prices in the following quantities: 25-49, 50-99,
100-249, 250-499, 500-999

*All new production will be furnished at ± 2% only for values in these ranges.

**Prices listed are for MIL-BELL values only. For commercial standard values listed in catalog IDC 565 add 10% to the above prices in the appropriate columns. For prices on any values other than MIL-BELL or catalog commercial standard values contact your authorized Aerovox Industrial Distributor.

MIL-BELL STOCK VALUES ±1% TOLERANCE

OHMS	OHMS	OHMS	OHMS	OHMS	OHMS	OHMS	OHMS	OHMS	OHMS	OHMS	OHMS	OHMS	OHMS	OHMS	MEG- OHMS	MEG- OHMS	MEG- OHMS
0.0	23.2	53.6	124	287	665	1540	3570	8250	19100	44200	102000	237000	549000	1.13	2.61	6.04	
2.0	23.7	54.9	127	294	681	1580	3650	8450	19600	45300	105000	243000	562000	1.15	2.67	6.19	
2.5	24.3	56.2	130	301	698	1620	3740	8660	20000	46400	107000	249000	576000	1.18	2.74	6.34	
3.0	24.9	57.6	133	309	715	1650	3830	8870	20500	47500	110000	255000	590000	1.21	2.80	6.49	
4.0	25.5	59.0	137	316	732	1690	3920	9090	21000	48700	113000	261000	604000	1.24	2.87	6.65	
5.0	26.1	60.4	140	324	750	1740	4020	9310	21500	49900	115000	267000	619000	1.27	2.94	6.81	
6.0	26.7	61.9	143	332	768	1780	4120	9530	22100	51100	118000	274000	634000	1.30	3.01	6.98	
7.5	27.4	63.4	147	340	787	1820	4220	9760	22600	52300	121000	280000	649000	1.33	3.09	7.15	
10.0	28.0	64.9	150	348	806	1870	4320	10000	23200	53600	124000	287000	665000	1.37	3.16	7.32	
12.0	28.7	66.5	154	357	825	1910	4420	10200	23700	54900	127000	294000	681000	1.40	3.24	7.50	
15.0	29.4	68.1	158	365	845	1960	4530	10500	24300	56200	130000	301000	698000	1.43	3.32	7.68	
20.0	30.1	69.8	162	374	866	2000	4640	10700	24900	57600	133000	309000	715000	1.47	3.40	7.87	
25.0	30.9	71.5	165	383	887	2050	4750	11000	25500	59000	137000	316000	732000	1.50	3.48	8.05	
30.0	31.6	73.2	169	392	909	2100	4870	11300	26100	60400	140000	324000	750000	1.54	3.57	8.26	
40.0	32.4	75.0	174	402	931	2150	4990	11500	26700	61900	143000	332000	768000	1.58	3.65	8.45	
50.0	33.2	76.8	178	412	953	2210	5110	11800	27400	63400	147000	340000	787000	1.62	3.74	8.66	
60.0	34.0	78.7	182	422	976	2260	5230	12100	28000	64900	150000	348000	806000	1.65	3.83	8.87	
75.0	34.8	80.6	187	432	1000	2320	5360	12400	28700	66500	154000	357000	825000	1.69	3.92	9.09	
100.0	35.7	82.5	191	442	1020	2370	5490	12700	29400	68100	158000	365000	845000	1.74	4.02	9.31	
125.0	36.5	84.5	196	453	1050	2430	5620	13000	30100	69800	162000	374000	866000	1.78	4.12	9.53	
150.0	37.4	86.6	200	464	1070	2490	5760	13300	30900	71500	165000	383000	887000	1.82	4.22	9.76	
200.0	38.3	88.7	205	475	1100	2550	5900	13700	31600	73200	169000	392000	909000	1.87	4.32	10.0	
250.0	39.2	90.9	210	487	1130	2610	6040	14000	32400	75000	174000	402000	931000	1.91	4.42		
300.0	40.2	93.1	215	499	1150	2670	6190	14300	33200	76800	178000	412000	953000	1.96	4.53		
350.0	41.2	95.3	221	511	1180	2740	6340	14700	34000	78700	182000	422000	976000	2.00	4.64		
400.0	42.2	97.6	226	523	1210	2800	6490	15000	34800	80600	187000	432000		2.05	4.75		
450.0	43.2	100	232	536	1240	2870	6650	15400	35700	82500	191000	442000		2.10	4.87		
500.0	44.2	102	237	549	1270	2940	6810	15800	36500	84500	196000	453000	MEGOHMS	2.15	4.99		
600.0	45.3	105	243	562	1300	3010	6980	16200	37400	86600	200000	464000		2.21	5.11		
700.0	46.4	107	249	576	1330	3090	7150	16500	38300	88700	205000	475000		2.26	5.23		
800.0	47.5	110	255	590	1370	3160	7320	16900	39200	90900	210000	487000		2.32	5.36		
1000.0	48.7	113	261	604	1400	3240	7500	17400	40200	93100	215000	499000		2.37	5.49		
1250.0	49.9	115	267	619	1430	3320	7680	17800	41200	95300	221000	511000		2.43	5.62		
1500.0	51.1	118	274	634	1470	3400	7870	18200	42200	97600	226000	523000		2.49	5.76		
2000.0	52.3	121	280	649	1500	3480	8060	18700	43200	100000	232000	536000		2.55	5.90		

AEROMET ±1% RESISTORS
MIL-BELL VALUES ONLY

	Net Price†
CPFX 1/10 (RN55C)	
49.9 ohms to 100,000 ohms	1.30
CPFX 1/10 (RN55E)	
49.9 ohms to 100,000 ohms	2.60
CPFX 1/8 (RN60C)	
49.9 ohms to 499,000 ohms	1.00
CPFX 1/8 (RN60E)	
49.9 ohms to 499,000 ohms	2.00
CPFX 1/4 (RN65C)	
49.9 ohms to 1 Meg.	1.00
CPFX 1/4 (RN65E)	
49.9 ohms to 1 Meg.	2.00
CPFX 1/2 (RN70C)	
24.9 ohms to 1 Meg.	1.00
CPFX 1/2 (RN70E)	
24.9 ohms to 1 Meg.	2.00

*Request OEM Price in quantities of 25-49, 50-99, 100-249, 250-499, 500-999 and 1,000-4,999.

PRODUCTS OF
THE HOUSE OF RESISTORS®



RESISTORS • CONTROLS
RESISTANCE DEVICES

"GREENOHM V"™ VITREOUS-ENAMEL RESISTORS

Based on years of research and engineering development, these vitreous-enamel wire-wound power resistors offer superlative performance and life as proved by countless tests. "Greenohm V" resistors provide all the outstanding quality which made Clarostat "Greenohm" cement-coated units famous, plus a glass-smooth vitreous-enamel coating in a handsome bluish-green for maximum eye appeal. Made to MIL-R-26C specifications.

- Fixed and adjustable
- 5-watt to 200 watt sizes
- $\pm 5\%$ tolerance, 1 ohm and over. $\pm 10\%$ tolerance, 0.9 ohms and under. $\pm 10\%$ for adjustable.

"GREENOHM V"™ FIXED RESISTORS (VITREOUS ENAMEL)

5-WATT SERIES VPR-5-F

Core: 1" x 5/16"

Terminals, wire lead and lug

	Resistance Ohms			
1	30	350	1250	7500
1.5	35	400	1500	7500
2	40	450	1750	8000
3	50	500	2000	9000
4	60	75	2250	10K
5	100	700	2500	12.5K
7.5	125	750	3000	15K
10	150	800	3500	17.5K
12	200	900	4000	20K
15	225	1000	4500	22.5K
20	250	1100	5000	25K
25	300	1200	6000	

NET PRICES:

1 to 1K	\$0.51
1100 to 5K	.54
6K to 10K	.57
12.5K to 15K	.60
17.5K to 20K	.63
22.5K to 25K	.66

10-WATT SERIES VPR-10-F

Core: 1 3/4" x 5/16"

Terminals, wire lead and lug

	Resistance Ohms			
0.4	30	500	3000	13.5K
1	35	600	3500	14.3K
1.5	40	700	4000	15K
2	50	750	4500	16K
3	75	800	5000	17.5K
4	100	900	6000	18K
5	125	1000	7000	20K
7.5	150	1100	7500	22.5K
10	200	1200	8000	25K
12	250	1250	8500	30K
15	300	1500	9000	35K
20	350	1750	10K	40K
25	400	2000	11K	45K
	450	2250	12K	50K
	500	2500	12.5K	

NET PRICES:

0.4 to 1K	\$0.57
1100 to 5K	.60
6K to 10K	.69
11K to 20K	.78
22.5K to 25K	.81
30K to 50K	.90

100-WATT SERIES VK-100-N

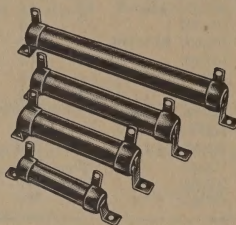
Core: 6 1/2" x 3/4"

Lug terminals — Mtg. bracket furnished

	Resistance Ohms			
1	50	750	7500	50K
2	75	1000	10K	60K
3	100	1500	15K	75K
4	125	2000	20K	100K
5	150	2500	25K	
10	250	3000	30K	
25	500	5000	40K	

NET PRICES:

1 to 3	\$2.22
4 to 1K	1.59
1500 to 5K	1.68
7500 to 10K	1.80
15K to 20K	1.98
25K to 40K	2.13
50K to 60K	2.22
75K	2.43
100K	2.73



20-WATT SERIES VPR-20-H

Core: 2" x 7/16"

Terminals, wire lead and lug

	Resistance Ohms			
0.4	350	1850	7500	55K
0.6	400	2000	8000	60K
0.8	500	2250	9000	65K
1	550	2400	10K	70K
1.2	600	2500	12.5K	75K
25	750	2750	15K	80K
50	800	3000	20K	85K
75	850	3500	25K	90K
100	1000	4000	30K	95K
150	1200	4500	35K	100K
200	1250	5000	40K	
250	1500	6000	45K	
300	1750	7000	50K	

NET PRICES:

0.4 to 1K	\$0.68
1200 to 5K	.69
6K to 10K	.81
12.5K to 20K	.84
25K to 40K	.99
45K to 60K	1.14
65K to 80K	1.35
85K to 100K	1.56

160-WATT SERIES VK-160-W

Core: 8 1/2" x 1 1/8"

Lug terminals — Mtg. bracket furnished

	Resistance Ohms			
1	50	750	7500	50K
2	75	1000	10K	60K
3	100	1500	15K	75K
4	125	2000	20K	100K
5	150	2500	25K	
10	250	3000	30K	
25	500	5000	40K	

NET PRICES:

1 to 5	\$3.18
10 to 1K	2.28
1500 to 5K	2.31
7500 to 10K	2.52
15K to 20K	2.70
25K to 40K	2.79
50K to 60K	2.88
75K	3.06
100K	3.24

25-WATT SERIES VP-25-K

Core: 2" x 9/16"

Lug terminals — Mtg. bracket furnished

	Resistance Ohms			
1	50	800	5000	30K
2	75	1000	6000	35K
3	100	1500	7500	40K
4	150	2000	10K	50K
5	200	2500	12K	60K
10	250	3000	15K	70K
15	500	3500	20K	80K
25	750	4000	25K	100K

NET PRICES:

1 to 1K	\$0.72
1500 to 10K	.75
6K to 10K	.84
12K to 20K	.90
25K to 40K	1.02
50K to 60K	1.20
70K to 80K	1.41
100K	1.62

50-WATT SERIES VP-50-K

Core: 4" x 9/16"

Lug terminals — Mtg. bracket furnished

	Resistance Ohms			
1	75	1000	8000	75K
2	100	1500	10K	100K
3	150	2000	12K	125K
4	200	2500	15K	150K
5	250	3000	20K	175K
10	500	4000	25K	200K
25	750	5000	35K	225K
50	800	7500	50K	250K

NET PRICES:

1	\$1.53
2 to 1K	1.11
1500 to 5K	1.14
7500 to 10K	1.26
12K to 20K	1.38
25K to 35K	1.53
50K	1.71
75K	1.95
100K	2.13
125K	2.55
150K	2.70
175K	2.79
200K	2.88
225K	3.24
250K	3.24

200-WATT SERIES VK-200-W

Core: 10 1/2" x 1 1/8"

Lug terminals — Mtg. bracket furnished

	Resistance Ohms			
1	50	1000	10K	60K
2	75	1500	15K	75K
3	100	2000	20K	100K
4	150	2500	25K	
5	250	3000	30K	
10	500	5000	40K	
25	750	7500	50K	

NET PRICES:

1 to 5	\$3.42
10 to 1K	2.46
1500 to 5K	2.52
7500 to 10K	2.70
15K to 20K	2.88
25K to 40K	2.97
50K to 60K	3.06
75K	3.24
100K	3.45

PRODUCTS OF
THE HOUSE OF RESISTORS®



RESISTORS • CONTROLS
RESISTANCE DEVICES

"GREENOHM V"™ ADJUSTABLE RESISTORS (VITREOUS ENAMEL)

10-WATT SERIES VP-10-FA

Core: 1 3/4" x 5/16"

Lug terminals — Mtg. brackets furnished

Resistance Ohms

1	25	350	1500	5000
2	50	400	2000	6000
3	75	500	2250	7000
5	100	600	2500	7500
7.5	150	750	3000	8000
10	200	800	3500	8500
15	250	1000	4000	9000
20	300	1250	4500	10K

NET PRICES:

1 to 1K	\$1.14
1250 to 5K	1.17
6000 to 10K	1.26

25-WATT SERIES VP-25-KA

Core: 2" x 9/16"

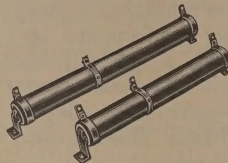
Lug terminals — Mtg. brackets furnished

Resistance Ohms

1	50	750	3500	9000
2	75	800	4000	10K
3	100	1000	4500	12K
5	150	1250	5000	15K
7.5	200	1500	6000	20K
10	250	2000	7000	25K
15	300	2250	7200	
20	400	2500	7500	
25	500	3000	8000	

NET PRICES:

1 to 1K	\$1.29
1250 to 5K	1.32
6K to 10K	1.41
12K to 20K	1.47
25K	1.59



50-WATT SERIES VP-50-KA

Core: 4" x 9/16"

Lug terminals — Mtg. brackets furnished

Resistance Ohms

1	150	1500	7000	30K
2	200	2000	7200	40K
3	250	2250	7500	50K
4	300	2500	8000	60K
5	400	3000	9000	80K
10	500	3500	10K	100K
25	750	4000	12K	
50	800	4500	15K	
75	1000	5000	20K	
100	1250	6000	25K	

NET PRICES:

1 ohm	\$2.10
2 to 1K	1.68
1250 to 5K	1.71
6K to 10K	1.80
12K to 20K	1.92
25K to 40K	2.10
50K to 60K	2.28
80K	2.52
100K	2.70

75-WATT SERIES VP-75-KA

Core: 6" x 9/16"

Lug terminals — Mtg. brackets furnished

Resistance Ohms

1	200	2000	7200	35K
2	250	2250	7500	40K
3	300	2500	8000	45K
4	400	3000	9000	50K
5	500	3500	10K	60K
10	750	4000	12K	80K
15	800	4500	15K	100K
25	1000	5000	20K	
50	1250	6000	25K	
100	1500	7000	30K	

NET PRICES

1 to 2	\$2.37
3 to 1K	1.86
1250 to 5K	1.92
6000 to 10K	2.01
12K to 20K	2.13
25K to 40K	2.31
45K to 60K	2.52
80K	2.76
100K	2.91

100-WATT SERIES VK-100-NA

Core: 6 1/2" x 3/4"

Lug terminals — Mtg. brackets furnished

Resistance Ohms

1	10	500	10K	40K
2	25	1000	15K	50K
3	50	1500	20K	75K
4	100	2500	25K	100K
5	250	5000	30K	

NET PRICES:

1 to 3	\$3.00
4 to 1K	2.37
1500 to 5K	2.43
10K	2.55
15K to 20K	2.70
25K to 40K	2.88
50K	3.00
75K	3.12
100K	3.27

160-WATT SERIES VK-160-WA

Core: 8 1/2" x 1 1/8"

Lug terminals — Mtg. brackets furnished

Resistance Ohms

1	10	500	10K	40K
2	25	1000	15K	50K
3	50	1500	20K	75K
4	100	2500	25K	100K
5	250	5000	30K	

NET PRICES:

1 to 5	\$4.05
10 to 1K	3.15
1500 to 5K	3.18
10K	3.39
15K to 20K	3.57
25K to 40K	3.66
60K	3.75
75K	3.93
100K	4.14

200-WATT SERIES VK-200-WA

Core: 10 1/2" x 1 1/8"

Lug terminals — Mtg. brackets furnished

Resistance Ohms

1	10	500	10K	40K
2	25	1000	15K	50K
3	50	1500	20K	75K
4	100	2500	25K	100K
5	250	5000	30K	

NET PRICES:

1 to 5	\$4.32
10 to 1K	3.33
1500 to 5K	3.42
10K	3.57
15K to 20K	3.75
25K to 40K	3.84
50K	3.96
75K	4.14
100K	4.32

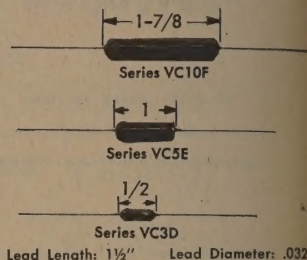
PRODUCTS OF
THE HOUSE OF RESISTORS®



RESISTORS • CONTROLS
RESISTANCE DEVICES

AXIAL LEAD VITREOUS RESISTORS

Available in three sizes 3, 5 and 10 watts, Series VC3D, VC5E and VC10F. Axial lead resistors are particularly adapted to printed circuit, terminal board, and point-to-point wiring applications. These resistors save considerable space because of the elimination of mounting brackets and terminal lugs. Standard resistance tolerance is $\pm 5\%$ for 1 ohm and higher and tolerance below 1 ohm is $\pm 10\%$. Attractively packaged in a newly designed carton particularly adapted to this new axial lead resistor, beautifully finished with Clarostat's new vitreous shade of teal green.



SERIES VC3D STOCK VALUES

1	20	68	250	600	1.75K	4.5K
1.5	22	75	270	680	1.8K	4.7K
2	25	82	300	700	2K	5K
3	27	100	330	750	2.2K	5.6K
4	30	120	350	800	2.25K	6K
5	33	125	390	820	2.5K	6.8K
7.5	35	150	400	900	2.7K	7K
10	39	180	450	1K	3K	7.5K
12	40	200	470	1.1K	3.3K	8K
15	47	220	500	1.2K	3.5K	8.2K
18	50	225	560	1.25K	3.9K	9K
	56			1.5K	4K	10K

Net Prices

1	to 1K	\$.51
1.1K	to 5K	\$.54
6K	to 10K	\$.57

SERIES VC5E STOCK VALUES

1	22	82	330	820	2.7K	7.5K
1.5	25	100	350	900	3K	8K
2	27	120	390	1K	3.3K	8.2K
3	30	125	400	1.1K	3.5K	9K
4	33	150	450	1.2K	3.9K	10K
5	35	180	470	1.25K	4K	12.5K
7.5	39	200	500	1.5K	4.5K	15K
10	40	220	560	1.75K	4.7K	17.5K
12	47	225	600	1.8K	5K	18K
15	50	250	680	2K	5.6K	20K
18	56	270	700	2.2K	6K	22K
20	68	300	750	2.25K	6.8K	22.5K
	75		800	2.5K	7K	25K

Net Prices

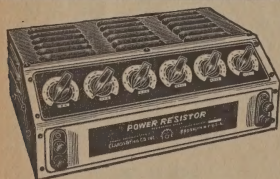
1	to 1K	\$.54
1.1K	to 5K	\$.57
6K	to 10K	\$.60
12.5K	to 20K	\$.72
22.5K	to 25K	\$.75

SERIES VC10F STOCK VALUES

1	25	120	400	1.2K	3.5K	8.5K	22.5K
1.5	27	125	450	1.25K	3.9K	9K	25K
2	30	150	470	1.3K	4K	10K	27K
3	33	180	500	1.5K	4.5K	11K	30K
4	35	200	560	1.75K	4.7K	12K	33K
5	39	220	600	1.8K	5K	12.5K	35K
7.5	40	225	680	2K	5.6K	13.5K	39K
10	47	250	700	2.2K	6K	15K	40K
12	50	270	750	2.25K	6.8K	16K	45K
15	56	300	800	2.5K	7K	17.5K	47K
18	68	330	820	2.7K	7.5K	18K	50K
20	75	350	900	3K	8K	20K	
22	82	390	1K	3.3K	8.2K	22K	
	100			1.1K			

Net Prices

1	to 1K	\$.60
1.1K	to 5K	\$.63
6K	to 10K	\$.72
11K	to 20K	\$.81
22.5K	to 40K	\$.84
45K	to 50K	\$.96



POWER RESISTOR DECADE BOX

The Resistance Decade Box, Model 240-C for bench use — Model 250 for rack mounting, provides any resistance from 1 to 999,999 ohms for working circuits at the flip of a switch. Six front-panel dials enable selection in 1 ohm increments, the total value being read directly from the dial. Each decade has a power rating of 325 watts maximum, 1,000 VDC or 660 VAC maximum.

Resistance changing switches are of the type that prevent a resistance breakdown between steps, thus protecting delicate meters and measuring instruments in the circuit. Knobs indicate the resistance

value being used at a glance.

Clarostat GREENOHM Power Resistors are used throughout. These components are wire-wound power resistors on ceramic tubes and coated with an exclusive Clarostat inorganic cold-setting cement, providing the most rugged, long-lasting, trouble-free power resistor available. The resistors are mounted in rigid metal supports.

Overall length: 240C: 13" long x 8 1/4" deep x 5 1/4" high, weight 11 1/2 lbs. 250: 19" long x 13 1/4" deep x 7" high (fits in standard 19" relay rack), weight 18 1/2 lbs.

SUGGESTED USES: Resistance determination, Load Resistance, Meter Multiplier, Calibrating Meters, Providing any desired ohmage as a universal power resistor.

Decade No.	1	2	3	4	5	6
Max. Current Rating (amps)	5	1.5	.5	.15	0.5	.005
Resistance Tolerance	5%	2%	2%	2%	2%	2%

NET PRICE: Model 240C \$110.00, Model 250 \$150.00

SERIES U39

UNIVERSAL "HUMDINGER" CONTROL 2W. WIRE WOUND

Series U39 is a shaftless potentiometer with the contact arm grounded to the housing. The design of terminals and mounting tabs, meets the following requirements: Above chassis mounting, as a potentiometer or rheostat; printed circuit mounting, as a potentiometer or rheostat. The terminal layout meets the popular industry standards. A fiber adapter plate is furnished with each control. Series U39 is ideally suited for radio and television requirements, as well as many industrial applications. Resistance tolerance $\pm 20\%$. Linear only.

Cat. No.	Total Res. Ohms	Min. Res. Ohms	Cat. No.	Total Res. Ohms	Min. Res. Ohms
U39-1.5	1.5	—	U39-700	700	—
U39-5	5	—	U39-700-200	700	200
U39-8	8	—	U39-800	800	—
U39-15	15	—	U39-800-50	800	50
U39-50	50	—	U39-1000	1000	—
U39-75	75	—	U39-1000-100	1000	100
U39-100	100	—	U39-1500	1500	—
U39-125	125	—	U39-2000	2000	—
U39-150	150	—	U39-2000-100	2000	100
U39-175	175	—	U39-3000	3000	—
U39-200	200	—	U39-3000-700	3000	700
U39-300	300	—	U39-4000	4000	—
U39-500	500	—	U39-4000-350	4000	350
U39-500-100	500	100	U39-4000-1000	4000	1000
U39-600	600	—	U39-5000	5000	—
U39-650	650	—			

NET PRICE \$36



SERIES U39

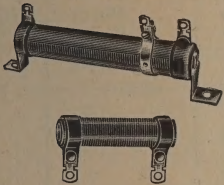


PRODUCTS OF
THE HOUSE OF RESISTORS®



RESISTORS • CONTROLS
RESISTANCE DEVICES

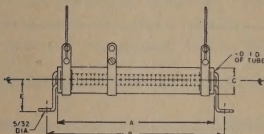
"GREENOHM"* WIRE-WOUND RESISTORS



FIXED TYPES Wire-wound resistors for most rugged applications. Will withstand tremendous overloads and temperature changes without altering resistance values or appearance. Wire windings on high grade ceramic tubing and coated with special inorganic cement. In accordance with EIA standards, overall tolerances are $\pm 5\%$ for resistors of 50 ohms and higher. For resistors of 49.9 ohms and lower, overall tolerances are $\pm 10\%$.

ADJUSTABLE TYPES Same electrically and mechanically as Fixed types, but incorporating sliding band or bands for tapping any desired resistance values. Slider band tightened by means of screw. In accordance with EIA standards, overall tolerances are $\pm 10\%$.

DIMENSIONS BY TYPES



SERIES	WATTS	A	B	C	D	E
PR-5-F	5	1	1 1/16	3/16	3/16	3/16
PR-10-F	10	1 3/4	2 1/16	3/16	3/16	3/16
PR-10-FA	10	1 3/4	2 1/16	3/16	3/16	3/16
PR-20-K	20	2	2 1/2	3/16	3/8	3/16
P-25-K	25	2 1/2	3	3/16	3/8	3/16
P-25-KA	25	2 1/2	3	3/16	3/8	3/16

FIXED RESISTORS

5-WATT SERIES PR-5-F

These resistors conform to EIA specification for type RRW-125 and 128.

Ohms	Ohms	Ohms	Ohms
1	75	800	5,000
2	100	900	6,000
3	125	1,000	7,000
4	150	1,100	7,500
5	200	1,200	8,000
7.5	225	1,250	8,500
10	250	1,500	9,000
12	300	1,750	10K
15	350	2,000	
20	400	2,250	
25	450	2,500	
30	500	3,000	
35	600	3,500	
40	700	4,000	
50	750	4,500	

NET PRICE \$0.33

Mounting brackets supplied at extra cost.

10-WATT SERIES PR-10-F

These resistors conform to military specifications for type RW29, and EIA type RRW-126 and 129.

Ohms	Ohms	Ohms	Ohms
1	200	2,000	14.5K
2	225	2,250	15K
3	250	2,500	16K
4	300	3,000	17.5K
5	350	3,500	18K
7.5	400	4,000	20K
10	450	4,500	22.5K
12	500	5,000	25K
15	600	6,000	30K
20	700	7,000	35K
25	750	7,500	40K
30	800	8,000	50K
35	900	8,500	
40	1,000	9,000	
50	1,100	10K	
75	1,200	11K	
100	1,250	12K	
125	1,500	12.5K	
150	1,750	13.5K	

NET PRICE \$0.38

Mounting brackets supplied at extra cost.

20-WATT SERIES PR-20-K

These resistors conform to EIA specifications for type RRW-127.

Ohms	Ohms	Ohms	Ohms
5	850	7,000	70K
10	1,000	7,500	75K
15	1,200	8,000	80K
20	1,250	9,000	85K
25	1,500	10K	90K
30	1,750	12.5K	95K
35	1,850	15K	100K
40	2,000	20K	
45	2,250	25K	
50	2,500	30K	
55	2,750	35K	
60	3,000	40K	
65	3,500	45K	
70	4,000	50K	
75	4,500	55K	
80	5,000	60K	
	6,000	65K	

NET PRICES:

5 ohms to 15K ohms	\$0.42
20K to 50K ohms	.57
55K to 100K ohms	.72

Mounting brackets supplied at extra cost.

25-WATT SERIES P-25-K

Ohms	Ohms	Ohms	Ohms
1	750	10K	
2	800	12K	
3	1,000	15K	
4	1,250	20K	
5	1,500	25K	
7.5	2,000	30K	
10	2,250	35K	
15	2,500	40K	
20	3,000	45K	
25	3,500	50K	
30	4,000	60K	
40	4,500	70K	
50	5,000	75K	
75	6,000	80K	
100	7,000	85K	
150	7,500	90K	
200	8,000	100K	
250	9,000		

NET PRICES:

1 ohm to 5,000	\$0.51
6,000 to 15K ohms	.57
20K to 50K ohms	.66
60K ohms	.75
70K ohms	.84
75K ohms	.87
85K ohms	.90
85K ohms	.99
90K ohms	1.05
100K ohms	1.17

Mounting brackets at no extra cost.

10-WATT SERIES PR-10-FA

Res.	Res.	Res.	Res.
1	75	750	4,000
2	100	800	4,500
3	150	1,000	5,000
5	200	1,250	6,000
7.5	250	1,500	7,000
10	300	2,000	7,500
15	350	2,250	8,000
20	400	2,500	8,500
25	500	3,000	9,000
50	600	3,500	10K

NET PRICE \$0.57

Above adjustable resistors supplied with mounting brackets at no extra cost. Extra slider bands — 30¢ each.

25-WATT SERIES P-25-KA

Res.	Res.	Res.	Res.
1	75	1,000	5,000
2	100	1,250	6,000
3	150	1,500	7,000
5	200	2,000	7,500
7.5	250	2,250	8,000
10	300	2,500	9,000
15	400	3,000	10K
20	500	3,500	12K
25	750	4,000	15K
50	800	4,500	20K
			25K
			50K

NET PRICES:

1 ohm to 5,000 ohms	\$0.63
6,000 to 15K ohms	.72
20K to 25K ohms	.84
50K ohms	.99

CORNING® GLASS TIN OXIDE FILM RESISTORS

New glass tin oxide film resistors—with tighter, ½ to 5% purchase and load-life tolerances, precision temperature coefficients—make CORNING resistors more than ever your best buy for stability and reliability. Add these new and improved character-

istics to the established physical and electrical integrity of glass tin oxide film resistors and you will see how CORNING precision, general-purpose, and power resistors can add real value to your equipment.

	TYPE AND MIL SPEC	MODEL/MIL MODEL	RESISTANCE (ohms)	WATTAGE	TOLERANCE
NEW NC	New low ± 50 ppm TC with ½ and 1% tolerances for predictable performance. Meets MIL-R-10509E, Char. C. 	NC4/RN55C NC5/RN60C NC6/RN65C	49.9 to 150K 49.9 to 499K 49.9 to 1 meg.	125°C 1/10 1/8 1/4	1/2, 1% 1/2, 1% 1/2, 1%
IMPROVED NA	Stable ½% and 1% performance at 70°C and 125°C ratings. Meets MIL-R-10509E, Char. D. 	NA55/RN55D NA60/RN60D NA65/RN65D NA70/RN70D	51.1 to 150K 51.1 to 499K 10 to 499K 51.1 to 1 meg.	70°C 125°C 1/8 1/10 1/4 1/8 1/2 1/4 3/4 —	1/2, 1% 1/2 1% 1/2 1% 1/2, 1%
NEW C	Precision stability in a unique multi-use part for both MIL-R-22684B and MIL-R-10509E, Char. D. 100 ppm TC. 	C4/RL07S C5/RL20S	51 to 150K 10 to 499K	70°C 70°C 125°C 1/4 1/8 1/10 1/2 1/4 1/8	1, 2, 5% 1, 2, 5%
C	General-purpose, low-cost film type. Film resistor performance characteristics at prices comparable to carbon composition types. MIL-R-22684B. 	C32/RL32S C42S/RL42S	10 to 1 meg. 10 to 1.5 meg.	1 @ 70°C 2 @ 70°C	2%, 5% 2%, 5%
LPI	Low-power resistors with exceptional frequency characteristics and glass stability. New LPI-10 in a substantially smaller package. Construction assures desired performance for rugged environmental duty. 	LPI-2 LPI-3 LPI-4 LPI-5 LPI-7 LPI-10	9 to 1.5 meg. 9 to 40K 16 to 90K 19 to 110K 24 to 110K 24 to 110K	40°C 70°C 3 2 4 3 5 4 7 5 — 7 10 —	5%, 10% 10% 10% 10% 10% 10%
S	Fixed-film type for high-temperature operation. Silicone baked lacquer. MIL-R-11804D, Char. P. 	S20/RD60P S25/RD65P S30/RD70P	10 to 500K 10 to 1.54 meg. 30.1 to 4.22 meg.	130°C 25°C ½ 1 1 2 2 4	1, 2, 5, 10% 1, 2, 5, 10% 1, 2, 5, 10%
R	Power type, essentially non-inductive in high-frequency operations. MIL-R-11804D. 	R31/RD31P R33/RD33P R35/RD35P R37/RD37P R39/RD39P	10 to 70K 19.6 to 150K 19.6 to 301K 19.6 to 500K 30.1 to 1 meg.	7 @ 25°C 13 @ 25°C 25 @ 25°C 55 @ 25°C 115 @ 25°C	2, 5, 10% 2, 5, 10% 2, 5, 10% 2, 5, 10% 2, 5, 10%

STANDARD VALUES*

NA, N, S, R RESISTORS 1, 2, and 5% Tolerances

C RESISTORS

1%	2%	5%	1%	2%	5%	1%	2%	5%	1%	2%	5%	±2% & ±5%	±10%†
1.00	1.00	1.00	1.78	1.78	1.78	3.16	3.16	3.16	5.62	5.62	5.62	10	10
1.02			1.82			3.24			5.76			11	—
1.05	1.05		1.87	1.87		3.32	3.32		5.90	5.90		12	12
1.07			1.91			3.40			6.04			13	—
1.10	1.10	1.10	1.96	1.96	1.96	3.48	3.48	3.48	6.19	6.19	6.19	15	15
1.13			2.00			3.57			6.34			16	—
1.15	1.15		2.05	2.05		3.65	3.65		6.49	6.49		18	18
1.18			2.10			3.74			6.65			20	—
1.21	1.21	1.21	2.15	2.15	2.15	3.83	3.83	3.83	6.81	6.81	6.81	22	22
1.24			2.21			3.92			6.98			24	—
1.27	1.27		2.26	2.26		4.02	4.02		7.15	7.15		27	27
1.30			2.32			4.12			7.32			30	—
1.33	1.33	1.33	2.37	2.37	2.37	4.22	4.22	4.22	7.50	7.50	7.50	33	33
1.37			2.43			4.32			7.68			36	—
1.40	1.40		2.49	2.49		4.42	4.42		7.87	7.87		39	39
1.43			2.55			4.53			8.06			43	—
1.47	1.47	1.47	2.61	2.61	2.61	4.64	4.64	4.64	8.25	8.25	8.25	47	47
1.50			2.67			4.75			8.45			51	—
1.54	1.54		2.74	2.74		4.87	4.87		8.66	8.66		56	56
1.58			2.80			4.99			8.87			62	—
1.62	1.62	1.62	2.87	2.87	2.87	5.11	5.11	5.11	9.09	9.09	9.09	68	68
1.65			2.94			5.23			9.31			75	—
1.69	1.69		3.01	3.01		5.36	5.36		9.53	9.53		82	82
1.74			3.09			5.49			9.76			91	—

*Standard resistance values are obtained from the decade table by multiplying by multiples of 10. As an example, 1.33 can represent 13.3 ohms, 133 ohms, 1.33k, 13.3k, 133k, 1.33 megohm.

†Values not listed are considered non-standard. †C42 only.

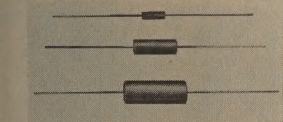
CORNING

ELECTRONICS

- Precision Film Resistors • Wire-Wound Controls
- Slide Switches • Composition Resistors
- Spark Suppressors



MOLDED TYPES



All designed to exceed MIL-R-10509 at modest price levels.

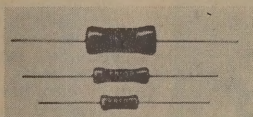
EVAPORATED METAL FILM PRECISION RESISTORS, Type VFM, resistance ranges from 24.9 ohms through 10 megohms; power ratings from $\frac{1}{8}$ watt through 1 watt. Request Bulletin No. 2064.

DEPOSITED CARBON FILM PRECISION RESISTORS, Type CFM, resistance range from 10 ohms through 5.1 megohms; power ratings from $\frac{1}{8}$ watt through 1 watt. Request Bulletin No. 2065.

CONFORMAL COATED TYPES

featuring the new
**VACUMETTE
TYPE X SERIES**

for high precision and stability, yet at low prices!

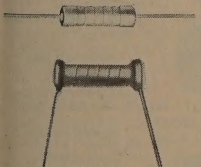


Designed to exceed MIL-R-10509. Temp. coefficient $0^\circ \pm 100$ ppm/ $^\circ$ C (EIA Code T-1). Multi-coated for maximum environmental protection. Resistance ranges from 10 ohms through 2.49 megohms, power ratings from $\frac{1}{8}$ through $\frac{3}{4}$ ohm. Request Bulletin No. 2073.

OTHER EVAPORATED METAL FILM RESISTORS, Type VF, resistance ranges from 24.9 ohms through 1 megohm; power ratings from $\frac{1}{8}$ through 1 watt. Request Bulletin No. 2064.

DEPOSITED CARBON FILM RESISTORS, Type CF, resistance ranges from 10 ohms through 10 megohms; power ratings from $\frac{1}{8}$ through 2 watts. Request Bulletin No. 2065.

ENAMEL COATED METAL TYPES



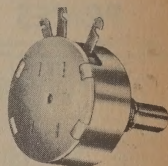
NOBLETTE TYPE NA and NOBLELOY TYPE NR PRECISION FILM RESISTORS with rugged vitreous enamel coating. Resistance ranges from 0.5 ohm through 20 megohms; power ratings from $\frac{1}{2}$ watt through 5 watts. Request Bulletin No. 302-63.

There's long life and superior performance behind every V component — meeting highest quality and reliability standards at a moderate cost.

Our C-W distributor can supply prices, and bulletins mentioned above — also details on the convenient RESIST-O-FILE stocking plan for composition resistors.

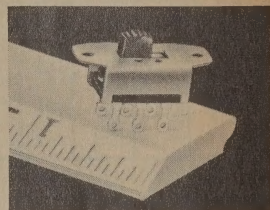
WIRE-WOUND CONTROLS

Available from $\frac{3}{4}$ " o.d., 2 watt trimmer control through 5 watt potentiometer or "L" pad. Shafts, bushings, mounting hardware, and other features are available to meet specific requirements. Request Bulletin Nos. 2060, 2061, 2062, and 2075-66.



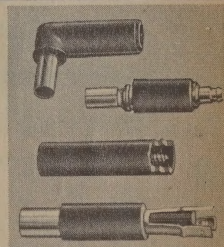
SLIDE-SWITCHES

Fourteen basic types available in current ratings to 11.0 amps at 125 volts AC-UL listed. One through four poles; 2, 3, and 4 positions; detent or spring-return action. Also midiget "Swidget" (illus.) and "Sydewynder" actuated from switch side instead of switch top. Request Bulletin Nos. 2072-66, 2054, and 2066.



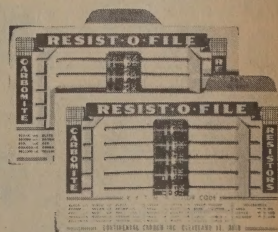
AUTOMOTIVE AND OIL BURNER SPARK SUPPRESSORS

For suppression of radio and television noise interference due to ignition spark discharge at plugs and high tension distributor; and due to ignition discharge action of oil burner igniting coil. Complete line of resistive-type suppressors. Request Bulletin No. 125.



CARBOMITE RESISTORS

Insulated, fixed composition resistors for replacement and service applications. $\frac{1}{16}$ watt through 2 watts. Available as type "M" packaged in bulk. Also as type "MR" consisting of five type "M" resistors of one resistance value and tolerance mounted on one 3 x 5 card, ten cards per package. File drawers and storage cabinets for type "MR" resistors available. Request Bulletin No. 2047.



CONTINENTAL-WIRT ELECTRONICS CORP.

Charles T. Gamble Industries



PRECISION WIRE WOUND RESISTORS & NETWORKS

Charles T. Gamble Industries has engineered and designed non-inductive precision wire wound resistors to meet the requirements of Mil-R-93D. These resistors are completely sealed against the effects of high humidity and salt water immersion cycling. The material used in the manufacture of our resistors has a very high dielectric strength. The bobbin material used in winding the resistors is one and the same as the encapsulating material. Matched thermal coefficients of expansion therefore will eliminate the possibility of shorted turns and distorted windings when resistors are being used in their application.

NETWORKS: RC NETWORKS, LADDER NETWORKS, VOLTAGE DIVIDERS, BINARY NETWORKS

Sub-miniature Axial lead Precision resistors have been designed for applications where space is a prime factor. All resistors are hermetically sealed with epoxy resin to protect the windings against the effects of high humidity, and salt water immersion cycling. Resistors can either be inductive or non-inductive wound.

Standard temperature coefficient ± 10 PPM/ $^{\circ}$ C. Lower temperature coefficients can be supplied on request. Standard tolerance 1%, 0.5%, 0.1%, .05%, .025%, .02%, .01%.

Encapsulated printed circuit resistors are designed for printed circuit board application, where space is a factor.

Printed circuit resistors are wound with resistance wire having a very low thermal E.M.F. to copper.

Printed circuit resistors can be purchased in standard tolerances of 1%, 0.5%, 0.1%, .05%, .025%, .02%, .01%.

All resistors with tolerances of 0.1% and below are stabilized by artificial aging and temperature cycling before shipment.

Radial lug type resistors have been designed to meet the requirements of Mil-R-93D.

These resistors are completely sealed against the effects of high humidity, and salt water immersion cycling.

The materials used in the construction of radial lug type resistors are identical to those used in the construction of axial lead types.

These resistors are supplied with a thru hole for mounting to the chassis by means of a #6 thru bolt.

Our standard resistors are supplied with temperature coefficients of ± 10 PPM/ $^{\circ}$ C.

Lower temperature coefficients can be obtained upon request.

Standard tolerance 1%, 0.5%, 0.1%, .05%, .025%, .02%, .01%.

STANDARD AXIAL LEAD PRECISION RESISTORS

Type	Military Specs. New Old	Commercial Wattage Rating	Max. Resist. Based on .0007 E Alloy	Military Wattage Rating	Max. Volts	Length	Size Dia.
0808AL		.125W	300K		200V	1/4"	1/4"
1108AL	RB56	.125W	350K	.125W	250V	1/2"	1/4"
1608AL	RB55 AFRT 10	.250W	400K	.15 W	184V	1/2"	1/4"
1208AL		.200W	350K	.250W	225V	3/8"	1/4"
2408AL	RB54 AFRT 11	.333W	1 meg.	.250W	300V	3/4"	1/4"
2412AL	RB53 AFRT 12	.500W	1.2 meg.	.333W	300V	3/4"	3/8"
3212AL	RB52 AFRT 13	1.000W	2 meg.	.400W	600V	1"	3/8"
1616AL		.500W	1.3 meg.		300V	1/2"	1/2"
3216AL	RF57 AFRT 14	1.000W	3 meg.	.750W	600W	1"	1/2"
4816AL	RB58 AFRT 15	2.000W	6 meg.	1.000W	900V	1 1/2"	1/2"
6416AL	RB59 AFRT 16	2.500W	10 meg.	1.250W	1200V	2"	1/2"
2008AL		.500W	.425 meg.		300V	5/8"	3/4"
1612AL		.400W	.500 meg.		300V	1/2"	3/8"
2012AL		.750W	.600 meg.		600V	5/8"	3/8"
3208AL		.500W	1.1 meg.		300V	1"	1/4"
2016AL		.750W	2 meg.		600V	5/8"	1/2"
1212AL		.250W	1 meg.		225V	3/8"	3/8"

SUB-MINIATURE AXIAL LEAD PRECISION RESISTORS

Type	Commercial Wattage Rating	Maximum Resistance based on .0007 E Alloy	Maximum Voltage	Length	Size Dia.
500156AL	.1W	70K	85 Volts	1/2"	3/32"
625156AL	.15W	100K	125 Volts	5/8"	3/32"
375125AL	.125	50K	72 Volts	3/8"	1/8"
109250AL	.120	25K	50 Volts	1/4"	3/64"
375187AL	.1W	40K	65 Volts	3/8"	3/64"
375109AL	.120	30K	55 Volts	3/8"	7/64"
375093AL	.1	20K	55 Volts	3/8"	3/32"

ENCAPSULATED PRINTED CIRCUIT RESISTORS

Type	Military Specs. New Old	Commercial Wattage Rating	Military Wattage Rating	Max. Volts	Max. Resist. Based on .0007 E Alloy	Length	Size Lead Dia.	Lead Spacing	Lead Length
0808PC		.125W		90V	70K	1/4"	1/4"	.100	1"
1208PC		.200W		200V	200K	3/8"	1/4"	.100	1"
1608PC		.250W		184V	400K	1/2"	1/4"	.100	1"
2408PC		.333W		300V	1 meg.	3/4"	1/4"	.100	1"
3208PC		.500W		750V	1.1 meg.	1"	1/4"	.100	1"
1008PC	RB71	.250W	.125W	240V	250K	5/8"	1/4"	.200	1"
1612PC	RB70	.500W	.250W	150V	.301 meg.	1/2"	3/8"	.200	1"
3212PC		1.000W		1350V	1.75 meg.	1"	3/8"	.250	1"
3232PC		1.250W		1700V	2.50 meg.	1"	1/2"	.250	1"

STANDARD RADIAL LUG PRECISION RESISTORS

Type	Military Specs. New Old	Commercial Wattage Rating	Military Wattage Rating	Maximum Voltage	Max. Resist. Based on .0007 E Alloy	Length	Size Lead Dia.
1616RLU	RB08 AFRT 17	.500	1/4W	300V	885K	1/2"	1/2"
2020RLU	RB16 AFRT 18	.666	1/2W	300V	1 meg.	5/8"	3/8"
3220RLU	RB17 AFRT 19	1.000	1/2W	600V	2.5 meg.	1"	5/8"
4024RLU	RB18	1.500	3/4W	600V	6.5 meg.	1 1/4"	3/4"
6828RLU	RB19	2.000	1W	900V	12 meg.	2 1/4"	7/8"



CHARLES T. GAMBLE INDUSTRIES
Precision Wire Wound Resistors



CARBON COMPOSITION RESISTORS

IRC, Inc.

TYPE GBT CARBON COMPOSITION RESISTORS

PERFORMANCE CHARACTERISTICS

These are shown in relation to MIL-R-11 specification limits on the following two pages. A performance span or range is given for each important characteristic. You know in advance the typical limits within which IRC carbon composition resistors can be expected to perform.

The performance data are based on many thousands of individual tests made on random samples taken from production. The resistors are tested to MIL-R-11, and to other tests of greater severity.

APPEARANCE

IRC carbon composition resistors have a glossy brown, smooth body. The molded jacket has close dimensional tolerances for trouble-free use in high speed lead forming and inserting machines. There is no wax coating to clog equipment.

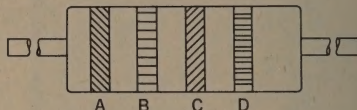
IDENTIFICATION

Resistance values are clearly indicated by standard EIA/MIL Color Code bands. Solvent-resistant paints are baked on to provide distinct, permanent color bands.

STANDARD RESISTANCE VALUES

Type GBT resistors are supplied in all EIA/MIL standard values, subject to the minimum and maximum values for each type. (See table.) Other values are available on special order.

EIA/MIL COLOR CODE



Band A—1st significant figure

Band B—2nd significant figure

Band C—Number of zeros or decimal multiplier

Band D—Tolerance

Color	Significant Figure	Multiplying Value
Black	0	1
Brown	1	10
Red	2	100
Orange	3	1,000
Yellow	4	10,000
Green	5	100,000
Blue	6	1,000,000
Violet	7	10,000,000
Gray	8	100,000,000
White	9	1,000,000,000
Gold	±5% tolerance	0.1
Silver	±10% tolerance	0.01
No color	±20% tolerance	

FIXED COMPOSITION RESISTORS.

IRC's unique design of 1/4-, 1/2- and 1-watt resistors means better performance and reliability. 50% more molding around the resistance element assures greater moisture protection. The working element is a layer of carbon thermally bonded to an inert glass filament for better resistance and temperature characteristics. Ribbed, shoulder leads are deeply imbedded in the molding to prevent twist or pull-out and act as heat sinks to conduct heat away for cooler operation and longer field life.

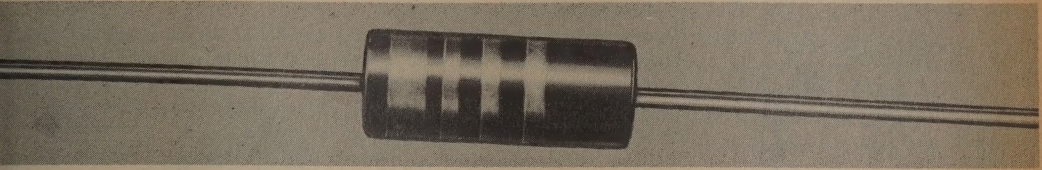
IRC TYPE	GBT 1/4	GBT 1/2	GBT 1	SR 2
MIL Style	RC07	RC20	RC32	RC42
MIL Characteristic	GF	GF	GF	GF
Rating	1/4w @ 70° amb.	1/2w @ 70° amb.	1w @ 70° amb.	2w @ 70° amb.
Minimum Resistance	10 ohms	2.7 ohms	2.7 ohms	10 ohms
Maximum Resistance	1 meg	22 meg	22 meg	22 meg
Rated Voltage	250V	350V	500V	500V
Dimensions— Body size	.250" x .090" dia.	.390" x .140" dia.	.562" x .225" dia.	1 1/4" x .312" dia.
Lead size	1 1/2" x .025" dia.	1 1/2" x .031" dia.	1 1/2" x .040" dia.	1 1/2" x .045" dia.

STANDARD STOCK VALUES

10% and 5% tolerance. 10% in bold type. All values available in 5%. Values are indicated on each resistor by EIA color code.

2.7	10	39	150	560	2,200	8,200	33K	120K	470K	1.8 meg.	6.8 meg.
3.0	11	43	160	620	2,400	9,100	36K	130K	510K	2.0 meg.	7.5 meg.
3.3	12	47	180	680	2,700	10K	39K	150K	560K	2.2 meg.	8.2 meg.
3.6	13	51	200	750	3,000	11K	43K	160K	620K	2.4 meg.	9.1 meg.
3.9	15	56	220	820	3,300	12K	47K	180K	680K	2.7 meg.	10.0 meg.
4.3	16	62	240	910	3,600	13K	51K	200K	750K	3.0 meg.	11.0 meg.
4.7	18	68	270	1,000	3,900	15K	56K	220K	820K	3.3 meg.	12.0 meg.
5.1	20	75	300	1,100	4,300	16K	62K	240K	910K	3.6 meg.	13.0 meg.
5.6	22	82	330	1,200	4,700	18K	68K	270K	1.0 meg.	3.9 meg.	15.0 meg.
6.2	24	91	360	1,300	5,100	20K	75K	300K	1.1 meg.	4.3 meg.	16.0 meg.
6.8	27	100	390	1,500	5,600	22K	82K	330K	1.2 meg.	4.7 meg.	18.0 meg.
7.5	30	110	430	1,600	6,200	24K	91K	360K	1.3 meg.	5.1 meg.	20.0 meg.
8.2	33	120	470	1,800	6,800	27K	100K	390K	1.5 meg.	5.6 meg.	22.0 meg.
9.1	36	130	510	2,000	7,500	30K	110K	430K	1.6 meg.	6.2 meg.	

MOLDED WIREWOUND RESISTORS


IRC, Inc.


OUTPERFORMS FIXED COMPOSITION RESISTORS

IRC's new BWH molded wire wound resistor can be used in most applications normally filled by the lower values of composition resistors. The BWH exhibits the inherent stability, reliability, and long-term life characteristics of a wire wound unit. It provides low resistances unattainable in composition resistors.

Exceptionally stable, small and completely insulated the BWH meets or exceeds all MIL-R-11 performance requirements. Because it is the RC-32 size it will fit any 1 watt composition resistor processing equipment.

BWH resistors are packaged on the exclusive IRC GRIP STRIP, and are available in multiples of 10 and 50.

Power rating of this resistor is:

- ½ watt at 137°C. ambient
- 1 watt at 115°C. ambient
- 2 watts at 70°C. ambient.

TOLERANCES & RESISTANCE VALUES. Available in $\pm 5\%$ and $\pm 10\%$ tolerances in accordance with standard EIA resistance values. Minimum standard resistance: 0.24 ohm. Maximum standard resistance: 1800 ohms.

COLOR CODING. Resistance values are indicated by standard EIA Color Code bands, and are distinguished from composition resistors by a wide band for the first significant figure.

INSULATION. A plastic housing molded with IRC manufactured thermosetting materials at high pressure and temperature results in a high insulation resistance. This protects the element from effects of extreme climatic conditions. Type BWH resistors are brown in color.

NOISE. Negligible.

SHELF DRIFT. Negligible.

PERFORMANCE SPECIFICATIONS

Temperature Coefficient. (-55°C to 150°C)

$\pm 0.065\%/^{\circ}\text{C}$	$\pm 0.030\%/^{\circ}\text{C}$
0.24 ohm to 1.0 ohm	1.1 ohms to 1800 ohms

In order to cover a wide range of resistance values, it is necessary to use different wire alloys, which have different temperature coefficients of resistance. The above table gives the minimum temperature coefficient within a particular resistance range.

Inductance. From $0.04\mu\text{H}$ (0.24 ohm resistor) to $5.0\mu\text{H}$ (1000 ohm resistor).

Electric Withstanding Voltage. 1000 volts rms minimum at atmospheric pressure. 625 volts rms minimum at barometric pressure of 3.4 inches of mercury.

STANDARD STOCK VALUES ($\pm 5\%$ and $\pm 10\%$ tolerance) ($\pm 10\%$ tolerance in bold type. All values available in $\pm 5\%$)				
OHMS	OHMS	OHMS	OHMS	OHMS
—	1.0	10	100	1,000
—	1.1	11	110	1,100
—	1.2	12	120	1,200
—	1.3	13	130	1,300
—	1.5	15	150	1,500
—	1.6	16	160	1,600
—	1.8	18	180	1,800
—	2.0	20	200	—
—	2.2	22	220	—
—	2.4	24	240	—
—	2.7	27	270	—
—	3.0	30	300	—
—	3.3	33	330	—
—	3.6	36	360	—
—	3.9	39	390	—
—	4.3	43	430	—
—	4.7	47	470	—
—	5.1	51	510	—
—	5.6	56	560	—
—	6.2	62	620	—
—	6.8	68	680	—
—	7.5	75	750	—
—	8.2	82	820	—
—	9.1	91	910	—

Low Temperature Operation. $\pm 3\%$ maximum.

Temperature Cycling. $\pm 3\%$ maximum.

Moisture Resistance. $\pm 6.5\%$ maximum (load or no load).

Short Time Overload. (8 watts for 5 seconds) $\pm 3.0\%$ maximum.

Load Life. (After 1000 hrs. at temperature and loading shown on derating curve.) $\pm 5\%$ maximum group average. $\pm 10\%$ maximum individual.

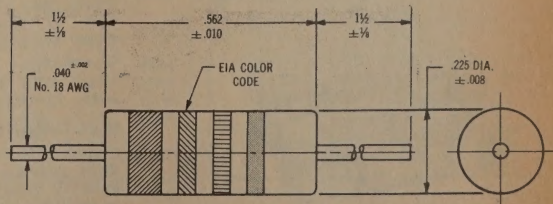
Terminal Strength. $\pm 1\%$ maximum.

Solder. $\pm 3\%$ maximum.

Acceleration, Shock, High Frequency Vibration. $\pm 2\%$ maximum.

All tests performed as required in MIL-R-11 specification unless noted otherwise.

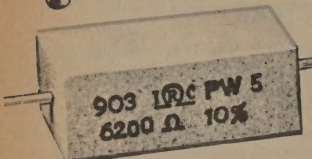
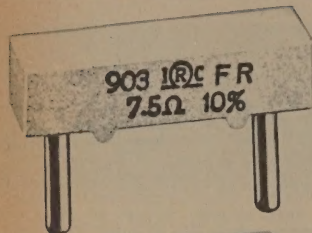
NOTE: Because of test inaccuracies common in measuring low resistance values, an allowance of 0.01 ohm should be added to the resistance change limits listed above.





POWER & FUSE RESISTORS

IRC, Inc.



FUSE RESISTORS

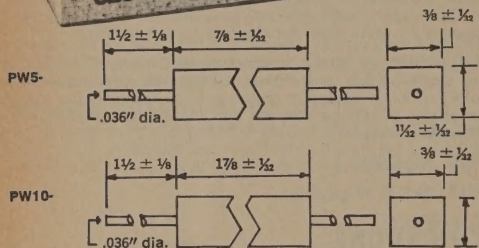
This special resistor functions as a resistor under normal conditions, and as a fuse under overload conditions. It is used extensively as a surge-limiting resistor in voltage doubler circuits of TV receivers. Installation of an IRC Type FR fuse resistor in a TV set will prevent overloading of more valuable components and possibly fire due to a short circuit. The compact, modern design of IRC fuse resistor measures only $1\frac{3}{4}'' \times \frac{1}{2}'' \times \frac{3}{8}''$. This unit is completely insulated in a rectangular ceramic case, and equipped with plug-in terminals.

*suitable for 4.7Ω fuse for resistor applications

FR5.0*—5 ohms
FR5.6—5.6 ohms
FR7.5—7.5 ohms

AXIAL LEAD POWER WIRE WOUND RESISTORS TYPES PW5 PW10

STANDARD STOCK VALUES



PW5				PW10			
Ohms:				Ohms:			
.15	7.5	300	2000	1	120	1000	6000
.22	10	350	2250	2	125	1200	7000
.27	15	400	2500	3	150	1250	7500
.33	20	500	3000	4	200	1500	8000
.47	25	600	3300	5	250	1750	8200
.51	30	700	3500	7.5	300	2000	8500
.56	40	750	3900	10	350	2250	9000
.68	50	800	4000	15	400	2500	10,000
.82	75	820	4500	20	500	3000	12,000
1	100	900	5000	25	600	3300	12,500
2	120	1000	6000	30	700	3500	15,000
3	125	1200		40	750	3900	20,000
4	150	1250		50	800	4000	25,000
5	200	1500		75	820	4500	
5.6	250	1750		100	900	5000	

These popular axial lead power resistors are the industry favorites for 5 and 10 watt applications. The compact shape fits among other components more easily. The axial lead design speeds installation. And, the superior solderability of the terminals assures sound connections every time. A precisely wound element is sealed in a ceramic case—fully protected and insulated. Conservative rating permits continuous operation at full power. Resistance, wattage

and tolerance are permanently marked on resistor body. Standard tolerance is 10%.

A Popular Assortment of PW10 resistors is available for handy bench stocks. Values are selected on the basis of usage. Resistors are mounted on plastic covered cards with hole for hanging.

Assortment 20A

20 best selling PW10 resistors

MULTI-RANGE POWER RESISTORS

Up to 47 values from a single resistor. 5 multi-range resistors give complete 10 watt coverage . . . 200 values from $\frac{1}{2}$ to 50,000 ohms. No delays for particular value, and you don't tie up inventory with odd values. Ideal for in-home servicing and weekend shop work.

Four-wire wound elements are sealed in a steatite housing. It's simple to solder a basic interconnection for the required value, and cut off unused terminals. Connection diagrams included.

5 TYPES COVER 200 VALUES

TYPE MR1. 0.5 through 15 ohms. 1, 2, 4, 8 ohm elements. 10 watts, 47 values.

TYPE MR2. 5 through 150 ohms. 10, 20, 40, 80 ohm elements. 10 watts, 47 values.

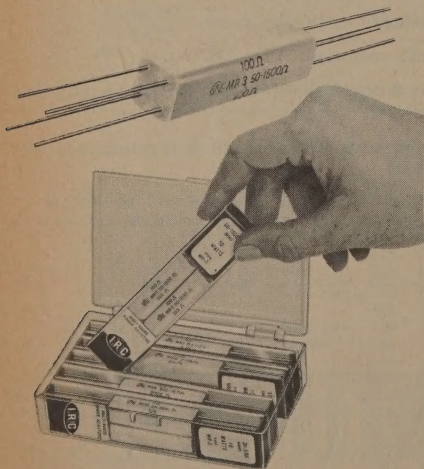
TYPE MR3. 50 through 1,500 ohms. 100, 200, 400, 800 ohm elements. 10 watts, 47 values.

TYPE MR4. 500 through 15K ohms. 1K, 2K, 4K, 8K ohm elements. 10 watts, 47 values.

TYPE MR5. 3K through 50K ohms. 10K, 10K, 15K, 15K ohm elements. 10 watts, 12 values.

MULTI-RANGE KIT #55

Complete 10 watt power resistor coverage that fits in the palm of your hand. Rigid clear plastic case holds 5 Handy-Paks, 2 of each type MR resistor. With these 10 versatile resistors you have finger-tip coverage of 200 values from $\frac{1}{2}$ to 50,000 ohms. Fits easily in tool case or tube caddy.

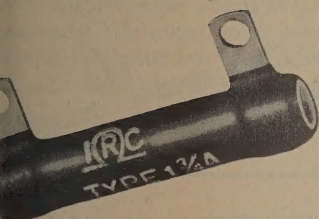


SECTION 4700

TUBULAR POWER WIREWOUND RESISTORS



IRC, Inc.



RESISTEG COATED POWER RESISTORS need no derating. They operate at full rated power even at high resistance values. Other features include heat resistant terminals for easy soldering, ceramic cores that withstand shock and are impervious to moisture, heavy windings that handle overloads without burnout, and standard size spring loaded push-in brackets for easy mounting on sizes of 25 watts and over.

IRC Tubular Power Wirewound Resistors are standard tubular construction with lugs and/or leads for use in general applications. They are used in DC and low frequency AC circuits where appreciable power must be dissipated:

- High voltage bleeder resistors in power supplies
- Voltage dropping resistors
- Voltage divider networks
- Bias supply resistor
- RC decoupling resistor
- Filament dropping resistor
- Load resistor
- Shunt resistor

FIXED RESISTANCE TYPES

TYPE 1A—5-8 watts. Resisteg coating. Core size: 1" long by 3/8" dia. Terminals: 13A. Tolerance: $\pm 5\%$. No mounting hardware included. Standard package: 5.

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No. 1 Terminal

TYPE 1 1/4A—10-12 watts. Resisteg coating. Core size: 1 1/4" long x 3/8" dia. Terminals: 13A. Tolerance: $\pm 5\%$. No mounting hardware included. Standard package: 5.

1	30	350	1250	7000	17.5K
1.5	35	400	1500	7500	18K
2	40	450	1750	8000	20K
3	50	500	2000	8500	22.5K
4	75	600	2250	9000	25K
5	100	700	2500	10K	30K
7.5	125	750	3000	11K	35K
10	150	800	3500	12K	40K
20	200	900	4000	12.5K	45K
5	225	1000	4500	13.5K	50K
0	250	1100	5000	15K	
5	300	1200	6000	16K	

TYPE 2C—20 watts. Resisteg coating. Core size: 2" long x 3/8" dia. Terminals: 13A. Tolerance: $\pm 5\%$. No mounting hardware included. Standard package: 5.

Ohms						
1	150	800	2750	10K	55K	
2	200	900	3000	12.5K	60K	
3	250	1000	3500	15K	65K	
4	300	1200	4000	20K	70K	
5	350	1250	4500	25K	75K	
10	400	1500	5000	30K	80K	
25	500	1750	6000	35K	85K*	
50	650	2000	7000	40K	90K*	
75	700	2250	7500	45K	95K*	
100	750	2500	8000	50K	100K*	
			9000			

* No. 1 Terminal.

TYPE 2D—25 watts. Resisteg coating. Core size: 2" long x 3/8" dia. Terminals: 12A. Tolerance: $\pm 5\%$. Mounting hardware included: Z-1 brackets. Standard package: 1.

Ohms						
1	25	500	3000	12K	50K	
2	50	750	3500	15K	60K	
3	75	800	4000	20K	70K	
4	100	1000	5000	25K	80K	
5	150	1500	6000	30K	100K	
10	200	2000	7500	35K		
15	250	2500	10K	40K		

TYPE 4D—50 watts. Resisteg coating. Core size: 4" long x 3/8" dia. Terminals: 12A. Tolerance: $\pm 5\%$. Mounting hardware included: Z-1 bracket. Standard package: 1.

Ohms	1	2	3	4	5	10	15	20	25	30	35	40	50	75	100	150	200	250	300	400	500	600	700	800	1000	1500	2000	2500	3000	4000	5000	6000	7000	8000	10000
1	50	75	100	150	200	250	300	400	500	600	700	800	1000	1200	1500	2000	2500	3000	4000	5000	6000	7000	8000	10000	12000	15000	20000	25000	30000	40000	50000	60000	70000	80000	100000

TYPE 6 1/2E—100 watts. Resisteg coating. Core size: 6 1/2" long x 3/8" dia. Terminals: 12A. Tolerance: $\pm 5\%$. Mounting hardware included: Z-2 bracket. Standard package: 1.

Ohms					
1	25	250	2500	20K	75K
2	50	500	3000	25K	100K
3	75	750	5000	30K	
4	100	1000	7500	40K	
5	125	1500	10K	50K	
10	150	2000	15K	60K	

TYPE 8 1/2H—160-175 watts. Resisteg coating. Core size: 8 1/2" long x 1 1/8" dia. Terminals: 4A. Tolerance: $\pm 5\%$. Mounting hardware included: Z-3 brackets. Standard package: 1.

Ohms					
1	25	250	2500	20K	75K
2	50	500	3000	25K	100K
3	75	750	5000	30K	
4	100	1000	7500	40K	
5	125	1500	10K	50K	
10	150	2000	15K	60K	

TYPE 10 1/2H—200-225 watts. Resisteg coating. Core size: 10 1/2" long x 1 1/8" dia. Terminals: 4A. Tolerance: $\pm 5\%$. Mounting hardware included: Z-3 brackets. Standard package: 1.

Ohms					
1	25	250	2500	20K	75K
2	50	500	3000	25K	100K
3	75	750	5000	30K	
4	100	1000	7500	40K	
5	125	1500	10K	50K	
10	150	2000	15K	60K	



PRECISION DEPOSITED CARBON RESISTORS

IRC, Inc.

DEPOSITED CARBON PRECISIONS are available in 1/2, 1 and 2 watt sizes. The wide range of values, 1% tolerance, economy, low voltage coefficient, excellent frequency characteristics, predictable temperature high voltage rating, low noise level, and small size make IRC deposited carbon resistors ideal for application in advanced electronic equipment and critical TV circuits.

MOLDED DEPOSITED CARBON RESISTORS are designed for high reliability, stable performance, low voltage coefficient, low capacitive and inductive impedance in high frequency applications. In miniature 1/8, 1/4 and 1/2 watt sizes, plus 1 and 2 watt types.

Standard tolerance is 1%. (2% tolerance on high range units.) The housing gives complete protection, and offers better heat dissipating qualities. This results in improved load life and maximum moisture protection.

MIL VALUES—TYPES DCC, DCF, DCH and MDC

One decade of standard values is as follows:

Ohms	Ohms	Ohms	Ohms	Ohms	Ohms	Ohms	Ohms	Ohms	Ohms	Ohms	Ohms
10.0	12.1	14.7	17.8	21.5	26.1	31.6	38.3	46.4	56.2	68.1	82.5
10.2	12.4	15.0	18.2	22.1	26.7	32.4	39.2	47.5	57.6	69.8	84.5
10.5	12.7	15.4	18.7	22.6	27.4	33.2	40.2	48.7	59.0	71.5	86.6
10.7	13.0	15.8	19.1	23.2	28.0	34.0	41.2	49.9	60.4	73.2	88.7
11.0	13.3	16.2	19.6	23.7	28.7	34.8	42.2	51.1	61.9	75.0	90.9
11.3	13.7	16.5	20.0	24.3	29.4	35.7	43.2	52.3	63.4	76.8	93.1
11.5	14.0	16.9	20.5	24.9	30.1	36.5	44.2	53.6	64.9	78.7	95.3
11.8	14.3	17.4	21.0	25.5	30.9	37.4	45.3	54.9	66.5	80.6	97.6

Higher standard values may be determined by multiplying by 10, 100, 1000, etc., up to maximum stated for type.

SELECTION GUIDE

IRC Type	MIL		Power Watts		Resistance		Tolerance	Body Size	Temperature Coefficient PPM/°C	Lead Dia.
	Type	Char.			Min. Ohms	Max. Ohms				
	MIL-R-10509		@ 70°C	@ 125°C			0.5% 1.0% 2.0%			
DM	RN55	D	1/8		10	301K		—500	.250x.093	.025
MDA	RN60	B, D	1/8, 1/4	1/8	10	5 meg.		—500	.406x.130	.025
MDB	RN65	B, D	1/4, 1/2	1/4	10	5 meg.		—500	.594x.203	.025
MDC	RN70	B, D	1/2, 1	1/2	10	25 meg.		—500	.719x.216	.032
MDF	RN70	B	1		10	50 meg.		—500	1.105x.395	.032
MDH	RN80	B	2		15	100 meg.		—500	2.234x.395	.032
			@ 40°C	@ 70°C						
DCC	RN20	X		1/2	10	25 meg.		—500	.594x.156	.032
DCF	RN25	X	1		10	50 meg.		—500	.938x.297	.032
DCH	RN30	X	2		15	100 meg.	—500	2.062x.297	.032	

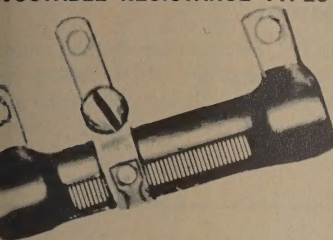
SECTION 4700

ADJUSTABLE & MILITARY POWER RESISTORS



IRC, Inc.

ADJUSTABLE RESISTANCE TYPES



IRC Adjustable Power Wirewound Resistors are standard resistors with a track exposed wire to allow for the adjustable feature. The track or slot is made by masking a section of the winding before testing, and then removing the mask after the coating has cured. No wire is damaged, which could damage the resistor wire, is used.

The IRC adjustable feature provides an ideal solution to add resistance values to handling a variety of line voltages, or more adjustable lugs may be used for voltage divided applications.

TYPE 13AA—10-12 watts. Core size: $1\frac{3}{4}$ " long x $\frac{3}{8}$ " dia. Terminals: 12A. One adjustable band. Tolerance: $\pm 10\%$. Standard package: 1. Mounting hardware included: Z-2 brackets.

Watts	1	2	250	800	3000	7500
1	20	25	300	1000	3500	8000
2	50	350	1250	4000	8500	
5	75	400	1500	4500	9000	
7.5	100	500	2000	5000	10K	
10	150	600	2250	6000		
12	200	750	2500	7000		

TYPE 2DA—25 watts. Core size: 2" long x $\frac{3}{8}$ " dia. Terminals: 12A. One adjustable band. Type X-2. Tolerance: $\pm 10\%$. Mounting hardware included: Z-1 bracket. Standard package: 1.

Ohms	1	20	250	1250	4000	9000
1	20	25	300	1500	4500	10K
2	50	400	2000	5000	12K	
5	75	500	2250	6000	15K	
7.5	100	750	2500	7000	20K	
10	150	800	3000	7500	25K	
15	200	1000	3500	8000		

TYPE 4DA—50 watts. Core size: 4" long x $\frac{3}{8}$ " dia. Terminals: 12A. One adjustable band. Tolerance: $\pm 10\%$. Mounting hardware included: Z-2 brackets. Standard package: 1.

Ohms	1	75	750	3000	7500	25K
1	75	100	800	3500	8000	30K
2	150	1000	4000	9000	40K	
4	200	1250	4500	10K	50K	
5	250	1500	5000	12K	60K	
10	300	2000	6000	15K	80K	
25	400	2250	7000	20K	100K	
50	500	2500				

TYPE 5EA—75 watts. Core size: 5" long x $\frac{3}{8}$ " dia. Terminals: 12A. One adjustable band. Tolerance: $\pm 10\%$. Mounting hardware included: Z-2 brackets. Standard package: 1.

Ohms	1	5	100	1500	15K	40K
1	5	10	250	2500	20K	50K
2	25	500	5000	25K	75K	
4	50	1000	10K	30K	100K	

TYPE 6 $\frac{1}{2}$ EA—100 watts. Core size: $6\frac{1}{2}$ " long x $\frac{3}{8}$ " dia. Terminals: 12A. One adjustable band. Tolerance: $\pm 10\%$. Mounting hardware included: Z-2 brackets. Standard package: 1.

Ohms	1	5	100	1500	15K	40K
1	5	10	250	2500	20K	50K
2	25	500	5000	25K	75K	
4	50	1000	10K	30K	100K	

TYPE 8 $\frac{1}{2}$ HA—160-175 watts. Core size: $8\frac{1}{2}$ " long x $1\frac{1}{8}$ " dia. Terminals: 4A. One adjustable band. Tolerance: $\pm 10\%$. Mounting hardware included: Z-3 brackets. Standard package: 1.

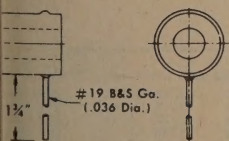
Ohms	1	5	100	1500	15K	40K
1	5	10	250	2500	20K	50K
2	25	500	5000	25K	75K	
4	50	1000	10K	30K	100K	

TYPE 10 $\frac{1}{2}$ HA—200-225 watts. Core size: $10\frac{1}{2}$ " long x $1\frac{1}{8}$ " dia. Terminals: 4A. One adjustable band. Tolerance: $\pm 10\%$. Mounting hardware included: Z-3 brackets. Standard package: 1.

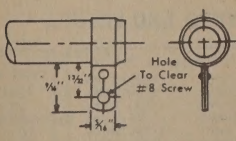
Ohms	1	5	100	1500	15K	40K
1	5	10	250	2500	20K	50K
2	25	500	5000	25K	75K	
4	50	1000	10K	30K	100K	

TERMINAL AND BRACKET TYPES

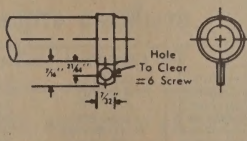
Type 1



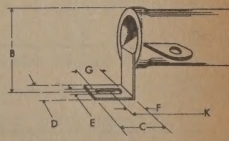
Type 4A



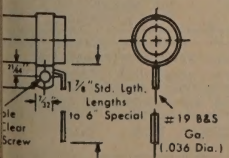
Type 12A



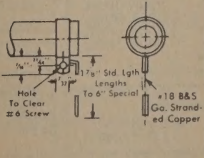
Z BRACKET STANDARD



Type 13A



Type 14A



Bracket Type	Use with Resistor D.D. Type	DIMENSIONS								
		A	B	C	D	E	F	G	K	
Z-0	$\frac{3}{16}$ A	—	$1\frac{1}{32}$	$\frac{1}{2}$	$\frac{3}{16}$	.173	$\frac{1}{64}$	.266	Core Lgth. + $\frac{1}{32}$	
Z-1	$\frac{3}{16}$ D	—	$1\frac{1}{4}$	$\frac{3}{16}$	$\frac{3}{16}$	.173	$\frac{3}{64}$	$\frac{1}{64}$	" " + $\frac{9}{64}$	
Z-2	$\frac{3}{16}$ E	—	$1\frac{1}{16}$	$\frac{9}{16}$	$\frac{3}{8}$	.173	$\frac{1}{32}$	$\frac{2}{64}$	" " + $\frac{1}{16}$	
Z-3	$1\frac{1}{8}$ H	—	$2\frac{1}{16}$	$1\frac{1}{8}$	$\frac{1}{2}$	$\frac{3}{16}$	$\frac{1}{32}$	$\frac{1}{4}$	" " + $\frac{1}{16}$	
Z-4	$\frac{3}{16}$ C	—	$\frac{5}{8}$	$\frac{29}{64}$	$\frac{3}{32}$	$\frac{3}{64}$	$\frac{1}{4}$	$\frac{5}{64}$	" " + $\frac{1}{2}$	



PRECISION WIREWOUND RESISTORS

IRC, Inc.



WIREWOUND PRECISION RESISTORS.

For accuracy in critical applications, IRC Precision Wire Wound resistors are produced to exacting standards of reliability. IRC's winding technique prevents shorted turns or strains in the winding, and special insulation gives excellent protection from humidity. Positive electrical connections and easy soldering.

RADIAL LUG TYPES

IRC TYPE NO	WW2J	WW3J	WW4J	WW5J	WW8J*	WW11J*
MIL-R-93A Style	RB19	RB16	RB17	RB18	RB15	RB16
Rating in Watts 65°C. Ambient	2	.50	1	1	.50	.50
Maximum Volts	2000	400	700	1000	250	500
No. of Sections	8	2	4	4	1	2
Maximum Resistance .0015 Diameter Wire	4.0 Meg.	0.3 Meg.	0.75 Meg.	1.7 Meg.	0.29 Meg.	0.4 Meg.
Maximum Resistance .0009 Diameter Wire	20.0 Meg.	1.6 Meg.	4.0 Meg.	7.5 Meg.	1.5 Meg.	2.0 Meg.
Minimum Resistance (ohms)						
±0.05% Tolerance	25	25	25	25	25	25
±0.1% Tolerance	10	10	10	10	10	10
±0.25% Tolerance	5	5	5	5	5	5
±0.50% Tolerance	1	1	1	1	1	1
±1.0% Tolerance	0.1	0.1	0.1	0.1	0.5	0.1

RADIAL LEAD TYPES

IRC TYPE NO.	WW3J*	WW4J*	WW8J*	WW10J	WW11J*	WW20J*	WW21J*	WW22J* (Center Tapped)	WW23J*	WW24J* (Center Tapped)
Rating in Watts 65°C. Ambient	.50	1	.50	.25	.50	.25	.25	.25†	.50	.50†
Maximum Volts	400	700	250	150	500	150	300	150†	300	400†
No. of Sections	2	4	1	1	2	1	2	2	2	4
Maximum Resistance .0015 Diameter Wire	0.3 Meg.	0.75 Meg.	0.29 Meg.	40K	0.4 Meg.	35K	70K	35K†	225K	350K†
Maximum Resistance .0009 Diameter Wire	1.6 Meg.	4.0 Meg.	1.5 Meg.	0.215 Meg.	2.0 Meg.	150K	500K	250K	1.5 Meg.	1.5 Meg.†
Minimum Resistance (ohms)										
±0.05% Tolerance	25	25	25	200	25	250	200	200†	25	25 †
±0.10% Tolerance	10	10	10	150	10	200	150	150†	10	10 †
±0.25% Tolerance	5	5	5	75	5	100	75	75†	5	5 †
±0.5% Tolerance	1	1	1	50	1	75	50	50†	* 1	1 †
±1.0% Tolerance	0.1	0.1	0.5	10	0.1	10	10	10†	0.5	0.1†

† signifies per tap section

* Special manufacturing applies

STANDARD STOCK TYPES AND VALUES

TYPE WW2J with lugs—1% Tolerance

600K Ohms	1.0 Megohm
750K Ohms	1.5 Megohms
900K Ohms	2.0 Megohms
	2.5 Megohms

TYPE WW3J with lugs—1% Tolerance

0.1 Ohm	1,500 Ohms	30K Ohms
0.2 Ohm	2,000 Ohms	35K Ohms
0.5 Ohm	2,500 Ohms	40K Ohms
1.0 Ohm	3,000 Ohms	50K Ohms
5 Ohms	3,500 Ohms	60K Ohms
10 Ohms	4,000 Ohms	75K Ohms
25 Ohms	5,000 Ohms	100K Ohms
50 Ohms	7,500 Ohms	125K Ohms
100 Ohms	10K Ohms	150K Ohms
200 Ohms	12.5K Ohms	175K Ohms
250 Ohms	15K Ohms	200K Ohms
300 Ohms	20K Ohms	225K Ohms
500 Ohms	22.5K Ohms	
1,000 Ohms	25K Ohms	

TYPE WW4J with lugs—1% Tolerance

0.1 Ohm	2,000 Ohms	40K Ohms
0.2 Ohm	2,500 Ohms	50K Ohms
0.5 Ohm	3,000 Ohms	60K Ohms
1.0 Ohm	3,500 Ohms	75K Ohms
5 Ohms	4,000 Ohms	100K Ohms
10 Ohms	5,000 Ohms	125K Ohms
25 Ohms	7,500 Ohms	150K Ohms
50 Ohms	10K Ohms	175K Ohms
100 Ohms	12.5K Ohms	200K Ohms
200 Ohms	15K Ohms	225K Ohms
250 Ohms	20K Ohms	250K Ohms
300 Ohms	22.5K Ohms	300K Ohms
500 Ohms	25K Ohms	400K Ohms
1,000 Ohms	30K Ohms	500K Ohms
1,500 Ohms	35K Ohms	

TYPE WW10J with leads—1% Tolerance

10 Ohms	2,000 Ohms	20K Ohms
25 Ohms	2,500 Ohms	25K Ohms
50 Ohms	3,000 Ohms	30K Ohms
100 Ohms	3,500 Ohms	40K Ohms
200 Ohms	4,000 Ohms	50K Ohms
250 Ohms	5,000 Ohms	60K Ohms
300 Ohms	7,500 Ohms	75K Ohms
500 Ohms	10K Ohms	100K Ohms
1,000 Ohms	12.5K Ohms	
1,500 Ohms	15K Ohms	

Special Resistance Tolerances

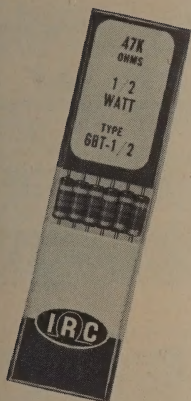
Standard tolerances ±1%. Other tolerances, subject to minimum values shown on specification charts, are available on special order for all WWJ types, as follows:

0.5%	0.25%	0.2%	0.1%	0.05%
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TYPE WW5J with lugs—1% Tolerance

600K Ohms	900K Ohms
750K Ohms	1.0 Megohm

RESISTOR KITS & ASSORTMENTS


IRC, Inc.


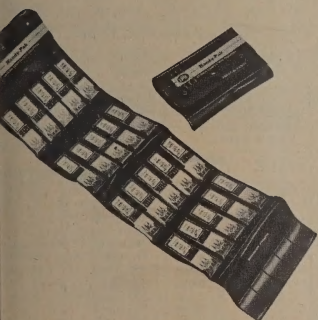
HANDY-PAKS

The neatest, most compact resistor package available, and it's exclusive from IRC. Slimline plastic sleeve keeps leads straight and in place.

- Easier to identify—Type, resistance value and power rating on every Handy-Pak. Resistor color code is easily seen through the plastic.
- Handier to use—Opens at either end. Simply slide package out of plastic sleeve . . . withdraw the required number of resistors and slide the package into the sleeve.
- Quicker to find—Handy-Paks can be indexed by power rating and resistance. Resistors are always visible for inventory.

3 TYPES AVAILABLE—10% tolerance.

. . . 1/2 watt contains 6 GBT 1/2 carbon composition resistors; 1 watt package contains 4 GBT1 resistors and the 2 watt Handy-Pak contains 3 SR2 resistors.



RESIST-O-CADDY

Ideal for in-home servicing. Plastic pouch folds to 6 3/4" x 3 3/8" x 1 1/2" . . . fits easily in tube caddy or tool chest. Individual pockets keep Handy-Paks secure and orderly.

Accurate inventory in always visible. Resist-O-Caddy FREE with either of these two popular assortments:

ASSORTMENT #41

120 GBT 1/2 1/2-watt resistors
(10% tolerance)
6 each of 20 values

ohms:	47	150	1,000	2,200	10K	27K	100K	270K	1.0 meg	4.7 meg
	100	470	1,500	4,700	22K	47K	220K	470K	2.2 meg	10 meg

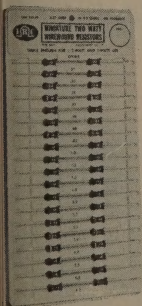
ASSORTMENT #45

80 GBT1 1-watt resistors
(10% tolerance)
4 each of 20 values

ASSORTMENT NO. 77

CONVENIENCE FROM IRC

New BWH resistor assortment is a real time and work saver. Resistors are neatly mounted in a sturdy 6" x 12" plastic dispenser. They are removed easily, but stay in place.



- Quick Identification—resistor value is printed on dispenser
- Instant Use—dispenser can be hung over workbench
- Fits easily in tube caddy or tool case
- Keeps leads straight for easier handling

38 LOW RANGE RESISTORS

Balanced assortment of miniature wirewounds. Two each of the following values:

.27	.56	1.2	2.7	5.6
.33	.68	1.5	3.3	6.8
.39	.82	1.8	3.9	8.2
.47	1.0	2.2	4.7	

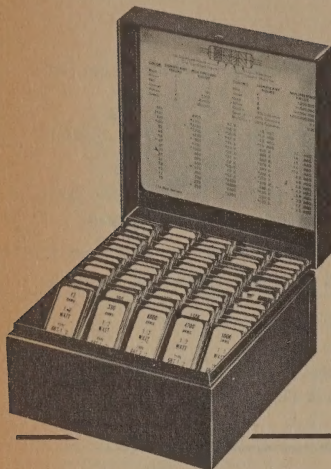
ONE RESISTOR FILLS THREE REQUIREMENTS

IRC's Type BWH is rated at 2 watts. Body size is the same as a standard 1 watt composition unit . . . small enough for 1/2 and 1 watt needs. This reduces resistor inventory and provides you with a four-time safety factor. Handles 2 watts at 70°C, 1 watt at 115°C and 1/2 watt at 137°C. These unique miniature resistors are direct replacements for composition units with the advantages of wirewound stability and low noise.



RESISTOR KITS & ASSORTMENTS

IRC, Inc.



RESIST-O-CHEST. A convenient, sturdy file of Handy-Paks in 5 popular assortments. Metal separators keep Handy-Paks in order at your fingertips. Reference data on inside of lid. Supplied FREE with any of these 5 fast-moving assortments.

ASSORTMENT #42

204 GBT $\frac{1}{2}$ 1/2-watt resistors
(10% tolerance)
6 each of 34 values

ohms:	47	470	2,700	8,200	27K
	100	1,000	3,300	10K	33K
	150	1,500	4,700	15K	39K
	220	2,200	6,800	22K	47K

ASSORTMENT #43

462 GBT $\frac{1}{2}$ 1/2-watt resistors
(10% tolerance)
6 each of 77 values

ohms:	47	470	2,700	8,200	27K	56K	220K	1.0 meg	4.7 meg
	100	1,000	3,300	10K	33K	68K	270K	1.5 meg	10 meg
	150	1,500	4,700	15K	39K	100K	330K	2.2 meg	—
	220	2,200	6,800	22K	47K	150K	470K	3.3 meg	—

ASSORTMENT #49A

102 SR2 2-watt resistors (10% tolerance), 3 each of 34 values

ohms:	47	470	2,700	8,200	27K	56K	220K	1.0 meg	4.7 meg
	100	1,000	3,300	10K	33K	68K	270K	1.5 meg	10 meg
	150	1,500	4,700	15K	39K	100K	330K	2.2 meg	—
	220	2,200	6,800	22K	47K	150K	470K	3.3 meg	—

ASSORTMENT #44

136 GBT1 1-watt resistors
(10% tolerance)
4 each of 34 values

1.0 meg	4.7 meg
1.5 meg	10 meg
2.2 meg	—
3.3 meg	—

ASSORTMENT #45

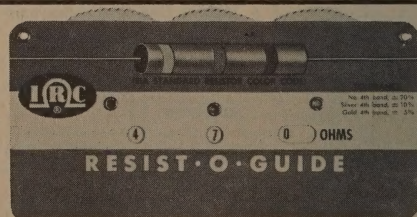
308 GBT1 1-watt resistors
(10% tolerance)
4 each of 77 values

RESIST-O-CABINET. A practical way to give any shop a professional appearance. Sturdy metal Resist-O-Cabinets are FREE with any of four balanced assortments. Designed for stacking, and for tidy stocks of many small parts. Resist-O-Cabinets have front non-spill drawers and 28 compartments. Overall size is 5 $\frac{3}{16}$ " x 5 $\frac{1}{16}$ " x 10 $\frac{1}{16}$ ". Front and silver finish.



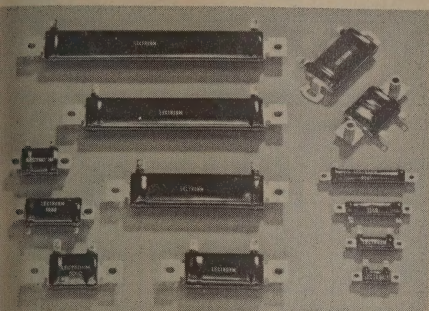
1/4 WATT ASSORTMENT #7A 150 GBT $\frac{1}{4}$ 1/4-Watt Resistors	1/2 WATT ASSORTMENT #4A 150 GBT $\frac{1}{2}$ 1/2-Watt Resistors	1 WATT ASSORTMENT #5A 125 GBT1 1-Watt Resistors	2 WATT ASSORTMENT #3A 120 BWH and SR2 2-Watt Resistors	COMB. ASSORTMENT #4 139 Insulated Resistors Type DCF Precision Film Resistors
Quantity Range	Quantity Range	Quantity Range	Quantity Range	Range
3 47 ohms	3 47 ohms	3 47 ohms	2 4.7 ohms	47 ohms
6 100 ohms	4 100 ohms	3 100 ohms	2 10 ohms	100 ohms
4 150 ohms	3 220 ohms	3 150 ohms	1 15 ohms	150 ohms
4 220 ohms	3 270 ohms	3 220 ohms	2 22 ohms	220 ohms
3 270 ohms	4 470 ohms	3 270 ohms	1 27 ohms	270 ohms
3 470 ohms	8 1,000 ohms	3 470 ohms	1 33 ohms	470 ohms
3 680 ohms	4 1,500 ohms	7 1,000 ohms	1 39 ohms	1,000 ohms
10 1,000 ohms	4 2,200 ohms	3 1,500 ohms	3 47 ohms	1,500 ohms
6 1,500 ohms	4 2,700 ohms	5 2,200 ohms	2 68 ohms	2,200 ohms
8 2,200 ohms	5 3,300 ohms	3 2,700 ohms	3 82 ohms	2,700 ohms
4 2,700 ohms	7 4,700 ohms	3 3,300 ohms	4 100 ohms	3,300 ohms
5 3,300 ohms	7 10K ohms	5 4,700 ohms	3 150 ohms	4,700 ohms
4 3,900 ohms	5 22K ohms	7 10K ohms	3 220 ohms	10K ohms
10 4,700 ohms	5 27K ohms	3 15K ohms	3 270 ohms	15K ohms
6 6,800 ohms	5 33K ohms	5 22K ohms	4 330 ohms	22K ohms
10 10K ohms	8 47K ohms	7 27K ohms	4 470 ohms	27K ohms
6 15K ohms	4 56K ohms	4 33K ohms	5 1,000 ohms	33K ohms
4 18K ohms	4 68K ohms	4 39K ohms	4 1,500 ohms	39K ohms
8 22K ohms	8 100K ohms	7 47K ohms	4 2,200 ohms	47K ohms
3 27K ohms	7 220K ohms	4 68K ohms	4 3,300 ohms	68K ohms
6 33K ohms	8 270K ohms	7 100K ohms	3 3,900 ohms	100K ohms
3 39K ohms	5 330K ohms	3 150K ohms	4 4,700 ohms	150K ohms
6 47K ohms	8 470K ohms	3 220K ohms	5 6,800 ohms	220K ohms
3 68K ohms	7 1.0 meg.	7 270K ohms	7 8,200 ohms	270K ohms
8 100K ohms	8 2.2 meg.	4 470K ohms	7 10K ohms	470K ohms
3 220K ohms	4 3.3 meg.	7 1.0 meg.	5 15K ohms	1.0 meg.
3 470K ohms	5 4.7 meg.	3 2.2 meg.	7 22K ohms	2.2 meg.
5 1.0 meg.	3 10.0 meg.	3 4.7 meg.	4 27K ohms	4.7 meg.
			7 47K ohms	5.0 meg.
			5 100K ohms	
			3 220K ohms	
			3 470K ohms	
			4 1.0 meg.	

RESIST-O-GUIDES S-008B Resistor Color Code Chart. New color, serrated edge wheels, up-dated information on IRC types, MIL styles and minimum and maximum values.

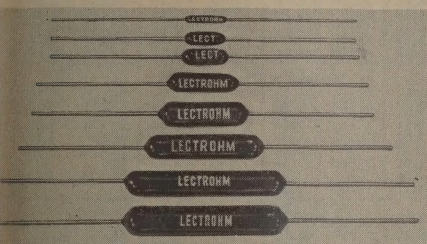


LECTROHM

INCORPORATED

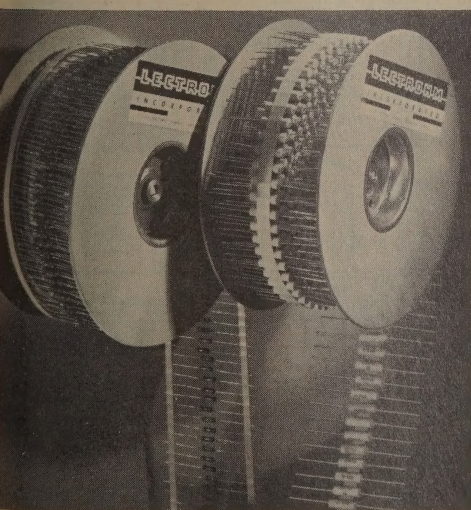


VALS

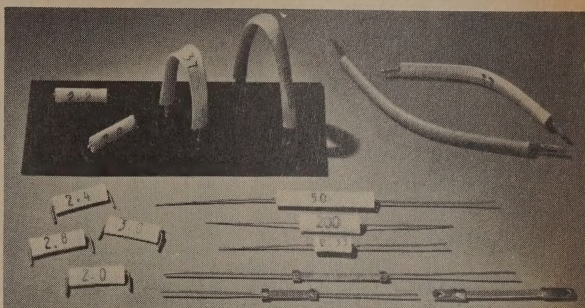


XIALS

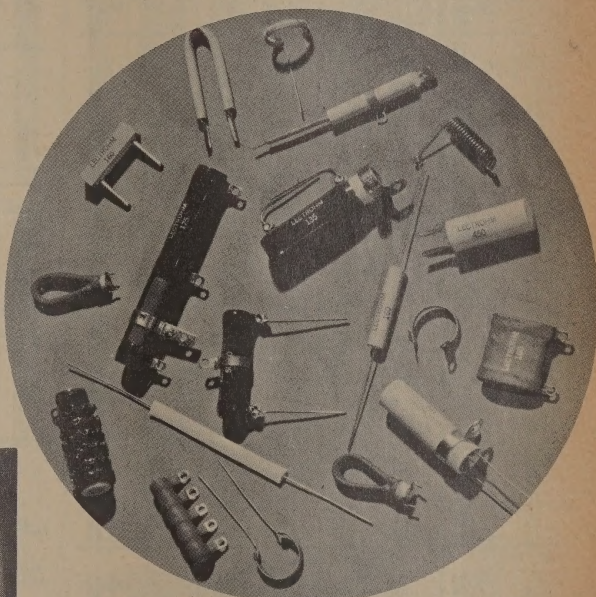
LECTROHM, while manufacturing the standard vitreous line, is also producing whole new groups of types, each designed to solve a special problem. Miniaturization and printed circuit restrictions in space and ventilation no longer are complicated by conventional power resistor size standards. New coating materials and winding methods developed by LECTROHM permit an infinite variety of configurations yet retain operating and life characteristics expected of the finest grade vitreous named types. LECTROHM engineers will fit the resistor size and shape to your design.



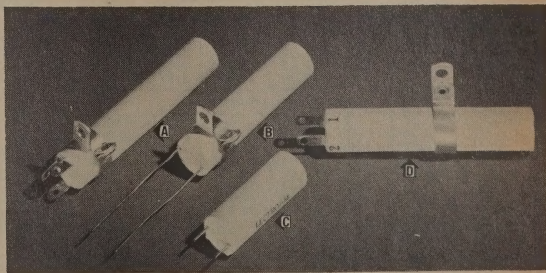
APED RESISTORS FOR AUTOMATION



FLEXIBLES



In addition to the many "Special" resistors illustrated above, LECTROHM manufactures the complete line of standard vitreous fixed and adjustable wire-wound resistors from 5 to 200 watts.



UPRIGHTS A SOLDER LUG TYPE. B PIGTAIL TYPE.
C PRINTED CIRCUIT. D HORIZONTAL MOUNTING BRACKET.

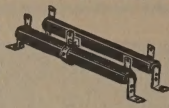
MALORY Vitreous Enamel Resistors

TYPE HJ (FIXED) AND AV (ADJUSTABLE)

Vitreous enamel-coated, wire-wound resistors. Furnished with complete hardware except HHJ, 1HJ and 2HJ which have wire leads.

To Order: Use type number followed by resistance value (e.g., HHJ4000).

Tolerance: $\pm 5\%$ except (*), $\pm 10\%$.



FIXED VITREOUS TYPES

5-WATT TYPE HJH

Ohms	Net Each	Ohms	Net Each	Ohms	Net Each	Ohms	Net Each
1*	\$0.46	50	\$0.46	750	\$0.50	4500	\$0.50
1.5*	.46	75	.46	800	.50	5000	.50
2*	.46	100	.46	900	.50	6000	.53
3*	.46	125	.46	1000	.50	7000	.53
4*	.46	150	.46	1100	.50	7500	.53
5*	.46	200	.46	1200	.50	8000	.53
7.5*	.46	225	.46	1250	.50	9000	.53
10*	.46	250	.46	1500	.50	10,000	.53
12	.46	300	.46	1750	.50	12,500	.57
15	.46	350	.50	2000	.50	15,000	.57
20	.46	400	.50	2250	.50	20,000	.61
25	.46	450	.50	2500	.50	25,000	.63
30	.46	500	.50	3000	.50		
35	.46	600	.50	3500	.50		
40	.46	700	.50	4000	.50		

10-WATT TYPE 1HJ

1*	\$0.51	150	\$0.51	1500	\$0.53	11,000	\$0.71
2*	.51	200	.51	1750	.53	12,000	.71
3*	.51	225	.51	2000	.53	13,000	.71
4*	.51	250	.51	2250	.53	13,500	.71
5*	.51	300	.51	2500	.53	14,300	.71
7.5*	.51	350	.51	3000	.53	15,000	.71
10*	.51	400	.51	3500	.53	16,000	.71
15	.51	450	.51	4000	.53	17,500	.71
20	.51	500	.51	4500	.53	18,000	.71
25	.51	600	.51	5000	.53	20,000	.71
30	.51	700	.51	6000	.63	22,500	.75
35	.51	750	.51	7000	.63	25,000	.75
40	.51	800	.51	7500	.63	30,000	.75
50	.51	900	.51	8000	.63	35,000	.75
75	.51	1000	.51	8200	.63	40,000	.75
100	.51	1100	.53	8500	.63	45,000	.83
125	.51	1200	.53	9000	.63	50,000	.83
150	.51	1250	.53	10,000	.63		

20-WATT TYPE 2HJ

5	\$0.61	300	\$0.61	2500	\$0.63	12,500	\$0.77
10	.61	400	.61	2750	.75	15,000	.77
15	.61	500	.61	3000	.75	20,000	.77
25	.61	750	.61	3500	.75	25,000	.77
50	.61	1000	.61	4000	.75	30,000	.77
75	.61	1250	.61	4500	.75	35,000	.90
100	.61	1500	.61	5000	.75	40,000	.90
150	.61	1750	.63	6000	.75	50,000	.90
200	.61	2000	.63	7500	.75	75,000	1.31
250	.61	2250	.63	10,000	.75	100,000	1.34

25-WATT TYPE 2.5HJ

1	\$0.65	75	\$0.65	2000	\$0.68	12,500	\$0.81
2	.65	100	.65	2500	.68	15,000	.81
3	.65	150	.65	3000	.78	20,000	.81
5	.65	200	.65	3500	.78	25,000	.81
7.5	.65	250	.65	4000	.78	30,000	.94
10	.65	500	.65	5000	.78	40,000	.94
15	.65	750	.65	6000	.78	50,000	1.09
25	.65	1000	.65	7500	.78	75,000	1.28
50	.65	1500	.65	10,000	.78	100,000	1.47

50-WATT TYPE 5HJ

10	\$0.99	750	\$0.99	7500	\$1.11	30,000	\$1.39
25	.99	1000	.99	10,000	1.11	40,000	1.39
50	.99	1500	1.02	12,500	1.21	50,000	1.55
100	.99	2000	1.02	15,000	1.21	75,000	1.77
250	.99	2500	1.02	20,000	1.21	100,000	1.92
500	.99	5000	1.02	25,000	1.39		

75-WATT TYPE 7.5HJ

10	\$1.17	750	\$1.17	7500	\$1.30	30,000	\$1.57
25	1.17	1000	1.17	10,000	1.30	40,000	1.57
50	1.17	1500	1.22	12,500	1.40	50,000	1.75
100	1.17	2000	1.22	15,000	1.40	75,000	1.99
250	1.17	2500	1.22	20,000	1.40	100,000	2.12
500	1.17	5000	1.22	25,000	1.57		

100-WATT TYPE 10HJ

25	\$1.38	750	\$1.38	7500	\$1.56	40,000	\$1.92
50	1.38	1000	1.38	10,000	1.56	50,000	1.99
100	1.38	1500	1.44	15,000	1.69	75,000	2.20
250	1.38	2000	1.44	20,000	1.69	100,000	2.46
500	1.38	2500	1.44	25,000	1.92		
500	1.38	5000	1.44	30,000	1.92		

160-WATT TYPE 16HJ

25	\$2.05	750	\$2.05	7500	\$2.28	40,000	\$2.52
50	2.05	1000	2.05	10,000	2.28	50,000	2.60
100	2.05	1500	2.05	15,000	2.44	75,000	2.97
150	2.05	2000	2.09	20,000	2.44	100,000	2.99
250	2.05	2500	2.09	25,000	2.52		
500	2.05	5000	2.09	30,000	2.52		

*Tolerance $\pm 10\%$; all others $\pm 5\%$.

200-WATT TYPE 20HJ (FIXED)

Ohms	Net Each	Ohms	Net Each	Ohms	Net Each	Ohms	Net Each
25	\$2.21	750	\$2.21	5000	\$2.28	50,000	\$2.77
50	2.21	1000	2.21	7500	2.44	75,000	2.93
75	2.21	1500	2.28	10,000	2.44	100,000	3.11
100	2.21	2000	2.28	20,000	2.60		
250	2.21	2500	2.28	30,000	2.68		
500	2.21	3000	2.28	40,000	2.68		

ADJUSTABLE VITREOUS TYPES

10-WATT TYPE 1AV

1	\$1.00	75	\$1.00	750	\$1.00	4000	\$1.06
2	1.00	100	1.00	800	1.00	4500	1.06
3	1.00	150	1.00	1000	1.00	5000	1.06
5	1.00	200	1.00	1250	1.06	6000	1.14
7.5	1.00	250	1.00	1500	1.06	7000	1.14
10	1.00	300	1.00	2000	1.06	7500	1.14
15	1.00	350	1.00	2250	1.06	8000	1.14
20	1.00	400	1.00	2500	1.06	8500	1.14
25	1.00	500	1.00	3000	1.06	9000	1.14
50	1.00	600	1.00	3500	1.06	10,000	1.14

25-WATT TYPE 2AV

1	\$1.57	100	\$1.16	1000	\$1.16	5000	\$1.19
3	1.57	150	1.16	1250	1.19	6000	1.28
5	1.16	200	1.16	1500	1.19	7500	1.28
10	1.16	250	1.16	2000	1.19	10,000	1.28
15	1.16	300	1.16	2500	1.19	12,000	1.32
25	1.16	400	1.16	3000	1.19	15,000	1.32
50	1.16	500	1.16	3500	1.19	20,000	1.32
75	1.16	750	1.16	4000	1.19	25,000	1.45

50-WATT TYPE 5AV

1	\$1.51	150	\$1.51	2000	\$1.54	20,000	\$1.72
2	1.51	200	1.51	2500	1.54	25,000	1.90
5	1.51	250	1.51	3000	1.54	30,000	1.90
10	1.51	400	1.51	4000	1.54	40,000	1.90
25	1.51	500	1.51	5000	1.54	50,000	1.99
50	1.51	750	1.51	7500	1.62		
75	1.51	1000	1.51	10,000	1.62		
100	1.51	1500	1.54	15,000	1.72		

75-WATT TYPE 7.5AV

5	\$1.69	200	\$1.69	2000	\$1.74	15,000	\$1.92
10	1.69	250	1.69	2500	1.74	20,000	1.92
25	1.69	400	1.69	3000	1.74	25,000	2.09
50	1.69	500	1.69	4000	1.74	30,000	2.09
75	1.69	750	1.69	5000	1.74	40,000	2.09
100	1.69	1000	1.69	7500	1.81	50,000	2.27
150	1.69	1500	1.74	10,000	1.81		

100-WATT TYPE 10AV

1	\$1.95	200	\$1.95	2000	\$2.01	20,000	\$2.26
2	1.95	250	1.95	2500	2.01	25,000	2.49
5	1.95	300	1.95	3000	2.01	30,000	2.49
10	1.95	400	1.95	4000	2.01	35,000	2.49
25	1.95	500	1.95	5000	2.01	40,000	2.49
50	1.95	750	1.95	7500	2.13	50,000	2.57
100	1.95	1000	1.95	10,000	2.13	75,000	2.81
150	1.95	1500	2.01	15,000	2.26	100,000	3.01

160-WATT TYPE 16AV

1	\$2.85	200	\$2.85	2500	\$2.88	25,000	\$3.31
2	2.85	250	2.85	3000	2.88	30,000	3.31
5	2.85	300	2.85	4000	2.88	35,000	3.31
10	2.85	400	2.85	5000	2.88	40,000	3.31
25	2.85	500	2.85	7500	3.07	50,000	3.40
50	2.85	750	2.85	10,000	3.07	75,000	3.56
100	2.85	1000	2.85	15,000	3.24	100,000	3.72
150	2.85	2000	2.88	20,000	3.24		

200-WATT TYPE 20AV

1	\$3.19	100	\$3.19	750	\$3.19	20,000	\$3.62
2	3.19	150	3.19	1000	3.19	25,000	3.81
5	3.19	200	3.19	1500	3.26	30,000	3.81
10	3.19	250	3.19	2000	3.26	50,000	3.91
25	3.19	300	3.19	2500	3.26	75,000	4.09
50	3.19	400	3.19	5000	3.26	100,000	4.29
75	3.19	500	3.19	10,000	3.44		

RESISTOR TUBE SIZES

Type	Dia. x L.	Type	Dia. x L.
HHJ	$\frac{5}{16}$ " x 1"	20HJ	$1\frac{1}{2}$ " x $10\frac{1}{2}$ "
1HJ	$\frac{5}{16}$ " x $1\frac{1}{2}$ "	1AV	$\frac{5}{16}$ " x $1\frac{1}{2}$ "
2HJ	$\frac{5}{16}$ " x 2"	2AV	$\frac{5}{16}$ " x 2"
5HJ	$\frac{5}{16}$ " x 2"	5AV	$\frac{5}{16}$ " x 2"
2.5HJ	$\frac{5}{16}$ " x 4"	7.5AV	$\frac{5}{16}$ " x 6"
3.5HJ	$\frac{5}{16}$ " x 6"	9AV	$\frac{5}{16}$ " x 8"
10HJ	$\frac{3}{8}$ " x $6\frac{1}{2}$ "	16AV	$1\frac{1}{2}$ " x $8\frac{1}{2}$ "
16HJ	$1\frac{1}{2}$ " x $8\frac{1}{2}$ "	20AV	$1\frac{1}{2}$ " x $10\frac{1}{2}$ "

MALLORY Resistors

TYPE AE WIRE-WOUND RESISTORS AXIAL LEAD VITREOUS ENAMEL COATED

Mallory type AE wire-wound resistors have axial leads and a tough green vitreous enamel coating. Available in three power ratings: 3, 5 and 10 watts. The equivalent MIL-R-26 styles are: RW59 (3AE), RW57 (5AE) and RW58 (10AE).
To order: Use type number followed by resistance value (e.g., 3AE4000). Tolerance: =5% except (*), =10%.

3-WATT TYPE 3AE

Ohms	Net Each	Ohms	Net Each	Ohms	Net Each	Ohms	Net Each
1*	\$0.45	35	\$0.45	500	\$0.49	2500	\$0.49
1.5*	.45	40	.45	600	.49	3000	.49
2*	.45	50	.45	700	.49	3500	.49
3*	.45	75	.45	750	.49	4000	.49
4*	.45	100	.45	800	.49	4500	.49
5*	.45	125	.45	900	.49	5000	.49
6*	.45	150	.45	1000	.49	6000	.52
7.5*	.45	200	.45	1100	.49	7000	.52
10*	.45	225	.45	1200	.49	7500	.52
12	.45	250	.45	1250	.49	8000	.52
15	.45	300	.45	1500	.49	9000	.52
20	.45	350	.49	1750	.49	10,000	.52
25	.45	400	.49	2000	.49		
30	.45	450	.49	2250	.49		

5-WATT TYPE 5AE

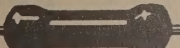
Ohms	Net Each	Ohms	Net Each	Ohms	Net Each	Ohms	Net Each
1*	\$0.46	50	\$0.46	750	\$0.50	4500	\$0.50
1.5*	.46	75	.46	800	.50	5000	.50
2*	.46	100	.46	900	.50	6000	.53
3*	.46	125	.46	1000	.50	7000	.53
4*	.46	150	.46	1100	.50	7500	.53
5*	.46	200	.46	1200	.50	8000	.53
7.5*	.46	225	.46	1250	.50	9000	.53
10*	.46	250	.46	1500	.50	10,000	.53
12	.46	300	.46	1750	.50	12,500	.57
15	.46	350	.50	2000	.50	15,000	.57
20	.46	400	.50	2250	.50	17,500	.61
25	.46	450	.50	2500	.50	18,000	.61
30	.46	500	.50	3000	.50	20,000	.61
35	.46	600	.50	3500	.50	22,500	.63
40	.46	700	.50	4000	.50	25,000	.63

10-WATT TYPE 10AE

Ohms	Net Each	Ohms	Net Each	Ohms	Net Each	Ohms	Net Each
1*	\$0.51	125	\$0.51	1250	\$0.53	11,000	\$0.71
1.5*	.51	150	.51	1500	.53	12,000	.71
2*	.51	200	.51	1750	.53	12,500	.71
3*	.51	225	.51	2000	.53	13,500	.71
4*	.51	250	.51	2250	.53	15,000	.71
5*	.51	300	.51	2500	.53	16,000	.71
7.5*	.51	350	.51	3000	.53	17,500	.71
10*	.51	400	.51	3500	.53	18,000	.71
12	.51	450	.51	4000	.53	20,000	.71
15	.51	500	.51	4500	.53	22,500	.75
20	.51	600	.51	5000	.53	25,000	.75
25	.51	700	.51	6000	.53	30,000	.75
30	.51	750	.51	7000	.63	35,000	.75
35	.51	800	.51	7500	.63	40,000	.75
40	.51	900	.51	8000	.63	45,000	.83
50	.51	1000	.51	8500	.63	50,000	.83
75	.51	1100	.51	9000	.63		
100	.51	1200	.53	10,000	.63		

*Tolerance, =10%; all others, =5%.

TYPE AE RESISTOR SIZES



Type	Diameter	Length
3AE	1/8"	1 1/4"
5AE	1/8"	1 1/4"
10AE	1/8"	1 1/4"

HJ AND AV RESISTOR DIMENSIONS

Mallory Type	Watts	Dimensions, Inches										Hardware	
		O.D.	I.D.	L	T	H	h	d	F	A			
HJ	5	1/4"	1/8"	1 1/4"	1 1/2"	1 1/2"	1 1/2"	1/8"	30V+	...		+	30V+
1HJ	10	1/4"	1/8"	1 1/4"	1 1/2"	1 1/2"	1 1/2"	1/8"	30V+	...		+	30V+
1AV*	10	1/4"	1/8"	1 1/4"	1 1/2"	1 1/2"	1 1/2"	1/8"	30V+	...	1.44	+	30V+
2HJ	20	1/4"	1/8"	1 1/4"	1 1/2"	1 1/2"	1 1/2"	1/8"	30V+	...		+	30V+
2AV*	20	1/4"	1/8"	1 1/4"	1 1/2"	1 1/2"	1 1/2"	1/8"	30V+	...	1.44	+	30V+
2.5HJ	25	1/4"	1/8"	1 1/4"	1 1/2"	1 1/2"	1 1/2"	1/8"	30V+	...	1.44	+	30V+
5HJ	50	1/4"	1/8"	1 1/4"	1 1/2"	1 1/2"	1 1/2"	1/8"	30V+	...	1.44	+	30V+
5AV*	50	1/4"	1/8"	1 1/4"	1 1/2"	1 1/2"	1 1/2"	1/8"	30V+	...	1.44	+	30V+
7.5HJ	75	1/4"	1/8"	1 1/4"	1 1/2"	1 1/2"	1 1/2"	1/8"	30V+	...	1.44	+	30V+
7.5AV*	75	1/4"	1/8"	1 1/4"	1 1/2"	1 1/2"	1 1/2"	1/8"	30V+	...	1.44	+	30V+
10HJ	100	1/4"	1/8"	1 1/4"	1 1/2"	1 1/2"	1 1/2"	1/8"	30V+	...	1.44	+	30V+
10AV*	100	1/4"	1/8"	1 1/4"	1 1/2"	1 1/2"	1 1/2"	1/8"	30V+	...	1.44	+	30V+
16HJ	160	1 1/8"	1/4"	2 1/4"	2 1/2"	2 1/2"	2 1/2"	1/4"	35V	...	1.44	+	35V
16AV*	160	1 1/8"	1/4"	2 1/4"	2 1/2"	2 1/2"	2 1/2"	1/4"	35V	...	1.44	+	35V
20HJ	200	1 1/8"	1/4"	2 1/4"	2 1/2"	2 1/2"	2 1/2"	1/4"	35V	...	1.44	+	35V
20AV*	200	1 1/8"	1/4"	2 1/4"	2 1/2"	2 1/2"	2 1/2"	1/4"	35V	...	1.44	+	35V

*Adjustable types; all others fixed. †Has wire leads 2 1/4" long x .040" dia. ‡Mounting feet not furnished.

TYPE MOL METAL OXIDE FILM RESISTORS

Mallory MOL resistors have a thin layer of metal oxide evaporated onto a high quality ceramic rod. A precision ground spiral provides exactly the correct resistance. The MOL is essentially non-inductive with superb stability characteristics. May be used in place of either composition carbon, deposited carbon or wire-wound types. Full wattage at 70°C ambient.
To order: Use type number followed by resistance value (e.g., 2MOL1000). Tolerance: =10%.

2-WATT TYPE 2MOL

Ohms	Net Each	Ohms	Net Each	Ohms	Net Each	Ohms	Net Each
33	\$0.20	220	\$0.20	1800	\$0.20	10,000	\$0.20
39	.20	270	.20	1800	.20	12,000	.20
47	.20	330	.20	2200	.20	15,000	.20
56	.20	390	.20	2700	.20	18,000	.20
68	.20	470	.20	3300	.20	22,000	.20
82	.20	560	.20	3900	.20	27,000	.20
100	.20	680	.20	4700	.20	33,000	.20
120	.20	820	.20	5600	.20	39,000	.20
150	.20	1000	.20	6800	.20	47,000	.20
180	.20	1200	.20	8200	.20	56,000	.20

3-WATT TYPE 3MOL

Ohms	Net Each	Ohms	Net Each	Ohms	Net Each	Ohms	Net Each
39	\$0.20	270	\$0.20	1800	\$0.20	12,000	\$0.25
47	.20	330	.20	2200	.20	15,000	.25
56	.20	390	.20	2700	.20	18,000	.25
68	.20	470	.20	3300	.20	22,000	.25
82	.20	560	.20	3900	.20	27,000	.28
100	.20	680	.20	4700	.22	33,000	.28
150	.20	1000	.20	6800	.22	47,000	.28
180	.20	1200	.20	8200	.24	56,000	.28
220	.20	1500	.20	10,000	.24		

4-WATT TYPE 4MOL

Ohms	Net Each	Ohms	Net Each	Ohms	Net Each	Ohms	Net Each
82	\$0.20	560	\$0.20	3900	\$0.21	27,000	\$0.32
100	.20	680	.20	4700	.22	33,000	.32
120	.20	820	.20	5600	.22	39,000	.32
150	.20	1000	.20	6800	.22	47,000	.32
180	.20	1200	.20	8200	.25	56,000	.32
220	.20	1500	.20	10,000	.26	68,000	.32
270	.20	1800	.20	12,000	.29	82,000	.32
330	.20	2200	.21	15,000	.29	100,000	.32
390	.20	2700	.21	18,000	.29	120,000	.32
470	.20	3300	.21	22,000	.29		

5-WATT TYPE 5MOL

Ohms	Net Each	Ohms	Net Each	Ohms	Net Each	Ohms	Net Each
100	\$0.20	680	\$0.20	4700	\$0.23	33,000	\$0.32
120	.20	820	.20	5600	.23	39,000	.32
150	.20	1000	.20	6800	.23	47,000	.32
180	.20	1200	.20	8200	.26	56,000	.32
220	.20	1500	.20	10,000	.26	68,000	.32
270	.20	1800	.20	12,000	.30	82,000	.32
330	.20	2200	.22	15,000	.30	100,000	.32
390	.20	2700	.22	18,000	.30	120,000	.32
470	.20	3300	.22	22,000	.30		
560	.20	3900	.22	27,000	.32		

7-WATT TYPE 7MOL

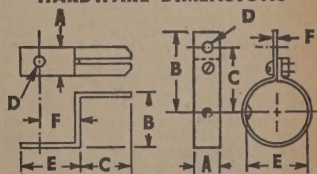
Ohms	Net Each	Ohms	Net Each	Ohms	Net Each	Ohms	Net Each
120	\$0.22	820	\$0.22	5600	\$0.26	39,000	\$0.36
150	.22	1000	.22	6800	.26	47,000	.36
180	.22	1200	.22	8200	.30	56,000	.36
220	.22	1500	.22	10,000	.30	68,000	.36
270	.22	1800	.22	12,000	.33	82,000	.36
330	.22	2200	.22	15,000	.33	100,000	.36
390	.22	2700	.22	18,000	.33	120,000	.36
470	.22	3300	.22	22,000	.33		
560	.22	3900	.22	27,000	.36		
680	.22	4700	.26	33,000	.36		

TYPE MOL RESISTOR SIZES



Type	Diam.	Lgth.	Lead
2MOL	1/8"	1 1/4"	#17
3MOL	1/8"	1 1/4"	#20
4MOL	1/8"	1 1/4"	#20
5MOL	1/8"	1 1/4"	#20
7MOL	1/8"	2 1/4"	#20

HARDWARE DIMENSIONS



Mall. No.	Dimensions, Inches					
	A	B	C	D	E	F
1V	1/8"	1/8"	1/8"	.096	1/8"	.020
3V	1/8"	1/8"	1/8"	.166	1/8"	.032
4V	1/8"	1/8"	1/8"	.166	1/8"	.032
6V	1/8"	1/8"	1/8"	.142	1/8"	.032
30V	1/8"	1/8"	1/8"	.203	1/8"	1/8"
31V	1/8"	1/8"	1/8"	.203	1/8"	1/8"
32V	1/8"	1/8"	1/8"	.265	1/8"	1/8"
33V	1/8"	1/8"	1/8"	.203	1/8"	1/8"
35V	1/8"	1/8"	1/8"	.265	1/8"	1/8"

VITREOUS ENAMELED FIXED RESISTORS

5 WATT

Type FR-5
Terminal-10
Type FRL-5
Terminal-107

Core Size: 5/16"x3/16"x1"

Weight: .012 lbs.

Ohms	Milli-Amps	Volts	Ohms	Milli-Amps	Volts
1	2,230	2.2	750	81	61
1.5	1,820	2.7	800	79	63
2	1,580	3.2	900	74	67
3	1,290	3.9	1,000	71	71
4	1,120	4.5	1,100	67	74
5	1,000	5.0	1,200	64	77
7.5	816	6.1	1,250	63	79
10	707	7.1	1,500	58	87
12	646	7.8	1,750	53	93
15	576	8.6	2,000	50	100

20	500	10	2,250	47	106
25	447	11	2,500	45	112
30	409	12	3,000	41	123
35	378	13	3,500	38	133
40	353	14	4,000	35	140
50	316	16	4,500	33	149
75	258	19	5,000	32	160
100	223	22	6,000	29	174
125	200	25	7,000	27	189
150	182	27	7,500	26	195

200	158	32	8,000	25	200
225	149	33	9,000	23	207
250	141	35	10,000	22	220
300	129	39	12,500	20	250
350	119	42	15,000	18	275
400	112	45	17,500	17	295
450	105	47	20,000	16	320
500	100	50	22,500	14	360
600	91	55	25,000	13	390
700	84	59			

10 WATT

Type FR-10
Terminal-10
Type FRL-10
Terminal-107Core Size: 5/16"x3/16"x1 3/4"
Mounting Centers: 2-5/32"

Weight: .019 lbs.

Ohms	Milli-Amps	Volts	Ohms	Milli-Amps	Volts
1	3,140	3.1	1,200	91	109
1.5	2,580	3.8	1,250	89	113
2	2,330	4.4	1,500	82	121
3	1,820	5.4	1,750	76	133
4	1,580	6.3	2,000	71	142
5	1,410	7.0	2,250	67	151
7.5	1,150	8.6	2,500	63	158
10	1,000	10	3,000	57	171
12	914	11	3,500	53	185
15	816	12	4,000	50	200

20	707	14	4,500	47	212
25	631	16	5,000	45	225
30	577	17	6,000	41	246
35	535	19	7,000	38	266
40	500	20	7,500	36	270
50	447	22	8,000	35	280
75	365	27	8,500	34	289
100	316	31	9,000	33	297
125	283	35	10,000	32	316
150	254	38	11,000	30	332

200	223	44	12,500	29	346
225	211	47	12,500	28	353
250	200	50	13,500	27	365
300	182	54	15,000	26	385
350	169	59	16,000	25	400
400	158	63	17,500	24	417
450	149	67	18,000	23	434
500	141	70	20,000	22	454
600	129	77	22,500	21	472
700	120	84	25,000	20	500

750	115	86	30,000	18	540
800	112	89	35,000	17	595
900	105	94	40,000	16	638
1,000	100	100	45,000	15	668
1,100	95	104	50,000	14	707

20 WATT

Type FR-20
Terminal-10
Type FRL-20
Terminal-107Core Size: 7/16"x1/4"x2"
Mounting Centers: 2-17/32"

Weight: .033 lbs.

Ohms	Milli-Amps	Volts	Ohms	Milli-Amps	Volts
1	4,480	4.4	2,400	91	218
3	2,980	7.7	2,500	89	222
5	2,000	10	2,750	85	234
10	1,410	14	3,000	81	243
15	1,150	17	3,500	75	262
25	895	22	4,000	70	280
50	633	31	4,500	67	301
75	516	39	5,000	63	315
100	447	44	6,000	57	342
150	365	54	7,000	53	371

175	338	59	7,500	51	382
200	316	63	8,000	50	400
250	283	71	10,000	44	440
300	258	77	12,500	36	450
350	239	84	15,000	31	465
400	223	89	20,000	27	520
500	200	100	25,000	24	600
650	175	114	30,000	22	660
700	169	118	35,000	21	735
750	164	123	40,000	19	760

800	158	126	45,000	18	810
850	154	131	50,000	17	850
1,000	141	141	55,000	16	880
1,200	129	155	60,000	15	900
1,250	126	157	65,000	15	970
1,500	115	172	70,000	14	980
1,750	107	187	75,000	13	990
1,850	104	192	80,000	12	990
2,000	100	200	85,000	11	990
2,250	94	211	90,000	10.5	990

95,000	10	990
100,000	10	990

25 WATT

Type FR-25
Terminal-10
Type FRL-25
Terminal-107Core Size: 9/16"x5/16"x2"
Mounting Centers: 2-5/8"

Weight: .051 lbs.

Ohms	Milli-Amps	Volts	Ohms	Milli-Amps	Volts
1	5,000	5.0	1,500	129	
2	3,550	7.0	2,000	111	222
3	2,885	8.6	2,500	100	230
4	2,500	10	3,000	91	273
5	2,236	11	3,500	84	294
10	1,580	15	4,000	79	316
15	1,291	19	5,000	70	330
25	1,000	25	6,000	64	384
50	707	35	7,500	57	427
75	577	43	10,000	50	500

100	500	50	12,000	42	505
150	408	61	15,000	36	540
200	353	70	20,000	31	600
250	316	79	25,000	28	700
300	289	86	30,000	26	780
400	250	100	35,000	24	840
500	223	111	40,000	22	880
750	182	136	50,000	20	950
800	177	141	60,000	18	960
850	171	145	70,000	15	960

1,000	158	158	80,000	12	990
1,250	141	176	100,000	10	990

75 WATT

Type FR-75
Terminal-12Core Size: 9/16"x5/16"x4"
Mounting Centers: 6-3/4"

Weight: .140 lbs.

Ohms	Milli-Amps	Volts	Ohms	Milli-Amps	Volts
1	8,660	8	2,500	173	432
2	6,120	12	3,000	158	474
3	5,000	15	4,000	137	548
4	4,330	17	5,000	122	610
5	3,875	19	6,000	111	666
10	2,740	27	7,500	100	750
25	1,732	43	8,000	96	769
50	1,225	61	10,000	86	860
100	866	86	12,000	79	948
150	707	106	12,500	77	962

200	612	122	15,000	70	1,050
250	548	137	20,000	61	1,220
300	500	150	25,000	49	1,225
400	433	173	30,000	42	1,260
500	387	193	35,000	36	1,270
750	316	237	40,000	32	1,280
800	306	242	45,000	29	1,310
1,000	274	274	50,000	26	1,320
1,500	223	234	75,000	18	1,340
2,000	193	386	100,000	13	1,360

200 WATT

Type FR-200
Terminal-14Core Size: 1-1/8"x3/4"x1-1/2"
Mounting Centers: 11-3/8"

Weight: .740 lbs.

Ohms	Milli-Amps	Volts	Ohms	Milli-Amps	Volts
1	14,140	14	4,000	225	900
2	10,000	20	4,500	210	945
3	8,162	24	5,000	200	1,000
4	7,070	28	7,500	163	1,222
5	6,325	31	10,000	14	1,410
10	4,470	44	15,000	12	1,725
25	2,828	70	20,000	10	2,000
50	2,000	100	25,000	89	2,235
75	1,635	122	30,000	82	2,460
100	1,414	141	35,000	75	2,640

150	1,152	173	40,000	70	2,830
250	895	224	50,000	63	3,150
500	632	316	60,000	58	3,480
750	516	387	75,000	52	3,960
1,000	447	447	100,000	44	4,490
1,500	365	547			
2,000	316	632			
2,500	283	707			
3,000	259	776			
3,500	240	840			

Wattage rating in free air - All values listed

Values of resistance listed are in stock for immediate delivery. Special resistance values or terminal dimensions are given prompt attention and Tru-Ohm's famous delivery is assured.

Fixed wire wound, vitreous enameled resistors. Stock resistance values range from 10 thru 250,000 Ohm Standard tolerance of $\pm 5\%$. Closer resistance tolerances available on order.

The sturdy terminals are hot-tinned for soldering ease, and the holes in the terminal are of suitable size to accommodate screws.

50 WATT

Type FR-50
Terminal-12Core Size: 9/16"x5/16"x1 1/4"
Mounting Centers: 4-3/4"

Weight: .082 lbs.

Ohms	Milli-Amps	Volts	Ohms	Milli-Amps	Volts
1	7,070	7	4,000	111	444
2	5,000	10	5,000	100	500
3	4,070	12	6,000	91	545
4	3,535	14	7,500	81	608
5	3,160	15	8,000	79	632
10	2,236	22	10,000	70	700
25	1,414	35	12,000	64	768
50	1,000	50	12,500	63	787
75	816	61	15,000	57	855
100	707	70	20,000	50	1,000

150	577	86	25,000	44	1,090
200	500	100	30,000	37	1,100
250	447	111	35,000	32	1,120
300	408	122	40,000	29	1,140
400	353	141	50,000	26	1,300
500	316	158	75,000	21	1,575
750	258	193	100,000	18	1,800
800	250	200	125,000	16	1,950
1,000	223	223	150,000	13	1,950
1,500	182	273	175,000	11	1,950
2,000	158	316	200,000	10	1,950
2,500	141	350	225,000	9	1,950
3,000	129	384	250,000	8	1,950

VITREOUS ENAMELED ADJUSTABLE RESISTORS

These resistors are used in applications where it is necessary to make adjustment in resistance periodically, where intermediate values of resistance are required; or when provided with more than one adjustable lug as multiple tap resistors.

The wattage rating between the adjustable band and either end terminal is proportional to the distance between the terminal and the band and should be considered when figuring any maximum section wattage dissipation.

Type AR-10

10 WATT

Core Size: 5/16" x 3/16" x 1-3/4"
Mounting Centers - 2-3/16"
With Brackets #P-4989
Standard Lug #10

Weight: .019 lbs.

Catalog No.	Ohms	Milliamps	Catalog No.	Ohms	Milliamps
AR-10	1	3,160	AR-10	750	115
AR-10	2	2,230	AR-10	800	112
AR-10	3	1,820	AR-10	1,000	100
AR-10	5	1,410	AR-10	1,250	89
AR-10	7.5	1,150	AR-10	1,500	82
AR-10	10	1,000	AR-10	2,000	71
AR-10	15	816	AR-10	2,250	67
AR-10	20	707	AR-10	2,500	63
AR-10	25	631	AR-10	3,000	57
AR-10	50	447	AR-10	3,500	53
AR-10	75	365	AR-10	4,000	50
AR-10	100	316	AR-10	4,500	47
AR-10	150	254	AR-10	5,000	45
AR-10	200	223	AR-10	6,000	41
AR-10	250	200	AR-10	7,000	38
AR-10	300	182	AR-10	7,500	36
AR-10	350	169	AR-10	8,000	35
AR-10	400	158	AR-10	8,500	34
AR-10	500	141	AR-10	9,000	33
AR-10	600	129	AR-10	10,000	32

Type AR-25

25 WATT

Core Size: 9/16" x 5/16" x 2"
Mounting Centers - 2-3/4"
With Brackets #P-3747
Standard Lug #12

Weight: .057 lbs.

Catalog No.	Ohms	Milli-Amps	Catalog No.	Ohms	Milli-Amps
AR-25	1	5,000	AR-25	4,500	74
AR-25	2	3,535	AR-25	5,000	70
AR-25	3	2,885	AR-25	6,000	64
AR-25	5	2,236	AR-25	7,000	60
AR-25	7.5	1,825	AR-25	7,200	59
AR-25	10	1,580	AR-25	7,500	57
AR-25	15	1,291	AR-25	8,000	55
AR-25	20	1,117	AR-25	9,000	52
AR-25	25	1,000	AR-25	10,000	50
AR-25	50	707	AR-25	12,000	42
AR-25	75	577	AR-25	15,000	36
AR-25	100	500	AR-25	20,000	31
AR-25	150	408	AR-25	25,000	28
AR-25	200	353			
AR-25	250	316			
AR-25	300	289			
AR-25	400	250			
AR-25	500	223			
AR-25	750	182			
AR-25	800	177			
AR-25	850	171			
AR-25	1,000	158			
AR-25	1,250	141			
AR-25	1,500	129			
AR-25	2,000	100			
AR-25	2,500	100			
AR-25	3,000	91			
AR-25	3,500	84			
AR-25	4,000	79			

Type AR-50

50 WATT

Core Size: 9/16" x 5/16" x 4"
Mounting Centers - 4-3/4"
With Brackets #P-3747
Standard Lug #12

Weight: .096 lbs.

Catalog No.	Ohms	Milli-Amps	Catalog No.	Ohms	Milli-Amps
AR-50	1	7,070	AR-50	7,000	84
AR-50	2	5,000	AR-50	7,200	83
AR-50	3	4,070	AR-50	7,500	81
AR-50	4	3,535	AR-50	8,000	79
AR-50	5	3,160	AR-50	9,000	74
AR-50	10	2,236	AR-50	10,000	70
AR-50	25	1,414	AR-50	12,000	64
AR-50	50	1,000	AR-50	15,000	57
AR-50	75	816	AR-50	20,000	50
AR-50	100	707	AR-50	25,000	45
AR-50	150	577	AR-50	30,000	36
AR-50	200	500	AR-50	40,000	29
AR-50	250	447	AR-50	50,000	26
AR-50	300	408	AR-50	60,000	24
AR-50	400	353	AR-50	75,000	22
AR-50	500	316	AR-50	80,000	21
AR-50	750	258	AR-50	100,000	18
AR-50	800	250			
AR-50	1,000	223			
AR-50	1,250	200			
AR-50	1,500	182			
AR-50	2,000	158			
AR-50	2,250	149			
AR-50	2,500	141			
AR-50	3,000	129			
AR-50	3,500	119			
AR-50	4,000	111			
AR-50	4,500	105			
AR-50	5,000	100			
AR-50	6,000	91			

Type AR-75

75 WATT

Core Size: 9/16" x 5/16" x 6"
Mounting Centers - 6-3/4"
With Brackets #P-3747
Standard Lug #12

Weight: .150 lbs.

Catalog No.	Ohms	Milli-Amps	Catalog No.	Ohms	Milli-Amps
AR-75	1	8,660	AR-75	7,000	103
AR-75	2	6,120	AR-75	7,200	102
AR-75	3	5,000	AR-75	7,500	100
AR-75	4	4,330	AR-75	8,000	96
AR-75	5	3,875	AR-75	9,000	91
AR-75	10	2,740	AR-75	10,000	86
AR-75	15	2,236	AR-75	12,000	79
AR-75	25	1,732	AR-75	15,000	70
AR-75	50	1,225	AR-75	20,000	61
AR-75	75	1,000	AR-75	25,000	54
AR-75	100	866	AR-75	30,000	50
AR-75	200	612	AR-75	35,000	46
AR-75	250	548	AR-75	40,000	42
AR-75	300	500	AR-75	45,000	35
AR-75	400	433	AR-75	50,000	33
AR-75	500	387	AR-75	60,000	29
AR-75	750	316	AR-75	70,000	27
AR-75	800	306	AR-75	80,000	25
AR-75	1,000	274	AR-75	100,000	22
AR-75	1,250	244			
AR-75	1,500	223			
AR-75	2,000	193			
AR-75	2,250	182			
AR-75	2,500	173			
AR-75	3,000	158			
AR-75	3,500	146			
AR-75	4,000	137			
AR-75	4,500	129			
AR-75	5,000	122			
AR-75	6,000	111			

Type AR-100

100 WATT

Core Size: 3/4" x 1/2" x 6-1/2"
Mounting Centers - 7-3/8"
With Brackets #P-3689
Standard Lug #12

Weight: .200 lbs.

Catalog No.	Ohms	Milli-Amps	Catalog No.	Ohms	Milli-Amps
AR-100	1	10,000	AR-100	5,000	141
AR-100	2	7,070	AR-100	6,000	129
AR-100	3	5,770	AR-100	7,500	115
AR-100	4	5,000	AR-100	10,000	100
AR-100	5	4,470	AR-100	15,000	81
AR-100	10	3,160	AR-100	20,000	70
AR-100	25	2,000	AR-100	25,000	62
AR-100	50	1,414	AR-100	30,000	57
AR-100	100	1,000	AR-100	40,000	49
AR-100	200	707	AR-100	50,000	44
AR-100	250	630	AR-100	60,000	24
AR-100	400	500	AR-100	75,000	30
AR-100	500	447	AR-100	100,000	28
AR-100	750	365			
AR-100	1,000	316			
AR-100	1,500	259			
AR-100	2,000	224			
AR-100	2,500	200			
AR-100	3,000	181			
AR-100	4,000	160			

VITREOUS ENAMELED ADJUSTABLE RESISTORS

Type AR-160

160 WATT

Core Size: 1-1/8" x 3/4" x 8-1/2"
Mounting Centers - 9-3/8"
With Brackets #P-4898
Standard Lug #14

Weight:
460 lbs.

Catalog No.	Ohms	Milli-Amps	Catalog No.	Ohms	Milli-Amps
AR-160	1	12,650	AR-160	4,500	185
AR-160	2	8,940	AR-160	5,000	179
AR-160	3	7,300	AR-160	7,500	146
AR-160	4	6,320	AR-160	10,000	126
AR-160	5	5,650	AR-160	15,000	104
AR-160	10	4,000	AR-160	20,000	89
AR-160	15	3,265	AR-160	25,000	80
AR-160	25	2,525	AR-160	30,000	72
AR-160	50	1,786	AR-160	40,000	62
AR-160	100	1,265	AR-160	50,000	56
AR-160	200	894	AR-160	60,000	52
AR-160	250	800	AR-160	75,000	46
AR-160	500	565	AR-160	80,000	44
AR-160	1,000	400	AR-160	100,000	40
AR-160	1,500	326			
AR-160	2,000	282			
AR-160	2,500	252			
AR-160	3,000	231			
AR-160	3,500	215			
AR-160	4,000	200			

Type AR-200

200 WATT

Core Size: 1-1/8" x 3/4" x 10-1/2"
Mounting Centers - 11-3/8"
With Brackets #P-4898
Standard Lug #14

Weight:
670 lbs.

Catalog No.	Ohms	Milli-Amps	Catalog No.	Ohms	Milli-Amps
AR-200	1	14,140	AR-200	7,500	163
AR-200	2	10,000	AR-200	10,000	141
AR-200	3	8,162	AR-200	15,000	115
AR-200	4	7,070	AR-200	20,000	100
AR-200	5	6,325	AR-200	25,000	89
AR-200	10	4,470	AR-200	30,000	82
AR-200	25	2,828	AR-200	40,000	71
AR-200	50	2,000	AR-200	50,000	62
AR-200	100	1,414	AR-200	60,000	57
AR-200	250	895	AR-200	75,000	52
AR-200	500	632	AR-200	100,000	45
AR-200	1,000	447			
AR-200	1,500	365			
AR-200	2,000	316			
AR-200	2,500	283			
AR-200	3,000	259			
AR-200	3,500	240			
AR-200	4,000	225			
AR-200	4,500	210			
AR-200	5,000	200			

VITREOUS ENAMELED FIXED RESISTORS

Midget Oval Type MOR-Series

These units are very desirable for applications where the size of components must be kept to a minimum. Integral mounting brackets are supplied as standard and are designed for stack mount-

ing of the resistors. Three standard sizes are available. Ratings are based on metal panel mounting, on plate 10" x .040".

Type MOR-10

10 WATT

Core: 3/8" x 3/4"

Ohms	Max. Amps	Ohms	Max. Amps
1	3.16	600	0.13
2	2.24	750	0.12
5	1.41	1,000	0.10
7.5	1.15	1,250	0.089
10	1.00	1,500	0.081
15	0.82	1,750	0.075
20	0.70	2,000	0.071
25	0.63	2,500	0.063
30	0.57	3,000	0.057
40	0.50	4,000	0.050
50	0.46	5,000	0.045
75	0.36	6,000	0.041
100	0.32	7,000	0.038
125	0.28	7,500	0.036
150	0.26	10,000	0.032
200	0.22	12,500	0.028
250	0.20	15,000	0.026
300	0.18		
400	0.16		
500	0.14		

Type MOR-15

15 WATT

Core: 3/8" x 1"

Ohms	Max. Amps	Ohms	Max. Amps
1	3.81	2,000	0.087
2	2.73	2,500	0.077
5	1.73	3,000	0.072
10	1.23	3,500	0.065
15	1.00	4,000	0.059
25	0.77	5,000	0.054
40	0.61	6,000	0.050
50	0.54	7,500	0.044
75	0.44	10,000	0.038
100	0.38	12,500	0.034
150	0.31	15,000	0.032
200	0.27	20,000	0.028
250	0.24	25,000	0.024
300	0.22		
400	0.18		
500	0.17		
750	0.14		
1,000	0.12		
1,250	0.11		
1,500	0.10		

Type MOR-20

20 WATT

Core: 3/8" x 2"

Ohms	Max. Amps	Ohms	Max. Amps
1	4.47	2,000	0.10
2	3.16	2,500	0.09
5	2.00	3,000	0.081
10	1.41	3,500	0.075
15	1.16	4,000	0.070
25	0.89	5,000	0.063
40	0.71	6,000	0.058
50	0.63	7,500	0.052
75	0.52	10,000	0.044
100	0.45	12,500	0.040
150	0.36	15,000	0.036
200	0.32	20,000	0.032
250	0.26	25,000	0.028
300	0.26	30,000	0.026
400	0.22	35,000	0.024
500	0.20	40,000	0.022
800	0.16	50,000	0.020
1,000	0.14		
1,250	0.12		
1,500	0.11		

VITREOUS ENAMELED FIXED RESISTORS

Oval Type OR-Series

Type OR-30

30 WATT

Core: 5/16" x 1" x 1-1/4"
Weight: .055 lbs.

Ohms	Max. Volts	Max. Amps.
1	5.4	5.480
3	9.4	3.160
5	12	2.455
10	17	1.732
15	21	1.414
25	27	1.097
30	38	.775
100	54	.548
150	67	.447
200	77	.387
250	86	.346
400	109	.274
500	122	.245
750	150	.200
1,000	173	.173
1,250	193	.155
1,500	211	.141
2,000	244	.122
2,500	272	.109
3,000	300	.100
3,500	322	.092
4,000	344	.086
5,000	385	.077
7,500	526	.057
10,000	610	.049

Type OR-40

40 WATT

Core: 5/16" x 1" x 2"
Weight: .075 lbs.

Ohms	Max. Volts	Max. Amps.
1	6.3	6.330
3	10	3.445
5	14	2.830
10	20	2.000
15	24	1.637
25	31	1.265
30	44	.895
100	63	.633
150	77	.516
200	89	.447
250	100	.400
400	126	.316
500	141	.282
750	173	.231
1,000	200	.200
1,250	223	.179
1,500	244	.163
2,000	282	.141
2,500	315	.126
3,000	345	.115
3,500	374	.107
4,000	400	.100
5,000	445	.089
7,500	547	.073
10,000	630	.063
15,000	765	.051
20,000	1,000	.039
25,000	1,140	.035

Type OR-55

55 WATT

Core: 5/16" x 1" x 3-1/2"
Weight: .130 lbs.

Ohms	Max. Volts	Max. Amps.
1	7.4	7.410
3	12	4.280
5	16	3.378
10	23	2.345
15	28	1.917
25	37	1.482
30	52	1.050
100	74	.741
150	90	.605
200	104	.524
250	117	.469
400	148	.370
500	165	.331
750	203	.271
1,000	234	.234
1,250	259	.207
1,500	286	.191
2,000	332	.166
2,500	370	.148
3,000	405	.135
3,500	437	.125
4,000	469	.117
5,000	525	.105
7,500	638	.085
10,000	740	.074
15,000	900	.060
20,000	1,040	.052
25,000	1,150	.046
30,000	1,260	.042

Type OR-65

65 WATT

Core: 5/16" x 1" x 4-3/4"
Weight: .160 lbs.

Ohms	Max. Volts	Max. Amps.
1	8	8.060
3	14	4.655
5	18	3.605
10	25	2.550
15	31	2.080
25	40	1.612
30	57	1.140
100	80	.805
150	98	.658
200	114	.578
250	127	.510
400	161	.403
500	181	.360
750	220	.294
1,000	255	.255
1,250	285	.228
1,500	312	.208
2,000	360	.180
2,500	402	.161
3,000	444	.147
3,500	475	.137
4,000	508	.127
5,000	570	.114
7,500	698	.093
10,000	800	.080
15,000	975	.065
20,000	1,140	.057
25,000	1,275	.051
30,000	1,380	.046
35,000	1,505	.043
40,000	1,600	.040
50,000	1,800	.036

Type OR-75

75 WATT

Core: 5/16" x 1" x 6"
Weight: .195 lbs.

Ohms	Max. Volts	Max. Amps.
1	8.6	8.660
3	15	5.000
5	19	3.875
10	27	2.740
15	33	2.236
25	43	1.732
30	61	1.225
100	86	.866
150	106	.707
200	118	.591
250	137	.548
400	173	.432
500	193	.387
750	237	.316
1,000	274	.274
1,250	306	.245
1,500	334	.222
2,000	386	.193
2,500	432	.173
3,000	474	.158
3,500	510	.146
4,000	548	.137
5,000	611	.122
7,500	750	.100
10,000	860	.086
15,000	1,050	.070
20,000	1,220	.061
25,000	1,350	.054
30,000	1,500	.050
35,000	1,610	.046
40,000	1,720	.043
50,000	1,900	.038

VITREOUS ENAMELED RESISTORS

Axial Lead Val-Type

VAL-3

3 WATT

Core: 1/4" x 9/16" Weight: .002 lbs.

Ohms	Amps	Volts	Ohms	Amps	Volts
1	1.73	1.73	750	.083	47.4
1.5	1.41	2.12	800	.061	49.0
2	1.22	2.45	900	.058	52.0
3	1.00	3.00	1,000	.055	54.8
4	.87	3.46	1,100	.052	57.4
5	.77	3.87	1,200	.050	60.0
7.5	.63	4.74	1,250	.049	61.1
10	.55	5.48	1,500	.045	67.0
12	.50	6.00	1,750	.041	72.3
15	.45	6.70	2,000	.039	77.4
20	.39	7.74	2,250	.037	82.3
25	.35	8.66	2,500	.035	86.3
30	.32	9.50	3,000	.032	95.0
35	.29	10.2	3,500	.029	103
40	.27	11.0	4,000	.027	110
50	.25	12.2	4,500	.026	116
75	.20	15.0	5,000	.025	122
100	.17	17.3	6,000	.022	134
125	.16	19.4	7,000	.020	145
150	.14	21.2	7,500	.020	150
200	.13	24.5	8,000	.019	155
225	.12	26.0	9,000	.018	163
250	.11	27.4	10,000	.017	172
300	.10	30.0			
350	.093	32.4			
400	.087	34.6			
450	.082	36.7			
500	.077	38.7			
600	.071	42.4			
700	.065	45.8			

VAL-5

5 WATT

Core: 11/32" x 1-1/16" Weight: .006 lbs.

Ohms	Amps	Volts	Ohms	Amps	Volts
1	2.23	2.23	750	.082	61.5
1.5	1.82	2.74	800	.078	63.0
2	1.58	3.16	900	.074	67.0
3	1.29	3.87	1,000	.070	70.0
4	1.12	4.47	1,100	.067	74.0
5	1.00	5.00	1,200	.064	77.0
7.5	.81	6.12	1,250	.063	79.0
10	.71	7.07	1,500	.057	86.0
12	.64	7.74	1,750	.053	93.0
15	.58	8.66	2,000	.050	100
20	.50	10.0	2,250	.047	106
25	.45	11.2	2,500	.045	112
30	.41	12.3	3,000	.041	123
35	.38	13.3	3,500	.037	132
40	.35	14.0	4,000	.035	141
50	.32	16.0	4,500	.033	149
75	.25	19.5	5,000	.032	156
100	.22	22.0	6,000	.029	172
125	.20	25.0	7,000	.027	189
150	.18	27.0	7,500	.026	195
200	.16	32.0	8,000	.025	200
225	.15	33.8	9,000	.024	212
250	.14	35.0	10,000	.022	220
300	.13	39.0	12,500	.020	250
350	.12	42.0	15,000	.018	270
400	.11	44.0	17,500	.017	295
450	.10	45.0	18,000	.017	302
500	.10	50.0	20,000	.016	320
600	.09	54.0	22,500	.015	335
700	.085	60.0	25,000	.014	350

VAL-10

10 WATT

Core: 3/8" x 1-27/32" Weight: .014 lbs.

Ohms	Amps	Volts	Ohms	Amps	Volts
1	3.16	3.16	2,250	.066	149
1.5	2.57	3.86	2,500	.063	158
2	2.24	4.47	3,000	.057	173
3	1.83	5.47	3,500	.053	187
4	1.58	6.33	4,000	.050	200
5	1.41	7.07	4,500	.047	212
7.5	1.16	8.65	5,000	.045	223
10	1.00	10.0	6,000	.041	245
12	.91	10.9	7,000	.038	265
15	.82	12.2	7,500	.036	274
20	.71	14.1	8,000	.035	283
25	.63	15.8	8,500	.034	291
30	.58	17.3	9,000	.033	300
35	.53	18.7	10,000	.032	316
40	.50	20.0	11,000	.030	332
50	.45	22.4	12,000	.029	346
75	.37	27.4	13,500	.028	353
100	.32	31.6	15,000	.027	367
125	.28	35.4	15,000	.026	387
150	.26	38.7	16,000	.025	400
200	.22	44.7	17,500	.024	418
225	.21	47.4	18,000	.023	424
250	.20	50.0	20,000	.022	447
300	.18	54.7	22,500	.021	474
350	.17	59.1	25,000	.020	500
400	.16	63.2	30,000	.018	548
450	.15	66.8	35,000	.017	591
500	.14	70.7	40,000	.016	632
600	.13	77.4	45,000	.015	670
700	.12	83.6	50,000	.014	707
750	.11	86.6			
800	.11	89.4			
900	.11	94.8			
1,000	.10	100			
1,100	.095	104			
1,200	.091	109			
1,250	.090	113			
1,500	.081	122			
1,750	.075	132			
2,000	.071	142			

*Lengths shown are standard and can be supplied up to 2-1/2 inches long.

**Sizes shown are standard and can be supplied with #18, #19, or #20 A.W.G.

MEMCOR COMPONENTS
INC. DIVISION

Manufacturers of
TRU-OHM AND HARDWICK, HINDLE PRODUCTS

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OHMITE VITREOUS ENAMELED FIXED AND DIVIDOHM® RESISTORS

12 WATT SIZE RESISTOR

Core: $1\frac{1}{2}'' \times \frac{1}{8}''$ — Mounting Centers $2\frac{1}{8}''$

Res. Ohms	Max. Amps.	Fixed Resist.		Adj. Resist.	
		Stock No.	Net 1-9	Stock No.	Net 1-9
.51	4.86	3723	.57	1001	\$1.14
1.0	3.46	3730	.57		
1.5	2.83	3734	.57		
2.0	2.45			1002	1.14
2.2	2.34	3738	.57		
3.0	2.00			1003	1.14
3.3	1.91	3742	.57		
4.7	1.60	3746	.57		
5.0	1.54			1004	1.14
6.8	1.33	3750	.57		
7.5	1.26			1005	1.14
10	1.10	3754	.57		
12	1.00	3756	.57	1006	1.14
15	.89	3758	.57		
18	.82	3760	.57	1007	1.14
20	.77				
22	.74	3762	.57	1008	1.14
25	.69				
27	.67	3764	.57	1009	1.14
33	.60	3766	.57		
39	.55	3768	.57		
47	.53	3770	.57	1010	1.14
50	.49				
56	.46	3772	.57	1011	1.14
68	.42	3774	.57		
75	.40			1012	1.14
82	.38	3776	.57		
100	.35	3778	.57	1013	1.14
120	.32	3780	.57		
150	.28	3782	.57	1014	1.14
180	.26	3784	.57		
200	.24			1015	1.14
220	.23	3786	.57		
250	.22			1016	1.14
270	.21	3788	.57		
300	.20			1017	1.14
330	.19	3790	.57		
350	.18			1018	1.14
390	.18	3792	.57		
400	.17			1019	1.14
470	.16	3794	.57		
500	.15			1020	1.14
560	.15	3796	.57		
600	.14			1021	1.14
680	.13	3798	.57		
750	.13			1022	1.14
800	.12				
820	.12	3800	.57	1023	1.14
1000	.11	3802	.57		
1200	.10	3804	.61	1024	1.18
1250	.098				
1500	.089	3806	.61		
1800	.082	3808	.61	1026	1.18
2000	.077				
2200	.074	3810	.61	1027	1.18
2250	.073				
2500	.069			1028	1.18
2700	.067	3812	.61		
3000	.063			1029	1.18
3300	.060	3814	.61		
3500	.058			1030	1.18
3900	.055	3816	.61		
4000	.055			1031	1.18
4500	.052	3818	.61		
4700	.051			1032	1.18
5000	.049	3820	.70		
5600	.046	3822	.70	1033	1.18
6000	.045				
6800	.042	3824	.70		
7000	.042			1034	1.27
7500	.040	3826	.70		
8000	.039			1035	1.27
8200	.038	3828	.70		
8500	.037			1036	1.27
9000	.036	3830	.70		
10000	.035	3832	.70	1037	1.27
12000	.032	3834	.79		
15000	.028	3836	.79	1038	1.27
18000	.026	3838	.83		
22000	.023	3840	.83		
27000	.021	3842	.93	1039	1.27
33000	.019	3844	.93		
39000	.018	3846	.93		
47000	.016	3848	.93	1040	1.27
51000	.015				

ADJUSTABLE LUGS

Bakelite Knob			Screw Driver Type		
Res. Dia.	Stock No.	Net 1-9	Res. Dia.	Stock No.	Net 1-9
$\frac{1}{8}''$	0959	\$0.31	$\frac{1}{8}''$	1058	\$0.14
$\frac{3}{16}''$	1959	.31	$\frac{3}{16}''$	0958	.14
$\frac{1}{2}''$	2159	.40	$\frac{1}{2}''$	1958	.14
			$\frac{1}{2}''$	2158	.23

25 WATT SIZE RESISTOR

Core: $2'' \times \frac{1}{8}''$ — Mounting Centers $2\frac{1}{8}''$

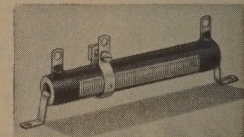
Res. Ohms	Max. Amps.	Fixed Resist.		Adj. Resist.	
		Stock No.	Net 1-9	Stock No.	Net 1-9
1	5.00	0200J	\$0.72	0360	\$1.29
2	3.54	0200K	.72	0360B	1.29
3	2.88	0200L	.72	0361	1.29
5	2.24	0200A	.72	0362	1.29
7.5	1.82			0362B	1.29
10	1.58	0200B	.72	0363	1.29
15	1.29	0200R	.72	0364	1.29
20	1.12			0364B	1.29
25	1.00	0200C	.72	0365	1.29
50	.71	0200D	.72	0366	1.29
75	.58	0200E	.72	0367	1.29
100	.50	0200F	.72	0368	1.29
150	.41	0200G	.72	0369	1.29
200	.35	0200H	.72	0370	1.29
250	.32	0201	.72	0371	1.29
300	.29			0371B	1.29
400	.25			0371C	1.29
500	.22	0202	.72	0372	1.29
750	.18	0203	.72	0373	1.29
800	.17	0204	.72	0374	1.29
1,000	.16	0205	.72	0375	1.29
1,250	.14			0375B	1.32
1,500	.13	0206	.75	0376	1.32
2,000	.12	0207	.75	0377	1.32
2,250	.11			0377B	1.32
2,500	.10	0208	.75	0378	1.32
3,000	.091	0209	.75	0379	1.32
3,500	.084	0210	.75	0380	1.32
4,000	.079	0211	.75	0381	1.32
4,500	.074			0381B	1.32
5,000	.070	0212	.75	0382	1.32
6,000	.064	0213	.85	0383	1.42
7,000	.060			0383B	1.42
7,500	.057	0214	.85	0384	1.42
8,000	.055			0384B	1.42
9,000	.052			0384C	1.42
10,000	.050	0215	.85	0385	1.42
12,000	.042	0216	.90	0386	1.47
15,000	.036	0217	.90	0387	1.47
20,000	.031	0218	.90	0388	1.47
25,000	.028	0219	1.04	0389	1.61
40,000	.022	0222	1.04		
50,000	.020	0224	1.21		
100,000	.010	0229	1.64		

50 WATT SIZE RESISTOR

Core: $4'' \times \frac{1}{8}''$ — Mounting Centers $4\frac{1}{8}''$

Res. Ohms	Max. Amps.	Fixed Resist.		Adj. Resist.	
		Stock No.	Net 1-9	Stock No.	Net 1-9
5	3.16	0400A	\$1.11	0560	\$1.68
10	2.23	0400B	1.11	0561	1.68
25	1.41	0400C	1.11	0562	1.68
50	1.00	0400D	1.11	0563	1.68
75	.82	0400E	1.11	0564	1.68
100	.71	0400F	1.11	0565	1.68
150	.58	0400G	1.11	0566	1.68
200	.50	0400H	1.11	0567	1.68
250	.45	0401	1.11	0568	1.68
300	.41			0568B	1.68
400	.35			0568C	1.68
500	.32	0402	1.11	0569	1.68
750	.26	0403	1.11	0570	1.68
1,000	.22	0405	1.11	0572	1.68
1,250	.20			0572B	1.71
1,500	.18	0406	1.14	0573	1.71
2,000	.16	0407	1.14	0574	1.71
2,500	.14	0408	1.14	0575	1.71
3,000	.13	0409	1.14	0576	1.71
3,500	.12			0576B	1.71
4,000	.11	0410	1.14	0577	1.71
4,500	.10			0577B	1.71
5,000	.10	0411	1.14	0578	1.71
6,000	.091			0578B	1.80
7,000	.084			0578C	1.80
7,500	.081	0412	1.23	0579	1.80
8,000	.079	0413	1.23	0580	1.80
9,000	.074			0580B	1.80
10,000	.071	0414	1.23	0581	1.80
12,000	.064	0415	1.35	0582	1.92
15,000	.057	0416	1.35	0583	1.92
20,000	.050	0417	1.35	0584	1.92
25,000	.045	0418	1.54	0585	2.11
30,000	.036			0586	2.11
35,000	.032	0419	1.54		
40,000	.029			0587	2.11
50,000	.025	0420	1.72	0588	2.29
60,000	.023			0589	2.29
75,000	.021	0421	1.97		
80,000	.021			0590	2.54
100,000	.018	0422	2.13	0591	2.70

These all-welded construction resistors have welded high-strength alloy terminals. For perfect electrical connection, the resistance wire is welded to the terminal. Units are wire-wound on ceramic cores and protected by Ohmite Vitreous Enamel. Furnished with mounting brackets and on DIVIDOHM with one adjustable lug.



75 WATT SIZE — Dividohm

Core: $6'' \times \frac{1}{8}''$ — Mounting Centers $6\frac{1}{8}''$

Adjustable Res.			Adjustable Res.		
Res. Ohms	Max. Amps.	Stock No.	Res. Ohms	Max. Amps.	Stock No.
5	3.87	0769	5,000	.12	0783
10	2.74	0770	6,000	.11	0783B
15	2.24	0771	7,000	.10	0783C
25	1.73	0772	7,500	.10	0784
50	1.22	0773	8,000	.096	0784B
100	.86	0774	9,000	.091	0784C
200	.61	0774B	10,000	.086	0785
250	.55	0775	12,000	.079	0785B
300	.50	0775B	15,000	.070	0786
400	.43	0775C	20,000	.061	0787
500	.39	0777	25,000	.054	0788
750	.32	0777	30,000	.050	0789
1,000	.28	0778	35,000	.046	0790
1,250	.24	0778B	40,000	.043	0791
1,500	.22	0779	45,000	.035	0792
2,000	.19	0780	50,000	.033	0793
2,500	.17	0781	60,000	.030	0794
3,000	.15	0781B	70,000	.026	0795
5,000	.15	0782	100,000	.023	0796
4,000	.14	0782B			

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variable transformers • tantalum capacitors
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RESISTORS (CONT.)

175 WATT SIZE RESISTOR

Core: 8½" x 1½" — Mounting Centers 9½"

Res. Ohms	Max. Amps.	Fixed Resist.		Adj. Resist.	
		Stock No.	Net 1-9	Stock No.	Net 1-9
5	5.92	0700A	\$3.19	1156	\$4.07
10	4.18	0700B	2.28	1157	3.16
25	2.64	0701	2.28	1158	3.16
50	1.87	0702	2.28	1159	3.16
75	1.52	0703	2.28		
100	1.32	0704	2.28	1160	3.16
150	1.08	0705	2.28		
250	.84	0706	2.28	1160B	3.16
500	.59	0707	2.28	1161	3.16
750	.48	0708	2.28		
1,000	.42	0709	2.28	1162	3.16
1,500	.34	0710	2.32	1162B	3.20
2,000	.30	0711	2.32		
2,500	.26	0712	2.32	1163	3.20
3,000	.24	0713	2.32		
5,000	.19	0714	2.32	1164	3.20
7,500	.15	0715	2.53		
10,000	.13	0716	2.53	1165	3.41
15,000	.11	0717	2.71	1166	3.59
20,000	.094	0718	2.71	1167	3.59
25,000	.083	0719	2.80	1168	3.68
30,000	.076	0720	2.80	1169	3.68
40,000	.066	0721	2.80	1170	3.68
50,000	.059	0722	2.89	1171	3.77
60,000	.054	0723	2.89		
75,000	.048	0724	3.08	1172	3.96
100,000	.042	0725	3.26	1173	4.14

225 WATT SIZE RESISTOR

Core: 10½" x 1½" — Mounting Centers 11½"

Res. Ohms	Max. Amps.	Fixed Resist.		Adj. Resist.	
		Stock No.	Net 1-9	Stock No.	Net 1-9
5	6.72	0900A	\$3.44	1356	\$4.32
10	4.74	0900B	2.46	1357	3.34
25	3.00	0901	2.46	1358	3.34
50	2.12	0902	2.46	1359	3.34
75	1.73	0903	2.46		
100	1.50	0904	2.46	1360	3.34
150	1.25	0905	2.46		
250	.95	0906	2.46	1360B	3.34
500	.67	0907	2.46	1361	3.34
750	.55	0908	2.46		
1,000	.47	0909	2.46	1362	3.34
1,500	.39	0910	2.53	1362B	3.41
2,000	.34	0911	2.53		
2,500	.30	0912	2.53	1363	3.41
3,000	.27	0913	2.53		
5,000	.21	0914	2.53	1364	3.41
7,500	.17	0915	2.71		
10,000	.15	0916	2.71	1365	3.59
15,000	.13	0917	2.89	1366	3.77
20,000	.11	0918	2.89	1367	3.77
25,000	.095	0919	2.98	1368	3.86
30,000	.087	0920	2.98	1369	3.86
40,000	.075	0921	2.98	1370	3.86
50,000	.067	0922	3.08	1371	3.96
60,000	.061	0923	3.08		
75,000	.055	0924	3.26	1372	4.14
100,000	.047	0925	3.46	1373	4.34

8 Watt—1" x 5/16" Core Size

Ohms		Amps		Ohms		Amps	
1	2.83	200	.20	2,250	.059		
1.5	2.30	225	.18	2,500	.056		
2	2.00	250	.17	3,000	.051		
3	1.63	300	.16	3,500	.047		
4	1.41	350	.15	4,000	.044		
5	1.26	400	.14	4,500	.042		
7.5	1.00	450	.13	5,000	.040		
10	.89	500	.12	6,000	.038		
12	.81	600	.11	7,000	.035		
15	.73	700	.11	7,500	.032		
20	.63	750	.10	8,000	.031		
25	.56	800	.10	9,000	.029		
30	.51	900	.094	10,000	.028		
35	.47	1,000	.089	12,500	.025		
40	.44	1,100	.085	15,000	.023		
50	.40	1,200	.081	17,500	.021		
75	.32	1,250	.080	20,000	.020		
100	.28	1,500	.073	22,500	.018		
125	.25	1,750	.067	25,000	.017		
150	.23	2,000	.063				

Net (1-9), 1 thru 1,000 ohms.....\$0.52
 Net (1-9), 1,100 thru 5,000 ohms.....\$0.55
 Net (1-9), 5,000 thru 10,000 ohms.....\$0.58
 Net (1-9), 12,500 thru 20,000 ohms.....\$0.65
 Net (1-9), 22,500 and 25,000 ohms.....\$0.68

Popular OHMITE "BROWN DEVIL"® RESISTORS



3 Watt—7/16" x .20" Core Size

Ohms		Amps		Ohms		Amps	
1.0	1.73	24	.35	510	.077		
1.1	1.65	27	.33	560	.073		
1.2	1.58	30	.32	620	.070		
1.3	1.52	33	.30	680	.067		
1.5	1.41	36	.29	750	.063		
1.6	1.37	39	.28	820	.060		
1.8	1.29	43	.26	910	.057		
2.0	1.22	47	.25	1,000	.055		
2.2	1.17	51	.24	1,100	.052		
2.4	1.12	56	.23	1,200	.050		
2.7	1.05	62	.22	1,300	.048		
3.0	1.00	68	.21	1,500	.045		
3.3	.95	75	.20	1,600	.043		
3.6	.91	82	.19	1,800	.042		
3.9	.88	91	.18	2,000	.039		
4.3	.83	100	.17	2,200	.037		
4.7	.80	110	.16	2,400	.035		
5.1	.77	120	.16	2,700	.033		
5.6	.73	130	.15	3,000	.032		
6.2	.69	150	.14	3,300	.030		
6.8	.66	160	.14	3,600	.029		
7.5	.63	180	.13	3,900	.028		
8.2	.60	200	.12	4,200	.026		
9.1	.57	220	.12	4,700	.025		
10	.55	240	.11	5,100	.024		
11	.52	270	.11	5,600	.023		
12	.50	300	.10	6,200	.022		
13	.48	330	.095	6,800	.021		
15	.45	360	.091	7,500	.020		
16	.43	390	.088	8,200	.019		
18	.42	430	.083	9,100	.018		
20	.39	470	.080	10,000	.017		
22	.37						

Net (1-9), 1 thru 1,000 ohms.....\$0.49
 Net (1-9), 1,100 thru 4,700 ohms.....\$0.52
 Net (1-9), 5,100 thru 10,000 ohms.....\$0.55

5¼ Watt—½" x ¼" Core Size

Ohms		Amps		Ohms		Amps	
1.0	2.29	30	.42	820	.080		
1.1	2.19	33	.40	910	.076		
1.2	2.09	36	.38	1,000	.072		
1.3	2.01	39	.37	1,100	.069		
1.5	1.87	43	.35	1,200	.066		
1.6	1.81	47	.33	1,300	.064		
1.8	1.71	51	.32	1,500	.059		
2.0	1.62	56	.31	1,600	.057		
2.2	1.54	62	.29	1,800	.054		
2.4	1.48	68	.28	2,000	.051		
2.7	1.39	75	.27	2,200	.049		
3.0	1.32	82	.25	2,400	.047		
3.3	1.24	91	.24	2,700	.044		
3.6	1.21	100	.23	3,000	.042		
3.9	1.16	110	.22	3,300	.040		
4.3	1.10	120	.21	3,600	.038		
4.7	1.06	130	.20	3,900	.037		
5.1	1.01	150	.19	4,300	.035		
5.6	.97	160	.18	4,700	.033		
6.2	.92	180	.17	5,100	.032		
6.8	.88	200	.16	5,600	.031		
7.5	.84	220	.16	6,200	.029		
8.2	.80	240	.15	6,800	.028		
9.1	.76	270	.14	7,500	.027		
10	.72	300	.13	8,200	.025		
11	.69	330	.12	9,100	.024		
12	.66	360	.12	10,000	.023		
13	.64	390	.12	11,000	.022		
15	.59	430	.11	12,000	.021		
16	.57	470	.11	13,000	.020		
18	.54	510	.10	15,000	.019		
20	.51	560	.097	16,000	.018		
22	.49	620	.092	18,000	.017		
24	.47	680	.088	20,000	.016		
27	.44	750	.084				

Net (1-9), 1 thru 1,000 ohms.....\$0.52
 Net (1-9), 1,100 thru 4,700 ohms.....\$0.55
 Net (1-9), 5,100 thru 10,000 ohms.....\$0.58
 Net (1-9), 11,000 thru 20,000 ohms.....\$0.65
 Net (1-9), 22,500 thru 100,000 ohms.....\$0.68

High quality, small size, wire-wound resistors ideal for voltage dropping, bias units, bleeders, etc. They're extra-sturdy, all-ceramic, vitreous enameled. These all-welded construction units have welded high-strength alloy terminals. For perfect electrical connection, the resistance wire is welded to the terminal. They give time-proved protection against shock, vibration, heat and humidity. Their long record of continuous trouble-free service—their wide use in all climates of the world—prove their complete reliability and economy. All units can be conveniently mounted by means of their 1½" tinned wire leads. Standard resistance tolerance is ±5%.

12 Watt—1¼" x 5/16" Core Size

Ohms		Amps		Ohms		Amps	
0.5	4.90	300	.20	6,000	.044		
1	3.46	350	.18	7,000	.041		
1.5	2.82	400	.17	7,500	.040		
2	2.45	450	.16	8,000	.038		
3	2.00	500	.15	8,500	.037		
4	1.73	600	.14	9,000	.036		
5	1.54	700	.13	10,000	.035		
7.5	1.23	750	.12	11,000	.033		
10	1.09	800	.12	12,000	.031		
12	1.00	900	.11	12,500	.031		
15	.89	1,000	.11	13,500	.029		
20	.77	1,100	.10	15,000	.028		
25	.69	1,200	.10	16,000	.027		
30	.63	1,250	.097	17,500	.026		
35	.58	1,500	.089	18,000	.025		
40	.54	1,750	.082	20,000	.024		
50	.49	2,000	.077	22,500	.023		
75	.40	2,250	.073	25,000	.022		
100	.34	2,500	.069	30,000	.020		
125	.31	3,000	.063	35,000	.018		
150	.28	3,500	.058	40,000	.017		
200	.24	4,000	.054	45,000	.016		
225	.23	4,500	.051	50,000	.015		
250	.22	5,000	.049				

Net (1-9), 0.5 thru 1,000 ohms.....\$0.57
 Net (1-9), 1,100 thru 5,000 ohms.....\$0.61
 Net (1-9), 6,000 thru 10,000 ohms.....\$0.70
 Net (1-9), 11,000 thru 20,000 ohms.....\$0.79
 Net (1-9), 22,500

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OHMITE Series 99 Resistors

SERIES 99 MOLDED VITREOUS AXIAL LEAD RESISTORS



All welded resistors with 1000 v. AC insulation. They meet the general requirements of specification MIL-R-26C for RW57, RW58, RW59, RW67, RW68 and RW69. Chip and break resistant, uniformly molded white vitreous enamel protects against moisture, salt spray and immersion. Vitreous markings resist high temperatures, solvents and abrasion. Can be mounted on component clips. **Tolerance:** $\pm 5\%$, standard. **Size:** 1.5-watt, 0.422" lg. x 0.125" dia.; 2 1/4-watt, 0.375" lg. x 0.188" dia.; 3 1/4-watt, 0.547" lg. x 0.203" dia.; 5-watt, 0.933" lg. x 0.203" dia.; 11-watt, 1.751" lg. x 0.312" dia. Tinned leads 1 1/2" lg., #20 AWG except 1-watt, #24 AWG.

STYLE 995-1A 1.5-WATT AND STYLE 995-2A 2 1/4-WATT

1.5-Watt 2 1/4-Watt				1.5-Watt 2 1/4-Watt			
Ohms	Stock Number	Ohms	Stock Number	Ohms	Stock Number	Ohms	Stock Number
1.0	4030	3860	75	4087	3918	1.0	4030
1.1	4031	3861	82	4089	3920	1.1	4031
1.2	4032	3862	91	4091	3922	1.2	4032
1.3	4033	3863	100	4092	3923	1.3	4033
1.5	4034	3864	110	4093	3924	1.5	4034
1.6	4035	3865	120	4094	3925	1.6	4035
1.8	4036	3866	130	4095	3926	1.8	4036
2.0	4037	3867	150	4096	3927	2.0	4037
2.2	4038	3868	160	4097	3928	2.2	4038
2.4	4039	3869	180	4098	3929	2.4	4039
2.7	4040	3870	200	4099	3930	2.7	4040
3.0	4041	3871	220	4100	3931	3.0	4041
3.3	4043	3873	240	4101	3932	3.3	4043
3.6	4044	3874	250	4102	3933	3.6	4044
3.9	4045	3875	270	4103	3934	3.9	4045
4.0	4046	3876	300	4104	3935	4.0	4046
4.3	4047	3877	350	4105	3936	4.3	4047
4.7	4048	3878	350	4105A	3937	4.7	4048
5.0	4049	3879	360	4106	3938	5.0	4049
5.1	4050	3880	390	4107	3939	5.1	4050
5.6	4051	3881	400	4108	3940	5.6	4051
6.2	4053	3883	430	4109	3941	6.2	4053
6.8	4054	3884	450	4109A	3942	6.8	4054
7.5	4056	3886	470	4110	3943	7.5	4056
8.2	4058	3888	500	4111	3944	8.2	4058
9.1	4060	3890	510	4112	3945	9.1	4060
10	4061	3891	560	4113	3946	10	4061
11	4062	3892	600	4114	3947	11	4062
12	4063	3893	620	4115	3948	12	4063
13	4064	3894	680	4116	3949	13	4064
15	4065	3895	700	4117	3950	15	4065
16	4066	3896	750	4118	3951	16	4066
18	4067	3897	800	4119	3952	18	4067
20	4068	3898	820	4120	3953	20	4068
22	4069	3899	900	4121	3954	22	4069
24	4070	3900	910	4122	3955	24	4070
25	4071	3901	1000	4123	3956	25	4071
27	4072	3902	1100	4124	3957	27	4072
30	4073	3903	1200	4125	3958	30	4073
33	4074	3904	1300	4126	3959	33	4074
35	4074A	3905	1400	4126A	3960	35	4074A
36	4075	3906	1500	4127	3961	36	4075
39	4076	3907	1600	4128	3962	39	4076
40	4077	3908	1800	4129	3963	40	4077
43	4078	3909	2000	4130	3964	43	4078
47	4079	3910	2200	4131	3965	47	4079
50	4080	3911	2400	4132	3966	50	4080
51	4081	3912	2500	4133	3967	51	4081
56	4082	3913	2700	4134	3968	56	4082
62	4084	3915	3000	4135	3969	62	4084
68	4085	3916				68	4085

Values Ohms*	Style 995-1A 1.5-Watt Net Each, Lots of				Style 995-2A 2 1/4-Watt Net Each, Lots of			
	1-9	10-24	25-99	100-249	1-9	10-24	25-99	100-249
1-1000	62c	53c	43c	37c	60c	51c	42c	36c
1100-3000	66c	56c	46c	40c	64c	54c	45c	38c

STYLE 995-10A 11-WATT

Ohms	Stock No.	Ohms	Stock No.	Ohms	Stock No.	Ohms	Stock No.
1.0	4730	10	4761	82	4789	800	4814
1.1	4731	11	4762	91	4791	820	4815
1.2	4732	12	4763	100	4792	840	4816
1.3	4733	13	4764	110	4793	700	4817
1.5	4734	15	4765	120	4794	750	4818
1.6	4735	16	4766	130	4795	800	4819
1.8	4736	18	4767	150	4796	820	4820
2.0	4737	20	4768	160	4797	900	4821
2.2	4738	22	4769	180	4798	910	4822
2.4	4739	24	4770	200	4799	1000	4823
2.7	4741	27	4771	220	4800	1020	4824
3.0	4742	27	4772	240	4801	1200	4825
3.3	4743	30	4773	250	4802	1300	4826
3.6	4744	33	4774	270	4803	1400	4826A
3.9	4745	35	4775	300	4804	1500	4827
4.0	4746	36	4775	330	4805	1600	4828
4.3	4747	39	4776	350	4805A	1800	4829
4.7	4748	40	4777	360	4806	2000	4830
5.0	4749	43	4778	390	4807	2200	4831
5.1	4750	47	4779	400	4808	2400	4832
5.6	4751	50	4780	430	4809	2500	4833
6.2	4753	51	4781	450	4809A	2700	4834
6.8	4754	56	4782	470	4810	3000	4835
7.5	4756	62	4784	500	4811	3300	4836
8.2	4758	68	4785	510	4812	3500	4836A
9.1	4760	75	4787	560	4813	3600	4837

*Restricted to those values shown in the table of stock numbers.

STYLE 995-3A 3 1/4-WATT AND STYLE 995-5B 5-WATT

Stock Number			Stock Number		
Ohms	3¼-Watt	5-Watt	Ohms	3¼-Watt	5-Watt
1.0	4330	4530	330	4405	4605
1.1	4331	4531	350	4405A	4605A
1.2	4332	4532	380	4406	4606
1.3	4333	4533	400	4407	4607
1.5	4334	4534	400	4408	4608
1.6	4335	4535	430	4409	4609
1.8	4336	4536	450	4409A	4609A
2.0	4337	4537	470	4410	4610
2.2	4338	4538	500	4411	4611
2.4	4339	4539	510	4412	4612
2.7	4341	4541	560	4413	4613
3.0	4342	4542	600	4414	4614
3.3	4343	4543	620	4415	4615
3.6	4344	4544	680	4416	4616
4.0	4345	4545	700	4417	4617
4.3	4346	4546	750	4418	4618
4.7	4347	4547	800	4419	4619
5.0	4348	4548	820	4420	4620
5.1	4349	4549	900	4421	4621
5.6	4350	4550	910	4422	4622
6.2	4351	4551	1000	4423	4623
6.8	4353	4553	1100	4424	4624
7.5	4354	4554	1200	4425	4625
8.2	4356	4556	1300	4426	4626
9.1	4358	4558	1400	4426A	4626A
10	4360	4560	1500	4427	4627
11	4361	4561	1600	4428	4628
12	4362	4562	1800	4429	4629
13	4363	4563	2000	4430	4630
13	4364	4564	2200	4431	4631
15	4365	4565	2400	4432	4632
16	4366	4566	2500	4433	4633
18	4367	4567	2700	4434	4634
20	4368	4568	3000	4435	4635
22	4369	4569	3300	4436	4636
24	4370	4570	3500	4436A	4636A
25	4371	4571	3600	4437	4637
27	4372	4572	3900	4438	4638
30	4373	4573	4000	4439	4639
33	4374	4574	4300	4440	4640
35	4374A	4574A	4500	4440A	4640A
36	4375	4575	4700	4441	4641
39	4376	4576	5000	4442	4642
40	4377	4577	5100	4443	4643
43	4378	4578	5600	4444	4644
47	4379	4579	6000	4445	4645
50	4380	4580	6200	4446	4646
51	4381	4581	6800	4447	4647
56	4382	4582	7000	4448	4648
62	4384	4584	7500	4449	4649
68	4385	4585	8000	4450	4650
75	4387	4587	8200	4451	4651
82	4389	4589	9000	4452	4652
91	4391	4591	9100	4453	4653
100	4392	4592	10,000	4454	4654
110	4393	4593	11,000	4455	4655
120	4394	4594	12,000	4456	4656
130	4395	4595	13,000	4457	4657
150	4396	4596	14,000	4457A	4657A
160	4397	4597	15,000	4458	4658
180	4398	4598	16,000	4459	4659
200	4399	4599	17,000	4459B	4659B
220	4400	4600	18,000	4460	4660
240	4401	4601	20,000	4461	4661
250	4402	4602	22,000	4462	4662
270	4403	4603	24,000	4463	4663
300	4404	4604	25,000	4464	4664

OHMITE

resistors • rheostats • tap switches • relays
variable transformers • tantalum capacitors
semiconductor devices • r.f. chokes



LITTLE DEVIL® RESISTOR ASSORTMENTS FOR SERVICE USE

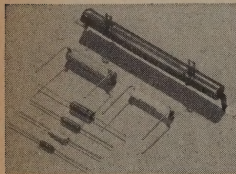


Serviceman's assortments of 150 Ohmite "Little Devil," 1/4-watt or 1/2-watt, or 125, 1-watt or 2-watt insulated composition resistors, in the 40 values (10 ohms to 10 megohms) most frequently used by servicemen. CAB-4 has 37 resistance values. The assortment is offered at the price of the resistors alone—the cabinet is furnished without extra cost! Cabinet is only 9" long, 4 3/4" high, and 5 1/4" deep.

sortment is offered at the price of the resistors alone—the cabinet is furnished without extra cost! Cabinet is only 9" long, 4 3/4" high, and 5 1/4" deep.

Assortment	Stock No.	Quantity of Resistors	Wattages	Net Price
SERVICE	CAB-4	150	1/4 watt	\$19.50
±10% tolerance (40 resistance values)	CAB-10	150	1/2 watt	18.00
	CAB-2	125	1 watt	22.50
	CAB-3	125	2 watt	30.00

OHMITE R.F. PLATE CHOKES



This series of seven Ohmite single layer wound solenoid radio frequency plate chokes covers the entire frequency range of 3 to 520 megacycles. The four highest frequency chokes are wound on low power factor plastic cores while

the other three units are wound on steatite tubes. The single layer winding is designed to avoid adverse harmonic effects within the recommended operating range and also prevents breakdown from high r.f. potentials.

Stock Number	Operating Range Megacycles	Micro-henries	Core Dimensions	Net Each 1-3
Z-7	3 to 20 Mc.	84.0	6" x 3/4"	\$1.37
Z-14	7 to 35 Mc.	44.0	2" x 1/2"	.68
Z-28	20 to 60 Mc.	21.0	1 1/4" x 3/4"	.57
Z-50	35 to 110 Mc.	7.0	3/4" x 3/4"	.46
Z-144	80 to 200 Mc.	1.8	1/2" x 3/4"	.43
Z-235	160 to 350 Mc.	0.84	3/4" x 3/4"	.43
Z-460	320 to 520 Mc.	0.20	1/2" x 3/4"	.43

Non-magnetic Brackets Furnished with Z-7. The Z-14 and Z-28 are rated at 600 ma. All others 1000 ma.

NEW OHM'S LAW CALCULATOR

Redesigned! This new, improved version of the famous Ohmite Ohm's Law Calculator — popular the world over with servicemen, engineers and students — now has scales for solving parallel resistance problems, AND a standard slide rule. More useful than ever! With one setting of the scale the calculator gives the answer to any Ohm's Law problem—reading directly in ohms, volts, amperes, and watts. Three of the new scales on the back provide a quick, one-setting means of solving parallel resistance problems. The slide rule scales will multiply, divide, find squares, and square roots.

Ohm's Law Calculator (Cardboard) **Net Price \$0.25**
Ohm's Law Calculator (Plastic) **Net Price 1.50**

LITTLE DEVIL COLOR CODER

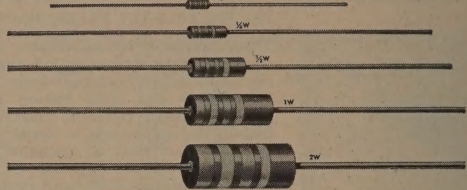


Here is a handy little device that makes it easy to determine the resistance and tolerance values of EIA color coded composition resistors. Just turn the color wheels until the color corresponds to the color band on the resistor and read the resistance value directly in ohms in the windows.

Little Devil Color Coder. **Net Price \$ 1.10**

OHMITE LITTLE DEVIL RESISTORS

MOLDED COMPOSITION TYPE



on
Tally
Tape
EXCEPT
1/4W
SIZE

Ohmite's famous molded composition resistors, in the 1/8, 1/4, 1/2, and 2-watt sizes, conform respectively to Styles RC05, RC07, RC23, RC32 and RC42 of MIL-R-11E and meet all the requirements of this military specification.

Little Devils have molded insulation and feature great stability, low noise level, low voltage coefficient, high insulation breakdown voltage and rapid heat dissipation. They may be used at full rated wattage at 70°C (158°F) ambient temperature.

Available from stock in the standard EIA resistance values in the tolerances and resistance ranges shown in the price table below. Ratings for maximum continuous RMS voltage drop are high: 15 volts for 1/8 watt units, 250 volts for 1/4 watt, 350 volts for 1/2 watt, 500 volts for 1 watt and 750 volts for 2 watt units.

STANDARD EIA VALUES

Figures in large, bold type are ±10% EIA values. All values listed are ±5% values. Price table lists the various "Little Devil" sizes and indicates the tolerances and resistance ranges in which they are supplied.

Ohms	Ohms	Ohms	Ohms	Ohms	Ohms	Megs.	Megs.
1.0	9.1	82	680	5600	47000	0.36	3.0
1.1	10	91	750	6200	51000	0.39	3.3
1.2	11	100	820	6800	56000	0.43	3.6
1.3	12	110	910	7500	62000	0.47	3.9
1.5	13	120	1000	8200	68000	0.51	4.3
1.6	15	130	1100	9100	75000	0.56	4.7
1.8	16	150	1200	10000	82000	0.62	5.1
2.0	18	160	1300	11000	91000	0.68	5.6
2.2	20	180	1500	12000		0.75	6.2
2.4	22	200	1600	13000		0.82	6.8
2.7	24	220	1800	15000		0.1	0.91
3.0	27	240	2000	16000		0.11	1.0
3.3	30	270	2200	18000		0.12	1.1
3.6	33	300	2400	20000		0.13	1.2
3.9	36	330	2700	22000		0.15	1.3
4.3	39	360	3000	24000		0.16	1.5
4.7	43	390	3300	27000		0.18	1.6
5.1	47	430	3600	30000		0.20	1.8
5.6	51	470	3900	33000		0.22	2.0
6.2	56	510	4300	36000		0.24	2.2
6.8	62	560	4700	39000		0.27	2.4
7.5	68	620	5100	43000		0.30	2.7
8.2	75					0.33	

PRICES, RESISTANCE RANGES, DIMENSIONS

Size Watts	Size Lgth.	Size Dia.	Resistance Range From Thru	MIL Type	±5%		±10%	
					Net 1-4	Net 5-49	Net 1-4	Net 5-49
1/8	.145"	.062"	2.7 ohms 9.1 ohms	RC 05†	37c LIDNU	31c LIDNU	27c LIDVS	22c LIDVS
			10 ohms 22 megs		34c LIDNU	28c LIDNU	24c LIDVS	20c LIDVS
1/4	1/4"	.090"	2.7 ohms 9.1 ohms	RC 07	29c LIDED	24c LIDED	14c LIDSM	12c LIDSM
			10 ohms 22 megs		26c LIDED	22c LIDED	13c LIDSM	11c LIDSM
1/2	3/8"	3/64"	1 ohm 2.4 ohms	RC 20*	28c LIDFA	22c LIDFA	13c LIDLO	11c LIDLO
			2.7 ohms 22 megs		24c LIDFA	20c LIDFA	12c LIDLO	10c LIDLO
1	9/16"	7/32"	2.7 ohms 22 megs	RC 32	36c LIDBU	30c LIDBU	18c LIDME	15c LIDME
2	1 1/16"	5/16"	10 ohms 22 megs	RC 42	48c LIDOC	40c LIDOC	24c LIDHI	20c LIDHI

*Min. res. under MIL-R-11E is 2.7 ohms. †Min. res. under MIL-R-11E is 10 ohms. Leads 1 1/2" long

SPEER FIXED COMPOSITION RESISTORS

Speer resistors are made on modern high speed equipment which molds component material into one integral, inseparable unit. Heavy pure tin-coated copper lead wires, thermosetting bonding resins, finely divided inorganic fillers, and specially produced and treated high conductivity materials such as carbon blacks are the materials used.

During the molding process, preformed insulating shells impregnated with bonding compounds are filled with carefully adjusted inorganic fillers. The binders and fillers of both shell and core are completely compatible and, under high pressure, allow the formation of an inseparable bond between shell and core. The thermal transfer characteristics of shell and core are essentially equal.

After high pressure molding, the "green" resistors are cured in a precisely adjusted, indirectly heated continuous tube furnace. The resin cure is complete and the final resistance of the unit is thereby fixed. A vacuum and pressure of special high temperature material develops maximum protection against moisture penetration.

The special impregnant used is completely stable under all operating conditions. This material seals and produces an effective barrier to moisture penetration.

Speer resistors are color coded with special paints developed to provide a high degree of solvent resistance.

All Speer resistors have lead wires of high conductivity copper with a solderable coating of heavy pure tin. The wires are completely precoated before assembly, so that the solderable surface is unbroken over the entire area. The tin coat is controlled to a thickness of .0003"-.0008", several times as heavy as that on ordinary tinned wire. The use of pure tin affords superior storage life and offers the ultimate in low temperature solderability.

The impregnated resistors are measured on high speed automatic resistance sorters and classified into appropriate resistance nominals and tolerances. The color bands and protective outer film are applied after sorting.

SPECIFICATIONS

Speer Type	Mil Type	Rating In Watts	Resistance Range Ohms	Diameter D	Length L	Wire Size A.W.G.	Nom. Dia. LD	Length LL
SR ¼	RC 07	¼	10 Ohm to 1.0 Meg.	.090 ± .008	.250 ± .031	No. 22	.025	1½ ± ⅛
SR ½	RC 20	½	2.7 Ohm to 22 Meg.	.138 ± .007	.390 ± .025	No. 20	.032	1½ ± ⅛
SR 1	RC 32	1	2.7 Ohm to 22 Meg.	.225 ± .010	.562 ± .030	No. 18	.040	1½ ± ⅛
SR 2	RC 42	2	10 Ohm to 22 Meg.	.312 ± .010	.688 ± .030	No. 17	.045	1½ ± ⅛

STANDARD RESISTANCE VALUES AND TOLERANCES

As shown in the table below, Speer resistors are available in all standard values specified by MIL-R-11 and RS 172.

Ohms	Ohms	Ohms	Ohms	Ohms	Ohms	Ohms	Ohms	Ohms	Meg.	Meg.
2.7	11	47	200	820	3600	15K	62K	270K	1.1	4.7
3.0	12	51	220	910	3900	16K	68K	300K	1.2	5.1
3.3	13	56	240	1000	4300	18K	75K	330K	1.3	6.8
3.6	15	62	270	1100	4700	20K	82K	360K	1.5	7.5
3.9	16	68	300	1200	5100	22K	91K	390K	1.6	8.2
4.3	18	75	330	1300	5600	24K	100K	430K	1.8	9.1
4.7	20	82	360	1500	6200	27K	110K	470K	2.0	10.0
5.1	22	91	390	1600	6800	30K	120K	510K	2.2	11.0
5.6	24	100	430	1800	7500	33K	130K	560K	2.4	12.0
6.2	27	110	470	2000	8200	36K	150K	620K	2.7	13.0
6.8	30	120	510	2200	9100	39K	160K	680K	3.0	15.0
7.5	33	130	560	2400	10K	43K	180K	750K	3.3	16.0
8.2	36	150	620	2700	11K	47K	200K	820K	3.6	18.0
9.1	39	160	680	3000	12K	51K	220K	910K	3.9	20.0
10	43	180	750	3300	13K	56K	240K	1.0M	4.3	22.0

Items in bold face type available in 5% tolerance only.



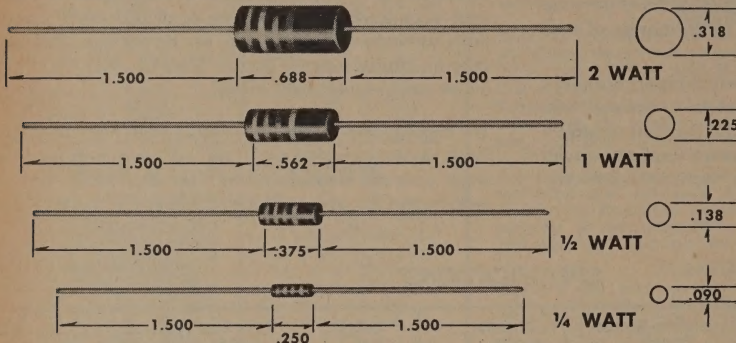
SPEER CARBON COMPANY, SPEER RESISTOR DIVISION
Speer Carbon Company is a Division of Air Reduction Company, Inc.





STACKPOLE

FIXED COMPOSITION RESISTORS



Stackpole Resistors offer superior performance in terms of load life, moisture resistance, shelf life, and other important characteristics. Available in 1/4, 1/2, 1, and 2 watt insulated types in resistance values with 5%, 10% and 20% tolerances as shown below.

EASIEST SOLDERING

is assured thanks to an exclusive extra solder coating applied after the usual tin dipping. Leads of Stackpole Resistors solder readily by any method—dip or iron—stay tarnish free even after months in storage. And, their baked-on color codes resist solvent scrubbing operations... maintain uniform, attractive appearance.

269 STANDARD VALUES FOR MODERN CIRCUITRY

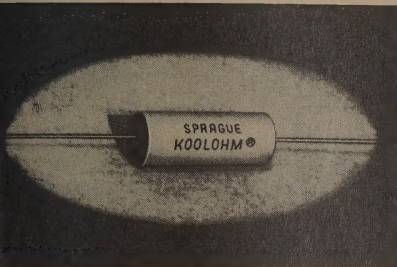
±20%	±10%	±5%	±20%	±10%	±5%	±20%	±10%	±5%	±20%	±10%	±5%
10	10	10		390	390	15000	15000	15000		560000	560000
	12	11		430	430			16000		620000	620000
	13	12	470	470	470		18000	18000	680000	680000	680000
15	15	13		510	510	22000	22000	20000		750000	750000
	16	15		560	560		22000	22000	820000	820000	820000
	18	16		620	620		27000	24000		910000	910000
	20	18	680	680	680			27000	1.0 Meg	1.0 Meg	1.0 Meg
22	22	20		750	750	33000	33000	30000		1.1 Meg	1.1 Meg
	22	22		820	820		33000	33000		1.2 Meg	1.2 Meg
	24	22		910	910			36000		1.3 Meg	1.3 Meg
	27	24	1000	1000	1000		39000	39000	1.5 Meg	1.5 Meg	1.5 Meg
	30	27		1100	1100			43000		1.6 Meg	1.6 Meg
33	33	30		1200	1200	47000	47000	47000		1.8 Meg	1.8 Meg
	33	33		1300	1300			51000		2.0 Meg	2.0 Meg
	36	33		1500	1500		56000	56000	2.2 Meg	2.2 Meg	2.2 Meg
	39	36		1600	1600			62000		2.4 Meg	2.4 Meg
	43	39	1500	1500	1500		68000	68000		2.7 Meg	2.7 Meg
47	47	43		1800	1800	68000	68000	75000		3.0 Meg	3.0 Meg
	51	47		2000	2000			82000		3.3 Meg	3.3 Meg
	56	51	2200	2200	2200		82000	82000	3.3 Meg	3.3 Meg	3.3 Meg
	62	56		2400	2400			91000		3.6 Meg	3.6 Meg
68	68	62		2700	2700	100000	100000	100000		3.9 Meg	3.9 Meg
	68	68		3000	3000			110000		4.3 Meg	4.3 Meg
	75	75		3300	3300		120000	120000	4.7 Meg	4.7 Meg	4.7 Meg
	82	82		3600	3600			130000		5.1 Meg	5.1 Meg
	91	82	3300	3300	3300		150000	150000		5.6 Meg	5.6 Meg
100	100	91		3900	3900			160000		6.2 Meg	6.2 Meg
	110	100		4300	4300		180000	180000		6.8 Meg	6.8 Meg
	120	110	4700	4700	4700			200000	6.8 Meg	6.8 Meg	6.8 Meg
	130	120		5100	5100	220000	220000	220000		8.2 Meg	8.2 Meg
150	150	130		5600	5600			240000		9.1 Meg	9.1 Meg
	160	150		6200	6200		270000	270000	10.0 Meg	10.0 Meg	10.0 Meg
	180	160	6800	6800	6800			300000		11.0 Meg	11.0 Meg
	200	180		7500	7500		330000	330000		12.0 Meg	12.0 Meg
220	220	200		8200	8200	330000	330000	360000		13.0 Meg	13.0 Meg
	220	220		9100	9100			390000		15.0 Meg	15.0 Meg
	240	220		10000	10000		390000	430000	15.0 Meg	15.0 Meg	15.0 Meg
	270	240	10000	10000	10000			470000		18.0 Meg	18.0 Meg
	300	270		11000	11000	470000	470000	510000		20.0 Meg	20.0 Meg
330	330	300		12000	12000					22.0 Meg	22.0 Meg
	330	330		13000	13000					22.0 Meg	22.0 Meg
	360	360								22.0 Meg	22.0 Meg

AVAILABLE THROUGH LEADING INDUSTRIAL ELECTRONIC PARTS DISTRIBUTORS

Electronic Components Div., STACKPOLE CARBON COMPANY

SPRAGUE RESISTORS

KOOLOHM® AXIAL-LEAD WIREWOUND RESISTORS FOR INDUSTRIAL APPLICATIONS



Types 450E, 452E, 454E, 456E and 458E are Standard Resistors. Types 451E, 453E, 455E, 457E and 459E are Non-Inductive Resistors

- Insulated-Shell Design for Easy Mounting
- Feature Improved Internal Construction in Which Windings and Leads are Welded to End-Cap for Superior Mechanical Strength
- Ceramic-Insulated Wire is Space Wound and Cemented, to Prevent Turn-to-Turn Shorting. Permits Higher Resistance Values in a Given Size Than in Conventional Resistors
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- Unexcelled Insulation and Mechanical Protection. Can be Mounted in Direct Contact With Chassis
- Call Your Sprague Industrial Distributor for Quantity Prices.
- For Complete Technical Details, Refer to Latest Issue of Sprague Engineering Bulletin 7300

Type 450E 3 WATTS ¼" x ⅝"			Type 452E 5 WATTS ¼" x 1"			Type 454E 7 WATTS 1½" x 1⅜"			Type 456E 10 WATTS 1½" x 1⅞"			Type 458E 14 WATTS 1¾" x 1⅞"		
Ohms	Cat. No.	Call Your Sprague Industrial Distributor for Current Quantity Prices	Cat. No.	Call Your Sprague Industrial Distributor for Current Quantity Prices	Cat. No.	Call Your Sprague Industrial Distributor for Current Quantity Prices	Cat. No.	Call Your Sprague Industrial Distributor for Current Quantity Prices	Cat. No.	Call Your Sprague Industrial Distributor for Current Quantity Prices				
1	450E1R05		452E1R05		454E1R05		456E1R05		458E1R05					
1.5	450E1R55		452E1R55		454E1R55		456E1R55		458E1R55					
2	450E2R05		452E2R05		454E2R05		456E2R05		458E2R05					
3	450E3R05		452E3R05		454E3R05		456E3R05		458E3R05					
4	450E4R05		452E4R05		454E4R05		456E4R05		458E4R05					
5	450E5R05		452E5R05		454E5R05		456E5R05		458E5R05					
7.5	450E7R55		452E7R55		454E7R55		456E7R55		458E7R55					
10	450E1005		452E1005		454E1005		456E1005		458E1005					
12	450E1205		452E1205		454E1205		456E1205		458E1205					
15	450E1505		452E1505		454E1505		456E1505		458E1505					
18	450E1805		---		---		---		---					
20	450E2005		452E2005		454E2005		456E2005		458E2005					
22	450E2205		---		---		---		---					
25	450E2505		452E2505		454E2505		456E2505		458E2505					
27	450E2705		---		---		---		---					
30	450E3005		452E3005		454E3005		456E3005		458E3005					
33	450E3305		---		---		---		---					
35	---		452E3505		454E3505		456E3505		458E3505					
39	450E3905		---		---		---		---					
40	450E4005	452E4005	454E4005	456E4005	458E4005									
47	450E4705	---	---	---	---									
50	450E5005	452E5005	454E5005	456E5005	458E5005									
56	450E5605	---	---	---	---									
68	450E6805	---	---	---	---									
75	450E7505	452E7505	454E7505	456E7505	458E7505									
82	450E8205	---	---	---	---									
100	450E1015	452E1015	454E1015	456E1015	458E1015									
120	450E1215	452E1215	454E1215	456E1215	458E1215									
150	450E1515	452E1515	454E1515	456E1515	458E1515									
180	450E1815	---	---	---	---									

SPRAGUE RESISTORS

KOOLOHM AXIAL-LEAD WIREWOUND RESISTORS, continued

Ohms	Type 450E 3 WATTS $\frac{1}{4}'' \times \frac{9}{16}''$	Type 452E 5 WATTS $\frac{1}{4}'' \times 1''$	Type 454E 7 WATTS $1\frac{1}{2}'' \times 1\frac{1}{2}''$	Type 456E 10 WATTS $1\frac{3}{4}'' \times 1\frac{1}{2}''$	Type 458E 14 WATTS $1\frac{3}{4}'' \times 1\frac{3}{4}''$
	Cat. No.	Cat. No.	Cat. No.	Cat. No.	Cat. No.
200	450E2015	452E2015	454E2015	456E2015	458E2015
220	450E2215	452E2215	454E2215	456E2215	458E2215
250	450E2515	452E2515	454E2515	456E2515	458E2515
270	450E2715	---	---	---	---
300	450E3015	452E3015	454E3015	456E3015	458E3015
330	450E3315	---	---	---	---
350	---	452E3515	454E3515	456E3515	458E3515
390	450E3915	---	---	---	---
400	450E4015	452E4015	454E4015	456E4015	458E4015
450	---	452E4515	---	---	---
470	450E4715	---	---	---	---
500	450E5015	452E5015	454E5015	456E5015	458E5015
560	450E5615	---	---	---	---
600	450E6015	452E6015	454E6015	456E6015	458E6015
680	450E6815	---	---	---	---
700	450E7015	452E7015	454E7015	456E7515	458E7015
750	---	452E7515	454E7515	---	458E7515
800	450E8015	452E8015	454E8015	456E8015	458E8015
820	450E8215	---	---	---	---
900	450E9015	452E9015	454E9015	456E9015	458E9015
1000	450E1025	452E1025	454E1025	456E1025	458E1025
1100	---	452E1125	454E1125	456E1125	458E1125
1200	450E1225	452E1225	454E1225	456E1225	458E1225
1400	450E1425	452E1425	454E1425	456E1425	458E1425
1500	450E1525	452E1525	454E1525	456E1525	458E1525
1800	450E1825	452E1825	454E1825	456E1825	458E1825
2000	450E2025	452E2025	454E2025	456E2025	458E2025
2200	450E2225	452E2225	454E2225	456E2225	458E2225
2500	450E2525	452E2525	454E2525	456E2525	458E2525
2700	450E2725	---	---	---	---
3000	450E3025	452E3025	454E3025	456E3025	458E3025
3300	450E3325	---	454E3325	456E3325	458E3325
3500	---	452E3525	454E3525	456E3525	458E3525
3900	450E3925	452E3925	454E3925	456E3925	458E3925
4000	450E4025	452E4025	454E4025	456E4025	458E4025
4500	---	452E4525	454E4525	456E4525	458E4525
4700	450E4725	---	---	---	---
5000	450E5025	452E5025	454E5025	456E5025	458E5025
5600	450E5625	---	---	---	---
6000	450E6025	452E6025	454E6025	456E6025	458E6025
6800	450E6825	---	---	---	---
7000	---	452E7025	454E7025	456E7025	458E7025
7500	450E7525	452E7525	454E7525	456E7525	458E7525
8000	450E8025	452E8025	454E8025	456E8025	458E8025
8200	450E8225	---	---	---	---
9000	450E9025	452E9025	454E9025	456E9025	458E9025
10000	450E1035	452E1035	454E1025	456E1035	458E1035
11000	---	---	454E1135	456E1135	458E1135
12000	---	452E1235	454E1235	456E1235	458E1125
14000	---	452E1435	454E1435	456E1435	458E1435
15000	---	452E1535	454E1535	456E1535	458E1535
16000	---	---	454E1635	456E1635	458E1635
18000	---	452E1835	454E1835	456E1835	458E1835
20000	---	452E2035	454E2035	456E2035	458E2035
22000	---	---	454E2235	456E2235	---
25000	---	---	454E2535	456E2535	---
30000	---	---	454E3035	456E3035	---
35000	---	---	454E3535	456E3535	---
40000	---	---	454E4035	456E4035	---
45000	---	---	---	456E4535	---
50000	---	---	---	456E5035	---
60000	---	---	---	456E6035	---
70000	---	---	---	456E7035	---

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SPRAGUE RESISTORS

NON-INDUCTIVE KOOLOHM AXIAL-LEAD WIREWOUND RESISTORS

Ohms	Type 451E 3 WATTS $\frac{1}{4}$ " x $\frac{1}{16}$ "		Type 453E 5 WATTS $\frac{1}{4}$ " x 1"		Type 455E 7 WATTS $\frac{1}{2}$ " x $\frac{1}{16}$ "		Type 457E 10 WATTS $\frac{1}{2}$ " x $1\frac{1}{16}$ "		Type 459E 14 WATTS $\frac{1}{2}$ " x $1\frac{1}{16}$ "	
	Cat. No.		Cat. No.		Cat. No.		Cat. No.		Cat. No.	
1	451E1R05	CALL YOUR SPRAGUE INDUSTRIAL DISTRIBUTOR FOR CURRENT QUANTITY PRICES	453E1R05	CALL YOUR SPRAGUE INDUSTRIAL DISTRIBUTOR FOR CURRENT QUANTITY PRICES	455E1R05	CALL YOUR SPRAGUE INDUSTRIAL DISTRIBUTOR FOR CURRENT QUANTITY PRICES	457E1R05	CALL YOUR SPRAGUE INDUSTRIAL DISTRIBUTOR FOR CURRENT QUANTITY PRICES	459E1R05	CALL YOUR SPRAGUE INDUSTRIAL DISTRIBUTOR FOR CURRENT QUANTITY PRICES
1.5	451E1R55		453E1R55		455E1R55		457E1R55		459E1R55	
2	451E2R05		453E2R05		455E2R05		457E2R05		459E2R05	
3	451E3R05		453E3R05		455E3R05		457E3R05		459E3R05	
4	451E4R05		453E4R05		455E4R05		457E4R05		459E4R05	
5	451E5R05		453E5R05		455E5R05		457E5R05		459E5R05	
7.5	451E7R55		453E7R55		455E7R55		457E7R55		459E7R55	
10	451E1005		453E1005		455E1005		457E1005		459E1005	
12	451E1205		453E1205		455E1205		457E1205		459E1205	
15	451E1505		453E1505		455E1505		457E1505		459E1505	
18	451E1805		---		---		---		---	
20	451E2005		453E2005		455E2005		457E2005		459E2005	
22	451E2205		---		---		---		---	
25	451E2505		453E2505		455E2505		457E2505		459E2505	
27	451E2705		---		---		---		---	
30	451E3005		453E3005		455E3005		457E3005		459E3005	
33	451E3305		---		---		---		---	
35	451E3505		453E3505		455E3505		457E3505		459E3505	
39	451E3905		---		---		---		---	
40	451E4005		453E4005		455E4005		457E4005		459E4005	
47	451E4705		---		---		---		---	
50	451E5005		453E5005		455E5005		457E5005		459E5005	
56	451E5605		---		---		---		---	
68	451E6805		---		---		---		---	
75	451E7505		453E7505		455E7505		457E7505		459E7505	
82	451E8205		---		---		---		---	
100	451E1015	CALL YOUR SPRAGUE INDUSTRIAL DISTRIBUTOR FOR CURRENT QUANTITY PRICES	453E1015	CALL YOUR SPRAGUE INDUSTRIAL DISTRIBUTOR FOR CURRENT QUANTITY PRICES	455E1015	CALL YOUR SPRAGUE INDUSTRIAL DISTRIBUTOR FOR CURRENT QUANTITY PRICES	457E1015	CALL YOUR SPRAGUE INDUSTRIAL DISTRIBUTOR FOR CURRENT QUANTITY PRICES	459E1015	CALL YOUR SPRAGUE INDUSTRIAL DISTRIBUTOR FOR CURRENT QUANTITY PRICES
120	451E1215		453E1215		455E1215		457E1215		459E1215	
150	451E1515		453E1515		455E1515		457E1515		459E1515	
180	451E1815		---		---		---		---	
200	451E2015		453E2015		455E2015		457E2015		459E2015	
220	451E2215		453E2215		455E2215		457E2215		459E2215	
250	451E2515		453E2515		455E2515		457E2515		459E2515	
270	451E2715		---		---		---		---	
300	451E3015		453E3015		455E3015		457E3015		459E3015	
330	451E3315		---		---		---		---	
350	451E3515		453E3515		455E3515		457E3515		459E3515	
390	451E3915		---		---		---		---	
400	451E4015		453E4015		455E4015		457E4015		459E4015	
450	451E4515		453E4515		---		---		---	
470	451E4715		---		---		---		---	
500	451E5015		453E5015		455E5015		457E5015		459E5015	
560	451E5615		---		---		---		---	
600	451E6015		453E6015		455E6015		457E6015		459E6015	
680	451E6815		---		---		---		---	
700	451E7015		453E7015		455E7015		457E7015		459E7015	
750	451E7515		453E7515		455E7515		457E7515		459E7515	
800	451E8015		453E8015		455E8015		457E8015		459E8015	
820	451E8215		---		---		---		---	
900	451E9015		453E9015		455E9015		457E9015		459E9015	
1000	451E1025		453E1025		455E1025		457E1025		459E1025	
1100	---		453E1125		455E1125		457E1125		459E1125	
1200	451E1225		453E1225		455E1225		457E1225		459E1225	
1400	451E1425		453E1425		455E1425		457E1425		459E1425	
1500	451E1525		453E1525		455E1525		457E1525		459E1525	
1800	451E1825		453E1825		455E1825		457E1825		459E1825	
2000	451E2025		453E2025		455E2025		457E2025		459E2025	
2200	---		453E2225		455E2225		457E2225		459E2225	
2500	---		453E2525		455E2525		457E2525		459E2525	
3000	---		453E3025		455E3025		457E3025		459E3025	
3300	---		---		455E3325		457E3325		459E3325	
3500	---		---		455E3525		457E3525		459E3525	
3900	---		453E3925		455E3925		457E3925		459E3925	
4000	---		453E4025		455E4025		457E4025		459E4025	
4500	---		---		455E4525		457E4525		459E4525	
5000	---		---		455E5025		457E5025		459E5025	
6000	---		---		---		457E6025		459E6025	
7000	---		---		---		457E7025		459E7025	
7500	---		---		---		457E7525		459E7525	
8000	---		---		---		457E8025		459E8025	
9000	---		---		---		457E9025		459E9025	
10000	---		---		---		457E1035		459E1035	

SPRAGUE RESISTORS

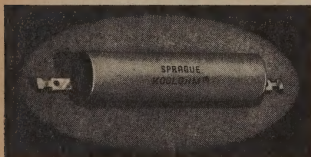
TYPE RW55, RW56 KOOLOHM® RESISTORS

- Axial-Lead Koolohm Resistors to Military Specification MIL-R-26C, Characteristics V and G

- See Your Sprague Industrial Distributor for Current Quantity Prices

Type RW55 7 WATTS 1½" x 1½"		Type RW56 14 WATTS 1½" x 2"		Type RW55 7 WATTS 1½" x 1½"		Type RW56 14 WATTS 1½" x 2"		Type RW55 7 WATTS 1½" x 1½"		Type RW56 14 WATTS 1½" x 2"	
Ohms	Cat. No.	Ohms	Cat. No.	Ohms	Cat. No.	Ohms	Cat. No.	Ohms	Cat. No.	Ohms	Cat. No.
1.0	RW55V1R0	RW56V1R0		33	RW55V330	RW56V330		680	RW55V681	RW56V681	
1.1	RW55V1R1	RW56V1R1		36	RW55V360	RW56V360		750	RW55V751	RW56V751	
1.3	RW55V1R3	RW56V1R3		39	RW55V390	RW56V390		820	RW55V821	RW56V821	
1.5	RW55V1R5	RW56V1R5		43	RW55V430	RW56V430		910	RW55V911	RW56V911	
1.6	RW55V1R6	RW56V1R6		47	RW55V470	RW56V470		1000	RW55V102	RW56V102	
1.8	RW55V1R8	RW56V1R8		51	RW55V510	RW56V510		1100	RW55V112	RW56V112	
2.0	RW55V2R0	RW56V2R0		56	RW55V560	RW56V560		1200	RW55V122	RW56V122	
2.2	RW55V2R2	RW56V2R2		62	RW55V620	RW56V620		1300	RW55V132	RW56V132	
2.4	RW55V2R4	RW56V2R4		68	RW55V680	RW56V680		1500	RW55V152	RW56V152	
2.7	RW55V2R7	RW56V2R7		75	RW55V750	RW56V750		1600	RW55V162	RW56V162	
3.0	RW55V3R0	RW56V3R0		82	RW55V820	RW56V820		1800	RW55V182	RW56V182	
3.3	RW55V3R3	RW56V3R3		91	RW55V910	RW56V910		2000	RW55V202	RW56V202	
3.6	RW55V3R6	RW56V3R6		100	RW55V102	RW56V102		2200	RW55V222	RW56V222	
3.9	RW55V3R9	RW56V3R9		110	RW55V112	RW56V112		2400	RW55V242	RW56V242	
4.3	RW55V4R3	RW56V4R3		120	RW55V122	RW56V122		2700	RW55V272	RW56V272	
4.7	RW55V4R7	RW56V4R7		130	RW55V132	RW56V132		3000	RW55V302	RW56V302	
5.1	RW55V5R1	RW56V5R1		150	RW55V152	RW56V152		3300	RW55V332	RW56V332	
5.6	RW55V5R6	RW56V5R6		160	RW55V162	RW56V162		3600	RW55V362	RW56V362	
6.2	RW55V6R2	RW56V6R2		180	RW55V182	RW56V182		3900	RW55V392	RW56V392	
6.8	RW55V6R8	RW56V6R8		200	RW55V202	RW56V202		4300	RW55V432	RW56V432	
7.5	RW55V7R5	RW56V7R5		220	RW55V222	RW56V222		4700	RW55V472	RW56V472	
8.2	RW55V8R2	RW56V8R2		240	RW55V242	RW56V242		5100	RW55V512	RW56V512	
9.1	RW55V9R1	RW56V9R1		270	RW55V272	RW56V272		5600	RW55V562	RW56V562	
10	RW55V100	RW56V100		300	RW55V302	RW56V302		6200	RW55V622	RW56V622	
11	RW55V110	RW56V110		330	RW55V332	RW56V332		6800	RW55V682	RW56V682	
12	RW55V120	RW56V120		360	RW55V362	RW56V362		7500	RW55V752	RW56V752	
13	RW55V130	RW56V130		390	RW55V392	RW56V392		8200	RW55V822	RW56V822	
15	RW55V150	RW56V150		430	RW55V432	RW56V432		9100	RW55V912	RW56V912	
16	RW55V160	RW56V160		470	RW55V472	RW56V472		10000		RW56V103	
18	RW55V180	RW56V180		510	RW55V512	RW56V512		11000		RW56V113	
20	RW55V200	RW56V200		560	RW55V562	RW56V562		12000		RW56V123	
22	RW55V220	RW56V220		620	RW55V622	RW56V622		13000		RW56V133	
24	RW55V240	RW56V240						15000		RW56V153	
27	RW55V270	RW56V270						16000		RW56V163	
30	RW55V300	RW56V300									

Commercial Tab-Terminal KOOLOHM® Wirewound Resistors



- These Resistors Are Also Available in 5 and 10 Watt Ratings, Axial-Lead Style. See Latest Issue of Sprague Catalog C-617

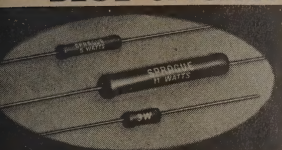
Type 25KT 25 Watts		Type 50KT 50 Watts		Type 120KT 120 Watts	
Ohms	Cat. No.	Ohms	Cat. No.	Ohms	Cat. No.
TYPE KT STANDARD RESISTORS					
5	25KT5R05	50KT5R05		120KT5R05	
10	25KT1005	50KT1005		120KT1005	
25	25KT2505	50KT2505		120KT2505	
50	25KT5005	50KT5005		120KT5005	
75	25KT7505	50KT7505		120KT7505	
100	25KT1015	50KT1015		120KT1015	
150	25KT1515	50KT1515		120KT1515	
200	25KT2015	50KT2015		120KT2015	
250	25KT2515	50KT2515		120KT2515	
390				120KT3915	
500	25KT5015	50KT5015		120KT5015	
600	25KT6015	50KT6015		120KT6015	
750	25KT7515	50KT7515		120KT7515	
1000	25KT1025	50KT1025		120KT1025	
1500	25KT1525	50KT1525		120KT1525	
2000	25KT2025	50KT2025		120KT2025	
2500	25KT2525	50KT2525		120KT2525	
3000	25KT3025	50KT3025		120KT3025	
4000	25KT4025	50KT4025			
5000	25KT5025	50KT5025		120KT5025	
7500	25KT7525	50KT7525		120KT7525	
10000	25KT1035	50KT1035		120KT1035	
12000	25KT1235	50KT1235		120KT1235	
15000	25KT1535	50KT1535		120KT1535	
20000	25KT2035	50KT2035		120KT2035	

Type 25NIT 25NIT Watts		Type 50NIT 50NIT Watts		Type 120NIT 120NIT Watts	
Ohms	Cat. No.	Ohms	Cat. No.	Ohms	Cat. No.
TYPE KT STANDARD RESISTORS, continued					
25000	25KT2535	50KT2535		120KT2535	
40000	25KT4035	50KT4035		120KT4035	
50000	25KT5035	50KT5035		120KT5035	
75000	25KT7535	50KT7535		120KT7535	
100000	25KT1045	50KT1045		120KT1045	

TYPE NIT NON-INDUCTIVE RESISTORS					
Ohms	Cat. No.	Ohms	Cat. No.	Ohms	Cat. No.
5	25NIT5R05	50NIT5R05		120NIT5R05	
10	25NIT1005	50NIT1005		120NIT1005	
25	25NIT2505	50NIT2505		120NIT2505	
50	25NIT5005	50NIT5005		120NIT5005	
75	25NIT7505	50NIT7505		120NIT7505	
100	25NIT1015	50NIT1015		120NIT1015	
150	25NIT1515	50NIT1515		120NIT1515	
200	25NIT2015	50NIT2015		120NIT2015	
250	25NIT2515	50NIT2515		120NIT2515	
390				120NIT3915	
500	25NIT5015	50NIT5015		120NIT5015	
600	25NIT6015	50NIT6015		120NIT6015	
750	25NIT7515	50NIT7515		120NIT7515	
1000	25NIT1025	50NIT1025		120NIT1025	
1500	25NIT1525	50NIT1525		120NIT1525	
2000	25NIT2025	50NIT2025		120NIT2025	
2500	25NIT2525	50NIT2525		120NIT2525	
3000	25NIT3025	50NIT3025		120NIT3025	
4000	25NIT4025	50NIT4025			
5000	25NIT5025	50NIT5025		120NIT5025	
7500	25NIT7525	50NIT7525		120NIT7525	
10000	25NIT1035	50NIT1035		120NIT1035	
12000	25NIT1235	50NIT1235		120NIT1235	
15000	25NIT1535	50NIT1535		120NIT1535	
20000	25NIT2035	50NIT2035		120NIT2035	
25000	25NIT2535	50NIT2535		120NIT2535	
50000		50NIT5035		120NIT5035	

SPRAGUE RESISTORS

BLUE JACKET® INDUSTRIAL WIREWOUND RESISTORS



- Improved Minified Resistors Designed for Thorough Reliability and Stability Under Extreme Operating Conditions
- Matched Coefficient of Expansion Allows Uniform Expansion of Vitreous Enamel Coating, Ceramic Base, and End Caps, Eliminating Cracking, Cracks, and Protects From Fumes and Humidity
- Windings and Leads Welded to End-Caps for Superior Mechanical Strength
- For 2B1, 3B1, 5B1 and 10B1 Commercial or Service Equivalents to These Resistors, Refer to the Latest Issue of Sprague Catalog C-617
- See Your Sprague Industrial Distributor for Quantity Prices

Ohms	Type 239E, 1 WATT $\frac{1}{8}'' \times \frac{3}{8}''$		Type 240E, 2 WATTS $\frac{3}{16}'' \times \frac{3}{8}''$		Type 242E, 3 WATTS $\frac{3}{16}'' \times \frac{1}{2}''$		Type 243E, 5 WATTS $\frac{3}{16}'' \times \frac{1}{2}''$		Type 244E, 7 WATTS $\frac{3}{16}'' \times 1''$		Type 247E, 10 WATTS $\frac{3}{16}'' \times 1\frac{1}{4}''$	
	Cat. No.		Cat. No.		Cat. No.		Cat. No.		Cat. No.		Cat. No.	
1	239E1R05	CALL YOUR SPRAGUE INDUSTRIAL DISTRIBUTOR FOR CURRENT QUANTITY PRICES	240E1R05	CALL YOUR SPRAGUE INDUSTRIAL DISTRIBUTOR FOR CURRENT QUANTITY PRICES	242E1R05	CALL YOUR SPRAGUE INDUSTRIAL DISTRIBUTOR FOR CURRENT QUANTITY PRICES	243E1R05	CALL YOUR SPRAGUE INDUSTRIAL DISTRIBUTOR FOR CURRENT QUANTITY PRICES	244E1R05	CALL YOUR SPRAGUE INDUSTRIAL DISTRIBUTOR FOR CURRENT QUANTITY PRICES	247E1R05	CALL YOUR SPRAGUE INDUSTRIAL DISTRIBUTOR FOR CURRENT QUANTITY PRICES
1.2	239E1R25		240E1R25		242E1R25		243E1R25		244E1R25		247E1R25	
1.5	239E1R55		240E1R55		242E1R55		243E1R55		244E1R55		247E1R55	
1.8	239E1R85		240E1R85		242E1R85		243E1R85		244E1R85		247E1R85	
2	239E2R05		240E2R05		242E2R05		243E2R05		244E2R05		247E2R05	
2.2	239E2R25		240E2R25		242E2R25		243E2R25		244E2R25		247E2R25	
2.7	239E2R75		240E2R75		242E2R75		243E2R75		244E2R75		247E2R75	
3	239E3R05		240E3R05		242E3R05		243E3R05		244E3R05		247E3R05	
3.3	239E3R35		240E3R35		242E3R35		243E3R35		244E3R35		247E3R35	
3.9	239E3R95		240E3R95		242E3R95		243E3R95		244E3R95		247E3R95	
4	239E4R05		240E4R05		242E4R05		243E4R05		244E4R05		247E4R05	
4.7	239E4R75		240E4R75		242E4R75		243E4R75		244E4R75		247E4R75	
5	239E5R05		240E5R05		242E5R05		243E5R05		244E5R05		247E5R05	
5.6	239E5R65		240E5R65		242E5R65		243E5R65		244E5R65		247E5R65	
6.8	239E6R85		240E6R85		242E6R85		243E6R85		244E6R85		247E6R85	
7.5	239E7R55		240E7R55		242E7R55		243E7R55		244E7R55		247E7R55	
8.2	239E8R25		240E8R25		242E8R25		243E8R25		244E8R25		247E8R25	
10	239E1005		240E1005		242E1005		243E1005		244E1005		247E1005	
12	239E1205		240E1205		242E1205		243E1205		244E1205		247E1205	
15	239E1505		240E1505		242E1505		243E1505		244E1505		247E1505	
18	239E1805		240E1805		242E1805		243E1805		244E1805		247E1805	
20	239E2005		240E2005		242E2005		243E2005		244E2005		247E2005	
22	239E2205		240E2205		242E2205		243E2205		244E2205		247E2205	
25	239E2505		240E2505		242E2505		243E2505		244E2505		247E2505	
27	239E2705		240E2705		242E2705		243E2705		244E2705		247E2705	
30	239E3005		240E3005		242E3005		243E3005		244E3005		247E3005	
33	239E3305		240E3305		242E3305		243E3305		244E3305		247E3305	
35	239E3505		240E3505		242E3505		243E3505		244E3505		247E3505	
39	239E3905		240E3905		242E3905		243E3905		244E3905		247E3905	
40	239E4005		240E4005		242E4005		243E4005		244E4005		247E4005	
47	239E4705		240E4705		242E4705		243E4705		244E4705		247E4705	
50	239E5005		240E5005		242E5005		243E5005		244E5005		247E5005	
56	239E5605		240E5605		242E5605		243E5605		244E5605		247E5605	
68	239E6805		240E6805		242E6805		243E6805		244E6805		247E6805	
75	239E7505		240E7505		242E7505		243E7505		244E7505		247E7505	
82	239E8205		240E8205		242E8205		243E8205		244E8205		247E8205	
100	239E1015		240E1015		242E1015		243E1015		244E1015		247E1015	
120	239E1215		240E1215		242E1215		243E1215		244E1215		247E1215	
150	239E1515		240E1515		242E1515		243E1515		244E1515		247E1515	
180	239E1815		240E1815		242E1815		243E1815		244E1815		247E1815	
200	239E2015		240E2015		242E2015		243E2015		244E2015		247E2015	
220	239E2215		240E2215		242E2215		243E2215		244E2215		247E2215	
250	239E2515		240E2515		242E2515		243E2515		244E2515		247E2515	
270	239E2715		240E2715		242E2715		243E2715		244E2715		247E2715	
300	239E3015		240E3015		242E3015		243E3015		244E3015		247E3015	
330	239E3315		240E3315		242E3315		243E3315		244E3315		247E3315	
350	239E3515		240E3515		242E3515		243E3515		244E3515		247E3515	
390	239E3915		240E3915		242E3915		243E3915		244E3915		247E3915	
400	239E4015		240E4015		242E4015		243E4015		244E4015		247E4015	
450	239E4515		240E4515		242E4515		243E4515		244E4515		247E4515	
470	239E4715		240E4715		242E4715		243E4715		244E4715		247E4715	
500	239E5015		240E5015		242E5015		243E5015		244E5015		247E5015	
560	239E5615		240E5615		242E5615		243E5615		244E5615		247E5615	
600	239E6015		240E6015		242E6015		243E6015		244E6015		247E6015	
680	239E6815		240E6815		242E6815		243E6815		244E6815		247E6815	
700	239E7015		240E7015		242E7015		243E7015		244E7015		247E7015	
750	239E7515		240E7515		242E7515		243E7515		244E7515		247E7515	
800	239E8015		240E8015		242E8015		243E8015		244E8015		247E8015	
820	239E8215		240E8215		242E8215		243E8215		244E8215		247E8215	
900	239E9015		240E9015		242E9015		243E9015		244E9015		247E9015	
1000	239E1025		240E1025		242E1025		243E1025		244E1025		247E1025	
1100	239E1125		240E1125		242E1125		243E1125		244E1125		247E1125	
1200	239E1225		240E1225		242E1225		243E1225		244E1225		247E1225	
1400	239E1425		240E1425		242E1425		243E1425		244E1425		247E1425	
1500	239E1525		240E1525		242E1525		243E1525		244E1525		247E1525	
1800	239E1825		240E1825		242E1825		243E1825		244E1825		247E1825	
2000	239E2025		240E2025		242E2025		243E2025		244E2025		247E2025	
2200	239E2225		240E2225		242E2225		243E2225		244E2225		247E2225	
2500	239E2525		240E2525		242E2525		243E2525		244E2525		247E2525	
2700	239E2725		240E2725		242E2725		243E2725		244E2725		247E2725	
3000	239E3025		240E3025		242E3025		243E3025		244E3025		247E3025	
3300	239E3325		240E3325		242E3325		243E3325		244E3325		247E3325	
3500	239E3525		240E3525		242E3525		243E3525		244E3525		247E3525	
3900	239E3925		240E3925		242E3925		243E3925		244E3925		247E3925	
4000	239E4025		240E4025		242E4025		243E4025		244E4025		247E4025	
4500	239E4525		240E4525		242E4525		243E4525		244E4525		247E4525	
4700	239E4725		240E4725		242E4725		243E4725		244E4725		247E4725	
5000	239E5025		240E5025		242E5025		243E5025		244E5025		247E5025	
5600	239E5625		240E5625		242E5625		243E5625		244E5625		247E5625	
6000	239E6025		240E6025		242E6025		243E6025		244E6025		247E6025	
6800	239E6825		240E6825		242E6825		243E6825		244E6825		247E6825	

SPRAGUE RESISTORS

BLUE JACKET INDUSTRIAL WIREWOUND RESISTORS, continued

Ohms	Type 239E, 1 WATT $\frac{1}{8}" \times \frac{3}{8}"$		Type 240E, 2 WATTS $\frac{3}{16}" \times \frac{3}{8}"$		Type 242E, 3 WATTS $\frac{1}{4}" \times \frac{1}{2}"$		Type 243E, 5 WATTS $\frac{1}{4}" \times \frac{1}{2}"$		Type 244E, 7 WATTS $\frac{3}{16}" \times 1"$		Type 247E, 10 WATTS $\frac{3}{16}" \times 1\frac{1}{4}"$	
	Cat. No.	Call Your Sprague Industrial Distributor For Quantity Prices	Cat. No.	Call Your Sprague Industrial Distributor For Quantity Prices	Cat. No.	Call Your Sprague Industrial Distributor For Quantity Prices	Cat. No.	Call Your Sprague Industrial Distributor For Quantity Prices	Cat. No.	Call Your Sprague Industrial Distributor For Quantity Prices	Cat. No.	Call Your Sprague Industrial Distributor For Quantity Prices
9000	_____		_____		242E9025		243E9025		244E9025		247E9025	
10000	_____		_____		242E1035		243E1035		244E1035		247E1035	
11000	_____		_____		_____		_____		244E1135		247E1135	
12000	_____		_____		_____		243E1235		244E1235		247E1235	
14000	_____		_____		_____		243E1435		244E1435		247E1435	
15000	_____		_____		_____		243E1535		244E1535		247E1535	
16000	_____		_____		_____		_____		244E1635		247E1635	
17000	_____		_____		_____		243E1835		244E1735		247E1835	
18000	_____		_____		_____		243E2035		244E2035		247E2035	
20000	_____		_____		_____		_____		244E2235		247E2235	
22000	_____	Call Your Sprague Industrial Distributor For Quantity Prices	_____	Call Your Sprague Industrial Distributor For Quantity Prices	_____	Call Your Sprague Industrial Distributor For Quantity Prices	243E2235	Call Your Sprague Industrial Distributor For Quantity Prices	244E2235	Call Your Sprague Industrial Distributor For Quantity Prices	247E2235	Call Your Sprague Industrial Distributor For Quantity Prices
25000	_____		_____		_____		243E2335		244E2335		247E2335	
30000	_____		_____		_____		243E3035		244E3035		247E3035	
35000	_____		_____		_____		_____		_____		247E3535	
40000	_____		_____		_____		_____		_____		247E4035	
45000	_____		_____		_____		_____		_____		247E4535	
50000	_____		_____		_____		_____		_____		247E5035	

TYPE RW57, RW58, RW59 BLUE JACKET® WIREWOUND RESISTORS

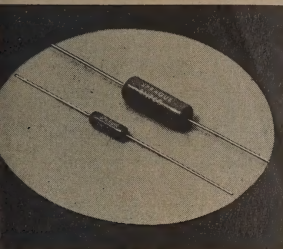
• This Series of Blue Jacket Wirewound Resistors Meet All Performance Characteristics of Military Specification MIL R-26C, Characteristics V and G

• Contact Your Sprague Industrial Distributor for Quantity Prices

Type RW59 3 WATTS 3/16" x 1/2"			Type RW57 6.5 WATTS 3/16" x 1"			Type RW58 11 WATTS 1/2" x 1 1/8"			Type RW59 3 WATTS 3/16" x 1/2"			Type RW57 6.5 WATTS 3/16" x 1"			Type RW58 11 WATTS 1/2" x 1 1/8"		
Ohms	Cat. No.		Cat. No.			Cat. No.			Ohms	Cat. No.		Cat. No.			Cat. No.		
1.0	RW59V1R0	Call Your Sprague Industrial Distributor For Current Quantity Prices	RW57V1R0	Call Your Sprague Industrial Distributor For Current Quantity Prices	RW58V1R0	Call Your Sprague Industrial Distributor For Current Quantity Prices	150	RW59V151	Call Your Sprague Industrial Distributor For Current Quantity Prices	RW57V151	Call Your Sprague Industrial Distributor For Current Quantity Prices	RW58V151	Call Your Sprague Industrial Distributor For Current Quantity Prices				
1.1	RW59V1R1		RW57V1R1		RW58V1R1		160	RW59V161		RW57V161		RW58V161					
1.2	RW59V1R2		RW57V1R2		RW58V1R2		180	RW59V181		RW57V181		RW58V181					
1.3	RW59V1R3		RW57V1R3		RW58V1R3		200	RW59V201		RW57V201		RW58V201					
1.5	RW59V1R5		RW57V1R5		RW58V1R5		220	RW59V221		RW57V221		RW58V221					
1.6	RW59V1R6	Call Your Sprague Industrial Distributor For Current Quantity Prices	RW57V1R6	Call Your Sprague Industrial Distributor For Current Quantity Prices	RW58V1R6	Call Your Sprague Industrial Distributor For Current Quantity Prices	240	RW59V241	Call Your Sprague Industrial Distributor For Current Quantity Prices	RW57V241	Call Your Sprague Industrial Distributor For Current Quantity Prices	RW58V241	Call Your Sprague Industrial Distributor For Current Quantity Prices				
1.8	RW59V1R8		RW57V1R8		RW58V1R8		270	RW59V271		RW57V271		RW58V271					
2.0	RW59V2R0		RW57V2R0		RW58V2R0		300	RW59V301		RW57V301		RW58V301					
2.2	RW59V2R2		RW57V2R2		RW58V2R2		330	RW59V331		RW57V331		RW58V331					
2.4	RW59V2R4		RW57V2R4		RW58V2R4		360	RW59V361		RW57V361		RW58V361					
2.7	RW59V2R7	Call Your Sprague Industrial Distributor For Current Quantity Prices	RW57V2R7	Call Your Sprague Industrial Distributor For Current Quantity Prices	RW58V2R7	Call Your Sprague Industrial Distributor For Current Quantity Prices	390	RW59V391	Call Your Sprague Industrial Distributor For Current Quantity Prices	RW57V391	Call Your Sprague Industrial Distributor For Current Quantity Prices	RW58V391	Call Your Sprague Industrial Distributor For Current Quantity Prices				
3.0	RW59V3R0		RW57V3R0		RW58V3R0		430	RW59V431		RW57V431		RW58V431					
3.3	RW59V3R3		RW57V3R3		RW58V3R3		470	RW59V471		RW57V471		RW58V471					
3.6	RW59V3R6		RW57V3R6		RW58V3R6		510	RW59V511		RW57V511		RW58V511					
3.9	RW59V3R9		RW57V3R9		RW58V3R9		560	RW59V561		RW57V561		RW58V561					
4.3	RW59V4R3	Call Your Sprague Industrial Distributor For Current Quantity Prices	RW57V4R3	Call Your Sprague Industrial Distributor For Current Quantity Prices	RW58V4R3	Call Your Sprague Industrial Distributor For Current Quantity Prices	620	RW59V621	Call Your Sprague Industrial Distributor For Current Quantity Prices	RW57V621	Call Your Sprague Industrial Distributor For Current Quantity Prices	RW58V621	Call Your Sprague Industrial Distributor For Current Quantity Prices				
4.7	RW59V4R7		RW57V4R7		RW58V4R7		680	RW59V681		RW57V681		RW58V681					
5.1	RW59V5R1		RW57V5R1		RW58V5R1		750	RW59V751		RW57V751		RW58V751					
5.6	RW59V5R6		RW57V5R6		RW58V5R6		820	RW59V821		RW57V821		RW58V821					
6.2	RW59V6R2		RW57V6R2		RW58V6R2		910	RW59V911		RW57V911		RW58V911					
6.8	RW59V6R8	Call Your Sprague Industrial Distributor For Current Quantity Prices	RW57V6R8	Call Your Sprague Industrial Distributor For Current Quantity Prices	RW58V6R8	Call Your Sprague Industrial Distributor For Current Quantity Prices	1000	RW59V102	Call Your Sprague Industrial Distributor For Current Quantity Prices	RW57V102	Call Your Sprague Industrial Distributor For Current Quantity Prices	RW58V102	Call Your Sprague Industrial Distributor For Current Quantity Prices				
7.5	RW59V7R5		RW57V7R5		RW58V7R5		1100	RW59V112		RW57V112		RW58V112					
8.2	RW59V8R2		RW57V8R2		RW58V8R2		1200	RW59V122		RW57V122		RW58V122					
9.1	RW59V9R1		RW57V9R1		RW58V9R1		1300	RW59V132		RW57V132		RW58V132					
10	RW59V100		RW57V100		RW58V100		1500	RW59V152		RW57V152		RW58V152					
11	RW59V110	Call Your Sprague Industrial Distributor For Current Quantity Prices	RW57V110	Call Your Sprague Industrial Distributor For Current Quantity Prices	RW58V110	Call Your Sprague Industrial Distributor For Current Quantity Prices	1600	RW59V162	Call Your Sprague Industrial Distributor For Current Quantity Prices	RW57V162	Call Your Sprague Industrial Distributor For Current Quantity Prices	RW58V162	Call Your Sprague Industrial Distributor For Current Quantity Prices				
12	RW59V120		RW57V120		RW58V120		1800	RW59V182		RW57V182		RW58V182					
13	RW59V130		RW57V130		RW58V130		2000	RW59V202		RW57V202		RW58V202					
15	RW59V150		RW57V150		RW58V150		2200	RW59V222		RW57V222		RW58V222					
16	RW59V160		RW57V160		RW58V160		2400	—		RW57V242		RW58V242					
18	RW59V180	Call Your Sprague Industrial Distributor For Current Quantity Prices	RW57V180	Call Your Sprague Industrial Distributor For Current Quantity Prices	RW58V180	Call Your Sprague Industrial Distributor For Current Quantity Prices	2700	RW59V272	Call Your Sprague Industrial Distributor For Current Quantity Prices	RW57V272	Call Your Sprague Industrial Distributor For Current Quantity Prices	RW58V272	Call Your Sprague Industrial Distributor For Current Quantity Prices				
20	RW59V200		RW57V200		RW58V200		3000	—		RW57V302		RW58V302					
22	RW59V220		RW57V220		RW58V220		3300	—		RW57V332		RW58V332					
24	RW59V240		RW57V240		RW58V240		3600	—		RW57V362		RW58V362					
27	RW59V270		RW57V270		RW58V270		3900	—		RW57V392		RW58V392					
30	RW59V300	Call Your Sprague Industrial Distributor For Current Quantity Prices	RW57V300	Call Your Sprague Industrial Distributor For Current Quantity Prices	RW58V300	Call Your Sprague Industrial Distributor For Current Quantity Prices	4300	RW59V432	Call Your Sprague Industrial Distributor For Current Quantity Prices	RW57V432	Call Your Sprague Industrial Distributor For Current Quantity Prices	RW58V432	Call Your Sprague Industrial Distributor For Current Quantity Prices				
33	RW59V330		RW57V330		RW58V330		4700	—		RW57V472		RW58V472					
36	RW59V360		RW57V360		RW58V360		5100	—		RW57V512		RW58V512					
39	RW59V390		RW57V390		RW58V390		5600	—		RW57V562		RW58V562					
43	RW59V430		RW57V430		RW58V430		6200	—		RW57V622		RW58V622					
47	RW59V470	Call Your Sprague Industrial Distributor For Current Quantity Prices	RW57V470	Call Your Sprague Industrial Distributor For Current Quantity Prices	RW58V470	Call Your Sprague Industrial Distributor For Current Quantity Prices	6800	RW59V682	Call Your Sprague Industrial Distributor For Current Quantity Prices	RW57V682	Call Your Sprague Industrial Distributor For Current Quantity Prices	RW58V682	Call Your Sprague Industrial Distributor For Current Quantity Prices				
51	RW59V510		RW57V510		RW58V510		7500	—		RW57V752		RW58V752					
56	RW59V560		RW57V560		RW58V560		8200	—		RW57V822		RW58V822					
62	RW59V620		RW57V620		RW58V620		9100	—		—		RW58V912					
68	RW59V680		RW57V680		RW58V680		10,000	—		—		RW58V103					
75	RW59V750	Call Your Sprague Industrial Distributor For Current Quantity Prices	RW57V750	Call Your Sprague Industrial Distributor For Current Quantity Prices	RW58V750	Call Your Sprague Industrial Distributor For Current Quantity Prices	11,000	—	Call Your Sprague Industrial Distributor For Current Quantity Prices	RW58V113	Call Your Sprague Industrial Distributor For Current Quantity Prices						
82	RW59V820		RW57V820		RW58V820		12,000	—		—		RW58V123					
91	RW59V910		RW57V910		RW58V910		13,000	—		—		RW58V133					
100	RW59V101		RW57V101		RW58V101		15,000	—		—		RW58V153					
110	RW59V111		RW57V111		RW58V111		16,000	—		—		RW58V163					
120	RW59V121	Call Your Sprague Industrial Distributor For Current Quantity Prices	RW57V121	Call Your Sprague Industrial Distributor For Current Quantity Prices	RW58V121	Call Your Sprague Industrial Distributor For Current Quantity Prices	18,000	—	Call Your Sprague Industrial Distributor For Current Quantity Prices	—	Call Your Sprague Industrial Distributor For Current Quantity Prices	RW58V183	Call Your Sprague Industrial Distributor For Current Quantity Prices				
130	RW59V131		RW57V131		RW58V131		20,000	—		—		RW58V203					

SPRAGUE RESISTORS

FILMISTOR® METAL-FILM RESISTORS



- Filmistor® C Series Resistors are Ideal for Circuits Requiring High Accuracy, Reliability, and Stability with Low Temperature Coefficients.
- Physical Size of Types RN55 and RN60 is Compatible With Those of Other Resistors, Capacitors, and Diodes for "Cordwood" Packaging.
- Designed to Meet the Stringent Performance Requirements of Spec. MIL-R-10509D.
- Low Self-inductance, Low Distributed Capacitance. Equal or Surpass the Characteristics of Precision Wirewound Resistors, Yet Are Smaller in Size.
- Metallic Resistive Film is Firmly Bonded to Special Ceramic Core, Automatically Spiralled to Desired Resistance Value.
- Tough Molded Shell Provides Protection Against Mechanical Damage as Well as Catastrophic Failures From Electrolysis Caused by Moisture Penetration.
- Standard Resistance Tolerance, $\pm 1\%$
- For Complete Technical Data, Refer to Latest Issue of Engineering Bulletin 7025
- Call Your Sprague Industrial Distributor For Quantity Prices.

STANDARD RESISTANCE VALUES (Ohms)

57.6	165	475	1.37 K	3.92 K	11.3 K	32.4 K	93.1 K	267 K	750 K
59.0	169	487	1.40 K	4.02 K	11.5 K	33.2 K	95.3 K	274 K	768 K
60.4	174	499	1.43 K	4.12 K	11.8 K	34.0 K	97.6 K	280 K	787 K
61.9	178	511	1.47 K	4.22 K	12.1 K	34.8 K	100 K	287 K	806 K
63.4	182	523	1.50 K	4.32 K	12.4 K	35.7 K	102 K	294 K	825 K
64.9	187	536	1.54 K	4.42 K	12.7 K	36.5 K	105 K	301 K	845 K
66.5	191	549	1.58 K	4.53 K	13.0 K	37.4 K	107 K	309 K	866 K
68.1	196	562	1.62 K	4.64 K	13.3 K	38.3 K	110 K	316 K	887 K
69.8	200	576	1.65 K	4.75 K	13.7 K	39.2 K	113 K	324 K	909 K
71.5	205	590	1.69 K	4.87 K	14.0 K	40.2 K	115 K	332 K	931 K
73.2	210	604	1.74 K	4.99 K	14.3 K	41.2 K	118 K	340 K	953 K
75.0	215	619	1.78 K	5.11 K	14.7 K	42.2 K	121 K	348 K	976 K
76.8	221	634	1.82 K	5.23 K	15.0 K	43.2 K	124 K	357 K	1.00 meg.
78.7	226	649	1.87 K	5.36 K	15.4 K	44.2 K	127 K	365 K	1.02 meg.
80.6	232	665	1.91 K	5.49 K	15.8 K	45.3 K	130 K	374 K	1.05 meg.
82.5	237	681	1.96 K	5.62 K	16.2 K	46.4 K	133 K	383 K	1.07 meg.
84.5	243	698	2.00 K	5.76 K	16.5 K	47.5 K	137 K	392 K	1.10 meg.
86.6	249	715	2.05 K	5.90 K	16.9 K	48.7 K	140 K	402 K	1.13 meg.
88.7	255	732	2.10 K	6.04 K	17.4 K	49.9 K	143 K	412 K	1.15 meg.
90.9	261	750	2.15 K	6.19 K	17.8 K	51.1 K	147 K	422 K	1.18 meg.
93.1	267	768	2.21 K	6.34 K	18.2 K	52.3 K	150 K	432 K	1.21 meg.
95.3	274	787	2.26 K	6.49 K	18.7 K	53.6 K	154 K	442 K	1.24 meg.
97.6	280	806	2.32 K	6.65 K	19.1 K	54.9 K	158 K	453 K	1.27 meg.
100	287	825	2.37 K	6.81 K	19.6 K	56.2 K	162 K	464 K	1.30 meg.
102	294	845	2.43 K	6.98 K	20.0 K	57.6 K	165 K	475 K	1.33 meg.
105	301	866	2.49 K	7.15 K	20.5 K	59.0 K	169 K	487 K	1.37 meg.
107	309	887	2.55 K	7.32 K	21.0 K	60.4 K	174 K	499 K	1.40 meg.
110	316	909	2.61 K	7.50 K	21.5 K	61.9 K	178 K	511 K	1.43 meg.
113	324	931	2.67 K	7.68 K	22.1 K	63.4 K	182 K	523 K	1.47 meg.
115	332	953	2.74 K	7.87 K	22.6 K	64.9 K	187 K	536 K	1.50 meg.
118	340	976	2.80 K	8.06 K	23.2 K	66.5 K	191 K	549 K	1.54 meg.
121	348	1.0 K	2.87 K	8.25 K	23.7 K	68.1 K	196 K	562 K	1.58 meg.
124	357	1.02 K	2.94 K	8.45 K	24.3 K	69.8 K	200 K	576 K	1.62 meg.
127	365	1.05 K	3.01 K	8.66 K	24.9 K	71.5 K	205 K	590 K	1.65 meg.
130	374	1.07 K	3.09 K	8.87 K	25.5 K	73.2 K	210 K	604 K	1.69 meg.
133	383	1.10 K	3.16 K	9.09 K	26.1 K	75.0 K	215 K	619 K	1.74 meg.
137	392	1.13 K	3.24 K	9.31 K	26.7 K	76.8 K	221 K	634 K	1.78 meg.
140	402	1.15 K	3.32 K	9.53 K	27.4 K	78.7 K	226 K	649 K	1.82 meg.
143	412	1.18 K	3.40 K	9.76 K	28.0 K	80.6 K	232 K	665 K	1.87 meg.
147	422	1.21 K	3.48 K	10.0 K	28.7 K	82.5 K	237 K	681 K	1.91 meg.
150	432	1.24 K	3.57 K	10.2 K	29.4 K	84.5 K	243 K	698 K	1.96 meg.
154	442	1.27 K	3.65 K	10.5 K	30.1 K	86.6 K	249 K	715 K	2.00 meg.
158	453	1.30 K	3.74 K	10.7 K	30.9 K	88.7 K	255 K	732 K	
162	464	1.33 K	3.83 K	11.0 K	31.6 K	90.9 K	261 K		

1/20 WATT METAL FILM TYPE 415E/RN50C

.065" Dia. x .140" Long
20 ohms thru 100K

1/10 WATT METAL FILM TYPE 416E/RN55C

.095" Dia. x .250" Long
49.9 ohms thru 100K

1/8 WATT METAL FILM TYPE 418E/RN60C

.135" Dia. x .400" Long
49.9 ohms thru 499 K

1/4 WATT METAL FILM TYPE 419E/RN65C

.200" Dia. x .600" Long
49.9 ohms thru 1 meg.

1/2 WATT METAL FILM TYPE 420E/RN70C

.250" x Dia. .750" Long
49.9 ohms thru 1 meg.

1 WATT METAL FILM TYPE 421E/RN75C

.375" Dia. x 1.062" Long
49.9 ohms thru 2 meg.

VECO VICTORY ENGINEERING CORPORATION

THERMISTORS • VARISTORS

VECO THERMISTOR AND VARISTOR KITS For Experimentors and Circuit Designers

Each kit contains an assortment of Thermistors or Varistors for experimentation and development of prototype circuitry. Schematics and complete technical data are included.

KD25	12 Thermistor Disks	\$10.50
KP50	6 Thermistor Probes	14.50
KR75	8 Thermistor Rods	8.75
KT81	8 Thermistor Beads	19.50
KW125	12 Thermistor Washers (6 types) & Mtg. Kit	13.50
KV1001	9 Silicon Carbide Varistor Disks	7.50
KV1002	4 Silicon Carbide Varistors	1.50
M168	7 Thermistors and Varistors	5.00
M168A	10 Thermistors and Varistors	10.00

VECO
sets the pace
for
PRODUCT
RELIABILITY

New! VECO "THINISTOR"™ KITS (Thin Film Thermistors)

VECO's new revolutionary, ultra-thin, ultra-fast Thinistor Thermistors (See Figs. 12 and 13) now available in kit form for evaluation and for prototype circuitry development.

KFN101	4 Free-standing (no substrate) Thinistors	\$50.00
KFN201	6 Substrate-backed Thinistors	100.00
KFN301	2 Free-standing and 2 Substrate Thinistors	60.00
KFN401	2 Matched Pairs of Thinistors (Within 1%)	189.50

(For Infra-red Detection)

*Trade mark and pat. applied for.

VECO Number	Resistance @ 25°C (Ohms)	Net Price	Fig.
BEAD THERMISTORS			
.043" Dia. $\frac{1}{16}$ " Min. Leads			
21A2	100 $\pm 20\%$	\$ 3.00	2
25A5	500 $\pm 20\%$	2.40	2
32A12	2,000 $\pm 20\%$	1.95	2
51A2	100,000 $\pm 15\%$	1.95	2
65A5	5 MEG $\pm 20\%$	3.30	2
.013" Dia. $\frac{1}{16}$ " Min. Leads			
32A5	2,000 $\pm 25\%$	3.00	1
32A48	2,000 $\pm 25\%$	2.60	1
34A2	3,500 $\pm 15\%$	4.20	1
51A30	100,000 $\pm 25\%$	3.20	1
61A9	1 MEG $\pm 25\%$	3.90	1
.010" Dia. $\frac{1}{16}$ " Min. Leads			
31A7	1,000 $\pm 25\%$	5.70	1
32A50	2,000 $\pm 25\%$	5.70	1
41A5	10,000 $\pm 25\%$	5.40	1
51A22	100,000 $\pm 25\%$	5.50	1
61A5	1 MEG $\pm 25\%$	6.40	1
.005" Dia. $\frac{1}{16}$ " Min. Leads			
31A401C	1,000 $\pm 25\%$	20.00	1
31A402C	2,000 $\pm 25\%$	20.00	1
31A401C	100,000 $\pm 25\%$	20.00	1

GLASS PROBE THERMISTORS			
13A13	30 $\pm 20\%$	4.00	4
22A31	200 $\pm 20\%$	3.00	4
32A11	2,000 $\pm 20\%$	1.95	3
45A11	50,000 $\pm 20\%$	2.25	3
72A10	15 MEG $\pm 20\%$	3.80	4

GLASS ROD & BULB THERMISTORS			
32A3	2,000 $\pm 25\%$	4.60	5
37A1	7,000 $\pm 20\%$	3.60	6
44A1	35,000 $\pm 25\%$	1.90	7
45B2	50,000 $\pm 40\%$	2.60	7
46A2	60,500 $\pm 29\%$	2.60	7

MATCHED THERMISTORS			
A33	2,000 $\pm 25\%$	15.00	9
A59	100,000 $\pm 15\%$	7.00	10
A60	2,000 $\pm 20\%$	7.00	10

ROD THERMISTORS .05" Dia.			
41S2	10,000 $\pm 10\%$	1.35	14
51R2	100,000 $\pm 10\%$	1.35	14

ROD THERMISTORS .110" Dia.			
33S1	3,150 $\pm 10\%$	1.10	15
36S1	6,300 $\pm 10\%$	1.10	15
41R1	10,000 $\pm 10\%$	1.10	15
45R1	50,000 $\pm 10\%$	1.10	15
51R1	100,000 $\pm 10\%$	1.10	15

ROD THERMISTORS .172" Dia.			
32S2	2,000 $\pm 10\%$	1.20	15
35S3	5,000 $\pm 10\%$	1.20	15
42R5	20,000 $\pm 10\%$	1.20	15
43R6	30,000 $\pm 10\%$	1.20	15
45R9	50,000 $\pm 10\%$	1.20	15

VECO TECHNICAL LITERATURE

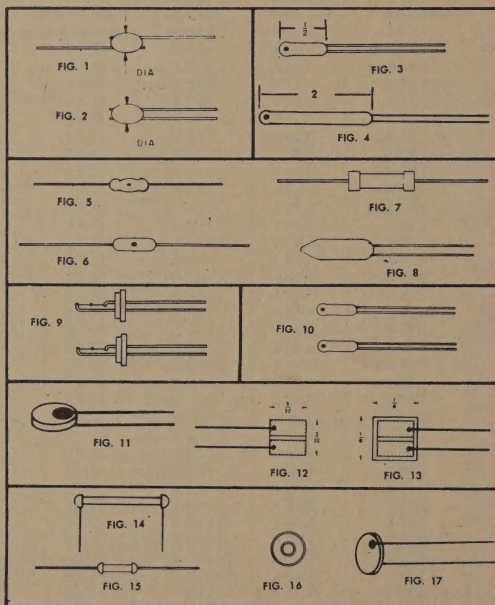
V42	VECO Thermistor-Varistor Data Book	\$1.00
V1133	VECO Hand Book of Thermistor Applications	2.00
V1166	Theory of VECO Thermistor Hypsometers	1.00

For descriptive list of free VECO technical literature ask you jobber for VECO Literature Catalog SB53-1.

New! "VECO-VAMP" (Varistor Meter Protector)

Non-polarized, current-sensitive "VECO-VAMP" placed across the terminals of a sensitive meter, will shunt overload current in excess of normal range automatically! Save coil burnouts, damaged pointers!

Price \$1.50



VECO VARISTORS - FIG. 17

VECO Number	Exponent n	V $\pm 30\%$ @ 5 ma, D.C.	Net Price
023L9	3	6V	1.00
063L9	3	15V	1.00
114L2	4	15V	1.00
124L1	4	25V	1.00
124L2	4	35V	1.00
134L1	4	50V	1.00
155L3	5	75V	1.00
175L1	5	100V	1.00
195L1	5	120V	1.00

VECO Number	Resistance @ 25°C (Ohms)	Net Price	Fig.
DISK THERMISTORS .1" Dia.			
25E2	500 $\pm 10\%$	.80	11
31E2	1,000 $\pm 10\%$	.80	11
33D7	3,000 $\pm 10\%$	.80	11
35D2	5,000 $\pm 10\%$	.80	11
41D2	10,000 $\pm 10\%$	.80	11
DISK THERMISTORS .2" Dia.			
21E23	100 $\pm 10\%$	.80	11
23E16	300 $\pm 10\%$	.80	11
31D10	1,000 $\pm 10\%$	.80	11
33D16	3,000 $\pm 10\%$	.80	11
35D6	5,000 $\pm 10\%$	.80	11
DISK THERMISTORS .3" Dia.			
15E4	50 $\pm 10\%$	.80	11
21E21	100 $\pm 10\%$	.85	11
25D5	500 $\pm 10\%$	.85	11
31D32	1,000 $\pm 10\%$	.80	11
33D10	3,000 $\pm 10\%$	.80	11
DISK THERMISTORS .4" Dia.			
13E3	25 $\pm 10\%$	.85	11
21E2	100 $\pm 10\%$	.85	11
23D18	300 $\pm 10\%$	.85	11
31D3	1,000 $\pm 10\%$	.85	11
32D12	2,000 $\pm 10\%$	.85	11
DISK THERMISTORS .5" Dia.			
12E2	20 $\pm 10\%$	.85	11
15E3	50 $\pm 10\%$	.85	11
21E22	100 $\pm 10\%$	.85	11
25D4	500 $\pm 10\%$	.85	11
31D33	1,000 $\pm 10\%$	.85	11
DISK THERMISTORS .77" Dia.			
11E2	10 $\pm 10\%$	.85	11
13E19	30 $\pm 10\%$	.85	11
18D2	75 $\pm 10\%$	.85	11
21D2	100 $\pm 10\%$	.85	11
23D34	300 $\pm 10\%$	.85	11
DISK THERMISTORS 1.0" Dia.			
05E1	5 $\pm 10\%$	1.20	11
11E1	10 $\pm 10\%$	1.20	11
15D1	50 $\pm 10\%$	1.20	11
21D5	100 $\pm 10\%$	1.20	11
22D10	200 $\pm 10\%$	1.20	11
WASHER THERMISTORS .2" Dia.			
22X1	150 $\pm 10\%$	.95	16
31W1	1,100 $\pm 10\%$	.95	16
WASHER THERMISTORS .77" Dia.			
11X1	10 $\pm 10\%$	1.05	16
12X10	15 $\pm 10\%$	1.05	16
21W1	100 $\pm 10\%$	1.05	16
22W6	200 $\pm 10\%$	1.05	16
32Y3	1,800 $\pm 10\%$	1.05	16

MOUNTING ACCESSORIES

A816	Washer Mtg. Kit	1.25
A819	Probe Packing Gland	4.00
A828	Washer Mtg. Kit w/Bracket	1.75

IMPORTANT — PLEASE NOTE

The listing on this page represents only a small part of the wide variety of VECO thermistors and varistors available, both as discrete components and in ready-to-mount sensor assemblies and in specialized instrumentation. See your jobber for complete information.

Prices subject to change without notice.

THERMISTORS

THERMAL CONDUCTIVITY CELLS • COMBUSTION ANALYZERS • MATCHED THERMISTORS • THERMISTOR HYPDERMIC NEEDLES

ELECTRONIC CONTROLS • HYPSONETERS

VARISTORS

CHOPPERETTES • TEMPERATURE SENSING DEVICES



WORKMAN

Electronic
PRODUCTS, INC.REPLACEMENT
COMPONENTS

GLOBAL RESISTORS

DESCRIPTION	LIST	D.L.R.
.49 at 3 amps.	1.60	.96
1.30 cold	1.00	.60
600K hot 1 Meg cold	1.75	1.05
Replaces filament res'trs	3.00	1.80
3.50 cold	1.00	.60
4.50 cold	1.00	.60
4.50 cold	1.00	.60
5-80 at 450ma	1.65	.99
60 Hot-600ma	1.65	.99
90 Hot-600ma	1.65	.99
100 cold	1.00	.60
110 Hot-600ma	2.50	1.50
110-450ma 9.20-600ma	1.65	.99
12.90 cold	1.00	.60
130 cold	1.00	.60
190 Hot - 600ma	1.50	.90
310 Hot - 300ma	1.90	1.14
350 Hot - 600ma	1.90	1.14
430 Hot - 600ma	2.50	1.50
500 Hot - 150ma	1.60	.96
750 Hot - 300ma	2.20	1.32
200 Hot - 600ma	1.50	.90
As above - 2 in pack	2.50	1.50
10.50 at 125 volts	3.20	1.92
350 Hot - 600ma	3.20	1.92
For Color Tv DeGauss	1.40	.84
14K at 140 volts	3.20	1.92
500 Hot-150ma	1.60	.96
1200 cold	1.60	.96
790 cold - .470 hot	1.20	.72
For color Tv DeGauss	1.20	.72
500K at 25° C	1.50	.90
1000 hot to 200 hot	1.85	1.11
Heavy duty universal	2.00	1.20
For Color Tv kit of 2	3.00	1.80

FUSED RESISTORS

4.70 - 5 Watts	.55	.33
50 - 5 Watts	.55	.33
5.60 - 5 Watts	.55	.33
60 - 5 Watts	.55	.33
7.50 - 3 amperes	.72	.43
3.50-7W, G.E., 14X183	.55	.33
7.50 - 3 amperes	.55	.33
90 - 5 Watts	.55	.33
100 - 5 Watts	.55	.33
4.50 - 10 Watts	.75	.45
180 - 5 Watts	.35	.33
220 - 5 Watts	.55	.33
470 - 5 Watts	.55	.33
1000 - 5 Watts	.55	.33
1.450-5W heavy duty, Philco	.72	.43
1500 - 5 Watts	.55	.33
1500 - 0.12 amperes	.55	.33
Hvvy duty 4.70 3.5 amp.	.75	.45
Hvvy duty 5.60 3.5 amp.	.75	.45
Hvvy duty 7.50 3.5 amp.	.75	.45
Hvvy duty 4.70 3.5 amp. 5W	.75	.45
Hvvy duty 5.60 3.5 amp. 5W	.75	.45
Hvvy duty 7.50 3.5 amp. 5W	.75	.45
4.70 - 3 amperes	.36	.22
5.60 - 3 amperes	.36	.22
7.50 - 3 amperes	.36	.22
90 - 3 amperes	.36	.22
4.70 - 3 amperes	1.60	.99
5.60 - 3 amperes	1.60	.99
7.50 - 3 amperes	1.60	.99
90 - 3 amperes	1.60	.99
15 pk. 4.70-3 amp.	2.59	.99
15 pk. 5.60-3 amp.	2.59	.99
15 pk. 7.50-3 amp.	2.59	.99
15 pk. 9.0-3 amp.	2.59	.99
Universal replacement	2.00	1.20
No. AWC 28 Wire, 5 pcs.	.25	.15
No. AWC 28 Wire, 5 pcs.	.25	.15
7.50 - 15 Watts	.98	.58
50 - 7 Watts	.72	.43

AUTO RADIO RESISTORS

100 - 5 Watt	.48	.29
0.220 - 5 Watt	.48	.29
0.270 - 5 Watt	.48	.29
0.330 - 5 Watt	.48	.29
0.470 - 5 Watt	.48	.29
0.510 - 5 Watt	.48	.29
0.560 - 5 Watt	.48	.29
0.680 - 5 Watt	.48	.29
0.820 - 5 Watt	.48	.29
18000 - 7 Watt	.38	.23
2.80 cold	.65	.39
3.30 cold	.65	.39
4.50 cold	.65	.39
7.50 cold	.65	.39
100 cold	.65	.39
280 cold	.65	.39
350 cold	.65	.39
1500 cold	1.30	.78

GD1	For 6v. in 12V. systems	5.50	3.30
GD2	2, 4, or 6 amp loads	3.30	1.98
GD3	5 to 8 amp loads	1.25	.75
GD4	7 to 8 amp loads	1.25	.75

WIREWOUND RESISTORS

6W-B	6W Bendhms, 34 values	49	.30
6WB-34	6W Bend. 34vals. on card	16.60	.99
25W	25W, 42 values 3.40to 1KR	.75	.44
30W	30W, 18 values 190to 1M	1.60	.96
50W-5	50 - 5 watt for color	2.00	1.20
50W-5	50 - 5 watt heavy duty	2.85	1.71
148	410 - 25 watt	.85	.51
151	510 - 30 watt	.95	.57
MO1	590 - 25 watt	.85	.51
WR	5-15W 50 values each univ.	.55	.33
WR50A	Card of 50 values	—	13.50
WR50C	Card of 50 values for HI-Fi	—	13.50
WS	2W 21values .22 to 10.0	.36	.22

SQUARE OHMS

5W-SQ	5W 81 Values 1-10K	.36	.22
10W-SQ	10W 87 Values 1-25K	.40	.24
20W-SQ	20W 87 Values 1-35K	.65	.39
25W-SQ	25W 121 Values 1-50K	.75	.45

CHEMICAL FUSES

3-1	RCA #945392-3	.63	.38
200-10	RCA #945393-1	.85	.51
400-1	RCA #945392-2	.60	.48
450-1	RCA #945392-4	.75	.45
500-1	RCA, Emerson, Olympic	.75	.45
1200-1	Emerson #808236	.75	.45
1700-1	Emerson, Zenith	.75	.45
1400-1	Emerson, Zenith	.75	.45
1200-1	Zenith #66-46	.75	.45
BL5	Pk. of 50 chemical fuses	3.70	2.20
KF-200	RCA #105041	1.00	.60
LC-200	For "C" type (limited cur'n) 1.00	.60	.36

COLOR RESISTORS

3 Watt	All values	.75	.45
4 Watt	All values	.80	.48
5 Watt	All values	.85	.51
7 Watt	All values	.90	.54
10 Watt	All values	1.10	.66

CIRCUIT BREAKERS

53 DIFFERENT MODELS		
F SERIES NUMBERS		
For Exact Replacement	1.15	.69

SERVICE AIDS

BC2	Battery Charger, 6 amps.	34.66	20.79
U.L. ap. 12v.	battery charger	9.68	5.93
BC6	Battery Charger, 6 volt	3.98	2.80
BC12	Battery Charger, 12 volt	3.98	2.80
BK125	Transverter, 125 watt	—	29.95
BZ1	Buzt	14.50	8.70
BZ5	Chek-It Circuit Tester *	2.49	1.49
BZ8	Line matching Diode Checker	—	19.50
C200	Line matching transformer	2.63	1.58
D1	Conv't. Std. to Button	2.63	1.58
D2	Conv't. Standard to Shell	2.63	1.58
D3	Conv't. Shell to Button	2.63	1.58
D4	Conv't. Button to Shell	2.63	1.58
D5	Conv't. 23EP4 to Syl. 8YP4	2.63	1.58
D6	Conv't. 23EP4 to standard	2.63	1.58
D7	Conv't. 90° to 70° cold	5.50	3.30
D8	Conv't. 70° to 90° cold	5.50	3.30
D18	Auto lighter adapter plug	.95	.57
D19	H.D. Auto ltr. adapter plug	1.60	.96
PO1	Precision Oilier	1.10	.66
PO2	Precision Graphite	1.10	.66
PO3	Precision Grease	1.10	.66
RS1	110° Button Socket	1.00	.60
RS2	110° Shell Socket	1.00	.60
RS3	Standard Socket	.60	.36
RS4	For 70° Cold CRT	2.15	1.29
RS5	For 23EP4 CRT	1.00	.60
RS6	For 90° color, 36in. leads	2.65	1.59
TG1	Tube Guard	4.00	1.20
TM3	TO36 mica insulators	1.60	.96
TM5	TO3 mica insulators	.65	.39
TM4	TO3 audiod. alum. ins'l'trs	1.10	.66
TMX	Power Transist. mtg. kit	.95	.57
TMM	Mica Collector Insulators	.65	.39
TMN	TO3 nylon screw insulators	.65	.39
TM5	Diam. base transist. socket	.55	.33
VB4	Transistorized vibrator	10.98	6.54
VB5	Transistorized vibrator	10.98	6.54
X1	Extends button base	2.25	1.35
X2	Extends shell base	1.35	.85
X3	Extends Std. Duo-Decal	2.25	1.35
X4	24 in. for 70° cold tubes	3.40	2.04
X5	24 in. for 23EP4	2.25	1.35
X6	36 inch for 70° Color	3.80	2.28
X7	36 inch for 90° Color	3.80	2.28
X9	Extend-Shift	.30	.18

TRANSISTORS

A A1	PNP osc mix, conv. I.F. audio	1.50	.90
A A2	PNP osc mix, conv. I.F. audio	1.65	.99
A A3	PNP hf freq. osc., mix, conv. 2.60	1.56	.96
A A4	PNP TO3 diamond base	2.13	1.28
A A5	PNP TO3 stud base	4.25	2.55
A T6	PNP audio driver	2.50	1.50
A T6-M	PNP mini. audio driver	1.65	.99
B5	PNP audio output	2.50	1.50
B5-M	PNP mini. audio output	1.65	.99
B6	PNP I.F. amplifier	2.50	1.50
B6-M	PNP mini. I.F. amplifier	1.65	.99
B6E	PNP converter oscillator	2.70	1.62
B6E-M	PNP mini. conv. oscillator	1.65	.99
CB6	PNP VHF amplifier, hf freq. 3.00	1.80	1.00
GLD	Universal power, gold plate	2.50	1.49
J6	PNP conv., osc., mix, hf freq. 3.00	1.80	1.00
L6	NPN audio output	3.35	2.01
Power 5	NPN 5 watt power	2.00	1.20
Power 25	PNP output for over 50 V.	4.20	2.52
Power 40	PNP output for over 50 V.	4.75	2.85
Power 60	PNP output very hi wattage	6.00	3.60
Power 80	PNP output stud TO36 base	7.25	4.35
SA7	NPN conv., osc., mix	3.70	2.22
SK7	NPN I.F. amplifier	3.35	2.01
TK9	NPN gen. purpose audio freq. 3.35	2.01	1.20
TBK9	Replacem't for inverters	3.60	2.16
TBX10	High Freq. for overtors	4.20	2.52
TBX11	For CB vibrators	5.00	3.00
TBX12	For CB vibrators	4.20	2.52
TBX18	High power switching	4.75	2.85
TBX20	High power switching	4.85	2.95
TBX45	PNP for ignition systems	14.00	8.10
99A7E	PNP audio driver	1.65	.99
99A7F	PNP audio driver	1.65	.99
99BA6	PNP I.F. amplifier	1.65	.99
99BE6	PNP converter oscillator	1.65	.99
99L6	NPN audio output	1.65	.99
99 Power	PNP audio output	1.65	.99
199 Power	PNP audio output	3.32	1.99
199 Power	PNP output stud mount	4.70	2.82
99SA7	NPN conv., osc., mixer	1.65	.99
99SK7	NPN I.F. amplifier	1.65	.99
99SK7	NPN audio frequency	1.65	.99

SUPER BRIGHTENERS

W2	9V, parallel, standard base	2.65	1.59
W3	9V, series, standard base	2.90	1.74
W4	8.5V, isolation, std. base	3.70	2.22
W5	9V, parallel, RCA base	3.90	2.34
W6	9V, series, RCA base	3.90	2.34
W7	9V, parallel, Sylvania base	3.90	2.34
W8	9V, series, Sylvania base	3.90	2.34
W9	9V, series-parallel, std. d.	4.15	2.49
W10	3.5V, series, RCA base	3.50	2.10
W11	3.5V, series, Sylvania base	3.50	2.10
W12	9V, series-parallel, RCA	4.50	2.70
W14	9V, series-parallel, Sylvania	4.50	2.70
W15	9V, parallel, 23EP4 base	3.90	2.34
W16	8.5V, isolation, Sylvania	3.90	2.34
W17	8.5V, isolation, Sylvania	3.90	2.34
W20	8.5V, 70° color base, parallel	9.75	5.85

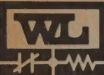
CHEMICALS

ET1	Scru-Loos rust solvent	1.65	.99
H6	"Wish" cleaner 6 oz.	1.65	.99
H6A	"Wish" 6 oz. with needle	2.05	1.23
H14	"Wish" cleaner 16 oz.	3.25	1.95
H32	"Wish" quart size kit	5.42	3.25
H36	"Freez-It" cooler 6 oz.	1.65	.99
HF16	"Freez-It" cooler 16 oz.	3.25	1.95
S3	Super "Wish" pocket size	1.30	.78
S6	Super "Wish" 6 oz.	2.00	1.20
S16	Super "Wish" 16 oz.	4.00	2.40
S24	Super "Wish" 24 oz. tank	5.00	2.98
SC3	Coil Tuner Toner, 3 oz.	1.75	1.05
SC8	Coil Tuner Toner, 8 oz.	3.25	1.95
SG6	Silicone-Lube	1.25	.75

COILS

Over 5000 Numbers
IN STOCKExact Replacements
FOR OVER 200 MANUFACTURERSSPECIALIZING
IN
SHORT RUNS

Items subject to change without notice. For a complete listing of exact replacement coils ask your jobber for our Coil Cross Reference. Workman part numbers for coils, fusing devices, wirewound and special purpose resistors are listed in Howard Sams' Photofacts and Counter Facts.



WARD LEONARD

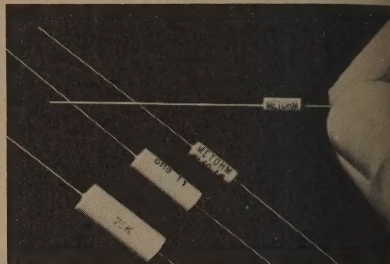
Metohm[®] RESISTORS

Metal Film Precision Type

THE STANDARD OF QUALITY FOR MILITARY AND INDUSTRIAL PURPOSES

FEATURES

- High stability and reliability
- Designed to exceed MIL-R-10509F
- Close resistance tolerance
- Wide range of resistance values
- Stock or made-to-order types
- 1/10, 1/8, 1/4 and 1/2 watt sizes



In critical space-age electronic circuitry, METOHM metal film precision resistors guarantee high reliability, high stability, close accuracy, low TC and miniature size. Metohms are precision made under "white-room" conditions in the industry's most modern plant.

MIL SPECS. — All Metohm precision resistors are designed to exceed MIL-R-10509F char. C, D and E.

POWER RATING — is based on full rated load in an ambient of 125°C.

WELDABLE LEADS — gold plated Dumet leads and nickel "270" leads are available for weldable applications.

STOCK METOHMS — RN55, 60, 65 and 70 Metohm resistors, char. C, TC Code T2 (± 50 PPM) are stocked in MIL standard values listed below. Standard tolerance is $\pm 1\%$.

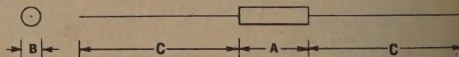
MADE-TO-ORDER TYPES — see data in accompanying tables for non-stock resistors available in production order quantities.

CONFORMAL COATED TYPES — also available in 1/20, 1/10, 1/8, 1/4 and 1/2 w. sizes. Durable solvent resistant coating allows smaller size. Ideal for micro module circuitry where space is at a premium.

RATINGS AND SIZES — METOHM Metal Film Precision Resistors

Designations		Watt Rating		Resistance Range Ohms		Max. Voltage Rating (Continuous)	Standard Resistance Tolerance	Temperature Coefficient	A Length	B Diameter	C Axial Lead	
MIL	Industrial	@ 125°C	@ 70°C	Min.	Max.						Length	Diameter
RN 55	WL 55	1/10	1/5	49.9	100K	200v	1%*	**	.260 $\pm$.010	.120 $\pm$.005 $\pm$.015	1 $\frac{1}{2}$ $\pm$ $\frac{1}{8}$	.025 $\pm$.002 (#22 AWG)
RN 60	WL 60	1/8	1/4	49.9	499K	250v	1%*	**	.406 $\pm$.015	.130 $\pm$.015	1 $\frac{1}{2}$ $\pm$ $\frac{1}{8}$	.025 $\pm$.002 (#22 AWG)
RN 65	WL 65	1/4	1/2	49.9	1 meg.	300v	1%*	**	.594 $\pm$.015	.203 $\pm$.015	1 $\frac{1}{2}$ $\pm$ $\frac{1}{8}$	.025 $\pm$.002 (#22 AWG)
RN 70	WL 70	1/2	1	49.9	1.5 meg.	350v	1%*	**	.719 $\pm$.020	.261 $\pm$.020	1 $\frac{1}{2}$ $\pm$ $\frac{1}{8}$	.032 $\pm$.002 (#20 AWG)

* Closer tolerances to order. See MIL Resistance Tolerance table below.
 ** See Temperature Coefficient Code Table below.

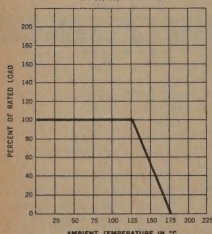


TEMPERATURE COEFFICIENT CODE

T.C. Code**	MIL Char.	Temperature Coefficient Range***	Temperature Range
T-0	D	± 100 PPM/°C	-55°C to $+175^{\circ}\text{C}$
T-2	C	± 50 PPM/°C	-55°C to $+175^{\circ}\text{C}$
T-3	—	0 to $+100$ PPM/°C	-55°C to $+175^{\circ}\text{C}$
T-4	—	0 to -100 PPM/°C	-55°C to $+175^{\circ}\text{C}$
T-5	—	± 25 PPM/°C	$+25^{\circ}\text{C}$ to $+145^{\circ}\text{C}$
T-6	—	0 to $+50$ PPM/°C	-55°C to $+175^{\circ}\text{C}$
T-7	—	0 to -50 PPM/°C	-55°C to $+175^{\circ}\text{C}$
T-8	—	± 35 PPM/°C	-55°C to $+25^{\circ}\text{C}$
T-9	E	± 25 PPM/°C	$+25^{\circ}\text{C}$ to $+175^{\circ}\text{C}$

** For other temperature coefficients consult Home Office for price.
 *** Parts per Million Per Degree Centigrade (100 PPM equals 0.01%)

DERATING CURVE
 RN 55, 60, 65 AND 70



RESISTANCE TOLERANCE

MIL Designation	Tolerance
F	$\pm 1\%$
D	$\pm 0.5\%$
C	$\pm 0.25\%$
B	$\pm 0.1\%$
—	$\pm 0.05\%$

MIL STANDARD RESISTANCE VALUES FOR STOCK METOHM RESISTORS

30.1	43.2	61.9	88.7	127	182	261	374	536	768	1100	1580	2260	3240	4640	6810	9760	14.0K	20.0K	28.7K	41.2K	59.0K	84.5K	121K	174K	249K	357K	511K	720K
30.9	44.2	63.4	90.9	130	187	267	383	549	787	1130	1620	2320	3320	4750	6980	10.0K	14.3K	20.5K	29.4K	42.2K	60.4K	86.6K	124K	178K	255K	365K	523K	750K
31.6	45.3	64.9	93.1	133	191	274	392	562	806	1150	1650	2370	3400	4870	7150	10.2K	14.7K	21.0K	30.1K	43.2K	61.9K	88.7K	127K	182K	261K	374K	536K	768K
32.4	46.4	66.5	95.3	137	196	280	402	576	825	1180	1690	2430	3480	4990	7320	10.5K	15.0K	21.5K	30.9K	44.2K	63.4K	90.9K	130K	187K	267K	383K	549K	787K
33.2	47.5	68.1	97.6	140	200	287	412	590	845	1210	1740	2490	3570	5110	7500	10.7K	15.4K	22.1K	31.6K	45.3K	64.9K	93.1K	133K	191K	274K	392K	562K	806K
34.0	48.7	69.8	100	143	205	294	422	604	866	1240	1780	2550	3650	5230	7680	11.0K	15.8K	22.6K	32.4K	46.4K	66.5K	95.3K	137K	196K	280K	402K	576K	825K
34.8	49.9	71.5	102	147	210	301	432	619	887	1270	1820	2610	3740	5360	7870	11.3K	16.2K	23.2K	33.2K	47.5K	68.1K	97.6K	140K	200K	287K	412K	590K	845K
35.7	51.1	73.2	105	150	215	309	442	634	909	1300	1870	2670	3830	5490	8060	11.5K	16.5K	23.7K	34.0K	48.7K	69.8K	100K	143K	205K	294K	422K	604K	866K
36.5	52.3	75.0	107	154	221	316	453	649	931	1330	1910	2740	3920	5620	8250	11.8K	16.9K	24.3K	34.8K	49.9K	71.5K	102K	147K	210K	301K	432K	619K	887K
37.4	53.6	76.8	110	158	226	324	464	665	953	1370	1960	2800	4020	5760	8450	12.1K	17.4K	24.9K	35.7K	51.1K	73.2K	105K	150K	215K	309K	442K	634K	909K
38.3	54.9	78.7	113	162	232	332	475	681	976	1400	2000	2870	4120	5900	8660	12.4K	17.8K	25.5K	36.5K	52.3K	75.0K	107K	154K	221K	316K	453K	649K	931K
39.2	56.2	80.6	115	165	237	340	487	698	1000	1430	2050	2940	4220	6040	8870	12.7K	18.2K	26.1K	37.4K	53.6K	76.8K	110K	158K	226K	324K	464K	665K	953K
40.2	57.6	82.5	118	169	243	348	499	715	1020	1470	2100	3010	4320	6190	9090	13.0K	18.7K	26.7K	38.3K	54.9K	78.7K	113K	162K	232K	332K	475K	681K	976K
41.2	59.0	84.5	121	174	249	357	511	750	1050	1500	2150	3090	4420	6340	9310	13.3K	19.1K	27.4K	39.2K	56.2K	80.6K	115K	165K	237K	340K	487K	698K	1.0Meg
42.2	60.4	86.6	124	178	255	365	523	750	1070	1540	2210	3160	4530	6490	9530	13.7K	19.6K	28.0K	40.2K	57.6K	82.5K	118K	169K	243K	348K	499K	715K	1.5Meg

6650



WARD LEONARD

Axiom[®] RESISTORS

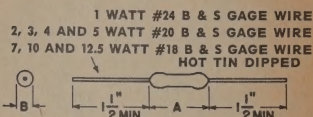
Vitreous Enamel Wire-Wound Power Type

AXIOM FEATURES

Vitreous enamel construction
Space saving design
5 stock sizes; 8 made-to-order sizes
Wide range of resistance values
Standard tolerance $\pm 5\%$



Axiom, the miniaturized, space-saving power resistor line is designed for automation, printed circuits and advanced miniaturization use. Recommended for electronic and industrial use where high O.L. capacity and high stability are a "must". Four stock sizes and seven made-to-order sizes. Order by Stock Type and Ohms.



WATT		TYPE 1X		2 WATTS		TYPE 2X		3 WATTS		TYPE 3X	
ns. A = $\frac{1}{32}$; B = $\frac{3}{32}$		Ohms m.a.		Ohms m.a.		Ohms m.a.		Ohms m.a.		Ohms m.a.	
1000	220	68	1	1414	180	105	1	1732	470	80	
5	817	240	64	1.5	1155	200	100	1.5	1414	500	77
707	250	63	2	1000	220	95	2	1225	560	73	
577	270	61	3	816	240	91	3	1000	600	71	
500	300	57	4	707	250	89	4	866	680	66	
447	330	55	5	632	270	86	5	775	700	66	
361	360	53	7.5	517	300	82	7.5	632	750	63	
316	390	51	10	447	330	78	10	548	800	61	
302	430	48	11	428	360	75	12	500	820	60	
289	470	46	12	408	390	72	15	447	900	58	
277	510	45	13	392	430	68	18	408	1000	55	
258	560	42	15	365	470	65	20	387	1100	52	
250	620	40	16	354	510	63	22	369	1200	50	
236	680	37	18	333	560	60	25	346	1250	49	
224	750	36	20	316	620	57	27	333	1500	45	
213	820	35	22	302	680	54	30	316	1750	41	
204	910	33	24	289	750	52	33	301	1800	40	
192	1000	32	27	272	820	49	35	293	2000	39	
182	1100	30	30	258	910	47	40	274	2200	37	
174	1200	28	33	246	1000	45	47	252	2250	37	
167	1300	27	36	235	1100	43	50	245	2500	35	
160	1500	26	39	228	1200	41	56	231	2700	33	
153	1600	25	43	216	1300	39	68	210	3000	32	
146	1800	24	47	206	1500	37	75	200	3300	30	
140	2000	22	51	198	1600	35	82	191	3500	29	
134	2200	21	56	189	1800	33	100	173	3900	28	
127	2400	20	62	179	2000	32	120	158	4000	27	
121	2500	20	68	172	2200	30	125	155	4500	26	
110	2700	19	75	163	2400	29	150	141	4700	25	
110	3000	18	82	156	2500	28	180	129	5000	25	
105	3300	17	91	148	2700	27	200	122	5600	23	
100	3900	16	100	141	3000	26	220	117	6000	22	
95	4300	15	110	135	3300	25	225	115	6500	21	
91	4700	15	120	129	3900	23	250	110	6800	21	
87	5100	14	130	124	4300	22	270	105	7000	21	
82	5600	13	150	116	4700	21	300	100	7500	20	
79	6200	13	160	112	5100	20	330	95	8000	20	
75	6800	12					350	93	8200	19	
71	7500	12					390	88	9000	18	
							400	87	10000	17	
							450	82			

5 WATTS

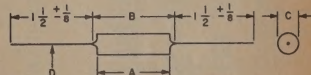
Dims. A = $\frac{1}{16}$; B = $\frac{3}{16}$

Ohms m.a.		Ohms m.a.		Ohms m.a.		Ohms m.a.		Ohms m.a.		Ohms m.a.	
1	2230	200	158	2500	45	1	3160	1200	91		
1.5	1820	220	151	2700	43	1.5	2580	1250	89		
2	1580	225	148	3000	40	2	2235	1500	81		
3	1290	250	141	3300	39	3	1825	1750	75		
4	1170	270	136	3500	37	4	1580	2000	70		
5	1000	300	129	3900	36	5	1415	2250	66		
7.5	811	330	123	4000	35	7.5	1155	2500	63		
10	707	350	119	4500	33	10	1000	3000	58		
12	644	390	113	4700	32	12	913	3500	53		
15	577	400	112	5000	31	15	815	4000	50		
18	527	450	105	5600	30	20	707	4500	47		
20	500	470	103	6000	28	25	630	5000	45		
22	477	500	100	6800	27	30	577	6000	41		
25	450	560	94	7000	26	35	534	7000	38		
27	430	600	91	7500	25	40	500	7500	36		
30	408	680	86	8000	25	50	450	8000	35		
33	389	700	84	8200	24	75	365	8500	34		
35	378	750	81	9000	23	100	316	9000	33		
39	358	800	79	10000	22	125	283	10000	32		
40	353	820	78	11000	21	150	258	11000	30		
47	326	900	74	12000	20	200	224	12000	28		
50	316	1000	70	12500	20	225	211	12500	28		
56	299	1100	67	13500	19	250	200	13500	27		
68	271	1200	64	15000	18	300	182	15000	25.5		
75	257	1250	63	16000	18	350	169	16000	25		
82	247	1500	55	17500	17	400	158	17500	24		
100	223	1750	53	18000	17	450	149	18000	23		
120	204	1800	52	20000	16	500	142	20000	22		
125	200	2000	50	22000	15	600	129	22500	21		
150	182	2200	48	25000	14	700	120	25000	20		
180	167	2250	47	27000	13	750	115	30000	18		
						800	112	35000	17		
						900	105	40000	16		
						1000	100	45000	15		
						1100	95	50000	14		

Order by Type Number and Resistance Value.

S-COAT FEATURES

- Low TC: ± 20 PPM
- Close accuracy: $\pm 1\%$ standard, to $\pm 0.5\%$ special
- 1000 volt dielectric — "V" block test • Wide resistance ranges • 16 space-saving sizes



ratings and sizes

standard tolerance $\pm 1\%$

Rating in Watts		W. L. Type	Max. Body Dimensions (in inches)				Resistance Values and Tolerances					
			A	B	C	D	Minimum Ohms			Max. Ohms		
275°C 350°C							±5%	±3%	±2%	±1%	±0.5%	±0.5% to ±5%
8**	1**	15X	3/8	7/16	7/32	#20	.25	.7	1.7	16	140	10K
1	1.25	1.25X	7/16	1/2	1/8	#24	.25	.3	.48	5.8	36	7.5K
1.2	1.5	1.5X	9/16	5/8	1/8	#24	.26	.31	.44	1.36	20	11K
1.5	2	25X	3/8	7/16	7/32	#20	.25	.7	1.7	16	140	10K
2.25	3	35X	1/2	9/16	7/32	#20	.25	.36	.8	7.2	56	20K
2.5	3.3	3.3X	9/16	5/8	1/4	#20	.29	.52	1.7	16.6	102	25K
3	3.75	3.75X	5/8	11/16	7/32	#20	.25	.39	.53	3.2	36	25K
3	4	4X	7/8	15/16	7/32	#20	.37	.40	.57	2.3	19.6	50K
3.1	4	45X	11/16	3/4	7/32	#20	.29	.37	.52	2.7	34	31K
3.5	4.5	4.5X	11/16	3/4	9/32	#20	.37	.58	1.1	5.2	57	40K
4	5	55X	7/8	1	7/32	#20	.41	.41	.56	1.4	44	44K
5	7	75X	61/64	1-1/16	11/32	#18	.65	.71	.95	2.3	27	80K
7	9	95	1-1/4	1-5/16	11/32	#18	.79	.79	.94	1.8	11	100K
8	10	105X	1-11/16	1-3/4	11/32	#18	1.2	1.2	1.8	5.8	135K	
9.75	12.5	12.55X	1-11/16	1-3/4	12/32	#18	1.6	1.6	1.6	2.3	7.4	200K
10	13	135	1-53/64	1-57/64	13/32	#18	1.7	1.7	1.7	2.4	7.5	225K

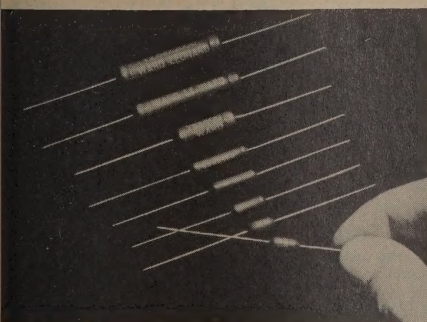
*Hot spot temperature. **125°C Ambient.

Temperature Coefficients: Below 5 ohms ± 100 PPM,

5 to 20 ohms ± 50 PPM,

above 20 ohms ± 20 PPM.

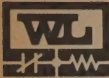
Standard Leads: Types 1, 2, 3, 5 and 1.55 tinned Dumeat; all others copper hot tin dipped



S-COAT RESISTORS

Silicone Precision Power Type

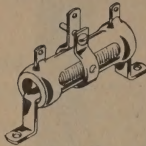
S-Coat resistor line represents the latest advance in silicone coated wire-wound power resistor design. S-Coat resistors are precision-made for precision applications requiring characteristics such as low TC, close tolerance, no noise, low drift, high O.L. capacity, vibration resistant and zero voltage coefficient. Order by Type Designation, Ohms and Accuracy if other than $\pm 1\%$.



WARD LEONARD

Vitrohm® RESISTORS
Vitreous Enamel Wire-Wound Power Type

Types 5F, 10F, and 20F.
Furnished with wire terminal leads. Brackets supplied on request.



Types 10A, 25A, 50A, 80A, 100A, 160A, 200A. Furnished with mounting brackets and one adjustable band.

Vitrohm fixed and adjustable power type resistors from 5 to 200 watts are designed and produced for high reliability. All cores, terminals and vitreous enamels are manufactured by W/L to guarantee top quality.

5 WATT • TYPE 5F

Size—1" x 5/8"			Size—1" x 5/8"		
Ohms	m.a.		Ohms	m.a.	
1	2230	100	223	1200	64
1.5	1820	125	200	1250	63
2	1580	150	182	1500	57
3	1290	200	158	1750	53
4	1117	225	148	2000	50
5	1000	250	141	2250	47
7.5	811	300	129	2500	45
10	707	350	118	3000	40
12	644	400	112	3500	37
15	577	450	105	4000	35
20	500	500	100	4500	33
25	450	600	91	5000	31
30	408	700	84	6000	28
35	378	750	81	7000	26
40	353	800	79	7500	25
50	316	900	74	8000	25
75	257	1000	70	9000	23
		1100	67	10000	22

10 WATT

Type 10F—Fixed Type 10A—Adj.

Size—1 3/4" x 3/4" Mtg. Centers—2 1/2"			Size—1 3/4" x 3/4" Mtg. Centers—2 1/2"		
Fixed Ohms	Adj. Ohms	m.a.	Fixed Ohms	Adj. Ohms	m.a.
1	1	3160	1200		91
1.5		2580	1250	1250	89
2	2	2235	1500	1500	75
3	3	1825	1750	1750	71
4		1580	2000	2000	70
5	5	1415	2250		66
7.5	7.5	1155	2500	2500	63
10	10	1000	3000	3000	58
12		913	3500	3500	53
15	15	815	4000	4000	50
20	20	707	4500	4500	47
25	25	630	5000	5000	45
30		577	6000	6000	41
35	35	534	7000	7000	38
40	40	500	7500	7500	36
50	50	450	8000	8000	35
75	75	365	8500	8500	34
100	100	316	9000	9000	33
125		283	10000	10000	32
150	150	258	11000		30
200	200	224	12000		29
225		211	12500		28
250	250	200	13500		27
300	300	182	15000		25.5
350	350	169	16000		25
400	400	158	17500		24
450	450	149	18000		23
500	500	142	20000		22
600	600	129	22500		21
700	700	120	25000		20
750	750	115	30000		18
800	800	112	35000		17
900		105	40000		16
1000	1000	100	45000		15
1100		95	50000		14

20 WATT • TYPE 20F

Size—2" x 3/4" Mtg. Centers—2 5/8"			Size—2" x 3/4" Mtg. Centers—2 5/8"		
Ohms	m.a.		Ohms	m.a.	
1	4480	850	153	10000	45
3	2580	1000	141	12500	40
5	2000	1200	130	15000	36
10	1410	1250	125	20000	32
15	1150	1500	115	25000	28
25	900	1750	107	30000	26
50	630	1850	104	35000	24
75	517	2000	100	40000	22
100	450	2250	94	45000	20
150	365	2400	91	50000	20
175	340	2500	90	55000	18
200	320	2750	85	60000	16
250	285	3000	81	65000	15
300	258	3500	76	70000	14
350	240	3750	74	75000	13
400	224	4500	67	80000	12
500	200	5000	63	85000	11.5
650	175	6000	57	90000	11
700	169	7000	53	95000	10.5
750	163	7500	51	100000	10
800	155	8000	50		

25 WATT

Type 25F—Fixed Type 25A—Adj.

Size—2" x 3/8"			Mtg. Centers—2 5/8"		
Fixed Ohms	Adj. Ohms	m.a.	Fixed Ohms	Adj. Ohms	m.a.
1	1	5000	2500	2500	100
2	2	3535	3000	3000	90
3	3	2890	3500	3500	85
4	4	2500	4000	4000	80
5	5	2230	4500	4500	74
	7.5	1825	5000	5000	70
10	10	1580	6000	6000	65
15	15	1290		7000	60
	20	1115	7500	7500	58
25	25	1000		8000	56
50	50	710	8500	8500	54
75	75	580		9000	52
100	100	500		10000	50
150	150	410	12000	12000	46
200	200	354	15000	15000	44
250	250	315	20000	20000	39
300	300	289	25000	25000	37
400	400	250	30000		32
500	500	224	35000		29
750	750	182	40000		25
800	800	177	50000		22
850	850	170	60000		20
1000	1000	158	70000		17
1250	1250	140	75000		15
1500	1500	129	80000		13
2000	2000	112	100000		11
	2250	105			

50 WATT

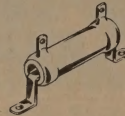
Type 50F—Fixed Type 50A—Adj.

Size—4 1/2" x 3/4" Mtg. Centers—5 1/4"			Size—4 1/2" x 3/4" Mtg. Centers—5 1/4"		
Fixed Ohms	Adj. Ohms	m.a.	Fixed Ohms	Adj. Ohms	m.a.
1	1	7070	5000	5000	100
2	2	5000	6000	6000	91
3	3	4080		7000	85
4	4	3535	7500	7500	82
5	5	3160	8000	8000	79
10	10	2235	9000	9000	75
15	15	1825	10000	10000	71
25	25	1415	12000	12000	65
50	50	1000	15000	15000	58
75	75	815	20000	20000	50
100	100	707	25000	25000	45
150	150	575	30000	30000	41
200	200	500	35000	35000	38
250	250	445	40000	40000	35
300	300	408	45000	45000	33
400	400	353	50000	50000	32
500	500	316		60000	29
750	750	258		75000	23
800	800	250		80000	21
1000	1000	224		100000	17
1250		200			
1500	1500	180			
2000	2000	160			
2500	2500	141			
3000	3000	130			
3500		120			
4000	4000	110			
	4500	105			

80 WATT • TYPE 80A

Size—6 1/2" x 3/4" Mtg. Centers—7 1/4"

Ohms	m.a.	Ohms	m.a.	Ohms	m.a.
1	8940	750	325	7500	103
2	6320	800	316	8000	100
3	5160	1000	282	10000	91
4	4470	1250	253	10000	89
5	4000	1500	231	15000	73
10	2830	2000	200	20000	63
15	2310	2250	188	25000	57
25	1790	2500	178	30000	51
50	1260	3000	161	35000	48
75	1030	3500	151	40000	43
100	894	4000	141	45000	41
200	632	4500	133	50000	40
250	565	5000	126	60000	36
300	515	6000	115	70000	33
400	447	7000	107	80000	31
500	400			100000	28



100 WATT

Type 100F—Fixed Type 100A—Adj.

Size—6 1/2" x 1 1/8" Mtg. Centers—7 1/4"			Size—6 1/2" x 1 1/8" Mtg. Centers—7 1/4"		
Fixed Ohms	Adj. Ohms	m.a.	Fixed Ohms	Adj. Ohms	m.a.
1	1	10000	2000	2000	225
2	2	7070	2500	2500	200
3	3	5770	3000	3000	180
4	4	5000	3500		170
5	5	4470	4000	4000	158
10	10	3160	4500	4500	150
25	25	2000	5000	5000	141
50	50	1410	6000	6000	130
75	75	1150	7500	7500	115
100	100	1000	10000	10000	100
125		895	20000	20000	70
150		815	25000	25000	63
200	200	707	30000	30000	58
250	250	630	35000		54
	400	500	40000	40000	50
	500	500	50000	50000	45
	750	750	60000	60000	41
	1000	1000	70000		38
	1250		75000	75000	36
	1500	1500	260	100000	32

160 WATT

Type 160F—Fixed Type 160A—Adj.

Size—8 1/2" x 1 1/8"			Mtg. Centers—9 1/4"		
Fixed	Adj.		Fixed	Adj.	
Ohms	Ohms	m.a.	Ohms	Ohms	m.a.
1	1	12650	2500	2500	252
2	2	8940	3000	3000	230
3	3	7300	3500	3500	215
4	4	6320	4000	4000	200
5	5	5650	4500	4500	185
10	10	4000	5000	5000	178
15	15	3265	7500	7500	146
25	25	2525	10000	10000	128
50	50	1785	15000	15000	105
75	75	1460	20000	20000	90
100	100	1265	25000	25000	80
150	150	1035	30000	30000	73
200	200	894	35000	35000	68
250	250	800	40000	40000	64
300	300	750	45000	45000	61
400	400	632	50000	50000	57
500	500	565	55000	55000	54
750	750	460	60000	60000	52
1000	1000	400	75000	75000	46
1500	1500	326	80000	80000	45
2000	2000	280	100000	100000	40



WARD LEONARD

Vitrohm RESISTORS

Vitreous Enamel Wire-Wound Power Type

WATTS • TYPE 20S

Long-Mtg. Centers 2 3/4"

Width 3/4"	
Ohms m.a.	Ohms m.a.
1 4480	1500 115
3 2580	2000 100
5 2000	2500 90
10 1410	3000 81
15 1150	3500 76
25 900	4000 70
50 630	5000 63
100 450	7500 51
150 365	10000 45
200 320	15000 36
250 285	20000 32
300 224	25000 28
500 200	30000 26
750 163	35000 24
1000 141	40000 22
2500 125	50000 20

the 30 watt Ministrip resistor is smaller in size than standard Strip-ohms. It may be stacked by using 1/32" washers.

WATTS • TYPE 30S

Long-Mtg. Centers 2"

Ohms m.a.	Ohms m.a.
1 5480	500 244
3 3160	750 200
5 2450	1000 173
10 1730	1250 154
15 1420	1500 142
25 1095	2000 122
50 774	2500 109
100 547	3000 100
150 447	3500 92
200 387	4000 86
300 346	5000 77
500 273	

STRIPOHMS

Order by Type Number and Resistance Value

features

- 6 space-saving sizes
- low mounting brackets
- strong flattened cores
- suitable for multiple stacking
- Vitrohm construction

Vitreous enameled wire-wound resistors built on a strong refractory core, and provided with low mounting brackets. Particularly suited for applications where space is limited. Specially adapted to stacking for networks.

40 WATTS • TYPE 40S

2" Long-Mtg. Centers 2 3/4"

Ohms m.a.	Ohms m.a.
1 6320	750 230
3 3650	1000 200
5 2830	1250 180
10 2000	1500 163
15 1630	2000 141
25 1270	2500 126
50 894	3000 114
100 632	3500 106
150 510	4000 100
200 447	5000 88
250 400	7500 73
400 315	10000 63
500 283	15000 51

55 WATTS • TYPE 55S

3 1/2" Long-Mtg. Centers 4 1/4"

Ohms m.a.	Ohms m.a.
1 7420	1250 209
3 4280	1500 191
5 3320	2000 165
10 2350	2500 148
15 1910	3000 135
25 1480	3500 129
50 1050	4000 117
100 741	5000 104
150 604	7500 84
200 522	10000 74
250 469	15000 60
400 370	20000 52
500 331	25000 47
750 270	30000 42
1000 234	

65 WATTS • TYPE 65S

4 3/4" Long-Mtg. Centers 5 1/2"

Ohms m.a.	Ohms m.a.
1 8060	1500 208
3 4650	2000 180
5 3610	2500 161
10 2550	3000 146
15 2080	3500 136
25 1610	4000 127
50 1140	5000 114
100 806	7500 92
150 658	10000 80
200 570	15000 65
250 509	20000 57
400 403	25000 51
500 360	30000 46
750 294	35000 43
1000 254	40000 40
1250 228	50000 36

75 WATTS

TYPE 75S

6" Long-Mtg. Centers 6 3/4"

Ohms m.a.	Ohms m.a.
1 8660	2500 173
3 5000	3000 158
5 3870	3500 146
10 2740	4000 137
15 2235	5000 122
25 1730	7500 100
50 1220	10000 87
100 866	15000 71
150 707	20000 61
200 612	25000 55
250 550	30000 50
400 433	35000 46
500 387	40000 43
750 315	50000 37
1000 274	60000 35
1250 245	75000 33
1500 224	
2000 193	



TYPE 25R

TYPE 50R

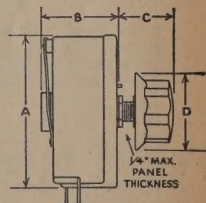


Vitrohm® RING RHEOSTATS

Ward Leonard Ring Rheostats are especially suited for use in electronic and electrical circuits where gradual and positive resistance change is essential. Balanced contact arms, self-lubricating metal graphite contact shoes, and no backlash in the drive shaft combine to assure uniform contact pressure and smooth operation.

Standard shaft length for back-of-board mounting on 1/4" panel.

Standard Resistance Tolerance $\pm 10\%$.



25 WATTS			50 WATTS		
Dimensions: A-1 1/4", B-1 1/2", C-1", D-1 1/2"			Dimensions: A-2 3/4", B-1 1/2", C-1", D-1 1/2"		
Current M.A.	Approx. No. of Steps		Current M.A.	Approx. No. of Steps	
1 5000	32		7070	45	
2 3540	32		5000	56	
3 2880	51				
4 2040	85		3540	56	
6 1770	95		2880	94	
10 1580	95		2230	94	
15 1280	102		1810	113	
25 1000	102		1415	144	
35 840	102		1190	144	
50 707	97		1000	180	
75 574	129		812	144	
100 500	162		707	216	
150 407	190		574	252	
200 316	200		447	245	
250 267	220		374	288	
300 223	245		316	324	
500 181	292		256	373	
750 158	315		223	390	
1000 128	369		181	396	
1500 100	388		141	547	
2000 84	388		119	547	
2500 70	595		100	786	
3000 *	*		81	905	
3500 *	*		70	947	

TYPE 25R

TYPE 50R

100 WATTS		
Dimensions: A-3 3/4", B-1 1/2", C-1", D-1 1/2"		
Current M.A.	Approx. No. of Steps	
1 10000	30	
2 7070	56	
3 5740	66	
5 4470	56	
7.5 3640	66	
10 3160	104	
15 2560	113	
25 2000	144	
50 1415	180	
75 1150	180	
100 1000	216	
200 707	252	
300 574	252	
400 500	252	
500 447	324	
750 344	396	
1000 316	410	
1200 223	410	
1500 200	410	
2000 141	685	
2500 115	820	
3000 100	820	

TYPE 100R

150 WATTS		
Dimensions: A-4", B-1 3/4", C-1", D-1 1/2"		
Current M.A.	Approx. No. of Steps	
1 12240	39	
2 8660	39	
3 7070	70	
5 5470	73	
7.5 4470	70	
10 3870	70	
15 3160	120	
25 2440	152	
50 1730	190	
75 1415	228	
100 1224	228	
200 866	265	
300 707	303	
400 612	342	
500 547	342	
750 447	418	
1000 397	432	
1200 373	575	
1500 244	456	
2000 173	865	
2500 141	1000	
3000 122	1000	

TYPE 150R

300 WATTS		
Dimensions: A-6", B-2 3/4", Shaft 3/4" x 2"		
Ohms	Current m.a.	Approx. No. of Steps
1 17320	40	
1.5 12420	58	
2 12420	78	
2.5 10954	78	
3 10000	73	
4 8660	78	
5 7745	78	
7.5 6324	148	
10 5477	154	
15 4472	147	
25 3464	155	
35 2927	231	
50 2449	257	
75 2000	308	
100 1732	326	
150 1414	270	
200 1224	300	
300 1000	340	
500 774	455	
750 632	514	
1000 547	578	
1500 447	675	
2500 346	720	

TYPE 300R

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you require...**



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faster in
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AMPHENOL TRIMMERS, POTENTIOMETERS, DIALS & MOTORS



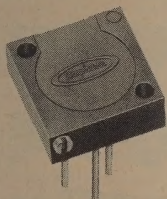
**AMPHENOL
DISTRIBUTOR
DIVISION**

For Immediate Service Contact Your Local Amphenol Sales Office



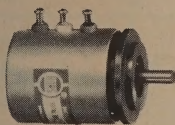
MICROPOT® TRIMMING POTENTIOMETERS

Amphenol produces 10 complete series of Micropot trimmers—from subminiature square trimmers to standard sizes. Amphenol trimmers are offered in general purpose, humidity-proof, high temperature, or humidity-and-high-temperature models, in a wide choice of resistance ranges and end terminals. Amphenol trimmers have an adjustment screw for an extremely fine degree of selectivity. Wire-wound resistance elements are up to 50% longer than competitive types.



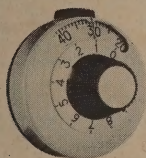
MICROPOT® METAL FILM TRIMMERS

Amphenol's Micropot metal film trimmers provide infinite resolution with a wide range of resistance value from 50 to 10,000 ohms.



MICROPOT® PRECISION POTENTIOMETERS

Amphenol offers a complete line of Micropot potentiometers for precision application—military and commercial—ranging from 1/2-inch to 3-inches. They are available in single-turn or multi-turn models with high resolution and a wide range of resistance values.



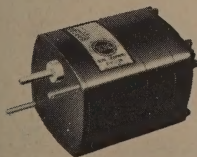
MICRODIAL® CONCENTRIC DIALS

Engineers consider the Amphenol Microdial line the most comprehensive in the industry. Concentric scale Microdials are available in three basic series. Each features epi-cyclical gearing to eliminate ambiguity, and large numerals for high readability. Each dial is available with or without brake. Most Microdial models are offered in a choice of color combinations for coding.



MICRODIAL® DIGITAL DIALS

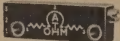
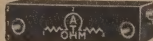
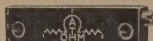
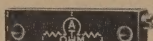
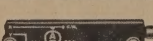
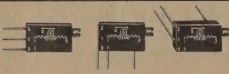
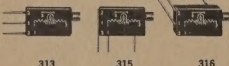
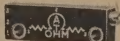
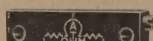
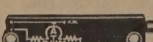
Amphenol's digital Microdial line includes three, four, or five digit models. The 1300 Series has optional 10, 100, or 1000 turns. The 10-turn 1330 Microdial has internal illumination, convex lens, and is available with or without brake. Amphenol dials offer 1000:1 indexing accuracy, and are virtually free from accidental setting changes.



SUB-FRACTIONAL MOTORS

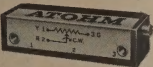
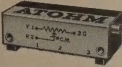
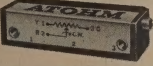
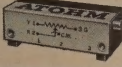
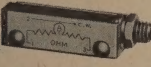
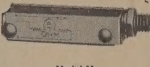
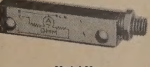
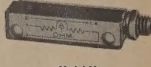
Amphenol's line of sub-fractional h.p. motors includes synchronous, induction, hysteresis synchronous, or low inertia types, in two, four, six or higher pole models. Amphenol motors speed/torque ratios meet the most exacting requirements of instruments, controls, and related products.

Atohm Trimming Potentiometers

DESCRIPTION	Distance between mounting holes		Series or Model Number	Resistance ^a (Ohms)	Lead Configuration (See next pg.) ^{b,c}	End Resistance	Total Resistance	Power Rating (Watts)	Operating Temperature Range °C	Turns Nominal	Moisture Resistant	Physical Dimensions (Inches) H W L	Standard Resistance Range, Ohms	1-9	Price 10-24 25-49
MIL-STYLE, WIREWOUND	3/4"		*** ART10	10-100K	L, P, S, W, E	1% or 1 Ohm	±5%	1 @ 85°C	-65°C to 200°C	18	Yes	.312 .18 1.00	100-10K 8.62 7.98 7.18 20K-30K 10.26 9.50 8.85 50K 11.88 11.00 9.90 100K 13.23 12.25 11.03		
MIL-STYLE, WIREWOUND	1"		*** ART11	10-150K	L, P, S, H	1% or 1 Ohm	±5%	1 @ 85°C	-65°C to 200°C	25	Yes	.312 .28 1.25	100-10K 7.00 6.48 5.83 20K-25K 8.62 7.98 7.18 50K 9.15 8.47 7.82 100K 11.34 10.50 9.45 150K 12.69 11.75 10.58		
MIL-STYLE, WIREWOUND	1"		*** ART12	10-150K	L, P, S, W	1% or 1 Ohm	±5%	1 @ 85°C	-65°C to 200°C	25	Yes	.312 .19 1.25	100-10K 7.00 6.48 5.83 20K & 25K 8.62 7.98 7.18 50K 9.15 8.47 7.82 100K 11.34 10.50 9.45 150K 12.69 11.75 10.58		
MIL-STYLE, GENERAL PURPOSE, WIREWOUND	1"		170	10-150K	L, P, S, W	1% or 1 Ohm	±10%	1 @ 70°C	-65°C to 175°C	25	Yes	.312 .19 1.25	100-10K 6.32 5.85 5.27 20K & 25K 7.88 7.30 6.57 50K 8.42 7.80 7.02 100K 10.31 9.55 8.60 150K 11.61 10.75 9.68		
MIL-STYLE, GENERAL PURPOSE, WIREWOUND	1"		190	10-150K	L, P, S, H	1% or 1 Ohm	±10%	1 @ 70°C	-65°C to 175°C	25	Yes	.312 .28 1.25	100-10K 6.32 5.85 5.27 20K & 25K 7.88 7.30 6.57 50K 8.42 7.80 7.02 100K 10.31 9.55 8.60 150K 11.61 10.75 9.68		
MIL-STYLE, GENERAL PURPOSE, WIREWOUND	3/4"		.270	10-100K	L, P, S, W, E	1% or 1 Ohm	±10%	1 @ 70°C	-65°C to 175°C	18	Yes	.312 .18 1.00	100-10K 7.83 7.25 6.53 20K & 30K 8.83 8.18 7.38 50K 10.77 9.97 8.98 100K 12.23 11.33 10.19		
MIL-QUALITY, WIREWOUND	1"		121 122 123 124 125	10-150K	S L W P—staggered P—in line	.1% or .5 Ohms	±5%	2 @ 70°C	-65°C to 200°C	25	Yes	.312 .19 1.19	100-10K 6.89 6.38 5.74 20K & 25K 7.88 7.30 6.57 50K 9.02 8.35 7.52 100K 11.07 10.25 9.23 150K 12.42 11.50 10.35		
MINIATURE, MIL-QUALITY, WIREWOUND			323 325 326	10-50K		1% or 1 Ohm 1% or 1 Ohm 1% or 1 Ohm	±5% ±5% ±5%	1 @ 70°C 1 @ 70°C 1 @ 70°C	-65°C to 200°C -65°C to 200°C -65°C to 200°C	8 8 8	Yes Yes Yes	.25 .15 .435 .25 .15 .435 .25 .15 .435	100-2.5K 8.64 8.00 7.20 5K & 10K 9.99 9.25 8.33 20K 11.61 10.75 9.68 25K-50K 12.96 12.00 10.80		
MINIATURE, GENERAL PURPOSE, WIREWOUND			313 315 316	10-50K		2% or 2 Ohms 2% or 2 Ohms 2% or 2 Ohms	±10% ±10% ±10%	1/2 @ 70°C 1/2 @ 70°C 1/2 @ 70°C	-55°C to 175°C -55°C to 175°C -55°C to 175°C	8 8 8	No No No	.25 .15 .435 .25 .15 .435 .25 .15 .435	100-2.5K 7.78 7.20 6.48 5K & 10K 9.99 9.25 8.33 20K 10.45 9.68 8.71 25K-50K 11.66 10.80 9.72		
GENERAL PURPOSE, WIREWOUND	3/4"		T10	10-100K	L, P, S, W, E	2% or 2 Ohms	±10%	1 @ 70°C	-55°C to 175°C	18	No	.312 .18 1.00	100-10K 7.34 6.80 6.12 20K & 25K 7.88 7.30 6.57 50K 9.99 9.25 8.33 100K 11.61 10.75 9.68		
GENERAL PURPOSE, WIREWOUND	1"		T11	10-150K	L, P, S, H	2% or 2 Ohms	±10%	1 @ 70°C	-55°C to 175°C	25	No	.312 .28 1.25	100-10K 5.72 5.30 4.77 20K & 25K 7.34 6.80 6.12 50K 7.88 7.30 6.57 100K 9.55 8.85 7.97 150K 10.91 10.10 9.09		
GENERAL PURPOSE, WIREWOUND	1"		T12	10-150K	L, P, S, W	2% or 2 Ohms	±10%	1 @ 70°C	-55°C to 175°C	25	No	.312 .19 1.25	100-10K 5.72 5.30 4.77 20K & 25K 7.34 6.80 6.12 50K 7.88 7.30 6.57 100K 9.55 8.85 7.97 150K 10.91 10.10 9.09		
GENERAL PURPOSE, WIREWOUND	1"		111 112 113 114 115	10-150K	S L W P—staggered P—in line	.5% or 1 Ohm	±10%	2 @ 70°C	-55°C to 175°C	25	No	.312 .19 1.19	100-10K 5.72 5.30 4.77 20K & 25K 7.34 6.80 6.12 50K 7.88 7.30 6.57 100K 9.55 8.85 7.97 150K 10.91 10.10 9.09		

Military and Commercial



DESCRIPTION	Distance between mounting holes	Series or Model Number	Resistance* (Ohms)	Lead Configuration (See below)**	End Resistance	Total Resistance	Power Rating (Watts)	Operating Temperature Range °C	Turns Nominal	Mis-ture Resist-ant	Physical Dimensions (Inches) H W L	Standard Resistance Range, Ohms	Price 1-9 10-24 25-49
LOW COST, COMMERCIAL, REWOUND	1"		871 873 875	10-100K	L S P	2%	±10%	.5 @ 40°C —55°C to 115°C	25	No	5/16 1/4 1-1/4	100-10K 20K & 25K 50K 100K	3.11 2.88 2.59 4.19 3.88 3.49 4.72 4.37 3.93 6.59 6.10 5.49
LOW COST, COMMERCIAL, REWOUND	.830"		5067	10-50K	P, H	2%	±10%	.5 @ 40°C —55°C to 115°C	18	No	.36 .28 1.00	100-20K 25K 50K	1.73 1.60 1.44 2.70 2.50 2.23 4.19 3.88 3.49
LOW COST, COMMERCIAL, REWOUND	1"		872 874 876	20K-1 Meg	L S P	7.5%	±20%	.2 @ 25°C —55°C to +85°C	25	No	5/16 1/4 1-1/4	20K-1 Meg	3.65 3.38 3.04
LOW COST, COMMERCIAL, REWOUND	.830"		5068	20K-1 Meg	P, H	5%	±20%	.2 @ 25°C —55°C to +85°C	18	No	.36 .28 1.00	20K-1 Meg	1.73 1.60 1.44
MODEL UNITS													
													
													
													
													

Model M

Model M

Model M

Model M

Model M

Indicate series, lead configuration, resistance value and accessory, if any.

For example:

ART 12 P 503 M

Series Lead Configuration Panel Mount

(This letter not required when ordering 110, 120, 300 and 870 Series units because model numbers indicate lead configurations.)

Resistance Value (First two digits are significant, the third digit indicates number of zeros to be added. For example, 503 represents 50,000 ohms.)

*Special resistances available on order.

**Lead Configurations: L=Flexible Leads; P=Printed Circuit Pins (on ART10P model pins are located on side); S=Solder Lugs; W=Solid Wire Leads; E=Edge Mounted Printed Circuit Terminals (on ART10E model pins are located on edge); H=Solder Hooks.

***When ordering to MIL-R-27208 use the mil-spec part numbers.

ATOHM Style ART10 L complies with MIL-R-27208 Style RT 10C2L XXX.
ATOHM Style ART10 P complies with MIL-R-27208 Style RT 10C2P XXX.
ATOHM Style ART11 L complies with MIL-R-27208 Style RT 11C2L XXX.
ATOHM Style ART11 P complies with MIL-R-27208 Style RT 11C2P XXX.
ATOHM Style ART12 L complies with MIL-R-27208 Style RT 12C2L XXX.
ATOHM Style ART12 P complies with MIL-R-27208 Style RT 12C2P XXX.

ATOHM ELECTRONICS



BOURNS®

BOURNS® BUSHING-MOUNT POTENTIOMETERS

MODEL	DESCRIPTION	RESISTANCE ^① (OHMS)	TOLERANCE (%)	LINEARITY (%)	ELECTRICAL AND MECHANICAL ROTATION	MECHANICAL LIFE (CYCLES)	POWER (WATTS)	MAXIMUM OPERATING TEMP. RANGE (°C)	HUMIDITY (MIL-R-12934C)	SHOCK	VIBRATION	SIZE (INCHES) DIA. x CASE LENGTH	PRICES					
													1-9	10-24	25-49	50-99	100-249	
3400	1½" dia., 10 turns	100-250K 500K 1 meg	±3	±0.15	3600° (+4°/-0°)	100,000	5.0 at 40°C	-65 to +105	Yes	50G	10G	1½ x 1½	10.00	9.50	9.00	8.50	8.00	
													19.00	18.05	17.10	16.15	15.20	
													28.00	26.60	25.20	23.80	22.40	
3410	2" dia., Single turn	50-100K	±3	±0.3	350° (±2°)Ⓢ	500,000	4.0 at 70°C	-65 to +125	Yes	50G	15G	2 x ¾	19.00	18.05	17.10	16.15	15.20	
3430	1½" dia., Single turn	50-10K 20K-50K 100K	±3	±0.5	350° (±2°)Ⓢ	500,000	1.5 at 70°C	-65 to +125	Yes	50G	15G	1½ x ¾	24.00	22.80	21.60	20.40	19.20	
													31.00	31.35	29.70	28.05	26.40	
													42.00	39.90	37.80	35.70	33.60	
3440	3" dia., Single turn	100-100K 200K 500K	±3	±0.25	350° (±2°)Ⓢ	500,000	6.0 at 70°C	-65 to +125	Yes	50G	15G	3 x ¾	22.00	20.90	19.80	18.70	17.60	
													33.00	31.35	29.70	28.05	26.40	
													40.00	38.00	36.00	34.00	32.00	
3500	¾" dia., 10 turns	50-125K 150K, 250K 500K	±3	±0.2	3600° (+10°/-0°)	100,000	2.0 at 70°C	-65 to +125	Yes ①	100G	20G	¾ x 1	10.00	9.50	9.00	8.50	8.00	
													28.00	26.60	25.20	23.80	22.40	
3501	¾" dia., 10 turns INFINTRON® Element	1K-500K	±5	±0.5	3600° (+10°/-0°)	500,000	2.0 at 70°C	-65 to +125	Yes ①	100G	20G	¾ x 1	13.75	13.06	12.38	11.69	11.00	
3510	¾" dia., 3 turns	25-50K 100K	±3	±0.30	1080° (+10°/-0°)	100,000	1.0 at 70°C	-65 to +125	Yes ①	100G	20G	¾ x ¾	15.00	14.25	13.50	12.75	12.00	
													31.50	31.35	29.70	28.05	26.40	
3520	¾" dia., 5 turns	25-75K 100K 250K	±3	±0.30	1800° (+10°/-0°)	100,000	1.5 at 70°C	-65 to +125	Yes ①	100G	20G	¾ x ¾	13.50	12.83	12.15	11.48	10.80	
													22.50	21.38	20.25	19.13	18.00	
													31.50	29.93	28.35	26.78	25.20	
3530	¾" dia., Single turn	25-20K 50K	±3	±0.50	350° (±2°)Ⓢ	500,000	1.0 at 70°C	-65 to +125	Yes	50G	15G	¾ x ¾	9.00	8.55	8.10	7.65	7.20	
													27.00	25.65	24.30	22.95	21.60	
3507	¾" dia., 10 turns	100 to 100K 250K	±5	±0.50	3600° (+10°/-2°) ^②	10,000	2.0 at 25°C	-55 to +105	No	50G	10G	¾ x 1½	7.50	6.50	6.25	5.95	5.50*	
3700	½" dia., 10 turns	50-100K 250K	±5	±0.25	3600° (+10°/-0°)	50,000	1.0 at 70°C	-65 to +125	Yes	100G	20G	½ x 1	24.50	23.28	22.05	20.83	19.60	
													32.00	30.40	28.80	27.20	25.60	
3707	½" dia., 10 turns	100-100K	±5	±1.0	3600° (+10°/-5°)	10,000	1.0 at 40°C	-55 to +105	No	50G	10G	½ x 1	12.50	11.88	11.25	10.63	10.00	

*100-499

ACCESSORIES

FOR KNOB® POTENTIOMETERS

Part No.	Description	1-24	25-99	100-500	501-999
4-93 (3600) 4-99 (3640)	Snap-on Color Rings*	.35	.30	.25	.20
	*Per FED. STD. 595				
4-95 (3600) 4-96 (3640)	Stainless Steel Skirt	1.50	1.25	1.00	.75
4-97 (3640) 4-103 (3600)	Plastic Slip-over friction brake	1.25	1.07	.97	.90
4-100	MIL-SPEC 1-inch diameter slip-over knob (Model 3600 only)	1.25	1.07	.97	.90
4-101 (3600) 4-102 (3640)	Stainless Steel Recessed Mounting Bracket	1.25	1.07	.97	.90

1-INCH TURNS COUNTING DIALS

Part No.	Shaft Dia.	Brake	1-9	10-24	25-99	100-249
H-411 H-461	¼"	No	7.75	7.36	6.98	6.59
H-412 H-462	¼"	Yes	8.95	8.50	8.06	7.61
H-421 H-471	¼"	No	7.75	7.36	6.98	6.59
H-422 H-472	¼"	Yes	8.95	8.50	8.06	7.61
H-431 H-481	½"	No	8.10	7.70	7.29	6.89
H-432 H-482	½"	Yes	9.30	8.84	8.37	7.91

½"-DIAMETER TURNS COUNTING DIALS

Part No.	Description	1-9	10-24	25-99	100-249
H-351	10-Turn, clock-dial readout. Accepts ¼" or ½" Dia. shafts.	8.00	7.60	7.20	6.80
H-353	Adapter for shaft extensions	.50	.48	.45	.40
H-354	Turns Counting Dial with brake	8.50	8.08	7.65	6.80
H-355	Snap-on Color Rings*	.35	.35	.30	.25

PRECISION POTENTIOMETERS

With smaller housings, higher resistances, better linearity, finer resolution, and higher operating temperatures than any other line



BOURNS® SERVO-MOUNT POTENTIOMETERS

DEL	DESCRIPTION	RESISTANCE (OHMS)	TOLERANCE (%)	LINEARITY (%)	ELECTRICAL AND MECHANICAL ROTATION	MAXIMUM GANGING (CUPS)	MECHANICAL LIFE (CYCLES)	POWER (WATTS)	MAXIMUM OPERATING TEMP. RANGE (°C)	HUMIDITY (MIL-R-12934C)	SHOCK	VIBRATION	SIZE (INCHES) DIA. CASE LENGTH	PRICES				
														1-9	10-24	25-49	50-99	100-249
450	2" dia., 10 turns	100-500K 1 Meg	±3	±0.15	3600° (+3°/-0°)	5	100,000	5.0 at 70°C	-65 to +125	Yes	50G	10G	2 x 2 1/2	20.00	19.00	18.00	17.00	16.00
														29.00	27.55	26.10	24.65	23.20
460	2" dia. Single turn	50-100K	±3	±0.3	350° (±2°)Ⓢ	19	500,000	4.0 at 70°C	-65 to +125	Yes	50G	15G	2 x 3/4	21.00	19.95	18.90	17.85	16.80
480	1 1/4" dia., Single turn	50-10K 20K-50K 100K	±3	±0.5	350° (±2°)Ⓢ	19	500,000	1.5 at 70°C	-65 to +125	Yes	50G	15G	1 1/4 x 3/4	29.00	27.55	26.10	24.65	23.20
														38.00	36.10	34.20	32.30	30.40
														47.00	44.65	42.30	39.95	37.60
490	3" dia., Single turn	100-100K 200K 500K	±3	±0.25	350° (±2°)Ⓢ	8	500,000	6.0 at 70°C	-65 to +125	Yes	50G	15G	3 x 3/4	24.00	22.80	21.60	20.40	19.20
														33.00	31.35	29.70	28.05	26.40
														42.00	39.90	37.80	35.70	33.60
550	1/2" dia., 10 turns	50-100K 150K-200K 250K-500K	±3	±0.20	3600° (+10°/-0°)	5	100,000	2.5 at 70°C	-65 to +125	Yes	100G	20G	3/4 x 1 1/4	20.00	19.00	18.00	17.00	16.00
														29.00	27.55	26.10	24.65	23.20
														38.00	36.10	34.20	32.30	30.40
551	1/2" dia., INFINITRON® Element	1K-500K	±5	±0.5	3600° (+10°/-0°)	5	500,000	2.0 at 70°C	-65 to +125	Yes	100G	20G	3/4 x 1 1/4	31.00	29.45	27.90	26.35	24.80
560	1/2" dia., 3 turns	25-50K 100K 250K	±3	±0.25	1080° (+10°/-0°)	8	100,000	1.5 at 70°C	-65 to +125	Yes	100G	20G	3/4 x 1 1/4	20.00	19.00	18.00	17.00	16.00
														38.00	36.10	34.20	32.30	30.40
570	1/4" dia., 5 turns	25-75K 100K 250K	±3	±0.25	1800° (+10°/-0°)	6	100,000	2.0 at 70°C	-65 to +125	Yes	100G	20G	3/4 x 1 1/4	18.50	17.58	16.65	15.73	14.80
														27.50	26.13	24.75	23.38	21.99
														36.50	34.68	32.85	31.03	29.20
580	1/4" dia., Single turn	25-20K 50K	±3	±0.5	350° (±2°)Ⓢ	24	1,000,000	1.0 at 70°C	-65 to +125	Yes	50G	15G	3/4 x 3/4	25.00	23.75	22.50	21.25	20.00
														43.00	40.85	38.70	36.55	34.40
750	1 1/2" dia., 10 turns	50-100K 250K	±5	±0.25	3600° (+10°/-0°)	0	50,000	1.0 at 70°C	-65 to +125	Yes	100G	20G	1 1/2 x 1 1/4	34.00	32.30	30.60	28.90	27.20
														41.50	39.43	37.35	35.28	33.20

BOURNS KNOBPOT® (CLOCK FACE) POTENTIOMETERS

DEL	DESCRIPTION	RESISTANCE (OHMS)	TOLERANCE (%)	DIAL ACC. (%)	DIAL REPEATABILITY (% W/R)	ELECTRICAL AND MECHANICAL ROTATION	MECHANICAL LIFE (CYCLES)	POWER (WATTS)	MAXIMUM OPERATING TEMP. RANGE (°C)	HUMIDITY (MIL-R-12934C)	SHOCK	VIBRATION	SIZE (INCHES) DIA. CASE LENGTH	PRICES				
														1-9	10-24	25-49	50-99	100-249
1600	3/4" dia., 10 turns	100-100K 150K-200K 250K	±5	±0.5	0.1	3600° (+10°/-0°)	10,000	1.5 at 25°C	-65 to +85	Yes	50G	10G	3/4 x 1	20.52	19.00	17.10	16.23	15.20
														30.24	28.00	25.20	23.91	22.40
1640	1 1/4" dia., 10 turns	100-250K 500K	±3	±0.1	0.05	3600° (+10°/-0°)	10,000	2.5 at 25°C	-65 to +85	Yes	50G	10G	1 1/4 x 1 1/4	20.52	19.00	17.10	16.23	15.20
														30.24	28.00	25.20	23.91	22.40

BPOT™ POTENTIOMETER

MODEL 3660 LABPOT
PRECISION POTENTIOMETER
Impact, dial-readout precision potentiometer designed as a convenient tool for a variety of laboratory applications. Incorporates Bourns' exclusive KNOBPOT® potentiometer for high stability through its unique "clock-dial" face. Compact, lightweight, yet remains firmly in place when in use. Large five-way binding posts with easy hook-up of any kind of leads. Fused protection against burnout. An extra fuse is provided inside for added convenience.

SPECIFICATIONS:

Std. Resistances 100Ω 1K, 10K, 100K (others available on request)
Resistance Tolerance ±1%
Dial Accuracy 20% 100Ω 15% 1K 10% 10K and 100K
Repeatability ±.05% voltage ratio
Operating Temp. Range -65 to +125°C
Power Rating 2.5W at room temp.
Mechanical Life 200,000 dial rev.
Weight 14 ounces
Prices 1-9 10-24 25-49 50-99
42.20 40.00 36.00 34.16

① Special resistances are available above and below the standard range shown. Consult factory for price and technical information. ② Std. Models exceed steady state requirements of MIL-STD-203, METHOD 103. Optional models are available meeting humidity cycling requirements of MIL-STD-202, METHOD 106. ③ Mechanical rotation continuous. ④ Electrical rotation only. © 1966 Bourns, Inc.

FOR BOURNS TRIMPOT®
ADJUSTMENT POTENTIOMETERS,
SEE PAGES 1176, 1177.

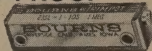
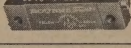
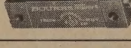
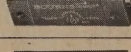
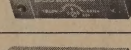
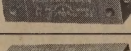
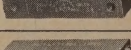
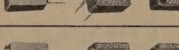
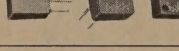
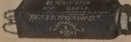
FOR BOURNS
TRIMPOT® RELAYS,
SEE PAGES 1047.



BOURNS, INC., TRIMPOT DIVISION

BOURNS TRIMPOT®

Industry's largest selection -

Description	Name	Model	Resistance (Ohms) ②	Terminals ①	Abs. Min. Res. (%)	Tolerance (%) ③	Power Rating (Watt)	Max. Operating Temp. (°C)	Adj. Turns	Humidity Proof ④ (Mil Spec)	Size (Inches) H W L	Standard Resistances (Ohms)	Price 1 - 9 10-24 25-49		
HUMIDITY-PROOF															
GENERAL PURPOSE RESISTOR-CARBON ELEMENT		TRIMPOT ② 235	5K to 5 Meg	L*, S*, P	0-1.0	±20	0.25	125	22	Yes	23/64 19/64 1-11/32	5K-5 Meg	7.02	6.50	5.85
GENERAL PURPOSE WIREWOUND		TRIMPOT 236	10 to 1K 2K to 50K 100K	L*, S*, P L*	0-0.2 ① 0-0.1 0-0.0	±10	0.80	135	25	Yes	23/64 19/64 1-11/32	10 -10K 20K-25K 50K 100K	7.02 8.64 9.18 11.34	6.50 8.00 8.50 10.50	5.85 7.20 7.65 9.45
MICRO-MINIATURE HIGH TEMPERATURE WIREWOUND		TRIMPOT 3000	50 to 20K	P	0-0.1 ④	±10	0.50	175	15	Yes	5/16 5/32 3/4	50 -10K 20K	9.72 10.80	9.00 10.00	8.10 9.00
HIGH TEMPERATURE RESISTOR-CARBON ELEMENT		TRIMPOT 3001	20K to 1 Meg	P	0-1.0	±20	0.20 ⑤	150	15	Yes	5/16 5/32 3/4	20K-1 Meg	9.18	8.50	7.65
SUB-MINIATURE HIGH TEMPERATURE WIREWOUND		TRIMPOT 220	10 to 30K	L*, W*	0-0.1 ①	±10	1.00	175	15	Yes	5/16 3/16 1	10 -10K 20K-30K	8.64 10.26	8.00 9.50	7.20 8.55
HIGH TEMPERATURE WIREWOUND		TRIMPOT 224	10 to 1K 2K to 50K 100K	L*, S*, P	0-0.2 0-0.1 0-0.0	±5	1.00	175	22	Yes	5/16 3/16 1-1/4	10 -10K 20K-25K 50K 100K	7.02 8.64 9.18 11.34	6.50 8.00 8.50 10.50	5.85 7.20 7.65 9.45
ULTRA-RELIABLE HIGH TEMPERATURE WIREWOUND		TRIMPOT 224-500	100 to 1K 2K to 20K	L, P	0-0.2 ③ 0-0.1	±5	0.50	150	22	Yes	5/16 3/16 1-1/4	100-10K 20K	14.58 16.20	13.50 15.00	12.15 13.50
HIGH TEMPERATURE RESISTOR-CARBON ELEMENT		TRIMPOT 3051	5K to 5 Meg	L*, S*, P	0-1.0	±20	0.25 ⑤	150	22	Yes	5/16 3/16 1-1/4	5K-5 Meg	7.02	6.50	5.85
HIGH TEMPERATURE PALIRIUM ⑥ ELEMENT		TRIMPOT 3052	500 to 1 Meg	L*, P	0-0.1	±10	1.00 ⑤	175	25	Yes	5/16 3/16 1-1/4	500-1 Meg	5.94	5.50	4.95
HIGH TEMPERATURE PALIRIUM ELEMENT		TRIMPOT 3053	20-200 2-200	L P, S	1-15 ④ ±15 (2in) ±10 (5-200in)	0.50	175	25	Yes	5/16 3/16 1-1/4	(L) 20-200 (P) (S) 2-5 10-200	5.94 9.18 5.94	5.50 8.50 5.50	4.95 7.65 4.65	
HIGH TEMPERATURE WIREWOUND		TRIMPOT 3010	10 to 1K 2K to 50K 100K	L*, P	0-0.2 ③ 0-0.1 0-0.0	±5	1.00	175	25	Yes	5/16 9/32 1-1/4	10 -10K 20K-25K 50K 100K	7.02 8.64 9.18 11.34	6.50 8.00 8.50 10.50	5.85 7.20 7.65 9.45
HIGH TEMPERATURE RESISTOR-CARBON ELEMENT		TRIMPOT 3011	5K to 5 Meg	L*, P	0-1.0	±20	0.25 ⑤	150	22	Yes	5/16 9/32 1-1/4	5K-5 Meg	7.02	6.50	5.85
HIGH TEMPERATURE PALIRIUM ELEMENT		TRIMPOT 3012	500 to 1 Meg	L*, P	0-0.1	±10	1.00	175	25	Yes	5/16 9/32 1-1/4	500-1 Meg	5.94	5.50	4.95
MICRO-MINIATURE WIREWOUND		BOURNS 3280	10 to 50K	L, P, W	0-0.1 ①	±5	1.00	175	25	Yes	13/64 3/8 3/8	10 -10K 20K-25K 50K	7.56 9.18 9.72	7.00 8.50 9.00	6.30 7.65 8.10
MICRO-MINIATURE RESISTOR-CARBON ELEMENT		BOURNS 3281	20K to 1 Meg	L, P, W	0-1.0	±20	0.50 ⑤	150	25	Yes	13/64 3/8 3/8	20K-1 Meg	7.56	7.00	6.30
SUB-MINIATURE HIGH TEMPERATURE WIREWOUND		TRIMPOT 3250	10 to 50K	L P, W	0-0.1 ①	±5	1.00	175	25	Yes	3/16 1/2 1/2 7/32 1/2 1/2	10 -10K 20K-25K 50K 100-10K 20K-25K 50K	6.71 7.56 10.01 7.23 7.97 10.53	6.22 7.00 9.27 6.69 7.38 9.75	5.59 6.30 8.34 6.02 6.64 8.78
SQUARE HIGH TEMPERATURE RESISTOR-CARBON ELEMENT		TRIMPOT 3251	20K to 1 Meg	L P, W	1.0	±20	0.50 ⑤	150	25	Yes	3/16 1/2 1/2 7/32 1/2 1/2	20K-1 Meg	7.83	7.25	6.53
MICRO-MINIATURE 1/4" SQUARE WIREWOUND		TRIMPOT 3260	10 to 1K 2K to 5K 10K to 20K	P	0-0.1 ①	±5	0.20	175	11	Yes	1/4 1/4 .17	10 -1K 2K-5K 10K-20K	7.50 8.25 10.50	6.95 7.64 9.72	6.25 6.88 8.75
HIGH-RESOLUTION WIREWOUND		TRIMPOT 3070	100 to 50K	P S Panel L Mount	0-0.1 ①	±5	1.50	175	10	Yes	5/16 5/16 1-1/16 7/16 5/16 1-1/16	100-25K 50K 100-25K 50K	9.00 11.00 9.80 11.80	8.34 10.19 9.08 10.93	7.50 9.17 8.17 9.83

FOR BOURNS® PRECISION POTENTIOMETERS, SEE PAGES 1174, 1175. FOR BOURNS TRIMPOT® RELAYS, SEE PAGE 1047.

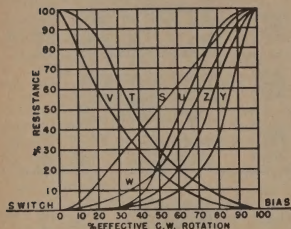
Description	Name	Model	Resistance (Ohms)ⓐ	Terminals ①	Abs. Min. Res. (%)	Tolerance (%)ⓑ	Power Rating (Watt)	Max Operating Temp. (°C)	Humidity Proof Ⓒ (Mil Spec)	Size (Inches) H W L	Standard Resistances (Ohms)	Price 1 9 10-24 25-49	
SEALED													
KERAL PROSE REWOUND		TRIMPOTⓐ	200	10 to 50K 100K	L*, S*, P L*	0.7-1 0-5.0	±10	0.50	125	25	Steady State Only	5/16 1/4 1-1/4	10 -10K 4.86 4.50 4.05 20K-25K 7.56 6.00 5.40 50K 7.56 7.00 6.30 100K 9.18 8.50 7.65
KERAL HIPOTE IBON ELEMENT		TRIMPOT	215	5K to 5 Meg	L*, S*, P L*	0-1.0	±20	0.25 [Ⓓ]	125	22	Steady State Only	5/16 1/4 1-1/4	5K-5 Meg 4.86 4.50 4.05
H TEMPERATURE REWOUND		TRIMPOT	260	10 to 1K 2K to 50K 100K	L*, S*, P L*	0-0.2 [Ⓔ] 0-0.1 0-5.0	±10	1.00	175	25	Steady State Only	5/16 1/4 1-1/4	10 -10K 5.94 5.50 4.95 20K-25K 7.56 7.00 6.30 50K 8.10 7.50 6.75 100K 9.72 9.00 8.10
SINGLE-TURN													
RO-MINIATURE H TEMPERATURE MIDITY-PROOF REWOUND		BOURNS	3300	10 to 20K	W P S	0-1.0 [Ⓕ]	±5	0.50	175	280*	Yes	3/8 1/4 5/16 5/16 dia. x 3/16 5/16 dia. x 15/32	10 -10K 5.94 5.50 4.95 20K 7.56 7.00 6.30 50K 8.10 7.50 6.75 20K 10.53 9.75 8.78
RO-MINIATURE H TEMPERATURE MIDITY-PROOF RISTON CARBON ELEMENT		BOURNS	3301	10K to 1 Meg	W P S	0-1.0	±20	0.25 [Ⓖ]	150	260*	Yes	3/8 1/4 5/16 5/16 dia. x 3/16 5/16 dia. x 15/32	10K-1 Meg 5.94 5.50 4.95 10K-1 Meg 8.91 8.25 7.43 10K-1 Meg 8.91 8.25 7.43
S-MINIATURE GLE-TURN REWOUND		BOURNS	3367	10 to 20K	P S	0-1.0	±5	0.50	105	285*	Steady State Only	1/2 dia. x 15/64 1/2 dia. x 35/64	10 -20K 4.86 4.50 4.05 10 -20K 5.67 5.25 4.73
S-MINIATURE GLE-TURN RISTON IBON ELEMENT		BOURNS	3368	20K to 1 Meg	P S	0-1.0	±20	0.25 [Ⓗ]	105	285*	Steady State Only	1/2 dia. x 15/64 1/2 dia. x 35/64	20K-1 Meg 5.94 5.50 4.95 20K-1 Meg 6.75 6.25 5.63
COMMERCIAL													
M REWOUND		TRIMIT	271 274 275	50 to 20K	L* S* P	0-2.0	±10	0.50	105	25	No	5/16 1/4 1-1/4	50-10K 3.19 2.95 2.66 20K 4.32 4.00 3.60
M IBON ELEMENT		TRIMIT	272 274 276	5K to 5 Meg	L* S* P	0-5.0	±20	0.20	105	25	No	5/16 1/4 1-1/4	5K-5 Meg 3.78 3.50 3.15
M REWOUND		E-Z-TRIM	3067	50 to 20K	S, P	0-2.0	±10	0.50	85	15	No	23/64 9/32 1	50-20K 1.85 1.71 1.54
M IBON ELEMENT		E-Z-TRIM	3068	20K to 1 Meg	S, P	0-5.0	±20	0.20	85	15	No	23/64 9/32 1	20K-1 Meg 1.85 1.71 1.54
SPECIAL-PURPOSE													
G-H-POWER (75 WATT) TEMPERATURE REWOUND		TRIMPOT	207	100 to 100K	L*	0-0.2 [Ⓙ]	±10	2.00	175	25	No ^⓫	13/16 9/32 1-1/4	100-50K 10.26 9.50 8.55 100K 11.88 11.00 9.90
G-H-POWER (75 WATT) TEMPERATURE REWOUND		TRIMPOT	3020	100 to 50K	L*	0-0.1 ^⓪	±5	3.75	200	25	Yes	21/64 1/4 1-1/4	100-10K 14.04 13.00 11.70 20K-25K 15.66 14.50 13.05 50K 16.20 15.00 13.50
RAL REWOUND		TWINPOT	209	10 to 1K 2K to 50K	L*	0-0.2 ^⓫ 0-0.1	±10	0.50 (each element)	135	25	No ^⓬	5/16 1/2 1-1/4	10 -10K 12.96 12.00 10.80 20K-25K 14.58 13.50 12.15 50K 16.20 15.00 13.50
G-H-POWER (5 WATT) TEMPERATURE REWOUND		TRIMPOT	3030	10 to 10K	L	0-5.0	±10	15	265	25	No	1-1/16 33/64 1-17/64	10 -10K 14.58 13.50 12.15
DIACTION OF REWOUND		TRIMPOT	3040	500 to 20K	W	0-1.0	±10	5.00	350	17	No	3/8 19/64 1-1/4	500-20K 27.00 25.00 22.50
PANEL MOUNTING													
								add to price of basic unit					
								209 2.16 2.00 1.80					
								All Others .81 .75 .68					
*Models so designated are available with the added convenience of panel mounting. Unique design permits quick factory conversion of "off-the-shelf" units. Clip brackets, mounting brackets and mounting screws are available for other mounting requirements.													
Key to letter types: L=Insulated stranded leads; S=Solder lugs (includes panel mounting bushing on Models 3367S, 3368S, 3300S, & 3010S only); P=Printed dipping; W=Uninsulated wires edge mounting 3250, 3251, 3280, 3281). ⓐ The following resistances are standard if they fall within the limits listed: Wirewound—20, 50, 100, 200, 500, 1K, 2K, 5K, 10K, 20K, 25K, 50K, 100K; RESISTOR, RESISTALOY—5K, 10K, 20K, 50K, 100K, 200K, 500K, 750K, 1, 2, 5 Meg.; PALIRIUM—10, 20, 50, 100, 200, 500, 100K, 200K, 500K, 750K, 1 Meg. Other resistances available on special order. ⓑ All models are sealed against sand and dust. Ⓒ Humidity-proof is greater. ⓓ Closer tolerances available on request, except commercial models. ⓔ All models are sealed against sand and dust. ⓕ Humidity-proof is greater. ⓖ Models so designated are available with the added convenience of panel mounting. Unique design permits quick factory conversion of "off-the-shelf" units. Clip brackets, mounting brackets and mounting screws are available for other mounting requirements.													
on available on special order. Contact factory for part number, price and delivery. ⓕ Bourns, TRIMPOT, TWINPOT, TRIMIT, E-Z-TRIM, RESISTALOY, RESISTOR, RESISTOR, SILVERWELD, KNOBROTOK are registered trademarks of Bourns, Inc. Other products made by Bourns, Inc., are identified by trademarks such as: TRIMISTOR, TRIMM, MIL-E-TRIM, CARBOLON, PANLTRIM, MILISEAL, CLOCKPOT, TRIMR, MICROTRIM, RESISTRIM, TRIMPOT JR., B, LABPOT, TRIMPOT, DIALPOT, and TRIMPONENT. Bourns, Inc. is the owner of rights under the following listed United States Letters Patents relating to certain of its instruments potentiometers: 2,706,230 / 2,777,926 / 2,805,307 / 2,831,949 / 2,873,337 / 2,882,375 / 2,922,976 / 2,935,716 / 2,945,198 / 2,946,975 / 3,010,092 / 3,018,459 / 3,089,569 / 3,089,110 / RE 25,412 / RE 25,725 / 3,107,336 / RE 25,510 / 3,124,779 / 3,124,955 / 3,139,601. Other patents pending. Certain Bourns products are under development and pending foreign patents. ⓕ End setting varies from 1 to 15% to account for lead resistance. ⓖ Or 300 volts maximum. ⓗ Or 500 volts maximum.													
Bourns, Inc. has thousands of units stocked in factory warehouses													
 BOURNS, INC. TRIMPOT DIVISION													

PRODUCTS OF THE HOUSE OF RESISTORS®



RESISTORS • CONTROLS RESISTANCE DEVICES

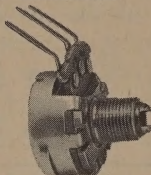
COMPOSITION-ELEMENT CONTROLS



Graph Explanation:
 Taper S—Straight or uniform resistance change with rotation.
 Taper T—Right-hand 30% resistance at 50% of C.W. rotation.
 Taper U—Left-hand 1% resistance at 83 1/3% of C.W. rotation.
 Taper W—Right-hand 20% resistance at 50% of C.W. rotation.
 Taper Y—Left-hand 20% resistance at 50% of C.W. rotation.
 Taper Z—Left-hand (Log. audio) 10% resistance at 50% of C.W. rotation.
 Taper Y—Left-hand 5% resistance at 50% of C.W. rotation.

SERIES "A47" 1/2-WATT CONTROLS

Composition-element controls in the popular 1/8" dia. size. Series "A47" controls are field-assembled with the selected "Pick-A-Shaft" and "Ad-A-Switch". These controls are also available with factory-assembled shafts at no extra charge, by omitting prefix "A" from catalog number and designating the type shaft desired when ordering. Example: 47-100K-S with FKS-1/4 shaft.



Cat. No.	OHMS	TAPER
A47-500-S	500	S
A47-750-S	750	S
A47-1000-S	1000	S
A47-1500-S	1500	S
A47-2000-S	2000	S
A47-2500-S	2500	S
A47-3000-S	3000	S
A47-4000-S	4000	S
A47-5000-S	5000	S
A47-7500-S	7500	S
A47-10K-S	10K	S
A47-10K-V	10K	V
A47-10K-W	10K	W
A47-10K-Z	10K	Z
A47-15K-S	15K	S
A47-15K-V	15K	V
A47-15K-W	15K	W
A47-20K-S	20K	S
A47-25K-S	25K	S
A47-25K-W	25K	W
A47-25K-V	25K	V
A47-30K-S	30K	S
A47-40K-S	40K	S
A47-50K-S	50K	S
A47-50K-W	50K	W
A47-50K-Z	50K	Z
A47-75K-S	75K	S

Cat. No.	OHMS	TAPER
A47-75K-V	75K	V
A47-100K-S	100K	S
A47-100K-Z	100K	Z
A47-150K-S	150K	S
A47-200K-S	200K	S
A47-250K-S	250K	S
A47-250K-Z	250K	Z
A47-300K-S	300K	S
A47-500K-S	500K	S
A47-500K-Z	500K	Z
A47-750K-S	750K	S
A47-1 Meg-S	1 Meg.	S
A47-1 Meg-Z	1 Meg.	Z
A47-1.5 Meg-S	1.5 Meg.	S
A47-2 Meg-S	2 Meg.	S
A47-2 Meg-Z	2 Meg.	Z
A47-2.5 Meg-S	2.5 Meg.	S
A47-3 Meg-S	3 Meg.	S
A47-3 Meg-Z	3 Meg.	Z
A47-4 Meg-S	4 Meg.	S
A47-4 Meg-Z	4 Meg.	Z
A47-5 Meg-S	5 Meg.	S
A47-5 Meg-Z	5 Meg.	Z
A47-7.5 Meg-S	7.5 Meg.	S
A47-10 Meg-S	10 Meg.	S

NET PRICE \$9.3

SERIES "AD47" 1/2-WATT DUAL CONTROLS

These are the same as "A47" except that they are dual controls.

Cat. No.	Panel	Taper	Rear	Taper
AD47-50-S	50K	S	50K	S
AD47-100K-S	100K	S	100K	S
AD47-250K-S	250K	S	250K	S
AD47-250K-Z	250K	Z	250K	Z
AD47-500K-Z	500K	Z	500K	Z
AD47-1 Meg-S	1 Meg.	S	1 Meg.	S
AD47-1 Meg-Z	1 Meg.	Z	1 Meg.	Z
AD47-2 Meg-S	2 Meg.	S	2 Meg.	S
AD47-2 Meg-Z	2 Meg.	Z	2 Meg.	Z
AD47-5 Meg-S	5 Meg.	S	5 Meg.	S

NET PRICE \$2.25

SERIES "C47S" 1/2-WATT CONTROLS WITH PUSH-PULL SWITCH

Cat. No.	Cat. No.
C47S-1000-V	C47S-750K-Z
C47S-2500-V	C47S-1MEG-S
C47S-250K-S	C47S-1MEG-Z
C47S-250K-Z	C47S-2MEG-S
C47S-500K-S	C47S-2MEG-Z
C47S-500K-Z	C47S-3MEG-Z
C47S-750K-S	

Net Price \$1.53

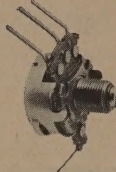
SERIES "C47SF" (TAPPED)

Cat. No.	Cat. No.
C47SF-500K	Tap 250K
C47SF1-500K	Tap 150K
C47SF1-1MEG	Tap 500K
C47SF1-1MEG	Tap 250K
C47SF2-2MEG	Tap 1MEG
C47SF3-3MEG	Tap 1.5MEG

Net Price \$1.95

SERIES "A47F"

Series "A47F" controls are field-assembled with the selected "Pick-A-Shaft" and "Ad-A-Switch". "A47F" controls have taps 1, 2, 3 located at 40%, 50% and 60% of rotation, double taps at 35 and 65% of electrical position. These controls are also available with factory-assembled shafts at no extra charge, by omitting prefix "A" from catalog number and designating the type of shaft desired when ordering. Example: 47F-200K with FS-3 shaft.

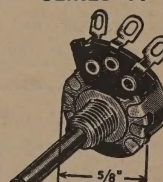


Cat. No.	Res. Ohms.	Tap No. 1 30%	Tap No. 2 50%	Tap No. 3 70%
A47F-15K	15K			
A47F-50K	50K		25K	100K
A47F-200K	200K			50K
A47F-250K	250K			125K
A47F-250K	250K	60K		
A47F-350K	350K	75K		
A47F1-350K	350K		75K	
A47F-500K	500K			100K
A47F1-500K	500K	25K		200K
A47F2-500K	500K			100K
A47F3-500K	500K			50K
A47F4-500K	500K			250K
A47F5-500K	500K			300K
A47F6-500K	500K	100K		200K
A47F7-1 Meg.	1 Meg.	250K		
A47F1-1 Meg.	1 Meg.		50K	
A47F2-1 Meg.	1 Meg.		100K	
A47F3-1 Meg.	1 Meg.		225K	
A47F4-1 Meg.	1 Meg.		500K	
A47F5-1 Meg.	1 Meg.			500K
A47F1-1.5 Meg.	1.5 Meg.	250K		
A47F2-2 Meg.	2 Meg.	20K		
A47F1-2 Meg.	2 Meg.	5000		
A47F2-2 Meg.	2 Meg.	15K		
A47F3-2 Meg.	2 Meg.		1 Meg.	
A47F4-2 Meg.	2 Meg.		200K	
A47F5-2 Meg.	2 Meg.		400K	
A47F6-2 Meg.	2 Meg.		500K	
A47F7-2 Meg.	2 Meg.	250K		1 Meg.
A47F-2.5 Meg.	2.5 Meg.	250K		500K
A47F-3 Meg.	3 Meg.		250K	

NET PRICE \$1.35.

*Reg. U.S. Pat. Off.

SERIES 44 — 0.02 WATT CONTROLS



Composition Element Controls rated at 0.2 watt, designed specifically for miniaturized applications such as transistorized circuits, pocket radios, hearing aids, etc. Stocked controls have Clarostat "W" taper (20% log audio). Other tapers available on special order. Series 44 is without switch, while Series 44S has factory-attached 0.5 am. 25 v.d.c. DPST switch. Other ohmages available on special order. 200 ohms to 5 meg. linear; 1500 to 2.5 meg. tapered. Also available on special order, controls with 0.5 a. 25 v.d.c. SPST switch. Items not listed are special. Prices and information on request.

Without Switch Cat. No.	With SPST Switch Cat. No.
44-500-W	44S-500K-W
44-1K-W	44S-1K-W
44-5K-W	44S-5K-W
44-10K-W	44S-10K-W
44-15K-W	44S-15K-W
44-25K-W	44S-25K-W
44-50K-W	44S-50K-W
44-100K-W	44S-100K-W
44-250K-W	44S-250K-W
44-500K-W	44S-500K-W
44-1M-W	44S-1M-W
44-2.5M-W	44S-2.5M-W

LIST PRICE \$1.55

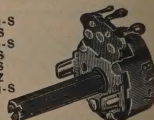
LIST PRICE \$2.55

SERIES B47 1/2-WATT TAB-MOUNT

Composition element controls designed for radio and TV applications, where bushingless controls are required. Phenolic shaft insures insulation with 0.5 a. 25 v.d.c. chassis. Items not listed are special, for which information and prices will be supplied on request.

Cat. No.	Cat. No.	Cat. No.	Cat. No.
B47-500-S	B47-10K-S	B47-250K-S	B47-1.5 Meg-S
B47-750-S	B47-25K-S	B47-350K-S	B47-2 Meg-S
B47-1500-S	B47-50K-S	B47-500K-S	B47-2.5 Meg-S
B47-2500-S	B47-100K-S	B47-500K-Z	B47-3 Meg-S
B47-3000-S	B47-150K-S	B47-1 Meg-S	B47-5 Meg-S
B47-5000-S	B47-200K-S	B47-1 Meg-S	B47-7.5 Meg-S

NET PRICE \$6.0



SERIES B47S 1/2-WATT TAB MOUNT WITH SWITCH

Cat. No.	Cat. No.
B47S-250K-Z	B47S-1 Meg-S
B47S-250K-S	B47S-1 Meg-Z
B47S-250K-Z	B47S-2 Meg-S
B47S-500K-S	B47S-2 Meg-Z
B47S-500K-Z	

Net Price \$1.20

PRODUCTS OF
THE HOUSE OF RESISTORS®

CLAROSTAT



RESISTORS • CONTROLS
RESISTANCE DEVICES

SERIES 53—2 WATT

MOLDED COMPOSITION ELEMENT POTENTIOMETERS

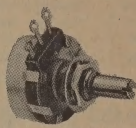


SERIES 53C1

SERIES 53C2



SERIES 53C3



A 2-watt molded composition element potentiometer totally enclosed and sealed against moisture and other environmental. Meets the need for a high quality resistance device incorporating high-stability under extreme climatic and operational conditions. For use in critical applications, such as, test equipment, military requirements, computers, servo systems and industrial metering devices.

1 1/8" diameter and 3/8" deep, wiper assembly of one piece construction; carbon to carbon contact insures exceptionally low noise level; brass nickel plated, gold plated terminals. Electrical tolerances are plus/minus 10% for all values up to 1 meg. and above plus/minus 20%.

Fabricated in accordance with MIL-R-94 Style RV4.

Items not listed are special, prices and information supplied upon request.

The C1 designation indicates a 1 1/8" round shaft beyond bushing; 3/8" long bushing with 3/32-NEF-2 thread. The C2 designation is a 3/8" screwdriver slotted shaft with a 1/2" split locking bushing. The C3 designation is a 3/8" round shaft FMS, 3/8" long bushing with 3/32-NEF-2 thread.

TAPERED POTENTIOMETERS

"Z" TAPER

Cat. No.	Res. Ohms
53C1-100K-Z	100K
53C1-250K-Z	250K
53C1-500K-Z	500K
53C1-1 Meg-Z	1 Meg
53C1-2.5 Meg-Z	2.5 Meg

REVERSED

"Z" TAPER

Cat. No.	Res. Ohms
53C1-100K-RZ	100K
53C1-250K-RZ	250K
53C1-500K-RZ	500K
53C1-1 Meg-RZ	1 Meg
53C1-2.5 Meg-RZ	2.5 Meg

DUAL POTENTIOMETERS

Cat. No.

Cat. No.	Res. Ohms
D53C1-100K-S	100K
D53C1-250K-S	250K
D53C1-500K-S	500K
D53C1-1 Meg-S	1 Meg
D53C1-2.5 Meg-S	2.5 Meg

Cat. No.

Cat. No.	Res. Ohms
D53C1-100K-S	100K
D53C1-250K-S	250K
D53C1-500K-S	500K
D53C1-1 Meg-S	1 Meg
D53C1-2.5 Meg-S	2.5 Meg

Cat. No.	Cat. No.	Cat. No.	Res. Ohms Taper
53C1-50-S	53C2-50-S	53C3-50-S	50 S
53C1-100-S	53C2-100-S	53C3-100-S	100 S
53C1-150-S	53C2-150-S	53C3-150-S	150 S
53C1-250-S	53C2-250-S	53C3-250-S	250 S
53C1-350-S	53C2-350-S	53C3-350-S	350 S
53C1-500-S	53C2-500-S	53C3-500-S	500 S
53C1-750-S	53C2-750-S	53C3-750-S	750 S
53C1-1000-S	53C2-1000-S	53C3-1000-S	1000 S
53C1-1500-S	53C2-1500-S	53C3-1500-S	1500 S
53C1-2000-S	53C2-2000-S	53C3-2000-S	2000 S
53C1-2500-S	53C2-2500-S	53C3-2500-S	2500 S
53C1-3500-S	53C2-3500-S	53C3-3500-S	3500 S
53C1-5000-S	53C2-5000-S	53C3-5000-S	5000 S
53C1-7500-S	53C2-7500-S	53C3-7500-S	7500 S
53C1-10K-S	53C2-10K-S	53C3-10K-S	10K S
53C1-15K-S	53C2-15K-S	53C3-15K-S	15K S
53C1-20K-S	53C2-20K-S	53C3-20K-S	20K S
53C1-25K-S	53C2-25K-S	53C3-25K-S	25K S
53C1-35K-S	53C2-35K-S	53C3-35K-S	35K S
53C1-50K-S	53C2-50K-S	53C3-50K-S	50K S
53C1-75K-S	53C2-75K-S	53C3-75K-S	75K S
53C1-100K-S	53C2-100K-S	53C3-100K-S	100K S
53C1-150K-S	53C2-150K-S	53C3-150K-S	150K S
53C1-200K-S	53C2-200K-S	53C3-200K-S	200K S
53C1-250K-S	53C2-250K-S	53C3-250K-S	250K S
53C1-350K-S	53C2-350K-S	53C3-350K-S	350K S
53C1-500K-S	53C2-500K-S	53C3-500K-S	500K S
53C1-750K-S	53C2-750K-S	53C3-750K-S	750K S
53C1-1 Meg-S	53C2-1 Meg-S	53C3-1 Meg-S	1 Meg S
53C1-1.5 Meg-S	53C2-1.5 Meg-S	53C3-1.5 Meg-S	1.5 Meg S
53C1-2 Meg-S	53C2-2 Meg-S	53C3-2 Meg-S	2 Meg S
53C1-2.5 Meg-S	53C2-2.5 Meg-S	53C3-2.5 Meg-S	2.5 Meg S
53C1-3 Meg-S	53C2-3 Meg-S	53C3-3 Meg-S	3 Meg S
53C1-3.5 Meg-S	53C2-3.5 Meg-S	53C3-3.5 Meg-S	3.5 Meg S
53C1-4 Meg-S	53C2-4 Meg-S	53C3-4 Meg-S	4 Meg S
53C1-5 Meg-S	53C2-5 Meg-S	53C3-5 Meg-S	5 Meg S
53C1-7.5 Meg-S	53C2-7.5 Meg-S	53C3-7.5 Meg-S	7.5 Meg S
53C1-10 Meg-S	53C2-10 Meg-S	53C3-10 Meg-S	10 Meg S

Field-attached switches are available for the Series 53. The switch is easily and quickly installed on the control, taking less than a minute to install.

Cat. No.	Description
53-12	SPST — 5A-125V. A.C.
53-20	DPST — 3A-125V. A.C.
53-21	(Mod.) DPST — 3A-125V. A.C./D.C.

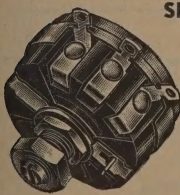
SERIES "43C1" and "43C2" 2-WATT CONTROLS

Electrical tolerance is plus/minus 5% for all ohmages. Independent linearity is to plus/minus 2%. All controls rated 2 watts.

43C1 Cat. No.	43C2 Cat. No.	Res. Ohms	43C1 Cat. No.	43C2 Cat. No.	Res. Ohms	43C1 Cat. No.	43C2 Cat. No.	Res. Ohms	43C1 Cat. No.	43C2 Cat. No.	Res. Ohms
43C1-5	43C2-5	5	43C1-10	43C2-10	10	43C1-15	43C2-15	15	43C1-20	43C2-20	20
43C1-25	43C2-25	25	43C1-30	43C2-30	30	43C1-40	43C2-40	40	43C1-50	43C2-50	50
43C1-75	43C2-75	75	43C1-100	43C2-100	100	43C1-150	43C2-150	150	43C1-200	43C2-200	200
43C1-250	43C2-250	250	43C1-300	43C2-300	300	43C1-400	43C2-400	400	43C1-500	43C2-500	500
43C1-750	43C2-750	750	43C1-1000	43C2-1000	1000	43C1-1500	43C2-1500	1500	43C1-2000	43C2-2000	2000
43C1-2500	43C2-2500	2500	43C1-3000	43C2-3000	3000	43C1-4000	43C2-4000	4000	43C1-5000	43C2-5000	5000
43C1-7500	43C2-7500	7500	43C1-10K	43C2-10K	10K	43C1-15K	43C2-15K	15K	43C1-20K	43C2-20K	20K
43C1-25K	43C2-25K	25K	43C1-30K	43C2-30K	30K	43C1-40K	43C2-40K	40K	43C1-50K	43C2-50K	50K

NET PRICES

43C1-5 to 43C1-10K	\$1.85	43C1-30K to 43C1-50K	\$2.01	43C2-15K to 43C2-25K	\$2.55
43C1-15K to 43C1-25K	1.80	43C2-5 to 43C2-10K	2.25	43C2-30K to 43C2-50K	3.00



SERIES 58C1 and 58C2 3-WATT CONTROLS

58C1 Cat. No.	58C2 Cat. No.	Res. Ohms	58C1 Cat. No.	58C2 Cat. No.	Res. Ohms
58C1-1	58C2-1	1	58C1-500	58C2-500	500
58C1-2	58C2-2	2	58C1-750	58C2-750	750
58C1-4	58C2-4	4	58C1-1000	58C2-1000	1000
58C1-6	58C2-6	6	58C1-1500	58C2-1500	1500
58C1-10	58C2-10	10	58C1-2000	58C2-2000	2000
58C1-15	58C2-15	15	58C1-2500	58C2-2500	2500
58C1-20	58C2-20	20	58C1-3000	58C2-3000	3000
58C1-25	58C2-25	25	58C1-4000	58C2-4000	4000
58C1-30	58C2-30	30	58C1-5000	58C2-5000	5000
58C1-40	58C2-40	40	58C1-7500	58C2-7500	7500
58C1-50	58C2-50	50	58C1-10K	58C2-10K	10K
58C1-60	58C2-60	60	58C1-15K	58C2-15K	15K
58C1-75	58C2-75	75	58C1-20K	58C2-20K	20K
58C1-100	58C2-100	100	58C1-25K	58C2-25K	25K
58C1-150	58C2-150	150	58C1-30K	58C2-30K	30K
58C1-200	58C2-200	200	58C1-40K	58C2-40K	40K
58C1-250	58C2-250	250	58C1-50K	58C2-50K	50K
58C1-300	58C2-300	300			
58C1-400	58C2-400	400			

NET PRICES

58C1-1 to 58C1-10K	\$1.35	58C2-1 to 58C2-10K	\$2.25
58C1-15K to 58C1-25K	1.80	58C2-15K to 58C2-25K	2.55
58C1-30K to 58C1-50K	2.01	58C2-30K to 58C2-50K	3.00

SERIES "10C1" and "10C2" 4-WATT CONTROLS

Electrical tolerance is plus/minus 5% for all ohmages. All controls rated 4 watts.

1 to 50K ohms available on special order. Prices and information on request.

10C1 Cat. No.	10C2 Cat. No.	Res. Ohms
10C1-75K	10C2-75K	75K
10C1-100K	10C2-100K	100K

Net Prices

10C1	2.75	10C2	3.60
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PRODUCTS OF
THE HOUSE OF RESISTORS®



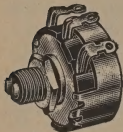
RESISTORS • CONTROLS
RESISTANCE DEVICES

WIRE-WOUND CONTROLS

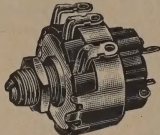
These are "Pick-A-Shaft" controls which take any one of 12 shafts listed on page R-24 including High Voltage Coupler and insulated shaft. Your choice of any one of the 12 shafts listed (this does not include insulated shaft) with each control. Tolerances of these controls are in accordance with EIA standards. Overall resistance

tolerance of plus/minus 10% for all values. All controls are linear. Available with factory-assembled shafts at no extra charge, by omitting the prefix "A" from the catalog number and designating the type of shaft desired when ordering. Example: 43-500 with FKS-1/4 shaft, or 43S-10K with FS-3 shaft and SPST switch.

SERIES "A43" and "A43S" 2-WATT CONTROLS



**SERIES A43
(INDUSTRIAL)
SERIES 43**



**SERIES A43S
(INDUSTRIAL)
SERIES 43S**

"A43" is without switch, while "A43S" has factory-attached SPST switch. When ordering "A43S" controls, specify type of switch. Controls with other than SPST switch are special. Prices and information on request.

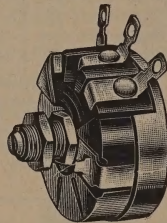
Without Switch Cat. No.	With SPST Switch Cat. No.	Res. Ohms	Without Switch Cat. No.	With SPST Switch Cat. No.	Res. Ohms
A43-5	A43S-5	5	A43-1,000	A43S-1,000	1,000
A43-10	A43S-10	10	A43-1,500	A43S-1,500	1,500
A43-20	A43S-20	20	A43-2,000	A43S-2,000	2,000
A43-25	A43S-25	25	A43-2,500	A43S-2,500	2,500
A43-30	A43S-30	30	A43-3,000	A43S-3,000	3,000
A43-40	A43S-40	40	A43-4,000	A43S-4,000	4,000
A43-50	A43S-50	50	A43-5,000	A43S-5,000	5,000
A43-75	A43S-75	75	A43-7,500	A43S-7,500	7,500
A43-100	A43S-100	100	A43-10K	A43S-10K	10K
A43-150	A43S-150	150	A43-15K		
A43-200	A43S-200	200			
A43-300	A43S-300	300			
A43-400	A43S-400	400			
A43-500	A43S-500	500			
A43-750	A43S-750	750			

NET PRICES: (Without Switch)

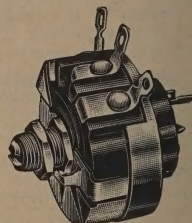
5 to 10KΩ	\$.93
15K to 25KΩ	1.20
30K to 50KΩ	1.62
(With Switch)	
5 to 10KΩ	\$1.47

SERIES "A58" and "A58S" 3- WATT CONTROLS

"A58" is without switch, while "A58S" has factory-attached SPST switch. Available with factory-assembled shafts, at no extra charge, by omitting prefix "A" from catalog number, and designating type of shaft desired when ordering. Example: 58-50K with KSS-8 shaft, or 58S-25K with RS-8 shaft and SPST switch. Controls with other than SPST switch are special. Prices and information on request.



**SERIES A58
(INDUSTRIAL)
SERIES 58**



**SERIES A58S
(INDUSTRIAL)
SERIES 58S**

Without Switch Cat. No.	Res. Ohms	Without Switch Cat. No.	Res. Ohms
A58-1	1	A58-5,000	5,000
A58-2	2	A58-7,500	7,500
A58-4	4	A58-10K	10K
A58-6	6	A58-15K	15K
A58-10	10	A58-20K	20K
A58-15	15	A58-25K	25K
A58-20	20	A58-30K	30K
A58-25	25	A58-40K	40K
A58-30	30	A58-50K	50K
A58-40	40		
A58-50	50		
A58-60	60		
A58-75	75		
A58-100	100		
A58-200	200		
A58-250	250		
A58-300	300		
A58-400	400		
A58-500	500		
A58-750	750		
A58-1,000	1,000		
A58-1,500	1,500		
A58-2,000	2,000		
A58-2,500	2,500		
A58-3,000	3,000		
A58-4,000	4,000		

NET PRICES:
1 to 10KΩ \$.93
15K to 25KΩ 1.20
30K to 50KΩ 1.62

With SPST Switch Cat. No.	Res. Ohms
A58S-1	1
A58S-2	2
A58S-4	4
A58S-6	6
A58S-10	10
A58S-15	15
A58S-20	20
A58S-25	25
A58S-30	30
A58S-40	40

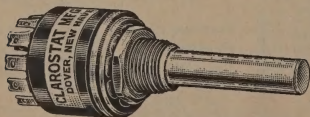
With SPST Switch Cat. No.	Res. Ohms	A58S-2,000	2,000
A58S-50	50	A58S-2,500	2,500
A58S-60	60	A58S-3,000	3,000
A58S-75	75	A58S-4,000	4,000
A58S-100	100	A58S-5,000	5,000
A58S-200	200	A58S-7,500	7,500
A58S-300	300	A58S-10K	10K
A58S-400	400	A58S-15K	15K
A58S-500	500	A58S-20K	20K
A58S-750	750	A58S-25K	25K
A58S-1,000	1,000		
A58S-1,500	1,500		
A58S-30K	30K		
A58S-40K	40K		
A58S-50K	50K		

NET PRICES:
1 to 10KΩ \$1.47
15K to 25KΩ 1.71
30K to 50KΩ 2.16

SERIES A10 — 4 WATTS

Cat. No.	Ohms	Net
A10-75K	75K	\$2.46
A10-100K	100K	2.97

SERIES BHM ROTARY SWITCHES



Series BHM switches are rated at 50 ma. at 300 V. a.c. or d.c., and 500 ma. at 30 V. a.c. or d.c. All moving parts and contact mechanism are totally enclosed, and the switch assembly is sealed for protection from dust and atmospheric conditions. They are particularly adapted to portable radios, receivers and transmitters, X-ray and medical instruments, calculating machines and computers.

Current: 50 Milliamps. at 300 volts a.c. or d.c.
Rating: 500 Milliamps. at 30 volts a.c. or d.c.
Protection: All moving parts and contact mechanisms are totally enclosed and switch is sealed, which protects it from dust and atmospheric conditions.

Shaft: 1/4" diameter round 1" beyond bushing.
Finish: Nickel Plating.
Bushing: 3/8" x 32 NEF-2 Thread. 3/8" Long.
Torque: 30 to 50 oz. in.

BHM-SP12P-S	Single Pole 12 Positions — Shorting
BHM-SP12P-NS	Single Pole 12 Positions — Non Shorting
BHM-2P6P-S	2 Pole 6 Positions — Shorting
BHM-2P6P-NS	2 Pole 6 Positions — Non-Shorting
BHM-3P4P-S	3 Pole 4 Positions — Shorting
BHM-3P4P-NS	3 Pole 4 Positions — Non-Shorting
BHM-4P3P-S	4 Pole 3 Positions — Shorting
BHM-4P3P-NS	4 Pole 3 Positions — Non-Shorting

Meets or exceeds test paragraph 4.5.3 thru 4.5.13 of MIL-S-3786.

PRODUCTS OF THE HOUSE OF RESISTORS®



RESISTORS • CONTROLS RESISTANCE DEVICES

SHAFTS FOR "PICK-A-SHAFT" CONTROLS

For use with all Clarostat "Pick-A-Shaft" controls, either carbon or wire-wound. Your choice of shaft furnish with each control.

- (1) SS $\frac{3}{8}$ " length—(Male) to take female fitting.
- (2) RS-2 — Round shaft, 2" long.
- (3) RS- $\frac{3}{16}$ "—Round slotted shaft $\frac{3}{16}$ " dia., 3" long.
- (4) KSS-3—Knurled, split shaft, 3" long.
- (5) RS-5—Round shaft, 5" long.
- (6) FS-5—Flatted, 5" long.
- (7) KSS-5—Knurled, split shaft, 5" long.
- (8) FS-3—Flatted shaft, 3" long.
- (9) RS-3—Round shaft, 3" long.
- (10) DFS- $\frac{1}{2}$ "—Double flatted Philco Type, $\frac{1}{2}$ " long.
- (11) FKS- $\frac{1}{4}$ "—Fine knurled slotted shaft, $\frac{1}{4}$ " long.
- (12) KFS- $\frac{3}{4}$ "—Knurled flatted shaft, 3" long.
- (13) FKS- $\frac{1}{2}$ "—Fine knurled slotted shaft, $\frac{1}{2}$ " long.

Net Price, Each Shaft \$0.33



U.S. PAT. 2,642,506

SERIES "SWE" SWITCHES FOR "AD-A-SWITCH" CONTROLS

For use with "A47" and "A47F" controls. Underwriters' Laboratories Inc. approved.

Cat. No.	Wiring	Net Price
SWE-12	S.P.S.T. — Single Pole Single Throw, 5A-125V. A.C.	\$0.45
SWE-13	S.P.S.T. — Single Pole Single Throw, 15A-10V. D.C.	.66
SWE-20	D.P.S.T. — Double Pole Single Throw, 3A-125V. A.C.	.51
SWE-21	Mod. D.P.S.T. one pole on, one off or with Jumper S.P.D.T., 3A-125V. A.C.-D.C.	.51
SWE-23	D.P.S.T., 15A-10V. D.C.	.66

(Mod. DPST has one pole "on", one pole "off" or with Jumper it is SPDT.)

SERIES "AE" SWITCH

Cat. No.	Wiring
AE-30 SPDT	Single Pole Double Throw, 1-A250V., 3A-125V. (AC or DC)

Other "AE" Switches available on request. Net Price \$0.45

SERIES "BE" ROTARY SWITCH

Underwriters' Laboratories Inc. approved.

Cat. No.	Wiring	Net
BE-12	SPST Single Pole Single Throw, 5A-125V. A.C.	\$0.75
BE-20	DPST Double Pole Single Throw, 3A-125V. A.C.	.81
BE-21 (Mod.) DPST	3A-125V. A.C./D.C.	.81

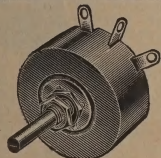
(Mod. DPST has one pole "on", one pole "off" or with jumper it is SPDT.)

POWER RHEOSTATS

Clarostat Power Rheostats maintain their full power rating at settings as low as one-third rotation without excessive temperature rise. Standard overall resistance tolerance plus/minus 10%. Closer tolerances are available upon special order.

AN Types (aircraft type) are basically the same units mechanically and electrically except that they are encased in a metal housing (versus ceramic). Terminals are screw type lugs to prevent corrosion. Approved under MIL-R-6749.

Units mount through a single hole, a locking pin is provided for rear panel mounting.



SERIES 25 — 25-WATT

Cat. No.	Total Res. Ohms	Net Price
25-1	1	\$3.87
25-2	2	3.42
25-3	3	3.42
25-6	6	3.42
25-8	8	3.42
25-10	10	3.42
25-15	15	3.42
25-25	25	3.42
25-35	35	3.42
25-50	50	3.42
25-75	75	3.42
25-100	100	3.42
25-125	125	3.42
25-175	175	3.42
25-250	250	3.42
25-350	350	3.42
25-500	500	3.42
25-750	750	3.42
25-1,000	1,000	3.87
25-1,500	1,500	3.87
25-2,500	2,500	3.87
25-3,500	3,500	4.08
25-5,000	5,000	4.29

SERIES 50 — 50-WATT

Cat. No.	Total Res. Ohms	Net Price
50-0.5	0.5	\$4.25
50-1	1	4.25
50-2	2	4.25
50-4	4	3.87
50-6	6	3.87
50-8	8	3.87
50-12	12	3.87
50-16	16	3.87
50-22	22	3.87
50-35	35	3.87
50-50	50	3.87
50-80	80	3.87
50-125	125	3.87
50-150	150	3.87
50-225	225	3.87
50-300	300	3.87
50-500	500	3.87
50-800	800	4.08
50-1,000	1,000	4.08
50-1,600	1,600	4.08
50-2,500	2,500	4.08
50-3,500	3,500	4.29
50-5,000	5,000	4.29
50-8,000	8,000	5.16
50-10K	10K	5.16

AN-3155-25** — 25 WATTS

Cat. No.	Total Res. Ohms	Net Price
AN-3155-25-10	10	\$4.80
AN-3155-25-11	11	4.80
AN-3155-25-15	15	4.80
AN-3155-25-25	25	4.80
AN-3155-25-50	50	4.80
AN-3155-25-75	75	4.80
AN-3155-25-100	100	4.80
AN-3155-25-200	200	5.61

AN-3155-50** — 50 WATTS

Cat. No.	Total Res. Ohms	Net Price
AN-3155-50-5	5	5.61
AN-3155-50-8	8	5.61
AN-3155-50-10	10	5.61
AN-3155-50-25	25	5.46
AN-3155-50-30	30	5.46
AN-3155-50-50	50	5.46
AN-3155-50-75	75	5.46
AN-3155-50-100	100	5.46
AN-3155-50-150	150	6.12
AN-3155-50-200	200	6.12

Prices include AN-3220 — 2 knob

**25 and 50 watt Power Rheostats when encased in metal housing are derated 50%.

PRODUCTS OF
THE HOUSE OF RESISTORS®



RESISTORS • CONTROLS
RESISTANCE DEVICES

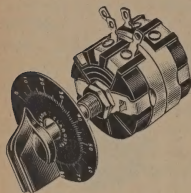
SOUND-SYSTEM CONTROLS

For proper control of volume and tone alike, Clarostat offers a choice of several controls, such as L- and T-pads, output attenuators, and individual-speaker volume controls as used for drive-in theatre installations.

These are not ordinary radio controls but rather sound-system controls designed and built for critical requirements.

CONSTANT-IMPEDANCE CONTROLS

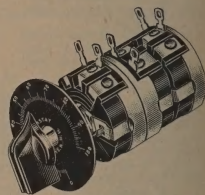
Self-compensating volume controls known as L-pads and T-pads for use in sound systems. Rated at $2\frac{1}{2}$ watts DC, but will handle up to 10 watts audio. Continuous range from 0.5 to 30 decibels attenuation in 90% rotation. Last 10% affords infinite attenuation. With Clarostat constant-impedance L-pads and T-pads the input and output impedances of associated circuits can be kept within the limits of a constant required value. Knob and dial plate furnished with each control.



CIT	CIL	Res. Ohms
Cat. No.	Cat. No.	
CIT-4	CIL-4	4
CIT-6	CIL-6	6
CIT-8	CIL-8	8
CIT-15	CIL-15	15
CIT-50	CIL-50	50
CIT-100	CIL-100	100
CIT-200	CIL-200	200
CIT-250	CIL-250	250

CIT—NET PRICE \$3.13

CIL—NET PRICE \$2.79



U. S. Pat. 2,434,248

CONSTANT IMPEDANCE OUTPUT ATTENUATORS

Series "CIB" rated at 10 watts, but will handle up to 30 watts in audio circuit. Linear attenuation provided in 3 decibel steps up to 24db, then 80db followed by infinity. Equipped with dial plate and bar knob. One-hole mounting, $\frac{3}{8}$ " bushing diameter. 1" shaft. This control has been developed to meet the need for a constant-impedance attenuator capable of handling considerable power without measurable insertion loss. Recommended as an output level control for power amplifiers, or as an input attenuator for individual or for a group of speakers in a public address system.



Cat. No.	Res. Ohms	Cat. No.	Res. Ohms
CIB-6	6	CIB-200	200
CIB-8	8	CIB-250	250
CIB-15	15	CIB-500	500
CIB-50	50	CIB-600	600

NET PRICE \$7.70

SPECIAL DRIVE-IN THEATRE L-PAD

To meet the needs of theater sound systems, more especially those of drive-in theaters, a special 8 ohm L-Pad is now available, containing two separate windings of 5 ohms and 40 ohms. Also 50 ohm linear rheostat and 35 ohm tapered rheostat, as listed. Units have $\frac{3}{8}$ "-32 bushing $\frac{3}{4}$ " long, and $1\frac{1}{2}$ " round shaft. (Knob furnished with each control).

Cat. No. CM8727-1 8 ohm L-Pad
Net Price \$1.80



SPACE-SAVER CONSTANT-IMPEDANCE ATTENUATORS

Characterized by reduced depth and diameter, these attenuators are ideal for use in remote control of speakers since they are small enough to be installed in standard electrical boxes in the home, office, stockroom, etc.

These controls are rated 2 watts D.C., but will handle up to 4 watts of audio, depending upon the type signal being handled. (As the frequency becomes constant, wattage reduces to 2 watts or the same as the D.C. rating).

- Attenuation range of 0 to 30 db over 90% of rotation, 60 db in remaining 10% of rotation. Attenuation will increase approximately linearly to 30 db with counter-clockwise rotation.

- Insertion loss less than 0.5 db.

- Input impedance within plus/ minus 20%.

- The CIT43 and CIBT43 (Bridged T Pad) have constant input and output impedances, while the CIL43 has constant impedance in the input only.

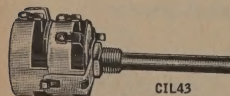
- Shafts and bushings are insulated from the circuit elements.

- Pads have $\frac{3}{8}$ "-32 x $\frac{3}{8}$ " long bushing.

- $\frac{3}{4}$ " dia. round shafts $1\frac{1}{2}$ " long beyond bushing.

- All pads supplied with bar knob and dial plates, as shown above.

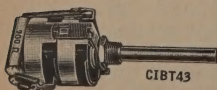
- Dia. $1\frac{1}{4}$ ". Depth of body from mounting surface: CIL43— $1\frac{1}{4}$ "; CIT43— $1\frac{1}{4}$ "; CIBT43— $1\frac{1}{4}$ ".



CIL43



CIT43



CIBT43

Cat. No. CIL43 (L-Pad)	Cat. No. CIT43 (T-Pad)	Cat. No. CIBT43 (Bridged T-Pad)	Impedance
CIL43-4	CIT43-4	CIBT43-4	4 ohms
CIL43-6	CIT43-6	CIBT43-6	6 ohms
CIL43-8	CIT43-8	CIBT43-8	8 ohms
CIL43-15	CIT43-15	CIBT43-15	15 ohms
CIL43-50	CIT43-50	CIBT43-50	50 ohms
CIL43-100	CIT43-100	CIBT43-100	100 ohms
CIL43-200	CIT43-200	CIBT43-200	200 ohms
CIL43-250	CIT43-250	CIBT43-250	250 ohms
CIL43-500	CIT43-500	CIBT43-500	500 ohms
		CIBT43-600	600 ohms

NET PRICE CIL43 \$2.79 NET PRICE CIT43 \$3.13

NET PRICE CIBT43 \$3.63

PRODUCTS OF THE HOUSE OF RESISTORS®



RESISTORS • CONTROLS RESISTANCE DEVICES

uni-tite FIELD ASSEMBLED CONTROLS



Distributor's Uni-Tite Replacement Center will have more than 95% of your replacement control requirements including 15/16" diameter wire-wound controls, push-pull singles, dual controls, controls with rotary switches, and single control with rotary switches. These field-assembled, together controls provide you with the exact combination required for radio and TV replacements. In addition, a complete line of Uni-Tite assembled, dual controls, operating on a single tap are available to meet all your audio, hi-fi sound system requirements.

PLAIN

No.	Ohms	Taper	Cat. No.	Ohms	Taper
00-S	200	S	NP-75K-Z	75K	Z
00-S	250	S	NP-100K-S	100K	S
00-S	350	S	NP-150K-S	150K	S
00-S	500	S	NP-200K-S	200K	S
00V	500	V	NP-200K-V	200K	V
00-S	750	S	NP-250K-S	250K	S
00V	750	V	NP-250K-V	250K	V
000-S	1000	S	NP-300K-S	300K	S
000-V	1000	V	NP-300K-V	300K	V
200-V	1200	V	NP-350K-V	350K	V
500-S	1500	S	NP-500K-S	500K	S
500-V	1500	V	NP-500K-V	500K	V
2000-S	2000	S	NP-500K-V	500K	V
500-S	2500	S	NP-750K-S	750K	S
000-S	3000	S	NP-750K-Z	750K	Z
000-V	3000	V	NP-1 Meg-S	1 Meg	S
000-S	4000	S	NP-1 Meg-Z	1 Meg	Z
000-S	5000	S	NP-1 Meg-V	1 Meg	V
000-V	5000	V	NP-1.5 Meg-S	1.5 Meg	S
000-S	7000	S	NP-1.5 Meg-V	1.5 Meg	V
500-S	7500	S	NP-2 Meg-S	2 Meg	S
00-K	10K	S	NP-2 Meg-Z	2 Meg	Z
00-K	10K	Z	NP-2 Meg-V	2 Meg	V
00-K	10K	V	NP-2.5 Meg-S	2.5 Meg	S
1.5K-V	11.5K	V	NP-2.5 Meg-V	2.5 Meg	V
5K-S	15K	S	NP-3 Meg-S	3 Meg	S
5K-V	15K	V	NP-3 Meg-Z	3 Meg	Z
5K-S	20K	S	NP-3 Meg-V	3 Meg	V
5K-S	25K	S	NP-4 Meg-S	4 Meg	S
5K-V	25K	V	NP-4 Meg-Z	4 Meg	Z
5K-S	30K	S	NP-5 Meg-S	5 Meg	S
00-K	40K	S	NP-5 Meg-Z	5 Meg	Z
00-K	50K	S	NP-5 Meg-V	5 Meg	V
00-K	50K	Z	NP-7.5 Meg-S	7.5 Meg	S
5K-S	75K	S	NP-10 Meg-S	10 Meg	S

Net price\$66

PLAIN

00-S	200	S	NR-300K-S	300K	S
000-S	1000	S	NR-350K-Z	350K	Z
000-V	1000	V	NR-500K-Z	500K	Z
000-S	1500	S	NR-500K-Z	500K	Z
000-S	2000	S	NR-750K-S	750K	S
000-V	2000	V	NR-1 Meg-S	1 Meg	S
000-S	3000	S	NR-1 Meg-Z	1 Meg	Z
000-V	3000	V	NR-1 Meg-V	1 Meg	V
000-S	5000	S	NR-1.5 Meg-S	1.5 Meg	S
000-V	7500	Z	NR-2 Meg-Z	2 Meg	Z
00-K	10K	S	NR-2 Meg-V	2 Meg	V
00-K	10K	V	NR-2.5 Meg-S	2.5 Meg	S
5K-S	25K	S	NR-2.5 Meg-Z	2.5 Meg	Z
5K-V	25K	V	NR-3 Meg-Z	3 Meg	Z
5K-S	50K	S	NR-3 Meg-Z	3 Meg	Z
5K-S	75K	S	NR-3 Meg-V	3 Meg	V
00-K	100K	S	NR-3.5 Meg-S	3.5 Meg	S
25K-V	125K	V	NR-5 Meg-S	5 Meg	S
50K-S	150K	S	NR-5 Meg-Z	5 Meg	Z
00-K	200K	S	NR-5 Meg-V	5 Meg	V
50K-S	250K	S	NR-7.5 Meg-S	7.5 Meg	S
50K-Z	250K	Z	NR-10 Meg-S	10 Meg	S

Net price\$66

APER EXPLANATION:

APER S Straight or uniform resistance change with rotation.
 APER V Right-hand 20% resistance at 50% of C.W. rotation.
 APER Z Left-hand (Log. audio) 10% resistance at 50% of C.W. rotation.

PANEL CONTROLS — TAPPED

Cat. No.	Ohms	No. 1	No. 2	No. 3
NPF-750	750		500	
NPF-1750	750		250	
NPF-1000	1000		850	
NPF-2500	2500		500	
NPF-3000	3000			2500
NPF-15K	15K	3000		
NPF-15K	15K			10K
NPF-250K	250K		75K	
NPF-500K	500K		100K	
NPF-1 Meg	1 Meg		500K	
NPF-1.1 Meg	1 Meg		150K	
NPF-2 Meg	2 Meg		500K	
NPF-2 Meg	2 Meg		1 Meg	
NPF-3 Meg	3 Meg		1 Meg	

Net price:\$1.08

REAR CONTROLS — TAPPED

NR-750	750		250	
NR-2500	2500		500	
NR-15K	15K			10K
NR-30K	30K			25K
NR-250K	250K		125K	
NR-1250K	250K		75K	
NR-330K	330K		66K	
NR-500K	500K		25K	
NR-1500K	500K		50K	
NR-2500K	500K		50K	
NR-3500K	500K	200K		350K
NR-1 Meg	1 Meg		75K	
NR-1.1 Meg	1 Meg		250K	
NR-2 Meg	2 Meg		500K	
NR-3 Meg	3 Meg	150K		500K
NR-4 Meg	1 Meg		50K	
NR-1.5 Meg	1.5 Meg		300K	
NR-2 Meg	2 Meg		500K	
NR-2.2 Meg	2 Meg		1 Meg	
NR-2.5 Meg	2 Meg	200K		
NR-3 Meg	2 Meg		650K	
NR-3 Meg	3 Meg		1 Meg	
NR-1.3 Meg	3 Meg		500K	

Net price\$1.08

WIRE-WOUND

PANELS

(Linear Taper Only)

Cat. No.	Ohms
NPW-5	5
NPW-10	10
NPW-20	20
NPW-25	25
NPW-30	30
NPW-40	40
NPW-50	50
NPW-75	75
NPW-100	100
NPW-150	150
NPW-200	200
NPW-250	250
NPW-300	300
NPW-400	400
NPW-500	500
NPW-750	750
NPW-1000	1000
NPW-1500	1500
NPW-2000	2000
NPW-2500	2500
NPW-3000	3000
NPW-4000	4000
NPW-5000	5000
NPW-7500	7500
NPW-10K	10K

WIRE-WOUND

REARS

(Linear Taper Only)

Cat. No.	Ohms
NRW-5	5
NRW-10	10
NRW-20	20
NRW-25	25
NRW-30	30
NRW-40	40
NRW-50	50
NRW-75	75
NRW-100	100
NRW-150	150
NRW-200	200
NRW-250	250
NRW-300	300
NRW-400	400
NRW-500	500
NRW-750	750
NRW-1000	1000
NRW-1500	1500
NRW-2000	2000
NRW-2500	2500
NRW-3000	3000
NRW-4000	4000
NRW-5000	5000
NRW-7500	7500
NRW-10K	10K

Net price:\$66 Net price:\$66

SWITCHES (Rotary)

Cat. No.	Description	Net
NWE-12	SPST (5A-125V. A.C.)	\$.45
NWE-13	SPST (15A-10V. D.C.)	\$.66
NWE-20	DPST (3A-125V. A.C.)	\$.51
NWE-21	MD, DPST (3A-125V. A.C./D.C.)	\$.51
NWE-23	DPST (15A-10V. D.C.)	\$.66

PUSH-PULL

NWG-18	SPST (3A-125V. A.C.)	.60
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SOLID SHAFTS (single controls)

Cat. No.	Description	Shaft Length Dia. FMS
UP-A-400	Round	1/4" 4"
UP-B-400	1/8" Double Slot & Flatted	1/4" 4"
UP-C-400	1/8" Double Slot & Knurled	1/4" 4"
SE-F-400	Slotted & Flatted	3/4" 4"

Net price:\$2.27

PUSH-PULL SHAFTS (single controls)

Cat. No.	Description	Shaft Length Dia. FMS
UPP-A-400	Round	1/4" 4"
UPP-B-400	1/8" Double Slot & Flatted	1/4" 4"
UPP-C-400	1/8" Double Slot & Knurled	1/4" 4"

Net price:\$2.27

ADAPTER SHAFT

Push-Pull Single Control Cat. No. PPA-P Net price: \$.25

RETAINING RING

For Push-Pull Shafts Cat. No. R-2

COUPLER SHAFT

Dual Controls Cat. No. DC-2 Net price \$.08

ADAPTER SHAFT

Push-Pull Conc. Dual, Cat. No. PPA-P Net price: \$.25

UNI-TITE DIS-ASSEMBLY TOOL

Cat. No. SR-2 Net Price \$.40

MOUNTING ADAPTERS

Twist Tap Mounting — Cat. No. TT-2 Net Price: \$.08

Mounting Adapter — Cat. No. DH-2 Net Price: \$.25

PANEL SHAFTS

1/8" Double Slot & Knurled

Shaft Length FMS

Cat. No.	Shaft Length FMS
UPC-C-012	3/4"
UPC-C-013	1 1/4"
UPC-C-014	1 3/4"
UPC-C-018	1 3/4"
UPC-C-101	1 1/4"
UPC-C-102	1 1/4"
UPC-C-104	1 1/4"
UPC-C-105	1 1/4"
UPC-C-107	1 1/4"
UPC-C-108	1 1/4"
UPC-C-111	1 1/4"
UPC-C-112	1 1/4"
UPC-C-113	1 1/4"
UPC-C-114	1 1/4"
UPC-C-200	2"
UPC-C-204	2 1/4"
UPC-C-212	2 3/4"
UPC-C-214	2 3/4"
UPC-C-308	3 1/2"

Net price:\$2.27

PANEL SHAFTS

(Round)

UPC-A-101	1 1/4"
UPC-A-105	1 1/4"
UPC-A-209	2 1/4"

Net price\$2.27

PANEL SHAFTS

1/8" Double Slot & Flatted

UPC-B-013	1 1/4"
UPC-B-014	1 3/4"
UPC-B-015	1 3/4"
UPC-B-101	1 1/4"
UPC-B-102	1 1/4"
UPC-B-104	1 1/4"
UPC-B-105	1 1/4"
UPC-B-106	1 1/4"
UPC-B-107	1 1/4"
UPC-B-108	1 1/4"
UPC-B-109	1 1/4"
UPC-B-110	1 1/4"
UPC-B-111	1 1/4"
UPC-B-112	1 1/4"
UPC-B-113	1 1/4"
UPC-B-114	1 1/4"
UPC-B-115	1 1/4"
UPC-B-200	2"
UPC-B-201	2 1/4"
UPC-B-202	2 1/4"
UPC-B-203	2 1/4"
UPC-B-204	2 1/4"
UPC-B-205	2 1/4"
UPC-B-206	2 1/4"
UPC-B-207	2 1/4"
UPC-B-208	2 1/4"
UPC-B-209	2 1/4"
UPC-B-210	2 1/4"
UPC-B-211	2 1/4"
UPC-B-212	2 1/4"
UPC-B-213	2 1/4"
UPC-B-214	2 1/4"
UPC-B-215	2 1/4"
UPC-B-300	3"
UPC-B-301	3 1/4"
UPC-B-302	3 1/4"
UPC-B-303	3 1/4"
UPC-B-304	3 1/4"
UPC-B-305	3 1/4"
UPC-B-306	3 1/4"
UPC-B-307	3 1/4"
UPC-B-308	3 1/4"
UPC-B-309	3 1/4"
UPC-B-310	3 1/4"
UPC-B-311	3 1/4"
UPC-B-312	3 1/4"
UPC-B-313	3 1/4"
UPC-B-314	3 1/4"
UPC-B-315	3 1/4"
UPC-B-316	3 1/4"
UPC-B-317	3 1/4"
UPC-B-318	3 1/4"
UPC-B-319	3 1/4"
UPC-B-320	3 1/4"
UPC-B-321	3 1/4"
UPC-B-322	3 1/4"
UPC-B-323	3 1/4"
UPC-B-324	3 1/4"
UPC-B-325	3 1/4"
UPC-B-326	3 1/4"
UPC-B-327	3 1/4"
UPC-B-328	3 1/4"
UPC-B-329	3 1/4"
UPC-B-330	3 1/4"

Net price:\$2.27

.187 DIA.

REAR SHAFTS

(Push-Pull Controls)

Combination Shaft & Flat

Shaft Length FMS

Cat. No.	FMS
URP-G-108	1 1/2"
URP-G-110	1 5/8"
URP-C-111	1 11/16"
URP-G-113	1 13/16"
URP-G-114	1 7/8"
URP-G-115	1 5/16"
URP-G-200	2"
URP-G-202	2 1/8"
URP-G-204	2 1/4"
URP-G-205	2 5/16"
URP-G-213	2 13/16"

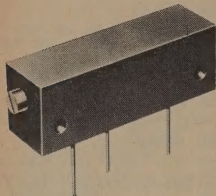
PRODUCTS OF
THE HOUSE OF RESISTORS®



RESISTORS • CONTROLS
RESISTANCE DEVICES

SERIES 76JA

Multi-Turn Trimming Potentiometer

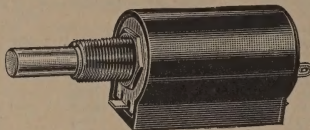


A miniature, 10-turn trimming potentiometer that offers up to 15 times the winding length available in comparable units. This feature results in set-ability and resolution exceeding that of trimming potentiometers several times the size. Brief specifications include a power rating of $\frac{3}{4}$ watt at 85°C derated to zero power at 150°C, resistances from 100 ohms to 20K ohms standard with other values offered on special order, standard resistance tolerance of $\pm 5\%$, printed circuit or solder lug mounting, overall dimensions of only 1.250" x 0.437" x 0.328".

Stock Values	Resolution %
100	0.1
200	0.09
500	0.08
1,000	0.075
2,000	0.06
5,000	0.05
10,000	0.04
20,000	0.036

SERIES 62JA

Commercial Multi-Turn Potentiometer

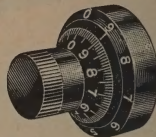


A 10-turn potentiometer offering electrical operating characteristics comparable to units costing far more. Designed specifically for the industrial instrumentation market, the Series 62JA has the inherent advantages of far greater resolution in trimming, better instrument control and settings for all types of electronic equipment. Brief specifications include: $\frac{7}{8}$ " diameter, $1\frac{1}{4}$ " deep behind panel, bushing and shaft or split-locking bushing with screwdriver slot, 2 watts @ 25°C, derated to zero @ 85°C, 1000 to 100K ohms standard — others available, absolute linearity of $\pm 0.25\%$ standard, closer on order.

Stock Values	Resolution %	Stock Values	Resolution %
100,000	.012	10,000	.024
50,000	.013	5,000	.026
30,000	.016	2,000	.029
20,000	.019	1,000	.030

CLARODIALS

Ten-Turn Concentric Scale Dials

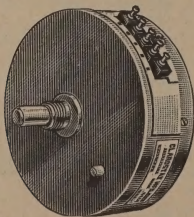


Calibrated dials designed for multi-turn potentiometers up to 10 turns or other rotary devices. CLARODIALS require only one inch of panel space. The knob attaches directly to the shaft, and the body of the dial is mounted rigidly to the panel. As a result, accurate readings with a ratio 1000:1 for ten turns are provided with zero backlash and no reading error. CLARODIALS are made of anodized aluminum for years of attractive use. Mounting requirements are $\frac{1}{4}$ " shaft and $\frac{3}{8}$ "-32 NEF-2A bushing. Adapters for $\frac{1}{8}$ " dia. shafts are available.

Cat. No.	Description
411	Commercial 10 turn, black anodize $\frac{1}{4}$ " shaft, no lock
412	Commercial 10 turn, black anodize $\frac{1}{4}$ " shaft, with lock
461	Commercial 10 turn, clear anodize $\frac{1}{4}$ " shaft, no lock
462	Commercial 10 turn, clear anodize $\frac{1}{4}$ " shaft, with lock

SERIES 54-48JA

3" Dia. Vari/Phase Single Turn Potentiometer

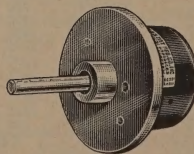


Permits external phasing of electrical rotation to mechanical rotation. Ultra precise unit for professional use. Exclusive Clarostat design eliminates bulky, hard-to-adjust clamping rings. Anodized aluminum housings for minimum weight. Widely used in aircraft instrumentation.

Stock Values	Resolution 100/Total Turns
250,000	.023%
100,000	.031%
50,000	.040%
10,000	.061%
1,000	.083%

SERIES SC42-970 SINE-COSINE

Single-Turn Potentiometer



Used in radar, computer and servomechanisms, or any application requiring two output voltages accurately proportioned to the sine and cosine rotation angle. Due to functional use, units are designed and built for exceptionally long rotational life.

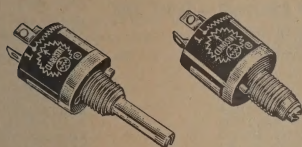
SPECIFICATIONS

FUNCTION: Sine-Cosine.
TOTAL RESISTANCE: 16,000 $\Omega \pm 10\%$.
POWER RATING: 2.46 watts @ 40°C.
(198 volts R.M.S.)
ROTATION: (Eff., Elec., Mech) 360° (Cont.)
MAXIMUM SPEED
RECOMMENDED: 30 RPM (20 gm. contact pressure)
EXPECTED LIFE: 500,000 Cycles.
RESOLUTION: 0.14% maximum of peak to peak voltage.
CONFORMITY: Standard, $\pm 1\%$ peak to peak voltage (Available, $\pm \frac{1}{2}\%$ peak to peak voltage. Not stocked — must be ordered special price and information on request.)
SHAFT TORQUE: 1 oz. in.
WEIGHT: 6 oz.

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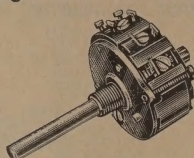


RESISTORS • CONTROLS
RESISTANCE DEVICES

SERIES 57M & 57EJ**1/2" Single Turn Potentiometers**

High performance potentiometer packaged in a 1/2" diameter housing. Quality construction throughout. Available in two models, Series 57M rated at 1.5 watts at 40°C and Series 57EJ rated at 2 watts at 70°C. The high-temperature Series 57EJ features glass-sealed terminals. Both units are corrosion resistant.

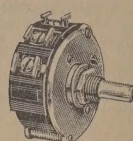
SERIES 57M & 57M9		SERIES 57EJA & 57EJB		Resistance Ohms	Resolution 100/Total Turns
Stock Values	Stock Values	Stock Values	Stock Values		
50 Ω	50 Ω	50,000	0.16%		
100 Ω	100 Ω	20,000	0.19%		
200 Ω	200 Ω	10,000	0.26%		
500 Ω	500 Ω	5,000	0.30%		
1000 Ω	1000 Ω	1,000	0.35%		
5000 Ω	5000 Ω	500	0.45%		
10,000 Ω	10,000 Ω	200	0.58%		
20,000 Ω	20,000 Ω	100	0.70%		
50,000 Ω	50,000 Ω	50	0.91%		

SERIES 42-900**High Versatility
Single-Turn Potentiometer**

Used and approved by the millions in all types of applications ranging from ultra-critical military systems to ultra-dependable hard-working industrial equipment. Extra tap affords greater electrical versatility. Shaft extension through rear of unit permits addition of switching or other functions actuated by single shaft.

Stock Values	***Terminal Linearity	Resolution 100/Total Turns	Temp. Coefficient of Wire
100,000	±0.25%	.053%	±.00002 Ω/Ω/°C
50,000	±0.25%	.056%	±.00002 Ω/Ω/°C
20,000	±0.25%	.105%	±.00002 Ω/Ω/°C
10,000	±0.25%	.125%	±.00002 Ω/Ω/°C
5,000	±0.25%	.167%	±.00002 Ω/Ω/°C
2,500	±0.25%	.148%	±.00002 Ω/Ω/°C
1,000	±0.25%	.191%	±.00002 Ω/Ω/°C
500	±0.50%	.174%	.00017 Ω/Ω/°C
100	±0.50%	.351%	.00017 Ω/Ω/°C
50	±0.50%	.435%	.00017 Ω/Ω/°C

***Terminal Linearity: The maximum deviation of the actual output characteristic from a straight reference line extending between zero and the total applied voltage over the actual effective rotation.

SERIES 42JA**Single Turn Potentiometer**

All the same fine qualities and performance tolerances of the Series 42-900, with the exception of the additional tap, and shaft extension. The ideal unit for extra-dependable potentiometer requirements.

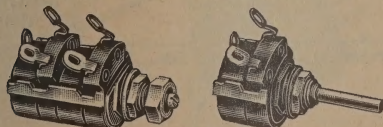
Stock Values	***Absolute Linearity	Resolution 100/Total Turns	Temp. Coefficient of Wire
100,000	±0.5%	.051%	±.00002 Ω/Ω/°C
50,000	±0.5%	.074%	±.00002 Ω/Ω/°C
20,000	±0.5%	.10%	±.00002 Ω/Ω/°C
10,000	±0.5%	.12%	±.00002 Ω/Ω/°C
5,000	±0.5%	.17%	±.00002 Ω/Ω/°C
2,500	±0.5%	.14%	±.00002 Ω/Ω/°C
1,000	±0.5%	.19%	±.00002 Ω/Ω/°C
500	±0.5%	.18%	.00017 Ω/Ω/°C
100	±1.0%	.28%	.00017 Ω/Ω/°C
50	±1.0%	.35%	.00017 Ω/Ω/°C

***Absolute Linearity: The maximum deviation of the actual output characteristic from a straight reference line extending between zero and the total applied voltage over the theoretical effective rotation.

MINIATURIZED POTENTIOMETERS

Consistent with miniaturization in Military and Commercial equipment, such as; Guided Missiles, Aircraft Electronics, Mobile Radio and Radar, Computers, Range Finders, Pocket Radios and Hearing Aids; Clarostat offers miniaturized composition element Series 48M and wire-wound

Series 49M Potentiometers, and a Rotary Selector Switch designated as Series BHM to meet the switching requirements of the above mentioned and other applications.

**SERIES 48M — 0.2 WATT
COMPOSITION ELEMENT**

Available in single or dual, standard or shaft locking bushing. Standard bushing potentiometers have 1/4" x 32 NEF-2A x 1/4" long bushing and 1/8" dia. x 1/2" long shaft beyond bushing.

Shaft locking bushing potentiometers have 1/4" x 32 NEF-2A x 3/8" long bushing and 1/8" dia. x 1/4" long screwdriver slotted shaft.

All potentiometers furnished with mounting nut 1/4" thick x 3/4" across flats, and one internal tooth lockwasher. Potentiometers with split locking bushings furnished with jam nut also.

Insulation: Breakdown test between terminals and ground for 1 minute 1000v.a.c.; 350v.a.c. @ 3.4" Hg

Resistance Range (Ohms): Linear 200 to 5 Meg.
Tapered 1500 to 2.5 Meg.

Resistance Tolerance: Linear ±10%
Above 100,000 ohms ±20%.
Tapered ±20% all values.

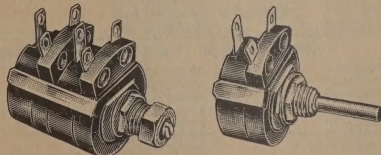
Tapers: Linear
Left hand — 10% resistance at 50% rotation. "Z"

Mechanical and Electrical Rotation: 300° ±3°

Effective Rotation: 300° ±3°

Torque (oz.-in.): 0.5 to 6

Dual Construction: Available

**SERIES 49M — 1.5 WATT
WIRE-WOUND**

Available in single or dual, standard or shaft locking bushing. Standard bushing potentiometers have 1/4" x 32 NEF-2A x 1/4" long bushing and 1/8" dia. x 1/2" long shaft beyond bushing.

Shaft locking bushing potentiometers have 1/4" x 32 NEF-2A x 3/8" long bushing and 1/8" dia. x 1/4" long screwdriver slotted shaft. All potentiometers furnished with mounting nut 1/4" thick x 3/4" across flats, and one internal tooth lockwasher. Potentiometers with shaft locking bushings furnished with jam nut also.

Fabricated in accordance with MIL-R-19

Insulation: Breakdown test between terminals and ground for 1 minute. 1000v.a.c.; 500v.a.c. @ 3.4" Hg.

Resistance Range (Ohms): Linear 1 to 20,000

Resistance Tolerance: Linear ±5%
Tapered Linear only

Mechanical and Electrical Rotation: 300° ±3°

Effective Rotation: 300° ±3°

Torque (oz.-in.): 0.3 to 6

Dual Construction: Available

PRODUCTS OF

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RESISTANCE DEVICES

MILITARY POTENTIOMETERS

ITEMS IN STOCK FOR IMMEDIATE DELIVERY

RA10 per MIL-R-19 1 WATT WIRE-WOUND POTENTIOMETERS — Commercial Equivalent — Series 49M

RA10NASD150A	RA10NASD152A	RA10NASL501A	RA10LASD201A	RA10LASM750A
RA10NASD250A	RA10NASD202A	RA10NASL502A	RA10LASD251A	RA10LASM101A
RA10NASD500A	RA10NASD252A	RA10NASL102A	RA10LASD351A	RA10LASM151A
RA10NASD750A	RA10NASL150A	RA10NASL152A	RA10LASD501A	RA10LASM201A
RA10NASD101A	RA10NASL250A	RA10NASL202A	RA10LASD751A	RA10LASM251A
RA10NASD151A	RA10NASL500A	RA10NASL252A	RA10LASD102A	RA10LASM351A
RA10NASD201A	RA10NASL750A	RA10LASD150A	RA10LASD152A	RA10LASM501A
RA10NASD251A	RA10NASL101A	RA10LASD250A	RA10LASD251A	RA10LASM751A
RA10NASD351A	RA10NASL151A	RA10LASD500A	RA10LASD252A	RA10LASM102A
RA10NASD501A	RA10NASL201A	RA10LASD750A	RA10LASM150A	RA10LASM152A
RA10NASD751A	RA10NASL251A	RA10LASD101A	RA10LASM250A	RA10LASM202A
RA10NASD102A	RA10NASL351A	RA10LASD151A	RA10LASM500A	RA10LASM252A

RA20 per MIL-R-19 2 WATT WIRE-WOUND POTENTIOMETERS — Commercial Equivalent — Series 43M

RA20NAsA3R0A	RA20NAsA352A	RA20NASD751A	RA20LASB151A	RA20LASD250A
RA20NAsA6R0A	RA20NAsA502A	RA20NASD102A	RA20LASB201A	RA20LASD350A
RA20NAsA8R0A	RA20NAS752A	RA20NASD152A	RA20LASB251A	RA20LASD500A
RA20NAsA100A	RA20NAsA103A	RA20NASD202A	RA20LASB351A	RA20LASD750A
RA20NAsA150A	RA20NAsA153A	RA20NASD252A	RA20LASB501A	RA20LASD101A
RA20NAsA200A	RA20NASD3R0A	RA20NASD352A	RA20LASB751A	RA20LASD151A
RA20NAsA250A	RA20NASD6R0A	RA20NASD502A	RA20LASB102A	RA20LASD201A
RA20NAsA350A	RA20NASD8R0A	RA20NASD752A	RA20LASB152A	RA20LASD251A
RA20NAsA500A	RA20NASD100A	RA20NASD103A	RA20LASB202A	RA20LASD352A
RA20NAsA750A	RA20NASD150A	RA20NASD153A	RA20LASB252A	RA20LASD501A
RA20NAsA101A	RA20NASD200A	RA20LASB3R0A	RA20LASB352A	RA20LASD751A
RA20NAsA151A	RA20NASD250A	RA20LASB6R0A	RA20LASB502A	RA20LASD102A
RA20NAsA201A	RA20NASD350A	RA20LASB8R0A	RA20LASB752A	RA20LASD152A
RA20NAsA251A	RA20NASD500A	RA20LASB100A	RA20LASB103A	RA20LASD202A
RA20NAsA351A	RA20NASD750A	RA20LASB150A	RA20LASB153A	RA20LASD352A
RA20NAsA501A	RA20NASD101A	RA20LASB200A	RA20LASD3R0A	RA20LASD502A
RA20NAsA751A	RA20NASD151A	RA20LASB250A	RA20LASD6R0A	RA20LASD752A
RA20NAsA102A	RA20NASD201A	RA20LASB350A	RA20LASD8R0A	RA20LASD103A
RA20NAsA152A	RA20NASD251A	RA20LASB500A	RA20LASD100A	RA20LASD153A
RA20NAsA202A	RA20NASD351A	RA20LASB750A	RA20LASD150A	
RA20NAsA252A	RA20NASD501A	RA20LASB101A	RA20LASD200A	

RA30 per MIL-R-19 4 WATT WIRE-WOUND POTENTIOMETERS — Commercial Equivalent — Series 58M

RA30NAsA3R0A	RA30NAsA102A	RA30NASD250A	RA30NASD752A	RA30LASB201A
RA30NAsA6R0A	RA30NAsA502A	RA30NASD350A	RA30NASD103A	RA30LASB251A
RA30NAsA8R0A	RA30NAsA202A	RA30NASD500A	RA30NASD153A	RA30LASB351A
RA30NAsA100A	RA30NAsA252A	RA30NASD750A	RA30NASD203A	RA30LASB501A
RA30NAsA150A	RA30NAsA352A	RA30NASD101A	RA30NASD253A	RA30LASB751A
RA30NAsA200A	RA30NAsA502A	RA30NASD151A	RA30LASB3R0A	RA30LASB102A
RA30NAsA250A	RA30NAsA752A	RA30NASD201A	RA30LASB6R0A	RA30LASB152A
RA30NAsA350A	RA30NAsA103A	RA30NASD251A	RA30LASB8R0A	RA30LASD202A
RA30NAsA500A	RA30NAsA153A	RA30NASD351A	RA30LASB100A	RA30LASD352A
RA30NAsA750A	RA30NAsA203A	RA30NASD501A	RA30LASB150A	RA30LASD501A
RA30NAsA101A	RA30NAsA253A	RA30NASD751A	RA30LASB200A	RA30LASD751A
RA30NAsA151A	RA30NASD3R0A	RA30NASD102A	RA30LASB250A	RA30LASD102A
RA30NAsA201A	RA30NASD6R0A	RA30NASD152A	RA30LASB350A	RA30LASD152A
RA30NAsA251A	RA30NASD8R0A	RA30NASD202A	RA30LASB500A	RA30LASD202A
RA30NAsA351A	RA30NASD100A	RA30NASD252A	RA30LASB750A	RA30LASD352A
RA30NAsA501A	RA30NASD150A	RA30NASD352A	RA30LASB101A	RA30LASD502A
RA30NAsA751A	RA30NASD200A	RA30NASD502A	RA30LASB151A	RA30LASD752A

RV4 per MIL-R-94 2 WATT CARBON POTENTIOMETERS — Commercial Equivalent — Series 53M — Series 53C

RV4NAYSB101A	RV4NAYS102A	RV4NAYS355B	RV4LAYS501A	RV4LAYS205B
RV4NAYSB251A	RV4NAYS152A	RV4NAYS505B	RV4LAYS751A	RV4LAYS255B
RV4NAYSB501A	RV4NAYS252A	RV4NAYS101A	RV4LAYS102A	RV4LAYS355B
RV4NAYS102A	RV4NAYS352A	RV4NAYS251A	RV4LAYS152A	RV4LAYS505B
RV4NAYSB252A	RV4NAYS502A	RV4NAYS501A	RV4LAYS252A	RV4LAYS751A
RV4NAYSB502A	RV4NAYS752A	RV4NAYS102A	RV4LAYS352A	RV4LAYS101A
RV4NAYSB103A	RV4NAYS103A	RV4NAYS252A	RV4LAYS502A	RV4LAYS251A
RV4NAYSB253A	RV4NAYS153A	RV4NAYS502A	RV4LAYS752A	RV4LAYS102A
RV4NAYSB503A	RV4NAYS253A	RV4NAYS103A	RV4LAYS103A	RV4LAYS252A
RV4NAYS104A	RV4NAYS353A	RV4NAYS253A	RV4LAYS153A	RV4LAYS502A
RV4NAYSB254A	RV4NAYS503A	RV4NAYS503A	RV4LAYS253A	RV4LAYS103A
RV4NAYSB504A	RV4NAYS753A	RV4NAYS104A	RV4LAYS353A	RV4LAYS253A
RV4NAYSB105A	RV4NAYS104A	RV4NAYS254A	RV4LAYS503A	RV4LAYS503A
RV4NAYSB255B	RV4NAYS154A	RV4NAYS504A	RV4LAYS753A	RV4LAYS104A
RV4NAYSB505B	RV4NAYS254A	RV4NAYS105A	RV4LAYS104A	RV4LAYS254A
RV4NAYS105A	RV4NAYS354A	RV4NAYS255B	RV4LAYS154A	RV4LAYS504A
RV4NAYS255B	RV4NAYS504A	RV4NAYS505B	RV4LAYS254A	RV4LAYS105A
RV4NAYS500A	RV4NAYS754A	RV4LAYS500A	RV4LAYS354A	RV4LAYS255B
RV4NYS101A	RV4NAYS105A	RV4LAYS754A	RV4LAYS504A	RV4LAYS505B
RV4NYS151A	RV4NAYS155B	RV4LAYS101A	RV4LAYS754A	
RV4NYS251A	RV4NAYS255B	RV4LAYS151A	RV4LAYS105A	
RV4NYS351A	RV4NAYS505B	RV4LAYS251A	RV4LAYS155B	
RV4NYS501A		RV4LAYS351A		

RV6 per MIL-R-94 0.5 WATT CARBON POTENTIOMETERS — Commercial Equivalent — Series 63C

RV6NAYS101A	RV6NAYS254A	RV6NAYS103A	RV6LAYS103A	RV6LAYS102A
RV6NAYS251A	RV6NAYS504A	RV6NAYS104A	RV6LAYS153A	RV6LAYS252A
RV6NAYS501A	RV6NAYS105A	RV6NAYS154A	RV6LAYS253A	RV6LAYS502A
RV6NYS102A	RV6NAYS1251A	RV6NAYS254A	RV6LAYS503A	RV6LAYS103A
RV6NAYS252A	RV6NAYS1501A	RV6NAYS504A	RV6LAYS104A	RV6LAYS153A
RV6NAYS502A	RV6NAYS102A	RV6NAYS105A	RV6LAYS154A	RV6LAYS253A
RV6NAYS103A	RV6NAYS1252A	RV6LAYS101A	RV6LAYS254A	RV6LAYS503A
RV6NAYS153A	RV6NAYS1502A	RV6LAYS251A	RV6LAYS504A	RV6LAYS104A
RV6NAYS253A	RV6NAYS103A	RV6LAYS501A	RV6LAYS105A	RV6LAYS154A
RV6NAYS503A	RV6NAYS153A	RV6LAYS102A	RV6LAYS251A	RV6LAYS254A
RV6NYS104A	RV6NAYS153A	RV6LAYS252A	RV6LAYS501A	RV6LAYS504A
RV6NAYS154A	RV6NAYS153A	RV6LAYS502A		RV6LAYS105A

PRODUCTS OF
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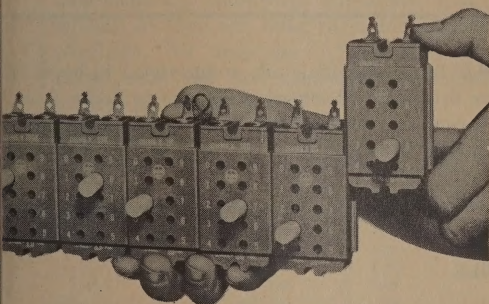


RESISTORS • CONTROLS
RESISTANCE DEVICES

CLARO-DEC PRECISION RESISTANCE DECADE BOX

most flexible innovation yet in precision resistance decade boxes, the Claro-Dec serves many applications with all the versatility needed for the Claro-Decs (within established parameters of current) are used wheneverurate steps of resistance values between .1 ohms and 900K ohms, $\pm 1\%$ * required. Selection of desired steps of resistance is accomplished by in-

sertion of a banana plug into the proper, marked front panel hole on the unit. Individual or multiple Claro-Dec units are flush panel or breadboard mounted with equal ease. Units may be physically ganged by sliding the molded-in tongue-and-groove together and electrically series connected with a supplied wire jumper or accessory banana plug.



Net Each: \$3.95

MODEL	TOTAL RES. OF DECADE	RESISTANCE PER STEP	ACCURACY (+C)*	MAXIMUM CURRENT
260-1	0.9 Ω	0.1 Ω	$\pm 5\%$	1 Amp.
260-2	9 Ω	1.0 Ω	$\pm 1\%$	350 Ma
260-3	90 Ω	10 Ω	$\pm 1\%$	100 Ma
260-4	900 Ω	100 Ω	$\pm 1\%$	35 Ma
260-5	9K Ω	1K Ω	$\pm 1\%$	10 Ma
260-6	90K Ω	10K Ω	$\pm 1\%$	3.5 Ma
260-7	900K Ω	100K Ω	$\pm 1\%$	1.0 Ma

* C — Contact Resistance, .005 - .03 ohms, typical, .01 ohms.

CONSTRUCTION

Housing — Two piece molded housing, color — grey.

Marking — Permanently marked with resistance multiplier, current rating, schematic and model number.

Resistors — Plastic coated wirewound for Models 260-1 and 260-2. Plastic coated metal film for all other models. Temperature coefficient less than 100 ppm.

Temperature — 40°C, max. at rated current, de-rated to zero at 85°C.

Weight — 2 oz. (approximate) per individual unit.

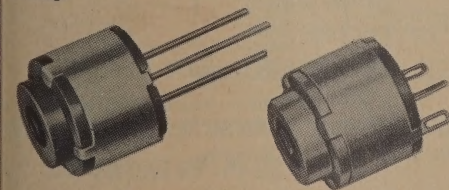
SERIES 63M TRIMMING POTENTIOMETERS

igned specifically for application on printed circuit boards, this new con-ration permits extremely close board-to-board spacing. Both metal and tic shafts and faceplates with wire or solder terminal leads provide nting facilities to meet virtually every application.

IFICATIONS

er Rating — .25 watt @ 70°C. Rerated to zero power @ 120°C.

king Voltage — 350 V.D.C. across end terminals, but power not to exceed rating.



Resistance Range — 100 Ω to 1 megohm, linear.

Resistance Tolerance — $\pm 20\%$

Mechanical & Electrical Rotation — 295°, $\pm 3^\circ$

Voltage Breakdown — 750 V.A.C. between terminals and ground for 1 minute.

Torque — 0.5 to 3 oz. in.

STYLE	DESCRIPTION	TERMINALS
63M1	Plastic Shaft & Faceplate	Solder Lug
63M2	Metal Shaft & Faceplate	Solder Lug
63M4	Plastic Shaft & Faceplate	Wire Leads
63M5	Metal Shaft & Faceplate	Wire Leads

STOCK VALUES

100	2.5K	25K	200K
250	5K	50K	250K
500	10K	100K	500K
1K	15K	150K	1 Meg.

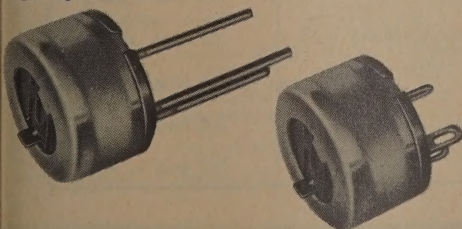
SERIES 371 HOT MOLDED, LOW COST, TRIMMING POTENTIOMETERS

struction consists of a hot molded carbon element, carbon contact brush, ssure spring and cover. Series 371-5 have standoffs to insulate metal er from printed circuit board and a screwdriver adjustment slot.

IFICATIONS

er Rating — $\frac{3}{4}$ watt @ 70°C derated linearly to zero watts @ 120°C.

king Voltage — 350 V.A.C.



Resistance Range — 100 Ω to 1 megohm.

Resistance Tolerance — $\pm 20\%$

Tapers — Linear and audio.

Mechanical & Electrical Rotation — 290° $\pm 5^\circ$.

Dielectric Strength — Variable arm hot to case. Case to mounting plane — 750 volts R.M.S. @ atmospheric pressure.

Torque — Operating: 6.0 oz. in. max. Stop: 1 lb. in.

Style	Terminals
371-2	Solder Lugs
371-5	Wire Leads

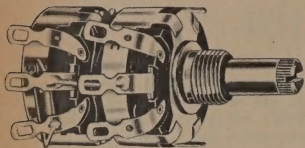
STOCK VALUE

100	2.5K	25K	200K
250	5K	50K	250K
500	10K	100K	500K
1K	15K	150K	1 Meg.



IRC-CTS SPECIAL PURPOSE CONTROLS

IRC, Inc.



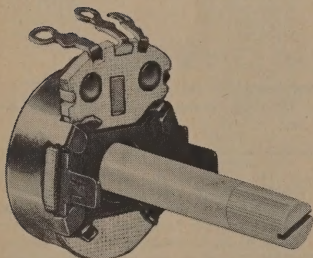
TV ATTENUATORS for on-the-spot adjustment of signal input to TV set. In most cases it corrects or reduces adjacent channel interference, back ground picture on weaker stations, poor definition, picture and sound break over. Type QJ-3 is widely used in service work to duplicate fringe area signals when near strong local station.



LOUDNESS CONTROLS that are continuously compensated to boost lows and highs as volume is decreased. Maintains depth and brilliance even at whisper level. The LC-2 can easily be wired into most audio circuits. Typical installation instructions included. Uses types 76-1, 76-2 or 76-4 switches.

TV HEIGHT CONTROLS

AVOID CALL-BACK INCONVENIENCES



USES

This control is supplied for reliable replacement of TV Height Controls and other controls in B+C CIRCUITS — such as AGC,

NOISE GATE,

FOCUS,

FRINGE LOCK and

SYNC controls — which have become unsatisfactory because of element etching due to voltages present in the particular circuitry.

FEATURES

- Premium quality control (originally designed for rugged service in military gear)
- 1 watt rating, 750 V. max. between outer terminals
- Small size — 15/16" diameter — same as most original controls
- Nylon shaft — slotted and knurled — easily shortened where required
- Tab mounting
- Rear adjustment

TYPE HLC TV HEIGHT CONTROLS

IRC Stock No.	Resistance Value
HLC-1	2.0 Meg. $\pm$ 30%
HLC-2	2.5 Meg. $\pm$ 30%
HLC-3	3.0 Meg. $\pm$ 30%
HLC-4	4.0 Meg. $\pm$ 30%
HLC-5	5.0 Meg. $\pm$ 30%
HLC-6	7.5 Meg. $\pm$ 30%

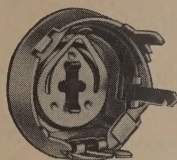
IRC-CTS SPECIAL PURPOSE CONTROLS


IRC, Inc.

2 WATT, 3/4" DIAMETER WIREWOUND CONTROLS

TYPE 110—TAB-MOUNT UNIT

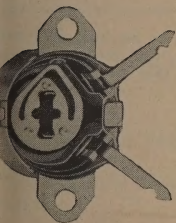
IRC-CTS buzz-bias controls are 2 watt preset type wirewound resistors. They are designed for hum-balancing, sensitivity, bias-adjust. AGC, holding, locking, and other radio and TV applications. All units are $\pm 20\%$ tolerance, linear taper, and have contact arm grounded to housing.



TYPES 110 & 110D

IRC STOCK NO.	RESISTANCE
110-1.5	1.5 Ω
110-5	5 Ω
110-15	15 Ω
110-60	60 Ω
110-100	100 Ω
110-300	300 Ω
110-600	600 Ω
110-1000	1000 Ω
110-3000	3000 Ω
110-3000-350	3000 Stops at 350 Ω

TYPE 112—FLANGE MOUNT UNITS



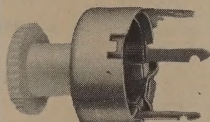
TYPE 112

IRC STOCK NO.	RESISTANCE
112-50	50 Ω
112-100	100 Ω
112-150	150 Ω
112-200	200 Ω
112-300	300 Ω
112-500	500 Ω
112-500-100	500 Ω Stops at 100 Ω
112-600	600 Ω
112-650	650 Ω
112-800	800 Ω
112-800-50	850 Ω Stops at 50 Ω
112-1000	1000 Ω
112-1000-100	1000 Ω Stops at 100 Ω
112-1500	1500 Ω
112-2000	2000 Ω
112-2000-100	2000 Ω Stops at 100 Ω
112-2500-700	2500 Ω Stops at 700 Ω
112-3000	3000 Ω
112-4000	4000 Ω
112-4000-350	4000 Ω Stops at 350 Ω
112-4000-1000	4000 Ω Stops at 1000 Ω
112-5000	5000 Ω
112-10K	10K Ω

TYPE 110D—TAB-MOUNT SPECIAL TEMPERATURE COMPENSATED UNITS

IRC STOCK NO.	RESISTANCE
110D175-60	175 Ω Stops at 60 Ω Replaces Delco #7275554
110D260-90	260 Ω Stops at 90 Ω Replaces Delco #7275474

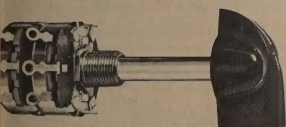
TYPE 110C—TAB-MOUNT TV COLOR CONVERGENCE CONTROLS WITH INTEGRAL NYLON KNOBS



TYPE 110C

IRC STOCK NO.	RESISTANCE
110C-10	10 Ω
110C-30	30 Ω
110C-60	60 Ω
110C-120	120 Ω
110C-150	150 Ω

L & T ATTENUATOR PADS



IRC-CTS L and T pads provide constant impedance for use in sound systems and for speaker controls. Both types handle up to 15 watts audio power (5 watts DC). L pads provide a constant input impedance and T pads provide constant input and output impedances.

ELECTRICAL SPECIFICATIONS:

Continuous D.C. Rating:	5 watts
Peak Audio Rating:	15 watts
Dielectric Strength:	1000 V.A.C. RMS to Ground
Attenuation Range:	4, 8 and 16 Ω IMPEDANCES: 0 to 30 db 500 Ω IMPEDANCE: 0 to 40 db
Insertion Loss:	Negligible (less than .5 db)
Input Impedance:	Constant within $\pm 30\%$ —20%

MECHANICAL SPECIFICATIONS:

Size:	1 5/8" diameter
Shaft Dimensions:	
Diameter:	.250"
Length:	2" from mounting surface
Bushing:	3/8"-32 x 3/8" long bushing
Angle of Rotation:	300° $\pm$ 5°

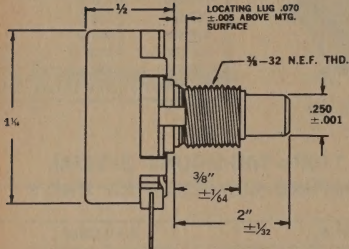
IRC Stock No.	IMPEDANCE
L PADS	
LP4A	4 Ω
LP8A	8 Ω
LP15A	15 Ω
LP500A	500 Ω
T PADS	
TP4A	4 Ω
TP8A	8 Ω
TP15A	15 Ω
TP500A	500 Ω



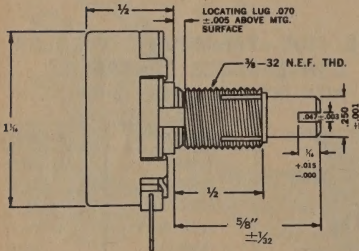
IRC-CTS INDUSTRIAL VARIABLE RESISTORS

IRC, Inc.

IRC-CTS TYPE 321 THREE-WATT INDUSTRIAL CONTROL (MILITARY GRADE)



SIDE VIEW OF TYPE 321S CONTROL



SIDE VIEW OF TYPE 321LT CONTROL
WITH LOCKING BUSHING

FEATURES

- COMPLETELY ENCLOSED CONSTRUCTION
- CARBON-CERAMIC ELEMENT
- EXCELLENT HEAT SINK QUALITIES
- MEETS MIL-R-94B, STYLE RV4
- HIGH INSULATION RESISTANCE OF CERAMIC
- LONG LIFE, LOW NOISE
- LARGE SAFETY FACTOR

ELECTRICAL AND MECHANICAL SPECIFICATIONS

- **RESISTANCE RANGE**
250 ohms through 2.5 megohms (linear taper).
- **TOLERANCE**
 $\pm 10\%$ standard, $\pm 20\%$ standard for values 1 megohm and above.
- **TAPERS** . . . Linear.
- **WATTAGE AND TEMPERATURE RATING**
3 watts at 70°C or 2 watts at 95°C derated to no load at 150°C .
500 volts DC maximum safe operating voltage across resistance element.
- **MOUNTING BUSHING DIMENSIONS**
Diameter: $3/8"$ — 32 N.E.F. thread
Length: Non-Lock — $3/8"$ standard
Locking — $1/2"$ standard
- **ANGLE OF ROTATION** . . . $315^{\circ} \pm 5^{\circ}$
- **SHAFT DIAMETER** . . . $.250" \pm .001"$
- **SHAFT LENGTH**
As shown under Ordering Information below.
- **SHAFT TRIM**
Screwdriver slot (Type LT) standard.
- **LOCATING LUGS**
Standard position is left side (terminals down) as illustrated.
- **TAPS** . . . None.

RANGES

TYPE 321S 2" plain shaft 3/8" long bushing	TOTAL RESISTANCE	TYPE 321LT LAYS 5/8" slotted shaft 1/2" long locking bushing
PART NUMBER	(Ohms $\pm 10\%$)	PART NUMBER
321S251A NAY251A	250	321LT251A LAYSA251A
321S501A NAY501A	500	321LT501A LAYSA501A
321S102A NAY102A	1,000	321LT102A LAYSA102A
321S252A NAY252A	2,500	321LT252A LAYSA252A
321S502A NAY502A	5,000	321LT502A LAYSA502A
321S103A NAY103A	10,000	321LT103A LAYSA103A
321S253A NAY253A	25,000	321LT253A LAYSA253A
321S503A NAY503A	50,000	321LT503A LAYSA503A
321S104A NAY104A	100,000	321LT104A LAYSA104A
321S254A NAY254A	250,000	321LT254A LAYSA254A
321S504A NAY504A	500,000	321LT504A LAYSA504A
321S105B NAY105B	(Ohms $\pm 20\%$)	321LT105B LAYSA105B
321S255B NAY255B	1 Megohm	321LT255B LAYSA255B
	2.5 Megohms	

IRC-CTS MILITARY CONTROLS



IRC, Inc.

IRC-CTS MILITARY VARIABLE RESISTORS TO MIL-R-19A AND MIL-R-94B

GENERAL SPECIFICATIONS

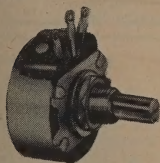
	MIL-R-19A		MIL-R-94B			
	RA20	RA30	Char.	RV2	RV4	RV5
Resistance Range (ohms)	3-15K	10-25K	X & Y	100-2.5 megs	100-5 megs	250-2.5 megs
Rotational Life	5% max, 25,000 cycles		X			
Load Life	3% max, 1,000 hours, rated load, 40°C		Y			
Moisture Resistance	10% max, Method 106, MIL-STD-202, 3.5 megs min insulation resistance		X			
Low Temp. Storage	4% max		X			
Low Temp. Operation	4% max		X			
Thermal Cycling	4% max		X			
Acceleration	3% max		X & Y			
Shock	2% max		X & Y			
High Freq. Vibration	2% max		X & Y			
Temp. Range	-63°C to +105°C		X & Y			

Fast, local delivery from Distributors' stock is now available for IRC-CTS military controls. A total of 255 variable resistors is included in this new, local service. The 6 styles illustrated cover the latest MIL-R-94B composition and MIL-R-19A wire wound specifications.

IRC-CTS WIRE WOUND VARIABLE RESISTORS TO MIL-R-19A

STYLE RA20 2 WATT WIRE WOUND

Type 252, style RA20, 1 1/4" diameter wirewound variable resistor.



- 2 watt rating
- Compact size
- Meets MIL-R-19
- 15 resistance values
- Insulated housing
- Built-in high torque

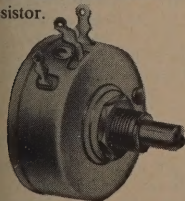
Choice of 2 shaft styles, plain or locking bushings.

STYLE RA20

Resistance	IRC-CTS TYPE 252		CTS TYPE 252LT	
	7/8" Slotted Shaft 3/4" Long Bushing Linear Resistance Taper	7/8" Slotted Shaft 3/4" Long Bushing Linear Resistance Taper	5/8" Slotted Shaft 1/2" Long Locking Bushing Linear Resistance Taper	5/8" Slotted Shaft 1/2" Long Locking Bushing Linear Resistance Taper
3 ± 10%	RA20NASD3R0A	RA20LASB3R0A	RA20LASD3R0A	RA20LASD3R0A
10 ± 10%	RA20NASD100A	RA20LASB100A	—	—
25 ± 10%	RA20NASD250A	RA20LASB250A	RA20LASD250A	RA20LASD250A
50 ± 10%	RA20NASD500A	RA20LASB500A	RA20LASD500A	RA20LASD500A
75 ± 10%	RA20NASD750A	RA20LASB750A	—	—
100 ± 10%	RA20NASD101A	RA20LASB101A	RA20LASD101A	RA20LASD101A
200 ± 10%	RA20NASD201A	RA20LASB201A	—	—
250 ± 10%	RA20NASD251A	RA20LASB251A	RA20LASD251A	RA20LASD251A
500 ± 10%	RA20NASD501A	RA20LASB501A	RA20LASD501A	RA20LASD501A
1,000 ± 10%	RA20NASD102A	RA20LASB102A	RA20LASD102A	RA20LASD102A
2,500 ± 10%	RA20NASD252A	RA20LASB252A	RA20LASD252A	RA20LASD252A
5,000 ± 10%	RA20NASD502A	RA20LASB502A	RA20LASD502A	RA20LASD502A
7,500 ± 10%	RA20NASD752A	RA20LASB752A	RA20LASD752A	RA20LASD752A
10,000 ± 10%	RA20NASD103A	RA20LASB103A	RA20LASD103A	RA20LASD103A
15,000 ± 10%	RA20NASD153A	RA20LASB153A	RA20LASD153A	RA20LASD153A

STYLE RA30 4 WATT WIRE WOUND

Type 25, style RA30, 1 1/2" diameter wirewound variable resistor.



- 4 watt rating
- Reliable CTS wirewound element
- Meets all MIL-R-19 requirements
- 15 resistance values
- Built-in high torque

Choice of 2 shaft styles, plain or locking bushings.

STYLE RA30

Resistance	IRC-CTS TYPE 25		CTS TYPE 25LT	
	7/8" Slotted Shaft 3/4" Long Bushing Linear Resistance Taper	7/8" Slotted Shaft 3/4" Long Bushing Linear Resistance Taper	5/8" Slotted Shaft 1/2" Long Locking Bushing Linear Resistance Taper	5/8" Slotted Shaft 1/2" Long Locking Bushing Linear Resistance Taper
10 ± 10%	RA30NASD100A	RA30LASB100A	RA30LASD100A	RA30LASD100A
25 ± 10%	RA30NASD250A	RA30LASB250A	RA30LASD250A	RA30LASD250A
50 ± 10%	RA30NASD500A	RA30LASB500A	RA30LASD500A	RA30LASD500A
100 ± 10%	RA30NASD101A	RA30LASB101A	RA30LASD101A	RA30LASD101A
200 ± 10%	RA30NASD201A	RA30LASB201A	RA30LASD201A	RA30LASD201A
250 ± 10%	RA30NASD251A	RA30LASB251A	RA30LASD251A	RA30LASD251A
500 ± 10%	RA30NASD501A	RA30LASB501A	RA30LASD501A	RA30LASD501A
750 ± 10%	RA30NASD751A	RA30LASB751A	RA30LASD751A	RA30LASD751A
1,000 ± 10%	RA30NASD102A	RA30LASB102A	RA30LASD102A	RA30LASD102A
2,500 ± 10%	RA30NASD252A	RA30LASB252A	RA30LASD252A	RA30LASD252A
5,000 ± 10%	RA30NASD502A	RA30LASB502A	RA30LASD502A	RA30LASD502A
7,500 ± 10%	RA30NASD752A	RA30LASB752A	RA30LASD752A	RA30LASD752A
10,000 ± 10%	RA30NASD103A	RA30LASB103A	RA30LASD103A	RA30LASD103A
15,000 ± 10%	RA30NASD153A	RA30LASB153A	RA30LASD153A	RA30LASD153A
25,000 ± 10%	RA30NASD253A	RA30LASB253A	RA30LASD253A	RA30LASD253A



IRC-CTS MILITARY CONTROLS

IRC, Inc.

IRC-CTS COMPOSITION VARIABLE RESISTORS TO MIL-R-94B

STYLE RV2 1 WATT COMPOSITION

Type 90, style RV2, $\frac{15}{16}$ " diameter composition variable resistor.



- 1 watt rating
- Operational up to 150°C
- 14 resistance values
- Meets characteristics X and Y
- Designed for high temperature and humidity military applications

Choice of 2 shaft styles, plain or locking bushings.

STYLE RV2

Resistance	IRC-CTS TYPE 90		CTS TYPE 90LT	
	$\frac{3}{8}$ " Slotted Shaft $\frac{3}{8}$ " Long Bushing	Linear Resistance Taper	$\frac{1}{2}$ " Slotted Shaft $\frac{1}{2}$ " Long Locking Bushing	Linear Resistance Taper
100 $\pm$ 10%	RV2NAXSD101A	RV2NAYS0101A	RV2LAXSA101A	RV2LAYS0101A
250 $\pm$ 10%	RV2NAXSD251A	RV2NAYS0251A	RV2LAXSA251A	RV2LAYS0251A
500 $\pm$ 10%	RV2NAXSD501A	RV2NAYS0501A	RV2LAXSA501A	RV2LAYS0501A
1,000 $\pm$ 10%	RV2NAXSD102A	RV2NAYS0102A	RV2LAXSA102A	RV2LAYS0102A
2,500 $\pm$ 10%	RV2NAXSD252A	RV2NAYS0252A	RV2LAXSA252A	RV2LAYS0252A
5,000 $\pm$ 10%	RV2NAXSD502A	RV2NAYS0502A	RV2LAXSA502A	RV2LAYS0502A
10,000 $\pm$ 10%	RV2NAXSD103A	RV2NAYS0103A	RV2LAXSA103A	RV2LAYS0103A
25,000 $\pm$ 10%	RV2NAXSD253A	RV2NAYS0253A	RV2LAXSA253A	RV2LAYS0253A
50,000 $\pm$ 10%	RV2NAXSD503A	RV2NAYS0503A	RV2LAXSA503A	RV2LAYS0503A
100,000 $\pm$ 10%	RV2NAXSD104A	RV2NAYS0104A	RV2LAXSA104A	RV2LAYS0104A
250,000 $\pm$ 10%	RV2NAXSD254A	RV2NAYS0254A	RV2LAXSA254A	RV2LAYS0254A
500,000 $\pm$ 10%	RV2NAXSD504A	RV2NAYS0504A	RV2LAXSA504A	RV2LAYS0504A
1.0 Meg. $\pm$ 20%	RV2NAXSD105B	RV2NAYS0105B	RV2LAXSA105B	RV2LAYS0105B
2.5 Meg. $\pm$ 20%	RV2NAXSD255B	RV2NAYS0255B	RV2LAXSA255B	RV2LAYS0255B

STYLE RV4 3 WATT COMPOSITION

Type 96/320/321, style RV4, $\frac{1}{16}$ " diameter composition variable resistor.



- 3 watt rating
- Completely enclosed construction
- Excellent heat sink qualities
- 15 resistance values
- Long life, no noise
- Reliable carbon-ceramic element

Choice of 2 shaft styles, plain or locking bushings.

STYLE RV4

Resistance	IRC-CTS TYPE 96/320/321		CTS TYPE 96LT/320LT/321LT	
	$\frac{3}{8}$ " Slotted Shaft $\frac{3}{8}$ " Long Bushing	Linear Resistance Taper	$\frac{1}{2}$ " Slotted Shaft $\frac{1}{2}$ " Long Locking Bushing	Linear Resistance Taper
100 $\pm$ 10%	RV4NAYS0101A	RV4NAYS0101A	RV4LAYS0101A	RV4LAYS0101A
250 $\pm$ 10%	RV4NAYS0251A	RV4NAYS0251A	RV4LAYS0251A	RV4LAYS0251A
500 $\pm$ 10%	RV4NAYS0501A	RV4NAYS0501A	RV4LAYS0501A	RV4LAYS0501A
1,000 $\pm$ 10%	RV4NAYS0102A	RV4NAYS0102A	RV4LAYS0102A	RV4LAYS0102A
2,500 $\pm$ 10%	RV4NAYS0252A	RV4NAYS0252A	RV4LAYS0252A	RV4LAYS0252A
5,000 $\pm$ 10%	RV4NAYS0502A	RV4NAYS0502A	RV4LAYS0502A	RV4LAYS0502A
10,000 $\pm$ 10%	RV4NAYS0103A	RV4NAYS0103A	RV4LAYS0103A	RV4LAYS0103A
25,000 $\pm$ 10%	RV4NAYS0253A	RV4NAYS0253A	RV4LAYS0253A	RV4LAYS0253A
50,000 $\pm$ 10%	RV4NAYS0503A	RV4NAYS0503A	RV4LAYS0503A	RV4LAYS0503A
100,000 $\pm$ 10%	RV4NAYS0104A	RV4NAYS0104A	RV4LAYS0104A	RV4LAYS0104A
250,000 $\pm$ 10%	RV4NAYS0254A	RV4NAYS0254A	RV4LAYS0254A	RV4LAYS0254A
500,000 $\pm$ 10%	RV4NAYS0504A	RV4NAYS0504A	RV4LAYS0504A	RV4LAYS0504A
1.0 Meg. $\pm$ 10%	RV4NAYS0105A	RV4NAYS0105A	RV4LAYS0105A	RV4LAYS0105A
1.0 Meg. $\pm$ 20%	RV4NAYS0255B	RV4NAYS0255B	RV4LAYS0255B	RV4LAYS0255B
2.5 Meg. $\pm$ 20%	RV4NAYS0505B	RV4NAYS0505B	RV4LAYS0505B	RV4LAYS0505B

STYLE RV5 $\frac{1}{2}$ WATT MINIATURE COMPOSITION

Type 65, style RV5, $\frac{3}{4}$ " diameter composition register.



- $\frac{1}{2}$ watt rating
- Small size
- 13 resistance values
- Operational up to 150°C
- Designed for high temperature and humidity applications

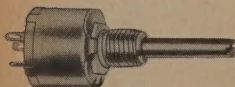
Choice of 2 shaft styles, plain or locking bushings.

STYLE RV5

Resistance	IRC-CTS TYPE 65		CTS TYPE 65LT	
	$\frac{3}{8}$ " Slotted Shaft $\frac{1}{4}$ " Long Bushing	Linear Resistance Taper	$\frac{3}{8}$ " Slotted Shaft $\frac{3}{8}$ " Long Locking Bushing	Linear Resistance Taper
250 $\pm$ 10%	RV5NAXSD251A	RV5NAYS0251A	RV5LAXSB251A	RV5LAYS0251A
500 $\pm$ 10%	RV5NAXSD501A	RV5NAYS0501A	RV5LAXSB501A	RV5LAYS0501A
1,000 $\pm$ 10%	RV5NAXSD102A	RV5NAYS0102A	RV5LAXSB102A	RV5LAYS0102A
2,500 $\pm$ 10%	RV5NAXSD252A	RV5NAYS0252A	RV5LAXSB252A	RV5LAYS0252A
5,000 $\pm$ 10%	RV5NAXSD502A	RV5NAYS0502A	RV5LAXSB502A	RV5LAYS0502A
10,000 $\pm$ 10%	RV5NAXSD103A	RV5NAYS0103A	RV5LAXSB103A	RV5LAYS0103A
25,000 $\pm$ 10%	RV5NAXSD253A	RV5NAYS0253A	RV5LAXSB253A	RV5LAYS0253A
50,000 $\pm$ 10%	RV5NAXSD503A	RV5NAYS0503A	RV5LAXSB503A	RV5LAYS0503A
100,000 $\pm$ 10%	RV5NAXSD104A	RV5NAYS0104A	RV5LAXSB104A	RV5LAYS0104A
250,000 $\pm$ 10%	RV5NAXSD254A	RV5NAYS0254A	RV5LAXSB254A	RV5LAYS0254A
500,000 $\pm$ 10%	RV5NAXSD504A	RV5NAYS0504A	RV5LAXSB504A	RV5LAYS0504A
1.0 Meg. $\pm$ 20%	RV5NAXSD105B	RV5NAYS0105B	RV5LAXSB105B	RV5LAYS0105B
2.5 Meg. $\pm$ 20%	RV5NAXSD255B	RV5NAYS0255B	RV5LAXSB255B	RV5LAYS0255B

STYLE RV6 $\frac{1}{2}$ WATT MINIATURE COMPOSITION

Type 300, style RV6, $\frac{1}{2}$ " diameter composition resistor.



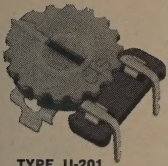
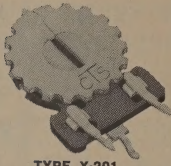
- $\frac{3}{4}$ watt rating
- Miniature size
- Excellent stability
- 14 resistance values
- Reliable carbon-ceramic element
- High resolution

Choice of 2 shaft styles, plain or locking bushings.

STYLE RV6

Resistance	IRC-CTS TYPE 300		CTS TYPE 300LT	
	$\frac{3}{8}$ " Slotted Shaft $\frac{1}{4}$ " Long Bushing	Linear Resistance Taper	$\frac{1}{2}$ " Slotted Shaft $\frac{1}{2}$ " Long Locking Bushing	Linear Resistance Taper
100 $\pm$ 10%	RV6NAYS0101A	RV6NAYS0101A	RV6LAYS0101A	RV6LAYS0101A
250 $\pm$ 10%	RV6NAYS0251A	RV6NAYS0251A	RV6LAYS0251A	RV6LAYS0251A
500 $\pm$ 10%	RV6NAYS0501A	RV6NAYS0501A	RV6LAYS0501A	RV6LAYS0501A
1,000 $\pm$ 10%	RV6NAYS0102A	RV6NAYS0102A	RV6LAYS0102A	RV6LAYS0102A
2,500 $\pm$ 10%	RV6NAYS0252A	RV6NAYS0252A	RV6LAYS0252A	RV6LAYS0252A
5,000 $\pm$ 10%	RV6NAYS0502A	RV6NAYS0502A	RV6LAYS0502A	RV6LAYS0502A
10,000 $\pm$ 10%	RV6NAYS0103A	RV6NAYS0103A	RV6LAYS0103A	RV6LAYS0103A
25,000 $\pm$ 10%	RV6NAYS0253A	RV6NAYS0253A	RV6LAYS0253A	RV6LAYS0253A
50,000 $\pm$ 10%	RV6NAYS0503A	RV6NAYS0503A	RV6LAYS0503A	RV6LAYS0503A
100,000 $\pm$ 10%	RV6NAYS0104A	RV6NAYS0104A	RV6LAYS0104A	RV6LAYS0104A
250,000 $\pm$ 10%	RV6NAYS0254A	RV6NAYS0254A	RV6LAYS0254A	RV6LAYS0254A
500,000 $\pm$ 10%	RV6NAYS0504A	RV6NAYS0504A	RV6LAYS0504A	RV6LAYS0504A
1.0 Meg. $\pm$ 20%	RV6NAYS0105B	RV6NAYS0105B	RV6LAYS0105B	RV6LAYS0105B
2.0 Meg. $\pm$ 20%	RV6NAYS0255B	RV6NAYS0255B	RV6LAYS0255B	RV6LAYS0255B
2.5 Meg. $\pm$ 20%	RV6NAYS0505B	RV6NAYS0505B	RV6LAYS0505B	RV6LAYS0505B

IRC-CTS CARBON & WIREWOUND TRIMMERS


IRC, Inc.

TYPE U-201

TYPE X-201

U-201 AND X-201 CARBON TRIMMERS

Miniature Size — Knob 19/32" Diameter
Arrow Indicator Knob
Knob Slotted for Front or Rear Screwdriver Adjustment
Snap-in Self-supporting Bracket Mounted
Low Cost

Electrical Specifications

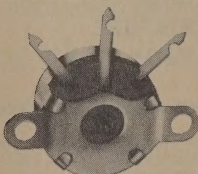
Permittance: $\pm 20\%$
Power Rating: 1/4 Watt
Temperature: Linear Only
Voltage Rating: 500 VDC Operating Maximum
Switches: Not Available
Solder: Not Available

Mechanical Specifications

Mounting: U-201 Mounts with Knob Parallel to Printed Circuit Board
X-201 Mounts with Knob Perpendicular to Printed Circuit Board
Angle of Rotation: $260^\circ \pm 5^\circ$
Terminals: Printed Circuit Type
Adjustment: Blue Nylon Knob 19/32" Diameter, Knurled with Arrow Indicator, Slotted for Front and Rear Adjustment.

STANDARD RESISTANCE RANGES

STOCK NO.		RESISTANCE VALUE
TYPE U-201	TYPE X-201	
U201R101B	X201R101B	100 Ω
U201R251B	X201R251B	250 Ω
U201R501B	X201R501B	500 Ω
U201R102B	X201R102B	1000 Ω
U201R252B	X201R252B	2500 Ω
U202R502B	X201R502B	5000 Ω
U201R103B	X201R103B	10K Ω
U201R250B	X201R253B	25K Ω
U201R503B	X201R503B	50K Ω
U201R104B	X201R104B	100K Ω
U201R254B	X201R254B	250K Ω
U201R504B	X201R504B	500K Ω
U201R105B	X201R105B	1.0M Ω


TYPE P-115

TYPE 117

TYPE P115 AND 117 WIREWOUND TRIMMERS

Fully Enclosed Construction
Long Rotational Life
Insulated Rotor
Wide Resistance Range

Electrical Specifications

Permittance: $\pm 10\%$
Power Rating: 2 Watts
Temperature: Linear Only
Voltage Rating: 500 VDC Operating Maximum
Shifts: 1 1/4" Delrin Plastic Shaft available, Stock #P115-117-1
Switches: Not Available
Solder: Not Available

Mechanical Specifications

Mounting: P-115 Twist Tab Mounted
117 Rivet Ear Mounted
Angle of Rotation: $270^\circ \pm 5^\circ$
Terminals: Printed Circuit Type
Adjustment: Cross Slot in Nylon Rotor

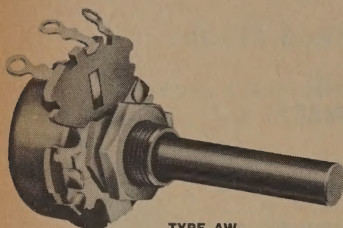
STANDARD RESISTANCE RANGES

STOCK NO.		RESISTANCE
P115R50A	117R50A	
P115R100A	117R100A	10 Ω
P115R250A	117R250A	25 Ω
P115R500A	117R500A	50 Ω
P115R101A	117R101A	100 Ω
P115R251A	117R251A	250 Ω
P115R501A	117R501A	500 Ω
P115R102A	117R102A	1000 Ω
P115R252A	117R252A	2500 Ω
P115R502A	117R502A	5000 Ω
P115R103A	117R103A	10K Ω

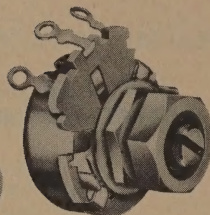


IRC-CTS CARBON & WIREWOUND CONTROLS

IRC, Inc.



TYPE AW



TYPE AWRL

- Compact Size — 15/16" Diameter
- Full 5 Watt Rating
- Economical
- Fully Enclosed Construction

Electrical Specifications

Tolerance: $\pm 10\%$

Power Rating: 5 Watts

Taper: Linear Only

Voltage Rating: 500 VDC Operating Maximum

Switches: Not Available

Taps: Not Available

AW SERIES INDUSTRIAL WIREWOUND CONTROLS

Mechanical Specifications

Mounting Bushing Dimensions

Diameter: $\frac{3}{8}$ " — 32 NEF Thread

Length: AW—Non-Lock — $\frac{3}{8}$ " long

AWRL—Locking — $\frac{3}{8}$ " long

Angle of Rotation: $300^\circ \pm 5^\circ$

Shaft Diameter: .250"

Shaft Length: Type AW — 3" F.M.S.

Type AWRL — $\frac{1}{2}$ " F.M.S.

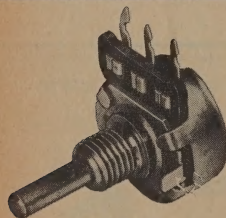
Shaft Trim: Type AW — Full Round

Type AWRL — Screwdriver Slot

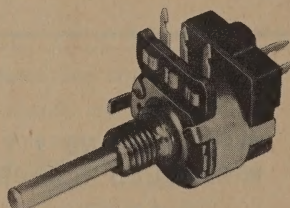
Locating Lugs: Both Sides

STANDARD RESISTANCE RANGES

AW STOCK NO.	AWRL STOCK NO.	RESISTANCE
AW10	AWRL10	10 Ω
AW15	AWRL15	15 Ω
AW20	AWRL20	20 Ω
AW25	AWRL25	25 Ω
AW50	AWRL50	50 Ω
AW100	AWRL100	100 Ω
AW200	AWRL200	200 Ω
AW250	AWRL250	250 Ω
AW500	AWRL500	500 Ω
AW1000	AWRL1000	1000 Ω
AW2000	AWRL2000	2000 Ω
AW2500	AWRL2500	2500 Ω
AW3000	AWRL3000	3000 Ω
AW5000	AWRL5000	5000 Ω
AW10000	AWRL10000	10K Ω



TYPE MC



TYPE MCS

- Miniature Size — $\frac{5}{8}$ " Diameter
- Wide Resistance Range
- Selection of Tapers
- Suitable for Commercial and Replacement Applications

Electrical Specifications

Tolerance: $\pm 20\%$

Power Rating: $\frac{1}{4}$ Watt

Taper: Linear and Audio

Voltage Rating: 500 VDC Operating Maximum

Switches: SPST Switches Available on Certain Ranges

Taps: Not Available

SERIES 200 MINIATURE CARBON CONTROLS

Mechanical Specifications

Mounting Bushing Dimensions

Diameter: $\frac{1}{4}$ " — 32 NEF-2A

Length: $\frac{1}{4}$ "

Angle of Rotation

Without Switch — $300^\circ \pm 5^\circ$

With Switch — $315^\circ \pm 5^\circ$

Shaft Diameter: .125"

Shaft Length: 1" F.M.S.

Shaft Trim: Screwdriver Slotted

Terminals: Printed Circuit Type

STANDARD RESISTANCE RANGES

TYPE MC—WITHOUT SWITCH			TYPE MCS—WITH SWITCH		
STOCK NO.	OHMS	TAPER	STOCK NO.	OHMS	TAPER
MC102D	1000 Ω	Linear	MC252AS	2500 Ω	Audio
MC252A	2500 Ω	Audio	MC502AS	5000 Ω	Audio
MC502A	5000 Ω	Audio	MC502DS	5000 Ω	Linear
MC502D	5000 Ω	Linear	MC103AS	10K Ω	Audio
MC103D	10K Ω	Linear	MC504AS	500K Ω	Audio
MC253D	25K Ω	Linear	MC105AS	1.0M Ω	Audio
MC503D	50K Ω	Linear			
MC104D	100K Ω	Linear			
MC254D	250K Ω	Linear			
MC504A	500K Ω	Audio			
MC504D	500K Ω	Linear			
MC105A	1.0M Ω	Audio			
MC105D	1.0M Ω	Linear			

IRC-CTS CONCENTRIKIT® DEALER STOCKS


IRC, Inc.


SPACIOUS STOCK CABINET

The same spacious stock cabinet is provided with either No. 90 or No. 92 stocks. Permits ready conversion Basic Stock to Expanded Stock. Sturdy two-shelf metal cabinet measures 17 $\frac{1}{8}$ " wide, 11 $\frac{1}{16}$ " deep and 11" high. Provides twelve large "see-thru" drawers with locking divider feature. Drawers measure 11" deep, 11" wide and 2" high—956 cubic inches of stock space! Needed dividers are included. Both drawer front and bottom labels provide full location and identification data.

EXTENSIVE VARIATION OF CONTROL TYPES

CONCENTRIKIT Dealer Control Stocks provide an extensive variation of single and concentric dual control types. Included are a wide selection of control mountings, shafts, and power switches with both carbon (1 watt) and wire-wound (4 watts) front and rear sections. Control mountings include $\frac{3}{8}$ ", $\frac{7}{16}$ " and $\frac{1}{2}$ " diameter bushings, tab mounting plates and printed circuit brackets. Shaft styles include $\frac{1}{4}$ " and $\frac{3}{16}$ " diameter universal shafts, screw-driver slotted and insulated shafts, rear adjustment feature and a large selection of exact duplicate shafts which require no cutting or modification.

Rotary and pull-push power switches attach to either single or concentric dual styles. Concentric dual controls include carbon front and rear sections, wirewound front and rear sections and wirewound front sections with carbon rear sections. Carbon units are equipped with printed circuit terminals for universal use. Broad selection of resistance values and tapers. Replacement data, pricing information and full instructions included.

CONCENTRIKIT DEALER CONTROL STOCKS

Most widely used control replacement system, the new CONCENTRIKIT stocks employ the unique adaptability of this true control parts system to provide top coverage of needed replacement controls. Parts included have been carefully selected for broadest combinations for TV, radio, auto sets and high-fidelity equipment. The exclusive features of CONCENTRIKIT afford a nearly endless variety of single and concentric dual controls.

Two specially planned dealer stocks are available. No. 90 is a Basic Stock of Concentrikrit parts. No. 92 is an Expanded Stock providing over three times the replacement coverage. Both stocks are housed in the same large metal cabinet with twelve "see-thru" drawers. Special labelling supplies quick location and identification of parts. No. 91 Conversion Stock changes the Basic Stock into the Expanded Stock.

CONTENTS OF NEW DEALER CONCENTRIKIT STOCKS

DESCRIPTION	BASIC STOCK No. 90	CON- VERSION STOCK No. 91	EXPANDED STOCK No. 92
Carbon Base-Elements	25	22	47
Wirewound Base-Elements	—	6	6
Exact Duplicate Concentric Shafts	86	29	115
CONCENTRIKITS	9	5	14
Single Control Shaft Kits	14	8	22
Separate Insulated Shafts	—	2	2
Printed Circuit Bracket	1	—	1
Special Bushings	—	3	3
Power Switches (Rotary and Pull-Push)	8	8	16
Hardware Items	4	—	4
Replacement Manual	1	—	1
Instruction Package	1	—	1

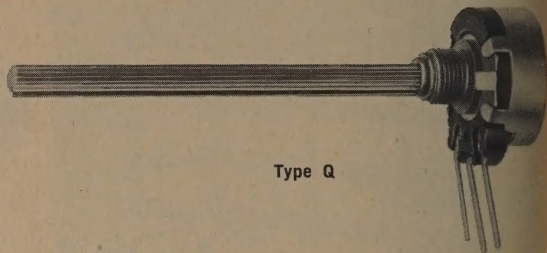


IRC-CTS CONCENTRIKIT® TYPE Q

IRC, Inc.

IRC-CTS TYPE Q CONTROLS AND BASE ELEMENTS

Type Q Replacement Controls and the versatile Type Q Base-Element provide the broadest selection of resistance values and tapers. Type Q is equipped with 3" long Knobmaster Shaft—flatted, grooved and knurled for universal knob fit. Bushing $\frac{3}{8}$ —32 by $\frac{1}{4}$ " long FMS. Stock numbers in parentheses () may be assembled with Base-Element indicated and SK1 Kit. PPQ items may be assembled with Base-Element listed and either SK7 or SK8 as required.


Type Q
LISTING BY RESISTANCE VALUE

OHMS	TAP	TAPER*	Q CONTROL STOCK NO.**	Q BASE-ELEMENT STOCK NO.
100	—	1 (A)	(Q11-084)	B11-084
250	—	2 (A)	Q11-201	B11-201
300	—	1 (A)	(Q11-102)	B11-102
500	—	1 (A)	Q11-103	B11-103
500	—	5 (P)	(Q17-103)	B17-103
500	60	14 (S)	(Q17-103X)	B17-103X
750	—	1 (A)	Q11-105	B11-105
750	—	5 (P)	(Q17-105)	B17-105
750	250	8 (S)	Q17-105X	B17-105X
1000	—	2 (A)	Q11-108	B11-108
1000	—	5 (P)	Q17-108	B17-108
1000	150	20 (S)	(Q17-108X)	B17-108X
1200	—	4 (Q)	(Q17-208)	B17-208
1500	—	2 (A)	Q11-109	B11-109
1500	—	4 (Q)	Q17-109	B17-109
1500	180	27 (S)	(Q15-109X)	B15-109X
1500	185 & 375	34 (S)	(Q17-109XX)	B17-109XX
2000	—	2 (A)	Q11-110	B11-110
2000	—	4 (Q)	Q17-110	B17-110
2000	550	38 (S)	(Q17-110X)	B17-110X
2000	250 & 500	34 (S)	Q17-110XX	B17-110XX
2500	—	2 (A)	(Q11-111)	B11-111
2500	—	3 (C)	Q13-111	B13-111
2500	—	4 (Q)	Q17-111	B17-111
2500	250	13 (S)	(Q15-111X)	B15-111X
2500	500	21 (S)	(Q17-111X)	B17-111X
2500	625	28 (S)	(Q27-111X)	B27-111X
3000	—	2 (A)	Q11-112	B11-112
3000	—	4 (Q)	Q17-112	B17-112
3000	150	9 (S)	(Q17-112X)	B17-112X
5000	—	2 (A)	Q11-114	B11-114
5000	—	3 (C)	Q13-114	B13-114
5000	—	4 (Q)	Q17-114	B17-114
5000	500	13 (S)	(Q15-114X)	B15-114X
5000	1000	21 (S)	(Q17-114X)	B17-114X
7500	—	2 (A)	Q11-115	B11-115
7500	3750	12	(Q21-115X)	B21-115X
10 K	—	2 (A)	Q11-116***	B11-116
10 K	—	3 (C)	Q13-116	B13-116
10 K	—	23 (D)	Q14-116***	B14-116
10 K	—	4 (Q)	Q17-116	B17-116
10 K	300	22 (S)	(Q15-116X)	B15-116X
10 K	5000	12	(Q19-116X)	B19-116X

LISTING BY RESISTANCE VALUE

OHMS	TAP	TAPER*	Q CONTROL STOCK NO.**	Q BASE-ELEMENT STOCK NO.
11.5 K	—	5 (Q)	(Q17-117)	B17-117
15 K	—	2 (A)	(Q11-118)	B11-118
15 K	5000	29 (S)	Q17-118X	B17-118X
15 K	10 K	8 (S)	Q13-118X	B13-118X
15 K	5000 & 10 K	33 (S)	Q13-118XX	B13-118XX
15 K	5000 & 10 K	48 (S)	Q17-118XX	B17-118XX
20 K	—	2 (A)	Q11-119	B11-119
20 K	—	4 (Q)	(Q17-119)	B17-119
20 K	—	45 (S)	Q16-119***	B16-119
20 K	6000	11	(Q19-119X)	B19-119X
25 K	—	2 (A)	Q11-120	B11-120
25 K	—	3 (C)	Q13-120	B13-120
25 K	—	23 (D)	Q14-120	B14-120
25 K	—	4 (Q)	(Q17-120)	B17-120
30 K	—	2 (A)	Q11-121	B11-121
30 K	10 K	8 (S)	(Q20-121X)	B20-121X
35 K	—	2 (A)	Q11-122	B11-122
50 K	—	2 (A)	Q11-123	B11-123
50 K	—	3 (C)	Q13-123	B13-123
50 K	—	23 (D)	Q14-123***	B14-123
50 K	—	4 (Q)	(Q17-123)	B17-123
75 K	—	2 (A)	Q11-125	B11-125
100 K	—	2 (A)	Q11-128	B11-128
100 K	—	3 (C)	Q13-128	B13-128
100 K	—	4 (Q)	(Q17-128)	B17-128
125 K	—	2 (A)	Q11-228	B11-228
150 K	—	2 (A)	Q11-328	B11-328
150 K	—	3 (C)	Q13-328	B13-328
150 K	19 K & 38 K	34 (S)	Q17-328XX	B17-328XX
200 K	—	2 (A)	Q11-129	B11-129
200 K	—	4 (Q)	(Q17-129)	B17-129
250 K	—	2 (A)	Q11-130	B11-130
250 K	—	3 (C)	Q13-130	B13-130
250 K	60 K	44 (H)	Q18-130X	B18-130X
250 K	125 K	12 (S)	Q13-130X	B13-130X
250 K	60 K & 120 K	46 (S)	Q18-130XX	B18-130XX
300 K	—	2 (A)	Q11-131	B11-131
350 K	—	2 (A)	Q11-132	B11-132
350 K	—	3 (C)	Q13-132	B13-132
350 K	35 K	13 (S)	Q17-132X	B17-132X
350 K	75 K	30 (H)	Q18-132X	B18-132X
400 K	—	2 (A)	(Q11-232)	B11-232

* Taper listing shows both new (numerical) Taper and old (alphabetical) Taper. See Taper explanation chart, page 28.

** Stock numbers listed in parentheses () are not available as factory-assembled controls. Use Q Base-Element shown with SK1 Kit for field assembly of such items.

*** Supplied with 270Ω bias resistor.

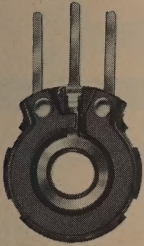
LISTING CONTINUED ON NEXT PAGE

IRC-CTS CONCENTRIKIT[®]

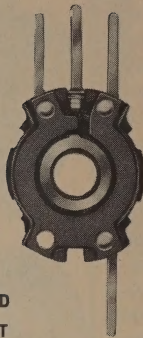
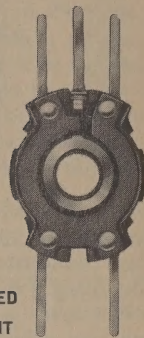
TYPE Q



IRC, Inc.



PLAIN BASE ELEMENT

SINGLE TAPPED
BASE ELEMENTDOUBLE TAPPED
BASE ELEMENT

LISTING BY RESISTANCE VALUE

OHMS	TAP	TAPER*	Q CONTROL STOCK NO.**	Q BASE-ELEMENT STOCK NO.
00 K	—	2 (A)	Q11-133	B11-133
00 K	—	3 (C)	Q13-133	B13-133
00 K	—	23 (D)	Q14-133	B14-133
00 K	—	4 (Q)	Q17-133	B17-133
00 K	25 K	40 (S)	Q17-133X	B17-133X
00 K	50 K	13 (S)	Q18-133X	B18-133X
00 K	75 K	24 (S)	(Q15-133X)	B15-133X
00 K	125 K	44 (H)	Q13-133X	B13-133X
00 K	180 K	31 (S)	(Q20-133X)	B20-133X
00 K	250 K	12 (S)	Q19-133X	B19-133X
00 K	100 K & 200 K	35 (S)	Q18-133XX	B18-133XX
00 K	167 K & 330 K	17 (S)	(Q20-133XX)	B20-133XX
00 K	—	2 (A)	Q11-134	B11-134
00 K	—	2 (A)	Q11-136	B11-136
00 K	—	2 (A)	Q11-137	B11-137
00 K	—	3 (C)	Q13-137	B13-137
00 K	—	23 (D)	Q14-137	B14-137
00 K	—	4 (Q)	Q17-137	B17-137
00 K	35 K	22 (S)	Q17-137X	B17-137X
00 K	100 K	13 (S)	Q18-137X	B18-137X
00 K	250 K	44 (H)	Q13-137X	B13-137X
00 K	500 K	12 (S)	Q19-137X	B19-137X
00 K	500 K	32 (S)	QVC-539X	BVC-539X
00 K	50 K & 100 K	36 (S)	Q17-137XX	B17-137XX
00 K	250 K & 500 K	18 (S)	Q18-137XX	B18-137XX
25 M	—	4 (Q)	(Q17-237)	B17-237
25 M	750 K	10 (S)	(Q18-237X)	B18-237X
5 M	—	2 (A)	Q11-138	B11-138
5 M	—	3 (C)	(Q13-138)	B13-138
5 M	—	4 (Q)	(Q17-138)	B17-138
5 M	250 K	26 (S)	Q13-138X	B13-138X
0 M	—	2 (A)	Q11-139	B11-139
0 M	—	3 (C)	Q13-139	B13-139
0 M	—	4 (Q)	Q17-139	B17-139
0 M	50 K	22 (S)	Q19-139X	B19-139X
0 M	150 K	37 (S)	Q17-139X	B17-139X
0 M	500 K	44 (H)	Q13-139X	B13-139X
0 M	1.0 M	12 (S)	Q18-139X	B18-139X
0 M	250 K & 500 K	43 (S)	Q18-139XX	B18-139XX
0 M	500 K & 1.0 M	18 (S)	Q13-139XX	B13-139XX
5 M	—	2 (A)	Q11-239	B11-239
5 M	—	4 (Q)	(Q17-239)	B17-239
0 M	—	2 (A)	Q11-140	B11-140

LISTING BY RESISTANCE VALUE

OHMS	TAP	TAPER*	Q CONTROL STOCK NO.**	Q BASE-ELEMENT STOCK NO.
3.0 M	—	3 (C)	Q13-140	B13-140
3.0 M	—	4 (Q)	Q17-140	B17-140
3.0 M	900 K	47 (S)	Q13-140X	B13-140X
3.0 M	1.5 M	12 (S)	Q18-140X	B18-140X
4.0 M	—	2 (A)	(Q11-240)	B11-240
4.0 M	open at 25 K	39 (S)	(Q12-240)	B12-240
5.0 M	—	2 (A)	Q11-141	B11-141
5.0 M	—	6 (S)	Q12-141	B12-141
5.0 M	—	3 (C)	Q13-141	B13-141
5.0 M	—	4 (Q)	Q17-141	B17-141
5.0 M	—	7 (S)	(Q12-241)	B12-241
5.0 M	open at 500 K	41 (S)	(Q12-341)	B12-341
5.0 M	1.0 M	30 (S)	(Q13-141X)	B13-141X
5.0 M	2.5 M	12 (S)	(Q18-141X)	B18-141X
7.5 M	—	2 (A)	Q11-142	B11-142
10.0 M	—	2 (A)	Q11-143	B11-143

FACTORY-ASSEMBLED TYPE Q CONTROL
WITH PULL-PUSH SWITCH

OHMS	TAP	TAPER*	Q CONTROL STOCK NO.	Q BASE-ELEMENT STOCK NO.
500	—	2 (A)	PPQ11-103-SK7	B11-103
200 K	—	2 (A)	PPQ11-129-SK7	B11-129
250 K	—	3 (C)	PPQ13-130-SK7	B13-130
500 K	—	3 (C)	PPQ13-133-SK7	B13-133
500 K	125 K	44 (H)	PPQ13-133X-SK8	B13-133X
1.0 M	—	2 (A)	PPQ11-137-SK7	B11-137
1.0 M	—	2 (A)	PPQ11-137-SK8	B11-137
1.0 M	—	3 (C)	PPQ13-137-SK7	B13-137
1.0 M	—	3 (C)	PPQ13-137-SK8	B13-137
1.0 M	100 K	13 (S)	PPQ18-137X-SK8	B18-137X
1.0 M	250 K	44 (H)	PPQ13-137X-SK7	B13-137X
1.0 M	250 K	44 (H)	PPQ13-137X-SK8	B13-137X
1.0 M	500 K	12 (S)	PPQ19-137X-SK8	B19-137X
2.0 M	—	3 (C)	PPQ13-139-SK8	B13-139
2.0 M	1.0 M	12 (S)	PPQ18-139X-SK7	B18-139X
2.0 M	1.0 M	12 (S)	PPQ18-139X-SK8	B18-139X
3.0 M	1.5 M	12 (S)	PPQ18-140X-SK8	B18-140X

per listing shows both new (numerical) Taper and old (alphabetical) Taper. See Taper explanation chart, page 28.
lock numbers listed in parentheses () are not available as factory-assembled controls. Use Q Base-Element shown with SK1 Kit for field assembly of such items.



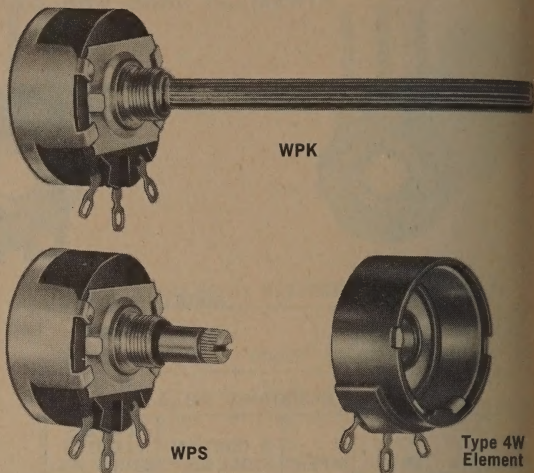
IRC-CTS TYPE 4W CONTROLS AND BASE ELEMENTS

IRC, Inc.

Types WPK and WPS are compact, 1¼" diameter wire wound controls available for replacement use in two popular shaft styles and an extensive variety of resistance values and tapers. Many stock numbers can be supplied as factory-assembled units. All stock numbers may be assembled in field using Base-Element with SK4 or SK5 Kit as desired.

Resistance elements are uniformly wound with highest grade alloy resistance wire on special form that withstands high temperature without shrinking. Pressure molded plastic housing is designed for maximum heat dissipation and accurate location of terminals. Contactor and collector are of long-wearing alloy that makes direct contact.

Resistance tolerance is $\pm 10\%$.



LISTING BY RESISTANCE VALUE

OHMS	TAP	TYPE WPK TAPER STOCK NO.*	TYPE WPS STOCK NO.*	4W BASE- ELEMENT STOCK NO.
10	—	U WPK10	(WPS10)	W11-010
10	5	U (WPK10X5)	WPS10X5	W11-010X
15	7.5	U (WPK15X7.5)	WPS15X7.5	W11-015X
20	—	U WPK20	(WPS20)	W11-020
20	10	U (WPK20X10)	WPS20X10	W11-020X
25	—	U (WPK25)	WPS25	W11-025
25	12.5	U (WPK25X12.5)	WPS25X12.5	W11-025X
30	—	U WPK30	(WPS30)	W11-030
30	15	U (WPK30X15)	WPS30X15	W11-030X
40	—	U (WPK40)	WPS40	W11-040
40	20	U (WPK40X20)	WPS40X20	W11-040X
50	—	U WPK50	(WPS50)	W11-050
50	25	U (WPK50X25)	WPS50X25	W11-050X
60	—	U (WPK60)	WPS60	W11-060
80	40	U (WPK80X40)	WPS80X40	W11-080X
100	—	U WPK100	(WPS100)	W11-084
100	50	U (WPK100X50)	WPS100X50	W11-084X
140	70	U (WPK140X70)	WPS140X70	W11-092X
150	75	U (WPK150X75)	WPS150X75	W11-094X
200	—	U WPK200	(WPS200)	W11-100
200	100	U (WPK200X100)	WPS200X100	W11-100X
250	—	U WPK250	WPS250	W11-201
300	—	U WPK300	(WPS300)	W11-102
400	—	U WPK400	(WPS400)	W11-202
500	—	U WPK500	WPS500	W11-103
500	—	L (WPK500L)	WPS500L	W13-103
600	—	U WPK600	(WPS600)	W11-104
650	—	U WPK650	(WPS650)	W11-204
750	—	U WPK750	(WPS750)	W11-105
750	—	L WPK750L	(WPS750L)	W13-105
750	—	R WPK750R	(WPS750R)	W17-105
750	250	S (WPK750X250)	(WPS750X250)	W17-105X

LISTING BY RESISTANCE VALUE

OHMS	TAP	TYPE WPK TAPER STOCK NO.*	TYPE WPS STOCK NO.	4W BASE- ELEMENT STOCK NO.
1000	—	U WPK1000	WPS1000	W11-108
1350	—	U WPK1350	(WPS1350)	W11-308
1350	—	R WPK1350R	(WPS1350R)	W17-308
1500	—	U WPK1500	WPS1500	W11-109
1500	—	L WPK1500L	(WPS1500L)	W13-109
1500	500	S (WPK1500X500)	(WPS1500X500)	W17-109X
2000	—	U WPK2000	WPS2000	W11-110
2000	—	L WPK2000L	(WPS2000L)	W13-110
2250	—	U (WPK2250)	WPS2250	W11-210
2250	—	L WPK2250L	WPS2250L	W13-210
2500	—	U WPK2500	WPS2500	W11-111
2500	—	R WPK2500R	(WPS2500R)	W17-111
3000	—	U WPK3000	WPS3000	W11-112
3000	—	R (WPK3000R)	(WPS3000R)	W17-112
3300	—	L (WPK3300L)	(WPS3300L)	W13-112
4000	—	U (WPK4000)	WPS4000	W11-113
4000	—	L WPK4000L	WPS4000L	W13-113
5000	—	U WPK5000	WPS5000	W11-114
5000	—	L WPK5000L	(WPS5000L)	W13-114
5000	—	R (WPK5000R)	(WPS5000R)	W17-114
6000	—	U WPK6000	WPS6000	W11-214
6000	—	L WPK6000L	(WPS6000L)	W13-214
7500	—	U WPK7500	(WPS7500)	W11-115
7500	—	L WPK7500L	(WPS7500L)	W13-115
10 K	—	U WPK10000	WPS10000	W11-116
12.5 K	—	U WPK12500	(WPS12500)	W11-217
15 K	—	U WPK15000	(WPS15000)	W11-118
20 K	—	U WPK20000	(WPS20000)	W11-119
25 K	—	U WPK25000	(WPS25000)	W11-120
30 K	—	U WPK30000	(WPS30000)	W11-121
40 K	—	U WPK40000	(WPS40000)	W11-222
50 K	—	U WPK50000	(WPS50000)	W11-123

* Stock numbers listed in parentheses () are not available as factory-assembled controls. Use 4W Base-Element shown with SK4 Kit (for WPK) or SK5 Kit (for WPS). See Taper explanation chart, page 28.

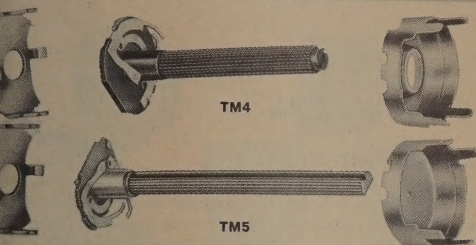
IRC, INC. • CONSUMER AND DISTRIBUTOR PRODUCTS DIVISION

IRC-CTS CONCENTRIKIT®

TYPE Q & 4W PARTS



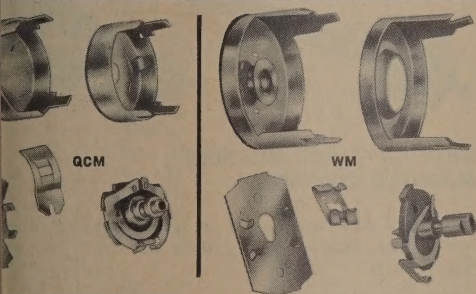
IRC, Inc.



TAFT KITS FOR G-MOUNTED CONTROLS

lar to SK Kits, the TM series provide tab-mounting plate
ad of bushing. Metal-cased 76-1, 76-2 and 76-4 may be
with this series. Kits include shaft, tab-mount plate and
r.

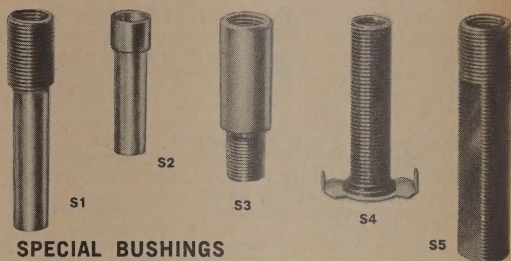
Stock No.	Description
1	1/4" diameter shaft, 1/4" long FMS. Screwdriver slot and short knurl.
2	1/4" diameter shaft, 5/8" long FMS. Screwdriver slot and short knurl.
3	1/4" diameter shaft, 1" long FMS. Screwdriver slot and short knurl.
4	1/4" diameter insulated shaft, 1 1/2" long FMS. Slotted and knurled full length. Not used with switches.
5	Knobmaster shaft, 2" long FMS. Knurled, grooved and flattened.
6	Special rounded and slotted shaft for G.E. 1/32" long FMS.
7	Special rounded and slotted shaft for G.E. 1/32" long FMS.
8	3/4" diameter shaft 2" long FMS. Flattened and grooved.
9	Reverse tab mount kit nylon shaft, 1 1/2" FMS. 1/4" dia., slotted and knurled.
10	Tab mount kit nylon shaft, 1 3/4" FMS. 3/8" dia., flattened full length.



LTISECTION KITS

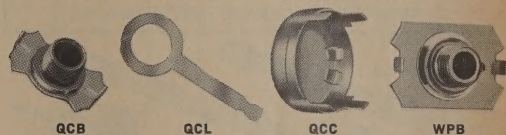
le kits provide parts needed to assemble desired Base-
ment into a Multisection or rear control section. Permits
nly of dual, triple or quadruple section controls. Each
contains internal shaft contactor assembly, front and rear
rs, coupling plate and section coupler. Close-coupled con-
tion provides minimum depth behind panel.

No.	Description
M	Multisection Kit for Type Q. Specially designed for critical requirements of stereo controls. Will operate rotary power switches.
M	Multisection Kit for Type 4W. Will not operate power switches.



SPECIAL BUSHINGS

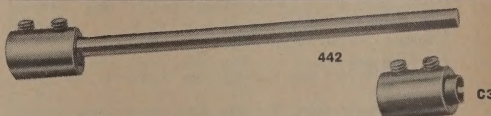
Stock No.	Description
S1	Sleeve Bushing—attaches to 3/8"—32 Bushing.
S2	Bearing Bushing—attaches to 3/8"—32 Bushing.
S3	Spacer Bushing—attaches to 3/8"—32 Bushing. Sets control 1" behind panel.
S4	Universal 3/16" diameter Bushing—Type Q only. 1 1/2" FMS.
S5	Universal 1/2" diameter Bushing—attaches to 3/8"—32 Bushing. 2 1/4" FMS.



Q/4W CONTROL PARTS

These parts facilitate assembly of many varied controls using desired shafts and base elements.

Stock No.	Description
QCB	Type Q Bushing. 3/8"—32 thread. 1/4" long FMS. For single controls.
QCB-1	Type Q Bushing. 3/8"—32 thread. 3/8" long FMS. For single controls.
QCB-2	Type Q Bushing. 3/8"—32 thread. 1/4" long FMS. For single controls.
QCB-3	Type Q Locking Bushing. 3/8"—32 thread. 3/8" FMS.
QCB-4	Type Q Bushing. 3/8"—32 thread. 1 3/4" FMS. For single controls.
QCB-5A	Type Q Bushing. 3/8"—32 thread. 2" FMS. For concentric dual controls.
QCB-6	Universal 3/4" Diameter Bushing. 1" FMS, attaches to 3/8"—32 Bushings. Can be used as L and T Pad Bushing extender.
QCC	Type Q Cover. For plain or tapped controls.
QCL	Grounding Lug for 3/8"—32 Bushing. Lug length 1 3/8" from hole center.
QCN	Mounting Nut for 3/8"—32 thread.
QCP	Printed circuit bracket w/nut.
WPB	Type 4W Bushing. 3/8"—32 thread. 1/4" long FMS.
WPC	Type 4W Cover.



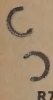
EXTENSION SHAFTS & COUPLERS

Stock No.	Description
441	Extension Shaft—4" x 1/4" with 1/2" flat.
442	Extension Shaft—4" x 1/4" with 3/8" flat.
443	Extension Shaft—4" x 3/4" with 1/2" flat.
444	Extension Shaft—8" x 1/4" with 3/8" flat for 4".
C3	Shaft Coupler—couples 1/4" shafts; insert allows coupling of 1/4" shaft to 3/8" shaft.



IRC-CTS CONCENTRIKIT® TYPE Q & 4W PARTS

IRC, Inc.



R7



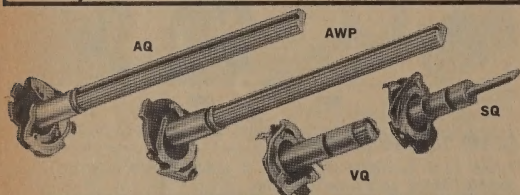
N



KA1

HARDWARE FOR CONCENTRIKIT®

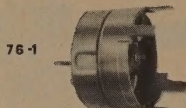
Stock No.	Description
KA1	Knob Adapter. Fits rear section shaft to knob requirements of over-size shaft. Converts .187" diameter shaft to .202" diameter.
N1	Mounting Nut for 3/16" Bushings (5/16" across flats).
N2	Mounting Nut for 1/2" Bushings (5/8" across flats).
N3	Mounting Nut for 1/2" Bushings (5/8" across flats).
N4	Mounting Nut for 3/8" Bushings (1/2" across flats).
R2	Concentrikit.
R3	Q Concentric Duals.
R4	WP Concentric Duals.
R5	Ground Plate Tab Concentric Dual.
R6	Retainers as supplied in K16, K17 and K18 Kits.
R7	Shaft retainer for 1/4" diameter shafts. Replaces R1.



SINGLE CONTROL SHAFTS

Using control parts listed on the previous page, these shafts will assemble many variations of Types Q and 4W controls. Individually boxed with R7 retainer (except TQ).

Stock No.	Description
AQ	Knobmaster shaft, 1/4" diameter, 3" long FMS. Flatted, grooved and knurled full length. Fits knobs requiring flatted or knurled shaft. Uses QCB Bushing. For Type Q.
AQ-5	Same as AQ but 5" long FMS. For Type Q. (Bushing included.)
AWP	Same as AQ but for Type WPK control.
AWP-5	Same as AWP but 5" long FMS.
JQ	1/8" diameter shaft, 4 1/8" long FMS. Flatted .105" full length. Uses QCB Bushing. For Type Q.
NQ	3/8" diameter shaft, 4" long FMS. Flatted and grooved full length. Uses QCB Bushing. For Type Q.
PQ	1/4" diameter shaft, 3" long FMS. Full round. May be used with 1/4" or 3/8" long bushings. (3/8" long bushing included.) For Type Q.
PWP	Same as PQ but for Type WP control.
RQ	1/4" diameter shaft, 1/2" long FMS. Screwdriver slotted. Used with 3/8" long bushing only (included). For Type RQ.
SQ	1/4" diameter shaft, 3/4" long FMS. Screwdriver slotted with short knurl. Uses QCB Bushing. For Type Q.
SWP	Same as SQ but for Type WPS. Uses WPB Bushing.
TQ	1/4" diameter shaft, 3" long FMS. Insulated, full round. Cannot be used with switch. Uses QCB, QCB-1, QCB-2. For Type Q.
VQ	1/4" diameter shaft, 1 3/8" long FMS. Tongued end 3/16" wide by 3/4" long by .050" thick. Uses QCB Bushing. For Type Q.
WQ	1/4" diameter shaft, 1" long FMS. Tongued end 1/4" wide by 1/2" long by .062" thick. Uses QCB Bushing. For Type Q.



76-1

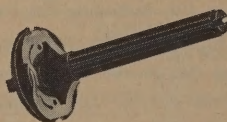


76-11

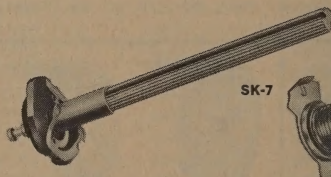
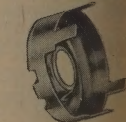
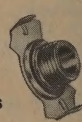
POWER SWITCHES

Easily attached to Type Q or Type 4W controls. Stock No. 76-5 supplied for replacement only. For attachment of this pull-push switch to controls, use SK7 or SK8 Kit below with desired Base-Element.

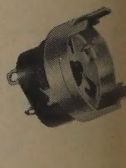
Stock No.	Description
76-1	S.P.S.T.—Rotary type for Type Q.
76-2	D.P.S.T.—Rotary type for Type Q.
76-4	S.P.D.T.—Rotary type for Type Q. Used also as "make-one, break-one" for spot-killer switch in TV.
76-5	S.P.S.T.—Pull-push type for Type Q.
76-11	S.P.S.T.—Rotary type for Types WP, WPK, WPRL, WPS.
76-12	D.P.S.T.—Rotary type for Types WP, WPK, WPRL, WPS.



SK-6



SK-7



SHAFT KITS FOR BUSHING MOUNTED CONTROLS

Package of parts for assembly of specific standard or special control type. Includes shaft, bushing and cover. Add desired Base-Element.

Stock No.	Description
SK1	Assembles Q Control with Knobmaster Shaft.
SK2	Assembles Q Control with RQ Shaft.
SK3	Assembles Q Control with SQ Shaft.
SK4	Assembles WPK Control.
SK5	Assembles WPS Control.
SK6	Assembles Q Control with Insulated Shaft.
SK7	Assembles Q Control with Knobmaster Shaft and 76-5 Pull-push Switch (Switch included). Shaft is 3" FMS.
SK8	Assembles Q Control with 3/8" diameter universal shaft and 76-5 Pull-push Switch (Switch included). Shaft is 3 1/2" FMS.
SK9	Assembles Q Control with 3/8" diameter universal shaft. 3 1/2" FMS.

IRC-CTS CONCENTRIKIT® FOR CONCENTRIC DUALS


IRC, Inc.

CONCENTRIKITS® FOR CONCENTRIC DUALS

Broadest replacement coverage of concentric dual controls for TV, radio and auto sets is provided by CONCENTRIKIT® — the unique control parts system. Wide selection of exact duplicate shafts and bushings eliminates cutting, filing and slotting. The CONCENTRIKITS® are packaged groups of parts common to specific control types. Base-Elements are listed on pages 1196, 1197 and 1198. Specifications for nearly 2000 Exact Duplicate Controls included in Howard W. Sams "REPLACEMENT GUIDE FOR TV AND AUTO RADIO CONTROLS."

TOE SWITCHES

Special tone switch Base-Elements for use in panel section of auto radio controls. Bushings with detent-type panel cover.

Stock No.	Description
BS1	4 Position Tone Switch for Ford.
BS2	4 Position Tone Switch for Delco.
BS3	3 Position Tone Switch for Philco.
BS4	4 Position Tone Switch for Delco.
BS5	4 Position Tone Switch for Lincoln and Mercury.

CONCENTRIKITS®

Common parts for various types of concentric dual controls. Used with specific exact duplicate shafts and Base-Elements as specified in Howard W. Sams Replacement Control Guide, RGC.

K-2

K-16

Concentrikrit	Panel Section	Rear Section	Bushing Size
K2*	C	C	3/8" x 3/8"
K3	W	C	3/8" x 3/8"
K4*	C	C	3/8" x 3/8"
K5*	C	C	3/8" x 1/4"
K6	C	C	3/8" x 3/8"
K7	C	C	3/8" x 3/8"
K8	TS	C	None
K9	C	C	None
K10	W	W	3/8" x 3/8"
K11	W	C	3/8" x 1/4"
K12	C	W	3/8" x 3/8"
K13	W	W	3/8" x 1/4"
K14	W	W	3/8" x 3/8"
K15	C	C	3/8" x 1/4"
K16**	C	C	3/8" x 3/8"
K17**	C	C	3/8" x 3/8"
K18**	C	C	3/8" x 1/4"

* Spaced construction. All others close-coupled.

** 76-5 Pull-push Switch included.

C—Carbon. W—Wire. TS—Tone Switch.

CT DUPLICATE SHAFTS

OUTER SHAFT SPECIFICATIONS

Shaft Type	Slot Width-Depth	Flat Length	Base-Element
P1**	1/8" x 3/8"	1 1/2"	Q
P2**	1/8" x 1/2"	1 1/2"	Q
P3	1/8" x 3/8"	1 1/2"	W
P4	1/8" x 3/8"	3/4"	W
P5	1/8" x 3/8"	1 1/2"	W
P6**	1/8" x 3/8"	1 1/2"	Q
P7**	.120" x 3/8"	1 1/2"	Q
P8	*	*	W
P9**	*	*	Q
P10**	1/8" x 7/16"	1 1/2"	Q
P11**	3/4" x 1/8"	—	Q
P12**	1/8" x 3/8"	—	Q
P13	1/8" x 1/4"	—	Q
P14	1/8" x 3/8"	—	Q
P15	1/8" x 1/4"	—	TS
P16	.132" x 3/8"	—	Q
P17	1/8" x 3/8"	5/8"	Q
P18	3/4" x 1/8"	—	W
P19	3/4" x 1/8"	—	Q
P20	*	*	Q
P21	1/8" x 7/16"	5/8"	Q
P22	1/8" x 1/2"	7/8"	Q
P23	1/8" x 1 1/2"	—	Q
P24***	—	1 1/2"	Q
P25***	—	1 1/2"	Q

curled Band 1/8" wide.

aced construction. All others close-coupled.

50" diameter.

INNER SHAFT SPECIFICATIONS

Shaft Type	Dia.	Slot Width-Depth	Flat Length	Base-Element
R1	.187"	1/16" x 1/2"	1/2"	Q
R2	.202"	1/16" x 1/2"	1/2"	Q
R3	.190"	Split Knurl	—	Q
R4	.180"	Round and Slotted	—	Q
R5	.187"	Rear Extension	—	Q
R6	.202"	Rear Extension	—	Q
R7	.189"	Split Knurl	—	Q
R8	.187"	1/16" x 1/2"	1/2"	W
R9	.187"	1/16" x 1/2"	5/8"	Q
R10	.187"	1/8" Wide Knurl	—	W
R11	.187"	3/8" Wide Knurl	—	Q
R12	.202"	3/8" Wide Knurl	—	Q
R13	.180"	3/8" Deep Slot	—	Q
R14	.202"	1/16" x 1/2"	3/8"	Q
R15	.202"	3/8" x 1/8"	—	Q
R16	.187"	1/16" x 1/2"	25/32"	Q
R17	.202"	1/16" x 1/2"	1 1/2"	Q
R18	.202"	1/16" x 1/2"	1 1/2"	W
R19	.202"	3/8" x 1/8"	—	W
R20	.187"	3/8" x 1/8"	—	Q
R21	.180"	1/16" x 3/8"	—	Q
R22	.202"	Rear Extension	—	W
R23*	.187"	—	1 1/2"	Q
R24*	.187"	1/16" x 1/2"	—	Q
R25*	.187"	—	1/2"	Q
R26	.187"	1/16" x 3/8"	25/32"	Q

* Used with Pull-push Switch.



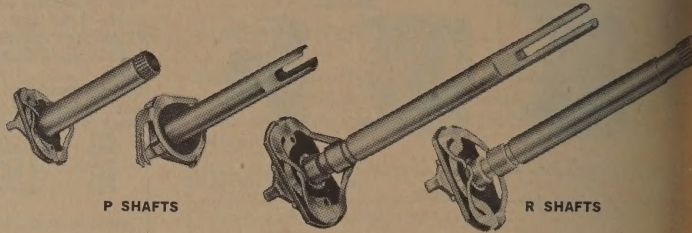
IRC-CTS CONCENTRIKIT® EXACT DUPLICATE SHAFT SPECIFICATIONS

IRC, Inc.

EXACT DUPLICATE SHAFTS

Stock numbers and corresponding lengths are listed on these pages. In general, the last three numbers of the stock number indicate shaft length from control mounting face (not end of bushing) to end of shaft. Of the last three numbers, the first indicates number of inches and the second and third number indicates the number of 32nds. For Stock No. P1-210, length is $2\frac{1}{32}$ " or $2\frac{1}{16}$ ". For inner shafts employed with K3 CONCENTRIKIT, subtract $\frac{3}{32}$ " from dimension indicated by stock number.

There is an IRC-CTS Exact Duplicate Shaft available for nearly every concentric dual control. These Outer and Inner Shafts require no modification. Shaft lengths are held within close limits to original shaft lengths. Careful attention is given to end trims for fit to original knobs. The specifications on this page provide dimensions and use.



OUTER SHAFTS

Stock No.	Shft. Lgth.	Stock No.	Shft. Lgth.	Stock No.	Shft. Lgth.	Stock No.	Shft. Lgth.	Stock No.	Shft. Lgth.	Stock No.	Shft. Lgth.	Stock No.	Shft. Lgth.
P1-017	$\frac{1}{2}$ "	P1-306	$\frac{3}{4}$ "	P3-129	$\frac{1}{2}$ "	P7-222	$\frac{21}{32}$ "	P13-122	$\frac{11}{16}$ "	P15-114	$\frac{11}{16}$ "	P18-015	$\frac{1}{2}$ "
P1-020	$\frac{5}{8}$ "	P1-308	$\frac{3}{4}$ "	P3-131	$\frac{1}{2}$ "	P8-016	$\frac{1}{2}$ "	P13-128	$\frac{11}{16}$ "	P15-120	$\frac{11}{16}$ "	P18-018	$\frac{1}{2}$ "
P1-024	$\frac{3}{4}$ "	P1-310	$\frac{3}{4}$ "	P3-203	$\frac{21}{32}$ "	P8-020	$\frac{5}{8}$ "	P13-200	$\frac{11}{16}$ "	P15-122	$\frac{11}{16}$ "	P19-012	$\frac{3}{8}$ "
P1-028	$\frac{7}{8}$ "	P1-314	$\frac{3}{4}$ "	P3-208	$\frac{21}{32}$ "	P8-100	$\frac{11}{16}$ "	P13-210	$\frac{11}{16}$ "	P15-130	$\frac{11}{16}$ "	P19-016	$\frac{1}{2}$ "
P1-030	$\frac{1}{2}$ "	P1-317	$\frac{3}{4}$ "	P3-210	$\frac{21}{32}$ "	P8-106	$\frac{11}{16}$ "	P13-214	$\frac{21}{32}$ "	P15-200	$\frac{21}{32}$ "	P20-101	$\frac{11}{16}$ "
P1-102	$\frac{11}{16}$ "	P1-320	$\frac{3}{4}$ "	P3-212	$\frac{21}{32}$ "	P8-424	$\frac{43}{64}$ "	P13-217	$\frac{21}{32}$ "	P15-204	$\frac{21}{32}$ "	P20-104	$\frac{11}{16}$ "
P1-106	$\frac{11}{16}$ "	P1-325	$\frac{3}{4}$ "	P3-214	$\frac{21}{32}$ "	P9-018	$\frac{1}{2}$ "	P14-014	$\frac{11}{16}$ "	P15-206	$\frac{21}{32}$ "	P20-212	$\frac{21}{32}$ "
P1-109	$\frac{11}{16}$ "	P1-400	$\frac{4}{8}$ "	P3-217	$\frac{21}{32}$ "	P9-021	$\frac{1}{2}$ "	P14-016	$\frac{11}{16}$ "	P15-218	$\frac{21}{32}$ "	P21-029	$\frac{11}{16}$ "
P1-112	$\frac{11}{16}$ "	P1-405	$\frac{43}{64}$ "	P3-223	$\frac{21}{32}$ "	P9-101	$\frac{11}{16}$ "	P14-019	$\frac{11}{16}$ "	P16-023	$\frac{21}{32}$ "	P22-015	$\frac{11}{16}$ "
P1-114	$\frac{11}{16}$ "	P2-031	$\frac{3}{4}$ "	P3-226	$\frac{21}{32}$ "	P9-104	$\frac{11}{16}$ "	P14-024	$\frac{31}{32}$ "	P16-027	$\frac{21}{32}$ "	P22-021	$\frac{11}{16}$ "
P1-116	$\frac{11}{16}$ "	P2-116	$\frac{11}{16}$ "	P3-400	$\frac{4}{8}$ "	P9-112	$\frac{11}{16}$ "	P14-026	$\frac{11}{16}$ "	P17-024	$\frac{31}{32}$ "	P22-027	$\frac{11}{16}$ "
P1-118	$\frac{11}{16}$ "	P2-118	$\frac{11}{16}$ "	P3-405	$\frac{43}{64}$ "	P9-116	$\frac{11}{16}$ "	P14-029	$\frac{21}{32}$ "	P17-028	$\frac{7}{8}$ "	P22-200	$\frac{11}{16}$ "
P1-121	$\frac{11}{16}$ "	P2-128	$\frac{11}{16}$ "	P4-115	$\frac{11}{16}$ "	P9-124	$\frac{11}{16}$ "	P14-102	$\frac{11}{16}$ "	P17-031	$\frac{31}{32}$ "	P22-103	$\frac{11}{16}$ "
P1-123	$\frac{11}{16}$ "	P2-200	$\frac{21}{32}$ "	P4-121	$\frac{11}{16}$ "	P9-128	$\frac{11}{16}$ "	P14-112	$\frac{11}{16}$ "	P17-102	$\frac{11}{16}$ "	P22-109	$\frac{11}{16}$ "
P1-126	$\frac{11}{16}$ "	P2-209	$\frac{21}{32}$ "	P4-124	$\frac{11}{16}$ "	P9-209	$\frac{21}{32}$ "	P14-118	$\frac{11}{16}$ "	P17-105	$\frac{11}{16}$ "	P22-115	$\frac{11}{16}$ "
P1-128	$\frac{11}{16}$ "	P2-214	$\frac{21}{32}$ "	P5-206	$\frac{21}{32}$ "	P9-212	$\frac{21}{32}$ "	P14-121	$\frac{11}{16}$ "	P17-108	$\frac{11}{16}$ "	P22-121	$\frac{11}{16}$ "
P1-200	$\frac{21}{32}$ "	P2-218	$\frac{21}{32}$ "	P6-028	$\frac{7}{8}$ "	P10-110	$\frac{11}{16}$ "	P14-125	$\frac{11}{16}$ "	P17-112	$\frac{11}{16}$ "	P22-203	$\frac{21}{32}$ "
P1-204	$\frac{21}{32}$ "	P2-222	$\frac{21}{32}$ "	P6-102	$\frac{11}{16}$ "	P10-225	$\frac{21}{32}$ "	P14-130	$\frac{11}{16}$ "	P17-115	$\frac{11}{16}$ "	P22-312	$\frac{31}{32}$ "
P1-206	$\frac{21}{32}$ "	P2-226	$\frac{21}{32}$ "	P6-112	$\frac{11}{16}$ "	P10-227	$\frac{21}{32}$ "	P14-202	$\frac{21}{32}$ "	P17-118	$\frac{11}{16}$ "	P22-315	$\frac{31}{32}$ "
P1-210	$\frac{21}{32}$ "	P2-028	$\frac{7}{8}$ "	P6-122	$\frac{11}{16}$ "	P10-308	$\frac{31}{32}$ "	P14-204	$\frac{21}{32}$ "	P17-120	$\frac{11}{16}$ "	P23-100	$\frac{11}{16}$ "
P1-212	$\frac{21}{32}$ "	P3-100	$\frac{11}{16}$ "	P6-125	$\frac{11}{16}$ "	P11-018	$\frac{11}{16}$ "	P14-206	$\frac{21}{32}$ "	P17-123	$\frac{11}{16}$ "	P23-103	$\frac{11}{16}$ "
P1-216	$\frac{21}{32}$ "	P3-104	$\frac{11}{16}$ "	P6-130	$\frac{11}{16}$ "	P11-024	$\frac{3}{4}$ "	P14-208	$\frac{21}{32}$ "	P17-126	$\frac{11}{16}$ "	P23-112	$\frac{11}{16}$ "
P1-220	$\frac{21}{32}$ "	P3-106	$\frac{11}{16}$ "	P6-200	$\frac{21}{32}$ "	P11-102	$\frac{11}{16}$ "	P14-211	$\frac{21}{32}$ "	P17-129	$\frac{11}{16}$ "	P23-130	$\frac{11}{16}$ "
P1-222	$\frac{21}{32}$ "	P3-111	$\frac{11}{16}$ "	P6-202	$\frac{21}{32}$ "	P12-122	$\frac{11}{16}$ "	P14-214	$\frac{21}{32}$ "	P17-204	$\frac{21}{32}$ "	P24-030	$\frac{11}{16}$ "
P1-224	$\frac{21}{32}$ "	P3-114	$\frac{11}{16}$ "	P6-211	$\frac{21}{32}$ "	P12-204	$\frac{21}{32}$ "	P14-303	$\frac{31}{32}$ "	P17-208	$\frac{21}{32}$ "	P24-103	$\frac{11}{16}$ "
P1-226	$\frac{21}{32}$ "	P3-116	$\frac{11}{16}$ "	P6-218	$\frac{21}{32}$ "	P12-218	$\frac{21}{32}$ "	P14-316	$\frac{31}{32}$ "	P17-212	$\frac{21}{32}$ "	P25-121	$\frac{11}{16}$ "
P1-229	$\frac{21}{32}$ "	P3-118	$\frac{11}{16}$ "	P6-224	$\frac{21}{32}$ "	P13-104	$\frac{11}{16}$ "	P15-026	$\frac{11}{16}$ "	P17-224	$\frac{21}{32}$ "		
P1-300	$\frac{31}{32}$ "	P3-121	$\frac{11}{16}$ "	P6-302	$\frac{31}{32}$ "	P13-113	$\frac{11}{16}$ "	P15-102	$\frac{11}{16}$ "	P17-230	$\frac{31}{32}$ "		
P1-302	$\frac{31}{32}$ "	P3-123	$\frac{11}{16}$ "	P7-109	$\frac{11}{16}$ "	P13-116	$\frac{11}{16}$ "	P15-106	$\frac{11}{16}$ "	P17-310	$\frac{31}{32}$ "		
P1-304	$\frac{31}{32}$ "	P3-127	$\frac{11}{16}$ "	P7-206	$\frac{21}{32}$ "	P13-118	$\frac{11}{16}$ "	P15-112	$\frac{11}{16}$ "	P17-316	$\frac{31}{32}$ "		

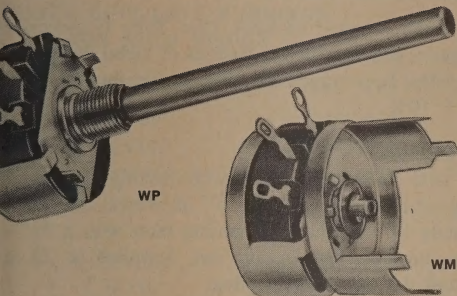
INNER SHAFTS

Stock No.	Shft. Lgth.	Stock No.	Shft. Lgth.	Stock No.	Shft. Lgth.	Stock No.	Shft. Lgth.	Stock No.	Shft. Lgth.	Stock No.	Shft. Lgth.	No. No.	Lgth. Lgth.
R1-024	$\frac{3}{4}$ "	R1-304	$\frac{31}{32}$ "	R2-230	$\frac{21}{32}$ "	R7-212	$\frac{21}{32}$ "	R12-119	$\frac{11}{16}$ "	R16-313	$\frac{31}{32}$ "	R23-312	$\frac{31}{32}$ "
R1-028	$\frac{7}{8}$ "	R1-308	$\frac{31}{32}$ "	R2-300	$\frac{31}{32}$ "	R7-229	$\frac{21}{32}$ "	R12-122	$\frac{11}{16}$ "	R17-203	$\frac{21}{32}$ "	R24-109	$\frac{11}{16}$ "
R1-100	$\frac{11}{16}$ "	R1-312	$\frac{31}{32}$ "	R2-306	$\frac{31}{32}$ "	R8-213	$\frac{21}{32}$ "	R12-129	$\frac{11}{16}$ "	R17-206	$\frac{21}{32}$ "	R24-115	$\frac{11}{16}$ "
R1-103	$\frac{11}{16}$ "	R1-316	$\frac{31}{32}$ "	R2-308	$\frac{31}{32}$ "	R9-110	$\frac{11}{16}$ "	R12-131	$\frac{11}{16}$ "	R17-216	$\frac{21}{32}$ "	R24-124	$\frac{11}{16}$ "
R1-105	$\frac{11}{16}$ "	R1-323	$\frac{31}{32}$ "	R2-310	$\frac{31}{32}$ "	R9-112	$\frac{11}{16}$ "	R12-206	$\frac{11}{16}$ "	R18-200	$\frac{21}{32}$ "	R24-127	$\frac{11}{16}$ "
R1-108	$\frac{11}{16}$ "	R1-326	$\frac{31}{32}$ "	R2-312	$\frac{31}{32}$ "	R10-115	$\frac{11}{16}$ "	R13-016	$\frac{11}{16}$ "	R19-011	$\frac{11}{16}$ "	R24-204	$\frac{21}{32}$ "
R1-111	$\frac{11}{16}$ "	R1-417	$\frac{41}{64}$ "	R2-314	$\frac{31}{32}$ "	R9-202	$\frac{21}{32}$ "	R13-331	$\frac{31}{32}$ "	R19-014	$\frac{11}{16}$ "	R24-208	$\frac{21}{32}$ "
R1-113	$\frac{11}{16}$ "	R1-420	$\frac{41}{64}$ "	R2-318	$\frac{31}{32}$ "	R9-205	$\frac{21}{32}$ "	R14-116	$\frac{11}{16}$ "	R20-208	$\frac{21}{32}$ "	R24-216	$\frac{21}{32}$ "
R1-115	$\frac{11}{16}$ "	R2-028	$\frac{7}{8}$ "	R2-322	$\frac{31}{32}$ "	R9-208	$\frac{21}{32}$ "	R14-128	$\frac{11}{16}$ "	R20-213	$\frac{21}{32}$ "	R24-224	$\frac{21}{32}$ "
R1-118	$\frac{11}{16}$ "	R2-103	$\frac{11}{16}$ "	R2-329	$\frac{31}{32}$ "	R9-211	$\frac{21}{32}$ "	R14-204	$\frac{21}{32}$ "	R21-201	$\frac{21}{32}$ "	R24-306	$\frac{31}{32}$ "
R1-122	$\frac{11}{16}$ "	R2-105	$\frac{11}{16}$ "	R2-401	$\frac{41}{64}$ "	R9-214	$\frac{21}{32}$ "	R14-211	$\frac{21}{32}$ "	R21-220	$\frac{21}{32}$ "	R24-328	$\frac{31}{32}$ "
R1-126	$\frac{11}{16}$ "	R2-127	$\frac{11}{16}$ "	R2-420	$\frac{41}{64}$ "	R9-222	$\frac{21}{32}$ "	R14-214	$\frac{21}{32}$ "	R22-200	$\frac{21}{32}$ "	R25-118	$\frac{11}{16}$ "
R1-130	$\frac{11}{16}$ "	R2-115	$\frac{11}{16}$ "	R2-426	$\frac{41}{64}$ "	R9-314	$\frac{31}{32}$ "	R14-229	$\frac{21}{32}$ "	R23-107	$\frac{11}{16}$ "	R25-200	$\frac{21}{32}$ "
R1-200	$\frac{21}{32}$ "	R2-117	$\frac{11}{16}$ "	R2-429	$\frac{41}{64}$ "	R9-324	$\frac{31}{32}$ "	R14-302	$\frac{31}{32}$ "	R23-114	$\frac{11}{16}$ "	R26-112	$\frac{11}{16}$ "
R1-202	$\frac{21}{32}$ "	R2-119	$\frac{11}{16}$ "	R3-204	$\frac{21}{32}$ "	R10-028	$\frac{7}{8}$ "	R14-308	$\frac{31}{32}$ "	R23-119	$\frac{11}{16}$ "	R26-121	$\frac{11}{16}$ "
R1-205	$\frac{21}{32}$ "	R2-124	$\frac{11}{16}$ "	R3-223	$\frac{21}{32}$ "	R10-431	$\frac{41}{64}$ "	R14-409	$\frac{41}{64}$ "	R23-122	$\frac{11}{16}$ "	R26-124	$\frac{11}{16}$ "
R1-207	$\frac{21}{32}$ "	R2-127	$\frac{11}{16}$ "	R3-331	$\frac{31}{32}$ "	R11-028	$\frac{7}{8}$ "	R14-414	$\frac{41}{64}$ "	R23-125	$\frac{11}{16}$ "	R26-206	$\frac{21}{32}$ "
R1-209	$\frac{21}{32}$ "	R2-131	$\frac{11}{16}$ "	R4-106	$\frac{11}{16}$ "	R11-031	$\frac{11}{16}$ "	R14-426	$\frac{41}{64}$ "	R23-128	$\frac{11}{16}$ "	R26-215	$\frac{21}{32}$ "
R1-210	$\frac{21}{32}$ "	R2-200	$\frac{21}{32}$ "	R4-210	$\frac{21}{32}$ "	R11-108	$\frac{11}{16}$ "	R15-005	$\frac{11}{16}$ "	R23-200	$\frac{21}{32}$ "	R26-230	$\frac{21}{32}$ "
R1-212	$\frac{21}{32}$ "	R2-204	$\frac{21}{32}$ "	R4-212	$\frac{21}{32}$ "	R11-112	$\frac{11}{16}$ "	R15-009	$\frac{11}{16}$ "	R23-202	$\frac{21}{32}$ "	R26-303	$\frac{31}{32}$ "
R1-214	$\frac{21}{32}$ "	R2-206	$\frac{21}{32}$ "	R4-221	$\frac{21}{32}$ "	R11-118	$\frac{11}{16}$ "	R15-014	$\frac{11}{16}$ "	R23-205	$\frac{21}{32}$ "	R26-309	$\frac{31}{32}$ "
R1-216	$\frac{21}{32}$ "	R2-209	$\frac{21}{32}$ "	R4-226	$\frac{21}{32}$ "	R11-124	$\frac{11}{16}$ "	R15-018	$\frac{11}{16}$ "	R23-208	$\frac{21}{32}$ "	R26-312	$\frac{31}{32}$ "
R1-218	$\frac{21}{32}$ "	R2-212	$\frac{21}{32}$ "	R4-228	$\frac{21}{32}$ "	R11-200	$\frac{21}{32}$ "	R15-028	$\frac{11}{16}$ "	R23-211	$\frac{21}{32}$ "	R26-315	$\frac{31}{32}$ "
R1-220	$\frac{21}{32}$ "	R2-216	$\frac{21}{32}$ "	R4-306	$\frac{31}{32}$ "	R11-216	$\frac{21}{32}$ "	R16-106	$\frac{11}{16}$ "	R23-216	$\frac{21}{32}$ "		
R1-223	$\frac{21}{32}$ "	R2-218	$\frac{21}{32}$ "	R4-322	$\frac{31}{32}$ "	R11-219	$\frac{21}{32}$ "	R16-112	$\frac{11}{16}$ "	R23-218	$\frac{21}{32}$ "		
R1-226	$\frac{21}{32}$ "	R2-220	$\frac{21}{32}$ "	R5-215	$\frac{21}{32}$ "	R12-026	$\frac{11}{16}$ "	R16-118	$\frac{11}{16}$ "	R23-223	$\frac{21}{32}$ "		
R1-228	$\frac{21}{32}$ "	R2-222	$\frac{21}{32}$ "	R6-208	$\frac{21}{32}$ "	R12-029	$\frac{11}{16}$ "	R16-127	$\frac{11}{16}$ "	R23-226	$\frac{21}{32}$ "		
R1-300	$\frac{31}{32}$ "	R2-226	$\frac{21}{32}$ "	R7-208	$\frac{21}{32}$ "	R12-108	$\frac{11}{16}$ "	R16-205	$\frac{21}{32}$ "	R23-229	$\frac{21}{32}$ "		

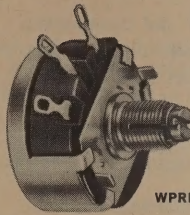
IRC-CTS INDUSTRIAL 4W CONTROLS



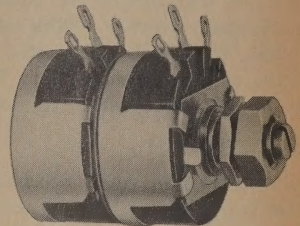
IRC, Inc.



WP



WM MULTISECTION



WPRL with Multisection

TYPE 4/W INDUSTRIAL CONTROLS

IRC-CTS Type 4W Controls for industry provide 4 watt (linear) control in conventional 2 watt size. Available in wide assortment of resistance values. Types WP and WPRL may be combined with Type WM Multisections to provide broad selection of tandem dual controls.

Electroplatings of metal parts provide outstanding appearance. Resistance tolerance of all units is $\pm 10\%$.

TYPE WP

Rewound industrial control with $\frac{3}{8}$ -32 x $\frac{3}{8}$ " bushing and a round shaft of $\frac{1}{4}$ " diameter, approximately 3" long from mounting face. For 2, 3 and 4 watt requirements — 10% tolerance; linear taper; in 36 stock values as listed on the opposite page.

TYPE WM MULTISECTIONS

Rear control sections which add resistance. Types WP and WPRL to supply a wide selection of tandem controls. Available in 13 factory-assembled stock numbers. Multisections do not operate power switches.

TYPE WPRL

Rewound industrial control with a short, screwdriver slot shaft of $\frac{1}{4}$ " diameter and approximately $\frac{1}{2}$ " long from mounting face with $\frac{3}{8}$ " locking type bushing, and locking nut. For 2, 3 and 4 watt requirements — 10% tolerance; linear taper; 36 stock values.

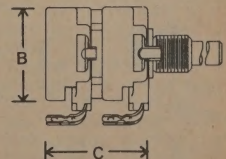
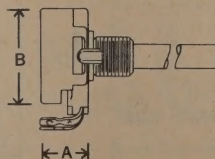
IRC-CTS TYPE 4/W INDUSTRIAL CONTROLS STOCK LIST

STOCK VALUES OF TYPE WP AND WPRL CONTROLS AND MULTISECTIONS 10% TOLERANCE				
Ohms	Taper*	Type WP	Type WPRL	Multisections
2	U (Lin.)	WP2	WPRL2	—
3	U	WP3	WPRL3	—
5	U	WP5	WPRL5	—
6	U	WP6	WPRL6	—
8	U	WP8	WPRL8	—
10	U	WP10	WPRL10	—
15	U	WP15	WPRL15	—
20	U	WP20	WPRL20	—
25	U	WP25	WPRL25	—
30	U	WP30	WPRL30	—
40	U	WP40	WPRL40	—
50	U	WP50	WPRL50	WM50
60	U	WP60	WPRL60	—
75	U	WP75	WPRL75	—
100	U	WP100	WPRL100	WM100
200	U	WP200	WPRL200	WM200
250	U	WP250	WPRL250	WM250
300	U	WP300	WPRL300	—
400	U	WP400	WPRL400	—
500	U	WP500	WPRL500	WM500
750	U	WP750	WPRL750	—
1,000	U	WP1000	WPRL1000	WM1000
1,500	U	WP1500	WPRL1500	WM1500
2,000	U	WP2000	WPRL2000	WM2000
2,500	U	WP2500	WPRL2500	WM2500
3,000	U	WP3000	WPRL3000	WM3000
4,000	U	WP4000	WPRL4000	—
5,000	U	WP5000	WPRL5000	WM5000
7,500	U	WP7500	WPRL7500	—
7,500	L	—	—	WM7500L
	(L.H. Log.)			
10,000	U	WP10000	WPRL10000	WM10000
15,000	U	WP15000	WPRL15000	—
20,000	U	WP20000	WPRL20000	—
25,000	U	WP25000	WPRL25000	—
30,000	U	WP30000	WPRL30000	—
40,000	U	WP40000	WPRL40000	—
50,000	U	WP50000	WPRL50000	—

*See Taper Explanation Chart.

DIMENSIONS OF TYPE 4/W INDUSTRIAL CONTROLS

Dimension	WP	WPRL
A	$\frac{23}{32}$	$\frac{23}{32}$
B	$1\frac{1}{4}$	$1\frac{1}{4}$
C	$1\frac{1}{2}$	$1\frac{1}{2}$





IRC-CTS INDUSTRIAL Q CONTROLS

IRC, Inc.

IRC 1/2 watt controls for industrial and commercial applications provide a wide selection of resistance values, tapers and shaft styles. Types PQ, RQ and RQL may be combined with Type M Multisections to provide broad variety of multiple-section controls.

TYPE PQ

Control has full round 1/4" shaft, extending approximately 3" from mounting face, and with 3/8" long bushing. 1/2 watt power rating, 500 volts maximum. It is available in 33 stock values.

TYPE RQ

Control has a very short screwdriver slot shaft of 1/4" diameter and approximately 1/2" long from mounting face, with 3/8" long bushing. 1/2 watt power rating. Supplied in 33 stock values.

Electrical rotation of these controls is the same with

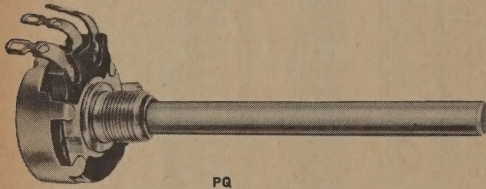
or without power switches (See Type Q Accessories pages 6 and 7). Special platings of metal parts provide excellent appearance. Resistance tolerance of all units is $\pm 10\%$.

TYPE RQL

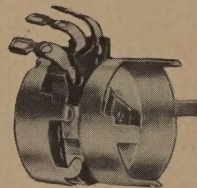
A 10% tolerance control with locking type bushing. Screwdriver slot shaft is 1/4" diameter and approximately 1/2" long from mounting face, with a 3/8" square type bushing, and locking nut. Supplied in 26 stock values. 1/2 watt power rating.

TYPE M MULTISECTIONS

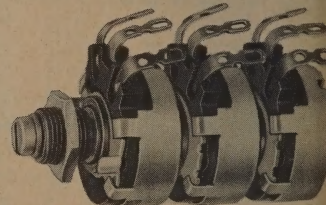
IRC Type M Multisections are rear control sections which add to Types PQ, RQ, RQL or any Type Q control to provide multiple-section tandem controls. Supplied in 25 stock numbers as listed on opposite page. Resistance tolerance is $\pm 10\%$. See pages 6 and 7 for power switches and other accessories.



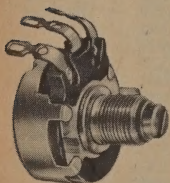
PQ



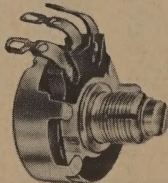
M



RQ with Multisections



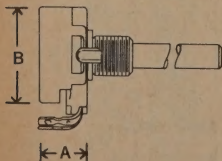
RQ



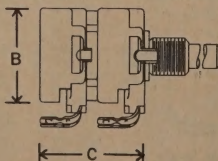
RQL

DIMENSIONS OF TYPE Q INDUSTRIAL CONTROLS

Dimension	PQ	RQ	RQL
A	3 3/4	3 3/4	3 3/4
B	1 5/16	1 5/16	1 5/16
C	1 1/4	1 1/4	1 1/4



A



B

IRC-CTS STOCK VALUES OF TYPES PQ, RQ, RQL CONTROLS AND MULTISECTIONS 10% TOLERANCE					
Ohms	Taper*	Type PQ	Type RQ	Type RQL	Multisection
500	1(A)	PQ11-103	RQ11-103	RQL11-103	M11-103
1,000	2(A)	PQ11-108	RQ11-108	RQL11-108	M11-108
2,000	2(A)	PQ11-110	RQ11-110	RQL11-110	M11-110
3,000	2(A)	PQ11-112	RQ11-112	RQL11-112	M11-112
5,000	2(A)	PQ11-114	RQ11-114	RQL11-114	M11-114
7,500	2(A)	PQ11-115	RQ11-115	—	—
10K	2(A)	PQ11-116	RQ11-116	RQL11-116	M11-116
10K	3(C)	PQ13-116	RQ13-116	—	—
10K	23(D)	PQ14-116	RQ14-116	—	—
10K	4(Q)	—	—	—	M17-116
20K	2(A)	PQ11-119	RQ11-119	RQL11-119	—
25K	2(A)	PQ11-120	RQ11-120	RQL11-120	M11-120
25K	23(D)	PQ14-120	RQ14-120	—	—
30K	2(A)	PQ11-121	RQ11-121	RQL11-121	M11-121
50K	2(A)	PQ11-123	RQ11-123	RQL11-123	M11-123
50K	3(C)	PQ13-123	RQ13-123	RQL13-123	—
50K	23(D)	PQ14-123	RQ14-123	—	—
100K	2(A)	PQ11-128	RQ11-128	RQL11-128	M11-128
100K	3(C)	PQ13-128	RQ13-128	—	M13-128
200K	2(A)	PQ11-129	RQ11-129	RQL11-129	—
250K	2(A)	PQ11-130	RQ11-130	RQL11-130	M11-130
250K	3(C)	PQ13-130	RQ13-130	RQL13-130	M13-130
500K	2(A)	PQ11-133	RQ11-133	RQL11-133	M11-133
500K	3(C)	PQ13-133	RQ13-133	RQL13-133	M13-133
1.0 Meg.	2(A)	PQ11-137	RQ11-137	RQL11-137	M11-137
1.0 Meg.	3(C)	PQ13-137	RQ13-137	RQL13-137	M13-137
1.5 Meg.	2(A)	PQ11-138	RQ11-138	RQL11-138	—
1.5 Meg.	3(C)	—	—	—	—
2.0 Meg.	2(A)	PQ11-139	RQ11-139	RQL11-139	M11-139
2.0 Meg.	3(C)	PQ13-139	RQ13-139	RQL13-139	M13-139
2.5 Meg.	2(A)	PQ11-239	RQ11-239	RQL11-239	—
3.0 Meg.	2(A)	PQ11-140	RQ11-140	RQL11-140	—
3.0 Meg.	3(C)	PQ13-140	RQ13-140	—	—
3.0 Meg.	4(Q)	—	—	—	M13-140
5.0 Meg.	2(A)	PQ11-141	RQ11-141	RQL11-141	M11-141
10.0 Meg.	2(A)	PQ11-143	RQ11-143	RQL11-143	M11-143

AUTO RADIO BUSHINGS & TAPER CHART

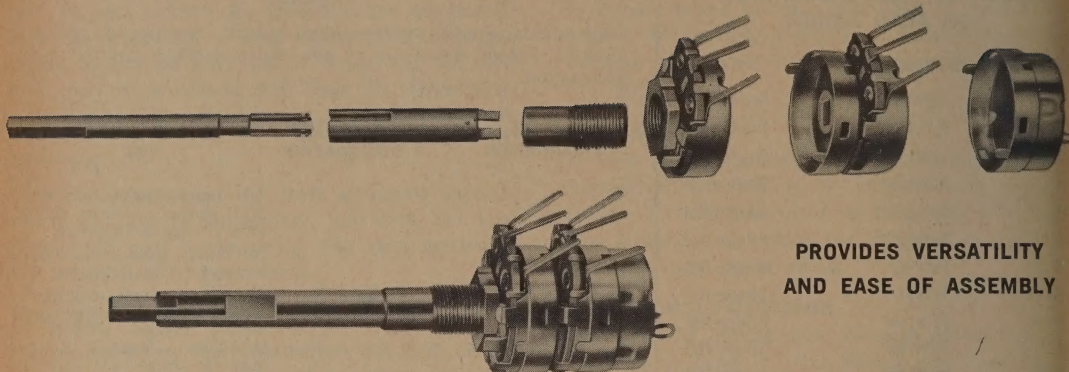

IRC, Inc.
**EXACT DUPLICATE BUSHINGS
FOR AUTO RADIOS**
TAPERS

Ock No.	Dimensions	Type	New numerical taper system assigns specific identification for each Control. Listing below shows new taper number and old taper designation.		
			NEW TAPER DESIGNATION	OLD TAPER DESIGNATION	USE
S6	$\frac{3}{16}$ "x $\frac{1}{8}$ "	Double-flat	1, 2	A	For potentiometer or rheostat where uniform resistance change is required.
S7	$\frac{3}{16}$ "x $\frac{1}{32}$ "	Double-flat			
S8	$\frac{3}{16}$ "x $\frac{1}{16}$ "	Double-flat	3	C	Left-hand logarithmic taper for audio circuit control.
S9	$\frac{3}{16}$ "x $\frac{1}{8}$ "	Double-flat			
S10	$\frac{1}{2}$ "x0.2"	Single-flat	4, 5, 23, 45	D, Q, P	Right-hand semi-logarithmic taper for use in contrast and picture control circuits in television. Taper 4 is also used for stereo tone and balance control.
S11	$\frac{1}{2}$ "x $\frac{3}{16}$ "	Single-flat			
S12	$\frac{1}{2}$ "x $\frac{1}{8}$ "	Single-flat	6	S	Bass and treble tone control for Philco.
S13	$\frac{1}{2}$ "x1"	Single-flat			
S14	$\frac{1}{2}$ "x $\frac{1}{4}$ "	Single-flat	7, 39, 41	S	Bass and treble tone control for Philco—open-circuited at mid-point.
S15	$\frac{1}{2}$ "x $\frac{1}{2}$ "	Single-flat			
S16	$\frac{1}{2}$ "x $\frac{1}{8}$ "	Single-flat	8, 9, 20, 27, 38	S	Tapped right-hand taper for contrast and picture control circuits in television.
S17	$\frac{1}{2}$ "x $\frac{1}{8}$ "	Single-flat			
S18	$\frac{1}{2}$ "x2"	Single-flat	10	S	Tapped left-hand taper for contrast and picture control circuits in television. Also used for audio compensation.
S19	$\frac{1}{2}$ "x $\frac{1}{4}$ "	Single-flat			
S20	$\frac{1}{2}$ "x $\frac{1}{4}$ "	Single-flat	11, 22, 24, 26, 30, 31, 37, 40, 44, 47	H, S	Tapped left-hand logarithmic taper for audio level control for automatic bass compensation.
S21	$\frac{1}{2}$ "x $\frac{1}{8}$ "	Notched			
S22	$\frac{1}{2}$ "x $\frac{1}{16}$ "	Notched	12	S	Left-hand taper tapped at 50% of total resistance for audio compensation.
S23	$\frac{1}{2}$ "x $\frac{1}{32}$ "	Notched			
S24	$\frac{1}{2}$ "x $\frac{1}{8}$ "	Notched	13	S	Left-hand taper tapped at 10% of total resistance for audio compensation, for transistor circuits.
S25	$\frac{1}{2}$ "x $\frac{1}{16}$ "	Notched			
S26	$\frac{1}{2}$ "x $\frac{1}{32}$ "	Notched	14, 21, 28, 29	S	Right-hand logarithmic taper tapped for contrast and picture control circuits in television.
S27	$\frac{1}{2}$ "x $\frac{1}{32}$ "	Notched			
S28	$\frac{1}{2}$ "x $\frac{1}{4}$ "	Notched	15, 16, 17, 18, 19, 35, 36, 43, 46, 49, 50	S	Left-hand logarithmic taper with double taps for tone and loudness compensation.
S29	$\frac{1}{2}$ "x $\frac{1}{8}$ "	Notched			
S30	$\frac{1}{2}$ "x $\frac{1}{8}$ "	Notched	32	S	Fader control.
S31	$\frac{1}{2}$ "x2"	Notched			
S32	$\frac{1}{2}$ "x $\frac{1}{8}$ "	Notched	33	S	Left-hand taper with two taps for contrast and picture control circuits in television.
S33	$\frac{3}{8}$ "x $\frac{1}{4}$ "	—			
S34	$\frac{3}{8}$ "x $\frac{3}{8}$ "	—	34, 38, 48	S	Right-hand taper with two taps for contrast and picture control circuits in television.
S35	$\frac{1}{2}$ "x $\frac{1}{32}$ "	Single-flat			
S36	$\frac{1}{2}$ "x $\frac{5}{16}$ "	Single-flat	—	L	Left-hand taper for use in focus circuits in television.
S37	$\frac{1}{2}$ "x $\frac{1}{2}$ "	Single-flat			
S38	$\frac{1}{2}$ "x $\frac{1}{32}$ "	Single-flat	—	R	Right-hand logarithmic taper for use in contrast and picture control circuits in television.
S39	$\frac{1}{2}$ "x $\frac{3}{4}$ "	Single-flat			
S40	$\frac{1}{2}$ "x $\frac{1}{16}$ "	Single-flat	—	S	Tapped right-hand taper for contrast and picture control circuits in television.
S41	$\frac{1}{2}$ "x $\frac{1}{16}$ "	Notched			
S42	$\frac{1}{2}$ "x $\frac{1}{8}$ "	Single-flat	—	U	For potentiometer or rheostat where uniform resistance change is required.
S43	$\frac{1}{2}$ "x $\frac{1}{8}$ "	Single-flat			
S44	$\frac{3}{8}$ "x.590"	—	—	—	—
S45	$\frac{3}{8}$ "x $\frac{1}{16}$ "	—			
S46	$\frac{3}{16}$ "x $\frac{5}{16}$ "	Double-flat	—	—	—
S47	$\frac{3}{16}$ "x $\frac{1}{32}$ "	Double-flat			
S48	$\frac{1}{2}$ "x $\frac{3}{16}$ "	Single-flat	—	—	—
S49	$\frac{1}{2}$ "x1"	Notched			
S50	$\frac{1}{2}$ "x $\frac{1}{16}$ "	Single-flat	—	—	—
S51	$\frac{3}{16}$ "x $\frac{1}{4}$ "	Double-flat			
S52	$\frac{3}{8}$ "x $\frac{7}{8}$ "	—			



IRC-CTS SNAPTROL

IRC, Inc.



**PROVIDES VERSATILITY
AND EASE OF ASSEMBLY**

SNAPTROL. Newest of three IRC replacement systems designed to provide servicing technicians with satisfactory replacements for comprehensive coverage of single controls, tandem dual controls, matched stereo controls and concentric dual controls for television, radio, auto sets and high fidelity equipment.

SNAPTROL provides a broad variety of basic, factory assembled control sections, shafts and switches which snap together to provide a wide selection of replacement controls. Literally, it is a "snap" to assemble nearly any standard or special control.

SERIES 45 INDUSTRIAL CONTROLS. With a variety of five basic control components, the Series 45 line permits quick assembly of 12,631,500 different control specifications. These include single, double, triple and quadruple section controls, with or without power switches, in all popular styles and ranges needed for industrial electronic equipment.

Series 45 components are completely compatible and interchangeable with SNAPTROL. Together, these two snap-together systems provide an almost unlimited means to furnish unusual and special controls for industrial applications.

EASY TO USE. Parts assemble into exact duplicate control in 15 to 30 seconds. Sections completely factory assembled. No shaft cutting or modification needed.

GREATER VERSATILITY. SNAPTROL provides new and unique designs which provide for better utility and adaptability of component parts:

- 1—**Interchangeable Control Mountings.** $\frac{3}{8}$ ", $\frac{7}{16}$ " and $\frac{1}{2}$ " diameter bushings of varying lengths and bores, quickly thread into front control sections. Accommodates thick panel requirements *without* extra bushing or adjuster. Specially designed tab mounting plates or printed circuit brackets easily attached in place of bushings. This exclusive new design feature reduces the number of front sections needed and extends their use in a greater variety of replacement needs.

- 2—**Printed Circuit Terminals.** All carbon control sections are equipped with terminals that will handle both conventional and printed circuit wiring. This original IRC-CTS terminal design doubles the adaptability of control sections.

- 3—**Rotary or Pull-Push Power Switches.** Either type of power switch snaps onto either carbon Front or Rear Sections. Another exclusive IRC-CTS design feature which very considerably increases the utility of control components.

- 4—**Uniform Diameter Rear Section Shafts.** New design of rear section (inner) shafts provide uniform diameter — permits use of heavy-walled front section (outer) shaft contributing better concentric shaft operation and superior knob retention. Simple compression type adapter fits rear section shaft to knobs normally requiring larger diameter. No drilling or modification of knobs needed. Shafts are flattened or slotted as required — no shaft insert or time needed! This new design reduces the number of exact length shafts required for broad replacement coverage.

- 5—**Front Sections Serve for Single Controls.** Without modification or adapters, all SNAPTROL front sections may be used for single control replacements. Provides practical use of single front section for special bushings, tab mountings, printed circuits, special shaft needs and a variety of power switches. No other section-type control system provides such broad versatility.

FEWER COMPONENT PARTS. Because of the realistic design features provided, SNAPTROL requires far fewer items or components than any other section-type exact duplicate control system which offers so broad a replacement coverage. (Over 1700 exact duplicate concentric dual controls and many thousands of single controls.)

BEST SELLING CONTROLS. SNAPTROL is a special replacement design of the world's most frequently specified and most widely sold CTS Series 45 control. Over 300,000,000 in current use — a strong testimony to the quality and performance of these outstanding controls.

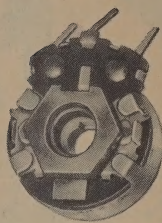
IRC-CTS SNAPTROL



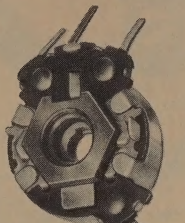
IRC, Inc.

SNAPTROL CARBON
AND WIREWOUND
FRONT SECTIONS

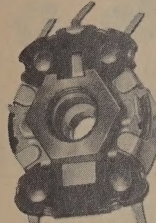
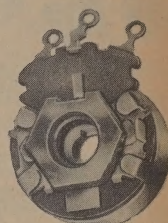
Type CF Carbon Front Sections and Type WF Wirebound Front Sections are factory-assembled controls supplied without control mounting, shaft or dust cover. Bushing, tab mounting plate or printed circuit bracket thread into front section as required. Carbon or wirewound rear sections snap onto either type front section for concentric or tandem dual controls. A variety of single or concentric outer shafts snap into front sections. Either rotary or pull-push switches will snap onto CF Front Sections, WF Front Sections will not operate switches. Printed Circuit Terminals are employed



Type CF—no tap



Type CF—one tap

Type CF
two taps

Type WF

on CF sections while standard hole-type terminals are supplied on WF sections. Diameter of either front section is $1\frac{1}{4}$ " diameter. Wattage rating: CF Sections — $\frac{1}{2}$ watt, WF Sections — 5 watts (linear tapered sections).

LISTING BY STOCK NUMBER

Stock No.	Ohms	Taps	Taper*
CF1	100	—	1
CF2	250	—	1
CF3	300	—	1
CF4	500	—	1
CF5	750	—	1
CF6	1000	—	1
CF7	1500	—	2
CF8	5000	—	2
CF9	10 K	—	2
CF10	15 K	—	2
CF11	25 K	—	2
CF12	50 K	—	2
CF13	100 K	—	2
CF14	200 K	—	2
CF15	250 K	—	2
CF16	500 K	—	2
CF17	1.0 Meg	—	2
CF18	1.5 Meg	—	2
CF19	2.0 Meg	—	2
CF20	2.5 Meg	—	2
CF21	3.0 Meg	—	2
CF22	5.0 Meg	—	2
CF23	250 K	—	3
CF24	350 K	—	3
CF25	500 K	—	3
CF26	1.0 Meg	—	3
CF27	2.0 Meg	—	3
CF28	3.0 Meg	—	3
CF29	5.0 Meg	—	3
CF30	1500	—	4
CF31	2000	—	4

Stock No.	Ohms	Taps	Taper*
CF32	2500	—	4
CF33	3000	—	4
CF34	5000	—	4
CF35	10 K	—	4
CF36	750	—	5
CF37	1000	—	5
CF38	5.0 Meg	—	5
CF39	5.0 Meg**	—	7
CF40T	750	250	8
CF41T	3000	150	10
CF42T	15 K	10 K	10
CF43T	500 K	125 K	11
CF44T	1.0 Meg	250 K	11
CF45T	2.0 Meg	500 K	11
CF46T	500 K	250 K	12
CF47T	1.0 Meg	500 K	12
CF48T	500	60	14
CF49T	30 K	10 K	8
CF50	500	—	5
CF51	200 K	—	4
CF52	100 K	—	3
CF53	1200	—	4
CF54	75 K	—	2
CF55	2.0 Meg	—	4
CF56	5.0 Meg	—	4
CF57T	2.0 Meg	1.0 Meg	12
CF58T	3.0 Meg	1.5 Meg	12
CF59	3000	—	2
CF60	5000	—	3
CF61	10 K	—	3
CF62	20 K	—	2

Stock No.	Ohms	Taps	Taper*
CF63	50 K	—	3
CF64	750 K	—	2
CF65	1.0 Meg	—	4
CF66	1.5 Meg	—	4
CF67TT	2.0 Meg	500 K & 1.0 M	49
CF68TT	2.0 Meg	300 K & 600 K	50
CF69	7.5 Meg	—	2
CF70	10 Meg	—	2
CF71T	1.0 Meg	100K	3
CF72	150 K	—	1
CF73TT	3.0 Meg	1.0 & 2.0 Meg	1
WF1	200	—	U
WF2	750	—	U
WF3	1000	—	U
WF4	1500	—	U
WF5	2000	—	U
WF6	2500	—	U
WF7	3000	—	U
WF8	5000	—	U
WF9	10 K	—	U
WF10	15 K	—	U
WF11	750	—	U
WF12	2500	—	R
WF13	3000	—	R
WF14	5000	—	R
WF15T	750	250	S
WF16	10	—	U
WF17	20	—	U
WF18	50	—	U
WF19	100	—	U
WF20	500	—	U

LISTING BY RESISTANCE VALUE

Ohms	Taps	Taper	Stock No.
100	—	1	CF1
250	—	1	CF2
300	—	1	CF3
500	—	1	CF4
500	—	5	CF50
500	60	14	CF48T
750	—	1	CF5
750	—	5	CF36
750	250	8	CF40T
1000	—	1	CF6
1000	—	4	CF37
1200	—	5	CF53
1500	—	2	CF7
1500	—	4	CF30
2000	—	4	CF31
2500	—	4	CF32
3000	—	4	CF59
3000	—	4	CF33
3000	150	9	CF41T
5000	—	2	CF8
5000	—	3	CF60
5000	—	2	CF34
10 K	—	2	CF9
10 K	—	3	CF61
10 K	—	4	CF35
15 K	—	2	CF10
15 K	10 K	10	CF42T
20 K	—	2	CF62
25 K	—	2	CF11
30 K	10 K	8	CF49T
50 K	—	2	CF12

Ohms	Taps	Taper*	Stock No.
50 K	—	—	CF63
75 K	—	2	CF54
100 K	—	2	CF13
100 K	—	3	CF52
150 K	—	1	CF72
200 K	—	4	CF51
200 K	—	2	CF14
250 K	—	2	CF15
250 K	—	3	CF23
350 K	—	2	CF24
500 K	—	2	CF16
500 K	—	3	CF25
500 K	125 K	11	CF43T
500 K	250 K	12	CF46T
750 K	—	2	CF64
1.0 Meg	—	2	CF17
1.0 Meg	—	3	CF26
1.0 Meg	250 K	11	CF44T
1.0 Meg	500 K	12	CF47T
1.5 Meg	—	1	CF71T
1.5 Meg	100 K	2	CF18
2.0 Meg	—	2	CF66
2.0 Meg	—	3	CF19
2.0 Meg	—	3	CF27
2.0 Meg	—	4	CF55
2.0 Meg	500 K	11	CF45T
2.0 Meg	1.0 Meg	12	CF57T
2.0 Meg	500 K & 1.0 M	49	CF67TT
2.0 Meg	300 K & 600 K	50	CF68TT
2.5 Meg	—	2	CF20

Ohms	Taps	Taper*	Stock No.
3.0 Meg	—	2	CF21
3.0 Meg	—	3	CF28
3.0 Meg	1.5 Meg	12	CF58T
3.0 Meg	1.0 & 2.0 Meg	1	CF73TT
5.0 Meg	—	2	CF22
5.0 Meg	—	3	CF29
5.0 Meg	—	4	CF56
5.0 Meg	—	6	CF38
5.0 Meg**	—	7	CF39
7.5 Meg	—	2	CF69
10 Meg	—	2	CF70
10	—	U	WF16
20	—	U	WF17
50	—	U	WF18
100	—	U	WF19
200	—	U	WF1
500	—	R	WF20
750	—	R	WF11
750	250	S	WF15T
1000	—	U	WF2
1500	—	U	WF3
2000	—	U	WF4
2500	—	U	WF5
2500	—	R	WF12
2500	—	R	WF6
3000	—	R	WF13
3000	—	U	WF7
5000	—	R	WF14
5000	—	U	WF8
10 K	—	U	WF9
15 K	—	U	WF10

See Taper explanation chart

** Element open at center

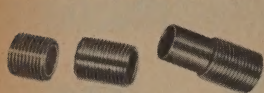
IRC, INC. • CONSUMER AND DISTRIBUTOR PRODUCTS DIVISION

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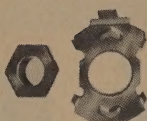


IRC-CTS SNAPTROL

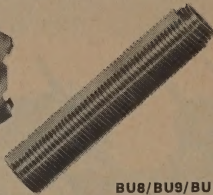
IRC, Inc.



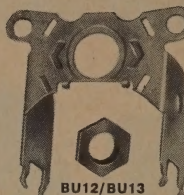
BU1/BU4 BU2/BU5 BU3/BU6



BU11/BU7



BU8/BU9/BU10



BU12/BU13



BU14/BU15

CONTROL MOUNTINGS FOR FRONT SECTIONS

A variety of control mountings permit the use of SNAPTROL Front Sections for many different replacement controls. Bushings of varying diameters and inside bores thread into front sections. Tab mounting plates and printed circuit brackets attach to front section with special male nut supplied with each.

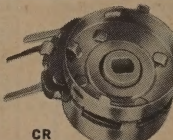
This exclusive design feature of selectable control mountings actually reduces inventory investment for distributors and servicing technicians. For a specific resistance value and taper, only one SNAPTROL Front Section is needed—in contrast to other systems where an additional front section is needed for each different control mounting.

Stock No.	Description
BU1	Bushing $\frac{3}{8}$ "—32 x $\frac{1}{4}$ " FMS— for single controls
BU2	Bushing $\frac{3}{8}$ "—32 x $\frac{3}{8}$ " FMS— for single controls
BU3	Bushing $\frac{3}{8}$ "—32 x $\frac{1}{2}$ " FMS— for single controls
BU4	Bushing $\frac{3}{8}$ "—32 x $\frac{1}{4}$ " FMS— for concentric controls
BU5	Bushing $\frac{3}{8}$ "—32 x $\frac{3}{8}$ " FMS— for concentric controls
BU6	Bushing $\frac{3}{8}$ "—32 x $\frac{1}{2}$ " FMS— for concentric controls
BU7	Tab mounting with nut— for concentric controls
BU8	Bushing $\frac{1}{2}$ "—28 x $1\frac{7}{8}$ " FMS— for concentric controls

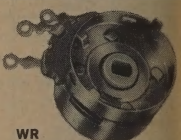
Stock No.	Description
BU9	Bushing $\frac{1}{2}$ "—28 x $2\frac{1}{4}$ " FMS— for concentric controls. Double flat.
BU10	Bushing $\frac{1}{2}$ "—28 x $2\frac{1}{4}$ " FMS— for concentric controls. Single flat.
BU11	Tab mounting with nut— for single controls
BU12	Printed circuit bracket with nut— for single controls
BU13	Printed circuit bracket with nut— for concentric controls
BU14	Bushing $\frac{3}{8}$ "—32 x $1\frac{1}{4}$ " FMS— for single controls
BU15	Bushing $\frac{3}{8}$ "—32 x 2" FMS— for concentric dual controls.

CARBON & WIREWOUND REAR SECTIONS

Type CR Carbon Rear Sections and Type WR Wirewound Rear Sections snap onto SNAPTROL Front Sections for use as either concentric dual or tandem dual controls. Rotary or pull-push power switches snap onto CR sections. WR sections do not accept switches. Rear or inner concentric shafts snap into either type of rear sections for concentric dual operation. SS7A Intersection Insert provides tandem dual operation. Additional tandem sections may be snapped on by use of SS13 Multisection Couplers.



CR



WR

LISTING BY STOCK NUMBER

Stock No.	Ohms	Taps	Taper*
CR1	100	—	1
CR2	1000	—	1
CR3	2000	—	2
CR4	5000	—	2
CR5	10 K	—	2
CR6	25 K	—	2
CR7	50 K	—	2
CR8	100 K	—	2
CR9	200 K	—	2
CR10	250 K	—	2
CR11	500 K	—	2
CR12	1.0 Meg	—	2
CR13	1.5 Meg	—	2
CR14	2.0 Meg	—	2
CR15	2.5 Meg	—	2
CR16	3.0 Meg	—	2
CR17	5.0 Meg	—	2
CR18	250 K	—	3
CR19	350 K	—	3
CR20	500 K	—	3
CR21	1.0 Meg	—	3
CR22	2.0 Meg	—	3
CR23	3.0 Meg	—	3
CR24	5.0 Meg	—	3
CR25	2000	—	4
CR26	10 K	—	4
CR27	750	—	5
CR28	1000	—	5
CR29T	250 K	60 K	11
CR30T	350 K	75 K	11
CR31T	500 K	125 K	11
CR32T	1.0 Meg	250 K	11
CR33T	2.0 Meg	500 K	11
CR34T	250 K	125 K	12
CR35T	500 K	250 K	12
CR36T	1.0 Meg	500 K	12
CR37T	2.0 Meg	1.0 Meg	12
CR38T	3.0 Meg	1.5 Meg	12
CR39T	500 K	50 K	13
CR40T	1.0 Meg	100 K	13
CR41	500	—	1
CR42	125 K	—	2
CR43	500 K	—	2
CR44	1.0 Meg	—	4
CR45	2.0 Meg	—	4
CR46	3.0 Meg	—	4
CR47	5.0 Meg	—	4
CR48T	7.5 K	3750	12
CR49T	10 K	5000	12
CR50T	20 K	6000	11
CR51	5000	—	3
CR52	10 K	—	R
CR53	100 K	—	1
CR54TT	3.0 Meg	1.0 & 2.0 Meg	U
WR1	10 K	—	U
WR2	15 K	—	U

LISTING BY RESISTANCE VALUE

Ohms	Taps	Taper *	Stock No.
100	—	1	CR1
500	—	1	CR41
750	—	1	CR27
1000	—	1	CR2
1000	—	5	CR28
2000	—	2	CR3
2000	—	4	CR25
5000	—	3	CR4
5000	—	3	CR51
7500	3750	12	CR48T
10 K	—	2	CR5
10 K	—	4	CR26
10 K	5000	12	CR49T
10 K	6000	3	CR52
20 K	—	11	CR50T
25 K	—	2	CR6
50 K	—	2	CR7
100 K	—	2	CR8
100 K	—	R	CR53
125 K	—	2	CR42
200 K	—	2	CR9
250 K	—	2	CR10
250 K	—	3	CR18
250 K	60 K	11	CR29T
250 K	125 K	12	CR34T
350 K	—	2	CR19
350 K	75 K	11	CR30T
500 K	—	2	CR11
500 K	—	4	CR20
500 K	—	11	CR43
500 K	125 K	11	CR31T
500 K	250 K	12	CR35T
500 K	50 K	13	CR39T
1.0 Meg	—	2	CR12
1.0 Meg	—	4	CR21
1.0 Meg	—	3	CR44
1.0 Meg	250 K	11	CR32T
1.0 Meg	500 K	12	CR36T
1.0 Meg	100 K	13	CR40T
1.5 Meg	—	2	CR13
2.0 Meg	—	2	CR14
2.0 Meg	—	3	CR22
2.0 Meg	—	4	CR45
2.0 Meg	500 K	11	CR33T
2.0 Meg	1.0 Meg	12	CR37T
2.5 Meg	—	2	CR15
3.0 Meg	—	2	CR16
3.0 Meg	—	3	CR23
3.0 Meg	—	4	CR46
3.0 Meg	1.5 Meg	12	CR38T
3.0 Meg	1.0 & 2.0 Meg	1	CR54TT
5.0 Meg	—	3	CR17
5.0 Meg	—	3	CR24
5.0 Meg	—	4	CR47
10 K	—	U	WR1
15 K	—	U	WR2

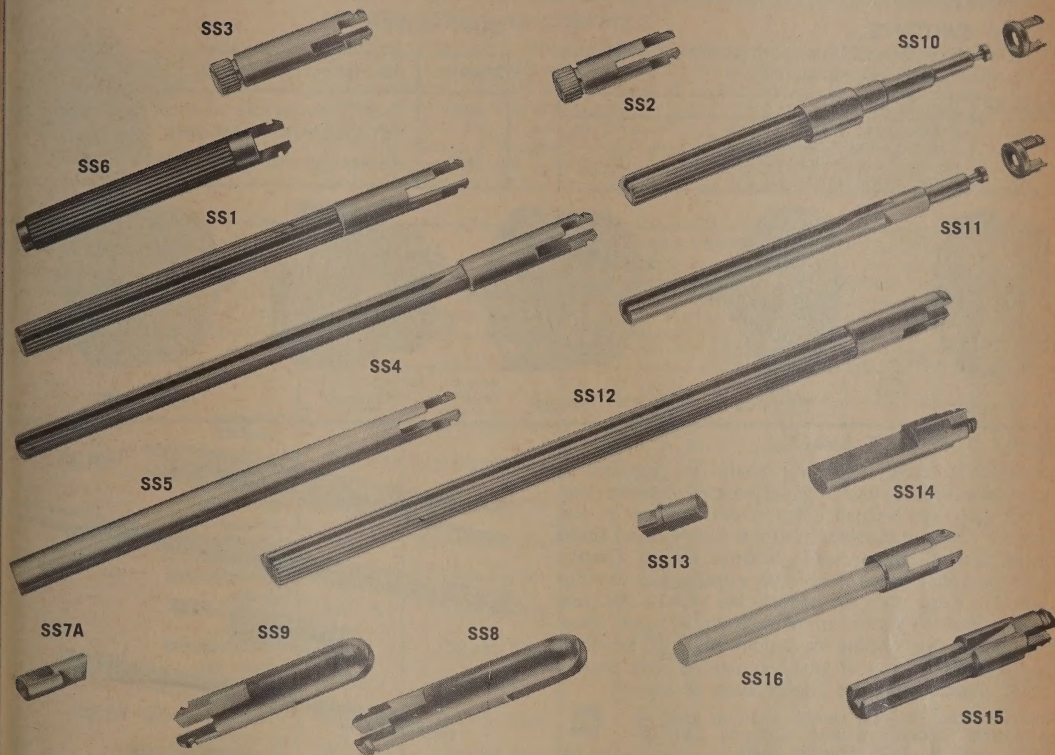
* See Taper explanation chart

IRC, INC. • CONSUMER AND DISTRIBUTOR PRODUCTS DIVISION

IRC-CTS SNAPTROL



IRC, Inc.



SINGLE CONTROL SHAFTS

Universal single control shafts for SNAPTROL permit front sections to be used as universal single control replacements.

STOCK NO.	DESCRIPTION
SS1	KNOBMASTER Shaft. Knurled, grooved and slotted for universal use. 3" long F.M.S.
SS2	Short, screw-driver slotted shaft. ½" long, F.M.S.
SS3	Short knurled and screw-driver slotted shaft. ¾" long, F.M.S.
SS4	⅜" diameter shaft. Flatted and grooved. 4" long F.M.S.
SS5	Full round ¼" diameter shaft. 3" long F.M.S.
SS6	Insulated Shaft. ¼" diameter x 1½" long. Screw-driver slot and knurled full length.
SS7A	Intersection insert. Converts concentric rear section to tandem rear section with single shaft.
SS8	Special rounded end and slotted shaft for G.E. controls—.79" long F.M.S.
SS9	Special rounded end and slotted shaft for G.E. controls—.60" long F.M.S.

STOCK NO.	DESCRIPTION
SS10	For K switch (push-pull) operation with single Front Section. 3" Knobmaster Shaft (same as SS1) with insert.
SS11	For K switch (pull-push) operation with single Front Section. 2" long flatted and grooved ⅜" diameter shaft (similar to SS4) with insert.
SS12	Long Knobmaster Shaft. Same as SS1 but 5" long.
SS13	Multisection Insert. For use between second and third or successive tandem sections. (Note SS7A used between first and second sections).
SS14	Short flatted shaft. ¼" diameter by ¾" long F.M.S., flatted full length. Provided for short, flatted tab mounted controls.
SS15	⅜" diameter shaft, flatted and grooved full length. ¾" long F.M.S.
SS16	Insulated shaft, ⅜" diameter flatted full length. 1½" long F.M.S.
SS17	KNOBMASTER Shaft. Knurled, grooved and slotted for universal use. 3" long F.M.S. with insert converting concentric rear section to tandem rear section with single shaft. For K switch (push-pull) operation.



IRC-CTS SNAPTROL

IRC, Inc.

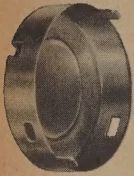
POWER SWITCHES

SNAPTROL rotary and pull-push power switches snap on to carbon front or rear sections.

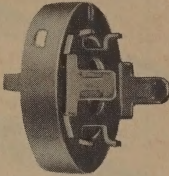
Stock No.	Description
GC	Rotary Power Switch, S.P.S.T.
K	Pull-push Power Switch, S.P.S.T.
VF	Rotary Power Switch, S.P.D.T.
WF	Rotary Power Switch, D.P.S.T.

DUST COVER

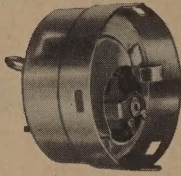
Stock No.	Description
DC1	Dust Cover. For use on either front or rear section when switch is not used.
DC2	Reverse Tab mount dust cover.



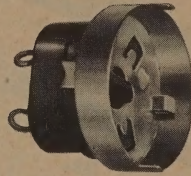
Type DC1



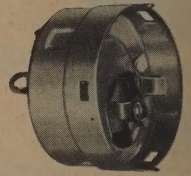
Type DC2



Type GC



Type K



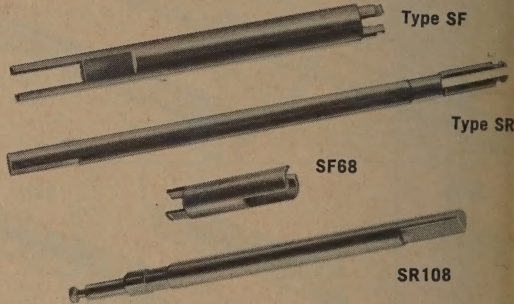
Types VF/WF

EXACT DUPLICATE SHAFTS

SNAPTROL Exact Duplicate Shafts are supplied to close tolerances against original control specifications. Easily snap into molded nylon rotors of front or rear sections. Uniform diameter of rear section (inner) shafts permit use of heavier wall on front section (outer) shafts providing better concentric rotation and superior knob fit. Knob Adapter (Stock No. KA1) fits rear (inner) shaft to knobs normally requiring larger diameter shafts. No drilling or modification of knobs is required. No cutting of shafts is needed with SNAPTROL Exact Duplicate Shafts! Easy to install!

Knob Adapter. Fits rear section shaft to knob requirements of over-size shaft. Converts .187" diameter shaft to .202" diameter shaft.

Type KA1



FRONT SECTION (OUTER) SHAFTS					
STOCK NO.	SHAFT LENGTH FMS*	SHAFT END*	STOCK NO.	SHAFT LENGTH FMS*	SHAFT END*
SF1	3/4"	S	SF35	3 3/4"	FS
SF2	3/4"	S	SF36	3 3/4"	FS
SF3	3/4"	FS	SF37	4"	FS
SF4	7/8"	FS	SF38	4 3/4"	FS
SF5	1 1/8"	FS	SF39	4 3/4"	FS
SF6	1"	FS	SF40	1 1/2"	S
SF7	1 1/2"	FS	SF41	1"	S
SF8	1 1/2"	FS	SF42	1 1/2"	S
SF9	1 1/2"	FS	SF43	1 1/2"	S
SF10	1 1/2"	FS	SF44	1 1/2"	S
SF11	1 1/2"	FS	SF45	2"	S
SF12	1 1/2"	FS	SF46	2 1/2"	S
SF13	1 1/2"	FS	SF47	2 1/2"	S
SF14	1 1/2"	FS	SF48	2 1/2"	S
SF15	1 1/2"	FS	SF49	2 1/2"	S
SF16	1 1/2"	FS	SF50	2 1/2"	S
SF17	2"	FS	SF51	1 1/2"	K
SF18	2 1/2"	FS	SF52	2 1/2"	K
SF19	2 1/2"	FS	SF53	1"	K
SF20	2 1/2"	FS	SF54	1 1/2"	K
SF21	2 1/2"	FS	SF55	1 1/2"	K
SF22	2 1/2"	FS	SF56	2 1/2"	K
SF23	2 1/2"	FS	SF57	1 1/2"	SD
SF24	2 1/2"	FS	SF58	3/4"	SD
SF25	2 1/2"	FS	SF59	3/4"	SD
SF26	2 1/2"	FS	SF60	1"	SD
SF27	2 1/2"	FS	SF61	1 1/2"	SD
SF28	3"	FS	SF62	1 1/2"	SD
SF29	3 1/2"	FS	SF63	1 1/2"	SD
SF30	3 1/2"	FS	SF64	1 1/2"	SD
SF31	3 1/2"	FS	SF65	1 1/2"	SD
SF32	3 1/2"	FS	SF66	1 1/2"	SD
SF33	3 1/2"	FS	SF67	1 1/2"	SD
SF34	3 1/2"	FS	SF68	1 1/2"	SD

REAR SECTION (INNER) SHAFTS							
STOCK NO.	SHAFT LENGTH FMS*	SHAFT END*	STOCK NO.	SHAFT LENGTH FMS*	SHAFT END*	STOCK NO.	SHAFT LENGTH FMS*
SR1	1 1/2"	F	SR38	4 1/2"	F	SR75	2 1/2"
SR2	1 1/2"	F	SR39	1 1/2"	F	SR76	2 1/2"
SR3	1 1/2"	F	SR40	1 1/2"	F	SR77	2 1/2"
SR4	1 1/2"	F	SR41	1 1/2"	F	SR78	2 1/2"
SR5	1 1/2"	F	SR42	1 1/2"	F	SR79	2 1/2"
SR6	1 1/2"	F	SR43	1 1/2"	F	SR80	2 1/2"
SR7	1 1/2"	F	SR44	1 1/2"	F	SR81**	1 1/2"
SR8	1 1/2"	F	SR45	1 1/2"	F	SR82**	1 1/2"
SR9	1 1/2"	F	SR46	1 1/2"	F	SR83**	1 1/2"
SR10	1 1/2"	F	SR47	2"	F	SR84**	1 1/2"
SR11	1 1/2"	F	SR48	2 1/2"	F	SR85**	1 1/2"
SR12	2"	F	SR49	2 1/2"	F	SR86**	1 1/2"
SR13	2 1/2"	F	SR50	2 1/2"	F	SR87**	1 1/2"
SR14	2 1/2"	F	SR51	2 1/2"	F	SR88**	2 1/2"
SR15	2 1/2"	F	SR52	2 1/2"	F	SR89**	2 1/2"
SR16	2 1/2"	F	SR53	2 1/2"	F	SR90**	2 1/2"
SR17	2 1/2"	F	SR54	2 1/2"	F	SR91**	2 1/2"
SR18	2 1/2"	F	SR55	2 1/2"	F	SR92**	2 1/2"
SR19	2 1/2"	F	SR56	2 1/2"	F	SR93**	2 1/2"
SR20	2 1/2"	F	SR57	2 1/2"	F	SR94**	2 1/2"
SR21	2 1/2"	F	SR58	3"	F	SR95	1 1/2"
SR22	2 1/2"	F	SR59	3 1/2"	F	SR96	1 1/2"
SR23	3"	F	SR60	3 1/2"	F	SR97	1 1/2"
SR24	3 1/2"	F	SR61	3 1/2"	F	SR98	1 1/2"
SR25	3 1/2"	F	SR62	3 1/2"	F	SR99	1 1/2"
SR26	3 1/2"	F	SR63	3 1/2"	F	SR100	1 1/2"
SR27	3 1/2"	F	SR64	3 1/2"	F	SR101	1 1/2"
SR28	3 1/2"	F	SR65	3 1/2"	F	SR102**	2 1/2"
SR29	3 1/2"	F	SR66	1 1/2"	K	SR103**	2 1/2"
SR30	3 1/2"	F	SR67	1 1/2"	K	SR104**	2 1/2"
SR31	3 1/2"	F	SR68	1 1/2"	K	SR105**	2 1/2"
SR32	3 1/2"	F	SR69	1 1/2"	K	SR106**	2 1/2"
SR33	3 1/2"	F	SR70	1 1/2"	K	SR107	1 1/2"
SR34	4 1/2"	F	SR71	3 1/2"	SD	SR108**	2 1/2"
SR35	4 1/2"	F	SR72	1 1/2"	SD	SR109	1 1/2"
SR36	4 1/2"	F	SR73	1 1/2"	SD	SR110**	3 1/2"
SR37	4 1/2"	F	SR74	3 1/2"	SD		

* FMS—Measured from mounting surface. F—Flat.
FS—Flat & Slot. K—Knurled. S—Slot. SD—Screw-driver Slot. SP—Special.

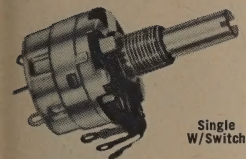
** Used with pull-push switch only.

IRC-CTS SNAPTROL/SERIES 45 INDUSTRIAL CONTROLS


IRC, Inc.

IRC-CTS SERIES 45 CONTROLS

Designed to provide a wide variety of ½ watt controls for industrial applications, the Series 45 is a snap-together system in which selected values and sizes of five basic components will quickly assemble any of 12,631,500 specifications. Included are 25 values and tapers of single control or panel sections, 20 popular values of multi-sections or rear control sections, 20 most used shafts in length increments of ½" from ½" to 2" plus a 3" length, 2 rotary power switches and a control dust cover. Completely compatible and interchangeable with SNAPTROL, the Series 45 affords an extremely broad selection of mechanical and electrical specifications for industrial applications.


 Single
W/Switch

SERIES 45 SNAP-IN SHAFTS

0 most often needed shafts for industrial applications. Provide screwdriver slot, flat, knurl or full round types in ½" increments from ½" to 2" in length. 3" length included. Broad shaft selection generally eliminates need for cutting or modification. All shafts ¼" diameter.

	STOCK NO.	LENGTH FMS	KNOB TRIM
	01	½"	Screwdriver Slot
	02	⅝"	Screwdriver Slot
	03	¾"	Screwdriver Slot
	04	⅞"	Screwdriver Slot
	05	1"	Screwdriver Slot
	06	⅞"	.156 x ⅞" Flat
	07	1"	.156 x ⅞" Flat
	08	1⅛"	.156 x ⅞" Flat
	09	1¼"	.156 x ⅞" Flat
	10	1⅝"	.156 x ⅞" Flat
	11	1½"	.156 x ⅞" Flat
	12	1⅞"	.156 x ⅞" Flat
	13	1¾"	.156 x ⅞" Flat
	14	1⅞"	.156 x ⅞" Flat
	15	2"	.156 x ⅞" Flat
	16	2"	Full Round
	17	3"	Full Round
	18	1"	Split Knurl
	19	1¼"	Split Knurl
	20	1½"	Split Knurl

POWER SWITCHES AND DUST COVER

Snap on to either panel or rear sections. Dust cover used where switch is not required.



Type D/S



Type 45C

STOCK NO.	DESCRIPTION
D	DPST Power Switch (Snaptrol WF)
S	SPST Power Switch (Snaptrol GC)
45C	Dust Cover (Snaptrol DC1)

SINGLE CONTROL OR FRONT SECTIONS. 25 most used resistance values in two resistance tapers: 45A logarithmic taper and 45D linear taper. Rated at ½ watt (linear taper). Equipped with ⅜—32x⅜" long bushing for ¼" diameter shafts. Mounting nut included. Resistance tolerance +20%.

LISTING BY STOCK NUMBER

Stock No.	Ohms	CTS Taper	Similar To Snaptrol No.
45A103	10 K	A	CF61
45A104	100 K	A	CF52
45A105	1.0 Meg	A	CF26
45A205	2.0 Meg	A	CF27
45A254	250 K	A	CF23
45A305	3.0 Meg	A	CF28
45A503	50 K	A	CF63
45A504	500 K	A	CF25
45D102	1000	D	CF6
45D103	10 K	D	CF9
45D104	100 K	D	CF13
45D105	1.0 Meg	D	CF17
45D106	10.0 Meg	D	CF70
45D202	2000	D	—
45D203	20 K	D	CF62
45D204	200 K	D	CF14
45D205	2.0 Meg	D	CF19
45D253	25 K	D	CF11
45D254	250 K	D	CF15
45D302	3000	D	CF59
45D501	500	D	CF4
45D502	5000	D	CF8
45D503	50 K	D	CF12
45D504	500 K	D	CF16
45D505	5.0 Meg	D	CF22

LISTING BY RESISTANCE VALUE

Stock No.	Ohms	CTS Taper	Similar To Snaptrol No.
45D501	500	D	CF4
45D102	1000	D	CF6
45D202	2000	D	—
45D302	3000	D	CF59
45D502	5000	D	CF8
45A103	10 K	A	CF61
45D103	10 K	D	CF9
45D203	20 K	D	CF62
45D253	25 K	D	CF11
45A503	50 K	A	CF63
45D503	50 K	D	CF12
45A104	100 K	A	CF52
45D104	100 K	D	CF13
45D204	200 K	D	CF14
45A254	250 K	A	CF23
45D254	250 K	D	CF15
45A504	500 K	A	CF25
45D504	500 K	D	CF16
45A105	1.0 Meg	A	CF26
45D105	1.0 Meg	D	CF17
45A205	2.0 Meg	A	CF27
45D205	2.0 Meg	D	CF19
45A305	3.0 Meg	A	CF28
45D505	5.0 Meg	D	CF22
45D106	10.0 Meg	D	CF70

* See Taper chart, page 1205

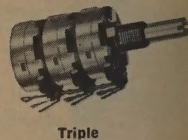
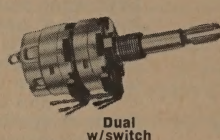


IRC-CTS SNAPTRON/SERIES 45 INDUSTRIAL CONTROLS

IRC, Inc.

IRC-CTS SERIES 45 MULTISECTIONS

20 rear sections snap on to panel section or to successive rear sections. Provide dual, triple or quadruple section controls. May be used with or without switch. M45A is logarithmic taper; M45D is linear taper. Resistance tolerance $\pm 20\%$. Power rating $\frac{1}{2}$ watt (linear taper).



LISTING BY STOCK NUMBER

STOCK NO.	OHMS	CTS TAPER*	SIMILAR TO SNAPTRON NO. PLUS SS7A
M45A104	100 K	A	—
M45A105	1.0 Meg	A	CR21
M45A205	2.0 Meg	A	CR22
M45A254	250 K	A	CR18
M45A504	500 K	A	CR20
M45D102	1000	D	CR2
M45D103	10 K	D	CR5
M45D104	100 K	D	CR8
M45D105	1.0 Meg	D	CR12
M45D106	10.0 Meg	D	—
M45D202	2000	D	CR3
M45D205	2.0 Meg	D	CR14
M45D253	25 K	D	CR6
M45D254	250 K	D	CR10
M45D302	3000	D	—
M45D501	500	D	CR41
M45D502	5000	D	CR4
M45D503	50 K	D	CR7
M45D504	500 K	D	CR11
M45D505	5.0 Meg	D	CR17

LISTING BY RESISTANCE VALUE

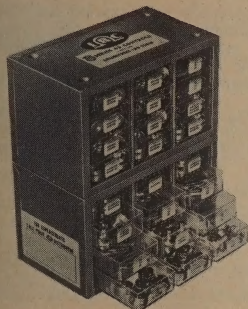
OHMS	CTS TAPER*	STOCK NO.	SIMILAR TO SNAPTRON NO. PLUS SS7A
500	D	M45D501	CR41
1000	D	M45D102	CR2
2000	D	M45D202	CR3
3000	D	M45D302	—
5000	D	M45D502	CR4
10 K	D	M45D103	CR5
25 K	D	M45D253	CR6
50 K	D	M45D503	CR7
100 K	A	M45A104	—
100 K	D	M45D104	CR8
250 K	A	M45A254	CR18
250 K	D	M45D254	CR10
500 K	A	M45A504	CR20
500 K	D	M45D504	CR11
1.0 Meg	A	M45A105	CR21
1.0 Meg	D	M45D105	CR12
2.0 Meg	A	M45A205	CR22
2.0 Meg	D	M45D205	CR14
5.0 Meg	D	M45D505	CR17
10.0 Meg	D	M45D106	—

* See Taper chart

IDENTIFY ANY OF 12,631,500 SERIES 45 CONTROLS WITH THIS SPECIFICATION NUMBER SELECTION CHART

Ohms	Type	Single Control or Panel Section		Second Section		Third Section		Fourth Section		Switch	Shaft	Shaft Detail	
		Log. Taper	Linear Taper	Log. Taper	Linear Taper	Log. Taper	Linear Taper	Log. Taper	Linear Taper			Length FMS	End Trim
500	45	—	D501	—	D501	—	D501	—	D501	↑	01	1/2"	SD SLOT
1000		—	D102	—	D102	—	D102	—	D102		02	3/8"	SD SLOT
2000		—	D202	—	D202	—	D202	—	D202		03	3/4"	SD SLOT
3000		—	D302	—	D302	—	D302	—	D302		04	7/8"	SD SLOT
5000		—	D502	—	D502	—	D502	—	D502		05	1"	SD SLOT
10 K		A103	D103	—	D103	—	D103	—	D103	↓	06	7/8"	FLAT
20 K		—	D203	—	—	—	—	—	—		07	1"	FLAT
25 K		—	D253	—	D253	—	D253	—	D253		08	1 1/8"	FLAT
50 K		A503	D503	—	D503	—	D503	—	D503		09	1 1/4"	FLAT
100 K		A104	D104	A104	D104	A104	D104	A104	D104		10	1 3/8"	FLAT
200 K	45	—	D204	—	—	—	—	—	—	OMIT	11	1 1/2"	FLAT
250 K		A254	D254	A254	D254	A254	D254	A254	D254		12	1 5/8"	FLAT
500 K		A504	D504	A504	D504	A504	D504	A504	D504		13	1 3/4"	FLAT
1 MEG		A105	D105	A105	D105	A105	D105	A105	D105		14	1 7/8"	FLAT
2 MEG		A205	D205	A205	D205	A205	D205	A205	D205	SWITCH	15	2"	FLAT
3 MEG		A305	—	—	—	—	—	—	—		16	2"	ROUND
5 MEG		—	D505	—	D505	—	D505	—	D505		17	3"	ROUND
10 MEG		—	D106	—	D106	—	D106	—	D106		18	1"	KNURL
											19	1 1/4"	KNURL
											20	1 1/2"	KNURL

IRC-CTS SNAPTRON/SERIES 45 INDUSTRIAL CONTROL STOCKS


IRC, Inc.


ENGINEERING LAB STOCKS. Series 45, 1/2 watt controls to meet more than 12 million requirements. Two IRC engineering lab stocks include snap-together sections, control shafts, switches and dust covers. Ideal for building breadboards and prototypes. Grey metal cabinets stack or hang. Clear plastic drawers are labeled and separated for easy inventory and stock control.

ENGINEERING LAB STOCK ELS #1

2 IRC-CTS single controls, 41 shafts,
2 switches, 42 dust covers, 1 cabinet

CONTROL SECTIONS

Quantity	Item	Ohms	Type Taper	Description
2	45A103	10K	Log Taper	Front Section
2	45A104	100K	Log Taper	Front Section
2	45A105	1 Meg	Log Taper	Front Section
2	45A254	250K	Log Taper	Front Section
2	45A503	50K	Log Taper	Front Section
2	45A504	500K	Log Taper	Front Section
3	45D102	1000	Linear Taper	Front Section
3	45D103	10K	Linear Taper	Front Section
3	45D104	100K	Linear Taper	Front Section
3	45D105	1 Meg	Linear Taper	Front Section
3	45D253	25K	Linear Taper	Front Section
3	45D254	250K	Linear Taper	Front Section
3	45D503	50K	Linear Taper	Front Section
3	45D504	500K	Linear Taper	Front Section
3	45D505	5 Meg	Linear Taper	Front Section

ENGINEERING LAB STOCK ELS #2

2 CTS-IRC single and multiple section controls, 64 shafts, 20 switches,
14 dust covers, 2 metal cabinets.

CONTROL SECTIONS

Quantity	Item	Ohms	Type Taper	Description
4	45A103	10K	Log Taper	Front Section
4	45A104	100K	Log Taper	Front Section
4	45A105	1 Meg	Log Taper	Front Section
4	45A254	250K	Log Taper	Front Section
4	45A503	50K	Log Taper	Front Section
4	45A504	500K	Log Taper	Front Section
4	45D102	1000	Linear Taper	Front Section
4	45D103	10K	Linear Taper	Front Section
4	45D104	100K	Linear Taper	Front Section
4	45D105	1 Meg	Linear Taper	Front Section
4	45D253	25K	Linear Taper	Front Section
4	45D254	250K	Linear Taper	Front Section
4	45D502	5000	Linear Taper	Front Section
4	45D503	50K	Linear Taper	Front Section
4	45D504	500K	Linear Taper	Front Section
4	45D505	5 Meg	Linear Taper	Front Section
2	M45A104	100K	Log Taper	Rear Section
2	M45A105	1 Meg	Log Taper	Rear Section
2	M45A254	250K	Log Taper	Rear Section
2	M45A504	500K	Log Taper	Rear Section
4	M45D102	1000	Linear Taper	Rear Section
4	M45D103	10K	Linear Taper	Rear Section
4	M45D104	100K	Linear Taper	Rear Section
2	M45D105	1 Meg	Linear Taper	Rear Section
2	M45D253	25K	Linear Taper	Rear Section
2	M45D254	250K	Linear Taper	Rear Section
2	M45D502	5000	Linear Taper	Rear Section
4	M45D503	50K	Linear Taper	Rear Section
4	M45D504	500K	Linear Taper	Rear Section
2	M45D505	5 Meg	Linear Taper	Rear Section

SWITCHES AND COVERS

Quantity	Item	Description
3	DPST	Rotary type, 3 amps at 125 volts, 1 amp at 250 volts, 5 amps at 20 volts, AC. UL approved.
9	SPST	Rotary type, 3 amps at 125 volts, 1 amp at 250 volts, AC. UL approved.
42	45C	Snap-on Cover.

SHAFTS

Quantity	Item	Length	End Trim
2	01	1/2"	SD Slot
2	02	5/8"	SD Slot
3	03	3/4"	SD Slot
2	04	7/8"	SD Slot
3	05	1"	SD Slot
2	06	7/8"	Flat
2	07	1"	Flat
2	08	1 1/8"	Flat
3	09	1 1/4"	Flat
2	10	1 3/8"	Flat
2	11	1 1/2"	Flat
2	12	1 5/8"	Flat
2	13	1 3/4"	Flat
2	14	1 7/8"	Flat
2	15	2"	Flat
2	16	2"	Round
3	17	3"	Round
2	18	1"	Knurl
2	19	1 1/4"	Knurl

SWITCHES AND COVERS

Quantity	Item	Description
5	DPST	Rotary type, 3 amps at 125 volts, 1 amp at 250 volts, 5 amps at 20 volts, AC. UL approved.
15	SPST	Rotary type, 3 amps at 125 volts, 1 amp at 250 volts, AC. UL approved.
44	45C	Snap-on cover.

SHAFTS

Quantity	Item	Length	End Trim
5	01	1/2"	SD Slot
2	02	5/8"	SD Slot
5	03	3/4"	SD Slot
5	04	7/8"	SD Slot
5	05	1"	SD Slot
5	06	7/8"	Flat
5	07	1"	Flat
2	08	1 1/8"	Flat
5	09	1 1/4"	Flat
2	10	1 3/8"	Flat
2	11	1 1/2"	Flat
2	12	1 5/8"	Flat
2	13	1 3/4"	Flat
2	14	1 7/8"	Flat
2	15	2"	Flat
2	16	2"	Round
5	17	3"	Round
2	18	1"	Knurl
2	19	1 1/4"	Knurl
2	20	1 1/2"	Knurl

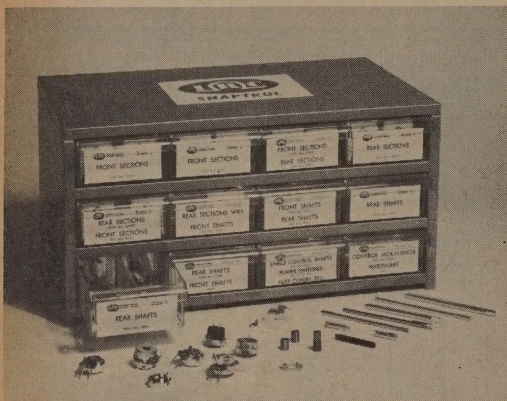


IRC-CTS SNAPTROL DEALER STOCKS

IRC, Inc.

WIDE COVERAGE OF CONTROL TYPES—SNAPTROL Dealer Control Stocks provide unusually wide variety of single, tandem and concentric dual control types. Included are nearly endless combinations of control mountings, shafts and power switches with both carbon ($\frac{1}{2}$ watt) and wirewound (5 watts) front and rear sections. Control mountings include $\frac{3}{8}$ ", $\frac{7}{16}$ " and $\frac{1}{2}$ " diameter bushings, tab mountings and printed circuit brackets. Shaft styles encompass $\frac{1}{4}$ " and $\frac{3}{16}$ " universal types, screw-driver slotted and insulated styles, rear adjustment feature, and a broad selection of exact duplicate shafts which require no cutting or modification.

Rotary and pull-push power switches attach to either single or concentric control styles. Concentric dual controls include carbon front end and rear sections, wirewound front and rear sections and wirewound front sections with carbon rear sections. Carbon units are equipped with printed circuit terminals for universal use. Broad selection of resistance values and tapers. Replacement data, pricing information and full instructions included.



No. 89 STOCK

SPACIOUS STOCK CABINET

The same handsome stock cabinet is provided with either No. 87 or No. 89 stocks. Permits ready conversion of Basic Stock to Expanded Stock. Sturdy two-shelf metal cabinet measures $17\frac{1}{8}$ " wide, $11\frac{1}{16}$ " deep and 9" high. Provides twelve large "see-thru" plastic drawers with new locking divider feature. Drawers measure 11" deep, 4" wide and 2" high—956 cubic inches of stock space! All needed dividers are included. Both drawer front and bottom labels provide full location and identification data.

SNAPTROL DEALER CONTROL STOCKS

Geared to the real replacement control needs of servicing technicians, these SNAPTRON stocks combine fast, snap-together assembly with unique, inventory-saving versatility. Carefully studied selections of SNAPTRON components assure broadest needed replacement coverage per dollar invested. Special attention has been given to actual component combinations needed for exact duplicate TV and Auto Set concentric dual controls.

CONTENTS OF SNAPTRON DEALER STOCKS

Description	Basic Stock No. 87	Conversion Stock No. 88	Expanded Stock No. 89
Carbon Front Sections	16	16	32
Wire Front Sections	—	7	7
Carbon Rear Sections	11	10	21
Wire Rear Section	—	1	1
Control Mountings	30	19	49
Single Control Shafts	13	23	36
Exact Duplicate Shafts	101	14	115
Power Switches (Rotary and Pull-Push)	18	—	18
Hardware Items	17	—	17
Replacement Manual	1	—	1
Instruction Package	1	—	1

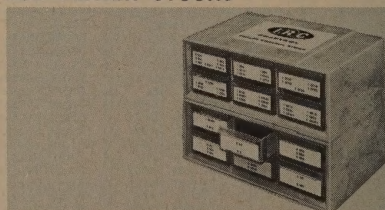
NEW! LOW-PRICED SNAPTRON DEALER STOCKS

The same careful planning and features as the larger stocks to provide the broadest coverage per dollar invested. Universal front and rear shafts in the expanded stock offer unlimited shaft matching.

Two carefully planned stocks are available. No. 95 is a basic, single control stock. No. 97 is an expanded stock with the additional coverage of concentric dual controls. Both stocks are housed in sturdy, convenient stock cabinets, with easy-to-read drawer-front labels. The basic stock may be changed to the expanded stock with conversion stock No. 96.

CONTENTS OF NEW SNAPTRON DEALER STOCKS

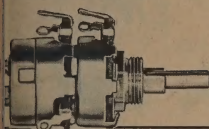
Description	Basic Stock No. 95	Conversion Stock No. 96	Expanded Stock No. 97
Carbon Front Sections	15	9	24
Carbon Rear Sections	16	7	7
Control Mountings	16	12	28
Single Control Shafts	24	—	24
Front Universal Shafts	—	5	5
Rear Universal Shafts	13	7	13
Power Switches (Rotary and Pull-Push)	13	—	13
Hardware Items	3	—	3
Replacement Manual	1	—	1
Instruction Package	1	1	1



No. 97 STOCK

These new Snaptron Dealer Stocks provide an unusually wide variety of control types. Included are countless combinations of control mountings, shafts and power switches with $\frac{1}{2}$ Watt carbon sections. Control mountings include a variety of bushings, tab mountings, and printed circuit brackets. Shafts include a variety of universal types. Rotary and push-pull power switches attach to either single or concentric control styles. All elements are equipped with printed circuit terminals for universal use. Broad selection of resistance values and tapers. Replacement data, pricing information and full instructions are included.

IRC-CTS AUTO RADIO CONTROLS


IRC, Inc.


EXACT DUPLICATE CONTROLS For 298 different makes and models. IRC-CTS's line of exact duplicate controls includes 137 individual types. Faster servicing results from these top-quality controls because of IRC-CTS's strict adherence to manufacturer's specifications.

C-CTS Part No.	Year	Radio Mfr.	Radio Model No.	Original Part No.
MERIDIAN MOTORS				
63	1959	Motorola	94MA	18B51728

UICK				
46	1946-53	Motorola	BK2A, BK3A6	18B512084
50	1954-56	Motorola		18K533457
59	1957	Motorola		18B540768
11	1950-53	Delco	980868, 980899, 980979, 980980, 981111, 981320, 981321, 981322, 981323	7263119
12	1954	Delco	981550, 981551	7264309
13	1955	Delco	981651, 981652	7265742
14	1956	Delco	981707, 981708	7265996
15	1957	Delco	981813, 981814	7268944
53	1958	Delco	981902	7271329
58	1959	Delco	988822	7271446
01	1960	Delco		7276365
04	1961	Delco	980134/5	7277155

ADILLAC				
23	1950-52	Delco	7258865, 7259240 7260405, 7259825, 7260905, 7260705	7259240
24	1953	Delco	7262645, 7263321 7262695, 7263525, 7263545, 7263835	7263321
25	1954-55	Delco	7264165, 7264195, 7265825, 7265845, 7265855	7264638
26	1956	Delco	7266505, 7266982 7266535, 7266565	7266982
27	1957	Delco	7268005, 7268443 7268035, 7268065	7269443

HEVROLET				
42	1949-50	Delco	986240, 986388	7258084
43	1950	Delco	986389	1218641
44	1951-52	Delco	986516	1219708
45	1951-52	Delco	986515	1261385
46	1951-52	Motorola	CT2A, CT2M	18B512084
47	1953-54	Delco	986669	7262941
48	1953-54	Delco	986771	7264211
49	1953-54	Delco	986668	7264210
50	1953-56	Motorola		18K533457
51	1955	Delco	987087	7265265
52	1955-56	Delco	987088, 987366	7265220
53	1955-57	Delco	987086, 987364, 3725156	7265302
54	1955-58	Delco	987187	7266193
55	1958	Delco	987368	7266842
56	1957	Delco	987577	7269211
57	1957	Delco	987575, 987693	7269199
58	1957	Delco	987573	7269186
59	1957	Motorola		18B540768
60	1957	Motorola	CTA7X, CTM7X	18K541128
62	1957	Delco		7270202
63	1958	Delco	987724	7270450
64	1958	Delco	987727	7270479
65	1959	Delco	987888	7274302
66	1959	Delco	987891	7273367
01	1960	Delco	988276	7275710
02	1961	Delco	988206	7278528
03	1961	Delco	988414	7276939
04	1962	Delco	988415	7278255
01	1963	Delco	985432	7282598
02	1963	Delco	985431	7282088
03	1964	Delco	985877	7287414
02	1964	Delco	985875	7287355

HEVROLET TRUCKS				
46	1948-53	Motorola	GMT2A, GMT2M	18B512084
51	1950-52	Delco	986067, 986443	7256188

HRYSLER				
378	1955	Philco	C-5509, Mopar 835 33-5557-15 C-5609	
335	1953	Philco	C-5109, Mopar 812 33-5557-10 C-5209, Mopar 817 C-5110, Mopar 813 C-5211 C-5111, Mopar 815 C-5212	

CHRYSLER (Cont.)				
5436	1953-54	Philco	C-5112, Mopar 816 C-5409, Mopar 824 33-5557-13 C-5410, Mopar 830 C-5411	
5437	1955	Philco	C-5596, Mopar 902 33-5557-16 C-5598, Mopar 903	
5437	1956	Philco	C-5696, Mopar 912 33-5557-16	
5438	1957	Philco	C-5705, Mopar 847 33-5580-16	
5439	1957	Philco	C-5707	33-5580-13
5559	1959	Motorola	Mopar 861	18B561364

CONTINENTAL				
5398	1955	Bendix	68C	L219660-2

CORVAIR				
6004	1960	Delco	988062	7274920
6102	1961	Delco	988460	7278058

DESOTO				
5449	1954	Motorola	Mopar 829	18A530623
5450	1955-56	Motorola	Mopar 811	18B532633
5451	1957	Motorola	919, 919HR	18B539819
5451	1958	Motorola	Mopar 923	18B539819

DODGE				
5459	1953	Motorola	Mopar 609	18B521099
5460	1954-55	Motorola	Mopar 833	18K533013
5461	1955	Motorola	Mopar 614, 621	18B532519
5462	1955-56	Motorola	Mopar 900, 901, 910	18K532955
5463	1957	Motorola	Mopar 845, 918	18K539820
5464	1958	Motorola	Mopar 502	18B561317
5554	1959	Motorola	Mopar 856	18B561732
6007	1960	Motorola		18B563115

EDEL				
5562	1959	Bendix	94BE	2090035-3

FORD				
5308	1948-50	Bendix	M1, M1A, M1A1	L222808
5309	1950	Motorola	OMF	18B591266
5310	1951	Bendix	M2	L219586-2
5311	1951	Motorola	1MF	18B501153
5312	1952-53	Bendix	M4, M4A	L219586-3
5313	1952-53	Motorola	2MF, 3MF	18K511635
5314	1954	Bendix	M4B, M4BA, M4BP	L219586-7

5315	1954	Motorola	4MF	18B530018
5316	1955	Bendix	5BF, 5BF5	L219586-1
5317	1955	Motorola	5MF, 5MF8	18B531299
5318	1956	Bendix	6BF	L219681-1
5319	1956	Motorola	66MF, 66MF5, 69MF	18B534483
5320	1957	Bendix	R75BF	2090035-1
5321	1957	Motorola	75MF	18K539059
5322	1957	Motorola	78MF	18B533739
5323	1957-58	Bendix	R74BF, R84BF	2090035-2
5324	1957-58	Motorola	74MF, 84MF	18B541819
5325	1957-58	Motorola	76MF(SR), 86MF (SR), 94MF	18B542373
5561	1959	Motorola	95MF	18B561599
5562	1959	Bendix	94BF	
6005	1960	Bendix	04BF	2090405-1
6008	1960	Motorola	14MD, 14MF, 14MFM	18C562768

6106	1961	Bendix	14BF	2090405-8
6202	1962	Motorola	21MF	18C41341A01
6303	1963-64	Motorola	3TMF, 4TMF	18C41449A03
6304	1963-64	Bendix	3TBO	2092097-4
6305	1963	Bendix	3TBD	2091619-3
6403	1964	Bendix	4TBD	2092097-6

GMC TRUCKS				
5346	1948-53	Motorola	GMT2A, GMT2M	18B512084
5348	1954-58	Delco	2233396, 2233398	7264211
5354	1955-56	Delco	2233478, 2233480	7266193
5361	1947-52	Delco	2233029, 2233297	7256188

KAISER				
5346	1951-53	Motorola	KR2A, KR2M	18B512084

LINCOLN				
5398	1955-56	Bendix		L219660-2

MERCURY				
5398	1955-56	Bendix	R6BM	L219660-2
5399	1957	Philco	M-5841, M-5741	33-5570-2
5400	1958	Bendix	R8BM, R85BM-5	N219689-4
6106	1961	Bendix	14BF	2090405-8

OLDSMOBILE				
5346	1951-52	Motorola	OE2A, OE2M	18B512084
5350	1954-56	Motorola		18K533457
5473	1949	Delco	982420	1219582
5474	1951	Delco	982700	7260294
5475	1953	Delco	983004	7263540
5476	1954-55	Delco	983090, 983204	7264242
5477	1954-56	Delco	983091, 983205, 983336	7264128
5478	1956	Delco	983341	7266687
5479	1957	Delco	983902	7268847
5480	1957	Delco	989001	7269055
5552	1958	Delco	989127, 989129	7270679

PACKARD				
5346	1951-53	Motorola	PD2A, PD2M	18B512084
5494	1956	Delco	480487, 6480487	7267632

PLYMOUTH				
5373	1952	Motorola	Mopar 606	18A501616
5374	1953	Motorola	Mopar 608 P-5206,	18B521635 33-5557-11
5375	1953	Philco	Mopar 819	18A533014
5376	1954-55	Motorola	Mopar 613	18K532909
5377	1955	Motorola	P-5506,	33-5557-15
5378	1955	Philco	Mopar 832	
5379	1956	Motorola	Mopar 841	18K536152
5380	1956	Motorola	Mopar 916	18B536704
5381	1956	Philco	P-5606, Mopar 840	33-5550-4
5382	1957	Motorola	Mopar 849	18B540376
5383	1957	Philco	P-5701, Mopar 848	33-5580-12

5384	1958	Motorola	Mopar 854	18B560415
5385	1958	Philco	P-5801	33-5580-21
5386	1955	Philco		33-5557-14
5559	1959	Motorola	Mopar 860	
6006	1960	Motorola	101, 104, 110	18B563140

PONTIAC				
5350	1955-56	Motorola		18K533457
5359	1957	Motorola		18B540768
5501	1949-50	Delco	984296, 984570	7257708
5502	1951-52	Delco	984592, 984688	7280043
5503	1953-54	Delco	984817	7262482
5504	1955-56	Delco	984861, 985858	7265495
5505	1956	Delco	988623	7268308
5506	1957	Delco	988672	7269149
5507	1957	Delco		7269638
6003	1960	Delco	989614/615	7275708
6103	1961	Delco	989692	7277542

STUDEBAKER				
5350	1953-56	Motorola	6M, 6M-12	18K533457
5359	1957	Motorola	7MX	18B540768
5517	1953	Philco	S-5327, AC-2300	33-5570
			S-5323, AC-2301	
			S-5527	
			S-5524	
			S-5528	
			S-5529	

UNIVERSAL				
5350	1954-56	Motorola	5M, 5M-12	18K533457
5522	1954	Motorola	397, 404	18B531560
5522	1955	Motorola	395, 395-12	18B531560
5522	1956	Motorola	396, 396-12	18B531560

MALLORY Carbon Controls

MIDGETROLS®

Mallory Midgetrols are used in both replacement and industrial applications. Rated 1 watt linear, $\frac{1}{2}$ watt audio taper, $\frac{1}{4}$ dia. Tapers: 1, left hand audio; 2, reverse audio; 4, linear.

BUSHING MOUNT—METAL SHAFT
 $\frac{3}{32}$ — $\frac{32}{32}$ x $\frac{3}{32}$ bushing; shaft $\frac{1}{4}$ dia. x 2" FMS (Front Mounting Surface). Furnished with two knob adapters and hex nut.
Mallory U Midgetrols—Without \$102
 taps, Net Each.....
Mallory U Midgetrols—Single or
 double taps, Net Each..... \$126

WITHOUT TAPS

Mail. No.	Resis., Ohms	Tap	Mail. No.	Resis., Ohms	Tap
U1	100	4	U35	50K	4
U2	500	4	U36	75K	4
U52R	500	2	U39	100K	1
U751R	750	2	U40	100K	2
U3	1K	2	U41	100K	4
U4	1K	4	U42	125K	4
U5	1500	2	U43	150K	4
U5L	1500	4	U43	200K	4
U6	2K	4	U44	250K	1
U7	2500	2	U45	250K	2
U8	3K	4	U46	250K	4
U9	3K	4	U47	500K	4
U12	5K	4	U50	500K	4
U14	5K	4	U51	750K	1
U18	10K	1	U52	1 meg	2
U19	10K	2	U53	1 meg	1
U20	10K	4	U54	1 meg	4
U21	15K	1	U55	2.5 megs	4
U22	15K	2	U55	2 megs	1
U24	20K	1	U56	2 megs	4
U26	20K	4	U255	2.5 megs	4
U28	25K	2	U57	3 megs	1
U28A	25K	4	U58	3 megs	4
U29	25K	4	U60	5 megs	2
U30	30K	4	U65	5 megs	1
U33	50K	1	U67	5 megs	4
U34	50K	2	U82	10 megs	4

SINGLE TAPPED

Mail. No.	Resis., Ohms	Tap	Mail. No.	Resis., Ohms	Tap
UT153	15K	10K	UT440	1	200K
UT415	30K	25K	UT443	1	450K
UT420	250K	50K	UT450	2	125K
UT421	250K	150K	UT448	2	600K
UT425	350K	70K	UT449	2	400K
UT427	500K	100K	UT451	2	900K
UT429	500K	50K	UT454	2	900K
UT430	500K	150K	UT457	3	900K
UT431	500K	225K	UT461	3	300K
UT438	1 meg	300K			

DOUBLE TAPPED

Mail. No.	Resistance, Ohms	Taps at
UDT283	500K	100K 200K
UDT289	1 meg	250K 500K
UDT291	1.5 megs	250K 500K
UDT295	2.25 megs	250K 500K
UDT296	2.5 megs	500K 1 meg
UDT303	3.3 megs	300K 1.5 megs

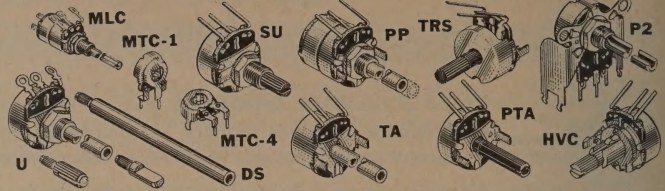
BUSHING MOUNT—NYLON SHAFT
 Same bushing as U type. Shaft $\frac{1}{4}$ dia. x $\frac{3}{32}$ FMS nylon.
Mallory SU Midgetrols—Net Each..... \$93c

Mail. No.	Resis., Ohms	Tap	Mail. No.	Resis., Ohms	Tap
SU6	1500	4	SU50	500K	4
SU8	3K	4	SU54	1 meg	4
SU14	5K	4	SU56	2 megs	4
SU20	10K	4	SU565	2.5 megs	4
SU25	25K	4	SU57	3 megs	4
SU35	50K	4	SU67	2.5 megs	4
SU41	100K	4	SU69	7.5 megs	4
SU46	250K	4			

TAB MOUNT—METAL SHAFT
 Mounts on two twist-tab lugs. Shaft $\frac{1}{4}$ dia. x $\frac{3}{32}$ FMS. Furnished with two knob adapters.
Mallory TA Midgetrols—Net Each..... \$75c

Mail. No.	Resis., Ohms	Tap	Mail. No.	Resis., Ohms	Tap
TA52L	500	4	TA334A	330K	4
TA751L	750	4	TA55R	500K	2
TA13L	1000	4	TA55A	500K	1
TA152L	1500	4	TA55L	500K	4
TA352L	3500	4	TA16A	1 meg	1
TA53L	5000	4	TA16L	1 meg	4
TA14L	10K	4	TA155L	1.5 megs	4
TA153L	15K	4	TA26A	2 megs	1
TA253L	25K	4	TA26L	2 megs	4
TA54A	50K	1	TA26B	2.5 megs*	4
TA54L	50K	4	TA16LD	2.5 megs	4
TA15L	100K	4	TA36L	3 megs	4
TA184L	180K	4	TA56R	5 megs	2
TA254L	250K	4	TA56L	5 megs	4

*Tap at 1 meg.—Net Each..... \$93c



TAB MOUNT—NYLON SHAFT

Same as TA except has $\frac{1}{4}$ dia. x 1" FMS nylon shaft. Furn. with 2" shaft extender.
Mallory PTA Midgetrols—Net Each..... \$60c

Mail. No.	Ohms	Mail. No.	Ohms
PTA52L	500	PTA754L	750K*
PTA751L	750	PTA16L	1
PTA152L	1500	PTA1254L	1.25
PTA253L	2500	PTA35L	3.5
PTA35L	3500	PTA355L	3.5
PTA53L	5000	PTA46A	4
PTA54L	50K	PTA56R	5
PTA15L	100K	PTA56L	5
PTA35L	300K	PTA755L	7.5
PTA55R	500K	PTA855L	8.5
PTA55L	500K		

*Ohms, $\frac{1}{2}$ Taper.

SWITCHES, SHAFT EXTENDERS

Switches for U, UT, UDT or TA controls.

Mail. No.	Description	Net
US26	SPST, 6 amps at 125 VAC	42c
US26T	SPST, w/ dummy terminal	51c
US27	DPST, 6 amps at 125 VAC	1.27
US28	SPDT, 3 amps at 125 VAC	51c
DS36	$\frac{1}{4}$ dia. x 2 1/2"	33c
DS37	$\frac{1}{4}$ dia. x 2 1/2"	33c

BUSHING MOUNT WITH P-P SWITCH

Standard U control with SPST 6 amps at 125 VAC push-pull switch, U/L Approved. Shaft $\frac{1}{4}$ dia. x 2" FMS. Furnished with knob adapters and hex nut.

Mail. No.	Resis., Ohms	Tap, Ohms	Tap	Net Each
PP13R	1K	.....	2	\$1.35
PP252R	2.5K	.....	2	1.35
PP253R	25K	.....	2	1.35
PP15A	100K	.....	4	1.35
PP25A	200K	.....	4	1.35
PP254A	250K	.....	1	1.35
PP254DT154	250K	100K-150K	4	1.59
PP55A	500K	.....	1	1.35
PP55L	500K	.....	4	1.35
PP55DT163	500K	78K-168K	4	1.59
PP55T25	500K	200K	4	1.59
PP55T254	500K	250K	1	1.59
PP16A	1 meg	.....	1	1.35
PP16L	1 meg	.....	4	1.35
PP16T15	1 meg	100K	1	1.59
PP16T25	1 meg	200K	1	1.59
PP16DT55	1 meg	250K-500K	4	1.59
PP16T55	1 meg	500K	2	1.59
PP155L	1.5 megs	.....	4	1.35
PP26A	2 megs	.....	1	1.35
PP26DT16	2 megs	500K-1 meg	1	1.59
PP26T16	2 megs	1 meg	4	1.59
PP36DT26	3 megs	1 & 2 megs	4	1.59
PP36L	3 megs	.....	4	1.35
PP46T26	4 megs	2 megs	4	1.59
PP56L	5 megs	.....	4	1.35

PRINTED CIRCUIT MOUNTING

Universal printed circuit control with "doghouse" and $\frac{3}{32}$ — $\frac{32}{32}$ x $\frac{3}{32}$ bushing and $\frac{1}{4}$ dia. x 3" FMS universal shaft. Switches rated 6 amps at 125 VAC, U/L Approved.
Mallory P2 Midgetrols—Without \$1.11
 taps, Net Each.....
Mallory P2 Midgetrols—Single or double
 tapped, Net Each..... \$1.35
Mallory P2 Midgetrols—SPST switch, Net..... \$1.53
Mallory P2 Midgetrols—DPST switch, Net..... \$1.62

Mail. No.	Resis., Ohms	Tap #1	Tap #2	Tap	Switch
P2-252AS	2.5K	.....	1	1	SPST
P2-53LS	5K	.....	1	4	SPST
P2-14AD	10K	.....	1	1	DPST
P2-13AD	15K	.....	1	1	DPST
P2-55A	500K	.....	1	.....	.....
P2-55AS	500K	.....	1	1	SPST
P2-55T254	500K	250K	.....	4	SPST
P2-55LS	500K	.....	4	.....	.....
P2-16A	1 meg	.....	1	1	.....
P2-16AS	1 meg	.....	1	1	SPST
P2-16AD	1 meg	.....	1	1	DPST
P2-16T35	1 meg	300K	.....	1	.....
P2-16LD	1 meg	.....	4	.....	.....
P2-26A	2 megs	.....	1	1	.....
P2-26AS	2 megs	.....	1	1	SPST
P2-26DT65	2 megs	300K	600K	1	.....
P2-36L	3 megs	.....	1	4	.....

TAB MOUNT—REVERSE NYLON SHAFT

Same as PTA except $\frac{1}{4}$ dia. nylon shaft projects $\frac{3}{4}$ " out REAR of control. Screwdriver slot in mounting end of shaft.
Mallory TRS Midgetrols—Net Each..... \$54c

Mail. No.	Ohms	T/p	Mail. No.	Ohms	T/p
TRS12L	100	4	TRS15L	100K	4
TRS351L	350	4	TRS25L	200K	4
TRS751L	750	4	TRS51L	250K	4
TRS53L	5K	4	TRS55L	500K	4
TRS153L	15K	4	TRS754L	750K	4
TRS15L	15K	4	TRS16L	1 meg	4
DT14	15K*	4	TRS26A	2 megs	1
TRS253L	25K	4	TRS26L	2 megs	4
TRS44L	40K	4	TRS36L	3 megs	4
TRS74L	70K	4	TRS46A	4 megs	1
TRS15A	100K	1	TRS56L	4 megs	4

*Taps at 5K and 10K ohms.

HIGH VOLTAGE MIDGETROL®

To isolate control mounting from up to 4000 volts rms. Snap mount of nylon and $\frac{1}{4}$ dia. x $\frac{3}{32}$ FMS nylon shaft.
Mallory HVC Midgetrols—Net Each..... \$102

Mail. No.	Resistance	Taper
HVC63L	6000 ohms	4
HVC155L	1.5 megs	4
HVC355L	3.5 megs	4

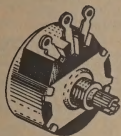
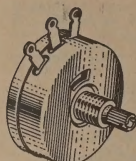
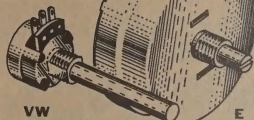
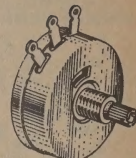
SUBMINIATURE MINITROLS®

Only $\frac{1}{4}$ dia. Rated $\frac{1}{4}$ watt linear, $\frac{1}{4}$ watt audio; $\frac{3}{32}$ — $\frac{32}{32}$ x $\frac{3}{32}$ bushing with nut. Shaft: $\frac{1}{4}$ dia. x 1" FMS, MLC (steel); MLCN (nylon). SPST switch rated 2 amps at 125 VAC, U/L Approved. MTC has open screwdriver slot. Type MLC Bush. Mt.

Mail. No.	Ohms	Taper	Switch	Net
MLC13L	1000	4	.....	\$1.14
MLC222LS	2200	4	SPST	1.86
MLC232A	2500	1	.....	1.14
MLC252AS	2500	1	SPST	1.86
MLC53A	5000	1	.....	1.14
MLC53AS	5000	1	SPST	1.86
MLC35L	5000	4	.....	1.14
MLC35LS	5000	4	SPST	1.86
MLC14AS	10K	1	.....	1.14
MLC14L	10K	4	.....	1.14
MLC54L	50K	4	.....	1.14
MLC15A	100K	1	.....	1.14
MLC15L	100K	4	.....	1.14
MLC20L	200K	4	.....	1.14
MLC254L	250K	4	.....	1.14
MLC55A	500K	1	.....	1.14
MLC55AS	500K	1	SPST	1.86
MLC55LS	500K	4	SPST	1.86
MLC55L	500K	4	.....	1.14
MLC16AS	1 meg	1	SPS	1.86
MLC16LS	1 meg	4	SPST	1.86
MLC16A	1 meg	1	.....	1.14
MLC16L	1 meg	4	.....	1.14

Type MTC PC Mt. Linear taper, Net. \$39c

Mail. No.		Resis., Ohms
Vert. Mtg.	Horiz. Mtg.	
MTC121L	MTC121L	100
MTC221L	MTC221L	200
MTC251L	MTC251L	250
MTC321L	MTC321L	300
MTC521L	MTC521L	500
MTC751L	MTC751L	750
MTC131L	MTC131L	1000
MTC1521L	MTC1521L	1500
MTC231L	MTC231L	2000
MTC331L	MTC331L	3000
MTC531L	MTC531L	5000
MTC681L	MTC681L	6800
MTC141L	MTC141L	10K
MTC1531L	MTC1531L	15K
MTC241L	MTC241L	20K
MTC2531L	MTC2531L	25K
MTC541L	MTC541L	50K
MTC151L	MTC151L	100K
MTC1241L	MTC1241L	120K
MTC1841L	MTC1841L	180K
MTC2541L	MTC2541L	250K
MTC3253L	MTC3253L	325K
MTC4541L	MTC4541L	450K
MTC551L	MTC551L	500K
MTC161L	MTC161L	1 meg
MTC261L	MTC261L	2 megs
MTC3551L	MTC3551L	3.5 megs

MALLORY**Wire-Wound Controls****C****R****M****VW****MG****2 WATT TYPE C**

Rated 2 watts at 40° C. 1 1/4" diameter. Mech. Rotation: 280°. Elec. Rotation: 255°. Resis. Tolerance: ±10%. Contact arm grounded. Bushing: 3/8-32 x 3/4". Shaft: 3/4" dia. x 3/4" FMS with screwdriver slot. Furn. with nut.

POTENTIOMETERS

Mallory No.	Ohms Resis.	Carrying Capacity In Amps	Net Each
C6P	6	.58	\$1.08
C10P	10	.45	1.08
C15P	15	.37	1.08
C20P	20	.32	1.08
C30P	30	.26	1.08
C40P	40	.22	1.08
C50P	50	.2	1.08
C100P	100	.14	1.08
C200P	200	.1	1.08
C400P	400	.07	1.08
C1MP	1K	.045	1.20
C3MP	3K	.025	1.20
C5MP	5K	.02	1.47
C6MP	6K	.018	1.47
C10MP	10K	.014	1.47
C15MP	15K	.011	1.47

RHEOSTATS*

Mallory No.	Ohms Resis.	Carrying Capacity In Amps	Net Each
C6R	6	.58	93c
C10R	10	.45	93c
C15R	15	.37	93c
C20R	20	.32	93c
C30R	30	.26	93c
C40R	40	.22	93c
C50R	50	.2	93c
C100R	100	.14	93c

*"Open" or "off" position counter-clockwise.

3 WATT TYPE R

Standard TV wire-wound control rated 3 watts at 40° C. 1 1/4" diameter. Mech. Rotation: 297°. Elec. Rotation: 290°. Voltage Breakdown: 900 VAC rms. Bushing: 3/8-32 x 3/4". Shaft: 3/4" dia. x 1/2" FMS, knurled with screwdriver slot. Furn. with nut. See listing below for switches for R controls.

Mallory No.	Ohms Resis.	Net Each	Mallory No.	Ohms Resis.	Net Each
R2L	2	\$0.33	R50CT†	50	\$1.32
R3L	3	.33	R100L	100	.33
R5L	5	.33	R250L	250	.33
R6L	6	.33	R500L	500	.33
R8L	8	.33	R750L	750	.33
R10L	10	.33	R1000L	1000	.33
R10CT†	10	1.32	R1500L	1500	.33
R15L	15	.33	R2500L	2500	.33
R20L	20	.33	R3000L	3000	.33
R20CT†	20	1.32	R5000L	5000	.33
R25L	25	.33	R7500L	7500	1.08
R30L	30	.33	R10ML	10000	1.08
R30CT†	30	1.32	R15ML	15000	1.08
R50L	50	.33	R20ML	20000	1.08

†Center-tapped Controls.

4 WATT TYPE M

Rated 4 watts at 40° C. 1 3/4" diameter. Mech. Rotation: 294°. Elec. Rotation: 275°. Resis. Tolerance: ±10%. Voltage Breakdown: 900 VAC rms. Bushing: 3/8-32 x 3/4" FMS. Shaft: 3/4" dia. x 3/4" FMS, knurled with screwdriver slot. Furn. with nut.

POTENTIOMETERS

Mallory Number	Ohms Resis.	Capacity In Amps	Net Each
M1PK	1	2.00	\$1.35
M3PK	3	1.15	1.35
M6PK	6	.82	1.35
M10PK	10	.63	1.35
M15PK	15	.52	1.35
M20PK	20	.45	1.35
M25PK	25	.40	1.35
M30PK	30	.37	1.35
M40PK	40	.32	1.35
M50PK	50	.28	1.35
M60PK	60	.26	1.35
M75PK	75	.23	1.35
M100PK	100	.20	1.35
M200PK	200	.14	1.35
M300PK	300	.116	1.35
M400PK	400	.10	1.35
M500PK	500	.09	1.35
M600PK	600	.082	1.35
M1MPK	1K	.063	1.35
M1.5MPK	1.5K	.052	1.35
M2MPK	2K	.045	1.35
M2.5MPK	2.5K	.04	1.35
M3MPK	3K	.037	1.35
M4MPK	4K	.032	1.35
M5MPK	5K	.028	1.35
M10MPK	10K	.02	1.35
M15MPK	15K	.016	1.47
M20MPK	20K	.014	1.47
M25MPK	25K	.013	1.47
M50MPK	50K	.009	1.74
M70MPK	70K	.0075	1.74
M75MPK	75K	.0073	2.46
M100MPK	100K	.0063	2.46

CENTER-TAPPED POTENTIOMETERS

Mallory Number	Ohms Resis.	Capacity In Amps	Net Each
MT10PK	10	.63	\$1.32
MT20PK	20	.45	1.32
MT30PK	30	.37	1.32

RHEOSTATS*

Mallory Number	Ohms Resis.	Capacity In Amps	Net Each
M05RK	0.5	2.80	93c
M1RK	1	2.00	93c
M2RK	2	1.40	93c
M3RK	3	1.15	93c
M4RK	4	1.00	93c
M10RK	10	.82	93c
M15RK	15	.63	93c
M20RK	20	.52	93c
M25RK	25	.40	93c
M30RK	30	.37	93c
M40RK	40	.32	93c
M50RK	50	.28	93c
M60RK	60	.26	93c
M75RK	75	.23	93c
M100RK	100	.20	93c

*"Open" or "Off" position counter-clockwise.

5 WATT TYPE VW SUBMINIATURE

Rated 5 watts at 35° C. 3/4" diameter. Mech. Rotation: 305°. Elec. Rotation: 275°. Resis. Tolerance: ±10%. Voltage Breakdown: 900 VAC rms. Bushing: 3/8-32 x 3/4". Shaft: 3/4" dia. x 2" FMS. Furn. with nut and lug.

Mallory No.	Ohms Resis.	Net Each	Mallory No.	Ohms Resis.	Net Each
VW1	1	\$1.38	VW300	300	\$1.38
VW2	2	1.38	VW400	400	1.38
VW3	3	1.38	VW500	500	1.38
VW5	5	1.38	VW600	600	1.38
VW6	6	1.38	VW750	750	1.38
VW8	8	1.38	VW1K	1000	1.38
VW10	10	1.38	VW1PSK	1500	1.44
VW15	15	1.38	VW2K	2000	1.44
VW20	20	1.38	VW2PSK	2500	1.44
VW25	25	1.38	VW3K	3000	1.44
VW30	30	1.38	VW4K	4000	1.44
VW40	40	1.38	VW5K	5000	1.44
VW50	50	1.38	VW7PSK	7500	1.50
VW60	60	1.38	VW10K	10000	1.50
VW75	75	1.38	VW15K	15000	1.56
VW100	100	1.38	VW20K	20000	1.56
VW200	200	1.38	VW25K	25000	1.65
VW250	250	1.38			

7 WATT TYPE E

Rated 7 watts at 40° C. 2 1/4" diameter. Mech. Rotation: 307°. Elec. Rotation: 295°. Resis. Tolerance: ±10%. Contact arm grounded. Bushing: 3/8-32 x 3/4". Shaft: 3/4" dia. x 3/4" FMS with screwdriver slot. Furnished with nut.

Mallory Number	Ohms Resis.	Capacity In Amps	Net Each
E5MP	5K	.042	\$2.76
E10MP	10K	.03	2.94
E20MP	20K	.021	3.00
E25MP	25K	.019	3.09
E50MP	50K	.0135	3.15
E75MP	75K	.011	3.24
E100MP	100K	.0095	3.30
E125MP	125K	.0085	3.30
E150MP	150K	.0078	3.36

12 1/2 WATT TYPE MG

Rated 12 1/2 watts at 35° C. 1 3/4" diameter. Mech. Rotation: 294°. Elec. Rotation: 275°. Resis. Tolerance: ±10%. Voltage Breakdown: 900 VAC rms. Bushing: 3/8-32 x 3/4" FMS. Shaft: 3/4" dia. x 3/4" FMS, knurled with screwdriver slot. Furn. with nut.

Mallory No.	Ohms Resis.	Net Each	Mallory No.	Ohms Resis.	Net Each
MG1	1	\$2.18	MG600	600	\$2.18
MG3	3	2.18	MG1000	1000	2.22
MG6	6	2.18	MG1500	1500	2.22
MG10	10	2.18	MG2000	2000	2.22
MG15	15	2.18	MG2500	2500	2.22
MG20	20	2.18	MG3000	3000	2.22
MG25	25	2.18	MG4000	4000	2.22
MG30	30	2.18	MG5000	5000	2.22
MG50	50	2.18	MG10K	10K	2.32
MG100	100	2.18	MG15K	15K	2.32
MG200	200	2.18	MG20K	20K	2.32
MG300	300	2.18	MG25K	25K	2.32
MG400	400	2.18	MG50K	50K	2.50
MG500	500	2.18	MG100K	100K	2.72

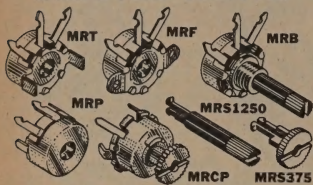
STANDARD TAPER FOR MALLORY WIRE-WOUND CONTROLS IS NORMAL LINEAR TAPER.

OTHER TAPERS MAY BE SPECIFIED ON SPECIAL ORDER.

AUDIO ATTENUATORS AND SENSITIVITY CONTROLS ARE LISTED ON ANOTHER PAGE.

Mallory Wire-Wound Controls

3-WATT TYPE MR WIRE-WOUND CONTROLS



Only $\frac{3}{4}$ " diameter, MR controls are used for applications in AGC, convergence, hum-balance, etc. Case is fully enclosed; MR, all metal; MRC, metal mounting plate with molded nylon body and knob. Types MR and MRC directly replace older FL and PFL types as shown in cross-reference. Five mounting configurations available. Conversion from cross-slot adjustment to shaft may be made using plug-in shafts listed. **Wattage Rating at 40° C:** MR, 3 watts; MRC, $1\frac{1}{2}$ watts. **Rotation:** 250° mechanical; 248° electrical. **Resistance Tolerance:** MR, $\pm 20\%$; MRC, $\pm 10\%$. **Voltage Breakdowns:** MR, 900 VAC rms; MRC has grounded contact arm.

MR-B 3-WATT BUSHING MOUNT

Bushing $\frac{3}{8}$ "-32 x $\frac{1}{4}$ " Shaft $\frac{1}{4}$ " dia. x $1\frac{1}{2}$ " lg., FMS knurled and slotted nylon. With nut.

Mallory No.	Res. Ω	Net Each	Mallory No.	Res. Ω	Net Each
MR10B	10	\$0.93	MR1000B	1000	\$0.93
MR50B	50	.93	MR5000B	5000	.93
MR100B	100	.93	MR5000B	5000	.93
MR250B	250	.93	MR100KB	10K	1.08
MR500B	500	.93	MR15KB	15K	1.08

MR-T 3-WATT TAB MOUNT

Furnished with twist-tabs for mounting on PC board or chassis. Cross-slot adjustment.

MR10T	10	\$0.66	MR2500T	2500	\$0.70
MR50T	50	.66	MR3000T	3000	.70
MR100T	100	.66	MR4000T	4000	.70
MR250T	250	.66	MR5000T	5000	.76
MR500T	500	.66	MR8000T	8000	.76
MR850T	850	.66	MR100KT	10K	.83
MR1000T	1000	.66	MR15KT	15K	.83

MR-F 3-WATT FLANGE MOUNT

Mounting ears with .130" dia. holes on 1" center. Cross-slot adjustment, front and rear.

MR6F	6	\$0.66	MR600F	600	\$0.66
MR15F	15	.66	MR750F	750	.66
MR40F	40	.66	MR1000F	1000	.66
MR75F	75	.66	MR1500F	1500	.66
MR100F	100	.66	MR2000F	2000	.66
MR150F	150	.66	MR2500F	2500	.66
MR200F	200	.66	MR3000F	3000	.66
MR250F	250	.66	MR4000F	4000	.66
MR500F	500	.66	MR5000F	5000	.66

MR-P 3-WATT PC MOUNT

Printed circuit board mounting with cross-slot adjustment, front and rear.

MR15P	15	\$0.66	MR1000P	1000	\$0.66
MR15P	15	.66	MR5000P	5000	.66
MR100P	100	.66	MR3000P	3000	.66
MR175SP	175	.66	MR4000P	4000	.66
MR260SP	260	.66	MR5000P	5000	.66
MR600P	600	.66			

*Stop at 60 ohms. †Stop at 100 ohms.

MRC-P 1 1/2-WATT PC MOUNT

Convergence controls with printed circuit board mounting and permanent knob.

MRCP1P	15	\$0.66	MRC100P	120	\$0.66
MRC30P	30	.66	MRC120P	120	.66
MRC60P	60	.66	MRC150P	150	.66

SHAFTS FOR MR CONTROLS

Mallory No. MRS1250— $\frac{1}{4}$ " dia. x $1\frac{1}{2}$ " FMS knurled and slotted nylon. Plugs into either end of MR control. Net Ea. . . .12c

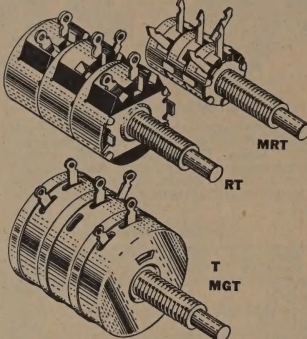
Mallory No. MRS375— $\frac{1}{4}$ " dia. knurled nylon knob/shaft with slot. Projects $\frac{3}{4}$ " FMS. For MR-F, P or T controls. Net Each.12c

TANDEM COUPLER FOR MR CONTROLS

Mallory No. MRS100—Couples MRP type to MRB, MRT, MRF or MRP to make tandem control. Net Each.3c

AUDIO ATTENUATORS

Mallory audio attenuators are available in three wattage ratings: 10 watts MR, R and RR; 15 watts, T, L, LL and BAL; and 50 watts, MGL and MGT. All are made to critical audio standards; come complete with mounting hardware. Three case diameters: $\frac{3}{4}$ ", MR, $1\frac{1}{4}$ ", R, and $1\frac{1}{2}$ " for T, L, LL, BAL, MGL and MGT.



T PAD ATTENUATORS

Present constant impedance to both source (amplifier) and output (speaker).

T PAD STOCK VALUES

Imped., Ohms	10 W	10 W	15 W	50 W
2				
4				
8				
15				
16				
50				
100				
200				
250				
500				
600				
1000				
2000				
3000				

T PAD NET PRICES

*With nuts, washers, knob and dial.

Type	Bushing	Shaft (FMS)	Net Each
MRT	$\frac{3}{8}$ "-32 x $1\frac{1}{2}$ "	$\frac{1}{4}$ " x $1\frac{1}{2}$ "	\$3.33
RT	$\frac{3}{8}$ "-32 x $1\frac{1}{2}$ "	$\frac{1}{4}$ " x $1\frac{1}{2}$ "	3.33
MGT	$\frac{3}{8}$ "-32 x $1\frac{1}{2}$ "	$\frac{1}{4}$ " x $1\frac{1}{2}$ "	6.48

STEREO LEVEL CONTROL

Level control for low-priced 4- and 8-ohm stereo speakers. Rated 10 watts, audio.

Supplied with nuts, washers, dial and knob. Bushing $\frac{3}{8}$ "-32 x $1\frac{1}{2}$ " Shaft $\frac{1}{4}$ " dia. x $1\frac{1}{2}$ " lg.

Mallory No. RR50—Net Each. . . . \$2.10

L PAD ATTENUATORS

Present constant impedance to source (amplifier), used in audio circuits where output (speaker) impedance is not critical.

L PAD STOCK VALUES

Imped., Ohms	Mallory No. for 10 W	Mallory No. for 15 W	Mallory No. for 50 W
2			
4			
8			
15			
16			
50			
100			
200			
250			
500			
600			
1000			
2000			
3000			
4000			

L PAD NET PRICES

With nut, washer, knob and dial.

Type	Bushing	Shaft (FMS)	Net Each
MRL	$\frac{3}{8}$ "-32 x $1\frac{1}{2}$ "	$\frac{1}{4}$ " x $1\frac{1}{2}$ "	\$2.52
RL	$\frac{3}{8}$ "-32 x $1\frac{1}{2}$ "	$\frac{1}{4}$ " x $1\frac{1}{2}$ "	2.52
L	$\frac{3}{8}$ "-32 x $1\frac{1}{2}$ "	$\frac{1}{4}$ " x $1\frac{1}{2}$ "	2.73
L-A	$\frac{3}{8}$ "-32 x $1\frac{1}{2}$ "	$\frac{1}{4}$ " x $1\frac{1}{2}$ "	2.85
MGL	$\frac{3}{8}$ "-32 x $1\frac{1}{2}$ "	$\frac{1}{4}$ " x $1\frac{1}{2}$ "	4.26

LL PAD ATTENUATORS

Two L pads in tandem for stereo level control. Bushing $\frac{3}{8}$ "-32 x $1\frac{1}{2}$ " Shaft $\frac{1}{4}$ " dia. x $1\frac{1}{2}$ " lg. With nuts, washers and deluxe "Level" dial supplied.

Mallory No.	Imped., Ohms	Audio Watts	Net Each
MRL4	4	10	\$5.40
MRL8	8	10	5.40
MRL16	16	10	5.40
MRL50	50	10	5.40
LL8	8	15	5.70
LL16	16	15	5.70
LL50	50	15	5.70

STEREO BALANCE ATTENUATOR

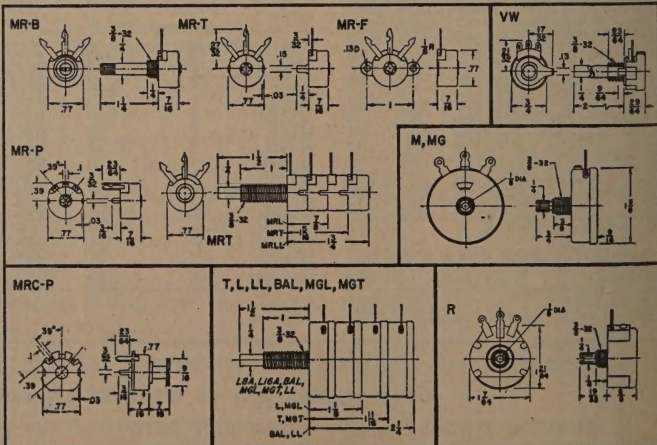
Back-to-back tandem L pads for true stereo balancing. Rated 15 watts, audio. Comes with nuts, washers, knob and "Balance" dial. Bushing $\frac{3}{8}$ "-32 x $1\frac{1}{2}$ " Shaft $\frac{1}{4}$ " dia. x $1\frac{1}{2}$ " lg.

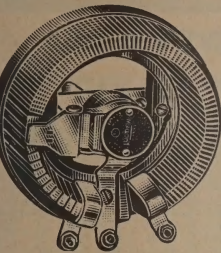
Mallory No. BAL8 (8 ohms) or BAL16 (16 ohms)—Net Each. \$5.70

THEATRE SPEAKER CONTROLS

Engineered for outdoor movie speakers. Rated 8 watts, audio. Bushing $\frac{3}{8}$ "-32 x $\frac{3}{4}$ " Shaft $\frac{1}{4}$ " dia. x $\frac{3}{4}$ " lg. With nut.

Mallory No.	Description	Net Each
TS6	6-ohm pot	\$1.14
TS10	4-ohm L pad	1.35
TS35	35-ohm pot	1.35



MALLY**Power Rheostats****TYPE 25K 25 WATTS**1 $\frac{1}{2}$ " O.D. 295° angle of rotation.

Mally No.	Ohms	Max. Amps	Steps	Net Each
25K1P	1	5.000	28	\$4.40
25K2P	2	3.540	28	3.90
25K3P	3	2.850	28	3.90
25K6P	6	2.040	51	3.90
25K8P	8	1.770	56	3.90
25K10P	10	1.580	54	3.90
25K15P	15	1.290	88	3.90
25K25P	25	1.000	117	3.90
25K35P	35	.845	129	3.90
25K50P	50	.707	149	3.90
25K75P	75	.575	174	3.90
25K100P	100	.500	184	3.90
25K125P	125	.447	187	3.90
25K175P	175	.378	176	3.90
25K250P	250	.316	200	3.90
25K350P	350	.267	227	3.90
25K500P	500	.222	256	3.90
25K750P	750	.182	303	3.90
25K1000P	1000	.155	318	4.40
25K1500P	1500	.129	310	4.40
25K2500P	2500	.100	405	4.40
25K3500P	3500	.084	432	4.66
25K5000P	5000	.070	471	4.66

TYPE 50K 50 WATTS2 $\frac{1}{2}$ " O.D. 300° angle of rotation.

Mally No.	Ohms	Max. Amps	Steps	Net Each
50K5P	5	10.00	25	\$4.89
50K1P	1	7.07	37	4.89
50K2P	2	5.00	42	4.89
50K4P	4	3.54	66	4.40
50K6P	6	2.89	79	4.40
50K8P	8	2.50	84	4.40
50K12P	12	2.04	100	4.40
50K16P	16	1.76	106	4.49
50K22P	22	1.50	145	4.40
50K35P	35	1.19	145	4.40
50K50P	50	1.00	163	4.40
50K80P	80	.79	210	4.40
50K125P	125	.63	204	4.40
50K150P	150	.58	244	4.40
50K225P	225	.47	298	4.40
50K300P	300	.41	268	4.40
50K500P	500	.32	205	4.40
50K800P	800	.25	363	4.66
50K1000P	1000	.22	354	4.66
50K1500P	1500	.176	449	4.66
50K2500P	2500	.14	455	4.66
50K3500P	3500	.11	500	4.89
50K5000P	5000	.10	550	4.89
50K8000P	8000	.08	690	4.89
50K10000P	10000	.07	870	4.89

TYPE 75K 75 WATTS2 $\frac{1}{2}$ " O.D. 300° angle of rotation.

Mally No.	Ohms	Max. Amps	Steps	Net Each
75K5P	5	12.20	26	\$6.61
75K1P	1	8.66	35	6.61
75K2P	2	6.12	42	6.61
75K4P	4	4.34	64	6.61
75K6P	6	3.54	77	6.09
75K8P	8	3.06	81	6.09
75K12P	12	2.50	92	6.09
75K25P	25	1.73	126	6.09
75K50P	50	1.22	159	6.09
75K75P	75	1.00	188	6.09
75K100P	100	.87	200	6.09
75K200P	200	.61	249	6.09
75K250P	250	.55	252	6.09
75K350P	350	.46	277	6.09
75K500P	500	.39	312	6.09
75K750P	750	.32	330	6.61
75K1000P	1000	.27	365	6.61
75K1500P	1500	.22	407	6.61
75K2500P	2500	.17	428	6.61
75K5000P	5000	.12	550	7.08
75K8000P	8000	.10	670	7.60
75K10000P	10000	.09	660	7.60

TYPE 100K 100 WATTS3 $\frac{1}{2}$ " O.D. 300° angle of rotation.

Mally No.	Ohms	Max. Amps	Steps	Net Each
100K5P	5	14.20	30	\$7.32
100K1P	1	10.00	40	7.32
100K2P	2	7.07	42	7.32
100K3P	3	5.77	56	7.32
100K5P	5	4.47	59	7.32
100K7.5P	7.5	3.85	96	6.86
100K10P	10	3.16	101	6.86
100K16P	16	2.50	128	6.86
100K25P	25	2.00	160	6.86
100K50P	50	1.41	200	6.86
100K75P	75	1.15	240	6.86
100K100P	100	1.00	250	6.86
100K200P	200	.71	315	6.86
100K300P	300	.58	302	6.86
100K450P	450	.50	316	6.86
100K500P	500	.48	342	6.86
100K750P	750	.37	406	6.86
100K1000P	1000	.32	435	7.32
100K1500P	1500	.26	520	7.32
100K2000P	2000	.22	544	7.32
100K2500P	2500	.20	520	7.32
100K5000P	5000	.14	692	7.82
100K7500P	7500	.12	820	8.30
100K10000P	10000	.10	840	8.80

TYPE 150K 150 WATTS4 $\frac{1}{2}$ " O.D. 305° angle of rotation.

Mally No.	Ohms	Max. Amps	Steps	Net Each
150K5P	5	17.30	31	\$9.28
150K1P	1	12.30	39	9.28
150K2P	2	8.66	51	9.28
150K3P	3	7.07	73	9.28
150K5P	5	5.48	77	9.28
150K7.5P	7.5	4.47	70	9.28
150K10P	10	3.87	145	8.80
150K15P	15	3.16	138	8.80
150K25P	25	2.45	142	8.80
150K35P	35	2.07	198	8.80
150K50P	50	1.73	182	8.80
150K75P	75	1.41	218	8.80
150K100P	100	1.22	229	8.80
150K150P	150	1.00	276	8.80
150K200P	200	.87	289	8.80
150K250P	250	.77	360	8.80
150K350P	350	.66	350	8.80
150K500P	500	.55	400	8.80
150K750P	750	.45	460	9.28
150K1250P	1250	.35	490	9.28
150K1800P	1800	.290	555	9.80
150K2250P	2250	.26	547	9.80
150K3000P	3000	.22	729	10.27
150K4500P	4500	.18	659	10.76
150K7500P	7500	.14	930	11.73
150K10000P	10000	.12	980	11.73

TYPE 225K 225 WATTS

5" O.D. 310° angle of rotation.

Mally No.	Ohms	Max. Amps	Steps	Net Each
225K1P	1	15.00	52	\$13.40
225K2P	2	10.60	69	13.40
225K3P	3	8.66	73	13.40
225K4P	4	7.50	91	13.40
225K5P	5	6.41	91	13.40
225K7.5P	7.5	5.48	96	13.40
225K10P	10	4.74	101	13.40
225K15P	15	3.87	147	13.40
225K25P	25	3.00	192	13.40
225K50P	50	2.12	242	13.40
225K75P	75	1.73	290	13.40
225K100P	100	1.50	304	13.40
225K150P	150	1.22	364	13.40
225K200P	200	1.06	398	13.40
225K350P	350	.80	421	13.40
225K500P	500	.67	475	13.40
225K750P	750	.55	577	13.40
225K1000P	1000	.47	605	13.40
225K1500P	1500	.39	715	13.40
225K2500P	2500	.30	660	13.40

TYPE 300K 300 WATTS6 $\frac{1}{4}$ " O.D. 315° angle of rotation.

Mally No.	Ohms	Max. Amps	Steps	Net Each
300K1P	1	17.30	48	\$14.53
300K2P	2	12.25	60	14.53
300K3P	3	10.00	64	14.53
300K4P	4	8.66	80	14.53
300K5P	5	7.75	80	14.53
300K7.5P	7.5	6.32	100	14.53
300K10P	10	5.48	139	14.53
300K15P	15	4.47	128	14.53
300K25P	25	3.46	182	14.53
300K50P	50	2.45	228	14.53
300K75P	75	2.00	271	14.53
300K100P	100	1.73	287	14.53
300K150P	150	1.41	338	14.53
300K200P	200	1.22	361	14.53
300K300P	300	1.00	427	14.53
300K400P	400	.87	460	14.53
300K700P	700	.66	555	14.53
300K900P	900	.58	564	14.53
300K1200P	1200	.50	605	14.53
300K1500P	1500	.45	755	14.53
300K1750P	1750	.41	691	14.53
300K2500P	2500	.35	785	14.53

TYPE 500K 500 WATTS

8" O.D. 325° angle of rotation.

Mally No.	Ohms	Max. Amps	Steps	Net Each
500K1P	1	22.40	73	\$20.99
500K2P	2	15.80	68	20.99
500K3P	3	12.90	91	20.99
500K4P	4	11.20	96	20.99
500K5P	5	10.00	127	20.99
500K7.5P	7.5	8.16	134	20.99
500K10P	10	7.07	169	20.99
500K15P	15	5.79	180	20.99
500K25P	25	4.47	203	20.99
500K50P	50	3.16	285	20.99
500K75P	75	2.58	342	20.99
500K100P	100	2.24	362	20.99
500K150P	150	1.82	430	20.99
500K200P	200	1.58	452	20.99
500K250P	250	1.41	563	20.99
500K350P	350	1.20	630	20.99
500K500P	500	1.00	708	20.99
500K750P	750	.82	670	20.99
500K1000P	1000	.71	705	20.99
500K1500P	1500	.58	862	20.99
500K2500P	2500	.45	975	20.99

TYPE "K" RHEOSTAT ACCESSORIES

(Not Illustrated)

Mally No.	Description	Dia.	Net Each
365-1	Bar knob	2 $\frac{1}{2}$ "	\$0.21
365-1	Bar knob	1 $\frac{1}{2}$ "	.15
367-1	Knurled rd. knob	1 $\frac{1}{2}$ "	.20
368-1	Knurled rd. knob	1 $\frac{1}{2}$ "	.21
364	368 w/pointer	1 $\frac{1}{2}$ "	.09
363	Handwheel**	3 $\frac{1}{2}$ "	2.49
363-1†	Handwheel**	3 $\frac{1}{2}$ "	2.49
362	Handwheel**	3 $\frac{1}{2}$ "	2.49
362-1	Handwheel**	3 $\frac{1}{2}$ "	2.49
361	Finger grip**	1 $\frac{1}{2}$ "	.70
361-1	Finger grip**	1 $\frac{1}{2}$ "	.70
360	Finger grip**	1 $\frac{1}{2}$ "	.55
360-1	Finger grip**	1 $\frac{1}{2}$ "	.55
359†	Finger grip**	2 $\frac{1}{2}$ "	.64
359-1†	Finger grip**	2 $\frac{1}{2}$ "	.50
369	Dial plate, 0-100	.....	.21
370	Dial plate, 0-100	.....	.21
391	Dial plate, vol.	.....	.21

*With pointer. **Without pointer. †3 $\frac{1}{2}$ " hole dia., others, $\frac{1}{4}$ ".

OHMITE

resistors • rheostats • tap switches • relays
variable transformers • tantalum capacitors
semiconductor devices • r.f. chokes

VITREOUS ENAMELED RHEOSTATS

Twelve sizes in wirewound, vitreous enameled rheostats are stocked by Ohmite distributors all over the country and at the Ohmite factory. This selection, the most extensive available to industry, covers ratings that meet the major portion of design, production and emergency needs. Ratings of $7\frac{1}{2}$, $12\frac{1}{2}$, 25, 50, 75, 100, 150, 225, 300, 500, 750 and 1000 watts are standard.

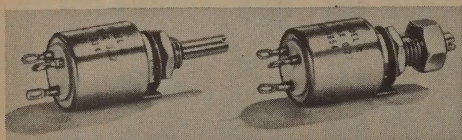
FEATURES OF CONSTRUCTION: Ohmite rheostats are designed to produce permanently smooth, close control. The construction is all ceramic and metal; there is nothing to smoke, char, shrink, or shift. All models have insulated shafts with provision to keep the rheostat from turning on the panel. The resistance wire is wound over a solid ceramic core. Each turn is a separate resistance step and is locked against shifting by vitreous enamel. The core and base are also bonded by vitreous enamel. The pivoted universal-action-mounted contact brush is of copper-graphite or silver-graphite on the heavier current rheostats. It rides upon a large flat surface and assures perfect contact without wear on the wire. Pressure at the contact and at the center lead are independent. Ohmite Rheostat Models H, J, G, K, L, P, and N, all marked Series A, are listed under the Underwriters' Laboratories Reexamination Service.

RATING: The current carrying capacities shown in the tables are for use in *free air*; when units are enclosed, these currents should be reduced possibly as much as 30% to 50%, depending upon the degree of ventilation. The rated current will cause the rheostat to dissipate its rated wattage when the full resistance is in the circuit.

MODEL "C" — MINIATURE RHEOSTAT

In this era of miniaturization and transistorization, the Model C enlarges the horizons of designers by providing greater design flexibility. In addition to its small size, its versatile solder terminals will also plug into common transistor sockets or circuit boards. It is stocked with both standard and locking type bushings.

Actual Size

MODEL "C" — $7\frac{1}{2}$ WATT*

Standard & Locking Bushings

Diameter .515" max. — Depth behind panel $\frac{7}{8}$ " — Shaft $\frac{1}{8}$ " diameter, slotted for both types. Std. shaft accommodates knob. Rotation 300° — Mounting for panels up to $\frac{1}{8}$ " by means of $\frac{3}{16}$ "-32 bushing and hex nut — Non-turn lug requires $\frac{1}{8}$ " hole $\frac{1}{4}$ " below center of shaft — No. 5151 knob recommended — Solder terminals will fit EIA type TS-E3R100 transistor socket — Wt. 0.27 oz.

Ohms	Amps.	Standard Shaft		Locking Shaft	
		Stock No.	Net 1-4	Stock No.	Net 1-4
10	.86	4908	\$ 8.59	4948	\$10.48
15	.71	4909	8.59	4949	10.48
25	.55	4910	8.59	4950	10.48
35	.46	4911	8.59	4951	10.48
50	.39	4912	8.59	4952	10.48
75	.32	4913	8.59	4953	10.48
100	.27	4914	8.59	4954	10.48
150	.22	4915	8.59	4955	10.48
200	.19	4916	8.59	4956	10.48
250	.17	4917	8.59	4957	10.48
350	.15	4918	8.59	4958	10.48
500	.12	4919	8.59	4959	10.48
750	.10	4920	8.59	4960	10.48
1000	.086	4921	9.72	4961	11.61
1500	.071	4922	9.72	4962	11.61
2500	.055	4923	9.72	4963	11.61
3500	.046	4924	10.15	4964	12.04
5000	.039	4925	10.15	4965	12.04

*Rating on metal panel.

3-Pin Socket for Model C Rheostat: Stock No. 6595, Net 1-4, \$4.42

MODEL "E" — 12.5 WATT*

Unenclosed and Enclosed

Diameter $\frac{7}{8}$ " — Depth behind panel $\frac{1}{2}$ " — Shaft $\frac{1}{8}$ " Diameter. Rotation 300° — Mounting for panels up to $\frac{1}{8}$ " by means of $\frac{3}{16}$ "-32 Bushing and Hex. Nut — Non-turn lug requires $\frac{1}{8}$ " hole $\frac{1}{4}$ " below center of shaft — Stock No. 5151 Knob Recommended. Enclosure including terminals $1\frac{1}{2}$ " long by $1\frac{1}{4}$ " diameter.

Total Ohms	Max. Amps.	Unenclosed		Enclosed	
		Stock No.	Net 1-4	Stock No.	Net 1-4
1	3.53	0101	\$4.63	W0101	\$6.31
2	2.50	0102	4.63	W0102	6.31
2.5	2.24	0102A	4.63	W0102A	6.31
3	2.04	0103	4.63	W0103	6.31
5	1.58	0103A	4.63	W0103A	6.31
6	1.44	0104	4.63	W0104	6.31
8	1.25	0105	4.63	W0105	6.31
10	1.12	0106	4.63	W0106	6.31
15	.91	0107	4.11	W0107	5.79
25	.71	0108	4.11	W0108	5.79
35	.60	0109	4.11	W0109	5.79
50	.50	0110	4.11	W0110	5.79
75	.41	0111	4.11	W0111	5.79
100	.35	0112	4.11	W0112	5.79
150	.29	0113	4.11	W0113	5.79
175	.27	0114	4.11	W0114	5.79
200	.25	0114A	4.11	W0114A	5.79
250	.22	0115	4.11	W0115	5.79
350	.19	0116	4.11	W0116	5.79
500	.16	0117	4.11	W0117	5.79
750	.13	0118	4.11	W0118	5.79
1,000	.11	0119	4.63	W0119	6.31
1,500	.091	0120	4.63	W0120	6.31
2,500	.062	0121	4.63	W0121	6.31
3,500	.060	0122	4.90	W0122	6.58
5,000	.050	0123	4.90	W0123	6.58
7,500	.041	4190†	5.06	W4190†	6.74
10,000	.035	4191†	5.06	W4191†	6.74
12,500	.031	4192†	5.50	W4192†	7.18
15,000	.029	4193†	5.50	W4193†	7.18

†Silicone-ceramic coating, 350 V. max. *Rating on metal panel.

MODEL "H", Series A — 25 WATT

Diameter $1\frac{1}{8}$ " — Depth behind panel $1\frac{3}{8}$ " — Shaft $\frac{1}{4}$ " diameter. Rotation 300° — Mounting for panels up to $\frac{1}{8}$ " by means of $\frac{3}{16}$ "-32 Bushing and Hex. Nut — Non-turn lug requires $\frac{1}{8}$ " hole $\frac{1}{2}$ " below center of shaft — Stock No. 5150 Knob Recommended.

Stock No.	Total Ohms	Max. Amps.	Net 1-4	Stock No.	Total Ohms	Max. Amps.	Net 1-4
0140	1	5.000	\$4.63	0154	250	.316	\$4.11
0141	2	3.540	4.63	0155	350	.267	4.11
0142	3	2.880	4.63	0156	500	.222	4.11
0143	6	2.040	4.63	0157	750	.182	4.11
0144	8	1.770	4.63	0158	1,000	.155	4.63
0145	10	1.580	4.63	0159	1,500	.129	4.63
0146	15	1.290	4.11	0160	2,500	.100	4.63
0147	25	1.000	4.11	0161	3,500	.084	4.90
0148	35	.845	4.11	0162	5,000	.070	4.90
0149	50	.707	4.11	4200†	7,500	.058	5.06
0150	75	.575	4.11	4201†	10,000	.050	5.06
0151	100	.500	4.11	4202†	15,000	.040	5.50
0152	125	.445	4.11	4203†	20,000	.035	6.16
0153	175	.375	4.11	4204†	25,000	.032	6.82

†Silicone-ceramic coating, 500 V. max. Not listed UL Ser. A.

MODEL "J", Series A — 50 WATT

Diameter $2\frac{1}{8}$ " — Depth behind panel $1\frac{3}{8}$ " — Shaft $\frac{1}{4}$ " diameter. Rotation 300° — Mounting for panels up to $\frac{1}{8}$ " by means of $\frac{3}{16}$ "-32 Bushing and Hex Nut — Non-turn lug requires $\frac{1}{8}$ " hole $\frac{1}{2}$ " below center of shaft — Stock No. 5150 Knob Recommended.

Stock No.	Total Ohms	Max. Amps.	Net 1-4	Stock No.	Total Ohms	Max. Amps.	Net 1-4
0308	0.5	10.000	\$5.15	0324	500	.316	\$4.63
0309	1	7.070	5.15	0325	800	.250	4.90
0310	2	5.000	5.15	0326	1,000	.224	4.90
0311	4	3.527	5.15	0327	1,500	.176	4.90
0312	6	2.880	5.15	0328	2,500	.141	4.90
0313	8	2.500	4.63	0329	3,500	.119	5.15
0314	12	2.040	4.63	0330	5,000	.100	5.15
0315	16	1.760	4.63	0331	8,000	.079	5.15
0316	22	1.500	4.63	0332	10,000	.070	5.15
0317	35	1.190	4.63	4210†	15,000	.058	5.83
0318	50	1.000	4.63	4211†	20,000	.050	6.60
0319	80	.790	4.63	4212†	25,000	.045	7.26
0320	125	.630	4.63	4213†	30,000	.041	8.03
0321	150	.575	4.63	4214†	40,000	.035	9.35
0322	225	.470	4.63	4215†	50,000	.032	10.23
0323	300	.408	4.63				

†Silicone-ceramic coating, 750 V. max. Not listed UL Ser. A.

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VITREOUS ENAMELED RHEOSTATS

MODEL "G" — 75 WATT

Diameter $2\frac{3}{4}$ "—Depth behind panel $1\frac{3}{4}$ "—Shaft $\frac{1}{4}$ " Diameter.
Rotation 300°—Mounting for panels up to $\frac{1}{4}$ " by means of $\frac{3}{8}$ "-32
Bushing and Hex. Nut—Non-turn lug requires $\frac{1}{8}$ " hole $\frac{1}{2}$ " below
center of shaft—Stock No. 5150 Knob Recommended.

Stock No.	Total Ohms	Max. Amps	Net 1-4	Stock No.	Total Ohms	Max. Amps	Net 1-4
1100	0.5	12.300	\$6.97	1112	200	.612	\$6.41
1101	1	8.660	6.97	1113	300	.600	6.41
1102	2	6.120	6.97	1114	400	.483	6.41
1103	3	5.000	6.97	1115	500	.388	6.41
1104	5	3.880	6.97	1116	750	.316	6.97
1105	7.5	3.160	6.97	1117	1,000	.274	6.97
1106	10	2.740	6.97	1118	1,500	.224	6.97
1107	16	2.170	6.41	1119	2,000	.194	6.97
1108	25	1.730	6.41	1120	2,500	.173	6.97
1109	50	1.230	6.41	1121	5,000	.123	7.45
1110	75	1.000	6.41	1122	7,500	.100	8.00
1111	100	.866	6.41	1123	10,000	.087	8.00

MODEL "K", Series A — 100 WATT

Diameter $3\frac{1}{8}$ "—Depth behind panel $1\frac{3}{4}$ "—Shaft $\frac{1}{4}$ " Diameter.
Rotation 300°—Mounting for panels up to $\frac{1}{4}$ " by means of $\frac{3}{8}$ "-32
Bushing and Hex. Nut—Non-turn lug requires $\frac{1}{8}$ " hole $\frac{1}{2}$ " below
center of shaft—Stock No. 5150 Knob Recommended.

Stock No.	Total Ohms	Max. Amps	Net 1-4	Stock No.	Total Ohms	Max. Amps	Net 1-4
0440	0.5	14.100	\$7.72	0452	200	.707	\$7.21
0441	1	10.000	7.72	0453	300	.575	7.21
0442	2	7.070	7.72	0454	400	.500	7.21
0443	3	5.750	7.72	0455	500	.447	7.21
0444	5	4.470	7.72	0456	750	.365	7.21
0445	7.5	3.650	7.72	0457	1,000	.316	7.72
0446	10	3.160	7.72	0458	1,500	.258	7.72
0447	16	2.500	7.72	0459	2,000	.224	7.72
0448	25	2.000	7.21	0460	2,500	.200	7.72
0449	50	1.410	7.21	0461	5,000	.141	8.24
0450	75	1.150	7.21	0462	7,500	.115	8.76
0451	100	1.000	7.21	0463	10,000	.100	9.26

MODEL "L", Series A — 150 WATT

Diameter 4"—Depth behind panel 2"—Shaft $\frac{1}{4}$ " Diameter. Rotation 300°—Mounting for panels up to $\frac{1}{4}$ ", $\frac{3}{8}$ "-32 Bushing and Hex. Nut or two 10-32 x $\frac{3}{4}$ " flat head screws, mounting centers $\frac{7}{8}$ " each side of center of shaft on line perpendicular to center terminal.—Stock No. 5150 Knob Recommended.

Stock No.	Total Ohms	Max. Amps	Net 1-4	Stock No.	Total Ohms	Max. Amps	Net 1-4
0524	0.5	17.300	\$9.78	0537	150	1.000	\$ 9.26
0525	1	12.300	9.78	0538	200	.866	9.26
0526	2	8.660	9.78	0539	250	.775	9.26
0527	3	7.070	9.78	0540	350	.655	9.26
0528	5	5.480	9.78	0541	500	.548	9.26
0529	7.5	4.470	9.78	0542	750	.447	9.78
0530	10	3.880	9.78	0543	1,250	.346	9.78
0531	15	3.163	9.78	0544	1,800	.288	10.30
0532	25	2.500	9.26	0545	2,250	.259	10.30
0533	35	2.070	9.26	0546	3,000	.224	10.30
0534	50	1.735	9.26	0547	4,500	.182	10.81
0535	75	1.415	9.26	0548	7,500	.141	11.33
0536	100	1.225	9.26	0549	10,000	.122	12.35

MODEL "P" — 225 WATT

Diameter 5"—Depth behind panel $2\frac{3}{8}$ "—Shaft $\frac{3}{8}$ " Diameter. Rotation 310°—Mounting for panels up to $\frac{1}{4}$ ", two $\frac{1}{4}$ "-20 x $1\frac{1}{2}$ " flat head screws, mounting centers $\frac{7}{8}$ " each side of center of shaft on center line of cross-bar.—Stock No. 5105 Knob Recommended. Three 8-32 Terminal Screws, Nuts and Washers are supplied.

Stock No.	Total Ohms	Max. Amps	Net 1-2	Stock No.	Total Ohms	Max. Amps	Net 1-2
1250	1	15.000	\$14.11	1261	100	1.500	\$14.11
1251	2	10.000	14.11	1262	150	1.220	14.11
1252	3	8.660	14.11	1263	200	1.060	14.11
1253	4	7.500	14.11	1264	300	.866	14.11
1254	5	6.710	14.11	1265	400	.750	14.11
1255	7.5	5.490	14.11	1266	700	.567	14.11
1256	10	4.740	14.11	1267	900	.500	14.11
1257	15	3.870	14.11	1268	1,200	.433	14.11
1258	25	3.000	14.11	1269	1,500	.387	14.11
1259	50	2.120	14.11	1270	1,750	.363	14.11
1260	75	1.730	14.11	1270A	2,000	.336	14.11
				1271	2,500	.300	14.11

MODEL "N", Series A — 300 WATT

Diameter 6"—Depth behind panel $2\frac{3}{8}$ "—Shaft $\frac{3}{8}$ " Diameter. Rotation 320°—Mounting for panels up to $\frac{1}{4}$ ", two $\frac{1}{4}$ "-20 x $1\frac{1}{2}$ " flat head screws, mounting centers $1\frac{1}{2}$ " each side of center of shaft on center line of cross-bar.—Stock No. 5105 Knob Recommended. Three 8-32 Terminal Screws, Nuts and Washers are supplied.

Stock No.	Total Ohms	Max. Amps	Net 1-2	Stock No.	Total Ohms	Max. Amps	Net 1-2
0650	1	17.320	\$15.29	0661	100	1.730	\$15.29
0651	2	12.240	15.29	0662	150	1.410	15.29
0652	3	10.000	15.29	0663	200	1.220	15.29
0653	4	8.660	15.29	0664	300	1.000	15.29
0654	5	7.750	15.29	0665	400	.866	15.29
0655	7.5	6.320	15.29	0666	700	.655	15.29
0656	10	5.480	15.29	0667	900	.578	15.29
0657	15	4.470	15.29	0668	1,200	.500	15.29
0658	25	3.460	15.29	0669	1,500	.447	15.29
0659	50	2.450	15.29	0670	1,750	.414	15.29
0660	75	2.000	15.29	0671	2,000	.387	15.29
				0671	2,500	.346	15.29

MODEL "R" — 500 WATT

Diameter 8"—Depth behind panel $2\frac{3}{8}$ "—Shaft $\frac{3}{8}$ " Diameter. Rotation 325°—Mounting for panels up to $\frac{1}{4}$ ", two $\frac{1}{4}$ "-20 x $1\frac{1}{2}$ " flat head screws, mounting centers $1\frac{1}{2}$ " each side of center of shaft on center line of cross-bar.—Stock No. 5105 Knob Recommended. Three 8-32 Terminal Screws, Nuts and Washers are supplied.

Stock No.	Total Ohms	Max. Amps	Net 1-2	Stock No.	Total Ohms	Max. Amps	Net 1-2
0849	1.0	22.300	\$22.09	0872	50	3.160	\$22.09
0850	1.5	18.200	22.09	0861	80	2.520	22.09
0851	2	15.800	22.09	0862	125	2.000	22.09
0852	2.5	14.100	22.09	0863	175	1.690	22.09
0853	3	12.900	22.09	0864	250	1.410	22.09
0854	4	11.200	22.09	0865	325	1.240	22.09
0855	5	10.000	22.09	0866	500	1.000	22.09
0856	8	7.900	22.09	0867	700	.817	22.09
0857	12.5	6.300	22.09	0868	1,000	.707	22.09
0858	16	5.600	22.09	0869	1,500	.577	22.09
0859	25	4.470	22.09	0870	2,000	.500	22.09
0860	40	3.540	22.09	0871	2,500	.447	22.09

MODEL "T" — 750 WATT

Diameter 10"—Depth behind panel 3"—Shaft $\frac{3}{8}$ " Diameter. Rotation 330°—Mounting for panels up to $\frac{1}{4}$ ", two $\frac{1}{4}$ "-20 x $1\frac{1}{2}$ " flat head screws, mounting centers $1\frac{1}{2}$ " each side of center of shaft on center line of cross-bar.—Stock No. 5105 Knob Recommended. Three 8-32 Terminal Screws, Nuts and Washers are supplied.

Stock No.	Total Ohms	Max. Amps	Net 1-2	Stock No.	Total Ohms	Max. Amps	Net 1-2
1300	1	27.400	\$31.20	1312	50	3.870	\$31.20
1301	1.5	22.300	31.20	1313	80	3.060	31.20
1302	2	19.400	31.20	1314	100	2.740	31.20
1303	2.5	17.500	31.20	1315	160	2.170	31.20
1304	3	15.800	31.20	1316	200	1.940	31.20
1305	4	13.900	31.20	1317	300	1.580	31.20
1306	5	12.200	31.20	1318	400	1.370	31.20
1307	8	9.650	31.20	1319	600	1.171	31.20
1308	10	8.650	31.20	1320	750	1.000	31.20
1309	12.5	7.750	31.20	1321	1,200	.791	31.20
1310	16	6.820	31.20	1322	1,800	.646	31.20
1311	25	5.470	31.20	1322A	2,000	.610	31.20
				1323	2,500	.547	31.20

MODEL "U" — 1000 WATT

Diameter 12"—Depth behind panel 3"—Shaft $\frac{3}{8}$ " Diameter. Rotation 335°—Mounting for panels up to $\frac{1}{4}$ ", two $\frac{1}{4}$ "-20 x $1\frac{1}{2}$ " flat head screws, mounting centers $1\frac{1}{2}$ " each side of center of shaft on center line of cross-bar.—Stock No. 5105 Knob Recommended. Three 8-32 Terminal Screws, Nuts and Washers are supplied.

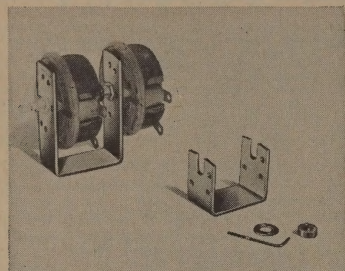
Stock No.	Total Ohms	Max. Amps	Net 1-2	Stock No.	Total Ohms	Max. Amps	Net 1-2
1450	1	31.600	\$36.45	1462	50	4.470	\$36.45
1451	1.5	25.800	36.45	1463	75	3.650	36.45
1452	2	22.400	36.45	1464	100	3.160	36.45
1453	2.5	20.000	36.45	1465	175	2.390	36.45
1454	3	18.300	36.45	1466	225	2.110	36.45
1455	4	15.800	36.45	1467	300	1.830	36.45
1456	5	14.100	36.45	1468	400	1.580	36.45
1457	8	11.200	36.45	1469	500	1.410	36.45
1458	10	10.000	36.45	1470	750	1.150	36.45
1459	12.5	8.950	36.45	1471	1,000	1.000	36.45
1460	16	7.900	36.45	1472	1,500	.816	36.45
1461	25	6.330	36.45	1473	2,500	.683	36.45

CATALOG 50 LISTS ALL RHEOSTATS TO MEET MILITARY SPECIFICATION MIL-R-22B

OHMITE

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RHEOSTAT TANDEM COUPLING KITS



Inexpensive kits assemble standard Ohmite Model G, H, J, K, L or E (miniature) rheostats. Each kit consists of a steel "U" frame, a coupling with set screw, mica washer, Allen wrench and assembly instructions. Rheostat shafts are joined by the coupling which is fastened to the shaft of the rear unit. Projections on the coupling fit a recess in the rear hub of the front unit. Stock No. 6533 kit, mounts Model G, K or L units but accommodates Models H or J in the rear position. Stock No. 6532 unit mounts Models H or J but accommodates Models G, K or L in the rear position. Stock No. 6591 kit assemblies only Model E (miniature) rheostats.

Stock No. 6532 — Max Panel 1/8" Net Each (1-4) \$2.01
Stock No. 6533 — Max Panel 5/32" Net Each (1-4) 2.51
Stock No. 6591 — Max Panel 1/16" Net Each (1-4) 2.01

BLACK BAKELITE KNOBS

Stock No.	Description	Knob Dia.	Hole Dia.	Net Ea. 1-2
5102	Bar Knob, 2 1/4" long			\$.50
5103	Bar Knob, 1 1/2" long			.21
5104	Handwheel with Pointer	3 1/4"	3/8"	1.38
5105	Handwheel without Pointer	3 1/4"	3/8"	1.16
5106	Handwheel with Pointer	3 1/4"	3/8"	1.38
5107	Handwheel without Pointer	3 1/4"	3/8"	1.16
5109	Finger-Grip with Pointer	1 1/2"	3/8"	.89
5110	Finger-Grip without Pointer	1 1/2"	3/8"	.82
5111	Finger-Grip with Pointer	2 3/8"	3/8"	1.32
5112	Finger-Grip without Pointer	2 3/8"	3/8"	1.21
*5115	Bar Knob, 4 1/4" long			3.00
5116	Bar Knob, 1 1/2" long			.50
5150	Skirted Finger-Grip	1 1/2"	3/8"	.29
5151	Finger-Grip	3/8"	3/8"	.29
5152A	Like 5104 but shorter pointer	3 1/4"	3/8"	1.60

*Requires pin and tapped hole in shaft.



MOLDED COMPOSITION POTENTIOMETERS, 1/2 and 2 WATTS

Used in commercial and military electronic applications where high quality and dependable performance are important. Type AB, 1 1/2" dia., is rated 2 watts at 70°C ambient and is available with 3/8" slotted shaft (CMU), 2" unslotted shaft (CU, CA, CB, CCU dual unit) and locking type slotted shaft (CLU). Type AS, a miniature unit 1/2" dia. rated 1/2 watt,

is available with locking type shaft (Style AS) or 3/8" slotted shaft for knob control (Style ASM).

Because of their molded composition elements, these units outlast and outperform film type units. Noise level is exceedingly low. Single control Type AB units extend 3/8" behind panel; dual con-

trol 1 1/4". Type AS miniature unit extends 1/16" behind panel. An SPST switch for single Type AB units is available. Units are dust and splash proof, fungus and corrosion resistant and meet the latest requirements of MIL-R-94. Styles CMU, CLU, Styles AS and ASM conform respectively to MIL-R-94 Styles RV4N, RV4L, RV6L, and RV6N.

STOCK "POTS" — MIL Units are Stamped with MIL and Commercial Designations

	TYPE AB (1½" Dia.)								TYPE AS (½" Dia.)				
Resistance Ohms Except As Noted Tol. ±10% except * ±20%	Single Unit ⅜" Shaft		Single Unit 2" Shaft			Locking		Dual	Miniature Locking		Miniature ⅜" Shaft		
	Style CMU Linear	MIL Design- ation	Style CU Linear	Style CA CW log	Style CB CCW log	Style CLU Linear	MIL Design- ation	Style CCU Linear	Style AS Linear	MIL Design- ation	Style ASM Linear	MIL Design- ation	
50	CMU5001	500A	CU5001			CLU5001	500A		Resistance Shown is for Each Unit	AS3801	101A	ASM6661	101A
100	CMU1001	101A	CU1001			CLU1001	101A						
150	CMU1511	151A	CU1511			CLU1511	151A						
250	CMU2511	251A	CU2511			CLU2511	251A			AS3802	251A	ASM6662	251A
350	CMU3511	351A	CU3511			CLU3511	351A						
500	CMU5011	501A	CU5011			CLU5011	501A			AS3803	501A	ASM6663	501A
750	CMU7511	751A	CU7511			CLU7511	751A						
1,000	CMU1021	102A	CU1021			CLU1021	102A			AS3804	102A	ASM6664	102A
1,500	CMU1521	152A	CU1521			CLU1521	152A						
2,500	CMU2521	252A	CU2521			CLU2521	252A			AS3805	252A	ASM6665	252A
3,500	CMU3521	352A	CU3521			CLU3521	352A			AS3806	502A	ASM6666	502A
5,000	CMU5021	502A	CU5021			CLU5021	502A						
7,500	CMU7521	752A	CU7521			CLU7521	752A						
10,000	CMU1031	103A	CU1031		CB1031	CLU1031	103A	CCU1031					
15,000	CMU1531	153A	CU1531			CLU1531	153A						
25,000	CMU2531	253A	CU2531		CB2531	CLU2531	253A	CCU2531	AS3806	253A	ASM6668	253A	
35,000	CMU3531	353A	CU3531			CLU3531	353A						
50,000	CMU5031	503A	CU5031		CB3031	CLU5031	503A	CCU5031	AS3809	503A	ASM6669	503A	
75,000	CMU7531	753A	CU7531			CLU7531	753A						
1 meg.	CMU1041	104A	CU1041	CA1041		CLU1041	104A	CCU1041	AS3810	104A	ASM6670	104A	
15 meg.	CMU1541	154A	CU1541			CLU1541	154A						
25 meg.	CMU2541	254A	CU2541	CA2541		CLU2541	254A	CCU2541	AS3811	254A	ASM6671	254A	
35 meg.	CMU3541	354A	CU3541			CLU3541	354A						
5 meg.	CMU5041	504A	CU5041	CA5041		CLU5041	504A	CCU5041	AS3812	504A	ASM6672	504A	
75 meg.*	CMU7542	754B	CU7542			CLU7542	754B						
1.0 meg.*	CMU1052	105B	CU1052	CA1052		CLU1052	105B	CCU1052	AS3813	105B	ASM6673	105B	
1.5 meg.*	CMU1552	155B	CU1552			CLU1552	155B						
2.0 meg.*	CMU2052	205B	CU2052			CLU2052	205B		AS3814	205B	ASM6674	205B	
2.5 meg.*	CMU2552	255B	CU2552	CA2552		CLU2552	255B		AS3814	255B	ASM6675	255B	
3.5 meg.*	CMU3552	355B	CU3552			CLU3552	355B						
5.0 meg.*	CMU5052	505B	CU5052			CLU5052	505B		AS3815	505B	ASM6676	505B	
Weight	.064 lb.		.084 lb.			.070 lb.		.123 lb.		.017 lb.		.017 lb.	
Net Price 1-9	\$1.95		\$1.95		\$2.25	\$2.25	\$2.55	\$5.85		\$5.10		\$5.10	

Switch CS-1 (Unmounted) for CMU, CU, CA, CB, CLU Net \$6.66

Style AS
MIL Style RV6L

Style ASM
MIL Style RV6N

Style CMU
MIL Style RV4N

Style CLU
MIL Style RV4L

Styles CU, CA CB

Style CCU

VITREOUS ENAMELED POWER RHEOSTATS

All Values Listed are in Stock for Immediate Shipment

Type R-12½-12½ Watts

CAT. NO.	TOTAL OHMS	MAX. AMPS	APPROX. STEPS	CAT. NO.	TOTAL OHMS	MAX. AMPS	APPROX. STEPS
0	1	2.53	27	611	100	.35	102
1	2	2.50	38	612	125	.32	102
2	3	2.04	36	613	175	.27	112
3	4	1.44	45	614	250	.22	124
4	6	1.25	49	615	350	.19	150
5	10	1.12	42	616	500	.16	164
6	15	.91	49	617	750	.13	188
7	25	.71	65	618	1000	.11	198
8	35	.60	72	619	1500	.091	235
9	50	.50	81	620	2500	.071	260
10	75	.41	98	621	3500	.060	285
				622	5000	.050	315

Type R-25-25 Watts

CAT. NO.	RES.	MAX. AMPS	APPROX. STEPS	CAT. NO.	RES.	MAX. AMPS	APPROX. STEPS
100	1	5.000	26	112	125	.445	145
101	2	3.540	28	113	175	.375	153
102	3	2.680	44	114	250	.316	170
103	6	2.040	50	115	350	.267	180
104	8	1.770	54	116	500	.222	215
105	10	1.580	60	117	750	.182	230
106	15	1.290	78	118	1000	.155	270
107	25	1.000	80	119	1500	.129	325
108	35	.845	100	120	2500	.100	410
109	50	.707	105	121	3500	.084	440
110	75	.575	120	122	5000	.070	480
111	100	.500	140				

Type R-50-50 Watts

CAT. NO.	RES.	MAX. AMPS	APPROX. STEPS	CAT. NO.	RES.	MAX. AMPS	APPROX. STEPS
200	0.5	10.000	22	213	150	.574	175
201	1	7.070	36	214	225	.470	215
202	2	5.000	38	215	300	.408	225
203	4	3.540	38	216	500	.316	295
204	6	2.880	75	217	800	.250	360
205	8	2.500	78	218	1000	.223	375
206	12	2.040	80	219	1600	.176	465
207	16	1.760	90	220	2500	.141	560
208	22	1.500	95	221	3500	.119	585
209	35	1.190	120	222	5000	.100	606
210	50	1.000	120	223	8000	.079	710
211	70	.790	135	224	10,000	.070	720
212	125	.630	185				

Type R-75-75 Watts

CAT. NO.	RES.	MAX. AMPS	APPROX. STEPS	CAT. NO.	RES.	MAX. AMPS	APPROX. STEPS
300	0.5	12.300	27	312	200	.612	180
301	1	8.660	18	313	300	.500	227
302	2	6.120	30	314	400	.433	232
303	3	5.000	30	315	500	.388	250
304	5	3.880	45	316	750	.316	265
305	7.5	3.160	47	317	1,000	.274	290
306	10	2.740	50	318	1,500	.224	350
307	16	2.170	87	319	2,000	.194	380
308	25	1.730	92	320	2,500	.173	425
309	35	1.230	118	321	5,000	.123	630
310	75	1.000	135	322	7,500	.100	715
311	100	.866		323	10,000	.087	820

Type R-100-100 Watts

CAT. NO.	RES.	MAX. AMPS	APPROX. STEPS	CAT. NO.	RES.	MAX. AMPS	APPROX. STEPS
400	0.5	14.100	30	412	200	.707	190
401	1	10.000	30	413	300	.575	260
402	2	7.070	32	414	400	.500	262
403	3	5.750	32	415	500	.447	270
404	5	4.470	50	416	750	.365	280
405	7.5	3.650	52	417	1,000	.316	316
406	10	3.160	58	418	1,500	.258	370
407	16	2.500	97	419	2,000	.224	420
408	25	2.000	105	420	2,500	.200	460
409	50	1.410	140	421	5,000	.141	650
410	75	1.150	155	422	7,500	.115	740
411	100	1.000	168	423	10,000	.100	850

Type R-150-150 Watts

CAT. NO.	RES.	MAX. AMPS	APPROX. STEPS	CAT. NO.	RES.	MAX. AMPS	APPROX. STEPS
500	0.5	17.300	28	513	150	1.000	230
501	1	12.300	37	514	200	.865	242
502	2	8.650	38	515	250	.775	250
503	3	7.070	67	516	350	.655	280
504	5	5.480	68	517	500	.548	330
505	7.5	4.470	71	518	750	.447	370
506	10	3.880	70	519	1,250	.366	460
507	15	3.163	138	520	1,800	.288	550
508	25	2.450	140	521	2,250	.239	570
509	35	2.070	153	522	3,000	.224	600
510	50	1.735	160	523	4,500	.182	680
511	75	1.415	185	524	7,500	.141	980
512	100	1.225	190	525	10,000	.122	990

Type R-300-300 Watts

CAT. NO.	TOTAL OHMS	MAX. AMPS	APPROX. STEPS	CAT. NO.	TOTAL OHMS	MAX. AMPS	APPROX. STEPS	CAT. NO.	TOTAL OHMS	MAX. AMPS	APPROX. STEPS
700	1	17.32	50	706	10	5.48	76	712	150	1.41	272
701	2	12.24	50	707	15	4.47	130	713	200	1.22	251
702	3	10.60	65	708	25	3.47	88	714	300	1.00	300
703	4	8.66	65	709	50	2.45	225	715	400	.87	290
704	5	7.75	61	710	75	2.00	315	716	700	.66	450
705	7.5	6.32	88	711	100	1.73	258	717	900	.58	470

Type R-225-225 Watts

STOCK CAT. NO.	OHMS	MAX. AMPS*	APPROX. NO. OF STEPS
4001	1	15.00	55
4002	1.5	12.30	55
4003	2	10.60	55
4004	2.5	9.50	55
4005	3	8.66	55
4006	4	7.50	55
4007	5	6.71	55
4008	7.5	5.49	115
4009	10	4.74	115
4010	15	3.87	115
4011	25	3.00	115
4012	50	2.12	256
4013	75	1.73	306
4014	100	1.50	315
4015	150	1.22	385
4016	200	1.06	357
4017	250	.950	350
4018	300	.866	335
4019	400	.750	344
4020	500	.671	450
4021	700	.567	495
4022	750	.549	533
4023	755	.500	500
4024	1000	.474	555
4025	1200	.433	526
4026	1500	.387	630
4027	1750	.358	620
4028	2500	.300	670

Type R-400-400 Watts

STOCK CAT. NO.	OHMS	MAX. AMPS*	APPROX. NO. OF STEPS
4101	1	22.3	70
4102	1.5	18.2	74
4103	2	15.8	68
4104	2.5	14.1	67
4105	3	12.9	65
4106	4	11.2	96
4107	5	10.0	96
4108	7.5	8.17	98
4109	8	7.90	97
4110	10	7.07	105
4111	12.5	6.30	103
4112	15	5.77	202
4113	16	5.60	192
4114	25	4.47	195
4115	40	3.54	205
4116	50	3.16	200
4117	75	2.58	395
4118	80	2.52	425
4119	100	2.24	450
4120	125	2.00	505
4121	150	1.82	544
4122	175	1.69	500
4123	250	1.41	570
4124	325	1.24	515
4125	500	1.00	620
4126	750	.817	740
4127	1000	.707	780
4128	1500	.577	940
4129	2000	.500	986
4130	2500	.447	940

Type R-750-750 Watts

STOCK CAT. NO.	OHMS	MAX. AMPS*	APPROX. NO. OF STEPS
4201	1	27.4	85
4202	1.5	22.3	85
4203	2	19.4	81
4204	2.5	17.3	87
4205	3	15.8	83
4206	4	13.6	87
4207	5	12.2	122
4208	7.5	10.0	129
4209	8	9.65	122
4210	10	8.65	121
4211	12.5	7.75	120
4212	15	7.07	127
4213	16	6.82	120
4214	25	5.47	210
4215	50	3.87	238
4216	75	3.19	250
4217	80	3.06	266
4218	100	2.74	265
4219	150	2.23	500
4220	160	2.17	485
4221	200	1.94	472
4222	250	1.73	470
4223	300	1.58	500
4224	400	1.37	472
4225	500	1.22	565
4226	600	1.12	677
4227	750	1.00	670
4228	1000	.865	715
4229	1200	.791	860
4230	1500	.707	840
4231	1800	.646	1020
4232	2500	.547	1085

Type R-1000-1000 Watts

STOCK CAT. NO.	OHMS	MAX. AMPS*	APPROX. NO. OF STEPS
4301	1	31.60	81
4302	1.5	25.80	84
4303	2	22.40	109
4304	2.5	20.00	105
4305	3	18.30	113
4306	4	15.80	106
4307	5	14.10	155
4308	7.5	11.50	105
4309	8	11.20	105
4310	10	10.00	105
4311	12.5	8.95	165
4312	15	8.16	156
4313	16	7.90	166
4314	25	6.23	160
4315	50	4.47	331
4316	75	3.65	303
4317	100	3.16	320
4318	150	2.58	306
4319	175	2.39	550
4320	225	2.11	585
4321	250	2.00	640
4322	300	1.83	605
4323	400	1.58	640
4324	500	1.41	635
4325	750	1.15	820
4326	1000	1.00	862
4327	1500	.816	1030
4328	2500	.633	1300

*Through all or any part of winding

MEMCOR COMPONENTS
INC. DIVISION

Manufacturers of
TRU-OHM and HARDWICK, HINDLE PRODUCTS

MEMCOR
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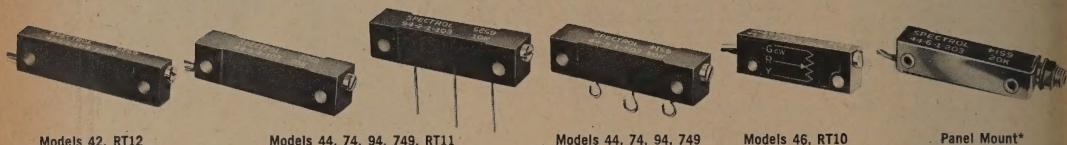
spectrol

TRIMMING POTENTIOMETERS

If your electronic equipment design calls for precise trimming with high reliability at realistic cost per unit, you should know — (1) Spectrol designs virtually eliminate noise, hot spots, burnouts, and wiper shifting; (2) Spectrol's selection of terminal configurations is the broadest in the industry; (3) Spectrol trimmers are available in all major configurations, sizes and

performance types including ultraminiatures and models that meet severest environmental MIL-SPECS; (4) All lines are subjected to an overnight temperature stabilization process; (5) All models are 100% electrically inspected; and (6) Prices on these military-quality industrial trimmers (many less than \$2 each in quantity) are keyed to a competitive market.

All units shown ¾ actual size



	DESCRIPTION ²	MODEL NO.*	ADJUSTMENT RATIO	TEMPERATURE COEFFICIENT OF RESISTIVITY (PPM/°C)	RESISTANCE TOLERANCE	MAXIMUM POWER RATING (WATTS)	SIZE (INCHES) ¹	STANDARD RESISTANCE RANGE (OHMS)	PRICE 1-9
RECTANGULAR HUMIDITY-PROOF	WIREWOUND L, PC	42†	25 to 1	50	±5%	1 @ 70°C	H .315 W .190 L 1.250	10 to 10K 20K 50K 100K	6.46 7.75 8.70 11.01
	WIREWOUND L, PC, SH	44†	25 to 1	50	±5%	1 @ 70°C	H .315 W .280 L 1.250	10 to 10K 20K 50K 100K	6.46 7.75 8.70 11.01
	WIREWOUND L, PC	46†	15 to 1	50	±5%	1 @ 70°C	H .315 W .180 L 1.000	10 to 10K 20K 50K	7.45 8.94 10.50
	NON-WIREWOUND L, PC, SH	749	25 to 1	±400	±20%	1 @ 70°C	H .315 W .280 L 1.250	10 to 1 Meg	5.95
	WIREWOUND L, PC	RT10C2P and Lt	15 to 1	50	±5%	1 @ 70°C	H .315 W .180 L 1.000	10 to 10K 20K	7.62 9.11
	WIREWOUND L, PC	RT11C2P and Lt	25 to 1	50	±5%	1 @ 70°C	H .315 W .280 L 1.250	10 to 10K 20K	6.63 7.95
	WIREWOUND L, PC	RT12C2P and Lt	25 to 1	50	±5%	1 @ 70°C	H .315 W .190 L 1.250	10 to 10K 20K	6.63 7.95
	WIREWOUND L, PC, SH	74†	25 to 1	100	±10%	½ @ 70°C	H .315 W .280 L 1.250	10 to 10K 20K 50K 100K	4.79 5.75 6.46 8.16
	WIREWOUND L, PC, SH	94†	25 to 1	100	±10%	½ @ 70°C	H .313 W .281 L 1.250	50 to 10K 20K	3.23 3.88

¹ DIMENSIONS FOR SQUARE TYPES ARE GIVEN FOR BASIC LEAD WIRE VERSIONS ONLY.

² TERMINATIONS: L—COLOR CODED LEAD WIRES, SH—SOLDER HOOKS, PC—PRINTED CIRCUIT PINS, W—UNINSULATED LEADS.

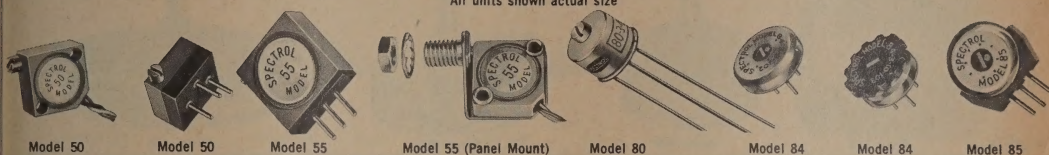
* PANEL MOUNT ADAPTER KITS AVAILABLE FOR \$.80 IN 1-9 PIECES QUANTITY.

† DISTRIBUTOR ITEMS.

Rectangulars—Large diameter mandrels dissipate heat efficiently to eliminate burnouts and open circuit failures. Dual wipers maintain positive contact under shock. Military and industrial models. **Squares and Rounds**—Mandrel and case configurations contribute to high power dissipation. All models

meet or exceed applicable environmental military specifications, and are humidity-proof at no extra cost. **Ultraminiature Transistor-Size Models**—Volume of only 0.02 cubic inches allows mounting in one-fourth the usual space. Ideally suited to high-component-density, solid-state, printed circuit applications.

All units shown actual size



SQUARE HUMIDITY-PROOF

ROUND HUMIDITY-PROOF

DESCRIPTION ²	MODEL NO.	ADJUSTMENT RATIO	TEMPERATURE COEFFICIENT OF RESISTIVITY (PPM/°C)	RESISTANCE TOLERANCE	MAXIMUM POWER RATING (WATTS)	SIZE (INCHES) ¹	STANDARD RESISTANCE RANGE (OHMS)	PRICE 1-9
WIREWOUND L, PC	50†*	25 to 1 Continuous or Stops and Clutch	50	±5%	1 @ 50°C	H .375	10 to 10K	7.14
						W .190	20K	8.57
						L .375	50K	9.66
WIREWOUND L, PC	55†*	25 to 1 or 42 to 1	50	±5%	1.5 @ 70°C	H .500	10 to 10K	6.04
						W .190	20K	7.24
						L .500	50K	8.16
WIREWOUND W	80†	1 to 1	50	±5%	1 @ 50°C	H .241	10 to 10K	5.51
						Dia. .345	20K	6.62
							50K	7.45
SCREWDRIVER ADJUST WIREWOUND PC	84-3-8†	1 to 1	50	±4%	1.5 @ 70°C	H .170	10 to 10K	3.40
						Dia. .500	20K	4.08
							50K	4.59
KNOB ADJUST WIREWOUND PC	84-3-10†	1 to 1	50	±4%	1.5 @ 70°C	H .270	10 to 10K	4.08
						Dia. .550	20K	4.76
							50K	5.27
BUSHING PANEL MOUNT WIREWOUND SH	84-5-6†	1 to 1	50	±4%	1.5 @ 70°C	H .460	10 to 10K	5.27
						Dia. .500	20K	5.95
							50K	6.46
SIDE ADJUST WIREWOUND PC	85†	1 to 1	50	±4%	1.5 @ 70°C	H .535	10 to 10K	4.42
						W .546	20K	5.10
						Depth .255	50K	5.61

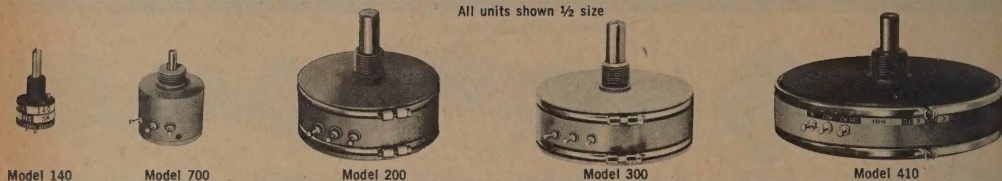
spectrol

PRECISION POTENTIOMETERS

For most applications, choose from the complete Spectrol series of single-turn, three-turn, five-turn, ten-turn, precision wirewound potentiometers listed on these two pages. Many models can be ganged and easily phased in the field.

Close linearities are assured by winding equipment designed and built in-house by Spectrol. Other quality features include: fine resolution from extra-long resistance elements; high reliability

through a unique "whisker" slip ring brush that assures positive contact under severe shock and vibration, yet exhibits low torque and long rotational life; and mounting flexibility with optional servo and bush mountings. All models meet or exceed applicable military and commercial specifications for rotational load life, temperature range, shock, vibration, humidity and salt spray.



MODEL NO.	RESISTANCE RANGE (OHMS)	RESISTANCE TOLERANCE	LINEARITY TOLERANCE STANDARD	TOLERANCE BEST PRACTICAL ¹	MAXIMUM POWER RATING (WATTS)	OPERATING TEMPERATURE RANGE	SIZE (INCHES) ²	MOUNTING AVAILABLE	PRICE 1-9 ³
*100	5 to 39K	±3% (±5% below 50Ω)	50Ω to 39K ±0.5% 5Ω to 50Ω ±1.0%	±.15%	2.75 @ 40°C	—55°C to +105°C	Dia. 1.312 Length .705 Shaft Dia. .250	Bushing Servo	12.00 17.00
*110	5 to 30K	±3% (±5% below 20Ω)	300Ω to 30K ±0.5% 5Ω to 300Ω ±1.0%	±.20%	2 @ 40°C	—55°C to +105°C	Dia. 1.125 Length .470 Shaft Dia. .125	Bushing Servo	18.00 23.00
*120	5 to 142K	±3% (±5% below 20Ω)	200Ω to 142K ±0.5% 5Ω to 200Ω ±1.0%	±.20%	2 @ 40°C	—55°C to +105°C	Dia. 1.062 Length .687 Shaft Dia. .125	Bushing Servo	23.00 28.00
142	50 to 70K	±5%	±1.0%	±.50%	2 @ 40°C	—55°C to +125°C	Dia. .500 Length .625 Shaft Dia. .125	Servo	17.50
*170	5 to 49K	±3% (±5% below 50Ω)	100Ω to 49K ±.50% 5Ω to 100Ω ±.75%	±.15%	2.75 @ 40°C	—55°C to +105°C	Dia. 1.438 Length .705 Shaft Dia. .250	Bushing Servo	18.00 23.00
*190	5 to 65K	±3% (±5% below 50Ω)	500Ω to 65K ±.30% 50Ω to 500Ω ±.50% 5Ω to 50Ω ±.75%	±.15%	3.5 @ 40°C	—55°C to +105°C	Dia. 1.625 Length .800 Shaft Dia. .250	Bushing Servo Screw	18.00 23.00 23.00
*200	5 to 65K	±3% (±5% below 50Ω)	500Ω to 65K ±.30% 50Ω to 500Ω ±.50% 5Ω to 50Ω ±.75%	±.15%	4.5 @ 40°C	—55°C to +105°C	Dia. 1.750 Length .705 Shaft Dia. .250	Bushing Servo Screw	18.00 20.00 21.00
*210	5 to 65K	±3% (±5% below 50Ω)	500Ω to 65K ±.30% 50Ω to 500Ω ±.50% 5Ω to 50Ω ±.75%	±.15%	3 @ 40°C	—55°C to +105°C	Dia. 1.750 Length .705 Shaft Dia. .250	Bushing Servo Screw	15.00 18.00 19.00
*300	5 to 85K	±3% (±5% below 50Ω)	200Ω to 85K ±.30% 50Ω to 200Ω ±.50% 5Ω to 50Ω ±.75%	±.10%	5 @ 40°C	—55°C to +105°C	Dia. 2.000 Length .705 Shaft Dia. .250	Bushing Servo Screw	19.00 21.00 21.00
*310	5 to 85K	±3% (±5% below 50Ω)	200Ω to 85K ±.30% 50Ω to 200Ω ±.50% 5Ω to 50Ω ±.75%	±.10%	3.5 @ 40°C	—55°C to +105°C	Dia. 2.000 Length .705 Shaft Dia. .250	Bushing Servo Screw	17.00 20.00 21.00
*400	10 to 158K	±3% (±5% below 100Ω)	10Ω to 158K ±.30%	±.075%	7 @ 40°C	—55°C to +105°C	Dia. 3.000 Length .705 Shaft Dia. .250	Bushing Servo Screw	21.00 23.00 23.00
*410	10 to 158K	±3% (±5% below 100Ω)	10Ω to 158K ±.30%	±.075%	5 @ 40°C	—55°C to +105°C	Dia. 3.000 Length .705 Shaft Dia. .250	Bushing Servo Screw	18.00 21.00 22.00
*700	5 to 109K	±3% (±5% below 20Ω)	500Ω to 109K ±0.5% 5Ω to 500Ω ±1.0%	±.25%	1.75 @ 40°C	—55°C to +105°C	Dia. .875 Length .687 Shaft Dia. .125	Bushing Servo	20.00 25.00
130†	5 to 39K	±3%	200Ω to 39K ±0.5% 5Ω to 200Ω ±1.0%	±.20%	2.75 @ 40°C	—55°C to +105°C	Dia. 1.312 Length .625 Shaft Dia. .250	Bushing	9.00
140†	50 to 70K	±5%	±1.0%	±.50%	2 @ 40°C	—55°C to +125°C	Dia. .500 Length .305 Shaft Dia. .125	Bushing	8.65

¹ BEST PRACTICAL LINEARITY FIGURES SHOWN FOR THE VARIOUS MODELS APPLY TO HIGHER RESISTANCE UNITS. CONSULT MANUFACTURER WITH SPECIFIC REQUIREMENTS.

² DIMENSIONS LISTED ARE FOR THE BUSHING MOUNT VERSIONS.

³ THE PRICES SHOWN ARE FOR STANDARD LINEARITY.

⁴ 163 HAS .250 INCH SHAFT DIA.

* UNITS ARE GANGABLE.

† DISTRIBUTOR ITEMS.

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PRECISION POTENTIOMETERS

For special applications, remember Spectrol's well-earned reputation for unusual service in providing special precision potentiometers to help equipment designers solve unique problems.

In addition to offering a full line of off-the-shelf models,

Spectrol is a custom house whose success is founded on exceptional responsiveness to its customers' needs and requirements. You can confidently turn to Spectrol for highly competent support in your most challenging design assignments for which no standard potentiometer is available.

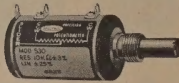
All units shown 1/2 size



Model 162



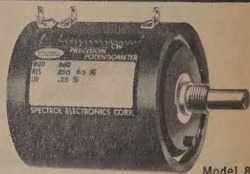
Model 500



Model 530



Model 550



Model 860

	MODEL NO.	RESISTANCE RANGE (OHMS)	RESISTANCE TOLERANCE	LINEARITY TOLERANCE STANDARD	LINEARITY TOLERANCE BEST PRACTICAL ¹	MAXIMUM POWER RATING (WATTS)	OPERATING TEMPERATURE RANGE	SIZE (INCHES) ²	MOUNTING PRICE AVAILABLE	1-9 ³
TURN-TO-TOUR WIRE WOUND MILITARY	*550	5 to 45K	±3% (±5% below 50Ω)	±.25%	±.125%	1.5 @ 40°C	-55°C to +125°C	Dia. .875 Length .948 Shaft Dia. .125	Bushing 15.00 Servo 20.00	
	*820	15 to 119K	±3% (±5% below 50Ω)	±.25%	±.075%	3.75 @ 40°C	-55°C to +105°C	Dia. 1.438 Length 1.240 Shaft Dia. .250	Bushing 25.00 Servo 30.00	
	*850	15 to 155K	±3% (±5% below 100Ω)	±.25%	±.05%	4.75 @ 40°C	-55°C to +125°C	Dia. 1.812 Length 1.220 Shaft Dia. .250	Bushing 14.00 Servo 20.00 Screw 20.00	
	830†	15 to 155K	±3% (±5% below 100Ω)	±.25%	±.05%	3 @ 40°C	-55°C to +105°C	Dia. 1.812 Length 1.220 Shaft Dia. .250	Bushing 10.00	
TURN-TO-TOUR WIRE WOUND INDUSTRIAL	520	10 to 76K	±3% (±5% below 50Ω)	±.25%	±.15%	2 @ 40°C	-55°C to +105°C	Dia. .875 Length 1.094 Shaft Dia. .250	Bushing 12.00	
	160	15 to 115K	±5%	±.50%	±.10%	2.5 @ 40°C	-55°C to +125°C	Dia. .531 Length 1.110 Shaft Dia. .094	Bushing 32.00 Servo 40.00	
	*500†	15 to 152K	±3% (±5% below 100Ω)	±.25%	±.05%	3 @ 40°C	-55°C to +125°C	Dia. .875 Length 1.448 Shaft Dia. .125	Bushing 15.00 Servo 20.00	
	*570	20 to 185K	±3% (±5% below 150Ω)	±.25%	±.05%	3 @ 40°C	-55°C to +105°C	Dia. 1.000 Length 1.448 Shaft Dia. .250	Bushing 15.00 Servo 20.00 Screw 20.00	
TEN-TURN WIRE WOUND MILITARY	*800	20 to 519K	±3% (±5% below 200Ω)	±.25%	±.025%	8 @ 40°C	-55°C to +125°C	Dia. 1.812 Length 2.000 Shaft Dia. .250	Bushing 15.00 Servo 20.00 Screw 20.00	
	*870	40 to 398K	±3% (±5% below 150Ω)	±.25%	±.03%	6.5 @ 40°C	-55°C to +105°C	Dia. 1.438 Length 2.015 Shaft Dia. .250	Bushing 25.00 Servo 30.00	
	162† 163 164	100 to 100K	±5%	±.30%	±.15%	2 @ 40°C	-55°C to +125°C	Dia. .500 Length 1.000 Shaft Dia. .094	162 (Bush) 10.00 163 (Bush) 11.50 164 (Servo) 18.50	
	510†	15 to 152K	±3% (±5% below 100Ω)	±.25%	±.10%	3 @ 40°C	-55°C to +105°C	Dia. .875 Length 1.448 Shaft Dia. .250	Bushing 10.00	
TEN-TURN WIRE WOUND INDUSTRIAL	530†	100 to 150K	±5%	±.25%	±.10%	3 @ 40°C	-55°C to +105°C	Dia. .875 Length 1.400 Shaft Dia. .250	Bushing 7.00	
	810†	20 to 519K	±3% (±5% below 200Ω)	±.25%	±.025%	8 @ 40°C	-55°C to +105°C	Dia. 1.812 Length 2.000 Shaft Dia. .250	Bushing 12.00	
	860†	20 to 519K	±3% (±5% below 200Ω)	±.25%	±.10%	8 @ 40°C	-55°C to +105°C	Dia. 1.812 Length 2.000 Shaft Dia. .250	Bushing 10.00	

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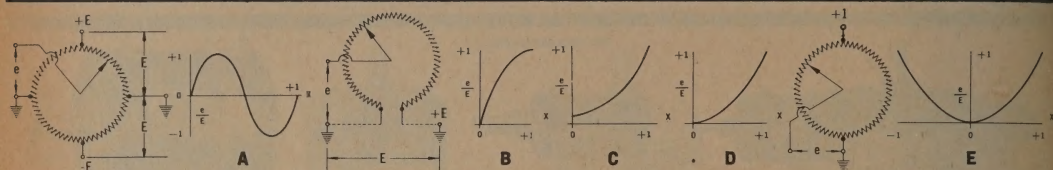
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NON-LINEAR POTENTIOMETERS

On the tables below, high and low values of resistance, with corresponding "best practical" peak-to-peak conformity obtainable, are given for the functions in each model size under the conditions of full electrical rotation and unloaded slider. For function angles less than full rotation, resistance and conformity values can be calculated based on resistance being directly proportional to the function angle, and conformity being inversely proportional to the function angle.

Empirical (Data Points)

Resistance and conformity is given in the table below in terms of S (maximum $\frac{\Delta(\frac{e}{E})}{\Delta X}$), provided the following conditions are met. $0 \leq \frac{e}{E} \leq 1, 0 \leq X \leq 1$ and $\frac{\Delta(\frac{e}{E})}{\Delta X}$ does not change sign (i.e., no slope reversal).



	MODEL NO.	DIA. (INCHES)	360° SIN A	90° SIN B	SINGLE SIDED SQUARE D	DOUBLE SIDED SQUARE E	SINGLE CYCLE EXP. C	TWO CYCLE EXP. C	EMPIRICAL
SINGLE-TURN	700	7/8	3.5K 250Ω	.9% 1.1	13K 1K	.5 .6	10K 1K	.7 .8	27K S 1K S (0.32) (0.41)
	100	1 1/4	6K 500Ω	.6% .8	22K 1K	.35 .5	18K 1K	.45 .6	53K S 1K S (0.22) (0.33)
	110	1 1/4	5K 250Ω	.85% 1.1	18K 1K	.45 .55	14K 1K	.60 .80	35K S 1K S (0.29) (0.41)
	120	1 1/4	5K 250Ω	.75% 1.0	18K 1K	.4 .5	14K 1K	.55 .7	39K S 1K S (0.26) (0.37)
	170	1 1/4	7.5K 500Ω	.55% .7	28K 1K	.3 .4	22K 1K	.35 .55	59K S 2K S (0.19) (0.26)
	190	1 1/4	10K 1K	.5% .6	35K 2K	.25 .35	30K 1K	.3 .45	77K S 2K S (0.16) (0.24)
	200	1 3/4	12K 1K	.45% .55	45K 2K	.25 .35	35K 1K	.35 .45	77K S 2K S (0.15) (0.22)
	300	2	15K 1K	.4% .5	60K 2K	.2 .3	45K 1K	.3 .45	103K S 2K S (0.13) (0.19)
	400	3	25K 1K	.25% .35	95K 2K	.15 .2	75K 1K	.2 .25	213K S 4K S (0.08) (0.12)
	550	7/8	7K 500Ω	.5% .6	25K 1K	.3 .35	20K 1K	.4 .45	61K S 1K S (0.18) (0.22)
THREE-TURN	820	1 1/4	20K 1K	.3% .35	75K 2K	.15 .2	60K 1K	.25 .3	175K S 2K S (0.10) (0.13)
	850	1 1/4	25K 1K	.25% .3	95K 2K	.15 .2	75K 1K	.2 .25	228K S 2K S (0.08) (0.11)
	500	7/8	24K 1K	.2% .25	85K 2K	.1 .15	70K 1K	.15 .2	205K S 2K S (0.065) (0.085)
TEN-TURN	570	1	30K 1K	.15% .2	100K 2K	.1 .15	80K 1K	.15 .2	249K S 2K S (0.055) (0.075)
	870	1 1/4	70K 1K	.15% .2	250K 4K	.075 .1	200K 4K	.075 .1	582K S 4K S (0.04) (0.055)
	800	1 1/4	90K 1K	.1% .15	320K 4K	.05 .075	250K 2K	.075 .1	760K S 5K S (0.03) (0.04)

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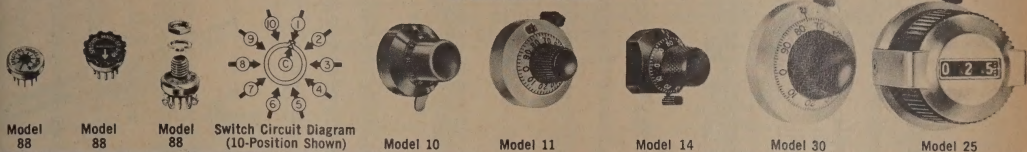
SWITCHES AND MULTIDIALS®

Spectrol Model 88 Rotary Selector Switches introduce a new dimension of flexibility to discrete component circuitry. Now, for the first time, miniature switches are available in volume quantities at production-line prices for mounting directly on printed circuit boards, or for panel mounting. Designed with only two moving parts, these unique ½-inch switches have application wherever printed circuit boards are used... can be used to

make other components do multiple duty. Spectrol offers the new switches in both ten-position center-pin and nine-position center-pin configurations for wide use on either double-sided or single-sided boards.

Multidials: Spectrol also offers a complete line of precision turns-counting dials for use on multi-turn potentiometers and other rotating devices.

All units shown ½ size



ROTARY SELECTOR SWITCHES

DESCRIPTION	MODEL NO.*	SWITCH ACTION	CONTACT CURRENT RATING	LIFE AT RATED CURRENT	CONTACT RESISTANCE	OPERATING TEMPERATURE RANGE	SIZE (INCHES)	PRICE 1-9
SCREWDRIVER ADJUST	88-3-8†	POSITIVE DETENT, 36° INDEXING, CONTINUOUS ROTATION	250MA @ 28VDC	20,000 SWITCHING OPERATIONS, OR 2,000 REVOLUTIONS	INITIAL: .05Ω MAX. AFTER LIFE: CONTACT RESISTANCE CHANGE ±.05Ω	-65° to +150°C	H Dia. .180 Dia. .500	3.40
KNOB ADJUST	88-3-10†	POSITIVE DETENT, 36° INDEXING, CONTINUOUS ROTATION	250MA @ 28VDC	20,000 SWITCHING OPERATIONS, OR 2,000 REVOLUTIONS	INITIAL: .05Ω MAX. AFTER LIFE: CONTACT RESISTANCE CHANGE ±.05Ω	-65° to +150°C	H Dia. .270 Dia. .550	4.08
BUSHING PANEL MOUNTING	88-5-6†	POSITIVE DETENT, 36° INDEXING, CONTINUOUS ROTATION	250MA @ 28VDC	20,000 SWITCHING OPERATIONS, OR 2,000 REVOLUTIONS	INITIAL: .05Ω MAX. AFTER LIFE: CONTACT RESISTANCE CHANGE ±.05Ω	-65° to +150°C	H Dia. .465 Dia. .500	5.27
SCREWDRIVER ADJUST	88-3-18‡	POSITIVE DETENT, 36° INDEXING, CONTINUOUS ROTATION	250MA @ 28VDC	20,000 SWITCHING OPERATIONS, OR 2,000 REVOLUTIONS	INITIAL: .05Ω MAX. AFTER LIFE: CONTACT RESISTANCE CHANGE ±.05Ω	-65° to +150°C	H Dia. .180 Dia. .500	3.40
KNOB ADJUST	88-3-20‡	POSITIVE DETENT, 36° INDEXING, CONTINUOUS ROTATION	250MA @ 28VDC	20,000 SWITCHING OPERATIONS, OR 2,000 REVOLUTIONS	INITIAL: .05Ω MAX. AFTER LIFE: CONTACT RESISTANCE CHANGE ±.05Ω	-65° to +150°C	H Dia. .270 Dia. .550	4.08

MULTI-TURN TURNS COUNTING DIALS

MODEL NO.	NUMBER OF TURNS	MINOR SCALE DIVISION	SHAFT BORE (INCHES)	FINISH	SIZE (INCHES)	PRICE 1-9
10-1-11†	10	1/100 TURN	.250 ³	BLACK ANODIZED	Dia. 1.000 Depth 1.000	8.75
11-1-11†	11	1/50 TURN	.250 ³	SATIN CHROME	Dia. 1.000 Depth .812	7.75
12-1-11†	10	1/50 TURN	.250 ³	BLACK ANODIZED	Dia. 1.000 Depth 1.000	8.75
14-1-11†	10	1/50 TURN	.250 ³	BLACK ANODIZED	.812W .906H Depth 1.000	9.75
20-1-11†	10	1/100 TURN	.250 ³	BLACK ANODIZED	Dia. 1.812 Depth 1.000	7.50
25-1-13†	11	1/500 TURN	.250	SATIN CHROME	Dia. 1.812 Depth 1.625	14.25
25-4-13†	100	1/500 TURN	.250	SATIN CHROME	Dia. 1.812 Depth 1.625	19.75
30-1-11†	10	1/100 TURN	.250 ³	SATIN CHROME	Dia. 1.812 Depth .875	5.75

† SINGLE POLE, 10 POSITION, NON-SHORTING.

‡ SINGLE POLE, 10 POSITION (ONE OFF), NON-SHORTING.

³ ALSO AVAILABLE FOR .125" AND .094" SHAFT DIAMETERS.

* INSULATION RESISTANCE AND DIELECTRIC WITHSTANDING VOLTAGE: NOT LESS THAN 1,000 MEGOHMS AND 1,000 VOLTS AC AT SEA LEVEL, RESPECTIVELY. SHOCK: 50 G'S FOR 11 MILLISECONDS. (METHOD 205B OF MIL-STD-202B).

VIBRATION: 20 G'S AT 20-2,000 CPS. (METHOD 204, TEST CONDITION D OF MIL-STD-202B).

† DISTRIBUTOR ITEMS.

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Amperex Semiconductors

(See Notes Below)				(See Notes Below)				(See Notes Below)				(See Notes Below)			
TYPE NO.	(1)	(2)	(3)	TYPE NO.	(1)	(2)	(3)	TYPE NO.	(1)	(2)	(3)	TYPE NO.	(1)	(2)	(3)
A130	P	Si	T	BZZ12	AJ	Si	Z	1N50	PC	Ge	D	2N990	PA	Ge	T
A306	P	Si	T	BZZ13	AJ	Si	Z	1N63	PC	Ge	D	2N993	PA	Ge	T
A307	P	Si	T	BZZ14	AJ	Si	Z	1N67A	PC	Ge	D	2N1066	PA	Ge	T
A310	P	Si	T	BZZ15	AJ	Si	Z	1N68A	PC	Ge	D	2N1224	PA	Ge	T
A311	P	Si	T	BZZ16	AJ	Si	Z	1N87	PC	Ge	D	USA2N1224	PA	Ge	T
A321	P	Si	T	BZZ17	AJ	Si	Z	1N87A	PC	Ge	D	2N1225	PA	Ge	T
A322	P	Si	T	BZZ18	AJ	Si	Z	1N88	PC	Ge	D	USA2N 1225	PA	Ge	T
A323	P	Si	T	BZZ19	AJ	Si	Z	1N89	PC	G3	D	2N1226	PA	Ge	T
A324	P	Si	T	H4A/1N4885	—	Si	V	1N90	PC	Ge	D	2N1302	A	Ge	T
A344	P	Si	T	ME209	PE	Si	T	1N95	PC	Ge	D	2N1303	A	Ge	T
A345	P	Si	T	ME213	P	Si	T	1N126	PC	Ge	D	2N1304	A	Ge	T
A345	P	Si	T	ME213A	PE	Si	T	1N126A	PC	Ge	D	2N1305	A	Ge	T
A346	P	Si	T	ME214	PE	Si	T	1N131	PC	Ge	D	2N1306	A	Ge	T
A415	PE	Si	T	ME216	P	Si	T	1N192	PC	Ge	D	2N1307	A	Ge	T
A569	P	Si	T	ME217	P	Si	T	1N198	PC	Ge	D	2N1308	A	Ge	T
A570	PE	Si	T	ME900	P	Si	T	1N270	GB	Ge	D	2N1309	A	Ge	T
A600	P	Si	T	ME901	P	Si	T	1N277	GB	Ge	D	2N1314	A	Ge	T
A601	P	Si	T	OA5	P	Ge	D	1N295	PC	Ge	D	2N1395	PA	Ge	T
A602	P	Si	T	OA7	GB	Ge	D	1N456	A	Si	D	2N1396	PA	Ge	T
A603	P	Si	T	OA9	GB	Ge	D	1N457	A	Si	D	2N1397	PA	Ge	T
A604	P	Si	T	OA31	J	Si	R	1N458	A	Si	D	2N1420	P	Si	T
A605	P	Si	T	OA200	A	Si	D	1N459	A	Si	D	2N1515	PA	Ge	T
A606	P	Si	T	OA202	A	Si	D	1N461	A	Si	D	2N1516	PA	Ge	T
A1381	P	Si	T	OAPl2	A	Ge	P	1N462	A	Si	D	2N1517	PA	Ge	T
A1383	A	Ge	T	OA2200	AJ	Si	Z	1N463	A	Si	D	2N1613	P	Si	T
A1480	PE	Si	T	OA2201	AJ	Si	Z	1N464	A	Si	D	2N1613 (JAN)	P	Si	T
A1518	P	Si	T	OA2202	AJ	Si	Z	1N476	PC	Ge	D	2N1666/OC28	A	Ge	T
A1519	P	Si	T	OA2203	AJ	Si	Z	1N477	PC	Ge	D	2N1667/OC29	A	Ge	T
A1520	P	Si	T	OA2204	AJ	Si	Z	1N478	PC	Ge	D	2N1668/OC35	PA	Ge	T
A1521	P	Si	T	OA2205	AJ	Si	Z	1N479	PC	Ge	D	2N1669/OC36	A	Ge	T
AA119	A	Ge	D	OA2206	AJ	Si	Z	1N541	PC	Ge	D	2N1711	P	Si	T
AA119MP	A	Ge	D	OA2207	AJ	Si	Z	1N542	PC	Ge	D	2N1990	P	Si	T
AC107	A	Ge	T	OA2208	AJ	Si	Z	1N616	PC	Ge	D	2N2084	PA	Ge	T
AC107M	A	Ge	T	OA2209	AJ	Si	Z	1N617	PC	Ge	D	US2K2N2084	PA	Ge	T
AC172	UL	Ge	T	OA2210	AJ	Si	Z	1N618	PC	Ge	D	2N2089	PA	Ge	T
AMC101	P	Si	IC	OA2211	AJ	Si	Z	1N698	GB	Ge	D	2N2902	PA	Ge	T
ASY26	A	Ge	T	OA2212	AJ	Si	Z	1N3121	GB	Ge	D	2N2207	PA	Ge	T
ASY27	A	Ge	T	OA2213	AJ	Si	Z	1N3122	GB	Ge	D	2N2428	UL	Ge	T
ASY29	A	Ge	T	OC22	A	Ge	T	1N3182	A	Si	D	2N2429	UL	Ge	T
BA114	A	Si	D	OC23	A	Ge	T	1N3483	GB	Ge	D	2N2430	UL	Ge	T
BCY10	A	Si	T	OC24	A	Ge	T	1N3484	GB	Ge	D	2N2431	UL	Ge	T
BCY11	A	Si	T	OC26	A	Ge	T	1N3944	GB	Ge	D	2N2431 MP	UL	Ge	T
BCY12	A	Si	T	OC30	A	Ge	T	1N4095	A	Si	Z	2N2483	P	Si	T
BCY30	A	Si	T	OC44	A	Ge	T	1N4885/H4A	A	Si	D	2N2484	P	Si	T
BCY31	A	Si	T	OC45	A	Ge	T	1N4886	A	Si	D	2N2494	PA	Ge	T
BCY32	A	Si	T	OC58	A	Ge	T	2N279	A	Ge	T	2N2495	PA	Ge	T
BCY33	A	Si	T	OC59	A	Ge	T	2N280	A	Ge	T	2N2496	PA	Ge	T
BCY34	A	Si	T	OC60	A	Ge	T	2N284	A	Ge	T	2N2512	PA	Ge	T
BCZ10	A	Si	T	OC71N	A	Ge	T	2N284A	A	Ge	T	2N2569	PE	Si	T
BCZ11	A	Si	T	OC74	A	Ge	T	2N404	A	Ge	T	2N2570	PE	Si	T
BCZ12	A	Si	T	OC75N	A	Ge	T	2N404A	A	Ge	T	2N2586	P	Si	T
BY100	DJ	Si	R	OC79	A	Ge	T	2N696	P	Si	T	2N2617	A	Si	T
BY100S	DJ	Si	R	OC80	A	Ge	T	2N696 (JAN)	P	Si	T	2N2654	PA	Ge	T
BZV56	AJ	Si	Z	OC87	A	Ge	T	2N697	P	Si	T	2N2671	PA	Ge	T
BZV57	AJ	Si	Z	OC71	A	Ge	T	2N697 (JAN)	P	Si	T	2N2672	PA	Ge	T
BZV58	AJ	Si	Z	OM200	P	Si	IC	2N706	PE	Si	T	2N2706	UL	Ge	T
BZV59	AJ	Si	Z	PADT50	AD	Ge	T	2N706 (JAN)	PE	Si	T	2N2706 MP	UL	Ge	T
BZV60	AJ	Si	Z	PADT51	—	Ge	T	2N708	PE	Si	T	2N2707	UL	Ge	T
BZV61	AJ	Si	Z	RPY13	—	CS	P	2N743	—	Si	T	2N2786	PA	Ge	T
BZV62	AJ	Si	Z	S100	Si	Si	D	2N744	—	Si	T	2N2786A	PA	Ge	T
BZV63	AJ	Si	Z	S262	PC	Ge	D	2N753	—	Si	T	2N2835	A	Ge	T
BZV64	AJ	Si	Z					2N783	P	Si	T	2N2836	A	Ge	T
BZV65	AJ	Si	Z	IN34	PC	Ge	D	2N834	P	Si	T	2N3074	PA	Ge	T
BZV66	AJ	Si	Z	IN34A	PC	Ge	D	2N835	P	Si	T	2N3075	PA	Ge	T
BZV67	AJ	Si	Z	IN38	PC	Ge	D	2N914	—	Si	T	2N3077	P	Si	T
BZV68	AJ	Si	Z	IN38A	PC	Ge	D	2N929	—	Si	T	2N3078	P	Si	T
BZV69	AJ	Si	Z	IN54	PC	Ge	D	2N930	P	Si	T	2N3399	M	Ge	T
BZZ10	AJ	Si	Z	IN54A	PC	Ge	D	2N987	PA	Ge	T	2N3588	P	Ge	T
BZZ11	AJ	Si	Z	IN58A	PC	Ge	D	USA 2N987	PA	Ge	T	40809	UL	Ge	T

Note (1): A—alloy
AD—alloy diffused
P—planar
E—epitaxial
DJ—diffused junction
GB—gold bonded
J—junction

PA—PADT
UL—ULI
M—Mesa
PC—point contact
DD—double diffused

Note (2): Si—Silicon
Ge—Germanium
CS—Cadmium sulfide

Note (3): T—Transistor
D—diode
Z—zener diode
P—photosensitive device
R—rectifier
V—varactor diode
IC—integrated circuit

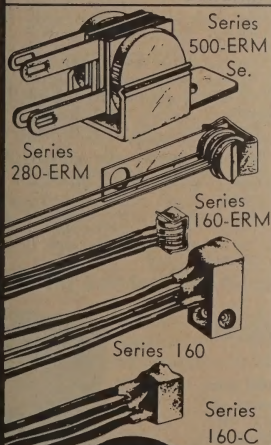
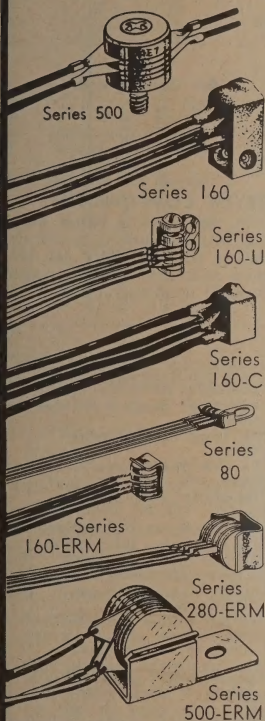
The following is a brief cross-index list of Amperex and other type numbers.

			(See Notes Above)						(See Notes Above)		
TYPE NO.			(1) (2) (3)			TYPE NO.			(1) (2) (3)		
A1590	superseded by	A415	PE	Si	T	OC26	see	2N1314	A	Ge	T
AC125	see	2N2428	UL	Ge	T	OC28	see	2N1666	A	Ge	T
AC126	see	2N2429	UL	Ge	T	OC29	see	2N1667	A	Ge	T
AC127	see	2N2430	UL	Ge	T	OC35	see	2N1668	A	Ge	T
AC127/132	see	2N2707	UL	Ge	T	OC36	see	2N1669	A	Ge	T
AC128	see	2N2431	UL	Ge	T	OC70	see	2N279	A	Ge	T
AC132	see	2N2706	UL	Ge	T	OC71	see	2N280	A	Ge	T
AF102	see	2N2494	PA	Ge	T	2-OC72	see	2N282	A	Ge	T
AF114	see	2N2089	PA	Ge	T	OC76	see	2N284	A	Ge	T
AF115	see	2N2089	PA	Ge	T	OC77	see	2N284A	A	Ge	T
AF116	see	2N2092	PA	Ge	T	OC169	see	2N1515	PA	Ge	T
AF117	see	2N2092	AD	Ge	T	OC170	see	2N1516	PA	Ge	T
AUY10	see	PADT50	PA	Ge	T	OC171	see	2N1517	PA	Ge	T
BC211	see	2N2617	A	Si	T	OC201	see	2N2617	A	Si	T
H4A	see	1N4885	—	Si	V						

CONANT *Miniature Metallic Rectifiers*

**STANDARD
SINCE 1933**

Illustrations
approx. actual size



CONANT MINIATURE METALLIC RECTIFIERS

All Conant rectifiers are manufactured to the highest quality standards from individually tested and graded cells. Copper oxide cells are produced by the exclusive Conant Process and have 24K gold contacts applied in high vacuum.

The Conant Complete Color Code permits identification of rectifier type by color and physical form.

Only basic standard rectifier types are listed below. Many other standard catalog items are available and we are prepared to produce special items to meet customers' special requirements.

COPPER OXIDE TYPES WITH INSULATED LEAD WIRES

TYPE	CIRCUIT	CELL SIZE	ACTIVE AREA	INPUT	OUTPUT	MOUNTING	FINISH	PRICE
M	1	.500"	.125 sq. in.	5V	100 ma.	6-32 stud	Lacquer	\$2.10
TH	Series 2	"	"	"	75 ma.	"	"	1.86
HS	500	3	"	"	50 ma.	"	"	1.53
T	4	"	"	"	100 ma.	"	"	1.53
H	5	"	"	"	50 ma.	"	"	1.20
B	1	.166"	.012 sq. in.	"	10 ma.	#2 screw	Solid fill	2.10
BTH	Series 2	"	"	"	7 ma.	"	"	1.86
BHS	160	3	"	"	5 ma.	"	"	1.53
BT	4	"	"	"	10 ma.	"	"	1.53
BH	5	"	"	"	5 ma.	"	"	1.20
B-U	1	"	"	"	10 ma.	#2 screw	"	1.98
BTH-U	2	"	"	"	7 "	"	"	1.74
BHS-U	Series 3	"	"	"	5 "	"	"	1.41
BT-U	160-U	4	"	"	10 "	"	"	1.41
BH-U	5	"	"	"	5 "	"	"	1.08
B-C	1	"	"	"	10 ma.	Fuse clip	"	2.10
BTH-C	Series 2	"	"	"	7 ma.	"	"	1.86
BHS-C	160-C	3	"	"	5 ma.	"	"	1.53
BT-C	4	"	"	"	10 ma.	"	"	1.53
BH-C	5	"	"	"	5 ma.	"	"	1.20
A	1	.080"	.0012 sq. in.	5V	1 ma.	#2 screw	Bonded vinyl	2.10
ATH	Series 2	.080"	.0012 sq. in.	"	1 ma.	#2 screw	Bonded vinyl	1.86
AHS	80	3	.080"	"	500 ua.	#2 screw	Bonded vinyl	1.53
AT	4	.080"	.0012 sq. in.	"	500 ua.	#2 screw	Bonded vinyl	1.53
AH	5	.080"	.0012 sq. in.	"	500 ua.	#2 screw	Bonded vinyl	1.20
B-ERM*	1	"	"	"	10 ma.	Leads	Lacquer	1.59
BTH-ERM*	Series 2	"	"	"	7 ma.	"	"	1.35
BHS-ERM*	160-	3	"	"	5 ma.	"	"	1.05
BT-ERM*	ERM	4	"	"	10 ma.	"	"	1.05
BH-ERM*	5	"	"	"	5 ma.	"	"	.75
I-ERM*	1	.280"	.035 sq. in.	"	30 ma.	"	"	1.59
ITH-ERM*	Series 2	"	"	"	20 ma.	"	"	1.35
IHS-ERM*	280	3	"	"	15 ma.	"	"	1.05
IT-ERM*	ERM	4	"	"	30 ma.	"	"	1.05
ITH-ERM*	5	"	"	"	15 ma.	"	"	.75
M-ERM*	1	.500"	.123 sq. in.	"	100 ma.	#6 screw	"	1.59
TH-ERM*	Series 2	"	"	"	75 ma.	"	"	1.35
HS-ERM*	500	3	"	"	50 ma.	"	"	1.05
T-ERM*	ERM	4	"	"	100 ma.	"	"	1.05
H-ERM*	5	"	"	"	50 ma.	"	"	.75

SELENIUM TYPES, wire leads or lugs as shown

TYPE	CIRCUIT	CELL SIZE	ACTIVE AREA	INPUT	OUTPUT	MOUNTING	FINISH	PRICE
SeM-ERM*	Series 1	.500"	.15 sq. in.	25V	60 ma.	#6 screw	Lacquer	\$11.11
SeTH-ERM*	500	2	"	"	40 ma.	"	"	.99
SeHS-ERM*	ERM	3	"	"	30 ma.	"	"	.81
SeT-ERM*	Se.	4	"	"	60 ma.	"	"	.81
SeH-ERM*	5	"	"	"	30 ma.	"	"	.63
SeI*	1	.280"	.06 sq. in.	"	20 ma.	Bracketterminal	"	.66
SeTH*	Series 2	"	"	"	15 ma.	"	"	.60
SeHS*	280	3	"	"	10 ma.	"	"	.51
SeT*	ERM	4	"	"	20 ma.	"	"	.51
SeH*	5	"	"	"	10 ma.	"	"	.42
SeB-ERM*	1	.166"	.02 sq. in.	"	10 ma.	Leads	"	.87
SeBTH-ERM*	Series 2	"	"	"	7 ma.	"	"	.81
SeBHS-ERM*	160	3	"	"	5 ma.	"	"	.69
SeBT-ERM*	ERM	4	"	"	10 ma.	"	"	.69
SeBH-ERM*	5	"	"	"	5 ma.	"	"	.57
SeB	1	"	"	"	10 ma.	#2 screw	Solid fill	1.38
SeBTH	Series 2	"	"	"	7 ma.	"	"	1.32
SeBHS	160	3	"	"	5 ma.	"	"	1.17
SeBT	4	"	"	"	10 ma.	"	"	1.17
SeBH	5	"	"	"	5 ma.	"	"	1.02
SeB-C	1	"	"	"	10 ma.	Fuse clip	"	1.38
SeBTH-C	Series 2	"	"	"	7 ma.	"	"	1.32
Se-BHS-C	160-C	3	"	"	5 ma.	"	"	1.17
SeBT-C	4	"	"	"	10 ma.	"	"	1.17
SeBH-C	5	"	"	"	5 ma.	"	"	1.02

*Resilient structure (U. S. Pat No. 2,656,493) maintains optimum stack pressure independent of temperature changes, as well as providing the lowest price and smallest size.

CONANT LABORATORIES



SERVICE-DESIGNED ENTERTAINMENT SEMICONDUCTORS

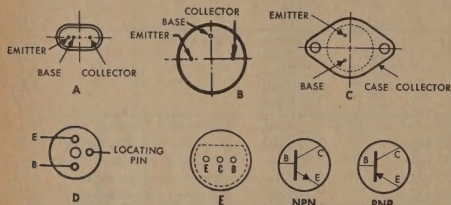


UNIVERSAL REPLACEMENT TRANSISTORS

Highly dependable low-cost transistors especially designed as general replacements for most types of transistors used in Radio and TV Sets and other home entertainment devices.

Catalog No.	Outline Drawing	Use	Application	List Price
GE-1	B	PNP	Mixer/Oscillator Converter • RF and IF Amplifier	\$2.00
GE-2	B	PNP	AF Amplifier	1.70
GE-3	C	PNP	AF Power Amplifier	3.90
GE-4	D	PNP	AF High Power Amplifier	7.40
GE-5	B	NPN	Mixer/Oscillator Converter • RF and AF Amplifier	2.80
GE-6	A	NPN	Mixer/Oscillator Converter • RF Amplifier	3.05
GE-7	A	NPN	IF Amplifier	2.95
GE-8	B	NPN	AF Amplifier	2.15
GE-9	*B	PNP	Mixer/Oscillator Converter • RF and IF Amplifier	2.10
GE-10	E	NPN	AF Amplifier-Driver-Output	2.00
GE-11E	E	NPN	FM and RF Amplifier, FM Converter, UHF Oscillator	2.55

* GE-9 Smaller size than GE-1 (GE-9 .209 diameter — GE-1 .335 diameter)



REGISTERED JEDEC TRANSISTORS

These supplement the Universal Line above. Characteristics conform to JEDEC specifications.

Type or JEDEC No.	Type	Use	List Price
2N107	PNP	AF	\$1.25
2N170	NPN	IF	1.70
2N188A	PNP	AF OUT	3.05
2N190	PNP	AF	1.40
2N324	PNP	AF	1.20
2N404	PNP	SW	.90
2N508	PNP	AF OUT	1.30
2N1415	PNP	AF SW	1.70
2N2160	{ SILICON UNIJUNCTION }	OSC	2.75
2N2868	NPN	SW	3.15

NEW G.E. GE-504A UNIVERSAL RECTIFIER

A silicon rectifier with a 60-amp surge rating. Recommended as a replacement for all selenium, germanium and silicon rectifiers used in TV receivers. The 60-amp surge rating eliminates the need for the urge limiting resistors normally required when silicon rectifiers are used.

PIV is 600 volts; max. I_{DC} , 1 amp. Shipping weight: 2 oz. List Price \$1.10.

G.E. SILICON AND GERMANIUM RECTIFIERS

These top hat, hermetically sealed rectifiers are designed for general-purpose applications requiring maximum economy.

Type	PIV	Max I_{DC}	List Price	Type	PIV	Max I_{DC}	List Price
1N91	100	150	\$1.55	1N1695	400	600	\$1.25
1N1692	100	600	.85	1N1696	500	600	1.35
1N1693	200	600	.90	1N1697	600	600	1.75
1N1694	300	600	.95				

G.E. VAC-U-SEL® DOUBLE DIODES

Miniature double diodes for TV horizontal phase detector, replacement and other applications. $\frac{7}{16}$ x $\frac{9}{16}$ x $\frac{3}{16}$ ". Shipping weight: 2 oz.

Type No.	Ifwd	Imr	Description	Max. Case Temp.	List Price
6GC1	1.1 @ 2.5V	4 @ 20V	Common cathode	85°C	\$0.99
6GD1	1.1 @ 2.5V	4 @ 20V	Series connected	85°C	.99
6GX1	1.1 @ 2.5V	4 @ 20V	Common anode	85°C	.99

G.E. CRYSTAL DIODES

Type	Description	Average Forward Current (ma)	Peak Reverse Voltage (volts)	List Price
1N34AS	General Purpose	50	75	\$0.55
1N60	Video Detector	50	30	.55
1N82A	Silicon UHF Mixer	—	5	1.45
1N295	50 MC Detector	30	50	.55

NEW FOR COLOR TV

G.E. Selenium Rectifiers

Cat. No.	Type	List Price
GECR-1	Focus Rect.	\$6.20
GECR-2	Boosted Boost	2.45
GECR-3	Convergence	1.70

G.E. Quartz Crystals†

Cat. No.	Type	List Price
GE-41	Color burst filter	\$5.15
GE-42	Color subcarrier oscillators	3.80

† Resonant frequency 3579.545 kc.

G.E. EXPERIMETER/HOBBYIST COMPONENTS

Each electronic component in this series is blister packaged with circuit diagrams showing how educational, practical, and interesting electronic devices can be built. They can also be used in many other applications mentioned in hobby magazines and articles such as are found in the General Electric Components Hobby Manual.

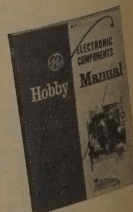
Component	Application	Sugg. User Price
SILICON CONTROLLED RECTIFIER GE-X1	For Plug-in speed control for general-purpose applications	\$5.00
LIGHT-ACTIVATED SILICON CONTROLLED RECTIFIER GE-X2A	For "Slave" photoflash for flashbulbs	2.80
GE-X3	For 12-volt regulated battery charger	4.80
SILICON CONTROLLED RECTIFIER GE-X4	For HIGH-LOW-OFF control for heater, lamp, motor, etc.	1.60
SILICON CONTROLLED RECTIFIER GE-X5	For enlarger phototimer	3.55
PHOTOCELL GE-X6	For light flasher, night control	1.40
REED SWITCH GE-X7	For light flasher, burglar alarm	.80
TRANSISTOR GE-X8	For light flasher, light target, triggered light source	.70
TRANSISTOR GE-X9	For light flasher, light target, triggered light source	.70
UNIUNJUNCTION TRANSISTOR GE-X10	For high-precision tachometer for automotive-type ignition systems with 12-volt negative ground	3.95
ZENER DIODE GE-X11	For high-precision tachometer for automotive-type ignition systems with 12-volt negative ground	1.80
TRIAC GE-X12	For remote control for lamp in appliance	5.30
DIAC GE-X13	For combination full-wave lamp dimmer, lamp sentinel, and a-c motor control	1.60
THYRECTOR GE-X14	For dual-voltage power supply	1.15
THERMISTOR GE-X15	For adjustable temperature alarm	3.45
SILICON CONTROLLED RECTIFIER GE-X16	For battery-operated fluorescent light	3.45
TRANSISTOR GE-M100	For citizens band receiver and control unit (27MC)	1.20
TRANSISTOR 2N107	For audio amplifier, radio receiver, code oscillator, loud-speaker amplifier, 2- or 3-transistor receiver	1.25△
TRANSISTOR 2N170	For 3-transistor radio, direct-coupled amplifier, pre-amplifier	1.70△
UNIUNJUNCTION TRANSISTOR 2N2160	For transistor metronome, code practice oscillator	2.75△

△ List price.

ELECTRONIC EXPERIMENTER

Hobbyist Manual, ETR-3960

Every engineer, experimenter, hobbyist, student, and technician can learn new applications for electronic components with the simple but interesting and useful circuits in this manual. Price \$1.50.

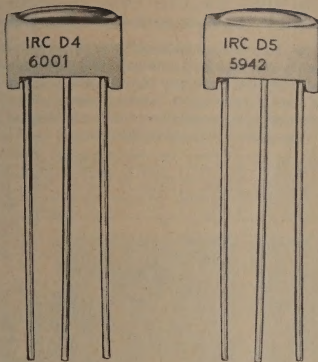


GENERAL ELECTRIC

DUAL DIODES



IRC, Inc.



DIODES. Universal selenium dual diodes for horizontal phase detectors and remote control in TV receivers. Also used in radio control devices for model planes, and other circuits. Available in four basic types.

The small size, economy, ease of installation and reliable construction of the IRC dual selenium diodes make them ideal for many low-voltage, low-frequency applications. To suit them to various circuits, these dual diodes have either common-anode, common-cathode, or series form of internal connection. The cells in each unit are matched to assure electrical balance.

Alloy-plated leads facilitate soldering. No clamp or other mounting device is needed, since the three leads readily support this flyweight unit.

Designed for Long Life

Construction features include an integral heatsink and a "floating" spring that gives proper pre-load over the full operating temperature range. No paper, aminates or other material that might absorb moisture are used. Moisture-excluding materials cushion the active elements and isolate them from encapsulant.

Electrically Balanced and Noise Free

IRC processes each selenium cell to give it a smooth, uncontaminated surface and periphery with no fractures. This technique insures uniform current density over the entire cell area and prevents noisy, unreliable operation.

To indicate polarity, one corner of the case has a diagonal cutoff. This assures correct orientation of units in automated assembly, and allows use of both sight and touch to get proper polarity at manual assembly and inspection.

TV DUAL DIODES

REPLACEMENT INFORMATION

TYPE D4 COMMON CATHODE

Manufacturer	Part No.	Manufacturer	Part No.
Admiral	93B-6, 9	Muntz	SR004
Airline	93C26-7, 9	Olympic	RF5465-1
	66X21		RF5794-1
Coronado	296V004H01	Packard Bell	72053
Curtis Mathes	66X21, 25	Philco	34-8034
	9LR2-S		34-8037-1, 2, 3
Dominion	21A2	RCA	109328, 109474
Electrohome	702-810		1107832-7,
Emerson	14-501-01		9, 10, 11
	817062	Setchell-Carlson	9LR2
	817074	Silvertone	86-9-1
	817126		86-18-1
Federal I.T.T.	K1615		624-0007
GE	P15		D51
	66G1		109328
	ET16X10	Sylvania	624-0006
	K115J510-1, 2		624-0007
	K117J460-1, 2		13-85943-1, 2, 3
Hallcrafters	WT16X7	Tel-Rad	TRC-P4
	27C226	Travler	SR6
Hoffman	027-300-226		SR13
	10031		SR20
	744002	Truetone	D76
	744006	Wells-Gardner	66X21, 25
International Rectifier	DD04	Westinghouse	296V004H01
Magnavox	530093-1	Workman	SD4
Motorola	48K751656	Zenith	103-20
	48K741255		103-32

Connections



Leads Up

TYPE D5 SERIES CONNECTED

Manufacturer	Part No.	Manufacturer	Part No.
Admiral	93A5-2	Olympic	RF5794
	93B5-3, 4, 5, 6	Packard Bell	72030
Airline	SR15	Silvertone	72030
Citizenship	34-8037		8-45-110
Radio			8-48-110
Coronado	SR15		386-4-1A
Dominion	14-503-01		D76
Electrohome		Sonora	86-3-1
Emerson	817062	Sylvania	SR15
	817962	Tel-Rad	13-93889
	K1616	Travler	TRC-55
Federal I.T.T.	P16		SR10
GE	66D1	Truetone	SR15
	K118J966-1		SR10
	WT16X9	Webcor	65P113
International Rectifier	DD05		65P17741
Magnavox	5330045-1, 2, 3	Workman	65P124-1
Motorola	48B742698	Zenith	SD5
	48K741752		633977
	48K742698		
	48K754153		
	65K744238		

Connections



Leads Up

TYPE D6 COMMON ANODE

Manufacturer	Part No.
Federal I.T.T.	K1617
GE	P17
	66X1
	118J966-2
	WT16X8
International Rectifier	DD06
Motorola	48K751724
Packard Bell	72036
RCA	107268
Workman	SD6

Connections



Leads Up

ierc

Semiconductor Heat Dissipators

THERMA-LINK RETAINERS—FOR TO-5,
TO-18 TYPE TRANSISTORS

These devices are designed as efficient retainers and heat sinks when mounted to P-C boards due to their excellent conductivity and extra mass. They also provide an efficient thermal link between transistor and chassis or heat sink. Beryllium copper spring fingers firmly retain transistors, yet fit wide case diameter variations and make transistor insertion easy. Available with Beryllium Oxide when a reduction in capacity between transistor and ground is needed in high frequency applications. Bulletins 141, 144; test report 206.

IERC PART NO./ THERMA-LINK W/BeO	TRAN- SISTOR CASE SIZE	MOUNTING METHOD	QUANTITY PRICES					
			1-9	10-24	25-49	50-99	100-249	250-499
TXP1803B**	ALL TO-18	2-56 SCREW	12.05	11.75	11.64	11.54	11.34	11.23
TXP1803B**	ALL TO-18	2-56 SCREW	2.95	2.51	2.36	2.22	1.92	1.77
TXP0503B*	ALL TO-5	4-40 SCREW	2.15	1.83	1.72	1.62	1.40	1.29
TXP0508B**	ALL TO-5	4-40 SCREW	3.15	2.68	2.52	2.36	2.05	1.89
TX1805 ND**	ALL TO-18	SOLDER	2.75	2.34	2.20	2.07	1.79	1.65
TX0505 ND**	ALL TO-5	SOLDER	2.95	2.51	2.36	2.22	1.92	1.77
TX1806 B***	ALL TO-18	4-40 STUD	3.10	2.64	2.48	2.33	2.02	1.86
TX1806-18***	ALL TO-18	6-32 STUD	3.10	2.64	2.48	2.33	2.02	1.86
TX0506-18***	ALL TO-5	6-32 STUD	3.30	2.81	2.64	2.48	2.15	1.98
TX0506-2B***	ALL TO-5	10-32 STUD	3.30	2.81	2.64	2.48	2.15	1.98

For dimensions of Thermo-Link retainers with BeO, add .060" to dimensions of standard Thermo-Link retainers.

IERC PART NO. STANDARD THERMALINK	DIMENSIONS		TRAN- SISTOR CASE SIZE	MOUNTING METHOD	QUANTITY PRICES				
	DIA.	HEIGHT			1-24	25-49	50-99	100-249	250-499
TXBC-019-023B	7/16"	23"	ALL TO-18	SPRING CLIP	1.30	1.26	1.24	1.23	1.21
TXBC-032-025B	9/16"	25"	ALL TO-18	SPRING CLIP	.30	.26	.24	.23	.21
TXBE-019-021B	22"	21"	ALL TO-18	RIVET OR SOLDER	25	22	20	19	18
TXBE-032-031B	3/8"	5/16"	ALL TO-5	RIVET OR SOLDER	25	22	20	19	18
TXB2P-019-028B	22"	28"	ALL TO-18	2-56 SCREW	55	47	44	42	39
TXB2P-032-037B	3/8"	37"	ALL TO-5	4-40 SCREW	55	47	44	42	39
TX1807-1B	1/4"	1/2"	ALL TO-18	6-32 STUD	.75	.64	.60	.57	.53
TX0507-1B	3/8"	19/32"	ALL TO-6	6-32 STUD	.85	.73	.68	.64	.60
TX0507-2B	3/8"	19/32"	ALL TO-5	10-32 STUD	.85	.73	.68	.64	.60
TXBP-050-037B	5/8"	37"	ALL TO-8	4-40 SCREW	1.60	1.36	1.28	1.20	1.12

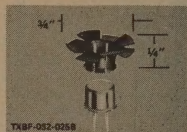
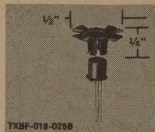


*Separate BeO washer. **BeO washer brazed to dissipator. ***BeO washer brazed between stud and dissipator. 1 Screw and shouldered nylon washer included. Letter "B" at end of part number denotes black cadmium finish; delete letter "B" for Insulube 448 finish; for gold finish, substitute letter "G"; for dull nickel, substitute letters "ND". Contact your IERC representative or the factory regarding other transistor case sizes or finishes.

"FAN TOP" SERIES—FOR TO-5, TO-18
TYPE TRANSISTORS

The exclusive "Fan Top" design gives unbelievable case temperature reduction in natural or forced convection. It allows location of other components close to transistors, yet adds virtually nothing to board height. Beryllium copper spring fingers firmly retain transistors, yet fit wider range of case diameters than any other configuration. Low-cost "Fan Tops" are designed for fast, economical press-fit installation without tools. Bulletin 131.

IERC PART NO.	TRANSISTOR CASE SIZE	QUANTITY PRICES				
		1-24	25-49	50-99	100-249	250-499
TXBF-032-025B	All .305" to .335" cases (TO-5, TO-8, etc.)	1.20	1.17	1.13	1.12	1.115
TXBF-019-025B	All .178" to .196" cases (TO-18, etc.)	.20	.17	.15	.12	.115

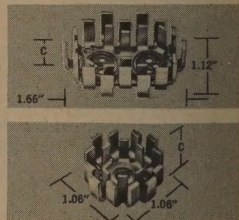
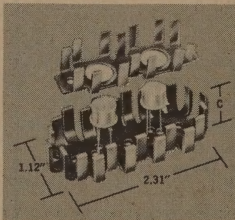


LP SERIES—FOR TO-5, TO-18 TYPE TRANSISTORS

Versatile transistor cooling devices provide excellent heat dissipation in applications of low to high power transistors of TO-5 and TO-18 configuration. Employing the efficient staggered-finger configuration—IERC's exclusive design to optimize convection currents and radiating surface area—they are available for single and multiple transistor mounting. Bulletin 135; test report 182.

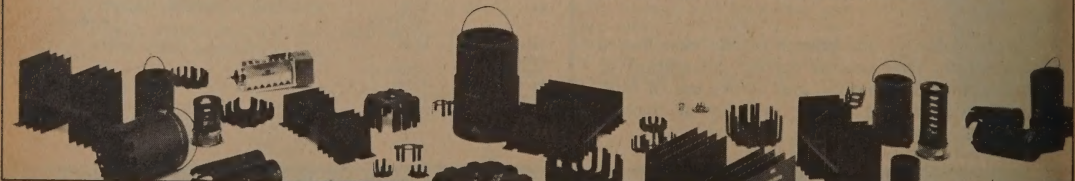
IERC PART NO.	DIMENSION "C"	NUMBER OF TRAN- SISTORS	JEDEC OUTLINE NO.	PRICES				
				1-24	25-49	50-99	100-249	250-499
LP 5A 1B	1/2"	1	TO-5, TO-9	.80	.68	.64	.60	.56
LP 5A 2B	5/16"	1	TO-5, TO-9	.80	.68	.64	.60	.56
LP 18A 1B	1/2"	1	TO-18	.80	.68	.64	.60	.56
LP 18A 2B	5/16"	1	TO-18	.80	.68	.64	.60	.56
LP 18A 3B	1/2"	2	TO-18	.80	.68	.64	.60	.56
LP 18A 4B	5/16"	2	TO-18	.80	.68	.64	.60	.56
LP 5B 1B	1/2"	1	TO-5, TO-9	.90	.77	.72	.68	.63
LP 5B 2B	5/16"	1	TO-5, TO-9	.90	.77	.72	.68	.63
LP 5B 4B	5/16"	2	TO-5, TO-9	.90	.77	.72	.68	.63
LP 5C 1B	1/2"	1	TO-5, TO-9	1.00	.85	.80	.75	.70
LP 5C 2B	5/16"	1	TO-5, TO-9	1.00	.85	.80	.75	.70
LP 5C 3B	1/2"	2	TO-5, TO-9	1.00	.85	.80	.75	.70
LP 5C 4B	5/16"	2	TO-5, TO-9	1.00	.85	.80	.75	.70

Note: Clamp sections may be used separately as retaining devices; change first two letters of the part number to "LC". Base section LB5A18 or LB5A2B may be used separately for TO-37 transistors such as 2N1172 and 2N1609. Delete letter "B" from part number for Insulube 448 finish. Consult your IERC representative or factory for special orders.



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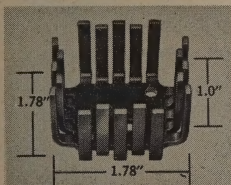
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Semiconductor Heat Dissipators

UP SERIES—FOR POWER TYPE TRANSISTORS AND DIODES

UP Series design gives maximum dissipation in medium power applications at lower cost than comparable finned extrusions. Staggered-finger configuration—a design exclusive with IERC—allows maximum efficiency in both natural convection and forced air at less weight and volume. Increased dissipation can be achieved by mounting dissipators back-to-back on a bracket. Standard finish is black anodize. Bulletin 134; test report 172A.

IERC PART NO.	JEDEC OUTLINE NO.	QUANTITY PRICES				
		1-24	25-49	50-99	100-249	250-499
UP-T03B	TO-3	\$6.66	\$5.56	\$5.53	\$5.50	\$5.47
UP-T06B	TO-6 or TO-36	.66	.56	.53	.50	.47
UP-T08B	TO-8	.66	.56	.53	.50	.47
UP-T015B	TO-15 or TO-13 (W stud)	.66	.56	.53	.50	.47
UP-T0V7B	Universal*	.66	.56	.53	.50	.47
UP-T0V2B	Like 2N1015	.66	.56	.53	.50	.47

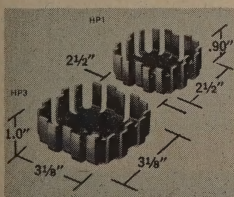


Delete letter "B" from part number for Insulube 448 finish. Above parts are 1" high; for 3/4", add numeral "2" after first two letters of part number; for 1/2", add numeral "1" after first two letters; example: UP2-T03B describes a dissipator 3/4" high, with TO-3 hole pattern and black anodize finish. For other hole patterns, see your IERC representative or consult the factory.

HP SERIES—FOR POWER TYPE TRANSISTORS AND DIODES

Due to the staggered-finger design, heat dissipation performance is comparable to conventional extrusions up to 3 times as heavy and 30% larger. The two sizes may be used separately or with the smaller unit nested in the larger unit. Standard finish is black anodize. Bulletin 139; test report 198.

IERC PART NO.	JEDEC OUTLINE NO.	QUANTITY PRICES				
		1-24	25-49	50-99	100-249	250-499
HP1-T03B	TO-3	\$11.30	\$11.11	\$11.04	\$8.98	\$8.91
HP1-T06B	TO-6	1.30	1.11	1.04	.98	.91
HP1-T015B	TO-15, 1/4" STUD	1.30	1.11	1.04	.98	.91
HP1-T0V2B	UNIVERSAL*	1.30	1.11	1.04	.98	.91
HP1-T06B	TO-10, TO-31 5-32 or 10-32 STUD	1.30	1.11	1.04	.98	.91
HP3-T03B	TO-3	1.40	1.19	1.12	1.05	.98
HP3-T06B	TO-6	1.40	1.19	1.12	1.05	.98
HP3-T015B	TO-15, 1/4" STUD	1.40	1.19	1.12	1.05	.98
HP3-T0V2B	UNIVERSAL*	1.40	1.19	1.12	1.05	.98



Note: Delete letter "B" from part number for Insulube 448 finish. For other hole patterns, insert JEDEC Outline Number after the "dash" in the part number; or, contact your IERC representative or the factory for assistance with special orders.

*Combination hole pattern for TO-3, TO-6, TO-36 or studs up to 1/4" dia.

EXTRUSIONS—E1 AND E2 SERIES

These units provide an optimized fin design giving the most power dissipation for volume and weight. Standard finish is black anodize. Standard units supplied with mounting notches and choice of six popular semiconductor mounting hole patterns. Bulletin 142.

THERMAL RESISTANCE, MOUNTING SURFACE TO AIR

E1 (3°L): 2.05°C/W natural convection

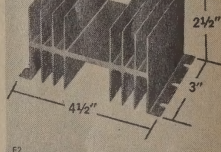
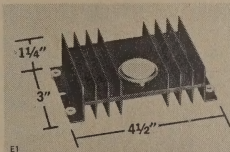
0.80°C/W in 1000 fpm air flow

E2 (3°L): 1.89°C/W natural convection

0.43°C/W in 1000 fpm air flow

EXTRUSION TYPE	IERC PART NO.	TRANSISTOR MOUNTING HOLE PATTERN	QUANTITY PRICES				
			1-24	25-49	50-99	100-249	250-499
E1	E1000-0600B	BLANK	\$1.38	\$1.18	\$1.11	\$.95	\$.82
	E1005-0600B	TO-3	1.62	1.38	1.30	1.12	.97
	E1008-0600B	TO-8	1.62	1.38	1.30	1.12	.97
	E1015-0600B	TO-15	1.62	1.38	1.30	1.12	.97
	E1022-0600B	LIKE 2N1015	1.62	1.38	1.30	1.12	.97
	E1026-0600B	UNIVERSAL*	1.62	1.38	1.30	1.12	.97
E2	E1008-0600B	TO-6	1.62	1.38	1.30	1.12	.97
	E2000-0600B	BLANK	2.04	1.74	1.67	1.40	1.20
	E2003-0600B	TO-3	2.28	1.94	1.88	1.57	1.35
	E2008-0600B	TO-8	2.28	1.94	1.88	1.57	1.35
	E2015-0600B	TO-15	2.28	1.94	1.88	1.57	1.35
	E2022-0600B	LIKE 2N1015	2.28	1.94	1.88	1.57	1.35
	E2026-0600B	UNIVERSAL*	2.28	1.94	1.88	1.57	1.35
	E2066-0600B	TO-6	2.28	1.94	1.88	1.57	1.35

Note: Other lengths, in 1/2" increments are available. Specify non-standard hole patterns by JEDEC Outline Number, or by transistor type. For unplated, or Insulube 448 finishes, consult your nearest IERC representative or the factory.



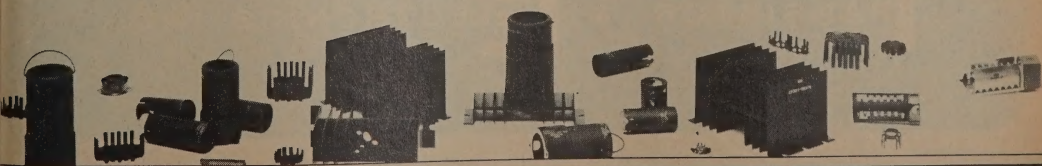
INSULUBE 448 FINISH FOR HEAT DISSIPATORS

The Insulube 448 finish is the only proven finish for positive electrical insulation in electronic equipment that meets the most stringent environmental requirements. □ Non-hygroscopic □ High emissivity surface □ Salt spray resistant □ Low thermal resistance □ Unaffected by elevated temperature □ High dielectric strength □ Low insulation resistance.

Insulube 448 is available on all IERC heat dissipators by deleting the suffix letter "B" from the standard part number. For application to complete chassis, thermal packages, enclosures and various other structures, consult your IERC representative or the factory.

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LANSDALE EXPANDS

Expanded consumer transistor capabilities now bring you Lansdale custom selection and guaranteed delivery on the following consumer-entertainment types:

2N109	2N301A	2N647	2N1179	2N1639	2N2083	2N2869	2N3731
2N217	2N406	2N1177	2N1180	2N1905	2N2147	2N2870	2N3732
2N301	2N408	2N1178	2N1638	2N1906	2N2148	2N3730	TA2063

To a constantly increasing number of Design and Product Engineers, Lansdale is already the rapid-delivery source for 2N Epitaxial Mesas and Planars, and Philco-type Germaniums, Silicon Alloys, S.A.D.T.s, and Silicon Epitaxials. Check Lansdale now for guaranteed delivery in any quantity required on the following types:

2N207	2N499A	2N671	2N777	2N1126	2N1429	2N2219A	2N2537
2N207A	2N501	2N672	2N846	2N1127	2N1478	2N2220	2N2538
2N207B	2N501A	2N673	2N846A	2N1128	2N1494	2N2221	2N2539
2N223	2N502	2N706	2N960	2N1129	2N1494A	2N2221A	2N2540
2N226	2N502A	2N708	2N961	2N1130	2N1500	2N2222	2N2651
2N240	2N502B	2N709	2N962	2N1131	2N1663	2N2222A	2N2904
2N317A	2N504	2N721	2N963	2N1132	2N1676	2N2368	2N2904A
2N345	2N534	2N722	2N964	2N1158	2N1727	2N2369	2N2905
2N346	2N535	2N768	2N965	2N1158A	2N1747	2N2369A	2N2905A
2N353	2N535A	2N769	2N966	2N1204	2N1753	2N2374	2N2906
2N386	2N535B	2N770	2N967	2N1267	2N1866	2N2375	2N2906A
2N387	2N597	2N771	2N1118	2N1268	2N2086	2N2376	2N2907
2N393	2N598	2N772	2N1118A	2N1269	2N2087	2N2380	2N2907A
2N395	2N599	2N773	2N1119	2N1270	2N2217	2N2380A	2N2967
2N404	2N600	2N774	2N1123	2N1271	2N2218	2N2410	2N3011
2N428	2N601	2N775	2N1124	2N1272	2N2218A	2N2478	2N3015
2N499	2N670	2N776	2N1125	2N1411	2N2219	2N2479	

CUSTOM SPECIFICATIONS ARE OUR SPECIALTY

LANSDALE

T RANSISTOR & **E** LECTRONICS INC.

OHMITE

resistors • rheostats • tap switches • relays
variable transformers • tantalum capacitors
semiconductor devices • r.f. chokes

STOCK DIODES

Germanium and Silicon

Also "Meter Saver" Meter Protector

SILICON DIODE



GERMANIUM DIODE

A wide choice of popular characteristics in low power germanium and silicon diodes is available immediately from Ohmite stock. Both the germanium and silicon types are supplied in the subminiature, hermetically sealed glass envelope (see diagram). The silicon envelope is light-shielded.

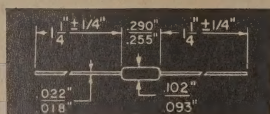
High stability is achieved through temperature cycling and aging. All units must meet severe environmental, electrical and mechanical requirements with a liberal safety factor.

GERMANIUM DIODES—Ohmite supplies the gold-bonded variety. Power rating is 80 mw at 25°C except where otherwise indicated. Operating temperature range is -65°C to +90°C.

SILICON DIODES—Employ either the alloy or diffusion method of junction formation. Power rating is 400 milliwatts at 25°C except where otherwise indicated. Operating temperature range is -65°C to +150°C.

STOCK GERMANIUM DIODES

Stock No.	PIV	Max. Rev. μ a at 25°C	Min. Fwd. ma at 1V	Net 1/99
1N34	100	800@ 50V	8.5	.22
1N34A	75	500@ 50V	5	.24
1N38A	120	500@100V	4	.50
1N49	85	833@ 50V	4	.28
1N51	50	1677@ 50V	4	.30
1N54A	75	100@ 50V	5	.42
1N56	40	300@ 30V	15	.38
1N56A	50	300@ 30V	15	.38
1N58A	120	600@100V	4	.55
1N60	30	67@ 10V	—	.29
1N63	125	50@ 50V	4	.52
1N64	20	100@ 10V	—	.27
1N66	60	800@ 50V	5	.36
1N67	100	50@ 50V	4	.49
1N67A	100	50@ 50V	4	.28
1N68A	130	625@100V	3	.63
1N69	75	850@ 50V	5	.34
1N69A	75	500@ 50V	5	.62
1N87	23	300 @ 1.5V	1.6	.39
1N90	75	800@ 50V	5	.32
1N95	75	800@ 50V	10	.40
1N96	75	800@ 50V	20	.53
1N98	100	100@ 50V	20	.31
1N99	100	50@ 50V	10	.45
1N99A	100	50@ 50V	20	.45
1N100	100	50@ 50V	20	.31
1N191①	90	25@ 10V⑥	5	.34
1N198	100	250@ 50V③	4	.34
1N270	100	100@ 50V	200④	.31
1N273	40	200@ 20V	100	.46
1N276	100	100@ 50V	40	.31
1N277	120	250@ 50V③	100	.34
1N279	40	200@ 20V	100	.29
1N281	75	500@ 50V	100	.31
1N294	70	10@ 10V	5	.34
1N295	50	200@ 10V	—	.32
1N295A	40	200@ 10V	—	.32
1N497	30	20@ 20V	100	.38
1N695②	20	20@ 10V③	100	.29



STOCK SILICON DIODES

Stock No.	PIV	Max. Rev. μ a at 25°C	Min. Fwd. ma at 1V	Net 1/99
1N456	25	.025@ 25V	40	.35
1N456A	25	.025@ 25V	100	.35
1N457	60	.025@ 60V	20	.35
1N457A	60	.025@ 60V	100	.35
1N458	125	.025@ 125V	7	.45
1N459A	125	.025@ 125V	100	.45
1N459	175	.025@ 175V	3	.50
1N459A	175	.5 @ 175V	100	.50
1N461	25	.5 @ 25V	15	.35
1N462A	60	.5 @ 60V	100	.35
1N463	175	.5 @ 175V	1	.45
1N645	225	.2 @ 225V	400	1.30

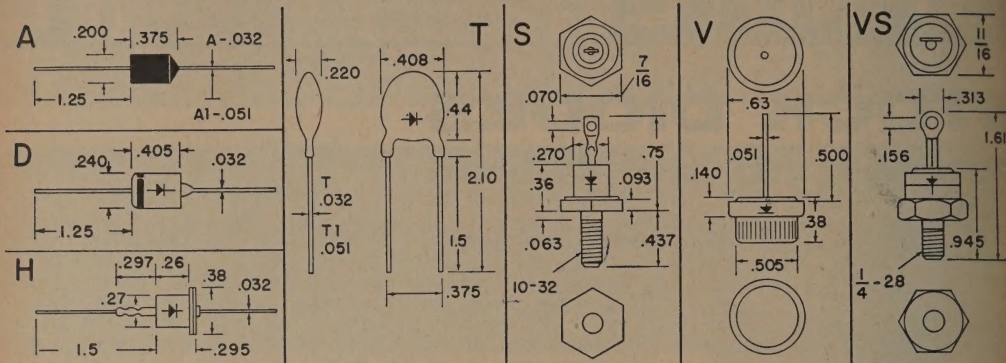
FOOTNOTES FOR
ALL DIODE TABLES

- ① 0.5 μ sec.
② 0.3 μ sec.
③ 75°C.
④ Duty cycle must be adjusted in testing at these high forward currents so that average power dissipated does not exceed 80 mw.
⑤ 55°C.
⑥ At 0.25 volts.

DIODE
METERSAVER
PROTECTS
METERS

Designed to protect sensitive (high internal resistance) meters against burnout due to overload even where potential is reversed. Introduces negligible error. Consists of 2 silicon diodes in compact case with leads and lugs. Connects across meter terminals without regard for polarity. Shunts excess current around meters—for example, can convert 200 times overload to 3 times overload. Allows use of less expensive meter fuses. Can be used with meters of low internal resistance but use of series resistor is then recommended.

Stock No. OMC7111....Net (1-99) \$1.98

MALLORY**Silicon Rectifiers**

Mallory silicon rectifiers are produced by the diffused junction process. This process provides superior operating characteristics when compared to alloy junction types. An exceptionally broad range of case styles is available to suit most installation requirements. Styles A and T have "cold" cases which offer outstanding humidity resistance and have withstood the rigorous "Joy Bomb" test. All types exceed rated JEDEC standards.

1/4 AMP AT 50° C

Peak one-cycle surge, 15 amps.

Mallory No.	Style	PIV Volts	Max.* Temp., °C	Net Each
A50	A	50	100	\$0.40
A100	A	100	100	.45
1N2069	A	200	100	.50
A300	A	300	100	.60
1N2070	A	400	100	.67
A500	A	500	100	.72
1N2071	A	600	100	.77
A800	A	800	100	1.20
A1000	A	1000	100	2.00
1N2090	T	50	100	.46
1N2091	T	100	100	.48
1N2092	T	200	100	.52
1N2093	T	300	100	.56
1N2094	T	400	100	.58
1N2095	T	500	100	.63
1N2096	T	600	100	.66
T800	T	800	100	1.50
T1000	T	1000	100	2.18
1N536	H	50	150	.67
1N537	H	100	150	.74
1N538	H	200	150	.78
1N539	H	300	150	.84
1N540	H	400	150	.88
1N1095	H	500	150	.95
1N541	H	600	150	1.10
1N1096	H	800	150	1.10

1/4 AMP AT 75° C

Peak one-cycle surge, 35 amps.

D50	D	50	100	\$0.63
D100	D	100	100	.65
1N3193	D	200	100	.69
D300	D	300	100	.76
1N3194	D	400	100	.80
D500	D	500	100	.88
1N3195	D	600	100	.93

1 AMP AT 25° C

Peak one-cycle surge, 15 amps.

A50	A	50	100	\$0.40
A100	A	100	100	.45
1N2069	A	200	100	.50
A300	A	300	100	.60
1N2070	A	400	100	.67
A500	A	500	100	.72
1N2071	A	600	100	.77
A800	A	800	100	1.20
A1000	A	1000	100	2.00
1N2090	T	50	100	.46
1N2091	T	100	100	.48
1N2092	T	200	100	.52
1N2093	T	300	100	.56
1N2094	T	400	100	.58
1N2095	T	500	100	.63
1N2096	T	600	100	.66
T800X	T	800	100	1.50
T1000X	T	1000	100	2.18

1 AMP AT 50° C

Peak one-cycle surge, 15 amps.

Mallory No.	Style	PIV Volts	Max.* Temp., °C	Net Each
AA50	A	50	100	\$0.47
AA100	A	100	100	.54
AA200	A	200	100	.60
AA300	A	300	100	.68
AA400	A	400	100	.78
AA500	A	500	100	.82
AA600	A	600	100	.92
AA800	A	800	100	1.26
AA1000	A	1000	100	2.18
TA50	T	50	100	.78
TA100	T	100	100	.84
TA200	T	200	100	.87
TA300	T	300	100	.92
TA400	T	400	100	1.05
TA500	T	500	100	1.25
TA600	T	600	100	1.65
TA800	T	800	100	1.90
TA1000	T	1000	100	2.80

2 AMPS AT 50° C

Peak one-cycle surge, 15 amps.

AB50	A1	50	100	\$0.78
AB100	A1	100	100	.88
AB200	A1	200	100	1.05
AB300	A1	300	100	1.15
AB400	A1	400	100	1.25
AB500	A1	500	100	1.57
AB600	A1	600	100	1.82
AB800	A1	800	100	2.75
AB1000	A1	1000	100	2.75
TB50	T1	50	100	1.15
TB100	T1	100	100	1.20
TB200	T1	200	100	1.25
TB300	T1	300	100	1.53
TB400	T1	400	100	1.57
TB500	T1	500	100	1.80
TB600	T1	600	100	2.24
TB800	T1	800	100	3.60
TB1000	T1	1000	100	5.70

3 AMPS AT 25° C

Peak one-cycle surge, 15 amps.

AC50	A1	50	100	\$0.88
AC100	A1	100	100	.95
AC200	A1	200	100	1.10
AC300	A1	300	100	1.45
AC400	A1	400	100	1.55
AC500	A1	500	100	1.80
AC600	A1	600	100	1.80
AC800	A1	800	100	2.40
AC1000	A1	1000	100	2.85
TC50	T1	50	100	1.45
TC100	T1	100	100	1.57
TC200	T1	200	100	1.70
TC300	T1	300	100	1.75
TC400	T1	400	100	1.80
TC500	T1	500	100	2.24
TC600	T1	600	100	2.42
TC800	T1	800	100	4.40
TC1000	T1	1000	100	6.00
S50	S++	50	150	1.60
S100	S++	100	150	1.67
1N1124A	S++	200	150	1.82
1N1125	S++	300	150	2.66
1N1126A	S++	400	150	3.15
1N1127	S++	500	150	3.88
1N1128A	S++	600	150	4.45

15 AMPS AT 150° C†

Peak one-cycle surge, 250 amps.

Mallory No.	Style	PIV Volts	Max.* Temp., °C	Net Each
1N3208	VS	50	175	\$1.15
1N3209	VS	100	175	1.30
1N3210	VS	200	175	1.70
1N3211	VS	300	175	2.00
1N3212	VS	400	175	2.48
1N3213	VS	500	175	2.86
1N3214	VS	600	175	3.56

18 AMPS AT 150° C†

Peak one-cycle surge, 300 amps.

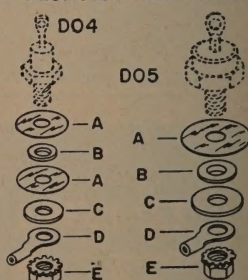
1N3491	V	50	175	\$0.63
1N3492	V	100	175	.68
1N3493	V	200	175	1.03
1N3494	V	300	175	1.31
1N3495	V	400	175	1.65
V500	V	500	175	1.88
V600	V	600	175	1.98

25 AMPS AT 150° C†

Peak one-cycle surge, 400 amps.

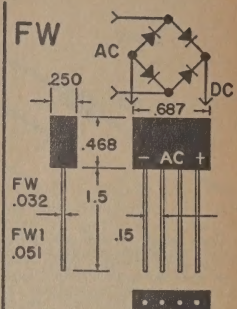
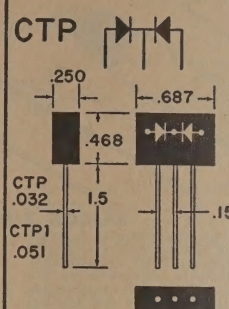
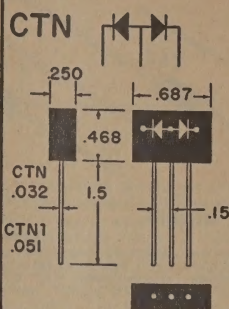
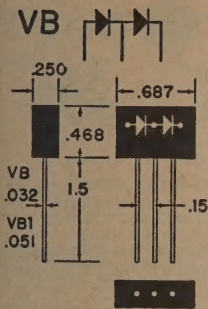
1N3659	V	50	175	\$1.26
1N3660	V	100	175	1.36
1N3661	V	200	175	2.06
1N3662	V	300	175	2.62
1N3663	V	400	175	3.30
1N3664	V	500	175	3.76
1N3665	V	600	175	3.96

*Case temperature. †Standard polarity is cathode to stud. For anode to stud, add suffix R. ‡Mounting hardware furnished.

RECTIFIER HARDWARE

Mallory No.	Description	Net Each
HD04	Complete DO4 kit	\$0.08
HD04A	Mica washer (2 reqd.)	.007
HD04B	Brass washer	.01
HD04C	Teflon® washer	.01
HD04D	Solder lug	.012
HD04E	#10-32 locknut	.015
HD05	Complete DO5 kit	.14
HD05A	Mica washer	.012
HD05B	Brass washer	.012
HD05C	Teflon washer	.04
HD05D	Solder lug	.04
HD05E	1/4"-20 locknut	.018

®Registered Du Pont trademark.

MALLORY**Packaged Rectifier Circuits**

Mallory pre-packaged rectifier circuits offer outstanding advantages to both the circuit designer and the service technician. The circuits are composed of carefully selected and matched diffused-junction silicon rectifiers. This ensures a balanced operation difficult to attain with individual rectifiers. In addition, size is smaller than the equivalent number of individual rectifiers. In all cases, there are fewer solder joints to make. Quality is guaranteed by Mallory, the pioneer in pre-packaged rectifier circuits.

There are four basic circuits available: Voltage doublers, full-wave circuits in both center-tap negative as well as positive, and full-wave bridge. A full range of inverse voltages and output currents are listed.

Cases for all types have the same external dimensions and are made of specially formulated pre-formed plastic. High density end fill ensures maximum humidity protection. The cold case design avoids stray shorts to other nearby components. The dense packaging material provides excellent heat dissipation.

VOLTAGE DOUBLERS

Current output refers to total circuit and is rated at 50° C. Maximum case temperature is 100° C. Max. one-cycle surge, 15 amps.

Mallory No.	Case	PIV Volts	Output, Amps	Net Each
VB50	VB	50	.75	\$0.78
VB100	VB	100	.75	.86
VB200	VB	200	.75	.96
VB300	VB	300	.75	1.00
VB400	VB	400	.75	1.06
VB500	VB	500	.75	1.20
VB600	VB	600	.75	1.34
VBA50	VB	50	1	.85
VBA100	VB	100	1	.96
VBA200	VB	200	1	1.06
VBA300	VB	300	1	1.10
VBA400	VB	400	1	1.14
VBA500	VB	500	1	1.31
VBA600	VB	600	1	1.49
VB50	VBI	50	2	1.38
VB100	VBI	100	2	1.55
VB200	VBI	200	2	1.72
VB300	VBI	300	2	1.82
VB400	VBI	400	2	1.90
VB500	VBI	500	2	2.15
VB600	VBI	600	2	2.40
VC50	VBI	50	3	1.56
VC100	VBI	100	3	1.72
VC200	VBI	200	3	1.92
VC300	VBI	300	3	2.00
VC400	VBI	400	3	2.12
VC500	VBI	500	3	2.40
VC600	VBI	600	3	2.68

FULL-WAVE RECTIFIER CIRCUITS**CENTER TAP NEGATIVE**

Current output refers to total circuit and is rated at 50° C. Maximum case temperature is 100° C. Max. one-cycle surge, 15 amps.

Mallory No.	Case	PIV Volts	Output, Amps	Net Each
CTN50	CTN	50	1.5	\$0.78
CTN100	CTN	100	1.5	.86
CTN200	CTN	200	1.5	.96
CTN300	CTN	300	1.5	1.00
CTN400	CTN	400	1.5	1.06
CTN500	CTN	500	1.5	1.20
CTN600	CTN	600	1.5	1.34
CTN800	CTN	800	1.5	1.81
CTN1000	CTN	1000	1.5	2.30

**FULL-WAVE RECTIFIER CIRCUITS
CENTER TAP NEGATIVE (CONT'D.)**

Mallory No.	Case	PIV Volts	Output, Amps	Net Each
CTNA50	CTN	50	2	\$0.85
CTNA100	CTN	100	2	.86
CTNA200	CTN	200	2	1.06
CTNA300	CTN	300	2	1.10
CTNA400	CTN	400	2	1.14
CTNA500	CTN	500	2	1.31
CTNA600	CTN	600	2	1.49
CTNA800	CTN	800	2	2.00
CTNA1000	CTN	1000	2	2.54
CTNB50	CTNI	50	3	1.38
CTNB100	CTNI	100	3	1.55
CTNB200	CTNI	200	3	1.72
CTNB300	CTNI	300	3	1.82
CTNB400	CTNI	400	3	1.90
CTNB500	CTNI	500	3	2.15
CTNB600	CTNI	600	3	2.40
CTNB800	CTNI	800	3	3.30
CTNB1000	CTNI	1000	3	4.10
CTNC50	CTNI	50	4	1.56
CTNC100	CTNI	100	4	1.72
CTNC200	CTNI	200	4	1.92
CTNC300	CTNI	300	4	2.00
CTNC400	CTNI	400	4	2.12
CTNC500	CTNI	500	4	2.40
CTNC600	CTNI	600	4	2.68
CTNC800	CTNI	800	4	3.62
CTNC1000	CTNI	1000	4	4.60

**FULL-WAVE RECTIFIER CIRCUITS
CENTER TAP POSITIVE**

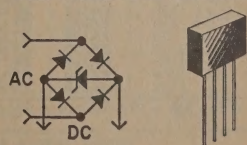
Current output refers to total circuit and is rated at 50° C. Maximum case temperature is 100° C. Max. one-cycle surge, 15 amps.

Mallory No.	Case	PIV Volts	Output, Amps	Net Each
CTP50	CTP	50	1.5	\$0.78
CTP100	CTP	100	1.5	.86
CTP200	CTP	200	1.5	.96
CTP300	CTP	300	1.5	1.00
CTP400	CTP	400	1.5	1.06
CTP500	CTP	500	1.5	1.20
CTP600	CTP	600	1.5	1.34
CTP800	CTP	800	1.5	1.81
CTP1000	CTP	1000	1.5	2.30
CTPA50	CTP	50	2	.85
CTPA100	CTP	100	2	.86
CTPA200	CTP	200	2	1.06
CTPA300	CTP	300	2	1.10
CTPA400	CTP	400	2	1.14
CTPA500	CTP	500	2	1.31
CTPA600	CTP	600	2	1.49
CTPA800	CTP	800	2	2.00
CTPA1000	CTP	1000	2	2.54
CTPB50	CTPI	50	3	1.38
CTPB100	CTPI	100	3	1.55
CTPB200	CTPI	200	3	1.72
CTPB300	CTPI	300	3	1.82
CTPB400	CTPI	400	3	1.90
CTPB500	CTPI	500	3	2.15
CTPB600	CTPI	600	3	2.40
CTPB800	CTPI	800	3	3.30
CTPB1000	CTPI	1000	3	4.10
CTPC50	CTPI	50	4	1.56
CTPC100	CTPI	100	4	1.72
CTPC200	CTPI	200	4	1.92
CTPC300	CTPI	300	4	2.00
CTPC400	CTPI	400	4	2.12
CTPC500	CTPI	500	4	2.40
CTPC600	CTPI	600	4	2.68
CTPC800	CTPI	800	4	3.62
CTPC1000	CTPI	1000	4	4.60

**FULL-WAVE BRIDGE
RECTIFIER CIRCUITS**

AC input on center legs, full-wave DC output on outer legs. Current output refers to total circuit and is rated at 50° C. Maximum case temperature is 100° C. Max. one-cycle surge, 15 amps.

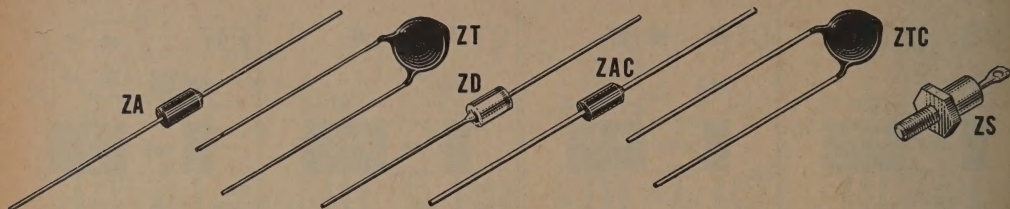
Mallory No.	Case	PIV Volts	Output, Amps	Net Each
FW50	FW	50	1.5	\$1.53
FW100	FW	100	1.5	1.63
FW200	FW	200	1.5	1.70
FW300	FW	300	1.5	1.92
FW400	FW	400	1.5	1.95
FW500	FW	500	1.5	2.03
FW600	FW	600	1.5	2.22
FW800	FW	800	1.5	3.50
FW1000	FW	1000	1.5	3.93
FWA50	FW	50	2	1.63
FWA100	FW	100	2	1.79
FWA200	FW	200	2	1.86
FWA300	FW	300	2	2.10
FWA400	FW	400	2	2.15
FWA500	FW	500	2	2.35
FWA600	FW	600	2	2.44
FWA800	FW	800	2	3.82
FWA1000	FW	1000	2	4.36
FWB50	FWI	50	3	2.78
FWB100	FWI	100	3	3.21
FWB200	FWI	200	3	3.06
FWB300	FWI	300	3	3.45
FWB400	FWI	400	3	3.55
FWB500	FWI	500	3	3.85
FWB600	FWI	600	3	4.00
FWB800	FWI	800	3	6.30
FWB1000	FWI	1000	3	7.10
FWC50	FWI	50	4	3.06
FWC100	FWI	100	4	3.26
FWC200	FWI	200	4	3.30
FWC300	FWI	300	4	3.80
FWC400	FWI	400	4	3.90
FWC500	FWI	500	4	4.00
FWC600	FWI	600	4	4.45
FWC800	FWI	800	4	7.00
FWC1000	FWI	1000	4	7.90

**CUSTOM SEMICONDUCTOR
PRE-PACKAGED CIRCUITS**

In addition to the standard pre-packaged circuits shown above, Mallory can supply a wide variety of custom circuits. For example, a zener diode can be added to the FW circuit in order to provide a positive control on the DC output. In order to specify such a device, select the output voltage desired from 6.8 to 200. Then, select the current output of 1.5, 2 or 3 amperes. A typical rating is FWZ10 having an output of 10 volts and 1.5 amps. For further data, contact Mallory. Any combination of up to five semiconductors can be enclosed in a single package.

MALLORY

Silicon Zener Diodes



SILICON ZENER DIODES

Mallory zener diodes are produced by the diffused junction process which offers superior operating characteristics compared to the alloy junction type. Three power ratings are supplied: 1, 3, and 10 watts. Four basic case styles are available. The "cold" case styles (ZA, ZAC, ZT, and ZTC) offer outstanding performance at relatively low cost. All types offer low thermal resistance and excellent forward characteristics. Rugged cell construction allows high surge capabilities. All types exceed MIL requirements. Select style and wattage required, then specify tolerance by suffix letter. Values shown are $\pm 20\%$ (no suffix), specify A for $\pm 10\%$, B for $\pm 5\%$, or C for $\pm 1\%$. Also available in matched pairs on special order.

TYPE ZA

One-watt, cold case type designed for high density packaging in commercial and military applications. Cold case eliminates need for insulating sleeve and provides excellent heat dissipation and humidity protection. **Case Size:** .200" dia. x .375". **Leads:** .032" dia. x 1.25" (min.).

TYPE ZT

One-watt, cold case design with radial leads for printed circuit board applications. Dipped in high density encapsulating material for maximum humidity protection and heat dissipation. Cold case provides excellent insulation for high density packaging. **Case Size:** .437" h. (max.) x .408" w. (max.) x .185"-.250" th. **Leads:** .032" dia. x 1.5" lg. (min.) x .375" spacing.

TYPE ZD

One-watt flangeless, hermetically-sealed metal case (EIA DO-13). Designed to surpass most critical MIL standards. **Operating and Storage Temperatures:** -65° to $+175^{\circ}\text{C}$. **Case Size:** .240" dia. x .405". **Leads:** .032" x 1.25" (min.).

TYPE ZAC

Three-watt, cold case design; same case size as ZA type, except leads are .051" dia.

TYPE ZTC

Three-watt, cold case design similar to ZT type. Case size is the same, except that leads are .051" dia. specially annealed.

TYPE ZS

Ten-watt, hermetically-sealed stud type zener diode in standard EIA DO4 package. All-welded construction provides very low thermal resistance for maximum heat dissipation. Meets or exceeds all applicable MIL standards. **Operating and Storage Temperature:** -65° to $+175^{\circ}\text{C}$. **Case Size:** $\frac{1}{4}$ " hex base with solder stud $\frac{3}{16}$ " above base, #10-32 stud x $\frac{1}{4}$ " lg. Supplied with HD04 mounting hardware kit. **Standard Polarity:** Anode to stud; for cathode to stud, add suffix R (e.g., 1N2970R, 1N2970RA, etc.), same price.

One Watt						Three Watts						Ten Watts					
Nom. Zener Volts*	I _{ZT} Test mA	Z _{KT} at I _{ZT} Ohms	Mallory Number*			Nom. Zener Volts*	I _{ZT} Test mA	Z _{KT} at I _{ZT} Ohms	Mallory Number*		Nom. Zener Volts*	I _{ZT} Test mA	Z _{KT} at I _{ZT} Ohms	Mallory Number*			
			ZA	ZT	ZD				ZAC	ZTC					ZS		
6.8	37	3.5	ZA6.8	ZT6.8	1N3016	6.8	37	3.5	ZAC6.8	ZTC6.8	6.8	370	1.2	1N2970			
7.5	34	4.0	ZA7.5	ZT7.5	1N3017	7.5	34	4.0	ZAC7.5	ZTC7.5	7.5	340	1.3	1N2971			
8.2	31	4.5	ZA8.2	ZT8.2	1N3018	8.2	31	4.5	ZAC8.2	ZTC8.2	8.2	310	1.5	1N2972			
9.1	28	5.0	ZA9.1	ZT9.1	1N3019	9.1	28	5.0	ZAC9.1	ZTC9.1	9.1	280	2	1N2973			
10	25	7	ZA10	ZT10	1N3020	10	25	7	ZAC10	ZTC10	10	250	3	1N2974			
11	23	8	ZA11	ZT11	1N3021	11	23	8	ZAC11	ZTC11	11	230	3	1N2975			
12	21	9	ZA12	ZT12	1N3022	12	21	9	ZAC12	ZTC12	12	210	3	1N2976			
13	19	10	ZA13	ZT13	1N3023	13	19	10	ZAC13	ZTC13	13	190	3	1N2977			
15	17	14	ZA15	ZT15	1N3024	15	17	14	ZAC15	ZTC15	15	170	3	1N2979			
16	15.5	16	ZA16	ZT16	1N3025	16	15.5	16	ZAC16	ZTC16	16	155	4	1N2980			
18	14	20	ZA18	ZT18	1N3026	18	14	20	ZAC18	ZTC18	18	140	4	1N2982			
20	12.5	22	ZA20	ZT20	1N3027	20	12.5	22	ZAC20	ZTC20	20	125	4	1N2984			
22	11.5	23	ZA22	ZT22	1N3028	22	11.5	23	ZAC22	ZTC22	22	115	5	1N2985			
24	10.5	25	ZA24	ZT24	1N3029	24	10.5	25	ZAC24	ZTC24	24	105	5	1N2986			
27	9.5	35	ZA27	ZT27	1N3030	27	9.5	35	ZAC27	ZTC27	27	95	7	1N2988			
30	8.5	40	ZA30	ZT30	1N3031	30	8.5	40	ZAC30	ZTC30	30	85	8	1N2989			
33	7.5	45	ZA33	ZT33	1N3032	33	7.5	45	ZAC33	ZTC33	33	75	9	1N2990			
36	7.0	50	ZA36	ZT36	1N3033	36	7.0	50	ZAC36	ZTC36	36	70	10	1N2991			
39	6.5	60	ZA39	ZT39	1N3034	39	6.5	60	ZAC39	ZTC39	39	65	11	1N2992			
43	6.0	70	ZA43	ZT43	1N3035	43	6.0	70	ZAC43	ZTC43	43	60	12	1N2993			
47	5.5	80	ZA47	ZT47	1N3036	47	5.5	80	ZAC47	ZTC47	47	55	14	1N2995			
51	5.0	95	ZA51	ZT51	1N3037	51	5.0	95	ZAC51	ZTC51	51	50	15	1N2997			
56	4.5	110	ZA56	ZT56	1N3038	56	4.5	110	ZAC56	ZTC56	56	45	16	1N2999			
62	4.0	125	ZA62	ZT62	1N3039	62	4.0	125	ZAC62	ZTC62	62	40	17	1N3000			
68	3.7	150	ZA68	ZT68	1N3040	68	3.7	150	ZAC68	ZTC68	68	37	18	1N3001			
75	3.3	175	ZA75	ZT75	1N3041	75	3.3	175	ZAC75	ZTC75	75	33	22	1N3002			
82	3.1	200	ZA82	ZT82	1N3042	82	3.1	200	ZAC82	ZTC82	82	31	25	1N3003			
91	2.8	250	ZA91	ZT91	1N3043	91	2.8	250	ZAC91	ZTC91	91	28	35	1N3004			
100	2.5	350	ZA100	ZT100	1N3044	100	2.5	350	ZAC100	ZTC100	100	25	40	1N3005			
110	2.3	450	ZA110	ZT110	1N3045	110	2.3	450	ZAC110	ZTC110	110	23	55	1N3007			
120	2.0	550	ZA120	ZT120	1N3046	120	2.0	550	ZAC120	ZTC120	120	20	75	1N3008			
130	1.9	700	ZA130	ZT130	1N3047	130	1.9	700	ZAC130	ZTC130	130	19	100	1N3009			
150	1.7	1000	ZA150	ZT150	1N3048	150	1.7	1000	ZAC150	ZTC150	150	17	175	1N3011			
160	1.6	1100	ZA160	ZT160	1N3049	160	1.6	1100	ZAC160	ZTC160	160	16	200	1N3012			
180	1.4	1200	ZA180	ZT180	1N3050	180	1.4	1200	ZAC180	ZTC180	180	14	250	1N3014			
200	1.2	1500	ZA200	ZT200	1N3051	200	1.2	1500	ZAC200	ZTC200	200	12	300	1N3015			

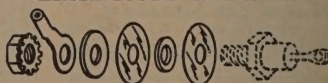
*Types shown are $\pm 20\%$ tolerance. Specify: A for $\pm 10\%$, B for $\pm 5\%$, or C for $\pm 1\%$.

ZENER DIODE NET PRICES

Mallory zener diodes are supplied in four standard tolerance grades: $\pm 20\%$, $\pm 10\%$, $\pm 5\%$, and $\pm 1\%$. Net prices for each grade are shown below. The prices shown are for quantities from 1-99. Prices for larger quantities available upon request. Zener diodes are also available in specially selected matched pairs at economical prices.

Nom. Zener Volts	Tol. (Suffix)	Mallory Type, Net Each					
		ZA	ZT	ZD	ZAC	ZTC	ZS
6.8	$\pm 20\%$	\$0.85	\$1.00	\$1.27	\$1.07	\$1.17	\$2.42
10	$\pm 10\%$ (A)	1.00	1.07	1.70	1.26	1.29	2.50
100	$\pm 5\%$ (B)	1.40	1.50	2.49	1.50	1.70	3.23
100	$\pm 1\%$ (C)	1.52	1.73	2.70	1.71	1.92	3.36
110	$\pm 20\%$	.95	1.11	1.42	1.19	1.19	2.68
100	$\pm 10\%$ (A)	1.11	1.19	1.89	1.40	1.30	2.78
200	$\pm 5\%$ (B)	1.53	1.61	2.66	1.40	1.30	3.59
200	$\pm 1\%$ (C)	1.69	1.73	3.00	1.90	2.13	3.73

ZENER DIODE HARDWARE

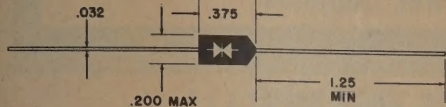


Mallory No.	Description	Net Each
HD04	Complete DO4 kit	\$0.08
HD04A	Mica washer (2 required)	.007
HD04B	Brass washer	.01
HD04C	Teflon® washer	.01
HD04D	Solder lug	.012
HD04E	#10-32 locknut	.015

®Registered Du Pont trademark.

MALLORY

Dual Trigger Diodes



Mallory Dual Trigger Diodes are symmetrical three-layer avalanche devices used to control silicon controlled rectifiers and "Bi-switches." The device exhibits a unique characteristic in having a symmetrical switching mode which "fires" in both directions. This symmetrical action takes place whenever the breakover voltage is exceeded on either side of a cycle. Thus, it is able to trigger two SCR's or a bi-switch (which is essentially two SCR's in a single package). The average power dissipation at 50°C is 1 watt with a peak current capability of 1 amp for 20 microseconds.

The dual trigger offers a particular advantage to the design engineer: It reduces the number of components required in a triggering circuit and thus improves the reliability of that circuit. In addition, the dual trigger reduces the overall cost of the triggering circuit.

Breakover voltage is quite symmetrical being within 5% of the nominal rating in either direction. Furthermore, the dual trigger is relatively unaffected by deviations in either ambient or operational temperatures. This is because the temperature coefficient is only 0.02%/°C.

The Mallory dual trigger is especially applicable to dense packaging because it utilizes a "cold case" design. This is a precision molded insulated case which exhibits very high humidity resistant qualities. Thus, the device may be applied to both commercial and industrial applications.

RATINGS AND SPECIFICATIONS

Ratings @ 50°C.

Average power dissipation.....1 watt
Power derating above 50°C.....10mw/°C
Pulse current, 20 microseconds, 0.5% duty cycle.....1 amp

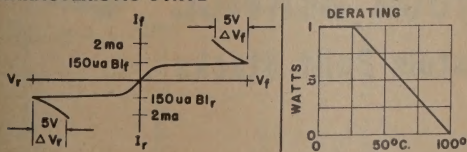
Specification @ 25°C.

Breakover voltage.....24v to 120v, +10%
Breakover current (max).....150ua
Breakback voltage (max).....5 v. (min)
Breakover voltage symmetry.....within 5%
Breakover voltage T.C.....0.02% typical

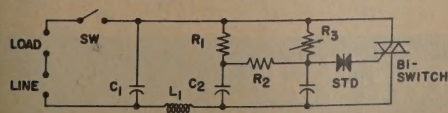
Mallory No.	Breakover Voltage	Mallory No.	Breakover Voltage
STD24A	24	STD56A	56
STD27A	27	STD62A	62
STD30A	30	STD68A	68
STD32A	32	STD75A	75
STD36A	36	STD82A	82
STD39A	39	STD91A	91
STD43A	43	STD100A	100
STD47A	47	STD110A	110
STD51A	51	STD120A	120

Mallory STD, Net Each.....\$1.07

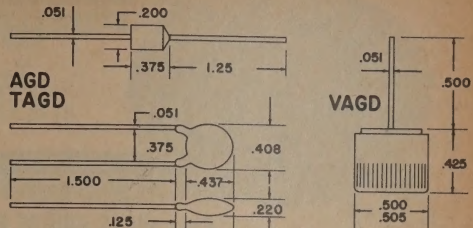
CHARACTERISTIC CURVE



TYPICAL LIGHT DIMMER



Amp-Gate* Diodes



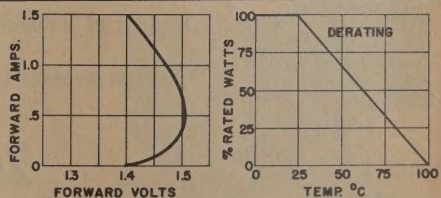
The Mallory AMP-GATE* DIODE is actually a very low voltage regulator. The semiconductor junctions are a combination of forward biased p-n types in series. When the voltage across the diode is raised from zero, only a slight amount of current is drawn in the forward direction until the critical voltage is reached. At this point, the device goes into a high-conduction state. The nominal critical voltage at room temperature is 1.55 volts. However, as the temperature of the device increases, the critical voltage decreases 2mV/°C. Thus, the device exhibits a negative temperature coefficient. The operating temperature range is -35° to +100°C. and over this range the AMP-GATE DIODE operates as a highly efficient shunt.

These operating characteristics lend themselves ideally to fast-charging circuits for nickel-cadmium batteries. One of the disadvantages of nickel-cadmium batteries is that they can be permanently damaged if fast charging cycles are used. Until the development of the AMP-GATE diode there was no simple or economical means to start the charge rate at a high level and taper off the level as a full charge was reached. Now it is possible to construct a system where charging times can safely be reduced from 17 hours to as little as *one hour!*

A fast charging circuit utilizing the AMP-GATE diode requires a constant current power supply. In addition, each battery under charge must have the proper AMP-GATE diode connected in parallel with it. Since the AGD is sensitive to temperature, it is vital that the proper heat sink be used with the device. In order to determine the precise heat sink to be used, you must establish which battery is to be charged, the ambient temperature, end of charge voltage and current, and temperature rise in the AMP-GATE diode. This is a simple calculation, however it is necessary to have the proper nomographs. These are available without charge from Mallory Distributor Products Company, Box 1558, Indianapolis, Indiana 46206.

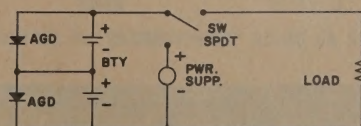
Characteristic curves and a typical circuit are shown in the illustrations below. Other applications are feasible. For further technical details, contact Mallory.

Mallory No.	Max. Current (Amps)	VI (Volts)	Power Dissipation (Watts) @ 25°C.	Net Each
AGD	1.25	1.55	2.5	\$1.34
TAGD	1.25	1.55	2.5	1.43
VAGD5	5	1.55	10	2.62
VAGD25	26	1.55	50	8.40



CHARGING CIRCUIT

P. R. MALLORY & CO. INC./CIRCUIT PATENT 3,148,322



*Trademark P. R. Mallory & Co. Inc.

DIRECTRON

Industrial Selenium Rectifiers, Transformers, Chokes and Power Supplies

FULL WAVE BRIDGE RECTIFIERS, SINGLE PHASE, RESISTIVE-INDUCTIVE LOADS

ALL PRICES SHOWN ARE USER NET PRICES

Max. Amps.		18v. in— 14v. out	Price		36v. in— 28v. out	Price		54v. in— 42v. out	Price		130v. in— 100v. out	Price
1/2.....	A	18.....	\$ 1.05	A	36.....	\$ 1.50	A	54.....	\$ 2.50	A	130.....	\$ 5.00
1.....	B	18.....	1.20	B	36.....	2.20	B	54.....	3.20	B	130.....	8.00
2.....	C	18.....	2.10	C	36.....	3.00	C	54.....	4.50	C	130.....	10.00
3.....	D	18.....	2.70	D	36.....	4.00	D	54.....	6.00	D	130.....	14.00
4.....	E	18.....	3.60	E	36.....	7.50	E	54.....	10.00	E	130.....	24.00
6.....	F	18.....	4.50	F	36.....	9.00	F	54.....	12.00	F	130.....	32.00
10.....	G	18.....	6.60	G	36.....	12.00	G	54.....	18.00	G	130.....	39.00
12.....	H	18.....	8.20	H	36.....	16.00	H	54.....	22.00	H	130.....	44.00
15.....	J	18.....	10.50	J	36.....	20.00	J	54.....	27.00	J	130.....	54.00
20.....	K	18.....	12.50	K	36.....	25.00	K	54.....	36.00	K	130.....	77.00
24.....	L	18.....	15.00	L	36.....	30.00	L	54.....	42.00	L	130.....	82.00
30.....	M	18.....	19.10	M	36.....	37.00	M	54.....	55.00			
36.....	P	18.....	24.00	P	36.....	48.00						
50.....	R	18.....	30.00	R	36.....	60.00						



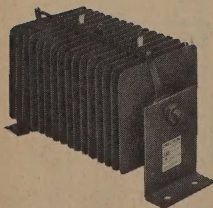
C36

220 v. Single Phase available . . . up to 1000 amps.

HALF-WAVE, CENTER-TAP, DOUBLER,

TRIPLER or 3-PHASE

Quotations on request



E130

24 HOUR SERVICE

on Custom Built Stacks



F18

SEE OUR AD UNDER "TRANSFORMERS" IN SECTION 5600 FOR RECTIFIER TRANSFORMERS AND HIGH CURRENT CHOKES



Mfd. by SANFORD MILLER CORP.

DIRECTRON

SILICON POWER RECTIFIERS

HY-A-SIL
High - Ampere - Silicon

FEATURES

- High operating temperature, 190°C (Up to 120°C ambient)
- High operating voltage (Up to 600 p.i.v.)
- High efficiency (99% compared to about 75% for selenium)
- Excellent regulation (4% compared to about 15% for selenium)

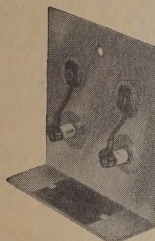
Stock No.	Type	AC Input Volts up to	DC Output Volts up to	Max. Amps Self Cooled	Max. Amps Fan Cooled	Size And Weight	User Net Price
SI-CT-A	Center-Tap	18-0-18	16	40	80	B	\$ 15.00
SI-CT-B	Center-Tap	36-0-36	32	40	80	B	20.00
SL-CT-A	Center-Tap	18-0-18	16	50	100	B	17.50
SL-CT-B	Center-Tap	36-0-36	32	50	100	B	22.50
SL-CT-D	Center-Tap	72-0-72	64	50	100	B	36.00
SL-CT-F	Center-Tap	140-0-140	125	50	100	B	44.00
SK-CT-A	Center-Tap	18-0-18	16	100	200	C	30.00
SK-CT-B	Center-Tap	36-0-36	32	100	200	C	34.00
SK-CT-D	Center-Tap	72-0-72	64	100	200	C	37.00
SK-CT-F	Center-Tap	140-0-140	125	100	200	C	48.00
SM-CT-A	Center-Tap	18-0-18	16	200	400	D	45.00
SM-CT-B	Center-Tap	36-0-36	32	200	400	D	60.00
SM-CT-D	Center-Tap	72-0-72	64	200	400	D	62.00
SM-CT-F	Center-Tap	140-0-140	125	200	400	D	76.00
SD-CT-B	Center-Tap	36-0-36	32	400	800	E	100.00
SA-BR-D	1φ Bridge	140	125	1	*	—	9.00
SA-BR-F	1φ Bridge	280	250	1	*	—	10.50
SC-BR-F	1φ Bridge	140	125	2	*	—	10.50
SC-BR-F	1φ Bridge	280	250	2	*	—	12.00
SD-BR-A	1φ Bridge	36	32	6	12	F	18.00
SD-BR-D	1φ Bridge	140	125	6	12	F	30.00
SD-BR-F	1φ Bridge	280	250	6	12	F	39.00
SE-BR-A	1φ Bridge	36	32	10	20	G	21.00
SE-BR-D	1φ Bridge	140	125	10	20	G	36.00
SE-BR-F	1φ Bridge	280	250	10	20	G	44.00
SF-BR-A	1φ Bridge	36	32	20	40	H	24.00
SF-BR-D	1φ Bridge	140	125	20	40	H	40.00
SF-BR-F	1φ Bridge	280	250	20	40	H	48.00
SI-BR-A	1φ Bridge	36	32	40	80	J	30.00
SI-BR-B	1φ Bridge	72	64	40	80	J	36.00
SI-BR-D	1φ Bridge	140	125	40	80	J	63.00
SI-BR-F	1φ Bridge	280	250	40	80	J	95.00
SL-BR-A	1φ Bridge	36	32	50	100	J	33.00
SL-BR-B	1φ Bridge	72	64	50	100	J	39.00
SL-BR-D	1φ Bridge	140	125	50	100	J	70.00
SL-BR-F	1φ Bridge	280	250	50	100	J	110.00
SG-BR-A	1φ Bridge	36	32	70	140	J	40.00
SG-BR-D	1φ Bridge	140	125	70	140	J	50.00
SG-BR-F	1φ Bridge	280	250	70	140	J	80.00
SK-BR-A	1φ Bridge	36	32	100	200	K	130.00
SK-BR-B	1φ Bridge	72	64	100	200	K	60.00
SK-BR-D	1φ Bridge	140	125	100	200	K	68.00
SK-BR-F	1φ Bridge	280	250	100	200	K	90.00
SM-BR-A	1φ Bridge	36	32	200	400	L	150.00
SM-BR-B	1φ Bridge	72	64	200	400	L	100.00
SM-BR-D	1φ Bridge	140	125	200	400	L	120.00
SM-BR-F	1φ Bridge	280	250	200	400	L	180.00
SO-BR-B	1φ Bridge	72	64	400	800	M	260.00
SO-BR-F	1φ Bridge	280	250	400	800	M	270.00
SL-PH-A	3φ Bridge	36	48	75	150	N	480.00
SL-PH-B	3φ Bridge	72	96	75	150	N	60.00
SL-PH-C	3φ Bridge	105	144*	75	150	N	85.00
SL-PH-D	3φ Bridge	140	188	75	150	N	120.00
SL-PH-E	3φ Bridge	220	290	75	150	M	160.00
SK-PH-E	3φ Bridge	220	290	100	200	M	220.00
SM-PH-E	3φ Bridge	220	290	200	400	M	240.00
SO-PH-E	3φ Bridge	220	290	400	800	M	300.00
							375.00

All above ratings based on 30°C ambient. Fan-cooled ratings based on air velocity of 1000 linear ft./minute. For resistive or inductive loads, as rated. For capacitive or battery loads, derate amperage 20%. Doublers, triplers, 3 phase half wave and 3 phase center-tap also available. Custom-built stacks, 24 hour service.

DIMENSIONS WITH BRACKETS

Size	Length	Height	Width	Weight
B	3"	6"	5"	12 oz.
C	3"	6"	6"	1 lb.
D	4"	8"	7"	2 lbs.
E	4"	9"	8"	6 lbs.
F	6"	9"	9"	11 1/2 lbs.
G	6"	6"	5"	1 1/2 lbs.
H	6"	6"	6"	2 lbs.
J	6"	6"	5"	1 1/2 lbs.
K	6"	8"	7"	4 lbs.
L	8"	9"	8"	6 lbs.
M	8"	11"	10"	6 lbs.
N	8"	6"	5"	4 lbs.

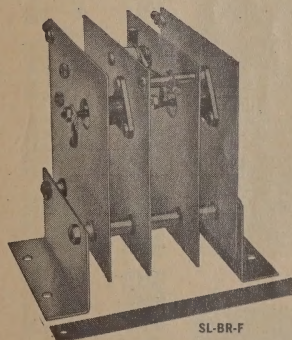
*Not suitable for fan-cooling



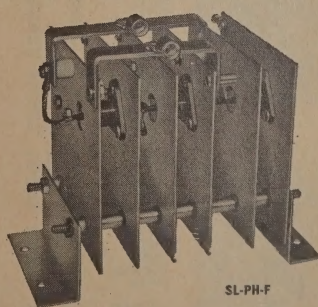
SC-BR-F



SA-BR-D



SL-BR-F



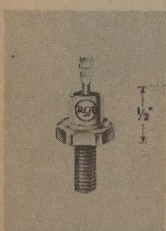
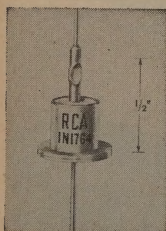
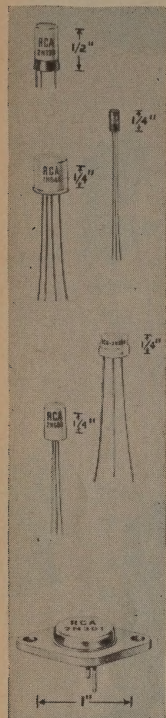
SL-PH-F

Mfd. by SANFORD MILLER CORP.



SEMICONDUCTOR PRODUCTS

APRIL, 1966

TRANSISTORS, THYRISTORS,
GERMANIUM DIODES &
TUNNEL DIODES

Type	RCA Equipment Manufacturers Price	
	1-99	100-999
1N2326	\$.50	\$.35
1N2858A	.37	.25
1N2859A	.38	.27
1N2860A	.40	.28
1N2861A	.43	.30
1N2862A	.61	.43
1N2863A	.66	.46
1N2864A	.83	.57
1N3128	6.35	4.39
1N3129	7.59	5.24
1N3130	8.17	5.64
1N3193	.35	.24
1N3194	.38	.27
1N3195	.66	.46
1N3196	.91	.63
1N3253	.40	.28
1N3254	.45	.31
1N3255	.70	.48
1N3256	.94	.65
1N3563	1.65	1.14
1N3754	.32	.22
1N3755	.32	.22
1N3756	.35	.24
1N3847	4.95	3.42
1N3848	4.95	3.42
1N3849	4.95	3.42
1N3850	4.95	3.42
1N3851	4.95	3.42
1N3852	6.35	4.39
1N3853	5.94	4.10
1N3854	7.59	5.24
1N3855	8.17	5.64
1N3856	8.17	5.64
1N3857	8.58	5.95
1N3858	6.52	4.50
1N3859	8.17	5.64
1N3860	10.73	7.40
1N3861	6.19	4.28
1N3862	7.67	5.30
1N3863	9.41	6.50
1N4785	1.08	.75
2N104	1.65	1.14
2N109	.60	.41
2N139	1.16	.80
2N140	1.24	.86
2N173	3.75	2.59
2N174	4.01	2.77
JAN2N174	4.77	3.29
2N175	1.64	1.13
2N176	1.31	.90
2N215	1.73	1.20
2N217	.52	.36
2N218	1.16	.80
2N219	1.24	.86
2N220	1.52	1.05
JAN2N220	2.06	1.43
2N270	.70	.48
2N274	1.24	.86
JAN2N274	2.48	1.71
2N277	2.72	1.88
2N278	3.10	2.14
2N307	1.49	1.03
2N351	1.73	1.20
2N370	.81	.56
2N371	.80	.55
2N372	.80	.55
2N376	1.88	1.30
2N384	1.65	1.14
JAN2N384	3.30	2.28
2N388	.50	.35
JAN2N388	.52	.36
2N389	1.04	.72
2N395	.50	.33
2N396	.61	.41
2N396A	.61	.41
2N397	1.11	.74
2N398	.99	.69
JAN2N398	1.08	.75

Type	RCA Equipment Manufacturers Price	
	1-99	100-999
2N398A	\$.108	\$.75
2N398B	.124	.86
2N404	.42	.28
JAN2N404	.43	.30
2N404A	.58	.39
JAN2N404A	.78	.54
3907/2N404	1.08	.75
2N405	.37	.25
2N406	.33	.23
2N407	.42	.29
2N408	.38	.27
2N409	.43	.30
2N410	.40	.28
2N411	.47	.32
2N412	.43	.30
2N414	.42	.28
2N441	2.23	1.54
2N442	2.31	1.60
2N443	2.39	1.65
2N581	.50	.35
2N582	.91	.63
2N585	.99	.69
JAN2N585	1.73	1.20
2N591	.48	.34
2N646	1.82	1.25
2N647	1.08	.75
2N649	.86	.60
2N697	.81	.54
2N699	1.57	1.05
2N706	.99	.66
2N706A	1.19	.80
2N708	1.32	.88
2N709	1.65	1.14
2N718A	1.08	.72
2N720A	1.32	.88
2N834	3.05	2.04
2N914	1.57	1.05
2N917	2.48	1.65
2N918	3.30	2.20
2N1010	2.89	2.00
2N1023	2.72	1.88
2N1066	1.98	1.37
2N1090	1.11	.77
2N1091	1.41	.97
2N1099	4.31	2.98
2N1100	5.02	3.47
2N1177	.83	.57
2N1178	.81	.56
2N1179	.81	.56
2N1180	.68	.47
2N1183	1.82	1.25
JAN2N1183	2.64	1.82
2N1183A	2.31	1.60
JAN2N1183A	3.30	2.28
2N1183B	2.89	2.00
JAN2N1183B	3.88	2.68
2N1184	2.48	1.71
JAN2N1184	3.71	2.57
2N1184A	2.81	1.94
JAN2N1184A	4.04	2.79
2N1184B	4.13	2.85
JAN2N1184B	5.36	3.71
2N1224	1.24	.86
JAN2N1224	1.41	.97
2N1225	1.41	.97
JAN2N1225	1.57	1.09
2N1226	1.49	1.03
2N1285	1.72	1.19
2N1300	.91	.63
2N1301	1.04	.72
2N1302	.45	.31
JAN2N1302	.47	.32
2N1303	.45	.30
JAN2N1303	.47	.31
2N1304	.53	.37
JAN2N1304	.57	.39
2N1305	.53	.36
JAN2N1305	.57	.38
2N1306	.75	.52
JAN2N1306	.81	.56

Type	RCA Equipment Manufacturers Price	
	1-99	100-999
2N1307	\$.75	\$.50
JAN2N1307	.81	.54
2N1308	1.08	.75
JAN2N1308	1.16	.80
2N1309	1.08	.75
JAN2N1309	1.16	.80
2N1352	4.59	3.17
2N1384	2.06	1.43
2N1395	1.49	1.03
2N1396	1.65	1.14
2N1397	2.15	1.48
2N1412	5.76	3.98
JAN2N1412	6.52	4.50
2N1479	2.15	1.48
JAN2N1479	2.56	1.77
2N1480	2.31	1.60
JAN2N1480	2.72	1.88
2N1481	2.48	1.71
JAN2N1481	2.89	2.00
2N1482	3.30	2.28
JAN2N1482	3.71	2.57
2N1483	2.89	2.00
JAN2N1483	3.71	2.57
2N1484	3.63	2.51
JAN2N1484	4.46	3.08
2N1485	4.46	3.08
JAN2N1485	5.28	3.65
2N1486	6.77	4.67
JAN2N1486	7.59	5.24
2N1487	4.54	3.14
JAN2N1487	5.36	3.71
2N1488	4.95	3.42
JAN2N1488	5.78	3.99
2N1489	7.43	5.13
JAN2N1489	8.25	5.70
2N1490	8.25	5.70
JAN2N1490	9.08	6.25
2N1491	1.82	1.25
2N1492	4.29	2.92
2N1493	7.01	4.85
JAN2N1493	7.43	5.13
2N1524	.40	.28
2N1525	.43	.30
2N1526	.41	.28
2N1527	.47	.32
2N1605	.99	.69
2N1605A	1.26	.87
2N1613	1.08	.72
2N1631	.53	.37
2N1632	.49	.34
2N1637	.52	.36
2N1638	.45	.31
2N1639	.48	.34
2N1683	1.65	1.14
2N1700	1.90	1.31
2N1701	2.31	1.60
2N1702	4.54	3.14
2N1708	3.30	2.28
2N1711	1.16	.77
2N1768	8.25	5.70
2N1769	10.73	7.40
2N1853	1.32	.92
JAN2N1853	1.32	.92
2N1854	1.65	1.14
JAN2N1854	1.65	1.14
2N1893	1.32	.88
2N1905	4.13	2.85
2N1906	6.60	4.56
2N2015	9.08	6.25
JAN2N2015	9.90	6.85
2N2016	9.90	6.85
JAN2N2016	10.73	7.40
2N2102	1.41	.97
S2N2102	18.94	13.10
2N2147	1.57	1.09
2N2148	1.16	.80
2N2205	1.24	.83
2N2206		
2N2208	1.54	1.06
2N2210	10.13	7.00
2N2270	1.16	.80
2N2304	4.29	2.96

Prices shown do not include any state or local taxes. All prices are subject to change or withdrawal without notice.



SEMICONDUCTOR PRODUCTS

**RCA Equipment
Manufacturers Price**
**RCA Equipment
Manufacturers Price**
**RCA Equipment
Manufacturers Price**

Type	1-99	100-999
2N2305	\$6.44	\$4.45
2N2338	6.60	4.56
2N2339	4.95	3.42
2N2369A	2.89	2.00
2N2405	2.06	1.43
2N2475	2.56	1.71
2N2476	2.89	2.00
2N2477	3.30	2.28
2N2594	1.62	1.12
2N2613	.55	.38
2N2614	.50	.35
2N2631	4.79	3.31
2N2708	3.71	2.57
JAN2N2708	4.95	3.42
2N2857	6.60	4.56
2N2869/2N301	1.52	1.05
2N2870/2N301A	3.15	2.18
2N2876	14.50	10.05
2N2895	1.41	.97
2N2896	2.06	1.43
2N2897	1.16	.80
2N2898	2.48	1.71
2N2899	3.30	2.28
2N2900	1.90	1.31
2N2938	2.15	1.48
2N2953	.50	.35
2N3011	2.06	1.43
2N3053/4005	.99	.69
2N3054	2.06	1.43
2N3055	2.89	2.00
2N3118	4.95	3.42
2N3119	5.36	3.71
2N3229	46.20	31.90
2N3230	66.00	45.60
2N3231	99.00	68.40
2N3241	.73	.51
2N3242	.83	.57
2N3261	3.30	2.28
2N3262	9.90	6.85
2N3263	99.00	68.40
2N3264	66.00	45.60
2N3440	99.00	68.40
2N3456	66.00	45.60
2N3375	23.10	15.95
2N3376	7.43	5.13
2N3439	4.13	2.85
2N3440	2.06	1.43
2N3441	2.89	2.00
2N3442	4.95	3.42
2N3478	1.90	1.31
2N3512	3.71	2.57
2N3525	2.31	1.60
2N3528	1.63	1.12
2N3529	2.31	1.60
2N3553	4.95	3.42
2N3583	3.30	2.28
2N3584	6.60	4.56
2N3585	13.20	9.10
2N3600	4.13	2.85
2N3632	33.00	22.80
2N3668	2.89	2.00
2N3669	3.27	2.26
2N3670	4.92	3.40
2N3730	1.24	.86
2N3731	1.62	1.12
2N3732	1.08	.75
2N3733	49.50	34.20
2N3771	5.78	3.99
2N3772	5.78	3.99
2N3773	7.84	5.42
2N3866	4.95	3.42
2N3870	4.70	3.25
2N3871	5.12	3.53
2N3872	7.18	4.96
2N3873	10.50	7.25
2N3878	4.54	3.14
2N3879	5.36	3.71
2N3896	4.95	3.42
2N3897	5.36	3.71
2N3898	7.43	5.13
2N3899	10.75	7.40
2N3932	2.06	1.43
2N3933	2.31	1.60
2N4012	49.50	34.20

Type	1-99	100-999
2N4036	\$1.62	\$1.12
2N4037	1.31	.91
2N4063	4.21	2.91
2N4064	2.15	1.48
2N4068	1.57	1.09
2N4069	1.64	1.13
2N4074	.73	.51
2N4101	3.05	2.11
2N4102	3.05	2.11
2N4103	9.90	6.85
2N4240	2.89	2.00
2N4259	2.64	1.82
2N4296	2.48	1.71
2N4297	2.89	2.00
2N4298	3.71	2.57
2N4299	4.13	2.85
3N98	27.00	18.65
3N99	27.00	18.65
40004	1.65	1.14
40005	1.82	1.25
40006	3.30	2.28
40022	.83	.57
40050	.99	.69
40051	1.21	.84
40054	14.00	9.70
40055	16.00	11.05
40056	18.00	12.45
40057	20.00	13.70
40058	9.90	6.85
40059	8.66	6.00
40060	9.90	6.85
40061	8.66	6.00
40062	9.90	6.85
40063	8.66	6.00
40064	9.90	6.85
40065	8.66	6.00
40080	1.08	.75
40081	1.65	1.14
40082	5.69	3.93
40084	.99	.69

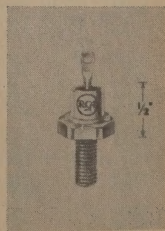
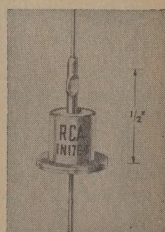
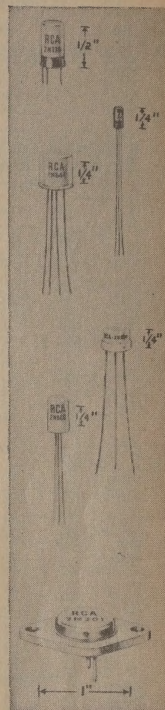
MEMORY PLANES

N7997-1	160.00
N7165-1	65.00
N7166-1	75.00
N7190-1	175.00
N7412-1	225.00

SILICON RECTIFIERS

1N248C; RC	1.65	1.10
JAN1N248B	2.89	2.00
1N249C; RC	2.06	1.38
JAN1N250B	3.55	2.45
1N250C; RC	2.72	1.82
1N440B	.66	.44
1N441B	.70	.47
1N442B	.80	.53
1N443B	.98	.65
1N444B	1.06	.71
1N445B	1.42	.95
1N536	.45	.30
1N537	.50	.33
1N538	.53	.36
1N539	.60	.40
1N540	.68	.46
1N547	.96	.64
1N1095	.88	.59
1N1183A; RA	2.15	1.43
JAN1N1184	3.75	2.50
1N1184A; RA	2.48	1.65
JAN1N1186	5.20	3.47
1N1186A; RA	3.55	2.37
1N1187A; RA	4.95	3.30
JAN1N1188	7.84	5.23
1N1188A; RA	6.19	4.13
1N1189A; RA	7.43	4.95
JAN1N1190	11.55	8.00
1N1190A; RA	8.65	5.80
1N1195A; RA	3.88	2.59
1N1196A; RA	4.95	3.30
1N1197A; RA	5.94	3.96
1N1198A; RA	7.01	4.68
JAN1N1198A	7.84	5.42
1N1199A; RA	1.24	.83

Type	1-99	100-999
1N1200A; RA	\$1.41	\$.94
1N1202A; RA	2.48	1.65
1N1203A; RA	3.47	2.31
1N1204A; RA	4.46	2.97
JAN1N1204	5.28	3.52
1N1205A; RA	5.36	3.58
1N1206A; RA	6.19	4.13
1N1341B; RB	1.16	.77
1N1342B; RB	1.32	.88
1N1344B; RB	2.15	1.43
1N1345B; RB	3.05	2.04
1N1346B; RB	3.96	2.64
1N1347B; RB	4.79	3.19
1N1348B; RB	5.78	3.85
1N1612; R	1.07	.72
1N1613; R	1.24	.83
1N1614; R	1.90	1.27
1N1615; R	3.71	2.48
1N1616; R	5.36	3.58
1N1763A	.42	.29
1N1764A	.58	.40
JAN1N2135A	6.11	4.22
40108; R	.99	.69
40109; R	1.16	.80
40110; R	1.57	1.09
40111; R	2.15	1.48
40112; R	2.48	1.71
40113; R	3.14	2.17
40114; R	3.71	2.57
40115; R	6.60	4.56
40116; R	9.50	6.55
40208	.99	.69
40208; R	1.19	.83
40209; R	1.32	.92
40210; R	1.78	1.23
40211; R	2.39	1.65
40212; R	2.89	2.00
40213; R	3.63	2.51
40214; R	4.21	2.91
40217	.99	.69
40218	1.19	.82
40219	1.32	.92
40220	3.05	2.11
40221	1.57	1.09
40222	1.24	.86
40231	.47	.32
40232	.53	.37
40233	.60	.42
40234	.42	.29
40235	.98	.68
40236	.90	.62
40237	.83	.57
40238	.83	.57
40239	.81	.56
40240	.80	.55
40242	.93	.64
40243	.86	.60
40244	.83	.57
40245	.81	.56
40246	.80	.55
40250	1.57	1.09
40250V1	1.65	1.14
40251	2.89	2.00
40253	.53	.37
40254	.78	.54
40255	4.21	2.91
40256	2.15	1.48
40258	.78	.54
40259	14.10	9.75
40261	.43	.30
40262	.40	.28
40263	.42	.29
40264	1.21	.84
40265	.35	.24
40266	.29	.20
40267	.33	.23
40269	.52	.36
40273	.50	.35
40278	181.50	125.40
40279	125.00	Use 1-99
40280	4.62	3.19
40281	23.10	15.95
40282	33.00	22.80
40283	3.71	2.57





SEMICONDUCTOR PRODUCTS

RCA Equipment
Manufacturers Price

Type	1-99	100-999
40285	\$42.90	\$29.65
40287	24.75	17.10
40290	4.79	3.31
40291	14.85	10.25
40292	33.00	22.80
40294	33.40	23.10
40295	14.85	10.25
40296	48.70	33.65
40305	24.75	17.10
40306	66.00	45.60
40307	99.00	68.40
40309	.70	.48
40309V1; V2	.78	.54
40310	1.21	.84
40311	.73	.51
40311V1; V2	.81	.56
40312	1.26	.87
40313	2.23	1.54
40314	.78	.54
40314V1; V2	.86	.60
40315	.75	.52
40315V1; V2	.83	.57
40316	1.21	.84
40317	.78	.54
40317V1; V2	.86	.60
40318	2.10	1.45
40319	1.32	.92
40319V1; V2	1.44	.97
40320	.78	.54
40320V1; V2	.86	.60
40321	1.24	.86
40321V1; V2	1.32	.92
40322	2.15	1.48
40323	.70	.48
40323V1; V2	.78	.54
40324	1.21	.84
40325	2.48	1.71
40326	.78	.54
40326V1; V2	.86	.60
40327	1.24	.86
40327V1; V2	1.32	.92
40328	2.19	1.52
40329	.38	.27
40340	33.00	22.80
40341	33.00	22.80
40344	.48	.34
40345	.52	.36
40346	1.14	.79
40346V1	1.23	.85
40346V2	1.23	.85
40347	.80	.55
40347V1	.88	.61
40347V2	.88	.61
40348	1.06	.73
40348V1	1.14	.79
40348V2	1.14	.79
40349	1.56	1.08
40349V1	1.64	1.13
40349V2	1.64	1.13
40350	.98	.68
40351	.83	.57
40352	.81	.56
40354	1.18	.81
40355	1.24	.86
40359	.32	.22
40360	1.03	.71
40360V1; V2	1.11	.77
40361	1.04	.72
40361V1; V2	1.13	.78
40362	1.46	1.01
40362V1; V2	1.54	1.07
4063	2.48	1.71
40364	4.46	3.08
40365	2.31	1.60
40366	8.25	5.70
40366V1; V2	8.35	5.75
40367	8.25	5.70
40367V1; V2	8.35	5.75
40368	14.85	10.25
40369	18.15	12.55
40370	.53	.37
40372	2.15	1.48
40373	2.97	2.05
40374	3.38	2.34

RCA Equipment
Manufacturers Price

Type	1-99	100-999
40375	\$ 4.62	\$ 3.19
40377	.43	.30
40378	1.62	1.12
40379	2.31	1.60
40380	1.49	1.03
40381	1.21	.84
40385	10.30	7.15
40385V1; V2	10.40	7.20
40389	1.08	.75
40390	2.15	1.48
40391	1.39	.96
40392	1.08	.75
40393	2.15	1.48
40394	1.39	.96
40395	.38	.27
40396	.83	.57
40397	.66	.46
40398	.60	.42
40399	.55	.38
40400	.50	.35
40403	.62	.43
40404	1.65	1.14
40405	2.06	1.43
40406	1.36	.94
40407	.81	.56
40408	1.08	.75
40410	1.14	.79
40410	1.64	1.13
40411	5.61	3.88
40412	1.06	.79
40412V1; V2	1.14	.79
40413	3.88	2.68
40414	6.77	4.67
40417	1.01	.70
40418	.86	.60
40419	.85	.59
40420	74.25	51.30
40421	1.28	.88
40422	1.03	.71
40423	1.11	.77
40424	.98	.68
40425	1.06	.73
40426	.93	.64
40427	1.01	.70
40428	.29	.20
40433	2.97	2.05
40437	1.19	.83
40438	1.19	.83
40445	63.00	Use 1-99

NOTE WELL: THE FOLLOWING GROUP 1 PRODUCTS CAN ONLY BE SHIPPED DIRECT TO THE END USER DUE TO TECHNICAL SPECIFICATIONS OF THE UNIT.

40279	125.00	Use 1-99
40305	33.00	17.10
40306	66.00	31.90
40307	99.00	68.40

SILICON RECTIFIER ASSEMBLIES

Type	1-29	30 & Up
CR101	5.75	5.47
CR102	7.20	6.85
CR103	8.15	7.75
CR105	9.60	9.10
CR105	10.55	10.05
CR106	12.00	11.40
CR107	12.95	12.30
CR108	13.90	13.20
CR109	15.35	14.60
CR110	16.30	15.50
CR201	3.10	2.96
CR203	4.80	4.56
CR204	5.75	5.47
CR206	6.95	6.60
CR208	8.40	8.00
CR210	10.10	9.60
CR212	12.00	11.40
CR301	28.00	26.55
CR302	40.00	37.95
CR303	51.00	48.45

RCA Equipment
Manufacturers Price

Type	1-29	30 & Up
CR304	\$62.00	\$58.90
CR305	73.00	69.35
CR306	83.00	78.85
CR307	93.00	88.35
CR311	30.00	28.50
CR312	42.00	39.90
CR313	53.00	50.35
CR314	64.00	60.75
CR315	75.00	71.25
CR316	85.00	80.75
CR317	95.00	90.25
CR321	35.00	33.25
CR322	49.00	46.55
CR323	62.00	58.90
CR324	76.00	72.20
CR325	90.00	85.50
CR331	37.00	35.15
CR332	52.00	49.40
CR333	65.00	61.75
CR334	79.00	75.05
CR335	93.00	88.35
CR341	44.00	41.80
CR342	61.00	57.95
CR343	78.00	74.10
CR344	94.00	89.30
CR351	46.00	43.70
CR352	64.00	60.80
CR353	82.00	72.90
CR354	98.00	93.10
CR401	28.00	26.60
CR402	32.00	30.40
CR403	44.00	41.80
CR404	30.00	28.50
CR405	34.00	32.20
CR406	54.00	51.30
CR407	40.00	38.00
CR408	48.00	45.60
CR409	64.00	60.80
CR501	40.00	38.00
CR502	48.00	45.60
CR503	50.00	47.50
CR504	62.00	58.90
CR505	64.00	60.80
CR506	84.00	79.80

SILICON CONTROLLED
RECTIFIERS

Type	1-99	100-999
2N681	3.30	2.20
2N682	4.13	2.75
2N683	6.19	4.13
2N684	6.35	4.24
2N685	6.60	4.40
2N686	7.01	4.68
2N687	7.43	4.95
2N688	8.65	5.80
2N689	10.30	6.90
2N690	11.95	8.00
2N1770	5.36	3.58
2N1771	5.78	3.85
2N1772	7.43	4.95
2N1773	9.49	6.35
2N1774	11.96	8.00
2N1775	14.03	9.35
2N1776	16.09	10.75
2N1777	20.65	13.75
2N1778	24.75	16.50
2N1842A	2.89	1.93
2N1843A	3.71	2.48
2N1844A	5.78	3.85
2N1845A	5.94	3.96
2N1846A	6.19	4.13
2N1847A	6.60	4.40
2N1848A	7.01	4.68
2N1849A	8.25	5.50
2N1850A	9.90	6.60
2N3228	1.62	1.12
40216	48.00	33.15

SCHAUER SEMICONDUCTORS

HEAVY DUTY 1 WATT ZENER DIODES

A 10 watt Silicon Junction in a 1 watt package for maximum surge capacity and stability. 25 watt-ms surge from 1.0 to 10ms.

Cool operation for maximum reliability and freedom from temperature drift and thermal fatigue. (Rated for a 100°C. junction temperature at maximum current.)

Mass-produced on automatic equipment for lowest cost and maximum similarity.

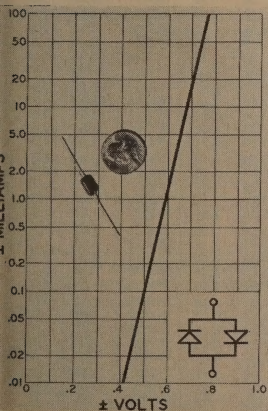
ELECTRICAL CHARACTERISTICS

Schauder Type No. 10% Tolerance (Note 1)	Nominal Zener Voltage V_Z @ $I_{ZT} = 20$ ma $T_A = 25^\circ\text{C}$.	Dynamic Impedance Z_D @ $I_{ZT} = 20$ ma		Maximum Recommended Zener Current I_{ZM}	Typical Temperature Coefficient of Voltage %/°C.
		Max.	Typical		
SZ 2.4	2.4 Volts	40 Ohms	14 Ohms	210 ma	-.054
SZ 2.7	2.7	40	16	185	-.055
SZ 3.0	3.0	40	17	170	-.055
SZ 3.3	3.3	40	17	150	-.054
SZ 3.6	3.6	40	18	140	-.050
SZ 3.9	3.9	40	17	130	-.045
SZ 4.3	4.3	30	17	120	-.037
SZ 4.7	4.7	30	12	110	-.029
SZ 5.1	5.1	20	10	100	-.019
SZ 5.6	5.6	20	6	90	-.009
SZ 6.2	6.2	10	2	80	+.018
SZ 6.8	6.8	10	1.5	75	+.035
SZ 7.5	7.5	10	1.5	70	+.044
SZ 8.2	8.2	10	2	60	+.049
SZ 9.1	9.1	10	4	55	+.053
SZ 10.00	10.00	10	6	50	+.055

NOTE 1. Add suffix "A" for 5% tolerance (i.e., SZ4.7A) for 4.7 $\pm 5\%$ volts.

NOTE 2. Series strings to close voltage tolerances available at low prices.

NOTE 3. Temperature compensated high voltage assemblies available.



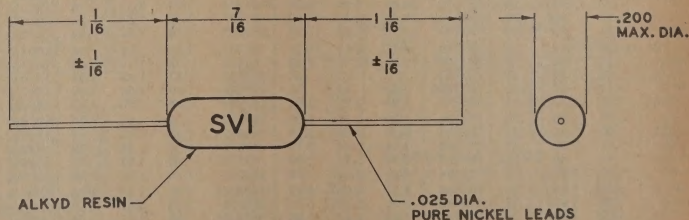
SV1 Silicon Varistor as compared in size to 25¢ piece. Chart shows its vs E characteristics over four decades.

SCHAUER SV1 SILICON VARISTOR

SV1 Varistor consists of matched silicon junctions connected in parallel and oppositely poled. This voltage variable resistance goes through four decades of current for a half volt change in signal and makes possible its use as a single component to convert linear AC or DC information into logarithmic information following the curve $I_{ma} = e^{26(E-.59)}$ between the range $I = .02$ ma to 200 ma.

ELECTRICAL CHARACTERISTICS—Test limits: 50 microamperes max. at .2V D.C., 225 milliamperes min. at 1.0V D.C. Dissipation: $\frac{1}{4}$ watt at 25°C, $\frac{1}{4}$ watt at 100°C. Maximum $\frac{1}{2}$ cycle surge current, 25 amps. peak.

SV1 is encapsulated with an alkyd molding compound. An inner epoxy seal, long leakage paths, and high pressure molding assure reliable performance in all environments.



Dimensions of SV1 Varistor. Also applies to Schauer 1 watt Zener Diodes. Zener cathode terminal is marked by red dot.

Semiconductor Division

SCHAUER MANUFACTURING CORP.


**SARKES
TARZIAN**

JEDEC Silicon Avalanche Rectifiers

All of the silicon rectifiers listed below are supplied with avalanche characteristics as standard. They are direct replacements, electrically and physically, for ordinary silicon rectifiers, yet they provide important benefits to you and your products, at no extra cost.

Overvoltage protection is built into the rectifier. Transient voltage induced failures are virtually eliminated because these units avalanche at voltages well below the destruction point. The overvoltage spike is dissipated through the junction at a point below the critical voltage stress across the edge of the junction.

Lower circuit costs are readily achieved. When avalanche rectifiers are

used suppressor and balancing devices, such as resistors, capacitors, R-C networks, etc., are no longer needed. In addition, their elimination improves circuit reliability, due to a reduction in number of components and interconnections.

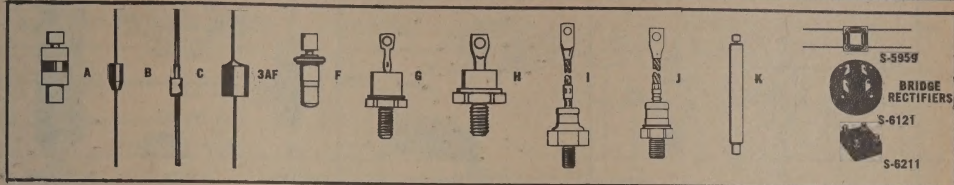
Dependable performance is assured. Over 10,000,000 of these devices already have been delivered and are in actual use in the field. They are now routinely available from high volume production lines.

All Tarzian Silicon Rectifiers are supplied with avalanche protection at no extra cost. For additional types, not necessarily covered by JEDEC numbers, see the following pages.

Net Each, Lots of				Net Each, Lots of				Net Each, Lots of				Net Each, Lots of				Net Each, Lots of			
JeDEC No.	1-24	25-99	100 up	JeDEC No.	1-24	25-99	100 up	JeDEC No.	1-24	25-99	100 up	JeDEC No.	1-24	25-99	100 up	JeDEC No.	1-24	25-99	100 up
1N248	2.20	1.90	1.73	1N612A	1.95	1.67	1.56	1N195	3.55	3.04	2.84	1N1697	.47	.40	.37	1N2632	18.10	15.50	14.45
1N248A	2.60	2.22	2.06	1N613	2.35	2.10	1.88	1N195A	3.55	3.04	2.84	1N1701	.35	.30	.28	1N2633	12.00	10.30	9.60
1N248B	2.60	2.22	2.06	1N613A	2.35	2.10	1.88	1N196	4.45	3.82	3.56	1N1702	.35	.30	.28	1N2634	12.00	10.30	9.60
1N248C	2.60	2.22	2.06	1N614	2.70	2.32	2.16	1N196A	4.45	3.82	3.56	1N1703	.37	.32	.29	1N2635	12.00	10.30	9.60
1N249	2.20	1.90	1.73	1N614A	2.70	2.32	2.16	1N197	5.35	4.59	4.27	1N1704	.37	.32	.29	1N2637	22.50	19.30	18.00
1N249A	2.60	2.22	2.06	1N081	.60	.55	.51	1N197A	5.35	4.59	4.27	1N1705	.43	.37	.35	1N2638	.35	.30	.28
1N249B	2.60	2.22	2.06	1N082	.65	.57	.53	1N198	6.40	5.50	5.14	1N1706	.45	.39	.36	1N2659	.35	.30	.28
1N249C	2.10	2.66	2.48	1N083	.70	.61	.57	1N198A	6.40	5.50	5.14	1N1707	.35	.30	.28	1N2660	.37	.32	.29
1N250	2.48	2.10	1.96	1N084	.75	.63	.59	1N199	1.19	1.02	.94	1N1708	.35	.30	.28	1N2661	.42	.36	.33
1N250A	3.10	2.66	2.48	1N085A	3.34	2.86	2.66	1N199A	1.19	1.02	.94	1N1709	.37	.32	.29	1N2662	.43	.37	.35
1N250B	3.10	2.66	2.48	1N086A	4.00	3.43	3.20	1N200	1.19	1.02	.94	1N1710	.42	.36	.33	1N2663	.45	.39	.36
1N250C	3.10	2.66	2.48	1N087A	4.67	4.00	3.75	1N200A	1.19	1.02	.94	1N1711	.43	.37	.35	1N2664	.47	.40	.37
1N251	1.20	1.03	.96	1N088A	5.35	4.67	4.27	1N201	1.25	1.07	1.00	1N1712	.45	.39	.36	1N161	14.20	12.19	11.36
1N252	1.25	1.07	1.00	1N089	.45	.39	.36	1N201A	1.25	1.07	1.00	1N1730	2.10	1.79	1.67	1N162	14.20	12.19	11.36
1N255	1.95	1.67	1.56	1N096	.47	.40	.37	1N202	1.25	1.07	1.00	1N1731	2.10	1.79	1.67	1N163	15.80	13.50	12.60
1N256	2.70	2.32	2.16	1N100	.35	.30	.28	1N202A	1.25	1.07	1.00	1N1732	2.90	2.50	2.33	1N164	15.80	13.50	12.60
1N332	1.95	1.67	1.56	1N101	.37	.32	.29	1N203	1.34	1.14	1.06	1N1733	4.15	3.57	3.34	1N165	17.10	15.00	14.00
1N333	1.95	1.67	1.56	1N102	.42	.36	.33	1N203A	1.34	1.14	1.06	1N1734	5.00	4.29	4.00	1N166	17.10	15.00	14.00
1N334	1.55	1.33	1.24	1N103	.43	.37	.35	1N204	1.67	1.43	1.33	1N1763	.43	.37	.35	1N167	24.40	20.95	19.52
1N335	1.55	1.33	1.24	1N104	.45	.39	.36	1N204A	1.67	1.43	1.33	1N1764	.45	.39	.36	1N168	24.40	20.95	19.52
1N336	1.25	1.07	1.00	1N105	.47	.40	.37	1N205	1.87	1.60	1.49	1N2054	14.20	12.19	11.36	1N169	32.60	27.95	26.10
1N337	1.25	1.07	1.00	1N108	3.15	2.71	2.54	1N205A	1.87	1.60	1.49	1N2055	14.20	12.19	11.36	1N170	42.40	36.20	33.80
1N338	1.20	1.03	.96	1N109	4.00	3.43	3.20	1N206	2.34	2.00	1.86	1N2056	15.80	13.50	12.60	1N189	.37	.32	.29
1N339	1.20	1.03	.96	1N110	4.75	4.15	3.86	1N206A	2.34	2.00	1.86	1N2057	15.80	13.50	12.60	1N190	.43	.37	.35
1N340	1.20	1.03	.96	1N111	5.65	4.86	4.53	1N237	12.00	10.30	9.60	1N2058	15.80	13.50	12.60	1N191	.47	.40	.37
1N341	1.95	1.67	1.56	1N112	6.50	5.57	5.20	1N238	12.00	10.30	9.60	1N2059	17.10	15.00	14.00	1N208	1.19	1.02	.94
1N342	1.95	1.67	1.56	1N113	7.35	6.30	5.87	1N239	18.10	15.50	14.45	1N2060	24.40	20.95	19.52	1N209	1.19	1.02	.94
1N343	1.55	1.33	1.24	1N115	1.20	1.03	.96	1N262	18.10	15.50	14.45	1N2061	24.40	20.95	19.52	1N210	1.25	1.07	1.00
1N344	1.55	1.33	1.24	1N116	1.25	1.07	1.00	1N341	1.20	1.03	.96	1N2062	32.60	27.95	26.10	1N211	1.34	1.14	1.06
1N345	1.25	1.07	1.00	1N117	1.55	1.33	1.24	1N341A	1.20	1.03	.96	1N2063	42.40	36.20	33.80	1N212	1.67	1.43	1.33
1N346	1.25	1.07	1.00	1N118	1.95	1.67	1.56	1N342	1.20	1.03	.96	1N2069	.33	.29	.27	1N213	1.87	1.60	1.49
1N347	1.20	1.03	.96	1N119	2.35	2.10	1.88	1N342A	1.20	1.03	.96	1N2070	.35	.30	.28	1N214	2.34	2.00	1.85
1N348	1.20	1.03	.96	1N120	2.70	2.32	2.16	1N343	1.25	1.07	1.00	1N2071	.37	.32	.29	1N260	12.90	11.09	10.32
1N349	1.20	1.03	.96	1N124	1.25	1.07	1.00	1N343A	1.25	1.07	1.00	1N2103	.35	.30	.28	1N261	12.90	11.09	10.32
1N532	.42	.36	.33	1N124A	1.25	1.07	1.00	1N344	1.25	1.07	1.00	1N2104	.35	.30	.28	1N262	14.50	12.40	11.58
1N533	.43	.37	.35	1N125	1.55	1.33	1.24	1N344A	1.25	1.07	1.00	1N2105	.37	.32	.29	1N263	14.50	12.40	11.58
1N534	.45	.39	.36	1N125A	1.55	1.33	1.24	1N345	1.55	1.33	1.24	1N2106	.42	.36	.33	1N264	15.80	13.50	12.60
1N535	.47	.40	.37	1N126	1.95	1.67	1.56	1N345A	1.55	1.33	1.24	1N2107	.43	.37	.35	1N265	15.80	13.50	12.60
1N536	.35	.30	.28	1N126A	1.95	1.67	1.56	1N346	1.95	1.67	1.56	1N2108	.45	.39	.36	1N266	20.80	17.80	16.60
1N537	.35	.30	.28	1N127	2.35	2.10	1.88	1N346A	1.95	1.67	1.56	1N2154	2.60	2.22	2.06	1N267	20.80	17.80	16.60
1N538	.37	.32	.29	1N127A	2.35	2.10	1.88	1N347	2.35	2.10	1.88	1N2155	2.60	2.22	2.06	1N268	28.45	24.38	22.75
1N539	.42	.36	.33	1N128	2.70	2.32	2.16	1N347A	2.35	2.10	1.88	1N2156	3.10	2.66	2.48	1N269	34.50	28.50	27.85
1N540	.43	.37	.35	1N128A	2.70	2.32	2.16	1N348	2.70	2.32	2.16	1N2157	3.55	3.04	2.84	1N270	12.20	10.45	9.60
1N547	.47	.40	.37	1N133	3.35	2.86	2.67	1N348A	2.70	2.32	2.16	1N2158	4.45	3.82	3.56	1N271	12.20	10.45	9.60
1N550	1.20	1.03	.96	1N134	3.85	3.28	2.97	1N487	.35	.30	.28	1N2159	5.35	4.59	4.27	1N272	13.40	11.76	10.95
1N551	1.25	1.07	1.00	1N135	3.75	3.22	3.00	1N488	.37	.32	.29	1N2160	6.40	5.50	5.14	1N291	18.80	16.07	15.00
1N552	1.55	1.33	1.24	1N136	3.75	3.22	3.00	1N489	.42	.36	.33	1N2373	1.25	1.07	1.00	1N292	24.25	20.78	19.40
1N553	1.95	1.67	1.56	1N137	4.15	3.58	3.34	1N490	.43	.37	.35	1N2374	2.10	1.79	1.67	1N293	28.50	24.40	22.80
1N554	2.35	2.10	1.88	1N138	4.15	3.58	3.34	1N491	.45	.39	.36	1N2375	2.10	1.79	1.67	1N569	1.20	1.03	.96
1N555	2.70	2.32	2.16	1N139	5.40	4.64	4.33	1N492	.47	.40	.37	1N2376	2.90	2.50	2.33	1N570	1.25	1.07	1.00
1N560	.62	.55	.49	1N140	5.40	4.64	4.33	1N537	1.20	1.03	.96	1N2377	3.35	2.86	2.66	1N571	1.55	1.33	1.24
1N561	.95	.82	.76	1N141	7.50	6.43	6.00	1N538	1.20	1.03	.96	1N2378	4.20	3.58	3.34	1N572	1.95	1.67	1.56
1N562	3.20	2.76	2.58	1N142	7.50	6.43	6.00	1N539	1.25	1.07	1.00	1N2379	5.00	4.30	4.00	1N573	2.35	2.10	1.88
1N563	.35	.30	.28	1N143	8.75	7.50	7.00	1N540	1.25	1.07	1.00	1N2380	7.10	6.08	5.66	1N574	2.70	2.32	2.16
1N564	.35	.30	.28	1N143A	8.75	7.50	7.00	1N541	1.55	1.33	1.24	1N2381	11.40	9.65	9.00	1N575	1.19	1.02	.94
1N600	.35	.30	.28	1N144	10.00	8.58	8.00	1N542	1.95	1.67	1.56	1N2382	5.00	4.29	4.00	1N576	1.19	1.02	.94
1N600A	.35	.30	.28	1N145	10.00	8.58	8.00	1N543	2.35	2.10	1.88	1N2383	7.10	6.08	5.66	1N577	1.25	1.07	1.00
1N601	.37	.32	.29	1N146	10.85	9.30	8.66	1N544	2.70	2.32	2.16	1N2384	7.50	6.43	6.00	1N578	1.25	1.07	1.00
1N601A	.37	.32	.29	1N147	15.00	12.89	12.00	1N581	1.19	1.02	.94	1N2385	9.15	7.86	7.00	1N579	1.34	1.14	1.06
1N602	.37	.32	.29	1N148	17.10	14.65	13.65	1N582	1.19	1.02	.94	1N2389	6.10	5.23	4.87	1N580	1.67	1.43	1.33
1N602A	.37	.32	.29	1N149	19.10	16.45	15.31	1N583	1.25	1.07	1.00	1N2482	.33	.29	.27	1N621	1.87	1.60	1.49
1N603	.42	.36	.33	1N150A	12.00														

SARKES
TARZIAN

Silicon Avalanche Rectifiers



Tarzian Silicon Rectifiers with avalanche characteristics are available from 0.5 to 350 amps.

For information on the benefits and advantages of avalanche characteristics, see the previous page. A brochure describing these in detail is available directly from Sarkes-Tarzian, Inc., Semiconductor Division, Bloomington, Indiana.

LOW CURRENT AVALANCHE RECTIFIERS

M SERIES 1.0 AMP (FIG. A)

S-T No.	JEDEC No.	Max. PIV	Max. RMS Volts	Max. Cur. Amps at 100°C*		Net Each, Lots of		
				DC Load	4MS Surge	1-24	25-99	100 Up
10M	1N1081	100	70	1.0	60 Amps	\$0.60	\$0.55	\$0.51
20M	1N1082	200	140	1.0	60Amps	.65	.57	.53
30M	1N1083	300	210	1.0	60 Amps	.70	.61	.57
40M	1N1084	400	280	1.0	60 Amps	.75	.63	.59
M-500	1N1084	400	280	1.0	60 Amps	.75	.63	.59
50M	.....	500	350	1.0	60 Amps	.80	.69	.64
60M	.....	600	420	1.0	60 Amps	.85	.70	.66

F SERIES 1.0 AMP (FIG. B)

S-T No.	JEDEC No.	Max. PIV	Max. RMS Volts	Max. Cur. Amps at 100°C*		Net Each, Lots of		
				DC Load	4MS Surge	1-24	25-99	100 Up
F2	1N2482	200	140	1.0	60	\$0.33	\$0.29	\$0.27
	1N2069	200	140	1.0	60	.33	.29	.27
F4	1N2483	400	280	1.0	60	.35	.30	.28
	1N2070	400	280	1.0	60	.35	.30	.28
F6	1N2484	600	420	1.0	60	.37	.32	.28
	1N2071	600	420	1.0	60	.37	.32	.28
F8	.....	800	560	1.0	60	.52	.44	.41
F10	.....	1000	700	1.0	60	.79	.67	.63

C SERIES 1.0 AMP (FIG. D)

S-T No.	JEDEC No.	Max. PIV	Max. RMS Volts	Max. Cur. Amps at 100°C*		Net Each, Lots of		
				DC Load	4MS Surge	1-24	25-99	100 Up
OC	1N2610	100	70	1.0	60	\$0.35	\$0.30	\$0.28
OC	1N2611	200	140	1.0	60	.37	.32	.29
OC	1N2612	300	210	1.0	60	.42	.36	.33
OC	1N2613	400	280	1.0	60	.43	.37	.35
OC	1N2614	500	350	1.0	60	.45	.39	.36
OC	1N2615	600	420	1.0	60	.47	.40	.37
OC	1N2616	800	560	1.0	60	.62	.53	.49
OC	1N2617	1000	700	1.0	60	.95	.82	.76

MEDIUM CURRENT AVALANCHE RECTIFIERS

LA SERIES 2 AMPS (FIG. F)

S-T No.	JEDEC No.	Max. PIV	Max. RMS Volts	Max. Cur. Amps at 100°C*		Net Each, Lots of		
				DC Load	4MS Surge	1-24	25-99	100 Up
OLA	1N1085A	100	70	2.0	100	\$3.34	\$2.86	\$2.66
OLA	1N1086A	200	140	2.0	100	4.00	3.43	3.20
OLA	1N1087A	300	210	2.0	100	4.67	4.00	3.73
OLA	1N1088A	400	280	2.0	100	5.35	4.67	4.27
OLA	.....	500	350	2.0	100	5.87	5.03	4.70
OLA	.....	600	420	2.0	100	6.45	5.52	5.15

3AF SERIES 2 AMPS

S-T No.	JEDEC No.	Max. PIV	Max. RMS Volts	Max. Cur. Amps at 100°C*		Net Each, Lots of		
				DC Load	4MS Surge	1-24	25-99	100 Up
3AF2		200	140	3.0	150	\$0.85	\$0.57	\$0.53
3AF4		400	280	3.0	150	.85	.72	.67
3AF6		600	420	3.0	150	1.25	1.07	1.00
3AF8		800	560	3.0	150	1.60	1.36	1.27

H3 SERIES 6 AMPS (FIG. G)

dd suffix N for negative or P for positive base. Add R to JEDEC type for negative base.

S-T No.	JEDEC No.	Max. PIV	Max. RMS Volts	DC Load	Peak Amps	Net Each, Lots of		
						1-24	25-99	100 Up
OH3	1N1342	100	70	6	150	\$1.20	\$1.03	\$0.96
OH3	1N1344	200	140	6	150	1.25	1.07	1.00
OH3	1N1345	300	210	6	150	1.55	1.37	1.24
OH3	1N1346	400	280	6	150	1.95	1.67	1.56
OH3	1N1347	500	350	6	150	2.35	2.10	1.88
OH3	1N1348	600	420	6	150	2.70	2.32	2.16
OH3	.....	800	560	6	150	3.20	2.76	2.58

ST2 SERIES 12 AMP (FIG. G)

dd suffix N for negative base or P for positive base.

S-T No.	JEDEC No.	Max. PIV	Max. RMS Volts	DC Load	Peak Amps	Net Each, Lots of		
						1-24	25-99	100 Up
T20	1N1200	100	70	12	260	\$1.19	\$1.02	\$0.94
T220	1N1202	200	140	12	260	1.25	1.07	1.00
T230	1N1203	300	210	12	260	1.34	1.14	1.06
T240	1N1204	400	280	12	260	1.67	1.43	1.33
T250	1N1205	500	350	12	260	1.87	1.60	1.49
T260	1N1206	600	420	12	260	2.34	2.00	1.86
T280	.....	800	560	12	260	2.82	2.42	2.25

HIGH VOLTAGE SM SERIES (FIG. K)

S-T No.	JEDEC No.	Max. PIV	Max. RMS Volts	DC Load	Peak Amps	Net Each, Lots of		
						1-24	25-99	100 Up
OSM	1N1108	800	560	45	4.5	\$3.15	\$2.71	\$2.54
20SM	1N1109	1200	840	425	4.25	4.00	3.43	3.20
60SM	1N1110	1600	1120	4	4.0	4.75	4.15	3.86
OSM	1N1111	2000	1400	375	3.75	5.65	4.80	4.53
40SM	1N1112	2400	1680	35	3.5	6.50	5.57	5.20
60SM	1N1113	2800	1960	325	3.25	7.35	6.30	5.87

HIGH CURRENT, HERMETICALLY SEALED AVALANCHE RECTIFIERS

Stud base, hermetically sealed rectifiers. Add suffix N for negative base (anode) or suffix P for positive base (cathode).

ST3A SERIES 25 AMP (FIG. H)

S-T No.	JEDEC No.	Max. PIV	Max. RMS Volts	DC Amps	4MS Surge	Net Each, Lots of		
						1-24	25-99	100 Up
ST3A10		100	70	25	400	\$2.20	\$1.90	\$1.73
ST3A20		200	140	25	400	2.45	2.10	1.96
ST3A30		300	210	25	400	2.65	2.44	2.28
ST3A40		400	280	25	400	3.15	2.70	2.52
ST3A50		500	350	25	400	3.80	2.98	2.78
ST3A60		600	420	25	400	3.80	3.28	3.06

ST4 SERIES 35 AMP (FIG. H)

S-T No.	JEDEC No.	Max. PIV	Max. RMS Volts	DC Amps	4MS Surge	Net Each, Lots of		
						1-24	25-99	100 Up
ST410	1N1184	100	70	35	500	\$2.60	\$2.22	\$2.06
ST420	1N1186	200	140	35	500	3.10	2.66	2.48
ST430	1N1187	300	210	35	500	3.55	3.04	2.84
ST440	1N1188	400	280	35	500	4.45	3.62	3.56
ST450	1N1189	500	350	35	500	5.35	4.59	4.27
ST460	1N1190	600	420	35	500	6.40	5.50	5.14

ST5A SERIES 50 AMP (FIG. H)

S-T No.	JEDEC No.	Max. PIV	Max. RMS Volts	DC Amps	4MS Surge	Net Each, Lots of		
						1-24	25-99	100 Up
ST5A10		100	70	50	1000	\$3.25	\$2.78	\$2.60
ST5A20		200	140	50	1000	3.78	3.22	3.00
ST5A30		300	210	50	1000	4.53	3.68	3.40
ST5A40		400	280	50	1000	5.28	4.52	4.20
ST5A50		500	350	50	1000	6.27	5.38	5.00
ST5A60		600	420	50	1000	7.80	6.68	6.20

ST6 SERIES 100 AMP (FIG. I)

S-T No.	JEDEC No.	Max. PIV	Max. RMS Volts	DC Amps	4MS Surge	Net Each, Lots of		
						1-24	25-99	100 Up
ST610		100	70	100	1600	\$11.20	\$9.60	\$8.96
ST620		200	140	100	1600	12.20	10.45	9.79
ST630		300	210	100	1600	13.40	11.76	10.95
ST640		400	280	100	1600	17.10	15.00	15.00
ST650		500	350	100	1600	24.25	20.78	19.40
ST660		600	420	100	1600	28.50	24.40	22.80

ST7 SERIES 160 AMP (FIG. J)

S-T No.	JEDEC No.	Max. PIV	Max. RMS Volts	DC Amps	4MS Surge	Net Each, Lots of		
						1-24	25-99	100 Up
ST710	1N3261	100	70	160	3000	\$12.80	\$11.09	\$10.32
ST720	1N3263	200	140	160	3000	14.50	12.40	11.58
ST730	1N3265	300	210	160	3000	15.30	13.50	12.60
ST740	1N3267	400	280	160	3000	20.20	17.80	16.60
ST750	1N3268	500	350	160	3000	28.45	24.38	22.75
ST760	1N3269	600	420	160	3000	36.60	29.60	27.65

ST9 SERIES 250 AMP (FIG. J)

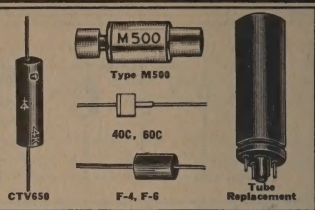
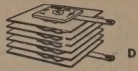
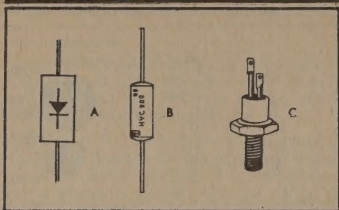
S-T No.	JEDEC No.	Max. PIV	Max. RMS Volts	DC Amps	4MS Surge	Net Each, Lots of		
						1-24	25-99	100 Up
ST910	1N3162	100	70	250	5000	\$14.20	\$12.19	\$11.36
ST920	1N3164	200	140	250	5000	15.80	13.50	12.60
ST930	1N3166	300	210	250	5000	17.10	15.00	14.00
ST940	1N3168	400	280	250	5000	24.40	20.95	19.52
ST950	1N3169	500	350	250	5000	32.60	27.95	26.10
ST960	1N3170	600	420	250	5000	42.40	36.20	33.80

ST20 SERIES 350 AMP (FIG. J)

S-T No.	JEDEC No
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Silicon & Selenium Rectifiers

**SARKES
TARZIAN**



HIGH VOLTAGE, AXIAL LEAD SILICON CARTRIDGE RECTIFIERS (FIG. A)

JEDEC No.	S-T No.	PIV	Max. Rms. Vols*	Max. Avg. Rect. Current, Ma.		Size, In.	Lead Lgth., In.	Net Each, Lots of		
				25°C	100°C			1-24	25-99	100 up
1N1730	S-5518	1000	700	200	100	5 x .375	2 1/2	\$2.10	\$1.79	\$1.67
1N1731	S-5519	1500	1050	200	100	5 x .375	2 1/2	2.10	1.79	1.67
1N1732	S-5520	2000	1400	200	100	1 x .375	2 1/2	2.90	2.50	2.33
1N1733	S-5521	3000	2100	150	75	1 x .375	2 1/2	4.15	3.57	3.34
1N1734	S-5522	5000	3500	100	50	1 x .375	2 1/2	5.00	4.29	4.00
1N2373	S-5523	600	420	250	100	5 x .375	2 1/2	1.25	1.07	1.00
1N2374	S-5524	1000	700	250	100	5 x .375	2 1/2	2.10	1.79	1.67
1N2375	S-5525	1500	1050	200	100	5 x .375	2 1/2	2.10	1.79	1.67
1N2376	S-5526	2000	1400	200	100	9 x .375	2 1/2	2.90	2.50	2.33
1N2377	S-5527	2400	1680	150	75	9 x .375	2 1/2	3.35	2.86	2.66
1N2378	S-5528	3000	2100	150	75	1 x .375	2 1/2	4.20	3.58	3.34
1N2379	S-5529	4000	2800	100	50	1.25 x .375	2 1/2	5.00	4.30	4.00
1N2380	S-5530	6000	4200	100	50	2.5 x .375	2 1/2	7.10	6.08	5.66
1N2381	S-5531†	10000	7000	75	25	2.5 x .375	2 1/2	11.40	9.65	9.00
1N2382	S-5532	4000	2800	150	5	1 x .375	2 1/2	5.00	4.29	4.00
1N2383	S-5533†	6000	4200	100	50	1.5 x .375	2 1/2	7.10	6.08	5.66
1N2384	S-5534	8000	5600	70	35	1.5 x .375	2 1/2	7.50	6.43	6.00
1N2385	S-5535†	10000	7000	70	35	2 x .375	2 1/2	9.15	7.86	6.90

*Derate 50% for capacitive load in half-wave circuits. †Ferrule mounting.

HVC SERIES HIGH VOLTAGE, AXIAL LEAD SILICON CARTRIDGE RECTIFIERS (FIG. B)

Epoxy-sealed phenolic tube construction with 2" lg. (min.) axial leads.

S-T No.	Max. PIV	Max. Avg. Rect. Cur. (55°C), mA	Max. Fwd. V Drop at Rtd. Cur.	Body Dia. x Lgth.	Net Each, Lots of		
					1-24	25-99	100 up
HVC180	1800	250	4 VDC	.375 x 1/4	\$ 3.35	\$ 2.86	\$ 2.66
HVC240	2400	250	7 VDC	.375 x 1/4	3.60	3.08	2.87
HVC300	3000	200	6 VDC	.375 x 1/4	3.85	3.28	3.07
HVC400	4000	200	8 VDC	.375 x 1/4	4.00	3.44	3.20
HVC500	5000	200	10 VDC	.375 x 1/4	4.15	3.57	3.34
HVC600	6000	150	12 VDC	.375 x 1/4	4.55	3.92	3.66
HVC850	8500	150	13 VDC	.375 x 1/4	5.00	4.29	4.00
HVC1000	10000	150	15 VDC	.375 x 1/4	5.40	4.64	4.34
HVC1200	12000	100	16 VDC	.375 x 1/4	5.85	5.00	4.66
HVC1400	14000	100	18 VDC	.375 x 1/4	6.65	5.72	5.34
HVC1600	16000	100	20 VDC	.375 x 1/4	7.10	6.07	5.66
HVC1800	18000	75	22 VDC	.375 x 1/4	8.35	7.15	6.66
HVC1500	15000	75	25 VDC	.375 x 1/4	10.40	8.94	8.34
HVC1800	18000	75	30 VDC	.375 x 1/4	12.50	10.70	10.00
HVC2100	21000	50	35 VDC	.375 x 1/4	14.60	12.50	11.67
HVC2500	25000	50	37.5 VDC	.375 x 1/4	17.50	15.00	14.00
HVC3000	30000	50	50 VDC	.375 x 1/4	20.80	17.90	16.70

SILICON CONTROLLED RECTIFIERS (FIG. C)

Four-layer, three-junction devices for switching and power control. Size, 1 1/2" overall I. Series 3TCR, 3 amps D.C.; Series 5TCR, 5 amps D.C.

S-T No.	Max. PIV	Net Each, Lots of			S-T No.	Max. PIV	Net Each, Lots of		
		1-24	25-99	100 up			1-24	25-99	100 up
3TCRA	25	\$2.80	\$2.38	\$2.22	5TCRA	25	\$4.00	\$3.43	\$3.20
3TCRB	50	2.90	2.46	2.30	5TCRB	50	4.70	4.05	3.77
3TCRC	100	3.00	2.55	2.39	5TCRC	100	4.85	4.15	3.86
3TCRD	150	3.05	2.62	2.44	5TCRD	150	4.95	4.23	3.94
3TCRE	200	3.25	2.80	2.60	5TCRE	200	5.10	4.38	4.08
3TCRF	250	4.05	3.50	3.25	5TCRF	250	6.15	5.17	4.84
3TCRG	300	4.20	3.58	3.33	5TCRG	300	6.05	5.16	4.81
3TCRH	400	4.65	3.98	3.70	5TCRH	400	6.50	5.57	5.18
3TCRI	500	6.95	5.91	5.55	5TCRI	500	8.80	7.53	7.03

Class X and Y prices available on request.

36CR6Z	100	\$ 7.35	\$ 6.27	\$ 5.86	36CR6Z	250	\$17.90	\$15.36	\$14.35
36CRDZ	150	10.10	8.63	8.07	36CR6Z	300	24.60	21.10	19.69
36CR6Z	200	13.75	11.79	11.07	36CR6Z	400	31.50	27.00	25.20

SELENIUM RECTIFIERS

"CONDENSED-STACK" SELENIUM RECTIFIERS (FIG. D)

Approximate rectifier drop, 5 V. Max. plate temperature, 85°C operating. Resistance, shunt, 16 series.

Sarkes Tarzian Model	Max. Volts		Max. Current		Min. DC Resist.*	Plate Size, W x H, x D, In.	Max. Series Ctr.†	Max. Each
	Rms	PIV	Peak mA	Rms mA				
50-75	130	380	1500	187	75	22	1 1/4 sq. x 1 1/4	\$0.48
100-150	130	380	1500	375	150	22	1 sq. x 1 1/4	.72
200-250	130	380	1500	625	250	15	1 1/4 sq. x 1 1/4	.88
300-500	130	380	1500	1250	500	5	1 sq. x 1 1/4	1.32

*Ohms

SELENIUM "CENTER COOLED" RECTIFIERS

These standard power type rectifier stacks are used in a broad range of power supply applications, such as DC filament supplies, electroplating equipment, etc. Sarkes Tarzian "Center-Seal" rectifiers have high thermal stability. They will operate efficiently at temperatures from -55°C to +100°C.

Sarkes Tarzian No.	DC Output†		Max. AC Input Volts	Dimensions			Net Each
	Volts	Max. Amps		Plate Height	Stack Length	Plate Width	
D-10*	6-10	2	13	3"	2 1/2"	3"	\$ 4.31
D-11*	6-10	4	13	4"	2 1/2"	4"	5.21
D-12*	6-10	6	13	4"	2 1/2"	4"	5.21
D-13*	6-10	8	13	5"	2 1/2"	4"	6.38
D-14*	6-10	12	13	5"	2 1/2"	6"	6.38
D-15*	6-10	15	13	4 1/2"	2 1/2"	12"	11.00
D-16*	6-10	22.5	13	4 1/2"	2 1/2"	12"	11.00
D-32†	6-20	1.5	26	2"	1 1/2"	2"	4.96
D-17†	6-20	1	26	4"	3 1/4"	3"	5.44
D-18†	6-20	4	26	4"	3 1/4"	4"	7.36
D-19†	6-20	6	26	4"	4"	4"	7.36
D-20†	6-20	8	26	5"	3 3/4"	6"	9.25

See Standard Replacement Types, below, for full specifications.

Sarkes Tarzian Type M500 Kit—Two Type M rectifiers in voltage doubler circuit. \$212

dual mounting clip, base and hardware. Net Each.....

Sarkes Tarzian Type F-4 Kit—Two F-4 rectifiers in voltage doubler circuit kit. .93

Net Each.....

Sarkes Tarzian Model F-4 Kit—Two F-4 rectifiers in voltage doubler circuit kit. .93

Net Each.....

Sarkes Tarzian Model 40C Kit—Two 40C rectifiers in voltage doubler circuit kit. \$11

Net Each.....

Sarkes Tarzian Model 60C Kit—Two 60C rectifiers in voltage doubler circuit kit. \$20

Net Each.....

SPECIAL SILICON COLOR TV FOCUS RECTIFIER

Permanent "cure" for loss of control in color TV sets due to aging of original selenium rectifier. Delivers full performance for the life of the set. Replaces: RCA 1440977-1; Magnavox S330096-1; Philco 34-0002-2; Emerson 817123; Packard Bell 72110; Sylvania 616006-1; Zenith 212-48; Airline 650035-001; DuMont 1440977-1; Olympic 1440977-1; Silverstone 86-44-3. Max. Voltage: 6500 PIV; 4550 V rms. Current: 60 mADC max. Size: Phenolic tube, 1 1/2" I. x 3/4" O.D.; axial leads, 2" lg. min.

Sarkes Tarzian Type CTV650—Net Each..... \$50

VACUUM TUBE REPLACEMENT SERIES

These silicon rectifier tube replacements are the preferred way to reduce tube replacement costs. Although more expensive than rectifier tubes, they will outlast many times their cost in rectifier tubes.

S-T No.	JEDEC No.	Max. PIV	Max. VRms	Replaces Tube Type	Net Each
S-5011A	1N1150A	1600	1100	80, 82, 83, 83V, 523	\$12.00
S-5017	1N1237	1600	1100	02A, 5X4, 5Y4, 6AX5, 6X5	12.00
S-5018	1N1238	1600	1100	6AU4, 5AW4, 5A2A, 5T4, 5U4, 5Y3	12.00
S-5019	1N1239	2800	1950	5R4	18.10
S-5032	1N1262	4500	3200	6AU4, 6AX4, 6B2L, 6W4, 12AX4, 25W4	18.10
S-5130A	1N1040	7000	7400	865, 868A, 3828	22.50
S-5165	1N1280	1500	1100	5R4	16.10
S-5275	1N2490	1600	1100	6X4	12.00
S-5295	1N2389	1600	1100	5AU4, 5AW4, 5A2A, 5T4, 5U4, 5Y3	6.10
S-5343	1N1238	7000	5000	815, 836, 3828†	18.10
S-5344	1N1239	10000	7000	827A	31.70
S-5347	1N1237	1600	1100	12BW4, 6BW4	8.65
S-5367	1N1238	19000	13300	8020	31.70
S-5373	1N1239	10000	7000	8008	31.70
S-5449	1N1238	15000	10500	575A	58.30
S-5451	1N1239	7200	5040	827A	31.70
S-5491	1N1238	1600	1100	6AU4, 5AW4, 5A2A, 5T4, 5U4, 5Y3	3.50

*At reduced voltage. †Hermetically sealed. ‡Half-wave circuit; all others full wave. †Derate input voltage 50% for capacitive load.

STANDARD SILICON REPLACEMENT TYPES

Approximate voltage drop for all types listed below is 2 volts. Minimum series resistance required is 5 ohms for F-4, F-6, 40H and 60H; 10 ohms for M150 and 7.5 ohms for M500.

S-T Number	JEDEC Number	Max. Current, Amps	DC at Peak Volts	4MS Surge	Size, Inches Lgth. x Dia.	Min. Lead Lgth., In.	Net Each
F-4	1N2488	400	280	1.0 Amp. 7.5	75	250 x 200	\$0.51
F-6	1N2484	600	420	1.0 Amp. 7.5	75	250 x 200	.51
40C*	1N2487	400	280	1.0 Amp. 7.5	75	.687 x .375	.60
M500	1N1084	400	280	1.0 Amp. 7.5	75	.687 x .375	.63
						1 x 3/4	.96

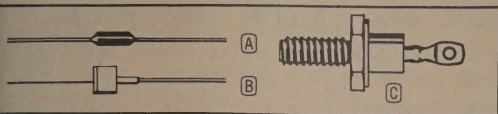
*Hermetically sealed. †Available bulk packed or in handy 10-pak, same price. ‡Derate 50% for 1/2-wave cap. load. †At 85°C.



**SARKES
TARZIAN**

Silicon Regulators, Suppressors

SILICON ZENER VOLTAGE REGULATORS



One series covers many JEDEC types. Meet or exceed all JEDEC requirements. Tolerance $\pm 5\%$; available in $\pm 10\%$ and $\pm 20\%$. To order, add voltage and tolerance letter to S-T No. (i.e., .25T5,6A).

S-T No.	Fig.	Tol. $\pm 5\%$	Watts	Net Each, Lots of		
				1-24	25-99	100 Up
.25T	A	A	.25	\$2.25	\$1.93	\$1.80
.4T	A	A, B	.4	2.50	2.15	2.00
1TA	B	A, B	1	1.67	1.43	1.33
10T	C	A, B	10	3.76	3.22	2.99

JEDEC NUMBERS AND VOLTAGES AVAILABLE

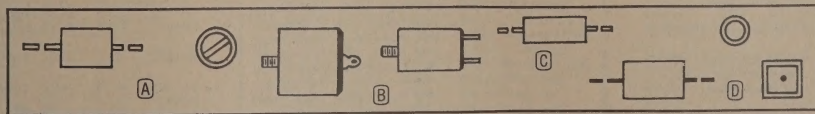
.5T (250 Mw)			.4T (400 Mw)			1TA Series (1 Watt)			10T Series (10 Watt)		
JEDEC No.	Zener Volts	JEDEC No.	Zener Volts	JEDEC No.	Zener Volts	JEDEC No.	Zener Volts	JEDEC No.	Zener Volts	JEDEC No.	Zener Volts
08A	5.6	1N769A	23.5	1N3016B	6.8	1N1774A	13	1N1351A	10	1N1823A	27
09A	6.2	1N752A	5.6	1N3017B	7.5	1N1775A	15	1N1352A	11	1N1824A	30
10A	6.8	1N753A	6.2	1N3018B	8.2	1N1776A	16	1N1353A	12	1N1825A	33
11A	7.5	1N754A	6.8	1N3019B	9.1	1N1777A	20	1N1354A	13	1N1826A	36
12A	8.2	1N755A	7.5	1N3020B	10	1N1778A	22	1N1355A	15	1N1827A	39
13A	9.1	1N756A	8.2	1N3021B	11	1N1779A	24	1N1356A	16	1N1828A	43
14A	10	1N757A	9.1	1N3022B	12	1N1780A	27	1N1357A	18	1N1829A	47
15A	11	1N758A	10	1N3023B	13	1N1781A	30	1N1358A	20	1N1830A	51
16A	12	1N759A	12	1N3024B	15	1N1782A	33	1N1359A	22	1N1831A	56
17A	13	1N957B	6.8	1N3025B	16	1N1783A	36	1N1360A	24	1N1832A	62
18A	15	1N958B	7.5	1N3026B	18	1N1784A	39	1N1361A	27	1N1833A	68
19A	16	1N959B	8.2	1N3027B	20	1N1785A	43	1N1362A	30	1N1834A	75
20A	18	1N960B	9.1	1N3028B	22	1N1786A	47	1N1363A	33	1N1835A	82
21A	20	1N961B	10	1N3029B	24	1N1787A	51	1N1364A	36	1N1836A	91
22A	22	1N962B	11	1N3030B	27	1N1788A	56	1N1365A	39	1N2008A	100
23A	24	1N963B	12	1N3031B	30	1N1789A	62	1N1366A	43	1N2009A	110
24A	27	1N964B	13	1N3032B	33	1N1790A	68	1N1367A	47	1N2010A	120
25A	30	1N965B	15	1N3033B	36	1N1791A	75	1N1368A	51	1N2011A	130
26A	33	1N966B	16	1N3034B	39	1N1792A	82	1N1369A	56	1N2012A	150
27A	36	1N967B	18	1N3035B	43	1N1793A	91	1N1370A	62	1N2013A	10
28A	39	1N968B	20	1N3036B	47	1N1794A	100	1N1371A	68	1N2014A	11
29A	43	1N969B	22	1N3037B	51	1N1795A	110	1N1372A	75	1N2015A	12
30A	47	1N970B	24	1N3038B	56	1N1796A	120	1N1373A	82	1N2016A	6.8
31A	51	1N971B	27	1N3039B	62	1N1797A	130	1N1374A	91	1N2017A	7.5
32A	56	1N972B	30	1N3040B	68	1N1798A	150	1N1375A	91	1N2018A	8.2
33A	62	1N973B	33	1N3041B	75	1N1799A	160	1N1800A	5.6	1N2019A	9.1
34A	68	1N974B	36	1N3042B	82	1N1800A	180	1N1801A	6.2	1N2020A	10
35A	75	1N975B	39	1N3043B	91	1N1801A	200	1N1802A	6.8	1N2021A	11
36A	82	1N976B	43	1N3044B	100				7.5	1N2022A	12
37A	91	1N977B	47	1N3045B	110				8.2	1N2023A	13
38A	100	1N978B	51	1N3046B	120				9.1	1N2024A	14
39A	110	1N979B	56	1N3047B	130				110	1N2025A	15
40A	120	1N980B	62	1N3048B	150				120	1N2026A	16
41A	130	1N981B	68	1N3049B	160				130	1N2027A	17
42A	150	1N982B	75	1N3050B	180				150	1N2028A	18
43A	160	1N983B	82	1N3051B	200				160	1N2029A	20
44A	180	1N984B	91	1N1765A	5.6				180	1N2030A	22
45A	200	1N985B	100	1N1766A	6.2				200	1N2031A	24
62A	5.8	1N986B	110	1N1767A	6.8					1N2032A	27
63A	7.1	1N987B	120	1N1768A	7.5					1N2033A	30
64A	8.8	1N988B	130	1N1769A	8.2					1N2034A	33
65A	10.5	1N989B	150	1N1770A	9.1					1N2035A	36
66A	12	1N990B	160	1N1771A	10					1N2036A	39
67A	15.8	1N991B	180	1N1772A	11					1N2037A	43
68A	19	1N992B	200	1N1773A	12					1N2038A	47

VR SERIES ECONOMY ZENER REGULATORS

watt zener regulators in rugged plastic case, recommended for use in all 1/4, 0.4, 1/2 and 1 watt locations. Add suffix A for $\pm 5\%$ tolerance, B for $\pm 20\%$ ($\pm 10\%$ standard).

T. No.	Zener Volts*	S-T No.	Zener Volts*	S-T No.	Zener Volts*	S-T No.	Zener Volts*	S-T No.	Zener Volts*
6	6	VR14	14	VR33	33	VR80	80	VR130	130
7	7	VR16	16	VR39	39	VR90	90	VR150	150
8.5	8.5	VR20	20	VR47	47	VR105	105	VR160	160
10	10	VR24	24	VR56	56	VR110	110	VR180	180
12	12	VR28	28	VR65	65	VR120	120	VR200	200

alanche volts.



KLIPFLOP TRANSIENT VOLTAGE SUPPRESSORS

POLARIZED TYPE

Max. DC Blocking Volts, B—Max. Discharge Current (Amps), C—Min. DC Volts, D—Figure.

B			C			S-T No.			D		
1-9	10-99	100 Up	1-9	10-99	100 Up	1-9	10-99	100 Up	1-9	10-99	100 Up
.250	15	S-235 A	\$0.36	\$0.33	\$0.29	S-235C	C	\$0.81	\$0.73	\$0.65	
.850	15	S-236 A	.55	.50	.44	S-236C	D	1.60	1.44	1.28	
.250	23	S-237 A	.36	.33	.29	S-237C	C	.81	.73	.65	
.850	23	S-238 A	.55	.50	.44	S-238C	D	1.60	1.44	1.28	
.250	45	S-239 A	.39	.35	.31	S-239C	C	.84	.76	.67	
.250	45	S-240 A	.50	.45	.40	S-240C	D	1.55	1.40	1.24	
.850	67	S-241 A	.42	.38	.34	S-241C	C	.87	.78	.70	
.850	67	S-242 A	.55	.50	.44	S-242C	D	1.60	1.44	1.28	
.250	89	S-243 A	.45	.41	.36	S-243C	C	.90	.81	.72	
.250	89	S-244 A	.60	.55	.48	S-244C	D	1.65	1.49	1.32	
.850	111	S-245 A	.48	.43	.38	S-245C	C	.93	.84	.74	
.850	111	S-246 A	.65	.59	.52	S-246C	D	1.70	1.53	1.36	
.250	133	S-247 A	.51	.46	.41	S-247C	C	.96	.86	.77	
.850	133	S-248 A	.70	.63	.56	S-248C	D	1.75	1.58	1.40	

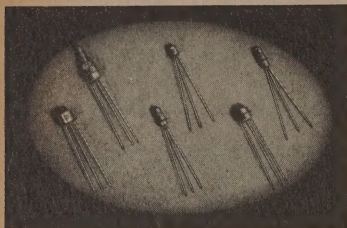
Can handle transient peak voltages at least double steady state rating. Non-polarized, AC or DC; polarized, DC only. Higher voltage and 3-ph. models available. Figs. C and D are sealed types.

NON-POLARIZED TYPE

A—Max. rms Volts, B—Max. Discharge Current (Amps), C—Min. rms Volts, D—Figure.

S-T No.			A			B			C			D		
1-9	10-99	100 Up	1-9	10-99	100 Up	1-9	10-99	100 Up	1-9	10-99	100 Up	1-9	10-99	100 Up
S-249	52	.200	27	A	\$0.42	\$0.38	\$0.34							
S-249C	52	.200	27	B	.87	.78	.70							
S-250	52	.700	27	C	.55	.50	.44							
S-250C	52	.700	27	D	1.60	1.44	1.28							
S-251	78	.200	53	A	.48	.43	.38							
S-251C	78	.200	53	B	.93	.84	.74							
S-252	78	.700	53	C	.65	.59	.53							
S-252C	78	.700	53	D	1.70	1.53	1.36							
S-253	104	.200	79	A	.54	.49	.43							
S-253C	104	.200	79	C	.99	.89	.79							

SPRAGUE SEMICONDUCTORS



GERMANIUM AND SILICON TRANSISTORS

- Sprague Transistors are Produced by Advanced Equipment and the Latest Manufacturing Techniques.
- Excellent Design Flexibility and Electrical Properties Meet the Most Rigid Performance and Reliability Standards.

- Highest Quality and Outstanding Economy.
- For Complete Technical Data Refer to Latest Issue of the Applicable Engineering Bulletin.
- Call your Sprague Industrial Distributor for current quantity prices.

Type Number	Case Code	Description
2N128	TO-24	Ge Switch SBT
JAN-2N128	TO-24	Ge Switch SBT
2N231	TO-24	Ge Switch SBT
2N240	TO-24	Ge Switch SBT
JAN-2N240	TO-24	Ge Switch SBT
2N327A	TO-5	PNP Planar Alloy Replacement
2N327B	TO-5	PNP Planar Alloy Replacement
2N328A	TO-5	PNP Planar Alloy Replacement
JAN-2N328A	TO-5	PNP Planar Alloy Replacement
2N328B	TO-5	PNP Planar Alloy Replacement
2N329A	TO-5	PNP Planar Alloy Replacement
JAN-2N329A	TO-5	PNP Planar Alloy Replacement
2N329B	TO-5	PNP Planar Alloy Replacement
2N330A	TO-5	PNP Planar Alloy Replacement
2N344	TO-24	Ge Ampl. SBT
2N345	TO-24	Ge Ampl. SBT
2N346	TO-24	Ge Ampl. SBT
2N393	TO-24	Ge Switch MAT*
JAN-2N393	TO-24	MIL-S-19500/77A
JAN-2N393	TO-24	MIL-S-19500/77B
2N495	TO-1	Si Switch SPAT*
2N496	TO-1	Si Switch SPAT
2N499	TO-1	Ge Amplifier MADT*
JAN-2N499	TO-1	Ge Amplifier MADT
2N499A	TO-1	Ge Amplifier MADT
JAN-2N499A	TO-1	Ge Amplifier MADT
2N501	TO-1	Ge Switch MADT
2N501A	TO-1	Ge Switch MADT
JAN-2N501A	TO-1	MIL-S-19500/62
JAN-2N501A	TO-1	MIL-S-19500/62A
2N502	TO-9	Ge Ampl. MADT
2N502A	TO-9	Ge Ampl. MADT
JAN-2N502A	TO-9	Ge Ampl. MADT
2N502B	TO-9	Ge Ampl. MADT
JAN-2N502B	TO-9	Ge Ampl. MADT
2N503	TO-9	Ge Ampl. MADT
2N504	TO-1	Ge Ampl. MADT
2N588	TO-1	Ge Ampl. MADT
2N706	TO-18	NPN Si Switch SEPT®
2N768	TO-18	Ge Switch MADT
2N769	TO-18	Ge Switch MADT
2N779A	TO-18	Ge Switch MADT
2N794	TO-18	Ge Switch ECDC®
2N795	TO-18	Ge Switch ECDC
2N796	TO-18	Ge Switch ECDC
2N834	TO-18	NPN Si Switch SEPT
2N835	TO-18	NPN Si Switch SEPT

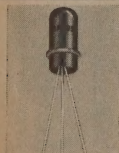
Type Number	Case Code	Description
2N846A	TO-18	Ge Switch ECDC
2N858	TO-18	Si Switch SPAT
2N859	TO-18	Si Switch SPAT
2N860	TO-18	Si Switch SPAT
2N861	TO-18	Si Switch SPAT
2N862	TO-18	Si Switch SPAT
2N863	TO-18	Si Switch SPAT
2N864	TO-18	Si Switch SPAT
2N865	TO-18	Si Switch SPAT
2N914	TO-18	NPN Si Switch SEPT
2N923	TO-18	PNP Planar Alloy Replacement
2N924	TO-18	PNP Planar Alloy Replacement
2N925	TO-18	PNP Planar Alloy Replacement
2N926	TO-18	PNP Planar Alloy Replacement
2N927	TO-18	PNP Planar Alloy Replacement
2N928	TO-18	PNP Planar Alloy Replacement
2N929	TO-18	NPN Si Low Noise Ampl. SEPT
2N930	TO-18	NPN Si Low Noise Ampl. SEPT
2N935	TO-18	PNP Planar Alloy Replacement
2N936	TO-18	PNP Planar Alloy Replacement
2N937	TO-18	PNP Planar Alloy Replacement
2N938	TO-18	PNP Planar Alloy Replacement
2N939	TO-18	PNP Planar Alloy Replacement
2N940	TO-18	PNP Planar Alloy Replacement
2N941	TO-18	PNP Planar Alloy Replacement
2N942	TO-18	PNP Planar Alloy Replacement
2N943	TO-18	PNP Planar Alloy Replacement
2N944	TO-18	PNP Planar Alloy Replacement
2N945	TO-18	PNP Planar Alloy Replacement
2N946	TO-18	PNP Planar Alloy Replacement
2N976	TO-18	Ge Switch MADT
2N979	TO-18	Ge Switch MADT
2N980	TO-18	Ge Switch MADT
2N982	TO-18	Ge Switch MADT
2N983	TO-18	Ge Switch MADT
2N984	TO-18	Ge Switch MADT
2N997	TO-18	NPN Si Darlington Amp.
2N1024	TO-5	PNP Planar Alloy Replacement
2N1025	TO-5	PNP Planar Alloy Replacement
JAN-2N1025**	TO-5	PNP Planar Alloy Replacement
2N1026	TO-5	PNP Planar Alloy Replacement
JAN-2N1026**	TO-5	PNP Planar Alloy Replacement
2N1027	TO-5	PNP Planar Alloy Replacement
2N1028	TO-5	PNP Planar Alloy Replacement
2N1034	TO-5	PNP Planar Alloy Replacement
2N1035	TO-5	PNP Planar Alloy Replacement
2N1036	TO-5	PNP Planar Alloy Replacement
2N1037	TO-5	PNP Planar Alloy Replacement
2N1118	TO-5	Si Ampl. SPAT
JAN-2N1118	TO-5	MIL-S-19500/138A

Type Number	Case Code	Description
JAN-2N1118	TO-5	MIL-S-19500/138B
2N1118A	TO-5	Si Ampl. SPAT
2N1119	TO-5	Si Switch SPAT
JAN-2N1119	TO-5	MIL-S-19500/139A
JAN-2N1119	TO-5	MIL-S-19500/139B
2N1122	TO-24	Ge Switch MAT
2N1122A	TO-24	Ge Switch MAT
2N1219	TO-5	PNP Planar Alloy Replacement
2N1220	TO-5	PNP Planar Alloy Replacement
2N1221	TO-5	PNP Planar Alloy Replacement
2N1222	TO-5	PNP Planar Alloy Replacement
2N1223	TO-5	PNP Planar Alloy Replacement
2N1275	TO-5	PNP Planar Alloy Replacement
2N1300	TO-5	Ge Switch ECDC
2N1301	TO-5	Ge Switch ECDC
2N1411	TO-24	Ge Switch MAT
JAN-2N1411	TO-24	Ge Switch MAT
2N1427	TO-24	Ge Switch MAT
2N1429	TO-5	Si Switch SPAT
2N1469	TO-5	PNP Planar Alloy Replacement
JAN-2N1469**	TO-5	PNP Planar Alloy Replacement
2N1474	TO-5	PNP Planar Alloy Replacement
2N1474A	TO-5	PNP Planar Alloy Replacement
2N1475	TO-5	PNP Planar Alloy Replacement
2N1476	TO-5	PNP Planar Alloy Replacement
2N1477	TO-5	PNP Planar Alloy Replacement
2N1499A	TO-9	Ge Switch ECDC
JAN-2N1499A	TO-9	Ge Switch ECDC
2N1499B	TO-9	Ge Switch ECDC
2N1500	TO-9	Ge Switch MADT
JAN-2N1500	TO-9	Ge Switch MADT
2N1623	TO-5	PNP Planar Alloy Replacement
2N1643	TO-5	PNP Planar Alloy Replacement
2N1654	TO-5	PNP Planar Alloy Replacement
2N1655	TO-5	PNP Planar Alloy Replacement
2N1656	TO-5	PNP Planar Alloy Replacement
2N1676	TO-5	Si Chopper SPAT
2N1677	TO-5	Si Chopper SPAT
2N1683	TO-5	ECDC Switch
2N1726	TO-9	MADT Communication
2N1727	TO-9	MADT Communication
2N1728	TO-9	MADT Communication
2N1742	TO-9	MADT Communication
2N1743	TO-9	MADT Communication
2N1744	TO-9	MADT Amplifier
2N1745	TO-9	MADT Amplifier
2N1746	TO-9	MADT Amplifier
2N1747	TO-9	MADT Amplifier

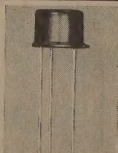
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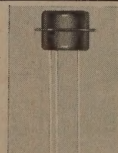
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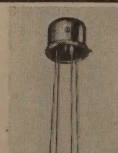
TO-1



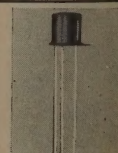
TO-5



TO-9



TO-12



TO-18

SPRAGUE SEMICONDUCTORS

SEMICONDUCTORS, continued

Type Number	Case Code	Description	Type Number	Case Code	Description	Type Number	Case Code	Description
2N1748	TO-9	MADT Amplifier	2N2274	TO-18	Si Chopper SPAT	2N2725	TO-72	NPN Si Darlington Amp.
2N1748A	TO-9	MADT Amplifier	2N2275	TO-18	Si Matched Pair SPAT	2N2785	TO-72	NPN Si Darlington Amp.
2N1749	TO-9	MADT Amplifier	2N2276	TO-18	Si Chopper SPAT			
2N1752	TO-9	MADT Amplifier	2N2277	TO-18	Si Matched Pair SPAT	2N2795	TO-18	Ge Switch ECDC
2N1754	TO-9	ECDC Switch	2N2278	TO-18	Si Chopper SPAT	2N2796	TO-18	Ge Switch ECDC
2N1785	TO-9	MADT Amplifier	2N2279	TO-18	Si Matched Pair SPAT	2N2797	TO-9	Ge Switch ECDC
2N1786	TO-9	MADT Amplifier	2N2280	TO-18	Si Chopper SPAT	2N2798	TO-9	Ge Switch ECDC
2N1787	TO-9	MADT Amplifier	2N2281	TO-18	Si Matched Pair SPAT	2N2799	TO-9	Ge Switch ECDC
2N1788	TO-9	MADT Amplifier						
2N1789	TO-9	MADT Communication	2N2330	TO-5	NPN Si Chopper SEPT	2N2802	TO-5	PNP Si Diff. Amp.
2N1790	TO-9	MADT Communication	2N2331	TO-18	NPN Si Chopper SEPT	2N2803	TO-5	PNP Si Diff. Amp.
2N1864	TO-9	MADT Communication				2N2804	TO-5	PNP Si Diff. Amp.
2N1865	TO-9	MADT Communication	2N2332	TO-18	PNP Planar Alloy Replacement	2N2805	TO-5	PNP Si Diff. Amp.
2N1866	TO-9	MADT Communication	2N2333	TO-18	PNP Planar Alloy Replacement	2N2806	TO-5	PNP Si Diff. Amp.
2N1867	TO-9	MADT Communication	2N2334	TO-18	PNP Planar Alloy Replacement	2N2807	TO-5	PNP Si Diff. Amp.
2N1868	TO-9	MADT Communication	2N2335	TO-18	PNP Planar Alloy Replacement			
			2N2336	TO-18	PNP Planar Alloy Replacement	2N2845	TO-18	NPN Si Switch SEPT
			2N2337	TO-18	PNP Planar Alloy Replacement	2N2846	TO-5	NPN Si Switch SEPT
2N1917	TO-5	PNP Planar Alloy Replacement				2N2847	TO-5	NPN Si Switch SEPT
2N1918	TO-5	PNP Planar Alloy Replacement	2N2360	TO-12	Ge Amplifier MADT	2N2848	TO-18	NPN Si Switch SEPT
2N1919	TO-5	PNP Planar Alloy Replacement	2N2361	TO-12	Ge Amplifier MADT			
2N1920	TO-5	PNP Planar Alloy Replacement	2N2362	TO-12	Ge Amplifier MADT	2N2903	TO-5	NPN Si Diff. Amp.
2N1921	TO-5	PNP Planar Alloy Replacement				2N2903A	TO-5	NPN Si Diff. Amp.
2N1922	TO-5	PNP Planar Alloy Replacement	2N2368	TO-18	NPN Si Switch SEPT			
2N2002	TO-5	PNP Planar Alloy Replacement	2N2369	TO-18	NPN Si Switch SEPT	2N2904	TO-5	PNP Si Switch SEPT
2N2003	TO-5	PNP Planar Alloy Replacement	2N2369A	TO-18	NPN Si Switch SEPT	2N2904A	TO-5	PNP Si Switch SEPT
2N2004	TO-5	PNP Planar Alloy Replacement				2N2905	TO-5	PNP Si Switch SEPT
2N2005	TO-5	PNP Planar Alloy Replacement	2N2370	TO-5	PNP Planar Alloy Replacement	2N2905A	TO-5	PNP Si Switch SEPT
2N2006	TO-5	PNP Planar Alloy Replacement	2N2371	TO-5	PNP Planar Alloy Replacement	2N2906	TO-18	PNP Si Switch SEPT
2N2007	TO-5	PNP Planar Alloy Replacement	2N2372	TO-18	PNP Planar Alloy Replacement	2N2906A	TO-18	PNP Si Switch SEPT
			2N2373	TO-18	PNP Planar Alloy Replacement	2N2907	TO-18	PNP Si Switch SEPT
2N2048	TO-9	ECDC Switch				2N2907A	TO-18	PNP Si Switch SEPT
2N2048A	TO-9	ECDC Switch	2N2377	TO-18	Si Amplifier SPAT			
			JAN-2N2377	TO-18	Si Amplifier SPAT	2N2910	TO-5	NPN Si Diff. Amp.
2N2095	TO-31	Ge Amplifier ECDC	2N2378	TO-18	Si Switch SPAT	2N2913	TO-5	NPN Si Diff. Amp.
2N2098	TO-9	Ge Amplifier ECDC	JAN-2N2378	TO-18	Si Switch SPAT	2N2914	TO-5	NPN Si Diff. Amp.
						2N2915	TO-5	NPN Si Diff. Amp.
2N2162	TO-5	Si Chopper SPAT	2N2398	TO-12	Ge Amplifier MADT	2N2916	TO-5	NPN Si Diff. Amp.
2N2163	TO-5	Si Chopper SPAT	2N2399	TO-12	Ge Amplifier MADT	2N2917	TO-5	NPN Si Diff. Amp.
2N2164	TO-5	Si Chopper SPAT				2N2918	TO-5	NPN Si Diff. Amp.
2N2165	TO-5	Si Chopper SPAT	2N2400	TO-18	Ge Switch ECDC	2N2919	TO-5	NPN Si Diff. Amp.
2N2166	TO-5	Si Chopper SPAT	2N2401	TO-18	Ge Switch ECDC	2N2920	TO-5	NPN Si Diff. Amp.
2N2167	TO-5	Si Chopper SPAT	2N2402	TO-18	Ge Switch ECDC	2N2936	TO-5	NPN Si Diff. Amp.
						2N2937	TO-5	NPN Si Diff. Amp.
2N2168	TO-9	Ge Switch MADT	2N2451	TO-24	Ge Switch MAT			
2N2169	TO-9	Ge Switch MADT				2N2942	TO-9	Ge Switch ECDC
2N2170	TO-9	Ge Switch MADT	2N2453	TO-5	NPN Si Diff. Amp.	2N2943	TO-9	Ge Switch ECDC
2N2175	TO-5	PNP Planar Alloy Replacement	2N2476	TO-5	NPN Si Switch SEPT			
2N2176	TO-18	PNP Planar Alloy Replacement	2N2477	TO-18	NPN Si Switch SEPT	2N2944	TO-46	PNP SEPT Switch, Amp., Chopper
2N2177	TO-5	PNP Planar Alloy Replacement				2N2945	TO-46	PNP SEPT Switch, Amp., Chopper
2N2178	TO-18	PNP Planar Alloy Replacement	2N2480	TO-5	NPN Si Diff. Amp.	2N2946	TO-46	PNP SEPT Switch, Amp., Chopper
2N2185	TO-18	Si Chopper SPAT	2N2487	TO-18	Ge Switch MADT			
2N2186	TO-18	Si Matched Pair SPAT	2N2488	TO-18	Ge Switch MADT	2N2951	TO-5	NPN Si Amplifier SEPT
2N2187	TO-18	Si Matched Pair SPAT	2N2489	TO-18	Ge Switch MADT	2N2952	TO-18	NPN Si Amplifier SEPT
2N2217	TO-5	NPN Si Switch SEPT	2N2537	TO-5	NPN Si Switch SEPT	2N2958	TO-5	NPN Si Switch SEPT
2N2218	TO-5	NPN Si Switch SEPT	2N2538	TO-5	NPN Si Switch SEPT	2N2959	TO-5	NPN Si Switch SEPT
2N2218A	TO-5	MIL-S-19500/251D	2N2539	TO-18	NPN Si Switch SEPT			
2N2218A	TO-5	MIL-S-19500/251D	2N2540	TO-18	NPN Si Switch SEPT	2N2962	S-31	ECDC VHF Pwr. Ampl.
2N2219	TO-5	NPN Si Switch SEPT				2N2963	S-31	ECDC VHF Pwr. Ampl.
2N2219A	TO-5	MIL-S-19500/251D	2N2639	TO-5	NPN Si Diff. Amp.	2N2964	S-31	ECDC VHF Pwr. Ampl.
2N2219A	TO-5	MIL-S-19500/251D	2N2640	TO-5	NPN Si Diff. Amp.	2N2965	S-31	ECDC VHF Pwr. Ampl.
2N2220	TO-18	NPN Si Switch SEPT	2N2641	TO-5	NPN Si Diff. Amp.			
2N2221	TO-18	NPN Si Switch SEPT	2N2642	TO-5	NPN Si Diff. Amp.	2N2968	TO-5	Si Symmetrical SPAT
2N2221	TO-18	MIL-S-19500/225D	2N2643	TO-5	NPN Si Diff. Amp.	2N2969	TO-18	Si Symmetrical SPAT
2N2221A	TO-18	NPN Si Switch SEPT	2N2644	TO-5	NPN Si Diff. Amp.	2N2970	TO-5	Si Symmetrical SPAT
2N2221A	TO-18	MIL-S-19500/255D	2N2720	TO-5	NPN Si Diff. Amp.	2N2971	TO-18	Si Symmetrical SPAT
2N2222	TO-18	NPN Si Switch SEPT	2N2721	TO-5	NPN Si Diff. Amp.			
2N2222	TO-18	MIL-S-19500/225D	2N2722	TO-5	NPN Si Diff. Amp.	2N2972	TO-18	NPN Si Diff. Amp.
2N2222A	TO-18	NPN Si Switch SEPT	2N2723	TO-72	NPN Si Darlington Amp.	2N2973	TO-18	NPN Si Diff. Amp.
2N2222A	TO-18	MIL-S-19500/255D	2N2724	TO-72	NPN Si Darlington Amp.			



TO-24



TO-31



TO-46



TO-72

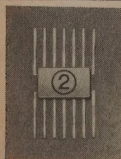


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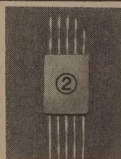
SPRAGUE SEMICONDUCTORS

SEMICONDUCTORS, continued

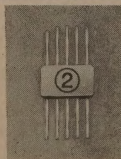
Type Number	Case Code	Description	Type Number	Case Code	Description	Type Number	Case Code	Description
2N2974	TO-18	NPN Si Diff. Amp.	2N3349	TO-5	PNP Si Diff. Amp.	MA-95	TO-24	Ge Switch MAT
2N2975	TO-18	NPN Si Diff. Amp.	2N3350	TO-5	PNP Si Diff. Amp.	MA-96	TO-24	Ge Switch MAT
2N2976	TO-18	NPN Si Diff. Amp.	2N3351	TO-5	PNP Si Diff. Amp.	MA-97	TO-24	Ge Switch MAT
2N2977	TO-18	NPN Si Diff. Amp.	2N3352	TO-5	PNP Si Diff. Amp.	SA-310	TO-5	Si Symmetrical SPAT
2N2978	TO-18	NPN Si Diff. Amp.				SA-311	TO-5	Si Symmetrical SPAT
2N2979	TO-18	NPN Si Diff. Amp.	2N3409	TO-5	NPN Si Diff. Amp.	SA-312	TO-5	Si Symmetrical SPAT
2N3011	TO-18	NPN High-Speed SEPT	2N3410	TO-5	NPN Si Diff. Amp.	SA-313	TO-5	Si Symmetrical SPAT
2N3015	TO-5	NPN High-Speed SEPT	2N3411	TO-5	NPN Si Diff. Amp.	SA-314	TO-5	Si Symmetrical SPAT
2N3043	TO-89	NPN Si Diff. Amp.	2N3520	TO-89	NPN Si Diff. Amp.	SA-315	TO-5	Si Symmetrical SPAT
2N3044	TO-89	NPN Si Diff. Amp.	2N3521	TO-5	NPN Si Diff. Amp.	SA-316	TO-5	Si Symmetrical SPAT
2N3045	TO-89	NPN Si Diff. Amp.	2N3522	TO-18	NPN Si Diff. Amp.	SA-410	TO-18	Si Symmetrical SPAT
2N3046	TO-89	NPN Si Diff. Amp.	2N3587	TO-5	NPN Si Diff. Amp.	SA-411	TO-18	Si Symmetrical SPAT
2N3047	TO-89	NPN Si Diff. Amp.				SA-412	TO-18	Si Symmetrical SPAT
2N3048	TO-89	NPN Si Diff. Amp.	2N3838	TO-89	NPN/PNP Complementary Pair	SA-413	TO-18	Si Symmetrical SPAT
2N3049	TO-89	PNP Si Diff. Amp.	2N3840	TO-46	PNP Si Switch, Amp., Chopper	SA-414	TO-18	Si Symmetrical SPAT
2N3050	TO-89	PNP Si Diff. Amp.	2N3841	TO-18	PNP Si Switch, Amp., Chopper	SA-415	TO-18	Si Symmetrical SPAT
2N3051	TO-89	PNP Si Diff. Amp.	2N3842	TO-18	PNP Si Switch, Amp., Chopper	SA-416	TO-18	Si Symmetrical SPAT
2N3052	TO-89	NPN Si Diff. Amp.	2N3977	TO-46	PNP Si Switch, Amp., Chopper	TN53	TO-5	NPN Si Switch, Amp. SEPT
2N3058	TO-46	PNP Si Amplifier SEPT	2N3978	TO-46	PNP Si Switch, Amp., Chopper	TN54	TO-18	NPN Si Switch, Amp. SEPT
2N3059	TO-46	PNP Si Amplifier SEPT	2N3979	TO-46	PNP Si Switch, Amp., Chopper	TN55	TO-5	NPN Si Switch, Amp. SEPT
2N3060	TO-46	PNP Si Amplifier SEPT	3N90	TO-18	PNP Si Dual Emitter Chopper DUET	TN56	TO-18	NPN Si Switch, Amp. SEPT
2N3061	TO-46	PNP Si Amplifier SEPT	3N91	TO-18	PNP Si Dual Emitter Chopper DUET	TN57	TO-5	NPN Si SEPT Low-Level Switch
2N3062	TO-46	PNP Si Amplifier SEPT	3N92	TO-18	PNP Si Dual Emitter Chopper DUET	TN58	TO-18	NPN Si SEPT Low-Level Switch
2N3063	TO-46	PNP Si Amplifier SEPT	3N93	TO-18	PNP Si Dual Emitter Chopper DUET	TN59	TO-5	NPN Si Switch, Amp. SEPT
2N3064	TO-46	PNP Si Amplifier SEPT	3N94	TO-18	PNP Si Dual Emitter Chopper DUET	TN60	TO-18	NPN Si Switch, Amp. SEPT
2N3065	TO-46	PNP Si Amplifier SEPT	3N95	TO-18	PNP Si Dual Emitter Chopper DUET	TN61	TO-5	NPN Si Switch, Amp. SEPT
2N3115	TO-18	NPN Si Switch SEPT				TN62	TO-18	NPN Si Switch, Amp. SEPT
2N3116	TO-18	NPN Si Switch SEPT	3N100	TO-72	PNP Si Dual Emitter Chopper DUET	TN63	TO-5	NPN Si Switch, Amp. SEPT
2N3133	TO-5	PNP Si Switch SEPT	3N101	TO-72	PNP Si Dual Emitter Chopper DUET	TN64	TO-18	NPN Si Switch, Amp. SEPT
2N3134	TO-5	PNP Si Switch SEPT	3N102	TO-72	PNP Si Dual Emitter Chopper DUET	TN79	TO-5	NPN Si SEPT Chopper
2N3135	TO-18	PNP Si Switch SEPT	3N103	TO-72	PNP Si Dual Emitter Chopper DUET	TN80	TO-18	NPN Si SEPT Chopper
2N3136	TO-18	PNP Si Switch SEPT	3N104	TO-72	PNP Si Dual Emitter Chopper DUET	TN81	TO-5	NPN Si SEPT Chopper
2N3217	TO-46	PNP Si Switch, Amplifier, Chopper SEPT	3N105	TO-72	PNP Si Dual Emitter Chopper DUET	TN237	TO-5	NPN Si SEPT Core Driver
2N3218	TO-46	PNP Si Switch, Amplifier, Chopper SEPT	3N106	TO-72	PNP Si Dual Emitter Chopper DUET	TN238	TO-18	NPN Si SEPT Core Driver
2N3219	TO-46	PNP Si Switch, Amplifier, Chopper SEPT	3N107	TO-72	PNP Si Dual Emitter Chopper DUET	TQ55	TO-5	PNP Si Switch, Amp. SEPT
2N3317	TO-18	Si Chopper SPAT	3N108	TO-72	PNP Si Dual Emitter Chopper DUET	TQ56	TO-18	PNP Si Switch, Amp. SEPT
2N3318	TO-18	Si Chopper SPAT	3N109	TO-72	PNP Si Dual Emitter Chopper DUET	TQ59	TO-5	PNP Si Switch, Amp. SEPT
2N3319	TO-18	Si Chopper SPAT	3N110	TO-72	PNP Si Dual Emitter Chopper DUET	TQ60	TO-18	PNP Si Switch, Amp. SEPT
2N3320	TO-18	Ge Switch MADT	3N111	TO-72	PNP Si Dual Emitter Chopper DUET	TQ61	TO-5	PNP Si Switch, Amp. SEPT
2N3321	TO-18	Ge Switch MADT	3N112	TO-90	NPN Si Dual Emitter Chopper Twin DUET	TQ62	TO-18	PNP Si Switch, Amp. SEPT
2N3322	TO-18	Ge Switch MADT	3N113	TO-90	NPN Si Dual Emitter Chopper Twin DUET	TQ63	TO-5	PNP Si Switch, Amp. SEPT
2N3342	TO-5	PNP Planar Alloy Replacement	3N114	TO-72	PNP Si Dual Emitter Chopper DUET	TQ64	TO-18	PNP Si Switch, Amp. SEPT
2N3343	TO-5	PNP Planar Alloy Replacement	3N115	TO-72	PNP Si Dual Emitter Chopper DUET	TW135	TO-18	NPN Si SEPT Switch
2N3344	TO-5	PNP Planar Alloy Replacement	3N116	TO-72	PNP Si Dual Emitter Chopper DUET	UD-1000	TO-90	PNP Si Dual Emitter Chopper Twin DUET
2N3345	TO-5	PNP Planar Alloy Replacement	3N117	TO-72	PNP Si Dual Emitter Chopper DUET	UD-1001	TO-90	PNP Si Dual Emitter Chopper Twin DUET
2N3346	TO-5	PNP Planar Alloy Replacement	3N118	TO-72	PNP Si Dual Emitter Chopper DUET	UD-2000	TO-90	PNP Si Diff. Amp.
2N3347	TO-5	PNP Si Diff. Amp.	3N119	TO-72	PNP Si Dual Emitter Chopper DUET	UD3005	TO-85	NPN QUAD
2N3348	TO-5	PNP Si Diff. Amp.	3N123	TO-72	PNP Si Dual Emitter Chopper, DUET	UD3006	TO-85	PNP QUAD
			ED-322	TO-18	Ge Switch ECDC	UD3007	TO-85	NPN/PNP Complementary Pair



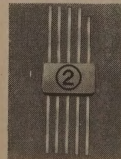
TO-85



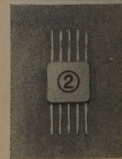
TO-87



TO-89



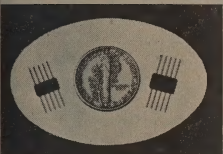
TO-90



TO-91

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Type Number	Case	Description
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MILLIWATT RTL LOGIC (-55°C to $+125^{\circ}\text{C}$)

JS-0908D	TO-78	Adder
JS-0909D	TO-78	Buffer
JS-0910D	TO-78	Dual Gate
JS-0911D	TO-78	4-Input Gate
JS-0912D	TO-78	Half Adder
JS-0913D	TO-78	Register
JS-0921D	TO-78	Gate Expander

RCTL LOGIC (-55°C to $+125^{\circ}\text{C}$)

JS-0100B	TO-90	R-S Flip-Flop
JS-0101B	TO-90	R-S Flip-Flop W/E.F.
JS-0102B	TO-90	6-Input "NOR-NAND" Gate
JS-0103B	TO-90	6-Input "NOR-NAND" Gate W/E.F.
JS-0104B	TO-90	Dual 3-Input "NOR-NAND" Gate
JS-0105B	TO-90	Exclusive "OR" Network
JS-0106B	TO-90	Triple Gate
JS-0107B	TO-90	Clock Driver
JS-0108B	TO-90	One Shot
JS-0109B	TO-90	"Pulse Exclusive-OR"
JS-0110C	TO-85	R-S Flip-Flop with Dual Presets
JS-0111C	TO-85	R-S Flip-Flop with Dual Presets W/E.F.
JS-0112C	TO-85	Triple 2 Input "NOR-NAND" Gate
JS-0113C	TO-85	Triple 2 Input "NOR-NAND" Gate W/E.F.
JS-0114B	TO-90	4x1x1 Input "NOR-NAND" Gate
JS-0115B	TO-90	4x1x1 Input "NOR-NAND" Gate W/E.F.
JS-0012B	TO-90	R-S Ripple Counter Flip-Flop

*DTL LOGIC (-55°C to $+125^{\circ}\text{C}$)

E106J	TO-88	Dual 5-Input Gate Expander
E111J	TO-88	Dual 4-Input High Fan-Out NAND/NOR Gate
E112J	TO-88	Dual 3-Input High Fan-Out NAND/NOR Gate†
E116J	TO-88	Dual 4-Input NAND/NOR Gate†
E124J	TO-88	RST Binary Element
E125J	TO-88	J-K Binary Element
E155J	TO-88	Dual 4-Input CLOCK/CAPACITIVE Line Driver
E156J	TO-88	Dual 4-Input CLOCK/CAPACITIVE Line Driver†
E161J	TO-88	Monostable Multivibrator
E170J	TO-88	Triple 3-Input NAND/NOR Gate
E180J	TO-88	Quadruple 2-Input NAND/NOR Gate
E720J	TO-88	Quadruple 2-Input NAND/NOR Gate
E721J	TO-88	Triple 2-Input NAND/NOR Gate
E727J	TO-88	Triple 3-Input NAND/NOR Gate†
E729J	TO-88	RST Binary Element
E730J	TO-88	Dual 5-Input NAND/NOR Gate
E731J	TO-88	Quadruple 2-Input Gate Expander
E732J	TO-88	12-Input Gate Expander

*DTL LOGIC (0C to $+70^{\circ}\text{C}$)

E106J	TO-88	Dual 5-Input Gate Expander
E112J	TO-88	Dual 3-Input High Fan-Out NAND/NOR Gate†
E116J	TO-88	Dual 4-Input NAND/NOR Gate†
E124J	TO-88	RST Binary Element
E125J	TO-88	J-K Binary Element
E156J	TO-88	Dual 4-Input CLOCK/CAPACITIVE Line Driver†
E161J	TO-88	Monostable Multivibrator
E170J	TO-88	Triple 3-Input NAND/NOR Gate
E180J	TO-88	Quadruple 2-Input NAND/NOR Gate

*UTILOGIC ELEMENTS (-20°C to $+85^{\circ}\text{C}$)

JS00K	K Package*	Dual 3-Input Gate Expander
JS05K	K Package*	6-Input AND Gate
JS06K	K Package*	Dual 3-Input AND Gate

Type Number	Case	Description
-------------	------	-------------

SU314K	K Package*	7-Input NOR Gate
SU315K	K Package*	Dual 3-Input NOR Gate
SU316K	K Package*	Dual 2-Input NOR Gate†
SU320K	K Package*	J-K Binary Element
SU331K	K Package*	Dual 2-Input OR Gate†
SU332K	K Package*	Dual 3-Input OR Gate

*UTILOGIC ELEMENTS ($+100^{\circ}\text{C}$ to $+55^{\circ}\text{C}$)

LU300K	K Package*	Dual 3-Input Gate Expander
LU305K	K Package*	6-Input AND Gate
LU306K	K Package*	Dual 3-Input AND Gate
LU314K	K Package*	7-Input NOR Gate
LU315K	K Package*	Dual 3-Input NOR Gate
LU316K	K Package*	Dual 2-Input NOR Gate†
LU320K	K Package*	J-K Binary Element
LU331K	K Package*	Dual 2-Input OR Gate†
LU332K	K Package*	Dual 3-Input OR Gate

*COMPATIBLE LOW-POWER ELEMENTS (-55°C to $+125^{\circ}\text{C}$)

SE416J	TO-88	Dual 4-Input NAND/NOR Gate†
SE424J	TO-88	Dual A-C Binary Element
SE455J	TO-88	Dual 4-Input BUFFER/DRIVER
SE480J	TO-88	Quadruple 2-Input NAND/NOR Gate

*COMPATIBLE LOW-POWER ELEMENTS (0C to $+70^{\circ}\text{C}$)

NE416J	TO-88	Dual 4-Input NAND/NOR Gate†
NE424J	TO-88	Dual A-C Binary Element
NE455J	TO-88	Dual 4-Input BUFFER/DRIVER
NE480J	TO-88	Quadruple 2-Input NAND/NOR Gate

*LINEAR CIRCUITS (-55°C to $+125^{\circ}\text{C}$)

SE501G	TO-91	Video Amplifier
SE505G	TO-91	General Purpose Differential Amplifier
SE501K	K Package*	Video Amp.
SE505K	K Package*	General Purpose Differential Amplifier
SE506K	K Package*	Differential Operational Amplifier
SE518K	K Package*	Analog Comparator

*LINEAR CIRCUITS (0C to $+70^{\circ}\text{C}$)

NE506K	K Package*	Differential Operational Amplifier
NE518K	K Package*	Analog Comparator

*COMPATIBLE TTL ELEMENTS (-55°C to $+125^{\circ}\text{C}$)

SE806J	TO-88	Dual 4-Input Gate Expander
SE808J	TO-88	Single 8-Input NAND Gate
SE816J	TO-88	Dual 4-Input NAND Gate
SE825J	TO-88	J-K Binary Element
SE826J	TO-88	Dual AC Binary Element
SE840J	TO-88	Dual Exclusive OR Gate†
SE855J	TO-88	Dual 4-Input Power Gate
SE870J	TO-88	Triple 3-Input NAND Gate
SE880J	TO-88	Quadruple 2-Input NAND Gate

*COMPATIBLE TTL ELEMENTS (0C to $+70^{\circ}\text{C}$)

NE806J	TO-88	Dual 4-Input Gate Expander
NE808J	TO-88	Single 8-Input NAND Gate
NE816J	TO-88	Dual 4-Input NAND Gate
NE825J	TO-88	J-K Binary Element
NE826J	TO-88	Dual AC Binary Element
NE840J	TO-88	Dual Exclusive OR Gate†
NE855J	TO-88	Dual 4-Input Power Gate
NE870J	TO-88	Triple 3-Input NAND Gate
NE880J	TO-88	Quadruple 2-Input NAND Gate

† Lists with a * on this page are interchangeable with Signetics Corporation parts having the same number except that Sprague Series US700 microcircuits are interchangeable with Signetics parts having the same number but using a CS prefix. All circuits with a star are manufactured under technology interchange with Signetics Corporation.

Modified 10-Lead TO-5 † Element incorporates fan-in expansion provision

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IND-REM-67C-6623

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The MASTER — 31st Edition • Page 1255

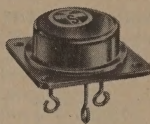
SILICON TRANSISTOR CORPORATION



SILICON NPN AND PNP POWER TRANSISTORS



Silicon Transistor Corp. makes more different silicon power transistors than any other manufacturer.



NPN Types

Type	Case Type	Pd Watts 100°C Case	V _{CEO} Volts	h _{FE} Min.	@ I _C Amps.	V _{CE(sat.)} Volts Max.	@ I _C Amps.
2N1016B	150W	71	100	10	5	2.5	5
2N1016C	150W	71	150	10	5	2.5	5
2N1016D	150W	71	200	10	5	2.5	5
2N1483	T0-8	14.1	40	20	0.75	2.0	0.75
2N1484	T0-8	14.1	55	20	0.75	2.0	0.75
2N1485	T0-8	14.1	40	35	0.75	0.75	0.75
2N1486	T0-8	14.1	55	35	0.75	0.75	0.75
2N1487	T0-3	43	40	15	1.5	3.0	1.5
2N1488	T0-3	43	55	15	1.5	3.0	1.5
2N1489	T0-3	43	40	25	1.5	1.0	1.5
2N1490	T0-3	43	55	25	1.5	1.0	1.5
2N1618	T0-61	45	80	15	2.0	2.0	2.0
2N1722	T0-53	50	80	20	2.0	1.0	2.0
2N1724	T0-61	50	80	20	2.0	1.0	2.0
2N1768	T0-75	22.8	40	35	0.75	0.75	0.75
2N1769	T0-75	22.8	55	35	0.75	0.75	0.75
2N2033	T0-5	5.0	60	20	0.5	0.8	0.5
2N2034	T0-5	5.0	60	20	1.0	0.3	1.0
2N2035	T0-8	14.1	60	20	1.5	0.45	1.5
2N2036	T0-37	10	60	20	2.0	1.0	2.0
2N2823	T0-63	100	80	10	20	1.1	20
2N2824	T0-63	100	100	10	20	1.1	20
2N2825	T0-63	100	150	10	20	1.1	20
2N2828	T0-59	22.8	60	20	0.5	0.4	0.5
2N2829	T0-59	22.8	60	20	1.0	0.3	1.0
2N2858	T0-5	5.0	80	20	1.0	0.3	1.0
2N2859	T0-5	5.0	100	20	1.0	0.3	1.0
2N2911	T0-5	5.0	125	20	1.0	0.3	1.0
2N3149	1 1/4" stud	200	80	10	50	1.5	50
2N3150	1 1/4" stud	200	100	10	50	1.5	50
2N3151	1 1/4" stud	200	150	10	50	1.5	50
STC2500	1 1/4" stud	300	100	10	100	1.5	100
STC2501	1 1/4" stud	300	150	10	100	1.5	100

NPN Types

Type	Case Type	Pd Watts 100°C Case	V _{CEO} Volts	h _{FE} Min.	@ I _C Amps.	V _{CE(sat.)} Volts Max.	@ I _C Amps.
2N3237	IND. T0-3	100	75	12	10	2.0	10
2N3238	IND. T0-3	85	80	8.5	10	3.0	10
2N3239	IND. T0-3	85	80	8.5	10	1.0	10
2N3240	IND. T0-3	85	160	8.5	10	1.0	10

PNP Types

Type	Case Type	Pd Watts 100°C Case	V _{CEO} Volts	h _{FE} Min.	@ I _C Amps.	V _{CE(sat.)} Volts Max.	@ I _C Amps.
2N2881	T0-5	5.0	60	20	0.5	0.4	0.5
2N2882	T0-5	5.0	100	20	0.5	0.4	0.5
2N3163	T0-61	45	40	12	1.0	0.75	1.0
2N3164	T0-61	45	60	12	1.0	0.75	1.0
2N3165	T0-61	45	80	12	1.0	0.75	1.0
2N3166	T0-61	45	100	12	1.0	0.75	1.0
2N3175	T0-61	45	40	10	2.0	1.0	2.0
2N3176	T0-61	45	60	10	2.0	1.0	2.0
2N3177	T0-61	45	80	10	2.0	1.0	2.0
2N3178	T0-61	45	100	10	2.0	1.0	2.0
2N3202	T0-5	5	40	20	1.0	0.3	1.0
2N3203	T0-5	5	60	20	1.0	0.3	1.0
2N3204	T0-5	5	80	20	1.0	0.3	1.0
2N3205	T0-59	22.8	40	20	0.5	0.4	0.5
2N3206	T0-59	22.8	60	20	0.5	0.4	0.5
2N3207	T0-59	22.8	100	20	0.5	0.4	0.5
2N3208	T0-5	5.0	40	20	0.5	0.4	0.5

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MINIMUM — NO FINISH

No.	1-499	500-999	1,000-2,499	2,500-4,999
40	110.00/M	90.00/M	75.00/M	65.00/M
41	115.00/M	95.00/M	80.00/M	70.00/M
42	125.00/M	115.00/M	105.00/M	98.00/M

DIZED

No.	140.00/M	120.00/M	105.00/M	95.00/M
41	155.00/M	135.00/M	120.00/M	110.00/M
42	185.00/M	175.00/M	165.00/M	159.00/M

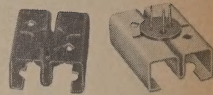
UNLESS STEEL RETENTION CLIP — NO FINISH

No.	65.00/M	62.50/M	60.50/M	59.00/M
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CIRCUIT BOARD SNAP-ON HEAT SINKS

Types 140, 141 and 142 fit popular press fit diodes and SCRs as well as the JEDEC TO-8 case style. The cross slot design permits semiconductor cavity to expand cylindrically thus hugging the case diameter closely, ranging from .480 to .505.

Series 140 Heat Sinks provide thermal resistance as low as 10°C/w. A spring retention clip may be used in applications where cooling is critical and the very best thermal contact between case and sink is needed. MATERIAL is the highest thermally conductive commercially pure aluminum, 1100 alloy. FINISH: black anodize is standard but no finish parts are available from factory stock.



MINIMUM — NO FINISH

No.	1-499	500-999	1,000-2,499	2,500-4,999
50	61.00/M	51.00/M	41.00/M	36.00/M

DIZED

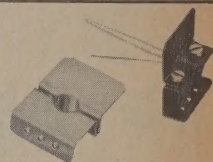
No.	102.00/M	92.00/M	82.00/M	77.00/M
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MATERIAL: 1100 aluminum alloy

FINISH: Black anodize or no finish

CIRCUIT BOARD COOLERS FOR TO-5 TRANSISTORS

Where space on the circuit board is at a premium, the new Type 150 Heat Sink requires only 0.375 in. height above the circuit board, this lightweight, economical Cooler has good performance characteristics with TO-5 cases; case rise 40°C @ 1 w with bright aluminum natural finish or 34°C @ 1 w with black anodize finish. Two #4 x 1/4" long sheet metal screws are used to solidly clamp the TO-5 case in the Type 150 Heat Sink. Three eyelets extruded from the mounting base provide keying to the circuit board. A sheet metal screw in the center eyelet anchors the Heat Sink to the board and the two outer eyelets are then set for permanent positioning. These coolers are provided without screws.



FINISH — CHROMATE CONVERSION

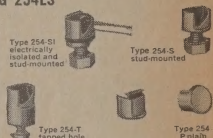
No.	1-99	100-499	500-999	1,000-2,499	2,500-4,999
4-S	175.00/M	150.00/M	135.00/M	120.00/M	110.00/M
4-T	200.00/M	170.00/M	150.00/M	135.00/M	125.00/M
4-SI	250.00/M	210.00/M	190.00/M	170.00/M	155.00/M
4-P	125.00/M	115.00/M	105.00/M	95.00/M	85.00/M
4-D	210.00/M	180.00/M	160.00/M	145.00/M	135.00/M

Thermal Resistance: TO-5 case to chassis on which unit is mounted. (Type 120 Thermal Joint Compound is used.)

Type 254	P	D	S	SI	T
Case to chassis C/W	4	4.2	4.1	6.0	5.3

THERMAL RETAINERS FOR TO-5 CASES—WITH LOCKING SPRING 254LS

The TO-5 case style, including the Kovar header type, is best heat sunk at the bottom face of the flange since the silicon die is attached to the header. Series TR-254 Heat Sinks all provide this preferred contacting method. All five types are intended as thermal links from the transistor case to a cooler or to a chassis member acting as the heat sink. Type 254-SI has built-in electrical isolation with WAKEFIELD Delta Bond 152 Thermally Conductive Adhesive used to bond the Type 254-R to a stud. Type 254-LS Locking Spring is inserted behind the transistor. Type 120 Joint Compound should be applied to transistor header before insertion. MATERIAL: Zimac 3. Type 254-LS Locking Spring material: stainless steel. Stud material in Type 254-SI: 6061-T6 aluminum with gold iridite finish. FINISH: Nickel plate. Mounting hardware is not furnished.

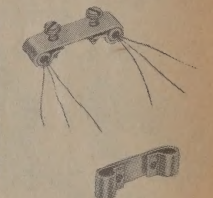


MINIMUM — NO FINISH

No.	1-499	500-999	1,000-2,499	2,500-4,999
5	63.00/M	53.00/M	43.00/M	38.00/M

THERMAL CLAMP FOR TO-1 CASES

For push/pull driver or low power output applications using TO-1 case style transistors, this versatile thermal clamp provides solid, economical retention of the cases to a chassis or heat sink. Two cases can be mounted in the Type 255 Thermal Clamp. 3°C/w per TO-1 transistor is obtained or 1½°C/w for both. Mounting centers are kept broad to better distribute the power from the two transistors across the chassis or heat sink. This also permits sufficient circuit board space for mounting components common to the transistors. #6 sheet metal or self-tapping screws can be used from the chassis thru the Type 255 Clamp. Or, #4 machine screws with nuts can be used from either direction. (Screws are not furnished.) MATERIAL: 1100 aluminum alloy. FINISH: none.



DELTA BOND 152 THERMALLY CONDUCTIVE ADHESIVE

An adhesive with high conductivity to be used: As a general adhesive — For bonding semiconductor to chassis heat sinks — Fabricating heat sinks or thermal links — For permanent bonding of all materials with highly thermal conductive interface. Delta Bond fills the need of a general purpose adhesive. It produces a rigid high strength bond to most materials when cured. Being 100% solid adhesive, it is effective on porous and non-porous surfaces such as metals, glass, ceramics and most plastics. The main features are high thermal conductivity, excellent dielectric strength and a coefficient of thermal expansion similar to that of aluminum and copper.



Kit Size	1-9	10-24	25-49	50-99
7.5 oz.	\$5.00 ea.	\$4.75 ea.	\$4.50 ea.	\$4.25 ea.
1 oz.	2.25	2.00	1.85	1.75
Sample	1.40	1.25	1.15	1.10

WAKEFIELD THERMAL JOINT COMPOUND

Improved thermal conductance from semiconductor to cooler may be obtained by applying a light coating of WAKEFIELD Thermal Joint Compound on the mounting surface. This Compound has a thermal conductivity approximately four times that of silicone grease.



TYPE	QUANTITY	PRICE
120	2 oz.	1.95
128	8 oz.	5.10
1280	5 lbs.	30.00

SERIES 100-BLIND NYLON INSULATING FASTENERS

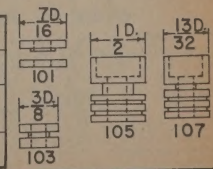
Cat. No.	1-499	500-999	1000-2499	2500-4999
100	32.00/M	28.00/M	24.00/M	20.00/M
102F	48.00/M	42.00/M	36.00/M	30.00/M
102N	66.00/M	57.75/M	49.50/M	41.25/M
104	46.00/M	40.25/M	34.50/M	28.75/M
106	66.00/M	58.10/M	49.80/M	41.50/M

Panel hole dia.	.125±.005	.187±.005		
Panel thickness	.093 max.	.125 max.	.063 max. with 102F or 102N	
Accepts screw (not furnished)		#8 sheet metal or machine	#8 sheet metal or machine	
Screw length		Panel + 5/8"	Panel + 3/4"	
Shoulder dia.	1/4	3/8	3/8	1/2
Hypot volts		1.5kw with washer	3kv	3kv

*Washer O.D. = 3/16", I.D. = 1/16"±.005 and thickness = 1/16"±.005

SERIES 100-TEFLON MOUNTING INSULATORS

Mfr's Type	For Heatsink No.	No. Req'd	BKDN Kv	Each Net
101	501 502, 503, 504, 505	3 Sets 4 pr	1	7¢
103	401 403, 413, 421, 423 621, 623, 641	3 4 4	1.5	5¢
105	441, WN	4	5	20¢
107	Same as for 103		3.5	20¢



Semiconductor Coolers

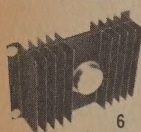
SERIES 200 FEATHERWEIGHT COOLERS

RISE (°C) FOR 1 WATT			
TYPE	NAT. CONV.	250 FT./MIN.	FITS JEDEC CASE STYLES
201	66	27	TO 18, 24, 28, (222 accepts 2 cases)
203	56	19	
222	56	19	
204	70	28	TO 5, 9, 11, 12, 16, 29, 33, 39, 42, 43 (224 accepts 2 cases)
205	61	24	
207	49	17	
229	34	10	
224	49	17	
211	56	20	TO 8
213	44	13	
215	31	8	

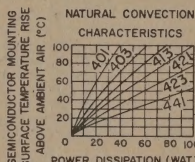


STOCK NO.	MFR'S TYPE	FIG.	DIA.	LGTH.	FITS CASE DIA.	EACH			
						1-49	50-499	500-999	1,000-4,999
	NF201	1	.64	.19	.161/.195	.27	.21	.16	.11
	NF203	2	.64	.38	.161/.195	.29	.22	.17	.12
	NF204	1	.55	.20	.275/.335	.25	.20	.15	.10
	NF205	1	.72	.19	.275/.335	.27	.21	.16	.11
	NF207	2	.72	.38	.275/.335	.29	.22	.17	.12
	NF209	3	1.26	.44	.275/.335	.34	.29	.23	.18
	NF211	1	.82	.19	.444/.524	.27	.21	.16	.11
	NF213	2	.82	.38	.444/.524	.29	.22	.17	.12
	NF215	3	1.38	.44	.444/.524	.34	.29	.23	.18
	NF222	4	.64	.38	.161/.195	.38	.30	.24	.19
	NF224	4	.72	.44	.275/.335	.38	.30	.24	.19
160 Installation tool for Models 201, 3, 5, 7, 9						1.00			
161 Installation tool for Models 211, 213, 215						1.00			

SERIES 400 NATURAL CONVECTION COOLERS



Semiconductor mtg. area for 401 thru 423 is 1.31 wide and for 441 is 1.5 wide.

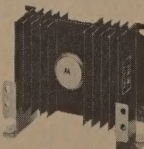


STOCK NO.	MFR'S TYPE	FIG.	INCHES			EACH			
			H	W	D	1-49	50-99	100-249	250-499
	NC401A	6	1.50	4.81	1.25	1.55	1.27	1.07	.92
	NC401B					1.53	1.27	1.07	.92
	NC401E					1.78	1.45	1.22	1.06
	NC401K					1.29	1.06	.88	.76
	NC403A	6	3.00	4.81	1.25	1.78	1.45	1.23	1.07
	NC403B					1.78	1.45	1.23	1.07
	NC403C					1.78	1.45	1.23	1.07
	NC403K					1.52	1.24	1.05	.90
	NC413A	6	3.00	4.81	1.87	2.41	1.96	1.65	1.43
	NC413B					2.41	1.96	1.65	1.43
	NC413K					2.15	1.75	1.46	1.27
	NC421A					2.51	2.05	1.73	1.49
	NC421B	6	3.00	4.81	2.63	2.51	2.05	1.73	1.49
	NC421C					2.51	2.05	1.73	1.49
	NC421K					2.24	1.84	1.54	1.32
	NC423A					3.66	2.98	2.52	2.17
	NC423B	6	5.50	4.81	2.63	3.66	2.98	2.52	2.17
	NC423K					3.40	2.77	2.33	2.00
	NC441J					6.41	5.24	4.37	3.77
	NC441W					6.41	5.24	4.37	3.77
	NC441K	7	5.50	4.75	4.50	5.92	4.84	4.03	3.48

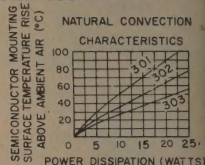
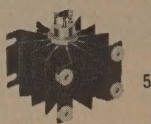
VERTICAL MTG. BRACKETS

Meet vibration of Mil 202B. For NC401 and 403 use #111, for NC421 and 423 use #113. Two bkts, required per sink. To insulate use Teflon insulator #103. Shpg. wt., 10 oz.

STOCK NO.	TYPE	1-99	100-499
	111	.15	.12
	113	.18	.15

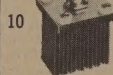
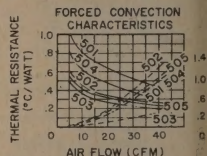
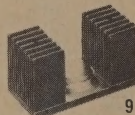


SERIES 300 RECTIFIER COOLERS



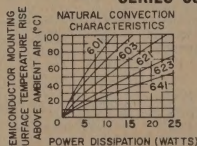
STOCK NO.	MFR'S. TYPE	FIG.	INCHES				EACH			
			H	W	D	1-49	50-99	100-249	250	
	NC301L	5	.75	2.00	2.00	1.55	1.30	1.05		
	NC301M					1.55	1.30	1.05		
	NC301N					1.55	1.30	1.05		
	NC301R					1.55	1.30	1.05		
	NC301RR					1.85	1.55	1.25	1.00	
	NC301K					1.25	1.05	.85		
	NC302M	5	1.50	2.00	2.00	1.65	1.40	1.15	1.00	
	NC302N					1.65	1.40	1.15	1.00	
	NC302R					1.65	1.40	1.15	1.00	
	NC302K					1.35	1.15	.95		
	NC302NN					1.95	1.65	1.35		
	NC302RR					1.95	1.65	1.35	1.00	
	NC303N					1.90	1.60	1.30	1.00	
	NC303R	5	3.00	2.00	2.00	1.90	1.60	1.30	1.00	
	NC303K					1.60	1.35	1.10		
	NC303NN					2.20	1.85	1.50	1.00	
	NC303RR					2.20	1.85	1.50	1.00	

SERIES 500 FORCED CONVECTION COOLERS



		Semiconductor mounting areas								
		501		502		503		504		505
		1.25x1.75		1.50x1.75		1.5x3.0		1.75x1.75		2.0x
STOCK NO.	MFR'S TYPE	INCHES				EACH				
		FIG.	H	W	D	1-49	50-99	100		
	FC501A	8	1.75	1.75	2.25	5.61	5.01	4.6		
	5.45					4.84	4.5			
	5.06					4.51	4.2			
	FC502A	9	1.75	3.50	1.75	8.03	7.21	6.7		
	7.87					7.04	6.6			
	7.48					6.71	6.3			
	FC502B	9	1.75	3.50	3.50	13.42	12.05	11.2		
	13.26					11.89	11.1			
	12.87					11.55	10.8			
	FC503A	10	1.75	1.75	1.75	4.62	4.18	3.8		
	4.50					3.97	3.5			
	4.25					3.81	3.5			
	FC504K	10	1.75	1.75	2.00	6.71	5.89	5.5		
	6.50					5.73	5.4			
	6.25					5.57	5.2			

SERIES 600 CIRCUIT BOARD COOLERS



Semiconductor mtg. area for 601 and 603 is .81 wide and for 621 thru 641 is 1.31 wide.

STOCK NO.	MFR'S. TYPE	FIG.	INCHES.			EACH			
			H	W	D	1-49	50-99	100-249	250+
	NC601K	11	1.25	2.02	.56	1.10	.90	.70	.50
	NC603T		2.00	2.02	.56	1.50	1.20	.95	.80
	NC603K		2.00	2.02	.56	1.20	.95	.75	.60
	NC621A	12	1.50	4.81	.46	1.65	1.35	1.10	.90
	NC621B		1.50	4.81	.46	1.65	1.35	1.10	.90
	NC621K		1.50	4.81	.46	1.35	1.10	.90	.70
	NC623A	12	3.00	4.81	.46	1.80	1.50	1.20	1.00
	NC623B		3.00	4.81	.46	1.80	1.50	1.20	1.00
	NC623K		3.00	4.81	.46	1.50	1.25	1.00	.80
	NC641A	11	3.00	4.12	1.00	1.95	1.60	1.30	1.10
	NC641B		3.00	4.12	1.00	1.95	1.60	1.30	1.10
	NC641K		3.00	4.12	1.00	1.65	1.35	1.10	.90

WAKEFIELD

ENGINEERING, INC.

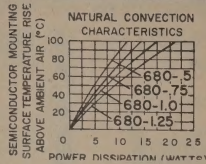
Semiconductor Coolers

SERIES 680 CIRCUIT BOARD COOLERS



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Model 680 Coolers will accommodate T-3, T-36, 2N1016 or other smaller case sizes.



STOCK NO.	MFR'S. TYPE	FIG.	INCHES			EACH		
			H	W	D	1-24	25-49	50-99
	NC680-5A NC680-5B NC680-5K	13	.50	1.81	1.81	.91	.85	.80
	NC680-75A NC680-75B NC680-75K	13	.75	1.81	1.81	.91	.85	.80
	NC680-10A NC680-10B NC680-10K	13	1.00	1.81	1.81	.91	.85	.80
	NC680-125A NC680-125B NC680-125K		1.25	1.81	1.81	.91	.85	.80

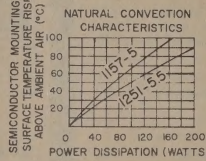
GN SERIES FOR 70/200 AMP RECTIFIERS



14

Width of Semiconductor Mounting area.

GN1157—1.07 min.
GN1251—1.31 min.



STOCK NO.	MFR'S. TYPE	FIG.	INCHES			EACH		
			H	W	D	1-24	25-49	50-99
	GN1157-5H GN1157-5J GN1157-5K	14	4.12	4.12	5.00	5.55	4.75	4.20
	GN1251-5.5W GN1251-5.5K		5.00	5.00	5.50	7.00	6.00	5.30

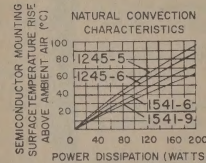
WN SERIES FOR 70/350 AMP RECTIFIERS



15

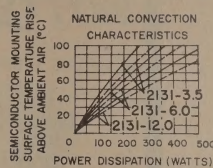
Width of Semiconductor mounting area.

WN1244—1.10 min.
WN1245—1.28 min.
WN1541—1.76 min.



STOCK NO.	MFR'S. TYPE	FIG.	INCHES			EACH		
			H	W	D	1-24	25-49	50-99
	WN1244-5H WN1244-5J WN1244-5K	15	4.00	4.00	5.00	4.85	4.15	3.70
	WN1245-6W WN1245-6K	15	5.00	5.00	6.00	6.15	5.25	4.65
	WN1541-6Z WN1541-6Y WN1541-9Z WN1541-9Y WN1541-9K	15	6.25	6.25	9.00	9.55	8.20	7.25

MN SERIES FOR 240/650 AMP RECTIFIERS



Width of semiconductor mtg. area of MN2131 is 3.45 min.

DOTTED LINES INDICATE MODELS WITH INSERT 2159

MN2159 inserts give added dissipation for surface mounting rectifiers as shown.

STOCK NO.	MFR'S. TYPE	FIG.	INCHES			EACH		
			H	W	D	1-9	10-24	25-49
	MN2131-3.5K MN2131-6K MN2131-12K	16	3.5 6.0 12.0	9.25	6.75	7.70 11.95 21.80	6.60 10.30 18.70	5.85 9.10 16.50
	MN2159-3.5K MN2159-6K MN2159-12K	17	3.5 6.0 12.0	3.37	3.43	1.95 3.15 5.50	1.70 2.70 4.75	1.50 2.40 4.20
	109	18	1.5	7.5	1.5	Plastic Angle Bkt. .95 ea.		

EXTRUSION IN 3 FT. LENGTHS

STOCK NO.	MFR'S. TYPE	FOR COOLER TYPE	INCHES		NET EACH PER 3 FT. LGTH.		
			H	W	1-4	5-9	10-24
	300	NC301, 302, 303	2.00	2.00	6.00	5.90	4.50
	400	NC401, 403	1.25	4.81	7.75	6.50	5.75
	410	NC413	1.87	4.81	10.50	9.25	8.00
	420	NC421, 423	2.63	4.81	12.75	11.00	9.50
	440	NC441	4.50	4.75	20.50	17.50	15.50
	600	NC601, 603	.56	2.24	3.25	2.75	2.50
	620	NC621, 623	.46	4.81	5.75	5.00	4.25
	640	NC641	1.00	4.12	7.50	6.50	5.75
	1157	GN1157	4.12	4.12	25.50	22.00	19.25
	1251	GN1251	5.00	5.00	32.25	27.75	24.50
	1244	WN1244	4.00	4.00	25.50	22.00	19.25
	1245	WN1245	5.00	5.00	32.50	28.00	24.50
	1541	WN1541	6.25	6.25	51.00	43.75	38.75
	2131	MN2131	6.75	9.25	63.00	54.00	47.50
	2159	MN2159 Insert	3.44	3.38	12.75	11.00	9.50

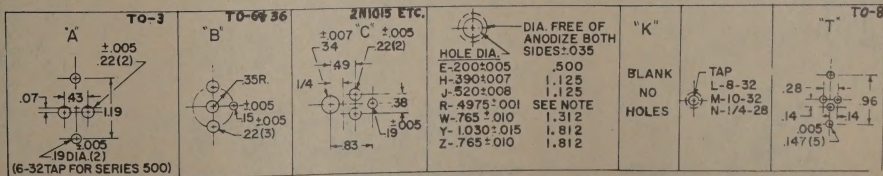
SERIES 300 RECTIFIER STACK HARDWARE KIT

This kit of hardware makes it possible to quickly assemble rugged rectifier stack assemblies from press fit rectifiers and NC301, 302 and 303 R and RR Rectifier Sinks. Contains a total of 94 pcs. made up of 9 different items, including bus bars, rectifier lugs, 4 types insulating supports, 2 types mounting feet and a pair of rectifier driving blocks. All hardware items available in bulk and may be ordered from parts list included in kit.

Net Each \$19.95

STANDARD SEMICONDUCTOR MOUNTING ACCOMMODATIONS

MANUFACTURERS TYPE SUFFIX (A, B, C, ETC.) DENOTES MOUNTING. DOUBLE SUFFIX DENOTES 2 MOUNTINGS.

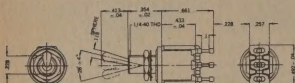


NOTE: I.D. OF R (.4975 DIA.) HOLE FREE OF ANODIZE

ALCOSWITCH

MANUFACTURED TO MEET
MINIATURIZATION REQUIREMENTS

SPDT

MSTE-106
Series
Slim Bat
Handles

A waterproof series with a conservative 6 Amps rating. This thin profile switch features new turret lugs to simplify wiring. The highest standard has been attained in the miniature switch field.

"E" SERIES FEATURES
FOR SPDT, DPDT, 3PDT, 4PDT MODELS

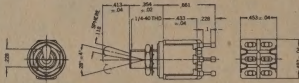
Another "first" — the new "E" Series with the features most wanted in miniature switches. Repeatedly, ALCO-SWITCH seeks out the new, the different and the dramatic engineering departures that build better switch products — in fact, our "firsts" have made the ALCOSWITCH the best engineered and most used in the industry. By every comparison ALCOSWITCH stands alone as Number One, and with the introduction of the "E" Series it unquestionably has no equal for precision-made switches in production quantities.

INDUSTRIAL NET PRICE SCHEDULE

MODEL	DESCRIPTION	One-	25-	100-	500-
MSTE-106D	On-None-On	1.95	1.33	1.17	.975
MSTE-106E	On-Off-On	2.55	1.72	1.53	1.28

ALCOSWITCH

DPDT

MSTE-206
Series
Slim Bat
Handles

Compact, 1/2" square, low loss case with solid silver contacts makes this switch ideal for critical applications. It's the "perfect switch" with new features in the same price field that has made ALCOSWITCH the leader.

"E" Series Features Continued

WATERPROOF — Neoprene "O" rings located inside the toggle and on the shoulder. Terminals permanently sealed.

NO TEAR-OFFS — A mechanical shoulder on the bottom of the bushing prevents "tear-offs" where one-nut mounting is employed.

VOLTAGE BARRIERS — A new case design features high voltage barriers between terminals inside as well as outside.

HIGH IMPACT CASE — New plastic material capable of withstanding a higher impact; guards against accidental damage.

LOW LOSS CASE — Features extremely high resistance between terminals and case ground.

HIGH TEMPERATURE CASE — Ideally suited for printed circuit applications — prolongs soldering time.

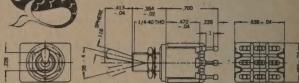
INDUSTRIAL NET PRICE SCHEDULE

MODEL	DESCRIPTION	One-	25-	100-	500-
MSTE-206N	On-None-On	2.55	1.72	1.53	1.28
MSTE-206E	On-Off-On	3.15	2.14	1.89	1.58
MSTE-206FA	On-Off-On	3.45	2.35	2.07	1.73

*DPDT

For operational details
see inside center spread

3PDT AND 4PDT

MSTE-306
Series
Slim Bat
HandlesMSTE-406
Series
Slim Bat
Handles

Exclusive one-piece unitized case style, handles multiple circuits and is easily mounted in compact areas. No other 3 and 4 pole miniature switch can claim these most wanted features.

"E" Series Features Continued

TURRET TYPE TERMINALS — New shape is employed for simplified wiring or for printed circuit use.

SOLID SILVER CONTACTS — Solid silver wide surface contacts bonded (not riveted) on copper-silverplated terminals.

6-AMP RATING — Conservative 6 Amps @ 125 VAC. Exceptionally high current capacity in a compact case.

LONG-LIFE CYCLE — Over 100,000 on-off operations at rated operating conditions (SPDT).

COLOR-IDENT CAPS — Model C-10 caps optionally available to simplify color identification.

STAINLESS OR GOLD — Available on special orders, ALCOSWITCHES can be made with stainless steel construction or with goldplated contacts and terminals, or both. Quotation on request.

INDUSTRIAL NET PRICE SCHEDULE

MODEL	DESCRIPTION	One-	25-	100-	500-
MSTE-306D†	On-None-On	4.25	2.89	2.55	2.13
MSTE-306E†	On-Off-On	4.75	3.23	2.85	2.38
MSTE-406N*	On-None-On	5.35	3.64	3.21	2.68
MSTE-406P*	On-Off-On	5.95	4.05	3.57	2.98

†3PDT *4PDT

"E" SERIES ENGINEERED FOR EXCELLENCE TO MAKE THEM THE "PERFECT SWITCH"

Current Rating:

6 amperes @ 125 VAC (Resistance load)
4 amperes @ 30 VDC (Resistance load)
2 amperes @ 125 VAC (Inductive load)
2 amperes @ 30 VDC (Inductive load)

Initial Contact Resistance:

Below 10 milliohms at 2 - 4 VDC, 1 amp

Insulating Resistance:

Over 10¹¹ ohms between terminals

Voltage Breakdown:

1000 VAC between terminals and case

ground for a duration of one minute.

Operating Force:

0.2 to 1.5 Kg

Life Cycle:

100,000 cycles (SPDT), 80,000 (DPDT),
20,000 (3PDT, 4PDT) of operation at a
rate of 25 to 30 cycles per minute at the
rated current. Temperature rise: below
56°C after rated switching operations under
environmental temperature of below 40°C.

Waterproof:

3.3 foot head of water for 30 minutes.
Waterseal: "O" ring waterseal between
handle and bushing, and between bush-
ing flange and mounting panel.

Temperature:

-50°C to 150°C for one hour (non-
operating).

Vibration:

10 cps to 55 cps. Shock: 50G's

Humidity:

Over 10 megohms after 96 hours at a
relative humidity of 90 to 95% and
temperature of 40°C.

Corrosion:

96 hour salt spray (density: 4%, temper-
ature: 35°C ± 1°C)

Anti-Rotation Mount:

Keyway on bushing prevents rotation of
toggle with panel. Mounts in 1/4" dia.
hole.

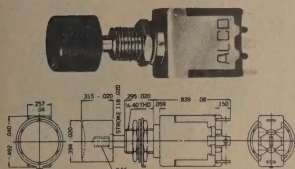
ALCOSWITCH

ALCOSWITCH

MANUFACTURED TO MEET
HIGH STANDARDS OF QUALITY

PUSH BUTTON

MOMENTARY



High current capacity in this new compact momentary push button switch designed for reliable control in aviation, military and industrial "miniature" requirements. Contact pressure is greatest at point of make and break. An audible click is produced by the snap-action mechanism. Available SPDT and DPDT, usable as either a Normally Open or Normally Closed switch.

NORMAL CONTACT	PUSH FOR MOMENTARY CONTACT
ON	ON
(1) — (2)	(2) — (3)
(4) — (5)	(5) — (6)

SPECIFICATIONS

Current Rating:
5 amperes, 115 volts

Initial Contact Resistance:
Below 10 milliohms at 2.4 VDC 1 amp

Insulating Resistance:
Over 100 megohms between terminals and case ground (when measured with a megger of 500VDC.)

Voltage Breakdown:
1000VAC between terminals and case ground for a duration of one minute.

Force Required to Activate:
Below 1.5 kilogram.

Life Cycle:
Well over 20,000 on-off switching actions at rated current.

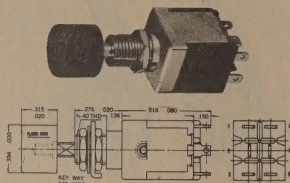
Contacts and Terminals:
Solid Silver

Case Material:
Black phenolic resin

Bushing Size:
1/4" - 40

PUSH BUTTON

PUSH TO MAKE, PUSH TO BREAK

PUSH BUTTON SWITCH FOR
REVERSING APPLICATIONS

World's first miniature push button switch controls 2 circuits — PUSH to make contacts and PUSH again to reverse action. Fast make and break snap-action to handle a high current of 5 amps @ 115 VAC. Solid silver contacts and terminals. Compact 1/2" size.

PUSH FOR CONTACT	PUSH FOR CONTACT
ON	ON
(1) — (2)	(2) — (3)
(4) — (5)	(5) — (6)

SPECIFICATIONS

Current Rating:
5 amperes, 115 volts

Initial Contact Resistance:
Below 10 milliohms at 2.4 VDC 1 amp

Insulating Resistance:
Over 100 megohms between terminals and case ground (when measured with a megger of 500VDC.)

Voltage Breakdown:
1000VAC between terminals and case ground for a duration of one minute.

Force Required to Activate:
Below 1.5 kilogram.

Life Cycle:
Well over 20,000 on-off switching actions at rated current.

Contacts and Terminals:
Solid Silver

Case Material:
Black phenolic resin

Bushing Size:
1/4" - 40

INDUSTRIAL NET PRICE SCHEDULE

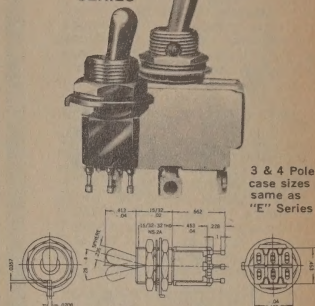
MODEL DESCRIPTION	ONE	25	100	500
MSP-105F SPDT	24	99	499	999
MSP-205F DPDT	1.95	1.33	1.17	.975
C-12 PLASTIC BUTTON*	2.85	1.90	1.71	1.42
C-12 CHROME BUTTON*	.05	.036	.032	.03
C-14 CHROME BUTTON*	.06	.04	.036	.033

*One red or black button supplied — state color. Chrome buttons available optionally.

INDUSTRIAL NET PRICE SCHEDULE

MODEL DESCRIPTION	ONE	25	100	500
MSP-105D SPDT	24	99	499	999
MSP-205D DPDT	1.95	1.33	1.17	.975
C-12 PLASTIC BUTTON*	2.85	1.90	1.71	1.42
C-12 CHROME BUTTON*	.05	.036	.032	.03
C-14 CHROME BUTTON*	.06	.04	.036	.033

*One red or black button supplied — state color. Chrome buttons available optionally.

Mustang
SERIES

3 & 4 Pole case sizes same as "E" Series

The MUSTANG series is for designers who prefer the feel of a standard toggle switch but have space limitations behind the panel. The Mustang case size is the same as the ultra-miniature MST Series, however the mounting requirements are the same as the standard switches with 1/8" bushings. This new Alcoswitch concept is popular in the 3 Pole and 4 Pole series where other non-miniature switches tend to be bulky in size. (See size comparison in photo)

SPECIFICATIONS

Current Rating:
6 amperes @ 125 VAC (Resistance load)
4 amperes @ 30 VDC (Resistance load)
2 amperes @ 125 VAC (Inductive load)
2 amperes @ 30 VDC (Inductive load)

Initial Contact Resistance:
Below 10 milliohms at 2.4 VDC, 1 amp

Insulating Resistance:
Over 10¹¹ ohms between terminals and case ground

Voltage Breakdown:
1000 VAC between terminals and case ground for a duration of one minute.

Operating Force:
0.2 to 1.5 Kg

Life Cycle:
100,000 cycles (SPDT), 80,000 (DPDT), 20,000 (3PDT, 4PDT) of operating at a rate of 25 to 30 cycles per minute at the rated current. Temperature rise: below 55°C after rated switching operations under environmental temperature of below 40°C.

Anti-Rotation Mount:
Keyway on bushing prevents rotation of toggle with panel. Mounts in 1/8" dia. hole.

INDUSTRIAL NET PRICE SCHEDULE

MODEL DESCRIPTION	ONE	25	100	500
MSTG-206N On-None-On	2.75	1.87	1.65	1.38
MSTG-206P On-Off-On	3.35	2.28	2.01	1.68
MSTG-206PA* On-On-On	3.65	2.48	2.19	1.83
MSTG-306D† On-None-On	4.45	3.03	2.67	2.23
MSTG-306E† On-Off-On	4.95	3.37	2.97	2.48
MSTG-406N* On-None-On	5.55	3.77	3.33	2.78
MSTG-406P* On-Off-On	6.15	4.18	3.69	3.08

*DPDT †3PDT ‡4PDT

AUXILIARY PUSH BUTTONS

The MSP-205 series push button ALCOSWITCHES are normally supplied with black buttons and are also available in red or chrome when requested. Additional push buttons can also be obtained. When ordering state choice of color, special markings, i.e. letters, numerals, symbols which are available for quantity users above 5000 pieces.

ALCOSWITCH IS FIRST WITH A FULL LINE OF
MINIATURE ELECTRONIC SWITCHES

FIRST in ultra-miniature switches is the position of innovation and creative achievement which ALCOSWITCH has attained during the past ten years. Our broad experience and leadership is based upon the millions of ALCOSWITCHES being used today. Here, on these pages is ample evidence that ALCOSWITCH has specialized in miniature switches and originated many ingenious ideas to make engineering life more creative for the modern electronic industry.

Alcoswitch thinks MINIATURE... Alcoswitch thinks FIRST... CREATIVELY!

ALCOSWITCH

ALCOSWITCH

MANUFACTURED TO MEET
MINIATURIZATION REQUIREMENTS

ALCOSWITCH

With the coming of the space age, weight, size, precision, stability, and difficult operating conditions place a mighty "squeeze" on electronic design. Along with miniature circuit components, engineers have to fit switches into exceedingly small areas. Today, new materials, new manufacturing techniques, new components and new switches enter into the final engineering product requiring miniaturization.

As a result, modern **ALCOSWITCHES** have been created to reduce size and weight to a minimum and bear little physical resemblance to the older switches designed during the 1930's and 1940's. These **ALCOSWITCHES** are the new shape of miniature switching devices, not of the future, but what is currently available in quantity for laboratory testing and production use.

SPDT AND DPDT SERIES

A new **ALCOSWITCH SERIES** of high quality ultra-miniature toggle switches is ideally suited for limited space requirements. Conservatively rated at 5 amperes @ 115 VAC.

3PDT AND 4PDT SERIES

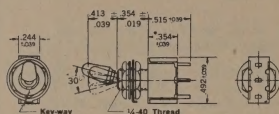
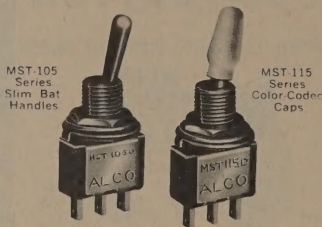
The feature of the one-piece body construction is to ultra-miniaturize the case size and still be consistent with good engineering specifications. In the switch mechanism, the toggle is linked directly to the movable contact member, providing positive make and break. The switch is designed to obtain positive detent action for improved "operator feel". Solid silver contacts and terminals are well-spaced for clearance, easy wiring, and good soldering ability.

ON-ON-ON

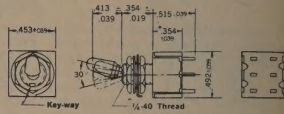
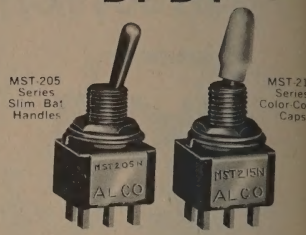
This unique switching arrangement is completely enclosed in a compact black phenolic housing, and in certain applications takes the place of a 3-position rotary switch. Features a slim miniature bat handle, solid silver contacts and terminals.

ENGINEERS: If dimensions or specifications are critical, obtain drawings from **ALCOSWITCH, Lawrence, Mass.**

SPDT



DPDT



Ultra-miniaturized **ALCOSWITCH** has an exceptionally high current capacity in a tiny case. The $\frac{1}{4}$ " thin toggle switch can be mounted in extremely close areas for aircraft and electrical equipment. Over 80,000 on-off operations. Solid silver contacts and terminals. Simple one-hole mounting.

SPECIFICATIONS

Insulating Resistance:
Over 1000 megohms @ 500 VDC.
Voltage Breakdown:
Over 1000 volts @ 60 cycles.
Life Cycle:
Well over 80,000 on-off actions.
Moisture Resistance:
Over 8 megohms after 48 hours at 40°C, and humidity of 95%.
Heat Resistance:
One Hour @ 140°C.
Case Material:
Black phenolic resin.
Contacts and Terminals:
Solid silver.
Bushing Size:
Standard $\frac{1}{4}$ -.40, usable up to $\frac{1}{4}$ " panel thickness.

*Center terminal brass with silver plate

Combines high capacity, ultra-miniature size and long life with **ALCOSWITCH** precision. Rated at 5 amperes @ 115 VAC. Contacts and terminals are of solid silver. $\frac{1}{2}$ " sq. case size makes it ideal for miniature equipment with critical applications and rear panel space limitations.

SPECIFICATIONS

Insulating Resistance:
Over 1000 megohms @ 500 VDC.
Voltage Breakdown:
Over 1000 volts @ 60 cycles.
Life Cycle:
Well over 80,000 on-off actions.
Moisture Resistance:
Over 8 megohms after 48 hours at 40°C, and humidity of 95%.
Heat Resistance:
One Hour @ 140°C.
Case Material:
Black phenolic resin.
Contacts and Terminals:
Solid silver.
Bushing Size:
Standard $\frac{1}{4}$ -.40, usable up to $\frac{1}{4}$ " panel thickness.

*Center terminal brass with silver plate

DECORATIVE MOUNTING NUTS

STANDARD double chamfered knurled nuts.
"PERFECT FIT" round bevel top with lip for automatic stop.
25- 100- 500-
99- 499- 999-
MODEL DESCRIPTION
N-1 $\frac{1}{4}$ " Standard Knurl .028 .025 .032
N-1A $\frac{1}{4}$ " "Perfect-Fit" Knurl .04 .036 .033
N-1B $\frac{1}{4}$ " "Perfect-Fit" Knurl .056 .05 .044
Packaged in multiples of 25

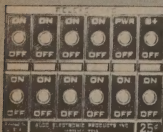
INDUSTRIAL NET PRICE SCHEDULE

MODEL DESCRIPTION	One-	25-	100-	500-
	24	99	499	999
MST-115D On-None-On	1.65	1.12	.99	.83
MST-105D On-None-On	1.65	1.12	.99	.83
MST-105E On-Off-On	1.95	1.33	1.17	.975
MST-105F On-None-On	1.95	1.33	1.17	.975
MST-105G (On)-Off-(On)	1.95	1.33	1.17	.975
MST-105H On-Off-(On)	1.95	1.33	1.17	.975
(On) (Off) Indicates Momentary Positions				

INDUSTRIAL NET PRICE SCHEDULE

MODEL DESCRIPTION	One-	25-	100-	500-
	24	99	499	999
MST-215N On-None-On	2.15	1.43	1.29	1.08
MST-205N On-None-On	2.15	1.43	1.29	1.08
MST-205P On-Off-On	2.55	1.72	1.53	1.28
MST-205R On-None-On	2.55	1.72	1.53	1.28
MST-205S (On)-Off-(On)	2.55	1.72	1.53	1.28
MST-205T On-Off-(On)	2.55	1.72	1.53	1.28
(On) (Off) Indicates Momentary Positions				

ALUMINUM FOIL SWITCH PLATES



Pressure sensitive "on-off" plates for **ALCOSWITCHES** and other miniature switches having $\frac{1}{4}$ " bushing; and for standard switches requiring $\frac{1}{2}$ " hole.

(Prices Per Card of 12 Plates)	One	50-	100
MODEL DESCRIPTION	49	99	Over
SP-1 Miniature type	25c	20c	18c
SP-2 Standard type	25c	20c	18c

COLOR-CODED CAPS



The revolutionary feature of color-coded plastic caps for toggle switches has already proved to be an invaluable aid in aircraft installations and hazardous applications. The MST-115D, 215N, 315D, 415N switches are normally stocked ONLY WITH WHITE CAPS. Black, Blue, Red, Gray, White caps may be purchased separately for use on all our slim bat handle switches for color identification. When ordering — specify color.

Quotation on custom colors upon request

Packaged in 25 multiples

MODEL DESCRIPTION	One-	25-	100-	500-
C-10 For All Series	24	99	499	999
	.04	.028	.025	.022

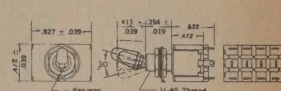
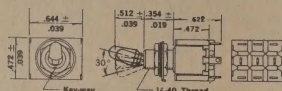
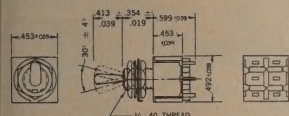
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ALCOSWITCH

ALCOSWITCH

MANUFACTURED TO MEET
HIGH STANDARDS OF QUALITY

ON-ON-ON

MST-205PA
Series
Slim Bat
HandlesMST-305
Series
Slim Bat
HandlesMST-315
Series
Color-Coded
CapsMST-405
Series
Slim Bat
HandlesMST-415
Series
Color-Coded
Caps

DP3T ON-ON-ON

New ON-ON-ON toggle switch made for applications where the Center-ON position is desired. The DPDT circuit is designed to have "ON" positions at opposite sides of the lever throw with the Center-ON operational when either circuit is used. 3 amperes @ 115 VAC. Ultra-miniature size is only 1/2".

SPECIFICATIONS

Initial Contact Resistance:

Below 20 milliohms at 2-4 VDC, 1 amp.

Insulating Resistance:

Over 1000 megohms between terminals and case ground @ 500 VDC.

Voltage Breakdown:

1000 VAC between terminals and case ground for a duration of one minute.

Life Cycle:

Well over 15,000 on-off switching actions at rated current.

WITH HANDLE TO THE LEFT	CENTER	WITH HANDLE OPPOSITE SIDE OF LEFT	
ON	ON	ON	1
1-2	2-3	2-3	2
4-5	4-5	5-6	3
			4
			5
			6

Features one-piece body construction for ultra-miniature space requirements. Has unusually high current rating, and is capable of handling multiple circuits simultaneously. Has high voltage barriers between terminals and contacts firmly anchored to base. Rated 3 amperes @ 115 VAC.

SPECIFICATIONS

Initial Contact Resistance:

Below 20 milliohms at 2-4 VDC, 1 amp.

Insulating Resistance:

Over 1000 megohms between terminals and case ground @ 500 VDC.

Voltage Breakdown:

1000 VAC between terminals and case ground for a duration of one minute.

Life Cycle:

Well over 25,000 on-off switching actions at rated current.

Contacts and Terminals:

*Solid silver.

Case Material:

Black phenolic resin.

Bushing Size:

Standard 1/4-40 Nut, 1/4 cross flats

*Center terminal brass with silver plate.

4PDT

The world's first 4-Pole toggle switch with a one-piece miniaturized body construction. Includes high voltage barriers, solid silver terminals and contacts. Can be easily mounted in compact aircraft and electronic equipment. Current rating: 3 amperes @ 115 VAC.

SPECIFICATIONS

Initial Contact Resistance:

Below 20 milliohms at 2-4 VDC, 1 amp.

Insulating Resistance:

Over 1000 megohms between terminals and case ground @ 500 VDC.

Voltage Breakdown:

1000 VAC between terminals and case ground for a duration of one minute.

Life Cycle:

Well over 25,000 on-off switching actions at rated current.

Contacts and Terminals:

*Solid silver.

Case Material:

Black phenolic resin.

Bushing Size:

Standard 1/4-40 Nut, 1/4 cross flats

*Center terminal brass with silver plate.

INDUSTRIAL NET PRICE SCHEDULE

MODEL DESCRIPTION	One- 25-	100- 500-
MST-205-PA On-On-On	24 99 499 999	
MST-205-PA On-On-On	2.85 1.90 1.71 1.42	
MST-205-TA On-On-On	3.15 2.14 1.89 1.58	

(On) Indicates Momentary Positions

ALCOSWITCH

INDUSTRIAL NET PRICE SCHEDULE

MODEL DESCRIPTION	One- 25-	100- 500-
MST-315D On-None-On	3.85 2.57 2.31 1.925	
MST-305D On-None-On	3.85 2.57 2.31 1.925	
MST-305E On-Off-On	4.15 2.82 2.49 2.075	
MST-305H On-Off-On	4.15 2.82 2.49 2.075	

(On) Indicates Momentary Positions

INDUSTRIAL NET PRICE SCHEDULE

MODEL DESCRIPTION	One- 25-	100- 500-
MST-415N On-None-On	4.85 3.29 2.91 2.43	
MST-405N On-None-On	4.85 3.29 2.91 2.43	
MST-405P On-Off-On	5.35 3.64 3.21 3.14	

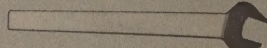
ALCOSWITCH

WATER-PROOF BOOTS FOR
MINIATURE ALCOSWITCHES

One-piece construction serves as a seal and locknut for miniature bat-handle. Black neoprene covers handle completely. Available only for 1/4-40 bushings.

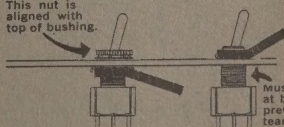
MODEL	One- 25-	100- 500-
B-1440	.60 .40 .36 .30	

INSTALLATION WRENCH



A spanner wrench designed expressly to expedite the proper installation of ALCOSWITCHES. A long tapered arm extends at a slight angle allowing the user to tighten the lower mounting nut. MODEL NO. W-1.....Net 25¢ ea.

This nut is aligned with top of bushing.



PROPER USE

IMPROPER USE

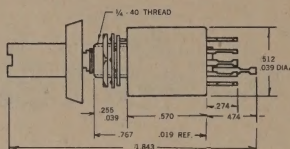
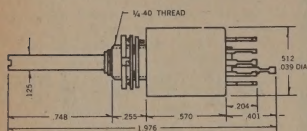
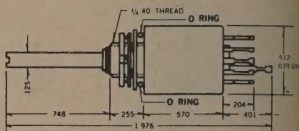
Must have nut at bottom to prevent from tearing.

ALCOSWITCH

ALCOSWITCH

MANUFACTURED TO MEET
MINIATURIZATION REQUIREMENTS

ADJUSTABLE-STOP ROTARY WATERPROOF

MRA-1-10S, LESS KNOB, $\frac{1}{8}$ " DIA. SHAFTMRA-1-10, WITH KNOB, $\frac{1}{8}$ " DIA. SHAFTWithstands
9.8 feet of water
submersion testsMSRE-1-10, LESS KNOB, $\frac{1}{8}$ " DIA. SHAFT

NON-ADJUSTABLE

First, new ultra-miniature rotary switches with the invaluable feature of an adjustable-stop. Ideal for installations where size and space limitations are a factor including applications in aircraft, computers, and all types of electronic equipment. The only one of its kind, the adjustable-stop miniature rotary switch has these additional features • non-shorting • 36° spacing • up to 4 poles on single deck.

SPECIFICATIONS

Current Rating:

500 ma @ 125 VAC.

Initial Contact Resistance:

Below 20 milliohm at 2.4 VDC and at rated current.

Insulating Resistance:

Over 100 megohms between terminals and case ground (when measured with a megger of 500 VDC at room temp.)

Voltage Breakdown:

1000 VAC between terminals and case ground for a duration of one minute.

Life Cycle:

Over 10,000 switching operations at the rate of 15 to 20 full rotations per minute at the rated current.

Contacts and Terminals:

Solid silver.

Bushing Size:

 $\frac{1}{4}$ - 40.

Shaft:

See Below

Humidity: Models MRA-S Only ($\frac{1}{8}$ " shaft)

Tested at a temperature of 40°C and relative humidity of 90-95% for 10 hours. Resistance between terminals and case ground will be more than 10 megohms.

Stop Guide Strain: Models MRA-S Only

The stop guide which limits rotation shall not be subjected to a force of not more than 2 Kg-cm.

Current Rating:

500 ma @ 125 VAC.

Initial Contact Resistance:

Below 20 milliohm at 2.4 VDC and at rated current.

Insulating Resistance:

Over 100 megohms between terminals and case ground.

Voltage Breakdown:

1000 VAC between terminals and case ground for a duration of one minute.

Life Cycle:

Over 10,000 switching operations at the rate of 15 to 20 full rotations per minute at the rated current.

Waterproof:

3.3 foot head of water for 30 minutes. Watertest: "O" ring watertest between handle and bushing, and between bushing flange and mounting panel.

Contacts and Terminals: Solid silver.

Bushing Size:

Fits $\frac{1}{4}$ " dia. hole.

INDUSTRIAL NET PRICE SCHEDULES

LESS KNOB — $\frac{1}{8}$ " DIA. SHAFT

MODEL	USABLE	One- 25- 100- 500-			
		24	99	499	999
MRA-1-10S	2-10 pos.	3.85	2.57	2.31	1.925
MRA-2-5S	2-5 pos.	3.85	2.57	2.31	1.925
MRA-3-3S	2-3 pos.	3.85	2.57	2.31	1.925
MSRA-4-2S	2 pos.	3.85	2.57	2.31	1.925

*Fixed

WITH KNOB — $\frac{1}{8}$ " DIA. SHAFT

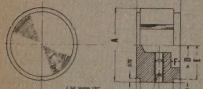
MODEL	USABLE	One- 25- 100- 500-			
		24	99	499	999
MRA-1-10	2-10 pos.	3.85	2.57	2.31	1.925
MRA-2-5	2-5 pos.	3.85	2.57	2.31	1.925
MRA-3-3	2-3 pos.	3.85	2.57	2.31	1.925
MSRA-4-2	2 pos.	3.85	2.57	2.31	1.925

*Fixed

INDUSTRIAL NET PRICE SCHEDULE

MODEL	Pole	pos.	One- 25- 100- 500-			
			24	99	499	999
MSRE-1-10	1	10	4.85	3.29	2.96	2.55
MSRE-2-5	2	5	4.85	3.29	2.96	2.55
MSRE-3-3	3	3	4.85	3.29	2.96	2.55
MSRE-4-2	4	2	4.85	3.29	2.96	2.55

*Fixed

ANODIZED ALUMINUM KNOBS FOR $\frac{1}{8}$ " DIA. SHAFTS

Machined aluminum knobs with anodized finish, modern styling and hairline indicator. Useable with switches and potentiometers having a $\frac{1}{8}$ " dia. shaft.

INDUSTRIAL NET PRICE SCHEDULE

DIMENSIONS					
MODEL	A	B	C	D	E
K-500A-1/8	500	625	485	358	433
K-500G-1/8					354

MODEL	DESCRIPTION	One- 100- 250- 500-			
		99	249	499	999
K-500A-1/8	Natural Aluminum	.45	.39	.37	.35
K-500B-1/8	Black Anodized	.45	.39	.37	.35
K-500G-1/8	Gold Anodized	.45	.39	.37	.35



K-500A



K-500-10

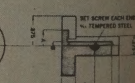
A new series of skirted knobs designed for MRA series Alcoswitches. Machined aluminum anodized with hairline indicator and 2 set screws. $\frac{1}{8}$ " shafts only.

INDUSTRIAL NET PRICE SCHEDULE

MODEL	DESCRIPTION	One- 100- 250- 500-			
		99	249	499	999
KC-500A	Natural Aluminum	.55	.49	.47	.45
KC-500B	Black Anodized	.55	.49	.47	.45
KC-500-10	Black Anodized (0-to-9), 6's	.55	.59	.56	.53



K-500



DIMENSIONS					
MODEL	A	B	C	D	E
KC-500	473	125	195	295	768
					367

THE ABOVE KNOBS ARE PART OF A COMPLETE LINE OF DECORATOR-STYLED ALUMINIZED ALCKNOBS — WRITE FOR CATALOG

ALCOSWITCH

ARROW H & H SWITCHES

Toggle • Push Button • Rotary • Knife • Power • Slide

BALL HANDLE
TOGGLE SWITCHES
POSITIVE ACTION

UL approved. Ball lever
switches nickel plated;
laminated type; ring
d mounting nuts.

Cat. No.	Description	Shank Length	Current Rating
6200	SPST	1 1/2"	3 amps 125V.
6201	SPST	3/4"	3 amps 250V.
6202	SPDT	1 1/2"	3 amps 1 amp
6202A	2 Circ	1 1/2"	3 amps 1 amp
6203	SPDT	3/4"	3 amps 1 amp
6204	SPDT	1 1/2"	3 amps 1 amp
6205	DPST	3/4"	3 amps 1 amp
6206	DPST	1 1/2"	3 amps 1 amp
6207	DPDT	3/4"	3 amps 1 amp

Canopy Type



Cat. No.	Description	Shank Length	Current Rating
6200	SPST	1 1/2"	3 amps 125V.
6201	SPST	3/4"	3 amps 250V.
6202	SPDT	1 1/2"	3 amps 1 amp
6202A	2 Circ	1 1/2"	3 amps 1 amp
6203	SPDT	3/4"	3 amps 1 amp
6204	SPDT	1 1/2"	3 amps 1 amp
6205	DPST	3/4"	3 amps 1 amp
6206	DPST	1 1/2"	3 amps 1 amp
6207	DPDT	3/4"	3 amps 1 amp

BAT HANDLE
TOGGLE SWITCHES
POSITIVE ACTION

UL approved. Laminated
pe. Nickel plated fin-
ish; supplied with ring
d mounting nuts. 1/2"
shank.

Cat. No.	Description	Shank Length	Current Rating
6220	SPST	1 1/2"	3 amps 125V.
6221	SPDT	3/4"	3 amps 250V.
6221A	2 Circ.	3/4"	3 amps 1 amp
6222	DPST	3/4"	3 amps 1 amp
6223	DPDT	3/4"	3 amps 1 amp

Canopy Type



Cat. No.	Description	Shank Length	Current Rating
6220	SPST	1 1/2"	3 amps 125V.
6221	SPDT	3/4"	3 amps 250V.
6221A	2 Circ.	3/4"	3 amps 1 amp
6222	DPST	3/4"	3 amps 1 amp
6223	DPDT	3/4"	3 amps 1 amp

BAT HANDLE
MOMENTARY
ACTION

UL approved. Laminated
pe. Nickel plated fin-
ish; supplied with ring
d mounting nuts; 1/2"
shank; solder terminals;
SPST rated at 3 amps
250V AC-DC, others rated
1 amp 250V, 3 amps
125V AC-DC.

Cat. No.	Description	Type
6190	SPST	Normally Closed (On)
6191	SPST	Normally Open (Off)
6192	SPDT	Normally Closed (On)
6193	SPDT	Normally Open (Off)
6194	DPST	Normally Open (Off)
6195	DPDT	Normally Closed (On)

Canopy Type

MOMENTARY
CONTACT
PUSH BUTTON

UL approved. Laminated
pe. Has 1/2" slotted
sleeve; 3/32" TPI. Com-
plete with hex and
knurled nut; nickel plat-
ing; all except snap on
button. Supplied less in-
sulating button.

Cat. No.	Description	Type
6184	SPST	Normally Closed (On)
6184A	SPST	Normally Open (Off)
6185A	SPDT	Normally Closed (On)
6185	SPDT	Normally Open (Off)
6186	2 Circ.	Normally Closed (On)
6231A	DPST	Normally Closed (On)
6231	SPDT	Normally Open (Off)
6231B	DPDT	Normally Closed (On)
6232	Button only, red or black	

Canopy Type



QUICK MAKE AND BREAK

Cat. No.	Description	Type
6184	SPST	Normally Closed (On)
6184A	SPST	Normally Open (Off)
6185A	SPDT	Normally Closed (On)
6185	SPDT	Normally Open (Off)
6186	2 Circ.	Normally Closed (On)
6231A	DPST	Normally Closed (On)
6231	SPDT	Normally Open (Off)
6231B	DPDT	Normally Closed (On)
6232	Button only, red or black	

SLOW MAKE AND BREAK

Cat. No.	Description	Type
6180	SPST	Normally Closed (On)
6230	SPST	Normally Open (Off)
6224	2 Circ.	Normally Closed (On)

THREE POSITION—
CENTER OFF

UL approved. 3 amps-250V, 6
amps-125V AC-DC.

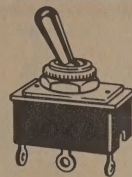
Cat. No.	Description
6261	SPDT
6262	2 CIRC
6263	DPDT

Intermediate Size

INTERMEDIATE
SIZE TOGGLE-BAT

Molded phenolic base;
back connected silver
plated solder lug con-
tacts; supplied with hex
nut and knurled nut.
SPDT rated at 1 amp-
250V, 6 amps-125V AC-
DC; others rated at 3
amps-250V, 6 amps-
125V AC-DC.

Cat. No.	Description	Type Action
6280	SPST	Positive
6280A	SPST	Mom.—Norm. Off
6281	SPDT	Positive
6281A	SPDT	Momentary
6284	2 Circ.	Positive
6282	DPST	Mom.—Norm. Off
6282A	DPST	Positive
6283	DPDT	Positive
6283A	DPDT	Momentary

BAKELITE MOLDED
MOMENTARY CONTACT SWITCHES

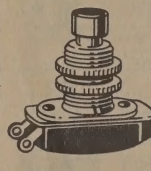
Same as above except momentary. SPST
Normally Off. 3 A., 250V. UL approved.
Rated 6 A., 125V.

Cat. No.	Description	Shank Length
6241	SPST	1 1/2"
6240	SPDT	1 1/2"
6242	DPDT	1 1/2"

MOMENTARY
PUSH BUTTON

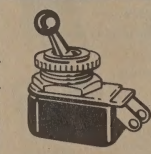
Molded momentary, sol-
der lugs. Rated 1 A.,
125V. With 3/8" shank,
normally Off—push to
make. Nickel plated. UL
approved.

Cat. No.	Description
6233	SPST
6234	SPDT
6235	DPST
6236	DPDT

MIDGET SIZE
TOGGLE POSITIVE
ACTION

SPST Rated 3 Amps—
250V, 6 amps—125V.
Others Rated 1 Amp—
250V, 6 amps—125V.
Molded Phenolic base.
1/32 x 3/2 x 1/4" long slotted
sleeve, Nickel finish;
solder lugs.

Cat. No.	Description	Type
6244	SPST	Bat Handle
6244A	SPST	Bat Handle
6244B	SPDT	Bat Handle
6244C	SPDT	Bat Handle
6244D	2 Circ.	Bat Handle
6244E	2 Circ.	Bat Handle

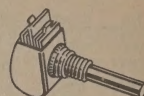
ST TYPE PER
SPEC. JAN-S-23

Bat handle, back con-
nected silver plated sol-
der lug contacts; slotted
sleeve. Supplied with
two hex nuts. Molded
phenolic base; 1/32 x 3/2
x 1/4" long, nickel finish.
They meet, where ap-
plicable. All Jan-S-23.

Cat. No.	Jan. No.	MIL.	Descript.
6250	ST-12A	MS25098-22	SPST
6251	ST-12D	MS25098-23	SPDT
6251C	ST-12C	MS25098-30	SPST
6251V	ST-12V		2 Circ.
6252	ST-22K	MS25100-22	DPST
6252M	ST-22M	MS25100-30	DPST
6253	ST-22N	MS25100-23	DPDT

Cur. rate 125V. 6A, 250V. 3A.

Cat. No.	Jan. No.	Descript.
6270*	ST-42A	SPST
6271*	ST-42D	SPDT
6249*	ST-42E	SPDT
6272**	ST-52K	DPST
6273**	ST-52N	DPDT
6274**	ST-52P	DPDT

*Cur. rate 125V. 15A, 250V. 6A.
**Cur. rate 125V. 25A, 250V. 9A.ROTARY SWITCHES
CANOPY TYPE—ROTO LOCK

Laminated phenolic sections—solder lugs;
sleeve 1/32" diam. 32 threads per inch; nickel
finish; Rotary switches supplied with two hex
nuts; roto lock key types have 1/32" diam. 32
threads per inch; key removable in off posi-
tion only on SPST and DPST—key remov-
able in both positions on all others.
SPST rated at 3 amps-250V AC-DC, others
rated at 1 amp-250V, 3 amps-125V AC-DC.

Cat. No.	Description	Key-Rem.	Off Pos.
6110	SPST		
6111	SPDT		
6112	DPST		
6113	DPDT		
6114		Key—Rem.	Off Pos.
6115		Key—Rem.	Both Pos.

Roto Lock (Key Type)



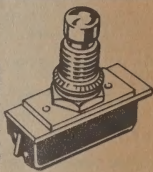
Cat. No.	Description	Shank Length
6210	SPST	3/4"
6211	SPST	1 1/2"
6212	SPDT	1 1/2"
6213	SPDT	2 1/2"
6214	DPST	1 1/2"
6215	DPST	1 1/2"
6216	DPDT	1 1/2"
6217	DPDT	2 1/2"

STANDARD DUTY
MOM.
PUSH BUTTON

Molded phenolic base;
1/32 x 3/2 x 1/4" long slotted
sleeve; nickel finish;
screw terminals; com-
plete with two hex nuts.
All accept snap on but-
ton; supplied less in-
sulating button. Cur. rate
125V 12A, 250V 6A.

Cat. No.	Description	Type
6238	SPST	Normally Closed
6238B	SPDT	Normally Closed (On)
6238C	2 Circ.**	Normally Closed (On)
6226	DPST*	Normally Open (Off)
6238D	DPST*	Normally Closed (On)

*1 H.P. 250V. AC-DC

STANDARD DUTY
TOGGLE SWITCHES

Molded phenolic base;
1/32 x 3/2 x 1/4" long slotted
sleeve; nickel finish;
screw terminals; com-
plete with one hex nut,
one knurled nut.

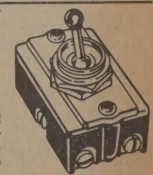
Cat. No.	Description	Current Rating
6225A	SPST	12 amps 125V.
6225B	SPDT	12 amps 6 amps
6225C	2 Circ.	12 amps 6 amps
6225	DPST*	12 amps 6 amps

*1 H.P. 250V.

EXTRA HEAVY DUTY
POWER SWITCHES
3 POSITION—
POSITIVE
CENTER OFF

Molded phenolic base;
screw terminals; slotted
sleeve 1/32 x 3/2 x 1/4" long
slotted sleeve; nickel finish;
with two hex nuts.
Rated at 5 amps—250V,
10 amps—125V.

Cat. No.	Description	Circuit
6227	DPDT	1/2 H.P. 115/230V. AC 3 phase
6228	SPDT	3/4 H.P. 250V. AC-DC
6229	4PDT	1/2 H.P. 115/230V. AC 2 phase



FOR MORE INFORMATION ON COMPLETE LINES, WRITE FOR NEW CATALOG.

BARNBACH RADIO COMPANY INC.

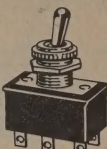
CUTLER—HAMMER SWITCHES

LIGHT DUTY TOGGLE SWITCHES

BACK CONNECTED LUG TERMINALS

Quick make-break; bakelite; small, compact size AC-DC UL approved.

Cat. No.	C-H No.	Descrip.	Shank	Current Rating	
				125V	250V
5300	8280K16	SPST	$\frac{1}{32}$ "		3 amps
5301	8381K8	SPST	$\frac{1}{32}$ "	6 amps	3 amps
5302	8282K14	SPDT	$\frac{1}{32}$ "	3 amps	1 amp
5303	8284K14	2 Circ.	$\frac{1}{32}$ "	3 amps	1 amp
5304	8360K7	DPST	$\frac{1}{32}$ "	3 amps	3 amps
5305	8370K7	DPST	$\frac{1}{32}$ "	6 amps	3 amps
5306	8363K7	DPDT	$\frac{1}{32}$ "	3 amps	3 amps
5307	8373K7	DPDT	$\frac{1}{32}$ "	6 amps	3 amps



SIDE CONNECTED SCREW TERMINALS

Cat. No.	C-H No.	Descrip.	Shank	Current Rating	
				125V	250V
5308	8295K8	SPST	$\frac{1}{32}$ "		3 amps
5309	8396K8	SPST	$\frac{1}{32}$ "	6 amps	3 amps
5310	8297K8	SPDT	$\frac{1}{32}$ "	3 amps	1 amp
5311	8372K7	DPST	$\frac{1}{32}$ "	6 amps	3 amps
5312	8365K7	DPDT	$\frac{1}{32}$ "	3 amps	3 amps
5313	8375K7	DPDT	$\frac{1}{32}$ "	6 amps	3 amps



SIX INCH LONG WIRE LEADS

Cat. No.	C-H No.	Descrip.	Shank	Current Rating	
				125V	250V
5335	8290K16	SPST	$\frac{1}{32}$ "		3 amps
5336	8391K8	SPST	$\frac{1}{32}$ "	6 amps	3 amps



PUSH BUTTON MOMENTARY SWITCHES

Door operated switches, used wherever it is desired to control current by opening or closing of refrigerated doors, telephone booths, closets, vaults, etc. AC-DC. UL approved; $\frac{1}{32}$ " shank; rated at .75 AMP., 125 volts; —.75 AMPS, 250 volts.

Cat. No.	C-H No.	Description	Terminals
5337	8411K11	SP norm. open	lug
5338	8411K12	SP norm. open	screw
5339	8411K8	SP norm. closed	lug
5340	8411K7	SP norm. closed	screw



PUSH TO MAKE—PUSH TO BREAK

Push-switch switches; AC-DC, UL approved, bakelite case; rated 6 amps. 125V—3 amps. 250V. Pushing the button once closes the contacts; pushing it again opens the contacts. $\frac{1}{16}$ " shank.

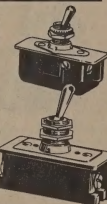
Cat. No.	C-H No.	Description	Terminals
5326	7206K4	SPST	lug
5327	7208K4	SPST	screw
5328	7207K4	SPST	wire



HEAVY DUTY TOGGLE SWITCHES

Quick make—quick break; $\frac{1}{32}$ " shank (No. 8680 $\frac{1}{16}$ " shank); AC-DC, UL approved; bakelite case; screw terminals.

Cat. No.	C-H No.	Description	Current Rating	
			125V	250V
5341	@7321K3	SPST	12 amps	6 amps
5342	@7320K3	DPST	12 amps	6 amps
5343	*7361K5	SPST	15 amps	10 amps
5344	*7360K8	DPST	15 amps	10 amps
5345	**7402K4	DPST	15 amps	20 amps
5346	8680K1	DPDT	10 amps	5 amps
5347	8690K2	DPDT	15 amps	10 amps
* @ 1 HP—125/250V			* $\frac{1}{16}$ " HP—125/250V	
** $\frac{1}{16}$ " HP—125V, 2 HP—250V				



STANDARD DUTY TOGGLE SWITCHES

BACK CONNECTED LUG TERMINALS

Slow make and break; bakelite; AC rated for longer life, greater capacity. 15 amps. 125V—10 amps. 250V.

Cat. No.	C-H No.	Description	Shank
5314	7501K13	SPST	$\frac{1}{32}$ "
5315	7505K4	SPDT	$\frac{1}{32}$ "
5316	7561K4	DPST	$\frac{1}{32}$ "
5317	7565K5	DPDT	$\frac{1}{32}$ "
5318	7611K2	3PST	$\frac{1}{32}$ "
5319	7615K2	3PDT	$\frac{1}{32}$ "



BACK CONNECTED SCREW TERMINALS

Cat. No.	C-H No.	Description	Shank
5320	7500K14	SPST	$\frac{1}{32}$ "
5321	7504K4	SPDT	$\frac{1}{32}$ "
5322	7560K5	DPST	$\frac{1}{32}$ "
5323	7564K6	DPDT	$\frac{1}{32}$ "
5324	7610K2	3PST	$\frac{1}{32}$ "
5325	7614K2	3PDT	$\frac{1}{32}$ "



CENTER OFF STANDARD DUTY TOGGLE SWITCHES

BACK CONNECTED LUG TERMINALS

Cat. No.	C-H No.	Description	Shank
5329	7503K13	SPDT	$\frac{1}{32}$ "
5330	7563K4	DPDT	$\frac{1}{32}$ "
5331	7613K2	3PDT	$\frac{1}{32}$ "



BACK CONNECTED SCREW TERMINALS

Cat. No.	C-H No.	Description	Shank
5332	7502K13	SPDT	$\frac{1}{32}$ "
5333	7562K4	DPDT	$\frac{1}{32}$ "
5334	7612K2	3PDT	$\frac{1}{32}$ "



FOUR POLE SWITCHES

AC-DC GOVERNMENT APPROVED PER MIL-S-6745, $\frac{1}{32}$ " shank. Rated 10 amps. 115 volts AC—20 amps. 28 volts DC (Nominal rating per pole) SEALED LEVER.

Cat. No.	C-H No.	Type	Terminals
5420	7660K8	4 PST	Screw
5421	7661K6	4 PST	Lug
5422	7662K5	4 PDT	Screw
5423	7663K5	4 PDT	Lug
5424	7664K3	4 PDT	Screw
5425	7665K4	4 PDT	Lug
5426	7666K6	4 PST	Screw
5427	7667K6	4 PST	Lug
5428	7668K4	4 PST	Screw
5429	7669K4	4 PST	Lug
5430	7670K4	4 PDT	Screw
5431	7671K4	4 PDT	Lug
5432	7672K4	4 PDT	Screw
5433	7673K4	4 PDT	Lug
5434	7674K4	4 PDT	Screw
5435	7675K4	4 PDT	Lug



CENTER OFF

5352	7663K5	4 PDT	Solder Lugs
5353	7662K5	4 PDT	Screw Term.

POSITIVE ACTION MINIATURE MILITARY SWITCHES

"Small As A Dime"

Especially designed for aircraft, missile and electronic applications.

EXTREMELY COMPACT—Highly reliable power or dry circuit switch, usable as a pre-set switch in aircraft recognition systems, for walking talkies, electronic instruments and communication systems.

NEW DESIGN—Toggle is linked directly with movable contact member, insuring positive make and break.

NEW TOGGLE LEVER SEAL—Protects switch enclosure under adverse environmental conditions; includes panel bushing seal.

NEW GOLD PLATED CONTACTS—Open and close with wiping action, for good contact even on low energy circuits. Contact bounce is extremely low.

NEW SUPERIOR MATERIAL—In molded parts, provides higher arc-tracking resistance and excellent recovery voltage.

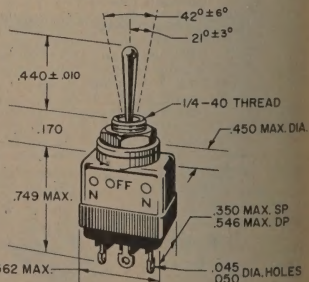
NEW POSITIVE DETENT ACTION—For improved operator "feel."

BUILT TO MIL-S-8834 SPECS

Cat. No.	C-H No.	Type	Circuit Position		
			Up Position	Center Position	Down Position
5480K1	8866K1	SPDT	On	Off	On
5480K2	8866K2	SPDT	Mom.-On	Off	Mom.-On
5480K3	8866K3	SPDT	On	Off	Mom.-On
5480K4	8866K4	SPDT	On	None	On
5480K5	8866K5	SPST	On	Off	None
5480K6	8866K6	SPST	None	Off	Mom.-On
5480K7	8866K7	SPST	None	None	Off
5480K8	8866K8	SPDT	None	On	Mom.-On
5481K1	8867K1	DPDT	Mom.-On	Off	Mom.-On
5481K3	8867K3	DPDT	On	Off	Mom.-On
5481K4	8867K4	DPDT	On	None	On
5481K5	8867K5	DPST	On	Off	None
5481K6	8867K6	DPST	None	Off	Mom.-On
5481K7	8867K7	DPST	None	None	Off
5481K8	8867K8	DPDT	None	On	Mom.-On

Ratings: 2 Amps., 28V. DC; 1 Amp., 50V. DC; 2 Amps., 115V. AC.

Complete line of Cutler-Hammer quality switches and equipment available from our warehouse stocks; Applications include commercial, industrial, aircraft and to Gov't spec.

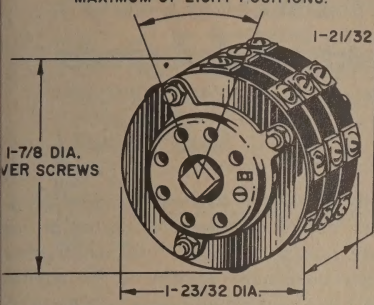


BIRNBACH

RADIO COMPANY INC.

CUTLER—HAMMER SWITCHES—MISCELLANEOUS SWITCHES SLIDE LEVER SWITCHES

45° THROW PER POSITION WITH A
MAXIMUM OF EIGHT POSITIONS.

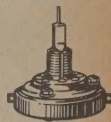


ROTARY SWITCHES PER MIL-S-6807 SPEC

Nominal Ratings:
5 Amps 115 V. AC
2.5 Amps 28 V. DC

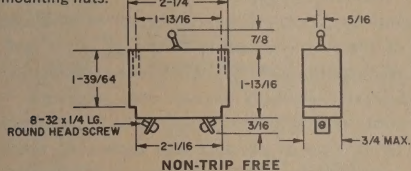
Single or multi wafer switches designed for applications where a large number of control circuits must be controlled in consecutive steps. All terminals marked with two-digit number. The first digit denotes the wafer position, moving from front to rear of switch. The second digit indicates radial position of the terminals moving in a clockwise direction from the keyway. Terminals numbered 11, 21, 31, etc. are the common or line terminals on most switches and are also marked "off." On MS25002 type switches, the adjustable indexing mechanism provides a flexible arrangement of different circuits. By positioning two screws in the indexing plate on the base, stop positions can be provided to fit specific applications. Completely universal, can stop at any position. Additional variations of listed switches obtainable upon request. Can be furnished with 1 up to a maximum of 6 wafers each with 8 positions, 7 "on" and 1 "off." 42 circuits can be controlled by one 6 wafer 8 position switch, $\frac{1}{16}$ inch bushing.

Birnbach No.	C-H	"MS" No.	Type
5406-1	7261K13	MS25002-1	S.P. 8 Pos. w/off, adj. stop, 1 waf.
5406-2	7262K12	MS25002-2	D.P. 8 Pos. w/off, adj. stop, 2 waf.
5406-3	7263K11	MS25002-3	3 P. 8 Pos. w/off, adj. stop, 3 waf.
5406-4	7264K9	MS25002-4	4 P. 8 Pos. w/off, adj. stop, 4 waf.
5406-5	7265K9	MS25002-5	5 P. 8 Pos. w/off, adj. stop, 5 waf.
5406-6	7266K5	MS25002-6	6 P. 8 Pos. w/off, adj. stop, 6 waf.



MANUAL TYPE CIRCUIT BREAKERS

Both types combine, in one unit, a standard aircraft type SPST switch and a positive protection device. Molded case, metal strap with locking type mounting nuts.



Cat. No.	C-H No.	Spec.	Type	Rating 24 Volts
5460	8750K11	AN3160-5	SPST	5 amps
5461	8751K8	AN3160-10	SPST	10 amps
5462	8752K8	AN3160-15	SPST	15 amps
5463	8753K8	AN3160-20	SPST	20 amps
5464	8754K8	AN3160-25	SPST	25 amps
5465	8755K8	AN3160-35	SPST	35 amps
5466	8756K8	AN3160-50	SPST	50 amps
TRIP FREE				
5470	8730K3	E1441-5	SPST	5 amps
5471	8731K3	E1441-10	SPST	10 amps
5472	8732K3	E1441-15	SPST	15 amps
5473	8733K3	E1441-20	SPST	20 amps
5474	8734K1	E1441-25	SPST	25 amps
5475	8735K3	E1441-35	SPST	35 amps
5476	8736K1	E1441-50	SPST	50 amps

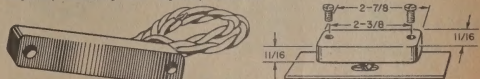
MAGNETIC PROXIMITY SWITCHES

Precision, fast-acting devices, adaptable to sequential control functions on machine tools, packaging, material handling and equipment or for similar industrial devices. Rugged construction, encapsulated to assure freedom from contamination by cutting oils, dust, powder, metal chips, etc., this series will operate up to hundreds of millions of cycles at temperature ranges from -30°C to +105°C. Switches will actuate when brought into proximity with ferrous metals or other magnetic materials. Operating sensitivity in nom. $\frac{1}{4}$ " make, $\frac{1}{2}$ " break. No mechanical linkage is required for operation. Typical actuators include rotating cams, wheels and indexing tables, reciprocating arms, push rods, die sets, jaws and assembly line objects such as food and beverage cans, stampings and components. Speed (max.): 200 cycles/sec., repeatability within .005". Switch elements are hermetically sealed in glass, then unit is potted in epoxy resin. Case is special rubber and plastic compounding which is impervious to oil, water, gas and all common solvents.

COUNTING—POSITION LIMITING—SEQUENCE CONTROL HERMETICALLY SEALED—MOUNTS IN ANY POSITION—NO MECHANICAL LINKAGE NECESSARY.

MAGNETIC PROXIMITY SWITCHES

Typical actuators include rotating objects, swinging objects, reciprocating objects, assembly line objects, vehicles.



ELECTRICAL (Max. Contact Ratings)	RESISTIVE LOAD		INDUCTIVE LOAD	
	No. 5499 -128, 138	No. 5499 -139	No. 5499 -128, -138	No. 5499 -139
Amps	.5	2	.1	1
Volts AC or DC	125	125	125	125
Watts	15	50	5	15

Birnbach No.	MS No.	Type
5499-128	PD-128	SPST Norm. open
5499-138	PD-138	SPDT
5499-139	PD-139	SPST, Norm. open (high load)

SLIDE LEVER SWITCHES

UL APPROVED
instruments, electrical equipment, appliances, etc.

Ideal for phonographs, test

Slide Switches with Standard Detent

Birnbach No.	Type	Rating at 125 V. AC DC Amps	Rating at 125 V. AC AC Amps
6245	SPST	.75	.75
6246	SPDT	.75	.75
6247	DPST	.5	.5
6248	DPDT	.5	.5
6290	SPST	6.0	1.0
6291	SPDT	6.0	1.0
6292	DPST	6.0	1.0
6293	DPDT	6.0	1.0

Slide Switches with Detent—Center Off

*6296	SPDT	.5	.5
*6297	DPDT	.5	.5

* Not UL Appr.

Three & Four Position Slide Switches with Detent

6294	SP3 Pos.	.5	.5
6295	DP3 Pos.	.5	.5
6295A	DP3 Pos.	6.0	1.0
*6295F	DP4 Pos.	.5	.5

Three and Four Pole Slide Switches with Detent

6298	3PDT	.5	.5
6299	4PDT	.5	.5

* 6299 width of switch 1.005", short terminals—distance.

† 6295F from mounting surface to terminal tip .595".

Spring Return Slide Switches

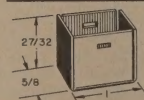
Birnbach No.	Type	Rating at 125 V. Circuit DC Amps	Rating at 125 V. Circuit AC Amps
*6245S	SPST	.5	.5
6246S	SPDT	.5	.5

UL APPROVED

NEW "SWIDGET"—occupies $\frac{1}{2}$ the cubic volume of a conventional slide switch with the same circuitry. Overall mounting areas is $\frac{1}{2}$ of standard DPDT slide switch. Quality switching, ideal for compact applications.

6248M	DPDT	.5 amp.
-------	------	---------

For use in wide varieties of applications and electrical fields.



6239 Slide Switch Shield

FOR MORE INFORMATION ON COMPLETE LINES, WRITE FOR NEW CATALOG.

BIRNBACH

RADIO COMPANY INC.

ELMENCO

CAPACITORS

FUSED PLUG

PROTECTS ALL ELECTRICAL APPLIANCES

Offers complete protection against current surges & short circuits

REDUCES FIRE HAZARDS



The Elmenco Fused Plug is like any standard plug, is light in weight, but easier to handle because of finger grips. However, it employs 2 small fuses which provide complete protection against damage to the appliance and to the main line. The blown fuse is easy to remove and simple to replace. Fits any standard wall outlet.

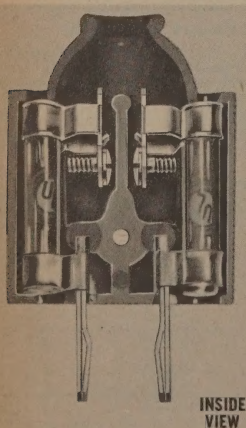
NEW MARKETS! GREATER VALUE!

Approved by Underwriters Laboratories and used by many of the largest manufacturers of radio and electronic equipment, battery chargers, washing machines, curling irons, lighting equipment, automatic relay equipment, motors of every description, and practically every other type of product that consumes electricity. Every wired home, office and store is a prospect.

IMPACT RESISTANT COVER

plus SPRING ACTION for positive contact

New spring action design of the male blades assures 100% positive contact regardless of worn condition of wall outlet.



Fuses are replaced instantly without need of opening plug. Can be used with standard 3AG and 3AB glass tubular fuses up to 20 amps.

REPLACE FUSE INSTANTLY!



RECOMMENDED BY THE
BOARD OF FIRE UNDERWRITERS



Conveniently packed 10 to a Box in colorful self-merchandising displays. Easy to handle for resale.

USED BY LEADING MANUFACTURERS

- | | |
|--------------------------|--------------------|
| • Auto-Lite | • General Electric |
| • Bell Telephone Labs. | • Gerlat Lighting |
| • Buick Motors | • I. B. M. |
| • Cambridge Instrument | • Philco |
| • Canaday Cooler | • R. C. A. |
| • Dictaphone | • Sylvania |
| • Dila-Therm | • Thomas Edison |
| • Eagle Electric | • Webster-Chicago |
| • Eastman Kodak | • Western Electric |
| • Electro-Physical Labs. | • Westinghouse |

BUSS Fuses

FUSETRON DUAL-ELEMENT Fuses and Fuse Holders

for Protection of TV, Radios, Instruments and Electronic Equipment

FUSETRON FIBRE TUBE FUSES

$1\frac{1}{32} \times 1\frac{1}{2}$ inch



Dual-Element — Slow Blowing Type. Avoid needless blows from starting currents or surges. Have fuse link that operates only on very high overloads or short-circuits, and thermal cutout on low overloads. Thermal cutout cannot operate quickly at any load, hence long time-lag is obtained. Yet protection is provided against short-circuits or continued overloads.

Test specification—carry 110%, open at 135% within 1 hour.
Approximate blowing time: at 200% load 25 seconds,
at 300% load 8 seconds,
at 500% load 5 seconds.

Voltage	Symbol	Amperes	List Price
125 and 250 volt sizes listed by Underwriters' Labs., Inc.			
250 or less	FNM	$\frac{1}{10}, 1\frac{1}{8}, 1, 1\frac{1}{4}, 1\frac{1}{2}, 1\frac{3}{4}, 2, 2\frac{1}{4}, 2\frac{1}{2}, 2\frac{3}{4}, 3, 3\frac{1}{2}, 4, 4\frac{1}{2}, 5, 5\frac{1}{2}, 6\frac{1}{4}, 7, 8, 9$ or 10	\$0.41
125 or less	FNM	12 or 15	.41
32 or less	FNM	20, 25 or 30	.41

SIGNAL OR VISUAL INDICATING TYPE

FNA are FNM Fusetron fuses with silverplated indicating pin that extends from fuse when fuse blows. Pin can also be used to actuate a signal by using fuse in BUSS Signal Fuse Block. Fuses in sizes larger than 10 ampere have a dual tube construction. They can be used in BUSS Signal fuse blocks but not in the HPC-C fuseholder.

Voltage	Symbol	Amperes	List Price
250 or less	FNA	$\frac{1}{10}, 1\frac{1}{8}, 1, 1\frac{1}{4}, 1\frac{1}{2}, 1\frac{3}{4}, 2, 2\frac{1}{4}, 2\frac{1}{2}, 2\frac{3}{4}, 3, 3\frac{1}{2}, 4, 4\frac{1}{2}, 5, 5\frac{1}{2}, 6\frac{1}{4}, 7, 8, 9$ or 10	\$0.77
125 or less	FNA	12 or 15	.85
32 or less	FNA	20, 25 or 30	.85

BUSS FUSES 600 Volt. UL Listed. $1\frac{1}{32} \times 1\frac{1}{8}$ inch.

Fibre tube. For protection of control circuits or wherever a fuse with "quick-blowing" characteristics is desirable. Listed by Underwriters' Laboratories Inc.

Voltage	Symbol	Amperes	List Price
600 or less	BBS	$\frac{1}{10}, \frac{3}{4}, 1$ or $\frac{3}{2}$	\$0.27
600 or less	BBS	1, 2, 3, 4 or 5	.25

Fuseholder for BBS fuses. Use HPC-L fuseholder or No. 3845 single pole, side barrier porcelain fuse block. Only BBS fuses (or others with exact same dimensions) will fit these holders. This assures replacement of proper size fuse.



BUSS Insulated TWIN-CLIPS

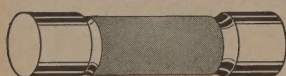
For $\frac{1}{4}$ inch FUSES.

Make it easy to replace blown pigtail fuses without cutting or unsoldering pigtails. Just snap Twin-Clips on blown fuse and insert ordinary or Fusetron fuse of same amperage as blown fuse.

Strong spring clip pressure assures good contact.

No. 3434 BUSS Insulated Twin Clips One pair \$0.24

HIGH INTERRUPTING CAPACITY FUSES



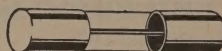
$1\frac{1}{32} \times 1\frac{1}{2}$ inch

Glass fibre melamine tube with sand filler surrounding a silver fuse element. For use on circuits capable of delivering currents as high as 100,000 amperes at voltages of 600 or less. AC only.

Test specification—carry 110%, open at 135% in 1 hour or less.

Voltage	Symbol	Amperes	List Price
600 or less	KTK	$\frac{1}{10}, \frac{3}{8}, \frac{1}{2}, 1, 1\frac{1}{4}, 1\frac{1}{2}, 1\frac{3}{4}, 2, 2\frac{1}{4}, 2\frac{1}{2}, 2\frac{3}{4}, 3, 3\frac{1}{2}, 4, 5, 6, 8, 10, 15, 20, 25, 30$	\$1.42

BUSS GLASS TUBE FUSES



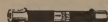
$\frac{1}{32} \times 1\frac{1}{4}$ inch

Formerly called 4 AG.

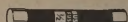
Test specifications — carry 110%, open at 135% within 1 hour except 35 and 40 ampere which open at 300% in 2 to 4 seconds when tested in a standard 30 ampere test circuit.

Voltage	Symbol	Amperes	List Price
250 or less	AGS	$\frac{1}{16}$	\$0.54
	AGS	$\frac{1}{8}$	.38
	AGS	$\frac{1}{4}$, or $\frac{1}{2}$	.18
	AGS	1, 2, $2\frac{1}{2}$ or 3	.17
32 or less	AGS	5, 10, 15, 20, 25, 30	.14
	AGS	35, 40 or 50	.17

BUSS HIGH VOLTAGE FUSES



HVA and HVB



HVJ and HVL

Designed for protection of circuits up to 20 KW on DC and 30 KVA on AC.

Test specification—carry 110%, open at 135% within 1 hour.

Voltage	Symbol	Amperes	Diameter of caps	Length inches	List Price
1000 or less	HVA	$\frac{3}{8}, \frac{1}{2}, \frac{3}{4}, 1, 1\frac{1}{2}, 2$	$\frac{1}{8}, \frac{3}{16}$	3	\$0.34
2500 or less	HVB	$\frac{1}{2}, \frac{3}{4}, 1, 1\frac{1}{2}$ or 2	$\frac{1}{8}, \frac{3}{16}$	$4\frac{1}{2}$	.45
5000 or less	HVJ	$\frac{1}{2}, \frac{3}{4}, 1, 1\frac{1}{2}, 2$	$\frac{1}{8}, \frac{3}{16}$	5	.83
10000 or less	HVL	$\frac{1}{2}, \frac{3}{4}, 1, 1\frac{1}{2}$ or 2	$\frac{1}{8}, \frac{3}{16}$	10	1.66

$1\frac{1}{32} \times 1\frac{1}{2}$ inch INDICATING FUSES

Has silver plated indicating pin that extends from fuse when open — gives visual indication or can actuate signal.

Voltage	Symbol	Amperes	List Price
250 or less	MIC	1, 2, 3, 5, 10 or 15	\$0.69
32 or less	MIC	20, 25 or 30	.69

250 volt sizes listed by Underwriters' Laboratories Inc.

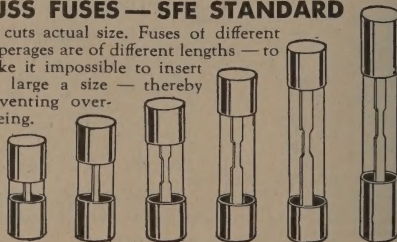
Fuses made in accordance with Military Specifications.

Red button on indicating pin extends from end of fuse when fuse opens.

Voltage	Symbol	Amperes	List Price
250 or less	MIN	1, 2, 3, 5, 10 or 15	\$0.60
125 or less	MIN	20, 25 or 30	.60

BUSS FUSES — SFE STANDARD

All cuts actual size. Fuses of different amperages are of different lengths — to make it impossible to insert too large a size — thereby preventing over-fusing.



SFE 4 SFE 6 SFE 7 1/2 SFE 9 SFE 14 SFE 20 SFE 30

Glass tube — diameter $1\frac{1}{4}$ inch. Length as per table below.

Test specification—carry 110%, open at 135% within 1 hour.

Listed by Underwriters' Laboratories Inc.

Made according to specifications of Society of Automotive Engineers.

Voltage	Symbol & Amperes	Length inches	Pounds per 100	List Price
32 or less	SFE 4	$\frac{5}{8}$	.73	\$0.075
"	SFE 6	$\frac{3}{4}$	.75	.075
"	SFE 7 1/2	$\frac{7}{8}$	.80	.066
"	SFE 9	$\frac{7}{8}$	.80	.066
"	SFE 14	$1\frac{1}{16}$	.82	.059
"	SFE 20	$1\frac{1}{4}$	.87	.059
"	SFE 30	$1\frac{1}{16}$	1.60	.075

BUSSMANN MFG. DIVISION McGraw-Edison Co.

BUSS Fuses

FUSETRON DUAL-ELEMENT Fuses and Fuse Holders

for Protection of TV, Radios, Instruments and Electronic Equipment

TRON PIGTAIL FUSES

Sub-miniature — hermetically sealed — visual indicating
Tron fuses can easily be incorporated into miniaturized devices or components without sacrifice of space. Designed for installation in high shock and vibration ambients.

They may be potted or encapsulated. Are self-protecting and operate without exterior flash or venting. Glass tube construction permits visual inspection of element.

Available in ratings from 1/100 to 15 amperes — for use on circuits of 125 volts or less where available fault current is not over 50 amperes. Color coded to indicate ampere ratings.

Made with 1½ inch axial pigtail or with 1 inch right angle pigtails. Leads are of No. 24 tinned copper wire for ratings 1/100 thru 5 amp. — No. 18 tinned copper wire for ratings 7 thru 15 amp.

Test specifications:
Characteristic A — Carry 100% load, open within 10 seconds at 200% load.
Characteristic B — Carry 100% load, open within 10 seconds at 150% load.

GFA TRON Fuses Body size only .145 x .300 inches

Symbol & Amperes	Test Specification	Color Code One End Other End	List Price
GFA 1/100	A	Red - Orange	\$0.71
GFA 1/32	A	Red - Brown	.71
GFA 1/20	A	Yellow - Yellow	.71
GFA 1/16	A	Brown - Brown	.71
GFA 1/10	A	Red - Red	.71
GFA 1/8	A	Orange - Orange	.71
GFA 1/4	B	Red - Yellow	.71
GFA 1/2	B	Red - Blue	.71
GFA 3/4	B	Red - Purple	.71
GFA 1	A	Green - Green	.71
GFA 1 1/10	A	Blue - Blue	.71
GFA 1 1/2	B	Orange - Green	.71
GFA 2	B	Orange - Blue	.71
GFA 3	B	Orange - Purple	.62
GFA 4	B	Yellow - Green	.62
GFA 5	B	Yellow - Purple	.62
GFA 7	B	Green - Blue	.62
GFA 8	B	Blue - Purple	.62
GFA 15	B	Purple - Brown	.62
GFA 16	B	Brown - Black	.62
GFA 20	B	Purple - Green	.62
GFA 25	B	Green - Black	.62
GFA 30	B	Black - Purple	.62

GLN and GLX TRON Fuses

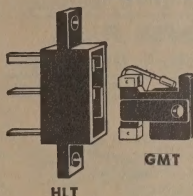
Body size only .140 x .300 inches

Symbol & Amperes	Test Specification	Color Code One End Other End	List Price
GLN 1/100	A	Red - Orange	\$1.97
GLN 1/32	A	Red - Brown	1.66
GLN 1/20	A	Yellow - Yellow	1.66
GLN 1/16	A	Brown - Brown	1.66
GLN 1/10	A	Red - Red	1.66
GLN 1/8	A	Orange - Orange	1.66
GLN 1/4	A	Green - Green	1.66
GLN 1/2	A	Blue - Blue	1.66
GLN 3/4	A	Purple - Green	1.66
GLN 1	A	Green - Black	1.66
GLN 1 1/2	A	Black - Purple	1.66
GLX 1 1/2	B	Red - Yellow	2.16
GLX 2	B	Red - Blue	2.16
GLX 3	B	Red - Purple	2.16
GLX 4	B	Orange - Green	2.16
GLX 5	B	Orange - Blue	2.16
GLX 7	B	Orange - Purple	2.16
GLX 10	B	Yellow - Green	2.16
GLX 15	B	Yellow - Purple	2.16
GLX 20	B	Green - Blue	2.16
GLX 25	B	Blue - Purple	2.16
GLX 30	B	Purple - Brown	2.16
GLX 40	B	Brown - Black	2.16

Other ratings are available with a nominal test charge.
Approximate Unit weight 0.33 grams. Shipping weight 0.116 lbs. per 100.

BUSS GMT Fuses — HLT Fuseholders

Signal Indicating



Alarm Activating

For multiple circuit apparatus where space is at a premium

GMT fuses and HLT fuseholders permit multiple mounting of fuses in limited space, for protection of communication equipment, business machines, computers, control circuits or any equipment operating at 300 volts or less.

Holders take panel mounting space of only ¼ inch horizontal by 1½ inches vertical.

Fuses give visual indication when blown by release of a spring indicator. The spring carries a colored plastic flag, in a different color for each fuse ampere rating.

The indicator spring when released makes contact with an alarm terminal in the fuseholder, which can be connected to activate a signal circuit.

Blown fuses are readily replaced without use of insulated tools. When mounted on minimum centers, removal of fuse is easy by use of a wire hook.

Buss GMT Fuses

Available Ratings and Color Code
300 volts or less

Test specification — carry 100% for 10 minutes; open at 150% within 5 minutes.

Symbol & Amperes	Color of Indicator	Symbol & Amperes	Color of Indicator
GMT 1/100	YELLOW	GMT 1 1/2	WHITE
GMT 1/32	VIOLET	GMT 2	ORANGE
GMT 1/20	RED	GMT 3	BLUE
GMT 1/10	BLACK	GMT 5	GREEN
GMT 1/8	BROWN	GMT 7 1/2	BLACK-WHITE
GMT 1/4	GRAY	GMT 10	RED-WHITE

Symbol
GMT (All Sizes)

List Price \$0.66

Buss HLT Fuseholders

Buss HLT fuseholders take all sizes of GMT fuses:

HLT

List Price \$0.69

GMW Fuse and HWA Fuseholder

Sub-miniature fuseholder combination



Body size only .270 x .250 inches

Offering a light weight, space-saving protective device for space-tight applications in multiple circuit apparatus. GMW fuse has transparent window for visual inspection of element. Fuse may be used alone for mounting into printed circuit boards.

HWA holder can be panel mounted easily — or soldered on printed circuit boards.

AF knob for holder makes holder water-proof from front of panel.

Test specifications — carry 100%, open at 200% within 10 seconds or less.

interrupting rating — 300 ampere at 125 volts

Symbol	Ampere	List Price
GMW	1/300, 1/100, 1/64, 1/32 and 1/16	\$1.12
GMW	1/10, 1/4, 1/2, 1/10, 1/5, 1/2, 1/10, 1/4, 1, 1 1/2, 2, 3, 4, and 5	.86
HWA	fuseholder only, takes all sizes of GMW fuses	.94
AF	knob for HWA fuseholder	.13

BUSS Fuses

FUSETRON DUAL-ELEMENT Fuses and Fuse Holders

for Protection of TV, Radios, Instruments and Electronic Equipment

BUSS GRASSHOPPER FUSES

Give a visible signal or activate an alarm circuit when blown. Color coded to indicate type and amperage.

Symbol	Amps	Volts	Color	List Price
35A	1 1/2	90 or less	White	\$0.41
35B	1 1/2	90 or less	White	.41
35B	2	90 or less	Orange	.41
35C	2	90 or less	Orange	.41
35D	1 1/2	90 or less	White	.82
35E	3	90 or less	White	.44
35F	1 1/2	90 or less	Red	.41
35G	3	90 or less	Blue	.41
35H	5	90 or less	Green	.41
35R	18 1/100	90 or less	Yellow	.52
35T	65 1/100	90 or less	Tan	.60
35J	1 1/2	160 or less	Red	.60
35K	1 1/2	160 or less	White	.82
35L	2	160 or less	Orange	.82
35M	3	160 or less	Blue	.73
35N	5	160 or less	Green	.73
35P	3/4	160 or less	Tan	.52
35S	1/4	160 or less	Pink	.60



BUSS FUSE TV Service

Kit Assortment

Contains 101 of the most popular fuses — 20 slide-cover boxes — and five pairs of BUSS No. 4121 Twin Clips for use in replacing blown pigtail fuses. All packed in a clear plastic box. Symbol, TV-STD



List Price \$24.00

BUSS SHIELDED FUSEHOLDERS

Prevent Radio Frequency Interference

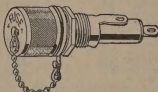
Installs quickly as an ordinary fuseholder. For use where fuse and fuseholder could pick up radio frequency radiation and interfere with circuit containing fuseholder — or other nearby circuits.

Fuseholder accomplishes both shielding and grounding. Eliminates need for placing grounded metal shield around fuseholder.

Fuseholder meets MIL-1-6181D for interference control and MIL-F-19207A covering such environments as salt spray, humidity, shock and vibration.

Current carrying capacity; 30 amperes at any voltage up to 250.

HMR for 1/4 x 1 1/4 inch fuses.....	List Price \$7.06
HMS for 3/4 x 1 inch fuses.....	7.06



PANEL MOUNTED VISUAL INDICATING FUSEHOLDER for 1/4 x 1 1/4 inch GBA Fuse (or GLD fuse)



Has transparent, bayonet type knob



that permits indicating pin of open fuse to be readily seen. Gives positive identification of open circuit even if power is off.

Vibration cannot cause failure because terminals are held mechanically and by solder.

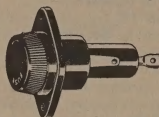
Neoprene washer and steel locking nut furnished with each holder.

Body is molded phenolic, can be used on panels up to 3/16 inch thick.

Normal current carrying capacity; 30 ampere.

HLD takes any size GBA fuse (or GLD fuse).....	List Price \$0.69
No. 5487 Knob Only — will fit HKP holder, makes it visual indicating when used with GBA fuse.....	.31

PANEL MOUNTED HOLDERS for 1 3/32 x 1 1/2 inch Fuses



Screw type knob. Molded phenolic body. Holder attached to panel by screws or rivets. Strong coil spring provides contact pressure on ends of fuse. Normal current carrying capacity 30 amperes. Listed by Underwriters' Laboratories for 15

ampere rating for any voltage up to 250.

HPC (for FNM and KTK fuses) List Price \$0.94

HPC-C (Same as above, but has transparent knob) List Price \$1.18

HPC-L Holder for 1 3/32 x 1 1/2 inch Fuses.

Like HPC Holder. Has Underwriters' Laboratories approved listing for 5 ampere rating and any voltage up to 600.

HPC-L (for BBS fuses) List Price \$0.94

PANEL MOUNTED HOLDERS for 1/4 inch Fuses



Can be used on panels up to 3/16 inch thick.



Bayonet type knob. No

screw driver is needed.

Side terminal is held mechanically as well as by solder. Heat of soldering wire to it will not cause it to loosen.

Vibration will not cause failure of terminals as they are designed to stand severe service.

Neoprene washer and steel locking nut furnished with each holder.

Wire hole in terminals; .115 inch.

Normal current carrying capacity; 30 amperes.

Listed by Underwriters' Laboratories Inc.

HJM for 1/4 x 1 inch fuses (AGX, SFE 14) List Price \$0.62

HJM-CC (Same as HJM but projects shorter distance behind panel)62

HKP for 1/4 x 1 1/4 inch fuses (ABC, AGC, SFE20, MDL, MDX, MTH)62

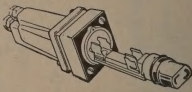
HKP-CC (Same as HKP but projects shorter distance behind panel)62

Above holders also available with quick-connect terminals

PANEL MOUNTED, LAMP INDICATING FUSEHOLDERS for 1/4 x 1 1/4 and 1 3/32 x 1 1/2 inch fuses

Made to Military Specifications.

Available as single or two pole units. Transparent knob permits neon indicating light to be readily seen. Body of molded alkyl.



Type	Pole	Fuse Size Inches	Circuit Voltage	Max. Amp. Rating	List Prices
HGB-C	Single	1/4 x 1 1/4	90 to 250	30	Prices
HGA-C	Two	1/4 x 1 1/4	90 to 250	30	on
HGC	Single	1 3/32 x 1 1/2	90 to 250	30	Request

LAMP INDICATING FUSEHOLDERS



For panel mounting 1/4 x 1 and 1 3/32 x 1 1/2 inch fuses. Bayonet type knob. Molded phenolic body. Strong coil spring provides contact pressure at ends of fuse. Transparent

knob permits indicating light to be readily seen.

Type	Fuse Size Inches	Circuit Voltage	Max. Amp. Rating	Lamp Type	List Price
HKL	1/4 x 1 1/4	90 to 250	20	Neon	\$2.54
HKL-X	1/4 x 1 1/4	90 to 250	20	Neon	2.54
HKR	1/4 x 1 1/4	22 to 33	20	Incand.	4.16
HKX	1/4 x 1 1/4	22 to 33	20	Incand.	4.16
HKT	1/4 x 1 1/4	13 to 22	20	Incand.	4.16
HKU	1/4 x 1 1/4	4 to 6	20	Incand.	4.16
HJL	1 3/32 x 1 1/2	90 to 250	20	Neon	2.53

BUSSMANN MFG. DIVISION McGraw-Edison Co.

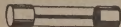
BUSS Fuses

FUSETRON[®] DUAL-ELEMENT Fuses and Fuse Holders

for Protection of TV, Radios, Instruments and Electronic Equipment

BUSS MINIATURE GLASS TUBE FUSES

5 mm x 20 mm (.197 x .769 inches)



Designed for protection of miniaturized circuits or equipment. Commonly used in equipment of foreign make.

Test specifications — Carry 100% load indefinitely.
Open at 200% load within 10 seconds.

Voltage	Symbol	Amperes	List Price
125 volts or less if available fault current is not over 50 amps.	GMA	$\frac{1}{8}$	\$0.53
	GMA	$\frac{1}{4}$, $\frac{1}{2}$, or $\frac{3}{4}$	.40
	GMA	1, $1\frac{1}{2}$, $1\frac{1}{2}$, or 2	.33
	GMA	3, 4, 5, 6, or 10	.33

GJU fuses now called GMA.



HKA SERIES

Lamp Indicating, Signal Activating holders for 1/4 x 1 1/4 inch BUSS type GLD fuses

Used on circuits of 125 volts or less. Flashes a light, rings a bell, trips a relay or gives other signals to tell you when and where a fuse blows.

Symbol	List Price
HKA for 1/4 x 1 1/4 inch GLD fuses, 3/4 to 5 amps. GLD fuses listed under Indicating fuses.	\$5.53

IN-THE-LINE HOLDERS for 1/4 inch fuses

For mounting fuse in wire. Holders consist of body and bayonet type knob — two contacts ready to be staked on ends of wire — and a contact pressure spring.



Holders can also be mounted in panel up to $\frac{5}{16}$ inch thick by means of a No. 9969 Spring nut (Nut not furnished). Flat area on holder permits locking against rotation.

Normal current carrying capacity: 15 amperes. Maximum Voltage: 250.

Contacts designed to take different size wire. For 18 to 22 wire add "-A" to symbol. For 14 to 16 wire add "-B" to symbol. (Example HHJ-A).

Symbol	Fuse Size Inches	List Price
HMJ	$\frac{1}{4}$ x $1\frac{1}{4}$	\$0.31
HMI	$\frac{1}{4}$ x 1 or $1\frac{1}{16}$	.31
HHH	$\frac{1}{4}$ x $\frac{7}{8}$	.31
HIG	$\frac{1}{4}$ x $\frac{3}{4}$	.31
HIF	$\frac{1}{4}$ x $\frac{5}{8}$	.31

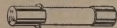
SERIES HD and HA

These holders are the same in all details and dimensions as the HH and HI series — EXCEPT that the holding ears in the bayonet knob are of molded phenolic instead of being of metal.

Symbol	Fuse Size Inches	List Price
HDJ	$\frac{1}{4} \times 1\frac{1}{4}$	\$0.23
HDI	$\frac{1}{4} \times 1$ or $1\frac{1}{16}$	.23
HDH	$\frac{1}{4} \times \frac{7}{8}$	.23
HAG	$\frac{1}{4} \times \frac{3}{4}$	.23
HAF	$\frac{1}{4} \times \frac{5}{8}$	.23

No. 9969 Spring nut for panel mounting above holders .044

FUSETRON and BUSS MATCHED FUSES and FUSEHOLDERS



Safeguard against use of wrong size and type of fuse. FUSETRON Type N are "slow-blowing" fuses for use where harmless surges or starting currents might cause ordinary fuses to open needlessly. Use in Type HN fuseholder.

BUSS Type C are "quick-blowing" fuses for fast interruption of fault current. Use in Type HC fuseholder.
Listed by Underwriters' Laboratories Inc.

FUSETRON FUSE FUSEHOLDER

Symbol & Amperes	List Price	Net Price	Symbol & Range	List Price
N 1 ¹ / ₁₀₀	\$0.51	\$0.31		
N 1 ³ / ₂	.51	.31		
N 1 ¹ / ₁₆	.37	.22		
N 1 ¹ / ₁₀	.37	.22		
N 1 ³ / ₄ ¹⁰⁰	.37	.22	HN 0 to 3 ¹ / ₄	\$0.24
N 2 ¹ / ₁₀	.37	.22		
N 1 ¹ / ₄	.37	.22		
N 3 ¹ / ₁₀	.37	.22		
N 4 ¹ / ₁₀	.37	.22	HN	
N 1 ¹ / ₂	.37	.22	3 ¹ / ₁₀ to 1 ¹ / ₂	.24
N 6 ¹ / ₁₀	.37	.22		
N 7 ¹ / ₁₀	.37	.22	HN	
N 3 ¹ / ₄	.37	.22	1 ¹ / ₂ to 3 ¹ / ₄	.24
N 8 ¹ / ₁₀	.37	.22		
N 1	.37	.22	HN	
N 1 ¹ / ₄	.33	.20	3 ¹ / ₄ to 1 ¹ / ₄	.24
N 1 ¹ / ₅ ¹⁰	.33	.20	HN	
N 1 ¹ / ₃	.33	.20	1 ¹ / ₁₀ to 1 ¹ / ₃	.24
N 2	.33	.20	HN	
N 2 ¹ / ₂	.31	.19	1 ¹ / ₄ to 2 ¹ / ₂	.24
N 2 ³ / ₁₀	.31	.19		
N 3 ¹ / ₂ ¹⁰	.31	.19	HN	
N 3 ¹ / ₂	.31	.19	2 ¹ / ₂ to 3 ¹ / ₂	.24
N 4	.31	.19	HN	
N 5	.31	.19	3 ¹ / ₂ to 5	.24
N 6 ¹ / ₄	.31	.19	HN	
N 7	.31	.19	5 to 7	.24

BUSS FUSE	FUSEHOLDER
1	1
2	2
3	3
4	4
5	5
6	6
7	7
8	8
9	9
10	10
11	11
12	12
13	13
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92	92
93	93
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95	95
96	96
97	97
98	98
99	99
100	100

Symbol & Amperes	List Price	Net Price	Symbol & Range	List Price
C 1/2	\$0.54	\$0.32		
C 1/4	.35	.21		
C 1/8	.27	.16		
C 3/16	.27	.16	HC	
C 1/4	.21	.13	0 to 3/10	\$0.24
C 3/10	.21	.13		
C 3/8	.21	.13	HC	
C 1/2	.21	.13	3/10 to 1/2	.24
C 3/4	.21	.13	HC 1/2 to 3/4	.24
C 1	.12	.072	HC	
C 1 1/4	.12	.072	3/4 to 1 1/4	.24
C 1 1/2	.12	.072	HC	
C 1 3/4	.12	.072	1 1/4 to 1 3/4	.24
C 2	.12	.072	HC	
C 2 1/2	.12	.072	1 3/4 to 2 1/2	.24
C 3	.12	.072	HC	
C 3 1/2	.15	.09	2 1/2 to 3 1/2	.24
C 4	.15	.09	HC	
C 5	.15	.09	3 1/2 to 5	.24
C 6	.15	.09	HC	
C 7	.15	.09	5 to 7	.24
C 8	.22	.13	HC	
C 10	.23	.14	7 to 10	.24

BUSS Fuses

FUSETRON DUAL-ELEMENT Fuses and Fuse Holders

for Protection of TV, Radios, Instruments and Electronic Equipment

BUSS In-the-Line or Panel Mounted FUSE and HOLDER COMBINATIONS

For voltages up to 300

Safeguards against use of wrong type and size of fuse. Fuse and knob are in one piece — when fuse opens, entire fuse-knob assembly is replaced.



Fuseholder can be mounted in-the-line — or panel mounted for which a snap-in steel clip is available for mounting on any panel $\frac{1}{8}$ to $\frac{1}{16}$ inch thick.

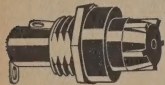
Holders come with 6 inch leads of No. 18 solid copper insulated wire, unless specified otherwise.

HLR holder safeguards against use of wrong type of fuse — (takes all ampere sizes of GLR and GMF fuses)..... List Price \$0.25

HLQ holder is size limiting type and is made in 6 fuse ranges. Takes either GLQ or GMQ fuses up to the largest ampere size marked in holder28

SPACE SAVER Panel Mounted FUSEHOLDER

For $\frac{1}{4}$ x $\frac{1}{4}$ inch fuses or $\frac{3}{32}$ x $\frac{1}{4}$ inch fuses



A compact, space saver fuseholder only $1\frac{1}{8}$ inches long — extends just $2\frac{1}{2}$ inches behind front of panel.

Takes $\frac{1}{4}$ x $\frac{1}{4}$ inch fuses and can easily be converted to take $\frac{3}{32}$ x $\frac{1}{4}$ inch fuses simply by changing the screw type knob.

Knob is designed for easy gripping even with gloves.

Fuseholder is of molded phenolic and will withstand sever vibration, shock and other environmental conditions.

Neoprene washer and zinc plated, chromate dipped steel fastening nut furnished with each holder.

Normal current carrying capacity; 15 amperes for any voltage up to 250. U/L listed.

Symbol..... List Price

HLF for $\frac{1}{4}$ x $\frac{1}{4}$ inch fuses..... \$0.62

HCL for $\frac{3}{32}$ x $\frac{1}{4}$ inch fuses..... .62

BUSS Add-On Fuse Blocks

for $\frac{1}{32}$ x $\frac{1}{2}$ inch Fuses

Single-pole fuseblock and separate end barrier assemble into unit of one or more poles. Units lock together. New poles can be added to either end of existing block. Made of molded phenolic. Marking strips to identify each circuit available.

Type	Description	List Price
3742	End-Barrier Only	\$0.18
3743	One-Pole Block Only	1.25
Marking Strip in 50 inch length		.61

When ordering, specify number of end barriers and one-pole blocks desired. Only one end barrier needed for each assembled fuse block of any number of poles.

BUSS STANDARD FUSE BLOCKS

Available from 1 to 12 poles. Have laminated black phenolic base. Clips of strong spring, Albaloy plated, highly resistant to corrosion with great gripping strength. Types 3823 and 3828 have solder terminals firmly seated in small base. Type 3833 has screw terminals on full base that provides ample insulation around terminals.

Cat. No.	Type	Base Dim.	No. Poles	List Each
For $\frac{1}{4}$ x $\frac{1}{4}$" Fuses — Solder Terminals				
3823-1		$\frac{1}{2}$ x $1\frac{1}{8}$	1	\$0.27
3823-2		$1\frac{1}{8}$ x $1\frac{1}{8}$	2	.54
3823-3		$1\frac{3}{4}$ x $1\frac{1}{8}$	3	.81
3823-4		$2\frac{3}{8}$ x $1\frac{1}{8}$	4	1.08
3823-5		3 x $1\frac{1}{8}$	5	1.35
3823-6		$3\frac{5}{8}$ x $1\frac{1}{8}$	6	1.62
3823-7		$4\frac{1}{4}$ x $1\frac{1}{8}$	7	1.89
3823-8		$4\frac{7}{8}$ x $1\frac{1}{8}$	8	2.16
3823-9		$5\frac{1}{2}$ x $1\frac{1}{8}$	9	2.43
3823-10		$6\frac{1}{8}$ x $1\frac{1}{8}$	10	2.70
3823-11		$6\frac{3}{4}$ x $1\frac{1}{8}$	11	2.97
3823-12		$7\frac{3}{8}$ x $1\frac{1}{8}$	12	3.24

For $\frac{1}{4}$ x $\frac{1}{4}$" Fuses — Solder Terminals				
3828-1		$\frac{1}{2}$ x $1\frac{1}{8}$	1	\$0.27
3828-2		$1\frac{1}{8}$ x $1\frac{1}{8}$	2	.54
3828-3		$1\frac{3}{4}$ x $1\frac{1}{8}$	3	.81
3828-4		$2\frac{3}{8}$ x $1\frac{1}{8}$	4	1.08
3828-5		3 x $1\frac{1}{8}$	5	1.35
3828-6		$3\frac{5}{8}$ x $1\frac{1}{8}$	6	1.62
3828-7		$4\frac{1}{4}$ x $1\frac{1}{8}$	7	1.89
3828-8		$4\frac{7}{8}$ x $1\frac{1}{8}$	8	2.16
3828-9		$5\frac{1}{2}$ x $1\frac{1}{8}$	9	2.43
3828-10		$6\frac{1}{8}$ x $1\frac{1}{8}$	10	2.70
3828-11		$6\frac{3}{4}$ x $1\frac{1}{8}$	11	2.97
3828-12		$7\frac{3}{8}$ x $1\frac{1}{8}$	12	3.24

For $\frac{1}{4}$ x $\frac{1}{4}$" Fuses — Screw Terminals				
3833-1		$2\frac{3}{32}$ x $2\frac{3}{8}$	1	\$0.57
3833-2		$1\frac{1}{16}$ x $2\frac{3}{8}$	2	1.14
3833-3		$2\frac{1}{32}$ x $2\frac{3}{8}$	3	1.71
3833-4		$3\frac{1}{8}$ x $2\frac{3}{8}$	4	2.28
3833-5		$4\frac{1}{16}$ x $2\frac{3}{8}$	5	2.85
3833-6		$5\frac{1}{16}$ x $2\frac{3}{8}$	6	3.42
3833-7		$6\frac{3}{32}$ x $2\frac{3}{8}$	7	3.99
3833-8		$7\frac{1}{8}$ x $2\frac{3}{8}$	8	4.56
3833-9		$8\frac{1}{32}$ x $2\frac{3}{8}$	9	5.13
3833-10		$8\frac{1}{16}$ x $2\frac{3}{8}$	10	5.70
3833-11		$9\frac{2}{32}$ x $2\frac{3}{8}$	11	6.27
3833-12		$10\frac{3}{4}$ x $2\frac{3}{8}$	12	6.84

Other standard and special fuses, fuse blocks, fuse clips and fuse holders

If the fuses, fuse blocks, fuse clips and holders shown do not fit your requirements ask for information on other types.

Fuses and fuse mountings to meet JAN and Military

specifications also are available.

If you have a special problem in protection send description or sketch giving number of circuits, type of fuse, terminals, etc., desired. We welcome such inquiries.

BUSSMANN MFG. DIVISION McGraw-Edison Co.

LIMITRON FUSES

For Protection of Semi-Conductor Rectifiers

Another Outstanding Development by the Makers of BUSS Fuses

These Limitron fuses are especially designed for the protection of semi-conductor rectifiers. They provide extremely fast opening on overload and fault currents, with a high degree of restriction of the let-thru current.

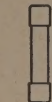
If each diode is protected by a Limitron fuse, the fuse will open very quickly when the current drawn exceeds the rating of the diode.

Thus when a short-circuit occurs in a diode the fuse opens and takes that diode out of the circuit. This protects other good diodes in the rectifier which might otherwise be damaged.

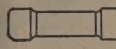
For time-current characteristic charts ask for BUSS bulletin HLS.

Test specification for all types of BUSS rectifier fuses — carry 100% of rating open at 1000 seconds on overloads between 120% and 180% of rating; open within 1 second at 250% of rating.

Symbol & Ampere	Volts	Price Each	Symbol & Ampere	Volts	Price Each
GBB 1	130	\$0.60	GBB 9	130	\$0.60
GBB 1 1/4	"	.60	GBB 10	"	.60
GBB 2	"	.60	GBB 12	65	.60
GBB 3	"	.60	GBB 15	"	.60
GBB 5	"	.60	GBB 20	"	.60
GBB 6	"	.60	GBB 25	"	.60
GBB 7	"	.60	GBB 30	"	.60
GBB 8	"	.60			



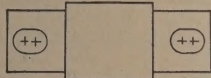
3/4" x 1 1/4"



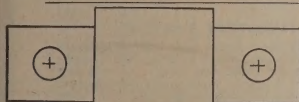
1 3/8" x 1 1/2"



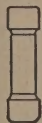
1 3/16" x 2"



c to c 2 3/16" — 1 9/32"



c to c 2 7/16"

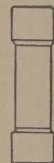


1 3/8" x 1 1/2"

Symbol & Ampere	Volts	Price Each	Symbol & Ampere	Volts	Price Each
KAA 1	130	\$0.80	KAH 35	130	\$1.97
KAA 2	"	.80	KAH 40	"	1.97
KAA 3	"	.80	KAH 45	"	1.97
KAA 4	"	.80	KAH 50	"	1.97
KAA 5	"	.80	KAH 60	"	1.97
KAA 6	"	.80	KAA 70	130	\$3.70
KAA 7	"	.80	KAA 80	"	3.70
KAA 8	"	.80	KAA 100	"	3.70
			KAA 150	"	3.70
			KAA 200	"	3.70
			KAA 225	"	3.70
			KAA 250	"	3.70
			KAA 300	"	3.70
			KAA 350	"	3.70
			KAA 400	"	3.70
			KAA 450	130	\$7.50
			KAA 500	"	7.50
			KAA 600	"	7.50
			KAA 650	"	7.50
			KAA 800	"	7.50
			KAA 1000	"	7.50

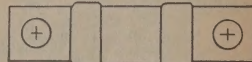
Symbol & Ampere	Volts	Price Each
KAW 1	130	\$0.80
KAW 2	"	.80
KAW 4	"	.80
KAW 5	"	.80
KAW 7	"	.80
KAW 10	"	.80
KAW 15	"	.80
KAW 20	"	.80
KAW 30	"	.80

Symbol & Ampere	Volts	Price Each
KAB 1/2	250	\$0.90
KAB 1	"	.90
KAB 2	"	.90
KAB 3	"	.90
KAB 4	"	.90
KAB 5	"	.90
KAB 6	"	.90
KAB 7	"	.90
KAB 8	"	.90
KAB 9	"	.90
KAB 10	"	.90
KAB 12	"	.90
KAB 15	"	.90
KAB 17 1/2	"	.90
KAB 20	"	.90
KAB 25	"	.90
KAB 30	"	.90



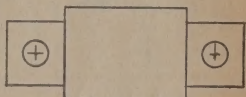
9/16" x 2"

KAB 35	250	\$3.60
KAB 40	"	3.60
KAB 45	"	3.60
KAB 50	"	3.60
KAB 60	"	3.60



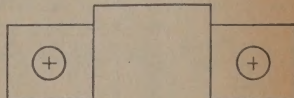
c to c 2 7/16"

KAB 70	250	\$5.50
KAB 80	"	5.50
KAB 90	"	5.50
KAB 100	"	5.50
KAB 150	"	5.50
KAB 175	"	5.50
KAB 200	"	5.50



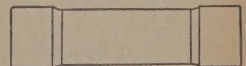
c to c 2 3/8"

KAB 225	250	\$7.10
KAB 250	"	7.10
KAB 300	"	7.10
KAB 350	"	7.10
KAB 400	"	7.10
KAB 500	"	7.10
KAB 600	"	7.10
KAB 800	"	7.10

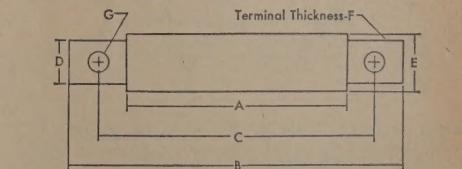


c to c 2 5/8"

KAJ 35	600	\$2.20
KAJ 40	"	2.20
KAJ 45	"	2.20
KAJ 50	"	2.20
KAJ 60	"	2.20



5/8" x 3"



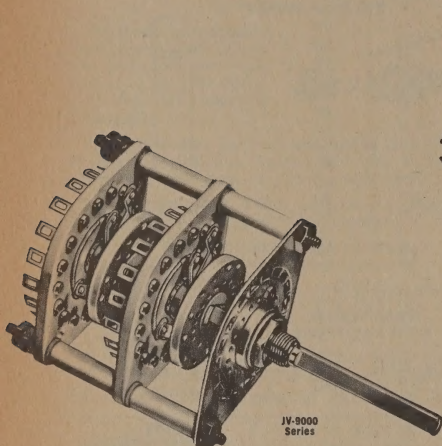
Ampere Rating	A	B	C	D	E	F	G
0-30	1 7/8	2 7/8	2 1/2	1 3/8	9/16	1/16	1/4
35-60	2 7/8	4 3/8	3 3/8	1 1/2	1 3/16	5/32	9/32
65-100	3	5	4	3 1/4	1	1/8	1 3/32
110-200	3	5 1/2	4 3/8	1 1/8	1 1/2	5/16	1 9/32
225-400	3	6 1/4	4 3/4	1 5/8	2	1/4	9/16
425-800	3 1/16	6 1/4	4 3/4	2	2 1/2	1/4	9/16

BUSSMANN MFG. DIVISION McGraw-Edison Co.

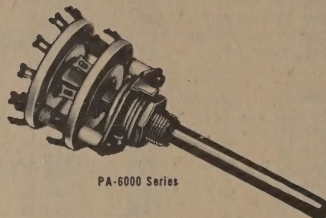
Centralab

DIVISION OF GLOBE-UNION INC.

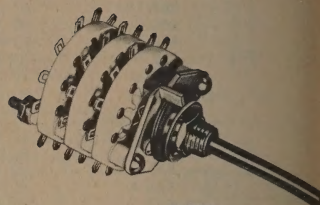
Switches, Hardware and Kits



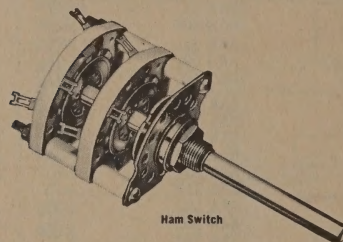
JV-9000 Series



PA-6000 Series



PS Series



Ham Switch

SERIES JV-9000 HEAVY-DUTY POWER SWITCHES

Rotary power switch insulated with Centralab steatite grade L-422 or better per MIL-I-10A. Rated: 9 amps, 110 v. AC; 11 amps, 28 v. DC; 15 ma, 2500 v. AC. Breakdown, 3000 v. AC rms between critical parts. Coin silver contacts; 20° indexing adjustable stop. Mtg. bushing 3/8" x .32 thread, 3/4" long. Sections 2 1/2" high, 2" wide, 3/4" thick. Shipping Wt. 6 oz. per section.

SERIES JV-9000 ROTARY SWITCHES

CRL Number	No. Sections	No. Poles	No. Positions
Shorting	Non-Shorting	Poles to Section	
JV-9000	JV-9001	1	1
JV-9002	JV-9003	3	1
JV-9004	JV-9005	1	2
JV-9006	JV-9007	3	2
JV-9008	JV-9009	1	3
JV-9010	JV-9011	3	3
JV-9012	JV-9013	1	4
JV-9014	JV-9015	3	4
JV-9016	JV-9017	1	5
JV-9018	JV-9019	3	5
JV-9020	JV-9021	1	6
JV-9022	JV-9023	2	1
JV-9024	JV-9025	2	2
JV-9026	JV-9027	2	3
JV-9028	JV-9029	2	4

SERIES JV-9000 SEPARATE SECTIONS

CRL Number	Number Poles	Number Positions
Shorting	Non-Shorting	
JV-8	JVN-8	3
JV-9	JVN-9	2
JV-10	JVN-10	2
JV-18	JVN-18	1

*Rotor has 17 fingers making contact with 17 contacts on stator, leaving one contact open. By cutting off unwanted fingers this section can be adapted to special circuits, e.g., one off, nine progressively shorting positions.

SERIES JV-9000 DIAL PLATES, INDEX ASSEMBLIES

CRL Nos. P-230, P-231 or P-232 — 2 3/4" Dia., etched aluminum on black background; 20° marked 1-5 for P-230, 1-17 for P-231, and 1-8 for P-232. Packaged 5 of a number. CRL No. JV-7 Index Assembly — Includes shaft, tie rods, spacers, nuts and lockwashers, adjustable stop pin, and 2" black bar knob.

INDUSTRIAL NET PRICES

CRL Number	1-4	5-9	10-24	25-49	50-99
JV-9000 thru JV-9003	\$10.50	\$ 8.75	\$ 7.50	\$ 7.40	\$ 7.00
JV-9004 thru JV-9007	17.40	14.50	13.05	12.40	11.60
JV-9008 thru JV-9011	24.30	20.25	18.23	17.32	16.20
JV-9012 thru JV-9015	31.20	26.00	23.40	22.23	20.80
JV-9016 thru JV-9019	38.10	31.75	28.58	27.15	25.40
JV-9020 and JV-9021	45.30	37.75	33.98	32.28	30.20
JV-9022 and JV-9023	10.50	8.75	7.88	7.49	7.00
JV-9024 and JV-9025	17.40	14.50	13.05	12.40	11.60
JV-9026 and JV-9027	24.30	20.25	18.23	17.32	16.20
JV-9028 and JV-9029	31.20	26.00	23.40	22.23	20.80
JV-8 thru JV-10	6.90	5.75	5.18	4.92	4.60
JVN-8 thru JVN-10	6.90	5.75	5.18	4.92	4.60
JV-18 and JVN-18	7.50	6.25	5.63	5.35	5.00
JV-7 Index	4.50	3.75	3.38	3.21	3.00
P-230 thru P-232	.21	.18	.16	.15	.14

STEATITE HAM-TYPE SWITCHES

Heavy-duty Insulation (Centralab steatite grade L-422 or better per MIL-I-10A) for ham applications. Available in 60° and 90° index. All metal parts except clips and contacts are steel**; all units have phenolic shaft through switch sections. Positive index with adjustable stop; 60° units have 2-6 active positions; 90° units, 2-4. Single hole mounting: 3/4" x .32 thread bushing 3/4" long. Shaft 3/4" dia., 2 1/4" long, full round. Rated: 350 milliamperes at 115 v. AC; 5 milliamperes at 1500 v. AC; 2.25 amp. at 28 v. DC. Unit complete includes mounting nut, lockwasher, pointer knob, and dial plate. Shipping Weight, 4 oz. per section.

**Suitably plated to resist corrosion.

NON-SHORTING HAM SWITCHES

CRL Number	No. Poles	1-4	5-9	10-24	25-49	50-99	100-249
2542	2550	1	\$2.37	\$1.98	\$1.78	\$1.69	\$1.58
2543	2551	2	3.36	2.80	2.52	2.39	2.24
2544	2552	3	4.32	3.60	3.24	3.08	2.98
2545	2553	4	5.34	4.45	4.00	3.80	3.56
2546	2554	5	6.30	5.25	4.73	4.49	4.20
XXD1	ZZD1	1	1.20	1.00	.90	.86	.80

*One pole per section. *Separate sections; use with "P" Series index assemblies.

SEPARATE INDEX ASSEMBLIES

Deluxe 90° and 60° Types; 2-piece shaft with phenolic rear, metal front; for high voltage operation; use XXD section for 90°; use ZZD section for 60°.

CRL No.	CRL No.	Rear Shaft	Suggested No. Sections
90°	60°		
P-278	P-273	2"	1 to 2
P-279	P-274	4 1/4"	3 to 4
P-280	P-275	7"	5 to 8

CRL Number Index Assembly	1-4	5-9	10-24	25-49	50-99	100-249
P-273 and P-276	\$1.38	\$1.15	\$1.04	\$0.99	\$0.92	\$0.83
P-274 and P-278	1.74	1.45	1.31	1.25	1.16	1.04
P-275 and P-280	2.16	1.80	1.62	1.54	1.44	1.40

DUAL SPEAKER SWITCH KIT

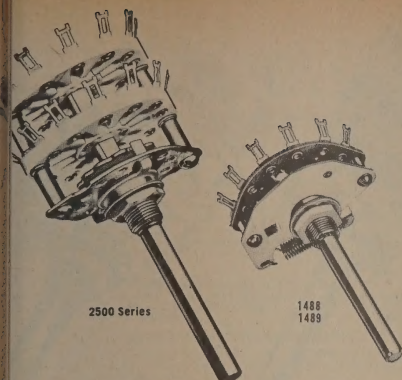
(Not Illustrated). Primarily designed for rear seat auto radio speaker applications. It is adaptable, however, to many commercial applications. Contains: 1484 switch, P-216 bracket, dial plate, P-401 knob, two self-tapping metal screws and instruction sheet.

CRL No. PK-300—
Net Each

Centralab

DIVISION OF GLOBE-UNION INC.

Rotary, Lever Switches



SERIES 2500 1 1/2" DIAMETER

ROTARY SWITCHES

Made of high quality (grade L-422 or better per MIL-1-140) Steatite insulation. Meet critical requirements of RF circuit applications. Bushing $\frac{1}{4}$ "-32 thread $\frac{1}{4}$ " long. Shaft $1\frac{1}{2}$ " long, $\frac{1}{4}$ " full round. Sections $1\frac{1}{2}$ " dia. Positive index 30° with adjustable stop. Index assembly and hardware are identical and interchangeable with those of the 1400 Series. Switches include pointer knob, nut and lockwasher. Rated: 2.75 amps, 15 v. DC; 350 ma, 115 v. AC. Breakdown, 1500 v. AC between critical parts. Shipping Weight, 5 oz. per section.

SERIES 1400 1 1/2" DIAMETER

ROTARY SWITCHES

Extremely compact design. Mounting bushings $\frac{1}{4}$ "-32 thread, $\frac{1}{4}$ " long. Shafts $1\frac{1}{2}$ " from end of bushing, $\frac{1}{4}$ " full round. Sections $1\frac{1}{2}$ " dia. Positive 30° index with adjustable stop. With mounting nut, lockwasher and pointer knob. Index assemblies and hardware are identical and interchangeable with those of 2500 series. Rated: 2.25 amp at 28 v. DC; 350 ma at 115 v. AC. Breakdown, 1000 v. AC rms. Shipping Weight, 4 oz. per section.

COMPLETE ROTARY SWITCHES

Ceramic Types		No. Sections	No. Poles	No. Positions	Phenolic Types	
CRL Number	Shorting/Non-Short.				CRL Number	Shorting/Non-Short.
2500	2501	1	1	2-6	1400	1401
2502	2503	1	2	2-11	1402	1403
2504	2505	1	2	2-5	1404	1405
2510	2511	2	2	2-6	1410	1411
2512	2513	2	2	2-11	1412	1413
2506	2507	1	3	2-3	1406	1407
2520	2521	2	3	2-10	1420	1421
2522	2523	3	3	2-11	1422	1423
		1	4	2	1408	1409
2514	2515	2	4	2-5	1414	1415
		4	4	2-6	1426	1427
		4	4	2-11	1428	1429
2516	2517	2	6	2-3	1416	1417
2524	2525	2	6	2-5	1424	1425
		2	8	2	1418	1419
		4	8	2-5	1430	1431

SEPARATE SECTIONS

Deluxe Types: 187° rotor slot, use P-270, P-271, P-272 indexes.

Ceramic Types		No. Poles	No. Positions	Phenolic Types	
CRL Number	Shorting/Non-Short.			CRL Number	Shorting/Non-Short.
TD	XD	1	2-6	AD	HD
UD	YD	1	2-11	BD	JD
RD	RDD	2	2-5	CD	KD
SD	SSD	3	2-3	DD	LD
VD	ZD	4	2	ED	MD
		4	2-3	EED	MO
		1	2-5	FO**	AO**
GGD*	FFD*	1	2-11	GD*	CCD*
PISD†		1	2-10	PID†	
NSD and PSD			Resistance Decade	ND and PD	
QSD			Capacitance Decade	QD	

*All unused contacts connected and shorted out. †9 contacts, open in full CW, progressively picked up and shorted to common with CCW rotation. ‡Combine for resistance decade switch. **Unused contacts one side of common connected and shorted out.

SEPARATE INDEX ASSEMBLIES

Deluxe Type, 1-piece shaft, 187° thick flat, use deluxe 1400 or 2500 Series sections. Units include index, pointer knob and hardware for complete assembly.

CRL No. P-270—For 1-3 sections; 2" rear shaft.

CRL No. P-271—For 3-5 sections; 4" rear shaft.

CRL No. P-272—For 5-10 sections; 8" rear shaft.

INDUSTRIAL NET PRICES

CERAMIC SWITCHES, SECTIONS

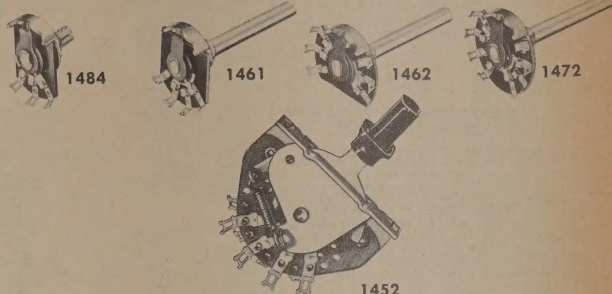
CRL Model	Net Each, Lots of				
Number	1-4	5-9	10-24	25-49	50-99 100-249
2500 thru 2507	\$2.82	\$2.35	\$2.12	\$2.01	\$1.88 \$1.69
2510 thru 2517	4.02	3.35	3.02	2.87	2.68 2.41
2520 thru 2525	5.16	4.30	3.87	3.68	3.44 3.10
All Sections	1.35	1.13	1.02	.97	.90 .81

PHENOLIC SWITCHES, SECTIONS

CRL Model	Net Each, Lots of				
Number	1-4	5-9	10-24	25-49	50-99 100-249
1400 thru 1409	\$2.52	\$2.10	\$1.89	\$1.80	\$1.68 \$1.51
1410 thru 1419	3.06	2.55	2.30	2.19	2.04 1.84
1420 thru 1425	3.90	3.25	2.93	2.78	2.60 2.34
1426 thru 1431	4.50	3.75	3.38	3.21	3.00 2.70
AD, BD, CD, DD, ED	1.05	.88	.79	.75	.70 .63
HD, JD, KD, LD, MD	1.05	.88	.79	.75	.70 .63
EED and BBD	1.35	1.13	1.02	.97	.90 .81
FD, GD, PID, ND, PD	1.05	.88	.79	.75	.70 .63
QD, AAO, CCD	1.05	.88	.79	.75	.70 .63

INDEX ASSEMBLIES

CRL Model	Net Each, Lots of				
Number	1-4	5-9	10-24	25-49	50-99 100-249
P-270	\$1.65	\$1.38	\$1.24	\$1.18	\$1.10 \$0.99
P-271	2.10	1.75	1.58	1.50	1.41 1.26
P-272	2.85	2.38	2.14	2.03	1.90 1.71



ROTARY ACTION FLAT SWITCHES

Laminated phenolic insulation. Rated: 2.25 amps, 28 v. DC; Breakdown, 1000 v. AC rms. Bushing $\frac{1}{4}$ "-32 thread, $\frac{1}{4}$ " long. Shaft $\frac{1}{4}$ " dia., $2\frac{1}{4}$ " long. Shipping Weight, 3 oz.

CRL No.	No. Poles	No. Pos.	Net Each, Lots of				
			1-4	5-9	10-24	25-49	50-99 100-249
1450†	4	2	\$1.65	\$1.38	\$1.24	\$1.18	\$1.10 \$0.99
1451†	4	2	2.40	2.00	1.80	1.72	1.60 1.44
1488‡	6	3	3.60	3.00	2.70	2.57	2.40 2.16
1489§	6	3	3.60	3.00	2.70	2.57	2.40 2.16

*Positive index. †Non-shorting. ‡Spring return. §Combination positive and spring return index.

GENERAL PURPOSE SWITCHES

Laminated phenolic insulation. Rated: 2.25 amps, 28 v. DC; Breakdown, 1000 v. AC rms. Bushing $\frac{1}{4}$ "-32 thread, $\frac{1}{4}$ " long except 1484, $\frac{1}{4}$ ". Positive index unless otherwise noted.

CRL No.	No. Poles	No. Pos.	Net Each, Lots of				
			1-4	5-9	10-24	25-49	50-99 100-249
1460	1	2	\$1.08	\$0.90	\$0.81	\$0.77	\$0.72 \$0.65
1461	1	3	1.08	.90	.81	.77	.72 .65
1462	2	2	1.08	.90	.81	.77	.72 .65
1463†	1	2	1.08	.90	.81	.77	.72 .65
1464†	2	2	1.08	.90	.81	.77	.72 .65
1465†	1	4	1.80	1.50	1.35	1.28	1.20 1.08
1472*	2	3	1.08	.90	.81	.77	.72 .65
1473	2	3	1.08	.90	.81	.77	.72 .65
1483§	1	3	.75	.63	.57	.54	.50 .45
1484‡	1	3	.90	.75	.68	.65	.60 .54
1486*	2	3	1.08	.90	.81	.77	.72 .65

*Non-shorting; all others shorting. †Spring return indexing. ‡3 active with AC-DPST line switch. §Remote speaker switch. ‡Remote auto radio speaker switch. §Remote stereo speaker switch.

LEVER ACTION SWITCHES

REPLACES PA-7000 SERIES

New nylon rotor design results in low cost for use singly or in groups. Have positive and/or spring return index design with shorting or non-shortening contacts. High quality laminated phenolic insulation, clips and contacts silver plated brass. Two hole type mounting bracket supplied with 6-32 thd tapped holes. Dimensions of single switch $1\frac{1}{2}$ " high x $\frac{3}{4}$ " wide x $1\frac{1}{2}$ " deep behind panel. Supplies with knob and mounting hardware. Rated 2.75 amps at 15 VDC, 230 MA at 115 VAC. Shipping Weight 4 oz.

CRL No.		No. Poles	No. Pos.	Index
Shorting	Non-Shorting			
1452	1454	2	3	Positive
1453	1455	2	3	Pos. Ret.
1466	1467	2	3	Pos. & Spr.
1456	1457	4	4	Pos. Ret.
1459	1458	4	2	Positive

INDUSTRIAL NET PRICES

CRL Number		Net Each, Lots of				
		1-4	5-9	10-24	25-49	50-99 100-249
1452/55	\$1.47	\$1.23	\$1.10	\$1.05	\$0.98	\$0.88
1456/59	1.62	1.35	1.22	1.15	1.08	.97
1466/67	1.47	1.23	1.10	1.05	.98	.88

Centralab

DIVISION OF GLOBE-UNION INC.

Miniature Switches, Parts

SERIES PA-2000 1 1/4" DIAMETER CERAMIC SWITCHES

Insulated with steatite (grade L-422 or better per MIL-I-10A); only 1 1/4" dia. (3/4" smaller than standard switches). Same ratings as larger switches. Features maximum voltage flashover; high Q, low loss steatite body; minimum intercut capacity; insulated front-back clips. Metal parts**, except clips and contacts. Rated: 2.75 amps, 15 v. DC, 230 ma, 115 v. AC, make-break resistive load. Breakdown, 1500 v. AC rms between critical parts. One-piece shaft for accurate indexing. Adjustable stop or continuous rotation mtg. using single hole with locating lug. Busting 1/4"-32 thread, 3/4" long. Shaft, full round 1/4" dia., x 2 1/4" long from mtg. surface. With mtg. nut, lockwasher and knob. Shpg. Wt., 3 oz. per section.

For switches to meet military specifications, write for prices and information.

**Suitably plated to resist corrosion.

SERIES PA-1000 1 1/4" DIAMETER PHENOLIC SWITCHES

Insulated with type PBE laminated phenolic per MIL-3115-B. Same size as PA-2000 ceramic switches. Rated: 2.75 amps, 15 v. DC, 230 ma, 115 v. AC. Breakdown, 1000 v. AC. Positive, adjustable stop or continuous rotation; 30° or 60° detents available. With knob. Shpg. Wt., 3 oz. per section.

Military specifications available as above.

MINIATURE ROTARY SWITCHES

No. Sect.	Total Poles	PA-2000 Ceramic			PA-1000 Phenolic		
		CR L No. PA-2000	Shgt.	Non-Shgt.	CR L No. PA-1000	Shgt.	Non-Shgt.
1	2	2000	2001	2-12	1000	1001	2-11
1	2	2002	2003	2-6	1002	1003	2-5
2	2	2004	2005	2-12	1004	1005	2-11
3	3	2006	2007	2-12	1006	1007	2-3
3	3	2008	2009	2-12	1008	1009	2-11
4	4				1010	1011	
2	4	2010	2011	2-6	1012	1013	2-5
4	4	2012	2013	2-12	1014	1015	2-11
1	5	2014	2015	2-3			
1	6	2016	2017	4-12	1016	1017	2-11
1	6	2018	2019	2-5	1018	1019	2-3
2	6	2020	2021	2-6	1020	1021	2-5
2	6	2022	2023	2-6	1022	1023	2-11
2	6	2024	2025	2-12	1024	1025	
4	8	2026	2027	2-6	1026	1027	2-5
3	9	2028	2029	2-5			
2	10	2030	2031	2-3	1028	1029	2
5	10	2032	2033	2-6	1030	1031	2-5
12	12	2034	2035	2-6			
6	12	2036	2037	2-6	1032	1033	2-5
3	15	2038	2039	2-3			
3	18	2040	2041	2			

SPECIAL CIRCUIT AND 60° INDEXING SWITCHES

No.	Indexing	CR L No. PA-2000	Shgt.	Non-Shgt.	Total Pos.
1	1	2042†	2-10	1040†	2-10
2	2	2048†	2-12		
1	2	2050†	4		
1	1	2043††	2-6	1035††	2-6
1	1	2045††	2-6	1037††	2-6

*All shorted to common in full CCW, progressively opened and dropped with CW rotation. †All open in full CCW, progressively picked up and shorted to common with CW rotation. ††Silver clips and contacts. †††For switching dual lines. ††††Indexing; 1/2" spacing between sections.

SEPARATE SECTIONS

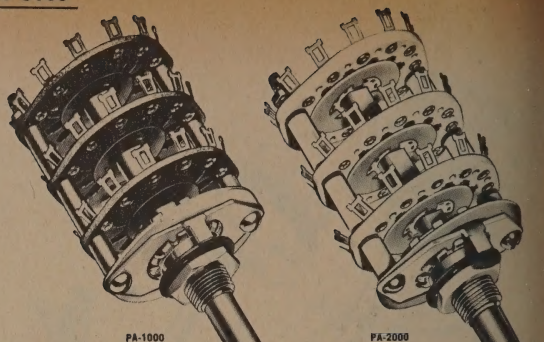
For use with 30° index assemblies No. PA-300, PA-301 and PA-302, except Nos. PA-17, PA-20 and PA-45, for use with 60° index assemblies PA-303 and PA-305.

No. Poles	Indexing	PA-2000 Ceramic			PA-1000 Phenolic		
		CR L No. PA-2000	Shgt.	Non-Shgt.	CR L No. PA-1000	Shgt.	Non-Shgt.
1	30°	0	1	2-12	30	31	2-11
2	30°	2	3	2-6	32	33	2-5
3	30°	4	5	3-4	34	35	3-3
4	30°				36	37	2
5	30°	6	7	2-3			
6	30°	8	9	2-5	38*	39*	2-3
1	30°	10*	19*	2-11	40**	41**	2-11
2	30°	12**		2-10	42†		2-10
1	30°	13†		2-10	49††		2-10
1	60°	20	17	2-6	45		2-6

*Unused contacts one side of common connected and shorted, but. **All unused contacts connected and shorted out. †Active contacts shorted to common in full CCW, progressively opened and dropped with CW rotation. ††Active contacts open in full CCW, progressively picked up and shorted to common with CW rotation.

SILVER CLIPS AND CONTACTS

CR L Number	Shorting	Non-Shorting	Index	No. of Poles	No. of Positions
PA-16		PA-21	30°	1	2-12
PA-16		PA-23	30°	1	2-6
PA-15		PA-24	30°	4	2



INDUSTRIAL NET PRICES SERIES PA-2000 CERAMIC

CR L No. PA-2000	Shgt.	Non-Shgt.	Unit Pkg., Net Each, Lots of					
			1-4	5-9	10-24	25-49	50-99	100-249
2000	2001		\$2.61	\$2.18	\$1.96	\$1.86	\$1.74	\$1.57
2002	2003		2.61	2.18	1.96	1.86	1.74	1.57
2004	2005		3.72	3.10	2.79	2.65	2.48	2.23
2006	2007		2.61	2.18	1.96	1.86	1.74	1.57
2008	2009		4.74	3.95	3.56	3.38	3.16	2.84
2010	2011		3.72	3.10	2.79	2.65	2.48	2.23
2012	2013		5.70	4.75	4.28	4.07	3.80	3.42
2014	2015		2.61	2.18	1.96	1.86	1.74	1.57
2016	2017		6.81	5.68	5.11	4.85	4.54	4.09
2018	2019		2.61	2.18	1.96	1.86	1.74	1.57
2020	2021		3.72	3.10	2.79	2.65	2.48	2.23
2022	2023		4.74	3.95	3.56	3.38	3.16	2.84
2024	2025		7.92	6.60	5.94	5.64	5.28	4.75
2026	2027		5.70	4.75	4.28	4.07	3.80	3.42
2028	2029		4.74	3.95	3.56	3.38	3.16	2.84
2030	2031		3.72	3.10	2.79	2.65	2.48	2.23
2032	2033		6.81	5.68	5.11	4.85	4.54	4.09
2034	2035		3.72	3.10	2.79	2.65	2.48	2.23
2036	2037		7.92	6.60	5.94	5.64	5.28	4.75
2038	2039		5.37	4.48	4.03	3.83	3.58	3.22
2040	2041		5.37	4.48	4.03	3.83	3.58	3.22
2042	2043		2.37	1.98	1.78	1.69	1.58	1.42
2044	2045		2.61	2.18	1.96	1.86	1.74	1.57
2046	2047		1.88	1.58	1.42	1.32	1.21	1.05
2048	2049		5.37	4.48	4.03	3.83	3.58	3.22
2050			2.61	2.18	1.96	1.86	1.74	1.57
2052			1.88	1.58	1.42	1.32	1.21	1.05
2043			2.37	1.98	1.78	1.69	1.58	1.42
2045			3.30	2.75	2.48	2.35	2.20	1.98
0			1.32	1.10	.99	.94	.88	.79
2			1.32	1.10	.99	.94	.88	.79
3			1.32	1.10	.99	.94	.88	.79
6			1.32	1.10	.99	.94	.88	.79
8			1.32	1.10	.99	.94	.88	.79
9			1.32	1.10	.99	.94	.88	.79
10			1.32	1.10	.99	.94	.88	.79
11			1.32	1.10	.99	.94	.88	.79
12			1.32	1.10	.99	.94	.88	.79
13			1.32	1.10	.99	.94	.88	.79
20			1.32	1.10	.99	.94	.88	.79
14			2.16	1.80	1.62	1.54	1.44	1.30
23			2.16	1.80	1.62	1.54	1.44	1.30
24			2.16	1.80	1.62	1.54	1.44	1.30
16			2.16	1.80	1.62	1.54	1.44	1.30

SERIES PA-1000 PHENOLIC

CR L No. PA-1000	Shgt.	Non-Shgt.	Unit Pkg., Net Each, Lots of					
			1-4	5-9	10-24	25-49	50-99	100-249
1000	1001		\$1.98	\$1.65	\$1.49	\$1.42	\$1.32	\$1.19
1002	1003		1.98	1.65	1.49	1.42	1.32	1.19
1004	1005		2.82	2.35	2.12	2.01	1.88	1.69
1006	1007		1.65	1.49	1.42	1.32	1.19	1.05
1008	1009		3.57	2.98	2.68	2.55	2.38	2.14
1010	1011		1.65	1.49	1.42	1.32	1.19	1.05
1012	1013		2.82	2.35	2.12	2.01	1.88	1.69
1014	1015		4.17	3.48	3.13	2.97	2.78	2.50
1016	1017		1.65	1.49	1.42	1.32	1.19	1.05
1018	1019		2.82	2.35	2.12	2.01	1.88	1.69
1020	1021		3.57	2.98	2.68	2.55	2.38	2.14
1022	1023		1.65	1.49	1.42	1.32	1.19	1.05
1024	1025		2.82	2.35	2.12	2.01	1.88	1.69
1026	1027		4.17	3.48	3.13	2.97	2.78	2.50
1028	1029		2.82	2.35	2.12	2.01	1.88	1.69
1030	1031		4.82	4.10	3.69	3.51	3.28	2.95
1032	1033		5.54	4.63	4.17	3.96	3.70	3.33
1034			1.98	1.65	1.49	1.42	1.32	1.19
1035			1.98	1.65	1.49	1.42	1.32	1.19
1036			2.35	1.98	1.78	1.69	1.58	1.42
1040			1.98	1.65	1.49	1.42	1.32	1.19
30	31		.96	.80	.72	.68	.64	.58
32	33		.96	.80	.72	.68	.64	.58
34	35		.96	.80	.72	.68	.64	.58
36	37		.96	.80	.72	.68	.64	.58
38	39		.96	.80	.72	.68	.64	.58
40	41		.96	.80	.72	.68	.64	.58
43			.96	.80	.72	.68	.64	.58
45			.96	.80	.72	.68	.64	.58

SEPARATE INDEX ASSEMBLIES

Index assemblies for series PA-1000 and PA-2000 interchangeable. CR L No. PA-300 Assembly—Contains PA-300 (30°) index, P-120 pointer knob, adjustable stop plate, two 1/4" spacers, two 1/2" spacers, four 3/4" spacers, 7 tie bolts, nuts, lockwashers and fiber spacer washers. Rear shaft length 2". Use with 1 to 3 sections.

CR L No. PA-301 Assembly—Contains PA-301 (30°) index, P-120 pointer knob, adjustable stop plate, two 1/4" spacers, two 1/2" spacers, four 3/4" spacers, 5 tie bolts, nuts, lockwashers and hardware. Rear shaft length 4". Use with 4 to 5 sections.

CR L No. PA-302 Assembly—Contains PA-302 (30°) index, P-120 pointer knob, adjustable stop plate, four 3/4" spacers, two 1/2" spacers, sixteen 3/4" spacers, 12 tie bolts, nuts, lockwashers and hardware. Rear shaft length 6". Use with 7 to 9 sections.

CR L No. PA-304 Assembly—Contains PA-304 (60°) index and hardware same as PA-300. Rear shaft length 2". Use with 1 to 3 sections.

CR L No. PA-305 Assembly—Contains PA-305 (60°) index and hardware same as PA-301. Rear shaft length 4". 4 to 6 sections.

CR L No.	Indexing	Net Each, Lots of					
		1-4	5-9	10-24	25-49	50-99	100-249
PA-300	30°	\$1.50	\$1.25	\$1.13	\$1.07	\$1.00	\$0.90
PA-301	30°	1.98	1.65	1.49	1.42	1.32	1.19
PA-302	30°	2.58	2.15	1.98	1.84	1.72	1.55
PA-304	2°	1.50	1.25	1.13	1.07	1.00	.90
PA-305	60°	2.10	1.75	1.58	1.50	1.40	1.26

MIL-S-3786 STYLE SRO3 MINIATURE CERAMIC SWITCHES

ned to meet MIL-S-3786. Insulated with steatite (grade L-422 or better per MIL-I-10A). Corning 200 silicone treated against surface moisture. Breakdown, 1000 v. AC rms between all parts. Coin silver clips and contacts; treated for solderability. Adjustable stops or nuous rotation on $\frac{3}{32}$ " index. Ceramic sections $\frac{1}{16}$ " dia. x .125" h. Single hole mounting locating lug at $\frac{1}{16}$ " radius. Bushing, $\frac{3}{16}$ " 32NEF-2A threaded, $\frac{3}{16}$ " lg. from mtg. surface. $\frac{1}{4}$ " dia. full round, 24" lg. from mtg. surface. With nut, lockwasher and P-120 pointer (ve lead). Ratings: 450 ma at 115 v. AC; 8 amps, 6 v. DC; 5.5 amps, 12 v. DC (make-break

SERIES PA-6000 SWITCHES

Shorting	Non-Short.	Poles to Section	No. Sections	No. Poles	No. Positions
PA-6000	PA-6001	1	1	1	2-11
PA-6002	PA-6003	2	1	2	2-5
PA-6004	PA-6005	1	2	2	2-11
PA-6006	PA-6007	3	1	3	2-3
PA-6010*	PA-6011*	4	1	4	2
PA-6012	PA-6013	2	2	4	2-5
PA-6018	PA-6019	3	2	6	2-3
PA-6024*	PA-6025*	4	2	8	2

ad, 2-position stop.

SEPARATE INDEX ASSEMBLY

No. PA-600—Used with P-100, PA-70 or PA-80 separate sections to assemble special units to 4 sections; 30° indexing. Rear shaft 2" long.

SEPARATE SECTIONS, 30° INDEXING

with PA-600 index assembly. Terminals treated for solderability. Coin silver clips and contacts. Sections $\frac{1}{16}$ " dia. Phenolic types rated 1000 v. AC rms breakdown between critical spacers. Phenolic units .062" thick; others .125" thick.

CRL No.	No. Pos.	Phenolic Secs.		Mycelac Secs.		Ceramic Secs.	
		Shorting	Non-Short.	Shorting	Non-Short.	Shorting	Non-Short.
2-11	1	PA-70	PA-61	PA-70	PA-61	PA-80	PA-81
2-5	1	PA-62	PA-63	PA-72	PA-73	PA-82	PA-83
2-3	1	PA-64	PA-65	PA-74	PA-75	PA-84	PA-85
2	1	PA-66	PA-67	PA-76	PA-77	PA-86	PA-87

INDUSTRIAL NET PRICES

CRL Number	Net Each, Lots of					
	1-4	5-9	10-24	25-49	50-99	100-249
A-6000 thru PA-6003	\$3.39	\$2.83	\$2.55	\$2.42	\$2.26	\$2.03
A-6004 and PA-6005	5.19	4.33	3.90	3.71	3.46	3.11
A-6006 thru PA-6011	3.39	2.83	2.55	2.42	2.26	2.03
A-6012 thru PA-6025	5.19	4.33	3.90	3.71	3.46	3.11
A-6019	1.50	1.25	1.13	1.07	1.00	.90
A-80 thru PA-87	1.35	1.13	1.02	.97	.90	.81
A-70 thru PA-77	1.98	1.85	1.49	1.42	1.32	1.18
A-60 thru PA-67	1.98	1.85	1.49	1.42	1.32	1.18

E: Items requiring certified test data and government source inspection are special. Prices information supplied on request.

18 AND 24 POSITION SWITCHES

minated phenolic insulation, type PBE per MIL-P-3115B. Voltage breakdown between critical is 1000 v. AC rms. Bushing $\frac{3}{16}$ " dia. x .125" lg. Shaft $\frac{1}{16}$ " dia. x .24" lg. from mtg. surface. ed 5.5 amps, 6 v. DC; 2.75 amps, 15 v. DC; 1.75 amps, 24 v. DC; 230 ma, 115 v. AC rms, .4 oz. per. Part—PA-3000 Series—18-position. Provides accurate cross indexing in h single and multiple-section versions through the use of new hill-and-dale index. Sections $\frac{1}{16}$ " w. x .25" h. x $\frac{1}{4}$ " thick. Positive 30° indexing. Adjustable stops or continuous rotation. 4000 Series—24-position. Sections $\frac{1}{16}$ " w. x 2 1/4" h. x $\frac{1}{4}$ " thick.

CRL No. PA-Short.	Non-Short.	No. Pos.	Net Each, Lots of					
			1-4	5-9	10-24	25-49	50-99	100-249
3000	3001	1	2-17	\$2.04	\$1.70	\$1.53	\$1.45	\$1.36
3002	3003	2	2-17	2.84	2.45	2.21	2.09	1.86
3004	3005	3	2-17	3.84	3.20	2.88	2.74	2.58
3006	3007	4	2-17	4.68	3.90	3.51	3.33	3.12
4000	4001	2	2-23	2.16	1.80	1.62	1.54	1.40
4002	4003	2	2-23	3.18	2.65	2.39	2.27	2.12
4004	4005	3	2-23	4.17	3.48	3.13	2.97	2.78
4006	4007	4	2-23	4.98	4.15	3.74	3.55	3.32

*Number of poles and number of sections.

SERIES PS $\frac{1}{16}$ " SUBMINIATURE ROTARY SWITCHES

blue, ceramic insulated rotary switches that are ultra-small. Weigh less than 1 oz. each, yet ive the same electrical ratings as switches much heavier and larger. Ideally suited for nd switching, transistor circuits, aircraft instruments, etc. Insulation is Dow-Corning 200 licone treated steatite (grade L-422 or better per MIL-I-10A). Size: Ceramic sections, $\frac{1}{16}$ " ick spaced $\frac{1}{4}$ " apart with ceramic spacers; spacing between front plate and first section, $\frac{1}{16}$ ". Hardware except clips, contacts, and index spring are steel. Mounting: Single hole with lated locating lug on $\frac{3}{8}$ " radius. Bushing $\frac{1}{4}$ " 32 thread, $\frac{1}{4}$ " long. Shaft $\frac{1}{16}$ " dia. x $\frac{1}{4}$ " lg. long; led: Make and break, resistance load, 550 amp at 28 volts DC, 170 milliamperes at 115 v. AC. dex: Positive 30°; fixed stop.

CRL Number	Shorting	Non-Shorting	Total Poles	No. of Positions	Poles Per Sec.	No. of Sections
PS-100	PS-101	1	1	11	1	1
PS-102	PS-103	2	1	11	1	2
PS-104	PS-105	3	1	11	1	3
PS-106	PS-107	3	2	5	2	1
PS-108	PS-109	3	3	3	3	1
PS-110	PS-111	4	1	5	2	2
PS-112	PS-113	4	2	5	2	2
PS-114	PS-115	6	1	5	2	3
PS-116	PS-117	6	2	3	3	2
PS-118	PS-119	8	2	3	3	2
PS-120	PS-121	12	2	2	4	3
PS-122	PS-123	12	2	2	4	3

Suitably packed for direct corrosion.

SERIES PS (CONTINUED) SEPARATE SECTIONS

Ceramic		Phenolic		Total Poles	No. Pos.	Fixed Stop Indexing
CRL No.		CRL No.				
Short.	Non-Short.	Short.	Non-Short.			
PS-20	PS-21	PS-40	PS-41	1	11	
PS-22	PS-23	PS-42	PS-43	2	5	Use P-501
PS-24	PS-25	PS-44	PS-45	3	3	thru P-511
PS-26	PS-27	PS-46	PS-47			

Breakdown Voltage: 750 VAC.

SEPARATE INDEX ASSEMBLIES

Designed for maximum of three sections. Includes: index and shaft assembly; P-106 knob; six $\frac{1}{16}$ " spacers; two $\frac{1}{16}$ " spacers; two $\frac{1}{16}$ " spacers; two $\frac{1}{16}$ " spacers; two $\frac{1}{16}$ " tie bolts; nuts, lockwashers, washers; and 18 plastic spacer washers.

CRL Number		No. of Positions		CRL Number		No. of Positions	
P-501	2	2	2	P-507	8	8	8
P-508	9	9	9	P-508	9	9	9
P-509	10	10	10	P-510	11	11	11
P-511	12	12	12	P-511	12	12	12

Continuous Rotation

INDUSTRIAL NET PRICES

CRL Number	Shorting	Non-Short.	Net Each, Lots of					
			1-4	5-9	10-24	25-49	50-99	100-249
PS-100	PS-101	\$4.80	\$4.00	\$3.60	\$3.42	\$3.20	\$2.88	
PS-102	PS-103	6.00	5.00	4.50	4.28	4.00	3.60	
PS-104	PS-105	4.80	4.00	3.60	3.42	3.20	2.88	
PS-106	PS-107	7.20	6.00	5.40	5.13	4.80	4.32	
PS-108	PS-109	4.80	4.00	3.60	3.42	3.20	2.88	
PS-110	PS-111	6.00	5.00	4.50	4.28	4.00	3.60	
PS-112	PS-113	4.80	4.00	3.60	3.42	3.20	2.88	
PS-114	PS-115	7.20	6.00	5.40	5.13	4.80	4.32	
PS-116	PS-117	6.00	5.00	4.50	4.28	4.00	3.60	
PS-118	PS-119	7.20	6.00	5.40	5.13	4.80	4.32	
PS-120	PS-121	6.00	5.00	4.50	4.28	4.00	3.60	
PS-122	PS-123	6.00	5.00	4.50	4.28	4.00	3.60	
PS-20 thru PS-27	2.10	1.75	1.58	1.50	1.40	1.26	1.18	
PS-40 thru PS-47	1.68	1.40	1.26	1.20	1.12	1.01	0.90	
P-501 thru P-511	1.95	1.63	1.47	1.40	1.30	1.17	1.05	

PACKAGED SWITCH HARDWARE

FOR 1400 AND 2500 SERIES SWITCHES

CRL No.	Description	Pkg. 100	CRL No.	Description	Pkg.
P-124	$\frac{1}{4}$ " metal spacer		P-145	7" screw	\$16.00
P-125	$\frac{3}{4}$ " metal spacer		P-146	9" screw	18.00
P-126	$\frac{1}{2}$ " metal spacer		P-147	Nut	1.80
P-127	$\frac{1}{2}$ " metal spacer	\$1.98	P-148	Lockwasher	1.80
P-128	1" metal spacer		P-177	Phenol. spacer wshr.	1.80
P-129	1" screw		P-181	$\frac{1}{16}$ " steel plate spacer	4.80
P-137	$\frac{1}{16}$ " screw		P-187	$\frac{1}{16}$ " steel plate spacer	4.80
P-138	2" screw		P-188	$\frac{1}{16}$ " steel plate spacer	4.80
P-139	2 1/2" screw		P-189	$\frac{1}{16}$ " steel plate spacer	4.80
P-149	$\frac{1}{4}$ " screw	8.40	P-190	$\frac{1}{16}$ " steel plate spacer	4.80
P-143	5" screw	13.40	P-192	1" steel plate spacer	8.40

FOR PA-6000 SERIES MILITARY SWITCHES

P-385	Min. MIL screw	\$8.40	P-397	Min. MIL lockwasher	\$2.20
P-396	Min. MIL nut	2.20	P-398	MIL spacer washer	2.20

FOR PS-100 SERIES SUBMINIATURE SWITCHES

P-515	$\frac{1}{16}$ " screw	\$8.40	P-520	$\frac{1}{16}$ " steel plate spacer	\$1.80
P-516	Nut	1.80	P-521	$\frac{1}{16}$ " steel plate spacer	1.80
P-517	Lockwasher	1.80	P-522	$\frac{1}{16}$ " steel plate spacer	1.80
P-518	Flat washer	1.80	P-523	$\frac{1}{16}$ " steel plate spacer	1.80
P-519	Spacer washer	1.80	P-524	$\frac{1}{16}$ " steel plate spacer	1.80

FOR PA-1000 & PA-2000 SERIES MINIATURE SWITCHES

CRL No.	Description	Pkg. 100	CRL No.	Description	Pkg. 100
P-319	Min. stop plate	\$4.80	P-348	$\frac{1}{16}$ " steel plate spacer	\$ 4.80
P-325	$\frac{1}{16}$ " steel plate spacer	3.80	P-350	$\frac{1}{16}$ " steel plate spacer	4.80
P-326	$\frac{1}{16}$ " steel plate spacer	4.80	P-352	1" steel plate spacer	4.80
P-328	$\frac{1}{16}$ " steel plate spacer	4.80	P-382	1" screw	2.80
P-329	$\frac{1}{16}$ " steel plate spacer	4.80	P-370	2" screw	4.80
P-330	$\frac{1}{16}$ " steel plate spacer	4.80	P-374	2 1/2" screw	4.80
P-332	$\frac{1}{16}$ " steel plate spacer	4.80	P-382	4" screw	8.40
P-334	$\frac{1}{16}$ " steel plate spacer	4.80	P-384	5" screw	8.40
P-336	$\frac{1}{16}$ " steel plate spacer	4.80	P-388	7" screw	12.00
P-340	$\frac{1}{16}$ " steel plate spacer	4.80	P-390	Nut	1.80
P-342	$\frac{1}{16}$ " steel plate spacer	4.80	P-392	Lockwasher	1.80
P-344	$\frac{1}{16}$ " steel plate spacer	4.80	P-394	Phen. spacer washer	1.80

CENTRAL SWITCH KITS

STANDARD KITS (FIG. A)

Convenient, ready source of stock sections, indexes and hardware. Packed in heavy gauge steel, 8-drawer Coultis cabinet, 23 1/2" w. x 9 1/2" h. x 12 1/2" d. with blue, baked enamel finish. CRL No. SWK-810 Kit—PA-1000 series miniature phenolic parts: 106 pieces of $\frac{1}{16}$ " dia. phenolic sections, 32 index assemblies with spacers, nuts, washers, knobs and dial plates. Makes up to 32 regular or special switches. Net Each \$177.00

CRL No. SWK-820 Kit—PA-2000 series miniature ceramic parts: 102 pieces of $\frac{1}{16}$ " dia. steel sections, 32 index assemblies with spacers, washers, nuts, knobs and dial plates. Makes up to 32 regular or special switches. Net Each \$210.00

JUNIOR SIZE SWITCH KITS (FIG. B)

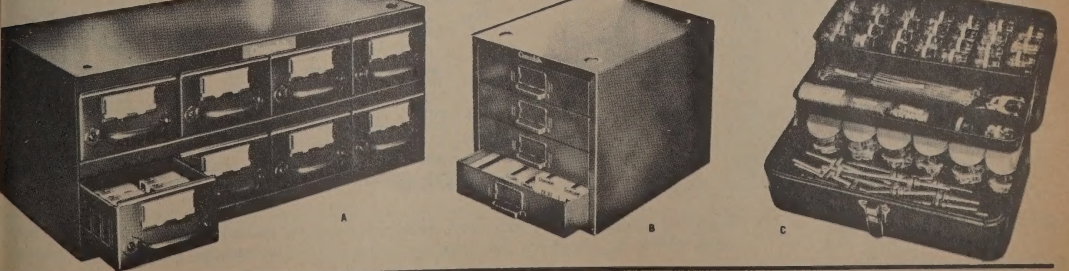
Packed in attractive light blue and gray 4-drawer steel cabinets 10 1/2" w. x 11 1/2" x 10". With balanced stock of index assemblies and separate sections for every application.

CRL No. SWK-410 Kit—PA-1000 series miniature phenolic parts: 48 phenolic $\frac{1}{16}$ " dia. sections, 13 index assemblies and hardware for making 13 phenolic regular or special switches. Net Each \$73.00

CRL No. SWK-420 Kit—PA-2000 series miniature ceramic parts: 52 ceramic $\frac{1}{16}$ " dia. switch sections, 13 complete index assemblies and hardware for making 13 ceramic regular or special switches. Net Each \$95.80

CUSTOM SWITCH KIT (FIG. C)

Contains parts and tools necessary for any prototype designer to construct the special switch he needs. Packed in metal cabinet, set up and ready to use. Makes 25 four-section miniature rotary phenolic or ceramic switches with factory precision. Contact nibbling tool can cut any contact arrangement you need. CRL No. PK-20-S Kit—Complete. Net Each \$200.00





CUTLER-HAMMER SWITCHES

See your local C-H representative for prices and accessory information.

"Commercial Application"

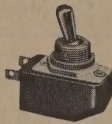
ONE HOLE MOUNTING

QUICK MAKE, QUICK BREAK A-C, D-C SWITCHES

UTILITY TYPE

They have a quick make and quick break over center arrangement on the movable contact which permits exceptionally fast contact action minimizing pitting and erosion of the contact surfaces.

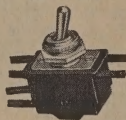
Available with screw terminals, solder lug terminals or with 6" lead wires stripped $\frac{3}{4}$ ". Bushing dia. $\frac{1}{32}$ ", bushing length $\frac{1}{32}$ ". Also available with bushing lengths of $\frac{1}{4}$ ", $\frac{1}{2}$ ", $\frac{3}{4}$ " and 1" — $\frac{3}{4}$ " and 1" bushings furnished with ball type lever only.



Cat. No. 8383



Cat. No. 8396



Cat. Nos. 8364, 8374

Cat. Nos. 8363, 8373
With Nylon Paddle
Operator

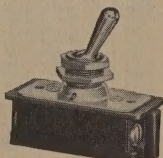
Cat. Nos. 8365, 8375

Nominal Ratings (Amps.)		Poles and Throws	Catalog No.— $\frac{1}{32}$ " Bushing Length		
250 V. A-c, D-c	125 V. A-c, D-c		Screw Terminals	Solder Lug Terminals	Wire Lead Terminals
1	3	SPDT (3 Way)	8297K8	8282K14	8292K14
3	.....		8295K8	8280K16	8290K16
3	.....		8362K7	8360K7	8361K7
3	.....		8365K7	8363K7	8364K7
3	6		8396K8	8381K8	8391K8
3	6		8372K7	8370K7	8371K7
3	6	DPDT	8375K7	8373K7	8374K7

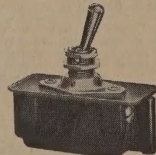
HEAVY DUTY TYPE

Screw terminals or plug-in terminals (connection made by plugging wire into switch body) are available. Plug-in type switches have $\frac{3}{32}$ " square hole to accept #14, 16 or 18 ga., stranded, tin dipped wire leads skinned $\frac{1}{32}$ ".

Bushing dia. $\frac{1}{32}$ ", bushing length $\frac{1}{32}$ ". Also available with $\frac{1}{4}$ " bushing length.

Rear view of 7343 showing
holes for plug-in wire leads.

Cat. Nos. 7320, 7321, 7322



Cat. No. 7402

Nominal Ratings (Amperes)		Max Hp Ratings (250 V.)		Poles and Throws	Catalog Number $\frac{1}{32}$ " Bushing Length	
250 V. A-c, D-c	125 V. A-c, D-c	A-c	D-c		Screw Terminals	Plug-in Terminals
5	.....	.....	.....	DPDT	8680K2	.....
5	10	$\frac{1}{2}$	$\frac{1}{2}$	w/o Center Off	.....	7347K3
5	10	$\frac{1}{2}$	$\frac{1}{2}$	SPST	.....	7343K2
5	10	$\frac{1}{2}$	$\frac{1}{2}$	DPST	.....	.....
8	16	1	1	SPST	7321K3	.....
8	16	1	1	DPST	7320K3	7443K3
10	15	1	$\frac{1}{2}$	DPST	.....	7354K3
10	15	1	$\frac{1}{2}$	SPST	7361K5	.....
10	15	1	$\frac{1}{2}$	DPST	7360K8	.....
10	15	.....	.....	DPDT	.....	.....
20	.....	2	2	w/o Center Off	8690K2	.....
20	.....	2	2	SPST	7403K2	.....
20	.....	2	2	DPST	7402K4	.....

SLOW MAKE, SLOW BREAK A-C ONLY SWITCHES
3-6, 10-15 AMP. A-c LINE

Features include: heavy duty independent springs for positive contact pressure, solid silver to silver contacts and strong substantial terminal construction.

Bushing dia. $\frac{1}{32}$ ", bushing length $\frac{1}{32}$ ". Also available with $\frac{1}{4}$ " bushing length.

Screw terminals except 7516 and 7517 which have plug-in type terminals. All switches listed except 7516 and 7517 also available with solder lug or spade type terminals.



Cat. Nos. 7503, 7505



Cat. No. 7511



Cat. No. 7560

Cat. Nos. 7516, 7517
Plastic Superstructure

Circuit Arrangement			Throws	Catalog Number Screw Terminals, Δ and 15/32" Bushing Length	
Keyway on "C" Side of Switch				1 Pole	2 Pole
3 AMP.—250 V. A-C, 6 AMP.—125 V. A-C					
ON	OFF	ON	DT	7581K4	7591K4
ON	OFF	ON *	DT	7586K4	7596K4
ON *	OFF	ON *	DT	7587K4	7597K4
ON	NONE	ON	DT	7582K4	7592K4
ON	NONE	ON *	DT	7585K4	7595K4
ON	NONE	OFF	ST	7516K5Δ	.....
ON	NONE	OFF	ST	7580K4	7590K4
ON	NONE	OFF *	ST	7584K4	7594K4
OFF	NONE	ON *	ST	7583K4	7593K4
10 AMP.—250 V. A-C, 1/2 MAX. H.P.—250 V. A-C					
ON	OFF	ON *	DT	7508K6	7568K2
ON *	OFF	ON *	DT	7509K5	7569K2
ON	NONE	ON *	DT	7510K7	7570K5
ON	NONE	OFF	ST	7517K5Δ	.....
ON	NONE	OFF *	ST	7507K4	7567K5
OFF	NONE	ON *	ST	7506K4	7566K5
10 AMP.—250 V. A-C, 15 AMP.—125 V. A-C, 3/4 MAX. H.P.—250 V. A-C					
ON	OFF	ON	DT	7502K13	7562K4
ON	NONE	ON	DT	7504K4	7564K6
ON	NONE	OFF	ST	7500K14	7560K5

*Momentary contact

 Δ 7516 and 7517 supplied with plug-in terminals only.

10-15 AMP, LINE — THREE OR FOUR POLE

Bushing dia. $\frac{1}{32}$ ". Bushing length — $\frac{1}{32}$ " (7610 and 7615 also available with $\frac{1}{4}$ " bushing).

Ratings — Three pole switches — 10 amp. — 250 V. A-c, 15 Amp. — 125 V. A-c, 1 hp poly-phase — 115-575 V. A-c. Four pole switches — 10 Amp. — 250 V. A-c, $\frac{1}{2}$ hp — 230 V. A-c.



Cat. Nos. 7690, 7697

Cat. Nos. 7610, 7618

Circuit Arrangement			Throws	Catalog Number— $\frac{1}{32}$ " Bushing Length			
 Keyway on "C" Side of Switch				3 Pole		4 Pole	
				Screw Terminals	Solder Lug Terminals	Screw Terminals	Solder Lug Terminals
ON	OFF	ON	DT	7612K2	7613K2	7692K13	7693K2
ON*	OFF	ON	DT	7613K2	7613K2	7693K2	7693K2
ON	NONE	ON	DT	7614K2	7615K2	7694K4	7695K5
ON*	NONE	ON	DT	7618K2	7618K2	7698K2	7698K2
ON*	NONE	OFF	ST	7610K2	7611K2	7690K8	7691K4
ON*	NONE	OFF	ST	7616K2	7616K2	7696K6	7697K6
ON*	NONE	OFF	ST	.....	.....	7696K6	7697K6

*Momentary contact.

See your local C-H representative for prices and accessory information.

CUTLER-HAMMER SWITCHES

"Commercial Application"



SLIDE BUTTON SWITCHES

FLUSH MOUNTING

SPST and SPDT, flush mounting slide switches. Mounting centers — 2 $\frac{1}{16}$ "—8303, 1 $\frac{1}{2}$ "—8746 and 8477, 1 $\frac{1}{8}$ " on all others.

Operating buttons are red plastic on 8476-77, black phenolic on all others.



Cat. Nos. 8476 and 8477



Cat. No. 8631



Cat. No. 8303



Cat. No. 8486

Ampere Rating		Maximum Hp Ratings A-C Only		Circuit Arrangement			Catalog Numbers			
A-C				Poles and Throw						
125 V.	250 V.	125 V.	250 V.	A B C			Screw Term.	250° Spade Term.	Solder Lug Term.	Plug-In Term.
6	3	...	...	SPST	On	None	Off	...	...	8476K1
6*	3*	...	...	SPST	On	None	Off	8303K1	...	...
7	3	...	...	SPST	On	None	Off	...	8486K1	8486K2
7	3	...	...	SPDT	On	Off	On	...	8487K1	8487K2
7	3	...	...	SPDT	On	None	On	...	8488K1	8488K2
10	5	...	...	SPST	On	None	Off	...	...	8477K1

*A-c and d-c rating.

ROCKETTE SWITCHES — A-C ONLY

3-6, 10-15 AMP., A-C LINE

Rockers can be furnished on special order in any color to harmonize with the appliance color. Standard color of rocker is white.

Switches are flush mounting.

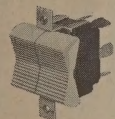
Spade terminals available in sizes .250", .205" and .187".



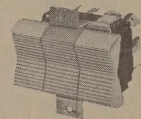
Cat. No's. 8134 & 8144



Cat. No's. 8326, 8329



Double actuator, double pole. Cat. No's. 8133 and 8143



Triple actuator, four pole. Cat. No's. 8131 and 8141

Circuit Arrangement			Poles and Throws	Number of Rockers	Catalog Numbers	
A	B	C			3 Amp. 250 V. A-C 6 Amp. 125 V. A-C	10 Amp. 250 V. A-C 15 Amp. 125 V. A-C 1/2 Hp. 250 V. A-C
ON	OFF	ON	SPDT	One	8134	8144
ON*	OFF	ON*	SPDT	One	8136	8146
ON	NONE	ON	SPST	One	8134	8144
ON*	NONE	ON*	SPST	One	8326	8329△
ON*	NONE	OFF	SPST	One	8135	8145
ON	OFF	ON	DPDT	One	8132	8142
ON	OFF	ON	DPDT	Two	8133	8143
ON*	OFF	ON*	DPDT	One	8138	8148
ON	NONE	OFF	DPST	One	8132	8132
ON	NONE	OFF	DPST	Two	8133	8133
ON*	NONE	OFF	DPST	One	8137	8147
ON	OFF	ON	4PDT	Two	8130	8140
ON	OFF	ON	4PDT	Three	8131	8141
ON	NONE	OFF	4PST	Two	8130	8140
ON	NONE	OFF	4PST	Three	8131	8141

*Momentary contact.

△Rated 1/2 hp — 250 V. A-C. Both 8326 and 8329 are nest mounted.

When ordering, specify (1) catalog number, (2) width of spade terminals and (3) poles and throws.

PUSHBUTTON SWITCHES

ONE HOLE MOUNTING—A-C, D-C AND A-C ONLY TYPES

Bushing dia. 1 $\frac{1}{32}$ ". Bushing length; 8411—1 $\frac{1}{4}$ ", 7190 and 7196—1 $\frac{1}{2}$ ", all others 1 $\frac{1}{8}$ ".

All switches are momentary contact type except 7208 and 7206 which are push push type.

8442 and 8444 have standard 1 $\frac{1}{32}$ " button.

Also available with short 1 $\frac{1}{4}$ " button.



Cat. No. 7207

Ratings (Amperes)		Poles and Throws	Contacts	Catalog Numbers			
125 V.	250 V.			Screw Term.	Solder Lug Term.	Spade Term.	Wire Leads
A-C, D-C SWITCHES							
.075	.025	SPST	N. O.	8411K12	.....	8411K11	....
.075	.025	SPST	N. C.	8411K7	8411K8	8411K10	....
6	3	SPST	N. O.	7196K1	7190K1	.....	7193K1
6	3	SPST	N. O., N. C.	7208K4	7206K4	.....	7207K4
A-C ONLY SWITCHES							
6	3	SPST	N. O.	8442K3	....	8442K2	....
15	10	SPST	N. O.	8444K3	....	8444K2	....
15†	10†	SPDT	N. O., N. C.	8446K2	....	.....	....
15	10	DPST	N. O.	8448K2	....	8448K1	....

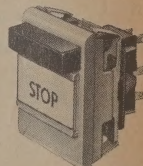
†Applies to N. O. circuit only. Rated 10 A. @ 125 V. and 5 A. @ 250 V. on N. C. circuit.

ILLUMINATED COMPUTER TYPE

Switches are of the snap in variety requiring a panel opening of 1 $\frac{1}{8}$ " high by 1 $\frac{29}{64}$ " wide (add 1 $\frac{1}{2}$ " to width per switch for ganged installation).

Indicating lamp unit (8457K2) is a 10 V. bulb. Other voltage bulbs on special order.

Tab type (.110") terminals for solder or spade connection.



Cat. Nos. 8455 & 8456K2

Nominal Ratings (Amperes)		Poles and Throws	Operation	Catalog Number	
250 V. A-C, D-C	125 V. A-C, D-C			Silver Contacts	Gold Plated Silver Contacts
3	5	DPDT	Maintained Contact—N.O.	8455K2	8456K2*
3	5	DPDT	Momentary Contact—N.O.	8455K3	8456K3*
...	...	...	Lamp unit only	8457K2	...

*Switches having gold plated silver contacts are rated at 5 millivolts — 25 microamps on dry circuit applications.

ILLUMINATED PUSHBUTTON TYPE

SPST momentary action.

Available with removable lamp or with an integral non-removable type lamp. Removable lamp types supplied with 14 V. bulbs. Integral lamp types furnished with 28 V. bulbs.

Tab type (.110") terminals for solder or spade connection.

One hole mounting — bushing dia. 1 $\frac{1}{32}$ ", bushing length 1 $\frac{1}{4}$ ". Rated 3 Amp. — 250 V. A-C, 6 Amp. — 125 V. A-C.



Unit with Legend Plate and Cap Assembly.

Contacts	Removable Lamp Type	Integral Lamp Type	Terminals
N. O.	8452K6	8452K4	.110 tab or solder lug
N. C.	8453K6	8453K5	.110 tab or solder lug
Lamp Only	8454K7	8454K5	.110 tab or solder lug

CUTLER-HAMMER, Inc.,

86 Local Sales Offices and over 150 Distributors across the nation to serve you.

CUTLER-HAMMER SWITCHES

See your local C-H representative for prices and accessory information.

"Military Application"

MIL-S-8834B

Positive Action — Environment Sealed — Screw Terminals

Standard Bat Lever

Circuit with lever in . . .			C-H Part No.	MS Part No.
UP Position	CENTER Position	DOWN Position (Keyway)		
1 POLE	ON	OFF	8836K1	MS25306-212
ON	OFF	ON	8836K9	MS25306-222
ON	NONE	NONE	8836K4	MS25306-232
ON	NONE	ON	8836K6	MS25306-242
ON	NONE	ON	8836K5	MS25306-262
ON	OFF	ON	8836K2	MS25306-272
NONE	ON	OFF	8836K7	MS25306-282
ON	NONE	OFF	8836K10	MS25306-292
OFF	NONE	ON	8836K11	MS25306-302
ON	OFF	ON	8836K3	MS25306-312

2 POLE	ON	OFF	8837K1	MS25307-212
ON	OFF	ON	8837K9	MS25307-222
ON	NONE	NONE	8837K4	MS25307-232
ON	NONE	ON	8837K6	MS25307-242
ON	NONE	ON	8837K5	MS25307-262
ON	OFF	ON	8837K2	MS25307-272
NONE	ON	OFF	8837K7	MS25307-282
ON	NONE	OFF	8837K11	MS25307-292
OFF	NONE	ON	8837K3	MS25307-312

4 POLE	ON	OFF	8838K1	MS25308-212
ON	OFF	ON	8838K9	MS25308-222
ON	NONE	NONE	8838K4	MS25308-232
ON	OFF	ON	8838K6	MS25308-242
ON	NONE	ON	8838K5	MS25308-262
ON	OFF	ON	8838K2	MS25308-272
NONE	ON	OFF	8838K7	MS25308-282
ON	NONE	OFF	8838K10	MS25308-292
OFF	NONE	ON	8838K11	MS25308-302
ON	OFF	ON	8838K3	MS25308-312

Lever Lock Type

ON	<OFF	<ON	8843K1	MS24612-A212
ON	<OFF	<ON	8843K2	MS24612-B212
ON	<OFF	<ON	8843K3	MS24612-C212
ON	<OFF	<ON	8843K4	MS24612-D212
ON	OFF	ON	8843K5	MS24612-E212
ON	NONE	<OFF	8843K6	MS24612-C222
ON	NONE	<OFF	8843K7	MS24612-E222
ON	<OFF	ON	8843K8	MS24612-C232
ON	NONE	ON	8843K9	MS24612-E232
ON	<OFF	NONE	8843K10	MS24612-B242
ON	OFF	ON	8843K11	MS24612-E242
ON	NONE	ON	8843K20	MS24612-L242
ON	<OFF	ON	8843K12	MS24612-F222
ON	<OFF	ON	8843K14	MS24612-H272
ON	<OFF	ON	8843K15	MS24612-K272
ON	NONE	OFF	8843K21	MS24612-L292
OFF	NONE	ON	8843K19	MS24612-L302
ON	OFF	ON	8843K13	MS24612-G312
ON	<OFF	ON	8843K18	MS24612-K312
ON	<OFF	ON	8843K8	MS24612-M312
ON	<OFF	ON	8843K17	MS24612-N312

2 POLE	ON	<OFF	<ON	8844K1	MS24613-A212
	<OFF	<ON	<OFF	8844K2	MS24613-B212
	<OFF	<ON	<OFF	8844K3	MS24613-C212
	<OFF	<ON	<OFF	8844K4	MS24613-D212
	<OFF	<ON	<OFF	8844K5	MS24613-E212
	NONE	<OFF	8844K9	MS24613-C222	
	NONE	<OFF	8844K10	MS24613-E222	
	NONE	<ON	8844K7	MS24613-C232	
	NONE	<ON	8844K6	MS24613-E232	
	<OFF	NONE	8844K15	MS24613-B242	
	<OFF	NONE	8844K11	MS24613-E242	
	<OFF	NONE	8844K20	MS24613-L242	
	ON	<OFF	ON	8844K12	MS24613-F222
	ON	<OFF	ON	8844K14	MS24613-H272
	ON	<OFF	ON	8844K15	MS24613-K272
	ON	NONE	OFF	8844K21	MS24613-L292
	OFF	NONE	ON	8844K19	MS24613-L302
	ON	OFF	ON	8844K13	MS24613-G312
	ON	OFF	ON	8844K18	MS24613-K312
	ON	OFF	ON	8844K8	MS24613-M312
ON	OFF	ON	8844K17	MS24613-N312	

ON	<OFF	<ON	8845K1	MS24614-A216
ON	<OFF	<ON	8845K2	MS24614-B216
ON	<OFF	<ON	8845K3	MS24614-C212
ON	<OFF	<ON	8845K4	MS24614-D212
ON	<OFF	<ON	8845K5	MS24614-E212
ON	NONE	<OFF	8845K9	MS24614-C222
ON	NONE	<OFF	8845K10	MS24614-E222
ON	NONE	<OFF	8845K7	MS24614-C232
ON	NONE	<OFF	8845K6	MS24614-E232
ON	<OFF	NONE	8845K15	MS24614-B242
ON	<OFF	NONE	8845K11	MS24614-E242
ON	NONE	ON	8845K20	MS24614-L242
ON *	<OFF	ON	8845K12	MS24614-F272
ON *	<OFF	ON	8845K14	MS24614-H272
NONE	<OFF	ON	8845K15	MS24614-K292
ON	NONE	OFF	8845K21	MS24614-L292
OFF	NONE	ON	8845K19	MS24614-L302
ON	<OFF	ON	8845K13	MS24614-G312
ON	<OFF	ON	8845K16	MS24614-K312
ON	<OFF	ON	8845K8	MS24614-M312
ON	<OFF	ON	8845K17	MS24614-N312

MIL-S-3950B

Sealed Lever — Screw Terminals

Standard Bat Lever

Circuit with lever in . . .			C-H Part No.	MS Part No.
UP Position	CENTER Position	DOWN Position (Keyway)		
1 POLE	ON	OFF	8800K16	MS35058-21
ON	OFF	ON	8801K22	MS35058-22
ON	NONE	NONE	8810K15	MS35058-23
ON	NONE	ON	8801K23	MS35058-24
ON	OFF	ON	8813K18	MS35058-25
ON	OFF	ON	8804K13	MS35058-26
ON	OFF	ON	8812K14	MS35058-27
ON	OFF	ON	8811K18	MS35058-28
ON	NONE	OFF	8813K17	MS35058-29
ON	NONE	OFF	8809K16	MS35058-31

2 POLE	ON	OFF	8820K16	MS35059-21
ON	OFF	ON	8822K20	MS35059-22
ON	NONE	NONE	8824K14	MS35059-23
ON	OFF	ON	8822K21	MS35059-24
ON	OFF	ON	8820K12	MS35059-25
ON	OFF	ON	8830K13	MS35059-26
ON	OFF	ON	8834K5	MS35059-27
ON	OFF	ON	8826K14	MS35059-28
ON	OFF	ON	8828K13	MS35059-29
ON	OFF	ON	8826K15	MS35059-30
ON	OFF	ON	8826K16	MS35059-31

4 POLE	ON	OFF	7662K7	MS25068-21
ON	OFF	ON	7664K5	MS25068-22
ON	OFF	ON	7660K13	MS25068-23
ON	OFF	ON	7668K7	MS25068-24
ON	OFF	ON	7674K5	MS25068-25
ON	OFF	ON	7672K5	MS25068-26
ON	OFF	ON	7669K9	MS25068-27
ON	OFF	ON	7670K6	MS25068-28

Lever Lock Type

ON	<OFF	<ON	8857K39	MS25126-A1
<OFF	<ON	<OFF	8857K40	MS25126-B1
<OFF	<ON	<OFF	8857K54	MS25126-B4
ON	OFF	ON	8857K41	MS25126-C1
ON	NONE	OFF	8857K42	MS25126-C2
NONE	NONE	NONE	8857K43	MS25126-C3
ON	OFF	ON	8857K44	MS25126-C4
ON	OFF	ON	8857K45	MS25126-C5
ON	OFF	ON	8857K46	MS25126-C6
ON	OFF	ON	8857K47	MS25126-C7
ON	OFF	ON	8857K48	MS25126-C8
ON	OFF	ON	8857K49	MS25126-C9
ON	OFF	ON	8857K50	MS25126-C10
ON	OFF	ON	8857K51	MS25126-C11
ON	OFF	ON	8857K52	MS25126-C12
ON	OFF	ON	8857K53	MS25126-C13
ON	OFF	ON	8857K54	MS25126-C14
ON	OFF	ON	8857K55	MS25126-C15
ON	OFF	ON	8857K56	MS25126-C16
ON	OFF	ON	8857K57	MS25126-C17
ON	OFF	ON	8857K58	MS25126-C18
ON	OFF	ON	8857K59	MS25126-C19
ON	OFF	ON	8857K60	MS25126-C20
ON	OFF	ON	8857K61	MS25126-C21
ON	OFF	ON	8857K62	MS25126-C22
ON	OFF	ON	8857K63	MS25126-C23
ON	OFF	ON	8857K64	MS25126-C24
ON	OFF	ON	8857K65	MS25126-C25
ON	OFF	ON	8857K66	MS25126-C26
ON	OFF	ON	8857K67	MS25126-C27
ON	OFF	ON	8857K68	MS25126-C28
ON	OFF	ON	8857K69	MS25126-C29
ON	OFF	ON	8857K70	MS25126-C30
ON	OFF	ON	8857K71	MS25126-C31
ON	OFF	ON	8857K72	MS25126-C32
ON	OFF	ON	8857K73	MS25126-C33
ON	OFF	ON	8857K74	MS25126-C34
ON	OFF	ON	8857K75	MS25126-C35
ON	OFF	ON	8857K76	MS25126-C36
ON	OFF	ON	8857K77	MS25126-C37
ON	OFF	ON	8857K78	MS25126-C38
ON	OFF	ON	8857K79	MS25126-C39
ON	OFF	ON	8857K80	MS25126-C40
ON	OFF	ON	8857K81	MS25126-C41
ON	OFF	ON	8857K82	MS25126-C42
ON	OFF	ON	8857K83	MS25126-C43
ON	OFF	ON	8857K84	MS25126-C44
ON	OFF	ON	8857K85	MS25126-C45
ON	OFF	ON	8857K86	MS25126-C46
ON	OFF	ON	8857K87	MS25126-C47
ON	OFF	ON	8857K88	MS25126-C48
ON	OFF	ON	8857K89	MS25126-C49
ON	OFF	ON	8857K90	MS25126-C50
ON	OFF	ON	8857K91	MS25126-C51
ON	OFF	ON	8857K92	MS25126-C52
ON	OFF	ON	8857K93	MS25126-C53
ON	OFF	ON	8857K94	MS25126-C54
ON	OFF	ON	8857K95	MS25126-C55
ON	OFF	ON	8857K96	MS25126-C56
ON	OFF	ON	8857K97	MS25126-C57
ON	OFF	ON	8857K98	MS25126-C58
ON	OFF	ON	8857K99	MS25126-C59
ON	OFF	ON	8857K00	MS25126-C60

2 POLE

ON	<OFF	<ON	8858K39	MS25126-A1
ON	<OFF	<ON	8858K40	MS25126-B1
ON	<OFF	<ON	8858K41	MS25126-B4
ON	<OFF	<ON	8858K42	MS25126-C1
ON	NONE	OFF	8858K47	MS25126-C2
ON	NONE	OFF	8858K45	MS25126-C3
ON	NONE	OFF	8858K42	MS25126-C4
ON	OFF	ON	8858K43	MS25126-E1
ON	NONE	OFF	8858K48	MS25126-F2
ON	NONE	<OFF	8858K44	MS25126-F3
ON	OFF	ON	8858K50	MS25126-F7
ON	OFF	ON	8858K51	MS25126-G11
ON	<OFF	<ON	8858K52	MS25126-H7
ON	<OFF	<ON	8858K49	MS25126-H8
NONE	OFF	ON	8858K53	MS25126-H9
ON	<OFF	<ON	8858K56	MS25126-K11
ON	OFF	ON	8858K57	MS25126-L1
ON	NONE	OFF	8858K79	MS25126-L6
ON	NONE	OFF	8858K80	MS25126-L9
ON	OFF	ON	8858K81	MS25126-L10
ON	OFF	ON	8858K86	MS25126-M1
ON	OFF	ON	8858K55	MS25126-M11

See your local C-H representative for prices and accessory information.

CUTLER-HAMMER SWITCHES

"Military Application"

Miniature—MIL-S-8834B

Positive Action—Solder Lug Terminals—Sealed Lever

Small Lever									
Circuit with lever in . . .				C-H Part No.	MS-Part No.	Navy Seal Notes (1 & 2)			
UP Position	CENTER Position	DOWN Position	Position						
1 POLE	ON	OFF	ON	8866K1	MS24655-211	1402-15-1			
	ON	OFF	OFF	8866K2	MS24655-221	1402-15-2			
	ON	OFF	NONE	8866K3	MS24655-231	1402-15-3			
	ON	OFF	NONE	8866K4	MS24655-241	1402-15-4			
2 POLE	ON	OFF	ON	8867K1	MS24655-271	1405-15-5			
	ON	OFF	OFF	8867K2	MS24655-281	1405-15-6			
	ON	OFF	NONE	8867K3	MS24655-291	1405-15-7			
	ON	OFF	NONE	8867K4	MS24655-311	1405-15-8			

Small Lever With Keyway

Small Lever With Keyway									
Circuit with lever in . . .				C-H Part No.	MS-Part No.				
UP Position	CENTER Position	DOWN Position (Keyway)	Position						
1 POLE	ON	OFF	ON	8876K11	None				
	ON	OFF	OFF	8876K12	None				
	ON	OFF	NONE	8876K13	None				
	ON	OFF	NONE	8876K14	None				
2 POLE	ON	OFF	ON	8877K11	None				
	ON	OFF	OFF	8877K12	None				
	ON	OFF	NONE	8877K13	None				
	ON	OFF	NONE	8877K14	None				

Large Bat Lever

Large Bat Lever									
Circuit with lever in . . .				C-H Part No.	MS-Part No.				
UP Position	CENTER Position	DOWN Position (Keyway)	Position						
1 POLE	ON	OFF	ON	8886K1	MS93010-211				
	ON	OFF	OFF	8886K2	MS93010-221				
	ON	OFF	NONE	8886K3	MS93010-231				
	ON	OFF	NONE	8886K4	MS93010-241				
2 POLE	ON	OFF	ON	8887K1	MS93010-271				
	ON	OFF	OFF	8887K2	MS93010-281				
	ON	OFF	NONE	8887K3	MS93010-291				
	ON	OFF	NONE	8887K4	MS93010-321				

Lever Lock Type

Lever Lock Type									
Circuit with lever in . . .				C-H Part No.	MS-Part No.				
UP Position	CENTER Position	DOWN Position (Keyway)	Position						
1 POLE	ON	OFF	ON	8856K1	MS93010-211				
	ON	OFF	OFF	8856K2	MS93010-221				
	ON	OFF	NONE	8856K3	MS93010-231				
	ON	OFF	NONE	8856K4	MS93010-241				
2 POLE	ON	OFF	ON	8857K1	MS93010-271				
	ON	OFF	OFF	8857K2	MS93010-281				
	ON	OFF	NONE	8857K3	MS93010-291				
	ON	OFF	NONE	8857K4	MS93010-321				

*Mandatory Contact.

+Indicates direction against which "lever lock" switch is locked.

(Other locking combinations on request.)

① Part numbers listed in Navy MIL Std. 242E (Navy).

② These switches are listed in NAV. SHIPS HANDBOOK of miniature parts for Electronic Equipment—Navy Ships 0967-031-1000.

③ These switches are built to MIL-S-8834 requirements but are not approved to MIL-S-8834 and MS93010. Submitted for approval November, 1965. Check latest QPL 8834 or Cutler-Hammer for latest status.

④ Small lever switch with keyway is built to MIL-S-8834 requirements, except "without lever seal".

Special Service Devices

Special Circuit—MIL-S-3950B

2 Pole—Double Throw

Sealed Lever—Screw Terminals—With Keyway

Standard Bat Lever									
Circuit, with lever in . . .				C-H Part No.	MS-Part No.	Former MS Part No.			
UP Position	CENTER Position	DOWN Position	Position						
1 POLE	ON	OFF	ON	8860K4	MS25200-4	MS25201-1			
	ON	OFF	OFF	8860K5	MS25200-5	MS25201-2			
	ON	OFF	NONE	8860K6	MS25200-6	MS25201-3			
	ON	OFF	NONE	8860K7	MS25200-7	MS25201-4			
2 POLE	ON	OFF	ON	8860K8	MS25200-8	MS25201-5			
	ON	OFF	OFF	8860K9	MS25200-9	MS25201-6			
	ON	OFF	NONE	8860K10	MS25200-10	MS25201-7			
	ON	OFF	NONE	8860K11	MS25200-11	MS25201-8			

① Screw terminals are hot tin dipped. By removing the screws from the terminals, a switch with solder lugs is formed.

② Across terminals 2-3 & 5-6

③ Across terminals 1-2 & 5-6

④ Across terminals 2-3 & 4-5

⑤ Across terminals 1-2 & 4-5

Rotary Switch—MIL-S-6807A

8 Positions (7 On-1 Off)

Rotary Switch—MIL-S-6807A									
Circuit, with lever in . . .				C-H Part No.	MS-Part No.				
UP Position	CENTER Position	DOWN Position	Position						
1 POLE	ON	OFF	ON	8876K11	None				
	ON	OFF	OFF	8876K12	None				
	ON	OFF	NONE	8876K13	None				
	ON	OFF	NONE	8876K14	None				
2 POLE	ON	OFF	ON	8877K11	None				
	ON	OFF	OFF	8877K12	None				
	ON	OFF	NONE	8877K13	None				
	ON	OFF	NONE	8877K14	None				

INDEX TO RATING TABLE

Military Switch Rating Table

Column Number	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
CURRENT CAPACITY																				
Lamp Load	15 V. D.C.	30 V. D.C.	60 V. D.C.	125 V. A.C.	15 V. D.C.	30 V. D.C.	60 V. D.C.	125 V. A.C.	15 V. D.C.	30 V. D.C.	60 V. D.C.	125 V. A.C.	15 V. D.C.	30 V. D.C.	60 V. D.C.	125 V. A.C.	15 V. D.C.	30 V. D.C.	60 V. D.C.	125 V. A.C.
Heat Filament Current	15 V. D.C.	30 V. D.C.	60 V. D.C.	125 V. A.C.	15 V. D.C.	30 V. D.C.	60 V. D.C.	125 V. A.C.	15 V. D.C.	30 V. D.C.	60 V. D.C.	125 V. A.C.	15 V. D.C.	30 V. D.C.	60 V. D.C.	125 V. A.C.	15 V. D.C.	30 V. D.C.	60 V. D.C.	125 V. A.C.
Resistance Load	15 V. D.C.	30 V. D.C.	60 V. D.C.	125 V. A.C.	15 V. D.C.	30 V. D.C.	60 V. D.C.	125 V. A.C.	15 V. D.C.	30 V. D.C.	60 V. D.C.	125 V. A.C.	15 V. D.C.	30 V. D.C.	60 V. D.C.	125 V. A.C.	15 V. D.C.	30 V. D.C.	60 V. D.C.	125 V. A.C.
Inductive Load	15 V. D.C.	30 V. D.C.	60 V. D.C.	125 V. A.C.	15 V. D.C.	30 V. D.C.	60 V. D.C.	125 V. A.C.	15 V. D.C.	30 V. D.C.	60 V. D.C.	125 V. A.C.	15 V. D.C.	30 V. D.C.	60 V. D.C.	125 V. A.C.	15 V. D.C.	30 V. D.C.	60 V. D.C.	125 V. A.C.
*Motor Load	15 V. D.C.	30 V. D.C.	60 V. D.C.	125 V. A.C.	15 V. D.C.	30 V. D.C.	60 V. D.C.	125 V. A.C.	15 V. D.C.	30 V. D.C.	60 V. D.C.	125 V. A.C.	15 V. D.C.	30 V. D.C.	60 V. D.C.	125 V. A.C.	15 V. D.C.	30 V. D.C.	60 V. D.C.	125 V. A.C.
CURRENT CARRYING CAPACITY (Any Value)																				
15 Min. of Each Hour	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50
5 Min. of Each 1/2 Hour	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75
1 Min. of Each Hour	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
5 Sec. of Each 1/2 Hour	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200
CURRENT-MAKING CAPACITY																				
Opening Ckt.	15 V. D.C.	30 V. D.C.	60 V. D.C.	125 V. A.C.	15 V. D.C.	30 V. D.C.	60 V. D.C.	125 V. A.C.	15 V. D.C.	30 V. D.C.	60 V. D.C.	125 V. A.C.	15 V. D.C.	30 V. D.C.	60 V. D.C.	125 V. A.C.	15 V. D.C.	30 V. D.C.	60 V. D.C.	125 V. A.C.
Under emergency conditions for 30 operations only	15 V. D.C.	30 V. D.C.	60 V. D.C.	125 V. A.C.	15 V. D.C.	30 V. D.C.	60 V. D.C.	125 V. A.C.	15 V. D.C.	30 V. D.C.	60 V. D.C.	125 V. A.C.	15 V. D.C.	30 V. D.C.	60 V. D.C.	125 V. A.C.	15 V. D.C.	30 V. D.C.	60 V. D.C.	125 V. A.C.
EMERGENCY CURRENT BREAKING CAPACITY	15 V. D.C.	30 V. D.C.	60 V. D.C.	125 V. A.C.	15 V. D.C.	30 V. D.C.	60 V. D.C.	125 V. A.C.	15 V. D.C.	30 V. D.C.	60 V. D.C.	125 V. A.C.	15 V. D.C.	30 V. D.C.	60 V. D.C.	125 V. A.C.	15 V. D.C.	30 V. D.C.	60 V. D.C.	125 V. A.C.
Under emergency conditions for 30 operations only	15 V. D.C.	30 V. D.C.	60 V. D.C.	125 V. A.C.	15 V. D.C.	30 V. D.C.	60 V. D.C.	125 V. A.C.	15 V. D.C.	30 V. D.C.	60 V. D.C.	125 V. A.C.	15 V. D.C.	30 V. D.C.	60 V. D.C.	125 V. A.C.	15 V. D.C.	30 V. D.C.	60 V. D.C.	125 V. A.C.

Note—The values shown for multi-pole switches are amperes per pole except for motor load. See below.

Note—Current ratings are established at 77° F.

Note—All current ratings good to 50,000 Hertz. For higher altitudes check local C-H office.

Note—AC current values good for frequencies from 50 to 400 cycles (except "A" in Ctl. 25 is 20 amp. at 50-60 cycles).

*Mandatory contact.

① These figures are maximum current ratings for 10,000 operations. Longer life (more operations) can be expected when operated at less than rated voltage.

② Motor load values for multi-pole switches are based on all poles of switches being connected in motor circuit and motor stalled current not exceeding 300% of normal running current.

Experience has shown that for voltages not in excess of 250, the current rating of aircraft switches is inversely proportional to the voltage. If the voltage is doubled, the rating is halved.

Therefore, if the 125 volt ac rating of a switch is known, it follows that on 200 volt ac, the current rating is 125/200 of 62.5% of its 125 volt ac rating.

This rule also applies to two or four pole switches used on polyphase systems. Cutler-Hammer aircraft switches carry per pole ratings and if the current and voltage handled by each pole is known, different rating combinations can be worked out. A double pole switch, however, at least twice the replacing capacity of one of its poles because there are twice the number of breaks in the circuit. Its life is only slightly more than that of one pole because breaks are not simultaneous. The first pole or break handles twice its normal rating resulting in rapid erosion of contact material.

CUTLER-HAMMER, Inc.,

The switches listed on these pages represent only a small fraction of the total number of small motor and appliance switches manufactured by C-H. Contact your local Sales Office or Distributor for more complete listings.

DABURN**DABURN ELECTRONICS & CABLE CORP.**

WIRE • CABLE • TUBING • MIL/COMM • SWITCHES • ELECTRONIC HARDWARE

ARROW H & H SWITCHES

PUSH-BUTTON, TOGGLE, ROTARY, POWER

**BALL LEVER TOGGLE SWITCHES**
1 POSITIVE ACTION — 3 AMP.

UL approved. Laminated bakelite base. Nickel plated. Ring and mounting nuts.

15/32" SLEEVE LENGTH

DABURN No.	Description	Current 125V	Rating 250V
5200	SPST		3 Amp.
5202	SPDT	3 Amp.	1 Amp.
5202A	2 circ.	3 Amp.	1 Amp.
5204	DPST	3 Amp.	1 Amp.
5206	DPDT	3 Amp.	1 Amp.

3/4" SLEEVE LENGTH — 3 AMP.

DABURN No.	Description	Current 125V	Rating 250V
5201	SPST		3 Amp.
5203	SPDT	3 Amp.	1 Amp.
5205	DPST	3 Amp.	1 Amp.
5207	DPDT	3 Amp.	1 Amp.

Std. Pkg. 25

BAT LEVER TOGGLE SWITCHES
1 POSITIVE ACTION — 3 AMP.

UL approved. Laminated, nickel finish.

15/32" SLEEVE LENGTH

DABURN No.	Description	Current 125V	Rating 250V
5220	SPST		3 Amp.
5221	SPDT	3 Amp.	1 Amp.
5221A	2 circ.	3 Amp.	1 Amp.
5222	DPST	3 Amp.	1 Amp.
5223	DPDT	3 Amp.	1 Amp.

Std. Pkg. 25

BAT LEVER TOGGLE SWITCHES
1 MOMENTARY ACTION — 3 AMP.

UL approved. Laminated type, nickel plated finish. Supplied with ring and mounting nut; solder term. SPST rated at 3 Amp.-250V, AC-DC. Others: 1 Amp.-250V, 3 Amp.-125V AC-DC.

15/32" SLEEVE LENGTH

DABURN No.	Description	Current 125V	Rating 250V
5190	SPST		Normally closed (on)
5191	SPST		Normally open (off)
5192	SPDT		Normally closed (on)
5193	DPST		Normally closed (on)
5194	DPST		Normally open (off)
5195	DPDT		Normally closed (on)

Std. Pkg. 25

INTERMEDIATE SIZE TOGGLE SWITCHES
BAT HANDLE

UL approved. Molded phenolic base. Back connected solder lugs silver plated. SPST 1 Amp.-250V, 6 Amp.-125V AC-DC. Others: 3 Amp.-250V, 6 Amp.-125V AC-DC.

15/32" SLEEVE LENGTH — 6 AMP.

DABURN No.	Description	Type Action
5280	SPST	Positive
5280A	SPST	Mom.-Norm. Off
5281	SPDT	Positive
5281A	SPDT	Momentary
5284	2 circ.	Positive
5282	DPST	Positive
5282A	DPST	Mom.-Norm. Off
5283	DPDT	Positive
5283A	DPDT	Momentary

Std. Pkg. 25

3 THREE POSITION — CENTER OFF
3 Amp.-250V; 6 Amp.-125V AC-DC

DABURN No.	Description	Type Action
5261	SPDT	—
5262	2 circ.	—
5263	DPDT	—

Std. Pkg. 25

NEW COMPACT TOGGLE SWITCH
BAT LEVER

UL approved. 1 Amp.-250V, 3 Amp.-125V AC-DC. Molded bakelite case, nickel finish. Suitable for missile, aircraft, electronic application. Solder lugs.

15/32" SLEEVE LENGTH — 3 AMP.

DABURN No.	Description	Current 125V	Rating 250V
5130	SPST		3 Amp.
5131	SPDT		1 Amp.
5232	DPST		1 Amp.
5133	DPDT		1 Amp.

Std. Pkg. 25

3 MOMENTARY CONTACT SWITCHES

UL approved. SPST normally off. 3 Amp.-250V, 6 Amp.-125V.

BAT HANDLE 15/32" SLEEVE LENGTH

DABURN No.	Description	Current 125V	Rating 250V
5241	SPST		25
5240	SPDT		25
5242	DPDT		25

STANDARD DUTY TOGGLE SWITCHES
PUSH BUTTON

Molded phenolic base 15/32 x 7/16" long slotted sleeve; Nickel finish; screw term. Complete with two hex nuts. Accept snap-on button; supplied less ins. button. 125V-12 Amp., 250V-6 Amp.

15/32" SLEEVE LENGTH — 12 AMP.

DABURN No.	Description	Type
5238	SPST	Norm. Closed (on)
5238B	SPDT	Norm. Closed (on)
5238C	2 circ.**	Norm. Closed (on)
5226	DPST*	Norm. Open (off)
5238D	DPST*	Norm. Closed (on)

**Current Rating 1/2
*1 H.P. 250V/AC-DC

Std. Pkg. 10

6 EXTRA HEAVY DUTY POWER SWITCHES**3 POSITION — POSITIVE — CENTER OFF**

UL approved. Molded base, screw terminals, slotted sleeve 3/4-32, nickel finish. Supplied with two hex nuts.

DABURN No.	Description	Circuit
5227	DPDT	3/4 H.P. 250V AC-DC
5228	3PDT	1/2 H.P. 115/230V AC 3 Phase
5229	4PDT	1/2 H.P. 115/230V AC 2 Phase

Std. Pkg. 10

7 MIDGET SIZE TOGGLE SWITCHES
POSITIVE ACTION

UL approved. SPST 3 Amp.-250V., 6 Amp.-125V. Others rated 1 Amp.-250V., 6 Amp.-125V. Molded phenolic base. Nickel finish; solder lugs.

DABURN No.	Description	Type
5244	SPST	Bat Handle
5244A	SPST	Bat Handle
5244B	SPDT	Bat Handle
5244C	SPDT	Bat Handle
5244D	2 circ.	Bat Handle
5244E	2 circ.	Bat Handle

Std. Pkg. 10

8 MOMENTARY PUSH BUTTON SWITCHES

UL approved, laminated type. 15/32 x 9/16" slotted sleeve, nickel finish. Complete with hex and knurled nut. Nickel plated. All accept snap-on button. Supplied less ins. button (order separately No. 5132). SPST 3 Amp.-250V AC-DC. Others: 1 Amp.-250V., 3 Amp.-125V AC-DC.

Quick Make and Break

DABURN No.	Description	Type
5184	SPST	Norm. Closed (on)
5184A	SPST	Norm. Open (off)
5185A	SPDT	Norm. Closed (on)
5185	SPDT	Norm. Open (off)
5186	2 circ.	Norm. Closed (on)
5231A	DPST	Norm. Closed (on)
5231	DPST	Norm. Open (off)
5131B	DPDT	Norm. Closed (on)

Std. Pkg. 25

Slow Make and Break

DABURN No.	Description	Type
5180	SPST	Norm. Closed (on)
5230	SPST	Norm. Open (off)
5224	2 circ.	Norm. Closed (on)

Std. Pkg. 25

9 MOMENTARY PUSH BUTTON SWITCHES

UL approved. Molded phenolic base, solder lugs, normally off — push to make. Nickel plated. Supplied with nuts. 1 Amp.-125V.

DABURN No.	Description	Std. Pkg.
5233	SPST	25
5234	SPDT	25
5235	DPST	25
5236	DPDT	25

10 ROTARY SWITCHES
CANOPY TYPE

UL approved. Laminated type, solder lugs, 11/32 x 15/32" sleeve, nickel plated. Supplied with hex and dress nut. Key type has key removable in off position only on SPST and DPST — Key removable both positions on all others. SPST 3 Amp.-250V AC-DC. Others: 1 Amp.-250V, 3 Amp.-125V AC-DC.

ROTARY TYPE 1 1/8" SHAFT

DABURN No.	Description
5210	SPST
5212	SPDT
5214	DPST
5216	DPDT

KEY TYPE

DABURN No.	Description
5110	SPST
5111	SPDT
5112	DPST
5113	DPDT

Std. Pkg. 12

SWITCH ACCESSORIES

DABURN No.	Description	Std. Pkg.
5208	—Name Plate—On-Off— Fits 15/32" Sleeve	100
5208A	—Name Plate—On-Off— Fits 15/32" Sleeve	100
5132	—Snap Button (Red or Black)	100
5114	—Key—Rem. Off Position	100
5115	—Key—Rem. Both Positions	100

DABURN**DABURN ELECTRONICS & CABLE CORP.**
WIRE • CABLE • TUBING • MIL/COMM • SWITCHES • ELECTRONIC HARDWARE**CUTLER-HAMMER SWITCHES**COMMERCIAL, INDUSTRIAL, AIRCRAFT AND GOVERNMENT SPEC SWITCHES
AVAILABLE FROM OUR COMPLETE WAREHOUSE STOCKS.**STANDARD DUTY —
TOGGLE SWITCHES****BACK CONNECTED LUG TERMINALS**

UL approved. Slow make and break. AC rated for long life and greater capacity. 15/32 shank length. Bakelite case 15 Amp-125 Volt, 10 Amp-250 Volt.

DABURN No.	CH No.	Description
4314	7501K13	SPST
4315	7505K4	SPDT
4316	7561K4	DPST
4317	7565K5	DPDT
4318	7611K2	3PST
4319	7615K2	3PDT

Std. Pkg. 25

BACK CONNECTED SCREW TERMINALS

DABURN No.	CH No.	Description
4320	7500K14	SPST
4321	7504K4	SPDT
4322	7560K5	DPST
4323	7564K6	DPDT
4324	7610K2	3PST
4325	7614K2	3PDT

Std. Pkg. 25

**CENTER OFF STANDARD DUTY
SWITCHES****BACK CONNECTED LUG TERMINALS**

DABURN No.	CH No.	Description
4329	7503K13	SPDT
4330	7563K4	DPDT
4331	7613K2	3PDT

Std. Pkg. 25

BACK CONNECTED SCREW TERMINALS

DABURN No.	CH No.	Description
4332	7502K13	SPDT
4333	7562K4	DPDT
4334	7612K2	3PDT

Std. Pkg. 25

**LIGHT DUTY —
TOGGLE SWITCHES****BACK CONNECTED LUG TERMINALS**

UL approved. Quick make-Quick break. Bakelite case. Small compact. 15/32" shank length.

DABURN No.	CH No.	Descr.	Current 125V	Rating 250V
4300	8280K16	SPST		3 amp
4301	8381K8	SPST	6 amp	3 amp
4302	8282K14	SPDT	3 amp	1 amp
4303	8284K14	2 circ.	3 amp	1 amp
4304	8360K7	DPST		3 amp
4305	8370K7	DPST	6 amp	3 amp
4306	8363K7	DPDT		3 amp
4307	8373K7	DPDT	6 amp	3 amp

Std. Pkg. 25

SIDE CONNECTED SCREW TERMINALS

DABURN No.	CH No.	Descr.	Current 125V	Rating 250V
4308	8295K8	SPST		3 amp
4309	8396K8	SPST	6 amp	3 amp
4310	8297K8	SPDT	3 amp	1 amp
4311	8372K7	DPST	6 amp	3 amp
4312	8365K7	DPDT		3 amp
4313	8375K7	DPDT	6 amp	3 amp

Std. Pkg. 25

WIRE LEADS — SIX INCH LONG

DABURN No.	CH No.	Descr.	Current 125V	Rating 250V
4335	8290K16	SPST		3 amp
4336	8391K8	SPST	6 amp	3 amp

**PUSH BUTTON SWITCHES
PUSH TO MAKE — PUSH TO BREAK**

UL approved AC-DC. Bakelite case. Pushing the button once closes the contacts; pushing it again opens the contacts. 11/16" shank.

DABURN No.	CH No.	Descr.	Term.
4326	7206K4	SPST	Lug
4327	7208K4	SPST	Screw
4328	7207K4	SPST	Wire

Std. Pkg. 25

**HEAVY DUTY —
TOGGLE SWITCHES**

UL approved. Quick make-quick break. Bakelite case, screw term. 15/32" shank (except #4346 11/32" shank).

Daburn No.	C-H No.	Descr.	Current 125V	Rating 250V
4341	@7321K3	SPST	12 amp	6 amp
4342	@7320K3	DPST	12 amp	6 amp
4343	*7361K5	SPST	15 amp	10 amp
4344	*7360K8	DPST	15 amp	10 amp
4345	**7402K4	DPST		20 amp
4346	8680K1	DPDT	10 amp	5 amp
4347	8690K2	DPDT	15 amp	10 amp

@ 1 HP—125/250V. * 1 1/2 HP—125/250V
** 1 1/2 HP—125V, 2 HP—250V
Std. Pkg. 12**PUSH BUTTON MOMENTARY
SWITCHES**

UL approved. 15/32" shank AC-DC. Rated at 3/4 Amp.-125V, 1/4 Amp.-250V. Door operated switches.

Daburn No.	C-H No.	Description	Term.
4337	8411K4	SP norm open	Lug
4338	8411K3	SP norm open	Screw
4339	8411K8	SP norm closed	Lug
4340	8411K7	SP norm closed	Screw

Std. Pkg. 25

Additional numbers in Cutler-Hammer Equip. Available.

(A) MISCELLANEOUS AIRCRAFT

Pistol grip trigger movement switches C-H numbers 8895, 8896, 8897.

(B) AIRCRAFT SWITCH GUARDS

Used to prevent inadvertent operation of the lever. Specify exact switch number required.

(C) BUSHING SEAL NO. 32-341

Boots for water and dust applications

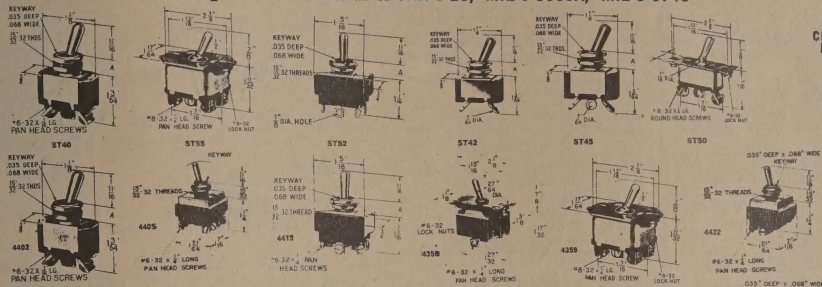
**(D) LEVER EXTENSIONS AND
ATTACHABLE TIPS**

Tips snap over standard levers and are held in place by a cup shaped spring member.

**(E) MANUAL TYPE CIRCUIT
BREAKERS****(F) ROTARY SWITCHES
per MIL-S-6807 spec**

CUTLER HAMMER SWITCHES

The Following Switches Conform to JAN-S-23, MIL-S-3950A, MIL-S-6745



DABURN No.	CH	JAN-S-23 No.	MIL-S-6745 No.	Type	Circuit Code No.
4360	8801K13	ST40A	AN3021-2	SPST	2
4361	8813K12	ST40B	AN3021-9	SPST	6
4362	8811K12	ST40C	AN3021-8	SPST	10
4363	8810K12	ST40D	AN3021-3	SPDT	3
4364	8800K13	ST40E	AN3021-1	SPDT	1
4365	8804K12	ST40F	—	SPDT	10
4366	8812K13	ST40G	AN3021-7	SPDT	9
4367	8809K13	ST40H	AN3021-5	SPDT	7

28V DC	10 Amp.	115V AC	20 Amp.	Std. Pkg.
4370 8803K6	ST42A	—	SPST	2
4371 8819K5	ST42B	—	SPST	6
4372 8817K5	ST42C	—	SPST	10
4373 8816K5	ST42D	—	SPDT	3
4374 8802K6	ST42E	—	SPDT	1
4375 8805K3	ST42F	—	SPDT	10
4376 8818K5	ST42G	—	SPDT	9
4377 8815K6	ST42H	—	SPDT	7

Nom.	Rating	Per	Pole:	15 Amp.	115V AC	20 Amp.	
28V DC						Std.	Pkr. 10
4440	8201K6	ST45A	AN3022-2	SPST	2		
4441	8213K6	ST45B	AN3022-9	SPST	6		
4442	8211K7	ST45C	AN3022-8	SPST	10		
4443	8210K7	ST45D	AN3022-3	SPDT	3		
4444	8200K7	ST45E	AN3022-1	SPDT	1		
4445	8215K4	ST45F	AN3022-11	SPDT	10		
4446	8212K6	ST45G	AN3022-7	SPDT	9		
4447	8209K6	ST45H	AN3022-5	SPDT	7		

Nom.	Rating	Per Pole:	10 Amp.-115V AC,	20 Amp.-28V DC
4380	8822K8	ST50K	AN3027-2	*DPST 2
4381	8828K5	ST50L	—	DPST 6
4382	8826K5	ST50M	—	DPST 10
4383	8824K8	ST50N	AN3027-3	*DPDT 3
4384	8820K10	ST50P	AN3027-1	*DPDT 1
4385	8830K5	ST50R	—	DPDT 10
4386	8834K4	ST50S	AN3027-7	*DPDT 9
4387	8832K4	ST50T	AN3027-8	*DPDT 7

Nom. Rating Per Pole: 10 Amp., 115V AC, 20 Amp. 28V DC.					
4390	8823K5	ST52K	—	DPST	2
4391	8829K5	ST52L	—	DPST	6
4391A	8827K5	ST52M	—	DPST	10
4392	8825K5	ST52N	—	DPDT	3
4393	8821K5	ST52P	—	DPDT	1
4394	8831K5	ST52R	—	DPDT	10
4395	8835K3	ST52S	—	DPDT	9
4396	8833K3	ST52T	—	DPDT	7

Temperature Range: -85°F to $+250^{\circ}\text{F}$

DABURN No.	CH	MS No.	Type	Circuit Code No.
4358-21	8800K16	MS35058-21	SPDT	1
4358-22	8801K22	MS35058-22	SPST	2
4358-23	8810K15	MS35058-23	SPDT	3
4358-24	881K123	MS35058-24	SPST	4
4358-25	8813K18	MS35058-25	SPST	11
4358-26	8804K13	MS35058-26	SPDT	10
4358-27	8812K14	MS35058-27	SPDT	9
4358-28	8811K18	MS35058-28	SPST	13
4358-29	8813K17	MS35058-29	SPST	6
4358-30	8811K17	MS35058-30	SPST	8
4358-31	8809K16	MS35058-31	SPDT	7

Nom. Rating Per Pole: 10 Amp.-115V AC, 20 Amp.-
28V DC.

DABURN No.	CH	MS No.	Type	Circuit Code No.
4359-21	8820K16	MS35029-21	DPD1	1
4359-22	8822K20	MS35029-22	DPST	2
4359-23	8824K14	MS35023-23	DPD	3
4359-24	8822K21	MS35029-24	DPST	4
4359-25	8828K12	MS35029-25	DPD1	11
4359-26	8830K13	MS35029-26	DPD1	10
4359-27	8834K5	MS35029-27	DPD	9
4359-28	8826K14	MS35028-28	DPST	13
4359-29	8828K13	MS35029-29	DPST	6
4359-30	8826K15	MS35029-30	DPST	8
4359-31	8832K6	MS35029-31	DPD1	7

All ST-55 Switches have sealed levers.
Nom. Rating Per Pole: 20 Amp., 115V AC, 25 Amp.,
28V DC.

DABURN	JAN S-23		MIL-S-6745		Circu Circu	
	CH	No.	No.	Type	No.	No.
4450	8701K14	ST55K	AN3023-2	DPST	2	
4451	8713K14	ST55L	AN3023-9	DPST	6	
4452	8711K14	ST55M	AN3023-8	DPST	10	
4453	8710K14	ST55N	AN3023-3	DPDT	3	
4454	8700K14	ST55P	AN3023-1	DPDT	1	
4455	8715K14	ST55R	AN3023-10	DPDT	10	
4456	8712K14	ST55S	AN3023-7	DPDT	9	
4457	8709K14	ST55T	AN3023-5	DPDT	7	
4458	8708K14	ST55U	AN3023-6	*DPDT	7	

*Equipped with added jumper across terminals to control one circuit.

- 1 On-Off-On
- 2 On-None-Off
- 3 On-None-On
- 4 On-Off-None
- 5 On-On-None
- 6 On-None-Off (Mom.)
- 7 On-Off-On (Mom.)
- 8 Off-None-On (Mom.)
- 9 On (Mom.) Off-On (Mom.)
- 10 On-None-On (Mom.)
- 11 On-Off (Mom.)-None
- 12 On (Mom.)-On-None
- 13 None-Off-On (Mom.)

Per MIL-S-3950A—Series MS 25068
Nom. Rating Per Pole: 10 Amp.-115V AC, 20 Amp.-
28V DC

DABURN	CH	MS No.	Type	Circuit Code No.
4422-1	7662K5	MS25068-1	4PDT	1
4424-3	7664K3	MS25068-3	4PDT	3
4430-5	7670K4	MS25068-5	4PDT	5
4432-7	7672K4	MS25068-7	4PDT	7
4440-10	7674K4	MS25068-10	4PDT	10
4420-11	7660K9	MS25068-11	4PST	4
4428-12	7666K7	MS25068-12	4PST	13
4426-13	7668K5	MS25068-13	4PST	11

4422-21	7662K7	MS25068-21	4PDT	1
4424-23	7664K5	MS25068-23	4PDT	3
4424-24	7660K13	MS25068-24	4PST	4
4424-25	7668K7	MS25068-25	4PST	11
4424-26	7674K5	MS25068-26	4PDT	10
4424-27	7672K5	MS25068-27	4PDT	9
4424-28	7666K9	MS25068-28	4PST	7
4424-31	7670K6	MS25068-31	4PDT	7

Std. Pkg. 10

Nom. Rating Per Pole: 15 Amp.-115V AC, 20 Amp.-28V DC

4405-21	8700K15	MS25103-21	DPDT	1
4405-23	8710K15	MS25103-23	DPDT	3
4405-24	8716K7	MS25103-24	DPST	4
4405-25	8717K5	MS25103-25	DPST	11
4405-26	8715K15	MS25103-26	DPDT	10
4405-27	8712K15	MS25103-27	DPDT	9
4405-28	8718K5	MS25103-28	DPST	13
4405-31	8709K15	MS25103-31	DPDT	7

Std. Pkg. 10

Nom. Rating Per Pole: 15 Amp.-115V AC, 20 Amp.-
28V DC.

4402	8742K10	MS25105-21	3PDT	1
4400	8740K12	MS25105-24	3PST	2
4401	8744K10	MS25105-23	3PDT	3
Std. Pkg. 10				

Nom. Rating Per Pole: 10 Amp.-115V AC, 20 Amp.-
28V DC

4415	8880K5	AN3227-1	4PDT	1
4410	8882K5	AN3227-2	4PST	2
4413	8884K5	AN3227-3	4PDT	3
4418	8887K5	AN3227-5	4PDT	7
4417	8888K5	AN3227-7	4PDT	9
4412	8886K5	AN3227-8	4PST	8
4412A	8882K6	AN3227-9	4PST	4
4412B	8886K6	AN3227-10	4PST	13

Std. Pkg. 10

DABURN**DABURN ELECTRONICS & CABLE CORP.**
CUTLER-HAMMER•CONTINENTAL-WIRT MAGNETIC PROXIMITY SWITCHES**CUTLER HAMMER POSITIVE ACTION SWITCHES****1 POLE PER MIL-S-8834****ENVIRONMENT SEALED**

DABURN No.	CH	MS No.	Type	Circuit Code No.	Net Ea.
4436-21	8836K1	MS25306-21	SPDT	1	\$6.93
4436-22	8836K9	MS25306-22	SPST	2	6.42
4436-23	8836K4	MS25306-23	SPDT	3	6.93
4436-24	8836K6	MS25306-24	SPST	4	6.42
4436-25	8836K8	MS25306-25	SPST	11	6.93
4436-26	8836K5	MS25306-26	SPDT	10	7.44
4436-27	8836K2	MS25306-27	SPDT	9	7.44
4436-28	8836K7	MS25306-28	SPST	13	6.93
4436-29	8836K10	MS25306-29	SPST	6	6.93
4436-30	8836K11	MS25306-30	SPST	8	6.93
4436-31	8836K3	MS25306-31	SPDT	7	7.44

Std. Pkg. 10

2 POLE PER MIL-S-8834**ENVIRONMENT SEALED**

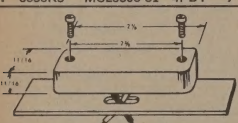
4437-21	8837K1	MS25307-21	DPDT	1	\$11.94
4437-22	8837K9	MS25307-22	DPST	2	10.92
4437-23	8837K4	MS25307-23	DPDT	3	11.94
4437-24	8837K6	MS25307-24	DPST	4	10.92
4437-25	8837K8	MS25307-25	DPST	11	11.94
4437-26	8837K5	MS25307-26	DPDT	10	12.93
4437-27	8837K2	MS25307-27	DPDT	9	12.93
4437-28	8837K7	MS25307-28	DPST	13	11.94
4437-29	8837K10	MS25307-29	DPST	6	11.94
4437-30	8837K11	MS25307-30	DPST	8	11.94
4437-31	8837K3	MS25307-31	DPDT	7	12.93

Std. Pkg. 10

4 POLE PER MIL-S-8834**ENVIRONMENT SEALED**

4438-21	8838K1	MS25308-21	4PDT	1	\$28.80
4438-22	8838K9	MS25308-22	4PST	2	28.80
4438-23	8838K4	MS25308-23	4PDT	3	28.80
4438-24	8838K6	MS25308-24	4PST	4	27.54
4438-25	8838K8	MS25308-25	4PST	11	28.80
4438-26	8838K5	MS25308-26	4PDT	10	31.02
4438-27	8838K2	MS25308-27	4PDT	9	31.02
4438-28	8838K7	MS25308-28	4PST	13	28.80
4438-29	8838K10	MS25308-29	4PST	6	28.80
4438-30	8838K11	MS25308-30	4PST	8	28.80
4438-31	8838K3	MS25308-31	4PDT	7	31.02

Std. Pkg. 10

**MAGNETIC PROXIMITY SWITCH****For Counting Position Limiting Sequence Control Mounts in Any Position**

Precision, fast acting, suitable to sequential control functions on machine tools, packaging, material handling, and similar industrial devices.

Strong, encapsulated, assures freedom from contamination by cutting oils, dust, powder, chips, etc. Operates up to hundreds of millions of cycles — temperature range —30°C to +105°C. Speed (Max) 200 cycles/sec. repeatability within .005".

Switch actuates when exposed to proximity with ferrous metals or other magnetic materials. No mechanical linkage necessary for operation. Operating sensitivity on min. 1/4" make, 1/4" break. Switch elements sealed in glass, unit is potted in epoxy resin. Case is impervious to oil, water, gas, all common solvents.

Typical actuators include indexing tables, cams, wheels, push rods, die sets, line objects such as food and beverage cans, components, parts, vehicles, rotating and swinging objects, etc.

Std. Pkg. 10

DABURN No.	Type	Electrical Load	Resistive Load	Inductive Load
4499-128	SPST Norm. Open	—128, —138	—139	—128, —138
4499-138	SPDT	—128, —138	—139	—128, —138
4499-139	SPST Norm. Open (Hi-Load)	—128, —138	—139	—128, —138

(Max. Contact Rating) —128, —138 —139 —128, —138 —139

Amps .5 .2 .1 .1 1

Volt AC or DC 125 125 125 125 125

Watts 15 50 5 15

LEVER LOCK SWITCHES**PER MIL-S-3950A**

Nom. Rating Per Pole: 10 Amp., 115V AC, 20 Amp., 28V DC.

DABURN No.	C-H	"MS" No.	Type
4487-1	8857K39	MS25125-1	SPDT
4487-2	8857K40	MS25125-2	SPDT
4487-3	8857K41	MS25125-3	SPDT
4487-4	8857K45	MS25125-4	SPDT
4487-5	8857K42	MS25125-5	SPDT
4487-6	8857K43	MS25125-6	*SPDT
4487-7	8857K43	MS25125-7	SPDT
4487-8	8857K44	MS25125-8	SPDT
4487-9	8857K49	MS25125-9	SPST

* Momentary Contact

Std. Pkg. 10

2 POLE — LEVER LOCK PER MIL-S-3950A

DABURN No.	C-H	"MS" No.	Type
4488-1	8858K39	MS25126-1	DPDT
4488-2	8858K40	MS25126-2	DPDT
4488-3	8858K41	MS25126-3	DPDT
4488-4	8858K45	MS25126-4	DPDT
4488-5	8858K42	MS25126-5	DPDT
4488-6	8858K46	MS25126-6	*DPDT
4488-7	8858K43	MS25126-7	DPDT
4488-8	8858K44	MS25126-8	DPDT
4488-9	8858K49	MS25126-9	DPST

Std. Pkg. 10

4 POLE — LEVER LOCK**PER MIL-S-3950A**

4489-1	8859K39	MS25127-1	4PDT
4489-2	8859K40	MS25127-2	4PDT
4489-3	8859K41	MS25127-3	4PDT
4489-4	8859K45	MS25127-4	4PDT
4489-5	8859K42	MS25127-5	4PDT
4489-6	8859K46	MS25127-6	*4PDT
4489-7	8859K43	MS25127-7	4PDT
4489-8	8859K44	MS25127-8	4PDT
4489-9	8859K49	MS25127-9	4PST

* Momentary Contact.

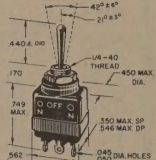
Std. Pkg. 10

MINIATURE MILITARY SWITCHES**"As Small As A Dime"****Built To MIL-S-8834 Specs**

Designed for aircraft, missile, electronic application it is extremely compact, highly reliable, power or dry circuit switch, usable as a pre-set switch in aircraft recognition systems, walkie-talkies, instrument and communication systems. Toggle lever seal and panel bushing seal for adverse environmental conditions. Gold plated contacts.

RATINGS: 3 amps., 28V DC; 1 amp., 50V DC; 2 amps., 115V AC

WEIGHT: Single pole 5.0 grams, Double pole 6.5 grams

**SINGLE POLE**

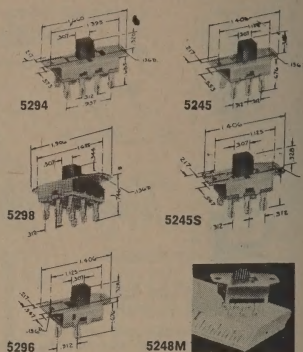
DABURN No.	C-H	Type	Circuit
4480K1	8866K1	SPDT	on-off-on
4480K2	8866K2	SPDT	Mom. on-off-Mom. on
4480K3	8866K3	SPDT	on-off-Mom. on
4480K4	8866K4	SPDT	on-none-on
4480K5	8866K5	SPST	on-off-none
4480K6	8866K6	SPST	None-off-Mom. on
4480K7	8866K7	SPST	on-none-off
4480K8	8866K8	SPDT	None-on-Mom. off

DOUBLE POLE

4481K1	8867K1	DPDT	on-off-on
4481K2	8867K2	DPDT	Mom. on-off-Mom. on
4481K3	8867K3	DPDT	on-off-Mom. on
4481K4	8867K4	DPDT	on-none-on
4481K5	8867K5	DPST	on-off-none
4481K6	8867K6	DPST	none-off-Mom. on
4481K7	8867K7	DPST	on-none-off
4481K8	8867K8	DPDT	none-on-Mom. on

Std. Pkg. 10

Additional DABURN Products in Sections 2100, 2800, 3100, and 6000

CONTINENTAL-WIRT SLIDE SWITCHES**New "Swidget" Miniature Slide Switch**
Mounting area is 1/2 of standard DPDT slide. Suitable for compact applications. UL approved.

DABURN No.	Type	Rating 125V AC-DC	Net Ea.	Std. Pkg.
5248M	DPDT	5 Amp.	\$.36	25

UL APPROVED SLIDE SWITCH STANDARD DETENT

General purpose switch for hi-fi equipment, instruments, etc. Black phenolic buttons, steel cadmium plated housing.

DABURN No.	Type	Rating at 125V DC Amp.	AC Amp.
5245	SPST	.75	.75
5246	SPDT	.75	.75
5247	DPST	.5	.5
5248	DPDT	.5	.5
5290	SPDT	6.0	1.0
5291	SPDT	6.0	1.0
5292	DPST	6.0	1.0
5293	DPDT	6.0	1.0

Std. Pkg. 25

SLIDE SWITCHES WITH DETENT CENTER OFF

5296	SPDT	.5	.5
*5297	DPDT	.5	.5

Std. Pkg. 25

3 AND 4 POSITION SLIDE SWITCH WITH DETENT

5294	SP 3 Pos.	.5	.5
5295	DP 3 Pos.	.5	.5
5295A	DP 3 Pos.	6.0	1.0
5295F	DP 4 Pos.	.5	.5

Std. Pkg. 25

3 AND 4 POLE SLIDE SWITCH WITH DETENT ALL POLES IN SAME PLANE

5298	3 PDT	.5	.5
5299*	4 PDT	.5	.5

*5299 — width of switch 1.005", short terminals. Distance from mounting surface to terminal tip .593".

Std. Pkg. 25

SLIDE SWITCH — SPRING RETURN

5245S	SPST	.5	.5
5246S	SPDT	.5	.5

Std. Pkg. 25

SLIDE SWITCH SHIELD Suitable for Electrostatic Shielding

Terminal protection. Shield is steel cadmium plated with fibre insulation.

5249	Std. Pkg.	25
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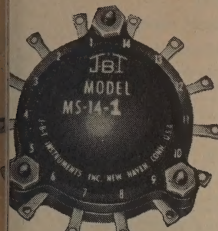
* Not UL Approved.

ROTARY SWITCHES — LAMINATED AND MOLDED

J-B-T
28th Year

J-B-T INSTRUMENTS, INC.

- INSTRUMENT AND TESTER TYPE • 14- AND 20-POSITION
- SINGLE AND MULTI-DECK • MILITARY OR COMMERCIAL



MS-14-1 Molded

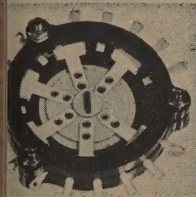
Molded — Molded models have all moving contacts enclosed to minimize dirt and corrosion.

14-Position: 13 circuits and "off" per deck in 2" circle (SS-14), or 2-3/32" circle (MS-14) with 25° 43' angular indexing. Supplied individually boxed with 1-1/4" Bar (KN-16), not on bulk orders unless specified. For details, SS-14, 1 to 6 decks, Print SK-116 Rev. B. MS-14, 1 to 6 decks, Print SK-111 Rev. D, 7 decks and over, SK-112 Rev. C.

20-Position: 19 circuits and "off" per deck in 2-3/32" circle (SS-20) or 2-5/8" (MS-20) with 18° angular indexing. Supplied individually boxed with 2" Bar (KN-16), not on bulk orders unless specified. For details, SS-20, 1 to 6 decks, Print SK-116 Rev. A. MS-20, 1 to 6 decks, Print SK-113 Rev. D, 7 decks and over, SK-114 Rev. C.

Commercial Variations: Special switches too numerous to list now are made. Typical are: laminated models with 14 or 20 live positions, no off, noted by suffix F as in SS-14-2F or SS-20-1F. Inquiries are invited.

BONDED RUGGEDIZED TYPES As indicated in the table, all molded rotary switches may be ordered with bonded construction as MS-14B or MS-20B types. Cured laminations for ruggedization, shockproofing and further enclosure. Additional dependability factor adds only approx. 1/64" and 35¢ catalog price per deck.



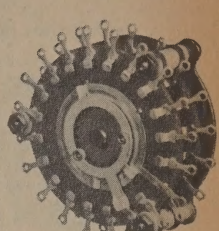
MS-20-1-6DT
Double-throw Switching
of 6 circuits per deck

6-POLE DOUBLE-THROW PER DECK —

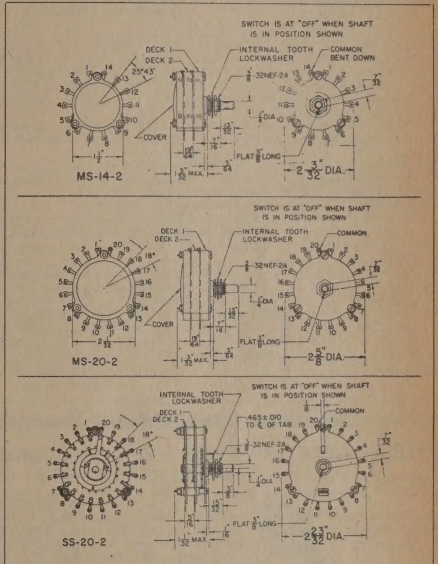
1 or 2 DECKS (DT Series). Widely used for simultaneous double-throw switching of 6 circuits per deck (18° throw). Fully enclosed — illustration shows protective cover cut-away. Circuit arrangement printed on switch front. If DTS Shorting Type, 1500 VAC R.M.S. between contacts and ground, 1000 VAC R.M.S. between contacts. See MS-20-1-6DT, MS-20-1-6DTS, and MS-20-2-6DT in table.

ETCHED DIAL PLATES

For switches below, also 20M Series on next page. Dual black finish, raised bright numerals, 2-3/4" dia.
EP-19 off thru 13.....\$23
EP-14 1 thru 14.....23
EP-19 off thru 19.....23
EP-20 1 thru 20.....23



SS-20-2 Laminated



POSITION ROTARY SWITCHES — 25° 43' INDEXING SERIES SS-14, MS-14, MS-14B, MAS-14, and MAS-14B

Circuits per Deck	Decks	Shorting or Gangs Non-Sh.	LAMINATED (SS)				MOLDED (MS)				Adjustable Stop Model	Max. Depth Behind Panel	Boxed Inc. Knob	Banded Adjustable Stop Model	Max. Depth Behind Panel	Boxed Inc. Knob
			Standard Model	Max(d) Depth Behind Panel	Boxed Inc. Knob	Standard Model	Max. Depth Behind Panel	Boxed Inc. Knob	Banded Model	Max. Depth Behind Panel						
1	1	N-S	SS-14-1	3/32"	\$2.30	MS-14-1	3/32"	\$2.45	MS-14B-1	3/32"	MAS-14-1	3/32"	\$3.10	MAS-14B-1*	1"	\$3.45
2	1	N-S	SS-14-1A*	3/32"	2.45	—	—	—	—	—	—	—	—	—	—	—
1	1	S	SS-14-1S*	3/32"	2.35	MS-14-1S*	3/32"	2.50	MS-14B-1S*	3/32"	MAS-14-1S	3/32"	3.20	MAS-14B-1S*	1"	3.55
1	1	C-S(c)	SS-14-1CS*	3/32"	2.80	—	—	—	—	—	—	—	—	—	—	—
1	2	N-S	SS-14-2	1/32"	2.90	MS-14-2	1/32"	3.10	MS-14B-2	1/32"	MAS-14-2	1/32"	3.80	MAS-14B-2	1 1/4"	4.50
2	2	N-S	SS-14-2A*	1/32"	3.20	—	—	—	—	—	—	—	—	—	—	—
1	2	S	SS-14-2S*	1/32"	3.00	MS-14-2S*	1/32"	3.20	MS-14B-2S*	1/32"	MAS-14-2S*	1/32"	3.95	MAS-14B-2S*	1 1/4"	4.65
1	3	N-S	SS-14-3	1 1/16"	3.50	MS-14-3	1 1/16"	3.75	MS-14B-3	1 1/16"	MAS-14-3	1 1/16"	4.60	MAS-14B-3*	1 1/2"	5.65
1	4	N-S	SS-14-4	1 3/16"	4.40	MS-14-4	1 3/16"	4.85	MS-14B-4	1 3/16"	MAS-14-4	1 3/16"	5.70	MAS-14B-4	1 3/4"	7.10
1	6	N-S	SS-14-6	2 1/16"	6.30	MS-14-6	2 1/16"	7.05	MS-14B-6	2 1/16"	MAS-14-6	2 1/16"	8.00	MAS-14B-6*	2 1/2"	10.10

20-POSITION ROTARY SWITCHES — 18° INDEXING SERIES SS-20, MS-20, and MS-20B

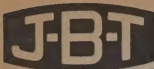
Circuits per Deck	Decks	Shorting or Gangs Non-Sh.	LAMINATED (SS)				MOLDED (MS)				Adjustable Stop Model	Max. Depth Behind Panel	Boxed Inc. Knob	Banded Adjustable Stop Model	Max. Depth Behind Panel	Boxed Inc. Knob
			Standard Model	Max(d) Depth Behind Panel	Boxed Inc. Knob	Standard Model	Max. Depth Behind Panel	Boxed Inc. Knob	Banded Model	Max. Depth Behind Panel						
1	1	N-S	SS-20-1	3/32"	4.00	MS-20-1	3/32"	3.10	MS-20B-1	3/32"	—	—	—	—	—	—
2	1	N-S	SS-20-1A*	3/32"	4.15	—	—	—	—	—	—	—	—	—	—	—
6	1	N-S	—	—	—	MS-20-1-6DT	3/32"	3.90	MS-20B-1-6DT*	3/32"	4.25	—	—	—	—	—
6	1	S	—	—	—	MS-20-1-6DTS	3/32"	4.00	MS-20B-1-6DTS*	3/32"	4.35	—	—	—	—	—
1	1	S	SS-20-1S*	3/32"	4.05	MS-20-1S	3/32"	3.15	MS-20B-1S*	3/32"	3.50	—	—	—	—	—
1	2	N-S	SS-20-2	1/32"	4.75	MS-20-2	1/32"	3.50	MS-20B-2	1/32"	4.60	—	—	—	—	—
2	2	N-S	SS-20-2A*	1/32"	5.85	MS-20-2-6DT	1/32"	5.50	MS-20B-2-6DT*	1/32"	6.20	—	—	—	—	—
1	2	S	SS-20-2S*	1/32"	4.75	MS-20-2S	1/32"	4.00	MS-20B-2S*	1/32"	4.70	—	—	—	—	—
1	3	N-S	SS-20-3	1 1/16"	5.85	MS-20-3	1 1/16"	5.00	MS-20B-3*	1 1/16"	6.05	—	—	—	—	—
1	4	N-S	SS-20-4	1 3/16"	7.10	MS-20-4	1 3/16"	6.20	MS-20B-4	1 3/16"	7.60	—	—	—	—	—
1	6	N-S	SS-20-6	2 1/16"	9.40	MS-20-6	2 1/16"	8.60	MS-20B-6	2 1/16"	10.70	—	—	—	—	—

NOTES TO TABLES

- * Standard items, but not regularly stocked; check with your electronic parts distributor.
- (a) 5 positions include 4 "live" and 1 "off."
- (b) 6 positions include 5 "live" and 1 "off."
- (c) Complete shorting — all contacts shorted except one in use.
- (d) Dimensions given are for continuous rotation switches. On Standard SS-14 Models only, adjustable stops are also furnished, and when used, increase depth behind panel 1/2" and decrease effective bushing length 3/4".

Non-Shorting — Break before make Shorting — Make before break

Prices Net, F.O.B. Factory: Individually Boxed, Domestic Packed, Effective January 1, 1966



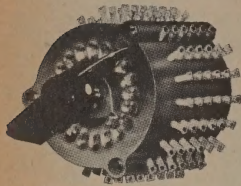
28th Year

MULTI-POLE AND LEVER TYPE SWITCHES

J-B-T INSTRUMENTS, INC.

NEW MULTI-POLE MOLDED ROTARY SWITCHES, SERIES 20M.

- Superior Molded Material
- All Models Bonded & Ruggedized
- Panel Seal Available



Front View Showing Panel Locator which is Normally at 3 o'clock Position.



Rear View with Back Cover Cut Away to Show 4-Pole Construction with 4 Live Switching Contacts.

Although the new 20M-Series is 1/4" longer behind the panel than the 20-position molded switches described on the preceding page, the two styles are otherwise interchangeable in dimensions. Providing 19 live positions and off, the 20M-offers these additional features:

1. **Increased Versatility of Circuitry**—up to and including four poles per deck;
2. **Upgraded Insulation Resistance and Dielectric Qualities**—by use of melamine stators and rotors (or other MIL-M-14 molded materials when specially ordered);
3. **Built-in Panel Locator or Non-Turn Device**;
4. **Extended Switch Life**—new contact design with rotor brushes of phosphor bronze heavily silver-plated;
5. **Bonded and Ruggedized Construction**;
6. **Radial Alignment of Multi-Pole Contact Surfaces**—by means of newly-designed double-ball detent with diaphragm-type springs.

VARIATIONS OF 20M—Please request SK-142 for full dimensions and circuit diagrams. Besides the condensed listing in the accompanying table, various combinations of **shorting and non-shorting contacts** for each deck may be made. **Fixed stops** are built-in but may be provided for single-pole switches when specially ordered. **Over six decks** can be supplied for a reasonable number of poles; extra decks add 5/16" per deck and 5/16" per switch for rear support SU-3. **Ring-contact** (suffix R) may be specially ordered.

PANEL SEAL PS20M-SERIES—Sealed shaft and bushing meet the requirements of MIL-S-3786A for sealing. For details ask for SK-143. The seal (prefix PS) adds \$1.75 per switch to catalog price.

SPECIFICATIONS AND TEST DATA—Available on request.

No. of Decks	Depth Behind Panel	Poles Per Deck	Model Number	Circuitry Per Pole	Rotation-Positions*	Boxed Incl. Knob
1	1-3/16	1	20M-1201N	19 live, 1 off	Continuous	\$3.00
		1	20M-1191N	19 live, no off	1 thru 19	3.00
		2	20M-2101N	9 live, 1 off	20 thru 9	4.50
		3	20M-3051N	4 live, 1 off	20 thru 4	4.50
2	1 1/2	1	20M-1202N	19 live, 1 off	Continuous	5.00
		2	20M-2102N	9 live, 1 off	20 thru 9	5.50
		3	20M-3052N	4 live, 1 off	20 thru 4	6.50
		4	20M-4052N	4 live, 1 off	20 thru 4	7.20
3	1-13/16	1	20M-1203N	19 live, 1 off	Continuous	6.25
		2	20M-2103N	9 live, 1 off	20 thru 9	7.45
		3	20M-3053N	4 live, 1 off	20 thru 4	8.50
		4	20M-4053N	4 live, 1 off	20 thru 4	9.55
4	2-3/16	1	20M-1204N	19 live, 1 off	Continuous	7.70
		2	20M-2104N	9 live, 1 off	20 thru 9	9.30
		3	20M-3054N	4 live, 1 off	20 thru 4	10.70
		4	20M-4054N	4 live, 1 off	20 thru 4	12.10
6	2-13/16	1	20M-1206N	19 live, 1 off	Continuous	10.80
		2	20M-2106N	9 live, 1 off	20 thru 9	13.20

* See MS-20 drawing on preceding page for location of positions.

Notes: (1) Non-shorting (N) type — (break-before-make) — is shown. For shorting type (S), add \$.05 per pole per deck to catalog price. Example: 3 pole, 3 deck 20M-3053S is \$8.95.

(2) Switch with all live positions per pole or less than maximum live positions can be provided by fixed stops.

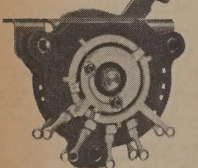
(3) Off position is in extreme ccw position from knob end.

(4) **Panel Seal** is available including shaft seal within bushing. Use suffix PS. Example: PS20M-1203N. See Print SK-143.

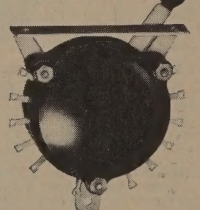
LEVER ACTION SWITCHES — 6, 5, 4, 3, and 2-Position — LAMINATED, MOLDED, & SUB-MINIATURE

LAMINATED 3- AND 4-POSITION, POSITIVE INDEXING. Derived from J-B-T SS-14 instrument-type rotaries, these switches are specified for inspection equipment, communications systems, control consoles, and similar uses. 4-position are interchangeable with 3-position except in length of throw—mounting holes for both, 1 1/8" between centers. Individually-boxed switches come with KN-17 knob; bulk shipments, without knobs. **SINGLE DECK**—spacing between centers: recommended, 3/4"; minimum, 9/16". **TWO DECK**—spacing: recommended, 15/16"; minimum, 13/16". 3/8" between decks matches TV twinlead wires. **SPRING RETURN TYPE**—single deck, 3-position only; lever returns to position 1, giving momentary action at positions 9 and 10. For dimensions, ask for drawing SK-138.

Two-Deck Lever Action Switch
SS-14-114F-2



Molded 5 or 6 Position Lever Switch



MOLDED 5- AND 6-POSITION, POSITIVE INDEXING. 5 or 6 live positions, two circuits per deck, in enclosed lustrous black molded construction, adapted from the MS-20 series with electrical characteristics as shown on previous page. These models can simplify circuitry for sound systems, control, inspection, test, experimental, and hobby purposes. Individually-boxed switches come with KN-20 threaded black molded knob; bulk shipments, without knobs. For mounting data see SK-64, Rev. H on 5-position and SK-119, Rev. B on 6-position.

MS-20-115A-1, 5-position, 2-circuit (1 deck) \$3.25

MS-20-116A-1, 6-position, 2-circuits (1 deck) 3.50

Positions Per Circuit	Circ. (Poles) Per Deck	Decks or Gangs	Short. Non-Short	Stand.* Contact Pos.	Model	Boxed Incl. Knob
3, no "off"	1	1	N-S	A	SS-14-113	\$1.00
3, no "off"	2	1	N-S	B	SS-14-113A	1.15
3, no "off"	1	1	S	A	SS-14-113S	1.05
3, no "off"	1	1	N-S	A	SS-14-113R†	1.15
3, no "off"	1	1	S	A	SS-14-113S-R†	1.20
3, no "off"	1	2	N-S	A	SS-14-113-2	1.70
3, & "off"	1	1	N-S	C	SS-14-114	1.10
4, no "off"	1	1	N-S	D	SS-14-114F	1.10
4, no "off"	1	2	N-S	D	SS-14-114F-2	1.90

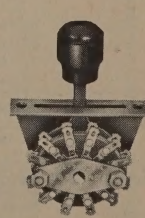
*A—common at 12, contacts at 9, 10, 11; B—common at 9, 10, contacts at 6, 7, 8, 12, 13, 14; C—common and off at 12, contacts at 9, 10, 11; D—common at 12, contacts at 8, 9, 10, 11.

†—Spring Return.



LEVER KNOBS

KN-17, black pointed with metal insert \$0.19
KN-19, walnut, same as KN-19 0.06
KN-19, black, round, flat-type, push-on 0.06
KN-20, black, threaded, for MS-20-IL... 0.14



Sub-Miniature 1 Dual Duty Deck

2 AND 3 POSITION, 1 TO 4 DECKS, 2 TO 8 POLES PER DECK.

SUB-MINIATURE LEVER SWITCHES—Derived from the high-performance sub-miniature switches described on the next page, the VL-7000 and the VL-5000 positive indexing series and the VSRL-7000 and VSRL-5000 spring return types provide excellence in lever switches. MIL materials throughout, crisp 30° indexing. Max. depth behind panel 1.250"; panel slot .962" x .062"; other details to SK-139, Rev. A and Catalog SM-32D. Typical switches are:

VL-71031N, single-pole, 3-position, one-deck, non-shorting \$4.80

VSRL-71031N, same as above, with spring return to center position from either side 5.80

VL-71032N, single-pole, 3-position, two-deck, non-shorting 7.05

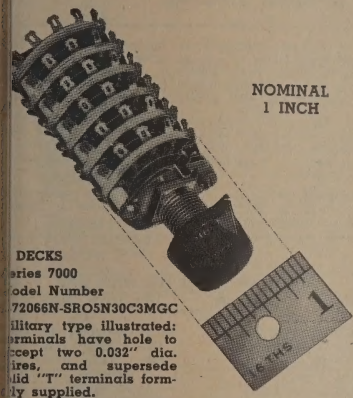
Prices Net, F.O.B. Factory; Individually Boxed, Domestic Packed, Effective January 1, 1966

SUB-MINIATURE ROTARY AND LEVER SWITCHES

J-B-T INSTRUMENTS, INC.

J-B-T
28th YearSUB-MINIATURE SWITCHES MADE TO MANY PERFORMANCE LEVELS OF
MIL-S-3786B, TYPE SR05; ALSO NON-MILITARY X AND V VERSIONS.

SERIES 7000, FULL 12 LIVE SWITCHING CONTACTS PER DECK; SERIES 5000, UP TO 8 POLES PER DUAL-DUTY DECK.



DECKS
Series 7000
Model Number
72066N-SR05N30C3MGC
Military type illustrated:
Terminals have hole to
accept .0032" dia.
pins, and supersede
old "T" terminals form-
ly supplied.

Precision built for Low-Current Usage where Size, Weight, Reliability are Important
Unusual Versatility — More Contacts per Deck
Accelerated Snap-Action Detent
MIL Materials Throughout for Military & Non-Military Applications

CAUTION — MIL-S-3786B, a sophisticated specification, spells out more than one performance level in each of several categories such as Temperature, Life, Vibration, Shock, and Altitude. Each level is designated by its own symbol. J-B-T SR05 models meet an exceptional number of levels.

USES — For test equipment, airborne and transistorized equipment, geophysical apparatus, and other miniaturized electrical and electronic devices.
NO BASIC SERIES — Full 12 live switching contacts per deck are available in Series 7000 using a patented wafer design feature where rotor contacts are on the front, and switching contacts are on the rear of the same deck. 1 to 4 poles per deck 1 to 6 decks, standard.

Up to 8 poles per dual-duty deck are available in Series 5000 which has up to 12 contacts including common on the front, and up to 12 contacts including common on the rear of the same deck. 1 to 4 poles on each side of dual-duty decks; 1 to 4 decks, standard.

THREE ROTARY TYPES — Both Basic Series are made in 3 types: **MILITARY STYLE SR05**, numbered for specific performance levels of MIL-S-3786B; **V TYPE**, of similar construction to SR05, but not ordinarily subjected to full military test procedures; and **X TYPE**, using the same materials as V type switches, but intended as replacements for previous models or as original components for non-military versions where requirements are similarly exacting.
EVER SERIES (L Types) — Made as VL-7000 or VL-5000 Series, 1 to 4 decks. Illustrated on preceding page.

NOBS — Supplied with individually boxed switches in V and X types; not supplied on SR05 because separate military specification applies.

DIFFERENCES BETWEEN SR05 MILITARY, V, and X
— Switches other than X types use extra rugged index mechanisms and rotor construction.

ITEM	X-7000 X-5000	V-7000 V-5000	MIL-S-3786B V-7000 SR05 V-5000 SR05
Terminals	Hole-type not bent	Hole-type not bent	Hole-type; may be bent at 75° ±15°
Shaft Bushing	1/8" dia. 1/4" -32NEF- 2A, 1/4" long	1/4" dia. 3/8" -32NEF- 2A, 3/8" long	1/4" dia. only 3/8" -32NEF-2A, 3/8" long
Rear Bridge	Black Ident- ification	Red Ident- ification	Stainless steel, full number
Non-Turn Device	Normally supplied	Normally supplied	Spec. requires

FOR ADDITIONAL MODELS AND FULL SPECIFICATIONS, ASK FOR BULLETINS SM-32D AND LAYOUT SHEETS WITH CONTACT ARRANGEMENTS.

MOST FREQUENTLY ORDERED MODELS

DECKS	Circ. (Poles) per Deck	Pos. per Pole	Shorting, Non- Shorting	SHAFT DIA.	V-TYPE OR X-TYPE Model	Price	SR05-TYPE Model	Price
ONE DECK	1	12	N-S	1/4"	V-71121N	\$4.90	V-71121N-SR05*	\$5.25
	1	12	S	1/4"	V-71121S	4.90	V-71121S-SR05*	5.25
	1	12	N-S	1/8"	X-71121N	4.70	—	—
	1	12	S	1/8"	X-71121S	4.70	—	—
	2	6	N-S	1/4"	V-72061N	5.00	V-72061N-SR05*	5.35
	4	3	N-S	1/4"	V-74031N	5.20	V-74031N-SR05*	5.50
ONE DUAL DUTY DECK	2	11	N-S	1/4"	V-52111N	5.25	V-52111N-SR05*	5.60
	2	11	S	1/4"	V-52111S	5.25	V-52111S-SR05*	5.60
	4	5	N-S	1/4"	V-54051N	5.35	V-54051N-SR05*	5.70
	4	5	S	1/4"	V-54051S	5.35	V-54051S-SR05*	5.70
	8	2	N-S	1/4"	V-58021N	5.55	V-58021N-SR05*	5.90
TWO DECKS	1	12	N-S	1/4"	V-71122N	6.75	V-71122N-SR05*	7.20
	1	12	S	1/4"	V-71122S	6.75	V-71122S-SR05*	7.20
	2	6	N-S	1/4"	X-71122N	6.45	—	—
	2	6	S	1/4"	X-71122S	6.95	V-72062N-SR05*	7.40
	4	3	N-S	1/4"	V-74032N	7.40	V-74032N-SR05*	7.90
TWO DUAL DUTY DECKS	2	11	N-S	1/4"	V-52112N	8.10	V-52112N-SR05*	8.65
	2	11	S	1/4"	X-52112N	7.75	—	—
	4	5	N-S	1/4"	V-54052N	8.30	V-54052N-SR05*	8.85
THREE DECKS	1	12	N-S	1/4"	V-71123N	8.85	V-71123N-SR05*	9.45
	2	6	N-S	1/4"	V-72063N	9.15	V-72063N-SR05*	9.70
	4	3	N-S	1/4"	V-74033N	9.85	V-74033N-SR05*	10.45
FOUR DECKS	1	12	N-S	1/4"	V-71124N	11.95	V-71124N-SR05*	12.70
	1	12	N-S	1/8"	X-71124N	11.40	—	—
SIX DECKS	1	12	N-S	1/4"	V-71126N	16.05	V-71126N-SR05*	17.10
ONE LEVER	4	3	N-S	—	VL-74031N	\$5.15	Levers not in Spec.	
	2	3	N-S	—	VL-72031N	5.05	" " " "	
	8	2	N-S	—	VL-58021N	5.35	" " " "	

* Typical MIL-S-3786B complete number is V-71121N-SR05N30C3MGC, unless specifically ordered otherwise. Temperature-Life Characteristic C also qualifies for Characteristics A and B; Vibration Grade Symbol 3 also qualifies for Symbols 1 and 2; Shock Type M, medium impact, normally supplied. Shock Type H available on some models when so ordered. Altitude C covers up to 70,000 ft, also meets Characteristic O (up to 10,000 ft.)

SPECIFICATIONS & TEST DATA ON SR05 MILITARY STYLE

NOTE: Most of the values shown here are given in the Specification and do not indicate the extent to which the test results of J-B-T switches were more favorable.

Current-carrying capacity: 5 amps at standard ambient conditions.

Current-breaking capacity: 750 MA at 30 VDC; 300 MA at 120 VDC; 1 AMP at 115 VAC

Non-inductive.

Initial Contact Resistance: .005 ohms max.

Contact Resistance: To MIL-STD-202C, Method 307, which requires Initial — 10 milliohms; After Moisture Resistance Test — 15 milliohms; After Life Test — 20 milliohms.

Materials: Terminals (double-wiping): gold-plated 90% silver alloy. Rotor Contact: J-B-T #1800 Silver Alloy. Shaft & Frame: Stainless steel, passivated.

Insulation: Wafer, glass epoxy laminate to MIL-P-18177C Type GEB, NEMA G-11; Rotor, ceramic to MIL-I-10A, Grade L-623.

Life Rotational: Temperature-Life Characteristic C, 25,000 rotational cycles at 10 cpm, Temperature —65°C to +125°C; 25,000 cycles at 70,000', room ambient temperature.

Vibration: Grade 3 of Table III MIL-S-3786B, 10 to 2000 cps. Tested in accordance with MIL-STD-202C, Method 204, Test Condition B.

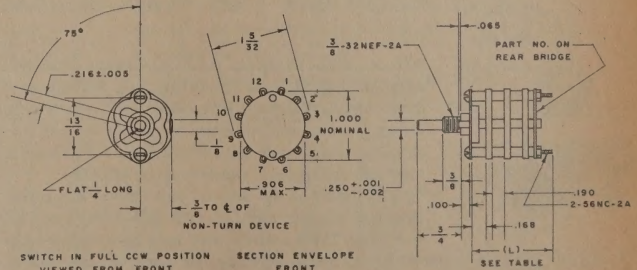
SHOCK: Shock Type M, Medium Impact per Table IV, MIL-S-3786B. Tested in accordance with MIL-STD-202C, Method 205. Mating contacts did not open for more than 10 micro-seconds. Shock Type H, High Impact, Method 207, specifies not more than 5 millisecond contacts and does not automatically cover Type M impact.

MAXIMUM DEPTH (L) BEHIND PANEL, INCHES

	1-Deck	2-Decks	3-Decks	4-Decks	5-Decks	6-Decks
Series V-7000-SR05 or X-7000	0.840	0.918	1.196	1.474	1.752	2.030
Series V-5000-SR05 or X-5000	0.640	0.918	1.196	1.474	—	—

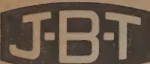
THIS SWITCH APPLIES ONLY TO SR05 AND V-TYPE SWITCHES

FOR SR05, WHEN SPECIFIED, TERMINAL MARKING PLATE PROVIDED AT REAR OF SWITCH



STYLE SR05, V-7000 AND V-5000

Prices Net, F.O.B. Factory; Individually Boxed, Domestic Packed, Effective January 1, 1966



28th Year

TOGGLE SWITCHES — HEAVY DUTY

J-B-T INSTRUMENTS, INC.

SINGLE-, DOUBLE-, AND 4-POLE — MIL, AN, AND JAN TYPES

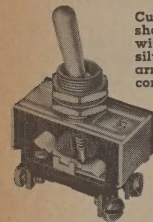
Series MS25068, MS35058, and MS35059 to MIL-S-3950B Series ST40A-H, ST42A-H ST50K-T, ST52K-T to JAN-S-23, MIL-S-21195A (Ships), or DDAX Drawings

WHY IT PAYS TO SPECIFY J-B-T

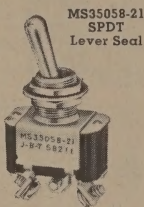
J-B-T concentrates on trouble-free switches. Among its six families of toggle switches J-B-T produces more than 170 models made to Government Specifications. Market studies indicate that while these switches are a must in military applications, almost half are produced for non-military use where the principal requirement is dependability. J-B-T apparently is specified because:

1. **Materials are good.** For instance, J-B-T is the only manufacturer of MIL and AN heavy-duty models regularly using solid coin silver contacts and rocker arms — to add overload protection and keep contact resistance under .005 ohms.

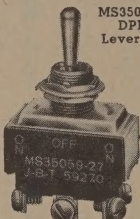
2. **The design is good.** All MS models have silicone rubber bushing seal for sand, dust and 15-foot head of water submersion test. Medium-duty types MS25068 and MS25100 also feature cast terminal sealing and a new design which provides fast break and wider gap to surpass the 125 VDC endurance tests of MIL-S-3950B.
3. **The value is good.** The many features required to meet Government standards, and J-B-T's rigid in-plant testing pay off in long useful life. Nevertheless, because J-B-T makes only quality switches quantity production permits a surprisingly small price differential over run-of-the-mill types.
4. **Deliveries are relatively good.** See your distributor. Production is scheduled to back up his stocks with factory inventory of finished switches and work in process to meet predictable demand.



Cut-away view showing model with solid coin silver rocker arms and contacts



MS35058-21 SPDT Lever Seal



MS35059-27 DPDT Lever Seal

MIL-S-3950B SERIES — Single-pole MS35058 with suffix —21 and above, and double-pole MS35059 types with suffix —21 and above are recommended when maximum reliability is required. Temperature, endurance, and altitude requirements exceed earlier MS types (suffix —1 to —19), AN3021 and AN3027 switches to MIL-S-6745, and ST styles to JAN-S-23 and MIL-S-21195A(Ships). All MS switches contain a silicone rubber bushing seal to meet sand and dust and 15-foot head of water submersion tests.

NOMINAL RATINGS: 20 Amp. at 125 VAC, 10 Amp. at 250 VAC.

SIZE: Single-hole; bushing 15/32" 32NS-2A by 15/32" high; toggle lever 11/16" long. Bodies including terminals: SP: 1-1/8" x 5/8" x 1-1/16" deep; DP: 1-21/64" x 3/4" x 1-1/32" or 1-13/64" deep.

TERMINALS: MIL-S-3950B switches have solderable 6-32 screw terminals; ST40's and ST50's, screw terminals; ST42's and ST52's, solder lugs.

SINGLE AND DOUBLE POLE HEAVY DUTY WITH LEVER SEAL						
MIL-S-3950B Model No.		2-9☆	10-29	30-99	100-249	
SPST — 2 term.						
On-X-Off	MS35058-22	\$1.76	\$1.32	\$1.08	\$.88	
On-X-On	MS35058-24	1.83	1.37	1.12	.92	
On-Off-X	MS35058-25	2.09	1.57	1.28	1.04	
X-Off-On*	MS35058-28	2.10	1.57	1.28	1.05	
On-X-Off*	MS35058-29	2.01	1.51	1.23	1.00	
Off-X-On*	MS35058-30	2.01	1.51	1.23	1.00	
SPDT — 3 term.						
On-Off-On	MS35058-21	2.09	1.57	1.28	1.04	
On-X-On	MS35058-23	2.09	1.57	1.28	1.04	
On-X-On*	MS35058-26	2.25	1.69	1.38	1.12	
X-Off-On*	MS35058-27	2.25	1.69	1.38	1.12	
On-Off-On*	MS35058-31	2.30	1.72	1.41	1.15	
DPST — 4 term.						
On-X-Off	MS35059-22	1.98	1.81	1.44	1.16	
On-Off-X	MS35059-24	1.98	1.81	1.44	1.16	
On-Off-X	MS35059-25	2.52	2.39	1.90	1.53	
X-Off-On*	MS35059-28	2.45	2.24	1.78	1.44	
On-X-Off*	MS35059-29	2.45	2.24	1.78	1.44	
Off-X-On*	MS35059-30	2.30	2.10	1.67	1.35	
DPDT — 6 term.						
On-Off-On	MS35059-21	2.30	2.10	1.67	1.35	
On-X-On	MS35059-23	2.30	2.10	1.67	1.35	
On-X-On*	MS35059-26	2.52	2.39	1.90	1.53	
On-Off-On*	MS35059-27	2.52	2.39	1.90	1.53	
On-Off-On*	MS35059-31	2.62	2.39	1.90	1.53	

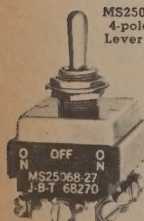
For Notes to Tables see next page.

SINGLE AND DOUBLE POLE HEAVY DUTY						
JAN-S-23 Model No.		2-9☆	10-29	30-99	100-249	
SPST — 2 term.						
On-X-Off	ST40A	\$1.44	\$1.08	\$.93	\$.75	
On-X-Off*	ST40B	1.61	1.21	1.04	.83	
Off-X-On*	ST40C	1.61	1.21	1.04	.83	
SPDT — 3 term.						
On-X-On	ST40D	1.73	1.30	1.11	.90	
On-Off-On	ST40E	1.73	1.30	1.11	.90	
On-X-On*	ST40F	1.90	1.43	1.23	.98	
On*-Off-On*	ST40G	1.90	1.43	1.23	.98	
On-Off-On*	ST40H	1.90	1.43	1.23	.98	
DPST — 2 term.						
On-X-Off	ST42A	1.35	1.01	.81	.66	
On-X-Off*	ST42B	1.50	1.13	.90	.73	
Off-X-On*	ST42C	1.50	1.13	.90	.73	
SPDT — 3 term.						
On-X-On	ST42D	1.60	1.20	.96	.78	
On-Off-On	ST42E	1.60	1.20	.96	.78	
On-X-On*	ST42F	1.79	1.34	1.08	.87	
On*-Off-On*	ST42G	1.79	1.34	1.08	.87	
On-Off-On*	ST42H	1.79	1.34	1.08	.87	
DPST — 4 term.						
On-X-Off	ST50K	1.82	1.36	1.14	.91	
On-X-Off*	ST50L	2.13	1.60	1.33	1.08	
Off-X-On*	ST50M	2.13	1.60	1.33	1.08	
DPDT — 6 term.						
On-X-On	ST50N	2.13	1.60	1.33	1.08	
On-Off-On	ST50P	2.13	1.60	1.33	1.08	
On-X-On*	ST50R	2.42	1.82	1.52	1.21	
On*-Off-On*	ST50S	2.42	1.82	1.52	1.21	
On-Off-On*	ST50T	2.42	1.82	1.52	1.21	
DPST — 4 term.						
On-X-Off	ST52K	1.66	1.24	1.04	.83	
On-X-Off*	ST52L	1.85	1.39	1.16	.92	
Off-X-On*	ST52M	1.85	1.39	1.16	.92	
DPDT — 6 term.						
On-X-On	ST52N	1.85	1.39	1.16	.92	
On-Off-On	ST52P	1.85	1.39	1.16	.92	
On-X-On*	ST52R	2.15	1.61	1.35	1.08	
On*-Off-On*	ST52S	2.15	1.61	1.35	1.08	
On-Off-On*	ST52T	2.15	1.61	1.35	1.08	

Other MS25068 Numbers: Models with suffix -1 through -13 as set forth in MIL-S-3950B are superseded by MIL-S-3950B Revision B Types. The latter are interchangeable electrically and mechanically but meet additional performance standards above the former types. Specifically, MS25068-1 has become MS25068-21; -3 now -23; -5 now -31; -7 now -27; -10 now -26; -11 now -24; -12 now -28; -13 now -25.

OUTSTANDING 4-POLE SWITCHES TO MS25068 REQUIREMENTS

MS25068-27 4-pole DT Lever Seal



• There is no mistaking the light brown color and silver printing of these distinctive J-B-T 4-pole heavy-duty switches. The superior molded body, chosen after extensive tests, features high arc resistance and low shrinkage. As a result the switches exceed the rigorous electrical endurance requirements of MS25068. Equally important, the internal construction uses rocker arms and contacts made of solid coin silver (not clad or brazed). The 8 models listed here have silicone rubber bushing seals and solderable 6-32 screw terminals, the same as other heavy-duty J-B-T MS switches. Dimensions same as MS35059 above except bodies including terminals: 1-11/32" long, 1-9/16" wide, 1-9/32" deep.

4-POLE HEAVY DUTY WITH LEVER SEAL						
MIL-S-3950B Model No.		2-9☆	10-29	30-99	100-249	
4PST — 8 term.						
On-Off-X	MS25068-24	\$4.50	\$3.54	\$2.98	\$2.47	
On-Off-X	MS25068-25	5.30	4.18	3.51	2.82	
X-Off-On*	MS25068-28	5.30	4.18	3.51	2.82	
4PDT — 12 term.						
On-Off-On	MS25068-21	5.22	4.11	3.46	2.87	
On-X-On	MS25068-23	5.30	4.18	3.51	2.82	
On-X-On*	MS25068-26	5.63	4.44	3.73	3.10	
On*-Off-On*	MS25068-27	5.63	4.44	3.73	3.10	
On-Off-On*	MS25068-31	5.63	4.44	3.73	3.10	

Other MS25068 Numbers: Models with suffix -1 through -13 as set forth in MIL-S-3950B are superseded by MIL-S-3950B Revision B Types. The latter are interchangeable electrically and mechanically but meet additional performance standards above the former types. Specifically, MS25068-1 has become MS25068-21; -3 now -23; -5 now -31; -7 now -27; -10 now -26; -11 now -24; -12 now -28; -13 now -25.

Prices shown are NET, F.O.B. Factory, domestic packing, Revised September 15, 1966, subject to change.

TOGGLE SWITCHES—MEDIUM DUTY & CROSS-REFERENCE

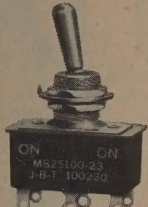
J-B-T

28th Year

J-B-T INSTRUMENTS, INC.

SINGLE & DOUBLE POLE—GOVERNMENT QUALITY

Series MS25098 and MS25100 to MIL-S-3950B; Series ST12-27 to JAN-S-23, MIL-S-21195A(Ships), or DDAX Drawings.

MS25100-23 DPDT
Rear Connected
Lever SealST27N, DPDT
Side and Rear Connected
1/4" Bushing

• **MEDIUM DUTY** describes the current-carrying capacity—nomically 6 amp. at 125 VAC, 3 amp. at 250 VAC—rather than the life characteristics. Self-wiping heavily silver-plated double-grip contacts provide exceptional reliability. Typical uses: instruments, data processing, and communications circuits.

NEW DESIGN FOR MS25098 & MS25100—Significant internal changes now provide fast break, wide gap, and increased insulation values, to surpass the severe endurance tests of MIL-S-3950B. For example, after 20,000 cycles of operation at 65,000' altitude with resistive load of 5 amps. at 125 VDC, contact resistance was well within the permissible limits. This development is especially important for the double-throw models MS25098-23 and MS25100-23. All MS medium-duty models contain: (a) silicone rubber bushing seal for sand, dust, and 15-foot head of water submersion tests, and (b) case-to-terminal sealing.

SIZE AND TERMINALS—Whether MS series to latest MIL-S-3950B, or ST series to Specification JAN-S-23, and MIL-S-21195A(Ships), all have solder terminals. Medium-duty types use 11/16" long, toggle lever, bushing 15/32". 32NS-2A by 15/32" (or 1/4") Bodies including terminals are: 1-1/4" long, 11/16" wide, 29/32" deep, except ST16, -17, -26, -27 are 1-3/4" long and 21/32" deep.

SINGLE AND DOUBLE POLE MEDIUM DUTY WITH LEVER SEAL

MIL-S-3950B Model No. 2-9* 10-29 30-99 100-249

SPST — 2 term.				
On-X-Off	MS25098-22	\$1.48	\$1.18	\$1.11 \$1.03
On-X-Off*	MS25098-29	1.90	1.52	1.43 1.33
Off-X-On*	MS25098-30	1.90	1.52	1.43 1.33

SPDT — 3 term.				
On-X-On	MS25098-23	1.69	1.35	1.27 1.18

DPST — 4 term.				
On-X-Off	MS25100-22	2.12	1.69	1.59 1.48
On-X-Off*	MS25100-29	2.47	1.97	1.85 1.73
Off-X-On*	MS25100-30	2.47	1.97	1.85 1.73

DPDT — 6 term.				
On-X-On	MS25100-23	2.30	1.84	1.72 1.61

SINGLE AND DOUBLE POLE MEDIUM DUTY

JAN-S-23 Model No. 2-9* 10-29 30-99 100-249

SPST — 2 term.				
On-X-Off	ST12A	\$.98	\$.78	\$.73 \$.68
On-X-Off*	ST12B	1.11	.89	.83 .78
Off-X-On*	ST12C	1.11	.89	.83 .78
On-X-Off	ST13A	.98	.78	.73 .68
On-X-Off	ST16A	.98	.78	.73 .68
On-X-Off*	ST16B	1.11	.89	.83 .78
Off-X-On*	ST16C	1.11	.89	.83 .78
On-X-Off	ST17A	.98	.78	.73 .68

SPDT — 3 term.				
On-X-On	ST12D	1.11	.89	.83 .78
On-X-On	ST13D	1.11	.89	.83 .78
On-X-On	ST16D	1.11	.89	.83 .78
On-X-On	ST17D	1.11	.89	.83 .78

DPST — 4 term.				
On-X-Off	ST22K	1.34	1.08	1.01 .95
On-X-Off*	ST22L	1.48	1.19	1.11 1.04
Off-X-On*	ST22M	1.48	1.19	1.11 1.04
On-X-Off	ST23K	1.34	1.08	1.01 .95
On-X-Off*	ST26K	1.34	1.08	1.01 .95
On-X-Off*	ST26L	1.48	1.19	1.11 1.04
Off-X-On*	ST26M	1.48	1.19	1.11 1.04
On-X-Off	ST27K	1.34	1.08	1.01 .95

DPDT — 6 term.				
On-X-On	ST22N	1.48	1.19	1.11 1.04
On-X-On	ST23N	1.48	1.19	1.11 1.04
On-X-On	ST26N	1.48	1.19	1.11 1.04
On-X-On	ST27N	1.48	1.19	1.11 1.04

NOTES TO TABLES: * On orders for single switches, add 50c, except single MS25068 switches add \$1.00. X No position; * Momentary position; † Bushing 1/4" high; Side connected terminals. Ask for Bulletin TS-60 concerning additional models and full technical data.

CROSS REFERENCE: AN, MS, AND ST MODEL NUMBERS WITH SIMILAR CIRCUITRY

SCREW TERMINAL			SOLDER LUG		SCREW TERMINAL			SOLDER LUG		
MIL-S-3950B See Notes A & B	JAN-S-23 & MIL-S-21195A See Note A	MIL-S-6745 See Note A	JAN-S-23 & MIL-S-21195A (Ships) See Note A	MIL-S-3950 See Note A	MIL-S-3950B See Notes A & B	JAN-S-23 & MIL-S-21195A See Note A	MIL-S-6745 See Notes A & B	MIL-S-3950 See Notes A & B	JAN-S-23 & MIL-S-21195A (Ships) See Note A	MIL-S-3950 See Note A
SPST			SPST		DPST			DPST		
MS35058-22	ST40A	AN3021-2	#	ST42A	MS35058-9	ST50K	AN3027-2	#	ST52K	MS35059-9
MS35058-23	ST40B	AN3021-9	#	ST42B	MS35058-10	ST50L	AN3027-4§	#	ST52L	MS35059-10§
MS35058-30	ST40C	AN3021-8	#	ST42C	MS35058-11	ST50M	AN3027-5§	#	ST52M	MS35059-11§
MS35058-24	#	AN3021-10	MS35058-1	#	MS35058-12	ST50N	AN3027-3	MS35059-1	#	MS35059-12
MS35058-28	#	AN3021-11	MS35058-2	#	MS35058-13	ST50P	AN3027-1	MS35059-2	#	MS35059-13
MS35058-25	#	AN3021-12	MS35058-3	#	MS35058-14	ST50Q	AN3027-10§	MS35059-3§	#	MS35059-14§
SPDT			SPDT		DPDT			DPDT		
MS35058-23	ST40D	AN3021-3	MS35058-4	ST42D	MS35058-15	ST50N	AN3027-3	MS35059-4	ST52N	MS35059-15
MS35058-21	ST40E	AN3021-1	MS35058-5	ST42E	MS35058-16	ST50P	AN3027-1	MS35059-5	ST52P	MS35059-16
MS35058-26	ST40F	#	MS35058-6	ST42F	MS35058-17	ST50R	AN3027-6§	MS35059-6§	ST52R	MS35059-17§
MS35058-27	ST40G	AN3021-7	MS35058-7	ST42G	MS35058-18	ST50S	AN3027-7§	MS35059-7§	ST52S	MS35059-18§
MS35058-31	ST40H	AN3021-5	MS35058-8	ST42H	MS35058-19	ST50T	AN3027-8§	MS35059-8§	ST52T	MS35059-19§
#	#	AN3021-6†	#	#	#	#	#	#	#	#

Not included in this specification. † AN3021-6 same as AN3021-5 with jumper. § Same dimensions as MS35058-27.
NOTE A: MS and AN types use internal sand and dust toggle seal and other high performance features involving extra cost over ST types. MS types to MIL-S-3950B have internal toggle seal to meet 15 ft. water submersion test. MIL-S-3950 models are superseded by MIL-S-3950B models.
NOTE B: For heavy-duty switches in the MS25098, MS35058, and MS35059 Series, MIL-S-3950B calls for SCREW TERMINALS ONLY. These terminals have SOLDERABLE FINISH and may be soldered after removal of screw.

UL IDENTIFICATION AND RATINGS: HEAVY DUTY AND MEDIUM DUTY

Underwriters' Laboratories, Inc. lists under "Switches, Special Use" file E26557) models marked with the J-B-T part number shown below. In some instances, there are minor construction differences from ST

switches, but the ratings and external dimensions are the same. UL marked types are not regularly stocked but only are manufactured in substantial production runs.

Heavy Duty—Single Pole JBT/UL ST Circuit Part No.** Equivalent Rating*			Heavy Duty—Double Pole JBT/UL ST Circuit Part No.** Equivalent Rating*			Medium Duty—Single Pole JBT/UL ST Circuit Part No.** Equivalent Rating*			Medium Duty—Double Pole JBT/UL ST Circuit Part No.** Equivalent Rating*			*Ratings
401	ST40A	A	501	ST50K	A	121	ST12A	B	221	ST22K	B	Rating A
402	ST40B	A	502	ST50L	A	122	ST12B	B	222	ST22L	B	
403	ST40C	A	503	ST50M	A	123	ST12C	B	223	ST22M	B	10 amps, 250 VAC
404	ST40D	A	504	ST50N	A	124	ST12D	C	224	ST22N	B	20 amps, 125 VAC
405	ST40E	A	505	ST50P	A	131	ST13A	B	231	ST23K	B	3/4 H.P., 250 VAC
406	ST40F	A	506	ST50R	A	134	ST13D	C	234	ST23N	B	1/2 H.P., 125 VAC
407	ST40G	A	507	ST50S	A	161	ST16A	B	261	ST26K	B	
408	ST40H	A	508	ST50T	A	162	ST16B	B	262	ST26L	B	Rating B
421	ST42A	A	521	ST52K	A	163	ST16C	B	263	ST26M	B	
422	ST42B	A	522	ST52L	A	164	ST16D	B	264	ST26N	B	3 amps, 250 VAC-DC
423	ST42C	A	523	ST52M	A	171	ST17A	B	271	ST27K	B	6 amps, 125 VAC-DC
424	ST42D	A	524	ST52N	A	174	ST17D	C	274	ST27N	B	
425	ST42E	A	525	ST52P	A	**NOTE: Above model numbers are basic ones for any given type and circuit. Variations, such as length of lever, have a suffix letter "J" and added suffix numbers.						Rating C
426	ST42F	A	526	ST52R	A							1 amp, 250 VAC-DC
427	ST42G	A	527	ST52S	A							3 amps, 125 VAC-DC
428	ST42H	A	528	ST52T	A							

Prices shown are NET, F.O.B. Factory, domestic packing. Revised September 15, 1966, subject to change.

TOGGLE SWITCHES—MEDIMUM DUTY AND MINIATURE

J-B-T INSTRUMENTS, INC.

New SINGLE & DOUBLE POLE — MINIATURE

MANUFACTURED IN CONNECTICUT by J-B-T, the miniature types illustrated make up the firm's 6th and newest family of toggle switches. Series JMT combines drastic reduction in size and weight with the trouble-free construction which characterizes standard size J-B-T switches. Primarily designed for manually controlled, low-current, solid-state devices and miniaturized circuitry for computers, instruments, space, geophysical, and test apparatus, these tiny switches also have application in aircraft, communications, and electronic equipment, and portable products.

Made with a distinctive **green** body single-pole types are $\frac{1}{4}$ " thin, double-pole types less than $\frac{1}{2}$ " square. Both use single-hole mounting with $\frac{1}{4}$ " threaded bushing which will not turn or work loose in the J-B-T surface plate. Stringent in-plant controls assure terminals that are firmly staked and will withstand repeated soldering.

SPECIFICATIONS

Nominal Rating	5 Amp. resistive load, 125 VAC and 24 VDC
Initial Contact Resistance	5 Milliohms max. 3 VDC, 100 Milliamperes.
Dielectric Strength	1,000 volts rms at sea level
Life Under Load	100,000 make-and-break cycles, min.
Weight, Including Hardware	SPDT, 0.19 oz.; DPDT, 0.23 oz.
Dimensional Details	Single pole per Print SK-157 Double pole per Print SK-158

MATERIALS: Switching contacts and rockers are coin silver; center terminal silver-plated. Bat handle is bright chrome-plated brass. Case and cradle are molded of colored phenolic. Bushing, locking ring, and hex nuts are brass nickel-plated. Clamp and lockwasher are made of steel nickel-plated.

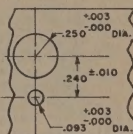
HARDWARE & MOUNTING

Mounting hardware supplied consists of one locking ring W-RI-12, two hex nuts, W-NU-11, one internal tooth lockwasher, W-WA-16.
DIRECTION OF MOVEMENT — All JMT single pole and double pole make continuity to terminal **OPPOSITE** throw of lever.

MOUNTING INFORMATION — When mounting switch with locking ring, use drill procedure illustrated.

+COLOR CAPS — Switches are normally supplied with bat handles. For color coding, tight-grip insulator caps are available for easy attachment before or after switches are mounted. Specify color and part number:

White	— W-CAP-10A	Black	— W-CAP-10D	Green	— W-CAP-10H
Blue	— W-CAP-10B	Brown	— W-CAP-10E	Violet	— W-CAP-10I
Red	— W-CAP-10C	Orange	— W-CAP-10F	Gray	— W-CAP-10J
		Yellow	— W-CAP-10G		



with bat handle

MODEL JMT-123

Shown approximately three-quarter size.



with color cap



with bat handle

MODEL JMT-223

Shown approximately three-quarter size.



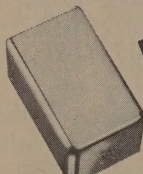
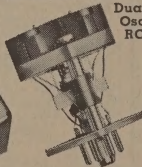
with color cap

SINGLE AND DOUBLE POLE MINIATURE

	Model No.	2-9s	10-29	30-59
SPDT — 3 term.				
On-Off-On	JMT-121	\$1.95	\$1.43	\$1.30
On-None-On	JMT-123	1.65	1.21	1.10
On-None-On*	JMT-126	1.95	1.43	1.30
On*-Off-On*	JMT-127	2.10	1.54	1.40
On-Off-On*	JMT-131	2.10	1.54	1.40
DPDT — 6 term.				
On-Off-On	JMT-221	\$2.55	\$1.87	\$1.70
On-None-On	JMT-223	2.15	1.58	1.40
On-None-On*	JMT-226	2.55	1.87	1.70
On*-Off-On*	JMT-227	2.70	1.98	1.80
On-Off-On*	JMT-231	2.70	1.98	1.80

*Momentary position \$On orders for single switches, add \$

RESONANT REED RELAYS AND OSCILLATOR CONTROLS

Relay with Clamp
RR-A10A-123.0Dual-Reed
Oscillator Control
RO-B10B-188.0Relay
RR-DO2E-250.3
(Vibration-Isolated
in All Planes)Single-Reed
Oscillator Control
RO-D62E-250.3
(Vibration-Isolated
in All Planes)

Applications: selective-calling mobile communication equipment, remote data transmission, and simultaneous or sequential coding and decoding.

For further data, ask for Bulletins 162-R and D664A. Inquiries also are invited on newly-developed miniature combination relay-oscillator type MRO-B12, 1.10" x .79" x .56" high.

J-B-T frequency-sensitive electro-mechanical relays (decoders) are highly stable control devices. They intermittently make and break contacts when a signal of the same frequency as the tuned reed is received. Although the reed has a high Q, the bandwidth at which the relay responds will be proportional to the input signal level.

RR-A11- and RR-A10 types are round, 4-pin plug-in relays, used primarily on existing mobile equipment.

RO-B Oscillator Controls (sometimes known as tone generators or encoders) are dual-reed units internally shock mounted and of sealed construction. These units control the frequency of oscillation in vacuum tube or transistor oscillator circuits. The RO-B type oscillator control is recommended where accurate and stable AC signals are required.

RR-D types are internally shock-mounted resonant reed relays, which are square, sealed units with 7-pin miniature plug. They now are the most widely used J-B-T relays.

RO-D types are single-reed, internally shock mounted oscillator control for applications where space saving is of importance. Dimensionally they are identical to RR-D relays.

TYPICAL REED RELAY AND OSCILLATOR CONTROL SPECIFICATIONS

Model	Enclosure	Mounting & Connections	Frequency Range CPS	DC Coil Resistance (Standard)	Accuracy to	Change per °C —40° to +100°C	Individually Boxed
RR-A10A-Reed Relay	1" round x 2" long	Clamp & Harness* 4 Pin Fits Cinch Socket #9804	67 to 600	200 ohms	±0.3%	±0.005 %	\$15.00**
RR-A11A-Reed Relay	1" round x 2" long	Plug In 4 Pin Fits Cinch Socket #9804	67 to 600	200 ohms	±0.3%	±0.005 %	14.50**
RR-DO2E-Reed Relay	$\frac{3}{16}$ " sq. x $\frac{3}{16}$ " lg sealed	7 Pin Miniature Plug In	67 to 1600	600 ohms	±0.1%	±0.0025 %	19.00**
RO-B10B-Oscillator Control†	$\frac{1}{16}$ " sq x $\frac{3}{16}$ " long sealed	Octal Plug In	67 to 600	2200 ohms/coil	±0.1%	±0.003 %	26.00**
RO-D62E-Oscillator Control	$\frac{3}{16}$ " sq. x $\frac{3}{16}$ " lg sealed	7 Pin Miniature Plug In	67 to 1600	600 ohms	±0.1%	±0.0025 %	16.00**

* Supplied with 2-piece clamp and 4-wire cable terminated in a 4-pin base.

** Specify frequency with order.

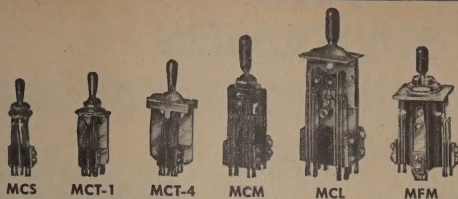
† Dual reed construction.

Prices Net, F.O.B. Factory; Individually Boxed, Domestic Packed, Effective January 1, 1966

J-B-T INSTRUMENTS, INC.

Electrical Instruments, Testers,
Switches and Other ComponentsFor other J-B-T Products,
see Sec. 2900

A complete line of LEVER SWITCHES by GENERAL CONTROL COMPANY



Type	Amps.*	High	Wide	Long**
MCS	1 or 3	7/8"	3/4"	2-1/16"
MCT-1	1 or 3	1 1/4"	3/4"	2-5/16"
MCT-4	1 or 3	1 1/2"	3/4"	2-17/32"
MCM	5	1 1/2"	1 1/4"	2-25/32"
MCL	10	1 3/4"	1 1/4"	3-15/16"
MFM	5	1 3/4"	1 3/4"	3"

*125 volts, 60 cycles, non-inductive.
 **From back panel to end of terminals.

Write for data Sheet CLRM

LEVER OPERATION

Symbol		Three-Position		Two-Position		Half-Throw		Two-Position		Full-Throw	
Lock (Stays put)	Non-lock Spring return										
Designation	MCS	S1	*S2	S3	*S4	*S5					
	MCT-1 MCS4	T1	*T2	T3	*T4	*T5					
	MCM	M1	*M2	M3	*M4	*M5	M6			*M7	
	MCL	L1	*L2	L3	*L4	*L5					

*Lock and non-lock positions may be reversed. To reverse designation as B12, B14, B15, etc.



SPECIAL MCM LEVER
 (A) waterproof lever
 \$4.45 EACH, LIST

MFM

DISPOSITION	Lock	Non-lock	Full-Position
SYMBOL			
OPERATION			
OPERATION NO.	M8	M9	M10 M11 M12

CONTACTS

To obtain

list price:—

add

contact prices

to frame price.

FRAME TYPES AND PRICES

Contact Forms	A	B	C	D	E	F	G	H	O
Circuit									
MS	\$ 1.80	MCS 1 amp. 0.55	0.55	0.65	*	—	0.65	—	0.65
MCT-4	\$ 2.15	MCS 3 amp. .65	.65	.80	—	—	.80	—	.80
MCT-1	\$ 2.70	MCT-4 1 amp. .55	.55	.65	.85	.95	.65	—	.65
MCM	\$ 4.00	MCT-4 3 amp. .65	.65	.80	1.00	1.12	.80	—	.80
MFM	\$18.50	MCT-1 1 amp. .55	.55	.65	.85	.95	.65	—	.65
MCL	\$ 5.40	MCT-1 3 amp. .65	.65	.80	1.00	1.12	.80	—	.80
		MCM 5 amp. .85	.85	1.00	1.25	1.60	1.00	1.00	—
		MFM 5 amp. .85	.85	1.00	1.25	1.60	1.00	1.00	—
		MCL 10 amp. 1.25	1.25	1.45	1.75	2.70	1.45	1.45	—

PUSH-BUTTON SWITCHES by GENERAL CONTROL COMPANY

SPS-SPS FRAME PRICES 5/8" or 3/4" Button Centers

BUTTONS	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
B12 SPS	\$12.00	\$14.15	\$16.50	\$19.40	\$22.35	\$25.25	\$28.15	\$31.10	\$34.25	\$37.45	\$40.65	\$43.85	\$47.00	\$50.20	\$53.40
B12 LPS	21.30	26.50	31.80	36.00	44.20	50.45	56.65	62.85	70.45	77.20	85.55	90.75	97.50	104.30	111.05
B13 SPS	10.95	13.10	15.25	18.15	21.05	24.00	26.90	29.80	32.75	35.60	38.10	42.30	45.50	48.70	51.85
B13 LPS	20.25	25.45	30.50	36.75	42.95	49.15	55.40	61.60	69.20	75.95	84.25	89.50	96.25	103.00	109.80
B14 SPS	10.35	11.65	13.20	15.30	17.40	19.50	21.55	23.65	26.00	28.40	30.75	33.10	35.50	37.85	40.20
B14 LPS	19.65	24.85	29.80	35.00	39.25	44.65	50.05	55.45	62.50	68.40	74.35	80.30	86.25	92.20	98.10
B15 SPS	9.30	10.60	11.95	14.00	16.10	18.20	20.30	22.40	24.50	26.65	28.80	31.00	33.25	35.50	37.85
B15 LPS	18.60	23.00	27.25	32.60	38.00	43.40	48.80	54.20	60.55	66.90	73.20	79.55	85.90	92.25	98.60
B16 SPS	8.20	9.25	10.30	12.30	14.35	16.40	18.45	20.45	22.50	24.75	27.05	29.40	31.70	34.00	36.30
B16 LPS	17.50	21.60	25.60	30.90	36.25	41.60	46.90	52.25	58.75	64.80	70.70	76.55	82.45	88.35	94.20
B17 SPS	9.25	10.30	11.55	13.60	15.60	17.65	19.70	21.75	24.05	26.30	28.60	30.90	33.20	35.55	37.85
B17 LPS	18.55	22.65	26.85	32.20	37.50	42.85	48.20	53.50	60.30	66.35	72.20	78.10	84.00	89.90	95.75
B18 SPS	11.60	14.35	17.10	20.85	24.60	28.35	32.05	35.80	39.55	43.30	47.30	51.35	55.35	59.35	63.60
B18 LPS	20.90	26.75	32.40	39.45	46.50	53.50	60.55	67.60	74.60	81.55	88.55	95.50	102.50	109.50	116.50
B19 SPS	12.65	15.40	18.40	22.10	25.85	29.60	33.35	37.10	41.10	45.05	49.05	53.25	57.10	61.10	65.10
B19 LPS	21.95	27.80	33.65	40.70	47.75	54.80	61.80	68.85	77.55	85.10	92.70	100.25	107.85	115.45	123.00

Note: Additional frame operations available. Contact General Control.

OPERATIONS

CONTACTS

B12 POSITIVE LOCK-IN LOCK-OUT

Only one button can be depressed at a time. The Momentary Release button must be actuated to release any previously depressed button before any other button can be actuated.

B13 ACCUMULATIVE LOCK

Buttons pushed in remain locked in position until released by pushing reset button.

B14 NO-TWO-INTERLOCK

Only one button can be pushed in at one time, and releases any other button.

B15 LOCK-RELEASE

Any button pushed in releases any previously pushed in button.

B16 NON-LOCK

Has no locking action; returns to normal position on release of finger pressure.

B17 NON-LOCK, NO-TWO-OPERATIVE

The same as B16 except that no two buttons can be operated simultaneously.

B18 PUSH-LOCK, PUSH-RELEASE

Any button depressed remains locked in until that button is depressed again.

B19 PUSH-LOCK, PUSH-RELEASE, (WITH LOCK-OUT)

This is the same as B18 except that only one button can be depressed at a time.

ORDERING INFORMATION

1. Frame Type	2. Operation	3. Contacts	4. Contact Location	5. Rating	6. Button Centers
SP54	B14	A-C-2A-2C	TOP Mounted	3 amps.	5/8"
\$13.20	—	.65+ .80+1.30+1.60	—	—	= \$17.55

"Footrol" FOOT SWITCHES

"Promatic" TIMERS

LIMIT SWITCHES



MA - \$6.15

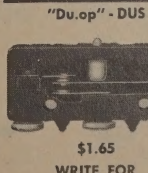
MI - \$13.15

MC - \$8.75

WRITE FOR BULLETIN FSRM

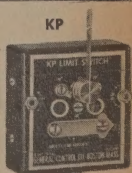


WRITE FOR BULLETIN SRM



\$1.65

WRITE FOR BULLETIN KDRM



\$14.00

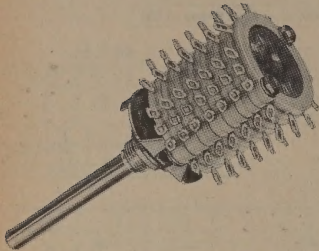
GENERAL CONTROL COMPANY

*ALL PRICES SUBJECT TO 1962 DISCOUNT SCHEDULE



IRC-CTS ROTARY SELECTOR SWITCHES

IRC, Inc.

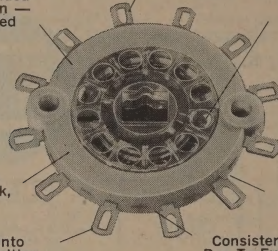


Switch Wafers Assembled
Without Spacers

1 Piece Molded
Construction —
Not Riveted

Soldering Heat Or
Handling Cannot
Loosen Terminals

Delicate Parts Are
Not Exposed To
Handling



Molded Glass Alkyd
Insulation Won't Break,
Even If Dropped

Terminals Molded Into
Exact Permanent Position

Natural Barrier Prevents
Solder From Flowing
Into Circuit

Consistent Insulation Barrier
Due To Exact Terminal Spacing
and Molded Glass Alkyd Material

SELECTOR SWITCH UNIQUE 1-PIECE MOLDED WAFER PROVIDES HIGH RELIABILITY

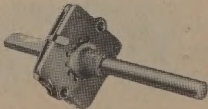
The new IRC-CTS design goes right to the heart of selector switch reliability . . . the wafer. Automated manufacture provides unprecedented uniformity. One-piece *molded* construction of the wafer virtually eliminates drift. In each production run, all switches are identical, terminal placement is exact and permanent. Machine exactness replaces human error and variation, eliminating wide tolerances and assuring high reliability.

- Compact $1\frac{1}{16}$ " size design allows more circuitry per unit of depth behind panel.
- Rivet-free construction permits closer stacking.
- Superior insulation due to repetitive exactness in terminal spacing, and molded glass alkyd material.
- 1000% more silver than used by most commercial switches—evenly applied at point of contact.
- Rotor contacts are double-wiping and self-cleaning.
- Stator contacts are integral with terminals.
- Molded stator will not break or crush during ordinary handling, or if it is dropped.

GENERAL SPECIFICATIONS

INSULATION:	COMMERCIAL TYPE 212 SERIES Stator—Glass Alkyd Resin Rotor—Polycarbonate (Lexan)	INDUSTRIAL-MILITARY TYPE M-212 SERIES Stator—Type MAI-30 per MIL-M-21699 Rotor—IL grade glass-filled nylon
STATOR CONTACTS AND TERMINAL LUG MATERIAL	Laminated silver movable contacts. Terminals and stator are brass, silver plated.	Military grade laminated silver. Silver plated movable contacts. Terminals and stator are brass, silver plated.
OPERATING TEMPERATURE:	85° C.	125° C.
DETENTS:	Index plate 30° between positions with one fixed and one adjustable stop.	Index plate 30° between positions with one fixed and one adjustable stop.
FINISH:	50-hour salt spray.	50-hour salt spray.
MOUNTING DETAILS:	Bushing— $\frac{3}{8}$ "-32 thread, $\frac{3}{8}$ " long. Shaft— $\frac{1}{4}$ " diameter round shaft, $1\frac{1}{8}$ " beyond end of bushing. Hardware furnished.	Bushing— $\frac{3}{8}$ "-32 thread, $\frac{3}{8}$ " long. Shaft— $\frac{1}{4}$ " diameter round shaft, $1\frac{1}{8}$ " beyond end of bushing. Hardware furnished.
MILITARY APPLICATIONS	Both types 212 and M-212 meet requirements of MIL-S-3786A, type SRO-3.	

EXCLUSIVE MILITARY GRADE CTS-IRC STARWHEEL SHAFT AND 30° DETENT ASSEMBLY



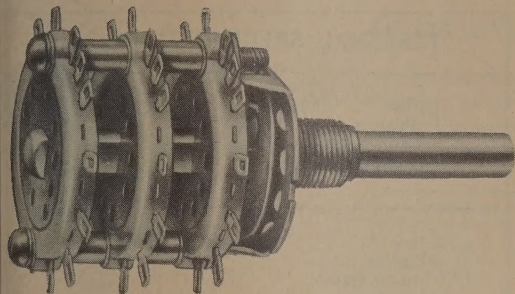
T-180

T-181

T-182

A balanced lever arm and star wheel detent assembly free from end and side thrust is available for precision military and instrumentation applications. Star wheel detent provides extremely long life and minimum turning torque variation. Double lever arm construction controls torque in both directions of rotation with practically no change in torque during 100,000 cycles of operation through 12 switch positions.

IRC-CTS ROTARY SELECTOR SWITCHES


IRC, Inc.


ELECTRICAL RATING

Voltage and Current Ratings:

1 amp at 28 volts DC
1½ amps at 115 volts AC

High Pot Test:

Between adjacent 30° terminals or terminals to ground: 1,750 volts AC RMS for one minute, Between adjacent 15° terminals: 750 volts AC RMS for one minute.

212 Wafer Assembly

The wafer assembly of the IRC-CTS selector switch can be separated into three basic elements, the rotor insulator, the rotor contacts and the stator. The stator consists of the stator insulator, terminal lugs, contacts, contact ring, which is made as a single unit.

Stator Insulator

The stator insulator is a circular molding which encloses the mid portion of each contact and serves as a container for the rotor. The stator insulator also serves as a natural shield and flux barrier, thus protecting the contact areas.

Contact Resistance

Circuit resistance ranges from .003 to .004 ohms on standard switches when measured from one terminal to an adjacent terminal. When measured terminals are not adjacent, up to 180° apart, the resistance will measure higher due to the extra metal in the stator circuits. It is to be noted

The Stator

The Stator is the heart of the IRC-CTS selector switch and determines the circuitry of the switch in conjunction with the location of the selected rotor contacts. The stator is actually a circuit pattern cut out of metal which forms the terminal lugs, center contact ring and the stator contact.

Rotor

The rotor of the IRC-CTS selector switch holds the rotor contacts in place and carries the contacts from one position to another, providing controlled float which prevents open circuiting during severe shock or vibration.

Contact Life:

Standard sterling silver laminated rotor contacts and brass silver plated stator provide reliable life for a minimum of

that the circuit resistance check measures all the metal in the circuit. Thus actual resistance at the point of contact is considerably less than the measured resistance. In IRC-CTS assemblies, contact resistance is unusually stable throughout the switch life.

Detent Rotational Life:

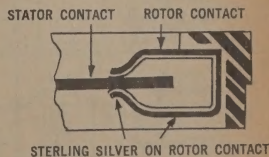
The standard 212 detent assembly (T79, T80, T81 & T82) has a rated life of 25,000 cycles through 12 positions and return.

50,000 cycles through 12 positions and return without appreciable increase in contact resistance. (See detent life.)

The star wheel detent mechanism (T180, T181, & T182) has a rated life of 100,000 cycles through 12 positions and return.

LONGER LIFE CONTACTS

After 1,100,000 index operations, life tests reveal virtually no change in rotor contact resistance. • 1,000% more silver than used by most commercial switches has been evenly applied at actual point of contact by exclusive process. (See Sketch.) • Rotor contacts are double-wiping and self-cleaning. Stator contacts are integral with terminals.





IRC-CTS ROTARY SELECTOR SWITCHES

IRC, Inc.

IRC-CTS COMMERCIAL TYPE 212

Total Poles	Number of Positions		Poles per Section	Number of Sections	Stock Number	
	Shorting	Non-Shorting			Shorting	Non-Shorting
1	2-11	2-12	1	1	T201	T205
2	2-5	2-6	1	1	T202	T206
3	2-3	2-4	3	1	T203	T207
4	2	2-3	4	1	T204	T208
6	2	2	6	1		T209
2	2-11	2-12	1	2	T211	T215
4	2-5	2-6	2	2	T212	T216
6	2-3	2-4	3	2	T213	T217
8	2	2-3	4	2	T214	T218
12	2	2	6	2		T219
3	2-11	2-12	1	3	T221	T225
6	2-5	2-6	2	3	T222	T226
9	2-3	2-4	3	3	T223	T227
12	2	2-3	4	3	T224	T228
18	2	2	6	3		T229
4	2-11	2-12	1	4	T231	T235
8	2-5	2-6	2	4	T232	T236
12	2-3	2-4	3	4	T233	T237
16	2	2-3	4	4	T234	T238
24	2	2	6	4		T239

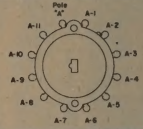
IRC-CTS INDUSTRIAL-MILITARY TYPE M-212

Total Poles	Number of Positions		Poles per Section	Number of Sections	Stock Number	
	Shorting	Non-Shorting			Shorting	Non-Shorting
1	2-11	2-12	1	1	T301	T305
2	2-5	2-6	1	1	T302	T306
3	2-3	2-4	3	1	T303	T307
4	2	2-3	4	1	T304	T308
6	2	2	6	1		T309
2	2-11	2-12	1	2	T311	T315
4	2-5	2-6	2	2	T312	T316
6	2-3	2-4	3	2	T313	T317
8	2	2-3	4	2	T314	T318
12	2	2	6	2		T319
3	2-11	2-12	1	3	T321	T325
6	2-5	2-6	2	3	T322	T326
9	2-3	2-4	3	3	T323	T327
12	2	2-3	4	3	T324	T328
18	2	2	6	3		T329
4	2-11	2-12	1	4	T331	T335
8	2-5	2-6	2	4	T332	T336
12	2-3	2-4	3	4	T333	T337
16	2	2-3	4	4	T334	T338
24	2	2	6	4		T339

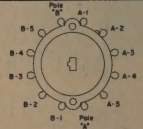
WAFER SECTIONS	Total Poles	Number of Positions		Stock Number	
		Shorting	Non-Shorting	Shorting	Non-Shorting
COMMERCIAL WAFER SECTIONS	1	2-11	2-12	T1	T5
	2	2-5	2-6	T2	T6
	3	2-3	2-4	T3	T7
	6	2	2-3	T4	T9
INDUSTRIAL MILITARY WAFER SECTIONS DETENT ASSEMBLIES	1	2-11	2-12	T101	T105
	2	2-5	2-6	T102	T106
	3	2-3	2-4	T103	T107
	6	2	2-3	T104	T109
DETENT ASSEMBLIES	Total Positions	Rear Shaft Length		Suggested Number of Sections	Stock Number
STANDARD SHAFT & 30° DETENT ASSEMBLIES	2-12	7/32"		1	T79
	2-12	1- 9/32"		1-3	T80
	2-12	2-15/16"		4-6	T81
STARWHEEL SHAFT & 30° DETENT ASSEMBLIES	2-12	5- 9/64"		7-10	T82
	2-12	1- 9/32"		1-3	T180
	2-12	2-15/16"		4-6	T181
	2-12	5- 9/64"		7-10	T182

TERMINAL SPECIFICATIONS

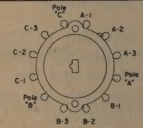
1 Pole
11 Position
Shorting Type
T1 and T101



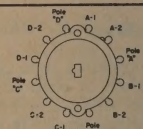
2 Pole
5 Position
Shorting Type
T2 and T102



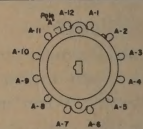
3 Pole
3 Position
Shorting Type
T3 and T103



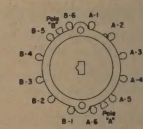
4 Pole
2 Position
Shorting Type
T4 and T104



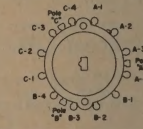
1 Pole
12 Position
Non-Shorting Type
T5 and T105



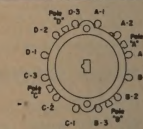
2 Pole
6 Position
Non-Shorting Type
T6 and T106



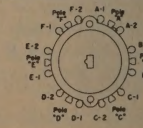
3 Pole
4 Position
Non-Shorting Type
T7 and T107



4 Pole
3 Position
Non-Shorting Type
T8 and T108



6 Pole
2 Position
Non-Shorting Type
T9 and T109

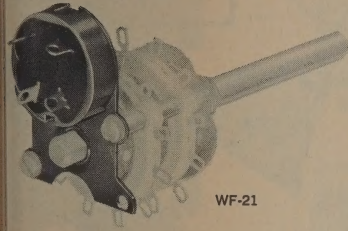


IRC-CTS ROTARY SELECTOR SWITCH ACCESSORIES


IRC, Inc.

IRC-CTS ATTACHABLE POWER SWITCHES

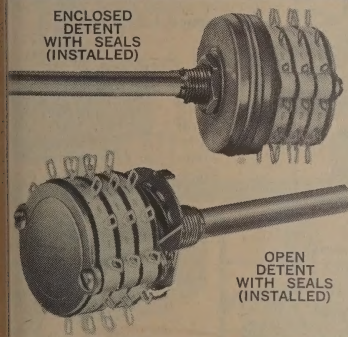
A selection of reliable AC power switches is available for use with selector switches, giving an original source for both the selector switch and attached switches. These power switches can be mounted on the rear frame of the selector switch or between wafers by means of a specially designed bracket.



WF-21

STOCK NO.	DESCRIPTION	VOLTAGE	CURRENT
GC-21	SPST	125	3 Amps
VF-21	SPDT	125	3 Amps
WF-21	DPST	125	3 Amps

ENCLOSED
DETENT
WITH SEALS
(INSTALLED)

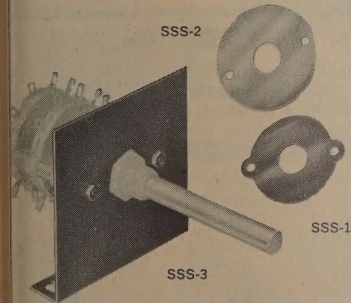


OPEN
DETENT
WITH SEALS
(INSTALLED)

SEALED SWITCH KITS

STOCK NO.	DESCRIPTION
SSK-1	Enclosed detent construction seals both the wafer sections and the detent mechanism of the switch against dust, dirt, and moisture.
DSWK-1	Open detent construction protects and seals the wafer sections of the selector switch against dust and dirt.

SSS-2



SSS-1

SSS-3

SHIELDS AND MOUNTING BRACKETS

Shielding of switch sections from each other may be accomplished with these Switch Shields.

STOCK NO.	DESCRIPTION
SSS-1	Standard Shields
SSS-2	Brass, Silver Plated Shields
SSS-3	Combination Shields and Mounting Brackets

IRC-CTS ROTARY SELECTOR SWITCH ENGINEERING LAB STOCK

The ELS-8 Rotary Selector Switch Lab Stock affords you the versatility of a combination for every application. The Lab Stock consists of:

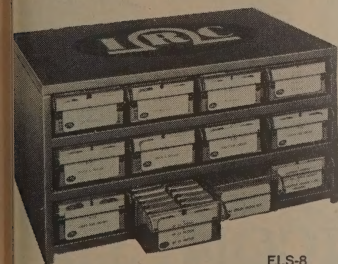
75 Wafer Sections 30 Detent Assemblies

Three Power Switches

2 Switch Seal Kits

15 Shields

Includes Metal Cabinet and Labels



ELS-8

LICON®

PROBLEM SOLVING
PRECISION SWITCHES
AND CONTROLS

BUTTERFLY® DOUBLE-BREAK SWITCHES

Contact blades flex like butterfly wings. Positive snap results in simultaneous opening and closing. Linear wipe action at contact points prevents contact welding.

TYPE 18

Big switch rating in the smallest double-break switch—.200" x .500" x .350".



ELECTRICAL RATING

125/250 v AC: 10 Amps
28 v DC: Form X or Y—8 Amps Res.
Form X or Y—3 Amps Ind.

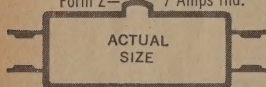


TYPE 11

High electrical rating and long mechanical life in one compact package. Ideal for a wide range of applications.

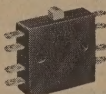
ELECTRICAL RATING

125/250 v AC: 10 Amps
125 v AC: ½ HP
125 v AC: ¾ HP
28 v DC: Form X or Y—15 Amps Res.
Form X or Y—10 Amps Ind.
Form Z—10 Amps Res.
Form Z—7 Amps Ind.



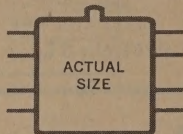
TYPE 26

Provides simultaneous operation of two Licon Butterfly double-break mechanisms in one case. Eliminates the need for dual components and complicated actuators.



ELECTRICAL RATING

125/250 v AC: 10 Amps
28 v DC: Form XX or YY—10 Amps Res.
Form XX or YY—10 Amps Ind.
Form ZZ—10 Amps Res.
Form ZZ—3 Amps Ind.

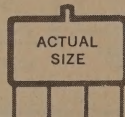


TYPE 16

Features two circuit control, direct cam operation with double bearing guided button plus high shock and vibration resistance.

ELECTRICAL RATING

125/250 v AC: 10 Amps
28 v DC:
Form X or Y—10 Amps Res.
Form X or Y—10 Amps Ind.
Form Z—10 Amps Res.
Form Z—3 Amps Ind.



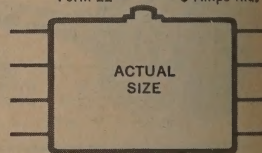
TYPE 22

Insures exacting double-break switch performance for 3-phase motors, permits simplified controls for multiple circuits.



ELECTRICAL RATING

125/250 v AC: 10 Amps
125 v AC: ½ HP
250 v AC: ¾ HP
28 v DC: Form XX or YY—15 Amps Res.
Form XX or YY—10 Amps Ind.
Form ZZ—10 Amps Res.
Form ZZ—3 Amps Ind.

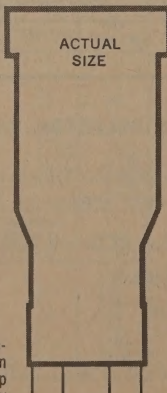
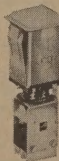


LICON LIGHTED SWITCHES

A lighted push button combined with the world's finest subminiature switch, the Type 16, for a high rating and long life. A wide choice of colors, sizes and shapes.

TYPE 04

Dressy panel appearance with four bulb illumination. Available in no-hardware front-of-panel mountings. Easy lamp servicing.



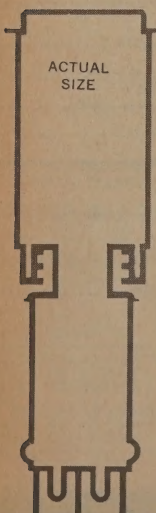
TYPE 01-800

Has integral plastic housing that snaps in from front panel. Available in one and two pole, momentary and alternate action.



TYPE 01

Front-of-panel lamp servicing without tools. Non-turn lens cap snaps on. Lamp socket remains stationary when push button is actuated.



LICON SEALED SWITCHES

The most reliable (20 million mechanical cycles environment-free and hermetically sealed switches you can use in a selection of seals, actuators, terminals, circuitries, ratings, materials and housings. Request sample or demonstration on your letterhead.

TYPE 62 HERMETICALLY SEALED

Rugged Housing



TYPE 63 ENVIRONMENT- FREE

Rugged Housing



TYPE 65 ENVIRONMENT FREE

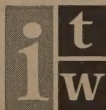
Subminiature



Licon Catalog Available on Request

For detailed information and specifications about the full line of Licon switches, send for the Licon catalog.

"Remember, you're never more than a few feet away from a product of ITW"™



LICON

DIVISION ILLINOIS TOOL WORKS INC.

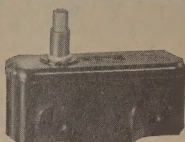


LICON® SWITCHES not only meet standards . . . they set them!

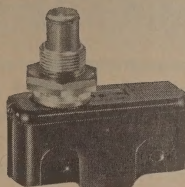
TYPE 10 BASIC SWITCHES



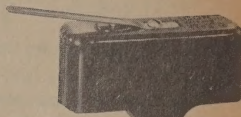
Type 10-122
Basic Switch



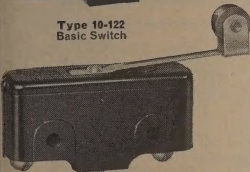
Type 10-222
Overtravel Plunger



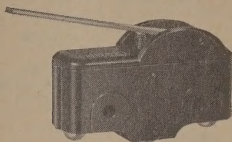
Type 10-322
Panel Mounting



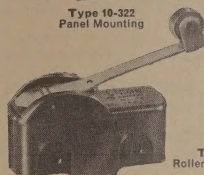
Type 10-422
Leaf Spring Actuator



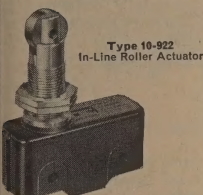
Type 10-522
Roller Leaf Actuator



Type 10-622
Hinge-Type Lever



Type 10-722
Roller Lever Actuator



Type 10-922
In-Line Roller Actuator

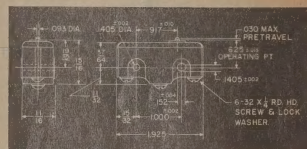


Type 10-72237
One Way Actuator

CHARACTERISTICS

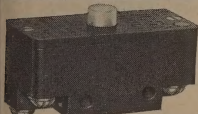
Electrical Rating 15A, 125/250 V a-c,
460 V a-c
15A Res 5A Ind. 5A motor, 30 V d-c
UL APPROVED CSA APPROVED

Splash-proof sealing against moisture, dirt, dust and other harmful elements can be provided for most models. Preloaded reverse action actuator available.

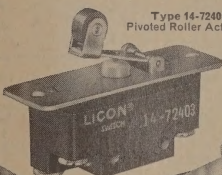


Type 10-122

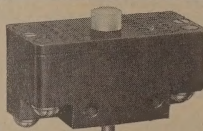
TYPE 14 HEAVY DUTY BASIC SWITCHES



Type 14-124
Basic Switch

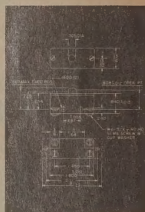


Type 14-72403
Pivoted Roller Actuator



Type 14-1241
Maintained Contact, Reset

Movement differential available from .101" to over .040". 100 gram to 2 lb. operation force available. Terminals available with a No. 6 screw and cup washer, No. 8 screw and lockwasher or No. 8 screw with these same fastener choices. Custom terminal designs available. Auxiliary mounting plate available for panel mount.



Type 14-124

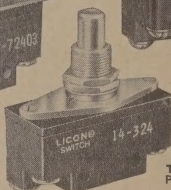
ELECTRICAL RATING

Volts	A.C.		D.C.	
	Steady	In-Rush	D.T.	S.T.
30	20	80	10	25
110	20	80	.5	2.0
220	20	80	.2	.5
440	15	50		
600	5	10		

UL APPROVED



Type 14-12403
Auxiliary Mounting Plate



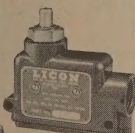
Type 14-324
Panel Mount

TYPE 30 INDUSTRIAL ENCLOSED SWITCHES

SEALED SWITCHES for environment applications



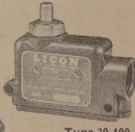
Type 30-600
Sealed Palm Button



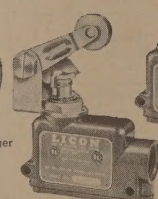
Type 30-200
Sealed Plunger



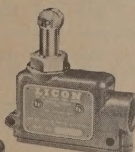
Type 30-400
Sealed Roller Arm



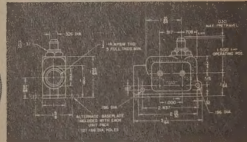
Type 30-100
Overtravel Plunger



Type 30-500
Roller Plunger



Type 30-300
Roller Arm



Type 30-200 Sealed

CHARACTERISTICS

ELECTRICAL RATING: 15 Amps, 125/250/
460 V a-c; 1/2 Amp, 125 V d-c; 1/2 Amp,
250 V d-c.

UL APPROVED CSA APPROVED

UNSEALED SWITCHES

for general purpose applications

FOR FACTS AND
FOLLOW-THROUGH...
CALL YOUR
LICON DISTRIBUTOR



"Remember, you're never more than a
few feet away from a product of ITW® T.M."

LINEMASTER

America's Footswitch Leader

TREADLITE  $3\frac{1}{2} \times 2\frac{5}{8} \times 1$ 	T-51-S T-51-D T-52-S T-51-SC *T-51-SC3 T-51-S TWIN	SINGLE STAGE MOMENTARY SINGLE STAGE MAINTAINED TWO STAGE MOMENTARY T-51-S COMPLETE WITH 6' CORD SET & SERIES PLUG TWO MOMENTARY SWITCHES ON ONE BASE	SPDT  SPDT  BOTH STAGES SPDT  BOTH SPDT 	7 AMP 125-250 VAC 1/6 H.P. 125 VAC	Lowest Cost Foot Switch Formed Steel Housing. Wt.—7 ozs. *Similar to T-51-SC Except Grounded 3 Conductor Cord and 3 Prong Series Plug.
COMPACT  $2\frac{7}{8} \times 2\frac{1}{2} \times 1\frac{1}{8}$ 	491-S 492-S 494-S 491-SC *491-SC3 491-S TWIN	MOMENTARY MOMENTARY MOMENTARY 491-S COMPLETE WITH 6' CORD SET & SERIES PLUG TWO MOMENTARY SWITCHES ON ONE BASE	SPDT  SPDT  DPDT  BOTH SPDT 	10A 125 VAC 20A 125-250 VAC 10A 125 VAC 5A 250 VAC	Completely Enclosed Interior Switch. Formed Steel Housing. Wt.—7 oz. *Similar to 491-SC Except Grounded 8 Ft. 3 Conductor Cord and 3 Prong Series Plug.
CLIPPER  $4\frac{1}{2} \times 3\frac{1}{2} \times 1\frac{1}{2}$ 	632-S 632-D 634-S 634-D 632-S TWIN	MOMENTARY MAINTAINED MOMENTARY MAINTAINED TWO MOMENTARY SWITCHES ON ONE BASE	SPDT  SPDT  DPDT  DPDT  BOTH SPDT 	20A 125-250 VAC 20A 125-250 VAC 10A 125 VAC 5A 250 VAC 10A 125 VAC 5A 250 VAC 20A 125-250 VAC	Cast Iron Housing. Also Available with Safety Guard or 7" Wide Treadle. Wt.—2½ lbs. Twin Has Connecting Interwiring Tube So That Only One Cable Is Used.
JUNIOR  $5\frac{1}{2} \times 3\frac{1}{4} \times 1\frac{1}{4}$	121-S 122-S	MOMENTARY MOMENTARY	SPDT  SPDT 	15A 125-250 VAC 20A 125-250 VAC	Cast Aluminum Housing. Low Tapered Treadle Permits Easy Operation. Wt.—1 lb.
CADET  $3\frac{5}{8} \times 1\frac{1}{8}$	HB-2	MOMENTARY	SPDT 	7A 125 VAC 1/6 H.P. 125 VAC	Round Switch Operates From Any Position. Switch Comes Complete With Cord set. Wt.—11 ozs.

MANY OTHER STANDARD MODELS ARE AVAILABLE—WRITE FOR CATALOG

"When awkward jobs hold you up—a LINEMASTER FOOT SWITCH is your third hand!"

Write To Us For Complete Catalog.

LINEMASTER SWITCH CORPORATION

A Modern

FOOTSWITCH

*for Every Use***PRECISION-BUILT • DEPENDABLE • RUGGED • ECONOMICAL • OVER 1000 APPLICATIONS**

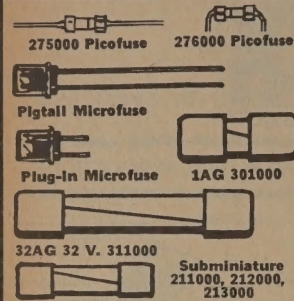
NAUTILUS  8x4x2¼		WP-541-S	MOMENTARY	SPDT		20A 125-250 VAC	Completely Waterproof. Can Be submerged.	
		WP-541-D	MAINTAINED	SPDT		12A 125 VAC 6A 250 VAC		
SENIOR  7x4x3¼		MOMENTARY	MAINTAINED				Cast Iron Housing. Also Available With Complete Safety Guard. Wt.—5½lbs.	
		4141-S	4141-D		DPST			20A 125-250 VAC&DC
		4142-S	4142-D		DPDT			10A 125 VAC&DC 5A 250 VAC&DC
		4143-S	4143-D		SPDT			15A 125 VAC&DC 10A 250 VAC&DC
		4151-S	4151-D		DPST			15A 125-250 VAC 5A 575 VAC
		4351-S	4351-D		TPST			15A 125-230 VAC 5A 575 VAC
HERCULES  8½x4½x4½		531-SW	571-DW	SINGLE STAGE	SPDT		20 AMPS 125-480 VAC 1 H.P. 115-230 VAC Cast Iron Housing. Wt.— 7¼ lbs. Also Available With No Guard or Com- plete Hood. All Models Available in Explosion Proof Version.	
		532-SW	572-DW	SINGLE STAGE	DPDT			
		533-SW	573-DW	SINGLE STAGE	TPDT			
		534-SW	574-DW	TWO STAGE	SPDT			
		535-SW	575-DW	THREE STAGE	SPDT			
POTENTIOMETER  8½x4½x4½		2 WATT	5 WATT	SPECIFY MAXIMUM RESISTANCE REQUIRED			Standard Model Wt. Approx. 7¼ lbs. Details on request	
				2 WATT		5 WATT		
				Ohms	Megohms	Ohms		
		500 thru 500-AH	505 thru 505-AH	50 2500 thru thru 1500 75000	.1 thru 5.0	2 50 1500 thru thru thru 40 1000 25000		
LEKTRO-LOK  5x2½x1½		L-2-S	TWO MOMENTARY SWITCHES SIDE BY SIDE	BOTH SIDES SPDT		15A 125-250 VAC	Stamped Metal Housing. Wt.—10 oz.	
		L-4-S		BOTH SIDES DPDT		10A 125 VAC 5A 250 VAC		
EXECUTIVE  4½x4x1½		B-2-S	TWO MOMENTARY SWITCHES SIDE BY SIDE	BOTH SIDES SPDT		15A 125-250 VAC	Stamped Metal Housing. Wt.—14 oz.	
		B-4-S		BOTH SIDES DPDT		10A 125 VAC 5A 250 VAC		
DUPLEX  8½x3½x2		475-S	MOMENTARY HEAVY SPRING	BOTH SIDES SPDT		15A 125-250 VAC	Cast Aluminum Housing. Wt.—1¾ lbs.	
		476-S	MOMENTARY LIGHT SPRING					

Linemaster also manufactures many other types of foot controls with electronic impulse circuits, gear driven potentiometers, air valves, special cordsets, finishes, etc.

Write To Us For Complete Catalog.

LINEMASTER SWITCH CORPORATION

LITTELFUSE Quality Fuses



MICROFUSE SUBMINIATURE FUSES

For printed circuits and other minimum space uses. Ultra-fast blowing. Plug-in types use holder (listed on another page); pigtail types for soldering. Short circuit interrupting capacity 125 V., 10,000 amps D.C. **Blow Specs:** 100%, 4-hour min.; 135%, 1 hour max.; 200%, 20-sec. max. **Size:** $\frac{1}{4}$ " dia. x $\frac{1}{16}$ " (fuse body). Plug-in, transparent cap type listed. Use prefix 272 for plug-in, metal cap; prefix 279 for pigtail, transparent cap; prefix 278 for pigtail, metal cap.

L.F. No.	Amp Rating	Net per 5	Net per 100	Net per 500
273.002	1/500	\$5.13	\$85.50	\$68.40
273.005	1/200	5.13	85.50	68.40
273.010	1/100	5.13	85.50	68.40
273.015	1/64	5.13	85.50	68.40
273.021	1/32	5.13	85.50	68.40
273.050	1/20	4.29	71.50	57.20
273.062	1/16	4.29	71.50	57.20
273.100	1/10	4.29	71.50	57.20
273.125	1/8	4.29	71.50	57.20
273.250	1/4	4.29	71.50	57.20
273.300	3/10	4.29	71.50	57.20
273.400	4/10	4.29	71.50	57.20
273.500	1/2	4.29	71.50	57.20
273.600	6/10	4.29	71.50	57.20
273.700	7/10	4.29	71.50	57.20
273.750	3/4	4.29	71.50	57.20
273.800	8/10	4.29	71.50	57.20
273001	1	4.29	71.50	57.20
273015	1-1/2	4.29	71.50	57.20
273002	2	4.29	71.50	57.20
273003	3	4.29	71.50	57.20
273004	4	4.29	71.50	57.20
273005	5	4.29	71.50	57.20

HIGH RELIABILITY MICROFUSES

For zero defect programs. Hermetically sealed; gold-plated terminals for soldered or plug-in connections. Fuse rating identified on each fuse. Test data and traceability records are supplied and maintained. Proven performance in the Gemini "critical parts" manned space program. Voltage rating 125 V., blow time same as 273 series; time/current characteristics certified to 1% AQL per MIL-Std-105. Inspection Level II. Short circuit interrupting capacity at 125 V., 10,000 amps D.C. **Size:** Fuse cap and body, .290" lg., leads for 262 "plug-in" series, .170". Pigtall on 268 series 1.0". Use prefix 268 for pigtail type (e.g., 268.002).

L.F. No.	Amp Rating	Net per 5	Net per 100	Net per 500
262.002	1/500	\$15.00	\$250.00	\$200.00
262.005	1/200	15.00	250.00	200.00
262.010	1/100	15.00	250.00	200.00
262.015	1/64	15.00	250.00	200.00
262.031	1/32	15.00	250.00	200.00
262.050	1/20	15.00	250.00	200.00
262.062	1/16	15.00	250.00	200.00
262.100	1/10	15.00	250.00	200.00
262.125	1/8	15.00	250.00	200.00
262.250	1/4	15.00	250.00	200.00
262.250	1/4	15.00	250.00	200.00
262.300	3/10	15.00	250.00	200.00

HIGH RELIABILITY PICOFUSES

For soldering into circuits or insertion into diode type clips and mgs. Fuses rated at 125 V. or less and will interrupt short circuit currents to 300 amps at 125 V. D.C. on dry-groove ceramic bodies. Withstands 5-lb. axial pull test. Blow time 4 hours min., 100% rating; 5 secs. max., 200% rating. Insulation resistance is 1 meg min. measured with 100 V supply. **Size:** Body $\frac{1}{4}$ " lg., .078" dia. Leads .025" dia., $\frac{1}{16}$ " lg., gold-plated copper.

L.F. No.	Amp Rating	Net per 5	Net per 100	Net per 500
265.125	1/8	26501.5	1 1/2	
265.250	1/4	265002	3	
265.375	3/8	265003	3	
265.500	1/2	265004	4	
265.750	3/4	265005	5	
265001	1			

7AG FUSES (32 V. OR LESS)

Blow Time: 110%, 4-hr. min.; 135%, 1 hr. max.; 200%, 20-sec. max. **Size:** $\frac{1}{4}$ " dia. $\frac{1}{4}$ ".

L.F. No.	Amp Rating	Net per 5	Net per 100	Net per 500
303001	1	\$0.30	\$5.00	\$4.00
303002.5	2-1/2	.20	3.30	2.64
303004	4	.20	3.30	2.64
303005	5	.23	3.75	3.00
303015	15	.23	3.75	3.00
303020	20	.23	3.75	3.00
303030	30	.23	3.75	3.00

1AG FUSES (32 V. OR LESS)

Blow Time: 110%, 4-hr. min.; 135%, 1 hr. max.; 200%, 20-sec. max. **Size:** $\frac{1}{4}$ " dia. $\frac{1}{4}$ ".

L.F. No.	Amp Rating	Net per 5	Net per 100	Net per 500
301001	1	\$0.30	\$5.00	\$4.00
301002	2	.30	5.00	4.00
301002.5	2-1/2	.30	5.00	4.00
301003	3	.28	4.70	3.76
301005	5	.23	3.75	3.00
301006	6	.23	3.75	3.00
301017.5	7-1/2	.23	3.75	3.00
301010	10	.23	3.75	3.00
301015	15	.23	3.75	3.00
301020	20	.23	3.75	3.00
301025	25	.23	3.75	3.00
301030	30	.23	3.75	3.00

3AG FUSES (32 V. OR LESS)

Blow Time: 110%, 4-hour min.; 135%, 1 hour max.; 200%, 20-sec. max. **Length** $1\frac{1}{4}$ " dia. $\frac{1}{4}$ ". U/L Approved

L.F. No.	Amp Rating	Net per 5	Net per 100	Net per 500
311004	4	\$0.28	\$4.70	\$3.76
311005	5	.20	3.30	2.64
311006	6	.20	3.30	2.64
311007.5	7-1/2	.20	3.30	2.64
311008	8	.20	3.30	2.64
311010	10	.20	3.30	2.64
311015	15	.20	3.30	2.64
311025	25	.23	3.75	3.00
311030	30	.23	3.75	3.00
311035	35	.28	4.70	3.76

3AG FUSES (250 V. OR LESS)

Blow Time: 110%, 4-hour min.; 135%, 1 hour max.; 200%, 20-sec. max. **Length** $1\frac{1}{4}$ " dia. $\frac{1}{4}$ ". U/L Approved

L.F. No.	Amp Rating	Net per 5	Net per 100	Net per 500
312.010	1/100	\$1.92	\$32.00	\$25.60
312.031	1/32	1.68	28.00	22.40
312.062	1/16	.75	12.50	10.00
312.100	1/10	.75	12.50	10.00
312.125	1/8	.75	12.50	10.00
312.150	15/100	.75	12.50	10.00
312.175	1/75	.75	12.50	10.00
312.187	3/16	.75	12.50	10.00
312.200	2/10	.75	12.50	10.00
312.250	1/4	.51	8.50	6.80
312.300	3/10	.51	8.50	6.80
312.375	3/8	.51	8.50	6.80
312.500	1/2	.51	8.50	6.80
312.600	6/10	.51	8.50	6.80
312.750	3/4	.51	8.50	6.80
312001	1	.30	5.00	4.00
312.215	1-1/4	.30	5.00	4.00
312015	1-1/2	.30	5.00	4.00
312016	1-6/10	.30	5.00	4.00
312002	2	.30	5.00	4.00
31202.5	2-1/2	.28	4.70	3.76
312003	3	.28	4.70	3.76
312004	4	.39	6.50	5.20
312005	5	.39	6.50	5.20
312006	6	.39	6.50	5.20
312007	7	.39	6.50	5.20
312008	8	.60	10.00	8.00

3AG SLO BLO FUSES

Blow Time: 110%, 4-hour min.; 135%, 1 hour max.; 200%, 5-sec. min. **Length** $1\frac{1}{4}$ " dia. $\frac{1}{4}$ ". U/L Approved

L.F. No.	Amp Rating	Net per 5	Net per 100	Net per 500
313.010	1/100	\$1.44	\$24.00	\$19.20
313.031	1/32	1.44	24.00	19.20
313.062	1/16	1.05	17.50	14.00
313.100	1/10	1.05	17.50	14.00
313.125	1/8	1.05	17.50	14.00
313.150	15/100	1.05	17.50	14.00
313.175	1/75	1.05	17.50	14.00
313.187	3/16	1.05	17.50	14.00
313.200	2/10	1.05	17.50	14.00
313.250	1/4	1.05	17.50	14.00
313.300	3/10	1.05	17.50	14.00
313.375	3/8	1.05	17.50	14.00
313.400	4/10	1.05	17.50	14.00
313.500	1/2	1.05	17.50	14.00
313.600	6/10	1.05	17.50	14.00
313.700	7/10	1.05	17.50	14.00
313.750	3/4	1.05	17.50	14.00
313.800	8/10	1.05	17.50	14.00
313001	1	1.05	17.50	14.00
31301.2	1-2/10	.99	16.50	13.20
3131.25	1-1/4	.99	16.50	13.20
31301.5	1-1/2	.99	16.50	13.20
31301.6	1-6/10	.99	16.50	13.20
313002	2	.75	12.50	10.00
31302.5	2-1/2	.75	12.50	10.00
31302.8	2-8/10	.75	12.50	10.00
313003	3	.75	12.50	10.00
31303.2	3-2/10	.75	12.50	10.00
313004	4	.75	12.50	10.00
313005	5	.75	12.50	10.00
3136.25	6-1/4	.75	12.50	10.00
313007	7	.75	12.50	10.00
313008	8	.75	12.50	10.00
313010	10	.75	12.50	10.00
313015	15	.75	12.50	10.00
313020	20	.75	12.50	10.00
313025	25	.75	12.50	10.00
313030	30	.75	12.50	10.00

A must for servicing European electronic equipment. **Size:** 20 mm x 5 mm (.8" x .2"). **FAST ACTING (250 V. TYPE F)**

L.F. No.	Amp Rating	Net per 5	Net per 100	Net per 500
212.100	1/10	1.59	26.50	21.20
212.125	1/8	1.59	26.50	21.20
212.200	2/10	1.23	20.50	16.40
212.250	1/4	1.23	20.50	16.40
212.300	3/10	1.23	20.50	16.40
212.400	4/10	1.23	20.50	16.40
212.500	1/2	1.23	20.50	16.40
212.600	6/10	1.23	20.50	16.40
212.700	7/10	1.23	20.50	16.40
212.800	8/10	1.23	20.50	16.40
212001	1	.99	16.50	13.20
21201.6	1-1/4	.99	16.50	13.20
212002	2	.99	16.50	13.20
21202.5	2-1/2	.99	16.50	13.20
212003	3	.99	16.50	13.20
212004	4	.99	16.50	13.20
212005	5	.99	16.50	13.20
212006	6	.99	16.50	13.20

MEDIUM ACTING (250 V. TYPE M)
Net per 5: \$ 1.23
Net per 100: 100: \$20.50; 500: 16.40

L.F. No.	Amp Rtg.	L.F. No.	Amp Rtg.	L.F. No.	Amp Rtg.
211.100	1/10	211.500	1/2	211002	2
211.200	2/10	211.600	6/10	211003	3
211.250	1/4	211.800	8/10	211005	5
211.300	3/10	211001	1		
211.400	4/10	21101.6	1-6/10		

SLO BLO FUSES (250 V.) TYPE T					
Net per 5		\$ 1.23			
Net per 100: 100		\$20.50; 500			
100		16.40			
213.100	1/10	213.600	6/10	213025	2-1/2
213.125	1/8	213.700	7/10	213003	3
213.200	2/10	213.800	8/10	213004	4
213.250	1/4	213001	1	213005	5
213.300	3/10	213.251	1-1/4	213006	6
213.400	4/10	21301.6	1-6/10		

SUBMINIATURE (125 V. MAX.)

L.F. No.	Amp Rating	Net per 5	Net per 100	Net per 500
271.500	1/2	\$1.23	\$20.50	\$16.40
27101.5	1-1/2	.99	16.50	13.20

SUBMINIATURE PICOFUSES

For computer, micro-electronic and aerospace circuits of 125 V. or less where short-circuit currents as high as 300 amps occur. High accuracy in blowing time at 300% of rating and higher is ideal for sequential switching or in circuits requiring redundancy. Blow time 4 hours min. at 100% of rating; 5 secs. max. at 200%. Amperage printed on body; can be color-coded at additional cost. Ceramic body only $\frac{1}{4}$ " lg. x $\frac{1}{16}$ " dia.; tin-coated copper leads .025" dia. Order 275 (prefix) for axial leads $\frac{1}{16}$ " long for diode clip or in-circuit mounting; 276 for radial leads $\frac{1}{16}$ " long for use in printed circuits or receptacles. *Avg., cold.

LITTEL FUSE

Quality Fuses

9AG FUSES (32 V. OR LESS)

Blow Time: 100%, 4-hour min.; 125%, 0-1 hour max.; 200%, 0-25 seconds. Lg. 1 1/4", dia. 3/4".

L.F. No.	Amp Rating	Net per 5	Net per 100
		100	500
306050	50	\$5.45	\$7.50 \$6.00

3AG SLO BLO PIGTAIL FUSES (125 V.)

Blow Time: 110%, 4-hr. min.; 135%, 1 hr. max.; 200%, 5-sec. min., lg. 1 1/4", dia. 3/4", 1 1/2" pigtails. U/L App. thru 4.2 amps.

315.010	1/100	\$1.77	\$29.50	\$23.60
315.031	1/32	1.77	29.50	23.60
315.062	1/16	1.29	21.50	17.20
315.100	1/10	1.29	21.50	17.20
315.125	1/8	1.29	21.50	17.20
315.150	1/5	1.29	21.50	17.20
315.175	1/25	1.29	21.50	17.20
315.187	3/16	1.29	21.50	17.20
315.200	2/10	1.29	21.50	17.20
315.250	1/4	1.29	21.50	17.20
315.300	3/10	1.29	21.50	17.20
315.375	1/2	1.29	21.50	17.20
315.400	4/10	1.29	21.50	17.20
315.500	1/2	1.29	21.50	17.20
315.600	6/10	1.29	21.50	17.20
315.700	7/10	1.29	21.50	17.20
315.750	3/4	1.29	21.50	17.20
315.800	8/10	1.29	21.50	17.20
315001	1	1.29	21.50	17.20
31501.2	1-2/10	1.23	20.50	16.40
3151.25	1-1/4	1.23	20.50	16.40
31501.5	1-1/2	1.23	20.50	16.40
31501.6	1-6/10	1.23	20.50	16.40
315002	2	1.23	20.50	16.40
31502.5	2-1/2	1.05	17.50	14.60
31502.8	2-8/10	1.05	17.50	14.60
315003	3	1.05	17.50	14.60
31503.2	3-2/10	1.05	17.50	14.60
315004	4	1.05	17.50	14.60
315005	5	1.05	17.50	14.60

3AG PIGTAIL FUSES (250 V.)

Blow Time: 110%, 4-hour min.; 135%, 1 hour max.; 200%, 10-sec. max. Length 1 1/4", dia. 3/4", 1 1/2" pigtails.

318.010	1/100	\$1.32	\$22.00	\$17.60
318.031	1/32	1.32	22.00	17.60
318.062	1/16	1.32	22.00	17.60
318.125	1/8	.99	16.50	13.20
318.150	15/100	.99	16.50	13.20
318.187	3/16	.99	16.50	13.20
318.200	2/10	.99	16.50	13.20
318.250	1/4	.75	12.50	10.00
318.375	3/8	.75	12.50	10.00
318.500	1/2	.75	12.50	10.00
318.750	3/4	.75	12.50	10.00
318001	1	.60	10.00	8.00
31801.5	1-1/2	.60	10.00	8.00
318002	2	.60	10.00	8.00
31802.5	2-1/2	.60	10.00	8.00
318003	3	.60	10.00	8.00
318004	4	.63	10.50	8.40
318005	5	.63	10.50	8.40
318006	6	.63	10.50	8.40
318007	7	.63	10.50	8.40
318008	8	.75	12.50	10.00

3AG INDICATING FUSES (125 V.)

Blow Time: 110%, 4-hour min.; 135%, 1 hour max. Length 1 1/4", dia. 3/4".

334.750	3/4	\$2.16	\$36.00	\$28.80
334001	1	1.68	28.00	22.40
33401.5	1-1/2	1.68	28.00	22.40
334002	2	1.68	28.00	22.40
334004	4	1.68	28.00	22.40
334005	5	1.68	28.00	22.40
334006	6	2.34	39.00	31.20
334008	8	2.34	39.00	31.20
334010	10	2.34	39.00	31.20
334012	12	2.34	39.00	31.20
334015	15	2.34	39.00	31.20
334020	20	2.34	39.00	31.20

*32 volt.

3AB TINY MIGHTY (250 V. OR LESS)

Blow Time: 110%, 4-hour min.; 135%, 1 hour max.; 200%, 30-sec. max. Length 1 1/4", dia. 3/4", U/L Approved thru 15 amps.

314.125	1/8	\$0.69	\$11.50	\$ 9.20
314.250	1/4	.69	11.50	9.20
314.375	3/8	.69	11.50	9.20
314.500	1/2	.69	11.50	9.20
314.750	3/4	.69	11.50	9.20
314001	1	.66	11.00	8.80
314002	2	.66	11.00	8.80
314003	3	.66	11.00	8.80
314005	5	.63	10.50	8.40
314006	6	.63	10.50	8.40
314007	7	.63	10.50	8.40
314008	8	.63	10.50	8.40
314010	10	.63	10.50	8.40
314012	12	.66	11.00	8.80
314015	15	.66	11.00	8.80
314020	20	.66	11.00	8.80
314025	25	.81	13.50	10.80
314030	30	.81	13.50	10.80

LIMITED CURRENT (250 V.) TYPE C

Blow Time: 110%, 4-hour min.; 135%, 1 hour max.; 200%, 10-sec. max. Prices for applicable fuse holders available upon request.

L.F. No.	Amp Rating	Net per 5	Net per 100	
			100	500
332.031	1/32	\$1.62	\$27.00	\$21.60
332.062	1/16	1.05	17.50	14.00
332.125	1/8	.81	13.50	10.80
332.187	3/16	.81	13.50	10.80
332.250	1/4	.63	10.50	8.40
332.300	3/10	.63	10.50	8.40
332.375	3/8	.63	10.50	8.40
332.400	4/10	.63	10.50	8.40
332.500	1/2	.63	10.50	8.40
332.700	7/10	.63	10.50	8.40
332.750	3/4	.63	10.50	8.40
332001	1	.36	6.00	4.80
3321.25	1-1/4	.36	6.00	4.80
3321.5	1-1/2	.36	6.00	4.80
3321.75	1-3/4	.36	6.00	4.80
332002	2	.36	6.00	4.80
33202.5	2-1/2	.36	6.00	4.80
332003	3	.36	6.00	4.80
33203.5	3-1/2	.45	7.50	6.00
332004	4	.45	7.50	6.00
332005	5	.45	7.50	6.00
332006	6	.45	7.50	6.00
332007	7*	.45	7.50	6.00
332008	8*	.66	11.00	8.80
332010	10*	.69	11.50	9.20

*125 volt.

LC SLO BLO (125 V.) TYPE N

Blow Time: 110%, 4-hour min.; 135%, 1 hour max.; 200%, 6-sec. max. Prices for applicable fuse holders upon request.

333.010	1/100	\$1.53	\$25.50	\$20.40
333.031	1/32	1.53	25.50	20.40
333.062	1/16	1.11	18.50	14.80
333.100	1/10	1.11	18.50	14.80
333.150	15/100	1.11	18.50	14.80
333.200	2/10	1.11	18.50	14.80
333.250	1/4	1.11	18.50	14.80
333.300	3/10	1.11	18.50	14.80
333.400	4/10	1.11	18.50	14.80
333.500	1/2	1.11	18.50	14.80
333.600	6/10	1.11	18.50	14.80
333.700	7/10	1.11	18.50	14.80
333.750	3/4	1.11	18.50	14.80
333.800	8/10	1.11	18.50	14.80
333001	1	1.11	18.50	14.80
3331.25	1-1/4	.99	16.50	13.20
33301.6	1-6/10	.99	16.50	13.20
3331.75	1-3/4	.99	16.50	13.20
333002	2	.99	16.50	13.20
33302.5	2-1/2	.93	15.50	12.40
33302.8	2-8/10	.93	15.50	12.40
333003	3	.93	15.50	12.40
33303.2	3-2/10	.93	15.50	12.40
33303.5	3-1/2	.93	15.50	12.40
333004	4	.93	15.50	12.40
333005	5	.93	15.50	12.40
33302.5	6-1/4*	.93	15.50	12.40
333007	7*	.93	15.50	12.40

*32 volt.

SFE AUTO FUSES (32 V. OR LESS)

Blow Time: 110%, 4-hour min.; 135%, 0-1 hour; 150%, 20 amp or less 15 sec., 30 amps or less 0-30 sec. Dia. 3/4".

L.F. No.	Amp Rating	Lgth. in.	Net per 5	Net per 100	
				100	500
307004	4	$\frac{3}{8}$	\$0.23	\$3.75	\$3.00
307006	6	$\frac{3}{4}$	.23	3.75	3.00
30707.5	7-1/2	$\frac{2}{8}$	.20	3.30	2.64
307009	9	$\frac{1}{8}$	.20	3.30	2.64
307014	14	$1\frac{1}{16}$	.18	2.95	2.36
307020	20	$1\frac{1}{4}$	.18	2.95	2.36
307030	30	$1\frac{1}{16}$	.23	3.75	3.00

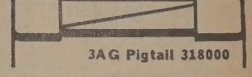
SAG FUSES

Blow Time: 110%, 4-hour min.; 135%, 1 hour max.; 200%, 10-sec. max. Length 1", dia. 3/4", U/L Approved.

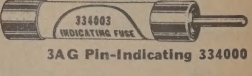
L.F. No.	Amp Rating	Net per 5	Net per 100	
			100	500
362.125	1/8	\$0.75	\$12.50	\$10.00
362.250	1/4	.51	8.50	6.80
362.375	3/8	.51	8.50	6.80
362.500	1/2	.51	8.50	6.80
362.750	3/4	.51	8.50	6.80
362001	1	.30	5.00	4.00
36201.5	1-1/2	.30	5.00	4.00
362002	2	.30	5.00	4.00
362003	3	.30	5.00	4.00
362005	5	.20	3.30	2.64
362006	6	.20	3.30	2.64
362008	8	.20	3.30	2.64
362010	10	.20	3.30	2.64
362012	12	.20	3.30	2.64
362015	15	.20	3.30	2.64
362020	20	.20	3.30	2.64
362025	25	.23	3.75	3.00
362030	30	.23	3.75	3.00



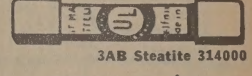
3AG Slo-Blo Pigtail 315000



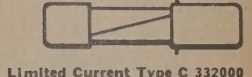
3AG Pigtail 318000



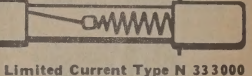
334003 INDICATING FUSE



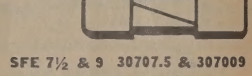
3AG Pin-Indicating 334000



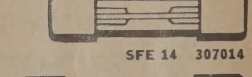
3AB Steatite 314000



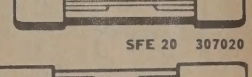
Limited Current Type C 332000



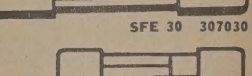
Limited Current Type N 333000



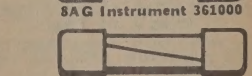
SFE 7 1/2 & 9 30707.5 & 307009



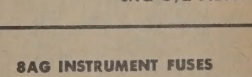
SFE 14 307014



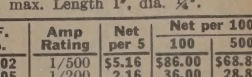
SFE 20 307020



SFE 30 307030



SAG Instrument 361000



SAG U/L 362000

SAG INSTRUMENT FUSES

Blow Time: 100%, 4-hour min.; 200%, 5-sec. max. Length 1", dia. 3/4".

L.F. No.	Amp Rating	Net per 5	Net per 100	
			100	500
361.002	1/500	\$5.16	\$86.00	\$68.80
361.005	1/200	2.16	36.00	28.80
361.010	1/100	1.92	32.00	25.60
361.031	1/32	1.68	28.00	22.40
361.062	1/16	1.05	17.50	14.00
361.100	1/10	.75	12.50	10.00
361.125	1/8	.75	12.50	10.00
361.187	3/16	.75	12.50	10.00
361.200	2/10	.75	12.50	10.00
361.250	3/4	.51	8.50	6.80
361.375	3/8	.51	8.50	6.80
361.400	4/10	.51	8.50	6.80
361.500	1/2	.51	8.50	6.80
361.750	3/4	.51	8.50	6.80
361001	1	.33	5.50	4.40
361002	1-1/2	.33	5.50	4.40
361002	2	.33	5.50	4.40
361003	3	.33	5.50	4.40
361004	4	.33	5.50	4.40
361005	5	.33	5.50	4.40

LITTELFUSE

Fuses, Fuse Puller

4AG AIRCRAFT FUSES

Blow Time: 110%, 4-hour min.; 135%, 1 hour max.; 200%, 10-sec. max. Length $1\frac{1}{4}$ ", dia. $\frac{1}{8}$ ".

L.F. No.	Amp Rating	Net per 5	Net per 100	Net per 500
411010	10	\$0.42	\$7.00	\$5.60
411015	15	.42	7.00	5.60
411020	20	.42	7.00	5.60
411025	25	.42	7.00	5.60
411030	30	.42	7.00	5.60
411035	35	.51	8.50	6.80
411040	40	.51	8.50	6.80

4AB FUSES (STEATITE)

Blow Time: 110%, 4-hour min.; 135%, 1 hour max.; 200%, 30-sec. max. Length $1\frac{1}{4}$ ", dia. $\frac{1}{8}$ ".

L.F. No.	Amp Rating	Net per 5	Net per 100	Net per 500
414001	1	\$1.02	\$17.00	\$13.60
414002	2	1.02	17.00	13.60
414003	3	1.02	17.00	13.60
414005	5	.96	16.00	12.80
414006	6	.96	16.00	12.80
414008	8	.96	16.00	12.80
414010	10	.96	16.00	12.80
414015	15	.96	16.00	12.80
414020	20	.96	16.00	12.80
414025	25	.96	16.00	12.80
414030	30	.96	16.00	12.80
414035	35	1.02	17.00	13.60
414040	40	1.02	17.00	13.60

5AG AIRCRAFT FUSES

Blow Time: 110%, 4-hour min.; 135%, 1 hour max.; 200%, 20-sec. max. Length $1\frac{1}{2}$ ", dia. $\frac{11}{32}$ ".

L.F. No.	Amp Rating	Net per 5	Net per 100	Net per 500
511010	10	\$0.60	\$10.00	\$8.00
511015	15	.60	10.00	8.00
511020	20	.60	10.00	8.00
511025	25	.60	10.00	8.00
511030	30	.60	10.00	8.00
511035	35	.63	10.50	8.40
511040	40	.63	10.50	8.40
511050	50	.63	10.50	8.40
511060	60	.63	10.50	8.40

5AG QUICK-ACTING FUSES (250 V. OR LESS)

Blow Time: 110%, 4-hour min.; 135%, 1 hour max.; 200%, 10-sec. max. Length $1\frac{1}{2}$ ", dia. $\frac{11}{32}$ ".

L.F. No.	Amp Rating	Net per 5	Net per 100	Net per 500
512001	1	\$0.63	\$10.50	\$8.40
512002	2	.63	10.50	8.40
512003	3	.63	10.50	8.40
512004	4	.63	10.50	8.40
512005	5	.60	10.00	8.00
512008	8*	.60	10.00	8.00

*125 volts.

5AG SLO BLO FUSES (250 V. OR LESS)

Blow Time: 110%, 4-hour min.; 135%, 1 hour max.; 200%, 5-sec. min. Length $1\frac{1}{2}$ ", dia. $\frac{11}{32}$ ".

L.F. No.	Amp Rating	Net per 5	Net per 100	Net per 500
513.500	1/2	\$1.77	\$29.50	\$23.60
513001	1	1.77	29.50	23.60
513002	2	1.77	29.50	23.60
513003	3	1.38	23.00	18.40
513005	5	1.38	23.00	18.40
513010	10	1.38	23.00	18.40
513015	15	1.38	23.00	18.40
513020	20	1.38	23.00	18.40
513025	25	1.56	26.00	20.80
513030	30	1.56	26.00	20.80

5AB AIRCRAFT FUSES

Blow Time: 110%, 4-hour min.; 135%, 1 hour max.; 200%, 30-sec. max. Length $1\frac{1}{2}$ ", dia. $\frac{11}{32}$ ".

L.F. No.	Amp Rating	Net per 5	Net per 100	Net per 500
514001	1	\$1.17	\$19.50	\$15.60
514002	2	1.17	19.50	15.60
514003	3	1.17	19.50	15.60
514005	3 1/2	1.17	19.50	15.60
514006	5	1.11	18.50	14.80
514006	6	1.11	18.50	14.80
514025	18-1/4	1.11	18.50	14.80
514007	7	1.11	18.50	14.80
514008	8	1.11	18.50	14.80
514010	10	1.11	18.50	14.80
514015	15	1.11	18.50	14.80
514020	20	1.11	18.50	14.80
514025	25	1.11	18.50	14.80
514030	30	1.11	18.50	14.80
514035	35	1.17	19.50	15.60
514040	40	1.17	19.50	15.60

HIGH VOLTAGE FUSES

Designed for use in aircraft radio equipment, transmitting equipment, X-ray apparatus, high voltage rectifiers, etc., for circuits up to 20 KW DC or 30 KVA AC. Fuses are fiber enclosed with cadmium plated end caps. Two principles of are suppression are employed: (1) Multi-break fuse wire which blows at each half inch of its length; (2) Ceramic baffles break the arc into several parts and quench it. Blow Time: 110%, 4-hour min.; 135%, 0-1 hour; 200% 0-2 minutes.

1000-VOLT ($3" \times \frac{11}{32}"$)

L.F. No.	Amp Rating	Net Each	Net per 100	Net per 500
621.375	3/8	\$0.31	\$25.50	\$20.40
621.500	1/2	.31	25.50	20.40
621.750	3/4	.31	25.50	20.40
621001	1	.31	25.50	20.40
62101.5	1-1/2	.31	25.50	20.40
621002	2	.31	25.50	20.40

2500-VOLT ($4\frac{1}{2}" \times \frac{11}{32}"$)

L.F. No.	Amp Rating	Net Each	Net per 100	Net per 500
622.500	1/2	\$0.40	\$33.50	\$26.80
622.750	3/4	.40	33.50	26.80
622001	1	.40	33.50	26.80
62201.5	1-1/2	.40	33.50	26.80
622002	2	.40	33.50	26.80

3000-VOLT ($5\frac{1}{2}" \times \frac{11}{32}"$)

L.F. No.	Amp Rating	Net Each	Net per 100	Net per 500
623.500	1/2	\$0.59	\$49.50	\$39.60
623.750	3/4	.59	49.50	39.60
623001	1	.59	49.50	39.60
62301.5	1-1/2	.59	49.50	39.60
623002	2	.59	49.50	39.60

1000-VOLT ($3" \times \frac{11}{32}"$)

L.F. No.	Amp Rating	Net Each	Net per 100	Net per 500
701.062	1/16	\$0.72	\$60.00	\$48.00
701.125	1/8	.72	60.00	48.00
701.250	1/4	.72	60.00	48.00
701.375	3/8	.72	60.00	48.00
701.500	1/2	.72	60.00	48.00
701.750	3/4	.72	60.00	48.00
701001	1	.72	60.00	48.00
70101.5	1-1/2	.72	60.00	48.00
701002	2	.72	60.00	48.00

5000-VOLT ($5" \times \frac{11}{32}"$)

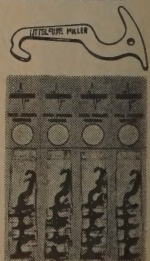
L.F. No.	Amp Rating	Net Each	Net per 100	Net per 500
702.062	1/16	\$0.75	\$62.50	\$50.00
702.125	1/8	.75	62.50	50.00
702.250	1/4	.75	62.50	50.00
702.375	3/8	.75	62.50	50.00
702.500	1/2	.75	62.50	50.00
702.750	3/4	.75	62.50	50.00
702001	1	.75	62.50	50.00
70201.5	1-1/2	.75	62.50	50.00
702002	2	.75	62.50	50.00
70202.5	2-1/2	.75	62.50	50.00
702003	3	.75	62.50	50.00

10,000-VOLT ($10" \times \frac{11}{32}"$)

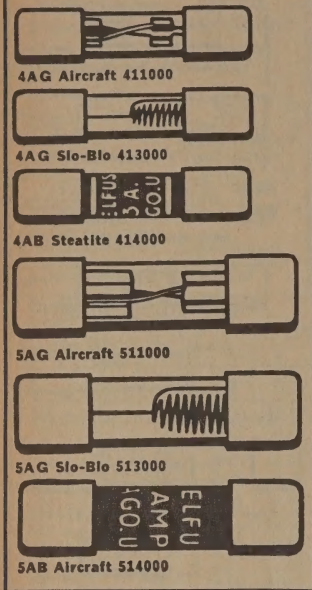
L.F. No.	Amp Rating	Net Each	Net per 100	Net per 500
703.062	1/16	\$1.55	\$129.50	\$103.60
703.125	1/8	1.55	129.50	103.60
703.250	1/4	1.55	129.50	103.60
703.375	3/8	1.55	129.50	103.60
703.500	1/2	1.55	129.50	103.60
703.750	3/4	1.55	129.50	103.60
703001	1	1.55	129.50	103.60
70301.5	1-1/2	1.55	129.50	103.60
703002	2	1.55	129.50	103.60
703003	3	1.55	129.50	103.60

FUSE PULLER AND ASSORTMENT

Handy tool provides safe, easy method of extracting any blown fuse. Hooks around fuse permitting easy jerk-out. Available singly (097006) or in card-mounted assortment of 20 pullers, pressure sensitively attached on a card (094068).



L.F. No.	Net Ea., Lots
097006	\$0.18 \$0.12
094068	5.00 4.17



4AG QUICK-ACTING FUSES (250 V. OR LESS)

Blow Time: 110%, 4-hour min.; 135%, 1 hour max.; 200%, 10-sec. max. Length $1\frac{1}{4}$ ", dia. $\frac{1}{8}$ ".

L.F. No.	Amp Rating	Net per 5	Net per 100	Net per 500
412.062	1/16	\$1.62	\$27.00	\$21.60
412.125	1/8	1.14	19.00	15.20
412.250	15/100	1.14	19.00	15.20
412.500	1/4	.54	9.00	7.20
412.500	1/2	.54	9.00	7.20
412001	1	.51	8.50	6.80
41201.5	1-1/2	.51	8.50	6.80
412002	2	.51	8.50	6.80
41202.5	2-1/2	.51	8.50	6.80
412003	3	.51	8.50	6.80
412005	5	.42	7.00	5.60
412008	8*	.42	7.00	5.60

*125 volts.

4AG SLO BLO AIRCRAFT FUSES (250 V. OR LESS)

Blow Time: 110%, 4-hour min.; 135%, 1 hour max.; 200%, 5-sec. min. Length $1\frac{1}{4}$ ", dia. $\frac{1}{8}$ ".

L.F. No.	Amp Rating	Net per 5	Net per 100	Net per 500
413.062	1/16	\$1.38	\$23.00	\$18.40
413.190	1/10	1.38	23.00	18.40
413.125	1/8	1.38	23.00	18.40
413.150	15/100	1.38	23.00	18.40
413.200	2/10	1.38	23.00	18.40
413.250	1/4	1.38	23.00	18.40
413.300	3/10	1.38	23.00	18.40
413.400	4/10	1.38	23.00	18.40
413.500	1/2	1.38	23.00	18.40
413.600	6/10	1.38	23.00	18.40
413.750	3/4	1.38	23.00	18.40
413.800	8/10	1.38	23.00	18.40
413001	1	1.38	23.00	18.40
413.25	1-1/4	1.38	23.00	18.40
41301.5	1-1/2	1.38	23.00	18.40
41301.6	1-6/10	1.38	23.00	18.40
413002	2	1.38	23.00	18.40
41302.5	2-1/2	1.05	17.50	14.00
413003	3	1.05	17.50	14.00
41303.2	3-2/10	1.05	17.50	14.00
413004	4	1.05	17.50	14.00
413005	5	1.05	17.50	14.00
4136.25	6-1/4	1.05	17.50	14.00
413008	8	1.05	17.50	14.00
413010	10	1.05	17.50	14.00
413015	15	1.05	17.50	14.00
413020	20	1.05	17.50	14.00
413025	25	1.05	17.50	14.00
413030	30	1.05	17.50	14.00

LITTELFUSE

CIRCUIT BREAKERS,

MOUNTINGS AND CLIPS

MOUNTINGS FOR SARKES TARZIAN AND INTERNATIONAL RECTIFIERS

L.F. No.	Description	Net Each, Lots of 5	Net per 100	
			100	500
099062	Single pole, 1/4" base	\$0.16	\$13.50	\$10.80
099063	Double pole, 1/4" base	.32	27.00	21.60
099065	Double pole, 1/4" base	.32	17.50	14.00
099065-3	1/4" Bakelite insulator	.017	1.88	1.40
099067	Single pole 1/4" base	.09	7.50	6.00
099067-3	1/4" Bakelite insulator	.01	.85	.68

STANDARD FUSE CLIPS (PHOSPHOR BRONZE, NICKEL PLATED)

L.F. No.	Fuse Adaptation	Type	Net Each, Lots of 5	Net per 100	
				100	500
101001	SFE, 3AG, 8AG, 3AB	Ear	\$0.0228	\$ 1.90	\$ 1.52
101002	SFE, 3AG, 8AG, 3AB	Earless	.0228	2.90	1.52
101003*	SFE, 3AG, 8AG, 3AB	Lug	.0168	2.30	1.52
103001	4AG, 4AB	Ear	.0396	3.30	2.64
104002	4AG, 4AB	Earless	.0396	3.30	2.64
105001	5AG	Ear	.0486	4.05	3.24
105002	5AG	Earless	.0486	4.05	3.24
107001	1/4" dia.	Ear	.078	6.50	5.20
107002	1/4" dia.	Earless	.078	6.50	5.20
109001	1/4" dia.	Ear	.204	17.00	13.60
109002	1/4" dia.	Earless	.204	17.00	13.60

*Unplated, bright dip.

STANDARD FUSE CLIPS (BERYLLIUM COPPER, SILVER PLATED)

L.F. No.	Description	Type	Net Each, Lots of 5	Net per 100	
				100	500
121001	SFE, 3AG, 8AG, 3AB	Ear	\$0.0486	\$ 4.05	\$ 3.24
121002	SFE, 3AG, 8AG, 3AB	Earless	.0486	4.05	3.24
121004	SFE, 3AG, 8AG, 3AB	Lug	.114	9.50	7.60
123001	4AG, 4AB	Ear	.078	6.50	5.20
123002	4AG, 4AB	Earless	.078	6.50	5.20
125001	5AG, hi-volt	Ear	.12	10.00	8.00
125002	5AG, hi-volt	Earless	.12	10.00	8.00
127001	1/4" dia.	Ear	.258	21.50	17.20
127002	1/4" dia.	Earless	.258	21.50	17.20
129001	1/4" dia.	Ear	.60	50.00	40.00
129002	1/4" dia.	Earless	.60	50.00	40.00

3AG MOUNTINGS

L.F. No.	Description	Net Each, Lots of 5	Net per 100	
			100	500
351009	Hinged can cover, 2 pole	\$1.182	\$98.50	\$78.80
351010	Spare, 1 pole	.162	13.50	10.80
352001	Through panel, 1 pole	.27	22.50	18.00
353001	Panel, 1 pole	.48	40.00	32.00

3AG MOUNTINGS

WITH SCREW TERMINALS—TYPE T

L.F. No.	Description	Net Ea. Lots of 5	Net per 100	
			100	500
356001	1 pole	\$0.34	\$ 28.50	\$ 22.80
356002	2 pole	.66	55.00	44.00
356003	3 pole	1.00	83.00	66.40
356004	4 pole	1.70	142.00	113.60
356005	5 pole	2.12	176.50	141.20
356006	6 pole	2.50	208.00	166.40
356007	7 pole	2.94	245.00	196.00
356008	8 pole	3.35	279.00	223.20
356009	9 pole	3.75	312.50	250.00
356010	10 pole	4.13	344.00	275.20
356011	11 pole	4.52	377.00	301.60
356012	12 pole	4.85	404.00	323.20

3AG MOUNTINGS

WITH SOLDER TERMINALS—TYPE S

L.F. No.	Description	Net Ea. Lots of 5	Net per 100	
			100	500
357001	1 pole	\$0.16	\$ 13.50	\$ 10.80
357002	2 pole	.32	27.00	21.60
357003	3 pole	.49	41.00	32.80
357004	4 pole	.62	51.50	41.20
357005	5 pole	.76	63.00	50.40
357006	6 pole	.89	74.00	59.20
357007	7 pole	1.01	84.00	67.20
357008	8 pole	1.15	96.00	76.80
357009	9 pole	1.30	108.00	86.40
357010	10 pole	1.44	120.00	96.00
357011	11 pole	1.58	132.00	105.60
357012	12 pole	1.73	144.00	115.20

8AG MOUNTINGS

L.F. No.	Description	Net Ea. Lots of 5	Net per 100	
			100	500
383001	1 pole†	\$0.48	\$40.00	\$32.00
383002	1 pole†	.32	27.00	21.60

*Thru-panel, †Meter back.

8AG MOUNTINGS

WITH SOLDER TERMINALS—TYPE S

L.F. No.	Description	Net Ea. Lots of 5	Net per 100	
			100	500
387001	1 pole	\$0.16	\$ 13.50	\$ 10.80
387002	2 pole	.32	27.00	21.60
387003	3 pole	.49	41.00	32.80
387004	4 pole	.62	51.50	41.20
387005	5 pole	.76	63.00	50.40
387006	6 pole	.89	74.00	59.20
387007	7 pole	1.01	84.00	67.20
387008	8 pole	1.15	96.00	76.80
387009	9 pole	1.30	108.00	86.40
387010	10 pole	1.44	120.00	96.00
387011	11 pole	1.58	132.00	105.60
387012	12 pole	1.73	144.00	115.20

4AG FUSE MOUNTINGS

WITH SCREW TERMINALS—TYPE T

L.F. No.	Description	Net Ea. Lots of 5	Net per 100	
			100	500
456001	1 pole	\$0.44	\$ 36.50	\$ 29.20
456002	2 pole	.85	70.50	56.40
456003	3 pole	1.25	104.50	83.60
456004	4 pole	2.26	188.50	150.80
456005	5 pole	2.84	236.50	189.20
456006	6 pole	3.35	279.50	223.60
456007	7 pole	3.83	329.00	263.20
456008	8 pole	4.49	374.50	299.60
456009	9 pole	5.04	420.00	336.00
456010	10 pole	5.59	466.00	372.80
456011	11 pole	6.14	512.50	409.20
456012	12 pole	6.60	550.00	440.00

5AG MOUNTINGS

WITH SCREW TERMINALS—TYPE T

L.F. No.	Description	Net Ea. Lots of 5	Net per 100	
			100	500
556001	1 pole	\$0.50	\$ 41.50	\$ 33.20
556002	2 pole	.98	81.50	65.20
556003	3 pole	1.45	120.50	96.40
556004	4 pole	2.76	230.00	184.00
556005	5 pole	3.44	286.50	229.20
556006	6 pole	4.07	339.50	271.60
556007	7 pole	4.79	399.00	323.20
556008	8 pole	5.45	454.50	363.60
556009	9 pole	6.12	510.00	408.00
556010	10 pole	6.76	563.00	450.40
556011	11 pole	7.42	618.00	494.00
556012	12 pole	7.97	664.50	531.60

HIGH VOLTAGE FUSE HOLDERS

For 701000 Series Fuses.

L.F. No.	Size, In. L. x H.	Net Each	Net per 100	
			100	500
711001	2 1/4 x 1 1/4	\$1.67	\$139.00	\$111.20

For 702000 Series Fuses.

711002	6 1/2 x 1 1/4	\$1.88	\$156.50	\$125.20
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For 703000 Series Fuses.

711003	12 x 3	\$4.46	\$371.50	\$297.20
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For 621000 Series Fuses.

631001	4 x 1 1/4	\$0.94	\$78.00	\$62.40
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For 622000 Series Fuses.

631002	5 1/2 x 1 1/4	\$1.33	\$111.00	\$88.80
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For 623000 Series Fuses.

631003	6 1/2 x 1 1/4	\$1.44	\$120.00	\$96.00
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TV SNAP-ON FUSE HOLDERS

L.F. No.	Holder†	Net Each	Net per 100	
			100	500
094025	10holders*	\$1.90	\$150.00	\$120.00
350130	Holder†	.19	15.00	12.00

*In plastic box, †Bulk.

MANUAL RESET CIRCUIT BREAKERS

Exact replacement protector for TV circuits. Ideal for current overload protection for model railroads, toy transformers, hair dryers, small appliances, tools, wiring, etc. For 125 VAC operation. Size, 1 1/2" x 1 1/4" x 1/2".

L.F. No.	Trip Rating Amps	Skin Pack Net Ea.	Bulk Pkg. Box of 5
815.650	.650	\$0.84	\$3.90
815.800	.800	.84	3.90
815001	1	.84	3.90
8151.25	1.25	.84	3.90
81501.5	1.5	.84	3.90
8151.75	1.75	.84	3.90
815002	2	.84	3.90
8152.25	2.25	.84	3.90
81502.5	2.5	.84	3.90
8152.75	2.75	.84	3.90
815003	3	.84	3.90
8153.25	3.25	.84	3.90
815004	4	.84	3.90
81504.5	4.5	.84	3.90
815005	5	.84	3.90
815006	6	.84	3.90
815007	7	.84	3.90

*Add C when ordering (i.e., 815002C).

L.F. No. 094084 Bulk Assortment—One each of above circuit breakers plus one extra 2.75-amp rating. Net Ea. \$7.80

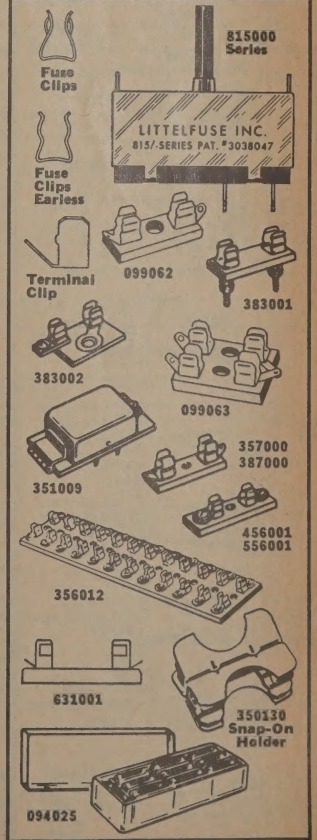
L.F. No. 094085 Card Assortment—Same, but card packaging. Net Ea. \$8.40

L.F. No. 094073 Card Assortment for Color TV—One each 8151.75, 8152.25, 8152.75, 815003, 815007; two 81504.5, three 8153.25. Net Ea. \$8.40

L.F. No. 094074 Bulk Assortment for Color TV—Same, but bulk packaging. Net Ea. \$7.80

L.F. No. 815(000) PA-Circuit Breaker Adapter Plate—Net Ea. \$0.18; 100

Net: \$15.00 (\$100 lots); \$12.00 (\$500 lots).



LITTELFUSE

Fuses and Holders

FUSES AND ASSORTMENTS

ECON TIME-DELAY PLUG FUSES

Dual-element plug type fuses provide additional protection against blowing during motor starting cycle. U/L Approved. For 125-volt operation.

L.F. No.	Amp Rating	Net per Box of 4	Net per 100
TE3/10	3/10	\$0.70	\$15.00
TE4/10	4/10	.70	15.00
TE8/10	8/10	.70	15.00
TE1	1	.70	15.00
TE1-1/8	1-1/8	.70	15.00
TE1-1/4	1-1/4	.70	15.00
TE1-4/10	1-4/10	.70	15.00
TE1-6/10	1-6/10	.70	15.00
TE1-8/10	1-8/10	.70	15.00
TE2	2	.70	15.00
TE2-1/4	2-1/4	.70	15.00
TE2-1/2	2-1/2	.70	15.00
TE3-2/10	3-2/10	.70	15.00
TE3-1/2	3-1/2	.70	15.00
TE4	4	.70	15.00
TE4-1/2	4-1/2	.70	15.00
TE5	5	.70	15.00
TE5-6/10	5-6/10	.70	15.00
TE6-1/4	6-1/4	.70	15.00
TE7	7	.70	15.00
TE8	8	.70	15.00
TE9	9	.70	15.00
TE10	10	.70	15.00
TE12	12	.70	15.00
TE14	14	.70	15.00
TE15	15	.38	8.10
TE20	20	.38	8.10
TE25	25	.38	8.10
TE30	30	.38	8.10

CLEARSITE ONE-TIME PLUG HOUSE FUSES

Full visibility design for positive, clear indication of fuse condition. For 125 v. AC or DC. U/L Approved. Use with standard Edison base fuse holders.

L.F. No.	Amp Rating	Net per Box of 5	Net per 100
CP10	10	\$0.38	\$6.80
CP15	15	.34	6.10
CP20	20	.34	6.10
CP25	25	.34	6.10
CP30	30	.34	6.10

UNIVERSAL AUTO FUSE ASSORTMENT

Emergency fuse kit with ten popular replacement fuses for any car.

Littelfuse No. 094080—Net Each. . . . \$1.12

FUSE CADDY

Standard fuse caddy for servicemen to carry in tube caddy. Fifteen compartments for 75 fuses; three spare compartments. See-thru plastic top for easy identification.

Littelfuse No. 094037—Net Each. . . . \$8.28

LIMITED-CURRENT FUSE CADDY

Handy, all-inclusive limited-current fuse caddy complete with 75 fuses of 15 different types. Three extra (spare) compartments.

Littelfuse No. 094041—Net Each. . . . \$11.21

FUSEMASTER DISPLAY

Fuse wall rack with 60 individual compartments for easy, instant self-service. Holds index card on back of rack. Ideal for servicemen, laboratories, etc.

Littelfuse No. 094047—Complete with 100 assorted fuses. Net Each. . . . \$13.67
Littelfuse No. 094048—Empty rack. Net Each.85c

FUSE HOLDERS, RETAINERS

MICROFUSE HOLDERS

For mounting of 273000 Series Microfuse. Type 281002 is front panel mounting; 281001 ideal for printed circuit board mtg.; 284000 Series front panel mtg. with indicator bulb.

L.F. No.	Voltage Range	Net Each	Net per 100
281001	.....	\$0.26	\$21.50
281002	.....	.58	48.50
282001	.....	1.31	109.00
282002	.....	1.24	103.00
284004	.....	2.21	184.00
284005	7-16	2.21	184.00
284006	16-32	2.21	184.00
284003	100-125	1.55	129.00

3AG FUSE EXTRACTOR POSTS

L.F. No.	Type	Net Each	Net per 100
340255A	R/F shld'd (FHN26G)	\$4.20	\$350.00
340256A	R/F shld'd (FHN20G)	4.20	350.00
341001	Screw	.50	42.00
342001	Finger	.50	42.00
342004	Miniature	.42	35.00
342005	Miniature*	.50	42.00
342006	Watertight	3.23	265.00
342007	Non-watertight	2.29	190.50
342011	Miniature	.37	30.00
342013	Miniature*	.44	36.50
342014	Miniature	.77	64.00
342015	Miniature*	.44	36.50
342020	Miniature	.77	64.00
342021	FHN 26W	4.10	342.00
342022	Miniature*	.42	35.00
342023	Miniature*	.50	42.00
342024	FHN 26G	1.24	103.50
342025	FHN 20G	1.28	107.00

*Dust-proof.

8AG FUSE EXTRACTOR POSTS

L.F. No.	Type	Net Each	Net per 100
371001	Screw	\$0.50	\$42.00
372001	Finger	.50	42.00
372003	FHN31G	2.50	208.50

4AG FUSE EXTRACTOR POSTS

L.F. No.	Type	Net Each	Net per 100
442001	Finger	\$1.06	\$88.00
442006	Watertight	3.23	265.00
442007	Non-watertight	2.29	190.50
442008	Watertight	4.10	342.00

5AG FUSE EXTRACTOR POSTS

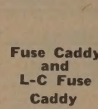
L.F. No.	Type	Net Each	Net per 100
570001	Non-watertight	\$2.90	\$241.50
571004	Watertight	3.51	292.50



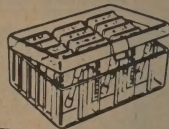
Econ Plug Fuse



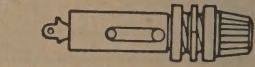
Clearsite Fuse



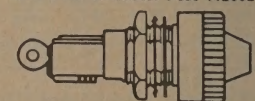
Fuse Caddy and L-C Fuse Caddy



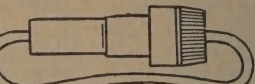
Fusemaster Display



4AG Fuse Extractor Post 442001



Indicating Fuse Post 344000



Bakelite In-Line Fuse Retainer Assembled with Lead

3AG INDICATING FUSE POSTS

L.F. No.	Voltage	Net Each	Net per 100
344006	2 1/2 - 7 V	\$2.50	\$208.00
344012	7-16 V	2.50	208.00
344024	16-32 V	2.50	208.00
344125	100-125 V	1.52	127.00
344250	200-250 V	1.52	127.00

SERIES 346000 LIMITED CURRENT FUSE HOLDERS

For use with regular and Slo-Blo Type C and N limited current fuses. Specify amperage when ordering.

Net per 100 \$12.00
Net per 500 \$48.00

UNIVERSAL FUSE RETAINER

Comes with three different length springs for fuse sizes 7 1/2 SFE thru 3AG.

L.F. No. 150145—Net Each. 39c
Net 100. . . \$32.50. Lots 600. Net 100. \$26.00

BAKELITE® IN-LINE FUSE RETAINERS ASSEMBLED WITH 19" LEAD

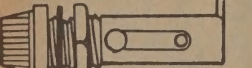
L.F. No.	Use with Fuses	Net Ea. Lots of 5	Net per 100
155004A	SFE 4, 1AG	\$0.37	\$31.00
155006A	SFE 6	.37	31.00
155075A	SFE 7 1/2	.37	31.00
155009A	SFE 9, 7AG	.37	31.00
155014A	SFE 14	.37	31.00
155020A	SFE 20, 3AG	.37	31.00
150069-SA-2*		.25	20.50

@Bakelite Corp. *Knob sub-assembly.

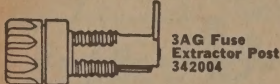


Microfuse Holders

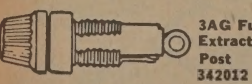
3AG Fuse Extractor Post 341001



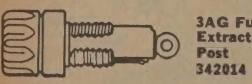
3AG Fuse Extractor Post 342001



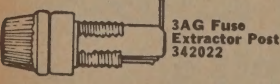
3AG Fuse Extractor Post 342004



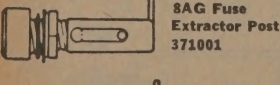
3AG Fuse Extractor Post 342012



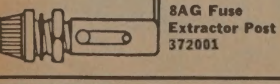
3AG Fuse Extractor Post 342014



3AG Fuse Extractor Post 342022



8AG Fuse Extractor Post 371001



8AG Fuse Extractor Post 372001

SECTION 5100 MILITARY FUSES and FUSEHOLDERS

Cross Reference of Littelfuse Part Number vs. Military Type Designation as per Specification MIL-F-15160D (Qualified Product Listing-Fuses) and MIL-F-19207A (Fuse Holders).

Littelfuse Cat. No.								Littelfuse Cat. No.							
New Type Designation (MIL-F-15160D)	Series	Nickel Plated Caps	Silver Plated Caps	List Each	1-99	100-499	500-999	New Type Designation (MIL-F-15160D)	Series	Nickel Plated Caps	Silver Plated Caps	List Each	1-99	100-499	500-999
FO1A250V 1/200A	361000 Series	364.005	366.005	\$0.72	\$432.00	\$360.00	\$288.00	FO2B250V 1/8A	313000 Series (Cont'd)	393.125	398.125	\$0.35	\$210.00	\$175.00	\$140.00
FO1A250V 1/100A		364.010	366.010	.54	384.00	320.00	256.00	FO2B250V 1/4A		393.250	398.250	.35	210.00	175.00	140.00
FO1A250V 1/32A		364.031	366.031	.56	336.00	280.00	224.00	FO2B250V 3/8A		393.375	398.375	.35	210.00	175.00	140.00
FO1A250V 1/16A		364.062	366.062	.35	210.00	175.00	140.00	FO2B250V 1/2A		393.500	398.500	.35	210.00	175.00	140.00
FO1A250V 1/8A	362000 Series	364.125	366.125	.25	150.00	125.00	100.00	FO2B250V 3/4A		393.750	398.750	.35	210.00	175.00	140.00
FO1A250V 1/4A		364.250	366.250	.17	102.00	85.00	68.00	FO2B250V 1A		393001	398001	.35	210.00	175.00	140.00
FO1A250V 3/8A		364.375	366.375	.17	102.00	85.00	68.00	FO3A250V 1A	394001	399001	.22	132.00	110.00	88.00	
FO1A250V 1/2A		364.500	366.500	.17	102.00	85.00	68.00	FO3A250V 3A	394003	399003	.22	132.00	110.00	88.00	
FO1A125V 3/4A		364.750	366.750	.17	102.00	85.00	68.00	FO3A250V 5A	394005	399005	.21	126.00	105.00	84.00	
FO1A125V 1A		364001	366001	.10	60.00	50.00	40.00	FO3A250V 8A	394008	399008	.21	126.00	105.00	84.00	
FO1A125V 1-1/2A		36401.5	36601.5	.10	60.00	50.00	40.00	FO3A250V 10A	394010	399010	.21	126.00	105.00	84.00	
FO1A125V 2A		364002	366002	.10	60.00	50.00	40.00	FO3A250V 12A	394012	399012	.22	132.00	110.00	88.00	
FO2A250V 1/100A	312000 Series	392.010	397.010	.54	384.00	320.00	256.00	FO3A250V 15A	394015	399015	.22	132.00	110.00	88.00	
FO2A250V 1/32A		392.031	397.031	.56	336.00	280.00	224.00	FO3A125V 20A	394020	399020	.22	132.00	110.00	88.00	
FO2A250V 1/16A		392.062	397.062	.25	150.00	125.00	100.00	FO3A125V 30A	394030	399030	.27	162.00	135.00	108.00	
FO2A250V 1/8A		392.125	397.125	.25	150.00	125.00	100.00	FO3B250V 1/16A	390.062	395.062	.54	324.00	270.00	216.00	
FO2A250V 1/4A		392.250	397.250	.17	102.00	85.00	68.00	FO3B250V 1/8A	390.125	395.125	.54	324.00	270.00	216.00	
FO2A250V 3/8A		392.375	397.375	.17	102.00	85.00	68.00	FO3B250V 15/100A	390.150	395.150	.54	324.00	270.00	216.00	
FO2A250V 1/2A		392.500	397.500	.17	102.00	85.00	68.00	FO3B250V 3/16A	390.187	395.187	.54	324.00	270.00	216.00	
FO2A250V 3/4A		392.750	397.750	.17	102.00	85.00	68.00	FO3B250V 1/4A	390.250	395.250	.54	324.00	270.00	216.00	
FO2A250V 1A		392001	397001	.10	60.00	50.00	40.00	FO3B250V 3/8A	390.375	395.375	.54	324.00	270.00	216.00	
FO2A250V 1-1/2A		39201.5	39701.5	.10	60.00	50.00	40.00	FO3B250V 1/2A	390.500	395.500	.54	324.00	270.00	216.00	
FO2A250V 2A		392002	397002	.10	60.00	50.00	40.00	FO3B250V 3/4A	390.750	395.750	.54	324.00	270.00	216.00	
FO2A250V 3A		392003	397003	.094	56.40	47.00	37.60	FO3B250V 1A	390001	395001	.54	324.00	270.00	216.00	
FO2A250V 4A		392004	397004	.13	78.00	65.00	52.00	FO6A250V 1A	494001	499001	.34	204.00	170.00	136.00	
FO2A250V 5A		392005	397005	.13	78.00	65.00	52.00	FO6A250V 2A	494002	499002	.34	204.00	170.00	136.00	
FO2A250V 6A		392006	397006	.13	78.00	65.00	52.00	FO6A250V 3A	494003	499003	.34	204.00	170.00	136.00	
FO2A32V 10A		(311000) 307000 for 20 amper	392010	397010	.066	38.60	33.00	26.40	FO6A250V 5A	494005	499005	.32	192.00	160.00	128.00
FO2A32V 15A	392015		397015	.066	38.60	33.00	26.40	FO6A250V 10A	494010	499010	.32	192.00	160.00	128.00	
FO2A32V 20A	392020		397020	.059	35.40	29.50	23.60	FO6A250V 15A	494015	499015	.32	192.00	160.00	128.00	
FO2B250V 1/100A	313000 Series	393.010	398.010	.48	288.00	240.00	192.00	FO7A250V 1A	590001	595001	.21	126.00	105.00	84.00	
FO2B250V 1/32A		393.031	398.031	.48	288.00	240.00	192.00	FO7A250V 2A	590002	595002	.21	126.00	105.00	84.00	
FO2B250V 1/16A		393.062	398.062	.35	210.00	175.00	140.00	FO7A250V 3A	590003	595003	.21	126.00	105.00	84.00	

NOTE: Add \$9.00 Stamping Charge per item, per order, and \$3.00 Silver Plating Charge per item, per order when required. The Suffix "S" to the type designation indicates that Silver Plated fuse caps are required, for example: FO2A250V 3/4A "S".

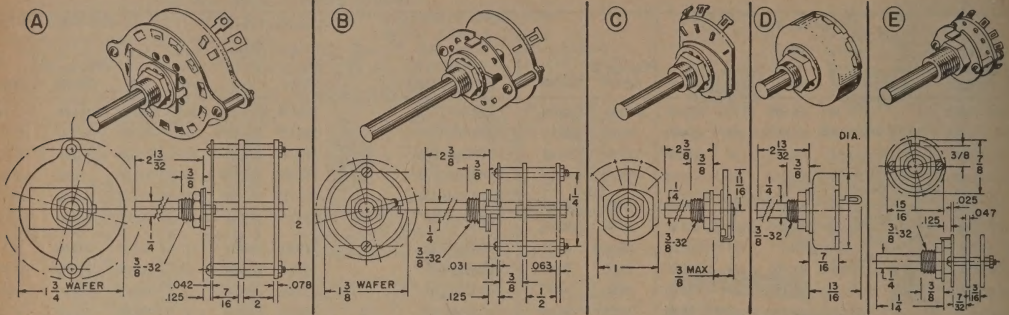
FUSEHOLDERS TO MILITARY SPECIFICATION MIL-F-19207A

Type Designation (MIL-F-19207A)	Description	Littelfuse Catalog No.	Commercial Equivalent	List Each	1-99	100-499	500-999
FHL 17G	90-300V INDICATING	349250	.....	\$3.31	\$1,986.00	\$1,665.00	\$1,324.00
FHL 18G-1	12- 22V INDICATING	349012	.....	5.12	3,072.00	2,560.00	2,048.00
FHL 18G-2	23- 33V INDICATING	349023	.....	5.00	3,000.00	2,500.00	2,000.00
FHL 18G-3	34- 45V INDICATING	349034	.....	5.00	3,000.00	2,500.00	2,000.00
FHL 18G-4	46- 60V INDICATING	349046	.....	5.00	3,000.00	2,500.00	2,000.00
FHL 18G-5	61- 80V INDICATING	349061	.....	5.00	3,000.00	2,500.00	2,000.00
FHL 18G-6	81- 90V INDICATING	349081	.....	5.00	3,000.00	2,500.00	2,000.00
FHL 44G-1	Microfuse-Indicating	284007	.....	5.35	3,210.00	2,675.00	2,140.00
FHL 44G-2	Microfuse-Indicating	284008	.....	6.07	3,642.00	3,035.00	2,428.00
FHL 44G-3	Microfuse-Indicating	284009	.....	6.07	3,642.00	3,035.00	2,428.00
FHL 44G-4	Microfuse-Indicating	284010	.....	6.10	3,660.00	3,050.00	2,440.00
FHL 44G-5	Microfuse-Indicating	284011	.....	6.10	3,660.00	3,050.00	2,440.00
FHL 44G-6	Microfuse-Indicating	284012	.....	6.10	3,660.00	3,050.00	2,440.00
FHL 45G	Microfuse-Indicating	284013	.....	4.17	2,502.00	2,085.00	1,668.00
FHN 20G	3AG MINIATURE	342025	342004	2.14	1,284.00	1,070.00	858.00
FHN 26G	3AG MINIATURE	342024	342012	2.07	1,242.00	1,035.00	828.00
FHN 31G	8AG EXTRACTOR	372003	372001	4.17	2,502.00	2,085.00	1,668.00
FHN 19W	4AG WATERPROOF	442008	442006	6.84	4,104.00	3,420.00	2,736.00
FHN 26W	3AG WATERPROOF	342021	342006	6.84	4,104.00	3,420.00	2,736.00
FHN 26G	R/F SHIELDED	340255A	.....	7.00	4,200.00	3,500.00	2,800.00
FHN 20G	R/F SHIELDED	340256A	.....	7.00	4,200.00	3,500.00	2,800.00

NOTE: The Suffixes "W" and "G" to the Type Designation Denote Waterproof and Drip-proof, Respectively.

LITTELFUSE

MALLORY Switches



Mallory switches are available in three general styles: Rotary, lever-action and pushbutton. Most styles are supplied in both shorting and non-shorting contacts. Shorting switches have contacts with "make" before "breaking" and are widely used in audio circuits. Contacts in non-shorting switches "break" before "making". These switches may be chosen with phenolic, ceramic or glass-epoxy wafer materials. Ceramic is usually selected for high voltage circuits as in switching RF equipment. All switches are supplied with normal mounting hardware. Dial plates are not included (except for Type 13124L).

PHENOLIC WAFER ROTARY SWITCHES

Mallory phenolic wafer rotary switches come in several sizes and contact arrangements. Supplied with nut, washer and 366-1 black knob. Phenolic is MIL grade Richardson T725.

STANDARD 1 1/4" DIAMETER (FIG. A)

Rated 1 amp at 300 VDC; 4 amps, 50 VDC; 2 amps, 300 VAC rms; 12 amps, 6 VAC rms. Maximum non-breaking resistive load, 12 amps. Breakdown, 1000 VAC/DC. Contact resistance less than 0.01 ohm. Supplied with adjustment pin and stop plate.

Mallory Number		Index	Circuits per Section	No. of Sections	Max. Positions	Net Each
Shorting	Non-Shorting					
1211L	1311L	30°	1	1	11	\$2.10
1215L	1315L	30°	2	1	5*	2.10
1213L	1313L	30°	3	1	3*	2.10
1212L	1312L	30°	4	1	2*	2.10
1221L	1321L	30°	1	2	11	2.58
1225L	1325L	30°	2	2	5*	2.58
1223L	1323L	30°	3	2	3*	2.58
1222L	1322L	30°	4	2	2*	2.58
1231L	1331L	30°	1	3	11	3.24
1235L	1335L	30°	2	3	5*	3.24
1233L	1333L	30°	3	3	3*	3.24
1231L	1331L	30°	4	3	2*	3.24
1241L	1341L	30°	1	4	11	3.81
1245L	1345L	30°	2	4	5*	3.81
1243L	1343L	30°	3	4	3*	3.81
1242L	1342L	30°	4	4	2*	3.81
1251L	1351L	30°	1	5	11	4.11
1255L	1355L	30°	2	6	11	4.53
1261L	1361L	30°	1	6	11	4.83
1265L	1365L	30°	2	6	5*	5.52

*Plus "off" position.

24-POSITION TAP SWITCH (FIG. A)

Includes Mallory No. 394 dial.

.....	13124L	15°	1	1	24	\$2.76
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5-POSITION HAMSWITCH® (FIG. A)

For measuring up to 5 circuits with a single switch.

.....	151L	60°	1	1	5*	\$2.70
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*Plus "off" position.

CIRCUIT OPENING SWITCH (FIG. A)

For meter switching or inserting resistors, capacitors, etc. Adjustable stop.

1400L		30°	1	1	11	\$4.68
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DECADE SWITCHES (FIG. A)

Use four resistors or capacitors for full decade. Type 153L for capacitors; 154L for resistors. Connect in series for multiple decades. Complete with instructions.

.....	153L	36°	Spec.	1	10	\$2.70
.....	154L	36°	Spec.	1	10	2.94

MINIATURE 1 1/4" DIAMETER (FIG. B)

Rated 350 mA at 500 VAC rms resistive. Breakdown 1700 VAC rms, 60 cps. Contact resistance 0.005 ohm. Supplied with adjustable stop, 366-1 knob and hex nut.

4M1111	4M2111	30°	1	1	11	\$1.80
4M1215	4M2215	30°	2	1	5	1.80
4M1313	4M2313	30°	3	1	3	1.80
4M1412	4M2412	30°	4	1	2	1.80
4M1121	4M2121	30°	1	2	11	2.58
4M1225	4M2225	30°	2	2	5	2.58
4M1323	4M2323	30°	3	2	3	2.58
4M1422	4M2422	30°	4	2	2	2.58
4M1311	4M2131	30°	1	3	11	3.24
4M1235	4M2235	30°	2	3	5	3.24
4M1333	4M2333	30°	3	3	3	3.24
4M1432	4M2432	30°	4	3	2	3.24

MINIATURE SWITCHES (CONT'D.)

Mallory Number		Index	Circuits per Section	No. of Sections	Max. Positions	Net Each
Shorting	Non-Shorting					
4M1141	4M2141	30°	1	4	11	\$3.81
4M1245	4M2245	30°	2	4	5	3.81
4M1343	4M2343	30°	3	4	3	3.81
4M1442	4M2442	30°	4	4	2	3.81
4M1151	4M2151	30°	1	5	11	4.47
4M1255	4M2255	30°	2	5	5	4.47
4M1353	4M2353	30°	3	5	3	4.47
4M1452	4M2452	30°	4	5	2	4.47
4M1161	4M2161	30°	1	6	11	5.04
4M1265	4M2265	30°	2	6	5	5.04
4M1363	4M2363	30°	3	6	3	5.04
4M1462	4M2462	30°	4	6	2	5.04

MINIATURE SPECIAL PURPOSE (FIG. C)

For tone control, radio-phonos use, etc. Suffix indicates: D, AC line switch; S, spring return; K, knurled shaft (no knob supplied).

5M1112	.....	30°	1	1	2	\$1.08
5M1113	.....	30°	1	1	3	1.08
5M1113K	.....	30°	1	1	3	.75
5M1114D	.....	30°	1	1	4	1.80
.....	42122125	30°	2	1	2	1.08
5M1213	5M2213	30°	2	1	3	1.08
.....	4M24125	30°	4	1	2	1.80

STEREO SPEAKER SWITCH (FIG. C)

For switching stereo speakers. Has "Main", "Both" and "Remote" positions. Phenolic wafer 1 1/4" dia.; bushing 3/8" x 3/8" lg.

RSA1213		30°	2	1	3	\$1.08
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GENERAL PURPOSE ROTARY SWITCHES (FIG. D)

Single section with formed cup enclosing contacts. Rated 0.2 amp at 300VDC; 5 amps, 6 VDC; 0.25 amp, 300VAC; 6 amps, 6 VAC. Maximum non-breaking resistive load, 5 amps. Breakdown 500 VAC/DC. Contact resistance 0.01 ohm or less. Comes with 366-1 knob and nut.

Mallory Number		Index	Circuits	Max. Positions	Base Dia., In.	Net Each
Shorting	Non-Shorting					
3115J	3215J	30°	1	5	1 1/4	\$1.02
31112J	32112J	30°	1	12	1 1/4	1.02
3222J	3222J	30°	2	2	1 1/4	1.02
3213J	3223J	30°	2	3	1 1/4	1.02
3216J	3226J	30°	2	6	1 1/4	1.02
3134J	3234J	30°	3	4	1 1/4	1.05
3142J	3242J	30°	4	2	1 1/4	1.05
3143J	3243J	30°	4	3	1 1/4	1.05
31117J	32117J	20°	1	17*	1 1/4	1.56
3129J	3229J	20°	2	9*	1 1/4	1.56
3136J	3236J	20°	3	6*	1 1/4	1.65
3163J	3263J	20°	6	3*	1 1/4	1.65

*Furnished with adjustable stop.

ANTENNA SWITCH

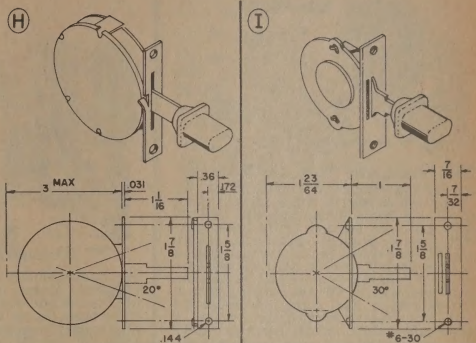
For selecting from two TV or FM antennas. Comes with all mounting hardware.

3122TV		30°	2	2	1 1/4	\$1.31
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GLASS-EPoxy WAFER ROTARY SWITCHES (FIG. E)

Subminiature size employs wafers 3/8" dia. Glass-epoxy per MIL-P-18177. Rated 150 mA at 150 V rms. Max. voltage, 225 V rms. Max. current, 2.5 amps at 6 VAC rms. (All specifications at resistive load.) Supplied with nut, washer and 366-1 knob.

Mallory Number		Index	Circuits per Section	No. of Sections	Max. Positions	Net Each
Shorting	Non-Shorting					
12M1111G	12M2111G	30°	1	1	11	\$4.52
12M1215G	12M2215G	30°	2	1	5	4.52
12M1313G	12M2313G	30°	3	1	3	4.52
12M1412G	12M2412G	30°	4	1	2	4.52
12M1211G	12M2121G	30°	1	2	11	5.58
12M1225G	12M2225G	30°	2	2	5	5.58
12M1323G	12M2323G	30°	3	2	3	5.58
12M1422G	12M2422G	30°	4	2	2	5.58
12M1311G	12M2131G	30°	1	3	11	6.64
12M1235G	12M2235G	30°	2	3	5	6.64
12M1333G	12M2333G	30°	3	3	3	6.64
12M1432G	12M2432G	30°	4	3	2	6.64



STANDARD 1 1/4" DIAMETER (FIG. F)
Rated 0.75 amp at 300 VAC; 10 amps, 6 VAC/DC. Breakdown, 1000 VAC/DC rms. Max. non-breaking resistive load, 5 amps.

Technical drawings of two mechanical parts, labeled J and K.

Part J: A circular component with a central hole. Dimensions include: 3/64, 1, 1/4, 150, 1-15/32, 1/4, 30°, and 4-40.

Part K: A rectangular component with a central hole. Dimensions include: 23/64, 5/16, 3/8, 32, 17/16, 3/4, 1/16, 3/16, 1/16, and .337.

STANDARD 1 1/4" DIA. PHENOLIC (FIG. H)
 Rated 0.2 amp at 300 VDC; 5 amps, 6 VDC; 0.25 amp, 300 VAC;
 6 amps, 6 VAC. Positive action. Breakdown, 500 VAC/DC rms.
 Max. non-breaking resistive load, 5 amps.

Mallory Number		Circuits per	No. of Sec-	Max. Posi-	Net
	Non-				

Mallory Number		Index	Number of Circuits	Number of Positions	Net Each
Shorting	Non-Shorting				
5124	5224	20°	2	4	\$1.38
6142	6242	20°	4	2	1.20
6143	6243	20°	4	3	1.20

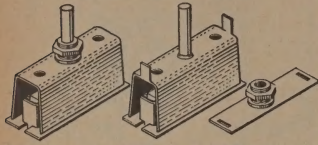
6M1213	6M2213	30°	2	3	\$1.20
6M1213S	6M2213S	30°	2	3	1.50
6M1213U	6M2213U	30°	2	3	1.50
.....	6M2412	30°	4	2	1.20
6M1412S	6M2412S	30°	4	2	1.50

12L1213	12L2213	30°	2	3	\$3.12
12L1213S	12L2213S	30°	2	3	3.38
12L1213U	12L2213U	30°	2	3	3.38
12L1413	12L2413	30°	4	3	3.63
12L1612	12L2612	30°	6	2	4.24
12L1612S	12L2612S	30°	6	2	4.47

Mallory No.	Circuit Arrangement	Net Each
1011	SPST—Make	\$0.69
1012	SPST—Break	.69
1013	SPDT	.78
1014	DPST—Make 2	.87
1015	DPST—Break 2	.87
1016	DPDT	1.05
1017	DP—Make 2, Break 1	1.05
1018	DPDT—Make before break	1.44

Mallory Timers, Breakers, Switches

CIRCUIT BREAKERS



CBB Type CBT Type CBB Adapter

Exact replacement circuit breakers for television and industrial applications. These circuit breakers are manufactured by Mel-Rain Corp. for Mallory to the same specifications as original equipment. "Anti-cheat" reset action is non-cycling. Button must be pressed to reset. Tripping mechanism is temperature compensating for constant protection. Normal tripping time is ten seconds or less. All values above 3.1 amps have special heavy-duty contacts to withstand heavy surge currents. CBT types have twist tab mounting lugs. CBB bushing is supplied with CBB types to adapt to bushing mount.

Ask for free television circuit breaker cross-reference. Lists all popular TV sets.

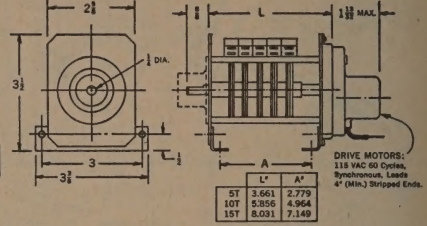
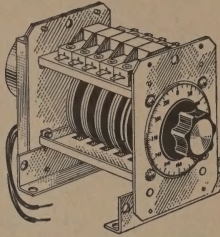
Mallory Number	Break	Oper.	Surge
Tab Mtg.	Bushing Mtg.	Curr. Amps	Curr. Amps
CBT050	CBB050	0.5	0.325
CBT075	CBB075	0.75	0.49
CBT100	CBB100	1.0	0.65
CBT150	CBB150	1.5	0.975
CBT175	CBB175	1.75	1.14
CBT200	CBB200	2.0	1.3
CBT225	CBB225	2.25	1.46
CBT250	CBB250	2.5	1.63
CBT275	CBB275	2.75	1.79
CBT300	CBB300	3.0	1.95
CBT310	CBB310	3.1	2.1
CBT325	CBB325	3.25	2.11
CBT350	CBB350	3.5	2.2
CBT375	CBB375	3.75	2.44
CBT400	CBB400	4.0	2.6
CBT450	CBB450	4.5	2.92
CBT500	CBB500	5.0	3.25
CBT600	CBB600	6.0	3.9
CBT700	CBB700	7.0	4.14

NET PRICES, EACH

CBT050 to CBT300—Net Each...	\$0.81
CBT310 to CBT700—Net Each...	.88
CBB050 to CBB300—Net Each...	.95
CBB310 to CBB700—Net Each...	1.02
Mallory No. CBB Adapter Bushing—Adapts CBT types to bushing mounting. Bushing: $\frac{3}{8}$ "-32 x $\frac{1}{4}$ " with nut. Net...	1.6c

INDUSTRIAL SEQUENCE TIMERS

DIMENSIONS



DRIVE MOTORS:
115 VAC 60 Cycles,
Synchronous, Leads
4" (Min.) Stripped Ends.

Heavy-duty industrial sequence timers for industrial process control, laboratory timing, prototype timers, etc. Available in three basic frames with 5, 10, or 15 adjustable cams. Cams may be adjusted without tools to provide precise time sequence. SPDT switches are rated 15 amps at 125 VAC, equipped with quick-disconnect terminals, and snap into precision holes in

basic frames. Easily replaced, but normally rated at one million cycles at rated load. Drive motors are 117 VAC synchronous and attach to frames with two screws. Interchangeable in seconds to provide time cycles from 1 minute to 24 hours. Assemblies ready to operate as received; with all instructions, timing knob and dial, terminals, timing chart and hardware.

COMPLETE ASSEMBLIES

Cycle Time hrs: min	Mallory No. 5 Circuit	Mallory No. 10 Circuit	Mallory No. 15 Circuit
:01	5TM1M	10TM1M	15TM1M
:02	5TM2M	10TM2M	15TM2M
:03	5TM3M	10TM3M	15TM3M
:04	5TM4M	10TM4M	15TM4M
:06	5TM6M	10TM6M	15TM6M
:12	5TM12M	10TM12M	15TM12M
:24	5TM24M	10TM24M	15TM24M
2:00	5TM120M	10TM120M	15TM120M
3:00	5TM180M	10TM180M	15TM180M
4:00	5TM240M	10TM240M	15TM240M
6:00	5TM360M	10TM360M	15TM360M
8:00	5TM480M	10TM480M	15TM480M
12:00	5TM720M	10TM720M	15TM720M
24:00	5TM1440M	10TM1440M	15TM1440M
Net Each	\$41.80	\$57.20	\$73.20

DRIVE MOTORS—1/box with timing chart and mounting screws. Net...\$7.70

BASIC FRAMES—1/box with MTS1 switches, SD1048 knob, dial, terminals, adjusting tool, and instructions.

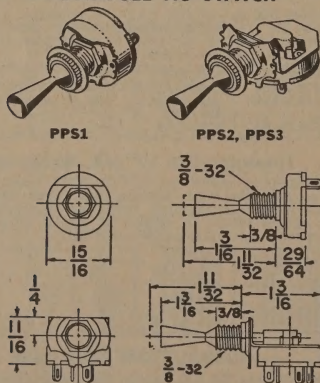
Mallory No.	Time hrs: min	Mallory No.	Time hrs: min
M1M	:01	M120M	2:00
M2M	:02	M180M	3:00
M3M	:03	M240M	4:00
M4M	:04	M360M	6:00
M6M	:06	M480M	8:00
M12M	:12	M720M	12:00
M24M	:24	M1440M	24:00

Mallory No.	Description	Net Each
5T	5 Circuits (SPDT)	\$33.10
10T	10 Circuits (SPDT)	49.00
15T	15 Circuits (SPDT)	65.00

ACCESSORIES

Mallory No.	Description	Net Each
MTS1	Snap Switch (SPDT)	.86
MTT1	Adjusting Tool	.25
T257	Brass Term. (15/bag)	.25

PUSH-PULL AC SWITCH



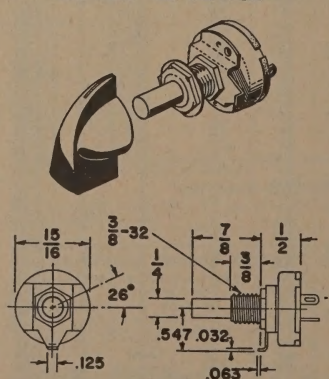
Attractive push-pull AC line switches are furnished with integral aluminum alloy handle to complement the finest electronic equipment. Heavy duty, U.L. Approved. PPS1, PPS2 rated 6 amps at 125 VAC. PPS3 rated 3 amps 125 VAC. Furnished with a nickel-plated knurled ring nut.

Mallory No. PPS1 (SPST)—Net...\$0.85

Mallory No. PPS2 (DPST)—Net... 1.00

Mallory No. PPS3 (SPDT)—Net... 1.00

ROTARY AC SWITCH



Heavy-duty AC line switch with integral $\frac{3}{8}$ "-32 x $\frac{1}{4}$ " bushing and $\frac{1}{4}$ " dia. shaft. For use in equipment carrying up to 6 amps (SPST) or 3 amps (SPDT and DPST). Switch action is 26° U.L. Approved. Furnished with hex nuts, washer and 366-1 knob.

Mallory No. RAC10 (SPST)—Net...\$0.85

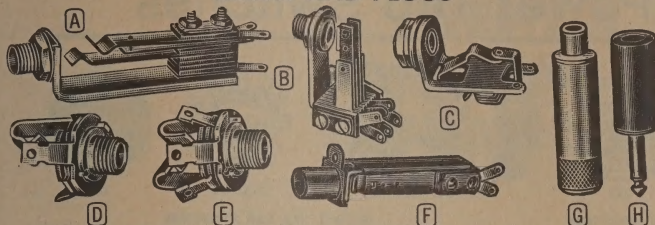
Mallory No. RAC12 (DPST)—Net... 1.00

Mallory No. RAC14 (SPDT)—Net... 1.00

MALLORY

Jacks, Plugs and Hardware

JACKS AND PLUGS



PHONE JACKS

Four configurations meet a wide range of applications. Circuit arrangements shown in chart. Supplied with nut and washer. Bushing $\frac{3}{8}$ " x $\frac{3}{8}$ ". Nickel-plated alloy springs, silver contacts, cadmium-plated frames.

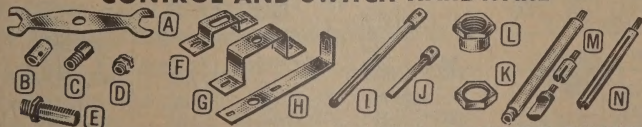
Long Fr. (Fig. A)		Junior (Fig. B)		Infant and Midget (Fig. C)		Schem.
Mal. No.	Net Ea.	Mal. No.	Net Ea.	Mal. No.	Net Ea.	
1	45c	701	45c	A-1	33c	[Schematic diagram]
2	57c	702	51c	A-2	48c	
2A	57c	702A	57c	A-2A	57c	
2B	57c	702B	57c			[Schematic diagram]
3	60c	703	60c			
		703A	60c	A-3A	66c	
3B	60c	703B	60c			[Schematic diagram]
		703C	60c			
		704	69c			
4A	75c	704A	69c			[Schematic diagram]
4B	75c	704B	69c			
5	90c	705	75c			
6	1.05					[Schematic diagram]

COMPACT JACKS (FIGS. D AND E)

JJ033 and JJ034 meet all requirements of JAN-J-641.

Mallory Number	No. Cond.	Circuit Type	Net Each
LA1	2	Open	36c
LA2	2	Closed	42c
LA2A	2	Closed	48c
SC2A	2	Open	36c
JJ034	2	Open	39c
SCA2B	3	Open	42c
JJ033	3	Open	48c

CONTROL AND SWITCH HARDWARE



VOLUME CONTROL NUT WRENCH

Mal. No.	Fig.	Description	Net Ea.
178	A	For $\frac{1}{2}$ " and $\frac{3}{8}$ " hex nuts	51c

COUPLERS, BUSHINGS

EC240	B	Univ. coupling and reducer	43c
UB247	C	Univ. extension bushing	13c
EB247	D	Univ. bushing and nut	12c
EB158	E	$\frac{1}{2}$ " dble. flat. bushg.	32c
EB214	E	$\frac{1}{2}$ " flatted bushing	75c

CONTROL AND SWITCH WASHERS

Mal. No.	Description	Pkg. 10
203	Extruded fiber; $\frac{3}{4}$ " O.D., $\frac{3}{8}$ " I.D.	18c
212	Flat phenolic; $\frac{3}{4}$ " O.D., $\frac{3}{8}$ " I.D.	10c
225	Nickel finish metal, $\frac{3}{4}$ " I.D.	21c
226	Nickel finish metal, $\frac{1}{2}$ " I.D.	21c
227	Cadmium plated lock washer	9c

* $\frac{3}{4}$ " O.D. $\frac{1}{2}$ " I.D., $\frac{1}{4}$ " I.D.

For aircraft grounds and similar applications.

Mallory No. GJ-1—Net Each..... 36c

GROUNDING JACK

TELEPHONE JACKS (FIG. F)

For close strip mounting in switchboards; plain round bushing. Mounts by screw through mounting plate.

Mallory No. XP1—Open circuit type. Net Each..... 63c

Mallory No. XP2B—Three circuit microphone type. Net Each..... 75c

Mallory No. XP3B—Single circuit, make before break type. Net Each..... 90c

EXTENSION JACKS (FIG. G)

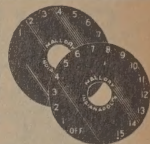
Mallory No.	Circuit	Shell	Net Each
100	2-way	Fiber	\$1.08
100N	2-way	1-piece nickel	1.08
100A	2-way	2-piece nickel, built-in clamp	1.50

PHONE PLUGS (FIG. H)

Mal. No.	Circuit	Shell	Net Each
55	.....	Adapts mike con. to stand. jack	\$0.30
75	2-way	Phenolic tie-cord anchor, shielded	.45
75A	2-way	Nickel, 2-piece tie-cord anchor, built-in cable clip.	1.05
75N	2-way	Nickel, tie-cord anchor, shielded	.66
76	3-way	Phenolic	.90
76A	3-way	Nickel, 2-piece, built-in cable clip.	1.17
85	2-way	Miniature phone plug, shielded	.36
H75-76	.....	Repl. handle for 75 and 76 plugs	.25

DIAL PLATES

Aluminum dial plates with figures etched on solid black background. $1\frac{1}{4}$ " dia., $\frac{1}{8}$ " hole, figures $\frac{1}{4}$ " high, .020" thick.

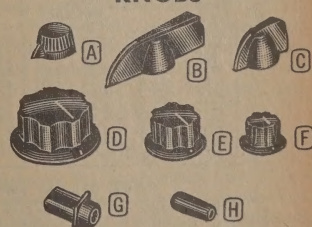


Mallory No. -20° Spacing	Mallory No. -30° Spacing	Marking	Net Each
453	372	1 to 2	12c
454	374	1 to 3	12c
455	375	1 to 5	12c
456	376	1 to 6	12c
457	377	1 to 7	12c
458	378	1 to 8	12c
459	379	1 to 9	12c
460	380	1 to 10	12c
461	381	1 to 11	12c
462	382	1 to 12	12c
463		1 to 13	12c
464		1 to 14	12c
465		1 to 15	12c
466		1 to 16	12c
467		1 to 17	12c
468		1 to 18	12c
472		Off	12c
473	383	Off 1 to 3	12c
474	384	Off 1 to 4	12c
475	385	Off 1 to 5	12c
476	386	Off 1 to 6	12c
477	387	Off 1 to 7	12c
478	388	Off 1 to 8	12c
479	389	Off 1 to 9	12c
480	390	Off 1 to 10	12c
481		Off 1 to 11	12c
482		Off 1 to 12	12c
483		Off 1 to 13	12c
484		Off 1 to 14	12c
485		Off 1 to 15	12c
486		Off 1 to 16	12c

SPECIAL DIAL PLATES

Mal. No.	Description	Net Ea.
391	$1\frac{1}{4}$ " dia., "Increase Volume"	12c
393	$1\frac{1}{4}$ " dia., 0-10 (265°)	12c
394	$1\frac{1}{4}$ " dia., 1 to 24, 15° spacing	12c
395	$1\frac{1}{4}$ " dia., 0-10 (275°)	12c
396	$1\frac{1}{4}$ " dia., 0-10 (250°) + SW (35°)	12c
397	$1\frac{1}{4}$ " dia., 0-10 (260°)	12c
398	$1\frac{1}{4}$ " dia., 0-10 (225°) + SW (40°)	12c
399	$1\frac{1}{4}$ " dia., 0-10 (305°)	12c
487	$1\frac{1}{4}$ " dia., 1 to 5, 60° spacing	12c
488	$1\frac{1}{4}$ " dia., 1 to 4, 90° spacing	12c

SWITCH AND CONTROL KNOBS



Mallory Number	Fig.	Description	Net Ea.
364	A	$1\frac{1}{4}$ " dia. black; pointer, $\frac{1}{8}$ " shaft	9c
365-1	B	$2\frac{1}{4}$ " blk bar; $\frac{1}{8}$ " shaft	21c
366-1	C	$1\frac{1}{4}$ " blk bar; $\frac{1}{8}$ " shaft	15c
366-R-1	D	$1\frac{1}{4}$ " red bar; $\frac{1}{8}$ " shaft	15c
367-1	C	$1\frac{1}{4}$ " black; $\frac{1}{8}$ " shaft	21c
368-1	E	$1\frac{1}{4}$ " dia. black; $\frac{1}{8}$ " shaft	12c
1910K	F	$\frac{1}{4}$ " x $\frac{1}{8}$ " for lever	10c
G55149A		switches; black	
LK171-1	H	$\frac{1}{4}$ " dia. x $\frac{3}{8}$ " thd. for lever switch; black	10c

SHAFT EXTENSIONS

Mallory No. DS-36 (Fig. M)— $\frac{1}{4}$ " dia. x $2\frac{1}{4}$ " round for U, UT, UDT and TA controls. With one knurled and slotted, and one flatted shaft end knob adapter. Net Each..... 33c

Mallory No. DS-37 (Fig. N)— $\frac{1}{4}$ " dia. x $2\frac{1}{4}$ " round slotted for use with U, UT, UDT and TA controls. Net Each..... 33c

HEX NUTS

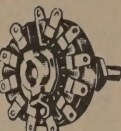
Mal. No.	Fig.	Description	Net
332	K	$\frac{1}{8}$ " hex, $\frac{3}{8}$ "-32	1c
255	L	$\frac{1}{8}$ " panel shoulder	8c
A11260-12	L	$\frac{1}{8}$ " panel shoulder	8c
A11260-2	L	$\frac{1}{8}$ " panel shoulder	8c



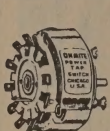
OHMITE Power Tap Switches



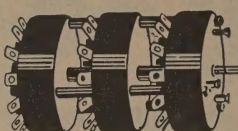
711



111



212



Tandem Assembly



T-10012



Dial

NEW MODEL 711 MINIATURE SWITCH

Single pole, non-shorting selector switch with stationary and movable solid silver alloy contacts. Slow-break, quick-make action achieved with cam and cam follower. Breaks 7 amps at 125 VAC (or 20 VDC), carries 15 amps at 125 VAC/DC. Molded melamine phenolic body $1\frac{1}{4}$ " dia. x $\frac{1}{2}$ " depth behind panel; $\frac{3}{8}$ " flatted shaft. Mounts by #32 bushing and hex nut. Model number suffix indicates taps (711-3, 3 taps).

Ohmite No.	Net Each			Ohmite No.	Net Each		
	1-4	5-9	10-24		1-4	5-9	10-24
711-3	\$3.44	\$2.92	\$2.06	711-8	\$3.98	\$3.37	\$2.38
711-4	3.55	3.02	2.12	711-9	4.08	3.46	2.44
711-5	3.65	3.10	2.18	711-10	4.19	3.55	2.50
711-6	3.76	3.19	2.25	711-11	4.30	3.64	2.56
711-7	3.87	3.28	2.31				

CERAMIC HIGH-CURRENT ROTARY SWITCHES

Non-shorting, single pole, rotary, multi-position unit with 2 or 3 in tandem available. **Bodies:** High grade, arc proof ceramic bodies. **Contacts:** Large, solid, silver alloy contacts. **Action:** Positive cam and roller mechanism provides slow-break quick make action. **Shaft:** Insulated by strong ceramic hubs. **Enclosed Mechanism:** Contacts and mechanism are entirely enclosed and protected except Model 111. **Applications:** Switchboards, arc welders, spot welders, battery chargers, motor controls, tapped transformers, X-ray equipment, diathermy equipment, radio transmitters, electrical machine tools, etc. **U/I Approved** except Model 608. Many variations from the basic switch design to meet your special switch requirements are available on request.

Model	AC Rating	In. Dia.	Shaft Dia.	Depth	Behind Panel	Single Unit Wt., Lbs.
111	15 A, 125 V	$1\frac{1}{4}$ "	$\frac{3}{8}$ "	$1\frac{1}{2}$ "	$2\frac{3}{4}$ "	.4
212	20 A, 150 V	$2\frac{1}{4}$ "	$\frac{3}{4}$ "	$2\frac{1}{2}$ "	$4\frac{1}{2}$ "	.8
312	30 A, 300 V*	$3\frac{1}{4}$ "	$\frac{3}{4}$ "	$2\frac{1}{2}$ "	$4\frac{1}{2}$ "	.75
412	50 A, 300 V*	$4\frac{1}{4}$ "	$\frac{3}{4}$ "	$2\frac{1}{2}$ "	$5\frac{1}{2}$ "	1.4
608	100 A, 300 V*	6"	$\frac{3}{4}$ "	$3\frac{1}{2}$ "	$6\frac{1}{2}$ "	5

*150 V between taps.

TOTAL ROTATION

No. of Taps	3	4	5	6	7	8	9	10	11	12
Total Rotation*	60°	90°	120°	150°	180°	210°	240°	270°	300°	330°

*For Model 608: 3 taps, 80°; 4 taps, 120°; 5 taps, 160°; 6 taps, 200°; 7 taps, 240°; 8 taps, 280°.

MODEL 111 TAP SWITCHES

No. of Taps	Single Unit			2 in Tandem		
	No.	1-4	5-9	No.	1-2	3-4
3	60°	111-3	\$3.82	111-3-T2	\$10.94	\$ 9.47
4	90°	111-4	3.94	111-4-T2	11.42	9.87
5	120°	111-5	4.06	111-5-T2	11.42	9.87
6	150°	111-6	4.18	111-6-T2	11.66	10.07
7	180°	111-7	4.30	111-7-T2	11.90	10.27
8	210°	111-8	4.42	111-8-T2	12.14	10.47
9	240°	111-9	4.54	111-9-T2	12.38	10.67
10	270°	111-10	4.66	111-10-T2	12.62	10.87
11	300°	111-11	4.78	111-11-T2	12.86	11.07

Use knob No. 5150 or 5116 No. 5109 or 5110

MODEL 212 TAP SWITCHES

No. of Taps	Single Unit			2 in Tandem			3 in Tandem		
	No.	1-4	5-9	No.	1-2	3-4	No.	1	2-3
3	-3	\$7.42	\$6.30	-3-T2	\$18.14	\$15.57	-3-T3	\$27.26	\$23.50
4	-4	7.60	6.45	-4-T2	18.50	15.87	-4-T3	27.80	24.35
5	-5	7.78	6.60	-5-T2	18.86	16.17	-5-T3	28.34	24.80
6	-6	7.96	6.75	-6-T2	19.22	16.47	-6-T3	28.88	25.25
7	-7	8.14	6.90	-7-T2	19.58	16.77	-7-T3	29.42	25.70
8	-8	8.32	7.05	-8-T2	19.94	17.07	-8-T3	29.96	26.15
9	-9	8.50	7.20	-9-T2	20.30	17.37	-9-T3	30.50	26.60
10	-10	8.68	7.35	-10-T2	20.66	17.67	-10-T3	31.04	27.05
11	-11	8.86	7.50	-11-T2	21.02	17.97	-11-T3	31.58	27.50
12	-12	9.04	7.65	-12-T2	21.38	18.27	-12-T3	32.12	27.95

Knob No. 5150 or 5116 No. 5111 or 5112 No. 5111 or 5112

MODEL 608 TAP SWITCHES

No. of Taps	Single Unit			2 in Tandem			3 in Tandem		
	No.	1-4	5-9	No.	1-2	3-4	No.	1	2-3
3	-3	\$23.84	\$20.27	-3-T2	\$54.28	\$46.81	-3-T3	\$80.32	\$69.61
4	-4	24.18	20.56	-4-T2	54.96	47.39	-4-T3	81.34	70.48
5	-5	24.52	20.85	-5-T2	55.64	47.97	-5-T3	82.36	71.35
6	-6	24.86	21.14	-6-T2	56.32	48.55	-6-T3	83.38	72.22
7	-7	25.20	21.43	-7-T2	57.00	49.13	-7-T3	84.40	73.09
8	-8	25.54	21.72	-8-T2	57.68	49.71	-8-T3	85.42	73.96

Knob No. 5104 or 5103 5104, 5105 or 5115 No. 5115

MODEL 312 TAP SWITCHES

No. of Taps	Single Unit			2 in Tandem			3 in Tandem		
	No.	1-4	5-9	No.	1-2	3-4	No.	1	2-3
3	-3	\$10.00	\$8.50	-3-T2	\$24.40	\$20.96	-3-T3	\$36.60	\$32.10
4	-4	10.18	8.65	-4-T2	24.76	21.26	-4-T3	37.14	32.55
5	-5	10.36	8.80	-5-T2	25.12	21.56	-5-T3	37.68	33.00
6	-6	10.54	8.95	-6-T2	25.48	21.86	-6-T3	38.22	33.45
7	-7	10.72	9.10	-7-T2	25.84	22.16	-7-T3	38.76	33.90
8	-8	10.90	9.25	-8-T2	26.20	22.46	-8-T3	39.30	34.35
9	-9	11.08	9.40	-9-T2	26.56	22.76	-9-T3	39.84	34.80
10	-10	11.26	9.55	-10-T2	26.92	23.06	-10-T3	40.38	35.25
11	-11	11.44	9.70	-11-T2	27.28	23.36	-11-T3	40.92	35.70
12	-12	11.62	9.85	-12-T2	27.64	23.66	-12-T3	41.46	36.15

Knob No. 5109 or 5110 No. 5111 or 5112 No. 5111 or 5112

MODEL 412 TAP SWITCHES

No. of Taps	Single Unit			2 in Tandem			3 in Tandem		
	No.	1-4	5-9	No.	1-2	3-4	No.	1	2-3
3	-3	\$13.12	\$11.15	-3-T2	\$30.64	\$26.26	-3-T3	\$45.96	\$40.05
4	-4	13.37	11.37	-4-T2	31.16	26.70	-4-T3	46.74	40.71
5	-5	13.64	11.59	-5-T2	31.68	27.14	-5-T3	47.52	41.37
6	-6	13.90	11.81	-6-T2	32.20	27.58	-6-T3	48.30	42.03
7	-7	14.16	12.03	-7-T2	32.72	28.02	-7-T3	49.08	42.69
8	-8	14.42	12.25	-8-T2	33.24	28.46	-8-T3	49.86	43.35
9	-9	14.68	12.47	-9-T2	33.76	28.90	-9-T3	50.64	44.01
10	-10	14.94	12.69	-10-T2	34.28	29.34	-10-T3	51.42	44.67
11	-11	15.20	12.91	-11-T2	34.80	29.78	-11-T3	52.20	45.33
12	-12	15.46	13.13	-12-T2	35.32	30.22	-12-T3	52.98	45.99

Knob No. 5111 or 5112 No. 5111 or 5112 No. 5111 or 5112

ALL CERAMIC OPEN TYPE TAP SWITCHES

Rated 7 amps max., 3 amps interrupted, at 120 VAC. Less for all DC circuits above 20 V for inductive circuits and high voltages. Body $3\frac{1}{4}$ " dia. (up to 8 taps, 9-12 taps are $4\frac{1}{4}$ " dia.) including lugs. Shaft, $\frac{3}{4}$ " dia. Knob: No. 5150 knob recommended. **Shorting Type:** Moving contact bridges closely spaced taps completing a new circuit before breaking the previous one. Switch arm is not indexed and can be left in any position. **Non-Shorting Type:** Positively indexed, moving contact completely disconnects from one tap before contacting succeeding tap.

No. of Contacts	Shorting Type			Non-Shorting Type		
	No.	1-4	5-9	No.	1-4	5-9
3	T-504-S	\$3.96	\$3.37	T-503	\$4.21	\$3.58
4	T-504-S	4.21	3.58	T-504	4.44	3.77
5	T-506-S	4.44	3.77	T-506	4.91	4.17
6	T-507-S	4.68	3.98	T-507	5.48	4.38
8	T-508-S	4.91	4.17	T-508	5.39	4.58
9	T-1009-S	7.04	5.98	T-1009	7.50	6.38
10	T-1010-S	7.27	6.18	T-1010	7.73	6.57
11	T-1011-S	7.50	6.38	T-1011	7.99	6.79
12	T-1012-S	7.73	6.57	T-1012	8.23	7.00

TAP SWITCH DIALS

Made of aluminum, etched and enameled black. Bright aluminum dial markings agree with actual number of positions on switch.

No.*	Dial Dia.	For Model	For Knob	Net Each
5002*	$2\frac{3}{4}$ "	111	5109	44c 37c
		212 (Single)	5116	
		312 (Single)	5150	
5003*	$3\frac{3}{4}$ "	212 (Tandem)	5111	66c 56c
		312 (Tandem)	5152A	
		412		
5004*	$5\frac{3}{4}$ "	608	5104	73c 62c
			5115	

*Specify number of positions as a suffix.

BLACK BAKELITE® KNOBS FOR TAP SWITCHES

No.	Description	Hole Dia.	1-2	3-4	5-9	10-24	25-49
5104	Handwheel with Pointer	$\frac{3}{16}$ "	\$1.38	\$1.15	\$1.15	\$1.15	\$1.15
5105	Handwheel without Pointer	$\frac{3}{16}$ "	1.16	.96	.96	.96	.96
5109	Finger-Grip with Pointer	$\frac{1}{4}$ "	.89	.89	.76	.60	.49
5110	Finger-Grip without Pointer	$\frac{1}{4}$ "	.82	.82	.70	.55	.45
5111	Finger-Grip with Pointer	$\frac{1}{4}$ "	1.32	1.32	1.12	.88	.73
5112	Finger-Grip without Pointer	$\frac{1}{4}$ "	1.21	1.21	1.03	.81	.67
5115	Bar Knob, $\frac{1}{4}$ " long	$\frac{3}{16}$ "	3.00	2.49	2.49	2.49	2.49
5116	Bar Knob, $\frac{1}{2}$ " long	$\frac{1}{4}$ "	.50	.50	.43	.34	.28
5150	Finger Grip	$\frac{1}{4}$ "	.29	.29	.25	.19	.16
5152A	Handwheel, Short Pointer	$\frac{1}{4}$ "	1.60	1.36	1.36	1.36	1.36

Knob Dia.: $\frac{1}{16}$ ", $\frac{1}{8}$ ", $\frac{1}{4}$ ", $\frac{3}{8}$ ", $\frac{1}{2}$ ". *Reg. Bakelite Corp. TM.

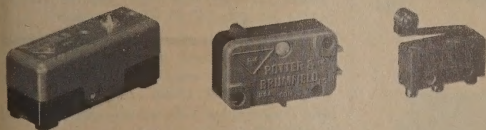
NEW! A FULL LINE OF PRECISION SWITCHES BY POTTER & BRUMFIELD



IN STOCK AT LEADING ELECTRICAL AND ELECTRONIC DISTRIBUTORS

P&B'S EXPERIENCE ASSURES RELIABILITY AND PRECISION

For more than a third of a century, we have been designing and manufacturing reliable relays. This engineering and production knowhow is now being devoted to our new line of precision snap switches. These are quality switches designed to meet or exceed industry standards for electrical ratings and life characteristics. Operating forces, actuating characteristics and mounting dimensions make these switches directly interchangeable with many competitive types. P&B precision snap action switches meet Underwriters' Laboratories and Canadian Standards Association requirements.



WIDE VARIETY OF STOCK SWITCHES FOR NEW APPLICATIONS AND DIRECT REPLACEMENTS

The snap switches in this catalog cover a variety of the most commonly used types and include three categories: Precision general purpose, precision miniature, and precision subminiature. All three basic types are available with various auxiliary actuators, terminals, and contact arrangements. They can be used for both AC and DC voltages.

Mounting holes, terminals, operating and release forces, pretravel, overtravel, differential travel and pertinent dimensions meet established industry standards.

BASIC SNAP ACTION SWITCHES

PRECISION GENERAL PURPOSE

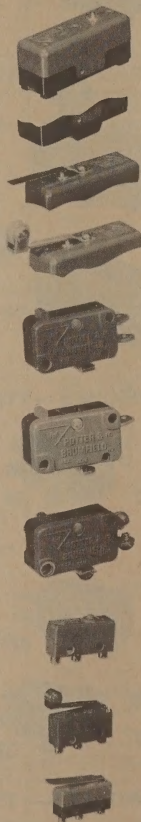
Compact, reliable, with precise mechanical and conservatively rated electrical characteristics, P&B general purpose snap action switches are for use in applications where loads may be heavy and space is not the primary consideration. They are available with a broad variety of actuators, such as pin plungers, overtravel plungers, rigid lever, roller lever, panel mount plunger, and others, as illustrated and listed on the following pages.

PRECISION MINIATURE

Sturdily constructed but light in weight and small in size, P&B precision miniature snap action switches are highly sensitive and especially suited for compact installations where precision is a primary factor. Their small size and high electrical capacity recommends them for applications of multiple installations in limited space. Basic types are available in various contact and terminal arrangements shown on the following pages.

PRECISION SUBMINIATURE

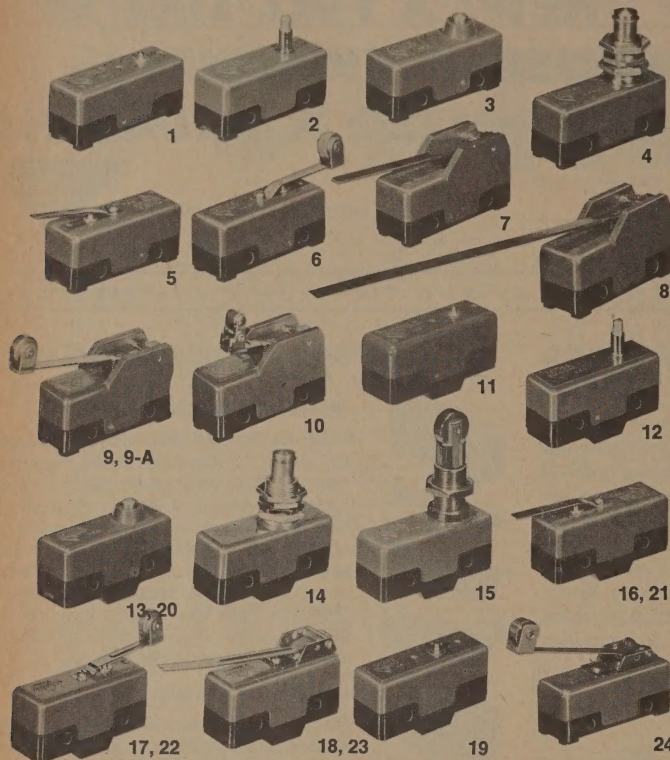
Designed for applications requiring exceptionally small size and low operating forces, P&B precision subminiature switches are especially suited for electronic equipment, business machines, military apparatus and other precision electrical equipment. They are used where space and weight are primary considerations. These types are available for either direct operation by pushers, cams, or lever actuators with or without rollers. Solder, turret and quick-connect terminals are available.



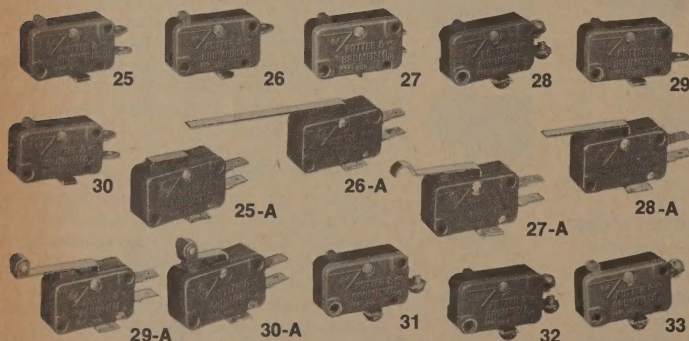
POTTER & BRUMFIELD PRECISION SWITCHES

PRECISION GENERAL PURPOSE SWITCHES—TYPES A1 G

Illustration Fig. Nos.—See back page for Drawing Fig. Nos.



PRECISION MINIATURE SWITCHES—TYPES A1 M



PRECISION SUBMINIATURE SWITCHES—TYPES A1 S



SPECIFICATIONS

PRECISION GENERAL PURPOSE SWITCHES—TYPES A1 G

Meet Underwriters' Laboratories and Canadian Standards Association Requirements

For Types A1 G1—Contact arrangement: SPDT. Ratings: 15 amps, 125, 250, or 480 volts AC; ½ amp 125 volts DC; ¼ amp 250 volts DC; ¼ HP 125 volts AC; ¼ HP 250 volts AC.

For Types A1 G2—Contact arrangement: SPDT. Ratings: 20 amps, 125, 250, or 480 volts AC; 1 HP 125 volts AC; 2 HP 250 volts AC; 10 amps 125 volts when controlling tungsten filament lamp loads on AC circuits.

PRECISION MINIATURE SWITCHES TYPES A1 M

For Types A1 M1—Contact arrangements: SPDT. Ratings: 30 volts DC; inductive: 10 amps at sea level, 6 amps at 50,000 feet; resistive: 10 amps; motor load: 6 amps.

Meet Underwriters' Laboratories requirements for 15 amps, 125, or 250 volts AC; ½ HP 125/250 volts AC; ½ amp 125 volts DC; ¼ amp 250 volts DC.

For Types A1 M2 (low operating force)—Contact arrangements: SPDT. Rating: 30 volts DC; inductive: 5 amps at sea level, 5 amps at 50,000 feet; resistive: 5 amps; motor load: 5 amps.

Meet Underwriters' Laboratories requirements for 10 amps, 125 or 250 volts AC; ½ amp 125 volts DC; ¼ amp 250 volts DC; ¼ HP 125 volts AC.

For Type A1 M4 (low differential)—Contact arrangement: SPDT. Ratings: 30 volts DC; inductive: 1 amp at sea level, 1 amp at 50,000 feet; resistive: 2 amps; motor load: 1 amp.

Meet Underwriters' Laboratories requirements for 10 amps, 125 or 250 volts AC.

For Type A1 M5 (gold contacts)—Contact arrangement: SPDT. Rating: 28 volts DC; inductive: ½ amp; resistive: 1 amp; inrush: 2 amps.

PRECISION SUBMINIATURE SWITCHES TYPES A1 S

For Types A1 S1—Contact arrangement: SPDT. Rating:

Meet Underwriters' Laboratories requirements for 5 amps, 125 or 250 volts AC. The 30 volt DC rating is as follows: inductive: 3 amps at sea level and 2.5 amps at 50,000 feet; resistive: 5 amps at sea level and 50,000 feet; maximum inrush: 24 amps.

For Types A1 S5 (gold contacts)—Contact arrangement: SPDT. Rating: 28 volts DC; inductive: ½ amp; resistive: 1 amp; inrush: 2 amps.

POTTER & BRUMFIELD PRECISION SWITCHES**PRECISION GENERAL PURPOSE SWITCHES—TYPES A1 G1**

POTTER & BRUMFIELD TYPE	MICRO SWITCH EQUIVALENT	PRE-TRAVEL IN. MAX.	OVER-TRAVEL IN. MIN.	MOVEMENT DIFFERENTIAL INCHES	OPER. FORCE OZS.	RELEASE FORCE OZS. MIN.	Fig. No. Pages 2 & 4	SUGG. RESALE PRICE
A1 G1 111-1	BZ-2R	.016	.005	.0004-.002	9-13	4	1	\$1.57
A1 G1 112-1	BZ-2RS	.016	.062	.0004-.002	9-13	4	2	1.95
A1 G1 113-1	BZ-2RD	.016	.062	.0004-.002	9-13	4	3	1.95
A1 G1 114-1	BZ-2RQ1	.015	.219	.0004-.002	9-13	4	4	3.55
A1 G1 115-1	BZ-2RL	.156	.062	.050	5 Max.	0.5	5	1.73
A1 G1 116-1	BZ-2RL2	.141	.062	.050	5 Max.	0.5	6	2.22
A1 G1 117-1	BZ-2RW80	.359	.219	.007 -.050	2 1/2 Max.	0.5	7	2.00
A1 G1 117-1-3	BZ-2RW863	.907	.578	.018 -.140	1 Max.	—	8	2.11
A1 G1 177-1	BZ-2RW84	.203	.219	.007 -.050	1 Max.	.125	7	2.00
A1 G1 119-1	BZ-2RW822	.109	.094	.003 -.020	6 Max.	1.5	9	2.54
A1 G1 117-1-2	BZ-2RW825	.141	.109	.015	8 Max.	1.5	10	3.03
A1 G1 118-1	BZ-2RW82	.249	.156	.004 -.040	3 1/2 Max.	.75	9-A	2.54
A1 G1 111-8	BZ-2R-A2	.016	.005	.0004-.002	9-13	4	11	1.71
A1 G1 112-8	BZ-2RS-A2	.016	.062	.0004-.002	9-13	4	12	2.03
A1 G1 113-8	BZ-2RD-A2	.016	.062	.0004-.002	9-13	4	13	2.03
A1 G1 114-8	BZ-2RQ1-A2	.015	.219	.0004-.002	9-13	4	14	3.64
A1 G1 114-8-1	BZ-2RQ18-A2	.015	.140	.0004-.002	9-13	4	15	6.34
A1 G1 115-8	BZ-2RL-A2	.156	.062	.050	5 Max.	0.5	16	1.87
A1 G1 116-8	BZ-2RL2-A2	.141	.062	.050	5 Max.	0.5	17	2.35
A1 G1 117-8	BZ-2RW80-A2	.359	.219	.007 -.050	2 1/2 Max.	0.5	18	2.09
A1 G1 119-8	BZ-2RW822-A2	.109	.094	.003 -.020	6 Max.	1.5	9	2.62

PRECISION GENERAL PURPOSE SWITCHES—TYPES A1 G2

A1 G2 111-8	BA-2R-A2	.050	.010	.002 -.0075	14-22	10	19	\$1.71
A1 G2 113-8	BA-2RB-A2	.050	.093	.002 -.0075	14-22	10	20	2.03
A1 G2 114-1	BA-2RQ1	.050	.219	.002 -.0075	14-22	10	4	3.87
A1 G2 114-8	BA-2RQ1-A2	.050	.219	.002 -.0075	14-22	10	14	3.64
A1 G2 115-1	BA-2RL	.344	.062	.065	9 Max.	1	5	2.00
A1 G2 115-8	BA-2RL-A2	.344	.062	.065	9 Max.	1	21	1.87
A1 G2 116-8	BA-2RL2-A2	.344	.062	.065	9 Max.	1	22	2.35
A1 G2 117-8	BA-2RV-A2	.625	.078	.109	2 1/2 Max.	0.5	23	2.14
A1 G2 118-1	BA-2RV2	.469	.062	.085	2 1/2 Max.	0.5	24	2.86
A1 G2 118-8	BA-2RV2-A2	.469	.062	.085	2 1/2 Max.	0.5	24	2.68

PRECISION MINIATURE SWITCHES—TYPES A1 M

A1 M1 111-B	V3-1	.047	.031	.006 -.016	6-14	4	25	\$1.10
A1 M1 111-1	V3-19	.047	.031	.006 -.016	6-14	4	25	1.04
A1 M1 211-1	V3-7	.047	.031	.006 -.016	6-14	4	26	.96
A1 M1 111-2	V3-15	.047	.031	.006 -.016	6-14	4	27	1.04
A1 M1 121-B	V3-29	.047	.031	.006 -.016	6-14	4	28	1.15
A1 M1 311-1	V3-32	.047	.031	.006 -.016	6-14	4	29	.96
A1 M1 181-1	V3-419	.047	.031	.006 -.016	6-14	4	30	2.04
A1 M1 117-6	V3L-1-D8	.060	.031	.016	14 Max.	3	25-A	1.05
A1 M1 117-6-1	V3L-2-D8	.125	.062	.050	8 Max.	1	26-A	1.05
A1 M1 117-6-2	V3L-5-D8	.125	.062	.050	8 Max.	1	27-A	1.05
A1 M1 117-6-3	V3L-6-D8	.260	.100	.090	4 Max.	0.5	28-A	1.05
A1 M1 118-6	V3L-4-D8	.125	.062	.050	8 Max.	1	29-A	1.25
A1 M1 119-6	V3L-3-D8	.060	.031	.016	14 Max.	3	30-A	1.25
A1 M1 311-B	V3-23	.047	.031	.006 -.016	6-14	4	31	1.00
A1 M4 191-B	V3-26	.047	.031	.002 -.006	7-12	5	28	1.65
A1 M1 131-B	V3-601	.047	.010-.024	.006 -.016	6-14	4	32	1.50
A1 M2 171-B	V3-101	.047	.031	.006 -.016	8 Max.	2	28	1.10
A1 M2 271-B	V3-121	.047	.031	.006 -.016	8 Max.	2	33	1.00
A1 M2 371-B	V3-123	.047	.031	.006 -.016	8 Max.	2	31	1.00
A1 M2 171-1	V3-119	.047	.031	.006 -.016	8 Max.	2	25	1.04
A1 M5 151-B	V3-75	.047	.031	.006 -.016	6-14	4	28	3.75

PRECISION SUBMINIATURE SWITCHES—TYPES A1 S

A1 S1 111-1	1SM1	.030	.005	.004	3-5	1	34	\$1.20
A1 S1 111-3	1SM1-T	.030	.005	.004	3-5	1	35	1.20
A1 S1 131-1	11SM1	.020	.003	.004	3-5	1	36	1.25
A1 S5 151-1	1SM23	.030	.005	.004	3-5	1	34	2.25
A1 S5 161-1	11SM23	.020	.003	.004	3-5	1	36	2.30
A1 S1 131-3	11SM1-T	.020	.003	.004	3-5	1	37	1.25
A1 S1 115-1	11SM1	.219	.030	.030	7 Max.	2	38	1.65
A1 S1 116-1-1	11SM2	.219	.030	.025	7 Max.	2	39	2.00
A1 S1 116-3	11SM2-T	.219	.030	.025	7 Max.	2	39-A	2.00
A1 S1 121-1	1SM3	.030	.005	.004	3-5	1	34	1.20
A1 S1 141-1	11SM3	.020	.003	.004	3-5	1	36	1.25

POTTER & BRUMFIELD PRECISION SWITCHES

OUTLINE DIMENSION DRAWINGS (Figure Nos. of Drawings correspond with Figure Nos. of Illustrations)

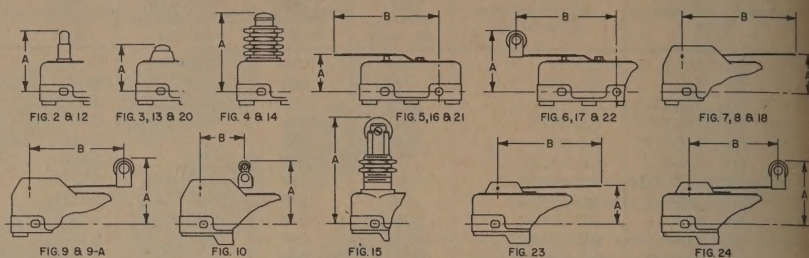
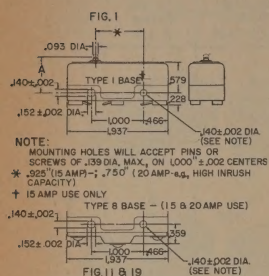
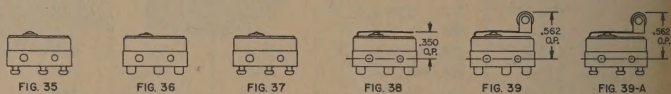
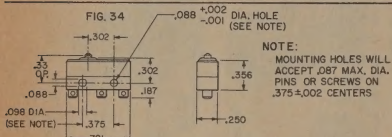
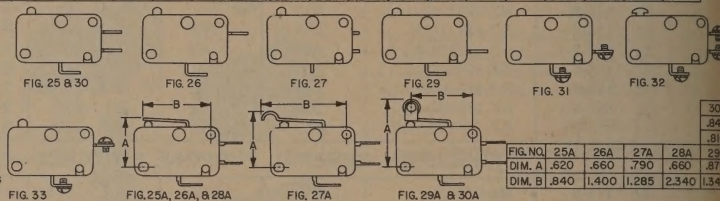
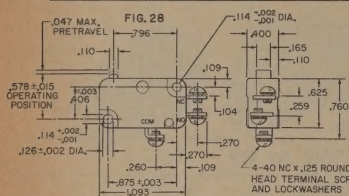


FIG. NO.	1	2	3	4	5	6	7	8	9	9-A	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
DIM. A	.625	1.10	.835	1.500	.687	1.125	.750	1.750	1.188	1.188	1.140	.625	1.11	.835	1.500	1.942	.687	1.125	1.750	.640	1.031	.687	1.125	1.750	1.188
DIM. B					1.953	1.812	2.500	6.000	1.050	1.900	.868						1.953	1.812	2.500			1.781	1.640	2.500	1.980



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MASTER.**

This will avoid confusion and expedite delivery.

Thank you!

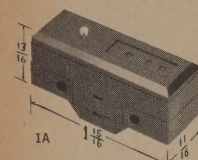


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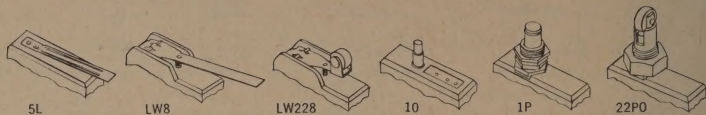
PRECISION SNAP SWITCHES WITH PATENTED ROLLING SPRING

MODEL B — Long Life



ELECTRICAL
15 amps, 120-240-480 volts A.C.
1/2 amp, 120 VDC
1/4 amp, 240 VDC
Listed by U.L. and C.S.A.

MECHANICAL LIFE
20 Million cycles.

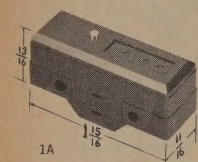


MODEL No.	OPERATING FORCE	RELEASE FORCE	PRETRAVEL	OVERTRAVEL	MOVEMENT DIFFERENTIAL	TERMINAL
BRD2-1A-1S	9-13 oz.	4 oz. Min.	.020 in. Max.	.005 in. Min.	.003 in. Max.	Screw
BRD2-5L-1S	5 oz. Max.	1/2 oz. Min.	.156 in. Max.	1/2 in. Min.	.050 in. Max.	Screw
BRD2-LW8-1S	2 1/2 oz. Max.	1/2 oz. Min.	3/4-1 1/2 in.	.187 in. Min.	.016-.078 in.	Screw
BRD2-LW228-1S	6 oz. Max.	1 1/2 oz. Min.	.045-.140 in.	.080 in. Min.	.006-.031 in.	Screw
BRD2-10-1S	9-13 oz.	4 oz. Min.	.010-.025 in.	1/8 in. Min.	.003 in. Max.	Screw
BRD2-1P-1S	9-13 oz.	4 oz. Min.	.010-.025 in.	1/2 in. Min.	.003 in. Max.	Screw
BRD2-22PO-1S	9-13 oz.	4 oz. Min.	.010-.025 in.	.140 in. Min.	.003 in. Max.	Screw

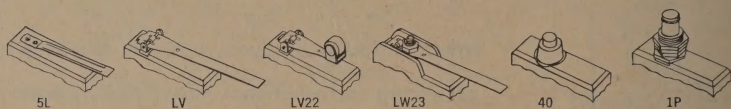
TOTAL OF 18 ACTUATORS AVAILABLE.

To order solder terminal, drop "1S" from Model number.

MODEL F — Horsepower Rated



ELECTRICAL
21 amps, 120-240-480 VAC
1 Hp, 120 VAC
2 Hp, 240 VAC
Listed by U.L. and C.S.A.

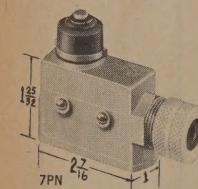


MODEL No.	OPERATING FORCE	RELEASE FORCE	PRETRAVEL	OVERTRAVEL	MOVEMENT DIFFERENTIAL	TERMINAL
FAD2-1A-1S	10-18 oz.	6 oz. Min.	.050 in. Max.	.005 in. Min.	.0075 in. Max.	Screw
FAD2-5L-1S	9 oz. Max.	1 oz. Min.	1/2 in. Max.	1/2 in. Min.	.065 in. Max.	Screw
FAD2-LV-1S	2 1/2 oz. Max.	1/2 oz. Min.	5/8 in. Max.	.078 in. Min.	.109 in. Max.	Screw
FAD2-LV22-1S	6 oz. Max.	1 oz. Min.	1/4 in. Max.	1/2 in. Min.	.004 in. Max.	Screw
FAD2-LW23-1S	2 1/2 oz. Max.	1/2 oz. Min.	.375 in. Max.	.093 in. Min.	.007-.050 in.	Screw
FAD2-40-1S	10-18 oz.	6 oz. Min.	.050 in. Max.	1/2 in. Min.	.0075 in. Max.	Screw
FAD2-1P-1S	10-18 oz.	6 oz. Min.	.050 in. Max.	.219 in. Min.	.0075 in. Max.	Screw

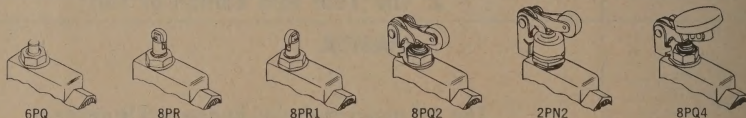
TOTAL OF 13 ACTUATORS AVAILABLE.

To order solder terminal, drop "1S" from Model number.

MODEL BH — Split Housing



ELECTRICAL
15 amps, 120-240-480 VAC
The combination of metal enclosure and switch is U.L. and C.S.A. listed.

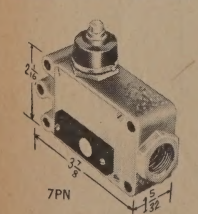


MODEL No.	OPERATING FORCE	RELEASE FORCE	PRETRAVEL	OVERTRAVEL	MOVEMENT DIFFERENTIAL
SBHT-7PN	9-24 ozs.	4 ozs. Min.	.078 in. Max.	.219 in. Min.	.003 in. Max.
SBH-6PQ	9-13 ozs.	4 ozs. Min.	.020 in. Max.	.219 in. Min.	.003 in. Max.
SBH-8PR	9-13 ozs.	4 ozs. Min.	.020 in. Max.	.140 in. Min.	.003 in. Max.
SBH-8PR1	9-13 ozs.	4 ozs. Min.	.020 in. Max.	.140 in. Min.	.003 in. Max.
SBH-8PQ2	10-18 ozs.	6 ozs. Min.	3/8 in. Max.	.219 in. Max.	.006 in. Max.
SBH-2PN2	10-20 ozs.	6 ozs. Min.	.188 in. Max.	.219 in. Min.	.006 in. Max.
SBH-8PQ4	10-18 ozs.	6 ozs. Min.	3/8 in. Max.	.219 in. Max.	.006 in. Max.

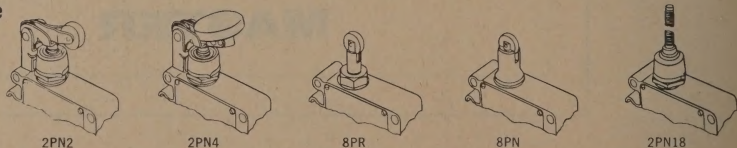
10 ACTUATORS AVAILABLE

"T" designates externally threaded housing. These are available with 7PN, 2PN2, 2PN28, and 2PN4 actuators. Split-housing is available with internally threaded housing. One-piece externally threaded housing models are available with same 10 actuators.

MODEL FH — Mounts Either Side



ELECTRICAL
21 amps at 120-240-480 VAC
1 Hp - 120 VAC
2 Hp - 240 VAC



MODEL No.	OPERATING FORCE	RELEASE FORCE	PRETRAVEL	OVERTRAVEL	MOVEMENT DIFFERENTIAL
• L-FHD2-7PN	2 1/2 lbs. Max.	8 oz. Min.	.094 in. Max.	.219 in. Min.	.010 in. Max.
FHD2-2PN2	2 lbs. Max.	8 oz. Min.	.219 in. Max.	.218 in. Min.	.020 in. Max.
FHD2-2PN4	2 lbs. Max.	8 oz. Min.	.094 in. Max.	.156 in. Min.	.010 in. Max.
FHD2-8PR	2 1/2 lbs. Max.	8 oz. Min.	.125 in. Max.	.175 in. Max.	.0075 in. Max.
FHD2-8PN	8 lbs. Max.	2 lbs. Min.			
# FHD2-2PN18					

Above characteristics do not apply to this model switch.

6 ACTUATORS AVAILABLE.

• Switch with one Acrolite. Silicone boot for 0 F to 200 F range is available.
Switch operates by moving flexible actuator 15° or more in any direction, except a direct pull.

WRITE FOR CATALOG D

— Robertshaw Controls Company, Acro Division

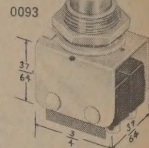
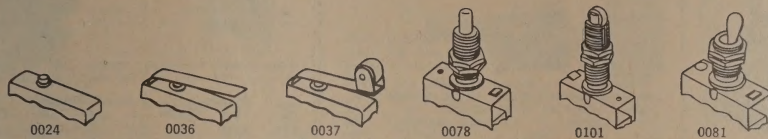
21 MODELS

- SUBMINIATURE
- GENERAL PURPOSE
- MINIATURE
- METAL CLAD

Robertshaw



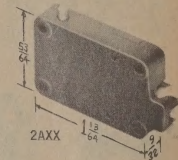
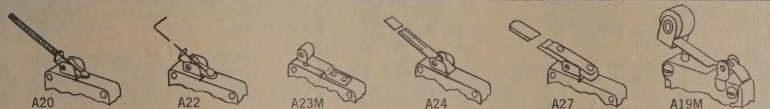
MODEL Z — Subminiature



ELECTRICAL
5 amp, 120-240 VAC
3 amp sea level and 2.5 amp
50,000 H., 30 VDC inductive
4 amp sea level and 4 amp
50,000 H., 30 VDC resistive
U.L. listing; 5 amp., 120-240 VAC

MECHANICAL LIFE
One million cycles with .010 gap
and .005 overtravel

MODEL CM — Low Force

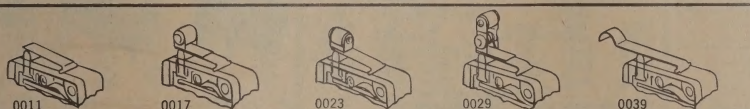


ELECTRICAL
3 amp, 125-250 VAC
3 amp, 28 VDC
U.L. listing; 3 amp, 125-250 VAC

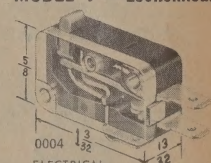
MECHANICAL LIFE
50 Million cycles.

8 ACTUATORS AVAILABLE

*Actuator bracket and switch are shipped separately.



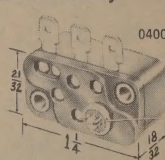
MODEL V — Economical



ELECTRICAL
15 amps, 125-250 volts A.C.
10 amps, 30 VDC
Listed by U.L. and C.S.A.

MECHANICAL LIFE
20 Million cycles.

MODEL H — Rotary

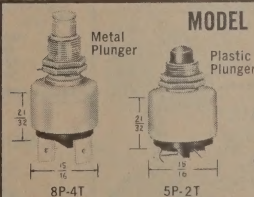


ELECTRICAL
5 amp., 120-240 VAC
U.L. and C.S.A. listed.
Hi-pot tested 1250 VAC terminal to exposed rivet head.

MECHANICAL LIFE

Minimum operating life of one million cycles. Static load of 15 inch ounces will not change switch characteristics when applied at full travel or start positions and in a direction opposite to normal movement.
Axial movement of shaft will not exceed .010 inch.

MODEL D — Panel Mounted



U.L. ELECTRICAL RATING
12 amps — 125 VAC
6 amps — 230 VAC
MECHANICAL LIFE
250,000 cycles

4T Tab.

MODEL No.	ROTATION	OPERATING FORCE	OPERATING LIMITS DOWN STROKE	AFTER TRAVEL	MOVEMENT DIFFERENTIAL	TERMINAL
HD-0200	CW	3 gms. in. Max.	15-21°	5° Min.	8° Min.	Solder
HD-0300	CW	3 gms. in. Max.	15-21°	5° Min.	8° Min.	Tab .187
HD-0400	CW	3 gms. in. Max.	15-21°	5° Min.	8° Min.	Solder
HD-0500	CCW	4 gms. in. Max.	15-21°	5° Min.	8° Min.	Tab .187
HD-0600	CCW	4 gms. in. Max.	15-21°	5° Min.	8° Min.	Tab .205
HD-0700	CCW	4 gms. in. Max.	15-21°	5° Min.	8° Min.	Tab .205

MODEL No.	CIRCUIT	PRETRAVEL	OPERATING FORCE
3D05-5P	N.O.	.100 in. Max.	10-15 oz.
3D05-5P-4T	N.O.	.100 in. Max.	10-15 oz.
3D05-8P	N.C.	.070 in. Max.	10-15 oz.
3D05-8P-4T	N.C.	.070 in. Max.	10-15 oz.
3D05-8P	N.O.	.100 in. Max.	10-15 oz.
3D05-8P-4T	N.O.	.100 in. Max.	10-15 oz.
3D05-8P	N.C.	.070 in. Max.	10-15 oz.
3D05-8P-4T	N.C.	.070 in. Max.	10-15 oz.

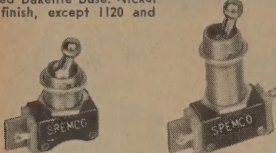
NATIONWIDE SALES ASSISTANCE THROUGH LOCAL DISTRIBUTOR OR FACTORY ENGINEER

SPEMCO® H & H SWITCHES

BALL LEVER TOGGLE SWITCHES

Underwriters' approved, 1 amp. 250 V 3 amp. 125 volts, AC/DC. Laminated bakelite base. Nickel plated finish, except 1120 and 1121.

3 Amp.



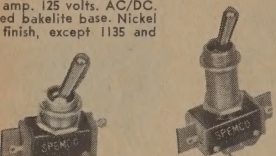
No.	Description	Sleeve	Base Dimensions			Net Price
			L.	W.	H.	
1120	SPST	1 1/2"	1 1/4"	1 1/2"	3 1/2"	.66 ea.
1122	SPDT	1 1/2"	1 1/4"	1 1/2"	3 1/2"	.84 ea.
1124	DPST	1 1/2"	1 1/4"	1 1/2"	3 1/2"	1.20 ea.
1126	DPDT	1 1/2"	1 1/4"	1 1/2"	3 1/2"	1.38 ea.
1121	SPST	1"	1 1/4"	1 1/2"	3 1/2"	.90 ea.
1123	SPDT	1"	1 1/4"	1 1/2"	3 1/2"	1.05 ea.
1125	DPST	1"	1 1/4"	1 1/2"	3 1/2"	1.44 ea.
1127	DPDT	1"	1 1/4"	1 1/2"	3 1/2"	1.62 ea.

Sleeve Diameter—1 1/2"
*3 amp. 250 V AC/DC.

BAT LEVER TOGGLE SWITCHES

3 Amp.

Underwriters' approved, 1 amp. 250 V 3 amp. 125 volts, AC/DC. Laminated bakelite base. Nickel plated finish, except 1135 and 1121B.



No.	Description	Sleeve	Base Dimensions			Net Price
			L.	W.	H.	
*1135	SPST	1 1/2"	1 1/4"	1 1/2"	3 1/2"	.66 ea.
1136	SPDT	1 1/2"	1 1/4"	1 1/2"	3 1/2"	.84 ea.
1137	DPST	1 1/2"	1 1/4"	1 1/2"	3 1/2"	1.20 ea.
1138	DPDT	1 1/2"	1 1/4"	1 1/2"	3 1/2"	1.38 ea.
1121-B	SPST	1"	1 1/4"	1 1/2"	3 1/2"	.90 ea.
1123-B	SPDT	1"	1 1/4"	1 1/2"	3 1/2"	1.05 ea.
1125-B	DPST	1"	1 1/4"	1 1/2"	3 1/2"	1.44 ea.
1127-B	DPDT	1"	1 1/4"	1 1/2"	3 1/2"	1.62 ea.

Sleeve Diameter—1 1/2"
*3 amp. 250 V AC/DC.

"COMPACT" SWITCH



3 Amp.

Ideal for aircraft, missile, and electronic applications. Underwriters' approved 1 amp. 250 v., 3 amp. 125 v., AC-DC. Bakelite base. Bright nickel finish.

No.	Description	Sleeve	Base Dimensions			Net Price
			L.	W.	H.	
1205	SPST	1 1/2"	1 1/4"	1 1/2"	3 1/2"	.90 ea.
1206	SPDT	1 1/2"	1 1/4"	1 1/2"	3 1/2"	1.05 ea.
1207	DPST	1 1/2"	1 1/4"	1 1/2"	3 1/2"	1.32 ea.
1208	DPDT	1 1/2"	1 1/4"	1 1/2"	3 1/2"	1.50 ea.

Sleeve Diameter—1 1/2"

MOLDED BAKELITE SWITCH, BAT LEVER

U.L. approved for 6 amp. 125 volts, 3 amp. 250 volts. *Except for 1143 which is rated at 1 amp. 250 volts, 6 amp. 125 volts. All back connected; slotted sleeve. Positive action.



6 Amp.

No.	Description	Sleeve	Base Dimensions			Net Price
			L.	W.	H.	
1142	SPST	1 1/2"	1 1/4"	1 1/2"	3 1/2"	.90 ea.
*1143	SPDT	1 1/2"	1 1/4"	1 1/2"	3 1/2"	1.05 ea.
1144	DPST	1 1/2"	1 1/4"	1 1/2"	3 1/2"	1.32 ea.
1145	DPDT	1 1/2"	1 1/4"	1 1/2"	3 1/2"	1.50 ea.

*1 amp. 250 volts, 6 amp. 125 volts

BALL or BAT* LEVER TOGGLE SWITCH

6 Amp.



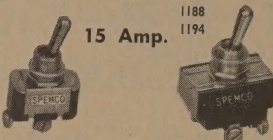
Underwriters' approved 3A 250V, 6A 125V, molded bakelite base. Nickel plated finish. WITH 6" WIRE LEADS

No.	Description	Sleeve	Base Dimensions			Net Price
			L.	W.	H.	
1154	SPST	3/8"	7/8"	1 1/2"	3 1/2"	.93 ea.
*1154B	SPST	3/8"	7/8"	1 1/2"	3 1/2"	.93 ea.

Sleeve Diameter—1 1/2"

UTILITY SWITCHES—Toggle Type For AC Uses

1185 15 Amp. 1186 1187 1188



No.	Description	Sleeve	Base Dimensions			Net Price
			L.	W.	H.	
1185	SPST	1 1/2"	1 1/4"	1 1/2"	3 1/2"	.75 ea.
1186	SPDT	1 1/2"	1 1/4"	1 1/2"	3 1/2"	.90 ea.
1188	DPST	1 1/2"	1 1/4"	1 1/2"	3 1/2"	1.20 ea.
1194	DPDT	1 1/2"	1 1/4"	1 1/2"	3 1/2"	1.47 ea.

Sleeve Diameter—1 1/2"

MOMENTARY BAT LEVER TOGGLE SWITCHES

Underwriters' approved 3 amp. 125 volts, laminated bakelite base. Nickel plated finish.



No.	Description	Sleeve	Base Dimensions			Net Price
			L.	W.	H.	
*1166	SPST	1 1/2"	1 1/4"	1 1/2"	3 1/2"	1.11 ea.
1167	SPDT	1 1/2"	1 1/4"	1 1/2"	3 1/2"	1.23 ea.
*1168	DPST	1 1/2"	1 1/4"	1 1/2"	3 1/2"	1.56 ea.
1150	DPDT	1 1/2"	1 1/4"	1 1/2"	3 1/2"	1.77 ea.

*1166 Normally Off *1155 Normally Off

*3 Amp 250V

15 Amp.



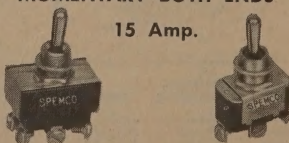
Underwriters' approved, 10 amp. 250 volts AC, 15 amp. 125 volts AC, 3/4 H.P. 115V-230V AC.

No.	Description	Sleeve	Base Dimensions			Net Price
			L.	W.	H.	
*1196	SPST	1 1/2"	1 1/4"	1 1/2"	3 1/2"	1.02 ea.
*1197	DPST	1 1/2"	1 1/4"	1 1/2"	3 1/2"	1.62 ea.

*Normally Off Sleeve Diameter—1 1/2"

NEUTRAL CENTER MOMENTARY BOTH ENDS

15 Amp.



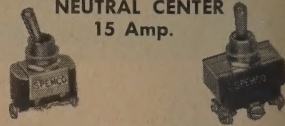
Underwriters' approved, 10 amp. 250 volts AC, 15 amp. 125 volts AC, 3/4 H.P. 115V-230V AC.

No.	Description	Sleeve	Base Dimensions			Net Price
			L.	W.	H.	
1193	DPDT	1 1/2"	1 1/4"	1 1/2"	3 1/2"	1.92 ea.
1195	SPDT	1 1/2"	1 1/4"	1 1/2"	3 1/2"	1.17 ea.

Sleeve Diameter—1 1/2"

NEUTRAL CENTER

15 Amp.



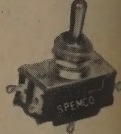
Underwriters' approved, 10 amp. 250 volts AC, 15 amp. 125 volts AC, 3/4 H.P. 115V-230V AC.

No.	Description	Sleeve	Base Dimensions			Net Price
			L.	W.	H.	
1187	SPDT	1 1/2"	1 1/4"	1 1/2"	3 1/2"	.90 ea.
1189	DPDT	1 1/2"	1 1/4"	1 1/2"	3 1/2"	1.47 ea.

Sleeve Diameter—1 1/2"

BAT LEVER TOGGLE SWITCH 6 Amp. Neutral Center

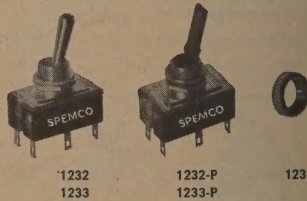
Underwriters' approved, 6 amp. 125 volts, either AC or DC. A 3 position switch, on-off-on. Black bakelite case.



No.	Description	Sleeve	Base Dimensions			Net Price
			L.	W.	H.	
1175	SPDT	1 1/2"	1 1/4"	1 1/2"	3 1/2"	1.62 ea.
1176	DPDT	1 1/2"	1 1/4"	1 1/2"	3 1/2"	1.95 ea.

Sleeve Diameter—1 1/2"

BAT AND PADDLE LEVER TOGGLE SWITCH 5 Amp.



This series is unique and used where other switches cannot be reliably used or have no counterpart. Smallest two and three position wiping blade toggle switches at their ratings on the market. Bat lever is nickel-plated brass; paddle lever is black Nylon standard.

Mechanical life expectancy, 100,000 cycles min. Electrical life expectancy, 50,000 cycles min. at full load. Terminals: combination solder lug and quick-connect push-on type terminals. Quick-connect accepts .110" AMP type connector or equal. When wires are soldered, up to two #18 wires or three #20 wires. Weight: double pole, 22.5 grams. Bat lever is 3/4" long; paddle lever is 1 1/4" long, both with a 28 degree throw. 5 amp. 225 volts, 2 amp. 250 volts AC. 4 amps. 125 volts, 1 amp. 250 volts DC.

No.	Description	Sleeve	Base Dimensions			Net Price Each
			L.	W.	H.	
1232	DPDT (on-off-on)	3/8"	1 1/4"	1 1/2"	3 1/2"	\$2.55
1232-P	DPDT (on-off-on)	3/8"	1 1/4"	1 1/2"	3 1/2"	2.67
1233	SPDT (on-off-on)	3/8"	1 1/4"	1 1/2"	3 1/2"	2.04
1233-P	SPDT (on-off-on)	3/8"	1 1/4"	1 1/2"	3 1/2"	2.25
1232-OF	Drill face nut (optional)	.178"				thick

Sleeve Diameter—1 1/2"

SPEMCO® H & H SWITCHES

PUSH BUTTON DOUBLE ACTION 6 Amp. SWITCH

Underwriters' approved, 6 amp. 125 volts. Press lever to make contact, press lever to break contact. Nickel plated finish or snap-on plastic button, in red or black.



No.	Description	Sleeve	Base Dimensions			Net Price
			L.	W.	H.	
1156	Nickel Plated	3/16"	1 1/2"	3/2"	3/16"	.93 ea.
1156-A	Red	3/16"	1 1/2"	3/2"	3/16"	1.20 ea.
1156-B	Black	3/16"	1 1/2"	3/2"	3/16"	1.20 ea.

Sleeve Diameter—1 1/2"

"COMPACT" DOUBLE ACTION (PUSH-PUSH) SWITCH QUICK MAKE AND BREAK ACTION 3 Amp.

Rated at 1 Amp. 250 Volts and 3 Amps. 125 Volts, A.C. and D.C.

Solder lug terminals with double wiping blade mechanism.



No.	Description	Sleeve	L.	W.	H.	Net Price Each
1215	SPST	3/16"	1 1/2"	3/2"	3/16"	1.17
1215-B	SPST	3/16"	1 1/2"	3/2"	3/16"	1.41
1215-R	SPST	3/16"	1 1/2"	3/2"	3/16"	1.41
1216	SPDT	3/16"	1 1/2"	3/2"	3/16"	1.35
1216-B	SPDT	3/16"	1 1/2"	3/2"	3/16"	1.62
1216-R	SPDT	3/16"	1 1/2"	3/2"	3/16"	1.62
1217	DPST	3/16"	1 1/2"	3/2"	3/16"	1.71
1217-B	DPST	3/16"	1 1/2"	3/2"	3/16"	1.89
1217-R	DPST	3/16"	1 1/2"	3/2"	3/16"	1.89
1218	DPDT	3/16"	1 1/2"	3/2"	3/16"	1.83
1218-B	DPDT	3/16"	1 1/2"	3/2"	3/16"	2.04
1218-R	DPDT	3/16"	1 1/2"	3/2"	3/16"	2.04

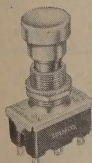
(B. means black button, R. means Red button and just the number, nickel.)

Sleeve Diameter — 1 1/2"

"COMPACT" MOMENTARY ACTION PUSH SWITCH QUICK MAKE AND BREAK ACTION 3 Amp.

Rated at 1 Amp. 250 Volts
3 Amps. 125 Volts A.C.-D.C.

Solder lug terminals with double wiping blade mechanism



No.	Description	Sleeve	L.	W.	H.	Net Price Each
*1219	SPST	3/16"	1 1/2"	3/2"	3/16"	1.44
*1219-B	SPST	3/16"	1 1/2"	3/2"	3/16"	1.65
*1219-R	SPST	3/16"	1 1/2"	3/2"	3/16"	1.65
1220	SPDT	3/16"	1 1/2"	3/2"	3/16"	1.71
1220-B	SPDT	3/16"	1 1/2"	3/2"	3/16"	1.95
1220-R	SPDT	3/16"	1 1/2"	3/2"	3/16"	1.95
*1221	DPST	3/16"	1 1/2"	3/2"	3/16"	1.98
*1221-B	DPST	3/16"	1 1/2"	3/2"	3/16"	2.19
*1221-R	DPST	3/16"	1 1/2"	3/2"	3/16"	2.19
1222	DPDT	3/16"	1 1/2"	3/2"	3/16"	2.13
1222-B	DPDT	3/16"	1 1/2"	3/2"	3/16"	2.31
1222-R	DPDT	3/16"	1 1/2"	3/2"	3/16"	2.31

Sleeve Diameter—1 1/2"

(B. means black button, R. means Red button and just the number, nickel.)

*SPST & DPST—Normally Off.

MIDGET MOMENTARY PUSH BUTTON SWITCHES

3 Amp.

Underwriters' approved, 3 amp. 120 volts, A.C. Molded bakelite base, nickel plated finish.



No.	Description	Sleeve	Base Dimensions L.	W.	H.	Net Price
1141	SP Norm. Closed	3/16"	1 1/2"	3/16"	3/4"	.57 ea.
1141-A	SP Norm. Open	3/16"	1 1/2"	3/16"	3/4"	.57 ea.

Sleeve Diameter—1 1/2"

3 Amp.

Underwriters' approved, 3 Amp. 120v, A.C. Nickel plated finish. Molded bakelite base, Single Pole, slow make and slow break with bakelite snap-on button in red or black. Also white button on request.



No.	Description	Sleeve	Base Dimensions L.	W.	H.	Net Price
1157-A	Open—Red	3/16"	1 1/2"	3/16"	3/4"	.96 ea.
1157-B	Open—Black	3/16"	1 1/2"	3/16"	3/4"	.96 ea.
1157-C	Closed—Red	3/16"	1 1/2"	3/16"	3/4"	.96 ea.
1157-D	Closed—Black	3/16"	1 1/2"	3/16"	3/4"	.96 ea.

Sleeve Diameter—1 1/2"

INTERMEDIATE MOMENTARY PUSH SWITCH

6 Amp.

U.L. approved for 6 amp. 125 volts, 3 amp. 250 volts. *Except for 1147 which is rated at 1 amp. 250 volts, 6 amp. 125 volts. All back connected, slotted sleeve.



No.	Description	Sleeve	Base Dimensions L.	W.	H.	Net Price
*1146	SPST	1/2"	1 1/4"	1 1/4"	3/4"	1.50 ea.
*1147	SPDT	1/2"	1 1/4"	1 1/4"	3/4"	1.71 ea.
*1148	DPST	1/2"	1 1/4"	1 1/4"	3/4"	1.95 ea.
1149	DPDT	1/2"	1 1/4"	1 1/4"	3/4"	2.13 ea.

*1 amp. 250 volts, 6 amp 125 volts
**1146 & 1148 Normally off. Sleeve Diameter—1 1/2"

MOMENTARY PUSH BUTTON SWITCH

16 Amp.

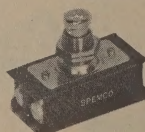


Underwriters' approved, 16 amp. 125 V., 8 amp. 250 V., 1 H.P. 125-250 V. AC-DC.

No.	Description	Sleeve	Base Dimensions L.	W.	H.	Net Price
1160	DPST	1 1/2"	1 3/4"	1 3/4"	3 1/2"	1.95 ea.
1160-A	DPST	1 1/2"	1 3/4"	1 3/4"	3 1/2"	1.95 ea.

Sleeve Diameter—1 1/2"

20 Amp.



Underwriters Approved: 20 Amp. 125 V., 10 Amp. 250 V., AC-DC. 1 1/2 H.P. 125-250 V., AC-DC.

No.	Description	Sleeve	Base Dimensions L.	W.	H.	Net Price
1230	DPST	2 1/2"	1 3/4"	1"	7/8"	3.06 ea.
1231	DPST	2 1/2"	1 3/4"	1"	7/8"	3.06 ea.

(Normally Closed) Sleeve Diameter—1 1/2"

1 Amp.

Two circuit, slow make and slow break, momentary switch. One circuit normally on, the other off, with snap-on plastic button, in red or black. (Pushing the button reverses the contact) 1 Amp. 125 Volts A.C. White button on request. Underwriters' Approved.



No.	Description	Sleeve	Base Dimensions L.	W.	H.	Net Price
1158-A	Red	3/16"	1 1/2"	3/16"	3/4"	1.17 ea.
1158-B	Black	3/16"	1 1/2"	3/16"	3/4"	1.17 ea.

Sleeve Diameter—1 1/2"

POWER SWITCHES

10 Amp.



Underwriters' approved, 10 amp. 125 volts, 5 amp. 250 A.C., 3/4 H.P. 250V. A.C. 1/2 H.P. 250V. A.C.

No.	Description	Sleeve	Base Dimensions L.	W.	H.	Net Price
*1133	SPST	1 1/2"	1 3/4"	1 3/4"	1 1/4"	1.14 ea.
1133-B	Bakelite lever	1 1/2"	1 3/4"	1 3/4"	1 1/4"	.75 ea.

16 Amp.



Underwriters' approved, 16 amp. 125V., 8 amp. 250V. A.C.-D.C.

No.	Description	Sleeve	Base Dimensions L.	W.	H.	Net Price
1159	DPST	1 1/2"	1 3/4"	1 3/4"	1 1/4"	1.35 ea.
1159-B	DPST	1 1/2"	1 3/4"	1 3/4"	1 1/4"	1.35 ea.

1159—Ball Lever 1159-B—Bat Lever
Sleeve Diameter—1 1/2"

20 Amp.



Underwriters' approved 20 amp. 125 V., 10 amp. 250 V. 1 1/2 H.P. 125-250 V. AC-DC.

No.	Description	Sleeve	Base Dimensions L.	W.	H.	Net Price
1134	DPST	1 1/2"	2"	1 1/4"	7/8"	2.28 ea.
1134-B	DPST	1 1/2"	2"	1 1/4"	7/8"	2.28 ea.

1134—Ball Lever 1134-B Bat Lever
Sleeve Diameter—1 1/2"

20 Amp.



Fully enclosed tumbler switch, 20 amp. 250V., 1 1/2 H.P. 125V., 2 H.P. 250V.

No.	Description	Sleeve	Base Dimensions L.	W.	H.	Net Price
1170-S	DPST	1 1/2"	2 1/4"	1 1/8"	1 3/2"	3.15 ea.

Sleeve Diameter—1 1/2"

20 Amp.

Fully enclosed tumbler switch, 20 amp. 250V., 1 1/2 H.P. 125V., 2 H.P. 250V.



No.	Description	Sleeve	Base Dimensions L.	W.	H.	Net Price
1170	DPST	1 1/2"	2 1/4"	1 1/8"	1 3/2"	3.15 ea.

Sleeve Diameter—1 1/2"

SPEMCO® H & H SWITCHES

EXTRA HEAVY DUTY SWITCH NEUTRAL CENTER 10 Amp.

Used in heavy current circuits, such as transmitters, power amplifiers, motors, etc. Contacts have fast "break" which reduces the tendency to arc. Rated at 10 amp. 125 volts. 5 amp. 250 volts, $\frac{3}{4}$ " HP 250 volts.

Positive off in center.



No.	Description	Sleeve	Base Dimensions			Net Price
			L.	W.	H.	
*1161-A	DPDT	$\frac{1}{2}$ "	2"	$\frac{1}{2}$ "	$\frac{1}{2}$ "	4.95 ea.
1161	DPDT	$\frac{1}{2}$ "	2"	$\frac{1}{2}$ "	$\frac{1}{2}$ "	4.95 ea.

Straight thru, no off-center* Sleeve Diameter— $\frac{3}{4}$ "

20 Amp. & 30 Amp.

$\frac{3}{16}$ " mounting centers

1161-B & 1161-D
10 Amp. 250 Volts
20 Amp. 125 Volts

1161-C
20 Amp. 250 Volts
30 Amp. 125 Volts
Both AC-DC



No.	Description	Sleeve	Base Dimensions			Net Price
			L.	W.	H.	
1161-B	DPDT	$2\frac{1}{2}$ "	$1\frac{1}{2}$ "	$\frac{1}{2}$ "	$\frac{1}{2}$ "	7.80 ea.
1161-C	DPDT	$2\frac{1}{2}$ "	$1\frac{1}{2}$ "	$\frac{1}{2}$ "	$\frac{1}{2}$ "	10.65 ea.
*1161-D	DPDT	$2\frac{1}{2}$ "	$1\frac{1}{2}$ "	$\frac{1}{2}$ "	$\frac{1}{2}$ "	7.80 ea.

*20 Amp. Straight thru-no off center.

10 Amp.

Rated 10 amp. 125 volts, $\frac{1}{2}$ HP, 115-230 volts AC. 5 amp. 250 volts.



No.	Description	Sleeve	Base Dimensions			Net Price
			L.	W.	H.	
1177	3 PDT	$\frac{1}{2}$ "	$2\frac{1}{2}$ "	2"	$\frac{1}{2}$ "	7.50 ea.
1178	4 PDT	$\frac{1}{2}$ "	$2\frac{1}{2}$ "	2"	$\frac{1}{2}$ "	9.45 ea.

Sleeve Diameter— $\frac{3}{4}$ "

THREE & FOUR POLE AC UTILITY SWITCHES

15 Amp. AC



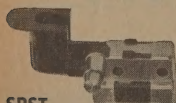
15 amp. 125V., 10 amp. 250V. AC., except Nos. 1200, 1201 and 1228 which are 10 amp. 250V. AC.

No.	Description	Sleeve	Base Dimensions			Net Price
			L.	W.	H.	
1198	3PST On-None-Off	$\frac{1}{2}$ "	$1\frac{1}{4}$ "	$\frac{1}{4}$ "	$\frac{1}{4}$ "	2.70 ea.
1199	3PDT On-Off-On	$\frac{1}{2}$ "	$1\frac{1}{4}$ "	$\frac{1}{4}$ "	$\frac{1}{4}$ "	3.30 ea.
1227	3PDT On-None-Off	$\frac{1}{2}$ "	$1\frac{1}{4}$ "	$\frac{1}{4}$ "	$\frac{1}{4}$ "	3.30 ea.
*1200	4PST On-None-Off	$\frac{1}{2}$ "	$1\frac{1}{4}$ "	$\frac{1}{4}$ "	$\frac{1}{4}$ "	3.75 ea.
*1201	4PDT On-Off-On	$\frac{1}{2}$ "	$1\frac{1}{4}$ "	$\frac{1}{4}$ "	$\frac{1}{4}$ "	4.50 ea.
*1228	4PDT On-None-On	$\frac{1}{2}$ "	$1\frac{1}{4}$ "	$\frac{1}{4}$ "	$\frac{1}{4}$ "	4.50 ea.

Sleeve Diameter— $\frac{1}{2}$ "

*10 amp. 250 V. A.C. * $\frac{1}{2}$ H.P. 115-230 V. A.C.

TOOL HANDLE SWITCH 4 Amp.



Direct Pull Trigger with Latch.
Plug-in Terminal
2 amp., 250 volts.
4 amp., 125 volts.

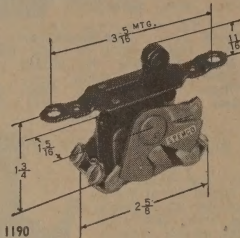
SPST Momentary Contact

No.	L.	W.	H.	Net Price
1169	$1\frac{1}{2}$ "	$\frac{1}{2}$ "	$\frac{1}{4}$ "	1.14 ea.

HEAVY DUTY SWITCHES Toggle Type

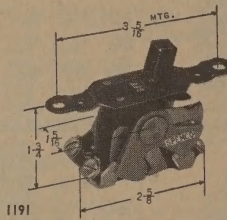
Underwriters' approved, 30 amp. 250 volts, AC DC. 2 H.P., 115V-230V AC; 1 H.P., 460V AC For use on Food Machines, Grinders, Sanders, Machine Tools, Gasoline Pumps, etc.

Roller Type Lever 30 Amp.



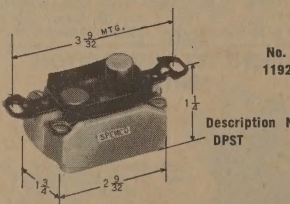
No.	Description	Net Price
1190	DPST	2.85 ea.

Square Bakelite Lever 30 Amp.



No.	Description	Net Price
1191	DPST	2.85 ea.

METAL PUSH BUTTON TYPE NORMALLY OPEN 20 Amp.



Underwriters' approved, 20 amp. 250 volts, 2 H.P., 230V AC 2 H.P., 250V DC. For use on Floor Sander, as a foot switch, etc.

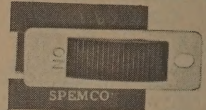
PORTABLE TOOL HANDLE SWITCHES 16 Amp.



Tool handle switch, fully enclosed, normally OFF with locking latches. Rated and approved by the Underwriters' for 8 amp. 250 volts, 16 amp. 125 volts, 1 H.P., 250 volts, $\frac{1}{4}$ " long, $\frac{1}{4}$ " wide, $\frac{7}{16}$ " high.

No.	Description	Net Price
1168	DPST	2.10 ea.

INDICATING SLIDE LEVER SWITCH



6 Amp.

Rated at
3 Amp.—250 volts
6 Amp.—125 volts

SINGLE POLE Screw Terminal

No.	L.	W.	H.	Net Price
1174	$\frac{7}{8}$ "	$\frac{1}{2}$ "	$\frac{1}{2}$ "	1.35 ea.

ROTARY CANOPY SWITCH With Fixed Plastic Handle



3 Amp.

Underwriters' approved, 3 amp. 125 volts. 1 amp. 250 volts.

No.	Stem	Wire Lead	Net Price
1179	$\frac{3}{4}$ "	6"	.54 ea.

ROTARY SWITCHES



3 Amp.

Underwriters' approved, 1 amp. 250 V., 3 amp. 125 V. AC-DC (Except #1128). Nickel plated finish. Laminated bakelite base.

No.	Description	Shaft	Sleeve	Base Dimensions			Net Price
				L.	W.	H.	
*1128	SPST	$1\frac{1}{8}$ "	$\frac{3}{8}$ "	$1\frac{1}{2}$ "	$\frac{3}{4}$ "	$\frac{1}{2}$ "	1.08 ea.
*1129	SPDT	$1\frac{1}{8}$ "	$\frac{3}{8}$ "	$1\frac{1}{2}$ "	$\frac{3}{4}$ "	$\frac{1}{2}$ "	1.08 ea.
1130	DPST	$1\frac{1}{8}$ "	$\frac{3}{8}$ "	$1\frac{1}{2}$ "	$\frac{3}{4}$ "	$\frac{1}{2}$ "	1.41 ea.
1131	DPDT	$1\frac{1}{8}$ "	$\frac{3}{8}$ "	$1\frac{1}{2}$ "	$\frac{3}{4}$ "	$\frac{1}{2}$ "	1.74 ea.

*1128 rated 3 amp. 250 V. AC-DC, $\frac{1}{2}$ " Sleeve Diameter— $\frac{1}{2}$ "

3 Amp. ROTO-LOCK SWITCH

Underwriters' Approved, 3 amp. 250 volts. Except #1129-K & 1131-K

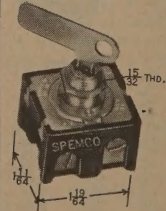


No.	Description	Sleeve	Base Dimensions			Net Price
			L.	W.	H.	
1128-K	SPST (With Key)	$\frac{1}{2}$ "	$1\frac{1}{8}$ "	$\frac{3}{4}$ "	$\frac{1}{2}$ "	1.56 ea.
(above key removable in off position only)						
1128-KA	Key only for above					.228 ea.
1128-KE	SPST (With Key)	$\frac{1}{2}$ "	$1\frac{1}{8}$ "	$\frac{3}{4}$ "	$\frac{1}{2}$ "	1.56 ea.
(above key removable in either position)						
*1129-K	SPDT (With Key)	$\frac{1}{2}$ "	$1\frac{1}{8}$ "	$\frac{3}{4}$ "	$\frac{1}{2}$ "	1.65 ea.
(above key removable in either position)						
*1131-K	DPDT (With Key)	$\frac{1}{2}$ "	$1\frac{1}{8}$ "	$\frac{3}{4}$ "	$\frac{1}{2}$ "	2.19 ea.
(above key removable in either position)						
1128-KEA	Key-fits 1128-KE, 1129-K, and 1131-K					228 ea.
*1129-K & 1131-K—U.L. approved, 1 amp. 250 V. 3 amp. 125V., AC-DC. Sleeve Diameter— $\frac{1}{2}$ "						

ROTO-LOCK SWITCH

20 Amp.

Underwriters' approved, 20 amp. 120 volts, 240 volts AC.



$1\frac{1}{2}$ H.P.—120 volts AC
2 H.P.—120 volts AC

(with key)
(above key removable in off position only)

No.	Description	Sleeve	Net Price
1130-K	(With Key) DPST	$\frac{1}{2}$ "	2.76 ea.
1130-KA	Key Only for above		.30 ea.

SPECIALTIES MANUFACTURING CO.

SPEMCO® H & H SWITCHES

MILITARY TYPE TOGGLE SWITCHES

Manufactured of materials and in accordance with specification Mil-S-3950
MS-25098 and MS-35058—Single Pole MS-25100 and MS-35059—Double Pole

MS Part No.	Up Position	Center Position	Down Position	Net Price
MS-25098-22	On	None	Off	\$234.00C
MS-25098-23	On	None	Off	252.00C
MS-25100-22	On	None	Off	287.25C
MS-25100-23	On	None	Off	306.00C
MS-35058-21	On	Off	On	211.50C
MS-35058-22	On	None	Off	175.50C
MS-35058-23	On	None	On	211.50C
MS-35058-24	On	Off	None	175.50C
MS-35058-25	On	Mom. Off	None	193.50C
MS-35058-26	On	None	Mom. On	229.50C
MS-35058-27	Mom. On	Off	Mom. On	229.50C
MS-35058-28	None	Off	Mom. On	193.50C
MS-35058-29	On	None	Mom. Off	193.50C
MS-35058-30	Off	None	Mom. On	193.50C
MS-35058-31	On	Off	Mom. On	229.50C
MS-35059-21	On	Off	On	282.75C
MS-35059-22	On	None	Off	234.75C
MS-35059-23	On	None	On	282.75C
MS-35059-24	On	Off	None	234.75C
MS-35059-25	On	Mom. Off	None	282.75C
MS-35059-26	On	None	Mom. On	306.00C
MS-35059-27	Mom. On	Off	Mom. On	306.00C
MS-35059-28	None	Off	Mom. On	282.75C
MS-35059-29	On	None	Mom. Off	282.75C
MS-35059-30	Off	None	Mom. On	282.75C
MS-35059-31	On	Off	Mom. On	306.00C



LOCKING BRACKET

all bat handle
gle or momentary
itches. Any Amp.



Net
Price

0. Fits over
1 1/2" sleeve
diameter. 1.83 ea.
26-A Key Only .30 ea.
Sleeve diameter 1 1/2"

FEED-THROUGH CORD SWITCH

Underwriters approved, black bakelite case, sliding lever, 10 Amp. 125 V., 5 Amp. 250 V.



Net
Price

No. Description Price

1163 SP 1.50 ea.

FEED THROUGH CORD SWITCH 15 Amp.

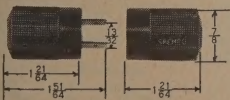
1 3/32 (.406) Inch
Cord Hole

For Appliance
Use Only:

Rated at 10 Amp.—250 volts
15 Amp.—125 volts

Net Price
4.95 ea.

CORD CONNECTORS 10 Amp.

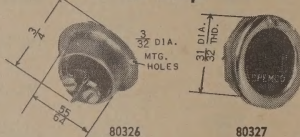


Brown Bakelite Cord Connector Complete, 7/8" O.D. x 2 1/2" long, 10 amps, 250 volts. End opening for wire size up to 3/8" O.D.

No.	Description	Net Price
62	Complete	1.89 ea.
62-F	Female Part	1.02 ea.
62-M	Male Part	1.02 ea.

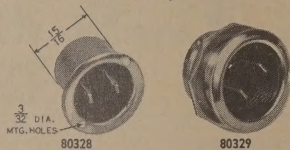
RECEPTACLES

Underwriters' approved, 10 amp. 250 volts A.C.
Short Female Flush Receptacle
10 Amp.



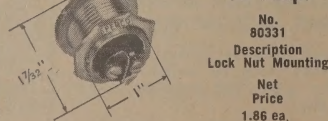
No. Description Net Price
80326 2 Screw Mounting 1.14 ea.
80327 Lock Nut Mounting 1.86 ea.

Recessed Male Receptacle 10 Amp.

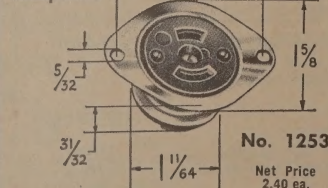


No. Description Net Price
80328 2 Screw Mounting 1.32 ea.
80329 Lock Nut Mounting 1.86 ea.

Recessed Female Receptacle 10 Amp.



Female Receptacle



No. 1253

Net Price
2.40 ea.

Configuration

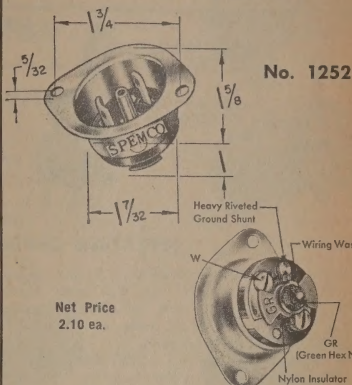


Connector



Cap

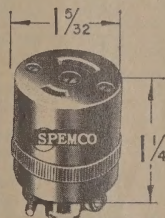
Male Receptacle



No. 1252

Net Price
2.10 ea.

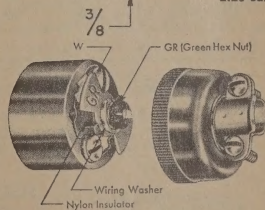
TURN TO LOCK COMPACT RECEPTACLES 3-WIRE GROUNDING TYPE 15 Amp. 125 Volt



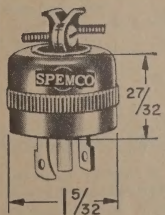
Brass metal casings, finished to resist corrosion. Black bakelite is standard.

Female
Connector
No. 1250

Net Price
2.25 ea.

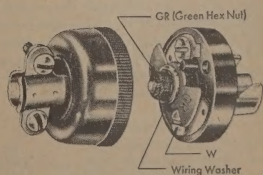


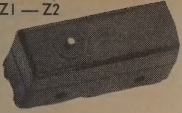
Male Connector



No. 1251

Net Price
1.80 ea.



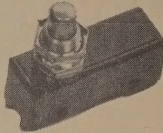
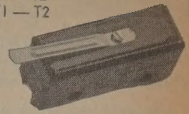
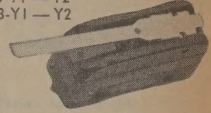
GP3-Z1 — Z2
HD3-Z1 — Z2GP3-W1 — W2
HD3-W1 — W2GP3-V1 — V2
HD3-V1 — V2

SPEMCO®

H & H PRECISION SWITCHES

GENERAL PURPOSE PRECISION SWITCHES SPDT

H & H General Purpose Precision Switches feature high electrical rating combined with very low operating force and long life. SPDT units may be wired normally open or normally closed. UL and CSA approved: 15 amp. 480 V AC, 1/2 amp. 125 V DC, 1/4 amp. 250 V DC.

GP3-U1 — U2
HD3-U1 — U2GP3-Q1 — Q2
HD3-Q1 — Q2GP3-T1 — T2
HD3-T1 — T2GP3-Y1 — Y2
HD3-Y1 — Y2GP3-X1 — X2
HD3-X1 — X2

SPEMCO NUMBER		*1 ACTUATOR	OPERATING FORCE	PRETRAVEL	OVERTRAVEL	LIST PRICE	
Solder Lug	Screw Term.					Solder Lug	Screw Term.
GP3-Z1	GP3-Z2	Pin Type	9 to 13 oz.	.015" max.	.005" min.	\$155.00 C.	\$165.00 C.
GP3-T1	GP3-T2	Flexible Leaf	5 oz. max.	5/32" max.	Not over 1/16"	170.00 C.	180.00 C.
GP3-Q1	GP3-Q2	Std. Roller Leaf	5 oz. max.	5/32" max.	Not over 1/16"	215.00 C.	220.00 C.
GP3-Y1	GP3-Y2	Rigid Hinge Lever	2 1/2 oz.	3/8" max.	.219" min.	200.00 C.	205.00 C.
GP3-X1	GP3-X2	Std. Roller Lever	3 1/2 oz. max.	9/32" max.	.156" min.	250.00 C.	260.00 C.
GP3-W1	GP3-W2	Short Roller Lever	6 oz. max.	9/64" max.	3/32" min.	250.00 C.	260.00 C.
GP3-V1	GP3-V2	Short Overtravel Button	9 to 13 oz.	1/64" max.	1/16" min.	190.00 C.	195.00 C.
GP3-U1	GP3-U2	Panel Mounted Plunger	9 to 13 oz.	1/64" max.	7/32" min.	345.00 C.	350.00 C.

*1 Switches are mounted by two .140 inch diameter holes on one inch centers. Discount: 1-9, none; 10-19, 10%; 20-49, 20%; 50 & over, 30%.

HEAVY DUTY PRECISION SWITCHES — SPDT

H & H Heavy Duty Precision Switches provide high inrush capacity and retain similar performance and actuating characteristics found in the General Purpose units. SPDT switches can be wired normally

open or normally closed. UL and CSA approved: 20 amp. 480 V AC, 10 amp. 125 V AC "L" load, 1/2 amp. 125 V DC, 1/4 amp. 250 V DC, 1 H.P. 120 V. AC, 2 H.P. 240 V. AC.

SPEMCO NUMBER		*1 ACTUATOR	OPERATING FORCE	PRETRAVEL	OVERTRAVEL	LIST PRICE	
Solder Lug	Screw Term.					Solder Lug	Screw Term.
HD3-Z1	HD3-Z2	Pin Type	14 to 22 oz.	.050" max.	.010" min.	\$160.00 C.	\$170.00 C.
HD3-T1	HD3-T2	Flexible Leaf	9 oz. max.	11/32" max.	Not over 1/16"	180.00 C.	185.00 C.
HD3-Q1	HD3-Q2	Std. Roller Leaf	9 oz. max.	11/32" max.	Not over 1/16"	225.00 C.	230.00 C.
HD3-Y1	HD3-Y2	Rigid Hinge Lever	2 1/2 oz. max.	5/8" max.	.078" min.	205.00 C.	210.00 C.
HD3-X1	HD3-X2	Std. Roller Lever	2 1/2 oz. max.	15/32" max.	1/16" min.	260.00 C.	265.00 C.
HD3-W1	HD3-W2	Short Roller Lever	6 oz. max.	1/4" max.	1/32" min.	260.00 C.	265.00 C.
HD3-V1	HD3-V2	Short Overtravel Button	14 to 22 oz.	.050" max.	.093" min.	195.00 C.	200.00 C.
HD3-U1	HD3-U2	Panel Mounted Plunger	14 to 22 oz.	.050" max.	.219" min.	355.00 C.	360.00 C.

*1 Switches are mounted by two .140 inch diameter holes on one inch centers. Discount: 1-9, none; 10-19, 10%; 20-49, 20%; 50 & over, 30%.

HARDWARE

for 1/2" diameter sleeve.



No.	Description	Price
1132-HL	Hi-Lo Plate	.042 ea.
1132	On and Off Plate	.042 ea.
1132-H	Hex Nut	.03 ea.
1132-K	Knurled Nut	.03 ea.
1210	Lockwasher	2.55C
1211	Locking Ring	4.20C

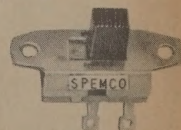
PHENOLIC SNAP-ON BUTTON

No.	Color	Net Price
1212-B	Black	.27 ea.
1212-R	Red	.27 ea.
1212-W	White	.27 ea.

All aforementioned switches, connectors and receptacles are manufactured by H&H for Specialties Manufacturing Company.

SLIDE SWITCHES

Housings are made of steel and are cadmium plated 1 1/2" long, 35/64" wide and 1/16" mounting centers.



No.	Description	Net Price
1180	SPST 3A-AC .5A-DC 125V	.156 ea.
1181	SPDT .75A AC-DC 125V	.168 ea.
1182	DPST .5A AC-DC 125V	.218 ea.
1183	DPDT 3A-AC .5A-DC 125V	.258 ea.

All aforementioned switches, connectors and receptacles are manufactured by H&H for Specialties Manufacturing Company.

SPECIALTIES MANUFACTURING CO.

American Beauty

ELECTRIC SOLDERING IRONS

LITTLE DANDY

New kind of quality in economy iron. All parts replaceable in seconds, including element. Plug-type tip. Anti-roll, aerated handle. Heat-deflecting baffle. Super-flexible cord. Perfect balance.

B-SERIES MINIATURES

Newest advance in truly miniature irons. Precise balance. Cool handle. Long-life, "floating," heating element. Anti-roll baffle. Simple three-piece assembly. Boxed with 6' detachable cord set, 3 assorted tips. Packed 6 to case.

BANTAMS

Small American Beauty irons in wide range of watt-inputs and tip diameters to cover entire range of fine and medium-fine jobs on electronic and electrical production lines.

TRANSFORMER TYPES

Variable heat and non-variable heat models. T-6 model shown; precision 6-volt instrument with variety of heat levels, quick tip-heat changes. T-12 and T-30 models non-variable. All models for use where complete isolation from line voltage is desirable or necessary.

STANDARD SERIES

Hundreds of thousands of these models of American Beauty irons are on production lines all over the world. Stocked in tip sizes from $\frac{1}{4}$ " to $1\frac{1}{8}$ ", input wattages from 60 W to 550 W.

ANGLE-TYPE irons available. (Casing angled for hard-to-reach jobs.)

SOLDERING TIPS

Made of commercially pure copper rod. Shapes and sizes for all AB irons and other makes as well. (1) Nickel-Plated. (2) "Paragon" Quality—best.

PARTS AND ACCESSORIES

You can always get original-equipment-quality parts for any American Beauty Soldering Iron—standardized for quick, easy repair. Also: AB cord sets; spooled and bulk heater cord in 250' lengths; branding irons; soldering iron

CAT. NO.	TIP. DIA.	WATTS	NET WT.	NET
3108	$\frac{1}{8}$ "	20	3 oz.	\$ 4.20
3110	$\frac{3}{16}$ "	25	3 oz.	4.20
3112	$\frac{1}{4}$ "	40	4 $\frac{1}{4}$ oz.	5.60

Two-wire cord is standard. For 3-wire grounding cord and NEMA type plug, add ".53" to CAT. NO. and \$1.00 to list price.

*Other options available (including higher wattages)

CAT. NO.	TIP. DIA.	WATTS	NET WT.	NET
B-2000-L	$\frac{1}{4}$ "	22 $\frac{1}{2}$	3 oz.	\$ 8.75
B-2500-L	$\frac{3}{16}$ "	30	3 oz.	8.75

Two-wire cord is standard. For 3-wire grounding cord and NEMA type plug, add ".53" to CAT. NO. and \$1.00 to list price.

*Other options available

CAT. NO.	TIP. DIA.	WATTS	NET WT.	NET
3114	$\frac{1}{4}$ "	60	8 oz.	\$ 7.00
3118	$\frac{1}{8}$ "	30	6 oz.	5.60
3120	$\frac{3}{16}$ "	30	6 $\frac{1}{2}$ oz.	5.60
3118-X	$\frac{1}{8}$ "	50	6 oz.	6.30

*Other models & options available

CAT. NO.	TIP. DIA.	WATTS	NET WT.	NET
T-6	Needle	Variable	19 $\frac{1}{2}$ oz.	\$16.80
T-12	$\frac{1}{16}$ "	17	1 lb. 3 oz.	14.00
T-30	$\frac{1}{16}$ "	30	1 lb. 12 oz.	15.40

*Other options available

CAT. NO.	TIP. DIA.	WATTS	NET WT.	NET
3125	$\frac{1}{4}$ "	60	7 $\frac{1}{2}$ oz.	\$ 7.00
3138	$\frac{3}{8}$ "	100	16 oz.	9.10
3158	$\frac{3}{8}$ "	200	28 oz.	11.20
3178	$\frac{7}{8}$ "	300	42 oz.	14.70
3198	$1\frac{1}{8}$ "	550	60 oz.	18.20

*Nine models available

tips made for high-spec. soldering; iron-clad; chrome-plated; pre-tinned; maintenance-free; for extra clean work.

Ask for **FREE**
American Beauty Tip Chart.

temperature regulating stands; safety guards for same; general-purpose solder pots; melting cups or ladles.

*Request American Beauty Catalog for complete selection.

NEW CATALOG—

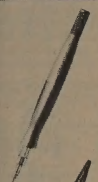
New American Beauty Catalog now available. **FREE.**

PRICES SUBJECT TO CHANGE WITHOUT NOTICE

AMERICAN ELECTRICAL HEATER CO.

CAIG LABORATORIES INC.

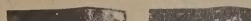
ERSA® SOLDERING TOOLS

SOLDERING IRONS	TECHNICAL DESCRIPTION	ERSA IRON COMPLETE CAT. NO. (Add 'D' to No. for ERS-CLAD)	WATT-AGE	COP- PER Bit	PRICE WITH ERS-CLAD Bit*	SOLDERING BIT (Add 'D' to No. for ERS-CLAD)	BIT FORM	PRICE COP- PER ERS-CLAD*	SPARE ELEMENT CAT. No.	ELEMENT PRICE	
	ERSA-MICROTYPE 8 WATTS — 15 WATTS 6 VOLT Subminiature soldering iron for pinpoint soldering on miniaturized printed circuits and other micromodulation techniques. Provided with ERS-CLAD long life bit. Good for 100,000 soldering operations. Built-in solid heater element. Weight under 3 ozs. Length of 8 watt unit 6.3", length of 15 watt unit 9.8". Temp. range 240°C to 380°C. For use with 6 volt transformer or battery, 5 foot cable & banana plugs. Temp. can be regulated with Central Transformer ERS- R30. For more details ask for Bulletin #E-502	20L/8W	8		\$9.50		 Sloping 1/4" ϕ		22L/8W	\$5.50	
		(Short Heating Unit)								(Element & Bit)	
		20B/8W	8		\$9.50		 Pencil Form 1/4" ϕ		22B/8W	\$5.50	
		(Short Heating Unit)								(Element & Bit)	
	ERSA-MINIATURE 10 WATTS — 20 WATTS — 30 WATTS 6 VOLT Miniature soldering iron for modern electronics—exchangeable heater elements—heating up time 40 sec.—weight under 3 ozs. Length 8"—for use with 6 volt transformer or battery, 5 foot cable & banana plugs—push on copper bits, easily exchanged—soldering temperature can be regulated with the Central Transformer ERS- R30. Temp. range 300°C. to 480°C. For more details ask for Bulletin #E-501	20K/15W	15		\$9.90		 Chisel Form 1/2" Wide		22K/15W	\$5.90	
		(Extra Long Heat'g Unit)								(Element & Bit)	
		20L/15W	15		\$9.90		 Sloping 1/8" ϕ		22L/15W	\$5.90	
		(Extra Long Heat'g Unit)								(Element & Bit)	
	ERSA MODEL 30 20 WATTS — 30 WATTS — 40 WATTS For radio, television and electronics—heating up time 2 min.—elements and copper bits easily exchangeable. Tip shank dia. 1 1/4" for all, 1 3/4" x 3/4" for S-bit. Bit temperatures 340°C — 360°C — 390°C. 5 foot cable & plug. 110 volts std. (220 volts special). Weight approx. 7 3/4 ozs. Length 7 3/4". Equipped with hex. shield. For more details ask for Bulletin #E-200.	10/10W	10	\$5.00	\$6.90	12/10	Sloping 1/4" ϕ	\$0.50	\$2.40	11/10W	\$3.60
		10/20W	20	5.00	6.90	12/20	Sloping 1/8" ϕ	0.50	2.40	11/20W	3.60
		10/30W	30	5.00	6.90	12/30	Sloping 3/2" ϕ	0.50	2.40	11/30W	3.60
	ERSA CONTROL TRANSFORMER MODEL R30 The R30, transformer model has a primary voltage regulator for 110, 125, 150, 220 and 240 volts. The secondary voltage is also variable within the range of 5 to 6.5 volts, thus making it possible to select a temperature range between 240 to 480°C. When not in use, the ERS- R30 rests on a special nozzle provided on the transformer. This protects against overheating. The R30, with a greater output, permits universal use of all the various ERS- R30s with their different capacities. MODEL R30, rated 30 VA, 5.1#. Price.....\$25.00	30K/20W	20	\$5.75	\$7.75	32K/20		\$0.50	\$2.50	31/20W	\$3.75
		30K/30W	30	5.75	7.75	32K/30	32K	0.50	2.50	31/30W	3.75
		30J/30W	30	5.75	7.75	32J/30	32J	0.50	2.50	31/40W	3.75
		30S/30W	30	5.75		32S/30	32S	0.50			
		30K/40W	40	5.75	7.75	32K/40		0.50	2.50		
		30J/40W	40	5.75	7.75	32J/40	32J	0.50	2.50		
		30S/40W	40	5.75		32S/40		0.50			

* 'ERSA-CLAD' — DURABLE IRON-CLAD COPPER BITS

Made of pure electrolytic copper with an iron coating. Soldering surface of bit pre-tinned ready for use. Shaft is chromium plated to prevent baking in. ERS-CLAD bits in normal use last for more than 100,000 solderings.
Ask for Bulletin on ERS-CLAD.

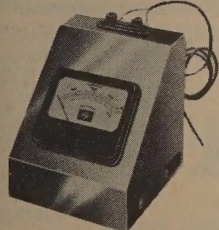
AFTER EQUAL SERVICE TIME



TREATED

UNTREATED

A SPECIAL BIT
A New miniature ERS-CLAD chisel tip bit, bent at right angle, 1/4" chisel width. Cat. #32JD16.

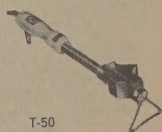


PYROMETERS — INDICATING

Model IPL-500, low temperature, indicating pyrometer, range 0° to +650°F, scale 3/4", graduations: 20°F, Dimensions 7" H. x 6" W. x 6" L., 15 feet #20 ga. I/C thermocouple & lead wire. Weight 4 lb. Price.....\$36.00
Extra thermocouple. Price.....\$13.50

Model IPH-500, high temperature, indicating pyrometer, range 0° to +2000°F, scale 3/4", graduations: 20°F, Dimensions 7" H. x 6" W. x 6" L., #14 ga. C/A thermocouple 1/4" dia. x 12" long, protected ceramic beads, 3 feet lead wire. Weight 4 lb. Price.....\$38.50
Extra thermocouple. Price.....\$13.50

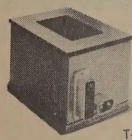
Model R-1800, infinite control, proportion input voltage of any resistive load up to 15 amps. Just plug in your load and set knob for any heat requirement. Red light indicator. Size 4" x 4" x 4". Weight. Price.....\$27.50



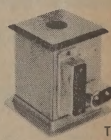
T-50



R-4A



T-6



T-2

RECTANGULAR & ROUND SOLDER BATHS

CATALOG NO.	WATTS	VOLTS	TEMPERATURE APPROX. (°C) (°F)	INTERNAL DIMENSIONS APPROX. (INCHES) LENGTH WIDTH DEPTH	CONTENTS APPROX. (CC)	HEAT CONTROL	WEIGHT APPROX. (LBS.)	PRICE
T-50	65	110	300	572	1.10 0.78 0.55	7	Full Heat	1.00 \$ 9.00
T-100	130	110	340	644	2.37 1.18 1.18	25	Full Heat	1.50 9.75
T-250A*	260	110	420	788	2.94 2.37 1.56	100	Full & Half	5.00 34.10
T-2*	240	110	600	1112	— 0.97 dia. 1.84	17	Full & Half	3.00 25.00
T-3*	350	110	430	806	3.94 1.18/0.99 2.14	120	Full & Half	5.50 29.00
T-4*	400	110	410	770	2.00 2.00 3.28	220	Full & Half	8.50 35.15
T-6*	1000	110	560	1040	4.69 3.13 2.39	570	Full & Half	11.25 55.15
T-9**	2800	220	650	1202	6.50 5.33 3.94	2080	3 Step Sw.	31.00 165.30
T-1212	2000	220	372	700	12.00 12.00 2.00	90 lbs.	Automatic	55.00 160.00
R-4A†	300	110	288	550	— 3.00 dia. 1.50	4 lbs.	Automatic	6.00 30.00
R-10A†	500	110	288	550	— 3.50 dia. 2.50	10 lbs.	Automatic	11.00 41.00
R-20A†	1100	110	372	700	— 5.00 dia. 4.00	20 lbs.	Automatic	33.00 85.00
R-4X	800	110	538	1000	— 3.00 dia. 1.50	4 lbs.	Full Heat	6.00 34.00
R-4AX†	900	110	538	1000	— 3.00 dia. 1.50	4 lbs.	Automatic	9.00 63.00

NOTES: (*) Can be Switched to Half Wattage Rating. (**) With 3-Step Switch. (†) Thermostat Bimetal Control.



BEAUCHAINE

**BEAU
TECH®
TOOLS**

 SEE SECTION 2100
FOR BEAUPUGS

 THE FIRST
CHOICE FOR

SUPERIOR MAGNIFICATION

OptiVISOR
An Optical Glass Remover Magnifier

 PREFERRED BY
PROFESSIONAL &
SKILLED CRAFTSMEN
EVERYWHERE

OptiVISOR

OptiV

 PLATE NO. 2
Magnifies 1½ Times
Focal Length 14 Inches

OptiV

 PLATE NO. 3
Magnifies 1¾ Times
Focal Length 14 Inches

Opti

 PLATE NO. 5
Magnifies 2½ Times
Focal Length 8 Inches

Opti

 PLATE NO. 7
Magnifies 3¼ Times
Focal Length 6 Inches

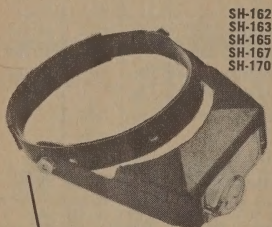
Opti

 PLATE NO. 10
Magnifies 5½ Times
Focal Length 4 Inches

iOn

ATTACHABLE AUXILIARY LENS this either eye of any model for additional magnification. Illustration shows

normal eye

 ONLY OptiVISOR OFFERS
THESE EXCLUSIVE FEATURES


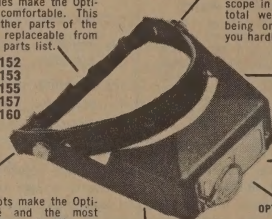
DIAL ADJUSTABLE CONTINUOUS HEAD BAND is formed to fit the head. A twist of the adjustment dial changes head size. Sealed in mechanism is self locking, trouble free. Gives the OptiVISOR better balance for the ultimate in comfort when worn over long periods of time. All other features same as Model E.

 SH-162
SH-163
SH-165
SH-167
SH-170

FULLY ADJUSTABLE ELASTIC BAND and Slides make the OptiVISOR more comfortable. This part, as all other parts of the OptiVISOR is replaceable from a replacement parts list.

 SH-152
SH-153
SH-155
SH-157
SH-160

IT TILTS—Pivots make the OptiVISOR unique and the most handy magnifier yet. It's up, out of the way of normal vision when not in use, and there at your fingertips when you need that magnified pinpoint clarity for inspection or close work.



CONFORMING HEADBAND made of electrically non-conductive ABS material, the headband is designed to fit and locate the scope in a natural position. The total weight of the OptiVISOR being only about four ounces, you hardly know it's there.

GENUINE LEATHER COMFORT BAND padded with orthopedic felt makes the OptiVISOR more comfortable than any worn magnifier.

OPTICAL GLASS LENSES ground and polished to precision optical standards are bevel edged and mounted in an interchangeable plastic frame. Five scientifically computed prismatic powers are available for use with any OptiVISOR.

OPTILOUPE

ABS HIGH IMPACT VISOR—Chemical, grease and flame resistant; this tough, durable material is practically indestructible with an always new appearance. The grain finish enhances the attractive functional design.

FLEXIBLE ARM MAGNIFIERS

Beau-Tech versatile **FLEXIBLE-ARM** magnifiers have larger lens area, 18" extra-stiff flexible arm, precision ground optical glass, choice of bases, lens adjustment to any position, positive lock on swivel adjustments, quality built throughout.

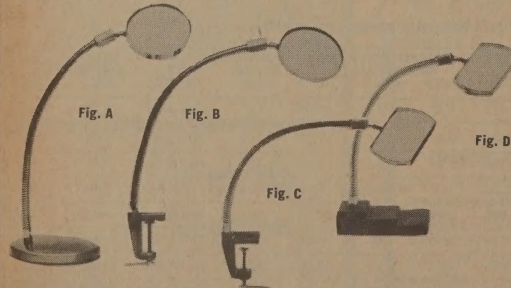
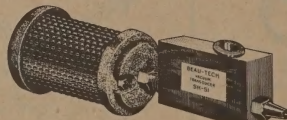


Fig. A, Beau-Tech SH-171 5" Round Lens Net 13.95
Fig. B, Beau-Tech SH-172 5" Round Lens Net 13.95
Fig. C, Beau-Tech SH-174 3" x 5" Rectangular Lens Net 13.95
Fig. D, Beau-Tech SH-173 3" x 5" Rectangular Lens Net 13.95

VACUUM TRANSDUCERS



Beau-Tech SH-51, converts shop air to vacuum energy in seconds. Handles up to 12 probes with Tip No. 22 and maintains 5.5" Hg. Uses less than 1.5 cfm of compressed air at 50 psi to produce 10" Hg. vacuum. (Material ¼" in size will pass thru vacuum transducer without disrupting vacuum flow)
Net 15.95 ea.

POLISHING MOTORS

Beau-Tech SH-150, double sealed ball bearings lubricated for life; will not burn out under repeated loading. Rugged, variable speed motor for buffing, polishing. 2 tapered spindles accept wide range of buff center holes. May be fastened to bench; or used portable. ¼ HP @ 5,000 rpm under load. Dial power rheostat provides 2,000 thru 10,000 rpm under load. 110 VAC 60 cy. Shaft is ¼" polished drill rod.
Net 44.95 ea.



BENCH BLOCKS

Beau-Tech SH-151, hexagonal with 16 well-graduated holes. One face has five graduated milled slots, .020", .028", .031", .035" and .040" for a variety of exacting jobs. Top, bottom and sides have been ground flat and smooth. Cyanide hardened for long wear. Distance across points is approximately 1 1/4" and height is 3/4".
Net 4.50, 10 & up 4.05 ea.

BEAUCHAINE



BEAUCHAINE

BEAU
TECH®
TOOLSSEE SECTION 2100
FOR BEAUPUGSBEAU-TECH®
TOOLS

BRASS HAMMERS

Beau-Tech SH-91, 2½ oz., developed originally for the watchmaking trade it is an ideal and inexpensive tool for technicians and hobbyists.
Net 1.75 ea., 10 or more 1.57 ea.

"THREE FACED"
HAMMERS

Beau-Tech SH-92 is a unique, beautifully balanced hammer. Has a 2½-oz. head, New Hampshire hardwood varnished handle. Comes with 3 different faces: Brass, Nylon, Fibre, and a spanner wrench for changing faces.
Net 2.75 ea., 10 or more 2.47 ea.

Beau-Tech SH-93, 5-oz. hammer same as above.

Net 3.25 ea., 10 or more 2.92 ea.



COMPONENT LEAD CLEANERS

Beau-Tech SH-66, NASA Quality Publication NPC-200-4 specifies component leads must have all oxides removed before being soldered in place. Beau-Tech SH-66 is a unique and inexpensive hand tool (Stainless Steel) and complies completely with these specs.Net \$1.50 ea., 10 or more 1.35 ea.

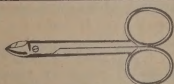
Beau-Tech SH-90-C and SH-90-S, manufactured to exacting medical standards. The Stainless Steel tools have two-position snap-locks which won't slip. Excellent clamp and heat sink for the soldering of diodes, transistors and other components where heat might be detrimental. Handy as a "third hand" in intricate operations, ideal for breadboarding as several may be used as temporary connectors to eliminate soldering and allow quick connecting and disconnecting of components. With TEC-COATED handles, and vinyl hang-up pouch. Length, approx. 5½".

SH-90-C (Curved Jaws)
Net 4.80 ea., 10 or more 4.32 ea.
SH-90-S (Straight Jaws)
Net 4.80 ea., 10 or more 4.32 ea.

DEMAGNETIZERS

Beau-Tech SH-149, most useful for demagnetizing steel tools and other objects which have become magnetized during fabrication or rework. Base dimensions—3¼" x 2¼". 110 VAC.Net 6.95 ea.

SCISSORS

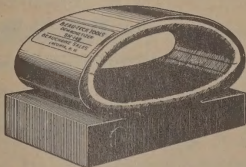
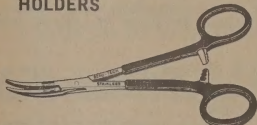


Beau-Tech SH-112 Filament Scissors,
chrome plated over surgical steel Net 2.25

INSULATED

Beau-Tech SH 113 As
above, with Tech-
insulated handles Net 3.30

Beau-Tech SH-114 Fine Filament Scissors, stainless steel, with serrated edges Net 2.25

LOCK-TYPE
HOLDERSBEAU-TECH®
VACUUM SYSTEM

VACUUM HANDLING OF MINIATURE PARTS

System normally supplied with Tips No. 11, 12, 20, 22, and 24. However, you may specify the exact tips which you require.

Tip No.	I. D.	O. D.	Style	Material of Hub	Needle	All Plastic	List	Over 20 Each No.
SH-50-11	.03	.10	E	A	Steel	X	.95	.85
SH-50-12	.06	.12	E	A	Steel	X	.95	.85
SH-50-13	.12	.19	F	A	Steel	X	.95	.85
SH-50-14	.03	.10	E	A	Steel	X	1.90	1.71
SH-50-15	.06	.12	F	A	Steel	X	1.90	1.71
SH-50-16	.12	.19	F	A	Steel	X	1.90	1.71
SH-50-17	.25	.31	F	A	Steel	X	1.90	1.71
SH-50-20	.07	.11	A	Alumel	X	1.10	1.13	
SH-50-21	.010	.020	A	Alumel	X	1.10	1.13	
SH-50-22	.013	.023	A	Alumel	X	1.10	1.13	
SH-50-23	.016	.026	A	Alumel	X	1.10	1.13	
SH-50-24	.020	.030	A	Alumel	X	1.10	1.13	
SH-50-25	.025	.036	A	Alumel	X	1.10	1.13	
SH-50-26	.033	.050	A	Alumel	X	1.10	1.13	
SH-50-27	.035	.057	A	Alumel	X	1.60	1.44	
SH-50-28	.045	.064	A	Alumel	X	1.60	1.44	
SH-50-29	.053	.071	A	Alumel	X	1.60	1.44	
SH-50-30	.070	.095	A	Alumel	X	1.60	1.44	

Beau-Tech SH-50, consists of a small electric vacuum generator producing up to 14" Hg vacuum, an inline filter which protects the generator from foreign matter, an SH-52 Cylindrical Probe and five Probe tips from the selection listed at left, and a 4" length of vacuum tubing. The operation of the SH-50 Vacuum System is simplicity itself—plug in the generator line cord, turn on the switch and you're in business. Objects are picked up by holding the index finger over the hole in the handle, raising the finger to release.

Net 36.95 ea., 10 or more 33.25 ea.

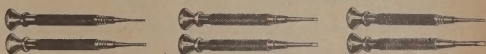
SH-52
CYLINDRICAL
PROBE
(Handle)
Net 6.25

SCREWDRIVERS



Beau-Tech SH-41, husky knurled body has green phenolic palm swivel for each of handling. There are four blades, which are reversible. Three are of heat-treated tool steel with black oxide finish (.067", .115" and Phillips #1), other is beryllium copper, having two .115" straight tips. Practically any blade size and shape can be specially ordered.

Net 3.25 ea., 10 or more 2.92 ea.



Beau-Tech SH-42, 6-piece instrument screw driver set, meets government spec. FSN-5120-288-8739. Chrome plated steel barrels, black oxide finish, heat-treated bits. Blade widths are .025", .040", .055", .070", .080" and .100". Packed in setup box with dividers.Net 4.80 ea., 10 or more 4.32 ea.

5" SCRIBERS

Beau-Tech SH-43, tool has knurled body for sure grip and hex head to prevent rolling off bench. Point is retractable, made of tool steel, heat treated in the Swedish manner.Net 1.35 ea., 10 or more 1.21

PAN VISES

Beau-Tech SH-147 and SH-148, finest material and workmanship. Built to last for many years, both models are chrome plated to resist rust.

Beau-Tech SH-147 for drills 0-.040"Net 1.45 ea., 10 & up, 1.30 ea.



Beau-Tech SH-148 for drills .025-.062"Net 1.55 ea., 10 & up 1.39 ea.
Beau-Tech SH-142 pin vise, hand/lathe/drill press
drill sizes 0-.040Net 1.35 ea., 10 & up 1.21 ea.
Beau-Tech SH-143 pin vise, hand/lathe/drill press
drill sizes .025-.062Net 1.45 ea., 10 & up 1.30 ea.
Beau-Tech SH-144 pin vise, hand/lathe/drill press
drill sizes .050-.125Net 1.60 ea., 10 & up 1.44 ea.
Beau-Tech SH-145 pin vise, hand/lathe/drill press
drill sizes .115-.188Net 1.75 ea., 10 & up 1.57 ea.

(Note: SH-142 - 145 Pin Vises have a thru hole for long drills, permitting accurate length control at chuck. Bodies are plated and chuck parts are heat-treated for long life.)

Beau-Tech SH-146 Set of 4 pin vises (above) packed in transparent tube.
Net 5.75 set of 4, 10 & up 5.18 set

BEAUCHAINE



BEAUCHAINE

**BEAU-TECH®
TOOLS**

 SEE SECTION 2100
FOR BEAUPUGS

BEAU-TECH®
SOLDERING AIDS

The hallmark of quality shows in each detail. Examine the straight or angled tips for the hard-to-reach areas... you'll find they're twist-proof, hard-chrome plated to shed solder. More, both ends are insulated from one another. The practical fork-ends are a "must" for twisting or holding wires. And when you want to scrape joints, connections or ream out lug holes, just flip your Beau-Tech soldering aid to the spade end. Non-slipping, non-rolling "hex" handles. Available in standard, miniature and single ended models.

STANDARD
BEAU-TECH SOLDERING AID SH20A

Fig. A, Beau-Tech SH-20A Straight Reamer & Forked Tips.
Federal stock no. cross reference: FSN-5120-629-2697.
FSN-3439-330-5075, USAF-3439-608-2392

Net 87¢

BEAU-TECH SOLDERING AID SH20B

Fig. B, Beau-Tech SH-20B Angled Reamer & Forked Tips.
FSN-3439-633-6232, USAF-3439-019-9882
Fig. , Beau-Tech SH-20-A-SE Straight Tip
Fig. , Beau-Tech SH-20-B-SE Angled Tip
Fig. , Beau-Tech SH-20-F-SE Forked Tip

Net 87¢

Net 87¢

Net 87¢

BEAU-TECH SOLDERING AID SH20K

Fig. C, Beau-Tech SH-20K Brush & Scraper Tips.
FSN-5120-767-9126
Fig. , Beau-Tech SH-20KF Brush & Forked Tip

Net 98¢

Net 98¢

PRINTED CIRCUIT
BEAU-TECH SOLDERING AID SH20C

Fig. D, Beau-Tech SH-20C Printed Circuit Type.
Straight Reamer & Forked Tip USAF-3439-562-7066

Net 80¢

Fig. E, Beau-Tech SH-20D Printed Circuit Type.
Angled Reamer & Forked Tips USAF-3439-562-7067

Net 80¢

Fig. F, Beau-Tech SH-20E Printed Circuit Type.
Reamer & Scraper Tips USAF-3439-562-7068

Net 80¢

Fig. G, Beau-Tech SH-20G Printed Circuit Type.
Brush & Scraper Tip

Net 92¢

Fig. , Beau-Tech SH-20-GF Printed Circuit Type.
Brush & Forked Tip

Net 92¢

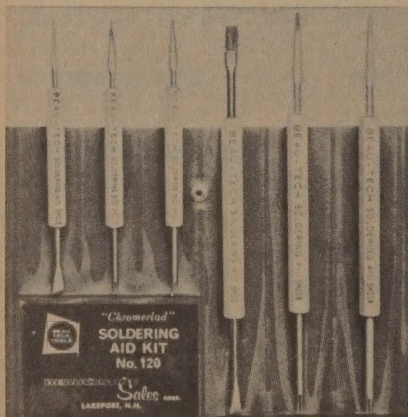
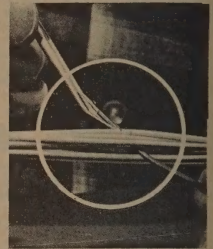
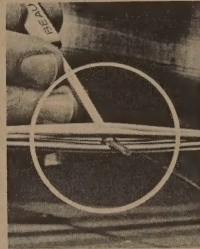


Fig. H

Fig. H, Beau-Tech SH-120 Soldering Aid Kit includes:

SH-20E, SH-20D, SH-20C, SH-20K, SH-20B, SH-20A

Net 4.87

BEAU-TECH®
WIRING AIDS


Work the SH-40B thru wiring harness, lacing, between components, etc., and insert wire in groove. Remove tool, push wire — That's all there is to it! May also be used in desoldering components.

Fig. I

BEAU-TECH WIRING AID SH-40-B

Fig. I, Beau-Tech SH-40-B Wiring Aid & Forked Tip

Net 1.19

Fig. J

BEAU-TECH WIRING AID SH-40-BSE

Fig. J, Beau-Tech SH-40-BSE Wiring Aid, Single End

Net 98¢

Fig. K

BEAU-TECH SPUDGER SH-80

Fig. K, Beau-Tech SH-80 Spudger. Widely used by telephone and electronics technicians for checking circuitry, wiring, and as a soldering aid. WE 709, 733; KS-1102

Net 55¢

Fig. L

BEAU-TECH SPUDGER SH-81

Fig. L, Beau-Tech SH-81 Spudger. Same as SH-80, meets MIL-specs and Federal Stock Number requirements. Both are made of red vulcanized fibre. FSN-5120-408-1764, FSN-5120-293-3112, ORD Dwg. A-7578690

Net 55¢

BEAU-TECH®
PROBERS

Fig. M

Fig. M, Beau-Tech SH-116 Probe #6, stainless steel, vinyl hang-up pouch

Net 98¢

Fig. N

Fig. N, Beau-Tech SH-117 Probe #17, stainless steel, vinyl hang-up pouch

Net 98¢

Fig. O

Fig. O, Beau-Tech SH-123 Probe #23, stainless steel, vinyl hang-up pouch

Net 98¢

Fig. P

Fig. P, Beau-Tech SH-141 Probe #1, stainless steel, vinyl hang-up pouch

Net 98¢

BEAU-TECH®
INSPECTION MIRRORS
INSULATING HARWOOD HANDLES


Fig. Q

Fig. Q, Beau-Tech SH-131 Inspection Mirror, 3/4", 3x magnification

Net 85¢

Fig. Q, Beau-Tech SH-132 Inspection Mirror, 1", 3x magnification

Net 85¢

Fig. Q, Beau-Tech SH-133 Inspection Mirror, 3/4" plain

Net 85¢

Fig. Q, Beau-Tech SH-134 Inspection Mirror, 1" plain

Net 85¢

BEAUCHAINE

SEE SECTION 2100
FOR BEAUPUGSBEAU
TECH®
TOOLS

BEAUCHAINE

BEAU-TECH®

MICRO-MINIATURE TWEEZERS

These tools have been specifically designed and precision-shaped for ease of handling micro-miniature parts in electronic instrumentation and related fields — where extremely sharp, strong points and delicate tension are required.

Fig. A, Beau-Tech SH-380 General use, strong blades, fine points, stainless steel, non-magnetic, 4½" Net 3.50

Fig. B, Beau-Tech SH-382 General use, tapered, fine points, stainless steel, non-magnetic, 4½" Net 3.85

Fig. C, Beau-Tech SH-383 Assembly work, very fine points, stainless steel, non-magnetic, 4½" Net 3.75

Fig. D, Beau-Tech SH-384 Extra-fine work, blades taper sharply from body, stainless steel, superfine points, non-magnetic, 4½" Net 4.75

Fig. E, Beau-Tech SH-385 Assembly work, superfine points, stainless steel, non-magnetic, 4½" Net 5.00

Fig. F, Beau-Tech SH-394 Extra-fine work, blades taper sharply from body, bent points, stainless steel, non-magnetic, 4½" Net 5.00

STANDARD TWEEZERS

Fig. G, Beau-Tech SH-24A 7" Probing Tweezer, Plastic Net 40¢

Fig. I, Beau-Tech SH-100 Filament Holder, stainless steel. Includes vinyl hang-up pouch Net 2.00

Fig. J, Beau-Tech SH-101 Angular Filament Holder, stainless steel. Includes vinyl hang-up pouch. Redstone Arsenal Stock No. 025-29075-5 Net 2.00

Fig. K, Beau-Tech SH-102 Utility Tweezer No. 1, plated. Includes vinyl hang-up pouch Net 79¢

Fig. M, Beau-Tech SH-104 Fine Filament Holder, stainless steel. Includes vinyl hang-up pouch. Redstone Arsenal Stock No. 025-29075-5 Net 2.00

Fig. N, Beau-Tech SH-105 Lock-type Filament Holder, stainless steel Net 2.25

Fig. O, Beau-Tech SH-106 Heavy Gripper, stainless steel. Includes vinyl hang-up pouch Net 2.25

Fig. P, Beau-Tech SH-111 Filament Holder, stainless steel, tec-insulated handle. Includes vinyl hang-up pouch Net 2.25

MADE IN U.S.A.

BEAU-TECH®
MICRO-MINIATURE TOOLS

Fig. Q, Beau-Tech SH-400K Kit (tools and handles may be ordered separately). Medium diameter shanks (approx. .030"). Tips are swaged tool steel with compacted grain structure, heat-treated in Swedish manner; ground and plated with copper, nickel and 24-K gold.

USES: Instrument assembly, micro-production, white room operations, microscopy, lab, solid state electronic production, etc.

Net 58.50 Kit

SH-405 HANDLE Net 9.75

NEEDLE POINT

SH-413 Med. dia., short lgth. Net 4.00
SH-414 Med. dia., med. lgth. Net 4.00
SH-415 Med. dia., long lgth. Net 4.00

SH-421 2.0 ROOT KNIFE Net 4.00

SH-424 3.0 ROOT KNIFE Net 4.00

SH-427 GRAVER Net 4.00

SH-480 INDIA SHARPENING STONE Net 2.85

SH-430 SHARP EDGED SPADE Net 4.00

SH-436 SHARP EDGED CHISEL Net 4.00

SH-450 BIFURCATED MANIPULATOR Net 4.00

SH-457 180° HOOK Net 4.00

BEAU-TECH®

MICRO-MINIATURE TWEEZERS

"Made in Switzerland"

STAINLESS STEEL

"DYMONT STYLE"

Fig. R, Beau-Tech SH-301 Tweezers #1 Net 3.00
10 & up 2.70

Fig. S, Beau-Tech SH-303C Tweezers #3C Net 3.20

Fig. T, Beau-Tech SH-305 Tweezers #5 Net 4.00

Fig. U, Beau-Tech SH-307 Tweezers #7, Fine Points Net 4.30

Coming Soon
ANTI-WICKING TWEEZERS
and
NEW WAFER TWEEZERS

Incorporating a revolutionary feature to prevent damage to delicate circuitry.

BEAUCHAINE



DESIGN IN-DUS-TRONIC tools are more streamlined, with slender jaws and fine points, to reach into the tight spots and perform the specific work required of the electronics technician.

TEST AND INSPECTION Individually tested for hardness, each tool must maintain highest standards for handle strength and cutting ability. To assure perfect jaw alignment, pliers must cleanly cut single bond paper strips and snip cotton-covered lamp cord without fraying. Each tool is guaranteed against defects in workmanship and materials.

WORKMANSHIP IN-DUS-TRONIC tools are hot drop-forged from special analysis alloy steel, machined and finished with the same care and precision which have made world-famous BOKER TREE BRAND Fine Cutlery and surgical instruments for over a century. Individually fitted and adjusted, each is accurately heat-treated by HYDRIZING, which minimizes "carburation" and "decay". Cutting blades are precision-hardened with electronic controls, and honed by hand for keen edges that retain their sharpness. Individually Boxed — Six is minimum quantity.

BOKER MANUFACTURING COMPANY

SUBSIDIARY OF THE NEW BRITAIN MACHINE CO.

RADIO AND TV NOSE CUTTING PLIERS

Reaches into tight spots to cut small wires, and to grip at the tips.

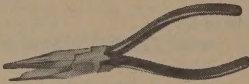


NO.	LIST EA.
539-4½"	4.40
539-6"	4.40
939-4½"	4.45
939-6"	4.45

NO.	LIST EA.
639-6"	5.20
739-4½"	4.95
739-6"	4.95

SIDE TIP NOSE CUTTING PLIERS

Cuts flush at left side of tips. Turn tool over to cut flush at right side.

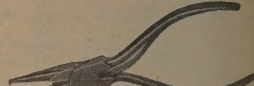


NO.	LIST EA.
S939-4½"	4.75
S939-6"	4.75
S639-6"	5.50

NO.	LIST EA.
S739-4½"	5.25
S739-6"	5.25

TRANSVERSE END CUTTING PLIERS

For clean, flush cutting of small wires where ordinary cutters are too bulky.

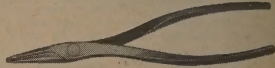


NO.	LIST EA.
532-6"	4.50
932-6"	4.50

NO.	LIST EA.
632-6"	5.00
732-6"	5.00

SHORT JAW, LONG HANDLE NOSE CUTTING PLIERS

Extra long, narrow handles provide maximum reach of the slender jaws to cut and grip.



NO.	LIST EA.
579-8"	4.95
979-8"	5.00

NO.	LIST EA.
779-8"	5.50

STOCK NUMBER CODE IDENTIFICATION ON PLIERS

First Digit in Pliers Stock No.

"5"
"6"
"7"

DESCRIPTION OF FINISH

Polished Head, Standard Gunmetal Finish Handles — i.e. 51-8"
Polished Head, Factory molded Red Cushion Grip Plastisol Handles — i.e. 91-8"
Fully Nickel and Chrome Plated Head and Handles — i.e. 61-8"
Nickel and Chrome Plated Head, Factory molded Red Cushion Grip Plastisol Handles — i.e. 71-8"

SHORT CHAIN NEEDLE NOSE PLIERS

Sturdy, tapered jaws provide more positive grip. Checker-milled tips.



WITH SIDE CUTTERS			
NO.	LIST EA.	NO.	LIST EA.
53-5"	3.45	63-5"	4.25
93-5"	3.65	73-5"	4.25

WITHOUT SIDE CUTTERS			
NO.	LIST EA.	NO.	LIST EA.
530-5"	3.00	630-5"	3.60
930-5"	3.00	730-5"	3.60

LONG CHAIN NEEDLE NOSE PLIERS

Slender, checker-milled jaws taper to 1/32" at tips.



WITH SIDE CUTTERS			
NO.	LIST EA.	NO.	LIST EA.
53-6"	3.75	63-6"	4.55
93-6"	3.95	73-6"	4.55

WITHOUT SIDE CUTTERS			
NO.	LIST EA.	NO.	LIST EA.
530-6"	3.15	630-6"	3.75
930-6"	3.15	730-6"	3.70

EXTRA LONG CHAIN NOSE PLIERS

2¾" long jaws add extra reach to checker-milled tips.



WITH SIDE CUTTERS			
NO.	LIST EA.	NO.	LIST EA.
53-7"	4.50	63-7"	5.30
93-7"	4.90	73-7"	5.30

WITHOUT SIDE CUTTERS			
NO.	LIST EA.	NO.	LIST EA.
530-7"	3.60	630-7"	4.10
930-7"	3.70	730-7"	4.10

HEAVY DUTY DIAGONAL CUTTING PLIERS



NO.	LIST EA.
591-7"	3.65
991-7"	4.00

NO.	LIST EA.
691-7"	4.50
791-7"	4.50

DIAGONAL CUTTING PLIERS



NO.	LIST EA.
51-4½"	3.10
91-4½"	3.30
51-5"	3.25
91-5"	3.45
51-5½"	3.65
91-5½"	3.80
51-6"	3.70
91-6"	3.90
51-7½"	4.20
91-7½"	4.60

NO.	LIST EA.
61-4½"	3.90
71-4½"	3.90
61-5"	4.05
71-5"	4.05
61-5½"	4.45
71-5½"	4.45
61-6"	4.50
71-6"	4.50
61-7½"	5.00
71-7½"	5.00

WIRE STRIPPING CUTTERS WITH INSULATION CRUSHER

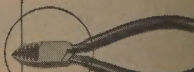
"W" notches slit acetate cellulose and other thin insulations. Notch in blades strips heavier insulation. Grooves in handles crush insulation.



NO.	LIST EA.
517-5½"	4.50
917-5½"	4.65
617-5½"	5.00
717-5½"	5.00

"THROAT-HOLD" DIAGONAL PLIERS

Plastisol inserts back of the blades tightly grip the cut-off end of wire after cut is made, preventing shorts, machine failures, and eye injuries.



NO.	LIST EA.
TH51-4½"	4.70
TH91-4½"	5.00
TH51-5"	5.05

NO.	LIST EA.
TH91-5"	5.25
TH51-7½"	6.00

**NEW! INLAID TIP CUTTING PLIERS**

Special high-speed inserts provide diamond-honed cutting edges of extreme hardness, extending service life in continuous cutting of abrasive wires and ribbons of nickel, silver, gold and copper. Will cut and dress medium diameters of Nichrome, Kovar, Dumet, and fine diameters of full hard wires. Special joint assembly assures precise cutting of component leads and wires in confined areas.

NO. XC1-4" LIST EA. \$20.60
Cushion Grip Handles

**BOKER MANUFACTURING COMPANY**

SUBSIDIARY OF THE NEW BRITAIN MACHINE CO.

EXTRA FINE FLAT NOSE PLIERS

Flat, very thin, smooth jaws, spring tempered.



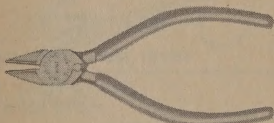
NO.	LIST EA.	NO.	LIST EA.
904-6"	3.80	704-6"	4.20
604-6"	4.20		

WITH STABILIZED TIPS

NO.	LIST EA.	NO.	LIST EA.
ST-904-6"	4.50	ST-704-6"	4.80
ST-604-6"	4.80		

NEEDLE POINT DIAGONAL CUTTING PLIERS

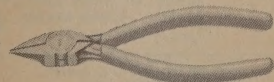
Arrow, pointed nose, semi-flush edges, for close cutting. Lightweight, easy-to-use, in electronics and light assembly. Coil spring keeps jaws open.



NO.	LIST EA.	NO.	LIST EA.
513-5½"	4.50	613-5½"	5.05
913-5½"	4.60	713-5½"	5.05

THIN, NARROW, POINTED DIAGONAL CUTTING PLIERS

Jaws relief-ground back of blades, to cut in confined areas. Also used for removal of I. F. Cans.



NO.	LIST EA.	NO.	LIST EA.
RA91-5½"	5.15	RA71-5½"	5.95

WIRE JACK POCKET KNIFE

Rugged construction, unbreakable spring. Chrome Vanadium steel blade.



NO.	LIST EA.
75-3¼"	1.75

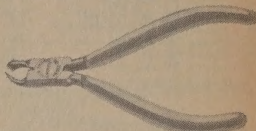
ELECTRICIANS' UTILITY KNIFE

One blade and one self-locking Screwdriver and Insulation Scraper.

NO.	LIST EA.	
9229	3.35	3¾" long

**ELECTRONIC DIAGONAL END NIPPERS**

Flush-cutting blades, with extremely fine points, set at 22.5° angle. For very fine subminiature work.



NO.	LIST EA.	NO.	LIST EA.
XA582-4½"	6.40	XA782-4½"	7.20
XA982-4½"	6.60		

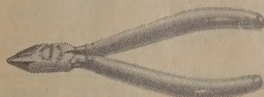
ANGLE JAW DIAGONAL NIPPERS

Flush cutting blades set at 22½° angle. Fine, pointed tips for precision work in confined areas.

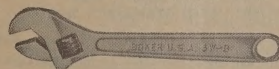
NO.	LIST EA.
AJ-982-4½"	Polished Head. Cushion-grip Handles. 8.80
AJ-482-4½"	Full Polished Head and Handles. 8.95

THIN HEAD, FLUSH CUTTING MIDGET DIAGONALS

Head is ground thinner, narrower, Flush edges.



NO.	LIST EA.	
XA981-4½"	4.60	Pointed jaws
XC981-4½"	4.30	Standard shape jaws, slightly shortened

THIN, ALLOY STEEL ADJUSTABLE WRENCHES

Nickel and Chrome Plated		Polished Head, Gunmetal Handles	
NO.	LIST EA.	NO.	LIST EA.
6W-4"	2.88	5W-4"	2.25
6W-6"	2.94	5W-6"	2.30
6W-8"	3.32	5W-8"	2.78
6W-10"	4.20	5W-10"	3.40
6W-12"	6.16	5W-12"	5.15
6W-15"	9.36	5W-15"	8.20
6W-18"	15.00	5W-18"	12.00

Nickel, Chrome-Plated, Cushion-Grip Handles

NO.	LIST EA.	NO.	LIST EA.
P6W-4"	3.08	P6W-10"	4.70
P6W-6"	3.14	P6W-12"	6.70
P6W-8"	3.72	P6W-15"	10.56

LOCKING ADJUSTABLE WRENCHES

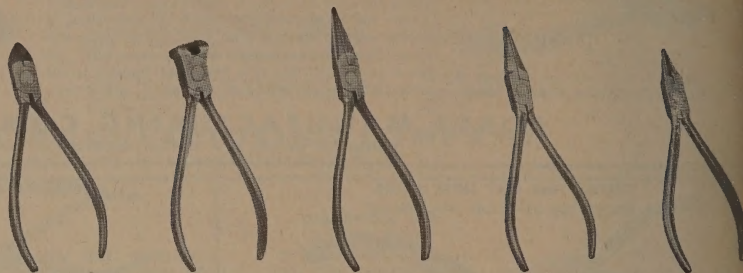
Nickel and Chrome Plated		Nickel Chrome Plated Cushion-Grip Handles	
NO.	LIST EA.	NO.	LIST EA.
L6W-6"	3.02	PL6W-6"	3.22
L6W-8"	3.40	PL6W-8"	3.80
L6W-10"	4.28	PL6W-10"	4.78
L6W-12"	6.25	PL6W-12"	6.76

BOKER MANUFACTURING COMPANY

SUBSIDIARY OF THE NEW BRITAIN MACHINE CO.



JEWELERS' 4 1/2" PRECISION PLIERS



JEWELERS' PLIERS SETS

Crystal Case, 5" x 7", lined to nest 4 1/2" Pliers.

NO.	CONTENTS	LIST
C63	One ea. 681, 683, 684	11.75
C64	One ea. 681, 683, 684, 6517	14.25
C65	One ea. 681, 682, 683, 684, 865	19.50
C73	One ea. 781, 783, 784	11.85
C83	One ea. 981, 983, 984	10.95
C85	One ea. 981, 982, 983, 984, 985	18.00

POLISHED HEAD, GUN METAL HANDLES

Tool No.	List Ea.
581	3.35
582	3.80
583	3.00
584	3.00
585	3.10

POLISHED HEAD, CUSHION-GRIP HANDLES

Tool No.	List Ea.
981	3.50
982	4.00
983	3.15
984	3.15
985	3.40

FULL NICKEL AND CHROME PLATED

Tool No.	List Ea.
681	3.95
682	4.50
683	3.75
684	3.75
685	3.80

NICKEL, CHROME-PLATED CUSHION-GRIP HANDLES

Tool No.	List Ea.
781	3.80
782	4.50
783	3.65
784	3.65
785	3.80

Diagonal Cutting Pliers

End Cutting Nippers

*Needle Nose Pliers

*Flat Nose Pliers

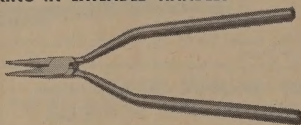
*Round Nose Pliers

*Note: Inside jaws are smooth. Supplied with milled jaws at no extra cost.

Surfix with letter M I.E. 583-4 1/2 M.

PRECISION PLIERS WITH SPRING IN EXTENDED HANDLES

Midget jaws, extra long handles, to reach into deep areas normally inaccessible.

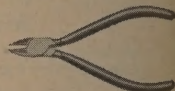


NO.	LIST EA.	DESCRIPTION
L903S-8"	6.75	Extra Fine Needle-Nose Pliers (as 903-4 1/2")
L981S-8"	6.75	Diagonal Cutters
L983S-8"	6.50	Needle Nose Pliers
L984S-8"	6.50	Flat-Nose Pliers
L781S-8"	6.95	Diagonal Cutters
L783S-8"	6.95	Needle-Nose Pliers
L784S-8"	6.95	Flat-Nose Pliers
L703S-8"	6.95	Extra Fine Needle-Nose Pliers (as 703-4 1/2")

TAPERED JAWS, FLUSH CUTTING DIAGONALS

Midget pliers with sharply tapered jaws and very fine flush cutting edges.

NO.	LIST EA.
A981-4 1/2"	4.00



STANDARD SHAPE JAWS, FLUSH CUTTING DIAGONALS

NO.	LIST EA.
C981-4 1/2"	3.80

SHORT NOSE, FLUSH CUTTING DIAGONALS

NO.	LIST EA.
E981-4 1/2"	3.90

STOCK NUMBER CODE IDENTIFICATION ON PLIERS

First Digit in Pliers Stock No.

"5"
"9"
"6"
"7"

DESCRIPTION OF FINISH

Polished Head, Standard Gunmetal Finish Handles — i.e.	51-6"
Polished Head, Factory molded Red Cushion Grip Plastisol Handles — i.e.	91-6"
Full Nickel and Chrome Plated Head and Handles — i.e.	61-6"
Nickel and Chrome Plated Head, Factory molded Red Cushion Grip Plastisol Handles — i.e.	71-6"

EXTRA FINE NEEDLE NOSE PLIERS WITH STABILIZED TIPS

Dowel pin in jaw engages hole in other jaw when closed, stabilizing tips and maintaining perfect alignment.



NO.	LIST EA.	NO.	LIST EA.
ST903-6"	4.20	ST-703-6"	4.60

CURVED EXTRA FINE NEEDLE NOSE

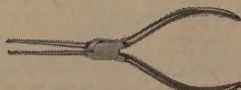
NO.	LIST EA.
508-6"	4.20
908-6"	4.20
608-6"	4.80
708-6"	4.80

SHORT JAW, EXTRA FINE NEEDLE NOSE PLIERS

NO.	LIST EA.
503-4 1/2"	3.60
903-4 1/2"	3.90
603-4 1/2"	4.25
703-4 1/2"	4.25

EXTRA FINE NEEDLE NOSE PLIERS

Long, very slim, spring tempered jaws for assembling miniature parts.



NO.	LIST EA.	NO.	LIST EA.
503-6"	3.30	603-6"	3.95
903-6"	3.50	703-6"	3.95

LONG NEEDLE NOSE PLIERS

Unusual gripping ability without distortion for such long, slender jaws. Checker-milled at tips.



NO.	LIST EA.	NO.	LIST EA.
533-6"	3.50	633-6"	4.00
933-6"	3.70	733-6"	4.00

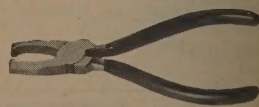
CURVED NEEDLE NOSE PLIERS

NO.	LIST EA.
538-6"	3.80
938-6"	4.00
638-6"	4.30
738-6"	4.30



END CUTTERS AND LEAD-IN STRIPPERS

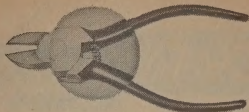
Quickly strips TV transmission cable. Full throat for general purpose cutting.



NO.	LIST EA.	NO.	LIST EA.
902-6"	4.80	702-6"	5.25

**PLIERS WITH
SPRING IN HANDLES**

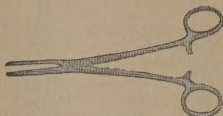
Bauer type coil spring keeps pliers in open position, ready-to-work.



Specify "S" as a Suffix to tool number (i.e., 91-5"/S)
Additional List Ea. .30

HOLDING FORCEPS

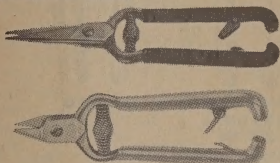
Slender, long-reaching, with ratchet type lock. Acts as third hand, and as heat sink. Box joint, polished stainless spring steel.



NO.	LIST EA.	
HF-5 1/2"	4.95	Straight Pattern
HF-6 1/4"	5.25	Straight Pattern
HFC-6 1/4"	5.50	Curved Pattern

ELECTRONIC SNIPS

Pointed, serrated blades cut wire, filament, sheet metal, insulating materials, plastics, fabrics, spring keeps blades open, ready-to-work.



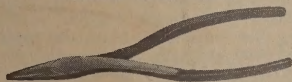
NO.	LIST EA.	
P4-7 1/8"	3.95	Long Blades
P4E-6 1/2"	4.70	Short Blades

ELECTRICIANS' SNIPS

Scraper, file on back of blade.

NO.	LIST EA.
709-5"	2.95

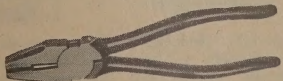
Nickel Plated

**SHORT JAW, LONG HANDLE,
NEEDLE NOSE PLIERS**

NO.	LIST EA.	NO.	LIST EA.
573-8"	3.50	673-8"	4.00
973-8"	3.90	773-8"	4.00

SHORT JAW, LONG HANDLE DUCKBILL PLIERS

NO.	LIST EA.	NO.	LIST EA.
574-8"	3.40	974-8"	3.80

**ELECTRICIANS'
SIDE CUTTING
PLIERS**

NO.	LIST EA.	NO.	LIST EA.
92-6"	3.90	52-6"	3.60
92-7"	4.30	52-7"	3.90
92-8"	4.70	52-8"	4.30

**LEATHER
TOOL
HOLSTER**

Five pockets of pliable form-fitting Russet leather. Stitched with 7-cord linen hot waxed thread, locked to solid leather back with steel rivets. Handy tape holder is of leather, not chain, an extra safety insulation feature.



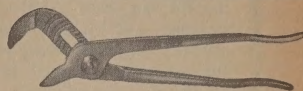
NO.	LIST EA.
99	5.95

**MIDGET "GROOVE-GRIP" PLIERS**

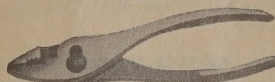
Slender and wiry, indispensable for gripping small nuts and other objects in tight spots.



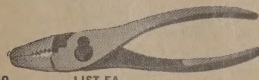
NO.	LIST EA.	
6517-5"	2.65	Nickel, Chrome Plated
P6517-5"	2.75	Nickel, Chrome Plated, Cushion Grips

**"GROOVE-GRIP"
5-ADJUSTMENT
PLIERS**

NO.	LIST EA.	
6507-6 1/2"	3.00	Nickel and Chrome Plated
6507-8"	3.25	
6507-10"	3.75	
P5507-6 1/2"	3.10	Polished Head
P5507-8"	3.35	Cushion-Grip Handles
P5507-10"	3.85	
P5507-14" 7 Adjustment	4.40	

**COMBINATION SLIP-JOINT
PLIERS**

NO.	LIST EA.	
6041-6 1/2"	1.75	Nickel and Chrome Plated
6041-8"	2.25	
6041-10"	3.00	

THIN NOSE COMBINATION PLIERS

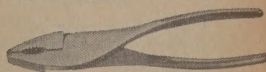
NO.	LIST EA.	
6042-6 1/2"	1.95	Nickel, Chromed

BENT THIN NOSE COMBINATION PLIERS

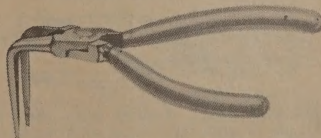
NO.	LIST EA.	
6043-6 1/2"	2.40	Nickel, Chromed

PROFESSIONAL SLIP-JOINT SIDE CUTTERS

Flat, serrated nose for gripping. Curved inner section to grip round shapes. Keen-cutting knives.



NO.	LIST EA.	
6395-7 1/2"	4.20	Nickel, Chromed

BENT EXTRA FINE NEEDLE NOSE PLIERS

NO.	LIST EA.	NO.	LIST EA.
B508-6"	4.25	B608-6"	4.80
B908-6"	4.20	B708-6"	4.80

BOKER MANUFACTURING COMPANY

SUBSIDIARY OF THE NEW BRITAIN MACHINE CO.

Trade Discount Applies to List Prices Only

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Pliers by

CHAN NEL LOCK[®]

Specially Designed ELECTRONICS PLIERS

You'll do hundreds of jobs easier, faster with these Channellock Pliers because they are **specially designed** for all types of electronics work. You'll like the long reach . . . the precision-matched jaws . . . the hand-honed, specially hardened cutting edges . . . the easy-to-handle "feel" of the blue plastic grips. And you'll appreciate the top quality of Channellock Pliers . . . they're forged from high grade steel, properly heat treated. Best of all, because they are specially designed for fine electronics work, these four pliers will satisfy more than 90% of your Service and Repair needs. Ask your Electronics Equipment Supplier for Channellock Electronics Pliers . . . by name.



**No. 718G
FLAT-NOSE
PLIER**

Watchmaker's precision PLUS a bull-dog grip in hard-to-reach places.



**No. 728G
DIAGONAL
CUTTER**

A wire-stripping notch (Patent Pending) that **really works!**



**No. 738G
ROUND-NOSE
PLIER**

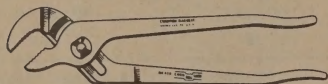
You can **pick up a human hair** with these precision-machined points.



**No. 748G
END
CUTTER**

Fine enough to cut a human hair — sturdy enough to cut 12 gauge copper wire.

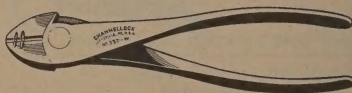
TONGUE AND GROOVE PLIERS



The **original** tongue and groove pliers. Patented, non-slip undercut channels. Patented reinforcing rib for extra strength. Dipped plastic grips optional at slight extra cost.

No.	Size	Capacity	No.	Size	Capacity
420	9½"	1½"	430	10"	2"
424	4½"	½"	440	12"	2¼"
426	6½"	¾"			

ELECTRICIAN'S WIRING PLIER



Triple-use wiring plier: cuts, strips insulation, loops wire. Patented wire stripping notches strip insulation from 14 and 12 gauge wire quickly, cleanly. Length 7". No. 337-W. Dipped plastic grips optional at slight extra cost.

WIREMASTER PLIER



Finest wire-cutting plier ever made. Joint rivet closer to cutting edges, provides 40% more cutting power than standard design pliers. Special enclosed-joint construction holds cutter in perfect alignment for life of plier. Length 9". No. 349. Dipped plastic grips optional at slight extra cost.

HEATSORB CLAMP



A specially designed "heat sink" that prevents heat damage to electronic components during soldering. Also a handy, self-gripping "third hand" that holds and retrieves small parts in close work. Length 5". No. 46.

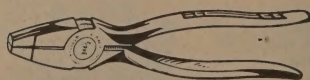
LINEMEN'S PLIER — Bevel Nose



Polished steel finish. Knurled grips. Side cutter. Dipped plastic grips optional at slight extra cost.

No.	Size	No.	Size
3046	6"	3048½	8½"
3047	7"		

LINEMEN'S PLIER — Rounded Nose



Polished steel finish. Knurled grips. Side cutter. Dipped plastic grips optional at slight extra cost.

No.	Size	No.	Size
346	6"	348½	8½"
347	7"		

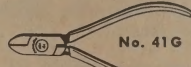
CHANNELLOCK TOOLS Are Made Only By CHANNELLOCK, INC.

Pliers by **CHAN NEL LOCK**[®]

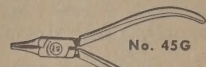
Little Champ PRECISION PLIERS

Finest quality, small pliers specially designed for delicate bench work. Widely used in electronics work, model making, jewelry and watch repair. Drop forged from high grade steel. Precision made and polished to a jeweler's finish. Dipped blue plastic cushion grip handles only. Packed six per carton.

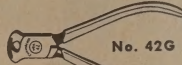
No.	Style	Length
41G	Diagonal Cutter.....	4 $\frac{1}{4}$ "
41GS	Diagonal Cutter, Coiled Spring..	4 $\frac{1}{4}$ "
42G	End Cutting Nipper.....	4"
43G	Needle Nose, No Side Cutter, Plain Nose.....	4 $\frac{3}{4}$ "
43GS	Needle Nose, No Side Cutter, Plain Nose, Coiled Spring.....	4 $\frac{3}{4}$ "
44G	Flat Nose.....	4 $\frac{3}{4}$ "
45G	Round Nose.....	4 $\frac{1}{2}$ "
47G	Needle Nose, Side Cutter, Nose Serrations.....	4 $\frac{3}{4}$ "
47GS	Needle Nose, Side Cutter, Nose Serrations, Coiled Spring.....	4 $\frac{3}{4}$ "
48G	Transverse End Cutter.....	4 $\frac{3}{4}$ "
49G	Curved Needle Nose.....	4 $\frac{1}{2}$ "



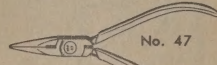
No. 41G



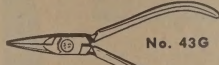
No. 45G



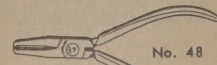
No. 42G



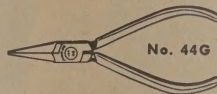
No. 47



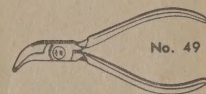
No. 43G



No. 48



No. 44G



No. 49

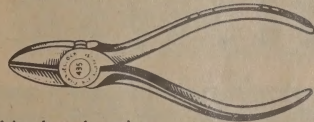
LONG NOSE PLIER



Point $\frac{3}{32}$ " round. Polished steel finish. Knurled grips. Dipped plastic grips optional at slight extra cost.

No.	Size	Side-Cutter	No.	Size	Side-Cutter
317 $\frac{1}{2}$	7 $\frac{1}{2}$ "	With	326	6"	With
3017 $\frac{1}{2}$	7 $\frac{1}{2}$ "	Without	3026	6"	Without

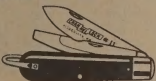
DIAGONAL CUTTING PLIER



Precision-honed cutting edges. Polished steel finish. Knurled grips. Dipped plastic grips optional at slight extra cost.

No.	Size	No.	Size
435	5"	437	7"
436	6"		

ELECTRICIAN'S KNIFE



2 $\frac{3}{8}$ " precision-honed blade. 3" self-locking screwdriver. Unbreakable phenolic handles. Closed length 3 $\frac{3}{4}$ " No. 11.

SKINNING KNIFE



3" precision-honed blade. Self-locking. Unbreakable phenolic plastic handles. Closed length 4" No. 10.

"SUPERIOR" PLASTIC GRIPS



For maximum hand comfort, durable plastic grips. Light blue color for good visibility, reduces plier loss. Easy to install. Order by desired grip size:

Plier Size	Grip Size	Plier Size	Grip Size
6"	Small	8", 9 $\frac{1}{2}$ ", 10"	Large
7"	Medium		

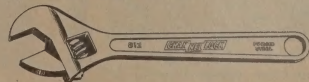
TOOL HOLSTERS



Highest quality top grain leather. Stress points reinforced with rivets. Convenient knife or wrench snap.

No.	Size	No. of Pockets
1	9 $\frac{1}{4}$ " x 8 $\frac{1}{2}$ "	5
2	9 $\frac{1}{4}$ " x 10 $\frac{1}{2}$ "	5

ADJUSTABLE WRENCHES



Drop forged of special analysis steel. Chrome plated. Dipped plastic grips optional at slight extra cost.

No.	Size	Capacity	No.	Size	Capacity
804	4"	1 $\frac{1}{2}$ "	810	10"	1 $\frac{1}{2}$ "
806	6"	2 $\frac{1}{4}$ "	812	12"	1 $\frac{13}{16}$ "
808	8"	1 $\frac{5}{16}$ "	815	15"	1 $\frac{11}{16}$ "

CHANNELLOCK TOOLS Are Made Only By CHANNELLOCK, INC.

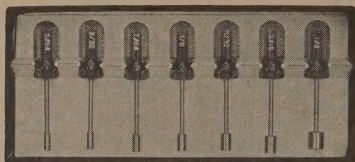


PROPERLY PROPORTIONED MINIATURE TOOLS

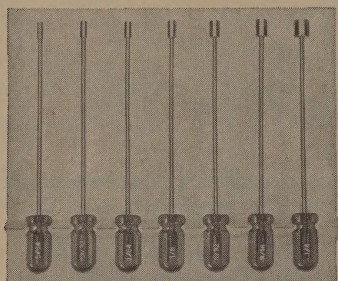
For precision instrument and model work use Desco "7" Miniature Nut Drivers. Available with Tenite handles, or for use with jewelers' screw driver handles. Also made with 5½" long shanks for those hard-to-get-to places.

DESCO "7" Sizes across flats

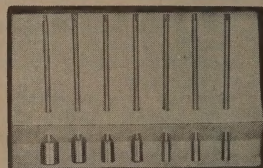
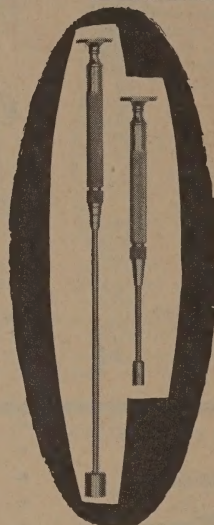
$\frac{5}{64}$ $\frac{3}{32}$ $\frac{7}{64}$ $\frac{1}{8}$ $\frac{5}{32}$ $\frac{3}{16}$ $\frac{1}{4}$



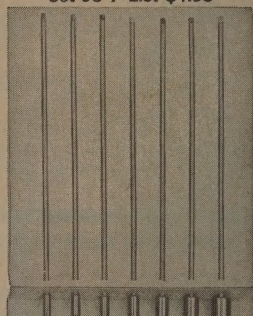
Set HS 7 List \$5.95



Set HL 7 List \$5.95



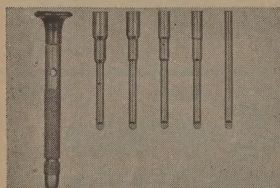
Set JS 7 List \$4.95



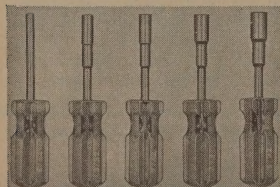
Set JL7 List \$4.95

NON-MAGNETIC NUT DRIVERS available in HL7 and HS 7 series only. Specify "No-Mag" with the code number — same prices.

INTRODUCING THE DESCO "5" Series of Miniature Tools

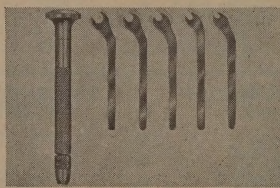


Set JD 5 List \$3.50



Set HD 5 List \$4.50

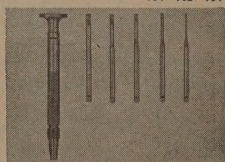
Deeper and more rugged than the "7" Series. Made only in $\frac{5}{64}$, $\frac{3}{32}$, $\frac{7}{64}$, $\frac{1}{8}$ and $\frac{5}{32}$.



Set EW 5 Steel List \$2.50

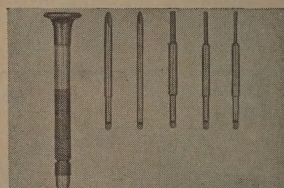
Set EWN 5 Non-Magnetic List \$2.50

A practical miniature end wrench to fit the smallest nuts made $\frac{5}{64}$ $\frac{3}{32}$ $\frac{7}{64}$ $\frac{1}{8}$ $\frac{5}{32}$.

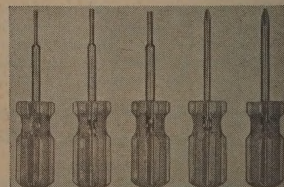


Set SS 5 List \$1.98

Contains four screw driver blades and a fine scriber.



Set PA 5 List \$2.50



Set PAH 5 List \$3.50

Includes the two smallest Phillips drivers and the three smallest Allen wrenches.

* T. M.

All of the DESCO "5" and "7" Series are complete as shown.

DESCO MFG. CO.,

DESCO

SECTION 5400 ENTERPRISE DEVELOPMENT CORPORATION



THE ORIGINAL VACUUM DESOLDERING/RESOLDERING IRON INDUSTRIAL PRICE SCHEDULE

DESOLDERING IRONS

MODEL 100-A

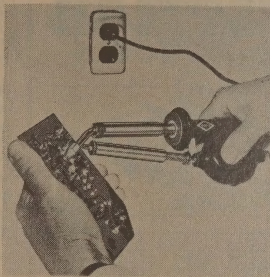
117 VAC 75 W

	List	1-24	30-96	108-up
Model 100-A (with 2-wire cord).....	24.95	18.75	16.65	14.95
Model 100-A-3 (with 3-wire cord).....	27.95	20.95	18.75	16.75
Model 100-A-3TL (with 3-wire twist lock cord).....	29.50	22.15	19.75	17.70

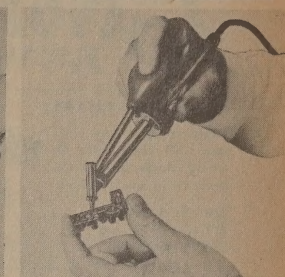
MODEL 300

117 VAC 40 W

	List	1-24	30-96	108-up
Model 300 (with 2-wire cord).....	13.49	9.95	8.95	8.05
Model 300-3 (with 3-wire cord).....	14.60	10.95	9.85	8.85



MODEL 100-A



MODEL 300

NEW 9-Piece Desoldering Kit



Here in one convenient lifetime package is all you need to handle almost any desoldering and resoldering job. For even though the Model 300 Endeco is only 8" long and weighs just 3½ ounces, it's a giant in performance. It removes miniature soldered components in seconds without damage... then resolders new connections even faster and better than regular soldering irons with its 360° "wrap-around" contact. One-hand operation... self-cleaning... 40 watts... 115 volts. Order from your distributor.

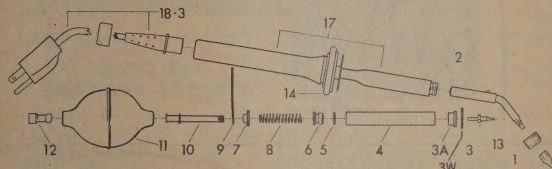
KIT PRICES

MODEL	LIST	1-11	12-49	50 UP
300K (w/2 wire cord)	\$21.04	\$15.75	\$14.05	\$12.65
300K-3 (3 wire cord)	23.03	17.25	15.35	13.80
300MDK (Military)	22.90	17.20	15.30	13.75

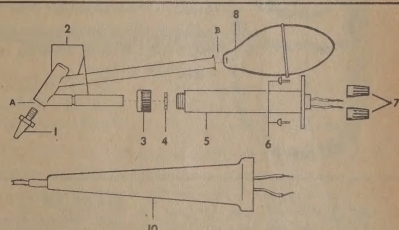
(FSN3439-907-5806)

(BOX, STAND AND CLEANING TOOL AVAILABLE SEPARATELY—WRITE FOR PRICES.)

ONLY DESOLDERING IRON APPROVED FOR MILITARY USE



MODEL 100-A



MODEL 300

PART NOS. FOR MODEL 100-A

Fig. No.	Part No.	Description	SUGGESTED PRICES List Price	Industrial Cost
1	1-A	Replaceable Desoldering Tip	2.70/3PK	1.95/3PK
1	1-B	Replaceable Desoldering Tip	2.70/3PK	1.95/3PK
1	1-C	Replaceable Desoldering Tip	3.00/3PK	2.25/3PK
1	1-D	Replaceable Desoldering Tip	3.00/3PK	2.25/3PK
2	2A	Tip Body	2.50	1.90
3	3S	Front Connecting Tube	.60	.45
3A	3-B	Front Air Seal	.60	.45
3W	3W	Heat Baffle	.15	.10
4	4-A	Solder Collection Tube	1.20	.90
5	5-A	"O" Ring	.20	.15
6	6-A	Rear Air Seal	.90	.65
7	7-A	Knurled Sleeve	.40	.30
8	8	Tension Spring	.30	.20
9	9-A	Supporting Bracket	.60	.45
10	10-A	Rear Connecting Tube	.90	.65
11	11	Vacuum Bulb	1.00	.75
12	12	Valve	.50	.35
13	13	Female Tip Fastening Nut	.90	.65
14	14	Rubber Shock Absorber Ring	.90	.65
17	17	Iron Body (No Cord)	8.95	6.70
17-2	17-2	Iron Body with 2-Wire Cord	10.95	8.25
17-3	17-3	Iron Body with 3-Wire Cord	11.95	8.95
17-3TL	17-3TL	Iron Body with 3-Wire Twist Lock Cord	13.50	10.15
18-2	18-2	2-Wire Cord Only	1.50	1.15
18-3	18-3	3-Wire Cord Only	3.00	2.25
18-3TL	18-3TL	3-Wire Cord Twist Lock Only	4.50	3.40

PARTS SCHEDULE

PART NOS. FOR MODEL 300

Fig. No.	Part No.	Description	SUGGESTED PRICES List Price	Industrial Cost
1	300-T.090	Replaceable Desoldering Tip	2.70/3PK	1.95/3PK
1	300-T.078	Replaceable Desoldering Tip	2.70/3PK	1.95/3PK
1	300-T.063	Replaceable Desoldering Tip (Standard)	2.70/3PK	1.95/3PK
	300CT.063	Replaceable Desoldering/Resoldering Tip—Heavy Duty—Industrial	3.30/3PK	2.50/3PK
1	300-T.059	Replaceable Desoldering Tip	2.70/3PK	1.95/3PK
1	300-T.046	Replaceable Desoldering Tip	2.70/3PK	1.95/3PK
1	300-T.038	Replaceable Desoldering Tip	2.70/3PK	1.95/3PK
2	300-BE	Sub-Assembly (Standard)	5.70	4.30
3	300-13	Sub-Assembly Fastening Nut	.35	.26
4	300-5	Sub-Assembly Retaining Ring	.10	.08
5	300-17E	Heating Element 40 Watts	3.90	2.93
6	300-17SC	Screws (3) Required	.30/3	.23/3
7	300-17TC	Terminal Connectors (2 Req'd).....	.40/2	.30/2
8	300-11.75	Bulb ¾ Ounce	.75	.57
9	300-17HA-2	Handle, 2 wire cord		
		Connector Screws & Terminal Nuts	3.20	2.40
10	300-17HA-3	Handle, 3 wire cord		
		Connector Screws & Terminal Nuts	3.50	2.70
	300-17CO-2	Endeco Pencil Body (Complete w/cord & Heating Element)	7.50	5.60
	300-17CO-3	Endeco Pencil Body (Complete w/cord & Heating Element)	7.80	5.85
	300-BECO	Sub-Assembly (Standard)		
		Complete with tip, fastening nut and bulb	7.80	5.85

REPLACEABLE TIPS FOR ENDECO MODEL 300

Fig. No.	Part No.	Description	Tip I.D.	Tip O.D.
1	300T.090	Desoldering/Resoldering Tip	.090	.170
1	300T.078	Desoldering/Resoldering Tip	.078	.156
1	300T.063	Desoldering/Resoldering Tip	.063	.135*
1	300T.059	Desoldering/Resoldering Tip	.059	.125
1	300T.046	Desoldering/Resoldering Tip	.046	.095
1	300T.038	Desoldering/Resoldering Tip	.038	.078

*(Standard)

REPLACEABLE TIPS FOR ENDECO MODEL 100-A

Fig. No.	Part No.	Description	Tip I.D.	Tip O.D.
1	1A	Desoldering/Resoldering Tip	.080	.156*
1	1B	Desoldering/Resoldering Tip	.097	.187
1	1C	Desoldering/Resoldering Tip	.059	.125
1	1D	Desoldering/Resoldering Tip	.035	.078

Price Subject to Change Without Notice

*(Standard)

Net

The MASTER—31st Edition • Page 1341



Norseman

ELECTRONIC TOOLS

STICKLE-BACK DRILSAWS

Made in Germany, this tool will drill holes in wood, plaster board, etc. and saw in any direction.



#0-5 x 5/32" dia.	\$.98 net
#1-7 x 3/16" dia.	1.85 net
#2-10 x 1/4" dia.	2.45 net
#3-13 x 5/16" dia.	2.95 net
#4-15 x 3/8" dia.	3.25 net
#5-13 x 1/2" dia.	(saw rasp) 2.25 net

REVERSIBLE RATCHETS

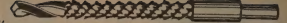
A rugged ratcheting box wrench. No buttons, no levers — just turn it over to reverse the ratchet.



1/4" x 5/16".....\$2.60 net	5/8" x 1 1/16".....\$4.25 net
3/8" x 7/16".....2.90 net	5/8" x 3/4".....4.25 net
1/2" x 9/16".....3.90 net	3/4" x 7/8".....4.80 net

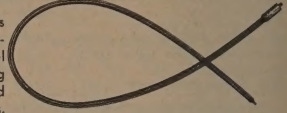
DRILL ROUTERS

Another "Stickle-back" tool, similar to the Drillsaw, but for use in electric drills.
 #318-1 2 3/4" x 1/4" dia.\$1.40 net
 #318-2 4 1/2" x 1/4" dia.1.60 net



TIPPY STICKS

Flexible alignment tools of tenite II with a non-magnetic stainless steel tip. Permits snaking around obstructions and still turn screws and slugs.



ST-186 6" long	40 net
ST-1810 10" long	45 net
ST-1814 14" long	50 net

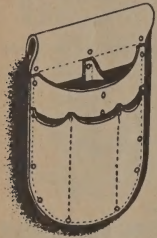
TRI-TAPS

The original 3-in-1 tool with 6/32", 8/32" and 10/32" taps to clean or cut three of the most common threads used in electronic work.

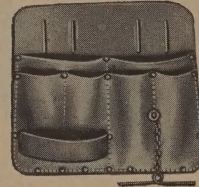


T-3	\$2.50 net	T-4 tap only for HT-24	\$1.65 net
		HT-24 with replaceable tap	\$3.00 net

TOOL POUCHES



#14 Telephone lineman's pouch of chrome-tanned cowhide. One large separated pocket with three smaller ones in front. Riveted and stitched with linen thread. 6" x 9 1/4"\$4.95 net



Electrician's Pouch. Bark-tanned top grain cowhide, riveted and stitched with linen thread. 7 pockets, loop for hammer, T-chain for roll of tape #17 10" x 9"\$4.95 net

12 OTHER POUCHES AVAILABLE



MADE IN ESKILSTUNA, SWEDEN, BY E. A. BERG MFG. CO. LTD. • EST. 1880

Only the best Swedish Charcoal Steel is used in the manufacture of Berg Pliers. Produced under exacting standards of control, they embody the most modern techniques of heat treatment and manufacture. Each plier is carefully engineered and designed to afford the greatest practical utility; lightness and ease of operation; and strength coupled with durability.

Special Electronic Diagonal Cutting Pliers with extra thin cutting edges, pointed nose and BOX JOINT



No. 525 - 5"4.95

ANGLE NOSE Diagonal Cutting Pliers



No. 25286 1/2" 4.25 7 1/2" 4.95

PIANO WIRE Diagonal Cutting Pliers



No. 15284 1/2" 2.95 5 1/2" 3.65 6 1/2" 4.15 7 1/2" 4.65

PIANO WIRE Side Cutting Nippers with replaceable blades



No. 15189" 6.50 10" 7.50
Extra Blades9" 2.30 10" 2.55

PIANO WIRE End Cutting Nippers with replaceable blades



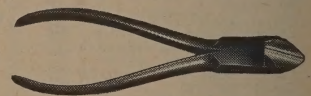
No. 1519 - 9"8.50
Extra Blades2.90

PIANO WIRE End Cutting Nippers



No. 5276" 3.50 7" 3.95
50 OTHER SIZES AND TYPES AVAILABLE

Straight Cutting Pliers with extended jaws



No. 1529 - 6 1/2"3.95

Special Bent Nose Pliers



No. 2533-B - 8"4.95

Curved Nose Pliers



No. 1631 - 5 1/2"3.85

ERIKSON SPECIALIZED TOOL COMPANY



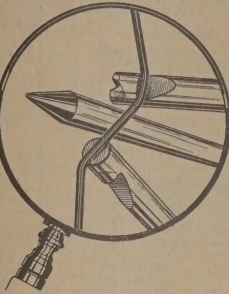
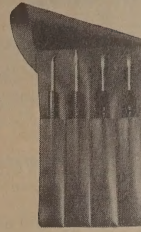
Norseman

ELECTRONIC TOOLS

JIGGLE STICKS

robes of Lucite, 1 end
arked for pushing other
nd pointed for probing,
atched on side for pulling
ires.

R 532-6 5/32" dia. .30 net
R 316-8 3/16" dia. .35 net

**NORSEMAN SOLDERING AID KIT**

MTSA-4 miniature soldering
aid kit with 4 tools M2T, M3T,
M4T, M5T in vinyl kit com-
plete\$4.50 net

Vinyl plastic kit, packed with 4 Norseman Soldering Aids
(TN-22, TN-33, TN-44, TN-55) as illustrated.

TNSA-4 complete kit\$4.50 net

Kit with 4 Norseman Soldering Aids with unbreakable aluminum
handles (AL-22, AL-33, AL-44 & AL-55).

ALSA-4 complete kit\$4.50 net

NORSEMEN SOLDERING AIDS

ERIKSON PICO-CALIF. TN-22**Red Handle**

TN-22 Tenite II Handle7 3/8" Long.....\$.90 net
M2T Tenite II Handle5 1/4" Long.....\$.90 net
AL-22 Aluminum Handle7 3/8" Long.....\$.90 net

ERIKSON PICO-CALIF. TN-44**Black Handle**

TN-44 Tenite II Handle7 1/2" Long.....\$1.05 net
M4T Tenite II Handle5 1/4" Long.....\$1.05 net
AL-44 Aluminum Handle7 1/2" Long.....\$1.05 net

ERIKSON PICO-CALIF. TN-33**Green Handle**

TN-33 Tenite II Handle7 3/8" Long.....\$.90 net
M3T Tenite II Handle5 1/4" Long.....\$.90 net
AL-33 Aluminum Handle7 3/8" Long.....\$.90 net

ERIKSON PICO-CALIF. TN-55**Blue Handle**

TN-55 Tenite II Handle6 3/4" Long.....\$1.05 net
M5T Tenite II Handle5 1/4" Long.....\$1.05 net
AL-55 Aluminum Handle6 3/4" Long.....\$1.05 net

PLASTIC HANDLES—(TN-22, TN-33, TN-44, TN-55) (M2T, M3T, M4T, M5T) are of Tenite II, hex and will not roll off the work bench. Shock-proof, practically unbreakable and will stand rough use on industrial production lines.

METAL HANDLES—(AL-22, AL-33, AL-44, AL-55) are aluminum alloy 4" x 3/8" hex and won't roll off the work bench. Being metal, are NOT SHOCK-PROOF and hence not recommended for ordinary radio-TV service work, especially on a 'live' unit. However, these handles are practically unbreakable and were designed to take rough use on industrial assembly lines and can be used as PRY BARS in lining up components.

METAL ENDS—(separated from each other) non-magnetic stainless steel, to which solder won't adhere. Are firmly seated in handles and are twist-proof.

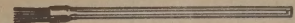
FORKED END—straddles the wire and with a slight twist, grips it for easy unwinding and removal, or guides it into another lug for soldering. Since plastic handles act as insulation, there is no danger of shock when working on sets in operation. 1/8" forks are made especially for use on printed circuits and transistors.

SPADE END—is a reamer to clean lug holes of solder.

CURVED END—can be used as a scriber for marking chassis. As a circuit tracer when looking for loose connections. As a dial cord stringer. Hook can be bent to a 90 degree angle if desired.

KNIFE & SCRAPER—for cutting and repairing printed circuits.

WIRE BRUSH—has approx. 200 bristles of stainless wire .0035 in dia. to which solder will not adhere. For use in cleaning connections before soldering, brushing out splattered solder and in repairing printed circuits.

**STAINLESS STEEL WIRE BRUSHES**

on steel shaft approximately 2" long
overall. Can be used in a regular pin
vise.\$.35 net

Packed 25 or 50 per box

DIDDLE STICKS

Alignment tools —
Lucite 1/2" dia.

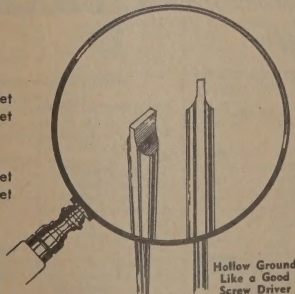
LU-53210 10" long25 net
LU-53214 14" long35 net

Rigid Vinyl 3/16" dia.

RV-31610 10" long25 net
RV-31614 14" long35 net

Fibre Glass 1/8" dia.

FG-1810 10" long35 net
FG-1814 14" long50 net
FG-1818 18" long65 net

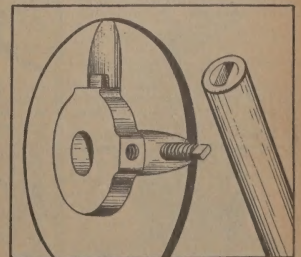


Hollow Ground
Like a Good
Screw Driver

**SLAB-HEAD
DRIVERS**

Drivers for SLAB-
HEAD screws as
used in Delco auto
radios, Zenith &
Arvin TV and 1956
models of Webcor
recorders.

246-P\$2.00 net



Clutch Head Screw and Driver

ERIKSON SPECIALIZED TOOL COMPANY

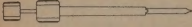


GC ALIGNMENT TOOLS

G-C SHORTY ALIGNMENT TOOL

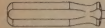
A convenient tool for hard-to-get-at places. Has 3 16" shaft, 2" length. Over

3 16" shaft, 2" length. Overall length of tool 4". Cat. No. 9238.....Net \$.48

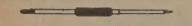


G-C COLOR TV TOOL

Used on convergence controls and others in color sets. The outer sleeve fits into the O.D. adjusting slot and the inner drive penetrates to the inside slot. Cat. No. 9239.....Net \$1.45

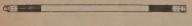


G-C RCA WRENCH FOR VHF CHANNEL SELECTOR
Tool is made to fit square headed set screws in RCA VHF Channel Selector gear assembly without removing chassis. Cat. No. 6035.....Net \$1.20



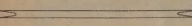
G-C NEW TRANSISTOR I.F. CORE ALIGNMENT TOOL

One end square .055, opposite end rectangle nib. .047 x .078 to reach bottom slugs in iron cores. Cat. No. 9440.....Net \$.63



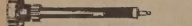
G-C RCA ALIGNING TOOL

Made of 7 32" Butyrate rod, narrow screwdriver on one end and screw nib inserted on other end. Cat. No. 5003.....Net \$.53



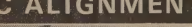
G-C NO-METAL INSULATING ADJUSTMENT SCREWDRIVER

Made of black bone fibre. Indispensable for aligning all-wave sets. Cat. No. 5004.....7" long.....Net \$.48
Low-Loss Polystyrene Type-Ideal for U.H.F. Sets



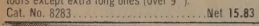
G-C NEUTRALIZING TOOL

Combination screw driver and 5 16" hex wrench. Approved by U. S. Army Signal Corps. Cat. No. 5002.....Net \$2.10



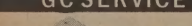
GC ALIGNMENT TOOL KITS

MASTER DELUXE TOOL KIT
A super-deluxe kit in a leatherette roll type case. Contains 25 tools and includes all TV alignment tools except extra long ones (over 9"). Cat. No. 8283.....Net \$15.83



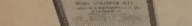
DELUXE ALIGNMENT TOOL KIT

Case is made of durable leatherette for long service. Steel tips are extra thin end of the TV grade hardened spring steel. Kit contains one each of 16 tools. Cat. No. 8280.....Net \$10.30



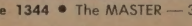
G-C TV CHASSIS SUPPORT

Prop chassis to easy working position on your bench or in the home. Simply slip on the flange of chassis. Tighten thumb screws and tilt chassis to position desired. Cat. No. 9176 Pair.....Net \$1.80



SPEEDEX WIRE STRIPPER KITS

Complete with Wire Strippers and seven different size blades in plastic box. Handy for tool box, home workshop, maintenance and production. Cat. No. 733-K.....Standard Stripper Kit.....Net \$10.83
734-K.....Automatic Stripper Kit.....Net \$12.16
766-K.....Speed-O-Matic Stripper Kit.....Net \$13.16



G-C 4-in-1 ALIGNMENT TOOL

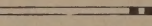
Screw driver with metal nib. 1 4" hex wrench slotted and 5 16" hex wrench on other end. Cat. No. 5014.....Net \$1.00

G-C 5-in-1 ALIGNMENT TOOL

Consists of screw driver with metal nib. 5 16" hex wrench. 1 4" hex wrench slotted, with metal screw driver on one end. Cat. No. 5015.....Net \$1.27

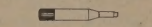
G-C 6-in-1 ALIGNMENT TOOL

Consists of screw driver with metal nib. 5 16" hex wrench. 1 4" hex side wrench and 1 4" hex end wrench slotted. Cat. No. 5016.....Net \$1.57



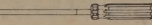
G-C ALIGNMENT SCREWDRIVER

Low inductance metal tip screwdriver made of Butyrate material. Cat. No. 5000 1 4" Diameter x 6" Tool.....Net \$.42



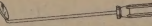
G-C TV ALIGNMENT TOOL

Very short, sturdy tool with a fine metal screwdriver blade. Cat. No. 5056 2 1/2" long x 3 16" Shaft Dia. Net \$.40



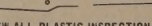
G-C TV ALIGNING WRENCH

New tool with 1 8" square socket wrench, 7 32" shaft with insulated handle. Cat. No. 5080.....Net \$.60



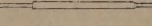
G-C INSPECTION MIRROR

Handy inspection mirror to inspect parts, coils, wiring, etc. Made of metal shaft with glass mirror and a plastic handle. Cat. No. 5090.....7-7 8" Inspection Mirror.....Net \$.42



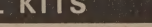
G-C NEW ALL PLASTIC INSPECTION MIRROR

Use to inspect coils, resistors, sockets, etc. while the chassis is hot. No danger of shorting. Cat. No. 5090-P.....7-7 8" Plastic Mirror.....Net \$.38



G-C K-TRAN TOOL

Specially designed for K-tran and I.F. transformers. Butyrate material. screwdriver on both ends. Cat. No. 5097.....6" long x 5 32" Delrin Tip 1 8" metal Tip.....Net \$.78



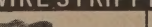
NEW TINNEMAN NUT REMOVER

G-C Tinnerman Nut Remover is a handy dual purpose tool for removing large or small tinnerman nuts with just a twist. Eliminates fumbling with hard-to-remove nuts. Cat. No. 9355.....Net \$.33



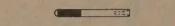
G-C ILLUMINATED INSPECTION AND SERVICE MIRROR

A hinge-mounted mirror fastens to a 6" transparent lucite rod which transmits light from a small standardized aluminum flashlight. Cat. No. 8725.....Net \$2.02
7 8" Mirror, frame O.D. 1 1/2"



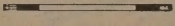
G-C TV CHANNEL TUNING TOOL

Completely insulated, non-metallic tool with long 1 8" narrow blade. Made of bone fibre. Cat. No. 8195 7-1 4" long. 1 8" shaft dia. Net \$.72



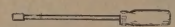
G-C TV AND FM TUNING TOOL

Special short tool with fine recessed screwdriver top for Television and FM adjustments. Made of Butyrate Cat. No. 8196.....Net \$.42
2-1/2" long. 7 32" shaft dia.



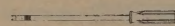
G-C TV CORE ALIGNER

For Motorola and other sets using Stackpole or other stud type cores that are not slotted. Milled steel insert on one end, thin screwdriver blade on other end. Cat. No. 8271 16" long. 7 32" shaft dia. Net \$.60



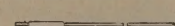
G-C TV I.F. OSCILLATOR ALIGNER

Specially made for I.F. and oscillator adjustments. Will fit all makes of sets-R.C.A., G.E., Philco, Admiral and others. Cat. No. 8272 6-1 2" long. 1 4" tip dia. Net \$1.20



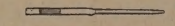
G-C TV ALL-PURPOSE ALIGNER

Specially made for TV I.F. adjustments. Very thin spring steel tip is recessed so the tool will guide itself over the screws. Cat. No. 8273 8" long. 7 32" shaft dia. Net \$.52



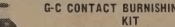
G-C TV LONG REACH ALIGNER

Specially made for Admiral, Zenith, R.C.A. and other sets for adjustments of nested iron cores that are hard to reach. Cat. No. 8274.....9" long. 1 8" shaft dia. Net \$.90



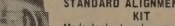
G-C TV ZENITH UNIVERSAL ALIGNER

Specially designed for Zenith and other sets. Made of bone fibre and plastic handle. Cat. No. 8275 9" long. 1 8" shaft dia. 1 4" Net \$.52



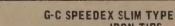
G-C CONTACT BURNISHING TOOL KIT

A complete kit for the servicing of relays, switches, etc. where critical contact points must be kept clean. Cat. No. 9353.....Net \$.95



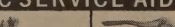
STANDARD ALIGNMENT TOOL KIT

Made to last and wear-a quality kit contains 9 essential tools in roll type case. Cat. No. 8455.....Net \$ 6.26



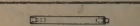
G-C SPEEDEX SLIM TYPE SOLDER IRON TIPS

A new high-heat, turned-down tip made of one piece copper. Will fit 3 8" irons. Tips 4-1 2" long. Cat. No. 8741.....Net \$.73



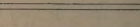
G-C TV DUPLEX ALIGNER

An all-purpose TV aligner for trimmers and I.F. transformers. Made of Butyrate material with extra spring steel tips. Cat. No. 8276 6" long. 7 32" shaft dia. Net \$.53



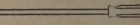
G-C TV "SHORTY" DUPLEX ALIGNER

Specially made for trimmer and I.F. transformers where space does not permit the use of a longer tool. Cat. No. 8277 2-1/2" long. 7 32" shaft dia. Net \$.53



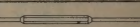
G-C TV TUNING WAND

Brass insert on end reduces inductance and iron on other end increases the inductance. Cat. No. 8278 6" long. 7 32" shaft dia. Net \$.53



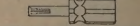
G-C TV CORE ALIGNER

Tool has a recessed steel milled slot to fit over Stackpole and other type stud cores that are slotted. Cat. No. 8279.....Net \$.53
7-1/2" long. 7 32" shaft dia.



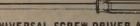
G-C NEW ZENITH TV WRENCH & ALIGNER

New nylon plastic molded special tool made specially for Zenith TV sets. Cat. No. 8282.....Net \$.53
5-7 16" long. .100 Dia. Hex Wrench. 109 S.D. Driver Dia.



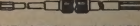
G-C "SHORTY" TV ALIGNMENT SCREW DRIVER

Only 2" long overall to adjust hard-to-get-at places under TV tubes, etc. Cat. No. 8289 2" long. 7 32" shaft dia. Net \$.53



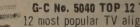
G-C UNIVERSAL SCREW DRIVER ALIGNER

Made of unbreakable flexible clear plastic shaft with an amber plastic handle. Cat. No. 8290 7" long. 7 32" shaft dia. Net \$.53



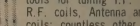
G-C ZENITH-ADMIRAL NYLON HEX WRENCH

New nylon hex wrench alignment tool for Zenith, Admiral and other sets. Cat. No. 8606.....5" wrench. 11" long. Net \$.53
Cat. No. 8606-L.....11" wrench. 11" long. Net \$.53



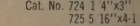
G-C NO. 5040 TOP 12 TOOL KIT

12 most popular TV alignment tools in Plastic roll-up case. Cat. No. 5040.....Net \$ 8.95



CB ALIGNMENT TOOL KIT

Plastic pouch with nine precision tools for tuning I.F. transformers, R.F. coils, Antenna and oscillator coils; countless other line adjustments. Cat. No. 9210.....Net \$ 2.95



G-C SOLDER IRON TIPS

Bright plated to resist corrosion. These tips are made of best hard-drawn copper. Dia. Long. Cat. No. 724 1 4"x2".....Net \$.16
725 5 16"x4-1 2".....Net \$.16
726 3 8"x4-1 2".....Net \$.16



SPEEDEX STANDARD WIRE STRIPPER

Popular inexpensive Speedex model for 90% of all stripping jobs. Blades are inter-changeable, hardened and precision ground to razor sharp edges. No. For Sizes Listed Below

733 12 to 20 Wire
734 14 to 30 Wire
735 10 to 18 Wire
736 8 to 10 Wire
737 16, 18, 20, 22 Wires
738 14, 16, 18 Wires
739 10, 12, 14 Wires
740 G For No. 18 POS or Parallel Wire
741 H For 300 ohm TV and FM twin transmission line
742 10, 12, 14, 16, 18, 20, 22 Wire
743 10 to 20 Wire
744 N Straight Cutter Blades
Cat. No. 733.....Net \$4.77

SPEEDEX AUTOMATIC WIRE STRIPPER

Equipped with "Trip-O-Matic" Stay-On feature; keeps wires from being crushed. No. For Sizes Listed Below

744 12 to 20 Wire
745 14 to 30 Wire
746 10 to 18 Wire
747 8 to 10 Wire
748 16, 18, 20, 22 Wires
749 14, 16, 18 Wires
750 10, 12, 14 Wires
751 G For No. 18 POS or Parallel Wire
752 H For 300 ohm TV and FM twin transmission line
753 10, 12, 14, 16, 18, 20, 22 Wire
754 10 to 20 Wire
755 N Straight Cutter Blades
Cat. No. 744.....Net \$5.93

SPEEDEX SPEED-O-MATIC WIRE STRIPPER

Fully automatic delayed return action to prevent crushing line wires. The Speed-O-Matic combines the features of all Speedex Wire Strippers. No. For Sizes Listed Below

766 12 to 20 Wire
767 14 to 30 Wire
768 10 to 18 Wire
769 8 to 10 Wire
770 16, 18, 20, 22 Wires
771 14, 16, 18 Wires
772 10, 12, 14 Wires
773 G For No. 18 POS or Parallel Wire
774 H For 300 ohm TV and FM twin transmission line
775 10, 12, 14, 16, 18, 20, 22 Wire
776 10 to 20 Wire
777 N Straight Cutter Blades
Cat. No. 766.....Net \$5.93

SPEEDEX WHIZ WIRE STRIPPER

Economy model-an all round general use wire stripper. Precision milled hardened steel cutters. Cat. No. 788 3 Hole Blade, Gauges 12 thru 22

788-B 3 Hole Blade, Gauges 10 thru 16
788-D 4 Hole Blade, Gauges 14 thru 24
788-H 300 ohm Blade for Twin Lead-In
Cat. No. 788.....Net \$3.16



GC ALIGNMENT TOOLS & Service Aids



GC DUO-TONGS

Universal Fuse Pullers... will accommodate all types of fuses, including household screw-in plug type, industrial cartridge fuses up to 3/4" or 100 amp. capacity, as Automotive, Aircraft, Television and Electronic Industries. Non-conductive, non-inflammable, and virtually unbreakable thus exceeding all Military Specifications.

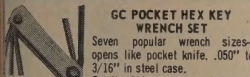
Cat. No. 9356.....Net \$.89



HEAT SINK

protects Transistors and Diodes when Soldering... 1/4" rim grip. Aluminum will not stick to solder.

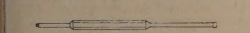
Cat. No. 9077.....Net \$.36



GC POCKET HEX KEY WRENCH SET

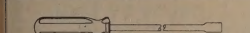
Seven popular wrench sizes—opens like pocket knife. .050" to 3/16" in steel case.

Cat. No. 9124.....Net \$1.83



CAPACITOR AND TUNER ADJUSTING TOOL
for trimmer capacitors, sealed capacitors, and miniature L, C. Tuners. White Delrin with .050" hex head on end and screwdriver tip on the other end. Overall length 5-1/8".

Cat. No. 8605.....Net \$.53

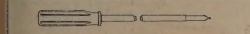


GC CAPACITOR TAB TWIST TOOL

replacing twist lock condensers. Slotted end fits over capacitor tabs; won't slip off. A quick twist clicks or unlocks the tabs. 8" long, plastic handle.

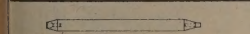
Cat. No. 9446.....Net \$.89

GC ALIGNMENT TOOLS



GC NEW NYLON TV LONG REACH ALIGNER
long-reach TV aligner with insulated metal shaft and nylon tip. 12-1/4" long overall. .195 Shaft Dia.

Cat. No. 8607.....TV Tool.....Net \$1.69



GC ALIGNMENT TOOL
slightly to align and adjust TV sets, radio sets, etc. Made of clear plastic 5" long x 3/8" dia.

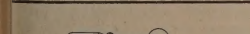
Cat. No. 8609.....Net \$.63



GC TV 2-IN-1 LONG-REACH DUPLEX ALIGNER
Made of clear, unbreakable plastic material. Ends (labeled red and blue for size identification). Tips are made of spring steel recessed for easy location of adjustment.

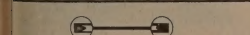
Cat. No. 8721 9" long, 7/32" Shaft Dia. Net \$.78

8722 7" long, 7/32" Shaft Dia. Net \$.67



NEW GC-K-TRAN TELEVISION ALIGNER
Specially made for K-TRAN I.F. Transformer tuner sets. Precision made of bone fibre.

Cat. No. 8727 6-1/4" long, 5/32" TV Tip. Net \$.65



TV LONG REACH ALIGNMENT SCREWDRIVER
Made of bone fibre, extra thin 1/8" diameter screwdriver for adjustment of TV receivers. Screwdriver on both ends—can be re-ground.

Cat. No. 8728A.....1/8"x7" long.....Net \$.43

8728.....1/8"x12" long......53

8729.....1/8"x16" long......70



SHAFT EXTENSION INSULATOR

Standard TV control Z1 Suregrip ribs... Fits all shafts. Cut off worn ends, or to desired length.

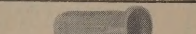
Cat. No. 5150.....Net \$.36



HI-VOLTAGE GAUGE

Measures TV Voltage Pulse... No current drain during operation. Snaps directly to plate cup of any listed tubes. Push plunger in slowly till neon light glows. Voltage read on calibrated rod.

Cat. No. 8840.....Net \$2.30



TWISTMASTER

Twice the Leverage of the Bare Hand... Slips easily on any standard screwdriver. Insulates against shock, prevents blisters.

Cat. No. 5320.....Net \$.29



GC HANDY PICK-UP TOOL

"Mechanical Fingers" Pick-up parts dropped into inaccessible places. Holds screws, nuts to start. 24" long.

Cat. No. 5089.....Net \$1.15



SOLDERING AID TOOLS

Won't stick to Solder... Heat-treated tool steel, chrome plated.

Cat. No. 9075.....Straight.....Net \$.80

Cat. No. 9076.....Angled.....Net \$.80

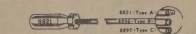


GC MAGNAVOX TUNING TOOL

Head for Magnavox chassis Nos. 201 and 202 and other sets. Hex wrench on both ends, one end undercut so it will reach bottom slugs in iron coils.

Cat. No. 8284.....Net \$.48

GC ALIGNMENT TOOLS



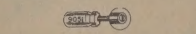
GC LONG ARM TV TOOL PLASTIC SHAFT

Extra-long-reach alignment tool for Zenith sets and others where adjustments are hard to get at. Tool is 18" long overall, 18" long, 7/32" Shaft Diameter.

Cat. No. 8821 TV Tool (Type A).....Net \$1.00

8896.....TV Tool (Type B).....1.00

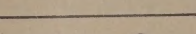
8897.....TV Tool (Type C).....1.00



ZENITH-RCA ALIGNING TOOL WITH HANDLE

For better grip and easier adjustments. Length is 2-1/2" with a 1-1/2" shaft length, 7/32" diameter blade with recessed slot in blade end.

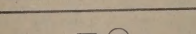
Cat. No. 9051.....Net \$.58



GC STANDARD COIL SLUG TUNER ADJUSTING TOOL

A new special slug tuning tool for adjusting Standard Tuners, etc. Completely insulated, 7-1/2" long, 1/4" shaft diameter, shaft ends .170 diameter.

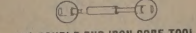
Cat. No. 9087.....Net \$.75



GC ADJUSTABLE SHORTY

Recessed tip TV alignment tool. Adjustable from 1-1/4" to 2" in length, for hard-to-get-at places.

Cat. No. 9090.....Net \$.65



GC DOUBLE END IRON CORE TOOL

All nylon hex tool for cores with .125 hex opening. The end of tool undercut so it can reach the bottom slug in coils without turning the top slug.

Cat. No. 9091.....5" long.....Net \$.48

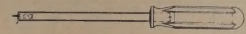
9091-L.....11" long......70



OSCILLOSCOPE TOOL KIT

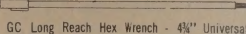
Kit contains 1 each of tools listed below:

No. 12-036.....Net \$11.52



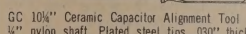
GC 6 1/4" Ceramic Capacitor Alignment Tool - 1/4" nylon shaft. Plated steel tip .030" thick by 1/8" wide fits most trimmer capacitors.

No. 12-020.....Net .77



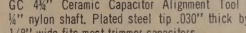
GC Long Reach Hex Wrench - 4 1/4" Universal .075" hex wrench of white delrin. Use handle No. 12-038.

No. 12-022.....Net .60



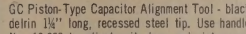
GC 10 1/4" Ceramic Capacitor Alignment Tool - 1/4" nylon shaft. Plated steel tip .030" thick and 1/8" wide fits most TV trimmer capacitors.

No. 12-024.....Net 2.66



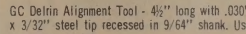
GC 4 1/4" Ceramic Capacitor Alignment Tool - 1/4" nylon shaft. Plated steel tip .030" thick by 1/8" wide fits most trimmer capacitors.

No. 12-026.....Net .82



GC Piston-Type Capacitor Alignment Tool - black delrin 1 1/4" long, recessed steel tip. Use handle No. 12-038 to adjust coil slugs and piston capacitors.

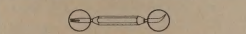
No. 12-028.....Net .53



GC Delrin Alignment Tool - 4 1/4" long with .030" x 3/32" steel tip recessed in 9/64" shank. Use handle No. 12-038.

No. 12-030.....Net .60

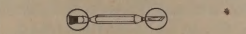
GC ALIGNMENT TOOLS



GC PRINT KOTE SOLDER AID PROBE

Handy, fine point probe specially designed to aid in probing and soldering printed circuits.

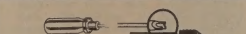
Cat. No. 9093.....8" Length.....Net \$1.00



GC PRINT KOTE BRUSH AND SCRAPER

Fine Stainless Steel brush and hardened steel scraper are required to scrape and clean the Silicone Resin from printed circuits.

Cat. No. 9094.....8" Length.....Net \$.58

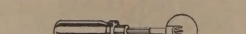


GC SLUG RETRIEVER TOOL

A precision made tool with hardened steel tips made for removing lost TV tuner slugs in Standard Coil tuners. Ends ground to fit standard coils.

Cat. No. 9096.....12" Retriever.....Net \$2.70

9097.....15" Retriever.....3.25

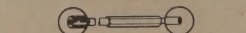


GC MINI HOLD SCREWDRIVERS

Designed with exclusive "Wedge Action" for gripping of tiny screws. (Nos. 0, 1, 2, 3, and No. 8 set screws and smaller) Special short length (2-7/8" when in use).

Cat. No. 9346 3-1/4" long, 2-7/8" in use Net \$2.14

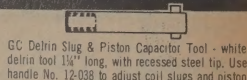
9347 7" long, 6-3/4" in use 2.40



GC RCA TV ALIGNMENT TOOL

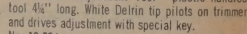
Double end nylon tool with a recessed metal tip on one end and a plastic slot on the other end.

Cat. No. 9150.....6" Length.....Net \$.53



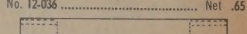
GC Delrin Slug and Piston Capacitor Tool - white delrin tool 1 1/4" long, with recessed steel tip. Use handle No. 12-038 to adjust coil slugs and piston capacitors.

Cat. No. 12-022.....Net .63



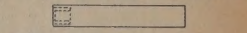
GC Trimmer Adjustment Tool - plastic handle tool 4 1/4" long. White Delrin tip pilots on trimmer and drives adjustment with special key.

No. 12-034.....Net 1.57



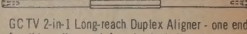
GC 7" Nylon Tool Handle - white nylon handle for use with alignment tool tip No. 12-040.

No. 12-036.....Net .65



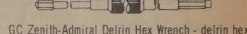
GC 3" Tool Handle - for use with alignment tools No. 12-022, 12-028, 12-030, and 12-032. Extra diameter of handle makes adjustments easier.

No. 12-038.....Net .63



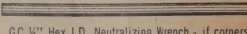
GC Alignment Tool Tip - 2 1/4" white Delrin alignment tip with .015" x 3/32" steel insert. Use with either 12-036 or 12-038 handle.

No. 12-040.....Net .53



GC TV 2-in-1 Long-Reach Duplex Aligner - one end for trimmer, other end for standard diameter studs. Tips made of spring steel, recessed, 7/32" shaft diameter.

No. 8722.....Net .67



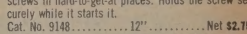
GC Zenith-Admiral Delrin Hex Wrench - delrin hex wrench alignment tool for Zenith, Admiral, and other sets. .100 across flats of both hex. ICA Type No. 6199.

No. 8606.....Net .48



GC 1/4" Hex I.D. Neutralizing Wrench - if corners wear round due to use, just trim back. 7 1/2" long, 3/8" round O.D.

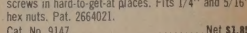
No. 9360.....Net .37



GC SCREW STARTER SCREW DRIVER

A handy screw holding screwdriver that will start screws in hard-to-get-at places. Holds the screw securely while it starts it.

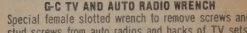
Cat. No. 9148.....12".....Net \$2.75



GC DUAL NUT STARTER

New tool that holds and starts hex nuts or hex head screws in hard-to-get-at places. Fits 1/4" and 5/16" hex nuts. Pat. 2664021.

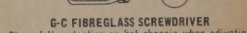
Cat. No. 9147.....Net \$1.85



GC TV AND AUTO RADIO WRENCH

Special female slotted wrench to remove screws and stud screws from auto radios and backs of TV sets, etc.

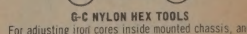
Cat. No. 9211.....Net \$1.20



GC FIBREGLASS SCREWDRIVER

Gives full protection on hot chassis when adjusting high potentials. For close-up hard-to-reach places.

Cat. No. 9291.....7".....Net \$.85



GC NYLON HEX TOOLS

For adjusting iron cores inside mounted chassis, and tuner adjustments of iron and brass slugs with hex heads. Has .100" hex and 5/32" handle.

Cat. No. 9295.....11"x.100" hex.....Net \$.63

9296.....11"x.075" hex......63

9297.....11"x.075" hex......63



COLOR TV SERVICE AIDS



RCA COLOR TV HARNESSES & SOCKETS FOR SERVICE & REPLACEMENT

Part No.	Description	Net
9436	ADAPTER SOCKET Converts 23" & 25" CRT Base to 21" type for use with current test equipment. RCA No. 937848; Admiral No. BP196.	3.50
9437	UNIVERSAL KINESCOPE SOCKET EXTENSION CABLE—fits all 21", 23" and 25" round and rectangular CRT. 48" leads. RCA No. 13B111 and 937846; Admiral No. BP191.	7.50
9438	KINESCOPE SOCKET EXTENSION 48" leads—converts a 23" or 25" CRT base to 21" type for use with current test equipment. RCA No. 13B111 and 937847; Admiral No. BP190.	8.95
9439	ADAPTER SOCKET EXTENSION CABLE For all 21AXP or equivalent round picture tubes. Extends kinescope socket cable for chassis removal when servicing, or use with color test tube jig. Admiral No. BP192.	4.95
9441	REPLACEMENT SOCKET & LEADS For 21" color tubes—24" leads.	2.25
9443	REPLACEMENT SOCKET & LEADS For 23" and 25" color tubes—24" leads.	2.25
9447	DEFLECTION YOKE EXTENSION CABLE For 21" color tubes—48" leads. Use with all 21AXP22 or equivalent tubes. Extends yoke cable for servicing chassis without removing picture tube.	4.85
9448	DEFLECTION YOKE EXTENSION CABLE 48" leads extend yoke cable when chassis is removed for servicing. For 23" or 25" picture tubes. Male coil plug one end, push-on connectors on other end for connecting to deflection yoke, or test jig.	1.95
9453	ANODE EXTENSION High voltage extension cable with 48" leads for use when TV chassis is removed from set for servicing.	1.95
9445	CONVERGENCE MAGNET DEFLECTION YOKE EXTENSION. For RCA, Admiral, Motorola, Zenith. Extension leads for chassis removal without removing picture tube. For RCA CTC7 to CTC15 chassis. Deflection yoke extension for RCA 600 & 700 series.	4.95

COLOR TV RECTIFIER KIT

Only one kit needed to service nearly all makes of color TV sets, including RCA, Zenith, General Electric, Philco, etc.
Cat. No. 16-500 Net 4.40

COLOR TV GLO-BAR THERMISTOR

Exact Replacement for RCA No. 113996, Zenith No. 635444, Magnavox No. 230170-1, and others.
Cat. No. 25-908-S Net .75

COLOR TV CAPACITOR

(Value .001 MFD at 2000V DC) A new replacement capacitor for Color TV sets that can be used on all makes of color sets. Also an Exact Replacement for RCA No. 945328 & Admiral No. 62C2-773 TV sets.
Cat. No. 25-902-S Net .39

COLOR TV SERVICE MIRROR

High quality polished glass mirror in metal frame, nickel plated, 10" x 12". Complete with adjustable, collapsible stand for easy storage.
Cat. No. 8390 Net 5.91

COLOR TV VIEW



Three transparent optical filters seal in plastic. For phase and matrix adjustment in the home, using a saturated color for signal.
Cat. No. 9309 Net

COLOR TV CHEATER

Removes the "ground" from the high voltage supply when back cover of set is removed. Permits insertion of hi-voltage probe, through cheater.
Cat. No. 5650 Net

GRID GROUNDING BOX

For easy convergence and matrix adjustment. Consists of small box with 3 switches and 4 leads. Permits individual grounding of color control grids through built-in resistors.
Cat. No. 9318 Net 5

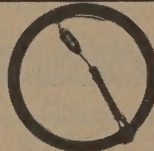
COLOR TV TOOL

Double screwdriver for adjustment of various controls on color TV sets where dual potentiometer are used. Indispensable for Color TV work.
Cat. No. 9299 Net 1



7" DEGAUSSING COIL IN-THE-HOME MODEL

For the home or serviceman. Molded of hi-impact plastic with momentary push-button switch, this coil will easily fit into tube caddy or will hang on the back of TV set. Low cost...easy resale to TV set owner.
Cat. No. 2592 Net 5.95



GC DEGAUSSING COIL PROFESSIONAL MODEL

Eliminates stray magnetic fields in color TV sets as required prior to picture adjustment. Durable, molded hi-impact case. Supplied with 9' cord, momentary push-button switch which permits de-energizing of coil without pulling plug. Safe, easy to use; will last a lifetime.
Cat. No. 9317 Net 17.95

GC SERVICE AIDS



GC TV 3-WAY ANTENNA KLIP

Buy them by the bag and have clips ready to sell and ready to install on TV sets.
Cat. No. 9015-X bag of 10 Net 1.43



GC INTERCHANGEABLE HEX NUT DRIVER KIT

6 assorted nut drivers in a handy plastic case. Handle is non-flammable amber plastic with a quick change chuck.
Cat. No. 9206 Net 3.30



SPRAY CAN HANDLE

For all aerosol spray cans, including new 24 and 35 oz. size cans. Attaches or detaches in seconds. Converts any spray can to professional spray gun.
Cat. No. 5900 Net .49



GC STICKLEBABY

Ideal for custom installations. Combination drill, saw, rasp. Use where power tools are impractical. For use on wood, plaster, plastic and masonry.
Cat. No. 8870 Net 11.95



"QUICK SNAP" ANTENNA CLIP

New slide clip allows fast connecting with antenna lines; ideal for the service bench. Accepts A-N-P, Pin, and flat terminal type lines.
Cat. No. 9030 bag of 2 clips Net .49



GC NEW TV AND AUTO RADIO WRENCH

Special female slotted wrench to remove screws and stud screws from auto radios and backs of TV sets, etc.
Cat. No. 9211 Net 1.20



GC PLASTIC ELECTRICAL TAPE

Insulates tools, electrical splices and connections. Has minimum dielectric strength of 10,000 volts. Wrap tool handles for "non-slip" grip.
Cat. No. 15-890 1 2" x 12' Net .26
Cat. No. 16-892 3 4" x 20' Net .45



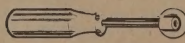
GC 3-STEP TAP

Three-in-one tool for tapping or retapping holes. Most popular tap sizes: 6/32, 8/32 and 10/32. Heat plastic handle.
Cat. No. 8871 Net 3.75



GC NEW LOW LOSS TV LINE KLIP

A new all plastic clip with metal ends only. The best for UHF or fringe areas. Made of genuine polyethylene.
Cat. No. 9055 Net .15
Cat. No. 9055-X Bag of 10 Net 1.44



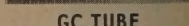
SLAB TYPE CLUTCH-HEAD SCREWDRIVERS

The only tools for servicing the Admiral Tilt-Out Tuner TV sets. Two sizes are available. A must for working on Color TV sets.
Cat. No. 12-015 for No. 6 clutch-head screws Net 1.95
Cat. No. 12-016 for No. 8 clutch-head screws Net 1.95



TV CONTROL SHAFT EXTENSION

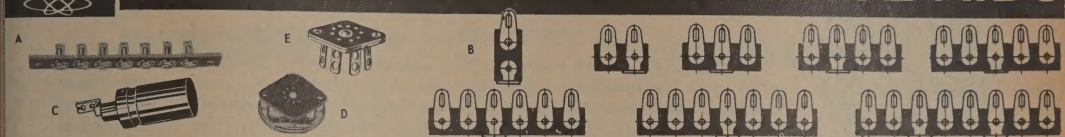
21 sure grip ribs. Extends and insulates all standard shafts. Fits flatted, spined, split or full round shafts. May be cut to desired lengths.
Cat. No. 5091 9" Net .36
Cat. No. 5091 12" Net .18



GC TUBE PIN STRAIGHTENER

Plastic 6" ruler tube pin straightener for Compaction large 7-pin, 9 and 10 pin, and 7-pin tubes. Drilled hole for bench mounting.
Cat. No. 9135 Net .5

GC COMPONENTS..SERVICE AIDS



A GC SCREW TYPE TERMINAL STRIPS

Mounted on laminated bakelite strips, rigidly constructed, terminals will not turn and short.

Cat. No. 1772 2 contacts	Net .09
Cat. No. 1772-C 100 No. 1772	Net .12
Cat. No. 1773 3 contacts	Net .10
Cat. No. 1773-C 100 No. 1773	Net .15
Cat. No. 1774 4 contacts	Net .13
Cat. No. 1774-C 100 No. 1774	Net .20
Cat. No. 1775 5 contacts	Net .18
Cat. No. 1775-C 100 No. 1775	Net .22
Cat. No. 1776 6 contacts	Net .20
Cat. No. 1776-C 100 No. 1776	Net .25
Cat. No. 1777 7 contacts	Net .23
Cat. No. 1777-C 100 No. 1777	Net .30
Cat. No. 1778 8 contacts	

Cat. No. 1778-C 100 No. 1778	Net 27.00
Cat. No. 1779 9 contacts	Net .33
Cat. No. 1779-C 100 No. 1779	Net 30.00
Cat. No. 1780 10 contacts	Net .37
Cat. No. 1780-C 100 No. 1780	Net 33.45

B GC STANDARD TERMINAL STRIPS

Insulation 1/16" thick, 3/8" spacing	
Cat. No. 1781 1 lug	Net .04
Cat. No. 1781-C 100 No. 1781	Net .04
Cat. No. 1782 2 lugs	Net .04
Cat. No. 1782-C 100 No. 1782	Net .04
Cat. No. 1783 3 lugs	Net .05
Cat. No. 1783-C 100 No. 1783	Net .05
Cat. No. 1784 4 lugs	Net .06
Cat. No. 1784-C 100 No. 1784	Net .06

Cat. No. 1785 5 lugs	Net .07
Cat. No. 1785-C 100 No. 1785	Net .07
Cat. No. 1786 6 lugs	Net .08
Cat. No. 1786-C 100 No. 1786	Net .08
Cat. No. 1787 7 lugs	Net .13
Cat. No. 1787-C 100 No. 1787	Net .13
Cat. No. 1788 8 lugs	Net .15
Cat. No. 1788-C 100 No. 1788	Net .15
Cat. No. 1789 9 lugs	Net 10.56

D HIGH VOLTAGE ANTI-CORONA TV SOCKET	
8-prong octal and 9-pin miniature sockets for use in high voltage circuits using the 1B3, 1AX2, 1AX2A, etc.	
Cat. No. 9070 8-prong octal	Net .53
Cat. No. 9071 9-pin miniature	Net .53

E GC 9-PIN MINIATURE WAFER SOCKET

High quality plastic wafer socket, 9-pin type with phosphor bronze contacts. Standard 1-1/8" mounting centers.

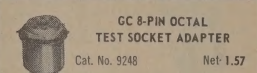
Cat. No. 1543 9-pin wafer sockets	Net .12
Cat. No. 1544 9-pin wafer socket with grounding strap	Net .13



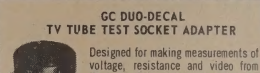
Cat. No. 9247 Net 1.65



Cat. No. 9249 Net 1.87



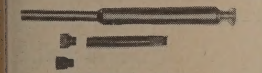
Cat. No. 9248 Net 1.57



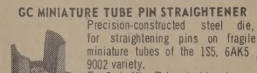
Cat. No. 9251 Net 1.95



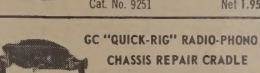
Cat. No. 9250 Net 6.98



Cat. No. 9255 Net 4.50



Cat. No. 9256 Net 2.25



Cat. No. 9257 Net 7.50



Cat. No. 8537 Net 1.35

Cleans and lubricates noisy volume controls. Solid aluminum kit includes Gun Adaptor for 1/2 - 28 thread, and Auto Adaptor for 7/16 - 28 thread.

Cat. No. 9255 Net 4.50

Cat. No. 65-16 16 oz. bottle cleaner Net 2.25

Cat. No. 65-G 1 gallon Net 9.90

Cat. No. 9260 Control pen only Net 3.75

Cat. No. 9263 Adaptor for 1/2 - 28 thrd. shaft Net .50

Cat. No. 9263 Adaptor for 7/16-28 thrd. shaft Net .50

Cat. No. 9282 Adaptor for extra long shaft Net .50

Precision-constructed steel die, for straightening pins on fragile miniature tubes of the 155, 6AK5, 9002 variety.

For 7-pin Min. Tubes (red base) Cat. No. 5191 Net .75

For 9-pin Jumbo Tubes (blue base) Cat. No. 8105 Net .75

Complete 360 degree rotation to lock chassis at best working angle. Clamps securely, makeshift setups, all metal.

Cat. No. 5212 Net 7.50

For both hex and spline type screws. 12 wrenches in leatherette case.

Cat. No. 5028 Net 1.35

Electrical circuit tester...easy to use with a Neon Glow Lamp which varies in light intensity according to voltages. Traces all types of trouble, such as grounded lines, open circuits, short circuits, etc.

Cat. No. 5100 Net .45

Handy tester for quickly checking TV high voltage circuits. Tester will glow when high voltage is okay.

Cat. No. 8836 Net 2.13

Modernizes old tools with new safety grip handles. Grease and oil resistant.

Cat. No. 5647 Small (1 pair) Net .23

Cat. No. 5648 Med.(1 pair) Net .27

Cat. No. 5649 Large (1 pair) Net .33

7 popular size wrenches. .050 to 3/16" fitted in a steel case-like pocket knife blades.

Cat. No. 9124 Net 1.83

Originally designed by the U.S. Signal Corps. as standard equipment. Skillfully constructed of spring steel, cadmium plated. Has rubber cushion on the prongs.

Cat. No. 5092 Net .98

Handy tool for removing tight tubes. Saves the fingers and the tubes.

Cat. No. 9213 Net .30

Increases over-all TV picture size by boosting low-sweep output from horizontal circuit. No soldering, no wiring. Plugs into horizontal damper tube.

Cat. No. 8761 Net .75

Clear plastic boxes for small parts, screws, nuts, bolts, condensers, resistors, etc. Size 4" x 4".

Cat. No. 8022 2" deep Net .40

Cat. No. 8023 8" deep Net .77

Inexpensive...non-slip, fuse puller. Safe and handy for cartridge fuses.

Cat. No. 5525 Midget size for fuses 1/4" to 1/2" diameter Net .60

Cat. No. 5526 Pocket size for fuses 1/2" to 1 1/2" dia. Voltages to 200 amps at 250 volts and 100 amps at 600 volts.

For both miniature and jumbo miniature tubes of the 7- and 9-pin types.

Cat. No. 8655 Net 1.50

For radio and TV controls, bearings, photo motors, etc. Buy them by the pair - one for grease and one for light oil.

Cat. No. 8690 Net .53

Simply slip the GC Puller behind the knob and pull it off. Saves time, the cabinet and the knob.

Cat. No. 73-954 Net .30

Hand touches lead to only one side of the line for extra safety. A dependable tester for tracing electrical circuits, grounded lines, shorts, etc.

Cat. No. 8855 Net .90

Four tools in one. Pure rubber, will not break.

Cat. No. 9130 Net .92

A superior lens cleaning fluid packaged in a handy plastic spray type container. This cleaner will make the transparent protection shield in front of the picture tube crystal clear.

Cat. No. 9081 6 oz. Net .75

Self-closing tweezer opens when squeezed; blunt points.

Cat. No. 7946 Net .99

61/2" heavy duty type, with slide lock feature, blunt points.

Cat. No. 7947 Net 1.10

Kit of 5 assorted wrenches in Leatherette case.

Cat. No. 5029 Net .80

Kit of 6 assorted wrenches in Leatherette case.

Cat. No. 5070 Net .80

For the shop or laboratory to pick up and examine small parts, start screws and nuts, etc.

Cat. No. 7950 Net 2.84

Stand raises the turntable about 15" above the bench for repairs. Easily adjusted to all sizes and types of phono turntables. Sturdily made of steel.

Cat. No. 5205 Net 4.95

Simply slip the GC Puller behind the knob and pull it off. Saves time, the cabinet and the knob.

Cat. No. 73-954 Net .30

Simply slip the GC Puller behind the knob and pull it off. Saves time, the cabinet and the knob.

Cat. No. 73-954 Net .30

Simply slip the GC Puller behind the knob and pull it off. Saves time, the cabinet and the knob.

Cat. No. 73-954 Net .30

Handy, miniature pin straightener for 7-pin and 9-pin miniature tubes. Metal inserts on either end of the tool body, each of hardened metal for accuracy and long life.

Cat. No. 9092 Net 1.27

Handy tool for removing tight tubes. Saves the fingers and the tubes.

Cat. No. 9213 Net .30

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SOLDERING IRONS

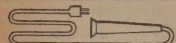
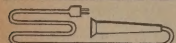
6 to 230 VOLTS 12 to 140 WATTS

A complete line of high quality soldering irons specifically designed for production-line soldering in the electronic, instrument, and communications industries—including irons for soldering miniature and subminiature components. Also ideally suited for intermittent operations such as repair, maintenance, laboratory work, and electronic kit construction. Irons up to 1250 watts are available.

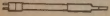
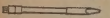
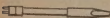
PENLINE-120 SOLDERING IRONS — 120 VOLTS; 25, 30, 40 AND 45 WATTS — UL LISTED



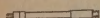
Lowest cost G-E iron; ideally suited for light to medium production in electronics, communications, and allied industries, for repair and maintenance operations, and by the "do-it-yourself" electronics kit builder.

Description	Cat. No.	List Price Each†
Handle and 6-foot Cordset		
 Two-conductor	6D400	\$3.00
 Three-conductor, with NEMA standard plug	6D400G2	4.00

Tip and Heater Units — Ironclad

	1/8" Chisel Tip	30 watts	6D410	\$4.70
	3/16" Chisel Tip	30 watts	6D411	4.80
	1/2" Chisel Tip	45 watts	6D412	4.90

Heater for Threaded Tips

	25 watts	6D415	\$4.00
	30 watts	6D414	4.00
	40 watts	6D413	4.00

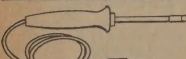
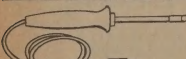
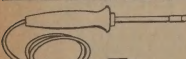
Use interchangeable threaded tips listed on next page.

LIGHTWEIGHT SOLDERING IRONS — 120 VOLTS; 40 AND 60 WATTS — UL LISTED

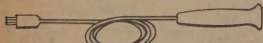


Ideal for light and medium production-line soldering and maintenance and repair operations in electronics and communications industries. Tip and heater units can be changed in seconds.

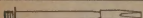
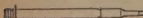
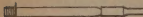
Complete Iron — Includes handle and 6-foot cordset, and tip and heater unit

	1/2" Ironclad Chisel Tip	6A273	\$14.20
	3/16" Ironclad Pyramid Tip	6A283	14.20
	1/8" Ironclad Chisel Tip	6A283G23	14.20

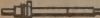
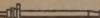
Handle and 6-foot Cordset

	Two-conductor	6A273G62	\$7.25
	Three-conductor with NEMA standard plug	6A273G63	8.45

Tip and Heater Units

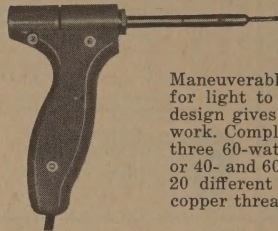
	1/2" Ironclad Chisel Tip	6A300	\$6.95
	3/16" Ironclad Pyramid Tip	6A301	6.95
	1/8" Ironclad Chisel Tip	6A301G4	6.95

Heater Units for Threaded Tips

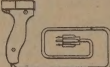
	40 watts	6A304	\$6.05
	60 watts	6A301G7	6.70

Use interchangeable threaded tips listed on next page.
† Manufacturer's suggested resale price.

PISTOL-GRIP SOLDERING IRONS — 120 VOLTS; 40 AND 60 WATTS

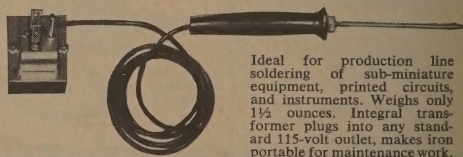


Maneuverable and comfortable, excellent for light to medium production. Unique design gives operator a clear view of the work. Complete versatility with choice of three 60-watt tip and heater assemblies or 40- and 60-watt heater assemblies with 20 different interchangeable ironclad copper threaded tips.

Description	Cat. No.	List Price Each†
 Handle and cordset, three-wire with NEMA plug	6A303	\$8.50

Can be used with Lightweight tip and heater units, or with Lightweight heater units and interchangeable threaded tips listed on next page.

MINIATURE SOLDERING IRONS — 6 VOLTS, 12 WATTS



Ideal for production line soldering of sub-miniature equipment, printed circuits, and instruments. Weighs only 1 1/2 ounces. Integral transformer plugs into any standard 115-volt outlet, makes iron portable for maintenance work.

Complete Iron — Includes tip and heater unit, 6-foot cordset, and transformer with grounded plug.

	3/16" Chisel Tip	3" Shank	6A428G3	\$15.00
	3/16" Chisel Tip	6" Shank	6A428G4	15.00
	3/16" Pyramid Tip	3" Shank	6A428G7	15.00
	3/16" Pyramid Tip	6" Shank	6A428G8	15.00

Complete Iron Less Transformer — Includes tip and heater unit, and 6-foot cordset with terminals

	3/16" Chisel Tip	3" Shank	6A428G5	\$9.50
	3/16" Chisel Tip	6" Shank	6A428G6	9.50

Renewal Tip and Heater Units

	3/16" Chisel Tip	3" Shank	6A429G3	\$5.75
	3/16" Chisel Tip	6" Shank	6A429G4	5.75
	3/16" Pyramid Tip	3" Shank	6A429G5	5.75
	3/16" Pyramid Tip	6" Shank	6A429G6	5.75

Handle and Cordset Only

	6-foot Cordset with Terminals		6A428G62	\$4.90
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Renewal Transformer — Includes — 6-foot integral cordset

	6-volt Secondary 115-volt Primary		6A430	\$7.80
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MIDGET SOLDERING IRONS — 6 VOLTS; 18 to 45 WATTS (with transformers) — UL LISTED



A versatile iron for light production in electronics, and communication industries — handles like a pencil, weighs but 1¼ oz. Tip renewal is easy and fast — complete tip and heater unit can be changed in a few seconds. Heat output can be varied from 18 to 45 watts with standard G-E transformers.

Description	Cat. No.	List Price Each†
Handle and 6-foot cordset		
For single- and 4-tap transformers	6A203	\$3.65
For transformer with 3-heat switch	6A203G2	4.15

Tip and Heater Units — All Ironclad tips

1/8" Chisel Tip	25 watts	6A211	\$4.05
1/8" Cone Tip	25 watts	6A213	4.05
3/16" Pyramid Tip	25 watts	6A215	4.05
1/8" Chisel Tip	25 watts	6A217	4.05
3/16" Chisel Tip	45 watts	6A211G31	4.60

Heater for Threaded Tips

25 watts	6A221	\$4.05
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Transformers for Midget Iron — 115-volt Primary*

Single Tap 6.3-volt secondary	6A362G2	\$6.90
Four Tap 5.4/5.7/6.0/6.3-volt secondary	6A364G2	9.20
With Three-heat Switch 4.9/6.3/6.9-volt secondary For use only with Handle and Cordset 6A203G2.	6A434	19.80

* Single- and four-tap transformers are available with 240-volt primary in quantities of 36 or more, specify catalog number desired and note on order, "except with 240-volt primary." Use interchangeable threaded tips.

MIGHTY MIDGET SOLDERING IRON — 12 VOLTS; 100 WATTS



A lightweight iron with high heat capacity for heavy soldering where larger irons, up to 200 watts, prove unwieldy for rapid repetitive soldering, such as production soldering of tuner chassis, tinware, can seams, etc.

Handle and Cordset — Two-conductor

6A210G61	\$8.00
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Tip and Heater Unit

1/2" Ironclad Chisel Tip	6A211G33	\$4.50
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Transformer for Mighty Midget — 115-volt primary

Four Tap — for 55/70/85/100 watts	6A364G7	16.00
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6A160 SERIES SOLDERING IRONS — 115 VOLTS, 75 TO 140 WATTS — UL LISTED



Ideal for medium to heavy production, and maintenance and repair operations. Available with any of 12 different tips, calorized or ironclad.

Description	Cat. No.	List Price Each†
Complete Iron Less Tip — Includes 6-foot two-conductor cordset		
75 Watts	6A161	\$14.95
100 Watts	6A162	14.95
110 Watts	6A162G6	15.50
125 Watts	6A162G3	15.50
140 Watts	6A162G12	15.50

Tips — Fit all irons listed above

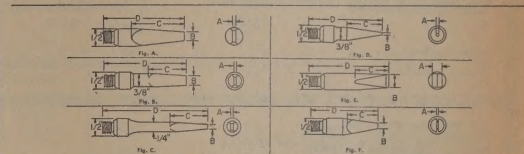


Fig.	A	B	C	D		List Price Each†
A. 1/2"-Dia. Chisel	Calorized	3/8	1 1/2	2 3/8	6D1P1	\$1.05
	Ironclad	3/8	1 1/2	2 3/8	6D1P2	1.85
	Calorized	3/8	2 3/4	4	6D1P3	1.75
	Ironclad	3/8	2 3/4	4	6D1P4	3.55
B. 3/8"-Dia. Chisel	Calorized	3/8	1 1/4	2 1/8	6D1P11	2.20
	Ironclad	3/8	1 1/4	2 1/8	6D1P8	1.85
C. 1/4"-Dia. Chisel	Calorized	3/8	1 1/8	2 3/8	6D1P6	1.85
	Ironclad	3/8	1 1/8	2 3/8	6D1P7	1.85
D. Cone	Calorized	3/8	1	3 3/8	6D1P5	1.75
E. Pointed Chisel	Calorized	3/8	1 1/8	2 3/8	6D1P12	1.80
	Ironclad	3/8	1 1/8	2 3/8	6D1P9	2.30
F. Slim Chisel	Calorized	3/8	1 1/2	2 3/8	6D1P10	2.75
	Ironclad	3/8	1 1/2	2 3/8	6D1P19	3.00

Renewal Heater — 115 Volts‡

75 Watts	6A31	\$4.50
100 Watts	6A32	4.50
110 Watts	7C342	4.80
125 Watts	8A88	5.30
140 Watts	7C474	5.30

‡ Also available for 230-volt operation.

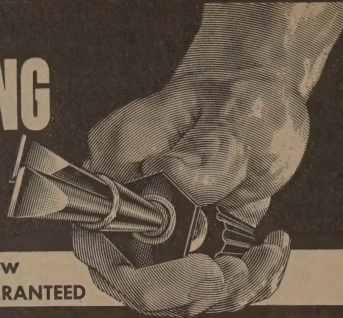
† Manufacturer's suggested resale price.

INTERCHANGEABLE THREADED TIPS For Penline-120, Pistol-grip, Lightweight, and Midget Irons

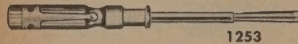
Description (Copper Tip, Surface Plating)	Cat. No.	List Price Each†
Spade Tips		
1/8" Dia—Nickel	6D4P1	\$0.50
1/8" Dia—Ironclad	6D4P2	1.40
1/8" Dia—Nickel	6D4P3	0.50
1/8" Dia—Ironclad	6D4P4	1.40
Chisel Tips		
1/8" Dia—Nickel	6D4P5	0.50
1/8" Dia—Ironclad	6D4P21	1.40
1/8" Dia—Nickel	6D4P6	1.40
1/8" Dia—Ironclad	6D4P7	0.50
1/8" Dia—Nickel	6D4P22	1.40
1/8" Dia—Ironclad	6D4P8	1.40
1/8" Dia—Nickel	6D4P9	0.50
1/8" Dia—Ironclad	6D4P10	1.40
1/8" Dia—Nickel	6D4P11	0.50
1/8" Dia—Ironclad	6D4P12	1.40
Long Chisel Tips		
3/32" Dia—Nickel	6D4P13	0.55
3/32" Dia—Ironclad	6D4P14	1.50
Pyramid Tips		
1/16" Dia—Nickel	6D4P15	0.50
1/16" Dia—Ironclad	6D4P16	1.40
1/16" Dia—Nickel	6D4P17	0.50
1/16" Dia—Ironclad	6D4P18	1.40
Cone Tips		
1/8" Dia—Nickel	6D4P19	0.50
1/8" Dia—Ironclad	6D4P20	1.40

Quick-Wedge® SCREW-HOLDING Screwdrivers

14 Different Sizes Handle
Every Screwdriving Job!



Hold - Start - Drive the Screw
AND THEY'RE UNCONDITIONALLY GUARANTEED



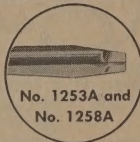
1253



1253A



1258



No. 1253A and
No. 1258A

MIDGET SIZES

NO.	BLADE WT. LBS. DIAM. PER DOZ.	DOZ.	EACH
1253	1/8" 9 oz.	\$15.00	\$1.25
1253A	1/8" 9 oz.	16.80	1.40
1258	1/8" 15 oz.	18.00	1.50
1258A	1/8" 15 oz.	19.80	1.65

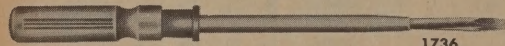
Wood Screws, Bolts—No. 0 to No. 4
Sheet Metal Screws—No. 2 to No. 4



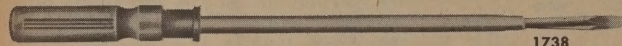
1732



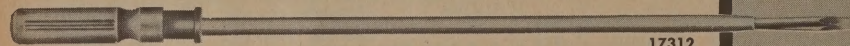
1734



1736



1738

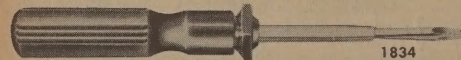


17312

SMALL SIZES

1732	3/32"	1	\$14.40	\$1.20
1734	3/32"	1 1/4	15.00	1.25
1736	3/32"	1 1/2	15.60	1.30
1738	3/32"	1 3/4	16.20	1.35
17312	3/32"	2	18.00	1.50

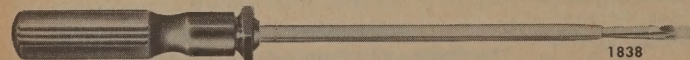
Wood Screws, Bolts—No. 3 to No. 7
Sheet Metal Screws—No. 3 to No. 6



1834



1836



1838

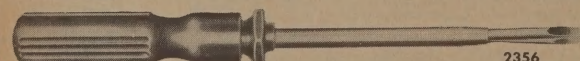
MEDIUM SIZES

1834	3/16"	2	\$20.40	\$1.70
1836	3/16"	2 1/4	21.00	1.75
1838	3/16"	2 1/2	21.60	1.80

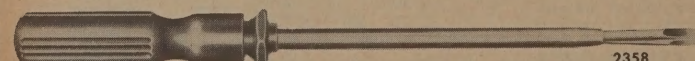
Wood Screws, Bolts—No. 6 to No. 12
Sheet Metal Screws—No. 6 to No. 12



2354



2356



2358

HEAVY DUTY SIZES

2354	1/4"	2 3/4	\$21.60	\$1.80
2356	1/4"	3 1/4	22.20	1.85
2358	1/4"	3 3/4	22.80	1.90
23514	1/4"	5	27.00	2.25

Wood Screws, Bolts—No. 8 to No. 24
Sheet Metal Screws—No. 8 to 1/4"

Prices Effective July 1, 1964

Prices subject to change
without notice



23514

Quick-Wedge Reg. U.S. Pat. Off.

Blade length is indicated by last digit(s) of model number.
("17312" has a 12" blade — "23514" has a 14" blade)

KEDMAN COMPANY

ELECTRICAL SIZES

All but No. 1732 (above) available with shockproof, Vinyl covered tubing, 15¢ additional per screwdriver. Specify "E" after number.

©1966 by Kedman Company


GREENLEE TOOL CO

Division of Greenlee Bros. & Co.

CHASSIS PUNCHES

ROUND, SQUARE, "KEY," AND "D" TYPES

NO. 730 ROUND PUNCH

Swiftly cuts clean, accurate holes in radio chassis for sockets, switches, controls and other equipment. Operates simply with an ordinary wrench for drive power . . . just insert in a small drilled hole and turn drive screw. No reaming or filing . . . hole is smooth, perfect. 29 sizes from $\frac{1}{2}$ " to $3\frac{1}{8}$ " diameter. New Ball-Bearing Drive available for even easier, speedier operation.


NO. 731 SQUARE PUNCH

Cuts square or oblong openings as desired. Available in five sizes for making $\frac{1}{2}$ ", $\frac{3}{8}$ ", $\frac{3}{4}$ ", $\frac{7}{8}$ ", and 1" square holes. Drive screw fits into $\frac{1}{2}$ " hole, which can be drilled or made with $\frac{1}{2}$ " No. 730 GREENLEE Round Punch. Operates with an ordinary wrench for drive power. Individually packed.


NO. 731-R KHP RELAY PUNCH

Makes clean, accurate, *finished* holes in up to 16-gauge metal for Potter & Brumfield KHP miniature relay sockets. Makes 1.015" x .859" hole.

NO. 732 "KEY" PUNCH

Quickly, easily cuts holes for keyed radio sockets. Operates on same principle as other GREENLEE Radio Chassis Punches . . . an ordinary wrench supplies the drive power. In five sizes to make openings of $\frac{1}{32}$ ", $\frac{1}{16}$ ", $1\frac{1}{64}$ ", $1\frac{1}{32}$ ", $1\frac{1}{16}$ ". Drive screw fits into $\frac{1}{2}$ " hole. Individually packed.


NO. 733 "D" PUNCH

Simplifies and speeds the work of making "D"-shaped openings for high-frequency, miniature tube sockets and other equipment using this type opening. Available in $\frac{1}{2}$ " and $\frac{3}{4}$ " sizes. Operates on same principle as other GREENLEE Radio Chassis Punches with an ordinary wrench supplying the drive power. Drive screw fits into $\frac{3}{8}$ " drilled hole. Individually packed.


NO. 734 DOUBLE "D" PUNCH

Quickly makes standard electrical receptacle openings. Cuts standard hole $1\frac{1}{8}$ " dia. across parallel sides, $1\frac{3}{8}$ " dia. across rounded ends. Simply insert into a $\frac{1}{2}$ " hole and turn with an ordinary wrench. Does the work in less than five minutes . . . eliminates all tedious hand filing . . . gives a smooth, perfect opening.



PRICES...Nos. 730, 731, 731-R, 732, 733, 734

No. 730 ROUND PUNCH

Size	Net User Price	Size	Net User Price
$\frac{1}{2}$ "	\$2.60	$1\frac{3}{4}$ "	\$5.60
$\frac{3}{8}$ "	2.60	$1\frac{7}{8}$ "	7.00
$\frac{5}{8}$ "	2.60	2"	7.50
$1\frac{1}{16}$ "	2.60	$2\frac{1}{8}$ "	11.20
$\frac{3}{4}$ "	2.60	$2\frac{1}{4}$ "	8.10
$1\frac{3}{16}$ "	2.60	$2\frac{1}{2}$ "	13.20
$\frac{7}{8}$ "	2.60	$2\frac{3}{4}$ "	18.30
$1\frac{1}{8}$ "	2.90	$2\frac{3}{2}$ "	12.60
1"	2.90	3"	25.50
$1\frac{1}{16}$ "	3.00	$3\frac{1}{8}$ "	28.00
$1\frac{1}{8}$ "	3.00	Following sizes also available with larger drive screw for cutting thicker metals (No. 730X)	
$1\frac{1}{32}$ "	3.00		
$1\frac{1}{32}$ "	3.00		
$1\frac{1}{32}$ "	5.50		
$1\frac{1}{4}$ "	3.00		
$1\frac{5}{16}$ "	3.60	$1\frac{1}{8}$ "	6.00
$1\frac{3}{8}$ "	3.60	$1\frac{1}{16}$ "	6.00
$1\frac{1}{2}$ "	4.10	$1\frac{1}{4}$ "	6.00
$1\frac{5}{8}$ "	4.90	$1\frac{3}{8}$ "	6.85
		$1\frac{1}{2}$ "	7.80

No. 731 SQUARE PUNCH

Size	Net User Price	Size	Net User Price
$\frac{1}{2}$ "	\$6.00	$\frac{7}{8}$ "	\$7.75
$\frac{5}{8}$ "	5.90	1"	8.00
$\frac{3}{4}$ "	6.65		

No. 731-R KHP RELAY PUNCH

Size	Net User Price
1.018" x .861"	\$13.75

No. 732 "KEY" PUNCH

Size	Net User Price	Size	Net User Price
$\frac{1}{32}$ "	\$5.40	$1\frac{1}{64}$ "	\$6.70
$\frac{1}{16}$ "	5.35	$1\frac{1}{32}$ "	7.50
$1\frac{1}{64}$ "	6.00		

No. 733 "D" PUNCH

Size	Net User Price	Size	Net User Price
$\frac{1}{2}$ "	\$4.65	$\frac{3}{4}$ "	\$4.95

No. 734 DOUBLE "D" PUNCH

Size	Net User Price
$1\frac{1}{8}$ " x $1\frac{3}{8}$ "	\$27.00



ELECTRIC SOLDERING IRONS



VOLTAGE RANGE: 6 to 250
STANDARD VOLTAGES 110/120, 121/130, 220/250

OPERATES IDENTICALLY ON A.C. OR D.C., ANY CYCLE
SPECIFY VOLTAGE ON ORDER

Equipped with flexible 6-ft. approved Neoprene rubber heater cord, which is water-proof, kink-free, and resistant to oil, abrasion and heat. Nickel-chromium replaceable heating elements, insulated with finest mica, protected by rugged outer housing. Replaceable tips.

PLUG-TIP IRONS



Cat. No.	Watts	Tip Dia.	Ship. Wt.	Net Price	Less Tip
P70	100	3/8"	1 1/8 lbs.	8.09	7.64
P100	110	3/8"	1 3/8 lbs.	8.47	7.95
P111	125	3/8"	1 3/8 lbs.	8.47	7.95
P115	150	3/8"	1 1/2 lbs.	8.75	8.23
P150	150	3/8"	1 1/2 lbs.	9.28	8.78
P153	175	3/8"	1 1/2 lbs.	9.63	9.11
P155	190	3/8"	1 1/2 lbs.	9.63	9.11
P151	175	1/2"	1 5/8 lbs.	10.01	9.14
P152	200	1/2"	1 5/8 lbs.	10.01	9.14
P200	200	3/4"	2 3/8 lbs.	10.47	9.25
P250	250	3/4"	2 3/8 lbs.	12.01	10.79



P300	300	7/8"	3 lbs.	14.21	11.86
P550	550	1 1/8"	4 3/8 lbs.	18.31	13.90

SUPER-POWERED IRONS

HIGHER SPEED SMALLER TIPS



Cat. No.	Watts	Tip Dia.	Ship. Wt.	Net Price	Less Tip
P114	100	1/4"	1 3/8 lbs.	9.28	8.89
P154	150	1/4"	1 1/2 lbs.	10.01	9.63
P238	200	3/8"	2 1/4 lbs.	10.82	10.30
P212	200	1/2"	2 1/4 lbs.	11.03	10.14
P338	300	3/8"	2 3/4 lbs.	15.44	14.84

HATCHET TYPE IRONS



Perfect Balance
Less Fatigue
See What You
Solder

Cat. No.	Watts	Tip Dia.	Ship. Wt.	Net Price	Less Tip
70H	100	3/8"	1 3/8 lbs.	10.01	9.57
100H	100	3/8"	1 1/2 lbs.	10.22	9.70
150H	150	3/8"	1 1/2 lbs.	11.03	10.49
151H	175	3/8"	1 1/2 lbs.	11.55	10.68
153H	175	3/8"	1 1/2 lbs.	11.41	10.89
200H	200	3/8"	2 1/4 lbs.	12.01	10.78
300H	300	7/8"	3 lbs.	15.44	13.08

SCREW TIP IRONS

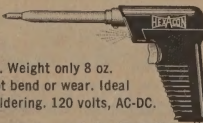


Cat. No.	Watts	Tip Dia.	Ship. Wt.	Net Price	Less Tip
85	90	1/2"	1 1/8 lbs.	9.10	8.48
120	120	3/8"	1 3/8 lbs.	10.01	9.09
170	175	1"	2 1/4 lbs.	12.71	10.78



225	250	1 1/8"	2 3/4 lbs.	15.02	12.47
350	350	1 3/8"	3 1/2 lbs.	17.58	13.72
500	500	1 5/8"	4 3/8 lbs.	20.02	14.51
700	700	1 3/4"	5 5/8 lbs.	36.40	29.23

INSTANT SOLDER GUNS



Solders in seconds. Weight only 8 oz.
Lifetime tip, cannot bend or wear. Ideal
for intermittent soldering. 120 volts, AC-DC.

Model G14 150 watts has 1/4" tip \$5.99 Net
Model G148 150 watts has 1/4" tip \$5.99 Net
Model G14K Kit has Model G14 solder gun, cutting
tip, smoothing tip, core solder, sand-
paper. \$7.07 Net

SUPER-PENCIL IRONS

HOT TIP

Weights
only 2 oz.



COOL HANDLE

Short
Reach 3"

All the advantages of a Soldering Pencil, but a full-fledged industrial soldering iron with nickel-chromium mica-wound element. Tiny tips outperform irons with larger tips and higher wattages.

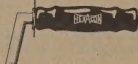
Cat. No.	Watts	Tip Dia.	Ship. Wt.	Net Price	Less Tip
25S	25	1/8"	1/2 lb.	5.15	4.94
25S20	20	1/8"	1/2 lb.	5.15	4.94
25S30	30	1/8"	1/2 lb.	5.15	4.94
25S35	35	1/8"	1/2 lb.	5.15	4.94
25S50	50	1/8"	1/2 lb.	7.28	5.67
26S	50	3/16"	1/2 lb.	5.22	5.21
26S35	35	3/16"	1/2 lb.	5.22	5.21
26S40	40	3/16"	1/2 lb.	7.39*	5.71
26S50	50	3/16"	1/2 lb.	7.39	5.71

FASTEST AND MOST DURABLE PENCIL
IRON. Weights but 2 oz.

24S	50	1/4"	1/2 lb.	7.84	5.92
24S40	40	1/4"	1/2 lb.	7.84	5.92
24S60	60	1/4"	1/2 lb.	7.84	5.92

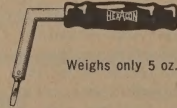
BANTAM HATCHET IRONS

PERFECT BALANCE
FOR INACCESSIBLE PLACES



Weights only 3 oz.

Cat. No.	Watts	Tip Dia.	Ship. Wt.	Net Price	Less Tip
25H	25	1/8"	1/2 lb.	6.27	6.01
25H35	35	1/8"	1/2 lb.	6.27	6.01
25H50	50	1/8"	1/2 lb.	7.67	6.01
26H	30	3/16"	1/2 lb.	6.34	6.09
26H35	35	3/16"	1/2 lb.	6.34	6.09
26H50	50	3/16"	1/2 lb.	7.77	6.09
24H	50	1/4"	1/2 lb.	8.16*	6.23
24H40	40	1/4"	1/2 lb.	8.16*	6.23
24H60	60	1/4"	1/2 lb.	8.16	6.23



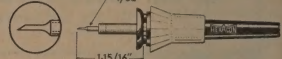
Weights only 5 oz.

**30H	60	1/4"	7/8 lb.	6.86	6.53
**30H40	40	1/4"	7/8 lb.	6.86	6.53
**30H50	50	1/4"	7/8 lb.	6.86	6.53
**30H70	70	1/4"	7/8 lb.	6.86	6.53
**30H75	75	1/4"	7/8 lb.	6.86	6.53

**Extra 1/8" tip furnished with each iron.

*STANDARD EQUIPMENT DUROTHERM NON-STICKING
LONG-LIFE TIPS.

HEXACON HORNET Model H10



World's Smallest Industrial Soldering
Iron for Micro-Electronic Soldering

Cat. No. H10K Kit†
(H10 Iron, 2 Tips and Sponges).....Net \$7.21

Cat. No. H11K Kit
(H11 Iron, 2 Tips and Sponges).....Net \$7.21

Cat. No. H14K Kit
(H14 Iron, 2 Tips and Sponges).....Net \$7.21

* Tip Cleaning Sponge in Container

Cat. No. H10† Iron less tip, 12 Watts.....Net \$5.56

Cat. No. H11 Iron less tip, 17 Watts.....Net \$5.56

Cat. No. H14 Iron less tip, 20 Watts.....Net \$5.56

Iron with 3-wire cord and Nema plug available

Cat. No. 91 Package of 12 tip cleaning sponges
in container.....Net \$2.20

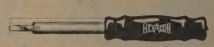
- Smallest Iron — Only 5 7/8"
- Lowest Wattage — 12 Watts
- Hot tip Gets In and Out Fast
- No Damage to Insulation
- Lightweight • Cool Handle†

DUROTHERM NON-FREEZING TIP — 1/2" and 3/8"
diameters

XTRADUR LONG-LIFE TIPS — 1/8" diameter

†Plastic handle, cooled thru ventilated design and
stainless steel mirror, reflects heat away from hand.

PINPOINT SOLDERING IRONS



FOR PINPOINT ACCURACY
ON PRECISION SOLDERING
Long Reach 4 1/2" (Weigh Only 3 oz.)

Cat. No.	Watts	Tip Dia.	Ship. Wt.	Net Price	Less Tip
P25	25	1/8"	1/2 lb.	5.15	4.94
P2530	30	1/8"	1/2 lb.	5.15	4.94
P2535	35	1/8"	1/2 lb.	5.15	4.94
P2550	50	1/8"	1/2 lb.	6.55	4.94
P26	30	3/16"	1/2 lb.	5.22	4.97
P2635	35	3/16"	1/2 lb.	5.22	4.97
P2640	40	3/16"	1/2 lb.	6.65*	4.97
P2650	50	3/16"	1/2 lb.	6.65	4.97
P24	50	1/4"	1/2 lb.	7.49	5.57
P2440	40	1/4"	1/2 lb.	7.49	5.57
P2460	60	1/4"	1/2 lb.	7.49	5.57
**P30	60	1/4"	7/8 lb.	6.27	5.94
**P3040	40	1/4"	7/8 lb.	6.27	5.94
**P3050	50	1/4"	7/8 lb.	6.27	5.94
**P3070	70	1/4"	7/8 lb.	6.27	5.94
**P3075	75	1/4"	7/8 lb.	6.27	5.94

**Extra 1/8" tip furnished with each iron.

*STANDARD EQUIPMENT DUROTHERM NON-STICKING
LONG-LIFE TIPS.

CORD AND CORD SETS

2 WIRE 18 GAUGE, 2 CONDUCTOR 18/2

Cord Assembled to Iron	Extra Net	Cat. No.	Extra Net
*SP2S	No	SP2S	1.05
*PN2S	Extra	PN2S	1.05
SJ2S	Charge	SJ2S	1.05
HD2S	.49	HD2S	1.40
KSJ2S	2.21	KSJ2S	2.94
KSV2S	2.21	KSV2S	2.94
KPN2S	.91	KPN2S	1.65

*Standard on INSTRUMENT IRONS

**Standard on LARGE IRONS

3 WIRE 18 GAUGE, 3 CONDUCTOR 18/3

Cord Assembled to Iron	Extra Net	Cat. No.	Extra Net
*SP3N	1.05	SP3N	1.7
SP3C	1.05	SP3C	1.7
*SJ3N	1.05	SJ3N	1.7
SJ3C	1.05	SJ3C	1.7
HD3N	1.12	HD3N	1.8
HD3C	1.12	HD3C	1.8
KSJ3N	3.15	KSJ3N	3.8
KSV3N	3.15	KSV3N	3.8

HEXACON ELECTRIC COMPANY



LONG-LIFE SOLDERING TIPS

OUTLAST COPPER TIPS UP TO 20 TO 1



DUROTHERM NON-FREEZING TIPS: Iron coated and immunized. Absolutely prevents tips from sticking. Minimum loss of heat delivery.

Note: Also available; XTRADUR Iron-coated Pretinned Tips. Multi-coated for extra long wear which immunizes shank of tip from solder, thus preventing adhering of solder, except on working surface of tip—prevents creeping and spilling of solder.

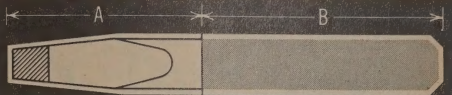


BASIC TIP SHAPES

**YOUR SPECIAL TIPS QUOTED ON REQUEST
FIT ALL MAKES**

CONSTRUCTION OF DUROTHERM NON-FREEZING TIP — U.S. Pat. No. 3,109,231

A — Heavy Iron Coating
B — Scale-Resistant
DUROTHERM COATING
Bonded to Base Copper
C — Pretinned Section
D — Multi-coated and immunized



LONGEST WEARING AND BEST PERFORMING TIP EVER PRODUCED

HEXCLAD, XTRADUR AND DUROTHERM TIPS AVAILABLE IN ALL CATALOG NUMBERS LISTED BELOW

Tip No.	Style of Point	Net Price	Tip No.	Style of Point	Net Price	Tip No.	Style of Point	Net Price	Tip No.	Style of Point	Net Price	
1/8" x 2 1/4" Fit Iron Nos. 255, P25, 25H												
Tip No.	Style of Point	Net Price	HT356D	Chisel, M, TT 1/8"	2.00	HT177D	S-chisel, W, TT 1/4"	2.42	HT371D	Semi-chisel, N	3.57	
HT248D	Pyramid	\$1.61	HT685D	Chisel, Lg, TT 1/8"	2.00	HT577D	S-chisel, N, TT 1/4"	2.42	HT180D	Semi-chisel	3.43	
HT249D	Chisel, short	1.61	HT452D	Conical, TT 1/8"	2.00	HT145D	Chisel, Sh, TT 3/4"	2.42	HT802D	S-chisel, TT 3/8"	3.71	
HT376D	Chisel, long	1.61	HT580D	Conical, TT 3/4"	2.00	HT475D	S-chisel, N, TT 3/4"	2.42	HT766D	Shisel, TT 1/4"	3.71	
HT560D	Semi-chisel	1.61	HT473D	Chisel, TT 3/4"	2.00	HT289D	Pyramid, TT 1/8"	2.42				
HT222D	Conical, blunt	1.61	HT130D	Round, bevel	1.93							
HT331D	Conical, sharp	1.61	1/4" x 3/8" Extra long for P30, 30H						7/8" x 4 3/4" Fit Iron Nos. P300, 300H			
HT638D	Round, bevel	1.61	Also for competitive makes					HT261D	Chisel, short	5.53		
HT361D	Chisel, TT 1/4"	2.00	HT413D	Pyramid, long	1.93	HT566D	Pyramid	2.07	HT179D	Semi-chisel, W	5.32	
HT693D	R. B., TT 1/8"	2.00	HT468D	Chisel, long	1.93	HT198D	Chisel, short	2.07	1 1/8" x 5 1/4" Fits No. 500			
HT104D	R. B., TT 1/2"	2.00	HT298D	Semi-chisel, W	1.93	HT918D	S-chisel, Sh, M	2.07	HT262X	Chisel	7.74	
HT609	Chisel, long	1.61	HT232D	Semi-chisel, N	2.00	HT365D	Semi-chisel, thin	2.07	HT229X	Semi-chisel	7.74	
HT610	Semi-chisel	1.61	HT708D	S-chisel, N, Lg	2.00	HT370D	S-chisel, Lg, N	2.42	HT233X	Pyramid	7.74	
1/8" x 2 1/4" Fit Iron Nos. 265, P26, 26H												
HT251D	Pyramid	1.68	HT234D	Conical, Lg, TT 3/8"	2.00	HT140D	Semi-chisel, W	2.07				
HT294D	Chisel, short	1.68	HT487D	Chisel, Lg, TT 1/8"	2.00	HT430D	Round, bevel	2.07				
HT195D	Chisel, long	1.68	HT519D	Chisel, Lg, TT 3/8"	2.00	HT319D	S-chisel, N, TT 1/4"	2.42				
HT207D	Semi-chisel, N	1.68	HT362D	Conical groove	2.21	HT481D	Chisel, N, Sh, TT 1/8"	2.42				
HT190D	Semi-chisel, W	1.68	1/4" x 3/8" Extra long for P30, 30H									
HT214D	Conical, blunt	1.68	Also for competitive makes					Fits All Makes				
HT281D	Conical, sharp	1.68	HT563D	Pyramid, long	1.93	3/8" x 3/4" Fit Iron Nos. P70, 70H;			Tip No.	Dia.	Thread Iron No.	Net
HT288D	Pyramid, TT 1/8"	1.79	HT188D	Chisel, long	1.93	Also fit other makes			HT267X	3/8"	1/4-20	50 1.82
HT280D	Chisel, TT 1/8"	1.79	HT382D	Semi-chisel, W	1.93	HT254D	Pyramid	2.07	HT268X	1/2"	3/8-18	60 2.35
HT48D	S-chisel, N, TT 1/8"	1.79	HT626D	Pyramid, TT 1/8"	2.00	HT488D	Chisel, short	2.07			and 85	
HT479D	Conical, TT 1/8"	1.79	HT698D	S-chisel, TT 1/8"	2.00	HT129D	Semi-chisel, W	2.07	HT269X	5/8"	1/2-18	120 2.84
HT220D	R.B., TT 1/4"	2.07	HT603D	Chisel, Lg, TT 1/8"	2.00	HT510D	Conical, sharp	2.07	HT270X	7/8"	1/2-13	130 4.27
HT392D	Chisel, long	1.68	HT391D	Semi-chisel, N	2.00	HT309D	Conical, blunt	2.07	HT271X	1"	1/2-13	170 4.87
HT423D	Semi-chisel	1.68	HT277D	Chisel, Lg, TT 3/4"	2.00	HT464D	Conical, chisel	2.21	HT272X	1 1/8"	5/8-11	225 6.48
1/8" x 2 1/4" Fit Iron Nos. 245, P24, 24H												
HT325D	Pyramid	1.93	1/4" x 4/8" Fit Irons P114, P154, P214					HT273X	1 3/8"	5/8-11	350 9.10	
HT553D	Chisel, short	1.93	HT496D	Chisel, long	2.14	HT581D	Chisel, Sh, TT 1/4"	2.42	HT274X	1 3/4"	5/8-11	500 12.29
HT313D	Semi-chisel, W	1.93	HT494D	Semi-chisel, N	2.14	HT498D	Chisel, Lg, TT 1/4"	2.42	HT275X	1 3/4"	5/8-11	700 14.60
HT397D	Semi-chisel, W	1.93	HT495D	Chisel, Lg, TT 3/4"	2.24	HT291D	S-chisel, W, TT 1/4"	2.42				
HT417D	Semi-chisel, N	1.93	1/4" x 4 1/2" Fit Irons P114, P154, P214					HT497D	Chisel, Lg, TT 3/4"	2.42		
HT418D	Conical, blunt	1.93	HT258D	Pyramid	2.21	1/2" x 4 1/8" Fit Iron Nos. P151, 151H, P212						
HT102D	Round, bevel	1.93	HT259D	Chisel, short	2.21	HT257D	Pyramid	3.26	TIPS FOR IRONS Nos. H10 and H11			
HT586D	Conical, S-chisel	2.00	HT230D	Semi-chisel, W	2.21	HT293D	Chisel, short	3.26	No.	Dia.	Duotherm	Xtradur
HT691D	Chisel, TT 1/4"	2.17	HT460D	Conical, bevel	2.21	HT323D	Chisel, short, blunt	3.26			Net	Net
HT698D	S-chisel, Lg, TT 1/8"	2.00				HT163D	S-chisel, N	3.26	HT866D	1/2"	.84	.84
HT451D	Chisel, Lg, TT 1/8"	2.00	3/8" x 4 3/4" Fit Iron Nos. P100, P150, P238, P338, 100H, 150H					HT867D	3/8"	.84	.84	
HT324D	Chisel, S, TT 1/8"	2.00	HT255D	Pyramid	2.07	HT194D	Semi-chisel, thin	3.40	HT868D	1/2"	.84	.84
HT513D	Conical, TT 1/8"	2.00	HT493D	Chisel, short	2.07	HT404D	S-chisel, Lg, Taper	3.50	HT864X	1/8"	.63	.63
HT463D	Chisel, L, TT 3/4"	2.00	HT151D	Semi-chisel, W	2.07	HT123D	S-chisel, N, TT 3/8"	3.50	HT870X	1/8"	.63	.63
HT644D	S-chisel, N, TT 1/8"	2.00	HT183D	Semi-chisel, W	2.07				HT871X	1/2"	.63	.63
HT692D	Chisel, L, TT 1/8"	2.17	HT108D	Conical, sharp	2.07	1/2" x 4" Fit Iron Nos. P125, P200, 200H, P250						
HT552D	S-chisel, 3/8" Shank	2.42	HT114D	Conical, blunt, Sm	2.07	HT256D	Pyramid	3.43	TIPS FOR IRON No. H14			
1/8" x 2 3/4" Fit Iron Nos. P30, 30H												
HT252D	Pyramid	1.93	HT240D	Conical, blunt M	2.07	HT891D	Chisel, long	3.43	No.	Dia.	Xtradur	
HT253D	Chisel, short	1.93	HT374D	Semi-chisel, W	2.07	HT178D	Semi-chisel, W	3.43			Net	Net
HT202D	S-chisel, Wide	1.93	HT265D	Pyramid, TT 1/4"	2.42				HT654X	1/8"	.84	.84
HT426D	S-chisel, N	1.93	HT266D	Chisel, Sh, TT 1/4"	2.42	3/8" x 4 3/4" Fit Iron Nos.			HT655X	3/8"	.63	.63
HT131D	Conical, sharp	1.93	HT335D	Chisel, Lg, TT 1/4"	2.42	HT260D	Pyramid	3.43	HT656X	1/2"	.63	.63
HT263D	Pyramid, TT 1/8"	2.00				HT499D	Chisel, long	3.43	HT657X	3/8"	.84	.84
HT264D	Chisel, Sh, TT 1/8"	2.00							HT658X	1/2"	.84	.84
									HT659X	1/8"	.84	.84

ATAGLO NOS. shown are for DUROTHERM. For HEXCLAD drop "D"; cost approximately 30% less than DUROTHERM. For XTRADUR substitute "X" for "D"; cost approximately 10% less than DUROTHERM.

ABBREVIATIONS: TT, Turned to; S-chisel, Semi-chisel; W, Wide; N, Narrow; Lg, Long; Sh, Short; L, Large; M, Medium; Sm, Small; RB, Round Bevel.

EXAMPLE TIPS for your evaluation. Ask for new Tip Sketch Catalog with detailed sketches of 180 Standard Coated Tips.

SOLDERING ACCESSORIES

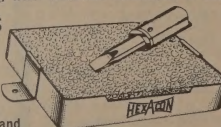
HEAT SINKS — Copper Tipped Clips

let Price \$56	Net Price \$1.47	let Price \$1.47
No. 34C	No. 60A 2 1/2" long	No. 30A 1 1/2" long
1 1/4" Long		

Protect heat sensitive components such as resistors and diodes from thermal damage.

TIP CLEANING SPONGE IN METAL TRAY

Insures reliability of soldered joints and extends tip life. Eliminates contamination. Pure cellulose sponge contains no harmful acids.



PRICES

Sponge In Metal Tray	#8100.....\$1.12 Net
Sponge only	#8101......42 Net
Tray only	#8102......70 Net

ANTI-WICKING TWEEZERS Extra Berillium Copper

Cat. No.	Gauge	Net Price	Cat. No.	Gauge	Net Price
817	16-18	\$5.48	821	20-22	\$5.48
821	20-22	5.48	822N	22"	5.48
825	24-26	5.48	824N	24"	5.48
830	28-30	5.48	826N	26"	5.48

Prevents harmful effects of excess capillary action of solder along stranded wire beneath insulation.

Order tool number by wire size being used. **"N" Type Tweezers are made for one gauge wire only (not for a range of sizes). Therefore give better fit on wire for greater efficiency. Shorter tip hole provides for close inspection gap on precision soldering such as called for in current NASA specifications.

HEXACON ELECTRIC COMPANY

Net

The MASTER — 31st Edition • Page 1353



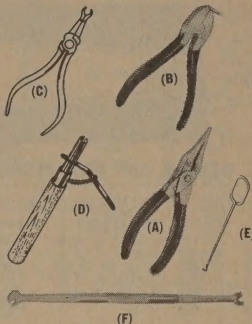
ELECTRONIC TOOLS

FOR PRODUCTION,
SERVICE
& MAINTENANCE

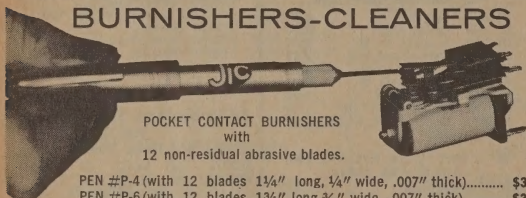
SPECIALIZED TOOLS

A carefully selected group of tools, widely used, for maintenance and service of instruments, panel boards, relays, office and telecommunication equipment.

- (A) PLS-7 Parallel Duck bill plier, 6" long \$6.98
 (B) PLS-44 Inserting & removing plier, 5½" long \$6.46
 (C) S-42 Plier, lamp cap extractor, 5" long \$4.32
 (D) S-339 Switchboard lamp extractor \$1.65
 (E) M-120 Hook spring pull, 6" \$1.19
 M-125 Hook spring push, 6" \$1.19
 Adjustment slim open end wrenches, bent 90° one end.
 (F) DW-4 8" long, ¼" opening \$2.48
 DW-16 8" long, ¾" opening \$2.48
 DW-32 8" long, ½" opening \$2.48



BURNISHERS-CLEANERS



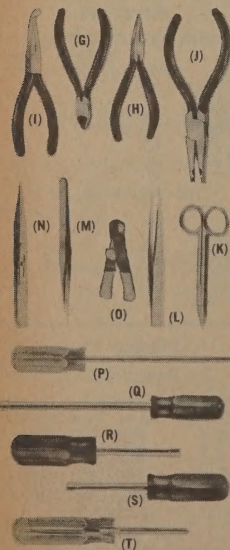
POCKET CONTACT BURNISHERS
with
12 non-residual abrasive blades.

- PEN #P-4 (with 12 blades 1¼" long, ¼" wide, .007" thick) \$3.90
 PEN #P-6 (with 12 blades 1¾" long, ¾" wide, .007" thick) \$3.90
 BLADES #RB-4 (25 replacement blades for P-4) \$3.75
 BLADES #RB-6 (25 replacement blades for P-6) \$3.75

PRODUCTION TOOLS

Precision group of high-quality hand tools widely used in production and assembly of electronic components and equipment.

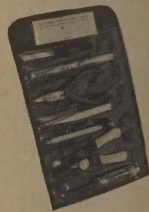
- (G) PL-3 DIAGONAL CUTTING PLIER, 4½" \$4.15
 (H) PL-6 CHAIN NOSE PLIER, 4½" \$3.80
 (I) PLS-9 PLIER, BENT NOSE DUCK BILL, 5½" \$4.92
 (J) PL-10 CHAIN NOSE PLIER with cutter on tip, 6" \$4.96
 (K) FS-66 FILAMENT CUTTING SCISSOR, 4" \$2.98
 (L) TW-57 TWEezer, FINE POINTS, 4½" \$1.65
 (M) TW-58 TWEezer, BRASS non-magnetic, extra fine points, 5" \$1.98
 (N) W-59 Slide lock tweezers, corrugated point 5½" \$2.96
 (O) WS-61 Wire stripper, 12 to 26 gauge \$1.38
 (P) M-140 Screwdriver, beryllium copper, long \$1.38
 (Q) M-145 Nut driver ¼", length 9" \$1.90
 (R) M-150 Nut driver ¾", Length 3½" \$1.38
 (S) M-155 Nut driver ½", Length 3½" \$1.38
 (T) M-160 Combination reversible phillips and standard screwdriver \$2.48



ELECTRONIC TOOL KITS

NEW COMPACT ELECTRONIC KIT

A set of most widely used precision tools for servicing all type of electronic equipment. Packaged in sturdy roll up vinyl protective case. Kit contains: chain nose plier, wire stripper, injecting oiler, fine nose tweezer, industrial burnisher, pin vise, combination screw and ¼" nut driver. KE-7 \$9.90.

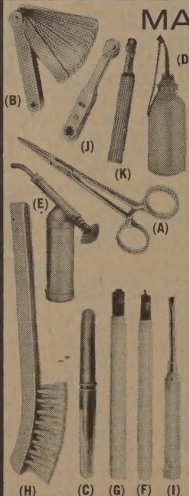


MASTER 20 PIECE SERVICE TOOL KIT

Ideal kit for service and repair of radio, TV, instruments and office equipment. Comes in protective leatherette zippered case. Kit contains: Diagonal chain nose and groove grip pliers, soldering iron with solder core, pen burnisher with 12 blades, straight and bent nose tweezers, 2 jewelers screw drivers, nut drivers ¼" and ¾", standard and phillips screwdrivers, 2 needle files, magnifier, pin vise, aligner and chisel. K-600 \$24.75.



MAINTENANCE AND SERVICE TOOLS



High-quality precision-designed tools for ease in maintenance and service of delicate electronic equipment.

- (A) M-100S Retriever clamp, straight type, 5½" long \$4.74
 M-100C Retriever clamp, curved type, 5½" long \$4.88
 (B) T-720N Straight thickness gauge, 26 blades Length 3" .0015-.025" \$3.90
 (C) OS-84 Precision injecting oiler, 6" long \$1.89
 (D) S-393 Plastic 4 oz. Industrial oiler \$3.90
 (E) S-395 Spring loaded pressure type oiler 4 oz. \$4.90
 (F) S-81 Standard screw starter, nylon handle \$2.40
 (G) S-82 Phillips screw starter, nylon handle \$2.50
 (H) WB-70 Stainless steel wire brush 9" long .005" filament \$1.85
 (I) M-50 Reversible nylon shaft screwdriver \$1.68
 (J) M-130 Ratchet offset screwdriver \$1.29
 (K) M-135 Pin vise \$1.18

KONTACT 60 AEROSOL CONTACT CLEANER

For contacts, switches, controls, tuners, all Electronic Equipment. Leaves anti-corrosion film and long-lasting lubricant.

K-60 6 oz. can with needle injector \$1.98



WRITE FOR COMPLETE CATALOG OF J.I.C. PRECISION TOOLS

JONARD INDUSTRIES CORP., PRECISION TOOLS DIV.

PRECISION TOOLS

FOR RELAY,
COMMUNICATION
& INSTRUMENTS

RELAY SPRING ADJUSTING TOOLS

(H) All tools made of high carbon steel, plated and polished, heat treated and tempered to exact requirements. Insulated handles for work on live equipment.

(A) SA-2	Offset type, 6 1/2" long, saw slot both ends .032"	\$2.48	(G) SA-20	Opposite-faced thin headed slots. 7" long Slots .022"	\$3.50
(B) SA-6A	Cross & lengthwise slots, 5 1/2" long. Slot .030"	\$2.45	(H) SA-24	Crosswise slots. 5 1/2" long, Slots .040 & .028"	\$2.88
(C) SA-7	One end saw slot straight 4 1/2" long. Slot .015"	\$1.35	(I) SA-25	Angled, 6 1/2" long, Saw slot .032"	\$2.86
(D) SA-8	Heavy duty. Round head, 4 1/2" long. Cross slot .045"	\$2.48	(J) SA-143	Bent, 8" long, Saw slot .025"	\$2.28
(E) SA-16	Offset type 6 1/2" long, saw slot both ends .018"	\$2.40	(K) SA-163	Straight driver type, 5 1/2" long, cross slot .038"	\$2.19
(F) SA-17	Offset slim type. Saw slot both ends .023" 8" long	\$2.95	(L) SA-175	Closely set saw slot, 5 1/4" long, slot .031"	\$2.92

RELAY & INSTRUMENT TOOLS

(M) AB-21	Adjuster, Armature, 4" long, slot width each end .110"	\$1.30	(T) J-23	Screwdriver, guide pin 4 1/2" long	\$3.60
(N) AB-20	Adjuster, Armature, 3 slots .114"	\$1.40	(U) T-255	Angled thickness gauge, 9 blades .009" to .025"	\$2.24
(O) SB-22	Adjuster, Armature stop, 5" long, slots .032"	\$1.48	(V) BC-23	Bank cleaner, abrasive surface 1 1/2" dia. 6" long	\$2.49
(P) S-187	Adjuster, double dog, 4" long, slot both ends. 3/32"	\$1.64	(W) S-457	Wire & spring aid, bent 30° opposite ends, 5 1/2" long	\$1.38
(Q) S-201	Adjuster, aid spring, 4 1/4" long, slot both ends .034"	\$2.49	(X) PL-8	Spring duck bill plier, 5 1/2" long	\$4.40
(R) J-34	Adjuster, pole piece, 3" long	\$1.68	(Y) WB-65	Nickel silver wire brush, 9" long	\$1.95
(S) FW-24	Hex wrench, double end, with screw driver, 4 3/4" 3/32" and 1/4" hexagon	\$2.70	(Z) HB-75	Curved hair brush. Radius 1 3/4", Length 8"	\$2.35

SPRING TENSION GAUGES (YY)

Precision-made to accurately determine the setting, testing and adjusting of relay spring tension and other delicate electronic tensioned movable components.

G-10	0-10 grams	\$6.48	GP-50	0-50 grams (preset)	\$7.48
G-30	0-30 grams	\$5.48	G-150	0-150 grams	\$6.48
G-50	0-50 grams	\$6.48	G-700	0-700 grams	\$7.96

DYNAMOMETERS (ZZ)

Dial gauges to determine force required to actuate delicate mechanisms.

• Spring tension indicator	GD-5	5-50 grams	\$13.55
• Stylus pressure gauge	GD-15	15-150 grams	\$13.55
• Verification of contact blades.	GD-100	100-1000 grams	\$13.25

RELAY TOOL KITS

MASTER 15-PIECE RELAY TOOL KIT

Precision-made and professionally-designed group of new tools for adjusting and maintaining relays, contactors, switches, controls, and other components for the telecommunication and electronic industries.

Kit contains: 2 spring adjusters, tension & thickness gauges, Duck Bill plier, Screw Driver, Tweezer, Mirror, 4-way Tool, Brush, Armature & Stop Benders, Contact Spray, Contact Burnisher.

KIT K-55 \$34.00

Precision-made tools for setting, adjusting and testing most type relays. All tools highly polished and made of finest quality steel for most accurate and delicate work. Packaged in fine protective zippered case.

Kit contains: Spring adjuster, Armature bender, Arm bender, Relay spring Duck Bill Plier, Burnisher, Tension gauge 0-50 gram. KIT KR-6 \$19.90

COMPACT RELAY ADJUSTING KIT



RELAY & CONTACT BURNISHER-CLEANERS

DIAMOND BURNISHERS

Exclusive Features:

- Strong abrasive power
- Long lasting

Consists of abrasive Diamond particles - Developed for any type contacts: Silver, Platinum, Gold, Palladium, Tungsten, Molybdenum - Length 5 5/8" - Diamond coated face 1" x 1/4" - Nylon Shaft - Three types to meet every application: Type 200 (coarse) for Industrial Relays - Type 300 (medium) for Intermediate and Telephone relays - Type 400 (fine) for Sensitive Relays.

K-234 Set of 3	\$14.85
Individual spatulas and Kits packaged in rigid plastic boxes.	
D-200 Shaft green	\$4.95
D-300 Shaft red	\$4.95
D-400 Shaft blue	\$4.95

POCKET-TYPE BURNISHERS



Used for cleaning general type relay contacts. Economical - supplied with 6 non-residual abrasive replaceable blades stored in pen barrel. Pen made of sturdy plastic for dielectric work. Length 4 1/2" Dia. 3/8" Blades 3/4" wide 1 3/4" long .007" and .0035" thick.

PEN #PB-7 (with 6 blades .007" thick)	\$3.48
PEN #PB-3 (with 6 blades .0035" thick)	\$3.78
BLADES #B-7 (25 replacement blades for PB-7)	\$3.55
BLADES #B-3 (25 replacement blades for PB-3)	\$3.65

ECONOMY BURNISHERS

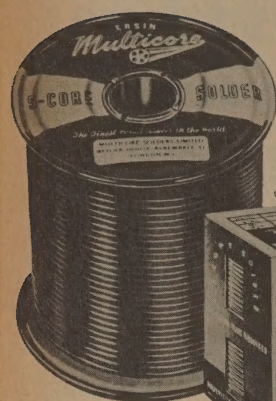


For Industrial and general type contacts. Flexible, Non-residual. Leave no grit or dust and will not affect contact points. Plastic insulated handles for working on live contacts. Packaged in vinyl pouches for full protection.

Standard packages 48 pcs. OB-1 (for fine contacts. Abrasive coated 1/2" long, 3/4" wide, .007" thick)	\$3.25 ea. (\$2.84 Packages 24 Pieces)
OB-2 (for extra sensitive points. Non-abrasive, nickel plated) 3 1/2" long, 1/4" wide, .010" thick	\$4.25 ea. (\$3.84 Packages 24 Pieces)
OB-3 (for general purpose contacts. Abrasive - cadmium plated. Hard molded handle, 3 1/2" long, 1/4" wide, .010" thick)	\$6.55 ea. (\$5.94 Packages 24 Pieces)
OB-4 (for industrial use. Abrasive - cadmium plated. Hard molded handle. 3 1/2" long, 1/4" wide, .020" thick)	\$7.85 ea. (\$7.04 Packages 24 Pieces)

WRITE FOR COMPLETE CATALOG OF J.I.C. PRECISION TOOLS

JOHNSON INDUSTRIES CORP., PRECISION TOOLS DIV.



Available in the 7 lb. bench reel, 1 lb. dispenser carton.



New Easy Dispenser Pak
60/40-
18 S.W.G.



Latest PC (Printed Circuit) Pak
60/40-
22 S.W.G.



TECHNICAL ADVANTAGES

Ersin Flux is exclusive to Multicore and will not be found in any other solder. It is a high-grade, water white resin, homogeneously activated.

Ersin Flux has a vigorous fluxing action and possesses the non-corrosive and protective features of the original resin. Soldered joints made with Ersin Flux do not corrode, even after prolonged exposure to any degree of humidity. It has been tested under climatic conditions ranging from the Arctic to the tropics.

Ersin Flux reduces the surface tension of molten solder causing it to wet metals rapidly, increasing speed of operation with resultant production economies.

Free from objectionable odors. Non-toxic in use.

Leaves nothing but pure resin on the work after soldering and may be used whenever plain resin is specified.

Complies with all pertinent federal specifications QQS-571.

Multicore construction. 5 separate cores of flux eliminate possibility of no flux in a portion of the wire, which may occur in single cored solder. Guaranteed continuity of the flux stream prevents dry joints, i.e., those having high electrical resistance.

Although there are 5 cores of flux in Multicore, the total percentage of flux to solder is less than many single cored solders.

Very rapid melting results from the multiple core construction, which provides thinner walls of solder, than are found in same gauge single cored solder.

Multicore's unique properties make perfect joints possible on difficult metals and alloys, even if oxidized.

Ability to tin rapidly produces perfect joints with less solder. Greater coverage per pound.

Ersin Multicore Solder is non-toxic in use. Cadmium is completely eliminated. The quantity of antimony is less than government standards allow. There is no danger of harmful effects caused by such impurities.

Every package of Ersin Multicore is labelled with the exact tin/lead content. This precise labelling results from Multicore's precise manufacturing methods.

SPECIAL ALLOYS AND EXTRA FINE GAUGES

ONLY from ERSIN
Multicore—For IMMEDIATE
OFF-THE-SHELF DELIVERY*

ALLOY	S.W.G.	CHARACTERISTICS
H.M.P.	16-18	High Melting Point—565°F
L.M.P.	16-18-22	Low Melting Point—354°F
63/37	16-18-20-22 Fine Gauges 24-28-32	Eutectic—361°F
SAVBIT	14-16-18-20-22	Copper-Loaded—419°F

NOTE: Bit of soldering iron used should always be 108°F above melting point of alloy.

*ERSIN Multicore's national network of industrial distributors—in 50 states—facilitates prompt off-the-shelf delivery at factory-low prices.

STANDARD GAUGES TIN/LEAD ALLOYS

For the finest wire cored solder—
SPECIFY ERSIN MULTICORE 5-CORE

EXTRA FINE GAUGES

ALLOY	4	16	18	20	21	22	24	28	32	34	S.W.G.
60/40	●	●	●	●	●	●	●	●	●	●	
50/50	●	●	●	●	●	●	●	●	●	●	
45/55	●	●	●	●	●	●	●	●	●	●	
40/60	●	●	●	●	●	●	●	●	●	●	

FREE EVALUATION TEST SAMPLE—
address request on company letter-
head to Dept. MY1294.

Multicore conforms to all
Applicable Federal Specifications



COPPER-LOADED SAVBIT ALLOY

Copper-loaded SAVBIT stops the wear and erosion of copper soldering iron tips . . . increases tip life by 1,000%.

Characteristics and specifications:

Savbit Alloy is available in Ersin Multicore 5-Core Solder containing non-corrosive extra fast Ersin flux in 14, 16, 18, 20 and 22 gauge.

Excellent conductivity, tensile and shear strength.

Multicore's SAVBIT Alloy is entirely new and different—it is patented.



Available in the 7 lb. bench reel and 1 lb. Dispenser Carton

MULTICORE SALES CORPORATION

LOWEST COST INDUSTRIAL QUALITY SOLDERING IRONS!

Every SIDCO handle and soldering tip is unconditionally guaranteed to give satisfactory service — in the opinion of the user — or it will be replaced without charge.

Every SIDCO heating element and handle is listed by Underwriters' Laboratories.

Every SIDCO heating element is individually tested for wattage to a tolerance of $\pm 3\%$.

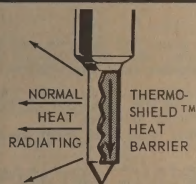
SIDCO®

INTERCHANGEABLE INDUSTRIAL SOLDERING TIPS

Manufactured by Electronic IDEAS Incorporated

Choice of major missile and industrial manufacturers / Meets Spec. W-S-570a / (UL) (CS) / Patent No. 2,997,684 / Made in U.S.A.

Extras — Available only from SIDCO



THERMOSHIELD™ catches the heat normally radiated from the metal body and SQUEEZES it out the end through the tip's working surface. Tests indicate 25% greater soldering efficiency with THERMOSHIELD™. EXTRA BONUS — No burned insulation in tight spots — only the working surface is hot!

Top Quality, 100% Nylon, Lightweight, Cool, Unbreakable, Dust Repellent, Boilable Soldering Iron Handles

SIDCO COOL

LIGHTWEIGHT

KC-1200

Patented floating contact guarantees reliable long life operation, cannot loosen. Handle is complete with cord — Add any heating unit from table at right, and you have a complete, quality soldering tool — at minimum cost. These are not cheap phenolic handles with plastic or cork sleeves added as an afterthought — but solid nylon designed especially for cool, clean production line use.

STANDARD KISS'N COOL HANDLE

\$1.44 NET

FOR SAFETY'S SAKE USE SIDCO SENTRY HANDLES

You KNOW it's hot when the indicator lamp is on

SENTRY HANDLE —

COMPLETE \$1.98 NET

Complete line of screw-in tiplests

1/8" TIPPLETS

T2/PL2

T1/PL1

T3/PL3

PL4

PL5

3/16" TIPPLETS

T57

PL54

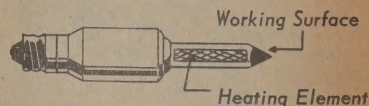
PL57

PL58

Skin packed in dozens on compact 2 1/2" x 5" cards. All are chemically treated to prevent binding or freezing. (Why pay extra for anti-seize compound?) T Series tiplests are pure copper, pretinned to save you work. Since copper dissolves in solder, the PL series of tiplests have been developed for heavy industrial usage. This series has a protective layer of metal, impervious to solder, over the copper. A final silver coating is applied for ease in tinning.

Screw-in base heating units

High heat, right at the tip, minimizes the time required to bring a joint to soldering temperature. As a result, there is less possibility of damage to delicate components from heat conducted along their lead wires. Thermal time constant approximately 80 seconds.



DESCRIPTION	MODEL	Heat Capacity	Heat Trans. Rate	Unit Price (Net)
All Ratings at 115 V-AC or DC				
50 watt, plated steel body tapper for 1/8" tiplest; 1 1/4" long x 3/8" diam.	50-W-35	3600 Joules	120 watts (with T-1 tiplest)	\$1.98
50W35 with THERMOSHIELD™	50-W-35TH	4300 Joules	140 watts	\$2.58
40 watt, plated steel body tapper for 1/8" tiplest; 1 1/4" long x 3/8" diam.	40-W-35	3300 Joules	100 watts (with T-1 tiplest)	\$1.20
25 watt, plated steel body tapper for 1/8" tiplest; 1 1/4" long x 3/8" diam.	25-W-35	1750 Joules	60 watts (with T-1 tiplest)	\$1.00
Same as 50W35, except tapper for 3/8" tiplest	50-W-45	4500 Joules	240 watts (with T-57 tiplest)	\$1.98
50W45 with THERMOSHIELD™	50-W-45TH	5,000 Joules	275 watts	\$2.58
50 watt chisel tip, premium quality, heavy iron plated, solid copper; 1 5/8" long x 3/8" diam.	50-W-33	3400 Joules	970 watts	\$2.40
50W33 with THERMOSHIELD™	50-W-33TH	3,800 Joules	1100 watts	\$3.00
50 watt chisel tip, solid iron, plated, 1 5/8" long x 3/8" diam.	50-W-33AR	4300 Joules	80 watts	\$1.60
50W33-AR with THERMOSHIELD™	50-W-33AR TH	4,800 Joules	90 watts	\$2.20
40 watt pyramid tip, solid iron, plated; 1 5/8" long x 3/8" diam.	40-W-36	3000 Joules	80 watts	\$1.20
25 watt chisel tip, unplated tellurium copper; 1 5/8" long x 3/8" diam.	25-W-33	2500 Joules	450 watts	\$1.00
25 watt pyramid tip, unplated tellurium copper; 1 5/8" long x 3/8" diam.	25-W-36	1400 Joules	450 watts	\$1.00

Net Prices:

1/8" Tiplests for 50W35, 40W35 and 25W35

T1, T2, T3 — 16c each

PL1, PL2, PL3, PL4, PL5 — 48c each

3/16" Tiplests for 50W45

T57 — Desoldering — 48c

PL56 — 1" long chisel — 52c

PL57 — 1" long pencil — 52c

PL58 — 1 3/4" long chisel — 80c

O.E.M.'s — contact your distributor for special quantity discounts. Iron plated tips are available to fit any iron.

ORYX

PRECISION SOLDERING INSTRUMENTS

FIVE REASONS WHY PRODUCTION MANAGERS CHOOSE ORYX SOLDERING IRONS

1. MINIATURE SIZE

ORYX soldering irons are small and easy to handle as pencils. Their miniature size helps to speed any precision soldering operation. Damage to adjacent components is eliminated. If you can see it, you can solder it with ORYX!

2. FEATHER WEIGHT

A standard, utility-type 100 watt soldering iron weighs about 2 lbs. The so-called pencil-type irons typically weigh between 2 and 6 ounces. ORYX soldering irons, by contrast, weigh as little as ¼ ounce. This true feather weight virtually eliminates hand fatigue. Workers can turn out many more joints per hour with fewer rejects.

3. HIGH EFFICIENCY

All ORYX soldering irons utilize a unique element-in-the-tip design principle. By generating the heat within the tip, far fewer watts are needed to achieve results comparable to much larger irons. This principle also provides quicker heat recovery because the heat path between element and joint is so very short. The need for large insulating handles is eliminated.

4. SAFETY

ORYX low-voltage irons are polarized, making it possible to directly ground the shaft, tip, and one side of the heating element. This provides a maximum degree of safety, both to the operator and to delicate circuitry. The ORYX line of 115 V. plug-in models includes 3-wire styles whose shafts and tips may be connected to ground for safety.

5. ECONOMY

A standard ORYX low-voltage industrial iron costs less than \$5 in production quantities.

← Photo shows ORYX soldering iron used to assemble computer memory stack from ALERT system. (Courtesy Military Products Group, Honeywell, Inc.)

LOW-VOLTAGE, MINIATURE PRODUCTION SOLDERING IRONS

Model	Volts	Watts	Temp.	Length	Weight	Tip Type	Tip Dia.	Also Takes	Net Ea.	12 or More	
5A	6	5	600°F.	5½"	¼ oz.	P	⅛"	T, U, Z	\$5.45	\$4.95	TIP A B C D E
5S	4.5	4.5	575°F.	4¾"	⅓ oz.	S	⅛"	T, U, Z	5.45	4.95	
6	6	6	625°F.	6"	¼ oz.	Fixed	⅛"	—	5.45	4.95	
6A	6	6	690°F.	6"	¼ oz.	B	⅜"	P, V, X	5.45	4.95	F G H M P S
9-6	6	8.3	750°F.	6"	¼ oz.	A	⅜"	B, V	5.45	4.95	
9-12	12	8.3	750°F.	6"	¼ oz.	A	⅜"	B, V	5.45	4.95	
9-24	24	8.3	750°F.	6"	¼ oz.	A	⅜"	B, V	5.45	4.95	T U V W X Y
11-6	6	10	835°F.	6"	¼ oz.	D	⅜"	E	6.95	6.45	
12-6	6	12	700°F.	6¼"	½ oz.	C	⅜"	—	5.45	4.95	
12-12	12	12	700°F.	6¼"	½ oz.	C	⅜"	—	5.45	4.95	
12-24	24	12	700°F.	6¼"	½ oz.	C	⅜"	—	5.45	4.95	
18-6	6	18	800°F.	7¼"	¾ oz.	F	⅜"	M, Y	7.50	7.05	
25-12	12	25	1000°F.	7¼"	1 oz.	G	⅜"	H	8.00	7.55	

REPLACEMENT TIPS for low-voltage soldering irons

Oryx tips are precision machined from a special copper alloy with outstanding heat conduction characteristics. Nickel plating reduces scaling. Iron-plated tips and solid nickel tips give much longer life with slightly reduced heat transfer. Gold tips recommended for microcircuits only.

Type	Material	Plating	Diameter	For Model	Net. Ea.	Type	Material	Plating	Diameter	For Model	Net. Ea.
A	Copper alloy	Nickel	⅜"	9-6	\$.54	P	Copper alloy	Nickel	⅛"	5A, 6A	\$.60
B	Copper alloy	Nickel	⅜"	6A, 9-6	.54	S	Copper alloy	Nickel	⅛" (short)	5-S	.60
C	Copper alloy	Nickel	⅜"	12-6	.54	T	Gold end, copper body	Nickel	⅜"	5A, 6A	2.35
D	Solid nickel	—	⅜"	11-6	1.80	U	Gold end, nickel body	—	⅜"	5A, 6A	2.35
E	Solid nickel	—	⅜"	11-6	1.80	V-PL	Copper alloy	Iron	⅜"	6A, 9-6	1.50
F	Copper alloy	Nickel	⅜"	18-6	1.25	W	Copper alloy	Bare (NASA)	⅜"	6A, 9-6	.45
G	Solid nickel end	Nickel	⅜"	25-12	1.85	X	Copper alloy	Nickel	⅜"	6A, 9-6	.85
H	Copper alloy	Nickel	⅜"	25-12	2.35	X-PL	Copper alloy	Iron	⅜"	6A, 9-6	1.50
M	Solid nickel end	Nickel	⅜"	18-6	1.85	Y-PL	Copper alloy	Iron	⅜"	18-6	2.25
N	Copper alloy	Nickel	⅜"	TW-12	1.25	Z	Copper alloy	Nickel	⅜"	5A, 5S	.85
						Z-PL	Copper alloy	Iron	⅜"	6A, 9-6	1.50

SOLDERING TWEEZERS

Unique tools with heating elements in each arm. Speed soldering time by heating both sides of joint. Tweezer action conducts heat quickly into joint. Low-voltage operation assures safety to circuitry and to operator.

MODEL TW-6—Precision model for semiconductors, solid state, hairspring movements, miniature relays, thermostats, etc. Solid nickel ⅜" fixed tips. Nominal temperature 550°F. Weighs 1 oz. 6-volts, 18-watts, AC or DC.

MODEL TW-6, complete with 4½' cord.....Net \$14.95 ea.
(12 or more \$14.45 ea.)

MODEL TW-12

Heavy duty model for regular production-line soldering of radio, TV, radar, telephone, and switchboard assemblies. Furnished with replaceable ⅜" N tips. Nominal temperature 625°F. Weighs 2 oz. 12-volts, 25-watts, AC or DC.

MODEL TW-12, complete with 4½' cord.....Net \$14.95 ea.
(12 or more \$14.45 ea.)

SK-12 stripper heads for TW-12 (kit of 2 heads and 2 screws).....Net \$1.35

ACCESSORIES

6-VOLT TRANSFORMER—Model 54203-6V. Output 6-volts, 18-watts. For use with all 6-volt Oryx tools. Operates on 115 V. AC. with 4½' cord set — ready to plug in. Clip-holder on top for iron.....Net \$5.50 ea.

12-VOLT TRANSFORMER—Model 5420-12V. Output 12-volts, 25-watts. For all 12-volt Oryx tools. Operates on 115 V. AC. With 4½' cord set—ready to plug in.....Net \$6.45 ea.

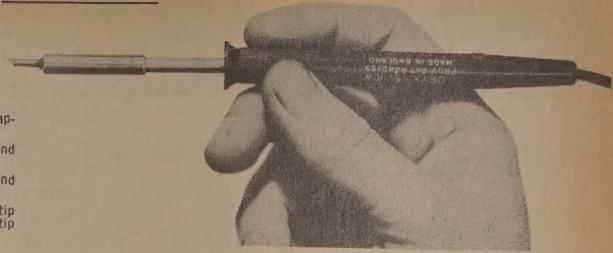
TAPPED TRANSFORMER—Output 4½ to 6-volts in ½ v. steps. For exact temperature control on all Oryx 6-volt tools. Operates on 115 V. AC—ready to plug in. Model 54204-T.....Net \$6.50 ea.

TW-6 REPLACEMENT ASSEMBLY—Includes element, tip, and bushing (for on TW-6 tweezer arm only).....Net \$5.30 ea.

S-1 SOLDERING IRON STAND.....Net \$1.50 ea.

PLUG-IN 115 V. MINIATURE IRONS

- **NO TRANSFORMER.** Standard models furnished with U/L approved 4½' cord set. Ready to plug in!
- **COMPACT DESIGN** for light production, laboratory, and service use. Irons weigh only 1 oz., plus cord.
- **HEAT QUICKLY** (about 1 minute) to 675° F. (10 W.) and 725° F. (15 W.)
- **REPLACEABLE TIPS.** 10 W. model furnished with ⅜" J tip (also takes K tip). 15 W. model furnished with ⅜" K tip (also takes other tips and solder cups listed below).



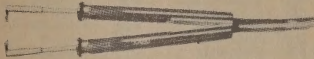
MODEL 115-10J — Complete with J tip and cord set. Ready to plug in.....	Net \$6.95 ea.	(12 or more \$6.45 ea.)
MODEL 115-15K — Complete with K tip and cord set. Ready to plug in.....	Net \$6.95 ea.	(12 or more \$6.45 ea.)
MODEL 115-10J-3 — Complete with J tip and 3-wire grounding-type cord. Less plug.....	Net \$6.95 ea.	(12 or more \$6.45 ea.)
MODEL 115-15K-3 — Complete with K tip and 3-wire grounding-type cord. Less plug.....	Net \$6.95 ea.	(12 or more \$6.45 ea.)

REPLACEMENT TIPS AND ELEMENTS for 115 V. irons.

Type	Material	Diameter	Use with	Net ea.	Type	Material	Diameter	Use with	Net ea.
J-PL	Copper alloy	⅜"	115-10	\$1.55	Q	Solid nickel end	⅜"	115-15	\$1.85
K	Copper, iron plated	⅜"	115-15	2.25	Q	Solid nickel end	⅜"	115-15	1.85
L	Copper alloy	⅜"	115-10, 115-15	1.70	115-10E	Replacement element for model 115-10			3.60
K	Copper alloy	⅜"	115-15	2.25	115-15E	Replacement element for model 115-15			3.60

THERMAL WIRE STRIPPERS

Reach those hard-to-get-at pots. Miniature tweezer design.



Ideal for repair and prototype work where a bench stripper is unsuitable. Strips iron, rubber, PVC, Kel-F, Polystyrene, and similar medium-temperature insulations. Stainless steel stripping heads are abrasive-tumbled to eliminate sharp edges which might damage conductors. Operating temperature: ST-6, 400°F. ST-6, 475°F. ST-18-12, 500°F. Furnished with 4½' cord.

MODEL ST-6. For 6-volts, AC-DC, 12 watts.	
MODEL ST-18-6. For 6-volts, 18 watts. MODEL ST-18-12. For 12-volts, 25 watts.	
1. MODELS.....	Net \$14.95 ea.
7-6E Replacement element-head assembly for ST-6.....	Net \$ 5.30 ea.

SOLDERING AIDS

Three-piece miniature kit consists of fork and hook, fork and reamer, and brush. On-magnetic. Solder will not adhere. Hex plastic handles. For delicate work. MODEL K-700.....Net \$2.95 ea.

MINIATURE SOLDER POT

Quick-heating, miniature solder pot for production, service, or laboratory use. Heats to 550°F in just 4 minutes. For tinning wires and component leads; heating waxes and potting compounds. Capacity 2.5 cc. For 115 V. AC or DC.

SP-115. With cord set ready to plug in.
SP-115-3. 3-wire grounding model, less plug.
EITHER MODEL.....Net \$1.95 ea.
SPC. Replacement cup and stem.....2.85 ea.
SP-115-E. Replacement element.....3.60 ea.
60-40 solder slugs for above......40 ea.



SOLDER CUPS

Solder cups replace tips on Oryx model 18 and 115-15 soldering irons. For tinning wires and component leads. Hold 2.5 cc. Nominal temperature 550-600°F.

SC-18 (Use with Oryx 18-6 soldering iron.)
SC-115 (Use with Oryx 115-15 soldering iron.)
EITHER MODEL.....Net \$2.25 ea.



NEW! VACUUM TWEezer SYSTEM

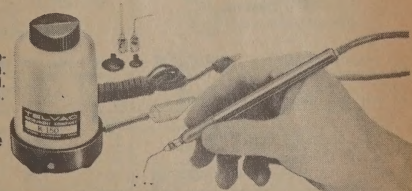
This new parts-handling system positively and precisely lifts parts varying in size from microscopic to those weighing several ounces. Parts are handled without damage or contamination. Defects caused by pinching, scratching, or marring are eliminated. Critical surfaces are protected. Vacuum is turned on and off with the forefinger. For 115 V. A.C. complete system, ready to plug in.

COMPONENT PARTS OF SYSTEM

Cat. No.	Description	Net ea.	Cat. No.	Description	Net ea.
1505	Vacuum generator	\$22.50	1565	Tip, .047" i.d., #16	\$.75
1575	Probe	7.95	1580	Cup, 0.5" dia.	.75
1550	Tip, .006" i.d., #30	.75	1585	Cup, 0.25" dia.	.75
1555	Tip, .0095" i.d., #25	.75	1510	Tubing, 4' length	1.00
1560	Tip, .0155" i.d., #22	.75	1590	Filter	.90

Complete System K-150

Net ea. \$34.50



HEADBAND VIEWER

Stereoscopic magnifier
used in precision work



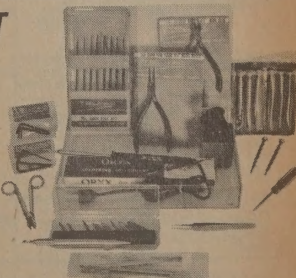
Stereoscopic magnifier with large field of view. Magnification 2½x at 8". Accurately ground lenses have the required prismatic effect to prevent eyestrain. A watchmaker's glass may be switched to either eye to increase magnification to 5X at 2-3". A hood shields the eyes from glare, even under brilliant illumination. The lower side is open, allowing unrestricted downward vision for handling tools and taking notes. May be worn with glasses.

MODEL 606.....Net \$17.95

INSTRUMENT REPAIR KIT

- 35 PIECES
- FINEST PRECISION TOOLS

Every instrument shop and laboratory needs the Telvac K-50 Instrument Tool Kit. A 35-piece assortment of the finest small tools used in instrument repair, precision mechanics, and fine electronic assembly.



Each kit contains a 10-watt miniature soldering iron, a 4" fine taper-jaw diagonal cutter, a 4" needle-nose plier, a 5-piece precision screwdriver set, a Phillips screwdriver with No. 0 point, a pair of stub-nosed scissors, a 10-power eye loupe, an 8-piece 4" needle-file set, an 11-piece precision knife set, a 6-piece hex wrench set, a 6-piece spline wrench set, a 3-piece miniature soldering aid set, and a #5 Dumont-type stainless precision tweezer.

INSTRUMENT TOOL KIT, MODEL K-50.....Net \$49.50 ea.

TEL VAC

INSTRUMENT
COMPANY

Formerly DRYX CO.

TEL VAC

INSTRUMENT ASSEMBLY TOOLS

BOX JOINT PLIERS

Precision tools for delicate instrument and electronic work. Featuring box joints and unusually small, fine heads. Each pair of pliers accurately adjusted. All models have vinyl cushion hand grips.



DESCRIPTION	SIZE		PRICES,	
	5 1/4" - 5 3/4"	4 1/4" - 4 3/4"	EITHER SIZE	
	Cat. No.	Cat. No.	Net ea.	10 or more
Flat nose	11B	10B	\$3.60	\$3.25
Round nose	21B	20B	3.60	3.25
Needle nose	26B	25B	3.90	3.50
Chain nose	31B	30B	3.60	3.25
Diagonal cutter	41B	40B	4.90	4.40
Flush end cutter	51B	50B	4.90	4.40

All models are heavily nickel plated to prevent rusting. Red plastic cushion-grips reduce operator fatigue. Needle-nose pliers have smooth surfaces, with radius edges for bending fine wires. Chain-nose pliers have fine serrations on tips for gripping. The diagonal cutter is new taper-jaw style and gives a flush cut. All cutters are available with return spring. Add X to catalog number and 25¢ to net price.

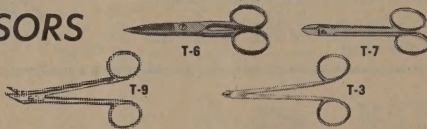
PRECISION KNIFE SET



A beautifully-made set for deburring, scraping, stripping fine wires, printed-circuit repairs, etc. Kit consists of handle and an assortment of 10 tiny blades in a plastic case.

KIT, MODEL K-90.....Net \$2.95
Replacement blades for K-90 kit. Package of 10 blades (assorted — 9 styles).
EXTRA BLADES, Cat. No. 9100.....Net \$1.98

SCISSORS



Four models for electronic work. T-3 is box joint cutter for very fine wires. T-6 is popular "electrician's" model for all cutting jobs. T-7 has small cut length for close-quarter jobs and wire cutting. T-9 is a high-leverage cutter for very hard wires and light sheet metal. All models nickel plated.

Cat. No.	Description	Length	Net ea.	10 or more
T-3	Fine wire nipper	4"	\$3.55	\$3.20
T-6	Electrician's scissors	5"	2.40	2.15
T-7	Stub-nosed scissors	4"	2.40	2.15
T-9	High-leverage cutter	4 3/4"	7.49	6.75

PRECISION DRIVERS



539

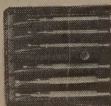
579

High-quality, miniature precision screwdrivers. Type 539 has plastic insulating handle. Type 579 has removable blade. Blades are chrome-vanadium steel, specially hardened and blued. Replacement blades available for Type 579.

Cat. No.	Blade Size	Length	Net ea.	10 or more
539-10	.04"	3 1/4"	\$.82	\$.74
539-15	.06"	4.0"	.82	.74
539-20	.08"	4.0"	.82	.74
539-25	.10"	4.4"	.82	.74
539-30	.12"	4.4"	.82	.74
579-A	.025"	4.0"	1.29	1.16
579-B	.040"	4.0"	1.29	1.16
579-C	.055"	4.0"	1.29	1.16
579-D	.070"	4.0"	1.29	1.16
579-E	.080"	4.0"	1.29	1.16
579-F	.090"	4.0"	1.29	1.16

SCREWDRIVER SETS in plastic cases

Cat. No.	Description	Pieces	Net ea.	10 or more
540	Set of #539 drivers	5	\$3.95	\$3.55
579	Set of #579 drivers	6	7.95	7.15
583	Fixed-blade set	6	2.35	2.10



TEL VAC

INSTRUMENT
COMPANY

Formerly ORYX CO.

TWEEZERS

ASSEMBLY TWEEZERS

Industrial assembly tweezers with vinyl cushion finger grips to reduce operator fatigue. Bright nickel plated. 9 models.

Cat. No.	End Style	Configuration	Length	Net ea.	10 or more
102	Pointed	Straight	4"	\$1.10	\$1.00
112	Pointed	Angled	4"	1.35	1.22
202	Round	Straight	4"	1.10	1.00
207	Round	Straight	7"	2.75	2.35
217	Round	Angled	7"	2.75	2.35
212	Round	Angled	4"	1.35	1.22
302	Flat	Straight	4"	1.10	1.00
312	Flat	Angled	4"	1.55	1.35
402	Oblique	Straight	4"	1.10	1.00
512	Large oblong	Angled	4"	1.45	1.30
612	Medium oblong	Angled	4 1/2"	1.45	1.30

STAINLESS STEEL

TEFLON-COATED TWEEZERS

All models are stainless steel. All models have broad holding surfaces. 700-series are reverse-action clamping types for holding or heat-sink. Teflon coated models are used in acid or where metal cannot touch parts being handled.

Cat. No.	Style	Length	Configuration	Teflon coated?	Net ea.	10 or more
603	Semiconductor	4 1/2"	Straight	No	\$1.89	\$1.70
613	Semiconductor	4 1/2"	Angled	No	2.10	1.89
653	Semiconductor	4 1/2"	Straight	Yes	2.49	2.24
663	Semiconductor	4 1/2"	Angled	Yes	2.70	2.43
206	Heavy-duty	7"	Straight	No	3.39	3.05
216	Heavy-duty	7"	Angled	No	3.39	3.30
256	Heavy-duty	7"	Straight	Yes	4.14	3.73
266	Heavy-duty	7"	Angled	Yes	4.41	3.98
702	Small clamping	4"	Straight	No	2.76	2.48
712	Small clamping	4"	Angled	No	2.97	2.67
752	Small clamping	4"	Straight	Yes	3.36	3.02
762	Small clamping	4"	Angled	Yes	3.57	3.22
706	Large clamping	6 1/4"	Straight	No	4.23	3.81
766	Large clamping	6 1/4"	Straight	Yes	4.83	4.35

DUMONT STYLE TWEEZERS

For extremely delicate work. Dumont-style tweezers are an order of magnitude finer than ordinary tweezers. 105 and 107 are stainless steel.

Cat. No.	Style	Description	Length	Net ea.	10 or more
105	#5	Extra-fine points	4 1/2"	\$4.20	\$3.80
107	#7	Fine points, curved	4 1/2"	4.60	4.15
10-D	D	Top flush cutter	4 1/2"	3.75	3.35

NEEDLE FILES

Precision Swiss needle files with vinyl cushion finger grips. 8 styles in 2 sizes. For delicate work. No. 2 cut. Made in Switzerland.

Cat. No. 4"	Cat. No. 6 1/4"	Style	Cut Symbol
1000	1100	Round	○ □
1001	1101	Square	□ □
1002	1102	Triangular	△ □
1003	1103	Knife	△ □
1004	1104	Equalling	□ □
1005	1105	Oval	○ □
1006	1106	Flat	□ □
1007	1107	Half round	□ □

Net ea. — 4" styles\$.59 (10 or more, \$.53)
— 6 1/4" styles\$.72 (10 or more, \$.65)

FILE KITS

Set of 8 precision Telvac files in plastic case.

Cat. No. 2000 (4" styles)Net \$5.55 ea.
Cat. No. 2100 (6 1/4" styles)Net 6.55 ea.



STRIPPER

Unique wire-stripping plier. Just squeeze, twist, and pull. For wires AWG #8 to #22. Positive adjustment with lock nut is set to protect conductors. Tool-steel heads with razor sharp edges. Vinyl cushion handle grips.

MODEL T-22Net \$3.90 ea.

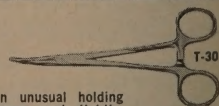


SEIZERS

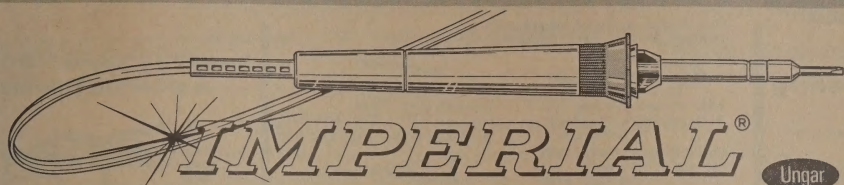
Hemostat clamps. Versatile tools with unusual holding qualities. Three position snap lock clamps work tightly. Holds wires for soldering; acts as a heat sink; retrieves small parts. Bo joint construction. Nickel finish.

MODEL T-20 (straight) Net \$3.85 ea.

MODEL T-30 (curved) Net \$3.95 ea.



MOST VERSATILE SOLDERING IRON EVER INVENTED



COOL, LIGHTWEIGHT, EASY-HANDLING

Ungar...developers of the industry's first miniature, low wattage, high temperature, pencil type iron...now brings you the ultimate in time-saving, money-saving soldering irons.

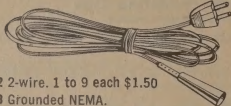


PERMA COOL COLORED HANDLES



#6100 turquoise, beige, ivory, and black*
1 to 9 each \$1.28

INTERCHANGEABLE CORD SETS 2-wire or grounded 3-wire

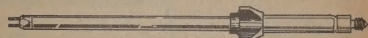


#6102 2-wire. 1 to 9 each \$1.50
#6103 Grounded NEMA.
1 to 9 each \$2.46

*Note: Designate color for handles and cord sets by adding suffix (-1 for turquoise, -2 for beige, -3 for ivory, -5 for black).

NEW 100 WATT

"Long Life" Interchangeable Heat Cartridges.



#6207 100 Watt (850-1150°F temp. range). 1 to 9 each \$5.97
#6203 60 Watt (850-1050°F temp. range). 1 to 9 each \$4.06
#6200 40 Watt (750-950°F temp. range). 1 to 9 each \$3.58
#6201 30 Watt (650-850°F temp. range). 1 to 9 each \$3.58
#6202 25 Watt (600-800°F temp. range). 1 to 9 each \$3.58
#6206 15 Watt (700-750°F temp. range). 1 to 9 each \$3.58

IMPERIAL MINI-TIP®

Thread-on soldering tips

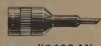
All easy-thread tips are completely interchangeable.



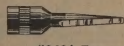
#6304 Micro-Chisel, Iron Clad, Gold Plated (24 kt.)
3/64 x 1/2 1 to 9 each \$.89



#6305 Micro-Spade, Iron Clad, Gold Plated (24 kt.)
3/64 x 1/2 1 to 9 each \$.89



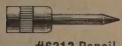
#6482 Micro-Spade, Stepped, Iron Clad, Gold Plated (24 kt.)
3/64 x 1/2 1 to 9 each \$.89



#6481 Tapered Screwdriver, Iron Clad, Gold Plated (24 kt.)
3/4 x 3/32. 1 to 9 each \$.89



#6312 Pencil, Rugged Copper Alloy, 1/8 x 3/4
1 to 9 each \$.36



#6313 Pencil, Iron Clad, Gold Plated (24 kt.) 1/8 x 3/4
1 to 9 each \$.89



#6316 Pencil, Offset, Iron Clad, Gold Plated (24 kt.)
1 to 9 each \$.89



#6318 Long Taper Chisel, Rugged Copper Alloy, 1/8 x 3/4
1 to 9 each \$.36



#6319 Long Taper Chisel, Iron Clad, Gold Plated (24 kt.)
1/8 x 3/4 1 to 9 each \$.89



#6324 Long Taper Pyramid, Rugged Copper Alloy, 1/8 x 3/4
1 to 9 each \$.36



#6325 Long Taper Pyramid, Iron Clad, Gold Plated (24 kt.)
1/8 x 3/4 1 to 9 each \$.89



#6331 Screwdriver, Iron Clad, Gold Plated (24 kt.)
1/8 x 3/4 1 to 9 each \$.89



#6333 Needle, Iron Clad, Gold Plated (24 kt.) 1/8 x 3/4
1 to 9 each \$.89



#6336 Spade, Iron Clad, Gold Plated (24 kt.) 1/8 x 3/4
1 to 9 each \$.89



#6366 Long Taper Chisel, Iron Clad, Gold Plated (24 kt.)
3/16 x 3/4 1 to 9 each \$1.04



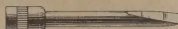
#6368 Long Taper Pyramid, Rugged Copper Alloy,
3/16 x 3/4 1 to 9 each \$.44



#6372 Screwdriver, Iron Clad, Gold Plated (24 kt.)
3/16 x 3/4 1 to 9 each \$1.04



#6373 Slotted Tip, Rugged Copper Alloy, 3/16 x 3/4
1 to 9 each \$.89



#6390 Screwdriver, Iron Clad, Gold Plated (24 kt.)
3/16 x 1/2 1 to 9 each \$1.04



#6424 Long Taper Chisel, Iron Clad, Gold Plated (24 kt.)
1/4 x 3/4 1 to 9 each \$1.06



#6473 Long Taper Chisel, Rugged Copper Alloy, 3/8 x 3/4
1 to 9 each \$.45



#6474 Long Taper Chisel, Iron Clad, Gold Plated (24 kt.)
3/8 x 3/4 1 to 9 each \$1.25



Specially Designed IMPERIAL HOLDER

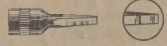
Protects iron, keeps it safely out of the way. Black with gold cage guard and heat sink. #6800.
1 to 9 each \$1.60



New heavy duty tips.
#6500 Long taper chisel, Tellurium Copper, Iron Clad, Gold Plated. 1 to 9 each \$2.15
#6520 Long taper chisel, Tellurium Copper. Use above tips only with #6207 Cartridge. 1 to 9 each \$1.04

NEW MICRO-TIPS Thread-on soldering tips

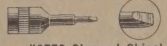
For use with Imperial 15 watt cartridges only.



#6550 Tapered Screwdriver, Iron Clad, Gold Plated (24 kt.) .040 x .40
1 to 9 each \$1.04



#6551 Stepped Spade, Iron Clad, Gold Plated (24 kt.) .050 x .40 1 to 9 each \$1.04



#6553 Stepped Chisel, Iron Clad, Gold Plated (24 kt.) .050 x .40 1 to 9 each \$1.04

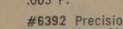


#6554 Stepped Pencil, Iron Clad, Gold Plated (25 kt.) .050 x .40 1 to 9 each \$1.04

NEW...FOR MICROSCOPIC ASSEMBLY



#6391 Precision Point, Tellurium Copper. .770 L. x .125 D. stepped to .090 D., ground and honed to .005 P. 1 to 9 each \$.64

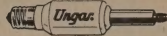


#6392 Precision Point, Tellurium Copper, Iron Clad, Gold Plated (24 kt.). .770 L. x .135 D. stepped to .098 D., ground and honed to .010 P. 1 to 9 each \$1.35

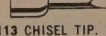
ALL ABOVE PRICES ARE USER NET. PRICES ARE SUBJECT TO CHANGE WITHOUT NOTICE.

Ungar®**STANDARD LINE SOLDERING IRON****UNGAR
fast, safe
De-Soldering
Tips**

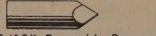
For use with #4045 Heating Unit.

#856 5/8" Cup Tip
1 to 9 each \$.68#855 3/4" Cup Tip
1 to 9 each \$.68#854 1" Cup Tip
1 to 9 each \$.68#858 Bar Tip
1 to 9 each \$.68#862 Offset Slotted Tip
1 to 9 each \$.68#857 Slotted Tip
1 to 9 each \$.68#863 Cube Tip
1 to 9 each \$.68#861 Triangle Tip
1 to 9 each \$.68#270 UNGAR De-Soldering Kit.
Complete, 7 pieces including handle, Heating Unit #4045 and five De-Soldering Tips in metal case. 1 to 9 each \$6.60**New UNGAR HEATING UNITS AND
THREAD-ON TIPS for Hi-Speed Repeat Soldering**#537 Hi-Speed Heating Unit —
600° to 650°F — 23½ Watts
1 to 9 each \$1.45#1237 Hi-Speed Heating Unit —
750°-800°F. 37½ Watts
1 to 9 each \$1.58#4037 Hi-Speed Heating Unit —
850°-900°F. 47½ Watts.
1 to 9 each \$2.65#PL 111 PENCIL TIP. 1/8" x 3/4"
iron clad, Silver Plated.
1 to 9 each \$.63

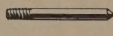
#111 Plain Copper 1 to 9 each \$.29

#PL 113 CHISEL TIP. 1/8" x 3/4"
iron clad, Silver Plated.
1 to 9 each \$.63

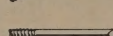
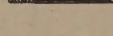
#113 Plain Copper 1 to 9 each \$.29

#PL 114 Stepped Micro-Spade,
iron clad, Silver Plated
1 to 9 each \$.63#116 5/16" Pyramid, Rugged
Copper Alloy 1 to 9 each \$.29#PL 116 5/16" Pyramid, iron
clad, Silver Plated 1 to 9 each \$.63**UNGAR TIPLET Soldering Tips
for Heating Units shown below**

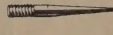
800 Series TIPLETS fits Ungar #4045 heating unit only.

#PL 331 Pencil Tip. 1/8" x 1", iron clad, Silver
Plated. 1 to 9 each \$.50

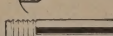
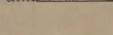
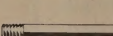
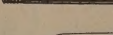
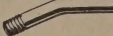
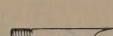
#331 Plain Copper. 1 to 9 each \$.19

#PL 332 Pencil Offset. 1/8" x 1", iron clad,
Silver Plated. 1 to 9 each \$.50

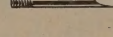
#332 Plain Copper. 1 to 9 each \$.19

#PL 333 Chisel, Long Taper. 1/8" x 1", iron
clad, Silver Plated. 1 to 9 each \$.50

#333 Plain Copper. 1 to 9 each \$.19

#PL 338 Tapered Needle. 1/4" x 1 1/4", iron
clad, Silver Plated. 1 to 9 each \$.50#PL 340 Micro-Needle. 3/4" x 3/4",
for microscopic soldering,
iron clad, Silver Plated—Actual size.
1 to 9 each \$.50#7154 Stepped Pencil, 1/4" pencil tip. Iron
clad, silver plated. Fits #535, 1235, and
4035. 1 to 9 each \$.50#7155 Stepped Chisel, 3/4" chisel tip. Iron
clad, silver plated. Fits #535, 1235 and
4035. 1 to 9 each \$.50#PL 833 Chisel, Long Taper. 3/4" x 1 1/4", iron
clad, Silver Plated. 1 to 9 each \$.83#PL 834 Chisel, Long Taper, Offset. 3/4" x
1 1/4", iron clad, Silver Plated. 1 to 9 each \$.83#PL 823 Pyramid, 3/4" x 1", iron clad, Silver
Plated. 1 to 9 each \$.55

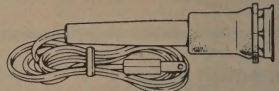
#823 Plain Copper. 1 to 9 each \$.19

#PL 824 Chisel, Long Taper. 3/4" x 1", iron
clad, Silver Plated. 1 to 9 each \$.55

#824 Plain Copper. 1 to 9 each \$.19

**New #777 "CLEAN ROOM"
Soldering Handle**"CLEAN ROOM" GRIP • STAINLESS STEEL
HEAT REFLECTOR • FULL-CONTACT
SPRING SOCKET, NO TIP Wobble •
HANDLE IN PASTEL COLOR • NEW POLY-
VINYL INSULATED CORD • OCTAGON
SHAPE GUARD WASHER

1 to 9 each \$1.53

#776 SOLDERING HANDLEUngar's red handle with cork grip.
Same features as above.

1 to 9 each \$1.35

**New... Special Purpose
Tiptets**#7012 Precision Point, Cadmium Copper.
.770 L. x .125 D. stepped to .090 D., ground
and honed to .005 P. 1 to 9 each \$.50#7062 Precision Point, Cadmium Copper,
iron clad, Silver Plated. .770 L. x .135 D.
stepped to .098 D., ground and honed to
.010 P. 1 to 9 each \$1.00**Ungar Interchangeable Tips... the right tip at the right temperature.**

TIP TEMPERATURES	CHISEL TIP LONG TAPER	PYRAMID TIP	CHISEL TIP SHORT TAPER	THREAD-IN HEATING UNITS
850° to 1000° F. #4000 Super Hi-Heat Series 47-1/2 Watt	#4033 Tip 1-5/8" long, 1/4" wide. New copper alloy, iron clad, silver plated. 1 to 9 each \$2.65	#4036 Tip 1-1/8" long, 3/8" diameter. Copper, iron clad, silver plated. 1 to 9 each \$2.65	#4039 Tip 1-1/8" long, 3/8" diameter. Copper, iron clad, silver plated. 1 to 9 each \$2.65	#4035 Steel body, nickel plated. For use with 300 Series Tiptets. #4045. For use with 800 Series Tiptets. ABOVE 1 to 9 each \$2.65
750° to 800° F. #1200 Hi-Heat Series 37-1/2 Watt	#1233 Tip 1-5/8" long, 1/4" wide. Copper, unplated. 1 to 9 each \$1.53	#1236 Tip 1-1/8" long, 5/16" diameter. Pure solid Armco iron, silver plated. 1 to 9 each \$1.53	#1239 Tip 1-1/8" long, 3/8" diameter. Pure solid Armco iron, silver plated. 1 to 9 each \$1.53	#1235 37½ watt. Hi-Tem- perature steel body specially treated for corrosion resist- ance. 1 to 9 each \$1.53
650° to 750° F. #500 Standard Series 23-1/2 Watt	#533 Tip 1-5/8" long, 3/16" wide. Copper, unplated. 1 to 9 each \$1.27	#536 Tip 1-1/8" long, 5/16" diameter. Copper, unplated. 1 to 9 each \$1.27	#539 Tip 1-1/8" long, 5/16" diameter. Copper, unplated. 1 to 9 each \$1.27	#535 23½ watt. Hi-Tem- perature steel body specially treated for corrosion resist- ance. 1 to 9 each \$1.27

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PRICES ARE SUBJECT TO CHANGE WITHOUT NOTICE.

Ungar®

Princess™

Pat. Pend.

Princess

NEW for MICROelectronic soldering

UNGAR Electric Tools, alert to the changing profile of the electronic industry, introduces Princess, a completely new miniature soldering iron.

HANDLES

Turquoise, molded of heat resistant ABS. Two and three conductor cords are flexible, vinyl covered. Rated 120V AC-DC.

#6902—Two wire handle. U.L. listed 1 to 9 each \$2.45

#6903—Three wire handle with molded NEMA plug. 1 to 9 each \$3.12

HEAT CAPSULES

Rated at 120V; copper alloy heating conductor is threaded to accept 1/8" Nibs. Over-all length: 3 1/8". Extends 1 1/8" from handle. U.L. listed.

#6906—Tip temperature from 400°F to 450°F. 6W. 1 to 9 each \$2.92

#6910—Tip temperature from 550°F to 650°F. 10W. 1 to 9 each \$2.92

#6915—Tip temperature from 700°F to 800°F. 15W. 1 to 9 each \$2.92

#6918—Tip temperature from 900°F to 1000°F. 18W. 1 to 9 each \$2.92

SOLDERING NIBS

Copper alloy; also in iron clad, gold plated (24K). Threaded (1/8") to fit PRINCESS Heat Capsules.

#6950—Pencil Nib. Cad. copper, .61" L. stepped to .080" D. x .015" P. 1 to 9 each \$.33

#6960—Iron clad, gold plated. Same as #6950. 1 to 9 each \$.59

#6951—Screwdriver Nib. Cad. copper, .68" L. stepped to .080" D. x .055" P. 1 to 9 each \$.33

#6961—Iron clad, gold plated. Same as #6951. 1 to 9 each \$.59

#6952—Spade Nib. Cad. copper, .61" L. stepped to .080" D. with 45° spade tip. 1 to 9 each \$.33

#6962—Iron clad, gold plated. Same as #6952. 1 to 9 each \$.59

#6953—Precision Point Nib. Cad. copper, .61" L. stepped to .080" D. x .005" P. 1 to 9 each \$.50

#6963—Iron clad, gold plated. Same as #6953. 1 to 9 each \$1.00

PRINCESS HOLDER

#6990—Base and sponge holder molded of thermoset plastic. Stainless steel cage mounted on a swivel. Equipped with specially processed sponge. 1 to 9 each \$2.50

#6991—Refill sponge. 1 to 9 each \$.40



PRE-ASSEMBLED PACKAGED COMBINATIONS

#6975—Assembled and Packaged Princess Soldering Iron. Consists of the following parts:

- (1) One #6902 Handle, Two-Wire
- (2) One #6910 10-Watt Heat Capsule
- (3) One each of the following Princess copper Soldering Nibs:

#6950—Pencil

#6951—Screwdriver

#6952—Spade

1 to 9 each \$5.99

#6900—Princess Packaged Soldering Station. Consists of the following units: A complete assembled iron consisting of:

One #6902 Handle, Two-Wire

One #6910 10-Watt Heat Capsule

One #6950 Pencil Copper Nib

One #6951 Screwdriver, Copper Nib

One #6952 Spade Copper Nib

One #6990 Princess Soldering Iron Holder, equipped with one (1) #6991 Sponge 1 to 9 each \$7.99

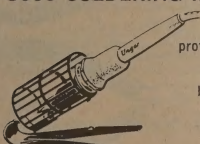
#8001 ANTI-SEIZE

1/2 oz. tube
New Ungar Anti-Seize guards against "freezing."
1 to 9 each \$.55



#8000 SOLDERING IRON HOLDER

Exclusive Ungar double safety guard protects operator against accidental burns and protects iron against breakage. Individually boxed. 1 to 9 each \$1.70



#6825 DE-SOLDERING ATTACHMENT

Fits 25, 30, 40 and 60-Watt Imperial Heat Cartridges. Vacuum action lifts solder from board. Coating on tip and metal parts prevents solder from sticking or clogging. See replacement tips above. 1 to 9 each \$7.77



#7800 HOT-VAC DE-SOLDERING TOOL

Vacuum action lifts solder from board. Coating on tip and metal parts prevents solder from sticking or clogging.
1 to 9 each \$9.95



NEW

Replacement tips for Hot-Vac and #6825

#7812 Hole Dia. .033 ... 1 to 9 each \$.65

#7813 Hole Dia. .069 ... 1 to 9 each \$.65

#7806 Hole Dia. .057 ... 1 to 9 each \$.65

#4025 HOT-KNIFE



Includes a 47 1/2 Watt Heating Unit with collet closure and one stainless steel blade. Individually bubble packaged. Blade temperature 500°F. Can be used in either Ungar's Red Standard Line Handle #776 or the new Clean-Room Handle #777. 1 to 9 each \$3.00.

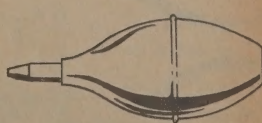
KLEEN-TIP SPONGE

Removes oxidation, doubles life of tips.
#400 with tray. 1 to 9 each \$1.00
#455 refill sponges 1 to 9 each \$.40



#7805 SOLDER-OFF

Ungar's de-soldering bulb with a TFE tip for safe, easy removal of components from printed circuit boards. 1 to 9 each \$1.10.

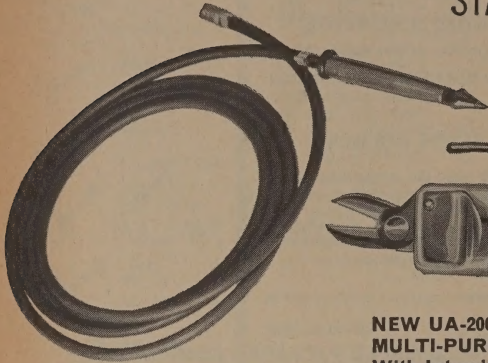


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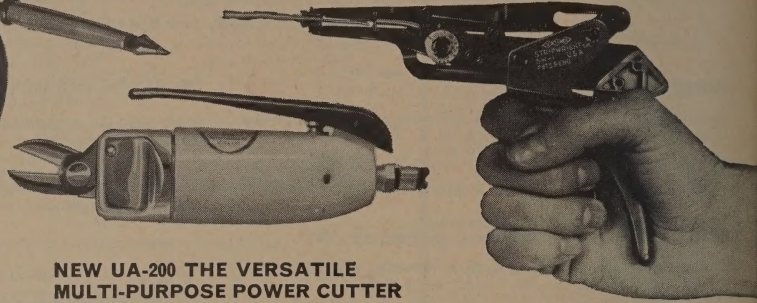
UTICA

KELSEY-HAYES TOOL DIVISION

WORLD'S MOST COMPLETE LINE OF STANDARD AND SPECIAL ELECTRONIC PLIERS


NEW UA-300 POWER WRITER

Just as the name implies, the UA-300 Power Writer is a power writing tool. It's a pencil styled, air-activated tool for inscribing, coding, labeling or marking all types of materials such as hard and soft metals, plastics, ceramics and glass.


**NEW UA-200 THE VERSATILE
MULTI-PURPOSE POWER CUTTER
With Interchangeable Cutting Heads**

This latest and most versatile addition to the Utica line of production tools is available with four optional, interchangeable cutting heads. Each head is designed for a specific cutting purpose and all have electronically induction hardened jaws.

**A REVOLUTIONARY
NEW WIRE STRIPPER**

Strip fast and clean! Eliminate nicking. Reduce insulation marking! Handle any wire size from #12 to #26... and do it all with Stripwright®... Utica's revolutionary new wire stripper.



31

No. 31 DUCK BILL WIRING PLIERS

Long reach duck bill pliers. Serrated jaws. Size: 8".



896

No. 896 RADIO AND IGNITION CUTTING PLIERS

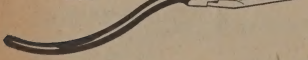
For cutting and forming wire. Center cutter near tip of jaws. Size: 6".



261

No. 261 SPECIAL SHORT CHAIN NOSE CUTTING PLIERS

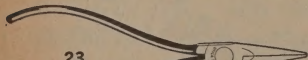
Flush cutter near tip of jaws for close cuts. Size: 4½" (formerly custom tool No. B801).



261

No. 23 NEW MIDGET SHORT CHAIN NOSE PLIERS

Very thin nose for delicate electronic subminiature assembly. Sizes: 4", 4½", 5".



23

No. 46 MIDGET DIAGONAL PLIERS

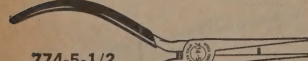
Small, light, sturdy diagonal for work on small electronic assemblies. Size: 4".



46

No. 774-5-1/2 PICK-UP AND WIRING PLIERS

Ideal for looping, twisting, bending and picking up finest wires.



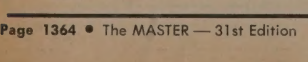
774-5-1/2

No. 1033 LONG CHAIN NOSE PLIERS

For general wiring. ½" nose and deep serrated jaws. Sizes: 6", 7".


No. 25-5 BENT CHAIN NOSE PLIERS

Finely serrated jaws for sensitive circuit wiring. Size: 5".


No. 777 LONG NEEDLE NOSE PLIERS

Long, spring tempered jaws for very fine work in assembling small electronic apparatus. Size: 6".


No. 776 CURVED LONG NEEDLE NOSE PLIERS

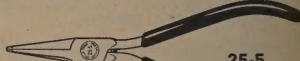
Fine, spring tempered pliers with bent nose for offset work. Size: 6".

No. 265-5 WIRING PLIERS

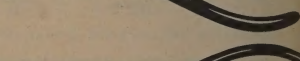
Cutter designed to snap-cut, loop or twist. Size: 5".



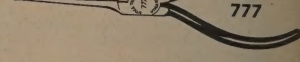
1033



25-5



777



776



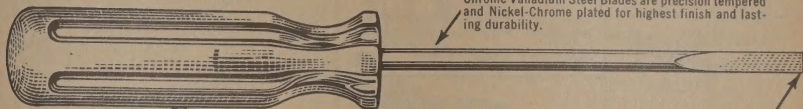
265-5

TOOL DIVISION · KELSEY-HAYES

Precision Ground, Unconditionally Guaranteed

SCREW DRIVERS • NUT DRIVERS • HAND TOOLS

- Nickel-Chrome Plated #6150 Steel Blades will not rust or corrode
- Comfordome Slo-Burn S/B® Amberyl® Handles are easy on the hands



Chrome Vanadium Steel Blades are precision tempered and Nickel-Chrome plated for highest finish and lasting durability.

Vaco Amberyl® Handles are a dense, resilient, thermal plastic material that is break-proof, shock-proof, fire-safe, non-absorbent and therefore impervious to most acids and alkalis.

Blade Tips are precision ground and designed to perfectly fit the screw slot.

ROUND BLADE**1/8" Cabinet Style—Round Blades**

Stock Number	Blade Diameter and Length	Price
A 216-4	1/8"x4"	\$.75
A 216-6	1/8"x6"	.77
A 216-8	1/8"x8"	.84
A 216-10	1/8"x10"	.92

3/16" Cabinet Style—Round Blades

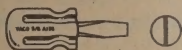
A 316-4	3/16"x4"	.99
A 316-5	3/16"x5"	1.05
A 316-6	3/16"x6"	1.10
A 316-8	3/16"x8"	1.16
A 316-10	3/16"x10"	1.27

1/4" General Service—Round Blades

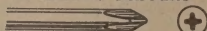
A 416-4	1/4"x4"	1.20
A 416-5	1/4"x5"	1.23
A 416-6	1/4"x6"	1.27
A 416-8	1/4"x8"	1.33
A 416-10	1/4"x10"	1.46

5/16" Heavy Duty—Round Blades

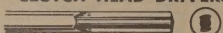
A 516-6	5/16"x6"	1.60
A 516-8	5/16"x8"	1.70
A 516-10	5/16"x10"	1.90

**Stubbys**

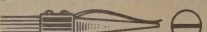
A 132	1/4"x1-1/4"	.90
A 135	5/16"x1-3/4"	1.18

PHILLIPS DRIVERS

Stock Number	Point No.	Blade Diameter and Length	Price
P 01	0	1/8"x2-1/2"	\$.80
P 1	1	3/16"x3"	1.08
P 2	2	1/4"x4"	1.35
P 3	3	5/16"x6"	1.85
P 5 (Stub)	2	1/4"x1-3/4"	1.18
P 6 (Stub)	1	3/16"x1-1/4"	1.08
P 12 (Pocket Clip)	1	1/8"x2-1/2"	.80

CLUTCH HEAD DRIVERS

Stock Number	Bit Point Diameter and Blade Length	Price
CH 43	1/8"x3"	\$1.40
CH 54	5/32"x4-1/4"	1.40
CH 64	3/16"x4-1/4"	1.40
CH 86	1/4"x6"	1.85
CH 106	5/16"x6"	2.39
Stub Styles		
CH 51	5/32"x1-1/2"	1.25
CH 61	3/16"x1-1/2"	1.25

SCREW HOLDING DRIVERS

Stock Number	Blade Diameter and Length	Price
OK 23	1/8"x3"	\$1.05
OK 24	1/8"x4"	1.10
OK 26	1/8"x6"	1.16
OK 28	1/8"x8"	1.20
OK 34	3/16"x4"	1.40
OK 36	3/16"x6"	1.46
OK 38	3/16"x8"	1.53

BULL DRIVERS® FOR EXTRA POWER

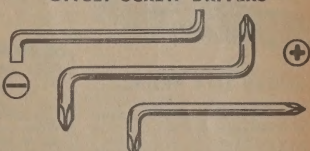
A man's size driver for a man's size job. 35% larger handle provides 35% more power and 100% more comfort.

Round Blade (Keystone Blade)

Stock Number	Blade Diameter and Length	Price
BD 144	1/4"x4"	\$1.59
BD 146	1/4"x6"	1.70
BD 156	5/16"x6"	2.13
BD 158	5/16"x8"	2.24

Phillips Blade

BD 122	#2 Phillips	1.59
BD 133	#3 Phillips	2.13

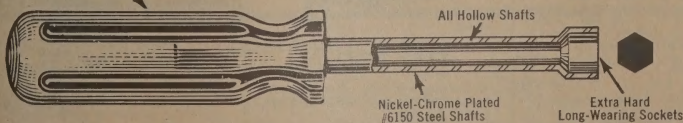
OFFSET SCREW DRIVERS

Stock No.	Type	Blade	Price
VO 1	Regular	5/32" x 3"	\$.52
VO 2	Regular	1/4" x 4"	.84
P 120	Phillips	#1 point one end, #2 point other end	.73
P 111	Phillips	#1 point both ends	.58
P 222	Phillips	#2 point both ends	.64

VACO ALL HOLLOW SHAFT NUT DRIVERS

Available in 24 types and sizes

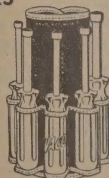
Comfordome Slo-Burn S/B® Handles



All Hollow Shafts

Nickel-Chrome Plated #6150 Steel Shafts

Extra Hard Long-Wearing Sockets

**K-7 Self-Standing Kit**

..... \$9.70
Includes 7 nut drivers (3" shaft lengths) each in own pocket marked for size and color.

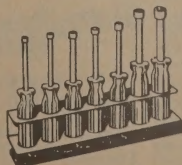
COLOR CODED HANDLES FOR QUICK IDENTIFICATION**Standard 3" Shaft Lengths**

Stock No.	Hex Size	Overall Length	Color Key	Price
S 6	3/16"	6-5/8"	Black	\$1.10
S 8	1/4"	6-5/8"	Red	1.10
S 10	5/16"	6-5/8"	Yellow	1.10
S 11	11/32"	6-5/8"	Green	1.10
S 12	3/8"	6-5/8"	Blue	1.10

S 14	7/16"	7"	Brown	\$1.35
S 16	1/2"	7"	Orange	1.35

ALSO AVAILABLE

Stubby sizes 1/4", 5/16", 3/8"
Odd sizes 7/32", 9/32"
Extra Large sizes 9/16", 5/8"

**5-700 Bench Stand**

..... \$9.14
All metal for permanent attachment to bench or wall. 7 drivers.



WALSCO ALIGNMENT & SPECIAL TOOLS

WALSCO SPECIAL TOOLS

SOLDER-AID TOOL

Wire brush makes removing of solder a cinch. Forked tool end and brush made of special stainless steel to which solder will not stick.
Cat. No. 2529 8" long plastic handle Net 1.00

SOLDER-AID TOOL

Similar to No. 2529 but has very thin curved hook in place of brush. Designed for use in delicate printed circuit work.
Cat. No. 2530 8" long plastic handle Net 1.00

INSPECTION MIRROR

High-visibility polished glass reflection mirror is protected against breakage by a heavy gauge plated metal backing. Has plastic, insulated grip.
Cat. No. 554 Net .42

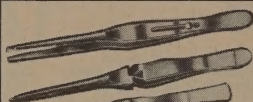


MINI-HOLD SCREWDRIVERS

Designed primarily to speed replacing phono cassettes. Exclusive "wedge-action" security grip. Extremely small screws (No. 1 to No. 4) "Mini-Hold" measures just 2-7/8" when in use.
Cat. No. 2568 2-7/8" long, open length 3 1/2" Net 2.14
Cat. No. 2569 7" long Net 2.40

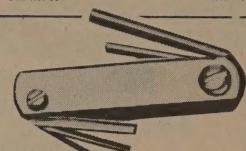
REACH-ALL PEN OILER

Precision instrument oiler. Features extending and retracting tube. Disposes a drop or fraction of a drop of high quality oil.
Cat. No. 984 Net .59



SERVICE TWEEZERS

Cat. No. 570 Self-Closing Tweezer with cross-over action, 6 1/2" long, serrated, blunt points. Net .99
Cat. No. 571 Heavy-Duty Tweezer with slide-lock feature, 6 1/2" length, serrated, blunt points. Net 1.10
Cat. No. 572 Precision Tweezer with narrow, pointed ends especially suitable for delicate work. Over-all length 4 1/2". Net .75
Cat. No. 575 Tweezer Kit, made of durable leatherette, containing one each of the above listed tweezers. Net 2.84



HEX WRENCH POCKET SET

Contains the 6 most popular size wrenches from .050 to 3/16". Mounted in convenient handle.
Cat. No. 564 Net 1.83

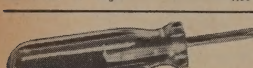


WALSCO LUBRICATOR

Designed for a light grease or oil such as Walco-lub-B, Lubriplate, Tunerlub, etc. Operates by simple thumb pressure.
Cat. No. 988 Net .53

WALSCO SLUG RETRIEVING & SCREW HOLDING TOOL

Especially designed for removing "lost" TV Tuner slugs in Standard Coil Tuners. Excellent screw holding tool. End is precision-ground of hardened steel.
Cat. No. 2565 11" length Net 2.70
Cat. No. 2566 15" length Net 3.25
Cat. No. 2567 19" length Net 4.30



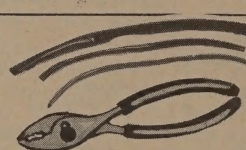
3-STEP TAP

Eliminates the need for carrying 3 separate taps and handle. Designed for reaming holes, tapping new holes, etc. Sizes are 6-32, 8-32 and 10-32.
Cat. No. 2574 Net 3.50



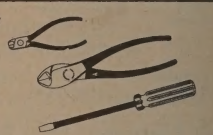
KEY WRENCHES

Assortment of 4 small spine wrenches. Fits all set screws up to 1/4" and cap screws up to No. 8.
Cat. No. 8602-F Net .63



EASY-ON TOOL GRIP

Designed for pliers, cutters, diagonals, wire, snippers, etc. Made of flexible, elastic plastic. Gives superior insulation and protection against electrical shock.
Cat. No. 521 Small, per pair Net .23
Cat. No. 522 Medium, per pair Net .27
Cat. No. 523 Large, per pair Net .33



PROTECTO TUBE

Insulate the handles of your pliers, wire cutters, screwdriver shanks neatly and effectively with Walco Protecto Tube.
Cat. No. 18K Net 1.20

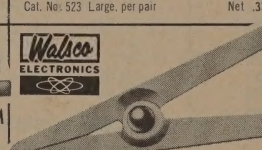


KNURL-TITE WRENCH

Tighten or loosen knurled finish nuts quickly and easily. The knurled nut is slipped into the collet-type pressure jaws. A quarter turn of the handle results in a positive vise-like grip.
Cat. No. 2581 3/8" diameter nut Net 4.83
Cat. No. 2582 1/2" diameter nut Net 4.83
Cat. No. 2583 5/8" diameter nut Net 4.83

NON-MAGNETIC BERYLLIUM SCREWDRIVERS

Ideal for making adjustments near magnetic fields such as in focalizers of TV sets. Does not affect TV picture as a steel tool would.
Cat. No. 2560 1/8" dia., 9" overall length Net .95
Cat. No. 2561 1/8" dia., 13" overall length Net 1.05
Cat. No. 2562 3/16" dia., 9" overall length Net 1.48
Cat. No. 2564 3/16" dia., 13" overall length Net 1.65

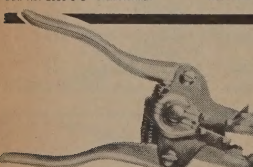


HEAT SINK

Protects transistors and diodes when soldering. Firm grip, light weight; solder will not stick to aluminum body.
Cat. No. 2577 Net .36

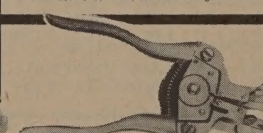
WALSCO PICK-UP TOOL

For home, shop, office, or farm. Many uses. Picks up pieces dropped in inaccessible places, start screws, nuts bolts in hard places. Ideal for radio men, electricians, auto mechanics. Housewives use to wash bottles, clean, polish places hard to reach.
Cat. No. 2563 24" inches Net .98



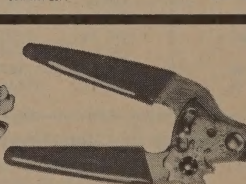
TRIG-O-MATIC WIRE STRIPPERS

Similar to 594 but has a Trig-O-Matic action that holds jaws open until released. Especially desirable for stripping of fine stranded wire.
Cat. No. 593-01 for No. 10 to 22 Net 5.93
Cat. No. 593-02 for No. 10 to 18 Net 5.93
Cat. No. 593-03 for No. 14 to 30 Net 5.93
Cat. No. 593-04 for No. 16 to 22 Net 5.93
Extra Blades for above per set Net 1.35



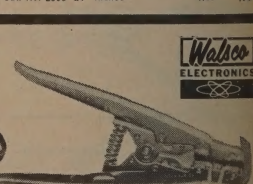
SPEED-O-MATIC WIRE STRIPPERS

With fully automatic, delayed-action return that prevents the crushing of fine stranded wires... Completes the stripping operation with one simple squeeze of the handles. Strips all types of wire insulation from No. 10 to No. 30 wires by easy exchange of cutter blades.
Cat. No. 594-01 for No. 8 to 22 Net 5.93
Cat. No. 594-02 for No. 10 to 18 Net 5.93
Cat. No. 594-03 for No. 14 to 30 Net 5.93
Cat. No. 594-04 for No. 16 to 22 Net 5.93
Extra Blades for above per set Net 1.43



STRIP-ER-CLIP

Eight-spot gauge wire stripper. Strips and clips all wires from 12 to 26 gauge. Prevents accidental nicking or cutting of wires.
Cat. No. 595-X Net 1.38



ALL-PURPOSE WIRE STRIPPER

Automatically strips insulation from fine stranded wires. "Stay open" feature prevents crushing fine wires. Blades are easily replaced if necessary.
Cat. No. 591-00W Net 5.93



WALSCO OILETTE

Filled with high grade Walco oil. Dispenses accurately one drop at a time. For use on electronic and electrical devices, clocks, office machines, sporting goods, etc.
Cat. No. 986 Net .83
Cat. No. 986-22 refill for Oilette Net .33



NEW WALSCO CHEM-O-JECTOR

A new type applicator for lubricant, greases, certain adhesives and many cleaning fluids, used in electronics. Uses the "hyposmotic" plunger principle, which makes it possible to reach "hard-to-get-into" places.
Cat. No. 987 Net .30



LONG REACH OILER

Extension telescopes to over 7" Excellent for lubricating hard-to-reach places. Contains finest quality oil purpose oil.
Cat. No. 985 Net 1.07



FREE CATALOG

Send for the Big New Catalog of the Complete Walco Line.

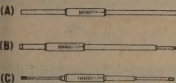
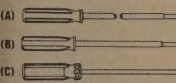
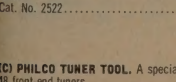
WALSCO ELECTRONICS
A Division of GC Electronics
Rockford, Ill., U.S.A.

CHASSIS PUNCHES

PART NO.	PUNCH SIZE	PILOT BOLT SIZE	PILOT HOLE DRILL SIZE	NET
ROUND PUNCHES				
3050-R	1/2"	1/4"	5/16"	2.60
3052-R	9/16"	1/4"	5/16"	2.60
3062-R	5/8"	3/8"	3/8"	2.60
3069-R	11/16"	3/8"	7/16"	2.60
3075-R	3/4"	3/8"	7/16"	2.60
3081-R	13/16"	3/8"	7/16"	2.60
3087-R	7/8"	3/8"	7/16"	2.60
3094-R	15/16"	3/8"	7/16"	2.90
3100-R	1"	3/8"	7/16"	2.90
3106-R	1-1/16"	3/8"	7/16"	3.00
3112-R	1-1/8"	3/8"	7/16"	3.00
3116-R	1-5/32"	3/8"	7/16"	3.00
3119-R	1-3/16"	3/8"	7/16"	3.00
3125-R	1-1/4"	3/8"	7/16"	3.00
3131-R	1-5/16"	3/8"	7/16"	3.60
3137-R	1-3/8"	1/2"	9/16"	3.60
3150-R	1-1/2"	1/2"	9/16"	4.10
3162-R	1-5/8"	3/4"	7/8"	4.90
3175-R	1-3/4"	3/4"	7/8"	5.60
3187-R	1-7/8"	3/4"	7/8"	7.00
3200-R	2"	3/4"	7/8"	7.50
3212-R	2-1/8"	3/4"	7/8"	11.20
3225-R	2-1/4"	3/4"	7/8"	8.10
3250-R	2-1/2"	3/4"	7/8"	13.20
3275-R	2-3/4"	3/4"	7/8"	18.30
3300-R	3"	3/4"	7/8"	25.50
SQUARE PUNCHES				
3050-S	1/2"	1/4"	3/8"	6.00
3062-S	5/8"	3/8"	1/2"	6.00

PART NO.	PUNCH SIZE	PILOT BOLT SIZE	PILOT HOLE DRILL SIZE	NET
SQUARE PUNCHES (cont.)				
3075-S	3/4"	3/8"	1/2"	6.65
3087-S	7/8"	3/8"	1/2"	7.75
3100-S	1"	3/8"	1/2"	8.00
METER HOLE PUNCHES (Round)				
3278	2-25/32"	3/4"	7/8"	12.60
KEY PUNCHES				
3254	15/32"	1/4"	5/16"	5.40
3256	15/16"	3/8"	7/16"	5.35
3258	1-11/64"	3/8"	7/16"	6.00
3260	1-17/64"	3/8"	7/16"	6.70
3262	1-21/64"	3/8"	7/16"	7.50
RADIO "D" PUNCHES				
3270	1/2" x 15/32"	5/16"	11-32"	4.65
3272	5/8" x 19/32"	5/16"	11/32"	4.95
DOUBLE "D" PUNCH				
3274	1-1/8" x 1-3/8"	1/2"	9/16"	27.00
BALL BEARING PUNCH DRIVES				
For use with punch sizes:				
3282	11/64" thru 15/16"			1.05
3284	1" thru 1-1/2"			1.15
3286	1-5/8" thru 1-3/4"			2.60
3288	1-7/8" thru 2-1/2"			2.75
3290	2-3/4" thru 3"			5.00

WALSCO ALIGNMENT & SPECIAL TOOLS

 (A) I.F. Aligner and also double-ended. One end fits a No. 4 stud, the other end fits a No. 6 stud. Cat. No. 2586.....Tel-A-Turn Tool.....Net \$1.05	 (B) An alignment screwdriver with a standard metal tip at one end. The other end has a very thin 7/64" wide metal blade for small can openings. Cat. No. 2587.....Tel-A-Turn Tool.....Net \$1.05	 (C) A double ended Hex Aligner that turns both top and bottom coils. One end has .100" hex, the other end is .125" hex. Cat. No. 2588.....Tel-A-Turn Tool.....Net \$1.05	 (D) WALSCO STRIP-ER-CLIP. A brand new precision tool with an exclusive safeguard that prevents accidental nicking or cutting while wires are being slipped. Strips and clips all wires ranging from 12 to 26 gauge. Cat. No. 595-X.....Net \$1.38	 (E) NEW "SLIM FIBREGLASS STICKS." New precision made Walco Slim-Sticks are made of durable fiberglass. Completely non-metallic. Cat. No. 2531-X 1/8" Dia. x 12" Long Net \$.57 2532-X 1/8" Dia. x 16" Long Net \$.42 2534-X 5/32" Dia. x 12" Long Net \$.48 2535-X 5/32" Dia. x 16" Long Net \$.72	 (F) WALSCO "GLAS-STICKS." Precision made machined fiberglass reinforced polyester alignment screwdriver. Cat. No. 2537 5/32" Dia., 7" blade.....Net \$.85 Cat. No. 2538 5/32" Dia., 14" blade.....1.15	 (G) DUPLIX ALIGNMENT SCREWDRIVER. Large end is 7/32" wide; small end, 5/32" wide. Tip thickness conforms to standard slot dimensions, 7" long. Cat. No. 2520.....Net \$.62	 (H) ALIGNMENT TOOL FOR WESTINGHOUSE, ETC. Especially designed to fit Westinghouse and other sets. Very thin tip for small can openings. Cat. No. 2541.....5-3/4" long.....Net \$.57	 (I) 1/4" HEX I.D. NEUTRALIZING WRENCH. Made of tough, flexible, Lo-loss plastic. If corners wear round, just trim back, 7-1/2" long, 3/8" round O.D. Cat. No. 2593.....Net \$.37	 (J) 5/16" HEX I.D. NEUTRALIZING WRENCH. Durable Lo-loss plastic gives long service life, 7-1/2" long, 7/16" O.D. Cat. No. 2594.....Net \$.37	 (K) WALSCO TUNING WAND. Rod with one end made of brass, the other loaded with powdered iron—for checking coils. Cat. No. 2540.....Net \$.53
 (A) "THE LONG RANGER." A full 12", slim completely insulated turn alignment tool. Features tough, replaceable, molded nylon tip. Cat. No. 2523.....Net \$1.60	 (B) TURRET TUNER TOOL. A tool for adjusting all sets using "Standard Coil" and similar turret-type tuners. Cat. No. 2522.....Net \$.92	 (C) PHILCO TUNER TOOL. A special tool for 1946-48 front end tuners. Cat. No. 2518.....Net \$1.20	 (D) WIRE DRESSING & ALIGNMENT TOOL. A handy dual-purpose tool with a thin 7/32" plastic handle. One end is a special tool for dressing wires in hard-to-reach places. Other end with a low capacitance metal screwdriver tip. Cat. No. 2512.....Net \$.45	 (E) K-TRAN ALIGNMENT TOOL. This tough, double-use tool is machined at one end to fit the slots on all K-Trans miniature I.F. transformers. Cat. No. 2515.....Net \$.60	 (F) "SLUG SAVER" TUNER TOOL. New patented tool for aligning "Standard Coil" front ends. Prevents "loosing" slugs, thru ingenious "step" design. Cat. No. 2528.....7-1/2" long.....Net \$.67	 (G) I.F. ALIGNER. 2-1/2" long molded plastic.....for RCA, Zenith and others. Cat. No. 2527.....Net \$.58	 (H) STUBBY STUD DRIVER. The only screwdriver only 2" long overall. Fits No. 6 studs. Cat. No. 2517.....Net \$.60	 (I) STANDARD ALIGNMENT TOOL. Screwdriver blades are made with extra-thin tempered Swedish steel and are recessed so that they will slide easily over a stud and will not slip off. Cat. No. 2519.....Net \$.67	 (J) SLOTTED STUD DRIVER. An 8-1/4" long precision screwdriver with blade to fit No. 6 studs. Cat. No. 2516.....Net \$.92	 (K) SLOTTED SCREWDRIVER. Instead of a blade, this tool has a slot to fit No. 6 studs. For many of the older TV sets. Cat. No. 2524.....Net \$1.00
 (A) DOUBLE ENDER. A 5-1/2" long, molded-nylon tool with one end to fit hex studs, the other being a very small screwdriver. Cat. No. 2526.....Net \$.37	 (B) I.F. ALIGNER TOOL. Designed for I.F. Alignment of Zenith, RCA and other similar types. Made of molded plastic 5-1/2" long. Cat. No. 2521.....Net \$.53	 (C) WALSCO TV-FM ALIGNMENT TOOL KIT. Kit contains 12 tools. These are all standard Walco tools and come in a handy leatherette case or wall rack for mounting above work bench. Cat. No. 580.....Leatherette case.....Net \$7.20 581.....in wall rack.....1.50	 (D) WALSCO TUNING WAND. Rod with one end made of brass, the other loaded with powdered iron—for checking coils. Cat. No. 2540.....Net \$.53	 (E) NEW "SLIM FIBREGLASS STICKS." New precision made Walco Slim-Sticks are made of durable fiberglass. Completely non-metallic. Cat. No. 2531-X 1/8" Dia. x 12" Long Net \$.57 2532-X 1/8" Dia. x 16" Long Net \$.42 2534-X 5/32" Dia. x 12" Long Net \$.48 2535-X 5/32" Dia. x 16" Long Net \$.72	 (F) WALSCO "GLAS-STICKS." Precision made machined fiberglass reinforced polyester alignment screwdriver. Cat. No. 2537 5/32" Dia., 7" blade.....Net \$.85 Cat. No. 2538 5/32" Dia., 14" blade.....1.15	 (G) DUPLIX ALIGNMENT SCREWDRIVER. Large end is 7/32" wide; small end, 5/32" wide. Tip thickness conforms to standard slot dimensions, 7" long. Cat. No. 2520.....Net \$.62	 (H) ALIGNMENT TOOL FOR WESTINGHOUSE, ETC. Especially designed to fit Westinghouse and other sets. Very thin tip for small can openings. Cat. No. 2541.....5-3/4" long.....Net \$.57	 (I) 1/4" HEX I.D. NEUTRALIZING WRENCH. Made of tough, flexible, Lo-loss plastic. If corners wear round, just trim back, 7-1/2" long, 3/8" round O.D. Cat. No. 2593.....Net \$.37	 (J) 5/16" HEX I.D. NEUTRALIZING WRENCH. Durable Lo-loss plastic gives long service life, 7-1/2" long, 7/16" O.D. Cat. No. 2594.....Net \$.37	 (K) WALSCO TUNING WAND. Rod with one end made of brass, the other loaded with powdered iron—for checking coils. Cat. No. 2540.....Net \$.53

Weller DUAL HEAT Soldering Guns

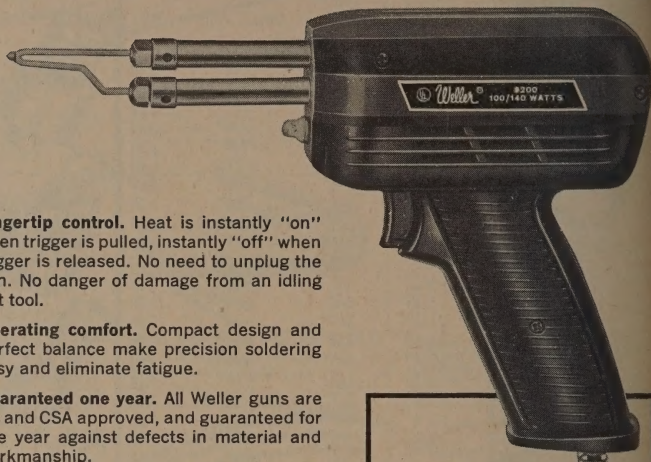
Dual heat. All Weller guns offer Dual Heat, an original Weller feature that provides two tip temperatures from the same gun. Two trigger positions permit instant switching to high or low heat, whichever is best suited for the job. The use of low heat prevents damage when soldering near heat-sensitive components and prolongs tip life. High heat is instantly available when needed.

Instant heat. Solders in seconds. No waiting for the tip to heat. No wasted current.

High-Efficiency Tip. Made of copper for superior heat transfer and optimum soldering results. Slips easily into difficult places.

Exclusive Tip Grip. Wiping action of tip fastening nuts eliminates contact resistance and oxidation. This assures full, constant heat.

Spotlight. Illuminates the work and eliminates shadows.

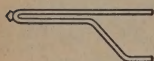


Fingertip control. Heat is instantly "on" when trigger is pulled, instantly "off" when trigger is released. No need to unplug the gun. No danger of damage from an idling hot tool.

Operating comfort. Compact design and perfect balance make precision soldering easy and eliminate fatigue.

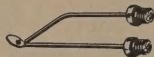
Guaranteed one year. All Weller guns are UL and CSA approved, and guaranteed for one year against defects in material and workmanship.

Accessory and Replacement Tips for Weller Dual Heat Guns



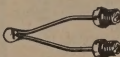
SOLDERING

For gun model 8200—
Tip 7135N
For gun model D-440—
Tip 7135N
For gun model D-550—
Tip 7250N



SMOOTHING

For gun models D-440
and 8200—Tip 6120
For gun model D-550—
Tip 6140



CUTTING

For gun models D-440
and 8200—Tip 6110
For gun model D-550—
Tip 6130

3 Dual Heat Models

MODEL 8200—100/140 watts
MODEL D-440—145/210 watts
MODEL D-550—240/325 watts

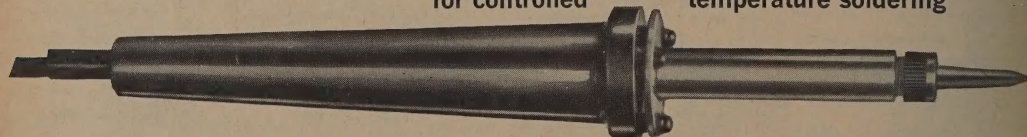
KITS WITH ACCESSORIES

MODEL 8200PK—Dual heat 100/140 watt gun, 3 soldering tips, tip-changing wrench, flux brush, soldering aid, solder, plastic case.

MODEL D-550PK—Heavy-duty 240/325 watt dual heat gun; soldering, cutting and smoothing tips; tip-changing wrench; solder; plastic case.

Weller MAGNASTAT® Soldering Irons

for controlled temperature soldering



Only Weller brings you soldering irons with temperature control in the tip. One Magnastat iron with 3 different controlled temperature tips does the work of 3 different irons. And it maintains proper temperature for secure, reliable soldered connections.

- Tip temperature will not vary more than $\pm 3\%$ when idling.
- A Magnastat iron provides efficient soldering temperature under load and excellent recovery.
- Your choice of 3 different controlled temperatures by interchanging Magnastat tips.

STANDARD WELLER MAGNASTAT IRONS

MODEL NO.	WATTS	TIPS
W-60	60	5-CIN—750°F
W-80	80	6-EIN—750°F
TC1202	120	12-G4N—750°F

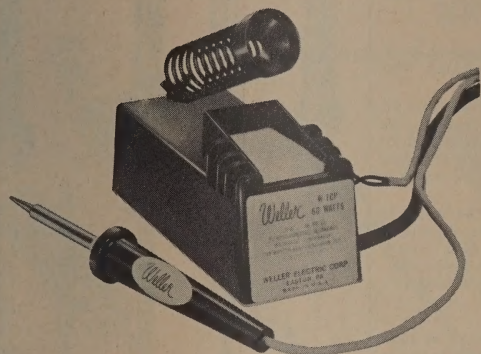
Furnished with standard two-wire cord and tip number designated.

- Weller Magnastat irons do the work of uncontrolled irons that require much higher wattage and weigh twice as much.
- The light weight of a Weller Magnastat iron reduces operator fatigue. Handle remains cool.

Over 90 Magnastat Weller tips are available. Tips come in 3 controlled temperature ranges—600°F, 700°F and 750°F—and in many different shapes.

WELLER ELECTRIC CORP.

Weller PENCIL Soldering Units



Temperature Controlled "Low Voltage" Soldering Pencil with $\frac{3}{16}$ " 700°F tip and power unit—MODEL W-TCP

SPECIFICATIONS

Wattage	Voltage	Weight with Tip, Less Power Unit and Cord	Overall Length of Iron with Tip	Tip Retainer O. D.
60	120 V.* 50/60 Cycles	1 $\frac{1}{4}$ oz.	7 $\frac{1}{2}$ "	$\frac{3}{16}$ "

*230/250V.. 50/60 Cycles available upon request at same price.

Temperature Controlled "Low Voltage" Soldering Unit

For production line and research laboratory use where accurate control of tip temperature is essential to meet rigid soldering specifications. Choice of 4 different tip temperatures from one soldering pencil merely by interchanging 4 different controlled temperature tips.

- Temperature control is in the tip. Choice of 500°F, 600°F, 700°F and 800°F tip temperatures.
- Extremely small and light in weight. Easy to control.
- Suitable for miniature or general soldering.
- High efficiency and rapid recovery. Packed with plenty of reserve power.
- Low 24 volt operation for component and user protection.
- Isolated for elimination of leakage current.
- Handle of high-impact plastic remains cool.
- Interchangeable tips are premium plated.
- Soldering iron stand attached to power unit.
- Power cord is silicon rubber covered, extremely flexible and easy to maneuver. Doesn't break or burn.

Interchangeable tips available: $\frac{1}{16}$ ", $\frac{1}{32}$ ", $\frac{3}{32}$ ", $\frac{1}{4}$ ", $\frac{3}{16}$ " and $\frac{1}{2}$ " screwdriver with choice of 500°F, 600°F, 700°F and 800°F controlled temperatures.

Continuously Variable Temperature Controlled Soldering Unit with SCR and Thermistor Control Circuit

Features continuously variable tip temperatures from 200°F to 450°F—simply dial the temperature required. This unit is specifically engineered for low-temperature, miniature soldering applications. Interchangeable tips include $\frac{1}{16}$ " (standard) and $\frac{1}{32}$ " conical flat. Otherwise identical to W-TCP (above) except wattage: 20 instead of 60.

Weller Utility Soldering Irons



Marksman Soldering Irons

Feature stainless steel, long-reach barrels, $\frac{1}{8}$ " replaceable tips. All operate at 120 volts; all provide Weller quality.

Model No.	Wattage	Weight (Oz.)
SP-23*	25	1 $\frac{3}{4}$
SP-40	40	2
SP-80	80	4
SP-120	120	10
SP-175	175	16

*Also available as a kit (Model SP-23K). Includes iron; screwdriver, cone and chisel tips; soldering aid and extra supply of solder.



"Industrial Rated" Pencil Soldering Irons

- Low cost 115 volt iron has tip temperature of 860°F with 25 watt input. Ideal for miniature type soldering.
- High efficiency and rapid recovery.
- Does the work of irons that require much higher wattage.
- Lightweight design reduces operator fatigue, provides accurate control.
- Rugged heating element designed for durability, long service.
- Readily replaceable parts. Change your own heating element or cord set.

Interchangeable tips available: $\frac{1}{16}$ ", $\frac{3}{32}$ " and $\frac{1}{8}$ " screwdriver. Premium plated for long life.

WELLER ELECTRIC CORP.

WALLBRAND SOLDERING PENCILS, IRONS AND GUNS

SINCE 1864

Here are a few of the reasons why engineers choose WallBrand pencils and irons. They're Thermogram Rated for better efficiency. Cooler Handles. Feather Light, Perfect Balance. Extreme Operator Comfort.

Production Line Model 18HD—Thermogram Value: 300—25 watt input. Engineered for continuous precision soldering applications, the Model 18 has a total weight (less cord) of only 1½ ounces. A wide selection of tips available. Specifically engineered for the demanding applications of micro-circuitry, and high density packaging, precision work on solid state devices, printed circuits, etc. Designed with the critical temperature ranges of micro-miniature components in mind.

Production Line Model 14HD—Thermogram Value: 900—40 watt input. The Model 14 has the same precision components as the Model 18 and is designed for continuous production line work requiring more heat in a wide variety of tip sizes. Also 50 watt. Now, in addition to the present Wall soldering pencil irons, you can have Wall soldering pencils in a new plug type system. All heating elements for the 614-618 and sub-miniature 6116 are interchangeable with one handle and cord assembly.

HD Type for continuous, heavy duty soldering requirements:

- Triple-life resistance wire wound on pure mica. • Offers constant, even tip temperature.
- Extra fast recovery. • Excellent balance. • 120 or 130 volts, ac or dc (other voltages on request).

TRIG-R-HEAT SOLDERING GUN SPECIFICATIONS

Model	Tip Size	Max. Watts	Min. Watts	Voltage AC or DC	Weight W/O Cord
214LT	¼"	400	150	110-120	14 oz.
212LT	½"	500	300	110-120	24 oz.

TIP AND ELEMENT ASSEMBLY

214TE	¼"	400	150	110-120
212TE	½"	550	300	110-120

Model	Watt Input	Tip Size	Length W/O Tip	Therma/Gram Value
18HD	25	¼"	6½"	300
14HD	40	¼"	7½"	900
618HD	25	½"	6½"	300
614HD	40	½"	7½"	900
6116	11	⅜"	6¼"	125
38HD	80	⅜"	10¼"	1500
12HD	125	½"	10¼"	2000
58HD	200	⅝"	12¼"	3500
78HD	250	⅞"	12¾"	5400

TechniMaster 863

Model	Watt. Input	Voltage	Tip Size	Length W/O Tiplet
863	40	125	¾"	8¾"

The Wall Trig-R-Heat Soldering Gun—Feather light, 14 oz., no heavy transformer. You can reach hard to get spots, tip will not deform. It has an insulated spot light switch, independent of trigger action. Heats instantly, recovers instantly. Rugged, precision built, made to last. One gun with two interchangeable tip and element assemblies to solve all soldering problems. This gun is made for the man who wants the best.

Economaster 6316—Industrial type soldering pencil at a popular price. Light weight, excellent balance, rugged construction, stable tip temperature. Ideally suited for all soldering applications.

14DS New Wall Desoldering Tool—Keeps solder in a molten state in reservoir, operated with one hand, fits existing Wall HD Iron. Replaceable tip (.080 opening).

538HD Swivel Iron—Adjustable, seven positions. From straight to 90° in 15° increments. Quick positive locking adjustment. 80W or 100W ¾" tip size.

2AG Heat Gun, AG Heat Gun—Plug-type hot air guns from 200 to 600 watts, adaptable for any usage requiring up to 1000° F. 2AG pistol grip available with trigger at additional cost. Opens air and heat at same time. Apply heat only when you need it. **AG handle grip.** One heating element fits both guns. All five tip styles interchangeable. Special tips upon request. Three-wire cord assembly. The perfect guns for hundreds of different uses—to shape, form, weld and seal thermoplastics. Excellent heat source for shrinkable tubing. Gun includes neoprene air hose, hose fittings and pressure regulator valve.

Soldering Tips for Pencils and Irons—Wall has an extremely wide selection of soldering tips. Write for Bulletin I-464. These soldering tips are available in three different series, for WallBrand irons and pencils.

Anniversary—Industrial grade. Highest quality. Copper core. Special iron coating. Centerless-ground shaft. Non-freeze. Bright finish. Ultra long life for precision work and rigorous production line demand.

WallKlad—Industrial grade. Copper core, iron coating chrome plated for production applications, critical laboratory use.

WallBrand—Commercial grade, copper, nickel plated for some production and all commercial applications.

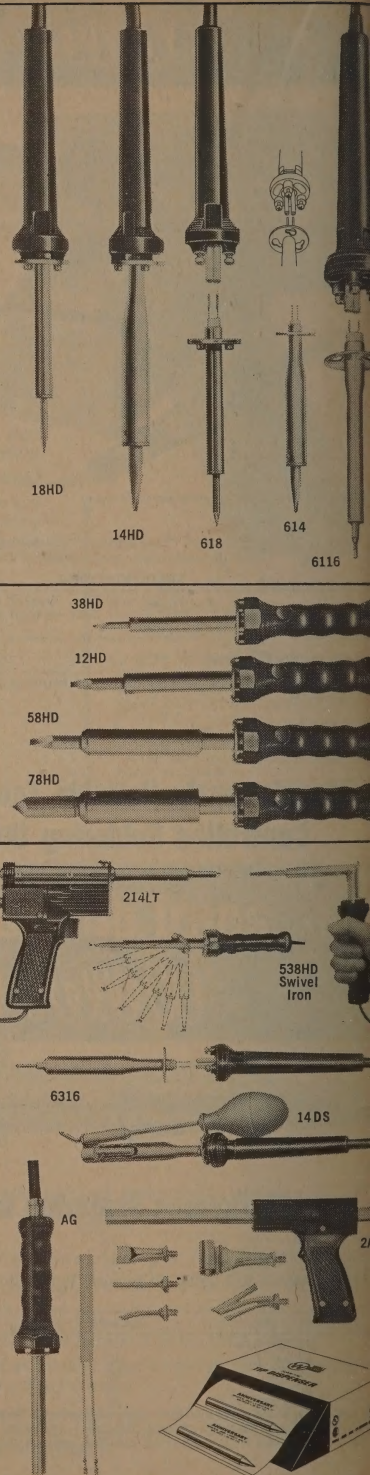
A complete selection of tips from ¼", ⅜", ½", ⅝", ¾", ⅞" and 1". Special tips to specification, designed upon request.

New Soldering Tip Dispenser Pac. WallBrand tips are available in a handy tip dispenser pac. Tip sizes ¼" through ¾". This unique Wall development keeps tip individually sealed in a color coded, continuous belting, plastic envelope. These envelopes are loaded in the popular Tip Dispenser Pac. The WallBrand individual Tip Dispenser Pac is ideally suited for production line station or stock distribution.



WALL MANUFACTURING CO.,

Industrial Soldering Pencils are built to exceed federal specification W-S-570a as amended. WallBrand soldering products are UL and CSA listed.

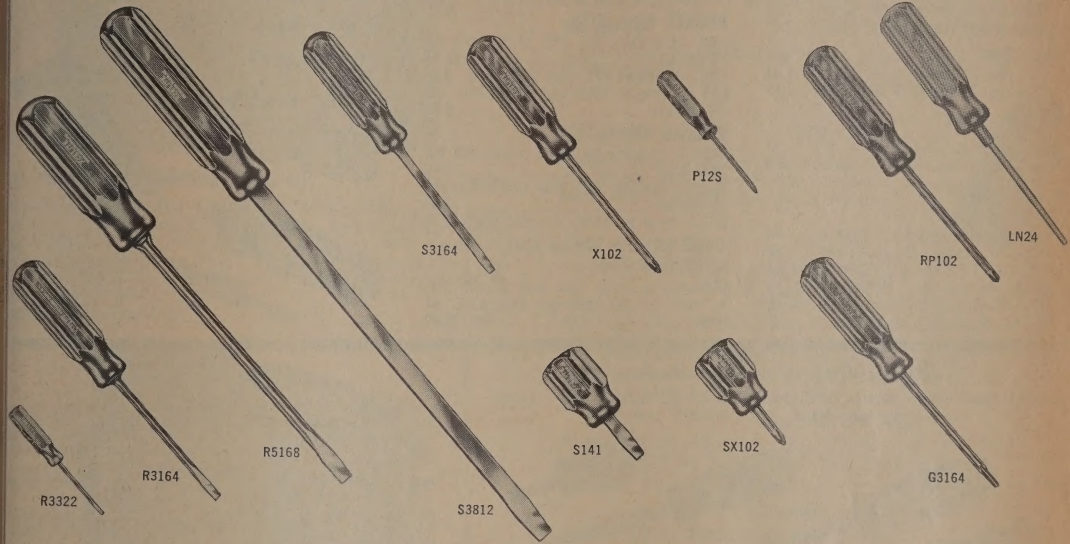




QUALITY PROFESSIONAL TOOLS

SCREWDRIVERS

AISI 6150 chrome vanadium steel blades. Shockproof, breakproof, plastic (UL) handles.



ROUND BLADE

Number	Size Blade	Net
Regular		
R182	1/8" x 2"	\$.33
R184	1/8" x 4"	.42
R186	1/8" x 6"	.48
R188	1/8" x 8"	.57
R1810	1/8" x 10"	.69
R5323	3/32" x 3"	.45
R5324	3/32" x 4"	.45
R5325	3/32" x 5"	.48
R5328	3/32" x 8"	.63
R3163	3/16" x 3"	.60
R3164	3/16" x 4"	.69
R3166	3/16" x 6"	.75
R3168	3/16" x 8"	.87
R31610	3/16" x 10"	.99
R142	1/4" x 8"	.69
R144	1/4" x 4"	.87
R146	1/4" x 6"	.96
R148	1/4" x 8"	1.02
R1410	1/4" x 10"	1.08
R5164	5/16" x 4"	.96
R5166	5/16" x 6"	1.08
R5168	5/16" x 8"	1.17
R388	3/8" x 8"	1.50

Pocket Clip Style

R3322	3/32" x 2"	\$.30
R3323	3/32" x 3"	.33
R3324	3/32" x 4"	.33
R181	1/8" x 2"	.30
R183	1/8" x 3"	.33
R184 1/2	3/8" x 4"	.36

SQUARE BLADE

Number	Size Blade	Net
Regular		
S3163	3/16" x 3"	\$.66
S3164	3/16" x 4"	.72
S3166	3/16" x 6"	.84
S3168	3/16" x 8"	.96
S31610	3/16" x 10"	1.14
S142	1/4" x 2"	.75
S144	1/4" x 4"	.90
S146	1/4" x 6"	.99
S148	1/4" x 8"	1.11
S1424	1/4" x 24"	2.40
S5162	5/16" x 2"	.81
S5164	5/16" x 4"	.99
S5166	5/16" x 6"	1.14
S5168	5/16" x 8"	1.26
S51610	5/16" x 10"	1.44
S51612	5/16" x 12"	1.68
S388	3/8" x 8"	1.50
S3812	3/8" x 12"	2.40
S3818	3/8" x 18"	2.70
S7166	7/16" x 6"	1.95
S71612	7/16" x 12"	2.40
S71618	7/16" x 18"	2.70

Stubby

S3161	3/16" x 1"	\$.48
S141	1/4" x 1"	.51
S5161	5/16" x 1"	.51

PHILLIPS

Number	Point Size	Size Blade	Net
Extra Long			
X1010	1	3/16" x 10"	\$1.14
X1020	2	1/4" x 10"	1.29
Regular			
X100	0	1/8" x 2"	\$.48
X101	1	3/16" x 3"	.75
X108	1	3/16" x 6"	.84
X102	2	1/4" x 4"	.93
X103	3	5/16" x 6"	1.26
X104	4	3/8" x 8"	1.59
Stubby			
SX101	1	3/16" x 1 1/16"	\$.69
SX102	2	1/4" x 1 3/16"	.78
Pocket Clip Style			
P12S	0	1/8" x 2"	\$.39

ALLEN TYPE

Number	Hex Size	Blade Length	Net
LN20	.050"	4"	\$.69
LN21	3/16"	4"	.69
LN22	3/8"	4"	.69
LN23	3/16"	4"	.69
LN764	7/16"	4"	.69
LN24	1/8"	4"	.75
LN964	3/8"	4"	.75
LN25	3/16"	6"	.75
LN26	3/8"	6"	.75
LN27	7/16"	6"	.84
LN28	3/4"	6"	.87

FREARSON (Reed & Prince)

Number	Point Size	Size Blade	Net
RP101	1	3/16" x 3"	\$.75
RP102	2	1/4" x 4"	.90
RP103	3	5/16" x 6"	1.20
RP104	4	3/8" x 8"	1.50

CLUTCH HEAD

Type G No.	Tip Size	Size Blade	Net
G3324	3/32"	1/8" x 4"	\$.78
G183	1/8"	3/16" x 3"	.78
G5324	3/32"	3/16" x 4"	.93
G3164	3/16"	1/4" x 4"	.93
G146	1/4"	5/32" x 6"	1.17
G5166	5/16"	3/8" x 6"	1.44

NON-MAGNETIC BERYLLIUM — Copper blades

Non-sparking.

Higher fatigue resistance than steel.

Number	Size Blade	Net
Regular		
BR186	1/8" x 6"	\$.84
BR1810	1/8" x 10"	.96
BR3168	3/16" x 8"	1.44
BR146	1/4" x 6"	1.80
BR148	1/4" x 8"	1.95
Pocket-Clip Style		
BR181	1/8" x 2"	\$.36

SUBJECT TO CHANGE WITHOUT NOTICE



QUALITY PROFESSIONAL TOOLS

COMBINATION-REVERSIBLE SCREWDRIVERS

AlSi 6150 chrome vanadium steel blades. Shockproof, breakproof, plastic (UL) handles.
Patented spring holds blades securely. $\frac{3}{16}$ " hex opening doubles as a nutdriver.

COMPLETE UNITS

Regular Type	Net
CR1—No. 25 handle & RB1 blade	\$1.47
CR2—No. 25 handle & RB2 blade	1.47
CR3—No. 25 handle & RB3 blade	1.47

Stubby Type

CS1—No. 26 handle & SB1 blade	1.41
CS2—No. 26 handle & SB2 blade	1.41

HANDLES ONLY

25—Regular	.63
26—Stubby	.60

BLADES ONLY

Regular Type	Net
RB1—No. 1 Phillips & $\frac{3}{16}$ " Slotted	.84
RB2—No. 2 Phillips & $\frac{1}{4}$ " Slotted	.84
RB3—No. 3 Phillips & $\frac{5}{16}$ " Slotted	.84
RB12—No. 1 & No. 2 Phillips	.99
GB1— $\frac{3}{16}$ " G & $\frac{3}{32}$ " G Clutch	.99
GB2— $\frac{3}{16}$ " G & $\frac{1}{4}$ " G Clutch	.99

Stubby Type

SB1—No. 1 Phillips & $\frac{3}{16}$ " Slotted	\$.81
SB2—No. 2 Phillips & $\frac{1}{4}$ " Slotted	.81
GB1— $\frac{3}{16}$ " G & $\frac{3}{32}$ " G Clutch	.81

POCKET ROLL KITS

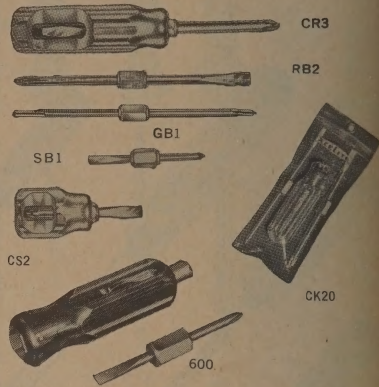
CK2—Contains RB1, RB2 blades and No. 25 handle	\$2.85
CK3—Same as CK2, plus RB3 blade	3.69
CK5—Same as CK2, plus RB3, GB1, and GB2 blades	5.67

PLASTIC VIEW KITS

SK20—Contains SB1, SB2 blades and No. 26 handle	\$2.49
CK20—Contains RB1, RB2 blades and No. 25 handle	2.94
CK23—Same as CK20, plus RB3 blade	3.78

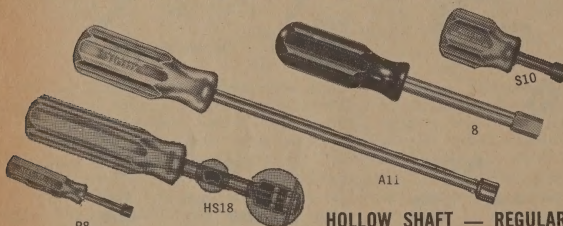
COMBINATION SCREW AND NUTDRIVER TOOL

600—Handy 4-way tool with pocket clip. $\frac{1}{4}$ " and $\frac{3}{16}$ " hex openings. Reversible SB1 blade	Net \$1.50
--	------------



NUTDRIVERS (Color-Coded Handles)

Polished-plated, steel shafts. Shockproof, breakproof, plastic (UL) handles. Precision, cold drawn, case hardened sockets.



HOLLOW SHAFT — REGULAR

Number	Handle Color	Hex Opening (6" Overall Length)	Net
5	Amber	$\frac{3}{32}$ "	\$.78
6	Black	$\frac{3}{16}$ "	.78
7	Brown	$\frac{7}{32}$ "	.78
8	Red	$\frac{1}{4}$ "	.78
9	Orange	$\frac{5}{16}$ "	.78
10	Amber	$\frac{3}{8}$ "	.78
11	Green	$\frac{11}{32}$ "	.78
12	Blue	$\frac{3}{8}$ "	.78
(7 1/4" Overall Length)			
14	Brown	$\frac{7}{16}$ "	\$.99
16	Red	$\frac{1}{2}$ "	.99
Number	Handle Color	Hex Opening (3 1/2" Overall Length)	Net
S6	Black	$\frac{3}{16}$ "	\$.69
S8	Red	$\frac{1}{4}$ "	.69
S10	Amber	$\frac{5}{16}$ "	.69
S11	Green	$\frac{11}{32}$ "	.69
S12	Blue	$\frac{3}{8}$ "	.69

STUBBY

Number	Handle Color	Hex Opening (3 1/2" Overall Length)	Net
P3	Amber	$\frac{3}{32}$ "	\$.51
P4	Red	$\frac{1}{8}$ "	.51
P5	Amber	$\frac{5}{32}$ "	.51
P6	Black	$\frac{3}{16}$ "	.51
P7	Brown	$\frac{7}{32}$ "	.51
P8	Red	$\frac{1}{4}$ "	.51
P9	Orange	$\frac{5}{16}$ "	.51
P10	Amber	$\frac{3}{8}$ "	.51
P11	Green	$\frac{11}{32}$ "	.51
P12	Blue	$\frac{3}{8}$ "	.51

POCKET CLIP STYLE

Number	Handle Color	Hex Opening (3 1/2" Overall Length)	Net
P3	Amber	$\frac{3}{32}$ "	\$.51
P4	Red	$\frac{1}{8}$ "	.51
P5	Amber	$\frac{5}{32}$ "	.51
P6	Black	$\frac{3}{16}$ "	.51
P7	Brown	$\frac{7}{32}$ "	.51
P8	Red	$\frac{1}{4}$ "	.51
P9	Orange	$\frac{5}{16}$ "	.51
P10	Amber	$\frac{3}{8}$ "	.51
P11	Green	$\frac{11}{32}$ "	.51
P12	Blue	$\frac{3}{8}$ "	.51

Number	Handle Color	Hex Opening (6 1/2" Overall Length)	Net
HS6	Black	$\frac{3}{16}$ "	\$.93
HS7	Brown	$\frac{7}{32}$ "	.93
(7" Overall Length)			
HS8	Red	$\frac{1}{4}$ "	\$.93
HS9	Orange	$\frac{5}{16}$ "	.93
HS10	Amber	$\frac{3}{8}$ "	.93
HS11	Green	$\frac{11}{32}$ "	.93
HS12	Blue	$\frac{3}{8}$ "	.93
(7 1/4" Overall Length)			
HS13	Amber	$\frac{13}{32}$ "	\$1.05
HS14	Brown	$\frac{7}{16}$ "	1.05
HS15	Amber	$\frac{15}{32}$ "	1.08
HS16	Red	$\frac{1}{2}$ "	1.08
HS17	Amber	$\frac{17}{32}$ "	1.14
HS18	Orange	$\frac{3}{4}$ "	1.14
HS19	Amber	$\frac{19}{32}$ "	1.26
HS20	Amber	$\frac{5}{8}$ "	1.26
HS22	Amber	$\frac{11}{16}$ "	1.59
HS24	Amber	$\frac{3}{4}$ "	1.59

EXTRA LONG

Number	Handle Color	Hex Opening (9" Overall Length)	Net
A6	Black	$\frac{3}{16}$ "	\$1.11
A7	Brown	$\frac{7}{32}$ "	1.11
A8	Red	$\frac{1}{4}$ "	1.11
A9	Orange	$\frac{5}{16}$ "	1.11
A10	Amber	$\frac{3}{8}$ "	1.11
A11	Green	$\frac{11}{32}$ "	1.11
A12	Blue	$\frac{3}{8}$ "	1.11

EXTERNAL HEX

(For control shaft nuts on Arvin and Philco portable stereo sets. 6 1/4" Overall Length. $\frac{3}{16}$ " External Hex.)			
PN-716	Black	....	\$ .93

SUBJECT TO CHANGE WITHOUT NOTICE

NUTDRIVER SETS

Carrying cases made of durable, pebble grain plastic. No. 77 has hole in lid lock for wall hanging. Molded plastic "Tray Bien" bench traps have fold-away stands and provision for wall mounting. Snap lock feature holds tools securely, yet permits easy removal.

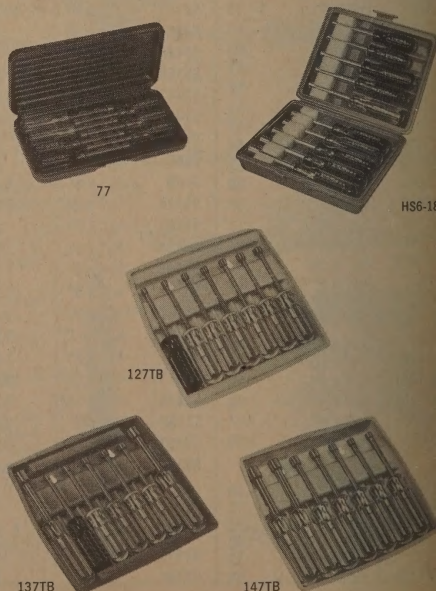
No. 77 CARRYING CASE	Net \$6.75
Contains solid shaft Nos. 6, 7, 8, 9, 10, 11 and 12.	

No. HS6-18 CARRYING CASE	Net \$11.11
Contains hollow shaft Nos. HS6, HS7, HS8, HS9, HS10, HS11, HS12, HS14, HS16 and HS18.	

No. 127TB "TRAY BIEN"	Net \$6.60
Contains solid shaft Nos. 6, 7, 8, 9, 10, 11 and 12.	

No. 137TB "TRAY BIEN"	Net \$7.35
Contains solid shaft Nos. 6, 8, 10, 11 and 12 and hollow shaft Nos. HS16 and HS18.	

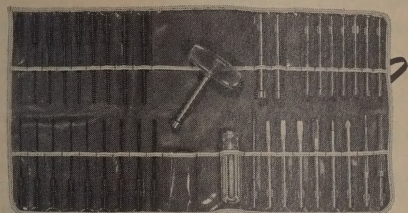
No. 147TB "TRAY BIEN"	Net \$8.70
Contains hollow shaft Nos. HS8, HS9, HS10, HS11, HS12, HS14 and HS16.	





QUALITY PROFESSIONAL TOOLS

SERIES "99" SERVICE KITS, BLADES, AND HANDLES

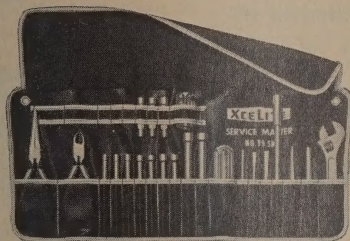


No. 99MP MULTI-PURPOSE TOOL KIT

Net \$28.35

9-piece kit contains 99-1 (Regular) and 99-4 (Tee) handles, ten regular nutdrivers (99-5 thru 99-16), nine Allen Hex type screwdrivers (99-20, 99-21 thru 99-26), nine Bristol Multiple Spline screwdrivers (99-61 thru 99-69), three slotted screwdrivers (99-811, 99-250, 99-312), two Phillips screwdrivers (99-821, 99-822), two reamers (99-38, 99-39), awl/scriber (99-70), extension blade (99-X5).

99MPK, Canvas case only.....Net \$3.27



No. 99SM SERVICE MASTER

Net \$24.87

3-piece kit contains 99-1 (Regular) and 99-3 (Stubby) handles, nine regular and three stubby nutdrivers (99-6 thru 99-16), two slotted screwdrivers (99-811, 99-812), one Phillips screwdriver (99-821), two reamers (99-38, 99-39), extension blade (99-X10), 6" long nose cushion grip plier (52CG), 5" diagonal cushion grip plier (55CG), 6" adjustable wrench (46C).

99SMK, Canvas case only.....Net \$2.25

ROLL KITS

No. 99PR

Net \$9.42

Contains nine regular nutdrivers (99-6 thru 99-16), 99-81 (Slotted) and 99-82 (Phillips) reversible screwdriver blades, 99-1 handle (Regular).

99PR, Kit only.....Net \$1.05

No. 99JR

Net \$8.28

Contains seven regular nutdrivers (99-6 thru 99-12) four screwdriver blades 99-811 and 99-812 (Slotted), and 99-821 and 99-822 (Phillips), 99-2 handle (Junior).

99JKR, Kit only.....Net \$1.05



No. 99LN

Net \$4.47

Contains six Allen type screwdriver blades (99-21, 22, 23, 24, 25, 26) and 99-1 handle (Regular).

No. 99-30 CLEAR PLASTIC POUCH

Net \$3.24

Heat sealed plastic snap case with size numbers on pockets for convenient selecting and storing. Contains six Allen type screwdriver blades (99-21, 22, 23, 24, 25 and 26).

PLASTIC VIEW KITS

No. 99SL

Net \$3.75

Contains five Scrulox® screwdriver blades for square recess screws (SL 00, 0, 1, 2, 3), 99-1 handle (Regular).

No. 99PV4

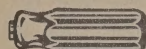
Net \$2.67

Contains three slotted screwdriver blades (99-811, 99-250, 99-312), 99-1 handle (Regular).

No. 99PV6

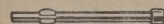
Net \$3.75

Contains three slotted screwdriver blades (99-811, 99-250, 99-312), two Phillips screwdriver blades (99-821, 99-822), 99-1 handle (Regular).



Net

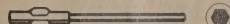
- 99-1 (1 $\frac{1}{8}$ " x 4 $\frac{1}{8}$ ") Regular Handle (for all blades, single-end and reversible) \$.69
 99-2 (1" x 3 $\frac{1}{8}$ ") Junior Handle (for single-end blades only)63
 99-3 (3 $\frac{1}{8}$ " x 2") Stubby Handle (for single-end blades only)60
 99-4 (1" x 3 $\frac{3}{8}$ ") Tee Handle (for single-end blades only)90



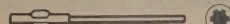
- Nutdriver Blades: 99-5 (5 $\frac{1}{2}$ "), 99-6 (6 $\frac{1}{2}$ "), 99-7 (7 $\frac{1}{2}$ "), 99-8 (8 $\frac{1}{2}$ "), 99-9 (9 $\frac{1}{2}$ "), 99-10 (10 $\frac{1}{2}$ "), 99-11 (11 $\frac{1}{2}$ "), 99-12 (12 $\frac{1}{2}$ "), 99-14 (14 $\frac{1}{2}$ "), 99-16 (16 $\frac{1}{2}$ ")60
 .75



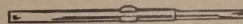
- Stubby Nutdriver Blades: 99-38, 99-39, 99-31248



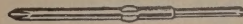
- Allen Type Screwdriver Blades: 99-20 (.050"), 99-21 (3 $\frac{1}{16}$ "), 99-22 (3 $\frac{1}{8}$ "), 99-23 (3 $\frac{3}{16}$ "), 99-764 (3 $\frac{1}{4}$ "), 99-24 (3 $\frac{1}{2}$ "), 99-964 (3 $\frac{3}{4}$ "), 99-25 (3 $\frac{1}{2}$ "), 99-26 (3 $\frac{3}{8}$ ")54



- Bristol Multiple-Spline Type Screwdriver Blades: 99-61 (.048" flute), 99-62 (.060" flute), 99-63 (.069" 4-flute), 99-64 (.072" 6-flute), 99-65 (.076" 4-flute), 99-66 (.096" 6-flute), 99-67 (.111" 6-flute), 99-68 (.145" 6-flute), 99-69 (.183" 6-flute)54

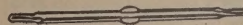


- 99-81 Slotted Screwdriver Reversible Blade (3 $\frac{1}{8}$ " & 3 $\frac{1}{2}$ ") 1.02

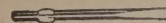


- 99-82 Phillips Screwdriver Reversible Blade (#1 & #2) 1.02

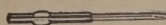
- 99-83 Reed & Prince Screwdriver Reversible Blade (3 $\frac{1}{8}$ " & 3 $\frac{1}{2}$ ") 1.02



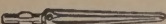
- 99-84 Clutch "G" Screwdriver Reversible Blade (3 $\frac{1}{8}$ " & 3 $\frac{1}{2}$ ") 1.02



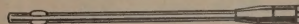
- Slotted Screwdriver Blades: Tapered tip—99-811 (3 $\frac{1}{8}$ "), 99-250 (1 $\frac{1}{4}$ "), 99-812 (3 $\frac{1}{2}$ "), Flared tip — 99-312 (3 $\frac{1}{8}$ ")60
 .60



- Phillips Screwdriver Blades: 99-821 (#1), 99-822 (#2)60



- Reamers: 99-38 (1 $\frac{1}{8}$ " - 3 $\frac{1}{8}$ ") 1.32
 99-39 (3 $\frac{1}{4}$ " - 1 $\frac{1}{2}$ ") 1.65



- 99-X5 Extension Shaft. Adds 4" reach to single-end blades90

- 99-X10 Extension Shaft. Adds 7" reach to single-end blades90

- 99-70 Awl/Scriber (4 $\frac{1}{2}$ ")60

SUBJECT TO CHANGE WITHOUT NOTICE



QUALITY PROFESSIONAL TOOLS

COMPACT SETS

Series "99" Sets

Each set contains a Series "99" regular handle and various Series "99" interchangeable blades. See-thru plastic case is pocket size, has flat base that permits its use as a bench stand.

No. 99PS-40 ALLEN HEX TYPE SCREWDRIVER SET

Includes nine Allen Hex type screwdriver blades (99-20 thru 99-26), 99-X5 extension blade, 99-1 handle, and see-thru case.

Net \$6.75

No. 99-PS50 NUTDRIVER/SCREWDRIVER SET

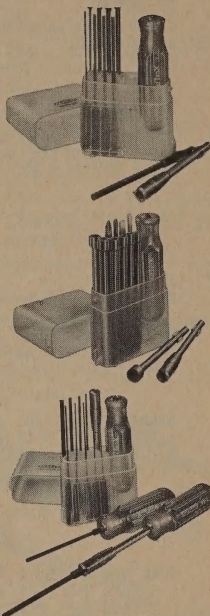
Includes seven regular nutdriver blades (99-6 thru 99-12), two slot tip screwdriver blades (99-811 and 99-812), two Phillips screwdriver blades (99-821 and 99-822), 99-X5 extension blade, 99-1 handle, and see-thru case.

Net \$8.55

No. 99PS-60 BRISTOL MULTIPLE-SPLINE TYPE SCREWDRIVER SET

Includes nine Bristol Multiple-Spline type screwdriver blades (99-61 thru 99-69), 99-X5 extension blade, 99-1 handle, and see-thru case.

Net \$6.75



Convertible Nutdriver and Screwdriver Sets

Black plastic torque amplifier handle (1" x 3 1/2") slips over handle of pocket size (3 1/2") nutdrivers and screwdrivers . . . provides large grip, extends reach and increases driving power to that of standard size tools. See-thru plastic case fits pocket, stands upright on bench.

No. PS7 NUTDRIVER/SCREWDRIVER SET

Contains two nutdrivers (1/4" and 3/8"), two slot tip screwdrivers (3/32" and 1/8"), two Phillips screwdrivers (#0 and #1), hollow handle, and case.

Net \$3.45

No. PS44 SCRULOX SCREWDRIVER SET

Includes five Scrulox screwdrivers (#1 thru #14), one nutdriver (1/4"), hollow handle, and case.

Net \$3.45

No. PS88 SCREWDRIVER SET

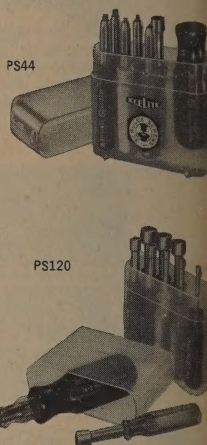
Contains five slot tip screwdrivers (3/32", 1/8", 5/32", 3/16", 1/4"), three Phillips screwdrivers (#0, #1, #2), hollow handle, and case.

Net \$3.93

No. PS120 NUTDRIVER SET

Contains ten color coded nutdrivers (3/32" thru 3/8"), hollow handle, and case.

Net \$5.55

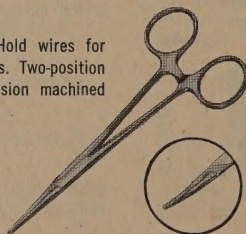


REGULAR AND JR. SEIZERS®

Outreach, outhold needle nose pliers. Clamp tightly. Hold wires for soldering and serve as heat sinks. Retrieve small parts. Two-position snap-lock. Stainless steel, box-joint construction. Precision machined and tempered.

Regular 6" Seizers have serrated jaws. Jr. Seizers are 5" long, have smooth jaws that won't mar delicate materials.

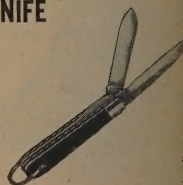
Number	Net
42H—6" Straight Nose	\$3.93
43H—6" Curved Nose	4.07
32H—5" Straight Nose	3.93
33H—5" Curved Nose	4.07



No. K22 ELECTRICIAN'S KNIFE

Two blades. One is combination insulation-scraper and screwdriver. Has positive lock when open.

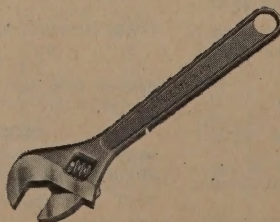
Net \$2.13



ADJUSTABLE WRENCHES

Thin-pattern permits access to close-quarter work. Chrome-plated forged alloy steel. Polished heads.

Plain Handle			Cushion Grip	
Number	Net	Size	Number	Net
44C	\$2.16	4"	44CG	\$2.40
46C	2.19	6"	46CG	2.48
48C	2.48	8"	48CG	2.77
40-10C	3.20	10"	40-10CG	3.60
40-12C	4.67	12"	40-12CG	5.07



No. 150 TOOL HOLSTER

Has tape holder, knife clip, and 5 tool pockets. Durably made of pliable saddle leather with natural cowhide finish. Features comfortable hip-contoured back, hot-waxed stitching, and brass rivets.





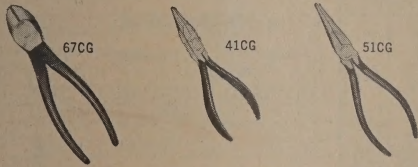
QUALITY PROFESSIONAL TOOLS

PLIERS

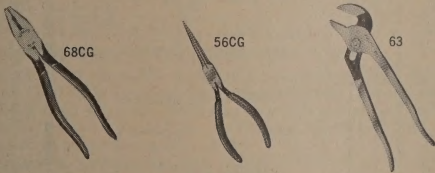
Precision-machined forged alloy steel. Perfectly aligned jaws. Hand-honed, mated cutting edges. Polished heads.



Number	Net
59CG — CHAIN NOSE ELECTRICIAN'S PLIERS (8")—Cushion Grip.....	\$3.07
75C — COMBINATION SLIP JOINT PLIER (5")—Chrome-Plated.....	1.20
76C — COMBINATION SLIP JOINT PLIER (6")—Chrome-Plated.....	1.27
76S — Satin Finish.....	.75
78C — COMBINATION SLIP JOINT PLIER (8")—Chrome-Plated.....	1.60
54 — DIAGONAL PLIER (Midget 4").....	2.64
54CG — Cushion Grip	2.93
55 — DIAGONAL PLIER (5").....	2.53
55CG — Cushion Grip	2.87
56CG — DIAGONAL PLIER (6")—Cushion Grip.....	3.20



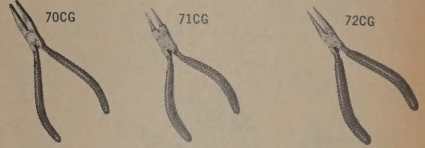
Number	Net
67 — DIAGONAL PLIER (7")	2.93
67CG — Cushion Grip	3.27
41CG — LONG NOSE PLIER (Midget 4")—Without Side Cutters—Cushion Grip	2.64
52 — LONG NOSE PLIER (6")—Without Side Cutters.....	2.27
52CG — Cushion Grip	2.53
51 — LONG NOSE PLIER (6")—With Side Cutters.....	2.85
51CG — Cushion Grip	3.20



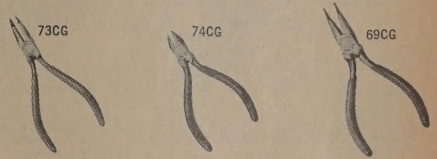
Number	Net
56CG — NEEDLE NOSE PLIER (6")—Cushion Grip.....	2.93
58CG — RADIO AND TV PLIER (6")—Cushion Grip.....	3.73
60CG — SIDE CUTTING PLIER (6")—Cushion Grip.....	3.00
68CG — SIDE CUTTING PLIER (8")—Cushion Grip	3.60
62CG — TRAVERSE CUTTING PLIER (6")—Cushion Grip.....	3.67
53CG — UTILITY PLIER (6")—Forged Rib-Lock—Cushion Grip.....	2.19
63 — UTILITY PLIER (10")—Forged Rib-Lock	2.53
63CG — Cushion Grip	3.07

MINIATURE ELECTRONIC PLIERS

Small, lightweight. For handling fine wires. All cushion grip handles. Coil spring openers. Polished heads and shoulders.



Number	Net
70CG — FLAT NOSE PLIERS (4½").....	\$3.25
71CG — ROUND NOSE PLIERS (4½").....	3.27
72CG — CHAIN NOSE PLIERS (4").....	3.33



Number	Net
73CG — SPECIAL TIP CUTTING PLIERS (4½").....	4.27
74CG — DIAGONAL FLUSH CUTTING PLIERS (4").....	4.32
69CG — RADIO AND TV PLIER (5").....	5.00

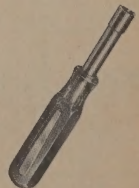
No. 86CG ELECTRONIC SNIPS

6½" size. Shearing action of pointed blades (1½" cut) prevents peaks on fine wire and filaments. Useful also for removing insulation and cutting light sheet metal. Coil spring opens blades... latch holds them closed. Cushion grip Net \$3.07



TERMINAL WRENCHES

For spanner nuts on external antenna and earphone jacks of transistor radios and CB walkie-talkies. 3½" overall length.



Number	Handle Color	Spanner Nut O.D.	Net
TW32	Green	¼"	\$.48
TW140	Red	¾"	.48



ADC PRODUCTS, INC.



**"BLUE CHIP"
TRANSFORMERS**
62 TYPES
5 DIFFERENT SIZES

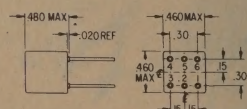
Tiny, plastic cased, Blue Chip transformers for printed circuit applications, are available for a wide choice of power ratings.

Five different sizes, from .10 to 1.2 cubic inches with a total of 62 new ratings are listed below to indicate the available power levels for both voice frequency range and extended frequency operation. These ratings take into account not only power handling capacities at minimum frequencies, but also total harmonic distortion under stated conditions. Within the limits shown on the rating charts, variations in both power and distortion levels are possible depending upon the minimum operating frequency.

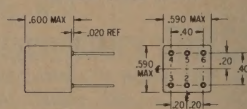
Blue Chip transformers meet Mil-T-27A, Grade 5, Class S requirements. These versatile transformers are available from ADC, or through your distributor.

CATALOG NUMBER	PRIMARY IMPED- OHMS	SECONDARY IMPED- OHMS	PRIMARY-SECONDARY DC RESISTANCE-OHMS	MAX. DC IN PRIM. MA	
324-A-6A	*100K-CT	1000-CT	8300	70	0
324-A-6B	25K-CT	1000-CT	2800	150	0
324-A-6C	*10K-CT	1000-CT	1100	1400	1
324-A-6D	10K-CT	1500-CT	1100	180	1
324-A-6E	10K-CT	600-CT	1100	75	1
324-A-6F	4000-CT	10K-CT	440	1400	1.5
324-A-6G	1000-CT	600-CT	110	75	3
324-A-6H	1000-CT	4	110	0.5	3
324-A-6I	600-CT	25K-CT	65	3500	4
324-A-6J	600-CT	60	65	7	4
324-A-6L	600-CT	60	65	7	4
324-A-6M	600-CT	4	65	0.5	4
*Max. power level: 10 mw at 300 cps.					
324-A-5A	10K-CT	1000-CT	6000	60	0
324-A-5B	25K-CT	1000-CT	2800	120	0
324-A-5C	*10K-CT	1000-CT	1100	1200	1
324-A-5D	10K-CT	1500-CT	1100	200	1
324-A-5E	10K-CT	600-CT	1100	120	1
324-A-5F	4000-CT	10K-CT	440	1200	1.5
324-A-5G	1000-CT	600-CT	100	65	3
324-A-5H	1000-CT	600-CT	100	0.4	3
324-A-5I	600-CT	25K-CT	65	3500	4
324-A-5J	600-CT	600-CT	65	75	4
324-A-5L	600-CT	60	65	7	4
324-A-5M	600-CT	4	65	0.5	4
324-A-4B	25K-CT	1000-CT	2800	120	0
324-A-4C	*10K-CT	1000-CT	1100	1200	1
324-A-4D	10K-CT	1500-CT	1100	180	1
324-A-4E	10K-CT	600-CT	1100	75	1
324-A-4F	4000-CT	10K-CT	440	1200	1.5
324-A-4H	1500-CT	15	165	2	2.5
324-A-4I	1000-CT	600-CT	110	75	3
324-A-4J	600-CT	25K-CT	65	3500	4
324-A-4L	600-CT	600-CT	65	75	4
324-A-4M	600-CT	60	65	7	4
324-A-4P	600-CT	15	65	2	4
324-A-4Q	600-CT	4	65	0.5	4
324-A-4R	250	600-CT	30	75	7
*Max. power level: 2.5 w.					
324-A-3A	10K-CT	10K-CT	800	1100	1
324-A-3B	10K-CT	600-CT	800	65	1
324-A-3C	*10K-CT	1000-CT	800	0.5	1
324-A-3D	1500-CT	15	110	1.6	2.5
324-A-3E	1000-CT	600-CT	75	65	3
324-A-3F	1000-CT	600-CT	75	0.5	3
324-A-3G	*600-CT	25K-CT	45	2800	4
324-A-3H	*600-CT	600-CT	45	65	4
324-A-3I	600-CT	60	45	7	4
324-A-3K	600-CT	15	45	1.6	4
324-A-3L	600-CT	4	45	0.5	4
324-A-3M	250	600-CT	20	65	7
*Max. power level: 2.5 w.					
124-A-2A	*10K-CT	10K-CT	700	900	1
124-A-2B	*10K-CT	600-CT	700	55	1
124-A-2C	*10K-CT	1000-CT	700	0.4	1
124-A-2D	1500-CT	15	100	1.5	2.5
124-A-2E	1000-CT	600-CT	65	55	3
124-A-2F	1000-CT	600-CT	65	0.5	3
124-A-2H	600-CT	600-CT	40	55	4
124-A-2I	600-CT	60	40	6	4
124-A-2J	600-CT	15	40	1.5	4
124-A-2L	600-CT	4	40	0.4	4
124-A-2M	250	600-CT	16	55	7

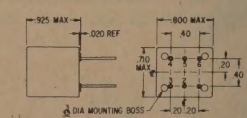
6 SIZE CASE DATA



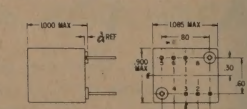
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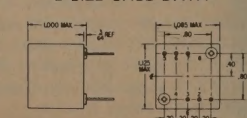
4 SIZE CASE DATA



3 SIZE CASE DATA

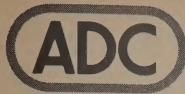


2 SIZE CASE DATA



ALL RATINGS BASED UPON MAXIMUM UNBALANCED DC IN PRIMARY AS LISTED

ALL CASED DIMENSIONS ARE MAXIMUM



ADC PRODUCTS, INC.

POWER TRANSFORMERS FOR MILITARY AND INDUSTRIAL APPLICATIONS

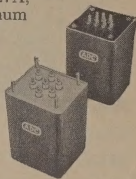
Reliability, minimum size and long life under rugged environmental conditions are prime requisites in today's military electronic equipment. To meet these modern standards, ADC offers a complete line of hermetically sealed power transformers. Designed to meet MIL-T-27A specifications and utilizing MIL cases and mounting dimensions, these units offer our customers a ready source for prototype and produc-

tion applications. All military contractors and commercial electronic engineers with stringent environmental conditions will find these carefully rated units ideally suited. For those applications where hermetic sealing is not necessary, we offer the conservative transformer designs of our hermetically sealed line, in drawn steel cases of MIL size and mounting dimensions with phenolic terminal plates and solder lug terminals.

POWER TRANSFORMERS—60 Cycle

ADC offers these standard power transformer designs to cover a wide range of requirements for electronic circuit application. They are available in standard MIL case sizes, hermetically sealed to meet all requirements of MIL-T-27A, Grade 4, Class R, life expectancy X. Maximum operating altitude is 10,000 feet.

The same electrical ratings are also available as commercial grade fully enclosed units for non-military applications in the same MIL case sizes. This version is furnished with a phenolic terminal board and heavy duty solder lug terminals. Mounting screws and tapped inserts provide the same mounting centers as MIL-T-27A versions.



COMBINATION PLATE AND FILAMENT TRANSFORMERS

PRIMARY: 105/115/125 V., 50-60 CPS

Catalog No.		Plate Winding			Filament	MIL
Case	Hermetic Seal	AC Volts	DC Ma	DC Volts	Windings Volts/Amps	Case
22A	523A	250-0-250 C Input	20	300	6.3 CT/5.2	FA
22B	523B	300-0-300 C Input	60	310	5	2 HA
					6.3 CT	2
22C	523C	350-0-350 C Input	110	355	5	2 JA
		L Input		265	6.3 CT	4
22D	523D	375-0-375 C Input	150	380	5	3 LA
		L Input		280	6.3 CT	5
22E	523E	385-0-385 C Input	200	360	5	3
		L Input		280	6.3 CT	5
					6.3 CT	2 MA
22F	523F	500-0-500 L Input	300	400	6.3/5	6
					6.3 CT	6 NA

FILAMENT TRANSFORMERS

PRIMARY: 105/115/125 V., 50-60 CPS

105/115/125 V., 50-60 CPS

Catalog No.					
Commercial Case	Hermetic Seal	Sec. Volts	Sec. Amps.	Insulation Volts RMS	MIL Case
522FA	523FA	2.5 CT	5.5	3,500	FA
522FB	523FB	2.5 CT	10.0	7,500	GA
522FC	523FC	2.5 CT	15.0	10,000	JA
522FD	523FD	5.0 CT	4	3,500	GA
522FE	523FE	5.0 CT	10	5,000	HA
522FF	523FF	5.0 CT	20	10,000	MA
522FG	523FG	6.3 CT	3.0	2,500	FA
522FH	523FH	6.3 CT	5.5	2,500	GA
522FJ	523FJ	6.3 CT	10	2,500	JB
522FK	523FK	6.3 CT	20	2,500	KA
522FL	523FL	12.6 CT	2	2,500	GA

POWER TRANSFORMERS—400 Cycle

These items are especially designed for maximum performance in 380 to 1500 CPS applications, with maximum altitude ratings of 50,000 feet. They are hermetically sealed to meet all requirements of MIL-T-27A, Grade 4, Class R. Standard MIL case sizes and construction are used.

COMBINATION PLATE AND FILAMENT TRANSFORMERS

PRIMARY: 115 V., 380-1500 CPS

Catalog No.		Plate Winding AC Volts	Filament Windings			MIL Case
Comm'l Case	Hermetic Seal		DC Ma	Volts / Amps		
512A	513A	240-0-240 C Input	20	6.3 CT	1.5	AJ
512B	513B	250-0-250 C Input	40	6.3 CT	2.5	EA
512C	513C	300-0-300 C Input	80	6.3 CT	5	GA
				6.3/5V	2	
512D	513D	350-0-350 C Input	150	6.3 CT	4	HA
				6.3/5V	3	
512E	513E	450-0-450 C Input	200	6.3 CT	8	JA
				6.3/5V	3	

FILAMENT TRANSFORMERS

PRIMARY: 115 V., 380-1500 CPS

Catalog No.					
Com- mercial Case	Hermetic Seal	Sec. Volts	Sec. Amps	Insulation Volts RMS	MIL Case
512FA	513FA	6.3 CT	1	1,500	AH
512FB	513FB	6.3 CT	3	1,500	AJ
512FC	513FC	6.3 CT	5.5	2,500	EA
512FD	513FD	6.3 CT	10	2,500	FA
512FE	513FE	6.3 CT	20	2,500	GA
512FF	513FF	26 CT	1	2,500	EA
512FG	513FG	26 CT	3	2,500	FA

MILITARY STANDARD TRANSFORMERS

These Military Standard transformers have been specified by ASEA and are established by the three Military Services and the transformer industry as standards for Military transformer applications. Each item is available as either Grade 1 or Grade 4 (ruggedized) as requested. Tests have been conducted in ADC's environmental laboratory which indicate that these units will meet the requirements of MIL-T-27A, Grade 4, Class R operating temperature; life expectancy X 10,000 hours minimum).



MILITARY STANDARD POWER TRANSFORMERS

Military Part No.	Catalog No.	Type Designation	Secondary AC Volts	#1 DC Volts	Sec #2 Volts	Sec #3 Volts	Sec #4 Volts
MS-90026	521A	TF 4RX 03HA001	200-100-0-100-200	70	140	6.3/5	2 6.3 3
MS-90027	521B	TF 4RX 03JB002	325-0-325	70	250	6.3/5	2 6.3 4
MS-90028	521C	TF 4RX 03KB006	325-0-325	150	240	6.3	5 5 3
MS-90029	521D	TF 4RX 03LB003	400-0-400	175	290	5	3 6.3 8
MS-90030	521E	TF 4RX 03MB004	450-0-450	250	320	5	3 6.3 8
MS-90031	521F	TF 4RX 02KB001	350-0-350	250	250	---	---
MS-90032	521G	TF 4RX 02LB002	550-0-550	250	400	---	---
MS-90036	521H	TF 4RX 02NB003	800-0-800	250	575	---	---

NOTE: 1. Primaries 105/115/125V., 54-66 CPS.

2. Secondary #1 DC voltage based upon inductive input filter.

3. Max. operating altitude 10,000 ft.

4. These items are also available as Grade 1 components.

MILITARY STANDARD FILAMENT TRANSFORMERS

Military Part No.	Catalog No.	Type Designation	Secondary Volts	Amps	Insulation Volts RMS
MS-90018	521M	TF 4RX 01EB002	2.5	3.0	2500
MS-90017	521N	TF 4RX 01GB003	2.5	10	2500
MS-90018	521P	TF 4RX 01FB004	5.0	3.0	2500
MS-90019	521Q	TF 4RX 01HB005	5.0	10	2500
MS-90020	521R	TF 4RX 01FB006	6.3	2.0	2500
MS-90021	521S	TF 4RX 01GB007	6.3	5.0	2500
MS-90022	521T	TF 4RX 01JB008	6.3	10	2500
MS-90023	521U	TF 4RX 01KB009	6.3	20	2500
MS-90024	521V	TF 4RX 01JB012	2.5	10	10000
MS-90025	521W	TF 4RX 01KB013	5.0	10	10000

NOTE: 1. Primaries 105/115/125 V., 54-66 CPS.

2. Max. operating altitude 10,000 ft.

3. These items are also available as Grade 1 components.



ADC PRODUCTS, INC.

INDUCTORS FOR MILITARY AND INDUSTRIAL APPLICATIONS

ADC's line of inductors are circuit running mates to ADC's power transformers. They are available hermetically sealed, to meet MIL-T-27A requirements Grade 4, Class R, life expectancy X. For commercial applications, where hermetic

sealing is not necessary, these same ratings are available in MIL cases and mounting dimensions, but with phenolic terminal board and solder lug terminals.

FOR 50-60 CYCLE POWER SUPPLIES

Catalog No.		Inductance	DC	DC	Insulation	
Commercial Case	Hermetic Seal	Henries	Current MA	Resistance Ohms	Volts RMS	MIL Case
422A	423A	15	20	700	1000	AJ
422B	423B	20	40	475	2500	EB
422C	423C	15	60	230	2500	FA
422D	423D	12	80	175	2500	FA
422E	423E	10	110	175	2500	GA
422F	423F	8	150	100	2500	HA
422G	423G	8	200	85	2500	JA
422H	423H	8	250	85	2500	KB
422J	423J	8	325	55	2500	LA
422K	423K	4	500	30	2500	LA
422L	423L	5/25	250/25	160	2500	KB
422M	423M	5/25	325/30	110	2500	LA



FOR 380-1500 CYCLE POWER SUPPLIES

Catalog No.		Inductance	DC	DC	Insulation	
Commercial Case	Hermetic Seal	Henries	Current Ma	Resistance Ohms	Volts RMS	MIL Case
422V	423V	2.5	50	175	2500	AH
422W	423W	5	50	350	2500	AJ
422X	423X	2	80	250	2500	AJ
422Y	423Y	2	150	100	2500	EB
422Z	423Z	2	200	100	2500	EA

MILITARY STANDARD INDUCTORS (power)

These Military Standard inductors have been specified by ASEA and are established by the three military services and the transformer industry as standards for military inductor applications. They are hermetically sealed to meet all MIL-T-27A requirements Grade 1, Class R, life expectancy X.

Military Part No.	Catalog No.	Type Designation	Inductance Series	Par-allel	DC Resistance Ohms	Insulation Volts RMS
MS90009	421A	TF 1RX 04FA001	16 hy .08 a	4 hy .16 a	1-2 295	2400
MS90010	421B	TF 1RX 04GA002	25 hy .08 a	6.25 hy .16 a	1-2 300	2400
MS90011	421C	TF 1RX 04HA003	40 hy .08 a	10 hy .16 a	1-2 450	2400
MS90013	421D	TF 1RX 04HA005	16 hy .125 a	4 hy .25 a	1-2 145	3800
MS90014	421E	TF 1RX 04JB006	25 hy .125 a	6.25 hy .25 a	1-2 225	3800
MS90037	421F	TF 1RX 04KA007	40 hy .125 a	10 hy .25 a	1-2 240	5900
MS75000	421G	TF 1RX 04LA009	16 hy .20 a	4 hy .40 a	1-2 80	5900
MS75001	421H	TF 1RX 04MA010	25 hy .20 a	6.25 hy .40 a	1-2 90	5900
MS75002	421J	TF 1RX 04NA012	16 hy .315 a	4 hy .63 a	1-2 45	5900
MS75003	421K	TF 1RX 04YY013	25 hy .315 a	6.25 hy .63 a	1-2 70	5900

NET PRICE LIST (Prices subject to change without notice)

CAT. NO.	NET PRICE	CAT. NO.	NET PRICE	CAT. NO.	NET PRICE	CAT. NO.	NET PRICE	CAT. NO.	NET PRICE
108A	8.25	222C	25.20	324-2F	6.60	419CU thru		422G	9.60
103A	3.15	222D	19.80	324-2J	6.60	DA	8.70	422H	10.20
103B	3.39	222E	19.80	324-2K	6.60	419DC thru		422J	12.90
103C	3.30	222F	17.40	324-2L	6.60	DG	9.00	422K	12.00
104A	8.70					419DJ	9.75	422L	10.20
104B	9.54	223A	24.90	324-3B	7.50	419DL	10.50	422M	12.90
		223B	24.90	324-3C	6.90	419EA thru		422V	7.05
114A	23.85	223C	28.20	324-3D	6.30	EN	6.75	422W	6.00
114B	19.80	223D	21.60	324-3E	6.90	419EQ thru		422X	6.00
114C	23.85	223E	21.60	324-3F	6.30	EY	7.50	422Y	6.90
114E	23.85	223F	18.30	324-3J	6.30	419FA thru		422Z	7.20
114F	23.85	223G	18.30	324-3K	6.30	FC	8.25	423A	6.60
114G	18.00			324-3L	6.30	419FE	8.70	423B	7.65
		224-2M	6.60			419FG	9.00	423C	8.10
121A	14.40	224-3G	7.80	324-4B	7.80	419FH	9.75	423D	8.10
121B	14.40	224-3M	6.30	324-4D	7.20	419GL thru		423E	9.15
		224-4G	7.20	324-4E	7.20	419HA thru		423F	10.20
122A	24.30	224-4L	7.80	324-4F	6.60	HG	8.25	423G	12.00
122B	25.20	224-4R	6.00	324-4H	6.00	419HJ thru		423H	12.90
122C	24.30	224-5F	6.90	324-4J	6.60	HN	8.70	423J	15.90
122D	16.80	224-5J	7.80	324-4K	6.00	419HQ thru		423K	14.70
122E	19.80	224-6F	6.60	324-4N	6.00	HS	9.00	423L	12.90
122F	15.90	224-6J	7.20	324-4P	6.00	419HU	9.75	423M	15.90
122G	22.20					419HV	10.50	423V	7.80
123A	26.40	308E, F	7.50	324-5A	8.70	419HW	10.50	423W	7.50
123B	27.30	308G, H	9.00	324-5B	7.80	419HY	11.25	423X	7.50
123C	26.40	314A	20.40	324-5D	6.90	419KL thru		423Y	8.70
123D	17.40	314B	18.00	324-5E	6.90	LC	9.75	423Z	9.00
123E	21.30	320A thru F	20.85	324-5G	6.90	419LE thru		512A	11.70
123F	16.80	320Y, Z	20.85	324-5H	5.70	419L thru	10.50	512B	12.60
				324-5L	5.70	419LL thru		512C	17.10
124-2A	8.10			324-5M	5.70	LN	11.25	512D	18.90
124-2H	7.20	322A	11.70	324-6A	7.50	419LQ thru		512E	20.55
124-3A	7.80	322B	16.80	324-6B	7.20	LS	12.00	512F	18.30
124-3H	6.90	322C	15.90	324-6D	6.60	419LU	12.45	512FA	9.00
124-4C	7.20	322D	17.40	324-6E	6.60	419LW	12.90	512FB	9.60
124-4M	6.60	322E	17.40	324-6G	6.00	420A thru H	17.64	512FC	10.35
124-5C	6.90	322F	19.80	324-6H	5.40	421A	11.10	512FD	10.80
124-5K	6.90	322G	21.00	324-6L	5.40	421B	12.30	512FE	12.90
124-6C	6.60	322H	20.40	324-6M	5.40	421C	13.20	512FG	11.25
124-6K	6.00	322J	22.80	408D	6.75	421D	14.10	513A	12.60
208A thru F	7.50	322K	31.50	419AL thru		421E	14.70	513B	14.25
208G	9.00	322L	33.90	AW	6.75	421F	20.10	513C	21.45
		322M	23.70	419AY thru		421G	21.30	513D	23.70
214A	23.70	322N	21.60	BE	7.50	421H	24.90	513E	25.65
214C	23.70	322P	17.10	419BQ thru		421J	36.90	513F	25.65
214H	15.45	323A	13.50	BN	8.25	421K	30.00	513FA	11.25
214J	16.80	323B	20.70	419BO thru		422A	5.40	513FB	12.15
214L	16.80	323C	17.40	BS		422B	6.00	513FC	12.90
220A thru D	20.85	323D	21.60	419BU	9.00	422C	6.45	513FD	13.50
		324-2B	7.80			422D	6.45	513FE	16.20
221A	15.45	324-2C	7.20	419CW thru	10.50	422E	6.90	513FF	13.20
221B	13.20	324-2D	6.60	CS	8.25	422F	7.95	513FG	13.80
222A	22.50	324-2E	7.20						
222B	22.50								

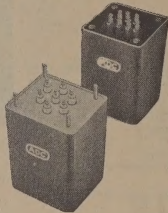


ADC PRODUCTS, INC.

AUDIO TRANSFORMERS FOR MILITARY AND COMMERCIAL APPLICATIONS

ADC offers the following designs to cover a wide range of standard audio applications, from low power transistors through heavy duty output circuits. They are conservatively rated at ± 1 db from 30 to 15,000 cycles at the maximum rated power. Each is designed for minimum insertion loss, is fully impregnated before potting and tested for dependable continuous duty operation.

These audio transformers are available in standard MIL cases, hermetically sealed to meet all requirements of MIL-T-27A. THE SAME RATINGS ARE ALSO AVAILABLE AS COMMERCIAL GRADE COMPONENTS, featuring the lower cost construction of a phenolic terminal board with solder lug terminals in the same drawn MIL cases.



INPUT TRANSFORMERS Response $\pm \frac{1}{2}$ db, 30-15,000 cps

Catalog No. Com- mercial metric Case Seal	Application	Primary Impedance Rating (Ohms)	Secondary Impedance Rating (Ohms)	Max. Level	Hum Reduction	Case Size
2A 223A	Line to Single or Push Pull Grids.	600 ¹	60,000 ¹ Split	+ 10 dbm	-65 db	AJ
2B 223B	Low Impedance Line to Grid.	12.5/50/200	80,000	+ 10 dbm	-65 db	AJ
2C 223C	Line and Bridging to Single or Push Pull Grids. 1-4	150/600/15,000	80,000 ¹ Split	+ 10 dbm	-65 db	AJ
2D 223D	High Impedance Pickup or Plate to Push Pull Grids.	10,000 (10MA DC)	80,000 ¹ Split	+ 22 dbm	-35 db	EA
2E 223E	Push Pull Plates to Push Pull Grids.	20,000 ¹ Split	90,000 ¹ Split	+ 24 dbm	-35 db	EA

MILITARY STANDARD AUDIO TRANSFORMERS

These Military Standard audio transformers have been specified by ASES and re-established by the three Military Services and the transformer industry as standards for Military transformer applications. Tests have been conducted in DC's environmental laboratory which indicate that these units will meet the requirements of MIL-T-27A, Grade 1, Class R operating temperature, life expectancy X (10,000 hours minimum).

at- log No.	MIL-T-27A Classification	MIL-T-27A Part No.	Application	Impedance (Ohms)	Oper- ating Level	Pri. DCMA Bal. Unbal.
221A	TF 1RX 13AJ001	MS-90006	Push Pull Plates to Push Pull Grids	Pri. 10,000 CT Sec. 22,500 CT 20,000 CT	15 dbm	-- 10
221A	TF 1RX 16AJ002	MS-90001	Line to Voice Coil	Pri. 600 CT (150) Sec. 4/8/16	2 W	-- --
221B	TF 1RX 10AJ001	MS-90002	Line to Push Pull Grids	Pri. 600 CT (150) Sec. 135,000 CT	15 dbm	-- --
221B	TF 1RX 16AJ001	MS-90003	Line to Line	Pri. 600 CT (150) Sec. 600 CT (150)	15 dbm	-- --
321A	TF 1RX 13AJ001	MS-90004	Plate to Line	Pri. 7600/4800 Sec. 600 CT (150)	2 W	-- 40
321B	TF 1RX 13AJ002	MS-90005	Plate to Voice Coil	Pri. 7600/4800 Sec. 4/8/16	2 W	-- 40
321C	TF 1RX 13AJ003	MS-90006	Push Pull Plates to Line	Pri. 15,000 CT Sec. 600 CT (150)	2 W	-- 10
321D	TF 1RX 13AJ004	MS-90007	Push Pull Plates to Line	Pri. 24,000 CT Sec. 600 CT (150)	1 W	20 1
321E	TF 1RX 13AJ005	MS-90008	Push Pull Plates to Line	Pri. 60,000 CT Sec. 600 CT (150)	.5 W	20 1

OUTPUT TRANSFORMERS Response $\pm \frac{1}{2}$ db, 30-15,000 cps (Power Response at Rated Output)

Catalog No. Com- mercial metric Case Seal	Application	Primary Impedance Rating (Ohms)	Secondary Impedance Rating (Ohms)	Max. Level	Case Size
322A 323A ¹	Plate to Line	15,000 (10 MA DC)	600/250 (150/62.5) ²	+ 20 dbm (1 W)	EB
322B ¹ 323B ¹	Plate to Voice Coil	5,000 (40 MA DC)	16/8/4	+ 37 dbm (5 W)	FA
322C 323C	Push Pull Plates to Line	20,000 CT	600/250 (150/62.5) ²	+ 30 dbm (1 W)	EB
322D 323D	Push Pull Plates to Line and Voice Coil	10,000 CT	600 (150) ² 16/8/4	+ 40 dbm (10 W)	GA
322E 323E ¹	Push Pull Plates to Voice Coil	9,000/2,250 Split ²	16/8/4	+ 40 dbm (10 W)	GA
322F 323F ¹	Push Pull Plates to Voice Coil	10,000 Split ²	16/8/4	+ 43 dbm (20 W)	JA
322G 322G ¹	Push Pull Plates to Voice Coil	8,000/1,600 Split ²	16/8/4	+ 42 dbm (15 W)	JB
322H 323H ¹	Push Pull Plates to Voice Coil	5,000/3,000 Split ²	16/8/4	+ 43 dbm (20 W)	JA
322J 323J ¹	Push Pull Plates to Voice Coil	6,600/1,650 Split ²	16/8/4	+ 45 dbm (30 W)	KA
322K 323K ¹	Push Pull Plates to Voice Coil	3,500/700 Split ²	16/8/4	+ 48 dbm (70 W)	LA
322L 323L ¹	Push Pull Par Plates to Voice Coil	2,500/1,500 Split ²	16/8/4	+ 49 dbm (80 W)	MA
322M 323M ¹	Push Pull Class A Transistors to Voice Coil	48/16/8 Split ²	16/8/4	+ 47 dbm (50 W)	KA
322N 323N ¹	Class A Transistor to Voice Coil	10 (1.25A DC)	16/8/4	+ 38 dbm (7 W)	JB
322P 323P ¹	Push Pull Transistors to Voice Coil	48/32 CT	16/8/4	+ 40 dbm (10 W)	GA

NOTES:

¹These items are not normally carried in stock.

²'Split' indicates 2 separate, symmetrical windings. Impedances shown are for series connections. Where impedances are shown in parenthesis, they indicate the impedances resulting when windings are connected in parallel.

³Balanced, for Williamson type circuit operation.

⁴Has primary taps suitable for Screen loading

⁵Power response $\pm \frac{1}{2}$ db, 50-15,000 cps.

⁶Response is ± 1 db, 30-15,000 cps.

All of these designs are available on special order with output impedances of other values than shown above.



2-56
Screws
Bottom
View

MINIATURE AUDIO TRANSFORMERS

These transformers offer a variety of special design features on a catalog basis for particular circuit and chassis applications. They are available for plug-in and printed circuit applications as well as standard installations. The special cases shown allow the maximum of electrical performance for each type as well as variety and flexibility in mechanical arrangement. All electrical ratings are shown for continuous duty at full specified power levels. Dia. $\frac{3}{16}$ ", Ht. $1\frac{1}{16}$ ", 2-56 Mtg. screws on $11/16$ " centers.

MINIATURE SERIES

Cat. No.	Type	Application	Primary Impedance (Ohms)	Secondary Impedance (Ohms)	Max. Level	Re- sponse
108A	Impedance	Line to Line	50/250/600	50/250/600	+ 8 dbm	± 1 db 30-15,000
208A	Input	Line to Single Grid	50/250/600	80,000	+ 10 dbm	± 1 db 30-15,000
208B	Input	Line to Push Pull Grids	50/250/600	80,000CT	+ 10 dbm	± 1 db 30-15,000
208C	Input	Low Impedance to Grid	7.5/30	80,000	+ 8 dbm	± 1 db 30-15,000
208D	Interstage	Plate (O DC) to Push Pull Grids	15,000	60,000CT	+ 10 dbm	± 1 db 30-10,000
208E	Interstage	Plate (3MA DC) to Push Pull Grids	15,000	60,000CT	+ 10 dbm	± 2 db 200-10,000
208F	Input	Line to Single Grid	50/250/600	500,000	+ 10 dbm	± 3 db 200-3000
208G	Interstage	Transistor to Transistors (20 MA DC)	10,000 (2500) Split	4000/ 1000CT	+ 10 dbm	± 2 db 100-10,000
308E	Output	Plate to Line (O DC)	15,000	50/250/600	+ 10 dbm	± 1 db 40-15,000
308F	Output	Plate to Line (3MA DC)	15,000	50/250/600	+ 10 dbm	± 2 db 100-15,000
308G	Output	Push Pull Plates to Line	30,000CT	50/250/6000	+ 10 dbm	± 1 db 30-15,000
308H	Output	Class B Transistors to Voice Coil	2000/ 500CT	16/8/4	+ 23 dbm	± 1 db 100-10,000
408D	Inductor	200 Hy @ 0 DC; 100 Hy @ 2MA DC; 50 Hy @ 4MA DC; 16 Hy @ 10MA DC; 6000 Ohms Resistance				

NOTE: These items are also available, on special request, as plug-in transformers with:

1. Mumental case $15/16$ " dia. by $1-5/16$ " high. 35 db shielding.
2. Mumental case plus 1 Mumental shield $1-1/16$ " dia. by $1\frac{1}{2}$ " high. 65 db shielding.





ADC PRODUCTS, INC.

TELEPHONE COILS

For many years, ADC has been a dependable source of transformers and filters for the telephone and telegraph industry. Recently, we have designed and tooled for additional items in a series of "coils" which are electrically and physically interchangeable with similar components made by Western Electric. These items are listed below with the equivalent Western Electric number. All items in this series can be supplied in MIL cases if desired.

ADC Inductors	W.E. Indr. or Ret.	Fig.	ADC Imped. Trans.	W.E. Repeat Coil	Fig.	ADC Imped. Trans.	W.E. Repeat Coil	Fig.
409BB	149B	2	118A	67E	•	119C	177C	•
409BC	149C	2	113A	91A	5	119D	177D	•
409BD	149D	2	113A	93A	5	112G	189A	1
409E	149E	2	113B	93B	5	112B	189D	1A
409G	149G	2	113F	93F	5	112C	189E	1A
409H	149H	2	113C	93C	5			
409J	149J	2	113H	93H	5			
409K	149K	2	113J	93J	5			
409M	149M	2	109S ¹	94E	2			
409N	149N	2	109T	94F	2			
409P	149P	2	109J	94G	2			
409R	149R	2	109K ¹	93H	2			
405A	152B	•	109V	94K	2			
405H	225A	•	109W	94L	2			
405E	250C	•	109Y	94N	2			
412AC	274C	1A	109Z	94P	2			
412AD	274D	1A	109BB	94S	2			
412AG	274G	1A	109BC	94T	2			
412AH	274H	1A	109BD	94U	2			
412AJ	274J	1A	109BE	94W	2			
412AL	274L	1A	109BF	94Y	2			
412AR	274R	1A	109BG ¹	94AA	2			
412AS	274S	1A	118F	106A	•			
412BB	274AB	1A	118S	119C	•			
412T	307B	1A	118U	119E	•			
412C	307C	1A	109B ¹	120C	2			
412F	307F	1A	109C ¹	120D	2			
412G	307G	1A	109D ¹	120E	2			
412H	307H	1A	109E ¹	120F	2			
412J	307J	1A	109F ¹	120H	2			
412K	307K	1A	109C ¹	120J	2			
412L	307L	1A	109H ¹	120K	2			
412M	307M	1A	109P ¹	120L	2			
412B	307N	1A	109L	146A	•			
412A ¹	307P	1A	109M	146U	•			
412R	307R	1A	119P	170A	•			

ADC Imped. Trans.	W.E. Auto Trans.	Fig.
109A	23A	•
112A ¹	181B	1
112E	181C	1
112H	D166840	1A

¹These represent most commonly used items and are normally carried in stock.

²Space did not permit outline drawings for all types. Dimensions will be sent on your request.

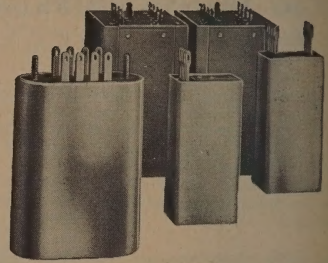


Fig. 1 and 1A

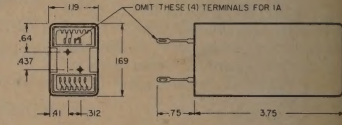


Fig. 2

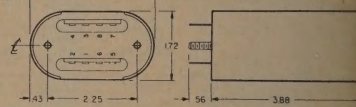
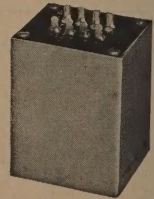
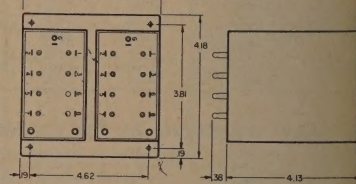


Fig. 5



ADC REPEATING COILS

104A—Cord Circuit. This repeating coil is designed to have good transmission efficiency for voice frequencies. Low frequency ringing currents are attenuated and circuit will not ring through. Case is heavy steel to eliminate all cross-talk. Core will not saturate at maximum normal current.

104B—Phantom. The 104B Repeating Coil is a 4-winding coil, for use in phantom circuits. The phantom winding (5-6-7-8) is parallel wound. Heavy Formvar wire is used for maximum surge voltage or lightning protection. This coil has good transmission efficiency at both ringing and voice frequencies.

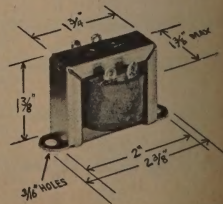
Type	PRI. DCR		SEC. DCR		Case	Screw	Mounting Centers
	1-2	3-4	5-6	7-8			
104A	10.3	16.5	12.5	14.5	2½x1½x3½ high	(4) 6-32	1½x1½
104B	16.5	20	24	24	2½x2½x3½ high	(4) 8-32	1½x2½

INDUCTION COILS

103A—Induction Coil is a 2-winding coil for local battery telephones.

103B—Anti-Sidetone Induction Coil is similar to 103A, but with an additional winding for anti-sidetone connection.

103C—Anti-Sidetone Induction Coil is designed for common battery telephone use.



FREED TRANSFORMER CO., INC.

BROADCAST QUALITY COMPONENTS

CASE DIMENSIONS

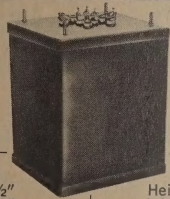


DC-2B CASE

Height: 3 1/2"
Width: 2 3/8"
Depth: 2 1/4"
Mtg. Cen.: 2"x1 1/8"
Studs: 4 8-32
Knockout: 1 1/2" dia.

DC-4A CASE

Height: 3 3/4"
Width: 3 1/8"
Depth: 3 1/8"
Mtg. Cen.: 2 1/2"x2 1/2"
Studs: 4 8-32
Knockout: 2" dia.



DC-2B CASE

Height: 3 1/2"
Width: 2 3/8"
Depth: 2 1/4"
Mtg. Cen.: 2"x1 1/8"
Studs: 4 8-32
Knockout: 1 1/2" dia.

DC-4A CASE

Height: 3 3/4"
Width: 3 1/8"
Depth: 3 1/8"
Mtg. Cen.: 2 1/2"x2 1/2"
Studs: 4 8-32
Knockout: 2" dia.

DC-4B CASE

Same as 4A—4" high

DC-5B CASE

Height: 4 1/2"
Width: 4 3/8"
Depth: 3 1/2"
Mtg. Cen.: 3"x2 5/8"
Studs: 4 10-32
Knockout: 3" dia.

DC-6A CASE

Height: 4 7/8"
Width: 5"
Depth: 4 1/8"
Mtg. Cen.: 3 3/4"x3"
Studs: 4 10-32
Knockout: 3" dia.

DC-6B CASE

Height: 6"
Width: 5"
Depth: 4 3/8"
Mtg. Cen.: 3 3/4"x3"
Studs: 4 10-32
Knockout: 3" dia.

DC-7 CASE

Height: 5 1/2"
Width: 5 1/2"
Depth: 4 1/8"
Mtg. Cen.: 4 3/4"x3 3/4"
Studs: 4 3/4"x20
Knockout: 3" dia.

LOW LEVEL OUTPUT, MIXING, MATCHING TRANSFORMERS

Frequency Response 20-20,000 C.P.S. ± 1.0 DB *50-20,000 C.P.S. ± 1.0 DB

Catalog No.	Application	Impedance Level Primary Secondary	Maximum Power Level DBM	Ratio	Equivalent Circuit D.B.	Maximum Pri. D.C. Shunting per Side Ma.	D.C. Unbalance Ma.	Case Number
DA 16	Single plate or bridging line to Universal 500 ohm line. Shunt feed.	15,000 U-500	+18	5.5:1	70	0	0	DC-2B
DA 17	Single plate to Universal 500 ohm line.	15,000 U-500	+18	5.5:1	70	8	8	DC-2B
DA 18	Push-pull triode plates to Universal 500 ohm line.	20,000 C.T.	+25	6.3:1	70	8	0.5	DC-2B
DA 19	Mixing, low impedance microphone or line to Universal 500 ohm line.	U-500 U-500	+12	1:1	70	0	0	DC-2B
DA 20	Line level mixing and matching.	U-500 U-500	+30	1:1	70	0	0	DC-2B
DA 21	High mu triode photo-cell to Universal 500 ohm line.	100,000 U-500	+12	14.1:1	70	0	0	DC-2B

DRIVER TRANSFORMERS

Frequency Response 20-20,000 C.P.S. ± 1.0 DB

Catalog No.	Application	Primary Impedance Ohms	Maximum Power Level DBM	Turn Ratio Pri. Vs Sec.	Maximum Pri. D.C. Shunting per Side Ma.	D.C. Unbalance Ma.	Case Number
DA 22	Universal 500 ohm line to Class B grids.	U-500	+40	1:1	0	0	DC-4A
DA 23	Push-pull 6J5, etc. to push-pull 2A3's, 6L6's, etc.	20,000 C.T.	+30	3.2:1	8	0.5	DC-2B
DA 24	Push-pull 2A3, 6B4 to push-pull 609, 12-40, 4125A.	5,000 C.T.	+40	3.1:1	50	5	DC-4B

INPUT TRANSFORMERS

Frequency Response 20-20,000 C.P.S. ± 1.0 DB

Catalog No.	Application	Impedance Level Primary Secondary	Maximum Power Level DBM	Ratio	Equivalent Circuit D.B.	Maximum Pri. D.C. Shunting per Side Ma.	D.C. Unbalance Ma.	Case Number
QA 1	Universal 500 ohm line to push-pull grids.	U-500 100,000 split	+10	1:14.1	70	0	0	DC-2B
QA 2	Universal 500 ohm line to push-pull grids.	U-500 100,000 split	+10	1:14.1	90	0	0	DC-2B
QA 3	Universal 500 ohm line to single or push-pull grids.	U-500 60,000 split	+10	1:11	70	0	0	DC-2B
QA 4	Universal 500 ohm line to single or push-pull grids.	U-500 60,000 split	+10	1:11	90	0	0	DC-2B
QA 5	Universal low impedance microphone, pickup or line to single or push-pull grids.	U-60 60,000 split	+10	1:31.6	70	0	0	DC-2B
QA 6	Universal low impedance microphone, pickup or line to single or push-pull grids.	U-60 60,000 split	+10	1:31.6	90	0	0	DC-2B

U-60 IMPEDANCES IN OHMS:
2.5, 5, 10, 15, 20, 30, 40, 60

U-500 IMPEDANCES IN OHMS:
50, 125, 200 C.T., 250, 330, 500 C.T.
125 and 500 ohms can be used for 150 and 600 ohms.

HYBRID AND REPEAT COILS

Frequency Response 20-20,000 C.P.S. ± 1.0 DB

Catalog No.	Application	Impedance Level		Ratio	Maximum Power Level dBm	Equivalent Circuit D.B.	Maximum Pri. D.C. Shunting per Side Ma.	D.C. Unbalance Ma.	Case Number
		Primary	Secondary						
QA 7	Hybrid, Unbalanced 500/600 ohm lines to 600 ohms.	Total Pri 1200/1000 split 300/250 300/250	600/150 or 500/125 split	+10	1:4.1:1	70	0	0	DC-2B
QA 8	Hybrid, Balanced 500/600 ohm lines to 600 ohms. Longitudinal balance 70 DB	Total Pri 1200/1000 split 300/250 C.T. 300/250 C.T.	600/150 or 500/125 split	+10	1:4.1:1	70	0	0	DC-2B
QA 9	Hybrid, Unbalanced 500/600 ohm lines to triode plate, No. D.C. in secondary	Total Pri 1200/1000 split 300/250 300/250	15,000 or 12,500	+10	1:3.54	70	0	0	DC-2B
QA 10	Hybrid, Balanced 500/600 ohm lines to triode plate, No. D.C. in secondary. Longitudinal balance 70 DB.	Total Pri 1200/1000 split 300/250 C.T. 300/250 C.T.	15,000 or 12,500	+10	1:3.54	70	0	0	DC-2B
QA 11	Repeat coil for low frequency ringing. Longitudinal balance 70 DB.	600/500 split Balanced	600/500 split Balanced	1:1		90	0	0	DC-4A

INTERSTAGE TRANSFORMERS

Frequency Response 20-20,000 C.P.S. ± 1.0 D.B. *50-20,000 C.P.S. ± 1.0 D.B.

Catalog No.	Application	Impedance Level Primary Secondary	Maximum Power Level DBM	Ratio	Equivalent Circuit D.B.	Maximum Pri. D.C. Shunting per Side Ma.	D.C. Unbalance Ma.	Case Number
QA 12	Bridging line to single or push-pull grids.	10,000 60,000 split	+10	1:2.45	70	0	0	DC-2B
QA 13	Single 6CA, 6J5 1/2 6SN7 triode to push-pull grids. Shunt feed.	15,000 60,000 split	+18	1:2	45	0	0	DC-2B
QA 14	Single 6CA, 6J5 1/2 6SN7 triode to push-pull grids.	15,000 60,000 split	+18	1:2	45	8	8	DC-2B
QA 15	Push-pull triode plates to push-pull class A grids.	20,000 45,000 split	+25	1:1.5	30	8	0.5	DC-4A

HIGH LEVEL OUTPUT TRANSFORMERS

Frequency Response 20-30,000 C.P.S. ± 0.5 DB

Catalog No.	Application	Impedance Level Primary Secondary	Maximum Power Level DBM	Watts	Ratio	Maximum Pri. D.C. Shunting per Side Ma.	D.C. Unbalance Ma.	Case Number
QA 25	PP58B1, 6B4, 6L6, 300A, 275A to Universal 500 ohm line.	5,000 split U-500	+42	15	3.16:1	70	7	DC-5B
QA 26	As above to Universal voice coil.	5,000 split U-16	+42	15	17.7:1	70	7	DC-5B
QA 27	Push-pull 6V6, 6A05, 7C5, 6N7 to Universal 500 ohm line.	8,000 split U-500	+42	15	4:1	50	5	DC-5B
QA 28	As above to Universal voice coil.	8,000 split U-16	+42	15	22.4:1	50	5	DC-5B
QA 29	P.P. 6F6, 5V6, 6A05, 7C5, 7B5, 6AR5, 6L6, 6L6 to Universal 500 ohm line.	10,000 split U-500	+42	15	4.47:1	40	4	DC-5B
QA 30	As above to Universal voice coil.	10,000 split U-16	+42	15	25:1	40	4	DC-5B
QA 31	P.P. 807, 1614, KT-66, (Williamson Amplifier) to Universal 500 ohm line.	10,000 split U-500	+45.5	36	4.47:1	60	6	DC-6A
QA 32	As above to Universal voice coil.	10,000 split U-16	+45.5	36	25:1	60	6	DC-6A
QA 33	P.P. Parallel, 6A56, 300A to Universal 500 ohm line.	2,500 split U-500	+45.5	36	2.24:1	100	10	DC-6A
QA 34	As above to Universal voice coil.	2,500 split U-16	+45.5	36	12.5:1	100	10	DC-6A
QA 35	P.P. 6L6 or P.P. Parallel 6L6 to Universal 500 ohm line.	3,800 split U-500	+47	50	2.75:1	140	14	DC-6B
QA 36	As above to Universal voice coil.	3,800 split U-16	+47	50	15.8:1	140	14	DC-6B
QA 37	High level multiple line to Universal voice coil.	U-500	+42	15	5.6:1	0	0	DC-5B
QA 38	High level multiple line to Universal voice coil.	U-500	+47	50	5.6:1	0	0	DC-6B
QA 39	58B1 or 6146 Class AB1 to Universal 500 ohm line.	6,600 split U-500	+45.5	36	3.6:1	70	7	DC-6A
QA 40	58B1 or 6146 Class AB1 to Universal voice coil.	6,600 split U-16	+45.5	36	20:1	70	7	DC-6A
QA 41	6550 AB1 or 6146 AB2 to Universal 500 ohm line.	5,000 split U-500	+50	100	3.16:1	140	14	DC-7
QA 42	6550AB1 or 6146AB2 to Universal 500 ohm line.	5,000 split U-16	+50	100	17.7:1	140	14	DC-7

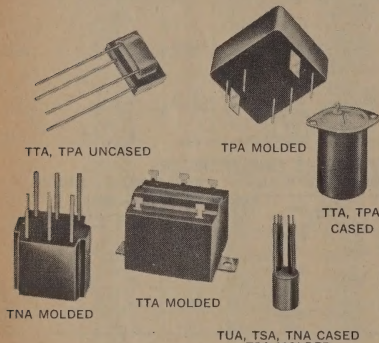
*These units supplied with taps for applying screen feedback
U-15 IMPEDANCES IN OHMS: 2, 4, 8, 12, 16
U-500 IMPEDANCES IN OHMS: 50, 125, 200 C.T., 250, 330, 500 C.T.
125 and 500 ohms can be used for 150 and 600 ohms.

FREED TRANSFORMER CO., INC.

MINIATURE TRANSISTOR AUDIO TRANSFORMERS

These high quality miniature transformers are high efficiency audio components featuring hermetic sealing for maximum protection against electrolysis and subsequent corrosion of fine wires caused by moisture penetration. The units are constructed in accordance with MIL-T-27A Specifications. Transistor transformers can also be supplied in an open or encapsulated type of construction.

TYPE		TSA				TNA				TPA				TTA				
MAX. POWER		500 MW				1 W				3 W				5 W				
FREQ. RESPONSE		.3 — 15 KC ± 2 DB.				.2 — 15 KC ± 2 DB				.15 — 15 KC ± 2 DB				.15 — 15 KC ± 2 DB				
UNCASED																		
SIZE	CASED MIL-T-27A-4RX		½ D. x ½ H.				¾ D. x ¾ H.				¾ D. x ¾ H.				¾ D. x ¾ H.			
	MOLDED MIL-T-27A-SRX		½ D. x ½ H.				¾ D. x ¾ H.				¾ D. x ¾ H.				1½ x 1 x 1½ H.			
MATCHING IMP.																		
Pri.		Sec.		Cat. No.	Max. I (MA) Total	Max I dc (MA) Unbal. 1/2 Pri.	Cat. No.	Max. I (MA) Total	Max I dc (MA) Unbal. 1/2 Pri.	Cat. No.	Max. I (MA) Total	Max I dc (MA) Unbal. 1/2 Pri.	Cat. No.	Max. I (MA) Total	Max I dc (MA) Unbal. 1/2 Pri.			
150 (CT)	3.2	28	35	12	28	40	16	30	45	20	17	130	50	15	130	50		
150 (CT)	12	29	35	12	28	40	16	31	45	20	17	130	50	15	130	50		
150 (CT)	50	30	35	12	30	40	16	32	45	20	18	130	50	15	130	50		
300 (CT)	3.2	31	30	8	31	32	14	33	35	16	20	100	35	16	100	35		
300 (CT)	12	32	30	8	32	32	14	34	35	16	21	100	35	16	100	35		
300 (CT)	50	33	30	8	33	32	14	35	35	16	22	100	35	16	100	35		
500 (CT)	3.2	34	20	6	34	22	10	36	25	12	1	80	25	12	80	25		
500 (CT)	12	2	16	6	2	18	8	3	20	10	23	65	25	12	65	25		
500 (CT)	50	35	16	6	35	18	8	3	20	10	24	65	25	12	65	25		
600 (SP)	3.2	36	16	6	36	18	8	3	20	10	25	65	25	12	65	25		
600 (SP)	12	37	16	6	37	18	8	3	20	10	26	65	25	12	65	25		
600 (SP)	50	38	14	4	38	16	6	40	16	8	13	50	20	7	65	25		
1K (CT)	3.2	38	14	4	38	14	6	40	16	8	13	50	20	7	65	25		
1K (CT)	12	37	14	4	37	15	6	39	16	8	27	50	20	7	65	25		
1K (CT)	50	4	12	4	4	14	6	5	16	8	28	40	15	7	65	25		
1.2K (SP)	3.2	4	12	4	4	14	6	5	16	8	29	40	15	7	65	25		
1.2K (SP)	12	5	12	4	5	14	6	6	16	8	30	40	15	7	65	25		
1.2K (SP)	50	38	12	4	38	14	6	6	16	8	30	40	15	7	65	25		
2K (SP)	3.2	6	12	3	6	14	6	7	16	8	31	40	15	7	65	25		
2K (SP)	12	7	9	3	7	10	5	8	14	6	32	40	15	7	65	25		
2K (SP)	50	8	9	3	8	10	5	9	14	6	33	40	15	7	65	25		
4K (SP)	3.2	10	6.5	2	10	8	3	12	9	5	34	40	15	7	65	25		
4K (SP)	12	11	6.5	2	11	8	3	13	9	5	35	40	15	7	65	25		
4K (SP)	50	12	6.5	2	12	8	3	14	9	5	36	40	15	7	65	25		
10K (SP)	3.2	13	5	1	13	6	2	15	7	3	37	40	15	7	65	25		
10K (SP)	12	14	5	1	14	6	2	16	7	3	38	40	15	7	65	25		
10K (SP)	50	15	5	1	15	6	2	17	7	3	39	40	15	7	65	25		
10K (CT)	3.2	16	5	1	16	6	1.5	18	7	1.8	40	15	5	7	65	25		
10K (CT)	12	17	5	1	17	6	1.5	19	7	1.8	41	15	5	7	65	25		
10K (CT)	50	18	5	1	18	6	1.5	20	7	1.8	42	15	5	7	65	25		
20K (CT)	3.2	25	3	1	25	3	1	21	5	2	43	15	5	7	65	25		
20K (CT)	12	26	3	1	26	3	1	22	5	2	44	15	5	7	65	25		
25K (CT)	3.2	27	3	1	27	3	1	23	5	2	45	15	5	7	65	25		
25K (CT)	12	28	3	1	28	3	1	24	5	2	46	15	5	7	65	25		
50K (CT)	3.2	29	3	1	29	3	1	25	5	2	47	15	5	7	65	25		
50K (CT)	12	30	3	1	30	3	1	26	5	2	48	15	5	7	65	25		
50K (CT)	50	31	3	1	31	3	1	27	5	2	49	15	5	7	65	25		
100K (CT)	3.2	32	3	1	32	3	1	28	5	2	50	15	5	7	65	25		
100K (CT)	12	33	3	1	33	3	1	29	5	2	51	15	5	7	65	25		
100K (CT)	50	34	3	1	34	3	1	30	5	2	52	15	5	7	65	25		
100K (CT)	1.2K (CT)	20	2	1	20	2	1	31	5	2	53	15	5	7	65	25		
100K (CT)	1.2K (CT)	19	2	1	19	2	1	32	5	2	54	15	5	7	65	25		



		TYPE		TUA					
		MAX. POWER		500 MW					
		FREQ. RESPONSE		.4 - 15 KC ± 2 DB					
		UNCASED							
		SIZE		CASED MIL-T-27A-4RX					
		MOLDED		1½ D. x ½ H.					
MATCHING IMP.				MATCHING IMP.					
Pri.	Sec.	Cat. No.	Max. I (MA) Total Pri.	Max. I dc (MA) Unbal. ½ Pri.	Pri.	Sec.	Cat. No.	Max. I (MA) Total Pri.	Max. I dc (MA) Unbal. ½ Pri.
150 (CT)	3.2	16	15	10	2K (CT)	3.2	28	3.5	2.5
150 (CT)	12	17	15	10	2K (CT)	12	29	3.5	2.5
150 (CT)	50	20	15	10	2K (CT)	50	30	3.5	2.5
300 (CT)	3.2	21	19	7	4K (CT)	3.2	8	3.5	1.5
300 (CT)	12	22	9	7	4K (CT)	12	10	3.5	1.5
300 (CT)	50	22	9	7	4K (CT)	50	10	3.5	1.5
600 (CT)	3.2	23	7	5	10K (CT)	3.2	11	2	1
600 (CT)	12	2	7	5	10K (CT)	12	7	2	1
600 (CT)	50	13	7	5	10K (CT)	50	12	2	1
600 (CT)	1.2K	24	7	5	10K (CT)	1.2K	18	2	1
1K (CT)	3.2	4	6	3.5	20K (CT)	3.2	31	2	.8
1K (CT)	12	25	6	3.5	20K (CT)	12	32	2	.8
1K (CT)	50	26	6	3.5	25K (CT)	50	33	2	.8
1.2K (CT)	3.2	27	6	3.5	50K (CT)	1.2K (CT)	34	2	.8
1.2K (CT)	12	28	6	3.5	50K (CT)	12	35	2	.8
1.2K (CT)	50	27	6	3.5	50K (CT)	50	37	2	.8
1.2K (CT)	600	30	6	3.5	50K (CT)	1.2K (CT)	38	2	.8

CT = Center Tap. SP = Split Winding.

MINIATURE AUDIO TRANSFORMERS

These high quality, miniature transformers feature hermetically sealing for maximum protection from moisture penetration with subsequent electrolysis and corrosion of fine wires. While primarily intended for non-military equipment, these units are constructed in accordance with MIL-T-27A Specifications.

Frequency response: ± 2DB 30-20,

FREED TRANSFORMER CO., INC.

MINIATURE TRANSISTOR TRANSFORMERS

These high quality miniature transformers are high efficiency audio components featuring hermetically sealing for maximum protection against electrolysis and subsequent corrosion of fine wires caused by moisture penetration. The units are constructed in accordance with MIL-T-27A Specifications.

Transistor Transformers can also be supplied in an open or encapsulated type of construction

CASE DIMENSIONS

DM-01 CASE

Height: 2"
Width: 1 1/2"
Depth: 1 1/2"
Mtg. Cen.: 1 1/2" x 1 1/2"
Studs: 4 6-32
Knockout: 1 3/8" dia.

UNCASED DIMENSIONS

TMO 1 TO 14

Height: 1 3/8"
Width: 1 1/2"
Depth: 2 1/2"
Mtg. Cen.: 1 3/8"
2 Mtg. Holes: .120 dia.
Flange Lgth: 1 5/8"

TMO 15 TO 18

TMO-19

Height: 2 1/2"
Width: 2 1/2"
Depth: 1 3/4"
Mtg. Cen.: 1 3/4"
2 Mtg. Holes: 3/8" dia.
Flange Lgth: 2 1/8"

Catalog No.	MIL Type	Impedance Ohms				Frequency Response		Unbalance Primary Current		D.C. Resistance Ohms		Max. Power Output	Case No.
		Pri.	Ct.	Sec.	Ct.	D.B.	C.P.S.	M.A./D.C.	Pri.	Sec.	M.W.		
TMA 1*	TF4RX16VY	500		500		1	200 to 15,000	0	18	24	250	DM-20	
TMA 2*	TF4RX12VY	50K		500		2	300 to 15,000	3	2,200	49	250	DM-20	
TMA 3*	TF4RX13VY	50K		6		2	300 to 15,000	3	2,200	55	250	DM-20	
TMA 4*	TF4RX12VY	100K		1.2K	✓	3	300 to 15,000	1	2,790	95	100	DM-20	
TMA 5*	TF4RX12VY	25K		1.2K	✓	2	200 to 15,000	3	1,740	110	250	DM-20	
TMA 6*	TF4RX12VY	50K		1.2K	✓	2	300 to 15,000	3	2,200	106	250	DM-20	
TMA 7*	TF4RX17VY	600/150		1.2K	✓	1	200 to 15,000	4	30	95	250	DM-20	
TMA 8*	TF4RX12VY	25K		600		2	200 to 15,000	3	1,740	61	250	DM-20	
TMA 9*	TF4RX12VY	4K	✓	600/150	✓	1	200 to 15,000	1	274	43	250	DM-20	
TMA 10*	TF4RX13VY	2K		3.2		2	200 to 15,000	10	160	28	250	DM-20	
TMA 11*	TF4RX13VY	4K	✓	3.2		1	200 to 15,000	1	274	26	250	DM-20	
TMA 12*	TF4RX13VY	20K		50		2	300 to 15,000	4	1,340	2.9	250	DM-20	
TMA 13*	TF4RX17VY	1K		50		2	300 to 15,000	8	42.6	2.5	250	DM-20	
TMA 14*	TF4RX16VY	100K		1K		2	300 to 15,000	0	1,550	16.8	100	DM-20	
TMO 15		20K		50		2	300 to 15,000	1	2,215	7.25	40	open	
TMO 16		20K		600		2	300 to 15,000	1	2,215	102	40	open	
TMO 17		1K		50		2	300 to 15,000	3	93	5.6	60	open	
TMO 18		100K		1K		2	300 to 15,000	0	3,000	57.5	100	open	
TMA 19*	TF4RX13VY	1K		3.2		2	200 to 15,000	20	38	19	1000	DM-01	

*When ordering open units specify TMO — when ordering encapsulated units specify TMC

PROFESSIONAL GRADE COMPONENTS

This group of components has been designed for use in high fidelity and professional equipment and for public address service. Freed has developed this series of units employing the latest design techniques and the best commercially available materials. Except for units carrying unbalanced direct current the frequency response is ± 1 DB from 30 to 15,000 cps. All units feature excellent performance characteristics with minimum size and weight.

All units are vacuum varnished and then potted in compound to insure long life and trouble free performance.

Professional Grade components are supplied cased. Upon request these units can be supplied open or in shell type construction.

All cased Professional Grade Components supplied with terminals meet "EIA" standards.

Transformers PGA 1 through PGA 10 are supplied in hermetically sealed cases.

INPUT TRANSFORMERS

Frequency Response 30-15,000 C.P.S. ± 1.0 DB

Catalog No.	Application	Impedance Level Ohms		Maximum Power Level DBM	Ratio	Equivalent Shielding D.B.	Max. Pri. D.C. Per Side Ma.	D.C. Unbalance Ma.	Case Number
		Primary	Secondary						
PGA 1	Universal 500 ohm line to single grid.	U-500	50,000	+12	1:10	50	0	0	DM-01
PGA 2	Universal 500 ohm line to push-pull grids.	U-500	60,000 split	+12	1:11	50	0	0	DM-01
PGA 3	Universal 500 ohm line to push-pull grids.	U-500	100,000 split	+12	1:14.1	50	0	0	DM-01
PGA 4	Bridging line to single grid.	10,000	60,000	+12	1:2.45	50	0	0	DM-01
PGA 5	Bridging line to push-pull grids.	10,000	60,000 center tap	+12	1:2.45	50	0	0	DM-01
PGA 6	Low level line matching.	U-500	U-500	+18	1:1	50	0	0	DM-01

LOW LEVEL OUTPUT AND MIXING TRANSFORMERS

Frequency Response 30-15,000 C.P.S. ± 1.0 DB

Catalog No.	Application	Impedance Level Ohms		Maximum Power Level DBM	Ratio	Max. Pri. D.C. Per Side Ma.	D.C. Unbalance Ma.	Case Number
		Primary	Secondary					
PGA 7	Single triode plate to Universal 500 ohm line. Shunt feed.	15,000	U500	+18	5.48:1	0	0	DM-01
PGA 8	Single triode plate to Universal 500 ohm line.	15,000	U500	+18	5.48:1	8	8	DM-01
PGA 9	Push-pull triode plates to Universal 500 ohm	20,000 CT	U500	+30	6.32:1	8	0.5	DM-01
PGA 10	Low level line matching.	U500	U500	+18	1:1	0	0	DM-01

U-500 IMPEDANCES IN OHMS: 50, 125, 200 CT, 250, 330, 500 CT. 125 and 500 ohms can be used for 150 and 600 ohms.

DRIVER TRANSFORMERS

Frequency Response 30-15,000 C.P.S. ± 1.0 DB

Catalog No.	Application	Primary Impedance Ohms	Turn Ratio Pri: 1/2 Sec.	Max. Level DBM	Max. Pri. D.C. Per Side Ma.	Max. D.C. Unbalance Ma.	Case Number
PGA 11	Universal 500 ohm line to push-pull grids.	U500	1:1	+40	0	0	DC-2A
PGA 12	Push-pull 6C4, 6SN7 triodes to push-pull 2A3, 6L6 grids.	20,000 C.T.	3.0:1	+30	10	1	DC-1A
PGA 13	Push-pull 2A3, 6B4, 6A5G to push-pull 809, 1Z-40, 4/125A	5,000 C.T.	3.2:1	+40	50	5	DC-2A

All units supplied with leads.

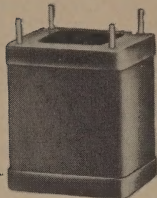
FREED TRANSFORMER CO., INC.

PROFESSIONAL GRADE COMPONENTS

HIGH LEVEL OUTPUT TRANSFORMERS

Frequency Response 30-15,000 C.P.S. ± 1.0 DB

CASE DIMENSIONS



DC-1A CASE

Height: $2\frac{1}{2}$ "
 Width: $2\frac{1}{8}$ "
 Depth: $1\frac{1}{8}$ "
 Mtg. Cen.: $1\frac{1}{2}$ "x $1\frac{1}{4}$ "
 Studs: 4 8-32
 Knockout: $1\frac{1}{4}$ " dia.

DC-4A CASE

Height: $3\frac{3}{4}$ "
 Width: $3\frac{1}{8}$ "
 Depth: $3\frac{1}{8}$ "
 Mtg. Cen.: $2\frac{1}{2}$ "x $2\frac{1}{2}$ "
 Studs: 4 8-32
 Knockout: $2\frac{1}{2}$ "x $1\frac{1}{2}$ "

DC-2A CASE

Height: 3"
 Width: $2\frac{5}{8}$ "
 Depth: $2\frac{1}{4}$ "
 Mtg. Cen.: $2\frac{1}{2}$ "x $1\frac{1}{4}$ "
 Studs: 4 8-32
 Knockout: $1\frac{1}{2}$ "x $1\frac{3}{8}$ "

DC-5A CASE

Height: $3\frac{3}{8}$ "
 Width: $4\frac{1}{8}$ "
 Depth: $3\frac{1}{2}$ "
 Mtg. Cen.: $3\frac{1}{2}$ "x $2\frac{5}{8}$ "
 Studs: 4 10-32
 Knockout: $2\frac{1}{2}$ "x2"

DC-2B CASE

Height: $3\frac{1}{2}$ "
 Width: $2\frac{5}{8}$ "
 Depth: $2\frac{1}{2}$ "
 Mtg. Cen.: $2\frac{1}{2}$ "x $1\frac{1}{4}$ "
 Studs: 4 8-32
 Knockout: $1\frac{1}{2}$ "x $1\frac{3}{8}$ "

DC-6A CASE

Height: $4\frac{1}{4}$ "
 Width: 5"
 Depth: $4\frac{1}{4}$ "
 Mtg. Cen.: $3\frac{1}{2}$ "x3"
 Studs: 4 10-32
 Knockout: $3\frac{1}{2}$ "x $2\frac{1}{2}$ "

CASE DIMENSIONS



DM-01 CASE

Height: 2"
 Width: $1\frac{1}{2}$ "
 Depth: $1\frac{1}{2}$ "
 Mtg. Cen.: $1\frac{1}{2}$ "x $1\frac{1}{8}$ "
 Studs: 4 6-32

DC CASE STYLE



DC-2B

Height: $3\frac{1}{2}$ "
 Width: $2\frac{5}{8}$ "
 Depth: $2\frac{1}{2}$ "
 Mtg. Cen.: $2\frac{1}{2}$ "x $1\frac{1}{4}$ "
 Studs: 4 8-32

DC-1A

Height: $2\frac{1}{2}$ "
 Width: $2\frac{1}{8}$ "
 Depth: $1\frac{1}{8}$ "
 Mtg. Cen.: $1\frac{1}{2}$ "x $1\frac{1}{4}$ "
 Studs: 4 8-32

DC-4A

Height: $3\frac{3}{4}$ "
 Width: $3\frac{1}{8}$ "
 Depth: 3"
 Mtg. Cen.: $2\frac{1}{2}$ "x $2\frac{1}{2}$ "
 Studs: 4 8-32

DC-2A

Height: 3"
 Width: $2\frac{5}{8}$ "
 Depth: $2\frac{1}{4}$ "
 Mtg. Cen.: $2\frac{1}{2}$ "x $1\frac{1}{4}$ "
 Studs: 4 8-32

DC-5A CASE

Height: $3\frac{3}{8}$ "
 Width: $4\frac{1}{8}$ "
 Depth: $3\frac{1}{2}$ "
 Mtg. Cen.: $3\frac{1}{2}$ "x $2\frac{5}{8}$ "
 Studs: 4 10-32

DC-5B

Height: $4\frac{1}{2}$ "
 Width: $4\frac{1}{8}$ "
 Depth: $3\frac{1}{2}$ "
 Mtg. Cen.: $3\frac{1}{8}$ "x $2\frac{3}{8}$ "
 Studs: 4 10-32

Catalog No.	Application	Impedance Level Ohms		Maximum Power Level DBM	Watts	Ratio	Max. Pri. D.C. Per Side Ma	DC Unbalance Ma	Case Number
		Primary	Secondary						
PGA 14	P.P. 6K6, 6AR5, 7B5 Class A to Universal voice coil.	12,000 C.T.	U16	+40	10	27.4:1	40	4	DC-2B
PGA 15	P.P. 6F6 Cl. AB ₂ , P.P. 6V6, 6AO5, 7C5, Cl. AB ₂ , 6L6 or 5881 Triode to Universal voice coil.	10,000 C.T.	U16	+43	20	25:1	50	5	DC-1A
PGA 16	P.P. 6L6 Cl. AB ₂ , self bias to Universal 500 ohm line.	9,000	U500	+44.8	30	4.23:1	50	5	DC-4A
PGA 17	As above to Universal voice coil.	9,000	U16	+44.8	30	23.7:1	50	5	DC-4A
PGA 18	P.P. 6N7 Cl. B, P.P. 6V6, 6AO5, 7C5, Cl. AB ₂ , to Universal voice coil.	8,000 C.T.	U16	+41.8	15	22.3:1	45	5	DC-4A
PGA 19*	P.P. 6L6, fixed bias, Cl. AB ₂ , to Universal 500 ohm line.	6,600 C.T.	U500	+44.8	30	3.63:1	70	7	DC-4A
PGA 20	As above to Universal voice coil.	6,600 C.T.	U16	+44.8	30	20.3:1	70	7	DC-4A
PGA 21	P.P. 6L6 Cl. A, P.P. 2A3, 6A5G, 6B4 self bias P.P. Par. 6V6 Cl. AB ₂ , to Universal voice coil.	5,000 C.T.	U16	+43	20	17.7:1	80	8	DC-4A
PGA 22	P.P. Par. 6L6 Cl. AB ₂ , self bias P.P. 6L6 Cl. AB ₂ , fixed bias PP807 Cl. AB ₂ , to Universal 500 ohm line.	4000 C.T.	U500	+47	50	2.83:1	100	10	DC-5A
PGA 23	As above to Universal voice coil.	4000 C.T.	U16	+47	50	15.8:1	100	10	DC-5A
PGA 24	P.P. 6A5G, 6B4, 2A3, fixed bias Universal voice coil.	3000 C.T.	U16	+41.8	15	13.7:1	75	7.5	DC-4A
PGA 25	P.P. Par. 807 Cl. AB ₂ to Universal 500 ohm line.	2100 C.T.	U500	+51.8	150	2.05:1	240	12	DC-6A
PGA 26	P.P. Par. 2A3, 6A5G, fixed bias 6B4, 300A Cl. AB ₂ , P.P. Par. 6L6 Cl. A to Universal 500 ohm line.	1500 C.T.	U500	+44.8	30	1.73:1	180	15	DC-4A
PGA 27	As above to Universal voice coil.	1500 C.T.	U16	+44.8	30	9.7:1	150	15	DC-4A
PGA 28	Matching line to Universal voice coil.	U500	U16	+44.8	30	5.6:1	0	0	DC-4A
PGA 29	Matching line to Universal voice coil.	U500	U16	+47	50	5.6:1	0	0	DC-5A
PGA 30	Matching line to Universal voice coil.	U500	U16	+50	100	5.6:1	0	0	DC-6A

*Available with taps to apply screen feedback.

U-16 IMPEDANCES IN OHMS:

2, 4, 8, 12, 16

U-500 IMPEDANCES IN OHMS:

50, 125, 200 C.T., 250, 330, 500 C.T., 125 and 500 ohms can be used for 150 and 600 ohms.

*PGA 28, 29 & 30 supplied with terminals, all other units with leads.

A 70 volts level can be obtained for the following impedances:

500 ohms — 10 watts +40 DBM
 330 ohms — 15 watts +42 DBM
 250 ohms — 20 watts +43 DBM
 200 ohms — 25 watts +44 DBM
 125 ohms — 40 watts +46 DBM
 50 ohms — 100 watts +50 DBM

FILTER REACTORS

Inductance measured at 50V, 60 cycles with rated direct current in the winding

Catalog No.	Inductance in Henries	Rated Current D.C. Ma.	D.C. Resistance Ohms	Dielectric Test Voltage VRMS	Case Number
PGC 1	40	15	2000	1000	DM-01
PGC 2	12	40	400	1000	DC-1A
PGC 3	8	50	300	1000	DC-1A
PGC 4	20	50	425	2500	DC-2A
PGC 5	10	70	250	2500	DC-2A
PGC 6	6	100	160	2500	DC-2A
PGC 7	6	150	115	2500	DC-2B
PGC 8	10	150	160	2500	DC-4A
PGC 9	5.5	200	95	2500	DC-4A
PGC 10	10	200	150	2500	DC-4A
PGC 11	10	250	135	2500	DC-5B
PGC 12	8	300	95	2500	DC-5B
PGC 13	7	400	60	2500	DC-5B
		PARALLEL FEED	AUDIO CHOKES		
PGC 14	100	10	3500	1000	DM-01
PGC 15	30	50	650	1500	DC-2A
PGC 16	400	1	6000	1000	DM-01

SWINGING INPUT REACTORS*

Catalog No.	Inductance in Henries*	Rated Current D.C. Ma.	D.C. Resistance Ohms	Dielectric Test Voltage VRMS	Case Number
PGC 17	5-20	150	160	1500	DC-4A
PGC 18	5-20	250	135	1500	DC-5B
PGC 19	3-15	300	95	1500	DC-5B
PGC 20	3-15	400	60	1500	DC-5B

*Inductance values for 100% and 10% of rated Direct Current.

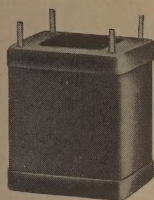
FREED TRANSFORMER CO., INC.

PROFESSIONAL GRADE COMPONENTS

POWER TRANSFORMERS

ALL PRIMARIES ARE FOR 115V., 50/60 c.p.s.

Temperature rises range from 45° to 50°C.



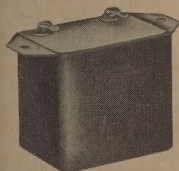
Catalog No.	PY Va	Hi Volt	Choke Input D.C.V. D.C. Ma	Con. Input D.C.V. D.C. Ma	Bias Tap.	Rectifier	Fil. No. 1	Fil. No. 2	Fil. No. 3	Case No.
PGP 1	15	440V C.T.	Low flux density, hum-bucking. For Pre-amplifier service.	270 15		6X4	6.3VCT @ 0.6A	6.3V @ 0.3A		DC-2B
PGP 2	30	550V C.T.	Low flux density, hum-bucking. For Pre-amplifier service.	310 35		6X4	6.3VCT @ 0.6A	6.3VCT @ 0.9A		DC-4A
PGP 3	45	500V C.T.		270 40		6X4, 5Y3	5/6.3V @ 2A	6.3V @ 2A		DC-4A
PGP 4	57	600V C.T.		330 50		6X4, 5Y3	5/6.3V @ 2A	6.3V @ 2.5A		DC-4A
PGP 5	64	650V C.T.		370 50		6X4, 5Y3	5/6.3V @ 2A	6.3V @ 3A		DC-4A
PGP 6	73	600V C.T.		320 70		6X4, 5Y3	5/6.3V @ 2A	6.3V @ 3A		DC-4A
PGP 7	110	650V C.T.	225 140	330 100		5Y3, 5U4	5V @ 3A	6.3V @ 5A		DC-5B
PGP 8	76	700V C.T.	260 100	385 70		5Y3	5V @ 2A	6.3V @ 2.5A		DC-5A
PGP 9	108	700V C.T.	250 125	370 90		5Y3, 5U4	5V @ 3A	6.3V @ 5A		DC-5B
PGP 10	127	700V C.T.	260 170	350 120		5U4	5V @ 3A	6.3V @ 5A		DC-5B
PGP 11	146	700V C.T.	260 210	350 150		5U4	5V @ 3A	6.3V @ 5A	6.3V @ 1A	DC-6A
PGP 12	207	800V C.T.	295 280	400 200		5U4, 2-5Y3	5V @ 4A	6.3V @ 6A		DC-6A
PGP 13	225	800V C.T.	295 280	400 200	80	5U4, 2-5Y3	5V @ 4A	6.3V @ 6A	5/6.3V @ 2A	DC-6A
PGP 14	268	840V C.T.	330 350	450 250	80	2-5U4	5V @ 6A	6.3V @ 6A	5/6.3V @ 2A	DC-6A
PGP 15	320	900V C.T.	340 420	490 300	80	2-5U4	5V @ 6A	6.3V @ 6A	5/6.3V @ 2A	DC-7B
PGP 16	127	900V C.T.	360 150			5U4	5V @ 3A	6.3V @ 5A		DC-6A
PGP 17	150	900V C.T.	350 200			5U4	5V @ 3A	6.3V @ 5A		DC-6A
PGP 18	203	1100V C.T.	400 250			5R4GY	5V @ 3A	6.3V @ 5A		DC-6A
PGP 19	248	1100V C.T.	420 300			2-5R4GY	5V @ 4A	6.3V @ 7A		DC-6A
PGP 20	310	1280V C.T.	480 350			2-5R4GY	5V @ 4A	6.3V @ 7A		DC-7B

All units supplied with leads.

PQC HIGH Q REACTORS

PQC-Reactors are low-priced High Q components designed for use in selective circuits such as wave filters, wave traps, and noise suppressors.

CASE DIMENSIONS



DM-02 CASE

Height: 1 1/2"
Width: 1 1/2"
Depth: 1 1/2"
Flange L: 2 3/4"
Mtg. Cen.: 2"

Catalog No.	Application	Rated Ind. in Henries	Q	Tuning Capacitor (MF)	Case Size
PQC 1	60 cps resonant trap	14.00	10	.5	DM-02
PQC 2	400 cps resonant trap	1.58	15	.1	DM-02
PQC 3	1000 cps resonant trap	1.00	20	.025	DM-02
PQC 4	Dynamic noise suppression inductor	2.40	20 @ 4 KC		DM-02
PQC 5	Dynamic noise suppression inductor	2.00	15 @ 4 KC		DM-02
PQC 6	Dynamic noise suppression inductor	1.30	15 @ 4 KC		DM-02
PQC 7	Dynamic noise suppression inductor	.80	15 @ 4 KC		DM-02
PQC 8	Dynamic noise suppression inductor	.60	15 @ 4 KC		DM-02
PQC 9	Dynamic noise suppression inductor	.40	15 @ 4 KC		DM-02

MINIATURE VARIABLE HIGH FREQUENCY INDUCTORS

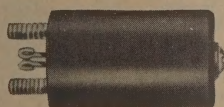
Continuous variation of inductance

Q practically constant over whole range of variation

Hermetically sealed

Inductances other than those listed can be supplied to special order

CASE DIMENSIONS



VI-1

Height: 1"
Diameter: 3/4"
2 Studs: 4-40
Mtg. Cen.: 3/8"

Catalog No.	Test Freq. (MC)	Inductance		Variations of Q		RDC (Ω) Nominal	Self Res. Freq. (MC) @ L Max.	Max. Non Destruct Current (MA)	Case Size
		Min.	Max.	@ L Min.	@ L Max.				
VHI-1	.1	1.1 MH	1.75 MH	93.5	100.5	.75	2.2	250	VI-1
VHI-2	.1	1.7 MH	2.5 MH	94.5	96.5	1.1	1.9	200	VI-1
VHI-3	.1	2.3 MH	3.7 MH	94.5	97.2	1.4	1.6	200	VI-1
VHI-4	.1	3. MH	4.5 MH	100.7	101.7	1.9	1.4	160	VI-1
VHI-5	.1	4. MH	5.7 MH	107.	108.	2.2	1.3	160	VI-1
VHI-6	.1	5.5 MH	7.5 MH	112.	119.	3.1	1.	130	VI-1
VHI-7	.1	7. MH	10.5 MH	116.	120.5	4.5	.9	100	VI-1
VHI-8	.1	10. MH	15. MH	106.	109.	6.6	.85	80	VI-1
VHI-9	.1	14.5 MH	20.5 MH	101.	101.5	9.2	.6	60	VI-1
VHI-10	.1	20. MH	30. MH	105.	115.	13.7	.55	50	VI-1
VHI-11	1.	9.50 μH	11.0 μH	104.	114.	.24	>10	150	VI-1
VHI-12	1.	14.0 μH	15.6 μH	113.	127.	.29	>10	150	VI-1
VHI-13	1.	24.5 μH	28.0 μH	145.	156.	.37	>10	150	VI-1
VHI-14	1.	47.0 μH	52.0 μH	178.	195.	.46	>10	150	VI-1
VHI-15	.5	71.0 μH	79.5 μH	152.	168.	.56	>10	150	VI-1
VHI-16	.5	94.0 μH	105.0 μH	165.	173.	.64	>10	150	VI-1
VHI-17	.5	145.0 μH	165.0 μH	200.	222.	.75	9.7	150	VI-1
VHI-18	.5	191.0 μH	218.0 μH	204.	229.	.9	9.4	150	VI-1
VHI-19	.5	234.0 μH	265.0 μH	216.	238.	1.0	8.3	150	VI-1
VHI-20	.5	279.0 μH	318.0 μH	219.	236.	1.1	7.	150	VI-1
VHI-21	.5	380.0 μH	416.0 μH	216.	230.	1.3	6.5	150	VI-1
VHI-22	.5	480.0 μH	545.0 μH	220.	237.	1.5	7.	150	VI-1

FREED TRANSFORMER CO., INC.

HIGH "Q" REACTORS

QGC—are hermetically sealed, MIL-T-27A, Grade 4, Class R, High Q Reactors for low audio frequency application with an excellent inductance stability with variations of A.C. and D.C. currents, frequencies and temperatures.

SPECIAL REACTORS:

- (1) with a center tap (3) with inductances other than those listed can be supplied.
 (2) with a split winding



DC-2A CASE

Height: 3"
 Width: 2 3/4"
 Depth: 2 1/4"
 Mtg. Cen.: 2 1/2" x 1 3/4"
 Studs: 4-8-32
 Knockouts: 1 1/2" x 1 3/4"



AJ CASE

Height: 2 3/4"
 Width: 1 3/4"
 Depth: 1 3/4"
 Mtg. Cen.: 1 3/4" x 1 3/4"
 Studs: 4-6-32



AH CASE

Height: 1 3/4"
 Width: 1 3/4"
 Depth: 1 3/4"
 Mtg. Cen.: 1 3/4" x 1 3/4"
 Studs: 2-6-32



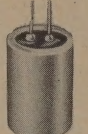
DM-20 CASE

Height: 1 3/4"
 Diameter: 1 3/4"
 Flange L: 1 1/4"
 Flange D: 0.975"
 Mtg. Cen.: 1 1/4" x 1 1/4"
 2 Slots: .166" x .120"
 Knockouts: .875"



DM-30 CASE

Height: 3/4"
 Diameter: 3/4"
 Flange L: 1 1/4"
 Flange D: 0.975"
 Mtg. Cen.: 1 1/4" x 1 1/4"
 2 Slots: .166" x .120"
 Knockouts: .875"



DM-40 CASE

Height: 3/4"
 Diameter: 3/4"
 Pig Tails: 3/4"

Catalog No.	Ind. H. (±2%)	Ω/H Max.	Max. Norm DC	Max. Norm AC**	Self Res. Freq. ±25%	Case	"Q" Max.	@ Freq.
QGC-1	100						40	250
QGC-2	75						48	280
QGC-3	50						51	300
QGC-4	25						53	320
QGC-5	10						58	350
QGC-6	5						59	400
QGC-7	1						60	400
QGC-8	75						32	600
QGC-9	50						39	700
QGC-10	25						43	700
QGC-11	10						46	700
QGC-12	5						53	800
QGC-13	1							
QGC-14	50						29.5	500
QGC-15	25						31.5	500
QGC-16	10						32	600
QGC-17	5						33	600
QGC-18	1							
QGC-19	10						23	700
QGC-20	7.5						23	730
QGC-21	5						24	730
QGC-22	2.5						25	750
QGC-23	1						25	750
QGC-24	.5							
QGC-25	5						23	1500
QGC-26	2.5						23	1550
QGC-27	1						24	1600
QGC-28	.75						24	1650
QGC-29	.5						24	1700
QGC-30	.2						25	1750
QGC-31	.1						25	1800
QGC-32	2						15	1500
QGC-33	1.5						15	1500
QGC-34	1						15	1800
QGC-35	.75						15	1800
QGC-36	.5						16	2000
QGC-37	.25						16	2000
QGC-38	.1						16	2000
QGC-39	.075						17	2200
QGC-40	.05						17	2200
QGC-41	.025						17	2500
QGC-42	.01						17	2500

*Max. Norm. D.C. = I D.C. (MA) √LH } at which the inductance
 **Max. Norm. A.C. = V/F ~ √LH } will decrease by 20%.

STANDARD MILITARY TRANSFORMERS

The group comprises audio and power units designed to meet MIL-T-27 A specifications.

The functional characteristics of these transformers were established by the Armed Service Standardization Program. These units are supplied in standard MIL cases.

CASE DIMENSIONS



AJ CASE

Height: 2 3/4"
 Width: 1 3/4"
 Depth: 1 3/4"
 Mtg. Cen.: 1 3/4" x 1 3/4"
 Studs: 4-6-32
 Cut Out: 1 1/8" D



HA CASE

Height: 4 1/2"
 Width: 3 3/4"
 Depth: 2 3/4"
 Mtg. Cen.: 2 1/4" x 1 3/4"
 Studs: 4-8-32

LB CASE

Height: 4 1/2"
 Width: 4 3/4"
 Depth: 3 1/4"
 Mtg. Cen.: 3 3/4" x 2 1/4"
 Studs: 4-10-32

JB CASE

Height: 3 3/4"
 Width: 3 3/4"
 Depth: 3 3/4"
 Mtg. Cen.: 2 3/4" x 2 1/4"
 Studs: 4-8-32

MB CASE

Height: 4 1/2"
 Width: 4 1/4"
 Depth: 4"
 Mtg. Cen.: 3 1/4" x 3"
 Studs: 4 1/4-20

KB CASE

Height: 4 3/4"
 Width: 3 3/4"
 Depth: 3 3/4"
 Mtg. Cen.: 3 1/2" x 2 3/4"
 Studs: 4-10-32

NB CASE

Height: 5 1/2"
 Width: 5 1/4"
 Depth: 4 3/4"
 Mtg. Cen.: 4 1/4" x 3 3/4"
 Studs: 4 1/4-20

Transformers meeting MIL-T-27A specifications Grade 1 through 6 with temperature characteristics of Class S, T, or U can be supplied on special order.

Encapsulated units using either Epoxy-Resins or Fosterite can be supplied for Grade 2 and 5. Class U components can be supplied molded in special high temperature Freed resin.

STANDARD MILITARY AUDIO TRANSFORMERS

Frequency Response 300-10,000 C.P.S. ±2 DB

Catalog No.	Application	Type Designation	Impedance Level in Ohms	Ratio	Max. Power Level DBM	Pri. D.C. Per Side in Ma	Max. D.C. unbalance	Case
MGA 1	Transformer; interstage, single or P.P. plates to single or P.P. grid	TF4RX15AJ	10,000 C.T. 90,000 split and C.T.	1:3 overall	+15	10	10	AJ
MGA 2	Transformer; matching 600 ohm line to voice coil.	TF4RX16AJ	600 split 4, 8, 16	6, 12:1 overall	+33	0	0	AJ
MGA 3	Transformer; input, 600 ohm line to single or P.P. grids.	TF4RX10AJ	600 split 135,000 C.T.	1:15	+15	0	0	AJ
MGA 4	Transformer; matching, 600 ohm line to 600 ohm line.	TF4RX16AJ	600 split 600 split	1:1	+15	0	0	AJ
MGA 5	Transformer; output, single plate 7,600 ohm, 4,800 ohm to 600 ohm line.	TF4RX13AJ	7,600 tap @ 4,800 600 split	3.56:1	+33	40	40	AJ
MGA 6	Transformer; output, single plate 7,600 ohm, 4,800 ohm to voice coil.	TF4RX13AJ	7,600 tap @ 4,800 4, 8, 16	21.8:1	+33	40	40	AJ
MGA 7	Transformer; output, single or P.P. plates to 600 ohm line.	TF4RX13AJ	15,000 C.T. 600 split	5:1	+33	10	10	AJ
MGA 8	Transformer; output, P.P. plates to 600 ohm line.	TF4RX13AJ	24,000 C.T. 600 split	6.32:1	+30	10	1	AJ
MGA 9	Transformer; output, P.P. plates to 600 ohm line.	TF4RX13AJ	60,000 C.T. 600 split	10:1	+27	10	1	AJ

STANDARD MILITARY POWER TRANSFORMERS

Primary 105/115/125V 60~

SINGLE PHASE 400 CPS, AND THREE PHASE 60 AND 400 CPS TRANSFORMERS CAN BE SUPPLIED ON SPECIAL ORDER.

Catalog No.	MIL-T-27 Type Designation	Hi Volt	D.C. Volts	D.C. Amps	Fil. No. 1	Fil. No. 2	Case
MGP 1	TFARX03HA001	200/100/0/100/200	185	.070	5/6. 3V @ 2A	6. 3V @ 3A	HA
MGP 2	TFARX03HB002	650 C.T.	260	.070	5/6. 3V @ 2A	6. 3V @ 4A	HB
MGP 3	TFARX03KB003	650 C.T.	245	.150	6. 3V @ 5A	5V @ 3A	KB
MGP 4	TFARX03MB004	800 C.T.	318	.175	5V @ 3A	6. 3V @ 8A	MB
MGP 5	TFARX03NB005	900 C.T.	345	.250	5V @ 3A		NB
MGP 6	TFARX02KB001	700 C.T.	255	.250			KB
MGP 7	TFARX02LB002	1100 C.T.	419	.250			LB
MGP 8	TFARX02NB003	1600 C.T.	640	.250			NB

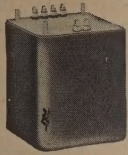
FREED TRANSFORMER CO., INC.

STANDARD MILITARY TRANSFORMERS

STANDARD MILITARY FILAMENT TRANSFORMERS

Primary 105/115/125V 60~

SINGLE PHASE 400 CPS, AND THREE PHASE 60 AND 400 CPS TRANSFORMERS CAN BE SUPPLIED ON SPECIAL ORDER.



EB CASE

Height: 2 1/8"
Width: 1 3/8"
Depth: 1 3/8"
Mtg. Cen.: 1 3/8" x 1 1/4"
Studs: 4 6-32

FB CASE

Height: 2 1/2"
Width: 2 1/8"
Depth: 2 1/8"
Mtg. Cen.: 1 1/2" x 1 1/8"
Studs: 4 6-32

GB CASE

Height: 2 3/8"
Width: 2 1/8"
Depth: 2 1/8"
Mtg. Cen.: 2 1/8" x 1 1/4"
Studs: 4 6-32

HB CASE

Height: 3 1/8"
Width: 3 1/8"
Depth: 2 3/8"
Mtg. Cen.: 2 3/8" x 1 1/8"
Studs: 4 8-32

Catalog No.	MIL-T-27 Type Designation	Secondary Volts	Secondary Current Amps	Secondary Test Volts RMS	Case
MGF 1	TF4RX01EB002	2.5	3.0	2,500	EB
MGF 2	TF4RX01GB003	2.5	10.0	2,500	GB
MGF 3	TF4RX01FB004	5.0	3.0	2,500	FB
MGF 4	TF4RX01HB005	5.0	10.0	2,500	HB
MGF 5	TF4RX01FB006	6.3	2.0	2,500	FB
MGF 6	TF4RX01GB007	6.3	5.0	2,500	GB
MGF 7	TF4RX01HB008	6.3	10.0	2,500	HB
MGF 8	TF4RX01KB009	6.3	20.0	2,500	KB
MGF 9	TF4RX01LB012	2.5	10.0	10,000	KB
MGF 10	TF4RX01KB013	5.0	10.0	10,000	KB

*Standard Military Filament and Power Transformers are also available in Grade 4.

HERMETICALLY SEALED PULSE TRANSFORMERS

Hermetically sealed Pulse Transformers for use in blocking oscillator, low level interstage coupling, and modulator output circuits. These components meet MIL-T-27 A specifications. The pulse transformers are designed for maximum power, efficiency, and optimum pulse performance. Balanced coil structures permit series or parallel connection of windings for turn ratios other than unity. Pulse characteristics, voltages and impedance levels will depend upon the interconnections made.

PULSE TRANSFORMERS

Catalog No.	MIL Type	Block- ing Res.	Inter- Stage Cou- pling	Low Power Out- put	Pulse Voltage Kilovolts	Pulse Duration Micro- seconds	Duty Cycle	No. of Wind- ings	Test Voltage KV. RMS	Charac- teristic Impedance Ohms	Case No.
MPT-1	TF4RX35YY	✓	✓	✓	0.25/0.25/0.25	0.2-1.0	.004	3	0.7	250	DM-20
MPT-2	TF4RX35YY	✓	✓	✓	0.25/0.25	0.2-1.0	.004	2	0.7	250	DM-20
MPT-3	TF4RX35YY	✓	✓	✓	0.5/0.5/0.5	0.2-1.5	.002	3	1.0	250	DM-18
MPT-4	TF4RX35YY	✓	✓	✓	0.5/0.5	0.2-1.5	.002	2	1.0	250	DM-18
MPT-5	TF4RX35YY	✓	✓	✓	0.5/0.5/0.5	0.5-2.0	.002	3	1.0	500	DM-20
MPT-6	TF4RX35YY	✓	✓	✓	0.5/0.5	0.5-2.0	.002	2	1.0	500	DM-20
MPT-7	TF4RX35YY	✓	✓	✓	0.7/0.7/0.7	0.5-1.5	.002	3	1.5	200	DM-18
MPT-8	TF4RX35YY	✓	✓	✓	0.7/0.7	0.5-1.5	.002	2	1.5	200	DM-18
MPT-9	TF4RX35YY	✓	✓	✓	1.0/1.0/1.0	0.7-3.5	.002	3	2.0	200	DM-18
MPT-10	TF4RX35YY	✓	✓	✓	1.0/1.0	0.7-3.5	.002	2	2.0	200	DM-18
MPT-11	TF4RX35YY	✓	✓	✓	1.0/1.0/1.0	1.0-5.0	.002	3	2.0	500	DM-01
MPT-12	TF4RX35YY	✓	✓	✓	0.15/0.15/0.3/0.3	0.2-1.0	.004	4	0.7	700	DM-8

ULTRA MINIATURE PULSE TRANSFORMERS

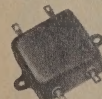
- Meet all requirements of MIL-T-27 A.
- Exceedingly small size.
- Negligible weight.
- Encapsulated or hermetically sealed.



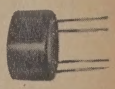
MM-1



MM-2



MM-3



MM-0-1

Catalog No.	MIL Type	Application	Pulse Volts	Pulse Width usec	Rise time usec	Inductance		PPS. Mcs	Turns Ratio	Z ₀ ohms	Case Des.
						Prim. uh	Leakage uh				
EPT-1	TF4RX31YY	Impedance matching & Interstage coupling	20	.07	.03	125	12	2	1:1	200	MM-1
EPT-2	TF4RX31YY		20	.07	.03	150	15	2	2:1	200	MM-1
EPT-3	TF4RX31YY		20	.07	.03	160	15	2	3:1	100	MM-1
EPT-4	TF4RX31YY		20	.07	.03	200	20	2	4:1	100	MM-1
EPT-5	TF4RX31YY		17	.10	.04	200	6	2	4:1	100	MM-1
EPT-6	TF4RX31YY		15	.10	.04	200	5	2	5:1	100	MM-1
EPT-7	TF4RX31YY	Blocking oscillator	25	.50	.05	1,200	20	1	7:1	100	MM-1
EPT-8	TF4RX31YY		10	.10	.04	12,000	70	.01	5:1	100	MM-2
EPT-9	TF4RX31YY		10	.5	.04	7,500	22	.01	3:1	100	MM-2
EPT-10	TF4RX31YY		100	.25	.02	200	2	.012	1:1	100	MM-1
EPT-11	TF4RX35YY	Memory core & Current driver	50	.33	.07	240	2	.002	1:1	100	MM-1
EPT-12	TF4RX35YY		40	.5	.07	6,000	15		2:1	100	MM-2
EPT-13	TF4RX35YY		15	6	.1	16,000	15	.0004	1:1.4	100	MM-2
EPT-14	TF4RX36YY		5	1.5	.25	4,000	300		5:5:1PP	10	MM-4
EPT-16	TF4RX36YY	Current driver	2.5	2.4	.2	2,800	200		3:3:3:1PP	6	MM-4
EPT-17	TF4RX32YY		21	1.4	.22	18,000	800	.250	6:1	200	MM-3
EPT-18	TF4RX32YY	Current transformer	10	6	.2	90,000	200	.05	11:1	75	MM-3
EPT-19	TF4RX36YY		22	1.7	.25	55,000	300	.05	6:1.1	400	MM-3

When ordering encapsulated units add "M" to the catalog number.

CASE DIMENSIONS



DM-8 CASE

Height: 1 1/2"
Width: 1 1/2"
Flange D.: 1 1/2"



DM-01 CASE

Height: 2"
Width: 1 1/2"
Depth: 1 1/2"
Mtg. Cen.: 1 1/2" x 1 1/8"
Studs: 4 6-32
Knockout: 1/4 dia.



DM-20 CASE

Height: 1 3/8"
Diameter: 1 1/8"
Flange L: 1 3/8"
Flange D: 0.975"
Mtg. Cen.: 1 1/8" x 1 1/2"
2 Holes: .147 wide
Knockout: .875



DM-18 CASE

Height: 1"
Width: 2 1/2"
Depth: 1 1/2"
Mtg. Cen.: 3/4"
Studs: 2 6-32

MM-1

Length: 3/4"
Diameter: 1/2"

MM-2

Length: 2 3/8"
Width: 2 3/8"
Height: 1 1/2"

MM-3

Length: 1 1/4"
Width: 1 1/4"
Height: 1 1/4"
Mtg. Cen.: 1 1/2"
Mtg. Flange: 1 1/8"

MM-4

Length: 1 3/8"
Depth: 1 1/4"
Height: 2 3/8"
Mtg. Cen.: 2 3/8"
Mtg. Flange: 2 1/2"

MOLDED DIMENSIONS

MM-0-1

Diameter: 1 1/8"
Thickness: 3/4"

MM-0-2

Diameter: 1 3/8"
Thickness: 1 1/2"

[illegible]

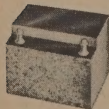
Free No.	Radiation Laboratory No.	Westinghouse No.	Dimension Figure	GUIDANCE VALUES				Test Voltage (60 Cycles RMS)
				Pulse Voltage (KV)	Pulse Duration (Microseconds)	Maximum Duty Ratio	Load Impedance (Ohms)	
BLOCKING OSCILLATOR, REGENERATIVE DRIVER OR COUPLING TRANSFORMERS								
MPT-13C	132AW2	1P1	1	1.0/1.0/1.0	0.3 to 1.5	0.002	250	1000
MPT-13M	132AW2F	7P1	1					
MPT-13H	132AW2P	4P101	4					
MPT-14C	132BW2	1P2	1	0.5/0.5/0.5/0.15	0.3 to 1.5	0.002	200	1000
MPT-14M	132BW2F	7P2	1					
MPT-14H	132BW2P	4P102	5					
MPT-15C	132DW2	1P3	1	0.5/0.5/0.5	0.1 to 0.5	0.002	300	1000
MPT-15M	132DW2F	7P3	1					
MPT-15H	132DW2P	4P103	4					
MPT-16C	134BW2	1P4	3	2.5/2.5; 2.5/1.25	1 to 2.5	0.002	1500	1500
MPT-16M	134BW2F	7P4	3					
MPT-16H	134BW2P	4P104	5					
MPT-17C	134CW2	1P5	1	2.0/2.0/1.0	1 to 2.5	0.002	1200	1000
MPT-17M	134CW2F	7P5	1					
MPT-17H	134CW2P	4P105	4					
MPT-18C	134EW2	1P6	2	2.0/2.0/1.0	0.3 to 1	0.002	800	750
MPT-18M	134EW2F	7P6	2					
MPT-18H	134EW2P	4P106	4					
MPT-19C	145CW2	1P7	1	0.5/0.5/0.5	1.0 to 5	0.002	500	1000
MPT-19M	145CW2F	7P7	1					
MPT-19H	145CW2P	4P107	4					
MPT-20C	145EW2	1P8	1	1.0/1.0/1.0	1.0 to 5	0.002	800	1000
MPT-20M	145EW2F	7P8	1					
MPT-20H	145EW2P	4P108	4					
MPT-21C	166AW2	1P9	1	1.0/0.67/0.67	1.0 to 5	0.002	800	1000
MPT-21M	166AW2F	7P9	1					
MPT-21H	166AW2P	4P109	4					
MPT-22C	176AW2	1P10	1	2.0/1.0/1.0	1 to 2.5	0.002	1000	1000
MPT-22M	176AW2F	7P10	1					
MPT-22H	176AW2P	4P110	4					
MPT-23C	187AW2	1P11	1	1.0/0.5/0.5	0.5 to 2	0.002	400	1000
MPT-23M	187AW2F	7P11	1					
MPT-23H	187AW2P	4P111	4					
MPT-24C	224AW2	1P12	2	1.0/1.0/1.0/0.3	0.1 to 0.5	0.002	1000	750
MPT-24M	224AW2F	7P12	2					
PULSE TRIGGERING OR CURRENT TRANSFORMERS								
MPT-25C	139DW2	1P13	1	0.25 to 5	0.002	1000		
MPT-25M	139DW2F	7P13	1					
MPT-25H	139DW2P	4P113	4					
PULSE OUTPUT TRANSFORMERS								
MPT-26C	148CW2	1P14	3	0.2/2.0	0.6 to 3	0.002	1600	1500
MPT-26M	148CW2F	7P14	3	0.4/2.0	0.25 to 1.5	0.002	1000	
MPT-26H	148CW2P	4P114	5	0.4/2.0	0.1 to 2.5	0.002	2000	
MPT-27C	148DW2	1P15	3	0.29/2.0	0.5 to 2.5	0.002	800	1500
MPT-27M	148DW2F	7P15	3	0.57/2.0	0.2 to 1.0	0.002	800	
MPT-27H	148DW2P	4P115	5	0.57/2.0	0.4 to 2.0	0.002	1500	

C Indicates—varnish impregnated commercial construction.
M Indicates—encapsulated or molded construction to MIL-T-27A Grade 5 Class R.
H Indicates—hermetically sealed to MIL-T-27A Grade 4 Class R.

HERMETICALLY SEALED FILTER REACTORS



Case	Height	Depth	Width	Mtg. Centers	Studs
AJ	2 1/4"	1 1/4"	1 1/4"	1 3/4" x 1 3/4"	4 - 6-32
EB	2 1/8"	1 3/8"	1 1/8"	1 3/4" x 1 1/4"	4 - 6-32
FA	3 1/4"	2 1/8"	2 1/8"	1 1/4" x 1 1/4"	4 - 6-32
GA	3 1/8"	2 1/8"	2 1/8"	2 1/4" x 1 3/4"	4 - 6-32
HB	3 3/8"	3 1/8"	2 1/8" x 1 1/4"	4 - 8-32	
JA	3 3/8"	3 1/8"	4 3/8"	2 3/4" x 2 1/4"	4 - 8-32
JB	3 1/2"	3 1/8"	3 1/8"	2 3/4" x 2 1/4"	4 - 8-32
KB	4 1/8"	3 1/8"	3 3/8"	3" x 2 1/2"	4 - 10-32
LA	5 1/8"	3 3/8"	4 3/8"	3 3/4" x 2 1/4"	4 - 10-32
LB	4 1/2"	3 1/8"	4 3/8"	3 3/4" x 2 1/4"	4 - 10-32
MB	4 3/8"	4"	4 3/8"	3 1/2" x 3"	4 1/2 - 10-32



MC-10 CASE
Height: 1 $\frac{5}{16}$ "
Width: 1 $\frac{1}{4}$ "
Depth: 1 $\frac{3}{8}$ "
Mtg. Cen.: $\frac{9}{16}$ " x $\frac{7}{8}$ "
Mtg.: 2 4-40 threaded inserts

MEET MIL-T-27A SPECIFICATIONS

Catalog No.	MIL Type	Inductance Henry	Rat. Current DC Ma.	DC Res. Ohms	Test Volt Kilovolts	Case No.
MGC 1	TF4RX04AJ	100	10	3,500	1.	AJ
MGC 2	TF4RX04AJ	4	50	230	1.	AJ
MGC 3	TF4RX04EB	10	50	325	1.	EB
MGC 4	TF4RX04FA	20	50	475	1.5	FA
MGC 5	TF4RX04FA	30	50	650	1.5	FA
MGC 6	TF4RX04AJ	3	75	175	1.	AJ
MGC 7	TF4RX04EB	6	75	235	1.5	EB
MGC 8	TF4RX04FA	12	75	265	1.5	FA
MGC 9	TF4RX04EB	3.5	100	145	1.	EB
MGC 10	TF4RX04FA	8	100	180	1.5	FA
MGC 11	TF4RX04GA	12	100	190	2.	GA
MGC 12	TF4RX04EB	2	150	92	1.5	EB
MGC 13	TF4RX04FA	4	150	115	1.5	FA
MGC 14	TF4RX04GA	8	150	125	2.	GA
MGC 15	TF4RX04JB	11	150	120	2.5	JB
MGC 16	TF4RX04JA	2.5	200	70	1.5	JA
MGC 17	TF4RX04GA	4	200	80	2.	GA
MGC 18	TF4RX04HB	7	200	135	2.	HB
MGC 19	TF4RX04JA	10	200	125	2.5	JA
MGC 20	TF4RX04GA	2.5	300	50	2.	GA
MGC 21*	TF4RX04HB	4	300	62	2.5	HB
MGC 22	TF4RX04JB	6	300	85	2.5	JB
MGC 23*	TF4RX04KB	8	300	65	2.5	KB
MGC 24	TF4RX04LA	10	300	100	2.5	LA
MGC 25*	TF4RX04HB	12	400	37	2.5	HB
MGC 26	TF4RX04KB	6	400	60	2.5	KB
MGC 27*	TF4RX04JA	2	500	35	2.5	JA
MGC 28	TF4RX04KB	4	500	45	2.5	KB
MGC 29*	TF4RX04MB	7	500	50	2.5	MB
MGC 30*	TF4RX04LB	2	700	20	2.5	LB
MGC 31*	TF4RX04MB	1.75	1,000	12.5	2.5	MB

*Not stocked, available on short delivery.
Above units available in Grade 4.

FREED TRANSFORMER CO., INC.

HERMETICALLY SEALED, MIL-T-27A, GRADE 5, CLASS S FILTER REACTORS

These reactors have a split winding for series or parallel connections.

When using two sections in parallel, double the ldc. Both inductance and resistance are divided by 4.

Catalog No.	Min. Inductance @ ldc. (Series Connection)				Max. Rdc	Test Voltage	Case No.
MGC-32	3.2 H @ 0dc	2.1 H @ 25 MA	1.70 H @ 35 MA	1.4 H @ 45 MA	220 Ohms	1000 V	MC-10
MGC-33	1.3 H @ 0dc	1.1 H @ 50 MA	0.8 H @ 70 MA	0.5 H @ 90 MA	100 Ohms	1000 V	MC-10
MGC-34	400 MH @ 0dc	300 MH @ 100 MA	240 MH @ 130 MA	190 MH @ 160 MA	35 Ohms	1000 V	MC-10
MGC-35	105 MH @ 0dc	100 MH @ 200 MA	80 MH @ 250 MA	50 MH @ 300 MA	10 Ohms	1000 V	MC-10
MGC-36	25 MH @ 0dc	23.5 MH @ 400 MA	15 MH @ 500 MA	11 MH @ 600 MA	2 Ohms	1000 V	MC-10
MGC-37	5.7 MC @ 0dc	4.5 MH @ 0.8 A	3.9 MH @ 1 A	3 MH @ 1.2 A	0.5 Ohms	1000 V	MC-10

TOROIDAL INDUCTORS

Using the latest developments in the field of magnetic materials and new impregnation and molding techniques the Freed Transformer Co. makes available to the industry the most extensive line of toroidal inductors.

Freed toroids are available in three types of constructions. Open units coated with a special high temperature extremely low loss compound, hermetically sealed in metal cases or molded in special **Freed Epoxy Resin**. Both hermetically sealed and molded units meet the latest military specification MIL-T-27A (graded 1 or 4 and 2 or 5 respectively.) Freed toroidal inductors are supplied with either molypermalloy or carbonyl iron powder cores

1. Temperature Stabilization:

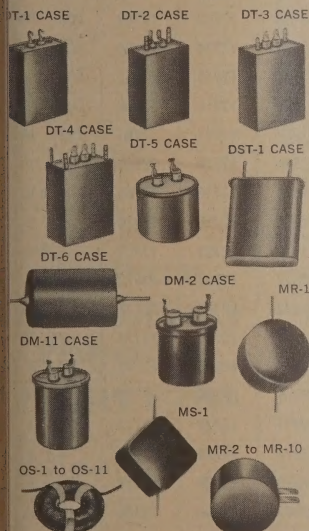
The molypermalloy and carbonyl iron powder cores have a temperature coefficient of inductance. Depending on the degree of temperature stabilization the cores have different temperature coefficients. The degree of stabilization is denoted by a two-letter code.

- SF Non-stabilized cores, $\pm 2\frac{1}{2}\%$ inductance variations from -55°C to $+85^{\circ}\text{C}$.
- SN Non-stabilized cores, $\pm 2\%$ inductance variations from -55°C to $+85^{\circ}\text{C}$.
- SE Temperature stabilized cores, $\pm 0.1\%$ to -0.4% inductance variations from -1.5°C to $+54^{\circ}\text{C}$.
- SB Temperature stabilized cores, $\pm 0.1\%$ inductance variations from $+13^{\circ}\text{C}$ to $+35^{\circ}\text{C}$.
- SD Temperature stabilized cores, $\pm 0.1\%$ inductance variations from -1.5°C to $+54^{\circ}\text{C}$.
- SW Temperature stabilized cores, $\pm 0.25\%$ inductance variations from -54°C to $+85^{\circ}\text{C}$.
- SM Temperature stabilized cores, $\pm 0.25\%$ -65°C to $+125^{\circ}\text{C}$.
- SP Temperature stable carbonyl iron cores, $\pm 0.3\%$ inductance variations from -55°C to $+85^{\circ}\text{C}$.

The temperature (stabilization) coefficient of an inductor will depend upon the nominal inductance value, operating frequency and A.C. voltage across the coil. Under some unfavorable working conditions the temperature coefficient of inductance corresponding to a given stability characteristic may be exceeded.

Toroids with special requirements such as tapped toroids, toroidal transformers, molded and cased units with dimensions other than standard sizes and high temperature toroids can be supplied on request. Our engineering and laboratory facilities are available for consultation, research and development.

CASED, UNCASED AND MOLDED UNITS



TOROIDAL INDUCTORS

Type	Ω/H	Max. Norm. ldc	Max. Norm. lac	Max. Norm. Vac	Type	Ω/H	Max. Norm. ldc	Max. Norm. lac	Max. Norm. Vac
TI-1	70	55	73.5	0.46	TI-19	4,500	25	29	0.18
TI-1A	68	75	90.5	0.57	TI-20	2,750	100	*	*
TI-2	160	90	135	0.85	TI-21	1,200	350	*	*
TI-3	600	100	67	0.42	TI-22	5,600	210	*	*
TI-3A	310	150	240	1.5	TI-23	7,000	250	*	*
TI-4	110	55	67	0.42	TI-24	330	15	18	0.11
TI-5	260	28	35	0.22	TI-25	200	20	24	0.15
TI-6	230	75	125	0.80	TI-26	150	25	32	0.20
TI-7	480	40	53	0.33	TI-27	76.5	50	62	0.39
TI-8	1,500	50	80	0.5	TI-28	48.5	50	64	0.40
TI-9	150	200	240	1.5	TI-29	33.5	70	88	0.55
TI-10	430	125	270	1.7	TI-30	28	100	135	0.84
TI-11	30	120	190	1.2	TI-31	19.5	100	136	0.85
TI-12	45	100	160	1	TI-32	48.5	6	14.5	0.09
TI-13	55	140	175	1.1	TI-33	2,150	8	13	0.08
TI-14	580	150	—	—	TI-34	1,700	8	9.5	0.06
TI-15	900	100	—	—	TI-35	4,100	10	18	0.11
TI-16	600	16	21	0.13	TI-36	3,950	10	11	0.07
TI-17	1,200	20	29	0.18	TI-37	23.5	10	32	0.20
TI-18	2,600	30	40	0.25	TI-38	100	4	9.5	0.06

*TI-20 through TI-23 have a very low voltage coefficient and inductance will change very little with voltage. Because of high frequency application, the maximum voltage is limited rather by breakdown than by saturation.

UNCASED		
Type	O.D.	Hi.
OS-1	$\frac{5}{8}$ "	$\frac{3}{4}$ "
OS-2	$\frac{7}{8}$ "	$\frac{3}{4}$ "
OS-3	1"	$\frac{3}{4}$ "
OS-4	1"	$\frac{3}{4}$ "
OS-5	$1\frac{1}{8}$ "	$\frac{3}{4}$ "
OS-6	$1\frac{1}{8}$ "	$\frac{7}{8}$ "
OS-7	$1\frac{1}{8}$ "	$\frac{3}{4}$ "
OS-8	$1\frac{1}{8}$ "	$1\frac{1}{8}$ "
OS-9	$2\frac{1}{8}$ "	$1\frac{1}{8}$ "
OS-10	$2\frac{1}{8}$ "	$1\frac{1}{8}$ "
OS-11	$2\frac{1}{8}$ "	$1\frac{1}{8}$ "
OS-12	$1\frac{1}{8}$ "	$\frac{3}{4}$ "
OS-13	$\frac{3}{4}$ "	$\frac{3}{4}$ "
OS-14	$\frac{3}{4}$ "	$\frac{3}{4}$ "

CASE							
Type	Hi.	Dia.	Length	Width	Mtg.	Mtg. Cen.	Cutout
DT-1	$1\frac{1}{8}$ "	$1\frac{1}{8}$ "	$\frac{1}{2}$ "		2 4-40 inserts	$\frac{3}{4}$ "	$\frac{3}{8}$ " x $\frac{1}{2}$ "
DT-2	$1\frac{1}{8}$ "	$1\frac{1}{8}$ "	$\frac{1}{2}$ "		2 6-32 studs	$\frac{3}{4}$ " x $\frac{3}{8}$ "	$\frac{3}{8}$ " x $1\frac{1}{4}$ "
DT-3	2"	$1\frac{1}{8}$ "	$\frac{1}{2}$ "		2 6-32 studs	$1\frac{1}{4}$ " x $\frac{3}{8}$ "	$\frac{3}{8}$ " x $\frac{3}{4}$ "
DT-4	$3\frac{1}{8}$ "	$2\frac{3}{4}$ "	$1\frac{1}{8}$ "		4 8-32 studs	$2\frac{1}{8}$ " x $1\frac{1}{8}$ "	$\frac{3}{4}$ " x $\frac{3}{4}$ "
DT-5	$1\frac{1}{8}$ "	$1\frac{1}{8}$ "			2 6-32 inserts	$1\frac{1}{8}$ "	$\frac{3}{8}$ " x 1"
DT-6	$\frac{3}{4}$ "	$\frac{1}{2}$ "			Pig Tails		
DM-2	1"	$1\frac{1}{8}$ "			2 4-40 inserts	$\frac{3}{8}$ "	$\frac{3}{8}$ " x $\frac{3}{8}$ "
DM-11	$1\frac{1}{2}$ "	$1\frac{1}{8}$ "			2 6-32 inserts	$\frac{7}{8}$ "	$\frac{3}{8}$ " x $\frac{3}{4}$ "
DST-1	$\frac{3}{8}$ "		$\frac{3}{8}$ "	$\frac{1}{32}$ "	$\frac{1}{4}$ " long pins	To fit $\frac{1}{2}$ " crystal socket	

MOLD			
Type	O.D.	Hi.	Clearance Hole Mounting
MR-1	$\frac{3}{8}$ "	$\frac{3}{8}$ "	Pig Tails
MR-2	$1\frac{1}{8}$ "	$\frac{1}{2}$ "	No. 4
MR-3	$1\frac{1}{8}$ "	$\frac{1}{2}$ "	No. 6
MR-3A	$1\frac{1}{8}$ "	$\frac{1}{4}$ "	No. 6
MR-4	$1\frac{1}{8}$ "	$\frac{3}{8}$ "	No. 8
MR-5	$1\frac{1}{8}$ "	1"	No. 8
MR-6	$2\frac{1}{8}$ "	$\frac{7}{8}$ "	No. 8
MR-7	$2\frac{1}{8}$ "	$1\frac{1}{8}$ "	No. 10
MR-8	$2\frac{1}{8}$ "	$1\frac{1}{8}$ "	No. 10
MR-9	$2\frac{1}{8}$ "	$1\frac{1}{8}$ "	No. 10
MR-10	$2\frac{1}{8}$ "	$1\frac{1}{8}$ "	No. 10
MR-11	$\frac{3}{4}$ "	$\frac{3}{4}$ "	Pig Tails
MS-1	$1\frac{1}{8}$ " x $1\frac{1}{8}$ "	$\frac{3}{8}$ "	Pig Tails

FREED TRANSFORMER CO., INC.**LOW FREQUENCY TOROIDAL INDUCTORS**

Freq. Range		100 ~ to 10 KC						200 ~ to 12 KC						Freq. Range
TYPE		TI-38	TI-32	TI-37	TI-24	TI-25	TI-26	TI-27	TI-28	TI-29	TI-30	TI-31	TYPE	
Temp. Stability		SF	SF	SF	SN	SN	SN	SN	SN	SN	SN	SN	Temp. Stability	
Size	Uncased Case Mold	OS1 DST1 MR1, MS1	OS3 DT1, DM2 MR3	OS5 DT2, DM11 MR4	OS1 DST1 MR1, MS1	OS12 DT1 MR2	OS3 DT1, DM2 MR3	OS5 DT2, DM11 MR4	OS8 DT3, DT5 MR6	OS9 DT4 MR7	OS9 DT4 MR8	OS11 DT4 MR10	Size	Uncased Case Mold
Nominal Inductance		CATALOG NUMBER												Nominal Inductance
1	MH				F2400	F2450	F2500	F2550	F2600	F2650	F2700	F2750	1	MH
2	MH				F2401	F2451	F2501	F2551	F2601	F2651	F2701	F2751	2	MH
3	MH				F2402	F2452	F2502	F2552	F2602	F2652	F2702	F2752	3	MH
5	MH	F3550			F2403	F2453	F2503	F2553	F2603	F2653	F2703	F2753	5	MH
7.5	MH	F3551			F2404	F2454	F2504	F2554	F2604	F2654	F2704	F2754	7.5	MH
10	MH	F3552			F2405	F2455	F2505	F2555	F2605	F2655	F2705	F2755	10	MH
15	MH	F3553			F2406	F2456	F2506	F2556	F2606	F2656	F2706	F2756	15	MH
20	MH	F3554			F2407	F2457	F2507	F2557	F2607	F2657	F2707	F2757	20	MH
30	MH	F3555			F2408	F2458	F2508	F2558	F2608	F2658	F2708	F2758	30	MH
50	MH	F3556	F2800	F4000	F2409	F2459	F2509	F2559	F2609	F2659	F2709	F2759	50	MH
75	MH	F3557	F2801	F4001	F2410	F2460	F2510	F2560	F2610	F2660	F2710	F2760	75	MH
100	MH	F3558	F2802	F4002	F2411	F2461	F2511	F2561	F2611	F2661	F2711	F2761	100	MH
150	MH	F3559	F2803	F4003	F2412	F2462	F2512	F2562	F2612	F2662	F2712	F2762	150	MH
200	MH	F3560	F2804	F4004	F2413	F2463	F2513	F2563	F2613	F2663	F2713	F2763	200	MH
300	MH	F3561	F2805	F4005	F2414	F2464	F2514	F2564	F2614	F2664	F2714	F2764	300	MH
400	MH	F3562	F2806	F4006	F2415	F2465	F2515	F2565	F2615	F2665	F2715	F2765	400	MH
500	MH	F3563	F2807	F4007	F2416	F2466	F2516	F2566	F2616	F2666	F2716	F2766	500	MH
750	MH	F3564	F2808	F4008	F2417	F2467	F2517	F2567	F2617	F2667	F2717	F2767	750	MH
1	H	F3565	F2809	F4009	F2418	F2468	F2518	F2568	F2618	F2668	F2718	F2768	1	H
1.25	H	F3566	F2810	F4010	F2419	F2469	F2519	F2569	F2619	F2669	F2719	F2769	1.25	H
1.5	H	F3567	F2811	F4011	F2420	F2470	F2520	F2570	F2620	F2670	F2720	F2770	1.5	H
1.75	H	F3568	F2812	F4012	F2421	F2471	F2521	F2571	F2621	F2671	F2721	F2771	1.75	H
2	H	F3569	F2813	F4013	F2422	F2472	F2522	F2572	F2622	F2672	F2722	F2772	2	H
2.25	H	F3570	F2814	F4014		F2473	F2523	F2573	F2623	F2673	F2723	F2773	2.25	H
2.5	H	F3571	F2815	F4015		F2474	F2524	F2574	F2624	F2674	F2724	F2774	2.5	H
3	H	F3572	F2816	F4016		F2575	F2525	F2575	F2625	F2675	F2725	F2775	3	H
3.5	H	F3573	F2817	F4017		F2476	F2526	F2576	F2626	F2676	F2726	F2776	3.5	H
4	H	F3574	F2818	F4018		F2477	F2527	F2577	F2627	F2677	F2727	F2777	4	H
4.5	H	F3575	F2819	F4019		F2478	F2528	F2578	F2628	F2678	F2728	F2778	4.5	H
5	H	F3576	F2820	F4020		F2479	F2529	F2579	F2629	F2679	F2729	F2779	5	H
7.5	H	F3577	F2821	F4021		F2480	F2530	F2580	F2630	F2680	F2730	F2780	7.5	H
10	H	F3578	F2822	F4022		F2481	F2531	F2581	F2631	F2681	F2731	F2781	10	H
15	H		F2823	F4023			F2532	F2582	F2632	F2682	F2732	F2782	15	H
20	H		F2824	F4024			F2533	F2583	F2633	F2683	F2733	F2783	20	H
25	H			F4025									25	H
30	H									F2684	F2734	F2784	30	H
40	H									F2685	F2735	F2785	40	H
50	H									F2686	F2736	F2786	50	H
75	H											F2787	75	H
100	H											F2788	100	H

FREED TRANSFORMER COMPANY, INC.

FREED TRANSFORMER CO., INC.

LOW FREQUENCY TOROIDAL INDUCTORS

Freq. Range	1 KC to 15 KC											Freq. Range
	TYPE	TI-33	TI-34	TI-16	TI-5	TI-4	TI-1	TI-1A	TI-12	TI-11	TYPE	
Temp. Stability	SN	SN	SN	SN, SE	SN, SE	SN, SD, SN	SN	SN, SD, SN	SN, SD, SN	SN, SD, SN	Temp. Stability	
Uncased Case Mold	OS13 DT6 MR11	OS14 DT6 MR11	OS1 DT1 MR1, MS1	OS3 DT1 DM2, MR3	OS5 DT2, DM11, MR4	OS8 DT3, DT5, MR5	OS9 DT4 MR7	OS9 DT4 MR7	OS9 DT4 MR7	OS11 DT4 MR10	Uncased Case Mold	
Nominal Inductance	Catalog Number											Nominal Inductance
.25 MH	F2850	F2900										.25 MH
.5 MH	F2851	F2901										.5 MH
.75 MH	F2852	F2902										.75 MH
1 MH	F2853	F2903		F2050				F1500	F1655	F1747		1 MH
1.5 MH	F2854	F2904										1.5 MH
2 MH	F2855	F2905						F1501	F1656	F1748		2 MH
2.5 MH	F2856	F2906										2.5 MH
3 MH	F2857	F2907	F2051					F1502	F1657	F1749		3 MH
4 MH	F2858	F2908						F1503	F1658	F1750		4 MH
5 MH	F2859	F2909	F2052	F1700	F850	F800		F1504	F1659	F1751		5 MH
7.5 MH	F2860	F2910						F1505	F1660			7.5 MH
10 MH	F2861	F2911	F2053	F1701	F851	F801		F1506	F1661	F1752		10 MH
12.5 MH	F2862	F2912										12.5 MH
15 MH	F2863	F2913	F2054	F1702	F852	F802		F1507	F1662	F1753		15 MH
17.5 MH	F2864	F2914										17.5 MH
20 MH	F2865	F2915										20 MH
25 MH	F2866	F2916										25 MH
30 MH	F2867	F2917										30 MH
50 MH	F2918	F2056	F1703	F853	F803	F1508	F1663	F1754				50 MH
75 MH	F2919	F2057	F1704	F854	F804	F1509	F1664	F1755				75 MH
100 MH	F2920	F2058	F1705	F855	F805	F1510	F1665	F1756				100 MH
150 MH		F2059	F1706	F856	F806	F1511	F1666	F1757				150 MH
200 MH		F2060	F1707	F857	F807	F1512	F1667	F1758				200 MH
300 MH		F2061	F1708	F858	F808	F1513	F1668	F1759				300 MH
400 MH		F2062	F1709	F859		F1514	F1669	F1760				400 MH
500 MH		F2063	F1710	F860		F1515	F1670	F1761				500 MH
750 MH			F1711	F861	F809	F1516	F1671	F1762				750 MH
800 MH			F1712	F862								800 MH
900 MH			F1713	F863								900 MH
1.0 HY			F1714	F864	F810	F1518	F1673	F1763				1.0 HY
1.25 HY			F1715	F865								1.25 HY
1.5 HY			F1716	F866	F811	F1519	F1674	F1764				1.5 HY
1.75 HY			F1717	F867	F812							1.75 HY
2 HY			F1718	F868	F813	F1520	F1675	F1765				2 HY
2.25 HY			F1719	F869	F814							2.25 HY
2.5 HY			F1720	F870	F815	F1521	F1676	F1766				2.5 HY
2.75 HY				F871	F816							2.75 HY
3 HY				F872	F817	F1522	F1677	F1767				3 HY
3.5 HY				F873	F818							3.5 HY
4 HY				F874	F819	F1523	F1678	F1768				4 HY
4.5 HY				F875	F820	F1524	F1679	F1769				4.5 HY
5 HY				F876	F821	F1525	F1680	F1770				5 HY
6 HY				F877	F822	F1526	F1681	F1771				6 HY
7 HY				F878	F823	F1527	F1682	F1772				7 HY
7.5 HY					F824	F1528	F1683					7.5 HY
8 HY					F825	F1529	F1684					8 HY
9 HY												9 HY
10 HY												10 HY
12 HY												12 HY
15 HY												15 HY
17 HY												17 HY
20 HY						F830	F1536	F1691	F1776			20 HY
25 HY							F1537	F1692	F1777			25 HY
30 HY							F1538	F1693	F1778			30 HY
40 HY												40 HY
50 HY												50 HY

MEDIUM FREQUENCY TOROIDAL INDUCTORS

Freq. Range		10 KC to 50 KC											Freq. Range	
TYPE	TI-35	TI-36	TI-17	TI-7	TI-6	TI-2	TI-13	TI-18	TI-8	TI-10	TI-9	TYPE		
Temp. Stability	SN	SN	SN	SN	SN, SD	SD	SN	SN	SN, SD	SB	SB	Temp. Stability		
Uncased DT6 Mold	OS13 DT6 MR11	OS14 DT6 MR11	OS1 DT1 MR1, MS1	OS3 DT1 DM2 MR3	OS5 DT2, DM11 MR4	OS8 DT3, DT5 MRS	OS9 DT4 MR5	OS1 DT1 MR1, MS1	OS3 DT1 DM2 MR3	OS7 DT3, DT5 MRS	OS10 DT4 MR9	Uncased DT6 Mold		
Nominal Inductance	Catalog Number											Nominal Inductance		
.1 MH			F2100					F2140	F1821			.1 MH		
.2 MH			F2101					F2141	F1822			.2 MH		
.25 MH	F2950	F3000										.25 MH		
.3 MH			F2102					F2142	F1823			.3 MH		
.4 MH			F2103					F2143	F1824			.4 MH		
.5 MH	F2951	F3001	F2104	F1781				F2144	F1825			.5 MH		
.75 MH	F2952	F3002										.75 MH		
1 MH	F2953	F3003	F2105	F1782	F1726	F1800	F1629	F2145	F1826	F1579	F1554	1 MH		
1.5 MH	F2954	F3004										1.5 MH		
2 MH	F2955	F3005	F2106	F1783	F1727	F1801	F1630	F2146	F1827	F1580	F1555	2 MH		
2.5 MH	F2956	F3006										2.5 MH		
3 MH	F2957	F3007	F2107	F1784	F1728	F1802	F1631	F2147	F1828	F1581	F1556	3 MH		
4 MH	F2958	F3008	F2108		F1729	F1803	F1632	F2148	F1829	F1582	F1557	4 MH		
5 MH	F2959	F3009	F2109	F1785	F1730	F1804	F1633	F2149	F1830	F1583	F1558	5 MH		
7.5 MH	F2960	F3010	F2110	F1786	F1731		F1634	F2150	F1831	F1584	F1559	7.5 MH		
10 MH	F2961	F3011	F2111	F1787	F1732	F1805	F1635	F2151	F1832	F1585	F1560	10 MH		
12.5 MH	F2962	F3012										12.5 MH		
15 MH	F2963	F3013	F2112	F1788	F1733	F1806	F1636	F2152	F1833	F1586	F1561	15 MH		
17.5 MH		F3014										17.5 MH		
20 MH		F3015	F2113	F1789	F1734			F2153	F1834			20 MH		
25 MH		F3016		F1790					F1835			25 MH		
30 MH		F3017	F2114	F1791	F1735	F1807	F1637	F2154	F1836	F1587	F1562	30 MH		
40 MH				F1792					F1837			40 MH		
50 MH			F2115	F1793	F1736	F1808	F1638	F2155	F1838	F1588	F1563	50 MH		
75 MH			F2116	F1794	F1737	F1809	F1639	F2156	F1839	F1589	F1564	75 MH		
100 MH			F2117	F1795	F1738	F1810	F1640	F2157	F1840	F1590	F1565	100 MH		
150 MH				F1796	F1739	F1811	F1641			F1591	F1566	150 MH		
200 MH				F1797	F1740	F1812	F1642			F1592	F1567	200 MH		
250 MH				F1741								250 MH		
300 MH				F1742	F1813	F1643					F1568	300 MH		
400 MH					F1814	F1644					F1569	400 MH		
500 MH					F1743	F1815	F1645				F1570	500 MH		

FREED TRANSFORMER CO., INC.**HIGH FREQUENCY TOROIDAL INDUCTORS**

Freq. Range		10 KC to 100 KC		50 KC to 200 KC			20 KC to 2 MC	50 KC to 5 MC		100 KC to 10 MC	Freq. Range	
TYPE		TI-15	TI-14	TI-19	TI-3	TI-3A	TI-20	TI-22	TI-23	TI-21	TYPE	
Temp. Stability		SN	SN	SN	SD	SB	SP	SP	SP	SP	Temp. Stability	
Size	Uncased Case Mold	OS3 DT1, DM2 MR3	OS5 DT2, DM11 MR4	OS1 DST 1 MR1, MS1	OS6 DT3, DT5 MR5	OS10 DT4 MR8	OS4 DT2 MR3A	OS2 DT1 MR2	OS2 DT1 MR2	OS1 DT1 MR1, MS1	Size	Uncased Case Mold
	Nominal Inductance	Catalog Number										Nominal Inductance
	.010 MH							F2270	F2301	F2240		.010 MH
	.015 MH							F2271	F2302	F2241		.015 MH
	.020 MH							F2272	F2303	F2242		.020 MH
	.030MH							F2273	F2304	F2243		.030MH
	.040 MH							F2274	F2305	F2244		.040 MH
	.050 MH						F2201	F2275	F2306	F2245		.050 MH
	.075 MH							F2276	F2307	F2246		.075 MH
	.100 MH	F1870		F2180	F1846		F2202	F2277	F2308	F2247		.100 MH
	.125 MH									F2248		.125 MH
	.150 MH							F2278	F2309	F2249		.150 MH
	.200 MH	F1871		F2181	F1847		F2203	F2279	F2310			.200 MH
	.300 MH	F1872		F2182	F1848		F2204	F2280	F2311			.300 MH
	.400 MH	F1873		F2183	F1849			F2281	F2312			.400 MH
	.500 MH	F1874		F2184	F1850		F2205	F2282	F2313			.500 MH
	.600 MH			F2185				F2283				.600 MH
	.700 MH			F2186				F2284				.700 MH
	.750 MH						F2206					.750 MH
	.800 MH			F2187								.800 MH
	.900 MH			F2188								.900 MH
1	MH	F1875	F1920	F2189	F1851		F2207				1	MH
1.5	MH						F2208				1.5	MH
2	MH	F1876	F1921	F2190	F1852		F2209				2	MH
2.5	MH						F2210				2.5	MH
3	MH	F1877	F1922	F2191	F1853		F2211				3	MH
3.5	MH						F2212				3.5	MH
4	MH	F1878	F1923	F2192	F1854		F2213				4	MH
4.5	MH						F2214				4.5	MH
5	MH	F1879	F1924	F2193	F1855		F2215				5	MH
7.5	MH	F1880	F1925		F1845						7.5	MH
10	MH	F1881	F1926		F1844	F1856					10	MH
15	MH	F1882	F1927			F1857					15	MH
20	MH	F1883	F1928			F1858					20	MH
25	MH	F1884									25	MH
30	MH	F1885	F1929			F1659					30	MH
40	MH	F1886				F1860					40	MH
50	MH	F1887	F1930			F1861					50	MH
75	MH	F1888	F1931			F1862					75	MH
100	MH	F1889	F1932			F1863					100	MH
150	MH		F1933								150	MH
200	MH		F1934								200	MH
250	MH		F1935								250	MH
300	MH		F1936								300	MH

FREED TRANSFORMER COMPANY, INC.

FREED TRANSFORMER CO., INC.

MAGNETIC AMPLIFIERS AND SATURABLE TRANSFORMERS

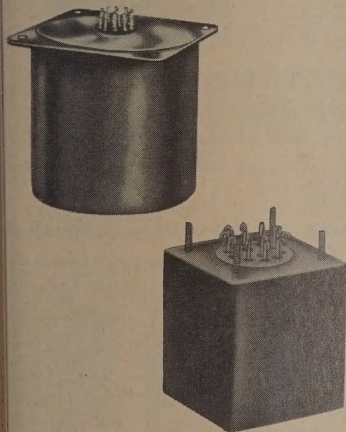
The ever increasing demand for reliability, ruggedness, miniaturization and high performance has made the magnetic amplifier an indispensable component of many military and industrial automatic control and servo systems. Recent advances in materials and techniques permit an even greater utilization of the well-known inherent advantages of magnetic amplifiers such as direct operation from line voltage, no warm-up time, long-life components, ease of signal mixing and hermetic sealing.

Freed Transformer Co. manufactures an extensive line of magnetic amplifiers, ranging from saturable transformers to half-wave type, fast-response servo amplifiers. Choice of catalog amplifiers assures standardization, lowest possible cost and rapid delivery.

All standard units are designed for continuous operation and will operate in an ambient temperature range of -55°C to $+75^{\circ}\text{C}$.

In addition to standard items, Freed Transformer Co. has extensive facilities for the design and production of special amplifiers, saturable reactors and magnetic components.

ALL ITEMS LISTED ARE AVAILABLE FROM STOCK.



FAST RESPONSE MAGNETIC AMPLIFIERS

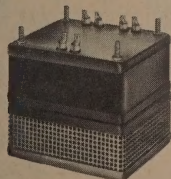
The MAF Type of fast response magnetic amplifier combines high power gain, ruggedness, and reliability with a maximum 2 cycle response. All MAF units are phase-reversible.

Freed No.	MAF-4*	MAF-5*	MAF-6	MAF-7
Power Supply	115V 400 cps	115V 400 cps	115V 400 cps	115V 400 cps
Maximum Output Wattage	10	15	10	15
Output Voltage	57.5V RMS	57.5V RMS	57.5V RMS	57.5V RMS
Typical Load	Kearfott R110-2 Kearfott R111-2	Kearfott R112-2	Kearfott R110-2 Kearfott R111-2	Kearfott R111-2 Kearfott R112-2
Input Signal Required for Full Output	8V AC	8V AC	R110-2 10K 1K 1.2V .4V R111-2 10K 1K 1.6V .6V	R111-2 10K 1K 1.2V .6V R112-2 10K 1K 2.5V 1.0V
Control Winding Resistance	60 Ohms CT 150 Ohms CT	60 Ohms CT 150 Ohms CT	AC or DC 10,000 Ohms Min. 1,000 Ohms Min.	AC or DC 10,000 Ohms Min. 1,000 Ohms Min.
Physical Dimensions	2 3/4" O.D. x 2 3/4" H	2 3/4" O.D. x 2 3/4" H	4 3/8" x 4 1/4" x 2 7/8" H	4 3/8" x 4 1/4" x 2 7/8" H
Weight	13 oz.	18 oz.	4 1/2 lbs.	4 1/2 lbs.

*Designed for use with MAT-1 Transistor Preamplifier.

PUSH-PULL MAGNETIC AMPLIFIERS

The map line of push-pull magnetic amplifiers features high gain, polarity-sensitive amplification and a phase-reversible output.



Freed No.	MAP-1	MAP-2	MAP-3	MAP-301
Power Supply	115V A.C. 60 Cycles (To MAPT-1)	115V A.C. 60 Cycles (To MAPT-2)	115V A.C. 60 Cycles (To MAPT-3)	115V A.C. 60 Cycles (To MAPT-301)
Maximum Output Wattage	2.8 Watts	15 Watts	50 Watts	50 Watts
Voltage	140V	150V	120V	140V
Typical Load	Kollsman 951-0160	Diehl FPE 25-11	Diehl FPF 49-9	Diehl FPF 49-9
Input Signal Required for Full Output	1.2 ma.	1 ma.	2 ma.	4.5 ma.
Resp. Time	ON OFF 15 cycles 60	ON OFF 5 cycles 38	ON OFF 3 cycles 15	ON OFF 5 cycles 20
Control Winding Resistance	620 ohms each	1230 ohms each	250 ohms each	1700 ohms each
Physical Dimensions	3 3/4" x 3 1/4" x 5 7/8" H M.A. 2 3/4" x 2 1/4" x 3 1/4" H T.	3 3/4" x 4 1/4" x 7" H M.A. 2 3/4" x 2 1/4" x 3 1/4" H T.	5 1/4" x 6 1/8" x 8" H M.A. 3 3/4" x 3 1/4" x 4 1/4" H T.	5 1/4" x 5" x 8" H M.A. 3 3/4" x 4 1/4" x 3 3/4" H T.
Weight	6 lbs. M.A. 3 lbs. T.	11 lbs. M.A. 3 1/2 lbs. T.	26 1/2 lbs. M.A. 8 lbs. T.	20 lbs. M.A. 8 lbs. T.

Freed No.	MAP-4	MAP-7	MAP-8	MAP-11
Power Supply	115V A.C. 60 Cycles (To MAPT-4)	115V A.C. 400 Cycles	115V A.C. 400 Cycles (To MAPT-8)	115V A.C. 400 Cycles
Maximum Output Wattage	175 Watts	15 Watts	50 Watts	10 Watts
Voltage	130V	125V	115V	115V
Typical Load	Diehl FPF 85-18-1	Kearfott R112-2A	Bendix CK-3000-1-A	Kearfott R111-2A
Input Signal Required for Full Output	8 ma.	.5 ma.	1.8 ma.	.9 ma.
Resp. Time	ON OFF 17 cycles 66	ON OFF 5 cycles 15	ON OFF 45 cycles 60	ON OFF 4 cycles 75
Control Winding Resistance	3000 ohms each	4,400 ohms each	320 ohms each	3300 ohms each
Physical Dimensions	7 1/2" x 5" x 7 7/8" H M.A. 4" x 4 3/4" x 5 5/8" H T.	3 1/4" x 3 3/4" x 7" H	3 3/4" x 3 3/4" x 7 7/8" H M.A. 2 1/4" x 2 3/4" x 3 3/4" H T.	4 1/4" x 3 1/2" x 5 1/2" H
Weight	35 lbs. M.A. 12 lbs. T.	7 lbs.	7 1/2 lbs. M.A. 4 lbs. T.	5 lbs.

FREED TRANSFORMER CO., INC.

SINGLE ENDED MAGNETIC AMPLIFIERS

THE MAO LINE OF SINGLE-ENDED MAGNETIC AMPLIFIERS PROVIDES A SINGLE STAGE OF DC CONTROLLED AMPLIFICATION, UTILIZING POSITIVE FEEDBACK TO OBTAIN MUCH HIGHER GAIN THAN THAT OF A SATURABLE REACTOR.

Freed No.	MAO-1	MAO-2	MAO-3	MAO-4	MAO-5
Power Supply	115V A.C. 60 Cycles	115V A.C. 60 Cycles	115V A.C. 60 Cycles	115V A.C. 60 Cycles	115V A.C. to the MAO-T-5 Transformer 60 Cycles
Maximum Output Wattage	4 watts	20 watts	100 watts	400 watts	575 watts
Voltage	120V	120V	100V	100V	135V
Typical Load	4000 ohms	700 ohms	100 ohms	25 ohms	25 ohms
Input Signal Req. for Full Output	3 ma.	1.8 ma.	9 ma.	9 ma.	6 ma.
Control Winding Resistance	300 ohms each	700 ohms each	5600 ohms each	4500 ohms each	4,500 ohms
Physical Dimensions	3 $\frac{1}{4}$ "x4"x3 $\frac{1}{2}$ " H	4 $\frac{1}{4}$ "x3 $\frac{1}{2}$ "x6 $\frac{1}{2}$ " H	3 $\frac{1}{4}$ "x5 $\frac{1}{2}$ "x4 $\frac{3}{4}$ " H	5"x7 $\frac{1}{2}$ "x6" H	5"x7 $\frac{1}{2}$ "x6" H Trans. 3 $\frac{1}{4}$ "x3 $\frac{1}{2}$ "x3 $\frac{1}{2}$ " H
Weight	4 lbs.	7 lbs.	8 $\frac{1}{2}$ lbs.	21 lbs.	21 lbs. Trans. 7 $\frac{1}{4}$ lbs.

TRANSISTOR CONVERTERS

THE FREED LINE OF DC TO AC AND DC TO DC TRANSISTOR CONVERTERS PROVIDE A HIGH EFFICIENCY VOLTAGE CONVERSION FROM BATTERY SOURCES TO AN AC LINE VOLTAGE OR HIGH DC VOLTAGE WITHOUT THE USE OF MOVING PARTS.

Freed Transformer Co. maintains a stock line of reliable, highly efficient static DC to DC and DC to AC converters. DC to DC converters hermetically sealed cans. RF filters included inside case.

The MAC Line of Static DC to AC Converters provide a highly efficient voltage conversion from battery sources to AC voltage without the use of moving parts.

The output voltage and/or frequency is directly proportional to source voltage variation. Special regulators can be supplied to compensate for this variation.

• RUGGED, QUIET, MAINTENANCE FREE, LONG LIFE OPERATION.

• HIGH POWER TO WEIGHT RATIO, ARC-FREE OPERATION.

UNREGULATED TDC STOCK UNITS

Type No.	NOM. V in	V out	MAX 1 out MA	Case Size	Type No.	NOM. V in	V out	MAX 1 out MA	Case Size
TDC 6-15-03	6v	150	50	2 x 2 $\frac{1}{4}$ x 3 $\frac{1}{4}$	TDC 28-30-15	28v	300	150	2 $\frac{1}{2}$ x 2 $\frac{1}{4}$ x 3 $\frac{1}{4}$
TDC 12-30-15	12v	300	150	2 $\frac{1}{2}$ x 2 $\frac{1}{4}$ x 3 $\frac{1}{2}$	TDC 28-25-12	28v	250	120	2 $\frac{1}{2}$ x 2 $\frac{1}{4}$ x 3 $\frac{1}{2}$
TDC 12-25-12	12v	250	120	2 $\frac{1}{2}$ x 2 $\frac{1}{4}$ x 3 $\frac{1}{2}$	TDC 28-30-05	28v	300	50	2 x 2 $\frac{1}{4}$ x 3 $\frac{1}{2}$
TDC 12-30-05	12v	300	50	2 x 2 $\frac{1}{4}$ x 3 $\frac{1}{2}$	TDC 28-20-05	28v	200	50	2 x 2 $\frac{1}{4}$ x 3 $\frac{1}{2}$
TDC 12-20-05	12v	200	50	2 x 2 $\frac{1}{4}$ x 3 $\frac{1}{2}$	TDC 48-20-15	48v	200	150	2 $\frac{1}{2}$ x 2 $\frac{1}{4}$ x 3 $\frac{1}{2}$
					TDC 48-30-15	48v	300	150	2 $\frac{1}{2}$ x 2 $\frac{1}{4}$ x 3 $\frac{1}{2}$

DC TO DC CONVERTERS

All TDC units are Hermetically Sealed, Oil Filled. Mtg. base plate must be mounted on a sink of sufficient area to maintain a base temperature of 70°C. Maximum output regulation 5% from half load to full load. Ripple frequency 4 to 5 KC; Ripple content 0.1%.

DC TO AC TRANSISTOR CONVERTERS

Input Voltage—12 VDC

Output Frequency—60 CPS.—Square Wave

Freed No.	Output Voltage	Power	Type of Case	Dimensions
MAC 12-3-60	115 VRMS	30 VA	Cased	7 $\frac{1}{4}$ " x 3 $\frac{1}{4}$ " x 4 $\frac{1}{2}$ "
MAC 12-10-1	115 VRMS	100 VA	Cased	7 $\frac{1}{4}$ " x 4" x 5"
MAC 12-10-2	115 VRMS	100 VA	Herm. Sealed	7 $\frac{1}{4}$ " x 4 $\frac{1}{4}$ " x 4 $\frac{1}{4}$ "
MAC 12-20-1	115 VRMS	180 VA	Cased	6" x 4 $\frac{1}{4}$ " x 6"
MAC 12-20-2	115 VRMS	180 VA	Herm. Sealed	6" x 4 $\frac{1}{4}$ " x 6"
MAC 12-30-1	115 VRMS	250 VA	Cased	5 $\frac{1}{4}$ " x 6 $\frac{1}{4}$ " x 7 $\frac{1}{4}$ "
MAC 12-30-2	115 VRMS	250 VA	Herm. Sealed	5 $\frac{1}{4}$ " x 6 $\frac{1}{4}$ " x 7 $\frac{1}{4}$ "

400 CYCLE TRANSISTOR CONVERTERS

Frequency Regulation $\pm 2\%$

Type No.	Nom. Input V.D.C.	Output VA	Case Size
TAC 12-50-4	12	50	3 x 3 $\frac{1}{4}$ x 3 $\frac{1}{4}$
TAC 12-100-4	12	100	4 $\frac{1}{4}$ x 3 $\frac{1}{2}$ x 4 $\frac{1}{2}$
TAC 28-50-4	28	50	3 x 3 $\frac{1}{4}$ x 3 $\frac{1}{4}$
TAC 28-150-4	28	150	4 $\frac{1}{4}$ x 3 $\frac{1}{2}$ x 4 $\frac{1}{2}$

- Output Waveform — Square Wave
- Output Frequency — 60 cps (Adjustment Control)
- Frequency Stability $\pm 3\%$
- Hermetically Sealed
- Maximum Ambient Temperature 50°C
- Temperature of Base Mounting Plate must not exceed 70°C.
- Output Voltage Variation — Varies Directly with Input Voltage

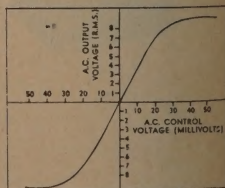
	Nominal Input V.D.C.	Output @ 115V VA	Case Size
TAC 6-50	6	50	4 $\frac{1}{8}$ x 3 $\frac{1}{2}$ x 4 $\frac{1}{2}$ H
TAC 12-50	12	50	4 $\frac{1}{8}$ x 3 $\frac{1}{2}$ x 4 $\frac{1}{2}$ H
TAC 12-90	12	90	4 $\frac{1}{8}$ x 3 $\frac{1}{2}$ x 4 $\frac{7}{8}$ H
TAC 12-175	12	175	5 x 4 $\frac{1}{8}$ x 6 H
TAC 28-50	28	50	4 $\frac{1}{8}$ x 3 $\frac{1}{2}$ x 4 $\frac{1}{2}$ H
TAC 28-100	28	100	4 $\frac{1}{8}$ x 3 $\frac{1}{2}$ x 4 $\frac{7}{8}$ H
TAC 28-175	28	175	5 x 4 $\frac{1}{8}$ x 6 H
TAC 28-250	28	250	5 $\frac{1}{2}$ x 5 x 6 $\frac{3}{4}$ H

MINIATURIZED SILICON TRANSISTOR PREAMPLIFIER

THE MAT TYPE OF TRANSISTOR PREAMPLIFIER COMBINES LOW POWER CONSUMPTION, HIGH POWER GAIN AND SMALL SIZE AND WEIGHT.

Freed No.	MAT-1-1
Power Supply	115V 400~
Voltage Gain	400
Maximum Output Voltage	10V (RL = 1.5K)
Typical Load	Freed MAF-4 and MAF-5 Magnetic Amplifiers
Input Signal Required for Full Output	50MV
Input Impedance	>10,000 OHMS
Physical Dimensions	1 $\frac{1}{2}$ " x 1 $\frac{1}{8}$ " x 2 $\frac{1}{2}$ " H
Weight	10 oz.

TRANSFER
CHARACTERISTIC
CURVE

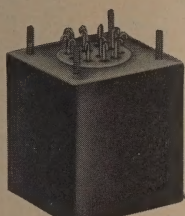


FREED TRANSFORMER CO., INC.

FREED SATURABLE TRANSFORMERS

DC CONTROLLED

The MAS line of saturable transformers, commonly controlled by dual-triodes or transistors, emphasizes low cost, small size, extreme reliability (no rectifiers) and phase-reversible output.



Freel No.	MAS-1	MAS-101	MAS-2	MAS-3	MAS-4	MAS-5	MAS-6	MAS-7	MAS-9
Power Supply	115V A.C. 60 Cycles	115V A.C. 60 Cycles	115V A.C. 60 Cycles	115V A.C. 60 Cycles	115V A.C. 60 Cycles	115V A.C. 400 Cycles	115V A.C. 400 Cycles	115V A.C. 400 Cycles	115V A.C. 60 Cycles
Maximum Output	15 watts	15 watts	6 watts	30 watts	60 watts	2.7 watts	30 watts	40 watts	125 watts
Voltage	130V	120V	120V	120V	120V	26V	120V	115V	115V
Typical Load	Diehl FPE 25-11	Diehl FPE 25-11	Kearfott R-110	Diehl FPE 49-7	250 ohms	Kearfott R-118	Diehl FPE 48-13-1	Bendix CK-3000-1A	110 Ω
Input Signal Required for Full Output	6 ma.	9 ma.	3 ma.	8 ma.	20 ma.	4 ma.	4 ma.	6 ma.	15 ma. D-C
Resp. Time	ON OFF 2 cycles 5	ON OFF 3 cycles 6	ON OFF 3 cycles 6	ON OFF 3 cycles 30	ON OFF 5 cycles 35	ON OFF 10 cycles 35	ON OFF 12 cycles 9	ON OFF 12 cycles 9	ON OFF 5 cycles 35
Control Winding Resistance	14 K ohms each	3200 ohms each	2000 ohms each	6800 ohms each	2000 ohms each	1500 ohms each	4000 ohms each	4000 ohms each	500 ohms each
Physical Dimensions	3 1/2" x 4 1/2" x 5 1/2" H	3 1/2" x 4 1/2" x 5 1/2" H	1 3/4" x 2 1/2" x 2 1/2" H	4 3/4" x 5 1/2" x 5 1/2" H	7" x 5 1/2" x 7" H	2 1/2" x 2 1/2" x 2 1/2" H	3 3/4" x 3 1/2" x 4" H	3 3/4" x 3 1/2" x 4" H	9" x 6 1/2" x 8" H
Weight	9 lbs.	9.75 lbs.	2 lbs.	18.5 lbs.	29 lbs.	1.25 lbs.	6 lbs.	6 lbs.	65 lb.

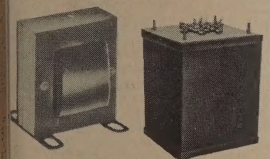
CONSTANT VOLTAGE TRANSFORMERS

The MCV line of constant voltage transformers provides accurate regulation against line and/or load variations, without the use of tubes or moving parts.

- MILITARY SPECIFICATIONS
- NO TUBES
- COMMERCIAL
- NO MOVING PARTS
- ACCURATE REGULATIONS
- FAST RESPONSE
- FULLY AUTOMATIC

Reg. Output in R.M.S. Volts	Input Range in R.M.S. Volts	Output in V.A. P.F.-1	CATALOG NUMBERS			
			60 Cycles		400 Cycles	
			Comm.	Military*	Comm.*	Military*
115	95-130	5	MCV65LC	MCV65LM	MCV45LC	MCV45LM
115	95-130	75	MCV625LC	MCV625LM	MCV425LC	MCV425LM
115	95-130	125	MCV675LC	MCV675LM	MCV475LC	MCV475LM
115	95-130	175	MCV6125LC	MCV6125LM	MCV4125LC	MCV4125LM
115	95-130	250	MCV675LC	MCV675LM	MCV475LC	MCV475LM
115	95-130	375	MCV625LC	MCV625LM	MCV425LC	MCV425LM
115	95-130	500	MCV6375LC	MCV6375LM	MCV4375LC	MCV4375LM
115	95-130	750	MCV6375LC	MCV6375LM	MCV4375LC	MCV4375LM
115	95-130	1000	MCV675LC	MCV675LM	MCV475LC	MCV475LM
26	95-130	5	MCV61000LC	MCV61000LM	MCV41000LC	MCV41000LM
26	95-130	5	MCV654FC	MCV654FM	MCV454FC	MCV454FM
26	95-130	25	MCV6254FC	MCV6254FM	MCV4254FC	MCV4254FM
26	95-130	75	MCV6754FC	MCV6754FM	MCV4754FC	MCV4754FM
26	95-130	125	MCV61254FC	MCV61254FM	MCV41254FC	MCV41254FM
6.4	95-130	5	MCV65FC	MCV65FM	MCV45FC	MCV45FM
6.4	95-130	25	MCV625FC	MCV625FM	MCV425FC	MCV425FM
6.4	95-130	75	MCV675FC	MCV675FM	MCV475FC	MCV475FM
6.4	95-130	125	MCV6125FC	MCV6125FM	MCV4125FC	MCV4125FM

*Condensers are not provided with units. Where condensers are provided they are external to units.



COMMERCIAL

MILITARY

TELEMETERING COMPONENTS

A complete line of Band Pass Filters, Low Pass Filters and Discriminators is available for multi-channel telemetry applications. These components cover the frequency range from 400 cps to 70,000 cps. The filters feature exceptional phase linearity, excellent selectivity characteristics and plug-in construction. The Discriminators, either fixed or slug tuned, have exceptional linearity, high amplification, and utmost stability.

TELEMETERING BAND PASS FILTERS

Hermetically sealed to MIL-T-27A and MIL-F-18327. These filters cover the frequencies from 400 c.p.s. to 70,000 c.p.s. Narrow frequency B.P.F. have a band width of 9% of center frequency and 45 dB (minimum) points $\pm 1\%$ of center frequency of higher or lower adjacent channels. Wide frequency B.P.F. have a band width of 19% of center frequency and 50 dB. points at $\pm 15\%$ center frequencies of higher or lower second adjacent channels.

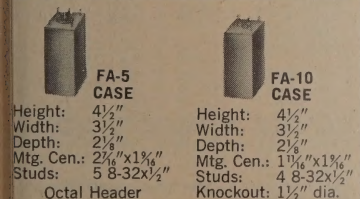
Characteristic Impedance 500 Ω				
Catalog No.	Center Frequency c.p.s.	3 dB Band Width % of C.F.	Case No.	
FBP-10	400	$\pm 9\%$	FA-10	
FBP-11	950	$\pm 9\%$	FA-10	
FBP-12	730	$\pm 9\%$	FA-10	
FBP-13	950	$\pm 9\%$	FA-10	
FBP-14	1,300	$\pm 9\%$	FA-10	
FBP-15	1,700	$\pm 9\%$	FA-10	
FBP-16	2,300	$\pm 9\%$	FA-10	
FBP-17	3,000	$\pm 9\%$	FA-15	
FBP-18	3,900	$\pm 9\%$	FA-15	
FBP-19	5,400	$\pm 9\%$	FA-15	
FBP-20	7,350	$\pm 9\%$	FA-15	
FBP-21	10,500	$\pm 9\%$	FA-15	
FBP-22	12,300	$\pm 9\%$	FA-15	
FBP-23	14,500	$\pm 9\%$	FA-15	
FBP-24	22,000	$\pm 9\%$	FA-15	
FBP-25	22,000	$\pm 19\%$	FA-15	
FBP-26	30,000	$\pm 9\%$	FA-15	
FBP-27	30,000	$\pm 19\%$	FA-15	
FBP-28	40,000	$\pm 9\%$	FA-15	
FBP-29	40,000	$\pm 19\%$	FA-15	
FBP-30	52,500	$\pm 9\%$	FA-15	
FBP-31	52,500	$\pm 19\%$	FA-15	
FBP-32	70,000	$\pm 9\%$	FA-15	
FBP-33	70,000	$\pm 19\%$	FA-15	

Characteristic Impedance 2,500 Ω				
Catalog No.	Center Frequency c.p.s.	3 dB Band Width % of C.F.	Case No.	
FBP-34	400	$\pm 9\%$	FA-5	
FBP-35	950	$\pm 9\%$	FA-5	
FBP-36	730	$\pm 9\%$	FA-5	
FBP-37	950	$\pm 9\%$	FA-5	
FBP-38	1,300	$\pm 9\%$	FA-5	
FBP-39	1,700	$\pm 9\%$	FA-5	
FBP-40	2,300	$\pm 9\%$	FA-5	
FBP-41	3,000	$\pm 9\%$	FA-5	
FBP-42	3,900	$\pm 9\%$	FA-5	
FBP-43	5,400	$\pm 9\%$	FA-5	
FBP-44	7,350	$\pm 9\%$	FA-5	
FBP-45	10,500	$\pm 9\%$	FA-5	
FBP-46	12,300	$\pm 9\%$	FA-5	
FBP-47	14,500	$\pm 9\%$	FA-5	
FBP-48	22,000	$\pm 9\%$	FA-5	
FBP-49	22,000	$\pm 19\%$	FA-5	
FBP-50	30,000	$\pm 9\%$	FA-5	
FBP-51	30,000	$\pm 19\%$	FA-5	
FBP-52	40,000	$\pm 9\%$	FA-5	
FBP-53	40,000	$\pm 19\%$	FA-5	
FBP-54	52,500	$\pm 9\%$	FA-5	
FBP-55	52,500	$\pm 19\%$	FA-5	
FBP-56	70,000	$\pm 9\%$	FA-5	
FBP-57	70,000	$\pm 19\%$	FA-5	

SUBMINIATURE TELEMETERING BAND PASS FILTERS

Manufactured to Specification MIL-F-18327A—Type FR-4R22YY
RBD Standard Frequency Channels

Input and Output Impedance 10K ohms							
Type No.	Center Frequency Fo in KC	Band Width <3DB	Stop Band Attenuation	Type No.	Center Frequency Fo in KC	Band Width <3DB	Stop Band Attenuation
MTN-4	.4	±7½%	≥ 38 DB @ 1.75 & 58 Fo	MTN-14.5	14.5	±7½%	≥ 38 DB @ 1.75 & 58 Fo
MTN-.56	.56	±7½%	≥ 38 DB @ 1.75 & 58 Fo	MTN-22	22	±7½%	≥ 38 DB @ 1.75 & 58 Fo
MTN-.73	.73	±7½%	≥ 38 DB @ 1.75 & 58 Fo	MTN-30	30	±7½%	≥ 38 DB @ 1.75 & 58 Fo
MTN-.96	.96	±7½%	≥ 38 DB @ 1.75 & 58 Fo	MTN-40	40	±7½%	≥ 38 DB @ 1.75 & 58 Fo
MTN-1.3	1.3	±7½%	≥ 38 DB @ 1.75 & 58 Fo	MTN-52.5	52.5	±7½%	≥ 38 DB @ 1.75 & 58 Fo
MTN-1.7	1.7	±7½%	≥ 38 DB @ 1.75 & 58 Fo	MTN-70	70	±7½%	≥ 38 DB @ 1.75 & 58 Fo
MTN-2.3	2.3	±7½%	≥ 38 DB @ 1.75 & 58 Fo	MTN-22	22	±15%	≥ 40 DB @ 2.5 & 4 Fo
MTN-3.0	3.0	±7½%	≥ 38 DB @ 1.75 & 58 Fo	MTW-30	30	±15%	≥ 40 DB @ 2.5 & 4 Fo
MTN-3.9	3.9	±7½%	≥ 38 DB @ 1.75 & 58 Fo	MTW-40	40	±15%	≥ 40 DB @ 2.5 & 4 Fo
MTN-5.4	5.4	±7½%	≥ 38 DB @ 1.75 & 58 Fo	MTW-52.5	52.5	±15%	≥ 40 DB @ 2.5 & 4 Fo
MTN-7.35	7.35	±7½%	≥ 38 DB @ 1.75 & 58 Fo	MTW-70	70	±15%	≥ 40 DB @ 2.5 & 4 Fo
MTN-10.5	10.5	±7½%	≥ 38 DB @ 1.75 & 58 Fo				



FA-5 CASE

FA-10 CASE

Height: 4 1/2"
Width: 3 1/2"
Depth: 2 1/2"
Mtg. Cen.: 2 1/2" x 1 1/2"
Studs: 5 8-32 x 1/2"

Height: 4 1/2"
Width: 3 1/2"
Depth: 2 1/2"
Mtg. Cen.: 1 1/2" x 1 1/2"
Studs: 4 8-32 x 1/2"

Octal Header

Knockout: 1 1/2" dia.

FA-15 CASE

Height: 4 1/2"
Width: 2 1/2"
Depth: 2 1/2"
Mtg. Cen.: 1 1/2" x 1 1/2"
Studs: 4 8-32 x 1/2"

CASE SIZES

DF-01
3 1/2" x 1 1/2" x 1 1/2"
MTN-2.3 Thru MTW-70

DF-02
1 x 1 x 1
MTN-4 Thru MTN 1.7

FREED TRANSFORMER CO., INC.

CASE DIMENSIONS



FA-1 CASE

Height: $4\frac{1}{2}"$
 Width: $1\frac{1}{2}"$
 Depth: $1\frac{1}{2}"$
 Mtg. Cen.: $1\frac{1}{8}" \times 1\frac{1}{8}"$
 4 Inserts: 6-32
 Knockout: $1"$



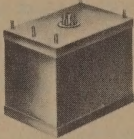
FA-185 CASE

Height: $4\frac{1}{2}"$
 Width: $1\frac{1}{2}"$
 Depth: $1\frac{1}{2}"$
 Mtg. Cen.: $1\frac{1}{8}" \times 1\frac{1}{8}"$
 4 Inserts: 6-32
 Knockout: $1\frac{1}{2}"$



FA-190 CASE

Height: $4\frac{1}{2}"$
 Width: $2\frac{1}{2}"$
 Depth: $1\frac{1}{2}"$
 Mtg. Cen.: $1\frac{1}{8}" \times 1\frac{1}{8}"$
 4 Inserts: 6-32
 Knockout: $1\frac{1}{2}"$



FA-410 CASE

Height: $4\frac{1}{2}"$
 Width: $6"$
 Depth: $4"$
 Mtg. Cen.: $5\frac{1}{4}" \times 3\frac{1}{4}"$
 5 Studs: 10-32
 Octal Header

DISCRIMINATOR INPUT LOW PASS FILTER

HERMETICALLY SEALED TO MIL-T-27A AND MIL-F-18327 SPECIFICATIONS

Catalog No.	Fo Center Freq. in c.p.s.	Characteristic Impedance Ohms	Case No.
LPI-10	400	30,000	FA-1
LPI-11	560	30,000	FA-1
LPI-12	730	30,000	FA-1
LPI-13	960	30,000	FA-1
LPI-14	1,300	30,000	FA-1
LPI-15	1,700	30,000	FA-1
LPI-16	2,300	30,000	FA-1
LPI-17	3,000	30,000	FA-1
LPI-18	3,900	30,000	FA-1

Band Pass Attenuation: 0.05 DB $\pm 9\frac{1}{2}\%$ of Center Frequency
 30 DB at second harmonic of Pass Band Frequencies
 50 DB at third harmonic of Pass Band Frequencies
 40 DB above third harmonic of Pass Band Frequencies

Catalog No.	Fo Center Freq. in c.p.s.	Characteristic Impedance Ohms	Case No.
LPI-19	5,400	30,000	FA-1
LPI-20	7,350	30,000	FA-1
LPI-21	10,500	30,000	FA-1
LPI-22	12,300	30,000	FA-1
LPI-23	14,500	30,000	FA-1
LPI-24	22,000	5,100	FA-1
LPI-25	30,000	5,100	FA-1
LPI-26	40,000	5,100	FA-1
LPI-27	52,500	5,100	FA-1
LPI-28	70,000	5,100	FA-1

Band Pass Attenuation: 0.05 DB $\pm 15\%$ of Center Frequency
 30 DB at second harmonic of Pass Band Frequencies
 50 DB at third harmonic of Pass Band Frequencies
 40 DB above third harmonic of Pass Band Frequencies

DISCRIMINATOR OUTPUT LOW PASS FILTER

HERMETICALLY SEALED TO MIL-T-27A AND MIL-F-18327 SPECIFICATIONS

Catalog No.	Fo c.p.s.	Characteristic Impedance Ohms	Case No.
LPO-10	6	330	FA-410
LPO-11	8	330	FA-410
LPO-12	11	330	FA-410
LPO-13	14	330	FA-410
LPO-14	20	330	FA-410
LPO-15	25	330	FA-410
LPO-16	35	330	FA-410
LPO-17	45	330	FA-410
LPO-18	60	330	FA-410
LPO-19	81	330	FA-410
LPO-20	110	330	FA-410
LPO-21	160	330	FA-410
LPO-22	185	330	FA-410

Catalog No.	Fo c.p.s.	Characteristic Impedance Ohms	Case No.
LPO-23	220	330	FA-410
LPO-24	330	330	FA-410
LPO-25	450	330	FA-410
LPO-26	600	330	FA-410
LPO-27	660	330	FA-410
LPO-28	790	330	FA-410
LPO-29	900	330	FA-410
LPO-30	1,050	330	FA-410
LPO-31	1,200	330	FA-410
LPO-32	1,600	330	FA-410
LPO-33	2,100	330	FA-410
LPO-34	7,200	330	FA-410
LPO-35	10,000	330	FA-410

Attenuation: <0.2 DB up to 0.5 times Fo
 <0.7 DB from 0.5 to 1. times Fo
 >20 DB at 2 Fo to 2.5 Fo
 >30 DB from 2.5 times Fo to 100 Kc

FIXED DISCRIMINATORS

HERMETICALLY SEALED TO MIL-T-27A AND MIL-F-18327 SPECIFICATIONS

Catalog No.	Center Frequency (cps)	% Deviation of Fo	Linearity	D.C. Output Volts	Case No.
DST-10	400	$\pm 8\frac{1}{2}\%$	$\pm 0.5\%$	32.5	FA-185
DST-11	560	$\pm 8\frac{1}{2}\%$	$\pm 0.5\%$	32.5	FA-185
DST-12	730	$\pm 8\frac{1}{2}\%$	$\pm 0.5\%$	32.5	FA-185
DST-13	960	$\pm 8\frac{1}{2}\%$	$\pm 0.5\%$	32.5	FA-185
DST-14	1,300	$\pm 8\frac{1}{2}\%$	$\pm 0.5\%$	32.5	FA-185
DST-15	1,700	$\pm 8\frac{1}{2}\%$	$\pm 0.5\%$	32.5	FA-185
DST-16	2,300	$\pm 8\frac{1}{2}\%$	$\pm 0.5\%$	32.5	FA-185

SLUG TUNED DISCRIMINATORS

Catalog No.	Center Frequency (Kc.)	% Deviation of Fo	Linearity	D.C. Output Volts	Case No.
DST-17	3.0	$\pm 8\frac{1}{2}\%$	$\pm 0.5\%$	32.5	FA-190
DST-18	3.9	$\pm 8\frac{1}{2}\%$	$\pm 0.5\%$	32.5	FA-190
DST-19	5.4	$\pm 8\frac{1}{2}\%$	$\pm 0.5\%$	32.5	FA-190
DST-20	7.35	$\pm 8\frac{1}{2}\%$	$\pm 0.5\%$	32.5	FA-190
DST-21	10.5	$\pm 8\frac{1}{2}\%$	$\pm 0.5\%$	32.5	FA-190
DST-22	12.3	$\pm 8\frac{1}{2}\%$	$\pm 0.5\%$	32.5	FA-190
DST-23	14.5	$\pm 8\frac{1}{2}\%$	$\pm 0.5\%$	32.5	FA-190
DST-24	22.0	$\pm 8\frac{1}{2}\%$	$\pm 0.5\%$	32.5	FA-190
DST-25	30.0	$\pm 8\frac{1}{2}\%$	$\pm 0.5\%$	32.5	FA-190

Catalog No.	Center Frequency (Kc.)	% Deviation of Fo	Linearity	D.C. Output Volts	Case No.
DST-26	40.0	$\pm 8\frac{1}{2}\%$	$\pm 0.5\%$	32.5	FA-190
DST-27	52.5	$\pm 8\frac{1}{2}\%$	$\pm 0.5\%$	32.5	FA-190
DST-28	70.0	$\pm 8\frac{1}{2}\%$	$\pm 0.5\%$	32.5	FA-190
DST-29	22.0	$\pm 15\%$	$\pm 1.0\%$	26.0	FA-190
DST-30	30.0	$\pm 15\%$	$\pm 1.0\%$	26.0	FA-190
DST-31	40.0	$\pm 15\%$	$\pm 1.0\%$	26.0	FA-190
DST-32	52.5	$\pm 15\%$	$\pm 1.0\%$	26.0	FA-190
DST-33	70.0	$\pm 15\%$	$\pm 1.0\%$	26.0	FA-190

FREED FILTERS

To MIL-T-27A and MIL-F-18327

Freed Standard Filters are Hermetically Sealed Miniature and Sub-Miniature high performance components designed for both production and laboratory applications in the Communications and Electronic industry. In order to achieve attenuation requirements not obtainable with one single filter, one can combine several standard filters of different transmission characteristics. Wide Band Pass characteristics are obtainable by combining low and high Pass Units. The astatic construction of inductive components together with special shielding reduces the hum pick-up of the standard filters.

The standard filters are available in Low Pass, High Pass and Band Pass Filters.

Low Pass Filters: The attenuation characteristics of Low Pass Filters are 6db or less at cut-off frequency, 35db or more at 1.5 cut-off frequency and 40db or more at 2 cut-off frequency.

ILP Interstage Low Pass Filter. Characteristic Impedance 10,000 ohms, in and out.

LHP Line Low Pass Filter. Characteristic Impedance 500 to 600 Ω , in and out.

High Pass Filters: The attenuation characteristics of High Pass Filters are 6db or less at cut-off frequency, 35db and 40db or more at 0.67 and 0.5 cut-off frequency.

IHP Interstage High Pass Filter. Characteristic Impedance 10,000 ohms, in and out.

LHP Line High Pass Filter. Characteristic Impedance 500 to 600 Ω , in and out.

Band Pass Filters: The attenuation characteristics of Band Pass Filters are 2db or less at plus or minus 3% of center frequency 40db or more at 0.5 and 2 center frequency.

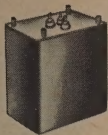
IBP Interstage Band Pass Filter. Nominal input impedance—10,000 ohms. Nominal output impedance 5 megohms or grid of vacuum tube. Effective voltage step up 2:1. (Output voltage to source voltage.)

LBP Line Band Pass Filter. Nominal input impedance 500 to 600 ohms. Nominal output impedance 5 megohms or grid of vacuum tube. Effective voltage step-up 9:1. (Output voltage to source voltage.)

FREED TRANSFORMER COMPANY, INC.

FREED TRANSFORMER CO., INC.

FREED FILTERS TO MIL-T-27A AND MIL-F-18327



DF-1 CASE

Height: $2\frac{1}{2}$ "
Width: $1\frac{1}{4}$ "
Depth: $1\frac{3}{4}$ "
Mtg. Cen.: $1\frac{1}{2}$ " x $\frac{3}{4}$ "
Studs: $4-6-32 \times \frac{3}{8}$ "
Knockout: $\frac{7}{8}$ " dia.

Catalog No.	Cut-off Frequency c.p.s.
ILP- 100	100
ILP- 200	200
ILP- 300	300
ILP- 500	500
ILP- 750	750
ILP- 1,000	1,000
ILP- 1,500	1,500
ILP- 2,000	2,000
ILP- 2,500	2,500
ILP- 3,000	3,000
ILP- 5,000	5,000
ILP- 7,000	7,000
ILP- 10,000	10,000
ILP- 15,000	15,000
ILP- 20,000	20,000
ILP- 23,000	23,000
ILP- 25,000	25,000
ILP- 32,000	32,000
ILP-130,000	130,000
ILP-150,000	150,000

Special filters in all six types are available for any frequency from 100 to 20,000 cycles

Catalog No.	Cut-off Frequency c.p.s.
LLP- 500	500
LLP- 1,000	1,000
LLP- 1,500	1,500
LLP- 1,600	1,600
LLP- 2,000	2,000
LLP- 2,500	2,500
LLP- 3,000	3,000
LLP-16,000	16,000
LLP-20,000	20,000
LLP-70,000	70,000
LLP-80,000	80,000
IHP- 200	200
IHP- 250	250
IHP- 300	300
IHP- 400	400
IHP- 500	500
IHP- 1,000	1,000
IHP- 2,000	2,000
IHP- 3,000	3,000
IHP-10,000	10,000
IHP-15,000	15,000
LHP- 200	200
LHP- 300	300
LHP- 400	400
LHP- 500	500
LHP- 800	800
LHP- 1,000	1,000
LHP- 2,000	2,000
LHP- 6,000	6,000
LHP-10,000	10,000

Catalog No.	Cut-off Frequency c.p.s.
IBP- 100	100
IBP- 200	200
IBP- 250	250
IBP- 400	400
IBP- 500	500
IBP- 700	700
IBP- 800	800
IBP- 900	900
IBP- 1,000	1,000
IBP- 1,500	1,500
IBP- 2,000	2,000
IBP- 3,000	3,000
IBP- 5,000	5,000
IBP- 7,200	7,200
IBP-10,000	10,000
IBP-12,000	12,000
IBP-15,000	15,000
IBP-30,000	30,000
IBP-57,600	57,600
LBP- 100	100
LBP- 300	300
LBP- 400	400
LBP- 600	600
LBP- 800	800
LBP- 1,000	1,000
LBP- 1,500	1,500
LBP- 2,000	2,000
LBP- 3,000	3,000
LBP- 7,200	7,200
LBP-10,000	10,000
LBP-14,400	14,400
LBP-20,000	20,000
LBP-28,800	28,800

HERMETICALLY SEALED SUB-MINIATURE FILTERS

Low Pass Filters: The attenuation characteristics of Low Pass Filters are 6db or less at cut-off frequency, 30db or more at 1.5 cut-off frequency and 40db or more at 2 cut-off frequency.

ILM Interstage Low Pass Filter. Characteristic impedance 10,000 ohms, in and out.

LLM Line Low Pass Filter. Characteristic Impedance 500 to 600 ohms, in and out.

High Pass Filters: The attenuation characteristics of High Pass Filters are 6db or less at cut-off frequency, 30db and 40db or more at 0.67 and 0.5 cut-off frequency.

IHM Interstage High Pass Filter. Characteristic Impedance 10,000 ohms, in and out.

LHM Line High Pass Filter. Characteristic Impedance 500 to 600 ohms, in and out.

Band Pass Filters: The attenuation characteristics of Band Pass Filters are 2db or less at plus or minus 3% of center frequency 35db or more at 0.5 and 2 center frequency.

IBM Interstage Band Pass Filter. Nominal input impedance—10,000 ohms. Nominal output impedance 5 megohms or grid of vacuum tube. Effective voltage step-up 2:1. (Output voltage to source voltage.)

LBM Line Band Pass Filter. Nominal input impedance 500 to 600 ohms. Nominal output impedance 5 megohms or grid of vacuum tube. Effective voltage step-up 5:1. (Output voltage to source voltage.)

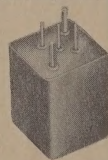
Special filters in all six types are available for any frequency from 200 to 20,000 cycles.

Catalog No.	Cut-off Freq. c.p.s.	Case No.
BM- 400	400	DF-02
BM- 500	500	DF-02
BM- 700	700	DF-02
BM- 800	800	DF-02
BM- 900	900	DF-02
BM- 1,000	1,000	DF-02
BM- 1,500	1,500	DF-02
BM- 2,000	2,000	DF-01
BM- 3,000	3,000	DF-01
BM- 5,000	5,000	DF-01
BM- 7,200	7,200	DF-01
BM-10,000	10,000	DF-01
BM-12,000	12,000	DF-01
BM-15,000	15,000	DF-01
BM-30,000	30,000	DF-01
BM-57,600	57,600	DF-01
IM- 300	300	DF-01
IM- 400	400	DF-01
IM- 500	500	DF-01
IM- 1,000	1,000	DF-01
IM- 2,000	2,000	DF-01
IM- 3,000	3,000	DF-01
IM-10,000	10,000	DF-01
IM-15,000	15,000	DF-01

Catalog No.	Cut-off Freq. c.p.s.	Case No.
ILM- 300	300	DF-01
ILM- 500	500	DF-01
ILM- 750	750	DF-01
ILM- 1,000	1,000	DF-01
ILM- 1,500	1,500	DF-01
ILM- 2,000	2,000	DF-01
ILM- 2,500	2,500	DF-01
ILM- 3,000	3,000	DF-01
ILM- 5,000	5,000	DF-01
ILM- 7,000	7,000	DF-01
ILM- 10,000	10,000	DF-01
ILM- 15,000	15,000	DF-01
ILM- 20,000	20,000	DF-01
ILM- 23,000	23,000	DF-01
ILM- 25,000	25,000	DF-01
ILM- 32,000	32,000	DF-01
ILM-130,000	130,000	DF-01
ILM-150,000	150,000	DF-01
LHM- 300	300	DF-03
LHM- 400	400	DF-03
LHM- 500	500	DF-03
LHM- 800	800	DF-03
LHM- 1,000	1,000	DF-02
LHM- 2,000	2,000	DF-02
LHM- 6,000	6,000	DF-02
LHM-10,000	10,000	DF-02

Catalog No.	Cut-off Freq. c.p.s.	Case No.
LBM- 300	300	DF-02
LBM- 400	400	DF-02
LBM- 600	600	DF-02
LBM- 800	800	DF-02
LBM- 1,000	1,000	DF-01
LBM- 1,500	1,500	DF-01
LBM- 2,000	2,000	DF-01
LBM- 3,000	3,000	DF-01
LBM- 7,200	7,200	DF-01
LBM-10,000	10,000	DF-01
LBM-14,400	14,400	DF-01
LBM-20,000	20,000	DF-01
LBM-28,800	28,800	DF-01
LLM- 500	500	DF-03
LLM- 1,000	1,000	DF-03
LLM- 1,500	1,500	DF-02
LLM- 1,600	1,600	DF-02
LLM- 2,000	2,000	DF-02
LLM- 2,500	2,500	DF-02
LLM- 3,000	3,000	DF-02
LLM-16,000	16,000	DF-02
LLM-20,000	20,000	DF-02
LLM-70,000	70,000	DF-02
LLM-80,000	80,000	DF-02

CASE DIMENSIONS



DF CASE STYLE

DF-01

Height: $1\frac{3}{4}$ "
Width: $\frac{3}{4}$ "
Depth: $\frac{3}{4}$ "
Mtg. Cen.: $\frac{3}{4}$ " Diag.
Studs: 2 - 4-40

DF-02

Height: $1\frac{3}{4}$ "
Width: $1\frac{1}{4}$ "
Depth: $1\frac{1}{4}$ "
Mtg. Cen.: $\frac{3}{4}$ " Diag.
Studs: 2 - 4-40

DF-03

Height: $1\frac{3}{4}$ "
Width: $1\frac{1}{4}$ "
Depth: $1\frac{1}{4}$ "
Mtg. Cen.: $\frac{3}{4}$ " Diag.
Studs: 2 - 4-40

SERIES 1950 NULL "T" FILTERS

The Freed Series 1950 Null T networks consist of two resistance capacitance networks, whose outputs completely cancel each other at the balance frequency. They may be used as rejection networks particularly at low frequencies where LC filters become excessively large and unstable.

Standard models are available for 30, 60 and 120 cycles in a wide range of impedances. Each network will give a minimum of 50 db attenuation at the null frequency.

The null frequency is adjusted to a tolerance of $\pm 2\%$.

All Null T Filters are hermetically sealed.

Prices on request.

Catalog No.	Frequency
NTF- 30	30 cps
NTF- 60	60 cps
NTF-120	120 cps

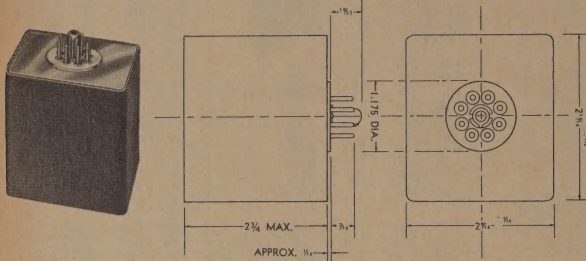
FREED TRANSFORMER CO., INC.

TELEGRAPH TONE CHANNEL FILTERS

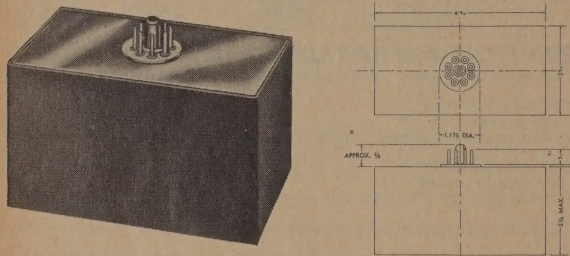
HERMETICALLY SEALED TO MIL-T-27A AND MIL-F-18327 SPECIFICATIONS

Freed Band Pass Filters are extensively used in multiplex frequency shift transmitting and receiving. Stock filters cover all narrow and wide band channels. All units are built with a standard octal socket.

FBT Transmitting Filters are built for a 600 ohm in and out characteristic impedance. Filter configuration allows paralleling of channel outputs. 10db adjacent channel crossover attenuation.



FBR Receiving Filters are designed for a characteristic impedance of 600 ohms in and out. Filter configuration permits paralleling of channel inputs. 20db adjacent channel crossover attenuation.



RECEIVING FILTERS

Catalog No. Case FA-950	Center Frequency (c.p.s.) Insertion Loss 6db	Pass Band (c.p.s.) Attenuation 20db	Stop Band (c.p.s.) Attenuation 20db
FBR-10	425	±42.5	±130
FBR-11	595	±42.5	±130
FBR-12	765	±42.5	±130
FBR-13	935	±42.5	±130
FBR-14	1,105	±42.5	±130
FBR-15	1,275	±42.5	±130
FBR-16	1,445	±42.5	±130
FBR-17	1,615	±42.5	±130
FBR-18	1,785	±42.5	±130
FBR-19	1,955	±42.5	±130
FBR-20	2,125	±42.5	±130
FBR-21	2,295	±42.5	±130
FBR-22	2,465	±42.5	±130
FBR-23	2,635	±42.5	±130
FBR-24	2,805	±42.5	±130
FBR-25	2,975	±42.5	±130
FBR-26	1,955	±85	±260
FBR-27	2,380	±85	±260
FBR-28	2,805	±85	±260
FBR-29	3,230	±85	±260

TRANSMITTING FILTERS

Catalog No. Case FA-955	Center Frequency (c.p.s.) Insertion Loss 5db	Pass Band (c.p.s.) Attenuation 20db	Stop Band (c.p.s.) Attenuation 20db
FBT-10	425	±42.5	±130
FBT-11	595	±42.5	±130
FBT-12	765	±42.5	±130
FBT-13	935	±42.5	±130
FBT-14	1,105	±42.5	±130
FBT-15	1,275	±42.5	±130
FBT-16	1,445	±42.5	±130
FBT-17	1,615	±42.5	±130
FBT-18	1,785	±42.5	±130
FBT-19	1,955	±42.5	±130
FBT-20	2,125	±42.5	±130
FBT-21	2,295	±42.5	±130
FBT-22	2,465	±42.5	±130
FBT-23	2,635	±42.5	±130
FBT-24	2,805	±42.5	±130
FBT-25	2,975	±42.5	±130
FBT-26	1,955	±85	±260
FBT-27	2,380	±85	±260
FBT-28	2,805	±85	±260
FBT-29	3,230	±85	±260

ULTRASONICS

New developments and applications of ultrasonics for industrial cleaning, soldering, welding, and many other uses have created a demand for generators and components specifically designed for ultrasonic applications.

Using the latest developments in the field of special magnetic materials the FREED ultrasonic transformers are designed for greatest efficiency and maximum reliability. They feature small size excellent performance and long life under continuous duty operation.

Transformers with an extended frequency range (frequencies up to 2 MC) can be supplied upon request.

ULTRASONIC DRIVER AND INPUT TRANSFORMERS

Frequency Response: ±1 DB 10 KC to 60 KC.

Catalog No.	Application	Primary Impedance Ohms	Ratio	Maximum Power Watts	Maximum Primary D.C. per Side Ma.	Case Size
ULI-20	Transducer to PP 811A	1, 2, 4	1:17.3	5		DM-03
ULD-20	PP 6CM6 to PP 811A	10,000	4.4:1	5	50	DM-03
ULD-50	PP 5881 to PP 8000	7,200	1.7:1	25	90	EA

ULTRASONIC OUTPUT TRANSFORMERS

Frequency response: ±1 DB 20 KC to 60 KC.

Catalog No.	Application	Impedance in Ohms Primary Secondary	Maximum Power Watts	Maximum Primary D.C. per Side Ma.	Case Size
ULO-10	PP 6083 to transducer	7,600 1/4	100	120	DC-4B
ULO-11	Same	7,600 2/8	100	120	DC-4B
ULO-12	Same	7,600 4/16	100	120	DC-4B
ULO-13	Same	7,600 7.5/30	100	120	DC-4B
ULO-30	PP 811A to transducer	12,400 1/4	300	170	DC-4B
ULO-31	Same	12,400 2/8	300	170	DC-4B
ULO-32	Same	12,400 4/16	300	170	DC-4B
ULO-33	Same	12,400 7.5/30	300	170	DC-4B
ULO-34	Same	12,400 25	300	170	DC-4B
ULO-35	Same	12,400 125/500	300	170	DC-4B
ULO-36	Same	12,400 250/1000	300	170	DC-4B
ULO-37	Same	12,400 75/300	300	170	DC-4B
ULO-52	PP 8000 to transducer	20,800 4/16	500	230	MA-2
ULO-53	Same	10,800 7.5/30	500	230	MA-2
ULO-54	Same	10,800 25/100	500	230	MA-2
ULO-55	Same	10,800 125/500	500	230	MA-2
ULO-56	Same	10,800 250/1000	500	230	MA-2
ULO-101	PP. Par. 8000 to transducer	5,400 25/100	1000	430	DC-6B
ULO-104	Same	5,400 75/300	1000	430	DC-6B
ULO-110	PP 4-250A to transducer	10,900 18.8/75/300	800	250	OL-112-1

CASE DIMENSIONS

OL-112-1 CASE

Height: 6"
Width: 5 1/2"
Length: 4 3/4"
Mounting: 4 1/2" 20 Studs
Mtg. Cen.: 4 3/8" x 3 3/8"
Cutout: 3" dia.



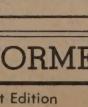
EA CASE

Height: 2 1/2"
Width: 1 1/2"
Length: 1 1/2"
Mounting: 4 6-32 Studs
Mtg. Cen.: 1 3/8" x 1 1/4"
Cutout: 1 3/8"



DM-03 CASE

Height: 2 1/2"
Width: 1 1/2"
Length: 1 1/2"
Mounting: 4 6-32 Studs
Mtg. Cen.: 1 3/8" x 1 1/4"
Cutout: 1 1/2" Dia.



DC-4B CASE

Height: 4 3/4"
Width: 3 3/4"
Length: 3"
Mounting: 4 8-32 Studs
Mtg. Cen.: 2 1/2" x 2 1/2"
Cutout: (2) 1 1/2" x 3/4"



DC-6B CASE

Height: 6"
Width: 5"
Length: 4 1/2"
Mounting: 4 10-32 Studs
Mtg. Cen.: 3 1/2" x 3"
Cutout: 3" Dia.



MA-2 CASE

Height: 4 1/2"
Width: 3 1/2"
Length: 3 1/2"
Mounting: 4 10-32 Studs
Mtg. Cen.: 2 1/2" x 3 3/8"
Cutout: (2) 2 3/4" x 3/4"



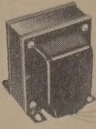
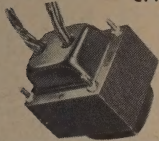
FREED TRANSFORMER COMPANY, INC.

FREED TRANSFORMER CO., INC.

COMMERCIAL GRADE COMPONENTS

These components are designed to meet the demand for low-cost replacement parts for commercial electronic equipment. The best commercially available materials have been utilized in the design of these units, to insure reliability and excellent performance characteristics. Vacuum impregnation with a non-hygroscopic varnish to prevent penetration of humidity are employed to give these units long life and trouble-free performance. 230-115 V, 50-60 C.P.S. Stepdown Transformers rated from 25 V A up to 5,000 V A Rating and line booster transformers are included in this series. All units, with only a few exceptions, are uncased or of shell-type construction. Isolation transformers and Stepdown transformers are equipped with line cord and receptacle.

CASE DIMENSIONS



Case No.	Height	Width	Depth	MTC. Centers	MTC. Studs
VS300	2 3/8	3	2 1/2	2 1/2 x 2	(4) 3/8 x 3/8
VS303	2 3/8	3	2 1/2	2 1/2 x 2	(4) 3/8 x 3/8
VS306	3 3/8	3	2 1/2	2 1/2 x 2	(4) 3/8 x 3/8
VS307	3 3/8	3	2 1/2	2 1/2 x 2	(4) 3/8 x 3/8
VS503	3 3/8	3 3/8	3 3/8	3 1/2 x 2 1/2	(4) 3/8 x 3/8
VS505	3 3/8	3 3/8	3 3/8	3 1/2 x 2 1/2	(4) 3/8 x 3/8
VS603	3 3/8	4	3 3/8	3 3/4 x 3	(4) 3/8 x 3/8
VS605	4	4 1/2	3 3/8	3 3/4 x 3	(4) 3/8 x 3/8
VS606	4 3/8	4 1/2	3 3/8	3 3/4 x 3	(4) 3/8 x 3/8
VS610	4 3/8	4 1/2	3 3/8	3 3/4 x 3	(4) 3/8 x 3/8
VS612	4 3/8	4 1/2	3 3/8	3 3/4 x 3	(4) 3/8 x 3/8
VS708	5 3/8	5 1/2	4 3/8	4 3/4 x 3 1/2	(4) 3/8 x 3/8
VS709	6	5 1/2	4 3/8	4 3/4 x 3 1/2	(4) 3/8 x 3/8

Case No.	Height	Width	Depth	MTC. Centers	MTC. Studs
2B	3 1/2	2 3/8	2 1/4	2 1/4 x 1 3/4	(4) 8-32
4A	3 3/8	3 3/8	3	2 1/2 x 2 1/2	(4) 8-32
5C	4 3/8	4 3/8	3 3/8	3 1/2 x 2 1/2	(4) 10-32
6A	4 3/8	5	4 3/8	3 3/4 x 3	(4) 10-32
VS0	1 1/2	2 1/8	1 3/8	2 3/8	(2) 3/8
VS2	2	3 1/4	1 3/8	2 3/8	(2) 3/8
VS6	2	3 1/4	2 3/8	2 3/8	(2) 3/8
VS7	2 3/8	3 3/4	2 3/8	2 3/8	(2) 3/8
VS8	2 3/8	4	2 3/8	3	(2) 3/8
VS10	3 3/8	2 1/2	2 3/8	2 3/8	(4) 3/8 x 3/8
VS12	3 3/8	2 1/2	2 3/8	2 3/8	(4) 3/8 x 3/8
VS20	3 3/8	2 3/8	2 3/8	2 1/2 x 2 1/2	(4) 3/8 x 3/8
VS30	4 3/8	3 3/8	3	2 1/2 x 2 1/2	(4) 3/8 x 3/8
VS40	6 1/8	6 1/8	8 1/2	4 3/4 x 4 1/2	(4) 3/8 x 3/8
VS42	6 1/8	6 1/8	9 1/2	4 3/4 x 5 1/2	(4) 3/8 x 3/8
VS46	6 1/8	7 3/8	9 1/2	5 1/2 x 5 1/2	(4) 3/8 x 3/8
VS50	6 3/8	7 3/8	10 1/2	6 1/2 x 7 1/2	(4) 3/8 x 3/8
VS60	3 3/8	2 3/8	3	2 3/8	(4) 3/8 x 3/8
VS61	3 3/8	2 3/8	3 1/2	2 1/2 x 1 1/2	(4) 3/8 x 3/8
VS62	3 3/8	3 3/8	3 1/2	2 1/2 x 2 1/2	(4) 3/8 x 3/8
VS63	3 3/8	3 3/8	3 1/2	2 1/2 x 2 1/2	(4) 3/8 x 3/8
VS64	3 3/8	3 3/8	3 1/2	2 1/2 x 2 1/2	(4) 3/8 x 3/8
VS65	3 3/8	3 3/8	3 1/2	2 1/2 x 2 1/2	(4) 3/8 x 3/8
VS66	3 3/8	3 3/8	3 1/2	2 1/2 x 2 1/2	(4) 3/8 x 3/8
VS67	3 3/8	3 3/8	3 1/2	2 1/2 x 2 1/2	(4) 3/8 x 3/8
VS68	3 3/8	3 3/8	3 1/2	2 1/2 x 2 1/2	(4) 3/8 x 3/8
VS69	3 3/8	3 3/8	3 1/2	2 1/2 x 2 1/2	(4) 3/8 x 3/8
VS70	3 3/8	3 3/8	3 1/2	2 1/2 x 2 1/2	(4) 3/8 x 3/8
VS71	3 3/8	3 3/8	3 1/2	2 1/2 x 2 1/2	(4) 3/8 x 3/8
VS72	3 3/8	3 3/8	3 1/2	2 1/2 x 2 1/2	(4) 3/8 x 3/8
VS73	3 3/8	3 3/8	3 1/2	2 1/2 x 2 1/2	(4) 3/8 x 3/8
VS74	3 3/8	3 3/8	3 1/2	2 1/2 x 2 1/2	(4) 3/8 x 3/8
VS75	3 3/8	3 3/8	3 1/2	2 1/2 x 2 1/2	(4) 3/8 x 3/8
VS76	3 3/8	3 3/8	3 1/2	2 1/2 x 2 1/2	(4) 3/8 x 3/8
VS77	3 3/8	3 3/8	3 1/2	2 1/2 x 2 1/2	(4) 3/8 x 3/8
VS78	3 3/8	3 3/8	3 1/2	2 1/2 x 2 1/2	(4) 3/8 x 3/8
VS79	3 3/8	3 3/8	3 1/2	2 1/2 x 2 1/2	(4) 3/8 x 3/8
VS80	3 3/8	3 3/8	3 1/2	2 1/2 x 2 1/2	(4) 3/8 x 3/8
VS81	3 3/8	3 3/8	3 1/2	2 1/2 x 2 1/2	(4) 3/8 x 3/8
VS82	3 3/8	3 3/8	3 1/2	2 1/2 x 2 1/2	(4) 3/8 x 3/8
VS83	3 3/8	3 3/8	3 1/2	2 1/2 x 2 1/2	(4) 3/8 x 3/8
VS84	3 3/8	3 3/8	3 1/2	2 1/2 x 2 1/2	(4) 3/8 x 3/8
VS85	3 3/8	3 3/8	3 1/2	2 1/2 x 2 1/2	(4) 3/8 x 3/8
VS86	3 3/8	3 3/8	3 1/2	2 1/2 x 2 1/2	(4) 3/8 x 3/8
VS87	3 3/8	3 3/8	3 1/2	2 1/2 x 2 1/2	(4) 3/8 x 3/8
VS88	3 3/8	3 3/8	3 1/2	2 1/2 x 2 1/2	(4) 3/8 x 3/8
VS89	3 3/8	3 3/8	3 1/2	2 1/2 x 2 1/2	(4) 3/8 x 3/8
VS90	3 3/8	3 3/8	3 1/2	2 1/2 x 2 1/2	(4) 3/8 x 3/8

ISOLATION TRANSFORMERS

Electrostatic shield between primary and secondary. Equipped with standard receptacle and line cord.

Catalog Number	Primary Voltage 50/60 c.p.s.	Secondary Voltage	VA Rating	Case Size
IT 1	115	115	50	VS-401
IT 2	115	115	100	VS-503
IT 3	115	115	300	VS-700
IT 4	115	115	500	VS-714
IT 5*	220/440	110/220	250	VS-612
IT 6*	220/440	110/220	500	VS-714

*Supplied with leads without line cords and receptacle.

POWER TRANSFORMERS

All primaries designed for 115-volt, 50-60 cycle operation.

Catalog No.	Py Va	Hi Volt	Choke Input D.C.V. D.C.Ma.	Cond. Input D.C.V. D.C.Ma.	Blas Tap	Rectifier	Fil. No. 1	Fil. No. 2	Fil. No. 3	Case No.
RGP 1	45	500V CT		270	40	6X4.5Y3	5/6.3V @ 2A	6.3V @ 2A		VS300
RGP 2	45	500V CT		270	40	6X4.5Y3	5/6.3V @ 2A	6.3V @ 2A		HS300
RGP 3	57	600V CT		330	50	6X4.5Y3	5/6.3V @ 2A	6.3V @ 2.5A		VS303
RGP 4	57	600V CT		330	50	6X4.5Y3	5/6.3V @ 2A	6.3V @ 2.5A		HS303
RGP 5	64	650V CT		370	50	6X4.5Y3	5/6.3V @ 2A	6.3V @ 3A		VS303
RGP 6	64	650V CT		370	50	6X4.5Y3	5/6.3V @ 2A	6.3V @ 3A		HS303
RGP 7	73	600V CT		320	70	6X4.5Y3	5/6.3V @ 2A	6.3V @ 3A		VS306
RGP 8	73	600V CT		320	70	6X4.5Y3	5/6.3V @ 2A	6.3V @ 3A		HS306
RGP 9	110	650V CT	225	140	330	5Y3.5U4	5V @ 3A	6.3V @ 5A		VS503
RGP 10	110	650V CT	225	140	330	5Y3.5U4	5V @ 3A	6.3V @ 5A		HS503
RGP 11	76	700V CT	260	100	385	5Y3	5V @ 2A	6.3V @ 2.5A		VS307
RGP 12	76	700V CT	260	100	385	5Y3	5V @ 2A	6.3V @ 2.5A		HS307
RGP 13	108	700V CT	250	125	370	5Y3.5U4	5V @ 3A	6.3V @ 5A		VS503
RGP 14	108	700V CT	250	125	370	5Y3.5U4	5V @ 3A	6.3V @ 5A		HS503
RGP 15	127	700V CT	260	170	350	5U4	5V @ 3A	6.3V @ 5A		VS505
RGP 16	127	700V CT	260	170	350	5U4	5V @ 3A	6.3V @ 5A		HS505
RGP 17	146	700V CT	260	210	350	5U4	5V @ 3A	6.3V @ 5A	6.3V @ 1A	VS603
RGP 18	146	700V CT	260	210	350	5U4	5V @ 3A	6.3V @ 5A	6.3V @ 1A	HS603
RGP 19	207	800V CT	295	280	400	5U4-2.5Y3	5V @ 4A	6.3V @ 6A		VS606
RGP 20	207	800V CT	295	280	400	5U4-2.5Y3	5V @ 4A	6.3V @ 6A		HS606
RGP 21	225	800V CT	295	280	400	5U4-2.5Y3	5V @ 4A	6.3V @ 6A	5/6.3V @ 2A	VS606
RGP 22	225	800V CT	295	280	400	5U4-2.5Y3	5V @ 4A	6.3V @ 6A	5/6.3V @ 2A	HS606
RGP 23	268	840V CT	330	350	450	2.5U4	5V @ 6A	5/6.3V @ 2A	5/6.3V @ 2A	VS612
RGP 24	268	840V CT	330	350	450	2.5U4	5V @ 6A	5/6.3V @ 2A	5/6.3V @ 2A	HS612
RGP 25	320	900V CT	340	420	480	2.5U4	5V @ 6A	5/6.3V @ 2A	5/6.3V @ 2A	VS708
RGP 26	320	900V CT	340	420	480	2.5U4	5V @ 6A	5/6.3V @ 2A	5/6.3V @ 2A	HS708
RGP 27	127	900V CT	360	150		5U4	5V @ 3A	6.3V @ 5A		VS603
RGP 28	127	900V CT	360	150		5U4	5V @ 3A	6.3V @ 5A		HS603
RGP 29	150	900V CT	350	200		5U4	5V @ 3A	6.3V @ 5A		VS605
RGP 30	150	900V CT	350	200		5U4	5V @ 3A	6.3V @ 5A		HS605
RGP 31	203	1100V CT	400	250		5R4GY	5V @ 3A	6.3V @ 5A		VS610
RGP 32	203	1100V CT	400	250		5R4GY	5V @ 3A	6.3V @ 5A		HS610
RGP 33	248	1100V CT	420	300		2.5R4CY	5V @ 4A	6.3V @ 7A		VS612
RGP 34	248	1100V CT	420	300		2.5R4CY	5V @ 4A	6.3V @ 7A		HS612
RGP 35	310	1280V CT	480	350		2.5R4CY	5V @ 4A	6.3V @ 7A		VS709
RGP 36	310	1280V CT	480	350		2.5R4CY	5V @ 4A	6.3V @ 7A		HS709

FILAMENT TRANSFORMERS

All primaries are for 115V, 50/60 c.p.s.

Catalog No.	Secondary Voltage	Secondary Current Amps	Secondary Test Voltage RMS	Case Size
TF 1	2.5 (C.T.)	7.5	1500	CH60
TF 2	2.5 (C.T.)	10	1500	CH70
TF 3	2.5 (C.T.)	5	7500	DC28
TF 4	2.5 (C.T.)	10	7500	DC4A
TF 5	5.0 (C.T.)	6	1500	CH60
TF 6	5.0 (C.T.)	6	1500	CH70
TF 7	5.0 (C.T.)	10	1500	CH80
TF 8	5.0 (C.T.)	10	1500	FV10
TF 9	5.0 (C.T.)	20	2500	FV30
TF 10	5.0 (C.T.)	20	10,000	DC6A
TF 11	6.3 (C.T.)	1.35	1500	CH60
TF 12	6.3 (C.T.)	3	1500	CH70
TF 13	6.3 (C.T.)	5	1500	CH70
TF 14	6.3 (C.T.)	7	1500	FV12
TF 15	6.3 (C.T.)	10	1500	FV22
TF 16	10 (C.T.)	5	2500	CH80
TF 17	10 (C.T.)	5	2500	FV10
TF 18	10 (C.T.)	12	7500	DC-5C
TF 19	12.6 (C.T.)	11		
	(tapped primary)	2	1500	CH62

TF 3, 4, 10 & 18 supplied with terminals. All others with leads.

AUTO TRANSFORMERS

To be used as step-down transformer. Equipped with standard receptacle and line cord.

Catalog No.	Transformation	VA Rating	Weight (lbs.)	Case Size
SDT 1*	230/115 V, 50/60 c.p.s.	25	1	CH-60
SDT 2*	230/115 V, 50/60 c.p.s.	50	1 1/4	CH-62
SDT 3*	230/115 V, 50/60 c.p.s.	50	2 1/2	VS-300
SDT 4	230/115 V, 50/60 c.p.s.	100	3	VS-401
SDT 5	230/115 V, 50/60 c.p.s.	200	5	VS-501
SDT 6	230/115 V, 50/60 c.p.s.	300	6 1/2	VS-601
SDT 7	230/115 V, 50/60 c.p.s.	400	8	VS-604
SDT 8	230/115 V, 50/60 c.p.s.	500	11	VS-611
SDT 9	230/115 V, 50/60 c.p.s.	750	15	VS-706
SDT 10	230/115 V, 50/60 c.p.s.	1000	23	VS-718
SDT 11	230/115 V, 50/60 c.p.s.	1500	28 1/2	VS-728
SDT 12*	230/115 V, 50/60 c.p.s.	2000	37	HB-718
SDT 13*	230/115 V, 50/60 c.p.s.	2500	47	HB-728
SDT 14*	230/115 V, 50/60 c.p.s.	3000	58	HB-828
SDT 15*	230/115 V, 50/60 c.p.s.	5000	72	HB-928

*Supplied with leads without line cord and receptacle.

LINE BOOSTER TRANSFORMERS

Operates from 90 to 110 volts input to provide 10% step-up.

Catalog Number	Primary Voltage	Secondary Voltage	VA Rating	Case Size
LB-1	90-110	1.1 x input	350	VS-300
LB-2	90-110	1.1 x input	2000	VS-611

FREED TRANSFORMER CO., INC.

COMMERCIAL GRADE COMPONENTS

AUDIO TRANSFORMERS

Catalog No.	Application	Impedance Level		Max. Power Level DBM or Power in Watts	Ratio	Max. Pri. Loss in dB	O.C. Imbalance Ma.	Freq. Response C.F.S.	Case No.
		Primary	Secondary						
REA 1	Input; multiple line or double push-pull grids to single or push-pull grids.	500 CT 200 CT	100,000 CT	+20	1:1.4	50	5	±200 200-5000	CH-40
REA 2	Input; single bridge mike to single or push-pull grids.	100	100,000 CT	+20	1:31.6	50		±200 200-5000	CH-40
REA 3	Input; voice coil to grid. Intercom	3.2	100,000	+20	1:17.9			±200 200-5000	CH-40
REA 4	Mixing and matching line to line	600 CT 500 CT 150 125/50	600 CT 500 CT 150 125/50	+20	1:1			±200 100-5000	CH-40
REA 5	Interstage; single triode plate to single or P.P. grids.	10,000	90,000 CT	+30	1:3	10		±200 200-5000	CH-40
REA 6	Output; single plate to line or mixer.	10,000	600 CT 500 CT 150 125/50	+30	4.8:1	10		±200 200-5000	CH-40
REA 7	Output. Push-pull plate to line or mixer.	20,000 CT	600 CT 500 CT 200 CT 150 125/50	+30	6.32:1	10	1	±200 200-5000	CH-40
REA 8	Output; plate to V.C. 6AL6, 6L6, 6Y6, 2AB6, 25Z5, 35A5, 35AR5, 35Z5, 50B5, 50C5, 50C6, 50L6, 117W7.	2500	3.2	5W		70		±300 200-10000	CH-40
REA 9	Output; plate to V.C. 6V6, 6AR5, 6AS5, 7Z5.	5000	3.2	5W		50		±300 200-10000	CH-40
REA 10	Output; plate to V.C. 6AR5, 6K6, 6V6, 7B5, 14AS, 35A, 30A, 30A, 30C, 35A, 35M.	10,000 7500	3.2	5W		30		±300 200-8000	CH-60
REA 11	Output; P.P. plates to V.C. P.P. 6V6, 6P6E.	12,000 CT or 8000 CT	3.2	15W		50	5	±200 200-8000	CH-60
REA 12	Output; 1P to V.C. 6V6, 6AR5, 7Z5, 117W7.	10,000 CT	3.2	10W		50		±300 200-10000	CH-60

COMMERCIAL GRADE CHOKES

Catalog #	Inductance in Henries	Rated Current D.C. Ma.	D.C. Resistance	Dielectric Test Voltage	Case Number
RC 17	40	15	2000	1000	CH-40
RC 1	4	40	200	1000	CH-40
RC 2	9	40	400	1000	CH-40
RC 3	6	50	400	1000	CH-40
RC 18	20	50	425	1500	CH-60
RC 4	10	55	400	1500	CH-50
RC 19	3	75	200	1500	CH-40
RC 5	10	75	250	1500	CH-60
RC 6	10	75	250	1500	VS-100
RC 7	6	100	150	1500	CH-60
RC 8	6	100	150	1500	VS-100
RC 9	3.5	150	100	1500	CH-60
RC 10	3.5	150	100	1500	VS-100
RC 20	12	160	180	2500	VS-306
RC 11	2	200	60	1500	CH-60
RC 22	2	200	65	1500	VS-100
RC 13	3.7	200	65	1500	CH-60
RC 21	7	200	100	2900	VS-303
RC 14	3.7	200	65	1500	VS-300
RC 15	2.8	300	65	1500	CH-80
RC 16	2.8	300	65	1500	VS-300
RC 22	5	300	65	2500	VS-308

CH-40 CAS

Height: 17 $\frac{1}{4}$ "
Width: 2 $\frac{3}{8}$ "
Depth: 1 $\frac{3}{4}$ "
Tg. Cen.: 2"

CH-50 CASE

Height: 11 $\frac{1}{16}$ "
Width: 2 $\frac{13}{16}$ "
Depth: 1 $\frac{3}{4}$ "
Tgt. Cen.: 2 $\frac{3}{8}$ "

CH-60 CASE

Height: 2"
Width: 3 1/4"
Depth: 1 3/4"
Wt. Cen.: 2 13/16"

CH-80 CAS

Height: 2 $\frac{5}{8}$ "
Width: 4"
Depth: 2 $\frac{5}{8}$ "
Wt. Cen.: 3 $\frac{3}{16}$ "

VS-100 CASE

ght: 2 $\frac{11}{32}$ "
th: 1 $\frac{7}{8}$ "
th: 2 $\frac{1}{4}$ "
Cen.: 1 $\frac{1}{2}$ "x1 $\frac{7}{16}$ "

VS-300 CAS

ight: 33 $\frac{3}{32}$ "
dth: 2 $\frac{5}{8}$ "
pth: 2 $\frac{3}{4}$ "
g. Cen.: 2"x1 $\frac{11}{16}$ "

VS-303 CAS

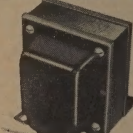
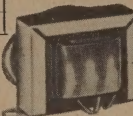
Height: 3 $\frac{5}{32}$ "
 Depth: 2 $\frac{5}{8}$ "
 Width: 3"
 g. Cen.: 2x1 $\frac{15}{16}$ "

YS-306 CAS

ight: 3 $\frac{5}{32}$ "
dth: 2 $\frac{5}{8}$ "
pth: 3 $\frac{3}{8}$ "
g. Cen.: 2x2 $\frac{5}{8}$ "

VS-308 CASI

ght: 3³³/₆₄"
ith: 2²⁷/₃₂"
oth: 3³/₈"
z. Cen.: 2"x2"



PRICE LIST

Catalog No.	Net Price	Catalog No.	Net Price	Catalog No.	Net Price	Catalog No.	Net Price	Catalog No.	Net Price	Catalog No.	Net Price
EPT-1	8.75	MAS-1	55.00	MCV-6-5FC	12.00	MGC-31	*	MPT-20C	17.00	PGC-9	8.00
EPT-2	8.75	MAS-2	37.00	MCV-6-25FC	18.00	MGC-32	7.90	MPT-20M	21.40	PGC-10	9.70
EPT-3	8.75	MAS-3	65.00	MCV-6-75FC	28.00	MGC-33	7.90	MPT-20M	27.60	PGC-11	12.30
EPT-4	8.75	MAS-4	73.00	MCV-6-125FC	35.00	MGC-34	7.90	MPT-21C	24.00	PGC-12	12.30
EPT-5	8.75	MAS-5	33.00	MCV-6-35LM	20.00	MGC-35	7.90	MPT-21M	23.60	PGC-13	12.30
EPT-6	8.75	MAS-6	50.00	MCV-6-25LM	26.00	MGC-36	7.90	MPT-21H	27.60	PGC-14	8.75
EPT-7	8.75	MAS-7	60.00	MCV-6-125LM	37.00	MGC-37	7.90	MPT-22C	22.40	PGC-15	9.45
EPT-8	11.00	MAS-8	24.00	MCV-6-175LM	53.00	* Not stocked, available on short delivery. Prices on request.					
EPT-9	11.00	MAS-9	87.50	MCV-6-175LM	53.00						
EPT-10	8.75	MAS-101	62.50	MCV-6-250LM	62.00						
EPT-11	8.75	MAT-1-1	148.50	MCV-6-375LM	76.00	MGF-1	13.50	MPT-23M	27.10	PGC-16	12.30
EPT-12	11.00	MCV-4-5LC	14.00	MCV-6-500LM	100.00	MGF-2	15.50	MPT-23M	27.10	PGC-17	12.30
EPT-14	11.00	MCV-4-25LC	20.00	MCV-6-75LM	123.00	MGF-2	15.50	MPT-24C	15.75	PGP-1	16.20
EPT-15	14.00	MCV-4-75LC	30.00	MCV-6-1000LM	250.00	MGF-3	18.00	MPT-24M	19.30	PGP-2	18.00
EPT-16	13.50	MCV-4-125LC	45.00	MCV-6-150LM	20.00	MGF-4	13.50	MPT-25C	18.00	PGP-3	18.00
EPT-17	13.50	MCV-4-175LC	45.00	MCV-6-25-4FM	16.00	MGF-5	13.50	MPT-25M	20.80	PGP-4	10.08
EPT-18	13.50	MCV-4-250LC	54.00	MCV-6-75-4FM	37.00	MGF-6	15.00	MPT-25M	26.60	PGP-5	10.08
EPT-19	13.50	MCV-4-375LC	69.00	MCV-6-125-4FM	45.00	MGF-7	19.50	MPT-26C	24.00	PGP-6	10.80
Note: Molded Units \$1.00 additional.											
IT-1	7.25	MCV-4-5-4FC	20.00	MCV-6-35FM	21.00	MGF-8	19.50	MPT-26M	24.00	PGP-7	10.80
IT-2	31.85	MCV-4-25-4FC	30.00	MCV-6-75FM	27.00	MGF-9	19.50	MPT-26H	34.30	PGP-8	10.80
IT-3	26.40	MCV-4-75-4FC	20.00	MCV-6-25-4FM	37.00	MGF-10	22.20	MPT-27C	23.40	PGP-9	12.60
IT-4	31.85	MCV-4-125-4FC	38.00	MCV-6-125FM	46.00	MGF-11	22.20	MPT-27M	27.10	PGP-10	12.60
IT-5	18.40	MCV-4-5FC	21.00	MGA-1	10.15	MGP-2	24.00	MPT-27H	34.30	PGP-11	16.80
IT-6	34.95	MCV-4-25FC	21.00	MGA-2	10.15	MGP-3	26.40	PGA-1	16.50	PGP-12	18.60
KA-10	18.95	MCV-4-75FC	21.00	MGA-3	10.85	MGP-4	33.00	PGA-2	16.50	PGP-13	21.80
KA-11	18.95	MCV-4-125FC	21.00	MGA-4	10.85	MGP-5	33.00	PGA-3	16.50	PGP-14	26.10
LC-10	5.40	MCV-4-5LM	32.00	MGA-5	10.85	MGP-6	21.00	PGA-4	14.10	PGP-15	30.40
LC-11	5.40	MCV-4-75LM	28.00	MGA-6	10.15	MGP-7	28.50	PGA-5	14.85	PGP-16	15.12
LC-12	5.40	MCV-4-125LM	38.00	MGA-7	8.50	MGP-8	28.50	PGA-6	18.85	PGP-17	15.84
MAC-5-2-F1	42.50	MCV-4-25LM	28.00	MGA-8	10.15	MGP-1	20.20	PGA-7	2.40	PGP-18	21.80
MAC-5-1-F2	42.50	MCV-4-75LM	38.00	MGA-9	8.05	MGP-2	17.25	PGA-8	12.40	PGP-19	26.15</

FREED TRANSFORMER CO., INC.

PRICE LIST

Catalog No.	Net Price	Catalog No.	Net Price	Catalog No.	Net Price	Catalog No.	Net Price	Catalog No.	Net Price	Catalog No.	Net Price	Catalog No.	Net Price
C-25	10.50	TDC-28-25-12	54.80	TPA-38	8.03	TUA-38	7.59	DST-30	60.00	LPO-19	62.80	F-1519	0.35
C-26	10.50	TDC-28-30-05	45.30	TPA-39	8.03	ULD-50	12.50	DST-32	60.00	LPO-20	61.10	F-1520	0.35
C-27	10.50	TDC-28-30-05	42.80	ULD-51	10.53	ULD-52	12.50	DST-33	60.00	LPO-21	55.60	F-1521	0.85
C-28	10.50	TDC-48-20-15	72.50	TS-1	7.15	ULI-20	12.50	DST-33	60.00	LPO-22	55.60	F-1522	0.85
C-29	10.50	TF-1	75.00	TS-2	7.15	ULI-10	31.20	FDP-10	88.00	LPO-23	48.20	F-1523	0.75
C-30	10.50	TF-2	4.55	TS-3	6.93	ULI-11	31.20	FDP-11	88.00	LPO-24	47.10	F-1524	0.85
C-31	10.50	TF-3	11.40	TS-4	6.93	ULI-12	31.20	FDP-12	88.00	LPO-25	47.10	F-1525	0.85
C-32	10.50	TF-4	14.00	TS-5	7.15	ULI-13	31.20	FDP-13	88.00	LPO-26	47.10	F-1526	0.85
C-33	10.50	TF-5	4.55	TS-6	7.15	ULI-14	31.20	FDP-14	88.00	LPO-27	47.10	F-1527	0.85
C-34	10.50	TF-6	4.55	TS-7	7.15	ULI-15	31.20	FDP-15	88.00	LPO-28	47.10	F-1528	0.85
C-35	10.50	TF-7	5.00	TS-8	7.15	ULI-16	31.20	FDP-16	88.00	LPO-29	47.10	F-1529	0.85
C-36	10.50	TF-8	5.00	TS-9	7.15	ULI-17	31.20	FDP-17	88.00	LPO-30	47.10	F-1530	0.85
C-37	10.50	TF-9	7.15	TS-10	7.15	ULI-18	31.20	FDP-18	88.00	LPO-31	47.10	F-1531	0.85
C-38	10.50	TF-10	8.74	TS-11	7.15	ULI-19	31.20	FDP-19	88.00	LPO-32	47.10	F-1532	0.85
C-39	10.50	TF-11	18.20	TS-12	8.25	ULI-20	31.20	FDP-20	88.00	LPO-33	47.10	F-1533	0.85
C-40	10.50	TF-12	3.42	TS-13	8.25	ULI-21	31.20	FDP-21	88.00	LPO-34	47.10	F-1534	0.85
C-41	10.50	TF-13	4.55	TS-14	8.25	ULI-22	31.20	FDP-22	88.00	LPO-35	47.10	F-1535	0.85
C-42	10.50	TF-14	4.55	TS-15	8.25	ULI-23	31.20	FDP-23	88.00	LPO-36	47.10	F-1536	0.85
A-1	4.50	TF-15	5.53	TS-16	7.20	ULI-24	31.20	FDP-24	88.00	LPO-37	47.10	F-1537	0.85
A-2	3.63	TF-16	6.24	TS-17	7.20	ULI-25	31.20	FDP-25	88.00	LPO-38	47.10	F-1538	0.85
A-3	3.63	TF-17	5.00	TS-18	7.20	ULI-26	31.20	FDP-26	88.00	LPO-39	47.10	F-1539	0.85
A-4	4.50	TF-18	7.15	TS-19	8.25	ULI-27	31.20	FDP-27	88.00	LPO-40	47.10	F-1540	0.85
A-5	4.50	TF-19	3.80	TS-20	7.20	ULI-28	31.20	FDP-28	88.00	LPO-41	47.10	F-1541	0.85
A-6	4.50	TF-20	8.25	TS-21	7.15	ULI-29	31.20	FDP-29	88.00	LPO-42	47.10	F-1542	0.85
A-7	2.06	TF-21	8.25	TS-22	7.15	ULI-30	31.20	FDP-30	88.00	LPO-43	47.10	F-1543	0.85
A-8	2.06	TF-22	8.25	TS-23	7.15	ULI-31	31.20	FDP-31	88.00	LPO-44	47.10	F-1544	0.85
A-9	2.06	TF-23	8.25	TS-24	7.15	ULI-32	31.20	FDP-32	88.00	LPO-45	47.10	F-1545	0.85
A-10	2.48	TF-24	10.90	TS-25	7.15	ULI-33	31.20	FDP-33	88.00	LPO-46	47.10	F-1546	0.85
A-11	3.63	TF-25	10.90	TS-26	7.15	ULI-34	31.20	FDP-34	88.00	LPO-47	47.10	F-1547	0.85
A-12	1.69	TF-26	10.90	TS-27	7.15	ULI-35	31.20	FDP-35	88.00	LPO-48	47.10	F-1548	0.85
A-13	1.69	TF-27	10.90	TS-28	7.15	ULI-36	31.20	FDP-36	88.00	LPO-49	47.10	F-1549	0.85
A-14	1.69	TF-28	10.90	TS-29	7.15	ULI-37	31.20	FDP-37	88.00	LPO-50	47.10	F-1550	0.85
A-15	1.69	TF-29	10.90	TS-30	7.15	ULI-38	31.20	FDP-38	88.00	LPO-51	47.10	F-1551	0.85
A-16	1.69	TF-30	10.90	TS-31	7.15	ULI-39	31.20	FDP-39	88.00	LPO-52	47.10	F-1552	0.85
A-17	1.69	TF-31	10.90	TS-32	7.15	ULI-40	31.20	FDP-40	88.00	LPO-53	47.10	F-1553	0.85
A-18	1.69	TF-32	10.90	TS-33	7.15	ULI-41	31.20	FDP-41	88.00	LPO-54	47.10	F-1554	0.85
A-19	1.69	TF-33	10.90	TS-34	7.15	ULI-42	31.20	FDP-42	88.00	LPO-55	47.10	F-1555	0.85
A-20	1.69	TF-34	10.90	TS-35	7.15	ULI-43	31.20	FDP-43	88.00	LPO-56	47.10	F-1556	0.85
A-21	1.69	TF-35	10.90	TS-36	7.15	ULI-44	31.20	FDP-44	88.00	LPO-57	47.10	F-1557	0.85
A-22	1.69	TF-36	10.90	TS-37	7.15	ULI-45	31.20	FDP-45	88.00	LPO-58	47.10	F-1558	0.85
A-23	1.69	TF-37	10.90	TS-38	7.15	ULI-46	31.20	FDP-46	88.00	LPO-59	47.10	F-1559	0.85
A-24	1.69	TF-38	10.90	TS-39	7.15	ULI-47	31.20	FDP-47	88.00	LPO-60	47.10	F-1560	0.85
A-25	1.69	TF-39	10.90	TS-40	7.15	ULI-48	31.20	FDP-48	88.00	LPO-61	47.10	F-1561	0.85
A-26	1.69	TF-40	10.90	TS-41	7.15	ULI-49	31.20	FDP-49	88.00	LPO-62	47.10	F-1562	0.85
A-27	1.69	TF-41	10.90	TS-42	7.15	ULI-50	31.20	FDP-50	88.00	LPO-63	47.10	F-1563	0.85
A-28	1.69	TF-42	10.90	TS-43	7.15	ULI-51	31.20	FDP-51	88.00	LPO-64	47.10	F-1564	0.85
A-29	1.69	TF-43	10.90	TS-44	7.15	ULI-52	31.20	FDP-52	88.00	LPO-65	47.10	F-1565	0.85
A-30	1.69	TF-44	10.90	TS-45	7.15	ULI-53	31.20	FDP-53	88.00	LPO-66	47.10	F-1566	0.85
A-31	1.69	TF-45	10.90	TS-46	7.15	ULI-54	31.20	FDP-54	88.00	LPO-67	47.10	F-1567	0.85
A-32	1.69	TF-46	10.90	TS-47	7.15	ULI-55	31.20	FDP-55	88.00	LPO-68	47.10	F-1568	0.85
A-33	1.69	TF-47	10.90	TS-48	7.15	ULI-56	31.20	FDP-56	88.00	LPO-69	47.10	F-1569	0.85
A-34	1.69	TF-48	10.90	TS-49	7.15	ULI-57	31.20	FDP-57	88.00	LPO-70	47.10	F-1570	0.85
A-35	1.69	TF-49	10.90	TS-50	7.15	ULI-58	31.20	FDP-58	88.00	LPO-71	47.10	F-1571	0.85
A-36	1.69	TF-50	10.90	TS-51	7.15	ULI-59	31.20	FDP-59	88.00	LPO-72	47.10	F-1572	0.85
A-37	1.69	TF-51	10.90	TS-52	7.15	ULI-60	31.20	FDP-60	88.00	LPO-73	47.10	F-1573	0.85
A-38	1.69	TF-52	10.90	TS-53	7.15	ULI-61	31.20	FDP-61	88.00	LPO-74	47.10	F-1574	0.85
A-39	1.69	TF-53	10.90	TS-54	7.15	ULI-62	31.20	FDP-62	88.00	LPO-75	47.10	F-1575	0.85
A-40	1.69	TF-54	10.90	TS-55	7.15	ULI-63	31.20	FDP-63	88.00	LPO-76	47.10	F-1576	0.85
A-41	1.69	TF-55	10.90	TS-56	7.15	ULI-64	31.20	FDP-64	88.00	LPO-77	47.10	F-1577	0.85
A-42	1.69	TF-56	10.90	TS-57	7.15	ULI-65	31.20	FDP-65	88.00	LPO-78	47.10	F-1578	0.85
A-43	1.69	TF-57	10.90	TS-58	7.15	ULI-66	31.20	FDP-66	88.00	LPO-79	47.10	F-1579	0.85
A-44	1.69	TF-58	10.90	TS-59	7.15	ULI-67	31.20	FDP-67	88.00	LPO-80	47.10	F-1580	0.85
A-45	1.69	TF-59	10.90	TS-60	7.15	ULI-68	31.20	FDP-68	88.00	LPO-81	47.10	F-1581	0.85
A-46	1.69	TF-60	10.90	TS-61	7.15	ULI-69	31.20	FDP-69	88.00	LPO-82	47.10	F-1582	0.85
A-47	1.69	TF-61	10.90	TS-62	7.15	ULI-70	31.20	FDP-70	88.00	LPO-83	47.10	F-1583	0.85
A-48	1.69	TF-62	10.90	TS-63	7.15	ULI-71	31.20	FDP-71	88.00	LPO-84	47.10	F-1584	0.85
A-49	1.69	TF-63	10.90	TS-64	7.15	ULI-72	31.20	FDP-72	88.00	LPO-85	47.10	F-1585	0.85
A-50	1.69	TF-64	10.90	TS-65	7.15	ULI-73	31.20	FDP-73	88.00	LPO-86	47.10	F-1586	0.85
A-51	1.69	TF-65	10.90	TS-66	7.15	ULI-74	31.20	FDP-74	88.00	LPO-87	47.10	F-1587	0.85
A-52	1.69	TF-66	10.90	TS-67	7.15	ULI-75	31.20	FDP-75	88.00	LPO-88	47.10	F-1588	0.85
A-53	1.69	TF-67	10.90	TS-68	7.15	ULI-76	31.20	FDP-76	88.00	LPO-89	47.10	F-1589	0.85
A-54	1.69	TF-68	10.90	TS-69	7.15	ULI-77	31.20	FDP-77	88.00	LPO-90	47.10	F-1590	0.85
A-55	1.69	TF-69	10.90	TS-70	7.15	ULI-78	31.20	FDP-78	88.00	LPO-91	47.10	F-1591	0.85
A-56	1.69	TF-70	10.90	TS-71	7.15	ULI-79	31.20	FDP-79	88.00	LPO-92	47.10	F-1592	0.85
A-57	1.69	TF-71	10.90	TS-72	7.15	ULI-80	31.20	FDP-80	88.00	LPO-93	47.10	F-1593	0.85
A-58	1.69	TF-72	10.90	TS-73	7.15	ULI-81	31.20	FDP-81	88.00	LPO-94	47.10	F-1594	0.85
A-59	1.69	TF-73	10.90	TS-74	7.15	ULI-82	31.20	FDP-82	88.00	LPO-95	47.10	F-1595	0.85
A-60	1.69	TF-74	10.90	TS-75	7.15	ULI-83	31.20	FDP-83	88.00	LPO-96	47.10	F-1596	0.85
A-61	1.69	TF-75	10.90	TS-76	7.15	ULI-84	31.20	FDP-84	88.00	LPO-97	47.10	F-1597	0.85
A-62	1.69	TF-76	10.90	TS-77	7.15	ULI-85	31.20	FDP-85	88.00	LPO-98	47.10	F-1598	0.85
A-63	1.69	TF-77	10.90	TS-78	7.15	ULI-86	31.20	FDP-86	88.00	LPO-99	47.10	F-1599	0.85
A-64	1.69	TF-78	10.90	TS-79	7.15	ULI-87	31.20	FDP-87	88.00	LPO-100	47.10	F-1600	0.85
A-65	1.69	TF-79	10.90	TS-80	7.15	ULI-88	31.20	FDP-88	88.00	LPO-101	47.10	F-1601	0.85
A-66	1.69	TF-80	10.90	TS-81	7.15	ULI-89	31.20	FDP-89	88.00	LPO-102	47.10	F-1602	0.85
A-67	1.69	TF-81	10.90	TS-82	7.15	ULI-90	31.20	FDP-90	88.00	LPO-103	47.10	F-1603	0.85
A-68	1.69	TF-82	10.90	TS-83	7.15	ULI-91	31.20	FDP-91	88.00	LPO-104	47.10	F-1604	0.85
A-69	1.69	TF-83	10.90	TS-84	7.15	ULI-92	31.20	FDP-92	88.00	LPO-105	47.10	F-1605	0.85
A-70	1.69	TF-84	10.90	TS-85	7.15	ULI-93	31.20	FDP-93	88.00	LPO-106	47.10	F-1606	0.85
A-71	1.69	TF-85	10.90	TS-86	7.15	ULI-94	31.20	FDP-94					

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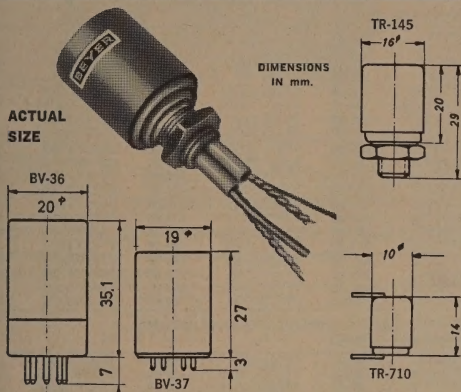
PRICE LIST

Catalog No.	Net Price	Catalog No.	Net Price	Catalog No.	Net Price	Catalog No.	Net Price	Catalog No.	Net Price	Catalog No.	Net Price	Catalog No.	Net Price		
Type TI-5				Type TI-23s				Type TI-24				Type TI-34			
F-1700	5.70	F-1793	8.65	F-2053	5.85	F-2301	6.25	F-2556	8.10	F-2711	13.60	F-2900	5.00		
F-1701	5.70	F-1794	8.65	F-2054	5.85	F-2302	6.25	F-2557	8.20	F-2712	13.75	F-2901	5.00		
F-1702	5.70	F-1795	8.65	F-2055	6.30	F-2303	6.25	F-2558	8.40	F-2713	14.10	F-2902	5.00		
F-1703	6.20	F-1796	8.45	F-2056	7.05	F-2304	6.25	F-2559	8.30	F-2714	14.10	F-2903	5.00		
F-1704	6.85	Type TI-2s				F-2305	6.25	F-2561	8.50	F-2715	14.30	F-2904	5.00		
F-1705	7.10	F-1800	14.20	F-2058	7.25	F-2306	6.25	F-2562	8.60	F-2716	14.70	F-2905	5.00		
F-1706	7.35	F-1801	14.20	F-2059	7.35	F-2307	7.70	F-2563	8.75	F-2717	15.10	F-2906	5.00		
F-1707	7.35	F-1802	14.20	F-2061	8.00	F-2308	6.75	F-2564	8.95	F-2718	15.20	F-2907	5.00		
F-1708	7.60	F-1803	14.20	F-2062	8.20	F-2309	6.75	F-2565	9.10	F-2719	15.30	F-2908	5.00		
F-1709	7.85	F-1804	14.20	F-2063	8.20	F-2310	6.75	F-2566	9.20	F-2720	15.30	F-2909	5.00		
F-1710	8.05	F-1805	14.20	F-2064	9.75	F-2311	7.50	F-2567	9.50	F-2721	15.30	F-2910	5.00		
F-1711	8.30	F-1806	14.65	F-2065	10.80	F-2312	7.50	F-2568	9.80	F-2722	15.70	F-2911	5.00		
F-1712	9.00	F-1807	14.65	F-2066	11.00	F-2313	7.50	F-2569	9.90	F-2723	15.80	F-2912	5.00		
F-1713	9.40	F-1808	14.65	F-2067	11.40	Type TI-28				F-2724	15.90	F-2913	5.00		
F-1714	9.80	F-1809	14.65	F-2068	11.85	F-2610	7.20	F-2725	10.70	F-2726	16.05	F-2914	5.00		
F-1715	10.25	F-1810	14.65	F-2069	12.00	F-2611	7.50	F-2727	10.90	F-2728	16.20	F-2915	5.00		
F-1716	10.50	F-1811	14.90	Type TI-17				F-2612	7.80	F-2729	11.40	F-2916	5.00		
F-1717	10.95	F-1812	14.90	F-2100	7.90	F-2401	5.90	F-2613	8.10	F-2730	11.60	F-2917	5.00		
F-1718	11.20	F-1813	14.90	F-2101	7.90	F-2402	5.90	F-2614	8.20	F-2731	12.10	F-2918	5.00		
F-1719	11.50	F-1814	14.90	F-2102	7.90	F-2403	5.90	F-2615	8.30	F-2732	12.40	F-2919	5.00		
F-1720	11.90	F-1815	14.90	F-2103	7.90	F-2404	6.05	F-2616	8.40	F-2733	12.70	F-2920	5.00		
Type TI-5s				Type TI-8 and 8s				F-2405	6.05	F-2734	13.20	Type TI-35			
F-1700s	7.90	F-1821	8.55	F-2104	7.90	F-2406	6.05	F-2570	13.70	F-2735	18.45	F-2950	5.00		
F-1701s	7.90	F-1822	8.55	F-2105	7.90	F-2407	6.05	F-2571	14.20	F-2736	21.85	F-2951	5.00		
F-1702s	7.90	F-1823	8.55	F-2106	7.90	F-2408	6.30	F-2572	14.50	F-2737	22.50	F-2952	7.00		
F-1703s	7.90	F-1824	8.55	F-2107	7.90	F-2409	6.80	F-2573	14.50	Type TI-31					
F-1704s	8.15	F-1825	8.55	F-2108	7.90	F-2410	7.35	Type TI-28				F-2750	14.40		
F-1705s	8.25	F-1826	8.55	F-2109	7.90	F-2411	7.05	F-2600	6.75	F-2751	14.80	F-2955	5.00		
F-1706s	8.50	F-1827	8.55	F-2110	7.90	F-2412	7.25	F-2601	6.85	F-2752	14.90	F-2956	5.00		
F-1707s	8.55	F-1828	8.55	F-2111	8.05	F-2413	7.35	F-2602	6.90	F-2753	14.90	F-2957	5.00		
F-1708s	8.95	F-1829	8.55	F-2112	8.25	F-2414	7.20	F-2603	6.95	F-2754	14.90	F-2958	5.00		
F-1709s	9.05	F-1830	8.55	F-2113	8.05	F-2415	7.40	F-2604	7.05	F-2755	14.90	F-2959	5.00		
F-1710s	9.20	F-1831	8.55	F-2114	8.25	F-2416	7.25	F-2605	7.10	F-2756	14.90	F-2960	5.00		
F-1711s	9.30	F-1832	8.75	F-2115	8.65	F-2417	7.40	F-2606	7.10	F-2757	14.90	F-2961	5.00		
F-1712s	9.60	F-1833	8.75	F-2116	8.65	F-2418	10.80	F-2607	7.40	F-2758	15.05	F-2962	5.00		
F-1713s	9.80	F-1834	8.85	F-2117	9.05	F-2419	11.00	F-2608	7.50	F-2759	15.10	F-2963	5.00		
F-1714s	9.80	F-1835	9.00	Type TI-18				F-2420	11.00	F-2760	15.20	Type TI-36			
F-1715s	10.25	F-1836	9.00	F-2140	8.65	F-2141	8.65	F-2421	11.40	F-2761	15.20	F-3000	5.00		
F-1716s	10.65	F-1837	9.00	F-2142	8.65	F-2143	8.65	F-2610	7.20	F-2762	15.30	F-3001	5.00		
F-1717s	10.85	F-1838	9.00	F-2144	8.65	F-2145	8.65	F-2611	7.50	F-2763	15.40	F-3002	5.00		
F-1718s	11.00	F-1839	9.00	F-2146	8.65	F-2147	8.65	F-2612	7.80	F-2764	15.80	F-3003	5.00		
F-1719s	11.50	F-1840	9.90	F-2148	8.65	F-2149	8.65	F-2613	8.10	F-2765	15.50	F-3004	5.00		
F-1720s	11.90	Type TI-3s				F-2150	8.65	F-2614	8.20	F-2766	16.05	F-3005	5.00		
Type TI-6 and 6s				F-1844	14.25	F-2151	8.65	F-2615	8.30	F-2767	16.10	F-3006	5.00		
F-1726	8.15	F-1845	14.25	F-2152	8.85	F-2616	8.30	F-2617	9.55	F-2768	18.10	F-3007	5.00		
F-1727	8.15	F-1846	14.25	F-2153	8.85	F-2617	9.55	F-2618	9.30	F-2769	18.10	F-3008	5.00		
F-1728	8.15	F-1847	14.25	F-2154	9.00	F-2618	9.30	F-2619	9.50	F-2770	18.10	F-3009	5.00		
F-1729	8.15	F-1848	14.25	F-2155	9.20	F-2619	9.50	F-2620	10.05	F-2771	18.60	F-3010	5.00		
F-1730	8.15	F-1849	14.25	F-2156	9.50	F-2620	10.10	F-2621	10.10	F-2772	18.60	F-3011	5.00		
F-1731	8.15	F-1850	14.25	F-2157	9.70	F-2621	10.10	F-2622	10.20	F-2773	17.00	F-3012	5.00		
F-1732	8.45	F-1851	14.25	Type TI-19				F-2622	10.20	F-2774	17.10	F-3013	5.00		
F-1733	8.55	F-1852	14.25	F-2180	7.90	F-2467	7.80	F-2623	10.30	F-2775	17.40	F-3014	5.00		
F-1734	8.55	F-1853	14.25	F-2181	7.90	F-2468	7.80	F-2624	10.80	F-2776	17.60	F-3015	5.00		
F-1735	8.55	F-1854	14.25	F-2182	7.90	F-2469	7.80	F-2625	11.80	F-2777	18.05	F-3016	5.00		
F-1736	8.55	F-1855	14.25	F-2183	7.90	F-2470	7.80	F-2626	12.35	F-2778	18.05	F-3017	5.00		
F-1737	9.00	Type TI-3As				F-2184	7.90	F-2627	12.35	F-2779	19.00	Type TI-38			
F-1738	10.00	F-1856	20.00	F-2185	7.90	F-2471	7.80	F-2628	12.35	F-2780	19.50	F-3550	5.00		
F-1739	10.00	F-1857	20.00	F-2186	7.90	F-2472	7.60	F-2629	13.30	F-2781	19.50	F-3551	5.00		
F-1740	10.00	F-1858	20.30	F-2187	7.90	F-2473	7.80	F-2630	14.85	F-2782	21.85	F-3552	5.00		
F-1741	10.45	F-1859	22.50	F-2188	7.90	F-2474	7.80	F-2631	15.20	F-2783	21.85	F-3553	5.00		
F-1742	11.90	F-1860	22.80	F-2189	7.90	F-2475	8.40	F-2632	16.15	F-2784	22.80	F-3554	5.00		
F-1743		F-1861	22.80	F-2190	7.90	F-2476	8.40	F-2633		F-2785	22.80	F-3555	5.00		
Type TI-11s				F-1862	23.30	F-2191	7.90	Type TI-29				F-2786	27.50	F-3556	5.00
F-1747	14.20	F-1863	23.30	F-2192	7.90	F-2477	8.80	F-2634	8.05	F-2787	27.50	F-3557	5.00		
F-1748	14.20	Type TI-15				F-2193	7.90	F-2635	8.10	F-2788		F-3558	5.00		
F-1749	14.20	F-1870	7.25	Type TI-20s				F-2636	8.20	F-2789	7.40	F-3559	5.00		
F-1750	14.20	F-1871	7.25	F-2201	6.40	Type TI-26				F-2637	7.60	F-3560	5.00		
F-1751	15.20	F-1872	7.25	F-2202	6.40	F-2500	5.70	F-2638	8.30	F-2638	8.30	F-3561	5.00		
F-1752	15.20	F-1873	7.25	F-2203	6.40	F-2501	5.70	F-2639	8.30	F-2639	8.30	F-3562	5.00		
F-1753	15.20	F-1874	7.25	F-2204	6.95	F-2502	5.70	F-2640	8.30	F-2640	8.30	F-3563	5.00		
F-1754	15.20	F-1875	7.25	F-2205	6.95	F-2503	5.70	F-2641	8.30	F-2641	8.30	F-3564	5.00		
F-1755	15.20	F-1876	7.25	F-2206	6.95	F-2504	5.70	F-2642	8.30	F-2642	8.30	F-3565	5.00		
F-1756	15.20	F-1877	7.25	F-2207	7.45	F-2505	5.70	F-2643	8.30	F-2643	8.30	F-3566	5.00		
F-1757	14.20	F-1878	7.25	F-2208	8.10	F-2506	5.70	F-2644	8.30	F-2644	8.30	F-3567	5.00		
F-1758	14.20	F-1879	7.25	F-2209	8.10	F-2507	5.70	F-2645	8.30	F-2645	8.30	F-3568	5.00		
F-1759	14.65	F-1880	7.25	F-2210	8.10	F-2508	6.05	F-2646	8.30	F-2646	8.30	F-3569	5.00		
F-1760	14.65	F-1881	7.45	F-2211	8.10	F-2509	6.05	F-2647	8.30	F-2647	8.30	F-3570	5.00		
F-1761	15.20	F-1882	7.45	F-2212	8.10	F-2510	6.05	F-2648	8.30	F-2648	8.30	F-3571	5.00		
F-1762	15.20	F-1883	7.45	F-2213	8.10	F-2511	6.05	F-2649	8.30	F-2649	8.30	F-3572	5.00		
F-1763	16.85	F-1884	7.85	F-2214	8.10	F-2512	7.10	F-2650	8.30	F-2650	8.30	F-3573	5.00		
F-1764	16.85	F-1885	7.85	F-2215	8.10	F-2513	7.35	F-2651	8.30	F-2651	8.30				

GOTHAM

BEYER TRANSFORMERS

MINIATURE AUDIO



The BEYER line of miniature audio transformers distributed by GOTHAM represents over 30 years of experience in the field on the part of one of Europe's largest quality microphone manufacturers. It is for this reason that we make only one type of transformer in two sizes: A low level audio transformer suitable for microphones, tape playback heads, etc.

A special winding process permits these transformers to be made in this miniature size while maintaining studio quality frequency response, distortion, and level capability. The coil is wound on a continuous laminated core which means the elimination of the split core with its inherent losses. Result is a semi-toroidal construction with its superior resistance to hum induction.

BEYER transformers are used in professional audio equipment by such outstanding manufacturers as Ampex, Bauer, Collins, Precision Instrument, Rust, and many others. All transformers are made to special order to O.E.M. users' specifications. Samples can be supplied within 2 weeks, production usually within 4 weeks.

FOUR PHYSICAL MOUNTINGS ARE AVAILABLE:

Threaded Stud: The Model TR-45 Commercial Quality and TR-145 Studio Quality units are offered in mu-metal housing with threaded stud supplied with two nuts.

Solder Lug: The Model TR-45L and TR-145L are same as above but have radial lugs each end of housing to permit terminal board or Vector socket mounting. Also available in sub-miniature TR-710 Model (see fig.). Primary and secondary windings brought out opposite ends of mu-metal can.

Plug-in: The Model BV-36 is encapsulation of TR-45 and TR-145 Models shown above in molded plastic housing with 7-pin miniature plug base. Same mu-metal shielding.

Printed Circuit: The Model BV-37 is encapsulation of TR-45 and TR-145 Models shown above in molded plastic housing only 1.09" high with special 7-pin, 8-pin, or 9-pin printed circuit base.

ELECTRICAL CHARACTERISTICS:

Transformers are supplied with any turns ratio from 1:1 to 1:150, tapped and split windings, static shielding, high voltage test, vacuum impregnating or other requirements.

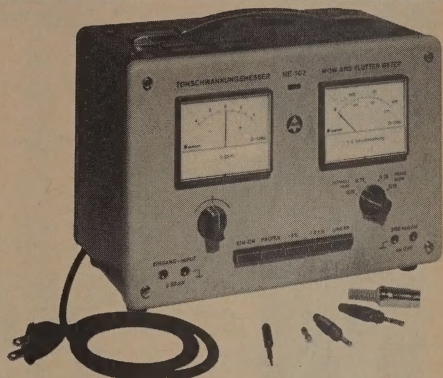
TYPICAL TRANSFORMER SPECIFICATIONS:

Model TR-145/BV35570 (This Model stocked)

Turns ratio	1:15 $\pm 10\%$
Impedance ratio	200/45,000 Ohms nominal
Frequency response	± 0.2 dB 20 - 20,000 cps.
Maximum input level at 1% THD	370 mV at 30 cps.
Primary open circuit inductance (50 cps)	6.0 H
Primary open circuit impedance (50 cps)	1000 Ohms
Primary DC resistance	70 Ohms
Secondary DC resistance	10,000 Ohms
Hum shielding (EIA std.)	> 70 dB.
BASIC PRICE IN QUANTITY OF 1000 UNITS	\$6.48 each

WOW & FLUTTER METERS

ME 101/102



The ME-101/102 instruments are intended for the measurement of the wow and flutter content of all types of recording and reproducing devices. They are fully transistorized, simple and convenient to use. The units are particularly suited for production testing and service work in addition to laboratory testing.

An internal signal generator provides the standard frequency of 3150 Hz. For the purpose of static and dynamic recalibration of the measuring unit, the generator can be detuned in a definite manner or can be frequency modulated from the power line.

Tone fluctuations from ± 0.02 to $\pm 2.5\%$ for the ME-101 and ± 0.01 to $\pm 0.75\%$ for the ME-102 can be read linearly or weighted as quasi-peak values (according to CCIR and DIN). Hence the properties of high quality tape and record playing equipment, as well as those of dictating machines and home equipment come within the ranges of the instruments. The fluctuation meter ballistics conform to the CCIR standard. A second instrument, the "drift" indicator, measures the frequency deviation of the recorded tone from 3150 Hz. Both indicating instruments can be switched to "rapid" or "slow" indication, as desired.

Besides the normal measuring connections on the front of the instruments, the back is provided with a connector for testing home tape recorders and record players. Other connectors are provided for the connection of external filters, oscilloscopes and graphic recorders.

SPECIFICATIONS

POWER: 110-125/220-240V, 40-60 Hz.

OSCILLATOR UNIT:

Measuring frequency: 3150 Hz (constancy 1×10^3 after starting up period).

Output voltage: Approx. 0.4Vrms at test output connector and approx. 20mV (p. p.) at auxiliary output.

Calibrating device: $\pm 2\%$ detuning for static and $\pm 0.3\%$ (60 Hz) for dynamic recalibration of measuring unit.

MEASURING UNIT:

Input voltage: 30mV to 30V, 3150 Hz $\pm 5\%$.

Input impedance: > 10 kOhm.

Measuring ranges: ME-101 ± 0.02 to $\pm 0.5\%$ and ± 0.1 to $\pm 2.5\%$; ME-102 $\pm 0.015\%$ and $\pm 0.75\%$.

Frequency response of fluctuation indication: Linear position, 0.50 to 500 Hz (-3 dB points). Weighted position, according to CCIR standard with external filter as required.

Drift indication: Max. $\pm 4.5\%$.

Auxiliary output: Approx. 20V peak to peak at 22 kOhm.

Dimensions: 7" x 8" x 1 1/4".

Weight: Approx. 11 lbs.

ME-101 — net price F.O.B. N.Y. \$375.

ME-102 — net price F.O.B. N.Y. \$395.

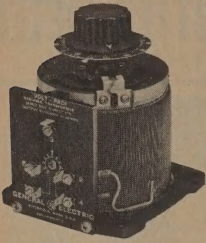
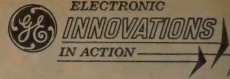


GOTHAM AUDIO CORPORATION

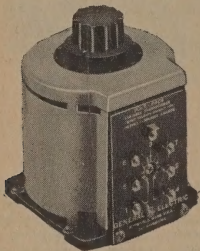


volt-pac®

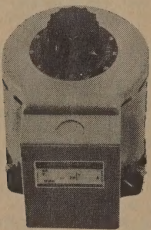
VARIABLE TRANSFORMERS



Manual uncased unit—exposed terminals



Manual cased unit—exposed terminals



Manual cased unit—enclosed terminals

The Volt-Pac variable transformer is a control device which provides continuously adjustable output voltage from a fixed line input to vary the voltage applied to a particular electrical load. With Volt-Pac units, output voltage is changed by flux transformation... in the unsaturated range of the magnetic core. The results... low cost, versatility, reliability, simplicity, and no wave form distortion.

Volt-Pac units, for surface or back-of-panel mounting, are designed for operation in ambients of —20C to +40C at full rated load, and under all load conditions have low electrical losses.

* When Overvoltage Connection is used, rated current should not be exceeded. Output kva for Overvoltage Connection is maximum output voltage times rated current.

† When using extended tap connections, operation is for 60 cycles per second only.

‡ Output at Overvoltage Connection is 0-132 volts.

§ When operated on lower input-voltage tap, rated current must be reduced when output voltage exceeds 140 percent of input voltage.

¶ For Line-voltage Connection only — No Over-voltage Connection provided.

■ For 240-volt input, 0-240-volt output, application only.

• For 480-volt input, 0-480-volt output, application only.

φ 60 cycles only.

Line-voltage Connection		Over-voltage Connection, Amp*	UNCASED MODELS Exposed Terminals		CASED MODELS			
Rated Amp	Max Amp		Model Number	List Price	Exposed Terminals Model Number	List Price	Enclosed Terminals Model Number	List Price

MANUAL — SINGLE-PHASE, 50/60 CYCLES

120 VOLT INPUT: OUTPUT — 0-120 VOLT (LINE VOLTAGE CONN.) 0-140 VOLT (OVERVOLTAGE CONN.)

2.5†	3.2	2.5	9T92Y1	\$ 9.00				
4.0†	5.8	4.0	9T92Y5	14.00				
7.5†	10.8	7.5	9T92Y7	18.00	9T92Y7G2	\$23.00	9T92Y7G3	\$24.00
9.0†	11.5	9.0	9T92Y9	22.00	9T92Y9G2	27.00	9T92Y9G3	28.00
10.0‡	13.0	None	9T92Y8†	18.00	9T92Y8G2†	23.00	9T92Y8G3†	24.00
11.5‡	14.5	None	9T92Y10†	28.00	9T92Y10G2†	33.00	9T92Y10G3†	35.00
15.0‡	19.0	15.0	9T92Y27	38.00	9T92Y27G2	43.00	9T92Y27G3	46.00
18.0‡	21.7	18.0	9T92Y28	45.00	9T92Y28G2	50.00	9T92Y28G3	53.00
30.0‡	34.0	30.0	9T92Y37	89.00	9T92Y37G2	94.00	9T92Y37G3	100.00
37.0‡	37.0	37.0	9T92Y38	106.00	9T92Y38G2	111.00	9T92Y38G3	117.00
50.0	55.0	50.0	9T92Y49	130.00	9T92Y49G2	136.00	9T92Y49G3	144.00
60.0	60.0	60.0	9T92Y50	185.00	9T92Y50G2	191.00	9T92Y50G3	199.00
74.0†	74.0	74.0	9T92Y41	235.00	9T92Y41G2	245.00	9T92Y41G3	257.00
100.0	110.0	100.0	9T92Y53	325.00	9T92Y53G2	337.00	9T92Y53G3	353.00
120.0	120.0	120.0	9T92Y54	395.00	9T92Y54G2	407.00	9T92Y54G3	423.00
150.0	165.0	150.0	9T92Y55	518.00	9T92Y55G2	536.00	9T92Y55G3	560.00
180.0	180.0	180.0	9T92Y56	661.00	9T92Y56G2	679.00	9T92Y56G3	703.00
240.0	240.0	240.0	9T92Y57	952.00	9T92Y57G2	976.00	9T92Y57G3	1010.00
300.0	300.0	300.0	9T92Y58	1332.00	9T92Y58G2	1362.00	9T92Y58G3	1404.00
360.0	360.0	360.0	9T92Y59	1745.00	9T92Y59G2	1781.00	9T92Y59G3	1831.00

120/240 VOLT INPUTS OUTPUT 0-240 VOLT (LINE VOLTAGE CONN.) 0-280 VOLT (OVERVOLTAGE CONN.)

3.5†	5.0	3.5	9T92Y13	\$20.00	9T92Y13G2	\$25.00	9T92Y13G3	\$26.00
4.0‡	5.8	None	9T92Y12‡	20.00	9T92Y12G2‡	25.00	9T92Y12G3‡	26.00
5.0‡	6.8	None	9T92Y14‡	30.00	9T92Y14G2‡	35.00	9T92Y14G3‡	36.00
7.0†	10.1	7.0	9T92Y29	40.00	9T92Y29G2	45.00	9T92Y29G3	48.00
8.5†	11.0	8.5	9T92Y30	47.00	9T92Y30G2	52.00	9T92Y30G3	55.00
14.0†	14.0	14.0	9T92Y39	89.00	9T92Y39G2	94.00	9T92Y39G3	100.00
16.0†	16.0	16.0	9T92Y40	102.00	9T92Y40G2	107.00	9T92Y40G3	113.00
30.0	33.0	30.0	9T92Y51	130.00	9T92Y51G2	136.00	9T92Y51G3	143.00
35.0	35.0	35.0	9T92Y52	185.00	9T92Y52G2	191.00	9T92Y52G3	199.00
60.0	66.0	60.0	9T92Y60	325.00	9T92Y60G2	337.00	9T92Y60G3	353.00
70.0	70.0	70.0	9T92Y61	395.00	9T92Y61G2	407.00	9T92Y61G3	423.00
90.0	90.0	90.0	9T92Y62	644.00	9T92Y62G2	662.00	9T92Y62G3	686.00
105.0	105.0	105.0	9T92Y63	661.00	9T92Y63G2	679.00	9T92Y63G3	703.00
120.0	132.0	120.0	9T92Y502†	720.00	9T92Y502†G2	744.00	9T92Y502†G3	778.00
140.0	140.0	140.0	9T92Y64	880.00	9T92Y64G2	904.00	9T92Y64G3	938.00
175.0	175.0	175.0	9T92Y65	1290.00	9T92Y65G2	1320.00	9T92Y65G3	1362.00
210.0	210.0	210.0	9T92Y66	1680.00	9T92Y66G2	1716.00	9T92Y66G3	1766.00

240/480 VOLT INPUTS OUTPUT 0-480 VOLT (LINE VOLTAGE CONN.) 0-560 VOLT (OVERVOLTAGE CONN.)

3.5†	5.0	3.5	9T92Y17	\$54.00	9T92Y17G2	\$63.00	9T92Y17G3	\$66.00
4.0‡	5.8	None	9T92Y16‡	56.00	9T92Y16G2‡	65.00	9T92Y16G3‡	68.00
5.0‡	6.8	None	9T92Y18‡	69.00	9T92Y18G2‡	78.00	9T92Y18G3‡	81.00
7.0†	10.1	7.0	9T92Y31	95.00	9T92Y31G2	104.00	9T92Y31G3	110.00
8.5†	11.0	8.5	9T92Y32	113.00	9T92Y32G2	122.00	9T92Y32G3	128.00
14.0†	14.0	14.0	9T92Y42	201.00	9T92Y42G2	211.00	9T92Y42G3	223.00
16.0†	16.0	16.0	9T92Y43	225.00	9T92Y43G2	235.00	9T92Y43G3	247.00
30.0	33.0	30.0	9T92Y67	289.00	9T92Y67G2	301.00	9T92Y67G3	317.00
35.0	35.0	35.0	9T92Y68	395.00	9T92Y68G2	407.00	9T92Y68G3	423.00
60.0	66.0	60.0	9T92Y69	670.00	9T92Y69G2	694.00	9T92Y69G3	728.00
70.0	70.0	70.0	9T92Y70	970.00	9T92Y70G2	994.00	9T92Y70G3	1028.00
90.0	90.0	90.0	9T92Y71	1260.00	9T92Y71G2	1296.00	9T92Y71G3	1346.00
105.0	105.0	105.0	9T92Y72	1745.00	9T92Y72G2	1781.00	9T92Y72G3	1831.00

MANUAL — THREE-PHASE, 50/60 CYCLES

240 VOLT LINE TO LINE INPUT: OUTPUT — 0-240 VOLT (LINE VOLTAGE CONN.) 0-280 VOLT (OVERVOLTAGE CONN.)

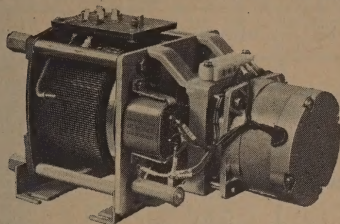
2.5‡	3.2	None	9T92Y3†	\$44.00				
4.0‡	5.8	None	9T92Y6†	65.00				
7.5	10.8	7.5	9T92Y19	68.00	9T92Y19G2	\$81.00	9T92Y19G3	\$86.00
9.0	11.5	9.0	9T92Y21	92.00	9T92Y21G2	105.00	9T92Y21G3	110.00
10.0‡	13.0	None	9T92Y20†	92.00	9T92Y20G2†	82.00	9T92Y20G3†	87.00
11.5‡	14.5	None	9T92Y22†	94.00	9T92Y22G2†	107.00	9T92Y22G3†	112.00
15.0	19.0	15.0	9T92Y33	130.00	9T92Y33G2	143.00	9T92Y33G3	152.00
18.0	21.7	18.0	9T92Y34	155.00	9T92Y34G2	168.00	9T92Y34G3	177.00
30.0	34.0	30.0	9T92Y44	272.00	9T92Y44G2	287.00	9T92Y44G3	305.00
37.0	37.0	37.0	9T92Y45	341.00	9T92Y45G2	356.00	9T92Y45G3	374.00
50.0	55.0	50.0	9T92Y74	440.00	9T92Y74G2	458.00	9T92Y74G3	482.00
60.0	60.0	60.0	9T92Y75	646.00	9T92Y75G2	664.00	9T92Y75G3	688.00
74.0	72.0	72.0	9T92Y48	800.00	9T92Y48G2	833.00	9T92Y48G3	866.00
100.0	110.0	100.0	9T92Y78	1265.00	9T92Y78G2	1301.00	9T92Y78G3	1351.00
120.0	120.0	120.0	9T92Y79	1445.00	9T92Y79G2	1481.00	9T92Y79G3	1531.00

240/480 VOLT LINE TO LINE INPUT: OUTPUT — 0-480 VOLT (LINE VOLTAGE CONN.) 0-560 VOLT (OVERVOLTAGE CONN.)

3.5	5.0	3.5	9T92Y25	\$76.00	9T92Y25G2	\$89.00	9T92Y25G3	\$94.00
4.0‡	5.8	None	9T92Y24‡	80.00	9T92Y24G2‡	93.00	9T92Y24G3‡	98.00
5.0‡	6.8	None	9T92Y26‡	105.00	9T92Y26G2‡	118.00	9T92Y26G3‡	123.00
7.0	10.1	7.0	9T92Y35	135.00	9T92Y35G2	148.00	9T92Y35G3	157.00
8.5	11.0	8.5	9T92Y36	160.00	9T92Y36G2	173.00	9T92Y36G3	182.00
14.0	14.0	14.0	9T92Y46	272.00	9T92Y46G2	287.00	9T92Y46G3	305.00
16.0	16.0	16.0	9T92Y47	320.00	9T92Y47G2	335.00	9T92Y47G3	353.00
30.0	33.0	30.0	9T92Y76	430.00	9T92Y76G2	448.00	9T92Y76G3	472.00
35.0	35.0	35.0	9T92Y77	700.00	9T92Y77G2	718.00	9T92Y77G3	742.00
60.0	66.0	60.0	9T92Y80	1120.00	9T92Y80G2	1156.00	9T92Y80G3	1206.00
70.0	70.0	70.0	9T92Y81	1400.00	9T92Y81G2	1436.00	9T92Y81G3	1486.00



VARIABLE TRANSFORMERS



Motor uncased unit — exposed terminals

Line Voltage Connection		Over-voltage Connection Amp*	UNCASED MODELS Exposed Terminals		CASED MODELS Enclosed Terminals	
Rated Amp	Max Amp		Model Number (For 28-second Operation Only) Δ	List Price	Model Number (For 28-second Operation Only) Δ	List Price

MOTOR-OPERATED — SINGLE-PHASE, 50/60 CYCLES

120 VOLT INPUT: OUTPUT 0-120 VOLT (LINE VOLTAGE CONN)
0-140 VOLT (OVERVOLTAGE CONN)

2.5†	3.2	2.5	9T92Y1G5†	\$ 97.00		
4.0†	5.8	4.0	9T92Y5G5†	102.00		
7.5†	10.8	7.5	9T92Y7G5†	106.00	9T92Y7G54	\$117.00
9.0†	11.5	9.0	9T92Y9G5†	110.00	9T92Y9G54	121.00
10.0‡	13.0	None	9T92Y8G5†	106.00	9T92Y8G54†	117.00
11.5‡	14.5	None	9T92Y10G5†	116.00	9T92Y10G54†	127.00
15.0†	19.0	15.0	9T92Y27G5†	170.00	9T92Y27G54	179.00
18.0†	21.7	18.0	9T92Y28G5†	177.00	9T92Y28G54	186.00
20.0†	34.0	30.0	9T92Y37G5†	221.00	9T92Y37G54	236.00
37.0†	37.0	37.0	9T92Y38G5†	238.00	9T92Y38G54	253.00
50.0	55.0	50.0	9T92Y49G5†	262.00	9T92Y49G54	280.00
60.0	60.0	60.0	9T92Y50G5†	317.00	9T92Y50G54	335.00
74.0†	74.0	74.0	9T92Y41G5†	367.00	9T92Y41G54	382.00
100.0	110.0	100.0	9T92Y53G5†	457.00	9T92Y53G54	475.00
120.0	120.0	120.0	9T92Y54G5†	527.00	9T92Y54G54	545.00
150.0	165.0	150.0	9T92Y55G5†	650.00	9T92Y55G54	681.00
180.0	180.0	180.0	9T92Y56G5†	793.00	9T92Y56G54	818.00
240.0	240.0	240.0	9T92Y57G5†	1084.00	9T92Y57G54	1108.00
300.0	300.0	300.0	9T92Y58G5†	1464.00	9T92Y58G54	1494.00
360.0	360.0	360.0	9T92Y59G5†	1877.00	9T92Y59G54	1913.00

120/240 VOLT INPUTS: OUTPUT 0-240 VOLT (LINE VOLTAGE CONN)
0-280 VOLT (OVERVOLTAGE CONN)

3.5†	5.0	3.5	9T92Y13G5†	\$108.00	9T92Y13G54	\$119.00
4.0‡	5.8	None	9T92Y12G5†	108.00	9T92Y12G54	119.00
5.0‡	6.8	None	9T92Y14G5†	118.00	9T92Y14G54	129.00
7.0	10.1	7.0	9T92Y29G5†	172.00	9T92Y29G54	177.00
8.5†	11.0	8.5	9T92Y30G5†	179.00	9T92Y30G54	184.00
14.0†	14.0	14.0	9T92Y39G5†	221.00	9T92Y39G54	236.00
16.0†	16.0	16.0	9T92Y40G5†	234.00	9T92Y40G54	249.00
30.0	33.0	30.0	9T92Y51G5†	264.00	9T92Y51G54	282.00
35.0	35.0	35.0	9T92Y52G5†	317.00	9T92Y52G54	335.00
60.0	66.0	60.0	9T92Y60G5†	457.00	9T92Y60G54	475.00
70.0	70.0	70.0	9T92Y61G5†	527.00	9T92Y61G54	545.00
90.0	99.0	90.0	9T92Y62G5†	776.00	9T92Y62G54	794.00
105.0	105.0	105.0	9T92Y63G5†	793.00	9T92Y63G54	811.00
120.0	132.0	120.0	9T92Y5021G5†	852.00	9T92Y5021G54	876.00
140.0	140.0	140.0	9T92Y64G5†	1012.00	9T92Y64G54	1036.00
175.0	175.0	175.0	9T92Y65G5†	1422.00	9T92Y65G54	1452.00
210.0	210.0	210.0	9T92Y66G5†	1812.00	9T92Y66G54	1848.00

240/480 VOLT INPUTS: OUTPUT 0-480 VOLT (LINE VOLTAGE CONN)
0-560 VOLT (OVERVOLTAGE CONN)

3.5†	5.0	3.5	9T92Y17G5†	\$142.00	9T92Y17G54	\$157.00
4.0‡	5.8	None	9T92Y16G5†	144.00	9T92Y16G54	159.00
5.0‡	6.8	None	9T92Y18G5†	157.00	9T92Y18G54	172.00
7.0†	10.1	7.0	9T92Y31G5†	227.00	9T92Y31G54	236.00
8.5†	11.0	8.5	9T92Y32G5†	245.00	9T92Y32G54	254.00
14.0†	14.0	14.0	9T92Y42G5†	330.00	9T92Y42G54	348.00
16.0†	16.0	16.0	9T92Y43G5†	357.00	9T92Y43G54	372.00
30.0	33.0	30.0	9T92Y67G5†	421.00	9T92Y67G54	439.00
35.0	35.0	35.0	9T92Y68G5†	527.00	9T92Y68G54	545.00
60.0	66.0	60.0	9T92Y69G5†	802.00	9T92Y69G54	826.00
70.0	70.0	70.0	9T92Y70G5†	1102.00	9T92Y70G54	1126.00
90.0	99.0	90.0	9T92Y71G5†	1392.00	9T92Y71G54	1428.00
105.0	105.0	105.0	9T92Y72G5†	1877.00	9T92Y72G54	1913.00
140.0	140.0	140.0	9T92Y73G5†	2459.00	9T92Y73G54	2497.00

Δ Time to change output from 0 to 100%. Other times, from 2.5 to 60 sec, are available.

For other footnotes, see opposite page.

Line Voltage Connection		Con-Over-voltage Connection Amp*	UNCASED MODELS Exposed Terminals		CASED MODELS Enclosed Terminals	
Rated Amp	Max Amp		Model Number (For 28-second Operation Only) Δ	List Price	Model Number (For 28-second Operation Only) Δ	List Price

MOTOR-OPERATED — THREE-PHASE, 50/60 CYCLES†

240 VOLT LINE TO LINE INPUT: OUTPUT 0-240 VOLT (LINE VOLTAGE CONN)
0-280 VOLT (OVERVOLTAGE CONN)

2.5‡	3.2	None	9T92Y3G5†	\$132.00		
4.0‡	5.8	None	9T92Y6G5†	153.00		
7.5	10.8	7.5	9T92Y19G5†	156.00	9T92Y19G54	\$175.00
9.0	11.5	9.0	9T92Y21G5†	180.00	9T92Y21G54	199.00
10.0‡	13.0	None	9T92Y20G5†	157.00	9T92Y20G54†	176.00
11.5‡	14.5	None	9T92Y22G5†	182.00	9T92Y22G54†	201.00
15.0	19.0	15.0	9T92Y33G5†	262.00	9T92Y33G54	275.00
18.0	21.7	18.0	9T92Y34G5†	287.00	9T92Y34G54	300.00
30.0	34.0	30.0	9T92Y44G5†	404.00	9T92Y44G54	419.00
37.0	37.0	37.0	9T92Y45G5†	473.00	9T92Y45G54	488.00
50.0	55.0	50.0	9T92Y74G5†	572.00	9T92Y74G54	590.00
60.0	60.0	60.0	9T92Y75G5†	778.00	9T92Y75G54	796.00
72.0	72.0	72.0	9T92Y48G5†	932.00	9T92Y48G54	965.00
100.0	110.0	100.0	9T92Y78G5†	1397.00	9T92Y78G54	1433.00
120.0	120.0	120.0	9T92Y79G5†	1577.00	9T92Y79G54	1613.00
150.0	165.0	150.0	9T92Y82G5†	1892.00	9T92Y82G54	1946.00
180.0	180.0	180.0	9T92Y83G5†	2210.00	9T92Y83G54	2264.00

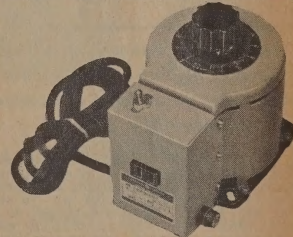
240/480 VOLT LINE TO LINE INPUTS: OUTPUT 0-480 VOLT (LINE VOLTAGE CONN)
0-560 VOLT (OVERVOLTAGE CONN)

3.5	5.0	3.5	9T92Y25G5†	\$164.00	9T92Y25G54	\$183.00
4.0‡	5.8	None	9T92Y24G5†	168.00	9T92Y24G54	187.00
5.0‡	6.8	None	9T92Y26G5†	193.00	9T92Y26G54	212.00
7.0	10.1	7.0	9T92Y35G5†	267.00	9T92Y35G54	280.00
8.5	11.0	8.5	9T92Y36G5†	292.00	9T92Y36G54	305.00
14.0	14.0	14.0	9T92Y46G5†	404.00	9T92Y46G54	419.00
16.0	16.0	16.0	9T92Y47G5†	454.00	9T92Y47G54	469.00
30.0	33.0	30.0	9T92Y76G5†	562.00	9T92Y76G54	580.00
35.0	35.0	35.0	9T92Y77G5†	632.00	9T92Y77G54	650.00
60.0	66.0	60.0	9T92Y80G5†	1252.00	9T92Y80G54	1288.00
70.0	70.0	70.0	9T92Y81G5†	1332.00	9T92Y81G54	1368.00
90.0	99.0	90.0	9T92Y84G5†	1814.00	9T92Y84G54	1868.00
105.0	105.0	105.0	9T92Y85G5†	2210.00	9T92Y85G54	2264.00

PLUG-IN SETS

For laboratory or shop source of adjustable a-c voltage. Provides output voltage of 0-117% of input voltage. Equipped with a line switch and a fuse for overload protection.

Cord is 6 feet long.



Line Voltage Connection		Over-voltage Connection Amp*	New Model Number	List Price	Type Plug and Rec†	Receptacle Configuration Fig. No.
Rated Amp	Max Amp					

120 VOLT INPUT: OUTPUT 0-120 VOLT (LINE VOLTAGE CONN)
0-140 VOLT (OVERVOLTAGE CONN)

7.5	10.8	7.5	9T92Y90	\$26.00	Ungrounded	Fig. 2
7.5	10.8	7.5	9T92Y86	30.00	Grounded	Fig. 1
9.0	11.5	9.0	9T92Y91	38.00	Ungrounded	Fig. 2
9.0	11.5	9.0	9T92Y87	38.00	Grounded	Fig. 1
15.0	19.0	15.0	9T92Y88	50.00	Grounded	Fig. 1
18.0	21.7	18.0	9T92Y89	65.00	Grounded	Fig. 3

120/240 VOLT INPUT: OUTPUT 0-240 (LINE CONN)
0-280 VOLT (OVERVOLTAGE CONN)

3.5	5.0	3.5	9T92Y93	\$29.00	Ungrounded	Fig. 2
3.5	5.0	3.5	9T92Y95	33.00	Grounded	Fig. 4
7.0	10.1	7.0	9T92Y96	50.00	Grounded	Fig. 4
8.5	11.0	8.5	9T92Y97	65.00	Grounded	Fig. 4

RECEPTACLE CONFIGURATIONS



Fig. 1



Fig. 2



Fig. 3

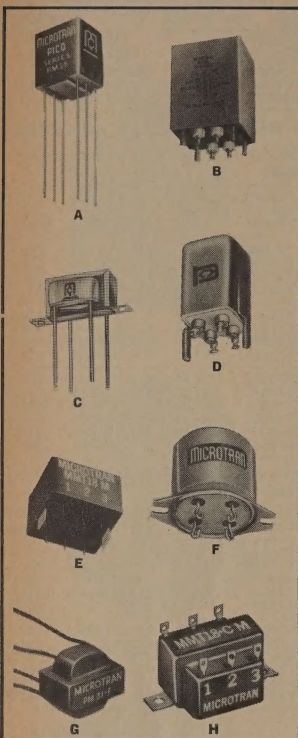


Fig. 4



MICROTRAN

Miniaturized Transformers



COMPLETE SCHEMATICS SHOWING CONNECTIONS AND PARTS LIST SUPPLIED WITH ALL DC TO DC CONVERTER TRANSFORMERS.

MICRO-MINIATURE AUDIO AND TRANSISTOR TRANSFORMERS — MM AND MMT SERIES

MM-M (Fig. E): Molded, for plug-in printed circuit applications. Cast epoxy resin for high resistance to extremes of ambient temperature. MIL Type TF6RX — ZZ (Insert MIL No. from table). Size $7/8" \times 3/8" \times 1/2"$ with $3/32"$ pins, .020" dia. Weight, 1/2 oz. MM-H (Fig. F): Hermetically sealed with high compression glass terminals. Gray enamel finish. MIL Type TFRX — YY. Size, $1/4" \times 1/4" \times 1/4"$. Weight, $3/4$ oz. MM-FB (Fig. G): Open frame with channel on special order. MIL Type TFRX — ZZ. Size, $1/4" \times 1/4" \times 1/4"$, plus tabs. MM-CM (Fig. H): Con-tour molded on special order only, size $7/8" \times 1/2" \times 3/4"$. Designed for chassis mounting with solder terminals on top of transformer.

Microtran No. †	Application	Impedance		Pri. Unbal. DC Ma	Oper. Level, dbm	Freq. Resp. ± 2 db CPS	MIL No.	Net Each, Lots of 1-9*		
		Pri.	Sec.					-FB	-H	-M, -CM
MM1-	Input	200/50	250K/62.5K	0	4	200-10K	10	\$4.50	\$7.35	\$8.55
MM2-	Interstage 3:1	10K	90K	0	4	150-10K	10	4.80	7.50	8.70
MM3-	Plate to line	10K	20	3	20	150-10K	13	4.20	7.20	8.40
MM4-	Output	30K	50	1	20	150-10K	13	4.05	7.05	8.25
MM5-	Reactor 50 hy. at 1 mil DC	4.7K ohms	DC Res.	.....	.....	.....	20	4.05	6.90	8.10
MM6-	Output	100K	60	0.5	20	250-10K	13	4.20	7.20	8.40
MM7-	Output	30K	1200	0.5	20	200-10K	13	3.30	6.45	7.65
MMT1-	Line to base	600	20	2	22	200-15K	17	3.90	7.35	8.55
MMT3-	Coil. to base or line	50K	600	0.7	20	200-15K	13	4.05	7.50	8.70
MMT4-	P-p coil. to p-p base	50K CT	600 CT	1.4	20	200-15K	13	4.80	8.55	9.75
MMT5-	Coil. to speaker	50K	6	1	20	200-15K	13	4.35	7.95	9.15
MMT7-	Coil. to p-p base	25K	1200 CT	1	20	200-15K	13	4.50	8.40	9.60
MMT8-	P-p coil. to p-p base	120K CT	250	2.4	20	200-15K	13	4.85	8.55	9.75
MMT9-	Line to p-p base	600 CT	1200 CT	16	22	200-15K	17	4.20	7.65	8.85
MMT10-	Coil. to base	25K	600	1	20	200-15K	13	4.35	7.20	8.40
MMT11-	P-p coil. to p-p base or line	4K CT	600 CT	5	28	200-15K	12	4.35	7.80	9.00
MMT12-	Coil. to speaker	2K	3.4	5	28	200-15K	13	3.90	7.35	8.55
MMT13-	Output p-p coil. to speaker	4K CT	25	5	20	200-15K	13	4.05	7.50	8.70
MMT16-	Coil. to p-p base	10K	1500 CT	1	20	200-15K	13	4.50	8.40	9.60
MMT17-	P-p coil. to p-p base	10K CT	200 CT	6	20	200-15K	13	4.50	8.10	9.30
MMT18-	P-p coil. to p-p base	25K CT	1200 CT	2	20	200-15K	13	4.65	8.55	9.75
MMT19-	Coil. to p-p base	2500	2500 CT	2	23	200-15K	13	4.05	7.50	8.70
MMT21-	Driver/Isolation	4K CT	600/150 Split	5	25	200-15K	13	4.65	8.55	9.75
MMT23-	P-p coil. to p-p base	7500 CT	600 CT	4	22	200-15K	13	4.55	7.80	9.00
MMT26-	Line to base	600 CT	600 CT	16	22	200-15K	17	4.20	7.65	8.85
MMT27-	P-p coil. to p-p base	25K CT	600 CT	2	20	200-15K	13	4.50	8.40	9.60
MMT28-	P-p coil. to p-p base	10K CT	1500 CT	2	20	200-15K	13	4.65	8.55	9.75
MMT29-	Driver/Isolation	10K CT	200 CT	2	20	200-15K	13	4.65	8.55	9.75
MMT30-	P-p coil. to p-p base	7500 CT	1200 CT	4	22	200-15K	13	4.50	8.40	9.60
MMT31-	P-p coil. to p-p base	2K CT	500 CT	10	28	200-15K	13	4.35	8.25	9.45
MMT32-	Line to p-p base	600 CT	1200/300 Split	16	22	200-15K	17	4.65	8.55	9.75

*SEE FOURTH MICROTRAN PAGE FOR QUANTITY PRICING AND MIL CASE SIZES

†ORDER BY COMPLETE MICROTRAN NUMBER; EXAMPLE MM1-FB.

Also see EEM pages for additional items and list of franchised distributors.

-CM \$12.50 setup charge

PICO MINIATURE TRANSFORMERS — PM SERIES (FIG. A)

PM-M (Fig. A) Epoxy molded finish with gold plated leads, 0.020" $\times$ $3/4"$. Frequency Response ± 2 db, 300 cps to 100 K, except PM3 and PM5, to 45 K. Power level given for 15% max. distortion, except PM35, 20% and PM37, 25%. Maximum size, .465" $\times$.310". Weight, 0.1 oz. MIL Type TFRX-ZZ (Insert MIL No. from table). PM-F (Fig. G) Open Frame $1/4$ inch #30 plastic leads, resin impregnated. Size .250" $\times$.375" $\times$.406" MIL type TFRX-ZZ (Insert MIL No. from table).

Microtran No.	Application	Impedance		Pri. DC Ma*	DC Resist., Ohms		Power Level Mw	MIL No.	Net Each Lots of 1-9*	
		Primary	Secondary		Pri.	Sec.			-M	-H
PM3	Input	200K CT	1K CT	0	5300	110	10	16	\$8.25	.....
PM5	Interstage	200K	1K	0	5300	110	10	16	7.50	.....
PM7	Interstage	50K CT	1K CT	0	3300	75	10	16	7.95	.....
PM9	Interstage	50K	1K/250 $\pm$	0	3300	75	10	16	8.10	.....
PM11	Interstage	25K CT	1K CT	0.5	1700	110	40	12	7.35	.....
PM13	Interstage	25K	1K/250 $\pm$	0.25	1700	110	40	12	7.65	.....
PM15	Interstage	25K	1K	0.25	1700	110	40	12	6.90	5.10
PM17	Isolation	10K CT	10K CT	1	1000	1300	50	12	7.80	.....
PM19	Driver	10K CT	2K CT	1	1000	300	50	12	7.05	.....
PM21	Driver	10K	2K/500 $\pm$	0.5	1000	300	50	12	7.65	.....
PM23	Driver	10K CT	1200 CT	1	1000	300	50	12	7.05	.....
PM25	Driver	10K	1200/300 $\pm$	0.5	1050	280	50	12	7.05	.....
PM27	Driver	10K	1200	0.5	1050	280	50	12	6.00	4.80
PM29	Driver	10K CT	500 CT	1	1050	80	50	12	7.05	.....
PM31	Isolation	2500	2500 CT	1	250	325	50	12	6.60	5.94
PM33	Output	1500 CT	600	3	170	95	50	12	6.45	4.95
PM35	Output	500	50	3	160	8	50	17	6.00	4.35
PM37	Output	120 CT	3.2	10	16	0.75	50	17	6.00	4.35
PM39	Audio Choke	6 hys.	.....	2	1800	.....	.....	20	5.85	4.20
PM41	Audio Choke	3 hys.	.....	42	43	.....	.....	20	5.25	3.90

*Unbalanced. †Split. *These items available in open frame construction.

DC TO DC CONVERTER TRANSFORMERS

SWITCHING TYPE

Provides improved reliability and efficiency over vibrator and rotary power converters. Approx. 800 cps repetition rate. Full wave and CT loads may be drawn simultaneously, but VA output should not be exceeded for continuous duty. Fig. B except M8072, Fig. C.

Microtran No.	In-put VDC	VA Out-put	Transistors Suggested	DC Output				Size, Inches W. x D. x H.	Mtg. Ctrs., In.		MIL Case	Net Each, 1-9*
				V.	Ma	CT FW V	CT FW Ma		M	W		
M8034	28	125	Delco 2N174	500	250	250	420	2 3/8 x 2 3/4 x 3 3/8	2 1/8	1 3/4	GA	\$26.70
M8035	18	125	Delco 2N442	500	250	250	420	2 3/8 x 2 3/4 x 3 3/8	2 1/8	1 3/4	GA	26.70
M8036	13.6	190	Delco 2N442	450	90	225	155	2 1/4 x 2 1/4 x 3 3/8	1 1/4	1 1/4	FA	24.90
M8072	2.7	40 $\pm$	Delco 2N1307	480*	400$\pm$	.....	.....	1 1/4 x 1 1/4 x 1 1/4	1 3/8	.....	ZZ	5.40

*Output when used with half wave cap. input rectifier. μ a. $\pm$ W.

BLOCKING OSCILLATOR TYPE

Approx. 400 cps repetition rate. Fig. C, except M8051, Fig. D.

Microtran No.	Turns Ratio	Input		Output		Size, Inches W. x D. x H.	Mtg. Ctr., In.	Net Each, 1-9*
		DC V.	DC Ma	DC Volts	DC μ a			
M8050	600:12:1	3	20	1000*	25	1 3/4 x 1 1/4 x 1 1/4	1 3/8	\$.555
M8051	600:12:1	3	20	1000*	25	1 x 1 x 1 1/4	1 1/8	11.85
M8073	44:1:1	4	2-15 $\pm$	425-500 $\pm$	50 $\pm$	3/4 x 1/2 x 3/8	1 3/8	5.25
M8074	65:5:33:1	3	45	535*	90	3/4 x 1 1/4 x 1 1/4	1 3/8	5.10

*When used in blocking oscillator circuit with single cap. input rectifier. *Varies with load and bias conditions. Frequency varies from 100 to 2800 cps. *Maximum.

MICROTRAN Miniaturized Transformers

ULTRA-MINIATURE TRANSISTOR TRANSFORMERS — UM SERIES

Frequency Response: ± 2 db, 300-10K cps. Leads supplied, 4" #27 color-coded. Power Levels given for $7\frac{1}{2}\%$ max. distortion. UM-F (Fig. A): Size, $\frac{3}{16}'' \times \frac{3}{16}'' \times \frac{1}{2}''$. Weight, 0.08 oz. MIL type TF6RX—ZZ (Insert MIL No. from table). UMM-M (Fig. B): Size, $\frac{1}{2}''$ dia. $\times \frac{1}{2}''$. Wt., 0.14 oz. MIL type TF5RX—ZZ.

Micro- tran No.†	Application	Impedance		Unbal. Pri. DC Ma	DC Resist., Ohms		Level at 1 kc, mw	MIL No.	Net Each, 1-9*	
		Primary	Sec.		Pri.	Sec.			-F	-M
UM21-	Input	100K	1K	0	1900	135	70	16	\$6.00	\$6.60
UM22-	Driver	20K	1K	0.5	1100	100	300	13	4.35	5.40
UM23-	Driver	20K	1200 CT	0.5	1100	110	300	13	4.65	6.00
UM24-	Output	1K	50	3	65	10	500	17	3.90	4.95
UM25-	Output	400	50	3	35	5	500	17	3.90	4.95
UM26-	Output	400	11	3	35	1.5	500	17	3.90	4.95
UM27-	Output	400 CT	11	6	35	1.5	500	17	4.20	5.25
UM28-	Choke	10 hy., (0 DC)	.....	8 hy., (0.5 ma)	650	.....	.....	20	3.75	5.25
UM29-	Interstage	600 CT	600 CT	7	45	60	400	21	4.65	5.70
UM30-	Choke	1.5 hy., (0 DC)	.....	7 hy., (2 ma)	100	.....	.....	20	3.60	4.50
UM31-	Interstage	10K CT	1200 CT	4	850	120	500	21	4.80	5.85
UM32-	Output	1500 CT	600	5	135	65	500	17	4.35	5.40
UM33-	Output	1K CT	600	6	80	65	500	17	4.35	5.40
UM34-	Driver	10K CT	600 CT	2	850	40	500	13	4.50	5.55
UM35-	Isolation	15K CT	15K CT	1	930	1210	300	15	4.95	6.15

UM-90: Shield can for all UM-M Series, UM90 (Fig. J).

VERI-MINIATURE TRANSISTOR TRANSFORMERS — VM SERIES

Frequency Response: ± 2 db, 200-10K cps. Leads supplied, 4" #27 color-coded. Power levels given for $7\frac{1}{2}\%$ max. distortion. VM-M (Fig. C): For plug-in printed circuit applications. Cast Epoxy resin provides high resistance. Size, $\frac{1}{2}'' \times \frac{1}{2}'' \times \frac{1}{2}''$. Weight, 0.25 oz. MIL type TF2RX—ZZ (Insert MIL No. from table). VM-FPB (Fig. D): Plug-in tab mounted channel. Size, $\frac{1}{2}'' \times \frac{1}{2}'' \times \frac{1}{2}''$. Weight, 0.2 oz. MIL type TF6RX—ZZ.

Micro- tran. No.†	Application	Impedance		DCR, Pri.	Ohms Sec.		Level, mw	MIL No.	Net Ea., 1-9*	
		Primary	Secondary		Pri.	Sec.			-FPB	-M
VM1-	Input	50	600, (1.5 ma)	7	90	15	21	\$4.20	\$5.55	
VM2-	Input or intrstg.	200K	600, (1.0 ma)	3000	110	5	21	5.70	7.20	
VM3-	Interstage	25K	600, (1.0 ma)	720	45	5	21	4.50	6.30	
VM4-	Input or intrstg.	200K	1200, (.72 ma)	3100	165	5	21	5.70	7.20	
VM5-	Interstage	50K	600, (1.0 ma)	830	55	5	21	4.65	6.00	
VM6-	Interstage	100K	1200†, (.72 ma)	2000	150	5	21	5.85	7.35	
VM7-	Output	500, (3.5 ma)	3.4	.....	0.5	15	21	4.20	5.55	
VM8-	Output	1250, (2.0 ma)	3.4	135	0.15	15	21	4.35	5.70	
VM9-	Output	1250, (2.0 ma)	50	135	0.5	15	21	4.35	5.70	
VM10-	Interstage	2500, (1.5 ma)	2500 CT	225	215	3	21	4.65	6.90	
VM11-	Choke	20 hy., (0 ma)	12 hy., (.5 ma)	1000	.....	.....	21	4.05	5.10	
VM12-	Interstage	20K	1000, (.75 ma)	625	85	5	21	4.50	6.30	
VM13-	Interstage	20K	1000†, (.75 ma)	625	85	5	21	4.65	6.90	
VM14-	Interstage	600†, (7 ma)	600 CT	50	65	15	17	4.50	6.75	
VM15-	Isolation	50K CT	50K CT	2000	2600	5	15	6.00	8.40	
VM16-	Driver	500†, (.75 ma)	250 CT	40	13	15	17	4.50	6.75	

TRANSISTOR DRIVER AND OUTPUT TRANSFORMERS (FIG. E)

Hermetically sealed and magnetically shielded with MIL-T-27B construction. MIL Type TF4RX— (Add MIL No. 17 and Case from table). MIL No. 17 except where noted.

Micro- tran No.	Application	Impedance		Pri. Unb. DC Ma	Level Watts	Freq. Resp. ± 2 db, cps	MIL Case	Net Ea., 1-9*	
		Pri.	Sec.					-F	-M
M8002*	Coll. to p-p base	560	400 CT	18	0.15	200—20K	AJ	\$11.25	
M8003*	Coll. to p-p base	625 CT	100 CT	20	1.5	200—20K	AJ	12.30	
M8004*	Coll. to p-p base	5400	600 CT	15	0.075	200—15K	AH#	14.85	
M8005	Coll. to p-p base	320 CT	320 CT	7	0.040	70—15K	AH	14.85	
M8006	Coll. to p-p base	10K	6500 CT	0.75	0.005	200—15K	YY#	9.45	
M8008	Coll. to speaker	25	3—4	600	3	200—20K	AJ	11.10	
M8007*	P-p auto transformer	30 CT	3—4	200	2	100—20K	AJ	11.40	
M8009	P-p output to spkr.	48 CT	3, 2/8	50	5	200—20K	AJ	11.70	
M8010	P-p output to servo	120 CT	1K	40	4	300—15K	AJ	11.55	
M8011	P-p output to spkr.	125 CT	3—4	20	1.5	200—15K	AH	14.55	
M8012*	P-p coll. to servo	140 CT	500	50	6	300—15K	AJ	11.25	
M8013*	P-p output to spkr.	250 CT	3—4	20	0.4	70—15K	AH	14.55	
M8014	P-p output to spkr.	400 CT	11	2	0.25	300—15K	YY	9.15	
M8015	P-p coll. to servo	1600 CT	800	5	2.5	150—20K	AJ	12.00	
M8016	P-p output to spkr.	2500 CT	12	4	0.10	300—15K	YY	9.30	
M8054	P-p output to servo	250 CT	150	20	3	200—15K	AH	14.55	

†CT. *Bi-filar wound to minimize switching transients. #MIL No. 13.

SUBMINIATURE AUDIO AND TRANSISTOR TRANSFORMERS — SM, SMT and SM-CM SERIES

SM-AF (Fig. F): MIL-T-27B-AF modified case with compression sealed ceramic terminals. Gray enamel finish. MIL Type TF4RX—YY (Insert MIL No. from table). Max. Size, $\frac{3}{4}'' \times \frac{3}{4}'' \times 1\frac{1}{2}''$ with two 4-40NC-2 screws, mfg. bolts. Weight, $1\frac{1}{2}$ oz. SM-H (Fig. G): Hermetically sealed with high compression glass terminals, gray enamel finish. MIL Type TF4RX—YY. Size, $\frac{1}{2}''$ dia. $\times \frac{1}{2}''$ h. Weight, 1 oz. SM-FB (Fig. H): Open

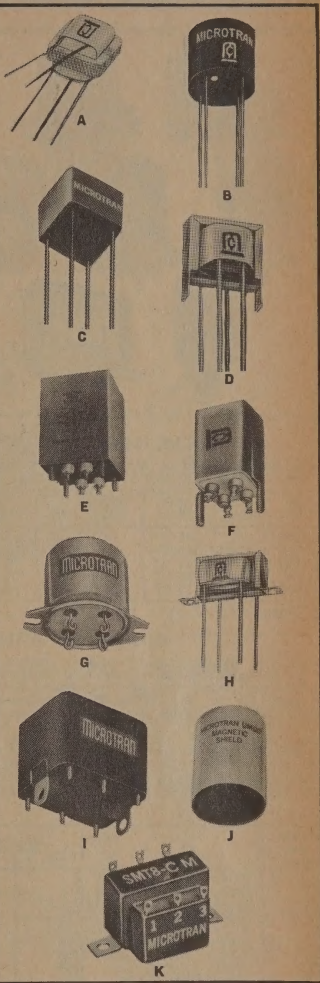
frame with channel. Available with plug-in tab mounted channel or without channel on special order. MIL Type TF6RX—ZZ. Size, $\frac{1}{2}'' \times \frac{1}{2}'' \times \frac{3}{4}''$, plus tabs. Weight, 0.710 oz. SM-M (Fig. I): Molded, for plug-in printed circuit applications. MIL Type TF5RX—ZZ. Size, $1\frac{1}{2}''$ max. $\times \frac{7}{8}'' \times \frac{3}{4}''$. Weight, $\frac{1}{2}$ oz. SM-C (Fig. K): Contour molded, not stocked — on special order only.

Micro- tran No.†	Application	Impedance		Pri. Unbal. DC Ma	Oper. Level, dbm	Frequency Resp., ± 2 db, cps	MIL No.	Net Each, Lots of 1-9*			
		Pri.	Sec.					-AF-	-FB	-H	-M, -CM
SM1-	Input	200/50	250K/62.5K	0	6	80—10K	10	\$9.00	\$4.35	\$7.20	\$9.00
SM2-	Interstage 3:1	10K	90K	0	8	100—10K	10	8.70	3.90	6.90	9.00
SM3-	Plate-to-line	10K	200	3	21	150—10K	13	8.70	3.90	6.90	9.00
SM4-	Output	10K	50	1	21	150—10K	13	8.70	3.90	6.90	9.00
SM5-	Reactor 50 hy. at 1 mil DC	3K ohms	DC Resist.	.....	.....	.....	.....	7.50	4.65	6.30	8.40
SM6-	Output	100K	60	0.5	21	150—10K	13	8.70	4.35	7.05	9.00
SM71-	Line to base	600	600	9	23	200—15K	17	6.75	3.90	6.00	7.20
SM73-	Coll. to base or line	50K	600	1	20	300—15K	13	7.35	4.50	6.60	7.80
SM74-	P-p coll. to p-p base	50K CT	600 CT	2	20	200—15K	13	.....	4.95	7.05	8.25
SM75-	Coll. to speaker	50K	6	1	20	300—15K	13	7.20	4.35	6.30	7.35
SM76-	Coll. to p-p base	25K	1200 CT	1.5	20	200—15K	13	7.50	4.65	6.75	7.95
SM78-	P-p coll. to p-p base	50K CT	1200 CT	2	20	200—15K	13	.....	4.95	7.05	8.25
SM79-	Line to p-p base	600 CT	1200 CT	18	23	200—15K	17	.....	4.20	6.30	7.50
SM710-	Coll. to base	25K	600	2	20	200—15K	13	7.05	4.20	6.30	7.50
SM712-	Output coll. to speaker	2K	3.4	5	30	200—15K	13	6.75	3.90	6.00	7.20
SM713-	Output p-p coll. to speaker	4K CT	3.4	1	20	200—15K	13	6.90	4.05	6.15	7.35
SM716-	Coll. to p-p base	25K	1500 CT	1	23	200—15K	13	7.50	4.65	6.75	7.95
SM717-	P-p coll. to p-p base	10K CT	200 CT	6	20	200—15K	13	.....	4.80	6.90	8.10
SM718-	P-p coll. to p-p base	25K CT	1200 CT	3	20	200—15K	13	.....	4.95	7.05	8.25
SM719-	Coll. to p-p base	2500	2500 CT	2.5	26	200—15K	13	7.50	4.65	6.75	7.95
SM726-	Line to base	600 CT	500 CT	18	23	200—15K	17	.....	4.50	6.60	7.80

*SEE FOURTH PAGE FOR QUANTITY PRICING AND MIL CASE SIZES

†ORDER BY COMPLETE MICROTRAN NO. EXAMPLE, UM21-M
Also see EEM pages for additional items and list of franchised distributors.

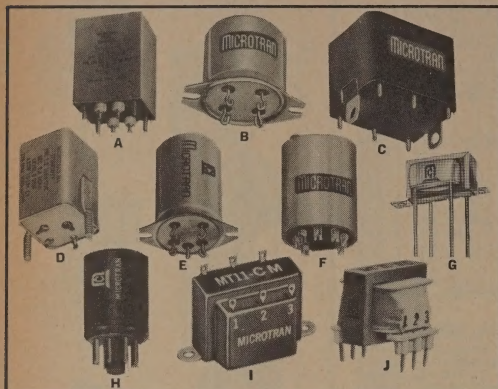
-CM \$12.50 setup charge





MICROTRAN

Miniaturized Transformers



POWER SUPPLY TRANSFORMERS

For silicon rectifier circuitry and filament applications. Hermetically sealed. Primary, 105/115/125 v. Output voltage given for resistive or inductive loads, based on approx. 1 v. drop per rectifier. MIL Type TF4RX01—(Add MIL Case Type from table) per MIL-T-27B. Fig. A except M8063 and M8069, Fig. B.

400 CYCLE TYPE

Micro. No.	Secondary		Rect. Cir.		Size, Inches W x D x H.	MIL Case	Net 1-9*
	VAC	RMS	VDC $\frac{1}{2}$	VDC#			
M8063\$	2.85	.045 a.	1.5	3	1 1/4 dia. x 1 1/4	YY	\$10.50
	2.85	.045 a.					
M8064\$	6.3 CT	.6 a.	1.9	3.8	1 1/4 x 1 1/4 x 2 1/4	AH	11.10
M8039	12.6 CT	.8 a.	10.5	21	1 1/4 x 1 1/4 x 2 1/4	AJ	15.15
	12.6 CT	.8 a.					
M8018	18.5 CT	1 a.	7	14	1 1/4 x 1 1/4 x 2 1/4	EA	15.30
M8019	18.5 CT	2 a.	7	14	2 1/4 x 2 1/4 x 3 1/4	FA	15.90
M8065	26 CT	1.5 a.	10.7	21.5	1 1/4 x 1 1/4 x 2 1/4	EA	15.60
M8066	26 CT	3	10.7	21.5	2 1/4 x 2 1/4 x 3 1/4	FA	16.05
M8067	30 CT	.5 a.	12.5	25	2 1/4 x 2 1/4 x 2 1/2	FB	15.00
M8020	35 CT	3	14.5	29	2 1/4 x 2 1/4 x 3 1/4	GA	18.05
M8068	40 CT	2 a.	17	34	1 1/4 x 1 1/4 x 2 1/4	AJ	13.20
M8041\$	50 CT	.25 a.	21.5	43	1 1/4 x 1 1/4 x 1 3/4	AH	11.10
M8069\$	60 CT	.003 a.	26	52	1 1/4 dia. x 1 1/4	YY	9.75
M8070\$	65 CT	.170 a.	28.4	56.8	1 1/4 x 1 1/4 x 1 3/4	AH	11.25
M8021	70 CT	1 a.	30	60	2 1/4 x 2 1/4 x 3 1/4	FA	16.05
M8071	80 CT	.90 a.	35.2	70.4	2 1/4 x 2 1/4 x 3 1/4	FA	16.20

60 CYCLE TYPE

M8042	6.3 CT	.6 a.	1.9	3.8	1 1/4 x 1 1/4 x 2 1/4	AJ	\$10.20
M8043	6.3 CT	2 a.	1.9	3.8	2 1/4 x 2 1/4 x 2 1/2	JB	12.00
M8044	12.6 CT	2 a.	10.5	21	3 1/4 x 3 1/4 x 3 1/4	JB	21.60
	12.6 CT	2 a.					
M8022	18.5 CT	3 a.	7	14	3 1/4 x 3 1/4 x 3 1/4	JB	20.25
M8045	28 CT	.6 a.	11.7	23.4	2 1/4 x 2 1/4 x 2 1/4	FA	16.35
M8055	35 CT	2.5 a.	12.5	25	3 1/4 x 3 1/4 x 4 1/4	FA	25.05
M8023	35 CT	3 a.	14.5	29	3 1/4 x 3 1/4 x 5 1/4	KA	28.10
M8046	49 CT	2.5 a.	21	42	3 1/4 x 4 1/4 x 5 1/4	LA	28.20
M8024	70 CT	1 a.	30	60	3 1/4 x 3 1/4 x 4 1/4	JA	25.65
M8056	80 CT	.6 a.	35	70.5	2 1/4 x 2 1/4 x 4 1/4	HA	16.65
M8057	115 CT	.9 a.	51	102	3 1/4 x 3 1/4 x 5 1/4	KA	25.35

*Primary 105/115/125v. †CT full wave. #F.W. bridge. \$Pri. 115v. only.

400 CYCLE ISOLATION TRANSFORMERS

Electrostatic shielding. Also for use in either F.W. bridge or F.W. CT circuit. MIL Type TF4RX01—(Fig. A except M8058, Fig. B).

No. Micro.	Volts Input	Volts Output	Amps RMS	VA	Size, Inches W x D x H.	MIL Case	Net, 1-9*
M8058	115	115 CT	.017	2	1 1/4 x 1 1/4 x 1 1/4	YY	\$ 9.60
M8059	115	115 CT	.35	40	1 1/4 x 1 1/4 x 2 1/4	EA	14.70
M8060	115	115 CT	1.3	150	2 1/4 x 2 1/4 x 3 1/4	GB	18.45
M8061	115*	115 CT	2.6	300	3 1/4 x 3 1/4 x 4 1/4	JA	24.90
M8062	115*	115 CT	4.4	500	3 3/4 x 3 3/4 x 5 1/4	KA	26.85

*Primary 105/115/125v.

MINIATURE TRANSISTOR AND AUDIO TRANSFORMERS—MT AND M SERIES

M-M (Fig. C): Molded, for plug-in printed circuit use. Cast epoxy resin provides highest resistance to temperature extremes. MIL Type TF5RX—ZZ (insert MIL No. from table). Max. Size, 1 1/2" x 7/8" x 7/8". Weight, 1 3/4 oz. M-AG (Fig. D): Enclosed in modified MIL-T-27 BG case with compression sealed ceramic terminals. MIL Type TF4RX—YY. Max. Size, 1" x 1" x 1 1/4". Weight, 2 3/8 oz. M-H (Fig. E): Hermetically sealed with high compression glass terminals, gray enamel finish. Available on special order with 120° holes. MIL Type TF4RX—YY. Size 1/4" dia. x 1 1/4" max. Weight, 1 3/4 oz. M-A (Fig. F): Aluminum case with 2-56 screws. MIL Type TF6RX—ZZ. Size, .875" dia. x 1 1/4". Weight, 1.25 oz. M-FB (Fig. G): Open frame with channel. Available

with plug-in tab channel or without channel on special order. MIL Type TF6RX—ZZ. Size, 1 1/4" x 1 1/4" x 1 1/4" max., plus tabs. Weight, 1.13 oz. M-P (Fig. H): Octal plug-in type in sealed plastic housing. MIL Type TF6RX—ZZ. Size, 1 1/4" dia. x 1 1/4" Weight, 2 oz. M-AH: Shield: 25 db magnetic shield to match Type M-A. Two clearance holes on 1/4" centers. M-PC (Fig. I) Open Frame printed circuit with terminals molded into bobbin to maintain accurate dimensions for printed circuit board, weight 1.2 oz. size 7/8" x 1 1/4" x 1", terminals 3/4" below bobbin. MIL Type TF6RX—ZZ. M-DM (Fig. J) Contour molded, not stocked-on special order only. Size 1 1/2" x 7/8" x 7/8". \$12.50 setup charge.

MINIATURE AUDIO TRANSFORMERS—M SERIES

Microtran No.†		Application	Impedance		Pri. DC Ma*	Oper. Level, dbm	Freq. Resp. ± 2 db, cps	MIL No.	Net Each, Lots of 1-9*					
			Pri.	Sec.					-A	-AG	-FB,-PC	-H	-M,-CM	-P
*M1-	Mike or line to 1 grid	+	50K	0	5	20-20K	10	\$ 7.50	\$ 9.90	\$ 4.05	\$ 9.00	\$ 9.90	\$ 8.85	
*M2-	Mike or line to 2 grids	+	50K CT	0	5	20-20K	10	7.65	10.35	4.20	9.45	10.20	8.85	
M3-	Dynamic mike to 1 grid	7.5/30	50K	0	5	20-20K	10	7.50	9.90	3.90	9.00	9.75	8.40	
M4-	Single plate to 1 grid	15K	60K	0	6	20-15K	10	6.45	8.55	3.45	7.65	8.55	7.50	
M5-	Single plate to 1 grid	15K	60K	4	14	200-20K	15	6.45	8.55	3.45	7.65	8.55	7.50	
M6-	Single plate to 2 grids	15K	95K CT	4	5	20-15K	10	7.35	10.45	3.60	8.55	9.45	8.85	
M7-	Single plate to 2 grids	15K	95K CT	4	11	200-20K	15	7.35	9.75	3.75	8.85	9.75	8.25	
M8-	Single plate to line	15K	+	0	8	20-20K	16	7.65	10.50	3.75	9.60	10.50	8.85	
M9-	Single plate to line	15K	+	0	21	150-20K	13	7.65	10.50	3.75	9.60	10.50	8.85	
*M10-	Push-pull plate to line	30K, p-p	+	0	8	30-50K	16	8.25	10.80	3.90	9.60	10.80	9.00	
*M11-	Crystal mike to line	50K	+	0	5	20-20K	16	7.65	10.50	3.75	9.30	10.50	8.85	
*M12-	Mixing and matching	8	+	0	8	20-20K	16	7.50	10.50	3.75	9.30	10.50	9.00	
M13-	Reactor	300#	+	.....	.....	6K ohms DCR	20	6.15	8.25	3.30	7.35	8.25	7.50	
M14-	50:1 mike to grid	200	½ meg.	0	9	80-3K	10	7.35	9.90	3.90	9.00	10.20	8.85	
M15-	10:1 plate to grid	10K	1 meg.	0	11	100-2500	10	7.35	9.30	3.60	8.40	9.30	8.85	

MINIATURE TRANSISTOR TRANSFORMERS—MT SERIES

MT1	Line to base	600	600	10	23	200-15K	17	\$7.20	\$8.70	\$3.60	\$7.80	\$9.00	\$7.35
MT2	Coll. to p-p base 2N57	100	10 CT / 40 CT	100		200-20K	17	8.10	9.60	4.20	8.70	9.60	8.25
MT3	Coll. to base or line	50K	600	3	20	300-15K	13	7.80	9.30	3.90	8.40	9.60	7.95
MT5	Coll. to speaker	50K	6	3	20	300-15K	13	7.80	9.30	3.90	8.40	9.60	7.95
MT6	Coll. to p-p base	100K	1200 CT	1.4	17	200-15K	13	7.95	9.45	4.05	8.55	9.75	8.10
MT7	Coll. to p-p base	25K	1200 CT	3	22	200-15K	13	7.95	9.45	4.05	8.55	9.75	8.10
MT8	P-p coll. to p-p base	50K CT	1200 CT	3	20	300-15K	13	8.10	9.60	4.20	8.70	9.90	8.25
MT9	Line to p-p base	600 CT	1200 CT	4	23	200-15K	17	8.10	9.60	4.20	8.70	9.90	8.25
MT10	Coll. to base	25K	600	3	22	200-15K	13	7.80	9.30	3.90	8.40	9.60	7.95
MT11	P-p coll. to p-p base	4K CT	600 CT	3	32	200-15K	13	8.10	9.60	4.20	8.70	9.90	8.25
MT12	Output coll. to spkr.	2K	3.4	10	32	200-15K	13	7.80	9.30	3.90	8.40	9.60	7.95
MT13	P-p coll. to spkr.	4K CT	3	3	32	200-15K	13	8.25	9.75	4.35	8.55	9.75	8.10
MT14	Coll. to spkr. 2N179	400	10	50	25	200-20K	13	7.20	8.70	3.60	7.80	9.00	7.35
MT15	P-p servo output 2N57	500 CT	210	30	27	300-20K	17	7.80	9.30	3.90	8.40	9.60	7.95
MT18	P-p coll. to p-p base	25K CT	1200 CT	6	22	200-15K	13	8.10	9.60	4.20	8.70	9.90	8.25
MT20	P-p coll. to p-p base	50K CT	Δ	3	20	300-15K	13	8.40	9.90	4.50	9.00	10.20	8.55
MT21	P-p coll. to p-p base	4K CT	3	3	32	200-15K	13	8.25	9.75	4.35	8.55	9.75	8.10
MT22	Line to p-p base	Δ	1200 CT	4	23	200-15K	17	8.25	9.75	4.35	8.85	10.05	8.40
MT23	P-p coll. to servo	250 CT	1000	10	30	200-15K	17	7.80	9.30	3.90	8.40	9.60	7.95
MT24	Coll. to p-p base	2500	600 CT	10	32	200-15K	17	7.80	9.30	3.90	8.40	9.60	7.95
MT25	P-p coll. to p-p base	7500 CT	600 CT	20	32	200-15K	12	8.10	9.60	4.20	8.70	9.90	8.25
MT26	Line to p-p base	600 CT	600 CT	20	23	200-15K	17	7.85	9.45	4.05	8.55	9.75	8.10
MT29	P-p coll. to servo	1600 CT	450	15	30	200-15K	17	7.80	9.30	3.90	8.40	9.60	7.95
MT30	P-p coll. to servo	250 CT	500	10	30	200-15K	17	7.80	9.30	3.90	8.40	9.60	7.95
M-A-Sh	Shield can for M-A	.....	.....	.....	.....	.....	.....	1.35	.....	.....	.....	.....	.....

*Unbalanced. †50/250/600 CT. ‡50/250 CT. §Hy. O DC. ¶150 h. at 3 ma. Δ1200/300 split. ■600/150 split. *These items are not available in —PC construction.

★SEE FOURTH PAGE FOR QUANTITY PRICING.

†ORDER BY COMPLETE MICROTRAN NUMBER: EXAMPLE MT1-A.

Also see EEM pages for additional items and list of franchised distributors.

Miniaturized Transformers

LOW LEVEL CHOPPER INPUT TRANSFORMERS

Efficiently transfers 30—500 cps. Transducer or thermocouple signals to instrument amplifiers. Resin impregnated to minimize mechanical vibration noise signal. Three mu-metal and two copper shields insure low hum pickup. Accurate center taps and external electrostatic shield connection improve low level operation. Signal level range. 0.5 μ v to 0.5 v. 90 db magnetic shielding. Size, $1\frac{3}{8}$ " dia. x $1\frac{1}{2}$ " h — 2 (6 x 32 x $\frac{3}{8}$ " stud), on $1\frac{1}{2}$ " centers. Weight 4.5 oz.

Micro- tran No.	Turn Ratio		Full Pri. Hys*	Full Pri. Imped.*	DC Resis.		Fig. No.	Net Each, 1-9*
	Full Pri. Full Sec.	$\frac{1}{2}$ Pri. Full Sec.			Full Pri.	Sec.		
M8025	1:7.7	1:15.4	17.5	6,600	365 Ω	4140 Ω	A	\$13.80
M8026	1:3.2	1:6.4	60 hy	22,500	455 Ω	3500 Ω	A	13.80
M8052	1:4.53	1:9.06	90	34,000	760 Ω	5220 Ω	A	14.25
M8053*	1:0.5	1:1	140	53,000	920 Ω	653 Ω	A	13.65

Micro- tran No.	Turn Ratio		Full Pri. Hys*	Full Pri. Imped.*	DC Resis.		Fig. No.	Net Each, 1-9*
	Full Pri. Full Sec.	$\frac{1}{2}$ Pri. Full Sec.			Full Pri.	Sec.		
M8525	1:7.7	1:15.4	17.5	6,600	365 Ω	4140 Ω	AA	\$16.65
M8526	1:3.2	1:6.4	60 hy	22,500	455 Ω	3500 Ω	AA	16.55
M8552	1:4.53	1:9.06	90	34,000	760 Ω	5220 Ω	AA	17.10
M8553*	1:0.5	1:1	140	53,000	920 Ω	653 Ω	AA	16.50

*Secondary is center tapped.

At 0.5 v., 60 cps.

PLUG-IN TRANSFORMERS (FIG. B)

Broadcast fidelity type, double mu-metal shielded. Octal base, except M8032 and M8033, 9-pin. M8030 is designed as a replacement for Ampex No. 1733-1; M8032 and M8033 mate with sockets on many RCA amplifiers. Frequency Response: ± 2 db, 20-20K. (M8031, ± 2 db, 30-20K.) Magnetic shielding, 65 db. Level, +5 dbm.

Micro No.	Impedance		Size, In. H. x Dia.	Wt., Oz.	Net Ea., 1-9*
	Pri.	Sec.			
M8030	200/50 CT	50K	$2\frac{1}{8}$ x $1\frac{1}{8}$ dia.	6	\$13.50
M8031	600 CT/150	50K	$2\frac{1}{8}$ x $1\frac{1}{8}$ dia.	6	13.35
M8032	250 CT	50K	$2\frac{1}{8}$ x $1\frac{1}{8}$ dia.	6	13.05
M8033	50 CT	50K	$2\frac{1}{8}$ x $1\frac{1}{8}$ dia.	6	13.05

MODEL 400K TRANSISTOR TRANSFORMER SELECTOR KIT (FIG. C)

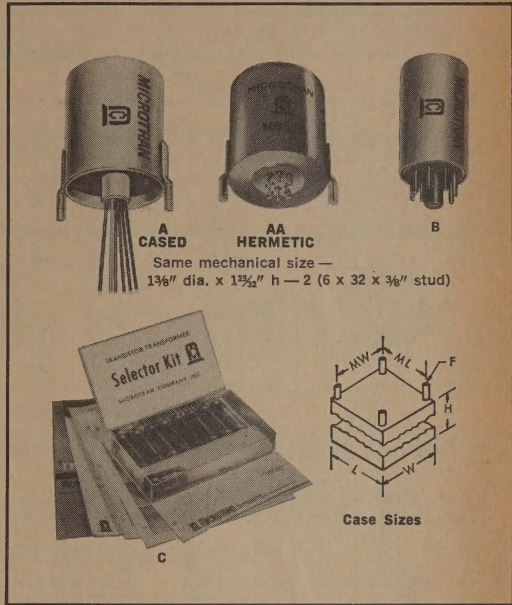
• IDEAL FOR BREADBOARD CIRCUITRY

• FULL DESIGN DATA

Set of nine transistor transformers covers impedance range of 150 through 200K ohms, matching most new transistor impedance ratings. Sizes range from a $\frac{3}{8}$ " cube to $\frac{3}{4}$ " x $\frac{3}{4}$ " x 1". All units vacuum resin impregnated for long, reliable life and for protection against rough handling. Each type has 4* color-coded leads. Includes full design data; nomographs and circuitry for determining correct impedances for Class A and B transistor amplifiers; power versus dbm chart; terminal connection sheet; guide to MIL-T-27B; cross reference index; outline drawings for later selection of stock items with same electrical ratings in many other mechanical constructions. Individually boxed in transparent plastic case. Model 400K Transistor Transformer Selector Kit Net Each **\$2950***

*Standard quantity discounts do not apply.

**MICROTRAN TRANSFORMERS ARE AVAILABLE IN MANY
OTHER MECHANICAL AND ELECTRICAL TYPES ON SPE-
CIAL ORDER. WRITE FOR COMPLETE INFORMATION.**



STANDARD MIL-T-27B CASE SIZES

Case Type	Size, Inches W. x L. x H.	Mtg. Centers, In.		Stud Type F
		ML	MW	
AF	$\frac{3}{4}$ x $\frac{3}{4}$ x $1\frac{1}{8}$	$\frac{1}{2}$"*	.....	4-40 x $\frac{3}{8}$
AG	$\frac{1}{2}$ x 1 x $1\frac{3}{8}$	$\frac{1}{2}$"*	.....	6-32 x $\frac{3}{8}$
AH	$1\frac{1}{8}$ x $1\frac{1}{8}$ x $1\frac{3}{8}$	$\frac{1}{2}$"*	.....	6-32 x $\frac{3}{8}$
AJ	$1\frac{1}{8}$ x $1\frac{1}{8}$ x $2\frac{3}{4}$	$\frac{1}{2}$"*	.....	6-32 x $\frac{3}{8}$
EA	$1\frac{1}{8}$ x $1\frac{1}{8}$ x $2\frac{3}{4}$	$\frac{1}{2}$ "	$\frac{1}{4}$ "	6-32 x $\frac{3}{8}$
EB	$1\frac{1}{8}$ x $1\frac{1}{8}$ x $2\frac{3}{4}$	$\frac{1}{2}$ "	$\frac{1}{4}$ "	6-32 x $\frac{3}{8}$
FA	$2\frac{1}{8}$ x $2\frac{1}{8}$ x $3\frac{1}{8}$	$\frac{1}{2}$ "	$\frac{1}{4}$ "	6-32 x $\frac{3}{8}$
FB	$2\frac{1}{8}$ x $2\frac{1}{8}$ x $2\frac{1}{2}$	$\frac{1}{2}$ "	$\frac{1}{4}$ "	6-32 x $\frac{3}{8}$
GA	$2\frac{1}{8}$ x $2\frac{1}{8}$ x $3\frac{1}{8}$	$\frac{1}{2}$ "	$\frac{1}{4}$ "	6-32 x $\frac{3}{8}$
HA	$2\frac{1}{8}$ x $3\frac{1}{8}$ x $4\frac{1}{4}$	$\frac{1}{2}$ "	$\frac{1}{4}$ "	8-32 x $\frac{3}{8}$
JA	$3\frac{1}{8}$ x $3\frac{1}{8}$ x $4\frac{7}{8}$	$\frac{1}{2}$ "	$\frac{1}{4}$ "	8-32 x $\frac{3}{8}$
JB	$3\frac{1}{8}$ x $3\frac{1}{8}$ x $3\frac{7}{8}$	$\frac{1}{2}$ "	$\frac{1}{4}$ "	8-32 x $\frac{3}{8}$
KA	$3\frac{1}{8}$ x $3\frac{1}{8}$ x $5\frac{1}{4}$	$\frac{1}{2}$ "	$\frac{1}{4}$ "	10-32 x $\frac{1}{2}$
LA	$3\frac{1}{8}$ x $4\frac{1}{8}$ x $5\frac{1}{4}$	$\frac{1}{2}$ "	$\frac{1}{4}$ "	10-32 x $\frac{1}{2}$
YY	All metal not included above or with non-std. mtg. ctrs.			
ZZ	Open type and encapsulated			

*Not in conformance with MIL-T-27B. †Two studs in a diagonal.

*QUANTITY PRICING

Net Each, 1-9	Net Each, Lots of		
	10-49	50-99	100-249
\$ 1.35	\$ 1.22	\$ 1.13	\$ 0.90
3.30	2.97	2.75	2.20
3.45	3.10	2.88	2.30
3.60	3.24	3.00	2.40
3.75	3.38	3.13	2.50
3.90	3.51	3.25	2.60
4.05	3.64	3.38	2.70
4.20	3.78	3.50	2.80
4.35	3.92	3.63	2.90
4.50	4.05	3.75	3.00
4.65	4.19	3.88	3.10
4.80	4.32	4.00	3.20
4.95	4.46	4.13	3.30
5.10	4.59	4.25	3.40
5.25	4.73	4.38	3.50
5.40	4.86	4.50	3.60
5.55	5.00	4.63	3.70
5.70	5.13	4.75	3.80
5.85	5.27	4.88	3.90
6.00	5.40	5.00	4.00
6.15	5.54	5.13	4.10
6.30	5.67	5.25	4.20
6.45	5.81	5.38	4.30
6.60	5.94	5.50	4.40
6.75	6.08	5.63	4.50
6.90	6.21	5.75	4.60
7.05	6.35	5.88	4.70
7.20	6.48	6.00	4.80
7.35	6.62	6.13	4.90
7.50	6.75	6.25	5.00

Net Each, 1-9	Net Each, Lots of		
	10-49	50-99	100-249
\$ 7.65	\$ 6.89	\$ 6.38	\$5.10
7.80	7.02	6.50	5.20
7.95	7.16	6.63	5.30
8.10	7.29	6.75	5.40
8.25	7.43	6.89	5.50
8.40	7.56	7.00	5.60
8.55	7.70	7.13	5.70
8.70	7.83	7.25	5.80
8.85	7.97	7.38	5.90
9.00	8.10	7.50	6.00
9.15	8.24	7.63	6.10
9.30	8.37	7.75	6.20
9.45	8.51	7.88	6.30
9.60	8.64	8.00	6.40
9.75	8.77	8.13	6.50
9.90	8.91	8.25	6.60
10.05	9.05	8.38	6.70
10.20	9.18	8.50	6.80
10.35	9.32	8.63	6.90
10.50	9.45	8.75	7.00
10.65	9.58	8.88	7.10
10.80	9.72	9.00	7.20
10.95	9.85	9.13	7.30
11.10	9.99	9.25	7.40
11.25	10.12	9.38	7.50
11.40	10.25	9.50	7.60
11.55	10.39	9.63	7.70
11.70	10.53	9.75	7.80
11.85	10.66	9.88	7.90
12.00	10.80	10.00	8.00
12.15	10.94	10.13	8.10
12.30	11.07	10.25	8.20
12.45	11.21	10.38	8.30
12.60	11.34	10.50	8.40

Net Each, 1-9	Net Each, Lots of		
	10-49	50-99	100-249
\$13.20	\$11.88	\$11.00	\$ 8.80
13.35	12.01	11.13	8.90
13.50	12.15	11.25	9.00
13.65	12.28	11.38	9.10
13.80	12.42	11.50	9.20
14.25	12.82	11.88	9.50
14.55	13.09	12.13	9.70
14.70	13.23	12.25	9.80
14.85	13.36	12.38	9.90
15.00	13.50	12.50	10.00
15.15	13.63	12.63	10.10
15.30	13.77	12.75	10.20
15.60	14.04	13.00	10.40
15.90	14.31	13.25	10.60
16.05	14.44	13.38	10.70
16.20	14.58	13.50	10.80
16.35	14.71	13.63	10.90
16.65	14.98	13.88	11.10
16.80	15.11	14.00	11.20
16.95	15.24	14.13	11.30
17.10	15.37	14.25	11.40
17.25	15.50	14.38	11.50
17.40	15.63	14.50	11.60
17.55	15.76	14.63	11.70
17.70	15.89	14.75	11.80
17.85	16.02	14.88	11.90
18.00	16.15	15.00	12.00
18.15	16.28	15.13	12.10
18.30	16.41	15.25	12.20
18.45	16.54	15.38	12.30
18.60	16.67	15.50	12.40
18.75	16.80	15.63	12.50
18.90	16.93	15.75	12.60
19.05	17.06	15.88	12.70
19.20	17.19	16.00	12.80
19.35	17.32	16.13	12.90
19.50	17.45	16.25	13.00
19.65	17.58	16.38	13.10
19.80	17.71	16.50	13.20
19.95	17.84	16.63	13.30

ORDER BY COMPLETE MICROTRAN NUMBER
Also see EEM pages for additional items and list of franchised distributors.



MICROTRAN

Toroidal Inductors

MICRO-MINIATURE TOROIDAL INDUCTORS — QG SERIES

QG-F: Open frame microcrystalline wax dipped with 4" #27 plastic leads. Size, $\frac{5}{16}$ " dia. x $\frac{1}{8}$ ".
 QG-M: Molded in high temperature epoxy resin with .020" x 2" gold plated nickel alloy leads.
 Leads may be bent downward for plug-in printed circuit use. Size, $\frac{7}{16}$ " dia. x $\frac{3}{8}$ ".

QGL SERIES

Frequency range, to 20 kc; accuracy, $\pm 2\%$.

Microtran No.†	Inductance	Type DC Res., Ohms	Type Dist. Cap., μf	-F Open Frame Net Each, Lots of				-M Molded Net Each, Lots of			
				1-9	10-49	50-99	100-249	1-9	10-49	50-99	100-249
QGL5-	5 mh	2.5	30	\$4.35	\$3.92	\$3.63	\$2.90	\$5.70	\$5.13	\$4.75	\$3.80
QGL10-	10 mh	5	33	4.35	3.92	3.63	2.90	5.70	5.13	4.75	3.80
QGL15-	15 mh	8	34	4.50	4.05	3.75	3.00	5.85	5.27	4.88	3.90
QGL50-	50 mh	28	40	4.80	4.32	4.00	3.20	6.30	5.67	5.25	4.20
QGL100-	100 mh	50	42	4.95	4.46	4.13	3.30	6.45	5.81	5.38	4.30
QGL500-	500 mh	290	48	5.40	4.86	4.50	3.60	7.20	6.48	6.00	4.80
QGL1000-	1 h.	530	51	6.15	5.54	5.13	4.10	7.95	7.16	6.63	5.30
QGL1500-	1.5 hys.	825	53	6.30	5.67	5.25	4.20	8.70	7.83	7.25	5.80

QGM SERIES

Frequency range, 2-100 kc; accuracy, $\pm 2\%$.

Microtran No.†	Inductance	Type DC Res., Ohms	Type Dist. Cap., μf	-F Open Frame Net Each, Lots of				-M Molded Net Each, Lots of			
				1-9	10-49	50-99	100-249	1-9	10-49	50-99	100-249
QGM1-	1 mh	1.4	22	\$4.80	\$4.32	\$4.00	\$3.20	\$6.45	\$5.81	\$5.38	\$4.30
QGM5-	5 mh	6	28	5.10	4.59	4.25	3.40	6.60	5.94	5.50	4.40
QGM10-	10 mh	12	31	5.25	4.73	4.38	3.50	6.75	6.08	5.63	4.50
QGM15-	15 mh	18	32	5.40	4.86	4.50	3.60	6.90	6.21	5.75	4.60
QGM25-	25 mh	30	35	5.70	5.13	4.75	3.80	7.05	6.35	5.88	4.70
QGM50-	50 mh	52	37	6.30	5.67	5.25	4.20	7.35	6.62	6.13	4.90

SUBMINIATURE TOROIDAL INDUCTORS — QIL SERIES

Frequency range to 20 kc; accuracy $\pm 2\%$. QIL-M: Molded in high temperature epoxy with silver plated turret lugs. Size, $1\frac{1}{4}$ " dia. x $\frac{1}{2}$ ".
 QIL-H: Hermetically sealed in metal case with Teflon® terminals. Size, $1\frac{1}{4}$ " x $\frac{1}{2}$ " x $1\frac{1}{4}$ ". QIL-F: Open frame. Microcrystalline wax dipped with 4" #27 plastic leads. Size, 1" dia. x $\frac{1}{8}$ ".

®Registered DuPont trademark

Microtran No.†	Inductance	Type DC Res., Ohms	Type Dist. Cap., μf	-F Open Frame Net Each, Lots of				-H Hermetic Net Each, Lots of				-M Molded Net Each, Lots of			
				1-9	10-49	50-99	100-249	1-9	10-49	50-99	100-249	1-9	10-49	50-99	100-249
QIL5-	5 mh	1.1	38	\$3.90	\$3.51	\$3.25	\$2.60	\$6.75	\$6.08	\$5.63	\$4.50	\$5.25	\$4.73	\$4.38	\$3.50
QIL10-	10 mh	2.1	40	3.90	3.51	3.25	2.60	6.75	6.08	5.63	4.50	5.25	4.73	4.38	3.50
QIL25-	25 mh	5.3	45	4.05	3.65	3.38	2.70	7.20	6.48	6.00	4.80	5.40	4.86	4.50	3.60
QIL50-	50 mh	11	47	4.05	3.65	3.38	2.70	7.20	6.48	6.00	4.80	5.40	4.86	4.50	3.60
QIL100-	100 mh	22	49	4.20	3.78	3.50	2.80	7.65	6.89	6.38	5.10	5.70	5.13	4.75	3.80
QIL250-	250 mh	55	53	4.50	4.05	3.75	3.00	8.25	7.43	6.88	5.50	6.00	5.40	5.00	4.00
QIL500-	500 mh	95	55	4.80	4.32	4.00	3.20	8.55	7.70	7.13	5.70	6.30	5.67	5.25	4.20
QIL1000-	1 h.	210	57	5.10	4.59	4.25	3.40	9.00	8.10	7.50	6.00	6.75	6.08	5.63	4.50
QIL2500-	2.5 hys.	550	61	6.75	6.08	5.63	4.50	10.80	9.72	9.00	7.20	8.70	7.83	7.25	5.80

MINIATURE TOROIDAL INDUCTORS — QK SERIES

QK-F: Open frame. Microcrystalline wax dipped; 4" #27 plastic leads. Size, $1\frac{1}{4}$ " dia. x $\frac{1}{2}$ ".
 QK-H: Hermetic with Teflon terminals. Size, $1\frac{1}{4}$ " x $\frac{1}{2}$ " x $1\frac{1}{4}$ ".
 QK-M: Molded in high temperature epoxy resin; silver plated turret lugs. Size, $1\frac{1}{4}$ " dia. x $\frac{1}{2}$ ".

Frequency range, 10 kc; accuracy, $\pm 2\%$.

QKL SERIES

Microtran No.†	Inductance	Type DC Res., Ohms	Type Dist. Cap., μf	-F Open Frame Net Each, Lots of				-H Hermetic Net Each, Lots of				-M Molded Net Each, Lots of			
				1-9	10-49	50-99	100-249	1-9	10-49	50-99	100-249	1-9	10-49	50-99	100-249
QKL10-	10 mh	1.1	66	\$4.50	\$4.05	\$3.75	\$3.00	\$7.20	\$6.48	\$6.00	\$4.80	\$6.15	\$5.54	\$5.13	\$4.10
QKL25-	25 mh	2.8	72	4.65	4.19	3.88	3.10	7.50	6.75	6.25	5.00	6.15	5.54	5.13	4.10
QKL50-	50 mh	6	76	4.65	4.19	3.88	3.10	7.80	7.02	6.50	5.20	6.15	5.54	5.13	4.10
QKL100-	100 mh	11	81	4.80	4.32	4.00	3.20	8.40	7.56	7.00	5.60	6.60	5.94	5.50	4.40
QKL250-	100 mh	28	87	4.95	4.46	4.13	3.30	8.85	7.97	7.38	5.90	6.75	6.08	5.63	4.50
QKL500-	500 mh	63	91	5.10	4.59	4.25	3.40	9.15	8.24	7.63	6.10	6.90	6.21	5.75	4.60
QKL1000-	1 h.	90	110	5.25	4.73	4.38	3.50	9.60	8.64	8.00	6.40	7.20	6.48	6.00	4.80
QKL5000-	5 hys.	645	106	6.08	5.63	5.25	4.20	11.10	9.99	9.25	7.40	8.40	7.56	7.00	5.60
QKL10,000-	10 hys.	1175	112	7.50	6.75	6.25	5.00	12.45	11.20	10.38	8.30	9.60	8.64	8.00	6.40

Frequency range, 5-50 kc; accuracy, $\pm 2\%$.

QKM SERIES

Microtran No.†	Inductance	Type DC Res., Ohms	Type Dist. Cap., μf	-F Open Frame Net Each, Lots of				-H Hermetic Net Each, Lots of				-M Molded Net Each, Lots of			
				1-9	10-49	50-99	100-249	1-9	10-49	50-99	100-249	1-9	10-49	50-99	100-249
QKM2-	2 mh	0.45	52	\$5.10	\$4.59	\$4.25	\$3.40	\$8.25	\$7.43	\$6.88	\$5.50	\$6.30	\$5.67	\$5.25	\$4.20
QKM5-	5 mh	1.1	58	5.25	4.73	4.38	3.50	8.40	7.56	7.00	5.60	6.45	5.81	5.38	4.30
QKM10-	10 mh	2.5	62	5.25	4.73	4.38	3.50	8.55	7.70	7.13	5.70	6.60	5.94	5.50	4.40
QKM25-	25 mh	6.5	70	5.40	4.86	4.50	3.60	8.85	7.97	7.38	5.90	6.75	6.08	5.63	4.50
QKM50-	50 mh	11	74	5.55	5.00	4.63	3.70	9.00	8.10	7.50	6.00	6.90	6.21	5.75	4.60

HIGH-Q TOROIDAL INDUCTORS — QPL SERIES

Frequency range to 10 kc; accuracy $\pm 2\%$. QPL-F: Open frame, microcrystalline wax dipped; 4" #24 leads. Size, $1\frac{1}{4}$ " dia. x $\frac{1}{8}$ ".
 QPL-H: Hermetically sealed with Teflon terminals. Size, $1\frac{1}{4}$ " x $\frac{1}{8}$ " x $1\frac{1}{4}$ ".

QPL-M: Molded in high temperature epoxy resin; silver plated turret lugs. Size, 2" dia. x 1".

Microtran No.†	Inductance	Type DC Res., Ohms	Type Dist. Cap., μf	-F Open Frame Net Each, Lots of				-H Hermetic Net Each, Lots of				-M Molded Net Each, Lots of			
				1-9	10-49	50-99	100-249	1-9	10-49	50-99	100-249	1-9	10-49	50-99	100-249
QPL25-	25 mh	1.5	100	\$6.90	\$6.21	\$5.75	\$4.60	\$10.35	\$9.32	\$8.63	\$6.90	\$8.55	\$7.70	\$7.13	\$5.70
QPL50-	50 mh	2.5	105	7.05	6.35	5.88	4.70	10.50	9.45	8.75	7.00	8.70	7.83	7.25	5.80
QPL100-	100 mh	6	110	7.20	6.48	6.00	4.80	10.65	9.58	8.88	7.10	8.85	7.97	7.38	5.90
QPL500-	500 mh	25	120	7.50	6.75	6.25	5.00	10.95	9.82	9.13	7.30	9.60	8.64	8.00	6.40
QPL1000-	1 h.	60	125	7.80	7.02	6.50	5.20	11.40	10.26	9.50	7.60	9.90	8.91	8.25	6.60
QPL5000-	5 hys.	350	138	9.45	8.51	7.88	6.30	13.20	11.88	11.00	8.80	11.10	9.99	9.25	7.40
QPL10,000-	10 hys.	600	142	11.10	9.99	9.25	7.40	15.00	13.50	12.50	10.00	12.90	11.61	10.75	8.60
QPL25,000-	25 hys.	850	212	16.50	14.85	13.75	11.00	19.50	17.55	16.25	13.00	18.45	16.61	15.38	12.30
QPL50,000-	50 hys.	1500	221	20.20	19.98	18.50	14.80	25.20	22.68	21.00	16.80	24.15	21.74	20.13	16.10

HIGH-Q TOROIDAL INDUCTORS — QTL SERIES

Frequency range to 15 kc; accuracy, $\pm 2\%$. QTL-F: Open frame, microcrystalline wax dipped with 4" #24 leads. Size $2\frac{1}{4}$ " dia. x 1".

QTL-H: Hermetic, Teflon terminals. Size, $2\frac{1}{4}$ " x $1\frac{1}{4}$ " x $2\frac{1}{4}$ ".
 QTL-M: Molded in epoxy resin. Size, $2\frac{1}{4}$ " dia. x $1\frac{1}{4}$ ".

QTL50-	50 mh	1.5	136	\$10.95	\$ 9.85	\$ 9.13	\$ 7.30	\$13.65	\$12.28	\$11.38	\$ 9.10	\$12.75	\$11.47	\$10.63	\$ 8.50
QTL100-	100 mh	2.8	144	11.25	10.12	9.38	7.50	13.95	12.55	11.63	9.30	13.05	11.74	10.88	8.70
QTL500-	500 mh	15	164	12.15	10.93	10.13	8.10	14.85	13.36	12.38	9.90	13.95	12.55	11.63	9.30
QTL1000-	1 hy.	27	173	12.15	10.93	10.13	8.10	15.15	13.63	12.63	10.10	13.95	12.55	11.63	9.30
QTL2500	2.5 hys.	70	184	13.05	11.74	10.88	8.70	16.05	14.44	13.38	10.70	14.85	13.36	12.38	9.90
QTL5000-	5 hys.	140	192	13.05	11.74	10.88	8.70	16.65	14.98	13.88	11.10	15.00	13.50	12.50	10.00
QTL10,000-	10 hys.	270	200	14.25	12.82	11.88	9.50	17.25	15.53	14.38	11.50	16.20	14.58	13.50	10.80
QTL25,000-	25 hys.	850	212	16.50	14.85	13.75	11.00	19.50	17.55	16.25	13.00	18.45	16.61	15.38	12.30
QTL50,000-	50 hys.	1500	221	22.20	19.98	18.50	14.80	25.20	22.68	21.00	16.80	24.15	21.74	20.13	16.10


MICROTRAN

company, inc.

designs to meet your needs

PROTOTYPES • SHORT RUNS • PRODUCTION RUNS SOLICITED



Figure E
Encapsulated
Channel Mtd.

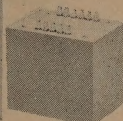


Figure Q
Hermetic
with Inserts



Figure MIL
Hermetic
MIL-T-27/B Case



Figure R
Encapsulated
Hipersil



Figure H
Miniature
Hermetic



Figure V
Rectangular with
rectangular
flange



Figure X
Hipersil with
terminal board

Separate Sampling Department for quick delivery. Immediate service assured by large stocks of high temperature insulation and other specialized materials. IN-PLANT TESTING assures full compliance with military requirements and often saves weeks on contract completion. Units can be supplied to meet MIL-T-27B, MIL-T-9219, CAA-R-9786, MIL-E-5400, MIL-E-16400, MIL-E-4158, MIL-E-8189A, MCREE-553, MIL-T-21200, MIL-Q-9858.

NOT STOCK, CUSTOM BUILT TO ORDER ONLY

400 CYCLE POWER SUPPLY TRANSFORMERS

Part No.	Secondary A.C. Volts	R.M.S. Amps.	Test Volts R.M.S.	Figure
M3144	1	3	1000	AG
M2655	6.3/6.3#	1.5/1.5	1500	MIL
M2810	6.3C.T./6.3C.T.#	2.0/2.0	100	MIL-EA
M2611	6.3C.T./6.3C.T.#	2.0/10.0	100	Q
M4282†	6.3C.T.	10.0	2500	MIL-FA
M4076††	6.3	20.0	2000	MIL-JB
M4042	12.6	0.25	1000	MIL-AH
M2724	12.6C.T./6.3#	3.0/1.2	1000	MIL
M2830	12.6C.T./12.6C.T.#	5.0/5.0	500	MIL-IA
M4017	26C.T./6.3C.T.#	0.1/1.7	1000	FB
M3142	26	6.5	1500	MIL-JA
M2880**	32	5.5	500	MIL-KA

400 CYCLE PLATE/FILAMENT POWER TRANSFORMERS

Part No.	Plate Supply A.C. Volts	D.C. Ma.	Rectifier Volts	Filament Amps	Figure
M2751	115	5	6.3	0.35	W
M2448	128/26	20/800	6.3	2.6	MIL-FA
M1092-2	800C.T.	60	12.6C.T.	1.0	R
M1144	40	180	26.0	1.2	MIL-FA

*105/115/125 Pri. **110/115/120 Pri. †MS 16472 ††MS 16402
#Separate Wdgs

60 CYCLE POWER SUPPLY TRANSFORMERS

Part No.	Secondary A.C. Volts	R.M.S. Amps	Test Volts R.M.S.	Figure
M1606	2.5	.01	500	H
M2229	6.3C.T./6.3C.T.#	0.6	1,000	FB
M2551	6.3	2.0	1,500	FB
M1395*	24.0	1.0	1,500	MIL-GA
M2530	25.0/25.0#	.23/.23	1,000	MIL-GB
M2808	34.0	15.0	500	MIL
M2531	40.0/40.0#	.4/.4	1,000	MIL-HB

*117V Primary

60 CYCLE ISOLATION TRANSFORMER

Part No.	Input Voltage	Output Voltage	V.A. Rating	Figure
M2787†	110	110	0.8	FB
M2901	115	115	6.0	V
M2294†	105/115/125	118C.T.	90.	MIL
M2595	117	117	250.	K

*117V Primary. #Separate Winding. †Electrostatic Shielding.

FILTER REACTORS

Part No.	Current D.C. Ma.	Inductance Henries	D.C.R. Ohms	Test Volts	Figure
FR-2	60	10	230	2,000	MIL-FA
M2490	85	15	300	2,500	V
M2243	500	2	30	1,500	MIL-KA
M2278	1A	0.05	2	500	MIL-FA
M2909	1.75A	0.016	0.5	500	MIL-GA
M2474	5A	0.005	0.03	500	MIL
M3494	6.5A	0.04	0.5	1,000	MIL-NA
M2473	25A	0.005	0.032	500	MIL

400 CYCLE SERVO DRIVER & OUTPUT TRANSFORMERS

Part No.	Primary Impedance	Pri. Unbal. D.C. Ma.	Secondary Impedance	Power Level	Figure
M2996	†20-K	3.	25	25 Mw.	MIL-AG
M2956	1,000 C.T.	0.	1,000 C.T.	150 Mw.	FPB
M2477	8,000 C.T.	4.	500 C.T.	500 Mw.	FB
M1378	6,000	38.	180	1.3 Watts	H
M2254	200 C.T.	20.	1,000	3.0 Watts	F
M2769	10,000 C.T.	9.	500	7 Watts	E
M2795	48 C.T.	30.	176	9 Watts	FB
M2849	62 C.T.	75.	510 C.T.	16 Watts	MIL-FB

†40 db Magnetic Shielding

400 CYCLE DEMODULATOR SUPPLY TRANSFORMERS

Part No.	Primary Volts	Secondary A.C. Volts	Secondary R.M.S. Ma.	Figure
M4035	6.3	2.2/2.2	10/10	M
M4284	26	3.5/3.5	15/15	F
M3434	115/57.5	5/5	1/1	R
M3472	115	30 C.T./0.5	4/50	E

AUDIO REACTORS

Part No.	Inductance Henries	Current D.C. Ma.	D.C.R. Ohms.	Figure
M2495	1.0	0	50	F
M1812	2.0	3.0	780	F
M2501	10.0	0	318	FPB
M3285	30.0	0	390	F
M2402	100.0	0	1,700	FB
M2180	25/50/250	1/0.5/0	770	F

LOW LEVEL CHOPPER INPUT TRANSFORMERS

Part No.	Freq.	Turns Ratio 1/2 Pri. to Full Sec.	Ind. of Full Pri.	Imped. of Full Pr.	Magnetic Shielding	Figure
M3297	400	15.8/1	.65 Hy.	1 MEG	45 db	G
M3174	100	1/1	50	30 K	90 db	S
M2988	55	1/1	140	10 K	90 db	S
M2057	400	1/2.81	100	250 K	None	H

Also see EEM pages for additional items and list of franchised distributors.

DIRECTRON

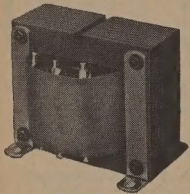
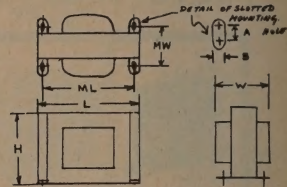
Industrial Transformers, Selenium and Silicon Rectifiers, Chokes and Power Supplies



RECTIFIER TRANSFORMERS

Transformers are with 2 — 18 volt center-tapped windings. Connected in series delivers 36 volts as rated. Connected in parallel — delivers 18 volts at twice rated current. (Taps 9, 18, 27, 36 V.)

Primary taps at 100, 105, 110 and 115 volts available on 12 amp, 24 amp, 30 amp and 50 amp transformers. No extra charge.



12 amp. Transformer 18T12

Part No.	Amp.	Users Net Price	L (MAX)	W (MAX)	H (MAX)	ML $\pm \frac{1}{16}$	MW $\pm \frac{1}{8}$	A $\pm \frac{1}{16}$	B $\pm \frac{1}{16}$	Weight
18 T 1	1	\$ 5.75	2 $\frac{3}{4}$	3	2 $\frac{3}{4}$	2 $\frac{1}{2}$	2 $\frac{1}{4}$	$\frac{1}{8}$	$\frac{1}{4}$	2
18 T 2	2	7.90	3 $\frac{1}{4}$	3	2 $\frac{3}{4}$	3 $\frac{1}{8}$	2			3
18 T 4	4	9.50	4 $\frac{1}{8}$	3	3 $\frac{3}{4}$	3 $\frac{3}{8}$	2 $\frac{3}{8}$			5
18 T 8	8	16.50	4 $\frac{1}{8}$	3 $\frac{3}{8}$	4	3 $\frac{3}{8}$	3			9
18 T 12	12	18.00	5 $\frac{1}{8}$	4 $\frac{1}{4}$	4 $\frac{1}{2}$	4 $\frac{3}{8}$	3 $\frac{3}{8}$			12
18 T 24	24	39.00	6 $\frac{1}{2}$	4 $\frac{3}{8}$	5 $\frac{1}{2}$	5 $\frac{1}{8}$	3 $\frac{3}{8}$	$\frac{3}{8}$	$\frac{3}{2}$	24
18 T 30	30	48.00	6 $\frac{1}{2}$	5	5 $\frac{1}{2}$	5 $\frac{1}{8}$	3 $\frac{3}{8}$			25
18 T 50	50	58.00	6 $\frac{1}{2}$	5 $\frac{3}{4}$	5 $\frac{1}{2}$	5 $\frac{1}{8}$	4 $\frac{3}{8}$			35

WITH 2-28 CENTER TAP WINDINGS

28 T 2	2	\$ 9.25	3 $\frac{3}{8}$	3 $\frac{1}{4}$	3 $\frac{3}{8}$	2 $\frac{1}{2}$	2 $\frac{3}{8}$	$\frac{1}{8}$	$\frac{1}{4}$	5
28 T 4	4	13.75	4 $\frac{1}{4}$	3 $\frac{3}{4}$	3 $\frac{3}{8}$	3	3			8
28 T 6	6	25.50	5 $\frac{1}{8}$	4 $\frac{1}{4}$	4 $\frac{1}{2}$	4 $\frac{3}{8}$	3 $\frac{3}{8}$	$\frac{3}{8}$	$\frac{3}{2}$	14
28 T 12	12	33.00	6 $\frac{1}{2}$	5	5 $\frac{1}{2}$	5 $\frac{1}{8}$	3 $\frac{3}{8}$			21
28 T 24	24	72.00	6 $\frac{1}{2}$	6 $\frac{1}{2}$	5 $\frac{1}{2}$	5 $\frac{3}{8}$	3 $\frac{1}{2}$			24

STEP UP TRANSFORMERS

PRIMARY WINDINGS — 100-105-110-115 VOLT

SECONDARY WINDINGS — 130-135-140 VOLT

Part No.	Amps.	Users Net Price	Part No.	Amps.	Users Net Price
SU 10	10	\$ 70.00	SU 25	25	\$128.00
SU 15	15	85.00	SU 30	30	160.00
SU 20	20	112.50	SU 35	35	185.00

HIGH CURRENT CHOKES



4 amp. Choke CK4

Part No.	Amps.	Hy.	Ohms	Users Net Price	L (MAX)	W (MAX)	H (MAX)	ML $\pm \frac{1}{16}$	MW $\pm \frac{1}{8}$	A $\pm \frac{1}{16}$	B $\pm \frac{1}{16}$	Weight
CK 1	1	.1	1.5	\$ 5.45	2 $\frac{3}{4}$	2 $\frac{3}{4}$	2 $\frac{3}{4}$	2	$\frac{1}{8}$	$\frac{1}{4}$		2
CK 2	2	.04	.9	6.50	3 $\frac{1}{8}$	3 $\frac{3}{4}$	3 $\frac{3}{8}$	2 $\frac{1}{8}$	2 $\frac{1}{4}$			3
CK 4	4	.07	.6	8.50	3 $\frac{1}{8}$	3 $\frac{3}{8}$	3 $\frac{3}{8}$	2 $\frac{1}{2}$	2 $\frac{1}{2}$			5
CK 8	8	.03	.3	13.25	4 $\frac{3}{8}$	3 $\frac{3}{8}$	3 $\frac{3}{4}$	3 $\frac{3}{8}$	3			8
CK 12	12	.01	.1	15.75	5 $\frac{1}{8}$	3 $\frac{3}{4}$	4 $\frac{1}{2}$	4 $\frac{3}{8}$	2 $\frac{7}{8}$			11
CK 20	20	.004	.05	19.50	5 $\frac{1}{4}$	5	4 $\frac{1}{2}$	4 $\frac{1}{2}$	4	$\frac{1}{2}$	$\frac{3}{2}$	14
CK 24	24	.004	.025	28.50	5 $\frac{1}{8}$	4 $\frac{3}{4}$	4 $\frac{1}{2}$	4 $\frac{3}{8}$	3 $\frac{7}{8}$			17
CK 30	30	.003	.01	39.00	6 $\frac{1}{2}$	4 $\frac{3}{8}$	5 $\frac{1}{2}$	5 $\frac{1}{8}$	3 $\frac{3}{8}$			22
CK 50	50	.001	.001	49.50	6 $\frac{1}{2}$	4 $\frac{3}{8}$	5 $\frac{1}{2}$	5 $\frac{1}{8}$	3 $\frac{3}{8}$			23
CK 100	100	.0005	.005	58.50	6 $\frac{1}{2}$	6	5 $\frac{1}{2}$	5 $\frac{1}{8}$	4 $\frac{3}{8}$			30

CUSTOM BUILT TRANSFORMERS AND CHOKES — 48 HOUR SERVICE

POWER SUPPLIES TO YOUR SPECIFICATIONS, QUOTATIONS ON REQUEST

SEE OUR AD UNDER "RECTIFIERS" IN SECTION 4800 FOR SELENIUM AND SILICON STACKS

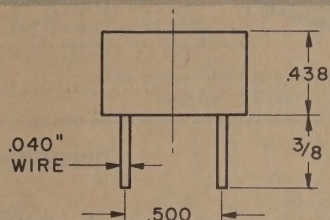
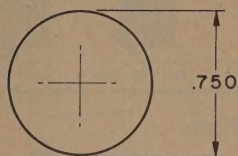
Mfd. by **SANFORD MILLER CORP.**

TOROIDAL INDUCTORS

ALL UNITS IMMEDIATELY AVAILABLE FROM STOCK

All units cased and suitable for printed circuit wiring.
Manufactured to MIL-T-27B

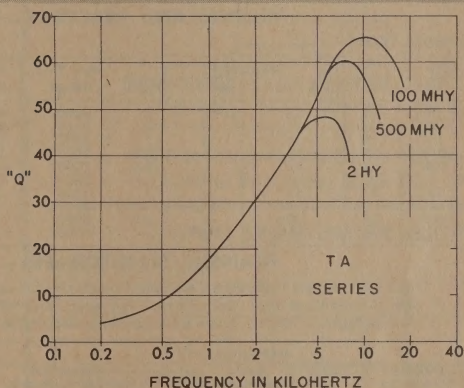
Tolerance: $\pm 2\%$



TA series

are designed for use from 200 hz to 20 khz, and have maximum Q's from 6 khz to 10 khz, depending on inductance.

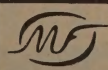
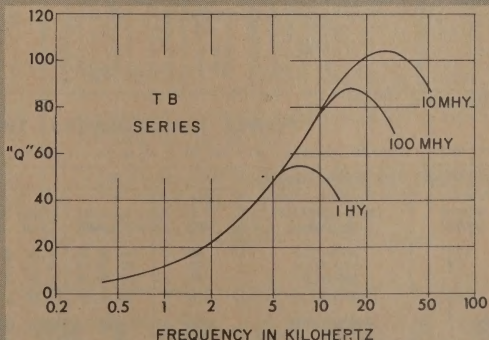
Part No.	Inductance, henries	Approx. DC Resistance, ohms	Net Price
TA-101	0.1	30	\$ 7.10
TA-251	0.25	78	7.10
TA-501	0.50	160	7.50
TA-751	0.75	225	8.00
TA-102	1.0	265	8.50
TA-152	1.5	430	9.00
TA-202	2.0	540	10.00



TB series

are designed for use from 400 hz to 80 khz, and have maximum Q's from 7 khz to 25 khz, depending on inductance.

Part No.	Inductance, millihenries	Approx. DC Resistance, ohms	Net Price
TB-100	10	5.7	\$6.10
TB-250	25	12	6.10
TB-500	50	25	6.40
TB-750	75	38	6.40
TB-101	100	51	7.00
TB-251	250	125	7.00
TB-501	500	255	7.40
TB-751	750	385	7.80
TB-102	1000	510	8.25



MF ELECTRONICS CORP.

INDUCTOR DIVISION



NOTE

Basic mounting types are classified as "A," "B," "C," "D," "E," "F," "G," "H," "J," and "Bx."

Explanation of Suffix Symbols

L = Leads

T = Lugs

P = Cord and Plug

SP = Switch, Cord and Plug

Please write for information on any units not listed



Style BxL Mtg.



Style AL Mtg.



Style CL Mtg.



Style BL Mtg.



Style GL Mtg.

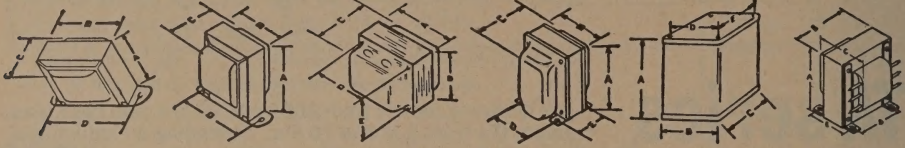


Style HT Mtg.



Style FL Mtg.

DIMENSIONAL ILLUSTRATIONS



CHOKES AND REACTORS—THE "TWO" SERIES

FILTER AND SWINGING CHOKES

Type Number	D.C. Mills		Inductance				Insul. Test Voltage	D.C. Res.	Mtg. Style	Dimensions					Net Weight	Net Price
	Nom.	Max.	0-D.C.	50% Nom.D.C.	Nom.D.C.	Max.D.C.				A	B	C	D	E		
2P132	40	50	22	13	8	6	2000	450	AL	1 3/4	1 5/8	1 1/8	2		.3	1.39
2P135	65	80	18	11	8	7	2000	300	AL	1 1/4	1 7/8	1 3/8	2 3/8		.5	1.64
SP138	85	100	30	16	8	7	2000	350	AL	1 7/8	2 1/4	1 7/8	2 1/4		1.2	2.08
2P144	150	180	26	13	8	5.5	2000	190	BL	3	2 1/2	2 1/4	3 1/8		2.1	2.80
2P147	200	250	16	10	8	6.5	2000	110	GL	3 1/2	2 7/8	3 1/8	2 1/4	2	3.2	4.95
2P148	200-20	—	—	—	3-15	—	2000	110	GL	3 1/2	2 7/8	3 1/8	2 1/4	2	3.2	4.95
2P151	300	350	18	11	8	7	3500	75	GL	4 5/8	3 3/4	3 7/8	3	2 1/4	7.5	8.44
2P152	300-30	—	—	—	3-15	—	3500	75	GL	4 5/8	3 3/4	3 7/8	3	2 1/4	7.5	8.44
2P155	500	600	16	10	8	5.5	5000	55	HT	7 1/8	5 1/2	5 1/8	4 3/8	4 1/4	22.8	23.78
2P156	500-50	—	—	—	3-15	—	5000	55	HT	7 1/8	5 1/2	5 1/8	4 3/8	4 1/4	22.8	23.78

FILAMENT TRANSFORMERS—THE "FOUR" SERIES

Most SNC Filament Transformers are constructed to provide two identical center tapped secondary windings and offer a minimum of three applications. They provide three-fold the number of possible applications of ordinary filament types. A few are single secondary units and are so designed. All have 117 V. 50/60 cycle primary.

Type Number	Parallel Secondaries		Applications Series Secondaries		Independent Identical Secondaries		Test Mtg. Voltages Style	Dimensions					Net Weight	Net Price
								A	B	C	D	E		
4P222	2.5V. C.T. @ 5 A.	5 A.	5 V. C.T. @ 2.5 A.	2.5 A.	2 of 2.5V.C.T. @ 2.5 A.	2000 BL	2 1/4	1 7/8	1 3/4	2 3/8			1.0	2.71
4P226*	2.5V. C.T. @ 10 A.*	10 A.*	5 V. C.T. @ 5 A.	5 A.	2 of 2.5V.C.T. @ 5 A.	7500 BL	3	2 1/2	2 3/8	3 1/8			2.0	4.13
4P227	2.5V. C.T. @ 10 A.	10 A.	5 V. C.T. @ 7.5 A.	7.5 A.	2 of 2.5V.C.T. @ 7.5 A.	2000 BL	2 5/8	2 1/4	2	2 3/4			1.5	3.63
4P234	2.5V. C.T. @ 15 A.	15 A.	10 V. C.T. @ 3.25A.	3.25A.	2 of 5 V.C.T. @ 3.25A.	2000 BL	3	2 1/2	2 1/4	3 1/8			2.2	4.35
4P239	5 V. C.T. @ 6.5A.	6.5A.	10 V. C.T. @ 3.25A.	3.25A.	2 of 5 V.C.T. @ 3.25A.	2000 BL	3	2 1/2	2 1/4	3 1/8			2.2	3.87
4P242*	5 V. C.T. @ 20 A.*	20 A.*	10 V. C.T. @ 10 A.	10 A.	2 of 5 V.C.T. @ 10 A.	10000 BxL	4 1/8	3 3/4	2 3/4	2 3/4	2 1/2	2 1/4	4.6	7.75
4P243	5 V. C.T. @ 20 A.	20 A.	10 V. C.T. @ 10 A.	10 A.	2 of 5 V.C.T. @ 10 A.	2000 BxL	3 3/4	3 1/8	2 3/4	2 1/2	2 1/4		4.3	6.87
4P244*	6.3V. C.T. @ 0.6A.*	0.6A.*	12.6V. C.T. @ 1 A.	1 A.	2 of 6.3V.C.T. @ 1 A.	2000 BL	1 7/8	1 3/4	1 1/2	2			.6	2.68
4P245*	6.3V. C.T. @ 1.2A.*	1.2A.*	12.6V. C.T. @ 2 A.	2 A.	2 of 6.3V.C.T. @ 2 A.	2000 BL	1 7/8	1 3/4	1 1/2	2			.7	2.90
4P246	6.3A. C.T. @ 2 A.	2 A.	12.6V. C.T. @ 1 A.	1 A.	2 of 6.3V.C.T. @ 1 A.	2000 BL	2 1/4	1 7/8	1 3/4	2 3/8			1.0	3.18
4P251	6.3V. C.T. @ 6 A.	6 A.	12.6V. C.T. @ 3 A.	3 A.	2 of 6.3V.C.T. @ 3 A.	2000 BL	3	2 1/2	2 1/4	3 1/8			2.0	3.72
4P256	6.3V. C.T. @ 10 A.	10 A.	12.6V. C.T. @ 5 A.	5 A.	2 of 6.3V.C.T. @ 5 A.	2000 BxL	3 3/8	2 1/4	2 1/2	2 1/4	2 1/8		2.9	4.82
4P260	7.5V. C.T. @ 3 A.	3 A.	15 V. C.T. @ 1.5 A.	1.5 A.	2 of 7.5V.C.T. @ 1.5 A.	2000 BL	2 5/8	2 1/4	2	2 1/4			1.5	3.87
4P267	7.5V. C.T. @ 4.5A.	4.5A.	15 V. C.T. @ 2.3 A.	2.3 A.	2 of 7.5V.C.T. @ 2.3 A.	2000 BL	3	2 1/2	2 1/4	3 1/8			2.0	4.82
4P272	11 V. C.T. @ 10 A.	10 A.	22 V. C.T. @ 5 A.	5 A.	2 of 11 V.C.T. @ 5 A.	2000 BxL	3 3/4	3 1/8	2 3/4	2 1/2	2 1/4		4.1	6.87

*Single Secondary Units.

POWER TRANSFORMERS—THE "EIGHT" SERIES

All units conservatively rated for operation on either 50 or 60 cycles and contain an electrostatic shield between primary and all other windings.

REPLACEMENT TYPES (6.3 Volt Heater Winding)

Type Number	Primary Voltage	R.M.S.—High Volt. Secondary	Sec. D.C. Mills	Rectifier Filament	Heater Winding Center Tapped	Mtg. Style	Dimensions					Net Weight	Net Price
							A	B	C	D	E		
8P040	117	265-0-265	40	5V. @ 2A.	6.3V. @ 2A.	FL	3	2 1/2	2 3/4	2 1/2	2	2.3	4.13
8P055	117	300-0-300	55	5V. @ 2A.	6.3A. @ 2.5A.	FL	3	2 1/2	3 1/8	2 1/2	2	2.8	4.16
8P070	117	325-0-325	70	5V. @ 2A.	6.3V. @ 3A.	FL	3	2 1/2	3 1/2	2 1/2	2	3.2	5.26
8P199	117	400-0-400	70	5V. @ 3A.	6.3V. @ 3.5A.	FL	3 3/4	3 1/8	4	3 1/8	2 1/2	5.8	8.00
8P199G	117	400-0-400	70	5V. @ 3A.	6.3V. @ 3.5A.	GL	3 3/4	3 1/8	3 3/4	2 1/2	2 1/4	3.8	4.13
8P202	117	450-0-450	200	5V. @ 3A.	6.3V. @ 5A.	FL	4 1/2	3 3/4	4 3/4	3 3/4	3	10.7	11.43
8P202G	117	450-0-450	200	5V. @ 3A.	6.3V. @ 5A.	GL	4 1/2	3 3/4	4 3/4	3 3/4	3 1/4	10.7	11.43

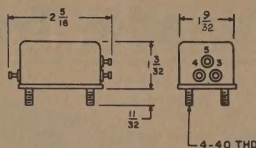
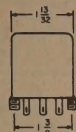
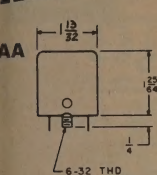
BIAS TYPES

Type Number	Primary Voltage	R.M.S.—High Volt. Secondary	Sec. D.C. Mills	Rectifier Filament	Heater Winding Center Tapped	Mtg. Style	A	B	C	D	E	Net Weight	Net Price
8P510	117	40-0-40	25	5V. @ 2A.	6.3V. @ 2A.	CL	1 7/8	2 1/4	1 3/4	2 1/4		1.0	3.43
8P511	117	0-90-150-200-250	50	5V. @ 2A.	6.3V. @ 2A.	CL	3 3/4	2 1/2	2 1/4	2 1/2	1 1/4	2.0	4.98

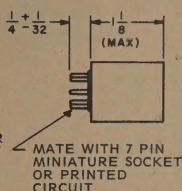
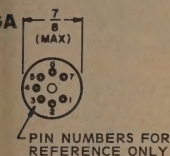
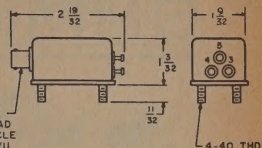
SNC MANUFACTURING CO., INC.

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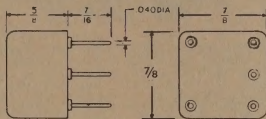
NORTH HILLS WIDE BAND TRANSFORMERS



BNC
BULKHEAD
RECEPTACLE
UG-625/U

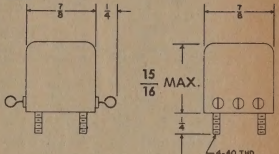


HB



FOR PRINTED CIRCUIT BOARD

FA



Antenna Matching
Interstage Coupling
Impedance Matching
Computer Drive Circuits
Signal Distribution

- Pulse Applications
- Voltage Step-Up
- DC Isolation
- Phase Detectors
- Balanced Modulators

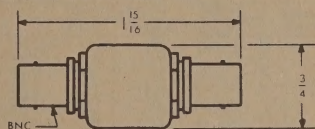
Type No.	Impedance Ratio	Nominal Bandwidth (mc)	Type No.	Impedance Ratio	Nominal Bandwidth (mc)
0001	50 Unb/50 Bal	.1-100	1100	75 Unb/75 Bal	.1-100
0101	50 Unb/75 Bal	.1-125	1300	75 Unb/100 Bal	.1-100
0300	50 Unb/100 Bal	.1-100	1400	75 Unb/150 Bal	.1-100
0400	50 Unb/150 Bal	.1-100	1500	75 Unb/200 Bal	.1-100
0500	50 Unb/200 Bal	.1-100	1501	75 Unb/300 Bal	.1-100
0501	50 Unb/300 Bal	.1-100	1600	75 Unb/450 Bal	.1-60
0502	50 Unb/200 Unb	.1-40	1700	75 Unb/600 Bal	.1-60
0503*	50 Unb/200 Bal	.4-250	1701	75 Unb/600 Bal	.3-100
0504*	50 Unb/200 Unb	.1-250	1702	75 Unb/600 Bal	.007-8
0600	50 Unb/450 Bal	.1-65	†1703	75 Unb/600 Bal	.1-30
0700	50 Unb/600 Bal	.1-65	1800	75 Unb/800 Bal	.2-30
0701	50 Unb/600 Bal	.1-30	1900	75 Unb/1200 Bal	.1-30
0800	50 Unb/800 Bal	.1-60	1901	75 Unb/1850 Bal	.01-10
0900	50 Unb/1200 Bal	.1-30	7700	600 Unb/600 Bal	.1-30

Data sheets for all types on request.
No DC isolation. † 20 watts.

North Hills wideband transformers have been designed for low insertion loss (less than 1 db) and good matching characteristics over wide frequency ranges. Balanced windings feature extremely low unbalanced voltages and have a center tap. Complete specifications are available upon request.

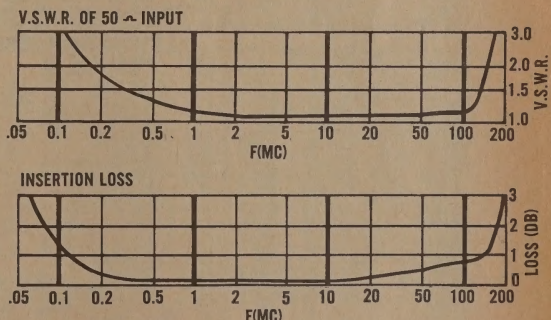
Several case styles are offered. Series AA models are potted in metal cases with a terminal board on the bottom and two 6-32 spade mounting bolts. Series BA are hermetically sealed with glass terminals at the case ends and two 4-40 studs on the bottom for mounting. Series BB is similar to BA except that the unbalanced connection is provided by a BNC connector. The above three styles are rated at 2 watts. Series FA, GA, and HB are hermetically sealed and are rated at 1/2 watt.

Type 01021A WIDE BAND ADAPTOR



50Ω to 75Ω coax transformers (Unb. to Unb.)
0.4-250 mc 0.25 db loss. VSWR 1.1

TYPICAL CHARACTERISTICS (0501)*



*Data sheets for all types on request.

Custom units designed to your specifications include power wideband transformers, pulse transformers, filters, adjustable inductors, and hybrid units.

See Section 4000 for Precision AC and DC Power Sources, EEM.
See Section 2900 for Bridges, Potentiometers, Galvanometers, Electromagnets, AC Line Stabilizers, EEM.
See Section 1800 for Variable Inductors.

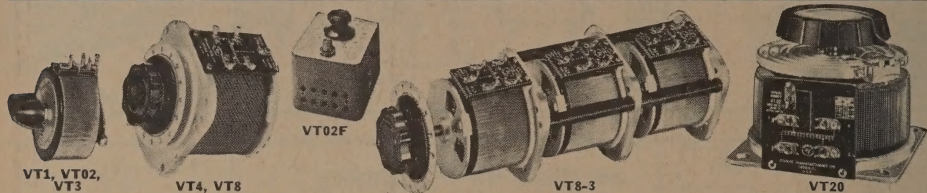
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NORTH HILLS
ELECTRONICS, INCORPORATED

OHMITE

resistors • rheostats • tap switches • relays
variable transformers • tantalum capacitors
semiconductor devices • r.f. chokes

OHMITE Variable Transformers



Seven basic physical types meet most industrial requirements with long, maintenance-free life. Excellent regulation at any point within the rated load; free from wave-form distortion. U/L Listed for VT4 and VT8 units rated 120 volts input. Direct-reading 2-scale (1 per side) dial supplied; CCW also available. New space-saving low power types VT1, VT2 and VT3 have adjustable shaft independent of brush assembly, 3-way terminals, instantly replaceable brush contacts and improved heat dissipation. Mounting: Easily replace other brands: VT2LN, VT1, VT2 and VT3 have $\frac{1}{8}$ -32 lhd. bushing; VT8 and VT20, 4-hole bolt mount; VT4, 3-hole bolt mount convertible to 4-hole with adapter plate.

Enclosed Types: Gray wrinkle-finish cases. Units with suffix B have exposed terminal panel and mounting base; E, fixed type for table or panel mounting; F, portable with cord, outlet socket and fuse; G, deluxe portable with handle, circuit breaker and switch for overvoltage selection. Final suffix: V indicates with voltmeter; VA, voltmeter; VW, volt/wattmeter; all come with handle except VT8NF series. Other Options: All transformer types except the VT2LN offer shafts, extendable from either brush or base side; ganged versions have thru-shaft, with same flexibility. Types with final suffix C come with 3-conductor input and output with one grounded to case.

SINGLE TRANSFORMERS
UNCASED, SINGLE-PHASE TRANSFORMERS

Ohmite Number	Input		Max. Output		Feature or Connection	Size, Inches W. x D. x H.	Wt., Lbs.†	Net Each, Lots of			
	Volts	Amps*	Volts	Amps				1-9	10-24	25-49	50-99
VT1	120	60	1.0	0-120/132	Low power, space saver	2 1/2" dia. x 1 1/2" d.	1.5	\$ 8.00	\$ 7.20	\$ 6.80	\$ 6.40
VT1N	120	60	1.2	0-120	Same, no overvoltage	2 1/2" dia. x 1 1/2" d.	1.5	8.00	7.20	6.80	6.40
VT2	120	60	1.75	0-120/132	Low power, space saver	2 1/2" dia. x 2 1/2" d.	2.25	9.00	8.10	7.65	7.20
VT2N	120	60	2.0	0-120	Same, no overvoltage	2 1/2" dia. x 2 1/2" d.	2.25	9.00	8.10	7.65	7.20
VT2LN	40	60	5.0	0-40	High amps, low volts	2 1/2" dia. x 2 1/2" d.	2.4	11.00	9.90	9.35	8.80
VT3	120	60	2.6	0-120/132	Low power, space saver	2 1/2" dia. x 2 1/2" d.	3.0	10.50	9.45	8.93	8.40
VT3N	120	60	3.0	0-120	Same, no overvoltage	2 1/2" dia. x 2 1/2" d.	3.0	10.50	9.45	8.93	8.40
VT4	120	50	3.5	0-120/132	Basic, 3.5-amp model	4 1/2" x 4 1/2" x 4 1/2"	5.25	14.00	12.60	11.90	11.20
VT4N	120	50	4.0	0-120	Same, no overvoltage	4 1/2" x 4 1/2" x 4 1/2"	5.25	14.00	12.60	11.90	11.20
VT4LN	40	50	12.0	0-40	High amps, low volts	4 1/2" x 4 1/2" x 4 1/2"	5.25	16.00	14.40	13.60	12.80
VT8	120	50	7.5	0-120/140	Basic 7.5-amp model	4 1/2" x 5 1/2" x 5 1/2"	10.25	18.00	16.20	15.30	14.40
VT8N	120	50	10.0	0-120	Same, no overvoltage	4 1/2" x 5 1/2" x 5 1/2"	10.25	18.00	16.20	15.30	14.40
VT8LN	40	50	22.0	0-40	High amps, low volts	4 1/2" x 5 1/2" x 5 1/2"	10.25	20.00	18.00	17.00	16.00
VT8V	240†	50	24.0	0-240/480	240 V input, 120 V tap	4 1/2" x 5 1/2" x 5 1/2"	10.25	20.00	18.00	17.00	16.00
VT8HN	240†	50	4.0	0-240	Same, no overvoltage	4 1/2" x 5 1/2" x 5 1/2"	10.25	20.00	18.00	17.00	16.00
VT20	120	50	20.0	0-120/140	Basic 20-amp model	7 1/2" x 5 1/2" x 8 1/2"	22.0	50.00	45.00	42.50	40.00
VT20N	120	50	25.0	0-120	Same, no overvoltage	7 1/2" x 5 1/2" x 8 1/2"	22.0	50.00	45.00	42.50	40.00
VT20H	240†	50	9.0	0-240/280	240 V input, 120 V tap	7 1/2" x 5 1/2" x 8 1/2"	22.0	52.00	46.80	44.20	41.60
VT20HN	240†	50	11.0	0-240	Same, no overvoltage	7 1/2" x 5 1/2" x 8 1/2"	22.0	52.00	46.80	44.20	41.60

CASED, SINGLE-PHASE TRANSFORMERS

Ohmite Number	Input Volts	Amps*	Output Volts	Output Amps	Feature or Connection	Size, Inches W. x D. x H.	Wt., Lbs.†	1-9	10-24	25-49	50-99
VT1E	120	60†	.8	0-132‡	Fixed mounting	3 3/8" x 2 1/2" x 4 1/4"	1.9	\$13.00	\$11.70	\$11.05	\$10.40
VT1NE	120	60	1.0	0-120	Fixed mounting	3 3/8" x 2 1/2" x 4 1/4"	1.9	13.00	11.70	11.05	10.40
VT1F	120	60†	1.0	0-132‡	Portable	3 3/8" x 2 1/2" x 4 1/4"	2.3	14.50	13.05	12.33	11.60
VT1NF	120	60	1.2	0-120	Portable	3 3/8" x 2 1/2" x 4 1/4"	2.3	14.50	13.05	12.33	11.60
VT2E	120	60†	1.4	0-132‡	Fixed mounting	3 3/8" x 2 1/2" x 4 1/4"	2.8	14.00	12.60	11.90	11.20
VT2NE	120	60	1.6	0-120	Fixed mounting	3 3/8" x 2 1/2" x 4 1/4"	2.8	14.00	12.60	11.90	11.20
VT2F	120	60†	1.5	0-132‡	Portable	3 3/8" x 2 1/2" x 4 1/4"	3.2	15.50	13.95	13.18	12.40
VT2NF	120	60	2.0	0-120	Portable	3 3/8" x 2 1/2" x 4 1/4"	3.2	15.50	13.95	13.18	12.40
VT4E	120	50	2.8	0-140‡	Fixed mounting	4 1/2" x 4 1/2" x 6 1/2"	7.4	19.00	17.10	16.15	15.20
VT4NE	120	50	3.2	0-120	Fixed mounting	4 1/2" x 4 1/2" x 6 1/2"	7.4	19.00	17.10	16.15	15.20
VT4F	120	50	3.5	0-140‡	Portable	4 1/2" x 4 1/2" x 6 1/2"	7.8	20.50	18.45	17.43	16.40
VT4NF	120	50	4.0	0-120	Portable	4 1/2" x 4 1/2" x 6 1/2"	7.8	20.50	18.45	17.43	16.40
VT4FC	120	50	3.5	0-140‡	In/out grounded VT4F	4 1/2" x 4 1/2" x 6 1/2"	7.8	23.50	21.15	19.98	18.80
VT4NFC	120	50	4.75	0-120	In/out grounded VT4NF	4 1/2" x 4 1/2" x 6 1/2"	7.8	23.50	21.15	19.98	18.80
VT8E	120	50	6.0	0-140‡	Fixed mounting	5 1/2" x 5 1/2" x 7 1/2"	13.5	23.00	20.70	19.55	18.40
VT8NE	120	50	8.0	0-120	Fixed mounting	5 1/2" x 5 1/2" x 7 1/2"	13.5	23.00	20.70	19.55	18.40
VT8F	120	50	7.5	0-140‡	Portable	5 1/2" x 5 1/2" x 7 1/2"	13.8	24.50	22.05	20.83	19.60
VT8NF	120	50	10.0	0-120	Portable	5 1/2" x 5 1/2" x 7 1/2"	13.8	24.50	22.05	20.83	19.60
VT8FC	120	50	7.5	0-140‡	In/out grounded VT8F	5 1/2" x 5 1/2" x 7 1/2"	13.8	27.50	24.75	23.38	22.00
VT8NFC	120	50	10.0	0-120	In/out grounded VT8NF	5 1/2" x 5 1/2" x 7 1/2"	13.8	27.50	24.75	23.38	22.00
VT8G	120	50	6.0	0-120/140*	Deluxe portable, handle	5 1/2" x 5 1/2" x 7 1/2"	14.2	28.00	25.20	23.80	22.40
VT8GC	120	50	6.0	0-120/140*	In/out grounded VT8G	5 1/2" x 5 1/2" x 7 1/2"	14.2	31.00	27.90	26.35	24.80
VT20B	120	50	20.0	0-120/140	Basic case model	7 1/2" x 5 1/2" x 8 1/2"	22.5	55.00	49.50	46.75	44.00
VT20NB	120	50	25.0	0-120	No overvoltage	7 1/2" x 5 1/2" x 8 1/2"	22.5	55.00	49.50	46.75	44.00
VT20E	120	50	20.0	0-120/140‡	Fixed mounting	7 1/2" x 5 1/2" x 10 1/2"	29.0	67.50	60.75	57.38	54.00
VT20NE	120	50	25.0	0-120	No overvoltage	7 1/2" x 5 1/2" x 10 1/2"	29.0	67.50	60.75	57.38	54.00
VT20FC	120	50	20.0	0-140	Portable	8 1/4" x 5 1/2" x 11 1/4"	31.0	75.50	67.95	64.18	60.40
VT20FC	120	50	25.0	0-120	Portable	8 1/4" x 5 1/2" x 11 1/4"	31.0	75.50	67.95	64.18	60.40
VT20GC	120	50	20.0	0-120/140*	In/out grounded	8 1/4" x 5 1/2" x 11 1/4"	31.0	75.50	67.95	64.18	60.40
VT20NB	240†	50	9.0	0-240/280	Basic case model	7 1/2" x 5 1/2" x 10 1/2"	21.5	57.00	51.30	48.45	45.60
VT20HNB	240†	50	11.0	0-240	Same, no overvoltage	7 1/2" x 5 1/2" x 10 1/2"	21.5	57.00	51.30	48.45	45.60
VT20HE	240†	50	9.0	0-240/280	Fixed mounting	7 1/2" x 5 1/2" x 10 1/2"	28.0	69.50	62.55	59.08	55.60
VT20HNE	240†	50	11.0	0-120	Same, no overvoltage	7 1/2" x 5 1/2" x 10 1/2"	28.0	69.50	62.55	59.08	55.60
VT20HFC	240†	50	9.0	0-240/280	Portable	8 1/4" x 5 1/2" x 11 1/4"	30.0	77.50	69.75	65.88	62.00
VT20HNFC	240†	50	11.0	0-240	Portable	8 1/4" x 5 1/2" x 11 1/4"	30.0	77.50	69.75	65.88	62.00

CASED WITH METERS, SINGLE-PHASE TRANSFORMERS

Ohmite Number	Input Volts	Amps*	Output Volts	Output Amps	Feature or Connection	Size, Inches W. x D. x H.	Wt., Lbs.†	1-9	10-24	25-49	50-99
VT8GCV	120	50	6.0	0-120/140*	Voltmeter, grnd. conn.	7 1/2" x 5 1/2" x 10 1/2"	15.2	\$ 58.00	\$ 52.20	\$ 49.30	\$ 46.40
VT8GCVA	120	50	6.0	0-120/140*	Volt/ammeter, grounded	7 1/2" x 5 1/2" x 10 1/2"	15.5	88.00	79.20	74.80	70.40
VT8GCVW	120	50	6.0	0-120/140*	Volt/wattmeter, grnd.	7 1/2" x 5 1/2" x 10 1/2"	15.5	118.00	106.20	100.30	94.40
VT8NFCV	120	50	10.0	0-120	Voltmeter, grnd. conn.	7 1/2" x 5 1/2" x 10 1/2"	14.8	54.50	49.05	46.33	43.60
VT8NFCVA	120	50	10.0	0-120	Volt/ammeter, grounded	7 1/2" x 5 1/2" x 10 1/2"	15.2	87.50	78.70	74.30	69.90
VT8NFCVW	120	50	10.0	0-120	Volt/wattmeter, grnd.	7 1/2" x 5 1/2" x 10 1/2"	15.2	114.50	103.50	97.33	91.60
VT20GCV	120	50	20.0	0-120/140*	Voltmeter, grnd. conn.	8 1/4" x 5 1/2" x 14"	32.0	126.00	113.40	107.10	100.80
VT20GCVA	120	50	20.0	0-120/140*	Volt/ammeter, grounded	8 1/4" x 5 1/2" x 14"	32.2	156.00	140.40	133.60	124.80
VT20GCVW	120	50	20.0	0-120/140*	Volt/wattmeter, grnd.	8 1/4" x 5 1/2" x 14"	32.2	224.00	201.60	190.40	179.20
VT20NFCV	120	50	25.0	0-120	Voltmeter, grnd. conn.	8 1/4" x 5 1/2" x 14"	32.0	113.50	102.15	96.48	90.80
VT20NFCVA	120	50	25.0	0-120	Volt/ammeter, grounded	8 1/4" x 5 1/2" x 14"	32.2	143.50	129.15	121.98	114.80
VT20NFCVW	120	50	25.0	0-120	Volt/wattmeter, grnd.	8 1/4" x 5 1/2" x 14"	32.2	211.50	190.35	179.78	169.20

*Minimum; max. of 400 cps for all models. †Use also at 50 cps if connected at no overvoltage output. ‡With 120 V input tap at which the max. current output rating applies up to 120 volts, but reduces approx. 50% at max. output voltage shown. In tandem units, the use of low voltage inputs would halve the rated input and output voltages. §User wires for desired output; dial normally calibrated for overvoltage. #Factory-connected for overvoltage output; easily re-connected by user for no overvoltage. *Switch selects overvoltage or no overvoltage. *53‡ including handle. *Case height only, excluding handle. ‡Depth behind panel; add 1" for knob thickness for VT8 types; 3/4", VT2 or VT4 types; 1 1/4" for VT20 types. 19" including handle. †Including knobs, dial and hardware.



OHMITE Variable Transformers

MULTIPLE, IN-TANDEM TRANSFORMER ASSEMBLIES

SINGLE-PHASE, TWO-IN-TANDEM ASSEMBLIES

Normally wired for series connection; when so connected, load cannot be grounded. Standard CW dial 240/280 volts except VT02 tandems where 240/264 V dial is supplied; on VTSH-2, 480/560 volt dial is standard. Other dials available as listed elsewhere on these pages.

Ohmite Number	Input Volts cps*	Max. Output		Feature or Connection	Size, Inches W. x D. x H.	Wt., Lbs.	Net Each, Lots of			
		Amps	Volts				1-4	5-12	13-24	25-49
VT1-2	240 60†	1.0	0-240/264	Uncased, series conn. Same, no overvoltage	2 1/2 x 4 1/2 x 4 1/2	3.5	\$25.00	\$22.50	\$21.25	\$20.00
VT1N-2	240 60	1.2	0-240	Same, no overvoltage	2 1/2 x 4 1/2 x 4 1/2	3.5	\$25.00	\$22.50	\$21.25	\$20.00
VT02-2	240 60†	1.75	0-240/264	Uncased, series conn. Same, no overvoltage	2 1/2 x 5 1/2 x 4 1/2	5.25	\$27.00	\$24.30	\$22.95	\$21.60
VT02N-2	240 60	2.0	0-240	Same, no overvoltage	2 1/2 x 5 1/2 x 4 1/2	5.25	\$27.00	\$24.30	\$22.95	\$21.60
VT3-2	240 60†	2.6	0-240/264	Uncased, series conn. Same, no overvoltage	2 1/2 x 6 1/2 x 4 1/2	6.5	\$30.00	\$27.00	\$25.50	\$24.00
VT3N-2	240 60	3.0	0-240	Same, no overvoltage	2 1/2 x 6 1/2 x 4 1/2	6.5	\$30.00	\$27.00	\$25.50	\$24.00
VT4-2	240 50	3.5	0-240/280	Uncased, series conn. Same, no overvoltage	4 1/2 x 7 1/2 x 4 1/2	11.3	\$38.50	\$34.65	\$32.73	\$30.80
VT4N-2	240 50	4.75	0-240	Same, no overvoltage	4 1/2 x 7 1/2 x 4 1/2	11.3	\$38.50	\$34.65	\$32.73	\$30.80
VT8-2	240 50	7.5	0-240/280	Uncased, series conn. Same, no overvoltage	4 1/2 x 9 1/2 x 5 1/2	20.6	\$46.50	\$41.85	\$39.53	\$37.20
VT8N-2	240 50	10.0	0-240	Same, no overvoltage	4 1/2 x 9 1/2 x 5 1/2	20.6	\$46.50	\$41.85	\$39.53	\$37.20
VT8H-2	480† 50	3.0	0-480/560	480 V input VT8-2 Same, no overvoltage	4 1/2 x 9 1/2 x 5 1/2	20.6	\$50.50	\$45.45	\$42.93	\$40.40
VT8HN-2	480† 50	4.0	0-480	Same, no overvoltage	4 1/2 x 9 1/2 x 5 1/2	20.6	\$50.50	\$45.45	\$42.93	\$40.40
VT20-2	240 50	20.0	0-240/280	Uncased, series conn. Same, no overvoltage	7 1/2 x 10 x 8 1/2	45.0	\$113.00	\$101.70	\$96.05	\$90.40
VT20N-2	240 50	25.0	0-240	Same, no overvoltage	7 1/2 x 10 x 8 1/2	45.0	\$113.00	\$101.70	\$96.05	\$90.40
VT20-2B	240 50	20.0	0-240/280	B-cased version VT20-2 Same, no overvoltage	7 1/2 x 10 1/2 x 8 1/2	46.0	\$123.00	\$110.70	\$104.55	\$98.40
VT20N-2B	240 50	25.0	0-240	Same, no overvoltage	7 1/2 x 10 1/2 x 8 1/2	46.0	\$123.00	\$110.70	\$104.55	\$98.40
VT20H-2	480† 50	9.0	0-480/560	480 V input VT20-2 Same, no overvoltage	7 1/2 x 10 x 8 1/2	44.0	\$117.00	\$105.30	\$99.45	\$93.60
VT20HN-2	480† 50	11.0	0-480	Same, no overvoltage	7 1/2 x 10 x 8 1/2	44.0	\$117.00	\$105.30	\$99.45	\$93.60

THREE-PHASE, TWO-IN-TANDEM ASSEMBLIES

Supplied with 240/280 volt CW dial, except VT02 (240/264 V). Other dials available as listed elsewhere on these pages.

Ohmite Number	Input Volts cps*	Max. Output		Feature or Connection	Size, Inches W. x D. x H.	Wt., Lbs.	Net Each, Lots of			
		Amps	Volts				1-3	4-8	9-16	17-33
VT1-2	120 60	1.0	0-120/132	Uncased, open delta conn. Same, no overvoltage	2 1/2 x 4 1/2 x 4 1/2	3.5	\$24.00	\$21.60	\$20.40	\$19.20
VT1N-2	120 60	1.2	0-120	Same, no overvoltage	2 1/2 x 4 1/2 x 4 1/2	3.5	\$24.00	\$21.60	\$20.40	\$19.20
VT02-2	120 60	1.75	0-120/132	Uncased, open delta conn. Same, no overvoltage	2 1/2 x 5 1/2 x 4 1/2	5.25	\$26.00	\$23.40	\$22.10	\$20.80
VT02N-2	120 60	2.0	0-120	Same, no overvoltage	2 1/2 x 5 1/2 x 4 1/2	5.25	\$26.00	\$23.40	\$22.10	\$20.80
VT3-2	120 60	2.6	0-120/132	Uncased, open delta conn. Same, no overvoltage	2 1/2 x 6 1/2 x 4 1/2	6.5	\$29.00	\$26.10	\$24.70	\$23.20
VT3N-2	120 60	3.0	0-120	Same, no overvoltage	2 1/2 x 6 1/2 x 4 1/2	6.5	\$29.00	\$26.10	\$24.70	\$23.20
VT4-2	120 50	3.5	0-120/140	Uncased, open delta conn. Same, no overvoltage	4 1/2 x 7 1/2 x 4 1/2	11.3	\$38.50	\$34.65	\$32.73	\$30.80
VT4N-2	120 50	4.75	0-120	Same, no overvoltage	4 1/2 x 7 1/2 x 4 1/2	11.3	\$38.50	\$34.65	\$32.73	\$30.80
VT8-2	120 50	7.5	0-120/140	Uncased, open delta conn. Same, no overvoltage	4 1/2 x 9 1/2 x 5 1/2	20.6	\$46.50	\$41.85	\$39.53	\$37.20
VT8N-2	120 50	10.0	0-120	Same, no overvoltage	4 1/2 x 9 1/2 x 5 1/2	20.6	\$46.50	\$41.85	\$39.53	\$37.20
VT8H-2	240† 50	3.0	0-240/280	240 V input VT8-2 Same, no overvoltage	4 1/2 x 9 1/2 x 5 1/2	20.6	\$50.50	\$45.45	\$42.93	\$40.40
VT8HN-2	240† 50	4.0	0-240	Same, no overvoltage	4 1/2 x 9 1/2 x 5 1/2	20.6	\$50.50	\$45.45	\$42.93	\$40.40
VT20-2	120 50	20.0	0-120/140	Uncased, open delta conn. Same, no overvoltage	7 1/2 x 10 x 8 1/2	45.0	\$113.00	\$101.70	\$96.05	\$90.40
VT20N-2	120 50	25.0	0-120	Same, no overvoltage	7 1/2 x 10 x 8 1/2	45.0	\$113.00	\$101.70	\$96.05	\$90.40
VT20-2B	120 50	20.0	0-120/140	B-cased version VT20-2 Same, no overvoltage	7 1/2 x 10 1/2 x 8 1/2	46.0	\$123.00	\$110.70	\$104.55	\$98.40
VT20N-2B	120 50	25.0	0-120	Same, no overvoltage	7 1/2 x 10 1/2 x 8 1/2	46.0	\$123.00	\$110.70	\$104.55	\$98.40
VT20H-2	240† 50	9.0	0-240/280	240 V input VT20-2 Same, no overvoltage	7 1/2 x 10 x 8 1/2	44.0	\$117.00	\$105.30	\$99.45	\$93.60
VT20HN-2	240† 50	11.0	0-240	Same, no overvoltage	7 1/2 x 10 x 8 1/2	44.0	\$117.00	\$105.30	\$99.45	\$93.60

THREE-PHASE, THREE-IN-TANDEM ASSEMBLIES

Normally wired for Y-connection. Standard CW dial 240/280 volts except VT02 types where 240/264 V dial is supplied, and VT8H-3, where 480/560 volt dial is standard. Other dials available as listed elsewhere on these pages.

Ohmite Number	Input Volts cps*	Max. Output		Feature or Connection	Size, Inches W. x D. x H.	Wt., Lbs.	Net Each, Lots of			
		Amps	Volts				1-3	4-8	9-16	17-33
VT1-3	240 60	1.0	0-240**	Uncased, Y-connection	2 1/2 x 6 1/2 x 4 1/2	5.3	\$36.50	\$32.85	\$31.03	\$29.20
VT02-3	240 60	1.75	0-240**	Uncased, Y-connection	2 1/2 x 8 1/2 x 4 1/2	8.0	\$39.50	\$35.55	\$33.58	\$31.60
VT3-3	240 60	2.6	0-240**	Uncased, Y-connection	2 1/2 x 9 1/2 x 4 1/2	9.8	\$44.00	\$39.60	\$37.40	\$35.20
VT4-3	240 60†	3.5	0-240/280	Uncased, Y-connection	4 1/2 x 11 1/2 x 4 1/2	17.0	\$66.00	\$50.40	\$47.60	\$44.80
VT8-3	240 60†	7.5	0-240/280	Uncased, Y-connection	4 1/2 x 14 1/2 x 5 1/2	31.0	\$88.00	\$61.20	\$57.80	\$54.40
VT8-3E	240 60†	25.0	0-240/280	E-cased version VT8-3 Same, no overvoltage	5 1/2 x 15 1/2 x 7 1/2	40.0	\$93.00	\$74.70	\$70.55	\$66.40
VT8H-3	480† 60	3.0	0-480/560	Uncased, Y-connection	4 1/2 x 14 1/2 x 5 1/2	31.0	\$74.00	\$66.60	\$62.90	\$59.20
VT20-3	240 60†	20.0	0-240/280	Uncased, Y-connection	7 1/2 x 15 1/2 x 8 1/2	68.0	\$167.50	\$150.75	\$142.38	\$134.00
VT20N-3	240 60	25.0	0-240	No overvoltage VT20-3	7 1/2 x 15 1/2 x 8 1/2	68.0	\$167.50	\$150.75	\$142.38	\$134.00
VT20-3B	240 60†	20.0	0-240/280	B-cased version VT20-3 Same, no overvoltage	7 1/2 x 15 1/2 x 8 1/2	69.5	\$182.50	\$164.25	\$155.13	\$146.00
VT20N-3B	240 60	25.0	0-240	Same, no overvoltage	7 1/2 x 15 1/2 x 8 1/2	69.5	\$182.50	\$164.25	\$155.13	\$146.00
VT20H-3	480† 60	9.0	0-480/560	480 V input VT20-3 Same, no overvoltage	7 1/2 x 15 1/2 x 8 1/2	65.0	\$173.50	\$156.15	\$147.48	\$138.80
VT20HN-3	480† 60	11.0	0-480	Same, no overvoltage	7 1/2 x 15 1/2 x 8 1/2	65.0	\$173.50	\$156.15	\$147.48	\$138.80

*Minimum; max. of 400 cps for all models. †Use also at 50 cps if connected at no overvoltage output. ‡With 120 V input tap at which the max. current output rating applies up to 120 volts, but reduces approx. 50% at max. output voltage shown. In tandem units, the use of low voltage inputs would have the rated input and output voltages. †Depth behind panel, ‡In 1" knob chassis for VT8 types; 3/4", VT02 or VT4 types; 1 1/2" for VT20 types. ‡For mounting bracket, add 1 1/2" w. x 1/4" d. **Must not be connected for overvoltage. ††Includes knob, dial and hardware.

TRANSFORMER ACCESSORIES

EXTRA DIALS

Ohmite No. Rotation of		For Type	Dial Calibration	Net Each, Lots of			
CW	CCW			1-9	10-24	25-49	50-99
5005		VT1, VT02, VT3	0-120, 0-132	\$0.25	\$0.23	\$0.21	\$0.20
5006	5008	VT4, VTS	0-120, 0-140	.50	.45	.43	.40
5009	5010	VT4, VTS	0-240, 0-280	.50	.45	.43	.40
5011		VT1, VT02, VT2LN, VT3	0-100, 100-0*	.25	.23	.21	.20
5012		VT4, VTS	0-100, 100-0*	.50	.45	.43	.40
5013	5014	VT20	0-120, 0-140	1.20	1.08	1.02	.96
5015	5016	VT20	0-240, 0-280	1.20	1.08	1.02	.96
5017		VT20	0-100, 100-0	1.20	1.08	1.02	.96
5018		VT4, VTS	0-480, 0-560	.50	.45	.43	.40
5019		VT1, VT02, VT3	0-240, 0-264	.25	.23	.21	.20
5025		VT20	0-480, 0-560	1.20	1.08	1.02	.96

*Percent-of-output dial, supplied with "LN" types.

ADJUSTABLE STOPS

Limit rotational arc of transformers.

Ohmite No.	For Transformer Series	Net Each, Lots of			
		1-9	10-24	25-49	50-99
6536	All VT4's	\$0.50	\$0.45	\$0.43	\$0.40
6537	All VT8's	.50	.45	.43	.40
6538	All VT20's	1.00	.90	.85	.80

EXTRA KNOBS FOR UNCASSED UNITS

Ohmite No.	For Transformer Series	Net Each, Lots of			
		1-9	10-24	25-49	50-99
5155	VT4 or VTS types	\$1.00	\$0.90	\$0.85	\$0.80
5157	VT20 types	1.75	1.58	1.49	1.40
5158	VT1, VT02, VT2LN, VT3 types	.35	.32	.30	.28

BRUSH CONTACT ASSEMBLIES

Ohmite No.	For Transformer Type	Net Each, Lots of			
		1-9	10-24	25-49	50-99
6507	VT1, VT1N, VT02, VT02N, VT3, VT3N	\$1.00	\$0.90	\$0.85	\$0.80
6517	VT2LN	2.00	1.80	1.70	1.60
6515	VT4 except VT4LN	1.00	.90	.85	.80
6518	VT8	2.00	1.80	1.70	1.60
6516	VT8 except H, HN or LN	1.25	1.13	1.06	1.00
6519	VT8LN	2.50	2.25	2.13	2.00
6590	VT20 except VT20HN	1.75	1.58	1.49	1.40
6596	VT20H and VT20HN	1.75	1.58	1.49	1.40
6594	V20N	1.75	1.58	1.49	1.40

ADAPTER PLATE

For 4-hole mounting of VT4. Matches other popular 4-hole mounting.

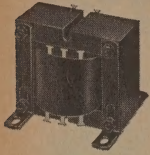
Ohmite No. 6512—Net Each, Lots of: 1-9...\$1.00; 10-24...\$0.90

Net Each, Lots of: 25-49...\$0.85; 50-99...\$0.80

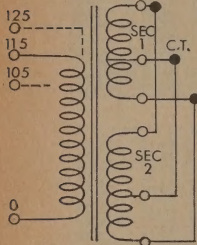
SHIPPED FROM
STOCK IMMEDIATELY

MOST COMPLETE LINE IN THE INDUSTRY

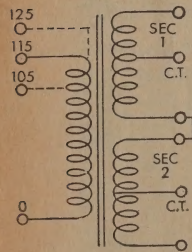
HIGH CURRENT TRANSFORMERS



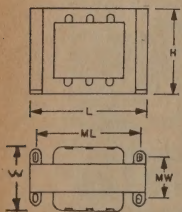
PARALLEL CONNECTED
SECONDARIES



SERIES CONNECTED
SECONDARIES



MECHANICAL
DIMENSIONS



SECONDARY VOLTS

12.8 or 6.4 C.T.
Series 0-3.2-6.4-9.6-12.8 V
Parallel 0-3.2-6.4 V
@ 2 x Current

Part No.	Primary Volts 50-500 cps	Secondary Amps Series	Parallel	L	W	H	ML	MW	Apprx. Lbs.	User Net
12.8-2	115	2	4	3	2 1/2	2 1/2	2 1/2	2	2.2	\$ 5.70
12.8-4	115	4	8	3	3	2 1/2	2 1/2	2 1/2	3.0	16.70
12.8-6	115	6	12	3 3/4	3 1/4	2 1/2	2 1/2	2 1/2	4.2	8.30
12.8-8	115	8	16	3 3/4	2 3/4	3 3/4	3 3/4	2 1/4	4.5	8.70
12.8-12	115	12	24	4 1/4	3 1/4	3 3/4	3 3/4	2 3/8	6.0	10.00
12.8-25	115	25	50	5 1/4	4 1/4	4 3/4	4 3/4	2 7/8	12.0	21.40
12.8-50	105, 115, 125	50	100	5 1/4	5 3/4	4 3/4	4 3/4	4 1/4	20.0	29.00
12.8-100	105, 115, 125	100	200	6 3/4	6 3/4	5 1/4	5 1/4	4 3/4	32.0	42.50

24 or 12 C.T.
Series 0-6-12-18-24 V
Parallel 0-6-12 V
@ 2 x Current

24-1	115	1	2	3	2 1/2	2 1/2	2 1/2	2	2.2	\$ 5.70
24-2	115	2	4	3	3	2 1/2	2 1/2	2 1/2	3.0	7.20
24-4	115	4	8	3 3/4	2 3/4	3 3/4	3 3/4	2 1/4	4.5	8.70
24-6	115	6	12	4 1/4	3 1/4	3 3/4	3 3/4	2 3/8	6.0	10.00
24-8	115	8	16	4 1/4	3 3/4	3 3/4	3 3/4	3	8.0	14.30
24-12	105, 115, 125	12	24	4 1/2	4 1/2	3 3/4	3 3/4	3 3/8	11.5	17.80
24-20	105, 115, 125	20	40	5 1/4	4 3/4	4 3/4	4 3/4	3 3/8	15.0	21.40
24-25	105, 115, 125	25	50	5 1/4	5 3/4	4 3/4	4 3/4	4 1/4	20.0	28.50
24-50	105, 115, 125	50	100	6 3/4	6 3/4	5 1/4	5 1/4	4 3/4	32.0	41.50
24-100	115/230	100	200	7 1/2	7	6 1/4	6 1/4	4 3/4	45.0	60.00

36 or 18 C.T.
Series 0-9-18-27-36 V
Parallel 0-9-18 V
@ 2 x Current

36-1	115	1	2	3	2 1/2	2 1/2	2 1/2	2 1/4	2.5	\$ 5.80
36-2	115	2	4	3 3/4	3	2 1/2	2 1/2	2 3/8	3.8	7.60
36-4	115	4	8	4 1/4	3 3/4	3 3/4	3 3/4	2 5/8	6.7	9.50
36-6	115	6	12	4 1/2	3 3/4	3 3/4	3 3/4	2 3/4	8.6	15.30
36-8	105, 115, 125	8	16	4 1/2	4 1/4	3 3/4	3 3/4	3	11.0	16.70
36-12	105, 115, 125	12	24	5 1/4	4 3/4	4 3/4	4 3/4	3 3/8	14.5	18.50
36-20	105, 115, 125	20	40	6 3/4	5 1/2	5 1/4	5 1/4	3 3/4	23.0	32.50
36-25	105, 115, 125	25	50	6 3/4	6	5 1/4	5 1/4	3 3/4	27.0	35.00
36-30	105, 115, 125	30	60	6 3/4	6 1/2	5 1/4	5 1/4	4 1/4	32.0	42.40
36-50	115/230	50	100	7 1/2	7 1/4	6 1/4	6 1/4	4 3/4	40.0	49.50
36-100	115/230	100	200	7 1/2	8 1/4	6 1/4	6 1/4	5 1/4	62.0	98.00

56 or 28 C.T.
Series 0-14-28-42-56 V
Parallel 0-14-28 V
@ 2 x Current

56-1	115	1	2	3 3/4	2 3/4	2 1/2	2 1/2	2 1/4	3.8	\$ 8.25
56-2	115	2	4	3 3/4	3 1/4	3 1/4	3 1/4	2 3/8	5.0	8.80
56-4	115	4	8	4 1/4	3 3/4	3 3/4	3 3/4	3	8.0	13.60
56-6	115	6	12	5 1/4	4 3/4	4 3/4	4 3/4	2 7/8	12.0	19.50
56-8	105, 115, 125	8	16	5 1/4	5	4 3/4	4 3/4	3	17.0	26.50
56-12	105, 115, 125	12	24	6 3/4	5 1/2	5 1/4	5 1/4	3 3/8	22.0	32.00
56-25	105, 115, 125	25	50	6 3/4	7 1/8	5 1/4	5 1/4	3 3/4	38.0	53.00
56-50	115/230	50	100	7 1/2	7 1/4	6 1/4	6 1/4	4 3/4	54.0	98.00
56-100	115/230	100	200	7 1/2	11	6 1/4	6 1/4	4 3/4	100.0	145.00

68 or 34 C.T.
Series 0-17-34-51-68 V
Parallel 0-17-34 V
@ 2 x Current

68-1/2	115	1/2	1	3	2 3/4	2 1/2	2 1/2	2 1/4	2.5	\$ 6.10
68-1	115	1	2	3 3/4	3	2 1/2	2 1/2	2 3/8	3.8	7.90
68-2	115	2	4	4 1/4	3 3/4	3 3/4	3 3/4	2 5/8	6.7	9.80
68-4	115	4	8	4 1/2	4 1/4	3 3/4	3 3/4	3 3/8	11.0	17.20
68-6	105, 115, 125	6	12	5 1/4	4 3/4	4 3/4	4 3/4	3 3/8	14.5	19.50
68-8	105, 115, 125	8	16	5 1/4	5 1/2	4 3/4	4 3/4	3 3/8	19.0	27.00
68-12	105, 115, 125	12	24	6 3/4	6	5 1/4	5 1/4	3 3/4	27.0	36.00
68-25	115/230	25	50	6 3/4	7 1/4	5 1/4	5 1/4	4 1/4	40.0	52.00
68-50	115/230	50	100	7 1/2	8 1/4	6 1/4	6 1/4	4 3/4	62.0	98.00

80 or 40 C.T.
Series 0-20-40-60-80 V
Parallel 0-20-40 V
@ 2 x Current

80-1/2	115	1/2	1	3	2 3/4	2 1/2	2 1/2	2 1/4	3.0	\$ 5.80
80-1	115	1	2	3 3/4	3 1/4	2 1/2	2 1/2	2 3/8	4.2	8.50
80-2	115	2	4	4 1/4	3 3/4	3 3/4	3 3/4	2 5/8	7.0	12.70
80-4	115	4	8	5 1/4	4 3/4	4 3/4	4 3/4	2 7/8	13.0	21.00
80-6	105, 115, 125	6	12	5 1/4	5 1/4	4 3/4	4 3/4	3 3/8	19.0	27.00
80-8	105, 115, 125	8	16	6 3/4	5 1/4	5 1/4	5 1/4	3 3/4	22.0	30.50
80-12	105, 115, 125	12	24	6 3/4	6 1/2	5 1/4	5 1/4	3 3/4	29.0	39.50
80-25	115/230	25	50	7 1/2	6 1/2	6 1/4	6 1/4	3 3/4	40.0	64.00
80-50	115/230	50	100	7 1/2	9	6 1/4	6 1/4	4 1/4	78.0	120.00

120 or 60 C.T.
Series 0-30-60-90-120 V
Parallel 0-30-60 V
@ 2 x Current

120-1/2	115	1/2	1	3 3/4	2 3/4	2 1/2	2 1/2	2 1/4	3.5	\$ 8.20
120-1	115	1	2	3 3/4	3 1/2	3 1/4	3 1/4	2 3/8	6.0	9.80
120-2	115	2	4	4 1/2	4	3 3/4	3 3/4	2 3/8	8.5	14.70
120-4	115	4	8	5 1/4	4 3/4	4 3/4	4 3/4	3 3/8	18.0	25.60
120-6	105, 115, 125	6	12	6 3/4	6	5 1/4	5 1/4	3 3/8	27.0	32.70
120-8	105, 115, 125	8	16	6 3/4	7 1/4	5 1/4	5 1/4	4 1/4	34.0	39.50
120-12	105, 115, 125	12	24	6 3/4	7	5 1/4	5 1/4	4 1/4	42.0	48.00
120-20	105, 115, 125	20	40	7 1/2	7 1/4	6 1/4	6 1/4	4 3/4	55.0	57.00

160 or 80 C.T.
Series 0-40-80-120-160 V
Parallel 0-40-80 V
@ 2 x Current

160-1/2	115	1/2	1	3 3/4	3 1/4	2 1/2	2 1/2	2 1/4	4.2	\$ 8.70
160-1	115	1	2	4 1/4	3 3/4	3 1/4	3 1/4	2 3/8	7.0	12.90
160-2	115	2	4	4 1/2	4 3/4	3 3/4	3 3/4	3 3/8	11.0	18.00
160-4	105, 115, 125	4	8	6 3/4	5 1/4	5 1/4	5 1/4	3 3/4	19.0	31.00
160-8	105, 115, 125	8	16	6 3/4	6 3/4	5 1/4	5 1/4	4 1/4	36.0	48.50
160-12	115/230	12	24	7 1/2	6 1/2	6 1/4	6 1/4	3 3/4	40.0	65.00

180 or 90 C.T.
Series 0-45-90-135-180 V
Parallel 0-45-90 V
@ 2 x Current

180-1/2	115	1/2	1	3 3/4	3	3 1/4	3 1/4	2 3/4	5.7	\$ 8.40
180-1	115	1	2	4 1/4	4 1/4	3 3/4	3 3/4	3	6.7	14.20
180-2	115	2	4	5 1/4	5	4 3/4	4 3/4	3 3/8	16.0	22.80
180-4	115	4	8	6 3/4	5 1/2	5 1/4	5 1/4	3 3/4	27.0	33.00
180-6	105, 115, 125	6	12	6 3/4	7 1/4	5 1/4	5 1/4	3 3/4	35.0	42.50
180-8	105, 115, 125	8	16	6 3/4	7 1/2	5 1/4	5 1/4	4 1/4	42.0	49.00
180-12	105, 115, 125	12	24	7 1/2	8	6 1/4	6 1/4	4 3/4	62.0	69.00

IGNAL TRANSFORMER CO., INC

ENGINEERS • DESIGNERS • MANUFACTURERS

MOST COMPLETE LINE IN THE INDUSTRY

HIGH CURRENT TRANSFORMERS

SHIPPED FROM
STOCK IMMEDIATELYSECONDARY
VOLTS

230 or 115 C.T.
Series 0 - 57½ - 115 - 172½ - 230 V
Parallel 57½ - 115 V @ 2 x Current

Part No.	Primary Volts 50-500 cps	Secondary Series	Amps Parallel	L	W	H	ML	MW	Appr. Lbs.	User Net
230-½	115	½	1	3¾	4	3¾	3¾	3	6.5	\$10.50
230-1	115	1	2	4½	4	3¾	3¾	3	9.5	15.00
230-2	115	2	4	5¾	4¾	4¾	4¾	3¾	14.5	19.70
230-4	105, 115, 125	4	8	6¾	6	5¾	5¾	4¾	30.0	39.80
230-6	105, 115, 125	6	12	6¾	7¼	5¾	5¾	5¾	40.0	48.50

300 or 150 C.T.
Series 0 - 75 - 150 - 225 - 300 V
Parallel 0 - 75 - 150 V @ 2 x Current

300-½	115	½	1	4½	4	3¾	3¾	2½	7.0	\$11.00
300-1	115	1	2	5¼	4¼	4¾	4¾	3	13.0	19.70
300-2	115	2	4	5¼	6	4¾	4¾	4½	21.0	28.80
300-4	105, 115, 125	4	8	6¾	6	5¾	5¾	3¾	28.0	35.80

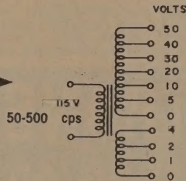
METHOD OF DETERMINING SECONDARY CURRENT RATING

Since our transformers may be used in many possible configurations, the current shown is rms secondary winding current. Secondary current ratings are rms ac values, NOT dc values. When selecting the "Secondary Amp" rating, the conversion chart at the right should be used.

RECTIFIER TYPE
Full Wave Center-Tap
Full Wave Center-Tap
Full Wave Bridge
Full Wave Bridge

FILTER TYPE
Choke Input
Capacitor Input
Choke Input
Capacitor Input

SECONDARY CURRENT
.7 times DC current
1.2 times DC current
Equal to DC current
1.8 times DC current

MULTI-VOLT
1 to 54 VOLTS
in 1 VOLT STEPS

MV (multi-voltage) secondaries may be series connected for any output from 1 to 54 volts, in 1 volt steps, at rated current. This is accomplished by using the small buck-boost secondary.

Part No.	Secondary Amps	DIMENSIONS					Appr. Wt.	Users Net
		L	W	H	ML	MW		
MV-2	2	4½	3¾	3¾	3¾	2¾	5	\$15.00
MV-4	4	5¼	3¾	4	3¾	2½	7.5	20.00

HIGH CURRENT CHOKES

HIGH CURRENT CHOKES

Signal's line of High Current Chokes is the most extensive available. It is designed to complement the selection of High Current Transformers so that a set may be specified for power supplies using inductive filters.

The inductance ratings given are minimum values guaranteed at full rated DC current. All resistance ratings are maximum values.

Special variations or intermediate values of Inductance, current, or resistance can be supplied promptly and accurately.

PART NO.	INDUCTANCE (Mili-hy.)	CURRENT (amps)	RESIS. (ohms)	DIMENSIONS					APPR. WT.	USERS NET
				L	W	H	ML	MW		
CH-1	100	1	1.5	3¾	2½	2¾	2½	2	2.5	\$ 5.20
CH-2	70	2	0.9	3¾	2¾	3¾	2¾	2½	3.5	6.00
CH-4	70	4	0.6	3¾	3¾	3¾	3¾	2½	5.5	7.50
CH-6	40	6	0.4	3¾	3¾	3¾	3¾	3	7	10.20
CH-8	30	8	0.3	4¾	3¾	3¾	3¾	3	8	12.80
CH-12	15	12	0.1	5¾	4	4¾	4¾	3¾	13	16.80
CH-20	7	20	0.05	5¾	4	4¾	4¾	3¾	13	17.50
CH-25	5	25	0.025	5¾	4¾	4¾	4¾	3¾	18	25.60
CH-30	4	30	0.01	6½	5½	5¾	5¾	3¾	25	31.40
CH-50	1.4*	50	0.01	6½	5¾	5¾	5¾	3¾	27	34.50
CH-100	0.5	100	0.005	6½	6½	5¾	5¾	4¾	32	39.00
CH-200	0.3	200	0.0025	7¾	7	6¾	6¾	4¾	45	58.00
CH-500	0.055	500	0.00027	7½	6½	6¾	6¾	4¾	50	88.00
CH-1000	0.015	1,000	0.000065	7½	7½	6¾	6¾	5¾	70	99.00

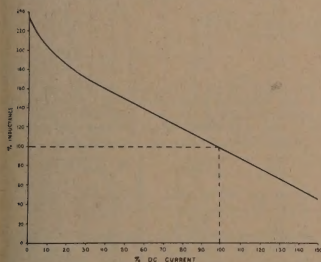
INDUCTANCE VARIATION WITH DC CURRENT

The curve shown applies to the whole line of chokes. It allows the user to determine the value of inductance which will be obtained at intermediate and overload values of DC current. The values on the curve are stated in generalized coordinates of % inductance versus % DC current.

For example, the CH-100 at 50 amperes (50% DC Current) will have an inductance of 0.75 MHY (150% of rating), the CH-25 at 31 amperes (125% DC current) will have an inductance of 3.5 MHY (70% of rating).

It is not recommended that chokes be used at over 100% of rated current since temperature rise will then be excessive. However, if load current is intermittent, and RMS current is less than maximum rated current, it is permissible.

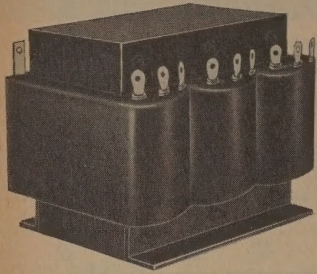
Special "swinging chokes" can be supplied where the slope of this characteristic is emphasized. Specify minimum inductance required at two current values (usually maximum and minimum current) and we will furnish prompt quotations.



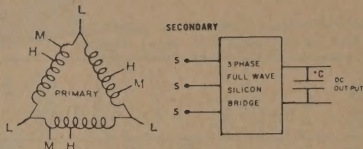
IGNAL TRANSFORMER CO., INC

ENGINEERS • DESIGNERS • MANUFACTURERS

3 PHASE HIGH CURRENT RECTIFIER TRANSFORMERS

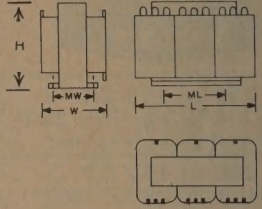


SCHEMATIC DIAGRAM



*C — Optional, no capacitor will give DC output shown at approx. 5% ripple.

MECHANICAL DIMENSIONS



DC OUTPUT VOLTAGE

PART NO.	PRI TAP "L" SUPPLY VOLTAGE		PRI TAP "M" SUPPLY VOLTAGE		PRI TAP "H" SUPPLY VOLTAGE	
	208	220	208	220	208	220
3PH 24-50	24	25	26	27.5	28	30
3PH 24-100	24	25	26	27.5	28	30
3PH 24-200	24	25	26	27.5	28	30
3PH 48-30	42	44	47	50	52	55
3PH 48-60	42	44	47	50	52	55
3PH 48-120	42	44	47	50	52	55

DC RATED AMPS	APPROX. DIMENSIONS					APX. LBS.	NET PRICE
	L	W	H	ML	MW		
50	7 3/4	6	5 1/2	4.8	4 1/2	35	\$85.00
100	11 1/2	5	8 1/4	7.2	4	42	120.00
200	11 1/2	8 5/8	8 1/4	7.2	6 1/4	90	195.00
30	7 3/4	6	5 1/2	4.8	4 1/2	35	85.00
60	11 1/2	5	8 1/4	7.2	4	42	120.00
120	11 1/2	8 5/8	8 1/4	7.2	6 1/4	90	195.00

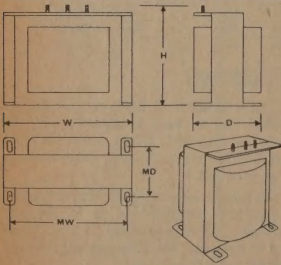
At higher power loads (above 2.3 KVA) It becomes inefficient to use single phase 115 or 230 volt standard lines. With this in mind, our engineering staff has developed a line of 3 phase transformers for use off 208 or 220V 3 phase power lines. These offer the significantly higher

conversion efficiency and lighter power line drain of 3 phase system. Since the principal application of these items is in high power power supplies, output ratings are given in dc voltage and current assuming the use of a 3 phase full wave rectifier.

STEP DOWN AUTO TRANSFORMERS

230 TO 115 VOLTS 50/60 CPS

PART NO.	VA (WATTAGE) RATING	W	D	H	MW	MD	MTG. SCREW	WT.	USER NET
SD-100	100	2 5/8	2 7/8	3 1/8	2	1 1/4	#8	2.3	\$7.30
SD-150	150	2 5/8	3 1/2	3 1/8	2	2 1/4	#8	3.6	8.60
SD-250	250	3 1/8	4 1/8	4 1/4	2 3/4	2 1/2	#8	6.2	10.70
SD-350	350	3 7/8	4 1/4	4 5/8	3	3 1/4	#8	8.3	14.30
SD-500	500	3 7/8	4 3/4	4 5/8	3	3 3/4	#8	10.5	16.10
SD-750	750	4 5/8	5 3/8	5 3/8	3 1/2	3 3/4	1/4	14.5	20.70
SD-1000	1000	4 5/8	5 7/8	5 3/8	3 1/2	4 1/4	1/4	18	24.00
SD-1500	1500	4 5/8	6 5/8	5 3/8	3 1/2	5	1/4	22	30.00
SD-2000	2000	4 5/8	7 1/8	5 3/8	3 1/2	5 1/2	1/4	26	36.00
HSD-3000	3000	7 1/2	6	6 3/4	6 3/4	4 1/8	1/4	40	47.00
HSD-4000	4000	7 1/2	6 1/2	6 3/4	6 3/4	4 5/8	1/4	46	55.00
HSD-5000	5000	7 1/2	7	6 3/4	6 3/4	5 1/8	1/4	52	62.00
HSD-6000	6000	7 1/2	8	6 3/4	6 3/4	6 1/8	1/4	65	76.00



TYPE HSD

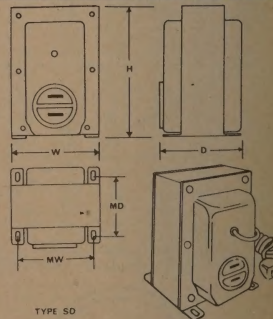
STEP-DOWN AUTO TRANSFORMERS

(3000-6000 VA) TYPE HSD

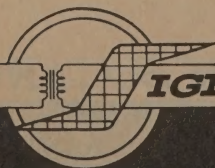
Very low Regulation • 45°C Temperature Rise • Black High Gloss Enamel Finish • Screw type terminals on phenolic board.

(100-2000 VA) TYPE SD

Low Regulation • Fully encased—Gray Wrinkle Finish • 45°C Temperature Rise • U/L Approved 2 prong line cord and receptacle.



TYPE SD

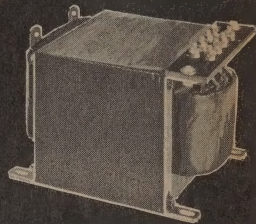


SIGNAL TRANSFORMER CO., INC

ENGINEERS • DESIGNERS • MANUFACTURERS

VERY HIGH CURRENT TRANSFORMERS & CHOKES 500 to 1400 AMPERES NEVER AVAILABLE BEFORE

STOCKED
FOR SAME DAY
SHIPMENT

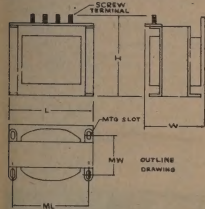


TRANSFORMERS

Part No.	Secondary Volts	Secondary Amps.		Dimensions					Mtg. Screw	Appr. Lbs.	User Net Price
		Nominal (45°C rise)	Max. (100°C rise)	L	W	H	ML	MW			
6-500	6	500	700	7½	6	7¼	6¾	4¼	¼	40	\$94.00
9-500	9	500	700	7½	7½	7¼	6¾	6¼	¼	60	121.00
12-500	12	500	700	7½	9	7¼	6¾	7¼	¼	80	152.00
3-1000	3	1000	1400	7½	6	7¼	6¾	4¼	¼	40	99.00
6-1000	6	1000	1400	7½	9	7¼	6¾	7¼	¼	80	160.00

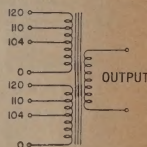
CHOKES

Part No.	Inductance (Milli-hy)	Current (Amperes)	Resis. (Ohms)	Dimensions					Mtg. Screw	Appr. Lbs.	User Net Price
				L	W	H	ML	MW			
CH-500	.055	500	.00027	7½	6½	6¼	6¾	4½	¼	50	88.00
CH-1000	.015	1000	.000065	7½	7½	6¼	6¾	5½	¼	70	99.00



As shown on the schematic diagram dual primaries are provided. This permits parallel connection for 104, 110, or 120 volts or series connection for 208, 214, 220, 230, and 240 volts. Frequency range is 50 to 500 cps.

It is important to note that primary taps may be used to adjust the secondary voltages. Line voltages up to 125V (parallel) or 250V (series) may be used on the lowest primary tap. Nickel plated screw terminals are provided on a heavy phenolic board for easy primary connections.



NEW

DESIGN AND CONSTRUCTION SMALLER • LIGHTER • MORE EFFICIENT

GRAIN-ORIENTED STEEL CORE

These cores permit the use of higher peak flux densities for the same core loss. This results in a lower number of turns required and therefore, a smaller, more compact transformer.

STRIP-WOUND SECONDARIES

At the heavy current used in this line it becomes practical and desirable to use wide copper strip (as wide as the coil itself) for windings. Besides the obvious advantages of excellent winding space factor, the heat dissipation of the coil is improved. This improvement is due to the fact that the heat generated in the windings has a pure

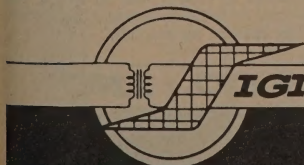
copper path to the coil ends, where it can be dissipated. In conventional windings of many turns per layer this heat flow is impeded by wire insulation and air spaces between turns. Therefore, the use of copper strip windings yields a dramatic reduction in size and weight.

CLASS F INSULATION USED THROUGHOUT

Class F insulation is rated for unlimited life at a total temperature of 155°C (ambient plus temperature rise).

Class A insulation has a maximum temperature rating of 105°C. The "nominal" current ratings given to this series are for a temperature rise of 45°C above 55°C ambient (Class A). Since Class F insulation is

used it is permissible to increase these ratings by 40% (700 and 1400 amperes) without reducing the reliability of the transformer. The temperature rise will be 100°C over a 55°C ambient. The only limitation is not the transformer, but the temperature rating of surrounding components which may be affected by the additional heat radiated by the transformer.



SIGNAL TRANSFORMER CO., INC

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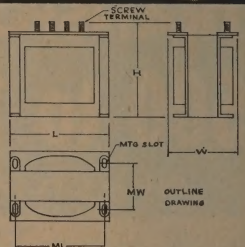
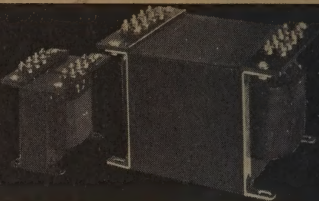
INDUSTRIAL GRADE STEP-UP OR STEP-DOWN POWER ISOLATION OR AUTO-TRANSFORMERS

HIGH DEGREE OF VERSATILITY OFFERS MANY POSSIBLE VOLTAGE RATINGS

AVAILABLE FROM STOCK FOR IMMEDIATE SHIPMENT

The "DU" and "UP" lines are designed for a maximum of 55°C rise above ambient, for use on standard power lines from 50 to 500 Cps. Only prime raw materials are used. Units are thoroughly impregnated and baked with Signal's own high gloss black baking varnish. The transformers are rugged in construction, well-insulated, and have a consistently uniform appearance. All ratings are at full load current, continuous operation.

Heavy 1/4 inch phenolic terminal boards are provided with plated brass screws and flat washers. Connections can be easily made with a nut driver. It is also simple to alter the inter-connections to change transformer ratings.

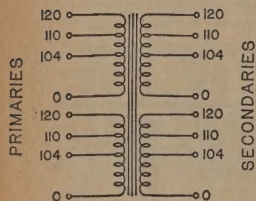


"DU SERIES" 110/220 Dual Primary To 110/220 Dual Sec.

As shown on the schematic diagram the "DU" line is designed with dual primaries and secondaries. All four windings are identically rated at 0/104/110/120 volts. This permits series or parallel connections on either primary or secondary. Therefore, a nominal 110 to 110 volt, 220 to 220 volt, 110 to 220 volt, or 220 to 110 volt transformer can be set up. The winding taps permit intermediate series ratings such as

208, 214, or 230 volts.

It is also possible to make auto-transformer connections by connecting a primary group in series with a secondary group. Such nominal ratings as 440 to 220 volts or 220 to 440 volts can be set-up, in addition to the standard ratings described above. A further advantage to auto-transformer connection is the fact that the KVA rating of a particular type is doubled.

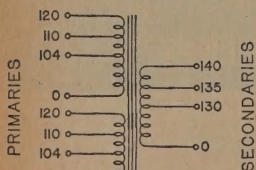


Part No.	KVA	Series Secondaries		Parallel Secondaries		Mechanical Dimensions						Mtg. Screw	Appr. Lbs.	User Net Price
		Volts	Max. Amps	Volts	Max. Amps	L (Max.)	W (Max.)	H (Max.)	ML (Max.)	MW ± 1/32 ± 1/16				
DU-1/4	1/4	0/208/220/240	1.1	0/104/110/120	2.2	5 1/8	4 1/4	5 1/4	4 3/8	2 1/2	#10	12	\$27.00	
DU-1/2	1/2	0/208/220/240	2.3	0/104/110/120	4.6	5 1/8	5 1/4	5 1/4	4 3/8	3 3/8	#10	18	32.00	
DU-1	1	0/208/220/240	4.5	0/104/110/120	9	7 1/8	6 1/4	7 1/4	6 3/8	4 1/4	1/4	33	50.00	
DU-2	2	0/208/220/240	9	0/104/110/120	18	7 1/8	8 1/4	7 1/4	6 3/8	6	1/4	56	66.00	
DU-3	3	0/208/220/240	14	0/104/110/120	28	7 1/8	9 1/4	7 1/4	6 3/8	7	1/4	70	91.00	
DU-5	5	0/208/220/240	23	0/104/110/120	46	7 1/8	10 3/4	7 1/4	6 3/8	8 1/2	1/4	89	138.00	

"UP SERIES" 110/220 Dual Primary To 0/130/135/140 V. Sec.

The "UP" line utilizes the same dual primary as the "DU" line. It has, however, a single secondary rated at 0/130/135/140 volts. This type is quite useful to boost low line

voltages or raise line voltages to compensate for drops in series elements. It also finds application in bridge rectifiers for DC voltage outputs of approximately 115 to 130 volts.



Part No.	KVA	Secondary Volts	Max. Secondary Amps	L (Max.)	W (Max.)	H (Max.)	ML ± 1/32	MW ± 1/16	Mtg. Screw	Appr. Lbs.	User Net Price
UP-2	¼	0/130/135/140	2	5⅛	4⅜	5¼	4⅜	2½	#10	12	\$24.00
UP-4	½	0/130/135/140	4	5⅛	5⅛	5¼	4⅜	3⅜	#10	18	31.00
UP-8	1	0/130/135/140	8	7⅛	6¼	7¼	6¾	4⅜	¼	33	47.00
UP-15	2	0/130/135/140	15	7⅛	8¼	7¼	6¾	6	¼	56	64.00
UP-25	3	0/130/135/140	25	7⅛	9¼	7¼	6¾	7	¼	70	88.00
UP-40	5	0/130/135/140	40	7⅛	10¾	7¼	6¾	8½	¼	89	132.00

SIGNALS CUSTOM SERVICE

Many of our customers do not realize that the major portion of our shipments consists of "special" or "custom" items.

Usually, the final application of one of our stock transformers does not require the full number of taps or windings provided. These naturally are part of the cost of the item. If

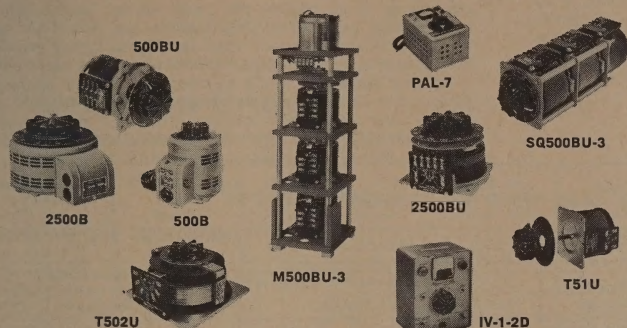
we are advised as to the specific taps used as to what intermediate voltage or current required we can begin production quickly on the variation of our stock item. If we define production quantities as roughly over 50 pieces, the customer will do better price-wise on his custom made item than on the standard.

SIGNAL TRANSFORMER CO., INC

ENGINEERS • DESIGNERS • MANUFACTURERS



Adjust-A-Volt® VARIABLE AUTO-TRANSFORMERS



Industries widest selection of adjustable variable auto-transformers designed to deliver variable output voltages with high efficiency, reliability and minimum maintenance. Ratings from .165 to 265 KVA. Bench and panel mounting. Manual or motor driven. Single or ganged assemblies. Military designs, specials, 36 volt types. All Adjust-A-Volts feature zero wave form distortion with high voltage resolution, and regulation with conservative ratings. Design features rugged mechanical construction and precious metal-plated commutators.

Brush design provides smooth flow of input current and voltage and ease of brush replacement which is seldom required. All Adjust-A-Volts operate on 50/60 cycle current except certain SQ models which are 60 cycle*. Operation is permissible at 50% of rated power output. Bench models are housed in grey wrinkle painted die-cast aluminum cases equipped with pilot light, switch, line cord, and an output receptacle. Write for complete catalog.

MFR. MODEL NO.	MAX. KVA	INPUT VOLTS	OUTPUT VOLTS	AMPS	DESCRIPTION	SIZE	WGT. LBS.
100BU	.165	120	0-132/0-120	1.25	Panel type for panels to 1/4" thick	2-3/32 x 2-13/16"	2
PA-175	.165	120	0-132	1.25	Portable; fused w/switch; pilot light, line cord	3 3/8 x 3 3/8 x 3 1/2"	3
PA-175	.23	120	0-132/0-120	1.75	Panel type for panels to 1/4" thick	2-3/32 x 2-13/32"	2
250BU	.33	120	0-132/0-120	2.5	Portable; fused w/switch; pilot light, line cord	3 3/8 x 3 3/8 x 3 1/2"	3
	.33	120	0-132/0-120	2.5	Panel type for panels to 1/4" thick	2-1/16 x 2-13/16"	2.5
T21U	.33	120	0-140/0-120	2.4	Panel type for panels to 3/8" thick	3 1/4 x 3 1/4 x 3-15/16"	3
300BU	.42	120	0-140/0-120	3.0	Panel type for panels to 1/2" thick	3-1/16 x 4"	5
3PNPA-375	.53	120	0-140	3.75	Portable, fused, w/switch; pilot light, line cord	6 1/2 x 6 1/8 x 6 1/2"	6
375BU	.53	120	0-140/0-120	3.75	Panel type for panels to 1/2" thick	3 3/4 x 3 3/4 x 3 1/4"	3
PA-375	.53	120	0-140	3.75	Portable; fused w/switch; pilot light, line cord	6 1/2" x 6 1/8 x 6 1/2"	6
T51U	.84	120	0-140/0-120	6.0	Panel type for panels to 1/2" thick	4 1/2 x 4 1/2 x 3-15/16"	7
SQ500BU	1.05	120	0-140/0-120	7.5	Panel type for panels to 1/2" thick	5-11/16 x 5"	8
SQ500BU-3	1.05	120	0-140/0-120	7.5	Panel type for panels to 1/2" thick	4 1/2 x 4 1/2 x 3-15/16"	9
500B	1.05	120	0-140	7.5	Enclosed; fused w/switch & pilot light, line cord	7 1/4 x 6 1/2"	10
500BU	1.05	120	0-140	7.5	Enclosed; 3 prong plug & outlet, fused w/switch, pilot light	7 1/4 x 6 1/2"	10
T101U	1.4	120	0-140/0-120	10.0	Panel type for panels to 1/2" thick	5 1/4 x 5 1/4 x 4-11/16"	12.5
T1500U	2.1	120	0-140/0-120	15.0	Panel type for panels to 1/2" thick	6 1/8 x 6 1/8 x 4 3/8"	16
1500B	2.1	120	0-140/0-120	15.0	For panels to 1/2" or bench use, enclosed	8-1/16 x 8 1/4"	17
3PN1500B	2.1	120	0-140	15.0	Enclosed, 2 blade & U blade, receptacle, fuse	9 x 8 1/4"	17
SQ510BU	1.2	120	0-120	10.0	Panel type for panels to 1/2" thick	4 1/4 x 4 1/4 x 3-15/16"	9
510BU	1.2	120	0-120	10.0	Panel type for panels to 1/2" thick	5-11/16 x 5"	9
3PN510B	1.2	120	0-120	10.0	Enclosed, 3 prong plug & outlet, receptacle, fuse	7 1/4 x 6 1/2"	9
520BU	.84	240	0-280/0-240	3.0	Panel type for panels to 1/2" thick	5-11/16 x 5"	9
SQ520BU	.84	240	0-280/0-240	3.0	Panel type for panels to 1/2" thick	4 1/4 x 4 1/4 x 3-15/16"	9
520B	.84	240	0-280	3.0	Enclosed; fused with switch, pilot light, line cord	5-11/16 x 5"	9
3PN520B	.84	240	0-280	3.0	Enclosed, 2 blade & U blade, receptacle, fuse	7 1/4 x 6 1/2"	9
530BU	.96	240	0-240	4	Panel type for panels to 1/2" thick	5-11/16 x 5"	9
SQ530BU	.96	240	0-240	4	Panel type for panels to 1/2" thick	4 1/4 x 4 1/4 x 3-15/16"	9
3PN530B	.96	240	0-240	4	Enclosed, 2 blade & U blade, receptacle, fuse	7 1/4 x 6 1/2"	9
F1500B	2.1	120	0-140	15	With fuse & conduit box, panel or bench use	9 x 8 1/4"	17
F1520B	2.5	240	0-280	9	Panel type to 1/2" panel or bench use	8-1/16 x 8 1/4"	17
F1520B	2.5	240	0-280	9	With fuse & conduit box, panel or bench use	9 x 8 1/4"	17
3PN1520B	2.5	240	0-280	9	Enclosed, 2 blade & U blade, receptacle, fuse	9 x 8 1/4"	17
1500BD	2.1	120	0-140	15.0	Cased; output voltmeters, cord, receptacle; fused	9 1/2 x 8 1/2"	17
1520BU	2.5	240	0-280	9.0	Cased; output voltmeters, cord, receptacle; fused	9 1/2 x 8 1/2"	17
T1500U	2.1	120	0-140	15.0	Panel type for panels to 1/2" thick	6 1/8 x 4 3/8"	20
T1520U	2.7	240	0-280	9.5	Panel type for panels to 1/2" thick	6 1/8 x 4 3/8"	23
2500BU	3.5	120	0-140/0-120	25	Panel type for panels to 1/2" thick	8-3/16 x 7 7/8 x 5-21/32"	17
2500B	3.5	120	0-140/0-120	25	Enclosed; with junction box	9-9/16 x 7 7/8 x 5-21/32"	17
2520BU	2.8	240	0-280/0-240	10	Panel type for panels to 1/2" thick	8-3/16 x 7 7/8 x 5-21/32"	17
F2520BU	2.8	240	0-280/0-240	10	Panel type for panels to 1/2" thick with fuse	8-3/16 x 7 7/8 x 5-21/32"	17
2520B	2.8	240	0-280/0-240	10	Enclosed with junction box	9-9/16 x 7 7/8 x 5-21/32"	17
F2520B	2.8	240	0-280/0-240	10	Enclosed with junction box with fuse	9-9/16 x 7 7/8 x 5-21/32"	17
T501U	7.0	120	0-140	50	For panels to 3/8" thick or bench use	12 1/2 x 12 1/2 x 5 1/2"	5.2
T501U-25	14	240	0-280	50	Panel type to 3/8" thick or bench use 2 stack	12 1/2 x 12 1/2 x 14 3/8"	120
T501U-2P	14	120	0-140	100	Panel type to 3/8" thick or bench use 2 stack	12 1/2 x 12 1/2 x 14 3/8"	120
T501U-3P	21	120	0-140	150	Panel type to 3/8" thick or bench use 3 stack	12 1/2 x 12 1/2 x 20 3/4"	181
T502U	7.0	240	0-280/0-240	28	Panel type to 3/8" thick or bench use	12 1/2 x 12 1/2 x 5 1/2"	52
175BU-36	0.22	36	0-36	6	Panel type for panels to 1/4" thick	2-13/16 x 2 5/8"	3.5
375BU-36	0.55	36	0-36	15	Panel type for panels to 1/2" thick	3 3/4 x 3 3/4 x 2 7/8"	6
500BU-36	0.9	36	0-36	25	Panel type for panels to 1/2" thick	5-11/16 x 5"	10

THREE PHASE TYPES

100BU-3	.52	240	0-240UG	1.25	3 stack panel type for panels to 1/4" thick	3 3/8 x 7 3/8"	6
175BU-3	.73	240	0-240UG	1.75	3 stack panel type for panels to 1/4" thick	3 3/8 x 7 3/8"	7.5
250BU-3	1.04	240	0-240UG	2.5	3 stack panel type for panels to 1/4" thick	3 3/8 x 9 1/2"	12
T21U-3	1.5	240	0-280UG/0-240	2.4	3 stack panel type for panels to 3/8" thick	3 1/4 x 3 1/4 x 11-31/32"	13
300BU-3	1.25	240	0-240UG	3	3 stack panel type for panels to 1/2" thick	3 3/4 x 3 3/4 x 12-3/4"	15
375BU-3	1.6	240	0-240UG	3.75	3 stack panel type for panels to 1/2" thick	3 3/4 x 3 3/4 x 11 3/8"	13
T51U-3	2.9	240	0-280UG/0-240UG	6	3 stack panel type for panels to 3/8" thick	4 1/2 x 4 1/2 x 12-3/32"	21
510BU-2	2.1	120	0-120	10	2 stack panel type for panels to 1/2" thick	5-11/16 x 10-9/16"	18
510BU-3	4.2	240	0-240UG	10	3 stack panel type for panels to 1/2" thick	5-11/16 x 15 1/2"	28
500BU-3	3.6	240	0-280UG/0-240UG	7.5	3 stack panel type for panels to 1/2" thick	5-11/16 x 15 1/2"	28
500B-3	3.6	240	0-280UG/0-240UG	7.5	3 stack panel type for panels to 1/2" thick	7 1/4 x 16 3/4"	28
500B-2	1.8	120	0-140/0-120	7.5	2 stack panel type for panels to 1/2" thick	7 1/4 x 11 3/8"	18
500BU-2	1.8	120	0-140/0-120	7.5	2 stack panel type for panels to 1/2" thick	5-11/16 x 10-9/16"	18
1500B-2	3.6	12	0-140	15	2 stack panel type for panels to 1/2" thick	8-1/16 x 12-15/16"	39
1500B-3	7.3	240	0-280UG	15	3 stack panel type for panels to 1/2" thick	8-1/16 x 15-15/32"	60
2500BU-2	6	120	0-140/0-120	25	2 stack panel type for panels to 1/2" thickness	8-3/16 x 7 7/8 x 10-1/16"	43
T1500U-3	7.3	240	0-280	7.3	3 stack panel type for panels to 1/2" thick	6 5/8 x 15"	56
2500BU-3	12	240	0-280UG/0-240UG	25	2 stack panel type for panels to 1/2" thickness	8-3/16 x 7 7/8 x 14 7/8"	66
1520B-3	8.7	480	0-560UG	9	3 stack bench type, enclosed, with terminal board	8-1/16 x 15-15/32"	60
T1520U-3	7.9	240	0-280	28.5	3 stack panel type for panels to 1/2" thick	6 5/8 x 14-5/16"	65
2520B-3	9.7	480	0-560/0-480UG	10	3 stack panel type for panels to 1/2" panel thickness	8-3/16 x 7 7/8 x 14-7/8"	68
2520B-3	9.7	480	0-560UG/0-480UG	10	3 stack bench type, enclosed with terminal cover	9-9/16 x 7 7/8 x 14 7/8"	71

STACO, INCORPORATED

SOLA ELECTRIC

DIVISION OF SOLA BASIC INDUSTRIES

**AUTOMATIC, INSTANTANEOUS VOLTAGE
REGULATION FOR A WIDE VARIETY
OF ELECTRIC AND ELECTRONIC DEVICES**

Constant-voltage Sola transformers provide a stabilized output voltage even though the input voltage varies over a considerable range. Their applications are numerous and varied. CV's are especially ideal for high-accuracy requirements such as in computers and data-processing equipment.

Another advantage in CV transformers is their ability to prolong the life of electronic components by eliminating injurious over- and under-voltages. The Sola transformer's current-limiting factor protects semiconductors and other components from excessive inrush and fault currents.

Sola Sinusoidal Type (CVS) LESS THAN 3% HARMONIC CONTENT

ELECTRICAL SPECIFICATIONS • 60 CYCLE SINGLE PHASE

MECHANICAL SPECIFICATIONS

Voltage Rating		VA	Catalog Number	Price Ind'l & Govt. Users	Nominal Dimensions		Approximate Shipping Weight Lbs.	* Structure Code
Regulated Output	Input Range				Outline	Mounting		
118	95-130	30	23-13-030(a)	\$27.00	6 $\frac{1}{2}$ x 4 x 5 $\frac{1}{2}$	3 x 3 $\frac{1}{2}$	9	W
	190-260X 380-520	30	23-23-030(a)	29.00	6 $\frac{1}{2}$ x 4 x 5 $\frac{1}{2}$	3 x 3 $\frac{1}{2}$	9	W
	95-130	60	23-13-060(a)	32.00	6 $\frac{1}{2}$ x 4 x 5 $\frac{1}{2}$	3 x 3 $\frac{1}{2}$	10	W
	190-260X 380-520	60	23-23-060(a)	35.00	6 $\frac{1}{2}$ x 4 x 5 $\frac{1}{2}$	3 x 3 $\frac{1}{2}$	10	W
	95-130X 190-260	120	23-22-112(a)	41.00	8 x 4 x 5 $\frac{1}{2}$	3 x 3 $\frac{1}{2}$	14	W
	190-260X 380-520	120	23-23-112(a)	44.00	8 x 4 x 5 $\frac{1}{2}$	3 x 3 $\frac{1}{2}$	14	W
	95-130X 190-260	250	23-22-125(b)	56.00	9 $\frac{1}{2}$ x 5 $\frac{1}{2}$ x 7 $\frac{1}{2}$	4 $\frac{1}{2}$ x 4 $\frac{1}{2}$	28	W
	190-260X 380-520	250	23-23-125(b)	60.00	10 x 5 $\frac{1}{2}$ x 7 $\frac{1}{2}$	4 $\frac{1}{2}$ x 4 $\frac{1}{2}$	28	W
118 x 236	95-130X 190-260	500	23-22-150(c)	87.00	12 $\frac{1}{2}$ x 9 x 6 $\frac{1}{2}$	5 $\frac{1}{2}$ x 8 $\frac{1}{2}$	47	W
	190-260X 380-520	500	23-26-150(c)	93.00	12 $\frac{1}{2}$ x 9 x 6 $\frac{1}{2}$	5 $\frac{1}{2}$ x 8 $\frac{1}{2}$	47	W
	190-260	1000	23-25-210(c)	146.00	17 $\frac{1}{2}$ x 9 x 9 x 6 $\frac{1}{2}$	5 $\frac{1}{2}$ x 8 $\frac{1}{2}$	80	W
	190-260X 380-520	1000	23-26-210(c)	146.00	17 $\frac{1}{2}$ x 9 x 9 x 6 $\frac{1}{2}$	5 $\frac{1}{2}$ x 8 $\frac{1}{2}$	80	W
	95-130X 175-235X 190-260	2000	23-25-220	265.00	19 $\frac{1}{2}$ x 12 $\frac{1}{2}$ x 10 $\frac{1}{2}$	4 $\frac{1}{2}$ x 11 $\frac{1}{2}$	145	W
	190-260X 380-520	2000	23-26-220	265.00	19 $\frac{1}{2}$ x 12 $\frac{1}{2}$ x 10 $\frac{1}{2}$	4 $\frac{1}{2}$ x 11 $\frac{1}{2}$	145	W
	95-130X 175-235X 190-260	3000	23-25-230-3	356.00	21 $\frac{1}{2}$ x 12 $\frac{1}{2}$ x 10 $\frac{1}{2}$	6 $\frac{1}{2}$ x 11 $\frac{1}{2}$	192	W
	190-260X 380-520	3000	23-26-230	356.00	21 $\frac{1}{2}$ x 12 $\frac{1}{2}$ x 10 $\frac{1}{2}$	6 $\frac{1}{2}$ x 11 $\frac{1}{2}$	192	W
	95-130X 175-235X 190-260	5000	23-25-250	556.00	20 $\frac{1}{2}$ x 25 $\frac{1}{2}$ x 10 $\frac{1}{2}$	5 $\frac{1}{2}$ x 24 $\frac{1}{2}$	475	Y
	190-260X 380-520	5000	23-26-250	556.00	20 $\frac{1}{2}$ x 25 $\frac{1}{2}$ x 10 $\frac{1}{2}$	5 $\frac{1}{2}$ x 24 $\frac{1}{2}$	475	Y
	190-260X 380-520	7500	23-28-275	826.00	20 $\frac{1}{2}$ x 38 $\frac{1}{2}$ x 11 $\frac{1}{2}$	5 $\frac{1}{2}$ x 37 $\frac{1}{2}$	710	Z

An adjustable CVS, the ac Solavolt is available with output range from 0-130 v. 500 va. Write for Solavolt bulletin.

Normal Harmonic Type (CVN)

ELECTRICAL SPECIFICATIONS • 60 CYCLE SINGLE PHASE

MECHANICAL SPECIFICATIONS

Voltage Rating		Output Capacity in VA	Catalog Numbers	Approx. Net Price Each to Industrial, Commercial or Govt. Users	Nominal Dimensions (Inches)		Approx. Ship. Wt. in Lbs.	* Structure Code
Regulated Output	Input Range				Outline	Mounting		
118	95-130	15	20-10-015	\$16.00	5 $\frac{1}{2}$ x 2 $\frac{1}{2}$ x 3 $\frac{1}{2}$	5 $\frac{1}{2}$ x 1 $\frac{1}{2}$	4	D
			20-11-015	22.00	5 $\frac{1}{2}$ x 3 $\frac{1}{2}$ x 2 $\frac{1}{2}$	3 x 1 $\frac{1}{2}$	4	S
			20-14-015	15.00	4 $\frac{1}{2}$ x 2 $\frac{1}{2}$ x 2 $\frac{1}{2}$	1 $\frac{1}{2}$ x 1 $\frac{1}{2}$	3	E
		30	20-14-030	17.00	4 $\frac{1}{2}$ x 2 $\frac{1}{2}$ x 3 $\frac{1}{2}$	1 $\frac{1}{2}$ x 2 $\frac{1}{2}$	5	E
			20-13-030(a)	22.00	6 x 4 x 5 $\frac{1}{2}$	3 x 3 $\frac{1}{2}$	7	W
			20-13-060(a)	27.00	6 $\frac{1}{2}$ x 4 x 5 $\frac{1}{2}$	3 x 3 $\frac{1}{2}$	10	W
118	95-130	60	20-14-060	23.00	4 $\frac{1}{2}$ x 3 $\frac{1}{2}$ x 3 $\frac{1}{2}$	2 $\frac{1}{2}$ x 3 $\frac{1}{2}$	8	E
			20-14-112	31.00	4 $\frac{1}{2}$ x 3 $\frac{1}{2}$ x 4 $\frac{1}{2}$	2 $\frac{1}{2}$ x 3 $\frac{1}{2}$	11	E
			20-13-112(a)	36.00	7 $\frac{1}{2}$ x 4 x 5 $\frac{1}{2}$	3 x 3 $\frac{1}{2}$	13	W
		120	20-21-112(a)	36.00	7 $\frac{1}{2}$ x 4 x 5 $\frac{1}{2}$	3 x 3 $\frac{1}{2}$	13	W
			20-13-115(b)	43.00	8 $\frac{1}{2}$ x 5 $\frac{1}{2}$ x 7 $\frac{1}{2}$	4 $\frac{1}{2}$ x 4 $\frac{1}{2}$	22	W
			20-13-125(c)	53.00	11 $\frac{1}{2}$ x 6 $\frac{1}{2}$ x 6 $\frac{1}{2}$	4 $\frac{1}{2}$ x 6 $\frac{1}{2}$	25	W
118	190-260X 380-520	250	20-23-125(c)	53.00	11 $\frac{1}{2}$ x 6 $\frac{1}{2}$ x 6 $\frac{1}{2}$	4 $\frac{1}{2}$ x 6 $\frac{1}{2}$	25	W
			20-13-150(c)	83.00	12 $\frac{1}{2}$ x 6 $\frac{1}{2}$ x 6 $\frac{1}{2}$	4 $\frac{1}{2}$ x 6 $\frac{1}{2}$	36	W
			20-23-150(c)	83.00	12 $\frac{1}{2}$ x 6 $\frac{1}{2}$ x 6 $\frac{1}{2}$	4 $\frac{1}{2}$ x 6 $\frac{1}{2}$	36	W
		500	20-24-150(c)	83.00	12 $\frac{1}{2}$ x 6 $\frac{1}{2}$ x 6 $\frac{1}{2}$	4 $\frac{1}{2}$ x 6 $\frac{1}{2}$	36	W
			20-13-210	138.00	15 $\frac{1}{2}$ x 6 $\frac{1}{2}$ x 6 $\frac{1}{2}$	4 $\frac{1}{2}$ x 6 $\frac{1}{2}$	54	W
			20-20-210	138.00	15 $\frac{1}{2}$ x 6 $\frac{1}{2}$ x 6 $\frac{1}{2}$	4 $\frac{1}{2}$ x 6 $\frac{1}{2}$	54	W
118x 236	190-260X 380-520	2000	20-25-220	251.00	20 x 10 $\frac{1}{2}$ x 10 $\frac{1}{2}$	4 $\frac{1}{2}$ x 9 $\frac{1}{2}$	166	W
			20-25-230	340.00	22 x 10 $\frac{1}{2}$ x 10 $\frac{1}{2}$	6 $\frac{1}{2}$ x 9 $\frac{1}{2}$	230	W
			20-27-250	529.00	21 x 14 $\frac{1}{2}$ x 14 $\frac{1}{2}$	7 x 13	279	W
		10000	20-26-310	999.00	21 x 29 $\frac{1}{2}$ x 14 $\frac{1}{2}$	7 x 27 $\frac{1}{2}$	590	Y

Letter following a catalog number designates units which may be converted to cord input and receptacle output. See Adapter Kit table on page 1425.

Outline dimensions are the overall outside dimensions of the unit, not including separate capacitor where employed. Dimensions are subject to manufacturing tolerances of $\pm 1/32$ to $\pm 1/8$ inch.

For more information on SOLA CVDC Power Supplies, see page 1023, Section 4000.

SOLA ELECTRIC

DIVISION OF SOLA BASIC INDUSTRIES

± 1% REGULATION FOR FILAMENT TYPE,
± 3% FOR PLATE-FILAMENT TYPE

The electronic-power type of Sola transformer is designed as a component for simple assembly into many kinds of electronic equipment. The filament type (CVF) provides 6.0 or 6.3 volts of output regulated within ± 1% over line variations of ± 15%; the combination plate-and-filament type (CVE) regulates within ± 3%.

for filament service (Type CVF)**ELECTRICAL SPECIFICATIONS • 60 CYCLE SINGLE PHASE****MECHANICAL SPECIFICATIONS**

Voltage Rating		Output Capacity in Amps.	Catalog Number	Approx. Net Price Each to Industrial Users	Nominal Dimensions (Inches)		Approx. Ship. Wt. in Lbs.	* Structure Code
Regulated ±1% Output	Input Range				Outline	Mounting		
6.0	95-130	2.50	20-01-015	\$16.00	5 $\frac{1}{8}$ x 2 $\frac{3}{4}$ x 3 $\frac{1}{2}$	5 $\frac{1}{8}$ x 1 $\frac{1}{4}$	6	D
			20-06-015	15.00	4 $\frac{1}{8}$ x 2 $\frac{3}{4}$ x 2 $\frac{1}{2}$	1 $\frac{3}{4}$ x 1 $\frac{1}{2}$	4	E
6.3	95-130	2.38	20-02-015	16.00	5 $\frac{1}{8}$ x 2 $\frac{3}{4}$ x 3 $\frac{1}{2}$	5 $\frac{1}{8}$ x 1 $\frac{1}{4}$	6	D
			20-03-015	22.00	4 $\frac{1}{8}$ x 2 $\frac{3}{4}$ x 2 $\frac{1}{2}$	1 $\frac{3}{4}$ x 1 $\frac{1}{2}$	4	S
			20-04-015	15.00	4 $\frac{1}{8}$ x 2 $\frac{3}{4}$ x 2 $\frac{1}{2}$	1 $\frac{3}{4}$ x 1 $\frac{1}{2}$	4	E
			20-04-030	17.00	4 $\frac{1}{8}$ x 3 $\frac{1}{4}$ x 3 $\frac{1}{2}$	2 $\frac{1}{2}$ x 2 $\frac{1}{4}$	6	E
	95-130X 190-260	5.0	20-04-065	22.00	4 $\frac{1}{8}$ x 3 $\frac{1}{4}$ x 3 $\frac{1}{2}$	2 $\frac{1}{2}$ x 2 $\frac{1}{4}$	7	E
		10.0	20-04-095	26.00	4 $\frac{1}{8}$ x 3 $\frac{1}{4}$ x 4 $\frac{1}{4}$	2 $\frac{1}{2}$ x 3 $\frac{1}{2}$	11	E
		15.0	20-04-116	38.00	7 x 4 $\frac{1}{2}$ x 5 $\frac{1}{8}$	3 $\frac{3}{4}$ x 4 $\frac{1}{4}$	23	E
		25.0						

for plate filament service (Type CVE)**ELECTRICAL SPECIFICATIONS • 60 CYCLE SINGLE PHASE**

Input range, 100-130 volts

MECHANICAL SPECIFICATIONS

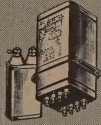
Typical Rectifier Tube	Average D.C. Input Volts to Filter*	Filament Windings		Catalog Number	Approx. Net Price Each to Industrial Users	Nominal Dimensions (Inches)		Approx. Ship. Wt. in Lbs.	* Structure Code
		6.3 Volts	5.0 Volts			Outline	Mounting		
5Y3	275v D.C. @ 50 M.A.	2.5 amps C.T.	2.0 amps	7104	\$13.00	4 $\frac{1}{8}$ x 3 $\frac{1}{4}$ x 3 $\frac{1}{8}$	2 $\frac{1}{4}$ x 2 $\frac{1}{2}$	6	E
5Y3	385v D.C. @ 110 M.A.	3.0 amps C.T.	2.0 amps	7106	16.00	4 $\frac{1}{8}$ x 3 $\frac{1}{4}$ x 3 $\frac{1}{8}$	2 $\frac{1}{2}$ x 2 $\frac{1}{2}$	8	E
5U4	380v D.C. @ 250 M.A.	No. 1: 4.0 amps No. 2: 8.0 amps unregulated	3.0 amps	7107	30.00	7 x 4 $\frac{1}{2}$ x 4 $\frac{1}{4}$	3 $\frac{3}{4}$ x 3 $\frac{3}{4}$	19	E

*Voltage values are taken at output of 5Y3GT rectifier for No. 7104 and No. 7106 transformers and at output of 5U4GA-GB for No. 7107. Guaranteed regulation of ±3% on plate voltage output is contingent

on the use of Sola-regulated 5.0v filament supply winding for the rectifier tube.

Mechanical Structures*"STRUCTURE CODE" LETTER REFERS TO ONE OF THESE GENERAL TYPES OF MECHANICAL ASSEMBLIES:**

B — Drawn case, integral capacitor unit, flex leads.



S — Hermetically sealed case, separate capacitor, solder lugs.



E — Exposed core; end bells; separate capacitor, flex leads.



W — Exposed core; end housings; screw-type terminals in outlet box.



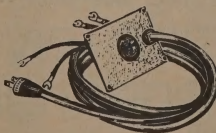
Y — Same as W, but duplex assembly.



Z — Same as W, but triplex assembly.

Cord/Receptacle Adapter Kits

Adapter kits may be used when the convenience of input plug and output receptacle is preferred to the standard arrangement of terminals in the transformer housing. See accompanying chart.



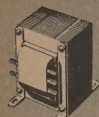
Code	Adapter Kit Catalog No.	Input Cord	Output-Connections	Net price each to industrial users
(a)	999-004	2-wire	2-wire receptacle	\$1.75
	999-018	3-wire	3-wire receptacle	2.50
(b)	999-005	2-wire	2-wire receptacle	1.75
	999-019	3-wire	3-wire receptacle	2.50
(c)	999-009	2-wire	2-wire receptacle	2.00
	999-020	3-wire	3-wire receptacle	2.50

The transformers described in this folder are manufactured under one or more of the following United States Patents: Nos. 2,694,177; 2,753,513; 2,806,199, and patents pending.

For more information on SOLA CVDC Power Supplies, see page 1023, Section 4000.

STANCOR

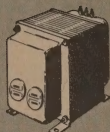
standard transformers



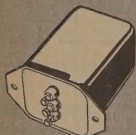
RECTIFIER



POWER



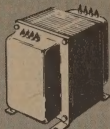
STEP-DOWN



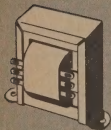
FILTERS



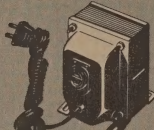
CHOKES



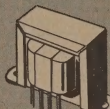
PLATE



CONTROL



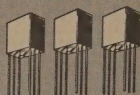
ISOLATION



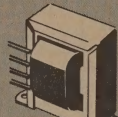
FILAMENT



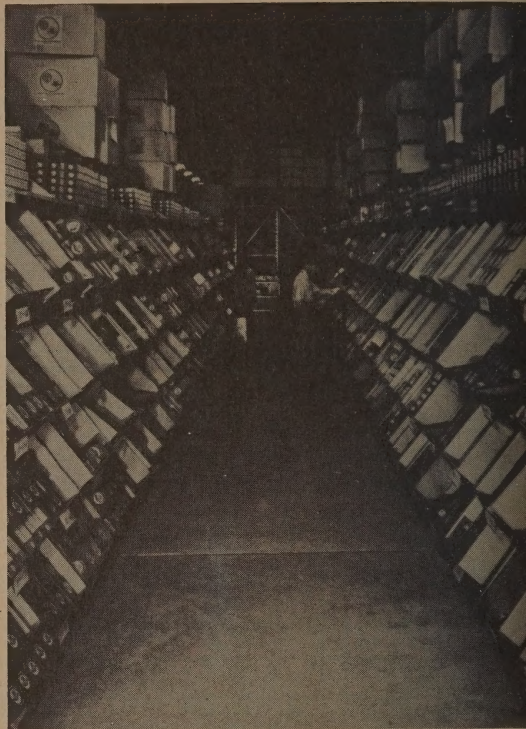
TOROIDAL



TRANSISTOR



AUDIO



When you use STANCOR STANDARD Transformers you are assured of . . .

Immediate Availability — sold by over 150 Industrial Electronic Distributors in major marketing areas — AT FACTORY PRICES IN ANY QUANTITY.

Highest Quality — Stancor has specialized in manufacturing millions of standard transformers, time-tested and field-proven for over 35 years.

Stock In Depth — over 300,000 transformers stocked in Chicago with branch warehouses at Atlanta, Dallas, Los Angeles and Hackensack, N. J. **Bulk shipments from Chicago, only.**

Service Replacement — available from over 100 Industrial and Service Parts Electronic Distributors located in over 500 cities throughout the U.S.

Competitive Prices — mass production facilities — to supply its extensive distributor organization — enable Stancor to manufacture at lowest costs.

SOLD NATIONALLY THROUGH ELECTRONIC DISTRIBUTORS BY
ELECTRONIC MARKETING DIVISION
ESSEX WIRE CORPORATION



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18C-150	16c	16.54	A-3872	6c	5.22	A-8061	7b	15.44	A-8132/			A-8232/			A-8264/		
18S-150	16c	22.15	A-3876	6a	1.67	A-8062	7b	15.40	H0-161	27	16.00	H0-181	27	15.00	H0-214	27	17.50
28C-150	16c	14.69	A-3877	6a	1.67	A-8063	7b	15.39	A-8133/			A-8233/			A-8265/		
28S-150	16c	22.93	A-3878	6b	1.74	A-8064	7b	15.44	H0-162	27	18.50	H0-182	27	15.00	H0-215	27	17.00
A-82C	9f	2.57	A-3879	6b	1.70	A-8066	7b	14.60	A-8134/			A-8234/			*A-8266/		
A-53	9e	2.34	A-3880	7a	4.94	A-8070	6a	1.59	H0-163	27	18.50	H0-183	27	10.00	H0-216	27	12.00
A-53C	9f	2.74	A-3881	6b	2.17	A-8072	7b	19.47	A-8135/			A-8235/			A-8267/		
A-62C	9f	3.02	A-3882	8d	9.10	A-8080	8b	3.22	H0-164	27	17.30	H0-184	27	10.00	H0-217	27	15.00
A-63C	9f	3.22	A-3883	8d	3.85	A-8081	8b	3.54	A-8136/			A-8236/			*A-8268/		
A-64C	9f	3.19	A-3885	6c	9.90	A-8082	8b	4.30	H0-165	27	15.00	H0-185	27	15.00	H0-218	27	15.00
A-73C	9f	3.80	A-3890	7a	6.99	A-8083	8b	2.50	A-8137/			*A-8237/			*A-8269/		
A-2203	6a	2.65	A-3891	10f	11.74	A-8084	8b	2.91	H0-166	27	13.50	H0-186	27	13.50	H0-219	27	15.00
A-2312	6d	3.33	A-3892	0f	15.17	A-8087	8a	2.42	A-8138/			A-8238/			A-8270/		
A-2313	6b	3.05	A-3893	0f	15.72	A-8088	8a	2.91	H0-167	27	13.50	H0-188	27	13.50	H0-220	27	15.00
A-2855	7a	4.69	A-3894	0f	20.64	A-8090	8f	2.20	*A-8139/			*A-8239/			A-8271/		
A-3250	6bd	4.62	A-3898	0f	132.50	A-8091	8f	2.39	H0-168	27	13.50	H0-189	27	15.00	H0-221	27	15.00
A-3303	6d	7.87	A-3899	0f	151.55	A-8092	6a	2.49	A-8140/			A-8240/			*A-8272/		
A-3304	6c	7.32	A-4208	10ad	7.27	A-8093	6d	2.60	V0-88	30a	9.92	H0-190	27	15.00	H0-222	27	15.00
A-3307	6c	8.49	*A-4210	10c	6.32	A-8094	6c	4.89	A-8141/			A-8241/			*A-8273/		
A-3309	6a	2.19	A-4212	10d	6.24	A-8095	8a	2.89	V0-89	30a	8.00	H0-191	27	13.50	H0-223	27	10.00
A-3310	6a	7.00	A-4292	10c	2.84	A-8096	8a	4.24	A-8142/			*A-8242/			*A-8274/		
A-3311	6c	7.39	A-4350	8e	4.80	A-8097	8a	5.22	V0-90	30a	9.89	H0-192	27	12.00	H0-224	27	12.50
A-3315	6bd	10.37	A-4351	9a	5.46	A-8098	6c	9.65	A-8143/			*A-8243/			A-8275/		
A-3327	6b	2.14	A-4352	9a	5.72	A-8099	8a	3.02	V0-91	30a	6.58	H0-193	27	9.00	H0-225	27	13.50
A-3328	6a	1.62	A-4407	8e	11.12	A-8101	8d	1.99	A-8144/			A-8244/			A-8276/		
A-3329	6b	1.62	*A-4420	9f	2.45	A-8102	8d	3.97	V0-92	30a	6.11	H0-194	27	15.00	H0-226	27	13.50
A-3330	6a	2.47	A-4431	6a	2.19	A-8103	8b	5.44	A-8145/			*A-8245/			*A-8277/		
A-3332	6a	1.57	A-4432	6c	3.14	A-8104	8d	4.77	V0-93	30b	8.22	H0-195	27	12.90	H0-227	27	9.90
A-3335	6d	3.57	*A-4701	10d	6.85	A-8105	8b	3.24	A-8146/			*A-8246/			*A-8278/		
A-3336	6a	2.30	A-4702	10c	5.70	A-8106	8c	4.04	V0-94	30b	6.11	H0-196	27	12.80	H0-228	27	12.50
A-3337	6a	2.57	A-4705	8g	3.77	A-8107	8c	6.04	A-8147/			*A-8247/			*A-8279/		
A-3496	6d	3.34	A-4706	8g	2.73	A-8108	8c	3.15	V0-95	30b	6.00	H0-197	27	18.50	H0-229	27	15.00
A-3800	6c	7.77	A-4708	8g	3.90	A-8109	8b	2.70	A-8148/			A-8248/			*A-8280/		
A-3301	6c	9.89	A-4709	9a	6.60	A-8111/			V0-96	30b	6.58	H0-198	27	18.50	H0-230	27	12.50
A-3802	6c	17.95	A-4711	10a	3.85	V80-194	30f	3.83	A-8149/			*A-8249/			*A-8281/		
A-3808	10e	18.55	A-4713	10c	2.50	A-8112/			V0-97	30b	5.56	H0-199	27	12.50	H0-231	27	12.50
A-3812	10e	2.80	A-4719	9f	6.19	V0-83	30a	5.78	A-8150/			*A-8250/			*A-8282/		
A-3817	8f	3.79	*A-4722	10c	5.02	A-8113/			V0-98	30b	8.22	H0-200	27	11.10	H0-232	27	12.50
A-3818	8d	5.57	A-4723	10c	2.55	V0-84	30a	6.64	A-8151/			*A-8251/			*A-8283/		
*A-3820	8d	13.82	A-4742	8c	4.02	A-8114	6b	2.22	V0-99	30b	6.69	H0-201	27	13.50	H0-233	27	13.00
A-3822	7a	2.29	A-4744	8f	2.32	A-8115/			A-8220/			A-8252/			A-8284/		
A-3823	7a	3.79	A-4745	9f	6.49	V0-85	30a	11.22	H0-169	27	16.50	H0-202	27	13.50	H0-234	27	13.50
A-3824	7a	3.67	A-4747	8g	3.39	*A-8119/			*A-8221/			A-8253/			A-8285/		
A-3825	7a	3.04	A-4748	8f	3.22	H0-155	27	15.00	H0-170	27	15.00	H0-203	27	13.50	H0-235	27	15.00
A-3829	10e	21.10	A-4749	8f	7.49	A-8121/			*A-8222/			A-8254/			*A-8287/		
A-3830	7a	4.89	A-4752	10c	3.54	V80-195	30f	4.89	H0-171	27	15.00	H0-204	27	13.50	H0-237	27	13.90
A-3831	6c	3.15	A-4761	10d	12.34	A-8122/			*A-8223/			A-8255/			A-8288/		
A-3833	8f	3.07	A-4762	10d	14.24	V80-196	30f	7.72	H0-172	27	13.50	H0-205	27	13.50	H0-238	27	13.50
A-3836	8f	3.17	A-4765	10d	15.27	A-8123/			A-8224/			*A-8256/			A-8289/		
A-3837	8d	4.84	A-4770	6b	6.44	V0-87	30a	5.61	H0-173	27	16.60	H0-206	27	13.50	H0-239	27	12.00
A-3838	8e	6.04	A-4773	10b	6.74	A-8125/			*A-8225/			*A-8257/			A-8290/		
A-3839	6d	5.79	A-4774	10a	3.67	V80-198	30f	3.67	H0-174	27	16.60	H0-207	27	13.50	H0-240	27	13.50
A-3841	6b	5.95	A-4778	9a	4.87	A-8126/			A-8226/			*A-8258/			*A-8291/		
A-3842	6d	6.14	A-4779	9a	3.06	V80-199	30f	4.11	H0-175	27	16.60	H0-208	27	12.00	H0-241	27	12.00
A-3845	10e	6.89	A-4780	9a	5.39	*A-8127/			*A-8227/			*A-8259/			A-8292/		
A-3848	7a	3.02	A-7947	8d	3.29	H0-156	27	15.00	H0-176	27	13.50	H0-209	27	12.00	H0-242	27	13.50
A-3849	7a	3.65	A-7949	8d	3.85	*A-8128/			A-8228/			*A-8260/			A-8293/		
A-3850	7a	3.82	A-8050	7b	15.89	H0-157	27	15.00	H0-177	27	13.50	H0-210	27	13.50	H0-243	27	15.00
A-3851	6c	8.99	A-8051	7b	15.02	A-8129/			A-8229/			A-8261/			A-8294/		
A-3852	7a	4.57	A-8052	7b	15.35	H0-158	27	13.50	H0-178	27	13.50	H0-211	27	13.50	H0-244	27	13.50
A-3856	7a	3.20	A-8053	7b	16.27	A-8130/			A-8230/			A-8262/			A-8295/		
A-3857	6d	2.77	A-8054	7b	16.30	H0-159	27	15.00	H0-179	27	16.50	H0-212	27	15.00	H0-245	27	15.00
A-3870	7a	4.70	A-8056	7b	16.30	A-8131/			A-8231/			A-8263/			A-8296		
A-3871	10e	5.22	A-8060	7b	12.12	H0-160	27	13.00	H0-180	27	16.50	H0-213	27	13.50	H0-246	27	13.50

Prices subject to change without notice. Contact your STANCOR Distributor for quantity discount schedule.

* Available until stock is depleted.

STANCOR PAGE 2



transformers

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A-8297/			*C-2332-1	7d	18.19	DY-53A	29g	22.00	H0-289	27	15.00	H0-369	27	17.50	P-5015	17c	5.27
H0-247	27	15.00	C-2334	19d	6.17	DY-54A	29g	22.00	H0-370	27	13.50	H0-370	27	15.00	P-5016	17d	6.74
A-8298/			C-2335	19c	5.92	DY-55A	29g	20.00	H0-291	27	12.90	H0-371	27	15.00	P-5059	14d	15.04
H0-248	27	16.00	C-2340	10h	36.59	DY-56A	29g	18.50	*H0-292	27	13.50	H0-372	27	15.00	P-5062	24a	8.52
A-8299/			C-2343	19d	1.74	DY-57AT	29h	25.00	H0-293	27	16.50	H0-373	27	15.00	P-5063	24a	9.87
H0-249	27	15.00	C-2344	19a	1.37	DY-58AT	29h	25.00	H0-294	27	12.00	H0-374	27	15.00	P-5064	24a	11.19
BD-1	10e	36.47	C-2345	19a	3.94	DY-59AT	29h	22.00	H0-295	27	16.50	H0-375	27	15.00	P-5065	24a	14.77
*BD-2	10e	37.24	C-2346	19a	1.95	DY-60AT	29h	20.00	*H0-296	27	16.50	H0-376	27	15.00	P-6007	15d	14.15
BI-1	9b	32.24	C-2347	20a	3.15	DY-61AT	29h	20.00	H0-297	27	15.00	H0-377	27	15.00	*P-6008	15c	16.14
BI-2	9b	41.12	C-2685	20c	3.95	DY-62A	29h	15.00	*H0-298	27	12.20	H0-378	27	16.50	P-6010	14c	8.82
									H0-299	27	15.00	H0-379	27	15.00	P-6011	14d	8.34
BI-3	9b	35.58	C-2686	20c	6.90	DY-90AC	29h	45.00	*H0-300	27	15.00	H0-380	27	18.00	P-6012	14d	9.90
BI-4	9b	35.65	C-2687	20c	9.04	*DY-91AC	29h	43.65	H0-301	27	13.50	H0-381	27	16.50	P-6013	14a	10.37
BI-5	9b	63.50	C-2688	20c	10.50	*F-1	18a	19.24	*H0-302	27	13.50	H0-382	27	12.40	P-6014	15b	11.65
BI-6	9b	36.47	C-2689	20c	15.14	*F-2	18b	16.42	H0-303	27	12.00	H0-383	27	15.00	P-6123	24e	126.97
BI-7	9b	33.77	C-2690	20c	8.59	*F-3	18b	19.57	H0-304	27	15.00	H0-384	27	16.50	P-6124	24a	58.17
BM-1	10f	84.55	C-2691	20c	11.95	*F-4	18b	24.09	H0-305	27	16.50	H0-385	27	15.00	P-6125	24e	85.20
BO-1	7c	16.97	C-2704	19c	3.62	*F-5	18b	19.80	H0-306	27	20.00	H0-386	27	14.20	P-6131	37c	8.94
BO-2	7c	20.50	C-2705	19d	8.47	*F-6	18f	22.22	H0-307	27	15.00	H0-387	27	14.20	P-6133	17a	4.30
BO-5	7c	26.10	C-2706	20a	7.20	*F-7	18f	27.40	H0-308	27	16.00				P-6134	17b	2.39
BO-6	7c	31.49	C-2707	19a	1.72												
						F-25	17a	14.62	*H0-309	27	12.00	*H0-389	27	13.50	P-6135	17a	6.00
BO-9	7c	32.92	C-2708	20a	3.49	F-54	17a	9.54	*H0-310	27	15.00	*H0-390	27	13.50	P-6137	17b	10.70
BO-10	7c	37.34	C-2709	20a	5.19	F-58	17a	16.07	H0-311	27	10.25	*H0-391	27	13.50	P-6138	17c	8.60
BO-11	7c	43.15	*CIC-1	9a	17.89	F-63	17b	9.67	H0-312	27	15.00	*H0-392	27	13.50	P-6139	17d	8.62
BO-12	7c	36.90	*CIC-2	9a	7.97	F-68	17c	13.35	H0-313	27	15.00	*H0-393	27	13.50	P-6141	24a	19.55
BO-13	7c	31.72	*CIS-1	9a	21.75	F-104	17c	13.20	H0-314	27	14.00	*H0-394	27	13.50	P-6143	15e	13.84
BO-14	7c	48.60	*CIS-2	9a	11.47	F-106	17d	19.62	H0-315	27	15.00	*H0-395	27	13.50	P-6144	18a	10.10
BO-15	7c	30.80	COC-1	6a	9.05	F-210	17a	12.97	H0-316	27	15.00	*H0-396	27	13.50	P-6146	13b	9.79
BR-1	10f	110.94	*COC-2	6b	10.84	F-210H	17a	17.02	H0-317	27	12.00	*H0-397	27	15.00	P-6160	24e	16.47
C-1001	19c	4.02	COS-1	6a	14.69	F-215H	17a	28.09	H0-318	27	13.50	*H0-398	27	17.30	P-6161	24e	22.90
C-1002	19b	3.15	COS-2	6b	13.39												
						F-510H	17b	29.37	H0-319	27	15.00	H0-600C	27	24.00	P-6166	22d	15.37
C-1080	19b	1.82	DCT-1	22b	16.82	F-516	17b	20.32	H0-320	27	15.00	*H0-601C	27	22.50	P-6287	24a	7.60
C-1215	19a	1.89	DCT-2	22b	20.82	F-520B	17b	28.50	H0-321	27	13.50	IS-50	24d	12.22	P-6298	24e	59.70
C-1218	19a	1.99	DGC-100	31	14.75	F-530	17b	20.54	H0-322	27	15.00	IS-100	24d	21.29	*P-6299	24h	16.74
C-1277	19a	2.19	*DY-1A	29a	15.50	*F-320BX	17b	44.52	H0-323	27	15.00	IS-150	24d	25.64	P-6302	17b	35.84
C-1279	19a	1.85	DY-2A	29a	15.50	F-610	17c	19.80	H0-324	27	15.00	IS-250	24d	32.05	P-6305	17b	36.07
C-1325	19a	1.97	DY-8A	29a	15.50	F-615	17b	14.60	*H0-325	27	15.00	*LPF-1	10g	33.45	P-6308	17c	7.34
C-1333	19a	2.04	DY-10A	29a	15.50	F-712	17c	21.99	*H0-326	27	11.00	NCF-1550	25a	9.60	P-6309	17c	11.19
C-1355	19b	2.84	DY-11A	29a	17.00	F-725	17b	33.32	*H0-327	27	14.00	NCF-1650	25a	8.12	P-6315	15b	16.85
C-1400	20b	5.87	*DY-12A	29a	15.50	F-751	17c	58.22	*H0-328	27	13.50	NCF-2425	25a	6.79	P-6317	16c	14.34
C-1401	20b	7.10	DY-13A	29b	17.30	F-1010	17d	21.04	H0-329	27	13.50	NCF-2450	25a	8.02	P-6318	16c	17.62
C-1402	20b	8.10	DY-14A	29b	15.50	*H0-250	27	11.80	H0-330	27	12.00	NCF-2475	25a	8.92	P-6333	18d	11.82
C-1403	20b	14.17	DY-15A	29b	15.50	H0-251	27	13.50	H0-331	27	16.00	NCF-24100	25a	11.95	P-6338	18a	10.00
C-1404	20b	18.19	DY-16A	29b	18.00	H0-252	27	13.50	H0-332	27	13.50	NCF-24150	25a	16.02	P-6348	13d	6.85
C-1405	20b	53.45	*DY-17A	29b	16.50	*H0-253	27	13.50	H0-333	27	13.50	NCF-3250	25a	8.49	P-6358	14b	6.52
C-1410	19c	5.39	*DY-18A	29b	15.00	H0-254	27	13.50	H0-334	27	13.50	NCF-3275	25a	9.60	P-6371	24e	22.12
C-1411	19c	6.47	*DY-19A	29b	13.50	H0-255	27	15.00	H0-335	27	16.50	NCF-32150	25a	15.10	P-6375	25d	3.67
C-1412	19d	7.97	*DY-20A	29c	13.50	H0-256	27	15.00	H0-336	27	16.50	P-45	23a	33.77	P-6376	25d	4.30
C-1413	20a	13.52	*DY-21A	29c	15.50	*H0-257	27	18.75	H0-337	27	10.00	P-67	23a	33.14	P-6377	25d	5.35
C-1414	20a	18.29	*DY-22A	29c	16.50	*H0-258	27	12.00	H0-338	27	17.50	P-1240	23b	51.79	P-6378	25d	8.70
C-1415	20a	61.49	DY-23A	29c	18.00	H0-259	27	13.50	H0-339	27	17.50	P-1512	23t	133.39	P-6379	25d	14.25
C-1420	19b	5.64	DY-24A	29c	15.00	*H0-260	27	15.00	H0-340	27	17.50	P-1834-3	18i	10.94	P-6383	24f	16.15
C-1421	19c	5.14	*DY-25A	29c	15.00	*H0-261	27	9.90	H0-341	27	6.40	P-2126	23c	217.52	P-6385	24f	26.05
C-1515	19a	2.60	DY-26A	29c	19.00	*H0-262	27	14.00	H0-342	27	13.50	P-2520	23c	137.85	P-6387	24f	69.07
C-1645	20b	7.84	DY-27A	29c	19.00	*H0-263	27	10.50	H0-343	27	15.00	P-3020	17d	11.54	P-6389	24f	83.17
C-1646	19c	7.94	DY-28A	29c	13.50	H0-264	27	13.50	H0-344	27	15.00	P-3024	17a	5.60	P-6390	24f	123.29
C-1702	20b	8.04	DY-29A	29d	15.00	H0-265	27	11.00	H0-345	27	15.00	P-3026	17a	5.89	P-6410	24e	8.49
C-1703	19d	7.02	DY-30A	29d	15.00	*H0-266	27	10.50	H0-346	27	15.00	P-3060	17a	7.70	P-6433	17b	8.39
C-1706	19a	1.49	DY-31A	29d	17.00	H0-267	27	15.00	H0-347	27	15.00	P-3062	17a	5.55	P-6415	24g	27.56
C-1707	19a	1.74	DY-32A	29d	18.50	H0-268	27	13.50	H0-348	27	15.00	P-3064	17c	5.80	P-6425	16f	4.17
C-1708	19b	2.67	DY-33A	29d	15.00	H0-269	27	10.50	H0-349	27	16.50	P-4004	15d	18.69	P-6428	18e	7.32
C-1709	19b	2.70	DY-34A	29d	17.00	*H0-270	27	15.00	H0-350	27	15.00	P-4019	17c	5.85	P-6429	18f	9.79
C-1710	19c	4.22	DY-35A	29e	15.00	H0-271	27	13.50	H0-351	27	15.00	P-4022	18c	10.32	P-6430	18e	6.49
C-1718	20b	5.37	*DY-36A	29e	18.00	H0-272	27	13.50	H0-352	27	15.00	P-4026	17a	3.32	P-6431	18f	9.70
C-1720	20b	13.39	DY-37A	29e	17.00	*H0-273	27	12.00	H0-353	27	15.00	P-4062	37c	5.84	P-6432	17b	8.85
C-1721	19b	8.57	DY-38A	29e	17.00	H0-274	27	13.50	H0-354	27	15.00	P-4063	37c	7.14	P-6433	17b	9.39
C-1722	19d	11.99	DY-39A	29e	16.50	H0-275	27	13.50	H0-355	27	15.00	P-4062	17a	5.82	P-6434	17c	4.67
C-2316	19a	2.60	DY-40A	29f	18.00	H0-276	27	19.60	H0-356	27	15.00	P-4083	17a	6.39	P-6455	17a	5.20
C-2318	19c	3.27	DY-41A	29f	17.00	H0-277	27	18.50	H0-357	27	15.00	P-4086	17b	33.85			



STANCOR

transformers

PART NUMBER INDEX

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P-6469	17d	3.69	P-8338	14c	22.30	*PCG-120	15b	19.27	PSR-120	16a	21.02	TA-9	11a	5.89	UME-21	26c	6.67
P-6471	31a	6.20	P-8339	14c	15.94	PCG-150	15b	23.84	PSR-150	16a	27.99	TA-10	11a	6.00	UME-22	26c	5.95
P-6476	31a	6.34	P-8340	14d	23.32	PCC-200	15c	25.50	PSR-150	16a	32.44	TA-11	11a	4.52	UME-23	26c	5.95
P-6477	31a	3.55	P-8341	15a	18.95	PCG-250	15c	29.15	PSR-200	16a	34.22	TA-12	11a	2.22	UME-24	26c	6.00
P-6478	31a	4.07	P-8342	15a	21.67	PCF-2025	25b	6.79	PSR-300	16a	50.30	TA-13	11a	5.72	UME-25	26c	6.00
P-6480	31a	4.35	P-8343	15a	20.67	PCF-2050	25b	8.62	PSU-2000	24d	19.60	TA-14	11a	13.74	UME-26	26c	6.00
P-6481	31a	5.19	P-8344	15a	18.70	PCF-24075	25b	9.64	PSU-3000	24d	23.12	TA-15	10j	2.00	UME-27	26d	6.00
P-6482	31b	10.32	P-8345	14e	19.02	*PCF-24100	25b	12.49	PT-8311	23d	21.12	TA-16	10j	2.24	UME-28	26d	6.60
P-6489	31b	4.50	P-8346	15e	18.52	*PCF-24150	25b	15.62	PT-8312	23d	39.30	TA-17	10j	7.85	UME-29	26d	6.00
P-6490	31a	4.03	P-8347	15d	22.97	PCF-24250	25b	12.20	PT-8313	23d	33.27	TA-18	12a	4.15	UME-30	26d	6.00
P-6491	31c	4.39	P-8348	15b	17.89	PCO-150	6d	15.19	PT-8314	23d	37.32	TA-19	12a	4.47	UME-31	26d	6.00
P-6492	17b	13.39	P-8349	15a	21.39	PCO-150A	6d	15.34	PT-8315	23d	38.47	TA-20	12a	4.57	UME-32	26d	6.00
P-6493	31b	5.94	P-8350	14d	20.60	*PCO-200	6c	18.35	PV-6441	24c	23.82	TA-21	12a	4.14	UME-33	26d	6.95
P-6494	31b	4.50	P-8351	15e	18.49	PCR-55	16a	12.25	PV-6442	24c	25.44	TA-22	12a	4.44	UME-34	26d	7.67
P-6495	31b	6.10	P-8352	14d	16.30	PCR-70	16a	13.72	PV-6443	24c	30.15	TA-23	12a	4.57	UME-35	26d	7.02
P-6496	22d	14.90	P-8353	13d	23.37	PCR-85	16a	14.27	PV-6444	24c	49.22	TA-24	12a	3.99	UME-36	26d	5.95
P-6497	31b	4.54	P-8354	13d	18.32	PCR-105	16a	14.87	R-83	19d	40.87	TA-25	12a	3.99	UME-37	26d	5.25
P-6499	31b	4.54	P-8355	14a	13.64	PCR-120	16a	19.20	R-85	20a	114.04	TA-26	12a	3.99	UME-38	26d	5.25
P-8025	23b	109.22	P-8356	13c	12.65	PCR-150	16a	25.74	R-87	20a	84.57	TA-27	12a	3.99	UME-39	26d	6.00
P-8026	23b	109.67	P-8357	17d	5.95	PCR-200	16a	26.44	R-103	20a	54.34	TA-28	12a	3.99	VBO-200	30f	3.75
P-8027	23b	107.52	P-8358	17d	4.82	PCR-300	16a	35.23	R-105	20a	119.29	TA-29	12a	3.99	VBO-201	30f	4.17
P-8028	23b	122.54	P-8359	13b	9.05	PCT-14	26a	8.35	RC-1055	19b	5.92	TA-30	12a	4.00	VO-100	30c	6.75
P-8029	23b	136.79	P-8360	15e	17.84	PCT-15	26a	8.19	RC-1085	19b	6.74	TA-31	12a	3.99	VO-101	30c	6.28
P-8030	23c	117.07	*P-8361	25c	3.39	PCT-16	26a	11.85	RC-1540	19a	5.62	TA-32	12a	3.99	VO-102	30c	8.42
P-8031	23b	137.22	*P-8362	25c	3.50	PCT-17	26a	7.23	RC-1555	19b	6.44	TA-33	12a	3.99	VO-103	30c	9.25
P-8032	23c	126.20	*P-8363	25c	3.67	PCT-21	26a	6.75	RC-1585	19b	7.40	TA-34	12a	4.22	VO-105	30c	5.61
P-8033	23c	164.77	*P-8364	25c	4.25	PCT-23	26a	7.71	RC-8105	19b	8.72	TA-35	12a	3.99	VO-106	30c	5.06
P-8034	23c	156.30	P-8365	14a	15.74	PCT-25	26a	7.71	RC-8150	19c	11.45	TA-36	12a	3.99	VO-108	30c	5.36
P-8035	23c	186.17	P-8366	15b	16.74	PCT-30	26a	7.39	RC-8200	19d	12.97	TA-37	12a	3.99	VO-109	30c	10.44
P-8040	23a	17.77	P-8367	14a	20.15	PCT-31	26a	7.39	RC-8250	19d	16.02	TA-38	12a	4.05	VO-110	30c	5.75
P-8041	23a	19.84	P-8369	14c	21.32	PCT-39	26a	7.39	RC-8300	19d	19.30	TA-39	12b	4.17	VO-111	30c	6.69
P-8042	23a	25.99	P-8370	14b	22.94	PCT-43	26a	6.26	RC-12105	19b	11.99	TA-40	12b	4.39	VO-112	30c	6.86
P-8043	23a	101.49	P-8371	14c	18.69	PCT-54	26a	6.42	RC-12150	19c	13.75	TA-41	12b	3.99	VO-113	30d	5.64
P-8044	23b	48.11	P-8372	13b	13.52	PCT-60	26a	6.42	RC-12200	19d	12.40	TA-42	12b	3.99	VO-114	30d	5.75
P-8100	17d	3.95	P-8373	14a	15.50	PCT-61	26a	6.58	RP-400	21a	14.82	TA-43	12b	4.17	VO-115	30d	6.72
P-8100	16d	9.90	P-8374	13c	15.64	PCT-62	26a	6.77	RP-600	21a	14.57	TA-44	12b	4.37	VO-116	30d	7.19
P-8151	16d	14.79	P-8375	14a	17.90	PCT-70	26b	6.26	RP-800	21a	14.50	TA-45	12b	4.04	VO-117	30d	7.89
*P-8154	15c	16.10	P-8376	13a	15.49	PCT-71	26b	6.42	RP-1600	21a	13.50	TA-46	12b	3.99	VO-118	30d	7.19
*P-8155	13c	9.67	P-8377	13c	13.80	PCT-76	26b	8.35	RP-2000	21a	14.04	TA-47	12b	3.99	VO-119	30d	6.97
*P-8156	15a	24.85	P-8378	14a	15.47	PCT-77	26b	10.07	RP-2500	21a	16.65	TA-48	11b	2.77	VO-120	30d	7.58
*P-8157	15d	20.87	P-8379	13a	12.02	PCT-116	26b	6.10	RS-1055	19b	8.32	TA-49	11b	3.70	VO-121	30c	6.97
P-8158	13a	12.89	P-8381	14a	16.50	PCT-117	26b	5.14	RS-1085	19b	9.05	TA-50	11b	3.22	VO-122	30c	8.17
*P-8159	15a	20.55	P-8382	13c	11.89	PCT-118	26b	5.14	RS-1540	19a	7.87	TA-51	11b	2.35	VO-126	30c	8.06
*P-8160	15a	18.50	*P-8383	13b	14.45	PCT-128	26b	5.14	RS-1555	19b	8.94	TA-52	11b	2.35	VO-127	30c	7.81
*P-8161	15d	18.80	P-8386	13a	13.86	PM-8401	13c	6.77	RS-1585	19b	10.24	TA-53	12a	3.47	VO-128	30c	7.22
*P-8162	15c	18.70	P-8388	17d	6.00	PM-8402	13c	6.62	RS-8105	19b	11.45	TA-54	12a	3.22	VO-129	30c	6.67
*P-8163	15b	19.44	P-8389	17d	2.22	PM-8403	13c	7.29	RS-8150	19c	15.12	TA-55	12b	4.54	VO-129	30c	6.67
P-8164	14b	18.79	P-9000C	13b	19.00	PM-8404	13a	7.60	RS-8200	19d	13.00	TA-56	11a	3.57	VO-129	30c	6.67
*P-8165	14a	22.00	PA-8421	13c	4.22	PM-8405	13a	10.72	RS-8250	19d	18.22	TA-57	11a	3.74	VO-129	30c	6.67
P-8166	14d	23.90	PC-8301	23a	8.84	PM-8406	14c	6.82	RS-8300	19d	24.49	TA-58	11a	2.60	VO-129	30c	6.67
P-8167	13c	23.44	PC-8302	23b	11.82	PM-8407	14c	7.00	RS-12105	19c	12.05	TA-59	11a	2.67	VO-129	30c	6.67
P-8168	13c	21.67	PC-8303	23c	16.12	PM-8408	14d	8.55	RS-12150	19c	13.05	TA-60	11a	5.27	VO-129	30c	6.67
P-8169	15c	20.84	PC-8304	23b	16.90	PM-8409	14d	8.87	RS-12200	19d	17.12	TA-61	11a	3.14	VO-129	30c	6.67
P-8170	15c	19.27	PC-8305	23c	18.87	PM-8410	14e	10.72	RT-200	22a	15.82	TA-62	11a	2.40	VO-129	30c	6.67
P-8171	15c	21.02	PC-8306	23c	19.50	PM-8411	15b	15.37	RT-202	22a	7.72	TA-63	12b	5.24	VO-129	30c	6.67
P-8172	13c	16.44	PC-8401	13c	6.15	PM-8412	15c	14.60	RT-204	22a	9.95	TC-1	20c	1.45	VO-129	30c	6.67
P-8173	13b	5.69	PC-8402	13c	5.87	PM-8413	13c	5.44	RT-206	22a	14.24	TC-2	20c	1.44	VO-129	30c	6.67
P-8174	13b	5.87	PC-8403	13d	7.02	PM-8419	13d	6.29	RT-208	22a	17.95	TP-1	21e	5.60	VO-129	30c	6.67
P-8175	14d	9.12	PC-8404	13d	7.90	PM-8420	13d	7.49	RT-408	22a	47.94	TP-2	21e	4.52	VO-129	30c	6.67
P-8176	14e	12.20	PC-8405	13e	10.30	PM-8422	14c	11.64	RT-2012	22a	31.35	TP-3	21e	6.07	VO-129	30c	6.67
P-8177	14b	10.77	PC-8406	14c	6.65	PM-8423	14b	9.27	RT-4012	22a	62.27	TP-4	21e	10.19	VO-129	30c	6.67
P-8178	16d	11.70	PC-8407	14c	6.50	PS-8415	13b	2.69	RTC-8628	37d	2.75	TT-11	9d	14.39	VO-129	30c	6.67
P-8179	16d	12.69	PC-8408	14d	8.49	PS-8416	13b	3.22	RTC-8629	37d	2.75	TT-12	9d	15.27	VO-129	30c	6.67
P-8180	17d	3.72	PC-8409	14d	10.48	PSC-40	13c	16.14	SO-50	24b	7.57	TT-13	9d	9.12	VO-129	30c	6.67
P-8181	13b	3.84	PC-8410	14d	10.04	PSC-55	13c	18.64	SO-100	24b	9.80	TT-14	9d	8.60	VO-129	30c	6.67
P-8190	17b	3.10	PC-8411	15b	13.80	PSC-60	14b	19.15	SO-150	24b	14.69	UM-110	12c	6.79	VO-129	30c	6.67
P-8191	17b	3.64	PC-8412	15e	14.37	PSC-70	14d	18.72	SO-250	24b	16.54	UM-111	12c	4.65	VO-129	30c	6.67
P-8192	37	4.49	PC-8413	15e	15.52	PSC-85	14d	19.57	SO-500	24b	21.84	UM-112	12c	7.50	VO-129	30c	6.67
P-8193	21e	9.97	PC-8414	15e	17.15	PSC-105	14d	21.07	SO-1000	24b	35.70	UM-113	12c	5.49	VO-129	30c	6.67
P-8194	21e	16.80	PC-8417	13b	7.37	PSC-120	15b	24.42	SPECT-10	27b	.90	UM-114	12c	4.65	VO-129	30c	6.67
P-8195	22c	14.90	PC-8418	13c	5.34												

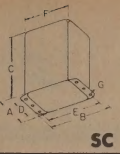
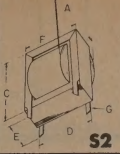
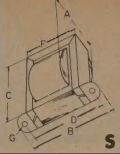
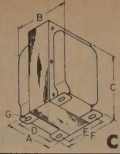
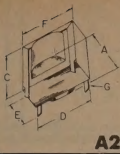
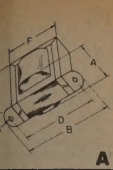
STANCOK OUTPUT TRANSFORMER CHART

audio transformers

A simplified selection of the proper transformer for use as a replacement in radio receivers or in the construction of audio amplifiers. To use this chart, check the first column for the tube being used, then read across for the applicable operating characteristics and correct Stancor transformer. In most cases, two Stancor part numbers are indicated in order to give a choice of Mounting styles.

Load Res. Stancor Universal							Load Res. Stancor Universal							Load Res. Stancor Universal							
Tube	Use	Class	Watts	in Ohms	Part No.	type	Tube	Use	Class	Watts	in Ohms	Part No.	type	Tube	Use	Class	Watts	in Ohms	Part No.	type	
1A5-GT	S.	A	.10	25K	A-3327		6D2Z	S.	A	2.0	2.5K	A-3822	A-3825	25F5	S.	A	1.2	2.5K	A-3332	A-3825	
1A6S	S.	A	.05	25K	A-3327		6E6	S.	A	1.6	14K	A-8496	A-3856		P.P.	A	2.9	4.5K	A-3872	A-3848	
1A6S	S.	A	.035	12K	A-3881	A-3827	6E6S	P.P.	A	1.4	3K	A-3328	A-3825	25L6(GT)	S.	A	2.1	2K	A-3876	A-3848	
18B-GT	S.	A	21	14K	A-3881	A-3848										A	4.3	3K	A-3872	A-3825	
1C5-GT	S.	A	.24	8K	A-3329	A-3848	6F6(GT)	P.P.	AB	4.8	7K	A-3870	A-3822		S.	A	3.8	4K	A-2283	A-3822	
1D8-GT	S.	A	20	12K	A-3879	A-3822								25N6-G	S.	A	3.8	4K	A-2283	A-3822	
1E7-GT	S.	A	.29	16K	A-3861	A-3848	6F6S	S.	A1	4	1K	A-3870	A-3822	25N6-G	S.	A	3.8	4K	A-3877	A-3825	
	P.P.	A	57.5	24K	A-3857									25W6	S.	A	3.8	4K	A-3877	A-3825	
1F4	S.	A	31	16K	A-3881	A-3848	6G6-G	P.P.	A	1.1	10K	A-3879	A-3822	26B9-G	S.	A	6.0	2.6K	A-3825	A-3825	
1G5-G	S.	A	31	16K	A-3881	A-3848	6G6S	S.	A1	2	2K	A-3879	A-3856	28D7	S.	A	1	4K	A-3328	A-3848	
1G5S	S.	A	.35	9K	A-3879	A-3822								32E5	S.	A	1.2	2.8K	A-3328	A-3825	
10B-GT	P.P.	B	67.5	12K	A-3891	A-3856	6GK6	S.	A1	5.7	5.2K	A-3877	A-3822	32E5	S.	A	1	2.6K	A-3332	A-3822	
11G5-G	S.	A	.45	13.5K	A-3881	A-3848								34C5A	S.	A	1.4	2.5K	A-3332	A-3856	
	P.P.	B	12K	A-3879	A-3822		6H6S	S.	A1	4.5	5K	A-8092	A-3825	34G5A	S.	A	1.5	2.5K	A-3332	A-3856	
11F6-GT	P.P.	B	2.1	10K	A-3831	A-3856	6K6-GT	S.	A	9.8	9.8K	A-3879	A-3822		S.	A	3	3.87K	A-3877	A-3848	
1L4	S.	A	1	25K	A-3327									35B5	S.	A	1.5	2.5K	A-3332	A-3848	
1L4S	S.	A	.2	12K	A-3879	A-3822	6J10	S.	A1	4.2	12K	A-2312	A-3880	35C5	S.	A	1.5	2.5K	A-3332	A-3848	
1N6-GT	(GT)	S.	1	25K	A-3327		6L6(GT)(GA)	S.	A	6.5	2.5K	A-3879	A-3825	35DZ	S.	A	2.0	2.5K	A-3332	A-3825	
1O5-GT	S.	A	.27	8K	A-3329	A-3848								35E4S	S.	A1	1.2	3K	A-3338	A-3825	
154	S.	A	.27	8K	A-3329	A-3848								35L6-G	S.	A	1.5	2.5K	A-3332	A-3825	
17S-GT	S.	A	.17	14K	A-3881	A-3848										A	3	5K	A-3877	A-3848	
1V5	S.	A	.05	25K	A-3327																
1W4	S.	A	.2	12K	A-3879	A-3822															
2A3	S.	A	3.5	2.5K	A-3876	A-3825															
2A5	P.P.	AB1	1.5	3K	A-3301	A-3830	6M5	S.	A	3.9	7K	A-3870	A-3824	42	S.	P.P.	A	18.5	10K	A-3311	A-3830
	P.P.	AB2	4.8	7K	A-3878	A-3850								50A5	S.	A	2.1	2K	A-3876	A-3856	
2E2A	S.	A	3.9	6K	A-3878	A-3848	6N6-G	P.P.	AB1	9.4	7K	A-3801	A-3880		S.	A	3.8	4K	A-2283	A-3825	
2E2B	S.	A	4.0	5.5K	A-3877	A-3848								50B5	S.	A	1.9	2.5K	A-3332	A-3825	
2E3B	S.	A	4.5	4.5K	A-3877	A-3848	6N7	P.P.	B	10	8K	A-3880	A-3880	63A0K5	S.	A	3.5	6.5K	A-3878	A-3825	
3A4	S.	A	.7	8K	A-814	A-3822	6R8	S.	A	0.3	10K	A-3879	A-3856	50C5	S.	A	1.9	2.5K	A-3332	A-3825	
3B5-GT	S.	A	.2	5K	A-3878	A-3856	6SR7	S.	A	0.3	10K	A-3879	A-3856	50C6-G	S.	A	3.6	2K	A-3876	A-3825	
3B7/1291	P.P.	AB2	1.5	16K	A-2312	A-3880	6V5-GT	S.	A	4.5	5K	A-3877	A-3824	50E4S	S.	A	1.1	35K	A-3328	A-3825	
3C5-GT	S.	A	.2	8K	A-3329	A-3848								50E4S	P.P.	A	3.8	6K	A-3328	A-3825	
	S.	A	.26	10K	A-3878	A-3848	6V6(GT)	P.P.	AB1	10	10K	A-3877	A-3825	50F5S	S.	A1	4	1K	A-8070	A-3822	
	S.	A	.26	10K	A-3878	A-3848									P.P.	A1	8	1.6K			
30D	S.	A	.6	14K	A-3881	A-3848	6V7-G	S.	A	0.35	20K	A-3327		50F5S	S.	A1	1.2	3K	A-3338	A-3856	
31E1	S.	A	.25	8K	A-3329	A-3848	6W6-GT	S.	A	3.8	5K	A-3877	A-3848	50L6-GT	S.	A	2.1	2K	A-3876	A-3856	
31F4	S.	A	.4	8K	A-3329	A-3848	6V6-GT	S.	A	6.0	2.6K	A-3876	A-3825		S.	A	3.8	4K	A-2283	A-3825	
304	S.	A	.27	10K	A-3879	A-3822	6V7-G	P.P.	B	8.0	14K	A-2312	A-3823	60F5S	S.	A	1.3	3K	A-3338	A-3856	
333	S.	A	4	8K	A-3329	A-3822	7A5	S.	A	1.5	2.5K	A-3332	A-3848	70A7-GT	S.	A	1.5	2.5K	A-3332	A-3825	
35T	S.	A	.18	8K	A-3329	A-3822	7B5	S.	A	1.5	2.5K	A-3332	A-3848	70L7-GT	S.	A	1.8	2K	A-3332	A-3825	
3V4	S.	A	.27	8K	A-3329	A-3848	7C5	S.	A	5.5	8.5K	A-3879	A-3822	117L7-MT/GT	S.	A	.85	4K	A-2283	A-3825	
3W4	S.	A	.27	10K	A-3879	A-3822	80S	S.	A	5.7	4.5K	A-3335	A-3822	117N7-GT	S.	A	1.2	3K	A-3332	A-3825	
4A6-G	P.P.	B	1.0	8K	A-3879	A-3822	90Z8	P.P.	AB1	11.0	8K	A-3335	A-3848	117P7-GT	S.	A	85	4K	A-2283	A-3825	
5A0S	S.	A	2.0	5.5K	A-3877	A-3848	10A11	S.	A	2.0	2.5K	A-3332	A-3825	1632	P.P.	A	1.0	10K	A-3331	A-3856	
5C6	S.	A	4.5	5K	A-3877	A-3848	10A11	S.	A	4.5	2.5K	A-3877	A-3856	5640	S.	A	1.25	3K	A-3332	A-3825	
5C6B	P.P.	AB1	10.5	10K	A-3335	A-3823	10A11	S.	A	4.5	2.5K	A-3877	A-3856	5670	P.P.	AB1	10	27K	A-3857	A-3825	
5VZ5	S.	A	5.4	5K	A-3877	A-3848	12A5	S.	A	3.4	3.3K	A-2283	A-3825	5672	S.	A	.065	20K	A-3327		
5CZ5(GT)	P.P.	AB1	21.5	7.5K	A-3877	A-3822	12A6(GT)	S.	A	5.5	13.5K	A-8114	A-3822	58B2	S.	A	2.7	9K	A-3878	A-3822	
6A3	S.	A	3.2	2.5K	A-3876	A-3825	12A7	S.	A	4.5	9K	A-3877	A-3825	58C4	S.	A	4.3	1.7K	A-3876	A-3825	
6A4/LA	P.P.	AB1	1.5	3K	A-3301	A-3830	12A8S	S.	A	4.5	9K	A-3877	A-3825	58E4	S.	A	5.5	8.5K	A-3878	A-3825	
6A5-G	S.	A	3.75	2.5K	A-3876	A-3825	12A9S	P.P.	AB1	10.0	10K	A-3335	A-3848	58E5	S.	A	1	3K	A-3328	A-3825	
6A6	P.P.	B	15	3K	A-3301	A-3830	12A9S	P.P.	AB1	10.0	10K	A-3335	A-3848	6005	S.	A	2.0	5.5K	A-4431	A-3856	
6A8	S.	A	10	8K	A-3329	A-3822	12B6	S.	A	0.3	10K	A-3879	A-3856	6015	P.P.	AB1	3.8	4.5K	A-3331	A-3825	
6A8B	S.	A	14	11K	A-3329	A-3822	12B6S	S.	A	0.3	10K	A-3879	A-3856	6015	P.P.	AB1	3.8	4.5K	A-3331	A-3825	
6A8S-GT	P.P.	B	10	8K	A-3329	A-3822	12B6S	S.	A	0.3	10K	A-3879	A-3856	6287	S.	A	4.5	6K	A-4311	A-3823	
6A8S-GT	P.P.	B	10	8K	A-3329	A-3822	12B6S	S.	A	0.3	10K	A-3879	A-3856	6360	P.P.	AB1	9.3	8K	A-3335	A-3848	
6A8S-GT	P.P.	B	10	8K	A-3329	A-3822	12B6S	S.	A	0.3	10K	A-3879	A-3856	6360	P.P.	AB1	9.3	8K	A-3335	A-3848	
6A8S-GT	P.P.	B	10	8K	A-3329	A-3822	12B6S	S.	A	0.3	10K	A-3879	A-3856	6360	P.P.	AB1	9.3	8K	A-3335	A-3848	
6A8S-GT	P.P.	B	10	8K	A-3329	A-3822	12B6S	S.	A	0.3	10K	A-3879	A-3856	6360	P.P.	AB1	9.3	8K	A-3335	A-3848	
6A8S-GT	P.P.	B	10	8K	A-3329	A-3822	12B6S	S.	A	0.3	10K	A-3879	A-3856	6360	P.P.	AB1	9.3	8K	A-3335	A-3848	
6A8S-GT	P.P.	B	10	8K	A-3329	A-3822	12B6S	S.	A	0.3	10K	A-3879	A-3856	6360	P.P.	AB1	9.3	8K	A-3335	A-3848	
6A8S-GT	P.P.	B	10	8K	A-3329	A-3822	12B6S	S.	A	0.3	10K	A-3879	A-3856	6360	P.P.	AB1	9.3	8K	A-3335	A-3848	
6A8S-GT	P.P.	B	10	8K	A-3329	A-3822	12B6S	S.	A	0.3	10K	A-3879	A-3856	6360	P.P.	AB1	9.3	8K	A-3335	A-3848	
6A8S-GT	P.P.	B	10	8K	A-3329	A-3822	12B6S	S.	A	0.3	10K	A-3879	A-3856	6360	P.P.	AB1	9.3	8K	A-3335	A-3848	
6A8S-GT	P.P.	B	10	8K	A-3329	A-3822	12B6S	S.	A	0.3	10K	A-3879	A-3856	6360	P.P.	AB1	9.3	8K	A-3335	A-3848	
6A8S-GT	P.P.	B	10	8K	A-3329	A-3822	12B6S	S.	A	0.3	10K	A-3879	A-3856	6360	P.P.	AB1	9.3	8K	A-3335	A-3848	
6A8S-GT	P.P.	B	10	8K	A-3329	A-3822	12B6S	S.	A	0.3	10K	A-3879	A-3856	6360	P.P.						

SECTION 5600



STANCOR
COMMERCIAL
output
transformers

OUTPUT: SINGLE PLATE TO VOICE COIL AND/OR LINE

	Catalog No.	Impedance in Ohms		Max Pri DCMA	Audio Watts	Termination		Style	Dimensions								WT. Lbs.
		Primary	Secondary			Pri	Sec		A	B	C	D	E	F	G		
a	A-8070	1000	4.0	90	4	Leads	Leads	A	1 1/2	2 3/4	1 3/4	2	—	1 3/4	3/8	0.4	
	A-3332	2000	3.2	50	3	Leads	Leads	A	1 1/4	2 1/2	1 1/4	1 3/4	—	1 1/2	3/8	0.4	
	A-3330	2000 a	3.5	60	5	Leads	Leads	A	1 1/2	2 3/4	1 3/4	2	—	1 3/4	3/8	0.4	
	A-3876	2000	4.0	60	5	Leads	Leads	A	1 3/4	2 3/4	1 3/4	2	—	1 3/4	3/8	0.4	
	A-3336	2500 b	3.5	50	5	Leads	Leads	A	1 3/4	2 3/4	1 3/4	2	—	1 3/4	3/8	0.4	
	A-3328	4000	3.5	10	3	Leads	Leads	A	1 1/2	2 3/4	1 1/4	1 3/4	—	1 1/2	3/8	0.4	
	A-2203	4000	8.0	40	5	Leads	Leads	A	1 1/2	2 3/4	1 3/4	2 3/4	—	2	3/8	0.7	
	A-3877	5000	4.0	40	5	Leads	Leads	A	1 3/4	2 3/4	1 3/4	2	—	1 3/4	3/8	0.4	
	A-3309	5000	3-4	35	3	Leads	Leads	A	1 3/4	2 1/4	1 1/4	1 3/4	—	1 1/2	3/8	0.4	
	A-8092	5000	3-4	50	8	Leads	Leads	A	1 1/2	2 3/4	1 3/4	2 3/4	—	2	3/8	0.5	
	A-3337	5000	6-8	40	10	Leads	Leads	S	1 3/4	2 1/4	2 3/4	2 3/4	—	2	3/8	1.0	
	A-3310	5000	500/15/8/4	55	20	Leads	Leads	C	2 1/2	2 3/4	3 1/4	2	1 3/4	2 3/8	3/8 x 3/8	2.5	
	COC-1	5000	600/150/16/8/4	55	5	Leads	Leads	SC	2 1/2	3	3 1/4	1 3/4	2 1 1/8	2 3/8	3/8	2.25	
	COS-1	5000	600/150/16/8/4	55	5	Lugs	Lugs	SC	2 1/2	3	3 1/4	1 3/4	2 1 1/8	2 3/8	3/8	2.25	
A-4431	6000	3-4	35	5	Leads	Leads	A2	1 1/2	—	1 3/4	1 3/4	1 1/4	2	5/32	0.8		
b	A-3878	7000	4.0	30	5	Leads	Leads	A	1 1/4	2 3/4	1 3/4	2	—	1 3/4	3/8	0.4	
	A-2313	7000	8.0	40	10	Leads	Leads	A	2	3 1/4	2	2 1 3/16	—	2 3/8	3/8	1.0	
	A-3841	{ 7000/6000/5000 4000/2500 }	500	60	10	Lugs	Lugs	S	2	3 3/4	2 3/4	2 1 3/16	—	2 1/4	3/8	1.5	
	A-4770	{ 7000/6000/5000 4000/2500 }	500	60	20	Leads	Lugs	S	2 1/8	3 3/4	3 3/8	3 3/8	—	2 3/8	3/8	2.4	
	A-8114	7600	3.2	32	5	Leads	Leads	A	1 3/4	2 3/4	1 3/4	2	—	1 3/4	3/8	0.4	
	A-3329	8000	3.5	10	3	Leads	Leads	A	1 1/2	2 1/4	1 1/4	1 3/4	—	1 1/2	3/8	0.4	
	COC-2	8000	600/150/16/8/4	55	5	Leads	Leads	SC	2 1/2	3	3 1/4	1 3/4	2 1 1/8	2 3/8	3/8	2.25	
	COS-2	8000	600/150/16/8/4	55	5	Lugs	Lugs	SC	2 1/2	3	3 1/4	1 3/4	2 1 1/8	2 3/8	3/8	2.25	
	A-3879	10000	4.0	30	5	Leads	Leads	A	1 3/8	2 3/4	1 3/4	2	—	1 3/4	3/8	0.4	
	A-3881	15000	4.0	10	5	Leads	Leads	A	1 3/4	2 3/4	1 3/4	2	—	1 3/4	3/8	0.4	
	A-3250	{ 20000/10000 5000 }	{ 500/333/200 125/50 }	15	5	Lugs	Lugs	A	1 3/8	3 1/4	2	2 1 3/16	—	2 3/8	3/8	1.0	
	A-3315	{ 20000/10000 5000 }	{ 500/333/200 125/50 }	35	20	Lugs	Lugs	C	2 1/2	2 3/4	3 1/4	2	1 3/4	2 3/8	3/8 x 3/8	2.7	
	A-3327	25000	4.0	5	5	Leads	Leads	A	1 3/4	2 3/4	1 3/4	2	—	1 3/4	3/8	0.4	

OUTPUT: PUSH-PULL PLATES TO VOICE COIL AND/OR LINE

A-8098	2000 C.T.	32/16/8	140	15	Leads	Leads	C	2 1/2	3 1/4	3 1/4	2	2 1/4	2 3/8	3/8 x 3/8	3.3
A-3802	3800/3300 C.T.	500/250/8/4	125	75	Leads	Leads	C	3 3/4	4	4 1 1/8	3	2 1 1/8	3 3/8	3/8 x 3/8	7.9
A-8094	4000 C.T.	32/16/8	80	7.5	Leads	Leads	A	2 1/4	3 1/4	2 3/4	3 1/4	—	2 3/4	3/8	1.5
A-3851	4400 C.T. c	500/250/15/8/4	70	30	Leads	Leads	C	2 1 3/8	3 1/4	3 1/2	2 1/4	2	2 3/4	3/8 x 3/8	3.6
A-3872	5000 C.T.	15/8/4	75	18	Leads	Leads	SC	2 1/4	2 3/4	2 1 1/8	1 1/2	2 3/8	2	3/8	1.7
A-3800	5000 C.T.	500/250/15/8/4	80	30	Leads	Leads	C	2 1 3/8	3 1/4	3 1/2	2 1/4	2	2 3/4	3/8 x 3/8	3.7
A-3307	6000 C.T.	500/15/8/4	100	30	Leads	Leads	C	2 1 3/8	3 1/4	3 1/2	2 1/4	2	2 3/4	3/8 x 3/8	3.5
PCO-200	6000 C.T. c	600/150/16/8/4	250	30	Leads	Leads	SC	4 1/8	5 1/4	5 5/8	2 1/2	4 3/4	4 1/8	7/8	9.0
PSO-200	6000 C.T. c	600/150/16/8/4	250	30	Lugs	Lugs	SC	4 1/8	5 1/4	5 5/8	2 1/2	4 3/4	4 1/8	7/8	9.0
A-3801	6600 C.T.	500/250/15/8/4	150	35	Leads	Leads	C	3 1/4	3 1/2	3 3/4	2 1/2	2 3/8	3 1/8	3/8 x 3/8	4.8
A-3885	9000 C.T.	500/250/15/8/4	150	35	Leads	Leads	C	3 1/4	3 3/4	3 3/4	2 1/2	2 3/8	3 1/8	3/8 x 3/8	4.8
A-4432	10000 C.T.	4.0	50	10	Leads	Leads	S2	1 1/2	—	2 3/4	1 1/2	1 1/8	2	3/8	1.0
A-3304	10000/7000 C.T.	500/15/8/4	60	25	Leads	Leads	C	2 1/2	2 3/4	3 1/4	2	1 3/4	2 3/8	3/8 x 3/8	2.7
A-3311	10000 C.T.	500/15/8/4	70	25	Leads	Leads	C	2 1 3/8	3 1/4	3 1/2	2 1/4	2	2 3/4	3/8 x 3/8	3.5
A-3831	10000 C.T.	8/4/2	40	5	Leads	Leads	A	1 3/4	2 3/4	1 3/4	2 3/4	—	2	3/8	0.7
A-8093	10000 C.T.	3-4	40	10	Leads	Leads	A	1 1/2	2 3/4	1 3/4	2 3/4	—	2	3/8	0.7
A-3335	10000 C.T.	6-8/3-2-4	40	10	Leads	Leads	S	2	2 1/2	2 3/4	2 3/4	—	2	3/8	1.0
PCO-150	10000 C.T. c	600/150/16/8/4	200	15	Leads	Leads	SC	3 1/4	4	4 1/4	2 1/4	3 1/2	2 1 1/8	7/8	5.0
PSO-150	10000 C.T. c	600/150/16/8/4	200	15	Lugs	Lugs	SC	3 1/4	4	4 1/4	2 1/4	3 1/2	2 1 1/8	7/8	5.0
A-3839	10000 C.T.	2000 and 15/8/4	30	10	Leads	Leads	SC	2 1/4	2 3/4	2 1 1/8	1 1/2	2 3/8	2	3/8	1.3
PCO-150A	12000 C.T.	600/150/16/8/4	200	15	Leads	Leads	SC	3 1/4	4	4 1/4	2 1/4	3 1/2	2 1 1/8	7/8	5.0
A-2312	14000 C.T.	4.0	40	10	Leads	Leads	A	1 1/2	2 3/4	1 3/4	2 3/4	—	2	3/8	1.0
A-3496	14000 C.T.	4.0	25	5	Leads	Leads	A	1 3/4	2 3/4	1 3/4	2	—	1 3/4	3/8	0.4
A-3303	14000 C.T.	500/15/8/4	55	20	Leads	Leads	C	2 1/2	2 3/4	3 1/4	2	1 1 1/8	2 3/8	3/8 x 3/8	2.7
A-3842	{ 14000/12000 10000/8000 C.T. }	500	55	10	Lugs	Lugs	S	2	3 1/4	2 3/4	2 1 1/8	—	2 1/4	3/8	1.7
A-3250	20000 C.T.	{ 500/333/200 125/50 }	15	5	Lugs	Lugs	A	1 3/4	3 1/4	2	2 1 1/8	—	2 3/8	3/8	1.0
A-3315	20000 C.T.	{ 500/333/200 125/50 }	35	20	Lugs	Lugs	C	2 1/2	2 3/4	3 1/4	2	1 1 1/8	2 3/8	3/8 x 3/8	2.7
A-3857	25000 C.T.	4.0	10	5	Leads	Leads	A	1 1/2	2 3/4	1 3/4	2	—	1 3/4	3/8	0.4

Has 4.5% primary Tap.

c. Has Tertiary Winding to provide 10% inverse feedback.

Has 3% and 6% primary Taps.

* Available until stock is depleted

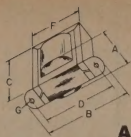
STANCOR PAGE 6

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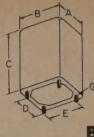
COMMERCIAL

output
transformers

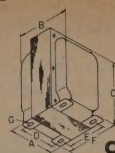
SECTION 5600



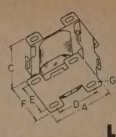
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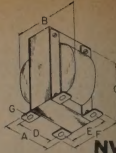
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C



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NV

UNIVERSAL OUTPUT

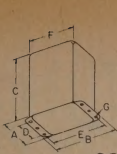
Catalog No.	Impedance in Ohms		Max Pri DCMA	Audio Watts	Termination		Style	Dimensions								WT. Lbs.
	Primary	Secondary			Pri	Sec		A	B	C	D	E	F	G		
A-3856	{ S. or P.P. Plates 4000 to 14000 }	.05 to 122	35	4	Leads	Lugs	A	1 1/2	2 3/8	1 3/8	2	—	1 3/4	3/8	0.4	
A-3822	{ S. Plate 7000 to 10000 }	.7 to 4	35	4	Leads	Lugs	A	1 3/8	2 3/8	1 3/8	2	—	1 3/4	3/8	0.4	
A-3848	{ S. Plate 7000 to 16000 }	.4 to 4	10	5	Leads	Lugs	A	1 3/8	2 3/8	1 3/8	2	—	1 3/4	3/8	0.4	
A-3823	{ S. or P.P. Plates 4000 to 14000 }	.05 to 122	40	8	Leads	Lugs	A	1 3/8	2 3/8	1 3/8	2 3/8	—	2	3/8	0.7	
A-3850	{ S. or P.P. Plates 4000 to 14000 }	.05 to 122	40	8	Leads	Lugs	S	1 3/8	2 3/8	2	2	—	1 3/8	3/8	0.7	
A-3825	{ S. Plate 1500 to 4500 }	.3 to 4	75	8	Leads	Lugs	A	1 3/8	3 1/4	2	2 1/8	—	2 3/8	3/8	0.9	
A-3824	{ S. or P.P. Plates 6000 to 10000 }	.6 to 4	75	8	Leads	Lugs	A	2	3 1/4	2	2 1/8	—	2 3/8	3/8	1.4	
A-3849	{ S. Plate 1500 to 10000 }	.02 to 21	55	10	Lugs	Lugs	A	1 1/2	2 3/8	1 3/8	2 3/8	—	2	3/8	0.7	
A-3880	{ P.P. Plates 4000 to 14000 }	.05 to 122	40	15	Lugs	Lugs	A	2 1/8	3 3/8	2 3/8	3 3/8	—	2 3/8	3/8	1.7	
A-2855	{ P.P. Plates 4000 to 14000 }	.05 to 122	50	15	Lugs	Lugs	L	2 3/8	2	2	1 1/2	1 3/8	1 3/8	3/8 x 1/2	1.0	
A-3890	{ P.P. Plates 4000 to 14000 }	.05 to 122	50	15	Leads	Leads	SC	2 3/4	2 3/8	2 1/8	1 1/2	2 3/8	2	3/8	1.5	
A-3852	{ P.P. Plates 4000 to 14000 }	.05 to 122	40	18	Leads	Lugs	S	2	2 3/8	2 3/8	2 3/8	—	2	3/8	1.3	
A-3870	{ P.P. Plates 4000 to 14000 }	.05 to 122	50	18	Lugs	Lugs	A	2	3 1/4	2	2 1/8	—	2 3/8	3/8	1.3	
A-3830	{ P.P. Plates 3000 to 10000 }	.04 to 122	60	20	Leads	Lugs	S	2 1/8	3 3/8	2 3/8	2 1/8	—	2 1/4	3/8	1.8	

OUTPUT: HIGH FIDELITY: FREQ. RESPONSE ± 1 DB 20 TO 20,000 CYCLES

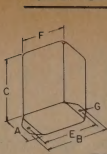
b	A-8050	1500 C.T.	16/8	200	50	Leads	Leads	C	3 3/8	4 1/4	4 1/4	2 3/8	3 3/8	3 3/8 x 3/8	6.5
	A-8060	1500 C.T.	500	200	50	Leads	Leads	C	3 3/8	4 1/4	4 1/4	2 3/8	3 3/8	3 3/8 x 3/8	6.5
	A-8051	2500 C.T.	16/8	150	50	Leads	Leads	C	3 3/8	4 1/4	4 1/4	2 3/8	3 3/8	3 3/8 x 3/8	6.5
	A-8061	2500 C.T.	500	150	50	Leads	Leads	C	3 3/8	4 1/4	4 1/4	2 3/8	3 3/8	3 3/8 x 3/8	6.5
	A-8052	3000 C.T.	16/8	175	50	Leads	Leads	C	3 3/8	4 1/4	4 1/4	2 3/8	3 3/8	3 3/8 x 3/8	6.5
	A-8062	3000 C.T.	500	175	50	Leads	Leads	C	3 3/8	4 1/4	4 1/4	2 3/8	3 3/8	3 3/8 x 3/8	6.5
	A-8053	5000 C.T.	16/8	150	50	Leads	Leads	C	3 3/8	4 1/4	4 1/4	2 3/8	3 3/8	3 3/8 x 3/8	6.5
	A-8063	5000 C.T.	500	150	50	Leads	Leads	C	3 3/8	4 1/4	4 1/4	2 3/8	3 3/8	3 3/8 x 3/8	6.5
	A-8056	6600 C.T.	16/8	125	50	Leads	Leads	C	3 3/8	4 1/4	4 1/4	2 3/8	3 3/8	3 3/8 x 3/8	6.5
	A-8066	6600 C.T.	500	125	50	Leads	Leads	C	3 3/8	4 1/4	4 1/4	2 3/8	3 3/8	3 3/8 x 3/8	6.5
A-8072	7600 C.T. a	16/8/4	100	25	Leads	Leads	C	3 3/8	4 1/4	4 1/4	2 3/8	3 3/8	3 3/8 x 3/8	6.5	
A-8054	9000 C.T.	16/8	100	50	Leads	Leads	C	3 3/8	4 1/4	4 1/4	2 3/8	3 3/8	3 3/8 x 3/8	6.5	
A-8064	9000 C.T.	500	100	50	Leads	Leads	C	3 3/8	4 1/4	4 1/4	2 3/8	3 3/8	3 3/8 x 3/8	6.5	



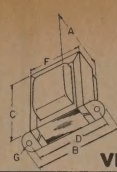
S



SC



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VE

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25 VOLT LINE TO VOICE COIL

Catalog No.	Impedance in Ohms		Audio Watts	Termination		Style	Dimensions							WT Lbs.
	Primary	Secondary		Pri	Sec		A	B	C	D	E	F	G	
A-8099	312/625/1250	8/4	2/1.5	Lugs	Lugs	A	1 3/4	2 1/4	1 1/4	1 3/4	—	1 1/2	3/8	0.3
A-8087	312/625/1250	8	2/1.5	Lugs	Lugs	A	1 3/4	2 3/4	1 3/4	2	—	1 3/4	3/8	0.4
A-8088	{156/312/625/1250}	8	{4/2/1.5}	Leads	Leads	A	1 3/4	2 3/4	1 3/4	2 3/4	—	2	3/8	0.7
A-8095	{125/250/500}	8/4	{5/2.5/1.25}	Lugs	Lugs	A	1 1/2	2 3/4	1 3/4	2	—	1 3/4	3/8	0.4
A-8096	{1000/2000}		{.62/.31}											
A-8096	78/156/312/625	16/8/4	8/4/2/1.5	Lugs	Lugs	S	1 3/4	2 3/4	2	2	—	1 3/4	3/8	0.65
A-8097	{39/78/156/312/625/1250}	16/8/4	{16/8/4/2/1.5}	Lugs	Lugs	S	2 1/4	3 3/4	2 3/4	2 1/4	—	2 1/4	3/8	1.6

70.7 VOLT LINE TO VOICE COIL

A-8109	2500/5000/10000	8/4	2/1.5	Lugs	Lugs	A	1 3/4	2 1/4	1 1/4	1 3/4	—	1 1/2	3/8	0.3
A-8083	2500/5000/10000	8	2/1.5	Lugs	Lugs	A	1 3/4	2 3/4	1 3/4	2	—	1 3/4	3/8	0.4
A-8084	{1250/2500/5000}	8	{4/2/1.5}	Lugs	Lugs	A	1 3/4	2 3/4	1 3/4	2 3/4	—	2	3/8	0.7
A-8105	{10000/20000/40000}	8/4	{5/2.5/1.25}	Lugs	Lugs	A	1 1/2	2 3/4	1 3/4	2	—	1 3/4	3/8	0.4
A-8080	{1000/2000/4000}	8/4	{.62/.31}											
A-8080	1000/1250/1667	16/8	5/4/3/2/1	Lugs	Lugs	A	1 1/2	2 3/4	1 3/4	2	—	1 3/4	3/8	0.4
A-8102	2500/5000													
A-8102	625/1250/2500	16/8/4	8/4/2/1.5	Lugs	Lugs	S	1 1/2	2 3/4	2	2	—	1 3/4	3/8	0.7
A-8081	500/555/625	16/8	10/9/8/7/6	Lugs	Lugs	S	1 3/4	2 3/4	2	2	—	1 3/4	3/8	0.7
A-8082	333/357/384	16/8	{15/14/13}	Lugs	Lugs	S	1 3/4	2 3/4	2 3/4	2 3/4	—	2	3/8	1.2
A-8103	417/455		{12/11}											
A-8103	312/625/1250	16/8/4	{16/8/4/2/1.5}	Lugs	Lugs	S	2 1/4	3 3/4	2 3/4	2 1/4	—	2 1/4	3/8	1.5

140 VOLT LINE TO VOICE COIL

A-8108	{4000/8000}	8/4	{5/2.5/1.25}	Lugs	Lugs	A	1 1/2	2 3/4	1 3/4	2	—	1 3/4	3/8	0.4
A-8106	{16000/32000}		{.62}											
A-8106	2500/5000	16/8/4	8/4/2/1	Lugs	Lugs	S	1 3/4	2 3/4	2	2	—	1 3/4	3/8	0.7
A-8107	{10000/20000}													
A-8107	{1250/2500/5000}	16/8/4	16/8/4/2/1	Lugs	Lugs	S	2	3 3/4	2 3/4	2 1/4	—	2 1/4	3/8	1.8

LINE TO VOICE COIL

A-8101	500	6-8/3.2	5	Lugs	Lugs	A	1 3/4	2 3/4	1 3/4	2	—	1 3/4	3/8	0.4
A-3883	500	15/8/6/4	25	Lugs	Lugs	S	1 3/4	2 3/4	2 3/4	2 3/4	—	2	3/8	1.1
A-3882	500/333/250	15/8/4	25	Lugs	Lugs	C	2 1/2	3 3/4	3 3/4	2	1 3/4	2 3/4	3/8 x 3/8	2.2
A-3818	1500/1000/500	15/8/4	25	Lugs	Lugs	S	2 3/4	3 3/4	3 3/4	3 3/4	—	2 3/4	3/8	2.4
A-7947	{2000/1500/1000}	6-8/3.2	8	Lugs	Lugs	A	1 3/4	2 3/4	1 3/4	2 3/4	—	2	3/8	0.7
A-7949	500													
A-7949	2000/1500/1000	6-8/3.2	12	Lugs	Lugs	S	1 3/4	2 3/4	2 3/4	2 3/4	—	2	3/8	1.1
A-3820	500	15/8/4	40	Lugs	Lugs	C	3 3/4	3 3/4	4 1/4	2 3/4	2 3/4	3 3/4	3/8 x 3/8	5.0
A-8104	{2000/1500/1000}	16/8/4	10	Lugs	Lugs	S	1 3/4	2 3/4	2 3/4	2 3/4	—	2	3/8	1.5
A-3837	1000/500	.06 to 48	15	Lugs	Lugs	S	2	2 3/4	2 3/4	2 3/4	—	2	3/8	1.4

LINE TO LINE

A-4350	{500/333/200}	{500/333/200}	10	Lugs	Lugs	A	1 3/4	3 3/4	2	2 1/4	—	2 3/4	3/8	1.0
A-4407	125/50	125/50												
A-4407	500/333/200	500/333/200	20	Lugs	Lugs	C	2 1/2	2 3/4	3 3/4	2	1 3/4	2 3/4	3/8 x 3/8	2.4
A-3838	125/50	125/50												
A-3838	500	250/166/125	30	Lugs	Lugs	NV	2 1/2	2 3/4	3 3/4	2	2	2 1/4	3/8 x 3/8	2.3

FOR INTERCOMS AND TRANSCEIVERS

Catalog No.	Application	Impedance in Ohms		Audio Watts	Termination		Style	Dimensions							WT Lbs.
		Primary	Sec.		Pri	Sec		A	B	C	D	E	F	G	
A-4744	Intercom Input	4	25,000	—	Leads	Lugs	VE	1 1/2	2 3/4	1 3/4	2	—	1 3/4	3/8	0.5
A-4748	Intercom Input	45 or 50	50,000	—	Leads	Lugs	A	1 3/4	2 3/4	1 1/4	1 3/4	—	1 1/2	3/8	0.4
A-8090	Line to Voice Coil	45 or 50	6-8/3-4	3	Lugs	Lugs	A	1 3/4	2 3/4	1 3/4	2	—	1 3/4	3/8	0.5
A-8091	Line to Voice Coil	45 or 50	6-8/3-4	8	Lugs	Lugs	A	1 3/4	2 3/4	1 3/4	2 3/4	—	2	3/8	0.7
A-3817	Transceiver Modulation and Output	5000 or 50 Mads	6750 or 40 Mads	10	Lugs	Lugs	S	2	2 3/4	2	2	—	1 3/4	3/8	0.7
A-3833	Transceiver Input Mic. or Plate to Grid	5000/200	60,000	—	Leads	Lugs	A	1 3/4	2 3/4	1 3/4	2 3/4	—	2	3/8	0.7
A-3836	Transceiver Output	10,000	2000/50	5	Leads	Lugs	A	1 1/4	2 3/4	1 3/4	2 3/4	—	2	3/8	0.7
A-4749	Telephone patch Circuit	10,000	500	—	Leads	Lugs	TD	1 1/2	2 3/4	1 1/4	—	1 1/4	1 1/2	3/8	1.0

MICROPHONE, PICKUP OR LINE TO GRID

Catalog No.	Application	Impedance in Ohms		Ratio	Termination		Style	Dimensions							WT Lbs.
		Primary	Secondary		Pri	Sec		A	B	C	D	E	F	G	
A-4705	S.B. Mic. to S. Grid	200/70	80,000	1:20	Lugs	Lugs	A	1 3/4	2 3/4	1 3/4	2	—	1 3/4	3/8	0.5
A-4706	S.B. Mic. to S. Grid	100	60,000	1:24.5	Lugs	Lugs	A	1 1/2	2 3/4	1 3/4	2	—	1 3/4	3/8	0.5
A-4708	D.B. Mic. to S. Grid	200 C.T.	57,000	1:17	Lugs	Lugs	S	1 1/2	2 3/4	2	2	—	1 3/4	3/8	0.7
A-4742	S.B. Mic. to P.P. Grids	100	400,000 C.T.	1:64	Lugs	Lugs	S	1 3/4	2 3/4	2 3/4	2 3/4	—	2	3/8	1.2
A-4747	S.B. Mic. or Line to S. Grid	70	1,300,000	1:137	Lugs	Lugs	VE	1 1/4	1 1/4	1 3/4	1 1/2	—	1 3/4	3/8	0.5

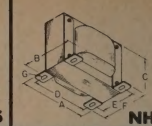
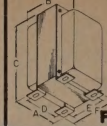
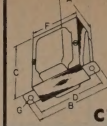
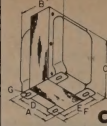
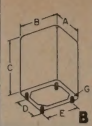
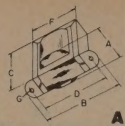
available until stock is depleted

SECTION 5600

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MICROPHONE, PICKUP OR LINE TO GRID

Catalog No.	Application	Impedance in Ohms		Ratio	Termination		Style	Dimensions							Wt. Lbs.
		Primary	Secondary		Pri	Sec		A	B	C	D	E	F	G	
A-4351	{ Mic. or Line to S. Grid }	500/333/200/125/50	89,000	1:13.3	Leads	Leads	SC	2 1/4	2 1/4	2 1/4	1 1/2	—	2	3/8	1.4
A-4352	{ Mic. or Line to P.P. Grids }	500/333/200/125/50	89,000 C.T.	1:13.3	Lugs	Lugs	A	1 3/8	3/4	2	2 1/4	—	2 3/4	3/8	1.0
A-4709	{ Dyn. mic. or Pickup to S. Grid }	30/15/8/4	106,000	1:60	Leads	Leads	SC	2 1/4	2 1/4	2 1/4	1 1/2	—	2	3/8	1.7
A-4778	Line to S. Grid	600/500 C.T.	240,000	1:20	Leads	Leads	C1	1 1/4	2 1/4	2 1/4	2 3/4	—	2	3/8	1.0
A-4779	{ Line to S. or P.P. Grids }	600/500 C.T.	60,000 C.T.	1:10	Leads	Leads	A	1 3/8	2 3/4	1 3/8	2	—	1 3/4	3/8	0.5
A-4780	{ Line to P.P. Grids }	600/500 C.T.	240,000 C.T.	1:20	Leads	Leads	VE	1 1/4	3/4	2	2 3/4	—	2 3/4	3/8	1.0
* C1C-1	{ Line to P.P. Grids }	600/150	100,000 C.T.	1:13	Leads	Leads	TD	1 1/2	2 1/4	2 1/4	—	1 1/4	1 1/2	3/8	0.75
C1S-1	{ Line to P.P. Grids }	600/150	100,000 C.T.	1:13	Lugs	Lugs	TD	1 1/2	2 1/4	2 1/4	—	1 1/4	1 1/2	3/8	0.75
* C1C-2	{ S.B. or D.B. Mic. to P.P. Grids }	125/50	125,000	1:32	Leads	Leads	TD	1 1/2	2 1/4	2 1/4	—	1 1/4	1 1/2	3/8	0.75
* C1S-2	{ S.B. or D.B. Mic. to P.P. Grids }	125/50	125,000	1:32	Lugs	Lugs	TD	1 1/2	2 1/4	2 1/4	—	1 1/4	1 1/2	3/8	0.75

INPUT: HIGH FIDELITY-SHIELDED-FREQ. RESPONSE ± 1 DB 30 TO 15,000 CYCLES

Catalog No.	Application	Impedance in Ohms		Audio Level	Termination		Style	Dimensions							WT. Lbs.
		Primary	Secondary		Pri	Sec		A	B	C	D	E	F	G	
BI-1	{ Line to S. or P.P. Grids }	600/150 C.T.	50,000 C.T.	+15 dbm	Lugs	Lugs	B	2 1/4	2 1/4	2 1/4	1 3/8	1 1/4	—	6-32	1.5
BI-2	{ Line to S. or P.P. Grids }	600/150 C.T.	50,000 C.T.	+15 dbm	Lugs	Lugs	Ba	2 1/4	2 1/4	2 1/4	1 3/8	1 1/4	—	6-32	1.5
BI-3	{ Line Bridging to P.P. Grids }	8000/6000 C.T.	50,000 C.T.	+15 dbm	Lugs	Lugs	B	2 1/4	2 1/4	2 1/4	1 3/8	1 1/4	—	6-32	1.5
BI-4	Line to Line	600/150 C.T.	600/150 C.T.	+15 dbm	Lugs	Lugs	B	2 1/4	2 1/4	2 1/4	1 3/8	1 1/4	—	6-32	1.5
BI-5	Line to Line	600/150 C.T.	600/150 C.T.	+30 dbm	Lugs	Lugs	Ba	3	3/4	3/4	2 1/4	2 3/4	—	8-32	3.25
BI-6	{ P.P. Plates to S. or P.P. Grids }	20,000 C.T.	50,000 C.T.	+15 dbm	Lugs	Lugs	B	2 1/4	2 1/4	2 1/4	1 3/8	1 1/4	—	6-32	1.5
BI-7	{ Mic., Pickup or Line to Grid }	500/250/150/50	50,000 C.T.	+15 dbm	Lugs	Lugs	B	2 1/4	2 1/4	2 1/4	1 3/8	1 1/4	—	6-32	1.5

INPUT: WF SERIES-SHIELDED-FREQ. RESPONSE ± 2 DB 30 TO 20,000 CYCLES

Catalog No.	Application	Impedance in Ohms		Ratio	Pri	Sec	Style	Dimensions							WT. Lbs.
		Primary	Secondary					A	B	C	D	E	F	G	
WF-20	{ Mic., pickup or Line to Grid }	500-600/333/250/200/125-50/50	50,000 C.T.	+7 db	Lugs	Lugs	WF	1 1/2	1 1/2	2	1 3/4	1 3/4	—	4-40	0.6
WF-21	{ Mic., pickup or Line to Grid }	500/200/50	50,000 C.T.	+7 db	Lugs	Lugs	WFa	1 1/2	1 1/2	2	1 3/4	1 3/4	—	4-40	0.6
WF-22	{ Mic., pickup or Line to Grid }	500-600/333/250/200/125-150/50	80,000 C.T.	+7 db	Lugs	Lugs	WF	1 1/2	1 1/2	2	1 3/4	1 3/4	—	4-40	0.6
WF-28	{ S. or P.P. Plates to S. or P.P. Grids }	15,000 C.T.	80,000 C.T.	+7 db	Lugs	Lugs	WF	1 1/2	1 1/2	2	1 3/4	1 3/4	—	4-40	0.6
WF-30	{ Mixer, Mic., pickup, or Line to Line }	500-600/333/250/200/125-150/50	500-600/333/250/200/125-150/50	+7 db	Lugs	Lugs	WF	1 1/2	1 1/2	2	1 3/4	1 3/4	—	4-40	0.6
WF-35	S. Plate to Line	15,000	500-600/333/250/200/125-150/50	+7 db	Lugs	Lugs	WF	1 1/2	1 1/2	2	1 3/4	1 3/4	—	4-40	0.6
WF-36	{ P.P. Plates to Line }	30,000 C.T.	500-600/333/250/200/125-150/50	+7 db	Lugs	Lugs	WF	1 1/2	1 1/2	2	1 3/4	1 3/4	—	4-40	0.6

INPUT: MINIATURE FREQ. RESPONSE ± 1 DB 30 TO 15,000 CYCLES

Catalog No.	Application	Impedance in Ohms		Ratio	Pri	Sec	Style	Dimensions							WT. Lbs.
		Primary	Secondary					A	B	C	D	E	F	G	
* TT-11	{ Mic., pickup or Line to Grid }	500-600/200-250/50	50,000	0db	Lugs	Lugs	TT	3/4	3/4	1 1/4	—	—	1 1/4	2-56	.08
* TT-12	{ Mic., pickup or Line to Grids }	500-600/200-250/50	50,000 C.T.	0db	Lugs	Lugs	TT	3/4	3/4	1 1/4	—	—	1 1/4	2-56	.08

INTERSTAGE: SINGLE PLATE (7,000 TO 20,000 OHM) TO SINGLE GRID

Catalog No.	Ratio	Max. Pri DCMA	Termination		Style	Dimensions							WT. Lbs.
			Pri	Sec		A	B	C	D	E	F	G	
A-53	1:3	10	Leads	Leads	A	1 3/8	2 3/4	1 3/8	2	—	1 3/4	3/8	0.5

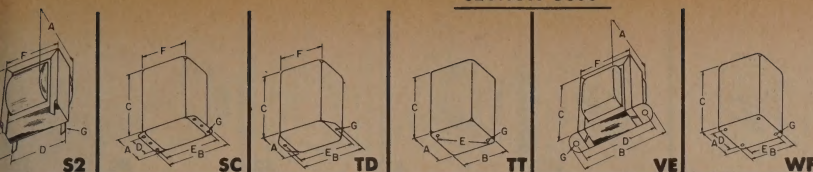
INTERSTAGE: SINGLE PLATE (7,000 TO 15,000 OHM) TO PUSH PULL GRIDS

Catalog No.	Ratio	Max. Pri DCMA	Termination		Style	Dimensions							WT. Lbs.
			Pri	Sec		A	B	C	D	E	F	G	
A-52C	1:2	10	Leads	Leads	A	1 1/2	2 3/4	1 1/2	2	—	1 3/4	3/8	0.4
A-62C	1:2	10	Leads	Leads	A	1 1/2	2 3/4	1 1/2	2 3/4	—	2	3/8	0.7
A-4745	1:2	10	Leads	Leads	SC	2 1/4	2 1/4	2 1/4	1 1/2	2 3/4	2	3/8	1.7
A-53C	1:3	10	Leads	Leads	A	1 3/8	2 3/4	1 3/8	2	—	1 3/4	3/8	0.5
A-63C	1:3	10	Leads	Leads	A	1 1/2	2 3/4	1 1/2	2 3/4	—	2	3/8	0.7
A-73C	1:3	10	Leads	Leads	A	1 3/8	3/4	2	2 1/4	—	2 3/4	3/8	1.0
A-4719	1:3	10	Leads	Leads	SC	2 1/4	2 1/4	2 1/4	1 1/2	2 3/4	2	3/8	1.7
A-64C	1:4	10	Leads	Leads	S	1 3/8	2 3/4	2	2	—	1 3/4	3/8	0.7
* A-4420	Replacement for Delco 6061		Leads	Leads	S2	1 1/4	—	1 3/8	1 3/8	3/4	1 3/8	3/8	0.5

* Available until stock is depleted

a. Has multiple internal magnetic shield

SECTION 5600



STANCOR

COMMERCIAL

audio transformers

INTERSTAGE: PUSH-PULL PLATES (7,000 TO 15,000 OHMS) TO PUSH-PULL GRIDS

Catalog No.	Ratio	Max. Pri DCMA	Termination		Style	Dimensions							WT. Lbs.
			Pri	Sec		A	B	C	D	E	F	G	
A-4711	1:1	10	Leads	Leads	A	1 1/2	2 1/2	1 1/2	2 1/2	—	2 1/2	3/4	0.7
A-4208	1:1.4	15	Leads	Leads	C	2 1/2	2 1/2	3 1/2	2	1 1/2	2 1/2	3/4 x 3/4	2.5

INTERSTAGE: MULTI-PURPOSE (7,000 TO 15,000 OHM PLATES)

Catalog No.	Ratio	Max. Pri DCMA	Termination		Style	Dimensions							WT. Lbs.
			Pri	Sec		A	B	C	D	E	F	G	
A-4774	1:3	10	Leads	Leads	S	1 1/2	2 1/2	2 1/2	2 1/2	—	2	3/4	1.2
A-4773	1:3	10	Leads	Leads	C	2 1/2	2 1/2	2 1/2	2	1 1/2	2 1/2	3/4	1.7

Proper Connections will provide Ratios of 1:1, 1:3, or 1:6
May be Used for Single or Push-Pull Grids to Single or Push-Pull Grids

DRIVER: SINGLE PLATE TO PUSH-PULL GRIDS

Catalog No.	Pri. Impedance in Ohms	Max Pri DCMA	Ratio Pri: 1/2 Sec	Audio Watts	Termination		Style	Dimensions							WT. Lbs.
					Pri	Sec		A	B	C	D	E	F	G	
A-4713	10,000	30	2:1	5	Leads	Leads	A	1 1/2	2 1/2	1 1/2	2 1/2	—	2	3/4	0.7
A-4752	10,000	40	2/1.5/1:1	10	Leads	Leads	A	1 1/2	3 1/2	2	2 1/2	2	2 1/2	3/4	1.2
A-4722	10,000	30	2:1	10	Leads	Leads	SC	2 1/2	2 1/2	2 1/2	1 1/2	2 1/2	2	3/4	1.7
A-4292	10,000	20	2.5:1	5	Leads	Leads	A	1 1/2	2 1/2	1 1/2	2 1/2	—	2	3/4	0.7
A-4723	10,000	30	3:1	5	Leads	Leads	A	1 1/2	2 1/2	1 1/2	2 1/2	—	2	3/4	0.7
A-4210	1500 to 5000	40	3:1	15	Leads	Leads	C	2 1/2	2 1/2	3 1/2	2	1 1/2	2 1/2	3/4 x 3/4	2.5
A-4702	1500 to 5000	80	5:1	20	Leads	Leads	C	2 1/2	2 1/2	3 1/2	2	1 1/2	2 1/2	3/4 x 3/4	2.5

DRIVER: PUSH-PULL PLATES TO PUSH-PULL GRIDS

Catalog No.	Pri. Impedance in Ohms	Max Pri DCMA	Ratio Pri: 1/2 Sec	Audio Watts	Termination		Style	Dimensions							WT. Lbs.
					Pri	Sec		A	B	C	D	E	F	G	
A-4208	10,000 to 30,000 C.T.	15	2.8:1	15	Leads	Leads	C	2 1/2	2 1/2	3 1/2	2	1 1/2	2 1/2	3/4 x 3/4	2.5
A-4701	20,000 C.T.	25	3:1	15	Leads	Leads	C	2 1/2	2 1/2	3 1/2	2	1 1/2	2 1/2	3/4 x 3/4	2.5
A-4212	1500 to 5000 C.T.	50	3.2:1	20	Leads	Leads	C	2 1/2	2 1/2	3 1/2	2	1 1/2	2 1/2	3/4 x 3/4	2.5

DRIVER: "POLY-PEDANCE" — MULTIPLE TAPS OFFER A WIDE RANGE OF RATIO SELECTION

Catalog No.	Pri. Impedance in Ohms	Max Pri DCMA	Ratio Pri: 1/2 Sec	Audio Watts	Termination		Style	Dimensions							WT. Lbs.
					Pri	Sec		A	B	C	D	E	F	G	
A-4761	5000 to 15,000 C.T.	100	2.4/2.2/2.1/1.8/1.6/1.4/1.25/1	15	Leads	Leads	C	2 1/2	3 1/2	3 1/2	2	2 1/2	2 1/2	3/4 x 3/4	3.4
A-4762	5000 to 15,000 C.T.	100	5/4.5/4/3.4/3.2/3.1/2.6/1	15	Leads	Leads	C	2 1/2	2 1/2	3 1/2	2	1 1/2	2 1/2	3/4 x 3/4	2.7
A-4765	500	—	1.33/1.2/1/0.8/0.7/0.5/0.45/0.36/0.32/1	15	Leads	Leads	C	2 1/2	2 1/2	3 1/2	2	1 1/2	2 1/2	3/4 x 3/4	3.2

DRIVER: BROADCAST FREQ. RESPONSE ± 1 DB 30 TO 15,000 CYCLES

Catalog No.	Pri. Impedance in Ohms	Max Pri DCMA	Ratio Pri: 1/2 Sec	Audio Watts	Termination		Style	Dimensions							WT. Lbs.
					Pri	Sec		A	B	C	D	E	F	G	
BD-1	3000 C.T.	100	3.5:1	10	Terms	Terms	B	3 1/2	3 1/2	4 1/2	2 1/2	2 1/2	—	10-32	6.5
BD-2	5000 C.T.	100	3:1	35	Terms	Terms	SC	5 1/2	5 1/2	6 1/2	3 1/2	3 1/2	4 1/2	1/4	12.3

MODULATOR

Catalog No.	Impedance in Ohms		Max. Sec DCMA	Audio Watts	Termination		Style	Dimensions							WT. Lbs.
	Primary	Secondary			Pri	Sec		A	B	C	D	E	F	G	
A-3812	10,000 C.T.	4000	50	5	Leads	Leads	A	1 1/2	2 1/2	1 1/2	2 1/2	—	2	3/4	0.7
A-3871	4500	8500	50	10	Leads	Leads	SC	2 1/2	2 1/2	2 1/2	1 1/2	2 1/2	2	3/4	1.4
A-3845	10,000 C.T.	8000/6500/5000/3000	100	25	Leads	Leads	C	2 1/2	2 1/2	3 1/2	2	1 1/2	2 1/2	3/4 x 3/4	2.8
A-3808	3800/3300 C.T.	10000/7500/5000/4000	170	60	Lugs	Lugs	C	3 1/2	4	4 1/2	3	2 1/2	3 1/2	3/4 x 3/4	7.7
A-3829	9000/6900 C.T.	6250/5000/4000/3300	300	175	Lugs	Lugs	C	3 1/2	5	4 1/2	3	3 1/2	4 1/2	3/4 x 3/4	11.4

MODULATION: "POLYPEDANCE" — MULTIPLE TAPS OFFER A WIDE RANGE OF IMPEDANCE MATCH

A-3891	2000 to 20,000	2000 to 20,000	100	15	Lugs	Lugs	C	2 1/2	2 1/2	3 1/2	2	1 1/2	2 1/2	3/4 x 3/4	2.5
A-3892	2000 to 20,000	2000 to 20,000	150	30	Lugs	Lugs	C	3 1/2	3 1/2	3 1/2	2 1/2	2 1/2	3 1/2	3/4 x 3/4	4.3
A-3893	2000 to 20,000	2000 to 20,000	180	60	Lugs	Lugs	C	3 1/2	4	3 1/2	2 1/2	2 1/2	3 1/2	3/4 x 3/4	6.2
A-3894	2000 to 20,000	2000 to 20,000	225	125	Lugs	Lugs	C	3 1/2	4 1/2	4 1/2	3	3 1/2	4 1/2	3/4 x 3/4	9.4
A-3898	2000 to 20,000	2000 to 20,000	260	300	Terms	Terms	FS	5 1/2	7 1/2	8 1/2	4 1/2	4 1/2	5 1/2	3/4 x 1/2	3.8
A-3899	2000 to 20,000	2000 to 20,000	500	600	Terms	Terms	FS	7 1/2	10 1/2	9 1/2	6	5 1/2	6 1/2	3/4 x 3/4	7.0

MODULATION: BROADCAST FREQ. RESPONSE ± 1 DB 30 TO 15,000 CYCLES

BM-1	7500 C.T.	5000	0	125	Terms	Terms	SC	6 1/8	6 1/2	7 1/8	4 1/4	6	5 1/4	1/4	25
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MODULATION REACTOR:

Catalog No.	Inductance in Henries	DCMA	Insul. Test RMS Volts	Termination	Style	Dimensions							WT. Lbs.
						A	B	C	D	E	F	G	
BR-1	65	250	7500	Terms	SC	7 1/2	7 1/2	8 1/2	5	7	5 1/2	1/4	41

SPLATTER CHOKES: FOR HIGH LEVEL "CLIPPER" FILTERS

Catalog No.	Pri. Impedance in Ohms	Max. Sec DCMA	Audio Watts	Termination	Style	A	B	C	D	E	F	G	WT. Lbs.
C-2317	.048 to 0.9	300	5000	Lugs	NH	3	3	2 1/2	2 1/2	2	2 1/2	3/4 x 3/4	2.3
SR-300	.02 to 1.5	300	7500	Terms	SC	4	5 1/2	5 1/2	5 1/2	4 1/2	4 1/2	1/4	10
SR-500	.02 to 1.5	500	10000	Terms	SC	5 1/2	5 1/2	6 1/2	3 1/2	5 1/2	4 1/2	1/4	14.5

LOW PASS FILTER: CUT OFF FREQ. 3,000 CYCLES

Catalog No.	Impedance in Ohms		Audio Level	Termination		Style	Dimensions							WT. Lbs.
	Input	Output		Pri	Sec		A	B	C	D	E	F	G	
LFP-1	15,000	500 or 100,000	10 V. output	Lugs	Lugs	SC	2 1/2	2 1/2	2 1/2	1 1/2	2 1/2	2	3/4	0.9

BAND PASS FILTER: 200 TO 3,000 CYCLES

h	C-2340	10,000	500 or 100,000	10 V. output	Lugs	Lugs	SC	2 1/4	2 11/16	2 11/16	1 1/2	2 3/8	2	3/16	0.6
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FOR TRANSISTOR MOBILE MODULATOR (WRITE FOR BULLETIN 545 FOR CIRCUIT)

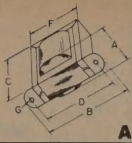
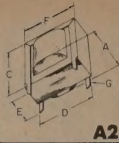
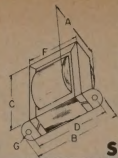
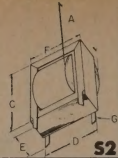
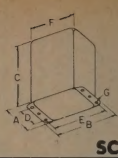
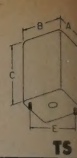
Catalog No.	Application	Impedance in Ohms		Max Pri DCMA	Audio Watts	Termination		Style	Dimensions							WT. Lbs.
		Pri	Sec			Pri	Sec		A	B	C	D	E	F	G	
TA-15	Input	50 to 100	10	50	.005	Leads	Leads	A	1 1/2	1 1/2	1 1/2	1 1/2	—	1 1/2	3/4	0.15
TA-16	Driver	20	36 C.T.	400	1.0	Leads	Leads	A	1 1/2	2 1/2	1 1/2	1 1/2	—	1 1/2	3/4	0.20
TA-17	Modulation	8 C.T.	(7500/5000 @ 120 Ma)	—	35.0	Leads	Leads	C	2 1/2	3	3 1/2	2	2	2 1/2	3/4 x 3/4	3.0

Available until stock is depleted

STANCOR PAGE 10

STANCOR

COMMERCIAL

transistor
transformers**A****A2****S****S2****SC****TS****FOR AUDIO APPLICATIONS: ALL UNITS TERMINATE WITH LEADS**

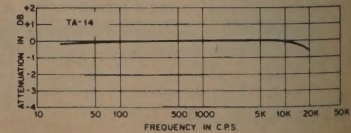
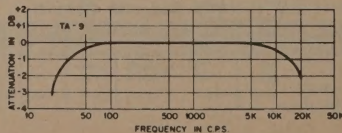
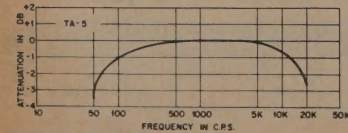
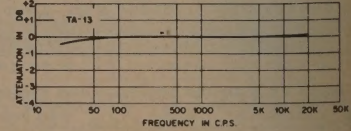
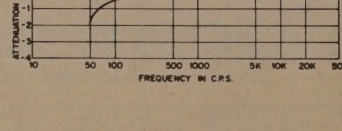
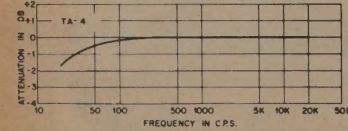
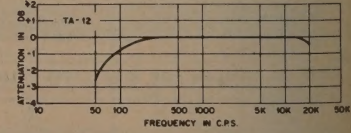
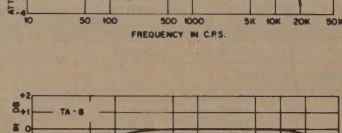
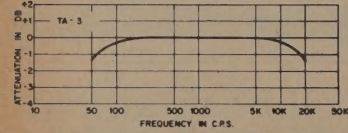
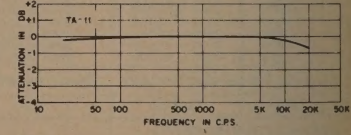
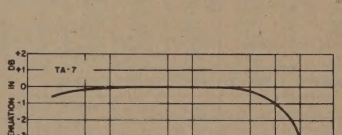
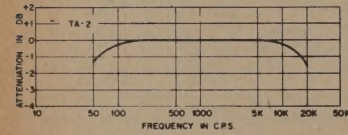
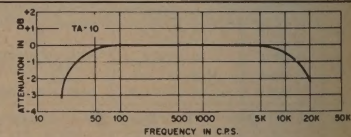
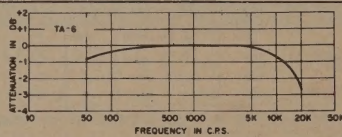
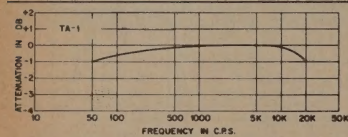
Catalog No.	Application	Impedance in Ohms		Max. Pri. DCMA	Audio Watts	D.C. Res. in Ohms		Style	Dimensions							Lb.
		Pri.	Sec.			Pri.	Sec.		A	B	C	D	E	F	G	
TA-1	Input	600 C.T.	10	20	.05	42	0.8	A	1	1 1/8	1 3/16	1 3/8	—	1 1/2	3/8	.01
TA-2	Interstage	100 C.T.	10 C.T.	100	.25	4.3	0.8	A	1 1/2	2 3/8	1 1/4	1 3/4	—	1 1/2	3/8	.2
TA-3	Interstage	100	1000 C.T.	100	.25	5.8	.45	A	1 1/2	2 3/8	1 3/8	2	—	1 1/4	3/8	.3
TA-4	Interstage	500 C.T.	5000 C.T.	12	.03	37	250	A	1 3/8	2 3/8	1 3/8	2	—	1 1/4	3/8	.3
TA-5	Driver	1000	200 C.T.	10	.05	400	115	A	3/8	1 3/8	1 1/16	1 1/8	—	1 3/8	1/4	.0
TA-6	Driver	2000	200 C.T.	5	.05	720	115	A	3/8	1 3/8	1 1/16	1 1/8	—	1 3/8	1/4	.0
TA-7	Driver	100	100 C.T.	100	.5	12	12	A	1 3/8	2 3/8	1 3/8	2 3/8	—	2	3/8	.6
TA-8	Output	9800	15	2	.05	640	2	A	3/8	1 3/8	1 1/16	1 1/8	—	1 3/8	1/4	.0
TA-9	Output	1000	16/8/4	10	.2	180	3.5	A	3/8	1 3/8	1 1/16	1 1/8	—	1 1/4	1/4	.0
TA-10	Output	2000 C.T.	16/8/4	—	.2	250	4	A	3/8	1 3/8	1 1/16	1 1/8	—	1 1/4	1/4	.0
TA-11	Output	48 C.T.	16/8	275	5	5	1.5	A	1 7/8	3 1/4	2	2 13/16	—	2 3/8	3/8	1.0
TA-12	Output	20 C.T.	8	500	10	.55	.35	A	1 1/4	2 3/8	1 3/8	2	—	1 3/4	3/8	.4
TA-13	Driver	200 C.T.	400 C.T.	10	.6	4	7	SC	2 1/4	2 13/16	2 13/16	1 1/2	2 3/8	2	3/8	1.5
TA-14	Output	24 C.T.	16/4	200	10	2	1.2	SC	3 11/16	4 7/16	4 3/16	2 3/4	3 3/8	3 1/4	3/8	6.6
TA-56	Output	48 C.T.	16/8/3/2	550	10	3.6	1.4	S†	1 3/4	2 3/8	2 3/8	2 3/8	—	2	3/8	.9
TA-57	Output	100 C.T.	16/8/3/2	500	10	6.6	1.5	S	1 7/8	2 3/8	2 3/8	2 3/8	—	2	3/8	.9
TA-58	Driver	100	200 C.T.	200	.5	6.5	15.5	A	1 1/4	2 3/8	1 1/4	1 3/4	—	1 1/2	3/8	.2
TA-59	Driver	500 C.T.	200 C.T.	50	.5	36.5	15.5	A	1 3/8	2 3/8	1 1/4	1 3/4	—	1 1/2	3/8	.2
TA-60	Output	125 C.T.	8	50	1.5	7.5	0.9	TS	1 3/8	1 3/8	1 11/16	—	1 1/2	—	6-32	.3
TA-61	Driver	*	*	—	—	1.8	1.8	S	1 1/2	2 3/8	2	2	—	1 3/8	3/8	.6
TA-62	Output	25	4	400	4	1.5	0.4	A	1 3/8	2 3/8	1 3/8	2 3/8	—	2	3/8	.6

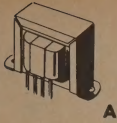
FOR TRANSISTORIZED AUTO RADIOS

Catalog No.	Application	Impedance in Ohms		Max. Pri. DCMA	Audio Watts	D.C. Res. in Ohms		Style	A	B	C	D	E	F	G	Lb.
		Pri.	Sec.			Pri.	Sec.									
TA-48	Interstage	1000	40	10	2	136	2.8	S2	1 1/4	—	1 3/4	1 3/8	7/16	1 3/8	1/8	.3
TA-49	Output	30 C.T.	4	50	10	2.2	0.3	S	1 1/2	2 3/8	2 3/8	2 3/8	—	2	3/8	.8
TA-50	Output	9	4	920	10	1.5	1.0	A2	1 1/2	—	2	2	3/4	2 3/8	3/8	1.0
TA-51	Interstage	1000	10	10	2	170	1.0	S2	1 1/4	—	1 3/4	1 3/8	7/16	1 3/8	1/8	.3

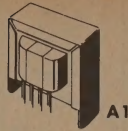
*Trifilar Wound-Ratio 1:1:1.

†Has Lugs on Secondary.

TYPICAL FREQUENCY RESPONSE CURVES



A



A1

STANCOR

COMMERCIAL

transistor transformers

MINIATURE AUDIOS

0 WATT GROUP — Dimensions: HxWxD, $2\frac{1}{2}$ " x $1\frac{1}{8}$ " x $\frac{3}{8}$ ". Mounting $\frac{3}{16}$ " wide, $2\frac{1}{2}$ " centers • Weight .65 oz. Mounting Type A1.

Catalog No.	Application	Turns Ratio Pri. to Sec.	Impedance in Ohms		D.C. Res. in Ohms	
			Pri.	Sec.	Pri.	Sec.
TA-18	Input	1.00:45.5	30 CT	50,000	14.7	4060
TA-19	Interstage	3.08:1	100 CT	10 CT	19	1.27
TA-20	Output	5.22:1	350 CT	4, 12	38	1.45
TA-21	Output	5.53:1	500 CT	4, 8, 16	75.3	3.55
TA-22	Interstage	3.16:1	500 CT	50	59.7	7.9
TA-23	Output	5.65:1	600 CT	4, 8, 16	73.2	3.2
TA-24	Interstage	10.0:1	500 CT	50,000	76.8	5135
TA-25	Output	6.75:1	825 CT	4, 8, 16	74	2.7
TA-26	Output	9.80:1	1,250	4, 12	132.5	1.4
TA-27	Interstage	1.4:08	1,200	20,000 CT	142	1860
TA-28	Interstage	1.65:1	1,500	500 CT	104	46.5
TA-29	Output	11.8:1	2,500	4, 16	370	2.3
TA-30	Interstage	1.00:1.22	5,000 CT	7,500 CT	650	790
TA-31	Interstage	1.00:1.41	5,000 CT	10,000 CT	635	825
TA-53	Interstage	3:1	5,000 CT	45,000	310	1400
TA-32	Interstage	1.00:4	5,000 CT	80,000 CT	573	5740
TA-33	Output	24.6:1	10,000 CT	4, 8, 16	1174	2.6
TA-34	Interstage	6.97:1	10,000	200 CT	1200	33.4
TA-35	Interstage	2.24:1	10,000	2,000 CT	1200	257
TA-36	Interstage	1.83:1	10,000	3,000 CT	1200	385
TA-54	Interstage	5:1	20,000	800 CT	1350	95
TA-37	Output	5.55:1	400 CT	11	71.5	1.5
TA-38	Interstage	1.72:1	500 CT	150 CT	62	21.2

0 WATT GROUP — Dimensions: HxWxD, $1\frac{3}{8}$ " x $1\frac{1}{8}$ " x $\frac{3}{4}$ ". Mounting pins: $1\frac{1}{8}$ " • Weight 1.2 oz. Mounting Type A.

Catalog No.	Application	Turns Ratio Pri. to Sec.	Impedance in Ohms		D.C. Res. in Ohms	
			Pri.	Sec.	Pri.	Sec.
TA-39	Output	2.5:1	100 CT	4, 8, 16	10.9	1.45
TA-40	Output	3.27:1	160	4, 8, 16	18.7	1.4
TA-41	Output	5.00:1	400 CT	4, 8, 16	34	1.5
TA-42	Output	5.60:1	500 CT	4, 8, 16	47	.85
TA-52	Interstage	1:1	500 CT	500 CT	40	55
TA-43	Output	6.63:1	700 CT	4, 8, 16	77	1.15
TA-44	Output	12.5:1	2,500	4, 8, 16	172	1.15
TA-45	Output	13.7:1	3,000	4, 8, 16	192	1.2
TA-46	Interstage	8.17:1	100,000	1,500 CT	3250	143
TA-55	Input	50:1	500,000	200 CT	7000	8.5
TA-47	Input	1.00:14.1	1,000 CT	200,000 CT	123	1815
TA-63	Driver	3.17:1	20,000 CT	2,000 CT	2140	325

ULTRA MINIATURE

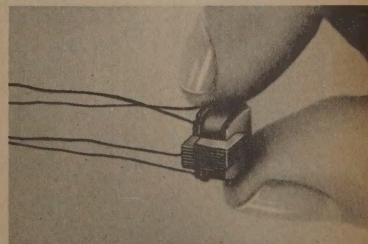
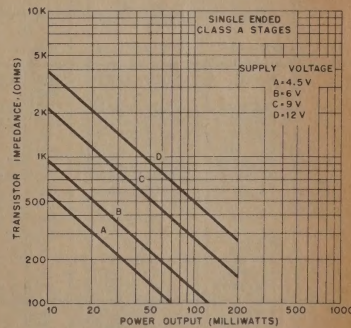
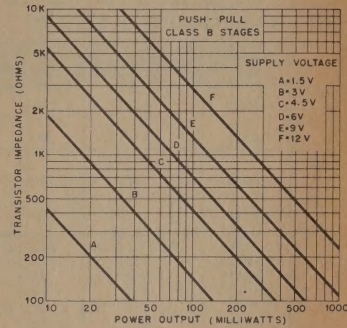
are the smallest iron core audio transformers ever built. They weigh less than 1/10 ounce and are larger than the transistors they power.

These transformers are designed primarily for transistor audio applications but they can be used over low power is involved. Useful range, below 1 mw level. They are constructed of extremely fine wire, wound on molded nylon bobbins, with special nickel alloy steel laminations.

Catalog No.	Application	Pri. Imp.	Sec. Imp.	Pri. DC Res.	Sec. DC Res.	Weight
UM-110	Interstage	20,000	1,000	1675	285	0.07
UM-111	Output or matching	1,000	50/60	120	9.0	0.10
UM-112	High imp. mic. input	200,000	1,000	4000	195	0.10
UM-113	Interstage	20,000	1,000	1350	205	0.10
UM-114	Output or matching	500	50/60	70	9.0	0.10

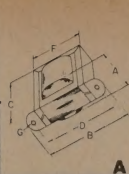
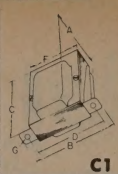
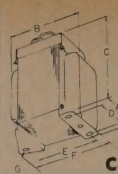
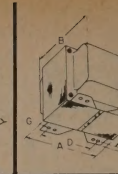
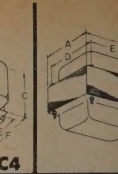
Dimensions* UM-110, $\frac{1}{4}$ " x $\frac{3}{8}$ " x $\frac{3}{8}$ "; UM-111, 112, 113, 114, $\frac{3}{8}$ " x $\frac{3}{8}$ " x $\frac{3}{8}$ ". *Dimensions in inches.

Transistor Impedance Characteristic Curves



STANCOR

COMMERCIAL

**power
transformers****A****C****C1****C3****C4****M**

Stancor's broad line of commercial grade power transformers offers a choice of standard mounting styles. Listings are in ascending order of plate-supply voltage for ease of selection.

All units are designed and built to meet the exacting requirements of EIA for electrical tolerances, dielectric strength, temperature rise and construction. All are insulated with class A materials; (105°C max. operating temperature).

Transformers designed for full-wave C.T. rectification with capacitor input filter may be used with choke input filter allowing an increase in D.C. current of 30%.

Transformers designed for full-wave C.T. rectification with choke input filter may be used with capacitor input filter requiring a decrease in D.C. current of 25%.

CONSULT FACTORY for detailed information concerning electrical rating and/or mechanical characteristics.

FOR CAPACITOR INPUT SYSTEMS**PRIMARYS 117 VOLTS 60 CYCLES**

	Catalog No.	Plate Windings		Rectifier Fil.		Other Windings		Termination		Style	Dimensions							Wt. Lbs.
		AC Volts	DCMA	Volts	Amps	Volts	Amps	Pri.	Sec.		A	B	C	D	E	F	G	
a	P-8379	115 ^a	290			2.7 6.3 8.0	.45 2.0 2.0	Leads	Leads	M†	2 1/2	3 1/2	4	2 1/2	3	2 1/2	8-32	5.7
	P-8158	117 ^a	200			6.3 6.3 6.3 6.3 6.3	4.0 2.0 2.0 9.5 6.1	Leads	Leads	M†	3 1/2	4 1/2	3 1/2	2 1/2	3 1/2	2 1/2	8-32	6.2
	P-8336	117 ^a	280			6.3 6.3 6.3	1.2 2.0 6.1	Leads	Leads	M†	3 1/2	4 1/2	4 1/2	3 1/2	4 1/2	3	8-32	8.0
	P-8386	117 ^a	300			6.3	10.0	Leads	Leads	C4†	3 1/2	4	3 1/2	2 1/2	2 1/2	2 1/2	3/8 x 3/8	6.9
b	P-6146	120-0-120	250	5.0	3.0			Leads	Leads	C	3 1/2	3 1/2	3 1/2	2 1/2	1 1/2	2 1/2	3/8 x 3/8	4.2
	PS-8415	125 ^b	15			6.3	.6	Leads	Leads	S	1 1/2	2 1/2	2 1/2	2 1/2	—	—	3/8	1.7
	PS-8416	125-0-125	25			6.3	1.0	Leads	Leads	S	1 1/2	2 1/2	2 1/2	2 1/2	—	—	3/8	1.0
	PA-8421	125 ^b	50			6.3	2.0	Leads	Leads	A	2 1/2	3 1/2	2 1/2	2 1/2	—	—	2 3/8	1.5
	P-8181	150 ^b	25			6.3 C.T.	.5	Leads	Leads	VE	1 1/2	2 1/2	1 1/2	2	—	—	1 1/2	.8
	P-8372	150 ^b	250			6.3 6.3	8.0 1.2	Leads	Leads	M	3 1/2	4 1/2	4 1/2	3	3 1/2	2 1/2	8-32	8.7
	P-9000C	155 ^a	450			6.3 6.3 6.3	2.0 13.5 3.0	Leads	Leads	C†	3 1/2	4 1/2	4 1/2	3 1/2	3 1/2	4 1/2	1/4 x 3/8	12.0
	P-8359	190-160-0-160-190	70			6.3 C.T.	.6	Leads	Leads	C	2 1/2	2 1/2	3 1/2	2	1 1/2	2 1/2	3/8 x 3/8	2.8
	P-8383	200-0-200	110			6.3 6.3 C.T.	2.0 4.0	Leads	Leads	C	2 1/2	3 1/2	3 1/2	2	2 1/2	2 1/2	3/8 x 3/8	3.0
	PC-8417	220-0-220	50			6.3 25.2	.6 .5	Leads	Leads	C	2 1/2	2 1/2	3 1/2	2	1 1/2	2 1/2	3/8 x 3/8	2.2
c	P-8168	220-0-220 130-0-130	330 220	5.0 2.0	3.0 2.0	6.3 6.3 C.T.	6.5 2.0	Leads	Leads	M†	3 1/2	4 1/2	4 1/2	3	3 1/2	3 1/2	8-32	10.5
	PCC-40	225-0-225	40	5.0	2.0	6.3 C.T.	2.0	Leads	Leads	SC	2 1/2	3 1/2	3 1/2	2	3 1/2	2 1/2	3/8	3.2
	PSC-40	225-0-225	40	5.0	2.0	6.3 C.T.	2.0	Lugs	Lugs	SC	2 1/2	3 1/2	3 1/2	2	3 1/2	2 1/2	3/8	3.2
	P-8155	225-0-225	90	5.0	2.0	6.3	5.15	Leads	Leads	M	2 1/2	3 1/2	3 1/2	2 1/2	2 1/2	2 1/2	8-32	4.5
	PC-8418	230-0-230	50			6.3	2.5	Leads	Leads	C	2 1/2	2 1/2	3 1/2	2	1 1/2	2 1/2	3/8 x 3/8	2.2
	PM-8418	230-0-230	50			6.3	2.5	Leads	Leads	M	2 1/2	3	2 1/2	2	2 1/2	2 1/2	8-32	2.2
	PC-8401	235-0-235	40	5.0	2.0	6.3 C.T.	2.0	Leads	Leads	C	2 1/2	2 1/2	3 1/2	2	1 1/2	2 1/2	3/8 x 3/8	2.2
	PM-8401	235-0-235	40	5.0	2.0	6.3 C.T.	2.0	Leads	Leads	M	2 1/2	3	2 1/2	2	2 1/2	2 1/2	8-32	2.2
	P-8374	235-0-235	260	5.0	6.0	6.3 6.3	5.0 1.2	Leads	Leads	M†	3 1/2	4 1/2	4 1/2	3	3 1/2	3 1/2	8-32	10.0
	P-8382	235 ^b 35	20 1	5.0	2.0	6.3	2.85	Leads	Leads	M6	2 1/2	2 1/2	3 1/2	2 1/2	—	—	1.36	2.5
d	PC-8402	240-0-240	55	5.0	2.0	6.3 C.T.	2.0	Leads	Leads	C	2 1/2	2 1/2	3 1/2	2	1 1/2	2 1/2	3/8 x 3/8	2.4
	PM-8402	240-0-240	55	5.0	2.0	6.3 C.T.	2.0	Leads	Leads	M	2 1/2	3	2 1/2	2	2 1/2	2 1/2	8-32	2.4
	P-6348	240-0-240	60			6.3 C.T.	2.75	Leads	Leads	M	2 1/2	2 1/2	3 1/2	2	1 1/2	2 1/2	6-32	2.6
	PC-8419	240-0-240	70			6.3	3.0	Leads	Leads	C	2 1/2	2 1/2	3 1/2	2	1 1/2	2 1/2	3/8 x 3/8	2.6
	PM-8419	240-0-240	70			6.3	3.0	Leads	Leads	M	2 1/2	3	2 1/2	2	2 1/2	2	8-32	2.6
	P-8173	250-0-250	10			6.3 6.3	.6 1.2	Leads	Leads	CI	2 1/2	2 1/2	2 1/2	2 1/2	—	1 1/2	3/8	1.0
	P-8174	250-0-250	20			6.3 6.3	1.2 2.0	Leads	Leads	CI	3 1/2	2 1/2	2 1/2	2 1/2	—	2 1/2	3/8	1.5
	PC-8403	250-0-250	70	5.0	2.0	6.3 C.T.	2.5	Leads	Leads	C	2 1/2	3 1/2	3 1/2	2	2 1/2	2 1/2	3/8 x 3/8	3.2
	PM-8403	250-0-250	70	5.0	2.0	6.3 C.T.	2.5	Leads	Leads	M	2 1/2	3	3 1/2	2	2 1/2	2 1/2	8-32	3.2
	PC-8404	260-0-260	90	5.0	2.0	6.3 C.T.	3.0	Leads	Leads	C	2 1/2	3 1/2	3 1/2	2 1/2	2 1/2	2 1/2	3/8 x 3/8	4.0
e	PM-8404	260-0-260	90	5.0	2.0	6.3 C.T.	3.0	Leads	Leads	M	2 1/2	3 1/2	3 1/2	2 1/2	2 1/2	2 1/2	8-32	4.0
	PC-8420	260-0-260	90			6.3	4.0	Leads	Leads	C	2 1/2	3 1/2	3 1/2	2 1/2	2	2 1/2	3/8 x 3/8	4.0
	PM-8420	260-0-260	90			6.3	4.0	Leads	Leads	M	2 1/2	3 1/2	3 1/2	2 1/2	2 1/2	2 1/2	8-32	4.0
	P-8354	260-0-260	325	5.0 C.T.	6.0	6.3	11.0	Leads	Leads	M5†	3 1/2	4 1/2	5 1/2	3 1/2	2 1/2	2 1/2	3 1/2	11.0
	P-8353	265-0-265	300	5.0	6.0	12.6 C.T.	6.0	Leads	Leads	C3	3 1/2	4 1/2	5 1/2	3 1/2	4	5 1/2	3/2 x 1/2	12.5
	PCC-55	270-0-270	55	5.0	2.0	6.3 C.T.	2.0	Leads	Leads	SC	2 1/2	3 1/2	3 1/2	2	3 1/2	2 1/2	3/8	3.5
	PSC-55	270-0-270	55	5.0	2.0	6.3 C.T.	2.0	Lugs	Lugs	SC	2 1/2	3 1/2	3 1/2	2	3 1/2	2 1/2	3/8	3.5
	PC-8405	270-0-270	120	5.0	3.0	6.3 C.T.	3.5	Leads	Leads	C	3 1/2	3 1/2	3 1/2	2 1/2	2 1/2	2 1/2	3/8 x 3/8	4.9
	PM-8405	270-0-270	120	5.0	3.0	6.3 C.T.	3.5	Leads	Leads	M	3 1/2	3 1/2	3 1/2	2 1/2	2 1/2	2 1/2	8-32	4.9
	P-8172	270-0-270	200	5.0	3.0	6.3	8.5	Leads	Leads	M	3 1/2	4 1/2	5 1/2	3 1/2	3 1/2	3 1/2	8-32	7.0
e	P-8356	270-0-270	260	5.0	3.0	6.3	8.8	Leads	Leads	C†	3 1/2	3 1/2	3 1/2	2 1/2	2 1/2	2 1/2	1.36	6.5
	P-8376	270-0-270	320	5.0	4.0	6.3	10.0	Leads	Leads	M†	3 1/2	4 1/2	4 1/2	3	3 1/2	2 1/2	8-32	8.5
	P-8377	270-0-270	280	5.0	3.0	6.3	10.0	Leads	Leads	M†	3 1/2	3 1/2	3 1/2	2 1/2	2 1/2	2 1/2	8-32	6.7
	P-8334	275-0-275	305	5.0	5.0	6.3 6.3	8.5 1.2	Leads	Leads	M†	3 1/2	4 1/2	5 1/2	3 1/2	4 1/2	4	8-32	13.0
	P-8167	280-0-280	400	5.0	6.0	6.3 6.3	4.5 7.1	Leads	Leads	M†	3 1/2	4 1/2	5 1/2	3 1/2	4 1/2	4 1/2	8-32	13.0
	P-8332	280-0-280	260	5.0	5.0	6.3 6.3	1.2 .9	Leads	Leads	M†	3 1/2	4 1/2	4 1/2	3 1/2	4 1/2	3 1/2	8-32	11.0

a. For use in Voltage Doubler Circuits.

b. For use in Half-Wave Circuits.

† With Copper shorting band to reduce external Magnetic Field.

‡ Plate wdg and rectifier filament wdg Connected to Tube Socket.

* Available until stock is depleted

STANCOR PAGE 13

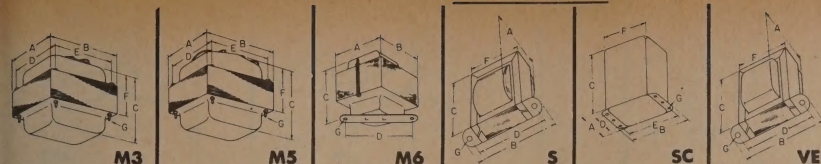
ALL SECONDARY A.C. VOLTAGES $\pm 3\%$

ALL PCC AND PSC NUMBERS MAY BE OPERATED AT 50 CYCLES

STANCOR

COMMERCIAL

power transformers



FOR CAPACITOR INPUT SYSTEMS

PRIMARYS 117 VOLTS 60 CYCLES

	Catalog No.	Plate Windings		Rectifier Fil.		Other Windings		Termination		Style	Dimensions							Wt. lbs.
		AC Volts	DCMA	Volts	Amps	Volts	Amps	Pri.	Sec.		A	B	C	D	E	F	G	
a	P-8373	280-0-280	280	5.0	3.0	6.3	10.0	Leads	Leads	M	3 3/8	3 3/8	4 1/4	2 1/8	3 3/8	3 3/8	8-32	8.0
	P-8378	280-0-280 250-0-250	300	5.0/3.0	4.5	6.3	10.0	Leads	Leads	C†	3 3/8	4 3/8	3 3/8	2 1/2	3 3/8	4 3/8	3/8 x 3/8	7.9
	P-8375	283-0-283	210	5.0 C.T.	3.0	6.3	1.5	Leads	Leads ‡	M3†	3 3/8	4 3/8	4 3/8	3	3 3/8	3 3/8	8-32	8.3
	P-8355	285-0-285	250	5.0	3.0	6.3	9.5	Leads	Leads	C4†	3 3/8	3 1/2	3 3/8	2 1/2	2 3/8	2 3/8	8-32	6.5
	P-8365	285-0-285	325	5.0	6.0	12.6	6.0	Leads	Leads	M†	3 3/8	4 3/8	4 3/8	3	3 3/8	3	8-32	10.2
	P-8352	290-0-290	240	5.0	3.0	12.6	C.T. 5.25	Leads	Leads	C	3 3/8	3 3/8	4 1/8	3	3 3/8	4 3/8	3/8 x 1/2	8.5
	P-8367	290-0-290	270	5.0	6.0	6.3	8.5	Leads	Leads ‡	M5†	3 3/8	4 1/2	5 1/8	3	3 3/8	3 3/8	8-32	12.5
	P-8381	290-0-290	290	5.0	3.0	6.3	5.0	Leads	Leads	M†	3 3/8	3 3/8	5	2 1/8	3 3/8	3 3/8	8-32	6.9
	P-8333	295-0-295	225	5.0 C.T.	3.0	6.3	11.4	Leads	Leads ‡	M3†	3 3/8	4 3/8	4 3/8	3 1/4	4 1/8	3 3/8	8-32	10.0
						6.3	9											
b	PCC-60	300-0-300	60	5.0	2.0	6.3	C.T. 3.0	Leads	Leads	SC	3 3/4	4	3 3/4	2 3/4	3 1/2	2 1/4	7/8	4.5
	PSC-60	300-0-300	60	5.0	2.0	6.3	C.T. 3.0	Lugs	Lugs	SC	3 3/4	4	3 3/4	2 3/4	3 1/2	2 1/4	7/8	4.5
	P-6358	300-0-300	65			6.3	C.T. 2.7	Leads	Leads	C	2 1/2	2 1/2	3	2	1 3/8	2 3/8	3/8 x 3/8	3.0
	P-8175	300-0-300	70	5.0	3.0	6.3	C.T. 3.0	Leads	Leads	C	2 3/8	3 3/8	3 1/2	2 1/4	2 3/8	3 3/8	3/8 x 7/8	4.0
	PM-8423	300-0-300	90	5.0	2.0	6.3	C.T. 3.5	Leads	Leads	M	2 1/8	3 3/8	3 3/8	2	2 1/8	2 3/8	3/8	4.0
	P-8177	300-0-300	120	5.0	3.0	6.3	C.T. 3.0	Leads	Leads	C	3 3/8	3 3/8	3 3/8	2 3/4	2 3/8	2 3/8	3/8 x 1/2	5.8
	P-8164	300-0-300	225	5.0	3.0	6.3	9.0	Leads	Leads	M†	3 3/8	4 3/8	4 3/8	2 3/4	3 3/8	3 3/8	8-32	7.5
	P-8335	300-0-300	325	5.0	6.0	6.3	8.8	Leads	Leads	M†	3 3/8	4 3/8	5 1/8	3 3/4	4 1/8	4	8-32	13.0
	P-8331	310-0-310	240	5.0	3.0	6.3	1.5	Leads	Leads	M†	3 3/8	4 3/8	4 1/2	3 3/4	4 1/8	3 3/4	8-32	9.0
	P-8370	310-0-310	320	5.0 C.T.	6.0	6.3	11.0	Leads	Leads d	M5†	3 3/8	4 3/8	5 3/8	3	3 3/8	4 3/8	8-32	14.0
c	P-8337	315-0-315	225	5.0	3.0	6.3	8.25	Leads	Leads ‡	M3†	3 3/8	4 1/2	4 1/2	3 3/4	4 3/8	3 3/8	8-32	8.5
						6.3												
	P-8338	315-0-315	310	5.0	6.0	6.7	10.0	Leads	Leads	M†	3 3/8	4 3/8	5 3/8	3	3 3/8	4	10-32	12.5
						6.3	1.6											
	P-8371	320-0-320	200	5.0 C.T.	3.0	6.3	4.0	Leads	Leads ‡	M3†	3 3/8	4 3/8	5 3/8	3	3 3/8	4	8-32	11.3
		200-0-200	80			6.3	3.0											
	P-6010	325-0-325	40	5.0 C.T.	2.0	6.3	C.T. 2.0	Leads	Leads	M	2 1/2	3	2 3/4	2	2 1/2	1 7/8	8-32	2.4
	PC-8406	325-0-325	40	5.0	2.0	6.3	C.T. 2.0	Leads	Leads	C	2 1/2	2 3/4	3	2	1 1/8	3 3/8	3/8 x 3/8	2.4
	PM-8406	325-0-325	40	5.0	2.0	6.3	C.T. 2.0	Leads	Leads	M	2 1/2	3	2 3/4	2	2 1/2	1 7/8	8-32	2.4
	PC-8407	325-0-325	55	5.0	2.0	6.3	C.T. 2.0	Leads	Leads	C	2 1/2	3 3/8	3 3/8	2	2 1/8	2 3/8	3/8 x 3/8	3.2
d	PM-8407	325-0-325	55	5.0	2.0	6.3	C.T. 2.0	Leads	Leads	M	2 1/2	3	3 3/8	2	2 1/8	2 3/8	3/8 x 3/8	3.2
	PC-8422	325-0-325	150	5.0	3.0	6.3	C.T. 5.0	Leads	Leads	C	3 3/8	3 3/8	3 3/8	2 1/2	2 3/8	2 3/8	3/8 x 3/8	5.8
	PM-8422	325-0-325	150	5.0	3.0	6.3	C.T. 5.0	Leads	Leads	M	3 3/8	3 3/8	3 3/8	2 1/2	2 3/8	2 3/8	3/8 x 3/8	5.8
	P-8339	325-0-325	255	5.0	3.0	12.6	C.T. 5.25	Leads	Leads	C	3 3/8	4	4 3/8	3	3 3/8	4 3/8	3/8 x 1/2	8.5
						6.3	10.0											
	P-8369	325-0-325	240	5.0 C.T.	3.0	6.3	9	Leads	Leads ‡	M3†	3 3/8	4 3/8	5 3/8	3	3 3/8	4 3/8	8-32	11.5
						6.3	1.2											
	PCC-85	330-0-330	85	5.0	2.0	6.3	C.T. 3.0	Leads	Leads	SC	3 1/8	4 3/8	4 3/8	2 3/4	3 3/8	3 3/8	7/8	6.0
	PSC-85	330-0-330	85	5.0	2.0	6.3	C.T. 3.0	Lugs	Lugs	SC	3 1/8	4 3/8	4 3/8	2 3/4	3 3/8	3 3/8	7/8	6.0
	PC-70	335-0-335	70	5.0	2.0	6.3	C.T. 3.0	Leads	Leads	SC	3 1/4	4	3 3/8	2 1/4	3 1/2	2 1/8	7/8	4.5
e	PSC-70	335-0-335	70	5.0	2.0	6.3	C.T. 3.0	Lugs	Lugs	SC	3 1/4	4	3 3/8	2 1/4	3 1/2	2 1/8	7/8	4.5
	P-5059	337-0-337	200	5.0 C.T.	3.0	6.3	C.T. 5.0	Leads	Leads	C	3 3/8	4 3/8	4 1/8	3	3 3/8	4	3/8 x 3/8	9.6
	PC-8408	340-0-340	70	5.0	2.0	6.3	C.T. 2.5	Leads	Leads	C	2 1/8	3 3/8	3 3/8	2 1/4	2 1/8	2 3/8	3/8 x 3/8	3.8
	PM-8408	340-0-340	70	5.0	2.0	6.3	C.T. 2.5	Leads	Leads	M	2 1/8	3 3/8	3 3/8	2 1/4	2 1/8	2 3/8	3/8 x 3/8	3.8
						6.3	2.5											
	P-8166	340-0-340	330	5.0	6.0	6.3	5.0	Leads	Leads	M†	3 3/8	4 3/8	5 3/8	3 3/4	4 1/8	4 1/8	8-32	13.0
						6.3	5.0											
	PCC-105	345-0-345	105	5.0	2.0	6.3	C.T. 3.5	Leads	Leads	SC	3 1/8	4 3/8	4 3/8	2 3/4	3 3/8	3 3/8	7/8	6.5
	PSC-105	345-0-345	105	5.0	2.0	6.3	C.T. 3.5	Lugs	Lugs	SC	3 1/8	4 3/8	4 3/8	2 3/4	3 3/8	3 3/8	7/8	6.5
	P-6011	350-0-350	70	5.0 C.T.	3.0	6.3	C.T. 2.5	Leads	Leads	M	2 1/2	3	3 3/8	2	2 1/2	2 1/2	8-32	3.5
	P-6012	350-0-350	90	5.0 C.T.	3.0	6.3	C.T. 3.5	Leads	Leads	M	2 1/8	3 3/8	3 3/8	2 1/4	2 1/8	2 3/8	3/8 x 3/8	4.2
f	PC-8409	350-0-350	90	5.0	2.0	6.3	C.T. 3.0	Leads	Leads	C	2 1/8	3 3/8	3 3/8	2 1/4	2 1/8	2 3/8	3/8 x 3/8	4.5
	PM-8409	350-0-350	90	5.0	2.0	6.3	C.T. 3.0	Leads	Leads	M	2 1/8	3 3/8	3 3/8	2 1/4	2 1/8	2 3/8	3/8 x 3/8	4.5
						6.3	3.0											
	P-8176	350-0-350	110	5.0	2.0	6.3	C.T. 3.0	Leads	Leads	C	3 3/8	3 3/8	3 3/8	2 3/4	3	3 3/8	3/8 x 1/2	5.5
	P-6013	350-0-350	120	5.0 C.T.	3.0	6.3	C.T. 4.7	Leads	Leads	M	3 3/8	3 3/8	3 3/8	2 1/2	3 3/8	2 3/8	8-32	5.2
	P-8345	350-0-350	215	5.0	3.0	6.3	9.0	Leads	Leads	M†	3 3/8	4 3/8	5	3 3/4	4 1/8	3 3/8	8-32	11.5
	*P-8165	350-0-350 220-0-220	180 70	5.0 3.0	6.0 3.0	6.3 6.3	1.0 10.0	Leads	Leads	M†	3 3/8	4 3/8	4 3/8	3	3 3/8	3 1/2	8-32	11.0
	P-8350	350-0-350	270	5.0	2.0	6.6	7.8	Leads	Leads	M†	3 3/8	4 3/8	5 1/2	3 3/4	4 1/8	4	8-32	13.0
						6.3	9.5											
	P-8340	355-0-355	270	5.0	6.0	6.3	1.65	Leads	Leads	M†	3 3/8	4 3/8	5 3/8	3 3/4	4 1/8	4 3/8	8-32	12.0
g	PC-8410	360-0-360	120	5.0	3.0	6.3	C.T. 3.5	Leads	Leads	C	3 3/8	3 3/8	3 3/8	2 1/2	2 3/8	3 3/8	3/8 x 3/8	5.5
	PM-8410	360-0-360	120	5.0	3.0	6.3	C.T. 3.5	Leads	Leads	M	3 3/8	3 3/8	3 3/8	2 1/2	2 3/8	2 3/8	3/8 x 3/8	5.5

† With Copper shorting band to reduce external Magnetic Field.

‡ Plate wdg and rectifier filament wdg Connected to Tube Socket.

▲ Primary for 117-107 volts.

* Available until stock is depleted

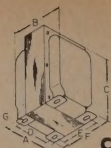
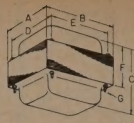
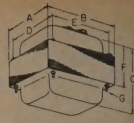
ALL SECONDARY A.C. VOLTAGES $\pm 3\%$

ALL PCC AND PSC NUMBERS MAY BE OPERATED AT 50 CYCLES

STANCOR PAGE 14

STANCOR

COMMERCIAL

power
transformers**C****M****M3**

FOR CAPACITOR INPUT SYSTEMS

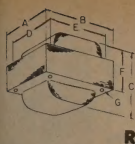
PRIMARIES 117 VOLTS 60 CYCLES

	Catalog No.	Plate Windings		Rectifier Fil.		Other Windings		Termination		Style	Dimensions							Wt. lbs.
		AC Volts	DCMA	Volts	Amps.	Volts	Amps.	Pri.	Sec.		A	B	C	D	E	F	G	
a	* P-8160	360-0-360 165-0-165	185 65	5.0	3.0	6.45	12.0	Leads	Leads	M	3 3/4	4 1/2	4 1/4	3	3 3/4	3 3/4	8-32	9.6
	P-8341	360-0-360 220-0-220	175 110	5.0	3.0 2.0	12.6 C.T.	5.45	Leads	Leads	C†	3 3/4	4 1/4	4 3/4	3	3 1/2	4 1/4	3/8 x 1/2	11.0
	P-8349	360-0-360	260	5.0	6.0	5.0 6.3	2.0 8.85	Leads	Leads	M†	3 3/4	4 1/4	5 1/2	3 3/4	4 1/4	4	8-32	13.0
	* P-8159	360-0-360	250	5.0	3.0	6.3	8.0	Leads	Leads	M†	3 3/4	4 1/4	4 3/4	3 3/4	4 1/4	3	8-32	10.0
	P-8351	360-0-360	240	5.0	6.0	6.5	9.3	Leads	Leads	M	3 3/4	4 1/4	4 1/4	3 3/4	4 1/4	3 3/4	8-32	10.0
	P-8343	360-0-360 220-0-220	220 110	5.0	3.0 2.0	12.8 C.T.	5.8	Leads	Leads	C	3 3/4	5 1/4	4 3/4	3	3 3/4	4 1/4	3/8 x 1/2	11.0
	P-8344	365-0-365 200-0-200	170 84	5.0	3.0 2.0	12.6	4.25	Leads	Leads	C†	3 3/4	4 1/2	4 3/4	3	3 1/4	4 1/4	3/8 x 1/2	9.0
	P-8342	365-0-365	260	5.0	6.0	6.3 5.0	8.85 2.0	Leads	Leads	M†	3 3/4	4 1/4	5 3/4	3 3/4	4 1/4	4	8-32	13.0
	* P-8156	365-0-365	295	5.0	6.0	12.6 C.T.	5.0	Leads	Leads	M†	3 3/4	4 1/4	6 3/4	3 3/4	4 1/4	5 1/4	8-32	16.0
b	P-8348	365-0-365	270	5.0	6.0	6.7 6.3 C.T.	4.5 4.0	Leads	Leads	M†	3 3/4	4 1/4	4 3/4	3 3/4	4 1/4	3 3/4	8-32	10.0
	PCC-150	370-0-370	150	5.0	3.0	6.3 C.T.	1.0	Leads	Leads	SC	4 1/4	5 1/4	5 3/4	2 1/2	4 3/4	4 1/4	1 3/4	11.0
	PSC-150	370-0-370	150	5.0	3.0	6.3 C.T.	4.0	Lugs	Lugs	SC	4 1/4	5 1/4	5 3/4	2 1/2	4 3/4	4 1/4	1 3/4	11.0
	* P-8163	370-0-370	190	5.0	3.0	6.3	7.75	Leads	Leads	M†	3 3/4	4 1/4	5 3/4	3 3/4	4 1/4	3 3/4	8-32	10.0
	P-6315	370-0-370	275	5.0 C.T.	3.0	6.3 C.T.	7.0	Leads	Leads	M	3 3/4	4 1/2	4 1/4	3	3 3/4	3	8-32	9.0
	P-8366	370-0-370	220	5.0	6.0	6.3 6.3	4.0 1.2	Leads	Leads	M†	3 3/4	4 1/4	5 1/4	3	3 3/4	3 1/2	8-32	11.0
	* PCC-120	375-0-375	120	5.0	3.0	6.3 C.T.	4.0	Leads	Leads	SC	4 1/4	5 1/4	5 3/4	2 1/2	4 3/4	4 1/4	1 3/4	9.0
	PSC-120	375-0-375	120	5.0	3.0	6.3 C.T.	4.0	Lugs	Lugs	SC	4 1/4	5 1/4	5 3/4	2 1/2	4 3/4	4 1/4	1 3/4	9.0
	P-6014	375-0-375	150	5.0 C.T.	3.0	6.3 C.T.	5.0	Leads	Leads	M	3 3/4	3 3/4	3 3/4	2 1/2	3 1/2	2 3/4	8-32	6.0
	PC-8411	375-0-375	150	5.0	3.0	6.3 C.T.	4.5	Leads	Leads	C	3 3/4	4	4 1/4	2 3/4	2 1/4	3 1/4	3/8 x 3/4	5.0
PM-8411	375-0-375	150	5.0	3.0	6.3 C.T.	4.5	Leads	Leads	M	3 3/4	4 1/4	3 3/4	2 3/4	3 3/4	2 1/2	8-32	5.0	
c	* P-6008	375-0-375	180	5.0 C.T.	3.0	2.5 C.T. 6.3 C.T.	6.0 3.3	Leads	Leads	M	3 3/4	4 1/4	3 3/4	2 3/4	3 3/4	2 3/4	8-32	6.0
	* P-8154	375-0-375	205	5.0	3.0	5.0 6.3	2.0 5.6	Leads	Leads	M	3 3/4	4 1/2	4 1/4	3	3 3/4	3 3/4	8-32	9.0
	P-8171	375-0-375	225	5.0 C.T.	3.0	6.3 6.3	2.0 9.0	Leads	Leads‡	M3†	3 3/4	4 1/2	4 3/4	3	3 3/4	3 3/4	8-32	10.0
	* P-8162	380-0-380	180	5.0 C.T.	3.0	6.3 6.3	9.0 1.2	Leads	Leads‡	M3†	3 3/4	4 1/4	5 1/4	2 3/4	3 3/4	4 1/4	8-32	9.0
	P-8169	380-0-380	220	5.0	3.0	6.3 6.3	1.2 7.0	Leads	Leads	M†	3 3/4	4 1/4	4 3/4	3	3 3/4	3 1/2	8-32	10.0
	P-8170	380-0-380	220	5.0	3.0	6.3 6.3	1.2 7.0	Leads	Leads	C†	3 3/4	4 3/4	4 3/4	3	3 3/4	4 1/4	3/8 x 3/4	10.0
	PCC-200	385-0-385	200	5.0	3.0	6.3 C.T. 6.3 C.T.	4.5 1.0	Leads	Leads	SC	4 1/4	5 1/4	5 3/4	2 1/2	4 3/4	4 1/4	1 3/4	12.0
	PSC-200	385-0-385	200	5.0	3.0	6.3 C.T. 6.3 C.T.	1.0 1.0	Lugs	Lugs	SC	4 1/4	5 1/4	5 3/4	2 1/2	4 3/4	4 1/4	1 3/4	12.0
d	P-8347	385-0-385	230	5.0	3.0	5.0 6.45 6.3	2.0 7.4 1.6	Leads	Leads	M†	3 3/4	4 1/4	5 1/4	3 3/4	4 1/4	4	8-32	13.0
	* P-8157	385-0-385 235-0-235	195 105	5.0 5.0	3.0 2.0	5.0 6.3	2.0 7.65	Leads	Leads	M	3 3/4	4 1/2	4 3/4	3	3 3/4	3 1/2	8-32	11.0
	* P-8161	385-0-385	230	5.0	3.0	5.0 6.3	2.0 9.0	Leads	Leads	M†	3 3/4	4 1/2	5 1/4	3 3/4	4 1/4	3 3/4	8-32	11.0
	P-6007	400-0-400	110	5.0 C.T.	3.0	2.5 C.T. 2.5 C.T.	15.0 3.5	Leads	Leads	M	3 3/4	3 3/4	3 1/2	2 1/2	3 1/4	2 1/2	8-32	5.0
	P-4004	400-0-400 80v. Bias	175	5.0 C.T.	3.0	2.5 6.3 C.T.	1.75 2.5	Leads▲	Leads	C	3 3/4	3 3/4	4 1 1/4	3	2 1 3/4	3 3/4	3/8 x 3/4	8.0
e	P-8346	400-0-400 330-0-330	180 180	5.0 5.0	3.0 3.0			Leads	Leads	C	3 3/4	4 3/4	4 3/4	3	3 1/2	4 3/4	3/8 x 1/2	11.0
	PC-8412	400-0-400	200	5.0	3.0	6.3 C.T.	5.0	Leads	Leads	C	3 3/4	4	4 1 1/4	3-1	2 1 3/4	3 1 1/4	3/8 x 3/4	8.0
	PM-8412	400-0-400	200	5.0	3.0	6.3 C.T.	5.0	Leads	Leads	M	3 3/4	4 1/2	4 3/4	3	3 3/4	2 3/4	8-32	8.0
	PC-8413	400-0-400	250	5.0	4.0	6.3 C.T.	5.0	Leads	Leads	C	3 3/4	4 1/2	4 1 1/4	3	3 3/4	4 3/4	3/8 x 3/4	10.0
	PCC-250	400-80-0 80-400	250	5.0	6.0	5.0 6.3 C.T.	2.0 7.0	Leads	Leads	SC	5 1/4	5 1/4	6 1/4	3 1/2	5 1/4	4 3/4	1 3/4	15.0
	* PSC-250	400-80-0 80-400	250	5.0	6.0	5.0 6.3 C.T.	2.0 7.0	Lugs	Lugs	SC	5 1/4	5 1/4	6 1/4	3 1/2	5 1/4	4 3/4	1 3/4	15.0
	P-8360	437-0-437	185	5.0	3.0	6.3 6.3	3.0 4.0	Leads	Leads	C	3 3/4	4 1/2	4 1 1/4	3	3 3/4	4 3/4	3/8 x 3/4	9.0
	P-6143	440-0-440	130	5.0	3.0	6.3 C.T.	3.5	Leads	Leads	C	3 3/4	4 1/4	4 1/4	2 3/4	2 1 3/4	3 3/4	3/8 x 3/4	7.0
	PC-8414	600-0-600	200	5.0	3.0	6.3 6.3	3.0 3.0	Leads	Leads	C	3 3/4	4 1/4	4 1 1/4	3	3 1/4	3 1 1/4	3/8 x 3/4	8.0
	* P-8307	870-0-870 410-0-410	f 150 60	5.0	2.0	6.3	3.5	Leads	Leads	SC	3 1 1/4	4 1/4	4 1/4	2 3/4	3 3/4	3 1/4	3/4	5.9

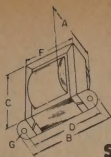
† With Copper shorting band to reduce external Magnetic Field. ‡ Plate wdg and rectifier filament wdg Connected to Tube Socket. ▲ Primary for 117-107 Volts. f. Intermittent duty.
* Available until stock is depleted

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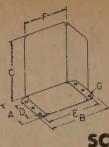
COMMERCIAL

power
transformers

R



S



SC



W

FOR REACTOR INPUT SYSTEMS

PRIMARYS 117 VOLTS 50/60 CYCLES

Catalog No.	Plate Windings		Rectifier Fil.		Other Windings		Termination		Style	Dimensions							Wt. lbs.
	AC Volts	DCMA	Volts	Amps.	Volts	Amps.	Pri.	Sec.		A	B	C	D	E	F	G	
PCR-55	350-0-350	55	5.0	2.0	6.3 C.T.	2.0	Leads	Leads	SC	2 7/8	3 1/2	3 1/2	2	3 1/2	2 1/8	3/8	3 1/4
PSR-55	350-0-350	55	5.0	2.0	6.3 C.T.	2.0	Lugs	Lugs	SC	2 7/8	3 1/2	3 3/4	2	3 1/2	2 1/8	3/8	3 1/4
PCR-70	425-0-425	70	5.0	2.0	6.3 C.T.	3.0	Leads	Leads	SC	3 3/4	4	4 3/4	2 1/4	3 1/2	2 1/8	3/8	4 1/2
PSR-70	425-0-425	70	5.0	2.0	6.3 C.T.	3.0	Lugs	Lugs	SC	3 3/4	4	4 3/4	2 1/4	3 1/2	2 1/8	3/8	4 1/2
PCR-85	440-0-440	85	5.0	2.0	6.3 C.T.	3.0	Leads	Leads	SC	3 11/16	4 7/16	4 9/16	2 3/4	3 7/8	3 3/4	3/8	6
PSR-85	440-0-440	85	5.0	2.0	6.3 C.T.	3.0	Lugs	Lugs	SC	3 11/16	4 7/16	4 9/16	2 3/4	3 7/8	3 3/4	3/8	6
PCR-105	450-0-450	105	5.0	2.0	6.3 C.T.	3.5	Leads	Leads	SC	3 11/16	4 7/16	4 9/16	2 3/4	3 7/8	3 3/4	3/8	6 1/2
PSR-105	450-0-450	105	5.0	2.0	6.3 C.T.	3.5	Lugs	Lugs	SC	3 11/16	4 7/16	4 9/16	2 3/4	3 7/8	3 3/4	3/8	6 1/2
PCR-120	500-0-500	120	5.0	3.0	6.3 C.T.	4.0	Leads	Leads	SC	4 9/16	5 1/4	5 1/2	2 1/2	4 3/4	4 1/8	1 3/4	9 1/2
PSR-120	500-0-500	120	5.0	3.0	6.3 C.T.	4.0	Lugs	Lugs	SC	4 9/16	5 1/4	5 1/2	2 1/2	4 3/4	4 1/8	1 3/4	9 1/2
PCR-150	510-0-510	150	5.0	3.0	6.3 C.T.	4.0	Leads	Leads	SC	4 9/16	5 1/4	5 1/2	2 1/2	4 3/4	4 1/8	1 3/4	11 1/2
PSR-150	510-0-510	150	5.0	3.0	6.3 C.T.	4.0	Lugs	Lugs	SC	4 9/16	5 1/4	5 1/2	2 1/2	4 3/4	4 1/8	1 3/4	11 1/2
PCR-200	520-0-520	200	5.0	3.0	6.3 C.T.	4.5	Leads	Leads	SC	4 9/16	5 1/4	5 1/2	2 1/2	4 3/4	4 1/8	1 3/4	12 1/4
PSR-200	520-0-520	200	5.0	3.0	6.3 C.T.	4.5	Lugs	Lugs	SC	4 9/16	5 1/4	5 1/2	2 1/2	4 3/4	4 1/8	1 3/4	12 1/4
PCR-300	550-370-75-0	300	5.0	6.0	6.3 C.T.	1.0	Leads	Leads	SC	5 5/8	5 7/8	6 1/8	3 1/2	5 3/4	4 3/4	1 3/4	17 1/2
PSR-300	550-370-75-0	300	5.0	6.0	6.3 C.T.	1.0	Lugs	Lugs	SC	5 5/8	5 7/8	6 1/8	3 1/2	5 3/4	4 3/4	1 3/4	17 1/2

FOR REGULATED POWER SUPPLIES

PRIMARYS 117 VOLTS 50/60 CYCLES

PSC-165	440-0-440	165	5.0	3.0	6.3 6.3 6.3 6.3 6.3 6.3	0.6 3.0 3.0 7.5 0.6 4.0	Lugs	Lugs	SC	4 9/16	5 1/4	5 1/2	2 1/2	4 3/4	4 1/8	1 3/4	12
PSC-205	450-0-450	200	5.0	2.0	6.3 6.3 6.3 6.3 6.3 6.3	0.6 3.0 3.0 7.5 0.6 4.0	Lugs	Lugs	SC	4 9/16	5 1/4	5 1/2	2 1/2	4 3/4	4 1/8	1 3/4	12

FOR BIAS SUPPLIES

PRIMARYS 117 VOLTS 50/60 CYCLES

IBC-150	180-160-140-120-0-120-140-160-180	150	5.0	3.0			Leads	Leads	SC	3 3/4	4	4 1/4	2 1/4	3 1/2	2 1/8	3/8	5
IBS-150	180-160-140-120-0-120-140-160-180	150	5.0	3.0			Lugs	Lugs	SC	3 3/4	4	4 1/4	2 1/4	3 1/2	2 1/8	3/8	5
2BC-150	180-160-140-120-0-120-140-160-180	150	5.0	3.0	(Pri.-230v.)		Leads	Leads	SC	3 3/4	4	4 1/4	2 1/4	3 1/2	2 1/8	3/8	5
2BS-150	180-160-140-120-0-120-140-160-180	150	5.0	3.0	(Pri.-230v.)		Lugs	Lugs	SC	3 3/4	4	4 1/4	2 1/4	3 1/2	2 1/8	3/8	5
P-6317	200-170-130-90-0-90-130-170-200	200	5.0	3.0			Leads	Leads/Lugs	C	3 3/8	3 3/8	3 3/8	2 1/2	2 3/8	3 1/8	3/8 x 3/8	4.9
P-6318	450-400-350-250-0-250-350-400-450	200	5.0	3.0			Leads	Leads/Lugs	C	3 3/8	4 1/4	4 1/4	2 3/4	2 1/8	3 1/8	3/8 x 3/8	7.0

FOR CATHODE RAY TUBES

PRIMARYS 117 VOLTS 60 CYCLES

P-8150	1550 ^b	1.5	2.5	1.75			Leads	Leads	SC	2 1/2	3	3 1/8	1 3/4	2 1/8	2 3/8	3/8	1.8
P-8179	1600 ^b	3.0			6.3/5/2.5 6.3/5/2.5	1.0 3.0 2.2 0.6 2.0	Lugs	Lugs	M	2 1/2	3	3 1/2	2	2 1/2	2 1/2	8-32	3.5
P-8178	1800 ^b	2.0	2.5	1.8			Leads	Leads	C	3 3/8	3 3/8	3 3/8	2 1/2	2 1/2	3 3/8	3/8 x 3/8	5
P-8151	2400 ^b	5.0	2.5	2.0			Leads	Leads	C	3 3/8	3 3/8	4 1/4	2 3/4	2 1/8	3 3/8	3/8 x 3/8	6.4

FOR SOLAR CF-160 CONDENSER TESTER

PRIMARY 117 VOLTS 60 CYCLES

P-6459	550 ^b 55	30 60			6.3 6.3	0.9 0.6	Leads	Leads	R	2 3/8	2 3/8	2 1/4	1 3/4	2 3/8	1 1/8	3/8	1.4
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FOR 100 WS ELECTRONIC PHOTOFLASH

PRIMARY 105/115/125 VOLTS 60 CYCLES

P-6425	380 ^b	20					Leads	Leads	S	2	2 7/8	2 3/8	2 3/8	—	2	3/8	1.4
P-6426	Charges 1050 mfd. to 450 volts D.C. Trigger Coil for use with P-6425 Ratio 1 to 35 Write for Bulletin #470R for Circuit Details						Leads	Leads	W	3/4	3/8	—	—	—	—	—	.2

For use in Half-Wave Circuits.

LL SECONDARY A.C. VOLTAGES $\pm 3\%$

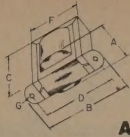
STANCOR PAGE 16

SECTION 5600

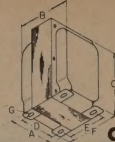
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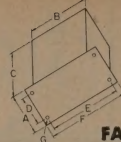
filament transformers



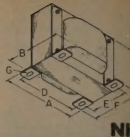
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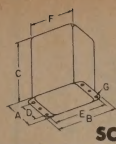
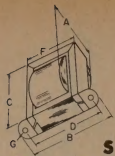
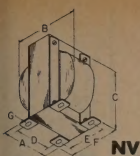
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WITH SINGLE SECONDARY: ALL PRIMARIES 50/60 CYCLES

	Catalog No.	Secondary		Insulation Test		Primary Volts	Termination		Style	Dimensions							WT Lbs.
		Volts	Amps.	RMS Volts	Pri		Sec	A		B	C	D	E	F	G		
a	P-4026	2.5	1.5	2500	117	Leads	Leads	A	1 3/4	2 3/4	1 3/4	2 3/4	—	2	3/4	0.7	
	P-4082	2.5 CT	2.5	2500	117/107	Leads	Leads	SC	2 1/4	2 1/4	2 1/4	1 1/2	2 3/4	2	3/4	1.5	
	P-6133†	2.5 CT	5.0	7500	117	Leads	Leads	S	2 1/4	3 1/4	2 3/4	2 1/4	—	2 1/4	3/4	1.5	
	F-25	2.5 CT	5.25	3500	115/230	Lugs	Lugs	SC	2 1/2	3	3 1/4	1 3/4	2 1/4	2 3/4	3/4	2.0	
	P-4083†	2.5 CT	6.0	2500	117/107	Leads	Leads	C	2 1/2	2 1/2	3 1/4	2	1 1/2	2 3/4	3/4 x 3/4	2.2	
	P-3024†	2.5 CT	10.0	2500	117/107	Leads	Leads	C	2 1/2	2 3/4	3 1/4	2	1 3/4	2 3/4	3/4 x 3/4	2.5	
	P-6454	2.5 CT	10.0	7500	117/107	Leads	Leads	S	2 1/2	3 3/4	3 3/4	3 3/4	—	2 3/4	3/4	2.5	
	P-3060	2.5 CT	10.0	10000	117	Lugs	Lugs	NV	2 1/2	2 3/4	3 3/4	2 1/4	1 3/4	2 1/2	3/4 x 3/4	2.5	
	F-210	2.5 CT	10.0	5000	115/230	Terms	Terms	SC	2 3/4	3 1/2	3 3/4	2	3 3/4	2 1/4	3/4	3.0	
	F-210H	2.5 CT	10.0	9000	115/230	Terms	Terms	SC	3 3/4	4	4 1/4	2 1/4	3 1/2	3	3/4	4.0	
	F-215H	2.5 CT	15.0	9000	115/230	Terms	Terms	SC	3 1/4	4 1/4	4 1/4	2 3/4	3 3/4	3	3/4	6.0	
	P-3026†	5.0 CT	3.0	2500	117/107	Leads	Leads	C	2 1/2	2 3/4	3 3/4	2	1 3/4	2 3/4	3/4 x 3/4	2.4	
	P-4088†	5.0 CT	3.0	2500	117	Lugs	Lugs	NV	2 1/2	1 3/4	3 1/4	2	1 3/4	2 1/4	3/4 x 3/4	1.8	
	P-6467	5.0 CT	3.0	2500	117	Leads	Leads	A	2 1/2	3 1/4	2	2 1/4	—	2 3/4	3/4	1.4	
	F-54†	5.0 CT	4.0	2500	115/230	Lugs	Lugs	SC	2 1/2	3	3 3/4	1 3/4	2 1/4	2 3/4	3/4	2.2	
	P-6455	5.0 CT	6.0	2000	117/107	Leads	Leads	S	2 1/2	3 1/4	2 3/4	2 1/4	—	2 1/4	3/4	2.0	
	P-3062†	5.0 CT	6.0	2500	117	Lugs	Lugs	NV	2 1/2	2 1/4	3 1/4	2	2	2 3/4	3/4 x 3/4	2.3	
	P-5000†	5.0 CT	6.0	2500	117/107	Leads	Leads	C	2 1/2	3	3 1/4	2	2	2 3/4	3/4 x 3/4	3.1	
	P-6135	5.0 CT	10.0	2500	117	Leads	Leads	NV	2 1/2	2 3/4	3 3/4	2	2 3/4	3	3/4 x 3/4	3.0	
	F-58	5.0 CT	10.0	2500	115/230	Terms	Terms	SC	2 3/4	3 1/2	3 3/4	2	3 3/4	2 1/4	3/4	3.5	
b	F-510H†	5.0 CT	10.0	10000	115/230	Terms	Terms	SC	3 1/4	4 1/4	4 1/4	2 3/4	3 3/4	3 1/4	3/4	6.5	
	P-4086†	5.0 CT	14.0	10000	117/107	Terms	Terms	FA	4 1/4	5 1/2	5 1/2	2 3/4	6	7	1 1/4	12.3	
	P-6433†	5.0 CT	15.0	2500	117	Leads	Leads	NV	2 1/2	2 3/4	3 3/4	2	2 1/4	2 3/4	3/4 x 3/4	3.0	
	F-516	5.0 CT	20.0	2500	115/230	Terms	Terms	SC	3 1/4	4 1/4	4 1/4	2 3/4	3 3/4	3 1/4	3/4	6.5	
	F-520HB	5.0 CT	20.0	10000	115/230	Terms	Terms	SC	4 1/4	5 1/4	5 1/4	2 1/2	4 3/4	4 1/4	3/4	13.0	
	P-6432†	5.0 CT	21.0	2500	117	Leads	Leads/Lugs	NV	3 1/4	2 3/4	3 1/4	2 1/2	2 1/4	2 3/4	3/4 x 3/4	4.5	
	P-6302†	5.0 CT	22.0	10000	117/107	Terms	Terms	FA	4 1/4	5 1/2	5 1/2	2 3/4	6	7	1 1/4	13.5	
	P-6492	5.0 CT	30.0	2500	117	Leads	Leads	C	3 3/4	4	4 1/4	3	2 1/4	3 3/4	3/4 x 3/4	7.5	
	P-6468†	5.0 CT	30.0	2500	117/107	Lugs	Lugs	C	3 3/4	3 3/4	4 1/4	2 3/4	3 1/2	3 1/2	3/4	6.3	
	F-530	5.0 CT	30.0	2500	115/230	Terms	Terms	SC	4 1/4	5 1/4	5 1/4	2 1/2	4 3/4	4 1/4	3/4	10.5	
	F-530BX	5.0 CT	30.0	2500	115/230	Terms	Terms	SC	4 1/4	5 1/4	5 1/4	2 1/2	4 3/4	4 1/4	3/4	10.5	
	P-6305†	5.0 CT	30.0	10000	117/107	Terms	Terms	FA	4 1/4	7	5	3 3/4	7 3/4	8 1/2	1 1/4	18.3	
	P-6137†	5.25 CT	13.0	2500	117	Leads	Leads	NV	3 1/4	2	2 3/4	2 1/2	2 1/2	3 3/4	3/4 x 3/4	5.2	
	P-6465	6.3 CT	6	1500	117	Leads	Leads	A	1 1/2	2 3/4	1 3/4	2	—	1 3/4	3/4	0.4	
	P-8389	6.3	1.0	1500	117	Leads	Leads	A	1 1/2	2 3/4	1 3/4	2	—	2	3/4	0.6	
	P-6134	6.3 CT	1.2	3000	117	Leads	Leads	A	1 1/2	2 3/4	1 3/4	2	—	2	3/4	0.8	
	P-8190	6.3	1.2	5000	117	Leads	Leads	A	1 1/2	3 1/4	2	2 1/4	—	2	3/4	1.0	
	P-8191	6.3	1.2	5000	6.3	Leads	Leads	A	2	3 1/4	2	2 1/4	—	2 3/4	3/4	1.0	
	F-615†	6.3 CT	1.5	2500	115/230	Lugs	Lugs	SC	2 1/4	2 1/4	2 1/4	1 1/2	2 3/4	2	3/4	1.0	
	F-63†	6.3 CT	3.0	2500	115/230	Lugs	Lugs	SC	2 1/2	3	3 1/4	1 3/4	2 1/4	2 3/4	3/4	2.0	
c	P-5014†	6.3 CT	3.0	2500	117	Lugs	Lugs	NV	2 1/2	2	3 1/4	2	1 3/4	2 3/4	3/4 x 3/4	2.0	
	P-6466	6.3 CT	3.0	2500	117	Leads	Leads	A	2 1/2	3 1/4	2	2 1/4	—	2 3/4	3/4	1.4	
	P-6462	6.3	3.0	7000	117/107	Leads	Leads	S	2 1/2	3 3/4	3 3/4	3 3/4	—	2 3/4	3/4	2.0	
	P-4019†	6.3 CT	4.0	2500	117/107	Leads	Leads	C	2 1/2	2 3/4	3 3/4	2	1 3/4	2 3/4	3/4 x 3/4	2.7	
	F-65	6.3 CT	5.5	2500	115/230	Lugs	Lugs	SC	2 1/2	3 1/2	3 3/4	2	3 3/4	2 1/4	3/4	3.0	
	P-3064†	6.3 CT	6.0	2500	117	Lugs	Lugs	NV	2 1/2	2 3/4	3 1/4	2	2	2 3/4	3/4 x 3/4	2.4	
	P-4089†	6.3 CT	6.0	2500	117/107	Leads	Leads	C	2 1/2	3 1/4	3 1/2	2 1/4	2	2 3/4	3/4 x 3/4	3.5	
	P-6456	6.3 CT	6.0	2000	117/107	Leads	Leads	A	2 1/2	3 3/4	2 3/4	3 1/4	—	2 3/4	3/4	2.0	
	P-6464	6.3 CT	10.0	2000	117	Leads	Leads	C	2 1/2	3 1/4	3 1/2	2 1/4	2	2 3/4	3/4 x 3/4	3.5	
	P-6308†	6.3 CT	10.0	2500	117/107	Leads	Leads	NV	2 1/2	2 3/4	2 3/4	2 1/4	2 1/4	2 3/4	3/4 x 3/4	3.4	
	F-610	6.3 CT	10.0	2500	115/230	Terms	Terms	SC	3 3/4	4	4 1/4	2 1/4	3 1/2	3	3/4	5.0	
	P-6309†	6.3 CT	20.0	2500	117/107	Leads	Leads	NV	3 3/4	3 3/4	4 1/4	3	2 3/4	3	3/4 x 3/4	6.7	
	P-5015†	7.5 CT	4.0	2500	117	Lugs	Lugs	NV	2 1/2	2 3/4	3 1/4	2	2 1/2	2 3/4	3/4 x 3/4	2.7	
	P-4091†	7.5 CT	5.0	2500	117/107	Leads	Leads	C	2 1/2	3 1/4	3 1/2	2 1/4	1 3/4	2 3/4	3/4 x 3/4	3.4	
	P-6138†	7.5 CT	8.0	2500	117	Leads	Leads	NV	3 1/4	2 3/4	3 1/4	2 1/2	2 3/4	3	3/4 x 3/4	4.7	
	F-712	7.5 CT	12.0	2500	115/230	Terms	Terms	SC	3 1/4	4 1/4	4 1/4	2 3/4	3 3/4	3 1/4	3/4	6.5	
	P-6457	7.5 CT	21.0	2000	117/107	Leads	Leads	C	3 3/4	4	4 1/4	3	2 3/4	4	1 1/4 x 1/2	8.0	
	F-725	7.5 CT	25.0	2500	115/230	Terms	Terms	SC	4 1/4	5 1/4	5 1/4	2 1/4	4	4 1/4	3/4	12.0	
	F-751	7.75 CT	51.0	2500	115/230	Terms	Terms	SC	6 1/2	7 1/4	7 1/4	4 1/4	6	5 1/4	1 1/4	29.0	
	F-104	10.0 CT	4.0	2500	115/230	Lugs	Lugs	SC	2 1/2	3 1/2	3 3/4	2	3 1/2	2 1/4	3/4	3.2	
d	P-5016†	10.0 CT	4.0	2500	117	Lugs	Lugs	NV	2 1/2	2 3/4	3 1/4	2 1/4	2	2 3/4	3/4 x 3/4	3.3	
	P-6458	10.0 CT	5.0	2000	117/107	Leads	Leads	NV	2 1/2	2 3/4	3 1/4	2 1/4	2	2 3/4	3/4 x 1/2	3.0	
	P-4096†	10.0 CT	5.0	2500	117/107	Leads	Leads	C	3 1/4	3 3/4	3 3/4	2 1/2	1 1/4	2 3/4	3/4 x 3/4	4.0	
	F-106	10.0 CT	6.5	2500	115/230	Terms	Terms	SC	3 3/4	4	4 1/4	2 1/4	3 1/2	3	3/4	5.0	
	P-6139†	10.0 CT	8.0	2500	117	Leads	Leads	NV	3 1/4	3	3 1/4	2 1/4	2 3/4	3	3/4 x 3/4	4.9	
	P-4097†	10.0 CT	8.0	2500	117/107	Leads	Leads	C	3 1/4	3 3/4	3 3/4	2 1/2	2 1/2	2 3/4	3/4 x 3/4	5.2	
	P-6461	10.0 CT	10.0	2000	117	Leads	Leads	C	3 3/4	3 3/4	3 3/4	2 3/4	2 1/4	2 1/4	3/4 x 1/2	5.0	
	F-1010	10.0 CT	10.0	2500	115/230	Terms	Terms	SC	3 1/4	4 1/4	4 1/4	2 1/4	3 3/4	3 1/4	3/4	6.5	
	P-5002†	10.0 CT	12.0	7500	117/107	Terms	Terms	FA	4 1/4	5 1/2	5 1/2	2 3/4	6	7	1 1/4	14.7	
	P-3020†	11.0 CT	10.0	2500	117/107	Leads	Leads	C	3 3/4	3 3/4	4 1/4	3	2 3/4	3	3/4 x 3/4	7.7	
	P-8130	12.6 CT	2.0	1500	117	Leads	Leads	A	2 1/4	3 1/4	2	2 1/4	—	2 3/4	3/4	1.4	
	P-8358	12.6 CT	3.0	1500	117	Leads	Leads	A	2 1/4	3 1/4	2 3/4	2 1/4	—	2 3/4	3/4	1.6	
	P-6469	25.2	1.0	1500	117	Leads	Leads	A	2 1/4	3 1/4	2	2 1/4	—	2 3/4	3/4	1.4	
	P-8180	25.2 CT	1.0	1500	117	Leads	Leads	A	2 1/4	3 1/4	2	2 1/4	—	2 3/4	3/4	1.4	
	P-8357	25.2 CT	2.0	1500	117	Leads	Leads	A	2 1/4	4	2 3/4	3 3/4	—	3 3/4	3/4	8.2	
P-8388	25.2 CT	2.8	1500	117	Leads	Leads	A	2 1/4	4	2 3/4	3 3/4	—	3 3/4	3/4	8.2		

**STANCOR**

COMMERCIAL

filament
transformers

WITH MULTIPLE SECONDARIES: ALL PRIMARIES 50/60 CYCLES

	Catalog No.	Secondary		Insulation Test RMS Volts	Primary Volts	Termination		Style	Dimensions							WT lbs.
		Volts	Amps.			Pri	Sec		A	B	C	D	E	F	G	
a	P-6144†	2.5 CT 5.0 CT 6.3 CT	3.5 3.0 3.0	2500	117	Leads	Leads	C	2 1/16	3 1/4	3 1/2	2 1/4	2	2 3/4	3/16 x 3/16	3.7
	P-6338	2.5 CT 5.0 CT 6.3 CT	3.0 3.0 3.0	2500	117	Leads	Leads	NH	3 3/8	2 3/4	2 7/8	2 1/16	2 1/8	2 3/4	3/16 x 3/16	3.4
	*F1†	5.0 CT 6.3 CT	2.0 2.5	2500	105/115/125	Lugs	Lugs	SC	2 1/2	3	3 3/8	1 3/4	2 1/16	2 3/8	3/16	2.7
b	*F2†	5.0 CT 12.6 CT	2.0 1.25	2500	105/115/125	Lugs	Lugs	SC	2 1/2	3	3 3/8	1 3/4	2 1/16	2 3/8	3/16	2.7
	*F3†	5.0 CT 6.3 CT	3.0 5.0	2500	105/115/125	Lugs	Lugs	SC	2 7/8	3 1/2	3 3/4	2	3 3/8	2 1/16	3/16	3.5
	*F4†	5.0 CT 6.3 CT or 12.6 CT	3.0 3.0 3.0	2500	105/115/125	Lugs	Lugs	SC	3 1/4	4	3 3/8	2 1/4	3 1/2	3	3/16	4.7
	*F5†	5.0 CT 6.3 CT 6.3 CT	3.0 3.0 5.0	2500	105/115/125	Lugs	Lugs	SC	3 1/4	4	3 3/8	2 1/4	3 1/2	3	3/16	4.7
c	P-5009†	5.0 CT 6.3 CT	3.0 6.0	2500	117/107	Leads	Leads	C	3 3/8	3 3/8	3 3/8	2 1/2	2 1/8	2 7/8	3/16 x 3/16	4.5
	P-5008†	5.0 CT 6.3 CT	4.0 3.6	2500	117/107	Leads	Leads	C	2 1/16	3 1/4	3 1/2	2 1/4	2	2 3/4	3/16 x 3/16	3.8
	P-4022†	5.0 CT 6.3 CT	6.0 6.0	2500	117/107	Leads	Leads	C	3 3/8	3 1/2	3 7/8	2 1/2	2 1/8	2 7/8	3/16 x 3/16	4.8
d	P-6333	5.0 CT 5.0 CT 6.3 CT 7.5/6.3 CT	3.0 3.0 4.0 3.0	2500	117	Lugs	Lugs	NH	3 3/8	3 1/4	2 7/8	2 1/16	2 3/8	3 3/8	3/16 x 3/16	4.7
	*F8†	5.0 CT 5.0 CT 5.0 CT	3.0 3.0 6.0	5000	105/115/125	Lugs	Lugs	SC	3 1/16	4 7/16	4 1/16	2 3/4	3 3/8	3 1/4	3/16	7.0
	P-6463	6.0 CT or 6.5 CT or 7.0 CT	13	2000	117	Lugs	Lugs	NV	2 1/16	2 7/8	3 7/8	2 1/4	2 1/16	3 3/8	3/16 x 3/16	4.5
e	P-6428†	6.3 CT 6.3 CT 6.3 CT 6.3 CT	1.75 1.75 1.75 1.75	2500	117	Leads	Leads	C	2 1/2	3 3/8	3 3/8	2	2	2 3/8	3/16 x 3/16	3.0
	P-6430†	6.3 CT 6.3 CT	3.0 3.0	2500	117	Leads	Leads	C	2 1/2	2 7/8	3 3/8	2	1 7/8	2 1/2	3/16 x 3/16	2.8
	*F-6†	6.3 CT 6.3 CT or 12.6 CT	3.0 3.0 3.0	2500	105/115/125	Lugs	Lugs	SC	2 7/8	3 1/2	3 3/4	2	3 3/8	2 1/16	3/16	3.5
f	P-6429†	6.3 CT 6.3 CT 6.3 CT 6.3 CT	3.5 3.5 3.5 3.5	2500	117	Leads	Leads	C	3 3/8	3 1/2	3 3/8	2 1/2	2 3/8	3	3/16 x 3/16	4.8
	P-6431†	6.3 CT 6.3 CT	6.0 6.0	2500	117	Leads	Leads	C	3 3/8	3 1/2	3 3/8	2 1/2	2 3/8	3	3/16 x 3/16	4.8
	*F-7†	6.3 CT 6.3 CT or 12.6 CT	6.0 6.0 6.0	2500	105/115/125	Lugs	Lugs	SC	3 1/16	4 7/16	4 1/16	2 3/4	3 3/8	3 1/4	3/16	6.5

MULTI-TAPPED FOR TUBE CHECKERS: PRIMARY 50/60 CYCLES

9	P-1834-3	Secondary Volts															105/115/125	Leads	Leads/ Lugs	A	2 7/8	4	2 3/4	3 1/8	—	3 1/8	3/8	2.4
		1.1/1.4/1.5/2.0/2.5/3.0/3.3/4.0/5.0/6.3/7.5/12/20/25/30/35/50/70/85/110/117																										

* Available until stock is depleted
† Has Electrostatic shield.

Insulation Test Voltage: Twice Allowable RMS Working Voltage plus 1000 Volts.

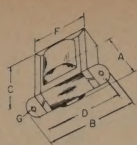
ALL SECONDARY VOLTAGES $\pm 3\%$

STANCOR PAGE 18

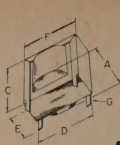
STANCOR

COMMERCIAL

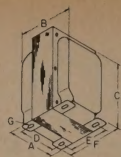
filter chokes



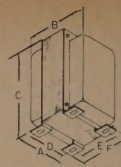
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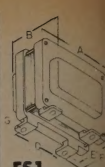
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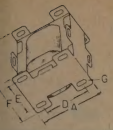
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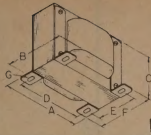
SMOOTHING CHOKES: INDUCTANCE TOLERANCE-MINUS 15% PLUS 50% AT 10 VOLTS 60 CYCLES

	Catalog No.	Inductance Henries	DCMA	DC. Res. ohms	Insul. Test RMS Volts	Termination	Style	Dimensions							W
								A	B	C	D	E	F	G	
a	C-2345	350	5	5600	2500	Leads	A	1 3/4	3 1/4	2	2 1/16	—	2 3/8	3/8	1
	C-2344	1.5	10	85	2500	Leads	A	1 1/8	2 1/8	1 1/4	1 3/4	—	1 1/2	3/8	0
	C-2707	2.0	15	70	1500	Leads	A	1 1/8	2 1/8	1 1/4	1 3/4	—	1 1/2	3/8	0
	C-1515	20.0	15	900	1500	Leads	A	1 3/8	2 3/8	1 3/8	2 3/8	—	2	3/8	0
	C-2346	35	15	1800	2500	Leads	A	1 3/8	2 3/8	1 3/8	2	—	1 3/4	3/8	0
	C-2318	12.0	30	400	2000	Leads	A	1 3/8	2 3/8	1 3/8	2	—	1 3/4	3/8	0
	RC-1540	15.0	40	475	2500	Leads	SC	2 1/4	2 1/16	2 1/16	1 1/2	2 3/8	2	3/8	1
	RS-1540	15.0	40	475	2500	Lugs	SC	2 1/4	2 1/16	2 1/16	1 1/2	2 3/8	2	3/8	1
	C-1080	3.5	50	200	1500	Leads	A	1 3/8	2 3/8	1 3/8	2 3/8	—	2	3/8	0
	C-1706	4.5	50	300	1500	Leads	A	1 1/4	2 3/8	1 3/8	2	—	1 3/4	3/8	0
	C-1723	4.5	50	325	1500	Leads	A	1 3/8	2 3/8	1 3/8	2	—	1 3/4	3/8	0
	C-1325	5.0	50	250	1500	Leads	A	1 1/4	2 3/8	1 3/8	2 3/8	—	2	3/8	0
	C-1277	7.0	50	300	1500	Leads	A	1 3/8	2 3/8	1 3/8	2 3/8	—	2	3/8	0
	C-1227	7.0	50	350	1500	Leads	A	1 3/8	2 3/8	1 3/8	2 3/8	—	2	3/8	0
	C-1707	7.0	50	550	1500	Leads	A	1 1/4	2 3/8	1 3/8	2	—	1 3/4	3/8	0
b	C-1333	8.0	50	450	1500	Leads	A	1 3/8	2 3/8	1 3/8	2 3/8	—	2	3/8	0
	C-1279	8.5	50	400	1500	Leads	A	1 3/8	2 3/8	1 3/8	2 3/8	—	2	3/8	0
	C-1215	9.0	50	500	1500	Leads	A	1 3/8	2 3/8	1 3/8	2 3/8	—	2	3/8	0
	RC-1003	16.0	50	580	1500	Leads	A	1 3/8	3 1/4	2	2 1/16	—	2 3/8	3/8	1
	RC-1055	10.0	55	230	2500	Leads	SC	2 1/4	2 1/16	2 1/16	1 1/2	2 3/8	2	3/8	1
	RS-1055	10.0	55	230	2500	Lugs	SC	2 1/4	2 1/16	2 1/16	1 1/2	2 3/8	2	3/8	1
	RC-1555	15.0	55	380	2500	Leads	SC	2 1/4	2 1/16	2 1/16	1 1/2	2 3/8	2	3/8	1
	RS-1555	15.0	55	380	2500	Lugs	SC	2 1/4	2 1/16	2 1/16	1 1/2	2 3/8	2	3/8	1
	C-1708	13.0	65	500	1500	Leads	A	1 3/4	3 1/4	2	2 1/16	—	2 3/8	3/8	1
	C-1355	8.0	75	290	1500	Lugs	L	2 3/8	—	2	1 1/2	1 3/8	1 3/8	3/8 x 1/2	1
	C-1002	15.0	75	400	1500	Leads	A	1 7/8	3 3/4	2 3/8	3 1/8	—	2 3/4	3/8	2
	C-1420	16.0	80	360	1500	Leads	C	2 1/2	2 3/8	3 1/8	2	1 3/4	2 3/8	3/8 x 3/8	2
	C-1709	8.0	85	250	1500	Leads	A	1 7/8	3 1/4	2	2 1/16	—	2 3/8	3/8	2
	RC-1085	10.0	85	175	2500	Leads	SC	2 1/2	3	3 1/8	1 3/4	2 1/16	2 3/8	3/8	2
	RS-1085	10.0	85	175	2500	Lugs	SC	2 1/2	3	3 1/8	1 3/4	2 1/16	2 3/8	3/8	2
	RC-1585	15.0	85	285	2500	Leads	SC	2 1/2	3	3 1/8	1 3/4	2 1/16	2 3/8	3/8	2
	RS-1585	15.0	85	285	2500	Lugs	SC	2 1/2	3	3 1/8	1 3/4	2 1/16	2 3/8	3/8	2
c	C-2305	5.0	100	300	1500	Leads	SC	2 1/4	2 1/16	2 1/16	1 1/2	2 3/8	2	3/8	1
	RC-8105	8.0	105	100	2500	Leads	SC	2 3/8	3 1/2	3 1/2	2	3 1/8	2 1/16	3/8	1
	RS-8105	8.0	105	100	2500	Lugs	SC	2 3/8	3 1/2	3 1/2	2	3 1/8	2 1/16	3/8	1
	RC-12105	12.0	105	170	2500	Leads	SC	2 3/8	3 1/2	3 1/2	2	3 1/8	2 1/16	3/8	1
	RS-12105	12.0	105	170	2500	Lugs	SC	2 3/8	3 1/2	3 1/2	2	3 1/8	2 1/16	3/8	1
	C-1001	10.5	110	225	3000	Leads	A	2 1/8	4	2 3/8	3 3/8	—	3 1/4	3/8	1
	C-2704	9.0	125	250	1500	Leads	A	1 7/8	3 3/4	2 3/8	3 1/8	—	2 3/4	3/8	1
	C-2303	2.5	130	100	2000	Leads	A	1 3/8	3 1/4	2	2 1/16	—	2 3/8	3/8	1
	C-1421	7.0	140	165	3000	Leads	C	2 1/2	2 3/4	3 1/8	2	1 3/4	2 3/8	3/8 x 3/8	1
	C-2304	2.3	150	60	1500	Leads	A	1 3/4	3 1/4	2	2 1/16	—	2 3/8	3/8	1
	C-2309	3.0	150	90	2000	Leads	A	1 7/8	3 3/4	2 3/8	3 1/8	—	2 3/4	3/8	1
	C-2335	7.0	150	170	1500	Leads	SC	2 1/2	3	3 1/8	1 3/4	2 1/16	2 3/8	3/8	1
	C-1710	7.0	150	200	1500	Leads	A	2	4	2 3/8	3 3/8	—	3 1/8	3/8	1
	RC-8150	8.0	150	100	2500	Leads	SC	3 1/4	4	3 3/8	2 1/4	3 1/2	3	3/8	1
	RS-8150	8.0	150	100	2500	Lugs	SC	3 1/4	4	4 1/4	2 1/4	3 1/2	3	3/8	1
	RC-12150	12.0	150	150	2500	Leads	SC	3 1/4	4	3 3/8	2 1/4	3 1/2	3	3/8	1
d	RS-12150	12.0	150	150	2500	Lugs	SC	3 1/4	4	4 1/4	2 1/4	3 1/2	3	3/8	1
	C-1410	4.0	175	100	3000	Leads	C	2 1/2	2 3/4	3 1/2	2	1 3/4	2 3/8	3/8 x 3/8	1
	C-2327	1.5	200	85	1500	Leads	A	1 1/2	2 7/8	1 3/8	2 3/8	—	2	3/8	1
	C-2325	2.0	200	60	1500	Leads	A	1 7/8	3 3/4	2 3/8	3 3/8	—	2 3/4	3/8	1
	C-1411	4.5	200	80	3000	Leads	C	2 1/16	4 1/4	3 1/2	2 1/4	2	2 3/4	3/8	1
	C-1646	5.0	200	90	5000	Leads	C	3 1/8	3 1/2	3 3/8	2 1/2	2 3/8	3	3/8 x 3/8	1
	RC-8200	8.0	200	85	2500	Leads	SC	3 1/16	4 7/8	4 3/8	2 3/8	3 3/8	3 1/4	3/8	1
	RS-8200	8.0	200	85	2500	Lugs	SC	3 1/16	4 7/8	4 3/8	2 3/8	3 3/8	3 1/4	3/8	1
	C-1721	8.5	200	120	3000	Leads	NV	2 1/16	2 3/8	3 3/8	2 1/4	2 1/2	3 1/4	3/8 x 3/8	1
	C-2705	10.0	200	150	2500	Leads	C	2 1/16	3 3/8	3 1/2	2 1/4	2 3/8	3 1/4	3/8 x 3/8	1
	RC-12200	12.0	200	140	2500	Leads	SC	3 1/16	4 7/8	4 3/8	2 3/8	3 3/8	3 1/4	3/8	1
	RS-12200	12.0	200	140	2500	Lugs	SC	3 1/16	4 7/8	4 3/8	2 3/8	3 3/8	3 1/4	3/8	1
	C-1703	4.0	250	60	3000	Leads	NV	2 1/16	2 3/8	3 3/8	2 1/4	2 1/2	3 1/4	3/8 x 3/8	1
	C-1412	4.0	250	60	3000	Leads	C	2 1/16	3 3/8	3 1/2	2 1/4	2 3/8	3 1/4	3/8 x 3/8	1
	RC-8250	8.0	250	90	2500	Leads	SC	4 7/8	5 1/4	5 3/8	2 1/2	4 3/4	4 3/8	3/8	1
	RS-8250	8.0	250	90	2500	Lugs	SC	4 7/8	5 1/4	5 3/8	2 1/2	4 3/4	4 3/8	3/8	1
e	C-2343	0.75	300	32	1500	Leads	A	1 3/8	2 7/8	1 3/8	2 3/8	—	2	3/8	1
	C-2326	1.0	300	43	1500	Leads	A	2	3 3/4	2 3/4	3 1/8	—	2 3/4	3/8	1
	C-2334	2.8	300	60	1500	Leads	A	2 1/8	4	2 3/8	3 3/8	—	3 1/8	3/8	1
	R-63	6.0	300	35	7500	Terms	SC	5 1/8	5 7/8	6 1/8	3 1/2	5 3/8	4 3/4	1/4	1
	RC-8300	8.0	300	60	3500	Leads	SC	4 7/8	5 1/4	5 3/8	2 1/2	4 3/4	4 3/8	3/8	1
	RS-8300	8.0	300	60	3500	Lugs	SC	4 7/8	5 1/4	5 3/8	2 1/2	4 3/4	4 3/8	3/8	1
	C-1722	8.0	300	80	3000	Leads	NV	3 3/8	3	4 3/8	3	2 1/2	3 1/8	3/8 x 3/8	1
	C-2308	8.0	300	80	3000	Leads	C	3 3/8	4	4 1/16	3	2 1/16	3 3/8	3/8 x 3/8	1

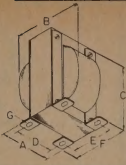
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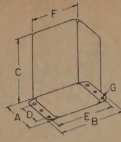
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STANCOR

COMMERCIAL

filter
chokes

SMOOTHING CHOKES: INDUCTANCE TOLERANCE-MINUS 15% PLUS 50% AT 10 VOLTS 60 CYCLES

Catalog No.	Inductance Henries	DCMA	DC. Res. ohms	Insul. Test RMS Volts	Termination	Style	Dimensions							WT Lbs
							A	B	C	D	E	F	G	
C-1413	8.0	300	80	3000	Lugs	C	3 3/4	4	4 1/16	3	2 1/16	3 3/8	3/8 x 3/8	7.8
R-103	10.0	300	40	2500	Terms	SC	6 1/8	6 1/2	7 1/8	4 1/4	6	5 1/8	1/4	22.0
C-2706	2.6	310	50	1500	Leads	C	2 1/2	3 3/8	3 3/8	2	2 3/8	3	3/8 x 3/8	4.0
C-2347	1.0	350	40	1500	Leads	A	1 3/4	3 1/4	2	2 1/16	—	2 3/8	3/8	1.0
C-2328	0.8	375	25	1500	Leads	A	1 1/8	3 3/4	2 3/8	3 3/8	—	2 3/8	3/8	1.5
C-2709	2.0	400	40	2500	Leads	A	2 1/8	4	2 3/8	3 3/8	—	3 1/8	3/8	2.3
C-1414	7.5	400	60	5000	Lugs	C	3 3/4	5	4 1/16	3	3 1/16	4 3/8	3/8 x 3/8	11.8
R-65	6.0	500	35	9000	Terms	FS1	7 1/2	3 1/4	7	4 3/4	5 1/4	6 3/8	3/8 x 3/4	35.0
C-1415	6.0	500	75	7500	Terms	FS	5 3/8	5 1/2	7 1/8	4 3/8	3 3/4	4 3/8	3/8 x 1/2	23.7
R-105	10.0	500	40	9000	Terms	FS1	7 1/2	4	7	4 3/4	6	7 1/8	3/8 x 3/4	35.0
C-2708	0.32	600	10	1500	Leads	A	1 3/8	3 1/4	2	2 1/16	—	2 3/8	3/8	1.3
R-67	6.0	700	35	10000	Terms	FS1	7 1/2	4 1/4	7	4 3/4	5 3/8	6 3/4	3/8 x 3/4	35.0

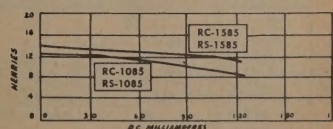
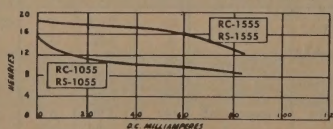
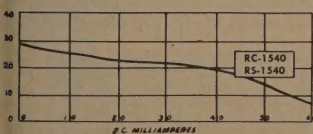
SWINGING CHOKES: INDUCTANCE MEASURED AT 50 VOLTS 60 CYCLES

C-1718	13.5 3.5 150	130	2000	Leads	C	2 1/2	2 3/8	3 3/8	2	1 3/8	2 1/4	3/8 x 3/8	2.3
C-1400	12.0 2.0 175	100	3000	Leads	C	2 1/2	2 3/8	3 3/8	2	1 3/4	2 3/8	3/8 x 3/8	2.4
C-1401	12.0 2.0 200	80	3000	Leads	C	2 1/16	3 3/4	3 1/2	2 1/4	2	2 3/4	3/8 x 3/8	3.5
C-1645	12.0 2.0 200	90	5000	Leads	C	3 3/8	3 1/2	3 3/8	2 1/2	2 3/8	3	3/8 x 3/8	4.5
C-1702	12.0 2.0 250	60	3000	Lugs	NV	2 1/16	2 3/4	3 3/8	2 1/4	2 1/2	3 3/8	3/8 x 3/8	4.3
C-1402	12.0 2.0 250	60	3000	Leads	C	2 1/16	3 3/8	3 1/2	2 1/4	2 3/8	3 3/8	3/8 x 3/8	4.3
C-1720	20.0 4.0 300	80	3000	Leads	NV	3 3/4	3 3/8	4 1/8	3	2 1/2	3 3/8	3/8 x 3/8	7.2
C-2307	20.0 4.0 300	80	3000	Leads	C	3 3/4	4	4 1/16	3	2 1/16	3 3/8	3/8 x 3/8	7.9
C-1403	20.0 4.0 300	80	5000	Lugs	C	3 3/4	4	4 1/16	3	2 1/16	3 3/8	3/8 x 3/8	7.7
C-1404	17.0 3.0 400	60	5000	Lugs	C	3 3/4	5	4 1/16	3	3 1/16	4 3/8	3/8 x 3/8	11.7
C-1405	16.0 4.0 500	75	7500	Terms	FS	5 3/8	5 1/4	7 1/8	4 3/8	3 3/8	4 3/8	3/8 x 1/2	24.3

HIGH CURRENT CHOKES: INDUCTANCE MEASURED AT 1 VOLT 60 CYCLES

Catalog No.	Inductance Millihenries	DC Amps	DC. Res. ohms	Insul. Test RMS Volts	Termination	Style	Dimensions							WT Lbs
							A	B	C	D	E	F	G	
TC-1	3.0	1.0	.25	1000	Leads	A2	1 1/8	—	1 3/8	1 3/8	7/16	1 1/2	3/32	0.6
TC-2	11.0	1.0	.75	1000	Leads	A2	1 1/8	—	1 3/8	1 3/8	7/16	1 1/2	3/32	0.6
C-2690	300 or 75	1.0 2.0	3.0 .75	1500	Leads	NV	3 3/8	3	3 3/8	2 1/4	2 3/8	3 3/4	3/8 x 3/8	5.0
C-2685	35	2.0	.75	1500	Leads	NH	2 3/8	2 1/8	2 3/8	2 3/8	2	2 3/8	3/8 x 3/8	1.9
C-2691	80 or 20	2.5 5.0	.60 .15	1500	Leads	NV	3 3/8	3 1/2	3 1/8	2 1/2	3	3 3/8	3/8 x 3/8	7.0
C-2686	25	4.0	.425	1500	Leads	NH	3 3/8	2 3/8	2 3/8	2 1/8	2 3/8	2 3/8	3/8 x 3/8	3.4
C-2687	10	8.0	.15	1500	Leads	NH	3 3/8	3	3 3/8	3 1/8	2 1/2	3 3/8	3/8 x 3/8	5.3
C-2688	10	12.5	.11	1500	Leads	NH	4 1/4	2 3/8	3 1/2	3 3/8	2 3/8	3	3/8 x 3/8	5.9
C-2689	5	22.5	.03	1500	Leads	NH	4 1/2	4 3/8	3 1/8	3 3/4	3 1/2	4 1/8	3/8 x 3/8	11.9

TYPICAL INDUCTANCE CHARACTERISTIC CURVES

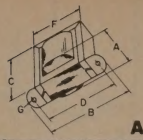


Insulation Test Voltage: Twice Allowable RMS Working Voltage plus 1000 Volts.

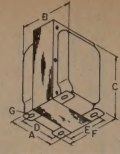
STANCOR PAGE 20

STANCOR

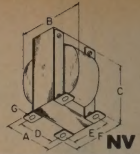
COMMERCIAL
rectifier
transformers



A



C



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SILICON RECTIFIER POWER TRANSFORMERS: Primaries — 117 Volts 50/60 Cycle-Lead Wire Termination.

Catalog No.	Secondary #1		Secondary #2		Secondary #3		Style	Dimensions							WT. Lbs.
	Volts	DCMA†	Volts	Amps.	Volts	Amps.		A	B	C	D	E	F	G	
RP-400	400 C.T.	400	6.3	3.0	6.3	3.0	C	3 1/8	4 1/4	4 1/4	2 3/4	3 1/8	3 1/8	3/8 x 3/8	7.1
RP-600	300 C.T.	600	6.3	2.5	6.3	2.5	C	3 1/8	4 1/4	4 1/4	2 3/4	3 1/8	3 1/8	3/8 x 3/8	7.1
RP-800	200 C.T.	800	6.3	2.0	6.3	2.0	C	3 1/8	4 1/4	4 1/4	2 3/4	2 1/8	3 1/8	3/8 x 3/8	6.9
RP-1600	100 C.T.	1600	6.3	1.5	6.3	1.5	C	3 1/8	3 3/8	4 1/4	2 3/4	2 1/8	3 1/8	3/8 x 3/8	6.0
RP-2000	80 C.T.	2000	6.3	1.5	6.3	1.5	C	3 1/8	4	4 1/4	2 3/4	2 1/8	3 1/8	3/8 x 3/8	6.5
RP-2500	60 C.T.	2500	6.3	1.5	6.3	1.5	C	3 1/8	3 3/8	4 1/4	2 3/4	2 1/8	3 1/8	3/8 x 3/8	6.0

†Refer to operating. Conditions as shown below.

b	T Stancor No.	SR*	L Stancor No.	C1 (in MFD)	C2 (in MFD)	SPR*	D.C. Output		Rectifier Load
							Volts	MA.	
FULL-WAVE C.T.	RP-400	Four #F-4	C-2709	10	10	Yes	192	400	Capacitive
	RP-400	Four #F-4	C-2690	—	200	No	173	540	Inductive
	RP-600	Four #F-6	C-2334	80	80	Yes	190	600	Capacitive
	RP-600	Four #F-6	C-2690	—	125	No	126	1090	Inductive
	RP-800	Two #40-L	C-2690	40	150	Yes	105	800	Capacitive
	RP-800	Two #40-L	C-2690	—	350	No	86	1340	Inductive
FULL-WAVE BRIDGE	RP-1600	Two #40-L	C-2690	200	200	Yes	53	1600	Capacitive
	RP-1600	Two #40-L	C-2691	—	300	No	41	2600	Inductive
	RP-2000	Two #40-L	C-2690	500	500	Yes	47	2000	Capacitive
	RP-2000	Two #40-L	C-2686	—	1000	No	33	2950	Inductive
	RP-2500	Two #40-LF	C-2691	500	500	Yes	31	2500	Capacitive
	RP-2500	Two #40-LF	C-2686	—	1000	No	23	3950	Inductive
FULL-WAVE DOUBLER	RP-400	Four #F-4	C-1710	.8	10	Yes	502	150	Capacitive
	RP-400	Four #F-4	C-1722	—	20	No	330	302	Inductive
	RP-600	Four #F-6	C-2334	8	20	Yes	322	305	Capacitive
	RP-600	Four #F-6	C-2690	—	125	No	285	425	Inductive
	RP-800	Four #F-6	C-2709	30	40	Yes	247	377	Capacitive
	RP-800	Four #F-6	C-2708	—	250	No	172	625	Inductive
FULL-WAVE DOUBLER	RP-1600	Four #F-4	C-2690	40	80	Yes	100	880	Capacitive
	RP-1600	Four #F-4	C-2690	—	300	No	88	1160	Inductive
	RP-2000	Four #F-4	C-2690	100	100	Yes	93	810	Capacitive
	RP-2000	Four #40-L	C-2690	—	250	No	71	1450	Inductive
	RP-2500	Four #40-L	C-2690	200	200	Yes	70	1060	Capacitive
	RP-2500	Four #40-L	C-2690	—	500	No	50	1950	Inductive
FULL-WAVE DOUBLER	RP-400	Four #F-6	C-1420	8	0.5	Yes	1040	75	Capacitive
	RP-600	Four #F-6	—	60	—	Yes	802	142	Capacitive
	RP-800	Two #F-6	—	80	—	Yes	536	188	Capacitive
	RP-1600	Two #F-6	C-2326	80	16	Yes	240	325	Capacitive
	RP-2000	Two #F-6	—	150	—	Yes	212	390	Capacitive
	RP-2500	Two #40-L	—	500	—	Yes	150	553	Capacitive

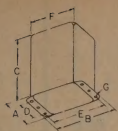
Note: Filtering shown permits maximum output ripple voltage of 3% or less.

*Quantity Shown is Total Number used in a given circuit. Rectifiers should be equivalent to Sarkes Tarzian numbers shown.

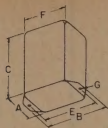
*Surge protection resistors are recommended when capacitor input filters are used. Allow 3.3 ohms per 70 volts R.M.S. applied voltage. Transformer secondary winding D.C. resistance may be used as part or all of the amount required.

FOR TRANSISTOR POWER SUPPLIES: Primary 117 Volts 60 Cycles — Lead Wire Termination.

Catalog No.	Secondary #1		Secondary #2		Style	Dimensions							WT. Lbs.
	Volts	DCMA	Volts	DCMA		A	B	C	D	E	F	G	
TP-1	13/18	900	13/18	900	C	2 1/2	3	3 1/4	2	2	2 3/8	3/8 x 3/8	2.7
TP-2	10/20 C.T./40 C.T.	100	—	—	A	1 1/8	2 3/8	1 3/8	2 3/8	—	2	3/8	0.7
TP-3	10/20 C.T./40 C.T.	300	—	—	A	2 1/8	3 3/8	2 3/8	3 1/8	—	2 3/8	3/8	1.5
TP-4	10/20 C.T./40 C.T.	1000	—	—	C	2 1/2	3 1/4	3 1/4	2	2 1/2	2 3/4	3/8 x 3/8	3.2
P-8193A	17/18	6 Amps. RMS	—	—	NV	3 1/8	3 1/4	3 1/4	2 1/2	2 3/8	3 1/8	3/8 x 3/8	6.0
P-8194A	36	3 Amps. RMS	36	3 Amps. RMS	NV	3 3/8	3 3/8	4 1/8	3	3	3 1/8	3/8 x 3/8	10
P-8196	80 C.T.	1200	—	—	C	2 1/8	3 3/8	3 1/2	2 1/4	2 3/8	3 1/8	3/8 x 3/8	4.5



SC



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STANCOR

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rectifier &
inverter trans.

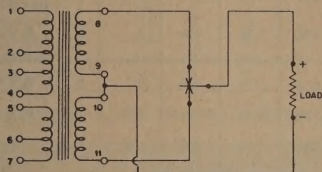
SILICON OR SELENIUM RECTIFIER TRANSFORMERS:

Primary — 117 Volts 50/60 Cycles.
Solder Lug Termination

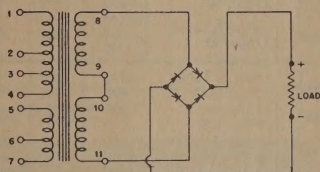
These transformers have been designed to operate in full-wave enter tap or bridge rectifier circuits. The D.C. voltages shown are approximate since they depend on the internal drop of the rectifiers used.

Primary taps and an additional buck or boost tapped winding provides a wide range of output voltages. For detailed terminal connections, output voltages, etc. write for bulletin 518-R. For matching high current chokes see page 20.

FULL-WAVE C. T.



FULL-WAVE BRIDGE



Catalog No.	Rectifier Circuit	Range of Applied A.C. Volts Under Load (Approx.)	Output Resistive or Inductive Load Max D.C.		Output Capacitive Load* Max. D.C.		Style	Dimensions							WT. Lbs.
			Volts	Amps.	Volts	Amps.		A	B	C	D	E	F	G	
RT-201	C. T. Bridge	11.7 to 29.4 11.1 to 28.5	11.2 23.0	2.0 1.25	13.8 ¹ 30.0 ²	2.0 1.25	NV	2 1/2	2 3/8	3 1/8	2	2 1/8	2 1/8	3/8 x 3/8	2.5
RT-202	C. T. Bridge	12.0 to 29.8 12.0 to 29.8	11.1 24.3	4.0 2.0	14.7 ³ 33.0 ¹	4.0 2.0	NV	2 1/8	2 3/4	3 1/8	2 1/4	2 3/8	3 1/8	3/8 x 3/8	3.8
RT-204	C. T. Bridge	11.7 to 29.2 11.6 to 29.2	12.0 24.0	8.0 4.0	14.5 ⁴ 32.4 ³	8.0 4.0	NV	3 1/8	3 1/2	3 1/8	2 1/2	2 7/8	3 3/8	3/8 x 3/8	6.1
RT-206	C. T. Bridge	12.0 to 29.7 12.0 to 29.7	11.5 24.0	12.0 6.0	14.4 ⁵ 32.0 ⁴	12.0 6.0	NV	3 3/8	4	4 1/8	2 3/4	3 1/4	3 1/8	3/8 x 3/8	9.1
RT-208	C. T. Bridge	12.1 to 29.2 12.1 to 29.2	11.4 23.7	15.0 8.0	14.8 ⁷ 32.5 ⁴	15.0 8.0	NV	3 3/4	5	4 1/8	2 1/8	3 3/4	4 7/8	3/8 x 3/8	12.6
RT-2012	C. T. Bridge	12.2 to 29.0 12.2 to 29.0	11.4 23.5	22.5 12.0	14.3 ⁸ 33.0 ⁵	22.5 12.0	NV	4 3/8	5 3/8	5 1/8	3 1/2	4 1/4	4 1/8	3/8 x 3/8	20.5
RT-408	Bridge	25.0 to 53.5	44.0	8.0	63.0 ⁴	8.0	NV	4 3/8	6 3/4	5 1/8	3 1/2	5 1/4	5 1/8	3/8 x 3/8	26.5
RT-4012	Bridge	25.0 to 53.0	43.5	12.0	60.0 ⁵	12.0	NV	5 3/8	6	7 1/8	4 3/8	5 1/2	6 1/2	3/8 x 1/2	34

*MFD Filter Capacitor 1-1000, 2-500, 3-2000, 4-4000, 5-6000, 6-3000, 7-7500, 8-12000.

TRANSISTOR INVERTER TRANSFORMERS:

Write for Bulletin CT-43 for Circuit Diagram.
Lead Wire Termination.

Catalog No.	Input	Output Volts	MADC	Style	Dimensions							WT. Lbs.
					A	B	C	D	E	F	G	
DCT-1	12 Volts D.C.	275 D.C.	125	TD	1 1/8	2 1/8	2 1/4	—	2 1/8	1 7/8	3/8	0.9
DCT-2	12 Volts D.C.	250 D.C. or 300 D.C.	275 165	SC	2 1/4	2 1/8	2 1/8	1 1/2	2 3/8	2	3/8	1.5

TRANSISTOR INVERTER TRANSFORMER:

With 12 Volts D.C. and 117 Volts 60 Cycle Primary.
Write for Bulletin 596 for Circuit Diagram.

Catalog No.	D.C. Output		Filament Winding	Style	Dimensions							WT. Lbs.
	Volts	DCMA			A	B	C	D	E	F	G	
P-8195	280	150 CCS 250 ICAS	12.6 V. @ 3 Amps. (with 117 V. Pri.)	C	3 3/8	3 1/8	3 3/8	2 1/2	2 3/8	3 3/8	3/8 x 3/8	6.0

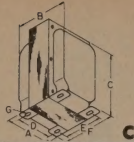
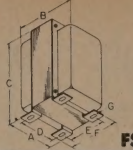
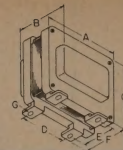
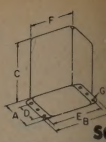
SPECIAL VIBRATOR TRANSFORMERS:

With D.C. and 117 Volts 60 Cycle Primary.
Lead Wire Termination.

Catalog No.	D.C. Pri.	Plate Winding		Buffer Cap.	Filament Winding		Style	Dimensions							WT. Lbs.
		A.C. Volts	DCMA		Volts	Amps.		A	B	C	D	E	F	G	
P-6166	6 V.	350-0-350	135	.01 mfd	6.3	2.25	C	3 3/8	3 3/8	4 1/8	3	2 1/8	3 3/8	3/8 x 3/8	6.9
P-6496	12 V.	350-0-350	100	.005 mfd	12.6 C.T.	2.0	C	3 3/8	4	4 1/8	3	2 1/8	3 3/8	3/8 x 3/8	7.9

STANCOR

COMMERCIAL

plate
transformers**C****FS****FS1****S****FOR REACTOR INPUT SYSTEMS: All Primaries — 50/60 Cycles.**

	Catalog No.	Plate Winding AC Volts	DC Volts	DCMA		Primary Volts	Style	Dimensions							WT. Lbs.
				CCS	ICAS			A	B	C	D	E	F	G	
a	P-8040*	500-40-0-500	400 40	300	375	115	C	3 3/4	4 3/4	4 1/16	3	3 3/4	4 1/4	3/4 x 3/4	9.8
	P-8041*	615-520-40-0 520-615	500 400 40	250	310	115	C	3 3/4	5 1/4	4 1/16	3	4 1/16	4 3/4	3/4 x 3/4	13.6
	P-45††	675-575-0 575-675	500 400	250	325	115/230	SC	4 1/4	5 1/4	5 3/4	2 1/2	4 3/4	4 1/4	3/4	12.0
	P-8042*	770-510-40-0 510-770	600 400 40	300	375	115	C	3 3/4	6 1/2	4 1/16	3	5 3/4	6 1/4	3/4 x 3/4	18.0
	P-67††	900-735-0 735-900	750 600	250	325	115/230	SC	4 1/4	5 1/4	5 3/4	2 1/2	4 3/4	4 1/4	3/4	13.5
	P-8043*	950-750-40-0 750-950	750 600 40	300	375	115	FS	5 3/4	6 3/4	7 1/4	4 3/4	4	5	3/4 x 1/2	29.0
b	P-8044*	1200-0-1200† 535-0-535	1000 400	150 150	190 190	115	FS	6 1/4	8 1/4	7 3/4	4 3/4	4	5	3/4 x 3/4	29.8
	P-8025*	1230-940-0 940-1230	1000 750	400	500	115	FS	5 3/4	7 1/2	7 1/4	4 3/4	4 3/4	5 3/4	3/4 x 1/2	35.0
	P-1240††	1425-0-1425† 600-0-600	1250 400	150 200	200 260	115/230	SC	5 3/4	5 3/4	6 1/4	3 1/2	5 3/4	4 1/16	1/4	26.0
	P-8026*	1475-1175-0 1175-1475	1250 1000	300	375	115	FS	5 3/4	7 1/2	7 1/4	4 3/4	4 3/4	5 3/4	3/4 x 1/2	36.5
	P-8027*	1510-1210-0 1210-1510	1250 1000	500	625	115	FS	5 3/4	8 1/4	7 1/4	4 3/4	5 1/2	6 1/2	3/4 x 1/2	45.2
	P-1512††	1710-1430-0 1430-1710	1500 1250	300	425	115/230	FS-1	7 1/2	7	7	4 3/4	6	7 1/4	3/4 x 3/4	43.0
	P-8028*	1740-1460-0 1460-1740	1500 1250	300	375	115	FS	5 3/4	7 3/4	7 1/4	4 3/4	5	6	3/4 x 1/2	38.7
	P-8029*	1775-1500-0 1500-1775	1500 1250	500	625	115/230	FS	7 1/4	8 1/4	9	6	5 3/4	6 3/4	3/4 x 3/4	65.0
	P-8031*	2075-1775-0 1775-2075	1750 1500	500	625	115/230	FS	7 1/4	8 1/4	9	6	5 3/4	6 3/4	3/4 x 3/4	65.0
c	P-8030*	2100-1800-0 1800-2100	1750 1500	300	375	115	FS	5 3/4	7 1/4	7 1/4	4 3/4	5 1/2	6 1/2	3/4 x 1/2	45.8
	P-8033*	2375-2065-0 2065-2375	2000 1750	500	625	115/230	FS	7 1/4	8 3/4	9	6	5 3/4	7 1/4	3/4 x 3/4	77.0
	P-8032*	2400-2100-0 2100-2400	2000 1750	300	375	115	FS	5 3/4	8	7 1/4	4 3/4	6 1/4	7 1/4	3/4 x 1/2	46.0
	P-2520††	2820-2260-0 2260-2820	2500 2000	300	425	115/230	FS-1	8 3/4	7 1/2	8 1/2	5 1/2	6 3/4	8 3/4	3/4	71.0
	P-8034*	2900-2385-0 2385-2900	2500 2000	300	375	115/230	FS	7 1/4	8 3/4	9	6	5 3/4	6 3/4	3/4 x 3/4	62.8
	P-2126††	2900-2320-0 2320-2900	2600 2100	500	700	115/230	FS	7 1/4	10 1/2	9	6	7 3/4	9	3/4 x 3/4	95.0
	P-8035*	2950-2375-0 2375-2950	2500 2000	500	575	115/230	FS	7 1/4	9 3/4	9	6	7 1/4	8 3/4	3/4 x 3/4	80.0
	P-4353††	4600-4050-3400 0-3400-4050 4600	4000 3500 3000	600	800	115/230	FS-1	13 3/4	10	12 3/4	9	8 3/4	10 1/2	1/2	150.0

WITH PLATE LEADS OUT OF TOP: For Reactor Input Systems. All Primaries — 50/60 Cycles.

d	PT-8311††	1200-0-1200	1000	225	280	117	C	3 3/4	5 1/4	4 1/16	3	4 1/16	4 3/4	3/4 x 3/4	13.0
	PT-8312††	1200-0-1200	1000	325	405	117	C	4 3/4	6 3/4	5 3/4	3 1/2	5 3/4	6 1/4	1/4 x 3/4	22.5
	PT-8313††	1475-0-1475	1250	250	310	117	C	4 3/4	6 3/4	5 3/4	3 1/2	5	6 1/4	1/4 x 3/4	22.0
	PT-8314††	1790-0-1790	1500	225	280	117	C	4 3/4	6 1/2	5 3/4	3 1/2	4 3/4	6	1/4 x 3/4	21.5
	PT-8315††	2065-0-2065	1750	200	250	117	C	4 3/4	6 3/4	5 3/4	3 1/2	5	6 1/4	1/4 x 3/4	22.0

CCS RATING FOR REACTOR INPUT — ICAS RATING FOR CAPACITOR INPUT: All Primaries — 50/60 Cycles.

e	PC-8301††	415-0-415	300 425	200	160	117	C	3 3/4	3 1/2	3 3/4	2 1/2	2 3/4	3	3/4 x 3/4	4.8
	PC-8302††	515-0-515	385 500	235	200	117	C	3 3/4	4 1/4	4 1/4	2 3/4	2 13/16	3 3/4	3/4 x 3/4	6.8
	PC-8303††	665-0-665	500 750	250	200	117	C	3 3/4	4 3/4	4 1/16	3	3 3/4	4	3/4 x 3/4	9.6
	PC-8304††	750-0-750	600 850	265	200	117	C	3 3/4	4 3/4	4 1/16	3	3 11/16	4 1/2	3/4 x 3/4	11.5
	PC-8305††	920-0-920	750 1000	250	200	117	C	3 3/4	5	4 1/16	3	3 13/16	4 3/4	3/4 x 3/4	11.9
	PC-8306††	920-0-920 500-0-500	750 1100 380 550	150	125	117	C	3 3/4	5	4 1/16	3	3 13/16	4 3/4	3/4 x 3/4	11.9

All "C" style have Leads; "SC" style have lugs; "FS" and "FS1" have Terminals.

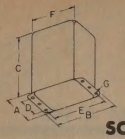
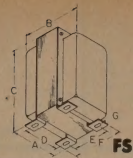
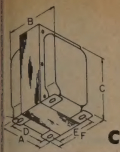
†Both Secondaries may be Loaded Simultaneously.

††Secondary C.T. must be grounded.

*May be used with Secondary C.T. ungrounded.

All Secondary A.C. Voltages $\pm 3\%$.

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STANCOR

COMMERCIAL

isolation/auto transformers

STEP-DOWN AUTO-TRANSFORMERS: Primary — 230 Volts 50/60 Cycles — Line Cord and Plug.
Secondary — 115 Volts — Standard Female Receptable.

	Catalog No.	Watts	Style	Dimensions							Wt. Lbs.
				A	B	C	D	E	F	G	
a	P-6287	40	C	2 1/2	2 1/2	3 1/2	2	1 1/2	2 1/2	3/8 x 3/8	2.2
	P-5062	80	C	2 1/2	3 3/8	3 1/2	2 1/2	2 1/2	2 1/2	3/8 x 3/8	3.8
	P-5063	100	C	3 3/8	3 3/8	3 3/8	2 1/2	2 1/2	2 1/2	3/8 x 3/8	4.5
	P-5064	150	C	3 3/8	3 3/8	4 1/4	2 3/4	2 1/2	3 1/4	3/8 x 3/8	5.2
	P-5065	300	C	3 3/8	4 1/4	4 1 1/8	3	3 1/8	3 3/8	3/8 x 3/8	8.8
	P-6141	500	C	3 3/8	5 1/4	4 1 1/8	3	4 1/8	4 3/8	3/8 x 3/8	13.7
b	P-6124	1000	FS	5 3/8	6 3/4	7 1/8	4 3/8	4	5	3/8 x 1/2	24.7
	SD-50	50	SC	2 1/2	3 1/2	3 1/2	2	3 1/8	2 1 1/8	3/8	2.8
	SD-100	100	SC	3 1 1/8	4 1/8	4 3/8	2 3/4	3 3/8	3 1/4	3/8	4.3
	SD-150	150	SC	4 3/8	5 1/4	5 3/8	2 1/2	4 3/8	4 1/8	3/8	7.0
	SD-250	250	SC	4 3/8	5 1/4	5 3/8	2 1/2	4 3/8	4 1/8	3/8	8.8
	SD-500	500	SC	5 3/8	5 3/8	6 1/8	3 1/2	5 3/8	4 1 1/8	1/4	14.5
	SD-1000	1000	SC	6 3/8	6 1/2	7 1/8	4 1/4	6	5 1/4	1/4	22.5

LINE ADJUSTING AUTO-TRANSFORMERS: Primary — 50/60 Cycle. Line Cord and Selector Switch.
Secondary — Female Receptable with Voltmeter.

	Catalog No.	Watts	Input Voltage	Output Voltage	Style	Dimensions							WT. Lbs.
						A	B	C	D	E	F	G	
c	PV-6441	150	65/75/90/100/115/130/145	115	C	3 3/4	5 3/8	5 1/2	3	4 3/8	5 1/8	3/8 x 3/8	6.4
	PV-6442	350	65/75/90/100/115/130/145	115	C	3 3/4	6 1/8	5 1/2	3	5 1/8	5 3/8	3/8 x 3/8	10.5
	PV-6443	500	65/75/90/100/115/130/145	115	C	3 3/4	6 3/8	5 1/2	3	5 1 1/8	6 3/8	3/8 x 3/8	15
	PV-6444	750	65/75/90/100/115/130/145	115	C	4 3/8	8 1/8	6 3/8	3 1/2	6 3/8	7 3/4	1/4 x 3/8	19

LINE ADJUSTING ISOLATION TRANSFORMERS: Primary — 50/60 Cycles. Line Cord and Selector Switch.
Secondary — Standard Female Receptable.

	Catalog No.	Watts	Input Voltage	Output Voltage	Style	Dimensions							WT. Lbs.
						A	B	C	D	E	F	G	
d	IS-50	50	105/115/125	†125/115/105	SC	3 1 1/8	4 3/8	4 1 1/8	2 3/4	3 3/8	3 1/4	3/8	5
	IS-100	100	105/115/125	†125/115/105	SC	4 3/8	5 1/4	5 3/8	2 1/2	4 3/8	4 1/8	3/8	8.5
	IS-150	150	105/115/125	†125/115/105	SC	5 3/8	5 3/8	6 1/8	3 1/2	5 3/8	4 1 1/8	1/4	12.5
	IS-250	250	105/115/125	†125/115/105	SC	5 3/8	5 3/8	6 1/8	3 1/2	5 3/8	4 1 1/8	1/4	18.3

STRAIGHT ISOLATION: ELECTROSTATIC SHIELDS GROUNDED TO CORE Primary — 50/60 Cycles. Line Cord.
Secondary — Female Receptable.

	Catalog No.	Watts	Input Voltage	Output Voltage	Style	Dimensions							WT. Lbs.
						A	B	C	D	E	F	G	
e	P-6410	50	115	115	C	2 1 1/8	3 3/8	3 1/2	2 1/4	1 7/8	2 3/8	3/8 x 3/8	3.7
	P-6160†	100	105/115/125	115	C	3 3/4	3 3/4	4 1 1/8	3	2 3/8	3 3/8	3/8 x 3/8	7.0
	P-6371	175	117	117	SC	4 3/8	5 1/4	5 3/8	2 1/2	4 3/8	4 1/8	3/8	9.0
	P-6161†	250	105/115/125	115	C	3 3/4	5 1/2	4 1 1/8	3	4 3/8	5 3/8	3/8 x 3/8	14.2
	P-6298†	500	105/115/125	115	FS	5 3/8	7 1/8	7 1/8	4 3/8	4 1/4	5 1/4	3/8 x 1/2	28
	P-6125^	1000	105/115/125	115	FS	5 3/8	7 3/4	7 3/4	4 3/8	5	6	3/8 x 1/2	35
	P-6123^	1500	105/115/125	115	FS	5 3/8	9	7 1/8	4 3/8	6 1/4	7 1/4	3/8 x 1/2	50

STEP-DOWN ISOLATION: ELECTROSTATIC SHIELDS GROUNDED TO CORE Primary — 50/60 Cycles. Line Cord.
Secondary — Female Receptable.

	Catalog No.	Watts	Input Voltage	Output Voltage	Style	Dimensions							WT. Lbs.
						A	B	C	D	E	F	G	
f	P-6383†	100	210/230/250	115	C	3 3/4	3 3/4	4 1 1/8	3	2 3/8	3 3/8	3/8 x 3/8	7.3
	P-6385†	250	210/230/250	115	C	3 3/4	5 1/2	4 1 1/8	3	4 3/8	5 3/8	3/8 x 3/8	14.2
	P-6387†	500	210/230/250	115	FS	5 3/8	7 1/8	7 1/8	4 3/8	4 1/4	5 1/4	3/8 x 1/2	29.5
	P-6389^	1000	210/230/250	115	FS	5 3/8	7 1/8	7 1/8	4 3/8	5	6	3/8 x 1/2	34
	P-6390^	1500	210/230/250	115	FS	5 3/8	9 3/8	7 1/8	4 3/8	6 1/2	7 1/2	3/8 x 1/2	50

ISOLATION TESTING TRANSFORMERS: ELECTROSTATIC SHIELD GROUNDED TO CORE Primary—50/60 Cycles. Line Cord.
Secondary—Three Female Receptacles.

	Catalog No.	Watts	Input Voltage	Output Voltage	Style	A	B	C	D	E	F	G	WT. Lbs.
g	P-6415	350	117	105/115/125	C	4 3/8	5 1 1/8	5 3/8	3 1/2	4 1 1/8	5 3/8	1/4 x 3/8	17

AUTO-TRANSFORMERS FOR TESTING: Primary 50/60 Cycles — Line Cord and Selector Switch.
Secondary — Female Receptable.

	Catalog No.	Watts	Input Voltage	Output Voltage	Style	A	B	C	D	E	F	G	WT. Lbs.
h	*P-6299	150	115	{ 90/100/110/120 130/140/150 }	C	3 3/8	3 3/8	3 3/8	2 1/2	2 3/8	3 3/8	3/8 x 3/8	6

STEP UP — STEP-DOWN AUTO-TRANSFORMERS: 208 V./230 V., or 230 V./208 V. 60 Cy.
(Three wire Line Cord and Receptable) by means of Connection.
Change inside outlet Box.

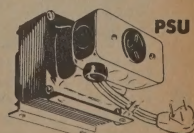
	Catalog No.	Application	Style	Height	Base Area	Mtg Ctrs	Wt. Lbs.
j	PSU-2000	2.3 KVA for 1/2 to 1 hp Motors	PSU	3 1/2	3 3/4 x 6 1/2	2 1/8 x 3 3/4	9
	PSU-3000	3 KVA for 1 to 2 hp Motors	PSU	4	4 1/2 x 6	2 1/2 x 3 3/4	10

† Has Primary Switch.

* Available until stock is depleted

^ Has Primary Terminals.

†† With 115 volt input.



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STANCOR

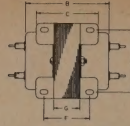
COMMERCIAL

control transformers

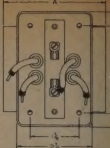
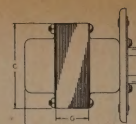
SECTION 5600



NCF & PCF



PCC



NORMAL REACTANCE TYPE: Primary 115 Volts 50/60 Cycles — Lead Wire Termination.

Catalog Number	Secondary			Dimensions in Inches								App. We. Lb.
	Volts	Amps.	V-A Cap.	A	B	C	D	E	F	G		
NCF-1650	16	3.15	50	3	3 1/4	2 3/8	2 3/8	2 3/8	1 3/4	1	3 1/2	
NCF-2425	24	1.05	25	2 3/8	2 1/2	2 1/8	2 1/2	2 1/8	1 1/2	3/4	2 1/2	
NCF-2450	24	2.1	50	3	3 1/4	2 3/8	2 3/8	2 3/8	1 3/4	1	3	
NCF-2475	24	3.15	75	3 1/2	3 3/8	2 7/8	3 3/8	3	2 1/4	1 3/8	4	
NCF-24100	24	4.15	100	3 1/8	3 3/8	3 1/8	3 1/2	3 3/8	2 1/8	1 3/8	5	
NCF-24150	24	6.25	150	4 1/2	4 1/8	3 3/4	4	3 3/4	3	1 1/2	8	
NCF-3250	32	1.55	50	3	3 1/4	2 3/8	2 3/8	2 3/8	1 3/4	1	3	
NCF-3275	32	2.35	75	3 1/2	3 3/8	2 7/8	3 3/8	3	2 1/4	1 3/8	4 1/2	
NCF-32150	32	4.7	150	4 1/2	4 1/8	3 3/4	4	3 3/4	3	1 1/2	8 1/2	
NCF-1550	550	(NL)	50	2 3/8	2 3/8	2 3/8	3 1/2	2 1/4	2 1/8	1 1/8	3 1/2	

POWER CIRCUIT TRANSFORMERS: Primary 50/60 Cycles. Lead Wire Termination.

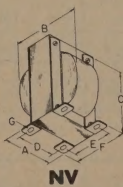
	Catalog Number	Primary Volts	Secondary			Dimensions in Inches							Weight Lbs.
			Volts	Amps.	V-A Cap.	A	B	C	D	E	F	G	
b	PCF-2025	230	115	.25	25	3	3	2 1/8	2 1/8	2 3/8	1 1/2	3/4	2
	PCF-2050	230	115	.45	50	3	3 1/2	2 3/8	2 1/8	2 3/8	2	1 1/4	2 1/2
	PCF-24075	230/460	115	.65	75	3 1/2	3 3/8	2 7/8	3 3/8	3	2 1/4	1 3/8	4 1/2
	PCF-24100	290/460	115	.85	100	3 1/8	4 1/8	3 1/8	3 1/2	3 3/8	2 1/8	1 3/8	5
	PCF-24150	230/460	115	1.5	150	4 1/2	4 1/8	3 3/4	4	3 3/4	3	1 1/2	7 1/2
	PCF-24250	230/460	115	2.2	250	5 1/4	4 3/8	3 1/8	4 3/8	4 1/4	3	1 1/8	12

LOW CURRENT CONTROL TRANSFORMERS: Primary 117 Volts 50/60 cycles
Lead Wire Termination

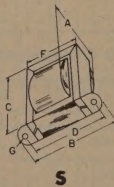
Catalog No.	Secondary #1		Secondary #2		Secondary #3		Style	Dimensions							
	Volts	Amps	Volts	Amps	Volts	Amps		A	B	C	D	E	F	G	
P-8361	12	.10	12	.10	12 C.T.	.10	S	1 1/2	2	1 3/4	1 3/4	—	1 3/8	3/8	
P-8362	12	.15	12	.15	12 C.T.	.15	S	1 3/4	2 3/8	2	2	—	1 3/8	3/8	
P-8363	12	.25	12	.25	12 C.T.	.25	S	1 3/4	2 3/8	2 3/8	2 3/8	—	2	3/8	
P-8364	12	.50	12	.50	12 C.T.	.50	S	2 3/8	2 3/8	2 3/8	2 3/8	—	2	3/8	

CONTROL TRANSFORMERS: Primary — 115/230 Volts 50/60 Cycles — Solder Lug Termination.

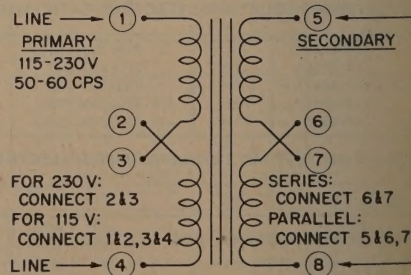
Typical Applications: Automatic Assembly equipment. Relays, Solenoids, Small Motors, Speed Changers, Recording Device, Pumps, Electronic Tubes, Heating Elements, Elevators, Door Openers, Automatic Musical Instruments, Low Voltage Lighting Signal Lamps, Spark Plug Testers, Control Valves for Fluids and Gases, Fans and Blowers, Mechanical and Electrical Signs and similar applications.



NV



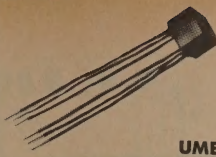
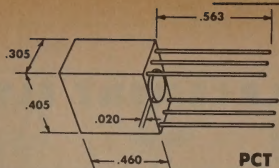
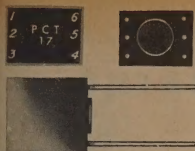
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d

Catalog No.	VA Cap.	Secondary		Style	Dimensions						
		Parallel	Series		A	B	C	D	E	F	G
P-6375	12	6V @ 2A	12V @ 1A	S	1 1/8	2 1/8	2 3/8	2 3/8	—	2	3/8
P-6376	24	6V @ 4A	12V @ 2A	S	1 3/8	3 1/8	2 3/8	2 13/16	—	2 1/4	3/8
P-6377	48	12V @ 4A	24V @ 2A	S	2 1/4	3 3/8	3 3/8	3 3/8	—	2 3/8	3/8
P-6378	96	12V @ 8A	24V @ 4A	NV	2 13/16	2 3/8	3 3/8	2 1/4	2 1/4	2 7/8	3/8 x 3/8
P-6379	192	12V @ 16A	24V @ 8A	NV	3 3/8	3 3/8	4 3/8	2 3/8	3	3 1/8	3/8 x 3/8

SECTION 5600



STANCOR
COMMERCIAL
miniature
audio

POLYCHROMATRANS With Multiples of 0.1" Grid Spacing for Printed Circuits.

COLOR CODING by application to assure immediate and positive transformer identification.

RECTANGULAR SHAPE allows the utmost utilization of space and stacking in limited area.

PROTECTIVE STAND-OFF prevents solder flow-back and maximum lead exit protection.

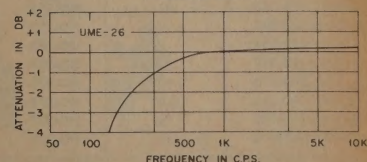
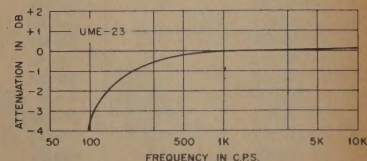
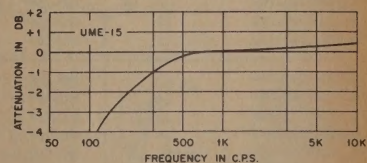
SPACED LEADS of fatigue resistant gold plated nickel-iron alloy are .020" in diameter, 9/16" long and have multiples of 0.1" grid spacing for printed circuit application.

Catalog No.	Power Level in M.W.	Application	Color Application Guide	Matching Impedance		Max. M.A. D.C. Unbal. in Pri.	D.C. Resistance		Overall Turns Ratio	RMS Test Volts
				Primary	Secondary		Primary	Secondary		
PCT-14	15	Input	Brown	200,000 CT	1,000 CT	0	6300	130	14.1:1	500
PCT-15	35	Input	Brown	50,000 CT	1,000 CT	0	4600	90	7.1:1	500
PCT-16	.5	Input	Brown	250,000	250,000	0	3500	4500	1:1	500
PCT-17	15	Input	Brown	200,000	1,000	0	6300	130	14.1:1	500
PCT-21	55	Interstage	Red	25,000	1,000	.5	2000	140	5:1	500
PCT-23	55	Interstage	Red	25,000 CT	1,000 CT	.5	2000	140	5:1	500
PCT-25	75	Interstage	Red	10,000 CT	1,500 CT	1	1250	360	2.57:1	500
PCT-30	75	Driver	Orange	10,000 CT	1,200 CT	1	1250	240	2.88:1	500
PCT-31	75	Driver	Orange	10,000 CT	2,000 CT	1	1250	400	2.24:1	500
PCT-39	75	Driver	Orange	10,000 CT	500 CT	1	1250	100	4.47:1	500
PCT-43	75	Output	Yellow	1,000	50	3	175	9.5	4.4:1	500
PCT-54	75	Output	Yellow	600 CT	12	4.5	92	3.6	7.06:1	500
PCT-60	75	Output	Yellow	500 CT	600	3	80	118	1.1:1	500
PCT-61	75	Output	Yellow	900 CT	600	4	125	115	1.22:1	500
PCT-62	75	Output	Yellow	1,500 CT	600	3	200	110	1.58:1	500
PCT-70	75	Output	Yellow	320 CT	3.2	6	52	.9	10:1	500
PCT-71	75	Output	Yellow	600 CT	3.2	4.5	84	1	13.6:1	500
PCT-76	75	Output Isolation	Green	10,000 CT	10,000 CT	1	1100	1400	1:1	500
PCT-77	75	Output Isolation	Green	600 CT	600 CT	3	85	110	1:1	500
PCT-116	—	Choke	Blue	6 HYS.	—	2	1800	—	—	500
PCT-117	—	Choke	Blue	1.25 HYS.	—	2	200	—	—	500
PCT-118	—	Choke	Blue	3.5 HYS.	—	2	1200	—	—	500
PCT-128	—	Choke	Blue	.3 HY.	—	4	50	—	—	500
SPCT-10 Magnetic Alloy Shield-fits all PCT Transformers.										

ULTRA MINIATURE ENCAPSULATED TRANSFORMERS Size .312" x .400" x .426". Insulation Test — 100 Volts

Catalog No.	Application	Pri. Res.	Pri. Imp. in Ohms	D.C. M.A. in Pri.	Sec. Imp. in Ohms	Sec. Res.	Mw. Level
UME-11	interstage	1500	30,000	.5	1200	185	50
UME-12	output	120	600	3	60	13	100
UME-13	output	250	1200	3	60	17	100
UME-14	output	70	600	3	3.2	.7	100
UME-15	output	170	1200	2	3.2	.75	100
UME-16	output	1200	10,000	1	3.2	.7	100
UME-17	output	7500	200,000	0	1000	260	25
UME-18	reactor	1000	3 hy @ 2 MADC	2	—	—	—
UME-19	output or driver	1100	12,500 CT	1	600 CT	45	100
UME-20	driver	1000	12,500	1	1500 CT	100	100
UME-21	driver	1100	12,500	1	2500 CT	160	100
UME-22	single or PP output	25	200 CT	10	16	3	500
UME-23	single or PP output	35	400 CT	7	16	2.5	500
UME-24	single or PP output	75	800 CT	5	16	2	500
UME-25	single or PP output	85	1070 CT	4	16	2	500
UME-26	single or PP output	120	1330 CT	3.5	16	2	500
UME-27	single or PP output	225	2000 CT	3	16	2.5	500
UME-28	single or PP output	750	10,000 CT	1	16	2.5	500
UME-29	output	35	300 CT	7	600	110	500
UME-30	output	60	500 CT	5.5	600	110	500
UME-31	output	105	900 CT	4	600	110	500
UME-32	output	200	1500 CT	3	600	120	500
UME-33	interstage	1500	30,000 CT	.5	1200 CT	175	100
UME-34	input	6500	200,000 CT	0	1000 CT	250	25
UME-35	interstage	1000	12,000 CT	1	1800 CT	115	100
UME-36	reactor	2600	6 hy @ 2 MADC	2	—	—	—
UME-37	reactor	190	1 hy @ 2 MADC	2	—	—	—
UME-38	reactor	1800	12 hy @ 0 DC	0	—	—	—
UME-39	reactor	2700	20 hy @ 0 DC	0	—	—	—

Typical Response Curves



STANCOR

COMMERCIAL

**t.v.
replacement****T.V. REPLACEMENT FLYBACKS****REFER TO STANCOR T. V. REPLACEMENT GUIDE FOR APPLICATION**

Part No.	Mtg. Type	Part No.	Mtg. Type	Part No.	Mtg. Type	Part No.	Mtg. Type
*A-8119/HO-155	1	A-8267/HO-217	32	HO-279	55	HO-340	67
*A-8127/HO-156	1	*A-8268/HO-218	32	HO-280	56	HO-341	Coil O
*A-8128/HO-157	1	*A-8269/HO-219	33	HO-281	24	HO-342	56
A-8129/HO-158	1	A-8270/HO-220	33	HO-282	56	HO-343	55
A-8130/HO-159	2	A-8271/HO-221	33	HO-283	58	HO-344	55
A-8131/HO-160	3	*A-8272/HO-222	33	HO-284	59	HO-345	63
A-8132/HO-161	4	*A-8273/HO-223	62	HO-285	58	HO-346	63
A-8133/HO-162	5	*A-8274/HO-224	34	*HO-286	24	HO-347	64
A-8134/HO-163	5	A-8275/HO-225	35	HO-287	60	HO-348	65
A-8135/HO-164	6	A-8276/HO-226	35	*HO-288	61	HO-349	66
A-8136/HO-165	7	*A-8277/HO-227	35	HO-289	58	HO-350	40
A-8137/HO-166	8	*A-8278/HO-228	8	HO-290	53	HO-351	26
A-8138/HO-167	8	*A-8279/HO-229	8	*HO-291	59	HO-352	65
*A-8139/HO-168	9	*A-8280/HO-230	8	*HO-292	58	HO-353	61
A-8220/HO-169	10	*A-8281/HO-231	30	HO-293	56	HO-354	40
*A-8221/HO-170	10	*A-8282/HO-232	22	HO-294	9	HO-355	40
*A-8222/HO-171	11	*A-8283/HO-233	8	HO-295	9	HO-356	40
*A-8223/HO-172	8	A-8284/HO-234	36	*HO-296	58	HO-357	40
A-8224/HO-173	12	A-8285/HO-235	37	HO-297	50	HO-358	61
*A-8225/HO-174	12	*A-8287/HO-237	6	*HO-298	44	HO-359	40
A-8226/HO-175	12	A-8288/HO-238	31	HO-299	44	HO-360	62
*A-8227/HO-176	13	A-8289/HO-239	31	*HO-300	38	HO-361	53
A-8228/HO-177	13	A-8290/HO-240	31	*HO-301	26	HO-362	68
A-8229/HO-178	13	*A-8291/HO-241	38	*HO-302	26	HO-363	68
A-8230/HO-179	14	A-8292/HO-242	26	HO-303	26	HO-364	68
A-8231/HO-180	14	A-8293/HO-243	39	HO-304	26	HO-365	68
A-8232/HO-181	16	A-8294/HO-244	40	HO-305	20	HO-366	68
A-8233/HO-182	8	A-8295/HO-245	40	HO-306	24	HO-367	68
A-8234/HO-183	17	A-8296/HO-246	41	HO-307	54	HO-368	67
A-8235/HO-184	17	A-8297/HO-247	30	HO-308	54	HO-369	67
A-8236/HO-185	39	A-8298/HO-248	42	*HO-309	9	HO-370	67
*A-8237/HO-186	18	A-8299/HO-249	30	*HO-310	8	HO-371	40
A-8238/HO-188	18	*HO-250	41	HO-311	38	HO-372	40
*A-8239/HO-189	19	HO-251	41	HO-312	9	HO-373	40
A-8240/HO-190	4	HO-252	43	HO-313	8	HO-374	40
A-8241/HO-191	20	*HO-253	44	HO-314	8	HO-375	55
*A-8242/HO-192	21	HO-254	43	HO-315	42	HO-376	49
*A-8243/HO-193	17	HO-255	45	HO-316	50	HO-377	44
A-8244/HO-194	22	HO-256	8	HO-317	26	HO-378	44
*A-8245/HO-195	23	*HO-257	42	HO-318	26	HO-379	40
*A-8246/HO-196	23	*HO-258	15	HO-319	40	HO-380	68
*A-8247/HO-197	24	HO-259	13	HO-320	40	HO-381	40
A-8248/HO-198	12	*HO-260	30	HO-321	53	HO-382	40
*A-8249/HO-199	16	*HO-261	20	*HO-322	22	HO-383	40
A-8250/HO-200	14	*HO-262	47	HO-323	26	HO-384	40
*A-8251/HO-201	8	*HO-263	48	HO-324	42	HO-385	40
A-8252/HO-202	8	HO-264	42	*HO-325	45	HO-386	40
A-8253/HO-203	25	HO-265	49	*HO-326	2	HO-387	26
A-8254/HO-204	26	*HO-266	50	*HO-327	27	HO-388	40
A-8255/HO-205	26	HO-267	62	*HO-328	27	*HO-389	71
*A-8256/HO-206	27	HO-268	35	HO-329	27	*HO-390	71
*A-8257/HO-207	27	HO-269	35	HO-330	55	*HO-391	71
*A-8258/HO-208	28	*HO-270	62	HO-331	14	*HO-392	71
*A-8259/HO-209	27	HO-271	52	HO-332	27	*HO-393	71
*A-8260/HO-210	27	HO-272	53	HO-333	40	*HO-394	71
A-8261/HO-211	2	*HO-273	30	HO-334	40	*HO-395	71
A-8262/HO-212	29	HO-274	54	HO-335	40	*HO-396	71
A-8263/HO-213	20	HO-275	16	HO-336	56	*HO-397	72
A-8264/HO-214	30	HO-276	48	HO-337	54	*HO-398	72
A-8265/HO-215	8	HO-277	47	HO-338	2	HO-600C†	69
*A-8266/HO-216	31	*HO-278	59	HO-339	32	HO-601C†	70

FLYBACK MOUNTING TYPES



STANCOR

COMMERCIAL

**t.v.
replacement**

DY



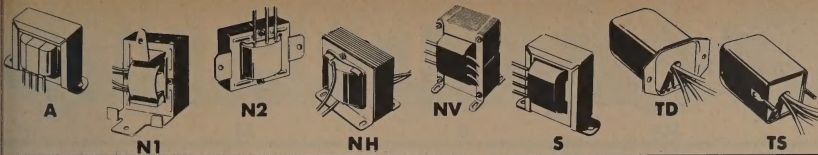
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DEFLECTION YOKES**Refer to Stancor T.V. replacement guide for Application.**

	Part No.	Coil Inductance in MH		Coil Resistance in Ohms		Max. Scan.	Case Diam.	Unit Length	Mtg. Type	Application
		Horizontal	Vertical	Horizontal	Vertical					
a	* DY-1A	8.3	50	13.5	66	53°	3 1/2	3	DY	Multi-Purpose
	DY-2A	10.3	50	14.5	66	70°	3 1/2	2 3/4	DY	Multi-Purpose
	DY-8A	8.5	50	14.5	52.5	70°	3 1/2	2 3/4	DY	Multi-Purpose
	DY-9A	13.5	50	17.5	53.5	70°	3 1/2	2 3/4	DY	Multi-Purpose
	DY-10A	30.0	3.5	45	3.5	70°	3 1/2	2 3/4	DY	Multi-Purpose
	DY-11A	20.0	50	31	50	70°	3 1/2	2 3/4	DY	Multi-Purpose
	* DY-12A	30.0	50	22	50	70°	3 1/2	2 3/4	DY	Multi-Purpose
b	DY-13A	12.5	48	15	52	90°	3 1/2	3	DY	Muntz
	DY-14A	30.0	3.5	45	3.5	70°	3 1/2	2 3/4	DY	RCA
	DY-15A	25.0	40.0	35	50	70°	3 1/2	2 3/4	DY	Motorola
	DY-16A	20	44.0	26	45	90°	3 3/4	3 1/2	DY	Multi-Purpose
	* DY-17A	12.0	42.0	20	43	90°	3 3/4	3	DY	G. E.
	* DY-18A	14.5	41.5	18	50	70°	3 1/4	3 1/4	DY	Sylvania
	* DY-19A	20.0	41.5	28	50	70°	3 1/4	3 1/4	DY	Sylvania
c	* DY-20A	20.0	41.5	28	50	70°	3 1/4	3 1/4	DY	Sylvania
	DY-21A	14.5	3.1	10	3.5	70°	3 1/4	2 3/4	DY	RCA
	* DY-22A	20	46.0	25	45	70°	3 1/2	2 3/4	DY	Hoffman
	DY-23A	20.0	45.0	27	43	90°	3 3/4	3 1/2	DY	RCA
	DY-24A	18.5	11.0	34	11.5	90°	4	2 3/4	DY	RCA
	* DY-25A	24.0	11.0	46	11.0	90°	4	2 3/4	DY	Emerson
	DY-26A	19.0	11.5	34	16.5	110°	4 1/4	2 1/4	DY	RCA
	DY-27A	17.5	12.3	35.5	13.5	110°	4 1/4	2 1/4	DY	RCA
d	DY-28A	24	3.2	36	3.4	70°	3 1/4	2 3/4	DY	Motorola
	DY-29A	24	3.2	36	3.4	70°	3 1/4	2 3/4	DY	Motorola
	DY-30A	24	3.2	36	3.4	70°	3 1/4	2 3/4	DY	Motorola
	DY-31A	24	42	44.2	42	90°	4 1/4	3 1/4	DY	Motorola
	DY-32A	24	42	34	42	90°	4 1/4	3 1/4	DY	Motorola
	DY-33A	30.5	43	34	50	70°	3 3/4	2 1/2	DY	Philco
	DY-34A	30	47	45	42	90°	3 3/4	2 3/4	DY	Philco
e	DY-35A	20	45	28	45	90°	4	3	DY	Philco
	DY-36A	24	40	43	37	90°	3 1/2	4	DY	Emerson
	DY-37A	20	45	28	45	90°	4	3 1/4	DY	Emerson
	DY-38A	20	34.4	38	34	110°	4 1/4	3 3/4	DY	Emerson
	DY-39A	13	40	22	41	90°	4	3 1/4	DY	Zenith
	DY-40A	12	40	17	39	110°	4 1/4	3 3/4	DY	G. E.
	DY-41A	13.3	41	20	54	70°	3 1/4	3	DY	RCA
	DY-42A	30.4	34	47.2	34	110°	4 1/4	3 3/4	DY	RCA
f	DY-43A	24	3.3	31	3	90°	4	3	DY	Motorola
	DY-44A	18.5	34	33	34	110°	4 1/4	2 1/2	DY	Westinghouse
	DY-45A	18.6	14.8	35	13.8	110°	4 1/4	3 3/4	DY	Admiral
	DY-46A	20	40	38	39	110°	4 1/4	3 3/4	DY	Olympic
	DY-47A	8.2	41	19.7	72	70°	3 1/2	2 1/2	DY	G. E.
	DY-48A	14	29	33	60	70°	3 1/2	2 1/2	DY	G. E.
	DY-49A	44	38	110	80	70°	3 3/4	2 3/4	DY	G. E.
	* DY-50A	12	33	28	83	70°	3 3/4	2 3/4	DY	G. E.
g	DY-51A	18.6	15	38	17.2	110°	3 3/4	3	DY	Packard-Bell
	DY-52A	20.5	37.5	30	35	90°	3 1/4	3 3/4	DY	Westinghouse
	DY-53A	24	39	40	37.0	110°	3 1/2	3 3/4	DY	Philco
	DY-54A	24	40	40	37	110°	3 1/4	3 1/4	DY	Philco
	DY-55A	23.5	14.8	41	13.8	114°	3 1/2	3 3/4	DY	Magnavox
	DY-56A	15	40	29.5	39.5	110°	3 3/4	3 1/4	DY	Zenith
h	DY-57AT	24	70	40	29	114°	3 1/4	2 3/4	DY	Multi-Purpose
	DY-58AT	18.5	70	30	29	114°	3 1/4	2 3/4	DY	Multi-Purpose
	DY-59AT	24	15	40	6	114°	3 1/4	2 3/4	DY	Multi-Purpose
	DY-60AT	18.5	35	35	28	114°	3 1/4	2 3/4	DY	Multi-Purpose
	DY-61AT	20	20	22	5.5	114°	3 1/4	2 3/4	DY	Multi-Purpose
	* DY-62A	12.5	48	22	40	92°	4	3 1/4	DY	Zenith
	DY-90AC	12	39	6.5	23	70°	6 7/8	4 1/4	DY	Color
	* DY-91AC	11.5	23.5	8.5	12.5	90°	6 1/2	3 3/4	DY	Zenith Color

* New part number

* Available until stock is depleted


VERTICAL DEFLECTION OUTPUT TRANSFORMERS: Refer to Stancor T.V. replacement guide for Application.

	Part No.	Turns Ratio Pri./Sec.	Primary Impedance [†]	D.C. Res. In Ohms		Height Overall	Base Area	Mtg. Ctrs.	Mtg. Type	Shpg. Wt. In Lbs.
				Pri.	Sec.					
a	A-8112/VO-83	10:1	18,000 Ω @ 12 DCMA	1300	10	2	1 3/4 x 3 1/4	2 13/16	A	1.0
	A-8113/VO-84	8.8:1	16,500 Ω @ 10 DCMA	700	12	2	1 3/4 x 3 1/4	2 13/16	A	1.0
	A-8115/VO-85	10:1	19,000 Ω @ 13 DCMA	600	7	3 1/8	2 1/2 x 2 1/2	1 15/32 x 2	NV	2.5
	A-8123/VO-87 [§]	11.4:1	17,000 Ω @ 20 DCMA	1200	11	2	1 3/4 x 3 1/4	2 13/16	A	1.2
	A-8140/VO-88	44:1	11,000 Ω @ 20 DCMA	400	0.3	3 1/8	2 1/2 x 2 1/2	1 15/32 x 2	NV	2.5
	A-8141/VO-89 [§]	18:1	30,000 Ω @ 10 DCMA	1650	4.5	2 1/4	3 3/4 x 2 1/4	3 1/8	A	1.5
	A-8142/VO-90	8:1	19,000 Ω @ 13 DCMA	540	10.5	2 3/8	2 1/4 x 3	2 3/8 x 1 1/8	NH	2 1/2
	A-8143/VO-91	10:1	14,000 Ω @ 15 DCMA	625	14	2 1/4	2 1/4 x 3 3/8	3 1/8	A	2
b	A-8144/VO-92	9:1	9,500 Ω @ 30 DCMA	540	15	2 1/4	1 3/4 x 3 3/8	3 1/8	A	1 1/2
	A-8145/VO-93	9:1	11,000 Ω @ 19 DCMA 6,000 Ω @ 15 DCMA	540	14	2 3/8	2 1/4 x 2 1/2	3	N1	2
	A-8146/VO-94 [§] A	6.9:1	4,700 Ω @ 50 DCMA	375	10	2	1 1/8 x 3 1/4	2 13/16	A	1 1/2
	A-8147/VO-95 [§]	6:1	3,200 Ω @ 40 DCMA 6,000 Ω @ 15 DCMA	300	9	2	1 3/4 x 3 1/4	2 13/16	A	1
	A-8148/VO-96 [§] A	8:1	4,700 Ω @ 50 DCMA	375	6.5	2	1 3/4 x 3 1/4	2 13/16	A	1 1/2
	A-8149/VO-97 [§]	6.9:1	11,500 Ω @ 20 DCMA	330	8.5	2	1 3/8 x 3 1/4	2 13/16	A	1
	A-8150/VO-98 [§]	9:1	11,000 Ω @ 19 DCMA	450	11.3	2	3 3/4 x 2 3/8	3 3/8	N2	1.7
	A-8151/VO-99	7.5/15:1	8,500 Ω @ 19 DCMA	580	6.7	2 1/4	3 3/4 x 2 1/4	3 3/8	N1	1.7
c	VO-100 [§] *	9.2:1	7,500 Ω @ 30 DCMA	360	14.0	2 1/4	3 3/8 x 1 1/8	3 1/8	A	1 1/2
	VO-101 [§]	12:1	16,000 Ω @ 15 DCMA	675	6.8	2 1/4	3 3/8 x 1 3/4	3 1/8	A	1 1/2
	VO-102 [§]	6.5:1	6,700 Ω @ 25 DCMA	275	10	2 3/8	4 x 2 1/4	3 3/8	A	2 1/2
	VO-103 [§]	16:1	10,000 Ω @ 15 DCMA	530	5.5	2	3 3/4 x 1 1/2	2 13/16	A	1 1/2
	VO-105 [§]	44.5:1	24,000 Ω @ 15 DCMA	740	.8	2	3 3/4 x 1 1/2	2 13/16	A	1 1/2
	VO-106	35.5:1	35,000 Ω @ 0 DCMA	1400	3.8	1 1/2	2 1/8 x 1 1/2	2 3/8	A	1
	VO-108 [§]	9:1	10,000 Ω @ 25 DCMA	350	10.3	2	3 1/4 x 2	2 13/16	A	1.3
	VO-109	Multi-Ratio 5:1 to 50:1	40 MA Max.	—	—	2	3 1/4 x 2	2 13/16	A	1.3
	VO-110	16:1	18,000 Ω @ 20 DCMA	1670	7.0	2	2 x 3 1/4	2 13/16	A	1.3
	VO-111	18:1	20,000 Ω @ 20 DCMA	1425	7.5	2	2 x 3 1/2	2 13/16	A	1.3
	VO-112	8:1	7,000 Ω @ 30 DCMA	384	3.5	2 1/4	3 3/8 x 2 1/8	3 1/8	A	1.8
	VO-113 [§]	15:1	13,000 Ω @ 20 DCMA	1435	19.7	2 3/8	1 3/4 x 2 13/16	2 3/8	S	1.3
d	VO-114	6:1	5,000 Ω @ 30 DCMA	250	6.0	2	3 1/4 x 1 1/8	2 13/16	A	1
	VO-115 [§]	12:1	7,000 Ω @ 35 DCMA	360	2.4	2 3/8	3 3/4 x 1 1/8	3 1/8	A	1.4
	VO-116	18:1	32,000 Ω @ 15 DCMA 11,000 Ω @ 30 DCMA	1500	5.3	2 3/8	3 3/4 x 1 13/16	3 1/8	A	1.5
	VO-117	13:1	9,500 Ω @ 25 DCMA 8,000 Ω @ 50 DCMA	275	4.0	2 3/8	3 3/4 x 2 3/8	3 1/8	A	2.0
	VO-118	8:1	9,000 Ω @ 35 DCMA 3,000 Ω @ 70 DCMA	350	4.0	2 3/8	3 3/4 x 2	3 1/8	A	1.6
	VO-119 [§]	8:1	6,000 Ω @ 30 DCMA 4,500 Ω @ 60 DCMA	385	8.0	2 3/8	3 3/4 x 1 1/8	3 1/8	A	1.5
	VO-120 [§]	7.5:1	7,800 Ω @ 35 DCMA 5,000 Ω @ 70 DCMA	235	6.0	2 3/8	3 3/4 x 2 1/8	3 1/8	A	1.8
	VO-122 [§]	6.5:1	3,500 Ω @ 45 DCMA 2,000 Ω @ 65 DCMA	145	4.0	2 3/8	3 3/4 x 1 1/8	3 1/8	A	1.5
e	VO-123*	7:1	5,300 Ω @ 35 DCMA 2,000 Ω @ 70 DCMA	180 [†]	4.0	2 3/8	3 3/4 x 2	3 1/8	A	1.6
	VO-126 [§]	14.5:1	6,000 Ω @ 40 DCMA 1,800 Ω @ 80 DCMA	260	1.4	2 3/8	3 3/4 x 2	3 1/8	A	1.6
	VO-127 [§]	16:1	10,500 Ω @ 20 DCMA 8,000 Ω @ 40 DCMA	460	3.4	2 3/8	3 3/4 x 2	3 1/8	A	1.6
	VO-128 [§] A	17:1	20,000 Ω @ 20 DCMA 4,800 Ω @ 45 DCMA	2250	8.0	2	2 x 3 1/4	2 13/16	A	1
	VO-129 [§] A	11:1	6,000 Ω @ 50 DCMA 4,000 Ω @ 75 DCMA	430	4.5	2 3/8	2 x 3 3/4	3 1/8	A	1.6
	VO-700C [†]	10:1	7,500 Ω @ 32 DCMA	370	20	2 3/8	2 1/8 x 3 3/4	3 1/8	A	1.6

VERTICAL BLOCKING-OSCILLATOR TRANSFORMERS

	Part No.	Turns Ratio Pri./Sec.	Height Overall	Base Area	Mounting Centers	Mounting Type	Shpg. Wt. In Lbs.
f	A-8111/VBO-194	1:4.2	1 3/8	1 1/2 x 2 1/2	2	A	0.4
	A-8121/VBO-195	1:4.2	1 3/8	1 1/2 x 2 3/8	1 13/16	TD	0.4
	A-8122/VBO-196	1:4.2	1 1/8	1 3/8 x 1 3/8	1 13/16	TS	0.3
	A-8125/VBO-198	1:4.2	1 3/8	2 3/8 x 1 1/4	1 3/8	A	0.4
	A-8126/VBO-199	1:1.5	1 3/8	1 1/2 x 2	1	S	0.5
	VBO-200	1:1.5	1 3/8	1 1/2 x 2 1/2	2	A	0.5
	VBO-201	1:3.33	1 3/8	2 3/8 x 1 1/4	1 3/8	A	0.4

†For color T.V.

*Has vertical blanking winding.

†Has screen grid tap.

§Autoformer.

STANCOR PAGE 30

STANCOR

COMMERCIAL

radio & t.v.
replacement



M2



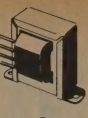
M4



NV



R



S



S1



S2



TA

AUTO RADIO VIBRATOR TRANSFORMERS

Exact Duplicate for 6 Volt D.C. Primary.

	Part No.	Original Part No.	Trade Name	D.C. Volts at Filter Input	D.C. M.A.	Mtg. Type	Recommended Buffer Cap. (mfd.)	Height Overall	Base Area	Shpg. In Lb.
a	P-6471	258472533	Motorola (408, 508, etc.)	235	70	TA	0.006	3	2 3/4 x 2 3/4	2.0
		D71014	Colonial-Detrola No. 8072							
	P-6476	D70267	Colonial-Detrola No. 7070	220	53.5	TA	0.008	2 3/4	2 1/2 x 2 1/2	2.0
		C70267	Col.-Mot.-Det. No. 8030							
	P-6477	25C500189	Motorola	150	50	M2	0.03	2	1 1/2 x 2 1/4	1.0
	P-6478	25C501644	Motorola	225	70	R	0.02	2 1/4	2 3/4 x 2 3/4	1.5
	P-6480	65-0347	Philco	225	70	R	0.0033	2 3/4	2 1/4 x 2 3/4	1.5
	P-6481	32-8313-1	Philco	250	60	M4	0.0068	2 1/4	2 3/4 x 2 3/4	1.5
	P-6490	C 291787-1	Bendix (Ford Model 588F)	265	52	R	0.006	2 1/2	2 3/4 x 2 3/4	1.5
	P-6499	1220163 ¹	United Motors (Delco)	250	60	TA	0.006	3 1/2	2 3/4 x 2 1/2	2.3

Exact Duplicate For 12 Volt D.C. Primary

	Part No.	Original Part No.	Trade Name	D.C. Volts at Filter Input	D.C. M.A.	Mtg. Type	Recommended Buffer Cap. (mfd.)	Height Overall	Base Area	Shpg. In Lb.
b	P-6482	6084	United Motors (Delco)	250	60	TA	.004	3 1/4	2 1/4 x 2 1/4	2.5
	P-6489	6067	United Motors (Delco)	250	60	R	.004	2 3/4	2 3/4 x 2 3/4	2.0
	P-6493	*25C535794	Motorola	275	75	S1	(See Footnote)	2 3/4	2 3/4 x 2	1.7
	P-6494	32-8592-1	Philco	245	70	R	0.0047	2 3/4	2 3/4 x 2 1/4	1.5
	P-6495	*25C535795	Motorola	275	75	S1	(See Footnote)	2 3/4	2 3/4 x 2 1/4	1.7
	P-6497	7265604 ²	United Motors (Delco)	250	55	S2	.007 ³	2 1/2	2 1/4 x 2	1.8

*2 buffer capacitors used 0.5 mfd. and 0.04 mfd. as in original circuit.

¹7261386 and 7262956 replaced by P-6497
²7269118 replaced by P-6497
³4-15K-1W. Res.

UNIVERSAL VIBRATOR TRANSFORMERS

With 6 Volts D.C. Primary

	Part No.	Secondary A.C. Volts	D.C. Volts At Filter Input	D.C. M.A.	Recommended Buffer Cap.	Mtg. Type	Height Overall	Base Area	Mtg. Ctrs.	Shpg. In Lb.
c	P-6491	188-0-188	200	40	0.003 mfd.	S	2 1/4	3 1/4 x 2 1/4	2 1/4	1.5
	P-4062	300-0-300	260	65	0.006 mfd.	NV	3 1/4	2 1/2 x 2 1/2	2 x 2	2.3
	P-4063	320-0-320	285	75	0.006 mfd.	NV	3 1/4	2 1/2 x 2 1/4	2 x 2 1/4	2.8
	P-6131	370-0-370	330	100	0.007 mfd.	NV	3 1/2	2 1/2 x 2 1/2	2 1/4 x 2 1/4	3.5

WIDTH AND LINEARITY CONTROLS

	Stancor No.	Application	Ind. in Mh.	Res. in Ohms	AGC Ind. in Mh.	AGC Res. in Ohms
d	RTC-8628†	Width or Linearity Coil	2.5-17.	24	—	—
	RTC-8629†	Width or Linearity Coil	15-.60.	55	—	—
	WC-1*, WC-1A*‡	Width Coil	.05-50.	.53	—	—
	WC-2*, WC-2A*	Tapped Linearity Coil	.55-4.6	8.3	—	—
	WC-4*, WC-4A*	Width Coil	.17-.61	1.0	—	—
	WC-5*, WC-5A*	Width or Linearity Coil	4-39.	32.	2.7-7.6	19.5
e	WC-6*, WC-6*A	Tapped Linearity Coil	1.3-4.1	5.6	—	—
	WC-7*, WC-7A*	Width Coil	.5-3.5	2.3	—	—
	WC-8*, WC-8A*	Width Coil	1-.10.	8.0	—	—
	WC-9*, WC-9A*‡	Width Coil with Keyed Winding	3-2.9.	28.	.16-7	1.
	WC-10*, WC-10A*‡	Width Coil with AGC	2.6-7.5	12.	4-.28.	32.
	WC-11*	Tapped Width Coil	2.3-11.8	10.	—	—
f	WC-12‡	Width Coil with AGC	4-30.	27.	.075-80.	2.
	WC-13‡	Width Coil with AGC	4-30.	27.	.185-1.82	3.
	WC-14*, WC-14A*	Width Coil	45-215.	130.	—	—
	WC-15*‡	Width Coil with AGC	3.1-21.	18.8	.39-2.4	2.4
	WC-16*, WC-16A*‡	Width Coil with Tapped AGC	1.5-11.	9.	9-.24.	49.5
	WC-17*‡	Tapped Width Coil	47-110.	175.	—	—
	WC-18*, WC-18A*	Width Coil	4-29.	29.	—	—

*Available for either 3/16" or 1/8" Mounting hole. Use suffix "A" for 1/8" hole.

†Adapter supplied for either 3/16" or 1/8" Mounting hole.

‡Only for 1/8" Mounting hole.

§For 1 1/4" Mounting Centers equipped with slider.

¶Shipped without core, use original core.

‡Available until stock is depleted

COLOR DEGAUSSING COIL:

Catalog No. — DGC-100

With 10-foot Line Cord and In-Line Switch

C.R. TUBE BOOSTER:

Catalog No. — P-8192

(For parallel heaters only)

• No connections to solder.

• HI-LO switch provides two levels of brilliance.

• Does not require AC line connections.

• Measures only 3 1/2" high, 1 1/2" in diameter.

• Does not change CR tube space requirements.



CRTB

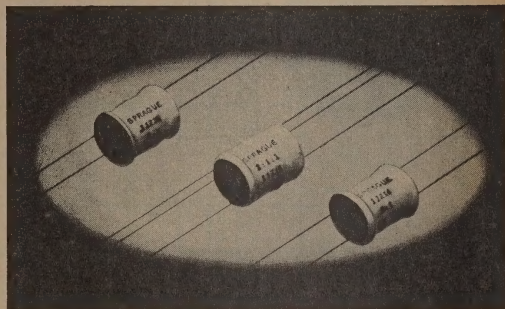
SPRAGUE

PULSE TRANSFORMERS AND DECADE INDUCTORS

Type 11Z

TRIGATE* PULSE TRANSFORMERS FOR LOW-COST SCR CIRCUIT APPLICATIONS

- Specifically Designed For Commercial and Industrial SCR Triggering Applications Where Low Cost and Excellent Performance Are Required
- Balanced Pulse Characteristics and Energy Transfer Between Windings
- Minimum Saturation Effect To Allow Operation Where Increased Pulse Widths Are Required
- Fast Pulse Rise Time and Increased Current Capability To Prevent SCR di/dt Failure
- Operating Temperature Range of -10°C to $+70^{\circ}\text{C}$
- For Complete Technical Data, See Latest Issue of Sprague Engineering Bulletin 40003
- Call Your Sprague Industrial Distributor For Current Quantity Prices



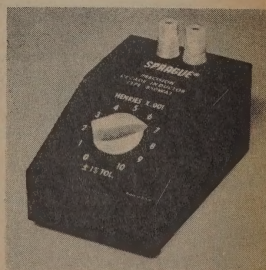
DIMENSIONS
Diameter x Length
0.593 x 0.828

Turns Ratio	Catalog Number	Min. Lp (μH)	Typ. LL (μH)	Typ. CC (pF)	Max. RDCP (Ω)	Max. RDCS (Ω)	Typ. V_{usec} Output Winding	60 Cycle Dielectric Test (Volts RMS)	Max. 60 Cy. A-C Line Voltage
1:1	11Z12	200	2	500	1.5	1.5	2000	1600	240
1:1.1	11Z13	200	2	500	1.5	1.5	2000	1600	240
2:1	11Z14	1300	6	1000	10.0	1.7	2000	1600	240
2:1.1	11Z15	1300	10	1000	10.0	1.7	2000	1600	240
5:1	11Z16	6000	1000	200	13.0	2.0	2000	1600	240

* Trademark

TYPE 850W PRECISION DECADE INDUCTORS

- Indispensable For Design and Experimental Work on Audio Filters, Equalizers, and Tuned Circuits. Frequency Range is 150 to 20,000 Cycles per Second
- Excellent Stability With Respect to Current and Ambient Temperature Changes
- All Four Decade Inductors May Be Connected in Series to Provide 11,110 Steps of Inductance
- Housed in Blue Aluminum Case with Sloping Front to Facilitate Bench-Top Readings. Measures 3" Wide, 2 1/2" High, 5 1/2" Long. Fitted with Five-way Binding Posts.
- For Complete Technical Data, Refer to Latest Issue of Engineering Bulletin 90,500.
- Call Your Sprague Industrial Distributor for Current Quantity Prices



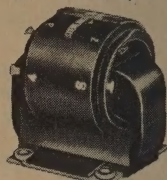
Cat. No.	Inductance Steps	Optimum Freq. Range in cps	Average Q Factor at 1000 cps	Average Q Factor at 4500 cps	Max. Milliamperes D-C	Max. Milliamperes A-C
850WA1	10 x 0.001H	400 to 20,000	40	75	250	700
850WA2	10 x 0.01H	400 to 20,000	60	125	79	220
850WA3	10 x 0.1H	400 to 20,000	60	125	25	70
850WA4	10 x 1.0H	400 to 5,000	60	125	8	22



ENCAPSULATED **400 cps** **transformers** CLIPPER SERIES

Fig.	Cat. No.	Sec. Volts	Sec. Amp	Insul. Volts (RMS)	Pri. Volts	Mold Size	Net Price
19	4C1	6.3 CT	0.8	1500	115	SM3	13.80
19	4C2	6.3 CT	1.2	1500	115	SM2	13.80
19	4C3	6.3 CT	6.8	1500	110/115/120	2	22.15
20	4C4	6.3 6.3	4.9 2.7	1500	115	3	19.80
19	4C5	6.3 CT	7.2	1500	115	35	23.00
21	4C6	6.3 6.3 6.3	7 7 1.5	1500 1500 1500	120	35	22.40
22	4C7	6.3 CT 6.3 CT	7 7	1500 1500	120	4	26.65
21	4C8	6.3 6.3 6.3	13.7 2.9 0.3	1500 1500 1500	115	4	26.65
19	4C9	6.3 CT	12.3	1500	115	5	24.65
21	4C11	6.3 6.3 6.3	2.4 2.5 2.7	1500	115	3	24.65
19	4C26	6.3 CT	2	1500	115	SM1	17.55
19	4C27	6.3 CT	3	1500	115	1A	18.25
19	4C28	6.3 CT	5	1500	115	2	18.90
19	4C29	5 CT	3	2500	115	SM1	17.55
19	4C30	5 CT	6	2500	115	2	18.90
19	4C31	8.5 CT	12	1500	115	5	24.63
19	4C32	8.5 CT	23	1500	115	7	27.30
19	4C33	8.5 CT	35	1500	115	8	29.75
19	4C34	8.5 CT	45	1500	115	9	35.90
19	4C12	14.1	3	1500	115	3	18.79
19	4C35	21 CT	4.5	1500	115	5	24.63
19	4C13	21 CT	9	1500	115	7	27.30
19	4C36	21 CT	18	1500	115	9	35.90
19	4C10	20 CT	0.6	1500	115	SM1	17.55

FREQUENCY
380-1000 cps.



FOR MINIMUM SIZE &
MINIMUM WEIGHT
• CONTOUR MOLDED
• HIPERSIL CORES

MIL-T27B
Specifications

MIL Type
TF5SX01ZZ

85°C Max. Ambient
Operating Temp.

HIGH SHOCK
EXTREME
ENVIRONMENT
CONDITIONS
LIGHT WEIGHT FOR
AIRBORNE USE
10,000 HOUR
PLUS-LIFE
SERVO
APPLICATIONS
ISOLATION
POWER SUPPLIES
AIRBORNE CONTROL
CIRCUITS
MISSILE CIRCUITS

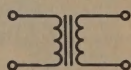


FIG. 18

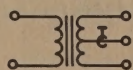


FIG. 19

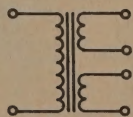


FIG. 20

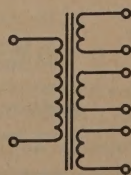


FIG. 21

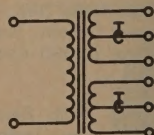


FIG. 22

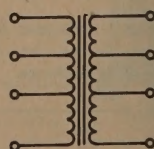


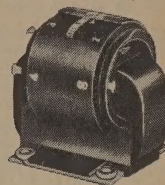
FIG. 23

ENCAPSULATED **400 cps** *transformers* CLIPPER SERIES



Fig.	Cat. No.	Sec. Volts	Sec. Amp.	Insul. Volts (RMS)	Pri. Volts	Mold Size	Net Price
19	4C37	21 CT	24	1500	115	10	43.10
19	4C38	24 CT	4	1500	115	5	24.63
19	4C39	24 CT	8	1500	115	7	27.30
19	4C40	24 CT	16	1500	115	9	35.90
19	4C41	24 CT	21	1500	115	10	43.10
19	4C14	26	0.5	1500	115	SM1	17.12
19	4C15	26 CT	1.5	1500	115	3	18.79
19	4C23	26 CT	3	1500	115	4	21.30
19	4C24	26 CT	5	1500	115	6	24.85
19	4C16	28 CT	0.8	1500	115	3	24.62
		6.3 CT	7				
19	4C42	41 CT	2.3	1500	115	5	24.63
19	4C43	41 CT	4.5	1500	115	7	27.30
19	4C44	41 CT	9	1500	115	9	35.90
19	4C45	41 CT	12	1500	115	10	43.10
19	4C46	48 CT	2	1500	115	5	24.63
19	4C47	48 CT	4	1500	115	7	27.30
19	4C48	48 CT	8	1500	115	9	35.90
19	4C49	48 CT	10	1500	115	10	43.10
19	4C25	52 CT	2	1500	115	5	24.63
19	4C17	52 CT	0.2	1500	115	SM1	18.99
19	4C18	90 CT	4.5	1500	115	9	35.90
18	4C19	115	.05	1500	115	SM2	14.10
18	4C21	115	2.8	1500	115	8	29.23
23	4C20	105/115/125	0.4	1500	105/115/125	2	20.30
23	4C50	105/115/125	1	1500	105/115/125	6	25.75
23	4C51	105/115/125	2.4	1500	105/115/125	8	30.20
23	4C52	105/115/125	3.2	1500	105/115/125	9	36.40
23	4C53	105/115/125	4	1500	105/115/125	10	43.70
23	4C22	334	0.3	1500	115	SM1	16.12

FREQUENCY
380-1000 cps.



FOR MINIMUM SIZE &
MINIMUM WEIGHT
• CONTOUR MOLDED
• HIPERSIL CORES

MIL-T27B
Specifications

MIL Type
TF5SX01ZZ

85°C Max. Ambient
Operating Temp.

HIGH SHOCK
EXTREME
ENVIRONMENT
CONDITIONS
LIGHT WEIGHT FOR
AIRBORNE USE
10,000 HOUR
PLUS-LIFE
SERVO
APPLICATIONS
ISOLATION
POWER SUPPLIES
AIRBORNE CONTROL
CIRCUITS
MISSILE CIRCUITS

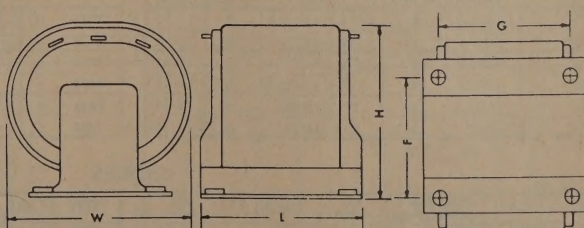
MOLD NO.	OVERALL DIMENSIONS			MTG. DIMENSIONS			APP. WT. (LBS.)	MTG. METH.
	L	W	H	F	G			
SM3	1	1-1/4	1-3/16	1	Note 1	0.06	Note 1	
SM2	1-1/2	1-1/4	1-11/16	1	Note 1	0.10	Note 1	
SM1	1-1/2	1-1/2	1-11/16	1-1/8	Note 1	0.16	Note 1	
1	1-13/16	1-7/8	1-13/16	1-1/4	1-7/16	0.25	Note 2	
1A	1-11/16	1-17/32	1-13/16	1-5/32	1-1/8	0.25	Note 2	
2	2	1-15/16	2-1/8	1-9/32	1-1/4	0.40	Note 2	
3	2-5/16	1-13/16	2-1/8	1-9/32	1-7/16	0.45	Note 2	
35	2-1/16	2-3/8	2-3/16	1-17/32	1-11/16	0.70	Note 2	
4	2-5/16	2-3/8	2-9/16	1-17/32	1-11/16	0.90	Note 2	
5	2-3/4	2-3/8	2-7/8	1-17/32	2-3/16	1.20	Note 2	
6	2-3/4	2-5/8	3-1/8	1-17/32	2-3/16	1.50	Note 2	
7	3	2-7/8	3-3/8	1-25/32	2-1/2	2.00	Note 2	
8	3-3/8	2-7/8	3-3/8	1-25/32	2-1/2	2.50	Note 2	
83	3-3/4	3-1/4	3-3/8	2-1/4	3	3.25	Note 3	
86	3-3/4	3-3/4	3-3/8	2-3/4	3-1/8	4.25	Note 3	
9	4-1/16	3-3/8	3-7/8	2-3/16	3-1/2	5.00	Note 3	
10	4-1/2	3-15/16	3-15/16	2-3/4	3-1/8	6.00	Note 3	

Note 1—SM series are two hole mounting with holes on center line. #4-40 Pem nuts are fastened to the bracket.

Note 2—#6-32 Pem nuts on bracket are standard.

Note 3—#8-32 Pem nuts on bracket are standard.

- All primaries 380-1000 cps
- Dielectric test voltages:
PRIMARYS 1500 Volts RMS
SECONDARIES 1500 Volts RMS
- Epoxy resin used as encapsulant
- Prices subject to change without notice



STERLING TRANSFORMER CORP.

transistor transformers



UNIVERSAL DC POWER MODULE TRANSFORMERS

High reliability transformers having a tapped primary and single or dual secondary windings which may be connected F.W. bridge or F.W. center tap so as to obtain a wide range of DC voltages and current ratings.

INPUT PRIMARY 115 volts 50-500 cps

TYPE	FIG.	F.W. BRIDGE										F.W. CT			MIL STD'D* HERM SEAL TF 45x02		INDUST. OPEN FRAME	
		AC VOLT	40 5	32.25	28.5	24	20.25	16 5	12	8.25	40.5	24	16.5	Style	Net Pr.	Style	Net Pr.	
7K1	1	DC VOLT	53.0	41.0	34	25	24	18	12	6	24	12	6.6	H	12.90	F	7.90	
		DC AMP	.025	.035	.040	.042	.055	.042	.070	.085	.042	.055	.068					
		INPUT CAP	(.1)	(.1)	(.1)	(.1)	(.2)	(.2)	(.2)	(.2)	(.2)	(.2)	(.2)					
7K2	1	DC AMP	.085	.12	.13	.14	.18	.14	.23	.23	.14	.17	.21	H	14.20	L	9.20	
		INPUT CAP	(.1)	(.1)	(.1)	(.1)	(.2)	(.2)	(.2)	(.2)	(.2)	(.2)	(.2)					
7K3	1	DC AMP	.48	.60	.60	.64	1.0	.8	1.2	1.52	.8	.883	.92	H	15.85	F	8.15	
		INPUT CAP	(.5)	(.5)	(.5)	(.5)	(1.0)	(1.0)	(2.0)	(2.0)	(1.0)	(1.0)	(2.0)					
7K4	1	DC AMP	1.2	1.5	1.5	1.6	2.5	2.0	3.0	3.8	2.0	2.2	2.8	H	21.80	L	13.40	
		INPUT CAP	(.5)	(.5)	(.5)	(.5)	(1.0)	(1.0)	(2.0)	(2.0)	(1.0)	(1.0)	(2.0)					
7K5	1	DC AMP	3.0	3.5	3.8	4.0	6.0	4.5	7.5	9.0	4.5	5.5	6.7	H	31.70	L	22.65	
		INPUT CAP	(1.0)	(1.0)	(1.0)	(1.0)	(2.0)	(2.0)	(4)	(4)	(2.0)	(2.0)	(2.0)					
7K6	1	DC AMP	7.5	8.5	9.5	10	15	11	19	23	11	13.5	17	H	52.80	L	39.80	
		INPUT CAP	(4.0)	(4.0)	(4.0)	(4.0)	(4.0)	(6.0)	(12)	(12)	(6)	(6)	(12)					
TYPE	FIG.	AC VOLTS	81	64.5	57.0	48	40.5	33	24	16.5	81	48	33					
		DC VOLT	106	82	68	50	48	36	24	12	48	24	13					
7K7	2	DC AMP	0.6	0.75	0.75	0.8	1.25	1.0	1.5	1.9	1.0	1.1	1.4	H	22.44	L	14.05	
		INPUT CAP	(.125)	(.125)	(.125)	(.125)	(.25)	(.25)	(.5)	(0.5)	(.25)	(.25)	(.5)					

TYPE FIG.		PRI TAP	F.W. BRIDGE								F.W. CT					MIL STD * HERM SEAL		INDUST. OPEN FRAME	
			SEC.		CHOKE	INPUT	CAP	INPUT	Cap	CHOKE	INPUT	CAP	INPUT	Cap	Style	Net Pr.	Style	Net Pr.	
			AC Volt	AC Amp	DC Volt	DC Amp	DC Volt	DC Amp		Cap	DC Volt	DC Amp	DC Volt		DC Amp	Cap	H		F
7K8	3	—	20CT	0.3	16.5	0.3	26	0.2	(.2)	8	0.43	12	0.3	(.5)	H	11.25	F	5.70	
7K9	3	—	20CT	0.6	16.5	0.6	26	0.4	(.4)	9	0.85	13	0.6	(1.0)	H	14.20	F	8.65	
F.W. BRIDGE																			
SEC. in PARALLEL CONN.																			
7K10	4	L	17	1.5	14	3.0	18.5	2.0	(1.0)	28	1.5	45	1	(.5)	H	20.50	L	13.40	
		H	21.5	1.5	17.5	3.0	25	2.0	(1.0)	35	1.5	36	1	(.5)					
7K11	4	L	17	4	14	8.0	18.5	5.0	(2.0)	28	4.0	45	2.5	(1.0)	H	33.00	L	23.60	
		H	21.5	4	17.5	8.0	25	5.0	(2.0)	35	4.0	36	2.5	(1.0)					
7K12	4	L	17	9	14	18.0	18.5	12.0	(6.0)	28	9.0	45	6	(4.0)	H	50.50	L	37.10	
		H	21.5	9	17.5	18.0	25	12.0	(6.0)	35	9.0	36	6	(4.0)					
7K13	4	L	34	4.5	28	9.0	43	6.0	(4.0)	56	4.5	85	3	(1.0)	H	50.50	L	37.10	
		H	43	4.5	35	9.0	56	6.0	(4.0)	70	4.5	110	3.0	(1.0)					
7K14	4	L	10	20	8.2	20	10	13	(12)	—	—	—	—	—	H	29.70	L	22.95	
		H																	

*FOR MILITARY USE REDUCE DC AMP 20%. Note Input Cap = (K) 1000 MFD. in Rectifier Circuit.

HIGH CURRENT TRANSFORMERS AND CHOKES

115V. 50-500 CPS

TRANSFORMERS

TYPE FIG.		SEC. IN PARALLEL		SEC. IN SERIES		Net Price
		AC Volt	AC Amp	AC Volt	AC Amp	
7K15	5	3.2/6.4	16	3.2/6.4/9.6/12.8	8	7.55
7K16	5	3.2/6.4	24	3.2/6.4/9.6/12.8	12	8.95
7K17	5	3.2/6.4	50	3.2/6.4/9.6/12.8	25	18.90
7K18	5	3.2/6.4	100	3.2/6.4/9.6/12.8	50	26.20
7K19	5	6/12	16	6/12/18/24	8	12.55
7K20	5	6/12	24	6/12/18/24	12	15.70

TYPE FIG.		SEC. IN PARALLEL		SEC. IN SERIES		Net Price
		AC Volt	AC Amp	AC Volt	AC Amp	
7K21	5	6/12	50	6/12/18/24	25	25.10
7K22	5	6/12	100	6/12/18/24	50	37.65
7K23	5	9/18	16	9/18/27/36	8	14.55
7K24	5	9/18	24	9/18/27/36	12	15.95
7K25	5	9/18	50	9/18/27/36	25	31.10
7K26	5	9/18	100	9/18/27/36	50	45.00

CHOKES

TYPE	FIG.	INDUCTANCE (Millihenries)	D.C. Amps	DCR (Ω)	Net Price
7K27	9	30	8	0.3	11.35
7K28	9	15	12	0.1	14.65

TYPE	FIG.	INDUCTANCE (Millihenries)	D.C. Amps	DCR (Ω)	Net Price
7K29	9	5	25	0.025	23.00
7K30	9	1.4	50	0.01	31.35

STERLING TRANSFORMER CORP



transistor transformers

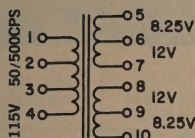


FIG. 1

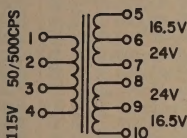


FIG. 2

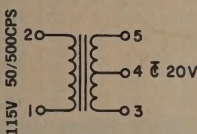


FIG. 3

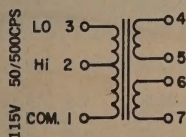


FIG. 4

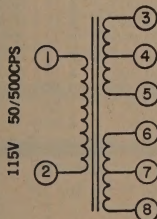


FIG. 5

TYPE	STYLE	FIG.	L	W	H	M1	M2	MTG. HOLES	STUDS
7K1	H	8	1.313	1.313	1.75	1.25	—	—	(2) 6-32
	F	6	2.125	1.25	1.25	1.75	—	(2) .188	—
7K2	H	8	1.625	1.625	2.375	1.188	1.188	—	(4) 6-32
	L	7	1.375	1.5	2.063	1.063	1.375	(4) .156	—
7K3	H	8	2.313	2.063	3.125	1.688	1.438	—	(4) 6-32
	F	6	3.75	1.813	2.313	3.125	—	(2) .188	—
7K4	H	8	3.063	2.625	4.25	2.297	1.859	—	(4) 8-32
	L	7	2.875	2.5	3.438	2.25	2.125	(4) .203	—
7K5	H	8	3.938	3.375	5.25	3	2.438	—	(4) 10-32
	L	7	3.813	3.25	4.563	3	2.5	(4) .203	—
7K6	H	8	5.5	4.5	6.75	3.75	3	—	(4) ¼-20
	L	7	4.438	4.5	5.313	3.5	3.5	(4) .281	—
7K7	H	8	3.063	2.625	4.25	2.297	1.859	—	(4) 8-32
	L	7	2.875	2.5	3.438	2.25	2.125	(4) .203	—
7K8	H	8	1.938	1.813	2.438	1.375	1.25	—	(4) 6-32
	F	6	2.875	1.438	1.625	2.375	—	(2) .188	—
7K9	H	8	1.938	1.813	2.75	1.375	1.25	—	(4) 6-32
	F	6	1.75	1.75	2.375	1.375	1.375	(4) .156	—
7K10	H	8	3.063	2.625	4.25	2.297	1.859	—	(4) 8-32
	L	7	2.875	2.438	3.438	2.25	2	(4) .203	—
7K11	H	8	4.313	3.688	5.563	3.313	2.75	—	(4) 10-32
	L	7	3.813	3.625	4.563	3	2.75	(4) .188	—
7K12	H	8	5.875	4.75	6.656	4.125	3.5	—	(4) ¼-20
	L	7	4.438	5.25	5.313	3.5	4.125	(4) .281	—
7K13	H	8	5.875	4.75	6.656	4.125	3.5	—	(4) ¼-20
	L	7	4.438	5.25	5.313	3.5	4.125	(4) .281	—
7K14	H	8	3.938	3.375	5.25	3	2.438	—	(4) 10-32
	L	7	3.813	3.5	4.563	3	2.5	(4) .203	—
7K15	L	9	3.813	2.625	3	3.125	2.25	(4) .203	—
7K16	L	9	4.188	3.25	3.625	3.438	2.375	(4) .203	—
7K17	L	9	5.375	4.25	4.625	4.375	2.875	(4) .281	—
7K18	L	9	5.313	5.75	4.625	4.375	4.125	(4) .281	—
7K19	L	9	4.188	3.875	3.625	3.438	3	(4) .203	—
7K20	L	9	4.563	4.5	4	3.75	3.375	(4) .203	—
7K21	L	9	5.313	5.75	4.625	4.375	4.125	(4) .281	—
7K22	L	9	6.5	6.375	5.625	5.313	4.375	(4) .281	—
7K23	L	9	4.563	4.125	4	3.75	3.375	(4) .203	—
7K24	L	9	5.313	4.875	4.625	4.375	3.375	(4) .281	—
7K25	L	9	6.5	6	5.625	5.313	3.75	(4) .281	—
7K26	L	9	6.5	7.75	5.625	5.313	5.125	(4) .281	—
7K27	L	9	4.188	3.625	3.75	3.438	3	(4) .203	—
7K28	L	9	5.313	4	4.625	4.375	3.125	(4) .281	—
7K29	L	9	5.313	4.75	4.625	4.375	3.875	(4) .281	—
7K30	L	9	6.5	5.75	5.625	5.313	4.125	(4) .281	—

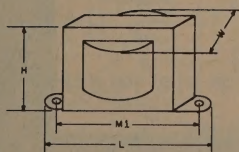


FIG. 6

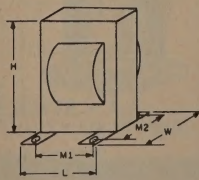


FIG. 7

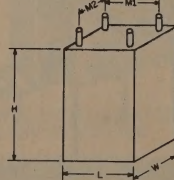


FIG. 8

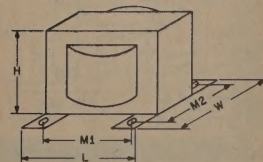


FIG. 9

STERLING TRANSFORMER CORP.

transistor transformers



MINISPEC TRANSISTOR TRANSFORMERS—300 SERIES

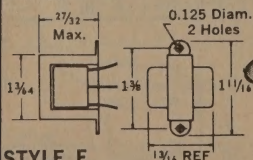
Part No.	Application	Primary Impedance	Secondary Impedance	Pri. D.C.	Oper. Lev.	Freq. Response ± 2 db.	Net Price	
				Unbal. Ma.			DBM	1-9 pcs.	F	H
300	Line to Base	600	600	10	23	200-15,000	\$4.00	\$8.60
301	Coll. to P.P. Base	100	10 C.T./40 C.T.	100	27	200-20,000	4.65	9.60
302	Coll. to Base or line	50,000	600	3	20	300-15,000	4.30	9.25
303	Collector to speaker	50,000	6	3	20	300-15,000	4.30	9.25
304	Coll. to P.P. Base	100,000	1,200 C.T.	1.4	17	200-15,000	4.50	9.45
305	Coll. to P.P. Base	25,000	1,200 C.T.	3	22	200-15,000	4.50	9.45
306	P.P. Coll. to P.P. Base	50,000 C.T.	1,200 C.T.	3	20	300-15,000	4.65	9.60
307	Line to P.P. Base	600 C.T.	1,200 C.T.	4	23	200-15,000	4.65	9.60
308	Collector to Base	25,000	600	3	22	200-15,000	4.30	9.25
309	P.P. Coll. to P.P. Base	4,000 C.T.	600 C.T.	3	32	200-15,000	4.65	9.60
310	Output Coll. to speaker	2,000	3.4	10	32	200-15,000	4.30	9.25
311	P.P. Coll. to speaker	4,000 C.T.	3.4	3	32	200-15,000	4.50	9.45
312	Coll. to Speaker	400	10	50	25	200-20,000	4.00	8.60
313	P.P. Servo Output	500 C.T.	210	30	27	300-20,000	4.30	9.25
314	P.P. Coll. to P.P. Base	25,000 C.T.	1,200 C.T.	6	22	200-15,000	4.65	9.60
315	P.P. Coll. to P.P. Base	50,000 C.T.	1200/300 Split	3	20	300-15,000	4.95	9.90
316	P.P. Coll. to P.P. Base	4,000 C.T.	600/150 Split	3	32	200-15,000	4.80	9.75
317	Line to P.P. Base	600/150 Split	1,200 C.T.	4	23	200-15,000	4.80	9.75
318	P.P. Coll. to Servo	250 C.T.	1,000	10	30	200-15,000	4.30	9.25
319	Coll. to P.P. Base	2,500	600 C.T.	10	32	200-15,000	4.30	9.25
320	P.P. Coll. to P.P. Base	7,500 C.T.	600 C.T.	8	32	200-15,000	4.65	9.60
321	Line to P.P. Base	600 C.T.	600 C.T.	20	23	200-15,000	4.50	9.45
322	P.P. Coll. to Servo	1,600 C.T.	450	15	30	200-15,000	4.30	9.25
323	P.P. Coll. to Servo	250 C.T.	500	10	30	200-15,000	4.30	9.25

MINISPEC AUDIO TRANSFORMERS—300 SERIES

Part No.	Application	Primary Impedance	Secondary Impedance	Pri. D.C. Unbal. Ma.	Oper. Lev. DBM	Freq. Response ± 2 db.	Net Price 1-9 pcs.	
							F	H
375	Mike or line to 1 grid	50/250/600 C.T.	50,000	0	5	20-20,000	\$4.50	\$9.90
376	Mike or line to 2 grids	50/250/600 C.T.	50,000 C.T.	0	5	20-20,000	4.65	10.40
377	Dynamic mike to 1 grid	7.5/30	50,000	0	5	20-20,000	4.30	9.90
378	Single plate to 1 grid	15,000	60,000	0	6	20-15,000	3.80	8.45
379	Single plate to 1 grid	15,000	60,000	4	14	200-20,000	3.80	8.45
380	Single plate to 2 grids	15,000	95,000 C.T.	0	5	20-15,000	4.00	9.45
381	Single plate to 2 grids	15,000	95,000 C.T.	4	11	200-20,000	4.15	9.75
382	Single plate to line	15,000	50/250/600 C.T.	0	8	20-20,000	4.15	10.60
383	Single plate to line	15,000	50/250/600 C.T.	4	21	150-20,000	4.15	10.60
384	Push pull plates to line	30,000 C.T.	50/250/600 C.T.	0	8	30-50,000	4.30	10.60
385	Crystal mike to line	50,000	50/250/600 C.T.	0	5	20-20,000	4.15	10.25
386	Mixing and matching	50/250 C.T.	50/250/600 C.T.	0	8	20-20,000	4.15	10.25
387	Reactor	300 hy. 0 d.c.	50 hy. ≈ 3 ma.			DCR 6,000	3.65	8.10
388	50:1 mike to grid	200	$\frac{1}{2}$ Megohm	0	9	80-3,000	4.30	9.90
389	10:1 plate to grid	10,000	1 Megohm	0	11	100-2,500	4.00	9.25

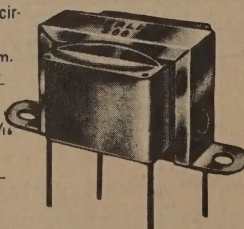
MINISPEC 300 SERIES

Highest efficiency miniature transformer for transistor and audio circuit applications.



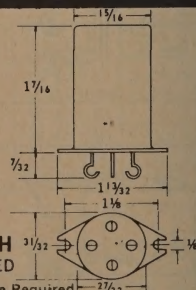
STYLE F
INDUSTRIAL

MILITARY STYLE ENCAPSULATED VERSIONS ARE AVAILABLE



STYLE H
HERMETICALLY SEALED

Clearance Hole Required





transistor transformers

MICROSPEC TRANSISTOR TRANSFORMERS— 600 SERIES

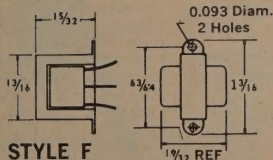
Part No.	Application	Primary Impedance	Secondary Impedance	Pri. D.C. Unbal. Ma.	Oper. Lev. DBM	Freq. Response ± 2 db.	Net Price 1-9 pcs.	
							F	H
601	Line to Base	600	600	8	22	200-15,000	\$4.30	\$8.10
602	Coll. to Base or line	50,000	600	0.7	20	200-15,000	4.50	8.25
603	P.P. coll. to P.P. Base	50,000 C.T.	600 C.T.	1.4	20	200-15,000	5.30	9.45
604	Collector to speaker	50,000	6	1	20	200-15,000	4.80	8.75
605	Coll. to P.P. Base	25,000	1,200 C.T.	1	20	200-15,000	4.95	9.25
606	P.P. coll. to P.P. Base	50,000 C.T.	1,200 C.T.	1.4	20	200-15,000	5.15	9.45
607	Line to P.P. Base	600 C.T.	1,200 C.T.	16	22	200-15,000	4.65	8.45
608	Collector to Base	25,000	600	1	20	200-15,000	3.80	7.95
609	P.P. coll. to P.P. Base or line	4,000 C.T.	600 C.T.	5	28	200-15,000	4.80	8.60
610	Coll. to Spkr.	2,000	3.4	5	28	200-15,000	4.30	8.10
611	Output P.P. coll. to spkr.	4,000 C.T.	3.4	5	28	200-15,000	4.50	8.25
612	Coll. to P.P. Base	10,000	1,500 C.T.	1	20	200-15,000	4.95	9.25
613	P.P. Coll. to P.P. Base	10,000 C.T.	200 C.T.	6	20	200-15,000	4.95	8.95
614	P.P. Coll. to P.P. Base	25,000 C.T.	1,200 C.T.	2	20	200-15,000	5.15	9.45
615	Coll. to P.P. Base	2,500	2,500 C.T.	2	23	200-15,000	4.50	8.25
616	P.P. Coll. to P.P. Base	4,000 C.T.	600/150 split	5	28	200-15,000	5.15	9.45
617	P.P. Coll. to P.P. Base	7,500 C.T.	600 C.T.	4	22	200-15,000	4.80	8.60
618	Line to Base	600 C.T.	600 C.T.	16	22	200-15,000	4.65	8.45
619	P.P. Coll. to P.P. Base	25,000 C.T.	600 C.T.	2	20	200-15,000	4.95	9.25
620	P.P. Coll. to P.P. Base	10,000 C.T.	1,500 C.T.	2	20	200-15,000	5.15	9.45
621	Driver/Isolation	10,000 C.T.	10,000 C.T.	2	20	200-15,000	5.15	9.45
622	P.P. Coll. to P.P. Base	7,500 C.T.	1,200 C.T.	4	22	200-15,000	4.95	9.25
623	P.P. Coll. to P.P. Base	2,000 C.T.	500 C.T.	10	28	200-15,000	4.80	9.10
624	Line to P.P. Base	600 C.T.	1200/300 split	16	22	200-15,000	5.15	9.45

MICROSPEC AUDIO TRANSFORMERS— 600 SERIES

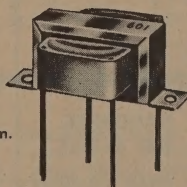
Part No.	Application	Primary Impedance	Secondary Impedance	Pri. D.C. Unbal. Ma.	Oper. Lev. DBM	Freq. Response ± 2 db.	Net Price 1-9 pcs.	
							F	H
675	Input	200/50	250,000/62,500	0	4	200-10,000	\$4.95	\$8.10
676	Interstage 3:1	10,000	90,000	0	4	150-10,000	5.30	8.25
677	Plate to line	10,000	200	3	20	150-10,000	4.65	7.95
678	Output	30,000	50	1	20	150-10,000	4.50	7.80
679	Reactor 50 HY at 1 mdc				4700	ohms DCR	4.50	7.60
680	Output	100,000	60	0.5	20	250-10,000	4.65	7.95
681	Output	30,000	1,200	0.5	20	200-10,000	3.65	7.10

MICROSPEC 600 SERIES

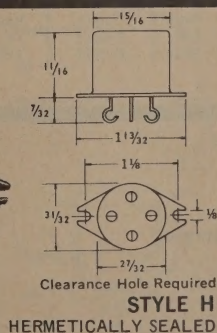
Subminiature transformers
for high efficiency circuits.



STYLE F
INDUSTRIAL



MILITARY STYLE ENCAPSULATED
VERSIONS ARE AVAILABLE



STYLE H
HERMETICALLY SEALED

STERLING TRANSFORMER CORP.

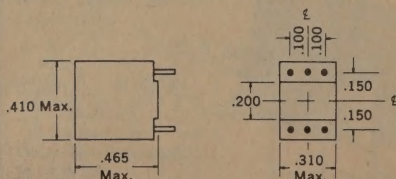


transistor transformers

NANOSPEC TRANSISTOR TRANSFORMERS — 900 SERIES

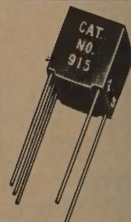
Frequency Response ± 2 db 300 Cycles to 90 KC

Part No.	Application	Color Application Guide	Primary Impedance	Secondary Impedance	Unbal. Pri. DC Ma.	Power Level MW.	DC Resistance		Net Price
							Primary	Secondary	1-9 Pcs.
903	Interstage	Red	50,000 CT	1,000 CT	0	10	3300	75	8.25
904	Interstage	Red	50,000	1000/250 Split	0	10	3300	75	8.95
905	Interstage	Red	25,000 CT	1,000 CT	0.5	40	1700	115	7.80
906	Interstage	Red	25,000	1000/250 Split	0.25	40	1700	115	8.45
907	Interstage	Red	25,000	1,000	0.25	40	1700	115	7.15
908	Isolation	Green	10,000 CT	10,000 CT	1	50	1200	1300	8.45
909	Driver	Orange	10,000 CT	2,000 CT	1	50	1050	300	7.45
910	Driver	Orange	10,000	2000/500 Split	0.5	50	1050	300	8.10
911	Driver	Orange	10,000 CT	1,200 CT	1	50	1050	280	7.45
912	Driver	Orange	10,000	1200/300 Split	0.5	50	1050	280	7.95
913	Driver	Orange	10,000	1,200	0.5	50	1050	280	6.60
914	Driver	Orange	10,000 CT	500 CT	1	50	1050	80	7.45
915	Isolation	Green	2,500	2,500 CT	1	50	250	325	6.95
916	Output	Yellow	1,500 CT	600	3	50	170	135	6.80
917	Output	Yellow	500	50	3	50	60	8	5.95
918	Output	Yellow	120 CT	3.2	10	50	17	.75	6.30
919	Audio Choke	Blue	6 HY.	DCR 1800 OHMS	2				5.95
920	Audio Choke	Blue	.3 HY.	DCR 45 OHMS	4				5.15
921	Audio Choke	Blue	1.25 H	DCR 180 OHMS	2				5.30
922	Audio Choke	Blue	3.5 H	DCR 1040 OHMS	2				5.30
923	Audio Choke	Blue	.9 H	DCR 110 OHMS	2				5.30
924	Audio Choke	Blue	.1 H	DCR 15 OHMS	5				5.30
925	Interstage	Red	10,000 CT	1,500 CT	1	50	1050	300	7.95
926	Isolation	Green	600 CT	600 CT	3	50	72	92	7.95
927	Output	Yellow	1,000	50	3	50	145	8	6.45
928	Output	Yellow	300 CT	600	7	50	41	98	6.60
929	Output	Yellow	500 CT	600	3	50	67	98	6.60
930	Output	Yellow	900 CT	600	4	50	104	96	6.80
931	Output	Yellow	150 CT	12	10	50	18	3.5	6.45
932	Output	Yellow	300 CT	12	7	50	42	3.4	6.45
933	Output	Yellow	600 CT	12	4.5	50	77	3	6.60
934	Output	Yellow	1,000 CT	12	3.5	50	120	3	6.80
935	Output	Yellow	1,500 CT	12	3	50	179	2.9	6.95
936	Output	Yellow	7,500 CT	12	1	50	796	2.9	7.45
937	Output	Yellow	320 CT	3.2	6	50	44	.77	6.45
938	Output	Yellow	600	3.2	3	50	70	.76	6.15
939	Output	Yellow	600 CT	3.2	4.5	50	70	.85	6.60
940	Output	Yellow	800 CT	3.2	4	50	107	.86	6.80
941	Output	Yellow	1,200	3.2	2	50	131	.76	6.15
942	Output	Yellow	1,200 CT	3.2	3	50	131	.87	6.80
943	Output	Yellow	1,600 CT	3.2	2.5	50	186	.8	6.95
944	Output	Yellow	10,000	3.2	1	50	1160	.81	6.80
945	Output	Yellow	8,000 CT	3.2	1	50	790	.76	7.45



NANOSPEC 900 SERIES

Designed for printed circuit transistor use in high component density applications.
Epoxy resin encapsulated.





STANDARD INTERSTAGE AND LINE TRANSISTOR AND TUBE APPLICATIONS

filters

Hermetically Sealed — Manufactured to MIL-F-18327B Available in Other Frequencies

LOW PASS

INTERSTAGE

LI units have a loss of approximately 3 db at cutoff frequency, and an attenuation of 35 db at 1.5 cutoff frequency. Input and output 10,000 ohms. LI units are MIL type FR4RX11YY.

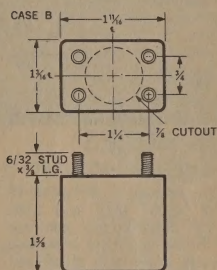
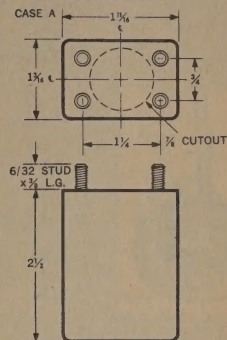
Part No.	Frequency	Case Size	Net Price
LI-60	60 cps	A	34.65
LI-100	100 cps	A	34.65
LI-200	200 cps	B	34.65
LI-400	400 cps	B	34.65
LI-500	500 cps	B	34.65
LI-800	800 cps	B	34.65
LI-1,000	1,000 cps	B	34.65
LI-1,500	1,500 cps	B	34.65
LI-2,000	2,000 cps	B	34.65
LI-2,500	2,500 cps	B	34.65
LI-3,000	3,000 cps	B	34.65
LI-4,000	4,000 cps	B	34.65
LI-5,000	5,000 cps	B	34.65
LI-10,000	10,000 cps	B	34.65

LINE

LL units have a loss of approximately 3 db at cutoff frequency, and an attenuation of 35 db at 1.5 cutoff frequency. Input and output 500/600 ohms. LL units are MIL type FR4RX11YY.

Part No.	Frequency	Case Size	Net Price
LL-600	600 cps	A	34.65
LL-1,000	1,000 cps	A	34.65
LL-1,500	1,500 cps	A	34.65
LL-2,000	2,000 cps	A	34.65
LL-2,500	2,500 cps	A	34.65
LL-4,000	4,000 cps	A	34.65
LL-8,000	8,000 cps	A	34.65
LL-10,000	10,000 cps	A	34.65
LL-12,000	12,000 cps	A	34.65

CASE DETAIL



HIGH PASS

INTERSTAGE

HI units have a loss of less than 6 db at cutoff frequency, and an attenuation of 35 db at .67 cutoff frequency. Input and output 10,000 ohms. HI units are MIL type FR4RX33YY.

Part No.	Frequency	Case Size	Net Price
HI-100	100 cps	A	34.65
HI-200	200 cps	A	34.65
HI-300	300 cps	A	34.65
HI-400	400 cps	A	34.65
HI-500	500 cps	A	34.65
HI-800	800 cps	A	34.65
HI-1,000	1,000 cps	A	34.65
HI-2,000	2,000 cps	A	34.65
HI-3,000	3,000 cps	A	34.65

LINE

HL units have a loss of less than 6 db at cutoff frequency, and an attenuation of 35 db at .67 cutoff frequency. Input and output 500/600 ohms. HL units are MIL type FR4RX33YY.

Part No.	Frequency	Case Size	Net Price
HL-200	200 cps	A	42.90
HL-300	300 cps	A	42.90
HL-500	500 cps	A	42.90
HL-1,000	1,000 cps	A	42.90

FOR WIDE BAND PASS FILTERS
THE LI & HI OR LL & HL MAY BE
CONNECTED IN SERIES.

BAND PASS

INTERSTAGE

BI units have 2:1 voltage gain. They are sharply peaked, having approximately 2 db attenuation at plus or minus 3% from center frequency and attenuation greater than 40 db at 1/2 and twice center frequency. Input 10,000 ohms, output to grid. BI units are MIL type FR4RX22YY.

Part No.	Frequency	Case Size	Net Price
BI-50	50 cps	A	33.00
BI-60	60 cps	A	33.00
BI-100	100 cps	A	33.00
BI-120	120 cps	B	33.00
BI-200	200 cps	B	33.00
BI-240	240 cps	B	33.00
BI-400	400 cps	B	33.00
BI-500	500 cps	B	33.00
BI-750	750 cps	B	33.00
BI-800	800 cps	B	33.00
BI-1,000	1,000 cps	B	33.00
BI-1,500	1,500 cps	B	33.00
BI-2,000	2,000 cps	B	33.00
BI-3,000	3,000 cps	B	33.00
BI-4,000	4,000 cps	B	33.00
BI-5,000	5,000 cps	B	33.00
BI-10,000	10,000 cps	B	33.00

LINE

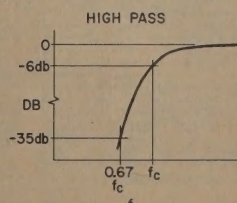
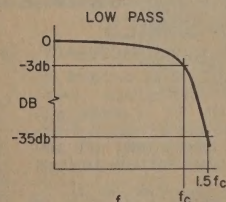
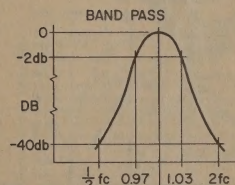
BL units have 9:1 voltage gain. They are sharply peaked, having approximately 2 db attenuation at plus or minus 3% from center frequency and attenuation greater than 40 db at 1/2 and twice center frequency. Input 500/600 ohms, output to grid. BL units are MIL type FR4RX22YY.

Part No.	Frequency	Case Size	Net Price
BL-400	400 cps	B	33.00
BL-1,000	1,000 cps	B	33.00

TRANSISTOR INTERSTAGE

They are sharply peaked, having approximately 2 db attenuation at plus or minus 3% from center frequency and attenuation greater than 40 db at 1/2 and twice center frequency. Input 10,000 ohms, output 10,000 ohms. BIT units are MIL type FR4RX22YY.

Part No.	Frequency	Case Size	Net Price
BIT-60	60 cps	A	39.60
BIT-100	100 cps	A	39.60
BIT-120	120 cps	B	39.60



STERLING TRANSFORMER CORP.



hi-Q toroidal inductors

MANUFACTURED TO MIL-T-27A. ALL HERMETICALLY SEALED UNITS (STYLE H) ARE MIL TYPE TF4RX20YY

■ ALL MOLDED UNITS STYLE M ARE MIL TYPE TF5RX20ZZ

■ ALSO TOROIDAL INDUCTORS IN OTHER SIZES AND VALUES AVAILABLE ON SPECIAL ORDER.

■ MOLYBDENUM PERMALLOY POWDER CORES USED IN ALL UNITS.



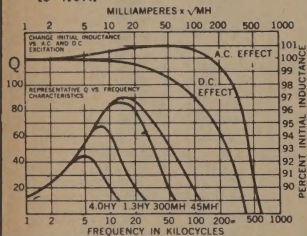
STYLE F

■ ALL INDUCTORS SHOWN AVAILABLE IN OPEN STYLE F.

QA SERIES

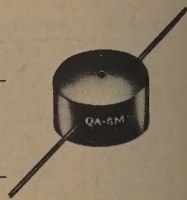
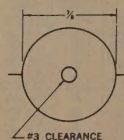
FREQUENCY TO 20KC-ACCURACY $\pm 1\%$

The QA series is designed to optimize small size and high "Q" for miniaturized applications. These units are available on special order with stabilized cores and inductance from 1MH to 4.0H.



AVAILABLE ON SPECIAL ORDER
HERMETICALLY SEALED

Part No.	Inductance	Approx. DCR Ohms	Approx. Distributed Capacity PF	Style F	Style M
QA-1	5MH	2.5	30	4.80	6.30
QA-2	10	5	33	4.80	6.30
QA-3	15	8	34	4.95	6.45
QA-4	20	11.2	36	5.10	6.60
QA-5	30	17	37	5.15	6.80
QA-6	50	28	40	5.30	6.95
QA-7	100	50	42	5.45	7.10
QA-8	150	80	44	5.65	7.30
QA-9	200	120	45	5.75	7.40
QA-10	300	150	46	5.85	7.65
QA-11	500	290	48	5.95	7.95
QA-12	1.00H	530	51	6.80	8.75
QA-13	1.50	825	53	6.95	9.60



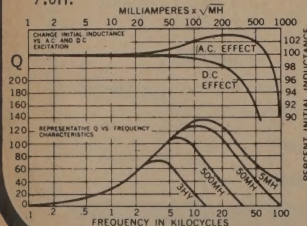
MOLDED STYLE M

Encapsulated in Epoxy Resin. Pigtail leads for printed circuit applications.

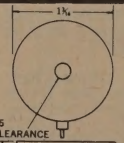
QB SERIES

FREQUENCY TO 20KC-ACCURACY $\pm 1\%$

The QB series is designed for airborne applications where stable high "Q" is needed with minimized size and weight. Available on special order with stabilized cores and inductance to 7.0H.



Part No.	Inductance	Approx. DCR Ohms	Approx. Distributed Capacity PF	Style F	Style H	Style M
QB-1	5MH	1.1	38	4.30	7.45	5.80
QB-2	10	2.1	40	4.30	7.45	5.80
QB-3	15	3.3	42	4.30	7.45	5.95
QB-4	20	3.7	43	4.35	7.55	6.05
QB-5	30	5.8	45	4.40	7.70	6.15
QB-6	50	11	47	4.50	7.95	6.25
QB-7	100	22	49	4.65	8.45	6.30
QB-8	150	34	50	4.80	8.60	6.45
QB-9	200	47	52	5.05	9.00	6.70
QB-10	300	60	53	5.15	9.25	6.80
QB-11	500	95	55	5.30	9.45	6.95
QB-12	1.00H	213	57	5.65	9.90	7.45
QB-13	1.50	335	59	6.45	10.40	8.10



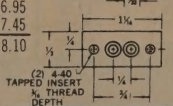
MOLDED STYLE M

Encapsulated in Epoxy Resin. Silver plated turret lugs.



HERMETIC STYLE H

Hermetically sealed in metal case. Teflon terminals assure permanent seal at temperature extremes.



STERLING TRANSFORMER CORP.

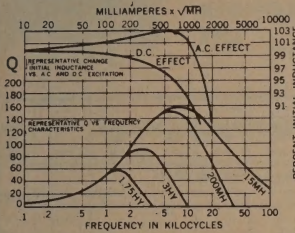
hi-Q toroidal inductors



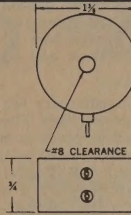
QC SERIES

FREQUENCY TO 10KC
ACCURACY $\pm 1\%$

The QC series is designed for high "Q", increased power level & stability. Available on special order with stabilized cores and inductance to 20H.



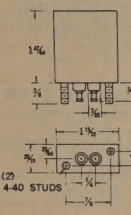
Part No.	Inductance	Approx. DCR Ohms	Approx. Distributed Capacity PF	Style F	Style H	Style M
QC-1	5MH	0.62	60	4.80	7.80	6.80
QC-2	10	1.1	66	4.95	7.95	6.80
QC-3	15	1.7	68	4.95	8.10	6.80
QC-4	20	1.9	70	5.05	8.25	6.80
QC-5	30	3	72	5.10	8.45	6.80
QC-6	50	6	76	5.15	8.60	6.80
QC-7	100	11	81	5.30	9.25	7.30
QC-8	150	17	83	5.45	9.45	7.30
QC-9	200	24	85	5.50	9.65	7.40
QC-10	300	37	88	5.60	9.80	7.50
QC-11	500	63	91	5.65	10.10	7.60
QC-12	1.00H	110	96	5.80	10.60	7.95
QC-13	1.50	185	98	5.95	10.75	8.10
QC-14	2.00	250	100	6.50	11.20	8.40
QC-15	3.00	380	103	7.05	11.65	8.80
QC-16	5.00	645	106	7.45	12.25	9.25
QC-17	7.50	950	109	8.00	13.00	10.05
QC-18	10.00	1175	112	8.25	13.70	10.60



MOLDED STYLE M
Encapsulated in Epoxy Resin. Silver plated turret lugs.



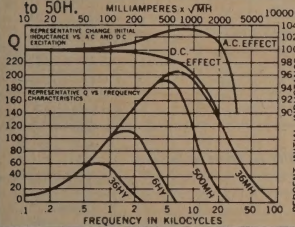
HERMETIC STYLE H
Hermetically sealed in metal case. Teflon terminals assure permanent seal at temperature extremes.



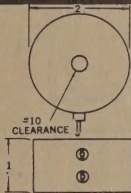
QD SERIES

FREQUENCY TO 10KC-ACCURACY $\pm 1\%$

The QD series is designed for very high "Q" in the audio band allowing for application in sharp frequency filters with high power levels and low losses. They are excellent for tuned transformers and oscillators. Available on special order with stabilized cores and inductance to 50H.



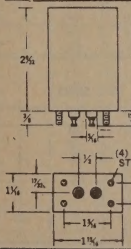
Part No.	Inductance	Approx. DCR Ohms	Approx. Distributed Capacity PF	Style F	Style H	Style M
QD-1	20MH	1.0	97	7.80	11.60	9.60
QD-2	30	1.5	100	7.80	11.60	9.60
QD-3	50	2.5	105	7.80	11.60	9.60
QD-4	100	6	110	7.95	11.75	9.75
QD-5	150	7	113	8.10	11.85	10.35
QD-6	200	10	115	8.10	11.85	10.35
QD-7	300	15	117	8.25	12.05	10.60
QD-8	500	25	121	8.25	12.05	10.60
QD-9	1.00H	60	126	8.60	12.55	10.90
QD-10	1.50	90	130	8.95	12.90	11.25
QD-11	2.00	100	131	9.85	13.90	11.70
QD-12	3.00	155	134	10.20	14.30	12.00
QD-13	5.00	275	138	10.40	14.55	12.25
QD-14	7.50	400	140	11.10	15.55	13.20
QD-15	10.00	600	142	12.25	16.50	14.20
QD-16	15.00	900	146	13.20	17.35	15.20
QD-17	20.00	1100	148	14.15	19.10	16.80
QD-18	25.00	1500	150	14.40	19.35	17.00



MOLDED STYLE M
Encapsulated in Epoxy Resin. Silver plated turret lugs.



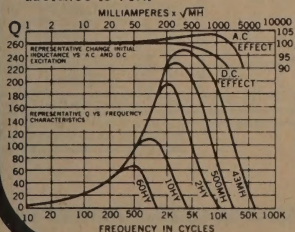
HERMETIC STYLE H
Hermetically sealed in metal case. Teflon terminals assure permanent seal at temperature extremes.



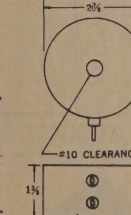
QE SERIES

FREQUENCY TO 15KC
ACCURACY $\pm 1\%$

The QE series is most widely used in low audio frequency applications where high "Q" is essential. They are used where inductance stability over a wide voltage range is required. Available on special order with inductance to 75H.



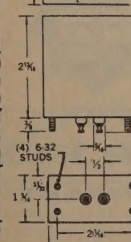
Part No.	Inductance	Approx. DCR Ohms	Approx. Distributed Capacity PF	Style F	Style H	Style M
QE-1	25MH	0.85	127	11.90	14.85	13.90
QE-2	50	1.6	136	12.05	15.05	14.05
QE-3	100	3	144	15.35	15.35	14.40
QE-4	150	3.9	149	15.70	15.70	15.05
QE-5	200	5.9	153	16.25	16.25	15.25
QE-6	300	8.5	158	16.30	16.30	15.30
QE-7	500	15	164	16.35	16.35	15.35
QE-8	1.00H	30	173	16.70	16.70	15.75
QE-9	1.50	40	177	17.00	17.00	15.30
QE-10	2.00	60	181	17.95	17.95	16.10
QE-11	3.00	85	185	18.05	18.05	16.30
QE-12	5.00	142	192	18.35	18.35	16.50
QE-13	7.50	215	196	18.70	18.70	17.55
QE-14	10.00	300	200	19.00	19.00	17.85
QE-15	15.00	430	205	20.15	20.15	19.00
QE-16	20.00	550	209	21.20	21.20	20.00
QE-17	25.00	800	212	21.45	21.45	20.30
QE-18	30.00	850	214	25.30	25.30	24.15
QE-19	50.00	1500	221	27.75	27.75	26.60



MOLDED STYLE M
Encapsulated in Epoxy Resin. Silver plated turret lugs.



HERMETIC STYLE H
Hermetically sealed in metal case. Teflon terminals assure permanent seal at temperature extremes.



STERLING TRANSFORMER CORP.

POWERSTAT® Variable Transformers now

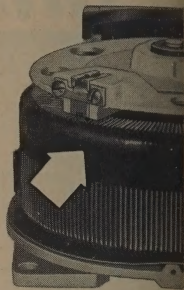
New epoxy-coated POWERKOTE Coils make the POWERSTAT line the most outstanding value in variable transformers today. *Without increase in price, size or weight*, only POWERSTAT Variable Transformers give an average of 20% higher current ratings, 10:1 greater overload capability, longer life, greater resistance to fungus, salt spray and other contaminating atmospheres. POWERKOTE Coil commutator bars are embedded in place preventing steady-state operating temperature and severe overloads from distorting the commutator.

POWERSTAT Variable Transformers are designed to deliver continuously adjustable voltage from a-c power lines. They introduce no waveform distortion and feature rugged construction, precious metal plated commutators, excellent regulation, high efficiency and conservative ratings. All manually operated types listed in the charts except the 10B-12, EN116B-EN216B and EN117B-EN217B Series are available with motor drives if desired. Motor-driven speeds are 5, 15, 30 or 60 seconds for full range travel on all except types having -4, -5, or -6 suffixes which do not offer the 5-second speed. Single types in the 116B-216B, 117B-217B, 126-226 and 136B-236B Series are also offered with 2- or 3-wire cord-plug sets. 1156D-1256D Series types are available in ratings to 244 kva.

**HIGHER
RATINGS**

**HIGHER
OVERLOAD
CAPABILITIES**

**LONGER
LIFE**



RATINGS AND SPECIFICATIONS

INPUT			OUTPUT				TYPE	Ship. Wt. Lbs.
Volts	Cycles	Volts	Const. Current Load Max. Amp.	Max. KVA	Const. Impedance Load Max. Amp.	Max. KVA		
10B-12 SERIES								
Single Phase								
120	60	0-132	1	0.13	—	—	2P10	3½
120	50/60	0-120	2.25*	0.27	31	0.36	10B	2½
120	60	0-132	2.25*	0.30	—	—		
240	50/60	0-240	0.7*	0.17	0.91	0.22	12	2½
240	50/60	0-264	0.5**	0.13	—	—		
240	50/60	0-240	2.25*	0.54	31	0.72	10B-2	6
240	60	0-264	2.25*	0.59	—	—		
480	50/60	0-480	0.7*	0.34	0.91	0.43	12-2	6
480	50/60	0-528	0.5**	0.26	—	—		
Three Phase								
120	50/60	0-120	2.25*	0.47	31	0.62	10B-2	6
120	60	0-132	2.25*	0.51	—	—		
240	50/60	0-240	0.7*	0.29	0.91	0.37	12-2	6
240	50/60	0-264	0.5**	0.23	—	—		
240	60	0-240	2.25*	0.94	31	1.2	10B-3	8½
480	50/60	0-480	0.7*	0.58	0.91	0.75	12-3	8½
480	60	0-528	0.5**	0.46	—	—		
21-22 SERIES								
Single Phase								
120	50/60	0-120	4.5	0.54	6.5	0.78	21	6
120	50/60	0-140	4.5	0.63	—	—		
240	50/60	0-240	2.25	0.54	3.25	0.78	22	6
240	50/60	0-280	2.25	0.63	—	—		
240	50/60	0-240	4.5	1.1	6.5	1.6	21-2	13½
240	50/60	0-280	4.5	1.3	—	—		
480	50/60	0-480	2.25	1.1	3.25	1.6	22-2	13½
480	50/60	0-560	2.25	1.3	—	—		
Three Phase								
120	50/60	0-120	4.5	0.94	6.5	1.4	21-2	13½
120	50/60	0-140	4.5	1.1	—	—		
240	50/60	0-240	2.25	0.94	3.25	1.4	22-2	13½
240	50/60	0-280	2.25	1.1	—	—		
240	50/60	0-240	4.5	1.9	6.5	2.7	21-3	19
240	60	0-280	4.5	2.2	—	—		
480	50/60	0-480	2.25	1.9	3.25	2.7	22-3	19
480	60	0-560	2.25	2.2	—	—		

*Rating when mounted on metal panel. On bracket or nonmetallic panel, derate 10B Series to 1.75 amp., 12 Series to 0.5 amp.
†Rating when mounted on metal panel. On bracket or nonmetallic panel, derate 10B Series to 2.5 amp., 12 Series to 0.75 amp.
**0.7 amp. maximum in range from 0 to line voltage when mounted on metal panel.



THE

**SUPERIOR ELECTRIC
COMPANY**

INPUT			OUTPUT				TYPE	Ship. Wt. Lbs.
Volts	Cycles	Volts	Const. Current Load		Const. Impedance Load			
			Max. Amp.	Max. KVA	Max. Amps.	Max. kVA		
116B-216B and 117B-217B SERIES†								
Single Phase								
120	50/60	0-120	10	1.2	13	1.6	116B	12
120	50/60	0-140	10	1.4	—	—	—	—
120	60	0-120	12	1.4	15	1.8	117B†	12
240	50/60	0-240	3.5	0.84	5	1.2	216B	12
240	50/60	0-280	3.5	0.98	—	—	—	—
240	60	0-240	5	1.2	7	1.7	217B†	12
240	50/60	0-240	10	2.4	13	3.1	116B†-2	24
240	50/60	0-280	10	2.8	—	—	—	—
240	60	0-240	12	2.9	15	3.6	117B†-2	24
480	50/60	0-480	3.5	1.7	5	2.4	216B†-2	24
480	50/60	0-560	3.5	2.0	—	—	—	—
480	60	0-480	5	2.4	7	3.4	217B†-2	24
Three Phase								
120	50/60	0-120	10	2.1	13	2.7	116B†-2	24
120	50/60	0-140	10	2.4	—	—	—	—
120	60	0-120	12	2.5	15	3.1	117B†-2	24
240	50/60	0-240	3.5	1.5	5	2.1	216B†-2	24
240	50/60	0-280	3.5	1.7	—	—	—	—
240	60	0-240	5	2.1	7	2.9	217B†-2	24
240	50/60	0-240	10	4.2	13	5.4	116B†-3	36
240	60	0-280	10	4.8	—	—	—	—
240	60	0-240	12	5.0	15	6.2	117B†-3	36
480	50/60	0-480	3.5	2.9	5	4.2	216B†-3	36
480	60	0-560	3.5	3.4	—	—	—	—
480	60	0-480	5	4.2	7	5.8	217B†-3	36
EN116B-EN216B and EN117B-EN217B SERIES								
Single Phase								
120	50/60	0-120	8	0.96	13	1.6	EN116B	15
120	50/60	0-140	8	1.1	—	—	—	—
120	60	0-120	10	1.2	14.5	1.7	EN117B	15
240	50/60	0-240	3	0.72	4.5	1.1	EN216B	15
240	50/60	0-280	3	0.84	—	—	—	—
240	60	0-240	4.4	1.1	5.8	1.4	EN217B	15
240	50/60	0-240	8	1.9	13	3.1	EN116B-2	28
240	50/60	0-280	8	2.2	—	—	—	—
240	60	0-240	10	2.4	14.5	3.5	EN217B-2	28
480	50/60	0-480	3	1.4	4.5	2.2	EN216B-2	28
480	50/60	0-560	3	1.7	—	—	—	—
480	60	0-480	4.4	2.1	5.8	2.8	EN217B-2	28
Three Phase								
120	50/60	0-120	8	1.7	13	2.7	EN116B-2	28
120	50/60	0-140	8	1.9	—	—	—	—
120	60	0-120	10	2.1	14.5	3.0	EN117B-2	28
240	50/60	0-240	3	1.2	4.5	1.9	EN216B-2	28
240	50/60	0-280	3	1.5	—	—	—	—
240	60	0-240	4.4	1.8	5.8	2.4	EN217B-2	28
240	50/60	0-240	8	3.3	14	5.4	EN116B-3	39
240	60	0-280	8	3.9	—	—	—	—
240	60	0-240	10	4.2	14.5	6.0	EN117B-3	39
480	50/60	0-480	3	2.5	4.5	3.7	EN216B-3	39
480	60	0-560	3	2.9	—	—	—	—
480	60	0-480	4.4	3.7	5.8	4.8	EN217B-3	39

†Also available with open construction. Suffix U when ordering.

SEE OTHER SUPERIOR ELECTRIC PRODUCT PAGES

with

POWERKOTE™ COILS

PATENT PENDING

TYPE 10B

TYPE 21

TYPE 3PN126

TYPE 116B

TYPE 1156D

TYPE
15MD136BT-2

TYPE EN216B-2

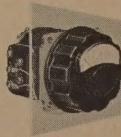
TYPE 136BT

TYPE 146

TYPE 5MB1156D

INPUT			OUTPUT				TYPE	Ship. Wt. Lbs.
Volts	Cycles	Volts	Const. Current Load		Const. Impedance Load			
			Max. Amp.	Max. KVA	Max. Amp.	Max. KVA		
126-226 SERIES†								
Single Phase								
120	50/60	0-120	15	1.8	20	2.4	126	17
120	50/60	0-140	15	2.1	—	—	—	—
240	50/60	0-240	7.5	1.8	10	2.4	226	17
240	50/60	0-280	7.5	2.1	—	—	—	—
240	50/60	0-240	15	3.6	20	4.8	126-2	32
240	50/60	0-280	15	4.2	—	—	—	—
480	50/60	0-480	7.5	3.6	10	4.8	226-2	32
480	50/60	0-560	7.5	4.2	—	—	—	—
Three Phase								
120	50/60	0-120	15	3.1	20	4.2	126-2	32
120	50/60	0-140	15	3.6	—	—	—	—
240	50/60	0-240	7.5	3.1	10	4.2	226-2	32
240	50/60	0-280	7.5	3.6	—	—	—	—
240	50/60	0-240	15	6.2	20	8.3	126-3	49
240	60	0-280	15	7.3	—	—	—	—
480	50/60	0-480	7.5	6.2	10	8.3	226-3	49
480	60	0-560	7.5	7.3	—	—	—	—
136B-236B SERIES†								
Single Phase								
120	50/60	0-120	22	2.6	28	3.4	136B	25
120	50/60	0-140	22	3.1	—	—	—	—
120	50/60	0-120	44	5.3	56	6.7	136B-2†	52
120	50/60	0-140	44	6.2	—	—	—	—
240	50/60	0-240	10	2.4	13	3.1	236B	25
240	50/60	0-280	10	2.8	—	—	—	—
240	50/60	0-240	22	5.3	28	6.7	136B-2	52
240	50/60	0-280	22	6.2	—	—	—	—
480	50/60	0-480	20	4.8	26	6.2	236B-2	52
480	50/60	0-560	20	5.6	—	—	—	—
Three Phase								
120	50/60	0-120	22	4.6	28	5.8	136B-2	52
120	50/60	0-140	22	5.3	—	—	—	—
240	50/60	0-240	10	4.2	13	5.4	236B-2	52
240	50/60	0-280	10	4.8	—	—	—	—
240	50/60	0-240	22	9.1	28	11.6	136B-3	76
240	60	0-280	22	10.7	—	—	—	—
480	50/60	0-480	10	8.3	13	10.8	236B-3	76
480	60	0-560	10	9.7	—	—	—	—
146-246 SERIES†								
Single Phase								
120	50/60	0-120	30	3.6	35	4.2	146	38
120	50/60	0-140	30	4.2	—	—	—	—
120	50/60	0-120	60	7.2	70	8.4	146-2†	83
120	50/60	0-140	60	8.4	—	—	—	—
240	50/60	0-240	15	3.6	19	4.6	246	38
240	50/60	0-280	15	4.2	—	—	—	—
240	50/60	0-240	30	7.2	35	8.4	146-2	83
240	50/60	0-280	30	8.4	—	—	—	—
480	50/60	0-480	15	7.2	19	9.1	246-2	83
480	50/60	0-560	15	8.4	—	—	—	—

INPUT			OUTPUT				TYPE	Ship. Wt. Lbs.
Volts	Cycles	Volts	Const. Current Load		Const. Impedance Load			
			Max. Amps.	Max. KVA	Max. Amps.	Max. KVA		
146-246 SERIES† (contd.)								
Three Phase								
120	50/60	0-120	30	6.2	35	7.3	146-2	83
120	50/60	0-140	30	7.3	—	—	—	—
240	50/60	0-240	15	6.2	19	7.9	246-2	83
240	50/60	0-280	15	7.3	—	—	—	—
240	50/60	0-240	30	12.5	35	14.5	146-3	125
240	60	0-280	30	14.5	—	—	—	—
480	50/60	0-480	15	12.5	19	15.8	246-3	125
480	60	0-560	15	14.5	—	—	—	—
1156D-1256D SERIES†								
Single Phase								
120	50/60	0-120	50	6.0	55	6.5	1156D	82
120	50/60	0-140	50	7.0	—	—	—	—
120	50/60	0-120	100	12.0	110	13.2	1156D-2P	169
120	50/60	0-140	100	14.0	—	—	—	—
120	50/60	0-120	150	18.0	165	19.8	1156D-3P	272
120	50/60	0-140	150	21.0	—	—	—	—
240	50/60	0-240	28	6.7	28	6.7	1256D	82
240	50/60	0-280	28	7.8	—	—	—	—
240	50/60	0-240	50	12.0	55	13.2	1156D-2S	156
240	50/60	0-280	50	14.0	—	—	—	—
240	50/60	0-240	56	13.4	56	13.4	1256D-2P	169
240	50/60	0-280	56	15.7	—	—	—	—
240	50/60	0-240	84	20.2	84	20.2	1256D-3P	272
240	50/60	0-280	84	23.5	—	—	—	—
240	50/60	0-240	100	24.0	110	26.4	1156D-4PS	361
240	50/60	0-280	100	28.0	—	—	—	—
480	50/60	0-480	28	13.4	28	13.4	1256D-2S	156
480	50/60	0-560	28	15.7	—	—	—	—
480	50/60	0-480	56	26.9	56	26.9	1256D-4PS	361
480	50/60	0-560	56	31.4	—	—	—	—
Three Phase								
120	50/60	0-120	50	10.4	55	11.4	1156D-20	155
120	50/60	0-140	50	12.1	—	—	—	—
240	50/60	0-240	28	11.6	28	11.6	1256D-20	155
240	50/60	0-280	28	13.6	—	—	—	—
240	50/60	0-240	50	20.8	55	22.9	1156D-3Y	230
240	60	0-280	50	24.2	—	—	—	—
240	50/60	0-240	100	41.6	110	45.7	1156D-6Y	507
240	50/60	0-280	100	48.5	—	—	—	—
480	50/60	0-480	28	23.3	28	23.3	1256D-3Y	235
480	60	0-560	28	27.2	—	—	—	—
480	50/60	0-480	56	46.6	56	46.6	1256D-6Y	507
480	60	0-560	56	54.3	—	—	—	—

**STATIONARY
METERED KNOB
TYPES**

Single units (those listed in charts without -2 or -3 suffixes) in the 116B-216B, 117B-217B, 126-226, 136B-236B and 146-246 series are also available with metered knobs. Stationary voltmeter does not turn with knob. Voltmeter accurate within $\pm 2.5\%$ of full scale and insensitive to stray magnetic fields. When ordering, add VS prefix to type number. Back-of-panel mounted types in the 21-22 through 146-246 series can be combined with Metered Knob Assemblies. Existing models can be retrofitted also. Assembly type VS150 has a 0-150 volt scale and type VS300 has 0-300.

†Also available with open construction. Suffix U when ordering.
‡Requires also one paralleling choke type 15000.
§Requires also one paralleling choke type 16053.

IN SECTIONS 2100, 3500 AND 4000

POWERSTAT® Variable Transformers

NOW WITH POWERKOTE® COILS

40-VOLT SERIES

Meet high current, low voltage requirements of low voltage power supplies and a wide range of transistor circuit applications. Manually-operated and motor-driven single, 2- and 3-gang single phase types available.

*PATENT PENDING



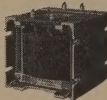
TYPE 108-40



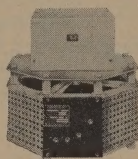
TYPE 21-40



TYPE LC2106D



TYPE 5MLC2115E



LINE CORRECTORS

Used to correct line voltage variations to maintain a constant output voltage or to supply a limited range of output voltage from a stable a-c source. Manually operated and motor-driven types available.

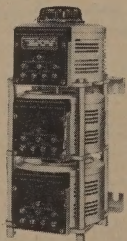
OIL-COOLED AND EXPLOSION-PROOF

Oil-cooled units substantially increase ratings above equivalent air-cooled types and provide a measure of safety. Explosion-proof models are Underwriters' Laboratories listed for Class 1, Group D service. Both are manually operated only.

OIL-COOLED
TYPE 0-116BEXPLOSION-PROOF
TYPE X-116

LW136B SERIES

Have three windings. Connections can be made for operation as a source of adjustable low output voltage, a line voltage corrector or a limited range variable transformer. Manually operated and motor-driven, open and enclosed construction types available. Full connections and ratings on request.



TYPE LW136B-3



TYPE LW136BU



THE
SUPERIOR ELECTRIC
COMPANY

40-VOLT SERIES

INPUT		OUTPUT				TYPE	Shp. Wt. Lbs.	
Volts	Cycles	Volts	Const. Current Load		Const. Impedance Load			
			Max. Amps.	Max. KVA	Max. Amps.			Max. KVA
Single Phase		0-40	7	0.28	9	0.36	108-40	3 1/2
40	60		18	0.72	22	0.88	21-40	6
			25	1.0	30	1.2	116B-40	11

LINE CORRECTOR SERIES

INPUT		OUTPUT			TYPE	Ship. Wt. Lbs.
Volts	Cycles	Volts	Max. Amps.	Max. KVA		
Used as Line Correctors — SINGLE PHASE						
95-135	50/60	115	17.5	2.0	LC2102D	55
95-135	50/60	115	52	6.0	LC2106D	80
95-135	50/60	115	130	15.0	LC2115E	200
195-255	50/60	230	32.5	7.5	LC2202D	85
205-250	50/60	230	120	27.5	LC2208E	205
400-520	50/60	460	15	6.9	LC2402D	80
400-520	50/60	460	40	18.4	LC2418E	205
Used as Line Correctors — THREE PHASE						
195-255	50/60	230	25	10.0	LC3210VD	211
195-255	50/60	230	38	15.0	LC3215VD	226
195-255	50/60	230	50	20.0	LC3220VD	241
195-255	50/60	230	113	45.0	LC3245VE	615
195-255	50/60	230	175	70.0	LC3270VE	795
400-520	50/60	460	16	12.7	LC3412VD	200
400-520	50/60	460	22	17.5	LC3417VD	215
400-520	50/60	460	33	26.3	LC3425VD	230
400-520	50/60	460	66	52.6	LC3450VE	580
400-520	50/60	460	100	79.7	LC3475VE	630
420-500	50/60	460	131	104	LC34100VE	630

When units of the LC series are used as limited range adjustable transformers, the input voltage is the output voltage shown in the above chart and the output voltage is the input voltage shown in the above chart.

OIL-COOLED

INPUT		OUTPUT				TYPE†	Ship. Wt. Lbs.
Volts	Cycles	Volts	Max. Amps.	Max. KVA	Const. Impedance Load		
120	50/60	0-120	15	1.8		0-116B	32
120	50/60	0-140	15	2.1			
120	50/60	0-140	30	4.2		0-1126	100
240	50/60	0-240	6	1.4		0-216B	32
240	50/60	0-240	6	1.7		0-1226	105
240	50/60	0-240	18	5.0			

†† Other Types available on special order.

EXPLOSION-PROOF

INPUT		OUTPUT†				TYPE†	Ship. Wt. Lbs.
Volts	Cycles	Volts	Max. Amps.	Max. KVA	Const. Impedance Load		
120	50/60	0-120	7.5	0.90		X-116	47
120	50/60	0-140	7.5	1.0			
120	50/60	0-140	12	1.7		X-1126	142
240	50/60	0-240	3	0.72		X-216	47
240	50/60	0-240	3	0.84		X-1226	142
240	50/60	0-240	6	1.7			

LW136B SERIES

INPUT		OUTPUT†			TYPE	Ship. Wt. Lbs.
Volts	Cycles	Volts	Max. Amps.	Max. KVA		
Single Phase						
120/240	50/60	15-0-15	35	0.52	LW136B	25
120/240/480	50/60	30-0-30	35	1.0	LW136B-2	52
120/240	50/60	45-0-45	35	1.6	LW136B-3	76
120/240	50/60	0-30	25	0.75	LW136B	25
120/240/480	50/60	0-60	25	1.5	LW136B-2	52
120/240	50/60	0-90	25	2.2	LW136B-3	76
Three Phase						
120/240	50/60	0-30	25	1.3	LW136B-2	52
120/240	50/60	0-30	43.3	2.2	LW136B-3	76
120/240	50/60	0-52	25	2.2	LW136B-3	76
240/480	60	0-25	43.3	2.6	LW136B-3	76
240/480	60	0-50	25	2.6	LW136B-3	76

†† LW136B Series ratings are for use as low voltage isolated output transformer.

HIGH FREQUENCY POWERSTAT® VARIABLE TRANSFORMERS



TYPE 5-1011



TYPE 1HMD07CKI



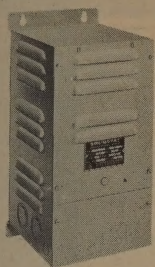
TYPE AM1HMS07U

Standard types designed to meet applicable military specifications are available: manually operated and motor-driven types for 28, 120, 240 and 480 volt, 400/800 cycle single and three phase operation in ratings from 56 VA to 8.7 KVA; manually operated types for 115 volt, 400/800 cycle single phase service with outputs of 0-28 volts, 2.5, 5 or 8 amperes and 0-5 volts, 6 or 12 amperes; manually operated types for 400/1600 cycle service as limited range variable transformers, low voltage output variable transformers or line correctors.

SEE OTHER SUPERIOR ELECTRIC PRODUCT PAGES

SOLIDSTAT® Variable Voltage Controls

- SOLID-STATE VOLTAGE CONTROL
- 6, 12 AND 24 KVA MODELS
- 120, 240 AND 480 VOLT TYPES



TYPE CSR106

Solid-state, semiconductor variable a-c voltage controls for all loads from unity power factor to zero power factor lagging inductive load. Operating on a closed-loop, error-detector principle, they can be controlled by a potentiometer, by a current feedback sensing circuit or by a voltage sensing circuit. Any load from zero up to the full rating can be controlled with an efficiency of 98% or higher. Have unique lock-out overload protection circuit. Provide instantaneous response and are insensitive to line or load voltage changes.

INPUT		OUTPUT			TYPE	APPROXIMATE NET WEIGHT (POUNDS)
VOLTS*	FREQUENCY (CYCLES)	VOLTS	MAX. AMPS AT MAX. VOLTS	MAX. KVA		
120	60	0-115	50	6.0	CSR106	16
240	60	0-230	50	12.0	CSR212	16
480	60	0-470	50	24.0	CSR424	18
120	60	0-115	100	12.0	CSR112	34
240	60	0-230	100	24.0	CSR224	34
480	60	0-470	100	48.0	CSR448	38

*208 and 277 volt types available on special order.

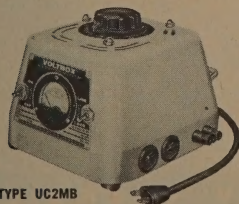
FLEXIFORMER® Packaged Transformer Primaries
 ● A SOURCE OF A-C VOLTAGE ● A CURRENT TRANSFORMER ● 150 VA AND 1000 VA TYPES

These "do-it-yourself" transformers are essentially self-contained toroidal primary coils encased in durable high impact plastic. Colored SUPERIOR 5-WAY Binding Posts for connections are integrally mounted. When used as a source of a-c voltage, the center opening permits hand-threading the correct number of secondary winding turns to obtain the desired output voltage. When used as a current transformer, the FLEXIFORMER winding is shunted by an ammeter which indicates the current flow in a conductor hand-threaded through the center opening. Can be used as portable units or permanently mounted. Request free copy of "Experiments Using FLEXIFORMER Packaged Transformer Primary."



TYPE TP150

TYPE	AS A SOURCE OF A-C VOLTAGE			AS A CURRENT TRANSFORMER		
	NOMINAL PRIMARY VOLTS	VOLTS PER SECONDARY TURN	MAXIMUM VA	INPUT/OUTPUT RATIO	MAXIMUM PRIMARY AMPERES	MAXIMUM SECONDARY AMPERES
TP150	120	0.3	150	400/1	400	1.0
TP1000	120	0.75	1000	160/1	800	5.0
TP152	240	0.3	150	800/1	400	0.5
TP1020	240	0.75	1000	320/1	800	2.5

VOLTBOX®
 A-C Power Supply


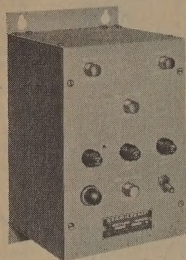
TYPE UC2MB

Compact versatile instrument containing all the necessary components for tests involving a-c voltage: POWERSTAT Variable Transformer, direct reading voltmeter, three output receptacles; two SUPERIOR 5-WAY Binding Posts, "on-off" switch, line-load meter switches, fuse and 6-foot cord-plug. Designed for 50/60 cycle service. Type UC1MB ratings are 120 volt input and 0-140 volt, 10 ampere, 1.4 KVA output; type UC2MB ratings are 240 volt input and 0-280 volt, 3.5 ampere, 0.98 KVA output. Other types available on special order.

IN SECTIONS 2100, 3500 AND 4000

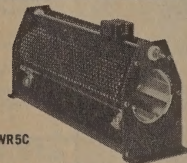
STABILTEMP®

Proportioning Temperature Coupler



TYPE PTC5

Maintains voltage needed to keep electric furnaces and ovens at correct temperature when incorporated into systems using commercially available current proportioning temperature controllers. Use with cataloged motor-driven 120 or 240 volt, 50/60 cycle single phase POWERSTAT Variable Transformers. Voltage is regulated at any point within the range of the POWERSTAT as determined by the controller current command signal regardless of variations in line voltage or load current. Type PTC5 rated for 5 milliamperes maximum command signal; user provides resistors for 20 or 50 milliamperes signals.

OHMSTAT™
 Slidewire Resistors


TYPE SWR5C

Feature unbreakable, high-temperature coated, split aluminum tube with stainless steel spring expansion compensator. Operates at peak rating with no slackening of wire turns. Excellent heat conducting properties of aluminum prevent "hot spots." Slider bar is chrome-plated brass; double sliding contact provides reliable connection with resistance wire. Negligible inductance through 400 cycles. Screened for user protection. Baseplate shields mounting surface.

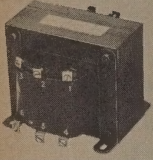
TYPE	RATED AMPERES	NOMINAL RESISTANCE OHMS	WATTS	MAXIMUM INPUT VOLTS
SWR05C	0.5	1000	250	500
SWR1C	1	500	500	500
SWR2C	2	125	500	250
SWR3C	3	55	500	165
SWR5C	5	20	500	100
SWR10C	10	5	500	50
SWR20C	20	1.25	500	25



HIGH CURRENT TRANSFORMERS & CHOKES

ELECTRICAL SPECIFICATIONS

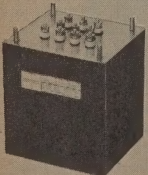
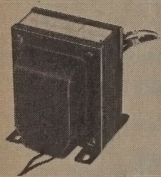
SHIP



SAME



DAY



50-500 cy ALL UNITS	PART NO.	PRIMARY VOLTS	SECONDARY AMPS FOR OPTIONAL WIRING	
			SERIES	PARALLEL
10 VOLTS Series 2.5-5-7.5-10 Parallel 2.5-5	10 02	115	2	4
	10 04	115	4	8
	10 06	115	6	12
	10 10	115	8	16
	10 12	115	10	20
	10 25	115	25	50
12.6 VOLTS Series 3.1-6.3-9.4-12.6 Parallel 3.1-6.3	12 02	115	2	4
	12 04	115	4	8
	12 06	115	6	12
	12 08	115	8	16
	12 12	115	12	24
	12 25	115	25	50
24 VOLTS Series 6-12-18-24 Parallel 6-12	24 01	115	1	2
	24 02	115	2	4
	24 04	115	4	8
	24 06	115	6	12
	24 08	115	8	16
	24 12	105, 115, 125	12	24
36 VOLTS Series 9-18-27-36 Parallel 9-18	36 10	105, 115, 125	20	40
	36 20	105, 115, 125	25	50
	36 25	105, 115, 125	50	100
	36 30	105, 115, 125	100	200
	36 50	115, 230		
	36 100	115, 230		
56 VOLTS Series 14-28-42-56 Parallel 14-28	56 01	115	1	2
	56 02	115	2	4
	56 04	115	4	8
	56 06	115	6	12
	56 08	105, 115, 125	8	16
	56 12	105, 115, 125	12	24
80 VOLTS Series 20-40-60-80 Parallel 20-40	80 01	115	1	2
	80 02	115	2	4
	80 04	115	4	8
	80 06	105, 115, 125	6	12
	80 08	105, 115, 125	8	16
	80 12	105, 115, 125	12	24
120 VOLTS Series 30-60-90-120 Parallel 30-60	120 01	115	1	2
	120 02	115	2	4
	120 04	115	4	8
	120 06	105, 115, 125	6	12
	120 08	105, 115, 125	8	16
	120 12	105, 115, 125	12	24
180 VOLTS Series 45-90-135-180 Parallel 45-90	180 01	115	1	2
	180 02	115	2	4
	180 04	115	4	8
	180 06	115	6	12
	180 08	105, 115, 125	8	16
	180 12	105, 115, 125	12	24
230 VOLTS Series 57.5-115-172.5-230 Parallel 57.5-115	230 01	115	1	2
	230 02	115	2	4
	230 04	105, 115, 125	4	8
	230 06	105, 115, 125	6	12
300 VOLTS Series 75-150-225-300 Parallel 75-150	300 01	115	1	2
	300 02	115	2	4
	300 04	105, 115, 125	4	8

Transformer Current = DC Current × Factor Below

	Choke Input Filter or Inductive Load	Resistive Load	Capacitor Input Filter or Capacitive Load
FULL WAVE BRIDGE	1.0	1.0	1.8
FULL WAVE C.T.	.7	.7	1.1

This series of high current transformers and chokes are most widely used for high power rectifier and high current A.C. applications. It is one of the industries most popular items. All types are designed for a nominal temperature rise of 45°C at full load and will easily withstand unusual overloads. The regulation is extremely low, varying from 5% on the smallest unit to 1% on the largest. All units have name plates and wiring diagrams for installation ease, future reference and permanent identification.

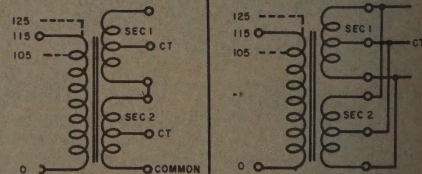
Five constructional types are available for maximum flexibility for use in either the laboratory or production.

HORIZONTAL BRACKET MOUNT (STYLE B) is an "open" unit, double vacuum varnish impregnated to insure long life and give maximum protection against humidity.

EPOXY UNITS (STYLE BE) are electrically and mechanically identical to style B and are vacuum encapsulated to withstand environmental conditions per MIL-T-27B, Grade 3, Class S. **SHELL ENCLOSED (STYLE V)** offers excellent mechanical protection to the coil. This is in addition to functional appearance and the ease of "wiring with leads." Double vacuum varnish impregnation further assures adequate moisture protection and long life.

CAN ENCLOSED (STYLE C) units are ruggedly constructed and embedded in a rigid potting compound to insure maximum heat transfer. Professional Todd built enhances any chassis.

HERMETICALLY SEALED (STYLE CM) units are manufactured to MIL-T-27B, Grade 4, Class S to withstand the most rigorous environmental conditions. **CONTACT TODD FOR CUSTOM VARIATIONS**



• ENGINEERING RELIABILITY • SERVICE

TODD ELECTRIC CO., INC.,

MECHANICAL SPECIFICATIONS

FOR HIGH CURRENT TRANSFORMERS & CHOKES

SPECIFY STYLE DESIRED WHEN ORDERING

45°
TEMPERATURE RISE
MINIMUM
REGULATION

All units have name plates
and wiring diagrams for
installation ease, future
reference and permanent
identification.

• BRACKET MTD (STYLE B) • ENCAPSULATED (STYLE BE)						STYLE B		STYLE BE		• FULLY MTD. SHELLS STYLE V						STYLE V		• ENCASED COMMERCIAL (STYLE C) • HERMETIC SEALED MIL-T (STYLE CM)						STYLE C		STYLE CM									
L	W	H	ML	MW	WT	Price	L	W	H	ML	MW	WT	Price	L	W	H	ML	MW	WT	Price	L	W	H	ML	MW	WT	Price	L	W	H	ML	MW	WT	Part No.	
3	2 1/2	2 1/2	2 1/2	1 1/2	1.5	\$ 5.40	2 1/2	2 1/2	2 1/2	3 1/2	2	1 1/2	2.0	\$ 4.28	3	3 1/2	3 1/2	2 1/2	2 1/2	2 1/2	3.1	\$11.80	\$16.30	10.02	3	3 1/2	3 1/2	2 1/2	2 1/2	2 1/2	3.1	\$11.80	\$16.30	10.02	10 02
3	2 1/2	2 1/2	2 1/2	1 1/2	2.3	5.70	2 1/2	2 1/2	2 1/2	3 1/2	2	1 1/2	2.8	4.38	3	3 1/2	3 1/2	2 1/2	2 1/2	2 1/2	3.8	12.33	17.14	10 04	3	3 1/2	3 1/2	2 1/2	2 1/2	2 1/2	3.8	12.33	17.14	10 04	10 04
3	3	2 1/2	2 1/2	2 1/2	3.0	6.08	2 1/2	2 1/2	2 1/2	3 1/2	2	1 1/2	3.5	5.07	3	3 1/2	3 1/2	2 1/2	2 1/2	2 1/2	4.5	13.88	19.23	10 06	3	3 1/2	3 1/2	2 1/2	2 1/2	2 1/2	4.5	13.88	19.23	10 06	10 06
3	3 1/2	2 1/2	2 1/2	2 1/2	4.0	6.39	2 1/2	2 1/2	2 1/2	3 1/2	2	1 1/2	4.5	5.40	3	3 1/2	3 1/2	2 1/2	2 1/2	2 1/2	5.2	14.81	20.55	10 08	3	3 1/2	3 1/2	2 1/2	2 1/2	2 1/2	5.2	14.81	20.55	10 08	10 08
3	3 1/2	3 1/2	2 1/2	2 1/2	5.0	7.70	2 1/2	2 1/2	2 1/2	3 1/2	2	1 1/2	5.5	6.61	3	3 1/2	3 1/2	2 1/2	2 1/2	2 1/2	6.0	16.63	23.10	10 10	3	3 1/2	3 1/2	2 1/2	2 1/2	2 1/2	6.0	16.63	23.10	10 10	10 10
4	5 1/2	5 1/2	3 1/2	3 1/2	11.2	16.15	2 1/2	2 1/2	2 1/2	3 1/2	2	1 1/2	11.5	9.04	4	5 1/2	5 1/2	3 1/2	3 1/2	3 1/2	14.7	19.45	27.00	10 12	4	5 1/2	5 1/2	3 1/2	3 1/2	3 1/2	14.7	19.45	27.00	10 12	10 12
3	2 1/2	2 1/2	2 1/2	2 1/2	2.6	5.45	2 1/2	2 1/2	2 1/2	3 1/2	2	1 1/2	2.6	4.32	3	3 1/2	3 1/2	2 1/2	2 1/2	2 1/2	3.1	11.90	16.42	12 6 02	3	3 1/2	3 1/2	2 1/2	2 1/2	2 1/2	3.1	11.90	16.42	12 6 02	12 6 02
3	2 1/2	2 1/2	2 1/2	2 1/2	3.0	5.80	2 1/2	2 1/2	2 1/2	3 1/2	2	1 1/2	3.0	4.72	3	3 1/2	3 1/2	2 1/2	2 1/2	2 1/2	4.0	12.90	17.87	12 6 04	3	3 1/2	3 1/2	2 1/2	2 1/2	2 1/2	4.0	12.90	17.87	12 6 04	12 6 04
3	2 1/2	2 1/2	2 1/2	2 1/2	4.2	6.35	2 1/2	2 1/2	2 1/2	3 1/2	2	1 1/2	4.2	5.18	3	3 1/2	3 1/2	2 1/2	2 1/2	2 1/2	5.5	13.82	20.00	12 6 06	3	3 1/2	3 1/2	2 1/2	2 1/2	2 1/2	5.5	13.82	20.00	12 6 06	12 6 06
3	2 1/2	2 1/2	2 1/2	2 1/2	4.5	7.70	2 1/2	2 1/2	2 1/2	3 1/2	2	1 1/2	4.5	6.61	3	3 1/2	3 1/2	2 1/2	2 1/2	2 1/2	4.8	14.81	20.55	12 6 08	3	3 1/2	3 1/2	2 1/2	2 1/2	2 1/2	4.8	14.81	20.55	12 6 08	12 6 08
3	2 1/2	2 1/2	2 1/2	2 1/2	6.0	9.25	2 1/2	2 1/2	2 1/2	3 1/2	2	1 1/2	6.0	8.71	3	3 1/2	3 1/2	2 1/2	2 1/2	2 1/2	6.5	20.70	28.70	12 6 10	3	3 1/2	3 1/2	2 1/2	2 1/2	2 1/2	6.5	20.70	28.70	12 6 10	12 6 10
4	5 1/2	4 1/2	4 1/2	4 1/2	12.0	14.50	2 1/2	2 1/2	2 1/2	3 1/2	2	1 1/2	12.0	13.84	4	5 1/2	4 1/2	4 1/2	4 1/2	4 1/2	17.6	27.28	38.10	12 6 12	4	5 1/2	4 1/2	4 1/2	4 1/2	4 1/2	17.6	27.28	38.10	12 6 12	12 6 12
3	2 1/2	2 1/2	2 1/2	2 1/2	2.6	5.45	2 1/2	2 1/2	2 1/2	3 1/2	2	1 1/2	2.6	4.32	3	3 1/2	3 1/2	2 1/2	2 1/2	2 1/2	3.1	13.49	16.42	24 01	3	3 1/2	3 1/2	2 1/2	2 1/2	2 1/2	3.1	13.49	16.42	24 01	24 01
3	2 1/2	2 1/2	2 1/2	2 1/2	2.8	5.77	2 1/2	2 1/2	2 1/2	3 1/2	2	1 1/2	2.8	4.68	3	3 1/2	3 1/2	2 1/2	2 1/2	2 1/2	3.5	14.38	17.80	24 02	3	3 1/2	3 1/2	2 1/2	2 1/2	2 1/2	3.5	14.38	17.80	24 02	24 02
3	2 1/2	2 1/2	2 1/2	2 1/2	5.0	7.70	2 1/2	2 1/2	2 1/2	3 1/2	2	1 1/2	5.0	6.61	3	3 1/2	3 1/2	2 1/2	2 1/2	2 1/2	5.5	16.63	23.10	24 04	3	3 1/2	3 1/2	2 1/2	2 1/2	2 1/2	5.5	16.63	23.10	24 04	24 04
4	5 1/2	4 1/2	4 1/2	4 1/2	6.5	9.25	2 1/2	2 1/2	2 1/2	3 1/2	2	1 1/2	6.5	8.71	3	3 1/2	3 1/2	2 1/2	2 1/2	2 1/2	6.6	20.70	28.70	24 06	3	3 1/2	3 1/2	2 1/2	2 1/2	2 1/2	6.6	20.70	28.70	24 06	24 06
4	5 1/2	4 1/2	4 1/2	4 1/2	8.7	12.90	2 1/2	2 1/2	2 1/2	3 1/2	2	1 1/2	8.7	8.80	3	3 1/2	3 1/2	2 1/2	2 1/2	2 1/2	8.8	20.90	29.00	24 08	3	3 1/2	3 1/2	2 1/2	2 1/2	2 1/2	8.8	20.90	29.00	24 08	24 08
4	5 1/2	4 1/2	4 1/2	4 1/2	11.0	13.49	2 1/2	2 1/2	2 1/2	3 1/2	2	1 1/2	11.0	10.32	4	5 1/2	4 1/2	4 1/2	4 1/2	4 1/2	11.0	24.45	33.65	24 10	4	5 1/2	4 1/2	4 1/2	4 1/2	4 1/2	11.0	24.45	33.65	24 10	24 10
4	5 1/2	4 1/2	4 1/2	4 1/2	15.4	21.78	2 1/2	2 1/2	2 1/2	3 1/2	2	1 1/2	15.4	20.85	4	5 1/2	4 1/2	4 1/2	4 1/2	4 1/2	17.6	41.40	59.45	24 12	4	5 1/2	4 1/2	4 1/2	4 1/2	4 1/2	17.6	41.40	59.45	24 12	24 12
4	5 1/2	4 1/2	4 1/2	4 1/2	22.0	28.00	2 1/2	2 1/2	2 1/2	3 1/2	2	1 1/2	22.0	23.80	4	5 1/2	4 1/2	4 1/2	4 1/2	4 1/2	24.0	46.70	64.45	24 25	4	5 1/2	4 1/2	4 1/2	4 1/2	4 1/2	24.0	46.70	64.45	24 25	24 25
4	5 1/2	4 1/2	4 1/2	4 1/2	30.0	40.05	2 1/2	2 1/2	2 1/2	3 1/2	2	1 1/2	30.0	31.50	4	5 1/2	4 1/2	4 1/2	4 1/2	4 1/2	37.0	81.35	115.30	24 50	4	5 1/2	4 1/2	4 1/2	4 1/2	4 1/2	37.0	81.35	115.30	24 50	24 50
7	7 1/2	7	6 1/2	6 1/2	41.50	61.00	2 1/2	2 1/2	2 1/2	3 1/2	2	1 1/2	41.50	42.00	7	7 1/2	7	6 1/2	6 1/2	6 1/2	60.0	122.85	170.80	24 100	7	7 1/2	7	6 1/2	6 1/2	6 1/2	60.0	122.85	170.80	24 100	24 100
3	2 1/2	2 1/2	2 1/2	2 1/2	2.5	5.63	2 1/2	2 1/2	2 1/2	3 1/2	2	1 1/2	2.5	4.61	3	3 1/2	3 1/2	2 1/2	2 1/2	2 1/2	3.4	12.58	17.50	36 01	3	3 1/2	3 1/2	2 1/2	2 1/2	2 1/2	3.4	12.58	17.50	36 01	36 01
3	3	2 1/2	2 1/2	2 1/2	3.6	6.28	2 1/2	2 1/2	2 1/2	3 1/2	2	1 1/2	3.6	5.11	3	3 1/2	3 1/2	2 1/2	2 1/2	2 1/2	4.8	13.75	19.42	36 02	3	3 1/2	3 1/2	2 1/2	2 1/2	2 1/2	4.8	13.75	19.42	36 02	36 02
4	4 1/2	4	3 1/2	3 1/2	6.9	9.51	2 1/2	2 1/2	2 1/2	3 1/2	2	1 1/2	6.9	8.80	3	3 1/2	3 1/2	2 1/2	2 1/2	2 1/2	7.8	20.90	28.05	36 04	3	3 1/2	3 1/2	2 1/2	2 1/2	2 1/2	7.8	20.90	28.05	36 04	36 04
4	4 1/2	4 1/2	3 1/2	3 1/2	9.0	13.18	2 1/2	2 1/2	2 1/2	3 1/2	2	1 1/2	9.0	10.72	3	3 1/2	3 1/2	2 1/2	2 1/2	2 1/2	10.7	24.35	35.40	36 06	3	3 1/2	3 1/2	2 1/2	2 1/2	2 1/2	10.7	24.35	35.40	36 06	36 06
4	4 1/2	4 1/2	3 1/2	3 1/2	12.0	13.00	2 1/2	2 1/2	2 1/2	3 1/2	2	1 1/2	12.0	12.46	4	5 1/2	4 1/2	4 1/2	4 1/2	4 1/2	13.1	26.45	36.80	36 08	4	5 1/2	4 1/2	4 1/2	4 1/2	4 1/2	13.1	26.45	36.80	36 08	36 08
5	5 1/2	4 1/2	4 1/2	4 1/2	17.2	20.00	2 1/2	2 1/2	2 1/2	3 1/2	2	1 1/2	17.2	19.95	5	5 1/2	4 1/2	4 1/2	4 1/2	4 1/2	16.9	37.53	51.90	36 12	5	5 1/2	4 1/2	4 1/2	4 1/2	4 1/2	16.9	37.53	51.90	36 12	36 12
5	5 1/2	5 1/2	5 1/2	5 1/2	25.5	32.18	2 1/2	2 1/2	2 1/2	3 1/2	2	1 1/2	25.5	26.00	5	5 1/2	4 1/2	4 1/2	4 1/2	4 1/2	27.0	66.50	92.25	36 20	5	5 1/2	4 1/2	4 1/2	4 1/2	4 1/2	27.0	66.50	92.25	36 20	36 20
5	5 1/2	5 1/2	5 1/2	5 1/2	34.0	44.00	2 1/2	2 1/2	2 1/2	3 1/2	2	1 1/2	34.0	35.00	5	5 1/2	4 1/2	4 1/2	4 1/2	4 1/2	39.5	72.00	100.50	36 25	5	5 1/2	4 1/2	4 1/2	4 1/2	4 1/2	39.5	72.00	100.50	36 25	36 25
5	5 1/2	5 1/2	5 1/2	5 1/2	51.0	68.40	2 1/2	2 1/2	2 1/2	3 1/2	2	1 1/2	51.0	51.00	5	5 1/2	4 1/2	4 1/2	4 1/2	4 1/2	58.0	166.20	231.00	36 30	5	5 1/2	4 1/2	4 1/2	4 1/2	4 1/2	58.0	166.20	231.00	36 30	36 30
7	7 1/2	7 1/2	7 1/2	7 1/2	70.0	92.40	2 1/2	2 1/2	2 1/2	3 1/2	2	1 1/2	70.0	70.00	7	7 1/2	7 1/2	7 1/2	7 1/2	7 1/2	84.0	194.00	266.00	36 100	7	7 1/2	7 1/2	7 1/2	7 1/2	7 1/2	84.0	194.00	266.00	36 100	36 100
3	2 1/2	2 1/2	2 1/2	2 1/2	3.3	6.03	2 1/2	2 1/2	2 1/2	3 1/2	2	1 1/2	3.3	4.96	3	3 1/2	3 1/2	2 1/2	2 1/2	2 1/2															



HIGH CURRENT CHOKES

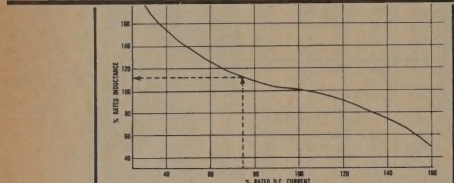
FILAMENT TRANSFORMERS

HIGH CURRENT CHOKES

50/400 CYCLES

(DIMENSIONS REFER TO HIGH CURRENT XFMR STYLES)

SPECIFICATIONS				• BRACKET MTD (STYLE B)				Style	Style	• FULLY MTD. SHELLS				Style	• ENCASED COMMERCIAL (STYLE C)				Style	Style						
				• ENCAPSULATED (STYLE BE)				B	BE	STYLE V				V	• HERMETIC SEALED MIL-T (STYLE CM)				C	CM						
Part No.	Inductance	Cur. (D.C.)	Resistance	L	W	H	ML	MW	WT	Price	Price	L	W	H	ML	MW	WT	Price	L	W	H	ML	MW	WT	Price	Price
CH-01	100	2	1.5	3	2 1/2	2 3/4	2 1/2	2	2.6	5.16	6.66	2 1/2	2 1/2	3 1/2	2	1 1/2	2.6	5.60	3	3 1/2	4 1/2	2 1/2	2 1/2	3.0	11.20	15.10
CH-02	80	2	.9	3	2 1/2	2 3/4	2 1/2	2	2.6	6.56	8.05	2 1/2	2 1/2	3 1/2	2	1 1/2	3.2	6.76	3	3 1/2	4 1/2	2 1/2	2 1/2	3.8	13.53	18.04
CH-04	70	4	.6	3 3/4	4 1/4	3 1/2	3 1/2	2 3/4	6.0	10.33	12.77	3 3/4	3 1/2	3 3/4	2 1/2	2 1/2	6.0	10.73	3 1/2	4 1/4	5 1/2	2 1/2	3 1/2	7.0	21.46	28.64
CH-06	40	6	.4	3 3/4	4 1/4	3 1/2	3 1/2	2 3/4	6.0	10.33	12.77	3 3/4	3 1/2	3 3/4	2 1/2	2 1/2	6.0	10.73	3 1/2	4 1/4	5 1/2	2 1/2	3 1/2	7.0	21.46	28.64
CH-08	30	12	.3	4 1/4	4	3 1/2	3 1/2	3	8.7	12.61	16.23	3 3/4	4 1/4	4 1/2	2 3/4	3 1/2	8.7	13.65	3 1/2	4 1/4	5 1/2	3	3 1/2	10.0	27.30	37.70
CH-12	20	20	.1	5 1/4	4 1/4	4 1/2	4 1/2	3 1/2	13.0	16.08	20.42	4 1/2	5 1/4	5 1/2	3 1/2	3 1/2	13.0	17.15	4 1/2	5 1/4	7	3 1/2	4 1/2	16.0	34.30	47.36
CH-20	10	20	.05	5 1/4	4 1/4	4 1/2	4 1/2	3 1/2	13.0	16.84	20.70	4 1/2	5 1/4	5 1/2	3 1/2	3 1/2	13.0	17.38	4 1/2	5 1/4	7	3 1/2	4 1/2	16.0	34.76	48.01
CH-25	7	25	.025	5 1/4	5	4 1/2	4 1/2	3 1/2	13.0	23.77	30.55	4 1/2	6 1/4	5 1/2	3 1/2	3 1/2	18.0	25.66	4 1/2	5 1/4	7	3 1/2	4 1/2	21.0	51.33	70.88
CH-50	5	50	.01	6 3/8	5	4 1/2	4 1/2	3 1/2	21.5	29.88	37.50								5 1/2	6 7/8	8 1/2	4 1/4	5 1/2	25.0	63.00	87.00
CH-100	2	100	.005	6 3/8	6 1/2	5 1/2	5 1/2	4	32.0	37.05	47.22								5 1/2	6 7/8	8 1/2	4 1/4	5 1/2	30.0	70.00	96.00
CH-200	.4	200	.002	7 1/2	7	6 1/4	6 1/4	4 1/2	45.0	55.11	70.22								5 1/2	6 7/8	8 1/2	4 1/4	5 1/2	37.0	79.33	109.59



TODD ELECTRIC HIGH CURRENT CHOKES are the perfect companion to our High Current Transformers when utilizing inductive filtering in designing a power supply.

INDUCTANCE VARIATION

The inductance realized from any stock High Current Choke will vary from the nominal rated values as shown by the graph when subjected to a non-rated current. Steady state current of over 115% is not recommended due to its greater heating loss but may be used for intermittent operation.

FILAMENT TRANSFORMERS

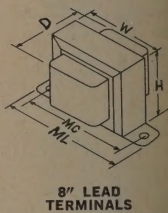
50/60 CYCLES

SINGLE SECONDARY — CENTER TAPPED

CHANNEL MOUNTED

PRIMARY 117 VOLTS

Part No.	Volts (CT)	Secondary Amps	Rms Hipot Test Volts	H	W	Dimensions D	MC	ML	Weight	Net Price
F2 15	2.5	1.5	2500	1 1/2	2	1 1/2	2 3/8	2 7/8	.75	2.30
F2 30	2.5	3	1500	1 1/2	2	1 1/2	2 3/8	2 7/8	.7	2.64
F5 30	5	3	2500	2	2 3/8	2 1/2	2 1/2	3 1/4	1.4	3.21
F5 60	5	6	1500	2 1/2	2 3/8	2 1/2	2 1/2	3 1/4	1.7	4.38
F5 80	8	8	2500	2 1/2	2 3/8	2 1/2	2 1/2	3 1/4	2.5	5.18
F6 12	6.3	6	2500	1 1/2	1 3/4	1 1/2	2	2 3/8	.4	2.36
F6 13	6.3	1.2	5000	2	2 3/8	1 7/8	2 1/2	3 1/4	.8	2.71
F6 13	6.3	3	2500	2	2 3/8	2 1/2	2 1/2	3 1/4	1.4	3.58
F6 60	6.3	6	2000	2 1/2	2 3/8	2 1/2	2 1/2	3 1/4	1.4	3.56
F12 250	12.6	2	1500	2	2 3/8	2 1/2	2 1/2	3 1/4	2	5.07
F12 30	12.6	3	1500	2 1/2	2 3/8	2 1/2	2 1/2	3 1/4	1.6	4.02
F25 10	25.2	1	1500	2	2 3/8	2 1/2	2 1/2	3 1/4	1.4	4.12
F25 20	25.2	2	1500	2 1/2	2 3/8	2 1/2	2 1/2	3 1/4	2.2	6.09

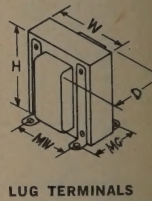


BRACKET MOUNTED

PRIMARY 117 VOLTS

ELECTROSTATIC SHIELD GROUNDED TO FRAME

Part No.	Volts (CT)	Secondary Amps	Rms Hipot Test Volts	H	W	Dimensions D	MC	MW	Weight	Net Price
F2 100	2.5	10	10000	3 1/4	2 1/2	2 1/2	1 1/2	2 1/2	2.5	7.92
F5 050	5	5	2500	3 1/4	2 1/2	2 1/2	1 1/2	2	2.2	5.32
F5 100	5	10	2500	3 1/4	2 1/2	2 1/2	2 1/2	2	3.0	7.15
F5 150	5	15	2000	3 1/4	2 1/2	2 1/2	2 1/2	2	3.5	8.91
F5 250	5	25	2500	3 1/4	2 1/2	2 1/2	2 1/2	2 1/2	4.8	12.80
F6 040	6.3	4	2500	3 1/4	2 1/2	2 1/2	2	2	2.4	5.41
F6 060	6.3	6	2000	3 1/4	2 1/2	2 1/2	2	2	2.4	6.26
F6 100	6.3	10	2500	3 1/4	2 1/2	2 1/2	2 1/2	2 1/2	3.5	8.15
F6 200	6.3	20	2500	4 1/2	3 1/4	2 1/2	2 1/2	3	6.8	12.97
F7 040	7.5	4	2000	3 1/4	2 1/2	2 1/2	2	2	2.8	5.71
F7 080	7.5	8	2500	3 1/4	3 1/4	2 1/2	2 1/2	2 1/2	4.8	7.86
F10 040	10	4	2500	3 1/4	2 1/2	2 1/2	2	2 1/2	3.4	6.42
F10 080	10	8	2500	3 1/4	3 1/4	3	2 1/2	2 1/2	5.0	9.35

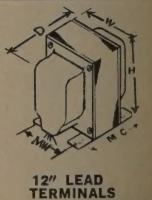


VERTICAL SHELL MOUNTED

PRIMARY 117/105 VOLTS (Tapped)

ELECTROSTATIC SHIELD GROUNDED TO FRAME

Part No.	Volts (CT)	Secondary Amps	Rms Hipot Test Volts	H	W	Dimensions D	MC	MW	Weight	Net Price
F2 061	2.5	6	2500	3 1/4	2 1/2	2 1/2	1 1/2	2	2.2	6.58
F2 101	2.5	10	2500	3 1/4	2 1/2	2 1/2	1 1/2	2	2.5	5.74
F5 031	5	3	2500	3 1/4	2 1/2	2 1/2	1 1/2	2	2.4	6.10
F5 061	5	6	2000	3 1/4	2 1/2	3	2	2	3.1	6.74
F5 301	5	30	2500	4 1/4	3 1/4	3 1/4	2 1/2	2 1/2	6.3	17.10
F6 041	6.3	4	2000	3 1/4	2 1/2	2 1/2	1 1/2	2	2.7	6.08
F6 061	6.3	6	2500	3 1/4	2 1/2	2 1/2	2	2 1/2	3.5	7.80
F6 101	6.3	10	2000	3 1/2	2 1/2	3 1/4	2 1/2	2 1/2	3.8	7.97
F7 051	7.5	5	2500	3 1/2	2 1/2	3 1/4	2	2 1/2	3.4	8.41
F7 051	10	5	2500	3 1/2	3 1/4	3 1/4	1 1/2	2 1/2	4.0	9.15
F10 081	10	8	2000	3 1/2	3 1/4	3 1/4	2 1/2	2 1/2	5.2	8.71
F10 101	10	10	2000	3 1/2	3 1/4	3 1/4	2 1/2	2 1/2	5.8	10.21



• ENGINEERING • RELIABILITY • SERVICE

TODD ELECTRIC CO., INC.





STEPDOWN AUTO TRANSFORMERS | LINE ISOLATION

STEPDOWN AUTO TRANSFORMERS

50/60 CYCLES—UL COMPONENTS

(MOST UNITS CAN BE REVERSED FOR STEPUP USE)

HEAVY DUTY MODEL

220/240 Input
110/120 Output

Catalog Number	Rating Watts	Weight Lbs.	Dimension Inches H W D	List Price
SD-15	75	2 1/4	3 3/4 2 3/4 3 3/4	\$ 8.35
SD-16	100	2 3/4	3 3/4 2 3/4 3 3/4	8.60
SD-17	150	3 3/4	3 3/4 2 3/4 3 3/4	10.15
SD-12	250	6	4 5/8 3 3/4 3 3/4	14.00
SD-18	350	6 1/2	4 5/8 3 3/4 3 3/4	15.10
SD-11	500	10 1/4	4 5/8 3 3/4 4 7/8	18.10
SD-19	750	12	4 5/8 3 3/4 5 1/8	23.10
SD-13	1000	15 1/4	4 5/8 3 3/4 6 1/8	30.20
SD-14	1500	20	4 5/8 3 3/4 7 1/8	39.40
SD-20	2000	24	6 4 1/2 6 1/8	74.20

UL LINE CORD
& RECEPTACLE

REGULATORS



TYPE	PRIMARY INPUT TAPS ON SELECTOR SWITCH												OUTPUT VOLTS
11	84	92	100	108	115	122	130	138					115
12	84	92	100	108	115	122	130	138					208/230
22	170	185	200	215	230	245	260	275					115
21	170	185	200	215	230	245	260	275					208/230

HEAVY DUTY VOLTAGE REGULATOR

WITH METER & SWITCH
(See Chart Above For Volts)

Catalog Number	Type	Rating Wt.	Dimension (") W. Lbs. H W D	List Price
TC-17	11 or 22	150	6 5 3/4 3 3/4 5	\$26.70
TC-18	11 or 22	350	7 5 3/4 3 3/4 5 3/8	37.75
TC-11	11 or 22	500	11 5 3/4 3 3/4 5 3/8	43.45
TC-19	11 or 22	750	15 5 3/4 3 3/4 6 3/8	54.40
TC-13	11 or 22	1000	20 5 3/4 3 3/4 7 1/8	66.00
TC-14	11 or 22	1500	25 5 3/4 3 3/4 8 1/8	86.40
TC-20	11 or 22	2000	30 6 3/4 4 3/4 8 3/4	164.30
TC-17	12 or 21	150	6 5 3/4 3 3/4 5 1/4	31.25
TC-18	12 or 21	350	7 5 3/4 3 3/4 5 3/8	48.60
TC-11	12 or 21	500	11 5 3/4 3 3/4 6	50.15
TC-19	12 or 21	750	15 5 3/4 3 3/4 6 3/8	64.45
TC-13	12 or 21	1000	20 6 3/4 4 3/4 7 3/8	79.50
TC-14	12 or 21	1500	25 6 3/4 4 3/4 8 3/4	97.80
TC-20	12 or 21	2000	30 6 3/4 4 3/4 9 3/4	188.70

UL LINE CORD
& RECEPTACLE

PANEL MOUNTED VOLTAGE REGULATOR

WITH METER & SWITCH
(See Chart Above For Volts)

Catalog Number	Type	Rating Wt.	Dimension (") W. Lbs. H W D	List Price
TA-20	11 or 22	2000	40 6 7/8 7 1/4 17 3/8	\$192.90
TA-28	11 or 22	3000	50 6 7/8 7 1/4 17 3/8	220.50
TA-29	11 or 22	4000	60 6 7/8 7 1/4 17 3/8	268.20
TA-22	11 or 22	5000	70 6 7/8 7 1/4 17 3/8	310.80
TA-30	11 or 22	6000	85 6 7/8 7 1/4 17 3/8	368.90
TA-20	12 or 21	2000	40 6 7/8 7 1/4 17 3/8	209.90
TA-28	12 or 21	3000	50 6 7/8 7 1/4 17 3/8	235.30
TA-29	12 or 21	4000	60 6 7/8 7 1/4 17 3/8	286.20
TA-22	12 or 21	5000	70 6 7/8 7 1/4 17 3/8	331.80
TA-30	12 or 21	6000	85 6 7/8 7 1/4 17 3/8	392.20

Packed One Per Carton

LEAD TERMINALS
INSIDE REMOVABLE
COVER

NORMAL DUTY MODEL

220/240 Input
110/120 Output

Catalog Number	Rating Watts	Weight Lbs.	Dimension Inches H W D	List Price
SD-24	50	1 1/2	2 3/4 3 3/4 2 1/4	\$ 5.20
SD-21	65	1 3/4	2 3/4 3 3/4 2 1/4	5.45
SD-25	80	1 3/4	2 3/4 3 3/4 2 1/4	5.70
SD-23	100	1 3/4	2 3/4 3 3/4 2 3/8	5.95
SD-26	125	2	2 3/4 4 2 5/8	6.75
SD-27	150	2 1/4	2 3/4 4 2 5/8	7.30

UL LINE CORD
& RECEPTACLE

INDUSTRIAL MODEL

208/220/240 Input
110/120 Output

Catalog Number	Rating Watts	Weight Lbs.	Dimension Inches H W D	List Price
SD-28	3000	38	6 1/2 7 1/4 6 1/4	\$181.25
SD-29	4000	47	6 1/2 7 1/4 6 1/4	212.00
SD-22	5000	58	6 1/2 7 1/4 6 1/4	247.00
SD-30	6000	70	6 1/2 7 1/4 6 1/4	300.00

SCREW TYPE
TERMINALS

*Available Panel MTD. Add Suffix "P"

LINE ISOLATION

50/60 CYCLES—OUTPUT 115 VOLTS

UL COMPONENTS

STRAIGHT ISOLATION

ELECTROSTATIC SHIELD
CONNECTED TO CORE

Part No.	Watts	Input Volts	Rms Hipot Test Volts	H	W	Dimensions D	MC	MW	Weight	Price: Line Cord & Receptacle	Price Leads Only
LI-50	50	115	2000	3 1/2	2 7/8	3 1/8	1 7/8	2 1/4	3.7	8.40	8.02
LI-100	100	115	2000	4 3/4	3 3/4	3	2	3	6.2	11.20	10.61
LI-175	175	115	2000	4 3/4	3 3/4	4 1/4	3 3/8	3	8.8	16.10	15.29
LI-250	250	115	2000	4 3/4	3 3/4	5 1/4	4 3/8	3	12.0	19.80	18.91
LI-500	500	115	2000	5 1/2	4 1/2	6 1/8	5 1/8	3 1/2	20.0	32.50	30.80
LI-750	750	115	2000	5 1/2	4 1/2	7	6	3 1/2	25.2	38.25	36.40
LI-1000	1000	115	2000	5 1/2	4 1/2	7 7/8	6 7/8	3 1/2	30.0	44.50	42.15
LI-1500	1500	115	2000	7 3/8	6 1/4	7 1/4	6 1/8	4 3/4	36.2	54.40	51.80
LI-1001	100	230	2500	4 3/4	3 3/4	3	2	3	6.5	11.45	10.89
LI-2501	250	230	2500	4 3/4	3 3/4	5 1/4	4 1/8	3	12.5	20.80	19.80
LI-5001	500	230	2500	5 1/2	4 1/2	6 1/8	5 1/8	3 1/2	21.0	33.10	34.55
LI-10001	1000	230	2500	5 1/2	4 1/2	8	7	3 1/2	31.0	45.15	42.97

ALSO AVAILABLE
LEADS ONLY

ADJUSTABLE ISOLATION

ELECTROSTATIC SHIELD
CONNECTED TO CORE

INPUT TAP SWITCH MOUNTED IN SHELL

Part No.	Watts	Input Volts	Rms Hipot Test Volts	H	W	Dimensions D	MC	MW	Weight	Price: Line Cord & Receptacle	Price Leads Only
LI-1002	100	105/115/125	2000	4 3/4	3 3/4	3 3/4	2 5/8	3	7.8	16.47	15.63
LI-25002	250	105/115/125	2000	4 3/4	3 3/4	5 1/2	4 3/4	3	14.3	26.60	25.31
LI-5002	500	105/115/125	2000	5 1/2	4 1/2	6 5/8	5 3/8	3 1/2	22	37.45	35.40
LI-10002	1000	105/115/125	2000	5 1/2	4 1/2	8 1/2	7 3/8	3 1/2	33.5	50.80	48.10
LI-1003	100	210/230/250	2500	4 3/4	3 3/4	3 3/4	2 5/8	3	7.5	16.15	15.38
LI-2503	250	210/230/250	2500	4 3/4	3 3/4	5 1/2	4 3/8	3	14	26.05	24.91
LI-5003	500	210/230/250	2500	5 1/2	4 1/2	6 1/2	5 1/2	3 1/2	21	36.60	34.85
LI-10003	1000	210/230/250	2500	5 1/2	4 1/2	8 1/2	7 1/4	3 1/2	32	49.80	47.18

ALSO AVAILABLE
LEADS ONLY

• ENGINEERING • RELIABILITY • SERVICE

TODD ELECTRIC CO., INC.





TRIAD DISTRIBUTOR DIVISION

A DIVISION OF LITTON INDUSTRIES



MINIATURES

†† JAF SERIES — Hermetically Sealed

Type No.	Primary Impedance	Secondary Impedance	Max. Level-DBM	Freq. Resp.	MTG.
JAF-1‡	600/250/50	50000	0	60-15000	AF
JAF-2‡	600/250/50	250000	0	100-15000	AF
JAF-3	600/250/50	60000 CT.	0	60-15000	AF
JAF-5‡	30/12/4	50000	0	50-15000	AF
JAF-11	15000	50000	10	60-15000	AF
JAF-12	15000	60000 CT.	10	250-15000	AF
JAF-13	15000 (3 Ma.)	95000 CT.	10	250-15000	AF
JAF-14‡	200	½ megohm	10	350-5000	AF
JAF-15	15000	1 megohm	10	300-3000	AF
JAF-21	15000	600/250/50	10	60-15000	AF
JAF-22	15000 (3 Ma.)	600/250/50	10	350-7000	AF
JAF-23	20000 CT.	600/250/50	10	60-15000	AF
JAF-24	10000 CT.	2000 CT.	10	50-20000	AF
JAF-25	12000 CT. (2 Ma.)	600 CT./150	12	50-15000	AF
JAF-26	50000 CT. (.5 Ma.)	600 CT./150	10	100-15000	AF
JAF-31‡	600/250/50	600/250/50	10	60-15000	AF
JAF-32	1500 CT. (2 Ma.)	600 CT./150	14	20-20000	AF
JAF-33‡	5000 CT.	5000 CT.	10	60-15000	AF
JAF-34	500 CT.	500 CT./125	14	50-20000	AF
JAF-35	600 CT.	2000 CT./500	14	50-20000	AF
JAF-101	50 h.-.75 Ma.				AF
JAF-102	6 HY.—3 MA. or 4 HY.—6 Ma.				

SUB-MINIATURE AUDIO — Hermetically Sealed

Type No.	Primary Impedance	Secondary Impedance	DC Res. Ohms (Approx.) Pri.	Sec.	Case
JZ-1	600/250/50	60000	350	4100	JZ
JZ-5	30/12/4	50000	11.5	3800	JZ
JZ-13	15000 (1 Ma.)	135000 CT.	1150	4400	JZ
JZ-15	20000 (.5 Ma.)	1200/600/100	2700	350	JZ
JZ-25	10000 (1 Ma.)	200	1500	120	JZ
JZ-26	1000 (5 Ma.)	50	355	30	JZ

SUB-MINIATURE AUDIO — Open Frame

Type No.	Primary Impedance	Secondary Impedance	DC Res. Ohms (Approx.) Pri.	Sec.	Case
TZ-1	600/250/50	60000	350	4100	
TZ-2XT	200 CT.	200000	35	5000	
TZ-5	30/12/4	50000	6	3500	
TZ-7	30/12/4	1000	5	480	
TZ-13	15000 (1 Ma.)	135000 CT.	985	4400	
TZ-15	20000 (.5 Ma.)	1200/600/100	2700	350	
TZ-24XT	25000 CT.	500 CT.	2000	60	
TZ-29XT	10000 CT.	104000 CT.	1100	1400	
TZ-25	10000 (1 Ma.)	200	1500	120	
TZ-32XT	1500 CT.	600 CT./150	160	65	
TZ-26	1000 (5 Ma.)	50	355	20	
TZ-103XT	4 Hy. or 1 Hy.	—	400	—	
T-41X	1000 (10 Ma.)	200 CT.	430	130	
T-42X	9800 (2 Ma.)	16	855	1.7	
TY-44X	1000 (10 Ma.)	16/8/4	180	3.8	
TY-47X	2000 CT. (10 Ma.)	16/8/4	260	4	

TRANSFORMERS FOR TRANSISTOR POWER SUPPLIES

Type No.	D.C. Volts Out of Rect.	D.C. Max.	H	W	Dimensions—Inches D	MW
TY-68S	250	65	1 3/4	1 3/4	1 1/2	1 1/2
TY-69S	300	100	1 7/8	2 3/8	1 7/8	1 1/2
TY-70S	325	150	2	2 3/8	2 1/4	1 1/2
TY-71S	375	200	2	2 3/8	2 1/4	1 1/2
TY-74S	600	200	2	4 1/8	3	3 3/4

EPOXY MOLDED TOROIDAL TYPE

Type No.	D.C. Source Volts	D.C. Volts Out of Rectifier	D.C. Max.	Dimensions—Inches Dia.	Ht.	Wt. Lbs.
TY-78	12.6	250/125	100	1 3/4	1 1/4	.35
TY-79	12.6	300/150	200	1 3/4	1	.35
TY-80	12.6	325/162.5	150	1 3/4	1	.35
TY-81	12.6	375/187.5	200	2	1	.50
TY-82	12.6	450/225	150	2	1	.50
TY-83	12.6	500/250	250	2 3/4	1 3/4	.85

‡Static Shield

•New item

TY-84	12.6	600/300	200	2 3/4	1 3/4	1.00
TY-85	12.6	600/300	350	2 7/8	2 1/2	2.00
•TY-86	12.6	425/212.5	350	2 3/4	1 3/4	1.00
•TY-87‡	12.6	600/300	200	2 3/4	1 3/4	1.00
TY-88	28	250/125	80	1 3/4	1 1/4	.25
TY-89	28	300/150	100	1 3/4	1 1/4	.35
TY-90	28	325/162.5	200	1 3/4	1	.35
TY-91	28	375/187.5	200	2	1	.50
TY-92	28	450/225	200	2	1	.50
TY-93	28	500/250	250	2 3/4	1 3/4	.85
TY-94	28	600/300	200	2 3/4	1 3/4	1.00
TY-99	6.3	300/150	100	1 3/4	1	.35
TY-100	6.3	325/162.5	150	2	1	.50
TY-101	6.3	375/187.5	200	2 3/4	1 3/4	1.00
TY-102	6.3	450/225	150	2 3/4	1 3/4	1.00

§ Additional winding 125 V. @ 10 ma. for SSB.

†† MINIATURE AUDIO — "Trijets"

Type No.	Primary Impedance	Secondary Impedance	Max. Level-DBM	Freq. Resp.
T-1X‡	600/250/50	50000	0	60-15000
T-2X‡	600/250/50	250000	0	100-15000
T-3X	600/250/50	60000 CT.	0	60-15000
T-5X‡	30/12/4	50000	0	50-15000
T-11X	15000	50000	10	60-15000
T-12X	15000	60000 CT.	10	60-15000
T-13X	15000 (3 Ma.)	950000 CT.	10	250-15000
T-14X‡	200	500000	10	200-10000
T-15X	15000	1 Megohm	10	150-15000
T-20X	15000	600/250/50	10	60-15000
T-21X	3000	50	10	100-15000
T-22X	15000 (3 Ma.)	600/250/50	10	100-50000
T-23X	2000 CT.	600/250/50	10	40-30000
T-24X	10000 CT.	2000 CT.	10	50-20000
T-25X	12000 CT. (2 Ma.)	600 CT./150	10	50-16000
T-26X	50000 CT. (.5 Ma.)	600 CT./150	10	100-15000
T-31X‡	600/250/50	600/250/50	10	50-15000
T-32X	1500 CT. (2 Ma.)	600 CT./150	13	50-20000
T-33X‡	5000 CT.	5000 CT.	10	60-15000
T-34X	500 CT.	500 CT./125	13	50-20000
T-35X	600 CT.	2000 CT./500	13	50-20000
T-101X	50 henries @ .75 Ma.			
T-102X	6 Hy.-3 Ma. or 4 Hy.-6 Ma.			

††Low frequency loss will result from DC in windings other than where specified.

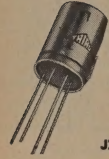
**See Case Chart on Triad Page 15

MINIATURES

TRANSISTOR TRANSFORMERS

Type No.	Primary Matching Impedance	Primary Current MA	Secondary Matching Impedance	Maximum Level
TY-23X	50000	.5	500 CT.	100 MW
TY-24X	50000	.5	3000 CT.	200 MW
TY-25X	100000	.5	200 CT.	200 MW
TY-26X	100000	.5	3000 CT.	200 MW
TY-27XT	500 CT.	2	500 CT.	10 MW
TY-28XT	500 CT.	2	200 CT.	10 MW
TY-29X	24 CT.	500	8/4	8W
TY-30X	100 CT.	100	8/4	2W
TY-31X	200 CT.	50	8/4	2W
TY-32X	200 CT.	2	2000 CT.	200 MW
TY-33X	400 CT.	5	16/8/4	200 MW
TY-34X	400 CT.	5	2000 CT.	200 MW
TY-35X	500 CT.	2	150 CT.	100 MW
TY-36X	2000	2	1500 CT.	200 MW
TY-37X	2000 CT.	4	8000 CT.	200 MW
TY-38X	3000 CT.	4	1000 CT.	200 MW
TY-39X	4000 CT.	2	16/8/4	200 MW
TY-40X	5000	1	200 CT.	100 MW
TY-41X	16000	1	4000	100 MW
TY-42X	20000	.5	8/4	100 MW
TY-43X	20000	.5	800 CT.	100 MW
TY-44X	1000	10	16/8/4	200 MW

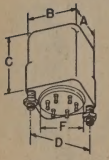
Continued on TRIAD Page 2



JZ

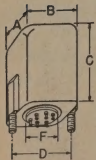


TZ



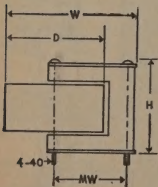
AF

AJ



AG

AH



TY-S



TY-MOLDED

TRIAD DISTRIBUTOR DIVISION



A DIVISION OF LITTON INDUSTRIES



MINIATURES (Continued)

Type No.	Primary Matching Impedance	Primary Current MA	Secondary Matching Impedance	Maximum Level
TY-45X	500 CT.	5	16/8/4	200 MW
TY-46X	100	100	1000 CT.	1 W
TY-47X	2000 CT.	10	16/8/4	200 MW
TY-48X	100 CT.	40	16/8/4	.5 W
TY-49X	500 CT.	12	5000 CT.	1 W
TY-50X	125000	0	2000 CT.	40 MW
TY-51X	2000 CT.	10	200 CT.	100 MW
TY-52X	20000 CT.	1	2000 CT.	200 MW
TY-53X	200 CT.	10	400 CT.	6 W
TY-54X	15000	1.5	200 CT.	200 MW
TY-55X	2000 CT.	2	500 CT.	200 MW
TY-56X	10000	1	2000 CT.	200 MW
TY-57X	250 CT.	10	16/8/4	200 MW
TY-58X	125 CT.	15	8/4	200 MW
TY-59X	5000 CT.	1	50000 CT.	200 MW
TY-60X	200000	0	1000	100 MW
TY-61X	100	100	100 CT.	4 W
TY-62X	10000	2	4	100 MW
TY-63X	48 CT.	275	16/8	8 W
TY-64X	32 CT.	575	16/8/4	10 W
TY-65Z	32 CT.	575	6K/4K/3K	10 W
TY-66A	6 CT.	5A	6K/4K/3K	40 W
TY-67A	6 CT.	5A	16/8/4	40 W

†† JO SERIES — Hermetically Sealed

Type No.	Primary Impedance	Secondary Impedance	Max. Level-DBM	Freq. Resp.	Case
JO-1	600/250/50	50000	0	60-15000	JOA
JO-2	600/250/50	250000	0	60-15000	JOA
JO-3	600/250/50	60000 CT.	0	50150000	JOA
JO-11	15000	60000	10	50-15000	JOB
JO-12	15000	60000 CT.	10	50-15000	JOB
JO-13	15000-3 Ma.	95000 CT.	10	50-15000	JOB
JO-21	15000	600/250/50	10	20-20000	JOB
JO-22	15000-3 Ma.	600/250/50	10	100-10000	JOB
JO-23	20000 CT.	600/250/50	10	40-30000	JOB
JO-31	600/250/50	600/250/50	10	40-20000	JOB
JO-101	50 h.-2 Ma.				JOB

DC TO AC TRANSISTOR TRANSFORMERS

Type	Primary	Secondary	
TY-75A	12v	115v 60cps	115 watts
TY-76A	12v	115v 60cps	60 watts
TY-468	28v	115v 400cps	60 watts
TY-462	12v	115v 400cps	60 watts

DC TO DC CONVERTER TRANSFORMERS

For use in blocking oscillator type power supplies

No. Type	L.	W.	H.	Mtg. Cent-ers	*Typical Operation
TY-200X	1 1/2	3/8	1 1/4	1 1/2	3VDC @ 20 Ma. 1050VDC @ 25 μ A
TY-201TZ	1 1/2	3/8	1 1/4	1 1/2	4VDC @ 15 Ma. 500VDC @ 50 μ A
TY202X	1 1/2	3/8	1 1/4	1 1/2	3VDC @ 45 Ma. 550VDC @ 80 μ A

POWER COMPONENTS

HERMETICALLY SEALED

Combined PLATE and FILAMENT Transformers

Primary 115V — 50/60 cycle

Type No.	Plate Supply	Filaments	F Dim. (Min.) Inches	Case
HSM-200	120	100	6.3 CT.-1.6A.	1 FA
HSM-201	500 CT.	20	6.3 CT.-2A.	1 1/2 GA
HSM-202	120	20	6.3 CT.-.6A.	1 1/2 EA
HSM-203	600 CT.	50	6.3 CT.-2.5A.	1 1/2 JB
HSM-205	700 CT.	70	6.3 CT.-3A.	1 1/2 JA
HSM-207	700 CT.	120	6.3 CT.-5A.	1 1/2 KA
HSM-208	626 CT.	200	6.3/5.0-3A.	1 1/2 KA
HSM-241	700 CT.-150 bias tap.		6.3 CT.-6A.	1 1/2 LA

• New item

HSM-212	1000/800 CT.	190 (ch. in.) 150 (cd. in.)	6.3/5-4A. 6.3 CT.-4A. 6.3 V-4A.	1 1/2 FA
HSM-245	800/700 CT. 70 V. bias tap.	200	6.3 CT.-6A. 6.3 V.-4A. 5 -6A.	1 1/2 MA
HSM-216	1000/800 CT.	254 (ch. in.) 200 (cd. in.)	6.3/5-4A. 6.3 CT.-5A. 6.3-5A.	1 1/2 MA
HS-247	800/700 CT. 70 V. bias tap.	300	6.3 CT.-8A. 6.3 V.-4A. 5 -6A.	1 1/2 GP-15
HSM-218	1000/800 CT.	300 (ch. in.) 235 (cd. in.)	6.3/5-6A. 6.3 CT.-6A. 6.3-6A.	1 1/2 GP-15
HSM-219	(115/230 pri.) 40/230 (ch. input) 760/1600 CT.			Spcl. GP-15

All types electrostatically shielded
GP-15 dimens. 4 3/4" x 5 7/8" x 6 5/8" high. Wt. approx. 22 lbs.
Mtg. centers 3 3/4" x 4 7/8".

Combined PLATE and FILAMENT Transformers

Primary 115V—400 cycle to operate 380 to 1500 cycles

Type No.	Plate Supply	Filaments	Insur. Test Volt.	F Dim. (Min.) Inches	Case
HS-401	500 CT.	40	6.3 CT.-1A. 6.3-1A	1500	1 EB
HS-400	125	25	6.3 CT.-8A.	1500	2 1/2 AH
HS-404	500 CT.	120	6.3 CT.-3A. 6.3/5.0-3A.	1500	1 1/2 FA
HS-405	600 CT.	70	6.3 CT.-2A. 6.3-2A. *6.3-2A.	1500	1 1/2 GA
HS-407	600 CT.	120	6.3 CT.-3.5A. 6.3-3.5A. *6.3/5-3A.	1500	1 1/2 JB
HS-409	700 CT.	150	6.3 CT.-4A. *6.3/5-3A.	1500	1 1/2 HA
HS-413	450 CT.	200	6.3 CT.-6A. 6.3 -6A. *6.3/5-4A.	1500	1 1/2 JA
HS-415	800/600 CT.	200	63. CT.-6A. 6.3-6A. 6.3/5-6A.	2500	1 1/2 KB
HS-417	800/600 CT.	300	6.3 CT.-6A. 6.3-6A. 6.3/5-6A.	2500	1 1/2 LA

* Tapped for 5 volt rectifier use. All types electrostatically shielded.

SOLID STATE LOW-VOLTAGE TRANSFORMER

Primary 10/115/125 volts — 50/60 cycles

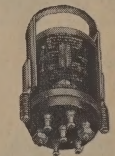
Type No.	Secondary	RMS Amps	Rectifier Circuit	Case
• HSM-248	35 CT.	3	14.5v Full Wave	29v FW KA

AUDIO INTERSTAGE Transformers

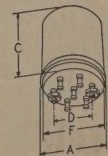
Type No.	Primary Imped.	Turn Ratio	Freq. Resp.	Power Output	Shld'g	Case
HS-25	15000	1:2.72 overall	20-20000	75 MW	P-1	GP-4
HS-35	15000	1:2.72 overall	20-20000	26 MW	P-1	GP-2
HS-27	20000/5000	1:1.72 overall	20-20000	130 MW	P-1	GP-4
HS-29	20000/5000	1:2 overall	20-20000	30 MW	P-5	GP-4
HSM-31	20000/5000	1:1 or 2:1	20-20000	3 W		FA
HS-32	15000 (6 Ma.)	1:2 overall	20-15000	200 MW	P-1	GP-5



HSM Series

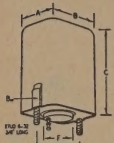


JO Series

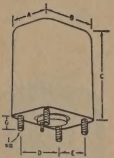




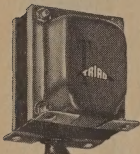
A DIVISION OF LITTON INDUSTRIES



GP 1, 2, 3



MIL-T-27A CASE



Case A



PL-4

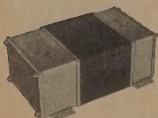
PL-5



PL-6



Case X



Case 5C

TRIAD DISTRIBUTOR DIVISION

POWER OUTPUT to Line and VC. Hermetically Sealed

Type No.	Primary Impedance	Secondary Impedance	Max. Level-Watts	Freq. Resp.	** Case
HS-71	10000 (10 Ma.)	600/150	2	150-15000	AH-2
HS-73	5000 (40 Ma.)	500/250/ 16/8/4	5	70-15000	AJ-2
HS-75	1000 CT. (50 Ma. bal.)	500/250/ 16/8/4	10	100-25000	EB
HS-77	9000 CT. (120 Ma. bal.)	500/250/ 16/8/4	25	70-20000	GA

LOW LEVEL AUDIO

AUDIO INPUT TRANSFORMERS Hermetically Sealed

Type No.	Primary Imped.	Turn Ratio	Freq. Resp.	Power Output MW	** Case
HS-1	600*/250*/ 150/62.5	1:11.3	20- 20000	10	P-5 GP-4
HS-11	Same as above				
HS-3	600*/250*/ 150/62.5	1:14 overall	20- 20000	10	P-1 GP-2 GP-4
HS-4	Same as above				P-3 GP-4
HS-14	Same as above				P-1 GP-3
HS-15	600*/250*/ 150/62.5 (10 Ma.)	1:8 overall	30- 20000	100	P-3 GP-5
HS-5	30	1:65.7	40- 12000	1	P-5 GP-4

*Balanced center tap.

OUTPUT, MIXING, MATCHING, BRIDGING

Type No.	Primary Imped.	Secondary Impedance	Freq. Resp.	Power Output MW	** Case
HS-50	15000	600*/250*/ 150/62.5	20- 20000	400	P-3 GP-4
HS-60	15000	600*/350*/ 150/62.5	20- 20000	20	P-1 GP-4
HS-61	15000 (5 Ma.)	600*/250*/ 150/6.25	40- 15000	200	P-1 GP-5
HS-52	20000 CT./ 5000	600*/250*/ 150/6.25	20- 20000	400	P-1 GP-4
HS-54	20000 CT./ 5000	600*/250*/ 150/6.25	20- 20000	30	P-5 GP-4
HS-56V	600*/250*/ 150/62.5	600*/250*/ 150/6.25	10- 30000	100	P-3 GP-4
HS-66	600*/250*/ 150/62.5	600*/250*/ 150/6.25	10- 30000	100	P-1 GP-3
HS-58	600*/250*/ 150/62.5	600*/250*/ 150/6.25	20- 30000	50	P-3H GP-5

*Balanced center tap.

POWER COMPONENTS

Type No.	Primary Volts	Second-ary Volts	Second-ary Amperes	Insulation Test Voltage	** Case
HSM-223	115	6.3	0.6	1500	AJ-2
HSM-225	105-115-125	6.3 CT.	2	1500	EA
HSM-226	105-115-125	6.3 CT.	3.6	1500	FA
HSM-224	105-115-125	6.3 CT.	5.5	2500	HB
HSM-234	105-115-125	16.3 CT. 6.3	10	2500	KA
HSM-227	105-115-125	16.3 CT. 6.3	3	2500	GA
HSM-229	105-115-125	6.3 CT.	8	2500	JB
HSM-233	105-115-125	12.6 CT.	.8	1500	EA
HSM-237	105-115-125	12.6 CT.	2	2000	FA
HSM-230	105-115-125	24 CT.	0.8	1500	FA
HSM-239	105-115-125	24 CT.	1.5	2500	GA
HSM-240	115/230	112.6 CT. 112.6	1.5 1.5	2500	GA
HSM-236	105-115-125	112.6 CT. 12.6	2	2500	JB
HSM-228	105-115-125	16.3 CT. 6.3	6	2500	JA
HSM-231	105-115-125	6.3 CT. 5 CT.	5	2500	JB
HSM-235	105-115-125	2.5 CT. 10 CT.	10 10	7500	MA
HSM-238	105-115-125	126 CT. 126	2	2500	JA

† Series or parallel connections.

** See case chart Triad Page 15.

FILAMENT Transformers, 380/1500 cycle

Type No.	Primary Volts	Secondary Volts	Secondary Amperes	Insulation Test Voltage	** Case
HS-436	115	6.3 CT.	1	1500	AH
HS-425	105-115-125	6.3 CT.	2	1500	AJ-2
HS-427	105-115-125	6.3 CT.	5	2500	EA
HS-445	105-115-125	24 CT.	3	2500	EA
HS-438	105-115-125	24 CT.	1.5	1500	EA
HS-433	105-115-125	*6.3 CT. *6.3	5 5	2500	FA
HS-435	105-115-125	*6.3 CT. *6.3 16.3/5	3.5 3.5 3	2000	FA
HS-441	105-115-125	*5 CT. *5 2.5 CT.	10 10 10	2000	HA
HS-443	105-115-125	*12.6 CT. *12.6	0.8 0.8	1500	AJ-2
HS-442△	57.5-99.7-115-120 Single phase.	*12.6 CT. *12.6	2 2	1500	EA
HS-444△	57.5-99.7-115-120*26 CT.	*26 CT. *26 CT.	2 2	2000	FA

△ Two Units can be used, 115 volt 3 phase to 26 volt 2 phase, Scott-connected. * Series or parallel connection. † 5 volt tap for filament type rectifiers.

UNIVERSAL RECTIFIER

POWER SUPPLY TRANSFORMERS

Primaries 115 Volts, 50/60 Cycles

Type No.	DC Range	MIL Case
HSM-249	6V.-.065A. to 53V.-.02A.	AH
HSM-250	6V.-.22A. to 53V.-.07A.	AJ
HMS-251	6V.-1.2A. to 53V.-.4A.	FA
HSM-252	6V.-3A. to 53V.-1A.	HA
HSM-253	6V.-7.5A. to 53V.-2.5A.	KA
HSM-254	6V.-18A. to 53V.-6A.	OA

HIGH FIDELITY OUTPUT

HIGH LEVEL OUTPUT — Hermetically Sealed

Type No.	Primary Impedance	Secondary Impedance	Freq. Resp.	Max. Level Watts	F Di. Min. In.	** Case
HSM-79	20000 CT. (20 Ma.) or 5000 (40 Ma.)	16/8/4	40-20000	5	1 1/4	FA
HSM-80	20000 CT. (20 Ma.) or 5000 (40 Ma.)	600/ 250 CT. or 150/62.5	40-20000	5	1 1/4	FA
HSM-81	8000 CT. Split primary.	16/8/4	7-50000	15	1 1/4	JB
HSM-82	8000 CT.	600/ 250/125	7-50000	15	1 1/4	JB
HSM-182	8000/ 2000 CT. Split primary.	600/ 250/125	7-50000	15	1 1/4	JB
HSM-84	5000 CT.	16/8/4	15-30000	20	1 1/4	JB
HSM-184	8000	16/8/4	10-50000	25	1 1/4	KB
HSM-189	10000/ 2500 CT. Split primary.	16/8/4	7-50000	25	1 1/4	KB
HSM-190	10000/ 2500 CT. Split primary.	500/ 250/125	7-50000	25	1 1/4	KB
HSM-187	6600 CT. or 1650 CT. Split primary.	500/ 250/125	7-50000	25	1 1/4	KB

(Continued on next page.)

TRIAD DISTRIBUTOR DIVISION



A DIVISION OF LITTON INDUSTRIES



HIGH FIDELITY OUTPUT (cont.)

HSM-94	4500 CT.	16/8/4	7-50000	55	1 1/4	LA
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HIGH LEVEL OUTPUT

Type No.	Primary Impedance	Secondary Impedance	Output Watts
S-34X	4000 CT.	32/16/8	7.5
S-31A	8000 CT.	16/8/4	15
S-32A	8000 CT.	500/250/125	15
†S-142A	8000 CT.	16/8/4	15
S-35A	5000 CT.	16/8/4	20
S-36A	5000 CT.	500/250/125	20
†S-146A	6600 CT.	16/8/4	25
S-149A	3300 CT.	16/8/4	50
SR-452*	4000/2000/1000/500	16/8/4	10
S-46A	2000/1000/500/250	16/8/4	20
†SX-201	3300 ohms CT.	4-8-16 ohms	10-15
†SX-202	4500 ohms CT.	4-8-16 ohms	10-15
SX-203	5000 ohms	4-8-16 ohms	5-7
SX-204	5000 ohms CT.	4-8-16 ohms	10-15
SX-205	6600 ohms CT.	4-8-16 ohms	10-15
†SX-206	6600 ohms CT.	4-8-16 ohms	10-15
†SX-207	8000 ohms CT.	4-8-16 ohms	10-15
SX-208	8000 ohms CT.	4-8-16 ohms	10-15

† Williamson type circuit. Proper taps on primary for screen operation, leads out both end bells.

* Replaces S-45Z.

LINE POWER

ISOLATION Transformers, 50/60 cycles

(See Triad page 6 for 380/1500 cycle isolation transformers)

Type No.	V. A. Output	Input Volts	Output Volts
N-51X	35	115	115
N-68X	50	230/115	115
N-53M	85	115	115
N-54M	150	115	115
N-67A	150	230/115	115
N-55M	250	115	115
N-66A	250	230/115	115
N-57M	500	115	115
N-59M	1000	115	115
†N-52M	350	95 to 130 (in 5V steps)	115
†N-56M	150	95 to 130 (in 5V steps)	115

† With switch and meter for primary voltage control. Detachable cord.

N-469A	50	460/230	115
N-470A	150	460/230	115
N-471A	300	460/230	115

CONSTANT VOLTAGE TRANSFORMERS

Type No.	Rating V. A.	Input Volts	Output Volts
K-100	30	95-130	117
K-101	60	95-130	117
K-102	120	95-130	117
K-103	250	95-130	117
K-104	500	95-130	117
K-105	750	95-130	117

STEPPDOWN Autoformers, 50/60 cycles

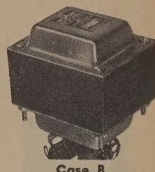
Type No.	V. A. Output	Input Volts	Output Volts
N-1X	50	230	115
N-3M	85	230	115
N-4M	150	230	115
N-5M	250	230	115
N-7M	600	230	115
N-9M	1250	230	115
N-11M	2000	230	115
N-34X	150	95/105/115/125/135	115
†N-35M	250	95 to 130 (in 5V steps)	115
†N-50M	500	95 to 130 (in 5V steps)	115

† M case with switch for primary voltage control and detachable cord.

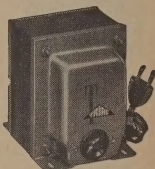
Note: Last letter of Type No. denotes case style.

FILTER REACTORS

Type No.	Current DC Ma.	Inductance *Henries	Resistance Ohms	Insulation Test Voltage
HSM-301	20	30	1000	1500
HSM-302	20	14	560	1500
HS-331	40	4	375	1500
HS-303	50	12	385	1500
HS-333	70	3	225	1500
HSM-305	70	15	300	2500
HS-335	120	3	150	1500
HSM-307	120	15	185	2500
HSM-309	150	9	115	2500
HS-339	200	3	105	2000
HSM-315	200	10	100	2500
HS-341	300	2	48	2000
HSM-319	300	10	85	2500
Minimum Inductance—20%				



Case B



Case M

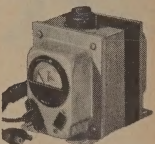
PULSE TRANSFORMERS BLOCKING OSCILLATOR TYPE

Type No.	Pulse Voltage per Winding	Pulse Duration—us	Load Impedance—Ohms
PL-4	100-100	.54 to .66	500*
PL-5	100-100-100	.36 to .54	2000
PL-6	100-100-100	.36 to .54	2000*

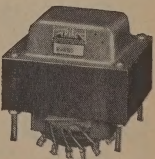
* As blocking oscillator in Triad circuit. Can be used with lower impedances and higher peak power at lower duty cycle.

HIGH SPEED FERRITE TOROIDAL CORE LOW POWER

Type No.	Turns Ratio	Pulse Width μ Sec.	Rise Time μ Sec.	Repetition Rate	Suggested Load Ohms	Volts
PL-80E	1-1	.07	.03	1-2 Mc	200	15
PL-81E PL-81H PL-81P	2-1	.07	.03	1-2 Mc	200	20
PL-82H PL-82P	3-1	.08	.03	1-2 Mc	100	15
PL-83E PL-83H PL-83P	4-1	.08	.03	1-2 Mc	100	15
PL-84E PL-84H	5-1	.08	.03	1-2 Mc	100	15



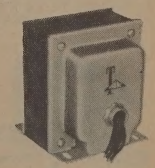
Case M with Meter



Case C

LOW SPEED SILICON CORE LOW POWER

Type No.	Pulse Voltage per Winding	Pulse Duration— μ Sec.	Load Impedance—Ohms
PL-124H	300-300-300	.6 to 5	150
PL-140E PL-140H PL-140M	100-400-100	.6 to 5	175
PL-139E PL-139H PL-139M	100-100	.3 to 1.5	250
PL-146E PL-146H PL-146M	300-300	.6 to 5	250



Case AC

Letter "M" Indicates MIL type case. For pulse types only.



A DIVISION OF LITTON INDUSTRIES



TRIAD DISTRIBUTOR DIVISION

Instrument POWER SUPPLY Transformers

For PREAMPLIFIERS, VTVM, etc.

Primary 115 volts — 60 cycles

Type No.	Plate Supply		Filament Windings Volts and Amperes
	AC Volts	DC Ma.	
R-68A	800 CT.	30	5V.-2A, 6.3V-1.2A, 6.3V-1.2A.
R-2C	135	15	6.3V.-9A.
R-23B	250 CT.	22	6.3.-8A. 15.5/12.6V.-6A.
R-3A	500 CT.	20	6.3V CT.-2A.
R-29A	230 CT.	40	6.3V CT.-1.5A.
R-30X	135	50	6.3V.-1.5A.
R-54X	115	15	6.3V.-6A.
R-56A	130	20	0/15/22.5/30V.-6A.
R-73B	135	200	6.3V CT.-5.5A.

For CATHODE RAY Tubes

Primary 115 volts — 60 cycles

Type No.	Plate Supply		Filament Windings Volts and Amperes
	AC Volts	DC Ma.	
R-41C	440-0-440-1250.	125/5	*6.3V.-6A. †2.5V.-1.75A. 5V.-3A.
R-45C	400-0-400-800.	30/5	*6.3V.-6A. 6.3 CT.-3A. †5V.-2A.
R-43C	1600	3	*6.3/5/2.5V.-1A. †6.3/5/2.5V.-3A.

* Static shielded and insulated for full plate voltage.
† Insulated for full plate voltage.

For REGULATED POWER SUPPLIES

Primary 115 volts — 60 cycles

Type No.	Plate Supply		Filament Windings Volts and Amperes
	AC Volts	DC Ma. Choke Input	
R-70A	880 CT.	75	6.3V.-6A. 6.3V.-3A. 6.3V.-9A. 6.3V.-3A.
R-26A	880-720 CT.	200	6.3 CT.-8A. 6.3V.-1A. 6.3V.-3A. 5V.-3A.
R-28A	1250 CT.	300	6.3 CT.-8A. 6.3V.-3A. 6.3V.-3A. 5V.-6A.
R-46A	1250 CT. 130 (Bias winding)	350	5V.-4A. 6.3V.-4A. 6.3V.-1A. 6.3V.-1A. 6.3V.-8A.
R-46A will supply 550 V. D.C. using 2 5R4G rectifier tubes, choke input. Will also supply 130 V. for bias using Selenium rectifier. Sufficient filament windings to regulate screen voltages.			
R-27A	1500 CT.	400	5V.-6A. 6.3V.-3A. 6.3V.-8A.

UNIVERSAL

Isolation, Autoformer, Voltage Control 50/60CPS

Type No.	V.A. (Isolation)	V.A. (Autoformer)
N-64AC	500	1000
N-62AC	1000	2000
N-60SC	2000	4000

SOLID STATE RECTIFIER POWER TRANSFORMERS

Primary 117 volts — 50/60 cycles

Type No.	Secondary No. 1 Volts	MADC	Secondary No. 2 Volts @ A	Secondary No. 3 Volts @ A	Mounting Centers
R-82B	35-0-35	3.5 Amp.	—	—	3 x3/4
R200A	200-0-200	400	6.3	3 6.3	2 3/4x3 3/4
R201A	150-0-150	600	6.3	2.5 6.3 2.5	2 3/4x3 3/4
R202A	100-0-100	800	6.3	2 6.3 2	2 3/4x2 3/4
R-203A	50-0-50	1600	6.3	1.5 6.3 1.5	2 3/4x2 3/4
R-204A	40-0-40	2000	6.3	1.5 6.3 1.5	2 3/4x2 3/4
R-205A	30-0-30	2500	6.3	1.5 6.3 1.5	2 3/4x2 3/4
R-206B	27-0-27	1.9 Amp.	—	—	2 1/2x3 3/4

SELENIUM RECTIFIER Transformers Primary 60 cycles

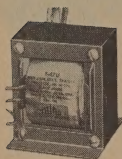
These transformers are for use with Selenium rectifiers. Rectifiers not included.

Type No.	Primary Volts	Secondary AC Volts	Amperes RMS	Half Wave Volts DC	Full Wave Volts DC
F-47U	115	17-18	3	6-7	13-14
F-48U	115	17-18	6	6-7	13-14
F-49U	115	36	3	13	26
F-60U	115	6.5-13. 19.5-26	3 (Int.)	9	18
F-61U	115	24-27-30 33-36	3	13	26
F-67U	110-120	24-27-30. 33-36	8	13	26
F-63U	115	8-9 8-9	2 2	—	6-7
F-64U	115	7-8-9	7	—	6-7
F-62U	105-115-125	9-9-9-9	10 ea. wdg.	—	6-7 ea. wdg.
F-68U	115	9 CT. 9 9	3.5 3.5 3.5	—	6-7 ea. wdg.
F-65U	110-120	140-150-160	.75	60	115
F-66U	110-120	140-150-160	2.5	60	115
F-79U	115	24-26-28-30	15	11.4	22.8
F-80U	tapped for mult. sec.	12 to 18 or 24 to 36CT	40	—	13
F-84AC	230-115	24CT or 12CT	10 20	—	8.5
F-90X	115 tapped	40CT-20CT-10	100ma	15	30
F-91X	115 tapped	40CT-20CT-10	300ma	15	30
F-92A	115 tapped	40CT-20CT-10	1 amp	15	30
R-93A	115	6.3CT (voltage doubler circuit) 150-160-170	6 (500ma)	65	120
F-93X	115V tapped	40CT-20CT-10	750ma	15	30
F-94X	115X tapped	40CT-20CT-10	35ma	15	30

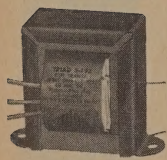
FILAMENT Transformers, Single Secondary Primary 115 volts — 60 cycles

Type No.	Secondary Volts	Secondary Amperes	Test Volts
F-1X	2.5 CT.	3	1500
F-72Z	2.5 CT.	5	7500
F-6X	2.5 CT.	6	2500
F-3X	2.5 CT.	10	3000
F-5U	2.5 CT.	10	7500
F-71U	2.5 CT.	10	10000
F-7X	5 CT.	3	1500
F-8X	5 CT.	6	1500
F-12X	5 CT.	8	2500
F-9A	5.2 CT.	13	1500
F-10U	5 CT.	14	10000
F-9U	5.2 CT.	13	1500
F-15U	5 CT.	15	3000
F-11U	5.2 CT.	24	1500
F-13X	6.3	.6	1500
F-14X	6.3 CT.	1.2	2500
†F-52X	6.3	1.2	5000
†F-51X	6.3/5	2	5000
†F-53X	6.3	4	5000
F-16X	6.3 CT.	3	2500
F-18X	6.3 CT.	6	1500
F-18A	6.3 CT.	6	1500
F-19X	6.3/6 CT.	6	2000
F-21A	6.3 CT.	10	1500
F-20U	6.3/6 CT.	11	3000
F-17U	6.3 CT.	15	Pri. 1500 Sec. 10000
F-22A	6.3 CT.	20	2000
F-24U	7.5/6.3 CT.	8	3000
F-28U	7.5/6.3 CT.	25	3000
F-23U	10 CT.	7	1500
F-29U	12/11/10 CT.	11	3000
F-25X	12.6 CT.	1.5	1500

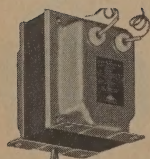
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Case U



Case Z



Case AL



Case X

TRIAD DISTRIBUTOR DIVISION



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F-44X	12.6 CT.	2	1500
F-26X	12.6 CT.	2.5	1500
F-45X	24 CT	1	1500
F-41X	25.2 CT.	2	1500
F-40X	26.8 CT	1	1500
F-50X	Filament line transformer Pri. 6.3V/5V Sec. 6.3/5V 2A		
•F-54X	35 CT.	1.5	1500
F-83A	12.6 CT.	5	1500
	12.6 CT.	5	1500
•F-85U	5 or 7.5 CT.	20	1500
	5 or 7.5 CT.	20	1500

† Low capacity—High voltage for damper tube operation.

CHOKES

SWINGING FILTER REACTORS

Type No.	Inductance Henries	Current Ma.	Resistance Ohms	Test Volts RMS
C-31A	25/5	20/200	150	2500
C-33A	25/5	30/300	105	3000
C-32AL	20/4	35/350	105	5000
C-35A	20/4	40/400	65	3000
C-39A	25/5	50/500	65	3000
C-38AL	25/5	50/500	65	5000

SMOOTHING FILTER REACTORS

Type No.	Inductance Henries	Current Ma.	Resistance Ohms	Test Volts RMS
C-30X	50	15	3500	1500
C-2X	2	15	70	1500
C-1X	15	20	1000	1500
C-3X	10	50	500	1500
C-4X	4	50	360	1500
C-6X	5	65	330	1500
C-5X	12	75	390	1500
C-8X	7	75	240	1500
C-7X	10	90	270	1500
C-9X	4	90	100	1500
C-11X	6	110	160	1500
C-10X	9	125	250	1500
C-12X	6	160	165	1500
C-12A	6	160	165	1500
C-13X	3	160	75	1500
C-14X	6	200	150	1500
C-14A	6	200	150	1500
C-16A	10	200	150	2500
C-21X	1.5	225	65	1500
C-15X	4	250	100	1500
C-15A	4	250	100	1500
C-23X	1.2	260	45	1500
C-24X	1	240	50	1500
C-27X	.7	290	25	1500
C-36X	.5	300	30	1500
C-17X	1.5	300	40	1500
C-18A	8	300	90	2500
C-19A	10	300	105	3000
C-25A	2.6	310	60	1500
C-42AL	8	350	105	5000
C-34X	.6	350	35	1500
C-28X	1	350	35	1500
C-28X	1.5	375	50	1500
C-50X	2	400	40	2500
C-20A	6	400	60	3000
C-22A	10	500	65	3000
C-40X	.32	600	10	1500
C-47U	.3-.075	1A-2A	3-75	1500
C-48U	.08-.02	2.5A-5A	.57-.143	1500
C-49U	.032-.008	5A-10A	.19-.05	1500
C-80U	.024-.006	20A-40A	.096-.024	1500
•C-56X	.035	2.0A	.75	1500
•C-57U	.025	4.0A	.55	1500
•C-58U	.021	8.0A	.15	1500
•C-59U	.01	12.5A	.10	1500
•C-60U	.005	22.5A	.06	1500

ISOLATION Transformers

Primary 115V—400 cycle to operate 380 to 1500 cycles

Type No.	Secondary Volts	Amp.	V. A.	F Dim. (Min.) Inches	Case
HS-470	115	.35	40	1	EA
HS-471	115	.7	80	1	FA
HS-472	115	1.4	160	1	GA
HS-474	115	2.6	300	1	JA
HS-475	115	4.4	500	1	KA

60 cycle — hermetically sealed

Type No.	secondary volts	amp.	V.A. (Min.)	F dim. inches	Case
HSM-270	105-115-125	.4	50	1	JB
HSM-271	105-115-125	1	125	1	KA
HSM-272	105-115-125	2	250	1 1/4	NB

All isolation transformers electrostatically shielded.

FILAMENT Transformers, Multiple Secondary

Primary 115 volts — 60 cycles

Type No.	Secondary Volts and Amperes	Test Volts RMS
F-27U	10 CT.-10A. 2.5 CT.-10A.	1500 7500
F-30A	5 CT.-3A. 6.3 CT.-8A.	1500
F-32A	6.3 CT.-3A. 6.3 CT.-3A.	1500
F-34A	6.3 CT.-1.75A. 6.3V.-1.75A.	1500
F-36A	6.3 CT.-3.5A. 6.3V.-3.5A.	1500
F-38A	6.3 CT.-5A. 6.3V.-5A.	1500
	5V.-4A. 5 CT.-2A.	
F-42A	12.6 CT.-2.5A. 12.6-2.5A.	1500

AUDIO INPUT TRANSFORMERS

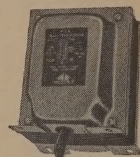
Low Level Input

Type No.	Application	Frequency Response	Primary Impedance	Turn Ratio
A-9J	line or mike to grid	30-15000	600/250/50	12
A-10J	line to grid	30-15000	600/150 split wdg.	10.5
A-11J	line or mike to grid 60-80dB shielding	30-15000	600/250/50	10
A-12J	same as A-11J	30-15000	600 CT./150 split windings	10
A-13J	line to transistor or line to line (70 db Shld)	30-15000	600/300/ 200 CT./110/50 split windings	1
A-40J	par. fed 6J5 or 6SN7 plate to P.P. grids	30-15000	15000	2.76
A-50J	pp plates to voice coil	30-15000	10000 CT.	35.3
A-52J	line or transistor to line or transistor	30-15000	500 CT./125 20 MA. D.C. Split Winding	2
A-55J	par. fed 6J5 or 6SN7 to line	30-15000	15000	5
A-56J	line or transistor to Voice Coil	30-15000	500 CT./125 20 MA. D.C. Split Winding	5.6
•A-61J	line to 2 lines or transistors	60-15000	600/150 split wdg.	1.41:1
A-65J	par. fed 6J5 or 6SN7 to line	30-15000	15000 CT.	5
A-66J	same as A-65J—5 ma DC in primary	40-15000	15000	5
A-67J	line to line	30-15000	600 CT./150 split windings	1
A-68J	pp plate to line 4 ma DC in primary	30-15000	15000 CT.	5
A-69J	pp plates or bridging to line 3 MA. D.C. in Primary	30-15000	25,000 CT./ 6250 Split Winding	7.1
A-70J	line or transistor to line or transistor	30-15000	500 CT./125 15 MA. D.C. Split Winding	2.24
A-77J	Audio choke — dual winding	250 henries — 5 ma DC 62.5 henries — 10 ma DC		
A-57J	line or transistor to line	30-15000	600/250/50	1:1
A-79J	Transistor inter-stage 10ma in primary	20-15000	1000	2.2

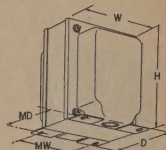
Line or Microphone to Grid

Type No.	Application	Frequency Response	Primary Impedance	Turn Ratio
A-1X	Line or single button mike to grid.	100-15000	100	31.4
A-3X	Line or D.B. mike to grid.	200-10000	400 CT.	22.1
A-4X	Line to grid.	100-20000	500/200/ 67.5 CT.	12
A-5X	Single button mike to p.p. grids—Hi-gain.	100-15000	100	84
A-6X	Speaker V.C. to grid	150-20000	8/3.2	79
A-7J	Voice coil to grid	150-10000	3.2	124

• New item.



Case A



Case A

Triad J Series offers flexibility enabling your amplifiers to exceed broadcast standards. Although economy in construction has cut costs, these transformers approach and closely approximate performance characteristics found in more costly hermetically sealed parts. Single hole mounting provides for rotation for maximum reduction of hum... alloy shielding gives you 40-60 db hum reduction (60-80 db in Types A-11J & A-12J)... you can obtain wide frequency ranges... flexible leads facilitate ease in mounting... input units are electrostatically and magnetically shielded... light weight and encased in Triad's satin smooth baked gray enamel cases, 1 3/4" diameter, 1 3/4" above chassis... legible circuit diagrams are permanently affixed to every case.



A DIVISION OF LITTON INDUSTRIES



TRIAD DISTRIBUTOR DIVISION

AUDIO OUTPUT TRANSFORMERS Line to Voice Coil

Type No.	Primary Impedance	Output Imped.	Output Watts	Freq. Resp.
S-23X	50 (autoformer).	3.2	1	100-8000
S-26X	500/50 (autoformer).	3.2	4	100-8000
S-65X	500	8/4	5	100-10000
S-66X	500 (autoformer).	16/8/4	3	100-10000
S-76Z	250/125/62.5/31	16/8/4	10	40-15000
S-77U	500 CT./125 split wdg.	32/16/8/4/2	30	40-15000

POWER

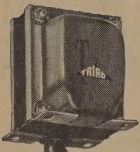
Combined PLATE and FILAMENT Transformers Primary 115 volts — 60 cycles

Type No.	Plate Supply		Rect. Fil.		Other Fil.	
	AC Volts	DC Ma.	Volts	Amp.	Volts	Amp.
R-22A	380/320 CT.	70	6.3	.6	6.3 CT.	3
R-22B	380/320 CT.	70	6.3	.6	6.3 CT.	3
R-4A	500 CT.	40			6.3 CT.	2
R-4B	500 CT.	40			6.3 CT.	2
R-5A	600 CT.	65			6.3 CT.	2.7
R-5B	600 CT.	65			6.3 CT.	2.7
R-6A	480 CT.	50	5	2	6.3 CT.	2
R-6B	480 CT.	50	5	2	6.3 CT.	2
R-7A	600 CT.	50	5	2	6.3 CT.	2
R-7B	600 CT.	50	5	2	6.3 CT.	2
R-8A	500 CT.	75	5	2	6.3 CT.	2.5

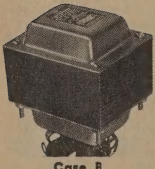
R-8B	500 CT.	75	5	2	6.3 CT.	2.5
R-9A	600 CT.	75	5	2	6.3 CT.	3
R-9B	600 CT.	75	5	2	6.3 CT.	3
R-10A	525 CT.	90	5	2	6.3 CT.	5
R-10B	525 CT.	90	5	2	6.3 CT.	5
R-11A	700 CT.	90	5	2	6.3 CT.	3.5
R-11B	700 CT.	90	5	2	6.3 CT.	3.5
R-12A	550 CT.	110	5	2	6.3 CT.	5
R-12B	550 CT.	110	5	2	6.3 CT.	5
R-14A	700 CT.	125	5	3	6.3 CT.	4.5
R-14B	700 CT.	125	5	3	6.3 CT.	4.5
R-16A	700 CT.	160	5	3	6.3 CT.	5
R-16B	700 CT.	160	5	3	6.3 CT.	5
R-17A	750 CT.	160	5	3	6.3 CT.	5
	80 Tap				2.5 CT.	5
R-18A	750 CT.	175	5	3	6.3 CT.	8
R-18B	750 CT.	175	5	3	6.3 CT.	8
R-19A	750 CT.	200	5	3	6.3 CT.	6
	80 Tap				2.5 CT.	10
R-20A	700 CT.	200	5	3	6.3 CT.	8
R-20B	700 CT.	200	5	3	6.3 CT.	8
R-72A	800 CT.	140	5	3	6.3 CT.	4
R-21A	800 CT.	200	5	3	6.3 CT.	6
R-21B	800 CT.	200	5	3	6.3 CT.	6
R-24A	800 CT.	300	5	6	6.3 CT.	6
R-24B	800 CT.	300	5	6	6.3 CT.	6
R-25A	800 CT.	500	5	6	6.3 CT.	3
					6.3 CT.	7
R-58A	875 CT.	185	5	3	6.3 CT.	4
					6.3 CT.	3
R-71A	900 CT.	250	5 CT.	4	6.3 CT.	2
					6.3 CT.	4

Combined PLATE and FILAMENT Transformers "100" Series

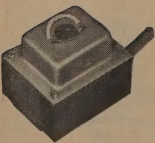
Never have the outstanding features of Triad Combined Plate and Filament Power Transformers been available at such realistic costs. No quality or performance requirement has been overlooked...specify Triad and be certain. Shielding, impregnation, chatter freedom ...to Triad's demanding quality control standards.



Case A



Case B



Case B5

PRIMARY 115 VOLTS 60 CYCLES

Type No.	Plate Supply AC Volts	DC Ma.	Rect. Filaments Volts	Filaments Amp.	Other Filaments Volts	Amp.	Case Dim. H W D	Mtg. Dim. MW MD	Wt. Lbs.
R-104A	500 C.T.	40			6.3 V.C.T.	2	2 3/4 2 3/4 2 1/4	1 3/4 1 1/2	1.55
R-104B	500 C.T.	40			6.3 V.C.T.	2	1 1/4 2 3/4 2 1/4	2 3/4 1 3/4	1.55
R-105A	600 C.T.	65			6.3 V.C.T.	2.7	3 1/4 2 3/4 2 1/2	2 1 3/4	2
R-105B	600 C.T.	65			6.3 V.C.T.	2.7	1 3/4 3 1/4 2 3/4	2 1/2 2	2
R-106A	480 C.T.	50	5	2	6.3 V.C.T.	2	3 1/4 2 3/4 2 1/2	2 1 1/4	2.05
R-106B	480 C.T.	50	5	2	6.3 V.C.T.	2	1 1/4 3 1/4 2 3/4	2 1/2 2	2.05
R-107A	600 C.T.	50	5	2	6.3 V.C.T.	2	3 1/4 2 3/4 2 1/2	2 1 3/4	2.35
R-107B	600 C.T.	50	5	2	6.3 V.C.T.	2	1 3/4 3 1/4 2 3/4	2 1/2 2	2.35
R-108A	500 C.T.	75	5	2	6.3 V.C.T.	2.5	3 1/4 2 3/4 2 1/2	2 1 1/4	2.4
R-108B	500 C.T.	75	5	2	6.3 V.C.T.	2.5	1 1/4 3 1/4 2 3/4	2 1/2 2	2.4
R-109A	600 C.T.	75	5	2	6.3 V.C.T.	3	3 1/2 3 2 3/4	2 1/4 1 3/4	2.9
R-109B	600 C.T.	75	5	2	6.3 V.C.T.	3	1 3/4 3 1/4 2 3/4	2 1/4 2 1/4	2.9
R-110A	525 C.T.	90	5	2	6.3 V.C.T.	5	3 1/2 3 3 1/4	2 1/4 2	3.25
R-110B	525 C.T.	90	5	2	6.3 V.C.T.	5	2 3 1/4 2 3/4	2 1/4 2 1/4	3.25
R-111A	700 C.T.	90	5	3	6.3 V.C.T.	3.5	3 1/2 3 3 1/4	2 1/4 2	3.55
R-111B	700 C.T.	90	5	3	6.3 V.C.T.	3.5	2 3 1/4 2 3/4	2 1/4 2 1/4	3.55
R-112A	550 C.T.	110	5	2	6.3 V.C.T.	5	3 1/2 3 3 3/4	2 1/4 2 1/4	3.7
R-112B	550 C.T.	110	5	2	6.3 V.C.T.	5	2 1/4 3 1/4 2 3/4	2 1/4 2 1/4	3.7
R-113A	650 C.T.	40	5	2	6.3 V.C.T.	2	3 1/4 2 3/4 2 1/4	2 1 1/4	2.3
R-113B	650 C.T.	40	5	2	6.3 V.C.T.	2	2 2 3 2 1/2	2 1/2 2	2.3
R-114A	700 C.T.	125	5	3	6.3 V.C.T.	4.5	3 3/4 3 1/4 3 1/4	2 1/2 2 3/4	4.7
R-114B	700 C.T.	125	5	3	6.3 V.C.T.	4.5	2 1/2 3 3/4 3 1/4	3 1/4 2 1/2	4.7
R-115A	680 C.T.	70	5	2	6.3 V.C.T.	2.5	3 3/4 3 3 3/4	2 1/4 2 1/4	3.5
R-115B	680 C.T.	70	5	2	6.3 V.C.T.	2.5	2 3 1/4 2 3/4	2 1/4 2 1/4	3.5
R-116A	700 C.T.	160	5	3	6.3 V.C.T.	5	3 3/4 3 1/4 3 1/4	2 1/2 2 1/2	5.65
R-116B	700 C.T.	160	5	3	6.3 V.C.T.	5	2 3/4 3 3/4 3 1/4	2 1/2 2 1/2	5.65
R-118A	750 C.T.	175	5	3	6.3 V.C.T.	8	4 1/4 3 3/4 4	2 3/4 2 3/4	7.45
R-118B	750 C.T.	175	5	3	6.3 V.C.T.	8	2 3/4 4 1/4 3 1/2	3 1/4 2 3/4	7.45
R-120A	700 C.T.	200	5	3	6.3 V.C.T.	8	4 1/4 3 3/4 4 1/4	2 3/4 2 3/4	8.25
R-120B	700 C.T.	200	5	3	6.3 V.C.T.	8	3 4 1/4 3 1/2	3 1/4 2 3/4	8.25
R-121A	800 C.T.	200	5	3	6.3 V.C.T.	6	4 1/4 3 3/4 4 3/4	2 3/4 3 1/4	8.25
R-121B	800 C.T.	200	5	3	6.3 V.C.T.	6	3 1/4 4 1/4 3 1/2	3 1/4 2 3/4	8.25

TRIAD DISTRIBUTOR DIVISION



A DIVISION OF LITTON INDUSTRIES



PLATE POWER Transformers

Primary 115 volts — 50/60 cycles

Type No.	Secondary Volts		Sec. D.C. Ma.		Rect. Fil.
	AC	DC	CCS	ICAS	
P-1A	440/220 CT.	180/90	160	190	5V-3A
P-3A	600/300 CT.	250/125	300	360	5V-4A
P-5A ^o	1100 CT.	400	250	300	5V-4A
P-7A ^o	1235 CT.	500	250	300	5V-4A
P-9A	1235 CT.	500	500	600	5V-6A
P-11A ^o	1455 CT.	600	250	300	
P-213AL*†	1780 CT.	750	250	300	
§P-14A	1780 CT.	750/600	250	300	
P-215AL*†	2340 CT.	1000	250	300	
P-216AL*†	2430 CT.	1000	500	600	
P-217AL*†	2880 CT.	1250	250	300	
P218AL*†	2880 CT.	1250	500	600	
P-220AL*†	3300 CT.	1500	350	420	
PR-21AL	3300 CT.	1500	500	600	

† Plate leads out side of case for 866 rectifiers.

§ Tapped Pri. to produce the lower D.C. voltage.

* Pri. is 230/115V.

^o60 cycle only.

POWER TRANSFORMERS

Combined Plate and Filament

Electrostatically shielded. Primary 115 volts 60 cycles.

Type No.	Plate Supply		Filaments —	
	AC Volts	DC Ma.	Volts	and Amperes
R-37BC	735 V.C.T.	275	5V.—6A. 6.3V.—8.5A. 6.3V./5V.—2A.*	
R-38A	750 V.C.T.	225	5V.—3A. 6.3V.—10A. 6.3V.—1.2A.* 6.3V.—2.5A.	
R-40BC	780/440 V.C.T.	300	5V.—3A. 6.3V.—8.5A. 5V.—3A. 6.3V.—3.5A. 5V.—2A.	
R-49BS	650 V.C.T.	240	5V.—3A. 6.3V.—9A. 6.3V.—0.9A. 6.3V.—1.2A.*	
R-49BC				
R-50A	790/650 V.C.T.	310	5V.—3A. 6.3V.—5A. 5V.—3A. 6.3V.—5A. 5V.—2A. 6.3V.—2.6A.	
R-50BC				
R-51BC	505 V.C.T.	320	5V.—6A. 6.3V.—5A. 6.3V.—5A. 6.3V.—1.2A.*	
R-60BC	460 V.C.T.	300	5V.—6A. 6.3V.—10A. 6.3V.—1.2A.* 6.3V.—2.5A.	
R-61BC	560 V.C.T.	275	5V.—6A. 6.3V.—6A. 6.3V.—6A. 6.3V.—1.2A.*	
R-62BC	680 V.C.T.	290	5V.—6A. 6.3V.—10A. 6.3V.—1.5A. 6.3V.—1.2A.*	
R-64BC	520 V.C.T.	270	5V.—3A. 6.3V.—10A.	
R-65BC	550 V.C.T.	270	5V.—3A. 6.3V.—10A.	
R-66BC	580 V.C.T.	270	5V.—3A. 6.3V.—10A.	
R-67BC	600 V.C.T.	250	5V.—3A. 6.3V.—9A.	
R-69BC	550 V.C.T.	270	5V.—3A. 6.3V.—10A.	
R-74BC	680 V.C.T.	190	6.3V.—7.8A. 6.3V.—1.2A. (damper wdg)	
R-75BA	560 C.T.	280	5V.—3A. 6.3V.—9.5A.	
R-79BA	127V.	1000	6.3V.—2A 6.3V.—10A. 12.6V.CT.—2A.	
R-80BA	500V.CT.	300	5V.—6A 6.3V.—2.0A 6.3V.—5A	
R-86BA	117/129*141 multi-purpose	1000	6.3V.—6A 12.6V.CT.—2A 6.3V.—6A	

* Less than 100 m.m.f.d. capacity to ground and insulated for high voltage damper tube.

Height of transformers in BC cases is measured from chassis line to top of case. Copper shading ring on all BC cases to reduce external magnetic field.

Note: Last letter of Type No. denotes case style.

AUDIO

Triad Replacement Output Transformers furnish a wide range of size and mounting characteristics... specifically engineered for mounting in precise location in chassis. Climatic treated... manufactured to exacting quality standards of more costly types... progressively designed for advanced circuitry and audio tubes... total complete coverage over impedance and wattage ranges... Triad units provide finest response in minimum space... and outlive all others.

REPLACEMENT OUTPUT TRANSFORMERS

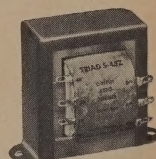
Single Tube To Standard Voice Coil 3-4 Ohms

Type No.	Primary Impedance	D.C. Ma	Audio Watt
S-20X	2000	50	2-3
S-20Z	2000	50	2-3
S-2X	2000	55	3-5
S-12X	2500	50	2-3
S-12Z	2500	50	2-3
S-1X	2500	60	3-5
S-50X	2500	60	4-6
S-16X	3000 5% Tap	50	2-3
S-30X	3000	60	3-5
S-67X	3200	60	4-6
S-4X	3000	70	5-8
S-14Z	4000	50	2-3
S-41X	4000	50	3-5
S-41Z	4000	50	3-5
S-6X	5000	35	2-3
S-6Z	5000	35	2-3
S-3X	5000	40	3-5
S-5X	5000	50	5-8
S-5Z	5000	50	5-8
S-48X	6500	35	2-3
S-48Z	6500	35	2-3
S-49X	6500	35	3-5
S-7X	7500	30	3-5
S-9X	7500	50	5-8
S-9Z	7500	50	5-8
S-8X	8000	30	2-3
S-8Z	8000	30	2-3
S18X	8000	45	4-6
S-18Z	8000	45	4-6
S-11X	10000	30	2-3
S-11Z	10000	30	2-3
S-17X	10000	30	3-5
S-10X	10000	45	4-6
S-40X	14000	5.5	1/4
S-38X	16000	15	2-3
S-38Z	16000	15	2-3
S-37X	25000	4.0	1/4
S-13X	25000	10	2-3
S-13Z	25000	10	2-3

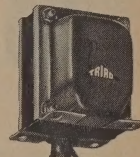
REPLACEMENT PUSH-PULL OUTPUT TRANSFORMERS

Push-Pull Tubes To Voice Coil 3-4 Ohms

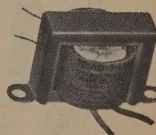
Type No.	Impedance	D.C. MA. Each Side	Audio Watts
S-39X	12000 CT.	30	3-4
S-64X	6000 CT.	40	4-6
S-15X	10000 CT.	35	7-10
S-19Z	10000 CT.	50	10-14
S-68Z	3000/3800 CT.	90	15-18
S-69Z	5000 CT.	60	15-18
S-21A	8000 CT.	55	15-18
S-21Z	8000 CT.	55	15-18



Case Z



Case A



Case X



A DIVISION OF LITTON INDUSTRIES



TRIAD DISTRIBUTOR DIVISION

AUDIO

LOW LEVEL OUTPUT Transformers

Type No.	Application	Freq. Resp.	Pri. Imped.	Second. Imped.
A-51X	Tube to line.	300-3000	7000	50
A-53X	Single or p.p. tubes to line.	70-7000	18000 CT.	600/250/50
A-55J	Parallel-fed 6J5 or 6SN7 to line. 45 db. shielding	30-15000	15000	600/250/50
A-65J	Parallel-fed 6J5 or 6SN7 to line. 45 db. shielding.	30-15000	15000	600/150 Split winding
S-58X	Line to line.	300-3000	600/150	600/150 —Split windings—
A-67J	Line to line. 45 db. shielding.	30-15000	600/150	600/150 —Split windings—

SPLATTER Chokes

Type No.	Inductance Henries	Current Ma.	Res. Ohms	Wt. Lbs.
C-26X	Tapped to 1.5	100	95	1 1/4
C-43X	Tapped .05 to 1	300	40	2

UNIVERSAL OUTPUT Transformers Single Or Push-Pull Tubes To Voice Coil

Type No.	Application	Impedance	DC Audio MA Watts
S-62X	Single Or P.p. plates	2000-10000	30 2
S-52X	Single or p.p. plates	4000-24000	30 4
S-51X	Single or p.p. plates	4000-14000	35 5
S-63X	Single or p.p. plates	1500- 7000	50 6
S-54X	Single	1500- 5000	70 8
S-53X	Single or p.p. plates	4000-14000	40 8
S-55X	P.p. plates	4000-14000	40 10
S-55Z	P.p. plates	4000-14000	40 10
S-56Z	Single	1500- 6000	85 12
S-59Z	P.p. plates	1500- 4000	65 15
S-57Z	P.p. plates	4000-14000	55 15
S-61Z	P.p. plates	4000-10000	60 20

PLUG-IN INPUT Transformers

Type No.	Application	Pri. Imped.	Second. Imped.	Freq. Resp.	Shld'g
A-202P	Same as above.	200/50 CT. Δ	36,000	20-20000	90 db.
HS-273P	Same as above	200/50 CT. Δ	80,000	30-30000	70 db.
A-210P	Stereo Isolation	1:1 ratio	30,000	20-20000	45 db.

Δ Split Winding

INTERSTAGE Transformers Plate to Grid

Type No.	Application	Freq. Resp.	Pri. Imped.	Second. Imped.	Ratio
A-31X	Plate to single or p.p. grids	300-3000	10000	90000CT	1 : 3
A-33X	Plate to single or p.p. grids	70-7000	10000	90000CT	1 : 3
A-42Z	Multi-ratio single or p.p. plates to single or p.p. grids.	70-7000	15000 CT.	135000CT. or 33750	1 : 1.5 1 : 3 1 : 6
A-35A	Plate to single or p.p. grids	50-10000	10000	90000CT	1 : 3
A-40J	Parallel-fed 6J5 or 6SN7. Plate to p.p. grid 45 db. shielding.	30-15000	15000	115000CT	1 : 2.76

MODULATION Transformers Tube to RF Load

Type No.	Primary	Freq. Resp.	Secondary Impedance	Aud. Wtts.
TY-65Z	32 CT. (575 Ma.) (Transistor use)	70-15000	3000-4000-6000	100 10
M-4Z	5000 (Auto-former).	300-3000	6750 4 (total)	100 10
M-1X	10000 CT. for 19, 1J6, 6N7, 6A6, etc.	300-3000	5000-8000-10000	50 5
M-3X	10000 CT. for 6N7, 6A6, 6F6's, etc.	300-3000	3000-5000-8000	100 20
TY-66A	6 CT. (5A) (Transistor use)	300-3000	3000-4000-6000	200 40
†M-7AL	4250 CT. for 807's	300-3000	3000-5000-8000	200 60
†M-12AL	Multi-match	300-3000	4000 to 20000	300 125

DRIVER Transformers

Type No.	Driver Tubes	Output Tubes	Frequency Response	Ratio Primary 1/2 Sec.	Primary D.C. Ma.
A-81X	30, 1H4, etc.	19, 30's, 1J6, etc.	200-20,000	2.66:1	15
A-83X	6F6, 42, 45, etc.	6L6, 6F6, 6V6, 807, etc.	70-7000	1.33:1	40
A-85X	6F6, 42, 45, etc.	6L6, 6F6, 6V6, 807, etc.	50-10000	2.66:1	40
A-89A	P.p. plates to class B or AB grids—Universal 15 watt.	Any class B or AB tubes. 100-500 watts output	50-10000	3.1 or 1.8:1	100 per side
TY-61X	Transistor use		70-10000	1:0.5	100
TY-158X	Transistor use, dual secondaries		20-20,000	1.5:1:1	50
TY-159X	Transistor use, dual secondaries		20-20,000	3:1:1	50
TY-160X	Transistor use, dual secondaries		20-20,000	6:1:1	50

†Plate leads out side



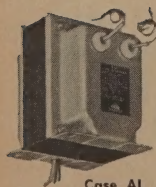
Case X



Case J



Case P



Case AL

TRIAD DISTRIBUTOR DIVISION



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OUTPUT Transformers Tube to Voice Coil and Line

Type No.	Tubes	Pri. Imped.	Sec. Imped.	DC Pri.	Audio Watts
S-27A	2A3, 6A3, 6B4, 6L6, 6AU6, 6Y6, 12A5, 25B6, 35B5, 50A5.	2500	500/16/8/4	80	8
S-28X	2A5, 6AC5, 6B5, 6F6, 6K6, 7B5, 14A5, 25AC5.	7500	500/16/8/4	40	5
S-29X	6AQ5, 6AS5, 6V6, 7C5, 25A6, 25B5, 25L6, 25N6, 35A5, 35L6.	5000	500/16/8/4	45	5
S-22A	P.p. 2A3, 6B4, 6A5, 6L6, etc.	5000 CT.	500/16/8/4	100 (bal.)	15
S-24A	P.p. 6V6, 7C5, 6K6, 6F6, etc.	8000 CT.	500/16/8/4	80 (bal.)	15
S-60A	P.p. 6L6, 5881, 6600 CT.	500/250/16/8/4	120 (bal.)	35	

70.7 volt Line to Voice Coil

Type No.	Primary Impedance	Sec. Imped.	Output Watts	Freq. Resp.
S-70Z	Autoformer 16000/8000/4000/2000/1000.	8/4	5	40-15000
S-71Z	Autoformer 4000/2000/1000/500.	16/8/4	10	40-20000
S-25Z	Autoformer 4000/2000/1000/500.	8/4	10	30-20000
SR-45Z	Autoformer 4000/2000/1000/500.	16/8/4	10	20-20000
SR-74K	Weatherproof autoformer 4000/2000/1000/500.	16/8/4	10	20-20000
S-72Z	Autoformer 2000/1000/500/250.	16/8/4	20	40-20000

70.7 volt Line to Voice Coil (Cont.)

Type No.	Primary Impedance	Sec. Imped.	Output Watts	Freq. Resp.
S-46A	Autoformer 2000/1000/500/250.	16/8/4	20	20-20000
S-75K	Weatherproof autoformer 2000/1000/500/250.	16/8/4	20	20-20000
S-78Z	Isolation 4000/2000/1000/500.	16/8/4	10	40-20000
S-79Z	Isolation 2000/1000/500/250.	16/8/4	20	40-20000
S-47Z	10K/5K/2.5K/1250/625	16/8/4	8	20-20000
S-73X	Isolation 16K/8K/4K/2K/1K	16/8/4	5	40-15000

25 VOLT LINE TRANSFORMERS

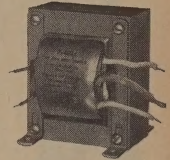
Type No.	Primary Matching Impedance	Secondary Load Impedance	Output Watts
S-131X	1250/625/312	8/4	2
S-132X	1000/500/250/125	16/8/4	5
S-133Z	500/250/125/62.5	16/8/4	10

MATCHING TRANSFORMERS FOR 25 OR 70.7 VOLT LINE

S-129Z	70.7V line to 25V line or, 25V line to 70.7V line	30	20-15000
S-130Z	70.7V line to 25V line or, 25V line to 70.7V line	10	20-15000

Special TRANSCEIVER Transformers (Voice Frequencies)

Type No.	Application	Primary Impedance	Secondary Impedance
A-21X	S.B. mike or plate to grid (2 primaries)	100	100000
A-23X	Tube to line and hi-impedance phones.	10000	50 and 2000



Case U

INSTRUMENTATION GEOFORMERS

LOW FREQUENCY TRANSISTOR TRANSFORMERS

Type No.	Impedance Ohms Pri. Sec.		Turns Ratio	Min. pri. Ind. @ 100MV—60 cy. With No Un- balanced D.C. Current	D. C. Resistance (Ohms) Pri. Sec.		Frequency Response in Cycles Primary Signal of 1 Volt Unbalanced D.C. Secondary Current of								Shielding	Case Mtg.	Wt.
							1 Ma.		2 Ma.		3 Ma.		5 Ma.				
							—3DB	—1DB	—3DB	—1DB	—3DB	—1DB	—3DB	—1DB			
G-18	1000 or 250	125 or 31	2:83:1	60.	500	44	5 to 20000	8 to 7000	5 to 20000	8 to 7000	6 to 20000	9 to 7000	7 to 20000	10 to 7000	P1-H GP-1F	3.2 oz.	
G-19	1000 or 250	1000 or 250	1:1	65.	540	230	12 to 7000	15 to 3800	12 to 7000	15 to 3800	12 to 7000	15 to 3800	20 to 7000	40 to 3800	P1-H GP-2L	5 1/4 oz.	
G-30	1000 CT.	250 CT.	1:1.58	20.	350	1800	20 to 8000	40 to 4200	22 to 8000	45 to 4200	40 to 8000	75 to 4200	70 to 8000	160 to 4200	P1 GP-1F	3.2 oz.	

CHOPPER INPUT TRANSFORMERS

Triad Chopper Input Transformers provide exceedingly close balance between the two halves of the primary winding . . . minimum noise in microvolt ranges of input signals is assured with Triad's special core treatment techniques. For demanding transistor and tube applications, Triad's special design capabilities have an outstanding record. For special applications, consult Triad.

Type No.	Turns Ratio	Minimum Primary Inductance @ 1V—60	Maximum Primary Volts @ 60	Primary Matching Impedance In Ohms	Secondary Matching Impedance In Ohms	D.C. Resistance Primary In Ohms	D.C. Resistance Secondary In Ohms	Stray Fields Shield	Case and Mounting	Weight
G-20‡	1:8	120 h.	25	10,000 CT or 2500	640,000 CT	370	21,000	P5-H	GP-4T	11 1/2 oz.
G-21‡ G-21TS‡	4:1	1200 h.	84	20,000 CT	12,500 CT	4000	1300	P1-H P5-H	GP-2L GP-4T	5 1/4 oz. 11 1/2 oz.
G-22‡	1:4	1000 h.	90	50,000 CT	800,000 CT	2200	19,000	P5-H	GP-5W	1 lb.
G-23‡	6.32:1	1000 h.	75	40,000 CT	1000 CT	4400	160	P1-H	GP-2L	5 1/4 oz.
G-24‡	1:1	400 h. Low capacity coupling less than .02 µF between windings.	19.5	40,000 CT	40,000 CT	1625	1625	P5	GP-5S	1 lb.
G-25‡ G-25TS‡	2:1	800 h.	70	40,000 CT or 10,000 CT	10,000 CT	3200	2200	P1-H P5-H	GP-2L GP-4T	5 1/4 oz. 11 1/2 oz.

‡Static Shield



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TRIAD DISTRIBUTOR DIVISION

TOROIDS

Triad toroids may be ordered with standard leads in strong plastic coating, or epoxy molded encapsulated per Specification MIL-T-27A; TFSRX20Z. To specify molded toroids with gold-plated fixed terminals, an "A" should be added to the full type number; for example, EM-001A.

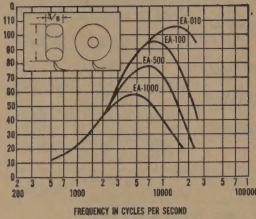


A

TOROIDS

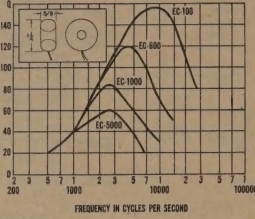


EA SERIES



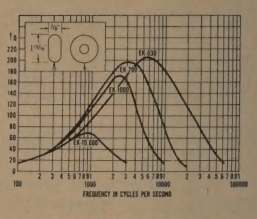
Type No.	Ind.	Res-Ohms Average	D.C.-Ma. for 5% Ind. drop
EA-001	1 mh	.40	270
EA-002	2 mh	.58	192
EA-003	3 mh	.73	157
EA-004	4 mh	.85	135
EA-005	5 mh	1.20	121
EA-007	7 mh	1.42	102
EA-010	10 mh	2.20	86
EA-015	15 mh	3.40	70
EA-020	20 mh	5.05	60
EA-025	25 mh	5.80	54
EA-030	30 mh	7.90	50
EA-040	40 mh	11.40	43
EA-050	50 mh	12.80	38
EA-070	70 mh	19.00	32
EA-100	100 mh	30.00	27
EA-150	150 mh	46.00	22
EA-200	200 mh	52.00	19
EA-250	250 mh	73.00	17
EA-300	300 mh	80.00	16
EA-400	400 mh	115.00	14
EA-500	500 mh	126.00	12
EA-600	600 mh	178.00	11
EA-700	700 mh	193.00	10
EA-1000	1000 mh	297.00	8.6

EC SERIES



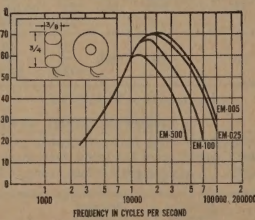
Type No.	Ind.	Res-Ohms Average	D.C.-Ma. for 5% Ind. drop
EC-001	1 mh	.40	520
EC-002	2 mh	.56	368
EC-003	3 mh	.70	300
EC-004	4 mh	.82	260
EC-005	5 mh	.92	233
EC-007	7 mh	1.05	195
EC-010	10 mh	1.30	165
EC-015	15 mh	1.60	134
EC-020	20 mh	1.85	116
EC-030	30 mh	2.85	95
EC-040	40 mh	4.20	82
EC-050	50 mh	4.60	74
EC-070	70 mh	4.60	74
EC-100	100 mh	8.00	52
EC-200	200 mh	25.00	37
EC-250	250 mh	28.00	33
EC-300	300 mh	38.20	30
EC-400	400 mh	44.00	26
EC-500	500 mh	63.50	23
EC-600	600 mh	71.00	21
EC-700	700 mh	88.00	19.5
EC-1000	1000 mh	113.00	16.5
EC-1500	1500 mh	175.00	13.5
EC-2000	2000 mh	243.00	11.6
EC-3000	3000 mh	370.00	9.5
EC-4000	4000 mh	435.00	6.2
EC-5000	5000 mh	645.00	7.4
EC-7000	7000 mh	780.00	6.2
EC-10000	10000 mh	1190.00	5.2

EK SERIES



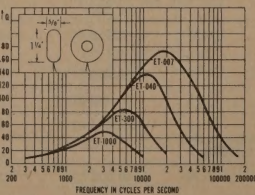
Type No.	Ind.	Res-Ohms Average	D.C.-Ma. for 5% Ind. drop
EK-010	10 mh	.92	262
EK-020	20 mh	1.30	184
EK-030	30 mh	1.65	150
EK-040	40 mh	1.90	130
EK-050	50 mh	3.50	116
EK-060	60 mh	4.00	106
EK-080	80 mh	4.60	92
EK-100	100 mh	5.20	82
EK-120	120 mh	5.50	75
EK-150	150 mh	6.20	67
EK-200	200 mh	7.50	58
EK-250	250 mh	10.30	52
EK-300	300 mh	12.00	47
EK-400	400 mh	16.50	41
EK-500	500 mh	23.60	37
EK-700	700 mh	30.00	31
EK-1000	1000 mh	45.00	26
EK-1500	1500 mh	67.00	21
EK-2000	2000 mh	100.00	18.4
EK-2500	2500 mh	108	16.5
EK-3000	3000 mh	151	15
EK-4000	4000 mh	175	13
EK-5000	5000 mh	250	11.6
EK-7000	7000 mh	380	9.8
EK-10000	10000 mh	500	8.2
EK-20000	20000 mh	1000	5.8
EK-30000	30000 mh	1500	4.1
EK-40000	40000 mh	1850	4.1

EM SERIES



Type No.	Ind.	Res-Ohms Average	D.C.-Ma. for 5% Ind. drop
EM-001	1 mh	2.8	150
EM-002	2 mh	4.1	108
EM-003	3 mh	5.1	87
EM-004	4 mh	6.0	76
EM-005	5 mh	6.8	68
EM-007	7 mh	8.2	57
EM-010	10 mh	10	48
EM-015	15 mh	12.5	39
EM-020	20 mh	14.5	34
EM-025	25 mh	16.5	30
EM-030	30 mh	18	27.6
EM-040	40 mh	27	24
EM-050	50 mh	30	22
EM-060	60 mh	40	19.5
EM-070	70 mh	43	18
EM-100	100 mh	66	15
EM-150	150 mh	100	12.5
EM-200	200 mh	115	11
EM-250	250 mh	167	9.6
EM-300	300 mh	180	8.8
EM-400	400 mh	265	7.6
EM-500	500 mh	295	7
EM-700	700 mh	440	5.8
EM-1000	1000 mh	650	4.8

ET SERIES



Type No.	Ind.	Res-Ohms Approx.	D.C.-Ma. for 5% Ind. drop
ET-001	1 mh	.57	680
ET-002	2 mh	.82	480
ET-003	3 mh	.98	396
ET-004	4 mh	1.10	342
ET-005	5 mh	1.35	306
ET-007	7 mh	1.50	260
ET-010	10 mh	2	217
ET-015	15 mh	3	177
ET-020	20 mh	4.3	153
ET-025	25 mh	4.8	137
ET-030	30 mh	6.9	125
ET-040	40 mh	7.2	108
ET-050	50 mh	8	97
ET-060	60 mh	15.5	88
ET-070	70 mh	16.8	82
ET-100	100 mh	26.0	68
ET-150	150 mh	38.5	56
ET-200	200 mh	44.5	48
ET-250	250 mh	64	43
ET-300	300 mh	72	40
ET-400	400 mh	103	34
ET-500	500 mh	118	31
ET-700	700 mh	173	26
ET-1000	1000 mh	245	22

■ Discontinued item, available until stock depleted.

TRIAD DISTRIBUTOR DIVISION



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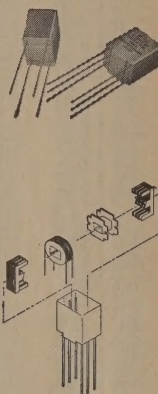
RED SPEC TRANSISTOR TRANSFORMERS

Type No.	Application Type	MIL-T-27A Designation	Primary Impedance	D.C. Res. Pri. Ohms	Max. Unbal. Pri. D.C. Ma.	Secondary Impedance	Max. Power MW
SP-4	Input	TF5RX16ZZ	200000 c.t.	5300	0	1000 c.t.	10
SP-5	Input	TF5RX16ZZ	50000 c.t.	3800	0	1000 c.t.	25
■SP-7	Input	TF5RX16ZZ	200000	5300	0	1000	10
SP-11	Interstage	TF5RX13ZZ	25000	1700	.5	1000	40
SP-13	Interstage	TF5RX13ZZ	25000 c.t.	1700	.5	1000 c.t.	40
SP-15	Interstage	TF5RX13ZZ	10000 c.t.	1050	1	1500 c.t.	50
SP-20	Driver	TF5RX13ZZ	10000 c.t.	1050	1	1200 c.t.	50
SP-21	Driver	TF5RX13ZZ	10000 c.t.	1050	1	2000 c.t.	50
SP-22	Driver	TF5SX13ZZ	10000	1050	1	2000 c.t./500†	50
SP-29	Driver	TF5RX13ZZ	10000 c.t.	1050	1	500 c.t.	50
*SP-32	Output	TF5RX17ZZ	500	60	3	50	50
SP-33	Output	TF5RX17ZZ	1000	145	3	50	50
SP-34	Output	TF5RX17ZZ	600	70	3	3.2	50
SP-35	Output	TF5RX13ZZ	1200	120	2	3.2	50
SP-36	Output	TF5RX13ZZ	10000	1160	1	3.2	50
SP-42	Output	TF5RX17ZZ	150 c.t.	18	10	12	50
■SP-43	Output	TF5RX17ZZ	300 c.t.	38	7	12	50
■SP-44	Output	TF5RX17ZZ	600 c.t.	75	4.5	12	50
■SP-46	Output	TF5RX17ZZ	1000 c.t.	120	3.5	12	50
SP-47	Output	TF5RX13ZZ	1500 c.t.	180	3	12	50
SP-47	Output	TF5RX13ZZ	7500 c.t.	820	1	12	50
SP-49	Output	TF5RX17ZZ	300 c.t.	37	7	600	50
SP-50	Output	TF5RX17ZZ	500 c.t.	60	3	600	50
SP-51	Output	TF5RX17ZZ	900 c.t.	100	4	600	50
SP-52	Output	TF5RX13ZZ	1500 c.t.	170	3	600	50
■SP-59	Output	TF5RX17ZZ	120 c.t.	15	10	3.2	50
■SP-60	Output	TF5RX17ZZ	320 c.t.	40	6	3.2	50
■SP-61	Output	TF5RX17ZZ	600 c.t.	70	4.5	3.2	50
■SP-62	Output	TF5RX17ZZ	800 c.t.	100	4	3.2	50
SP-63	Output	TF5RX13ZZ	1200 c.t.	125	3	3.2	50
■SP-64	Output	TF5RX13ZZ	1600 c.t.	190	2.5	3.2	50
SP-65	Output	TF5RX13ZZ	8000 c.t.	820	1	3.2	50
SP-66	Output Isolation	TF5RX13ZZ	10000 c.t.	1000	1	10000 c.t.	50
SP-67	Output Isolation	TF5RX17ZZ	600 c.t.	73	3	600 CT.	50
SP-68	Output Isolation	TF5SX13ZZ	10000	1000	1	10000 c.t./2500†	50
SP-69	Output Isolation	TF5SX17ZZ	600	72	3	600 c.t./150†	50
SP-70	Output Isolation	TF5RX17ZZ	600	73	3	600	50
SP-106	Choke	TF5RX20ZZ	6 hy.	1700	2	—	—
SP-107	Choke	TF5RX20ZZ	1.25 hy.	180	2	—	—
SP-108	Choke	TF5RX20ZZ	3.5 hy.	1100	2	—	—
■SP-117	Choke	TF5RX20ZZ	.9HY	110	2	—	—
SP-118	Choke	TF5RX20ZZ	.3 hy.	42	4	—	—
SP-128	Choke	TF5RX20ZZ	.1HY	15	5	—	—
SP-310	Magnetic shielding case						

CT For Center Tap.

†Split secondary.

■Discontinued item.



Sub-miniature Encapsulated TOROIDAL INDUCTORS

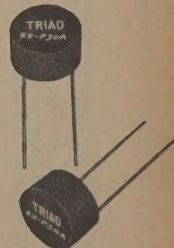
Triad sub-miniature toroidal inductors, designed for quick, easy printed-circuit board mounting, are now stocked for immediate delivery in a range of standard ratings from 50 micro-henries to 500 milli-henries. Many uses, especially in airborne telemetry applications incorporating Triad's sub-miniature filters FL-384 through FL-388. Case size of units is 7/8 inch diameter by 1/4 inch high. Providing an optimum combination of high Q and extremely small-size, this series is ideal for printed board, transistor or vacuum tube application.

Triad sub-miniature inductors are toroidally wound on permalloy powdered cores. Encapsulated in high temperature epoxy resin. Weldable or solderable leads of gold plated nickel alloy. Highly resistant to severe acceleration, shock or vibration. Manufactured to MIL-T-27A, Grade 5 Class S (MIL type TF5SX20ZZ).

NOTE: Ma. DC maximum is for approximately 5% drop in inductance. Those figures marked * will give less than 5% inductance drop but should not be exceeded under operating conditions.

Inductance tolerance of EX-P05A through EX-P50A is $\pm 5\%$; EX-001A through EX-500A is $\pm 2\%$.

Cat. No.	Inductance (0 DC)	DCR (ohms) $\pm 25\%$	Maximum Ma. DC
EX-P05A	50 μ h	1.0	150*
EX-P10A	100 μ h	1.4	150*
EX-P20A	200 μ h	1.9	150*
EX-P30A	300 μ h	2.3	150*
EX-P50A	500 μ h	3.0	150*
EX-001A	1 mh	4.3	150*
EX-002A	2 mh	8	110
EX-003A	3 mh	6.5	60
EX-005A	5 mh	11	47
EX-010A	10 mh	15.6	33
EX-020A	20 mh	28	23
EX-030A	30 mh	42	19
EX-050A	50 mh	48	14
EX-100A	100 mh	86	10
EX-200A	200 mh	139	6
EX-300A	300 mh	206	5
EX-400A	400 mh	310	4.5



Prices subject to change without notice. Net prices shown for 1-9 quantity. For 1 to 249 pieces, see your stocking Triad Distributor for quantity discount schedule. For 250 or more pieces, contact your Triad Representative or call the factory.



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TRAD DISTRIBUTOR DIVISION

PRICE INDEX BY TYPE NUMBER

Triad No.	Sugg'd Resale Price	Triad No.	Sugg'd Resale Price	Triad No.	Sugg'd Resale Price	Triad No.	Sugg'd Resale Price	Triad No.	Sugg'd Resale Price	Triad No.	Sugg'd Resale Price	Triad No.	Sugg'd Resale Price	Triad No.	Sugg'd Resale Price	Triad No.	Sugg'd Resale Price
A-1X	2.97	A-300X	5.55	D-56	8.07	D-157	10.35	D-611	7.93	EC-040A	6.33	EK-40000	8.44	ET-500A	7.70		
A-3X	3.32	A-301X	5.13	D-57	9.15	D-158	4.88	D-612	7.80	EC-050A	4.08	EK-40000A	11.74	ET-700	7.70		
A-4X	4.15	A-302X	5.33	D-58	6.63	D-159	7.95	D-613	7.77	EC-060A	6.38	EM-001	3.92	ET-700A	7.70		
A-5X	4.28	A-304X	5.95	D-59	7.35	D-160	8.55	D-614	8.34	EC-070A	4.13	EM-001A	5.60	ET-1000	7.70		
A-6X	3.25	A-305X	6.17	D-60R	6.43	D-161	7.50	D-615	6.86	EC-070A	6.63	EM-002	3.93	ET-1000A	7.70		
A-7J	4.95	A-200P	15.00	D-61	5.55	D-162	7.80	D-616	7.82	EC-100	4.18	EM-002A	3.93	EX-P05A	8.10		
A-9J	10.00	A-210P	20.85	D-62	5.82	D-163	6.62	D-617	8.40	EC-100A	6.92	EM-003	3.95	EX-P10A	8.10		
A-10J	4.43	A-210P	10.86	D-63	6.40	D-164	7.28	D-618	10.20	EC-200	4.21	EM-003A	5.63	EX-P20A	8.50		
A-11J	9.64	C-1X	2.35	D-64	7.50	D-165	7.41	D-619	8.00	EC-200A	6.72	EM-004	3.98	EX-P30A	8.10		
A-12J	9.95	C-2X	2.07	D-65	9.25	D-166	6.45	D-620	6.50	EC-250	4.33	EM-004A	5.67	EX-P50A	8.10		
A-13J	9.35	C-3X	2.75	D-66	9.60	D-167	9.92	D-621	7.80	EC-250A	6.80	EM-005	4.03	EX-001A	8.10		
A-21X	3.53	C-4X	2.30	D-67	9.98	D-168	5.35	D-622	8.70	EC-300	4.40	EM-005A	5.73	EX-002A	8.10		
A-23X	2.85	C-5X	3.26	D-68	1.15	D-169	8.70	D-623	8.40	EC-300A	6.97	EM-007	4.65	EX-003A	8.50		
A-24X	3.90	C-6X	2.73	D-69	7.28	D-170	7.83	D-624	8.80	EC-400	4.50	EM-007A	5.75	EX-005A	8.50		
A-33X	4.85	C-7X	3.48	D-70	8.40	D-171	7.33	D-625	6.82	EC-400A	6.93	EM-010	4.15	EX-010A	8.72		
A-35A	6.18	C-8X	3.38	D-71	7.20	D-172	8.49	D-626	7.20	EC-500	4.60	EM-010A	5.80	EX-020A	8.72		
A-39A	8.65	C-9X	2.90	D-72	8.27	D-173	8.73	D-627	7.90	EC-500A	6.93	EM-015	4.23	EX-030A	9.27		
A-40J	9.82	C-10X	4.13	D-73R	8.57	D-174	7.35	D-628	7.68	EC-600	4.67	EM-015A	5.88	EX-050A	9.27		
A-41J	9.24	C-11X	3.62	D-74	7.14	D-175	7.15	D-629	3.57	EC-600A	7.00	EM-020	4.30	EX-100A	9.89		
A-42Z	5.13	C-12A	6.00	D-75	8.40	D-176	2.85	D-630	7.68	EC-700	4.75	EM-020A	5.95	EX-200A	10.55		
A-50J	6.55	C-12X	4.32	D-76R	9.02	D-177	7.50	D-631	7.86	EC-700A	7.08	EM-025	4.38	EX-300A	10.77		
A-51X	3.33	C-13X	4.55	D-77R	9.47	D-178	8.43	D-632	7.86	EC-1000	4.85	EM-025A	6.00	EX-400A	10.99		
A-52J	6.80	C-14A	6.48	D-78	7.19	D-179	6.88	D-633	7.72	EC-1000A	7.25	EM-030	4.45	F-1X	3.58		
A-53X	4.08	C-14X	7.95	D-79	7.57	D-180	7.83	D-634	7.03	EC-1500	4.90	EM-030A	5.17	F-2X	4.62		
A-54X	2.73	C-15A	6.27	D-80	7.48	D-181	7.85	EC-001	3.28	EC-1500A	7.57	EM-040	4.50	F-3X	6.59		
A-55J	9.47	C-15X	4.58	D-81	7.27	D-182	7.48	EC-001A	5.70	EC-2000	5.00	EM-040A	6.20	F-4X	4.62		
A-57J	9.12	C-16A	8.25	D-82	9.32	D-183	7.50	EC-002	3.32	EC-2000A	7.65	EM-050	4.53	F-7X	4.60		
A-58J	7.73	C-17X	3.77	D-83R	5.95	D-184	8.22	EC-002A	5.70	EC-3000	5.10	EM-050A	6.22	F-8X	5.22		
A-59J	4.52	C-18A	2.68	D-84	7.50	D-185	7.50	EC-003	3.47	EC-3000A	9.00	EM-050A	5.03	F-9X	6.62		
A-61J	6.30	C-19A	12.30	D-85	9.44	D-186	7.80	EC-003A	5.75	EC-4000	5.18	EM-060A	6.25	F-9U	9.69		
A-65J	9.69	C-20A	13.65	D-86	9.77	D-187	7.65	EC-004	3.35	EC-4000A	8.00	EM-070	4.60	F-10U	10.07		
A-66J	8.65	C-21X	3.15	D-87	8.18	D-188R	7.88	EC-004A	5.77	EC-5000	5.25	EM-070A	6.27	F-11U	10.79		
A-67J	9.77	C-22A	22.50	D-88	7.40	D-189	9.05	EC-005	3.37	EC-5000A	8.32	EM-100	4.65	F-12X	6.05		
A-68J	9.07	C-23X	3.67	D-89R	7.50	D-190	7.50	EC-005A	5.78	EC-7000	5.80	EM-100A	6.25	F-12X	6.05		
A-69J	8.32	C-24X	9.68	D-90	8.45	D-191	7.48	EC-007	3.37	EC-7000A	8.18	EM-150	4.73	F-14X	3.17		
A-70J	6.45	C-25A	6.10	D-91	9.99	D-192	6.98	EC-007A	5.78	EC-10000	5.42	EM-150A	6.40	F-14Z	3.55		
A-75J	5.85	C-26X	3.55	D-92	8.15	D-193	9.32	EC-010	3.38	EC-10000A	9.60	EM-200	4.83	F-15U	9.32		
A-77J	8.39	C-27X	2.50	D-93	7.90	D-194	7.20	EC-010A	5.80	EC-010	5.70	EM-250	6.47	F-16X	3.98		
A-78J	8.42	C-28X	3.57	D-94R	8.35	D-195	6.50	EC-015	4.00	EC-150A	8.90	EM-250A	4.88	F-17X	3.98		
A-79J	9.32	C-29X	3.95	D-95	7.20	D-196	6.57	EC-015A	5.90	EC-020	2.53	EM-250A	6.57	F-18X	7.05		
A-81X	3.23	C-30X	3.00	D-96	9.57	D-197	6.33	EC-020	3.42	EC-020A	8.92	EM-300	4.93	F-18X	5.85		
A-83X	7.55	C-31A	8.13	D-97R	10.30	D-198	9.45	EC-020A	5.92	EC-030	5.77	EM-300A	6.67	F-19X	6.18		
A-85X	4.12	C-32AL	13.00	D-98R	10.57	D-199	7.35	EC-025	3.47	EC-030A	8.95	EM-400	4.98	F-20U	9.82		
A-89A	8.55	C-33A	12.22	D-99	7.97	D-200	6.68	EC-025A	6.08	EC-040	5.82	EM-400A	6.72	F-21A	19.00		
A-91A	8.45	C-34X	2.68	D-100	7.47	D-201	7.50	EC-030	3.47	EC-040A	9.00	EM-500	5.03	F-22A	12.50		
A-95X	3.08	C-35A	13.98	D-101	7.90	D-202	7.43	EC-030A	6.08	EC-050	5.87	EM-500A	6.73	F-23U	7.77		
A-96X	3.67	C-36X	2.42	D-102	7.65	D-203	7.58	EC-040	3.50	EC-050A	9.00	EM-700	5.10	F-24A	8.44		
A-97K	4.08	C-38AL	24.73	D-103	8.80	D-204	7.92	EC-040A	6.12	EC-060	5.93	EM-700A	6.83	F-25X	3.75		
A-97X	3.05	C-39A	23.34	D-104	6.30	D-205	8.00	EC-050	3.50	EC-060A	9.09	EM-1000	5.15	F-26X	4.15		
A-98X	4.07	C-40X	3.15	D-105	7.67	D-206	7.65	EC-050A	6.12	EC-080	5.98	EM-1000A	6.92	F-27U	7.40		
A-97Z	3.38	C-42AL	12.62	D-106	7.44	D-207	7.92	EC-070	3.57	EC-080A	9.24	EM-150	4.47	F-28U	18.07		
A-98K	5.10	C-43X	4.77	D-107	8.80	D-208	6.88	EC-070A	6.18	EC-100	5.92	EM-200A	6.83	F-29U	12.51		
A-98X	2.68	C-45AL	30.74	D-108	10.20	D-209	9.32	EC-100	3.62	EC-100A	9.45	EM-200	4.50	F-30A	9.97		
A-99X	4.65	C-47U	7.60	D-109	6.90	D-210	6.67	EC-100A	6.23	EC-120	6.13	EM-200A	6.92	F-32A	7.02		
A-101U	6.00	C-48U	9.55	D-110	8.28	D-211	7.77	EC-150	3.75	EC-120A	8.40	EM-250	4.53	F-34A	8.67		
A-103X	4.07	C-49U	14.99	D-111	8.10	D-212	7.85	EC-150A	6.50	EC-150	9.20	EM-250A	6.92	F-36A	11.35		
A-105X	3.93	C-50X	6.53	D-112	8.62	D-213	7.86	EC-200	3.80	EC-150A	9.55	EM-004	4.53	F-38A	11.94		
A-104X	4.73	C-56X	3.90	D-113	8.57	D-214	7.57	EC-200A	6.55	EC-200	6.27	EM-004A	6.97	F-40X	3.38		
A-105X	3.93	C-57U	6.05	D-114	9.35	D-215	8.34	EC-250	3.83	EC-200A	9.55	EM-005	4.57	F-41X	4.82		
A-107X	5.68	C-58U	8.53	D-115R	7.17	D-216	6.58	EC-250A	6.58	EC-250	6.40	EM-005A	7.00	F-42A	7.40		
A-108X	4.32	C-59U	9.63	D-116	10.94	D-217	7.33	EC-300	3.88	EC-250A	9.74	EM-007	4.80	F-43X	4.73		
A-109X	4.22	C-60U	17.12	D-117	7.02	D-218	8.94	EC-300A	6.63	EC-300	6.57	EM-007A	7.03	F-44X	3.73		
A-110X	4.08	C-80U	36.97	D-118R	8.40	D-219	6.67	EC-400	3.97	EC-300A	9.85	EM-010	4.62	F-45X	3.73		
A-111X	3.98	CE-1	9.92	D-119	8.18	D-220	6.87	EC-400A	6.92	EC-400	6.70	EM-010A	7.08	F-47U	8.07		
A-112X	4.43	CE-4	11.50	D-120	7.30	D-221	7.50	EC-500	4.08	EC-400A	10.00	EM-015	4.63	F-48U	9.97		
A-113X	4.27	CE-5	10.85	D-121	7.22	D-222	9.02	EC-500A	6.77	EC-500	6.72	EM-020	4.53	F-49U	16.35		
A-113Z	3.43	D-1	6.90	D-122	7.30	D-223	11.10	EC-600A	4.17	EC-500A	10.07	EM-020	4.65	F-50X	5.55		
A-114X	4.90	D-2	6.90	D-123	7.88	D-224	10.35	EC-600A	6.92	EC-700	6.85	EM-020A	7.17	F-51X	5.68		
A-115X	4.35	D-11	10.22	D-124	6.67	D-225	9.40	EC-700A	4.25	EC-700A	10.17	EM-025	4.70	F-52X	4.15		
A-115Z	3.40	D-14R	9.00	D-125	7.62	D-226	9.00	EC-700A	7.00	EC-1000	7.15	EM-025A	7.20	F-53X	5.45		
A-116X	3.82	D-19	7.01	D-126	7.67	D-227	8.40	EC-1000	4.35	EC-1000A	7.00	EM-250	4.73	F-54X	7.10		
A-117X	4.08	D-20	7.45	D-127	7.44	D-228	8.32	EC-1000A	7.10	EC-1500	7.05	EM-250A	7.25	F-56X	7.48		
A-118X	4.53	D-22	7.80	D-128	2.53	D-229	7.73	EC-001	3.60	EC-1500A	10.37	EM-040	4.80	F-61U	10.17		
A-119X	5.20	D-27	7.82	D-129	6.83	D-230	8.33	EC-001A	5.72	EC-2000	7.08	EM-040A	7.37	F-62U	25.24		
A-120X	3.05	D-28	6.57	D-130R	6.47	D-231	6.00	EC-002	3.63	EC-2000A	10.44	EM-050	4.85	F-63U	7.05		
A-120Z	2.83	D-33	7.13	D-131	9.58	D-232	6.00	EC-002A	5.72	EC-2500	7.15	EM-050A	4.93	F-71U	8.75		
A-122X	2.72	D-36	13.32	D-132	7.77	D-233	5.12	EC-003	3.67	EC-2500A	10.54	EM-060	4.90	F-72Z	10.55		
A-123X	3.85	DA-37	2.49	D-133	9.12	D-230	12.92	EC-003A	5.93	EC-30							

TRAD DISTRIBUTOR DIVISION



A DIVISION OF LITTON INDUSTRIES

PRICE INDEX BY TYPE NUMBER



Triad No.	Sugg'd Resale Price	Triad No.	Sugg'd Resale Price	Triad No.	Sugg'd Resale Price	Triad No.	Sugg'd Resale Price	Triad No.	Sugg'd Resale Price	Triad No.	Sugg'd Resale Price	Triad No.	Sugg'd Resale Price	Triad No.	Sugg'd Resale Price	Triad No.	Sugg'd Resale Price
F-104U	8.65	G-101	26.22	HSM-190	45.19	HS-475	35.92	N-57M	52.33	R-6A	8.03	R-83A	18.59	S-11Z	2.45		
F-105Z	4.17	G-101TS	32.67	HSM-192	45.04	JAF-1	16.25	N-59M	56.95	R-6B	7.95	R-84K	6.15	S-12X	2.37		
F-106Z	5.05	G-135	24.02	HSM-193	45.04	JAF-2	16.35	N-60SC	119.17	R-7A	8.22	R-85A	15.99	S-12Z	2.38		
F-107Z	7.50	G-150	19.60	HSM-200	18.20	JAF-3	16.25	N-62AC	54.30	R-7B	8.13	R-86BA	12.48	S-13X	2.48		
F-108U	9.97	G-183	29.41	HSM-201	23.09	JAF-5	16.25	N-64AC	30.22	R-8A	8.65	R-87BC	16.62	S-13Z	2.58		
F-109U	17.89	G-201	19.60	HSM-202	17.79	JAF-11	16.25	N-66A	17.95	R-8B	8.05	R-88A	17.92	S-14Z	2.47		
F-200A	7.22	G-202	26.21	HSM-203	26.34	JAF-12	16.25	N-67A	11.55	R-8C	8.17	R-89BC	17.15	S-15A	3.27		
F-202U	7.23	G-235	24.17	HSM-205	33.87	JAF-13	16.25	N-68X	5.88	R-8E	10.05	R-90BC	18.10	S-16X	2.28		
F-203U	8.89	G-250	22.19	HSM-207	36.24	JAF-14	16.25	N-73A	11.28	R-10A	10.09	R-91HA	17.82	S-17X	2.43		
F-204U	13.10	G-255	23.10	HSM-208	44.49	JAF-15	14.57	N-74A	11.67	R-10B	10.00	R-92A	18.15	S-18X	2.33		
F-205U	16.67	G-266	26.61	HSM-212	47.43	JAF-21	16.25	N-469A	7.35	R11A	10.77	R-93A	16.17	S-18Z	2.35		
FL-381	43.90	G-274	26.17	HSM-216	54.64	JAF-22	16.25	N-470A	10.62	R-11B	10.70	R-94A	26.11	S-19Z	4.22		
FL-389	41.39	G-283	24.92	HSM-218	78.78	JAF-23	16.25	N-471A	16.92	R-12A	6.64	R-104A	6.00	S-20X	2.40		
FL-385	61.42	G-284	24.57	HSM-219	72.53	JAF-24	16.25	NW-1	.60	R-12B	9.64	R-104B	6.02	S-20Z	2.40		
FL-386	61.42	G-285	20.00	HSM-223	11.62	JAF-25	16.25	NW-2	.72	R-14A	12.67	R-105A	6.90	S-21A	4.72		
FL-387	61.42	G-301	20.82	HSM-224	19.94	JAF-26	16.25	NW-3	.78	R-14B	12.67	R-105B	6.90	S-21Z	4.05		
FL-388	63.62	G-306	21.40	HSM-225	22.47	JAF-31	16.25	NW-4	.78	R-16A	13.87	R-106A	7.28	S-22A	7.13		
FL-403	39.00	G-313	21.77	HSM-226	19.00	JAF-32	16.25	NW-5	.78	R-16B	13.87	R-106B	7.33	S-23X	2.37		
FL-404	39.00	G-315	21.57	HSM-227	22.42	JAF-33	16.49	NW-6	.72	R-17A	15.27	R-107A	7.60	S-24A	6.77		
FL-405	39.00	G-335	20.00	HSM-228	26.66	JAF-34	16.25	NW-7	.60	R-18A	16.13	R-107B	7.60	S-25Z	3.98		
FL-406	39.00	G-336	19.74	HSM-229	24.25	JAF-35	16.25	NW-10	.60	R-18B	15.92	R-108A	7.82	S-26X	2.50		
FL-407	39.00	G-350	18.91	HSM-230	17.35	JAF-101	16.25	NW-14	.78	R-19A	16.45	R-108B	7.73	S-27A	6.05		
FL-408	39.00	G-355	18.72	HSM-231	25.39	JAF-102	16.25	NW-18	.60	R-20A	15.95	R-109A	7.38	S-28X	4.72		
FL-409	39.00	G-388	16.06	HSM-232	33.14	J0-1	12.84	NW-19	.60	R-20B	15.64	R-109B	7.38	S-29X	2.67		
FL-410	39.00	G-389	16.34	HSM-233	18.97	J0-2	12.84	NW-21	.67	R-21A	17.28	R-110A	8.65	S-30X	2.67		
FL-411	39.00	G-391	18.91	HSM-234	37.61	J0-3	12.84	NW-22	.82	R-21B	17.00	R-110B	8.65	S-31A	8.67		
FL-412	39.00	G-394	14.02	HSM-235	50.43	J0-5	12.84	NW-23	.72	R-22A	7.90	R-111A	8.95	S-32A	8.82		
FL-413	39.00	G-401	19.60	HSM-236	23.15	J0-11	12.84	NW-24	.72	R-22B	7.80	R-111B	8.95	S-34X	4.73		
FL-414	39.00	G-435	23.84	HSM-237	16.49	J0-12	12.84	P-1A	9.10	R-23A	16.45	R-112A	9.15	S-35A	10.27		
FL-415	42.00	G-435TS	25.85	HSM-238	30.19	J0-13	12.84	P-1A	9.10	R-24A	19.65	R-112B	9.15	S-36A	9.32		
FL-416	42.00	G-437	23.52	HSM-239	18.67	J0-21	12.84	P-3A	11.02	R-24B	19.65	R-113A	7.57	S-37X	4.43		
FL-417	42.00	G-437TS	25.85	HSM-240	21.77	J0-22	12.84	P-5A	14.47	R-25A	34.01	R-133A	7.57	S-38X	2.15		
FL-418	42.00	G-455	23.07	HSM-241	44.83	J0-23	12.84	P-7A	15.40	R-26A	22.29	R-14A	9.95	S-38Z	2.15		
FL-419	42.00	G-500	34.44	HSM-245	53.51	J0-23	12.84	P-8A	27.87	R-27A	31.21	R-14B	9.95	S-39X	2.40		
FL-421	42.00	G-501	32.84	HS-247	70.53	J0-101	12.84	P-1A	13.67	R-28A	30.09	R-15A	8.50	S-40X	4.48		
FL-429	42.00	G-502	35.84	HSM-248	29.18	JZ-1	10.83	P-14A	21.22	R-29A	5.92	R-115B	8.50	S-41X	2.30		
G-2	33.61	GF-600	36.84	HSM-249	15.25	JZ-15	10.83	P-15AL	25.50	R-30X	5.45	R-116A	11.07	S-41Z	2.05		
G-2N3	33.65	GF-601	47.87	HSM-250	17.60	JZ-7	10.83	P-16AL	45.03	R-35A	19.09	R-116B	11.07	S-42A	15.19		
G-4	23.44	GF-602	33.25	HSM-251	24.27	JZ-13	10.83	P-17AL	25.22	R-37BC	25.57	R-118A	13.00	SR-45Z	6.40		
G-5	31.77	HC-115	29.25	HSM-252	31.16	JZ-15	10.83	P-18AL	49.48	R-38A	23.59	R-118B	13.00	S-46A	9.67		
G-5TS	28.30	HC-300	38.10	HSM-253	47.06	JZ-25	10.83	P-20AL	48.62	R-38BC	20.45	R-120A	12.75	S-47Z	4.03		
G-7	11.69	HS-1	25.27	HSM-254	67.46	JZ-26	10.83	PR-21AL	50.67	R-39A	18.05	R-120B	12.75	S-48X	2.00		
G-8	39.22	HS-3	31.92	HSM-270	26.04	K-20 Kit	6.98	P-213AL	21.30	R-39BC	18.90	R-121A	14.65	S-48Z	2.00		
G-10	39.99	HS-4	28.40	HSM-271	33.87	K-100	24.00	P-215AL	21.65	R-39BC	26.07	R-121B	14.65	S-49X	2.12		
G-12	27.84	HS-5	22.00	HSM-272	48.19	K-101	27.33	P-216AL	43.30	R-41C	15.97	R-122A	16.50	S-50X	2.40		
G-14	19.50	HS-8	28.58	HS-273P	19.65	K-102	27.33	PR-42BC	48.42	R-123A	16.47	R-123HA	16.47	S-51X	3.57		
G-14TS	32.74	HS-11	19.00	HSM-301	21.10	K-103	52.00	P-218AL	48.32	R-43C	12.49	R-124BC	13.84	S-52X	4.48		
G-17	30.84	HS-14	25.59	HSM-302	12.44	K-104	82.00	P-220AL	43.33	R-45C	14.99	R-125BC	16.15	S-53X	4.10		
G-18	23.49	HS-15	31.92	HS-303	14.49	K-105	100.00	PL-4	10.06	R-46A	28.51	R-126A	15.44	S-54X	4.52		
G-18TS	24.40	HS-23	22.87	HSM-305	16.95	K-1A-1	2.50	PL-5	12.13	R-49BC	22.90	R-127A	16.14	S-55X	5.45		
G-19	25.11	HS-25	26.22	HSM-307	22.65	K-1A-2	2.50	PL-6	12.13	R-49BS	21.27	R-128BC	17.34	S-55Z	5.57		
G-19TS	24.53	HS-27	24.72	HSM-309	21.82	K-1A-3	3.25	PL-10	1.78	R-50A	26.06	R-129BC	19.00	S-56Z	5.27		
G-20	37.51	HS-29	25.92	HSM-315	23.59	M-1X	3.48	PL-80E	10.94	R-50BC	24.60	R-131A	24.25	S-57Z	5.93		
G-21	31.69	HSM-31	27.33	HSM-319	33.87	M-3X	5.77	PL-80H	12.14	R-51BC	22.19	R-132BC	15.55	S-58X	3.18		
G-21TS	38.67	HS-32	26.84	HS-331	9.37	M-4Z	4.17	PL-80P	11.52	SR-52BC	17.15	R-133A	17.15	S-59Z	5.72		
G-22	38.12	HS-35	19.51	HS-333	10.67	M-5Z	4.11	PL-81E	11.47	R-54X	2.72	R-134A	16.40	S-60A	10.24		
G-22H	25.85	HS-50	25.29	HS-335	14.20	M-6X	4.77	PL-81H	12.25	R-56A	6.55	R-135BC	18.14	S-61Z	5.93		
G-23	31.22	HS-52	26.27	HS-339	16.50	M-7AL	11.22	PL-81P	11.67	R-58A	18.39	R-136BC	15.84	S-62X	4.17		
G-24	33.34	HS-54	25.71	HS-341	17.75	M-8AL	14.77	PL-82E	11.39	R-60BC	20.39	R-138A	15.74	S-63X	3.52		
G-25	31.11	HS-56V	30.19	HS-400	15.34	M-12AL	22.15	PL-82H	12.69	R-61BC	22.29	R-139A	15.45	S-64X	2.80		
G-25TS	38.22	HS-58	36.64	HS-401	23.17	M-15A	9.05	PL-82P	12.02	R-62BC	28.42	R-200A	16.20	S-65X	2.57		
G-30	18.00	HS-60	19.32	HS-402	15.96	M-16AL	11.34	PL-83E	12.17	R-63BC	16.15	R-201A	15.82	S-66X	2.85		
G-31	25.69	HS-61	20.64	HS-404	26.47	MB-20	.72	PL-83H	12.92	R-64BC	18.19	R-202A	15.07	S-67X	2.77		
G-32	32.74	HS-66	25.71	HS-405	28.56	MB-31	.45	PL-83P	12.27	R-65BC	18.19	R-203A	14.15	S-68Z	3.78		
G-33	30.79	HS-71	14.10	HS-407	34.32	MK-1	3.58	PL-84E	11.82	R-68BC	17.24	R-204A	14.87	S-69Z	5.35		
G-34	27.89	HS-73	16.75	HS-409	30.87	MK-2	3.58	PL-84H	13.07	R-69BC	18.59	R-205A	14.27	S-70Z	3.63		
G-36	19.79	HS-75	24.39	HS-413	34.82	MK-3	.42	PL-84P	12.42	SR-66BC	16.15	R-206B	10.48	S-71Z	5.10		
G-40	29.66	HS-77	21.20	HS-415	47.21	N-1X	4.42	PL-12AE	11.39	R-68A	9.77	R-300A	19.00	S-72Z	4.20		
G-40TS	37.27	HSM-79	22.89	HS-417	49.44	N-3M	8.90	PL-12AH	12.77	R-69BC	17.37	R-375A	19.00	S-73X	4.40		
G-48	18.40	HSM-80	24.45	HS-425	16.34	N-4M	10.20	PL-139E	9.80	R-70A	11.97	S-1X	2.70	SR-74K	6.45		
G-48TS	26.69	HSM-81	33.92	HS-427	21.19	N-5M	10.20	PL-139H	10.88	R-71A	18.94	S-2X	2.45	SR-75K	11.32		
G-51	22.02	HSM-82	35.64	HS-433	23.34	N-7M	50.10	PL-139M	11.75	R-72A	12.20	S-3X	2.60	S-76Z	5.23		
G-51A	22.62	HSM-84	34.02	HS-435	25.54	N-9M	22.72	PL-140E	11.39	R-73B	8.64	S-4X	2.98	S-77U	10.22		
G-53	29.02	HSM-85R	36.52	HS-436	11.75	N-11M	56.55	PL-140H	12.77	R-74BC	17.99	S-5X	3.32	S-78Z	4.47		
G-53A	20.80	HS-91	39.33	HS-438	20.59	N-34X	6.25	PL-140M	13.85	R-75BA	19.29	S-6Z	3.32	S-79Z	4.92		
G-54	28.79	HS-94	49.87	HS-441	39.47	N-52M	47.03	PL-146E	11.39	R-76BC	19.72	S-6X	2.30	S-129Z	4.95		
G-57	19.62	HS-95	43.65	HS-442	22.34	N-53M	18.17										



PRICE INDEX BY TYPE NUMBER

Triad No.	Sugg'd Resale Price	Triad No.	Sugg'd Resale Price	Triad No.	Sugg'd Resale Price	Triad No.	Sugg'd Resale Price	Triad No.	Sugg'd Resale Price	Triad No.	Sugg'd Resale Price	Triad No.	Sugg'd Resale Price
S-149A	18.35	SP-66	8.48	T-32X	3.35	TY-46X	3.03	TY-86	21.80	WLC-4	1.32	V-21	5.23
S-152A	19.77	SP-67	7.55	T-33X	4.90	TY-47X	4.55	TY-87	22.50	WLC-5	1.33	V-21B	5.93
S-154A	21.57	SP-68	8.90	T-34X	3.38	TY-48X	4.02	TY-88	13.02	WLC-6	1.32	V-21K	5.19
S-156A	16.50	SP-69	8.50	T-35X	3.98	TY-49X	3.98	TY-89	12.82	WLC-7	1.35	V-21Z	5.38
S-158A	25.54	SP-70	6.95	T-41X	4.62	TY-50X	7.13	TY-90	16.10	WLC-8	1.80	V-23	5.50
SP-4	10.50	SP-106	7.07	T-42X	3.90	TY-51X	4.50	TY-91	15.37	WLC-8A	1.80	V-23B	6.65
SP-5	9.95	SP-107	5.98	T-101X	4.02	TY-52X	5.63	TY-92	15.50	WLC-9	1.88	V-23K	8.34
SP-7	9.52	SP-108	6.22	T-102X	2.77	TY-53X	4.20	TY-93	24.77	WLC-10	1.59	V-23Z	5.67
SP-11	8.27	SP-117	6.28	TY-1XT	3.82	TY-54X	5.22	TY-94	22.64	WLC-11	2.05	Y-22	8.42
SP-13	9.07	SP-118	6.02	TY-22	4.13	TY-55X	5.22	TY-99	15.10	WLC-12	1.38	Y-22-1	9.09
SP-15	8.99	SP-128	5.93	TY-3XT	3.73	TY-56X	3.77	TY-100	23.95	WLC-17	1.41	Y-22-3	9.07
SP-20	8.72	SP-310	.84	TY-4XT	3.18	TY-57X	4.07	TY-101	19.39	WLC-21	1.33	Y-24	9.74
SP-21	8.77	SX-201	7.44	TY-16XT	1.67	TY-58X	3.78	TY-102	19.75	WLC-23	1.33	Y-24-3	7.00
SP-22	9.10	SX-202	7.41	TY-17XT	2.32	TY-59X	6.73	TY-158X	4.88	WLC-25	1.52	Y-25	5.83
SP-29	8.49	SX-203	7.26	TY-23X	5.57	TY-60X	6.32	TY-159X	4.93	WLC-26	1.62	Y-25-1	6.45
SP-32	8.87	SX-204	7.44	TY-24X	5.42	TY-61X	3.47	TY-160X	5.47	WLC-29	1.85	Y-25-3	6.33
SP-33	7.10	SX-205	7.50	TY-25X	6.17	TY-62X	4.32	TY-200X	7.77	WLC-30	1.68	Y-26-2	8.67
SP-34	6.55	SX-206	7.50	TY-26X	8.17	TY-63X	4.83	TY-201TZ	5.32	WLC-31	1.88	Y-28	7.97
SP-35	6.65	SX-207	7.62	TY-27X	4.22	TY-64X	4.95	TY-202X	5.77	Y-12	6.52	Y-28-3	8.37
SP-36	7.05	SX-208	7.50	TY-28XT	4.67	TY-65Z	4.52	TY-46Z	16.64	Y-12-1	7.68	Y-30G	8.94
SP-42	7.28	T-1X	4.30	TY-29X	4.95	TY-66A	10.22	TY-46B	13.35	Y-12-3	7.23	Y-31G	9.24
SP-43	6.70	T2X	5.30	TY-30X	3.32	TY-67A	9.89	TZ-1	6.05	Y-17	7.77	Y-40	8.32
SP-44	7.33	T-3X	5.27	TY-31X	3.25	TY-68S	7.52	TZ-2X	6.38	Y-17-1	6.05	Y-40-3	8.80
SP-46	7.12	T-5X	4.32	TY-32X	3.77	TY-69S	9.49	TY-17-2	8.07	Y-17-2	8.65	Y-41	7.63
SP-47	7.70	T-11X	4.57	TY-33X	3.72	TY-70S	10.10	TZ-7	4.75	Y-17-3	8.54	Y-41-1	9.37
SP-48	7.78	T-12X	5.32	TY-34X	3.60	TY-71X	10.20	TZ-13	6.37	Y-19	8.03	Y-41-3	8.87
SP-49	7.48	T-13X	5.08	TY-35X	3.17	TY-74S	8.94	TZ-15	4.62	Y-19-1	6.62	Y-42-2	8.73
SP-50	7.62	T-14X	4.00	TY-36X	3.57	TY-75A	16.54	TZ-17XT	5.07	Y-19-3	8.22	Y-44	8.75
SP-51	7.67	T-15X	4.12	TY-37X	4.47	TY-76A	10.67	TZ-24XT	5.80	Y-20	7.78	Y-45	9.39
SP-52	7.98	T-20X	4.35	TY-38X	4.30	TY-78	14.72	TZ-25	5.25	Y-20-2	8.90	Y-45-2	9.15
SP-53	6.88	T-21X	4.17	TY-39X	5.15	TY-79	14.72	TZ-26	4.26	Y-20-3	7.98	Y-45-3	9.39
SP-60	6.00	T-22X	4.00	TY-40X	4.18	TY-80	15.94	TZ-28	4.08	Y-21	8.50	Y-46	7.55
SP-61	7.67	T-23X	4.68	TY-41X	5.13	TY-81	15.19	VR-30Z	4.15	Y-21-1	8.90	Y-46-3	7.97
SP-62	6.83	T-24X	3.98	TY-42X	4.97	TY-82	14.72	V-31	4.47	Y-21-3	7.05	Y-47	5.98
SP-63	7.23	T-25X	4.03	TY-43X	4.88	TY-83	21.17	V-31K	6.96	TZ-29XT	7.02	Y-48	6.40
SP-64	7.27	T-26X	3.73	TY-44X	4.08	TY-84	21.57	WC-13	1.32	TZ-32XT	4.87	Y-48-3	7.48
SP-65	7.50	T-31X	4.20	TY-45X	4.12	TY-85	22.94	WLC-3	1.33	TZ-103XT	3.53	Y-49	7.68

[illegible]

P-1—One nickel alloy high permeability shield — 45db. reduction in pickup.
P-3—Two nickel alloy shields interleaved with one heavy copper shading ring — 70db. reduction in pickup.
P-5—Three nickel alloy shields interleaved with two heavy copper shading rings— 95 db. reduction in pickup.

Prices subject to change without notice. Net prices shown for 1-9 quantity. For 1 to 249 pieces, see your stocking Triad Distributor for quantity discount schedule. For 250 or more pieces, contact your Triad Representative or call the factory.



THORDARSON MEISSNER

INCORPORATED



THE FOLLOWING 29 PAGES LIST MORE THAN 6,500 DIFFERENT TYPES OF TRANSFORMERS INCLUDING: ALL MILITARY STANDARDS TO MIL-T-27B SPECIFICATIONS, MINIATURE CONFIGURATIONS, TOROIDS, ALIGNABLE ADJUSTABLE INDUCTORS, COMMERCIAL TRANSFORMERS AND CHOKES, CONTROL AND ISOLATION TRANSFORMERS. CROSS REFERENCES TO COMPETITIVE MANUFACTURERS START ON PAGE 1518. THORDARSON MEISSNER ALSO MANUFACTURES A COMPLETE LINE OF TIME-CYCLE CONTROLLERS, PROGRAM AND SEQUENCE TIMERS, AND MERCURY SWITCHES. SEE PAGE 802 FOR DETAILED INFORMATION.

THORDARSON MEISSNER

INCORPORATED

ELECTRONIC CENTER



Transformer

Output-Transistor To Voice Coil

LISTED IN ORDER OF THE PRIMARY IMPEDANCE

Part No.	Impedance		Primary MADC	Resistance		Power In Watts	Mfg. Type	Mfg. Centers	Dimensions		
	Primary	Secondary		Primary	Secondary				H	W	D
5CT	4/8/16	5A	.17	.24	40	GGV	2 1/2 x 2 1/4	3 7/8	3 9/32	3 1/8	
18 100	9	3.5	750	1.1	.7	5	BAH	2 1/8 x 2 1/8	1 3/8	2 7/16	
18 160	9.8	3.5	750	1.9	1.2	8	BCH-1	1 5/8 x 1 1/16	1 5/8	2 1/8	
18 169	9	3.5	750	1.3	.48	8	BAH	2 3/8	2 3/8	2 7/8	
18 163	9.8	3.5	920	1.5	1.0	10	BCH-1	1 15/16 x 13/16	2 2	5/16	
18 164	12.3	3.5/8	750	1.6	.9	5	BAH	2 3/8	1 5/8	2 3/8	
18 165	18.1	4-8	425	2.8	1.0	8	BAH	2 3/8	1 5/8	2 7/8	
Feedback - 1681 Pri. to Top											
25CT	8	300	.55	.36	10	BAH	2	1 3/8	2 7/16	1 1/2	
18 166	3.5	400	2.23	.8	5	BCH-2	1 3/16	1 3/4	1 3/4	1 1/4	
18 167	2	3.5	400	.2	.6	5	BAH	2 1/8	2 3/8	1 3/8	
18 168	2.1	3.5	425	.25	.6	5	BAH	2 1/8	2 3/8	1 3/8	
18 169	2.1	8-10	375	3.8	1.8	5	BAH	2	1 3/8	2 3/8	
22CT	4/8	500	2.6	2.2	8	BAH	2 13/16	1 15/16	3 1/16	1 15/16	
24CT	16CT*	200	2	1.2	10	TAU	3 7/8 x 2-3/4	4 1/4	3 3/8	3 9/16	
18 258	4	400	1.5	.4	4	BAH	2 3/8	1 5/8	2 13/16	1 1/2	
18 170	30.1	3.5	400	1.8	.7	5	BAH	2	1 3/8	2 3/8	
18 171	30CT	3.5	350	2	.3	8	BAV	2	1 3/8	2 3/8	
Feedback - 3.161 Pri. to Top											
32CT	1.6/4	575			10	BAH	2 13/16	2	3 5/16	1 7/8	
18 172	3.5	3.5/8/16	575		10	BAH	2 13/16	2	3 5/16	1 7/8	
18 173	4.5	3.5	300	2.5	.7	5	BAH	2 1/8	2 3/8	1 3/8	
18 174	4.5	3.5	350	1.9	.4	8	BAH	2 3/8	2 3/8	2 7/8	
18 175	4.5	4/8	4	1.2	.3	BAH	1 3/8	3/4	1 5/8	13/16	
18 176	4.5	4/8	4	1.2	.3	PCT-3	See Dwg.	13/16	1 5/8	7/8	
18 177	4.5	4/8/16	4	1.2	.3	BAH	1 3/8	3/4	1 5/8	13/16	
18 178	4.5	4/8	4	1.2	.3	BAH	1 3/8	3/4	1 5/8	13/16	
18 179	4.5	4/8	4	1.2	.3	BAH	1 3/8	3/4	1 5/8	13/16	
18 180	4.5	4/8	4	1.2	.3	BAH	1 3/8	3/4	1 5/8	13/16	
18 181	4.5	4/8	4	1.2	.3	BAH	1 3/8	3/4	1 5/8	13/16	
18 182	4.5	4/8	4	1.2	.3	BAH	1 3/8	3/4	1 5/8	13/16	
18 183	4.5	4/8	4	1.2	.3	BAH	1 3/8	3/4	1 5/8	13/16	
18 184	4.5	4/8	4	1.2	.3	BAH	1 3/8	3/4	1 5/8	13/16	
18 185	4.5	4/8	4	1.2	.3	BAH	1 3/8	3/4	1 5/8	13/16	
18 186	4.5	4/8	4	1.2	.3	BAH	1 3/8	3/4	1 5/8	13/16	
18 187	4.5	4/8	4	1.2	.3	BAH	1 3/8	3/4	1 5/8	13/16	
18 188	4.5	4/8	4	1.2	.3	BAH	1 3/8	3/4	1 5/8	13/16	
18 189	4.5	4/8	4	1.2	.3	BAH	1 3/8	3/4	1 5/8	13/16	
18 190	4.5	4/8	4	1.2	.3	BAH	1 3/8	3/4	1 5/8	13/16	
18 191	4.5	4/8	4	1.2	.3	BAH	1 3/8	3/4	1 5/8	13/16	
18 192	4.5	4/8	4	1.2	.3	BAH	1 3/8	3/4	1 5/8	13/16	
18 193	4.5	4/8	4	1.2	.3	BAH	1 3/8	3/4	1 5/8	13/16	
18 194	4.5	4/8	4	1.2	.3	BAH	1 3/8	3/4	1 5/8	13/16	
18 195	4.5	4/8	4	1.2	.3	BAH	1 3/8	3/4	1 5/8	13/16	
18 196	4.5	4/8	4	1.2	.3	BAH	1 3/8	3/4	1 5/8	13/16	
18 197	4.5	4/8	4	1.2	.3	BAH	1 3/8	3/4	1 5/8	13/16	
18 198	4.5	4/8	4	1.2	.3	BAH	1 3/8	3/4	1 5/8	13/16	
18 199	4.5	4/8	4	1.2	.3	BAH	1 3/8	3/4	1 5/8	13/16	
18 200	4.5	4/8	4	1.2	.3	BAH	1 3/8	3/4	1 5/8	13/16	
18 201	4.5	4/8	4	1.2	.3	BAH	1 3/8	3/4	1 5/8	13/16	
18 202	4.5	4/8	4	1.2	.3	BAH	1 3/8	3/4	1 5/8	13/16	
18 203	4.5	4/8	4	1.2	.3	BAH	1 3/8	3/4	1 5/8	13/16	
18 204	4.5	4/8	4	1.2	.3	BAH	1 3/8	3/4	1 5/8	13/16	
18 205	4.5	4/8	4	1.2	.3	BAH	1 3/8	3/4	1 5/8	13/16	
18 206	4.5	4/8	4	1.2	.3	BAH	1 3/8	3/4	1 5/8	13/16	
18 207	4.5	4/8	4	1.2	.3	BAH	1 3/8	3/4	1 5/8	13/16	
18 208	4.5	4/8	4	1.2	.3	BAH	1 3/8	3/4	1 5/8	13/16	
18 209	4.5	4/8	4	1.2	.3	BAH	1 3/8	3/4	1 5/8	13/16	
18 210	4.5	4/8	4	1.2	.3	BAH	1 3/8	3/4	1 5/8	13/16	
18 211	4.5	4/8	4	1.2	.3	BAH	1 3/8	3/4	1 5/8	13/16	
18 212	4.5	4/8	4	1.2	.3	BAH	1 3/8	3/4	1 5/8	13/16	
18 213	4.5	4/8	4	1.2	.3	BAH	1 3/8	3/4	1 5/8	13/16	
18 214	4.5	4/8	4	1.2	.3	BAH	1 3/8	3/4	1 5/8	13/16	
18 215	4.5	4/8	4	1.2	.3	BAH	1 3/8	3/4	1 5/8	13/16	
18 216	4.5	4/8	4	1.2	.3	BAH	1 3/8	3/4	1 5/8	13/16	
18 217	4.5	4/8	4	1.2	.3	BAH	1 3/8	3/4	1 5/8	13/16	
18 218	4.5	4/8	4	1.2	.3	BAH	1 3/8	3/4	1 5/8	13/16	
18 219	4.5	4/8	4	1.2	.3	BAH	1 3/8	3/4	1 5/8	13/16	
18 220	4.5	4/8	4	1.2	.3	BAH	1 3/8	3/4	1 5/8	13/16	
18 221	4.5	4/8	4	1.2	.3	BAH	1 3/8	3/4	1 5/8	13/16	
18 222	4.5	4/8	4	1.2	.3	BAH	1 3/8	3/4	1 5/8	13/16	
18 223	4.5	4/8	4	1.2	.3	BAH	1 3/8	3/4	1 5/8	13/16	
18 224	4.5	4/8	4	1.2	.3	BAH	1 3/8	3/4	1 5/8	13/16	
18 225	4.5	4/8	4	1.2	.3	BAH	1 3/8	3/4	1 5/8	13/16	
18 226	4.5	4/8	4	1.2	.3	BAH	1 3/8	3/4	1 5/8	13/16	
18 227	4.5	4/8	4	1.2	.3	BAH	1 3/8	3/4	1 5/8	13/16	
18 228	4.5	4/8	4	1.2	.3	BAH	1 3/8	3/4	1 5/8	13/16	
18 229	4.5	4/8	4	1.2	.3	BAH	1 3/8	3/4	1 5/8	13/16	
18 230	4.5	4/8	4	1.2	.3	BAH	1 3/8	3/4	1 5/8	13/16	
18 231	4.5	4/8	4	1.2	.3	BAH	1 3/8	3/4	1 5/8	13/16	
18 232	4.5	4/8	4	1.2	.3	BAH	1 3/8	3/4	1 5/8	13/16	
18 233	4.5	4/8	4	1.2	.3	BAH	1 3/8	3/4	1 5/8	13/16	
18 234	4.5	4/8	4	1.2	.3	BAH	1 3/8	3/4	1 5/8	13/16	
18 235	4.5	4/8	4	1.2	.3	BAH	1 3/8	3/4	1 5/8	13/16	
18 236	4.5	4/8	4	1.2	.3	BAH	1 3/8	3/4	1 5/8	13/16	
18 237	4.5	4/8	4	1.2	.3	BAH	1 3/8	3/4	1 5/8	13/16	
18 238	4.5	4/8	4	1.2	.3	BAH	1 3/8	3/4	1 5/8	13/16	
18 239	4.5	4/8	4	1.2	.3	BAH	1 3/8	3/4	1 5/8	13/16	
18 240	4.5	4/8	4	1.2	.3	BAH	1 3/8	3/4	1 5/8	13/16	
18 241	4.5	4/8	4	1.2	.3	BAH	1 3/8	3/4	1 5/8	13/16	
18 242	4.5	4/8	4	1.2	.3	BAH	1 3/8	3/4	1 5/8	13/16	
18 243	4.5	4/8	4	1.2	.3	BAH	1 3/8	3/4	1 5/8	13/16	
18 244	4.5	4/8	4	1.2	.3	BAH	1 3/8	3/4	1 5/8	13/16	
18 245	4.5	4/8	4	1.2	.3	BAH	1 3/8	3/4	1 5/8	13/16	
18 246	4.5	4/8	4	1.2	.3	BAH	1 3/8	3/4	1 5/8	13/16	
18 247	4.5	4/8	4	1.2	.3	BAH	1 3/8	3/4	1 5/8	13/16	
18 248	4.5	4/8	4	1.2	.3	BAH	1 3/8	3/4	1 5/8	13/16	
18 249	4.5	4/8	4	1.2	.3	BAH	1 3/8	3/4	1 5/8	13/16	
18 250	4.5	4/8	4	1.2	.3	BAH	1 3/8	3/4	1 5/8	13/16	
18 251	4.5	4/8	4	1.2	.3	BAH	1 3/8	3/4	1 5/8	13/16	
18 252	4.5	4/8	4	1.2	.3	BAH	1 3/8	3/4	1 5/8	13/16	
18 253	4.5	4/8	4	1.2	.3	BAH	1 3/8	3/4	1 5/8	13/16	
18 254	4.5	4/8	4	1.2	.3	BAH	1 3/8	3/4	1 5/8	13/16	
18 255	4.5	4/8	4	1.2	.3	BAH	1 3/8	3/4	1 5/8	13/16	
18 256	4.5	4/8	4	1.2	.3	BAH	1 3/8	3/4	1 5/8	13/16	
18 257	4.5	4/8	4	1.2	.3	BAH	1 3/8	3/4	1 5/8	13/16	
18 258	4.5	4/8	4	1.2	.3	BAH	1 3/8	3/4	1 5/8	13/16	
18 259	4.5	4/8	4	1.2	.3	BAH	1 3/8	3/4	1 5/8	13/16	
18 260	4.5	4/8	4	1.2	.3	BAH	1 3/8	3/4	1 5/8	13/16	
18 261	4.5	4/8	4	1.2	.3	BAH	1 3/8	3/4	1 5/8	13/16	
18 262	4.5	4/8	4	1.2	.3	BAH	1 3/8	3/4	1 5/8	13/16	
18 263	4.5	4/8	4	1.2	.3	BAH	1 3/8	3/4	1 5/8	13/16	
18 264	4.5	4/8	4	1.2	.3	BAH	1 3/8	3/4	1 5/8	13/16	
18 265	4.5	4/8	4	1.2	.3	BAH	1 3/8	3/4	1 5/8	13/16	
18 266	4.5	4/8	4	1.2	.3	BAH	1 3/8	3/4	1 5/8	13/16	
18 267	4.5	4/8	4	1.2	.3	BAH	1 3/8	3/4	1 5/8	13/16	
18 268	4.5	4/8	4	1.2	.3	BAH	1 3/8	3/4	1 5/8	13/16	
18 269	4.5	4/8	4	1.2	.3	BAH	1 3/8	3/4	1 5/8	13/16	
18 270	4.5	4/8	4	1.2	.3	BAH	1 3/8	3/4	1 5/8	13/16	
18 271	4.5	4/8	4	1.2	.3	BAH	1 3/8	3/4	1 5/8	13/16	
18 272	4.5	4/8	4	1.2	.3	BAH	1 3/8	3/4	1 5/8	13/16	
18 273	4.5	4/8	4	1.2	.3	BAH	1 3/8	3/4	1 5/8	13/16	
18 274	4.5	4/8	4	1.2	.3	BAH	1 3/8	3/4	1 5/8	13/16	
18 275	4.5	4/8	4	1.2	.3	BAH	1 3/8	3/4	1 5/8	13/16	
18 276	4.5	4/8	4	1.2	.3	BAH	1 3/8	3/4	1 5/8	13/16	
18 277	4.5	4/8	4	1.2	.3	BAH	1 3/8	3/4	1 5/8	13/16	
18 278	4.5	4/8	4	1.2	.3	BAH	1 3/8	3/4	1 5/8	13/16	
18 279	4.5	4/8	4	1.2	.3	BAH	1 3/8	3/4	1 5/8	13/16	
18 280	4.5	4/8	4	1.2	.3						

INCLUDES: (A) INPUT, (J) INTERSTAGE,
(D) DRIVER, (S) OUTPUT TO LINE. Continues

Part No.	Appl. or Notes	Impedance		Unbal. Pri. MADC	Resistance		Power Mfg. Type	Mtg. Cent.	Dimensions			
		Primary	Secondary		Primary	Secondary			H	W	D	
R 316	D, J	10,000	3,000-1	0	820	260	150	PCI	See Dwg.	11/16	3/4	5/16
R 319	J	50,000	10,000	0	720	1,000	150	BCH	13/16	11/16	3/16	5/8
R 320	J	10,000	10,000	0	1,000	1,400	100	BCH	12/32	7/16	1/2	3/8
R 318	J	10,000	10,000	0	1,500	500	100	BAH	7/16	3/4	5/8	
R 381	J	10,000	12,000	0	1,500	500	100	BAH	7/16	3/4	5/8	
R 321	J, S	50,000	250,000	2	1,000	2,100	150	BCH	13/16	11/16	3/16	5/8
R 322	J, S	15,000	5,000	1	1,000	1,000	100	BCH	13/16	11/16	3/16	5/8
R 323	J, S	15,000	5,000	1	1,000	1,000	100	BCH	13/16	11/16	3/16	5/8
R 324	J, S	15,000	5,000	1	1,000	1,000	100	BCH	13/16	11/16	3/16	5/8
R 382	J, S	15,000	15,000	1	930	1,200	5	MAH	See Dwg.	3/8	5/8	1/8
R 325	J, S	15,000	4,000	1	1,375	330	100	BAH	1 1/16	5/8	1 1/2	1/8
R 326	A, J	20,000	50,000	0	1,500	1,000	80	BAH	1 1/16	5/8	1 1/2	1/8
R 256	J	20,000	8,000	1	1,435	82	100	BAH	1 1/16	5/8	1 1/2	1/8
R 327	J	20,000	8,000	1	1,350	95	150	BCH	13/16	11/16	3/16	5/8
R 327	J	20,000	8,000	1	1,350	95	150	BCH	13/16	11/16	3/16	5/8
R 200	J	20,000	8,000	1	800	110	100	MAH	See Dwg.	7/16	3/4	5/8
R 218	J	20,000	8,000	1	450	32	200	MAH	19/32	7/8	43/64	
R 208	J	20,000	1,200	0	800	15	100	MAH	7/16	3/4	5/8	
R 371	A	20,000	1,000	1	1,700	274	1	MAH	See Dwg.	17/64	25/32	9/64
R 367	A	20,000	1,000	1	1,700	274	1	MAH	See Dwg.	17/64	25/32	9/64
R 365	J	20,000	1,000	1	1,700	274	1	BCH	17/32	15/32	1 1/2	1/8
R 363	J	20,000	1,000	1	1,700	274	1	BCH	17/32	15/32	1 1/2	1/8
R 361	J	20,000	1,000	1	1,700	274	1	MAH	See Dwg.	3/8	5/8	1/8
R 14	A, J	20,000	1,000	2	1,250	94	150	BCH	13/16	11/16	3/16	5/8
R 124	A, J	20,000	1,000	2	1,250	94	150	PCI	See Dwg.	11/16	3/4	9/16
R 372	A, J	20,000	1,000	2	1,250	94	150	BCH	13/16	11/16	3/16	5/8
R 372	A, J	20,000	1,200	2	1,860	142	150	PCI	See Dwg.	11/16	3/4	9/16
R 227	A, J	20,000	1,200	2,500	350	350	1	MAH	100	7/16	1/2	7/16
R 42	A, J	20,000	2,000	2	500	140	30	MAH	7/16	1/2	7/16	
R 367	A, J	20,000	3,000	1	575	483	200	BAH	1 3/8	1 3/8	1 3/8	5/8
R 229	J, S	25,000	5,000	2	2,000	40	1	BCH	17/32	15/32	1 1/2	1/8
R 417	J	25,000	600	2	720	45	100	BAH	17/32	15/32	1 1/2	1/8
R 417	J	25,000	600	2	720	45	100	BAH	17/32	15/32	1 1/2	1/8
R 417	J	25,000	600	2	720	45	100	BAH	17/32	15/32	1 1/2	1/8
R 446	J	25,000	600	3	500	43	150	BAH	1 3/8	5/8	1 1/2	1/8
R 403	J	25,000	1,200	1	1,500	43	100	BAH	1 3/8	5/8	1 1/2	1/8
R 417	J	25,000	1,200	1	1,500	43	100	BAH	1 3/8	5/8	1 1/2	1/8
R 427	J	25,000	1,200	1.5	1,000	43	100	BAH	1 5/32	5/8	1 1/2	1/8
R 435	J	25,000	1,200	3	500	43	100	BAH	1 5/32	5/8	1 1/2	1/8
R 435	J	25,000	1,200	3	500	43	100	BAH	1 5/32	5/8	1 1/2	1/8
R 435	J	25,000	1,200	3	500	43	100	BAH	1 5/32	5/8	1 1/2	1/8
R 413	J	25,000	1,200	3	500	43	100	BAH	1 3/8	5/8	1 1/2	1/8
R 413	J	25,000	1,200	3	500	43	100	BAH	1 3/8	5/8	1 1/2	1/8
R 413	J	25,000	1,200	3	500	43	100	BAH	1 3/8	5/8	1 1/2	1/8
R 413	J	25,000	1,200	3	500	43	100	BAH	1 3/8	5/8	1 1/2	1/8
R 34	A	30,000	500	0	1,400	2.5	150	BCH	13/16	11/16	3/16	5/8
R 34	A	50,000	30,000	0	1,400	2.5	150	PCI	See Dwg.	11/16	3/4	9/16
R 34	A	50,000	20,000	1	1,400	9	150	BCH	13/16	11/16	3/16	5/8
R 34	A	50,000	20,000	1	1,400	9	150	BCH	13/16	11/16	3/16	5/8
R 370	A	50,000	500	0	1,300	28	150	BCH	13/16	11/16	3/16	5/8
R 370	A	50,000	500	0	1,300	28	150	BCH	13/16	11/16	3/16	5/8
R 370	A	50,000	500	0	1,300	28	150	BCH	13/16	11/16	3/16	5/8
R 370	A	50,000	500	0	1,300	28	150	BCH	13/16	11/16	3/16	5/8
R 370	A	50,000	500	0	1,300	28	150	BCH	13/16	11/16	3/16	5/8
R 370	A	50,000	500	0	1,300	28	150	BCH	13/16	11/16	3/16	5/8
R 370	A	50,000	500	0	1,300	28	150	BCH	13/16	11/16	3/16	5/8
R 370	A	50,000	500	0	1,300	28	150	BCH	13/16	11/16	3/16	5/8
R 370	A	50,000	500	0	1,300	28	150	BCH	13/16	11/16	3/16	5/8
R 370	A	50,000	500	0	1,300	28	150	BCH	13/16	11/16	3/16	5/8
R 370	A	50,000	500	0	1,300	28	150	BCH	13/16	11/16	3/16	5/8
R 370	A	50,000	500	0	1,300	28	150	BCH	13/16	11/16	3/16	5/8
R 370	A	50,000	500	0	1,300	28	150	BCH	13/16	11/16	3/16	5/8
R 370	A	50,000	500	0	1,300	28	150	BCH	13/16	11/16	3/16	5/8
R 370	A	50,000	500	0	1,300	28	150	BCH	13/16	11/16	3/16	5/8
R 370	A	50,000	500	0	1,300	28	150	BCH	13/16	11/16	3/16	5/8
R 370	A	50,000	500	0	1,300	28	150	BCH	13/16	11/16	3/16	5/8
R 370	A	50,000	500	0	1,300	28	150	BCH	13/16	11/16	3/16	5/8
R 370	A	50,000	500	0	1,300	28	150	BCH	13/16	11/16	3/16	5/8
R 370	A	50,000	500	0	1,300	28	150	BCH	13/16	11/16	3/16	5/8
R 370	A	50,000	500	0	1,300	28	150	BCH	13/16	11/16	3/16	5/8
R 370	A	50,000	500	0	1,300	28	150	BCH	13/16	11/16	3/16	5/8
R 370	A	50,000	500	0	1,300	28	150	BCH	13/16	11/16	3/16	5/8
R 370	A	50,000	500	0	1,300	28	150	BCH	13/16	11/16	3/16	5/8
R 370	A	50,000	500	0	1,300	28	150	BCH	13/16	11/16	3/16	5/8
R 370	A	50,000	500	0	1,300	28	150	BCH	13/16	11/16	3/16	5/8
R 370	A	50,000	500	0	1,300	28	150	BCH	13/16	11/16	3/16	5/8
R 370	A	50,000	500	0	1,300	28	150	BCH	13/16	11/16	3/16	5/8
R 370	A	50,000	500	0	1,300	28	150	BCH	13/16	11/16	3/16	5/8
R 370	A	50,000	500	0	1,300	28	150	BCH	13/16	11/16	3/16	5/8
R 370	A	50,000	500	0	1,300	28	150	BCH	13/16	11/16	3/16	5/8
R 370	A	50,000	500	0	1,300	28	150	BCH	13/16	11/16	3/16	5/8
R 370	A	50,000	500	0	1,300	28	150	BCH	13/16	11/16	3/16	5/8
R 370	A	50,000	500	0	1,300	28	150	BCH	13/16	11/16	3/16	5/8
R 370	A	50,000	500	0	1,300	28	150	BCH	13/16	11/16	3/16	5/8
R 370	A	50,000	500	0	1,300	28	150	BCH	13/16	11/16	3/16	5/8
R 370	A	50,000	500	0	1,300	28	150	BCH	13/16	11/16	3/16	5/8
R 370	A	50,000	500	0	1,300	28	150	BCH	13/16	11/16	3/16	5/8
R 370	A	50,000	500	0	1,300	28	150	BCH	13/16	11/16	3/16	5/8
R 370	A	50,000	500	0	1,300	28	150	BCH	13/16	11/16	3/16	5/8
R 370	A	50,000	500	0	1,300	28	150	BCH	13/16	11/16	3/16	5/8
R 370	A	50,000	500	0	1,300	28	150	BCH	13/16	11/16	3/16	5/8
R 370	A	50,000	500	0	1,300	28	150	BCH	13/16	11/16	3/16	5/8
R 370	A	50,000	500	0	1,30							

Printed Circuit - Open Frame - Transistor

(Continued)

INCLUDES: (A) INPUT, (J) INTERGRATE, (S) OUTPUT, (C) REACTOR, (L) LINE TO LINE.

150 Milliwatt

Mounting PCT-3 WEIGHT 05 LBS

LISTED IN ORDER OF THE TURNS RATIO							LISTED IN ORDER OF THE PRIMARY IMPEDANCE						
Part No.	Type	Ratio	Impedance		Applic.	Part No.	Type	Ratio	Impedance		Applic.		
Pr.	Sec.	Res.	React.	Pr.			Sec.	Res.	React.				
TR 317	1.231	3.000C1	500C1	550	980	D, J	TR 322	100C1	10C1	1.5	D, S		
TR 318	1.411	5.000C1	10.000C1	500	1,100	D, J	TR 323	300C1	1.5	1.5	D, S		
TR 319	1.731	5.000C1	500	45	D, J, S	TR 324	400C1	11	27	13.5	D, S		
TR 320	1.811	4.00C1	100C1	32	D, S	TR 325	400C1	16	28	2	D, S		
TR 321	1.921	10.00C1	500	60	D, J	TR 326	400C1	15	28	2	D, S		
TR 322	2.241	10.00C1	7.000C1	400	300	D, J	TR 327	500C1	3.2	30	3.3	D, S	
TR 323	2.421	5.00C1	30.000C1	370	1,300	A, J	TR 328	500C1	16.4	30	1.7	D, S	
TR 324	2.501	5.00C1	60.00C1	38	5	D, S	TR 329	500C1	20	30	0.5	D, S	
TR 325	3.161	5.00C1	500	30	D, S	TR 330	500C1	16.4	38	14	D, S		
TR 326	3.161	5.00C1	500	30	D, S	TR 331	500C1	3.4	40	1.5	D, S		
TR 327	3.161	5.00C1	500	30	D, S	TR 332	500C1	3.4	40	1.5	D, S		
TR 328	3.161	5.00C1	500	30	D, S	TR 333	500C1	3.4	40	1.5	D, S		
TR 329	3.161	5.00C1	500	30	D, S	TR 334	500C1	3.4	40	1.5	D, S		
TR 330	3.161	5.00C1	500	30	D, S	TR 335	500C1	3.4	40	1.5	D, S		
TR 331	3.161	5.00C1	500	30	D, S	TR 336	500C1	3.4	40	1.5	D, S		
TR 332	3.161	5.00C1	500	30	D, S	TR 337	500C1	3.4	40	1.5	D, S		
TR 333	3.161	5.00C1	500	30	D, S	TR 338	500C1	3.4	40	1.5	D, S		
TR 334	3.161	5.00C1	500	30	D, S	TR 339	500C1	3.4	40	1.5	D, S		
TR 335	3.161	5.00C1	500	30	D, S	TR 340	500C1	3.4	40	1.5	D, S		
TR 336	3.161	5.00C1	500	30	D, S	TR 341	500C1	3.4	40	1.5	D, S		
TR 337	3.161	5.00C1	500	30	D, S	TR 342	500C1	3.4	40	1.5	D, S		
TR 338	3.161	5.00C1	500	30	D, S	TR 343	500C1	3.4	40	1.5	D, S		
TR 339	3.161	5.00C1	500	30	D, S	TR 344	500C1	3.4	40	1.5	D, S		
TR 340	3.161	5.00C1	500	30	D, S	TR 345	500C1	3.4	40	1.5	D, S		
TR 341	3.161	5.00C1	500	30	D, S	TR 346	500C1	3.4	40	1.5	D, S		
TR 342	3.161	5.00C1	500	30	D, S	TR 347	500C1	3.4	40	1.5	D, S		
TR 343	3.161	5.00C1	500	30	D, S	TR 348	500C1	3.4	40	1.5	D, S		
TR 344	3.161	5.00C1	500	30	D, S	TR 349	500C1	3.4	40	1.5	D, S		
TR 345	3.161	5.00C1	500	30	D, S	TR 350	500C1	3.4	40	1.5	D, S		
TR 346	3.161	5.00C1	500	30	D, S	TR 351	500C1	3.4	40	1.5	D, S		
TR 347	3.161	5.00C1	500	30	D, S	TR 352	500C1	3.4	40	1.5	D, S		
TR 348	3.161	5.00C1	500	30	D, S	TR 353	500C1	3.4	40	1.5	D, S		
TR 349	3.161	5.00C1	500	30	D, S	TR 354	500C1	3.4	40	1.5	D, S		
TR 350	3.161	5.00C1	500	30	D, S	TR 355	500C1	3.4	40	1.5	D, S		
TR 351	3.161	5.00C1	500	30	D, S	TR 356	500C1	3.4	40	1.5	D, S		
TR 352	3.161	5.00C1	500	30	D, S	TR 357	500C1	3.4	40	1.5	D, S		
TR 353	3.161	5.00C1	500	30	D, S	TR 358	500C1	3.4	40	1.5	D, S		
TR 354	3.161	5.00C1	500	30	D, S	TR 359	500C1	3.4	40	1.5	D, S		
TR 355	3.161	5.00C1	500	30	D, S	TR 360	500C1	3.4	40	1.5	D, S		
TR 356	3.161	5.00C1	500	30	D, S	TR 361	500C1	3.4	40	1.5	D, S		
TR 357	3.161	5.00C1	500	30	D, S	TR 362	500C1	3.4	40	1.5	D, S		
TR 358	3.161	5.00C1	500	30	D, S	TR 363	500C1	3.4	40	1.5	D, S		
TR 359	3.161	5.00C1	500	30	D, S	TR 364	500C1	3.4	40	1.5	D, S		
TR 360	3.161	5.00C1	500	30	D, S	TR 365	500C1	3.4	40	1.5	D, S		
TR 361	3.161	5.00C1	500	30	D, S	TR 366	500C1	3.4	40	1.5	D, S		
TR 362	3.161	5.00C1	500	30	D, S	TR 367	500C1	3.4	40	1.5	D, S		
TR 363	3.161	5.00C1	500	30	D, S	TR 368	500C1	3.4	40	1.5	D, S		
TR 364	3.161	5.00C1	500	30	D, S	TR 369	500C1	3.4	40	1.5	D, S		
TR 365	3.161	5.00C1	500	30	D, S	TR 370	500C1	3.4	40	1.5	D, S		
TR 366	3.161	5.00C1	500	30	D, S	TR 371	500C1	3.4	40	1.5	D, S		
TR 367	3.161	5.00C1	500	30	D, S	TR 372	500C1	3.4	40	1.5	D, S		
TR 368	3.161	5.00C1	500	30	D, S	TR 373	500C1	3.4	40	1.5	D, S		
TR 369	3.161	5.00C1	500	30	D, S	TR 374	500C1	3.4	40	1.5	D, S		
TR 370	3.161	5.00C1	500	30	D, S	TR 375	500C1	3.4	40	1.5	D, S		
TR 371	3.161	5.00C1	500	30	D, S	TR 376	500C1	3.4	40	1.5	D, S		
TR 372	3.161	5.00C1	500	30	D, S	TR 377	500C1	3.4	40	1.5	D, S		
TR 373	3.161	5.00C1	500	30	D, S	TR 378	500C1	3.4	40	1.5	D, S		
TR 374	3.161	5.00C1	500	30	D, S	TR 379	500C1	3.4	40	1.5	D, S		
TR 375	3.161	5.00C1	500	30	D, S	TR 380	500C1	3.4	40	1.5	D, S		
TR 376	3.161	5.00C1	500	30	D, S	TR 381	500C1	3.4	40	1.5	D, S		
TR 377	3.161	5.00C1	500	30	D, S	TR 382	500C1	3.4	40	1.5	D, S		
TR 378	3.161	5.00C1	500	30	D, S	TR 383	500C1	3.4	40	1.5	D, S		
TR 379	3.161	5.00C1	500	30	D, S	TR 384	500C1	3.4	40	1.5	D, S		
TR 380	3.161	5.00C1	500	30	D, S	TR 385	500C1	3.4	40	1.5	D, S		
TR 381	3.161	5.00C1	500	30	D, S	TR 386	500C1	3.4	40	1.5	D, S		
TR 382	3.161	5.00C1	500	30	D, S	TR 387	500C1	3.4	40	1.5	D, S		
TR 383	3.161	5.00C1	500	30	D, S	TR 388	500C1	3.4	40	1.5	D, S		
TR 384	3.161	5.00C1	500	30	D, S	TR 389	500C1	3.4	40	1.5	D, S		
TR 385	3.161	5.00C1	500	30	D, S	TR 390	500C1	3.4	40	1.5	D, S		
TR 386	3.161	5.00C1	500	30	D, S	TR 391	500C1	3.4	40	1.5	D, S		
TR 387	3.161	5.00C1	500	30	D, S	TR 392	500C1	3.4	40	1.5	D, S		
TR 388	3.161	5.00C1	500	30	D, S	TR 393	500C1	3.4	40	1.5	D, S		
TR 389	3.161	5.00C1	500	30	D, S	TR 394	500C1	3.4	40	1.5	D, S		
TR 390	3.161	5.00C1	500	30	D, S	TR 395	500C1	3.4	40	1.5	D, S		
TR 391	3.161	5.00C1	500	30	D, S	TR 396	500C1	3.4	40	1.5	D, S		
TR 392	3.161	5.00C1	500	30	D, S	TR 397	500C1	3.4	40	1.5	D, S		
TR 393	3.161	5.00C1	500	30	D, S	TR 398	500C1	3.4	40	1.5	D, S		
TR 394	3.161	5.00C1	500	30	D, S	TR 399	500C1	3.4	40	1.5	D, S		
TR 395	3.161	5.00C1	500	30	D, S	TR 400	500C1	3.4	40	1.5	D, S		
TR 396	3.161	5.00C1	500	30	D, S	TR 401	500C1	3.4	40	1.5	D, S		
TR 397	3.161	5.00C1	500	30	D, S	TR 402	500C1	3.4	40	1.5	D, S		
TR 398	3.161	5.00C1	500	30	D, S	TR 403	500C1	3.4	40	1.5	D, S		
TR 399	3.161	5.00C1	500	30	D, S	TR 404	500C1	3.4	40	1.5	D, S		
TR 400	3.161	5.00C1	500	30	D, S	TR 405	500C1	3.4	40	1.5	D, S		
TR 401	3.161	5.00C1	500	30	D, S	TR 406	500C1	3.4	40	1.5	D, S		
TR 402	3.161	5.00C1	500	30	D, S	TR 407	500C1	3.4	40	1.5	D, S		
TR 403	3.161	5.00C1	500	30	D, S	TR 408	500C1	3.4	40	1.5	D, S		
TR 404	3.161	5.00C1	500	30	D, S	TR 409	500C1	3.4	40	1.5	D, S		
TR 405	3.161	5.00C1	500	30	D, S	TR 410	500C1	3.4	40	1.5	D, S		
TR 406	3.161	5.00C1	500	30	D, S	TR 411	500C1	3.4	40	1.5	D, S		
TR 407	3.161	5.00C1	500	30	D, S	TR 412	500C1	3.4	40	1.5	D, S		
TR 408	3.161	5.00C1	500	30	D, S	TR 413	500C1	3.4	40	1.5	D, S		
TR 409	3.161	5.00C1	500	30	D, S	TR 414	500C1	3.4	40	1.5	D, S		
TR 410	3.161	5.00C1	500	30	D, S								

THORDARSON MEISSNER

Inverters-DC-to-AC

Recent developments in the power transistor field have made possible the design of circuits which are efficient and rugged converters of low voltage DC to high voltage AC or DC power. These transistorized power supplies are ideally suited for powering all kinds of battery operated equipment such as mobile communication systems, television and marine navigational systems, photoflash, electronic applications and even 117V 60 CPS from an automobile battery so as to operate 117V radio, television, electric shavers, etc. These transistor power supplies provide a wide range of voltage and power to those who want. Complete instructions supplied with each transistor.

Part No.	DC Supply Voltage	Output Voltage	Power In Watts	Mfg. Type	Mfg. Centers	H	W	D
TR 67	6	117 V @ 60 CPS	50†	GGV	1.5/8 x 2	3 1/8	2 5/8	2 5/8
TR 70	12	117 V @ 60 CPS	50†	GGV	1.5/8 x 2	3 1/8	2 5/8	2 5/8
TR 354	12	117 V @ 60 CPS	400†	GGV	2 1/8 x 1 7/8	3 1/8	2 5/8	2 5/8
TR 288	12	110/115/125 V @ 60 CPS	60†	TVL	1 7/8 x 1 3/8	1 7/8	2 1/4	2
TR 71	12	117 V @ 60 CPS	110†	GGV	2 3/16 x 2 1/2	3 7/8	3 3/16	3 1/2
TR 335	24	117 V @ 60 CPS	400†	GGV	3 5/8 x 3 7/8	3 7/8	3 3/16	3 1/2
TR 72	12	117 V @ 60 CPS	250†	GGV	3 1/16 x 3	4 5/8	3 13/16	4 9/16
TR 73	24	117 V @ 60 CPS	400†	GGV	3 5/8 x 3 7/8	3 7/8	4 3/8	6
TR 287	28	110/115/125 V @ 60 CPS	60†	TVL	1 7/8 x 1 3/8	1 7/8	2 1/4	2

Converter-Epoxy Molded Toroid DC to DC

Part No.	DC Supply Voltage	DC Output Voltage	Output Current In MAADC	Power In Watts	Mfg. Type	Mfg. Hole Diameter	Dimensions H W D
TR 339	12.6	200/225	100/200	25	TM1	11/64	1 1/16 1 1/16 1 1/16
TR 270	12.6	300/350	250/400	60	TM1	11/64	1 1/16 1 1/16 1 1/16
TR 271	12.6	352/400	150/200	49	TM1	11/64	1 1/16 1 1/16 1 1/16
TR 272	12.6	375/425	150/200	60	TM1	11/64	1 1/16 1 1/16 1 1/16
TR 273	12.6	400/225	150/200	75	TM1	11/64	1 1/16 1 1/16 1 1/16
TR 274	12.6	300/250	250/500	125	TM1	3/16	1 3/8 2 3/4 3/4
TR 275	200	200/400	200/400	125	TM1	3/16	1 3/8 2 3/4 3/4
TR 276	200	250/325	80/160	20	TM1	7/64	9/16 1 5/16 1 5/16
TR 277	200	300/350	100/200	30	TM1	11/64	1 1/16 1 1/16 1 1/16
TR 278	200	400/450	200/400	60	TM1	11/64	1 1/16 1 1/16 1 1/16
TR 279	200	375/425	200/400	60	TM1	11/64	1 1/16 1 1/16 1 1/16
TR 280	200	400/450	200/400	90	TM1	11/64	1 1/16 1 1/16 1 1/16
TR 281	200	400/450	200/400	125	TM1	3/16	1 3/8 2 3/4 3/4
TR 282	200	600/600	200/400	120	TM1	3/16	1 3/8 2 3/4 3/4
TR 283	200	600/600	200/400	49	TM1	11/64	1 1/16 1 1/16 1 1/16
TR 284	6	325/400	150/200	49	TM1	11/64	1 1/16 1 1/16 1 1/16
TR 285	6	375/425	200/400	75	TM1	3/16	1 3/8 2 3/4 3/4
TR 286	6	400/225	150/200	60	TM1	3/16	1 3/8 2 3/4 3/4

Converter-Encased DC to DC MIL-T-27B

Part No.	DC Supply Voltage	DC Output Voltage	Output Current In MAADC	Power In Watts	Mfg. Type	Mfg. Centers	Dimensions H W D
TR 162	3	1,000 (1/2 Wave)	.025	.025	AG-2	1 1/8	1 3/8 1 1/8
TR 463	2.7	1,000 (1/2 Wave)	.025	.025	AG-2	1 1/8	1 3/8 1 1/8
TR 202	12/14 or 24/28	350	60	15	AH	1 1/4	1 3/4 1 5/16 1 5/16
TR 281	12/14 or 24/28	275	100	37.5	AJ	1 3/16 x 1/16	3/16 2 3/8 1 5/8 1 5/8
TR 282	12/14 or 24/28	450/225	80/155	40	FA	1 11/16 x 1/16	3/16 2 3/8 1 5/8 1 5/8
TR 283	12/14 or 24/28	425	175	53	FA	1 11/16 x 1/16	3/16 2 3/8 1 5/8 1 5/8
TR 284	12/14 or 24/28	500/250	240/120	125	GA	2 1/8 x 1/4	3 13/16 2 3/4 2 3/8
TR 285	12/14 or 24/28	500	200	110	GB	2 1/8 x 1/4	3 13/16 2 3/4 2 3/8
TR 286	28	500/250	250/125	125	GA	2 1/8 x 1/4	3 13/16 2 3/4 2 3/8

† Power Rating for Resistive Load. * Split CT Winding

Converter-DC to DC

PORTED & OPEN FRAME

Part No.	DC Supply Voltage	DC Output Voltage	Output Current In MAADC	Power In Watts	Mfg. Type	Mfg. Centers	Dimensions H W D
TR 78	12	250/225	65/130	16.5	DAH	1 1/2	1 3/4 1 3/4 1 3/8
TR 79	12	250	250	20	TAV	1 1/2 x 2 3/8	2 7/8 2 1/4 2 1/16
TR 80	12	250/225	65/130	16.5	DAH	1 1/2	1 3/4 1 3/4 1 3/8
TR 81	12	250/225	400/800	100	TAV	3/4 x 2 1/16	3 5/8 2 1/2 2 1/2
TR 79 or 81	6 or 12	275-200	72	20	TAV	1 1/2 x 2 3/8	2 7/8 2 1/4 2 1/16
TR 74	12	300/150	67/135	20	TAV	1 1/4 x 2 1/8	2 1/4 1 7/8 2 7/16
TR 83	12	300/150	67/135	20	TAV	1 1/4 x 2 1/8	2 1/4 1 7/8 2 7/16
TR 84	12	300/150	400/800	120	TAV	1 1/2 x 3 3/8	2 7/8 2 1/4 2 1/16
TR 85	12	375/162	150/200	50	DAH	1 1/2	2 2 2 2 7/16
TR 86	12	375/162	200/400	60	DAH	1 1/2	2 2 2 2 7/16
TR 88	4.5	300/195	300/60	12	DAH	1 1/2	1 3/4 1 3/4 1 1/32
TR 89	12	400/200	50/100	20	TAV	1 1/4 x 2 1/8	2 1/4 1 7/8 2 7/16
TR 75	12	400	120	40	TAV	1 1/4 x 2 1/8	2 1/4 1 7/8 2 7/16
TR 76	12	400/225	40/80	18	TAV	1 1/4 x 2 1/8	2 1/4 1 7/8 2 7/16
TR 77	12	450/225	40/80	18	TAV	1 1/4 x 2 1/8	2 1/4 1 7/8 2 7/16
TR 90	12	450/225	270/540	120	TAV	3/4 x 2 1/16	3 5/16 2 1/2 2 1/16
TR 91	12	450/225	270/540	120	TAV	3/4 x 2 1/16	3 5/16 2 1/2 2 1/16
TR 92	12	500/250	200/400	100	TAV	3/4 x 2 1/16	3 5/16 2 1/2 2 1/16
TR 93	12	500/250	200/400	100	TAV	3/4 x 2 1/16	3 5/16 2 1/2 2 1/16
TR 94	12	500/250	300/600	150	TAV	3/4 x 2 1/16	3 5/16 2 1/2 2 1/16
TR 95	12	500/250	300/600	150	TAV	3/4 x 2 1/16	3 5/16 2 1/2 2 1/16
TR 96	12	600/300	200/400	120	DAH	3 1/16	2 4 4 7/8 2 7/16
TR 97	12	700/350	400/800	200	TAV	1 1/2 x 2 3/8	2 7/8 2 1/4 2 1/16
TR 98	12	800/400	150/300	120	TAV	3/4 x 2 1/16	3 5/16 2 1/2 2 1/16
TR 97	12	1,000/500	100/200	100	TAV	3/4 x 2 1/16	3 5/16 2 1/2 2 1/16
TR 98	12	1,000/1,500	6.5/13	20	TAV	1 1/2 x 2 3/8	2 7/8 2 1/4 2 1/16

Converter MOBILE OR FIXED POWER SUPPLY

Part No.	Primaries	Secondaries	Mfg. Type	Mfg. Centers	Dimensions H W D
TR 294	12 & 16 Volts DC	280 Volts DC @ 150 MAADC	GGV	2 1/2 x 2 1/16	3 7/8 3 7/8 3 7/8
TR 295	117 Volts AC @ 90 Cycles	12 & 16 Volts DC (With 11 Volt Pri. only)	GGV	2 1/2 x 2 1/16	3 7/8 3 7/8 3 7/8

Converter-Photoflash Power Supply

Part No.	Primary	Secondary	Mfg. Type	Mfg. Centers	Dimensions H W D
25838	Discharge for .25 MFD or .225 or 250 Volts DC Trigger Transformer	6 KV Peak	RTV		15/16 7/8 D
25857	(Inverter Type)	Output to Feed 25856	RTV	11/16	1 3/16 7/8 D
25856	115 V, 50/60 CPS or 4.5 Volt DC	400 Volts DC from Voltage Doubler Circuit.	KTH-A	2 3/8	1 7/8 2 13/16 1 3/4

Blocking Oscillator-Converters

Designed specifically for use in single transistor blocking oscillator circuits. The DC output voltage of TR 464 is rated for a quadrupole rectifier circuit and may vary from these ratings due to bias and component values. All other DC voltage ratings are with 1/2 wave single output filter input.

Part No.	DC Supply Voltage	DC Output Voltage	Output Current In Micro Amps	Pr. Sec.	Feed-Back	Mfg. Type	Mfg. Centers	Dimensions H W D
TR 464	4	425/500	40	44	44	MAH	2 7/16	2 7/16 2 7/16
TR 465	3	533 (1/2 Wave)	90	65.5	33	1	BAH	1 3/8 3/4 1 5/8 13/16
TR 466	3	500 (1/2 Wave)	90	60	12	1	BAH	1 1/8 3/4 1 5/8 13/16
TR 467	3	1,000 (1/2 Wave)	25	600	12	1	AG-2	1 1/8 1 3/8 1 1/8

MIL-T-27B Transformers Steel Jacket Line

MIL-T-27B Case Dimensions AS DESIGNATED IN MIL-T-27B SPECIFICATIONS

Mfg. Type	-A-	-B-	-C-	D. E.	Shul Size	Mfg. Type	-A-	-B-	-C-	D. E.	Shul Size
AF	3/4	3/4	1 1/8	9/16	4-40x3/8-1A	3/76	3 1/16	4/76	2 5/8 x 2 1/8	8-32x3/8	3/76
AG	3/4	3/4	1 1/8	9/16	4-40x3/8-1A	3/76	3 1/16	4/76	2 5/8 x 2 1/8	8-32x3/8	3/76
AH	1 5/16	1 5/16	1 3/4	1 1/4	4-32x3/8-1A	3/16	3 1/16	3/8	5/16	2 1/2 x 1 1/2	10-32x1/2
AI	1 5/16	1 5/16	1 3/4	1 1/4	4-32x3/8-1A	3/16	3 1/16	3/8	5/16	2 1/2 x 1 1/2	10-32x1/2
AJ	1 5/16	1 5/16	1 3/4	1 1/4	4-32x3/8-1A	3/16	3 1/16	3/8	5/16	2 1/2 x 1 1/2	10-32x1/2
AK	1 5/16	1 5/16	1 3/4	1 1/4	4-32x3/8-1A	3/16	3 1/16	3/8	5/16	2 1/2 x 1 1/2	10-32x1/2
AL	1 5/16	1 5/16	1 3/4	1 1/4	4-32x3/8-1A	3/16	3 1/16	3/8	5/16	2 1/2 x 1 1/2	10-32x1/2
AM	1 5/16	1 5/16	1 3/4	1 1/4	4-32x3/8-1A	3/16	3 1/16	3/8	5/16	2 1/2 x 1 1/2	10-32x1/2
AN	1 5/16	1 5/16	1 3/4	1 1/4	4-32x3/8-1A	3/16	3 1/16	3/8	5/16	2 1/2 x 1 1/2	10-32x1/2
AO	1 5/16	1 5/16	1 3/4	1 1/4	4-32x3/8-1A	3/16	3 1/16	3/8	5/16	2 1/2 x 1 1/2	10-32x1/2
AP	1 5/16	1 5/16	1 3/4	1 1/4	4-32x3/8-1A	3/16	3 1/16	3/8	5/16	2 1/2 x 1 1/2	10-32x1/2
AR	1 5/16	1 5/16	1 3/4	1 1/4	4-32x3/8-1A	3/16	3 1/16	3/8	5/16	2 1/2 x 1 1/2	10-32x1/2
AS	1 5/16	1 5/16	1 3/4	1 1/4	4-32x3/8-1A	3/16	3 1/16	3/8	5/16	2 1/2 x 1 1/2	10-32x1/2
AT	1 5/16	1 5/16	1 3/4	1 1/4	4-32x3/8-1A	3/16	3 1/16	3/8	5/16	2 1/2 x 1 1/2	10-32x1/2
AV	1 5/16	1 5/16	1 3/4	1 1/4	4-32x3/8-1A	3/16	3 1/16	3/8	5/16	2 1/2 x 1 1/2	10-32x1/2
AW	1 5/16	1 5/16	1 3/4	1 1/4	4-32x3/8-1A	3/16	3 1/16	3/8	5/16	2 1/2 x 1 1/2	10-32x1/2
AX	1 5/16	1 5/16	1 3/4	1 1/4	4-32x3/8-1A	3/16	3 1/16	3/8	5/16	2 1/2 x 1 1/2	10-32x1/2
AY	1 5/16	1 5/16	1 3/4	1 1/4	4-32x3/8-1A	3/16	3 1/16	3/8	5/16	2 1/2 x 1 1/2	10-32x1/2
AZ	1 5/16	1 5/16	1 3/4	1 1/4	4-32x3/8-1A	3/16	3 1/16	3/8	5/16	2 1/2 x 1 1/2	10-32x1/2

YY and ZZ Case Types

	A	B	C	D	E		A	B	C	D	E
YY-1	1 1/8	1 1/8	2	1 1/2	1	YY-47	6 1/4	5 3/4	3 1/4	3 1/4	4 1/4
YY-2	1 1/4	1 1/4	2 1/4	1 3/4	1	YY-48A	6 1/4	5 3/4	3 3/4	4 1/4	4 1/4
YY-3	1 5/16	1 5/16	1 3/4	1 11/32	1	YY-49	6 1/2	5 1/2	3 1/4	3 3/8	4 3/8
YY-4	1 1/2	1 1/2	1 1/2	1 3/8	1	YY-50	6 1/4	5 1/2	3 1/2	3 3/4	4 3/4
YY-5	1 7/16	1 7/16	2 1/2	1 1/2	1	YY-51	7	5 3/16	3 5/8	3	3 7/8
YY-6	1 361	1 361	2 007	1 5/16	1	YY-52	6 1/2	5 1/2	3 1/4	3 3/4	4 1/4
YY-7	1 1/2	1 1/2	1 3/8	1 15/32	1	YY-53	6 1/2	5 1/2	3 1/4	3 3/4	4 1/4
YY-8	1 1/2	1 1/2	1 1/2	1 1/2	1	YY-54	5 29/32	3 5/32	4	2 13/16	2 1/4
YY-9	1 1/2	1 1/2	2 1/2	1 1/2	1	YY-55	5 1/8	4 1/16	3 3/4	3 3/4	3 3/4
YY-10	1 1/2	1 1/2	2 1/2	1 1/2	1	YY-56	5 3/8	4 1/8	3 1/2	3 1/2	3 1/2
YY-11	1 5/16	1 5/16	3	1 1/2	1	YY-57	3 3/16	2 1/2	3 1/4	2 3/8	1 3/4
YY-12	3/4	1 1/2	2 1/2	1 1/2	1	YY-58	5 1/2	5 7/16	3 1/4	4 3/8	4 1/4
YY-13	1 1/2	1 1/2	1 1/2	1 1/2	1	YY-59	4 3/8	4 1/8	3 1/2	3 1/2	3 1/2
YY-14	1 5/8	1 5/8	2 3/8	1 5/8	1	YY-60	1 3/4	1 7/8	1 3/32	1 1/2	1 5/16
YY-15	1 01	1 791	2 205	1 5/16	1 1/16	YY-61	2 1/2	2 352	1 604	1 3/16	1 5/8
YY-16	1 191	1 991	2 191	1 1/2	1 1/2	YY-62	3 3/8	4 1/8	3 1/2	3 1/2	3 1/2
YY-17	2 241	2 011	2 680	1 9/16	3/8	YY-63	2 5/16	2 1/16	2 9/16	1 3/8	1 1/2
YY-18	2 241	2 101	2 590	9/16	1 3/8	YY-64	5 1/16	2 9/16	1 3/16	2 3/8	2 1/8
YY-19	2 516	2 716	3 136	1 1/2	1 1/2	YY-65	2 1/2	2 1/2	1 3/8	1 1/2	1 1/2
YY-20	2 1/2	2 1/2	1 7/8	1 3/4	3/8	YY-66	3 1/8	1 5/16	1 1/4	2 1/2	2 1/2
YY-21	2 521	2 381	3 049	1 13/16	1 1/16	YY-67	6 3/8	4 3/8	3 1/4	5 1/2	3 7/16
YY-22	2 521	2 381	3 049	1 13/16	1 1/16	YY-68	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2
YY-23	2 132	2 132	2 132	1 3/4	5/8	YY-69	2 7/32	2 1/16	1 11/16	1 3/8	1 9/16
YY-24	2 916	2 916	4	3/4	3/4	YY-70	3 1/2	2 25/32	2 1/2	3 1/8	2
YY-25	2 316	2 316	2 316	1 1/2	1 1/2	YY-71	2 1/2	2 1/2	1 1/2	1 1/2	1 1/2
YY-26	1 11/16	1 11/16	1 1/2	1 1/2	1/2	YY-72	4 5/16	4	5 9/16	3 5/8	2 11/16
YY-27	2 861	2 711	3 492	2	1 7/8	YY-73	4 1/2	4 1/32	3 1/8	3 7/8	3 3/4
YY-28	2 861	2 711	3 492	2	1 7/8	YY-74	5 1/32	5	5 1/32	5	5 1/32
YY-29	3 1/2	3 1/2	3 1/2	1 1/2	1 1/2	YY-75	5 1/32	1/32	4 1/32	3 1/32	1 1/2
YY-30	1 1/16	2 1/16	3 5/8	2 7/8	1 15/16	YY-76	8	6 1/32	1/32	1 1/2	5/8
YY-31	2 245	2 999	3 860	2 3/8	2 1/8	YY-77	2 1/2	2 1/2	1 1/2	1 1/2	1 1/2
YY-32	2 245	2 999	3 860	2 3/8	2 1/8	YY-78	2 1/2	2 1/2	1 1/2	1 1/2	1 1/2
YY-33	3 642	2 999	3 305	2 5/8	2 3/8	YY-79	2 1/2	2 1/2	1 1/16	3/8	2 1/4
YY-34	3 642	2 999	3 305	2 5/8	2 3/8						
YY-35	3 642	3 392	4 680	2 5/8	2 3/8	NSV					
YY-36	1 1/2	2 1/2	2 1/2	1 1/2	1 1/2	MTG.					
YY-37	1 1/2	2 1/2	2 1/2	1 1/2	1 1/2	N1V					
YY-38	2 1/32	1 15/32	15/32	2 3/4	2 1/2	-1	1 1/8 x 1 1/8	1 1/8	1/8	3/8	3/8
YY-39	2 1/32	1 15/32	15/32	2 3/4	2 1/2	-2	1 1/8 x 1 1/8	1 1/8	1/8	3/8	3/8
YY-40	2 1/32	1 15/32	15/32	2 3/4	2 1/2	-3	1 1/8 x 1 1/8	1 1/8	1/8	3/8	3/8
YY-41	2 1/32	1 15/32	15/32	2 3/4	2 1/2	-4	1 1/8 x 1 1/8	1 1/8	1/8	3/8	3/8
YY-42	4 1/2	4 1/2	4 1/2	3 1/2	3 1/2	-5	1 1/8 x 1 1/8	1 1/8	1/8	3/8	3/8
YY-43	5 3/32	4 7/32	6 068	3 3/8	3	-6	3/8 x 3/8	3/8	1/4	3/4	3/4
YY-44	5	5	5	3 3/4	3 3/4	-7	3/8 x 3/8	3/8	1/4	3/4	3/4
YY-45	5 7/8	4 3/4	5 5/8	3 3/4	3 3/4	-8	3/8 x 3/8	3/8	1/4	3/4	3/4
YY-46A	6	1/8	6 3/4	5	4 3/16	-9	4 7/8 x 4 7/8	7	5 3/4	5 3/4	5 3/4

RAY

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$$\frac{500}{100}$$

Input-Interstage-Driver				INCLUDES: TRANSISTOR AND TUBE TYPE - MOLDED AND ENCASED									
Part No.	MIL-1-27B Classification	Application	Impedance	Unbal. Power	Frequency Range	Case Size							
Molded	Encased		Primary	Secondary	Pin	Max	Min	Hz	kHz				
M1T 298	TF48X13Y	Tr. Interstage	2,000/2,500C	2,000/2,500C*	3	100	1	1	1	1	RAV-6		
M1T 298	TF48X13Y	Tr. Interstage	2,000/2,500C	2,000/2,500C*	3	100	1	1	1	1	RAV-4		
M1T 298	TF48X13Y	Tr. Interstage	2,000/2,500C	8,000/10,000C*	3	100	1	1	1	1	RAV-5		
M1T 237	TF48X13Y	Tr. Interstage	2,000/2,500C	8,000/10,000C*	3	100	1	1	1	1	RAV-6		
27A30	TF48X13Y	Tr. Interstage	2,000/2,500C	8,000/10,000C*	3	100	1	1	1	1	RAV-6		
	TF48X13Y	Tr. Interstage	2,000/2,500C	8,000/10,000C*	3	100	1	1	1	1	RAV-6		
27A30	TF48X13Y	Tr. Interstage	2,000/2,500C	8,000/10,000C*	3	100	1	1	1	1	RAV-6		
27A30	TF48X13Y	Tr. Interstage	2,000/2,500C	8,000/10,000C*	3	100	1	1	1	1	RAV-6		
27A30	TF48X13Y	Tr. Interstage	2,000/2,500C	8,000/10,000C*	3	100	1	1	1	1	RAV-6		
27A30	TF48X13Y	Tr. Interstage	2,000/2,500C	8,000/10,000C*	3	100	1	1	1	1	RAV-6		
27A30	TF48X13Y	Tr. Interstage	2,000/2,500C	8,000/10,000C*	3	100	1	1	1	1	RAV-6		
27A30	TF48X13Y	Tr. Interstage	2,000/2,500C	8,000/10,000C*	3	100	1	1	1	1	RAV-6		
27A30	TF48X13Y	Tr. Interstage	2,000/2,500C	8,000/10,000C*	3	100	1	1	1	1	RAV-6		
27A30	TF48X13Y	Tr. Interstage	2,000/2,500C	8,000/10,000C*	3	100	1	1	1	1	RAV-6		
27A30	TF48X13Y	Tr. Interstage	2,000/2,500C	8,000/10,000C*	3	100	1	1	1	1	RAV-6		
27A30	TF48X13Y	Tr. Interstage	2,000/2,500C	8,000/10,000C*	3	100	1	1	1	1	RAV-6		
27A30	TF48X13Y	Tr. Interstage	2,000/2,500C	8,000/10,000C*	3	100	1	1	1	1	RAV-6		
27A30	TF48X13Y	Tr. Interstage	2,000/2,500C	8,000/10,000C*	3	100	1	1	1	1	RAV-6		
27A30	TF48X13Y	Tr. Interstage	2,000/2,500C	8,000/10,000C*	3	100	1	1	1	1	RAV-6		
27A30	TF48X13Y	Tr. Interstage	2,000/2,500C	8,000/10,000C*	3	100	1	1	1	1	RAV-6		
27A30	TF48X13Y	Tr. Interstage	2,000/2,500C	8,000/10,000C*	3	100	1	1	1	1	RAV-6		
27A30	TF48X13Y	Tr. Interstage	2,000/2,500C	8,000/10,000C*	3	100	1	1	1	1	RAV-6		
27A30	TF48X13Y	Tr. Interstage	2,000/2,500C	8,000/10,000C*	3	100	1	1	1	1	RAV-6		
27A30	TF48X13Y	Tr. Interstage	2,000/2,500C	8,000/10,000C*	3	100	1	1	1	1	RAV-6		
27A30	TF48X13Y	Tr. Interstage	2,000/2,500C	8,000/10,000C*	3	100	1	1	1	1	RAV-6		
27A30	TF48X13Y	Tr. Interstage	2,000/2,500C	8,000/10,000C*	3	100	1	1	1	1	RAV-6		
27A30	TF48X13Y	Tr. Interstage	2,000/2,500C	8,000/10,000C*	3	100	1	1	1	1	RAV-6		
27A30	TF48X13Y	Tr. Interstage	2,000/2,500C	8,000/10,000C*	3	100	1	1	1	1	RAV-6		
27A30	TF48X13Y	Tr. Interstage	2,000/2,500C	8,000/10,000C*	3	100	1	1	1	1	RAV-6		
27A30	TF48X13Y	Tr. Interstage	2,000/2,500C	8,000/10,000C*	3	100	1	1	1	1	RAV-6		
27A30	TF48X13Y	Tr. Interstage	2,000/2,500C	8,000/10,000C*	3	100	1	1	1	1	RAV-6		
27A30	TF48X13Y	Tr. Interstage	2,000/2,500C	8,000/10,000C*	3	100	1	1	1	1	RAV-6		
27A30	TF48X13Y	Tr. Interstage	2,000/2,500C	8,000/10,000C*	3	100	1	1	1	1	RAV-6		
27A30	TF48X13Y	Tr. Interstage	2,000/2,500C	8,000/10,000C*	3	100	1	1	1	1	RAV-6		
27A30	TF48X13Y	Tr. Interstage	2,000/2,500C	8,000/10,000C*	3	100	1	1	1	1	RAV-6		
27A30	TF48X13Y	Tr. Interstage	2,000/2,500C	8,000/10,000C*	3	100	1	1	1	1	RAV-6		
27A30	TF48X13Y	Tr. Interstage	2,000/2,500C	8,000/10,000C*	3	100	1	1	1	1	RAV-6		
27A30	TF48X13Y	Tr. Interstage	2,000/2,500C	8,000/10,000C*	3	100	1	1	1	1	RAV-6		
27A30	TF48X13Y	Tr. Interstage	2,000/2,500C	8,000/10,000C*	3	100	1	1	1	1	RAV-6		
27A30	TF48X13Y	Tr. Interstage	2,000/2,500C	8,000/10,000C*	3	100	1	1	1	1	RAV-6		
27A30	TF48X13Y	Tr. Interstage	2,000/2,500C	8,000/10,000C*	3	100	1	1	1	1	RAV-6		
27A30	TF48X13Y	Tr. Interstage	2,000/2,500C	8,000/10,000C*	3	100	1	1	1	1	RAV-6		
27A30	TF48X13Y	Tr. Interstage	2,000/2,500C	8,000/10,000C*	3	100	1	1	1	1	RAV-6		
27A30	TF48X13Y	Tr. Interstage	2,000/2,500C	8,000/10,000C*	3	100	1	1	1	1	RAV-6		
27A30	TF48X13Y	Tr. Interstage	2,000/2,500C	8,000/10,000C*	3	100	1	1	1	1	RAV-6		
27A30	TF48X13Y	Tr. Interstage	2,000/2,500C	8,000/10,000C*	3	100	1	1	1	1	RAV-6		
27A30	TF48X13Y	Tr. Interstage	2,000/2,500C	8,000/10,000C*	3	100	1	1	1	1	RAV-6		
27A30	TF48X13Y	Tr. Interstage	2,000/2,500C	8,000/10,000C*	3	100	1	1	1	1	RAV-6		
27A30	TF48X13Y	Tr. Interstage	2,000/2,500C	8,000/10,000C*	3	100	1	1	1	1	RAV-6		
27A30	TF48X13Y	Tr. Interstage	2,000/2,500C	8,000/10,000C*	3	100	1	1	1	1	RAV-6		
27A30	TF48X13Y	Tr. Interstage	2,000/2,500C	8,000/10,000C*	3	100	1	1	1	1	RAV-6		
27A30	TF48X13Y	Tr. Interstage	2,000/2,500C	8,000/10,000C*	3	100	1	1	1	1	RAV-6		
27A30	TF48X13Y	Tr. Interstage	2,000/2,500C	8,000/10,000C*	3	100	1	1	1	1	RAV-6		
27A30	TF48X13Y	Tr. Interstage	2,000/2,500C	8,000/10,000C*	3	100	1	1	1	1	RAV-6		
27A30	TF48X13Y	Tr. Interstage	2,000/2,500C	8,000/10,000C*	3	100	1	1	1	1	RAV-6		
27A30	TF48X13Y	Tr. Interstage	2,000/2,500C	8,000/10,000C*	3	100	1	1	1	1	RAV-6		
27A30	TF48X13Y	Tr. Interstage	2,000/2,500C	8,000/10,000C*	3	100	1	1	1	1	RAV-6		
27A30	TF48X13Y	Tr. Interstage	2,000/2,500C	8,000/10,000C*	3	100	1	1	1	1	RAV-6		
27A30	TF48X13Y	Tr. Interstage	2,000/2,500C	8,000/10,000C*	3	100	1	1	1	1	RAV-6		
27A30	TF48X13Y	Tr. Interstage	2,000/2,500C	8,000/10,000C*	3	100	1	1	1	1	RAV-6		
27A30	TF48X13Y	Tr. Interstage	2,000/2,500C	8,000/10,000C*	3	100	1	1	1	1	RAV-6		
27A30	TF48X13Y	Tr. Interstage	2,000/2,500C	8,000/10,000C*	3	100	1	1	1	1	RAV-6		
27A30	TF48X13Y	Tr. Interstage	2,000/2,500C	8,000/10,000C*	3	100	1	1	1	1	RAV-6		
27A30	TF48X13Y	Tr. Interstage	2,000/2,500C	8,000/10,000C*	3	100	1	1	1	1	RAV-6		
27A30	TF48X13Y	Tr. Interstage	2,000/2,500C	8,000/10,000C*	3	100							

Input-Interstage - Driver										
Part No.	Ref. No.	Pin	Class	Application	Primary	Secondary	Induct. μH	Capac. pF	Frequency kHz	Case Size
Model Encased	Encased	Classification					Max. μH	Min. pF	Range kHz	
7A51		7F5X13Z2	Interstage	10,000	90,000	.25	30	80-20,000	M2A	
7A62		7F5X13Z2	Interstage	10,000	90,000	.25	100	50-20,000	M2A	
7A140		7F4X10Y1	Interstage	10,000	10,000	0	25	50-10,000	M1	
7A150A		7F4X10Y1	Chopper	10,000	100,000	0	25	50-10,000	M1	
7A30		7F4X13Y1	Interstage	10,000	10,000	0	25	50-10,000	M1	
7A294		7F5X10Z2	Interstage	10,000	10,000	0	12	100-2,500	M1	
7A270		7F5X10Z2	Interstage	10,000	10,000	0	12	100-2,500	M1	
7A274		7F4X13Y1	Plate to Line	15,000	50/250/600C†	0	6	20-20,000	M2A	
7A263		7F4X13Y1	Plate to Line	15,000	50/250/600C†	0	6	20-20,000	M2A	
7A286		7F4X13Y1	Plate to Line	15,000	50/250/600C†	0	12	100-2,500	M1	
7A275		7F4X13Y1	Plate to Line	15,000	50/250/600C†	0	12	100-2,500	M1	
7A264		7F4X13Y1	Plate to Line	15,000	50/250/600C†	0	12	100-2,500	M1	
7A167		7F5X13Z2	Interstage	10,000	10,000	0	12	100-2,500	M1	
7A85		7F4X13Y1	Plate to Grid	15,000	40,000	0	10	40-15,000	AF-1	
7A283		7F4X13Y1	Plate to Grid	15,000	40,000	0	10	40-15,000	AF-1	
7A259		7F4X13Y1	Plate to Grid	15,000	40,000	0	4	20-15,000	AG-2	
7A284		7F4X13Y1	Plate to Grid	15,000	40,000	0	25	200-20,000	M1	
7A277		7F4X13Y1	Plate to Grid	15,000	40,000	0	25	200-20,000	M1	
7A260		7F4X13Y1	Plate to Grid	15,000	40,000	0	25	200-20,000	M1	
7A273		7F4X13Y1	Plate to Grid	15,000	40,000	0	10	50-15,000	NSV-2	
7A24		7F4X13Y1	Plate to Grid	15,000	40,000	0	25	200-20,000	M1	
7A286		7F4X13Y1	Plate to Grid	15,000	40,000	0	25	200-20,000	M1	
7A244		7F4X13Y1	Plate to Grid	15,000	40,000	0	10	50-15,000	AF-1	
7A285		7F4X13Y1	Plate to Grid	15,000	40,000	0	10	50-15,000	AF-1	
7A281		7F4X13Y1	Plate to Grid	15,000	40,000	0	10	50-15,000	AF-1	
7A261		7F4X13Y1	Plate to Grid	15,000	40,000	0	3	20-15,000	M1	
7A25		7F4X13Y1	Plate to Grid	15,000	40,000	0	3	20-15,000	M1	
7A15		7F4X13Y1	Plate to Grid	15,000	40,000	0	3	20-15,000	M1	
7A282		7F4X13Y1	Plate to Grid	15,000	40,000	0	12	200-20,000	NSV-2	
7A273		7F4X13Y1	Plate to Grid	15,000	40,000	0	12	200-20,000	NSV-2	
7A267		7F4X13Y1	Plate to Grid	15,000	40,000	0	12	200-20,000	NSV-2	
7A263		7F4X13Y1	Plate to Grid	15,000	40,000	0	12	200-20,000	NSV-2	
7A277		7F4X13Y1	Plate to Grid	15,000	110,000	0	40	20-20,000	YY-1	
7A267		7F4X13Y1	Plate to Grid	15,000	110,000	0	26	20-20,000	YY-2	

THORDARSON MEISSNER

Outputs INCLUDES: TRANSISTOR AND TUBE TYPE — MOLDED AND ENCASED[illegible]

75107	ATI 203	TF4RX13
		TF5RX13

73139	7F8X8132Z	In Fr. V.C.	1500C	2.5	4	2	15	200-10,000	MB
73140	7F8X8132Z	In Fr. Line	1500C	2.5	5	4	20	200-10,000	MB
73141	7F8X8132Z	In Fr. V.C.	1300C*	1	3	3	50	100-100,000	MB
73142	7F8X8132Z	In Fr. Line	1300C*	1	3	3	50	100-100,000	MB
73143	7F8X8132Y	In Fr. V.C.	1300C*	1	3	3	50	100-100,000	MB
73144	7F8X8132Y	In Fr. Line	1300C*	1	3	3	50	100-100,000	MB
73145	7F8X8132Z	In Fr. V.C.	1300C*	1	3	3	50	100-100,000	MB
73146	7F8X8132Z	In Fr. Line	1300C*	1	3	3	50	100-100,000	MB
73147	7F8X8132Z	In Fr. V.C.	1300C*	1	3	3	50	100-100,000	MB
73148	7F8X8132Z	In Fr. Line	1300C*	1	3	3	50	100-100,000	MB
73149	7F8X8132Z	In Fr. V.C.	1300C*	1	3	3	50	100-100,000	MB
73150	7F8X8132Z	In Fr. Line	1300C*	1	3	3	50	100-100,000	MB
73151	7F8X8132Z	In Fr. V.C.	1300C*	1	3	3	50	100-100,000	MB
73152	7F8X8132Z	In Fr. Line	1300C*	1	3	3	50	100-100,000	MB
73153	7F8X8132Z	In Fr. V.C.	1300C*	1	3	3	50	100-100,000	MB
73154	7F8X8132Z	In Fr. Line	1300C*	1	3	3	50	100-100,000	MB
73155	7F8X8132Z	In Fr. V.C.	1300C*	1	3	3	50	100-100,000	MB
73156	7F8X8132Z	In Fr. Line	1300C*	1	3	3	50	100-100,000	MB
73157	7F8X8132Z	In Fr. V.C.	1300C*	1	3	3	50	100-100,000	MB
73158	7F8X8132Z	In Fr. Line	1300C*	1	3	3	50	100-100,000	MB
73159	7F8X8132Z	In Fr. V.C.	1300C*	1	3	3	50	100-100,000	MB
73160	7F8X8132Z	In Fr. Line	1300C*	1	3	3	50	100-100,000	MB
73161	7F8X8132Z	In Fr. V.C.	1300C*	1	3	3	50	100-100,000	MB
73162	7F8X8132Z	In Fr. Line	1300C*	1	3	3	50	100-100,000	MB
73163	7F8X8132Z	In Fr. V.C.	1300C*	1	3	3	50	100-100,000	MB
73164	7F8X8132Z	In Fr. Line	1300C*	1	3	3	50	100-100,000	MB
73165	7F8X8132Z	In Fr. V.C.	1300C*	1	3	3	50	100-100,000	MB
73166	7F8X8132Z	In Fr. Line	1300C*	1	3	3	50	100-100,000	MB
73167	7F8X8132Z	In Fr. V.C.	1300C*	1	3	3	50	100-100,000	MB
73168	7F8X8132Z	In Fr. Line	1300C*	1	3	3	50	100-100,000	MB
73169	7F8X8132Z	In Fr. V.C.	1300C*	1	3	3	50	100-100,000	MB
73170	7F8X8132Z	In Fr. Line	1300C*	1	3	3	50	100-100,000	MB
73171	7F8X8132Z	In Fr. V.C.	1300C*	1	3	3	50	100-100,000	MB
73172	7F8X8132Z	In Fr. Line	1300C*	1	3	3	50	100-100,000	MB
73173	7F8X8132Z	In Fr. V.C.	1300C*	1	3	3	50	100-100,000	MB
73174	7F8X8132Z	In Fr. Line	1300C*	1	3	3	50	100-100,000	MB
73175	7F8X8132Z	In Fr. V.C.	1300C*	1	3	3	50	100-100,000	MB
73176	7F8X8132Z	In Fr. Line	1300C*	1	3	3	50	100-100,000	MB
73177	7F8X8132Z	In Fr. V.C.	1300C*	1	3	3	50	100-100,000	MB
73178	7F8X8132Z	In Fr. Line	1300C*	1	3	3	50	100-100,000	MB
73179	7F8X8132Z	In Fr. V.C.	1300C*	1	3	3	50	100-100,000	MB
73180	7F8X8132Z	In Fr. Line	1300C*	1	3	3	50	100-100,000	MB
73181	7F8X8132Z	In Fr. V.C.	1300C*	1	3	3	50	100-100,000	MB
73182	7F8X8132Z	In Fr. Line	1300C*	1	3	3	50	100-100,000	MB
73183	7F8X8132Z	In Fr. V.C.	1300C*	1	3	3	50	100-100,000	MB
73184	7F8X8132Z	In Fr. Line	1300C*	1	3	3	50	100-100,000	MB
73185	7F8X8132Z	In Fr. V.C.	1300C*	1	3	3	50	100-100,000	MB
73186	7F8X8132Z	In Fr. Line	1300C*	1	3	3	50	100-100,000	MB
73187	7F8X8132Z	In Fr. V.C.	1300C*	1	3	3	50	100-100,000	MB
73188	7F8X8132Z	In Fr. Line	1300C*	1	3	3	50	100-100,000	MB
73189	7F8X8132Z	In Fr. V.C.	1300C*	1	3	3	50	100-100,000	MB
73190	7F8X8132Z	In Fr. Line	1300C*	1	3	3	50	100-100,000	MB
73191	7F8X8132Z	In Fr. V.C.	1300C*	1	3	3	50	100-100,000	MB
73192	7F8X8132Z	In Fr. Line	1300C*	1	3	3	50	100-100,000	MB
73193	7F8X8132Z	In Fr. V.C.	1300C*	1	3	3	50	100-100,000	MB
73194	7F8X8132Z	In Fr. Line	1300C*	1	3	3	50	100-100,000	MB
73195	7F8X8132Z	In Fr. V.C.	1300C*	1	3	3	50	100-100,000	MB
73196	7F8X8132Z	In Fr. Line	1300C*	1	3	3	50	100-100,000	MB
73197	7F8X8132Z	In Fr. V.C.	1300C*	1	3	3	50	100-100,000	MB
73198	7F8X8132Z	In Fr. Line	1300C*	1	3	3	50	100-100,000	MB
73199	7F8X8132Z	In Fr. V.C.	1300C*	1	3	3	50	100-100,000	MB
73200	7F8X8132Z	In Fr. Line	1300C*	1	3	3	50	100-100,000	MB
73201	7F8X8132Z	In Fr. V.C.	1300C*	1	3	3	50	100-100,000	MB
73202	7F8X8132Z	In Fr. Line	1300C*	1	3	3	50	100-100,000	MB
73203	7F8X8132Z	In Fr. V.C.	1300C*	1	3	3	50	100-100,000	MB
73204	7F8X8132Z	In Fr. Line	1300C*	1	3	3	50	100-100,000	MB
73205	7F8X8132Z	In Fr. V.C.	1300C*	1	3	3	50	100-100,000	MB
73206	7F8X8132Z	In Fr. Line	1300C*	1	3	3	50	100-100,000	MB
73207	7F8X8132Z	In Fr. V.C.	1300C*	1	3	3	50	100-100,000	MB
73208	7F8X8132Z	In Fr. Line	1300C*	1	3	3	50	100-100,000	MB
73209	7F8X8132Z	In Fr. V.C.	1300C*	1	3	3	50	100-100,000	MB
73210	7F8X8132Z	In Fr. Line	1300C*	1	3	3	50	100-100,000	MB
73211	7F8X8132Z	In Fr. V.C.	1300C*	1	3	3	50	100-100,000	MB
73212	7F8X8132Z	In Fr. Line	1300C*	1	3	3	50	100-100,000	MB
73213	7F8X8132Z	In Fr. V.C.	1300C*	1	3	3	50	100-100,000	MB
73214	7F8X8132Z	In Fr. Line	1300C*	1	3	3	50	100-100,000	MB
73215	7F8X8132Z	In Fr. V.C.	1300C*	1	3	3	50	100-100,000	MB
73216	7F8X8132Z	In Fr. Line	1300C*	1	3	3	50	100-100,000	MB
73217	7F8X8132Z	In Fr. V.C.	1300C*	1	3	3	50	100-100,000	MB
73218	7F8X8132Z	In Fr. Line	1300C*	1	3	3	50	100-100,000	MB
73219	7F8X8132Z	In Fr. V.C.	1300C*	1	3	3	50	100-100,000	MB
73220	7F8X8132Z	In Fr. Line	1300C*	1	3	3	50	100-100,000	MB
73221	7F8X8132Z	In Fr. V.C.	1300C*	1	3	3	50	100-100,000	MB
73222	7F8X8132Z	In Fr. Line	1300C*	1	3	3	50	100-100,000	MB
73223	7F8X8132Z	In Fr. V.C.	1300C*	1	3	3	50	100-100,000	MB
73224	7F8X8132Z	In Fr. Line	1300C*	1	3	3	50	100-100,000	MB
73225	7F8X8132Z	In Fr. V.C.	1300C*	1	3	3	50	100-100,000	MB
73226	7F8X8132Z	In Fr. Line	1300C*	1	3	3	50	100-100,000	MB
73227	7F8X8132Z	In Fr. V.C.	1300C*	1	3	3	50	100-100,000	MB
73228	7F8X8132Z	In Fr. Line	1300C*	1	3	3	50	100-100,000	MB
73229	7F8X8132Z	In Fr. V.C.	1300C*	1	3	3	50	100-100,000	MB
73230	7F8X8132Z	In Fr. Line	1300C*	1	3	3	50	100-100,000	MB
73231	7F8X8132Z	In Fr. V.C.	1300C*	1	3	3	50	100-100,000	MB
73232	7F8X8132Z	In Fr. Line	1300C*	1	3	3	50	100-100,000	MB
73233	7F8X8132Z	In Fr. V.C.	1300C*	1	3	3	50	100-100,000	MB
73234	7F8X8132Z	In Fr. Line	1300C*	1	3	3	50	100-100,000	MB
73235	7F8X8132Z	In Fr. V.C.	1300C*	1	3	3	50	100-100,000	MB
73236	7F8X8132Z	In Fr. Line	1300C*	1	3	3	50	100-100,000	MB
73237	7F8X8132Z	In Fr. V.C.	1300C*	1	3	3	50	100-100,000	MB
73238	7F8X8132Z	In Fr. Line	1300C*	1	3	3	50	100-100,000	MB
73239	7F8X8132Z	In Fr. V.C.	1300C*	1	3	3	50	100-100,000	MB
73240	7F8X8132Z	In Fr. Line	1300C*	1	3	3	50	100-100,000	MB
73241	7F8X8132Z	In Fr. V.C.	1300C*	1	3	3	50	100-100,000	MB
73242	7F8X8132Z	In Fr. Line	1300C*	1	3	3	50	100-100,000	MB
73243	7F8X8132Z	In Fr. V.C.	1300C*	1	3	3	50	100-100,000	MB
73244	7F8X8132Z	In Fr. Line	1300C*	1	3	3	50	100-100,000	MB
73245	7F8X8132Z	In Fr. V.C.	1300C*	1	3	3	50	100-100,000	MB
73246	7F8X8132Z	In Fr. Line	1300C*	1	3	3	50	100-100,000	MB
73247	7F8X8132Z	In Fr. V.C.	1300C*	1	3	3	50	100-100,000	MB
73248	7F8X8132Z	In Fr. Line	1300C*	1	3	3	50	100-100,000	MB
73249	7F8X8132Z	In Fr. V.C.	1300C*	1	3	3	50	100-100,000	MB
73250	7F8X8132Z	In Fr. Line	1300C*	1	3	3	50	100-100,000	MB
73251	7F8X8132Z	In Fr. V.C.	1300C*	1	3	3	50	100-100,000	MB
73252	7F8X8132Z	In Fr. Line	1300C*	1	3	3	50	100-100,000	MB
73253	7F8X8132Z	In Fr. V.C.	1300C*	1	3	3	50	100-100,000	MB
73254	7F8X8132Z	In Fr. Line	1300C*	1	3	3	50	100-100,000	MB
73255	7F8X8132Z	In Fr. V.C.	1300C*	1	3	3	50	100-100,000	MB
73256	7F8X8132Z	In Fr. Line	1300C*	1	3	3	50	100-100,000	MB
73257	7F8X8132Z	In Fr. V.C.	1300C*	1	3	3	50	100-100,000	MB
73258	7F8X8132Z	In Fr. Line	1300C*	1	3	3	50	100-100,000	MB
73259	7F8X8132Z	In Fr. V.C.	1300C*	1	3	3	50	100-100,000	MB
73260	7F8X8132Z	In Fr. Line	1300C*	1	3	3	50	100-100,000	MB
73261	7F8X8132Z	In Fr. V.C.	1300C*	1	3	3	50	100-100,000	MB
73262	7F8X8132Z	In Fr. Line	1300C*	1	3	3	50	100-100,000	MB
73263	7F8X8132Z	In Fr. V.C.	1300C*	1	3	3	50	100-100,000	MB
73264	7F8X8132Z	In Fr. Line	1300C*	1	3	3	50	100-100,000	MB
73265	7F8X8132Z	In Fr. V.C.	1300C*	1	3	3	50	100-100,000	MB
73266	7F8X8132Z	In Fr. Line	1300C*	1	3	3	50	100-100,000	MB
73267	7F8X8132Z	In Fr. V.C.	1300C*	1	3	3	50	100-100,000	MB
73268	7F8X8132Z	In Fr. Line	1300C*	1	3	3	50	100-100,000	MB
73269	7F8X8132Z	In Fr. V.C.	1300C*	1	3	3	50	100-100,000	MB
73270	7F8X8132Z	In Fr. Line	1300C*	1	3	3	50	100-100,000	MB
73271	7F8X8132Z	In Fr. V.C.	1						

27S201	YF5RX1:
27S193	YF4RX1:

275190	TF4RX12ZZ	Tr. to Line	1,600CT	450	15	1W	200-15,000	AG-2
275211	TF4RX12AJ	Tr. to Servo	1,600CT	800	5	2.5W	15-20,000	AJ
275159	YF5RX13ZZ	Tr. to V.C.	2,000	3.4	5	600	200-15,000	M9

275136	TF90X132Z	Pl. to V.C.	2,000	3,4	3	1W	200-15,000	M10
275137	TF48X135Y	Pl. to V.C.	2,000	3,4	3	1W	200-15,000	NSV-2C
275138	TF90X132Z	Pl. to V.C.	2,000	3,4	3	1W	200-15,000	A-2
275181	TF90X132Z	Pl. to V.C.	2,000	3,4	3	1W	200-15,000	M11
275185	TF48X135Y	Pl. to V.C.	2,000	3,4	3	1W	200-15,000	NSV-2
275190	TF90X132Z	Pl. to V.C.	2,000	3,4	3	1W	200-15,000	A-2-1
275194	TF48X124G	Pl. to V.C.	2,000	4/6/16		200		A0
275207	TF48X135Y	Pl. to V.C.	2,000 + 4,000C	8-16	4	100	100-100,000	NSV-2
275210	TF90X132Z	Pl. to V.C.	2,000 + 4,000C	16	4-3	200	100-100,000	A-2
275212	TF90X132Z	Pl. to V.C.	2,000C*	16	3	500	100-100,000	M1
275219	TF48X135Y	Pl. to V.C.	2,000C*	12	4	100	300-15,000	A1-1
275227	TF48X135Y	Pl. to V.C. with optional A-1 Tertiary Winding	3,000C*	600	0	500		YY-8
275240	TF90X132Z	Pl. to V.C.	4,000C*	3,4	3	600	200-15,000	M10
275247	TF48X135Y	Pl. to V.C.	4,000C*	3,4	3	1W	200-15,000	M10
275278	TF90X132Z	Pl. to V.C.	4,000C*	3,4	3	1W	200-15,000	M10
275279	TF48X135Y	Pl. to V.C.	4,000C*	3,4	3	1W	200-15,000	A1-2
275282	TF90X132Z	Pl. to V.C.	4,000C*	3,4	3	1W	200-15,000	NSV-2C
275283	TF48X135Y	Pl. to V.C.	4,000C*	3,4	3	2W	200-15,000	M11
275284	TF90X132Z	Pl. to V.C.	4,000C*	3,4	3	2W	200-15,000	NSV-2
275286	TF48X135Y	Pl. to V.C.	4,000C*	3,4	3	2W	200-15,000	M11
275287	TF90X132Z	Pl. to V.C.	4,000C*	3,4	3	2W	200-15,000	A-2-2
275315	TF48X161Y	Pl. to V.C.	4,000	8	0	2W	250-3,000	NSV1
275367	TF48X13LA	Hi-F Output with Screen Tap	1,000/445*	4/8/16	20	65W	15-30,000	LA
275368	TF48X13LA	Hi-F Output with Screen Tap	4,000C*	125/250/500	200	65W	15-30,000	LA
275369	TF48X13LA	Hi-F Output with Screen Tap	1,000/445*	4,000*	100	55W	15-30,000	LA
275370	TF48X135Y	Pl. to Line or V.C. with Screen Tap	5,000	4/8/16/ 250/500	40	5W	70-13,000	YY-14
275371	TF48X13GA	Plate to Line or V.C. with Screen Tap	5,000	4/8/16/ 150/600	35	3W	200-3,000	GA
275372	TF48X135Y	Plate to Line or V.C. with Screen Tap	5,000	4/8/16/ 150/600	55	3W	200-3,000	YY-21
275373	TF48X13JA	PP Plate to Line or V.C. 10% feedback Winding	5,000C*	4/8/16/ 150/600	130	30W	50-10,000	JA
275374	TF48X13JB	PP Plate to V.C. with Screen Tap	5,000C*	4/8/16/ 150/600	80	25W	15-30,000	JB
275381	TF48X13JA	PP Plate to Line or V.C. 10% feedback Winding	5,000*/3,000*	4/8/16/ 150/600*	3W	30	30-13,000	JA
275382	TF48X135Y	PP Plate to Line or V.C. 10% feedback Winding	5,000*/3,000*	4/8/16/ 150/600*	13W	30	30-15,000	YY-33
275391	TF48X13MA	PP Plate to Line or V.C. 10% feedback Winding	5,000*/3,000*	4/8/16/ 150/600*	230	30W	50-10,000	MA
275392	TF90X132Z	Pl. to V.C.	6,500	150/600	75	20W	30-15,000	DAF
275404	TF48X13KB	Hi-F Output with Screen Tap	8,000C* or 1,600	4/8/16	80	23W	10-8,000	KB
275405	TF48X13KB	Hi-F Output with Screen Tap	8,000C* or 1,600	125/150/600	80	25W	15-8,000	KB
275430	TF48X13KB	Hi-F Output with Screen Tap	8,000C* or 1,600	80	25W	15-8,000	KB	
275446	TF90X132Z	Plate to V.C.	7,000C* or 9,400C	3.2 to 4	100	20	20-20,000	A2A
275498	TF90X132Z	Plate to V.C.	9,500C*	12	1	50	100-100,000	A2A
MIT 210	TF48X13Y	Plate to V.C.	10,000C*	16	1	50	100-100,000	RAY-6
275509	TF48X13JA	PP Plate to Line	9,000C*	600/150*	0	20W	30-15,000	
275519	TF48X13Y	Plate to Line	9,000C*	600/150*	1	20W	30-15,000	YY-33
275527	TF90X132Z	Pl. to V.C.	9,000C*	3-2	1	50	100-100,000	MA3
MIT 235	TF48X13Y	Pl. to V.C.	8,000C* to 4	3.2 to 10	10	1H		RAY-4
275530	TF90X132Z	Plate to V.C.	9,000C*	3-2	10	3W	200-4,000	BAH
275531	TF48X13GA	Plate to Line or V.C.	8,000	4/8/16/ 150/600	55	5W	200-3,000	GA
275523	TF48X13Y	Plate to Line or V.C.	8,000	4/8/16/ 150/600	55	5W	200-3,000	YY-21
275524	TF48X13JB	PP Plate to V.C.	8,000C*	150/600	50	15W	15-30,000	JB
275527	TF48X13JB	PP Plate to Line	9,000C*	125/250/500	1	20W	15-30,000	JB
275528	TF48X13JB	PP Plate to Line	9,000C*	4/8/16	50	15W	15-30,000	JB
275529	TF48X13JB	PP Plate to Line with Screen Tap	9,000C* or 2,000C*	125/150/600	50	15W	15-30,000	JB
275529	TF48X13JB	PP Plate to Line	9,000C* or 2,000C*	125/150/600	50	15W	15-30,000	JB
275531	TF48X13Y	Plate to 70-7V Line + 15V Tertiary	8,000C*	70,7V & 15V	130	200W	200-8,000	YY-78
275544	TF48X13KB	PP Plate to Line with Screen Tap	8,000C*	4/8/16*	100	23W	10-50,000	KB

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Useable frequency range from 100 to 100,000 cycles

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This unit shielded for -20dB hum reduction

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Split CT Winding

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Frequency responses at a 1/20th

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Unit has inducts instead of studs

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Frequency responses at a 1/20th

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Frequency responses at a 1/20th

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THORDARSON MEISSNER

Chokes									
Designed and built to meet MIL-T-278 specifications. These units provide the maximum inductance at the given current rating in a minimum size. All AJ, FA, GA, etc. case sizes are identical to MIL-T-278 specification.									
Part No.	MIL-T-278 Classification	Inductance in Henrys	MAOC	Resistance in Ohms	Test Voltage RMS	Case Size	Wt. Lbs.		
27C11	TFA8X0AY	15	10	680	1,000	AJ	1		
27C13	TFA8X0AY	15	680	1,000	YY-10A	AJ	21		
27C18	TFA8X0AY	120	12	2,400	2,500	YSV-3	10		
27C111	TFA8X0AJ	95	14	1,600	12,500	LA	1.8		
27C142	TFA8X0AY	25	15	1,550	AJ-11	AJ	1.5		
27C12	TFA8X0AJ	15	20	680	1,000	AJ	1		
27C36	TFA8X0AJ	15	20	680	1,000	YY-10A	1		
27C170	TFA8X0AZZ	25	20	400	700	THF-3	2.3		
	Dust Choke	20	20	400	700				
27C35	TFA8X0EE	30	20	1,000	2,500	EB	1.25		
27C47	TFA8X0AH	20 or 18 or 14.5 or 30	20 or 25 or 30 or 30	925	1,000	AH	.25		
27C231	TFSX0AZZ	2.5	25	225	1,000	ZZ-2	.1		
		1.5	25						
		4	30						
27C1751	TFSX0AZZ	3	30	400	6,000	BHV	.2		
27C176	TFSX0AZZ	6	30	145	500	BHV	.4		
27C112	TFSX0AZZ	50	30	300	1,500	YV-1	1.2		
27C166	TFA8X0AY	3	400	18.6	2,000	YY-72	6.1		
27C32	TFA8X0AY	7	400	48	2,000	OA	21		
27C198	TFA8X0AY	1	420	18	2,000	YY-30	3		
27C139	TFA5Y0A18	2 ^a	500	40	1,500	J8	4		
27C140	TTF1X0AY	11	500	60	+ 10,000	YY-48	25		
27C141	TFA8X0AJ	-5	800	3	1,500	JA	6		
27C142	TFA8X0AJ	-.01	900	1.7	1,000	AJ	5		
27C143	TFA8X0AY	-.04	1 Amp.	1.7	1,500	YY-20	1.2		
27C144	TFA8X0AJ	-.2	1 Amp.	1.5	1,600	OA	2.5		
27C145	TFA8X0AJ	-1	1 Amp.	5	2,000	JA	4.5		
27C146	TFA8X0K8	-.035	4 Amp.	.25	500	K8	3.5		
27C147	TFA8X0K8	-.85	12 Amp.	1	500	K8	6		
27C148	TTF1X0AY	-.005	30 Amp.	.05	900	YY-31	25		

Dual Winding - Chokes and Inductors

Designed and built to meet MIL-IT-27B specifications. These units provide the maximum inductance at the given current ratings in a minimum size. All AJ, FA, GA, etc. case sizes are identical to MIL-IT-27B specifications.

Part No.	MIL-IT-27B Classification	Series Connected		Parallel Connected		Case Size	Wt. Lbs.	
		Inductance In Henrys	MADC	Inductance In Henrys	MADC			
27C44	TF4BX20YY	450 or 250	0	6,000	65	10	1,500 NSV-4	.05
27C46	TF5KX20ZZ	20	2	2,675	5	4	570 RAV	.05
MIT 249	TF4BX20YY	20 or 1	3	5,100	5 or 2	4	1,270 RAV-6	1 or .05
27C41	TF4BX20YY	2.4	2	160	.6	40	TFH	.03
MIT 278	TF4BX20YY	.90	2	635	.20	8	155 RAV-5	.07 or .02
MIT 279	TF4BX20ZZ	1.2	4	2,300	.30	8	575 RAV-5	.07 or .05
27C234	TF4BX20YY	4.5	2	1,100	1.1	4	275 M2	.05
TR 357	TF4BX20YY	16	2	1,100	2	4	275 MAH	.03
27C65	TF5KX20ZZ	1.5	5	160	.40	10	40 M2A	.04
27C64	TF5KX20ZZ	3.5	5	60	.90	10	150 M2A	.04
MIT 277	TF4BX20YY	.50	6	100	.10	12	25 RAV-5	.07 or .05
MIT 276	TF4BX20YY	.10	10	25	.02	20	6 RAV-5	.07 or .05
27C62	TF55X04ZZ	1 or .2	5	4	1.25 or .05	10	ZZ-3	.05
27C40	TF4BX20YY	1	8	100	.25	10	25 TFH	.05 or .02
MIT 250	TF4BX20YY	75 MH or 60 MH	10	18 MH or 15 MH	60	25	RAV-6	1 or .05
27C42	TF4BX20YY	40	15	1,000	10	30	250 NSV-4	.5
27C43	TF4BX20YY	20	60	.25	40	15	NSV-2	.1
27C170	TF4BX20YY	20	200	60	200		DHF	2.5
27C39	TF4BX04YY	60 MH	32	15 MH	64	1.5	TFH	.05 or .02
27C53	TF4BX04G	55 MH or 40 MH or 35	1	13 MH or 10 MH or 70	.25	AG	1	
27C54	TF4BX04H	125 MH or 80 MH or 100	50	31 MH or 20 MH or 200	1.5	AH	4	
27C45	TF4BX04Y	20 MH or 12 MH	1 Amp.	5 MH or 3 MH	1 Amp.	25	NSV-4	.5
27C1491	TF4BX04A	10	60	300	2.5	75	FA	4
27C57*	TF4BX04J	9 MH or 5 MH or 2 MH or 6.6 MH	7.5	2.5 MH or 1.5 MH or .55 MH or .4 MH	1.5 Amp.	.0075	JA	4.5
27C42	TF4BX04Y	60 MH	4	15 MH	160	12.5	HA	4
27C151*	TF4BX04J	68 MH or 20 MH or 14 MH	1 Amp.	17 MH or 5 MH or 3.5 MH	200	2	AJ	.6
27C56	TF4BX04G	165 MH or 140 MH or 25 MH or 11 MH	2 Amp.	35 MH or 30 MH or 6.5 MH or 3 MH	500	15	GB	4
27C150*	TF4BX04J	200 MH or 25 MH or 11 MH	1.25 Amp.	35 MH or 2.7 MH or 1.25 Amp.	250	.15	ZZ-3	1.7
27C152*	TF4BX04H	210	20	3.5	420	35	KA	3.2
27C58*	TF4BX04H	65 MH or 60 MH or 20 MH or 9 MH	2 Amp.	16 MH or 5 MH or 4 Amp.	800	.05	HA	2.5
27C39	TF4BX04K	90 MH or 80 MH or 18 MH or 9 MH	500	22.5 MH or 2.5 MH or 4.5 MH or 8 Amp.	1 Amp. or 1.5 Amp. or 8 Amp. or 16 Amp.	.025	KA	5.2

★ 500 Volts RMS Test † 1,700 Volts RMS Test ‡ 875 Volts RMS Test
 † 750 Volts RMS Test ‡ 1,500 Volts RMS Test ‡ 1,500 Volts RMS Test

Audio Inductors

Designed and built to provide a full range of inductance and current ratings in epoxy molded, enameled, and encapsulated units. .05 H, to 430 H, at inductance of less than .5%. Units marked * have a tolerance of .3% and 0.5 Q of 22 or more of approximately 1,000 cycles. Units marked † have an inductance tolerance of .2% and 0.5 Q of 25 or more at 17,000 cycles for low inductance units and 400 cycles for high inductance units. Substitution is permitted for all units with over the MIL-IT-27B temperature ranges.

Part No.	Encased	SERIES CONNECTED		PARALLEL CONNECTED		Mig. Type	
		Inductance Henrys	MADC	Inductance Henrys	MADC		
MIT 250	TF4BX20YY	.08, 10	30/10	.015, 0.018	60/20	RAV-3	
MIT 247	TF4BX20YY	.08, 10	35	10	35	RAV-4	
MIT 276	TF4BX20YY	.20, 10	10/4	.02, .025	20/8	RAV-5	
27C265	TF5KX20ZZ	.10	55	15	5	M2B	
27C266	TF5KX20ZZ	.15	125	30	15	TAM	
27C267	TF5KX20ZZ	.15	45	22	800	TAM	
MIT 228	TF4BX20YY	.15, 30	20	4	30	RAV-4	
27C267	TF5KX20ZZ	.35	95	35	35	M2B	
27C268	TF5KX20ZZ	.30	75	34	34	M2B	
27C269	TF5KX20ZZ	.40	90	4	30	TAM	
MIT 266	TF4BX20YY	.30, 90	6	12	.10, 20	12/4	25 RAV-6
MIT 277	TF4BX20YY	.30, 90	6	12	.10, 20	12/4	25 RAV-6
27C239	TF5KX20ZZ	.30, 15	10	103	10	GA	
27C240	TF5KX20ZZ	.30, 15	10	103	10	GA	
27C241	TF5KX20ZZ	.30, 15	10	103	10	GA	
27C242	TF5KX20ZZ	.30, 15	10	103	10	GA	
27C243	TF5KX20ZZ	.30, 15	10	103	10	GA	
27C244	TF5KX20ZZ	.30, 15	10	103	10	GA	
27C245	TF5KX20ZZ	.30, 15	10	103	10	GA	
27C246	TF5KX20ZZ	.30, 15	10	103	10	GA	
27C247	TF5KX20ZZ	.30, 15	10	103	10	GA	
27C248	TF5KX20ZZ	.30, 15	10	103	10	GA	
27C249	TF5KX20ZZ	.30, 15	10	103	10	GA	
27C250	TF5KX20ZZ	.30, 15	10	103	10	GA	
27C251	TF5KX20ZZ	.30, 15	10	103	10	GA	
27C252	TF5KX20ZZ	.30, 15	10	103	10	GA	
27C253	TF5KX20ZZ	.30, 15	10	103	10	GA	
27C254	TF5KX20ZZ	.30, 15	10	103	10	GA	
27C255	TF5KX20ZZ	.30, 15	10	103	10	GA	
27C256	TF5KX20ZZ	.30, 15	10	103	10	GA	
27C257	TF5KX20ZZ	.30, 15	10	103	10	GA	
27C258	TF5KX20ZZ	.30, 15	10	103	10	GA	
27C259	TF5KX20ZZ	.30, 15	10	103	10	GA	
27C260	TF5KX20ZZ	.30, 15	10	103	10	GA	
27C261	TF5KX20ZZ	.30, 15	10	103	10	GA	
27C262	TF5KX20ZZ	.30, 15	10	103	10	GA	
27C263	TF5KX20ZZ	.30, 15	10	103	10	GA	
27C264	TF5KX20ZZ	.30, 15	10	103	10	GA	
27C265	TF5KX20ZZ	.30, 15	10	103	10	GA	
27C266	TF5KX20ZZ	.30, 15	10	103	10	GA	
27C267	TF5KX20ZZ	.30, 15	10	103	10	GA	
27C268	TF5KX20ZZ	.30, 15	10	103	10	GA	
27C269	TF5KX20ZZ	.30, 15	10	103	10	GA	
27C270	TF5KX20ZZ	.30, 15	10	103	10	GA	
27C271	TF5KX20ZZ	.30, 15	10	103	10	GA	
27C272	TF5KX20ZZ	.30, 15	10	103	10	GA	
27C273	TF5KX20ZZ	.30, 15	10	103	10	GA	
27C274	TF5KX20ZZ	.30, 15	10	103	10	GA	
27C275	TF5KX20ZZ	.30, 15	10	103	10	GA	
27C276	TF5KX20ZZ	.30, 15	10	103	10	GA	
27C277	TF5KX20ZZ	.30, 15	10	103	10	GA	
27C278	TF5KX20ZZ	.30, 15	10	103	10	GA	
27C279	TF5KX20ZZ	.30, 15	10	103	10	GA	
27C280	TF5KX20ZZ	.30, 15	10	103	10	GA	
27C281	TF5KX20ZZ	.30, 15	10	103	10	GA	
27C282	TF5KX20ZZ	.30, 15	10	103	10	GA	
27C283	TF5KX20ZZ	.30, 15	10	103	10	GA	
27C284	TF5KX20ZZ	.30, 15	10	103	10	GA	
27C285	TF5KX20ZZ	.30, 15	10	103	10	GA	
27C286	TF5KX20ZZ	.30, 15	10	103	10	GA	
27C287	TF5KX20ZZ	.30, 15	10	103	10	GA	
27C288	TF5KX20ZZ	.30, 15	10	103	10	GA	
27C289	TF5KX20ZZ	.30, 15	10	103	10	GA	
27C290	TF5KX20ZZ	.30, 15	10	103	10	GA	
27C291	TF5KX20ZZ	.30, 15	10	103	10	GA	
27C292	TF5KX20ZZ	.30, 15	10	103	10	GA	
27C293	TF5KX20ZZ	.30, 15	10	103	10	GA	
27C294	TF5KX20ZZ	.30, 15	10	103	10	GA	
27C295	TF5KX20ZZ	.30, 15	10	103	10	GA	
27C296	TF5KX20ZZ	.30, 15	10	103	10	GA	
27C297	TF5KX20ZZ	.30, 15	10	103	10	GA	
27C298	TF5KX20ZZ	.30, 15	10	103	10	GA	
27C299	TF5KX20ZZ	.30, 15	10	103	10	GA	
27C300	TF5KX20ZZ	.30, 15	10	103	10	GA	
27C301	TF5KX20ZZ	.30, 15	10	103	10	GA	
27C302	TF5KX20ZZ	.30, 15	10	103	10	GA	
27C303	TF5KX20ZZ	.30, 15	10	103	10	GA	
27C304	TF5KX20ZZ	.30, 15	10	103	10	GA	
27C305	TF5KX20ZZ	.30, 15	10	103	10	GA	
27C306	TF5KX20ZZ	.30, 15	10	103	10	GA	
27C307	TF5KX20ZZ	.30, 15	10	103	10	GA	
27C308	TF5KX20ZZ	.30, 15	10	103	10	GA	
27C309	TF5KX20ZZ	.30, 15	10	103	10	GA	
27C310	TF5KX20ZZ	.30, 15	10	103	10	GA	
27C311	TF5KX20ZZ	.30, 15	10	103	10	GA	
27C312	TF5KX20ZZ	.30, 15	10	103	10	GA	
27C313	TF5KX20ZZ	.30, 15	10	103	10	GA	
27C314	TF5KX20ZZ	.30, 15	10	103	10	GA	
27C315	TF5KX20ZZ	.30, 15	10	103	10	GA	
27C316	TF5KX20ZZ	.30, 15	10	103	10	GA	
27C317	TF5KX20ZZ	.30, 15	10	103	10	GA	
27C318	TF5KX20ZZ	.30, 15	10	103	10	GA	
27C319	TF5KX20ZZ	.30, 15	10	103	10	GA	
27C320	TF5KX20ZZ	.30, 15	10	103	10	GA	
27C321	TF5KX20ZZ	.30, 15	10	103	10	GA	
27C322	TF5KX20ZZ	.30, 15	10	103	10	GA	
27C323	TF5KX20ZZ	.30, 15	10	103	10	GA	
27C324	TF5KX20ZZ	.30, 15	10	103	10	GA	
27C325	TF5KX20ZZ	.30, 15	10	103	10	GA	
27C326	TF5KX20ZZ	.30, 15	10	103	10	GA	
27C327	TF5KX20ZZ	.30, 15	10	103	10	GA	
27C328	TF5KX20ZZ	.30, 15	10	103	10	GA	
27C329	TF5KX20ZZ	.30, 15	10	103	10	GA	
27C330	TF5KX20ZZ	.30, 15	10	103	10	GA	
27C331	TF5KX20ZZ	.30, 15	10	103	10	GA	
27C332	TF5KX20ZZ	.30, 15	10	103	10	GA	
27C333	TF5KX20ZZ	.30, 15	10	103	10	GA	
27C334	TF5KX20ZZ	.30, 15	10	103	10	GA	
27C335	TF5KX20ZZ	.30, 15	10	103	10	GA	
27C336	TF5KX20ZZ	.30, 15	10	103	10	GA	
27C337	TF5KX20ZZ	.30, 15	10	103	10	GA	
27C338	TF5KX20ZZ	.30, 15	10	103	10	GA	
27C339	TF5KX20ZZ	.30, 15	10	103	10	GA	
27C340	TF5KX20ZZ	.30, 15	10	103	10	GA	
27C341	TF5KX20ZZ	.30, 15	10	103	10	GA	
27C342	TF5KX20ZZ	.30, 15	10	103	10	GA	
27C343	TF5KX20ZZ	.30, 15	10	103	10	GA	
27C344	TF5KX20ZZ	.30, 15	10	103	10	GA	
27C345	TF5KX20ZZ	.30, 15	10	103	10	GA	
27C346	TF5KX20ZZ	.30, 15	10	103	10	GA	
27C347	TF5KX20ZZ	.30, 15	10	103	10	GA	
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27C354	TF5KX20ZZ	.30, 15	10	103	10	GA	
27C355	TF5KX20ZZ	.30, 15	10	103	10	GA	
27C356	TF5KX20ZZ	.30, 15	10	103	10	GA	
27C357	TF5KX20ZZ	.30, 15	10	103	10	GA	
27C358	TF5KX20ZZ	.30, 15	10	103	10	GA	
27C359	TF5KX20ZZ	.30, 15	10	103	10	GA	
27C360	TF5KX20ZZ	.30, 15	10	103	10	GA	
27C361	TF5KX20ZZ	.30, 15	10	103	10	GA	
27C362	TF5KX20ZZ	.30, 15	10	103	10	GA	
27C363	TF5KX20ZZ	.30, 15	10	103	10	GA	
27C364	TF5KX20ZZ	.30, 15	10	103	10	GA	
27C365	TF5KX20ZZ	.30, 15	10	103	10	GA	
27C366	TF5KX20ZZ	.30, 15	10	103	10	GA	
27C367	TF5KX20ZZ	.30, 15	10	103	10	GA	
27C368	TF5KX20ZZ	.30, 15	10	103	10	GA	
27C369	TF5KX20ZZ	.30, 15	10	103	10	GA	
27C370	TF5KX20ZZ	.30, 15	10	103	10	GA	
27C371	TF5KX20ZZ	.30, 15	10	103	10	GA	
27C372	TF5KX20ZZ	.30, 15	10	103	10	GA	
27C373	TF5KX20ZZ	.30, 15	10	103	10	GA	
27C374	TF5KX20ZZ	.30, 15	10	103	10	GA	
27C375	TF5KX20ZZ	.30, 15	10	103	10	GA	
27C376	TF5KX20ZZ	.30, 15	10	103	10	GA	
27C377	TF5KX20ZZ	.30, 15	10	103	10	GA	
27C378	TF5KX20ZZ	.30, 15	10	103	10	GA	
27C379	TF5KX20ZZ	.30, 15	10	103	10	GA	
27C380	TF5KX20ZZ	.30, 15	10	103	10	GA	
27C381	TF5KX20ZZ	.30, 15	10	103	10	GA	
27C382	TF5KX20ZZ	.30, 15	10	103	10	GA	
27C383	TF5KX20ZZ	.30, 15	10	103	10	GA	
27C384	TF5KX20ZZ	.30, 15	10	103	10	GA	
27C385	TF5KX20ZZ	.30, 15	10	103	10	GA	
27C386	TF5KX20ZZ	.30, 15	10	103	10	GA	
27C387	TF5KX20ZZ	.30, 15	10	103	10	GA	
27C388	TF5KX20ZZ	.30, 15	10	103	10	GA	
27C389	TF5KX20ZZ	.30, 15	10	103	10	GA	
27C390	TF5KX20ZZ	.30, 15	10	103	10	GA	
27C391	TF5KX20ZZ	.30, 15	10	103	10	GA	
27C392	TF5KX20ZZ	.30, 15	10	103	10	GA	
27C393	TF5KX20ZZ	.30, 15	10	103	10	GA	
27C394	TF5KX20ZZ	.30, 15	10	103	10	GA	
27C395	TF5KX20ZZ	.30, 15	10	103	10	GA	
27C396	TF5KX20ZZ	.30, 15	10	103	10	GA	
27C397	TF5KX20ZZ	.30, 15	10	103	10	GA	
27C398	TF5KX20ZZ	.30, 15	10	103	10	GA	
27C399	TF5KX20ZZ	.30, 15	10	103	10	GA	
27C400	TF5KX20ZZ	.30, 15	10	103	10	GA	
27C401	TF5KX20ZZ	.30, 15	10	103	10	GA	
27C402	TF5KX20ZZ	.30, 15	10	103	10	GA	
27C403	TF5KX20ZZ	.30, 15	10	103	10	GA	
27C404	TF5KX20ZZ	.30, 15	10	103	10	GA	
27C405	TF5KX20ZZ	.30, 15	10	103	10	GA	
27C406	TF5KX20ZZ	.30, 15	10	103	10	GA	
27C407	TF5KX20ZZ	.30, 15	10	103	10	GA	
27C408	TF5KX20ZZ	.30, 15	10	103	10	GA	
27C409	TF5KX20ZZ	.30, 15	10	103	10	GA	
27C410	TF5KX20ZZ	.30, 15	10	103	10	GA	
27C411	TF5KX20ZZ	.30, 15	10	103	10	GA	
27C412	TF5KX20ZZ	.30, 15	10	103</			

50/60 CYCLES

† Static Shielded ‡ Terminals located opposite mounting studs # @ 60 Cycles only
(a) Width: 2-5/8; Depth: 2; Height: 2-1/8; Mfg. Ctrs: 2-1/32

These transformers have been designed and built to meet all requirements of MIL-T-278 for their specific class of operation. All EB, GA, GB, etc. case sizes are identical to MIL-T-278.

Secondary Voltage changed by means of primary tap	?	Static Shielded	1 Terminals located opposite mounting stud
---	---	-----------------	--

Post	ML-T-27A	Drum	S
------	----------	------	---

1890

Pharmaceutical 400 OF S. OPERATION

Box#	Lot #	Box#	Lot #	Box#	Lot #	Box#	Lot #
1	100	2	100	3	100	4	100

†† Both windings rated 7 Amps. for industrial applications c Rated 2.5 Amps. for industrial application

Power Transformers PRIMARY 117 VOLTS 50/60 CYCLES

and mobile communications, control equipment, guided missile controls as well as marine equipment and any field where

[illegible]

SECTION 5600

Power

PRIMARY 117 VOLTS 50/60 CYCLES

Part No.	MIL-T-278 Classification	PLATE		SUPPLY		RECTIFIER		FILAMENT		Cone Size	Wh. Lbs.
		Volts	mA	V	A	Volts	Amper.	Volts	Amper.		
2792A	TF4KX03B	300-0-300	50	63.5	5.0	2		6.3CT	2.5	JB	5
2796A	TF4KX03JA	300-0-300	60		5.0	2		6.3CT	3	JA	5-5
2797	TF4KX03JA	300-0-300	100		5.0	2		6.3CT	3	YY-30.5	
2790A	TF4KX03JA	300-0-300	100L	165	5.0	2		6.3CT	5	JA	5-5
		335-0-335	90	150							
27987	TF4KX03B02	325-0-325	70		6.3/5	2		6.3	4	JB	5
27988	TF4KX03B06	325-0-325	150		5.0	3		6.3	5	KB	7.25
27989	TF4KX03A	330-0-330	85		5.0	2		6.3CT	3	YY-30.5	
2794A	TF4KX03YY	330-0-330	85		5.0	2		6.3CT	3	YY-30.6	
2796B	TF4KX03A	335-0-335	70		5.0	2		6.3CT	3	JA	4.5
27943	TF4KX03A	335-0-335	70		5.0	2		6.3CT	3	YY-30.4	
27913A	TF4KX03B	340-0-340	75		5.0	3				KB	2.6
27970	TF4KX03A	345-0-345	105		5.0	2		6.3CT	3.5	KA	6.5
27942	TF4KX03A	350-0-350	105		5.0	2		6.3CT	3.5	YY-30.2	
27943	TF4KX03YY	345-0-345	105		5.0	2		6.3CT	3.5	YY-34.6	
27944	TF4KX03A	350-0-350	105		5.0	2		6.3CT	3.5	YY-34.5	
27950	TF4KX03A	350-0-350	105		5.0	2		6.3CT	3	JA	4.5
27961	TF4KX03A	350-0-350	70		5.0	3		6.3CT	3	JA	4.5
279147	TF4KX03A	350-0-350	70		5.0	3		6.3CT	3	JA	4.5
27925	TF4KX03A	350-0-350	120	153	5.0	3		6.3CT	5	KA	8.75
27905	TF4KX03KA	350-0-350	125L	225	5.0	3		6.3CT	1	KA	8.75
		375-0-375	125	205				6.3CT	5		
27926	TF4KX03LA	350-70-0-350	150	190	5.0	3		6.3CT	6	LA	10.75
		350-0-350	150	300	5.0	3		6.3	2		
27906	TF4KX03LA	350-0-350	150	300	5.0	3		6.3CT	6	LA	10.75
27928	TF4KX03YY	375-0-375 or 400-0-400 0-70	200	254	5.0	6		6.3CT	1.5	MA	15
27940	TF4KX03YY	400-0-350 or 400-0-400	300	380	5.0	6		6.3CT	8	YY-43	21.75
27977	TF4KX03B	400-0-350 or 400-0-400	310		5.0	6		6.3	2		
27907	TF4KX03MB	360-0-360 or 385-0-385	180L	310	5.0	3		6.3CT	2	MB	14
27908	TF4KX03NB	365-0-365 or 400-0-400	275L	420	5.0	4		6.3CT	2	NB	15
27972	TF4KX03MA	370-0-370	150		5.0	3		6.3CT	4	MA	11.5
27947	TF4KX03YY	370-0-370	150		5.0	3		6.3CT	4	YY-42	11.5
		550-0-550						6.3CT	1		
27982	TF4KX03NA	370-0-370 or 550-0-550	300		5.0	6		6.3CT	5	NA	17.5
		75-0-75						6.3CT	1		
27957	TF4KX03YY	370-0-370 or 550-0-550	300		5.0	6		6.3CT	5	YY-43	17.5
		75-0-75						6.3CT	1		
27971	TF4KX03KA	375-0-375	120		5.0	3		6.3CT	4	KA	9.5
27946	TF4KX03YA	375-0-375	120		5.0	3		6.3CT	4	YY-34	9.5
27973	TF4KX03MA	385-0-385	200		5.0	3		6.3CT	4.5	MA	12
		385-0-385	200		5.0	3		6.3CT	1		
27948	TF4KX03YY	385-0-385	200		5.0	3		6.3CT	4.5	YY-42	12
		550-0-550	150	190	6.3/5	4		6.3CT	1		
27927	TF4KX03LA	500-0-500						6.3	6	LA	11
279114	TF4KX03YY	600-0-600	125	5	4	3		6.3CT	2.5	YY-58	11

[illegible]

Power

PRIMARY 105/115/125 VOLTS 300-1,000 CYCLES

These transformers have been designed to meet all requirements of MIL-M-275B for their class of operation. All B, CA, and SA class tubes are identical to MIL-M-275B specifications. These units meet the rigid requirements for strength and mechanical construction, control equipment, ball-bearing guided filament controls, a main filament, or, as in any field where maximum sealing against air is prime requirement.

Part No.	P L A T E		S U P P L Y		R E C T I F I E R		F I L A M E N T		Case Size	Wt. Lbs.	
	V o l t s		M A D C T		V o l t s		A m p s				
	C	L	C	L	A	V	A	A			
#27B153	700VX100A	10-30	200						AG	-1	
#27B142a	700VX100A	27-5-35-52	200	5	2				YV-GG	-3	
#27B142b	700VX100A	27-5-35-52	200	5	2				YV-GG	-3	
#27B156	700VX150A	250(a)	4						4AJ	-75	
									6.3C1	1.81	63
									4-2C1	1.80	63
									6.3C1	.045	63

Power

PRIMARY 105/115/125 VOLTS 360-1,000 CYCLES

Part No.	MIL-STD-175 Classification	P L A T E		S U P P L Y		R E C T I F I E R		F I L A M E N T		Case Size	Wt. Lbs.	
		Volts		M A D C T		Volts Amps.		Volts Amps				
				C	L							
ZR7E35	TF40X03JA	225-2-225	200	25.4	6.3/5 4	6.3	CT	6.3	CT	JA	5.3	
								6.3	6			
ZR7E31	TF40X03AJ	225-2-230	200	25.4	1	6.3	CT	6.3	CT	AJ	7.5	
ZR7E62	TF40X03EB	225-2-230	40			6.3	CT	6.3	CT	EB	1.5	
								6.3	1			
ZR7E06	TF45X03GB	255-2-255	40		5.0 2	6.3	CT	2	6.3	CT	G	1.5
ZR7E94	TF45X03FA	270-2-270	55		5.0 2	6.3	CT	2	6.3	CT	FA	1.5
ZR7E17	TF45X03GQ	270-2-270	55		5.0 2	6.3	CT	2	6.3	CT	GQ	1.75
ZR7E14	TF45X03YV	270-2-270	55		5.0 2	6.3	CT	2	6.3	CT	YV-18	1.3
ZR7E19	TF45X03ZZ	270-2-270(b)	400	5	2	6.3	CT	2	6.3	CT	DA-2	.80
								50	.001			
ZR7E32	TF45X03JA	300-3-300	70	89	6.3/5 2	6.3	CT	2	6.3	CT	JA	2.7
								6.3	2			
ZR7E33	TF45X03JB	300-3-300	120	152	6.3/5 3	6.3	CT	3.5	6.3	CT	JB	4.6
								6.3	2.5			
ZR7E36	TF45X03KB	300-3-300 or 400-4-400	200	254	6.3/6 6	6.3	CT	6	6.3	CT	KB	7.5
								6.3	6			
ZR7E37	TF45X03LA	300-3-300 or 400-4-400	300	360	6.3/6 6	6.3	CT	6	6.3	CT	LA	10
								6.3	6			
ZR7E151	TF45X03ZZ	330-3-330	35			2.5	1.75	LH-1	3.8			
		350-4-350*				2.5*	1.75					
		505-5-505*	30									
		2,200*										
ZR7E09	TF45X03GA	335-3-330	65		5.0 2	6.3	CT	3	6.3	CT	GA	2.5
ZR7E95	TF45X03FA	335-3-335	70		5.0 2	6.3	CT	3	6.3	CT	FA	1.75
ZR7E08	TF45X03GB	335-3-335	70		5.0 2	6.3	CT	3	6.3	CT	GB	1.75
ZR7E15	TF45X03YV	335-3-335	70		5.0 2	6.3	CT	3	6.3	CT	YV-18	1.25
ZR7E14a	TF45X03YV	340(a) 340(a)	50		10* 5.0	250 15*	28*	3	YV-61	1.5		
						15*	100					
						15*	100					
ZR7E10	TF45X03GA	350-3-345	105		5.0 2	6.3	CT	3.5	6.3	CT	GA	2.25
ZR7E21	TF45X03YV	350-3-350	70		5.0 2	6.3	CT	3	6.3	CT	YV-18	2.25
ZR7E24	TF45X03JA	350-3-350 or 400-4-400	120		5.0 3	6.3	CT	4	6.3	CT	JA	3.8
ZR7E34	TF45X03JA	350-3-350	130	190	6.3/5 3	6.3	CT	4	6.3	CT	JA	3.8
ZR7E22	TF45X03JB	350-3-350	300		5.0 3	6.3	CT	5	6.3	CT	JB	3.2
ZR7E11	TF45X03JB	375-3-375	150		5.0 3	6.3	CT			KB	4.25	
								6.3	1			
ZR7E99	TF45X03CA	375-4-375 or 550-5-550	300	5.0	6.3	5.0	6	6.3	CT	CA	6.5	
		75-7-75		81m				6.3	1			
ZR7E19	TF45X03YV	375-3-375 or 550-5-550	300	5.0	6.3	5.0	6	6.3	CT	YV-34	6.5	
		75-7-75		81m				6.3	1			
ZR7E96	TF45X03HA	375-3-375	130		5.0 3	6.3	CT	4	6.3	CT	HA	2.5
ZR7E16	TF45X03YV	375-3-375	130		5.0 3	6.3	CT	4	6.3	CT	YV-28	2.5
ZR7E97	TF45X03JA	440-4-440	165		5.0 3	6.3	CT	7.5	JA	6		
								6.3				
								6.3	3/2			
ZR7E12	TF45X03KB	440-4-440	165		5.0 3	6.3	CT	7.5	6.3/3 3/2	KB	6.5	
								6.3	3/2			
ZR7E17	TF45X03YV	440-4-440	165		5.0 3	6.3	CT	7.5	6.3/3 3/2	YV-33	6	
								6.3	3/2			
ZR7E98	TF45X03HA	450-4-450	200		5.0 2	6.3/3 3/4	4/4	JA	5.75			
						6.3	6					
ZR7E13	TF45X03KB	450-4-450	200		5.0 2	6.3/3 3/4	4/4	KB	6.5			
						6.3	6					
ZR7E18	TF45X03YV	450-4-450	200		5.0 2	6.3/3 3/4	4/4	YV-33	6			
								6.3	6			
ZR7E23	TF45X03HA	450-4-450	200		5.0 2	6.3	6					
ZR7E13a	TF5X03ZZ	500-352-5-325-500	50/173	1,000 V. CT @ 50 MAGC						MB-1	7	
ZR7E13b	TF5X03ZZ	460/660/680	25							ZZ-1	8	
ZR7E13c	TF5X03ZZ	460/660/680	25							ZZ-1	7	
ZR7E13d	TF5X03ZZ	125/1,300/1,350	12							ZZ-1	3	

Low Voltage Rectifier Transformers

For transistor supply, bias supply, battery chargers, and similar applications. Designed and built to MIL-T-276 specifications. Industrial ratings are also given.

Port Name	MIL-T-278 Classification	Military DC Range	Industrial DC Range	Mfg. Case	Mfg. Centres	Dimensions			Yn. Lbs.
						H	D	D	
TV460	TF48X02AH	6V - .065A to 55V - .075A	6V - .065A to 55V - .075A	AH	1 1/4	1 3/4	1 5/16	1 7/16	.37
TV461	TF48X02AJ	6V - .22A to 55V - .065A	6V - .065A to 55V - .065A	AJ	1 3/16 x 1 3/16	2 3/8	1 5/8	1 5/8	.6
TV462	TF48X02HA	6V - 1.2A to 55V - .065A	6V - 1.52A to 55V - .065A	HA	1 11/16 x 1 7/16	3 1/8	2 1/8	2 1/16	1.75
TV463	TF48X02MA	6V - 3A to 55V - .065A	6V - 3.8A to 55V - 1.2A	MA	2 1/8 x 1.4 x 1.55/64	4 1/4	2 5/8	2 5/8	4.5
TV464	TF48X02KA	6V - 3A to 55V - .065A	6V - 3A to 55V - .065A	KA	3 x 2 7/16	5 1/4	3 3/8	3 15/16	8.3
TV465	TF48X02JA	6V - 1.8A to 55V - .065A	6V - 1.8A to 55V - .065A	JA	3 3/4 x 3 1/4	6 3/4	4 1/2	5 1/2	21
TV466	TF48X02HA	6V - 3A to 100V - .5A	6V - 3A to 100V - .5A	HA	2 1/8 x 1 3/16 x 1 35/64	4 1/4	2 3/8	3 1/16	4.5

Low Voltage Rectifier Transformers PRIMARY 117 VOLT 50/60 CYCLES
DUAL SECONDARY

These units have been designed and built to meet MIL-T-27B, Grade 4, Class R specifications. Ideally suited for Selenium or Silicon rectifier power supplies used for transistor circuits.

Part No.	MIL-T-278 Classification	SECONDARY IN PARALLEL										SECONDARY IN SERIES										Case Size
		Secondary		Choice Input				Condenser Input				Secondary		Choice Input				Condenser Input				
		Volts.	Amps.	DC A	DC B	DC A	DC B	DC A	DC B	DC A	DC B	DC A	DC B	DC A	DC B	DC A	DC B					
27V69	TF48X020HA	17/21, 5 17/21, 1.5	1.5	14/17, 3	8	18, 5/25	5	2	28/35	1.5	43/56	1	5	HA								
27V70	TF48X020LA	17/21, 5 17/21, 4	1.5	14/17, 3	8	18, 5/25	5	2	28/35	4	43/56	2.5	1	LA								
27V80	TF48X020YY	17/21, 5 17/21, 9	1.5	14/17, 3	8	18, 5/25	12	6	28/35	9	43/56	6	4	NSV-1B								
27V72	TF48X020ZY	34/43	4.5	26/35	9	43/66	6	4	56/70	4.5	85/110	4	1	NSV-1C								

Low Voltage Rectifier Transformers 60 CYCLES

Silicon rectifiers, bias, and filament supply, and all 60 cycle low voltage power supply applications. All units hermetically sealed, designed and constructed to MIL-T-27B, Grade 4, Class R specifications.

Part No.	Mil.-T-278 Classification	@ 50/45 CFS.		Secondary		Approx. DC Volts		Case Size	Wt. Lb.
		Volts Primary	Volts	Amper.	Full Wave	Bridge			
27V93	TF48J2G2A	105/115/125	6.3CT	.6	1.9	3.8	JA	.75	
27V94	TF48J2H8	105/115/125	6.3CT	.2	1.9	3.8	JA	1.75	
27V95	TF48J2G4	105/115/125	17	20			KA	9.25	
27V96	TF48J2G8	117	17	1			GB	1.75	
27V97	TF48J2G12	105/115/125	18.5CT	3	7	14	JA	4.7	
27V98	TF48J2G16	105/115/125	20C	3	7	14	EA	4.7	
27V99	TF48J2E2A	117	20CT	.6	8	16.5	EA	1	
27V99A	TF48J2G16A	105/115/125	28CT	.6	11.7	23.4	JA	17.5	
27V99B	TF48J2G16A	105/115/125	28CT	.3	23.5	47	JA	6.25	
27V99C	TF48J2G16A	105/115/125	35CT	3	14.5	29	KA	8.25	
27V99D	TF48J2G16A	105/115/125	44CT	2.5	21	42	KA	17.5	
27V99E	TF48J2G16A	105/115/125	38.6CT/56V0				MB	1.75	
27V99F	TF48J2G16A	107/111/119/123/127	69CT	4	28.5	57	MA	11.5	
27V99G	TF48J2G12A	105/115/125	70CT		30	60	JA	9.25	
27V99H	TF48J2G16A	105/115/125	80CT		31	70.5	JA	3.75	
27V99I	TF48J2G16A	105/115/125	115CT	.9	51	102	KA	9.25	

(a) Half-Wave application	(b) Intermittent operation pulsed, 8 times per second; on time: 3 Milliseconds
■ Primary 115 Volts 360 - 1,000 Cycles	■ Autotransformer Winding
■ Primary Tapped	■ Static Shielded
■ Induced secondary current by 60 cycle operation	■ C - Capacitor Input Filter
cc Primary 110/112/115/117/120 V @ 60 Cycles	1 - choke Input filter
■ Primary 107/117 V @ 50/2,000 Cycles	tc Half-Wave application
■ Primary 115 V @ 50 to 1,000 Cycles	■ Primary 115 V @ 57-63 Cycles
	▲ Primary 115 V @ 60 Cycles
	▲ Bridge Application

THORDARSON MEISSNER

Line Isolation Transformers

50/60 CYCLES

Part No.	MIL-T-27B Classification	Primary Voltage	Secondary Voltage	VA Output	Case Size	Wt. Lbs.
2V20	TF4X01YY	440	220	25	YY-29	2
2V44	TF4X01JB	115/230	105/115/125	50	JB	4.7
2V23	TF4X01KB	115	115	15	KB	6
2V45	TF4X01KA	115/230	105/115/125	125	KA	9.25
2V46	TF4X01NB	115/230	105/115/125	250	NB	17.25
2V47	TF4X01YA	115	115	75	YY-47	7
2V48	TF4X01YY	115/230	106/110/120/126	650	YY-47	13.9
2V21	TF4X01ZZ	115/230	115/230	870	ZZ-21	21
2V25	TF4X01YY	115	115	1,000	YY-47A	35
2V19	TF4X01YY	440	115*	1,000	YY-47	40
AUTOTRANSFORMER						
2V22	TF4X01YY	105/115/125	25/55/65/75/85/95/105/115/125	2,300	FV	20

† Secondary windings may be used independently to supply two isolated 115 volt windings at 2.9 Amps. each
* Static Shielded

Multi Shielded-Line Isolation

50/60 CYCLES

These Multi-shielded line isolation transformers have been specifically designed for critical circuitry where minimum coupling capacity is imperative and battery-type isolation is desired. 2V247, 2V248, 2V249 are vacuum potted with epoxy resin in standard MIL-T-27B cases and have less than .03 MFD coupling between windings. Other units in YY cases have coupling capacities of less than .1 MFD. 2V243 is for 400 cycle operation only.

Part No.	MIL-T-27B Classification	Primary Voltage	Secondary Voltage	VA Output	Case Size	Wt. Lbs.
2V47	TF4X01GA	115	115	25	GA	9
2V48	TF4X01YY	115	115	50	YY-23	3.5
2V49	TF4X01YY	115/5-400 CPS	115	80	YY-23	5.5
2V48	TF4X01KA	115	115	110	KA	8.3
2V49	TF4X01YY	115	115	150	YY-24	13
2V52	TF4X01YY	115	115	160	YY-25	15.5
2V49	TF4X01TB	115	115	200	TB	18
2V53	TF4X01YY	115	115	400	YY-26	35

Signaling and Power Circuit Transformers

50/60 CYCLES

Part No.	MIL-T-27B Classification	Primary Voltage	Secondary Voltage	VA Output	Case Size	Wt. Lbs.
2V31	TF4X01AJ	115	8	2.2	AJ	.75
2V75	TF4X01ZZ	115/230	12	48	CHV	7
2V38	TF4X01KB	115	6, 8, 10, 12, 14	50	JB	5
2V32	TF4X01MB	115	25	350	MB	13

Low Voltage Rectifier Transformers

400 CYCLES

These units have been designed and built for 400 cycle power supply applications. Full Wave, Bridge, Rectifier, and Filament circuit types are specified. All units meet MIL-T-27B, Grade 4, Class 8 specifications.

Part No.	MIL-T-27B Classification	Primary Volts	Secondary		Approx. DC Volts Full Wave	DC or Ind. Load Bridge	Case Size	Wt. Lbs.
			Volts	Amps				
2V36	TF4X02AH	115	6.3CT	6	1.9	3.8	AH	.37
2V37	TF4X02YY	115	2.85	.045	1.5	3	NSV-28	1
2V85	TF4X02GA	105/115/125	18.5CT	3	7	14	EA	1.5
2V86	TF4X02GA	105/115/125	18.5CT	3	7	14	FA	2
2V38	TF4X02GA	105/115/125	25CT	1.5	10.7	21.5	EA	1.5
2V34	TF4X02GA	105/115/125	26CT	3	10.7	21.5	FA	2
2V87	TF4X02GB	105/115/125	30CT	3	12.5	25	GB	1.75
2V88	TF4X02GA	105/115/125	30CT	3	14.5	29	GA	3.1
2V16	TF4X02AJ	105/115/125	40CT	2	17	34	AJ	.75
2V17	TF4X02AH	115	50CT	25	21.5	43	AH	.37
2V15	TF4X02YY	115	60CT	.003	24	52	NSV-28	1
2V14	TF4X02AH	115	65CT	.170	28.4	56.8	AH	.37
2V38	TF4X02GA	105/115/125	70CT	30	50	100	FA	2
2V13	TF4X02GA	105/115/125	80CT	9	35.2	70.4	FA	2
2V17	TF4X02YY	115	122CT	.04	53	106	NSV	.2
2V82	TF4X02AJ	115	6	1.2	1.2	1.2	AJ	.75
2V83	TF4X02GA	115	to 53	4	6	12	FA	2
2V84	TF4X02GA	115	to 53	1	7.5	15	HA	3
2V85	TF4X02GA	115	to 53	2.5	7.5	15	HA	3

Line Isolation Transformers

380 TO 1,500 CYCLES

These units have been designed and built to MIL-T-27B, Grade 4, Class 8 specifications. Applicable to communications, lighting, and equipment systems requiring isolation. All units are static shielded.

Part No.	MIL-T-27B Classification	Primary Voltage	Secondary Voltage	VA Output	Case Size	Wt. Lbs.
2V42	TF4X01YY	115	115CT†	2	NSV-2	1
2V54	TF4X01EA	115	115	40	EA	1.5
2V41	TF4X01VB	115	115CT	40	VB	1.5
2V55	TF4X01JA	115	115	80	JA	2
2V40	TF4X01GA	115	115CT	150	GA	3.1
2V56	TF4X01JA	115	115	160	JA	3.1
2V57	TF4X01GA	115	115	175	GA	3.25
2V39	TF4X01KA	105/115/125	115CT†	300	KA	6.75
2V38	TF4X01KA	105/115/125	115CT†	300	KA	6.75
2V58	TF4X01JA	115	115	505	JA	8.25
2V43	TF4X01YY	115	115	80†	YY-23	5.5

† May be used for Full Wave Bridge or Full Wave Center tap applications

1 100 VA output for industrial applications

* Multi-shielded; Less than .1 MFD coupling between windings.

Step Down Transformers

THREE PHASE - 400 CYCLES

These transformers are designed primarily for airframe communication and control equipment. 2V717 and 2V718 are YY connected 400 cycle, three-phase, Primary - 115 volts per phase, 2V719 is delta-delta connected, Primary - 200 volts per phase.

Part No.	MIL-T-27B Classification	Primary Voltage	Secondary Voltage	VA Output	Case Size	Wt. Lbs.
2V717	TF4X01HA	115	28.5	140	HA	3
2V718	TF4X01JB	115	28.5	140	JB	3
2V719	TF4X01JA	200	115	300	JA	6

Chopper Input Transformers

STATIC SHIELDED

Part No.	Impedance In Ohms		Primary Inductance	DC Resistance		Turns Ratio	Case Type	Wt. In Ozs.
	Primary	Secondary		Primary	Secondary			
GEO 68	10,000CT or 2,500	640,000CT	120 h.	370	21,000	1:8	3A	5.25
GEO 69	200,000CT	12,500CT	1,200 h.	4,000	1,300	4:1	3A	5.25
GEO 70	10,000CT	800,000CT	1,600 h.	2,500	19,000	1:4	4A	7.75
GEO 71*	20,000CT	800,000CT	1,000 h.	2,000	19,000	1:4	6A	1 lb.
GEO 72	40,000CT	1,000,000CT	1,000 h.	4,400	160	6.32:1	3A	5.25
GEO 73	40,000CT or 10,000CT	10,000CT	800 h.	3,500	2,000	2:1	3A	5.25

Input

ALL UNITS HAVE HUMBUCKING CORE AND COIL CONSTRUCTION

Part No.	Impedance In Ohms		Primary Inductance	DC Resistance		Turn Ratio	Case Type	Wt. In Ozs.
	Primary	Secondary		Primary	Secondary			
GEO 1	5001-333-233-200-125*	157,000CT	8.7 h.	50	10,400	1:17.7	3	5.25
GEO 74*	5001-333-233-200-125*	157,000CT	8.7 h.	50	10,400	1:17.7	4A	8
GEO 2*	5001-333-233-200-125*	157,000CT	8.7 h.	50	10,400	1:17.7	5	11.5
GEO 3	601-44-301-25-15*	157,000CT	9 h.	9	10,400	1:51	4	5.25
GEO 75*	601-44-301-25-15*	157,000CT	9 h.	9	10,400	1:51	4A	8
GEO 4*	601-44-301-25-15*	157,000CT or 39,250	9 h.	9	10,400	1:51	5	11.5
GEO 5	1,0001-666-466-4001-34,250*	137,000CT	55 h.	225	15,500	1:11.75	4	7.75
GEO 76*	1,0001-666-466-4001-34,250*	137,000CT	55 h.	225	15,500	1:11.75	6A	1 lb.
GEO 6	5001-333-233-200-125*	315,000 or 76,250	11.5 h.	58	16,200	1:25	4	7.75
GEO 7*	5001-333-233-200-125*	315,000 or 76,250	11.5 h.	58	16,200	1:25	6	1 lb.
GEO 8	5001-333-233-200-125*	178,000	8 h.	72	20,000	1:37.7	4	7.75
GEO 9*	5001-333-233-200-125*	172,000	8 h.	72	20,000	1:37.7	6	1 lb.
GEO 10	67.51-50*-17*	50,000CT	10 h.	150	20,000	1:10	3	5.25
GEO 11	5001-333-233-200-125*	450,000CT	6.8 h.	54	12,500	1:30	3	5.25
GEO 77*	5001-333-233-200-125*	143,000CT	8.3 h.	120	10,000	1:17	4A	10
GEO 12*	67.51-50*-17*	200,000CT	12 h.	80	9,800	1:60	6	1 lb.
GEO 13	5001-333-233-200-125*	20,000CT	10 h.	200	36,000	1:10	4	7.75
GEO 14*	2001 or 50*	442,000CT	4 h.	17	26,000	1:47	4	8

Input

MINIATURE AND SUB MINIATURE ALL UNITS HAVE HUMBUCKING CORE AND COIL CONSTRUCTION

input

ALL ITS HAVE HUMBUCKER CORE AND COIL CONSTRUCTION								
Part No.	Impedance In Ohms		Primary Inductance	DC Resistance		Turns Ratio	Case Type	Wt. In Ozs.
	Primary	Secondary		Primary	Secondary			
GEO 15	5001-333-233-200-125*	145,000CT	8.8 h.	100	10,000	1:17	2	3.2
GEO 16	5001-333-233-200-125*	145,000CT	8.8 h.	100	10,000	1:17	2	3.2
GEO 17	5001-333-233-200-125*	145,000CT	3 h.	108	5,800	1:17	1	1.5
GEO 18	5001-333-233-200-125*	69,000CT	7 h.	140	5,600	1:11	1	1.5
GEO 19	5001-333-233-200-125*	36,000CT	10.5 h.	320	5,800	1:8.8	1	1.5
GEO 20	5001-333-233-200-125*	114,000CT	8.2 h.	110	20,000	1:11	1	1.5
GEO 21	5001-333-233-200-125*	157,000CT	8	100	9,500	1:17.7	2	3.2

Interstage

ALL UNITS HAVE HUMBUCKING CORE AND COIL CONSTRUCTION

Part No.	Impedance In Ohms		Primary Inductance	DC Resistance		Turns Ratio	Case Type	Wt. In Ozs.
	Primary	Secondary		Primary	Secondary			
GEO 22	10,000 or 2,500*	100,000 or 25,000*	350 h.	1,540	10,000	1:3.16	3	5.25
GEO 23a	10,000 or 2,500*	100,000 or 25,000*	350 h.	1,540	10,000	1:3.16	5	11.5
GEO 24	10,000 or 2,500*	90,000 or 25,000*	725 h.	2,100	14,000	1:3	4	7.75
GEO 25*	10,000 or 2,500*	90,000 or 25,000*	725 h.	2,100	14,000	1:3	6	1 lb.
GEO 26	10,000 or 2,500*	483,000 or 120,700*	230 h.	1,100	17,000	1:7	4	7.75
GEO 84	10,000 or 2,500*	483,000 or 120,700*	230 h.	1,100	17,000	1:7	6A	1 lb.
GEO 27*	10,000 or 2,500*	22,500* or 5,625*	135 h.	1,600	2,350	1:1.5	2	2.75
GEO 83*	10,000 or 2,500*	22,500* or 5,625*	135 h.	1,600	2,350	1:1.5	4A	10
GEO 28*	10,000 or 2,500*	2500 or 63.5*	18 h.	165	40	2:1	2	2.75
GEO 85*	10,000 or 2,500*	2500 or 63.5*	18 h.	165	40	2:1	48	10
GEO 29	10,000 or 2,500*	75,000 or 18,750*	300 h.	2,500	8,500	1:2.75	2	3.2
GEO 30	10,000 or 2,500*	75,000*CI or 18,750*CI	80 h.	1,700	5,400	1:2.72	1	1.5
GEO 31	10,000 or 2,500*	22,500*CI	160 h.	2,600	3,700	1:1.5	1	1.5
GEO 32	10,000 or 2,500*	90,000*CI	285 h.	2,600	9,500	1:3	2	3.2
GEO 86*	10,000 or 2,500*	90,000*CI	285 h.	2,600	9,500	1:3	4A	10
GEO 33	10,000 or 2,500*	22,500*CI	375 h.	2,000	3,650	1:1.3	2	3.2
GEO 87*	10,000 or 2,500*	22,500*CI	375 h.	2,000	3,650	1:1.3	48	10

Output

ALL UNITS HAVE HUMBUCKING CORE AND COIL CONSTRUCTION

Part No.	Impedance In Ohms		Primary Inductance	DC Resistance		Turn Ratio	Case Type	Wt. In Oz.
	Primary	Secondary		Primary	Secondary			
GEO 34	15,000 or 3,750*	5001-125*	915 h.	2,600	80	5.5:1	3	5.25
GEO 35	15,000 or 3,750*	5001-125*	65 h.	2,600	80	5.5:1	3	5.25
GEO 36	20,000 or 5,000*	161-17-48-5-4*-2*-1-51-35*	1,750 h.	4,000	3.2	35.5:1	4	7.75
GEO 37	16,000 or 4,000*	5001-333-233-200-125*	1,000 h.	3,500	100	5.6:1	4	7.75
GEO 38	15,000 or 4,000*	5001-333-233-200-125*	94 h.	3,500	100	5.6:1	4	8.25
GEO 39	20,000 or 5,000*	601-44-301-24-15*-7.3*-51-35*	1,750 h.	4,000	12.5	18.25:1	4	7.75
GEO 40	6001-150	6001-150	15 h.	36	52	1 1/4 or 2 1/4 or 12	4	7.75
GEO 41	5001-125	5001-333-233-200-125*	280 h.	2,500	137	6	2	2.75
GEO 42	18 or 125	500 or 125	3 h.	70	70	1 1/4	2	2.25
GEO 43	500 or 125	18 or 125	3 h.	72	70	1 1/4	2	2.25
GEO 44	15,000CT	161-12-81-6-5-4*-2*-1-1-51-35*	1,000 h.	5,000	4	30.6:1	2	3.2
GEO 45	15,000CT	601-44-301-24-15*-7.3*-51-35*	1,000 h.	5,000	18	15.6:1	2	3.2
GEO 46	15,000 or 161	161 or 125	400 h.	3,800	7	30.6:1	1	1.5
GEO 47	15,000 or 161	43 or 11*	400 h.	3,800	11	18.25:1	1	1.5
GEO 48	20,000 or 5,000	525-12-5-3	1,450 h.	2,000	2	45:1	3	3.2

Output

FOR AUTOMATIC VOLUME CONTROL CIRCUITS ALL UNITS HAVE HUMBUCKING CORE AND COIL CONSTRUCTION

Part No.	Impedance In Ohms		Primary Inductance	DC Resistance		Turns Ratio	Case Type	Wt. In Oz.	Mfg. Centers	Dimensions
	Primary	Secondary		Primary	Secondary					
GE0 49	16,000 or 4,000*	256,000 or 64,000* 1500 or 375*	300 h.	1,900	16,000	1:4	4	7.75		
GE0 50	15,000 or 3,750*	240,000 CT and 1400 or 350*	300 h.	2,100	12,000	10:1	3	5.25		
GE0 51	10,000 or 2,500*	160,000 CT and 1400 or 350*	150 h.	700	1,220	1:1.1	2	3.2		
GE0 52	15,000	240,000 CT and 1400 or 350*	200 h.	2,000	9,800	1:4	2	3.2		
GE0 53	15,000 CT	240,000 CT and 30	200 h.	2,000	9,800	1:4	2	3.2		
GE0 54	20,000 CT	240,000 CT and 24 CT	230 h.	2,400	10,100	15:1	2	3.2		
GE0 55	15,000 CT	240,000 CT and 30*	230 h.	2,400	11,000	1:4	2	3.2		

Reactor

ALL UNITS HAVE HUMBUCKING CORE AND COIL CONSTRUCTION

Part No.	Inductance In Henrys		D.C. Resistance In Ohms	Low Percentage Type	Mfg. Type	Wt. In Oz.
	Primary	Secondary				
GE0 56	1,650-1800-2500-4000-2800		13,000	4 ± 1/2%	3	5.5
GE0 57	1,000		10,000	2 ± 1/2%	3	8.25
GE0 58	500		6,000	4 ± 1/2%	4	8.25
GE0 59	50 to 53		750	6 ± 1/2% Taps From one end	3	5.5
GE0 60	1,050-800-1500-4000-2800-2450-1350-1350-680-450		11,500		2A	3.4
GE0 61	1,000-250		13,000	4 ± 2%	2A	3.4
GE0 62	1,000-125		10,500	4 ± 2-1/2%	2A	3.4
GE0 63a	1,090-770-555-385-275		27,000	2 ± 2%	2	3.2
GE0 64	1,000		27,000	2 ± 2%	1	1.5
GE0 65	1,000		12,500	2 ± 2%	1	1.5
GE0 66	300		5,400	2 ± 2%	1	1.5
GE0 67	100		11,950	2 ± 2%	1	1.5

Low Frequency Transistor Transformers

Part No.	Impedance In Ohms		Primary Inductance	DC Resistance		Turns Ratio	Case Type	Wt. In Oz.	Mfg. Centers	Dimensions
	Primary	Secondary		Primary	Secondary					
GE0 76	1,000 or 250*	1250 or 312*	60 h.	500	44	2.83:1	7	20		
GE0 79	1,000 or 250*	1600 or 400*	500	44	2.83:1	20	48			
GE0 80	1,000 or 250*	1,000 or 250*	65 h.	540	230	1:1	20	3A		
GE0 81	1,000 CT	2,500 CT	20 h.	350	1,800	1:1.58	20	8,000		

1. Balanced, two windings
2. Balanced, parallel windings

• Single coil construction
• Constructed with 5 interleaved Cores

Band Pass Filters

These units have been designed and built to meet MIL-F-18327B for their specific class of operation and are high performance units applicable to production or laboratory communication and electronic equipment. They have been carefully adjusted to the specified frequencies with proper input and output impedances.

Coupler impedances indicated, "To Grid" should be terminated in a open grid circuit. Tapped outputs - marked (*) - provide for either 10,000 ohm termination or high impedance grid termination.

Part No.	MIL-F-18327B Classification	Center Frequency (Fc)	Approximate 20 dB Attenuation (Fc ± 2%)	Attenuation At Fc	Impedance Input	Case Type	Mfg. Centers	Dimensions
27C386	FR4X22VY	30	29-31	400B	10,000 To Grid	YY 3/4 x 1/4	2 1/2	1 3/8 x 1 1/8
27C387	FR4X22VY	50	48-52 1/2	400B	10,000 To Grid	YY 3/4 x 1/4	2 1/2	1 3/8 x 1 1/8
27C388	FR4X22VY	60	58-62	400B	10,000 To Grid	YY 3/4 x 1/4	1 5/8	1 3/8 x 1 1/8
27C389	FR4X22VY	90	87-93	400B	10,000 To Grid	YY 3/4 x 1/4	1 5/8	1 3/8 x 1 1/8
27C390	FR4X22VY	100	97-103	400B	10,000 To Grid	YY 3/4 x 1/4	1 5/8	1 3/8 x 1 1/8
27C391	FR4X22VY	120	116-124	400B	10,000 To Grid	YY 3/4 x 1/4	1 5/8	1 3/8 x 1 1/8
27C392	FR4X22VY	150	145-155	400B	10,000 To Grid	YY 3/4 x 1/4	1 5/8	1 3/8 x 1 1/8
27C393	FR4X22VY	200	194-206	400B	10,000 To Grid	YY 3/4 x 1/4	1 5/8	1 3/8 x 1 1/8
27C394	FR4X22VY	240	233-247	400B	10,000 To Grid	YY 3/4 x 1/4	1 5/8	1 3/8 x 1 1/8
27C395	FR4X22VY	300	282-318	400B	10,000 To Grid	YY 3/4 x 1/4	1 5/8	1 3/8 x 1 1/8
27C396	FR4X22VY	400	389-412	400B	10,000 To Grid	YY 3/4 x 1/4	1 5/8	1 3/8 x 1 1/8
27C397	FR4X22VY	400	389-412	400B	500/600 To Grid	YY 3/4 x 1/4	1 5/8	1 3/8 x 1 1/8
27C398	FR4X22VY	400	389-412	400B	10,000 To Grid	YY 3/4 x 1/4	1 5/8	1 3/8 x 1 1/8
27C399	FR4X22VY	400	389-412	400B	10,000 To Grid	YY 3/4 x 1/4	1 5/8	1 3/8 x 1 1/8
27C400	FR4X22VY	400	389-412	400B	10,000 To Grid	YY 3/4 x 1/4	1 5/8	1 3/8 x 1 1/8
27C401	FR4X22VY	400	389-412	400B	10,000 To Grid	YY 3/4 x 1/4	1 5/8	1 3/8 x 1 1/8
27C402	FR4X22VY	400	389-412	400B	10,000 To Grid	YY 3/4 x 1/4	1 5/8	1 3/8 x 1 1/8
27C403	FR4X22VY	400	389-412	400B	10,000 To Grid	YY 3/4 x 1/4	1 5/8	1 3/8 x 1 1/8
27C404	FR4X22VY	400	389-412	400B	10,000 To Grid	YY 3/4 x 1/4	1 5/8	1 3/8 x 1 1/8
27C405	FR4X22VY	400	389-412	400B	10,000 To Grid	YY 3/4 x 1/4	1 5/8	1 3/8 x 1 1/8
27C406	FR4X22VY	400	389-412	400B	10,000 To Grid	YY 3/4 x 1/4	1 5/8	1 3/8 x 1 1/8
27C407	FR4X22VY	400	389-412	400B	10,000 To Grid	YY 3/4 x 1/4	1 5/8	1 3/8 x 1 1/8
27C408	FR4X22VY	400	389-412	400B	10,000 To Grid	YY 3/4 x 1/4	1 5/8	1 3/8 x 1 1/8
27C409	FR4X22VY	400	389-412	400B	10,000 To Grid	YY 3/4 x 1/4	1 5/8	1 3/8 x 1 1/8
27C410	FR4X22VY	400	389-412	400B	10,000 To Grid	YY 3/4 x 1/4	1 5/8	1 3/8 x 1 1/8
27C411	FR4X22VY	400	389-412	400B	10,000 To Grid	YY 3/4 x 1/4	1 5/8	1 3/8 x 1 1/8
27C412	FR4X22VY	400	389-412	400B	10,000 To Grid	YY 3/4 x 1/4	1 5/8	1 3/8 x 1 1/8
27C413	FR4X22VY	400	389-412	400B	10,000 To Grid	YY 3/4 x 1/4	1 5/8	1 3/8 x 1 1/8
27C414	FR4X22VY	400	389-412	400B	10,000 To Grid	YY 3/4 x 1/4	1 5/8	1 3/8 x 1 1/8
27C415	FR4X22VY	400	389-412	400B	10,000 To Grid	YY 3/4 x 1/4	1 5/8	1 3/8 x 1 1/8
27C416	FR4X22VY	400	389-412	400B	10,000 To Grid	YY 3/4 x 1/4	1 5/8	1 3/8 x 1 1/8
27C417	FR4X22VY	400	389-412	400B	10,000 To Grid	YY 3/4 x 1/4	1 5/8	1 3/8 x 1 1/8
27C418	FR4X22VY	400	389-412	400B	10,000 To Grid	YY 3/4 x 1/4	1 5/8	1 3/8 x 1 1/8
27C419	FR4X22VY	400	389-412	400B	10,000 To Grid	YY 3/4 x 1/4	1 5/8	1 3/8 x 1 1/8
27C420	FR4X22VY	400	389-412	400B	10,000 To Grid	YY 3/4 x 1/4	1 5/8	1 3/8 x 1 1/8
27C421	FR4X22VY	400	389-412	400B	10,000 To Grid	YY 3/4 x 1/4	1 5/8	1 3/8 x 1 1/8
27C422	FR4X22VY	400	389-412	400B	10,000 To Grid	YY 3/4 x 1/4	1 5/8	1 3/8 x 1 1/8
27C423	FR4X22VY	400	389-412	400B	10,000 To Grid	YY 3/4 x 1/4	1 5/8	1 3/8 x 1 1/8
27C424	FR4X22VY	400	389-412	400B	10,000 To Grid	YY 3/4 x 1/4	1 5/8	1 3/8 x 1 1/8
27C425	FR4X22VY	400	389-412	400B	10,000 To Grid	YY 3/4 x 1/4	1 5/8	1 3/8 x 1 1/8
27C426	FR4X22VY	400	389-412	400B	10,000 To Grid	YY 3/4 x 1/4	1 5/8	1 3/8 x 1 1/8
27C427	FR4X22VY	400	389-412	400B	10,000 To Grid	YY 3/4 x 1/4	1 5/8	1 3/8 x 1 1/8
27C428	FR4X22VY	400	389-412	400B	10,000 To Grid	YY 3/4 x 1/4	1 5/8	1 3/8 x 1 1/8
27C429	FR4X22VY	400	389-412	400B	10,000 To Grid	YY 3/4 x 1/4	1 5/8	1 3/8 x 1 1/8
27C430	FR4X22VY	400	389-412	400B	10,000 To Grid	YY 3/4 x 1/4	1 5/8	1 3/8 x 1 1/8
27C431	FR4X22VY	400	389-412	400B	10,000 To Grid	YY 3/4 x 1/4	1 5/8	1 3/8 x 1 1/8
27C432	FR4X22VY	400	389-412	400B	10,000 To Grid	YY 3/4 x 1/4	1 5/8	1 3/8 x 1 1/8
27C433	FR4X22VY	400	389-412	400B	10,000 To Grid	YY 3/4 x 1/4	1 5/8	1 3/8 x 1 1/8
27C434	FR4X22VY	400	389-412	400B	10,000 To Grid	YY 3/4 x 1/4	1 5/8	1 3/8 x 1 1/8
27C435	FR4X22VY	400	389-412	400B	10,000 To Grid	YY 3/4 x 1/4	1 5/8	1 3/8 x 1 1/8
27C436	FR4X22VY	400	389-412	400B	10,000 To Grid	YY 3/4 x 1/4	1 5/8	1 3/8 x 1 1/8
27C437	FR4X22VY	400	389-412	400B	10,000 To Grid	YY 3/4 x 1/4	1 5/8	1 3/8 x 1 1/8
27C438	FR4X22VY	400	389-412	400B	10,000 To Grid	YY 3/4 x 1/4	1 5/8	1 3/8 x 1 1/8
27C439	FR4X22VY	400	389-412	400B	10,000 To Grid	YY 3/4 x 1/4	1 5/8	1 3/8 x 1 1/8
27C440	FR4X22VY	400	389-412	400B	10,000 To Grid	YY 3/4 x 1/4	1 5/8	1 3/8 x 1 1/8
27C441	FR4X22VY	400	389-412	400B	10,000 To Grid	YY 3/4 x 1/4	1 5/8	1 3/8 x 1 1/8
27C442	FR4X22VY	400	389-412	400B	10,000 To Grid	YY 3/4 x 1/4	1 5/8	1 3/8 x 1 1/8
27C443	FR4X22VY	400	389-412	400B	10,000 To Grid	YY 3/4 x 1/4	1 5/8	1 3/8 x 1 1/8
27C444	FR4X22VY	400	389-412	400B	10,000 To Grid	YY 3/4 x 1/4	1 5/8	1 3/8 x 1 1/8

Telemetering Band Pass Filters

These units have been designed and built to meet MIL-F-18327B for their specific class of operation.

The Steel Jacket filters in YY case are designed with a 4 pin plug-in type terminals and the Molded Case units have straight wire terminals. Twenty-three separate channels are provided with a choice of either Molded or Steel jacket case types.

Part No.	MIL-F-18327B Classification	Center Frequency (Fc)	Approximate 20 dB Attenuation (Fc ± 2%)	Attenuation At Fc	Impedance Input	Case Type	Mfg. Centers	Dimensions
27C435	FR4X22VY	400	7.6%	450B	100,000	YY 3/4 x 1/4	1 3/8	3/4 x 3/4
27C436	FR4X22VY	400	7.6%	450B	100,000	YY 3/4 x 1/4	1 3/8	3/4 x 3/4
27C437	FR4X22VY	400	7.6%	450B	100,000	YY 3/4 x 1/4	1 3/8	3/4 x 3/4
27C438	FR4X22VY	400	7.6%	450B	100,000	YY 3/4 x 1/4	1 3/8	3/4 x 3/4
27C439	FR4X22VY	400	7.6%	450B	100,000	YY 3/4 x 1/4	1 3/8	3/4 x 3/4
27C440	FR4X22VY	400	7.6%	450B	100,000	YY 3/4 x 1/4	1 3/8	3/4 x 3/4
27C441	FR4X22VY	400	7.6%	450B	100,000	YY 3/4 x 1/4	1 3/8	3/4 x 3/4
27C442	FR4X22VY	400	7.6%	450B	100,000	YY 3/4 x 1/4	1 3/8	3/4 x 3/4
27C443	FR4X22VY	400	7.6%	450B	100,000	YY 3/4 x 1/4	1 3/8	3/4 x 3/4

* Output tapped for 10,000 ohm termination or high impedance grid.

Telemetering Band Pass Filters

Part No.	MIL-F-18327B Classification	Center Frequency (Fc)	30dB Attenuation (Fc ± 2%)	Approximate Return Loss (Fc ± 2%)	Impedance Input	Case Type	Mfg. Centers	Dimensions			
								Length	W	D	
27C424	FR4X22Z2	960	± 7.6%	450B	10,000	10,000	M4	4 Leads	1/2	3/4	3/4
27C425	FR4X22VY	1,000	± 7.6%	450B	100,000	100,000	YY	4 Pin Plug	1 3/8	3/4	3/4
27C426	FR4X22Z2	1,300	± 7.6%	450B	10,000	10,000	M4	4 Leads	1/2	3/4	3/4
27C468	FR4X22VY	7,000	± 7.6%	450B	100,000	100,000	YY	4 Pin Plug	1 3/8	3/4	3/4
27C469	FR4X22VY	7,000	± 7.6%	450B	100,000	100,000	YY	4 Pin Plug	1 3/8	3/4	3/4
27C470	FR4X22VY	7,000	± 7.6%	450B	100,000	100,000	YY	4 Pin Plug	1 3/8	3/4	3/4
27C471	FR4X22VY	7,000	± 7.6%	450B	100,000	100,000	YY	4 Pin Plug	1 3/8	3/4	3/4
27C472	FR4X22VY	7,000	± 7.6%	450B	100,000	100,000	YY	4 Pin Plug	1 3/8	3/4	3/4
27C473	FR4X22VY	7,000	± 7.6%	450B	100,000	100,000	YY	4 Pin Plug	1 3/8	3/4	3/4
27C474	FR4X22VY	7,000	± 7.6%	450B	100,000	100,000	YY	4 Pin Plug	1 3/8	3/4	3/4
27C475	FR4X22VY	7,000	± 7.6%	450B	100,000	100,000	YY	4 Pin Plug	1 3/8	3/4	3/4
27C476	FR4X22VY	7,000	± 7.6%	450B	100,000	100,000	YY	4 Pin Plug	1 3/8	3/4	3/4
27C477	FR4X22VY	7,000	± 7.6%	450B	100,000	100,000	YY	4 Pin Plug	1 3/8	3/4	3/4
27C478	FR4X22VY	7,000	± 7.6%	450B	100,000	100,000	YY	4 Pin Plug	1 3/8	3/4	3/4
27C479	FR4X22VY	7,000	± 7.6%	450B	100,000	100,000	YY	4 Pin Plug	1 3/8	3/4	3/4
27C480	FR4X22VY	7,000	± 7.6%	450B	100,000	100,000	YY	4 Pin Plug	1 3/8	3/4	3/4
27C481	FR4X22VY	7,000	± 7.6%	450B	100,000	100,000	YY	4 Pin Plug	1 3/8	3/4	3/4
27C482	FR4X22VY	7,000	± 7.6%	450B	100,000	100,000	YY	4 Pin Plug	1 3/8	3/4	3/4
27C483	FR4X22VY	7,000	± 7.6%	450B	100,000	100,000	YY	4 Pin Plug	1 3/8	3/4	3/4
27C484	FR4X22VY	7,000	± 7.6%	450B	100,000	100,000	YY	4 Pin Plug	1 3/8	3/4	3/4
27C485	FR4X22VY	7,000	± 7.6%	450B	100,000	100,000	YY	4 Pin Plug	1 3/8	3/4	3/4
27C486	FR4X22VY	7,000	± 7.6%	450B	100,000	100,000	YY	4 Pin Plug	1 3/8	3/4	3/4
27C487	FR4X22VY	7,000	± 7.6%	450B	100,000	100,000	YY	4 Pin Plug	1 3/8	3/4	3/4
27C488	FR4X22VY	7,000	± 7.6%	450B	100,000	100,000	YY	4 Pin Plug	1 3/8	3/4	3/4
27C489	FR4X22VY	7,000	± 7.6%	450B	100,000	100,000	YY	4 Pin Plug	1 3/8	3/4	3/4
27C490	FR4X22VY	7,000	± 7.6%	450B	100,000	100,000	YY	4 Pin Plug	1 3/8	3/4	3/4
27C491	FR4X22VY	7,000	± 7.6%	450B	100,000	100,000	YY	4 Pin Plug	1 3/8	3/4	3/4
27C492	FR4X22VY	7,000	± 7.6%	450B	100,000	100,000	YY	4 Pin Plug	1 3/8	3/4	3/4
27C493	FR4X22VY	7,000	± 7.6%	450B	100,000	100,000	YY	4 Pin Plug	1 3/8	3/4	3/4
27C494	FR4X22VY	7,000	± 7.6%	450B	100,000	100,000	YY	4 Pin Plug	1 3/8	3/4	3/4
27C495	FR4X22VY	7,000	± 7.6%	450B	100,000	100,000	YY	4 Pin Plug	1 3/8	3/4	3/4
27C496	FR4X22VY	7,000	± 7.6%	450B	100,000	100,000	YY	4 Pin Plug	1 3/8	3/4	3/4
27C497	FR4X22VY	7,000	± 7.6%	450B	100,000	100,000	YY	4 Pin Plug	1 3/8	3/4	3/4
27C498	FR4X22VY	7,000	± 7.6%	450B	100,000	100,000	YY	4 Pin Plug	1 3/8	3/4	3/4
27C499	FR4X22VY	7,000	± 7.6%	450B	100,000	100,000	YY	4 Pin Plug	1 3/8	3/4	3/4
27C500	FR4X22VY	7,000	± 7.6%	450B	100,000	100,000	YY	4 Pin Plug	1 3/8	3/4	3/4

THORDARSON MEISSNER

MIL-T-27B Low Frequency High Q Inductors

These inductors have been designed and built to meet the requirements of MIL-T-27B for their specific class of operation. Constructed with only the highest grade materials these units have magnetic shielding as well as humbucking construction. Designed to a Q of 40 or more at frequencies ranging from 60 to 300 cycles. Split winding termination permits series, parallel or series center tap connections, such as might be used in filters, tuned circuits or coupling inductors.

Part No.	MIL-T-27B Classification	Series Inductance		Parallel Inductance		Mfg. Type
		a2%	a20%	a2%	a20%	
27C225	TF48X20V	1	5	.25	1.25	NSV-5
27C300	TF48X20V	2	31	5	3.25	NSV-3
27C236	TF48X20V	10	30	2.5	12.5	NSV-3
27C301	TF48X20V	16	143	4	36	NSV-3
27C250	TF48X20V	20	82	5	20	NSV-3
27C303	TF48X20V	40	365	10	91	NSV-3
27C228	TF48X20V	300	820	50	205	NSV-5
27C304	TF48X20V	500	3,750	75	937	NSV-3
27C229	TF48X20V	400	2,100	100	535	NSV-3
27C304	TF48X20V	600	5,700	150	1,435	NSV-5
27C306	TF48X20V	2,300	13,100	625	3,275	NSV-5

Pulse Transformers

DESIGNED AND BUILT TO MEET MIL-T-21038

Tube Type

When used as coupling transformers this group of units have the following additional parameters: Overload ranges from 5 to 20 milli-seconds with the lower overload at the higher pulse width. Output voltage of 15 to 25 volts may be expected with a normal drop of 10 to 15 %. Blocking oscillator overloads are held to less than 2%.

		COUPLING CIRCUIT				BLOCKING OSC.			
Part No.	MIL-T-21038 Classification	Turns Ratio	Pulse Width (Micro-Sec.)	Rise Time (Micro-Sec.)	Impedance (Ohms/Coil)	Pulse Width (Micro-Sec.)	Rise Time (Micro-Sec.)	Case Type	Dimensions Dia. H.
UL10	TP5X110AZ	1:1.1	.05	.010	250/250	05	.020	M6	3/8 3/8
UL11	TP5X110AZ	1:1.1	.10	.010	250/250	.10	.020	M6	3/8 3/8
UL12	TP5X110AZ	5:1.1	.10	.020	700/250	.10	.022	M6	3/8 3/8
UL13	TP5X110AZ	1:1.1	.10	.010	500/500	.10	.022	M6	3/8 3/8
UL14	TP5X110AZ	1:1.1	.30	.010	500/500	.30	.030	M6	3/8 9/16
UL15	TP5X110AZ	1:1.1	.50	.010	500/500	.50	.040	M6	3/8 9/16
UL16	TP5X110AZ	1:1.1	2.0	.050	500/500	2.0	.040	M6	3/8 9/16
UL17	TP5X110AZ	5:1.1	2.0	.062	1,400/500	2.0	.075	M6	3/8 9/16
UL18	TP5X110AZ	1:1.1	3.0	.050	500/500	3.0	.11	M6	3/8 9/16
UL19	TP5X110AZ	1:1.1	5.0	.15	1,000/1,000	5.0	.14	M6	3/8 9/16
UL20	TP5X110AZ	1:1.1	7.0	.21	1,000/1,000	7.0	.22	M6	5/8 5/8
UL21	TP5X110AZ	5:1.1	7.0	.24	1,000/1,000	7.0	.31	M6	5/8 5/8
UL22	TP5X110AZ	1:1.1	10.0	.24	1,000/1,000	10.0	.31	M6	5/8 5/8
UL23	TP5X110AZ	1:1.1	16.0	.40	1,000/1,000	16.0	.50	M6	5/8 5/8
UL24	TP5X110AZ	5:1.1	16.0	.48	1,000/1,000	16.0	.50	M6	5/8 5/8
UL25	TP5X110AZ	1:1.1	30.0	.71	2,000/1,000	30.0	.70	M6	5/8 5/8
UL26	TP5X110AZ	1:1.1	35.0	1.22	1,000/1,000	35.0	2.1	M6	5/8 5/8

Pulse Transformers

DESIGNED AND BUILT TO MEET MIL-T-21038

Transistor Type

Additional parameters for these transistor type pulse transformers are: 1% overloads in almost all of these units. Output voltage of approximately 8 volts may be expected with no drop on units below 15 micro-seconds pulse width and approximately 10% drop on units above 15 micro-seconds pulse width. The blocking inductor will be 20-30% when connected in the transistor blocking oscillator circuit.

		COUPLING CIRCUIT				BLOCKING OSC.			
Part No.	MIL-T-21038 Classification	Turns Ratio	Pulse Width (Micro-Sec.)	Rise Time (Micro-Sec.)	Impedance (Oh/Out)	Pulse Width (Micro-Sec.)	Rise Time (Micro-Sec.)	Case Type	Dimensions Dia. H.
UL10	TP5X110AZ	4:4.1	.05	.017	50/50	.05	.02	RAV-2	5/16 3/16
UL11	TP5X110AZ	4:4.1	.10	.017	50/50	.10	.022	RAV-2	5/16 3/16
UL12	TP5X110AZ	4:4.1	.10	.024	50/50	.10	.022	RAV-2	5/16 3/16
UL13	TP5X110AZ	4:4.1	.10	.020	50/50	.10	.016	MS	3/8 3/8
UL14	TP5X110AZ	4:4.1	.10	.017	50/50	.10	.016	RAV-2	5/16 3/16
UL15	TP5X110AZ	5:3.1	.10	.091	145/50	.10	.020	MS	3/8 3/8
UL16	TP5X110AZ	4:4.1	.20	.035	100/100	.20	.033	RAV-2	5/16 3/16
UL17	TP5X110AZ	4:4.1	.30	.035	100/100	.30	.035	RAV-2	5/16 3/16
UL18	TP5X110AZ	4:4.1	.50	.061	100/100	.50	.052	RAV-2	5/16 3/16
UL19	TP5X110AZ	4:4.1	.50	.046	100/100	.50	.029	MS	3/8 3/8
UL20	TP5X110AZ	4:4.1	1.0	.079	100/100	1.0	.029	RAV-2	5/16 3/16
UL21	TP5X110AZ	4:4.1	1.0	.079	100/100	1.0	.035	MS	3/8 3/8
UL22	TP5X110AZ	5:3.1	1.0	.050	285/100	1.0	.022	RAV-2	5/16 3/16
UL23	TP5X110AZ	4:4.1	2.0	.181	100/100	2.0	.042	RAV-2	5/16 3/16
UL24	TP5X110AZ	4:4.1	2.0	.180	100/100	2.0	.110	RAV-2	5/16 3/16
UL25	TP5X110AZ	4:4.1	2.0	.142	100/100	2.0	.075	MS	3/8 3/8
UL26	TP5X110AZ	4:4.1	2.0	.180	100/100	2.0	.088	MS	3/8 3/8
UL27	TP5X110AZ	4:4.1	3.0	.210	100/100	3.0	.120	RAV-2	5/16 3/16
UL28	TP5X110AZ	4:4.1	3.0	.230	200/200	5.0	.095	RAV-2	5/16 3/16
UL29	TP5X110AZ	4:4.1	3.0	.210	200/200	5.0	.095	RAV-2	5/16 3/16
UL30	TP5X110AZ	5:3.1	5.0	.091	545/200	5.0	.051	RAV-2	5/16 3/16
UL31	TP5X110AZ	5:3.1	5.0	.21	565/200	5.0	.081	MS	3/8 3/8
UL32	TP5X110AZ	4:4.1	10.0	.41	200/200	10.0	.10	RAV-2	5/16 3/16
UL33	TP5X110AZ	4:4.1	10.0	.41	200/200	10.0	.14	MS	3/8 3/8

Pulse Transformers

DESIGNED AND BUILT TO MEET MIL-T-21038

Part No.	MIL-T-10388 Classification	Turns Ratio	Pulse Width (Micro-Sec.)	Rise Time (Micro-Sec.)	Impedance (in/Out)	Case Type	Dimensions	
			34	34			Diameter	H
UL10	TP6X1100R2	1:1	.07	.030	200/200	RSV-1C	1/2	3/4
UL14	TP6X1100R2	1:1	.07	.030	200/200	RSV-1C	3/8	3/4
UL16	TP6X1100C2	1:1	.07	.030	200/200	RSV-1C	3/8	3/4
UL17	TP6X1100C2	1:1	.07	.030	200/200	RSV-1C	3/8	3/4
UL18	TP6X1100R2	2:1	.07	.030	200/200	RSV-1C	3/4	3/4
UL19	TP6X1100C2	2:1	.07	.030	200/200	RSV-1C	1/2	3/4
UL20	TP6X1100C2	2:1	.07	.030	200/200	RSV-1C	1/2	3/4
UL21	TP6X1100C2	3:1	.08	.030	100/100	RSV-1C	1/2	3/4
UL22	TP6X1100C2	3:1	.08	.030	100/100	RSV-1C	3/8	3/4
UL23	TP6X1100C2	4:1	.08	.030	100/100	RSV-1C	3/8	3/4
UL24	TP6X1100C2	4:1	.08	.030	100/100	RSV-1C	3/4	3/4
UL25	TP6X1100C2	4:1	.08	.030	100/100	RSV-1C	3/4	3/4
UL26	TP6X1100C2	5:1	.08	.03	100/100	RSV-1C	1/2	3/4
UL27	TP6X1100C2	5:1	.08	.03	100/100	RSV-1C	3/4	3/4
UL28	TP6X1100C2	5:1	.08	.03	100/100	RSV-1C	3/4	3/8
UL29	TP6X1100C2	5:1	.10	.030	100/100	RSV-1C	3/8	3/8
UL30	TP6X1100C2	5:1	.10	.030	700/250	M6	3/8	3/8
UL31	TP6X1100C2	5:1	.10	.030	700/250	M6	3/8	3/8
UL32	TP6X1100C2	5:1	.10	.030	700/250	M6	3/8	3/8
UL33	TP6X1100C2	5:1	.10	.030	700/250	M6	3/8	3/8
UL34	TP6X1100C2	5:1	.10	.030	700/250	M6	3/8	3/8
UL35	TP6X1100C2	5:1	.10	.030	700/250	M6	3/8	3/8
UL36	TP6X1100C2	5:1	.10	.030	700/250	M6	3/8	3/8
UL37	TP6X1100C2	5:1	.10	.030	700/250	M6	3/8	3/8
UL38	TP6X1100C2	5:1	.10	.030	700/250	M6	3/8	3/8
UL39	TP6X1100C2	5:1	.10	.030	700/250	M6	3/8	3/8
UL40	TP6X1100C2	5:1	.10	.030	700/250	M6	3/8	3/8
UL41	TP6X1100C2	5:1	.10	.030	700/250	M6	3/8	3/8
UL42	TP6X1100C2	5:1	.10	.030	700/250	M6	3/8	3/8
UL43	TP6X1100C2	5:1	.10	.030	700/250	M6	3/8	3/8
UL44	TP6X1100C2	5:1	.10	.030	700/250	M6	3/8	3/8
UL45	TP6X1100C2	5:1	.10	.030	700/250	M6	3/8	3/8
UL46	TP6X1100C2	5:1	.10	.030	700/250	M6	3/8	3/8
UL47	TP6X1100C2	5:1	.10	.030	700/250	M6	3/8	3/8
UL48	TP6X1100C2	5:1	.10	.030	700/250	M6	3/8	3/8
UL49	TP6X1100C2	5:1	.10	.030	700/250	M6	3/8	3/8
UL50	TP6X1100C2	5:1	.10	.030	700/250	M6	3/8	3/8
UL51	TP6X1100C2	5:1	.10	.030	700/250	M6	3/8	3/8
UL52	TP6X1100C2	5:1	.10	.030	700/250	M6	3/8	3/8
UL53	TP6X1100C2	5:1	.10	.030	700/250	M6	3/8	3/8
UL54	TP6X1100C2	5:1	.10	.030	700/250	M6	3/8	3/8
UL55	TP6X1100C2	5:1	.10	.030	700/250	M6	3/8	3/8
UL56	TP6X1100C2	5:1	.10	.030	700/250	M6	3/8	3/8
UL57	TP6X1100C2	5:1	.10	.030	700/250	M6	3/8	3/8
UL58	TP6X1100C2	5:1	.10	.030	700/250	M6	3/8	3/8
UL59	TP6X1100C2	5:1	.10	.030	700/250	M6	3/8	3/8
UL60	TP6X1100C2	5:1	.10	.030	700/250	M6	3/8	3/8
UL61	TP6X1100C2	5:1	.10	.030	700/250	M6	3/8	3/8
UL62	TP6X1100C2	5:1	.10	.030	700/250	M6	3/8	3/8
UL63	TP6X1100C2	5:1	.10	.030	700/250	M6	3/8	3/8
UL64	TP6X1100C2	5:1	.10	.030	700/250	M6	3/8	3/8
UL65	TP6X1100C2	5:1	.10	.030	700/250	M6	3/8	3/8
UL66	TP6X1100C2	5:1	.10	.030	700/250	M6	3/8	3/8
UL67	TP6X1100C2	5:1	.10	.030	700/250	M6	3/8	3/8
UL68	TP6X1100C2	5:1	.10	.030	700/250	M6	3/8	3/8
UL69	TP6X1100C2	5:1	.10	.030	700/250	M6	3/8	3/8
UL70	TP6X1100C2	5:1	.10	.030	700/250	M6	3/8	3/8
UL71	TP6X1100C2	5:1	.10	.030	700/250	M6	3/8	3/8
UL72	TP6X1100C2	5:1	.10	.030	700/250	M6	3/8	3/8
UL73	TP6X1100C2	5:1	.10	.030	700/250	M6	3/8	3/8
UL74	TP6X1100C2	5:1	.10	.030	700/250	M6	3/8	3/8
UL75	TP6X1100C2	5:1	.10	.030	700/250	M6	3/8	3/8
UL76	TP6X1100C2	5:1	.10	.030	700/250	M6	3/8	3/8
UL77	TP6X1100C2	5:1	.10	.030	700/250	M6	3/8	3/8
UL78	TP6X1100C2	5:1	.10	.030	700/250	M6	3/8	3/8
UL79	TP6X1100C2	5:1	.10	.030	700/250	M6	3/8	3/8
UL80	TP6X1100C2	5:1	.10	.030	700/250	M6	3/8	3/8
UL81	TP6X1100C2	5:1	.10	.030	700/250	M6	3/8	3/8
UL82	TP6X1100C2	5:1	.10	.030	700/250	M6	3/8	3/8
UL83	TP6X1100C2	5:1	.10	.030	700/250	M6	3/8	3/8
UL84	TP6X1100C2	5:1	.10	.030	700/250	M6	3/8	3/8
UL85	TP6X1100C2	5:1	.10	.030	700/250	M6	3/8	3/8
UL86	TP6X1100C2	5:1	.10	.030	700/250	M6	3/8	3/8
UL87	TP6X1100C2	5:1	.10	.030	700/250	M6	3/8	3/8
UL88	TP6X1100C2	5:1	.10	.030	700/250	M6	3/8	3/8
UL89	TP6X1100C2	5:1	.10	.030	700/250	M6	3/8	3/8
UL90	TP6X1100C2	5:1	.10	.030	700/250	M6	3/8	3/8
UL91	TP6X1100C2	5:1	.10	.030	700/250	M6	3/8	3/8
UL92	TP6X1100C2	5:1	.10	.030	700/250	M6	3/8	3/8
UL93	TP6X1100C2	5:1	.10	.030	700/250	M6	3/8	3/8
UL94	TP6X1100C2	5:1	.10	.030	700/250	M6	3/8	3/8
UL95	TP6X1100C2	5:1	.10	.030	700/250	M6	3/8	3/8
UL96	TP6X1100C2	5:1	.10	.030	700/250	M6	3/8	3/8
UL97	TP6X1100C2	5:1	.10	.030	700/250	M6	3/8	3/8
UL98	TP6X1100C2	5:1	.10	.030	700/250	M6	3/8	3/8
UL99	TP6X1100C2	5:1	.10	.030	700/250	M6	3/8	3/8
UL100	TP6X1100C2	5:1	.10	.030	700/250	M6	3/8	3/8

TRANSFORMERS

Single Plate to Line or Voice Coil

No.	Primary Impedance	Secondary Impedance	Primary MADC	Watts	Mfg. Type	Mfg. Centers	Dimensions			Wt. Lbs.
							H	W	D	
25451	900	4/8	120	10	BAH	2 13/16	2	3 1/8	2	1.2
25457	1,300	2 1/4	55	5	BAH	2	1 3/8	2 3/8	1 3/4	.5
25455	1,500	3	55	5	BAH	2	1 3/8	2 3/8	1 1/4	.5
22240	2,000	3.5	50	3	BAV	1 1/2	1 7/16	1 7/8	1 1/4	.5
25452	2,000	3.5	50	3	BAH	1 3/4	1 7/16	1 7/8	1 1/4	.5
25450	2,000	3.5	55	5	BAH	2	1 3/8	2 3/8	1 1/4	.5
25450A	2,000	3.5	55	5	BAH	2	1 3/8	2 3/8	1 1/4	.5
25455	2,000	3.5	60	5	BAH	2	1 3/8	2 3/8	1 1/4	.5
25495	2,000	3.5	60	5	BAH	2	1 3/8	2 3/8	1 1/4	.5
22246	2,500	3.5	50	3	BAH	2	1 3/8	2 3/8	1 1/4	.5
25458	2,500	3.5	50	3	BAV	1 1/2	1 7/16	1 7/8	1 1/4	.5
25457	2,500	3.5	50	3	BAH	2	1 3/8	2 3/8	1 1/4	.5
25234	2,500	3.5	50	6	BAH	2 3/8	1 5/8	2 1/8	1 1/2	.4
22215	3,500	4/8, 1/6, 500	80	8	GGV	3 4/4 x 1 5/8	2 3/4	2 3/8	2 3/8	1.78
25480	2,500	4/8, 1/6	60	10	BAH	2 1/8	2	3 1/8	2 3/4	.5
25227	3,000	3	50	3	BAH	1 3/4	1 7/16	1 7/8	1 1/4	.21
25489	3,000	3.5	50	5	BAH	2	1 3/8	2 3/8	1 1/4	.5
25238	3,000	3.5	50	3	BAH	2 1/8	2	3 1/8	2 3/4	.5
25250	3,500	3.5	60	8	BAH	2 3/8	1 5/8	2 7/8	1 5/8	.75
25232	4,000	3.5	50	3	BAV	1 1/2	1 7/16	1 7/8	1 1/4	.2
25448	4,500	3.5	40	5	BAH	1 3/4	1 7/8	1 7/8	1 1/4	.2
25230	4,000	3.5	50	3	BAH	1 3/4	1 7/8	1 7/8	1 1/4	.2
25411	4,000	3.5	50	5	BAH	2	3 3/8	2 3/8	1 1/4	.3
25415	4,000	3.5	50	5	BAH	2	3 3/8	2 3/8	1 1/4	.3
25490	4,000	4/8, 1/6	40	10	BAH	2 1/8	2	3 1/8	2 3/4	.45
25413	4,500	3.5	35	3	BCH	2	3 3/8	2 3/8	1 1/4	.3
25254	5,000	3.5	50	3	BAV	1 1/2	1 7/16	1 7/8	1 1/4	.21
25430	5,000	3.5	50	3	BCH	1 7/8	1 7/16	1 7/8	1 1/4	.21
25415	5,000	3.5	40	5	BAH	2	3 3/8	2 3/8	1 1/4	.5
25415A	5,000	3.5	40	5	BAH	2	3 3/8	2 3/8	1 1/4	.5
25217	5,000	4/8, 1/6, 500	45	5	BAH	2 1/8	2	3 1/8	2 3/4	1
25238	5,000	4/8, 1/6, 500	55	5	TVV	1 3/4 x 2 1/16	3/16	2 1/4	3	2.25
25453	5,000	4/8, 1/6, 500	55	5	TVV	1 3/4 x 2 1/16	3/16	2 1/4	3	2.25
25459	5,000	3.5	50	8	BAH	2 3/8	2 3/8	1 7/8	1 5/8	.75
25235	5,000	3.5	50	5	BAH	2 1/8	2	3 1/8	2 3/4	.5
25497	5,000	4/8, 1/6	40	10	BAH	2 1/8	2	3 1/8	2 3/4	.5
25491	5,000	4/8, 1/6, 500	55	10	GGV	2 x 1 1/16	3/8	2 3/8	2 3/8	2.1
25425	6,000	3.5	50	3	BAH	2 1/8	2	3 1/8	2 3/4	.21
25494	6,000	3.5	50	3	BAH	2 1/8	2	3 1/8	2 3/4	.21
25416	6,000	3.5	35	5	BCH	1 9/16 x 5/8	1 5/8	2	3 3/8	.8
25416	6,000	3.5	35	5	BCH	1 9/16 x 5/8	1 5/8	2	3 3/8	.8
25233	6,500	3.5	35	5	BAH	2 1/8	2	3 1/8	2 3/4	.45
25449	7,000	3.5	30	3	BAH	3/4	1 3/16	2 1/8	1	.4
25432	7,000	3.5	30	3	BCH	1 7/8	1 7/16	1 7/8	1 1/4	.3
25433	7,000	3.5	30	3	RCV	2 3/8	1 1/16	1 7/8	1 1/4	.3
25431	7,000	3.5	30	3	BCH	1 1/16	1 7/16	1 1/16	1 1/4	.3
25422	7,000	3.5	30	3	BAH	2 1/8	2	3 1/8	2 3/4	.3
25448	7,000	3.5	40	8	BAH	2 3/8	1 5/8	2 7/8	1 5/8	.75
25456	7,000	4/8, 1/6	40	10	BAH	2 1/8	2	3 1/8	2 3/4	1
25416	7,500	4/8, 1/6, 500	45	5	BCH	1 1/16	1 7/16	2 1/8	1 1/4	.25
24681	8,000	3.5	30	3	BAV	1 1/2	1 3/8	1 7/8	1 1/4	.25
25422	8,000	3.5	30	3	BAH	1 1/2	1 3/8	1 7/8	1 1/4	.25
25422	8,000	3.5	30	3	BAH	1 1/2	1 3/8	1 7/8	1 1/4	.25
25213	8,000	4/8, 1/6, 150	55	5	YY	1 13/16 x 1 1/16	3/64	2 5/21	2 3/8	2.25
25434	8,000	4/8, 1/6, 150	55	5	TVV	1 3/4 x 2 1/16	3/16	2 1/2	3	2.25
25539	8,000	4/8, 1/6, 150	55	5	TVV	1 3/4 x 2 1/16	3/16	2 1/2	3	2.25
22336	8,000	4/8, 1/6, 150	45	6	BAV	2	2	2 3/8	2	.6
25435	9,000	3.5	30	3	BCH	1 1/16	1 3/8	1 1/16	1 1/4	.3
25497	9,000	3.5	10	5	BAH	2	1 3/8	2 3/8	1 1/4	.5
25436	10,000	3.5	30	3	BCH	1 7/16	1 3/16	1 7/16	1	.2
25437	10,000	3.5	30	3	BCH	1 7/16	1 3/16	1 7/16	1	.2
25483	10,000	3.5	30	3	BAH	1 3/4	1 3/16	1 7/16	1 1/4	.2
25484	10,000	3.5	30	3	BAV	1 7/8	1 3/16	1 7/16	1 1/4	.2
25438	10,000	3.5	30	3	BCH	1 11/16	1 3/16	1 7/16	1 1/4	.2
25439	10,000	3.5	30	3	RCV	1 7/8	1 1/16	1 7/8	1 1/4	.3
25456	10,000	3.5	30	3	BAH	2	1 3/8	2 3/8	1 1/4	.5
25437	10,000	3.5	30	3	BAH	2 3/8	1 5/8	2 7/8	1 5/8	.75
25596	15,000	50/125-150	8	2	UTV	1 15/16 x 2 5/16	3/14	3 1/8	2 5/8	.5
25597	15,000	50/125-150	0	2	UTV	1 15/16 x 2 5/16	3/14	3 1/8	2 5/8	.5
25598	15,000	50/125-150	0	2	UTV	1 15/16 x 2 5/16	3/14	3 1/8	2 5/8	.5
25561	15,000	200/500	10	4	ETH-B	2 7/8 x 2 3/8	2 3/16	3 3/8	1 5/16	1.5
15290	15,000	3.5	15	3	BAH	2	1 3/8	2 3/8	1 1/4	.5
22228	16,000	3.5	15	3	BAH	1 1/2	1 7/16	1 7/8	1 1/4	.21
22227	16,000	3.5	15	3	BAH	1 3/4	1 3/16	1 7/16	1 1/4	.21
15221	16,000	3.5	15	3	BCH	1 1/2	1 7/16	1 7/8	1 1/4	.21
22119	25,000	3.5	4	25	BAH	1 3/8	1 1/16	1 5/8	1	.08
22230	25,000	3.5	10	3	BAV	1 1/2	1 7/16	1 7/8	1 1/4	.25
25429	25,000	3.5	10	3	BAH	1 3/4	1 3/16	1 7/16	1 1/4	.25
25499	25,000	3.5	5	5	BAH	2	1 3/8	2 3/8	1 1/4	.5

Push Pull Plates to Line or Voice Coil

Part No.	Primary Impedance	Secondary Impedance	Balanced Pri. MADC	Watts	Mtg. Type	Mtg. Centers	Dimensions				Wt. Lbs.
							H	W	D		
25102A	3,000/5,000CT	1.2/2.5/5/7.5/10/15/20/30	5	20	UTV	211/16 x 3 11/16	4 3/16	4 7/16	3 1/2	7.5	
25101A	3,000/5,000CT	1.2/2.5/5/7.5/10/15/20/30/50/100/200/333/500-600	5	20	UTV	211/16 x 3 11/16	4 3/16	4 7/16	3 1/2	7.5	
25546	3,000/5,000CT	2.8/15/500	30	KTH-D	3 5/8 x 3 1/8	2 15/16	4 1/8	2 5/16	3		
25510	3,000CT	4/8/16	130	50	GGV	3 x 3/8	4 5/8	4	4 1/2	8	
25551	WITH SCREEN TAPS	4/8/16	90	50	NIV	3 9/16 x 3 9/16	5 1/2	4 1/2	4 1/2	11	
25578	3,000CT	4/8/16	180	40	GGV	2 1/2 x 2 1/2	3 7/8	3 1/4	3 3/4	5.25	
245142	3,000CT	4/8/16	140	60	GGV	2 3/4 x 3 1/4	4 5/16	3 1/2	4 3/8	8	
245379	3,000/5,000CT	2.8/15/500	125	75	GGV	2 3/4 x 3 1/4	4 3/16	4	3 7/8	8	
25552	3,000CT	3.3	90	18	BAV	2 13/16	2 3/4	3 1/8	2	1.6	
255124	3,000CT	4/8/16/20/30/50/100/200/333/500-600	130	50	GGV	2 1/2 x 2 1/2	3 3/4	3 1/8	2 5/8	4	
245141	3,000CT	4/8/16/20/30/50/100/200/333/500-600	130	50	GGV	2 3/4 x 3 1/4	4 5/16	3 1/2	4 3/8	8	
25107A	3,000/4,500CT	1.2/2.5/5/7.5/10/15/20/30/50/100/200/333/500-600	55	UTV	4 3/16 x 5 1/2	4 11/16	5 13/16	5	15		
25588	3,000/4,500/5,000CT	2.8/15/500	55	KTH-E	3 7/8 x 2 7/16	3 3/4	3 1/8	4 1/2	4.5		
245134	4,000CT	4-8	80	5	BAH	2	1 3/8	2 3/8	1 1/4	4.5	
25521	4,000CT	8/16/32	75	3	BAH	3 1/8	2 1/4	3 3/4	2	2.2	
25512	4,000CT	4/8/16	200	65	GGV	2 3/4 x 3 1/2	4 1/4	3 5/8	4 5/8	7.7	
25580	4,000CT	4/8/16	100	65	TTV	2 1/2 x 2 3/4	3 5/16	3 1/4	4 1/2	10	
25513	WITH SCREEN TAPS	4/8/16	210	70	GGV	3 x 3/8	4 5/8	4	5	12.5	
25545	4,000/5,000CT	2.8/15/500	12	KTH-B	2 7/8 x 2 3/8	2 5/16	3 3/8	1 15/16	1.5		
25576	4,000CT	8/16	65	5	TAV	2 1/2 x 2 3/4	3 5/16	3 1/4	4 9/16	12	
245177	WITH SCREEN TAPS	4/8/16/20/30/50/100/200/333/500-600	70	30	GGV	2 x 2 1/4	3 5/8	3	3 1/8	3.5	
25511	4,000CT	4/8/16	140	50	GGV	2 3/4 x 3 1/2	4 1/4	3 5/8	4 5/8	8.25	
25514	4,000CT	4/8/16	120	100	GGV	3 1/2 x 4 1/8	5 5/16	4 9/16	5 1/8	14.7	
25558	WITH SCREEN TAPS	3,000/5,000CT	45	10	BAH	1 15/16	2	3 1/8	1 3/4	1.25	
24517	5,000CT	4/8/16	80	15	BAV	2 3/8	2 5/8	2 7/8	1 3/4	4	
25554	5,000CT	4/8/16	70	5	BAH	2 13/16	2 3/4	3 1/8	2	1.6	
24543	5,000CT	4/8/16	70	18	TAV	1 7/8 x 2 3/8	1 1/2	2 11/16	2 1/4	1.75	
25510	5,000CT	2.8/15/500	70	20	BHH	3 1/8	2 3/16	3 11/16	2	1.5	
25514	5,000CT	4/8/16	80	20	GGV	2 x 2 7/8	3 1/8	2 3/4	3 5/8	4.3	
25515	5,000CT	125/250/500	80	20	GGV	2 x 2 7/8	3 1/8	2 3/4	3 5/8	4.3	
25538	5,000CT	4/8/16/20/30/50/100/200/333/500-600	120	120	TAV	2 3/4 x 3 7/8	4 1/4	3 5/8	4 7/16	6.5	
25540	5,000CT	4/8/16/20/30/50/100/200/333/500-600	120	20	TTV	2 3/4 x 3 7/8	4 1/4	3 5/8	4 7/16	6.5	
25510	5,000CT	3.5/7.5/15/20/30/50/100/200/333/500-600	80	25	GGV	1 3/4 x 2	3 1/8	2 5/8	2 5/8	2.5	
25550	5,000CT	4/8/16/20/30/50/100/200/333/500-600	90	25	NTV	3 x 3	4 1/2	3 3/4	3 3/4	6.5	
25571	WITH SCREEN TAPS	4/8/16/20/30/50/100/200/333/500-600	80	30	GGV	2 x 2 1/4	3 5/8	3	3 3/8	3.7	
25543	5,000CT	8/16	150	50	GGV	2 3/4 x 3 1/2	4 5/16	3 1/2	4 1/4	6	
25575	5,000CT	8/16/20/30/50/100/200/333/500-600	100	100	TAV	3 1/2 x 3 5/8	6 1/16	5 7/8	5 1/2	16	
25547	WITH SCREEN TAPS	4/8/16/20/30/50/100/200/333/500-600	35	5	BAH	2	1 3/8	2 3/8	1 1/4	1.5	
25547	6,000CT	1.2/2.5/5/7.5/10/15/20/30/50/100/200/333/500-600	20	NTV	2 3/8 x 2 3/8	3 3/4	3	3	3	3.5	
25520	6,000CT	4/8/16	20	UTV	2 x 2 3/4	3 1/2	2 13/16	3 9/16	3		
25598	WITH SCREEN TAPS	4/8/16/20/30/50/100/200/333/500-600	60	20	WTV	2 3/4 x 3 3/8	4 3/4	3	3 3/8	7.25	
25597	6,000CT	3.5/7.5/15/20/30/50/100/200/333/500-600	60	25	GGV	2 x 1 3/4	3 1/8	2 5/8	2 5/8	2.5	
25108B	6,000CT	4/8/16	40	GGH	3 1/4 x 2 7/16	3 7/8	3 3/4	3 5/8	6		
245119	6,000CT	4/8/16/20/30/50/100/200/333/500-600	30	GGV	2 1/4 x 2 1/2	3 5/8	3	3 1/8	3	5	
25533	6,000CT	15/30/60	250	30	TAV	2 1/2 x 2 3/4	3 5/16	4 1/2	5 1/4	9	
245142	6,000CT	4/8/16/20/30/50/100/200/333/500-600	250	30	TTV	2 1/2 x 2 3/4	3 5/16	4 1/2	5 1/4	9	
25107B	6,000/10,000CT	1.2/2.5/5/7.5/10/15/20/30/50/100/200/333/500-600	20	UTV	211/16 x 3 11/16	4 7/16	4 7/16	3 1/2	7.5		
25109B	6,000/10,000CT	1.2/2.5/5/7.5/10/15/20/30/50/100/200/333/500-600	20	UTV	211/16 x 3 11/16	4 7/16	4 7/16	3 1/2	7.5		
25548	6,500CT	3.5/7.5/15/20/30/50/100/200/333/500-600	70	25	GGV	1 3/4 x 2	3 1/8	2 5/8	2 5/8	2.5	
25539	6,500CT	4/8/16	20	TAV	2 3/4 x 3 7/8	4 1/4	3 5/8	4 7/16	6		
25507	WITH SCREEN TAPS	4/8/16/20/30/50/100/200/333/500-600	80	25	GGV	2 1/4 x 3 1/8	3 1/2	3	3 3/4	5.75	
245138	6,500CT	4/8/16/20/30/50/100/200/333/500-600	80	25	GGV	2 x 2	3 1/8	2 5/8	3	3	
25509	6,500CT	4/8/16	80	30	GGV	2 1/4 x 2 5/8	3 1/2	3	3 3/4	5	
245139	WITH SCREEN TAPS	4/8/16/20/30/50/100/200/333/500-600	80	30	GGV	2 1/4 x 2 5/8	3 1/2	3	3 3/4	5	
245140	6,500CT	4/8/16/20/30/50/100/200/333/500-600	100	35	GGV	2 1/2 x 2 3/4	4	3 1/4	3 3/4	5	
24557	6,500CT	4/8/16/20/30/50/100/200/333/500-600	150	35	GGV	2 1/2 x 2 3/4	4	3 1/4	3 3/4	5	
25518	6,500CT	4/8/16/20/30/50/100/200/333/500-600	150	35	GGV	2 1/2 x 2 3/4	4	3 1/4	3 3/4	5	
25547	6,500CT	4/8/16/20/30/50/100/200/333/500-600	125	50	GGV	2 3/4 x 3 1/2	4 5/16	3 1/2	4 1/4	6	
24558	7,000CT	3.5/7.5/15/20/30/50/100/200/333/500-600	40	25	GGV	2 x 1 1/16	3 3/16	2 5/8	2 5/8	2.7	
25542	7,400CT	4/8/16	100	40	GGV	2 1/2 x 2 7/8	3 7/8	3 1/4	3 7/8	6	
25543	WITH SCREEN TAPS	4/8/16/20/30/50/100/200/333/500-600	100	40	TAV	2 3/4 x 3 7/8	4 1/4	3 5/8	4 7/16	7.5	
25536	7,500CT	4/8/16/20/30/50/100/200/333/500-600	120	20	UTV	2 5/8 x 2 1/8	4 7/8	3 1/16	3 9/16	5.75	
25582	7,500CT	6000/7500CT	90	1	TTV	1 1/2 x 2 1/8	1 7/8	2 15/16	3 3/4	3	
25545	7,600CT	4/8/16	100	25	GGV	2 3/4 x 3 1/2	4 5/16	3 1/2	4 1/4	6	
25546	8,000CT	3.5/7.5	60	18	BAH	2 13/16	2 3/4	3 1/8	2	1.7	
25554	8,000CT	3.5/7.5	60	18	BAH	2 13/16	2 3/4	3 1/8	2	1.7	
25501	8,000CT	4/8/16	40	15	GGV	2 x 2 5/8	3 1/8	2 5/8	3 3/8	3.8	
25502	8,000CT	125/250/500	40	15	GGV	2 x 2 5/8	3 1/8	2 5/8	3 3/8	3.8	
25503	8,000CT	4/8/16	50	15	GGV	2 x 2 5/8	3 1/8	2 5/8	3 3/8	3.8	

Push Pull Plates to Line or Voice Coil

(Continued)

Part No.	Impedance		Balanced Pri. MADC	Watts	Mtg. Type	Mtg. Centers	Dimensions			Wt. Lbs.
	Primary	Secondary					H	W	D	
22557	8,000CT	3.5	55	18	BAV	2 13/16	2 3/4	3 1/8	2	1.6
245144	8,000CT	8	80	18	BAH	3 1/8	2 1/4	3 1/8	2 1/8	1.5
22555	8,000CT	3.5	55	18	GGV	1 3/4 x 1 5/8	2 1/8	2 3/8	2 3/8	1.75
245145	8,000CT	8/25V/50V/100V	100	BAH	3 1/8	2 1/4	3 1/8	2 1/8	1.5	
25510A	8,000CT	1.2/2.5/5/7.5/10/15/20/30	20	UTV	2 11/16 x 3 1/16	4 3/16	4 7/16	3 1/2	7.5	
25510A	8,000CT	1.2/2.5/5/7.5/10/15/20/30/50/100/200/333/500-600	55	UTV	2 11/16 x 3 1/16	4 3/16	4 7/16	3 1/2	7.5	
25545	8,000CT	1.5/3.5/7.5/10/15/20/30/50/100/200/333/500-600	20	NTV	2 3/8 x 2 3/8	3 3/4	3	3	3.5	
245137	8,000CT	4/8/16/20/30/50/100/200/333/500-600	80	25	GGV	2 x 2	3 1/8	2 5/8	3	3
22506	8,000CT	1.5/3.5/7.5/10/15/20/30/50/100/200/333/500-600	100	25	GGV	2 1/4 x 3 1/8	3 1/2	4	4 1/4	6
25546	8,000CT	3.5/8/16/20/30/50/100/200/333/500-600	60	25	GGV	1 3/4 x 2	3 1/8	2 5/8	2 5/8	2.5
25546	8,000CT	220/500	50	UTV	250 CHM TAP FOR 70 VOLT LINE ON 20 WATTS					
245120	9,000CT	3.2	40	5	BCH	1 13/16 x 1 1/16	2	2 3/8	1 5/8	1
25510B	9,000CT	1.2/2.5/5/7.5/10/15/20/30/50/100/200/333/500-600	30	UTV	4 3/16 x 5 1/2	4 11/16	5 13/16	5	15	
25549	9,000CT	1.5/3.5/7.5/10/15/20/30/50/100/200/333/500-600	30	NTV	3 x 3	4 1/2	3 3/4	3 3/4	6.5	
245121	9,000CT	4/8/15/500	150	35	GGV	2 1/2 x 2 3/16	4	3 1/4	3 3/8	4.8
22548	9,000CT	3.5/7.5/15/20/30/50/100/200/333/500-600	100	30	GGV	2 3/4 x 3 1/2	4 5/16	3 1/2	4 1/4	6
245136	9,500CT	3.5/7.5/15/20/30/50/100/200/333/500-600	35	12	BAV	1 7/8 x 2	3	2 1/2	2 3/8	2.5
245136	9,500CT	4/8/16/20/30/50/100/200/333/500-600	40	15	GGV	2 x 1 3/4	3 1/8	2 5/8	2 5/8	2.5
25549	9,500CT	4/8/16/20/30/50/100/200/333/500-600	100	15	TAV	2 3/4 x 3 7/8	4 1/4	3 5/16	4 7/16	4
25594	9,500CT	3.5/7.5/15/20/30/50/100/200/333/500-600	50	20	WTV	2 3/4 x 2 3/8	4 3/8	3	3 3/8	7.25
22593	9,500CT	3.5/7.5/15/20/30/50/100/200/333/500-600	50	25	GGV	2 x 1 3/4	3 1/8	2 5/8	2 5/8	2.5
25568	10,000CT	4/8/16	75	30	7550WV TAV	3/8 HOLE	1 3/4	1 3/8	1/4	1.5
24593	10,000CT	3.5	40	5	BAH	2	1 3/8	2 3/8	1 1/4	.5
24593	10,000CT	3.5	8	5	BAH	2	1 3/8	2 3/8	1 1/4	.5
25525	10,000CT**	8/16/1000CT and 2 x 150	80	5	UTV	2 19/64 x 1 55/64	4 1/4	3 1/16	2 5/8	4
25530	10,000CT	8/16/1000CT	80	5	UTV	2 3/8 x 2 1/8	4 7/8	3 1/16	3 1/16	4
24556	10,000CT	2/4/8	75	8	BAH	2 3/8	1 5/8	2 7/8	1 1/2	.7
245122	10,000CT	4/8/15/500	10	10	TAV	1 1/2 x 5/8	2 1/8	2 1/8	1 1/2	.5
25578	10,000CT	4/8/15/500 and 5,000	10	10	TAV	1 1/2 x 5/8	2 1/8	2 1/8	1 1/2	.5
24559	10,000CT	4/8/15/500	30	12	BAH	2 13/16	2	3 1/8	1 3/4	1
25519	10,000CT	4/8/16/20/30/50/100/200/333/500-600	30	12	BAH	2 3/8	2 3/8	2 7/8	1 3/4	1
24534	10,000CT*	2/4/8/16/20/30/50/100/200/333/500-600	45	15	BHP	2 15/16	2	3 1/8	1 3/4	1
25534	10,000CT*	4/8/16/20/30/50/100/200/333/500-600	200	15	TAV	2 1/4 x 3 1/2	3 7/8	3 1/4	4	5
25541	10,000CT*	4/8/16/20/30/50/100/200/333/500-600	200	15	TTV	2 1/4 x 3 1/2	3 7/8	3 1/4	4	5
25531	10,000CT	4/8/16/20/30/50/100/200/333/500-600	130	20	UTV	2 1/8 x 2 5/8	4 7/8	3 1/16	3 9/16	7
22564	10,000CT	3.5/7.5/15/20/30/50/100/200/333/500-600	50	25	GGV	1 3/4 x 2	3 1/8	2 5/8	2 5/8	2.5
22558	10,000CT	4/8/16/20/30/50/100/200/333/500-600	80	25	GGV	2 1/4 x 3 1/8	3 1/2	3	4 1/4	6
22550	12,000CT	4/8/16/20/30/50/100/200/333/500-600	30	4	BAH	2	1 5/8	2 3/8	1 3/8	.45
24547	14,000CT	3.5	35	12	BAH	2 13/16	2	3 1/8	2	.7
24540	14,000CT	4/8/16	60	15	BAV	2 3/8	2 3/8	2 7/8	1 3/4	1
25548	14,000CT	1.5/3.5/7.5/10/15/20/30/50/100/200/333/500-600	8	20	NTV	2 3/8 x 2 3/8	3 3/4	3	3	3.5
24526	20,000CT	4/8/16	50	15	BAV	2 3/8	2 3/8	2 7/8	1 3/4	1
22513	20,000CT	1.5/3.5/7.5/10/15/20/30/50/100/200/333/500-600	8	20	NTV	2 3/8 x 2 3/8	3 3/4	3	3	3.5
24539	25,000CT	3.5	20	5	BAH	2	1 3/8	2 3/8	1 3/8	.4
25510	25,000CT	50/125-150/200/250/333/500-600	1	.25	UTV	1 15/16 x 2 7/16	3 1/4	3 1/4	2 5/8	3
24528	50,000CT	3.5	20	5	BAH	2	1 3/8	2 3/8	1 1/4	.4
24529	50,000CT	3.5	20	8	BAH	2 3/8	1 5/8	2 7/8	1 1/2	.6

70.7V Line To Voice Coil

Part No.	Power Steps in Watts	Impedance in Ohms	Secondary	Mfg. Type	Mfg. Centers	Dimensions	Wt. Lbs.
		Primary				H W D	
24501	2 1/2, 5, 25, 125	2,500/5,000/10,000/20,000/40,000	4/8	BHV	1 3/4	1 5/8 x 2 1 1/4 x .5	
24502	5, 2.5, 5, 25, 42, 31	1,000/2,000/4,000/8,000/16,000	4/8	BAV	1 3/4	1 5/8 x 2 1 3/8 x .5	
24510	5, 2.5, 5, 25, 42, 31	1,000/2,000/4,000/8,000/16,000	4/8	BHH	2	1 3/8 x 2 3/8 x 1 1/4 x .5	
245125	5, 4, 3, 2, 1	1,000/2,000/4,000/8,000/16,000	8/16	BHH	2	1 3/8 x 2 3/8 x 1 3/8 x .5	
245171	8, 4, 2, 1, 1/2	625/1,250/2,500/5,000/10,000	4/8, 1/16	BHV	2	2 1/2 x 1 5/8 x 1	
24573	10, 5, 2.5, 1.25	500/1,000/2,000/4,000	4/8, 1/16	BAV	2	2 3/8 x 1 1/2 x .6	
245101	10, 5, 2.5, 1.25	500/1,000/2,000/4,000	4/8, 1/16	BAV	2	2 3/8 x 1 1/2 x .6	
245124	10, 9, 4, 7/16	500/555/625/715/825	8/16	BHV	2	1 2 x 2 3/8 x 1 5/8 x .7	
245102	10, 5, 2.5, 1.25	500/1,000/2,000/4,000	4/8, 1/16	BAV	2	2 3/8 x 1 1/2 x .6	
245103	10, 5, 2.5, 1.25	500/1,000/2,000/4,000	4/8, 1/16	BAV	2 13/16	2 3/4 x 3 1/8 x 2 1/8 x 1.8	
245104	10, 5, 2.5, 1.25	500/1,000/2,000/4,000	4/8, 1/16	ITV	1 3/4 x 2 11/16	3 5/16 x 3 2 1/2 x 2.25	
245105	10, 5, 2.5, 1.25	500/1,000/2,000/4,000	4/8, 1/16	BHV	2 13/16	2 3/4 x 3 1/8 x 2 1/8 x 1.8	
245123	15, 7, 4, 2, 1, 1/2	333/337/384/417/453	8/16	BHV	2 3/8	2 3/8 x 2 7/8 x 1 3/4 x 1.2	
24572	16, 8, 4, 2, 1, 1/2	312.5/625/1,250/2,500/5,000/10,000	4/8, 1/16	BHV	2 13/16	2 5/8 x 3 1/8 x 2 1/4 x 1.75	
24570	16, 8, 4, 2, 1, 1/2	312.5/625/1,250/2,500/5,000/10,000	4/8, 1/16	TAV Special	3 1/8 x 2	3 5/16 x 3 1/2 x 2 7/8 x 2.5	
245107	10, 5, 2.5, 1.25	500/1,000/2,000/4,000	4/8, 1/16	BAV	2 3/8	2 3/8 x 3 7/8 x 1 3/4 x 1	
245108	20, 10, 5, 2.5	250/500/1,000/2,000	4/8, 1/16	BAV	2 3/8	2 3/8 x 3 7/8 x 1 3/4 x 1	
245106	20, 10, 5, 2.5	250/500/1,000/2,000	4/8, 1/16	GOV	2 x 2 5/8	3 1/8 x 2 5/8 x 3 3/8 x 4	
245109	20, 10, 5, 2.5	250/500/1,000/2,000	4/8, 1/16	ITV	2 3/4 x 3 7/8	4 5/16 x 3 11/16 x 4 7/16 x 6	
24502	20, 10, 5, 2.5	208, 416, 832, 1,664/3,328	4/8, 1/16	BHV	3 1/8	3 1/16 x 3 5/8 x 2 x 2.5	
245148	30, 15, 7 1/2, 3 3/4, 2 1/4, 1 1/2, 1 1/4, 1 1/8, 1 1/16, 1 1/32	150/217/250/312.5/375/453/555/625/715/825/1,000/2,000/2,500/3,000/10,000/20,000	4/8, 1/16	Special Plate Mounting To Fit 4 x 4 Junction Box			7.5

Molded And Plastic Coated Toroid Inductors

These High Q Toroid Inductors have the highest inductive stability available to the industry. Each coil is on an inductance tolerance of plus or minus .2%. Available in either plastic coated units with leads (TOR 800 and TOR 900 series) or in epoxy molded MIL-1-27B encapsulation (TOR 700 and TOR 7100 and up).

Part No.	Inductance In MH ± %	Resistance In Ohms	MADC For 5% Ind. Drop	Typical Q @	Center Frequency	Mfg. Type	Dimensions Diameter	Hole Dia.
TOR 7257	6	1.5	91*	100	100KC	TM2	7/16 1/4	
TOR 940	1	1.4	110	120	60KC	TM	5/8 9/32	
TOR 7310	1	1.4	110	120	60KC	TM3	7/8 3/8	.100
TOR 800	1	1.50	150	75	250KC	TM	3/4 3/8	
TOR 700	1	1.25	150	75	25KC	TM	3/4 3/8	.116
TOR 848	1	40	270	110	18KC	TM	1 3/8	
TOR 748	1	40	270	110	18KC	TM	1 1/16 1/2	.144
TOR 875	1	40	520	160	10KC	TM	1 1/4 5/8	
TOR 775	1	40	520	160	10KC	TM	1 5/16 23/32	.173
TOR 824	1	40	680	180	20KC	TM	1 1/4 5/8	
TOR 724	1	40	680	180	20KC	TM	1 5/16 23/32	.173
TOR 7258	1.5	5.0	95*	98	100KC	TM2	7/16 1/4	
TOR 941	2	2.5	95	75	250KC	TM	3/4 3/8	.116
TOR 7311	2	2.5	95	120	75KC	TM3	7/8 3/8	
TOR 801	2	1.7	108	75	250KC	TM	3/4 3/8	.116
TOR 701	2	1.7	108	75	25KC	TM	3/4 3/8	.100
TOR 849	2	38	192	110	18KC	TM	1 3/8	
TOR 749	2	38	192	110	18KC	TM	1 1/16 1/2	.144
TOR 876	2	35	368	160	20KC	TM	1 1/4 5/8	
TOR 776	2	35	368	160	20KC	TM	1 5/16 23/32	.173
TOR 825	2	480	180	200	20KC	TM	1 1/4 5/8	
TOR 725	2	30	480	180	20KC	TM	1 5/16 23/32	.173
TOR 7259	2.5	6.75	45*	98	100KC	TM2	7/16 1/4	
TOR 942	5	5.1	31*	70	200KC	TM	3/4 3/8	.116
TOR 802	3	2.25	87	70	200KC	TM	3/4 3/8	.116
TOR 702	3	2.25	87	70	200KC	TM	3/4 3/8	.116
TOR 850	3	73	157	110	18KC	TM	1 1/16 1/2	.144
TOR 730	3	73	157	110	18KC	TM	1 1/16 1/2	.144
TOR 877	3	70	300	160	10KC	TM	1 1/4 5/8	
TOR 777	3	70	300	160	10KC	TM	1 5/16 23/32	.173
TOR 826	3	68	396	160	20KC	TM	1 1/4 5/8	
TOR 726	3	68	396	160	20KC	TM	1 5/16 23/32	.173
TOR 803	4	2.6	76	70	200KC	TM	3/4 3/8	.116
TOR 703	4	2.6	76	70	200KC	TM	3/4 3/8	.116
TOR 851	4	135	110	18KC	TM	1 1/4 5/8		
TOR 751	4	85	135	110	18KC	TM	1 1/16 1/2	.144
TOR 878	4	82	260	160	10KC	TM	1 1/4 5/8	
TOR 778	4	82	260	160	10KC	TM	1 5/16 23/32	.173
TOR 827	4	81	342	180	20KC	TM	1 1/4 5/8	
TOR 727	4	81	342	180	20KC	TM	1 5/16 23/32	.173
TOR 852	5	6.8	40*	65	250KC	TM2	7/16 1/4	
TOR 943	5	6	40	110	500KC	TM	5/8 9/30	
TOR 7312	5	6	40	110	500KC	TM3	7/8 3/8	.100
TOR 804	5	3.1	68	70	200KC	TM	3/4 3/8	.116
TOR 704	5	3.1	68	70	200KC	TM	3/4 3/8	.116
TOR 853	5	2.4	90	80	18KC	TM	1 1/4 5/8	
TOR 754	5	2.4	90	80	18KC	TM3	7/8 3/8	
TOR 855	5	1.1	121	110	15KC	TM	1 1/4 5/8	
TOR 755	5	1.1	121	110	15KC	TM	1 1/16 1/2	.144
TOR 879	5	90	233	160	10KC	TM	1 1/4 5/8	
TOR 779	5	90	233	160	10KC	TM	1 5/16 23/32	.173
TOR 828	5	90	233	160	10KC	TM	1 1/4 5/8	
TOR 728	5	1.1	306	180	22KC	TM	1 5/16 23/32	.173
TOR 7260	6	28	85	85	250KC	TM2	7/16 1/4	
TOR 805	7	4.5	57	70	200KC	TM	3/4 3/8	.116
TOR 705	7	4.5	57	70	200KC	TM	3/4 3/8	.116
TOR 854	7	1.05	105	105	15KC	TM	1 1/16 1/2	.144
TOR 753	7	1.05	105	105	15KC	TM	1 1/16 1/2	.144
TOR 829	7	1.05	260	175	20KC	TM	1 1/4 5/8	
TOR 729	7	260	175	20KC	TM	1 5/16 23/32	.173	
TOR 880	7	1.05	195	155	10KC	TM	1 1/4 5/8	
TOR 780	7	1.05	195	155	10KC	TM	1 5/16 23/32	.173
TOR 7251	8	30*	60	60	250KC	TM2	7/16 1/4	
TOR 854	8	2	95	105	15KC	TM	1 1/16 1/2	.144
TOR 752	8	2	95	105	15KC	TM	1 1/16 1/2	.144
TOR 761	10	25	30*	65	45KC	TM2	7/16 1/4	
TOR 943	10	12	30	110	45KC	TM3	5/8 9/32	
TOR 7313	10	12	30	110	45KC	TM	7/8 3/8	
TOR 806	10	6.5	48	70	20KC	TM	3/4 3/8	.116
TOR 706	10	6.5	48	70	20KC	TM	3/4 3/8	.116
TOR 931	10	5	50	85	10KC	TM	5/8 9/32	
TOR 7285	10	5	50	85	10KC	TM3	7/8 3/8	.100
TOR 855	10	2.1	86	110	19KC	TM	1 1/16 1/2	.144
TOR 755	10	2.1	86	110	19KC	TM	1 1/16 1/2	.144
TOR 881	10	1.1	165	155	15KC	TM	1 1/4 5/8	
TOR 781	10	1.3	165	155	9KC	TM	1 5/16 23/32	.173
TOR 880	10	2	217	180	19KC	TM	1 1/4 5/8	
TOR 730	10	2	217	180	19KC	TM	1 5/16 23/32	.173
TOR 904	10	.92	262	220	9KC	TM	1 1/16 7/8	

THORNDARSON MEISSNER

Molded And Plastic Coated Toroid Inductors

Part No.	Inductance in MH ± %	Resistance in Ohms	MADC For 5% Inf. Dpt.	Typical Center Frequency	Mfg. Type	Diameter	Dimensions Height	Hole Dia.
TOR 717	200	115	17	48	18K TC	TM	3/4 3/8	.116
TOR 868	200	42	19	90	8K TC	TM	1 1/16 1/2	.144
TOR 764	200	44	18	100	8K TC	TM	1 1/16 1/2	.144
TOR 814	200	44	18	100	8K TC	TM	1 5/16 23/32	.173
TOR 791	200	23	27	150	10K TC	TO	1 1/4 5/8	
TOR 889	200	23	27	150	10K TC	TO	1 1/4 5/8	
TOR 718	200	39	29	150	10K TC	TO	1 5/16 23/32	.173
TOR 914	200	7.5	58	180	3K TC	TM	1 15/16 7/8	
TOR 714	200	7.5	58	180	3K TC	TM	2 3/4 3/8	.173
TOR 755	250	135	9.5	65	15K TC	TM	3/4 3/8	.116
TOR 718	250	135	9.5	65	15K TC	TM	3/4 3/8	.116
TOR 7420	250	135	11	85	14K TC	TM2	23/32 13/32	
TOR 718	250	135	12	85	14K TC	TM2	23/32 13/32	
TOR 720	250	130	12	85	14K TC	TM3	7/8 3/8	.100
TOR 742	250	24	43	100	7K TC	TM	1 1/4 5/8	
TOR 742	250	44	43	100	7K TC	TM	1 5/16 23/32	.173
TOR 867	250	60	17	90	7K TC	TO	1 1/2 1/2	.144
TOR 717	250	60	17	90	7K TC	TO	1 1/2 1/2	.144
TOR 850	250	55	20	120	10K TC	TO	1 1/2 13/32	.144
TOR 7334	250	55	20	120	10K TC	TO	1 1/16 1/2	.144
TOR 890	250	35	33	140	7K TC	TM	1 1/4 5/8	
TOR 790	250	33	33	140	7K TC	TM	1 5/16 23/32	.173
TOR 861	250	15	40	190	7K TC	TO	1 15/16 7/8	.173
TOR 7339	250	15	40	190	7K TC	TO	1 15/16 7/8	.173
TOR 915	250	10.3	32	180	3K TC	TM	2 3/4 3/8	.173
TOR 715	250	10.3	32	180	3K TC	TM	2 3/4 3/8	.173
TOR 755	250	10.3	32	180	3K TC	TM	2 3/4 3/8	.173
TOR 7407	250	7	55	220	3K TC	TM	2 7/8 1 3/8	.173
TOR 868	300	8.8	62	120	8K TC	TM	1 1/4 5/8	.116
TOR 719	300	8.8	62	120	8K TC	TM	1 1/4 5/8	.116
TOR 843	300	72	80	40	6K TC	TO	1 1/4 5/8	.116
TOR 742	300	72	80	40	6K TC	TO	1 5/16 23/32	.173
TOR 868	300	70	16	80	7K TC	TO	1 1/2 1/2	.144
TOR 768	300	70	16	80	7K TC	TO	1 1/16 1/2	.144
TOR 891	300	38	30	120	5K TC	TM	1 5/16 23/32	.173
TOR 791	300	38	30	120	5K TC	TM	1 5/16 23/32	.173
TOR 814	300	12	47	200	3K TC	TM	1 15/16 7/8	.173
TOR 716	300	12	47	200	3K TC	TM	2 3/4 3/8	.173
TOR 802	300	265	7.6	60	10K TC	TM	3/4 3/8	.116
TOR 740	300	265	7.6	60	10K TC	TM	3/4 3/8	.116
TOR 869	300	95	14	80	7K TC	TM	1 1/16 1/2	.144
TOR 749	300	95	14	80	7K TC	TM	1 1/16 1/2	.144
TOR 844	400	94	34	80	5K TC	TO	1 1/4 5/8	.173
TOR 717	400	94	34	80	5K TC	TO	1 5/16 23/32	.173
TOR 892	400	44	25	120	4K TC	TM	1 1/4 5/8	.173
TOR 792	400	44	25	120	4K TC	TM	1 5/16 23/32	.173
TOR 717	400	14.5	41	180	3K TC	TM	2 3/4 3/8	.173
TOR 717	400	14.5	41	180	3K TC	TM	2 3/4 3/8	.173
TOR 821	500	295	7	60	12K TC	TM	3/4 3/8	.116
TOR 721	500	295	7	60	12K TC	TM	3/4 3/8	.116
TOR 737	500	290	8	60	12K TC	TM	5/8 9/32	.100
TOR 7291	500	290	8	60	12K TC	TM	5/8 9/32	.100
TOR 7421	500	250	8	60	12K TC	TM2	23/32 13/32	.100
TOR 870	500	115	12	80	7K TC	TO	1 1/4 5/8	.144
TOR 720	500	115	12	80	7K TC	TO	1 1/4 5/8	.144
TOR 845	500	108	31	80	5K TC	TO	1 1/4 5/8	.173
TOR 745	500	108	31	80	5K TC	TO	1 5/16 23/32	.173
TOR 861	500	95	15	100	7K TC	TM	1 1/16 1/2	.144
TOR 7337	500	95	15	100	7K TC	TM	1 1/16 1/2	.144
TOR 893	500	63.5	23	120	4K TC	TM	1 1/4 5/8	.173
TOR 793	500	63.5	23	120	4K TC	TM	1 5/16 23/32	.173
TOR 918	500	19	37	180	3K TC	TM	2 3/4 3/8	.173
TOR 717	500	19	37	180	3K TC	TM	2 3/4 3/8	.173
TOR 975	500	15	38	200	2K TC	TO	2 7/16 1	
TOR 7408	500	15	38	200	2K TC	TO	2 7/8 1 3/8	.173
TOR 871	600	120	11	70	6K TC	TM	1 1/2 1/2	.144
TOR 721	600	120	11	70	6K TC	TM	1 1/2 1/2	.144
TOR 894	600	75	21	120	4K TC	TM	1 1/4 5/8	.173
TOR 794	600	75	21	120	4K TC	TM	1 5/16 23/32	.173
TOR 822	700	440	5.8	60	11K TC	TM	3/4 3/8	.116
TOR 722	700	440	5.8	60	11K TC	TM	3/4 3/8	.116
TOR 864	700	173	26	60	7K TC	TO	1 1/4 5/8	.173
TOR 746	700	173	26	60	7K TC	TO	1 5/16 23/32	.173
TOR 872	700	160	10	80	7K TC	TO	1 1/4 5/8	.173
TOR 727	700	160	10	80	7K TC	TO	1 1/4 5/8	.173
TOR 895	700	80	19.5	120	5K TC	TO	1 1/4 5/8	.173
TOR 795	700	80	19.5	120	5K TC	TO	1 1/4 5/8	.173
TOR 919	700	31	31	180	2.5K TC	TM	2 7/16 1	
TOR 719	700	31	31	180	2.5K TC	TM	2 7/16 1	
TOR 872	800	300	9	60	5K TC	TM	1 1/16 1/2	.144
TOR 723	800	300	9	60	5K TC	TM	1 1/16 1/2	.144
TOR 893	1,000	650	4.8	55	10K TC	TM	3/4 3/8	.116
TOR 738	1,000	650	4.8	55	10K TC	TM	3/4 3/8	.116
TOR 722	1,000	330	5.3	60	7K TC	TO	3/8 9/32	.100
TOR 7422	1,000	330	5.3	60	7K TC	TO	3/8 9/32	.100
TOR 874	1,000	260	8.6	60	5K TC	TO	1 1/4 5/8	.173
TOR 724	1,000	260	8.6	60	5K TC	TO	1 1/4 5/8	.173
TOR 847	1,000	230	22	30	3K TC	TO	1 1/4 5/8	.173
TOR 747	1,000	230	22	30	3K TC	TO	1 5/16 23/32	.173
TOR 952	1,000	210	25	80	3K TC	TO	1 5/16 23/32	.173
TOR 738	1,000	210	25	80	3K TC	TO	1 1/16 1/2	.144
TOR 896	1,000	138	16.5	80	3K TC	TO	1 1/4 5/8	.173
TOR 796	1,000	138	16.5	80	3K TC	TO	1 5/16 23/32	.173
TOR 862	1,000	60	20	160	3K TC	TO	1 5/16 7/8	.173
TOR 781	1,000	60	20	160	3K TC	TO	1 5/16 7/8	.173
TOR 920	1,000	45	26	160	2.5K TC	TO	1 15/16 7/8	.173
TOR 7120	1,000	45	26	160	2.5K TC	TO	1 15/16 7/8	.173
TOR 876	1,000	220	20	200	2K TC	TO	2 7/16 1	
TOR 7409	1,000	27	50	200	2K TC	TO	2 7/8 1 3/8	.173
TOR 7424	1,200	560	5	60	10K TC	TM2	23/32 13/32	
TOR 7293	1,200	825	7.5	60	7K TC	TM	3/4 3/8	.116
TOR 733	1,200	335	6	80	3K TC	TO	1 1/4 5/8	.173
TOR 7339	1,200	335	6	80	3K TC	TO	1 1/4 5/8	.173
TOR 877	1,200	200	12.5	80	2.5K TC	TO	1 1/4 5/8	.173
TOR 797	1,200	200	12.5	80	2.5K TC	TO	1 5/16 23/32	.173
TOR 863	1,200	90	30	140	2.5K TC	TO	1 5/16 7/8	.173
TOR 7382	1,200	90	30	140	2.5K TC	TO	1 5/16 7/8	.173
TOR 977	1,200	40	33	200	3K TC	TO	2 7/16 1	
TOR 7410	1,200	40	33	200	3K TC	TO	2 7/16 1	
TOR 7428	1,200	925	4.4	55	10K TC	TM2	23/32 13/32	
TOR 898	2,000	220	11.6	80	2K TC	TO	1 1/4 5/8	.173
TOR 798	2,000	220	11.6	80	2K TC	TO	1 5/16 23/32	.173
TOR 921	2,000	100	18.4	160	3K TC	TO	1 5/16 7/8	.173
TOR 7121	2,000	100	18.4	160	3K TC	TO	1 5/16 7/8	.173
TOR 854	2,000	580	5	60	3K TC	TO	1 1/16 1/2	.144
TOR 740	2,000	580	5	60	3K TC	TO	1 1/16 1/2	.144
TOR 957	2,000	275	10	85	3K TC	TO	1 1/4 5/8	.173
TOR 7383	2,000	275	10	85	3K TC	TO	1 5/16 23/32	.173
TOR 864	2,000	215	15	140	2.5K TC	TO	1 5/16 7/8	.173
TOR 7383	2,000	150	15	140	2.5K TC	TO	1 5/16 7/8	.173
TOR 878	2,000	70	30	200	3K TC	TO	2 7/16 1	
TOR 7411	2,000	70	30	200	3K TC	TO	2 7/8 1 3/8	.173
TOR 7426	3,000	1,350	3.6	50	7K TC	TM2	23/32 13/32	
TOR 899	3,000	370	9.5	80	2.5K TC	TO	1 1/4 5/8	.173
TOR 799	3,000	370	9.5	80	2.5K TC	TO	1 5/16 23/32	.173
TOR 922	3,000	115	15	120	2K TC	TO	1 15/16 7/8	.173
TOR 7122	3,000	115	15	120	2K TC	TO	1 15/16 7/8	.173
TOR 900	4,000	435	8.2	60	2.5K TC	TO	1 1/4 5/8	.173
TOR 7100	4,000	435	8.2	60	2.5K TC	TO	1 5/16 23/32	.173
TOR 923	4,000	175	13	140	3K TC	TO	1 5/16 7/8	.173
TOR 7123	4,000	175	13	140	3K TC	TO	1 5/16 7/8	.173
TOR 7420	5,000	2,000	2	50	3K TC	TM2	23/32 13/32	
TOR 901	5,000	645	7.4	60	2.5K TC	TO	1 1/4 5/8	.173
TOR 7101	5,000	645	7.4	60	2.5K TC	TO	1 5/16 23/32	.173
TOR 865	5,000	350	8	120	3K TC	TO	1 5/16 7/8	.173
TOR 7384	5,000	350	8	120	3K TC	TO	1 5/16 7/8	.173
TOR 924	5,000	300	11.6	140	2K TC	TO	1 15/16 7/8	.173
TOR 7124	5,000	300	11.6	140	2K TC	TO	1 15/16 7/8	.173

Molded And Plastic Coated Toroid Inductors

Part No.	Inductance in MH ± %	Resistance in Ohms	MADC For 5% Inf. Dpt.	Typical		Mfg. Type	Diameter	Dimensions Height	Hole Dia
				Q	Center Frequency				
TOR 799	5,000	140	15	140	1.5K TC	TM	2 7/16	1	
TOR 7412	5,000	140	15	140	1.5K TC	TM	2 7/8	1 3/8	.173
TOR 800	7,000	780	6	60	2.5K TC	TO	1 1/4	5/8	
TOR 7102	7,000	780	6	60	2.5K TC	TO	1 5/16	23/32	.173
TOR 791	7,000	310	10	140	2K TC	TO	1 15/16	7/8	
TOR 7125	7,000	310	10	140	2K TC	TM	2		.173
TOR 866	7,500	525	8	110	1.8K TC	TM	2 15/16	7/8	
TOR 790	7,500	525	8	110	1.8K TC	TM	2		.173
TOR 903	10,000	1,100	5.2	70	1.8K TC	TO	1 1/4	5/8	
TOR 7103	10,000	1,100	5.2	70	1.8K TC	TO	1 5/16	23/32	.173
TOR 907	10,000	600	6	90	1.5K TC	TO	1 15/16	7/8	
TOR 7386	10,000	600	6	90	1.5K TC	TM	2		.173
TOR 826	10,000	350	8.3	83	1.7 TC	TO	2 15/16	1	
TOR 7126	10,000	350	8.3	70	1K TC	TM	2		.173
TOR 980	10,000	270	9	100	1K TC	TO	2 7/16	1	
TOR 7410	15,000	270	9	90	1K TC	TO	2 7/8	1 3/8	.173
TOR 986	15,000	900	5	80	1K TC	TO	1 15/16	7/8	
TOR 7387	15,000	900	5	80	1K TC	TM	2		.173
TOR 981	15,000	430	7	90	7K TC	TO	2 7/16	1	
TOR 7411	15,000	430	7	90	7K TC	TM	2 7/8	1 3/8	.173
TOR 927	20,000	950	5.8	60	1K TC	TO	1 15/16	7/8	
TOR 7127	20,000	950	5.8	60	1K TC	TM	2		.173
TOR 909	25,000	1,500	4	70	8K TC	TO	1 15/16	7/8	
TOR 7388	25,000	1,500	4	70	8K TC	TM	2		.173
TOR 982	25,000	850	6	80	1K TC	TO	2 7/16	1	
TOR 7415	25,000	850	6	80	1K TC	TM	2 7/8	1 3/8	.173
TOR 928	30,000	1,250	4.7	50	9K TC	TO	1 15/16	7/8	
TOR 7128	30,000	1,250	4.7	50	9K TC	TM	2		.173
TOR 929	40,000	2,000	4.1	40	8K TC	TO	1 15/16	7/8	
TOR 7419	40,000	2,000	4.1	40	8K TC	TM	2		.173
TOR 983	50,000	1,500	3	65	5K TC	TO	2 7/16	1	
TOR 7129	50,000	1,500	3	65	5K TC	TM	2 7/8	1 3/8	.173

Encased Shielded Toroid Inductors

Part Number	Inductance in mH at 20 Hz	Resistance in Ohms at 20 Hz	MAGNETIC FOR 3% Inductance Drop		Typical Center Frequency		Case Size
			Q	at	Q	at	
TOR 7501	100	115	30	80	20K	TH1	
TOR 7509	100	115	30	80	20K	TH9	
TOR 7269	100	50	18	85	15K	TH1	
TOR 7279	100	18	18	85	15K	TH9	
TOR 7148	100	25	35 ^a	115	10K	TH1	
TOR 7362	100	24	6 ^a	140	7K	TH4	
TOR 7318	100	22	30	120	10K	TH4	
TOR 7136	100	18	34 ^a	140	7K	TH3	
TOR 7344	100	13	30	130	7K	TH3	
TOR 7378	100	5	82	190	9K	TH10	
TOR 7391	100	2.8	100	220	7K	TH11	
TOR 7199	100CT	12	61 ^a	160	8K	TH3	
TOR 7180	120	10	61 ^a	160	8K	TH3	
TOR 7165	120	3.7	125 ^a	240	4K	TH12	
TOR 7153	120	3.7	125 ^a	240	4K	TH2	
TOR 7218	125	9.2	86 ^a	130	4K	TH2	
TOR 7319	150	34	25	130	18K	TH3	
TOR 7137	50	59	30 ^a	140	10K	TH3	
TOR 7326	150	17	26 ^a	150	7K	TH3	
TOR 7299	150	4	70	220	7K	TH3	
TOR 7149	200	32	65 ^a	115	9K	TH3	
TOR 7200	200CT	21	51 ^a	160	5K	TH3	
TOR 7181	200	16	51 ^a	160	5K	TH3	
TOR 7219	200	14.5	66 ^a	130	3.7AK	TH2	
TOR 7270	250	130	12	85	12K	TH1	
TOR 7280	250	130	2	85	12K	TH1	
TOR 7363	255	64	40	190	7K	TH3	
TOR 7220	255	64	40	190	7K	TH3	
TOR 7138	250	42	23 ^a	160	18K	TH3	
TOR 7348	250	33	33	140	7K	TH3	
TOR 7290	250	15	46	190	7K	TH11	
TOR 7293	250	7	55	220	3K	TH10	
TOR 7201	300CT	31	41 ^a	160	5K	TH3	
TOR 7182	300	35	41 ^a	160	5K	TH3	
TOR 7220	300	35.5	3	130	4K	TH2	
TOR 7171	400	70	18 ^a	120	5K	TH3	
TOR 7271	500	290	8	80	12K	TH1	
TOR 7281	500	290	8	80	12K	TH9	
TOR 7364	500	198	31	80	5K	TH3	
TOR 7021	500	95	15	100	7K	TH4	
TOR 7204	500	63.5	23	120	4K	TH3	
TOR 7202	500CT	50	30 ^a	120	4K	TH3	
TOR 7189	500	40	30 ^a	130	4K	TH3	
TOR 7221	500	38	41 ^a	130	4K	TH3	
TOR 7280	500	19	34	180	3K	TH11	
TOR 7166	500	16	61 ^a	240	4K	TH12	
TOR 7154	500	15	61 ^a	210	3K	TH3	
TOR 7294	500	15	38	200	2K	TH10	
TOR 7140	600	103	15 ^a	110	5K	TH3	
TOR 7303	700CT	75	25 ^a	130	4K	TH3	
TOR 7184	700	60	25 ^a	155	5K	TH3	
TOR 722	750	25	39 ^a	160	4K	TH2	
TOR 7141	600	165	18 ^a	110	5K	TH3	
TOR 7275	1,000	580	1	60	7K	TH1	
TOR 7282	1,000	530	5.5	80	7K	TH9	
TOR 7365	1,000	230	22	90	3K	TH6	
TOR 7322	1,000	210	25	80	3K	TH4	
TOR 7350	1,000	128	16.5	80	3K	TH6	
TOR 7204	1,000CT	105	20 ^a	130	4K	TH3	
TOR 7185	1,000	85	20 ^a	140	4K	TH3	
TOR 7368	1,000	27	50	140	2K	TH13	
TOR 7195	1,000	27	50	140	2K	TH13	
TOR 7255	1,000	29	41 ^a	180	2K	TH12	
TOR 7223	1,500	95	29 ^a	210	3K	TH7	
TOR 7273	1,500	825	3	80	7K	TH1	
TOR 7283	1,500	825	3	80	7K	TH9	
TOR 7323	1,500	335	6	80	4K	TH3	
TOR 7142	1,500	265	10 ^a	110	5K	TH3	
TOR 7231	1,500	200	13.5	80	2.5K	TH6	
TOR 7200	1,500	160	18 ^a	110	4K	TH3	
TOR 7186	1,500	135	18 ^a	120	3K	TH3	
TOR 7369	1,500	90	30 ^a	140	3K	TH11	
TOR 7296	1,500	40	33	200	3K	TH10	
TOR 7143	2,000	380	9 ^a	110	5K	TH3	
TOR 7224	2,000	155	19 ^a	140	4K	TH3	
TOR 7168	2,000	65	30 ^a	180	2.5K	TH12	
TOR 7156	2,000	60	30 ^a	210	3K	TH7	
TOR 7284	2,500	550	8	80	3K	TH4	
TOR 7227	2,500	275	10	85	3K	TH6	
TOR 7206	2,500CT	270	14 ^a	125	4K	TH3	
TOR 7187	2,500	230	14 ^a	120	4K	TH3	
TOR 7370	2,500	150	15	140	2.5K	TH11	
TOR 7297	2,500	70	18	200	3K	TH10	
TOR 7144	2,500	550	8	80	3K	TH3	
TOR 7225	3,000	235	15 ^a	130	4K	TH2	
TOR 7169	3,000	105	22 ^a	180	2K	TH12	
TOR 73157	3,500	104	22 ^a	210	3K	TH12	
TOR 7247	4,000	855	5.1 ^a	110	5K	TH3	
TOR 7203	4,000CT	450	10 ^a	130	4K	TH3	
TOR 7188	4,000	330	10	120	3K	TH5	
TOR 7353	5,000	645	7.4 ^a	120	2.5K	TH6	
TOR 7228	6,000	400	14	130	4K	TH2	
TOR 7231	5,000	350	8	120	2K	TH10	
TOR 7398	5,000	140	15	140	1.5K	TH11	
TOR 7288	5,000CT	650	9.5 ^a	130	3K	TH3	
TOR 7189	6,000	505	9.5 ^a	130	4K	TH3	
TOR 7227	5,000	620	10 ^a	130	4K	TH2	
TOR 7372	7,500	325	8	110	1.8K	TH11	
TOR 7170	7,500	235	16 ^a	170	1.8K	TH12	
TOR 7158	7,500	225	16 ^a	210	3K	TH3	
TOR 7354	10,000	100	5.5 ^a	70	1.8K	TH6	
TOR 7209	10,000CT	1,650	7.2 ^a	130	4K	TH2	
TOR 7190	10,000	850	7.2 ^a	150	3K	TH5	
TOR 7289	10,000	750	7.5 ^a	140	4K	TH2	
TOR 7373	10,000	600	6	90	1.5K	TH11	
TOR 7299	12,000	600	9	100	1K	TH10	
TOR 7171	12,000	380	11.5 ^a	120	3K	TH12	
TOR 7159	12,000	360	11.5 ^a	210	3K	TH7	
TOR 7210	15,000CT	1,750	5.1 ^a	130	3K	TH3	
TOR 7191	15,000	1,345	5.1 ^a	220	3K	TH5	
TOR 7229	15,000	1,120	5.2 ^a	140	4K	TH2	
TOR 7234	15,000	950	5	80	1K	TH11	
TOR 7400	15,000	430	7	90	.7K	TH3	
TOR 7160	18,000	480	9.5 ^a	210	3K	TH7	
TOR 7172	18,000	470	9.5 ^a	180	2.5K	TH10	
TOR 7211	22,000CT	2,500	4 ^a	120	4K	TH2	
TOR 7192	22,000	2,000	4 ^a	118	3K	TH5	
TOR 7259	22,000	1,500	4	70	.8K	TH11	
TOR 7401	25,000	850	6	90	.8K	TH10	
TOR 7161	25,000	685	8 ^a	210	3K	TH5	
TOR 7173	25,000	675	8 ^a	180	2K	TH12	
TOR 7248	35,000CT	4,000	3 ^a	130	4K	TH5	
TOR 7235	15,000	3,280	3 ^a	120	3K	TH5	
TOR 7232	40,000	1,050	6 ^a	180	2.5K	TH12	
TOR 7406	15,000	1,500	3	65	.5K	TH3	
TOR 7233	60,000	1,480	3	120	2.5K	TH12	

Maximum current ratios

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IN ORDER OF MAJ

Part No.	Inductance		In Ohm	Test Values		Mfg. Mt. Type	Mfg. Quant.		Dimensions			Wh. Lbs.
	Henry	MADC		RMS	Ang.		H	W	D			
26C40	1.5	10	95	2,500	BAH	1/3/4	1 1/4	2 1/8	1 1/8	5		
26C157	10	10	700	1,000	BAH	1/3/4	3/4	1 5/8	1 3/16	05		
26C158	10	10	1,200	3,000	CHV	1 1/4 x 1/2 1/2	2 1/4	2 1/8	1 1/4	25		
26C159	2	13	135	300	BAH	1/4	2 1/4	2 1/8	1 1/4	75		
26C162	2	13	70	1,500	BAH	1/3/4	1 3/4	1 3/8	1 1/4	4		
26C19	7.4*	15	280	2	BAH	1/2	2 1/4	2 1/8	1 1/4	5		
26C34	20	15	900	2,500	BAH	2/3/8	1 5/8	2 7/8	1 1/2	75		
26C31	35	15	1,850	2,500	BAH	2	1 3/8	2 3/8	1 1/4	35		
26C32	70	15	3,300	1,500	BAH	2	1 3/8	2 3/8	1 1/4	35		
26C35	250	15	5,000	1,750	NTV	2 3/8 x 2 3/8	3 1/4	2 9/16	2 9/16	25		
26C30	150	20	1,000	1,000	BAH	1/3/4	1 3/4	1 3/16	1 1/4	21		
26C36	150	20	1,000	1,000	BAH	1/3/4	1 3/4	1 3/16	1 1/4	21		
26C81	30	30	800	1,500	KTH-8	2 7/8 x 2 3/8	2 5/16	3 3/8	1 15/16	1 3		
26C19	20	35	400	1,500	FGV	2/8	2 5/8	2 3/4	1 7/8	1 3		
26C44	70	40	300	2,500	BAH	2	2 1/4	2 1/8	1 1/4	5		
26C113	40	170	500	500	BAH	2	1 3/8	2 3/8	1 1/4	35		
26C1	6	40	210	2	BAH	1/2	2 1/8	2 5/8	1 5/8	75		
26C35	8	250	1,500	500	BAH	2 1/8	2 1/8	2 1/8	1 1/2	5		
26C32	8	400	2,500	BAH	2	1 3/8	2 3/8	1 1/4	5			
26C45	12	40	250	2	BAH	1/2	2 1/8	2 5/8	1 5/8	75		
26C46	5	40	450	2,500	BAH	2 1/16	2	2 1/4	2 1/4	10		
26C25	15	40	475	2,500	YAV	1 1/2 x 2 3/8	2 7/8	2 1/4	2 11/16	1 3		
26C37	40	850	2,500	BAH	2 1/16	2	2 3/16	2 5/16				
26C116	3.5	50	200	1,500	BAH	2	1 3/8	2 3/8	1 1/4	5		
26C17	8.5	50	200	2,500	BAH	2 3/8	1 5/8	2 7/8	1 5/8	75		
26C26	15	50	200	2,500	BAH	2 3/8	1 5/8	2 7/8	1 5/8	75		
26C81	15	50	550	2,500	BAH	2 3/8	1 5/8	2 7/8	1 5/8	75		
26C157	10	50	250	1,000	BHH	2 3/8	1 5/8	2 7/8	1 5/8	75		
26C158	10	50	250	1,000	BHH	2 3/8	1 5/8	2 7/8	1 5/8	75		
26C26	15	50	550	2,500	BAH	2 3/8	1 5/8	2 7/8	1 5/8	75		
26C81	15	50	550	2,500	BAH	2 3/8	1 5/8	2 7/8	1 5/8	75		
26C157	10	50	250	1,000	BHH	2 3/8	1 5/8	2 7/8	1 5/8	75		
26C158	10	50	250	1,000	BHH	2 3/8	1 5/8	2 7/8	1 5/8	75		
26C26	15	50	550	2,500	BAH	2 3/8	1 5/8	2 7/8	1 5/8	75		
26C81	15	50	550	2,500	BAH	2 3/8	1 5/8	2 7/8	1 5/8	75		
26C157	10	50	250	1,000	BHH	2 3/8	1 5/8	2 7/8	1 5/8	75		
26C158	10	50	250	1,000	BHH	2 3/8	1 5/8	2 7/8	1 5/8	75		
26C26	15	50	550	2,500	BAH	2 3/8	1 5/8	2 7/8	1 5/8	75		
26C81	15	50	550	2,500	BAH	2 3/8	1 5/8	2 7/8	1 5/8	75		
26C157	10	50	250	1,000	BHH	2 3/8	1 5/8	2 7/8	1 5/8	75		
26C158	10	50	250	1,000	BHH	2 3/8	1 5/8	2 7/8	1 5/8	75		
26C26	15	50	550	2,500	BAH	2 3/8	1 5/8	2 7/8	1 5/8	75		
26C81	15	50	550	2,500	BAH	2 3/8	1 5/8	2 7/8	1 5/8	75		
26C157	10	50	250	1,000	BHH	2 3/8	1 5/8	2 7/8	1 5/8	75		
26C158	10	50	250	1,000	BHH	2 3/8	1 5/8	2 7/8	1 5/8	75		
26C26	15	50	550	2,500	BAH	2 3/8	1 5/8	2 7/8	1 5/8	75		
26C81	15	50	550	2,500	BAH	2 3/8	1 5/8	2 7/8	1 5/8	75		
26C157	10	50	250	1,000	BHH	2 3/8	1 5/8	2 7/8	1 5/8	75		
26C158	10	50	250	1,000	BHH	2 3/8	1 5/8	2 7/8	1 5/8	75		
26C26	15	50	550	2,500	BAH	2 3/8	1 5/8	2 7/8	1 5/8	75		
26C81	15	50	550	2,500	BAH	2 3/8	1 5/8	2 7/8	1 5/8	75		
26C157	10	50	250	1,000	BHH	2 3/8	1 5/8	2 7/8	1 5/8	75		
26C158	10	50	250	1,000	BHH	2 3/8	1 5/8	2 7/8	1 5/8	75		
26C26	15	50	550	2,500	BAH	2 3/8	1 5/8	2 7/8	1 5/8	75		
26C81	15	50	550	2,500	BAH	2 3/8	1 5/8	2 7/8	1 5/8	75		
26C157	10	50	250	1,000	BHH	2 3/8	1 5/8	2 7/8	1 5/8	75		
26C158	10	50	250	1,000	BHH	2 3/8	1 5/8	2 7/8	1 5/8	75		
26C26	15	50	550	2,500	BAH	2 3/8	1 5/8	2 7/8	1 5/8	75		
26C81	15	50	550	2,500	BAH	2 3/8	1 5/8	2 7/8	1 5/8	75		
26C157	10	50	250	1,000	BHH	2 3/8	1 5/8	2 7/8	1 5/8	75		
26C158	10	50	250	1,000	BHH	2 3/8	1 5/8	2 7/8	1 5/8	75		
26C26	15	50	550	2,500	BAH	2 3/8	1 5/8	2 7/8	1 5/8	75		
26C81	15	50	550	2,500	BAH	2 3/8	1 5/8	2 7/8	1 5/8	75		
26C157	10	50	250	1,000	BHH	2 3/8	1 5/8	2 7/8	1 5/8	75		
26C158	10	50	250	1,000	BHH	2 3/8	1 5/8	2 7/8	1 5/8	75		
26C26	15	50	550	2,500	BAH	2 3/8	1 5/8	2 7/8	1 5/8	75		
26C81	15	50	550	2,500	BAH	2 3/8	1 5/8	2 7/8	1 5/8	75		
26C157	10	50	250	1,000	BHH	2 3/8	1 5/8	2 7/8	1 5/8	75		
26C158	10	50	250	1,000	BHH	2 3/8	1 5/8	2 7/8	1 5/8	75		
26C26	15	50	550	2,500	BAH	2 3/8	1 5/8	2 7/8	1 5/8	75		
26C81	15	50	550	2,500	BAH	2 3/8	1 5/8	2 7/8	1 5/8	75		
26C157	10	50	250	1,000	BHH	2 3/8	1 5/8	2 7/8	1 5/8	75		
26C158	10	50	250	1,000	BHH	2 3/8	1 5/8	2 7/8	1 5/8	75		
26C26	15	50	550	2,500	BAH	2 3/8	1 5/8	2 7/8	1 5/8	75		
26C81	15	50	550	2,500	BAH	2 3/8	1 5/8	2 7/8	1 5/8	75		
26C157	10	50	250	1,000	BHH	2 3/8	1 5/8	2 7/8	1 5/8	75		
26C158	10	50	250	1,000	BHH	2 3/8	1 5/8	2 7/8	1 5/8	75		
26C26	15	50	550	2,500	BAH	2 3/8	1 5/8	2 7/8	1 5/8	75		
26C81	15	50	550	2,500	BAH	2 3/8	1 5/8	2 7/8	1 5/8	75		
26C157	10	50	250	1,000	BHH	2 3/8	1 5/8	2 7/8	1 5/8	75		
26C158	10	50	250	1,000	BHH	2 3/8	1 5/8	2 7/8	1 5/8	75		
26C26	15	50	550	2,500	BAH	2 3/8	1 5/8	2 7/8	1 5/8	75		
26C81	15	50	550	2,500	BAH	2 3/8	1 5/8	2 7/8	1 5/8	75		
26C157	10	50	250	1,000	BHH	2 3/8	1 5/8	2 7/8	1 5/8	75		
26C158	10	50	250	1,000	BHH	2 3/8	1 5/8	2 7/8	1 5/8	75		
26C26	15	50	550	2,500	BAH	2 3/8	1 5/8	2 7/8	1 5/8	75		
26C81	15	50	550	2,500	BAH	2 3/8	1 5/8	2 7/8	1 5/8	75		
26C157	10	50	250	1,000	BHH	2 3/8	1 5/8	2 7/8	1 5/8	75		
26C158	10	50	250	1,000	BHH	2 3/8	1 5/8	2 7/8	1 5/8	75		
26C26	15	50	550	2,500	BAH	2 3/8	1 5/8	2 7/8	1 5/8	75		
26C81	15	50	550	2,500	BAH	2 3/8	1 5/8	2 7/8	1 5/8	75		
26C157	10	50	250	1,000	BHH	2 3/8	1 5/8	2 7/8	1 5/8	75		
26C158	10	50	250	1,000	BHH	2 3/8	1 5/8	2 7/8	1 5/8	75		
26C26	15	50	550	2,500	BAH	2 3/8	1 5/8	2 7/8	1 5/8	75		
26C81	15	50	550	2,500	BAH	2 3/8	1 5/8	2 7/8	1 5/8	75		
26C157	10	50	250	1,000	BHH	2 3/8	1 5/8	2 7/8	1 5/8	75		
26C158	10	50	250	1,000	BHH	2 3/8	1 5/8	2 7/8	1 5/8	75		
26C26	15	50	550	2,500	BAH	2 3/8	1 5/8	2 7/8	1 5/8	75		
26C81	15	50	550	2,500	BAH	2 3/8	1 5/8	2 7/8	1 5/8	75		
26C157	10	50	250	1,000	BHH	2 3/8	1 5/8	2 7/8	1 5/8	75		
26C158	10	50	250	1,000	BHH	2 3/8	1 5/8	2 7/8	1 5/8	75		
26C26	15	50	550	2,500	BAH	2 3/8	1 5/8	2 7/8	1 5/8	75		
26C81	15	50	550	2,500	BAH	2 3/8	1 5/8	2 7/8	1 5/8	75		
26C157	10	50	250	1,000	BHH	2 3/8	1 5/8	2 7/8	1 5/8	75		
26C158	10	50	250	1,000	BHH	2 3/8	1 5/8	2 7/8	1 5/8	75		
26C26	15	50	550	2,500	BAH	2 3/8	1 5/8	2 7/8	1 5/8	75		
26C81	15	50	550	2,500	BAH	2 3/8	1 5/8	2 7/8	1 5/8	75		
26C157	10	50	250	1,000	BHH	2 3/8	1 5/8	2 7/8	1 5/8	75		
26C158	10	50	250	1,000	BHH	2 3/8	1 5/8	2 7/8	1 5/8	75		
26C26	15	50	550	2,500	BAH	2 3/8	1 5/8	2 7/8	1 5/8	75		
26C81	15	50	550	2,500	BAH	2 3/8	1 5/8	2 7/8	1 5/8	75		
26C157	10	50	250	1,000	BHH	2 3/8	1 5/8	2 7/8	1 5/8	75		
26C158	10	50	250	1,000	BHH	2 3/8	1 5/8	2 7/8	1 5/8	75		
26C26	15	50	550	2,500	BAH	2 3/8	1 5/8	2 7/8	1 5/8	75		
26C81	15	50	550	2,500	BAH	2 3/8	1 5/8	2 7/8	1 5/8	75		
26C157	10	50	250	1,000	BHH	2 3/8	1 5/8	2 7/8	1 5/8	75		
26C158	10	50	250	1,000	BHH	2 3/8	1 5/8	2 7/8	1 5/8	75		
26C26	15	50	550	2,500	BAH	2 3/8	1 5/8	2 7/8	1 5/			

* High Q Choke, minimum Q is 20 for 0 up to 15 MADC

** Case with Terminals on

" Encapsulat

Filament Transformers with Multiple Secondary

No.	Primary Voltage	Secondary		Test Vols (Rac)	* Mag. Type	Mag. Centers	Dimensions			Wt. Lbs.
		Volts	Amps.				H	W	D	
1F89	115	5.0 5.0CT	4 5	1,500 1,500	GGV	2 1/2 x 2 3/8	3 7/8	3 9/32	3 1/2	6
5F87	105/115/125	6.3CT 6.3	3 1	1,500 1,500	THV	2 11/16 x 1 3/4	3 3/8 x	3	2 1/2	2 7/8
5F26	115	12.6CT 6.3CT	1.25 2	2,500 1,500	UTV	1 5/32 x 1 5/32	2	1 1/2	1 1/2	.5
1F161	107/117	6.3 6.3	6 6	7,500 7,500	BAH	3 1/8	2 1/4	3 11/16	2 1/2	5
5F36	115	6.3CT	3	1,500	KTH	2 3/8 x 2	1 7/8	2 13/16	1 3/4	1
1F134	117	6.3 .075	3 5	1,000 1,500	8AV	2 3/8	1 5/8	2 13/16	1 3/8	.5
1F88	115	6.3 6.3	.75 1.75	1,500 1,500	GGV	2 x 1 1/4	3 1/8	3 7/8	3	3.5
4F83	117	6.3CT 6.3	1.75 3	1,500 5,000	GGV	3 1/8	3	3 5/8	2 1/2	2
1F17	117	6.3CT 6.3	3 3	5,000 5,000	BAV	2 x 1 7/8	3 3/32	2 11/32	2 5/8	2.5
5F91	105/115/125	6.3CT 6.3CT	3 3	1,500 2,500	THV	3 1/8 x 2	3 9/16	2 1/2	2 7/8	3.5
1F24	117	6.3 6.3	3 3	2,500 2,500	GGV	2 1/2 x 2 1/4	3 7/8	3 1/4	3 3/8	5
5F97	105/157/ 210/220/ 230	6.3 6.3 6.5	3 3 5	2,500 2,500	NIV	2 3/8	3 3/4	3	3	3
25F34	105/115	6.3CT 6.5	5 5	3,000	YTH	3 7/8 x 2 7/16	3 3/4	3 1/8	4 1/2	4.5
26169	117	6.3 6.3	3 6	1,400 1,400	HGR	2 1/4 x 1 3/16	3 1/4	3 3/8	2 7/8	3
21F11	117	6.3CT 6.3CT	6 6	2,500 2,500	GGV	2 1/2 x 2 3/16	3 7/8	3 1/8	3 1/2	4.8
25F92	105/115/125	6.3CT 6.3CT	6 6	2,500 2,500	THV	3 7/8 x 2 3/4	4 5/16	4 7/16	3 11/16	6.5
25F18	105/115	7.5CT	10	3,000	KTH	3 7/8 x 2 7/16	3 3/4	3 1/8	4 1/2	4.5
21F29	117	10.0CT 11.0CT	12 11	5,000 2,500	CAV	2 1 1/2 x 2 1/4	3 7/8	3 1/8	2 7/8	6
25F37	115	12.6 12.6	2 2	1,500 1,500	KTH	3 5/8 x 3 1/8	2 15/16	4 1/8	2 5/16	3
21F90	115	12.6 12.6	2.5 2.5	1,500 1,500	GGV	2 1 1/4 x 2	3 1/2	3	3 1/8	3.7
21F91	105/115/125	12.6CT	3	2,500	GGV	2 1/2 x 2 3/8	3 7/8	3 7/32	3 1/2	6
25F10	105/115/ 105/117	12.6CT 14.1/110	10 10	2,000 2,000	KTH	4 7/8 x 3 3/32	4 5/8	4 5/8	5 1/2	8
25F85	105/115/ 210/220/230	14.1/110 14.1/110	10 10	4,000 4,000	NIV	4 2 1/2 x 1 7/8	5 1/2	5 1/8	5 1/8	15.3
26F64	117	6.3 6.3	25 1.2	350 1,500	GGV	2 x 1 3/4	3 1/8	2 3/8	2 3/4	3.5

††† Industrial Rating – Use 7 Amps. for Military Rating

* Automotive Winding

† Industrial Rating – Use 2 Amps. for Military Rating

† Industrial Rating – Use 2 Amps. for Military Rating

(g) Best winding method – 7 Amps. for Industrial applications

* Two units may be Scott connected to provide two

* Industrial Rating – Use .6 Amps. for Military Rating

† Scott Connection

Industrial Rating – Use 10 Amps. for Military Rating

† Industrial Rating – Use 20 Amps. for Military Rating

(e) Terminals located opposite mounting stud

† Secondary voltage changed by means of primary taps

* Industrial Rating – Use 5 Amps. for Military Rating

Industrial Rating – Use 20 Amps. for Military Rating

(d) 60 Cycles only

Power Transformers PRIMARY 117 VOLTS 50/60 CYCLES

No.	Plate Supply		Rectifier Filter		Other R's		Wt. Type	Mag. Centers	Dimensions				Wt. lbs.
	Volts	MA DC	Volts	Amper.	Volts	Amper.			H	W	D	L	
48150	1	Any DC voltage from 15 to 100 volts 40% 250ma					NIV 3 x 3	4/12	3/3 1/4	3/4	6.5	3	
48151	1	Any DC voltage from 75 to 400 volts 40% 250ma					NIV 4 1/4 x 1 1/4	3/12	3/7 1/8	3/4	15.5	3	
48152	2	50-30	2.5A		6.3	1.5	GGV 2 3/4 x 2 1/16	4/16	3/8	3/16	6	3	
48153	2	40-40	2A		6.3	1.5	GGV 2 3/4 x 2 1/16	4/16	3/8	4/16	6.5	3	
48154	2	50-50	1.6A		6.3	1.5	GGV 2 3/4 x 2 1/16	4/16	3/8	3/16	6	3	
48155	2	62-62	30		17.6CT	1.8	BAH 2 1/8 x 1/2	2	3/4	1/4	7	2	
48156	2	100-100	800		6.3	2	GGV 2 3/4 x 2 1/16	4/16	3/8	4/16	6	3	
48157	2	115-115	40		6.3CT	1.5	GGV 1 3/4 x 1 5/8	2 3/8	2 1/16	3/8	1.78	2	
48158	2	120-120	75		6.3	2	GGV 1 3/4 x 1 3/4	2 5/8	2 1/16	1/2	1.5	2	
48159	2	120-125	250	3	12.5	1.5	GGV 2 1/2 x 1 5/16	3/16	3/4	1/8	2.2	2	
48160	2	123-125	22		6.3	1.8	GGV 1 3/4 x 1 3/4	1 7/8	2 5/8	2 3/8	1.75	2	
					12.5	1.5							
48161	2	125-125	23		6.3	1.8	BAV 2 3/8	2 3/8	2 7/8	1 3/4	1.0	2	
48162	2	125-125	23		6.3	1.8	BAV 2 3/8	2 3/8	2 7/8	1 3/4	1.0	2	
48163	2	125-125	23		6.3	1.8	BAV 2 3/8	2 3/8	2 7/8	1 3/4	1.0	2	
48164	2	125-125	23		6.3	1.8	BAV 2 3/8	2 3/8	2 7/8	1 3/4	1.0	2	
48165	2	125-125	23		6.3	1.8	BAV 2 3/8	2 3/8	2 7/8	1 3/4	1.0	2	
48166	2	125-125	23		6.3	1.8	BAV 2 3/8	2 3/8	2 7/8	1 3/4	1.0	2	
48167	2	125-125	23		6.3	1.8	BAV 2 3/8	2 3/8	2 7/8	1 3/4	1.0	2	
48168	2	125-125	23		6.3	1.8	BAV 2 3/8	2 3/8	2 7/8	1 3/4	1.0	2	
48169	2	125-125	23		6.3	1.8	BAV 2 3/8	2 3/8	2 7/8	1 3/4	1.0	2	
48170	2	125-125	23		6.3	1.8	BAV 2 3/8	2 3/8	2 7/8	1 3/4	1.0	2	
48171	2	125-125	23		6.3	1.8	BAV 2 3/8	2 3/8	2 7/8	1 3/4	1.0	2	
48172	2	125-125	23		6.3	1.8	BAV 2 3/8	2 3/8	2 7/8	1 3/4	1.0	2	
48173	2	125-125	23		6.3	1.8	BAV 2 3/8	2 3/8	2 7/8	1 3/4	1.0	2	
48174	2	125-125	23		6.3	1.8	BAV 2 3/8	2 3/8	2 7/8	1 3/4	1.0	2	
48175	2	125-125	23		6.3	1.8	BAV 2 3/8	2 3/8	2 7/8	1 3/4	1.0	2	
48176	2	125-125	23		6.3	1.8	BAV 2 3/8	2 3/8	2 7/8	1 3/4	1.0	2	
48177	2	125-125	23		6.3	1.8	BAV 2 3/8	2 3/8	2 7/8	1 3/4	1.0	2	
48178	2	125-125	23		6.3	1.8	BAV 2 3/8	2 3/8	2 7/8	1 3/4	1.0	2	
48179	2	125-125	23		6.3	1.8	BAV 2 3/8	2 3/8	2 7/8	1 3/4	1.0	2	
48180	2	125-125	23		6.3	1.8	BAV 2 3/8	2 3/8	2 7/8	1 3/4	1.0	2	
48181	2	125-125	23		6.3	1.8	BAV 2 3/8	2 3/8	2 7/8	1 3/4	1.0	2	
48182	2	125-125	23		6.3	1.8	BAV 2 3/8	2 3/8	2 7/8	1 3/4	1.0	2	
48183	2	125-125	23		6.3	1.8	BAV 2 3/8	2 3/8	2 7/8	1 3/4	1.0	2	
48184	2	125-125	23		6.3	1.8	BAV 2 3/8	2 3/8	2 7/8	1 3/4	1.0	2	
48185	2	125-125	23		6.3	1.8	BAV 2 3/8	2 3/8	2 7/8	1 3/4	1.0	2	
48186	2	125-125	23		6.3	1.8	BAV 2 3/8	2 3/8	2 7/8	1 3/4	1.0	2	
48187	2	125-125	23		6.3	1.8	BAV 2 3/8	2 3/8	2 7/8	1 3/4	1.0	2	
48188	2	125-125	23		6.3	1.8	BAV 2 3/8	2 3/8	2 7/8	1 3/4	1.0	2	
48189	2	125-125	23		6.3	1.8	BAV 2 3/8	2 3/8	2 7/8	1 3/4	1.0	2	
48190	2	125-125	23		6.3	1.8	BAV 2 3/8	2 3/8	2 7/8	1 3/4	1.0	2	
48191	2	125-125	23		6.3	1.8	BAV 2 3/8	2 3/8	2 7/8	1 3/4	1.0	2	
48192	2	125-125	23		6.3	1.8	BAV 2 3/8	2 3/8	2 7/8	1 3/4	1.0	2	
48193	2	125-125	23		6.3	1.8	BAV 2 3/8	2 3/8	2 7/8	1 3/4	1.0	2	
48194	2	125-125	23		6.3	1.8	BAV 2 3/8	2 3/8	2 7/8	1 3/4	1.0	2	
48195	2	125-125	23		6.3	1.8	BAV 2 3/8	2 3/8	2 7/8	1 3/4	1.0	2	
48196	2	125-125	23		6.3	1.8	BAV 2 3/8	2 3/8	2 7/8	1 3/4	1.0	2	
48197	2	125-125	23		6.3	1.8	BAV 2 3/8	2 3/8	2 7/8	1 3/4	1.0	2	
48198	2	125-125	23		6.3	1.8	BAV 2 3/8	2 3/8	2 7/8	1 3/4	1.0	2	
48199	2	125-125	23		6.3	1.8	BAV 2 3/8	2 3/8	2 7/8	1 3/4	1.0	2	
48200	2	125-125	23		6.3	1.8	BAV 2 3/8	2 3/8	2 7/8	1 3/4	1.0	2	
48201	2	125-125	23		6.3	1.8	BAV 2 3/8	2 3/8	2 7/8	1 3/4	1.0	2	
48202	2	125-125	23		6.3	1.8	BAV 2 3/8	2 3/8	2 7/8	1 3/4	1.0	2	
48203	2	125-125	23		6.3	1.8	BAV 2 3/8	2 3/8	2 7/8	1 3/4	1.0	2	
48204	2	125-125	23		6.3	1.8	BAV 2 3/8	2 3/8	2 7/8	1 3/4	1.0	2	
48205	2	125-125	23		6.3	1.8	BAV 2 3/8	2 3/8	2 7/8	1 3/4	1.0	2	
48206	2	125-125	23		6.3	1.8	BAV 2 3/8	2 3/8	2 7/8	1 3/4	1.0	2	
48207	2	125-125	23		6.3	1.8	BAV 2 3/8	2 3/8	2 7/8	1 3/4	1.0	2	
48208	2	125-125	23		6.3	1.8	BAV 2 3/8	2 3/8	2 7/8	1 3/4	1.0	2	
48209	2	125-125	23		6.3	1.8	BAV 2 3/8	2 3/8	2 7/8	1 3/4	1.0	2	
48210	2	125-125	23		6.3	1.8	BAV 2 3/8	2 3/8	2 7/8	1 3/4	1.0	2	
48211	2	125-125	23		6.3	1.8	BAV 2 3/8	2 3/8	2 7/8	1 3/4	1.0	2	
48212	2	125-125	23		6.3	1.8	BAV 2 3/8	2 3/8	2 7/8	1 3/4	1.0	2	
48213	2	125-125	23		6.3	1.8	BAV 2 3/8	2 3/8	2 7/8	1 3/4	1.0	2	
48214	2	125-125	23		6.3	1.8	BAV 2 3/8	2 3/8	2 7/8	1 3/4	1.0	2	
48215	2	125-125	23		6.3	1.8	BAV 2 3/8	2 3/8	2 7/8	1 3/4	1.0	2	
48216	2	125-125	23		6.3	1.8	BAV 2 3/8	2 3/8	2 7/8	1 3/4	1.0	2	
48217	2	125-125	23		6.3	1.8	BAV 2 3/8	2 3/8	2 7/8	1 3/4	1.0	2	
48218	2	125-125	23		6.3	1.8	BAV 2 3/8	2 3/8	2 7/8	1 3/4	1.0	2	
48219	2	125-125	23		6.3	1.8	BAV 2 3/8	2 3/8	2 7/8	1 3/4	1.0	2	
48220	2	125-125	23		6.3	1.8	BAV 2 3/8	2 3/8	2 7/8	1 3/4	1.0	2	
48221	2	125-125	23		6.3	1.8	BAV 2 3/8	2 3/8	2 7/8	1 3/4	1.0	2	
48222	2	125-125	23		6.3	1.8	BAV 2 3/8	2 3/8	2 7/8	1 3/4	1.0	2	
48223	2	125-125	23		6.3	1.8	BAV 2 3/8	2 3/8	2 7/8	1 3/4	1.0	2	
48224	2	125-125	23		6.3	1.8	BAV 2 3/8	2 3/8	2 7/8	1 3/4	1.0	2	
48225	2	125-125	23		6.3	1.8	BAV 2 3/8	2 3/8	2 7/8	1 3/4	1.0	2	
48226	2	125-125	23		6.3	1.8	BAV 2 3/8	2 3/8	2 7/8	1 3/4	1.0	2	
48227	2	125-125	23		6.3	1.8	BAV 2 3/8	2 3/8	2 7/8	1 3/4	1.0	2	
48228	2	125-125	23		6.3	1.8	BAV 2 3/8	2 3/8	2 7/8	1 3/4	1.0	2	
48229	2	125-125	23		6.3	1.8	BAV 2 3/8	2 3/8	2 7/8	1 3/4	1.0	2	
48230	2	125-125	23		6.3	1.8	BAV 2 3/8	2 3/8	2 7/8	1 3/4	1.0	2	
48231	2	125-125	23		6.3	1.8	BAV 2 3/8	2 3/8	2 7/8	1 3/4	1.0	2	
48232	2	125-125	23		6.3	1.8	BAV 2 3/8	2 3/8	2 7/8	1 3/4	1.0	2	
48233	2	125-125	23		6.3	1.8	BAV 2 3/8	2 3/8	2 7/8	1 3/4	1.0	2	
48234	2	125-125	23		6.3	1.8	BAV 2 3/8	2 3/8	2 7/8	1 3/4	1.0	2	
48235	2	125-125	23		6.3	1.8	BAV 2 3/8	2 3/8	2 7/8	1 3/4	1.0	2	
48236	2	125-125	23		6.3	1.8	BAV 2 3/8	2 3/8	2 7/8	1 3/4	1.0	2	
48237	2	125-125	23		6.3	1.8	BAV 2 3/8	2 3/8	2 7/8	1 3/4	1.0	2	
48238	2	125-125	23		6.3	1.8	BAV 2 3/8	2 3/8	2 7/8	1 3/4	1.0	2	
48239	2	125-125	23		6.3	1.8	BAV 2 3/8	2 3/8	2 7/8	1 3/4	1.0	2	
48240	2	125-125	23		6.3	1.8	BAV 2 3/8	2 3/8	2 7/8	1 3/4	1.0	2	
48241	2	125-125	23		6.3	1.8	BAV 2 3/8	2 3/8	2 7/8	1 3/4	1.0	2	
48242	2	125-125	23		6.3	1.8	BAV 2 3/8	2 3/8	2 7/8	1 3/4	1.0	2	
48243	2	125-125	23		6.3	1.8	BAV 2 3/8	2 3/8	2 7/8	1 3/4	1.0	2	
48244	2	125-125	23		6.3	1.8	BAV 2 3/8	2 3/8	2 7/8	1 3/4	1.0	2	
48245	2	125-125	23		6.3	1.8	BAV 2 3/8	2 3/8	2 7/8	1 3/4	1.0	2	
48246	2	125-125	23		6.3	1.8	BAV 2 3/8	2 3/8	2 7/8	1 3/4	1.0	2	
48247	2	125-125	23		6.3	1.8	BAV 2 3/8	2 3/8	2 7/8	1 3/4	1.0	2	
48248	2	125-125	23		6.3	1.8	BAV 2 3/8	2 3/8	2 7/8	1 3/4	1.0	2	
48249	2	125-125	23		6.3	1.8	BAV 2 3/8	2 3/8	2 7/8	1 3/4	1.0	2	
48250	2	125-125	23		6.3	1.8	BAV 2 3/8	2 3/8	2 7/8	1 3/4	1.0	2	
48251	2	125-125	23		6.3	1.8	BAV 2 3/8	2 3/8	2 7/8	1 3/4	1.0	2	
48252	2	125-125	23		6.3	1.8	BAV 2 3/8	2 3/8	2 7/8	1 3/4	1.0	2	
48253	2	125-125	23		6.3	1.8	BAV 2 3/8	2 3/8	2 7/8	1 3/4	1.0	2	
48254	2	125-125	23		6.3	1.8							

Part No.	Notes	Plate Supply		Exciter/Fil		Other Fil.		Wtype	Atmp.	Dimensions				Wt. Lbs.
		Volts	Amperes	Volts	Amperes	Volts	Amperes			H	W	D		
24816		240-240	50	6	6.3	GGV	3 x 19/16		3/16	2.58	2.58	3	2.5	
24817		240-240	50	6	6.3	GGV	3 x 17/8		3/16	2.58	2.58	3	2.5	
24819		240-240	55	5	2	6.3C1	GGV 3 x 1/2		3/16	2.58	2.58	3	2.5	
24820		240-240	55	5	2	6.3C1	GGV 3 x 1/2		3/16	2.58	2.58	3	2.5	
24822		240-240	70	5	2	6.3C1	GGV 3 x 1/2		3/16	2.58	2.58	3	2.5	
24823		240-240	70	5	2	6.3C1	GGV 3 x 1/2		3/16	2.58	2.58	3	2.5	
24824		240-240	70	5	2	6.3C1	GGV 3 x 1/2		3/16	2.58	2.58	3	2.5	
24825		240-240	70	5	2	6.3C1	GGV 3 x 1/2		3/16	2.58	2.58	3	2.5	
24826		240-240	70	5	2	6.3C1	GGV 3 x 1/2		3/16	2.58	2.58	3	2.5	
24827		240-240	70	5	2	6.3C1	GGV 3 x 1/2		3/16	2.58	2.58	3	2.5	
24828		240-240	70	5	2	6.3C1	GGV 3 x 1/2		3/16	2.58	2.58	3	2.5	
24829		240-240	70	5	2	6.3C1	GGV 3 x 1/2		3/16	2.58	2.58	3	2.5	
24830		240-240	70	5	2	6.3C1	GGV 3 x 1/2		3/16	2.58	2.58	3	2.5	
24831		240-240	70	5	2	6.3C1	GGV 3 x 1/2		3/16	2.58	2.58	3	2.5	
24832		240-240	70	5	2	6.3C1	GGV 3 x 1/2		3/16	2.58	2.58	3	2.5	
24833		240-240	70	5	2	6.3C1	GGV 3 x 1/2		3/16	2.58	2.58	3	2.5	
24834		240-240	70	5	2	6.3C1	GGV 3 x 1/2		3/16	2.58	2.58	3	2.5	
24835		240-240	70	5	2	6.3C1	GGV 3 x 1/2		3/16	2.58	2.58	3	2.5	
24836		240-240	70	5	2	6.3C1	GGV 3 x 1/2		3/16	2.58	2.58	3	2.5	
24837		240-240	70	5	2	6.3C1	GGV 3 x 1/2		3/16	2.58	2.58	3	2.5	
24838		240-240	70	5	2	6.3C1	GGV 3 x 1/2		3/16	2.58	2.58	3	2.5	
24839		240-240	70	5	2	6.3C1	GGV 3 x 1/2		3/16	2.58	2.58	3	2.5	
24840		240-240	70	5	2	6.3C1	GGV 3 x 1/2		3/16	2.58	2.58	3	2.5	
24841		240-240	70	5	2	6.3C1	GGV 3 x 1/2		3/16	2.58	2.58	3	2.5	
24842		240-240	70	5	2	6.3C1	GGV 3 x 1/2		3/16	2.58	2.58	3	2.5	
24843		240-240	70	5	2	6.3C1	GGV 3 x 1/2		3/16	2.58	2.58	3	2.5	
24844		240-240	70	5	2	6.3C1	GGV 3 x 1/2		3/16	2.58	2.58	3	2.5	
24845		240-240	70	5	2	6.3C1	GGV 3 x 1/2		3/16	2.58	2.58	3	2.5	
24846		240-240	70	5	2	6.3C1	GGV 3 x 1/2		3/16	2.58	2.58	3	2.5	
24847		240-240	70	5	2	6.3C1	GGV 3 x 1/2		3/16	2.58	2.58	3	2.5	
24848		240-240	70	5	2	6.3C1	GGV 3 x 1/2		3/16	2.58	2.58	3	2.5	
24849		240-240	70	5	2	6.3C1	GGV 3 x 1/2		3/16	2.58	2.58	3	2.5	
24850		240-240	70	5	2	6.3C1	GGV 3 x 1/2		3/16	2.58	2.58	3	2.5	
24851		240-240	70	5										

[illegible]

Mtg. Type	Mtg. Centers	Dimensions			Wt. Lbs.	Part No.	Primary Voltage	Secondary		Test Volts RMS (Sec.)
		H	W	D				Volts	Amps.	

0/60 cycles

No.	Primary Voltage	Secondary Volts	Amps.	Test Volts (M.Sec.)	Rel. Pk. Type	Mfg. Centers	H	W	D	Wh. Lbs.
IF101	117	2.5	1.5	2,500	BAH	2/3/8	1/3/8	2/7/8	1/1/2	7
IF105	117	2.5CT	2	2,500	BAH	2/3/8	1/5/8	2/7/8	1/1/2	7
IF107	107/117	2.5CT	5	2,500	BAH	2/3/8	1/2/8	2 1/2 1/2	1/1/2	7
IF110	117	2.5CT	3	1,500	BAH	2/3/8	1/5/8	2/7/8	1/3/4	6
IF120	117	2.5CT	5	2,500	BAV	2/3/8	2/3/8	2/7/8	1/3/4	6
IF121	117	2.5CT	5	2,500	BAV	2/3/8	2/3/8	2/7/8	1/3/4	6
IF122	107/105/200/220	2.5CT	5	20,000	CAV	2/1/4 x 2 3/4	3/4	1/8	2 3/4	3.5
IF125	115/230	2.5CT	5.25	3,500	BAH	2/1/8 x 1/3/4	3/1/8	3/8	2 1/2	2
IF126	117	2.5CT	5	2,500	BAH	2/3/8	2/3/8	2/5/8	1/3/4	6
IF102	107/117	2.5CT	6	2,500	BAH	2 x 1/7/16	3/3/16	5/8	2/8	2.5
IF106	105/115	2.5CT	10	1,500	KTH-C	3/1/4 x 2 3/4	2/1/2	3/4	2/5/8	2
IF108	117	2.5CT	10	2,500	BAH	2/3/8	2/3/8	2/5/8	1/3/4	6
IF101	107/117	2.5CT	10	9,500	BAV	2/13/16	2/11/16	3/5/16	2	1.5
IF103	107/117	2.5CT	10	7,500	BAH	2/3/8	3/1/8	3/5/8	2 1/2	3.5
IF104	107/117	2.5CT	10	7,500	GGV	2 1/4 x 3/4	3/4	3/8	2 1/2	3.5
IF107	115/230	2.5CT	10	2,500	NTV	3/1/8 x 2	3/3/4	2/7/8	3/1/2	3
IF109	105/115/230	2.5CT	10	6,000	NTV	2/1/16 x 2 1/16	4/18	1/7/16	3/7/16	5
IF102	117	2.5CT	10	7,500	WAV	2/3/8 x 2/3/4	4/4/4	3	3/3/8	8.5
IF103	117	2.5CT	10	10,000	CAV	2 1/4 x 3/4	3/7/8	2/1/2	2/1/4	2.75
IF104	117	2.5CT	10	10,000	RTH-E	2/1/8 x 2 1/2	3/3/4	3/1/8	4/1/2	4.5
IF105	115/210	2.5CT	10	10,000	RTH-E	3/8 x 2 7/16	3/3/4	3/1/8	4/1/2	4.5
IF120	105/115/230	2.5CT	10	11,000	NTV	3 x 3	4/1/2	3/4	3/4	6.5
IF121	115/230	2.5CT	15	9,000	ITV	3/7/8 x 2 3/4	4/1/4	3/5/8	4/7/8	6
IF103	117	2.5CT	16	5,000	BAH	2/3/8	2/1/4	3/11/16	1/7/8	1.75
IF105	115/230	2.5CT	20	10,000	KTH-E	3/7/8 x 2 3/4	3/4	3/1/8	1/2	4.5
IF112	117	2.5	3	1,500	CTH	4/1/8 x 2 1/8	4/1/8	2/7/8	2/1/2	5
IF122	117	5.0CT	2.5	1,500	BAH	2/3/8	2/1/2	4/7/8	2/1/2	5
IF123	117	5.0CT	3	1,500	BAH	2/3/8	2	5/16	1/2	1.3
IF124	117	5.0CT	3	2,500	BAV	2/3/8	2/3/8	2/7/8	1/3/4	6
IF125	117	5.0CT	3	2,500	BAV	2/3/8	2/3/8	2/7/8	1/3/4	6
IF126	117	5.0CT	3	5,000	GGV	2 1/2 x 1/2	3/1/8	2/5/8	1/2	2.5
IF105	117	5.0CT	3	10,000	CAV	2 1/4 x 3/4	3/1/8	2/1/4	2/1/2	2.5
IF106	105/115	5.0CT	4	2,500	CAV	3/1/8 x 2 1/2	3/1/8	2/1/2	3/2	2
IF120	115/230	5.0CT	4	15,000	BAH	2 1/4 x 2 1/16	3/1/8	2/1/2	3	3
IF107	117	5.0CT	6	1,500	BAH	3/1/8	2/1/4	3/11/16	2/1/8	1/7
IF108	107/117	5.0CT	6	2,500	BAH	2/3/8	2/3/8	2/5/8	1/3/4	6
IF130	117	5.0CT	6	2,500	BAH	2/3/8	2/3/8	2/5/8	1/3/4	6
IF132	117	5.0CT	6	2,500	BAH	2/3/8	2/3/8	2/5/8	1/3/4	6
IF133	105	5	6.5	35,500	CTV	6/7/8 x 3/5/8	9/14	7/5/8	4/1/2	30
IF134	135/230/250	5.0CT	8	2,500	BAH	3/7/8 x 2 1/2	4/1/4	3/5/16	5/16	2.5
IF113	117	5.0CT	8	2,500	BAH	2/3/8	2/1/6	2/9/16	4	2.5
IF115	117	5.0CT	8	2,500	CAV	2 1/4 x 3/4	3/1/8	2/1/4	2/1/2	2.5
IF116	117	5.0CT	8	2,500	CAV	2 1/4 x 3/4	3/1/8	2/1/4	2/1/2	2.5
IF117	117	5.0CT	8	2,500	CAV	2 1/4 x 3/4	3/1/8	2/1/4	2/1/2	2.5
IF118	117	5.0CT	8	2,500	CAV	2 1/4 x 3/4	3/1/8	2/1/4	2/1/2	2.5
IF119	117	5.0CT	8	2,500	CAV	2 1/4 x 3/4	3/1/8	2/1/4	2/1/2	2.5
IF127	107/117	5.0CT	10	40,500	LV-1	2/7/8 x 5/16/7/8	7/16	5/8	8/12	12.5
IF128	107/117	5.0CT	14	10,000	ITV	2/3/4 x 6	5/1/8	4/5/8	8/12	12.5
IF129	117	5.0CT	15	2,500	LAH	2 x 2 1/4	3/1/8	2/1/2	2/2/8	3.5
IF130	117	5.0CT	15	2,500	LAH	2 x 2 1/4	3/1/8	2/1/2	2/2/8	3.5
IF131	117	5.0CT	15	2,500	LAH	2 x 2 1/4	3/1/8	2/1/2	2/2/8	3.5
IF132	117	5.0CT	15	2,500	LAH	2 x 2 1/4	3/1/8	2/1/2	2/2/8	3.5
IF133	117	5.0CT	15	2,500	LAH	2 x 2 1/4	3/1/8	2/1/2	2/2/8	3.5
IF134	117	5.0CT	15	2,500	LAH	2 x 2 1/4	3/1/8	2/1/2	2/2/8	3.5
IF135	117	5.0CT	15	2,500	LAH	2 x 2 1/4	3/1/8	2/1/2	2/2/8	3.5
IF136	117	5.0CT	15	2,500	LAH	2 x 2 1/4	3/1/8	2/1/2	2/2/8	3.5
IF137	117	5.0CT	15	2,500	LAH	2 x 2 1/4	3/1/8	2/1/2	2/2/8	3.5
IF138	117	5.0CT	15	2,500	LAH	2 x 2 1/4	3/1/8	2/1/2	2/2/8	3.5
IF139	117	5.0CT	15	2,500	LAH	2 x 2 1/4	3/1/8	2/1/2	2/2/8	3.5
IF140	117	5.0CT	15	2,500	LAH	2 x 2 1/4	3/1/8	2/1/2	2/2/8	3.5
IF141	117	5.0CT	15	2,500	LAH	2 x 2 1/4	3/1/8	2/1/2	2/2/8	3.5
IF142	117	5.0CT	15	2,500	LAH	2 x 2 1/4	3/1/8	2/1/2	2/2/8	3.5
IF143	117	5.0CT	15	2,500	LAH	2 x 2 1/4	3/1/8	2/1/2	2/2/8	3.5
IF144	117	5.0CT	15	2,500	LAH	2 x 2 1/4	3/1/8	2/1/2	2/2/8	3.5
IF145	117	5.0CT	15	2,500	LAH	2 x 2 1/4	3/1/8	2/1/2	2/2/8	3.5
IF146	117	5.0CT	15	2,500	LAH	2 x 2 1/4	3/1/8	2/1/2	2/2/8	3.5
IF147	117	5.0CT	15	2,500	LAH	2 x 2 1/4	3/1/8	2/1/2	2/2/8	3.5
IF148	117	5.0CT	15	2,500	LAH	2 x 2 1/4	3/1/8	2/1/2	2/2/8	3.5
IF149	117	5.0CT	15	2,500	LAH	2 x 2 1/4	3/1/8	2/1/2	2/2/8	3.5
IF150	117	5.0CT	15	2,500	LAH	2 x 2 1/4	3/1/8	2/1/2	2/2/8	3.5
IF151	117	5.0CT	15	2,500	LAH	2 x 2 1/4	3/1/8	2/1/2	2/2/8	3.5
IF152	117	5.0CT	15	2,500	LAH	2 x 2 1/4	3/1/8	2/1/2	2/2/8	3.5
IF153	117	5.0CT	15	2,500	LAH	2 x 2 1/4	3/1/8	2/1/2	2/2/8	3.5
IF154	117	5.0CT	15	2,500	LAH	2 x 2 1/4	3/1/8	2/1/2	2/2/8	3.5
IF155	117	5.0CT	15	2,500	LAH	2 x 2 1/4	3/1/8	2/1/2	2/2/8	3.5
IF156	117	5.0CT	15	2,500	LAH	2 x 2 1/4	3/1/8	2/1/2	2/2/8	3.5
IF157	117	5.0CT	15	2,500	LAH	2 x 2 1/4	3/1/8	2/1/2	2/2/8	3.5
IF158	117	5.0CT	15	2,500	LAH	2 x 2 1/4	3/1/8	2/1/2	2/2/8	3.5
IF159	117	5.0CT	15	2,500	LAH	2 x 2 1/4	3/1/8	2/1/2	2/2/8	3.5
IF160	117	5.0CT	15	2,500	LAH	2 x 2 1/4	3/1/8	2/1/2	2/2/8	3.5
IF161	117	5.0CT	15	2,500	LAH	2 x 2 1/4	3/1/8	2/1/2	2/2/8	3.5
IF162	117	5.0CT	15	2,500	LAH	2 x 2 1/4	3/1/8	2/1/2	2/2/8	3.5
IF163	117	5.0CT	15	2,500	LAH	2 x 2 1/4	3/1/8	2/1/2	2/2/8	3.5
IF164	117	5.0CT	15	2,500	LAH	2 x 2 1/4	3/1/8	2/1/2	2/2/8	3.5
IF165	117	5.0CT	15	2,500	LAH	2 x 2 1/4	3/1/8	2/1/2	2/2/8	3.5
IF166	117	5.0CT	15	2,500	LAH	2 x 2 1/4	3/1/8	2/1/2	2/2/8	3.5
IF167	117	5.0CT	15	2,500	LAH	2 x 2 1/4	3/1/8	2/1/2	2/2/8	3.5
IF168	117	5.0CT	15	2,500	LAH	2 x 2 1/4	3/1/8	2/1/2	2/2/8	3.5
IF169	117	5.0CT	15	2,500	LAH	2 x 2 1/4	3/1/8	2/1/2	2/2/8	3.5
IF170	117	5.0CT	15	2,500	LAH	2 x 2 1/4	3/1/8	2/1/2	2/2/8	3.5
IF171	117	5.0CT	15	2,500	LAH	2 x 2 1/4	3/1/8	2/1/2	2/2/8	3.5
IF172	117	5.0CT	15	2,500	LAH	2 x 2 1/4	3/1/8	2/1/2	2/2/8	3.5
IF173	117	5.0CT	15	2,500	LAH	2 x 2 1/4	3/1/8	2/1/2	2/2/8	3.5
IF174	117	5.0CT	15	2,500	LAH	2 x 2 1/4	3/1/8	2/1/2	2/2/8	3.5
IF175	117	5.0CT	15	2,500	LAH	2 x 2 1/4	3/1/8	2/1/2	2/2/8	3.5
IF176	117	5.0CT	15	2,500	LAH	2 x 2 1/4	3/1/8	2/1/2	2/2/8	3.5
IF177	117	5.0CT	15	2,500	LAH	2 x 2 1/4	3/1/8	2/1/2	2/2/8	3.5
IF178	117	5.0CT	15	2,500	LAH	2 x 2 1/4	3/1/8	2/1/2	2/2/8	3.5
IF179	117	5.0CT	15	2,500	LAH	2 x 2 1/4	3/1/8	2/1/2	2/2/8	3.5
IF180	117	5.0CT	15	2,500	LAH	2 x 2 1/4	3/1/8	2/1/2	2/2/8	3.5
IF181	117	5.0CT	15	2,500	LAH	2 x 2 1/4	3/1/8	2/1/2	2/2/8	3.5
IF182	117	5.0CT	15	2,500	LAH	2 x 2 1/4	3/1/8	2/1/2	2/2/8	3.5
IF183	117	5.0CT	15	2,500	LAH	2 x 2 1/4	3/1/8	2/1/2	2/2/8	3.5
IF184	117	5.0CT	15	2,500	LAH	2 x 2 1/4	3/1/8	2/1/2	2/2/8	3.5
IF185	117	5.0CT	15	2,500	LAH	2 x 2 1/4	3/1/8	2/1/2	2/2/8	3.5
IF186	117	5.0CT	15	2,500	LAH	2 x 2 1/4	3/1/8	2/1/2	2/2/8	3.5
IF187	117	5.0CT	15	2,500	LAH	2 x 2 1/4	3/1/8	2/1/2	2/2/8	3.5
IF188	117	5.0CT	15	2,500	LAH	2 x 2 1/4	3/1/8	2/1/2	2/2/8	3.5
IF189	117	5.0CT	15	2,500	LAH	2 x 2 1/4	3/1/8	2/1/2	2/2/8	3.5
IF190	117	5.0CT	15	2,500	LAH	2 x 2 1/4	3/1/8	2/1/2	2/2/8	3.5
IF191	117	5.0CT	15	2,500	LAH	2 x 2 1/4	3/1/8	2/1/2	2/2/8	3.5
IF192	117	5.0CT	15	2,500	LAH	2 x 2 1/4	3/1/8	2/1/2	2/2/8	3.5
IF193	117	5.0CT	15	2,500	LAH	2 x 2 1/4	3/1/8	2/1/2	2/2/8	3.5
IF194	117	5.0CT	15	2,500	LAH	2 x 2 1/4	3/1/8	2/1/2	2/2/8	3.5
IF195	117	5.0CT	15	2,500	LAH	2 x 2 1/4	3/1/8	2/1/2	2/2/8	3.5
IF196	117	5.0CT	15	2,500	LAH	2 x 2 1/4	3/1/8	2/1/2	2/2/8	3.5
IF197	117	5.0CT	15	2,500	LAH	2 x 2 1/4	3/1/8	2/1/2	2/2/8	

1106	115(a)	6.3	.5	1,500	BAH	2	1 3/8	2 3/8	1 1/4	.3
1F127	250(a)	6.3	.6	1,500	BAH	2	1 3/8	2 3/8	1 1/4	.3
1E21	117	6.3	.6	2,500	BAH	2	1 3/8	2 3/8	1 1/4	.2

[illegible]

3	2
2	1.25

1974	117	6.3	4	2,500	BAH	2.1/1.6	2.9/1.6	4	2.1/4	2.1
1975	107/17	6.3CT	4	2,500	GGV	2.1/2.16	3.1/8	2.5/8	2.5/8	2.5/8
1976	115	6.3CT	4	1,500	NTV	1.5/1.5	2.1/2	2.5/8	2.1/2	2.5/8
	210/220/230									
16105	117	6.3	4.5	1,200	BAV	2.1/1.6	2.1/1.6	2.5/8	2.1/2	4
1979	105/20	6.3CT	5.5	2,500	ITV	2.1/2	3.1/2	2.5/8	2.1/2	4
1972	107/17	6.3CT	6	2,000	LAH	2.1/2	2.1/4	2.5/8	2.1/2	4
1980	107/17/15	6.3	6	2,000	NTV	2.1/2	2.1/4	2.5/8	2.1/2	4
	210/220/230									
	50/60000									
1959	117	6.3CT	6	2,500	UHV	2.1/2	3.1/8	2.7/8	2.1/2	2.5/8
1981	117	6.3CT	6	2,500	CAV	2.1/2	3.1/8	2.7/8	2.1/2	2.5/8
1981	117	6.3	6	2,500	CAV	2.1/2	3.1/8	2.7/8	2.1/2	2.5/8
1982	107/17	6.3CT	6	2,500	GGV	2.1/2.1/4	3.5/8	3	3.1/8	3.5
1983	117	6.3CT	8	3,000	GGV	2.1/2	3.1/8	3.5/8	2.1/2	3.5
1983	117	6.3CT	8	3,000	AGF	2.1/2	3.1/8	3	2.1/2	3.5
1986	117	6.3CT	8	3,000	LAV	2.1/2	2.1/2	2.7/8	2.1/2	3.5
	220	6.3CT	10	1,765	CAV	2.1/2	3.1/8	2.1/2	2.1/2	3.8
1980	117	6.3CT	10	1,765	CAV	2.1/2	3.1/8	2.1/2	2.1/2	3.8
1983	120	6.3CT	15	2,500	LAV	2.1/4	2.3/16	3.1/2	2.7/8	2.3/4
1983	117	6.3CT	10	2,500	GGV	2.1/2	3.1/2	3	3.1/8	3.8
1986	115/20	6.3CT	10	2,500	NTV	2.1/2	3.1/2	3.1/2	3.1/2	3.8
1982	105/15	6.3	10	4,000	NTV	3.1/4	4.1/2	3.3/4	3.3/4	6.3
	210/220/230	7.5								
19137	117	6.3CT	15	2,500	LAH	2.1/3	2.5/8	3.1/2	3	3.8
1977	117	6.3CT	15	10,000	LAV	2.1/3	2.1/3	3.1/2	3.1/2	7.5
1977	107/17	6.3CT	20	2,500	GGV	2.1/2	3.1/2	3.5/8	2.1/2	6.7
1977	117	6.3CT	20	2,500	GGV	2.1/2	3.1/2	3.5/8	2.1/2	6.7
1977	117	6.3CT	25	3,000	UHV	3.1/2	4.5/8	3.1/2	3.1/2	7.5
	220	6.3CT								
1982	115/20	6.3CT	20	2,800	UHV	2.3/16	5.3/16	4.1/16	7.1/16	17
1984	117	6.3CT	30	2,500	BITV	2.2/8	2.3/8	2.7/8	7.1/16	17
1984	117	7.5CT	3	2,500	BITV	2.1/16	3.3/16	3.3/16	3.3/16	17

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SECTION 5600

THORDARSON MEISSNER

Power Transformers											
PRIMARY 117 VOLTS 50/60 CYCLES											
Part No.	Notes	Plate Supply		Rectifier Fil.	Other Fil.	Mfg. Type	Mfg. Centers	Dimensions			Wt. Lbs.
		Volts	MADC	Volts	Amper.			H	W	D	
23560	1	600-0-600	250	3	6.3 CT 2 6.3 3	KTH-1	4/27/2 3/25/3 4/5/8	4/5/8	3/1/2	8	
22836		600-0-600	200	5	3 6.3 3	GGV	3 x 3/8	4/5/8	3/7/8	4/1/2	9.3
24827		600-0-600	200	5	6.3 3 3	GGV	5 x 3/16	4/5/8	3/7/8	4/1/2	8.5
23548		600-325-0-325-0	250	5	6.3 CT 3 6.3 3	NTV	1/18 x 1/18	5/1/2	3/1/8	5/1/8	18.3
23561	1	600-325-0-325-0	300	5	6.3 CT 3 6.3 3	KTH-4	2/25/2 4/3/4	4/5/8	5/3/8	5/3/8	12
24885		617-0-617	250	5	6 6.3 CT 3 6.3 3	GGV	3 x 3/8	4/5/8	4	4/1/4	9
24886		617-0-617	300	5	6 6.3 CT 3 6.3 3	GGV	3/12 x 4/5/8	3/5/16	4/1/2	5/3/8	20
22861		625-0-625	250	5	6 6.3 CT 3 6.3 3	GGV	3/12 x 4/5/8	3/5/16	4/1/2	5/3/8	20
22836		625-0-625	278	5	4 6.3 4	GGV	3/12 x 4/5/8	3/5/16	4/1/2	5/3/8	20
22838		750-0-750	315	5	6 6.3 6	GGV	3/12 x 6/1/8	4/1/2	5/3/16	7/1/8	30

Half-Wave-Power Transformers						PRIMARY 117 VOLTS 50/60 CYCLES					
Part No.	Notes	Plate Supply		Filament Supply	Mfg. Type	Mfg. Centers	Dimensions			Wt. Lbs.	
		Volts	MADC				H	W	D		
25834	23	30	50	6.3 CT 35	288AS	KAV	2 3/8 x 2 3/16	2 5/16	3 1/4	2 3/4	
22829	18 Bins Supply 30 50 300	7.5	100AC 100AC 100AC			FGV	2 3/8 x 2 1/2	2 3/8	2 7/8	1 7/8	.75
24845	85	300	6.3 6.3 6.3 6.3	6.6 6.3 6.3 6.3	HFF	3 x 3 3/4	2 5/16	4 1/2	3 3/4	7	
24855	96	145	6.3 6.3 6.3	6.6 6.3 6.3	AGF	2 3/16	3 1/8	2 1/2	3	2.6	
24844	23 300 Full Wave 15 Full Wave	100 100 600	6.3 6.3 6.3	6.6 6.3 6.3	HFF	3 x 3 3/4	2 15/16	4 1/2	3 3/4	2.5	
24872	137	15	6.3	6.6	BAH	2 3/8	1 5/8	2 13/16	1 5/8	1	
24832	117	20	6.3 CT 2	7	BGV	2	2	1 5/8	2 1/2	1	
24844	117	20	6.3	6.6	AGF	3 1/2	3 1/8	2 1/2	3	2.6	
22834	117	200	6.3 6.3 6.3	1.1 1.1 4.5	BH BH AGF	3/8 3/8 2 3/4 x 2 1/2	2 1/4	3 1/8	2 1/4	2.1	
24845	117	200	6.3 6.3 6.3	4.5 6.3 6.3	AGF	2 3/4 x 2 1/2	3 1/2	3 1/2	4 1/8	5.2	
24855	26 117	400(RMS) 400 24	6.3 6.3 6.3	3 1 1	GGV	2 1/2 x 1 3/4	3 7/8	3 1/8	3 7/8	4.6	

Half-Wave Power Transformers						PRIMARY 117 VOLTS 50/60 CYCLES						
Part No.	Notes	Plate Supply		Filament Supply		Mfg. Type	Mfg. Centers	Dimensions			Wt. Lbs.	
		Volts	MADC	Volts	Amper.			H	W	D		
208106		117/110	900	6.3	10	AGF	2/13/16 x 2/1/8	2/18	3/3/8	13/16	4	
208105		117/110	900	6.3	10	GGH	3/5/16 x 3/3/16	3/1/8	3/3/4	3/3/4	4	
20827		125	15	6.3	6.3	6.6	BAV	2	2	3/8	1/2	2
20828		125	50	6.3	2	6.6	BAH	3/1/8	2/1/4	3/1/8	1/5	1.5
208107		127/115	1,000	12.6 CT	2	AGF	1/18 x 2/1/8	3/1/2	3/3/4	3/1/8	6	
				12.6 CT	2	GGV	2/1/2 x 1/8	3/1/8	3/1/8	3/1/2	6	
				6.3	10	GGH	2/1/2 x 1/8	3/1/8	3/3/4	3/1/2	6	
				6.3	2	6.6						
248111		128	300	6.3	2.5	GGV	2 x 1/3/16	3/1/8	2/1/2	2/7/8	2.2	
24873		130	20	0.5-225-30		GGV	1/3/4 x 2	2/3/4	2/3/8	2/3/4	2	
24867		135	15	6.3	6.3	6.6	HFF	1/1/4	3/4	1/7/8	1/5/8	1
24871		135	50	6.3	1.5	BAH	3/1/8	2/1/4	3/3/8	1/5/8	1.5	
24872		135	200	6.3 CT	1	AGF	2/13/16 x 2/1/8	3/7/8	3/3/4	2/15/16	2.5	
20813		140/117	300	6.3	9	AGF	3 x 3/3/4	3/7/8	3/3/4	4/1/2	7.5	
				6.3	1	6.6						
140/127/115		1,000	6.3	6	AGF	2/14 x 2/1/8	3/1/8	2/13/16	2/3/8	2		
			6.3	6	GGH	2/14 x 2/1/8	3/1/8	2/13/16	2/3/8	2		
			12.6 CT	2	GGH	2/14 x 2/1/8	3/1/2	3/3/8	1/1/8	1.5		
			150	25	6.3	GGV	2	1/4	2/1/2	7/8		
			150	50	6.3	5.5	BAH	3/1/8	2/1/4	3/3/8	1/5	
22801	11	170/160/130	6.3 CT	6	GGV	2/3/4 x 3/3/4	4/1/4	3/5/8	4/7/8	9		
			250 MA Doubler									
22803		184	240			AGF	1/3/4 x 2/3/16	2/3/4	2/3/16	2/3/8	3	
22809	14	Top 92 - 6										
		177	50	6.3	3.5	GGH	3/3/4 x 4/8	3/15/16	4/5/8	5/1/2	17	
		5 (5 Watt)		6.0	5.5							
228120		220	8.5	6.0	3.0	BAH	2/3/8	1/5/8	2/13/16	3/4	.5	
248146	x	300	50	5	2	CHV	2/1/2 x 2/3/8	3/3/4	3/1/8	2/1/2	4.2	
		325-0-325	100	12.6	6							
		6-0-8										
248112		320	13 Plus	6.3	6.3	BHV	2/3/8	2/3/8	2/7/8	1/3/4	1	
			30-MA (RMS)									
248113	8	550	23	6.3	1.5	AGF	2 x 2/1/2	2/3/4	3	2/1/2	2	
				6.3	1.5							
				6.3	1.5	DAF	2 x 2/1/2	2/3/4	2/1/4	2/5/8	1.4	
				6.3	6							
248109	15	550	30	6.3	1.5							
		55	40	6.3	6							

THORDARSON MEISSNER

Isolation Transformers

50/60 CYCLES

Part No.	VA Output	Primary Voltage	Secondary Voltage	Mfg. Type	Mfg. Centers	H	Dimensions W D	Wt. Lbs.
22V133	300	220/240	115	GMV	3 x 3/8	4.5/8	3 15/16 4 1/2	10.2
22V139	350	115	105/115/125	GMV	3 1/2 x 3/8	5.3/8	4 1/2 5 3/8	13
22V140	300	105/115/125	115	GMV	4 3/8 x 1/4	6.3/8	5 3/8 7 5/8	22
22V130	300	210/230/250	115	GMV*	4 5/8 x 1/4	7.3/8	5 3/8 7 1/2	29.8
22V144	600	115	115	GMV	3 x 6	4.5/8	3 7/8 6 1/4	16
22V127	1,000	105/115/125	115	JUV*	4 3/8 x 5/8	9.7/8	6 3/4 8 1/4	38
22V188	1,200	110/120	110/120	GMV	5 5/8 x 5/8	5.7/8	4 1/2 8 1/2	30

* UltraShield - epoxy coated with leads
 † Complete with tap switch

†† Split winding
 ‡ Has octagon outlet box for house wiring connections

Autoformers

50/60 Cycles

These Autoformers provide a smaller and more economical method of changing from 115 to 220 or 220 to 115 Volts. They provide correct line voltages for machine tool control units such as sequence timers, solenoids and lighting systems.

Part No.	VA Output	Primary Voltage	Secondary Voltage	Mfg. Type	Mfg. Centers	H	Dimensions W D	Wt. Lbs.
22V191	40	220	115	GMV	2 1/2 x 1/16	3 1/2	2 11/16 2 7/16	1.3
22V192	50	220	115	BAH	3 1/8	2 1/4	3 5/8	2.2
22V190	50	220/250	110/125	GMV	2 x 3/8	3.0/8	3 1/2 2 7/8	2.2
22V193	60	220	115	GMV	2 x 11/16	3 1/8	2 1/2 3 3/4	2.7
22V202	80	115	220	CAV	3 1/4 x 2 1/4	2.5/8	2 3/16 2 7/8	2
22V181	85	220/240	110/120	GMV	2 x 1/8	3 1/8	2 5/8 2 7/8	4
22V201	100	220/250	110/125	GMV	2 1/2 x 3/4	3 7/8	3 1/4 2 7/8	3
22V211	100	220	115	GMV	2 x 1/2	3 1/2	3	3.1
22V212	100	220/250	110/125	GMV	2 1/2 x 3/8	3 7/16	3 11/16 4 1/16	6.2
22V222	125	220/240	110/120	GMV	3 1/16 x 2 1/4	3 1/8	3 1/2 4	4
22V232	150	220/250	110/125	GMV	2 x 1/2	3 7/8	3 1/4 3 1/8	4
22V122	150	220/250	110/125	GMV	2 1/2 x 4 3/4	3 3/16	4 9/16 1 1/4	9
22V131	175	220/240	110/120	GMV	3 1/2 x 2 1/4	3 7/8	3 1/4 3 3/4	5.5
22V233	220	115	100/220	LHH	2 7/16 x 3 7/16	3.5/8	4 1/8	6
22V223	220	220/250	110/125	GMV	2 x 3/8	4.5/8	3 7/8 3 1/2	6.2
22V232	250	220	115	GMV	2 3/4 x 2 7/8	4 1/4	3 7/8 3 1/2	7
22V233	250	220/250	110/125	GMV	3 1/2 x 4 3/4	5.5/8	4 9/16 1 1/4	8.7
22V240	300	220	115	GMV	3 x 1 1/2	4.5/8	3 7/8 4 1/8	10
22V244	500	220/250	110/125	GMV	3 1/8 x 3/8	4.5/8	3 7/8 4 1/2	10.2
22V154	500	220/250	110/125	GMV	3 1/2 x 5/8	6.1/8	5 5/8 5 1/16	14.3
22V238	600	220	115	GMV	3 x 7/8	4.5/8	4	12
22V273	1,000	230	115	GMV	3 1/2 x 4 1/4	5 1/4	4 3/8 5 3/4	19.3
22V232	1,000	220/250	110/125	JUV†	4 1/4 x 4 3/4	6.5/8	5 5/8 5	20
22V151	1,000	220/250	110/125	GMV	4 1/4 x 6	7 1/16	6 1/2 7 1/2	22
22V201	1,000	120	440	GGV	3 7/16 x 5 5/8	5 3/4	4 1/4 7 1/2	25
22V111	1,200	220/240	110/120	GMV	3 1/2 x 2 1/2	4.5/8	3 7/8 4 1/8	18
22V210	2,000	220	115	GMV	3 1/2 x 6 7/8	5.5/8	4 1/2 7 7/8	33
22V235	2,500	220/240	110/120	JUV	3 7/8 x 9 7/8	6 3/4	4 3/4 10 1/2	30
22V145	2,500	120	115	GMV	4 1/4 x 6 1/2	6.5/8	5 5/8 5	40
22V46	3,000	220	230	GMH	2 1/2 x 3 3/4	4	4 1/2 6	10

‡ Has octagon outlet box for house wiring connections.

‡ VA Ratings are for industrial applications

Line Voltage Regulators-Autoformers

50/60 CYCLES

Part No.	VA Output	Primary Voltage	Secondary Voltage	Mfg. Type	Mfg. Centers	H	Dimensions W D	Wt. Lbs.
22V191	8511	105/115/125/135/150/210/230/250	115	GMV*	2 1/4 x 2 1/4	3 1/2	3 4 5/8	4.5
22V192	150	105/115/125/135/150	115	BWH	3 9/16	2 5/8	4 1/4 2 1/4	2.2
22V192	15011	105/115/125/135/150/210/230/250	115	GMV*	2 1/2 x 2 1/2	4	3 1/4 4 3/4	5.5
22V193	350	95/105/105/110/115/120/125/130	115	GMV	2 3/4 x 2	4 1/4	3 3/8 3 1/4	4.2
22V202	350	85/95/105/105/110/115/120/125	115	GMV*	2 1/2 x 2 3/4	4	3 1/4 5	5
22V203	125	115	90/95/100/105/110/115/120/125/150	LHH	3 1/8 x 3	3 1/8	3 3/4 3 1/4	6
22V201	150	115	25/35/45/55/65/75/85/95/105/110/115/120/125/150	NIV	2 1/16 x 2 1/16	4 1/8	3 7/16 3 7/16	3
22V202	350	115	25/35/45/55/65/75/85/95/105/110/115/120/125/150	NIV	3 x 3	4 1/2	3 3/4 3 3/4	6.5
22V204	500	230	180/190/200/210/230/240/250/260/300/310	CHH	3 1/16 x 2 3/8	3 1/2	4 1/8 3 1/2	7.5
22V205	500	115	25/35/45/55/65/75/85/95/105/110/115/120/125/150	NIV	3 9/16 x 3 9/16	5 1/2	4 1/2 4 1/2	11
22V206	300	230	180/190/200/210/230/240/250/260/300/310	LHH	4 1/16 x 3 1/2	4 1/8	4 7/8 4 1/2	13.5
22V204	1,000	115	25/35/45/55/65/75/85/95/105/110/115/120/125/150	NIV	4 1/4 x 4 1/8	5 1/2	5 1/8 5 1/8	15.5
22V205	2,000	115	25/35/45/55/65/75/85/95/105/110/115/120/125/150	NIV	4 7/8 x 4 7/8	7	5 3/4 5 3/4	22

MTO. TYPE - GMV WITH METER

Line Voltage Regulators-Output

Part No.	VA Output	Primary Voltage	Secondary Voltage	Mfg. Centers	H	Dimensions W D	Wt. Lbs.
22V255	150	95/100/105/110/115/120/125/130	115	3 x 4 1/4	4.5/8	3 15/16 5 3/8	7
22V257	350	95/100/105/110/115/120/125/130	115	3 x 5 5/8	4.5/8	3 15/16 5 3/8	17

Vari Volt Isolation Transformers

COMPLETE WITH TAP SWITCH TO COVER 95 TO 145 V. RANGE

Part No.	Output Range on 117 Volt Line	VA Output (Resistive Load)	Dimensions			Wt. Lbs.
			H	W	D	
22V256	95-145	500	7 1/4	5 7/8	8	25
22V257	95-145	150	5 1/4	6	4 13/16	12

Line Voltage Regulators-Autoformers-With Meter

These Line Voltage Regulators provide the correct voltage to radios, TV sets, air conditioners, refrigerators, deep freezers, automatic washers and many other appliances, even with variation in line voltage of 45-75-90-100-110-120 or 145 volts. They are also useful in altering the 115 volt line above and below the line voltage. An output receptacle and volt meter are internally connected to the 115 volt line. All units are supplied with 4-1/2 line cord and plug. All units have GMV Type Mounting with Meters.

Part No.	VA Output	Input Voltage 50/60 Cycle	Output Voltage	Mfg. Centers	H	Dimensions W D	Wt. Lbs.
22V111	150	45/75/90/100/110/120/145	115	3 x 4 5/16	5 1/8	3 7/8 5 3/8	6.4
22V112	300	45/75/90/100/110/120/145	115	3 x 5 1/16	5 1/2	3 7/8 6 1/8	18.5
22V113	300	45/75/90/100/110/120/145	115	3 x 5 1/16	5 1/2	3 7/8 6 7/8	15
22V114	500	95/100/105/110/115/120/125/130	115	3 x 4 1/8	4.5/8	3 15/16 5 3/4	7.25
22V115	500	45/75/90/100/110/120/145	115	3 1/2 x 5 5/8	4.5/8	4 1/2 8 1/8	19
22V209	1,100	45/75/90/100/110/120/145	115	3 1/2 x 7 3/4	4.5/8	4 1/2 10	25
22V208	1,200	230	†	2 x 7 1/8	4.5/8	3 15/16 10 1/4	21

Dry Type - Distribution

INDOOR - SINGLE PHASE - DOUBLE WOUND - 50/60 CYCLES

D-1 MOUNTING.

DRY TYPE GENERAL PURPOSE TRANSFORMERS are supplied in either double winding isolation or single winding auto-transformer type for 50/60 CFS applications. Either type may be single phase or connected in a group of three for three phase. All units have Class B insulation for 80°C rise except the units marked 2 1/2°C for 55°C rise. Each unit has a knock out for the CASE AND JUNCTION BOX. A stamped steel enclosure encloses the entire coil assembly and presents an attractive appearance. The winding box is an integrated part of the case and provides easy access and wiring to the individually marked primary and secondary terminals. Knock out for the junction box for attaching conduit. Complete with mounting hardware. Wiring diagrams and INSTRUCTIONS are furnished with each unit. On the inside of the junction box cover, a detail shows the schematic diagram and ratings of each transformer.

APPLICATIONS

- To provide 120 Volt Lighting or 120/240 Volt Power from 240-480-600 Volt distribution circuits.
- To isolate or protect lighting circuits from power circuits allowing the use of grounded or ungrounded circuits.
- Independent of power or other lighting circuit grounds.
- The auto-transformers provide a smaller and more economical method of voltage changing. These auto-transformers may be used to obtain 120 Volts from a 240 Volt circuit, to establish a neutral ground from a 240 Volt circuit, or to balance the 120/240 Volt loading on a three phase line to obtain lower demand billing by the utility company.

Part No.	VA Output	Primary Voltage	Secondary Voltage	Wiring Diagram	Mfg. Centers D E	Dimensions A B C	Wt. Lbs.
G-101	50	220/240	115/230	S-1	5 3/8	2 1/2 6 1/4 3 3/16	3
G-102	50	220	115/230	S-2	5 3/8	2 1/2 6 1/4 3 3/16	3
G-103	75	220/240	115/230	S-1	5 3/4	2 1/2 6 1/2 3 3/16	3
G-104	75	220	115/230	S-2	5 3/4	2 1/2 6 1/2 3 3/16	3
G-105	100	240/480	120/240	S-1	6	2 1/2 6 13/16 3 3/16	3
G-106	100	600	120/240	S-2	6	2 1/2 6 13/16 3 3/16	3
G-107	150	240/480	120/240	S-1	6 3/8	3 1/4 7 3/8 3 7/8	3 1/2
G-108	150	600	120/240	S-2	6 3/8	3 1/4 7 3/8 3 7/8	3 1/2
G-109	200	240/480	120/240	S-1	7	3 1/4 8 3 7/8	3 1/2
G-110	250	600	120/240	S-2	7	3 1/4 8 3 7/8	3 1/2
G-111	500	240/480	120/240	S-1	8 7/8	3 7/8 10 4 11/16 4 9/32	12
G-112	500	600	120/240	S-2	8 7/8	3 7/8 10 4 11/16 4 9/32	12
G-113	750	240/480	120/240	S-1	10 7/8	3 7/8 12 4 11/16 4 9/32	20
G-114	750	600	120/240	S-2	10 7/8	3 7/8 12 4 11/16 4 9/32	20
G-115	1,000	240/480	120/240	S-1	12 3/4	4 1/2 10 1/4 5 1/2 4 7/8	29
G-116	1,000	480	120/240	S-3	8 3/4	4 1/2 10 1/4 5 1/2 4 7/8	29
G-117	1,000	600	120/240	S-3	8 3/4	4 1/2 10 1/4 5 1/2 4 7/8	29

Dry Type - Distribution

INDOOR - SINGLE PHASE - AUTOFORMERS - 50/60 CYCLES

D-1 MOUNTING.

Part No.	VA Output	Primary Voltage	Secondary Voltage	Wiring Diagram	Mfg. Centers D E	Dimensions A B C	Wt. Lbs.
G-118	100	115/230	115/230	S-4	5 1/8	2 1/2 7 3/8 3 7/16	3
G-119	150	115/230	115/230	S-4	5 3/4	2 1/2 6 1/2 3 3/16	3
G-120	250	115/230	115/230	S-4	6 5/8	3 1/4 7 5/8 3 7/8	3 1/2
G-121	500	120/240	120/240	S-4	9 1/4	3 7/8 10 3 7/8 4 11/16 4 9/32	15
G-122	750	120/240	120/240	S-4	7 7/8	3 1/4 8 7/8 3 7/8	3 1/2
G-123	1,000	120/240	120/240	S-4	8 5/8	3 7/8 9 3/4 4 11/16 4 9/32	12.3
G-124	1,500	120/240	120/240	S-4	9 7/8	3 7/8 11 4 11/16 4 9/32	15
G-125	2,000	120/240	120/240	S-4	8 3/8	4 1/2 9 3/4 5 1/2 4 7/8	23

Control Transformers - Machine Tool Type

MACHINE TOOL TYPE CONTROL TRANSFORMERS are double winding isolation type for 50/60 CFS applications.

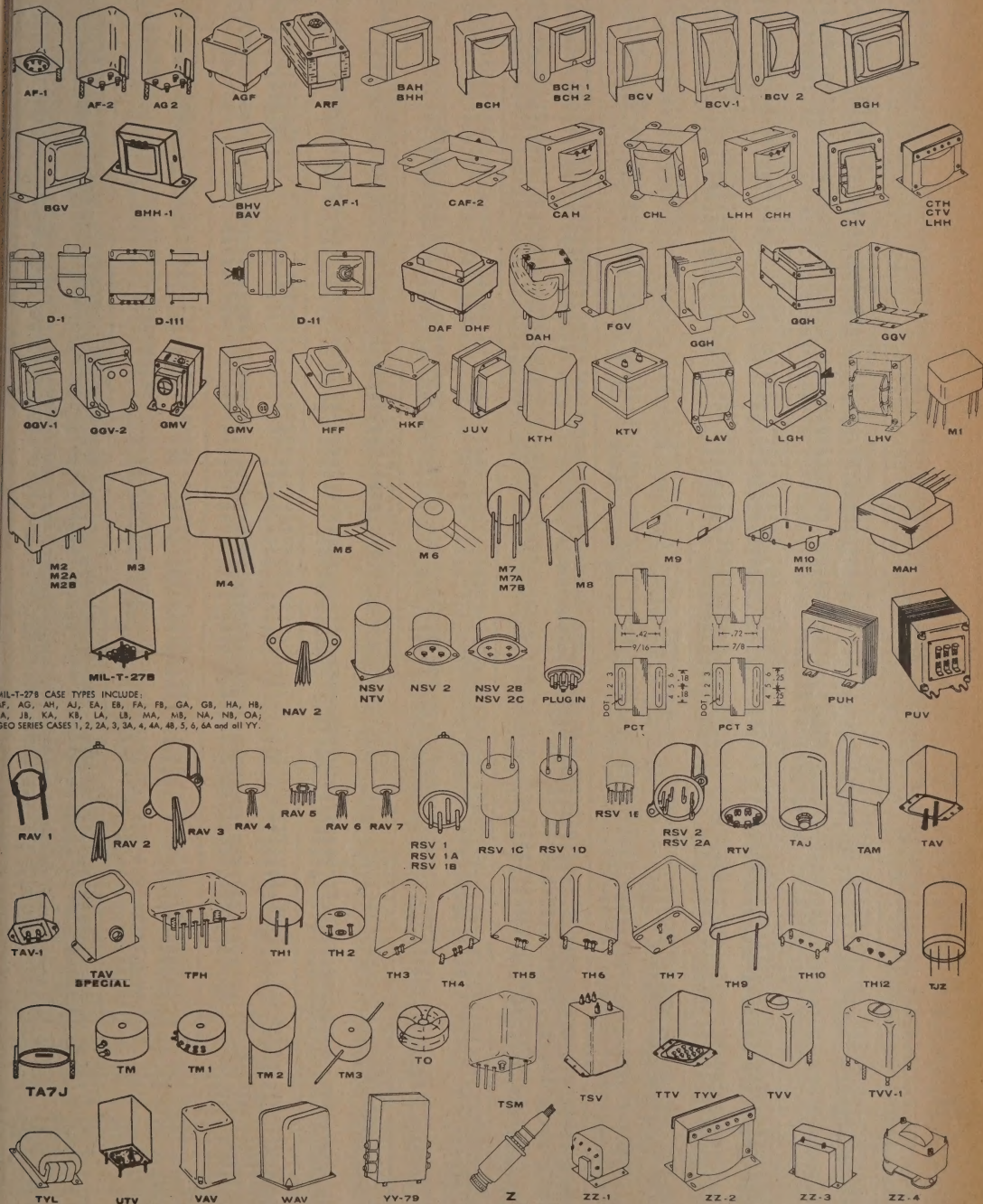
They feature rugged design, compactness, and low regulation at economical prices. WIRING DIAGRAMS and INSTRUCTIONS are furnished with each unit. Screw terminals are provided to facilitate wiring connections.

APPLICATIONS

- To provide 115 Volt Power or Lighting within machine tools or other equipment from 220/240 Volt primary circuits.
- To permit direct grounding lighting or control circuits independent of power distribution grounds for greater operator safety.

Part No.	VA Output	Primary Voltage	Secondary Voltage	Wiring Diagram	Mfg. Centers		Dimensions			Wt. Lbs.
					D	E	A	B	C	
C-131	50	220/440	115	S-5	3 1/8	1 1/2	3 3/16	3 3/4	3 7/8	3
C-132	75	220/440	115	S-6	3 1/8	1 3/4	3 3/16	3 3/4	3 7/8	4
C-133	150	220/440	115	S-6	3 3/4	2 3/8	3 7/8	4 5/8	5 1/8	13 1/2
C-134	300	220/440	115	S-6	4 1/8	4	4 7/8	5 7/8	6 1/2	13.5
C-135	500	220/440	115	S-6	4 3/8	3 9/16	4 13/16	5 1/4	5	13.5
C-136	750	220/440	115	S-6	4 3/8	4 1/2	5 1/4	5 1/4	6 7/8	21
C-137	1,000	220/440	115	S-6	4 3/8	5 1/2	4 1/2	5 1/4	5 7/8	21

Mounting Illustrations



THORDARSON MEISSNER

THORDORSON MEISSNER (T-M)

Cross Reference To Competitor

XR-64-T5

PART NUMBER Competitor T-M		PART NUMBER Competitor T-M		PART NUMBER Competitor T-M		PART NUMBER Competitor T-M		PART NUMBER Competitor T-M		PART NUMBER Competitor T-M		PART NUMBER Competitor T-M		PART NUMBER Competitor T-M	
A-1X	20A35	EA-100	TOR 844	EX-4000	TOR 923	F-9A	21F64	G-92	GO 59	HSM-309	272C0**	R-48	24811 H	R-115A	24858
A-4X	20A08	EA-100A	TOR 844	EX-4000A	TOR 923	F-9XU	21F65	G-101	GO 15	HSM-319	272C6	R-5A	22290	R-116A	24860
A-5X	20A08	EA-150	TOR 845	EX-5000	TOR 924	F-10U	21F20	G-101TS	GO 77	HSM-319	272C6	R-11A	22991	R-116A	24860
A-6X	20A12	EA-150A	TOR 845	EX-5000A	TOR 924	F-11U	21F67	G-120	GO 44	HS-331	272C0	R-18A	22991	R-116A	24860
A-7X	20A15	EA-200	TOR 846	EX-7000	TOR 925	F-12U	21F63	G-130	GO 40	HS-333	272C0	R-20A	22991	R-116A	24860
A-8X	25A100	EA-200A	TOR 846	EX-7000A	TOR 925	F-13U	21F21	G-183	GO 40	HS-333	272C0	R-20A	22991	R-116A	24860
A-10J	25A101	EA-250	TOR 847	EX-10000	TOR 926	F-14U	21F09	G-201	GO 16	HS-339	272C3	R-7A	22992	R-118A	24860
A-11J	25A102	EA-250A	TOR 847	EX-10000A	TOR 926	F-15U	21F66	G-230	GO 29	HS-341	272C4	R-7A	22992	R-118A	24860
A-12J	25A103	EA-300	TOR 848	EX-20000	TOR 927	F-16U	21F21	G-250	GO 45	HS-401	27262	R-120A	22992	R-118A	24860
A-13J	25A104	EA-300A	TOR 848	EX-20000A	TOR 927	F-17U	21F22	G-255	GO 45	HS-401	27262	R-120A	22992	R-118A	24860
A-21X	20A80	EA-400	TOR 849	EX-30000	TOR 928	F-18A	21F42*	G-266	GO 51	HS-403	27262	R-11A	24804U	R-125BC	24813
A-22X	24380	EA-400A	TOR 849	EX-30000A	TOR 928	F-18A	21F72*	G-274	GO 52	HS-407	27263	R-11A	24804	R-125BC	24813
A-23X	24380	EA-500	TOR 870	EX-40000	TOR 929	F-19X	21F73	G-275	GO 53	HS-409	27263	R-12A	22996	R-127A	24812
A-24X	20A22	EA-500A	TOR 870	EX-40000A	TOR 929	F-20U	21F75	G-276	GO 54	HS-413	27265	R-12A	22996	R-127A	24812
A-25A	20A23*	EA-600	TOR 871	EM-001	TOR 800	F-21A	21F74	G-284	GO 61	HS-415	27266	R-14A	24805U	R-129BC	24817
A-39A	20A13	EA-600A	TOR 871	EM-001A	TOR 800	F-22A	21F77	G-285	GO 62	HS-417	27267	R-14A	24805	R-130MA	24814
A-40J	25A110	EA-700	TOR 872	EM-002	TOR 801	F-23U	21F28*	G-306	GO 17	HS-425	27265	R-16A	24818	R-131A	24819
A-41J	25A111	EA-700A	TOR 872	EM-002A	TOR 801	F-24U	21F28*	G-306	GO 18	HS-425	27265	R-17A	22968	R-132BC	24811
A-42Z	20A14	EA-1000	TOR 874	EM-003	TOR 802	F-25X	246F4	G-313	GO 19	HS-427	27267	R-18A	24849	R-132A	24811
A-50J	25568	EA-1000A	TOR 874	EM-003A	TOR 802	F-26X	21F81	G-315	GO 20	HS-435	27268	R-18A	24849	R-132A	24811
A-51X	25575	EA-1000A	TOR 874	EM-003A	TOR 802	F-27A	21F81	G-333	GO 30	HS-436	27268	R-18A	24849	R-132A	24811
A-52J	25515	EA-1000A	TOR 874	EM-003A	TOR 802	F-28U	21F79	G-335	GO 30	HS-436	27268	R-18A	24849	R-132A	24811
A-53X	25514	EA-1000A	TOR 874	EM-003A	TOR 802	F-29U	21F81	G-335	GO 30	HS-436	27268	R-18A	24849	R-132A	24811
A-54J	25515	EA-1000A	TOR 874	EM-003A	TOR 802	F-30U	21F81	G-335	GO 30	HS-436	27268	R-18A	24849	R-132A	24811
A-55J	25515	EA-1000A	TOR 874	EM-003A	TOR 802	F-31U	21F81	G-335	GO 30	HS-436	27268	R-18A	24849	R-132A	24811
A-56J	25515	EA-1000A	TOR 874	EM-003A	TOR 802	F-32A	21F81	G-335	GO 30	HS-436	27268	R-18A	24849	R-132A	24811
A-57J	25515	EA-1000A	TOR 874	EM-003A	TOR 802	F-33A	21F81	G-335	GO 30	HS-436	27268	R-18A	24849	R-132A	24811
A-58J	25515	EA-1000A	TOR 874	EM-003A	TOR 802	F-34A	21F81	G-335	GO 30	HS-436	27268	R-18A	24849	R-132A	24811
A-59J	25515	EA-1000A	TOR 874	EM-003A	TOR 802	F-35A	21F81	G-335	GO 30	HS-436	27268	R-18A	24849	R-132A	24811
A-60J	25515	EA-1000A	TOR 874	EM-003A	TOR 802	F-36A	21F81	G-335	GO 30	HS-436	27268	R-18A	24849	R-132A	24811
A-61J	25515	EA-1000A	TOR 874	EM-003A	TOR 802	F-37A	21F81	G-335	GO 30	HS-436	27268	R-18A	24849	R-132A	24811
A-62J	25515	EA-1000A	TOR 874	EM-003A	TOR 802	F-38A	21F81	G-335	GO 30	HS-436	27268	R-18A	24849	R-132A	24811
A-63J	25515	EA-1000A	TOR 874	EM-003A	TOR 802	F-39A	21F81	G-335	GO 30	HS-436	27268	R-18A	24849	R-132A	24811
A-64J	25515	EA-1000A	TOR 874	EM-003A	TOR 802	F-40A	21F81	G-335	GO 30	HS-436	27268	R-18A	24849	R-132A	24811
A-65J	25515	EA-1000A	TOR 874	EM-003A	TOR 802	F-41A	21F81	G-335	GO 30	HS-436	27268	R-18A	24849	R-132A	24811
A-66J	25515	EA-1000A	TOR 874	EM-003A	TOR 802	F-42A	21F81	G-335	GO 30	HS-436	27268	R-18A	24849	R-132A	24811
A-67J	25515	EA-1000A	TOR 874	EM-003A	TOR 802	F-43A	21F81	G-335	GO 30	HS-436	27268	R-18A	24849	R-132A	24811
A-68J	25515	EA-1000A	TOR 874	EM-003A	TOR 802	F-44A	21F81	G-335	GO 30	HS-436	27268	R-18A	24849	R-132A	24811
A-69J	25515	EA-1000A	TOR 874	EM-003A	TOR 802	F-45A	21F81	G-335	GO 30	HS-436	27268	R-18A	24849	R-132A	24811
A-70J	25515	EA-1000A	TOR 874	EM-003A	TOR 802	F-46A	21F81	G-335	GO 30	HS-436	27268	R-18A	24849	R-132A	24811
A-71J	25515	EA-1000A	TOR 874	EM-003A	TOR 802	F-47A	21F81	G-335	GO 30	HS-436	27268	R-18A	24849	R-132A	24811
A-72J	25515	EA-1000A	TOR 874	EM-003A	TOR 802	F-48A	21F81	G-335	GO 30	HS-436	27268	R-18A	24849	R-132A	24811
A-73J	25515	EA-1000A	TOR 874	EM-003A	TOR 802	F-49A	21F81	G-335	GO 30	HS-436	27268	R-18A	24849	R-132A	24811
A-74J	25515	EA-1000A	TOR 874	EM-003A	TOR 802	F-50A	21F81	G-335	GO 30	HS-436	27268	R-18A	24849	R-132A	24811
A-75J	25515	EA-1000A	TOR 874	EM-003A	TOR 802	F-51A	21F81	G-335	GO 30	HS-436	27268	R-18A	24849	R-132A	24811
A-76J	25515	EA-1000A	TOR 874	EM-003A	TOR 802	F-52A	21F81	G-335	GO 30	HS-436	27268	R-18A	24849	R-132A	24811
A-77J	25515	EA-1000A	TOR 874	EM-003A	TOR 802	F-53A	21F81	G-335	GO 30	HS-436	27268	R-18A	24849	R-132A	24811
A-78J	25515	EA-1000A	TOR 874	EM-003A	TOR 802	F-54A	21F81	G-335	GO 30	HS-436	27268	R-18A	24849	R-132A	24811
A-79J	25515	EA-1000A	TOR 874	EM-003A	TOR 802	F-55A	21F81	G-335	GO 30	HS-436	27268	R-18A	24849	R-132A	24811
A-80J	25515	EA-1000A	TOR 874	EM-003A	TOR 802	F-56A	21F81	G-335	GO 30	HS-436	27268	R-18A	24849	R-132A	24811
A-81J	25515	EA-1000A	TOR 874	EM-003A	TOR 802	F-57A	21F81	G-335	GO 30	HS-436	27268	R-18A	24849	R-132A	24811
A-82J	25515	EA-1000A	TOR 874	EM-003A	TOR 802	F-58A	21F81	G-335	GO 30	HS-436	27268	R-18A	24849	R-132A	24811
A-83J	25515	EA-1000A	TOR 874	EM-003A	TOR 802	F-59A	21F81	G-335	GO 30	HS-436	27268	R-18A	24849	R-132A	24811
A-84J	25515	EA-1000A	TOR 874	EM-003A	TOR 802	F-60A	21F81	G-335	GO 30	HS-436	27268	R-18A	24849	R-132A	24811
A-85J	25515	EA-1000A	TOR 874	EM-003A	TOR 802	F-61A	21F81	G-335	GO 30	HS-436	27268	R-18A	24849	R-132A	24811
A-86J	25515	EA-1000A	TOR 874	EM-003A	TOR 802	F-62A	21F81	G-335	GO 30	HS-436	27268	R-18A	24849	R-132A	24811
A-87J	25515	EA-1000A	TOR 874	EM-003A	TOR 802	F-63A	21F81	G-335	GO 30	HS-436	27268	R-18A	24849	R-132A	24811
A-88J	25515	EA-1000A	TOR 874	EM-003A	TOR 802	F-64A	21F81	G-335	GO 30	HS-436	27268	R-18A	24849	R-132A	24811
A-89J	25515	EA-1000A	TOR 874	EM-003A	TOR 802	F-65A	21F81	G-335	GO 30	HS-436	27268	R-18A	24849	R-132A	24811
A-90J	25515	EA-1000A	TOR 874	EM-003A	TOR 802	F-66A	21F81	G-335	GO 30	HS-436	27268	R-18A	24849	R-132A	24811
A-91J	25515	EA-1000A	TOR 874	EM-003A	TOR 802	F-67A	21F81	G-335	GO 30	HS-436	27268	R-18A	24849	R-132A	24811
A-92J	25515	EA-1000A	TOR 874	EM-003A	TOR 802	F-68A	21F81	G-335	GO 30	HS-436	27268	R-18A	24849	R-132A	24811
A-93J	25515	EA-1000A	TOR 874	EM-003A	TOR 802	F-69A	21F81	G-335	GO 30	HS-436	27268	R-18A	24849	R-132A	24811
A-94J	25515	EA-1000A	TOR 874	EM-003A	TOR 802	F-70A	21F81	G-335	GO 30	HS-436	27268	R-18A	24849	R-132A	24811
A-95J	25515	EA-1000A	TOR 874	EM-003A	TOR 802	F-71A	21F81	G-335	GO 30	HS-436	27268	R-18A	24849	R-132A	24811
A-96J	25515	EA-1000A	TOR 874	EM-003A	TOR 802	F-72A	21F81	G-335	GO 30	HS-436	27268	R-18A	24849	R-132A	24811
A-97J	25515	EA-1000A	TOR 874	EM-003A	TOR 802	F-73A	21F81	G-335	GO 30	HS-436	27268	R-18A	24849	R-132A	24811
A-98J	25515	EA-1000A	TOR 874	EM-003A	TOR 802	F-74A	21F81	G-335	GO 30	HS-436	27268	R-18A	24849	R-132A	24811
A-99J	25515	EA-1000A	TOR 874	EM-003A	TOR 802	F-75A	21F81	G-335	GO 30	HS-436	27268	R-18A	24849	R-132A	24811
A-100J	25515	EA-1000A	TOR 874	EM-003A	TOR 802	F-76A	21F81	G-335	GO 30	HS-436	27268	R-18A	24849	R-132A	24811
A-101J	25515	EA-1000A	TOR 874	EM-003A	TOR 802	F-77A	21F81	G-335	GO 30	HS-436	27268	R-18A	24849	R-132A	24811
A-102J	25515	EA-1000A	TOR 874	EM-003A	TOR 802	F-78A	21F81	G-335	GO 30	HS-436	27268	R-18A	24849	R-132A	24811
A-103J	25515	EA-1000A	TOR 874	EM-003A	TOR 802	F-79A	21F81	G-335	GO 30	HS-436	27268	R-18A	24849</		

UNITED TRANSFORMER CORP.

THORDARON MEISSNER (T-M)

Cross Reference To Competitor

XR-64-U5

PART NUMBER Competitor T-M		PART NUMBER Competitor T-M		PART NUMBER Competitor T-M		PART NUMBER Competitor T-M		PART NUMBER Competitor T-M		PART NUMBER Competitor T-M		PART NUMBER Competitor T-M		PART NUMBER Competitor T-M	
A-10	25A58	CG-112	25C78	DI-2723	MIT 290	H-39	27A19	H-222	27A41	HVC-10	27C188	MM-4	TOR 7252	N-586A	27F39
A-11	25A59	CG-113	25C79	DI-1276	MIT 291	H-40A	27522	H-221	27A42	HVC-11	27C189	MM-5	TOR 7253	N-587A	27F40
A-12	25A18	CG-120	"580	DI-1278	MIT 292	H-41A	27523	H-222	27A43	HVC-12	27C190	MM-6	TOR 7254	N-588A	27F41
A-13	25A44	CG-124	25C84	DI-1283	MIT 293	H-42	27524	H-223	27A44	HVC-13	27C191	MM-7	TOR 7255	N-589A	27F42
A-16	25A20	CG-121	25F81	DI-1278	MIT 294	H-43	27525	H-225	27A45	HVC-15	27C192	MM-8	TOR 7256	N-590A	27F43
A-17	25A45	CG-122	25F82	DI-TSH	MIT 295	H-46	PUL 11	H-280	27D36	HVV-04	27C289	MM-9	27C421	N-591A	27F44
A-18	25A21	CG-125	25F84	DO-T1	MIT 201	H-47	PUL 12	H-281	27D39	HVV-1	27C290	MM-10	27C422	N-592A	27F45
A-19	25A66	CG-126	25F85	DO-T2	MIT 202	H-48	PUL 13	H-282	27D39	HVV-2	27C291	MM-11	27C423	N-593A	27F46
A-20	25A22	CG-126	25F85	DO-T3	MIT 203	H-49	PUL 14	H-283	27A48	HVV-3	27C292	MM-12	27C424	N-594A	27F47
A-21	25A60	CG-131	25A85	DO-T4	MIT 204	H-50	PUL 15	H-284	27C45	HVV-15.1	27C293	MM-13	27C425	N-595A	27F48
A-22	25S10	CG-132	25A86	DO-T5	MIT 205	H-51	PUL 16	H-286	27C46	HVV-4	27C294	MM-14	27C426	N-596A	27F49
A-23	25S11	CG-134	25A87	DO-T6	MIT 206	H-52	PUL 17	H-290	27A50	HVV-5	27C295	MM-15	27C427	N-597A	27F50
A-24	25S12	CG-135	25A88	DO-T7	MIT 207	H-53	PUL 18	H-291	27A51	HVV-25	27C296	MM-16	27C428	N-598A	27F51
A-25	25S13	CG-135	25A89	DO-T8	MIT 208	H-54	PUL 19	H-295	27A52	HVV-40	27C297	MM-17	27C429	N-599A	27F52
A-26	25S33	CG-136	25A91	DO-T9	MIT 209	H-55	PUL 20	H-300	27C62	HVV-150	27C298	MM-18	27C430	N-600A	27F53
A-27	25A41	CG-140	25S21	DO-T10	MIT 210	H-56	PUL 21	H-301	27C63	LUP-10	27C414	MM-19	27C431	N-601A	27F54
A-28	25S14	CG-141	25S22	DO-T11	MIT 211	H-57	PUL 22	H-302	27C64	LUP-100	27C415	MM-20	27C432	N-602A	27F55
A-30	25C06	CG-142	25S23	DO-T12	MIT 212	H-58	PUL 23	H-303	27C65	LUP-200	27C433	MM-21	27C433	N-603A	27F56
A-32	25C07	CG-233	25A93	DO-T13	MIT 213	H-61	PUL 28	H-361	27C66	LUP-400	27C434	MM-22	27C434	N-604A	27F57
A-33	25A166	CG-300	25P65	DO-T14	MIT 214	H-62	PUL 29	H-611	27C67	LUP-600	27C435	MM-23	27C435	N-605A	27F58
A-34	25A67	CG-300P	25P66	DO-T15	MIT 215	H-63	PUL 30	H-641	27C68	LUP-800	27C436	MM-24	27C436	N-606A	27F59
A-35	25A68	CG-301	25P67	DO-T16	MIT 216	H-64	PUL 31	H-671	27C69	LUP-1000	27C437	MM-25	27C437	N-607A	27F60
A-36	25A69	CG-301P	25P68	DO-T17	MIT 217	H-65	PUL 32	H-915	27P48	LUP-1500	27C438	MM-26	27C438	N-608A	27F61
A-37	25A70	CG-302	25P69	DO-T18	MIT 218	H-66	PUL 33	H-925	27P49	LUP-2000	27C439	MM-27	27C439	N-609A	27F62
A-38	25A71	CG-302P	25P70	DO-T19	MIT 219	H-67	PUL 34	H-926	27P50	LUP-2500	27C440	MM-28	27C440	N-610A	27F63
A-40	25P72	CG-303	25P68	DO-T20	MIT 220	H-68	PUL 35	H-945	27P51	LUP-3000	27C441	MM-29	27C441	N-611A	27F64
A-41	25C09	CG-303P	25P69	DO-T21	MIT 221	H-69	PUL 36	HA-100	25A72	LUP-3500	27C442	MM-30	27C442	N-612A	27F65
A-42	25C10	CG-304	25P70	DO-T22	MIT 222	H-71	27C32	HA-100A	25A73	LUP-4000	27C443	MM-31	27C443	N-613A	27F66
A-43	25C11	CG-304P	25P71	DO-T23	MIT 223	H-72	27C33	HA-101	25A74	LUP-4500	27C444	MM-32	27C444	N-614A	27F67
A-44	25A135	CG-305	25P71	DO-T24	MIT 224	H-73	27C34	HA-102	25A75	LUP-5000	27C445	MM-33	27C445	N-615A	27F68
A-45	25S55	CG-305P	25P72	DO-T25	MIT 225	H-74	27C35	HA-103A	25A76	LUP-5500	27C446	MM-34	27C446	N-616A	27F69
A-46	25A138	CG-306	25P72	DO-T26	MIT 226	H-75	27C36	HA-104	25A80	LUP-6000	27C447	MM-35	27C447	N-617A	27F70
A-47	25A139	CG-307	25P73	DO-T27	MIT 227	H-76	27C37	HA-105	25A81	LUP-6500	27C448	MM-36	27C448	N-618A	27F71
A-48	25C38	CG-307P	25P74	DO-T28	MIT 228	H-77	27C38	HA-106	25A82	LUP-7000	27C449	MM-37	27C449	N-619A	27F72
BM-1	500	CG-308	25P75	DO-T29	MIT 229	H-78	27C39	HA-107	25A83	LUP-7500	27C450	MM-38	27C450	N-620A	27F73
BM-2	500	CG-308P	25P76	DO-T30	MIT 230	H-79	27C40	HA-108	25A84	LUP-8000	27C451	MM-39	27C451	N-621A	27F74
BM-3	500	CG-309	25P77	DO-T31	MIT 231	H-80	27C41	HA-108A	25A85	LUP-8500	27C452	MM-40	27C452	N-622A	27F75
BM-4	500	CG-311	25P77	DO-T32	MIT 232	H-81	27C42	HA-11	25S16	LUP-9000	27C453	MM-41	27C453	N-623A	27F76
BM-5	500	CG-311P	25P78	DO-T33	MIT 233	H-82	27C43	HA-130X	25A79	LUP-9500	27C454	MM-42	27C454	N-624A	27F77
BM-6	500	CG-312	25P78	DO-T34	MIT 234	H-83	27C44	HA-133	25S17	LUP-10000	27C455	MM-43	27C455	N-625A	27F78
BM-7	500	CG-313	25P79	DO-T35	MIT 235	H-84	27C45	HA-134	25S18	LUP-10500	27C456	MM-44	27C456	N-626A	27F79
BM-8	500	CG-314	25P80	DO-T36	MIT 236	H-85	27C46	HA-135	25S19	LUP-11000	27C457	MM-45	27C457	N-627A	27F80
BM-9	500	CG-315	25P81	DO-T37	MIT 237	H-86	27C47	HA-136	25S20	LUP-11500	27C458	MM-46	27C458	N-628A	27F81
BM-10	500	CG-316	25P82	DO-T38	MIT 238	H-87	27C48	HA-137	25S21	LUP-12000	27C459	MM-47	27C459	N-629A	27F82
BM-11	500	CG-317	25P83	DO-T39	MIT 239	H-88	27C49	HA-138	25S22	LUP-12500	27C460	MM-48	27C460	N-630A	27F83
BM-12	500	CG-318	25P84	DO-T40	MIT 240	H-89	27C50	HA-139	25S23	LUP-13000	27C461	MM-49	27C461	N-631A	27F84
BM-13	500	CG-319	25P85	DO-T41	MIT 241	H-90	27C51	HA-140	25S24	LUP-13500	27C462	MM-50	27C462	N-632A	27F85
BM-14	500	CG-320	25P86	DO-T42	MIT 242	H-91	27C52	HA-141	25S25	LUP-14000	27C463	MM-51	27C463	N-633A	27F86
BM-15	500	CG-321	25P87	DO-T43	MIT 243	H-92	27C53	HA-142	25S26	LUP-14500	27C464	MM-52	27C464	N-634A	27F87
BM-16	500	CG-322	25P88	DO-T44	MIT 244	H-93	27C54	HA-143	25S27	LUP-15000	27C465	MM-53	27C465	N-635A	27F88
BM-17	500	CG-323	25P89	DO-T45	MIT 245	H-94	27C55	HA-144	25S28	LUP-15500	27C466	MM-54	27C466	N-636A	27F89
BM-18	500	CG-324	25P90	DO-T46	MIT 246	H-95	27C56	HA-145	25S29	LUP-16000	27C467	MM-55	27C467	N-637A	27F90
BM-19	500	CG-325	25P91	DO-T47	MIT 247	H-96	27C57	HA-146	25S30	LUP-16500	27C468	MM-56	27C468	N-638A	27F91
BM-20	500	CG-326	25P92	DO-T48	MIT 248	H-97	27C58	HA-147	25S31	LUP-17000	27C469	MM-57	27C469	N-639A	27F92
BM-21	500	CG-327	25P93	DO-T49	MIT 249	H-98	27C59	HA-148	25S32	LUP-17500	27C470	MM-58	27C470	N-640A	27F93
BM-22	500	CG-328	25P94	DO-T50	MIT 250	H-99	27C60	HA-149	25S33	LUP-18000	27C471	MM-59	27C471	N-641A	27F94
BM-23	500	CG-329	25P95	DO-T51	MIT 251	H-100	27C61	HA-150	25S34	LUP-18500	27C472	MM-60	27C472	N-642A	27F95
BM-24	500	CG-330	25P96	DO-T52	MIT 252	H-101	27C62	HA-151	25S35	LUP-19000	27C473	MM-61	27C473	N-643A	27F96
BM-25	500	CG-331	25P97	DO-T53	MIT 253	H-102	27C63	HA-152	25S36	LUP-19500	27C474	MM-62	27C474	N-644A	27F97
BM-26	500	CG-332	25P98	DO-T54	MIT 254	H-103	27C64	HA-153	25S37	LUP-20000	27C475	MM-63	27C475	N-645A	27F98
BM-27	500	CG-333	25P99	DO-T55	MIT 255	H-104	27C65	HA-154	25S38	LUP-20500	27C476	MM-64	27C476	N-646A	27F99
BM-28	500	CG-334	25P00	DO-T56	MIT 256	H-105	27C66	HA-155	25S39	LUP-21000	27C477	MM-65	27C477	N-647A	27F00
BM-29	500	CG-335	25P01	DO-T57	MIT 257	H-106	27C67	HA-156	25S40	LUP-21500	27C478	MM-66	27C478	N-648A	27F01
BM-30	500	CG-336	25P02	DO-T58	MIT 258	H-107	27C68	HA-157	25S41	LUP-22000	27C479	MM-67	27C479	N-649A	27F02
BM-31	500	CG-337	25P03	DO-T59	MIT 259	H-108	27C69	HA-158	25S42	LUP-22500	27C480	MM-68	27C480	N-650A	27F03
BM-32	500	CG-338	25P04	DO-T60	MIT 260	H-109	27C70	HA-159	25S43	LUP-23000	27C481	MM-69	27C481	N-651A	27F04
BM-33	500	CG-339	25P05	DO-T61	MIT 261	H-110	27C71	HA-160	25S44	LUP-23500	27C482	MM-70	27C482	N-652A	27F05
BM-34	500	CG-340	25P06	DO-T62	MIT 262	H-111	27C72	HA-161	25S45	LUP-24000	27C483	MM-71	27C483	N-653A	27F06
BM-35	500	CG-341	25P07	DO-T63	MIT 263	H-112	27C73	HA-162	25S46	LUP-24500	27C484	MM-72	27C484	N-654A	27F07
BM-36	500	CG-342	25P08	DO-T64	MIT 264	H-113	27C74	HA-163	25S47	LUP-25000	27C485	MM-73	27C485	N-655A	27F08
BM-37	500	CG-343	25P09	DO-T65	MIT 265	H-114	27C75	HA-164	25S48	LUP-25500	27C486	MM-74	27C486	N-656A	27F09
BM-38	500	CG-344	25P10	DO-T66	MIT 266	H-115	27C76	HA-165	25S49	LUP-26000	27C487	MM-75	27C487	N-657A	27F10
BM-39	500	CG-345	25P11	DO-T67	MIT 267	H-116	27C77	HA-166	25S50	LUP-26500	27C488	MM-76	27C488	N-658A	27F11
BM-40	500	CG-346	25P12	DO-T68	MIT 268	H-117	27C78	HA-167	25S51						

UNITED TRANSFORMER CORP.

to

THORDARSON MEISSNER (T-M)

COMPART NUMBER	COMPART T-M	COMPART NUMBER	COMPART T-M	COMPART NUMBER	COMPART T-M	COMPART NUMBER	COMPART T-M
VIC-17 27C219	VIC-22 27C224	W-786 27A03	W-790 27S05	Z-850 27C03	Z-854 27C07		
VIC-17 27C220	W-783 27A01	W-786 27A03	W-791 27S06	Z-851 27C04	Z-855 27C08		
VIC-19 27C221	W-784 27S01	W-786 27S03	Z-848 27C01	Z-852 27C05	Z-856 27C09		
VIC-20 27C222	W-785 27A02	W-787 27S04	Z-849 27C02	Z-853 27C06	Z-857 27C10		
VIC-21 27C223							

CHICAGO - STANCOR Industrial Transformers

to

THORDARSON MEISSNER (T-M)

COMPART NUMBER	COMPART T-M	COMPART NUMBER	COMPART T-M	COMPART NUMBER	COMPART T-M	COMPART NUMBER	COMPART T-M
1BC-150 25821	BM-1 25M78	FH-210H 27F26	PCR-120 25B17	PSD-25 25D56	TAMS-1 27A113		
1BC-150 25820	BM-2 25M80	FH-210H 27F27	PCR-150 25B18	PSD-100 25D57	TAMS-2 27A114		
1BS-150 25842	BM-4 25M79	FH-210H 27F28	PCR-200 25B19	PSD-400 25D58	TAMS-3 27A115		
2C-150 25843	BO-1 25S21	FH-210H 27F29	PCR-300 25B20	PSO-150 25S41	TAMS-4 27A116		
2BS-150 25840	BO-2 25S22	FH-610 27F92	PCA-14 27A107	PSO-200 25S42	TAMS-5 27A117		
4FH-43 27F103	BO-3 25S23	FH-615 27F93	PCT-15 27A108	PSK-55 25B30	TAMS-6 27A118		
4FH-45 27F106	BO-4 25S24	FMS-1 27F94	PCT-17 27A109	PSK-70 25B31	TAMS-7 27A119		
4FH-47 27F107	BO-5 25S25	FMS-2 27F95	PCT-21 27A110	PSK-85 25B32	TAMS-8 27B121		
4FH-420 27F108	BO-10 25S26	FMS-3 27F96	PCT-23 27A111	PSK-105 25B33	TAMS-9 27B123		
4FH-430 27F102	BO-11 25S27	FMS-4 27F97	PCT-25 27A112	PSK-120 25B34	TAMS-10 27B124		
4FH-45 27F106	BO-12 25S28	FMS-5 27F98	PCR-30 27D37	PSK-150 25B35	TAMS-11 27B125		
4FH-45 27F106	BO-13 25S29	FMS-6 27F99	PCT-31 27D38	PSK-200 25B36	TAMS-12 27B126		
4FH-610 27F61	BO-14 25S25	FMS-7 27F100	PCT-39 27D39	PSK-300 25B37	TAMS-13 27B127		
4FH-620 27F62	BO-15 25S26	FMS-8 27F101	PCT-43 27D40	PSK-400 25B38	TAMS-14 27B128		
4FH-620 27F62	BO-16 25S27	FMS-9 27F102	PCT-45 27D41	PSK-450 25B39	TAMS-15 27B129		
4FH-620 27F62	BO-17 25S28	FMS-10 27F103	PCT-47 27D42	PSK-500 25B40	TAMS-16 27B130		
4FH-620 27F62	BO-18 25S29	FMS-11 27F104	PCT-49 27D43	PSK-550 25B41	TAMS-17 27B131		
4FH-620 27F62	BO-19 25S30	FMS-12 27F105	PCT-51 27D44	PSK-600 25B42	TAMS-18 27B132		
4FH-620 27F62	BO-20 25S31	FMS-13 27F106	PCT-53 27D45	PSK-650 25B43	TAMS-19 27B133		
4FH-620 27F62	BO-21 25S32	FMS-14 27F107	PCT-55 27D46	PSK-700 25B44	TAMS-20 27B134		
4FH-620 27F62	BO-22 25S33	FMS-15 27F108	PCT-57 27D47	PSK-750 25B45	TAMS-21 27B135		
4FH-620 27F62	BO-23 25S34	FMS-16 27F109	PCT-59 27D48	PSK-800 25B46	TAMS-22 27B136		
4FH-620 27F62	BO-24 25S35	FMS-17 27F110	PCT-61 27D49	PSK-850 25B47	TAMS-23 27B137		
4FH-620 27F62	BO-25 25S36	FMS-18 27F111	PCT-63 27D50	PSK-900 25B48	TAMS-24 27B138		
4FH-620 27F62	BO-26 25S37	FMS-19 27F112	PCT-65 27D51	PSK-950 25B49	TAMS-25 27B139		
4FH-620 27F62	BO-27 25S38	FMS-20 27F113	PCT-67 27D52	PSK-1000 25B50	TAMS-26 27B140		
4FH-620 27F62	BO-28 25S39	FMS-21 27F114	PCT-69 27D53	PSK-1050 25B51	TAMS-27 27B141		
4FH-620 27F62	BO-29 25S40	FMS-22 27F115	PCT-71 27D54	PSK-1100 25B52	TAMS-28 27B142		
4FH-620 27F62	BO-30 25S41	FMS-23 27F116	PCT-73 27D55	PSK-1150 25B53	TAMS-29 27B143		
4FH-620 27F62	BO-31 25S42	FMS-24 27F117	PCT-75 27D56	PSK-1200 25B54	TAMS-30 27B144		
4FH-620 27F62	BO-32 25S43	FMS-25 27F118	PCT-77 27D57	PSK-1250 25B55	TAMS-31 27B145		
4FH-620 27F62	BO-33 25S44	FMS-26 27F119	PCT-79 27D58	PSK-1300 25B56	TAMS-32 27B146		
4FH-620 27F62	BO-34 25S45	FMS-27 27F120	PCT-81 27D59	PSK-1350 25B57	TAMS-33 27B147		
4FH-620 27F62	BO-35 25S46	FMS-28 27F121	PCT-83 27D60	PSK-1400 25B58	TAMS-34 27B148		
4FH-620 27F62	BO-36 25S47	FMS-29 27F122	PCT-85 27D61	PSK-1450 25B59	TAMS-35 27B149		
4FH-620 27F62	BO-37 25S48	FMS-30 27F123	PCT-87 27D62	PSK-1500 25B60	TAMS-36 27B150		
4FH-620 27F62	BO-38 25S49	FMS-31 27F124	PCT-89 27D63	PSK-1550 25B61	TAMS-37 27B151		
4FH-620 27F62	BO-39 25S50	FMS-32 27F125	PCT-91 27D64	PSK-1600 25B62	TAMS-38 27B152		
4FH-620 27F62	BO-40 25S51	FMS-33 27F126	PCT-93 27D65	PSK-1650 25B63	TAMS-39 27B153		
4FH-620 27F62	BO-41 25S52	FMS-34 27F127	PCT-95 27D66	PSK-1700 25B64	TAMS-40 27B154		
4FH-620 27F62	BO-42 25S53	FMS-35 27F128	PCT-97 27D67	PSK-1750 25B65	TAMS-41 27B155		
4FH-620 27F62	BO-43 25S54	FMS-36 27F129	PCT-99 27D68	PSK-1800 25B66	TAMS-42 27B156		
4FH-620 27F62	BO-44 25S55	FMS-37 27F130	PCT-101 27D69	PSK-1850 25B67	TAMS-43 27B157		
4FH-620 27F62	BO-45 25S56	FMS-38 27F131	PCT-103 27D70	PSK-1900 25B68	TAMS-44 27B158		
4FH-620 27F62	BO-46 25S57	FMS-39 27F132	PCT-105 27D71	PSK-1950 25B69	TAMS-45 27B159		
4FH-620 27F62	BO-47 25S58	FMS-40 27F133	PCT-107 27D72	PSK-2000 25B70	TAMS-46 27B160		
4FH-620 27F62	BO-48 25S59	FMS-41 27F134	PCT-109 27D73	PSK-2050 25B71	TAMS-47 27B161		
4FH-620 27F62	BO-49 25S60	FMS-42 27F135	PCT-111 27D74	PSK-2100 25B72	TAMS-48 27B162		
4FH-620 27F62	BO-50 25S61	FMS-43 27F136	PCT-113 27D75	PSK-2150 25B73	TAMS-49 27B163		
4FH-620 27F62	BO-51 25S62	FMS-44 27F137	PCT-115 27D76	PSK-2200 25B74	TAMS-50 27B164		
4FH-620 27F62	BO-52 25S63	FMS-45 27F138	PCT-117 27D77	PSK-2250 25B75	TAMS-51 27B165		
4FH-620 27F62	BO-53 25S64	FMS-46 27F139	PCT-119 27D78	PSK-2300 25B76	TAMS-52 27B166		
4FH-620 27F62	BO-54 25S65	FMS-47 27F140	PCT-121 27D79	PSK-2350 25B77	TAMS-53 27B167		
4FH-620 27F62	BO-55 25S66	FMS-48 27F141	PCT-123 27D80	PSK-2400 25B78	TAMS-54 27B168		
4FH-620 27F62	BO-56 25S67	FMS-49 27F142	PCT-125 27D81	PSK-2450 25B79	TAMS-55 27B169		
4FH-620 27F62	BO-57 25S68	FMS-50 27F143	PCT-127 27D82	PSK-2500 25B80	TAMS-56 27B170		
4FH-620 27F62	BO-58 25S69	FMS-51 27F144	PCT-129 27D83	PSK-2550 25B81	TAMS-57 27B171		
4FH-620 27F62	BO-59 25S70	FMS-52 27F145	PCT-131 27D84	PSK-2600 25B82	TAMS-58 27B172		
4FH-620 27F62	BO-60 25S71	FMS-53 27F146	PCT-133 27D85	PSK-2650 25B83	TAMS-59 27B173		
4FH-620 27F62	BO-61 25S72	FMS-54 27F147	PCT-135 27D86	PSK-2700 25B84	TAMS-60 27B174		
4FH-620 27F62	BO-62 25S73	FMS-55 27F148	PCT-137 27D87	PSK-2750 25B85	TAMS-61 27B175		
4FH-620 27F62	BO-63 25S74	FMS-56 27F149	PCT-139 27D88	PSK-2800 25B86	TAMS-62 27B176		
4FH-620 27F62	BO-64 25S75	FMS-57 27F150	PCT-141 27D89	PSK-2850 25B87	TAMS-63 27B177		
4FH-620 27F62	BO-65 25S76	FMS-58 27F151	PCT-143 27D90	PSK-2900 25B88	TAMS-64 27B178		
4FH-620 27F62	BO-66 25S77	FMS-59 27F152	PCT-145 27D91	PSK-2950 25B89	TAMS-65 27B179		
4FH-620 27F62	BO-67 25S78	FMS-60 27F153	PCT-147 27D92	PSK-3000 25B90	TAMS-66 27B180		
4FH-620 27F62	BO-68 25S79	FMS-61 27F154	PCT-149 27D93	PSK-3050 25B91	TAMS-67 27B181		
4FH-620 27F62	BO-69 25S80	FMS-62 27F155	PCT-151 27D94	PSK-3100 25B92	TAMS-68 27B182		
4FH-620 27F62	BO-70 25S81	FMS-63 27F156	PCT-153 27D95	PSK-3150 25B93	TAMS-69 27B183		
4FH-620 27F62	BO-71 25S82	FMS-64 27F157	PCT-155 27D96	PSK-3200 25B94	TAMS-70 27B184		
4FH-620 27F62	BO-72 25S83	FMS-65 27F158	PCT-157 27D97	PSK-3250 25B95	TAMS-71 27B185		
4FH-620 27F62	BO-73 25S84	FMS-66 27F159	PCT-159 27D98	PSK-3300 25B96	TAMS-72 27B186		
4FH-620 27F62	BO-74 25S85	FMS-67 27F160	PCT-161 27D99	PSK-3350 25B97	TAMS-73 27B187		
4FH-620 27F62	BO-75 25S86	FMS-68 27F161	PCT-163 27D100	PSK-3400 25B98	TAMS-74 27B188		
4FH-620 27F62	BO-76 25S87	FMS-69 27F162	PCT-165 27D101	PSK-3450 25B99	TAMS-75 27B189		
4FH-620 27F62	BO-77 25S88	FMS-70 27F163	PCT-167 27D102	PSK-3500 25B100	TAMS-76 27B190		
4FH-620 27F62	BO-78 25S89	FMS-71 27F164	PCT-169 27D103	PSK-3550 25B101	TAMS-77 27B191		
4FH-620 27F62	BO-79 25S90	FMS-72 27F165	PCT-171 27D104	PSK-3600 25B102	TAMS-78 27B192		
4FH-620 27F62	BO-80 25S91	FMS-73 27F166	PCT-173 27D105	PSK-3650 25B103	TAMS-79 27B193		
4FH-620 27F62	BO-81 25S92	FMS-74 27F167	PCT-175 27D106	PSK-3700 25B104	TAMS-80 27B194		
4FH-620 27F62	BO-82 25S93	FMS-75 27F168	PCT-177 27D107	PSK-3750 25B105	TAMS-81 27B195		
4FH-620 27F62	BO-83 25S94	FMS-76 27F169	PCT-179 27D108	PSK-3800 25B106	TAMS-82 27B196		
4FH-620 27F62	BO-84 25S95	FMS-77 27F170	PCT-181 27D109	PSK-3850 25B107	TAMS-83 27B197		
4FH-620 27F62	BO-85 25S96	FMS-78 27F171	PCT-183 27D110	PSK-3900 25B108	TAMS-84 27B198		
4FH-620 27F62	BO-86 25S97	FMS-79 27F172	PCT-185 27D111	PSK-3950 25B109	TAMS-85 27B199		
4FH-620 27F62	BO-87 25S98	FMS-80 27F173	PCT-187 27D112	PSK-4000 25B110	TAMS-86 27B200		
4FH-620 27F62	BO-88 25S99	FMS-81 27F174	PCT-189 27D113	PSK-4050 25B111	TAMS-87 27B201		
4FH-620 27F62	BO-89 25S100	FMS-82 27F175	PCT-191 27D114	PSK-4100 25B112	TAMS-88 27B202		
4FH-620 27F62	BO-90 25S101	FMS-83 27F176	PCT-193 27D115	PSK-4150 25B113	TAMS-89 27B203		
4FH-620 27F62	BO-91 25S102	FMS-84 27F177	PCT-195 27D116	PSK-4200 25B114	TAMS-90 27B204		
4FH-620 27F62	BO-92 25S103	FMS-85 27F178	PCT-197 27D117	PSK-4250 25B115	TAMS-91 27B205		
4FH-620 27F62	BO-93 25S104	FMS-86 27F179	PCT-199 27D118	PSK-4300 25B116	TAMS-92 27B206		
4FH-620 27F62	BO-94 25S105	FMS-87 27F180	PCT-201 27D119	PSK-4350 25B117	TAMS-93 27B207		
4FH-620 27F62	BO-95 25S106	FMS-88 27F181	PCT-203 27D120	PSK-4400 25B118	TAMS-94 27B208		
4FH-620 27F62	BO-96 25S107	FMS-89 27F182	PCT-205 27D121	PSK-4450 25B119	TAMS-95 27B209		
4FH-620 27F62	BO-97 25S108	FMS-90 27F183	PCT-207 27D122	PSK-4500 25B120	TAMS-96 27B210		
4FH-620 27F62	BO-98 25S109	FMS-91 27F184	PCT-209 27D123	PSK-4550 25B121	TAMS-97 27B211		
4FH-620 27F62	BO-99 25S110	FMS-92 27F185	PCT-211 27D124	PSK-4600 25B122	TAMS-98 27B212		
4FH-620 27F62	BO-100 25S111	FMS-93 27F186	PCT-213 27D125	PSK-4650 25B123	TAMS-99 27B213		
4FH-620 27F62	BO-101 25S112	FMS-94 27F187	PCT-215 27D126	PSK-4700 25B124	TAMS-100 27B214		
4FH-620 27F62	BO-102 25S113	FMS-95 27F188	PCT-217 27D127	PSK-4750 25B125	TAMS-101 27B215		
4FH-620 27F62	BO-103 25S114	FMS-96 27F189	PCT-219 27D128	PSK-4800 25B126	TAMS-102 27B216		
4FH-620 27F62	BO-104 25S115	FMS-97 27F190	PCT-221				



NEW

TRANSFORMERS, FILTERS, MAGAMPS, HIGH Q COILS

NEW UTC "FLATS"™ ELECTRIC WAVE FILTERS

For other Filters see page 7.
Designed, Manufactured and Successfully
Tested to Complete

MIL-F-18327B Specifications

These filters meet today's need for flat component configurations, have excellent attenuation characteristics and are ruggedized to Grade 4. MIL-F-18327B. Straight pin terminals and flat construction make these units ideally suited for printed circuit applications. These filters are hermetically sealed in flat metal cases shielded to reduce hum pickup. FP-A case: 2 x 2 x 1/2" h., 2.5 oz. FP-B case: 2 x 1 1/2 x 3/8" h., 2 oz. Stock price: \$42.00 each net.

FHH-200: Flat package high pass filter, source and load 10K ohms. Units are within 1 db up to 300 cycles 3 db $\pm$ 1 db at 200 cycles, and have an attenuation of at least 40 db at frequencies below 140 cycles. FP-A case. MIL Type: FR4RX33YY.

FLH-600: Flat package low pass filter, source and load 10K ohms. Units are within 1 db from DC to 450 cycles, 3 db $\pm$ 1 db at 600 cycles, and have an attenuation of at least 40 db at frequencies above 800 cycles. FP-A case. MIL Type: FR4RX11YY.

FLH-5000: Flat package low pass filter, source and load 10K ohms. Units are within 1 db from DC to 4.2 KC, 3 db $\pm$ 1 db at 5 KC, and have an attenuation of at least 43 db at frequencies above 6400 cycles. FP-B case. MIL Type: FR4RX11YY.

FLL-3500: Flat package low pass filter, source and load 600 ohms. Units are within 1 db from DC to 3 KC, 3 db $\pm$ 1 db at 3500 cycles, and have an attenuation of at least 40 db at frequencies above 4500 cycles. FP-A case. MIL Type: FR4RX11YY.

FLL-18000: Flat package low pass filter, source and load 600 ohms. Units are within 1 db from DC to 15 KC, 3 db $\pm$ 1 db at 18 KC, and have an attenuation of at least 43 db at frequencies above 23 KC. FP-A case. MIL Type: FR4RX11YY.

FLL-50000: Flat package low pass filter, source and load 600 ohms. Units are within 1 db from DC to 42 KC, 3 db $\pm$ 1 db at 50 KC, and have an attenuation of at least 43 db above 64 KC. FP-B case. MIL Type: FR4RX11YY.



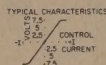
NEW LINE OF SOLID STATE "MAS"™ PUSH-PULL MAGNETIC AMPLIFIERS

For other Magamps see page 6.

The "MAS" magamps operate on an input of 115 V 400 cycles with an output of ± 7.5 V DC, 1000 ohm load and have 2 isolated control inputs. These magnetic amplifiers afford a power gain of approximately 30,000. The power input and output are also completely and individually isolated. The "MAS" magamps are manufactured to MIL-T-27B standards. Units are housed in a hermetically sealed steel case with plug-in octal compressed glass terminal. The "MAS" magamps are 3 inches high with a 1 1/2 inch diameter and weighs approximately 1/2 pound.

The "MAS" magamps have many advantages over other active circuit elements such as tubes, transistors: • Long life and years of maintenance free operation due to magnetic characteristics and solid state elements. • Ruggedness can withstand high shock, vibration, radiation, and moisture. • Reliability — can withstand 10 times overloads and operate into short without damage.

Possible applications include: • Control Amplifier • Photocell • SCR Controls • Strain Gauge Amplifier • Meter Preamps • Thermocouple • Differential Amplifier • Signal mixing, summing, integration • Hydraulic Servo Valve Driver • Servo Motor • Linear Amplifications of Transducer Signals.



Type Number	Winding Number	Input Resistance Ohms	Trans-resistance Ohms	Nominal DC amps 5V DC Output 1000 Ω Load	Price Net
MAS-400	1	45	2.5×10^4	200	135.00
	2	45	2.5×10^4	200	
MAS-410	1	500	8.0×10^4	60	135.00
	2	500	8.0×10^4	60	
MAS-420	1	1000	12.5×10^4	40	135.00
	2	100	4.0×10^4	125	

NEW, LLP-15, STANDARD LOW FREQUENCY LOW PASS FILTER

For other Filters see page 7.
Designed, Manufactured and Successfully
Tested to Complete MIL-T-27B Specifications.

The LLP-15 low frequency low pass filter has a loss of less than 3 db at 15 cycles and attenuation of more than 40 db at 30 cycles. Source and load impedance 100K ohms. MIL Type: FR4RX11FA. Dim: 2 1/4 x 2 3/4 x 3 3/8" h., 1 1/2 lbs. Price: \$60.00 net.



NEW "FE," FI, FO"™ MINIATURE INDUCTORS

For other High Q Coils
see page 8.

Designed, Manufactured and
Successfully Tested to Complete
MIL-T-27B Specifications.

FE, FI, FO miniature inductors are ideal for transistor and printed circuit applications, having both pin terminals and a molded flat construction. These units are symmetrical toroids providing maximum Q in minimum size. The FE and FI inductors are adjusted at 1 V, 1 KC. The FO units are adjusted at 1 V, 400 cycles. All units are adjusted to a tolerance of $\pm 1\%$. The ma DC Max shown is for approximately 5% drop in inductance. The temperature stability is unequalled from -55°C to $+100^\circ\text{C}$. For AC level limitations, a general rule of thumb would be to consider the maximum AC current approximately equal to the maximum DC current rating. However, for specific applications, contact UTC with exact level, frequency, and Q requirements to determine suitability of part in application. All FE, FI, FO inductors are equally well suited for vacuum tube application. All units MIL Type: FR5RX20ZZ.



Type No.	Ind. Hy. (0 DC)	ma DC Max.	DCR Max.	Price Net
FE-02	.0200	50	5.1	\$ 9.00
FE-05	.0500	30	12	9.60
FE-1	.100	22	22	10.20
FE-5	.500	10	122	10.80
FE-1	1.00	7	250	11.40
FE-2	2.00	5	500	12.00
FI-04	.0400	50	4.3	10.80
FI-1	.100	30	11	11.10
FI-25	.250	20	27	11.40
FI-5	.500	14	60	11.70
FI-1	1.00	10	110	12.00
FI-4	4.00	5	430	12.90
FO-1	.100	60	4.2	15.00
FO-5	.500	25	23	15.00
FO-1	1.00	18	43	15.60
FO-2	2.00	12	92	16.20
FO-5	5.00	8	240	16.80
FO-10	10.0	6	440	18.00

NEW "PIL"™ AUDIO TRANSFORMERS

For other PIL'S see page 2.

Designed, Manufactured and Successfully
Tested to Complete MIL-T-27B Specifications.

These units are the smallest audio transformers available. The DOT type structure incorporated overcomes inherently poor electrical characteristics usually found in miniature audio transformers. These ultraminiature PIL transformers are engineered to provide top electrical performance. All units are subjected to a 500 volt dielectric strength test, instead of the usual 100 volts, for higher safety margins and reliability.

Units are designed to a field-proven, ruggedized construction with a completely rigid cylindrical bobbin eliminating wire movement and stress. The turns are circular, effecting uniform wire lay and eliminating corner stress. The leads are rigidly anchored to the coil wire terminal board fashion, eliminating the use of tape, and brought out through strain relief. The units are terminated in weldable and solderable, insulated Gold plated Dumet leads. Dim: 3/8" dia. x 3/8" h., 1/20 oz.

All units are metal encased to Grade 4. Units made to Class S are available on special order. U. S. Patent No. 2,949,591.

Type No.	MIL Type	Pri Imp	Unbal D.C. ma In Pri	Sec Imp	Pri DCR Level	Max Mw	± 3 db Fre Range @ 1 Mw	Price Net
PIL-50	TF4RX11YY	500 CT	3	500 CT	40	100	800 cps-250KC	7.20
PIL-70	TF4RX13YY	10K CT	1	500 CT	530	100	800 cps-250KC	7.50
PIL-75	TF4RX13YY	10K CT	1	2K CT	530	100	800 cps-250KC	7.50

PRECISION SCOTT-T REFERENCE TRANSFORMER NEW SCR-10* Tested to Complete MIL-T-27B Specifications

Designed, Manufactured and Successfully
Used in the precise conversion of three wire synchro information to equivalent resolver information. Two outputs 90° apart are obtained, which can be utilized in analog and digital computer application or coordinate transformation applications. MIL type TF4SX09AJ.

Special custom built units with other electrical values are available to your requirements

Input 90V 60/400—3 Phase high impedance suitable for synchro output.

Output 1) 3V @ .25 MA (2) 3V @ .25 MA $\pm$ 2 Phase Output.

a) Magnitudes of output voltage matched within 0.25%.

b) Phase angle of output voltages is $90^\circ \pm .225^\circ$.

Net Each: \$24.00

see page 13



UNITED TRANSFORMER COMPANY DIVISION OF TRW INC.

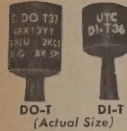
UTC PAGE 1. *UTC Trade Mark. All Product Lines or Type Designations are UTC Trade Marks. Specify by Trade Mark to assure UTC high quality and reliability. © 1963, 1966 United Transformer Co., Div. of TRW INC.

TRANSISTOR TRANSFORMERS

Designed, Manufactured and Successfully
Tested to Complete MIL-T-27B Specifications.

DO-T* AND DI-T*

TRANSISTOR TRANSFORMERS



Revolutionary transistor transformers hermetically sealed to MIL-T-27B specs. Plastic insulated solderable leads, firmly anchored to withstand 10 pound pull. Ideal for printed circuits. DO-T: $\frac{5}{16}$ " dia. x $\frac{1}{8}$ " long, wt., 1/10 oz. DI-T: $\frac{5}{16}$ " dia. x $\frac{1}{8}$ " long, wt., 1/15 oz. these compact units provide frequency response, high efficiency and low distortion. U.S. Pat. No. 2,949,591

DO-T Type	DI-T Type	Net Each	Application	Pri. Imped., Ohms	Sec. Imped., Ohms
DO-T1	DI-T1	\$6.00	a	20K/30K, 0.5 ma	800/1200
DO-T2	DI-T2	5.40	b	500/600, 3 ma	50/60
DO-T3	DI-T3	5.40	b	1K/1.2K, 3 ma	50/60
DO-T4	DI-T4	5.40	b	600, 3 ma	3/2
DO-T5	DI-T5	5.40	b	1.2K, 2 ma	3/2
DO-T6	DI-T6	6.00	b	10K, 1 ma	3/2
DO-T7	DI-T7	9.30	c	200K	1K
DO-T8	DI-T8	4.70	d	3.5 hys. @ 2 ma	2.5 hys.††
DO-T9	DI-T9	6.00	e	10K/12K, 1 ma	500/600 CT
DO-T10	DI-T10	6.00	f	10K/12.5K, 1 ma	1.2K-1.5K CT
DO-T11	DI-T11	6.60	f	10K/12.5K, 1 ma	2K/2.5K CT
DO-T12	DI-T12	6.70	b	150/200 CT, 10 ma	12/16
DO-T13	DI-T13	5.70	b	300/400 CT, 7 ma	12/16
DO-T14	DI-T14	6.00	b	600/800 CT, 5 ma	12/16
DO-T15	DI-T15	6.00	b	800/1000 CT, 4 ma	12/16
DO-T16	DI-T16	6.00	b	1K/1300 CT, 3.5 ma	12/16
DO-T17	DI-T17	6.00	b	1.5K/2K CT, 3 ma	12/16
DO-T18	DI-T18	6.30	b	7.5K/10K CT, 1 ma	12/16
DO-T19	DI-T19	6.00	b	300 CT, 7 ma	600
DO-T20	DI-T20	6.00	b	500 CT, 5.5 ma	600
DO-T21	DI-T21	6.00	b	900 CT, 4 ma	600
DO-T22	DI-T22	6.00	b	1500 CT, 3 ma	600
DO-T23	DI-T23	9.90	a	20K/30K CT, 5 ma	0.8K/1.2K CT
DO-T24	DI-T24	9.90	c	200K CT	1K CT
DO-T25	DI-T25	7.20	a	10K/12K CT, 1 ma	1.5K/1.8K CT
DO-T26	DI-T26	5.70	df	6 hys. @ 2 ma	4.5 hys.††
DO-T27	DI-T27	4.80	df	1.25 hys. @ 2 ma	0.9 hys.††
DO-T28	DI-T28	4.80	ds	0.3 hys. @ 4 ma	0.1 hys.††
DO-T29	DI-T29	5.70	b	120/150 CT, 10 ma	3/2, 4
DO-T30	DI-T30	5.70	b	320/400 CT, 7 ma	3/2, 4
DO-T31	DI-T31	6.00	b	640/800 CT, 5 ma	3/2, 4
DO-T32	DI-T32	6.00	b	800/1K CT, 4 ma	3/2, 4
DO-T33	DI-T33	6.00	b	1600/1300 CT, 3 ma	3/2, 4
DO-T34	DI-T34	6.00	b	1.6K/2K CT, 3 ma	3/2, 4
DO-T35	DI-T35	6.30	b	8K/10K CT, 1 ma	3/2, 4
DO-T36	DI-T36	7.50	a	10K/12K CT, 1 ma	10K/12K CT
DO-T37	DI-T37	7.80	a	2K/2.5K CT, 3 ma	8K/10K Split
DO-T38	DI-T38	7.80	a	10K/12K CT, 1 ma	2K/2.4 Split
DO-T39	DI-T39	7.80	a	20K/30K CT, 5 ma	1K/1.5K Split
DO-T40	DI-T40	8.40	a	40K/50K CT, 25 ma	400/500 Split
DO-T41	DI-T41	7.50	a	400/500 CT, 8/6 ma	400/500 Split
DO-T42	DI-T42	7.50	a	400/500 CT, 8/6 ma	120/150 Split
DO-T43	DI-T43	7.50	a	400/500 CT, 8/6 ma	40/50 Split
DO-T44	DI-T44	7.50	a	80/100 CT, 12/10 ma	32/40 Split
DO-T45	DI-T45	7.80	a	1K/1.25K CT, 3.5 ma	16K/20K Split
DO-T46	DI-T46	9.60	c	100K CT	500 CT
DO-T47	DI-T47	8.10	a	9K/10K, 1 ma	9K/10K CT
DO-T48	DI-T48	7.80	a	8K/10K, 1 ma	1.2K/1.5K CT
DO-T49	DI-T49	7.80	ds	Series—20 hys @ 1 ma, 12750	
				Parallel—5 hys @ 2 ma, 12750	
				Series—.075 hys @ 10 ma, 10,500	
				Parallel—.018 hys @ 20 ma, 2,600	
DO-T50	DI-T50	5.70	ds		

*630 ohms, 12100 ohms, †100 ohms, ‡25 ohms.

†DI-T primary impedance, ‡25 Wdgs.

a—Interstage; b—Output; c—Input; d—Inductor; e—Driver or Output; f—Driver; g—Matching; h—Power Unit.

PIP* SERIES TRANSISTOR PULSE TRANSFORMERS

UTC's PIP series of subminiature transistor pulse transformers is designed to give a maximum of component density in equipments, their configuration being especially compatible with transistors. The design is based on the UTC DO-T and DI-T series to impart exceptional reliability. PIP-1 through PIP-9 have a ratio of 4:1; PIP-10 through PIP-12 have a ratio of 5:3:1. All units are checked and adjusted in a transistor test circuit to give the required pulse width.

Hermetically sealed, manufactured & guaranteed to MIL-T-20138B by full environmental testing... all units, completely METAL CASED, MIL type TP6RX4410CZ. See UTC page 6 for other miniature pulse transformers.

All Units
Individually Adjusted
to Parameters
Shown in Table

U.S. Pat. No. 2,949,591

5/16" Dia. x 3/16" high
Weight 1/20 oz.

APPROX. DCR, OHMS					BLOCKING OSCILLATOR PULSE					COUPLING CIRCUIT CHARACTERISTICS									
Type No.	1-Brd 2-Rd	3-Org 4-Y	5-Grn 6-Blu	5-Grn 6-Blu	Width µsec.	Rise Time	Over Shoot	Drop %	Back Swing	P Width µsec.	Volt Out	Rise Time	Over Shoot	Drop %	Back Swing	Imp. In, Out	Net Each		
PIP-1	.18	.20	.20	.17	.05	.02	0	0	37	.05	9	.018	0	0	12	50	\$6.00		
PIP-2	.47	.56	.17	.17	.025	0	0	25	1	.7	.02	0	0	5	50	6.00			
PIP-3	1.01	1.25	.37	.2	.030	2	0	15	2	.7	.035	0	0	5	100	6.00			
PIP-4	1.5	1.85	.54	.5	.05	0	0	15	1	.5	.7	.06	0	0	100	6.00			
PIP-5	2.45	3.1	.9	1	.08	0	0	14	2	6.8	.15	0	0	5	100	6.00			
PIP-6	3.0	3.7	1.1	2	.10	0	0	15	2	6.8	.18	0	2	10	100	6.00			
PIP-7	4.9	6.05	1.8	3	.20	0	0	14	3	6.8	.20	0	2	10	100	6.00			
PIP-8	8.0	9.7	2.9	5	.30	0	0	3	5	7.9	.22	0	13	25	200	6.00			
PIP-9	13.1	15.9	4.7	10	.5	0	0	5	12	10	.4	0	15	20	200	6.00			
PIP-10	.55	.41	.15	.1	.01	0	0	60	1	.8	.01	0	0	5	140/50	6.00			
PIP-11	2.9	2.2	.82	1	.02	4	4	6	1	6.6	.05	0	6	12	280/100	6.00			
PIP-12	9.4	7.1	2.6	5	.05	0	0	12	5	8	.09	2	12	25	560/200	6.00			
PIP-10 Transistor pulse transformer kit, consisting of PIP-1 thru PIP-9 in plastic case.																			
PIP-SH Drawn Hipermaalloy shield and cover for PIP's provides 20 to 30 db shielding.																			
																	\$1.00		

UNITED TRANSFORMER COMPANY DIVISION OF TRW INC.

UTC PAGE 2. *UTC Trade Mark. All Product Lines or Type Designations are UTC Trade Marks. Specify by Trade Mark to assure UTC high quality and reliability. © 1965, 1968 United Transformer Co., Div. of TRW INC.



SECTION 5600

TRANSISTOR TRANSFORMERS

Designed, Manufactured and Successfully
Tested to Complete MIL-T-27B Specifications.

TRANSISTOR SUPPLY TRANSFORMERS



Primary 115V. 50/60 cycles (tapped on H-143 thru H-146 for dual secondary voltages). DC ratings are approximate, based on silicon bridge rectifier (except H-141, H-142 also shown F.W.C.T.). Choke input DCV is based on 100% voltage drop in choke. Condenser value, C, is in 1000 mfd. H-141, H-142, H-147 listing under "Secs in parallel" is single winding. All units MIL type TF4RX02.

Type No.	Sec. V Rms	Sec. A Rms	Choke DCV	Sec. in Parallel Input DCA	Input DCA	Choke DCV	Sec. in Series Cond. DVC	Input DCA	MIL Case Pg.	Net Each
H-141	20 CT	.3	16.5	.3	26	.2			EB	\$10.80
H-142	20 CT	.6	16.5	.43	12	.3			EA	13.50
H-143	17/21.5	1.5	14/17.5	3	18.5/25	2	1	28/35	1	5A 19.80
H-144	17/21.5	4	14/17.5	8	18.5/25	5	2	28/35	4	43/56 1A 33.00
H-145	17/21.5	9	14/17.5	18	18.5/25	12	6	28/35	9	43/56 6 4 RC-175 51.00
H-146	34/43	4.5	28/35	9	43/56	6	4	56/70	4.5	85/110 3 1 UTC 51.00
H-147	10	20	8.2	20	10	13	12		KA	30.00

UNIVERSAL TRANSISTOR SUPPLY TRANSFORMERS

Low Voltage DC Supply
Telephone Supply
Bias Supply
Battery Chargers
Plating Rectifiers

UTC universal transistor supply transformers are high reliability units in drawn MIL cases. Primary taps can modify nom. AC voltages by -6%, +6%, and +12%. The capacitor following the rectifier affects the DC voltage.

PRIMARY 115 VOLTS, 50/60 CYCLES

NOMINAL SEC. VOLTS, 8.25 to 40.5

Type No.	MIL DC Range	Indust. DC Range	MIL Case (Pg. 13)	Net Each
H-915	6V-.065A to 53V-.02A	6V-.085A to 53V-.025A	AH	\$13.50
H-925	6V-.22A to 53V-.07A	6V-.28A to 53V-.085A	AJ	14.10
H-935	6V-1.2A to 53V-.4A	6V-1.52A to 53V-.48A	FA	15.60
H-94	6V-3A to 53V-1A	6V-3.8A to 53V-1.2A	HA	22.50
H-95	6V-7.5A to 53V-2.5A	6V-9A to 53V-3A	KA	30.00
H-96	6V-18A to 53V-6A	6V-23A to 53V-7.5A	QA	54.00

PRIMARY 115 VOLTS, 50/60 CYCLES

NOMINAL SEC. VOLTS, 16.5 to 81

H-965	12V-1.5A to 106V-.5A	12V-1.9A to 106V-.6A	HA	\$22.50
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NEW 400-CYCLE MET* TYPES

PRIMARY 115 VOLTS, 400 CPS.

NOMINAL SEC., 8.25-40.5 VOLTS

MET 455	6V-1.2A to 53V-.4A	6V-1.52A to 53V-.48A	AJ	\$15.00
MET 465	6V-3A to 53V-.4A	6V-3.8A to 53V-1.2A	FA	15.60
MET 475	6V-7.5A to 53V-2.5A	6V-9A to 53V-3A	HA	21.00

400 CYCLE MOLDED TYPES

Primary 105/115
Volts 380-1000 Cycles. Sec. 6.3
VCT 2500V RMS Test

MOLDED 400
CYCLE TYPE
TF55X01ZZ



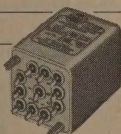
Type No.	Sec. Amp.	L. In.	W. In.	H. In.	Wt. Lbs.	Net Each
H-101	3.5	1 13/16	1 3/16	2	.3	\$15.60
H-102	5.5	1 3/4	2	2 1/4	.44	16.50
H-103	10	2 1/8	2 1/8	2 1/2	.8	21.00
H-104	25	2 7/8	2 1/2	3 1/2	1.5	24.00
H-118	.3	Sub ounces mold see pg. 11				9.90

TRANSISTOR INVERTER TRANSFORMERS

High reliability (layer insulated) types providing high efficiency in small size. Units are in drawn MIL cases. Circuit details supplied with transformer. With 6 V. input instead of 12 V., output voltage is halved, current rating remains the same.

FOR 12/14 OR 24/48 VOLT BATTERY

Type No.	DC output, when used in circuit shown	MIL Case	Net Each
H-97	250V-.60MA	AH	\$16.50
H-98	375V-.100MA	AJ	17.40
H-99	425V-.175MA	FA	22.20
H-100	550V-.200MA	GB	22.20



**IMMEDIATE
DELIVERY**
ON ALL ITEMS
FROM STOCK

NEW MET* 400-CYCLE SERIES

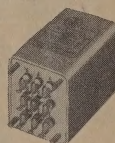
Type No.	MIL Type	Sec. Amps. Volt (MIL)	Amps. (Indust.)	Sec. Test V. RMS	MIL Case Pg. (Pg. 13)	Net Each
MET-410#	TF4SX01YY 400 cy. pr.	6.3	.6	.75	500	RC-25 \$ 7.80
MET-420	TF4SX01AH 3800-1000 cy.t	6.3CT	2	2.5	1500	AH 12.00
MET-430#	TF4SX01FA 400 cycles	12.6CT	2	2.5	1500	FA 19.50
MET-435	TF4SX01FA 380-1000 cy.t	6.3CT	10	12	2500	FA 15.00
MET-440	TR4SX01GB 380-1000 cy.t	6.3CT	6	7	2500	GB 15.00

†Two MET-430's, Scott-connected, provide 26v., 2-phase from 115 v., 3-phase 400 cps input. Replaces former No. H-139. †105/115/125 v. primary. †57.5/99.7/115 v. primary. #Replaces former No. H-140.

HERMETIC SEALED TRANSISTOR/FILAMENT SUPPLY TRANSFORMER

Primary: 105/115/210/220 volts, 50/60 cycles, except H-130, H-137, H-138, H-104 (115v.), and H-131 (115/220v.) Suited to 400/100 cycle service, H-128: 6 1/2" x 5 1/2" x 7 3/4" h. (wt. 34 lbs.), H-129: 6 1/2" x 5 1/2" x 7 3/4" h. (wt. 28 lbs.).

METAL
CASED
TF4 TYPE



MIL T-27B RATINGS IN REGULAR TYPE, INDUSTRIAL RATINGS IN BOLD TYPE

Type No.	MIL Type	Sec. Volts	Amps. (MIL)	Amps. (Indust.)	Sec. Test V. RMS	MIL Case Pg.	Net Each
H-119	TF4RX01AH	6.3CT	.3	.38	1500	AH	\$ 9.00
H-120	TF4RX01GB	2.5	10	12	4000	GB	15.00
H-121	TF4RX01JB	2.5	10	12	10000	JB	19.50
H-122	TF4RX01KB	2.5	20	26	10000	KB	21.00
H-123	TF4RX01NB	2.5	5	7.5	10000	NB	41.70
		2.5	5	7.5			
		2.5	10	15			
H-124	TF4RX01FB	5	3	3	2000	FB	14.10
H-125	TF4RX01KB	5	10	12	10000	KB	24.00
H-126	TF4RX01LA	5	20	25	10000	LA	31.50
H-127	TF4RX01NA	5	20	30	21000	NA	54.00
	Term. Opp. Mfg.						
H-128	TF4RX01YY	5	60	75	21000		87.00
H-129	TF4RX01YY	5	10	12	21000		99.00
	Term. Opp. Mfg.	5	10	12			
		5	20	24			
H-130	TF4RX01AJ	6.3CT	.6	.75	1500	AJ	9.90
H-131	TF4RX01FB	6.3CT	2	2.5	2500	FB	13.50
H-132	TF4RX01JA	6.3CT	6	7	2500	JA	21.00
		6.3CT	6	7			
H-133	TF4RX01HB	6.3CT	7	8	2500	HB	16.50
H-134	TF4RX01HA	6.3CT	10	12	2500	HA	19.50
H-135	TF4RX01JB	10 CT	10	13	2500	JB	22.50
H-136	TF4RX01LA	14, 12, 11 CT	10	14	2500	LA	31.50
H-137	TF4RX01EB	6.3	.6	.75	1500	EB	13.50
		6.3	.6	.75			
H-138	TF4RX01GA	12.6	2	2.5	1500	GA	21.00
		12.6	2	2.5			

TRANSISTOR TRANSFORMERS

(Commercial Types)

& M-S Transformers & Inductors

TRANSISTOR TRANSFORMERS (Commercial Type)

NEW CAT★ TRANSISTOR IMPEDANCE TYPES

All units in RC-50 case. (See page 10.) Frequency range ± 2 db, 50-15,000 cps. Power level 1 watt except CAT-15, 5 watts.

UTC Type	Application	Imped. Ohms	Primary Unbal. Ma DC	Secondary Imped. Ohms	Net Each
CAT-15	Output	48/12 spl.	750*	16 spl./8/4	58.85
CAT-20	Istg./outp.	500/125 spl.	20	16/4 split	8.10
CAT-25	Isol./outp.	500/125 spl.	20	500/125 spl.	8.70
CAT-30	Input/Istg.	500/125 spl.	20	2K/500 split	8.40
CAT-40	Istg./outp.	10K/2.5K spl.	8	2K/500 split	8.40

*Balance. ★Trade mark.

CHANNEL FRAME FILAMENT/TRANSISTOR TRANSFORMERS

Pri. 115 V 50/60 Cycles—Test Volts RMS: 1500

Type No.	Secondary	W	D	H	M	Lbs.	Net Each
FT-1	2.5 VCT-3A	27/8	1 1/8	1 1/4	2 3/8	3/4	4.50
FT-2	6.3 VCT-1.2A	27/8	1 1/8	1 1/4	2 3/8	3/4	4.50
FT-3	2.5 VCT-6A	3 3/4	1 7/8	2	2 1/4	1	5.10
FT-4	3.5 VCT-3A	3 3/4	1 7/8	2	2 1/4	1	5.10
FT-5	2.5 VCT-10A	3 3/4	2 1/8	2 3/4	3 1/8	1 1/2	5.70
FT-6	5 VCT-3A	3 3/4	2 1/8	2 3/4	3 1/8	1 1/2	5.70
FT-7	7.5 VCT-3A	3 3/4	2 1/8	2 3/4	3 1/8	1 1/2	5.70
FT-8	2.4 VCT-8A	4	2 1/2	2 3/4	3 3/8	2 1/2	6.30
FT-10	6.3 VCT-2A	4	2 1/2	2 3/4	3 3/8	2 1/2	6.90
FT-11	24 VCT-1A	3 3/4	2 1/8	2 3/4	3 1/8	1 1/2	6.00
FT-12	36 VCT-1.3A	4	2 1/2	2 3/4	3 3/8	2 1/2	6.90

Taps on pri. of FT-13, FT-14 & FT-15 to modify sec. nominal V, -6% +6%, +12%

FT-13	26 VCT-0.4A	2 1/4	1 3/8	1 1/4	1 3/4	1 1/4	5.70
FT-14	26 VCT-25A	2 1/4	1 3/8	1 1/4	2 3/8	3/4	5.70
FT-15	48VCT-1A	4	2 1/2	2 3/4	3 3/8	2 1/2	7.80
FT-16	11 VCT-2.5A	3 3/4	2 1/8	2 3/4	3 1/8	1 1/2	7.80
	or 5.5 VCT-5A						

* For 120 V input, use 6% tap

TRANSISTOR/FILAMENT TRANSFORMERS

Pri. 115 x 50/60 Cycles; Bridge Rectifier
S-77, S-78 & S-79 Tapped For Dual Secondary Voltages

UTC Type	DCV	DCA	Case No. See Page 12	Net Each
S-75	5.2/1.4	1.2/4	G-1	\$ 6.60
S-76	10/26	4/1.4	G-4	9.90
S-77	14/56	9/3	G-5	11.40
S-78	28/110	9/3	G-10	33.00
S-79	32/120	3/1	G-7	18.00

MILITARY STANDARD TRANSFORMERS AND INDUCTORS

Designed, Manufactured and Successfully

Tested to Complete

MIL-F-18327B Specifications

FILAMENT, POWER, PLATE TRANSFORMERS

Primary 105/115/125 v., 54/66 cycles. Current ratings are for high voltage secondary DC, choke input filter. For condenser input, reduce by 70%. All units are MIL grade A, ruggedized; equally usable where grade I is specified. Electrostatically shielded.

UTC Type	MS No.	MIL Type TF1RX	Secondary Rating	MIL Case (Pg. 13)	Net Each
N-583A	90016-2	01EB002	2.5 v.-3 a.; 1000 WV	EB	\$13.50
N-584A	90017-2	01GB003	2.5 v.-10 a.; 1000 WV	GB	15.00
N-585A	90018-2	01FB004	5 v.-3 a.; 1000 WV	FB	13.50
N-586A	90019-2	01HB005	5 v.-10 a.; 1000 WV	HB	18.00
N-587A	90020-2	01FB006	6.3 v.-2 a.; 1000 WV	FB	13.50
N-588A	90021-2	01GB007	6.3 v.-5 a.; 1000 WV	GB	15.00
N-589A	90022-2	01EB008	6.3 v.-10 a.; 1000 WV	JB	15.00
N-590A	90023-2	01KB009	6.3 v.-20 a.; 1000 WV	KB	24.00
N-591A	90024-2	01JB012	2.5 v.-10 a.; 6300 WV	JB	19.50
N-592A	90025-2	01KB013	5 v.-10 a.; 6300 WV	KB	19.50
N-593A	90026-2	03HA001	200-100-200, 70 ma; 6.3 v.-2 a.; 6.3 v.-3 a.	HA	22.50
N-594A	90027-2	03JB002	325-0-325, 70 ma; 6.3 v.-2 a.; 6.3 v.-4 a.	JB	24.00
N-595A	90028-2	03KB006	325-0-325, 150 ma; 5 v.-3 a.; 6.3 v.-5 a.	KB	26.40
N-596A	90029-2	03LB003	400-0-400, 175 ma; 5 v.-3 a.; 6.3 v.-8 a.	LB	33.00
N-597A	90030-2	03MB004	450-0-450, 250 ma; 5 v.-3 a.; 6.3 v.-8 a.	MB	39.00
N-598A	90031-2	02KB001	350-0-350, 250 ma	KB	21.00
N-599A	90032-2	02LB002	500-0-500, 250 ma	LB	28.50
N-600A	90036-2	02NB003	800-0-800, 250 ma	NB	37.50

CIRCUIT DEVELOPMENT TRANSFORMERS FOR TRANSISTORS

LAB* UNIT



The UTC Laboratory circuit development transformers add the designer in selecting optimum impedances for best power and distortion results from his transistor circuit.

LAB-5

* 20 Cycles to 20Kc
Up to 50mw Continuous
Pri. Imp. Ω Sec. Imp. Ω

LAB-5 & LAB-10
units in LS-1 case
3/8x5x3/4"; 3 lbs.

LAB-20

units in LS-3 case
5/8x5x4 1/4"; 15 lbs.

Terminal board as shown above

LAB-10
20 Cycles to 20Kc
Up to 1W Continuous
Pri. Imp. Ω Pri. to Sec. Ratio
Range 1900 Ω to 14,400 Ω
10:1
925 Ω to 7600 Ω
5:1
Net Each: \$30.00

LAB-20
20 Cycles to 20Kc
Up to 50W Continuous
Pri. Imp. Ω Pri. to Sec. Ratio
Range 6, 12, 24, 40, 54, 70
4, 8, 16, 64
Net Each: \$60.00

TRANSISTOR/FILAMENT SUPPLY TRANSFORMERS

Primary 115 volts 50/60 cycles

Type No.	Sec. V RMS	Sec. A RMS	In Parallel				In Series				Case No.	Net See Pg. 9	Each
			Choke in DCV	C in DCA	Choke in DCV	C in DCA	Choke in DCV	C in DCA	Choke in DCV	C in DCA			
CG-30	17/21.5	1.5	14/17.5	3	18.5/25	2	28/35	1.5	43/56	1	RC-112	\$19.90	
	17/21.5	1.5											
CG-31	34/43	4.5	28/35	9	43/56	6	56/70	4.5	85/110	3	RC-175	42.00	
	34/43	4.5											
CG-32	6.3VCT	1.2									RC-62	10.50	

FILAMENT/TRANSISTOR SUPPLY TRANSFORMERS

Primary 105, 115, 210, 220, 230 volts, 50/60 cycles, except CG-34
105, 115, 220, 230. These transformers may be used on 25 to 43 cycles if 220 volt primary is used on 110 volts. Secondary voltage is simultaneously reduced to half.

Type No.	Sec. Vrms C.T.	Sec. Amp.	Working Voltage	Sec. Test Vrms	Case No. See Page 10	Net Each
CG-33	6.3	4	500	2000	RC-75	\$10.50
CG-34	2.5	10	2500	6000	RC-112	12.60
CG-35	6.3	6	500	2000	RC-87	12.00
CG-36	6.3/6.3	5/5	500	2000	RC-100	15.00
CG-120	2.5	10	5000	11000	RC-125	18.00
CG-121	5	25	5000	11000	RC-150	22.50
CG-122	7.5/6.3	10	1500	4000	RC-125	18.00
CG-124	10	10	1500	4000	RC-150	18.00
CG-125	14/12/11	10	1500	4000	RC-150	21.00
CG-126	14/11/10	10	1500	4000	RC-152	30.00



RC CASE See Pg. 10

AUDIO TRANSFORMERS

Frequency response 300-10,000 cps ± 2 db. Split 600-ohm units provided for 600 ohms CT and 1500 ohms. Electrostatic shielding provided on W-784, W-785 and W-786. No. W-783 has center-tapped secondary for 90K CT or 22.5K CT. All units in AJ case (Pg. 13). Wt., 0.6 lb.

UTC Type	MS No.	MIL Type TF1RX	#	Pri. Ohms	Pri. DC	Sec. Ohms	Net Each
W-783	90000-1	15AJ001	a	10K CT	10	90K spl.	\$16.50
W-784	90001-1	16AJ002	b	600 spl.	.....	4/8/16	15.00
W-785	90002-1	10AJ001	c	600 spl.	.....	135K CT	15.30
W-786	90003-1	16AJ001	d	600 spl.	.....	600 spl.	15.30
W-787	90004-1	13AJ001	e	7.6K/4.8K	40	600 spl.	13.95
W-788	90005-1	13AJ002	f	7.6K/4.8K	40	4/8/16	14.25
W-789	90006-1	13AJ003	g	15K CT	10	600 spl.	14.25
W-790	90007-1	13AJ004	g	24K CT	20	600 spl.	14.25
W-791	90008-1	13AJ005	g	60K CT	20	600 spl.	13.95

Use: a—PP plates to pp grids, 15 dbm level. b—Line to VC, 2 watts. c—Line to pp grids, 15 dbm. d—Line to line, 15 dbm. e—Plate to line, 2 watts. f—Plate to VC, 2 watts. g—PP plates to line. *Balanced. 42 watts. 1 watt. 50 v.

INDUCTORS

Two windings for series or parallel connection. Inductance shown for series connection. All but Z-847 are standard MIL case types. Rated 3500 WVDC, unless otherwise noted.

UTC Type	MS No.	MIL Type	Induct. Hy.	Ma DC	DCR Case	MIL Case Pg. 13	Net Each
Z-848*	90009-1	04FA001	16	80	645	FA	\$12.60
Z-849*	90010-1	04GA002	25	80	670	GA	15.00
Z-850*	90011-1	04HA003	40	80	1020	HA	22.50
Z-851*	90012-1	04IA004	16	125	330	IA	18.00
Z-852*	90014-1	04JB006	25	125	460	JB	25.50
Z-853	90037-1	04KA007	40	125	535	KA	31.50
Z-854	75000-2	04LA009	16	200	180	LA	33.00
Z-855	75001-2	04MA010	25	200	210	MA	37.50
Z-856	75002-2	04NA012	16	315	105	NA	45.30
Z-857	75003-2	04Y013	25	315	150	YY	75.00

*1000 WVDC. †2000 WVDC. *TF1RX. *TF4RX.

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HERMETIC COMPONENTS

Designed, Manufactured and Successfully
Tested to Complete MIL-27B Specifications.



RC-25



RC-50



FH



SM

HERMETIC AUDIO UNITS

These extremely compact units are proved to specifications of MIL-27B. Response & level ratings: RC-25: Similar to Ouncers for case (1 1/2" x 1 1/4" x 1.5 oz.). RC-50: Similar to ultra compact units for case (1 1/2" x 1 1/4" x 2 1/4" h. 8 oz.). SM: Similar to SSO units for case (1 1/2" x 1 1/4" x 2 1/4" h. 8 oz.). FH: 2 1/2" x 2 1/4" x 1 1/4" h. 8 oz.

UTC Type	Application	Pri. Imped., Ohms	Sec. Imped., Ohms	Wt. Each
H-1	Line to grid	500 CT, 50K	50K	a 9.00
H-2	Mike to grid	62, 50 ma	135K	a 9.00
H-3	Pl. to grid	15K	60K	a 9.00
H-4	Pl. to grid	15K, 4 ma	60K	a 9.00
H-5	Pl. to p-p	15K, 4 ma	95K split	a 10.20
H-6	Pl. to p-p	15K, 4 ma	95K split	a 10.20
H-7	Pl. to line	150/600	600 CT	a 9.00
H-8	Mixing	150/600	600 CT	a 9.00
H-9	Input	150/600	600 CT	a 9.00
H-10	Pl. to grid	150/600	600 CT	a 9.00
H-11	Reactor, 300 hys, 50 ma	500 CT, 50K	50K	a 9.00
H-12	Line to p-p	500 CT, 50K	50K	a 9.00
H-13	Interstage	10K/2.5K split	2K/500 split	a 9.00
H-14	Interstage	10K/2.5K split	4K/1K split	a 9.00
H-15	Tr. to line	1.5K	500/125 split	a 9.00
H-16	Tr. to V.C.	2K/AC CT	8/16	a 9.00
H-17	Tr. input	500/125 split	2K/500 split	a 10.20
H-18	Tr. interstage	10K split	500/125 split	a 10.20
H-19A	Input	500 CT/200 CT	50K/100 CT	a 10.20
H-20	Interstage	10K split	80K split	b 15.00
H-21	Pl. to p-p	15K, 8 ma	500/125 split	a 9.00
H-22	Tr. interstage	50K CT	500/125 split	a 9.00
H-23	Pl. to line	500/125 split	500/125, 125/500	a 9.00
H-24	Tr. interstage	500/125 split	500/125 split	a 9.00
H-25	Tr. interstage	500/125 split	500/125 split	a 9.00
H-26	Split Inductor:	Series: 40 Hys-10 ma, 1 ohm Parallel: 1 Hy-20 ma, 40 ohms		a 6.00
H-27	Tr. interstage	100/25 split	40/10 split	a 9.00
H-28	P-p to line	100/25 split	40/10 split	a 9.00
H-29	Inductor: 250 hys. @ 5 matl. 65 hys. @ 10 matl.			b 12.00
H-30	Interstage	100/25 split	2K/200 split	b 15.00
H-31	Tr. to V.C.	200 CT	400 split	b 15.00
H-32	Tr. to V.C.	20 CT	16 & 4	b 15.00
H-33	Mixing	200/150, 333	200/250, 333	b 15.00
H-34	Split Inductor:	Series: 40 Hys-10 ma, 1 ohm Parallel: 1 Hy-20 ma, 25 ohms		b 8.10
H-35	Split Inductor:	Series: 40 Hys-10 ma, 1 ohm Parallel: 1 Hy-20 ma, 25 ohms		b 8.40
H-36	Shld. chopper	2000/500 e. s.	312K	b 21.00
H-37	Shld. chopper	10K/2.5K e. s.	50K	f 18.00
H-38	Pl. to grid	15K	60K	e 8.40
H-39	Pl. to line	15K, 3 ma	90K	e 8.40
H-40	Output	20K, 1 ma	50K	e 8.40
H-41	Inductor: 100 hys.	200 CT, 2 ma	2K CT, 2 ma	e 7.50
H-42	Tr. input	100 CT, 2 ma	2K CT, 2 ma	e 7.50
H-43	Interstage	100 CT, 2 ma	2K CT, 2 ma	e 7.50
H-44	Tr. output	100 CT, 2 ma	2K CT, 2 ma	e 7.50
H-45	Tr. output	100 CT, 2 ma	2K CT, 2 ma	e 7.50
H-46	Tr. output	100 CT, 2 ma	2K CT, 2 ma	e 7.50
H-47	Tr. output	100 CT, 2 ma	2K CT, 2 ma	e 7.50
H-48	Tr. output	100 CT, 2 ma	2K CT, 2 ma	e 7.50
H-49	Tr. output	100 CT, 2 ma	2K CT, 2 ma	e 7.50
H-50	Tr. output	100 CT, 2 ma	2K CT, 2 ma	e 7.50
H-51	Tr. output	100 CT, 2 ma	2K CT, 2 ma	e 7.50
H-52	Tr. output	100 CT, 2 ma	2K CT, 2 ma	e 7.50
H-53	Tr. output	100 CT, 2 ma	2K CT, 2 ma	e 7.50
H-54	Tr. output	100 CT, 2 ma	2K CT, 2 ma	e 7.50
H-55	Tr. output	100 CT, 2 ma	2K CT, 2 ma	e 7.50
H-56	Tr. output	100 CT, 2 ma	2K CT, 2 ma	e 7.50
H-57	Tr. output	100 CT, 2 ma	2K CT, 2 ma	e 7.50
H-58	Tr. output	100 CT, 2 ma	2K CT, 2 ma	e 7.50
H-59	Tr. output	100 CT, 2 ma	2K CT, 2 ma	e 7.50
H-60	Tr. output	100 CT, 2 ma	2K CT, 2 ma	e 7.50
H-61	Tr. output	100 CT, 2 ma	2K CT, 2 ma	e 7.50
H-62	Tr. output	100 CT, 2 ma	2K CT, 2 ma	e 7.50
H-63	Tr. output	100 CT, 2 ma	2K CT, 2 ma	e 7.50
H-64	Tr. output	100 CT, 2 ma	2K CT, 2 ma	e 7.50
H-65	Tr. output	100 CT, 2 ma	2K CT, 2 ma	e 7.50
H-66	Tr. output	100 CT, 2 ma	2K CT, 2 ma	e 7.50
H-67	Tr. output	100 CT, 2 ma	2K CT, 2 ma	e 7.50
H-68	Tr. output	100 CT, 2 ma	2K CT, 2 ma	e 7.50
H-69	Tr. output	100 CT, 2 ma	2K CT, 2 ma	e 7.50
H-70	Tr. output	100 CT, 2 ma	2K CT, 2 ma	e 7.50
H-71	Tr. output	100 CT, 2 ma	2K CT, 2 ma	e 7.50
H-72	Tr. output	100 CT, 2 ma	2K CT, 2 ma	e 7.50
H-73	Tr. output	100 CT, 2 ma	2K CT, 2 ma	e 7.50
H-74	Tr. output	100 CT, 2 ma	2K CT, 2 ma	e 7.50
H-75	Tr. output	100 CT, 2 ma	2K CT, 2 ma	e 7.50
H-76	Tr. output	100 CT, 2 ma	2K CT, 2 ma	e 7.50
H-77	Tr. output	100 CT, 2 ma	2K CT, 2 ma	e 7.50
H-78	Tr. output	100 CT, 2 ma	2K CT, 2 ma	e 7.50
H-79	Tr. output	100 CT, 2 ma	2K CT, 2 ma	e 7.50
H-80	Tr. output	100 CT, 2 ma	2K CT, 2 ma	e 7.50
H-81	Tr. output	100 CT, 2 ma	2K CT, 2 ma	e 7.50
H-82	Tr. output	100 CT, 2 ma	2K CT, 2 ma	e 7.50
H-83	Tr. output	100 CT, 2 ma	2K CT, 2 ma	e 7.50
H-84	Tr. output	100 CT, 2 ma	2K CT, 2 ma	e 7.50
H-85	Tr. output	100 CT, 2 ma	2K CT, 2 ma	e 7.50
H-86	Tr. output	100 CT, 2 ma	2K CT, 2 ma	e 7.50
H-87	Tr. output	100 CT, 2 ma	2K CT, 2 ma	e 7.50
H-88	Tr. output	100 CT, 2 ma	2K CT, 2 ma	e 7.50
H-89	Tr. output	100 CT, 2 ma	2K CT, 2 ma	e 7.50
H-90	Tr. output	100 CT, 2 ma	2K CT, 2 ma	e 7.50
H-91	Tr. output	100 CT, 2 ma	2K CT, 2 ma	e 7.50
H-92	Tr. output	100 CT, 2 ma	2K CT, 2 ma	e 7.50
H-93	Tr. output	100 CT, 2 ma	2K CT, 2 ma	e 7.50
H-94	Tr. output	100 CT, 2 ma	2K CT, 2 ma	e 7.50
H-95	Tr. output	100 CT, 2 ma	2K CT, 2 ma	e 7.50
H-96	Tr. output	100 CT, 2 ma	2K CT, 2 ma	e 7.50
H-97	Tr. output	100 CT, 2 ma	2K CT, 2 ma	e 7.50
H-98	Tr. output	100 CT, 2 ma	2K CT, 2 ma	e 7.50
H-99	Tr. output	100 CT, 2 ma	2K CT, 2 ma	e 7.50
H-100	Tr. output	100 CT, 2 ma	2K CT, 2 ma	e 7.50

*Has 75 db shielding. 16000 ohms. 31500 ohms. 55 watts. 1110 units.

#Case: a-RC-25, b-RC-50, c-RC-62, d-SM, e-FH, f-RC-37. (See above & pg.10).

HERMETIC SEALED FILTER INDUCTORS
TUBE AND TRANSISTOR TYPEMETAL CASED
TF4 TYPE
H-70 thru H-79
H-164 thru H-173MOLDED MIL TYPE
TF55X042Z
H-105 thru H-109
H-200

The multiple ratings for the "H" series of filter chokes suit these units for the complete gamut of military and industrial applications. Transistor supply units are swinging type to enhance regulation. H-79 terminals opposite mounting. *Relates to ripple voltage, in percent.

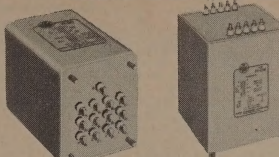
		@ FC-300		Max. DCV ¹		Test V.		MIL Case		Wgt. Lbs.		Net Eac		
Type	Ind.	Hys.	@	MA	Ch. Input	Ch. Input	MA	W	H	Lbs.	Each			
H-70	20	20	20	925	350	1000	1 1/4	1 1/4	1 1/4	1.7	5.40			
H-71	20	40	40	350	2500	2500	2 1/4	2 1/4	2 1/4	1.7	6.40			
H-72	11	70	70	135	2500	2500	2 1/4	2 1/4	2 1/4	1.7	11.40			
H-73	11	100	100	150	2500	2500	2 1/4	2 1/4	2 1/4	1.7	11.40			
H-74	11	130	130	350	2500	2500	2 1/4	2 1/4	2 1/4	1.7	11.40			
H-75	11	150	150	350	2500	2500	2 1/4	2 1/4	2 1/4	1.7	11.40			
H-76	11	200	200	60	2500	2500	2 1/4	2 1/4	2 1/4	1.7	11.40			
H-77	10	300	300	85	1500	4500	2 1/4	2 1/4	2 1/4	1.7	27.00			
H-78	7	800	800	20	2500	7000	2 1/4	2 1/4	2 1/4	1.7	31.50			
H-79	7	800	800	20	3000	9000	2 1/4	2 1/4	2 1/4	1.7	37.50			
H-164†	4.6	35	35	12	50	500	AG				7.50			
(2 wdg.)	11.25	70	70	295	500	500	AH				9.00			
H-164†	10	100	100	10	750	750	AJ				9.90			
(2 wdg.)	311	100	100	10	750	750	AJ				9.90			
H-168†	681	100	100	8	750	750	AJ				9.90			
(2 wdg.)	172	200	200	2	1000	1000	GB				11.70			
H-170†	118	125	125	6	1000	1000	GB				11.70			
(2 wdg.)	345	250	250	15	1000	1000	GB				11.70			
H-171†	91	75A	75A	.025	1000	1000	JA				18.00			
(2 wdg.)	2.25	1.5A	1.5A	.025	1000	1000	JA				18.00			
H-172†	79	25A	25A	.02	1000	1000	JA				18.00			
(2 wdg.)	17.5	.5A	.5A	.058	1000	1000	JA				18.00			
H-173†	901	1A	1A	.035	1000	1000	KA				25.50			
(2 wdg.)	22.5	65A	65A	.02	1000	1000	KA				25.50			
H-174	302	65A	65A	.02	1000	1000	MB				30.00			
(2 wdg.)	12.5	1.3A	1.3A	.02	1000	1000	MB				30.00			
Type	Inducance		DCR Test		L		W		H		Wgt. Lbs.		Net Eac	
	Henries		MA	Ohms	MA	Ohms	MA	Ohms	MA	Ohms	Lbs.	Each		
H-105	2.5 @ 25 MA	225	1000	1 1/4	1 1/4	1 1/4	1 1/4	1 1/4	1 1/4	1 1/4	1.7	5.40		
H-106	2.5 @ 60 MA	110	1000	1 1/4	1 1/4	1 1/4	1 1/4	1 1/4	1 1/4	1 1/4	1.7	6.40		
H-107	2 @ 120 MA	95	2300	2 1/4	2 1/4	2 1/4	2 1/4	2 1/4	2 1/4	2 1/4	1.7	11.40		
H-108	2 @ 220 MA	95	2300	2 1/4	2 1/4	2 1/4	2 1/4	2 1/4	2 1/4	2 1/4	1.7	11.40		
H-109	2 @ 150 MA	95	2300	2 1/4	2 1/4	2 1/4	2 1/4	2 1/4	2 1/4	2 1/4	1.7	11.40		
(2 wdg.)	.06 @ 250 MA	15	500	1	1	1	1	1	1	1	0.5	4.90		
H-200	1 @ 5 MA	10	500	1	1	1	1	1	1	1	0.5	4.90		
(2 wdg.)	.25 @ 10 MA	10	500	1	1	1	1	1	1	1	0.5	4.90		

¹ Split winding in series ² Split winding in parallel

³ Split in series

†Split winding in series
*Spill winding in parallel
†Rated in millihenries

HERMETIC SEALED POWER and PLATE TRANSFORMERS



H-114, H-115, H-117 have terminals opposite mounting.

Power transformers: primary 115V, 60 cycles suited to 50-1000 cycles service. Plate transformers: primary 105/115/220 volts, 50/60 cycles. "L" ratings are choke input. "C" ratings are condenser input. H-80 thru H-197 MIL type TF4R03, H-110 thru H-117 MIL type TF4R02. The tapped high voltage winding provides either of two secondary voltages for greatest versatility. The power transformer listings indicate DC voltages and permissible currents for both choke and condenser input filters, as well as for military and industrial applications.

"W" suffix units designed for full wave center tap and full wave bridge application. Center tap of secondary may be disconnected from ground.

MIL Type No.			T-27B Ratings in Regular HV Sec. DC Volts			Type, Industrial DC Type, Fil. Wdg.			Ratings in Bold Type Approx. DC Volts			MIL Case Pg. 13			Net Each	
H-80			C 450	C 240	30	6.3VCT-2A	C 215	38	6.3VCT-2.5A	FA						
H-81	500	L 170	95			6.3VCT-3A	L 160	110								
		L 270	55			6.3VCT-3A	L 245	75		6.3VCT-3A	HA					21.00
	550	L 200	85			5V-2A	L 180	105		5V-2A						
H-82	310	L 310	50				C 280	65								
		L 180	145			6.3VCT-2A	L 160	190								
	600	C 290	90			6.3VCT-4A	C 270	115		6.3VCT-4.5A	JB					24.00
H-83		L 215	165			5V-2A	L 190	180		5V-2A						
		C 330	85				C 315	100								
	600	L 315	100			6.3V-5A	L 320	120		6.3V-6A	JA					24.00
H-84	670	L 250	150			5V-2A	L 230	200		5V-2A						
		C 400	90				C 380	110								
	700	L 245	225				L 240	255								
H-85		C 390	135			6.3V-5A	C 375	160		6.3V-6A	KA					30.00
	750	L 275	205			6.3V-1A	L 270	230		6.3V-1.5A						
		C 430	125			5V-3A	C 410	150		5V-4A						
H-86		L 245	300				L 230	370								
		C 390	190			6.3V-6A	C 355	230		6.3V-6A	LA					34.50
	750	L 270	280			6.3V-1.5A	L 250	350		6.3V-2A						
H-87		C 425	170			5V-3A	C 395	210		5V-4A						
	720	L 270	310				L 250	360								
		C 425	180			6.3V-6A	C 395	225		6.3V-7.5A	MB					36.00
H-88	790	L 295	300			6.3V-2A	L 280	350		6.3V-2A						
		C 475	160			5V-3A	C 440	210		5V-4A						
	800	L 245	420				L 230	515								
H-89		C 390	275			6.3V-6A	C 390	300		6.3V-6A	NB					42.60
		L 275	400			6.3V-2A	L 275	480		6.3V-2A						
	830	C 440	250			5V-4A	C 430	290		5V-6A						
H-90		L 305	430				L 275	550								
		C 450	280			6.3V-8A	C 445	340		6.3V-10A	OA					55.60
	1050	L 400	400			6.3V-4A	L 375	500		6.3V-5A						
H-91		C 600	260			5V-6A	C 575	320		5V-6A						
	900	L 340	200			6.3V-5A	L 330	220		6.3V-6A	KA					30.60
		L 390	190			6.3V-1A	L 385	195		6.3V-1.5A						
H-92						5V-3A				5V-4A						
	900	L 340	265			6.3V-6A	L 330	310		6.3V-8A	MB					39.00
	1050	L 400	240			6.3V-2A	L 395	290		6.3V-2A						
H-93						5V-4A				5V-4A						
	1000	L 370	300			6.3V-8A	L 340	390		6.3V-10A	OA					55.50
	1200	L 465	265			6.3V-4A	L 455	350		5V-6A						
H-194**						5V-6A				5V-6A						
	200	L 170	140			6.3V-3.5A	L 160	155		6.3V-4A	HA					24.00
		C 275	85				C 275	95								
H-195**	215	L 200	125				L 190	135								
		C 325	75				C 310	85								
	235	L 185	285			6.3V-5A	L 175	300		6.3V-6A	JA					25.50
H-196**	265	L 300	180				L 285	195								
		C 300	180				C 220	255								
	265	L 230	240				L 220	255								
H-197**		C 375	150				C 360	165								
	230	L 200	445			6.3V-5A	L 190	480								
		C 320	280			6.3V-1.5A	C 300	300		6.3V-6A	KA					30.00
H-198	285	L 250	380				L 240	420		6.3V-2A						
		C 400	235				C 380	260								
	260	L 230	500			6.3V-6A	L 220	550		6.3V-7A	MB					42.00
H-199		C 360	320			6.3V-2A	C 340	350		6.3V-2A						
		L 280	420				L 270	470								
	320	L 250	260				C 430	290								
H-198 Highly shielded Scope transformer	No CT															
	800	L 1000	5			1.25 V-2A connected to one end of HV winding.	L 600	1200			HA					27.00
	1600	L 2000	5			6.3 V-0.6A 5.2 KV RMS test voltage	L 1600	2000								
H-110	2400	L 3000	5				L 2400	3000								
	1050	L 365	300				L 400	385			MB					30.90
	1200	L 430	275				L 480	265								
H-110W ‡		L 730	210				L 280	245								33.00
		L 860	190				L 600	550			NA					36.00
	1050	L 415	500				L 480	265								
H-111	1200	L 480	450				L 550	320								
		L 830	350				L 420	380								42.60
		L 960	310				L 410	330								
H-111W ‡		L 615	320				L 385	330			NA					42.60
	1500	L 1900	770				L 230	330								
		L 1230	220				L 270	270								45.00
H-112W ‡		L 1580	190				L 230	230								
		L 1050	310				L 375	330								60.00
	2500	L 1275	275				L 330	330			†					
H-113	3000	L 1050	475				L 525	475			‡					84.00
		C 3000	1265			425	L 475	475								
	3500	L 1500	275				L 375	375			‡					81.00
H-114		L 1900	235				L 320	320								
		L 2125	950				L 1150	1090			††					291.00
	5000	L 2550	850				L 1090	1090								



HERMETIC COMPONENTS

Designed, Manufactured and Successfully
Tested to Complete MIL-T-27B Specifications.

MAT* MAGNETIC AMPLIFIERS FOR SERVO MOTOR APPLICATIONS

For new Magamps
see page 1.

VACUUM TUBE TYPE

The MAT-1-4 Magnetic Amplifiers are exceptionally stable units designed for the control of 2 phase, 115V., 400 cycle servo motors. They are compact... hermetically sealed... magnetically shielded... and meet MIL-T-27B and MIL-E-5400 Specifications. The output is sinusoidal, amplitude variable, and phase reversible. Control is provided by a dual triode such as 12AU7 operating with a plate voltage of 115 volts, 400 cycles, or higher. The signal to the triode grids can be polarity reversible DC or phase reversible 400 cycles with or without suppressed carrier modulation. These units eliminate DC power requirements as well as temperature sensitive dry disc rectifiers. The high input impedance provides minimum loading on sensing elements and high power gain. Ringing at low load level has been reduced to a minimum through high internal damping factors. The power output figures are conservative... power gain of the Magnetic Structure is approximately 40... response time approximately 7.5 milliseconds. The maximum null voltage is 3 volts RMS. For single phase supply voltage the load capacitor should effect 90° phase shift with motor load... for 3 phase, 30° phase shift.

Type No.	MAT-1	MAT-2	MAT-3	MAT-4
230 Volt Supply				
Power output	4 W.	8 W.	11 W.	18 W.
RL, ohms	3300	1600	1200	720
CL, mfd., approx.	.2	.3	.5	.7
115 Volt Supply				
Power output	2 W.	4 W.	6 W.	9 W.
RL, ohms	6500	3300	2200	1450
CL, mfd.	.13	.2	.3	.45
Reson. Freq.	40 cyc.	35 cyc.	35 cyc.	20 cyc.
Log-Decr.	.18	.23	.03	.65
Cont. Wdg. Res.	6200 ohms	8450 ohms	4750 ohms	5650 ohms
Case Length, in.	1 1/2	1 1/2	1 3/4	2 1/4
Width, in.	1 1/4	2 1/4	2 1/2	3 1/8
Height, in.	2 3/4	2 3/4	2 3/4	3 3/8
Mtg. Dim., in.	1 3/4 x 1 1/2	1 x 1 3/8	1 1/8 x 1 7/8	1 1/2 x 2 1/2
Studs, stainless	4-40	6-32	8-32	8-32
Cutout, in.	1	1	1	1
Unit Weight, lbs.	.67	1.1	1.7	2.75
Net Each	\$27.00	\$30.00	\$36.00	\$39.00

MAT-5 115V., 400 cyc to 460 VCT; provides 230V. 48 MA DC or 460V. 24 MA DC RC-37 Case (UTC pag. 10). MIL type TF4S02YY. Net Each \$10.80.

MAT-6 Input... 10,000 ohms pri... 1:15 C.T. ratio... phase shift under 1° RC-25 case (UTC pag. 5). MIL type TF4R10YY. Net Each \$9.00.

TRANSISTOR TYPE

UTC transistor MAT units are identical to their vacuum tube counterparts, but designed for low impedance control. The input transformer may be chosen by impedance ratio rather than precise rated impedance.

Type No.	MAT-7	MAT-8	MAT-9	MAT-10	MAT-60
Power output	4 W.	8 W.	11 W.	18 W.	50 W.
RL, ohms	3300	1600	1200	720	260
CL, mfd approx.	.2	.3	.5	.7	.7
Cont. Wind. Res.	381	521	301	361	50
Case Length, in.	2 1/2	2 1/2	2 3/4	2 3/4	MIL MB
Width, in.	1 1/4	2 1/4	2 1/2	2 3/4	
Height, in.	1 1/2	1 1/2	2	2 1/4	60
Mtg. Dim., in.	1 3/4 x 1 1/2	1 1/4 x 2	1 1/4 x 2 1/4	2 3/8 x 2 3/8	cycle type
Studs, stainless	4-40	6-32	8-32	8-32	
Cutout, in.	1	1	1	1	
Weight, lbs.	.65	1.1	1.7	2.75	
Net Each	\$25.80	\$28.80	\$34.50	\$37.50	\$54.00

MAT-11 115V., 400 cyc. to two 28 Volt. 2A windings for 56 VCT., 2A or 28V., 4A RC-37 (UTC pag. 10) case. MIL type TF4S02YY. Net Each \$10.05.

MAT-65 115V., 60 cyc. to 8.5 VCT @ 500 ma & 63 VCT @ 300 ma. FA case (pag. 13). MIL Type TF4S02FA. Net Each \$12.60.

ULTRA-SHIELDED POWER-LINE ISOLATION TRANSFORMERS

Simulates battery operation for critical circuits requiring extreme isolation from power line.

Designed to give the ultimate in isolation, for line-powered equipment, which formerly could only be obtained from battery power. The effective capacity coupling between primary and secondary windings is less than 0.1 MAFD.

Type No.	Power Watts	Power Case Watts	Industrial Ratings in Bold Type Primary 115 V 50/60 Cycles	Net Each
HIT-1	50	60	4 1/2 x 4 1/2 x 3 1/2	\$33.00
HIT-15	120	150	5 1/2 x 5 x 3 1/2	39.00
HIT-2	160	200	5 1/2 x 5 1/2 x 4 1/2	48.00
HIT-4	400	480	8 x 6 1/2 x 5 1/2	69.00
HIT-4	1000	1200	9 x 7 1/2 x 7 1/2	120.00
HIT-450T	80	100	4 1/2 x 4 1/2 x 3 1/2	33.00

† Primary, 115v. 400 cps. Secondary, 115 volts.

PRECISION MINIATURE WIDE APPLICATION PULSE TRANSFORMERS

UTC miniature, wound core, pulse transformers are individually precision adjusted in standard test circuits to close tolerances. They are highly reliability units, hermetically sealed by vacuum molding and suited for service from -70° C. to +130° C. Wound core structure provides excellent temperature stability (un-

like ferrite). Designs are high inductance type to provide minimum of droop and assure true pulse width. H-45 thru H-57 ratio 1:1. H-60 thru H-69 ratio 4:4:1. Others ratio 5:3:1.

See PIP pulse units on UTC page 2.

TRANSISTOR PULSE TRANSFORMERS

APPROX. DCR, OHMS				BLOCKING OSCILLATOR PULSE				COUPLING CIRCUIT CHARACTERISTICS							
1-2	3-4	5-6		Width µ Sec.	Rise % Thru	Drop % Over	Back Swing	P % Sec.	Width µ Sec.	Volts Out	Rise % Thru	Drop % Over	Back Swing	Imp. in, out, Net ohms	
124	.14	.05		.05	.016	0	0	30	.05	9.3	.012	0	0	20 50 50	
.41	.48	.19		.1	.016	0	0	30	.1	8.2	.021	0	0	15 50 50	
.78	.94	.33		.2	.022	0	0	18	.2	7.4	.034	0	5	12 100 100	
1.86	2.26	.70		.5	.027	2	10	20	.5	7.5	.045	0	20	25 100 100	
3.73	4.4	1.33		.033	0	12	25	1	7	.078	0	15	23	100 100	
6.2	7.3	2.22		.2	.066	0	15	25	2	6.6	.14	0	10	20 100 100	
10.2	12	3.6		3	.087	0	18	30	3	6.8	.17	0	10	20 100 100	
14.5	17.5	5.14		5	.097	0	23	28	5	7.9	.2	0	18	28 200 100	
42.3	52.1	14.8	10	.14	0	15	28	10	6.5	.4	0	15	30	200 200	
.426	.32	.132	.1	.018	8	0	12	.1	8.2	.02	0	0	30	140/50 100	
5	3.6	1.4	.1	.04	0	10	10	1	7	.07	0	20	30	280/100 100	
21	16	6	.5	.08	0	14	12	5	8	.2	0	25	30	560/200 100	
Transistor pulse transformer kit, consists of H-60 thru H-68 in plastic case.															

VACUUM TUBE PULSE TRANSFORMERS

Type No.	APPROX. DCR, OHMS			BLOCKING OSCILLATOR PULSE				COUPLING CIRCUIT CHARACTERISTICS								DIMENSIONS				
	1-2	3-4	5-6	Width μ Sec.	Rise Time	Over Shoot	Droop Back	% Swing	Width μ Sec.	Volts	Rise Time	Over Shoot	Droop Back	% Swing	Imp.in, out, ohms	L in.	W in.	Gr. Wt.	Net Gms.	
H-45	3	3.5	4	.05	.022	0	20	10	.05	17	.01	20	0	35	250	3/8	3/8	1	\$ 7.35	
H-46	5.5	6.5	7	.10	.024	0	25	10	.10	19	.01	30	10	50	250	3/8	3/8	1	7.35	
H-47	3.7	4.0	4	.20	.026	0	25	8	.20	18	.01	30	15	65	500	3/8	3/8	4	6.60	
H-48	5.5	5.8	6	.50	.03	0	20	5	.50	20	.01	30	20	65	500	3/8	3/8	4	6.60	
H-49	8	8.5	9	1	.04	0	20	10	1	24	.02	15	15	65	500	3/8	3/8	4	6.60	
H-50	20	21	22	2	.05	0	20	10	2	27	.05	10	15	35	500	3/8	3/8	4	6.60	
H-51	28	31	33	3	.10	0	20	8	3	26	.07	10	10	35	500	3/8	3/8	4	6.60	
H-52	36	41	44	5	.13	1	25	8	5	23	.15	10	10	45	1000	3/8	3/8	4	6.60	
H-53	37	44	49	7	.28	0	25	8	7	24	.20	10	10	50	1000	3/8	3/8	6	6.60	
H-54	50	58	67	10	.30	0	20	8	10	24	.25	10	10	50	1000	3/8	3/8	6	6.90	
H-55	78	96	112	16	.75	0	20	10	16	23	.40	5	15	20	1000	3/8	3/8	6	6.90	
H-56	93	116	138	20	1.25	0	20	10	20	23	.6	5	10	15	1000	3/8	3/8	6	6.90	
H-57	104	135	165	25	2.0	0	30	10	25	24	1.5	5	10	10	1000	3/8	3/8	6	6.90	
H-461	9.6	6.4	2.5	.1	.025	0	0	8	.1	19	.02	3	5	20	700/250	3/8	3/8	1	7.50	
H-501	30	20	7	2	.08	0	12	5	2	27	.06	12	15	35	1400/500	3/8	3/8	4	6.60	
H-531	66	47	17	7	.32	0	12	3	7	24	.23	12	10	40	2800/1000	3/8	3/8	6	6.60	
H-561	180	142	53	20	1.75	0	13	5	20	23	.7	5	10	10	2800/1000	3/8	3/8	6	6.90	
H-58	Pulse transformer kit, consisting of H-45 thru H-57 in a partitioned plastic case.																			88.20

UNITED TRANSFORMER COMPANY DIVISION OF TRW INC.



ELECTRIC WAVE FILTERS

Designed, Manufactured and Successfully
Tested to Complete MIL-F-18327B Specifications.



BM & LM
Series



HM Series

INTERSTAGE AND LINE FILTERS

Available in stock frequencies listed below (numerical part of type number is cutoff frequency in cps). Compact shielded cases, hermetically sealed to MIL-T-27B specs. BMI, LMI, BMI cases: $1\frac{1}{2}'' \times 1\frac{1}{2}'' \times 1\frac{1}{2}''$ h.; wt., 6 oz. HMI, LMI cases: $1\frac{1}{2}'' \times 1\frac{1}{2}'' \times 1\frac{1}{2}''$ h.; wt., 7 oz. The BMI filters are band pass interstage units designed to operate between a vacuum tube plate (or 10,000 ohms) and a grid. They provide a gain of 2 at center frequency. BTI units are same as BMI, but 10,000 ohms output.

BMI band pass filters, similarly, work into a grid, but have an input impedance of 500/600 ohms. They provide a gain of 9.

HMI filters are high pass interstage units.

LMI filters are low pass interstage units.

HML filters are high pass with input and output impedance of 500/600 ohms.

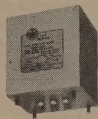
LML filters are low pass with input and output impedance of 500/600 ohms.

LLP low frequency low pass filter, loss of less than 40 db at 20 cycles. Source & load 100K ohms.

UTC Type	Net Ea.	UTC Type	Net Ea.	UTC Type	Net Ea.
BMI-30	\$36.00	LMI-200	\$31.50	HMI-800	\$31.50
BMI-60	30.00	LMI-400	31.50	HMI-1000	31.50
BMI-90	30.00	LMI-500	31.50	HMI-2000	31.50
BMI-100	30.00	LMI-800	31.50	HMI-3000	31.50
BMI-120	30.00	LMI-1000	31.50	BML-400	30.00
BMI-150	30.00	LMI-1500	31.50	BML-1000	30.00
BMI-200	30.00	LMI-2000	31.50	HML-200	39.00
BMI-240	30.00	LMI-2500	31.50	HML-300	39.00
BMI-300	30.00	LMI-3000	31.50	HML-500	39.00
BMI-400	30.00	LMI-4000	31.50	HML-1000	39.00
BMI-500	30.00	LMI-5000	31.50	LML-1000	31.50
BMI-600	30.00	LMI-10000	31.50	LML-2000	31.50
BMI-750	30.00	BTI-60	36.00	LML-2500	31.50
BMI-800	30.00	BTI-100	36.00	LML-3000	31.50
BMI-1000	30.00	BTI-120	36.00	LML-4000	31.50
BMI-1500	30.00	HMI-30	31.50	LML-8000	31.50
BMI-2000	30.00	HMI-100	31.50	LML-10000	31.50
BMI-3000	30.00	HMI-200	31.50	LLP-10	60.00
BMI-4000	30.00	HMI-300	31.50		
BMI-5000	30.00	HMI-400	31.50		
BMI-10000	30.00	HMI-500	31.50		
LMI-100	31.50				

NEW 400-CYCLE 115 V. LINE FILTERS

Intended for use on 115 v., 400 cps line to eliminate harmonic distortion.



UTC No. PLF-25 — Gives 150 v. output into 500 ohm load with ± 1 db, 375-425 cps. Will attenuate 800 cycles by 30 db; 1200 cycles and higher by at least 50 db. MIL type, FR4R11NB. Meets MIL-F-18327B. Size $4\frac{1}{2}'' \times 5\frac{1}{2}'' \times 5\frac{1}{2}''$ d. x $5\frac{1}{2}''$ h. Weight, 10 lbs. Net Each \$66.00

UTC No. PLP-13 — Eliminates harmonic distortion, rejects 60 and 120 cycles, and gives zero phase shift at 400 cycles. Operating into 1000 ohm load, provides 115 v. output at 400 cycles, within ± 1 db, 375-425 cycles. Attenuates 800 cycles by 15 db; 1200 cps by 45 db; above 1200 cps by at least 35 db; 120 cps by 20 db; and, 60 cps by 30 db. MIL type FR4R22-LB; meets MIL-F-18327B specifications. Size, $3\frac{1}{4}'' \times 5\frac{1}{4}'' \times 4\frac{1}{4}''$ d. x $4\frac{1}{4}''$ h. Weight, $6\frac{1}{2}$ lbs. Net Each \$66.00

TELEGRAPH TONE CHANNEL FILTERS



TGT CASE
 $1\frac{1}{2}'' \times 1\frac{1}{2}'' \times 2\frac{1}{2}''$
Mtg $1\frac{1}{8}'' \times 1\frac{1}{8}''$
Screws 6-32
Weight 8 oz.



TGR CASE
 $1\frac{1}{2}'' \times 1\frac{1}{2}'' \times 4\frac{1}{4}''$
Mtg $1\frac{1}{8}'' \times 1\frac{1}{8}''$
Screws 32
Weight 15 oz.

UTC band pass filters for multiplex transmitting and receiving provide maximum stability in miniature sizes. Stock filters cover all standard transmit and receive bands. All units employ 7 terminal header matching subminiature 7 pin socket.

TGR (receiving) & TGT (transmitting) filters are

600 mhz in and out. They are down less than 3 db at ± 42.5 cycles from center frequency.

TGR units are down more than 30 db at ± 170 cycles. Attenuation is greater than 15 db at center frequency.

TGT units are down more than 16 db at ± 170 cycles. Attenuation is greater than 7.5 db at adjacent channel crossover.

AGC units are down more than 16 db at adjacent channel crossover.

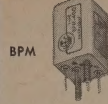
AGC units are down more than 16 db at adjacent channel crossover.

UTC Type	Net Each	Center Frequency (Cyc.)	UTC Type	Net Each
TGT-425	\$42.00	425	TGR-425	\$72.00
TGT-595	42.00	595	TGR-595	72.00
TGT-765	42.00	765	TGR-765	72.00
TGT-935	42.00	935	TGR-935	72.00
TGT-1105	42.00	1105	TGR-1105	63.00
TGT-1275	36.00	1275	TGR-1275	63.00
TGT-1445	36.00	1445	TGR-1445	63.00
TGT-1615	36.00	1615	TGR-1615	63.00
TGT-1785	33.00	1785	TGR-1785	60.00
TGT-1955	33.00	1955	TGR-1955	60.00
TGT-2125	33.00	2125	TGR-2125	60.00
TGT-2295	33.00	2295	TGR-2295	60.00
TGT-2465	30.00	2465	TGR-2465	57.00
TGT-2635	30.00	2635	TGR-2635	57.00
TGT-2805	30.00	2805	TGR-2805	57.00
TGT-2975	30.00	2975	TGR-2975	57.00
TGT-3145	30.00	3145	TGR-3145	57.00
TGT-3315	30.00	3315	TGR-3315	57.00

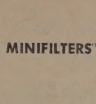
IMMEDIATE
DELIVERY
ON ALL
ITEMS

SPECIAL FREQUENCY FILTERS

BMI, BML, BPH, BPM, BTI, HMI,
HML, HPM, LMI, LML, LPM \$48.00
MNF, MWF, TMN, TMW \$60.00
TGR \$90.00
TGT \$54.00



BPM



MINIFILTERS*



HPM
& LPM

For NEW Filters
See page 1.

These units provide almost the same characteristics as the standard interstage units listed to the left, although extremely miniaturized. Hermetically sealed to MIL-T-27B specs. B type case: $3\frac{1}{2}'' \times 3\frac{1}{2}'' \times 1\frac{1}{2}''$ h.; wt., 1 oz. H and L cases: $1\frac{1}{2}'' \times 1\frac{1}{2}'' \times 1\frac{1}{2}''$ h.; wt., 2/4 oz. Cutoff frequencies in cps indicated by type number.

BPM units (BAND PASS) have 2:1 gain. Attenuation is approximately 2 db $\pm 3\%$ from center frequency, and 35 db per octave as shown. Input 10,000 ohms, output to grid, tapped for 10,000 ohms to provide for transistor circuits. For tube circuits continuity is on grid side, for transistor use continuity is on input side.

BPH units (BAND PASS) attenuation less than 3 db $\pm 5\%$ from center frequency, and 40 db per octave. Source and load 500 ohms.

HPM units (HIGH PASS) are down less than 6 db at cutoff frequency, and more than 30 db at .67 cutoff frequency, 40 db at .6 cutoff frequency. Input and output 10,000 ohms.

LPM units (LOW PASS) are down less than 6 db at cutoff frequency, and more than 30 db at 1.5 cutoff frequency, 40 db at 1.65 cutoff frequency. Input and output 10,000 ohms.

UTC Type	Net Ea.	UTC Type	Net Ea.	UTC Type	Net Ea.
BPH-50000	\$27.00	BPM-2500	\$27.00	HPM-1500	\$30.00
BPH-100000	27.00	BPM-3000	27.00	HPM-4000	30.00
BPM-400	27.00	BPM-3200	27.00	LPM-200	30.00
BPM-440	27.00			LPM-300	30.00
BPM-500	27.00	BPM-4000	27.00	LPM-500	30.00
BPM-600	27.00	BPM-4800	27.00	LPM-1000	30.00
BPM-750	27.00	BPM-5000	27.00	LPM-1500	30.00
BPM-800	27.00	BPM-6000	27.00	LPM-2000	30.00
BPM-1000	27.00	BPM-6400	27.00	LPM-3000	30.00
BPM-1200	27.00	BPM-6800	27.00	LPM-5000	30.00
BPM-1500	27.00	BPM-10000	27.00	LPM-6000	30.00
BPM-1600	27.00	BPM-20000	27.00	LPM-8000	30.00
BPM-1800	27.00	HPM-500	30.00	LPM-10000	30.00
BPM-2000	27.00	HPM-1000	30.00	LPM-15000	30.00

TELEMETERING BAND PASS FILTERS



TMN-4 thru
TMN-1.7
 $1\frac{1}{2}'' \times 1\frac{1}{2}'' \times 2\frac{1}{2}''$
Weight 3.5 oz
TMN-2.3 thru
TMN-70
 $3\frac{1}{2}'' \times 3\frac{1}{2}'' \times 3\frac{1}{2}''$
Weight 1.2 oz.



MNF-5 thru
MNF-5.4
 $1\frac{1}{2}'' \times 1\frac{1}{2}'' \times 2\frac{1}{2}''$
Weight 1 oz.
MNF-7 thru
MNF-70
 $3\frac{1}{2}'' \times 3\frac{1}{2}'' \times 3\frac{1}{2}''$
Weight $1\frac{1}{3}$ oz.

Both TMN and TMW types are designed for 100 K input and output impedance and have an insertion loss of less than 6 db. Four pin hermetic header matches small Winchester socket.

TMN filters are down less than 3 db at $\pm 7.5\%$ of center frequency. They are down more than 18 db at $\pm 25\%$ of center frequency. Attenuation is greater than 40 db beyond 1.75 Fc and .58 Fc.

TMW filters are down less than 3 db at $\pm 15\%$ of center frequency. They are down more than 20 db at $\pm 50\%$ of center frequency. Attenuation is greater than 40 db beyond 2.5 Fc and .4 Fc.

MNF and MWF (Minifilter) provide same performance as filters described above but are extremely miniaturized. Slanted toward use with transistors. Pin terminals ideally suited for printed circuits.

UTC Type	Net Each	Center Frequency KC	Band Width $\pm$	UTC Type	Net Each
TMN-4	\$39.00	.4	7 1/2%	MNF-4	\$39.00
TMN-56	39.00	.56	7 1/2%	MNF-56	39.00
TMN-73	39.00	.73	7 1/2%	MNF-73	39.00
TMN-96	39.00	.96	7 1/2%	MNF-96	39.00
TMN-1.3	39.00	1.3	7 1/2%	MNF-1.3	39.00
TMN-1.7	39.00	1.7	7 1/2%	MNF-1.7	39.00
TMN-2.3	39.00	2.3	7 1/2%	MNF-2.3	39.00
TMN-3.0	39.00	3.0	7 1/2%	MNF-3.0	39.00
TMN-3.9	39.00	3.9	7 1/2%	MNF-3.9	39.00
TMN-5.4	39.00	5.4	7 1/2%	MNF-5.4	39.00
TMN-7.35	39.00	7.35	7 1/2%	MNF-7.35	39.00
TMN-10.5	42.00	10.5	7 1/2%	MNF-10.5	42.00
TMN-14.5	42.00	14.5	7 1/2%	MNF-14.5	42.00
TMN-22	42.00	22	7 1/2%	MNF-22	42.00
TMN-30	42.00	30	7 1/2%	MNF-30	42.00
TMN-40	42.00	40	7 1/2%	MNF-40	42.00
TMN-52.5	42.00	52.5	7 1/2%	MNF-52.5	42.00
TMN-70	42.00	70	7 1/2%	MNF-70	42.00
TMW-22	42.00	22	15%	MWF-22	42.00
TMW-30	42.00	30	15%	MWF-30	42.00
TMW-40	42.00	40	15%	MWF-40	42.00
TMW-52.5	42.00	52.5	15%	MWF-52.5	42.00
TMW-70	42.00	70	15%	MWF-70	42.00

HIGH Q PRECISION INDUCTANCE DECADE

Invaluable instruments for design and experimental work with tuned circuits, wave filters, and equalizers. The low hum pickup toroid coils employ a new permalloy just core which, combined with special winding methods, provides very high Q, excellent voltage and temperature stability, and high self resonance frequency. The inductance values are laboratory adjusted to better than 1% precision, with calibration noted on base.



DI CASE
Length $4\frac{1}{2}''$
Width $4\frac{1}{2}''$
Height $2\frac{1}{2}''$
Weight 2 lbs.

Type No.	Induct. Henries	Optimum Range	Max. Q	Max. ACMA	Ins. Test Volts	Test RMS	Net Each
DI-1	10 x .01	2-60 KC	200	500	500		\$42.00
DI-2	10 x .1	2-20 KC	200	500	500		54.00
DI-3	10 x 1	25-10 KC	200	50	500		57.00
DI-4	10 x 10	2-1.5 KC	100	15	500		72.00

UNITED TRANSFORMER COMPANY DIVISION OF TRW INC.

UTC PAGE 7. *UTC Trade Mark. All Product Lines or Type Designations are UTC Trade Marks. Specify by Trade Mark to assure UTC high quality and reliability. © 1965, 1966 United Transformer Co., Div. of TRW INC.



HIGH Q COILS & INDUCTORS

SECTION 5000

Designed, Manufactured and Successfully Tested to Complete MIL-T-27B Specifications.

For New Inductors See page 1.

HERMETIC "M" TYPE TOROIDS

All these ultracompact high Q units are grade 5, hermetically sealed to (MIL-T-27B). All give extra temperature stability rated at 1%, -55°C to +100°C.

MM—Ultraminature epoxy molded toroidal inductors with pin terminals for printed circuit application. Maximum Q at 30 KC. $\frac{3}{4}$ dia. d x $\frac{1}{4}$ " w. .07 oz.

MH—Ultraminature epoxy molded toroidal inductors similar to MM except maximum Q at 100 KC. Size & wt. as MM. ML—Ultraminature hermetically cased inductors with epoxy board and pin terminals for printed circuit application. Maximum Q at 800 cps to 2 KC, depending on inductance. $\frac{3}{4}$ x $\frac{3}{4}$ x $\frac{3}{4}$ " w. 2 oz.

MO—Miniature epoxy molded inductors with pin terminals for printed circuit application. Maximum Q at 600 cps to 1500 cps depending on inductance. $\frac{3}{4}$ x $\frac{1}{4}$ x $\frac{3}{4}$ " w. 1 oz. MW—Miniature epoxy molded toroidal inductors with pin terminals for printed circuit application. Maximum Q at 5 to 10 KC. $\frac{3}{4}$ dia. d x $\frac{1}{4}$ " w. .25 oz.

UTC Type	Induct. Hys.	Net Each	UTC Type	Induct. Hys.	Net Each	UTC Type	Induct. Hys.	Net Each
ML-0	.15	8.40	MM-6	.03	8.10	MO-2	2	\$9.60
ML-1	.25	8.40	MM-7	.04	8.40	MO-3	5	9.60
ML-2	.40	8.40	MM-8	.12	8.40	MO-7.5	7.5	9.60
ML-3	.70	8.40	MM-1	.0006	8.10	MO-20	20	9.60
ML-4	1.4	8.40	MM-2	.0015	8.10	MO-50	50	9.90
ML-5	2.5	8.40	MM-3	.0025	8.40	MO-100	100	9.90
ML-6	4.0	8.40	MM-4	.006	8.40	MW-.05	.05	7.20
ML-7	6.0	8.40	MM-5	.01	8.70	MW-10	10	7.50
ML-8	10	8.40	MM-6	.015	8.70	MW-25	25	7.50
ML-9	25	8.70	MM-7	.025	9.00	MW-5	5	7.80
ML-10	60	9.90	MM-8	.04	9.00	MW-7.5	7.5	8.40
MM-1	.003	7.50	MO-1	.1	9.30	MW-1	1	8.70
MM-2	.0035	7.50	MO-1.5	1.5	9.30	MW-1.2	1.2	9.30
MM-3	.008	7.80	MI-.3	.3	9.30	MW-2	2	10.80
MM-4	.0125	7.80	MO-.5	.5	9.30	MW-3	3	11.70
MM-5	.02	8.10	MO-1	1	9.30	MW-5	5	13.50

HIGH Q TOROID INDUCTORS

Favorites for over fifteen years, UTC HQ Toroids are only excelled by the preferred new "M" series. As typical Q curves show, HQ coils are available for application from 100 cycles to 100 KC. Adjusted to 1%, the inductance is virtually independent of frequency, temperature, and vibration. Voltage stability is excellent, and shielding case assures 80 db coupling attenuation. Hermetically to MIL-T-27B. All units MIL type TFA4X-20YU.



HQA and HQC CASE
Diameter $1\frac{1}{2}$ "
Height $1\frac{1}{2}$ "
Mounting $1\frac{1}{2}$ "
Screws 6-32
Cutout $\frac{3}{4}$ x $1\frac{1}{2}$ "
Weight 5 oz.

HBQ CASE
Length $2\frac{3}{4}$ "
Width $1\frac{1}{2}$ "
Height $2\frac{3}{4}$ "
Mounting $1\frac{1}{2}$ x $2\frac{1}{4}$ "
Screws 6-32
Cutout $\frac{3}{4}$ x $1\frac{1}{2}$ "
Weight 14 oz.

HOE CASE
Length $1\frac{1}{2}$ "
Width $1\frac{1}{2}$ "
Height $1\frac{1}{2}$ "
Mounting $\frac{3}{4}$ "
Screws 4-40
Cutout $\frac{3}{4}$ x $1\frac{1}{2}$ "
Weight 1.5 oz.

Type No.	Inductance (O DC)	DC MA	Max. Each	Type No.	Inductance (O DC)	DC MA	Max. Each	Net
HQA-1	5 mhy.	400	\$7.50	HQB-1	10 mhy.	410	\$15.00	
HQA-2	12.5 mhy.	260	7.80	HQB-2	30 mhy.	240	15.30	
HQA-3	20 mhy.	200	8.10	HQB-3	40 mhy.	170	15.90	
HQA-4	30 mhy.	160	8.40	HQB-5	.5 hy.	60	17.40	
HQA-5	50 mhy.	130	8.70	HQB-6	1 hy.	41	18.00	
HQA-6	80 mhy.	100	9.00	HQB-7	2 hy.	30	18.90	
HQA-7	125 mhy.	85	9.60	HQB-8	3.5 hy.	22	19.80	
HQA-8	200 mhy.	65	9.90	HQB-9	7.5 hy.	16	21.00	
HQA-9	300 mhy.	50	9.60	HQB-10	12 hy.	11	21.90	
HQA-10	.5 hy.	40	9.90	HQB-11	18 hy.	9	22.80	
HQA-11	.75 hy.	35	9.90	HQB-12	25 hy.	8	24.00	
HQA-12	1.25 hy.	26	10.80	HQC-1	1 mhy.	1350	15.60	
HQA-13	2 hy.	20	11.40	HQC-2	2.5 mhy.	835	16.80	
HQA-14	3 hy.	16	12.90	HQC-3	5 mhy.	600	18.00	
HQA-15	5 hy.	13	13.80	HQC-4	10 mhy.	420	19.80	
HQA-16	7.5 hy.	10	15.00	HQC-5	20 mhy.	300	24.00	
HQA-17	10 hy.	9	15.90	HQE-1	5 mhy.	155	7.80	
HQA-18	15 hy.	8	16.80	HQE-2	10 mhy.	110	7.80	
				HQE-3	50 mhy.	50	8.10	
				HQE-4	100 mhy.	35	8.40	
				HQE-5	200 mhy.	25	8.70	

LOW FREQUENCY HIGH Q COILS

MQL TYPES

All these units of MIL type TFA4X20YU induct value to 2% tolerance at 1v. 60 cycles. Exceptional Q and stability, inductance swing less than 3.5% from -55°C to +85°C. The case, sealed hermetically to MIL-T-27B is $1\frac{1}{2}$ " dia. $2\frac{1}{2}$ " h. Either transformer, parallel, series or center type connections are permitted due to dual windings to 4 terminals. Mounting $1\frac{1}{2}$ " sq. with a 6-32 screw. Cutout $1\frac{1}{2}$ " dia. wt. 1 lb.

Type No.	Series	Hys. (O DC)	Net Each	Type No.	Series	Hys. (O DC)	Net Each
MQL-0	1	.25	\$30.00	MQL-3	200	50	\$30.00
MQL-1	10	2.5	30.00	MQL-4	400	100	31.50
MQL-2	20	5	30.00	MQL-5	2500	625	33.00



MQM TYPES

Designed for high Q at low frequencies. Structure provides exceptional stability, adjusted to 2% at 1v. 60 cycles. Inductance variation less than 2% from -55°C to +130°C. Made to MIL-T-27B, MIL type TFA4X20YU. Size $1\frac{1}{2}$ " x $1\frac{1}{2}$ " x $1\frac{1}{2}$ " h. cutout: 1" d. wt. 5 oz.

Type No.	Series	Hys (O DC)	Net Each	Type No.	Series	Hys (O DC)	Net Each
MQM-2	2	.5	21	MQM-16	4	143	\$12.60
MQM-4	4	4	368	MQM-30	10	370	12.60
MQM-60	60	7.5	370	MQM-150	150	5720	13.50

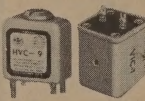


UTC permealloy dust toroids provide highest Q factor with miniaturized dimensions. Lab adjusted to 1% tolerance and sealed to MIL-T-27B specs. Magnetic case plus toroid provide 80 db shielding.

TQA units are similar to MQA but center tapped for oscillator application, etc. Net each: TQA-1 thru TQA-15, \$1.50 more than MQA; TQA-16, 14.70; TQA-17, 15.90; TQA-18, 17.40; TQA-19, 21.00; TQA-20, 23.40.

UTC Type	Ind. Hys.	Net Each	UTC Type	Ind. Hys.	Net Each	UTC Type	Ind. Hys.	Net Each
MQA-1	.007	7.50	MQB-1	.010	\$12.90	MQD-6	.020	\$21.00
MQA-2	.012	8.10	MQB-2	.030	13.20	MQD-7	.030	22.80
MQA-3	.020	8.10	MQB-3	.070	13.50	MQE-1	.004	6.90
MQA-4	.030	8.40	MQB-4	.120	13.80	MQE-2	.007	7.20
MQA-5	.050	8.70	MQB-5	.50	14.10	MQE-3	.012	7.50
MQA-6	.070	9.00	MQB-6	1.0	14.40	MQE-3	.020	7.80
MQA-7	.120	9.30	MQB-7	2.0	14.70	MQE-4	.030	7.80
MQA-8	.20	9.60	MQB-8	3.5	15.00	MQE-5	.050	8.10
MQA-9	.30	9.90	MQB-9	7.5	15.90	MQE-6	.070	8.40
MQA-10	.50	10.20	MQB-10	12	16.80	MQE-7	.100	8.40
MQA-11	.70	10.50	MQB-11	18	18.00	MQE-8	.150	8.70
MQA-12	1.0	10.80	MQB-12	25	19.20	MQE-9	.250	8.70
MQA-13	1.5	11.10	MQB-13	40.0	21.00	MQE-10	.400	9.00
MQA-14	2.5	11.40	MQB-14	60.0	24.00	MQE-11	.600	9.00
MQA-15	4.0	12.00	MQD-.0	.001	14.70	MQE-12	.90	9.30
MQA-16	6.0	12.90	MQD-1	.002	15.00	MQE-13	1.5	9.90
MQA-17	10.0	13.80	MQD-2	.003	15.60	MQE-14	2.0	10.80
MQA-18	15.0	15.00	MQD-3	.005	16.20	MQE-15	2.8	12.00
MQA-19	22.0	18.00	MQD-4	.007	16.80	MQE-16	4.0	13.50
MQA-20	35.0	20.70	MQD-5	.012	18.00			

VARIDUCTORS



These variable inductors are ideal for use in tuned circuits, equalizers, oscillators, etc. TYPE HVC—Gives highest Q and stability; adjustable -70% to +200% of mean value. Hermetically sealed to MIL-T-27B.

HVV Types: For precise matching; vernier inductance variation $\pm 10\%$ of nominal value. Offer high Q over a wide frequency range and high temperature stability.

VIC—Adjustable -45% to +85% of mean value.

Size: HVC, TVC and HVV types, $1\frac{1}{2}$ " lg. x $\frac{3}{4}$ " w. x $1\frac{1}{2}$ " h.; weight 2 oz. VIC type, $1\frac{1}{2}$ " lg. x $1\frac{1}{4}$ " w. x $1\frac{1}{2}$ " h.; weight $\frac{5}{8}$ oz. HVC, TVC, U.S. Pat. No. 2,879,489; HVV, Pat. Pend.

TV type inductors are identical to HVC units, but provide taps at 30% and 50% of total turns—ideal for oscillator circuits, etc. HVC & TVC, U.S. Pat. No. 2,879,489.

UTC Type	Mean Hys.	DC Ma.	Each	UTC Type	Mean Hys.	DC Ma.	Each
HVC-1	.006	100	\$9.00	TVC-6	.6	15	\$11.10
HVC-2	.015	60	9.00	TVC-7	1.5	10	11.70
HVC-3	.040	40	9.00	TVC-8	4	7	11.70
HVC-4	.1	30	9.00	TVC-9	10	5	11.70
HVC-5	.25	20	9.00	TVC-10	25	3.5	12.90
HVC-6	.6	15	9.00	TVC-11	60	2	14.10
HVC-7	1.5	10	9.60	TVC-12	150	1.5	15.30
HVC-8	4	7	9.60				
HVC-9	10	5	9.60	VIC-1	.0085	75	4.60
HVC-10	25	3.5	9.90	VIC-2	.013	60	4.60
HVC-11	60	2	10.80	VIC-3	.021	50	4.60
HVC-12	150	1.5	12.00	VIC-4	.034	40	4.60
HVV-.006	.006	200	12.00	VIC-5	.053	35	4.60
HVV-.015	.015	120	12.00	VIC-6	.084	30	4.60
HVV-.04	.04	80	12.00	VIC-7	.13	25	4.60
HVV-.1	.10	50	12.00	VIC-8	.21	21	4.60
HVV-.25	.25	30	12.00	VIC-9	.34	18	6.90
HVV-.6	.6	20	12.00	VIC-10	.54	15	6.90
HVV-1.5	1.5	13	12.90	VIC-11	.85	12	7.20
HVV-4	4	12.90	12.90	VIC-12	1.3	10	7.20
HVV-10	10	4.5	12.90	VIC-13	2.2	8	7.20
HVV-25	25	3	13.20	VIC-14	3.4	7	7.20
HVV-60	60	2	14.40	VIC-15	6.4	5	7.50
HVV-150	150	1.3	15.90	VIC-16	8.5	5	7.50
TVC-1	.006	100	11.10	VIC-17	13	4	7.50
TVC-2	.015	60	11.10	VIC-18	21	3.5	7.80
TVC-3	.040	40	11.10	VIC-19	33	3	7.80
TVC-4	.1	30	11.10	VIC-21	83	1.5	9.00
TVC-5	.25	20	11.10	VIC-22	130	1	12.00



HI-FI & BROADCASTING COMPONENTS

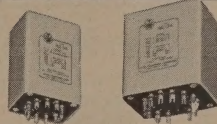
ULTRACOMPACT* HI-FI AUDIOS

Small light weight, wide range units. Level ± 15 dbm except where otherwise noted. Top and bottom mounting. Die cast case, $1\frac{1}{2}'' \times 1\frac{1}{2}'' \times 2''$ h. Weight, $\frac{1}{2}$ lb.

UTC Type	Application	Primary Impedance, Ohms	Sec. Imped., Ohms	#	Net Etc.
A-10	Input	50, 125/150, 200/250, 333, 500/600	50K split	a	\$15.00
A-11	Shield. Input	50, 200, 500	50K CT	a	12.00
A-12	Input	Same as A-10	80K split	c	9.90
A-15	Interstage*	125/2.5K split**	2K/500 sp.	a	13.00
A-16	P1. to grid	15K	60K	a	11.40
A-17	P1. to grid	15K, 8 ma	80K split	c	15.00
A-18	P1. to grid	15K, 8 ma	80K split	c	15.00
A-19	P1. to p-p	15K, 8 ma	80K split	c	15.00
A-20	Mixing	Same as A-10	Same as pri.	d	14.00
A-21	Shield Mixing	50, 200/250, 500/600	Same as pri.	e	12.00
A-22	Tr. to line*	500 CT	500/125 spl.	c	9.90
A-23	Tr. to V.C.*	500 CT	16/4 split	c	9.90
A-24	P1. to line	15K split	50K/100 pri.	c	14.70
A-25	P1. to line	15K CT	See A-10 pri.	c	9.90
A-26	P-p to line	15K, 8 ma	See A-10 pri.	f	13.50
A-27	Input	100K split	See A-10 split	b	13.50
A-28	Tr. to V.C.	48/16, 5 w	16 split, 8/4	b	10.20
A-34	Transistor	25K/6250 split	500/125 split	b	10.20
A-35	Interstage	10K/2.5K split	500/125 split	c	9.90
A-36	Interstage	500/125 split	150/37.5 split	c	9.60
A-37	Interstage	500/125 split	50/15 split	c	9.60
A-38	Interstage	100/25 split	40/10 split	c	9.30
A-39	line to transit.	600/150 split	2K/500 split	a	11.70
A-40	Inductor: 250 Hys	@ 3 mhz 65 Hys			10.20
A-41	Split Filter	Series: 60 Hys @ 15 ma, 2000 ohms			9.90
A-42	Inductor	Parallel: 15 Hys @ 30 ma, 2000 ohms			9.90
A-43	Hyperimally shield fits A units 20 db				3.00
A-44	Power transformer	115V 60 cycles to two 6.3 CT—2A—Secs.			9.60
A-41	Split Filter	Series: 240 Mhy @ 2A, 6 ohms			6.60
A-42	Inductor	Parallel: 60 Mhy @ 2A, 1.5 ohms			6.60
A-43	Split Filter	Series: 4 Hys—30 ma, 100 ohms			6.60
A-44	Inductor	Parallel: 1 H-y 100 ma, 25 ohms			6.60
A-43	Matching to 2 simult. lines or Tr.	600/150 split	(2) 600/150 split	d	14.70
A-44	1st o/p output	4K/1K split, 12 ma	600/150 split	b	12.00
A-45	Spkr. match	4, 8, 16, 32, 64, 128, 256, 512, 1024, 2048, 4096, 8192, 16384, 32768, 65536, 131072, 262144, 524288, 1048576, 2097152, 4194304, 8388608, 16777216, 33554432, 67108864, 134217728, 268435456, 536870912, 1073741824, 2147483648, 4294967296, 8589934592, 17179869184, 34359738368, 68719476736, 137438953472, 274877906944, 549755813888, 1099511627776, 2199023255552, 4398046511104, 8796093022208, 17592186044416, 35184372088832, 70368744177664, 140737488355328, 281474976710656, 562949953421312, 1125899906842624, 2251799813685248, 4503599627370496, 9007199254740992, 18014398509481984, 36028797018963968, 72057594037927936, 144115188075855872, 288230376151711744, 576460752303423488, 1152921504606846976, 2305843009213693952, 4611686018427387904, 9223372036854775808, 18446744073709551616, 36893488147419103232, 73786976294838206464, 147573952589676412928, 295147905179352825856, 590295810358705651712, 1180591620717411303424, 2361183241434822606848, 4722366482869645213696, 9444732965739290427392, 18889465931478580854784, 37778931862957161709568, 75557863725914323419136, 151115727451828646838272, 302231454903657293676544, 604462909807314587353088, 1208925819614629174706176, 2417851639229258349412352, 4835703278458516698824704, 9671406556917033397649408, 19342813113834066795298816, 38685626227668133590597632, 77371252455336267181195264, 154742504910672534362390528, 309485009821345068724781056, 618970019642690137449562112, 1237940039285380274899124224, 2475880078570760549798248448, 4951760157141521099596496896, 9903520314283042199192993792, 19807040628566084398385987584, 39614081257132168796771975168, 79228162514264337593543950336, 158456325028528675187087900672, 316912650057057350374175801344, 633825300114114700748351602688, 1267650600228229401496703205376, 2535301200456458802993406410752, 5070602400912917605986812821504, 10141204801825835211973625643008, 20282409603651670423947251286016, 40564819207303340			

**HIPERMALLOY®
TRANSFORMERS**

Hipermalloy audio and power transformers are specifically designed for portable and compact service. High fidelity though light in weight and dependable. The frequency characteristic of the Hiper-malloy audio units is uniform from 20 to 20,000 cycles. They incorporate a Hipermalloy nickel iron core and hum balanced coil structure. The rugged die cast case is of high conductivity alloy finished in grey, arranged for mounting with the terminals unbrazed or down. DC in Primary



TYPE H-2 CASE

Length	3 $\frac{1}{16}$ "	Length	2 $\frac{3}{8}$ "
Width	2 $\frac{1}{16}$ "	Width	1 $\frac{1}{16}$ "
Height	3 $\frac{1}{2}$ "	Height	3 $\frac{3}{8}$ "
Mounting	2 x 2"	Mount	1 $\frac{1}{2}$ x 1 $\frac{1}{16}$ "
Screws	6-32	Screws	6-32
Cutout	2 $\frac{1}{16}$ " dia.	Cutout	1 $\frac{1}{16}$ " dia.
Unit Wt.	.5 lbs.	Unit Wt.	.2 lbs.

LOW IMPEDANCE TO GRID AND MIXING TRANSFORMERS
Units Housed in Type H-1 Case

UTC Type	Application	Primary Imped. Ohms	Sec. Imped. Ohms	Level dbm	Net Each
HA-100	Line to grid	50, 125/ 150, 200, 250, 333, 500/600	60K split	+18	\$21.00
HA-100X	As above but low hump pickup	multiple alloy shields for up		+16	21.00
HA-101	Lineto grids	Same as HA-100	120K split	+18	27.00
HA-101X	As above but low hump pickup	multiple alloy shields for up	80K split	+16	19.50
HA-103A	Mike/mixer 2.5, 5, 10, to grid	15, 22, 30, 38, 60	60K split	+18	16.50
HA-108*	Mixing	Same as HA-100	60K split Same as Pri	+20	24.00
HA-108X*	As above but low hump pickup	multiple alloy shields for up		+18	24.00
HA-130X	Line to grids.	30, 50, 200, 250	60K split	+18	27.00

INTERSTAGE AUDIO TRANSFORMERS
Units Housed in Type H-1 Case, except HA-107; in H-2 Case

UTC Type	Applica-tion	Primary Imped. Ohms	Sec. Imped. Ohms	Level Mw.	Net Each
HA-104	Pl. to grids	15K split	95K	100	\$17.70
HA-105	Pl. to grid	15K	60K	100	24.00
HA-106	Pl. to grids	15K split	135K	100	24.00
HA-107	Pl's. to grids	30K	80K	600	33.00
HA-137	Pl's. to grids	30K	68K	100	21.00

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LINEAR STANDARD* TRANSFORMERS

Guaranteed frequency response of ± 1 db 20-20,000 cps, ± 1 db 7-50,000 cps on high level units, make these ideal transformers for uniform frequency response and low distortion. High efficiency and dependability through shielding. Top and bottom mounting.



LOW LEVEL TRANSFORMERS

Type LS-1 case, 2 $\frac{5}{8}$ " x 3 $\frac{1}{8}$ " x 3 $\frac{1}{4}$ " h. Suffix X indicates multiple alloy shield. Weight, 3 lbs.

UTC Type	Application	Pr. Imp., Ohms	Sec. imp., Ohms	Level, dbm	Net Each
L5-10	Input	50, 125/150, 200, 250, 333, 500/600	60K split	+19	\$27.00
L5-10X	Input	As above	50K	+17	27.00
L5-12	Input	As above	120K split	+19	30.00
L5-12X	Input	As above	80K split	+17	24.00
L5-30	Mixing	As above	Same as pri.	+23	30.00
L5-30X	Mixing	As above	Same as pri.	+20	24.00
L5-19	Pl. to grids	15K	95K	+20	30.00
L5-21	Pl. to p-p	15K	135K split	+20	27.00
L5-40	Pl. to p-p	15K, 8 ma	135K split	+23	33.00
L5-23	Pl. to p-p	30K split	50K split	+20	27.00
L5-27	Pl. to line	15K, 8 ma	See L5-10 pri.	+23	30.00
L5-50	Pl. to line	15K	See L5-10 pri.	+23	30.00
L5-51	Pl. to line	15K	See L5-10 pri.	+23	33.00
L5-14X	Lo-Z to grids	2.5, 5.5, 10, 15, 22, 30, 38, 60	50K	+17	27.00
L5-26	Line to grids	5K	60K	+23	27.00
L5-31	Line to line	30, 50, 200, 250	See L5-10 pri.	+23	27.00
L5-32	Lo-Z to line	Same as L5-14X	See L5-10 pri.	+23	33.00
L5-68	Mating to 2 Simult. lines or Tr.	600/150 split	(2) 600/150 split	+15	27.00
L5-150	Line to line	4K	See L5-10 pri.	+23	27.00
L5-151	Line to line	16K	See L5-10 pri.	+26	27.00
L5-152	Line to line	500/600 split	Same as pri.	+18	24.00
L5-141	Hybrid T	500/600 split	Same as pri.	+27	27.00

† Has 3 sets of coi

HIGH LEVEL TRANSFORMERS

Sizes: LS-33, -47, -52, -54, -55, -56, -57, -61, -63, 3½" x 4⅞"
x 4⅞" h. (Wt., 7½ lbs.). LS-611, -614, -34, -35, -48, -58, -65,
-666, -667, 5" x 5⅞" x 4⅞" h. (Wt., 15 lbs.). LS-691, 13" x 15¾"
x 24" h. (Wt., 370 lbs.). LS-692, 13" x 15¾" x 28" h. (Wt., 520 lbs.).

UTC	Application	Pri. Imhd., Omns.	#	Level Watts	Net Each
LS-33	Matching	50, 125/150, 200, 250, 333, 500/600	a	20	\$24.00
LS-34	Matching	As above	a	40	33.00
LS-47	Driver	5K	i	20	27.00
LS-48	Driver	12K	i	40	66.00
LS-611	P-p output	9K	b	30	39.00
LS-614	P-p output	4,500/3,800	b	55	66.00
LS-58	P-p output	2.5K/1.5K	b	40	66.00
LS-52	P-p output	8000	b	20	27.00
LS-55	P-p output	5K/3K split	b	20	27.00
LS-61	P-p output	10K/6K split	b	20	24.00
LS-34	P-p output	8000	c	20	21.00
LS-57	P-p output	3K/3K split	c	20	24.00
LS-63	P-p output	10K/6K split	c	20	21.00
LS-56	P-p output	5K/3K split	d	20	30.00
LS-35	EL-34's†	5K CT 43% taps	e	35	36.00
LS-65	6550's†	3.3K CT 40% taps	e	60	45.00
LS-666	P-p transistor	8 split	f	50	36.00
LS-667	P-p transistor	5K/3K split	f	33	50.00
LS-691	Modulation	10,400	g	1,000	690.00
LS-692	Modulation	4,750	h	2,500	990.00

† With feedback. # Secondary Impedance: a—1.2, 2.5, 5, 7.5, 10, 15, 20, 30, 50, 125/150, 200/250, 333, 500/600 ohms. b—500, 333, 250/200, 125, 50, 30, 20, 10, 7.5, 5, 2.5, 1.2 ohms. c—30, 20, 15, 10, 7.5, 5, 2.5, 1.2 ohms. d—6K, 5K, 4K, 1.8K, 1.5K, 1K, 30, 15, 10, 7.5, 5, 2.5, 1.2 ohms. e—4, 8; 16 ohms. f—500 ohms split. g—4.5K, 4K, 3.5K, 2.75K, 2K. h—2.5K, 2K, 1.75K, 1.5K, 1.25K. i—Pri./½ Sec. 3:2:1. j—Pri./½ Sec. 5:1:1.

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PLATE TO LINE TRANSFORMERS

Units Housed in Type H-1 Case

UTC Type	Application	Prim. Imped. Ohms	Sec. Imped. Ohms	Level Mw	Net Each
HA-113	to multiple line	15K split	50, 125/150, 200,	125	\$21.90
HA-114	Lo-Z to multi-line	30K	250, 333, 500/600	200	25.80
HA-133	to multi-line	15K split		160	27.00

OUTPUT TRANSFORMERS

Units Housed in Type H-2 Case

UTC Type	Application	Prim. Imped. Ohms	Sec. Imped. Ohms	Level Watts	Net Each
HA-134	P-p to line	5K/9.4K	50, 125/150, 200, 250, 330, 500, 600	15	\$19.80
HA-135	P-p to V.C.	3K/5K	30, 20, 15, 10, 7.5, 5, 2.5, 1.2	18	19.20
HA-136	5881's screen-taps	6.6K	4, 8, 16	20	21.00

POWER TRANSFORMERS

Units Housed: HP-122 in Type H-1 Case; HP-123 in Type H-2 Case

UTC Type	Applica- tion	Psi. Volt 50/60 μ	Hi-Volt	Fil. Wind	Net Each
HP-122	Pre-amp	115	220-0-220 15 Ma	6.3 V.C.T.—.6A 6.3 V.C.T.—1.2A	\$12.00
HP-123	Pre-amp or Tuner	115	275-0-275 35 Ma	6.3 V.C.T.—.6A 6.3 V.C.T.—2A	12.00



COMMERCIAL GRADE COMPONENTS

DIMENSIONS, COMMERCIAL GRADE "RC" CASE



Performance insured during constant usage due to the ruggedness of this vacuum impregnated component with special sealing compound. Case, finished in light gray enamel, is ready for mounting on chassis. (All audio components linear).

Case No.	Base Dim. (Sq.)	Mounting Dim. (Sq.)	Ht., $\pm \frac{1}{8}$, $-\frac{1}{16}$	Cutout Dia.	Unit Wt. (Lbs.)
RC-37	1 3/8	1 1/8	1 3/8	1 1/4	.35
RC-50	1 3/8	1 3/8	2 1/4	1 1/2	1/2
RC-62	1 3/8	1 1/2	2 1/2	1 1/2	1/2
RC-75	2 3/8	2 3/8	2 3/8	1 7/8	1 1/2
RC-87	2 3/8	2 3/8	3 1/4	2 1/2	2 1/2
RC-100	3	2 3/8	3 3/4	2 3/8	3 1/2
RC-112	3 3/8	2 1/8	4 3/8	2 7/8	5
RC-125	3 3/4	3	4 1/2	3	6 1/2
RC-150	4 1/2	3 3/8	5 1/2	3 3/4	11
RC-150	5 1/8	4 3/8	5 1/2	4	15 1/2
RC-175	5 3/4	4 3/8	7	4	22

SWINGING INPUT AND FILTER INDUCTORS

UTC Type	Induct. Henrys	DC MA	DC Res. Ohms	Test Volts	Case No.	Net Each
CG-40	10	200	110	1750	RC-112	\$10.20
CG-44	30	100	400	1750	RC-100	8.10
CG-45	250	15	5000	1750	RC-87	7.50
CG-48C	75	50	2200	1750	RC-87	9.00
CG-102	12	150	110	2500	RC-125	10.50
CG-102	12	250	100	3000	RC-150	15.60
CG-104	10	350	90	5000	RC-152	18.90
CG-108	10	500	52	7000	RC-175	30.00
CG-15	10	1000	40	9000	1 1/2 x 4 3/4 x 6 7/8 H.	75.00

UTC Type	Induct. Henrys	DC MA	DC Res. Ohms	Test Volts	Case No.	Net Each
CG-101	25/5	150	110	2500	RC-125	10.50
CG-103	25/5	250	100	3000	RC-150	15.60
CG-105	25/5	350	90	5000	RC-152	18.90
CG-109	25/5	500	52	7000	RC-175	30.00
CG-115	100/10mh	2.5a.	6	1500	RC-87	11.40
(2 wdg) 25/2.5mh	2.5a.	.15				
CG-112	40/10mh	6 a.	.24	1500	RC-112	12.60
(2 wdg) 10/2.5mh	12 a.	.06				
CG-115	7/1.75mh	17.5a.	.036	1500	RC-125	14.70
(2 wdg) 1.8/45mh	35 a.	.009				
CG-1C	25/5	1000	40	9000	1 1/2 x 4 3/4 x 6 7/8 H.	75.00

§ Split winding in series. † Wt., 40 lbs. ‡ Split winding in parallel.

PLATE TRANSFORMERS

Primaries for 105, 115, 220, 230 volts; 50/60 cycles. For reduced power, secondary can be cut in half, using 220 v. primary on 110 volts; may be used on 25 to 43 cycles in this case. "W" suffix units designed for full wave center tap and full wave bridge application. Center tap may be disconnected from ground.

UTC Type	High Voltage	DC Volts	Case No.	Net Each
CG-300	625-515-0-515-625	500/400	RC-150	\$21.00
CG-300W	625-515-0-515-625	1000/800	RC-150	22.50
CG-301	580-530-300-0-300-530-580	475/425/250	RC-152	33.00
CG-301W	580-530-300-0-300-530-580	950/850/500	RC-152	36.00
CG-302	950-750-0-750-950	760/610	RC-175	39.00
CG-302W	950-750-0-750-950	1520/1220	RC-175	42.00
CG-303	1500-1235-400-0-400-1235-1500	1250/1000	RC-175	43.50
CG-303W	1500-1235-400-0-400-1235-1500	2500/2000	RC-175	48.00

POWER AND BIAS TRANSFORMERS

Primary 115 volts, 50/60 cycles. DCMA is for choke input; reduce 70% for condenser input. Filament 1 is 5 volts, 3 amps., and Filament 2 is 5 volts, 2 amps., except as otherwise noted.

UTC Type	High Voltage	Ma	Filament 3 VCT	Filament 4	Case No.	Net Each
CG-422	435-365-0-365-435	125	6.3 VCT-3A	2.5 VCT-5A	RC-150	\$27.00
CG-428	125-0-125	25	6.3 VCT-3A	2.5 VCT-3A	RC-152	31.50
CG-428	500-0-500	250	6.3 VCT-100 4A	2.5 VCT-3A	RC-152	31.50
CG-429*	600-525-0-525-600	250	7.5 VCT-3A, tapped 6.3 VCT-4A		RC-152	31.50
CG-431†	500-400-0-400-500	500	6.3 VCT-100 5A	6.3 VCT-3A	RC-175	42.60
CG-315	80-0-80	Tapped for any DC voltage from 15 to 100 volts within 6%—250 MA			RC-125	16.50
CG-316	Tapped for any DC voltage from 75 to 400 volts within 6%—250 MA				RC-152	27.00

* Filament 2 is 6.3 VCT-3A. † Filament 1 is 5V-6A.

AUDIO UNITS

UTC Type	Use	Pri. Imped., Ohms	Level	Case RC-	Net Each
CG-131	a	15K	+28 dbm	50	\$13.50
CG-132	b	15K	+30 dbm	62	13.50
CG-133	c	30K CT	+32 dbm	75	13.50
CG-134	d	50, 200, 500	+30 dbm	50	11.40
CG-135	e	50, 200, 500	+30 dbm	50	12.90
CG-235	f	50, 200, 500	+28 dbm	75	21.00
CG-136	g	15K, 50, 200	+30 dbm	62	18.00
CG-137	h	50, 200, 500	+28 dbm	50	10.80
CG-140	i	15K	+30 dbm	50	9.90
CG-141	j	30K CT	+32 dbm	50	9.60
CG-233	k	30K CT	+35 dbm	87	15.00
CG-233	k	30K CT	+35 dbm	87	15.00
CG-433	k	3K CT	10 w.	100	12.00
CG-15	l	8K CT	20 w.	100	13.50
CG-16	l	3K/5K CT	20 w.	100	14.70
CG-19	l	6K/10K CT	20 w.	100	14.00
CG-710	l	14K/20K CT	20 w.	100	18.00
CG-216	l	9K CT	30 w.	125	16.50
CG-20	m	5K CT, 43% screen taps	25 w.	125	18.00
CG-21	m	3.3K CT, 40% screen taps	50 w.	150	24.00
CVP-1	n	3K/5K/6K/8K/10K/14K CT	12 w.	100	16.80
CVP-2	n	"	30 w.	125	18.90
CVP-3	n	"	60 w.	150	27.00
CVP-4	n	"	125 w.	152	33.00
CVP-5	n	"	300 w.	175	48.00
CVL-1	p	500	15 w.	87	12.00
CVL-2	p	500	20 w.	125	18.00
CVL-3	p	500	75 w.	150	21.00
CVM-0	q	Any Class B	12 w.	100	14.10
CVM-1	q	"	30 w.	125	18.00
CVM-2	q	"	60 w.	150	22.50
CVM-3	q	"	125 w.	152	33.00
CVM-4	q	"	300 w.	175	54.00
CVM-5	q	"	600 w.	†	168.00
CG-51AX	r	15K	5 w.	87	15.00
CG-53AX	r	3K/10K CT	20 w.	112	15.00
CG-59AX	r	50, 200, 500	20 w.	112	15.00

† 7" x 12" x 9"; Wt., 60 lbs. †a—Pl. to grid. b—Pl. to 2 grids. c—2 pl. to 2 grids. d—Input, humbucking. e—P-p input, humbucking. f—Input, mag. shielded. g—Dual input, humbucking. h—Mixing. i—P-p to line. j—P-p to line. k—Driver. l—Output. m—Feedback output. n—Universal output. p—Universal matching. q—Universal modulator. r—Universal driver.

END CASTING UNITS

See note on "W" suffix units under plate transformers.

UCT Type	High Volt	DC Volt	L	W	H	Lbs.	Net Each
CG-304	1500-1235-0-1235-1500	1.25K	1K 14%	8 1/2	10 3/8	100	\$198.00
CG-304W†	1500-1235-0-1235-1500	2.5K	2K 14%	8 1/2	10 3/8	100	219.00
CG-305	2400-1750-0-1750-2400	2K	1.5K 10 1/2	4 3/4	6 7/8	50	75.00
CG-305W†	2400-1750-0-1750-2400	4K	3K 10 1/2	4 3/4	6 7/8	50	81.00
CG-306	as above	2K	1.5K 13 7/8	8 1/2	10 3/8	100	174.00
CG-306W†	as above	4K	3K 13 7/8	8 1/2	10 3/8	100	186.00
CG-307	3500-3000-2400-0-2400-3000-3500	3K	2.5K 13%	8 1/2	10 3/8	90	183.00
CG-308	as CG-307	3K	2.5K 15 1/8	8 1/2	10 3/8	125	225.00
CG-309	as CG-307	3K	2.5K 21	10	13 1/4	253	450.00
CG-310	4600-4050-3500-0-3500-4050-4600	4K	3.5K 17 1/4	10	13 1/4	150	420.00
CG-311	1500-1235-0-1235-1500	1.25K	1K 10 1/2	4 3/4	6 7/8	50	75.00
CG-311W†	1500-1235-0-1235-1500	2.5K	2K 10 1/2	4 3/4	6 7/8	50	78.60
CG-312	1800-1500-0-1500-1800	1.5K	1.25K 10 1/2	4 3/4	6 7/8	38	81.00

† Full Wave Bridge Rectifier types.

VARIPower® AUTOFORMERS®

Simultaneous control of filament, plate and line voltage. Filament voltage control within 2 1/2%. Output voltage from 0 to 130 volts, 50/60 cycles. Taps at 25, 55, 75, 95, 100, 105, 110, 115, 120, 125, and 130 volts.

UTC Type	Watts Output	Case No.	Net Each	UTC Type	Watts Output	Case No.	Net Each
CVA-1	150	RC-112	\$13.50	CVA-4	1000	RC-152	\$27.00
CVA-2	250	RC-125	18.00	CVA-5	2000	RC-175	42.60
CVA-3	500	RC-150	22.50				

MINIATURE, OUNCER, SUBOUNCER & SUB-SUBOUNCER UNITS

SUBOUNCER* & SUB-SUBOUNCER* AUDIO TRANSFORMERS
TRANSISTOR & TUBE TYPES HERMETICALLY SEALED

Designed, Manufactured and Successfully Tested to complete MIL - T - 27B Specifications.

UTC SSO-#P and SO-#P units are ideal miniaturized components having high efficiency and wide frequency response. Special nickel iron core materials and winding methods provide exceptional performance and reliability.

These units are vacuum molded to MIL Grade 5. They employ 50 mil deeply anchored pin terminals ideally suited for printed circuit and transistor application. Terminals are strong enough to support these light weight units.

The UTC SML-70 is an ultra miniature transformer providing high shielding, extremely low insertion loss with wide band response, 200 cycles to 20 kc. These units are provided with pin terminals (.025 dia.) strong enough to support the unit and are ideal for printed circuits.



SO-#P UNIT

Dim.

 $\frac{3}{4} \times 1 \times \frac{3}{4}$ "Pin Length $\frac{1}{4}$ "

Wt. .05 lb.

SSO-#P UNIT

Dim.

 $\frac{3}{4} \times \frac{3}{4} \times \frac{3}{4}$ "Pin Length $\frac{1}{4}$ "

Wt. .04 lb.

SML-70

 $\frac{3}{4} \times \frac{3}{4} \times \frac{3}{4}$ "

Wt. 2 oz.

PRINTED CIRCUIT AUDIO UNIT — HIPERMALLOY
SHIELD CASE

Type No.	Application	Pri. Imp. ohms	Sec. Imp. ohms	Net Each
SML-70	Input or Chopper Service	200K	1K	\$8.40

MIL TYPE: TF5RX16ZZ.

PRINTED CIRCUIT MOLDED TYPES TO MIL GRADE 5

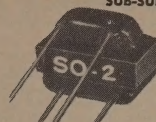
Type No.	Application	Pri. Imp. ohms	Sec. Imp. ohms	Net Each
SO-2P	Interstage/3:1	10K	90K	\$6.90
SO-3P*	Plate to Line	10K 25K	200 500	6.90
SO-5P	Inductor: 40 hy at 1 ma, 2675 ohms, series; 4 hy at 4 ma, 670 ohms, parallel;			6.90
SO-7P*	Transistor	20K	800	6.60
	Interstage	30K	1200	
SO-8P	Transistor	10K	2000 CT	7.50
	to PP Sec.			
SO-9P	PP Transistor to V.C.	500 CT	3.2	7.50
SO-14P	Transistor	80 CT	32 Split	7.80
	Interstage	100 CT	40 Split	
SO-15P	Tr. output	600 CT	600 Split	7.80
SO-17P	Inductor: 16 hy at 2 ma, 1.1K ohms, series; 4 hy at 4 ma, 275 ohms, parallel;			6.90

MIL TYPES: TF5RX13ZZ: SO-3P, SO-7P, SO-8P; TF5RX15ZZ: SO-2P; TF5RX17ZZ: SO-9P, SO-14P, SO-15P, SO-17P; TF5RX20ZZ: SO-5P.

SSO-3P	Plate to line	10K 25K	200	\$7.20
SSO-5P	Inductor: 100 hy at 0 ma, 4.4K ohms, series; 25 hy at 0 ma, 1.1K ohms, parallel			6.90
SSO-8P	Transistor to pp sec.	10K	2000 CT	7.20
SSO-14P	Transistor	10K CT	200 CT	7.50
	Interstage	25K CT	500 CT	
SSO-15P	Transistor	20K CT	800 CT	7.50
	Interstage	30K CT	1200 CT	
SSO-19P	Output matching	500 CT	600 CT	7.20
SSO-20P	Output	1.5K CT	600 CT	7.20
SSO-21P	Crystal/Chopper	200K CT	1000 CT	8.10
SSO-22P	Interstage	10K CT	1500 CT	7.20
		12K CT	1800 CT	
SSO-23P	Inductor: 8 hy at 2 ma, 600 ohms, series; 2 hy at 4 ma, 150 ohms, parallel			6.90
SSO-24P	Inductor: 3.5 hy at 2 ma, 160 ohms, series; 0.9 hy at 4 ma, 40 ohms, parallel			6.90
SSO-25P	Transistor	10K CT	10K/ 2.5K spl.	8.10
	Interstage			
SSO-27P	Tr. Output	4K CT 2.5 ma	600 spl.	8.10

MIL TYPES: TF5RX13ZZ: SSO-3P, SSO-8P, SSO-14P, SSO-15P, SSO-22P, SSO-25P, SSO-27P; TF5RX16ZZ: SSO-21P; TF5RX17ZZ: SSO-19P, SSO-20P; TF5RX20ZZ: SSO-5P, SSO-23P, SSO-24P.

SUB-SUBOUNCERS* AND SUBOUNCERS*



Lead mounted (channel available as separate unit) miniature nickel iron core units for transistor or vacuum tube circuits. Plastic mounted leads. SSO Sub-Subouncers: Approx. 2 db, 140-10,000 cps; +20 VU except inputs +7 VU ($\frac{3}{4}$ " x $\frac{3}{4}$ " x $\frac{3}{4}$ " w.t., .02 lb.). SO Subouncers: Approx. 2 db, 100-10,000 cps; +24 VU except inputs +10 VU ($\frac{3}{4}$ " x $\frac{3}{4}$ " x $\frac{7}{8}$ " w.t., .03 lbs.).

UTC SSO-	Net Each	Application	Pri. Imp., Ohms	Sec. Imp., Ohms	UTC SO-	Net Each
1	\$4.50	Input	50/200	62.5K/250K	1	\$3.60
2	4.80	Interstage	10K, 25 ma	90K	2	3.30
3	4.20	Pl. to line	10K/25K, 1.5 ma	200/500	3	3.30
4	3.90	Output	30K, 1 ma	400	4	3.30
5	3.90	Inductor:	50 hys. @ 1 ma	4400 ohms#	5	3.00
6	4.20	Output	100K, 5 ma	60	6	3.90
7	3.30	Tr. intrsg.	20K/30K†	80/1200	7	3.00
8	3.90	Tr. intrsg.	10K, 1 ma	2K CT	8	3.60
9	3.00	Tr. to V.C.	10K, 2 ma	16		
		Tr. to V.C.	500 CT	3.2	9	3.60
10	3.00	Tr. to V.C.	10K, 2 ma	3.2		
		Tr. to V.C.	2K/4K CT	8/16	10	3.60
11	3.00	Tr. Output	500/600S	50/60		
		Transist. Int.	400/500 CT	400/500 Split	11	4.20
12	3.00	Tr. Output	1K/1.2K††	32/40 Split		
		Transist. Int.	400/500 CT	120/150 Split	12	4.20
13	4.50	Input	200K	1K		
		Transist. Int.	400/500 CT	40/50 Split	13	4.20
14	4.20	Tr. intrsg.	10K/25K CT	200/500 CT		
		Transist. Int.	80/100 CT	32/40 Split	14	4.20
15	4.20	Tr. intrsg.	20K/30K CT	.8K/1.2K CT		
		Tr. output	600 CT, 5 ma	600 Split	15	4.20
16	3.00	Tr. output	1.2K/1.4K†	3/4		
		Tr. intrsg.	2.5K CT, 4 ma	2500 Split	16	4.20
17	3.30	Output	10K/12.5K**	500/600 CT		
		Inductor:	16 hy at 2ma, 1.1K ohms, series;		17	3.30
		4 hy at 4 ma, 275 ohms, parallel;				
18	3.30	Output	7.5K/9.4K CT	3.2/4		
19	3.30	Matching	500 CT	600 CT		
20	3.30	Output	1.5K CT	600 CT		
21	4.80	Chopper	200K CT	1K CT		
22	3.90	Tr. intrsg.	10K/12K CT	1.5K/1.8K CT		
23	3.00	Inductor:	4 hys @ 5 ma, 650 ohms			
24	3.00	Inductor:	1.5 hys @ 5 ma, 160 ohms			
25	5.10	Transist. Int.	10K/12K CT	100/12 CT		
26	5.10	Transist. Int.	40K/50K CT	400/500 Split		
27	5.10	Tr. output	4K CT, 2.5 ma	600 Split		
CH	.30	Mounting channel for any of above			CH	.30

†0.5 ma. ‡Resis., 2675 ohms. \$3.5 ma. **2 ma. ††3 ma. #DC resis.

OUNCER* AUDIO UNITS

Standard and Plug-in Types



UTC ouncer components provide wide range ± 1 db, 30 to 20,000 cps (except Nos. 0-14 and 0-15). In compact $\frac{7}{8}$ " dia. case. No. 0-16 has heavy shielding (case $1\frac{1}{2}$ " dia.). P-16 has 9 pin plug ($1\frac{1}{4}$ " dia.). Wt., 4 oz. max.

UTC No.	Net Each	Application	Pri. Imped., Ohms	Sec. Imped., Ohms	UTC No.	Net Each
O-1	\$7.80	Input	50, 200, 500	50K	P-1	\$9.00
O-2	7.80	P-p input	50, 200, 500	50K CT	P-2	9.00
O-3	7.50	Input	7.5/30	50K CT	P-3	8.40
O-4	6.60	Pl. to grid	15K	60K		
O-5	6.60	Pl. to grid	15K, 2 ma	60K		
O-6	7.50	Pl. to p-p	15K	95K CT	P-6	8.40
O-7	7.50	Pl. to p-p	15K, 2 ma	95K CT	P-7	8.40
O-8	7.80	Pl. to line	15K	50, 200, 500	P-8	9.00
O-9	7.80	Pl. to line	15K, 2 ma	50, 200, 500	P-9	9.00
O-10	8.40	P-p to line	30K CT	50, 200, 500	P-10	9.00
O-11	7.80	Cryst. out.	50K	50, 200, 500	P-11	9.00
O-12	7.80	Mixing	50, 200, 500	50, 200, 500	P-12	9.00
O-13	6.30	Inductor	300 Hys-0 ma;	6000 ohms		
O-14	7.50	50:1 input	200	500K		
O-15	7.50	10:1 P/G	15K	1 meg.	P-15	9.00
O-16	10.20	Shld. input	250 CT	50K	P-16	11.40
O-17	1.50	Hipermalloy shield, 25 db, for Ouncers				
O-18	7.80	Tr. intrsg.	10K split	2K split		
O-19	7.80	Tr. intrsg.	10K split	4K split		
O-20	6.30	Tr. to line	1.5K CT	500 split		
O-21	5.40	Tr. to V.C.	2K/4K CT	8/16		
O-22	5.40	Tr. to V.C.	500/400 CT	4/3.2		
O-23	5.10	Inductor 7 Hys-3 ma; 230 ohms				
O-24	5.10	Inductor 1.6 Hys-3 ma; 25 ohms				
O-25	8.10	Transist. Int.	600/150 split	2K/500 split		
O-26	8.10	Transist. Int.	10K CT 4 ma.	10K CT		
O-27	3.40	Transist. Int.	10K CT 4 ma.	500/125 split		
O-28	8.40	Transist. Int.	50K CT, 2 ma.	500/125 split		
O-29	8.70	Transist. Int.	100K CT 1 ma.	500/125 split		
O-30	8.10	Transist. Int.	500/125 split	500/125 split		
O-31	8.10	Transist. Int.	500/125 split	150/37.5 split		
O-32	8.10	Transist. Int.	500/125 split	50/12.5 split		
O-33	8.10	Transist. Int.	100/25 split	40/10 split		
O-34	5.10	Split	Series: 60 Mhy-80 ma; 4 ohms			
		Inductor	Parallel: 15 Mhy-160 ma; 1 ohm			
O-36	5.10	Split	Series: 1 Hy-20 ma; 60 ohms			
		Inductor	Parallel: .25 Hy-40 ma; 15 ohms			
O-37	8.10	Tr. to line	4K/1K spl., 4 ma	650/150 split		
O-38	5.10	Spkr. match	0, 4, 8, 16 ODC			
O-8R	.21	Mounting U-bracket for ouncers				



AMATEUR & PUBLIC ADDRESS TRANSFORMERS "S" SERIES

DIMENSIONS, SPECIAL SERIES TRANSFORMERS



G-1 thru G-5 thru G-12

UTC Special Series transformers are specifically designed for amateur and popular-grade PA service. These units are finished in a rich, commercial type medium gray enamel. A recessed terminal strip is provided, permitting above chassis or breadboard wiring in addition to standard chassis type.

G-CASE SIZES

Case	Height, In.	Width, In.	Depth, In.	Wt., Lbs.
G-1	1 7/8	2 1/4	1 3/4	1
G-2	2 1/4	3 1/4	1 1/2	1 1/2
G-3	2 1/2	3 3/4	2 1/2	2
G-4	2 3/4	4 1/4	2 3/4	3
G-5	3 3/4	4 3/4	4 1/2	4 1/2
G-7	4 5/8	4 5/8	5 1/2	8
G-8	4 5/8	5 5/8	5 5/8	12
G-9	5 7/8	5 5/8	6 3/4	21
G-10	5 7/8	6 7/8	6 5/8	24
G-11	5 7/8	6 1/2	7 3/8	31
G-12	10 1/4	7 3/8	9 1/4	52

INPUT AND DRIVER TRANSFORMERS

Type	Application	Ratio	Level	Case	Net
UTC		Pri. to Sec.			Each
S-1	Plate to grid	1:3 1/2	+30 dbm	G-2	\$ 5.40
S-2	Plate to p-p grids	1:4 1/2	+30 dbm	G-2	6.60
S-3	Pl. to 1 or 2 grids	1:4 1/2	+25 dbm	G-1	4.80
S-5	Line to grid, humbkg.	1:16	+30 dbm	G-2	5.70
S-6	Line to grid, compact	1:16	+25 dbm	G-1	4.80
S-8	Driver pl. to p-p	2.66:1, 5:1†	5 w.	G-3	7.20
S-9	Driver p-p to p-p	2.66:1, 3.6:1	20 w.	G-4	9.60
S-10	Driver p-p to p-p	5:1†	5 w.	G-3	7.20

† Center tapped.

MATCHING, OUTPUT AND MODULATION UNITS

UTC	Application	Pri. Imped., Ohms	Level, Watts	Case	Net
Type					Each
S-11	Pl. to line	15K	a	25 G-2	\$ 5.70
S-12	Line to V.C.	.5K/2K/4K	b	15 G-2	6.00
S-13	Line to V.C.	.5K/2K/4K	b	30 G-4	9.00
S-14	Output	2.5K/4K/7K/10K	c	10 G-2	7.20
S-15	PP output	4K/5K/10K CT	c	12 G-2	7.80
S-16	PP output	3K/6K/9/10K CT	c	30 G-4	9.30
S-17	PP output	3.8K/4.5/5K CT	c	55 G-5	13.20
S-18	Univ. modul.	Any Class B	d	12 G-3	8.40
S-19	Univ. modul.	Any Class B	d	30 G-4	9.90
S-20	Univ. modul.	Any Class B	d	55 G-5	16.50
S-21	Univ. modul.	Any Class B	d	110 G-7	22.50
S-22	Univ. modul.	Any Class B	d	250 G-9	36.00

†Secondary Impedance: a—200/500 ohms. b—2, 4, 8, 15 ohms. c—2, 8, 15, 500 ohms. d—Any Class C.

FILTER, SWINGING AND AUDIO INDUCTORS

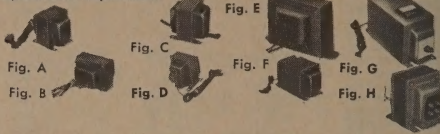
Type	Henries	Ma. DC	Ohms	Insul.	Case	Net
UTC						Each
S-23	300	5	5000	1500 v.	G-2	\$ 4.80
S-24	300	3	6000	1500 v.	G-2	5.40
S-25	30	30	800	1500 v.	G-2	4.20
S-26	12	60	250	1500 v.	G-2	4.20
S-27	25	75	350	1500 v.	G-4	5.40
S-28	20	100	350	1500 v.	G-4	6.90
S-29	6	175	90	1500 v.	G-4	5.40
S-30†	4/20	175	90	1500 v.	G-4	5.40
S-31	6	225	100	2700 v.	G-5	7.50
S-32†	4/20	225	100	2700 v.	G-5	7.50
S-33	8	300	100	4000 v.	G-7	9.90
S-34†	4/20	300	100	4000 v.	G-7	10.50
S-35	8	400	60	5000 v.	G-8	12.90
S-36†	4/20	400	60	5000 v.	G-8	12.90
S-37	8	550	60	6000 v.	G-8	16.50
S-38†	4/20	550	60	6000 v.	G-8	16.50
S-80	50/10 Mhy	1.75A	.5	500 v.	G-1	4.50
S-81	100/8 Mhy	2.5A	.6	1500 v.	G-3	6.60
(2Wdgs)	25/2 Mhy	5A	.15			

§ Audio. †P.P. Audio C. T. ‡Swinging.

Information on components in this box listed on UTC page 13.

REPLACEMENT TYPE COMPONENTS

The shells and brackets of these vacuum sealed components are finished in shiny black enamel. A minimum number covers any replacement requirement.



FILAMENT TRANSFORMERS

Primary Tapped 105, 115 Volts, 50-60 Cy.

UTC	Secondary	Secondary	Insulation	Case	Net
Type	Volts	Current		No.	Each
S-53	2.5 VCT	10 Amp	1500 V	G-3	\$ 6.90
S-54	5 VCT	4 Amp	2500 V	G-3	6.30
S-55	6.3 VCT	3 Amp	1500 V	G-3	6.00
S-57	2.5 VCT	10 Amp	10000 V	G-5	9.90
S-58	2.5 VCT	20 Amp	10000 V	G-5	10.50
S-59	5 to 5.25 VCT	13 Amp	5000 V	G-5	9.90
S-60	5 to 5.25 VCT	22 Amp	10000 V	G-7	15.00
S-61	7.5 VCT tapped	10 Amp	3000 V	G-5	12.00
S-62	10 VCT	10 Amp	3000 V	G-5	10.20
S-63	14 VCT tapped	10 Amp	5000 V	G-7	15.00
	12 VCT & 11 VCT				

Type	Filament 1	Filament 2	Filament 3	Case	Net
†S-64	2.5 VCT-5A	2.5 VCT-5A	5 VCT-6A	G-5	\$12.00
†S-65	5 VCT-6A	6.3 VCT-5A		G-5	11.40
†S-66	5 VCT-3A	6.3 VCT-4A	7.5 VCT-5A	G-5	11.70
†S-70	6.3 VCT-5A	6.3 VCT-5A		G-5	11.40
†S-71	2.5 VCT 6A	2.5 VCT-6A	2.5 VCT-12A	G-7	16.50
†S-72	5 VCT-3A	5 VCT-3A	5 VCT-6A	G-5	13.50

†Insulation 10,000 v. ‡Insulation 5000 v. §Insulation 3000 v.

COMBINED PLATE AND FILAMENT TRANSFORMERS

Primary 115 V., 50-60 Cy.

UTC	Voltage	DC	Rect. Fil.	Filament No. 1	Filament No. 2	Case	Net
Type		V.				No.	Each
S-39	490-400-0-175 ma	400/310	5V-3A	2.5 VCT-6A	6.3 VCT-4A	G-7	\$18.00
S-40	525-425-0-225 ma	400/310	5V-3A	6.3 VCT-3A	6.3 VCT-3A	G-7	19.50
S-41	600-0-600-200 ma	475	5 V-3A	7.5 VCT-6A	6.3 VCT-2A	G-7	19.50
S-42	600-525-0-300 ma	480/400	5 V-6A	7.5 VCT-6A	6.3 VCT-3A	G-7	21.00

PLATE AND BIAS TRANSFORMERS

Primary 115 V. 50/60 Cycles

UTC	2.5 VCT-12A	DC	Case	Net
Type	High Voltage	Volts †	Ma	Each
S-44	575-525-0-525-575	470/430	500	G-9 \$27.00
S-45	900-750-0-750-900	750/620	200	G-8 22.50
S-46	1000-750-0-750-1000	825/600	300	G-9 25.50
S-47	1500-1250-1000-0-1000-1250-1500	1275/1050/825	300	G-10 36.00
S-48	1500-1250-1000-0-1000-1250-1500	1300/1075/850	500	G-11 42.00
S-49	2100-1800-1500-0-1500-1800-2100	1815/1540/1275	300	G-11 39.00
S-50	3000-2500-0-2500-3000	2625/2175	300	G-12 66.00
S-51	Any bias voltage from 15 to 100 ± 6%	200	G-5	13.20
S-52	Any bias voltage from 75 to 100 ± 6%	200	G-7	18.00

†Based on two section filter for 200 ma. and 300 ma. units. Single section filter for 500 ma. units, both choke input.

IMMEDIATE DELIVERY ON ALL UTC STOCK ITEMS

AND SPECIAL CUSTOM BUILT UNITS TO YOUR SPECS.

UNITED TRANSFORMER COMPANY DIVISION OF TRW INC.

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TRANSFORMERS FOR INDUSTRY WIDE APPLICATIONS

DOUBLE SHELL POWER TRANSFORMERS (FIG. B SEE PG. 12)
Rectifier filaments 5 volts, 3 amps except R-101, 2 amps.

UTC Type	High V.	DC Ma.	Amplifier Filament	Overall Height	Wt., Lbs.	Net Each
R-101	275-0-275	50	6.3 v. CT-2.7A	3"	2 1/2	\$ 8.70
R-102	350-0-350	70	6.3 v. CT-3A	3 3/8"	3 1/2	10.20
R-103	350-0-350	90	6.3 v. CT-3.5A	3 3/8"	4 1/2	10.35
R-104	350-0-350	120	6.3 v. CT-5A	3 3/8"	5 1/2	11.10
R-105	385-0-385	160	6.3 v. CT-5A	4 3/8"	7	12.00

VERTICAL SHELL POWER TRANSFORMERS (FIG. C SEE PG. 12)
Rectifier filaments 5 volts, 3 amps, except R-110, 2 amps.

UTC Type	High V.	DC Ma.	Amplifier Filament	Overall Height	Wt., Lbs.	Net Each
R-110	300-0-300	50	6.3 v. CT-2.7A	3 1/4"	2 1/2	\$ 8.70
R-111	350-0-350	70	6.3 v. CT-3A	3 1/4"	3 1/2	10.20
R-112	350-0-350	120	6.3 v. CT-5A	4"	5 1/2	11.10
R-113	400-0-400	200	6.3 v. CT-6A	4 3/8"	8	14.10

CHANNEL FRAME FILTER INDUCTORS (FIG. E SEE PG. 12)

Inductance Shown is at Rated D.C.M.A.—Test Volts RMS: 1500

Type No.	Induct. Hys.	Current	Resist. Ohms	Dimensions, in.	Wt. Lbs.	Net Each
R-55	6	40MA	300	1 3/8 x 1 3/8 x 2	1 1/2	\$ 1.80
R-14	8	40MA	250	2 7/8 x 1 1/2 x 1 1/2	2 3/8	2.25
R-15	12	30MA	450	2 7/8 x 1 1/2 x 1 1/2	2 3/8	2.25
R-16	15	30MA	650	2 7/8 x 1 1/2 x 1 1/2	2 3/8	2.25
R-17	20	40MA	850	3 1/8 x 1 1/2 x 1 1/2	2 3/8	2.70
R-18	8	80MA	250	3 1/8 x 1 1/2 x 1 1/2	2 3/8	2.85
R-19	14	100MA	450	3 1/8 x 1 1/2 x 1 1/2	3 1/8	3.45
R-20	5	200MA	90	4 1/8 x 2 1/4 x 2 3/8	3 1/8	3.90
R-21	15/3	200MA	90	4 1/8 x 2 1/4 x 2 3/8	3 1/8	3.90
R-220	100/8 Mhy.	2.5A	.6	3 3/4 x 2	3 1/8	4.20
	25/2 Mhy.	.5A	.16			

PHOTOFLASH TRANSFORMERS STANDARD 982

Can be used for either standard (Amglo type) or trigger (Sylvania type) multiple flash tubes. Circuit details included with transformer.

PF-1 Primary for 115 volts, 50/60 cycles. Secondaries for power supply delivering 2200 volts DC to capacitor up to 100 Mfd. Compound sealed in G-3 (Pg.11) case 2 1/8 x 2 3/4 (3 3/4 including flanges) x 2 1/2 inches high. Weight 2 lbs. Net Each \$8.40
PF-3 Trigger Transformer 15 KV peak. 7/8 O.D.x3 long. Weight 2 oz. Net each: \$6.00



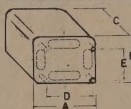
TRANSISTOR TYPE

These are miniaturized light weight units for transistor type photo-flash supply.

PF-5 Primary for 115 volts, 50/60 cycles or for 4 1/2 V. battery switched by PF-6 inverter transformer. Output delivers 400 V. DC when used in voltage doubler circuit to charge photoflash capacitor (typically 40 watt-sec.). G-1 case (Pg. 11)
Net each: \$8.40

PF-6 Inverter transformer transforms 4 1/2 V. DC from battery to input for PF-5 stepup transformer. Cuncer case (Pg. 11)
Net each: \$5.10

PF-7 Trigger transformer. Shorting .25 mfd. capacitor (charged to approx. 225 V. DC) across terminals 1-2 produces 6 KV pulse at terminal 3 for triggering flash tube. 7/8" Dia. x 1 1/2" H.; Wt. 1/2 oz. Net each: \$3.60



MIL-27B CASE SIZES

MIL Case	Size, Inches: Dimension			Mfg.		
	A	B	C	D	E	Studs
AF	3/4	3/4	1 1/8	Diag.	3/4	4-40 x 3/8
AG	1	1	1 3/8	Diag.	3/4	4-40 x 3/8
AH	1 1/4	1 1/4	1 3/4	Diag.	1 1/4	6-32 x 3/8
AJ	1 1/8	1 1/8	2 3/8	1 3/8	1 3/8	6-32 x 3/8
EA	1 1/8	1 1/8	2 3/4	1 3/8	1 1/4	6-32 x 3/8
EB	1 1/8	1 1/8	2 3/4	1 3/8	1 1/4	6-32 x 3/8
FA	2 1/8	2 1/8	3 1/8	1 1/4	1 3/8	6-32 x 3/8
FB	2 1/8	2 1/8	2 1/2	1 1/4	1 3/8	6-32 x 3/8
GA	2 3/8	2 3/8	3 1/8	2 1/8	1 3/4	6-32 x 3/8
GB	2 3/8	2 3/8	2 1/8	2 1/8	1 3/4	6-32 x 3/8
HA	3 1/8	2 3/8	4 1/4	2 1/8	1 3/8	8-32 x 3/8
HB	3 1/8	2 3/8	3 3/8	2 1/8	1 3/8	8-32 x 3/8
JA	3 1/8	3 1/8	4 1/8	2 3/8	2 1/8	8-32 x 3/8
JB	3 1/8	3 1/8	3 7/8	2 3/8	2 1/8	8-32 x 3/8
KA	3 1/8	3 1/8	5 1/4	3	2 3/8	10-32 x 1/2
KB	3 1/8	3 1/8	4 3/8	3	2 3/8	10-32 x 1/2
LA	4 1/8	3 1/8	5 3/8	3 3/8	2 1/8	10-32 x 1/2
LB	4 1/8	3 1/8	4 3/8	3 3/8	2 1/8	10-32 x 1/2
MA	4 1/8	4	6	3 1/4	3	1/4-20 x 3/8
MB	4 1/8	4	4 1/8	3 1/4	3	1/4-20 x 3/8
NA	5 1/8	4 1/8	6 1/8	4 1/8	3 3/8	1/4-20 x 3/8
NB	5 1/8	4 1/8	5 1/2	4 1/8	3 3/8	1/4-20 x 3/8
OA	5 1/2	4 1/2	6 3/4	3 3/4	3	1/4-20 x 3/8

STEP-DOWN AUTO-TRANSFORMERS (FIG. A SEE PG. 12)

With 6-ft. cord and female receptacle, except R-64; 220/240 to 110/120 v., 50/60 cps.

UTC Type	Rating	L	Size, Inches W. H.	Wt., Lbs.	Net Each
R-41	85 watt capacity	3 3/4	2 3/8	3 1/8	4 \$ 7.20
R-42	125 watt capacity	3 1/2	3	3 1/2	5 8.70
R-43	175 watt capacity	3 3/4	3 1/4	3 3/8	6 5/2 9.10
R-44	250 watt capacity	4 3/8	3 1/4	3 3/8	6 1/2 12.00
R-45	500 watt capacity	4 3/8	3 3/8	4 3/8	12 13.50
R-46	1200 watt capacity	6 7/8	4 3/8	5 3/8	18 24.00
R-64	2500 watts, no cord	10 1/2	4 3/4	6 3/4	30 57.00

ISOLATION TRANSFORMERS (FIG. F SEE PG. 12)

Ideal for isolating line noise. AC-DC sets, etc. Excellent electrostatic shielding 1500 volt breakdown test. Six foot cord and female receptacle, except R-77.

Primary 110-120 volts 50/60 cycles—Secondary 110-120 volts

Except R-97 220 volt Primary—120 volt Sec.

Type No.	Rating Watts	L	W	H	Mfg. Dim.	Wgt. Lbs.	Net Each
R-72	40	3 1/8	2 3/8	3 1/8	2 1/2 x 1 7/8	4	\$ 7.20
R-73	100	3 3/4	3 1/4	3 3/8	2 1/2 x 2 3/8	6	11.40
R-74	250	4 3/8	3 3/8	4 3/8	3 x 3 1/2	12	18.00
R-75	600	7 3/8	3 3/8	4 3/8	3 x 3 1/2	20	24.00
R-76	1200	8 1/2	4 1/2	6 1/8	3 3/4 x 6 5/8	30	57.00
R-77	2500	12	7	9	6 x 11	70	111.00
R-97	250	4 7/8	3 3/8	4 3/8	3 x 3 1/2	12	15.00

LINE VOLTAGE ADJUSTERS WITH METER (FIG. G. SEE PG. 12)

The perfect answer to abnormal or fluctuating line voltage. Adjust switch so that meter reads at red line and you know that your equipment is working at correct voltage. These units combine a tapped auto-transformer with a switch and meter in a compact, rugged assembly. The nine tap switch provides for line voltage of 60 to 140 volts on 115 volt output models and 160 to 240 volts on 230 volt output model. All units are designed for 50/60 cycles service and come complete with 6 foot input cord and plug and outlet receptacle.

Type No.	Primary Voltages	Sec. Volts	Watts Ratings	L	W	H	Wgt. Lbs.	Net Each
R-78	†	115	150	7	4	4 3/4	6	\$19.50
R-79	†	115	300	7	4	4 3/4	9	21.00
R-80	†	115	600	10 1/4	4	4 3/4	13	24.00
R-81	†	115	1200	10 1/4	4	4 3/4	21	33.00
R-86	†	230	1200	10 1/4	4	4 3/4	21	33.00
†	60, 70, 80, 90, 100, 110, 120, 130, 140							
†	160, 170, 180, 190, 200, 210, 220, 230, 240							

EXPORT VOLTAGE ADAPTER (FIG. D SEE PG. 12)

Complete with cord and plug and special locking switch providing for line voltages of 105, 115, 125, 135, 150, 210, 230, 250 volts; 42 to 60 cycles. Output voltage 115.

Type No.	Rating Watts	L	W	H	Mfg. Dim.	Wgt. Lbs.	Net Each
R-47	85	4 3/8	3	3 1/2	2 1/4 x 2 1/4	4 1/2	\$12.60
R-48	150	4 3/8	3 1/4	4	2 1/2 x 2 1/2	5 1/2	12.60

TV VOLTAGE REGULATOR (FIG. D SEE PG. 12)

Complete with cord, plug, and special locking switch. Permits operation of 115 volt 50/60 cycle TV sets on line voltages of 85, 90, 95, 100, 105, 110, 120, 125 V.

Type No.	Rating Watts	L	W	H	Mfg. Dim.	Wgt. Lbs.	Net Each
R-49	350	5	3 1/4	4	2 1/2 x 2 3/4	5	\$12.90

SIGNALING AND CONTROL TRANSFORMERS (FIG. H SEE PG. 12)

Primary 110-120 volts, 50/60 cycles—Secondary

4/8/12/16/20/24 volts

High power transformers suitable for operating relays, sirens horns, gongs, etc. from 115 V. 50/60 cycle line. These units have four secondary terminals providing 4, 8, 12, 16, 20 and 24 volt output. The volt ampere rating is based on the 24 volt secondary tap with corresponding reduction at the lower voltages. Underwriters' approved primary leads are employed, and screw-type binding posts.

Type No.	Rating Watts	L	W	H	Mfg. Dim.	Wgt. Lbs.	Net Each
SC-3	50	3	3 1/8	3 3/8	1 3/8 x 2 1/4	3	\$ 8.40
SC-4	100	3 1/4	3 3/8	4	2 1/8 x 2 1/2	5	9.90
SC-5	250	4	4 3/8	4 3/8	3 1/8 x 3	10	14.40

INDUSTRIAL DISCOUNTS

Applicable to any UTC products listed in this catalog.

Assorted Quantities, Lots of			
1-24	25-99	100 up	100-499/One Type
Net Price	Net —15%	Net —20%	Net —33 1/3%

Amperex Industrial, Communication,

TUBE TYPE	TUBE TYPE	TUBE TYPE	TUBE TYPE	TUBE TYPE	TUBE TYPE	TUBE TYPE
0A2	5AR4/GZ34	6ER5/EC95	13GB5/XL500	200LB	5651	6693
0B2	5BHP2	6ES6	14K7	200N	5654/6AK5W	6700/ET51
0E3	5BHP7	6ES8/ECC189	14L7	200NB/900V	5657	6756
0G3	5BHP31	6ET6	14GW8	356	5658	6759
1A5/DA90	5C22	6EU7	15A6	357	5666	6779
1A86	5E1P31/D13-22GH	6F06/EM84	15CW5/PL84	300PC	5667	6786
1AC6	5ELP2/D13-21GP	6FY5/EC97	15DQ8/PCL84	310PC	5678	6800A
1AH5	5ELP7/D13-21GM	6GB5/EL500	16A5	400PC	5684/C3JA	6801
1AJ4	5ELP11/D13-21BE	6GJ7/ECF801	16A8/PCL82	404A	5685/C6JA	6816
1AN5	5ELP31/D13-21GH	6GK5	16AQ3/XY88	417A	5718	6883
1B3GT	5GJ7/LCF801	6GK6	16GK6	500N	5726/6AL5W	6884
1B62	5HG8/LCF86	6GM8/ECC86	16Y9/PFL200	501N	5727	6907
1CP1	5R4GY	6GVR	17EW8/HCC85	501R	5759	6907 (JAN)
1CP31/DH3-91	5R4GYB	6GW8/ECL86	17Z3	502N	5762	6922
1G3GT/1B3GT	5U8	6HA5/EC900	18GB5/LL500	504R	5771	6922 USN
1L4/DF32	5US/LCF201	6HG8/ECF86	18GV8	505N	5822A	6922M
1M3/DM70	5X9/LCF200	6HU6/EM87	19AU4	506N	5823	6923
1N3/DM71	5Z4G	6GV8	19AU4GTA	507N	5842	6939
1R5/DK91	6AB8	6GW8	19BR5	575A	5842 (JAN)	6939 USN
1S2A/DY87	6A18/EC8H1	6J6/EC91	19D8	632B	5847	6960
1S5/DAF91	6AK5/EF95	19D8	19D8	651	5847 (JAN)	6961
1T4/DF91	6AK5W	6JW8/ECF802	19KF6	652	5861/EC55	6977
1U4	6AK8	6JX8/EC8H4	19X3	653B	5866	6979
1U5/DAF92	6AL3/EY88	6K6G	19Y3	655	5866A	7025
1X2B	6AL5/EA91	6LN8/LCF80	20AQ3/LY88	673	5867	7034
20Z1	6AL5W/5726	6LX8/LCF802	21A6	725A	5867A	7034/4X150D (JAN)
2ER5/XC95	6AM3	6N3	25E3	805	5868	7035
2FY5/XC97	6AM6	6N8	25L6GT	807	5869	7035/4X150D (JAN)
2GK5	6AQ5/EL90	6Q4/EC80	27GB5/PL500	810	5870	7062
2HA5	6AQ5/EL90MP	6R3/EY81	30A5	811A	5894COMM.	7090
2J42	6AQ5A	6R4/EC81	31A3	812A	5894 (JAN)	7501
2J55	6A08/EC85	6S2	35L6GT	813	5894MIL	7092
3AMP1/DG7-32	6AT6/EB90	6S2A	38A3	828	5894A	7119
3A4/DL93	6AU4GTA	6S4A	40GK6	829B	5895	7136
3A5/DCC90	6AU6/EF94	6SN7GTB	45A5	832A	5911	7189
3AU5	6AU6A	6U3	45B5/UL84	833A	5913	7203
3BR2	6AV6/EB91	6U8	45B5/UL84MP	833A (JAN)	5920	7203/4CX50B (JAN)
3BU8	6AX4GT	6U8A	50B8M/UCL82	834	5923	7204
3B28	6AX4GTB	6U8/ELL80	50B8M/UCL82MP	838	5924	7204/4CX250 (JAN)
3BKP2/DN7-78	6BA6/EF93	6U9/ECF201	53CG	845	5924A	7237
3BKP7/DP7-78	6BD7A	6V4/E280	54AVP	849	6007	7292
3BKP11/DB7-78	6BE5/EC90	6V9/ECM200	54AUP	857B	6008	7308
3BKP31/DB7-78	6BE7	6W4GT	55N3	857B (JAN)	6075	7308 USN
3BYP2/DN7-11	6BH6	6X2	56AVP	866AX	6076	7316
3BYP7/DP7-11	6B16	6X4/E290	56CVP	869B	6077	7230/E84L
3BYP11/DB7-11	6BL8/ECF80	6X9/ECF200	56UVP	869B (JAN)	6078	7377
3BYP31/DB7-11	6BM8/ECL82	6Y9/EF1200	57AVP	869L	6079	7378
3BZ6	6B05/EL84	7AN7	58AVP	872AX	6083	7459
3C4/DL96	6BQ5/EL84MP	7AU7	58CG	880	6084	7527
3CB6	6BR5/EM80	7C24	58CV	892	6085	7534
3EH7/XF183	6BT4	7D18	60AVP	892R	6146	7580
3E17/XF184	6BK6/EF80	7HC8/PCF86	75C1	912NB3/900V	6155	7580W/4CX250R
3ER5	6BYF	8BQ5/XL84	75N1	912NB4/900V	6156	7580W/4CX250R (JAN)
3GK5	6BZ6	8CW5/XL86	75N83	967	6159	7609
3HA5/LC900	6CA4/EZ81	8GJ7/PCK801	76N83	1119	6189/12AU7WA	7609 (JAN)
3NP4/MW6-2	6CA7/EL34	8MB6	80N	1164	6189/EC82CC	7643
3Q4/DL95	6CA7/EL34MP	8MG6	85A1/OE3	1561	6201	7645
3S4/DL92	6CB6A	8MY6	85A2/OG3	1749A	6211	7650
3V4/DL94	6CD7/EM34	8U9/PCF201	90AG	1805	6211A	7693
3-400Z	6CG7	8X9/PCF200	90AV	1838	6218	7694
4-55A	6CH6	9A8/PCF80	90C1	1849	6227	7699
4-125A	6C15	9AB4	90C3	1875	6252	7709
4-250A	6C16	9AK8	90CV	1908	6252 (JAN)	7710
4-400A	6CK5	9AQ8/PCC85	90NB3/900V	1910	6267/EF86	7711
4B32	6CK6	9VG8/XCL85	90NB4/900V	1913	6268	7714
4BL8/XCF80	6CM4/EC86	9U8/PCF82	90NS	1941A	6279	7721/D3A
4C35	6CM5	9U8A	100C	2080	6339	7722/E280F
4CX250B	6CN6	9V9/PCM200	100CB	3200	6354	7737
4CX250B (JAN)	6CQ6	10CW5/LL86	100E1	3533A	6360 COMM	7737M
4CX250F	6CS6/EH90	10DX8/LCL84	100HB	3538	6360 (JAN)	7737 USN
4CX250G/8621	6CT7	11Y9/LFL200	100LB	3545	6360 MIL	7753
4CX250F (JAN)	6C17	12AC5	100NB/900V	3546PW	6360A	7758
4CX250R	6CV7	12A17	120C	355P	6370	7788 USN
4CX350A/8321	6CW5/EL86	12AT6/HBC90	120BN/900V	4065	6375	7800
4CX350F/8322	6CW7	12AT7/EC81	150A1	4152	6463	7804
4CX2500R (JAN)	6DA5/EM81	12AU6/HF94	150AVP	4654	6508	7805
4E17	6DA6/EF89	12AU7/EC82	150C1	4659	6589	7806
4E17	6DC8/EBF89	12AU7A/EC82	150CV	5444	6617	7807
4ES8	6DE6	12AV6/HBC91	150N/900V	5545	6618	7843
4ES8/XCC189	6DJ8/ECC88	12AX4GTA	150N/900V	5551A	6661	7844
4GK5	6DL4/EC88	12AX4GTB	150CV	5552A	6662	7854
4HA5/PC900	6DL5	12AX7	150N/900V	5553B	6681/EC3CC	7859
4X150A	6D15MP	12AX7A/EC83	153C	5555	6681/12AX7WA	7900
4X150A (JAN)	6DR8	12AX7W/6681	155N	5557/FG17	6686	7983
4X150D	6DS8	12BL6	160G	5559	6687	7986/5866A
4X150D (JAN)	6DT6	12D57	161G	5560/FG95	6688	8008AX
4X250B	6DX8/ECL8	12D57A	171G	5586	6688A	8020AX
4X250F	6DY9	12ST	20D6	5586 (JAN)	6688 (JAN)	8032
4X500A	6EJ7/EF183	12SN7GTA	200CB	5604	6688 (JAN)	8042
5A04	6EJ7/EF184	12XA/HZ90	200HB	5632/CJ3	6689	8078

and Receiving Tubes



TUBE TYPE	TUBE TYPE	TUBE TYPE	TUBE TYPE	TUBE TYPE	TUBE TYPE	TUBE TYPE
8108/EC157	Alpha-Numeral Listing	DAF91	EA76	EF50	GZ34/5AR4	UBC41
8116		DAF92	EEA91/6AL5	EF55	HBC90	UBC81
8117	AB2	DAF96	EABC80	EF80/6BX6	HCC91	UBF80
8118	ABC1	DB711-/3BYP11	EAC91	EF83	HCC85/17EW8	UBF89
8119/TBL/400	ABN1	DB7-78/3BKPl1	EA442	EF85	HCH81	UG11
8120/TBL/500	AF3	DC70/6375	EB34	EF86/6267	HF33	UB121
8163	AF7	DDC90/3A5	EB41	EF89/6DA6	HF94	UC92
8177	AGR9950	DCG1/250	EB91	EF91	HF200	UCC85
8179	AGR9951	DCG4/1000G	EBG3	EF92	HF300	UCH4
8228	AK2	DCG5/5000EG	EBG33	EF93/6BA6	HK90	UCH21
8223/E288CC	AL4	DF21	EBG41	EF94/6AU6	HL92	UCH41
8228	AX50	DF22	EBG81	EF95	HL94	UCH42
8223/E288CC	AX105/FG105	DF91	EBG90/6AT6	EF97	HY90	UCH81
8228	AX260	DF92/1L4	EBG91/6AV6	EF98	HZ90	UCH11
8233	AX569	DF96	EBF2	EF183/6EH7	K81A	UCL82MP
8254	AX5842	DF97	EBF32	EF184/6EJ7	LC300/3HA5	UCL82/50BM8
8255	AX9900	DF904	EBF35	EFF51	LCF80/6LN8	UCL83
8268	AX9901	DG7-5	EBF80	EF200/6Y9	LCF200/5X9	UF21
8269	AX9902	DG7-6	EBF83	EFM11	LCF201/5U9	UF41
8270	AX9903	DG7-31	EBF89/6DC8	EPF60	LCF801/5GJ7	UF42
8278/EL503	AX9904	DG7/3AMP1	EBL21	EPH90	LCF802/6LX8	UF43
8300	AX904R	DH3-91/1CP31	EC041	EK2	LC184/10DX8	UF80
8321/4CX350A	AX9907	DH7-11/3BYP31	EC50	EK90/6BE6	LL86-10CW5	UF85
8322/4CX350F	AX9907R	DH7-78/3BKPl31	EC55/5861	EL2	LL500/18GB5	UF86
8348	AX9908	DK13-10	EC80/6Q4	EL3(N)	LY88/20AQ3	UF89
8408	AX9909	DK21	EC81/6R4	EL5	OPR30	UL41
8416	AX9910	DK40	EC86/6CM4	EL6	ORP50	UL44
8436/EC158	AX9911	DK91	EC88/6DL4	EL11	ORP60	UL84MP
8453/Z550M	AX9912	DK92	EC90	EL12	ORP61	UL84/45B5
8457	AZ1	DK96	EC91	EL33	ORP62	UM4
8458	AZ4	DL21	EC92	EL34	ORP63	UM80
8463	AZ11	DL41	EC95/6ER5	EL34MP	PAB300	UY1(N)
8482	AZ12	DL92	EC97/6FY5	EL34/6CA7	PB2/500	UY11
8483/55850N	AZ31	DL93/3A4	EC157/8108	EL34/6CA7MP	PC88	UY41
8505	AZ41	DL94	EC158/8436	EL36	PC900/4H5A	UY42
8509	AZ50	DL95	EC900/6HA5	EL37	PC934	UY82
8560/DX278	B8, 700-40	DL96	EC1000/8254	EL37MP	PC985/9AQ8	UY85
8577	B8, 700-42	DL121	EC32	EL38	PC988	UY89
8579	B8, 700, 67	DM70/1M3	EC33	EL41	PCC189	VC25/20
8580	B8, 700, 86	DM71/1N3	EC34	EL42	PCF80/9A8	VC25/32
8595	C31	DM71-/1N3	EC35	EL50	PCF82	VC50/20
8608	C3JA	DN7-78/3BKPl2	EC40	EL51	PCF86/7HG8	VC50/32
8621/4CX250FG	C3M	DN7-11/3BYP7	EC41/12A7	EL60	PCF200/8X9	VC100/20
8624	C6JA	DN7-78/3BKPl7	EC82/12A7	EL81	PCF201/8U9	VC100/32
8637	C8	DX278/8560	EC82/12AU7A	EL82	PCF801/8GJ7	VC250/32
8639	C10	DY86	EC83/12AX7	EL83	PCH200	XC95/2ER5
8643	C12	DY87/1S2A	EC83/12AX7A	EL84	PCL82	XC97/2FY5
13201AE	CB11	E11/6370	EC84	EL84MP	PCL84	XC900/2HA5
18042	CF3	E10-10BE	EC85/6A08	EL84/6BQ5	PCL85	XC8189/4ES8
18045	CF7	E10-10GH	EC86/6GM8	EL84/6BQ5MP	PCL86	XC80
18503	CF50	E10-10GM	EC88/6DJ8	EL85	PE05/25	XC185/9GV8
18504	CK1	E10-10GP	EC931/6J6	EL86/6CW5	PE06/40E	XC186/5HG8
18505	CL4	E10-12BE	EC189/6ES8	EL90	PE06/40P	XF183/3EH7
18506	CY1	E10-12GH	EC2000	EL90MP	PF66	XF184/3EJ7
18508	CY2	E10-12GM	ECF1	EL91	PFL200/16Y9	XL84/8BQ5
18509	D3A/7721	E10-12GP	ECF80/6BL8	EL95	PL21	XL86/8CW5
18510	D10-11BE	E55L-8233	ECF82	EL95MP	PL21	XL500/13GB5
18515	D10-11GH	E80CC/6085	ECF86/6HG8	EL360	PL36	XP1000
18516	D10-11GM	E80CF/7643	ECF200/6X9	EL500/6GB5	PL81	XP1002
18517	D10-11GP	E80F/6084	ECF201/6110	EL503	PL82	XP1004
18518	D10-12BE	E80L/6227	ECF801	EL821	PL83	XP1010
18522	D10-12GH	E80T/6218	ECF801/6GJ7	EL822	PL84/15CW5	XP1011
18526	D10-12GM	E18CC/6201	ECF802/6JW8	ELL80	PL150	XP1020
18529	D10-12GP	E82CC/6189	ECH3	EM1	PL500/27GB5	XP030
18536	D13-15BE	E91L/6686	ECM4	EM4	PL1067	XP1031
18550	D13-15GH	E83CC/6681	ECM21	EM34/6CD7	PL6574	XP1032
18552	D13-15GM	E83F/6689	ECM35	EM80/6BR5	PL6755	XP1040
40466	D13-15GP	E84L/7320	ECM41	EM81/6DA5	QEO4/10	XP1110
40701	D13-16BE	E86C	ECM42	EM84/6FG6	RPY14	XP1111
55850AOM	D13-16GH	E88C/8255	ECM81/6AJ8	EM87/6H06	RPY17	XP1112
55125	D13-16GP	E88C/6C922	ECM83	EQ80	RPY18	XP1113
5850N/8483	D13-17BE	E90CC/5920	ECM84/6JX8	ET51/6700	RPY19	XY88/16AQ3
55850S	D13-17GH	E90F/7693	ECH200	EY51	RPY20	YJ1080
56001	D13-17GP	E91H/6687	ELL11	EY80	RPY27	Z50T
56073	D13-19BE	E91AA/5726	EL80	EY81/6R3	SD504	Z700/7710
56127	D13-19GH	E91N/5727	EL82/6BM8	EY82	SD540	Z300T
56128	D13-19GM	E92CC	ELC83	EY86	SD560	Z303C
56129	D13-19GP	E95F/5654	ECL84/6DX8	EY87	PY80	Z50T
56131	D13-20BE	E99F/7694	ECL85/6GV8	EY88/6AL3	PY81	Z70W/7709
56132	D13-21GH/5ELP11	E130L/7534	ECL86/6GW8	EZ22	PY82	Z710/7711
56134	D13-21GH/5ELP31	E180CC/7062	EP1	EZ40	PY88	Z502S
56135	D13-21GM/5ELP1	E180F/6688	EPF(N)	EZ41	TBHG/14	Z504S
	D13-21GP/5ELP2	E182CC/7119	EF9	EZ80/6V4	TBH7/8000	Z505S
	D13-22GH/5ELP31	E182F/5847	EF22	EZ81/6CA4	TBH7/9000	Z550M/8453
	D13-23GH	E186F/7737	EF36	EZ90/6X4	TBL2/400/8119	Z8030/6779
	D13-24BE	E280F/7722	EF37A	FG17	TBL2/500/8120	Z805U/7714
	D13-25GH	E283CC	EF39	FG95	P101	Z300T/5823
	DA90	E288CC/8233	EF40	FG105	U30	ZB3200
	DAC21	EA50	EF41	GZ30	UABC80	ZM1030
	DAF40	EA52/6923	EF42	GZ32	UAF42	ZM1032
	DAF41	EA53	EF43	GZ33	UB41	ZZ1000/8228

AUTOMATIC

AMPERITE

REGULATOR

BALLAST TUBE FOR AUTOMATIC REGULATION OF CURRENT AND VOLTAGE



AUTOMATIC REGULATION WHAT IT IS

The AMPERITE Ballast-Regulating Tube is an automatic "rheostat" designed to keep the current in a circuit at a definite value, for example, 0.5 amp.

Should the supply voltage increase, the Amperite will automatically increase in resistance enough to take up the increase in supply voltage — keeping the voltage on the load constant. It consists of an iron wire hermetically sealed in a bulb containing hydrogen or helium — the two gases with the highest heat conductivity. Its regulating action is based on the high temperature co-efficient of resistance of the iron wire and the rapid cooling of hydrogen or helium gas.

Being a constant current device, the AMPERITE Ballast-Regulating Tube can be used only to regulate a constant load—fixed wattage. Thermostatic relays can sometimes be included in these regulators to reduce initial surge.

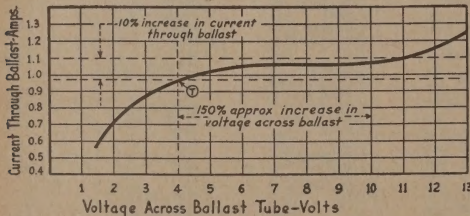
We strongly recommend that you send us your specifications on special problems, and let us recommend the BALLAST TUBE you need.



STANDARD



MINIATURE



Ⓣ = Threshold Current & Voltage

Characteristic curve of a typical Amperite. Approximate curve of any other Amperite can be obtained by multiplying or dividing the current or voltage scale by any number.

Standard Types of Amperite Ballast Tubes Net \$1.80
Amperite NE70V Neon Lamp Net \$1.80

D6-1E	1H20	*3T4	4A10	6-8	7-4	9-4A	12-4
*D6T4	1H22	*3T4A	4-12	6-4	*7TF4	9-7	12-7
*D6TK7	*2TK7	*3TF4A	4H3	6-4A	7A10	9-8	12A10
*D6TF10	2A10	*3TF4	4H4	6-4B	7-11	9A10	12-11
*D6TF30	2A12	*3TFV4	4H4C	*6T4	*7HTF2	10T1	13-4
DT-20	3V4	*4HTF4	*6T4F	*6T4F	*7HTF3	*10TF2	15-2
D7T4	3-7	*4HTP7	*6T4	*1HT4	10-3	10-3	15-4
D7HT4	3H4	*3TF7	4H10	6-7	7H4	10-4A	16-4
*D7HT11	*2HT4	5A10	4H11	*6T7	7H4B	10-4B	17-3
1A10	*2HTF4	3-11	5E1	6-8B	7H7	10-4C	20-3
*1TF10	2H10	3H11	*3TF2	6A10	7H11	10-4D	20-4
1-15	3-2	*3T11	5-4	6-11	*8TF2	10-4E	22-4
*1HT2	*3TF2	3TF11	*6T4F	6-12	8-3B	10A10	24-3
*1HT4	*3TK3	*3TF12	5A10	6-13	8-4	10A12	34-2
1H10	3-4	3-14	5-11	6A15	8A10	10-25	35-4
*1HTF10	3H-1-7	3-16	5-16	6-36	*9TF2	11-3	40-6E
*1HT11	3H4	3A20	5H3	6H4	9-3	11-4	41-7E
*1HTF11	*3HTF4	3H-25	5H4	*6HTF4	9-4	11A10	55-1
		3-38A	5H10	6H6		11-11	55-4
		3-50A	5H11				

*T denotes T5½ bulb-7 pin miniature, e.g., 3T4.

*TF denotes T6½ bulb-9 pin miniature, e.g., 3TF4.

Base Wiring: Octal, 7 and 9 pin miniature—prongs 2-7.

AMPERITE NEON LAMP
TYPE NE70V Net \$1.80

GENERAL ADVANTAGES:

- Light, compact • No moving parts • Rugged; will withstand vibration of 10G. minimum
- Hermetically sealed; not affected by altitude or humidity changes • Can be changed as easily as a radio tube • Operates equally well on A.C. or D.C. • Inexpensive

CAPACITIES AVAILABLE

Current values of 60 ma. to 5 amps; threshold voltage 0.4 to 40 V. Maximum dissipation 50w per tube (ST19 bulb). Any number of AMPERITES with the same voltage range can be operated in parallel. AMPERITES should not be used in series.

AGEING

AMPERITE Ballast Tubes may change approximately up to 3% in current if aged for 4 to 8 hours, at maximum voltage. They will change very little thereafter.

LIFE EXPECTANCY

Average life if operated as recommended **2000 Hours**
If operated continuously at maximum voltage **1000 Hours**
If operated continuously at 80% maximum voltage **5000 Hours**
If filament is operated below glow point **5000 Hours up**

In operation, the Amperite filament starts to glow at one point; as the voltage is increased, the glow spreads over the entire filament. Like incandescent lamps, turning Amperite on and off reduces its life, especially if operating near its maximum voltage.

TIME LAG CHARACTERISTICS

Time lag encountered in an Amperite Ballast Tube depends upon the wattage consumed by the ballast and the size of the bulb. Where the wattage is small for the size of the bulb, the action can be made practically instantaneous — less than 1 second. In such cases the bulb will remain at practically ambient temperature. When the wattage is high enough to heat the bulb to a temperature uncomfortable to the hand (160°F) the lag might be as much as several minutes for final readings — but normally reaches within 90% of final readings within a few seconds.

AMPERITE NUMBERING SYSTEM

In general, the AMPERITE number approximately denotes the current-voltage threshold value. For example:

Amperite Number	3-4	3H4	10-7	12-11	12H11
Threshold Current	0.3	0.35	1.0	1.2	1.25
Threshold Voltage	4.0	4.0	7.0	11.0	11.0

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AUTOMATIC

AMPERITE

REGULATOR

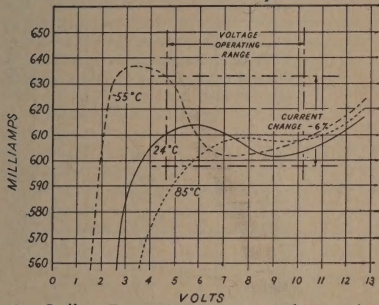
BALLAST TUBE FOR AUTOMATIC REGULATION OF CURRENT AND VOLTAGE



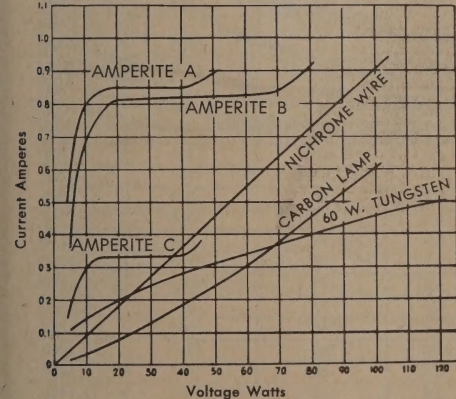
AMBIENT EFFECTS

Ambient temperature variation of -50° to $+70^{\circ}$ C will change the current value of an Amperite approximately 2% on regulating portion of curve as shown directly below. Being hermetically sealed the Amperite is not affected by altitude or humidity changes.

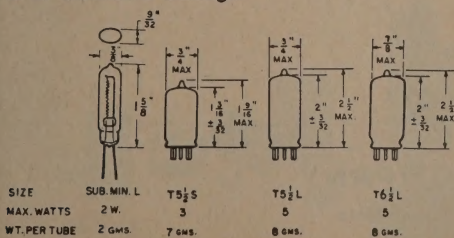
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Amperite Ballast-Type 6-4 current voltage characteristic under ambient conditions of -55° , 24° , and 85° C. The percentage change with ambient is approximately the same with all type Amperite ballasts.

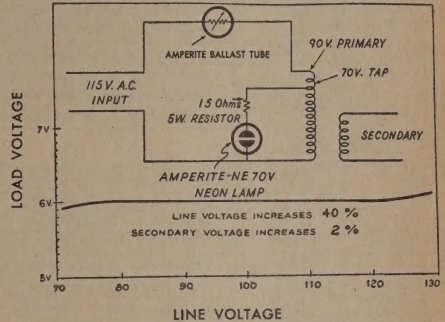


This diagram illustrates for superior regulating characteristics of the Amperite Ballast-Regulating Tube. **STANDARD SIZES** available for various wattage consumption . . . For good regulation, a bulb should not be required to dissipate more than 50% of maximum wattage.



BATTERY CHARGING AND DISCHARGING

Amperite Ballast Tubes are very successfully used for keeping the current constant in charging and discharging batteries. Any number of Amperites of the same voltage range can be placed in parallel to obtain proper current. The current can be kept to $\pm 1\%$. Advise voltage variation and currents desired.



LINE VOLTAGE

A light, compact, and inexpensive method of obtaining close regulation is to use an Amperite Ballast Tube with an Amperite Neon Lamp — type NE70V. Base octal-base wiring-prongs 2-5. One NE70V is used for all loads up to 100W.

POWER SUPPLIES

We strongly recommend, for any particular application, to fill in and return one of our special problem sheets (ASP 343) and permit us to recommend the most suitable AMPERITE.

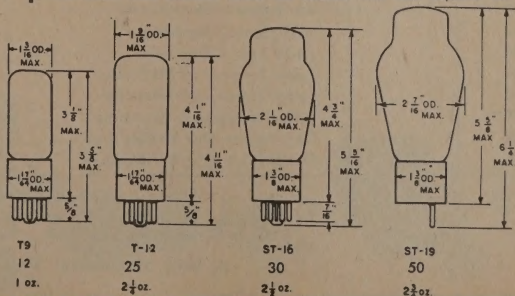
POWER SUPPLY	Dry Cells	6 Volts	12 Volts	26 Volts	115 Volts
Supply Variation	2.2-3.0V	5.5-7.5V	11.4-13.8V	22.0-30.0V	105-125V
Desired on Load	1.8-2.0V	3.9-4.1V	6.1- 6.4V	12.4-12.8V	90- 95V
Required on AMPERITE	0.4-1.0V	1.6-3.4V	5.3- 7.4V	9.6-19.2V	15- 30V
Current Variation	.29-.32a	.29-.32a	.29-.32a	.29-.32a	.29-.32a

The above chart shows the maximum load voltage for the given supply to obtain $\pm 2\%$ current regulation on load. Better regulation is obtainable by increasing the voltage across the AMPERITE. Up to a point, the higher the percentage of the supply voltage taken up by the AMPERITE, the better the regulation.

Radio tube filament loads — have low cold resistance which causes a high initial surge. For such loads we recommend a bleeder of 20 to 50% prox. of load and the corresponding AMPERITE. e.g.

FILAMENT LOAD	USE AMPERITE	TOTAL CURRENT
0.3a	4HTF4	0.45a
0.6a	8-4	0.8a
0.7a	9H4	0.95a

On Radio tube filament loads the bleeder will also improve the regulation.



Electrons Industrial Components

TYPE	OTHER DESIGNATIONS	DESCRIPTION	MAX. CONTINUOUS AVERAGE DC ANODE CURRENT (AMPS)	OSCILLOGRAPH PEAK ANODE CURRENT CONTINUOUSLY RECURRING (AMPS)	MAX. INSTANTANEOUS PEAK FORWARD VOLTAGE	MAX. INSTANTANEOUS PEAK INVERSE VOLTAGE
RECTIFIERS Xenon-Filled						
EL 1C	3B22	Full Wave, A4-10 Base, Single End.	1.0	4.0		725
EL 3B	6013	Half Wave A4-10 Base, Anode Cap.	2.5	20		920
EL 3C	4B24	Full Wave, A4-81 Base, Single End.	2.5	10		725
EL 3C/L	6982	Full Wave, Lug Type Base, Single End.	2.5	10		725
EL 6B	5892	Half Wave, A4-81 Base, Anode Cap.	6.4	77		920
EL 6B/L	6983	Half Wave, Lug Type Base, Anode Cap.	6.4	77		920
EL 6C		Full Wave, A4-81 Base, Single End.	6.4	25.6		725
EL 6F	6015	Half Wave, Panel Mounted, Flexible Leads	6.4	77		920
EL 16F		Half Wave, Panel Mounted, Flexible Leads	16.0	96		620
THYRATRONS						
EL C1B	3C31	A4-10 Base, Anode Cap. Xenon	1.0	8.0	525	700
EL C1B/A	5664	A4-10 Base, Anode Cap. Xenon	1.0	8.0	750	1250
EL C1K	6014	A4-10 Base, Single End. Xenon	1.0	8.0	1000	1250
EL C1K/B	7319	A4-10 Base, Single End. Xenon	1.0	8.0	2000	2000
EL C3J	5632	A4-10 Base, Anode Cap. Xenon	2.5	30	900	1250
EL C3J/A	5684	A4-10 Base, Anode Cap. Xenon	2.5	30	1000	1250
EL C3J/L	7216	Lug Type Base, Anode Cap. Xenon	2.5	30	900	1250
EL C3J/AL	7556	Lug Type Base, Anode Cap. Xenon	2.5	30	1000	1250
EL C4H-1		A4-81 Base, Anode Cap. Xenon	4.0	50	1700	1700
EL C4H-2		Panel Mounted, Anode Cap. Xenon	4.0	50	1700	1700
EL C4H-3		Lug Type Base, Anode Cap. Xenon	4.0	50	1700	1700
EL C4H-4		Panel Mounted, Flexible Leads. Xenon	4.0	50	1700	1700
EL C4H-5		Lug Type Base, Flexible Lead. Xenon	4.0	50	1700	1700
EL C6C	6987	#4310 Base, Anode Cap. Xenon	6.4	77	2000	4000
EL C6H-1		A4-81 Base, Anode Cap. Xenon	6.4	80	1700	1700
EL C6H-2		Panel Mounted, Anode Cap. Xenon	6.4	80	1700	1700
EL C6H-3		Lug Type Base, Anode Cap. Xenon	6.4	80	1700	1700
EL C6H-4		Panel Mounted, Flexible Leads. Xenon	6.4	80	1700	1700
EL C6H-5		Lug Type Base, Flexible Lead. Xenon	6.4	80	1700	1700
EL C6J	5C21	A4-81 Base, Anode Cap. Xenon	6.4	77	750	1250
EL C6J/A	5685	A4-81 Base, Anode Cap. Xenon	6.4	77	1000	1250
EL C6J/F	6860	Panel Mounted, Anode Cap. Xenon	6.4	77	1000	1250
EL C6J/L	6988	Lug Type Base, Anode Cap. Xenon	6.4	77	750	1250
EL C6J/K	6864	A4-81 Base, Anode Cap. Xenon	6.4	77	1000	1250
EL C6J/KF	6871	Panel Mounted, Flexible Leads. Xenon	6.4	77	1000	1250
EL C6J/KL	6989	Lug Type Base, Anode Cap. Xenon	6.4	77	1000	1250
EL C16J	5665	Panel Mounted, Flexible Leads. Xenon	16.0	160	1000	1250
EL C16H		Panel Mounted, Flexible Leads. Xenon	16.0	160	1700	1700
EL 6011/710	7307A	A4-10 Base, Anode Cap. Mercury Gas	2.5	30	1700	1700
EL 7518/710L	7509A	Lug Type Base, Anode Cap. Mercury Gas	2.5	30	1700	1700
SURGE ARRESTERS						
TYPE		DESCRIPTION	TYPICAL RMS AC VOLTS BREAKDOWN			
EL 2120		A4-10 Base, 3 Electrodes	200			
EL 2140		A4-10 Base, 3 Electrodes	400			
EL 2175		A4-10 Base, 3 Electrodes	750			
EL 2420		Solder Terminals, 2 Electrodes	200			
EL 2440		Solder Terminals, 2 Electrodes	400			
EL 2475		Solder Terminals, 2 Electrodes	750			
EL 2940		One Bracket, One Flexible Lead	400			
EL 2975		One Bracket, One Flexible Lead	750			

ELECTRONS COMPANY

A Unit of General Signal Corporation

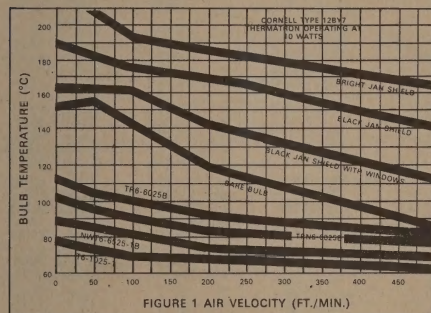


Heat Dissipating Electron Tube Shields

Most tube type electronic equipment failures occur because of tube failures. Tubes fail primarily because of the heat they generate and the environment in which they operate. If tubes are operated at a lower bulb temperature, their life can be extended.

The simple solution to high tube temperature is the application of *heat dissipating tube shields*. The former universally used but now obsolete JAN shield (specifically prohibited by all military services and FAA, although millions are still in use) actually raises bulb temperature above that of the bare tube. The JAN shield was applied to shield tubes electrostatically and retain them in the socket. However, it allows a dead air space between shield and tube that, in effect, traps the heat generated by the tube, raises the bulb temperature and reduces the life of the electron tube.

On the other hand, a tube with an efficient heat dissipating shield will operate cooler in a still air environment than a bare tube in a 500 fpm forced air environment. This is illustrated in Figure 1.



It is conservatively estimated that if effective heat dissipating tube shields were applied to all tubes in the average equipment, at least half of all tube failures would be eliminated with resulting reductions in maintenance and down-time costs.

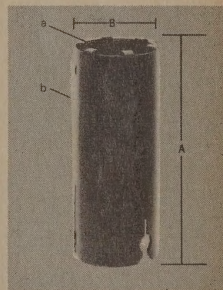
TRN SERIES HEAT DISSIPATING SHIELDS

IERC's TRN Thermo-rel shield can give you six times longer use of electronic equipment before failure. A full set of TRN shields can frequently be installed in an average piece of test equipment for less than the labor cost of replacing one bad tube. Cost of an individual TRN shield is only a fraction of that of a replacement tube. In spite of the low cost, the TRN shield meets or exceeds all military requirements for heat dissipating tube shields, and is qualified to MIL-S-9372C (USAF). You can increase the reliability and decrease maintenance cost of Hi-Fi or ham gear, test equipment in lab or production line, or the systems, sub-systems and test equipment your company builds, by using IERC heat dissipating tube shields. The IERC TRN shields are designed to replace the obsolete JAN shield, as well as for use in new equipment. A flexible, black cadmium plated beryllium copper liner hugs the bulb of the tube, adapting to variations in bulb contour and diameter. Positive base attachment gives TRN shields superior retention in a shock and vibration environment. Act now—order from your nearest IERC authorized industrial distributor.

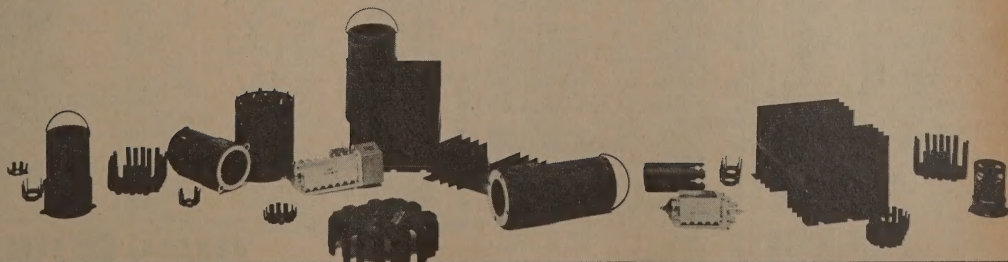
IERC PART NO.	MS PART NO.	DIMENSIONS		TUBE SIZE	QUANTITY PRICES			
		A MAX.	B DIA.		1-24	25-99	100-499	500-999
TRN6-6015B	MS-24233-1	1-1/2"	7/8"	SHORT 7 PIN	8.40	.32	.29	.27
TRN6-6020B	MS-24233-2	2"	7/8"	MED. 7 PIN	40	.32	.29	.27
TRN6-6025B	MS-24233-3	2-1/2"	7/8"	LONG 7 PIN	45	.39	.35	.31
TRN6-6015B	MS-24233-4	1-1/2"	1"	SHORT 9 PIN	40	.32	.29	.27
TRN6-6020B	MS-24233-5	2"	1"	MED. 9 PIN	40	.32	.29	.27
TRN6-6025B	MS-24233-6	2-1/2"	1"	LONG 9 PIN	45	.39	.35	.31
TRN6-6027B	MS-24233-7	2-3/4"	1"	EX. LONG 9 PIN	55	.47	.41	.37

Note: TRN6-6027B is designed for use with 6094 and similar size tubes.

DRAWING CODE	Component Part	Material	Finish
a	Liner	Beryllium Copper QQ-C-533	Black Cadmium QQ-P-416
b	Shell	Aluminum QQ-A-318	Black Anodize MIL-A-8625

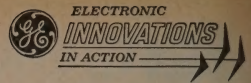


International Electronic Research Corporation
A Subsidiary of Dynamics Corporation of America





TV PICTURE TUBES



Tube Type	Sugg'd Price
8AP4A.....	\$11.60
9CP4A.....	22.60
★ 11AP4.....	22.15
★ 12CDP4.....	24.35
★ 12BMP4.....	Use 12CDP4
★ 12KP4A.....	Use SG-12KP4A
★ SG-12KP4A.....	27.80
★ 12LP4A.....	Use SG-12KP4A
★ 12TP4A.....	Use SG-12KP4A
★ 14ATP4.....	25.55

★ 14AUP4.....	25.55
★ 14AVP4.....	Use SG-14AJP4
★ 14BP4A.....	Use SG-14QP4A
★ 14BP4A.....	Use SG-14QP4A
★ 14HP4A.....	Use SG-14QP4A
★ 14NP4A.....	Use SG-14WP4A
★ 14NP4A.....	Use SG-14WP4A
★ 14QP4A.....	Use SG-14QP4A
★ SG-14QP4A.....	24.70

★ 14RP4A.....	Use SG-14WP4A
★ 14RP4A.....	Use SG-14WP4A
★ 14SP4A.....	Use SG-14WP4A
★ 14WP4A.....	Use SG-14WP4A
★ SG-14WP4A.....	25.55
★ 14XP4A.....	25.55
★ 14ZP4A.....	Use SG-14WP4A
★ 16ASP4.....	38.30
★ 16AZP4.....	29.30
★ 16ATP4.....	36.50

★ 16BUP4.....	29.30
★ 16BVP4.....	33.80
★ 16CFP4.....	28.75
★ 16GP4.....	25.20
★ 16GP4B.....	25.20
★ 16KP4A.....	Use SG-16KP4A
★ SG-16KP4A.....	17.35
★ 16KP4A.....	Use SG-16KP4A
★ 16RP4A.....	Use SG-16KP4A

★ 16RP4A.....	Use SG-16KP4A
★ 16TP4A.....	Use SG-16KP4A
★ 16UP4A.....	Use SG-16KP4A
★ 16ZP4A.....	Use SG-16KP4A
★ 16ZP4A.....	Use 16LPA4/ZP4
★ 17AP4A.....	Use SG-17BP4B
★ 17ATP4.....	Use SG-17BJP4
★ 17ATP4A.....	Use SG-17BJP4
★ 17AVP4.....	Use SG-17BJP4
★ 17AVP4A.....	Use SG-17BJP4

★ 17BJP4.....	Use SG-17BJP4
★ SG-17BJP4.....	17.30
★ 17BP4A.....	Use SG-17BP4B
★ 17BP4A.....	Use SG-17BP4B
★ 17BP4B.....	Use SG-17BP4B
★ SG-17BP4B.....	16.55
★ 17BP4C.....	Use SG-17BP4B
★ 17BP4C.....	Use 17DSF4
★ 17BP4D.....	Use SG-17BP4A
★ 17BP4D.....	Use SG-17BP4A

★ 17BP4D.....	Use SG-17BP4A
★ SG-17BP4A.....	16.55
★ 17BP4A.....	Use SG-17BP4A
★ 17BP4A.....	Use 17DSF4
★ 17BP4A.....	Use 17DSF4
★ 17BP4A.....	Use SG-17BP4A
★ 17CDP4.....	28.80
★ 17CFP4.....	22.60
★ 17CKP4.....	Use 17DSF4
★ SG-17CKP4.....	22.40
★ 17CLP4.....	Use SG-17BP4A

★ 17CP4A.....	24.95
★ 17CRP4.....	23.20
★ 17CSP4.....	Use SG-17BP4A
★ 17TP4A.....	22.40
★ 17WP4A.....	Use 17DSF4
★ 17DP4A.....	27.60
★ 17DP4A.....	22.40
★ 17DP4A.....	22.40
★ 17DRP4.....	27.60

★ 17DSP4.....	22.20
★ 17DTP4.....	Use 17DKP4/DTF4
★ 17DXP4/DZP4.....	22.40
★ 17FP4/FP4A.....	21.30
★ 17HP4A.....	Use SG-17HP4B
★ 17HP4A.....	Use SG-17HP4B
★ 17HP4B.....	Use SG-17HP4B
★ SG-17HP4B.....	16.55
★ 17JP4A.....	Use SG-17BP4B
★ 17LP4A.....	Use SG-17LP4A

★ 17LP4A.....	Use SG-17LP4A
★ SG-17LP4A.....	\$19.60
★ 17QP4A.....	Use SG-17QP4A
★ SG-17QP4A.....	19.60
★ 17RP4A.....	Use SG-17HP4B
★ 17RP4C.....	Use SG-17HP4B
★ 17UP4A.....	Use SG-17QP4A
★ 17VP4A.....	Use SG-17LP4A
★ 17VP4B.....	Use SG-17LP4A

★ 17PA.....	Use SG-17QP4A
★ 19ABP4.....	29.35
★ 19ACP4.....	Use 19CFP4A
★ 19AFP4.....	34.20
★ 19AHF4.....	25.90
★ 19AJP4.....	25.90
★ 19AP4B.....	25.90
★ 19ARP4.....	Use 19AFP4A
★ 19AUP4.....	Use 19AFP4A
★ 19AVP4.....	25.90

★ 19AXP4/AYP4.....	25.90
★ 19BP4A.....	25.80
★ 19BHP4.....	25.90
★ 19BLP4.....	25.90
★ 19BMP4.....	Use 19AFP4A
★ 19BNP4.....	Use 19BQP4A
★ 19BQP4.....	35.25
★ 19BTP4/YP4.....	25.90
★ 19BVP4.....	Use 19AVP4A
★ 19CFP4.....	29.35

★ 19CHP4.....	Use 19CFP4A
★ 19CKP4.....	Use 19CFP4A
★ 19CUP4.....	29.35
★ 19DEP4.....	25.80
★ 19DFP4.....	29.35
★ 19DUP4.....	38.40
★ 19DVP4.....	33.30
★ 19EP4A.....	33.50
★ 19ECP4.....	41.40
★ 19XP4A.....	Use 19AVP4A

★ 19YP4.....	Use 19BTP4/YP4
★ 19ZP4A.....	Use 19BHP4A
★ 20CP4A.....	Use SG-20CP4D
★ 20CP4A.....	Use SG-20CP4D
★ 20CP4B.....	Use SG-20CP4D
★ SG-20CP4D.....	29.55
★ 20DP4A.....	Use SG-20CP4D
★ 20DP4A.....	Use SG-20CP4D

★ 20DP4B.....	Use SG-20CP4D
★ 20DP4C.....	Use SG-20CP4D
★ 20HP4A.....	Use SG-20HP4D
★ 20HP4A.....	Use SG-20HP4D
★ 20HP4C.....	Use SG-20HP4D
★ 20HP4D.....	Use SG-20HP4D
★ SG-20HP4D.....	29.55
★ 20LP4A.....	Use SG-20HP4D
★ 20MP4A.....	Use SG-20HP4D

★ 21ACP4.....	Use SG-21ACP4A
★ 21ACP4A.....	Use SG-21ACP4A
★ SG-21ACP4A.....	16.50
★ 21AFP4.....	Use SG-21YP4A
★ 21ALP4.....	Use SG-21FLP4A
★ 21ALP4A.....	Use SG-21FLP4A
★ 21ALP4B.....	Use SG-21FLP4A
★ 21AMP4.....	Use SG-21ACP4A
★ 21AMP4A.....	Use SG-21ACP4A
★ 21AMP23A.....	Use SG-21ACP4A

★ 21ANP4.....	Use SG-21FLP4A
★ 21ANP4A.....	Use SG-21FLP4A
★ 21AQP4.....	Use SG-21ACP4A
★ 21AQP4A.....	Use SG-21ACP4A
★ 21ASP4.....	Use SG-21XP4A
★ 21ATP4.....	Use SG-21FLP4A
★ 21ATP4A.....	Use SG-21FLP4A
★ 21ATP4B.....	Use SG-21FLP4A
★ 21AUP4.....	Use SG-21AUP4B
★ 21AUP4A.....	Use SG-21AUP4B

★ 21AUP4B.....	Use SG-21AUP4B
★ SG-21AUP4B.....	21.35
★ 21AVP4.....	Use SG-21AUP4B
★ 21AVP4A.....	Use SG-21AUP4B
★ 21AVP4B.....	Use SG-21AUP4B
★ 21AWP4.....	Use SG-AWP4
★ SG-21AWP4.....	21.35
★ 21AXP22A(Color).....	78.95
★ 21AYP4.....	Use SG-21XP4A
★ 21BAP4.....	Use SG-21FLP4A
★ 21BGP4.....	Use SG-21YP4A

General Electric TV picture tubes feature many multipurpose designs that replace several of the most commonly used types. Each SG type replaces a number of other types, as shown in the tables.

All material and parts used in the manufacture of General Electric picture tubes are now except for the envelope (and screen and aperture mask as assembly in the case of color tubes) which, prior to re-use, have been inspected and tested to meet our high quality standards.

Tube Type	Sugg'd Price
★ 21BDP4.....	Use SG-21AUP4B
★ 21BNP4.....	Use SG-21FLP4A
★ 21BSP4.....	Use SG-21ACP4A
★ 21BTP4.....	Use SG-21FLP4A
★ 21CBP4.....	Use SG-21FLP4A
★ 21CBP4A.....	Use SG-21FLP4A
★ 21CEP4/CEP4A/DFP4.....	\$20.70
★ 21CMP4.....	Use SG-21FLP4A
★ 21CQP4.....	24.30

★ 21CVP4.....	Use SG-21FLP4A
★ 21CWP4.....	Use SG-21FLP4A
★ 21XP4A/DSF4.....	20.90
★ 21CYP22A(Color).....	72.30
★ 21OZP4.....	Use SG-21DEP4A
★ 21DAP4.....	Use SG-21DEP4A
★ 21DEP4A/DEP4A.....	Use SG-21DEP4A
★ SG-21DEP4A.....	20.70
★ 21DFP4.....	Use 21CEP4A/CEP4A/DFP4

★ 21DHP4.....	24.30
★ 21DLF4/DOF4.....	23.10
★ 21DNP4.....	Use SG-21FLP4A
★ 21DQP4.....	Use 21DLF4A/DOF4
★ 21DSP4.....	Use 21CXF4A/DSF4
★ 21EAP4.....	Use 21DFP4A
★ 21EMP4.....	Use 21EQP4A
★ 21EP4A.....	Use SG-21EP4B

★ 21EP4A.....	Use SG-21EP4B
★ 21EP4B.....	23.20
★ 21EQP4.....	24.30
★ 21ESP4.....	20.70
★ 21FB22(Color).....	78.25
★ 21FBP22A(Color).....	100.00
★ 21FDP4.....	32.10
★ 21FJP22(Color).....	88.45
★ 21FJP22A(Color).....	111.25

★ 21FLP4.....	Use SG-21FLP4A
★ SG-21FLP4A.....	16.50
★ 21FMF4.....	24.30
★ 21FP4A.....	Use SG-21FP4C
★ 21FP4A.....	Use SG-21FP4C
★ 21FP4C.....	Use SG-21FP4C
★ SG-21FP4C.....	23.20
★ 21GBP4.....	39.55
★ 21WP4A.....	Use SG-21WP4A
★ 21WP4A.....	Use SG-21WP4A

★ SG-21WP4A.....	27.80
★ 21XP4A.....	Use SG-21XP4A
★ 21XP4A.....	Use SG-21XP4A
★ SG-21XP4A.....	27.80
★ 21YP4A.....	Use SG-21YP4A
★ 21YP4A.....	Use SG-21YP4A
★ SG-21YP4A.....	16.70
★ 21ZP4A.....	Use SG-21ZP4B
★ 21ZP4A.....	Use SG-21ZP4B
★ 21ZP4B.....	Use SG-21ZP4B

★ SG-21ZP4B.....	16.70
★ 23AF4.....	Use 23BT4A
★ 23ANP4.....	29.55
★ 23ANP4.....	Use 23BKP4A
★ 23ASP4.....	29.55
★ 23ATP4.....	Use 23BKP4A
★ 23AVP4.....	Use 23CP4A
★ 23AUP4.....	Use 23AHF4
★ 23AWP4/BJP4.....	29.55
★ 23BDP4.....	Use 23BT4A

Tube Type	Sugg'd Price
★ 23BCP4.....	Use 23BHP4A
★ 23BJP4.....	Use 23AWP4A/BJP4
★ 23BKP4.....	\$35.60
★ 23BLP4.....	Use 23BKP4A
★ 23BMP4.....	Use 23BTP4A
★ 23BNP4.....	41.00
★ 23BQP4.....	35.60
★ 23BTP4.....	35.60
★ 23BVP4.....	41.00

★ 23CBP4.....	Use 23BQP4A
★ 23CP4A.....	35.60
★ 23CP4A.....	Use 23CP4A
★ 23CP4A.....	Use 23AHF4A
★ 23DBP4.....	34.90
★ 23DKP4.....	42.80
★ 23DLP4.....	38.20
★ 23DP4A.....	48.45
★ 23DSP4.....	48.45
★ 23DWP4.....	47.35

★ 23DVP4.....	Use 23FVP4A
★ 23EP4A.....	35.60
★ 23ESP4.....	38.15
★ 23FP4A.....	Use 23FP4A
★ 23FP4A.....	30.90
★ 23FVP4.....	42.70
★ 23GP4A.....	Use 23CP4A
★ 23HP4A.....	Use 23CP4A
★ 23JP4A.....	35.60
★ 23KP4A/KP4A.....	30.90

★ 23MP4A.....	Use 23FP4A
★ 23MP4A.....	Use 23FP4A
★ 23NP4A.....	30.90
★ 23TP4A.....	45.60
★ 23UP4A.....	42.15
★ 23WP4A.....	Use 23FP4A
★ 23XP4A.....	Use 23BTP4A
★ 23YP4A.....	Use 23BTP4A
★ 23ZP4A.....	39.10
★ 24ADP4.....	Use SG-24CP4A

★ 24AEP4.....	Use SG-24AEP4
★ SG-24AEP4.....	23.80
★ 24AHF4/ALP4.....	35.60
★ 24AJP4.....	33.35
★ 24ALP4.....	Use 24AHF4A/ALP4
★ 24ANP4.....	Use SG-24AEP4
★ 24AUP4.....	33.35
★ 24AVP4.....	Use 24BEP4A
★ 24BEP4.....	44.95

★ 24CP4A.....	Use SG-24CP4A
★ 24CP4A.....	Use SG-24CP4A
★ SG-24CP4A.....	23.80
★ 24DP4A.....	Use SG-24AEP4A
★ 24DP4A.....	Use SG-24AEP4A
★ 24EP4A.....	Use SG-24CP4A
★ 24FP4A.....	Use SG-24CP4A
★ 24GP4A.....	Use SG-24CP4A
★ 24HP4A.....	Use SG-24CP4A

★ 24YP4.....	Use SG-24AEP4A
★ 24ZP4A.....	Use SG-24AEP4A
★ 25AP22A(Color).....	146.85
★ 27EP4.....	Use SG-27RP4A
★ 27GP4A.....	Use SG-27RP4A
★ 27LP4.....	66.45
★ 27NP4.....	Use SG-27RP4A
★ 27RP4A.....	Use SG-27RP4A
★ SG-27RP4A.....	66.45
★ 27XP4A.....	66.45

★ Black-Daylight aluminized tube.

GENERAL ELECTRIC

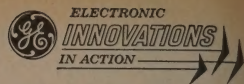
RECEIVING TUBES

Type	Suggested List Price	Type	Suggested List Price	Type	Suggested List Price	Type	Suggested List Price	Type	Suggested List Price	Type	Suggested List Price	Type	Suggested List Price
O24	\$2.40	4H05	\$3.85	6B8A	\$4.00	6D4B	\$3.50	6C6C	\$3.75	8E8B	\$4.10	12E05	\$2.70
O24A	2.45	4H58	3.05	6B81	4.10	6D4H	3.95	6C8C	3.30	8E5M	3.40	12E6G	3.45
1A7GT	5.40	4H76	5.40	6B87	3.60	6D2A	3.75	6D6E	3.75	8E7T	4.15	12E6K	3.10
1A2	2.80	4J0C	3.80	6B89	3.60	6D2D	3.80	6D6E	3.75	8E8A	3.25	12E6K	3.10
1AD2	2.60	4J06	3.60	6B8C	3.75	6E5	5.65	6E8E	3.70	8G1T	3.25	12E7E	3.50
1B3GT	2.75	4J18	4.10	6B06	2.30	6E4A	7.30	6H1E	2.45	8G8N	3.70	12F8	2.90
1B02	2.90	5AM8	4.05	6B011	5.05	6E45	5.55	6H48	4.10	8J0A	3.35	12F8K	2.15
1DN5	5.80	5AN8	4.45	6B53	2.80	6E47	5.60	6J8K	4.10	8J8E	3.65	12F8M	2.60
1G3GT/1B3GT	7.75	5A05	5.50	6B58	2.40	6E58	3.80	6J8A	3.10	8J8E	3.65	12F8M	2.60
1H2	3.95	5AR4	4.25	6B55	3.35	6B85	4.60	6J8A	3.85	8L78	2.70	12F8R	6.90
1J3	2.75	5A54A	3.45	6B6F	1.95	6E88	4.40	6J8N	3.65	9AB/8A/8	3.70	12F5S	2.45
1K1	2.75	5A58	4.40	6B81	4.90	6E4F	7.60	6J8A	7.30	PCF80	3.40	12F8A	3.85
1L4	5.80	5A78	3.85	6B86GA	6.15	6E88	2.90	6J8T	4.00	9A17	4.35	12G6E	2.70
1LA6	7.75	5A04	3.85	6B87	6.15	6E8H	3.85	6J8A	3.30	9B11	2.65	12G6E	2.70
1LH4	7.60	5AV8	3.85	6B8H	4.00	6E8T/EF183	3.35	6J8A	3.30	9B87	3.15	12G6E	2.70
1N2A	4.40	5B8	5.50	6B111	3.90	6E1T/EF184	3.55	6J8W	4.10	9C18	2.95	12G7A	3.90
1R5	3.25	5B03	3.15	6H13	2.80	6E5M	3.20	6K28	3.60	9G8V	3.40	12H6	3.95
1S2A	2.90	5B7A	3.75	6J8A	2.75	6E7T	3.50	6K28	3.55	9H8E	2.95	12H6T	6.80
1S5	3.05	5B07A	3.20	6B87	2.95	6E8T	3.50	6K6G	3.55	9B8A	2.90	12H6T	6.80
1T4	3.05	5B8R	4.20	6B8J	3.80	6E85	3.55	6K7	3.50	10A11	4.55	12H7	3.90
1U4	3.05	5B78	3.10	6B4KA	7.55	6E5S	2.85	6K11/6D11	3.55	10B05	2.30	12J5	4.10
1U5	2.90	5B8W	3.20	6B85	3.45	6E58	5.45	6KA8	4.25	10C8	5.15	12J8	4.35
1V2	5.80	5C08	3.15	6B87B	3.55	6E7T	4.00	6K08	7.70	10D5W	3.35	12J8G	3.95
1X2A/1X2B	2.90	5CL8A	3.85	6B17GTA	4.70	6E1U	2.70	6K08	3.10	10E10	4.55	12J8H	3.20
1X2A	3.85	5C08	3.15	6B8L/ECF80	3.75	6E1U	2.70	6K08	3.10	10D5W	3.35	12J8G	3.95
24F4B/2D24	3.85	5C08	4.10	6B8M/EC182	2.90	6E1V	2.80	6K8R	4.25	10E6T	4.40	12L6T	3.55
2AH2	3.40	5O25	4.45	6B4N4	3.40	6E1V	2.75	6K8RRA	4.25	10E6T	4.40	12L6T	3.55
2AS2	3.40	5D18	5.50	6B8N/6K56	3.30	6E6W	2.60	6K5G	3.00	10G6K	3.05	12S4T	4.40
2D2	2.40	5D4	3.85	6B8N	3.15	6E8N	3.15	6K5G	3.00	10G6K	3.05	12S4T	4.40
2AV2	2.15	5EA8	3.80	6B111	4.10	6E6X	7.50	6K8V	5.85	10HF8	4.65	12S5S	3.95
2B4N4	2.75	5E58	5.50										

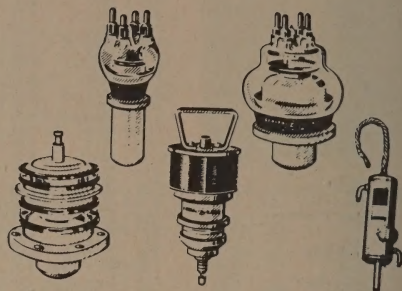
† Manufacture's suggested list price; subject to change without notice.



INDUSTRIAL TUBES



- CATHODE-RAY
- FIVE-STAR
- MILITARY
- POWER
- COMMUNICATION
- TRANSMITTING

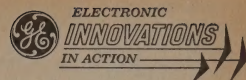


G-E Type	Price Each†	G-E Type	Price Each†	G-E Type	Price Each†	G-E Type	Price Each†
0A2	1.32	FA-13	(Use GL-5628)	GL-5551A Pl. Coated	\$65.00	5840★	\$5.35
0A3	1.55	C16J	(Use GL-5665/C16J)	GL-5551A Pl. Coated	65.00	5844★	2.30
0A4G	1.90	FG-17	(Use GL-5557)	GL-5552A	99.00	5855	85.00
0B2	1.37	PJ-23	(Use GL-868)	GL-5552A Pl. Coated	99.00	5879	1.85
0B3	2.35	2B07	\$4.95	GL-5553B	245.00	5881	3.50
0C3	1.50	FG-32	(Use GL-5558)	GL-5553B Pl. Coated	245.00	5886(R)	5.00
0D3	1.45	FG-33	(Use GL-5720)	GL-5554/FG-259B	215.00	5894	25.00
1A04	2.80	FG-41	(Use GL-5830)	GL-5555/FG-238B	316.00	5896★	3.75
1D21/SN4	12.90	B-47	(Use GL-5623)	GL-5556	54.25	5899★	5.50
C1K	(Use GL-6014/C1K)			5557/FG17	9.50	5902★	4.80
GL-1121	25.00	FG-57	(Use GL-5559)	5558/FG32	17.50	5963	1.50
GL-1L36	18.50	FG-67	(Use GL-5728)	5559/FG57	23.00	5964	1.55
1P40	4.10	FG-81A	32.50	5560/FG95	33.00	5965	1.90
2B22	32.00	83	1.75	5561/FG104	59.00	GL-5973	495.00
GL-2B23	85.00	FG-95	(Use GL-5560/FG-95)	5563A	51.25	5998A	12.20
2C	6.90	FG-97	62.00	GL-5564/GL-507	850.00	6005★	3.25
2C39A	20.75	FG-98A	77.00	5575/100/616	225.00	6011/710	12.70
2C39B	32.15	FG-104	(Use GL-5561)	GL-5593	340.00	6012★	7.65
2C39WA	29.00	FG-105	59.00	5510	1.05	GL-6014/C1K	11.80
2C40	29.30	FG-152	108.00	GL-5623/B-47	30.00	6019	751.75
2C40A	34.00	FG-172	129.00	GL-5627	80.00	6021★	3.50
2C42	27.10	FG-259B	(Use GL-5554)	GL-5628/FA-13	60.00	GL-6039	2070.00
2C43	27.50	FG-280	109.00	GL-5630	1900.00	6046	1.55
2C46	29.50	393A	13.25	5632/CJ3	12.70	6072A	3.90
2D21	1.30	407A	5.95	5636★	6.10	6080★	5.35
2D21W	(Use 5727)	408A	4.95	5642	3.55	6087★	5.75
2DF4	11.65	GL-414	280.00	5651	1.80	6111★	3.70
2H26	3.75	GL-415	(Use GL-5550)	5654★	2.45	6112★	4.10
2H22	340.00	502A	2.30	5662	1.45	6134★	5.70
2X2A	3.85	GL-506	(Use GL-6228)	5663	2.10	6135★	2.40
3B24W	11.25	575A	21.00	5665/C16J	52.50	6136★	2.70
3B28	7.00	672A	39.85	5670★	2.45	6137★	2.85
3C23	11.98	GL-673	20.15	GL-5674	225.00	6146A	4.30
3C100A5	32.00	GL-578	49.50	5675	8.95	6146B/8298A	5.15
KC-4	(Use GL-5575/100)	760	(Use GL-6858/760)	5686★	3.40	6161	125.00
4-1000A	48.00	760P	(Use GL-6859/760P)	5687★	4.00	6166A	(Use 7007/6166A)
4-1000A	132.00	807	3.10	5687WA★	5.70	6183	(Use 6942)
4D21/4-125A	36.00	809	8.20	5691	8.75	6189★	3.65
4X150A/7034	(Use 7034/4X150A)	810	28.60	5692	8.25	6197	2.30
5R4GYA	2.05	811A	7.00	5693	6.60	6198A	185.00
5R4GYB	2.05	812A	7.45	5096A	1.95	6201★	2.55
5Y3WGTB★	(Use 6087)	816	24.30	5702WA	6.50	6202	4.10
FA-6	(Use GL-5627)	818	3.60	5702WB	6.50	6203	3.60
6AC7WA★	5.45	829B	20.00	5703WA	7.10	6205★	5.35
6AK5W	(Use 5654)	830B	17.35	5703WB	8.80	6206★	7.25
6AK5WB	5.45	832A	16.65	5718★	3.65	6211A	2.35
6AK6	1.40	833A	61.20	5719★	3.15	6216	7.00
6AL5W	(Use 5726)	GL-838	20.00	GL-5720/FG-33	34.75	6222★	4.10
6AN5	4.20	GL-857B	218.00	5725★	1.55	GL-6228/GL-506	3695.25
6AS5	3.45	862A	175.00	5726★	1.55	GL-6251	2790.00
6AS6W	(Use 5725)	866A	3.25	5727★	2.90	6265★	4.10
6AS7GA	4.95	GL-869B	138.00	GL-5728/FG-67	74.00	GL-6283	500.00
6AU6WB	(Use 6136)	GL-870A	1990.00	5736	205.00	6299	56.00
6B6W	(Use 5749)	872A/872	9.90	5744WA	7.10	6336A	19.40
6BE6W	(Use 5750)	GL-880A	760.00	5744WB	9.00	GL-6346	70.00
6C4WA★	3.15	884	2.30	5749★	2.20	GL-6347	(Use GL-5552A)
6D4	2.85	889A	290.00	5750★	3.45	GL-6348	(Use GL-5553A)
6DJ8	1.80	892	345.00	5751★	2.55	6350	1.85
6J4	4.02	927	4.70	5762/7C24	255.00	6360	4.95
6SK7WA	(Use 6137)	929	2.35	5763	2.45	6385★	7.40
6X4W(R)	4.10	930	3.80	GL-5779	200.00	6397	8.30
6X4WA	(Use 6202)	931A	12.30	GL-5788	545.00	6414	3.65
GL-7029	185.50	2050	2.40	5814A★	2.35	6442	39.00
GL-7D21	790.00	2050A	2.03	GL-5791WB	6.25	6463	1.90
PJ-8	(Use GL-5556)	GL-5513	620.00	GL-5820A	995.00	6485	2.05
12A6	3.36	GL-5518	1400.00	5820A/R	995.00	GL-6511	(Use 5822A)
12A7TWB	(Use 6201)	GL-5544	32.50	GL-5822A	116.00	GL-6512	310.00
12A7TWB	(Use 6201)	GL-5549	653.50	5823	1.75	GL-6513	420.00
12A7TWB	(Use 6201)	GL-5550/GL-415	49.00	5824	3.60	GL-6514	575.00
12A7TWB	(Use 6201)	GL-5551A	65.00	GL-5830	540.00	GL-6515	1060.00

† Manufacturer's suggested price.

★ Five-Star type.

△ Communication type.



INDUSTRIAL TUBES (Cont'd)

G-E Type	Price Each†	G-E Type	Price Each†	G-E Type	Price Each†	G-E Type	Price Each†
6550	\$4.30	7056	\$0.95	GL-7669 Pd. Coated	\$65.00	8008	\$10.85
6660△	1.01	7058	1.30	GL-7670	77.20	GL-8020	16.00
6661△	1.34	7059	1.50	GL-7671	99.00	8068	3.60
6662△	1.29	7061	1.30	GL-7671 Pl. Coated	99.00	8081	40.16
6663△	.92	7077	39.05	GL-7672	116.00	8082	40.16
6664△	1.15	7226	315.00	GL-7673	245.00	8083	40.16
6669△	1.06	GL-7151	750.00	GL-7673 Pl. Coated	245.00	GL8092A	1870.00
6676△	1.06	7167	1.45	GL-7681 Pl. Coated	155.00	8092A/R	1870.00
6677△	1.85	GL-7171	81.50	GL-7681	155.00	GL-8093A	1350.00
6678△	1.62	7226	315.00	GL-7672	185.00	8093A/R	1350.00
6679△	1.50	7233	2.40	7701	2.15	8102	1.45
6680△	1.22	7239★	6.25	GL-7703	190.00	8106	1.55
6681△	1.26	7262A	250.00	7716	1.75	8113★	6.45
6688A	8.75	7263A	430.00	7717	1.40	8136	1.20
6771	71.90	7266	35.44	7720	39.05	8156	3.90
GL-6848	2070.00	7289	30.75	7724	1.50	GL-8205	825.00
6807	32.25	7293	1050.00	7725	13.50	8360	77.20
6808	32.90	7293A/R	1050.00	7726	16.30	GL-8465	500.00
6809	35.50	7295	14440.00	7735A	185.00	GL-8466	535.00
6814★	5.90	7296	49.61	7735B	185.00	8484	185.00
6829★	6.10	7325	185.00	7736	850.00	8507	250.00
6858/760	28.10	7370	10.80	7768	111.04	8511	315.00
6859/760P	29.80	7295	1440.00	7784	65.00	8541	310.00
GL-6878	3060.00	7391	67.00	7815	30.75	8572	260.00
6883	4.30	GL-7399	520.00	7815R	39.25	8573	310.00
6897	32.15	7427	2.65	7841	35.44	8604	310.00
6907	27.00	7462	39.05	7861★	3.50		
6919	1.35	7486	39.05	Z7890	1800.00		
6942	960.00	7518	14.00	7910	82.69		
7007/6166A	1020.00	7588	101.59	7913	122.85		
7034/4X150A	25.00	7625	39.05	GL-7964	85.00		
7036	1.50	7629A	1700.00	7984	5.35		
GL-7038	185.00	7629A/R	1700.00	GL-7985	2225.00		
7044	2.70	7644	65.00	GL-7998	155.00		
7054	1.55	GL-7669	65.00	8005	17.85		

† Manufacturer's suggested price.

★ Five-Star type.

△ Communication type.

THERMOSTAT KITS FOR IGNITRON

Kit No.	Price, Each†
N-15272AA (Flying Leads).....	\$ 7.30
N-15273AA (Flying Leads).....	8.00
N-15286AA (Technical Block).....	10.10
N-15287AA (Terminal Block).....	9.70

MC LEOD GAGES

Type	Price, Each†
N-24900 AAG1	\$320.00
N-24900 AAG2	325.00

GLASS PARTS

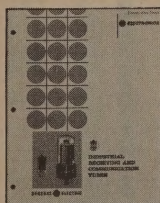
N-24900 AEG1	98.00
N-24900 AEG2	103.00

NEW G-E INDUSTRIAL TUBE CATALOGS



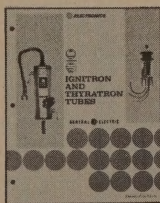
ETI-719D 25¢

Alpha-numerical listing of G-E replacements for nearly 3,000 types of industrial tubes.



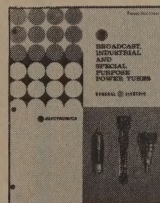
ETI-2387A 25¢

Complete specifications of G-E industrial receiving, communications, 5-Star and ceramic receiving tubes.



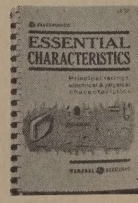
ETI-2388A 25¢

Specifications and data on 80 types of G-E Ignitrons and Thyratrons, plus operating guide.



ETI-2389A 25¢

Lists 125 special-purpose and broadcast power tubes and rectifiers, including installation information.



ETR-15L \$1.50

Lists all receiving, TV picture, 5-Star, and small special-purpose tubes, and G-E capacitors.

These Catalogs Are Available From Your General Electric Tube Distributor

GENERAL  ELECTRIC

NATIONAL®**ELECTRONIC CONTROL DEVICES
FOR INDUSTRY****Ignitrons, Rectifier Tubes, Thyratrons, Silicon Devices and Readout Tubes****IGNITRONS**

Type Number	Net Selling Price
NL-1009A	\$155.00
NL-1011A	65.00
NL-1012A	99.00
NL-1013A	245.00
NL-1014A	750.00
NL-1016A	155.00
NL-1022A	116.00
NL-1031	65.00
NL-1036	98.00
NL-1037	134.00
NL-1038	333.00
NL-1039	132.00
NL-1040	1,075.00

Type Number	Net Selling Price
NL-1051A*	\$ 65.00
NL-1052A*	99.00
NL-1053A*	284.00
NL-1054A	750.00
NL-1059A	333.00
NL-1061*	65.00
NL-1062*	99.00
NL-1063	284.00
NL-1064	825.00
NL-1066*	77.20
NL-1069	155.00

Type Number	Net Selling Price
NL-1081*	\$ 75.00
NL-1082*	107.00
NL-1091*	75.00
NL-1092*	107.00
NL-5550	49.00
NL-5553B*	245.00
NL-5553BL	245.00
NL-5555	316.00
NL-5555A	316.00
NL-7873**	245.00
NL-7703	190.00
NL-7703H	190.00

RECTIFIERS

Type Number	Net Selling Price
NL-RX21A	\$25.75
NL-575A	20.15
NL-6045	11.80
NL-6066	21.40
NL-610/7723	11.40
NL-615	10.05
NL-617	15.00
NL-619	10.00
NL-623	13.35
NL-635/7019†§	13.00
NL-643	13.50
NL-649/5834	11.15
NL-660†§	13.00
NL-664†	27.50
NL-673	20.15
NL-869B	138.00
NL-869B/L	138.00
NL-5558/FG32	17.50
NL-6894	25.00
NL-6895	25.00
NL-7723-Ne	13.10
NL-7786-Ne	15.50

THYRATRONS

NL-C31/AL	\$14.60
NL-C31/AL-Ne	18.40
NL-C31/L	14.20
NL-3C23	11.98
NL-C61†§	28.10
NL-C61/K†	28.30
NL-C61/K-Ne	32.50
NL-KY21A	26.75
FG-105	59.00
NL-632B	33.00
NL-678	49.00
NL-710/6011	12.70

NL-710A/7725	\$15.52
NL-710AL	19.55
NL-710L/7518	14.20
NL-714	10.00
NL-716	12.50
NL-718	64.00
NL-732	120.00
NL-734/5544§	22.50
NL-740/6856†§	21.70
NL-7601§	28.10
NL-7701†§	45.25
NL-5557/FG17/715	9.50

NL-5559/FG57	\$23.00
NL-5560/FG-95	33.00
NL-5563A	50.00
NL-5632/C3J	12.70
NL-5665/C16J	52.50
NL-5684/C3J/A	13.10
NL-5684-Ne	16.70
NL-5684A-Ne	17.90
NL-6014/C1K	11.80
NL-6989/C6J/KL	29.45
NL-6989-Ne	33.90
NL-7556A-Ne	19.60

STUD MOUNTED SILICON CONTROLLED RECTIFIERS

16 Amp r.m.s.		35 Amp r.m.s.		55 Amp r.m.s.		110 Amp r.m.s.	
Type Number	Net Sell. Price	Type Number	Net Sell. Price	Type Number	Net Sell. Price	Type Number	Net Sell. Price
25 NL-C36U/2N1842	\$5.10	NL-C35U/2N681	\$6.40	NL-C45U — NL-C46U	\$9.36	NL-C50U/2N1909	NL-C52U \$12.08
50 NL-C36F/2N1843	5.60	NL-C35F/2N682	7.05	NL-C45F — NL-C46F	11.86	NL-C50F/2N1910	NL-C52F 15.36
100 NL-C36A/2N1844	6.20	NL-C35A/2N683	7.65	NL-C45A — NL-C46A	13.44	NL-C50A/2N1911	NL-C52A 17.84
150 NL-C36G/2N1845	7.35	NL-C35G/2N684	9.40	NL-C45G — NL-C46G	15.68	NL-C50G/2N1912	NL-C52G 20.64
200 NL-C36B/2N1846	8.70	NL-C35B/2N685	10.70	NL-C45B — NL-C46B	17.84	NL-C50B/2N1913	NL-C52B 23.52
250 NL-C36H/2N1847	9.75	NL-C35H/2N686	12.45	NL-C45H — NL-C46H	20.00	NL-C50H/2N1914	NL-C52H 25.00
300 NL-C36C/2N1848	11.65	NL-C35C/2N687	14.60	NL-C45C — NL-C46C	23.76	NL-C50C/2N1915	NL-C52C 28.75
400 NL-C36D/2N1849	13.85	NL-C35D/2N688	15.75	NL-C45D — NL-C46D	31.40	NL-C50D/2N1916	NL-C52D 36.60
500 NL-C36E/2N1850	16.00	NL-C35E/2N689	16.95	NL-C45E — NL-C46E	37.72	NL-C50E/2N1805	NL-C52E 46.35
600 NL-C36M/516B	19.10	NL-C35M/2N690	20.65	NL-C45M — NL-C46M	45.80	NL-C50M/2N1806	NL-C52M 56.50
700 NL-C36S/516B	20.50	NL-C35S/2N691	23.40	NL-C45S — NL-C46S	56.16	NL-C50S/2N1807	NL-C52S 66.90
800 NL-C36N/516N	24.05	NL-C35N/2N692	26.25	NL-C45N — NL-C46N	68.04	NL-C50N/2N1808	NL-C52N 78.50
800 NL-511-3	25.00					NL-C50T/2N1803	NL-C52T 94.20
900		NL-C35T	31.90	NL-C45T — NL-C46T	79.50		NL-C52T 129.60
1000	NL-511-4	NL-C35P	37.50				NL-C150E — NL-C152E \$60.48
1100							NL-C150M — NL-C152M 73.44
1200	NL-511-6						NL-C150S — NL-C152S 89.60
1300							NL-C150N — NL-C152N 108.80
							NL-C150T — NL-C152T 129.60
							NL-C150P — NL-C152P 152.80
							NL-C150PA — NL-C152PA 178.40
							NL-C150PB — NL-C152PB 207.20
							NL-C150PC — NL-C152PC 233.60

READOUT TUBES

0.3 Character Size		0.6 Character Size		Larger Character Sizes	
Type Number	Net Selling Price	Type Number	Net Selling Price	Type Number	Net Selling Price
NL-4022	\$19.00	NL-803	\$ 8.00	NL-5030	\$10.50
NL-4026	33.00	NL-809	16.25	NL-5032	15.75
NL-4031	33.00	NL-811	8.00	NL-5992	15.75
NL-7009	19.00	NL-812	8.75	NL-6844A	11.00
NL-7009A	20.90	NL-840	8.00	NL-8037/5031	15.75
NL-7977/4032	33.00	NL-841	8.75	NL-8421/5032	15.75
NL-7977A	36.30	NL-842	8.75	NL-8422/5991	15.75
NL-8502/4021	33.00	NL-843	8.00	NL-50911	15.75
		NL-5016	11.00		
				NL-807	\$10.00
				NL-821	10.50
				NL-6012	14.50
				NL-6034	20.00
				NL-7037	26.50
				NL-7094	30.00
				NL-7153	14.50
				NL-8091	22.50
				NL-8423/4021	19.00

WRITE FOR INDIVIDUAL DATA SHEETS FOR DETAILED RATINGS

NOTES: * Plastic coated version available, indicated by the addition of the suffix letter P.

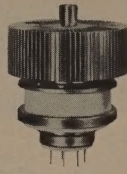
† Available with bracket base for panel mounting, designated by the addition of suffix letter P.

§ Available with lug base, designated by the addition of suffix letter L.

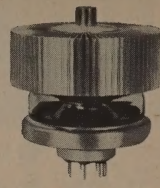
NATIONAL ELECTRONICS INC.
a varian subsidiary



PL-6775



PL-8432



PL-8295/PL-172



PL-175A

Beam Pentodes

Tetrodes

Triodes

Vacuum Switches

PENTA POWER TUBES

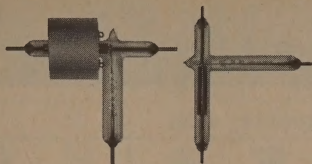
When you specify Penta Power Tubes, you can enjoy the same benefits that hundreds of equipment manufacturers and power tube users receive today. The "extra care" production and test methods Penta employs in manufacture result in proven power tube reliability, long life and high efficiency.

POWER TUBES

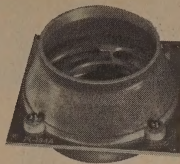
Type	Fil. Volts	Fil. Current Amps.	Plate Diss. Max. W.	Plate Volt. Max.	Plate Current Ma., Max.	Type Cathode	Price
BEAM PENTODES							
PL-4E27A	5.0	7.5	125	4,000	200	ThW	\$ 45.00
PL-175A	5.0	14.5	400	4,000	350	ThW	\$ 52.00
PL-177A	6.0	3.2	75	2,000	175	ThW	\$ 31.00
PL-177WA	6.0	3.2	75	2,000	175	ThW	\$ 35.50
PL-195	6.0	17.0	4,000	5,000	2,000	Oxide	\$385.00
*PL-272(A)	6.0	17.0	5,000	5,000	2,000	Oxide	\$550.00
PL-285	6.0	85.0	5,000	7,500	2,500	ThW	\$480.00
PL-6549	6.0	3.2	75	2,000	175	ThW	\$ 31.00
PL-8295/172	6.0	8.2	1,000	3,000	1,000	Oxide	\$157.00
PL-8295A	6.0	8.2	1,000	3,000	1,000	Oxide	\$160.00
PL-8432	6.0	8.2	1,000	3,000	1,000	Oxide	\$162.00
PL-8576/264	6.0	17.0	3,000	5,000	2,000	Oxide	\$395.00
PL-8583/267	26.5	1.0	350	2,000	300	Oxide	\$ 87.00
PL-8641/274	6.0	85.0	3,000	5,000	2,000	ThW	\$420.00
*Vapor Cooled—integral vapor jacket							
	Fil. Volts	Fil. Current Amps.	Plate Diss. Max. W.	Plate Volt. Max.	Plate Current Ma., Max.	Screen Volt. Max.	Price
POWER TETRODES							
PL-4D21/4-125A	5.0	6.5	125	3,000	225	600	\$ 36.00
PL-4D21A	5.0	6.5	175	3,000	225	600	\$ 39.00
PL-4X500	5.0	13.5	500	4,000	350	500	\$127.50
PL-5D22/4-250A	5.0	14.5	250	4,000	350	800	\$ 46.50
PL-6775	5.0	14.5	400	4,000	350	800	\$ 51.00
PL-8165/4-65A	6.0	3.5	65	2,000	150	600	\$ 27.00
PL-8166/4-1,000A	7.5	21.0	1,000	6,000	700	1,000	\$131.50
PL-8438/4-400A	5.0	14.5	400	4,000	350	800	\$ 48.00
HIGH-VOLTAGE RECTIFIER							
PL-250R	5.0	10.5	....	60,000	250	....	\$ 36.00
	Fil. Volts	Fil. Current Amps.	Plate Diss. Max. W.	Plate Volt. Max.	PK Plate Current A	Screen Volt. Max.	Price
PULSE TETRODES							
PL-8187/4PR65A	6.0	3.5	65	15,000	1.0	2,000	\$ 43.00
PL-8247/4PR125A	5.0	6.5	125	18,000	1.5	2,000	\$ 57.00
PL-8188/4PR400A	5.0	14.5	400	20,000	4.0	2,500	\$ 64.00
PL-8189/4PR1000A	7.5	21.0	1,000	30,000	8.0	2,500	\$156.00
PL-279	7.5	30.0	750	30,000	12.0	2,500	\$180.00
PL-284	7.5	21.0	1,200	45,000	8.0	2,500	\$198.00



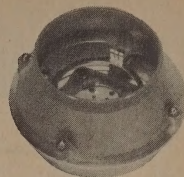
PL-177WA



Vacuum Switches



PL-184A



PL-209A

	Fil. Volts	Fil. Current Amps.	Plate Diss. Max. W.	Plate Volt. Max.	Plate Current Ma., Max.	U	Price
POWER TRIODES							
PL-254W	5.0	7.5	100	4,000	225	25	\$ 28.00
PL-6569	5.0	14.5	250	4,000	300	45	\$ 39.75
PL-6580	5.0	14.5	400	4,000	350	45	\$ 48.75
PL-3CX2500A3	7.5	52.5	2,500	6,000	2,500	22.5	\$200.00
PL-3CX2500F3	7.5	52.5	2,500	6,000	2,500	22.5	\$205.00

VACUUM SWITCHES

Type Designation	Description	Peak Voltage Rating-kV	Peak Current Rating-Amps.	Average Current Rating-Amps.	Required Coil Characteristics		Ampere Turns	Price
					Volts	Ma.		
PL-R1	Basic Switch—No Coil	21	150 (5 u sec.)	6	28	225	1,100	\$ 34.00
PL-190	PL-R1 with Coil	21	150 (5 u sec.)	6	28	255	—	\$ 38.00
PL-169A	Basic Switch—No Coil	21	500 (1 m sec.)	30	28	650	1,900	\$ 32.00
PL-187	PL-169A with Coil	21	500 (1 m sec.)	30	28	650	—	\$ 33.00
PL-191	Basic Switch—No Coil	21	Not Rated	3	28	580	1,000	\$ 58.00
PL-183	PL-191 with Coil	21	Not Rated	3	28	580	—	\$ 58.00
PL-186	Basic Switch—No Coil	21	Not Rated	6	28	390	1,000	\$ 28.00
PL-203B	PL-186 with Coil	21	Not Rated	6	28	390	—	\$ 55.00

Single-pole, double-throw switches enclosed in evacuated glass envelopes. Ideal where compact, fast-acting relays are needed to switch high-voltage circuits under a wide range of ambient atmospheric conditions, including explosive atmospheres; also, where exposed-contact relays would be unsuitable. Operated by external actuating coils excited by direct current. Designed so that soft-iron pole piece and envelope-enclosed armature assembly act to complete the magnetic circuit.

SOCKETS AND ACCESSORIES

Type	Description	Price
PL-C1	Chimney (for 4-400A, 175A, 6580, 6775)	\$ 6.50
PL-184	Socket & Chimney (for PL-8295/172 & PL-8295A)	\$53.00
PL-184A	Socket & Chimney (for PL-8295/172 & PL-8295A)	\$49.00
PL-C184	Chimney only (for PL-8295/172 & PL-8295A)	\$ 5.00
PL-205A	Socket & Chimney (for PL-195)	\$69.00
PL-209A	Socket & Chimney (for PL-8432)	\$49.00
PL-209B	Socket & Chimney (for PL-8432)	\$52.00
PL-265A	Socket & Chimney (for PL-264)	\$53.00
PL-C205	Chimney only (for PL-195)	\$12.50
PL-C209	Chimney only (for PL-8432)	\$ 6.00
PL-C265	Chimney only (for PL-264)	\$ 6.00
PL-271A	Socket & Chimney (for PL-8583/267)	\$11.50
PL-C271	Chimney (for PL-8583/267)	\$ 4.00
PL-277A	Socket & Chimney (for PL-8641)	\$70.00
PL-C288	Chimney (for PL-285)	\$12.00
PL-288	Socket & Chimney (for PL-285)	\$70.00

The Machlett Laboratories, Inc.

THE MACHLETT LABORATORIES, INC.

A SUBSIDIARY OF RAYTHEON COMPANY

RAYTHEON



RCA ELECTRON TUBES

ENTERTAINMENT RECEIVING TYPES

* Optional List

PRICE SCHEDULE — AUGUST, 1966

RCA Type	List Price*	RCA Type	List Price*	RCA Type	List Price*	RCA Type	List Price*	RCA Type	List Price*	RCA Type	List Price*
0Z4	\$2.40	4BL8-XCF80	\$2.40	6AC7	\$5.50	6BS8	\$3.75	6E17/EF184	\$3.55	6HQ5	\$4.50
1A3	6.15	4BN6	3.85	6AC10	3.70	6BU8	3.40	6EM5	3.20	6HR5	2.55
1ASGT	4.00	4BQ7A	4.15	6AD10	6.10	6BV8	3.00	6EM7	4.80	6HR6	2.75
1AT6T	5.40	4BS8	4.25	6AF3	3.10	6BW4	2.75	6E27	2.75	6HS6	2.75
1AD2	2.85	4BU8	3.70	6AF4	3.75	6BW8	3.35	6ER5	3.55	6HS8	3.55
1AY2	2.60	4BZ6	2.10	6AF4A	3.75	6BX7GT	5.60	6ESS	2.85	6HZ6	2.75
1B3GT use		4BZ7	3.85	6AF6G	6.30	6BY5GA	4.80	6ESS/ECL189	5.45	6HZ8	5.50
1G3GT/1B3GT		4CB6	2.20	6AF11	4.75	6BY6	2.75	6E17	4.00	6J5	3.70
1BC2	2.90	4CS6	2.90	6AG5	2.85	6BY8	2.70	6EU7	2.70	6J5GT	3.70
1DN5	3.45	4CY5	2.70	6AG7	6.20	6BZ6	2.10	6EU8	3.35	6J6A	2.65
1G3GT/1B3GT											
	2.75	4DE6	2.50	6AG11	4.15	6BZ7	3.75	6EV5	2.85	6J7	5.00
1H5GT	3.90	4DK6	2.55	6AH4GT	3.25	6BZ8	4.20	6EV7	2.75	6J10	5.00
1K3/1J3	2.75	4DT6A	2.10	6AH6	4.40	6C4	1.75	6EW6	2.35	6J11	4.80
1LA6	5.85	4EH7	3.55	6AK5/EF95	4.50	6C5	5.35	6EW7	5.50	6J16A	5.85
1N5GT	4.90	4EJ7	3.55	6AL3	2.90	6C6	7.85	6EX6	7.50	6J18	3.05
1R5	3.25	4ES8	4.05	6A15	1.75	6C9	5.50	6EY6	3.60	6JC8	3.75
1S2A/DY87	2.90	4EW6	2.90	6AL7GT	6.95	6C10	3.70	6EZ5	4.05	6JD6	3.30
1S4	4.10	4GK5	3.90	6AL11	4.30	6C44	2.30	6EZ8	3.55	6J6A	8.50
1S5	3.05	4GM6	2.20	6AM4	5.55	6CA5	3.00	6F5	5.50	6J8	3.70
1T4	3.05	4GS8	3.70	6AM8A	3.25	6CA7/EL34	5.35	6F6	5.80	6J6A	6.10
1U4	3.05										
1U5	2.65	4GX7	3.60	6AN4	6.15	6CB5A	9.35	6FG6	5.80	6J6GA	6.00
1V2	2.20	4GZ5	2.35	6AN8A	3.75	6CB6A	2.10	6FGGT	5.80	6JH6	2.45
1Y2A	2.80	4HA5	2.95	6AQ5A	2.25	6CD6GA	4.50	6F8G	8.45	6JH8	4.10
1X2B	2.90	4HA7	3.05	6AQ6	2.70	6CE5	2.20	6FA7	2.95	6JH8	4.05
2A3	9.90	4HC7	3.05	6AQ7GT	4.10	6CF6	2.75	6F07	5.05	6JH8	4.15
2A4B	3.80	4HM6	2.85	6AQ8/ECC55	3.00	6C7 use		6FE5	3.40	6JMA	4.15
2AH2	3.40	4HS8	3.35	6AR5	2.45	6FQ7/6CG7		6FG6 use		6JN6	3.85
2AS2	3.00	4HT6	2.55	6AR11	4.10	6CG8A	3.10	6FM84/6FG6		6JN8	3.85
2AV2	2.20	4JC6	2.75	6AS5	2.75	6C7H	5.60	6F7H	3.55	6JS6	7.30
2BJ2	4.20	4J6	3.60	6AS8	4.00	6CK3	2.60	6FH5	3.15	6JS6A	7.30
2BN4A	2.75	5AM8	4.05	6AS11	5.10	6CK4	3.55	6FH8	4.05	6JTA	4.95
2CW4	4.60	5AN8	4.45	6AT6	2.05	6CL6	3.80	6FJ7	3.75	6JTB	4.00
2CY5	3.30	5AQ5	2.40	6AT8A	4.00	6CL8A	3.75	6FM7	3.25	6JUBA	3.35
2DS4	4.60	5AR4/GZ34	4.25	6AU4GTA	3.40	6CM6	3.35	6FM8	2.85	6JUB	4.00
2DWA	6.45	5AS4A	3.45	6AU5GT	4.65	6CM7	2.75	6FQ5A	3.85	6JW8/ECF802	3.10
2DZ4	3.85	5AS8	4.45	6AU6A	1.95	6CM8	4.05	6FQ7/6CG7	2.35	6K6T	2.45
2EN5	3.20	5AT8	3.80	6AU8A	4.70	6CN7	4.00	6F55	4.10	6K7	5.00
2ER5	3.30	5AU4	3.65	6AV5GA	4.70	6CQ4	3.55	6FV6	4.00	6K8	7.05
2FH5	3.15	5AV8	3.85	6AV6	1.60	6CQ8	3.30	6FV8A	3.30	6K11/6Q11	3.65
2FS5	4.85	5AZ4	5.30	6AW8A	3.60	6CR6	2.95	6FV8	3.85	6K8	4.25
2GK5	3.85	5B8	5.50	6AX3	2.60	6CS6	2.45	6FY5/EC97	2.75	6K8A	4.25
2GU5	4.50	5BC3	3.15	6AX4GTB	2.50	6CS7	2.80	6FY7	3.20	6KD6	7.70
2HA5	3.85	5BE8	3.10	6AX5GT	3.25	6CJ5	2.70	6GG6	6.80	6K08	2.80
2HQ5	3.85	5BK7A	3.75	6AX8	3.50	6CJ6 use		6G11	4.40	6KE8	5.35
3A2	5.50	5BQ7A	4.00	6AY3B	2.90	6BQ6GTB/6CJ6		6GB5	3.80	6KL8	2.60
3A3/3B2	3.20	5BR8	4.20	6AY11	4.10	6CJ8	4.40	6GC5	4.00	6KM6	8.20
3AF4A	3.60	5BT8	3.10	6AZ8	5.50	6CJ4	4.60	6GE5	3.85	6KM8	3.45
3AL5	1.95	5BW8	3.20	6B8	6.85	6CJ5	4.60	6GF5	3.50	6KR8	4.25
3AT2	2.20	5CG8	3.15	6B10	3.35	6CX8	4.15	6GF7A	4.85	6KT8	4.25
3AU6	2.05	5CL8A	3.85	6B13	3.05	6CY5	3.45	6GHB8	3.20	6K8H	4.80
3AV6	2.20	5CM8	3.55	6BA6/EF93	1.90	6C7H	3.05	6GJ5A	5.60	6K8V	5.85
3AW3	3.20	5CQ8	4.10	6BA7	5.85	6CZ5	3.10	6GJ7/ECF801	3.10	6KY8A	7.25
3BA6	2.35	5CZ5	4.45	6BA8A	4.00	6D10	3.85	6GK5	3.85	6KZ8	3.40
3BC5/3CE5	2.45	5D4	3.10	6BA11	4.10	6D44	3.05	6GK6	3.00	6L8	8.80
3BN4A	3.05	5EA8	3.80	6BC4	5.50	6DB5	5.00	6GL7	5.50	6LGGC	4.55
3BN6	3.60	5EU8	3.45	6BC5	2.25	6DC6	3.55	6GM5	3.05	6LT	4.95
3BU8	3.55	5EW6	3.05	6BC7	3.60	6DC8/EBF89	3.05	6GM6	2.75	6L8B	4.70
3BY6	2.75	5FG7	2.60	6BC8	3.75	6DE4	3.05	6GN8	4.10	6LC8	3.10
3BZ6	2.15	5FV8	3.00	6BD6	2.35	6DE6	3.40	6GQ7	3.75	6LE8	5.55
3CA3	3.20	5GH8	4.10	6BD11	5.05	6DE7	2.65	6GT5A	5.40	6LF8	3.50
3CB6	2.15	5GM6	2.80	6BE3	2.85	6DG6GT	3.55	6GU5	4.10	6LJ8	4.10
3CE5	2.45	5GX6	2.45	6BE6	2.40	6DK6	2.25	6GJ7	3.20	6LM8	4.15
3CF6	2.55	5GX7	3.60	6BF5	3.35	6DL5	2.95	6GJ8	3.10	6LN8	2.40
3CS6	2.75	5HA7	3.05	6BF6	1.95	6DM4A	3.05	6GV5	4.15	6LQ8	5.05
3CY5	3.75	5HB7	2.75	6BF11	4.90	6DN6	7.00	6GW6/6DQ68	4.20	6LUB	4.70
3DG4	4.10	5HG8	3.70	6BG6G	6.10	6DN7	3.35	6GW8/ECL86	3.05	6LX8	2.60
3DK6	2.30	5J6	3.25	6BH3	2.80	6DQ4	2.45	6GX6	2.60	6LY8	3.55
3DT6A	2.35	5J6K	3.85	6BH6	2.75	6DO5	7.85	6GX7	3.60	6MT8	2.55
3DZ4	3.45	5K08	2.50	6BH8	4.00	6DQ6B	4.20	6GY5	4.60	6M11	4.55
3EA5	3.55	5KE8	5.20	6BH11	3.90	6DR7	4.10	6GY6	2.60	6M8B	4.95
3EH7	3.55	5LJ8	4.10	6BJ3	2.80	6DS4	4.60	6GY8	3.55	6N7	5.05
3EJ7	3.55	5T8	4.20	6BJ6	2.75	6DS5	3.30	6GZ5	2.70	6N7GT	5.20
3ER5	3.30	5U4G	2.10	6BJ7	2.95	6DT5	3.55	6H6	4.30	6Q7	5.50
3FH5	3.25	5U4GB	2.10	6BJ8	3.60	6DT6A	2.05	6HA5	2.75	6SA4	2.35
3FS5	4.30	5U8	3.15	6BK4B	7.55	6DT8	3.55	use 6HM5/6HA5		6SBGT	4.15
3GK5	3.85	5V3A	3.50	6BK5	3.50	6DV4	6.45	6HB5	4.20	6SA7GT	4.40
3GS8	3.55	5V4GA	3.55	6BK7B	3.55	6DW4B	3.50	6HB6	4.45	6SB7	5.95
3HM5/3HA5	3.85	5V6GT	3.40	6BL7GTA	4.40	6DW5	3.85	6HB7	3.35	6SC7	4.40
3HQ5	3.85	5X4G	3.15	6BL8/ECF80	3.75	6DX8/ECL84	2.90	6HE5	3.70	6SF5	3.70
3LF4	6.00	5X8	3.75	6BM8/ECL82	2.90	6DZ4	3.75	6HF5	7.30	6SF7	6.30
3Q4	3.35	5Y3GT	1.75	6BN4A	3.40	6E5	5.65	6HF8	4.00	6SG7	4.70
3Q5GT	5.85	5Y4GA	2.45	6BN6	3.00	6EA4	7.30	6HG5	2.75	6SH7	5.35
3S4	3.40	5Y4GT	3.40	6BN8	3.15	6EA5 use 6CY5		6HG8/ECF86	4.10	6SJ7	4.15
3V4	2.60	5Z3	3.95	6BQ5	2.65	6EA7	5.20	6HJ5	5.80	6SK7	4.25
4AU6	2.70	6A7	8.00	6BQ6GTB/		6EA8	3.00	6HJ8	3.10	6SK7GT	5.50
4AV6	2.25	6A8	6.45	6CJ6	4.10	6EB8	4.40	6HK5	3.90	6SL7GT	3.35
4BC8	3.85	6AB	6.45	6BQ7A	3.75	6EH5	2.90	6HL8	3.05	6SN7GTB	2.80
		6AB8	2.45	6BR8A	3.85	6EH7/EF183	3.85	6HM5/6HA5	3.85	6SQ7	3.75
		6AC5GT	5.85	6BS3A	3.30	6EH8	3.00	6HM6	2.70	6SQ7GT	3.55



RCA ELECTRON TUBES

ENTERTAINMENT RECEIVING TYPES

* Optional List

PRICE SCHEDULE — AUGUST, 1966

RCA Type	List Price*	RCA Type	List Price*	RCA Type	List Price*	RCA Type	List Price*	RCA Type	List Price*
6SR7	\$4.25	9EA8	\$3.05	12BK5	\$3.75	12J76A	\$4.95	17D4	\$3.05
6T4	5.15	9CV8	4.35	12B6G	2.95	12K5	3.45	17D6A	3.20
6T8A	3.35	9CK6	4.30	12BQ6GTB		12K7GT	6.60	17DMA4	3.05
6T9	3.70	9KZ8	2.95	12CU6	4.20	12KL8	2.45	17DQ6B	
6T10	4.25	9U8A	3.10	12BR7	3.05	12L6GT	3.55	use 17W6/	
6U5	7.40	10AL11	4.55	12BS3A	3.35	12R5	3.35	17DQ6B	
6U9/ECF201	2.90	10C8	5.15	12BT3	2.85	12S7	4.40	17EW8/	
6U8A	3.10	10CW5	3.40	12B7	3.30	12SA7GT	3.45	HCL85	2.75
6U10	3.65	10DE7	3.50	12BW4	2.75	12SC7	5.20	17GE5	4.35
6V3A	4.55	10DR7	4.10	12BW7A	3.05	12SF5	3.85	17GJ5A	5.50
6V6	6.35	10DX8/LCL84	2.75	12BZ6	2.10	12SF7	6.20	17GT5	4.45
6V6GT	2.40	10EG7	4.35	12BZ7	4.15	12SG7	4.70	17GV5	4.20
6W4GT	2.30	10EM7	4.45	12C5 use		12SH7	5.40	17W6/	
6W6GT	2.95	10GN8	3.55	12CU5/12C5		12SJ7	4.30	17DQ6B	4.25
6X4	1.60	10HF8	4.65	12CA5	2.85	12SK7	4.00	17J8A	5.20
6X5GT	2.10	10JA8	3.75	12CN5	3.25	12SK7GT	4.00	17J8A	5.20
6X8	3.00	10JT8	4.05	12CR6	2.95	12SL7GT	3.55	17JM6	4.75
6Y6/ECF200	2.90	10JY8	3.65	12CU5/12C5	2.75	12SN7GT	3.55	17JN6	3.90
6Y6GA/6Y6G	4.05	10KR8	4.25	12CU6 use		12SQ7	2.80	17JT6A	4.95
6Y9	3.10	10KU8	4.85	12BQ6GTB/		12SQ7GT	3.75	17JZ8	3.55
6Z4 use 84/6Z4		10LE8	5.90	12CU6		12V6GT	3.75	17L8 use 15KY8	
7A5	5.65	10LW8	4.25	12CX6	2.75	12W6GT	3.75	17K10	4.50
7A7	7.15	10LZ8	2.95	12D4	2.75	12X4	1.95	18FW6A	2.45
7A8	7.80	11AR11	4.10	12D85	2.60	12X4A	3.00	18FX6A	2.55
7AU7	2.45	11BQ11	4.10	12DK6	2.30	13D7	3.50	18FY6A	2.20
7C5	3.35	11CV7	3.60	12DK7	2.75	13D7	3.85	18GD6A	2.00
7C6	7.30	11JE8	3.85	12DL8	5.85	13EM7	4.85	19AU4GT	3.55
7C7	3.40	11KV8	5.90	12DQ6B	4.25	13FD7	4.55	19BG6GA	6.65
7EY6	7.35	11LQ8	5.90	12DQ7	3.25	13FM7	3.00	19CL8A	3.80
7F7	7.50	11Y9	3.10	12DS7	4.05	13GB5	3.80	19EA8	3.75
7F8	8.25	12AB5	3.30	12DT5	3.10	13G7	4.70	19E78	4.50
7HG8/PLF86	2.95	12AC6	2.10	12DT8	3.55	13J10	5.05	19H7	3.80
7N7	7.10	12AD6	2.60	12DQ7	4.40	13J10	4.85	19HR6	2.45
7N7	4.65	12AE6A	2.75	12DQ7	3.05	14A7	5.55	19HS6	2.40
7X7	7.65	12AF3	3.85	12D8	2.90	14B6	5.30	19HV8	3.55
8AU8	3.85	12AF6	2.85	12DY8	7.95	14B6	5.30	19J6	3.70
8AW8A	3.65	12AF6	2.40	12DZ6	3.60	14BL11	5.10	19JN8	3.05
8B10	3.35	12AL5	2.10	12E8	3.40	14BR11	4.80	19K8	4.05
8BA8A	3.45	12AL8	6.15	12ED5	2.70	14GT8	3.45	19K8	4.10
8BH8	3.35	12AL11	4.20	12EG6	3.45	14J8	3.10	20EZ7	3.40
8BM11	3.90	12AQ5	2.45	12EK6	3.10	14Q7	5.85	21GY5	4.65
8BN8	3.05	12AT6	1.75	12EL6	1.90	15AF11	4.75	21H85	4.35
8BQ5	2.75	12AT7/EC81	2.85	12EN6	2.90	15BD11	4.85	21HJ5	5.85
8BQ11	4.30	12AU6	2.00	12EQ7	2.65	15C85/PL84	2.95	21J6	4.20
8BU11	4.10	12AU7A/		12F6	2.20	15D8	2.90	21Z6	6.00
8CG7 use		EC82	2.35	12FM6	2.60	15F7	3.55	21LR8	4.40
8FQ7/8CG7		12AV5GA	4.50	12FQ8	4.15	15H86	3.85	22BH3A	3.10
8M7	2.70	12AV6	1.60	12FV7	3.40	15KY8A	4.75	22BW3	3.05
8N7	3.05	12AV7	3.40	12FX5	2.45	15L8	7.65	22E4A	3.40
8C57	3.05	12AW6	3.10	12FX8A	3.85	16A8	2.95	22J6A	6.85
8CW5	2.55	12AX3	3.00	12GA6	2.70	16A3Q/		22JU6	5.75
8CX8	4.40	12AX4GTB	2.55	12GC6	3.95	XY88	2.70	2329	4.70
8EB8	4.10	12AX7A/		12GE5	4.10	16GK6	3.05	25AV5GA	4.80
8EM5	3.40	EC83	2.60	12GJ5A	4.85	16Y8	4.85	25AX4GT	3.05
8ET7	4.15	12AY3	2.45	12G7	3.90	16Y8	4.85	25BK5	3.40
8FQ7/8CG7	2.35	12AY7	4.85	12GN7A	3.90	17AX4GT	3.05	25BQ6GTB/	
8G17	3.25	12AZ7A	2.85	12GT5	5.35	17AY3	2.65	25C6	4.40
8GN8	3.70	12BA4	3.05	12DQ68	4.25	17B3	2.95	25C6	2.20
8JY8	3.65	12BA6	1.60	12H6	4.00	17BF11	4.55	25CA5	3.60
8KA8	3.85	12BA7	5.60	12HE7	6.80	17BH3	2.85	25CD6GB	5.75
8LC8	3.85	12BD6	2.35	12HG7	3.90	17BQ6GTB	5.80	25C6 use	
8LT8	2.70	12B3	3.05	12J5GT	4.80	17B3A	3.35	25BQ6GTB/	
9A8/PCF80	3.40	12BE6	1.95	12J8	4.35	17C5	2.20	25C6	
9AU7	2.65	12BF6	2.10	12J8A	5.65	17G9	7.15	25DN6	5.95
9B11	4.80	12BF11	4.35	12JN6	3.90	17CK3	2.60	25EC6	6.15
9BR7	3.15	12BH7A	2.90	12JN8	3.70	17CU5	2.35	25EH5	2.90

INDUSTRIAL TUBES FOR DEALER SERVICE

0A2	\$1.85	6AK6	\$2.90	925	\$5.20	5726/6AL5W	\$2.20	6201	\$3.55	6922	\$6.85
0A2WA	4.05	6AS6	4.85	927	5.50	5727/2D21W	4.10	6202	3.80	6939	15.95
0A3	2.20	6AS7G	6.95	929	3.05	5749/6BA6W	3.10	6336A	26.70	7054	2.20
0A3A	2.20	6DJ8	2.80	930	4.45	5751	4.85	6336	2.80	7056	\$1.30
0A4G	2.65	6J4	5.65	991	1.45	5751	3.60	6360	6.30	7057	2.75
0B2	1.95	6K4W	2.25	1612	8.10	5763	3.45	6386	10.35	7058	1.80
0B2WA	2.85	12A6	4.75	1614	6.95	5783	5.90	6417	\$4.70	7059	2.20
0C3	2.10	12AT7WA	3.15	1619	8.75	5814A	3.30	6485	6.45	7061	1.85
0C3A	2.10	12AT7WB	3.55	1620	10.60	5823	2.45	6550V1	14.80	7167	2.00
0D3	2.05	12SW7	2.10	1625	6.45	5824	4.20	6660/6BA6	1.45	7308	6.00
0D3A	2.05	12SX7GT	3.55	1629	2.90	5881	4.35	6661/6BH6	1.90	7360	5.30
0Z4A	1.60	12SY7	3.75	1635	5.90	5915	2.50	6662/6BJ6	1.85	7551	4.75
1L4	3.10	83	2.65	2050	3.35	5963	1.95	6663/6AL5	1.30	7558	4.90
1P40	4.40	502A	3.20	2050A	2.85	5964	2.20	6664/6AB4	1.60	7717/	
2D21	1.85	807	3.70	4581	4.30	5965	2.70	6669-6AQ5A	1.50	8077/	
2E24	7.55	811A	8.35	5642	4.95	6005	4.55	6676/6CB6A	1.50	7724/	
2E26	4.40	812A	8.90	5651	2.50	6005/6AQ5W	4.55	6677/6CL6	2.60	14GT8	2.10
2X2A	5.05	816	4.20	5651A	2.50	6080	7.50	6678/6U8A	2.30	7898	1.90
3A5	2.85	866A	3.80	5654	3.40	6136	3.80	6679/12AT7	2.10	7905	5.40
3AQP1	27.05	868	5.50	5654/6AK5W	3.45	6146A	5.15	6680/12AU7A	1.75	8077/	
3B25	10.75	884	3.40	5670	3.45	6146B/		6681/12AX7A	1.80	7054	2.10
5CP1A	44.35	885	2.75	5672	\$3.20	6159A	6.10	6883	5.05	8156	5.45
5R4GY	2.85	918	\$7.05	5686	4.75	6159B	5.65	6883B/8032		9001	7.55
5R4YB	2.85	920	8.70	5687	4.80	6159B	6.55	8552	6.35	9002	5.80
5UP1	\$19.30	922	4.05	5725	4.45	6197	3.25	6893	5.55	9003	7.55

Net

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RCA ELECTRON TUBES

FOR INDUSTRY AND COMMUNICATIONS

RESALE PRICE SCHEDULE • AUGUST 1, 1966

POWER/MICROWAVE/PHOTOSENSITIVE/CAMERA/DISPLAY/INDUSTRIAL RECEIVING

RCA Type	Dist. Resale Price Optional	RCA Type	Dist. Resale Price Optional	RCA Type	Dist. Resale Price Optional	RCA Type	Dist. Resale Price Optional
RCA POWER TUBES				RCA PHOTOJUNCTION CELLS			
RCA VACUUM POWER TUBES FOR CW APPLICATIONS				RCA PHOTOVOLTAIC CELLS			
2C39A	\$20.75	7844	\$ 52.00	677	\$63.80	SQ2534	\$ 1.65
2C39A-V1	20.75	7870	120.00	710/6011	12.00	RCA PHOTOVOLTAIC CELLS	
2C39WA	29.00	8000	25.00	714/7021	10.00	SL2205	10.30
2C40	29.30	8005	17.85	716/6855	12.50	SL2206	14.30
2C40A	34.00	8032	4.95	760/6858	28.10	RCA PHOTOTUBES	
2C43	26.95	8072	20.00	5557	9.50	SINGLE- AND TWIN-TYPE — Gas Types	
2E24	6.45	8121	25.80	5559	23.00	1P29	6.95
2E26	3.75	8122	31.50	5563A	50.00	1P37	5.60
4-125A/4D21	36.00	8165/4-65A	27.00	TRIODES (Gas Types)—		1P40	4.10
4-125A/5D22	46.50	8166/4-1000A	132.00	For Control Service		1P41	4.45
4E27A/5-125B	45.00	8168/4CX1000A	181.00	(except as noted)		868	6.30
4X500A	128.50	8170/4CX5000A	495.00	3D22A	32.30	918	6.30
9C21	1,865.00	8226	83.00	629	18.25	920	10.75
9C25	1,775.00	8239/3X3000F1	215.00	6130/3C45	14.00	921	5.20
207	400.00	8438/4-400A	48.00	C1K/6014	11.80	923	4.30
801A	14.25	8560	51.50	C3J/5632	12.70	927	6.00
805	24.50	8596	106.00	C3JA/5684	13.10	930	4.95
807	3.40	RCA VACUUM POWER TUBES FOR RF-PULSE APPLICATIONS		C3JL	14.20	4409	5.35
809	9.65	2C40A	34.00	C6J/5C21	28.10	5581	4.00
810	28.60	2041	7825.00	C6JA/5685	29.00	5582	5.70
811A	7.15	4632	70.00	C16J/5665	52.50	5583	7.85
812A	7.60	5946	125.00	TETRODES		6405/1640	5.35
813	24.25	7214	440.00	(Mercury-Vapor Types)—		SINGLE AND TWIN-TYPE — Vacuum Tubes	
815	35.75	7649	70.00	For Control Service		1P39	2.50
827R	470.00	7651	260.00	(except as noted)		1P42	17.25
827R	34.50	8227	90.10	105	59.00	917	8.50
829B	19.90	RCA HARD-TUBE MODULATORS		172	129.00	919	9.65
832A	16.65	3E29	21.50	632B	33.00	922	3.80
833A	61.20	6293	5.95	672A	39.85	925	4.80
837	13.95	RCA VACUUM POWER TUBES FOR SPECIAL APPLICATIONS		5560	33.00	926	4.80
845	28.40	3C33	35.75	RCA MICROWAVE TUBES		929	3.45
880	760.00	4600A	360.00	RCA MAGNETRONS		934	5.75
889A	290.00	4614	310.00	For Pulsed-Oscillator Service		935	14.20
889RA	435.00	RCA RECTIFIERS		6521	700.00	936	6.25
891R	490.00	VACUUM TYPES —		7008	1,110.00	937	2.80
892	342.00	Half-Wave Types		6865-A	1,590.00	938	10.30
892R	440.00	2X2A	3.95	4011-A	1,585.00	939	8.75
1624	7.90	579B	20.50	RCA TRAVELING-WAVE TUBES		7043	54.35
1625	5.50	579B	20.50	4013	1,425.00	RCA MULTIPLIER PHOTOTUBES	
4604	8.75	836	12.65	4015	3,160.00	1P21	17.25
5556	52.45	1616	15.10	5075	1,340.00	1P22	15.80
5671	1,860.00	5825	26.45	4019	1,725.00	1P23	21.50
5713	420.00	8013A	19.80	4021	2,845.00	1P28	12.30
5762/7C24	240.00	8020	16.00	4021	2,635.00	931-A	85.00
5770	1,500.00	MERCURY-VAPOR TYPES —		6861	955.00	2020	155.00
5771	700.00	Half-Wave Types (except as noted)		7642	1,265.00	2067	105.00
5786	265.00	575A	21.00	RCA PENCIL TUBES		4438	105.00
6146A	4.35	604/7014	11.80	4037A	29.60	4439	105.00
6146B/8298A	5.20	615/7018	10.05	4046	58.00	4440	105.00
6146W	6.75	635/7019	13.00	5075	8.95	4441	155.00
6155	36.00	635L/7020	13.50	5876	8.60	4441A	320.00
6156	42.60	673	21.00	5876A	8.60	4459	490.00
6159	4.80	816	3.60	5893	20.75	4460	205.00
6159B	5.60	857B	245.00	6173	13.35	4461	260.00
6159W/7357	6.75	866A	3.25	6263A	13.05	4463	310.00
6161	125.00	869B	155.00	6264A	13.85	4464	340.00
6166	735.00	872A	10.85	6562/5794A	6.80	4465	420.00
6166A/7007	1,005.00	5558	17.50	7533	6.80	5819	64.25
6524	22.75	5561	59.00	7552	47.70	6199	47.30
6806	69.75	6894	25.70	7553	57.10	6217	72.00
6816	52.90	6895	25.70	7554	40.00	6328	13.65
6850	20.70	8008	10.85	RCA PHOTOSENSITIVE TUBES & DEVICES		6342-A	57.20
6883	4.30	GAS TYPES —		RCA PHOTOCONDUCTIVE CELLS		6472	14.75
6883B/8032A/8552	5.40	Half-Wave Types		SQ2501	2.85	6655-A	54.35
6884	45.75	3B25	9.15	SQ2502	1.90	6810-A	395.00
6893	4.75	3B28	7.00	SQ2508	1.90	6903	370.00
6897	32.15	RCA IGNITRONS		SQ2509	1.90	7102	110.00
7034/4X150A	25.00	5550	49.00	4402	1.70	7117	12.65
7035/4X150D	27.90	5551A	65.00	4403	1.30	7264	265.00
7094	35.45	5552A	99.00	4404	1.35	7265	375.00
7203/4CX250B	35.75	5553B	245.00	4413	2.35	7326	410.00
7204/4CX250F	39.35	RCA THYRATRONS		4423	2.05	7746	200.00
7213	410.00	TRIODES		4425	2.05	7767	125.00
7271	30.20	(Mercury-Vapor Types)—		4448	1.35	7850	240.00
7457	65.25	For Control Service		4450	1.40	8053	107.25
7580	40.05	(except as noted)		4451	1.40	8054	170.00
7650	240.00	3C23	11.98	4453	1.60	8055	125.00
7801	120.00	627	31.50	7163	1.30	8575	360.00
7842	65.25	676	63.80				
7843	34.35						

P—Price and Delivery on Request



RCA ELECTRON TUBES

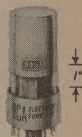
FOR INDUSTRY AND COMMUNICATIONS

RESALE PRICE SCHEDULE • AUGUST 1, 1966

POWER/MICROWAVE/PHOTOSENSITIVE/CAMERA/DISPLAY/INDUSTRIAL RECEIVING

RCA Type	Dist. Resale Price Optional	RCA Type	Dist. Resale Price Optional	RCA Type	Dist. Resale Price Optional	RCA Type	Dist. Resale Price Optional
RCA CAMERA & DISPLAY TUBES				VIEW-FINDER KINESCOPIES			
				5FP4-A	\$31.45	0D3A	\$1.44
						1C21	4.15
						9P1	.87
						56S1	1.78
						56S1A	1.78
						56S1WA	3.80
						5823	1.72
						6072	3.90
						6073/OA2	3.35
						6073	3.00
						6074	3.45
						6074/OB2	3.70
						6626/OA2WA	3.35
				Pentodes			
				Subminiature:			
						5636	6.10
						5639	5.25
						5840	5.35
						5899	5.55
						6205	6.40
						6206	7.25
				Miniature:			
						1L4	1.50
						3A4	1.25
						6AK6	1.40
						6AS6	3.43
						6AU6WA	2.70
						6AU6WB	2.70
						26A6	3.70
						5618	6.75
						5654	2.41
						5654/6AK5W	2.45
						5654/6AK5W/6096	2.45
						5725	3.15
						5749	2.20
						5749/6BA6W	2.20
						5847/40A4	9.55
						6136	2.70
						6186	3.85
						6186/6AG5WA	3.85
						6189/12AU7WA	3.70
						6197	2.30
						6660/6BA6	1.01
						6661/6BH6	1.34
						6662/6BJ6	1.29
						6676/6CB6A	1.06
						6677/6CL6	1.86
						7054	1.54
						7056	.92
						8077/7054	1.50
						9001	5.38
						9003	5.38
				Acorn:			
						959	13.85
				Other Air-Cooled Types:			
						6AC7W	5.45
						6AG7Y	2.80
						1613	3.30
						1620	7.55
						1621	3.85
						5693	6.60
				Rectifiers			
						6679/12AT7	1.89
						6680/12AU7A	2.03
						6681/12AX7A	1.60
						6922	1.40
						7044	2.70
						7057	1.95
						7058	1.26
						7898	1.34
							5.20
				Thyatron			
						Gas:	
						2D21	1.29
						2D21W	2.90
						884	2.28
						502A	2.28
						2050	2.37
						2050A	2.03
						5696	1.95
						5727	2.90
						5727/2D21W	1.90
						6012	7.65
				Triodes			
						Subminiature:	
						5718	3.65
						5719	3.15
						6814	5.90
							7724/14GT8
							1.48

PHOTOSENSITIVE



Multiplier



Phototubes

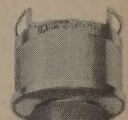


Photocells

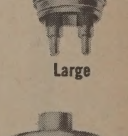
POWER TUBES



Small



Large



Super

SHIELDMU® TAPE AND FOIL FOR ELECTROMAGNETIC SHIELDING

Table I, at right, lists the currently acceptable magnetic materials used for shielding electronic and electrical components. Stray magnetic fields are easily shunted around sensitive components by use of these high permeability magnetic materials.

Magnetic Metals' SHIELDMU gives the designer a full range of magnetic performance for construction for formed-in-place shields. All SHIELDMU types are available from stock in a number of thicknesses and widths for convenient application; SHIELDMU I is currently available in .006" thickness only.

ECONOMICAL SHIELDING WITH SHIELDMU TAPE AND FOIL

Magnetic Metals' SHIELDMU tapes and foils are fully processed and ready to use; heat-treatment is not required after forming. Formed-in-place shields save time and expense when compared to fabrication of special shields. This is most important where experimental results are urgently required, or where small quantity needs make tooling costs uneconomical. Many manufacturers form shields in place around inductive components to save space and achieve magnetic component isolation. Use of tapes and foils also reduces stocking problems associated with drawn or fabricated component shields.

SELECTING SHIELDMU

Shieldmu is provided in four levels of permeability performance. Each is designed to meet the specific requirements of various shielding applications. Multi-layer shields using different materials often give the most economical result by putting high flux capability materials in the region of the strongest field. The high permeability layers are then most effective at the lower field strengths. Shieldmu with adhesive backing eliminates the necessity of taping or spot welding Shieldmu in place.

The thickness of the adhesive itself (not counting the peel-away paper layer) is nominally .001". Clear in color and chemically stabilized for long term life, the adhesive has a bond strength ranging up to 60 oz. per inch at a 90° pulling angle. It is a rubber-based thermoplastic which may be operated in temperatures up to 300°F.

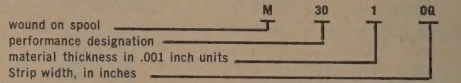
TABLE I

Typical Class of Material	Trade Designations
50% Nickel-Iron Alloys	Shieldmu 30, Hymu 80, Mumetal, Hipernom
80% Nickel-Iron Alloys	Shieldmu 10, 49 Alloy, 4750, Hipernik, Nicaloi
Silicon-Iron Alloys	Shieldmu 3
Low Carbon Steel	Shieldmu 1

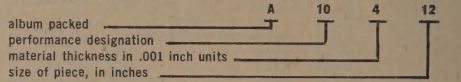
ORDERING INFORMATION:

Shieldmu is carried in stock by your local distributor in twelve-inch square pieces (album packed), as well as in various width and lengths wound on spools. When ordering, please use the part number indicated in the following price lists; each letter and digit is coded to indicate a specific requirement as shown in the examples below:

SHIELDMU wound on spools:



SHIELDMU album packed:



SHIELDMU 30 — (M 30)

Maximum flux 7,000—8,000 gauss. Typical permeabilities—initial 20,000;—maximum 150,000. For maximum attenuation, even at low inductions. M — Prefix — Regular Back ABM — Prefix — Adhesive Back Please order proper prefix.

PRICE LIST per linear foot extended (pulled taut) in random lengths

Part No.	Strip Width (Inches)	1-9		10-24		25-49		50-99		100-249		250-499		500-999		Thickness (Inches)	
		M	ABM	M	ABM	M	ABM	M	ABM	M	ABM	M	ABM	M	ABM		
30-1-OQ	1/4	—	\$.17	—	\$.16	—	\$.15	—	\$.14	—	\$.13	—	\$.12	—	\$.11	—	.001
30-1-TE	3/8	—	.24	—	.23	—	.22	—	.21	—	.20	—	.19	—	.18	—	.001
30-1-OH	1/2	—	.30	—	.29	—	.28	—	.27	—	.26	—	.25	—	.24	—	.001
30-1-TQ	3/4	—	.48	—	.43	—	.41	—	.39	—	.38	—	.37	—	.36	—	.001
30-1-1	1	—	.53	—	.51	—	.54	—	.51	—	.49	—	.48	—	.47	—	.001
30-1-2	2	—	.99	—	.89	—	.85	—	.82	—	.79	—	.76	—	.73	—	.001
30-2-OQ	1/4 1/4	—	.24	.48	.23	.43	.22	.41	.21	.38	.20	.37	.19	.36	.18	.35	.002
30-2-TE	3/8 1/2	—	.42	.84	.38	.76	.37	.72	.36	.69	.34	.66	.32	.63	.31	.59	.002
30-2-OH	1/2 1/2	—	.60	1.20	.54	1.08	.52	1.04	.50	1.00	.48	.96	.46	.92	.44	.88	.002
30-2-TQ	3/4 3/4	—	.72	1.44	.65	1.35	.66	1.27	.63	1.21	.61	1.17	.59	1.13	.55	1.10	.002
30-2-1	1 1	—	1.14	2.28	1.03	2.05	.97	1.95	.94	1.85	.90	1.80	.88	1.75	.84	1.67	.002
30-2-2	2 2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	.002
30-2-3	3 3	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	.002
30-2-4	4 4	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	.002
30-2-5TQ	— 5 3/4	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	.002
30-2-6	6 6	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	.002
30-4-OQ	1/4 1/4	—	.33	.66	.31	.59	.30	.57	.29	.55	.27	.53	.26	.51	.25	.49	.004
30-4-TE	3/8 1/2	—	.39	.78	.35	.69	.33	.66	.32	.63	.30	.60	.29	.58	.28	.48	.004
30-4-OH	1/2 1/2	—	.54	1.08	.49	.97	.48	.94	.46	.91	.44	.88	.42	.84	.40	.80	.004
30-4-TQ	3/4 3/4	—	.72	1.44	.65	1.29	.62	1.15	.59	1.13	.57	1.11	.55	1.09	.53	1.06	.004
30-4-1	1 1	—	1.05	2.10	.94	1.89	.90	1.68	.86	1.65	.83	1.62	.80	1.58	.77	1.54	.004
30-4-2	2 2	—	1.56	3.12	1.40	2.81	1.34	2.49	1.25	2.44	1.21	2.39	1.18	2.34	1.15	2.29	.004
30-4-4	4 4	—	2.58	5.16	2.32	4.64	2.19	4.24	2.06	4.02	1.93	3.87	—	3.84	—	3.80	.004
30-4-8	8 8	—	5.25	10.50	4.72	9.45	4.50	8.40	4.20	8.05	4.05	7.84	—	7.72	—	7.60	.004
30-4-11TQ	— 11 3/4	—	12.00	—	10.80	—	9.60	—	8.40	—	7.20	—	6.00	—	4.80	—	.004
30-4-12	12 12	—	6.75	—	6.05	—	5.70	—	4.90	—	4.20	—	3.60	—	3.00	—	.004
30-6-OQ	1/4 1/4	—	.36	—	.35	—	.34	—	.33	—	.31	—	.29	—	.27	—	.006
30-6-TE	3/8 1/2	—	.42	—	.41	—	.39	—	.38	—	.36	—	.34	—	.33	—	.006
30-6-OH	1/2 1/2	—	.57	—	.51	—	.49	—	.47	—	.46	—	.44	—	.42	—	.006
30-6-TQ	3/4 3/4	—	.78	—	.70	—	.66	—	.64	—	.62	—	.60	—	.58	—	.006
30-6-1	1 1	—	1.14	—	1.02	—	.96	—	.90	—	.87	—	.86	—	.84	—	.006
30-6-2	2 2	—	1.74	—	1.56	—	1.50	—	1.39	—	1.35	—	1.13	—	1.28	—	.006
30-6-4	4 4	—	3.15	—	2.83	—	2.67	—	2.51	—	2.44	—	2.37	—	2.30	—	.006
30-6-8	8 8	—	5.85	—	4.95	—	4.68	—	4.55	—	4.42	—	4.28	—	4.15	—	.006
30-6-12	12 12	—	6.60	—	5.94	—	5.61	—	5.28	—	4.95	—	4.62	—	4.30	—	.006
30-6-15TE	15 1/2	—	8.65	—	7.80	—	7.35	—	6.90	—	6.50	—	6.10	—	5.70	—	.006

SHIELDMU 10 — (M 10)

Maximum flux 14,000—15,000 gauss. Typical permeabilities—initial 5,000;—maximum 100,000. For good attenuation, even at high inductions.

10-1-OQ	1/4	—	\$.15	—	\$.14	—	\$.13	—	\$.12	—	\$.11	—	\$.10	—	\$.09	—	.001
10-1-TE	3/8	—	.22	—	.21	—	.20	—	.19	—	.18	—	.17	—	.16	—	.001
10-1-OH	1/2	—	.27	—	.26	—	.25	—	.24	—	.23	—	.22	—	.20	—	.001
10-1-TQ	3/4	—	.42	—	.38	—	.37	—	.36	—	.34	—	.32	—	.31	—	.001
10-1-1	1	—	.54	—	.49	—	.47	—	.45	—	.43	—	.41	—	.40	—	.001
10-1-2	2	—	.87	—	.78	—	.74	—	.70	—	.66	—	.65	—	.64	—	.001
10-2-OQ	1/4 1/4	—	.22	.42	.21	.38	.20	.36	.19	.35	.18	.34	.17	.33	.16	.31	.002
10-2-TE	3/8 1/2	—	.27	.78	.26	.70	.25	.62	.24	.61	.23	.59	.22	.58	.20	.58	.002
10-2-OH	1/2 1/2	—	.39	1.02	.37	.92	.35	.87	.34	.84	.33	.80	.32	.77	.31	.75	.002
10-2-TQ	3/4 3/4	—	.51	1.02	.46	.90	.43	.87	.41	.81	.40	.81	.39	.78	.38	.75	.002
10-2-1	1 1	—	.75	1.50	.68	1.35	.65	1.27	.63	1.21	.61	1.17	.59	1.13	.55	1.10	.002
10-2-2	2 2	—	1.11	2.22	1.01	2.00	.95	1.89	.89	1.83	.86	1.77	.84	1.70	.82	1.63	.002
10-2-4	4 4	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	.002
10-2-5	5 5	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	.002
10-2-6	6 6	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	.002
10-2-7	7 7	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	.002
10-2-8	8 8	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	.002
10-2-9	9 9	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	.002
10-2-STQ	— 5 3/4	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	.002
10-4-OQ	1/4 1/4	—	.30	.60	.27	.54	.26	.52	.25	.50	.24	.48	.23	.46	.22	.44	.004
10-4-TE	3/8 1/2	—	.36	—	.35	—	.34	—	.33	—	.31	—	.29	—	.27	—	.004
10-4-OH	1/2 1/2	—	.48	.96	.43	.86	.41	.83	.39	.80	.38	.77	.37	.74	.36	.71	.004
10-4-TQ	3/4 3/4	—	.63	1.26	.57	1.13	.54	1.06	.51	1.03	.49	.97	.47	.93	.46	.90	.004
10-4-1	1 1	—	.85	1.68	.84	1.67	.80	1.58	.76	1.53	.72	1.48	.70	1.43	.69	1.37	.004
10-4-2	2 2	—	1.35	2.70	1.21	2.43	1.15	2.30	1.08	2.22	1.03	2.14	1.01	2.06	.99	1.98	.004
10-4-4	4 4	—	2.16	4.32	1.99	3.89	1.84	3.78	1.71	3.63	1.62	3.48	1.60	3.33	—	3.17	.004
10-4-8	8 8	—	4.29	8.58	3.86	7.72	3.56	7.29	3.44	7.04	3.34	6.79	—	6.52	—	6.30	.004
10-4-12	12 12	—	5.28	—	4.75	—	4.50	—	4.08	—	3.78	—	3.48	—	3.18	—	.004
10-4-11TQ	— 11 3/4	—	9.54	—	8.59	—	8.12	—	7.44	—	6.78	—	6.12	—	5.46	—	.004
10-6-OQ	1/4 1/4	—	.33	—	.31	—	.30	—	.29	—	.27	—	.26	—	.25	—	.006
10-6-TE	3/8 1/2	—	.36	—	.35	—	.34	—	.33	—	.31	—	.29	—	.27	—	.006
10-6-OH	1/2 1/2	—	.51	—	.49	—	.48	—	.47	—	.46	—	.44	—	.43	—	.006
10-6-TQ	3/4 3/4	—	.66	—	.59	—	.57	—	.55	—	.53	—	.51	—	.49	—	.006
10-6-1	1 1	—	.99	—	.89	—	.85	—	.82	—	.79	—	.76	—	.73	—	.006
10-6-2	2 2	—	1.47	—	1.32	—	1.18	—	1.15	—	1.12	—	1.10	—	1.08	—	.006
10-6-4	4 4	—	2.82	—	2.53	—	2.40	—	2.26	—	2.16	—	2.07	—	—	—	.006
10-6-8	8 8	—	4.74	—	4.23	—	4.03	—	3.86	—	3.56	—	—	—	—	—	.006
10-6-12	12 12	—	5.10	—	4.59	—	4.59	—	4.08	—	3.82	—	—	—	—	—	.006

SHIELDMU® TAPE AND FOIL FOR ELECTROMAGNETIC SHIELDING

SHIELDMU 3 — (M 3)

Maximum flux 18,000 gauss. Typical permeabilities—initial 1,000—maximum 15,000. For economical shielding with high induction capability.

PRICE LIST per linear foot extended (pulled taut) in random lengths

Part No.	Strip Width (Inches)		1-9		10-24		25-49		50-99		100-249		250-499		500-999		Thickness (Inches)
	M	ABM	M	ABM	M	ABM	M	ABM	M	ABM	M	ABM	M	ABM	M	ABM	
3-1-0Q	1/4	—	\$.13	—	\$.12	—	\$.11	—	\$.10	—	\$.09	—	\$.08	—	\$.07	—	.001
3-1-0E	3/8	—	.19	—	.18	—	.17	—	.16	—	.15	—	.14	—	.13	—	.001
3-1-0H	1/2	—	.24	—	.23	—	.22	—	.21	—	.20	—	.19	—	.18	—	.001
3-1-0Q	3/4	—	.36	—	.35	—	.34	—	.33	—	.31	—	.29	—	.27	—	.001
3-1-1	1	—	.48	—	.43	—	.41	—	.39	—	.38	—	.37	—	.36	—	.001
3-1-2	2	—	.72	—	.65	—	.62	—	.59	—	.57	—	.55	—	.53	—	.001
3-2-0Q	1/4	1/4	.19	.36	.18	.34	.17	.32	.16	.30	.15	.29	.14	.28	.13	.27	.002
3-2-0E	3/8	3/8	.24	.44	.23	.41	.22	.40	.21	.40	.20	.39	.19	.38	.18	.37	.002
3-2-0H	1/2	1/2	.33	.66	.31	.59	.30	.57	.29	.55	.27	.53	.26	.51	.25	.49	.002
3-2-0Q	3/4	3/4	.45	.90	.40	.80	.38	.76	.37	.74	.36	.72	.35	.70	.33	.66	.002
3-2-1	1	1	.60	1.20	.54	1.08	.52	1.04	.50	1.00	.48	.96	.46	.92	.44	.88	.002
3-2-2	2	2	.87	1.74	.79	1.58	.76	1.52	.73	1.46	.70	1.40	.67	1.34	.64	1.28	.002
3-2-4	4	4	2.92	5.84	2.62	5.24	2.47	4.94	2.34	4.68	2.27	4.54	2.20	4.40	2.15	4.30	.002
3-2-5Q	—	5/4	—	3.60	—	3.24	—	3.12	—	2.88	—	2.80	—	2.72	—	2.64	.002
3-4-0Q	1/4	1/4	.24	.48	.23	.43	.22	.41	.21	.38	.20	.37	.19	.36	.18	.35	.004
3-4-0E	3/8	3/8	.30	.78	.29	.70	.28	.66	.27	.64	.26	.62	.25	.60	.24	.58	.004
3-4-0H	1/2	1/2	.39	.98	.35	.90	.33	.86	.32	.84	.31	.82	.30	.80	.29	.78	.004
3-4-0Q	3/4	3/4	.54	1.08	.49	.97	.48	.92	.46	.89	.44	.86	.42	.83	.40	.80	.004
3-4-1	1	1	.75	1.50	.67	1.35	.65	1.27	.62	1.21	.59	1.17	.57	1.13	.55	1.10	.004
3-4-2	2	2	1.08	2.16	.97	1.94	.92	1.87	.89	1.80	.86	1.73	.83	1.63	.80	1.60	.004
3-4-4	4	4	1.50	3.00	1.35	2.70	1.27	2.55	1.20	2.38	1.18	2.32	1.15	2.26	1.10	2.20	.004
3-4-8	8	8	2.79	5.50	2.51	4.95	2.37	4.68	2.23	4.51	2.17	4.34	2.11	4.17	2.00	4.00	.004
3-4-12	12	—	4.02	—	3.62	—	3.42	—	3.12	—	2.88	—	2.80	—	2.64	—	.004
3-4-11Q	11 3/4	—	—	7.26	—	6.53	—	6.18	—	5.97	—	5.75	—	5.53	—	5.33	.004
3-6-0Q	1/4	—	.27	—	.26	—	.25	—	.24	—	.23	—	.22	—	.21	—	.006
3-6-0E	3/8	—	.42	—	.41	—	.40	—	.39	—	.38	—	.37	—	.36	—	.006
3-6-0H	1/2	—	.57	—	.56	—	.55	—	.54	—	.53	—	.52	—	.51	—	.006
3-6-0Q	3/4	—	.84	—	.81	—	.79	—	.77	—	.76	—	.75	—	.74	—	.006
3-6-1	1	—	1.26	—	1.13	—	1.01	—	.99	—	.97	—	.95	—	.93	—	.006
3-6-2	2	—	2.16	—	1.92	—	1.72	—	1.62	—	1.52	—	1.42	—	1.32	—	.006
3-6-4	4	—	3.34	—	2.92	—	2.62	—	2.34	—	2.12	—	1.92	—	1.72	—	.006
3-6-8	8	—	4.02	—	3.62	—	3.42	—	3.22	—	3.13	—	2.95	—	2.85	—	.006
3-6-12	12	—	4.23	—	3.81	—	3.60	—	3.38	—	3.17	—	—	—	—	—	.006

SHIELDMU 1 — (M 1)

Maximum flux 17,000 gauss. Typical permeabilities—initial 300; maximum 3,000. For economical shielding at high inductions.

Part No.	1	4	12	1	4	12	1	4	12	1	4	12	1	4	12	1	4	12
1-6-1	—	—	—	\$.33	—	\$.31	—	\$.30	—	\$.29	—	\$.27	—	\$.26	—	\$.25	—	.006
1-6-4	—	—	—	.96	—	.86	—	.82	—	.78	—	.76	—	.74	—	.71	—	.006
1-6-12	—	—	—	2.70	—	2.43	—	2.30	—	2.16	—	2.12	—	2.05	—	—	—	.006

SHIELDMU ALBUMS: (A)

Individually Packaged Pieces, 12" x 12".

Part No.	Material Thickness (Inches)	1-9	10-24	25-49	50 & over
A30-6-1	.006	\$7.35	\$6.61	\$6.35	\$5.88
A10-4-12	.004	5.28	4.75	4.49	4.22
A3-4-12	.004	4.02	3.62	3.42	3.22
A1-6-12	.006	3.00	2.70	2.55	2.40

SHIELDMU ALBUMS: (ABA)

Individually Packaged Pieces, 12" x 11 3/4".

Part No.	Material Thickness (Inches)	1-9	10-24	25-49	50 & over
ABA30-4-11TQ	.004	\$13.20	\$11.88	\$11.22	\$10.56
ABA3-4-11TQ	.004	7.80	7.02	6.63	6.24

Now Available . . . 2" SHIELDFLEX FLEXIBLE TUBING

We have now added a larger diameter to our variety of Shieldflex sizes stocked at your local electronic distributor. This heavier, larger tubing is especially valuable in applications involving communications.

Part No.	I.D. (Inches)		Material Thickness (Inches)	Nominal Bend Inside Dia. (Inches)	Nom. Wt. per 100 Ft. Pounds	PRICE LIST per linear foot extended (pulled taut) in random lengths					
	1-9	10-24				1-9	10-24	25-49	50-99	100-249	250-499
F30-20-2	2	2 1/4	.020	10	70	\$27.00	\$24.70	\$22.95	\$21.60	\$20.90	\$19.00
F30-19-2	2	2 1/4	.020	10	70	\$27.00	\$24.70	\$22.95	\$21.60	\$20.90	\$19.00

SHIELDFLEX FLEXIBLE TUBING FOR ELECTROMAGNETIC SHIELDING

Shieldflex tubing is specially designed and constructed to provide both electromagnetic and electrostatic shielding of current carrying conductors. The flexibility of the tubing permits close routing of conductors around components or other conductors, thus effecting space economy so important in miniaturization of components. Production economies are possible also because of the simple operation required—simply run the cable through a length of Shieldflex. Time consuming work of wrapping cables with Shieldmu tape can be reduced by using Shieldflex.

SHIELDFLEX flexible tubing for magnetic shielding is formed from high permeability yellectromagnetic alloys in a spirally wound construction.



Part No.	I.D. (Inches)		Material Thickness (Inches)	Nominal Bend Inside Dia. (Inches)	PRICE LIST per linear foot extended (pulled taut) in random lengths					
	1-9	10-24			1-9	10-24	25-49	50-99	100-249	250-499
F30-10FT	1 1/2	1 3/4	.010	1 1/2	\$2.22	\$2.02	\$1.89	\$1.78	\$1.75	\$1.70
F30-10TS	1 1/2	1 3/4	.010	1 1/2	2.31	2.08	1.97	1.84	1.78	1.75
F30-10-ST	1 1/2	1 3/4	.010	1 1/2	2.64	2.37	2.24	2.12	2.06	2.00
F30-10-OQ	1 1/2	1 3/4	.010	1 1/2	2.82	2.53	2.40	2.26	2.20	2.14
F30-10-NT	1 1/2	1 3/4	.010	1 1/2	3.09	2.78	2.63	2.47	2.41	2.34
F30-10-FS	1 1/2	1 3/4	.010	1 1/2	3.21	2.89	2.73	2.57	2.51	2.44
F30-10-ET	1 1/2	1 3/4	.010	1 1/2	3.33	3.00	2.82	2.67	2.60	2.53
F30-10-TE	1 1/2	1 3/4	.010	1 1/2	3.45	3.10	2.92	2.76	2.69	2.62
F30-10-SS	1 1/2	1 3/4	.010	1 1/2	3.69	3.32	3.15	2.95	2.88	2.79
F30-14-OH	1 3/2	2	.014	2	4.50	4.50	3.82	3.60	3.55	—
F30-14-NS	1 3/2	2	.014	2 1/4	4.98	4.48	4.23	3.98	3.88	—
F30-14-TE	1 3/2	2	.014	2 1/2	5.46	4.91	4.65	4.37	4.25	—
F30-14-TQ	1 3/2	2	.014	6	6.93	6.23	5.88	5.53	5.41	—
F30-14-1	1	1 1/2	.014	7	9.27	8.34	7.88	7.42	7.05	—

ORDERING INFORMATION:

Random lengths of Shieldflex in 14 diameters can be purchased from your local electronic distributor. When ordering, please use the part numbers as presented in the price list above.

EXAMPLE:

performance designation **F30 10 FT**
material thickness (in .001 inch units)
internal diameter (in fractions of an inch)

Russell Industries, | MAGNETIC METALS



SYLVANIA INDUSTRIAL PRODUCTS

Type	Sugg. User Price	Type	Sugg. User Price	Type	Sugg. User Price	Type	Sugg. User Price	Type	Sugg. User Price
*OA2	\$ 1.32	*5Y3WGTA	\$ 4.05	810	\$ 28.60	*5718	\$ 3.65	*6111	\$ 3.70
GB-OA2WA	3.35	GB-5Y3WGTA	4.05	811A	7.15	*5718A	3.65	*6111A	3.70
OA3	1.54	6AD4	3.40	812A	7.60	*5719	3.15	*6112	4.10
*OA4B	1.86	*6AH6WA	7.60	813	24.30	*5719A	3.15	*6112A	4.10
*OB2	1.37	*6AJ5	3.85	815	33.70	5722	8.35	*6135	2.40
*OB2WA	2.40	6AK6	1.40	816	3.60	GB-5725	3.15	GB-6135	2.40
GB-OB2WA	2.40	*6AN5WA	10.80	828	34.50	*5725/6AS6W	3.15	GB-6136	2.70
*OB3	2.35	6AS6	3.43	829B	19.85	GB-5726	1.55	*6146A	4.35
*OC3	1.50	6AS7G	4.93	832A	16.65	*5726/6AL5W	1.55	6146B/8298A	5.20
*OD3	1.44	6AS7GA	4.93	833A†	61.20	*5726/6AL5W/ 6097	1.55	*6159	4.80
OZ4A	1.12	*6AU6WA	2.70	866A	3.25	GB-5727	2.90	*6159A	4.80
C1K/6014	11.80	*6AU6WB	2.70	869B†	155.00	*5727/2D21W	2.90	GB-6186	3.85
1P39	2.50	*6BF7W	4.20	872A	10.85	*5727/2D21W	2.90	*6186/6AG5WA	3.85
1P40	3.75	GB-6BQ7A	2.20	884	2.28	5736	164.75	GB-6189	3.70
2-01C	18.00	*6C4W	1.55	889RA (See 5667/889RA)		GB-5749	2.20	*6189/12AU7WA	3.70
*2C36	50.00	*6C4WA	3.15	921	4.00	*5749/6BA6W	2.20	*6197	2.30
2C37	50.00	GB-6CY5	1.85	922	3.45	GB-5750	3.45	GB-6201	2.55
2C39A	20.75	*6D4	2.85	923	3.70	*5750/6BE6W	3.45	*6205	5.90
2C39B	32.15	6DJ8 (Receiving Type)	X	929	2.60	GB-5751	2.55	*6205A	5.90
2C39WA	20.75	GB-6DJ8	2.70	930	3.80	*5751	2.55	*6206	7.25
2C40	29.30	6J4	4.02	931A	12.30	*5763	2.45	*6206A	7.25
2C43	26.95	*6J4WA	5.60	1000T	169.00	5767	50.00	6211	1.95
2C51	3.65	GB-6J4WA	5.60	1051A	65.00	*5768	50.00	*6216	4.15
2D21	1.25	C6J/A/5685	29.00	1052A	99.00	5796	17.25	6257	330.00
2D21W (See 5727/2D21W)		*6J6WA	5.35	1061	65.00	*5814A	2.35	*6308	8.25
2E24	6.45	*6SJ7WGT	2.70	1218A	5.00	GB-5814A	2.35	6350	1.85
2E26	3.75	*6SL7WGT	3.15	GB-1219/5670	3.70	*5814WA	2.35	*6352	9.85
*2J42	120.00	GB-6SL7WGT	3.15	GB-1220/5654	3.05	5820A	1100.00	*6360	4.95
*2X2A	3.95	*6SN7WGT	2.35	1229	5.35	*5823	1.72	6421-F	545.00
3-400Z (See 8163/3-400Z)		GB-6SN7WGT	2.35	GB-1252/6U8A	2.00	*5840	5.35	6425-F	675.00
3A5	2.03	*6SN7WGTA	4.90	1616	15.10	*5840A	5.35	6481	50.00
3B28	7.00	*6VGGTY	1.45	1624	7.90	5845	9.95	6485	2.05
3C23	11.98	*6X4W	1.60	2050	2.37	5855	85.00	6503	66.50
3CPN10A5 (See 7815/3CPN10A5)		*6X4WA	2.85	2050A	2.03	5879	1.95	6550	4.95
3CX100A5 (See 7289/3CX100A5)		GB-6X4WA	2.85	5530-H	425.00	5881	3.10	*6660/6BA6	1.01
3CX2500A3	200.00	*6X5WGT	1.55	5531	795.00	5894	25.00	*6661/6BH6	1.34
3CX2500F3	210.00	GB-6X5WGT	1.55	5541	670.00	*5896	3.80	*6662/6BJ6	1.29
3E29	21.50	*7AK7	8.15	5551A/652	65.00	*5896A	3.80	*6663/6AL5	.92
C3J/5632	12.70	*7F8W	8.15	5552A	99.00	*5899	5.55	6664/6AB4	1.60
C3J/A/5684	13.10	*12AT7WA	2.55	5553B	245.00	*5899A	5.55	*6669/6AQ5A	1.06
3X2500A3 (See 8161/3X2500A3)		*12AT7WB	2.55	5557†	9.50	*5902	4.80	*6676/6CB6A	1.06
3X2500F3 (See 8251/3X2500F3)		12AY7	2.45	5559†	23.00	*5902A	4.80	*6677/6CL6	1.85
3X3000A1 (See 8238/3X3000A1)		C16J/5665	52.50	5560/FG95†	33.00	*5903	7.45	*6678/6U8A	1.62
3X3000F1 (See 8239/3X3000F1)		RX21A	25.75	5575/100	225.00	*5904	7.90	*6679/12AT7	1.50
4-65A (See 8165/4-65A)		25T	28.50	5576/200	245.00	*5905	8.40	*6680/12AU7	1.22
4-125A	36.00	*28D7	4.95	5604	570.00	*5906	8.40	*6681/12AX7	1.26
4-250A	46.50	S28D7	4.95	5606	288.00	*5907	8.40	*6788	10.85
4-400A (See 8438/4-400A)		*28D7W	10.75	5632 (See C3J/5632)		*5908	9.80	6807	32.25
4-1000A (See 8166/4-1000A)		FG-95 (See 5560/FG95)		*5636	6.10	5916	9.80	*6832	20.65
4CX250B (See 7203/4CX250B)		100 (See 5575/100)		*5636A	6.10	*5931	6.80	*6883	4.30
4CX250F (See 7204/4CX250F)		100TH	23.50	*5639A	5.25	*5932	11.30	*6883A	4.30
4CX250K (See 8245/4CX250K)		102A	174.00	*5639A	5.25	*5932	11.30	6897	32.15
4CX300A (See 8167/4CX300A)		200 (See 5576/200)		*5641	7.55	*5933	12.35	6922	4.87
4CX1000A (See 8168/4CX1000A)		250TH	38.50	*5641A	7.55	GB-5933	12.35	6939	11.37
4CX5000A (See 8170/4CX5000A)		304TH	75.00	5642 (Receiving Type)	X	*5933WA	16.50	*6943	11.10
4E27A/5-125B	45.00	304TL	75.00	*5643	9.05	5934	22.00	*6944	11.10
4PR60B (See 8252/4PR60B)		GB-407A	5.90	*5644	9.90	*5963	1.34	*6945	11.10
4W20,000A (See 8173/4W20,000A)		GB-408A	4.95	*5644A	9.90	5964	1.54	*6946	10.85
4X150A (See 7034/4X150A)		450TL	85.00	*5647	8.65	5965	1.95	*6947	11.35
4X250B	35.75	481B	10.90	*5647A	8.65	5966	42.00	*6948	11.35
4X500A	127.50	575A†	20.15	5651	1.90	*5977	6.55	6973 (Receiving Type)	X
5R4GYB	2.03	579B	20.50	GB-5654	2.45	*5977A	6.55	6977	2.50
		592/3-200A3	46.00	*5654A/6AK5W	2.45	GB-6005	3.23	7006	1110.00
		604	11.80	5658	595.00	*6005/6AQ5W	3.23	7007	1020.00
		604L	13.00	5665 (See C16J/5665)		6005/6AQ5W/ 6095	3.23	7025 (Receiving Type)	X
		615	10.05	5667 (889RA)†	370.00	6011/710	12.00	7034/4X150A	25.00
		627	31.50	5668	350.00	6012	7.65	7038	185.00
		632B	33.00	5669	515.00	6014 (See C1K/6014)		7044	2.70
		635	13.00	*5670	2.45	*6021	3.50	*7054	1.54
		635L	13.50	GB-5670	2.45	*6021A	3.50	*7055	1.00
		642	17.00	5684 (See C3J/A/5684)		*6028	4.95	*7056	.92
		652 (See 5551A/652)		5685 (See C6J/A/5685)		6072	3.90	*7057	1.95
		672A	39.85	GB-5687	4.00	*6080	5.33	*7058	1.26
		673	20.15	*5687WA	5.66	GB-6080	5.33	*7059	1.48
		678	50.75	6097 (See 5726/ 6AL5W/6097)		*6080WA	10.80	*7060	1.75
		710 (See 6011/710)		*5692	8.25	6097		*7061	1.30
		760	28.10	5693	6.60	GB-6101		*7167	1.45
		760L	29.40	5696	2.05	*6110	8.05	7199 (Receiving Type)	X

SYLVANIA INDUSTRIAL PRODUCTS

Type	Sugg. User Price	Type	Sugg. User Price	Type	Sugg. User Price	Type	Sugg. User Price	Type	Sugg. User Price	
7203/4CX250B	\$35.75	3BMP7	\$57.90	5CVP1	\$203.00	10WP19A	X	1N23E	\$ 4.20	
7204/4CX250F	39.00	3BMP11	57.90	5CVP7	203.00	*12ABP7A	\$56.80	1N23F	8.10	
*7258	2.75	3BMP12	57.90	5CVP19	203.00	12ABP14A	81.40	1N23G	12.60	
7289/3CX100A5	30.75	*3BP1A	33.05	5DEP1	34.45	12ABP19A	89.80	*1N23WE	5.25	
7325	185.00	*3FP7A	34.30	5DEP2	34.45	*12DP7A	60.60	SILICON EPITAXIAL VARACTORS		
GB-7327	12.45	*3JP1	30.75	5DEP7	34.45	*12DP7C	73.90			
GB-7550	13.25	*3JP2	30.75	5DEP11	34.45	12SP7B	51.20	D4600H	\$60.00	
7551	3.50	*3JP7	30.75	5DKP4	X	*12SP7D	55.60	D4601H	60.00	
7735A	185.00	*3JP12	X	5DKP11	34.60	17DWP4	29.90	D4610H	68.00	
7738	2.80	*3KP1	31.60	5DKP15	34.60	21EYP4	33.30	D4621H	75.00	
*7759	7.35	3KP4	31.60	5DKP16	34.60	SC-2558P1	180.00	D4800H	60.00	
*7760	15.25	3KP7	31.60	5DKP24	X	SC-2558P4	180.00	D4801H	60.00	
*7761	7.40	3KP11	31.60	5DLP4	34.60	SC-2558P7	180.00	D4810H	68.00	
*7762	7.40	3KP16	40.45	5FP4A	35.00	SC-2830P1	55.70	D4821H	75.00	
7803	2.55	3MP1	26.00	*5FP7A	26.80	SC-2854	58.25	D4832E	70.00	
7815/		*3RP1	27.05	5FP11A	36.50	SC-3116P/		GALLIUM ARSENIDE VARACTORS		
3CPN10A5	30.75	3RP1A	32.00	*5FP14A	33.20	T65P/T543P	110.00			
*7887	6.70	3RP4	29.60	5QP4A	61.10	SC-3301P/		D5047A	\$120.00	
*7888	5.25	*3SP1	34.45	5RP1A	169.70	T64P/T533P	110.00	D5047D	300.00	
7962	7.50	3SP2	34.45	5RP2A	169.70	KLAYSTRONS			D5147A	120.00
7963	7.50	3SP11	34.45	5RP4A	169.70				D5147C	230.00
8008	11.80	*3WP1	34.55	5RP5A	169.70	SK-113	\$195.00	SPECIAL LAMP PRODUCTS		
*8064	7.50	3WP2	34.55	5RP7A	X	SK-114	195.00			
8070	7.50	3WP11	34.55	5RP11A	169.70	SK-115	195.00	Glow Modulators		
8071	7.50	*4MP1	65.75	5UP1	31.65	SK-220A-G	140.00	GM514	\$65.60	
8077	1.50	5ABP1	39.55	5UP7	31.65	SK-220Z	315.00	GM514C	65.60	
8077/7054	1.50	5ABP1A	42.50	5UP11	31.65	SK-221A	160.00	R1130B	22.90	
8161/		5ABP4	42.10	5WP11	97.70	SK-221B-G	145.00	R1131C	21.60	
3X2500A3	200.00	5ABP4A	45.30	5WP15	97.70	SK-221H	205.00	R1166	22.00	
8163/3-400Z	34.00	5ABP7	42.10	5ZP15	91.05	SK-221K	160.00	R1168	26.95	
8165/4-65A	27.00	5ABP7A	45.30	5ZP16	91.05	SK-222A-G	145.00	R1169	24.00	
8166/4-1000A	132.00	5ABP11	42.10	5ZP24	91.05	SK-222Z	320.00	Strobofotons		
8167/4CX300A	58.50	5ABP11A	45.55	*7ABP7A	50.00	SYK-720A-G	145.00			
8168/		5ABP31A	X	7ABP14A	55.35	SYK-720Z	325.00	1D21/SN4	7.30	
4CX1000A	181.00	*5ADP1	39.55	7ABP19A	55.35	SYK-722A-G	150.00	SN5	12.80	
8170/		5ADP1A	42.50	7AEP1	49.80	SYK-722Z	330.00	SA309	20.40	
4CX5000A	495.00	*5ADP2	39.55	7AEP2	49.80	K-839B	195.00	SA309A	21.30	
8173/		5ADP2A	42.50	*7AEP7	49.80	K-841B	186.00	S413	15.30	
4W20,000A	2,030.00	*5ADP7	42.10	7AEP11	49.80	K4008	195.00	SS501	29.30	
8210	10.75	5ADP7A	45.30	7AQP4	66.30	K-4010	195.00	S696	23.70	
8238/		5ADP11	42.10	7AQ7	66.30	K-4011	205.00	S836	17.00	
3X3000A1	210.00	5ADP11A	45.55	7AQP16	66.30	K-4012	195.00	S840	20.60	
8239/		5ADP31A	45.55	7AQP19	66.30	K-4013	195.00	S841	20.60	
3X3000F1	220.00	*5AHP4A	53.20	7AQP25	66.30	K-4014	195.00	S844	20.40	
8245/4CX250K	64.00	*5AHP7A	39.30	7AUP4	66.65	K-4015	195.00	S852	17.00	
8251/		5AHP14A	48.95	7AUP7	66.65	6468	195.00	R4350	29.70	
3X2500F3	205.00	5AHP19A	48.95	7BP2A	35.05	6469	195.00	Flash Tubes		
8252/4PR60B	107.00	*5AMP1A	56.60	*7BP7A	37.05	*6BL6	40.00			
8298A (See		*5AMP2A	56.00	7JP1/V7P1	43.90	*6BM6	50.00	FT118	9.00	
6146B/8298A)		*5AMP7A	71.90	7JP7	43.90	*6BM6A	50.00	FT218	9.10	
8334/1218A	5.00	*5AMP11A	71.90	7MP7	45.40	*5836	69.00	R4306	9.90	
8438/4-400A	48.00	5AMP31A	89.10	7MP14	45.40	*5837	69.00	R4307	5.60	
8484	185.00	5AQP1A	47.50	7UP7	47.50	MICROWAVE MIXER DIODES			R4307C	5.60
9001	5.40	5AQP2A	47.50	7UP25	47.50				1N21C	\$ 1.02
INDUSTRIAL and MILITARY		5AQP7A	47.70	8CP1	47.50	1N21D	2.45	R4319	8.70	
		5AQP11A	47.70	8CP2	47.50	1N21E	4.20	R4329	9.60	
CATHODE RAY TUBES		5AUP24	165.20	8CP7	47.50	1N21F	8.10	R4330	29.10	
		5BCP1	81.00	8CP11	47.50	1N21G	12.60	R4336	36.00	
2AP1A	\$19.30	5BCP4	X	8DP4	33.00	*1N21WE	5.25	R4337	49.00	
2BP1	18.75	*5BCP7	81.00	8FP4	51.25	1N23C	1.02	R4340	60.50	
2BP11	X	5BCP11	81.00	8HP4	35.00	1N23D	2.45	Mite-T-Lites		
*3ACP1A	43.40	5BGP1	75.00	8HP7	X	ML202A	1.10			
*3ACP2A	43.40	5BGP2	75.00	8KP4	34.90	Types listed in Bold Face are Sylvania Gold Brand Tubes.				
*3ACP7A	43.40	5BGP7	75.00	8LP4	33.85					
*3ACP11A	43.40	5BGP11	75.00	8QP4	47.10	GB-Manufactured to Commercial and Industrial Specifications.				
3ACP12A	43.40	5BGP15	75.00	*10AKP7	54.90					
3ACP16A	59.50	5BHP1A	92.50	10ANP4	89.80	• Tubes are "Communication Quality" types. • Indicates Military Type Approval.				
*3ADP1	61.60	*5BHP2A	92.50	*10ANP7	89.80					
3ADP2	61.60	5BHP7A	92.50	10ANP16	89.80	‡ These tubes may be of foreign manufacture and in many cases, manufactured by the foreign affiliate of Sylvania Electric Products Inc.				
3ADP7	61.60	5BHP11A	92.50	10ANP19	89.80					
3ADP11	61.60	5BHP15A	92.50	10ANP25	89.80	x Price quoted upon request.				
3ASP1	40.85	5BNP16	35.45	*10KP7A	51.65					
3ASP2	40.85	*5BP1A	34.90	10KP7B	56.95	Prices are subject to change without notice.				
3ASP7	40.85	5BRP1	56.65	10NP11	148.50					
3ASP11	40.85	5BRP4	56.65	10SP4	69.15	SYLVANIA				
3BP1	44.80	5BRP7	56.65	10VP7	83.80					
*3BG1	51.65	5BRP11	56.65	10VP15	X	SUBSIDIARY OF GENERAL TELEPHONE & ELECTRONICS GTE				
3BG2	51.65	*5CP1A	38.85	*10WP7	36.60					
3BG7	51.65	*5CP1B	41.30	10WP7A	38.00	NEW CAPABILITIES IN: ELECTRONIC TUBES • SEMICONDUCTORS • MICROWAVE DEVICES • SPECIAL COMPONENTS • DISPLAY DEVICES				
3BG11	51.65	*5CP7A	38.85	10WP14	60.90					
3BMP1	55.95	5CP11A	38.85	10WP14A	70.90					
3BMP2	55.95	*5CP12	38.85	10WP19	X					



LEWIS AND KAUFMAN, Ltd.

SPECIAL PURPOSE TUBES — LONG LIFE — DEPENDABILITY

Number	Suggested Resale Price	Number	Suggested Resale Price	Number	Suggested Resale Price	Number	Suggested Resale Price
OA2	\$ 1.30	5JP1	\$75.00	866A	\$2.65	6146B	\$5.20
OA2WA	3.30	5JP2A	75.00	866JR	3.75	6159	4.80
OA3	1.54	5LP1A	40.00	872A	9.85	6186	3.75
OB2	1.35	5MP1	40.00	873	19.50	6186/6AG5WA	3.75
OB2WA	2.35	5NP1	35.00	918	4.65	6189/12AU7A	3.45
OB3	2.30					6197	2.48
OC3	1.45	5R4GY	2.03	1612	5.77	6201/12AT7WA	2.50
OD3	1.40	5RP1A	169.70	1613	3.30		
OD3W	6.20	5RP11A	169.70	1620	7.55	6205	5.35
OG3	2.30	5SP7	160.00	1621	3.85	6211	1.95
		5UP7	29.05	1622	5.35	6293	5.95
2AC15	11.00	5Y3WGT A	3.75	1629	1.85	6336	18.00
2AP1	19.50	5Y3WGTA	5.75	1631	3.25	6414	3.65
2AP1A	19.50	5YP1	55.00	1635	3.80	6528	21.55
2AS15	10.50	5ZP16	83.00	2050A	2.35	6550	4.30
2AS15A	10.00					6626/0A2WA	3.30
		6AC7W	3.45	5557/FG17	9.50	6660/6BA6	1.01
2B23	75.00	6AC7WA	5.70	5558/FG32	17.50	6661/6BH6	1.34
2BP1	20.60	6AH6WA	7.50	5559/FG57	24.50	6662/6BJ6	1.29
2C26A	7.50	6AJ5	3.75	5651	1.78		
2C50	9.90	6AK5W	2.35	5651WA	3.75	6663/6AL5W	.92
2C51	3.65					6664/6AB4	1.12
2C52	4.80	6AL5W	1.33	5654	2.35	6676/6CB6A	1.06
2C53	9.00	6AS7G	4.93	5654/6AK5W	2.35	6677/6CL6	1.85
		6AU6WA	2.70	5654/6AK5W/6096	2.41	6678/6U8A	1.62
		6AU6WB	2.70				
2D21	1.22			5670	2.11	6679/12AT7	1.50
2D21W	2.90	6C21	90.00	5670WA	2.30	6680/12AU7A	1.22
2E22	8.40	6J4WA	5.50	5685/CGJA	27.00	6681/12AX7	1.26
2SM15	12.00	6J6WA	4.95	5687	3.15	6887	1.40
2X2A	3.25	6L6WGB	4.10	5691	8.75	6922	4.75
		6Q5G	6.00				
3ABP1	125.00			5692	8.25	7054	1.54
3ACP1A	37.00	6SN7WGTA	4.90	5693	6.60	7057	1.95
3ACP2	39.45	6X4W	1.60	5725	3.05	7059	1.48
3ACP7	39.45	10QP7	75.00	5726	1.35	7060	1.75
3ACP11	39.45	12AKP7	55.00	5726/6AL5W/6097	1.40	7061	1.29
3AP1	24.15	12AT7WA	2.53				
3BP1	29.80	12DP7A	67.95	5727	2.90	7360	3.77
		12SP7	46.80	5727/2D21W	2.90	7370	10.26
3B4WA	5.85	25T	26.50	5749	2.20	7730	1.93
3B24W	9.00	35T	31.00	5749/6BA6	2.20	7898	1.34
3B24WA	9.90	35TG	31.00	5750	3.45	7905	3.85
3B28	7.50	100R	16.20				
3B29	10.30	100TH	23.50	5751	2.55	8008	9.90
		100TL	23.50	5751WA	2.85	8013A	17.05
3C23	11.98	152TH	93.00	5763	2.53	8020	16.00
3C24	16.00	249B	18.00	5814A	2.30	8020W	19.50
3C45	19.00			5814WA	2.30	8077/7054	1.53
3DP1A	35.70	250R	36.00				
3FP7A	35.00	250TH	38.50	5823	1.70	9001	5.40
3GP1	29.50	250TL	38.50	5842/417A	7.25	9002	4.20
3JP1	30.75	254W	25.00	5847/404A	9.40	9003	5.40
3JP7	30.75	274A	8.35	5881	3.10	9004	4.60
		274B	9.00	5963	1.34	9005	8.05
4-65	25.70	300B	10.80			9006	2.70
4-125A	35.50	310A	7.70	5964	1.55		
4B24	11.80	407A	5.90	5965	1.90	C1K	11.80
4B26	7.00	408A	4.95	6005	3.70	C6J/5C21	28.10
4B31	32.83	715A	20.00	6005/6AQ5W	3.75	FG17/5557	9.50
4D21	36.00			6073	3.00	FG57/5559	24.50
		715B	28.50	6073/OA2	3.00	FG154	108.00
4PR60B	107.00	715C	47.00	6074	3.45		
5ADP7	40.20	719A	88.00	6074/OB2	3.45	HF100	34.00
5BCP1/T55P1	40.20	807	3.15	6080	5.00	HF200	58.00
5BDP7	135.00	811A	6.50	6080WA	9.95	HF300	46.50
5BP1	33.35	812B	6.50	6082	5.60	KU23	47.00
5CBP1	60.00	814	23.50			LK24G/3C24	16.00
5CP1A	35.90	816	3.20	6099	15.35		
5CP1B	38.85	826	28.00	6101/6J6WA	5.35	LK54	36.00
		836	11.10	6136	2.70	LK72RK72	6.00
5D21	45.00	838	20.00	6146A	4.30	LK254W (4/66)	11.00
5FP7A	32.95					R1130B/1B59	22.90

LEWIS and KAUFMAN, Ltd.

One of the Oldest and Most Reliable Manufacturers of
Special Purpose Tubes for Industrial and Military Use

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WL-7671PC	22	WL-22825	20	WL-22915	19	WL-23017	23
WL-7676	28	WL-22826	19	WL-22916	18	WL-23018	23
WL-7681	22	WL-22827	19	WL-22917	18	WL-23027	20
WL-7685	14	WL-22828	19	WL-22923	28	WL-23028	20
WL-7691	15	WL-22829	19	WL-22925	19	WL-23029	21
WL-7703	23	WL-22830	19	WL-22926	19	WL-23034	20
WL-7730	26, 27	WL-22831	19	WL-22927	19	WL-23035	20
WL-7735A	25	WL-22832	19	WL-22928	18	WL-23036	20
WL-7740	23	WL-22833	19	WL-22929	20	WL-23041	19
WL-7741	24	WL-22834	19	WL-22930	18	WL-23042	19
WL-7748	14	WL-22835	18	WL-22931	18	WL-23046	19
WL-7750	15	WL-22836	19	WL-22932	18	WL-23049	19
WL-7903	28	WL-22837	19	WL-22933	19	WL-23052	12
WL-7904	28	WL-22838	19	WL-22934	18	WL-23059	19
WL-7982	15	WL-22839	18	WL-22935	19	WL-23060	19
WL-8008	21	WL-22840	18	WL-22936	19	WL-23063	14
WL-8032	14	WL-22841	19	WL-22937	19	WL-23095	16
WL-8043	12	WL-22842	19	WL-22938	19	WL-23102/102A	16
WL-8044	15	WL-22843	20	WL-22939	19	WL-23106	20
WL-8045	14, 15	WL-22844	19	WL-22940	19	WL-23108	20
WL-8057	28	WL-22845	19	WL-22941	20	WL-23109	20
WL-8073	24	WL-22846	19	WL-22942	19	WL-23111	25
WL-8074	24	WL-22847	19	WL-22951	19	WL-23165	14
WL-8075	24	WL-22848	20	WL-22952	19	WL-23178	16
WL-8094/199	16	WL-22849	19	WL-22953	19	WL-23185	15
WL-8105	24	WL-22850	19	WL-22954	18		
WL-8137	24	WL-22851	20	WL-22955	20		

DIRECT INTERCHANGEABILITY LIST



This Interchangeability Index has been prepared to assist you in finding exact replacement for electronic tubes in the Industrial, Transmitting and Special Purpose fields.

This listing is believed to be accurate to the date of issue. However, no responsibility is assumed by Westinghouse for its completeness or for its use, nor for any infringement of patents or other rights of third parties which may result from its use.

KEY TO ABBREVIATIONS

CR — Cathode Ray
CS — Camera or Storage
Glow — Glow Tube (Cold Cath.)
GA — Vacuum Gauge
Ig — Ignition
IR — Industrial Receiving
MD — Microwave Device

N — Neutron Detector
Photo — Phototube
Rect — Rectifier
Thyr — Thyatron
Trans. — Transmitting
VR — Voltage Regulator or Reference
HCDD — Hollow Cathode Discharge Device

INDEX OF COMMONLY USED MANUFACTURERS PREFIXES

A Radio Corporation of America
AH Marconi Wireless Telegraph Co.
AX Ampere Electronic Corp.
BL Bomac Laboratories
BR Standard Telephone & Cables Inc.
BT British Thomson-Houston Co.
CE Continental Electric Co.
CK Raytheon Manufacturing Corp.
DET Marconi Wireless Telegraph Co.
DR General Electronics Inc.
EE Electronic Enterprises Inc.
EL Electronics Inc.
F International Telephone & Telegraph
FG General Electric Co.
G General Motors Laboratories Inc.
GL General Electric Co.
HD C B S Hytron Co.

HV United Electronics Co.
HV Japanese Vacuum Manufacture
HY C B S Hytron Co.
KD Ferranti Ltd.
KI Westinghouse Electric Corp.
KU Westinghouse Electric Corp.
KU Kuthe Laboratories Inc.
KX Westinghouse Electric Corp.
M Mullard Electric Products Ltd.
ML MacLett Laboratories Inc.
MT English Electric Valve Co.
NL National Electronics Inc.
NU National Union Electric Corp.
PL Penta Laboratories Inc.
PL N. V. Philips Gloeilampenfabrieken
QK Raytheon Manufacturing Co.
R Radio Corporation of America

RK Raytheon Manufacturing Co.
SN Sylvania Electric Products Inc.
T Taylor Tubes Inc.
TT Taylor Tubes Inc.
UE United Electronics Co.
UX United Electronics Co.
V Varian Associates Inc.
VA Varian Associates Inc.
WE Western Electric Co.
WL Westinghouse Electric Corp.
WT Wetricon Co.
WTT Wetricon Co.
WX Westinghouse Electric Corp.
X Varian Associates Inc.
XG Mullard Electric Products Ltd.
Z General Electric Co.
ZP General Electric Co.

TUBE TYPE MARKED	CLASS OF TUBE	EQUIVALENT WESTINGHOUSE TYPE	TUBE TYPE MARKED	CLASS OF TUBE	EQUIVALENT WESTINGHOUSE TYPE	TUBE TYPE MARKED	CLASS OF TUBE	EQUIVALENT WESTINGHOUSE TYPE	TUBE TYPE MARKED	CLASS OF TUBE	EQUIVALENT WESTINGHOUSE TYPE
SBS	Ig	WL-5551A	2B21	Rect	WL-2X2A	AX-4-125A/6155	Trans	WL-4D21	AX-4-125A/6155	Trans	WL-5D22
SCS	Ig	WL-5552A	2B29	Trans	WL-829B	AX-4-250A	Trans	WL-5D22	AX-4-250A	Trans	WL-5D22
SDR	Ig	WL-5555	2B32	Trans	WL-832A	AX-4-250A/6156	Trans	WL-5D22	AX-4-250A/6156	Trans	WL-5D22
SDS	Ig	WL-5553B	2B94	Trans	WL-5894	BPM04	IR	WL-6669	BPM04	IR	WL-6669
TGRA	Rect	WL-575A	2C4	Thyr	WL-5696	DCG4-1000G	Rect	WL-866A	DCG4-1000G	Rect	WL-866A
TGRB	Rect	WL-872A	WL-2C39	Trans	WL-2C39A	DCX4-1000	Rect	WL-3B28	DCX4-1000	Rect	WL-3B28
TGRG	Thyr	WL-5563A	2C38	Trans	WL-2C39A	EL-C4H-1	Thyr	WL-6856	EL-C4H-1	Thyr	WL-6856
TVTA	Trans	WL-892	WL-2C39A	Trans	WL-2C39A	C4H-1	Thyr	WL-6856	C4H-1	Thyr	WL-6856
TVTB	Trans	WL-833A	2C39A	Trans	WL-2C39A	EL-C4H-2	Thyr	WL-6857	EL-C4H-2	Thyr	WL-6857
TVTC	Trans	WL-889A	GL-2C39B	Trans	WL-2C39B	C4H-2	Thyr	WL-6857	C4H-2	Thyr	WL-6857
TVTG	Trans	WL-5606	WL-2C39B	Trans	WL-2C39B	EL-C4J	Thyr	WL-6856	EL-C4J	Thyr	WL-6856
TVTP	Trans	WL-5771	WL-2C39B	Trans	WL-2C39B	C4J	Thyr	WL-6856	C4J	Thyr	WL-6856
WL-OA2	VR	WL-OA2	2C39B	Trans	WL-2C39B	EL-C4J/F	Thyr	WL-6857	EL-C4J/F	Thyr	WL-6857
OA2	VR	WL-OA2	GL-2D21	Thyr	WL-2D21	C4J/F	Thyr	WL-6857	C4J/F	Thyr	WL-6857
WL-OA3	VR	WL-OA3	PL-2D21	Thyr	WL-2D21	GL-KC4	Rect	WL-5575	GL-KC4	Rect	WL-5575
OA3	VR	WL-OA3	WL-2D21	Thyr	WL-2D21	PM04	I R	WL-6660	PM04	I R	WL-6660
OA3/VR75	VR	WL-OA3	2D21	Thyr	WL-2D21	QBL4-800	Trans	WL-4X500A	QBL4-800	Trans	WL-4X500A
WL-OB2	VR	WL-OB2	2D21W	Thyr	WL-5727	QGE04-20	Trans	WL-832A	QGE04-20	Trans	WL-832A
OB2	VR	WL-OB2	GL-2E24	Trans	WL-2E24	QV04-1000	Trans	WL-815	QV04-1000	Trans	WL-815
WL-OB3	VR	WL-OB3	WL-2E24	Trans	WL-2E24	QY04-15	Trans	WL-832A	QY04-15	Trans	WL-832A
OB3	VR	WL-OB3	2E24	Trans	WL-2E24	QY4-250	Trans	WL-5D22	QY4-250	Trans	WL-5D22
WL-OC3	VR	WL-OC3	GL-2E26	Trans	WL-2E26	TY4-350	Trans	WL-833A	TY4-350	Trans	WL-833A
OC3	VR	WL-OC3	WL-2E26	Trans	WL-2E26	QY4-500A	Trans	WL-4X500A	QY4-500A	Trans	WL-4X500A
OC3/VR105	VR	WL-OC3	2E26	Trans	WL-2E26	4-125A	Trans	WL-4D21	4-125A	Trans	WL-4D21
WL-OD3	VR	WL-OD3	2G57	Thyr	WL-5577	4-125A/4D21	Trans	WL-5D22	4-125A/4D21	Trans	WL-5D22
OD3	VR	WL-OD3	2H28	Thyr	WL-3B28	4-250A	Trans	WL-5D22	4-250A	Trans	WL-5D22
OD3/VR150	VR	WL-OD3	2H66	Rect	WL-866A	4-250A/5D22	Trans	WL-5D22	4-250A/5D22	Trans	WL-5D22
OG3	VR	WL-5651	2V/400A	Rect	WL-866A	GL-4-400A	Trans	WL-400A	GL-4-400A	Trans	WL-400A
AC-1C	Rect	WL-3B22	2XM600A	Rect	WL-866A	WL-4-400A	Trans	WL-400A	WL-4-400A	Trans	WL-400A
CT1-2500	Thyr	WL-5559	2X2/879	Rect	WL-2X2A	4-400A	Trans	WL-400A	4-400A	Trans	WL-400A
EL-1C	Rect	WL-3B22	GL-2X2A	Rect	WL-2X2A	GL-4-1000A	Trans	WL-4-1000A	GL-4-1000A	Trans	WL-4-1000A
EL-C1B	Thyr	WL-5664	WL-2X2A	Rect	WL-2X2A	WL-41000A	Trans	WL-4-1000A	WL-41000A	Trans	WL-4-1000A
EL-C1BA	Thyr	WL-5664	2X2A	Rect	WL-2X2A	4-1000A	Trans	WL-813	4-1000A	Trans	WL-813
EL-C1J	Thyr	WL-6014	EM-2.5	Rect	WL-7018	4CX250B	Trans	WL-7203	4CX250B	Trans	WL-7203
GL-C1J	Thyr	WL-6014	EL-C3J	Thyr	WL-5632	4G23	Thyr	WL-3C23	4G23	Thyr	WL-3C23
EL-C1JA	Thyr	WL-6014	C3J	Thyr	WL-5632	4G3	Thyr	WL-5632	4G3	Thyr	WL-5632
EL-C1K	Thyr	WL-6014	EL-C3JA	Thyr	WL-7306A	4G/280K	Thyr	WL-5727	4G/280K	Thyr	WL-5727
EXU1	Rect	WL-3B28	EL-C3JAL	Rect	WL-7556A	4H72	Rect	WL-872A	4H72	Rect	WL-872A
MXK-1	MD	WL-6781	EL-3C/L	Rect	WL-7015	4H88	Rect	WL-8008	4H88	Rect	WL-8008
TQ1-2	Thyr	WL-3C23	EL-3C	Rect	WL-7014	4T100	Trans	WL-813	4T100	Trans	WL-813
XG1-2500	Thyr	WL-5559	QB3/300	Trans	WL-4D21	4T250A1	Trans	WL-813	4T250A1	Trans	WL-813
XR1-3200	Thyr	WL-22994	QGE03/10	Trans	WL-5763	4X250B	Trans	WL-4X500A	4X250B	Trans	WL-4X500A
XR1-6400	Thyr	WL-656H-1	QGE03/12	Trans	WL-6360	GL-4X500A	Trans	WL-4X500A	GL-4X500A	Trans	WL-4X500A
1G50	Thyr	WL-927	QV03/10	Trans	WL-5763	WL-4X500A	Trans	WL-4X500A	WL-4X500A	Trans	WL-4X500A
1P32	Photo	WL-1P40	QV03-12	Trans	WL-4D21	4Y25	Thyr	WL-807	4Y25	Thyr	WL-807
GL-1P40	Photo	WL-1P40	QY3-125	Trans	WL-866A	B75	Thyr	WL-5559	B75	Thyr	WL-5559
WL-1P40	Photo	WL-1P40	RG3-250A	Rect	WL-3B28	DCG5/5000GB	Rect	WL-8008	DCG5/5000GB	Rect	WL-8008
1P40	Photo	WL-1P40	RR3-250	Rect	WL-4B24	DCG5/5000GS	Rect	WL-872A	DCG5/5000GS	Rect	WL-872A
1R21	Ig	WL-5550	T-3C	Rect	WL-1000T	PM05	I R	WL-5654	PM05	I R	WL-5654
B2A	Thyr	WL-2050	GL-3C23	Thyr	WL-3C23	QE05/40	Trans	WL-6146	QE05/40	Trans	WL-6146
BLT2-1	Trans	WL-5762	WL-3C23	Thyr	WL-3C23	QE05/40H	Trans	WL-6159	QE05/40H	Trans	WL-6159
D2M9	IR	WL-6663	3C31	Thyr	WL-5664	QV21	Thyr	WL-5557	QV21	Thyr	WL-5557
DQ2	Rect	WL-866A	3E29	Trans	WL-829B	XG5-500	Thyr	WL-4E27A	XG5-500	Thyr	WL-4E27A
DX2	Rect	WL-3B28	3G15	Thyr	WL-5664	5-125B	Trans	WL-807	5-125B	Trans	WL-807
H2-10	Rect	WL-2X2A	3G501A	Thyr	WL-6H-1	5B/250A	Trans	WL-807	5B/250A	Trans	WL-807
M-2K-2.5	Rect	WL-7018	3H150J	Trans	WL-2C39B	SCEP11	C R	WL-807	SCEP11	C R	WL-807
M-2K-215	Rect	WL-832A	3V390A	Thyr	WL-5559	SCEP16	C R	WL-807	SCEP16	C R	WL-807
P2-12	Trans	WL-829B	3X100A5	Trans	WL-3X250A3	SC11	Thyr	WL-5521	SC11	Thyr	WL-5521
P2-40	Trans	WL-829B	3X100A11	Trans	WL-2C39B	5C/100A	Trans	WL-813	5C/100A	Trans	WL-813
P2-40B	Trans	WL-829B	GL-3X2500A3	Trans	WL-3X2500A3	5DEP1	C R	WL-5D22	5DEP1	C R	WL-5D22
PC2/500	Trans	WL-803	3X2500A3	Trans	WL-3X2500A3	5DEP2	C R	WL-5D22	5DEP2	C R	WL-5D22
QD2/250	Trans	WL-813	WL-3X2500F3	Trans	WL-3X2500F3	PL-5D22	Trans	WL-5D22	PL-5D22	Trans	WL-5D22
QQE02/5	Trans	WL-6939	3X2500F3	Trans	WL-3X2500F3	5D22	Trans	WL-5D22	5D22	Trans	WL-5D22
QV02/6	Trans	WL-6939	QB-3.5-750	Trans	WL-5D22	5FP7	C R	5FP7A	5FP7	C R	5FP7A
QY2-100	Trans	WL-813	AX-4-125A	Trans	WL-4D21	5FP7A	C R	5FP7A	5FP7A	C R	5FP7A
TQ2	Thyr	WL-5557									
TX2/3	Thyr	WL-22994									
TX2/6	Thyr	WL-6H-1									
XG02-6400	Thyr	WL-105									
2B4	Thyr	WL-885									

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Direct Interchangeability List

continued

TUBE TYPE MARKED	CLASS OF TUBE	EQUIVALENT WESTINGHOUSE TYPE	TUBE TYPE MARKED	CLASS OF TUBE	EQUIVALENT WESTINGHOUSE TYPE	TUBE TYPE MARKED	CLASS OF TUBE	EQUIVALENT WESTINGHOUSE TYPE
5FP7B	C R	5FP7B	7H57	Rect	WL-857B	EN32	Thyr	WL-2050
5FP11	C R	5FP11	7MP7	C R	7MP7	FG-32	Rect	WL-5558
5FP11A	C R	5FP11A	7P4	C R	7P4	WL-32	Rect	WL-5558
5F22A	Trans	5F22A	8F66R	Trans	WL-6166A	FG-33	Thyr	WL-5720
5H69A	Rect	WL-869B	8T92	Trans	WL-892	BK34	Ig	WL-5553B
5R4-GY	Rect	WL-5R4-GYB	8T92R	Trans	WL-892R	REL34	Trans	WL-2C40
5R4-GYA	Rect	WL-5R4-GYB	D2M9	I R	WL-6663	BK34A	Ig	WL-5553B
5R4-GYB	Rect	WL-5R4-GYB	TT10	Trans	WL-813	BK34B	Ig	WL-5553B
5S1	Trans	WL-807	10E/9	Trans	WL-832A	EC035	I R	WL-5681
5T33	Trans	WL-833A	10E/587	Trans	WL-807	TE-35	I R	WL-5684
5UP1	C R	5UP1	10E/11-141	Trans	WL-807	EL37	I R	WL-5881
5WP11	C R	5WP11	10FP4	C R	10FP4A	RK-39	Trans	WL-807
5ZP16	C R	5ZP16	10FP4A	C R	10FP4A	FG-41	Thyr	WL-5830
EL-C6J	C R	WL-5C21	10KP7	C R	10KP7	WL-41	Thyr	WL-5830
C6J	Thyr	WL-5C21	10KP7A	C R	10KP7A	BK42	Ig	WL-5551A
C6J/5C21	Thyr	WL-5C21	10KP7B	C R	10KP7B	CE-42	Photo	WL-922
EL-C6J/A	Thyr	WL-C6H-1	10SP4	C R	10SP4	EB42	Rect	WL-857B
C6J/A	Thyr	WL-C6H-1	10UP14	C R	10UP14A	BK42A	Ig	WL-5551A
C6J/A/5685	Thyr	WL-C6H-1	10UP14A	C R	10UP14A	BK42B	Ig	WL-5551A
EL-C6J/F	Thyr	WL-C6H-2	10WP7	C R	10WP7	L-FTX44-5	Thyr	WL-5551A
C6J/F	Thyr	WL-C6H-2	10WP7A	C R	10WP7A	TX44-5	Thyr	WL-5665
EL-C6J/K	Thyr	WL-C6H-1	GU12	Rect	WL-868A	BK46	Ig	WL-5555
EL-C6J/KF	Thyr	WL-C6H-1	TM12	I R	WL-614	GS-47X	Photo	WL-927
C6J/KF	Thyr	WL-C6H-2	X-12	M D	WL-124	HD51	V R	WL-0A2
EL-C6J/KL	Thyr	WL-C6H-3	12ABP7	C R	12ABP7A	TS51	I R	WL-5654
C6J/KL	Thyr	WL-C6H-3	12ABP7A	C R	12ABP7A	51A	Photo	WL-927
EL-C6J/L	Thyr	WL-7321	12AT7	I R	WL-6679	R-51A	Photo	WL-927
C6J/L	Thyr	WL-7321	12AT7WA	I R	WL-6201	HD52	V R	WL-0B2
EL-C6H-1	Thyr	WL-C6H-1	12AT7WA	I R	WL-6201	TE-54	I R	WL-5687
WL-C6H-1	Thyr	WL-C6H-1	12AU7	I R	WL-6680	V55	M D	WL-134
C6H-1	Thyr	WL-C6H-1	12AU7WA	I R	WL-6189	V56	M D	WL-5725
EL-C6H-2	Thyr	WL-C6H-2	12AX7	I R	WL-6681	FG-57	Thyr	WL-5559
WL-C6H-2	Thyr	WL-C6H-2	12AX7A	I R	WL-7729	MT-57	Thyr	WL-5559
C6H-2	Thyr	WL-C6H-2	12BY7	I R	WL-7733	PL-57	Thyr	WL-5559
EL-C6H-3	Thyr	WL-C6H-3	12BY7A	I R	WL-7733	RL-57	Thyr	WL-5559
WL-C6H-3	Thyr	WL-C6H-3	12SP7	C R	12SP7D	TG-57	Thyr	WL-5559
C6H-3	Thyr	WL-C6H-3	12SP7B	C R	12SP7D	WL-57	Thyr	WL-5559
DD6	Thyr	WL-6663	12SP7D	C R	12SP7D	V-58C	M D	WL-191
DD6G	I R	WL-6663	DG13-32	C R	5UP1	DP61	I R	WL-5654
DQ6	I R	WL-869B	MF13-1	C R	5FP7A	HY-61	Trans	WL-807
EL-6C	Rect	WL-670	X-13	M D	R-61A	HY-61/807	Trans	WL-807
EL-6C/L	Rect	WL-7017	X-13B	M D	WL-122	R-61A	Photo	WL-930
T-6C	Rect	WL-670	13D2	M D	WL-121	ET43	Photo	WL-930
QEO6/50	Rect	WL-807	AR-14	Ig	WL-5551A	B65	I R	WL-5692
QEO6/40	Trans	WL-589A	MXK-14	M D	WL-6310	BK66	Ig	WL-5550
QVO6/40	Trans	WL-589A	P-14	Thyr	WL-5557	EC70	I R	WL-5718
QVO6/40A	Trans	WL-589A	AR-14T	Ig	WL-5551A	EL71	I R	WL-5902
QVO6/20	Trans	WL-6146	AR-14TP	Ig	WL-5551APC	RKR-72	Rect	WL-4B15
6AB4	I R	WL-6664	AR-14TWS	Ig	WL-5551APC	VR-75T	V R	WL-0A3
6AK5	I R	WL-5654	G15F	Photo	WL-927	VR-75ST	V R	WL-0A3
6AK5W	I R	WL-5654	MXK-15	M D	WL-6312	BT77	Thyr	WL-C6H-1
6AK5W/5654	I R	WL-5654	EL-C16J	Thyr	WL-5665	D77	I R	WL-5683
6AL5	I R	WL-6663	GS-16S0	Photo	WL-1P40	KT77	I R	WL-5681
6AQ5	I R	WL-6669	MXK-16	M D	WL-6314	QD77	I R	WL-5725
6AS6	I R	WL-6AS6	QV16/40A	Trans	WL-589A	CC81E	I R	WL-6201
6AS7G	I R	WL-6AS7GA	TT16	Trans	WL-4D21	EC81C	I R	WL-6679
6AS7GA	I R	WL-6AS7GA	TT16D	Trans	WL-4D21	EB10C	I R	WL-6201
6AU6	I R	WL-6136	16AKP7	C R	16AKP7	FG-81A	Thyr	WL-81A
6AU6W	I R	WL-6136	16ALP7	C R	16ALP7	WL-81A	Thyr	WL-81A
6AU6WA	I R	WL-6136	DET17	Thyr	WL-610	EBF82	I R	WL-6678
6B32	I R	WL-6663	EE-17	Thyr	WL-5557	EC82	I R	WL-6680
6BA6	I R	WL-6660	FG-17	Thyr	WL-5557	EC83A	I R	WL-6681
6BH6	I R	WL-6661	HT-17	Thyr	WL-5557	EC84	I R	WL-6386
6BJ5	I R	WL-6662	MT17	Thyr	WL-5557	84A3	Photo	WL-923
6C31	I R	WL-614	RL-17	Thyr	WL-5557	85A2	V R	WL-5651
6CB6	I R	WL-7732	TT-17	Thyr	WL-5557	EB8CC	I R	WL-6922
6CB6A	I R	WL-7732	WE-17	Thyr	WL-5557	KT88	I R	WL-6550
6CL6	I R	WL-6677	WL-17	Thyr	WL-5557	E90F	I R	WL-6661
6D2	I R	WL-6663	17	Thyr	WL-5557	EL90	I R	WL-6669
6DB6	I R	WL-6954	P17A	Trans	WL-807	VR-90	V R	WL-0B3
6F31	I R	WL-6660	MXK-18	M D	MXK-16	VR-90ST	I R	WL-0B3
6F33	I R	WL-6AS6	CE-20	Photo	WL-927	BT-91	Thyr	WL-2293A
6F50R	Trans	WL-4X500A	NU-20	Photo	WL-927	E91AA	I R	WL-6663
6G10	Thyr	WL-105	20A3	Photo	WL-927	E91N	Thyr	WL-2021
6G45	Thyr	WL-C6H-1	KD21	V R	WL-5727	EAA91	I R	WL-6683
6K4	I R	WL-5718	PL21	V R	WL-0A3	EB91	I R	WL-6663
6L6	I R	WL-5881	RL-21	Thyr	WL-2D21	EN91	I R	WL-2021
6L6G	I R	WL-5881	21A6	Thyr	WL-81A	EC92	I R	WL-6684
6L6GA	I R	WL-5881	21EWP4	C R	21EWP4	EN92	Thyr	WL-5696
6L6GB	I R	WL-5881	CE-23	Photo	WL-923	VA-92	M D	WL-118
6L6G	I R	WL-5881	NU-23	Photo	WL-923	VA-92B	M D	WL-116
6L6W	I R	WL-5881	BK24	Ig	WL-5552A	VA-92C	M D	WL-110
6L6WA	I R	WL-5881	KD24	Ig	WL-5552A	VA-92D	M D	WL-110
6L6WB	I R	WL-5881	BK24A	Ig	WL-5552A	EF93	I R	WL-6660
6L13	I R	WL-7729	BK24B	Ig	WL-5552A	EF94	I R	WL-6136
6L41	Trans	WL-5763	ATS25	Trans	WL-807	EF95	I R	WL-5654
6S17	I R	WL-5693	G25/3000	Rect	WL-866A	EF95/25	I R	WL-5654
6S17-GT	I R	WL-5691	KD25	V R	WL-0B3	EF96	I R	WL-5654
6S17-WGT	I R	WL-5691	NU-25	Photo	WL-927	ML-100	Rect	WL-5575
6SN7-GT	I R	WL-5692	ATS25A	Trans	WL-807	TXM100	Thyr	WL-2021
6SN7-GTA	I R	WL-5692	CE-25C	Photo	WL-927	WL-102A	Rect	WL-402A
6UB	I R	WL-6678	25B6-G	I R	WL-5824	X-103	Rect	WL-4021
6UBA	I R	WL-6678	MXK-26	M D	WL-122	FG-104	Rect	WL-5561
QV07-40	Trans	WL-829B	BT27	Thyr	WL-105	WL-104	Rect	WL-5561
7ABP7	C R	7ABP7A	D27	I R	WL-6663	WTT-104	Rect	WL-575A
7ABP7A	C R	7ABP7A	RK-28A	I R	WL-803	AX-105	Thyr	WL-105
7AUP4	C R	7AUP4A	CE-30	Photo	WL-1P40	FG-105	Thyr	WL-105
7BP7	C R	7BP7A	NU-30	Photo	WL-930	MT-105	Thyr	WL-105
7BP7A	C R	7BP7A	CE-30C	Photo	WL-930	PL-105	Thyr	WL-105
7BP7B	C R	7BP7B	CE-30Q	Thyr	WL-5557	RL-105	Thyr	WL-105
7C24	Trans	WL-5762	ECC32	I R	WL-5692	VR-105	V R	WL-0C3
7F25A	Trans	WL-4-1000A						

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WL-105	Thyr	WL-105	ML-207	Trans	WL-207	255B	Rect	WL-869B
WTT-105	Trans	WL-892	RX-207	Rect	WL-670	FG-258A	Ig	WL-553B
105	Thyr	WL-105	UE-207	Trans	WL-207	FG-258B	Ig	WL-553B
VR-105MT	V R	WL-OC3	WL-207	Trans	WL-207	FG-259B	Ig	WL-555A
PL-106	Thyr	WL-6858	207	Trans	WL-207	V-260	M D	WL-6310
WL-106	M D	WL-106	WT-210-0001	Thyr	WL-2021	SRX-262	M D	WL-109
WTT-106	Thyr	WL-7307A	WT-210-0004	Thyr	WL-2050	VA-262	Rect	WL-187
WL-107	M D	WL-107	WT-210-0008	Rect	WL-265A	WT-262	M D	WL-666A
STV108/30	V R	WL-082	WT-210-0011	V R	WL-OC3	WT-269	Rect	WL-OC3
WL-108	M D	WL-108	WT-210-0015	Thyr	WL-5557	V-270	M D	WL-6312
WTT-108	Thyr	WL-3C23	WT-210-0016	V R	WL-OB3	FG-271	Ig	WL-5551A
108C1	V R	WL-OB2	WT-210-0017	Thyr	WL-6856	WE-272	Thyr	WL-5557
WL-109	M D	WL-109	WT-210-0018	V R	WL-OD3	WT-272	Thyr	WL-5557
WL-110	M D	WL-110	WT-210-0027	V R	WL-872A	WT-272A	Thyr	WL-5557
WTT-110	Thyr	WL-5830	WT-210-0038	Rect	WL-172	WE-274B	Rect	WL-584-GYB
WL-111	M D	WL-111	WT-210-0043	Thyr	WL-5796	WT-274	V R	WL-OB3
WTT-111	Thyr	WL-5559	WT-210-0044	Rect	WL-5755A	WT-280	Thyr	WL-C6H-1
WTT-112	Thyr	WL-632B	WT-210-0045	Trans	WL-892	V-290	M D	WL-6314
WL-113	M D	WL-113	WT-210-0047	Thyr	WL-3C23	WT-294	V R	WL-OD3
WTT-113	Thyr	WL-676	WT-210-0051	V R	WL-OC2	FG-303	Thyr	WL-664
WL-114	M D	WL-114	WT-210-0054	Thyr	WL-5830	WT-308	Rect	WL-C6H-1
WL-115	M D	WL-115	WT-210-0056	Thyr	WL-5559	F-307A	Trans	WL-207
WL-116	M D	WL-116	WT-210-0057	Thyr	WL-632B	CE-308	Thyr	WL-C6H-1
WTT-116	Thyr	WL-5664	WT-210-0058	Thyr	KU-676	ML-308	Trans	WL-5668
WL-117	M D	WL-117	WT-210-0059	Thyr	WL-677	ML-308R	Trans	WL-5669
WTT-117	Thyr	WL-5557	WT-210-0062	Thyr	WL-5557	B309	I R	WL-5679
X-117	M D	WL-5D22	WT-210-0063	Thyr	WL-5685	CE-309	Thyr	WL-5557
WL-118	Thyr	WL-118	WT-210-0066	Thyr	WL-5685	CE-311	Thyr	WL-3C23
WTT-118	Thyr	WL-105	WT-210-0069	Thyr	WL-5557	F-319A	Rect	WL-872A
WL-119	M D	WL-119	WT-210-0070	Ig	WL-5550	WE-319A	Rect	WL-872A
WTT-119	Thyr	WL-172	WT-210-0071	Ig	WL-5551A	CE-320	Thyr	WL-7307A
WL-121	M D	WL-121	WT-210-0072	Ig	WL-5552A	320A	Thyr	WL-7307A
WL-122	M D	WL-122	WT-210-0073	Ig	WL-5553B	WE-322A	Trans	WL-803
WL-123	M D	WL-123	WT-210-0074	Thyr	WL-105	B329	I R	WL-6680
WL-124	M D	WL-124	WT-210-0075	Ig	WL-5822A	B339	I R	WL-6681
T-125	Trans	WL-810	WT-210-0077	Thyr	WL-5727	QK-349	M D	WL-6249B
E-125A	Trans	WL-4D21	WT-210-0078	Thyr	WL-172	F-353A	Rect	WL-872A
WL-126	M D	WL-126	WT-210-0079	Thyr	WL-105	F-357A	Rect	WL-857B
WTT-127	Trans	WL-133A	WT-210-0086	Trans	WL-5551A	F-357B	Rect	WL-857B
WL-128	M D	WL-128	WT-210-0093	Trans	WL-5668	QK-363	M D	WL-6177
WL-129	M D	WL-129	WT-210-0100	Thyr	WL-872A	F-363A	Trans	WL-892
WL-130	M D	WL-130	WT-210-0106	Thyr	WL-7306A	F-366A	Rect	WL-866A
BR-132	Trans	WL-5762	WT-210-0116	Thyr	WL-632B	WE-366A	Rect	WL-866A
WL-132	M D	WL-132	WT-210-0120	Thyr	KU-610	F-369B	Rect	WL-869B
WL-133	M D	WL-133	WT-210-0134	Thyr	WL-678	WT-373	Rect	WL-701B
WL-134	M D	WL-134	WT-210-0137	Thyr	WL-502A	F-375A	Rect	WL-575A
WTT-134	Thyr	WL-5665	WT-210-0141	Thyr	WL-5796	WT-382	Rect	WL-872A
WL-135	M D	WL-135	WT-210-0147	Ig	WL-5552A	Q400-1	Trans	WL-5D22
WL-136	M D	WL-136	WT-210-0149	Ig	WL-5551A	WE-403A	I R	WL-565A
WL-137	M D	WL-137	WT-210-0152	Ig	WL-5553B	WE-409A	I R	WL-6A5E
WL-138	M D	WL-138	WT-210-0156	Ig	WL-5551A	GL-414	Thyr	WL-414
WL-139	M D	WL-139	WT-210-0157	Ig	WL-5552A	WL-414	Thyr	WL-414
WL-140	M D	WL-140	WT-210-0158	Ig	WL-5551A	GL-415	Ig	WL-5550
WL-141	M D	WL-141	WT-210-0159	Ig	WL-5552A	QK-417	M D	WL-6310
B142	Trans	WL-833A	WT-210-0162	Thyr	WL-7509A	GL-426	Rect	WL-701B
KX142	Rect	WL-2X2A	WT-210-0165	Ig	WL-5553B	QK-436	M D	WL-6316
C143	Trans	WL-113	WT-210-0170	Ig	WL-5522	WT-439	Thyr	WL-701B
C144	Trans	WL-829B	WT-210-0179	Ig	WL-C6H-1	440	Rect	WL-701B
WL-146	M D	WL-146	WT-210-0181	Thyr	WL-C6H-3	444	Rect	WL-3B22
WL-147	M D	WL-147	WT-210-0183	Thyr	WL-7556A	GL-452	Trans	WL-892
WL-148	M D	WL-148	WT-210-0188	Thyr	WL-601A	WL-456	Rect	WL-456
WTT-149	Thyr	WL-172	WT-210-0234	Thyr	WL-5665	ZP-468	C R	7BP7B
QS150-40	V R	WL-OD3	WT-210-0245	Thyr	WL-C6H-2	GL-473	Trans	WL-5736
SM150-30	M D	WL-0A2	WT-210-0246	Ig	WL-473	WL-473	Trans	WL-5736
STV150/30	V R	WL-0A2	WT-210-0249	Ig	WL-5551APC	WL-473	Trans	WL-5736
VR-150-30	V R	WL-OD3	WT-210-0252	Ig	WL-5552APC	X-474	Trans	WL-2C39A
VR-150MT	V R	WL-0A2	WT-210-0274	Ig	WL-7669	GL-475	C R	5FP7B
VR-150ST	V R	WL-OD3	WT-210-0275	Ig	WL-7671	ZP-475	C R	5FP7B
150C1	V R	WL-0A2	WT-210-0283	Ig	WL-7670	WL-481	Rect	WL-481B
150C2	V R	WL-0A2	WT-210-0285	Ig	WL-7671PC	WL-481A	Rect	WL-481B
150C3	V R	WL-OD3	WT-210-0290	Ig	WL-7669PC	WL-481B	Rect	WL-481B
150C4	V R	WL-0A2	WT-210-0306	Ig	WL-5553B	GL-490	Rect	WL-701B
V151	M D	WL-6316	AH213	Rect	WL-869B	495	Rect	WL-701B
B152	I R	WL-6679	CE-213A	Rect	WL-7018	GL-502	Thyr	WL-502A
D152	I R	WL-6683	VR216A	Rect	WL-7018	ZP-502	Thyr	WL-502A
V153	M D	WL-6315	AH217	Rect	WL-872A	502	Rect	WL-502A
V154	M D	WL-133	VA-218B	M D	WL-176	GL-502A	Thyr	WL-502A
V157	M D	WL-138	CE-220	Rect	WL-481B	502A	Thyr	WL-502A
Q160-1	Trans	WL-4D21	CE-221	Rect	WL-670	GL-506	Ig	WL-6228
8K168B	Ig	WL-5822A	CE-222	Rect	WL-3B22	GL-509	Trans	WL-889A
FG-172	Thyr	WL-172	CE-223	Rect	WL-X-224	GL-509R	Rect	WL-5667
WL-172	Thyr	WL-172	CE-224	Rect	WL-4824	GL-510	Rect	WL-857B
172	Thyr	WL-172	Z-225	Rect	WL-866A	GL-512	Rect	WL-575A
WL-176	M D	WL-176	ECC-230	I R	WL-6080	GL-512A	Rect	WL-575A
WL-177	M D	WL-177	230N	Rect	WL-5558	VH-550A	Rect	WL-866A
C178	Trans	WL-5894	CE-232	Rect	WL-5558	VE-550A	Rect	WL-3B28
C180	Trans	WL-832A	SRX-232	M D	WL-6781	P552/E	Trans	WL-5667
G180-2M	V R	WL-OD3	FG-235A	Ig	WL-5553A	QMS59	Rect	WL-5726
WL-186	M D	WL-186	FG-238B	Ig	WL-5555	WT-568	Rect	WL-7018
WL-187	M D	WL-187	VA-242	M D	WL-177	CK-569AX	I R	WL-5678
WL-188	M D	WL-188	CE-245	Rect	WL-7016	CK-571AX	I R	WL-5886
ECC189	I R	WL-6922	VA-246	M D	WL-119	GL-572	Trans	WL-2C39A
WL-189	M D	WL-189	WT-246	M D	WL-2050	ZP-572	Trans	WL-2039A
EF190	R	WL-6676	VA249	D	WL-186	DR-575A	Rect	WL-575A
BR191	Trans	WL-5762	G250/3000	Rect	WL-866A	EE-575A	Rect	WL-575A
WL-191	M D	WL-191	RG6250/3000	Thyr	WL-5557	F-575A	Rect	WL-575A
ML-199	Rect	WL-8094	RG250/3000	Rect	WL-866A	GL-575A	Rect	WL-575A
ML-200	Rect	WL-5576	E-250A	Trans	WL-5D22	ML-575A	Rect	WL-575A
AH201	Rect	WL-866A	K251	Rect	WL-866A	WL-575A	Rect	WL-575A
VA-204	M D	WL-146	HF-255	Rect	WL-769B	575A	Rect	WL-575A
A-206	Rect	WL-579B	PL-255	Thyr	WL-414	WL-579	Rect	WL-579B
GL-207	Trans	WL-207	255A	Rect	WL-869B	WL-579A	Rect	WL-579B

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WL-579B	Rect	WL-579B	BL-803	M D	WL-6781	C866	Rect	WL-866A
579B	Rect	WL-579B	GL-803	Trans	UX-866	WL-803	Rect	WL-866A
NL-600	Rect	WL-3822	HF-803	Trans	866	Trans	Rect	WL-866A
NL-604	Rect	WL-7014	T-803	Trans	WL-803	C866A	Rect	WL-866A
NL-604L	Rect	WL-7015	WL-803	Trans	WL-803	CE-866A	Rect	WL-866A
NL-606	Rect	WL-7016	803	Trans	WL-803	EE-866A	Rect	WL-866A
WT-606	Thyr	WL-2021	BL-806	M D	WL-189	GL-866A	Rect	WL-866A
NL-606L	Rect	WL-7017	BL-807	M D	HF-866A	WL-188	Rect	WL-866A
KU-610	Glow	KU-610	DR-807	Trans	WL-807	ML-866A	Rect	WL-866A
ACC612	Thyr	WL-C6H-1	GL-807	Trans	WL-807	NU-866A	Rect	WL-866A
R-612G	Rect	WL-2X2A	WL-807	Trans	WL-807	RCA-866A	Rect	WL-866A
WL-613	Rect	WL-613	807	Trans	WL-807	RK-866A	Rect	WL-866A
613	Rect	WL-613	DR-810	Trans	WL-810	T-866A	Rect	WL-866A
NL-615	Rect	WL-7018	GL-810	Trans	WL-810	UE-866A	Rect	WL-866A
WL-616	Rect	WL-5575	ML-810	Trans	WL-810	WL-866A	Rect	WL-866A
KU-618	Thyr	KU-618	T-810	Trans	WL-810	866A	Rect	WL-866A
ZP-620	Trans	WL-2C40	UE-810	Trans	WL-810	HY-866JR	Rect	WL-816
WL-624	Thyr	WL-624	WL-810	Trans	WL-810	NU-866JR	Rect	WL-816
GL-627	Thyr	WL-627	810	Trans	WL-810	866JR	Rect	WL-816
KU-627	Thyr	WL-627	DR-811	Trans	WL-811A	UV-869	Rect	WL-869B
WL-627	Thyr	WL-627	GL-811	Trans	WL-811A	869	Rect	WL-869B
627	Thyr	WL-627	NU-811	Trans	WL-811A	UV-869A	Rect	WL-869B
WL-629	Thyr	WL-629	WL-811	Trans	WL-811A	869A	Rect	WL-869B
629	Thyr	WL-629	811	Trans	WL-811A	CE-869B	Rect	WL-869B
WL-630	Thyr	WL-2050	GL-811A	Trans	WL-811A	DR-869B	Rect	WL-869B
WT-630	Thyr	WL-2050	WL-811A	Trans	WL-811A	EE-869B	Rect	WL-869B
WL-630A	Thyr	WL-2050	811A	Trans	WL-811A	F-869B	Rect	WL-869B
WL-631	Thyr	WL-5559	DR-812	Trans	WL-812A	GL-869B	Rect	WL-869B
WL-631	Thyr	WL-5559	GL-812	Trans	WL-812A	ML-869B	Rect	WL-869B
NL-632B	Thyr	WL-632B	NU-812	Trans	WL-812A	WL-869B	Rect	WL-869B
WL-632B	Thyr	WL-632B	WL-812	Trans	WL-812A	869B	Rect	WL-869B
KU-634	Thyr	WL-677	812	Trans	WL-812A	WL-869BL	Rect	WL-869BL
NL-635	Rect	WL-7019	GL-812A	Trans	WL-812A	869BL	Rect	WL-869BL
WT-635	Thyr	WL-C6H-1	WL-812A	Trans	WL-812A	872	Rect	WL-872A
NL-635L	Rect	WL-7020	812A	Trans	WL-812A	DR-872A	Rect	WL-872A
WL-635P	Rect	WL-635P	DR-813	Trans	WL-813	EE-872A	Rect	WL-872A
KX-642	Glow	KX-642	GL-813	Trans	WL-813	F-872A	Rect	WL-872A
WL-651	Ig	WL-5552A	ML-813	Trans	WL-813	GL-872A	Rect	WL-872A
WL-652	Ig	WL-5551A	RK-813	Trans	WL-813	WL-872A	Rect	WL-872A
WL-653	Ig	WL-5555	T-813	Trans	WL-813	RK-872A	Rect	WL-872A
WL-653A	Ig	WL-5555	UE-813	Trans	WL-813	UE-872A	Rect	WL-872A
WL-653B	Ig	WL-5555	GL-813	Trans	WL-813	WL-872A	Rect	WL-872A
DF654	I R	WL-5678	813	Trans	WL-813	872A	Rect	WL-872A
WL-655	Ig	WL-5553B	GL-815	Trans	WL-815	T-875A	Rect	WL-875A
WL-656	Ig	WL-5552A	WL-815	Trans	WL-815	879	Rect	WL-2X2A
WL-657	Ig	WL-5551A	815	Trans	WL-815	GL-880	Trans	WL-5658
WL-658	Ig	WL-5553B	DR-816	Rect	WL-816	ML-880	Trans	WL-5658
K1-664	Rect	WL-4824	GL-816	Rect	WL-816	UE-880	Trans	WL-5658
WL-670	Thyr	WL-670	WL-816	Rect	WL-816	WL-880	Trans	WL-5658
WL-672	Thyr	WL-672A	816	Rect	WL-816	880	Trans	WL-5658
GL-672	Thyr	WL-672A	BL-829	M D	WL-177	GL-885	Thyr	WL-885
672	Thyr	WL-672A	GL-829	Trans	WL-829B	RCA-885	Thyr	WL-885
WL-672A	Thyr	WL-672A	NU-829	Trans	WL-829B	RX-885	Thyr	WL-885
WL-672A	Thyr	WL-672A	RK-829	Trans	WL-829B	WL-885	Thyr	WL-885
672A	Thyr	WL-672A	829	Trans	WL-829B	885	Thyr	WL-885
GL-673	Rect	WL-673	829A	Trans	WL-829B	889	Trans	WL-889A
ML-673	Rect	WL-673	GL-829B	Trans	WL-829B	F-889A	Trans	WL-889A
WL-673	Rect	WL-673	ML-829B	Trans	WL-829B	GL-889A	Trans	WL-889A
673	Rect	WL-673	RK-829B	Trans	WL-829B	ML-889A	Trans	WL-889A
KU-676	Thyr	KU-676	WL-829B	Trans	WL-829B	UE-889A	Trans	WL-889A
676	Thyr	KU-676	829B	Trans	WL-829B	WL-889A	Trans	WL-889A
WL-677	Thyr	WL-677	T830B	Photo	WL-930	889A	Trans	WL-889A
677	Thyr	WL-677	GL-832	Trans	WL-832A	889R	Trans	WL-889A
WL-678	Thyr	WL-678	NU-832	Trans	WL-832A	F-889A	Trans	WL-889A
WL-678	Thyr	WL-678	832	Trans	WL-832A	GL-889A	Trans	WL-889A
678	Thyr	WL-678	DR-832A	Trans	WL-832A	ML-889A	Trans	WL-889A
WL-679	Ig	WL-5554	GL832A	Trans	WL-832A	UE-889A	Trans	WL-889A
WL-681	Ig	WL-5550	ML-832A	Trans	WL-832A	WL-889A	Trans	WL-889A
WL-682	Ig	WL-5550	RK-832A	Trans	WL-832A	889A	Trans	WL-889A
WL-686	Ig	WL-5550	WL-832A	Trans	WL-832A	F-891	Trans	WL-891
WL-689	Ig	WL-6228	832A	Trans	WL-832A	GL-891	Trans	WL-891
WT-699	Ig	WL-5550	WL-833	Trans	WL-833A	ML-891	Trans	WL-891
NL-710	Thyr	WL-7307A	833	Trans	WL-833A	UE-891	Trans	WL-891
NL-710L	Thyr	WL-7509A	DR-833A	Trans	WL-833A	WL-891	Trans	WL-891
NL-715	Thyr	WL-5557	GL-833A	Trans	WL-833A	891	Trans	WL-891
D717	I R	WL-5553	ML-833A	Trans	WL-833A	F-891R	Trans	WL-891R
T717	Thyr	WL-5557	UE-833A	Trans	WL-833A	GL-891R	Trans	WL-891R
N727	I R	WL-6669	WL-833A	Trans	WL-833A	ML-891R	Trans	WL-891R
W727	I R	WL-6660	833A	Trans	WL-833A	UE-891R	Trans	WL-891R
ML-728	Thyr	WL-5557	EE-836	Rect	WL-836	WL-891R	Trans	WL-891R
DC728A	Thyr	WL-627	GL-836	Rect	WL-836	891R	Trans	WL-891R
XC728A	Thyr	WL-627	RK-836	Rect	WL-836	F-892	Trans	WL-892
EF730	I R	WL-5636	WL-836	Rect	WL-836	GL-892	Trans	WL-892
NL-730	Thyr	WL-22994	836	Rect	WL-836	ML-892	Trans	WL-892
731A	I R	WL-5654	836A	Rect	WL-836	UE-892	Trans	WL-892
EF734	I R	WL-6205	BL-841	M D	WL-177	WL-892	Trans	WL-892
NL-734	Thyr	WL-22994	S-843	M D	843	892	Trans	WL-892
NL-740	Thyr	WL-6856	S-856	V R	WL-0A2	DR-892R	Trans	WL-892R
NL-740L	Thyr	WL-7022	857	Rect	WL-857B	F-892R	Trans	WL-892R
NL-740P	Thyr	WL-6857	F-857A	Rect	WL-857B	GL-892R	Trans	WL-892R
WL-741	Photo	WL-923	GL-857A	Rect	WL-857B	ML-892R	Trans	WL-892R
WL-759	Glow	WL-759	857A	Rect	WL-857B	UE-892R	Trans	WL-892R
WL-760	Thyr	WL-C6H-1	DR-857B	Rect	WL-857B	WL-892R	Trans	WL-892R
NL-760L	Thyr	WL-7023	F-857B	Rect	WL-857B	892R	Trans	WL-892R
NL-760P	Thyr	WL-6859	GL-857B	Rect	WL-857B	GL-895	Trans	WL-895
NL-761	Thyr	WL-C6H-1	ML-857B	Rect	WL-857B	ML-895	Trans	WL-895
NL-762	G A	WL-762	WL-857B	Rect	WL-857B	WL-895	Trans	WL-895
WL-765	G A	WL-765	857B	Rect	WL-857B	895	Trans	WL-895
WL-765A	G A	WL-765A	S-859	V R	WL-0C2	GL-895R	Trans	WL-895R
XB767A	Thyr	WL-2050	S-860	V R	WL-0B2	ML-895R	Trans	WL-895R
BL-800	M D	WL-6780	F-863	Trans	WL-892	WL-895R	Trans	WL-895R
BL-800A	M D	WL-6316	RCA863	Trans	WL-892	895R	Trans	WL-895R
ECC801S	S P	WL-6201	F-863A	Trans	WL-892	2900T	Glow	WL-5823

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EAA901	I R	WL-6663	ZV-1798	Rect	WL-5973	WX-5056	M D	WL-119
S901C	V R	WL-5651	1812P7	C R	5FP7B	WX-5058	N	WL-2791
EAA901S	I R	WL-5663	1812P11	C R	5FP11A	WX-5073	HCDD	WL-22819
EF905	I R	WL-5654	1813P7	C R	7BP7B	ASG5121	Thyr	WL-2021
UL-905	Thyr	WL-5559	A-1834	I R	WL-6	WX-5382	HCDD	WL-22820
TX-920	Thyr	WL-5559	E-1870	Trans	WL-4D21	WX-5399	HCDD	WL-22821
UL-905	Thyr	WL-5559	1971	Trans	WL-207	WX-5434	HCDD	WL-22838
GL-922	Photo	WL-922	2014	R	WL-6157	WX-5463	HCDD	WL-22839
WL-922	Photo	WL-922	GL-2050	Thyr	WL-2050A	WX-5482	HCDD	WL-22824
922	Photo	WL-922	RK-2050	Thyr	WL-2050A	WX-5471	HCDD	WL-22825
GL-923	Photo	WL-923	WL-2050	Thyr	WL-2050A	WX-5472	HCDD	WL-22826
WL-923	Photo	WL-923	2050	Thyr	WL-2050A	WX-5485	HCDD	WL-22827
923	Photo	WL-923	GL-2050A	Thyr	WL-2050A	WX-5486	HCDD	WL-22828
GL-927	Photo	WL-927	WL-2050A	Thyr	WL-2050A	WX-5487	HCDD	WL-22829
WL-927	Photo	WL-927	2050A	Thyr	WL-2050A	WX-5488	HCDD	WL-22830
927	Photo	WL-927	RK-2051	Thyr	WL-2050	WX-5489	HCDD	WL-22831
GL-930	Photo	WL-930	2051	Thyr	WL-2050	WX-5490	HCDD	WL-22832
WL-930	Photo	WL-930	2179A	Trans	WL-2C40	WL-5513	Trans	WL-5513
930	Photo	WL-930	A2209	I R	WL-6J4	5513	Trans	WL-5513
931	Photo	WL-931A	A2209A	I R	WL-6J4	ASG-5544	Thyr	WL-22944
GL-931A	Photo	WL-931A	CV2210A	Thyr	WL-22994	GL-5544	Thyr	WL-22994
WL-931A	Photo	WL-931A	CV2215	Thyr	WL-C6H-1	5544	Thyr	WL-22994
931A	Photo	WL-931A	A-2229A	Trans	WL-2C40	ASG-5545	Thyr	WL-C6H-1
UE-966	Rect	WL-866A	A-2251A	Trans	WL-5667	GL-5545	Thyr	WL-C6H-1
UE-966A	Rect	WL-866A	A-2251B	Trans	WL-5667	5545	Thyr	WL-C6H-1
BM-966B	Rect	WL-866A	QA2404	I R	WL-6663	AX-5550	Ig	WL-5550
HL-966B	Rect	WL-866A	QA2408	C R	WL-6692	WL-5550/415	Ig	WL-5550
NU-967	Thyr	WL-5557	Stel-2500-6-40	Thyr	WL-105	NL-5550	Ig	WL-5550
UE-967	Thyr	WL-5557	CV2723	Rect	WL-869B	WL-5550	Ig	WL-5550
UE-972	Rect	WL-872A	CV2725	Thyr	WL-5557	WT-5550	Ig	WL-5550
UE-972A	Rect	WL-872A	3069	Rect	WL-866A	5550	Ig	WL-5550
UE-975A	Rect	WL-575A	3070	Rect	WL-872A	AJ-5551	Ig	WL-5551A
SN976	I R	WL-5902	3071	Rect	WL-869B	AX-5551	Ig	WL-5551A
SN976D	I R	WL-5902	WX-3072	Rect	WL-670	GL-5551	Ig	WL-5551A
SN979	I R	WL-5718	3072	Rect	WL-857B	NL-5551	Ig	WL-5551A
SN979D	I R	WL-5718	WX-3141	Thyr	WL-676	PL-5551	Ig	WL-5551A
RG1000/3000	Rect	WL-872A	WX-3172	Thyr	WL-672A	VJ-5551	Ig	WL-5551A
Stel-1000-2.5-15	Thrs	WL-5559	WX-3187	Thyr	WL-414	WL-5551	Ig	WL-5551A
SN1007	I R	WL-5636	WX-3194	Thyr	WL-5550	WT-5551	Ig	WL-5551A
SN1007A	I R	WL-5636	XRI-3200	Thyr	WL-22994	5551	Ig	WL-5551A
WT-1009	Ig	WL-7681	WX-3230	Thyr	WL-678	AJ-5551A	Ig	WL-5551A
NL-1009A	Ig	WL-7681	3546PW	Photo	WL-927	AX-5551A	Ig	WL-5551A
NL-1009AP	Ig	WL-7681PC	WX-3751	C R	SCEP11	GL-5551A	Ig	WL-5551A
NL-1011A	Ig	WL-23011	3572	Rect	WL-866A	PL-5551A	Ig	WL-5551A
NL-1011AP	Ig	WL-23011PC	3874A	Trans	WL-813	WL-5551A	Ig	WL-5551A
NL-1012A	Ig	WL-23012	3885A	Rect	WL-3B28	5551A	Ig	WL-5551A
NL-1012AP	Ig	WL-23012PC	WX-3989	C S	WL-7383	WL-5551APC	Ig	WL-5551APC
NL-1013A	Ig	WL-23013	4017	Rect	WL-866A	AX-5552	Ig	WL-5552A
NL-1016	Ig	WL-23016	A-4051	Trans	WL-807	GL-5552	Ig	WL-5552A
NL-1022	Ig	WL-5822A	A-4051G	Trans	WL-807	NL-5552	Ig	WL-5552A
QKK-1022	M D	WL-137	A-4051J	Trans	WL-807	PL-5552	Ig	WL-5552A
WT-1022	Ig	WL-5822A	4078F	Rect	WL-869B	WL-5552	Ig	WL-5552A
NL-1022A	Ig	WL-5822A	4078Z	Rect	WL-869B	WT-5552	Ig	WL-5552A
DO131A	Trans	WL-8045	WX-4113	G A	WL-22618	5552	Ig	WL-5552A
NL-1036	Ig	WL-7171	A-4229	Trans	WL-4E27A	AJ5552A	Ig	WL-5552A
B-1038	C R	10WP7	4260	Thyr	WL-5557	GL-5552A	Ig	WL-5552A
NL-1051	Ig	WL-5551A	4261	I R	WL-5557	NL-5552A	Ig	WL-5552A
NL-1051A	Ig	WL-5551A	A4273B	I R	WL-5692	VJ-5552A	Ig	WL-5552A
WT-1051A	Ig	WL-5551A	SYK-4333A	M D	WL-147	WL-5552A	Ig	WL-5552A
NL-1051P	Ig	WL-5551APC	WX-4424	G A	WL-22614	5552A	Ig	WL-5552A
WT-1051P	Ig	WL-5551APC	WX-4433	Rect	WL-22800	5552A	Ig	WL-5552A
NL-1052	Ig	WL-5552A	WX-4433A	Rect	WL-22800	WL-5552APC	Ig	WL-5552APC
NL-1052A	Ig	WL-5552A	WX-4435	HCDD	WL-22602	AX-5553	Ig	WL-5553B
WT-1052A	Ig	WL-5552A	WX-4451	G A	WL-22620	GL-5553	Ig	WL-5553B
NL-1052P	Ig	WL-5552APC	A4461	I R	WL-6660	WL-5553	Ig	WL-5553B
WT-1052P	Ig	WL-5552APC	A4475	I R	WL-6A57GA	5558	Ig	WL-5553B
NL-1053	Ig	WL-5553B	WX-4484	HCDD	WL-22603	GL-5553A	Ig	WL-5553B
WT-1053B	Ig	WL-5553B	WX-4492	Rect	WL-22801	5553A	Ig	WL-5553B
WT-1053P	Ig	WL-5553BPC	A-4522A	I R	WL-6681	AJ-5553B	Ig	WL-5553B
NL-1061	Ig	WL-7669	A-4535	I R	WL-6080	AX-5553B	Ig	WL-5553B
NL-1061P	Ig	WL-7669PC	A-4535A	I R	WL-6080	GL-5553B	Ig	WL-5553B
NL-1062	Ig	WL-7671	A-4541H	Trans	WL-5763	VJ-5553B	Ig	WL-5553B
NL-1066	Ig	WL-7670	WX-4580	HCDD	WL-22604	WL-5553B	Ig	WL-5553B
NL-1071	Ig	WL-23014	WX-4586	Rect	WL-22602	5553B	Ig	WL-5553B
NL-1071P	Ig	WL-23014PC	WX-4620	HCDD	WL-22605	WL-5553BPC	Ig	WL-5553BPC
NL-1072	Ig	WL-23015	WX-4650	HCDD	WL-22606	AX-5554	Ig	WL-5554
NL-1072P	Ig	WL-23015PC	WX-4651	HCDD	WL-22607	GL-5554	Ig	WL-5554
NL-1073	Ig	WL-23017	WX-4659	HCDD	WL-22608	WL-5554	Ig	WL-5554
WT-1073	Ig	WL-23018	WX-4663	HCDD	WL-22609	5554	Ig	WL-5554
CI-10690	Ig	WL-4663	WX-4663	HCDD	WL-22610	AX-5555	Ig	WL-5555
C-1108	Glow	WL-4D21	WX-4680	HCDD	WL-22804	GL-5555	Ig	WL-5555
SC1155A	Trans	WL-5636	WX-4688	HCDD	WL-22809	WL-5555	Ig	WL-5555
K-1195P7	I R	7ABP7A	WX-4689	HCDD	WL-22611	5555	Ig	WL-5555
QS-1206	V R	WL-OC3	WX-4715A	Trans	WL-22803	WL-5555A	Ig	WL-5555A
QS-1207	V R	WL-0A2	WX-4743	HCDD	WL-22663	5555A	Ig	WL-5555A
QJ-1208	V R	WL-0B2	WX-4748	HCDD	WL-22811	AX-5557	Thyr	WL-5557
1220	I R	WL-5654	WX-4836	N	WL-22792	GL-5557	Thyr	WL-5557
1266	V R	WL-0B3	WX-4842	M D	WL-177	WL-5557	Thyr	WL-5557
1295	Thyr	WL-6328	WX-4930	HCDD	WL-22812	5557	Thyr	WL-5557
Stel-1300-01-05	Thyr	WL-2D21	WX-4931A	HCDD	WL-22822	GL-5558	Rect	WL-5558
K-1304P7	C R	7ABP7A	WX-4932	HCDD	WL-22813	NL-5558	Rect	WL-5558
1314	I R	WL-5634	WX-4933	HCDD	WL-22815	Rev	Thyr	WL-5558
Z1494	I R	WL-5654	WX-4934	HCDD	WL-22805	5558	Rect	WL-5558
Z1498	I R	WL-6189	WX-4936	HCDD	WL-22816	AX-5559	Thyr	WL-5559
ME-1504	Thyr	WL-5559	WX-4937	HCDD	WL-22817	GL-5559	Thyr	WL-5559
GL-1614	I R	WL-5881	WX-4972	HCDD	WL-22818	NL-5559	Thyr	WL-5559
RK-1614	I R	WL-5881	ASG 5017	Thyr	WL-5557	WL-5559	Thyr	WL-5559
1614	I R	WL-5881	PA-5021	Rect	WL-866A	5559	Thyr	WL-5559
1657	Thyr	WL-2050	TH 5021B	Rect	WL-866A	5560	Thyr	WL-6328
1665	Thyr	WL-2050	ASG 5023	Thyr	WL-3C23	GL-5561	Rect	WL-5561
1672	Thyr	WL-172	CV5027	Thyr	WL-5559	WL-5561	Rect	WL-5561
HF-1701	Thyr	WL-5557	TH5031B	Rect	WL-872A	5561	Rect	WL-5561

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TUBE TYPE MARKED	CLASS OF TUBE	EQUIVALENT WESTINGHOUSE TYPE	TUBE TYPE MARKED	CLASS OF TUBE	EQUIVALENT WESTINGHOUSE TYPE	TUBE TYPE MARKED	CLASS OF TUBE	EQUIVALENT WESTINGHOUSE TYPE
ML-5575	Rect	WL-5575	ML-5771	Trans	WL-5771	6074	V R	WL-082WA
ML-5575	Rect	WL-5575	ML-5771	Trans	WL-5771	WL-6080	I R	WL-6080
ML-5576	Rect	WL-5576	5771	Trans	WL-5771	6080	I R	WL-6080
5591	I R	WL-5591	WL-5796	Thyr	WL-5796	6096	I R	WL-5654
AX-5604	Trans	WL-5604	CK-5814	I R	WL-5814A	6097	I R	WL-6663
ML-5604	Trans	WL-5604	5814	I R	WL-5814A	6113	I R	WL-5691
WL-5604	Trans	WL-5604	GL-5814A	I R	WL-5814A	TH-6120	Thyr	WL-105
5604	Trans	WL-5604	WL-5814A	I R	WL-5814A	GL-6136	I R	WL-6136
ML-5606	Trans	WL-5606	5814A	C S	WL-5814A	WL-6136	I R	WL-6136
WL-5606	Trans	WL-5606	GL-5820	C S	WL-5820A	6136	I R	WL-6136
5606	Trans	WL-5606	ML-5820	C S	WL-5820A	GL-6146	Trans	WL-6146
ML-5619	Trans	WL-5619	WL-5820	C S	WL-5820A	R6146	Rect	WL-8008
WL-5619	Trans	WL-5619	5820	C S	WL-5820A	WL-6146	Trans	WL-6146
5619	Trans	WL-5619	WL-5820A	C S	WL-5820A	6146	Trans	WL-6146
GL-5625	Rect	WL-5575	5820A	C S	WL-5820A	WL-6146A	Trans	WL-6146A
5625	Rect	WL-5575	GL-5822	Ig	WL-5822A	6146A	Trans	WL-6146A
GL-5632	Thyr	WL-7307A	NL-5822	Ig	WL-5822A	6155	Trans	WL-4D21
5632	Thyr	WL-7307A	WL-5822	Ig	WL-5822A	6156	Trans	WL-5022
5640	I R	WL-5640	5822	Ig	WL-5822A	GL-6159	Trans	WL-6159
5648	Trans	WL-2C39B	GL-5822A	Ig	WL-5822A	6159	Trans	WL-6159
GL-5651	V R	WL-5651	NL-5822A	Ig	WL-5822A	6159	Trans	WL-6159
WL-5651	V R	WL-5651	5822A	Ig	WL-5822A	WL-6166A	Trans	WL-6166A
5651	V R	WL-5651	WL-5823	Glow	WL-5823	6166A	Trans	WL-6166A
CK-5654	I R	WL-5654	5823	Glow	WL-5823	R6175B	Rect	WL-5R4-GYB
GL-5654	V R	WL-5654	GL-5824	I R	WL-5824	RK-6177	M D	WL-6177
WL-5654	I R	WL-5654	WL-5824	I R	WL-5824	6177	S P	WL-6177
5654	S P	WL-5654	5824	I R	WL-5824	6180	S P	WL-5692
ML-5658	Trans	WL-5658	GL-5830	Thyr	WL-5830	6187	S P	WL-6A56
WL-5658	Trans	WL-5658	WL-5830	Thyr	WL-5830	GL-6189	S P	WL-6189
5658	Trans	WL-5658	5830	Thyr	WL-5830	GL-6189	S P	WL-6189
WL-5664	Thyr	WL-5664	Thyr	WL-5830	WL-5830	6189	S P	WL-6189
5664	Thyr	WL-5664	WL-5846	Rect	WL-5846	WL-6197	S P	WL-6197
GL-5665	Thyr	WL-5665	WL-5859	Rect	WL-5859	6197	S P	WL-6197
WL-5665	Thyr	WL-5665	WL-5859	Rect	WL-5859	GL-6198	C S	See 6198A
5665	Thyr	WL-5665	WL-5877	Thyr	WL-2299A	GL-6198	C S	See 6198A
F-5667	Trans	WL-5667	WL-5878	Thyr	WL-C6H-1	6198	C S	See 6198A
WL-5667	Trans	WL-5667	GL-5879	I R	WL-5879	GL-6198A	C S	See 6198A
5667	Trans	WL-5667	WL-5879	I R	WL-5879	ML-6198A	C S	See 6198A
F-5668	Trans	WL-5668	5879	I R	WL-5879	WL-6198A	C S	See 6198A
ML-5668	Trans	WL-5668	GL-5881	I R	WL-5881	6198A	C S	WL-7038
WL-5668	Trans	WL-5668	WL-5881	I R	WL-5881	R6200	Thyr	WL-2D21
5668	Trans	WL-5668	5881	I R	WL-5881	GL-6201	I R	WL-6201
F-5669	Trans	WL-5669	CK-5886	I R	WL-5886	6201	I R	WL-6201
ML-5669	Trans	WL-5669	WL-5886	I R	WL-5886	TH-6220	Thyr	WL-C6H-1
WL-5669	Trans	WL-5669	5886	I R	WL-5886	GL-6228	Ig	WL-6228
5669	Trans	WL-5669	WL-5891	Trans	WL-5891	WL-6228	Ig	WL-6228
CK-5678	I R	WL-5678	ML-5894	Trans	WL-5894	6228	Ig	WL-6228
WL-5678	I R	WL-5678	WL-5894	Trans	WL-5894	TH-6230	Thyr	WL-3C23
5678	I R	WL-5678	5894	Trans	WL-5894	RK-6249	M D	WL-6249B
WL-5682	Trans	WL-5682	GL-5902	I R	WL-5902	WL-6249	M D	WL-6249B
5682	Trans	WL-5682	WL-5902	I R	WL-5902	RK-6249A	M D	WL-6249B
5683	Thyr	WL-6014	5902	I R	WL-5902	WL-6249A	M D	WL-6249B
WL-5684	Thyr	WL-7306A	5902A	I R	WL-5902	WL-6249B	M D	WL-6249B
AX-5685	Thyr	WL-6014	F-5918A	Trans	WL-5918A	6265	I R	WL-6661
WL-5685	Thyr	WL-5685	WL-5918A	Trans	WL-5918A	WL-6293	Trans	WL-6293
5685	Thyr	WL-5685	5918A	Trans	WL-5918A	6293	Trans	WL-6293
GL-5687	I R	WL-5687	5932	I R	WL-5881	WL-6307	N	WL-6307
WL-5687	I R	WL-5687	5933	Trans	WL-807	WL-6307A	N	WL-6307A
5687	I R	WL-5687	WL-5934	Rect	WL-5934	WL-6310	M D	WL-6310
GL-5691	I R	WL-5691	WL-5936	Trans	WL-5936	6310	M D	WL-6310
WL-5691	I R	WL-5691	GL-5963	I R	WL-5963	WL-6312	M D	WL-6312
5691	I R	WL-5691	WL-5963	I R	WL-5963	6312	M D	WL-6312
GL-5692	I R	WL-5692	5963	I R	WL-5963	WL-6314	M D	WL-6314
WL-5692	I R	WL-5692	GL-5964	I R	WL-5964	6314	M D	WL-6314
5692	I R	WL-5692	WL-5964	I R	WL-5964	WL-6315	M D	WL-6315
GL-5693	I R	WL-5693	5964	I R	WL-5964	6315	M D	WL-6315
WL-5693	I R	WL-5693	GL-5965	I R	WL-5965	WL-6316	M D	WL-6316
5693	I R	WL-5693	WL-5965	I R	WL-5965	6316	M D	WL-6316
GL-5696	Thyr	WL-5696	5965	I R	WL-5965	TS-6336	I R	WL-6336A
WL-5696	Thyr	WL-5696	WL-5966	G A	WL-5966	6336	I R	WL-6336A
5696	Thyr	WL-5696	GL-5973	Rect	WL-5973	TS-6336A	I R	WL-6336A
GL-5718	I R	WL-5718	WL-5973	Rect	WL-5973	WL-6336A	I R	WL-6336A
WL-5718	I R	WL-5718	5973	Rect	WL-5973	6336A	I R	WL-6336A
5718	I R	WL-5718	WL-5986A	Trans	WL-5986A	AJ-6346	Ig	WL-5551A
GL-5718A	I R	WL-5718	6005	I R	WL-6669	6346	Ig	WL-5551A
5718A	I R	WL-5718	GL-6011	Thyr	WL-7307A	AJ-6347	Ig	WL-5552A
GL-5720	Thyr	WL-5720	PL-6011	Thyr	WL-7307A	6347	Ig	WL-5552A
ML-5720	Thyr	WL-5720	TH-6011	Thyr	WL-7307A	6348	Ig	WL-5553A
WL-5720	Thyr	WL-5720	6011	Thyr	WL-7307A	WL-6376	N	WL-6376A
5720	Thyr	WL-5720	WL-6012	Thyr	WL-6012	GL-6376A	N	WL-6376A
5725	I R	WL-6A56	6012	Thyr	WL-6012	WL-6377	N	WL-6377
5726	I R	WL-6683	GL-6014	Thyr	WL-6014	WL-6379	Trans	WL-6379
GL-5727	Thyr	WL-5727	WL-6014	Thyr	WL-6014	6379	Trans	WL-6379
WL-5727	Thyr	WL-5727	6014	Thyr	WL-6014	F-6399	Trans	WL-6399
5727	Thyr	WL-5727	GL-6021	I R	WL-6021	WL-6399	Trans	WL-6399
GL-5736	Trans	WL-5736	WL-6021	I R	WL-6021	6399	Trans	WL-6399
WL-5736	Trans	WL-5736	6021	I R	WL-6021	XRI-6400	Thyr	WL-C6H-1
5736	Trans	WL-5736	R6025	C R	10FP4A	XRI-6400A	Thyr	WL-C6H-1
GL-5749	I R	WL-6660	TH-6031	Thyr	WL-5559	WL-6420	Trans	WL-6420
5749	I R	WL-6660	WL-6040	M D	WL-6040	6420	Trans	WL-6420
GL-5751	I R	WL-5751	WL-6041	M D	WL-6041	ML-6421	Trans	WL-6421
WL-5751	I R	WL-5751	6057	I R	WL-5751	WL-6421	Trans	WL-6421
5751	I R	WL-5751	6058	I R	WL-6663	6421	Trans	WL-6421
GL-5762	Trans	WL-5762	6060	I R	WL-6679	ML-6421F	Trans	WL-6421F
5762	Trans	WL-5762	6062	Trans	WL-5763	6421F	Trans	WL-6421F
GL-5763	Trans	WL-5763	6067	I R	WL-5814A	ML-6422	Trans	WL-6422
WL-5763	Trans	WL-5763	GL-6072	I R	WL-6072	WL-6422	Trans	WL-6422
5763	Trans	WL-5763	WL-6072	I R	WL-6072	6422	Trans	WL-6422
GL-5771	Trans	WL-5771	6072	I R	WL-6072	ML-6423	Trans	WL-6423
			6073	V R	WL-0A2WA	WL-6423	Trans	WL-6423

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TUBE TYPE MARKED	CLASS OF TUBE	EQUIVALENT WESTINGHOUSE TYPE	TUBE TYPE MARKED	CLASS OF TUBE	EQUIVALENT WESTINGHOUSE TYPE	TUBE TYPE MARKED	CLASS OF TUBE	EQUIVALENT WESTINGHOUSE TYPE
6423	Trans	WL-6423	GL-6860	Thyr	WL-6860	WL-7363	Thyr	WL-7363
ML-6423F	Trans	WL-6423F	WL-6860	Thyr	WL-6860	WL-7383	C S	WL-7383
ML-6423F	Trans	WL-6423F	6860	Thyr	WL-6860	7386	Thyr	WL-7386
6423F	Trans	WL-6423F	6864	Thyr	WL-6864	VH7400	Rect	WL-7400
ML-6424	Trans	WL-6424	6871	Thyr	WL-6871	WL-7413	Trans	WL-7413
ML-6424	Trans	WL-6424	GL-6883	Trans	WL-8032	WL-7463	Trans	WL-7463
6424	Trans	WL-6424	WL-6883	Trans	WL-8032	WL-7464	Trans	WL-7464
ML-6425	Trans	WL-6425	6883	Trans	WL-8032	C7473D	C R	5FP7A
WL-6425	Trans	WL-6425	WL-6893	Trans	WL-6893	CL475A	C R	78P7B
6425	Trans	WL-6425	6893	Trans	WL-7482	WL-7482	Trans	WL-7482
ML-6425F	Trans	WL-6425F	6900	I R	WL-5687	WL-7482	Trans	WL-7482
ML-6425F	Trans	WL-6425F	WL-6922	I R	WL-6922	7482	Trans	WL-7482
6425F	Trans	WL-6425F	6922	I R	WL-6922	WL-7509	Thyr	WL-7509A
ML-6426	Trans	WL-6426	6928	I R	WL-6669	WL-7509A	Thyr	WL-7509A
ML-6426	Trans	WL-6426	WL-6937	N	WL-6937A	GL-7518	Thyr	WL-7509A
6426	Trans	WL-6426	WL-6937A	N	WL-6937A	WL-7540	Trans	WL-7540
ML-6427	Trans	WL-6427	WL-6938	N	WL-6938	7543	I R	WL-6136
ML-6427	Trans	WL-6427	WL-6941	N	WL-6941A	WL-7556	Thyr	WL-7556A
6427	Trans	WL-6427	WL-6941A	N	WL-6941A	WL-7556A	Thyr	WL-7556A
GL-6511	Rect	WL-575A	WL-6954	I R	WL-6954	ML-7560	Trans	WL-7560
6511	Rect	WL-575A	6958	I R	WL-5654	WL-7560	Trans	WL-7560
6520	I R	WL-6080	WL-6971	N	WL-6971A	7560	Trans	WL-7560
ML-6550	I R	WL-6550	WL-6971A	N	WL-6971A	WL-7560V	Trans	WL-7560V
ML-6550	I R	WL-6550	6982	Rect	WL-7015	WL-7565	Trans	WL-7565
ML-6567	Trans	WL-6567	6984	Thyr	WL-6856	GL-7581	I R	WL-5881
6567	Trans	WL-6567	6985	Thyr	WL-6857	7581	I R	WL-5881
6582	I R	WL-5654	6988	Thyr	WL-7321	AX-7585	Ig	WL-5522A
ML-6623	Trans	WL-6623	6989	Thyr	WL-C6H-3	7585	Trans	WL-7604
6623	Trans	WL-6623	WL-6998	N	WL-6998	WL-7604	N	WL-7606
6626	V R	WL-0A2WA	6999	Thyr	WL-C6H-3	WL-7606	N	WL-7606
6627	V R	WL-0B2WA	ML-7007	Trans	WL-7007	WL-7657	N	WL-7657
GL-6660	I R	WL-6660	ML-7007	Trans	WL-7007	WL-7658	Rect	WL-7658
ML-6660	I R	WL-6660	ML-7008	M D	WL-7008	WL-7659	Rect	WL-7659
6660	I R	WL-6660	7008	M D	WL-7008	WL-7676	G A	WL-7676
GL-6661	I R	WL-6661	ML-7014	Rect	WL-7014	WL-7685	Trans	WL-7685
ML-6661	I R	WL-6661	ML-7014	Rect	WL-7014	WL-7691	Trans	WL-7691
6661	I R	WL-6661	7014	Rect	WL-7014	7725	Thyr	WL-7307A
GL-6662	I R	WL-6662	NL-7015	Rect	WL-7015	7726	Thyr	WL-7509A
ML-6662	I R	WL-6662	WL-7015	Rect	WL-7015	WL-7729	I R	WL-6681
6662	I R	WL-6662	7015	Rect	WL-7015	7729	I R	WL-6681
ML-6663	I R	WL-6663	ML-7016	Rect	WL-7016	WL-7730	I R	WL-7730
ML-6663	I R	WL-6663	ML-7016	Rect	WL-7016	7730	I R	WL-7730
6663	I R	WL-6663	7016	Rect	WL-7016	WL-7732	I R	WL-7732
GL-6664	I R	WL-6664	NL-7017	Rect	WL-7017	7732	I R	WL-7732
ML-6664	I R	WL-6664	7017	Rect	WL-7017	7735	C S	WL-7735A
6664	I R	WL-6664	ML-7018	Rect	WL-7018	WL-7735A	C S	WL-7735A
GL-6669	I R	WL-6669	ML-7018	Rect	WL-7018	7735A	C S	WL-7735A
ML-6669	I R	WL-6669	7018	Rect	WL-7018	WL-7740	Ig	WL-7740
6669	I R	WL-6669	7018	Rect	WL-7018	WL-7741	N	WL-7741
GL-6676	I R	WL-6676	NL-7019	Rect	WL-7019	WL-7748	Trans	WL-7748
ML-6676	I R	WL-6676	ML-7019	Rect	WL-7019	WL-7750	Trans	WL-7750
6676	I R	WL-6676	7019	Rect	WL-7019	7752	R	WL-7656
GL-6677	I R	WL-6677	ML-7020	Rect	WL-7020	WL-7903	G A	WL-7903
ML-6677	I R	WL-6677	TH-7020	Ig	WL-5551A	WL-7904	G A	WL-7904
6677	I R	WL-6677	WL-7020	Rect	WL-7020	WL-7982	Trans	WL-7982
GL-6678	I R	WL-6678	7020	Rect	WL-7020	GL-8005	Trans	WL-8005
ML-6678	I R	WL-6678	TH7021	Ig	WL-5551A	ML-8005	Trans	WL-8005
6678	I R	WL-6678	NL-7023	Thyr	WL-7023	WL-8005	Trans	WL-8005
GL-6679	I R	WL-6679	7023	Thyr	WL-7023	8005	Trans	WL-8005
ML-6679	I R	WL-6679	7023	I R	WL-7729	DR-8008	Rect	WL-8008
6679	I R	WL-6679	7025	I R	WL-7729	EE-8008	Rect	WL-8008
GL-6680	I R	WL-6680	TH7030	Ig	WL-5552A	GL-8008	Rect	WL-8008
ML-6680	I R	WL-6680	TH7031	Ig	WL-5552A	ML-8008	Rect	WL-8008
6680	I R	WL-6680	WL-7038	C S	WL-7038	UE-8008	Rect	WL-8008
GL-6681	I R	WL-6681	7038	C S	WL-7038	WL-8008	Rect	WL-8008
ML-6681	I R	WL-6681	TH7040	Ig	WL-5553B	8008	Rect	WL-8008
6681	I R	WL-6681	TH7041	Ig	WL-5553B	8018	Trans	WL-8018
AX-6693	Rect	WL-673	WL-7087	N	WL-7087	8024	Trans	WL-832A
6693	Rect	WL-673	WL-7087A	N	WL-7087A	WL-8032	Trans	WL-8032
ML-6696	Trans	WL-6696	WL-7111	M D	WL-7111	WL-8043	Thyr	WL-8043
6696	Trans	WL-6696	7111	M D	WL-7111	WL-8044	Trans	WL-8044
ML-6697	Trans	WL-6697	7136	Rect	WL-575A	F-8045	Trans	WL-8045
6697	Trans	WL-6697	GL-7171	Ig	WL-7171	WL-8045	Trans	WL-8045
6778	I R	WL-5718	WL-7171	Ig	WL-7171	8045	Trans	WL-8045
ML-6780	M D	WL-6780	7171	Ig	WL-7171	WL-8057	G A	WL-8057
6780	M D	WL-6780	WL-7186	N	WL-7186	WL-8073	N	WL-8073
ML-6781	M D	WL-6781	WL-7187	N	WL-7187	WL-8074	N	WL-8074
6781	M D	WL-6781	WL-7188	N	WL-7188	WL-8075	N	WL-8075
GL-6807	Thyr	WL-6807	WL-7203	Trans	WL-4CX250B	M8079	I R	WL-6663
ML-6807	Thyr	WL-6807	7203	Trans	WL-4CX250B	WL-8094	Rect	WL-8094
6807	Thyr	WL-6807	WL-7215	Trans	WL-7215	M8100	I R	WL-5654
GL-6808	Thyr	WL-6808	7216	Thyr	WL-7555A	M8101	I R	WL-6660
ML-6808	Thyr	WL-6808	WL-7243	N	WL-7243	WL-8105	N	WL-8105
6808	Thyr	WL-6808	WL-7255	Trans	WL-7255	M8136	I R	WL-6189
GL-6809	Thyr	WL-C6H-3	WL-7268	C S	WL-7268A	M8137	I R	WL-5751
6809	Thyr	WL-C6H-3	7268	C S	WL-7268A	WL-8137	N	WL-8137
GL-6829	I R	WL-5965	WL-7269	Thyr	8043	M8149	I R	WL-7730
6829	I R	WL-5965	WL-7290	C S	WL-7290	8161	Trans	WL-3X2500A3
GL-6849	I R	WL-5965	WL-7297	Thyr	WL-23052	M8162	I R	WL-6201
ML-6849	C S	WL-6849	WL-7298	Thyr	WL-C6H-3	8166	Trans	WL-4-1000A
6849	C S	WL-6849	WL-7299	Thyr	WL-C6H-2	8170	Trans	WL-4CX5000A
GL-6856	Thyr	WL-6856	WL-7306	Thyr	WL-7306A	M8178	Thyr	WL-5727
ML-6856	Thyr	WL-6856	WL-7306A	Thyr	WL-7306A	M8196	I R	WL-6A56
6856	Thyr	WL-6856	WL-7307	Thyr	WL-7307A	M8204	Thyr	WL-5727
GL-7057	Thyr	WL-6857	WL-7307A	Thyr	WL-7307A	M8212	Thyr	WL-6663
ML-6857	Thyr	WL-6857	7316	Thyr	WL-6189	M8214	I R	WL-6681
6857	Thyr	WL-6857	WL-7317	N	WL-7317	WL-8214	N	WL-8214
GL-6858	Thyr	WL-6858	WL-7321	Thyr	WL-7321	M8223	V R	WL-0A2
ML-6858	Thyr	WL-6858	F-7328	Trans	WL-7328A	M8224	V R	WL-0B2
6858	Thyr	WL-6858	WL-7328	Trans	WL-7328A	M8245	R	WL-6669
GL-6859	Thyr	WL-6859	7328	Trans	WL-7328A	8251	Trans	WL-3X500F3
ML-6859	Thyr	WL-6859	WL-7328A	Trans	WL-7328A	8298	Trans	WL-8298
6859	Thyr	WL-6859	WL-7353	N	WL-7353	WL-8306	Ig	WL-8306

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TUBE TYPE MARKED	CLASS OF TUBE	EQUIVALENT WESTINGHOUSE TYPE	TUBE TYPE MARKED	CLASS OF TUBE	EQUIVALENT WESTINGHOUSE TYPE	TUBE TYPE MARKED	CLASS OF TUBE	EQUIVALENT WESTINGHOUSE TYPE
8348	Trans	WL-4-400A	WL-22878	HCDD	WL-22878	WL-22987	HCDD	WL-22987
WL-8461	Trans	WL-8461	WL-22879	HCDD	WL-22879	WL-22988	HCDD	WL-22988
GL-9002	I R	WL-9002	WL-22880	HCDD	WL-22880	WL-23007	HCDD	WL-23007
WL-9002	I R	WL-9002	WL-22881	HCDD	WL-22881	WL-23008	HCDD	WL-23008
9002	I R	WL-9002	WL-22882	HCDD	WL-22882	WL-23009	HCDD	WL-23009
AX-9903	Trans	WL-5894	WL-22883	HCDD	WL-22883	WL-23010	HCDD	WL-23010
WL-22602	HCDD	WL-22602	WL-22884	HCDD	WL-22884	WL-23011	Ig	WL-23011
WL-22603	HCDD	WL-22603	WL-22885	HCDD	WL-22885	WL-23014	Ig	WL-23014
WL-22604	HCDD	WL-22604	WL-22886	HCDD	WL-22886	WL-23011PC	Ig	WL-23011PC
WL-22605	HCDD	WL-22605	WL-22887	HCDD	WL-22887	WL-23012	Ig	WL-23012
WL-22606	HCDD	WL-22606	WL-22888	HCDD	WL-22888	WL-23012PC	Ig	WL-23012PC
WL-22607	HCDD	WL-22607	WL-22889	HCDD	WL-22889	WL-23013	Ig	WL-23013
WL-22608	HCDD	WL-22608	WL-22890	HCDD	WL-22890	WL-23013PC	Ig	WL-23013PC
WL-22609	HCDD	WL-22609	WL-22891	HCDD	WL-22891	WL-23014	Ig	WL-23014
WL-22610	HCDD	WL-22610	WL-22892	HCDD	WL-22892	WL-23014PC	Ig	WL-23014PC
WL-22611	HCDD	WL-22611	WL-22893	HCDD	WL-22893	WL-23015	Ig	WL-23015
WL-22612	G A	WL-22612	WL-22894	HCDD	WL-22894	WL-23015PC	Ig	WL-23015PC
WL-22613	G A	WL-22613	WL-22895	HCDD	WL-22895	WL-23016	Ig	WL-23016
WL-22614	G A	WL-22614	WL-22896	HCDD	WL-22896	WL-23017	Ig	WL-23017
WL-22618	G A	WL-22618	WL-22897	HCDD	WL-22897	WL-23018	Ig	WL-23018
WL-22619	G A	WL-22619	WL-22898	HCDD	WL-22898	WL-23027	HCDD	WL-23027
WL-22620	G A	WL-22620	WL-22899	HCDD	WL-22899	WL-23028	HCDD	WL-23028
WL-22627	G A	WL-22627	WL-22900	HCDD	WL-22900	WL-23029	Rect	WL-23029
WL-22637	G A	WL-22637	WL-22901	HCDD	WL-22901	WL-23034	HCDD	WL-23034
WL-22640	G A	WL-22640	WL-22902	HCDD	WL-22902	WL-23035	HCDD	WL-23035
WL-22643	G A	WL-22643	WL-22903	HCDD	WL-22903	WL-23036	HCDD	WL-23036
WL-22653	HCDD	WL-22653	WL-22904	HCDD	WL-22904	WL-23041	HCDD	WL-23041
WL-22754	G A	WL-22754	WL-22905	HCDD	WL-22905	WL-23042	HCDD	WL-23042
WL-22759	Trans	WL-22759	WL-22906	HCDD	WL-22906	WL-23046	HCDD	WL-23046
WL-22789	Trans	WL-22789	WL-22907	HCDD	WL-22907	WL-23049	HCDD	WL-23049
WL-22791	N	WL-22791	WL-22908	HCDD	WL-22908	WL-23059	HCDD	WL-23059
WL-22792	N	WL-22792	WL-22909	HCDD	WL-22909	WL-23060	HCDD	WL-23060
WL-22793	N	WL-22793	WL-22910	HCDD	WL-22910	WL-23063	Trans	WL-23063
WL-22800	Rect	WL-22800	WL-22911	HCDD	WL-22911	WL-23095	Rect	WL-23095
WL-22801	Rect	WL-22801	WL-22912	HCDD	WL-22912	WL-23102	Rect	WL-23102
WL-22802	Rect	WL-22802	WL-22913	HCDD	WL-22913	WL-22806	HCDD	WL-22806
WL-22803	Trans	WL-22803	WL-22914	HCDD	WL-22914	WL-22833	HCDD	WL-22833
WL-22804	HCDD	WL-22804	WL-22915	HCDD	WL-22915	WL-22834	HCDD	WL-22834
WL-22805	HCDD	WL-22805	WL-22916	HCDD	WL-22916	WL-22835	HCDD	WL-22835
WL-22806	HCDD	WL-22806	WL-22917	HCDD	WL-22917	WL-22836	HCDD	WL-22836
WL-22809	HCDD	WL-22809	WL-22918	HCDD	WL-22918	WL-22837	HCDD	WL-22837
WL-22810	HCDD	WL-22810	WL-22919	HCDD	WL-22919	WL-22838	HCDD	WL-22838
WL-22811	HCDD	WL-22811	WL-22920	HCDD	WL-22920	WL-22839	HCDD	WL-22839
WL-22812	HCDD	WL-22812	WL-22921	HCDD	WL-22921	WL-22840	HCDD	WL-22840
WL-22813	HCDD	WL-22813	WL-22922	HCDD	WL-22922	WL-22841	HCDD	WL-22841
WL-22814	HCDD	WL-22814	WL-22923	HCDD	WL-22923	WL-22842	HCDD	WL-22842
WL-22815	HCDD	WL-22815	WL-22924	HCDD	WL-22924	WL-22843	HCDD	WL-22843
WL-22816	HCDD	WL-22816	WL-22925	HCDD	WL-22925	WL-22844	HCDD	WL-22844
WL-22817	HCDD	WL-22817	WL-22926	HCDD	WL-22926	WL-22845	HCDD	WL-22845
WL-22818	HCDD	WL-22818	WL-22927	HCDD	WL-22927	WL-22846	HCDD	WL-22846
WL-22819	HCDD	WL-22819	WL-22928	HCDD	WL-22928	WL-22847	HCDD	WL-22847
WL-22820	HCDD	WL-22820	WL-22929	HCDD	WL-22929	WL-22848	HCDD	WL-22848
WL-22821	HCDD	WL-22821	WL-22930	HCDD	WL-22930	WL-22849	HCDD	WL-22849
WL-22822	HCDD	WL-22822	WL-22931	HCDD	WL-22931	WL-22850	HCDD	WL-22850
WL-22823	HCDD	WL-22823	WL-22932	HCDD	WL-22932	WL-22851	HCDD	WL-22851
WL-22824	HCDD	WL-22824	WL-22933	HCDD	WL-22933	WL-22852	HCDD	WL-22852
WL-22825	HCDD	WL-22825	WL-22934	HCDD	WL-22934	WL-22853	HCDD	WL-22853
WL-22826	HCDD	WL-22826	WL-22935	HCDD	WL-22935	WL-22854	HCDD	WL-22854
WL-22827	HCDD	WL-22827	WL-22936	HCDD	WL-22936	WL-22855	HCDD	WL-22855
WL-22828	HCDD	WL-22828	WL-22937	HCDD	WL-22937	WL-22856	HCDD	WL-22856
WL-22829	HCDD	WL-22829	WL-22938	HCDD	WL-22938	WL-22857	HCDD	WL-22857
WL-22830	HCDD	WL-22830	WL-22939	HCDD	WL-22939	WL-22858	HCDD	WL-22858
WL-22831	HCDD	WL-22831	WL-22940	HCDD	WL-22940	WL-22859	HCDD	WL-22859
WL-22832	HCDD	WL-22832	WL-22941	HCDD	WL-22941	WL-22860	HCDD	WL-22860
WL-22833	HCDD	WL-22833	WL-22942	HCDD	WL-22942	WL-22861	HCDD	WL-22861
WL-22834	HCDD	WL-22834	WL-22943	HCDD	WL-22943	WL-22862	Trans	WL-22862
WL-22835	HCDD	WL-22835	WL-22944	HCDD	WL-22944	WL-22863	HCDD	WL-22863
WL-22836	HCDD	WL-22836	WL-22945	HCDD	WL-22945	WL-22864	HCDD	WL-22864
WL-22837	HCDD	WL-22837	WL-22946	HCDD	WL-22946	WL-22865	HCDD	WL-22865
WL-22838	HCDD	WL-22838	WL-22947	HCDD	WL-22947	WL-22866	HCDD	WL-22866
WL-22839	HCDD	WL-22839	WL-22948	HCDD	WL-22948	WL-22867	HCDD	WL-22867
WL-22840	HCDD	WL-22840	WL-22949	HCDD	WL-22949	WL-22868	HCDD	WL-22868
WL-22841	HCDD	WL-22841	WL-22950	HCDD	WL-22950	WL-22869	HCDD	WL-22869
WL-22842	HCDD	WL-22842	WL-22951	HCDD	WL-22951	WL-22870	HCDD	WL-22870
WL-22843	HCDD	WL-22843	WL-22952	HCDD	WL-22952	WL-22871	HCDD	WL-22871
WL-22844	HCDD	WL-22844	WL-22953	HCDD	WL-22953	WL-22872	HCDD	WL-22872
WL-22845	HCDD	WL-22845	WL-22954	HCDD	WL-22954	WL-22873	HCDD	WL-22873
WL-22846	HCDD	WL-22846	WL-22955	HCDD	WL-22955	WL-22874	HCDD	WL-22874
WL-22847	HCDD	WL-22847	WL-22956	HCDD	WL-22956	WL-22875	HCDD	WL-22875
WL-22848	HCDD	WL-22848	WL-22957	HCDD	WL-22957	WL-22876	HCDD	WL-22876
WL-22849	HCDD	WL-22849	WL-22958	HCDD	WL-22958	WL-22877	HCDD	WL-22877
WL-22850	HCDD	WL-22850	WL-22959	HCDD	WL-22959			
WL-22851	HCDD	WL-22851	WL-22960	HCDD	WL-22960			
WL-22852	HCDD	WL-22852	WL-22961	HCDD	WL-22961			
WL-22853	HCDD	WL-22853	WL-22962	HCDD	WL-22962			
WL-22854	HCDD	WL-22854	WL-22963	HCDD	WL-22963			
WL-22855	HCDD	WL-22855	WL-22964	HCDD	WL-22964			
WL-22856	HCDD	WL-22856	WL-22965	HCDD	WL-22965			
WL-22857	HCDD	WL-22857	WL-22966	HCDD	WL-22966			
WL-22858	HCDD	WL-22858	WL-22967	HCDD	WL-22967			
WL-22859	HCDD	WL-22859	WL-22968	HCDD	WL-22968			
WL-22860	HCDD	WL-22860	WL-22969	HCDD	WL-22969			
WL-22861	Trans	WL-22861	WL-22970	HCDD	WL-22970			
WL-22862	HCDD	WL-22862	WL-22971	HCDD	WL-22971			
WL-22863	HCDD	WL-22863	WL-22972	HCDD	WL-22972			
WL-22864	HCDD	WL-22864	WL-22973	HCDD	WL-22973			
WL-22865	HCDD	WL-22865	WL-22974	HCDD	WL-22974			
WL-22866	HCDD	WL-22866	WL-22975	HCDD	WL-22975			
WL-22867	HCDD	WL-22867	WL-22976	HCDD	WL-22976			
WL-22868	HCDD	WL-22868	WL-22977	HCDD	WL-22977			
WL-22869	HCDD	WL-22869	WL-22978	HCDD	WL-22978			
WL-22870	HCDD	WL-22870	WL-22979	HCDD	WL-22979			
WL-22871	HCDD	WL-22871	WL-22980	HCDD	WL-22980			
WL-22872	HCDD	WL-22872	WL-22981	HCDD	WL-22981			
WL-22873	HCDD	WL-22873	WL-22982	HCDD	WL-22982			
WL-22874	HCDD	WL-22874	WL-22983	HCDD	WL-22983			
WL-22875	HCDD	WL-22875	WL-22984	HCDD	WL-22984			
WL-22876	HCDD	WL-22876	WL-22985	HCDD	WL-22985			
WL-22877	HCDD	WL-22877	WL-22986	HCDD	WL-22986			
			WL-22987	HCDD	WL-22987			
			WL-22988	HCDD	WL-22988			
			WL-22989	HCDD	WL-22989			
			WL-22990	HCDD	WL-22990			
			WL-22991	HCDD	WL-22991			
			WL-22992	HCDD	WL-22992			
			WL-22993	HCDD	WL-22993			

Inclusion of a tube type in this book does not necessarily imply availability of that type from Westinghouse. Although every effort has been made to ensure accuracy of these data, no liability is assumed for their use.

WESTINGHOUSE INDUSTRIAL AND POWER TUBES

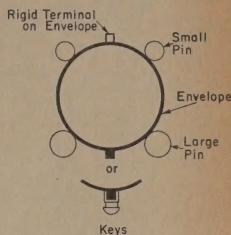


KEY TO ABBREVIATIONS

A	Anode	IC	Internal Connection (Do NOT Use)
°		ITV	Industrial & Closed Circuit TV
A	Angstrom Units	K	Cathode
AMP	Ampere (s)	KV	Kilovolt (s)
AVG	Average	KVA	Kilovolt-Ampere (s)
CO	Cut-off	KW	Kilowatt (s)
COLL	Collector	LUM	Luminous
COOL	Type of Cooling	MA	Milliampere (s)
DIAM	Diameter	MAX	Maximum
DISS	Dissipation	Mc	Megacycle (s)
DWG	Drawing	MIN	Minute
FREQ	Frequency	Min	Minimum
G	Grid	mmHG	Millimeters of Mercury
G1	Grid One	NC	No Connection
G2	Grid Two	nv	Neutrons/cm ² /Second
G3	Grid Three	OAL	Overall Length
GC	Gigacycle (s)	PC	Photocathode
H	Heater		

PK	Peak
PN	Pentode
RAD	Radius
REFL	Reflector
RES	Resonator
RP	Plate Resistance
SEC	Second (s)
SENS	Sensitivity
T	Triode
TriK	Trigger Electrode
TV	Television Broadcasting
TYP	Typical
V	Volt (s)
μA	Microampere (s)
μMHOS	Micromhos
μSEC	Microsecond (s)
°C	Degrees Centigrade

GUIDE TO BASE DRAWINGS



THYRATRONS

A thyatron is a gas tube having a heated cathode and one or more electrodes which initiate the current flow. The gas content may be one or more of the inert gases, mercury vapor or a combination of these. Mercury-vapor types are used where ambient temperature ranges are small. Inert gas types change characteristics very little with ambient temperature changes and do not require as long a warm-up time before applying anode voltage.

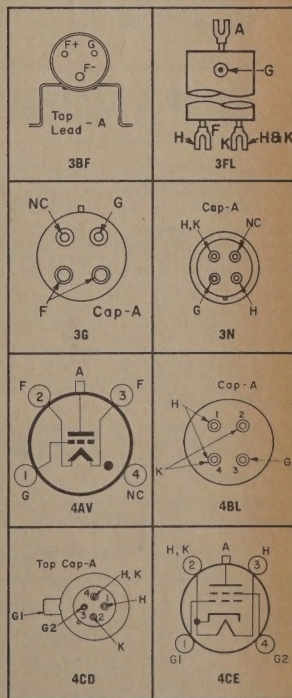
In a high vacuum tube, the negative field of the grid space charge acts to limit the flow of electrons. This space charge is neutralized by positive ions during conduction through a gas or vapor such that the voltage drop through the tube is reduced. With smaller tube losses, the thyatron can conduct more current with less cooling required than an equivalent high vacuum tube.

The grid has no control of the current after conduction starts. With direct current supplied to the anode, it is necessary to reduce the anode voltage below the ionizing potential of the gas fill, long enough for the gas to deionize and stop tube conduction.

With alternating current supplied to the anode, the grid regains control of the current each time the voltage drops to zero and can delay the beginning of conduction to a later point in the next half-cycle by being held at a negative voltage. The grid can exert very fine control of the average current, with alternating current anode and grid supply by varying the phase relation between the voltages impressed on them. The grid circuit requires very little power to control the thyatron compared to the power controlled in the anode circuit.

Thyatrions are used in light duty resistance welders, motor speed and torque controllers, relaxation oscillators, variable voltage power supplies, control circuits of lighting or heating devices, light sensitive relay exciters, and other equipment requiring either precise control of average moderate currents or ability to turn on moderate currents by a small voltage change.

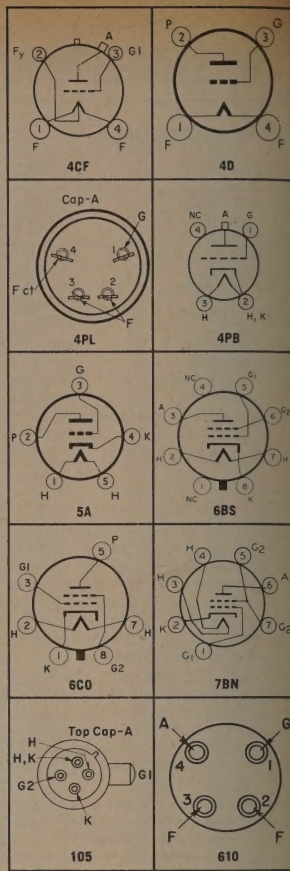
TUBE TYPE	CATHODE		FILL	RATINGS			MECHANICAL		
	VOLTS	AMPS		ANODE VOLTS	PEAK AMPS	AVG. AMPS	MAX. OAL	MAX. DIAM.	BASE DWG.
WL-2D21	6.3	0.6	gas	1300	0.5	0.1	2 $\frac{1}{8}$ "	3 $\frac{3}{4}$ "	7BN
WL-3C23	2.5	7.0	Hg.	1250	6.0	1.0	6 $\frac{1}{8}$ "	2 $\frac{1}{2}$ "	3G
WL-5C21	2.5	21	gas	1250	77	6.4	9 $\frac{1}{2}$ "	2 $\frac{1}{2}$ "	4AV
WL-C6H-1	2.5	21	gas	1700	80	6.4	8 $\frac{3}{4}$ "	2 $\frac{1}{2}$ "	4AV
WL-C6H-2	2.5	21	gas	1700	80	6.4	8"	2 $\frac{1}{2}$ "	4AV(F)
WL-C6H-3	2.5	21	gas	1700	80	6.4	9 $\frac{1}{4}$ "	2 $\frac{3}{8}$ "	4AV(L)
WL-81A	2.5	5.0	gas	500	2.0	0.5	6 $\frac{1}{8}$ "	2 $\frac{1}{2}$ "	3G
WL-105	5.0	10	Hg.	2500	40	6.4	11 $\frac{1}{4}$ "	2 $\frac{3}{8}$ "	105
WL-172	5.0	10	Hg.	2000	40	6.4	18 $\frac{3}{8}$ "	2 $\frac{1}{4}$ "	3FL
WL-414	5.0	20	Hg.	2000	100	12.5	15 $\frac{3}{8}$ "	3 $\frac{1}{8}$ "	3FL
WL-502A	6.3	0.6	gas	1300	1.0	0.1	2 $\frac{1}{32}$ "	1 $\frac{1}{8}$ "	6BS
KU-610	2.5	6.5	gas	500	0.4	0.1	6 $\frac{1}{2}$ "	2 $\frac{1}{2}$ "	610
WL-624	5.0	10	Hg.	2500	80	6.4	11 $\frac{1}{4}$ "	3 $\frac{3}{8}$ "	4CE
WL-627	2.5	5	Hg.	5000	2.5	0.64	6 $\frac{3}{8}$ "	2 $\frac{1}{2}$ "	4AV
WL-629	2.5	2.6	gas	350	0.2	0.04	4 $\frac{1}{4}$ "	1 $\frac{1}{8}$ "	5A
WL-632B	5.0	5	Hg.	1500	30	2.5	8 $\frac{3}{4}$ "	1 $\frac{1}{4}$ "	4CD
WL-672A	5.0	5	Hg.	2500	40	3.2	8 $\frac{3}{8}$ "	2 $\frac{1}{2}$ "	4CE
WL-676	5.0	10	Hg.	2500	40	6.4	11 $\frac{1}{4}$ "	3 $\frac{1}{8}$ "	4PB
WL-677	5.0	10	Hg.	10000	15	4.0	11 $\frac{1}{8}$ "	3 $\frac{1}{8}$ "	4PB
WL-678	5.0	7.5	Hg.	15000	6.0	1.6	11 $\frac{1}{8}$ "	2 $\frac{1}{2}$ "	3N
WL-885	2.5	65	gas	350	0.3	0.075	4 $\frac{3}{8}$ "	1 $\frac{1}{8}$ "	5A
WL-2050	6.3	0.6	gas	1300	1.0	0.1	4 $\frac{1}{8}$ "	1 $\frac{1}{8}$ "	6BS
WL-2050A	6.3	0.6	gas	1300	1.0	0.1	3 $\frac{1}{8}$ "	1 $\frac{3}{32}$ "	6BS
WL-5557	2.5	5	Hg.	5000	2.0	0.5	6 $\frac{1}{8}$ "	2 $\frac{1}{2}$ "	3G
WL-5559	5.0	4.5	Hg.	1000	15	2.5	7 $\frac{1}{4}$ "	3"	4BL
WL-5563A	5	10	Hg.	15000	10	1.8	10 $\frac{1}{2}$ "	2 $\frac{3}{8}$ "	3N
WL-5632	2.5	9	gas	1250	30	2.5	6"	1 $\frac{5}{8}$ "	4CF
WL-5664	2.5	6.3	gas	1250	8.0	1.0	4 $\frac{3}{4}$ "	1 $\frac{1}{8}$ "	3G
WL-5665	2.5	31	gas	1250	160	16.0	11 $\frac{1}{4}$ "	2 $\frac{1}{2}$ "	3BF(F)



Thyratrons

continued

TUBE TYPE	CATHODE		FILL	RATINGS			MECHANICAL		
	VOLTS	AMPS		ANODE VOLTS	PEAK AMPS	AVG. AMPS	MAX. OAL	MAX. DIAM.	BASE DWG.
WL-5685	2.5	21	gas	1250	77	6.4	9 $\frac{1}{2}$ "	2 $\frac{1}{2}$ "	4AV
WL-5696	6.3	0.15	gas	500	0.1	0.025	1 $\frac{1}{4}$ "	$\frac{3}{4}$ "	7BN
WL-5720	5.0	4.5	Hg.	1000	15	2.5	7 $\frac{1}{4}$ "	3"	4BL
WL-5727	6.3	0.60	gas	1300	0.5	0.1	2 $\frac{1}{8}$ "	$\frac{3}{4}$ "	7BN
WL-5796	2.5	8.5	gas	1500	20	1.6	5 $\frac{1}{4}$ "	1 $\frac{1}{16}$ "	4CF
WL-5830	5.0	20	Hg.	10000	75	12.5	17 $\frac{1}{4}$ "	5 $\frac{1}{16}$ "	4BL
WL-6012	6.3	2.6	gas	1300	5.0	0.5	3 $\frac{3}{8}$ "	1 $\frac{3}{32}$ "	6CO
WL-6014	2.5	6.3	gas	1250	8.0	1.0	4 $\frac{1}{4}$ "	1 $\frac{1}{16}$ "	4D
WL-6807	2.5	21	gas	1500	80	6.4	9"	2 $\frac{5}{8}$ "	4AV
WL-6808	2.5	21	gas	1500	80	6.4	8 $\frac{1}{2}$ "	2 $\frac{5}{8}$ "	4AV(F)
WL-6856	2.5	16	gas & Hg.	1500	50	2.5	9 $\frac{1}{2}$ "	2 $\frac{1}{4}$ "	4PB
WL-6857	2.5	16	gas & Hg.	1500	30	4.0	8 $\frac{3}{8}$ "	2 $\frac{1}{8}$ "	4PB(F)
WL-6858	2.5	21	gas & Hg.	1500	77	6.4	9 $\frac{1}{2}$ "	2 $\frac{1}{8}$ "	4AV
WL-6859	2.5	21	gas & Hg.	1500	77	6.4	8 $\frac{3}{4}$ "	2 $\frac{1}{8}$ "	4AV(F)
WL-6860	2.5	21	gas	1250	77	6.4	8 $\frac{3}{4}$ "	2 $\frac{1}{32}$ "	4AV(F)
WL-7023	2.5	21	gas & Hg.	1500	77	6.4	10"	2 $\frac{1}{8}$ "	4PB(L)
WL-7297	2.5	10.8	gas	1500	40	3.2	6 $\frac{3}{8}$ "	2 $\frac{1}{8}$ "	4PL(L)
WL-7306A	2.5	9	gas	1250	30	2.5	5 $\frac{1}{16}$ "	1 $\frac{1}{16}$ "	4CF
WL-7307A	2.5	9	gas & Hg.	1500	30	2.5	6 $\frac{1}{4}$ "	1 $\frac{1}{16}$ "	4CF
WL-7321	2.5	21	gas	1250	77	6.4	10"	2 $\frac{1}{8}$ "	4AV(L)
WL-7363	2.5	8.5	gas	1500	20	1.6	5"	1 $\frac{1}{16}$ "	4CF
WL-7509A	2.5	9	gas & Hg.	1500	30	2.5	7"	2 $\frac{1}{8}$ "	4PL(L)
WL-7556A	2.5	9	gas	1250	30	2.5	7"	2 $\frac{1}{8}$ "	4PL(L)
WL-8043	5	6	Hg.	21000	50	2.5	11 $\frac{1}{8}$ "	2 $\frac{1}{8}$ "	3N
WL-22994/5877	2.5	10.8	gas	1500	40	3.2	7 $\frac{1}{8}$ "	2 $\frac{1}{32}$ "	4AV
WL-23052/7297	2.5	10.8	gas	1500	40	3.2	7 $\frac{7}{8}$ "	2 $\frac{1}{32}$ "	4PL(L)



HIGH VACUUM AMPLIFIERS

High vacuum amplifiers are multielectrode tubes with heated cathodes and one or more electrodes which are able to control the current flow through the tube. These types are similar to the high vacuum rectifiers with the addition of control electrodes.

The current is limited by the formation of a negative space charge near the cathode. A positively charged grid will tend to neutralize this space charge permitting more electrons to go to the plate. A negatively charged grid will tend to increase this space charge reducing electron flow and if the grid is sufficiently negative, it will cut off the electron flow. The grid has continuous control of the number of electrons allowed to go to the plate. This controlled power ranges from a few watts in smaller designs to hundreds of thousands of watts in the largest designs. By proper design of the electrode structure, the tube can be made to control more power in the plate circuit than is required in the grid circuit. The tube therefore can act as an amplifier. By feeding back part of the output power to the grid circuit, the tube can be made to generate sustained oscillations. This arrangement is termed an oscillator.

Additional electrodes are employed in tetrodes and pentodes as plate. Electrodes may also be designed to form electrons into beams or sheets. These variations are usually incorporated to overcome inherent faults of the basic triode and to increase the efficiency and

power handling capability of the tube. Some types have two units in one envelope to conserve space, reduce cost, and simplify circuit designs.

The cooling of the tubes handling large amounts of power must be carefully controlled. Radiation with free air convection is employed with types having low dissipation ratings for their size. With these types care must be taken that nearby components are not damaged by directly radiated heat. Tube types with medium size dissipation ratings often have finned radiators soldered to the anode and heat is dissipated by forcing air through the radiator. High vacuum amplifiers with high dissipation ratings are operated either water cooled or vapor cooled. Both groups require water with low mineral content. Cooling system control circuits should be provided to remove power from the tube if cooling is inadequate.

Tubes designed for communications service (such as types 891, 892, 895 and 5606) have thin anode walls and should not be used in industrial heating applications. The wide fluctuation of loading and impedance, inherent in this service, induces parasitic and arc-discharge conditions which require the greater thermal inertia of a thick anode wall. Overload and arc sensing circuits designed to remove or divert power from the tube within 5 cycles of energy are also essential.

High vacuum amplifiers are used to generate, amplify or modulate audio or radio frequencies in radio and television transmitters and induction and dielectric heating equipment for industrial use.

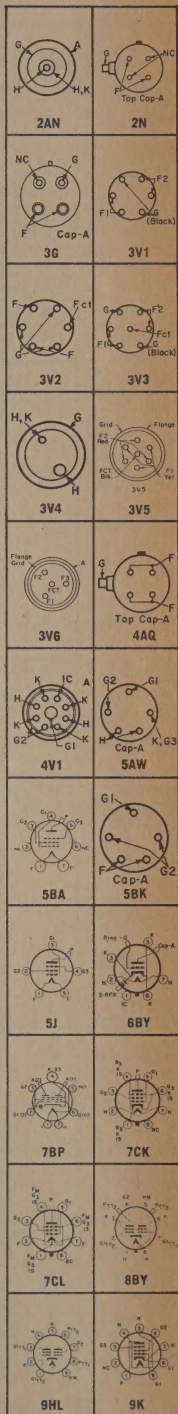
TUBE TYPE	COOL	CATHODE		RATINGS (1)			PERFORMANCE						MECHANICAL			
		VOLTS	AMPS.	ANODE KV	INPUT KW	DISS. KW	FREQ. MHz ⁽²⁾	ANODE KV	GRID VOLTS	ANODE AMPS.	DRIVE WATTS	OUT KW	(4) gm or μ	MAX. OAL (2) INCH	MAX. DIAM. (2) INCH	BASE DWG.
WL-2C39A	F	6.3	1	1	125W	100W	2500	800V	—20(6)	80mA	6	27(5)	100	2 $\frac{3}{4}$	1 $\frac{1}{4}$	2AN
WL-2C39B	F	6.3	1	1	125W	100W	2500	800V	—20(6)	80mA	6	27(5)	100	2 $\frac{3}{4}$	1 $\frac{1}{4}$	2AN
WL-2C40	A	6.3	0.75	500V	12.5W	6.5W	3370	250V	—5	20mA	—	75(6)	36	2 $\frac{1}{2}$	1 $\frac{1}{8}$	6BY
WL-2E24	A	6.3	0.65	600V	40W	13.5W	125	600V	—50	66mA	0.21	27W	3200	3 $\frac{3}{32}$	1 $\frac{1}{8}$	7CL
WL-2E26	A	6.3	0.8	600V	40W	13.5W	125	600V	—45	66mA	0.17	27W	3500	3 $\frac{3}{32}$	1 $\frac{1}{8}$	7CK

High Vacuum Amplifiers

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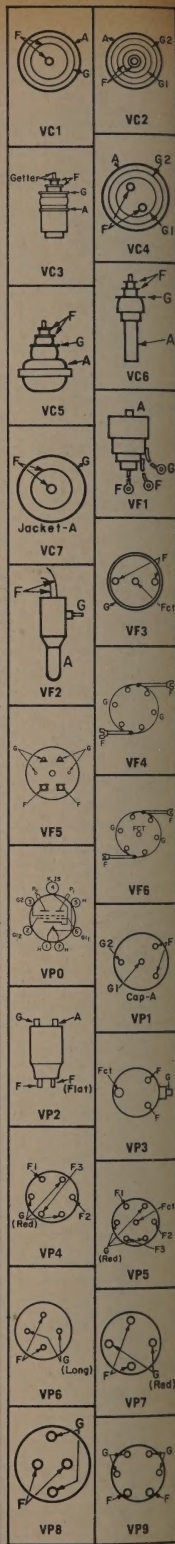
TUBE TYPE	COOL	CATHODE		RATINGS (1)			PERFORMANCE							MECHANICAL		
		VOLTS	AMPS.	ANODE KV	INPUT KW	DISS. KW	FREQ. MHz ⁽³⁾	ANODE KV	GRID VOLTS	ANODE AMPS.	DRIVE WATTS	OUT KW	(4) gm or μ	MAX. OAL (2) INCH	MAX. DIAM. (2) INCH	BASE DWG.
WL-4CX250B	F	6	2.6	2	0.5	0.25	500	2	-90	0.25	1	0.4	12000	2½	1⅝	4V1
WL-4CX5000A	F	7.5	75	7.5	22.5	5	30	7.5	-350	2.8	150	16	—	9⅞	4⅞	VC2
WL-4021	A	5	6.5	3	0.5	125W	120	3	-150	0.167	2.5	0.375	2450	5⅛	2⅝	5BK
WL-4X500A	F	5	13.5	4	1.4	0.5	120	4	-150	0.315	5	0.835	5200	4¾	2⅝	VP1
WL-4-400A	A	5	14.5	4	1.4	0.4	110	4	-220	0.35	12	1.1	4000	6¾	3⅝	5BK
WL-4-1000A	F	7.5	21	6	4.2	1	110	6	-200	0.7	200	3.4	10000	9⅝	5¼	5BK
WL-5D22	F	5	14.5	4	1.4	0.25	110	4	-225	0.312	10	1	4000	6¾	3⅝	5BK
WL-207	W	22	52	15	30	10	1.6	12	-1660	1.67	235	15	20	20¼	4⅞	VF2
WL-803	A	10	5	2	0.35	0.125	20	2	-90	0.16	2	0.21	4000	9¾	2⅝	5J
WL-807	A	6.3	0.9	600V	60W	25W	60	600V	-45	100mA	0.2	40W	6000	5¼	2⅞	5AW
WL-810	A	10	4.5	2	0.5	125W	30	2	-160	0.25	12	0.375	36	8¾	2⅞	2N
WL-811A	A	6.3	4	1.5	260W	65W	30	1.5	-70	0.173	7.1	0.2	160	6¾ ₃₂	2⅞	3G
WL-812A	A	6.3	4	1.5	260W	65W	30	1.5	-120	0.173	6.5	0.19	29	6⅝ ₃₂	2⅞	3G
WL-813	A	10	5	2	0.36	100W	30	2	-120	0.18	1.9	0.275	3750	7½	2⅞	5BA
WL-815	A	12.6(8)	0.8	500V	75W	25W	150	500V	-45	0.15	0.18	56W	4000	4¼	2⅞	8BY
WL-829B(7)	A	12.6(8)	1.125	750V	45W	15W	200	750V	-50	0.12	0.45	65W	8500	4⅞	2⅞	7BP
WL-832A(7)	A	12.6(8)	0.80	750V	18W	7.5W	200	750V	-65	48mA	0.19	26W	3500	3⅞	2⅞	7BP
WL-833A	F	10	10	4	1.8	0.4	20	4	-200	0.45	26	1.44	35	8⅜	4⅝ ₃₂	VP2
WL889A	W	11	120	8.5	16	5	50	7.5	-800	2	400	10	21	10⅞½	3⅝	VP6
WL-891	W	22(9)	60	12	18	6	1.6	10	-2000	1.4	310	10	8.5	20⅞	4¼	VP3
WL-891R	F	22(9)	60	10	15	4	1.6	10	-2000	1.4	310	10	8.5	22	12	VP3
WL-892	W	22(9)	60	15	30	10	1.6	12	-1600	1.64	500	14	50	20⅞	4¼	VP3
WL-892R	F	22(9)	60	12.5	18	4	1.6	10	-1300	1.4	495	10	50	22	12	VP3
WL-895	W	19(10)	139	17	140	40	6	17	-1000	7.5	1700	100	37	23⅞	6¾	VP4
WL-895R	F	19(10)	139	17	110	20	6	17	-1800	6	2200	84	37	24½	17	VP5
WL-5513	F	6.3	30	4	3.6	1.2	220	3750	-150	0.94	64	2370	49	6¾	3	VC1
WL-5604	F	11	176	12.5	32.5	10	25	12	-1170	2.5	470	22.5	20	13¾	8⅞	VP6
WL-5606	W	22	60	14	25	10	1.6	12	-1100	1.8	—	15.5	50	16	4⅞	VP7
WL-5619	W	11	176	12.5	32.5	20	25	12	-1170	2.5	470	22.5	20	13	5¼	VP6
WL-5658	W	12	290	12.5	60	20	15	12	-870	4.5	800	40	20	11½	7	VP8
WL-5666	W	11	120	10	20	12.5	22.5	9	-750	2	340	12.2	21	10¾	3⅝	VP6
WL-5667	F	11	120	10	20	7.5	22.5	9	-750	2	340	12.2	21	11¼	11	VP6
WL-5668	W	22	60	14	28	20	5	12	-700	2	—	17	50	16	4⅞	VP7
WL-5669	F	22	60	14	26	10	5	12	-700	2	—	17	50	17⅞	8⅞	VP7
WL-5682	W	16.5	325	16	300	120	30	15	-1400	18.4	7200	215	30	23¼	8½	VC3
WL-5736	F	6	60	3.5	3.5	2.5	110	3.5	-300	1	85	2.55	22	7¼	3⅝	VP9
WL-5762	F	12.6	29	6.2	8.7	3	30	6	-550	1.25	225	6	29	7⅞	4⅞½	VF3
WL-5763	A	6	0.75	300V	15W	12W	50	300V	-60	50mA	0.35	7W	7000	2⅝	⅞	9K
WL-5771	W	7.5	170	15	67.5	22.5	1.6	15	-990	4.5	1160	53	20	11¾	7	VP8
WL-5891	F	11	95	15	100	25	10	15	-1500	6.1	1785	73.5	36	24½	11⅞½	VP5
WL-5894(7)	A	12.6	0.9	750V	60W	20W	250	600V	-80	200mA	3	90W	—	4⅞	1⅞½	VP0
WL-5918A	W	11	285	17.5	300	70	22	17.5	-1000	13.8	3600	180	37	23¾	7⅞	3V1
WL-5936	W	20	143	18	180	70	15	17	-1400	10	4500	136	37	23⅞	8⅞	VP5
WL-5986A	W	11	285	17.5	300	70	22	17.5	-1000	13.8	3600	180	37	24	8⅞½	VF4
WL-6146	A	6.3	1.25	600V	67.5W	20W	60	600V	-58	112mA	0.2	52W	7000	3⅞½	1⅝ ₃₂	7CK
WL-6146A	A	6.3	1.25	600V	67.5W	20W	60	600V	-58	112mA	0.2	52W	7000	3⅞½	1⅝ ₃₂	7CK
WL-6146B	A	6.3	1.25	600V	90W	27W	60	600V	-70	0.15	0.3	63W	7000	3⅞½	1⅝ ₃₂	7CK
WL-6159	A	26.5	0.30	600V	67.5W	20W	60	600V	-58	112mA	0.2	52W	7000	3⅞½	1⅝ ₃₂	7CK
WL-6360	A	12.6(8)	0.41	300V	22.5W	10W	200	300V	-40	75mA	0.1	14.5W	3300	3⅞½	⅞	9HL
WL-6379(11)	W	11	285	17.5	150	70	Note 14	14.7	-3100	1.2 Min. 20 Max.	0	150	5	23¾	6¾	3V1
WL-6399	W	11	29	6.2	9	6	30	6	-800	1.4	210	6	25	8½	2⅞½	3V2
WL-6420	W	7.0	85	10	20	12.5	30	9	-750	2	240	13.2	20	13¾	4⅞	VC5
WL-6421	F	7	85	10	20	10	30	9	-750	2	240	13.2	20	17¾	4⅝ ₃₂	VC6
WL-6421F	F	7	85	10	20	7.5	30	9	-750	2	240	13.2	20	14½	8⅞	VC5
WL-6422	W	7	85	12.5	30	20	30	12	-400	2.1	200	18.2	90	15½	4⅞	VC6



High Vacuum Amplifiers

continued

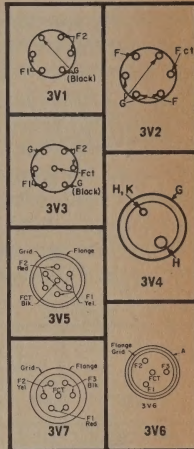
TUBE TYPE	COOL	CATHODE		RATINGS (1)			PERFORMANCE								MECHANICAL		
		VOLTS	AMPS.	ANODE KV	INPUT KW	DISS. KW	FREQ. MHZ ⁽²⁾	ANODE KV	GRID VOLTS	ANODE AMPS.	DRIVE WATTS	OUT KW	(4) gm or μ	MAX. OAL (2) INCH	MAX. DIAM. (2) INCH	BASE DWG.	
WL-6423	F	7	85	12.5	30	12.5	30	12	—400	2.1	200	18.2	90	15 $\frac{3}{4}$	5	VC6	
WL-6423F	F	7	85	12.5	30	10	30	12	—400	2.1	200	18.2	90	16	8 $\frac{1}{8}$	VC5	
WL-6424	W	7	120	12.5	40	20	30	12	—1000	3.3	430	30.6	20	15 $\frac{1}{2}$	4 $\frac{3}{8}$	VC6	
WL-6425	F	7	120	12.5	40	12.5	30	12	—1000	3.3	430	30.6	20	15 $\frac{3}{4}$	5	VC6	
WL-6425F	F	7	120	12.5	40	11	30	12	—1000	3.3	430	30.6	20	16	8 $\frac{1}{8}$	VC5	
WL-6426	W	8	200	12.5	80	40	30	7.5	—850	5.3	7500	33	20	15 $\frac{1}{2}$	4 $\frac{3}{4}$	VC6	
WL-6427	F	8	200	12.5	80	20	30	7.5	—850	5.3	7500	33	20	16 $\frac{1}{4}$	5 $\frac{1}{4}$	VC6	
WL-6567	W	6	70	12	24	15	50	12	—800	1.94	445	19.3	33	11 $\frac{3}{4}$	3 $\frac{1}{8}$	VC7	
WL-6623	F	6	60	5	5	2.5	30	5	—850	1	250	4.1	22	6 $\frac{1}{8}$	4 $\frac{1}{4}$	VF5	
WL-6696	W	13	205	16	120	60	30	15	—1600	7	600	80	20	19 $\frac{3}{8}$	6 $\frac{1}{8}$	VC6	
WL-6697	F	13	205	16	120	35	30	15	—1600	7	600	80	20	19 $\frac{3}{8}$	6 $\frac{1}{8}$	VC6	
WL-6893	A	12.6	0.4	600V	40W	13.5W	125	600V	—45	66mA	0.17	27W	3500	3 $\frac{3}{32}$	1 $\frac{1}{8}$	7CK	
WL-6939	A	12.6(8)	0.3	250V	12W	6W	500	180V	—20	55mA	1.2	5W	10500	2 $\frac{3}{8}$	7 $\frac{1}{8}$	9HL	
WL-7007	F	5	180	7.5	20	12	220	7	—300	2.6	720	12	—	11 $\frac{1}{8}$	6	VC4	
WL-7203	F	6	2.3	2	—	250W	500	2	—90	0.25	1	0.4	—	2 $\frac{1}{32}$	1 $\frac{1}{8}$	4V1	
WL-7215	W	6	60	9.2	18	9	30	9	—1400	2	337	13.6	22	8 $\frac{1}{2}$	3 $\frac{3}{8}$	VP9	
WL-7255	W	6	60	9.2	18	9	30	9	—1400	2	337	13.6	22	9 $\frac{1}{4}$	3 $\frac{3}{8}$	VF5	
WL-7328A(11)	F	7	245	10	50	20	Note 11	10	—2200	0.5 Min. 8.5 Max.	0	49.5	6	14 $\frac{1}{2}$	10 $\frac{1}{8}$	3V3	
WL-7463	F	6	70	12	24	12	60	12	—800	1.94	445	19.3	33	9 $\frac{1}{8}$	11	VC7	
WL-7464(11)	W	6	60	8	18	8	Note 11	7.5	—1200	0.3 Min. 2.68 Max.	0	10.8	6	9 $\frac{1}{2}$	3 $\frac{3}{8}$	VP9	
WL-7482	V	14.5	450	20	600	200	30	20	—1000	29	6000	440	45	26	11 $\frac{1}{8}$	VC6	
WL-7482V	V	14.5	450	20	600	200	30	20	—1000	29	6000	440	45	27 $\frac{1}{2}$	11 $\frac{1}{8}$	VC6	
WL-7540(11)	W	5	250	15	70	35	Note 11	12.5	—2800	1 Min. 8 Max.	0	59	5	16	7 $\frac{1}{4}$	VF6	
WL-7560	W	14.5	450	20	600	175	30	20	—1000	29	6000	440	45	29 $\frac{1}{2}$	10	VC6	
WL-7560V	W	14.5	450	20	600	175	30	20	—1000	29	6000	440	45	36 $\frac{1}{2}$	10	VC6	
WL-7565(11)	F	6	60	5	5	2.5	Note 11	7	—1140	0.5 Min. 2.2 Max.	0	7.7	6	6 $\frac{1}{8}$	4 $\frac{1}{4}$	VF5	
WL-7604(12)	F	5	8	4	1.5	0.6	60	3.5	—210	0.285	65	755	20	5 $\frac{1}{8}$	2 $\frac{1}{8}$	3V4	
WL-7685(12)	F	5	8	4	1.5	0.6	60	4	—550	0.12 Min. 0.64 Max.	0	1550	6.5	5 $\frac{1}{8}$	2 $\frac{1}{8}$	3V4	
WL-7748	W	8	150	12.5	80	35	30	12.5	—1300	4.25	970	46.5	20	15	7 $\frac{1}{4}$	3V3	
WL-7982(11)	W	7	265	10	75	35	Note 11	10	—2200	0.5 Min. 9.3 Max.	61	65	5.5	15	6 $\frac{3}{8}$	3V3	
WL-8032	A	13.5	0.585	600V	67.5W	20W	60	600V	—58	112mA	0.2	52W	7000	3 $\frac{1}{8}$	1 $\frac{3}{32}$	7CK	
WL-8045	W	12.6	285	18	270	90	2	16	—1800	13.2	3250	150	20	23 $\frac{3}{8}$	7 $\frac{1}{8}$	3V1	
WL-8161 / 3CX2500A3	F	7.5	51.5	6	12	2.5	75	6	—500	2	136	10	22.5	9	4 $\frac{1}{8}$	VC1	
WL-8251 / 3CX2500F3	F	7.5	51.5	6	12	2.5	30	6	—500	2	136	10	22.5	9	4 $\frac{1}{8}$	VF1	
WL-8298	A	6.75	1.165	600V	67.5W	20W	60	600V	—58	112mA	0.2	52W	7000	3 $\frac{1}{8}$	1 $\frac{3}{32}$	7CK	
WL-22759	W	6	60	9.2	18	9	30	9	—1400	2	337	13.6	22	9 $\frac{1}{2}$	3 $\frac{3}{8}$	VF5	
WL-22789	W	6	60	9.3	21	9	30	9	—1400	2	337	13.6	22	9 $\frac{1}{2}$	3 $\frac{3}{8}$	VF5	
WL-22803	W	13.5	550	22	600	200	15	20	—1400	30	8800	485	35	33 $\frac{1}{8}$	9 $\frac{1}{2}$	3V5	
WL-22862	W	12.6	285	18	270	90	2	16	—1800	13.2	3250	150	22	24	8 $\frac{3}{8}$	VF4	
WL-22924	V	12.6	285	18	270	100	2	16	—1800	13.2	3250	150	22	25	10	VF4	
WL-23063	W	13.5(10)	375	25	1000	375	15	16	—1900	46	17KW	550	22	40	15	3V6	
							20	16	—2200	52	18KW	770					
WL-23165	W	11(10)	95	15	150	90	10	15	—1500	6.1	1785	73.5	36	23 $\frac{3}{8}$	8 $\frac{1}{4}$	VP5	



HIGH VACUUM SWITCH TUBES



TUBE TYPE	COOLING	CATHODE		RATINGS						CUT-OFF (13) VOLTS	MECHANICAL		
		VOLTS	AMP.	ANODE KV	DISS KW	ANODE PK AMP.	CATHODE PK AMP.	PULSE μ SEC	DUTY FACTOR		MAX. OAL	MAX. DIAM.	BASE DWG.
WL-466R	F	13	205	45	35	150	175	1000	0.01	—3200	19 $\frac{1}{8}$ "	6 $\frac{1}{8}$ "	VC6
WL-4852	W	15(10)	390	80	375	1400	1650	500	0.008	—4200	40"	15"	3V6
WL-5682	W	16.5	325	35	120	300	360	1000	0.01	—3200	23 $\frac{1}{4}$ "	8 $\frac{1}{32}$ "	VC3
WL-6293	A	6.3	1.25	2.0 3.5	10W 10W	3 1.4	—	30 200	0.003 0.02	—200	3 $\frac{3}{16}$ "	12 $\frac{1}{32}$ "	7CK
WL-6422	W	7	85	35	20	30	35	1000	0.03	—1000	15 $\frac{1}{2}$ "	4 $\frac{3}{16}$ "	VC6
WL-6423	F	7	85	35	12.5	30	35	1000	0.03	—1000	15 $\frac{3}{4}$ "	5"	VC6
WL-6423F	F	7	85	35	10	30	35	1000	0.03	—1000	16"	8 $\frac{1}{8}$ "	VC5
WL-6424	W	7	120	35	20	36	45	1000	0.03	—3000	15 $\frac{1}{2}$ "	4 $\frac{3}{16}$ "	VC6
WL-6425	F	7	120	35	12.5	36	45	1000	0.03	—3000	15 $\frac{3}{4}$ "	5"	VC6
WL-6425F	F	7	120	35	10	36	45	1000	0.03	—3000	16"	8 $\frac{1}{8}$ "	VC5
WL-6426	W	8	200	45	40	70	85	1000	0.03	—3200	15 $\frac{5}{8}$ "	4 $\frac{3}{4}$ "	VC6
WL-6427	F	8	200	45	20	70	85	1000	0.03	—3200	16 $\frac{1}{4}$ "	5 $\frac{1}{4}$ "	VC6
WL-6696	W	13	205	45	60	150	175	1000	0.01	—3200	19 $\frac{3}{8}$ "	6 $\frac{1}{8}$ "	VC6
WL-6697	F	13	205	45	35	150	175	1000	0.01	—3200	19 $\frac{7}{8}$ "	6 $\frac{1}{8}$ "	VC6
WL-6920	F	11 11.9	285 —	35 35	10 10	100 150	140 200	15 15	0.002 0.002	—	24"	8"	3V1
WL-7328A	F	7.0	245	20	20	88	100	2000	0.01	—6000	14 $\frac{1}{2}$ "	10 $\frac{1}{16}$ "	3V3
WL-7413	W	12(10) 13(10)	103 106	60 60	70(14) 70(14)	150 400	200 500	1000 0.5	0.01 0.0012	—2700	23 $\frac{33}{32}$ "	8 $\frac{1}{4}$ "	VP5
WL-7560	W	14.5	450	50	175	450	550	1000	0.01	—3500	29 $\frac{1}{2}$ "	10"	VC6
WL-7560V	W	14.5	450	50	175	450	550	1000	0.01	—3500	31 $\frac{1}{2}$ "	10"	VC6
WL-7691	F	12(10) 13(10)	103 106	60 60	10 10	150 400	200 500	1000 0.5	0.01 0.0012	—2700	23 $\frac{1}{2}$ "	8 $\frac{1}{4}$ "	VP5
WL-7750	F	8	180	30	8	80	100	1000	0.02	—1800	14 $\frac{3}{8}$ "	8 $\frac{1}{32}$ "	3V3
WL-7982	W	7.0	265	20	35	88	100	2000	0.01	—6000	15"	6 $\frac{7}{8}$ "	3V3
WL-8044	F	8	185	30	20	80	105	1000	0.02	—1800	14 $\frac{1}{2}$ "	10 $\frac{1}{16}$ "	3V3
WL-8045	W	12.6	285	50	90	150	200	2000	0.06	—3000	23 $\frac{7}{8}$ "	7 $\frac{1}{8}$ "	3V1
WL-8461	W	15(10)	200	80	200	600	750	1000	0.01	—3500	33 $\frac{1}{8}$ "	11 $\frac{1}{4}$ "	3V7
WL-23185	W	12.6	285	75	90	150	200	1000	0.01	—	23 $\frac{3}{8}$ "	7 $\frac{7}{8}$ "	3V1



Notes

- Ratings and Performance are based on CCS Class C Telegraphy service unless otherwise shown.
- Excluding flying leads and protruding side terminals, pipes or handles.
- Highest frequency for full input.
- For triodes, amplification factor (μ) is shown; for tetrodes, beam tubes and pentodes, transconductance (gm) in micromhos is listed.
- Watts output at 500 megahertz.
- Milliwatts output at 3000 megahertz.
- Twin unit tube, Ratings are each unit, Performance for both units.
- Parallel heater connection requires half heater voltage and twice heater current.
- For d-c and single phase a-c. For 2 phase a-c voltage per phase will be half listed value and current per phase will be listed current value.
- Listed values of filament voltage and current are per phase for 3 phase operation.
- Designed for audio and ultra-sonic service, Ratings are single tube Class AB and Performance is for 2 tubes Class AB.
- Ratings and Performance are for Class AB r-f amplifier service.
- For anode current of 1 milliamper maximum at maximum anode voltage.
- For oil immersion, cooling value is 14 kilowatts.

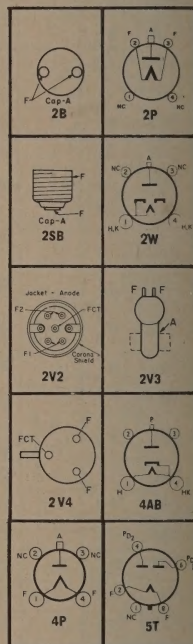
COOLING CODE = A — RADIATION
F — FORCED AIR
W — WATER
V — VAPOR

HIGH VACUUM RECTIFIERS

High vacuum rectifiers are two electrode tubes with heated cathodes. Electrons emitted from the cathode are attracted to the plate when it is positive with respect to the cathode. These electrons form the tube current. High vacuum rectifiers are not very efficient for rectifying large currents, since the space charge increases the tube drop, but in applications involving very high voltages at low currents or a linear characteristic they are necessary. The absence of gas provides very high insulation during the inverse half cycle. Pure tungsten or thoriated tungsten fila-

ments are used to permit short delay periods between the application of filament voltage and plate voltage. High vacuum rectifiers are used in high voltage power supplies for electrostatic precipitation of vapors and dust such as the Precipitron® and high voltage testing of materials, to absorb high voltage inverse pulses such as reflected radar pulses, to permit undirectional capacitor charging in pulse shaping networks, to produce the high accelerating voltages used in x-ray tubes and any other devices requiring small currents at very high voltages.

TUBE TYPE	NOTE	CATHODE		RATINGS				MECHANICAL		
		VOLTS	AMPS	INVERSE KV	PEAK MA	AVG. MA	DROP (3) VOLTS	MAX. OAL	MAX. DIAM.	BASE DWG.
WL-2X2A	(1)	2.5	1.75	12.5	60	7.5	240	4 $\frac{1}{2}$ "	1 $\frac{1}{8}$ "	4AB
WL-5R4-GYB	(1)	5	2	3100	715	150	123	4 $\frac{1}{4}$ "	1 $\frac{1}{8}$ "	5T
WL-102A	(1)	20.0	19	75	750	120	—	16 $\frac{1}{8}$ "	5 $\frac{1}{8}$ "	2B
WL-399	(2)	10.0	11.5	140	—	50	—	9 $\frac{3}{32}$ "	3 $\frac{1}{8}$ "	2B
WL-456	(1)	11.0	20	140	500	60	1760	19"	5 $\frac{1}{8}$ "	2B
WL-481B	(1)	2.5	5	25	150	30	80 (5)	4 $\frac{7}{8}$ "	1 $\frac{1}{8}$ "	4P
WL-579B	(1)	2.5	6	20	270	25	510	7 $\frac{1}{8}$ "	2 $\frac{1}{8}$ "	2P
WL-613	(1)	11.0	10	140	200	20	1040	19"	5 $\frac{1}{8}$ "	2SB
WL-836	(1)	2.5	5	5	1000	250	1800	6 $\frac{1}{8}$ "	2 $\frac{1}{8}$ "	2W
WL-5575	(1)	20.0	24	150	1000	160	525	25 $\frac{1}{4}$ "	6 $\frac{1}{8}$ "	2B
WL-5576	(1)	20.0	32	150	2500	400	1000	25 $\frac{1}{4}$ "	6 $\frac{1}{8}$ "	2B
WL-5859/5860	(2)	10.0	11.5	140	—	100	—	7 $\frac{7}{8}$ "	2 $\frac{1}{8}$ "	2B
WL-5934	(1)	2.5	6	20	270	25	520	6 $\frac{7}{8}$ "	2 $\frac{1}{8}$ "	4P
WL-5973	(1)	16.0	19.1	75	5000	1000	950	19 $\frac{1}{2}$ "	6 $\frac{1}{8}$ "	2B
WL-7658	(6)	4.0	6.8	125	750	150	900	8"	2 $\frac{1}{8}$ "	2B
WL-8094	(1)	12.0	23	110	10000	650	2500	25 $\frac{1}{4}$ "	6 $\frac{1}{8}$ "	2B
WL-22800	(7)	7	250	50	60A	20A	850	14 $\frac{1}{2}$ "	10 $\frac{1}{16}$ "	2V2
WL-22801	(7)	5	125	30	30A	10A	950	11"	6 $\frac{1}{32}$ "	2V3
WL-22802	(8)	7	250	50	60A	20A	850	15"	8 $\frac{1}{8}$ "	2V2
WL-23095(9)	(8)	9	132	30	—	3.5A	Note 9	12 $\frac{1}{16}$ "	4 $\frac{3}{8}$ "	2V3
WL-23102/102A	(1)	20	19	75	750	120	1800	16 $\frac{7}{8}$ "	5 $\frac{1}{8}$ "	2B
WL-23178(9)	(8)	16	32	15	—	2A	Note 9	9 $\frac{1}{2}$ "	4 $\frac{1}{2}$ "	2V4



Notes

1. Air cooled.
2. Oil cooled for X-ray applications.
3. At bogey filament conditions and peak current.
4. Excluding leads.
5. Measured at 30 ma.
6. Oil cooled.
7. Forced air cooled.
8. Water cooled.
9. Control diode.

COLD CATHODE GAS-FILLED TUBES



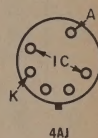
Cold cathode glow tubes have two or three electrodes and an inert gas fill. One popular type of two electrode tube is the voltage regulator tube. This type maintains a constant voltage drop with varying load currents.

The KX-642 provides over-voltage protection for power lines. It shorts out surges due to switching or lightning.

The gas triodes have a starting electrode which, when excited, starts tube conduction at a lower voltage.

Voltage Regulators

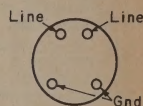
TUBE TYPE	ELECTRICAL				MECHANICAL		
	REGULATED VOLTS	MA	RANGE VOLTS	START VOLTS	MAX. OAL	MAX. DIAM.	DWG. BASE
WL-0A2	150	5 to 30	2	185	2 $\frac{3}{8}$ "	$\frac{3}{4}$ "	5B0
WL-0A2WA	150	5 to 30	2	185	2 $\frac{3}{8}$ "	$\frac{3}{4}$ "	5B0
WL-0A3/VR75	75	5 to 40	5	105	4 $\frac{1}{8}$ "	1 $\frac{1}{16}$ "	4AJ
WL-0B2	105	5 to 30	4	135	2 $\frac{3}{8}$ "	$\frac{3}{4}$ "	5B0
WL-0B2WA	105	5 to 30	4	135	2 $\frac{3}{8}$ "	$\frac{3}{4}$ "	5B0
WL-0B3/VR90	90	5 to 30	5	130	4 $\frac{1}{8}$ "	1 $\frac{1}{16}$ "	4AJ
WL-0C3/VR105	105	5 to 40	2	135	4 $\frac{1}{8}$ "	1 $\frac{1}{16}$ "	4AJ
WL-5651	87	1.3 to 3.5	1.5	103	2 $\frac{1}{8}$ "	$\frac{3}{4}$ "	5B0



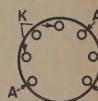
4AJ



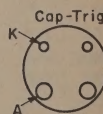
4CK



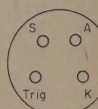
4CP



5B0



GT1



GT2

Line Protector

TUBE TYPE	RATINGS				MECHANICAL		
	LINE VOLTS	DISCHARGE VOLTS	2 SEC. AMPS.	10 MIN. AMPS.	MAX. OAL	MAX. DIAM.	BASE DWG.
KX-642	230	300 to 500	50	7	4 $\frac{3}{16}$ "	2 $\frac{3}{16}$ "	4CP

Gas Triodes

TUBE TYPE	ELECTRICAL				MECHANICAL		
	ANODE VOLTS	ANODE MA.	TRIGGER VOLTS	COOL	MAX. OAL	MAX. DIAM.	BASE DWG.
KU-618	440	15	300	air	5 $\frac{3}{4}$ "	2 $\frac{3}{16}$ "	GT2
WL-759	300	4	165	air	4"	1 $\frac{1}{16}$ "	GT1
WL-5823	117	25	105	air	2 $\frac{1}{8}$ "	$\frac{3}{4}$ "	4CK

HOLLOW CATHODE SPECTRAL TUBES For Atomic Absorption Spectroscopy

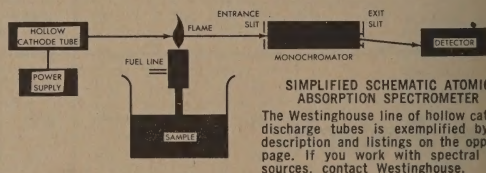
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Atomic Absorption Spectroscopy

One of the major uses of Westinghouse hollow cathode tubes is in the field of atomic absorption spectroscopy to measure impurity traces as small as 50 parts per billion. This analytical technique uses a hollow cathode tube as a source of monochromatic spectral lines of the cathode element or elements. Components necessary for making atomic absorption spectroscopic measurements are 1) a source (hollow cathode tube) of atomic spectra of the desired element, 2) a flame, 3) a monochromator, and 4) a detector. These components are shown in the accompanying diagram. To perform an analysis by this technique a hollow cathode tube with a cathode of the desired element, for example copper, is used as the source of excited copper atoms. The radiation from the tube is passed through a flame, a monochromator and then into a detector where a signal will be registered at the 3247 Å copper line. A solution containing copper may then be aspirated into the flame. This will cause a reduction in the signal at 3247 Å because of the absorption of some of the energy from the excited copper atoms by the unexcited copper atoms in the flame. By aspirating standard samples containing varying

amounts of copper into the flame a calibration curve may be drawn. An unknown sample may then be aspirated into the flame and the copper concentration determined directly from the calibration curve.

This description is rather simplified. More sophisticated systems and equipment have been devised and are now available commercially from several companies.



SINGLE ELEMENT TYPES

CATHODE MAT'L & TYPES	WINDOW & SIZE	GAS FILL	MAX mA	ANALY LINES
	Note 1	Note 2	Note 3	° A
Aluminum				
WL-22804	Q-B	A	20	3092
WL-22809	P-A	Ne	20	3962
WL-22929	Q-B	Ne	20	—
WL-22954	Q-A	Ne	20	—
WL-22870	Q-A	A	20	—
Antimony				
WL-22840	Q-B	A	25	2176
WL-22931	Q-B	Ne	25	2311
WL-22956	Q-A	Ne	25	—
WL-22872	Q-A	A	25	—
Arsenic				
WL-22836	Q-B	Ne	20	1937
WL-22873	Q-A	Ne	20	1972

CATHODE MAT'L & TYPES	WINDOW & SIZE	GAS FILL	MAX mA	ANALY LINES ° A
	Note 1	Note 2	Note 3	
Barium				
WL-22834	P-A	Ne	30	5536
Bismuth				
WL-22841	Q-B	A	12	2231
WL-22874	Q-A	A	12	3068
WL-22932	Q-B	Ne	12	—
WL-22957	Q-A	Ne	12	—
Boron				
WL-22916	Q-B	A	25	2497
WL-22917	Q-A	A	25	—
Cadmium				
WL-22816	Q-B	A	12	2288
WL-22875	Q-A	A	12	3261
WL-22933	Q-B	Ne	12	—
WL-22958	Q-A	Ne	12	—

CATHODE MAT'L & TYPES	WINDOW & SIZE	GAS FILL	MAX mA	ANALY LINES e Å
	Note 1	Note 2	Note 3	
Calcium				
WL-22610	P-A	Ne	20	4227
Cerium				
WL-22977	Q-B	Ne	20	—
WL-22978	Q-A	Ne	20	—
Cesium				
WL-22817	P-A	A	30	8521
WL-22823	P-A	Ne	30	4556
Chromium				
WL-22812	P-A	A	30	3579
WL-22821	Q-B	A	30	4254
WL-22877	Q-A	A	30	—
WL-22934	Q-B	Ne	30	—
WL-22959	Q-A	Ne	30	—

Hollow Cathode Spectral Tubes

For Atomic Absorption Spectroscopy

continued



CATHODE MAT'L & TYPES	WINDOW & SIZE	GAS FILL	MAX mA	ANALY LINES Å
Note 1	Note 2	Note 3		
Cobalt				
WL-22813	P-A	A	35	2407
WL-22814	Q-B	A	35	3454
WL-22928	Q-B	Ne	35	3527
WL-22953	Q-A	Ne	35	—
WL-22878	Q-A	A	35	—
Copper				
WL-22603	P-A	Ne	40	3247
WL-22606	Q-B	A	40	3274
WL-22879	Q-A	A	40	—
WL-23041	Q-B	Ne	40	—
WL-23042	Q-A	Ne	40	—
Dysprosium				
WL-22827	Q-B	Ne	25	4046
WL-22880	Q-A	Ne	25	4187
Erbium				
WL-22828	Q-B	Ne	25	4008
WL-22881	Q-A	Ne	25	—
Europium				
WL-22845	Q-B	Ne	20	4594
WL-22882	Q-A	Ne	20	4627
Gadolinium				
WL-22975	P-A	Ne	20	3684
WL-22985	Q-B	Ne	20	3713
WL-22986	Q-A	Ne	20	—
Gallium				
WL-22833	Q-B	Ne	15	2874
WL-22884	Q-A	Ne	15	4172
Gold				
WL-22839	Q-B	A	15	2428
WL-22883	Q-A	A	15	2676
WL-22935	Q-B	Ne	15	—
WL-22960	Q-A	Ne	15	—
Holmium				
WL-22829	Q-B	Ne	20	4054
WL-22885	Q-A	Ne	20	5983
Indium				
WL-22867	Q-B	A	20	3040
WL-22915	Q-A	A	20	—
WL-22996	Q-B	Ne	20	—
Iron				
WL-22602	P-A	A	40	2483
WL-22820	P-A	Ne	40	3720
WL-22611	Q-B	A	40	—
WL-22886	Q-A	A	40	—
WL-22810	Q-B	Ne	40	—
WL-22887	Q-A	Ne	40	—
High Purity Iron				
WL-22837	Q-B	Ne	35	2483
WL-22888	Q-A	Ne	35	3720
Lanthanum				
WL-22846	Q-B	A	20	4015
WL-22889	Q-A	A	20	3574
WL-23049	Q-B	Ne	20	3928

CATHODE MAT'L & TYPES	WINDOW & SIZE	GAS FILL	MAX mA	ANALY LINES Å
Note 1	Note 2	Note 3		
Lead				
WL-22838	Q-B	A	15	2170
WL-22890	Q-A	A	15	2833
WL-22927	Q-B	Ne	15	2614
WL-22952	Q-A	Ne	15	—
Lithium (See Note)				
WL-22825	P-A	A	30	6708
WL-23060	P-A	Ne	30	—
Lithium-6 (See Note)				
WL-22830	P-A	Ne	30	6708
WL-22925	P-A	A	30	—
Lithium-7 (See Note)				
WL-22831	P-A	Ne	30	6708
WL-22926	P-A	A	30	—
Lutetium				
WL-23009	Q-B	Ne	20	3081
WL-23010	Q-A	Ne	20	—
Magnesium				
WL-22609	Q-B	A	20	2852
WL-22891	Q-A	A	20	2025
WL-22968	Q-B	Ne	20	2659
WL-22951	Q-A	Ne	20	—
Manganese				
WL-22608	Q-B	A	35	2795
WL-22876	Q-A	A	35	2801
WL-22815	P-A	A	35	—
WL-22936	Q-B	Ne	35	—
WL-22961	Q-A	Ne	35	—
Mercury				
WL-22847	Q-B	A	15	2537
WL-22892	Q-A	A	15	—
Molybdenum				
WL-22805	Q-B	A	35	3133
WL-22893	Q-A	A	35	3170
WL-22937	Q-B	Ne	35	—
WL-22962	Q-A	Ne	35	—
Neodymium				
WL-22979	Q-B	Ne	20	4925
WL-22980	Q-A	Ne	20	—
Nickel				
WL-22605	P-A	A	40	2320
WL-22663	Q-B	A	40	3415
WL-22894	Q-A	A	40	—
WL-22819	Q-B	Ne	40	—
WL-22895	Q-A	Ne	40	—
Niobium (Columbium)				
WL-22858	Q-B	Ne	30	4059
WL-22912	Q-A	Ne	30	4080
Palladium				
WL-22857	Q-B	A	30	2448
WL-22911	Q-A	A	30	2476
WL-22969	Q-B	Ne	30	3404
WL-22970	Q-A	Ne	30	—

CATHODE MAT'L & TYPES	WINDOW & SIZE	GAS FILL	MAX mA	ANALY LINES Å
Note 1	Note 2	Note 3		
Phosphorus				
WL-22989	Q-B	Ne	20	—
WL-22990	Q-A	Ne	20	—
Platinum				
WL-22851	Q-B	A	30	2659
WL-22896	Q-A	A	30	—
Potassium				
WL-22863	P-A	Ne	25	7665 4044
Praseodymium				
WL-22981	Q-B	Ne	20	4951
WL-22982	Q-A	Ne	20	5133
Rhenium				
WL-22942	Q-B	Ne	30	3460
WL-22967	Q-A	Ne	30	3465
Rhodium				
WL-22850	Q-B	A	30	3435
WL-22897	Q-A	A	30	3692
WL-22997	Q-B	Ne	30	—
Rubidium				
WL-22824	P-A	Ne	30	7800
WL-23046	Q-B	Ne	30	—
Samarium				
WL-22818	Q-B	Ne	30	3951
WL-22899	Q-A	Ne	30	4760
Selenium				
WL-22843	Q-B	A	15	1960
WL-22898	Q-A	A	15	2040
WL-22938	Q-B	Ne	15	—
WL-22963	Q-A	Ne	15	—
Silicon				
WL-22832	Q-B	A	20	2516
WL-22900	Q-A	A	20	—
WL-22939	Q-B	Ne	20	—
WL-22964	Q-A	Ne	20	—
Silver				
WL-22806	Q-B	A	20	3281
WL-22901	Q-A	A	20	3383
Sodium				
WL-22864	P-A	A	—	5890
WL-23059	P-A	Ne	—	3302
Strontium				
WL-22835	P-A	Ne	30	4607
Tantalum				
WL-22859	Q-B	A	30	3311
WL-22913	Q-A	A	30	—
WL-22971	Q-B	Ne	30	—
WL-22972	Q-A	Ne	30	—
Tellurium				
WL-22842	Q-B	A	15	2143
WL-22902	Q-A	A	15	2386
WL-22940	Q-B	Ne	15	—
WL-22965	Q-A	Ne	15	—
Terbium				
WL-22848	Q-B	Ne	30	4319
WL-22903	Q-A	Ne	30	4338

Hollow Cathode Spectral Tubes

For Atomic Absorption Spectroscopy

continued

CATHODE MAT'L & TYPES	WINDOW & SIZE	GAS FILL	MAX mA	ANALY LINES °A
	Note 1	Note 2	Note 3	
Thorium				
WL-23027	Q-B	Ne	30	—
WL-23028	Q-A	Ne	30	—
Thulium				
WL-23007	Q-B	Ne	20	4094
WL-23008	Q-A	Ne	20	4105
Tin				
WL-22822	Q-B	A	15	2863
WL-22904	Q-A	A	15	—
WL-22941	Q-B	Ne	15	—
WL-22966	Q-A	Ne	15	—
Titanium				
WL-22991	Q-B	Ne	25	3643
WL-22992	Q-A	Ne	25	3998

CATHODE MAT'L & TYPES	WINDOW & SIZE	GAS FILL	MAX mA	ANALY LINES °A
	Note 1	Note 2	Note 3	
Tungsten				
WL-22844	Q-B	Ne	35	4009
WL-22905	Q-A	Ne	35	4294
WL-22849	Q-B	A	35	—
WL-22906	Q-A	A	35	—
Uranium				
WL-22826	Q-B	Ne	30	5027
WL-22907	Q-A	Ne	30	5915
Vanadium				
WL-22856	Q-B	A	35	3184
WL-22910	Q-A	A	35	3855
WL-22973	Q-B	Ne	35	—
WL-22974	Q-A	Ne	35	—

CATHODE MAT'L & TYPES	WINDOW & SIZE	GAS FILL	MAX mA	ANALY LINES °A
	Note 1	Note 2	Note 3	
Ytterbium				
WL-22983	Q-B	A	20	3988
WL-22984	Q-A	A	20	—
Yttrium				
WL-22976	P-A	Ne	20	4077
WL-22987	Q-B	Ne	20	4102
WL-22988	Q-A	Ne	20	—
Zinc				
WL-22607	Q-B	A	18	2139
WL-22908	Q-A	A	18	3076
WL-22811	Q-B	Ne	18	—
WL-22909	Q-A	Ne	18	—
Zirconium				
WL-22860	Q-B	A	30	—
WL-22914	Q-A	A	30	—
WL-22998	Q-B	Ne	30	—

MULTIPLE ELEMENT TYPES

CATHODE MAT'L & TYPES	WINDOW & SIZE	GAS FILL	MAX mA
	Note 1	Note 2	Note 3
Ca-Mg-AL			
WL-22604	Q-B	A	20
WL-22871	Q-A	A	20
WL-22930	Q-B	Ne	20
WL-22955	Q-A	Ne	20
Ba-Ca-Sr			
WL-23034	P-A	Ne	25
Ca-Mg-Al-Li			
WL-23035	Q-B	Ne	18
WL-23036	Q-A	A	18
Fe-Cu-Mn			
WL-23106	Q-B	Ne	35

CATHODE MAT'L & TYPES	WINDOW & SIZE	GAS FILL	MAX ma
	Note 1	Note 2	Note 3
Cr-Fe-Mn-Ni WL-23108	Q-B	Ne	30
Cu-Zn-Pb-Sn WL-23109	Q-B	Ne	12
As-Ni WL-23116	Q-B	Ne	20
Au-Ni WL-23117	Q-B	Ne	15
In-P WL-23118	Q-B	Ne	20
Cu-Ga WL-23119	Q-B	Ne	20

CATHODE MAT'L & TYPES	WINDOW & SIZE	GAS FILL	MAX mA
	Note 1	Note 2	Note 3
Se-Ni			
WL-23130	Q-B	Ne	15
Cu-Mn			
WL-23131	Q-B	Ne	35
Cu-Pb-Zn-Ag			
WL-23132	Q-B	Ne	15
Ba-Ca-Sr-Mg			
WL-23133	Q-B	Ne	25
Cu-Zn-Fe-Mn			
WL-23134	Q-B	Ne	15
Cu-Zn-Mo			
WL-23135	Q-B	Ne	15

NOTES

- WINDOW CHARACTERISTICS**
P = Pyrex (70% transmission at 3050 Å)
Q = Quartz (75% transmission at 2200 Å)
A = 1½ inch diameter window
B = 1 inch diameter window
- GAS FILL**
A = Argon gas fill Ne = Neon gas fill
- CURRENT RATING**
The current rating shown is the maximum permissible figure and does not represent typical operation. For optimum performance and life, a tube should be operated at the lowest current consistent with the desired output characteristics.

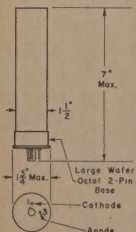
LITHIUM CAUTION

Output from a Lithium cathode tube with neon fill will experience second-order interference from the Ne-3355 line. However, operation with any one of the listed Corning Glass sharp-cutoff filters will eliminate the interference and is to be preferred over the argon-filled tube.

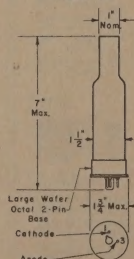
Corning Glass Filters which Eliminate Ne-3355 Line

CS 2-58	CS 2-60	CS 2-62	CS 3-66	CS 3-68
CS 2-59	CS 2-61	CS 2-63	CS 3-67	CS 3-69

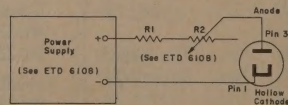
SIZE A



SIZE B



TYPICAL POWER SUPPLY CONNECTIONS



PHOTOTUBES



Phototubes conduct electricity when light strikes the photocathode. Variations in light intensity produce variations in current conducted. Vacuum types have a linear response to light intensity whereas gas filled types are more sensitive to light changes. Photomultiplier types have internal current amplification by auxiliary electrodes called dynodes. They have, therefore, larger signal output than the gas and vacuum types. Phototubes are used in motion-picture-film sound-pickup heads, automatic headlight dimmers, light-operated door openers and burglar alarms. Industrial uses include counting, color matching, sorting, measuring, detecting products at various stages of manufacture, printing press registry and dyestuff process control.

GAS AND VACUUM TUBES

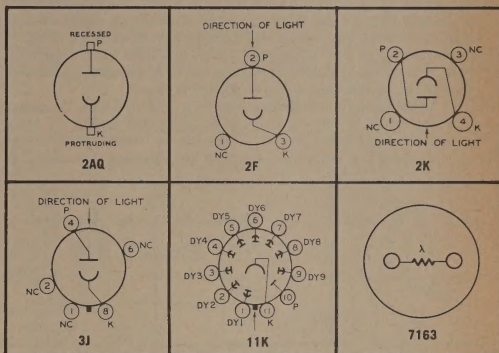
TUBE TYPE	CLASS	RATINGS		TEMP. °C	CHARACTERISTICS		MECHANICAL		
		ANODE VOLTS	CATHODE μAMPS.		PC NO.	LUM SENS(1)	MAX. OAL	MAX. DIAM.	BASE DWG.
WL-1P39	vac	250	5	75	S-4	45	3 1/16"	1 1/32"	3J
WL-1P40	gas	90	3	100	S-1	135	3 1/16"	1 1/32"	3J
WL-922	vac	500	5	100	S-1	20	1 1/16"	0.89"	2AQ
WL-923	gas	90	3	100	S-1	135	3 1/16"	1 1/32"	2K
WL-927	gas	90	2	100	S-1	125	2 1/32"	0.669"	2F
WL-930	gas	90	3	100	S-1	135	3 1/16"	1 1/32"	3J

MULTIPLIER PHOTOTUBES

TUBE TYPE	RATINGS			CHARACTERISTICS			MECHANICAL		
	SUPPLY VOLTS	ANODE μAMPS.	TEMP. °C	PC NO.	LUM SENS	CURRENT AMP.	MAX. OAL	MAX. DIAM.	BASE DWG.
WL-931A(2)	1250	1000	75	S-4	30(3)	110000(4)	3 1/16"	1 5/16"	11K

PHOTO CONDUCTIVE CELL

TUBE TYPE	MAX. RESPONSE	MAX. WATTS	CHARACTERISTIC RESISTANCE @ 10 ⁻³ F-C	@ 1 F-C	@ 10 ² F-C	MAX. HGT.	MAX. DIAM.	BASE DWG.
WL-7163	5800 Å	0.75	2MΩ	20KΩ	500Ω	0.9"	1.26"	7163



Notes

- Microamperes per lumen measured with an unmodulated light source.
- 9 stages.
- Cathode response with 100 volts applied.
- With 75 volts per stage.

GAS AND MERCURY VAPOR RECTIFIERS

Gas and mercury vapor rectifiers are two electrode tubes with heated cathodes filled with either a pressure of inert gas or mercury vapor. Mercury-vapor filled types are more sensitive to ambient temperature changes than types filled with inert gas.

Current conduction in an atmosphere of gas molecules causes ionization freeing ions which neutralizes the negative space charge. The removal of the space charge lowers the voltage needed to accelerate

electrons from the cathode to the anode. This lower tube drop allows higher currents to be conducted with lower losses than an equivalent vacuum tube.

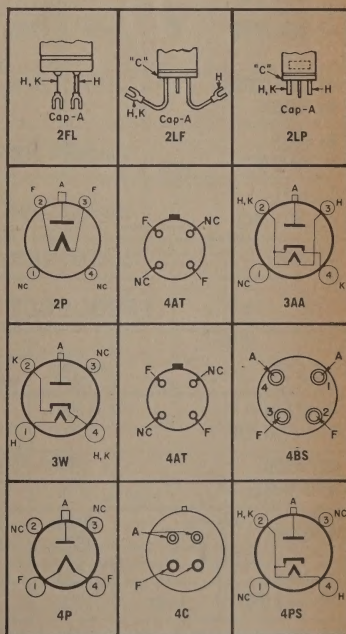
Gas and vapor rectifiers are used in a variety of single and multiple tube circuits to provide operating voltages to large amplifier tubes used in radio broadcasting or industrial heating and in other applications requiring large amounts of current at high voltages.

TUBE TYPE	CATHODE		RATINGS				MECHANICAL			
	VOLTS	AMPS.	INVERSE VOLTS	PEAK AMP.	AVG. AMP.	DROP VOLTS (2)	COOL	MAX. (1) OAL	MAX. DIAM.	BASE DWG.
WL-3B22	2.5	6	725	4.0	1.0	8	air	6"	1 1/32"	4C
WL-3B28	2.5	5	10000	1.0	0.25	10	air	6 3/32"	2 1/8"	4P
WL-4B24	2.5	11.5	725	10.0	2.5	8	air	7 1/2"	2 3/16"	4BS
WL-575A	5.0	10	15000	6.0	1.5	10	air	11 1/16"	3 1/16"	4PS
WL-670	2.5	17	725	25.6	6.3	8	air	8"	2"	4BS
WL-673	5.0	10	15000	10.0	2.5	10	air	11 1/16"	3 1/8"	2P
WL-816	2.5	2	7500	0.5	0.125	15	air	4 1/16"	1 1/8"	4P
WL-857B(3)	5.0	30	22000	40.0	10.0	15	air	19 7/8"	7 1/8"	2FL
WL-866A	2.5	5	10000	1.0	0.25	15	air	6 3/8"	2 1/8"	4P
WL-869B	5.0	19	20000	10.0	2.5	15	air	14 7/8"	5 1/8"	2LP
WL-869BL(3)	5.0	19	20000	10.0	2.5	15	air	14 7/8"	5 1/8"	2LF
WL-872A	5.0	7.5	10000	5.0	1.25	15	air	8 1/2"	2 3/8"	4AT
WL-5558	5.0	4.5	5000	15.0	2.5	15	air	7"	3"	3W
WL-5561	5.0	10	3000	40.0	6.4	15	air	11 1/4"	3 3/8"	3AA
WL-6894	5.0	10	20000	11.5	2.5	25(4)	air	10 1/32"	2 5/8"	4AT
WL-6895	5.0	10	20000	11.5	2.5	25(4)	air	10 1/32"	2 5/8"	2P
WL-6930(3)	2.5	18	1000	77	6.4	9	air	8 5/8"	2 1/2" (5)	2P
WL-7014(6)	2.5	11.5	900	10.0	2.5	10	air	7 1/2"	2 1/8"	4BS
WL-7015(7)	2.5	11.5	900	10.0	2.5	10	air	7 1/2"	2 1/8"	4BS
WL-7016(6)	2.5	17	900	25.6	6.4	10	air	8"	2 1/8"	4BS
WL-7017(7)	2.5	17	900	25.6	6.4	10	air	8 3/8"	2 1/8"	4BS
WL-7018	2.5	7	2000	10.0	2.5	12	air	6 3/8"	2 1/8"	4P
WL-7019	2.5	18	1000	77.0	6.4	9	air	9 1/2"	2 1/8"	2P
WL-7020(8)	2.5	18	1000	77.0	6.4	9	air	9 1/2"	2 1/8"	2P
WL-7659(3)	5.0	16.25	22000	40.0	10.0	15	air	17 3/8"	7 1/2"	2FL
WL-8008	5.0	7.5	10000	5.0	1.25	15	air	8 3/4"	2 3/8"	2P
WL-23029(3)	5.0	30	22000	40.0	10.0	15	air	19 7/8"	7 1/8"	2FL

Notes

- Excluding flying leads.
- Average value at rated current.
- Flying leads.
- Max. value at rated peak current.
- Excluding mounting bracket.
- Twin units, ratings are per unit.
- Lug-based, twin units, ratings are per unit.
- Lug-based.

WESTINGHOUSE PAGE 21

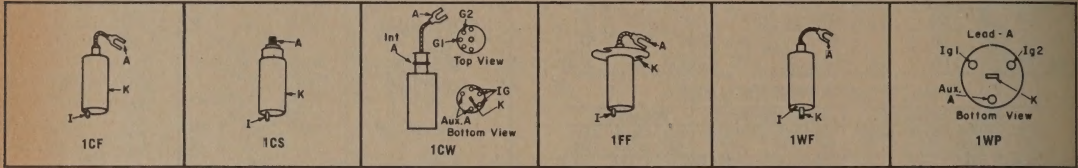


IGNITRONS

Ignitrons are gas-discharge, pool-type cathode tubes in which current conduction is initiated for each conducting cycle by means of an electrode called an ignitor. The ignitor is a small conical refractory element projecting into the mercury. When a relatively small current is conducted through the ignitor to the mercury, ionization of some mercury molecules in this area takes place. Ignitrons are of the half-wave type and current is conducted only when the anode is positive with respect to the cathode and the ignitor is fired.

Control of the average conducted current is accomplished by phase control of the point in the input cycle at which the ignitor is fired. During the non-conducting cycle, ionization in these single-anode tubes is very low; the resulting reduction of shielding necessary to

prevent arc-backs lowers the arc voltage and permits operation at lower supply voltages. Ignitrons therefore have some of the control characteristics of thyatrons and, having a mercury-pool cathode, are capable of conducting very large currents. Water cooling of metal envelopes is used on most types to further increase current carrying capacity in a compact tube. Provision is made on some of the tube shells to connect thermostats for tube protection and water saving. Ignitrons are used in resistance welders, frequency-changer resistance welders, power rectifiers, high current switches in controlled fusion equipment, heat control devices for air-frame testing, and any circuit requiring precise control of large amounts of alternating or direct current.



A.C. WELDER CONTROL IGNITRONS

TUBE TYPE (NOTE 2)	SIZE	MAXIMUM RATINGS								MAX. DIMENSIONS (NOTE 1)		COOLING	BASE DWG.
		RMS LINE VOLTS	DEMAND KVA	CORRES. CURRENT DC AMP.	DEMAND RMS AMP. 500 V. 1-30 CPS	CURRENT DC AMP.	CORRES. DEMAND KVA	MAX. AVG. TIME IN SEC. @ 250 V	@ 500 V	LENGTH	DIAM.		
WL-5550	A	250-600	300	12.1	600	22.4	100	22	11	9 7/8"	2 3/4"	Clamp	1 CF
WL-5551A WL-5551A (PC)	B	250-600	600	30.2	1200	56	200	18	9	13"	2 3/4"	Water	1 WF
WL-5552A WL-5552A (PC)	C	250-600	1200	75.6	2400	140	400	14	7.1	14"	4 1/4"	Water	1 WF
WL-5553B WL-5553B (PC)	D	250-600	2400	192	4800	355	800	11.2	5.6	19 1/2"	5 5/8"	Water	1 WF
WL-5554/679	C	2400	1200	75	500 (Note 3)	113	600	1.5 (Note 3)	—	17"	4 1/8"	Water	1 WP
WL-5555/653B WL-5555A	D	2400	2400	135	1000 (Note 3)	207	1105	1.7 (Note 3)	—	20"	5 3/4"	Water	1 WP
WL-7669 WL-7669 (PC)	B Coax	250-600	600	30.2	1200	56	200	18	9	13"	3 1/4"	Water	1 FF
WL-7671 WL-7671 (PC)	C Coax	250-600	1200	75.6	2400	140	400	14	7.1	14 1/4"	4 5/8"	Water	1 FF
WL-7681	C 1/2	250-600	1800	113.5	3600	210	600	9.5	7.1	17 1/2"	4 1/4"	Water	1 WF

FREQUENCY CHANGER WELDING CONTROL IGNITRONS

TUBE TYPE (NOTE 2)	SIZE	PEAK INVERSE VOLTS	RATED CURRENTS				MAX. AVG. TIME SECONDS	MAX. DIMENSIONS (NOTE 1)		COOLING	BASE DWG.
			MAX. PEAK AMP.	CORRES. AVG. AMP.	MAX. AVG. AMP.	CORRES. PEAK AMP.		LENGTH	DIAMETER		
WL-5551A WL-5551A (PC)	B	1200 1500	600 480	5 4	22.5 18	135 108	10 10	13"	2 3/4"	Water	1 WF
WL-5553B WL-5553B (PC)	D	1200 1500	3000 2400	40 32	140 112	840 672	6.25 6.25	19 1/2"	5 5/8"	Water	1 WF
WL-5822A	C	1200 1500	1500 1200	20 16	70 56	420 336	6.25 6.25	14"	4 1/4"	Water	1 WF
WL-7669 WL-7669 (PC)	B Coax	1200 1500	600 480	5 4	22.5 18	135 108	10 10	13"	3 1/4"	Water	1 FF
WL-7670	—	2500	2000	10	—	—	2	12"	2 3/4"	Water	1 FF
WL-7681	C 1/2	1200 1500	2250 1800	30 24	105 84	630 502	6.25 6.25	17 1/2"	4 1/4"	Water	1 WF

Ignitrons

continued



POWER RECTIFIER IGNITRONS

TUBE TYPE	SIZE	PEAK INVERSE VOLTS	MAXIMUM CURRENT RATINGS		MAXIMUM DIMENSIONS (NOTE 1)		COOLING	BASE DWG.
			PEAK AMP.	CONT. AVG. AMP.	LENGTH	DIAMETER		
WL-5554/679	C	900 2100	900 600	100 75	17"	4 1/8"	Water	1 WP
WL-5555A } WL-5555/653B }	D	900 2100	1800 1200	200 150	20"	5 3/4"	Water	1 WP
WL-6228	—	20000	900	150	42"	9"	Water	1 CW

CONTINUOUS DUTY A.C. CONTROL IGNITRONS (NOTE 4)

TUBE TYPE (NOTE 2)	SIZE	MAXIMUM RATINGS								MAX. DIMENSIONS (NOTE 1)		COOLING	BASE DWG.
		RMS LINE VOLTS	DEMAND KVA	CORRES. CURRENT DC AMP.	CONTIN- UOUS RMS AMP. 2 TUBES	CURRENT DC AMP.	CORRES. DEMAND KVA	MAX. AVG. TIME IN SEC. @ 250 V @ 500 V		LENGTH	DIAM.		
WL-23011 } WL-23011 (PC) }	B	250-600	600	30.2	124	56	200	18	9	13"	2 3/4"	Water	1 WF
WL-23012 } WL-23012 (PC) }	C	250-600	1200	75.6	311	140	400	14	7.1	14"	4 1/4"	Water	1 WF
WL-23013 } WL-23013 (PC) }	D	250-600	2400	192	788	355	800	11.2	5.6	19 1/2"	5 5/8"	Water	1 WF
WL-23014 } WL-23014 (PC) }	B Coax	250-600	600	30.2	124	56	200	18	9	13"	3 1/4"	Water	1 FF
WL-23015 } WL-23015 (PC) }	C Coax	250-600	1200	75.6	311	140	400	14	7.1	14 1/4"	4 5/8"	Water	1 FF
WL-23016	C 1/2	250-600	1800	113.5	466	210	600	9.5	7.1	17 1/2"	4 1/4"	Water	1 WF
WL-23017	D Coax	250-600	2400	192	788	355	800	11.2	5.6	17 1/2"	5 5/8"	Water	1 FF
WL-23018	C 1/2 Coax	250-600	1800	113.5	466	210	600	9.5	7.1	15"	5 5/8"	Water	1 FF

CAPACITOR DISCHARGE & CROWBAR IGNITRONS

TUBE TYPE	MAXIMUM RATINGS					MAX. DIMENSIONS (NOTE 1)		COOLING	BASE DWG.
	HOLD-OFF KV	PEAK AMP.	DISCHARGE COULOMBS	REP. RATE PULSES/MIN.	AVERAGE CURRENT AMP.	LENGTH	DIAMETER		
WL-6228	60	30,000	—	—	—	42"	9"	Water	1 CW
WL-7171	10	35,000	18.6	2	0.6	8 7/8"	2 5/32"	Clamp	1 CS
WL-7703	20	100,000	—	2	—	7"	2 7/32"	Clamp	1 CS
WL-7740	20	35,000	18.6	2	0.6	8 7/8"	2 5/32"	Clamp	1 CS
WL-8306	15	35,000	18.6	2	0.6	8 7/8"	2 5/32"	Clamp	1 CS

PULSE MODULATOR IGNITRONS (NOTE (5))

TUBE TYPE	MAXIMUM RATINGS			AVG. AMP.	PULSE		BASE DWG.
	FORWARD KV	INVERSE KV	PEAK AMP.		LENGTH μ SEC.	REP. RATE PPS	
WL-6228	40	0.5	3300	3.8	3.2	360	1 CW

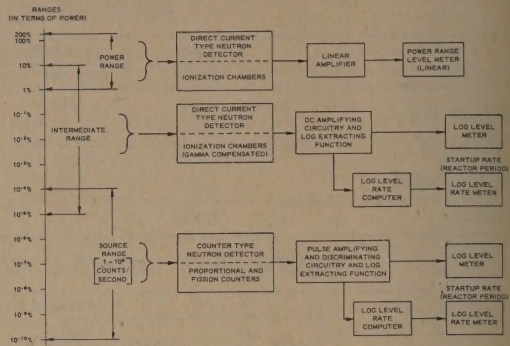
NOTES

- Excluding flying leads, water pipes, and on coaxial tubes the mounting flange.
- Suffix PC indicates plastic-coated tube.
- At 2400 volts.
- These tubes use heavy duty ignitrons designed for continuous duty.
- Consult Industrial and Transmitting Tube Development Department for pulse modulator applications. The parameters listed represent a specific application only and substantial increases can be made in some areas.

NEUTRON & RADIATION DETECTION TUBES

Radiation detection tubes are electronic devices which permit the passage of electrical current between electrodes when exposed to penetrating radiation. A variation of the intensity of radiation causes a corresponding variation in current between the electrodes. The tubes are designed to respond primarily to neutrons of thermal energies. Radiation detection tubes are of three general types: B¹⁰F₃ (Boron Trifluoride) filled proportional counters, Uranium coated counters or ionization chambers, and B¹⁰ (Boron 10 isotope) coated ionization chambers. At low levels of neutron flux, the current pulses due to the incident thermal neutrons are comparatively few in number, and therefore do not provide a steady current output. For this reason, in low flux level application, highly sensitive detector tubes, either BF₃ filled or Uranium coated are used in a pulse counting type circuit. The tube output is fed into a suitable amplifier, and pulses, proportional to the number of incident thermal neutrons, are registered on a scalar or rate meter. In applications of detector tubes in pulse counting, those pulses arising due to gamma photons which frequently accompany the neutron flux are sufficiently small that they may normally be biased out by a simple discriminator circuit. Uranium coated and B¹⁰ coated ionization chambers are used in higher neutron flux levels. The tubes are self-integrating, and the output, proportional to the incident thermal neutron flux, is read directly on a d-c current indicating device. The gamma photons, frequently accompanying the neutron flux, usually constitute a very small percentage at high neutron flux levels, and as such contribute insignificantly to the signal current. In applications involving a high gamma flux, however, the compensated ionization chamber may be used. This tube electrically reduces the signal due to gamma flux. This compensation is achieved by having two concentric volumes. One of these is sensitive to neutrons and gamma flux. The other is sensitive to gamma flux only. The effective gamma sensitivity of these volumes is made equal. The output signals from the volumes are combined with opposite polarity and the signals due to gamma flux cancel each other. The effectiveness of this can-

TYPICAL NUCLEAR INSTRUMENTATION RANGES IN TERMS OF PER CENT REACTOR POWER

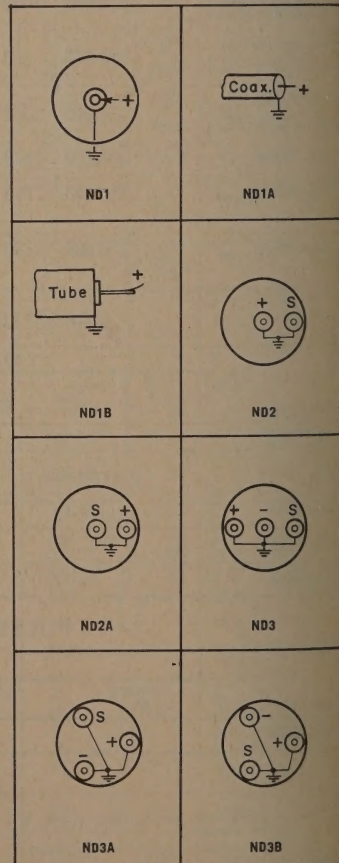


cellation is limited primarily by instrumentation and the reactor characteristics. In application the gamma sensitivity of this tube may thus be reduced by a factor of 100 to 1000. The lower operating limit of the compensated ion chamber is reduced still further by using a guard ring construction. With a guard ring construction, leakage currents, through the insulators due to the applied voltages, flow to ground and not through the signal circuit. Radiation detection tubes are used as laboratory instruments in atomic and nuclear radiation investigations, in the control of reactors, and in health monitoring for personnel protection.

TUBE TYPE	SENS. MAT'L.	OPERATION	TYPICAL		MAX. TEMP. °F	MECHANICAL		
			APPLIED VOLTS	SENSITIVITY A/nv CPS/nv		MAX. OAL (I)	MAX. DIAM.	BASE DWG.
WL-6307	B ¹⁰ F ₃	Proportional Counter	2000	—	4.5	250	12 3/8"	1 3/2" ND1
WL-6307A	B ¹⁰ F ₃	Proportional Counter	2000	—	4.5	300	—	ND1
WL-6376A	U ₂ 35O ₈	Fission Counter Ion Chamber	300 to 1000	1.4 x 10 ⁻¹³	0.7	300	11 1/16"	2 1/8" ND1
WL-6377	B ¹⁰	Ion Chamber	300 to 800	4 x 10 ⁻¹⁴	—	175	23 3/16"	3 3/8" ND3
WL-6937A	B ¹⁰	Ion Chamber	200 to 1000	4.4 x 10 ⁻¹⁴	—	300	13 3/8"	3 3/8" ND2
WL-6938	B ¹⁰ F ₃	Proportional Counter	2000	—	45	175	32 1/2"	7 1/8" ND1
WL-6941A	U ₂ 35O ₈	Fission Counter Ion Chamber	300 to 1000	—	0.2	300	11 1/16"	2 1/8" ND1
WL-6971A	U ₂ 35O ₈	Fission Counter Fission Chamber	300 to 1000	—	0.14	300	11 1/16"	2 1/8" ND1
WL-6998	B ¹⁰ F ₃	Proportional Counter	2000	—	13	225	30 1/2"	1 3/2" ND1
WL-7087	B ¹⁰ F ₃	Proportional Counter	2000	—	40	175	39 3/4"	5 7/8" ND1A
WL-7087A	B ¹⁰ F ₃	Proportional Counter	2000	—	40	175	39 3/4"	5 7/8" ND1A
WL-7186	U ₂ 35O ₈	Fission Counter	250 to 400	—	0.001	125	53 3/8"	7 3/8" ND1
WL-7187	U ₂ 35O ₈	Fission Counter	300	—	0.52	300	11 1/16"	2 1/8" ND1
WL-7188	U ₂ 35O ₈	Fission Counter Fission Chamber	300 to 1000	—	0.07	300	11 1/16"	2 1/8" ND1
WL-7243	B ¹⁰ F ₃	Proportional Counter	2000	—	13	175	15 3/4"	2 1/8" ND1
WL-7317	B ¹⁰ F ₃	Proportional Counter	2000	—	13	225	29 1/8"	1 3/2" ND1B
WL-7353	B ¹⁰	Ion Chamber	300 to 800	4 x 10 ⁻¹⁴	—	175	24 1/4"	3 3/2" ND3
WL-7429	B ¹⁰ F ₃	Proportional Counter	2000	—	40	175	39 3/4"	4 1/8" ND1A
WL-7469	B ¹⁰	Ion Chamber	300 to 800	4 x 10 ⁻¹⁴	—	175	23 3/16"	3 3/8" ND3
WL-7606	B ¹⁰	Ion Chamber	200 to 1000	4.4 x 10 ⁻¹⁴	—	500	13 3/8"	3 3/8" ND2
WL-7657	U ₂ 35O ₈	Fission Counter	300	—	0.7	500	13 3/8"	3 3/8" ND2
WL-7741	B ¹⁰	Ion Chamber	300 to 800	4 x 10 ⁻¹⁴	—	500	23 3/8"	3 3/8" ND3A
WL-8073	U ₂ 35O ₈	Fission Counter Fission Chamber	300 to 1000	—	0.7	300	11 1/16"	2 1/8" ND1
WL-8074	B ¹⁰	Ion Chamber	300 to 800	4 x 10 ⁻¹⁴	—	175	23 3/16"	3 3/8" ND3
WL-8075	B ¹⁰	Ion Chamber	200 to 1000	4.4 x 10 ⁻¹⁴	—	300	13 3/8"	3 3/8" ND2
WL-8105	B ¹⁰	Ion Chamber	300 to 800	1.5 x 10 ⁻¹⁴	—	175	10 3/4"	3 1/2" ND3B
WL-8137	B ¹⁰	Ion Chamber	300 to 800	1.5 x 10 ⁻¹⁴	—	175	10 3/4"	3 1/2" ND2A
WL-8214	B ¹⁰	Ion Chamber	300 to 800	1.5 x 10 ⁻¹⁴	—	175	10 3/4"	3 1/2" ND3B
WL-22791	B ¹⁰	Proportional Counter	800	—	10	310	30 1/2"	1 3/2" ND1
WL-22792	B ¹⁰	Proportional Counter	750	—	3	310	12 3/8"	1 3/2" ND1
WL-22793	B ¹⁰	Proportional Counter	750	—	4	310	15"	1 3/2" ND1

NOTE 1. Excluding flying leads and coaxial cables.

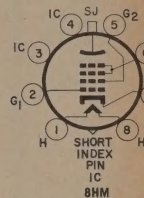
WESTINGHOUSE PAGE 24



Vidicons are compact, light-weight camera tubes which require simple circuitry and render acceptable performance in most applications. They find wide usage in closed circuit or industrial television (ITV) systems and in film cameras for commercial

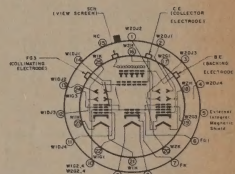
television stations. Common applications include industrial surveillance of property and process, remote or magnified observation of medical operations, military surveillance and remote signature check or record survey in financial institutions.

TUBE TYPE	USE	FEATURE	MAX. SJ VOLTS	BASE DWG.	TYPICAL VIDICON OPERATING VOLTS
WL-7290	ITV	Slow-Scan Photoconductor	25	8HM	Heater 6.3
					SJ 6 to 70
					G4, G3 250
WL-7735A	ITV	Sensitive, uniform photoconductor	100	8HM	G2 30C
					G1 (C0) —45 to —100

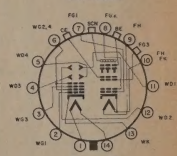


Display storage tubes are cathode-ray tubes with the ability to integrate successive increments of a display or repetitive weak signals to form a high-brightness image with duration sufficient to photograph or examine it. Applications range from airborne radar to transient study with sophisticated oscilloscopes.

TUBE TYPE	WL-4363	WL-5047	WL-5308	WL-7268A	WL-22662	UNITS
Max. Diameter (Incl. Shield)	5¼	5¼	4¼	5¼	5¼	Inches
Max. Length	16	15	11	16	15	Inches
Min. Useful Screen Dia.	4	4	3	4	4	Inches
No. of Write Guns	2	1	1	2	1	—
Type of Focus	ES	ES	ES	ES	ES	—
Type of Deflection	ES	ES	ES	ES	ES	—
Min. Storage Time	30	10	30	15	60	Seconds
Min. Writing Speed	4 x 10 ⁴	4 x 10 ⁵	1 x 10 ⁴	4 x 10 ⁴	4 x 10 ⁵	Inches/Second
Max. Erase Time	50	50	100	50	75	Milliseconds
Viewing Screen Voltage	10	10	8	10	10	Kilovolts
Min. Brightness	1500	1000	1200	2200	1000	Foot-Lamberts
Min. Resolution	50	90	50	70	50	Lines/Inch
Special Features		High Resolution	Compact, High Deflection Sensitivity		Long Storage Time	



WL-4363
WL-7268A



WL-22662

INDEX OF LEADS

- | 12 Lead Group | |
|---------------|----------------------|
| White/Black | D3 |
| White/Red | D4 |
| Orange | G2, G4 (W) |
| Green | G1 (F) |
| Yellow | Heater (F) |
| White/Yellow | Heater, Cathode(F) |
| White/Green | D1 |
| White/Orange | D2 |
| Black | Shield Ground |
| Light Blue | G2, G3(F) Collimator |
| Red | G4(F) Collector |
| Violet | Baking Electrode |

5 Lead Group

- | | |
|-----------------|-------------|
| Brown..... | Heater (W) |
| White..... | G1 (W) |
| Gray..... | Cathode (W) |
| White / Blue... | G3 (W) |
| White / Brown.. | Heater (W) |

WL-5308

INDEX OF LEADS
(10 LEAD GROUP)

Lead Electrode

1. DV3
2. DV4
3. G2, G4(W)
4. G1(F)
5. NC
6. Heater (F)
7. Heater (F) & Cathode(F)
8. DV1
9. DV2
10. Ground for Shield

(5 LEAD GROUP)

- | Lead | Electrode |
|------|-------------|
| 1. | Heater (W) |
| 2. | G1 (W) |
| 3. | Cathode (W) |
| 4. | G3 (W) |
| 5. | Heater (W) |



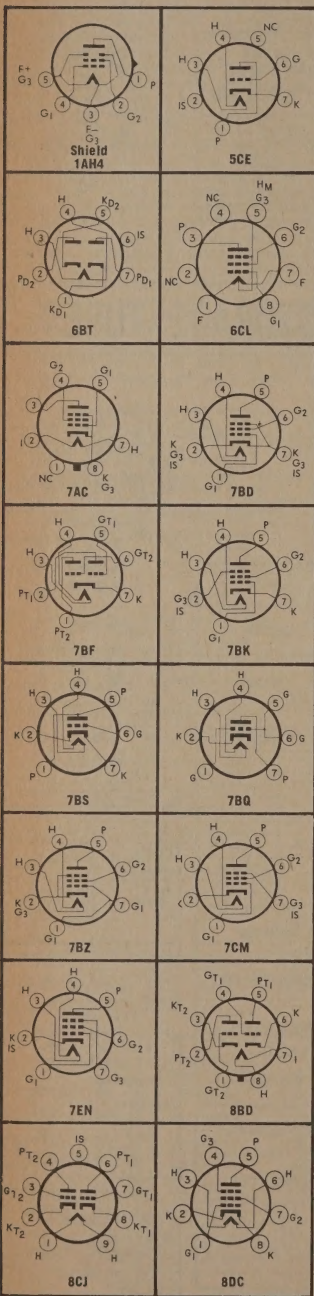
INDUSTRIAL RECEIVING TUBES

APPLICATION CLASSES FOR INDUSTRIAL RECEIVING TUBES

Industrial Receiving tubes serve as low-level amplifiers, mixers, detectors, gating or coincidence tubes, oscillators and relay drivers in military and industrial equipment. These tubes may incorporate one or more of the following premium design features for improved reliability: 1, rugged structure, 2, performance stabilization by burn-in or seasoning, 3, maintenance of peak emission during prolonged cutoff operation, 4, more uniform characteristics, 5, long heater life with heater cycling, and 6, low internal noise.

Special Purpose Tubes are used in industrial process control, military and commercial communication and electronic computing equipment.

This group of types, although no longer used in new industrial equipment designs, is made available for maintenance because of their previous popularity. All of these types have been updated to the latest design techniques and new materials to



TUBE TYPE	NOTE	TUBE CLASS	CATHODE		TYPICAL USE	PLATE VOLTS	PLATE MA.	G1 V OR RK	G2 VOLTS
			VOLTS	AMP.					
WL-6AS6	(1)	pentode	6.3	0.175	class A amp.	120	5.2	—2	120
WL-6AS7GA	(2)	twin triode	6.3	2.5	d-c amp.	135	125	250	—
WL-614		high-mu triode	6.3	0.4	UHF amplifier	150	15	100	—
WL-12AY7	(3)	twin triode	12.6	0.15	class A amp.	250	3	—4	—
WL-5636	(1)	pentode	6.3	0.15	gated amplifier	100	5.3	150	100
WL-5654	(4)	pentode	6.3	0.175	class A amp.	120	7.5	—2	120
WL-5678		pentode	1.25	0.05	class A amp.	67.5	1.8	0	67.5
WL-5687	(3)	twin triode	12.6	0.45	class A amp.	250	12	—12.5	—
WL-5691	(2)	twin triode	6.3	0.6	class A amp.	250	2.3	—2	—
WL-5692	(2)	twin triode	6.3	0.6	class A amp.	250	6.5	—9	—
WL-5693	(4)	pentode	6.3	0.3	class A amp.	250	3	—3	100
WL-5718		med-mu triode	6.3	0.15	class A amp.	100	8.5	150	—
WL-5726/6AL5W/6097	(2)	twin diode	6.3	0.3	rectifier	peak inverse plate voltage: 360 volts max peak plate current: 60 mA max			
WL-5751	(3)	twin triode	12.6	0.175	class A amp.	250	1	—3	—
WL-5814A	(3)	twin triode	12.6	0.175	class A amp.	250	10.5	—8.5	—
WL-5824		beam pentode	25	0.3	class A amp.	135	61	—22	135
WL-5879	(4)	pentode	6.3	0.15	class A amp.	250	1.8	—3	100
WL-5881		beam pentode	6.3	0.9	class A amp.	350	53	—18	250
WL-5886	(5)	pentode	1.25	0.01	characteristics	12	0.006	—2	4.5
WL-5902		beam pentode	6.3	0.45	class A amp.	110	30	270	110
WL-5963	(3)	twin triode	12.6	0.15	class A amp.	67.5	8.5	0	—
WL-5964	(2)	twin triode	6.3	0.45	class A amp.	100	9.5	50	—
WL-5965	(3)	twin triode	12.6	0.225	class A amp.	150	8.5	220	—
WL-6072	(3)	twin triode	12.6	0.175	class A amp.	250	3	—4	—
WL-6080	(2)	twin triode	6.3	2.5	d-c amp.	135	125	250	—
WL-6112	(2)	twin triode	6.3	0.3	class A amp.	100	0.8	1500	—
WL-6136	(4)	pentode	6.3	0.3	class A amp.	250	10.6	68	150
WL-6189	(3)	twin triode	12.6	0.15	class A amp.	250	10.5	—8.5	—
WL-6197		pentode	6.3	0.65	class A amp.	250	30	—3	150
WL-6201	(3)	twin triode	12.6	0.15	class A amp.	250	10	200	—
WL-6205		pentode	6.3	0.15	class A amp.	100	7.5	150	100
WL-6336A	(2)	twin triode	6.3	5	d-c amplifier	190	185	200	—
WL-6350	(3)	twin triode	12.6	0.3	class A amp.	150	11	—5	—
WL-6386		twin triode	6.3	0.35	class A amp.	100	9.6	200	—
WL-6397	(7)	pentode	2.5	0.0625	class A amp.	125	7.25	—7.5	125
WL-6550		beam pentode	6.3	1.6	class A amp.	400	87	—16.5	225
WL-6660/6BA6	(6)	pentode	6.3	0.3	class A amp.	250	11	68	100
WL-6661/6BH6	(4)	pentode	6.3	0.15	class A amp.	250	7.4	100	150
WL-6662/6BJ6	(6)	pentode	6.3	0.15	class A amp.	250	9.2	80	100
WL-6663/6AL5	(2)	twin diode	6.3	0.3	rectifier	peak inverse plate voltage: 275 volts max peak plate current: 60 mA max			
WL-6664/6AB4		triode	6.3	0.15	class A amp.	250	10	200	—
WL-6669/6AQ5		beam pentode	6.3	0.45	class A amp.	250	45	—12.5	250
WL-6676/6CB6A	(4)	pentode	6.3	0.3	class A amp.	125	13	56	125
WL-6677/6CL6		pentode	6.3	0.65	class A amp.	250	30	—3	150
WL-6678/6U8A		triode pentode	6.3	0.45	class A triode amp. pentode	150	18	56	—
						250	10	68	110
WL-6679/12AT7	(3)	twin triode	12.6	0.15	class A amp.	250	10	200	—
WL-6680/12AU7	(3)	twin triode	12.6	0.15	class A amp.	250	10.5	—8.5	—
WL-6681/12AX7	(3)	twin triode	12.6	0.15	class A amp.	250	1.2	—2	—
WL-6922	(2)	twin triode	6.3	0.3	class A amp.	90	12	120	—
WL-6954	(1)	pentode	6.3	0.3	gated amplifier	150	5.8	—1	150
WL-7730	(3)	twin triode	12.6	0.15	class A amp.	250	10.5	—8.5	—
WL-7732	(4)	pentode	6.3	0.3	class A amp.	250	8.5	200	150
WL-9002		med-mu triode	6.3	0.15	class A amp.	250	6.3	—7	—

OUTLINES

NO.	OAL	DIAM.	BASE	NO.	OAL	DIAM.	BASE
2-1	1 1/2"	3/8"	Press	8-1	2 1/2"	1 1/2"	Octal
3-8	1 1/2"	1 1/2"	Button	9-11	3 3/4"	1 1/2"	Octal
5-1	1 1/2"	3/8"	Min.	9-37	2 1/2"	1 1/2"	Octal
5-2	2"	3/8"	Min.	11-A	4"	1 1/2"	Octal
5-3	2 1/2"	3/8"	Min.	12-16	4 1/4"	1 1/2"	Octal
6-1	1 1/2"	1/2"	Min.	12-43	4 1/2"	1 1/2"	Octal
6-2	2 1/2"	1/2"	Min.	16-A	5 1/4"	2 1/4"	Octal
6-3	2 1/2"	1/2"	Min.				

INDUSTRIAL RECEIVING TUBES

continued



provide better reliability than was possible when they were originally introduced.

II Premium types designed specifically for applications involving greater shock and vibration environments. Designs are built for greater mechanical strength and rated for long life and reduced spread of characteristics.

III Designed primarily for computer service where on-off control applications with long periods of cutoff operation involved.

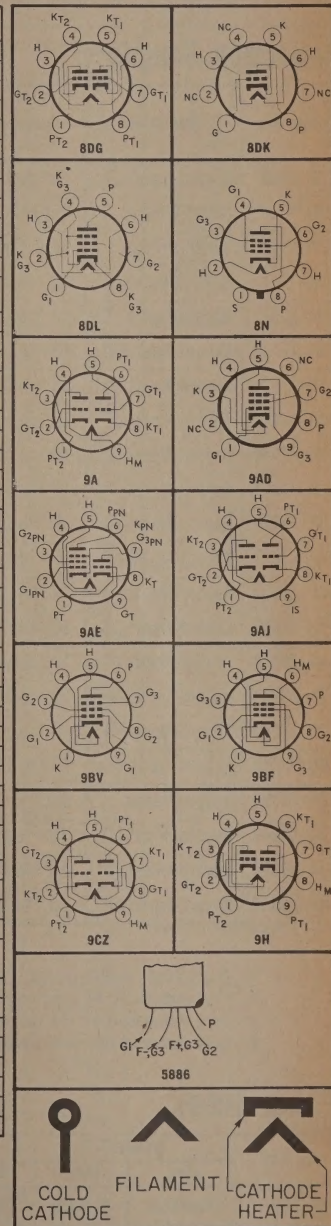
IV Special audio output beam power tubes.

V Specifically designed for mobile communications equipment to withstand variations in supply voltage and cycling conditions.

VI Types designed particularly for the instrumentation market for long life stability and low cathode interface are prime requirements.

VII Designed especially for audio amplifiers where, hum, noise and microphonics are critical.

G2 MA.	RP OHMS	GM μ MHOS	AMP. FACTOR	LOAD OHMS	OUT WATTS	OUT-LINE	BASE DWG.	TUBE TYPE	APPLICATION CLASS
3.5	110000	3200	—	—	—	5-1	7CM	WL-6A56	I
—	280	7000	2	—	—	12-16	8BD	WL-6A57GA	I
—	4500	12000	55	—	—	5-2	7BQ	WL-6J4	I
—	—	1750	40	—	—	6-2	9A	WL-12AY7	I
3.6	110000	3200	—	—	—	3-1	8DC	WL-5636	II
2.5	340000	5000	—	—	—	5-1	7BD	WL-5654	II
0.48	1000000	1100	—	—	—	2-1	1AH4	WL-5678	I
—	3000	5400	16	—	—	6-2	9H	WL-5687	II
—	44000	1600	70	—	—	9-37	8BD	WL-5691	II
—	9100	2200	20	—	—	9-37	8BD	WL-5692	II
0.85	2500000	1650	—	—	—	8-1	8N	WL-5693	I
—	4650	5800	27	—	—	3-1	8DK	WL-5718	II
d-c output current: 10 mA max heater-cathode voltage: 360 volts max							5-1	6BT	WL-5726/6AL5W/6097
—	58000	1200	70	—	—	6-2	9A	WL-5751	II
—	7700	2200	17	—	—	6-2	9A	WL-5814A	II
2.5	15000	5000	—	1700	4.3	9-11	7AC	WL-5824	I
0.4	2000000	1000	—	—	—	6-2	9AD	WL-5879	VII
2.5	48000	5200	—	4200	11.3	11-A	7AC	WL-5881	I
0.0036	18000000	14	—	—	—	2-1	5886	WL-5886	(5)
2.2	15000	4200	—	3000	1	3-3	8DL	WL-5902	II
—	6600	3200	21	—	—	6-2	9A	WL-5963	III
—	6500	6000	39	—	—	5-2	7BF	WL-5964	III
—	7000	6700	47	—	—	6-2	9A	WL-5965	III
—	25000	1750	44	—	—	6-2	9A	WL-6072	II
—	280	7000	2	—	—	12-43	8BD	WL-6080	II
—	—	1800	70	—	—	3-1	8DG	WL-6112	II
4.3	1000000	5200	—	—	—	5-2	7BK	WL-6136	II
—	7700	2200	17	—	—	6-2	9A	WL-6189	II
7	90000	11000	—	—	—	6-3	9BV	WL-6197	III
—	10900	550	60	—	—	6-2	9A	WL-6201	II
2.4	260000	5000	—	—	—	3-1	8DC	WL-6205	II
—	—	13500	2.7	—	—	16-A	8BD	WL-6336A	II
—	3900	4600	18	—	—	6-3	9CZ	WL-6350	III
—	4250	4000	17	—	—	6-1	8CJ	WL-6386	V
1.2	—	1950	—	—	—	3-8	6CL	WL-6397	I
4	27000	9000	—	3000	20	16-A	7AC	WL-6550	IV
4.2	1000000	4400	—	—	—	5-2	7BK	WL-6660/6BA6	V
2.6	140000	4600	—	—	—	5-2	7CM	WL-6661/6BH6	V
3.3	1300000	3600	—	—	—	5-2	7CM	WL-6662/6BJ6	V
d-c output current: 10 mA max heater-cathode voltage: 275 volts max							5-1	6BT	WL-6663/6AL5
—	10900	5500	60	—	—	5-2	5CE	WL-6664/6AB4	V
4.5	52000	4100	—	5000	4.5	5-3	7BZ	WL-6669/6AQ5	V
3.7	280000	8000	—	—	—	5-2	7CM	WL-6676/6CB6A	V
7	150000	11000	—	7500	2.8	6-3	9BV	WL-6677/6CL6	V
—	5000	8500	40	—	—	—	—	—	—
3.5	400000	5200	—	—	—	6-2	9AE	WL-6678/6U8A	V
—	10900	5500	60	—	—	6-2	9A	WL-6679/12AT7	V
—	7700	2200	17	—	—	6-2	9A	WL-6680/12AU7	V
—	62500	1600	100	—	—	6-2	9A	WL-6681/12AX7	V
—	—	11500	33	—	—	6-2	9AJ	WL-6922	II
6.6	50000	2050	—	—	—	5-2	7EN	WL-6954	III
—	7700	2200	17	—	—	6-2	9A	WL-7730	VI
2.5	600000	6000	—	—	—	5-2	7CM	WL-7732	VI
—	11400	2200	25	—	—	5-1	7BS	WL-9002	I



Notes

- Dual-control pentode.
- Data is for each unit.
- Data is for each unit, heaters in parallel connection have half the voltage and twice the current shown.
- Sharp-cutoff pentode.
- Electrometer tube.
- Remote-cutoff pentode.
- Heaters in parallel connection have half the voltage and twice the current shown.

WESTINGHOUSE PAGE 27

VACUUM MEASURING TUBES

Vacuum measuring tubes are designed to become part of an evacuated system. With suitable circuitry, the pressure in that system may be accurately determined. The Bayard-Alpert ionization gauge is used for measurement of very low pressures. The Schulz-Phelps ionization gauge measures pressures up to one atmosphere. The Pirani and thermocouple gauges

are less accurate and measure only the higher pressures, but, their associated circuitry is much simpler.

These tubes are used in electron tube and semiconductor device processing control, vacuum deposition, research and rocket altimeter applications.

Ionization Gauges

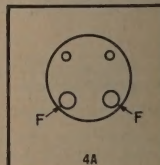
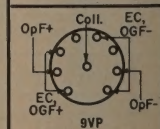
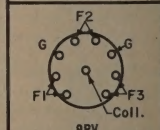
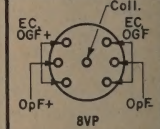
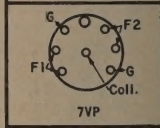
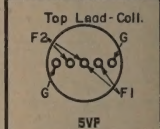
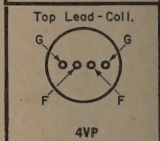
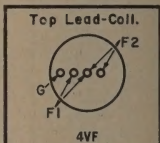
TUBE TYPE	TUBE CLASS	RANGE TORR	ELECTRICAL				MECHANICAL				
			FILAMENT		COLL. VOLTS	GRID VOLTS	TUBULATION		MAX. OAL (1)	MAX. DIAM.	BASE DWG.
			VOLTS	AMPS.			SIZE	MAT'L.			
WL-5966	Bayard-Alpert (2)	10^{-3} to 10^{-10}	7	2.5	-30	150	$\frac{1}{2}$ "	Nonex	$11\frac{1}{2}$ "	$3\frac{1}{8}$ "	4VF
WL-7676	Schulz-Phelps	5×10^{-1} to 10^{-5}	2	2.25	-60	60	$\frac{1}{2}$ "	Nonex	$7\frac{1}{4}$ "	$1\frac{1}{16}$ "	8VP
WL-7903	Schulz-Phelps	5×10^{-1} to 10^{-5}	1.3	2.4	-60	60	$\frac{1}{2}$ "	Pyrex	$7\frac{1}{4}$ "	$1\frac{1}{16}$ "	9VP
WL-7904	Bayard-Alpert (2)	10^{-3} to 10^{-9}	4	1.5	-30	150	$\frac{1}{2}$ "	Pyrex	$7\frac{1}{4}$ "	$1\frac{1}{16}$ "	9PV
WL-8057	Bayard-Alpert (3)	10^{-3} to 10^{-9}	7	2.5	-30	150	$\frac{3}{4}$ "	Nonex	$5\frac{1}{4}$ "	$4\frac{1}{16}$ "	5VP
WL-22612	Bayard-Alpert (2)	10^{-3} to 10^{-9}	7	2.5	-30	150	$\frac{1}{2}$ "	Pyrex	$11\frac{1}{2}$ "	$3\frac{1}{8}$ "	4VF
WL-22613	Bayard-Alpert (2)	10^{-3} to 10^{-9}	7	2.5	-30	150	$\frac{3}{4}$ "	Pyrex	$11\frac{1}{2}$ "	$3\frac{1}{4}$ "	4VF
WL-22614	Bayard-Alpert (2)	10^{-3} to 10^{-9}	7	2.5	-30	150	1"	Pyrex	$11\frac{1}{2}$ "	$3\frac{3}{8}$ "	4VF
WL-22618	Bayard-Alpert (2)	10^{-3} to 10^{-9}	7	2.5	-30	150	$\frac{1}{2}$ "	Pyrex	$5\frac{3}{8}$ "	$5\frac{1}{16}$ "	4VF
WL-22619	Bayard-Alpert (2)	10^{-3} to 10^{-9}	7	2.5	-30	150	$\frac{3}{4}$ "	Pyrex	$5\frac{3}{8}$ "	$5\frac{1}{16}$ "	4VF
WL-22620	Bayard-Alpert (2)	10^{-3} to 10^{-9}	7	2.5	-30	150	1"	Pyrex	$5\frac{3}{8}$ "	$5\frac{1}{16}$ "	4VF
WL-22627	Bayard-Alpert (2)	10^{-3} to 10^{-10}	7	2.5	-30	150	$\frac{3}{4}$ "	Pyrex	8"	$2\frac{1}{8}$ "	7VP
WL-22637	Bayard-Alpert (3)	10^{-3} to 10^{-9}	7	2.5	-30	150	$\frac{3}{4}$ "	Pyrex	$6\frac{3}{8}$ "	$5\frac{1}{16}$ "	5VP
WL-22640	Bayard-Alpert (3)	10^{-3} to 10^{-9}	7	2.5	-30	150	$\frac{3}{4}$ "	Kovar	$6\frac{3}{8}$ "	$5\frac{1}{16}$ "	5VP
WL-22643	Bayard-Alpert (3)	10^{-3} to 10^{-9}	7	2.5	-30	150	$\frac{3}{4}$ "	Pyrex	8"	$2\frac{1}{8}$ "	7VP
WL-22754	Bayard-Alpert (4)	10^{-3} to 10^{-9}	2.5	2.5	-30	150	$\frac{3}{4}$ "	Nonex	$5\frac{1}{4}$ "	$4\frac{1}{16}$ "	5VP
WL-22868	Bayard-Alpert (4)	10^{-3} to 10^{-9}	2.5	2.5	-30	150	$\frac{3}{4}$ "	Pyrex	$5\frac{1}{4}$ "	$4\frac{1}{16}$ "	5VP
WL-22869	Bayard-Alpert (4)	10^{-3} to 10^{-9}	2.5	2.5	-30	150	$\frac{3}{4}$ "	Kovar	$5\frac{1}{4}$ "	$4\frac{1}{16}$ "	5VP
WL-22923	Schulz-Phelps	5×10^{-1} to 10^{-5}	2	2.25	-60	60	$\frac{1}{2}$ "	Kovar	$7\frac{1}{4}$ "	$1\frac{1}{16}$ "	9VP
WL-22947	Bayard-Alpert (4)	10^{-3} to 10^{-9}	2.5	2.5	-30	150	$\frac{3}{4}$ "	Nonex	$5\frac{1}{4}$ "	$4\frac{1}{16}$ "	4VP
WL-22948	Bayard-Alpert (4)	10^{-3} to 10^{-9}	2.5	2.5	-30	150	$\frac{3}{4}$ "	Pyrex	$5\frac{1}{4}$ "	$4\frac{1}{16}$ "	4VP
WL-22949	Bayard-Alpert (4)	10^{-3} to 10^{-9}	2.5	2.5	-30	150	$\frac{3}{4}$ "	Kovar	$5\frac{1}{4}$ "	$4\frac{1}{16}$ "	4VP

Notes

1. Excluding flexible leads. Length and diameter describe space to contain tube.
2. Grid outgassed by electron bombardment.
3. Grid outgassed by a-c current conduction.
4. Non-burn-out filament and grid outgassed by a-c current conduction.

Pirani Tubes

TUBE TYPE	FILAMENT		TUBULATION		RANGE TORR	MAX. OAL	MAX. DIAM.	BASE DWG.
	MAT'L.	AMPS.	SIZE	GLASS				
WL-762	Platinum	0 to 0.3	$\frac{3}{8}$ "	Nonex	1 to 5×10^{-4}	$7\frac{1}{16}$ "	$1\frac{1}{16}$ "	4A
WL-765	Platinum	0 to 0.3	$\frac{5}{8}$ "	Nonex	1 to 5×10^{-4}	$6\frac{3}{4}$ "	$1\frac{1}{16}$ "	4A
WL-765A	Platinum	0 to 0.3	None	None	1 to 5×10^{-4}	$5\frac{1}{4}$ "	$1\frac{1}{16}$ "	4A



MICROWAVE TUBES AND DEVICES



Microwave Tubes and Devices fall in three main categories:

Magnetrons: Magnetrons generate energy in the microwave frequencies by interaction of an electron in a combined electrostatic and magnetic field with integral resonant cavities. They are widely used in radar transmitter, microwave test, altimeter and telemetry instruments.

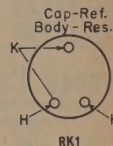
Reflex Klystrons: Reflex Klystrons generate low-power energy in the microwave

frequencies by electron reflection excitation of an integral resonator. They are used in radar receivers, low-power radar transmitters, telemetry, microwave communications, microwave test equipment and as parametric amplifier pumps. **Reference Cavities:** Reference cavities are fixed-frequency, temperature compensated, vacuum-sealed devices used as frequency standards in microwave transmission equipment.

Reflex Klystrons

TUBE TYPE	ELECTRICAL				MECHANICAL		
	FREQ. GC	OUTPUT MILLIWATTS	BEAM VOLTS	REFL VOLTS	OUTPUT MATES	SIZE (1) L x W x H	BASE DWG.
WL-106	8.1-12.4	180	500	—100 to —600	UG-39/U	3 1/8"x1 3/4"x1 3/4"	RK1
WL-107	7.5-11	180	500	—100 to —600	UG-39/U	3 1/8"x1 3/4"x1 3/4"	RK1
WL-108	12.4-18	120	600	—150 to —600	UG-419/U	3 1/8"x1 3/4"x1 3/4"	RK1
WL-109	Note 2	55	300	—150	UG-39/U	2 1/4"x1 1/4"x3/4"	RK1
WL-110	12.4-14.5	220	600	—150 to —400	UG-419/U	3 1/8"x1 3/4"x1 3/4"	RK1
WL-111	14-17.5	100	600	—200 to —600	UG-419/U	3 1/8"x1 3/4"x1 3/4"	RK1
WL-113	7.5-11	180	500	—100 to —600	UG-39/U	3"x1 3/4"x1 3/4"	RK2
WL-114	8.1-12.4	180	500	—100 to —600	UG-39/U	3"x1 3/4"x1 3/4"	RK1
WL-115	8.5-10	400	500	—150 to —550	UG-39/U	3"x1 3/4"x1 3/4"	RK2
WL-116	12.4-14.5	220	600	—150 to —400	UG-419/U	3"x1 3/4"x1 3/4"	RK2
WL-117	12.4-18	120	600	—150 to —600	UG-419/U	3"x1 3/4"x1 3/4"	RK2
WL-118	14-17.5	100	600	—250 to —600	UG-419/U	3"x1 3/4"x1 3/4"	RK2
WL-119	Note 2	450	500	—295	UG-419/U	2 3/8"x1 5/8"x1 5/8"	RK2
WL-121	7.5-11	180	500	—100 to —600	UG-39/U	4 1/2"x1 3/4"x1 3/4"	RK1
WL-122	8.1-12.4	180	500	—100 to —600	UG-39/U	4 1/2"x1 3/4"x1 3/4"	RK1
WL-123	12.4-14.5	220	600	—150 to —400	UG-419/U	4 1/2"x1 3/4"x1 3/4"	RK1
WL-124	12.4-18	120	600	—150 to —600	UG-419/U	4 1/2"x1 3/4"x1 3/4"	RK1
WL-126	14-17.5	100	600	—250 to —600	UG-419/U	4 1/2"x1 3/4"x1 3/4"	RK1
WL-128	8.1-12.4	180	500	—100 to —600	UG-39/U	3 1/8"x1 3/4"x1 3/4"	RK1
WL-129	12.4-18	120	600	—150 to —600	UG-419/U	3 1/8"x1 3/4"x1 3/4"	RK1
WL-130	10-11.5	500	500	—100 to —500	UG-39/U	3 1/8"x1 3/4"x1 3/4"	RK1
WL-132	Note 4	725	500	—300	UG-39/U	2 3/8"x1 5/8"x1 5/8"	RK2
WL-133	10.5-12.2	200	400	—100 to —600	UG-39/U	3 1/8"x1 3/4"x1 3/4"	RK1
WL-134	8.2-11.5	250	500	—100 to —600	UG-39/U	3 1/8"x1 3/4"x1 3/4"	RK1
WL-135	10.525	100	300	—200	UG-39/U	2 3/8"x1 5/8"x1 1/4"	RK2
WL-136	10.6-12.4	200	500	—100 to —500	UG-39/U	3 1/8"x1 3/4"x1 3/4"	RK1
WL-137	9.5-10.9	125	350	—170 to —350	UG-51/U	3 1/8"x1 3/4"x1 3/4"	RK1
WL-138	8.5-10	200	350	—60 to —120	UG-39/U	3 1/8"x1 3/4"x1 3/4"	RK1
WL-139	7.5-8.5	400	500	—100 to —500	UG-39/U	3 1/8"x1 3/4"x1 3/4"	RK1
WL-140	9-10.5	450	500	—100 to —500	UG-39/U	3 1/8"x1 3/4"x1 3/4"	RK1
WL-141	13.5	450	600	—450	UG-419/U	3"x1 3/4"x1 3/4"	RK1
WL-146	10.525	35	250	—70	UG-39/U	2 1/4"x1 5/8"x1 5/8"	RK4
WL-147	10.525	75	300	—200	UG-39/U	2 3/4"x1 5/8"x1 1/4"	RK1
WL-148	10.525	75	300	—200	UG-39/U	2 3/4"x1 5/8"x1 1/4"	RK5
WL-176	Note 2	55	300	—150	UG-39/U	2 1/4"x1 1/4"x3/4"	RK1
WL-177	Note 5	725	500	—315	UG-39/U	2 3/8"x1 5/8"x1 5/8"	RK2
WL-186	Note 5	80	300	—320	UG-39/U	2 3/4"x1 5/8"x1 5/8"	RK1
WL-187	8.5-10	100	350	—150 to —300	UG-39/U	3 1/8"x1 3/4"x1 3/4"	RK1
WL-188	8.5-10.5	100	350	—100 to —250	UG-39/U	3"x1 3/4"x1 3/4"	RK3
WL-189	8.5-10	300	500	—330 to —440	UG-39/U	3 1/8"x1 3/4"x1 3/4"	RK1
WL-191	8.5-10	650	500	—250 to —450	UG-39/U	3 1/8"x1 3/4"x1 3/4"	RK1
WL-6310	8.5-10	85	300	—100 to —200	UG-39/U	3 1/8"x1 3/4"x1 3/4"	RK1
WL-6312	8.5-10	85	300	—100 to —200	UG-39/U	3"x1 3/4"x1 3/4"	RK2
WL-6314	8.5-10.5	160	350	—100 to —200	UG-39/U	3"x1 3/4"x1 3/4"	RK2
WL-6315	8.5-10	85	300	—100 to —200	UG-39/U	3"x1 3/4"x1 3/4"	RK2
WL-6316	8.5-10	22	200	—85 to —150	UG-39/U	3"x1 3/4"x1 3/4"	RK3
WL-6780	8.5-10	22	200	—85 to —150	UG-39/U	3"x1 3/4"x1 3/4"	RK3
WL-6781	8.5-10	22	200	—85 to —150	UG-39/U	3"x1 3/4"x1 3/4"	RK3
WL-6915	8.5-10	85	300	—100 to —200	UG-39/U	3"x1 3/4"x1 3/4"	RK3

WESTINGHOUSE PAGE 29



Flying Leads

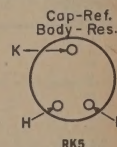
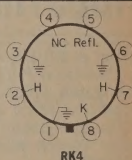
Yellow.....H
Green.....K
White.....H, K
Gray.....Refl.
Brown.....Res.

RK2

Viking Plug

A.....H, K
B.....H
C.....Res.
D.....Refl.
E.....K

RK3

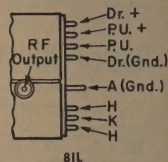


Microwave Tubes and Devices

continued

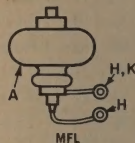
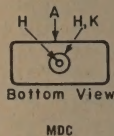
Magnetrons

TUBE TYPE	FREQ. GC	RATINGS				MECHANICAL		
		PEAK KW	DUTY	ANODE KV	ANODE AMPS.	SIZE (1) L x W x H	OUTPUT MATES	BASE DWG.
WL-6177	4.255-4.37	0.001	CW	0.33	0.035	3¼"x2½"x3⅛"	UG-89/U	8IL
WL-6249B	8.5-9.6	250	0.0013	28	25	10¼"x4¼"x9⅝"	Mod UG-52A/U	MFL
WL-7008	8.5-9.6	230	0.0011	21.5	27.5	7⅞"x4¾"x8¼"	Mod UG-52A/U	MDC
WL-7111	8.5-9.6	230	0.0011	21.5	27.5	7⅞"x5¾"x6¼"	Mod UG-52A/U	MDC



Reference Cavities

TUBE TYPE	FREQ. GC	ELECTRICAL				MECHANICAL		
		LOADED Q	INPUT WATTS	INSERT DB LOSS	SIZE (1) L x W x H	INPUT MATES	OUTPUT MATES	
WL-1Q22	9.250	1900 to 2400	2	4 to 6	¾"x¾"x3⅛"	UG-40/U	UG-40/U	
WL-1Q23	9.280	1900 to 2400	2	4 to 6	¾"x¾"x3⅛"	UG-40/U	UG-40/U	
WL-1Q24	9.310	1900 to 2400	2	4 to 6	¾"x¾"x3⅛"	UG-40/U	UG-40/U	
WL-1Q25	9.375	1900 to 2400	2	4 to 6	¾"x¾"x3⅛"	UG-40/U	UG-40/U	
WL-5846	9.280	1900 to 2400	2	4 to 6	¾"x¾"x3⅛"	UG-40/U	UG-40/U	
WL-6040	9.308	1900 to 2400	2	4 to 6	¾"x¾"x3⅛"	UG-40/U	UG-40/U	
WL-6041	9.312	1900 to 2400	2	4 to 6	¾"x¾"x3⅛"	UG-40/U	UG-40/U	



Notes

1. Size of space necessary to include entire tube except flying leads.
2. Set at factory to any frequency between 8.5 and 11 GHz.
3. Fixed frequency, trimmable ± 100 MHz, center frequency between 11 and 14 GHz.
4. Fixed frequency, trimmable ± 150 MHz, center frequency between 8.5 and 11 GHz.
5. Fixed frequency, trimmable ± 100 MHz, center frequency between 8.5 and 11 GHz.

INDUSTRIAL & MILITARY CATHODE RAY TUBES

Industrial & Military Cathode Ray Tubes are structurally similar to Reference Picture Tubes. Their common characteristics include a gun which forms electrons emitted from a thermionic cathode into a cylindrical beam, suitable deflection provision for the beam to strike any area of the screen and a phosphor screen which emits light when high-velocity electrons strike it.

The Westinghouse Industrial & Military Cathode Ray Tubes represent a high degree of engineering achievement in the field of display tubes for specialized applications. High resolution guns, special phosphors and improved mechanical design are some of the distinctive features of these tubes. They are designed for service in oscilloscope, radar display, flying-spot scanner, video monitor and computer readout applications.

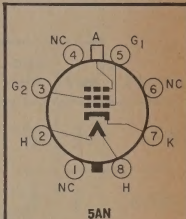
PHOSPHOR NUMBER	FLUORESCENT COLOR	PHOSPHORESCENT COLOR	PERSISTENCE CLASS	APPLICATIONS
1	Yellowish-Green	Yellowish-Green	Medium	Oscilloscope
2	Yellowish-Green	Yellowish-Green	Med. Short	General Purpose
4	White	White	Med. Short	Television
5	Blue	Blue	Med. Short	High-Speed Photography
7	White	Yellowish-Green	Long	Surveillance Radar
11	Blue	Blue	Med. Short	Photographic Recording
12	Orange	Orange	Long	Fire Control Radar
14	Purplish-Blue	Yellowish-Orange	Medium	Surveillance Radar
15	Green	Green	Short	Flying-Spot Scanning
16	Bluish-Purple (4)	Bluish-Purple (4)	Very Short	High-Speed Flying-Spot Scanning
17	White	Yellow	Long	Surveillance Radar
18	White	White	Medium	Television
19	Orange	Orange	Long	Night Viewed Radar
20	Yellow-Green	Yellow-Green	Med. Short	Photographic Recording
22	Note 5	Note 5	Note 6	Color Television
24	Green	Green	Short	Color TV Flying-Spot Scanning
25	Orange	Orange	Medium	Night Viewed Radar
26	Orange	Orange	Very Long	Surveillance Radar
27	Reddish-Orange	Reddish-Orange	Medium	Color TV Monitor
28	Yellow-Green	Yellow-Green	Long	Surveillance Radar
31	Green	Green	Med. Short	Oscilloscope
32	Purplish-Blue	Yellowish-Green	Long	Surveillance Radar
33	Orange	Orange	Very Long	Surveillance Radar
34	Bluish-Green	Yellow-Green	Very Long	Visual Information Storage

Industrial & Military Cathode Ray Tubes

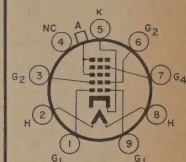
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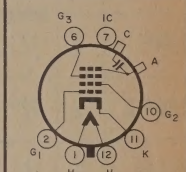
TUBE TYPE	BULB				ELECTRICAL					MAX. OAL
	NOTE	FACE RAD.	BASE DWG.	DEFL. ANGLE	ANODE KV	FOCUS VOLTS	GRID 2 VOLTS	GRID 1 VOLTS (1)	LINE WIDTH	
3JP-	3	8"	14J	ES	4	400 to 690	2000	-45 to -75	—	10.188"
3JP-A	3	8"	14J	ES	4	400 to 690	2000	-45 to -75	0.030"	10.188"
3WP-	3	Flat	12T	ES	2	330 to 620	—	-60 to -100	0.026"	11.625"
5CEP-	2	Flat	12Q	42°	10	2070 to 2370	300	-40 to -65	0.0015"	13.5"
5DEP-	3	20"	12E	ES	2	340 to 640	—	-90 max.	0.023"	15.125"
5DKP-	2	24"	5AN	53°	8	Mag.	250	-30 to -75	0.006"	11.5"
5PP-A	3	24"	5AN	53°	5	Mag.	250	-25 to -70	0.010"	11.5"
5UP-	3	20"	12E	ES	2	340 to 640	—	-90 max.	0.023"	15.125"
5WP-	3	Flat	12C	50°	27	4200 to 5400	200	-42 to -98	0.008"	11.812"
5ZP-	2	Flat	12C	40°	27	5544 to 7056	200	-42 to -98	0.0045"	14.75"
7ABP-	3	24"	12M	50°	7	0 to 250	300	-33 to -77	0.012"	13.5"
7ABP-A	2	24"	12M	50°	7	0 to 250	300	-33 to -77	0.012"	13.5"
7AUP-	4	24"	9HT	70°	8	0 to 300	300	-25 to -60	0.012"	8.5"
7BP-A	3	24"	5AN	53°	7	Mag.	250	-25 to -70	—	13.625"
7BP-B	3	24"	5AN	53°	7	Mag.	250	-25 to -70	0.012"	13.625"
7MP-	3	24"	12D	50°	7	Mag.	250	-27 to -63	0.012"	13.125"
7TP-	3	24"	12Q	50°	10	1170 to 1590	200	-18 to -48	0.012"	13.5"
7VP-	3	20"	14R	ES	2.5	670 to 1000	—	-70 max.	0.040"	14.875"
8CP-	3	20"	14J	ES	4	540 to 800	2000	-24 to -56	—	16.875"
8HP-	5	27"	12L	90°	11	0 to 300	300	-28 to -72	0.012"	10.25"



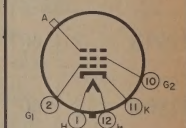
5AN



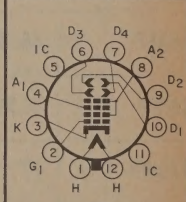
9HT



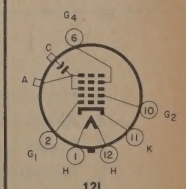
12C



12D



12E

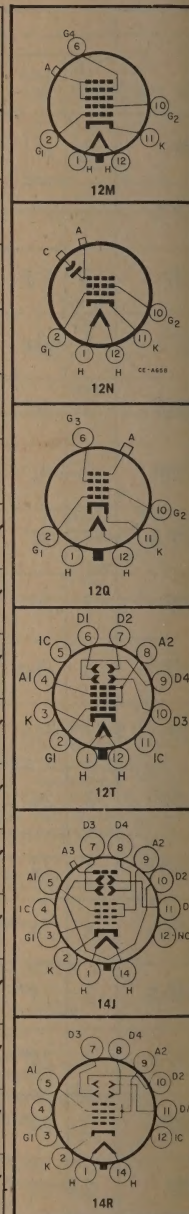


12L

Industrial & Military Cathode Ray Tubes

continued

TUBE TYPE	NOTE	BULB				ELECTRICAL				MAX. OAL
		FACE RAD.	BASE DWG.	DEFL. ANGLE	ANODE KV	FOCUS VOLTS	GRID 2 VOLTS	GRID 1 VOLTS (1)	LINE WIDTH	
8KP-	5	27"	12M	90°	16	0 to 400	300	-35 to -72	—	12.25"
10KP-A	3	42"	12D	50°	10	Mag.	300	-35 to -72	0.015"	18"
10KP-B	2	42"	12D	50°	10	Mag.	300	-35 to -72	0.015"	18"
10SP-	2	42"	12Q	50°	14	1640 to 2225	200	-18 to -48	0.015"	17"
10UP-A	2	42"	12M	50°	10	-150 to +150	300	-33 to -77	0.015"	18"
10VP-	2	42"	12N	50°	11	Mag.	250	-28 to -72	—	18"
10WP-	3	42"	12M	50°	10	0 to 600	300	-35 to -75	0.015"	17.312"
10WP-A	2	42"	12M	50°	10	0 to 600	300	-35 to -75	0.015"	17.312"
12ABP-	3	40"	12M	55°	10	0 to 300	300	-28 to -72	0.019"	18.375"
12ABP-A	2	40"	12M	55°	10	0 to 300	300	-28 to -72	0.019"	18.375"
12SP-B	2	40"	12D	55°	9	Mag.	250	-27 to -63	0.017"	19.125"
12SP-D	2	40"	12D	55°	9	Mag.	250	-27 to -63	0.015"	19.125"
14WP-	5	24"	12L	90°	12	-50 to +350	300	-28 to -72	—	13.562"
16AKP-	2	56.312"	12M	53°	12	0 to 400	300	-35 to -75	0.025"	22.438"
16ALP-	2	56.312"	12M	53°	12	0 to 400	300	-35 to -75	0.025"	23.938"
17DWP-	5	27"	12L	70°	18	0 to 400	300	-33 to -77	—	19.562"
21EWP-	5	33"	12D	72°	16	Mag.	300	-33 to -75	0.018"	23.812"



Notes

1. For cutoff.
2. Aluminized screen, round faceplate.
3. Round faceplate.
4. Aluminized screen, round faceplate, 0.9" diameter neck, 6.3 volt — 300 mA heater.
5. Aluminized screen, rectangular faceplate.

PRICES

Prices in this MASTER should not be considered as final. INQUIRE ABOUT LATEST PRICES AND DELIVERY.

DISCOUNTS

Trade discounts apply in most cases where LIST PRICES are shown.

ORDERING

Since previous editions of the MASTER are frequently referred to, it is important, when ordering, to mention specifically the edition and page number, also the catalog number of each item. This will avoid possible confusion and delay.

INVENTORY

While most distributors maintain a large and varied stock, they do not represent that they stock all manufacturers' products shown in this MASTER catalog.

Mil-W-76B Plastic Wire**TYPE MW — UNCOVERED PLASTIC**

DESCRIPTION: Solid or extra flexible stranded tinned copper, color coded **medium wall** polyvinylchloride insulation. (Nom. wall thickness .016").

CHARACTERISTICS: Temperature rating -40°C to +80°C, Voltage rating 1000 volts. Resistant to acids, alkalis, oil, flame, moisture and fungus.

STRANDED

ALPHA NO.	TYPE DESIGNATION	CONDUCTOR SIZE	STRAND	NOMINAL O.D.	*STOCK COLORS
1550	MW-C 24(7)U	24	7/32	.059"	1-30
1551	MW-C 22(7)U	22	7/30	.064"	1-30
1553	MW-C 20(10)U	20	10/30	.073"	1-30
1555	MW-C 18(16)U	18	16/30	.084"	1-30
1557	MW-C 16(26)U	16	26/30	.095"	1-30
1559	MW-C 14(41)U	14	41/30	.110"	1-19, 28, 29, 30
1560	MW-C 12(65)U	12	65/30	.125"	1-19, 28, 29, 30

SOLID

1561/24	MW-C 24(1)U	24	1	.055"	1-30
1561	MW-C 22(1)U	22	1	.060"	1-30
1563	MW-C 20(1)U	20	1	.066"	1-30
1565	MW-C 18(1)U	18	1	.074"	1-10
1567	MW-C 16(1)U	16	1	.083"	1-10

***STOCK COLORS**

- 1—White
- 2—Black
- 3—Red
- 4—Green
- 5—Yellow
- 6—Light Blue
- 7—Brown
- 8—Orange
- 9—Gray (slate)
- 10—Violet (purple)
- 11—White/Black
- 12—White/Red
- 13—White/Green
- 14—White/Yellow
- 15—White/Blue
- 16—White/Brown
- 17—White/Orange
- 18—White/Gray
- 19—White/Violet
- 20—White/Black/Red
- 21—White/Black/Green
- 22—White/Black/Yellow
- 23—White/Black/Blue
- 24—White/Black/Brown
- 25—White/Black/Orange
- 26—White/Black/Gray
- 27—White/Black/Violet
- 28—Tan
- 29—Pink
- 30—Dark Blue

STANDARD SPOOL PUT-UP: 100 FT., 500 FT., 1000 FT.
ALSO AVAILABLE TO ORDER CUT, STRIPPED, MARKED AND TINNED



* Other striped color combinations available to order.

TYPE MW — SHIELDED

DESCRIPTION: Extra flexible stranded tinned copper, color coded **medium wall** polyvinylchloride insulation, braided tinned copper shield overall, 80% coverage.
 (Nom. wall thickness .016").

CHARACTERISTICS: Temperature rating -40°C to +80°C, Voltage rating 1000 volts. Resistant to acids, alkalis, oil, flame, moisture and fungus.

ALPHA NO.	TYPE DESIGNATION	CONDUCTOR SIZE	STRAND	NOMINAL O.D.	*STOCK COLORS
1350	MW-C 24(7)S	24	7/32	.075"	White
1351	MW-C 22(7)S	22	7/30	.085"	White
1352	MW-C 20(10)S	20	10/30	.095"	White
1353	MW-C 18(16)S	18	16/30	.105"	White
1354	MW-C 16(26)S	16	26/30	.115"	White
1355	MW-C 14(41)S	14	41/30	.130"	White
1356	MW-C 12(65)S	12	65/30	.145"	White

STANDARD SPOOL PUT-UP: 100 FT., 500 FT., 1000 FT.
ALSO AVAILABLE TO ORDER CUT, STRIPPED AND TINNED



* Other solid colors and striped combinations available to order.

PRICES

Alpha No.	Sugg. Resale per 1000'	Alpha No.	Sugg. Resale per 1000'	Alpha No.	Sugg. Resale per 1000'
1550	7.44	1559	37.07	1353	31.35
1551	8.66	1560	60.63	1354	42.08
1553	11.43	1561/24	6.93	1355	49.50
1555	16.46	1561	7.10	1356	66.00
1557	24.26	1563	9.53	1352	26.40



SOLID OR
STRANDED
CONDUCTOR

COLOR
CODED
PLASTIC
INSULATION

STRANDED
CONDUCTOR

WHITE
PLASTIC
INSULATION

BRAIDED
TINNED
COPPER
SHIELD

Mil-W-76B Plastic Wire

TYPE MW — GLASS BRAID — SHIELDED

DESCRIPTION: Extra flexible stranded tinned copper, white medium wall polyvinylchloride insulation, white flame retardant lacquered glass braid with tinned copper shield overall, 80% coverage. (Nom. wall thickness .016").

CHARACTERISTICS: Temperature rating -40°C to $+80^{\circ}\text{C}$, Voltage rating 1000 volts. Resistant to acids, alkalis, oil, flame, moisture and fungus.

ALPHA NO.	TYPE DESIGNATION	CONDUCTOR SIZE	STRAND	NOMINAL O.D.	*STOCK COLOR
1194/24	MW-C 24(7)BS	24	7/32	.091"	White
1194/22	MW-C 22(7)BS	22	7/30	.097"	White
1194	MW-C 20(10)BS	20	10/30	.105"	White
1196	MW-C 18(16)BS	18	16/30	.117"	White
1197	MW-C 16(26)BS	16	26/30	.129"	White
1198	MW-C 14(41)BS	14	41/30	.143"	White
1199	MW-C 12(65)BS	12	65/30	.162"	White

STANDARD SPOOL PUT-UP: 100 FT., 500 FT., 1000 FT.
ALSO AVAILABLE TO ORDER CUT, STRIPPED AND TINNED



* Other solid colors and striped combinations available to order.

STRANDED
CONDUCTOR

WHITE
PLASTIC
INSULATION

WHITE
LACQUERED
GLASS
BRAID

BRAIDED
TINNED
COPPER
SHIELD

TYPE MW — NYLON JACKET

DESCRIPTION: Extra flexible stranded tinned copper, color coded medium wall polyvinylchloride insulation, clear nylon (polyamide) jacket overall. (Nom. wall thickness .016").

CHARACTERISTICS: Temperature rating -40°C to $+90^{\circ}\text{C}$. Voltage rating 1000 volts. Resistant to acids, alkalis, oil, flame, moisture and fungus.

ALPHA NO.	TYPE DESIGNATION	CONDUCTOR SIZE	STRAND	NOM. JKT. THICKNESS	NOM. O.D.	*STOCK COLORS
1503	MW-C 24(7)J	24	7/32	.002"	.065"	1-10 as listed
1504	MW-C 22(7)J	22	7/30	.003"	.072"	1-10 as listed
1505	MW-C 20(10)J	20	10/30	.003"	.079"	1-10 as listed
1506	MW-C 18(16)J	18	16/30	.003"	.090"	1-10 as listed
1507	MW-C 16(26)J	16	26/30	.004"	.103"	1-10 as listed
1508	MW-C 14(41)J	14	41/30	.004"	.118"	1-6 as listed
1509	MW-C 12(65)J	12	65/30	.005"	.135"	1-3 as listed

STANDARD SPOOL PUT-UP: 100 FT., 500 FT., 1000 FT.
ALSO AVAILABLE TO ORDER CUT, STRIPPED, MARKED AND TINNED



* Other solid colors and striped combinations available to order.

STRANDED
CONDUCTOR

COLOR
CODED
PLASTIC
INSULATION

CLEAR
NYLON
JACKET

*STOCK COLORS

- 1—White
- 2—Black
- 3—Red
- 4—Green
- 5—Yellow
- 6—Light Blue
- 7—Brown
- 8—Orange
- 9—Gray (slate)
- 10—Violet (purple)



Alpha No.	Sugg. Resale per 1000'	PRICES				Alpha No.	Sugg. Resale per 1000'
1194/24	37.35	1197	56.10	1504	12.54	1506	21.75
1194/22	37.55	1198	64.35	1505	14.27	1507	28.95
1194	40.43	1199	85.80			1508	40.50
1196	44.55	1503	12.38			1509	55.50

Mil-W-76B Plastic Wire**TYPE MW — SHIELDED — NYLON JACKET**

DESCRIPTION: Stranded tinned copper, white medium wall polyvinylchloride insulation, braided tinned copper shield, 80% minimum coverage, clear nylon (polyamide) jacket overall, (which can be striped to order for color identification). (Nom. wall thickness .016").

CHARACTERISTICS: Temperature rating -40°C to $+90^{\circ}\text{C}$. Voltage rating 1000 volts. Resistant to acids, alkalis, oil, flame, moisture and fungus.

ALPHA NO.	TYPE DESIGNATION	CONDUCTOR SIZE	STRAND	NOMINAL JACKET	NOMINAL O.D.
1370	MW-C 24(7)SJ	24	7/32	.003"	.085"
1371	MW-C 22(7)SJ	22	7/30	.003"	.092"
1372	MW-C 20(7)SJ	20	7/28	.003"	.100"
1373	MW-C 18(19)SJ	18	19/30	.003"	.110"
1374	MW-C 16(19)SJ	16	19/29	.004"	.120"
1375	MW-C 14(19)SJ	14	19/27	.004"	.140"
1376	MW-C 12(19)SJ	12	19/25	.005"	.156"

STANDARD SPOOL PUT-UP: 100 FT., 500 FT., 1000 FT.
ALSO AVAILABLE TO ORDER CUT, STRIPPED AND TINNED.

Mil-W-76B Plastic Wire**TYPE MW — GLASS BRAID**

DESCRIPTION: Extra flexible stranded tinned copper, white medium wall polyvinylchloride insulation, color coded flame retardant lacquered glass braid overall. (Nom. wall thickness .016").

CHARACTERISTICS: Temperature rating -40°C to $+80^{\circ}\text{C}$. Voltage rating 1000 volts. Resistant to acids, alkalis, oil, flame, moisture and fungus.

ALPHA NO.	TYPE DESIGNATION	CONDUCTOR SIZE	STRAND	NOMINAL O.D.	*STOCK COLORS
1590	MW-C 22(7)B	22	7/30	.080"	1-12 as listed below
1591	MW-C 20(10)B	20	10/30	.085"	1-12 as listed below
1592	MW-C 18(16)B	18	16/30	.090"	1-12 as listed below
1593	MW-C 16(26)B	16	26/30	.105"	1-12 as listed below
1594	MW-C 14(41)B	14	41/30	.120"	1, 11, 12 as listed below
1595	MW-C 12(65)B	12	65/30	.135"	1, 11, 12 as listed below

STANDARD SPOOL PUT-UP: 100 FT., 500 FT., 1000 FT.
ALSO AVAILABLE TO ORDER CUT, STRIPPED AND TINNED.

***STOCK COLORS**

- | | | |
|----------|--------------------|----------------|
| 1—White | 6—Light Blue | 11—White/Black |
| 2—Black | 7—Brown | 12—White/Red |
| 3—Red | 8—Orange | |
| 4—Green | 9—Gray (slate) | |
| 5—Yellow | 10—Violet (purple) | |

PRICES

Alpha No.	Sugg. Resale per 1000'
1370	34.43
1371	34.65
1372	36.30
1373	41.25

1374	54.45
1375	90.75
1376	152.46

1590	17.82
1591	21.45
1592	26.73

Alpha No.	Sugg. Resale per 1000'
1593	33.00
1594	39.20
1595	66.00



Mil-W-76B Plastic Wire

TYPE HW — UNCOVERED PLASTIC

DESCRIPTION: Stranded tinned copper, color coded heavy wall polyvinylchloride insulation.

CHARACTERISTICS: Temperature rating -40°C to $+80^{\circ}\text{C}$. Resistant to acids, alkalis, oil, flame, moisture and fungus.

ALPHA NO.	TYPE DESIGNATION	CONDUCTOR SIZE	STRAND	NOM. WALL THICKNESS	VOLT RATING	NOM. O.D.	*STOCK COLORS
1571	HW-C 22(7)U	22	7/30	.032"	2500	.092"	1-10 as listed below
1573	HW-C 20(10)U	20	10/30	.032"	2500	.100"	1-10 as listed below
1575	HW-C 18(16)U	18	16/30	.032"	2500	.112"	1-10 as listed below
1577	HW-C 16(26)U	16	26/30	.032"	2500	.126"	White, Black, Red
1579	HW-C 14(41)U	14	41/30	.045"	600	.170"	White, Black, Red
1651	HW-C 12(65)U	12	65/30	.045"	600	.186"	White, Black, Red
1653	HW-C 10(105)U	10	105/30	.045"	600	.210"	White, Black, Red
1655	HW-C 8(133)U	8	133/29	.045"	600	.260"	White, Black, Red
1657	HW-C 6(133)U	6	133/27	.045"	600	.305"	White, Black, Red

STANDARD SPOOL PUT-UP: 100 FT., 500 FT., 1000 FT.

ALSO AVAILABLE TO ORDER CUT, STRIPPED, MARKED AND TINNED

* STOCK COLORS

- 1—White 3—Red 5—Yellow 7—Brown 9—Gray (Slate)
 2—Black 4—Green 6—Light Blue 8—Orange 10—Violet (Purple)

*Other solid and striped combinations available to order.

STRANDED
CONDUCTOR

COLOR
CODED
PLASTIC
INSULATION

TYPE HW — GLASS BRAID

DESCRIPTION: Stranded tinned copper, white heavy wall polyvinylchloride insulation, color coded flame retardant lacquered glass braid overall.

CHARACTERISTICS: Temperature rating -40°C to $+80^{\circ}\text{C}$. Voltage rating 600 volts. Resistant to acids, alkalis, oil, flame, moisture and fungus.

ALPHA NO.	TYPE DESIGNATION	CONDUCTOR SIZE	STRAND	NOM. WALL THICKNESS	NOM. O.D.	STOCK COLORS
1598	HW-C 10(105)B	10	105/30	.045"	.230"	White, White/Black, White/Red
1599	HW-C 8(133)B	8	133/29	.045"	.280"	White, White/Black, White/Red
1599/6	HW-C 6(133)B	6	133/27	.045"	.325"	White, White/Black, White/Red

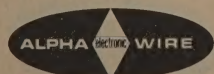
STRANDED
CONDUCTOR

WHITE
PLASTIC
INSULATION

COLOR
CODED
GLASS
BRAID

STANDARD SPOOL PUT-UP: 100 FT., 500 FT., 1000 FT.

ALSO AVAILABLE TO ORDER CUT, STRIPPED AND TINNED



Alpha No.	Sugg. Resale per 1000'
1571	12.00
1573	13.73
1575	18.15
1577	23.60

PRICES

1579	43.56	1657	290.40
1651	54.45	1598	119.79
1653	90.75	1599	199.65
1655	235.95	1599/6	268.62

Mil-W-76B Plastic Wire

TYPE LW — UNCOVERED PLASTIC

Regular Tinned Conductor

DESCRIPTION: Stranded tinned copper, color coded light wall polyvinylchloride insulation. (Nom. wall thickness .010".)

CHARACTERISTICS: Temperature rating -40°C to +80°C. Voltage rating 300 volts. Resistant to acids, alkalis, oil, flame, moisture and fungus.

ALPHA NO.	TYPE DESIGNATION	CONDUCTOR SIZE	STRAND	NOM. O.D.
1685	LW-C 30(7)U	30	7/38	.033"
1686	LW-C 28(7)U	28	7/36	.035"
1687	LW-C 26(7)U	26	7/34	.038"
1688	LW-C 24(7)U	24	7/32	.043"
1689	LW-C 22(7)U	22	7/30	.049"
1690	LW-C 20(7)U	20	7/28	.060"

STANDARD SPOOL PUT-UP: 100 FT., 500 FT., 1000 FT.

ALSO AVAILABLE TO ORDER CUT, STRIPPED, MARKED AND TINNED

TYPE LW — NYLON JACKET

DESCRIPTION: Stranded tinned copper, color coded light wall polyvinylchloride insulation, clear nylon (polyamide) jacket overall. Nominal Jacket Thickness, .002" (Nom. wall thickness .010").

CHARACTERISTICS: Temperature rating -40°C to +90°C. Voltage rating 300 volts. Resistant to acids, alkalis, oil, flame, moisture and fungus.

ALPHA NO.	TYPE DESIGNATION	CONDUCTOR SIZE	STRAND	NOM. O.D.
1675	LW-C 30(7)J	30	7/38	.036"
1676	LW-C 28(7)J	28	7/36	.039"
1677	LW-C 26(7)J	26	7/34	.042"
1678	LW-C 24(7)J	24	7/32	.047"
1679	LW-C 22(7)J	22	7/30	.053"
1680	LW-C 20(7)J	20	7/28	.065"

STANDARD SPOOL PUT-UP: 100 FT., 500 FT., 1000 FT.

ALSO AVAILABLE TO ORDER CUT, STRIPPED, MARKED AND TINNED

Mil-W-16878D

TYPE B — UNCOVERED PLASTIC

Pre-Bonded Tinned Copper Conductor

DESCRIPTION: Each strand of the conductor is double tinned and then heated, which bonds the individual strands together for easy stripping. Color coded .010" polyvinylchloride insulation. The insulation meets requirements of MIL-W-16878D.

CHARACTERISTICS: Temperature rating -55°C to +105°C. Voltage rating 600 volts. Resistant to acids, alkalis, oil, flame, moisture, solvents, and fungus.

APPLICATION: A pre-bonded conductor is the ideal construction when leads are to be cut and stripped for point to point wiring. The pre-bonded conductor maintains much of the flexibility of an ordinary stranded wire but reduces processing and handling costs on soldering, retwisting of strands after stripping and hand tinning operations. Since the individual strands are bonded, expensive induction heating equipment is unnecessary.

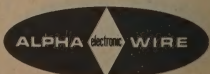
ALPHA NO.	TYPE DESIGNATION	CONDUCTOR SIZE	STRAND	NOM. WALL THICKNESS	NOM. O.D.
3154	B-24	24	7/32	.010"	.044"
3155	B-22	22	7/30	.010"	.051"
3156	B-20	20	7/28	.010"	.059"
3157	B-18	18	7/26	.010"	.070"

STANDARD SPOOL PUT-UP: 100 FT., 500 FT., 1000 FT.

ALSO AVAILABLE TO ORDER CUT, STRIPPED, MARKED.

PRICES

Alpha No.	Sugg. Resale per 1000'				
1685	6.45	1689	7.13	1677	9.83
1686	5.94	1690	8.10	1678	9.99
1687	6.44	1675	9.66	1679	10.73
1688	6.60	1676	9.66	1680	12.30
				3154	9.87
				3155	11.60
				3156	16.01
				3157	22.70



STOCK COLORS

(Other striped combinations available to order.)

- 1—White
- 2—Black
- 3—Red
- 4—Green
- 5—Yellow
- 6—Light Blue
- 7—Brown
- 8—Orange
- 9—Gray (slate)
- 10—Violet (purple)
- 11—White/Black
- 12—White/Red
- 13—White/Green
- 14—White/Yellow
- 15—White/Blue
- 16—White/Brown
- 17—White/Orange
- 18—White/Gray
- 19—White/Violet

Mil-W-16878D Plastic Wire

TYPE B — UNCOVERED PLASTIC

Regular Tinned Copper Conductor

DESCRIPTION: Stranded tinned copper, color coded. .010" polyvinylchloride insulation.
CHARACTERISTICS: Temperature rating -55°C to $+105^{\circ}\text{C}$. Voltage rating 600 volts. Resistant to acids, alkalis, oil, flame, moisture, solvents, and fungus.

ALPHA NO.	TYPE DESIGNATION	CONDUCTOR SIZE	STRAND	NOM. WALL THICKNESS	NOM. O.D.
1850	B-32	32	7/40	.010"	.028"
1851	B-30	30	7/38	.010"	.032"
1852	B-28	28	7/36	.010"	.034"
1853	B-26	26	7/34	.010"	.038"
1854	B-24	24	7/32	.010"	.043"
1854/19	B-24	24	19/36	.010"	.043"
1855	B-22	22	7/30	.010"	.050"
1855/19	B-22	22	19/34	.010"	.050"
1856	B-20	20	7/28	.010"	.058"
1856/19	B-20	20	19/32	.010"	.058"
1857	B-18	18	7/26	.010"	.068"
1857/19	B-18	18	19/30	.010"	.068"
1858/19	B-16	16	19/29	.010"	.077"
1859/19	B-14	14	19/27	.010"	.091"

*STOCK COLORS

- 1—White
- 2—Black
- 3—Red
- 4—Green
- 5—Yellow
- 6—Light Blue
- 7—Brown
- 8—Orange
- 9—Gray (slate)
- 10—Violet (purple)
- 11—White/Black
- 12—White/Red
- 13—White/Green
- 14—White/Yellow
- 15—White/Blue
- 16—White/Brown
- 17—White/Orange
- 18—White/Gray
- 19—White/Violet

 * Other striped color combinations to order.

STANDARD SPOOL PUT-UP: 100 FT., 500 FT., 1000 FT.
 ALSO AVAILABLE TO ORDER CUT, STRIPPED, MARKED AND TINNED.

TYPE B — NYLON JACKET

Regular Tinned Copper Conductor

DESCRIPTION: Stranded tinned copper, color coded. .010" polyvinylchloride insulation, clear nylon (polyamide) jacket overall.

CHARACTERISTICS: Temperature rating -55°C to $+115^{\circ}\text{C}$. Voltage rating 600 volts. Resistant to acids, alkalis, oil, flame, moisture, solvents, and fungus.

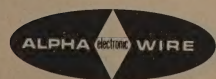
ALPHA NO.	TYPE DESIGNATION	CONDUCTOR SIZE	STRAND	NOM. WALL THICKNESS	NOM. JKT. THICKNESS	NOM. O.D.
1860	B-32	32	7/40	.010"	.003"	.035"
1861	B-30	30	7/38	.010"	.003"	.039"
1862	B-28	28	7/36	.010"	.003"	.041"
1863	B-26	26	7/34	.010"	.003"	.044"
1864	B-24	24	7/32	.010"	.003"	.049"
1864/19	B-24	24	19/36	.010"	.003"	.049"
1865	B-22	22	7/30	.010"	.003"	.056"
1865/19	B-22	22	19/34	.010"	.003"	.056"
1866	B-20	20	7/28	.010"	.003"	.064"
1866/19	B-20	20	19/32	.010"	.003"	.064"
1867	B-18	18	7/26	.010"	.003"	.074"
1867/19	B-18	18	19/30	.010"	.003"	.074"
1868/19	B-16	16	19/29	.010"	.003"	.085"
1869/19	B-14	14	19/27	.010"	.004"	.099"

* STOCK COLORS

- 1—White
- 2—Black
- 3—Red
- 4—Green
- 5—Yellow
- 6—Light Blue
- 7—Brown
- 8—Orange
- 9—Gray (slate)
- 10—Violet (purple)
- 11—White/Black
- 12—White/Red
- 13—White/Green
- 14—White/Yellow
- 15—White/Blue
- 16—White/Brown
- 17—White/Orange
- 18—White/Gray
- 19—White/Violet

 * Other striped color combinations to order.

STANDARD SPOOL PUT-UP: 100 FT., 500 FT., 1000 FT.
 ALSO AVAILABLE TO ORDER CUT, STRIPPED, MARKED AND TINNED.



Alpha No.	Sugg. Resale per 1000'
1850	10.73
1851	8.58
1852	7.43
1853	8.91
1854	7.68
1854/19	9.50
1855	8.42

1855/19	9.83
1856	9.08
1856/19	11.64
1857	11.22
1857/19	13.88
1858/19	14.28
1859/19	38.12

PRICES

1860	13.20
1861	12.47
1862	11.81
1863	11.48
1864	10.32
1864/19	12.63
1865	11.48

1865/19	14.45
1866	12.30
1866/19	14.61
1867	15.44
1867/19	17.58
1868/19	18.90
1869/19	46.47

Mil-W-16878D**Multi-Conductor Cable****TYPE B — NYLON SHIELDED-PLASTIC JACKET****DESCRIPTION:**

Each conductor stranded tinned copper, .010" polyvinylchloride insulation, color coded, clear nylon (polyamide) jacket, conductors cabled, braided tinned copper shield 90% coverage, white polyvinylchloride jacket overall.

CHARACTERISTICS:

Temperature rating -55°C to +105°C. Voltage rating 600 volts, resistant to acids, alkalis, oil, flame, moisture, fungus, solvents.

ALPHA NO.	NO. OF COND.	CONDUCTOR SIZE	CONDUCTOR STRAND	NOM. WALL THICKNESS	NOM. NYLON THICKNESS	NOM. OVERALL JACKET	NOM. O.D.
■ 3200	1	26	7/34	.010"	.003"	.010"	.087"
■ 3201	2	26	7/34	.010"	.003"	.014"	.138"
■ 3202	3	26	7/34	.010"	.003"	.014"	.142"
■ 3203	4	26	7/34	.010"	.003"	.016"	.162"
3210	1	24	19/36	.010"	.003"	.010"	.092"
3211	2	24	19/36	.010"	.003"	.016"	.152"
3212	3	24	19/36	.010"	.003"	.016"	.161"
■ 3213	4	24	19/36	.010"	.003"	.017"	.162"
3220	1	22	19/34	.010"	.003"	.010"	.100"
3221	2	22	19/34	.010"	.003"	.016"	.168"
3222	3	22	19/34	.010"	.003"	.017"	.178"
■ 3223	4	22	19/34	.010"	.003"	.019"	.174"
3230	1	20	19/32	.010"	.003"	.010"	.106"
3231	2	20	19/32	.010"	.003"	.019"	.186"
3232	3	20	19/32	.010"	.003"	.019"	.196"
■ 3233	4	20	19/32	.010"	.003"	.021"	.193"
3240	1	18	19/30	.010"	.003"	.012"	.120"
3241	2	18	19/30	.010"	.003"	.021"	.210"
3242	3	18	19/30	.010"	.003"	.022"	.227"
■ 3243	4	18	19/30	.010"	.003"	.023"	.218"
■ 3245	1	16	19/29	.010"	.003"	.016"	.137"
■ 3246	2	16	19/29	.010"	.003"	.023"	.236"
■ 3247	3	16	19/29	.010"	.003"	.023"	.240"
■ 3248	4	16	19/29	.010"	.003"	.025"	.274"

STANDARD SPOOL PUT-UP: 100 FT., 500 FT., 1000 FT.
■ NEW

COLOR CODE OF CONDUCTORS
 1—White, 2—Black, 3—Red, 4—Green

Sugg. Resale
per 500'

PRICES

Alpha No.	Sugg. Resale per 500'				
3200	29.93	3212	61.16	3230	33.35
3201	41.73	3213	69.30	3231	55.88
3202	58.28	3220	29.45	3232	75.36
3203	67.73	3221	48.86	3233	81.90
3210	30.32	3222	67.74	3240	34.82
3211	44.79	3223	71.66	3241	65.84
				3242	
				3243	87.14
				3245	96.08
				3246	99.38
				3247	67.73
				3248	92.93
					103.95



Mil-W-16878D Plastic Wire

TYPE C — UNCOVERED PLASTIC

DESCRIPTION: Stranded tinned copper, color coded .016" polyvinylchloride insulation.

CHARACTERISTICS: Temperature rating —55°C to +105°C. Voltage rating 1000 volts. Resistant to acids, alkalis, oil, flame, moisture, solvents and fungus.

ALPHA NO.	TYPE DESIGNATION	CONDUCTOR SIZE	STRAND	NOM. WALL THICKNESS	NOMINAL O.D.	* STOCK COLORS
1830	C-24	24	7/32	.016"	.058"	1-19 as listed below
1831	C-22	22	7/30	.016"	.064"	1-19 as listed below
1832	C-20	20	7/28	.016"	.072"	1-19 as listed below
1833	C-18	18	7/26	.016"	.082"	1-19 as listed below
1834	C-16	16	19/29	.016"	.091"	1 & 11-19 as listed below
1835	C-14	14	19/27	.016"	.105"	1 & 11-19 as listed below
1836	C-12	12	19/25	.016"	.124"	1 & 11-19 as listed below

STANDARD SPOOL PUT-UP: 100 FT., 500 FT., 1000 FT.

ALSO AVAILABLE TO ORDER CUT, STRIPPED, MARKED AND TINNED

STRANDED
CONDUCTOR

COLOR
CODED
PLASTIC
INSULATION

TYPE C — NYLON JACKET

DESCRIPTION: Stranded tinned copper, color coded .016" polyvinylchloride insulation, clear nylon (polyamide) jacket overall.

CHARACTERISTICS: Temperature rating —55°C to +115°C. Voltage rating 1000 volts. Resistant to acids, alkalis, oil, flame, moisture, solvents and fungus.

ALPHA NO.	TYPE DESIGNATION	CONDUCTOR SIZE	STRAND	NOM. WALL THICKNESS	NOM. JKT. THICK.	NOMINAL O.D.	* STOCK COLORS
1840	C-24	24	7/32	.016"	.002"	.065"	1-19 as listed below
1841	C-22	22	7/30	.016"	.003"	.072"	1-19 as listed below
1842	C-20	20	7/28	.016"	.003"	.079"	1-19 as listed below
1843	C-18	18	7/26	.016"	.003"	.090"	1-19 as listed below
1844	C-16	16	19/29	.016"	.004"	.099"	1 & 11-19 as listed below
1845	C-14	14	19/27	.016"	.004"	.114"	1 & 11-19 as listed below
1846	C-12	12	19/25	.016"	.005"	.135"	1 & 11-19 as listed below

*STOCK COLORS

1—White	6—Light Blue	11—White/Black	16—White/Brown
2—Black	7—Brown	12—White/Red	17—White/Orange
3—Red	8—Orange	13—White/Green	18—White/Gray
4—Green	9—Gray (slate)	14—White/Yellow	19—White/Violet
5—Yellow	10—Violet (purple)	15—White/Blue	

* Other solid colors and striped combinations available to order.

STANDARD SPOOL PUT-UP: 100 FT., 500 FT., 1000 FT.

ALSO AVAILABLE TO ORDER CUT, MARKED AND STRIPPED

STRANDED
CONDUCTOR

COLOR
CODED
PLASTIC
INSULATION

CLEAR
NYLON
JACKET

TYPE C — SHIELDED — NYLON JACKET

DESCRIPTION: Stranded tinned copper, white .016" polyvinylchloride insulation, braided tinned copper shield, 90% coverage, clear nylon (polyamide) jacket overall (which can be striped to order for color identification).

CHARACTERISTICS: Temperature rating —55°C. to +115°C. Voltage rating 1000 volts. Resistant to acids, alkalis, oil, flame, moisture, solvents and fungus.

ALPHA NO.	TYPE DESIGNATION	CONDUCTOR SIZE	STRAND	NOM. WALL THICKNESS	NOMINAL JKT. THICKNESS	NOMINAL O.D.
1470	C-24	24	7/32	.016"	.005"	.091"
1471	C-22	22	7/30	.016"	.005"	.098"
1472	C-20	20	7/28	.016"	.005"	.105"
1473	C-18	18	19/30	.016"	.005"	.115"
1474	C-16	16	19/29	.016"	.005"	.125"
1475	C-14	14	19/27	.016"	.005"	.142"
1476	C-12	12	19/25	.016"	.005"	.156"

STANDARD SPOOL PUT-UP: 100 FT., 500 FT., 1000 FT.

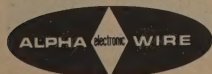
ALSO AVAILABLE TO ORDER CUT, STRIPPED, MARKED AND TINNED

STRANDED
CONDUCTOR

WHITE
PLASTIC
INSULATION

BRAIDED
TINNED
COPPER
SHIELD

CLEAR
NYLON
JACKET



Alpha No.	Sugg. Resale per 1000'
1830	9.24
1831	10.56
1832	12.54
1833	16.50
1834	21.45

Alpha No.	Sugg. Resale per 1000'
1835	31.19
1836	59.90
1840	14.85
1841	14.85
1842	18.15

PRICES

Alpha No.	Sugg. Resale per 1000'
1843	20.13
1844	26.40
1845	39.60
1846	77.15
1470	47.19

Alpha No.	Sugg. Resale per 1000'
1471	50.82
1472	55.17
1473	66.26
1474	80.22
1475	110.36
1476	174.24

Mil-W-16878D Plastic Wire

TYPE D — UNCOVERED PLASTIC

DESCRIPTION: Stranded tinned copper, color coded polyvinylchloride insulation.

CHARACTERISTICS: Temperature rating -55°C to $+105^{\circ}\text{C}$. Voltage rating 3000 volts.
Resistant to acids, alkalis, oil, flame, moisture, solvents and fungus.

ALPHA NO.	TYPE DESIGNATION	CONDUCTOR SIZE	STRAND	NOM. WALL THICKNESS	NOM. O.D.	*STOCK COLORS
1870	D-24	24	7/32	.029"	.082"	Wh., Blk., Red
1871	D-22	22	7/30	.029"	.088"	Wh., Blk., Red
1872	D-20	20	7/28	.029"	.096"	Wh., Blk., Red
1873	D-18	18	7/26	.029"	.106"	Wh., Blk., Red
1874	D-16	16	19/29	.029"	.115"	Wh., Blk., Red
1875	D-14	14	19/27	.029"	.129"	Wh., Blk., Red
1876	D-12	12	19/25	.034"	.158"	Wh., Blk., Red
1877	D-10	10	37/26	.037"	.185"	White
1878	D- 8	8	133/29	.040"	.247"	White
1879	D- 6	6	133/27	.040"	.290"	White
■ 1879/4	D- 4	4	133/25	.045"	.355"	White
■ 1879/2	D- 2	2	665/30	.045"	.425"	White
■ 1879/1	D- 1	1	817/30	.050"	.480"	White
■ 1879/0	D- 0	0	1045/30	.052"	.530"	White

STANDARD SPOOL PUT-UP: 100 FT., 500 FT., 1000 FT.

ALSO AVAILABLE TO ORDER CUT, STRIPPED, MARKED AND TINNED

■ NEW

* Other solid colors and striped combinations available to order.

TYPE D — NYLON JACKET

DESCRIPTION: Stranded tinned copper, color coded polyvinylchloride insulation. Sizes 24-6, clear nylon (polyamide) jacket overall, sizes 4-0, white nylon braid overall.

CHARACTERISTICS: Temperature rating -55°C to $+115^{\circ}\text{C}$. Voltage rating 3000 volts.
Resistant to acids, alkalis, oil, flame, moisture, solvents and fungus.

CLEAR NYLON JACKET

ALPHA NO.	TYPE DESIGNATION	CONDUCTOR SIZE	STRAND	NOM. WALL THICKNESS	NOM. JKT. THICKNESS	NOMINAL O.D.	*STOCK COLORS
1880	D-24	24	7/32	.029"	.004"	.090"	Wh., Blk., Red
1881	D-22	22	7/30	.029"	.004"	.096"	Wh., Blk., Red
1882	D-20	20	7/28	.029"	.004"	.104"	Wh., Blk., Red
1883	D-18	18	7/26	.029"	.004"	.114"	Wh., Blk., Red
1884	D-16	16	19/29	.029"	.005"	.125"	Wh., Blk., Red
1885	D-14	14	19/27	.029"	.005"	.139"	Wh., Blk., Red
1886	D-12	12	19/25	.034"	.005"	.168"	Wh., Blk., Red
1887	D-10	10	37/26	.037"	.006"	.197"	White
1888	D- 8	8	133/29	.040"	.009"	.265"	White
1889	D- 6	6	133/27	.040"	.010"	.310"	White

WHITE NYLON BRAID

■ 1889/4	D- 4	4	133/25	.045"	.010"	.375"	White
■ 1889/2	D- 2	2	665/30	.045"	.011"	.447"	White
■ 1889/1	D- 1	1	817/30	.050"	.011"	.502"	White
■ 1889/0	D- 0	0	1045/30	.052"	.011"	.552"	White

STANDARD SPOOL PUT-UP: 100 FT., 500 FT., 1000 FT.

ALSO AVAILABLE TO ORDER CUT, STRIPPED, MARKED AND TINNED

* Other solid colors and striped combinations available to order.

■ NEW

Alpha No.	Sugg. Resale per 1000'
1870	17.85
1871	18.15
1872	21.45
1873	26.40
1874	39.60
1875	44.55
1876	70.95

PRICES

1877	92.40	1880	26.51	1887	152.46
1878	214.50	1881	30.50	1888	297.66
1879	264.00	1882	34.67	1889	399.30
1879/4	366.30	1883	43.56	1889/4	429.00
1879/2	577.50	1884	61.71	1889/2	676.50
1879/1	709.50	1885	76.23	1889/1	821.70
1879/0	891.00	1886	110.72	1889/0	990.00



Mil-W-16878D Shielded

Teflon[†] Cables

NO OUTER COVERING OVER SHIELD

DESCRIPTION: Each conductor stranded silver plated copper, Type E extruded .010" insulation, braided silver plated copper shield over conductor(s), 90% coverage.

CHARACTERISTICS: Temperature rating -65°C to +200°C. Voltage rating 600 volts. Resistant to acids, alkalis, oil, flame, moisture, solvents and fungus.

ALPHA NO.	NO. OF COND.	SIZE	CONDUCTOR STRAND	NOM. O.D.	NOM. CAP. IN MMF SHIELD TO COND.	MMF COND. TO COND.
2809	1	24	19/36	.069"	45	—
2809/2	2	24	19/36	.112"	35	25
2809/3	3	24	19/36	.120"	35	20
2809/4	4	24	19/36	.132"	35	20
2812	1	22	19/34	.075"	55	—
2812/2	2	22	19/34	.124"	45	25
2812/3	3	22	19/34	.132"	35	25
2812/4	4	22	19/34	.146"	35	25
2815	1	20	19/32	.083"	55	—
2815/2	2	20	19/32	.142"	95	25
2815/3	3	20	19/32	.151"	85	25
2815/4	4	20	19/32	.168"	140	30
2818	1	18	19/30	.093"	70	—
2818/2	2	18	19/30	.162"	60	35
2818/3	3	18	19/30	.172"	60	35
2818/4	4	18	19/30	.192"	55	35
■ 2807	1	16	19/29	.103"	107	—
■ 2807/2	2	16	19/29	.184"	67	35

STANDARD SPOOL PUT-UP: 100 FT., 500 FT., 1000 FT.

■ NEW

COLOR CODE OF CONDUCTORS

1—White 2—Black 3—Red 4—Green

SILVER
PLATED
STRANDED
CONDUCTOR

COLOR
CODED
TEFLON
INSULATION

BRAIDED
SILVER
PLATED
COPPER
SHIELD

TEFLON IMPREGNATED BRAID OVER SHIELD

DESCRIPTION: Each conductor stranded silver plated copper, Type E extruded .010" TFE Teflon insulation, color coded, cabled, braided silver plated copper shield, 90% coverage, braided white fused Teflon impregnated, fiberglass braid overall.

CHARACTERISTICS: Temperature rating -65°C to +200°C. Voltage rating 600 volts. Resistant to acids, alkalis, oil, flame, moisture, solvents and fungus.

ALPHA NO.	NO. OF COND.	SIZE	CONDUCTOR STRAND	NOM. O.D.	NOM. CAP. IN MMF SHIELD TO COND.	MMF COND. TO COND.
2811	1	24	19/36	.081"	45	—
2811/2	2	24	19/36	.126"	35	25
2811/3	3	24	19/36	.133"	35	20
2811/4	4	24	19/36	.144"	35	20
2814	1	22	19/34	.088"	55	—
2814/2	2	22	19/34	.137"	45	25
2814/3	3	22	19/34	.144"	35	25
2814/4	4	22	19/34	.158"	35	25
2817	1	20	19/32	.097"	55	—
2817/2	2	20	19/32	.154"	95	25
2817/3	3	20	19/32	.163"	85	25
2817/4	4	20	19/32	.180"	140	30
2819	1	18	19/30	.106"	70	—
2819/2	2	18	19/30	.174"	60	35
2819/3	3	18	19/30	.185"	60	35
2819/4	4	18	19/30	.205"	55	35
■ 2820	1	16	19/29	.117"	107	—
■ 2820/2	2	16	19/29	.196"	67	35

STANDARD SPOOL PUT-UP: 100 FT., 500 FT., 1000 FT.

†T.M. DuPont

■ NEW

COLOR CODE OF CONDUCTORS

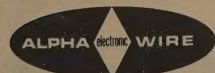
1—White 2—Black 3—Red 4—Green

SILVER
PLATED
STRANDED
CONDUCTOR

COLOR
CODED
TEFLON
INSULATION

SILVER
PLATED
COPPER
SHIELD

WHITE
TEFLON
IMPREGNATED
FIBERGLASS
BRAID



Alpha No.	Sugg. Resale per 500'
2809	86.63
2809/2	183.47
2809/3	266.55
2809/4	339.23
2812	97.02
2812/2	204.44
2812/3	295.91
2812/4	374.22
2814/3	330.56

Alpha No.	Sugg. Resale per 500'
2815	116.09
2815/2	265.43
2815/3	347.88
2815/4	460.85
2818	140.33
2818/2	329.18
2818/3	399.86
2818/4	540.54
2807	151.20

PRICES

Alpha No.	Sugg. Resale per 500'
2807/2	340.20
2811	148.13
2811/2	230.25
2811/3	304.58
2811/4	400.20
2814	157.65
2814/2	253.41
2814/4	433.13
2817	194.04

Alpha No.	Sugg. Resale per 500'
2817/2	311.85
2817/3	426.20
2817/4	564.27
2819	204.44
2819/2	363.83
2819/3	469.50
2819/4	634.10
2820	237.83
2820/2	375.63

Mil-W-16878D Teflon⁺ Wire**TYPE E — EXTRUDED (600 VOLTS)****DESCRIPTION:** Single conductor stranded silver plated copper, extruded TFE Teflon insulation.**CHARACTERISTICS:** Temperature rating -65°C to +200°C. Voltage rating 600 volts.

Resistant to acid, alkalis, oil, flame, moisture, solvents and fungus.

SILVER
PLATED
STRANDED
CONDUCTORCOLOR
CODED
TEFLON
INSULATION

ALPHA NO.	TYPE DESIGNATION	CONDUCTOR SIZE	STRAND	NOM. WALL THICKNESS	NOM. O.D.	*STOCK COLORS
2850	E-32	32	7/40	.010"	.029"	1-19 as listed
2851	E-30	30	7/38	.010"	.032"	1-19 as listed
2852	E-28	28	7/36	.010"	.036"	1-19 as listed
2853	E-26	26	7/34	.010"	.040"	1-19 as listed
2854	E-24	24	19/36	.010"	.045"	1-19 as listed
■ 2854/7	E-24	24	7/32	.010"	.044"	1-19 as listed
2855	E-22	22	19/34	.010"	.051"	1-19 as listed
■ 2855/7	E-22	22	7/30	.010"	.050"	1-19 as listed
2856	E-20	20	19/32	.010"	.059"	1-19 as listed
■ 2856/7	E-20	20	7/28	.010"	.058"	1-19 as listed
2857	E-18	18	19/30	.010"	.070"	1-19 as listed
2858	E-16	16	19/29	.010"	.077"	1-19 as listed
2859	E-14	14	19/27	.012"	.094"	1-6 & 11-19
2859/12	E-12	12	19/25	.012"	.113"	1 & 11-19
2859/10	E-10	10	37/26	.012"	.134"	1 & 11-19

***STOCK COLORS**

1—White
2—Black
3—Red
4—Green
5—Yellow

6—Light Blue
7—Brown
8—Orange
9—Gray (slate)
10—Violet (purple)

11—White/Black
12—White/Red
13—White/Green
14—White/Yellow
15—White/Blue

16—White/Brown
17—White/Orange
18—White/Gray
19—White/Violet

* Other solid colors and striped combinations available to order.

STANDARD SPOOL PUT-UP: 100 FT., 500 FT., 1000 FT.**ALSO AVAILABLE TO ORDER CUT, MARKED AND STRIPPED**■ **NEW****TYPE EE — EXTRUDED (1000 VOLTS)****DESCRIPTION:** Single conductor stranded silver plated copper, TFE extruded Teflon insulation.**CHARACTERISTICS:** Temperature rating -65°C to +200°C. Voltage rating 1000 volts.

Resistant to acid, alkalis, oil, flame, moisture, solvents and fungus.

SILVER
PLATED
STRANDED
CONDUCTORCOLOR
CODED
TEFLON
INSULATION

ALPHA NO.	TYPE DESIGNATION	CONDUCTOR SIZE	STRAND	NOM. WALL THICKNESS	NOM. O.D.	*STOCK COLORS
2874	EE-24	24	19/36	.014"	.055"	1-19
2875	EE-22	22	19/34	.014"	.062"	1-19
2876	EE-20	20	19/32	.014"	.070"	1-19
2877	EE-18	18	19/30	.014"	.080"	1-19
2878	EE-16	16	19/29	.014"	.089"	1 & 11-19
2879	EE-14	14	19/27	.017"	.106"	1 & 11-19
2879/12	EE-12	12	19/25	.017"	.124"	1 & 11-19
2879/10	EE-10	10	37/26	.017"	.145"	1 & 11-19
2879/8	EE-8	8	133/29	.020"	.210"	White only

***STOCK COLORS**

1—White
2—Black
3—Red
4—Green
5—Yellow

6—Light Blue
7—Brown
8—Orange
9—Gray (slate)
10—Violet (purple)

11—White/Black
12—White/Red
13—White/Green
14—White/Yellow
15—White/Blue

16—White/Brown
17—White/Orange
18—White/Gray
19—White/Violet

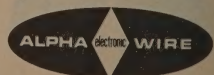
* Other solid colors and striped combinations available to order.

STANDARD SPOOL PUT-UP: 100 FT., 500 FT., 1000 FT.**ALSO AVAILABLE TO ORDER CUT, MARKED AND STRIPPED**

† T.M. DuPont

PRICES

Alpha No.	Sugg. Resale per 1000'						
2850	70.95	2855	102.30	2859	264.00	2877	163.35
2851	75.90	2855/7	90.00	2859/12	405.90	2878	222.75
2852	79.20	2856	132.00	2859/10	643.50	2879	297.00
2853	80.85	2856/7	120.00	2874	94.05	2879/12	462.00
2854	88.28	2857	157.41	2875	109.73	2879/10	775.50
2854/7	78.00	2858	206.25	2876	139.59	2879/8	1386.00



Mil-W-16878D**Shielded Teflon† Cables****TEFLON TAPE WRAP JACKET OVER SHIELD****DESCRIPTION:**

Each conductor stranded silver plated copper, Type E extruded .010" TFE Teflon insulation, color coded, cabled, braided silver plated copper shield 90% coverage, sintered wrapped white Teflon tape jacketed overall.

CHARACTERISTICS: Temperature rating -65°C to +200°C. Voltage rating 600 volts. Resistant to acids, alkalis, oil, flame, moisture, solvents and fungus.

ALPHA NO.	NO. OF COND.	CONDUCTOR SIZE	CONDUCTOR STRAND	NOM. JKT. THICKNESS	NOM. O.D. AT HIGH POINT	NOM. CAP. IN MMF SHIELD TO COND.	NOM. CAP. IN MMF COND. TO COND.
2821	1	24	19/36	.010"	.095"	45	—
2821/2	2	24	19/36	.010"	.140"	35	25
2821/3	3	24	19/36	.010"	.147"	35	20
2821/4	4	24	19/36	.014"	.159"	35	20
2824	1	22	19/34	.010"	.102"	55	—
2824/2	2	22	19/34	.014"	.154"	45	25
2824/3	3	22	19/34	.014"	.162"	35	25
2824/4	4	22	19/34	.014"	.176"	35	25
2827	1	20	19/32	.010"	.110"	55	—
2827/2	2	20	19/32	.014"	.170"	95	25
2827/3	3	20	19/32	.014"	.175"	85	25
2827/4	4	20	19/32	.018"	.213"	140	30
2829	1	18	19/30	.010"	.120"	70	—
2829/2	2	18	19/30	.014"	.190"	60	35
2829/3	3	18	19/30	.018"	.219"	60	35
2829/4	4	18	19/30	.018"	.237"	55	35
■ 2826	1	16	19/29	.010"	.130"	107	—
■ 2826/2	2	16	19/29	.018"	.230"	67	25

STANDARD SPOOL PUT-UP: 100 FT., 500 FT., 1000 FT.

COLOR CODE OF CONDUCTORS
1—White, 2—Black, 3—Red, 4—Green

STRANDED CONDUCTOR



COLOR CODED TEFLON INSUL.

BRAIDED SILVER PLATED COPPER SHIELD

TEFLON TAPE WRAP JACKET OVER SHIELD

TEFLON FEP EXTRUDED JACKET OVER SHIELD**DESCRIPTION:**

Each conductor stranded silver plated copper, Type E extruded TFE insulation color coded, cabled, braided silver plated copper shield 90% coverage, extruded FEP white Teflon jacket overall.

CHARACTERISTICS: Temperature rating -65°C to +200°C. Voltage rating 600 volts. Resistant to acids, alkalis, oil, flame, moisture, solvents and fungus. Extruded FEP Teflon jacket is tough and abrasion resistant.

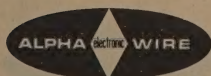
ALPHA NO.	NO. OF COND.	CONDUCTOR SIZE	CONDUCTOR STRAND	NOM. WALL THICKNESS	NOM. JKT. THICKNESS	NOM. O.D.	NOM. CAP. IN MMF SHIELD TO COND.	NOM. CAP. IN MMF COND. TO COND.
2831	1	24	19/36	.010"	.010"	.085"	45	—
2831/2	2	24	19/36	.010"	.010"	.130"	35	25
2831/3	3	24	19/36	.010"	.010"	.135"	35	20
2834	1	22	19/34	.010"	.010"	.091"	55	—
2834/2	2	22	19/34	.010"	.014"	.150"	45	25
2834/3	3	22	19/34	.010"	.014"	.158"	35	25
2837	1	20	19/32	.010"	.010"	.100"	55	—
2837/2	2	20	19/32	.010"	.014"	.168"	95	25
2837/3	3	20	19/32	.010"	.014"	.178"	85	25
2839	1	18	19/30	.010"	.010"	.110"	70	—
2839/2	2	18	19/30	.010"	.014"	.188"	60	35
2839/3	3	18	19/30	.010"	.018"	.207"	60	35
■ 2836	1	16	19/29	.010"	.010"	.123"	107	—
■ 2836/2	2	16	19/29	.010"	.018"	.220"	67	35

STANDARD SPOOL PUT-UP: 100 FT., 500 FT., 1000 FT.

COLOR CODE OF CONDUCTORS
1—White, 2—Black, 3—Red

† T.M. DuPont

■ NEW

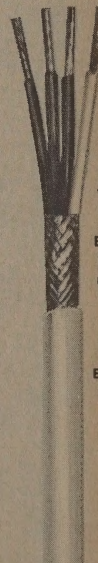


Alpha No.	Sugg. Resale per 500'
2821	194.04
2821/2	322.25
2821/3	476.43
2821/4	564.80
2824	218.30
2824/2	395.01
2824/3	521.48
2824/4	677.40
2827	194.04
2827/2	452.18
2827/3	616.77
2827/4	725.45
2829	303.18
2829/2	495.50
2829/3	660.08
2829/4	850.65

PRICES

2826	311.85	2837	228.69
2826/2	513.45	2837/2	407.13
2831	174.98	2837/3	556.13
2831/2	291.06	2839	273.74
2831/3	429.65	2839/2	446.99
2834	197.51	2839/3	594.24
2834/2	356.90	2836	285.08
2834/3	469.50	2826/2	513.45

STRANDED CONDUCTOR



COLOR CODED TEFLON INSUL.

BRAIDED SILVER PLATED COPPER SHIELD

TEFLON FEP EXTRUDED JACKET OVER SHIELD

Mil-W-5086A**UNSHIELDED AIRCRAFT WIRE FOR ELECTRICAL SYSTEMS****DESCRIPTION:**

MIL-W-5086A—Type I—AN-22 thru AN-12—Single conductor stranded tinned copper, white polyvinylchloride insulation, clear nylon, (polyamide) jacket overall.

MIL-W-5086A—Type II—AN-22 thru AN-12—Single conductor stranded tinned copper, white polyvinylchloride insulation, white glass braid, clear nylon (polyamide) jacket overall.

MIL-W-5086A—Type II—AN-10 thru AN-0000—Single conductor stranded tinned copper, white polyvinylchloride insulation, white glass braid, flame retardant nylon lacquered nylon braid overall.

CHARACTERISTICS: Temperature rating: -55°C. to $+105^{\circ}\text{C.}$ Voltage rating: 600 volts. Resists effects of water, oil, aircraft fuels, hydraulic fluid, skydral, ethyleneglycol, alcohol, dilute acids, alkalis, fungus and abrasion.

UNSHIELDED (MIL-W-5086A) TYPE I

ALPHA NO.	MIL TYPE DESIGNATION	CONDUCTOR SIZE	STRAND	NOMINAL O.D.	NOM. WGT LBS. PER M/FT.
1381	AN-22	22	19/34	.068"	4.0
1382	AN-20	20	19/32	.078"	5.7
1383	AN-18	18	19/30	.088"	8.3
1384	AN-16	16	19/29	.098"	10.4
1385	AN-14	14	19/27	.117"	15.9
1386	AN-12	12	19/25	.137"	23.7

UNSHIELDED (MIL-W-5086A) TYPE II

1341	AN-22	22	19/34	.075"	4.6
1342	AN-20	20	19/32	.085"	6.3
1343	AN-18	18	19/30	.095"	8.9
1344	AN-16	16	19/29	.105"	10.9
1345	AN-14	14	19/27	.125"	16.3
1346	AN-12	12	19/25	.143"	24.2
1387	AN-10	10	49/27	.189"	39.2
1388	AN-8	8	133/29	.240"	66.2
1389	AN-6	6	133/27	.293"	102.8
1389/4	AN-4	4	133/25	.355"	158.2
1389/2	AN-2	2	665/30	.425"	244.1
■ 1389/1	AN-1	1	817/30	.470"	300.0
1389/0	AN-0	0	1045/30	.525"	381.0
1389/00	AN-00	00	1330/30	.590"	485.0
■ 1389/000	AN-000	000	1661/30	.645"	609.0
■ 1389/0000	AN-0000	0000	2104/30	.715"	755.0

STANDARD SPOOL PUT-UP: 100 FT., 500 FT., 1000 FT.

ALSO AVAILABLE TO ORDER CUT, STRIPPED AND TINNED

■ NEW

PRICES

Alpha No.	Sugg. Resale per 1000'	Alpha No.	Sugg. Resale per 500'
1381	14.03	1387	46.20
1382	15.51	1388	102.30
1383	18.65	1389	135.30
1384	22.28	1389/4	181.50
1385	29.70	1389/2	264.00
1386	41.25	1389/1	353.93
		1389/0	453.75
		1389/00	577.50
		1389/000	842.16
		1389/0000	1016.40



MIL-W-5086A

SHIELDED AIRCRAFT WIRE FOR ELECTRICAL SYSTEMS

UNJACKETED SHIELDED CABLE (MIL-C-7078A Type 1)

Base Wire MIL-W-5086A Type 1

DESCRIPTION: Each conductor stranded tinned copper, color coded polyvinylchloride insulation. Clear nylon jacket on each conductor, cabled, braided tinned copper shield overall. 85% coverage per Type 1 MIL-5086A, Type 1 MIL-C-7078A

CHARACTERISTICS: Temperature rating: $-55^{\circ}\text{C}.$ to $+105^{\circ}\text{C}.$ Voltage rating: 600 volts. Resists effects of water, oil, aircraft fuels, hydraulic fluid, skydral, ethyleneglycol, alcohol, dilute acids, alkalis, fungus and abrasion.

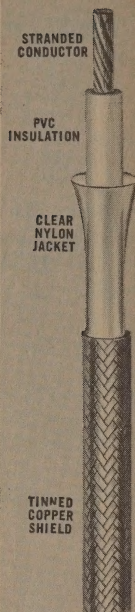
ALPHA NO.	NO. OF COND.	MIL TYPE & DESIG.	CONDUCTOR SIZE	CONDUCTOR STRAND	NOM. O.D. (Inches)	NOM. NET WT. LBS. PER M/FT.
1391	1	AN-22	22	19/34	.090	9.4
■ 1391/2	2	AN-22	22	19/34	.160	23.1
■ 1391/3	3	AN-22	22	19/34	.170	27.1
1392	1	AN-20	20	19/32	.100	11.6
■ 1392/2	2	AN-20	20	19/32	.180	33.8
■ 1392/3	3	AN-20	20	19/32	.190	36.5
1393	1	AN-18	18	19/30	.110	15.4
■ 1393/2	2	AN-18	18	19/30	.200	37.5
■ 1393/3	3	AN-18	18	19/30	.210	40.0
1394	1	AN-16	16	19/29	.120	17.6
1395	1	AN-14	14	19/27	.140	24.9
1396	1	AN-12	12	19/25	.160	34.0

COLOR CODE OF CONDUCTORS:

1—White 2—1 White/Blue, 1 White/Red 3—1 White/Blue, 1 White/Red, 1 White/Yellow

STANDARD SPOOL PUT-UP: 100 FT., 500 FT., 1000 FT.

■ NEW



UNJACKETED SHIELDED CABLE (MIL-C-7078A Type 1)

Base Wire MIL-W-5086A Type 2

NEW

DESCRIPTION: Each conductor stranded tinned copper. White PVC insulation. Color coded glass braid on each conductor. Clear nylon jacket on each conductor. Conductors cabled braided tinned copper shield overall. 85% coverage per Type 2 MIL-W-5086A, Type 1 MIL-C-7078A.

CHARACTERISTICS: Temperature rating: $-55^{\circ}\text{C}.$ to $+105^{\circ}\text{C}.$ Voltage rating: 600 volts. Resists effects of water, oil, aircraft fuels, hydraulic fluid, skydral, ethyleneglycol, alcohol, dilute acids, alkalis, fungus and abrasion.

ALPHA NO.	NO. OF COND.	MIL TYPE & DESIG.	CONDUCTOR SIZE	CONDUCTOR STRAND	NOM. O.D. (Inches)	NOM. NET WT. LBS. PER M/FT.
6442	1	AN-22	22	19/34	.095	10.1
6443	2	AN-22	22	19/34	.170	29.1
6444	3	AN-22	22	19/34	.180	34.0
6445	1	AN-20	20	19/32	.105	13.3
6446	2	AN-20	20	19/32	.190	36.0
6447	3	AN-20	20	19/32	.200	39.5
6448	1	AN-18	18	19/30	.115	15.9
6449	2	AN-18	18	19/30	.210	38.5
6450	3	AN-18	18	19/30	.224	46.1
6451	1	AN-16	16	19/29	.125	18.2
6452	1	AN-14	14	19/27	.150	25.1
6453	1	AN-12	12	19/25	.165	43.3

COLOR CODE OF CONDUCTORS:

1—White 2—1 White/Blue, 1 White/Red 3—1 White/Blue, 1 White/Red, 1 White/Yellow

STANDARD SPOOL PUT-UP: 100 FT., 500 FT., 1000 FT.



Alpha No.	Sugg. Resale per 1000'	Alpha No.	Sugg. Resale per 500'	Alpha No.	Sugg. Resale per 500'
1391/2	500 48.09	1393	1000 39.20	6442	30.23
1391	1000 32.10	1393/2	500 56.54	6443	53.27
1391/3	500 61.71	1393/3	500 77.85	6444	69.05
1392	1000 35.64	1394	1000 44.40	6445	34.56
1392/2	500 51.86	1395	1000 57.45	6446	60.80
1392/3	500 66.60	1396	1000 75.00	6447	80.94
				6448	37.65
				6449	68.78
				6450	90.93
				6451	40.01
				6452	52.89
				6453	66.33

Mil-W-5086A**SHIELDED AIRCRAFT WIRE FOR ELECTRICAL SYSTEMS****NEW****NYLON JACKETED SHIELDED CABLE (MIL-C-7078A Type 2)****Base Wire MIL-W-5086A Type 1****DESCRIPTION:**

Each conductor stranded tinned copper, color coded PVC insulation clear nylon jacket on each conductor, cabled, braided tinned copper shield, 85% coverage. Clear nylon jacket overall. Per Type 1 MIL-W-5086A; per Type 2 MIL-C-7078A.

CHARACTERISTICS:

Temperature rating: -55°C. to +105°C. Voltage rating: 600 volts. Resists effects of water, oil, aircraft fuels, hydraulic fluid, skydral, ethyleneglycol, alcohol, dilute acids, alkalis, fungus and abrasion.

ALPHA NO.	NO. OF COND.	MIL TYPE DESIG.	CONDUCTOR SIZE	CONDUCTOR STRAND	NOM. JKT. THICKNESS	NOM. O.D. (Inches)	NOM. NET WT. LBS. PER M/FT.
6460	1	AN-22	22	19/34	.005	.100	10.2
6461	2	AN-22	22	19/34	.005	.170	23.6
6462	3	AN-22	22	19/34	.005	.180	29.7
6463	1	AN-20	20	19/32	.005	.110	12.0
6464	2	AN-20	20	19/32	.005	.190	34.2
6465	3	AN-20	20	19/32	.005	.200	27.2
6466	1	AN-18	18	19/30	.005	.120	16.3
6467	2	AN-18	18	19/30	.005	.210	39.3
6468	3	AN-18	18	19/30	.005	.220	40.7
6469	1	AN-16	16	19/29	.005	.130	18.4
6470	1	AN-14	14	19/27	.005	.150	26.0
6471	1	AN-12	12	19/25	.005	.170	35.8

COLOR CODE OF CONDUCTORS:

1—White 2—1 White/Blue, 1 White/Red 3—1 White/Blue, 1 White/Red, 1 White/Yellow

STANDARD SPOOL PUT-UP: 100 FT., 500 FT., 1000 FT.

**NYLON JACKETED SHIELDED CABLE (MIL-C-7078A Type 2)****Base Wire MIL-W-5086A Type 2****DESCRIPTION:**

Each conductor stranded tinned copper. White PVC insulation. Color coded glass braid on each conductor. Clear nylon jacket on each conductor. Conductors cabled, braided, tinned copper, shield overall, 85% coverage. Clear nylon jacket overall per Type 2, MIL-W-5086A, Type 2, MIL-C-7078A.

CHARACTERISTICS:

Temperature rating: -55°C. to +105°C. Voltage rating: 600 volts. Resists effects of water, oil, aircraft fuels, hydraulic fluid, skydral, ethyleneglycol, alcohol, dilute acids, alkalis, fungus and abrasion.

ALPHA NO.	NO. OF COND.	MIL TYPE DESIG.	CONDUCTOR SIZE	CONDUCTOR STRAND	NOM. JKT. THICKNESS	NOM. O.D. (Inches)	NOM. NET WT. LBS. PER M/FT.
6477	1	AN-22	22	19/34	.005	.105	10.9
6478	2	AN-22	22	19/34	.005	.180	29.7
6479	3	AN-22	22	19/34	.005	.190	34.3
6480	1	AN-20	20	19/32	.005	.115	14.2
6481	2	AN-20	20	19/32	.005	.200	36.8
6482	3	AN-20	20	19/32	.005	.210	40.5
6483	1	AN-18	18	19/30	.005	.125	16.8
6484	2	AN-18	18	19/30	.005	.220	39.7
6485	3	AN-18	18	19/30	.005	.234	47.9
6486	1	AN-16	16	19/29	.005	.135	19.4
6487	1	AN-14	14	19/27	.005	.160	26.1
6488	1	AN-12	12	19/25	.005	.175	35.7

COLOR CODE OF CONDUCTORS:

1—White 2—1 White/Blue, 1 White/Red 3—1 White/Blue, 1 White/Red, 1 White/Yellow

STANDARD SPOOL PUT-UP: 100 FT., 500 FT., 1000 FT.

NEW**PRICES**

Alpha No.	Sugg. Resale per 500'	Alpha No.	Sugg. Resale per 500'	Alpha No.	Sugg. Resale per 500'
6460	34.02	6466	41.46	6477	35.28
6461	55.44	6467	65.34	6478	61.61
6462	71.33	6468	89.84	6479	79.76
6463	34.74	6469	44.46	6480	38.12
6464	59.90	6470	54.45	6481	70.23
6465	76.95	6471	67.70	6482	93.56
				6483	44.64
				6484	79.40
				6485	105.08
				6486	49.08
				6487	60.08
				6488	76.85



Alpha RG Coaxial Cables



Now Alpha Wire, the industry's one total prime wire source, manufactures a complete line of coaxial cable. Through the most advanced manufacturing techniques, Alpha Wire now serves your every requirement for all types of coaxial cable.

For more than forty years Alpha Wire has maintained a world-wide reputation for prompt service. All the coaxial cable types, as well as the complete line of Alpha Wire, cable and tubing is ALWAYS IN STOCK.

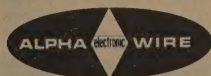
TEFLON DIELECTRIC

ALPHA NO.	RG TYPE	COND.	NOM. WALL THICK.	NOM. JKT. THICK.	JACKET TYPE	MAX. O.D.	CAP. NOM.	IMPED. OHMS	MAX. OPER. VOLTAGE
9161	161/U	7/.004*	.020	.006	Nylon**	.090	27.5	50±2	1200
9178B	178B/U	7/.004	.012	.010	Extruded FEP	.075	27.9	50±2	1000
9179B	179B/U	7/.004	.021	.010	Extruded FEP	.105	20.4	75±3	1200
9180B	180B/U	7/.004	.045	.010	Extruded FEP	.145	15.3	93±2	850
9187A	187A/U	7/.004	.024	.012	Fused TFE Tape	.110	19.5	75±3	1200
9188A	188A/U	7/.0067	.020	.012	Fused TFE Tape	.110	27.5	50±2	1200
9195A	195A/U	7/.004	.045	.014	Fused TFE Tape	.155	14.5	95±3	1500
9196A	196A/U	7/.004	.011	.012	Fused TFE Tape	.080	28.5	50±2	1000
9316	316/U	7/.0067	.020	.010	Extruded FEP	.102	27.5	50±2	1200

* Silver Coated Cadmium Bronze

** Operating Temperature: -55°C. — +105°C.

Conductors Silver Plated Copperweld Except RG 161/U, as shown.

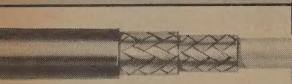
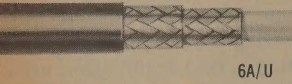
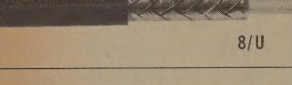
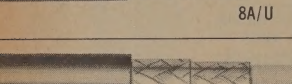
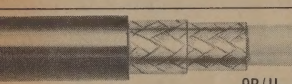
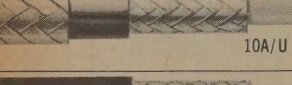
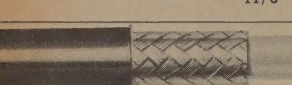
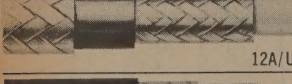


PRICES — per 1000'							
9161	121.50	9179B	187.50	9187A	185.10	9195A	315.75
9178B	114.00	9180B	279.30	9188A	181.50	9196A	124.43
						9316	207.60

Alpha RG Cable Types

POLYETHYLENE DIELECTRIC

All Illustrations — Actual Size

RG CABLE TYPE	ALPHA PART NO.	INNER CONDUCTOR		DIELECTRIC MAT.	DIELECTRIC O.D.	SHIELDS		JACKET		ARMOR (.0126 ALUM. WIRE)	OPR VOLTS RMS	LBS. PER M/FT.	NOM. IMPED. OHMS	NOM. CAP MMF/ FT.			
		MAT.	STRAND			Inner	Outer	O.D.	MAT.						O.D.		
	5B/U	9005B	SC	1	.051	PE	.185	SC	SC	.260	NCV	.335	3000	83	50	29.5	
	6A/U	9006A	CW	1	.0285	PE	.189	SC	C	.264	NCV	.336	2700	74	75	20	
	8/U	9008	C	7/.0285	.086	PE	.295	C	—	.340	V	.415	5000	105	52	29.5	
	8A/U	9008A	C	7/.0285	.086	PE	.295	C	—	.340	NCV	.415	5000	99	52	29.5	
	9A/U	9009A	SC	7/.0285	.086	PE	.285	SC	SC	.355	NCV*	.430	5000	126	52	29.5	
	9B/U	9009B	SC	7/.0285	.086	PE	.285	SC	SC	.355	NCV	.430	5000	126	50	30	
	10A/U	9010A	C	7/.0285	.086	PE	.295	C	—	.340	NCV	.415	.475	5000	125	52	29.5
	11/U	9011	TC	7/.0159	.048	PE	.295	C	—	.340	V	.415	5000	94	75	20.5	
	11A/U	9011A	TC	7/.0159	.048	PE	.292	C	—	.340	NCV	.412	5000	89	75	20.5	
	12A/U	9012A	TC	7/.0159	.048	PE	.292	C	—	.340	NCV	.412	.475	5000	113	75	20.5
	13A/U	9013A	TC	7/.0159	.048	PE	.290	C	C	.355	NCV	.430	5000	119	74	20.5	

ALL TYPES LISTED CONFORM TO LATEST REVISION MIL-C-17.

C—Bare Copper
TC—Tinned Copper
SC—Silver Covered Copper
CW—Copper Covered Steel

PE—Solid Polyethylene

SSP—Semi Solid Polyethylene

BP—Black Polyethylene—Type IIIA

NP—Natural Polyethylene—Type III

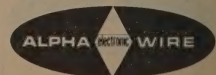
V—Polyvinylchloride—Type I

NCV—Non-Contaminating Polyvinylchloride—Type IIA

ALL DIMENSIONS ARE MAXIMUM
EXCEPT WHERE INDICATED

*GRAY

Alpha No.	Sugg. Resale per 1000'	PRICES				Alpha No.	Sugg. Resale per 1000'
9005B	219.00	9008A	117.00	9010A	202.50	9012A	189.00
9006A	165.00	9009A	330.00	9011	84.00	9013A	171.60
9008	90.75	9009B	318.00	9011A	96.38		



Alpha RG Cable Types

POLYETHYLENE DIELECTRIC

All Illustrations — Actual Size

RG CABLE TYPE	ALPHA PART NO.	INNER CONDUCTOR		NOM. O.D.	DIELECTRIC		SHIELDS		JACKET		ARMOR (.0126 ALUM. WIRE)	OPR VOLTS RMS	LBS. PER M/FT.	NOM. IMPED. OHMS	NOM. CAP MMF/ FT.		
		MAT.	STRAND		MAT.	O.D.	Inner	Outer	O.D.	MAT.						O.D.	
	14A/U	9014A	C	1	.102	PE	.383	C	C	.463	NCV	.558	7000	201	52	29.5	
	17A/U	9017A	C	1	.188	PE	.695	C	—	.760	NCV	.885	11000	462	52	29.5	
	18A/U	9018A	C	1	.188	PE	.695	C	—	.760	NCV	.885	.945	11000	510	52	29.5
	19A/U	9019A	C	1	.250	PE	.925	C	—	.990	NCV	1.135	14000	720	52	29.5	
	20A/U	9020A	C	1	.250	PE	.925	C	—	.990	NCV	1.135	1.195	14000	786	52	29.5
	22B/U	9022B	C	Two 7/.0152	.047	PE	.291	TC	TC	.355	NCV	.430	1000	124	95	16	
	34B/U	9034B	C	7/.0249	.075	PE	.470	C	—	.535	NCV	.640	6500	205	75	20	

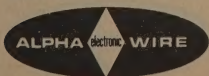
ALL TYPES LISTED CONFORM TO LATEST REVISION MIL-C-17.

C—Bare Copper
TC—Tinned Copper
SC—Silver Covered Copper
CW—Copper Covered Steel

PE—Solid Polyethylene
SSP—Semi Solid Polyethylene
BP—Black Polyethylene—Type IIIA

NP—Natural Polyethylene—Type III
V—Polyvinylchloride—Type I
NCV—Non-Contaminating Polyvinylchloride—Type IIA

ALL DIMENSIONS ARE MAXIMUM
EXCEPT WHERE INDICATED



Alpha No.
9014A
9017A

Sugg. Resale
per 1000'
264.00
495.00

Alpha No.
9018A
9019A

663.00
817.50

PRICES

9020A
9022B

Sugg. Resale
per 1000'
1140.00
204.00

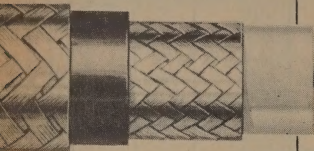
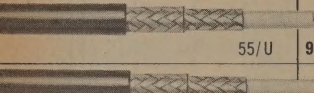
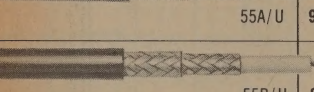
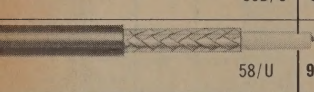
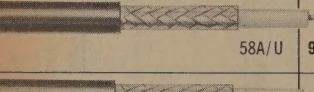
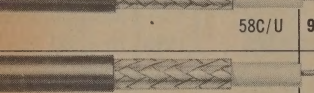
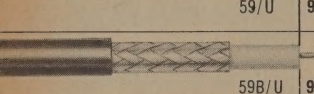
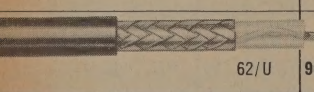
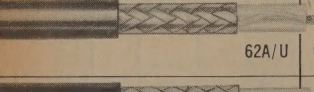
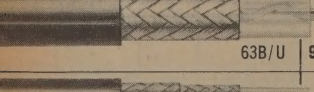
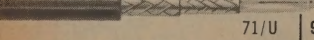
Alpha No.
9034B

Sugg. Resale
per 1000'
300.00

Alpha RG Cable Types

POLYETHYLENE DIELECTRIC

All Illustrations — Actual Size

RG CABLE TYPE	ALPHA PART NO.	INNER CONDUCTOR MAT. STRAND	NOM. O.D.	DIELECTRIC MAT. O.D.	Inner	Outer	O.D.	JACKET MAT. O.D.	ARMOR (.0126 ALUM. WIRE)	OPR VOLTS RMS	LBS. PER M/FT.	NOM. IMPED. OHMS	NOM. CAP MMF/ FT.			
	35B/U	9035B	C	1	.1045	PE	.690	C —	.760	NCV	.880	.945	10000	425	75	20.5
	55/U	9055	C	1	.032	PE	.121	TC TC	.176	NP	.206		1900	31	53.5	28.5
	55A/U	9055A	SC	1	.035	PE	.121	SC SC	.176	NCV	.216		1900	36	50	29.5
	55B/U	9055B	SC	1	.032	PE	.121	TC TC	.176	BP	.206		1900	32	53.5	28.5
	58/U	9058	C	1	.032	PE	.121	TC —	.150	V	.200		1900	24	53.5	28.5
	58A/U	9058A	TC	19/.0071	.0375	PE	.120	TC —	.150	V	.199		1900	25	50	29.5
	58C/U	9058C	TC	19/.0071	.0375	PE	.120	TC —	.150	NCV	.199		1900	25	50	29.5
	59/U	9059	CW	1	.0253	PE	.150	C —	.191	V	.250		2300	36	73	21
	59B/U	9059B	CW	1	.023	PE	.150	C —	.191	NCV	.246		2300	36	75	20.5
	62/U	9062	CW	1	.025	SSP	.151	C —	.191	V	.250		750	34	93	13.5
	62A/U	9062A	CW	1	.025	SSP	.151	C —	.191	NCV	.249		750	34	93	13.5
	63B/U	9063B	CW	1	.0253	SSP	.295	C —	.340	NCV	.415		1000	78	125	10
	71/U	9071	CW	1	.025	SSP	.151	C TC	.198	NP	.250		750	42	93	13.5

ALL TYPES LISTED CONFORM TO LATEST REVISION MIL-C-17.

C—Bare Copper

TC—Tinned Copper

SC—Silver Covered Copper

CW—Copper Covered Steel

PE—Solid Polyethylene

SSP—Semi Solid Polyethylene

BP—Black Polyethylene—Type IIIA

NP—Natural Polyethylene—Type III

V—Polyvinylchloride—Type I

NCV—Non-Contaminating Polyvinylchloride—Type IIA

ALL DIMENSIONS ARE MAXIMUM
EXCEPT WHERE INDICATED

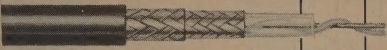
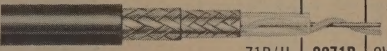
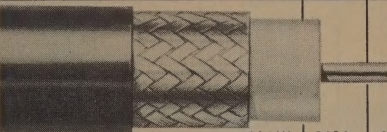
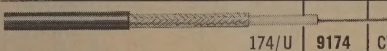
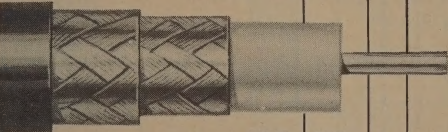
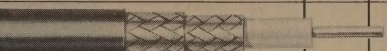
Alpha No.	Sugg. Resale per 1000'	Alpha No.	Sugg. Resale per 1000'	Alpha No.	Sugg. Resale per 1000'
9035B	690.00	9055B	73.50	9058C	40.80
9055	63.30	9058	30.75	9059	35.25
9055A	115.50	9058A	36.75	9059B	43.13
				9062	39.90
				9062A	51.00
				9063B	118.50
				9071	64.88



Alpha RG Cable Types

POLYETHYLENE DIELECTRIC

All Illustrations — Actual Size

RG CABLE TYPE	ALPHA PART NO.	INNER CONDUCTOR		DIELECTRIC MAT.	O.D.	SHIELDS			JACKET		ARMOR (.0126 ALUM. WIRE)	OPR VOLTS RMS	LBS. PER M/FT.	NOM. IMPED. OHMS	NOM. CAP. MMF/ FT.
		MAT.	STRAND	NOM. O.D.		Inner	Outer	O.D.	MAT.	O.D.					
 71A/U	9071A	CW	1	.025	SSP	.151	TC	TC	.198	V	.250	750	42	93	13.5
 71B/U	9071B	CW	1	.025	SSP	.151	C	TC	.208	BP	.250	750	42	93	13.5
 74A/U	9074A	C	1	.102	PE	.383	C	C	.463	NCV	.558	7000	230	52	29.5
 79B/U	9079B	CW	1	.025	SSP	.295	C	—	.340	NCV	.415	1000	105	125	10
 164/U	9164	C	1	.1045	SSP	.690	C	—	.760	NCV	.890	10000	392	75	20.5
 174/U	9174	CW	7/.0063	.019	PE	.060	TC	—	.088	V	.105	1500	7	50	30
 177/U	9177	C	1	.195	PE	.690	SC	SC	.760	NCV	.910	11000	465	50	30
 212/U	9212	SC	1	.056	PE	.189	SC	SC	.265	NCV	.336	3000	85	50	29.5
 213/U	9213	C	7/.0296	.090	PE	.292	C	—	.340	NCV	.412	5000	100	50	30.5
 214/U	9214	SC	7/.0296	.090	PE	.292	SC	SC	.360	NCV	.432	5000	129	50	30.5
 215/U	9215	C	7/.0296	.090	PE	.292	C	—	.340	NCV	.412	5000	122	50	30.5

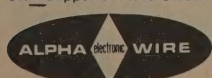
ALL TYPES LISTED CONFORM TO LATEST REVISION MIL-C-17.

ALL DIMENSIONS ARE MAXIMUM
EXCEPT WHERE INDICATED

C—Bare Copper
TC—Tinned Copper
SC—Silver Covered Copper
CW—Copper Covered Steel

PE—Solid Polyethylene
SSP—Semi Solid Polyethylene
BP—Black Polyethylene—Type IIIA

NP—Natural Polyethylene—Type III
V—Polyvinylchloride—Type I
NCV—Non-Contaminating Polyvinylchloride—Type IIA



Alpha No.	Sugg. Resale per 1000'
9071A	82.50
9071B	64.88
9074A	450.00

Alpha No.	Sugg. Resale per 1000'
9079B	181.50
9164	594.00
9174	22.95

PRICES

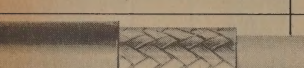
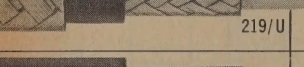
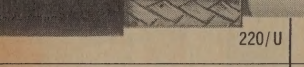
CES	Sugg. Resale per 1000'
9177	1003.50
9212	232.50
9213	104.55

Alpha No.	Sugg. Resale per 1000'
9214	334.50
9215	202.50

Alpha RG Cable Types

POLYETHYLENE DIELECTRIC

Illustrations — Actual Size

RG CABLE TYPE	ALPHA PART NO.	INNER CONDUCTOR MAT. STRAND	NOM. O.D.	DIELECTRIC MAT. O.D.	SHIELDS Inner Outer O.D.	JACKET MAT. O.D.	ARMOR (.0126 ALUM. WIRE)	OPR VOLTS RMS	LBS. PER M/FT.	NOM. IMPED. OHMS	NOM. CAP MMF/ FT.
	216/U	9216 TC	7/.0159	.048	PE .292	C C .360	NCV .432	5000	115	75	20.5
	217/U	9217 C	1	.106	PE .380	C C .463	NCV .555	7000	202	50	30
	218/U	9218 C	1	.195	PE .690	C — .760	NCV .880	11000	457	50	30
	219/U	9219 C	1	.195	PE .690	C — .760	NCV .880	11000	507	50	30
	220/U	9220 C	1	.260	PE .925	C — .990	NCV 1.135	14000	725	50	29.5
	221/U	9221 C	1	.260	PE .925	C — .990	NCV 1.135	14000	790	50	29.5
	223/U	9223 SC	1	.036	PE .120	SC SC .176	NCV .216	1900	36	50	30
	224/U	9224 C	1	.106	PE .380	C C .463	NCV .555	7000	232	50	30

ALL TYPES LISTED CONFORM TO LATEST REVISION MIL-C-17.

— Bare Copper
 TC—Tinned Copper
 SC—Silver Covered Copper
 CW—Copper Covered Steel

PE—Solid Polyethylene
 SSP—Semi Solid Polyethylene
 BP—Black Polyethylene—Type IIIA

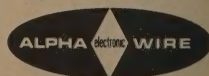
NP—Natural Polyethylene—Type III
 V—Polyvinylchloride—Type I

NCV—Non-Contaminating Polyvinylchloride—Type IIA

ALL DIMENSIONS ARE MAXIMUM
EXCEPT WHERE INDICATED

PRICES

Alpha No.	Sugg. Resale per 1000'		
9216	171.60	9220	817.50
9217	264.00	9221	1140.00
9218	495.00	9223	115.50
9219	663.00	9224	450.00



CONTROL AND INSTRUMENTATION CABLE

MULTI-CONDUCTOR SHIELDED PLASTIC JACKET

PER MIL-W-16878D

CHARACTERISTICS: Temperature rating -55°C to +105°C. Resistant to acids, alkalis, oil, flame, moisture, solvents and fungus.

APPLICATIONS: Interconnecting cables for electronic equipment, instrumentation and control cable, telemetry data, remote control of sensitive recording instruments.

DESCRIPTION: Each conductor stranded tinned copper. Color coded, polyvinylchloride insulation, cabled, mylar wrap. Braided tinned copper shield 90% coverage, chrome gray polyvinylchloride jacket overall.

MINIATURE SHIELDED CONTROL CABLE— 600 VOLT

ALPHA NO.	NO. OF COND.	CONDUCTOR SIZE	STRAND	NOM. WALL THICKNESS	NOM. JACKET	NOM. O.D.
3302	2	B-28	7/36	.010"	.012"	.125"
3303	3	B-28	7/36	.010"	.012"	.130"
3304	4	B-28	7/36	.010"	.012"	.140"
3306	6	B-28	7/36	.010"	.015"	.170"
3308	8	B-28	7/36	.010"	.015"	.175"
3310	10	B-28	7/36	.010"	.018"	.210"
3312	12	B-28	7/36	.010"	.018"	.215"
3315	15	B-28	7/36	.010"	.020"	.230"
3320	20	B-28	7/36	.010"	.022"	.260"

STANDARD SPOOL PUT-UP: 100 FT., 500 FT., 1000 FT.

HEAVY DUTY SHIELDED CONTROL CABLE— 1000 VOLT

ALPHA NO.	NO. OF COND.	CONDUCTOR SIZE	STRAND	NOM. WALL THICKNESS	NOM. JACKET	NOM. O.D.
3405	5	C-18	19/30	.016"	.025"	.300"
3410	10	C-18	19/30	.016"	.035"	.405"
3415	15	C-18	19/30	.016"	.040"	.470"
3420	20	C-18	19/30	.016"	.045"	.530"
3430	30	C-18	19/30	.016"	.055"	.650"

STANDARD SPOOL PUT-UP: 100 FT., 500 FT., 1000 FT.

COLOR CODE OF CONDUCTORS

1—Black	11—Blue/Black	21—Orange/Green
2—White	12—Black/White	22—Black/White/Red
3—Red	13—Red/White	23—White/Black/Red
4—Green	14—Green/White	24—Red/Black/White
5—Orange	15—Blue/White	25—Green/Black/White
6—Blue	16—Black/Red	26—Orange/Black/White
7—White/Black	17—White/Red	27—Blue/Black/White
8—Red/Black	18—Orange/Red	28—Black/Red/Green
9—Green/Black	19—Blue/Red	29—White/Red/Green
10—Orange/Black	20—Red/Green	30—Red/Black/Green

UNSHIELDED STATION CONTROL CABLE

HEAVY-DUTY MULTI-CONDUCTOR PLASTIC JACKET—600 VOLTS

DESCRIPTION: Each conductor, stranded bare copper, .020" polyethylene insulation, .010" polyvinylchloride jacket over each conductor, color coded, cabled with fillers where necessary, moisture resistant tape, black polyvinylchloride jacket overall, 600 volt operating voltage.

APPLICATIONS: Remote control of automatic electrical equipment, recording and relaying devices, telemetering, switchgear operations and indicators, substation operation, temperature voltage, pressure and motor control, dimensional tolerance on automatic quality control.

16 GAUGE — 26/30 BARE COPPER

ALPHA NO.	NO. OF COND.	NOM. JKT. THICKNESS	NOM. O.D.
4102	2	.045"	.360"
4103	3	.045"	.480"
4105	5	.045"	.520"
4106	6	.045"	.550"
4107	7	.045"	.570"
4108	8	.045"	.590"
4110	10	.045"	.620"
4112	12	.045"	.660"
4114	14	.045"	.690"
4116	16	.045"	.750"

*FLAT DIMENSION .233" x .366"

**FLAT DIMENSION .252" x .404"

COLOR CODE: The color code of neoprene jacketed control cables conforms to IPCEA standards either with full color code or surface printed with color name and number.

14 GAUGE — 7/22 BARE COPPER

4202	2 Twin	.045"	*	4214	14	.060"	.744"
4203	3 Rd.	.045"	.390"	4216	16	.060"	.798"
4204	4	.045"	.425"	4219	19	.060"	.861"
4205	5	.045"	.462"	4224	24	.080"	.947"
4206	6	.045"	.481"	4227	27	.080"	1.002"
4207	7	.045"	.502"	4230	30	.080"	1.110"
4208	8	.060"	.556"	4234	34	.080"	1.118"
4209	9	.060"	.622"	4237	37	.080"	1.124"
4210	10	.060"	.657"	4240	40	.080"	1.290"
4212	12	.060"	.696"				

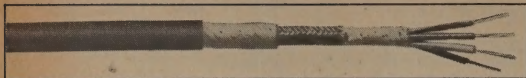
12 GAUGE — 7/20 BARE COPPER

4302	2 Twin	.045"	**	4315	15	.060"	.832"
4303	3 Rd.	.045"	.431"	4316	16	.060"	.901"
4304	4	.045"	.471"	4318	18	.080"	.928"
4305	5	.045"	.523"	4319	19	.080"	.943"
4306	6	.045"	.564"	4320	20	.080"	.966"
4307	7	.060"	.599"	4322	22	.080"	1.01"
4308	8	.060"	.644"	4325	25	.080"	1.09"
4309	9	.060"	.690"	4327	27	.080"	1.129"
4310	10	.060"	.727"	4330	30	.080"	1.168"
4312	12	.060"	.775"	4334	34	.080"	1.201"
4314	14	.060"	.807"	4337	37	.080"	1.257"

STANDARD SPOOL PUT-UP: CUT TO SPECIFIC LENGTHS.

Alpha No.	Sugg. Resale per 1000'				
3302	92.57	4108	1.09	4206	1.06
3303	120.51	4110	1.20	4207	1.09
3304	141.57	4112	1.45	4208	1.28
3306	174.24	4114	1.64	4209	1.45
3308	206.91	4116	1.82	4210	1.60
3310	250.47	4202	.40	4212	1.89
3312	290.40	4203	.65	4214	2.29
3315	348.48	4119	2.04	4216	2.57
3320	462.83	4121	2.32	4219	2.83
3405	344.85	4122	2.43	4224	3.92
3410	588.06	4124	2.51	4227	4.18
3415	813.12	4126	2.76	4230	4.64
3420	1052.70	4130	3.12	4234	5.23
3430	1524.60	4137	3.45	4237	5.48
4102	.33	4140	3.82	4240	7.08
4103	.65	4150	4.72	4302	.47
4105	.80	4160	5.81	4303	.73
4106	.87	4204	.80	4304	.88
4107	.98	4205	1.01	4305	1.17
				4306	1.34
				4307	1.49
				4308	1.73
				4309	1.82
				4310	2.04
				4312	2.46
				4314	2.65
				4315	3.27
				4316	3.41
				4318	3.62
				4319	3.73
				4320	3.99
				4322	4.36
				4325	5.05
				4327	5.43
				4330	5.81
				4334	6.53
				4337	7.17

ALPHA electronic WIRE



SHIELDED CONTROL CABLE

HEAVY-DUTY MULTI-CONDUCTOR RUGGED NEOPRENE JACKET

DESCRIPTION: Each conductor stranded tinned copper, color coded rubber insulation, cabled with fillers where necessary, cotton wrap, braided tinned copper shield, cotton wrap, rugged black neoprene jacket overall.

CHARACTERISTICS: Operating Temperature: -20°C to +60°C.

#18 GAUGE CABLE

ALPHA NO.	NO. OF COND.	SIZE	CONDUCTOR STRAND	NOM. WALL THICKNESS	NOM. JKT. THICKNESS	NOM. O.D.
1450	2	18	41/34	.020"	.035"	.295"
1451	3	18	41/34	.020"	.035"	.305"
1452	4	18	41/34	.020"	.035"	.330"
1454	6	18	41/34	.020"	.035"	.370"
1456	8	18	41/34	.020"	.035"	.420"
1458	10	18	41/34	.020"	.035"	.480"
1459	12	18	41/34	.020"	.065"	.555"
1459/15	15	18	41/34	.020"	.065"	.640"
1459/20	20	18	41/34	.020"	.065"	.730"

#16 GAUGE CABLE

1450/16	2	16	65/34	.025"	.035"	.335"
1451/16	3	16	65/34	.025"	.035"	.355"
1452/16	4	16	65/34	.025"	.035"	.385"
1454/16	6	16	65/34	.025"	.040"	.445"
1456/16	8	16	65/34	.025"	.040"	.510"
1458/16	10	16	65/34	.025"	.040"	.575"

#14 GAUGE CABLE

1400	2	14	41/30	.030"	.040"	.395"
1401	3	14	41/30	.030"	.040"	.425"
1402	4	14	41/30	.030"	.040"	.455"
1404	6	14	41/30	.030"	.040"	.515"

#12 GAUGE CABLE

1410	2	12	65/30	.030"	.040"	.440"
1411	3	12	65/30	.030"	.040"	.465"
1412	4	12	65/30	.030"	.040"	.505"

#10 GAUGE CABLE

1420	2	10	105/30	.030"	.040"	.495"
1421	3	10	105/30	.030"	.040"	.520"

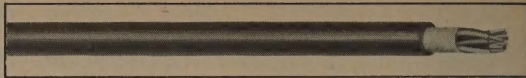
STANDARD SPOOL PUT-UP: 100 FT., 250 FT., 500 FT., 1000 FT.

COLOR CODE OF CONDUCTORS

1—Black	11—White/Black (Braid)
2—White	12—White/Red (Braid)
3—Red	13—White/Green (Braid)
4—Green	14—White/Yellow (Braid)
5—Yellow	15—White/Blue (Braid)
6—Blue	16—White/Brown (Braid)
7—Brown	17—White/Purple (Braid)
8—Orange	18—White/Slate (Braid)
9—Slate	19—Black/Red (Braid)
10—Purple	20—Black/Yellow (Braid)

PRICES

Alpha No.	Sugg. Resale per 1000'	Alpha No.	Sugg. Resale per ft.	Alpha No.	Sugg. Resale per 1000'
1450	183.65	1404	870.00	4608	1.64
1451	308.55	1410	711.48	4610	2.07
1452	384.78	1411	889.35	4612	2.46
1454	562.65	1412	1110.78	4614	2.87
1456	744.15	1420	925.65	4616	3.12
1458	936.54	1421	1161.60	4619	3.88
1459	1306.80			4620	4.03
1459/15	1631.85			4626	3.38
1459/20	1821.60			4628	4.61
1450/16	323.07	4505	.91	4710	3.01
1451/16	399.30	4506	1.08	4712	3.55
1452/16	457.38	4507	1.23	4805	1.82
1454/16	715.11	4508	1.42	4806	2.07
1456/16	900.24	4509	1.64	4807	2.32
1458/16	1361.25	4510	1.85	4808	2.65
1400	417.45	4514	2.46	4809	3.12
1401	517.28	4605	1.01	4810	3.41
1402	617.10	4606	1.17	4812	4.07
		4607	1.38	4816	5.12
				4818	5.73



UNSHIELDED CONTROL CABLE

HEAVY-DUTY MULTI-CONDUCTOR RUGGED NEOPRENE JACKET—600 VOLTS

DESCRIPTION: Each conductor stranded bare copper, color coded rubber insulation, cabled with fillers where necessary, wrap over conductors, heavy duty black neoprene jacket overall, 600 volt operating voltage.

APPLICATIONS: Remote control of automatic electrical equipment and sub-stations, tele-metering, voltage pressure and motor control, signal transmission. Flexible heavy duty neoprene jacketed cable, recommended for outside installation, cable resists oil, ozone, sunlight, moisture, abrasion and impact.

18 GAUGE #41/34 BARE COPPER — 1/32" INSULATION THICKNESS

ALPHA NO.	NO. OF COND.	NOM. JKT. THICKNESS	NOM. O.D.	ALPHA NO.	NO. OF COND.	NOM. JKT. THICKNESS	NOM. O.D.
4505	5	.045"	.500"	4520	20	.060"	.965"
4506	6	.045"	.540"	4526	26	.080"	1.04"
4507	7	.045"	.580"	4530	30	.080"	1.10"
4508	8	.060"	.610"	4540	40	.080"	1.25"
4509	9	.060"	.640"	4550	50	.080"	1.35"
4510	10	.060"	.730"	4560	60	.080"	1.50"
4514	14	.060"	.810"				

16 GAUGE #65/34 BARE COPPER — 1/32" INSULATION THICKNESS

4605	5	.045"	.530"	4622	22	.080"	1.065"
4606	6	.045"	.580"	4624	24	.080"	1.11"
4607	7	.045"	.620"	4626	26	.080"	1.156"
4608	8	.060"	.660"	4630	30	.080"	1.194"
4610	10	.060"	.790"	4637	37	.080"	1.290"
4612	12	.060"	.811"	4640	40	.080"	1.340"
4614	14	.060"	.844"	4644	44	.080"	1.420"
4616	16	.060"	.875"	4650	50	.080"	1.520"
4619	19	.060"	.995"	4660	60	.080"	1.610"
4620	20	.060"	1.02"				

14 GAUGE #105/34 BARE COPPER — 3/64" INSULATION THICKNESS

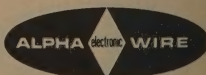
4705	5	.095"	.700"	4709	9	.095"	.530"
4706	6	.095"	.765"	4710	10	.095"	.570"
4707	7	.095"	.820"	4712	12	.110"	1.018"
4708	8	.095"	.882"				

12 GAUGE #165/34 BARE COPPER — 3/64" INSULATION THICKNESS

4805	5	.095"	.760"	4810	10	.110"	1.10"
4806	6	.095"	.810"	4812	12	.110"	1.22"
4807	7	.095"	.870"	4816	16	.110"	1.36"
4808	8	.110"	.945"	4818	18	.125"	1.50"
4809	9	.110"	1.02"				

STANDARD SPOOL PUT-UP: CUT TO SPECIFIC LENGTHS.

COLOR CODE: The color code of neoprene jacketed control cables conforms to IPCEA standards either with full color code or surface printed with color name and number.



Telemetry & Supervisory Shielded Control Cable

DESCRIPTION: Each conductor bare solid copper, high molecular weight polyethylene insulation, color coded, twisted into pairs, cabled with a non-hygroscopic binder tape .008" aluminum shield, black polyethylene jacket overall. Operating voltage 300 volts.

Double jacketed types, (3903-4060 below) same except for additional inner black polyethylene jacket over binder, and .005" copper shield.

APPLICATIONS: Remote control of rocket recording data and test-firing control, transmission of signals which telemeter temperature, voltage pressure, etc. Control of multiple circuits, measuring devices, quality control equipment, radar antenna. For aerial, duct and conduit installations.

Double jacketed types have higher dielectric strength and suited for direct burial installations.

22 AWG SOLID

ALPHA NO.	NO. OF PAIRS	NOM. INSUL. THICKNESS	NOM. JKT. THICKNESS	NOM. O.D.	APPROX. LBS./M'
■ 3703	3	.015"	.045"	.39"	88
■ 3706	6	.015"	.045"	.47"	108
■ 3712	12	.015"	.060"	.59"	171
■ 3718	18	.015"	.060"	.67"	210
■ 3725	25	.015"	.060"	.76"	266
■ 3750	50	.015"	.060"	1.10"	510
■ 3755	100	.015"	.060"	1.28"	815
■ 3760	200	.015"	.060"	1.84"	1490

19 AWG SOLID

■ 3803	3	.015"	.045"	.42"	90
■ 3806	6	.015"	.045"	.52"	140
■ 3812	12	.015"	.060"	.66"	232
■ 3818	18	.015"	.060"	.76"	301
■ 3825	25	.015"	.060"	.92"	426
■ 3850	50	.015"	.060"	1.20"	767
■ 3855	100	.015"	.060"	1.58"	830
■ 3860	200	.015"	.060"	2.17"	1520

16 AWG SOLID

■ 3863	3	.020"	.060"	.56"	160
■ 3864	6	.020"	.060"	.69"	240
■ 3865	12	.020"	.060"	.88"	400
■ 3866	18	.020"	.070"	1.04"	560
■ 3867	25	.020"	.070"	1.18"	720
■ 3868	50	.020"	.080"	1.62"	1350

DOUBLE JACKET — HEAVY DUTY

22 AWG SOLID

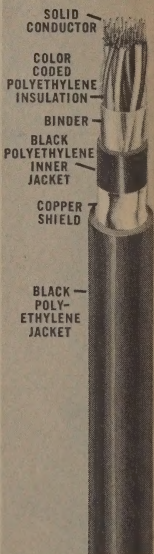
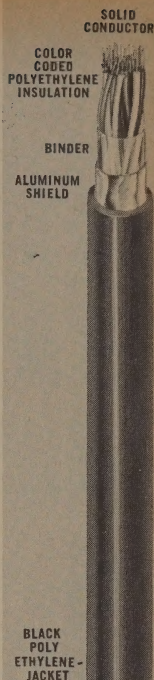
ALPHA NO.	NO. OF PAIRS	NOM. INSUL. THICKNESS	NOM. JKT. THICKNESS INNER	NOM. JKT. THICKNESS OUTER	NOM. O.D.	APPROX. LBS./M'
■ 3903	3	.015"	.047"	.045"	.43"	90
■ 3906	6	.015"	.047"	.045"	.57"	149
■ 3912	12	.015"	.047"	.060"	.69"	226
■ 3918	18	.015"	.047"	.060"	.77"	281
■ 3925	25	.015"	.047"	.080"	.92"	374
■ 3950	50	.015"	.047"	.080"	1.20"	645
■ 3955	100	.015"	.047"	.080"	1.39"	830
■ 3960	200	.015"	.047"	.080"	1.91"	1580

19 AWG SOLID

■ 4003	3	.015"	.047"	.060"	.47"	110
■ 4006	6	.015"	.047"	.060"	.62"	200
■ 4012	12	.015"	.047"	.060"	.76"	297
■ 4018	18	.015"	.047"	.060"	.92"	415
■ 4025	25	.015"	.047"	.080"	1.00"	558
■ 4050	50	.015"	.047"	.080"	1.30"	929
■ 4055	100	.015"	.047"	.080"	1.65"	1380
■ 4060	200	.015"	.047"	.080"	2.23"	2570

STANDARD PUT-UP: CUT TO SPECIFICATION — MIN. 25 FT.

BINDER COLORS: 1 - 25 pair, white-blue binder; 25 - 50, white-orange; 50 - 75, white-green; 75 - 100, white-black; 100 - 125, white-slate; 125 - 150, red-blue; 150 - 175, red-orange; 175 - 200, red-green. (Color code per IPCEA.)



Alpha No.	Sugg. Resale per ft.				Sugg. Resale per ft.	Alpha No.	Sugg. Resale per ft.
3703	.74	3812	1.23	3867	8.07	4003	1.05
3706	.73	3818	1.56	3868	8.07	4006	1.06
3712	.98	3825	1.96	3903	.74	4012	1.45
3718	1.20	3850	3.34	3906	.91	4018	1.82
3725	1.45	3855	9.70	3912	1.17	4025	2.21
3750	2.46	3860	18.95	3918	1.45	4050	3.74
3755	5.84	3863	1.12	3925	1.74	4055	11.06
3760	13.75	3864	1.76	3950	2.76	4060	20.63
3803	.86	3865	3.53	3955	5.84		
3806	.91	3866	4.53	3960	13.75		

Shielded Control Cable

GENERAL PURPOSE MULTI-CONDUCTOR
RUBBER INSULATED AND RUBBER JACKET

DESCRIPTION:

Each conductor, stranded tinned copper, color coded rubber insulation, cabled with fillers where necessary, cotton wrap, braided tinned copper shield, cotton wrap, tough black rubber jacket overall.

CHARACTERISTICS:

Suggested Operating Temperature: -20°C to $+60^{\circ}\text{C}$.

APPLICATIONS:

Cables are extremely flexible for control circuits, video and audio interconnecting cable, broadcast and heavy duty studio use.

SHIELDED MULTI-CONDUCTOR CABLE

ALPHA NO.	NO. OF COND.	CONDUCTOR SIZE	CONDUCTOR STRAND	NOM. WALL THICKNESS	NOM. JKT. THICKNESS	NOM. O.D.
1250/18	2	18	41/34	.020"	.035"	.295"
1250	2	20	26/34	.020"	.035"	.270"
1251	3	20	26/34	.020"	.035"	.285"
1252	4	20	26/34	.020"	.035"	.305"
1253	5	20	26/34	.020"	.035"	.330"
1254	6	20	26/34	.020"	.035"	.345"
1255	7	20	26/34	.020"	.035"	.355"
1255/8	8	20	26/34	.020"	.035"	.385"
1255/10	10	20	26/34	.020"	.035"	.440"
1255/12	12	20	26/34	.020"	.065"	.525"
1255/15	15	20	26/34	.020"	.065"	.595"
1255/20	20	20	26/34	.020"	.065"	.660"

STANDARD SPOOL PUT-UP: 100 FT., 250 FT., 500 FT., 1000 FT.

See color code of conductors below.

Unshielded Control Cable

GENERAL PURPOSE MULTI-CONDUCTOR
RUBBER INSULATED AND RUBBER JACKET

DESCRIPTION:

Each conductor stranded tinned copper, color coded rubber insulation, cabled with fillers, where necessary, cotton wrap, tough black rubber jacket overall.

CHARACTERISTICS: Suggested operating temperature -20°C to $+60^{\circ}\text{C}$.

ALPHA NO.	NO. OF COND.	CONDUCTOR SIZE	CONDUCTOR STRAND	NOM. WALL THICKNESS	NOM. JKT. THICKNESS	NOM. O.D.
1244	2	20	26/34	.020"	.035"	.240"
1245	3	20	26/34	.020"	.035"	.255"
1246	4	20	26/34	.020"	.035"	.275"
1247	5	20	26/34	.020"	.035"	.300"
1247/6	6	20	26/34	.020"	.035"	.315"
1247/7	7	20	26/34	.020"	.035"	.325"
1247/8	8	20	26/34	.020"	.035"	.360"
1247/10	10	20	26/34	.020"	.035"	.410"
1247/12	12	20	26/34	.020"	.035"	.435"
1247/15	15	20	26/34	.020"	.035"	.505"
1247/20	20	20	26/34	.020"	.035"	.570"

STANDARD SPOOL PUT-UP: 100 FT., 250 FT., 500 FT., 1000 FT.

COLOR CODE OF CONDUCTORS

1—Black	5—Yellow	9—Slate	13—White/Green (Braid)	17—White/Purple (Braid)
2—White	6—Blue	10—Purple	14—White/Yellow (Braid)	18—White/Slate (Braid)
3—Red	7—Brown	11—White/Black (Braid)	15—White/Blue (Braid)	19—Black/Red (Braid)
4—Green	8—Orange	12—White/Red (Braid)	16—White/Brown (Braid)	20—Black/Yellow (Braid)

PRICES

Alpha No.	Sugg. Resale per 500'	Alpha No.	Sugg. Resale per 500'	Alpha No.	Sugg. Resale per 500'
1250/18	79.70	1255	104.70	1244	47.73
1250	47.85	1255/8	121.50	1245	51.00
1251	53.63	1255/10	263.18	1246	61.17
1252	62.30	1255/12	363.00	1247	78.05
1253	79.86	1255/15	471.90	1247/6	94.38
1254	96.60	1255/20	589.88	1247/7	103.46
				1247/8	114.35
				1247/10	199.65
				1247/12	272.25
				1247/15	393.30
				1247/20	544.50



Flat Ribbon Cable

MULTI-CONDUCTOR — PLASTIC INSULATION
CONDUCTORS PER MIL-W-16878D, Type C

DESCRIPTION: Each conductor stranded tinned copper, color coded .016" polyvinyl-chloride insulation, conductors bonded together to form flat ribbon cable.

CHARACTERISTICS: Temperature rating -55°C to $+105^{\circ}\text{C}$. Voltage rating 1000 volts. Resistant to acids, alkalis, oil, flame, moisture, solvents, and fungus.

APPLICATIONS: Saves time, weight, and space on circuit connections, interconnecting assemblies and systems, wiring harnesses for racks, sliding drawer and drop panels. Conductors fully color coded and easily separated for neat terminations.

ALPHA NO.	NO. OF COND.	CONDUCTOR SIZE	STRAND	NOM. WALL THICKNESS	NOMINAL O.D.
3504	4	22	7/30	.016"	.065" x .260"
3508	8	22	7/30	.016"	.065" x .520"
3512	12	22	7/30	.016"	.065" x .780"
3516	16	22	7/30	.016"	.065" x 1.040"
3520	20	22	7/30	.016"	.065" x 1.300"

STANDARD SPOOL PUT-UP: 100 FT., 500 FT., 1000 FT.

COLOR CODE OF CONDUCTORS

1—White	11—White/Black
2—Black	12—White/Red
3—Red	13—White/Green
4—Green	14—White/Yellow
5—Yellow	15—White/Blue
6—Light Blue	16—White/Brown
7—Brown	17—White/Orange
8—Orange	18—White/Gray
9—Gray (slate)	19—White/Violet
10—Violet (purple)	20—White/Black/Red



Shielded Control Cable

GENERAL PURPOSE MULTI-CONDUCTOR
PLASTIC JACKETED CABLE

DESCRIPTION: Each conductor, stranded tinned copper, color coded, polyethylene insulation, cabled with fillers where necessary, rayon wrap, braided tinned copper shield, chrome gray polyvinylchloride jacket overall.

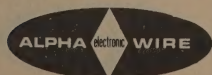
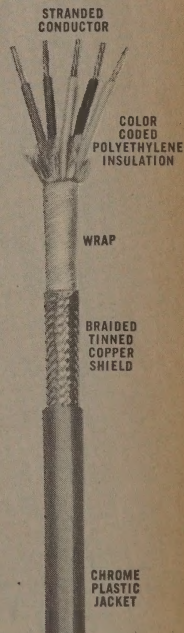
CHARACTERISTICS: Suggested Operating Temperature: -20°C to $+60^{\circ}\text{C}$. Suggested Operating Voltage: 600 Volts.

ALPHA NO.	NO. OF COND.	CONDUCTOR SIZE	STRAND	NOM. WALL THICKNESS	NOM. JKT. THICKNESS	NOM. O.D.
1712	2	20	26/34	.014"	.030"	.230"
1713	3	20	26/34	.014"	.035"	.250"
1715	4	20	26/34	.014"	.035"	.260"
1716	5	20	26/34	.014"	.035"	.275"
1717	6	20	26/34	.014"	.035"	.300"
1719	8	20	26/34	.014"	.035"	.330"
1721	10	20	26/34	.014"	.035"	.375"
1723	12	20	26/34	.014"	.035"	.380"
1726	15	20	26/34	.014"	.035"	.410"
1728	20	20	26/34	.014"	.035"	.455"

STANDARD SPOOL PUT-UP: 100 FT., 250 FT., 500 FT., 1000 FT.

COLOR CODE OF CONDUCTORS

1—Black	5—Yellow	9—Slate	13—White/Green	17—White/Purple
2—White	6—Blue	10—Purple	14—White/Yellow	18—White/Slate
3—Red	7—Brown	11—White/Black	15—White/Blue	19—Black/Red
4—Green	8—Orange	12—White/Red	16—White/Brown	20—Black/Yellow



Alpha No.	Sugg. Resale per 500'	Alpha No.	Sugg. Resale per 500'	Alpha No.	Sugg. Resale per 500'
3504	47.22	3520	235.95	1716	56.10
3508	85.85	1712	42.65	1717	114.35
3512	133.22	1713	42.90	1719	143.39
3516	190.58	1715	49.92	1721	181.50
				1723	275.88
				1726	443.85
				1728	544.50

Shielded Microphone Cable

PLASTIC JACKET

DESCRIPTION: 1702-1706: Single conductor, stranded tinned copper, white polyethylene insulation, braided or spiral wrapped tinned copper shield, gray polyvinylchloride jacket overall.

1709-1712: Each conductor stranded tinned copper, color coded polyethylene insulation, cabled with fillers, textile wrap, braided or spiral wrapped tinned copper shield, gray polyvinylchloride jacket overall.

APPLICATIONS: 1702-1706: All high impedance microphones, lapel, ribbon, velocity, crystal contact, hi-fi interconnecting cables.

1709-1712: All low impedance microphones—carbon, condenser, dynamic.

CHARACTERISTICS: Suggested operating temperature: -20°C to $+60^{\circ}\text{C}$.

ALPHA NO.	NO. OF COND.	CONDUCTOR SIZE	CONDUCTOR STRAND	NOM. WALL THICKNESS	*CAPACITY NOM./FT.	SUG. WORK. VOLTAGE	TYPE OF SHIELD	NOM. JKT THICKNESS	NOM. O.D.
1702	1	26	3/34†	.016"	38 mmf.	1000	Spiral Wrapped	.020"	.110"
1703	1	24	4/34†	.020"	35 mmf.	3500	Braided	.030"	.145"
1704	1	24	10/34	.040"	23 mmf.	5000	Braided	.030"	.190"
1705	1	24	10/34	.016"	45 mmf.	1000	Spiral Wrapped	.020"	.110"
1706	1	20	26/34	.030"	36 mmf.	4000	Braided	.030"	.175"
1709	2	24	10/34	.016"	38 mmf.	1000	Spiral Wrapped	.030"	.190"
1710	2	22	16/34	.025"	31 mmf.	1000	Braided	.025"	.230"
1712	2	20	26/34	.014"	45 mmf.	600	Braided	.030"	.245"

STANDARD SPOOL PUT-UP: 100 FT., 250 FT., 500 FT., 1000 FT.

* Between one conductor and remaining conductors connected to shield.

† Three strands of tinned copper and four strands of tinned copperweld.

COLOR CODE OF CONDUCTORS

1—White 2—Black

RUBBER AND NEOPRENE JACKETS

DESCRIPTION: Each conductor stranded tinned copper, color coded rubber insulation, cotton wrap, braided tinned copper shield, cotton wrap, tough black rubber or neoprene jacket overall.

APPLICATIONS: 1248-1449: All high impedance microphone, broadcast and heavy duty studio use, communication and audio systems.

1250-1450/16: All low impedance microphone, broadcast and heavy duty studio use. Can also be used for control circuits, video and audio interconnection cable, and as electronic power cables.

CHARACTERISTICS: Suggested operating temperature: -20°C to $+60^{\circ}\text{C}$.

Rubber jacketed cable suited for standard duty indoor use.

Neoprene jacketed cable suited for heavy duty outdoor use and direct burial. Will resist oil, acid, sunlight, ageing and abrasion.

ALPHA NO.	NO. OF COND.	CONDUCTOR SIZE	CONDUCTOR STRAND	NOM. WALL THICKNESS	NOM. JKT. THICKNESS	TYPE OF JKT.	*NOM. CAP. MMF/FT.	NOM. O.D.
1248†	1	20	26/34	.025"	.030"	Rubber	97	.190"
1249	1	20	26/34	.040"	.035"	Rubber	60	.230"
1249/18	1	18	41/34	.040"	.035"	Rubber	69	.240"
1449	1	18	41/34	.040"	.035"	Neoprene	69	.240"
1250	2	20	26/34	.020"	.035"	Rubber	68	.270"
1250/18	2	18	41/34	.020"	.035"	Rubber	78	.295"
1450	2	18	41/34	.020"	.035"	Neoprene	78	.295"
1450/16	2	16	65/34	.025"	.035"	Neoprene	82	.335"

STANDARD SPOOL PUT-UP: 100 FT., 250 FT., 500 FT., 1000 FT.

* Between one conductor and remaining conductors (if any) connected to shield.

† Mylar wrap under tinned copper shield.

COLOR CODE OF CONDUCTORS

1—Black 2—White

PRICES

Alpha No.		Sugg. Resale per 500'		PRICES				Alpha No.		Sugg. Resale per 500'	
1702		16.50		1706		34.13		1248		44.15	
1703		15.69		1709		39.50		1249		44.55	
1704		21.45		1710		31.19		1249/18		1250/18	
1705		19.05		1712		42.65		1449		1250	
								73.20		47.85	
										79.70	
										93.56	
										172.43	
										1450/16	



Low Capacitance Shielded Microphone Cable

CELLULAR FOAM POLYETHYLENE INSULATION — PLASTIC JACKET

DESCRIPTION: Single conductor, stranded tinned copper, white foam polyethylene insulation, braided tinned copper shield, chrome gray polyvinylchloride jacket.

Two conductors, stranded tinned copper, color coded foam polyethylene insulation, 1 white and 1 black, cabled with fillers, textile wrap, braided tinned copper shield, chrome gray polyvinylchloride jacket.

CHARACTERISTICS: Suggested operating temperature: -20°C to $+60^{\circ}\text{C}$. Low loss foam polyethylene provides lower capacitance and attenuation than standard solid polyethylene microphone cables, thereby increasing the effective length of usable cable without loss of signal.

ALPHA NO.	NO. OF COND.	CONDUCTOR SIZE	CONDUCTOR STRAND	NOM. WALL THICKNESS	*CAPACITY NOM./FT.	NOM. JKT. THICKNESS	NOM. O.D.
2310	1	26	3/34† 4/34†	.016"	30 mmf	.020"	.115"
2311	1	24	10/34	.035"	20 mmf	.030"	.180"
2312	1	24	10/34	.055"	15 mmf	.030"	.225"
2323	2	22	16/34	.035"	11 mmf	.030"	.300"

STANDARD SPOOL PUT-UP: 100 FT., 250 FT., 500 FT., 1000 FT.

* Between one conductor and remaining conductors connected to shield.

† Three strands of tinned copper and four strands of tinned copperweld.

COLOR CODE OF CONDUCTORS

1— White 2— Black

STRANDED
CONDUCTOR

WHITE
POLYETHYLENE
FOAM
INSULATION

BRAIDED
TINNED
COPPER
SHIELD

CHROME
PLASTIC
JACKET

E-Z-Strip Lamp Cord

U.L. APPROVED

DESCRIPTION: Conductors parallel, stranded extra flexible bare copper, rubber or polyvinylchloride jacket overall. Slit in jacket to permit "E-Z" separation.

APPLICATIONS: For line cord on radios, lamps, electric clocks, food mixers and other small instruments and appliances.

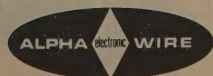
CHARACTERISTICS: Suggested operating temperature: -20°C to $+60^{\circ}\text{C}$. Suggested operating voltage: 300 volts.

ALPHA NO.	NO. OF COND.	CONDUCTOR SIZE	CONDUCTOR STRAND	INSUL. TYPE	NOM. WALL THICKNESS	U/L TYPE	NOMINAL O.D.	STOCK COLORS
1967	2	18	41/34	Rubber	.032"	SP-1(POSJ)	.220" x .120"	Brown, Black, White
1977	2	18	41/34	Plastic	.032"	SPT-1(POT)	.215" x .115"	Brn., Blk., Wh., Gray, Tan
1978	2	18	41/34	Plastic	.045"	SPT-2(POT)	.285" x .150"	Brown
1979	2	18	41/34	Plastic	.032"	SPT-1(POT)	.215" x .115"	Clear
1982	2	16	65/34	Plastic	.045"	SPT-2(POT)	.300" x .160"	Brown

STANDARD SPOOL PUT-UP: 100 FT., 250 FT., 500 FT., 1000 FT.

STRANDED
CONDUCTOR

COLOR
CODED
RUBBER
OR
PLASTIC
JACKET



Alpha No.	Sugg. Resale per 500'	Alpha No.	PRICES	per 250'	Alpha No.	per 250'
2310	25.41	2312	38.66	1967	1978	12.26
2311	30.30	2323	66.71	1977	1979	9.98
					1982	17.42

Shielded Plastic Jacketed Cable

SPIRAL WRAPPED COPPER SHIELD

DESCRIPTION: Each conductor stranded or solid tinned copper, color coded polyvinylchloride insulation, conductors twisted, spiral wrapped copper shield, gray polyvinylchloride jacket overall. **Nominal jacket thickness .020".**

CHARACTERISTICS: Use of spiral shield makes pigtail off extremely simple and fast. Excellent for production line work. Provides close to 100% shielded coverage for audio and RF frequencies. Suggested operating temperature: -20°C to $+60^{\circ}\text{C}$.

ALPHA NO.	NO. OF COND.	CONDUCTOR SIZE	CONDUCTOR STRAND	NOM. WALL THICKNESS	NOM. O.D.	SUGG. WORKING VOLTAGE
2255	2	22	Solid	.016"	.170"	350V
2254/1	1	22	7/30	.016"	.115"	350V
2254	2	22	7/30	.016"	.175"	350V
2254/3	3	22	7/30	.016"	.190"	350V
2254/4	4	22	7/30	.016"	.200"	350V
2254/6	6	22	7/30	.016"	.235"	350V
2256/1	1	20	10/30	.016"	.130"	350V
2256	2	20	10/30	.016"	.195"	350V
2256/3	3	20	10/30	.016"	.210"	350V
2256/4	4	20	10/30	.016"	.225"	350V
2256/6	6	20	10/30	.016"	.265"	350V
2258/1	1	18	16/30	.016"	.135"	350V
2258	2	18	16/30	.016"	.230"	350V
2258/3	3	18	16/30	.016"	.235"	350V
2258/4	4	18	16/30	.016"	.245"	350V
2260	2	16	26/30	.016"	.240"	350V
2260/3	3	16	26/30	.016"	.245"	350V
2265	2	14	41/30	.020"	.285"	450V
2265/3	3	14	41/30	.020"	.290"	450V
2268	2	12	65/30	.020"	.325"	450V
2268/3	3	12	65/30	.020"	.330"	450V

STANDARD SPOOL PUT-UP: 100 FT., 250 FT., 500 FT., 1000 FT.

COLOR CODE OF CONDUCTORS

1—Black 2—Red 3—White 4—Green 5—Yellow 6—Blue

PRICES

Alpha No.	Sugg. Resale per 500'					Alpha No.	Sugg. Resale per 500'
2255	14.33	2256/1	18.24	2258/1	21.33	2260/3	66.24
2254/1	16.14	2256	19.64	2258	23.76	2265	68.97
2254	16.10	2256/3	29.04	2258/3	29.93	2265/3	116.16
2254/3	26.31	2256/4	61.71	2258/4	70.79	2268	125.24
2254/4	41.75	2256/6	81.68	2260	32.67	2268/3	192.39
2254/6	65.34						



Shielded Plastic Jacketed Cable

BRAIDED COPPER SHIELD

DESCRIPTION:

Each conductor tinned copper, color coded polyvinylchloride insulation, conductors twisted, braided copper shield, gray polyvinylchloride jacket overall. Suitable for outdoor installations.

CHARACTERISTICS:

A conventional type of braided shield providing approximately 75% coverage is particularly desirable where flexibility is required. The copper shield allows ease of pigtail soldering. Shield construction provides additional cable strength. Operating temperature: -20°C to $+60^{\circ}\text{C}$. Nominal jacket thickness .020".

APPLICATIONS:

For public address and sound systems, ideal for recording studios, amateur radio transmitters, shielded power or electronic circuits, wherever an economical shielded cable is required.

STRANDED

ALPHA NO.	NO. OF COND.	CONDUCTOR SIZE	CONDUCTOR STRAND	NOM. WALL THICKNESS	NOM. O.D.	SUGG. WORKING VOLTAGE
1735	1	22	7/30	.016"	.125"	350V
1736	2	22	7/30	.016"	.185"	350V
1737	3	22	7/30	.016"	.200"	350V
1738	4	22	7/30	.016"	.210"	350V
1740	1	20	10/30	.016"	.135"	350V
1741	2	20	10/30	.016"	.200"	350V
1742	3	20	10/30	.016"	.220"	350V
1743	4	20	10/30	.016"	.230"	350V
1745	1	18	16/30	.016"	.145"	350V
1746	2	18	16/30	.016"	.235"	350V
1747	3	18	16/30	.016"	.245"	350V
1747/4	4	18	16/30	.016"	.255"	350V
1748	2	16	26/30	.016"	.250"	350V
1749	3	16	26/30	.016"	.255"	350V
1750	2	14	41/30	.020"	.290"	450V
1751	3	14	41/30	.020"	.295"	450V
1760	2	12	65/30	.020"	.335"	450V
1761	3	12	65/30	.020"	.340"	450V

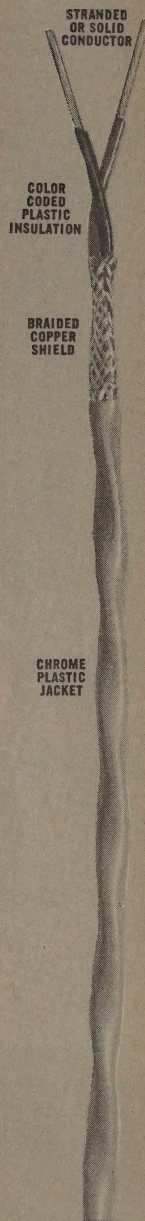
SOLID

ALPHA NO.	NO. OF COND.	CONDUCTOR SIZE	CONDUCTOR STRAND	NOM. WALL THICKNESS	NOM. O.D.	SUGG. WORKING VOLTAGE
1775*	2	22	1	.016"	.175"	350V
1779	2	20	1	.016"	.210"	350V
1783	2	18	1	.016"	.220"	350V

*With 22 AWG solid tinned copper ground wire under braided copper shield.

STANDARD SPOOL PUT-UP: 100 FT., 250 FT., 500 FT., 1000 FT.

COLOR CODE OF CONDUCTORS 1—Black 2—Red 3—White 4—Green



Alpha No.		Sugg. Resale per 500'		Sugg. Resale per 500'	
1735	22.86	1742	44.18	1747/4	81.86
1736	24.26	1743	62.88	1748	60.21
1737	32.91	1745	30.14	1749	81.86
1738	43.65	1746	41.84	1750	79.70
1740	25.73	1747	59.60	1751	113.04
1741	34.91				
Alpha No.		Sugg. Resale per 500'		Sugg. Resale per 500'	
1760	124.74	1761	169.79	1775	21.45
1761	169.79	1779	33.87	1783	41.22

PRICES

Each conductor stranded tinned copper, color coded polyvinylchloride insulation, conductors twisted, gray polyvinylchloride jacket overall. Suitable for outdoor installations.

Unbalanced intercom systems. Low voltage relay control cable. P.A. systems. Electronic computer cable. Interconnecting cables. Remote control circuits. Telephones. Telemetry connecting cable. "Baby Sitter" intercom.

COLOR CODE OF CONDUCTORS

- 1—Black
- 2—Red
- 3—White
- 4—Green
- 5—Orange
- 6—Blue
- 7—Brown
- 8—Yellow
- 9—Purple
- 10—Slate
- 11—Pink
- 12—Tan
- 13—Red/Green
- 14—Red/Yellow
- 15—Red/Black
- 16—White/Black
- 17—White/Red
- 18—White/Green
- 19—White/Yellow
- 20—White/Blue
- 21—White/Brown
- 22—White/Orange
- 23—White/Gray
- 24—White/Violet
- 25—White/Black/Red
- 26—White/Black/Green
- 27—White/Black/Yellow
- 28—White/Black/Blue
- 29—White/Black/Brown
- 30—White/Black/Orange
- 31—White/Black/Slate
- 32—White/Black/Purple
- 33—White/Black/Black
- 34—White/Red/Black
- 35—White/Red/Red
- 36—White/Red/Green
- 37—White/Red/Blue
- 38—White/Red/Brown
- 39—White/Red/Purple
- 40—White/Green/Black
- 41—White/Green/Red
- 42—White/Green/Green
- 43—White/Green/Blue
- 44—White/Green/Brown
- 45—White/Green/Purple
- 46—White/Blue/Black
- 47—White/Blue/Red
- 48—White/Blue/Green
- 49—White/Blue/Blue
- 50—White/Blue/Brown
- 51—White/Blue/Purple
- 52—White/Brown/Black
- 53—White/Brown/Red
- 54—White/Brown/Green
- 55—White/Brown/Blue
- 56—White/Brown/Brown
- 57—White/Brown/Purple
- 58—White/Purple/Red
- 59—White/Purple/Green
- 60—White/Purple/Blue

STRANDED CONDUCTORS

ALPHA NO.	NO. OF COND.	CONDUCTOR SIZE	CONDUCTOR STRAND	NOM. WALL THICKNESS	NOM. JKT. THICKNESS	NOM. O.D.
1172	2	22	7/30	.010"	.020"	.140"
1173	3	22	7/30	.010"	.020"	.145"
1174	4	22	7/30	.010"	.020"	.170"
1175	5	22	7/30	.010"	.020"	.175"
1176	6	22	7/30	.010"	.020"	.185"
1177	7	22	7/30	.010"	.020"	.190"
1178	8	22	7/30	.010"	.020"	.200"
1179	9	22	7/30	.010"	.020"	.225"
1180	10	22	7/30	.010"	.020"	.235"
1181	12	22	7/30	.010"	.020"	.255"
1181/15	15	22	7/30	.010"	.020"	.280"
1181/20	20	22	7/30	.010"	.020"	.310"
1181/25	25	22	7/30	.010"	.020"	.340"
1181/30	30	22	7/30	.010"	.020"	.365"
1181/40	40	22	7/30	.010"	.025"	.425"
1181/50	50	22	7/30	.010"	.035"	.500"
1181/60	60	22	7/30	.010"	.035"	.530"

STANDARD SPOOL PUT-UP: 100 FT., 250 FT., 500 FT., 1000 FT.

STRANDED CONDUCTORS

ALPHA NO.	NO.	CONDUCTOR SIZE	CONDUCTOR STRAND	NOM. WALL THICKNESS	NOM. JKT. THICKNESS	NOM. O.D.
1897	2	18	16/30	.016"	.020"	.200"
1898	3	18	16/30	.016"	.020"	.210"
1898/4	4	18	16/30	.016"	.020"	.240"
1898/6	6	18	16/30	.016"	.020"	.290"
1898/8	8	18	16/30	.016"	.025"	.315"
1898/10	10	18	16/30	.016"	.025"	.370"
1898/12	12	18	16/30	.016"	.025"	.385"

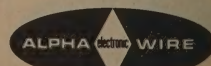
STANDARD SPOOL PUT-UP: 100 FT., 250 FT., 500 FT., 1000 FT.

SOLID CONDUCTORS

ALPHA NO.	CONDUCTOR NO.	SIZE	NOM. WALL THICKNESS	NOM. JKT. THICKNESS	NOM. O.D.
1797	2	18	.016"	.020"	.190"
1798	3	18	.016"	.020"	.200"
1798/4	4	18	.016"	.020"	.220"
1798/5	5	18	.016"	.020"	.235"
1798/6	6	18	.016"	.020"	.265"

STANDARD SPOOL PUT-UP: 100 FT., 250 FT., 500 FT., 1000 FT.

Alpha No.	Sugg. Resale per 500'	Alpha No.	PRICES	Sugg. Resale per 500'	Alpha No.	Sugg. Resale per 500'
1172	9.83	1179	38.37	1181/40	1898/8	116.94
1173	11.15	1180	39.20	1181/50	1898/10	149.00
1174	14.69	1181	42.08	1181/60	1898/12	176.72
1175	17.82	1181/15	128.21	1897	23.90	221.01
1176	27.65	1181/20	164.58	1898/27	1798	31.97
1177	31.45	1181/25	213.26	1898/4	1798/4	41.75
1178	34.65	1181/30	272.25	1898/6	1798/5	54.05
					1798/6	



Unshielded Audio Cable

MULTI-CONDUCTOR — PLASTIC JACKET

DESCRIPTION: Each conductor tinned copper, color coded polyvinylchloride insulation, conductors twisted, gray polyvinylchloride jacket overall. Suitable for outdoor installations.

APPLICATIONS: Intercoms. Interconnecting cables. Remote control circuits. Telephones. Telemetering connecting cable. "Baby Sitter" intercom.

CHARACTERISTICS: Suggested Operating Temperature: -20°C to +60°C

SOLID

ALPHA NO.	NO. OF COND.	CONDUCTOR SIZE	CONDUCTOR STRAND	NOM. WALL THICKNESS	NOMINAL JACKET	NOMINAL O.D.	SUGG. OPER. VOLTAGE
1793	2	22	1	.010"	.020"	.130"	200 V
1794	3	22	1	.010"	.020"	.140"	200 V
1794/4	4	22	1	.010"	.020"	.160"	200 V
1795	2	20	1	.016"	.020"	.170"	350 V
1796	3	20	1	.016"	.020"	.180"	350 V
1796/4	4	20	1	.016"	.020"	.200"	350 V
1797	2	18	1	.016"	.020"	.190"	350 V
1798	3	18	1	.016"	.020"	.200"	350 V
1798/4	4	18	1	.016"	.020"	.220"	350 V
1799	2	16	1	.016"	.020"	.215"	350 V
1799/3	3	16	1	.016"	.020"	.230"	350 V
1799/4	4	16	1	.016"	.020"	.250"	350 V

STANDARD SPOOL PUT-UP: 100 FT., 250 FT., 500 FT., 1000 FT.

COLOR CODE OF CONDUCTORS: 1—Black 2—Red 3—White 4—Green

STRANDED

1893	2	22	7/30	.010"	.020"	.135"	200 V
1894	3	22	7/30	.010"	.020"	.145"	200 V
1894/4	4	22	7/30	.010"	.020"	.170"	200 V
1895	2	20	10/30	.016"	.020"	.180"	350 V
1896	3	20	10/30	.016"	.020"	.190"	350 V
1896/4	4	20	10/30	.016"	.020"	.215"	350 V
1897	2	18	16/30	.016"	.020"	.200"	350 V
1898	3	18	16/30	.016"	.020"	.210"	350 V
1898/4	4	18	16/30	.016"	.020"	.240"	350 V
1899	2	16	26/30	.016"	.020"	.225"	350 V
1899/3	3	16	26/30	.016"	.020"	.245"	350 V
1899/4	4	16	26/30	.016"	.020"	.270"	350 V
1891	2	14	41/30	.016"	.020"	.260"	350 V
1891/3	3	14	41/30	.016"	.020"	.280"	350 V
1892	2	12	65/30	.016"	.020"	.300"	350 V
1892/3	3	12	65/30	.016"	.020"	.320"	350 V

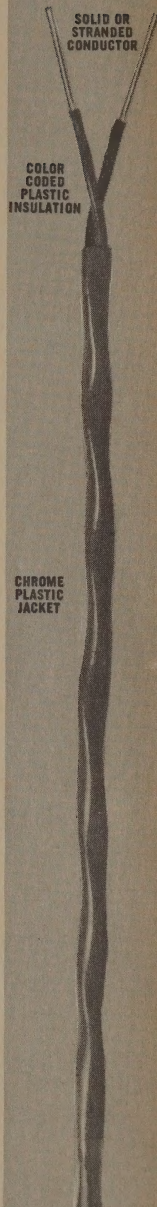
STANDARD SPOOL PUT-UP: 100 FT., 250 FT., 500 FT., 1000 FT.

COLOR CODE OF CONDUCTORS: 1—Black 2—Red 3—White 4—Green



				P R I C E S			
Alpha No.	Sugg. Resale per 500'					Alpha No.	Sugg. Resale per 500'
1793	11.25	1798	31.97	1894/4	27.29	1899	32.15
1794	16.89	1798/4	41.75	1895	16.97	1899/3	63.75
1794/4	23.73	1799	40.37	1896	32.15	1899/4	86.97
1795	19.92	1799/3	48.86	1896/4	43.31	1891	64.10
1796	28.41	1799/4	65.84	1897	23.90	1891/3	86.63
1796/4	33.35	1893	14.03	1898	42.27	1842	90.09
1797	23.21	1894	19.92	1898/4	60.72	1892/3	131.67

PRICES



Unshielded Intercom Cable

PAIRED CONDUCTORS — PLASTIC JACKET

DESCRIPTION:

Each conductor tinned copper, color coded polyvinylchloride insulation, conductors twisted into pairs, gray polyvinylchloride jacket overall. Suitable for outdoor installations.

APPLICATIONS:

Balanced intercom systems, Annunciators, Telephones, Nurses call systems, Control circuit cable, Electronic computer cable, Multiple speaker cable, Signal systems, Alarm systems.

CHARACTERISTICS:

Suggested operating temperature: -20°C to +60°C. Suggested operating voltage: 200 volts.

SOLID CONDUCTORS

ALPHA NO.	NO. OF PAIRS	NO. OF COND.	COND. SIZE	COND. STRAND	NOM. WALL THICKNESS	NOM. JKT. THICKNESS	NOM. O.D.
1300	1	2	22 Solid	1	.010"	.020"	.130"
1302	2	4	22 Solid	1	.010"	.020"	.195"
1304	3	6	22 Solid	1	.010"	.020"	.220"
1307	6	12	22 Solid	1	.010"	.020"	.275"
1307/7	7	14	22 Solid	1	.010"	.020"	.285"
1307/9	9	18	22 Solid	1	.010"	.020"	.310"
1308/11	11	22	22 Solid	1	.010"	.020"	.340"
1309	13	26	22 Solid	1	.010"	.025"	.380"
1309/15	15	30	22 Solid	1	.010"	.025"	.400"
1310	16	32	22 Solid	1	.010"	.025"	.420"
1313	27	54	22 Solid	1	.010"	.035"	.510"
1313/31	31	62	22 Solid	1	.010"	.035"	.555"
1313/41	41	82	22 Solid	1	.010"	.035"	.630"
1314	51	102	22 Solid	1	.010"	.045"	.735"

STRANDED CONDUCTORS

1316	1	2	22	7/30	.010"	.020"	.145"
1317	2	4	22	7/30	.010"	.020"	.210"
1318	3	6	22	7/30	.010"	.020"	.225"
1319	4	8	22	7/30	.010"	.020"	.240"
1320	5	10	22	7/30	.010"	.020"	.265"
1322	6	12	22	7/30	.010"	.020"	.290"
1323	9	18	22	7/30	.010"	.020"	.355"
1324	11	22	22	7/30	.010"	.020"	.365"
1327	15	30	22	7/30	.010"	.025"	.450"
1327/19	19	38	22	7/30	.010"	.025"	.480"
1328	23	46	22	7/30	.010"	.030"	.530"
1329	27	54	22	7/30	.010"	.035"	.570"
1329/31	31	62	22	7/30	.010"	.040"	.635"
1329/41	41	82	22	7/30	.010"	.040"	.710"
1330	51	102	22	7/30	.010"	.045"	.800"

STANDARD SPOOL PUT-UP: 50 FT., 100 FT., 250 FT., 500 FT., 1000 FT.

PAIR NO. COLOR COMBINATION

- 1—Black paired with Red
- 2—Black paired with White
- 3—Black paired with Green
- 4—Black paired with Blue
- 5—Black paired with Brown
- 6—Black paired with Yellow
- 7—Black paired with Orange
- 8—Red paired with Green
- 9—Red paired with White
- 10—Red paired with Blue
- 11—Red paired with Yellow
- 12—Red paired with Brown
- 13—Red paired with Orange
- 14—Green paired with Blue
- 15—Green paired with White
- 16—Green paired with Brown
- 17—Green paired with Orange

PAIR NO. COLOR COMBINATION

- 18—Green paired with Yellow
- 19—White paired with Blue
- 20—White paired with Brown
- 21—White paired with Orange
- 22—White paired with Yellow
- 23—Blue paired with Brown
- 24—Blue paired with Orange
- 25—Blue paired with Yellow
- 26—Brown paired with Orange
- 27—Brown paired with Yellow
- 28—Purple paired with Red
- 29—Purple paired with White
- 30—Purple paired with Green
- 31—Purple paired with Blue
- 32—Purple paired with Brown
- 33—Purple paired with Yellow
- 34—Purple paired with Orange

PAIR NO. COLOR COMBINATION

- 35—Purple paired with Slate
- 36—Purple paired with Black
- 37—Slate paired with Red
- 38—Slate paired with White
- 39—Slate paired with Green
- 40—Slate paired with Blue
- 41—Slate paired with Brown
- 42—Slate paired with Yellow
- 43—Slate paired with Orange
- 44—Slate paired with Black
- 45—White/Black paired w. Red
- 46—White/Black paired w. Green
- 47—White/Black paired w. Blue
- 48—White/Black paired w. Brown
- 49—White/Black paired w. Yellow
- 50—White/Black paired w. Orange
- 51—White/Black paired w. Purple

PRICES

Alpha No.		Sugg. Resale per 500'	P R I C E S				Alpha No.	Sugg. Resale per 500'
1300		7.85	1309	70.13	1316	14.37	1324	97.02
1302		14.28	1309/15	79.20	1317	31.10	1327	107.25
1304		19.64	1310	112.61	1318	38.97	1327/19	173.25
1307		33.00	1313	155.25	1319	41.58	1328	190.58
1307/7		43.88	1313/31	346.50	1320	42.89	1329	207.75
1307/9		45.80	1313/41	502.43	1322	44.55	1329/31	519.75
1308/11		61.88	1314	641.03	1323	64.35	1329/41	693.00
							1330	814.28



Unshielded Audio Cable

MULTI-CONDUCTOR — OUTER COTTON BRAID

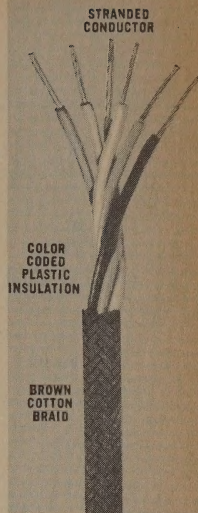
DESCRIPTION: Each conductor stranded tinned copper, color coded polyvinylchloride insulation, conductors twisted, brown cotton braid overall.

CHARACTERISTICS: Suggested operating temperature: -40°C to $+80^{\circ}\text{C}$. Suggested operating voltage: 600 volts.

ALPHA NO.	NO. OF COND.	SIZE	CONDUCTOR STRAND	NOM. WALL THICKNESS	NOMINAL O.D.
1182	2	20	10/30	.016"	.170"
1183	3	20	10/30	.016"	.180"
1184	4	20	10/30	.016"	.200"
1185	5	20	10/30	.016"	.220"
1186	6	20	10/30	.016"	.240"
1187	7	20	10/30	.016"	.240"
1188	8	20	10/30	.016"	.265"
1189	9	20	10/30	.016"	.285"
1190	10	20	10/30	.016"	.310"
1192	12	20	10/30	.016"	.322"
1192/15	15	20	10/30	.016"	.360"
1192/20	20	20	10/30	.016"	.405"
1192/25	25	20	10/30	.016"	.450"
1192/30	30	20	10/30	.016"	.485"

COLOR CODE OF CONDUCTORS

- 1—Black
- 2—Red
- 3—White
- 4—Green
- 5—Orange
- 6—Blue
- 7—Brown
- 8—Yellow
- 9—Purple
- 10—Slate
- 11—Pink
- 12—Tan
- 13—White/Black
- 14—White/Red
- 15—White/Green
- 16—White/Orange
- 17—White/Blue
- 18—White/Brown
- 19—White/Yellow
- 20—White/Purple
- 21—White/Gray
- 22—White/Black/Red
- 23—White/Black/Green
- 24—White/Black/Yellow
- 25—White/Black/Blue
- 26—White/Black/Brown
- 27—White/Black/Orange
- 28—White/Black/Gray
- 29—White/Black/Violet
- 30—Dark Blue



STANDARD SPOOL PUT-UP:

1182-1192/20; 100 FT., 500 FT., 1000 FT.
1192/25-1192/30; 100 FT., 250 FT., 500 FT.

MULTI-CONDUCTOR — NO OUTER JACKET

DESCRIPTION: Each conductor tinned copper, color coded polyvinylchloride insulation, conductors twisted.

APPLICATIONS: Intercoms. Interconnecting cables. Remote control circuits. Telephones. Telemetering connecting cable. "Baby Sitter" intercom.

CHARACTERISTICS: Suggested Operating Temperature: -20°C to $+60^{\circ}\text{C}$. Suggested Operating Voltage: 350 Volts.

SOLID

ALPHA NO.	NO. OF COND.	SIZE	CONDUCTOR STRAND	NOM. WALL THICKNESS	NOM. O.D.
1900	2	22	1	.016"	.100"
1901	3	22	1	.016"	.115"
1903	2	20	1	.016"	.120"
1904	3	20	1	.016"	.135"
1906	2	18	1	.016"	.145"
1907	3	18	1	.016"	.155"
1909	2	16	1	.016"	.175"
1910	3	16	1	.016"	.190"
1912	2	19*	1	.016"	.130"
1913	3	19*	1	.016"	.135"

STRANDED

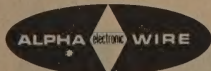
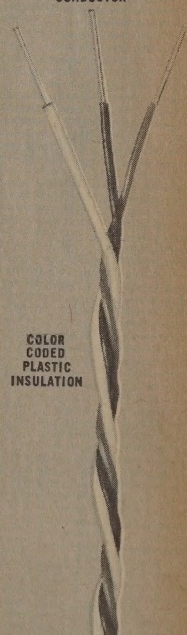
ALPHA NO.	NO. OF COND.	SIZE	CONDUCTOR STRAND	NOM. WALL THICKNESS	NOM. O.D.
1915	2	22	7/30	.016"	.125"
1916	3	22	7/30	.016"	.140"
1918	2	20	10/30	.016"	.145"
1919	3	20	10/30	.016"	.160"
1921	2	18	16/30	.016"	.165"
1922	3	18	16/30	.016"	.180"
1924	2	16	26/30	.016"	.190"
1925	3	16	26/30	.016"	.210"
1927	2	14	41/30	.016"	.220"
1928	3	14	41/30	.016"	.240"

STANDARD SPOOL PUT-UP: 100 FT., 250 FT., 500 FT., 1000 FT.

*Bare Untinned Copper Conductor.

COLOR CODE OF CONDUCTORS: 1—Brown 2—Tan 3—Gray

STRANDED CONDUCTOR



Alpha No.	Sugg. Resale per 500'	Alpha No.	Sugg. Resale per 500'
1182	23.60	1904	17.76
1183	34.11	1906	17.15
1184	41.37	1907	24.69
1185	53.00	1909	29.45
1186	67.88	1910	43.31
1187	78.05	1912	9.96
1188	90.75	1913	15.59
1189	112.53	1915	12.56
1190	127.05		
1192			
1192/15			
1192/20			
1192/25			
1192/30			
1900	8.63		
1901	11.78		
1903	11.36		
1915			
1916			
1918			
1919			
1921			
1922			
1924			
1925			
1927			
1928			

PRICES

Plastic Intercom Cable

DESCRIPTION:

Each conductor stranded tinned copper, color coded polyvinylchloride insulation, braided tinned copper shield (See Chart) over one, two, or three conductors, remaining conductors unshielded and paired, chrome polyvinylchloride jacket overall.

APPLICATIONS:

General wiring from station to station where shielded conductor(s) is essential to eliminate cross talk.

1243 Recommended for unbalanced system with remote "break-in."

1243/4: Recommended for balanced systems.

1243/5: Recommended for coin operated phonographs.

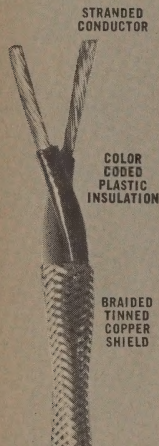
1243/P: Recommended for circuits requiring complete isolation.

CHARACTERISTICS: Suggested operating temperature: -20°C to $+60^{\circ}\text{C}$. Suggested operating voltage: 350 volts.

ALPHA NO.	NO. OF COND.	CONDUCTOR SIZE	NO. COND. STRAND	NOM. COND. SHIELD	NOM. WALL THICK.	NOM. JKT.	NOMINAL O.D.	COLOR CODE OF COND.
1243	3	22	7/30	1	.016"	.020"	.200"	White—Shielded Blk., Red—Unshielded
1243/4	4	22	7/30	2	.016"	.020"	.180"x.285"	Blk., Wh.—Shielded Blk., Red—Unshielded
1243/5	5	22	7/30	3	.016"	.020"	.200"x.300"	Blk., Wh., Red—Shielded Blk., Red—Unshielded
1243/P	4	22	7/30	2 pair	.016"	.020"	.180"x.315"	Blk., Wh.—Shielded Blk., Red—Shielded

STANDARD SPOOL PUT-UP: 100 FT., 250 FT., 500 FT., 1000 FT.

■ NEW



Shielded Audio Cable

2 CONDUCTOR — NO OUTER JACKET

DESCRIPTION:

Each conductor tinned copper, color coded polyvinylchloride insulation, conductors twisted, braided tinned copper shield overall.

APPLICATIONS:

For public address and sound systems. Transmission line. Industrial paging and call systems. Recording equipment. Hospital and school sound installations. Broadcast and audio cable. Rack and panel wiring.

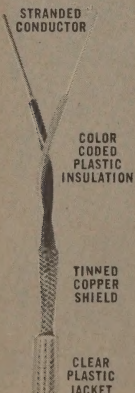
CHARACTERISTICS: Suggested Operating Temperature: -20°C to $+60^{\circ}\text{C}$.

ALPHA NO.	NO. OF COND.	CONDUCTOR SIZE	STRAND	NOM. WALL THICKNESS	NOM. O.D.	SUGG. OPER. VOLTAGE
1261/26	2	26	7/34	.010"	.095"	200V
1261	2	24	16/36	.016"	.125"	350V
1256/22V	2	22	7/30	.016"	.140"	350V
1256V	2	20	10/30	.016"	.155"	350V
1259V*	2	18	16/30	.016"	.170"	350V
1260V	2	16	26/30	.020"	.210"	450V
1260/14	2	14	41/30	.020"	.225"	450V
1260/12	2	12	65/30	.025"	.295"	600V

* 22 AWG solid tinned copper ground wire under braided copper shield.

STANDARD SPOOL PUT-UP: 100 FT., 250 FT., 500 FT., 1000 FT.

COLOR CODE OF CONDUCTORS 1—Black 2—Red



Miniature Shielded Cable

CLEAR PLASTIC JACKET

DESCRIPTION:

Each conductor stranded tinned copper, color coded polyvinylchloride insulation, conductors twisted, fine braided tinned copper shield overall, clear polyvinylchloride jacket overall.

CHARACTERISTICS:

Suggested operating temperature: -20°C to $+60^{\circ}\text{C}$.

Suggested operating voltage: 200V.

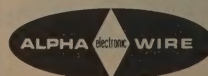
ALPHA NO.	NO. OF COND.	CONDUCTOR SIZE	STRAND	NOM. WALL THICKNESS	NOM. JKT. THICKNESS	NOM. O.D.
1120	2	28	7/36	.010"	.010"	.105"
1121	3	28	7/36	.010"	.010"	.115"
1122	4	28	7/36	.010"	.010"	.120"

STANDARD SPOOL PUT-UP: 100 FT., 500 FT., 1000 FT.

COLOR CODE OF CONDUCTORS: 1—Black 2—Red 3—White 4—Green

Alpha No.	Sugg. Resale per 500'	Alpha No.	Sugg. Resale per 1000'
1243	20.46	1260/12	148.83
1243/4	25.34	1261	28.92
1243/5	55.71	1256V	38.97
1243/P	45.38	1260V	45.38
		1260/14	75.86
		1261/26	30.41

PRICES



Shielded Audio & Data Cable

INDIVIDUALLY SHIELDED MULTIPLE PAIRS — PLASTIC JACKET

DESCRIPTION:

Each conductor, tinned copper, color coded, high density polyethylene, conductors twisted into pairs. 22 gauge tinned copper drain wire. Mylar-supported aluminum foil shield, aluminum facing inward. Chrome Grey PVC jacket overall.

NEW

CHARACTERISTICS: Mutual conductance between conductors of a pair, 25 pf/ft. Capacitance of a single conductor to shield, 45 pf/ft.

APPLICATIONS: For audio, R.F. and pulse applications requiring superior circuit isolation.

#22 — SOLID

ALPHA NO.	NO. OF PAIRS	NO. OF COND.	COND. STRAND	NOM. WALL THICK. (Inches)	NOM. JKT. THICK. (Inches)	NOM. O.D. (Inches)
6000	3	6	1	.010	.025	.235
6002	6	12	1	.010	.030	.318
6004	9	18	1	.010	.030	.371
6006	11	22	1	.010	.035	.414
6008	15	30	1	.010	.040	.485

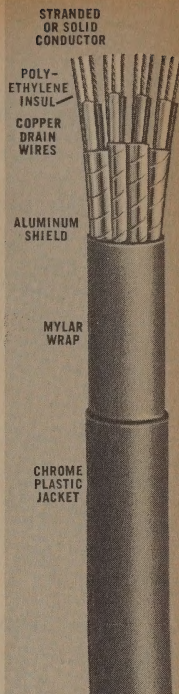
#22 — STRANDED

ALPHA NO.	NO. OF PAIRS	NO. OF COND.	COND. STRAND	NOM. WALL THICK. (Inches)	NOM. JKT. THICK. (Inches)	NOM. O.D. (Inches)
6010	3	6	7/30	.010	.025	.252
6012	6	12	7/30	.010	.030	.342
6014	9	18	7/30	.010	.035	.410
6016	11	22	7/30	.010	.040	.457
6018	15	30	7/30	.010	.040	.523
6020	19	38	7/30	.010	.050	.570
6022	27	54	7/30	.010	.055	.687

STANDARD SPOOL PUT-UP: 100 FT., 500 FT., 1000 FT.

PAIR NO. COLOR COMBINATION OF PAIRS

- | | | |
|----------------------------|-----------------------------|-----------------------------|
| 1—Black paired with Red | 10—Red paired with Blue | 19—White paired with Blue |
| 2—Black paired with White | 11—Red paired with Yellow | 20—White paired with Brown |
| 3—Black paired with Green | 12—Red paired with Brown | 21—White paired with Orange |
| 4—Black paired with Blue | 13—Red paired with Orange | 22—White paired with Yellow |
| 5—Black paired with Brown | 14—Green paired with Blue | 23—Blue paired with Brown |
| 6—Black paired with Yellow | 15—Green paired with White | 24—Blue paired with Orange |
| 7—Black paired with Orange | 16—Green paired with Brown | 25—Blue paired with Yellow |
| 8—Red paired with Green | 17—Green paired with Orange | 26—Brown paired with Orange |
| 9—Red paired with White | 18—Green paired with Yellow | 27—Brown paired with Yellow |



Shielded Plastic Jacketed Cable

MYLAR SUPPORTED ALUMINUM FOIL SHIELD

DESCRIPTION:

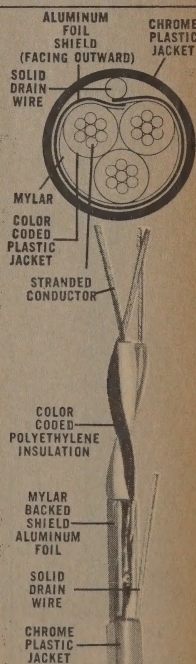
Each conductor stranded tinned copper, color coded polyethylene insulation, conductors cabled, wrapped mylar supported aluminum foil shield, 100% coverage with drain wire laid parallel, aluminum foil facing outward to provide maximum ground, gray pvc jacket overall.

CHARACTERISTICS: Operating temperature: -20°C to $+60^{\circ}\text{C}$. Operating voltage: 400 volts. Light weight, reduces cable diameter, and provides 100% shield coverage.

ALPHA NO.	NO. OF COND.	CONDUCTOR SIZE	CONDUCTOR STRAND	NOM. WALL THICKNESS	NOM. JKT. THICKNESS	NOM. O.D.
2402	2	22	7/30	.016"	.020"	.195"
2403	3	22	7/30	.016"	.020"	.210"
2404	4	22	7/30	.016"	.020"	.225"
2412	2	20	10/30	.016"	.020"	.210"
2413	3	20	10/30	.016"	.020"	.225"
2414	4	20	10/30	.016"	.020"	.240"
2422	2	18	16/30	.016"	.020"	.230"
2423	3	18	16/30	.016"	.020"	.245"
2424	4	18	16/30	.016"	.020"	.265"
2432	2	16	26/30	.016"	.020"	.255"
2433	3	16	26/30	.016"	.020"	.275"
2442	2	14	41/30	.016"	.020"	.290"
2443	3	14	41/30	.016"	.020"	.310"

STANDARD SPOOL PUT-UP: 100 FT., 500 FT., 1000 FT.

COLOR CODE OF CONDUCTORS: 1—Black 2—Red 3—White 4—Green



Alpha No.	Sugg. Resale per 500'	Alpha No.	Sugg. Resale per 500'
6000	41.94	6014	139.74
6002	81.35	6016	162.93
6004	113.40	6018	210.84
6006	135.05	6020	294.36
6010	51.26	6022	445.61
6012	98.40	2402	14.52
		2403	18.15
		2423	28.59
		2424	48.09
		2432	48.92
		2433	59.90
		2442	63.89
		2443	84.21

PRICES

Hi-Fi and Stereo Interconnecting Cable Phono Wire

DESCRIPTION

1332 and 1200: Single conductor stranded tinned copper, white polyvinylchloride insulation, fine braided tinned copper shield overall.

1201: Same as No. 1200 plus brown cotton braid over shield.

1115 and 1116: Each conductor stranded tinned copper, color coded polyvinylchloride insulation, conductors twisted.

1100-1110: Each conductor stranded tinned copper, color coded polyvinylchloride insulation, conductors twisted with an extra tight lay for flexibility. When shielded the overall shield has been specially designed for extreme limpness so as not to impede the movement of the phono arm when tracking.

CHARACTERISTICS: Suggested Operating Temperature: -55°C to $+105^{\circ}\text{C}$.

SINGLE CONDUCTOR SHIELDED

ALPHA NO.	NO. OF COND.	SIZE	CONDUCTOR STRAND	NOM. WALL THICKNESS	NOM. O.D.	SUGG. OPER. VOLTAGE	COLOR CODE
1332	1	30	7/38	.010"	.047"	200V	White
1200	1	24	16/36	.016"	.080"	350V	White
1201	1	24	16/36	.016"	.115"	350V	White

UNSHIELDED

1115	2	30	7/38	.010"	.065"	200V	Black & Red
1116	3	30	7/38	.010"	.070"	200V	Blk., Red & White

STEREO (Unshielded)

1100	2	32	7/40	.010"	.047"	200V	Black & Red
1101	3	32	7/40	.010"	.053"	200V	Blk., Red & White
1102	4	32	7/40	.010"	.061"	200V	Blk., Rd., Wh. & Gr.

STEREO (Shielded)

1105	2	32	7/40	.010"	.055"	200V	Black & Red
1106	3	32	7/40	.010"	.061"	200V	Blk., Red & White
1107	4	32	7/40	.010"	.068"	200V	Blk., Rd., Wh. & Gr.
1110*	2	32	7/40	.010"	.063"	200V	Black & Red

STANDARD SPOOL PUT-UP: 10 FT., 100 FT., 500 FT., 1000 FT.

*Each conductor individually shielded and then twisted.

Plastic Speaker Cable Colored and Clear Insulation

DESCRIPTION:

Conductors parallel, stranded bare copper, color coded polyvinylchloride insulation, conductors separate easily when slit apart.

APPLICATION:

Hi-Fi speaker cable, miniature juke box speaker connection and rear auto speaker extension cable. Clear insulation will blend with interior room decor.

CHARACTERISTICS:

Suggested Operating Temperature: -20°C to $+60^{\circ}\text{C}$. Operating Voltage: 300 Volts.

ALPHA NO.	NO. OF COND.	SIZE	CONDUCTOR STRAND	NOM. WALL THICKNESS	NOM. O.D.	STOCK COLORS
1944	2*	24	7/32	.016"	.057" x .120"	Brn., Blk., Wh., Gray, Tan
1945	2*	24	7/32	.016"	.057" x .120"	Clear
1946	2	20	10/30	.016"	.085" x .175"	Brn., Blk., Wh., Gray, Tan
1947	2	20	10/30	.016"	.085" x .175"	Clear
1977	2	18	41/34	.032"	.115" x .215"	Brn., Blk., Wh., Gray, Tan
1979†	2	18	41/34	.032"	.115" x .215"	Clear

STANDARD SPOOL PUT-UP: 100 FT., 250 FT., 500 FT., 1000 FT.

*1 Conductor Tinned, 1 Bare.

†U.L. type SPT-1

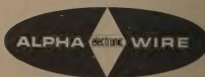
PRICES

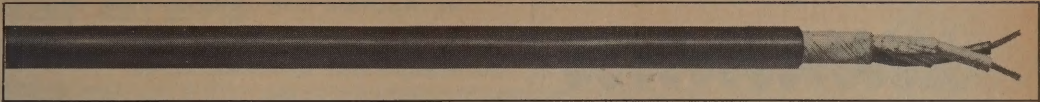
Alpha No.	Sugg. Resale per 1000'
1332	45.38
1200	34.29
1201	43.73
Alpha No.	Sugg. Resale per 100'
1115	2.82
1116	3.95

Alpha No.	Sugg. Resale per 100'
1100	3.81
1101	5.07
1102	6.63

Alpha No.	Sugg. Resale per 100'
1105	6.03
1106	7.07
1107	8.16
1110	7.44

Alpha No.	Sugg. Resale per 500'
1944	4.95
1945	5.94
1946	8.84
1947	10.40
Alpha No.	Sugg. Resale per 250'
1977	6.27
1979	9.98





SERVICE & POWER CORDS

U.L. APPROVED

DESCRIPTION: RUBBER PORTABLE CORDS, TYPE SV, SJ, & S
Each conductor stranded bare copper, separator, color coded rubber insulation, cabled with fillers, separator, tough black rubber jacket overall.

NEOPRENE PORTABLE CORDS, TYPE SVO, SJO, & SO

Each conductor stranded bare copper, separator, color coded, rubber insulation cabled with fillers, separator, black neoprene jacket overall. Oil, grease, ozone, acid, moisture resistant.

YELLOW PORTABLE CORDS, TYPE SVTO, SJTO, & STO

Each conductor, stranded bare copper, oil resistant polyvinylchloride insulation, cabled with fillers, separator, plastic jacket overall. Resistant to oil, acid, moisture, abrasion resistant, easy to clean.

CHARACTERISTICS

& APPLICATIONS: Suggested Operating Temperatures: -20°C to +60°C.

U.L. TYPE	TYPE OF USAGE	VOLTAGE RATING
SV, SVO, SVTO	Light appliances such as fans, mixers, and office equipment.	300V
SJ, SJO, SJTO	Medium appliances, small motors, tools, amplifiers, speakers.	600V
S, SO, STO	Heavy duty equipment, generators, heaters, tools, air-conditioners.	600V

RUBBER PORTABLE CORD 300 VOLT

ALPHA NO.	TYPE	NO. OF COND.	COND. SIZE	COND. INS.	NOM. THICKNESS IN.	NOM. THICKNESS KT.	CURRENT CARRYING CAPACITY IN AMPS	NOM. O.D.
1951	SV	2	18	.016"	.032"	.032"	7	.250"
1952	SJ	2	18	.032"	.032"	.032"	7	.305"
1952/3	SJ	3	18	.032"	.032"	.032"	7	.330"
1952/4	SJ	4	18	.032"	.032"	.032"	6	.370"
1953	SJ	2	16	.032"	.032"	.032"	10	.330"
1953/3	SJ	3	16	.032"	.032"	.032"	10	.360"
1953/4	SJ	4	16	.032"	.032"	.032"	8	.400"

NEOPRENE PORTABLE CORD 300 VOLT

1931	SVO	2	18	.016"	.032"	.032"	7	.250"
1932	SJO	2	18	.032"	.032"	.032"	7	.305"
1932/3	SJO	3	18	.032"	.032"	.032"	7	.330"
1932/4	SJO	4	18	.032"	.032"	.032"	6	.370"
1933	SJO	2	16	.032"	.032"	.032"	10	.330"
1933/3	SJO	3	16	.032"	.032"	.032"	10	.360"
1933/4	SJO	4	16	.032"	.032"	.032"	8	.400"

PLASTIC PORTABLE CORD 300 VOLT

1991	SVTO	2	18	.016"	.032"	.032"	7	.250"
1992	SJTO	2	18	.032"	.032"	.032"	7	.305"
1992/3	SJTO	3	18	.032"	.032"	.032"	7	.330"
1992/4	SJTO	4	18	.032"	.032"	.032"	6	.370"
1993	SJTO	2	16	.032"	.032"	.032"	10	.330"
1993/3	SJTO	3	16	.032"	.032"	.032"	10	.360"
1993/4	SJTO	4	16	.032"	.032"	.032"	8	.400"

† As a safety feature jacket color is yellow for maximum visibility.

STANDARD SPOOL PUT-UP: 50 FT., 100 FT., 250 FT.

COLOR CODE OF CONDUCTORS: 1-White 2-Black 3-Green 4-Red

SERVICE & POWER CORDS

U.L. APPROVED

RUBBER 600 VOLT PORTABLE CORD

ALPHA NO.	TYPE	NO. OF COND.	COND. SIZE	NOM. THICKNESS IN.	NOM. THICKNESS KT.	CURRENT CARRYING CAPACITY IN AMPS	NOM. O.D.
1954	S	2	18	.032"	.060"	7	.390"
1954/3	S	3	18	.032"	.060"	7	.420"
1954/4	S	4	18	.032"	.060"	6	.435"
1955	S	2	16	.032"	.060"	10	.405"
1955/3	S	3	16	.032"	.060"	10	.430"
1955/4	S	4	16	.032"	.060"	8	.485"
1956	S	2	14	.045"	.075"	15	.530"
1956/3	S	3	14	.045"	.075"	15	.560"
1956/4	S	4	14	.045"	.075"	12	.605"
1957	S	2	12	.045"	.090"	20	.600"
1957/3	S	3	12	.045"	.090"	20	.635"
1957/4	S	4	12	.045"	.090"	16	.685"
1958	S	2	10	.045"	.090"	25	.640"
1958/4	S	3	10	.045"	.090"	25	.690"
1958/3	S	4	10	.045"	.090"	20	.740"
1959	S	2	8	.050"	.090"	35	.700"
1959/3	S	3	8	.050"	.090"	35	.750"
1959/4	S	4	8	.050"	.090"	28	.800"
1960	S	2	6	.050"	.090"	45	.820"
1960/3	S	3	6	.050"	.090"	45	.880"
1960/4	S	4	6	.050"	.090"	36	.975"

NEOPRENE 600 VOLT PORTABLE CORD

1934	SO	2	18	.032"	.060"	7	.390"
1934/3	SO	3	18	.032"	.060"	7	.405"
1934/4	SO	4	18	.032"	.060"	6	.435"
1935	SO	2	16	.032"	.060"	10	.405"
1935/3	SO	3	16	.032"	.060"	10	.430"
1935/4	SO	4	16	.032"	.060"	8	.485"
1936	SO	2	14	.045"	.075"	15	.530"
1936/3	SO	3	14	.045"	.075"	15	.560"
1936/4	SO	4	14	.045"	.075"	12	.605"
1937	SO	2	12	.045"	.090"	20	.600"
1937/3	SO	3	12	.045"	.090"	20	.635"
1937/4	SO	4	12	.045"	.090"	16	.685"
1938	SO	2	10	.045"	.090"	25	.640"
1938/3	SO	3	10	.045"	.090"	25	.690"
1938/4	SO	4	10	.045"	.090"	20	.745"
1939	SO	2	8	.050"	.090"	35	.700"
1939/3	SO	3	8	.050"	.090"	35	.750"
1939/4	SO	4	8	.050"	.090"	28	.800"
1940	SO	2	6	.050"	.090"	45	.820"
1940/3	SO	3	6	.050"	.090"	45	.880"
1940/4	SO	4	6	.050"	.090"	36	.975"

PLASTIC 600 VOLT PORTABLE CORD

1994	SVTO	2	18	.032"	.060"	7	.390"
1994/3	SVTO	3	18	.032"	.060"	7	.405"
1994/4	SVTO	4	18	.032"	.060"	6	.435"
1995	SVTO	2	16	.032"	.060"	10	.405"
1995/3	SVTO	3	16	.032"	.060"	10	.430"
1995/4	SVTO	4	16	.032"	.060"	8	.485"
1996	SVTO	2	14	.045"	.075"	15	.530"
1996/3	SVTO	3	14	.045"	.075"	15	.560"
1996/4	SVTO	4	14	.045"	.075"	12	.605"
1997	SVTO	2	12	.045"	.090"	20	.600"
1997/3	SVTO	3	12	.045"	.090"	20	.635"
1997/4	SVTO	4	12	.045"	.090"	16	.685"
1998	SVTO	2	10	.045"	.090"	25	.640"
1998/3	SVTO	3	10	.045"	.090"	25	.690"
1998/4	SVTO	4	10	.045"	.090"	20	.745"

*Not listed by Underwriters Laboratories.

STANDARD SPOOL PUT-UP: 50 FT., 100 FT., 250 FT.

COLOR CODE OF CONDUCTORS 1-White 2-Black 3-Green 4-Red

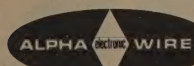
Alpha No.	Sugg. Resale per 250'
1951	13.61
1952	16.34
1952/3	30.12
1952/4	48.56
1953	20.42
1953/3	44.64
1953/4	65.70
1931	21.78
1932	27.95
1932/3	34.04
1932/4	51.00
1933	33.93
1933/3	47.55
1933/4	69.51
1991	19.97
1992	25.41
1992/3	28.13
1992/4	47.19
1993	29.04
1993/3	39.93
1993/4	62.07

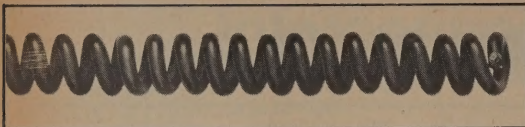
1954	39.93
1954/3	51.18
1954/4	156.45
1955/3	43.56
1955/4	63.53
1956	80.22
1956/3	72.60
1956/4	94.38
1957	116.16
1957/3	88.94
1957/4	118.70
1958	148.83
1958/3	120.51
1958/4	193.11
1959	217.80
1959/3	290.40
1959/4	381.15
1960	304.92

PRICES

1960/3	408.38
1960/4	471.90
1934	44.82
1934/3	54.45
1934/4	68.06
1935	47.91
1935/3	68.97
1935/4	94.38
1936	81.12
1936/3	99.83
1936/4	119.79
1937	94.56
1937/3	127.05
1937/4	156.09
1938	126.14
1938/3	163.35
1938/4	204.18
1939	226.88
1939/3	317.63
1939/4	417.45

1940	326.70
1940/3	435.60
1940/4	526.35
1994	36.48
1994/3	47.73
1994/4	64.25
1995	40.83
1995/3	59.90
1995/4	77.31
1996	66.60
1996/3	90.38
1996/4	112.53
1997	85.85
1997/3	113.25
1997/4	146.10
1998	112.53
1998/3	152.46
1998/4	179.69





RETRACTILE COIL CORDS

POWER CORDS—NEOPRENE JACKET U.L. APPROVED

RETRACTED LENGTHS 2 & 4 FEET—EXTENDED LENGTHS 12 & 25 FEET

DESCRIPTION: Long-lasting service is assured with this quality multi-conductor power cord. Each conductor is stranded copper, with rubber installation, and a rugged weather and oil resistant neoprene jacket overall.

APPLICATION: Used on electric tools, portable drills, soldering wires, electrical appliances, household appliances, etc., to eliminate loose hanging wires and to prevent wires from tangling and twisting.

CHARACTERISTICS: Suggested operating temperature: 20°C to +60°C.

ALPHA NO.	NO. OF	CONDUCTOR	U.L.	AMP	VOLT	NOM. COIL	NOM. O.D.
2 FT. LEADS	CONDS.	SIZE	TYPE	RATING	RATING	WIRE	CORD
660/2	2	18	41/34	SJO	7	300	1.7/8" .250"
660/2	2	18	41/34	SJO	7	300	1.7/8" .250"
661/2	2	18	41/34	SJO	7	300	1.3/16" .320"
662/2	2	18	41/34	SJO	7	300	1.3/8" .350"
663/2	2	18	41/34	SJO	5.6	300	1.1/16" .385"
662/2	2	18	41/34	SJO	7	600	1.5/8" .405"
663/2	2	18	41/34	SJO	5.6	600	1.5/8" .435"
664/2	2	16	65/34	SJO	10	300	1.3/8" .350"
665/2	2	16	65/34	SJO	10	300	1.7/16" .390"
666/2	2	16	65/34	SJO	8	300	1.1/2" .425"
667/2	2	16	65/34	SJO	15	600	1.13/16" .475"
668/2	2	16	65/34	SJO	8	600	1.7/8" .500"
669/2	2	14	41/30	SO	15	600	2.1/8" .540"
670/2	2	14	41/30	SO	15	600	2.1/8" .560"
671/2	2	14	41/30	SO	12	600	2.1/4" .605"
672/2	2	12	65/30	SO	20	600	2.1/4" .605"
673/2	2	12	65/30	SO	20	600	2.1/4" .635"
674/2	2	12	65/30	SO	20	600	2.3/8" .635"
675/2	2	12	65/30	SO	16	600	2.3/8" .678"

COLOR CODE OF CONDUCTORS

1—Black 2—White
3—Green 4—Red

*If all four conductors normally carry current, amp rating is as shown. If one lead is used as a ground, amp rating is the same as 2 and 3 conductor cords.

†A 12" retracted length with a 12" straight lead on each end for easy stripping and termination. Cord as shown is approximately 6 feet.

RETRACTILE TEST LEAD WIRE

RETRACTED LENGTH 12"—EXTENDED LENGTH 6 FEET

DESCRIPTION: A high grade quality rubber insulation for maximum flex life extruded over a single conductor of extra flexible tinned copper which gives long life to this retractile test lead wire. Available in a 12" retracted length with a 6" straight lead on each end, the cord extends to approximately 6 feet.

ALPHA NO.	CONDUCTOR	AMP	VOLT	NOM. COIL	NOM. O.D.	COLOR CODE
650	2	41/36	4	5.000	3/4" .165"	Black-Red

COLOR CODE
SPECIFY BLACK OR RED

RETRACTILE POWER CORD SETS U.L. APPROVED

RETRACTED LENGTH 18"—EXTENDED LENGTH 7½ FEET

DESCRIPTION: Coiled power cord with a sturdy molded male plug on one end. On the other end we have removed a portion of the neoprene jacket, exposed the conductors and stripped them for easy termination. Operation voltage, 300 volts.

APPLICATION: Same as power cords, but with a plug on one end.

ALPHA NO.	NO. OF	CONDUCTOR	U.L.	AMP	VOLT	NOM. COIL	NOM. O.D.
654	2	18	41/34	SJO	7	300	1.7/8" .250"
655	2	18	41/34	SJO	7	300	1.3/16" .320"
656	2	18	41/34	SJO	7	300	1.3/8" .350"
657	2	16	65/34	SJO	10	300	1.3/8" .350"
658	2	16	65/34	SJO	10	300	1.7/16" .390"

COLOR CODE OF CONDUCTORS

1—Black 2—White 3—Green

RETRACTILE COIL CORDS

RETRACTILE COMMUNICATION COIL CORDS

RETRACTED LENGTHS 2 & 4 FEET—EXTENDED LENGTHS 12 & 25 FEET

DESCRIPTION: Multi-conductor communication cord manufactured with extra flexible #23 AWG/21/36 tinned soft cadmium copper for maximum flex life. Insulated with rubber for communication circuits of maximum 120 working volts. The overall jacket is a specially compounded cured neoprene jacket giving long life to the retractile cord.

APPLICATION: Used in communication equipment, such as telephone car carriers, mobile radio equipment, ham operations, head sets, citizen band units and radio transmitter to receiver head sets, communication cords eliminate hazards and inconveniences caused by tangled straight cords.

ALPHA NO.	NO. OF	CONDUCTOR	AMP	VOLT	NOM. COIL	NOM. O.D.	COLOR CODE
2 FT. LEADS	CONDS.	SIZE	RATING	RATING	WIRE	CORD	OF CONDUCTORS
660/2	2	23	21/36	1	120	3/4" .215"	1—Black
661/2	2	23	21/36	1	120	13/16" .220"	2—White
662/2	2	23	21/36	1	120	13/16" .250"	3—Red
663/2	2	23	21/36	1	120	1-1/16" .285"	4—Green
664/2	2	23	21/36	1	120	1-1/8" .305"	5—Blue
665/2	2	23	21/36	1	120	1-1/4" .320"	6—Yellow
							7—Brown

RETRACTILE COMMUNICATION CORDS (SHIELDED)

RETRACTED LENGTHS 2 & 4 FEET—EXTENDED LENGTHS 12 & 25 FEET

DESCRIPTION: Same as above, except that shielded conductors are individually shielded with a cadmium copper shield to eliminate external electrical interference. Shield can be pigtailed for direct soldering connections.

APPLICATION: When shielded communication cords are needed.

ALPHA NO.	NO. OF	CONDUCTOR	VOLTAGE	SHIELDING	NOM. COIL	NOM. O.D.	COLOR CODE
2 FT. LEADS	CONDS.	SIZE	RATING	WIRE	WIRE	CORD	OF CONDUCTORS
690/2	2	23	21/36	1	120	1-1/4" .320"	1—Black
692/2	2	23	21/36	1	120	1-1/4" .320"	2—White
694/2	2	23	21/36	1	120	1-1/4" .320"	3—Red
696/2	2	23	21/36	1	120	1-1/4" .320"	4—Green

RETRACTILE COMMUNICATION CORDS

PREPARED FOR EASY INSTALLATION AND REPLACEMENT

RETRACTED LENGTH 12"—EXTENDED LENGTH 6 FEET

DESCRIPTION: Same as communication cords except each end is prepared as indicated.

ALPHA NO.	NO. OF	CONDUCTOR	NOM. COIL	NOM. CORD	PREPARATION
686	3	23-21/36	13/16"	.220"	1 end: total length 13 1/2". Conductors stripped and tinned. Other end: total length 1 1/2" jacket removed.
687	4	23-21/36	15/16"	.250"	1 end: total length 1". Conductors stripped and tinned. Other end: total length 1 1/2" jacket removed.
688	5	23-21/36	1-1/16"	.285"	1 end: total length 4 1/4". Conductors stripped and tinned. Other end: total length 4 1/4" conductors stripped and tinned.

MINIATURE RETRACTILE COMMUNICATIONS CORDS

RETRACTED LENGTH 2 FEET—EXTENDED LENGTH 10 FEET

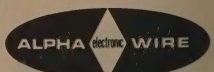
DESCRIPTION: A small diameter plastic cord with stranded tinned copper conductors for maximum flexibility, insulated and jacketed with polyvinylchloride. Each cord is available in a 2 ft. retracted length with a 5' straight lead on each end and extends to approximately 10 feet.

APPLICATION: For low voltage power and communication equipment where miniaturization is required due to space and weight limitations.

ALPHA NO.	NO. OF	CONDUCTOR	AMP	VOLT	NOM. COIL	NOM. CORD	COLOR CODE
651	2	28	19/40	0.5	100	1/4" .135"	1—Black 2—White
652	4	28	19/40	0.5	100	1/2" .150"	3—Green 4—Red

For 3 conductor, use 4 conductor with one lead unused

Alpha No.	Sugg. Resale	664/4	10.44	675/4	31.94	683/4	11.97
660/2	4.08	664/1	3.08	676/2	21.05	684/2	8.34
660/4	7.26	665/2	7.07	676/4	40.29	684/4	14.88
660/1	2.118	665/4	13.61	677/2	23.33	685/2	9.26
760/2	6.35	666/1	3.44	677/4	44.82	685/4	16.70
760/4	11.25	666/2	9.08	654	6.54	690/2	5.72
661/2	4.53	666/4	16.70	655	4.83	690/4	9.98
661/4	8.16	670/2	10.16	656	6.81	692/2	7.62
661/1	2.54	670/4	18.87	657	4.89	692/4	13.79
662/2	5.63	671/2	11.25	658	7.44	694/2	10.52
662/4	10.52	671/4	21.05	650	1.07	694/4	19.59
662/1	3.18	672/2	12.27	680/2	3.99	696/2	12.08
663/2	6.71	672/4	20.87	680/4	6.53	696/4	22.68
663/4	12.71	673/2	12.71	681/2	4.53	686	3.00
762/2	10.34	673/4	23.60	681/4	7.62	687	4.89
762/4	19.23	674/2	14.52	682/2	5.18	688	5.45
763/2	11.61	674/4	27.23	682/4	8.88	651	3.26
763/4	21.59	675/2	16.88	683/2	6.71	652	4.08



Flat Braid

DESCRIPTION: A woven braid, composed of tinned copper strands, which is rolled flat at time of manufacture to a specific width depending upon construction.

ALPHA NO.	NOM. FLAT WIDTH	NOM. THICKNESS	BRAID CONSTRUCTION		TOTAL NO. OF INDIV. ENDS	APPROX. AWG EQUIV.	NOM. CIRCULAR MILLS	*CURRENT CARRYING CAP. (Amps)	PUT-UP CODE
1221	.025	.015"	36	8	8	27	200	4.0	1 thru 5
1222	$\frac{1}{32}$ "	.020"	36	16	16	24	400	6.0	1 thru 5
1223	$\frac{3}{64}$ "	.020"	36	24	24	22	600	7.0	1 thru 5
1224	$\frac{3}{32}$ "	.020"	36	16	48	19	1200	11.0	1 thru 5
1229	$\frac{1}{8}$ "	.020"	36	24	72	18	1800	16.0	1 thru 5
1230	$\frac{3}{16}$ "	.020"	36	24	120	15	3000	25.0	1 thru 5
1231	$\frac{1}{4}$ "	.030"	36	24	168	14	4200	32.0	1 thru 5
1232	$\frac{3}{8}$ "	.030"	36	48	288	12	7200	46.0	1 thru 5
1233/2	$\frac{1}{2}$ "	.030"	36	48	384	10	9600	53.0	1 thru 5
1233	$\frac{3}{8}$ "	.030"	36	48	384	10	9600	53.0	1 thru 5
1234	$\frac{3}{4}$ "	.040"	36	48	832	7	20800	85.0	1 thru 5
1235	1"	.045"	36	48	832	7	20800	85.0	1 thru 5
1239	1 $\frac{1}{8}$ "	.050"	30	48	336	5	33700	100.0	1 thru 5
1240	1 $\frac{1}{2}$ "	.060"	30	48	528	3	53064	150.0	1 thru 3
1241	1 $\frac{3}{4}$ "	.080"	30	48	1248	00	125424	280.0	1 thru 3
1242	2"	.120"	30	48	1536	000	154368	310.0	1 thru 3
1242/1	2 $\frac{1}{4}$ "	.150"	30	48	1680	000	168840	320.0	1 & 2
1242/2	2 $\frac{1}{2}$ "	.170"	30	48	1920	000	192000	340.0	1 & 2
1242/3	2 $\frac{3}{4}$ "	.180"	30	48	2160	0000	216000	370.0	1 & 2
1242/4	3"	.200"	30	48	2256	0000	225000	390.0	1 & 2

PUT-UP CODE 1—50ft. 2—100 Ft. 3—250 Ft. 4—500 Ft. 5—1000 Ft.



Oval Commercial Braid

DESCRIPTION: A woven tinned copper braid which is left in the tubular configuration as it leaves the braiding equipment. It is manufactured to a specific inside diameter but because of its extreme flexibility cannot maintain its completely round shape and becomes oval.

ALPHA NO.	NOM. I.D. WHEN ROUNDED	BRAID CONSTRUCTION		TOTAL NO. OF INDIV. ENDS	APPROX. AWG EQUIV.	NOM. CIRCULAR MILLS	*CURRENT CARRYING CAPACITY (Amps)	PUT-UP CODE
2130	$\frac{1}{8}$ "	34	24	24	20	954	9.0	1 thru 5
2132	$\frac{1}{16}$ "	34	16	32	19	1192	11.0	1 thru 5
2134	$\frac{3}{64}$ "	34	16	64	16	2544	20.0	1 thru 5
2136	$\frac{1}{8}$ "	34	24	72	15	2862	25.0	1 thru 5
2138	$\frac{11}{64}$ "	34	24	120	14	4770	32.0	1 thru 5
2140	$\frac{3}{16}$ "	34	24	144	13	5724	38.0	1 thru 4
2142	$\frac{1}{4}$ "	34	24	168	12	6678	41.0	1 thru 4
2144	$\frac{3}{8}$ "	34	24	192	11	7632	46.0	1 thru 4
2146	$\frac{1}{2}$ "	34	48	336	9	13356	62.0	1 thru 3
2148	$\frac{5}{8}$ "	34	48	384	8	14264	64.0	1 thru 3
2150	$\frac{11}{16}$ "	34	48	480	7	19080	81.0	1 thru 3
2152	$\frac{23}{32}$ "	34	48	528	7	20988	85.0	1 thru 3

PUT-UP CODE 1—50ft. 2—100 Ft. 3—250 Ft. 4—500 Ft. 5—1000 Ft.

* Values shown are for bare cable in free air at 30°C (86°F) and intended as a reference guide only. Actual values will depend on permissible temperature rise, permissible voltage drop and other conditions of service.



PRICES			
Alpha No.	Sugg. Resale per 1000'	Alpha No.	Sugg. Resale per 100'
1221	30.86	1234	65.34
1222	31.58	1235	70.34
1223	34.67	1239	86.21
1224	40.65		94.38
1229	45.00		
1230	49.91		
1231	69.33		
1232	112.53		
1233/2	148.83		
1233	157.53		
Alpha No.	Sugg. Resale per 500'	Alpha No.	Sugg. Resale per 100'
1234	94.38	1240	65.34
1235	101.64	1241	127.05
1239	117.98	1242	163.35
Alpha No.	Sugg. Resale per 500'	Alpha No.	Sugg. Resale per 100'
2140	47.37		
2142	56.27		
2144	65.34		
Alpha No.	Sugg. Resale per 100'	Alpha No.	Sugg. Resale per 100'
2130	22.68		
2132	36.30		
2134	55.35		
2136	68.97		

Tinned Copper Tubular Braid To MIL Spec QQ-B-575

DESCRIPTION: A woven tinned copper braid which is manufactured completely round as outlined in Mil Spec QQ-B-575. Each strand of the braid is soft drawn tinned copper wire. The braid is self-supporting and maintains its round configuration. The percentage of shielding coverage is 95% or more when placed over a mandrel of an equivalent diameter to the inside braid diameter.

ALPHA NO.	NOM. I.D. WHEN ROUNDED	AWG OF INDIV. ENDS	BRAID CONSTRUCTION CARRIERS	TOTAL NO. OF INDIV. ENDS	APPROX. AWG. EQUIV.	NOM. CIRCULAR MILLS	*CURRENT CARRYING CAPACITY (Amps)	PUT-UP CODE
2160	1/32"	36	24	24	22	600	7.0	1-3
2162	1/16"	36	24	48	19	1200	11.0	1-3
2163	3/64"	36	24	72	18	1800	16.0	1-3
2164	1/8"	36	24	96	16	2400	19.0	1-3
2166	3/8"	36	24	120	15	3000	25.0	1-3
2167	5/16"	36	24	240	12	6000	40.0	1-3
2168	11/64"	36	24	168	14	4200	32.0	1-3
2170	13/64"	34	24	192	11	7630	46.0	1-2
2171	1/4"	36	24	384	10	9600	53.0	1-2
2171/1	5/16"	30	24	120	9	12060	60.0	1-2
2172	3/8"	36	48	384	10	9600	53.0	1-2
2173	1/2"	30	24	240	6	24120	90.0	1-2
2174	1/2"	36	48	528	9	13200	62.0	1-2
2175	3/4"	30	48	480	3	48240	145.0	1-2
2175/1	21/32"	30	48	768	1	77180	190.0	1-2
2176	25/32"	36	48	864	7	21600	88.0	1-2

PUT-UP CODE: 1—50 Ft. 2—100 Ft. 3—250 Ft.

EXTRA LARGE TINNED COPPER TUBULAR BRAID

DESCRIPTION: These tubular braids manufactured to standards of QQ-B-575 although these sizes are not listed in the specification.

ALPHA NO.	NOM. I.D. WHEN ROUNDED	AWG OF INDIV. ENDS	BRAID CONSTRUCTION CARRIERS	TOTAL NO. OF INDIV. ENDS	APPROX. AWG. EQUIV.	NOM. CIRCULAR MILLS	*CURRENT CARRYING CAPACITY (Amps)	PUT-UP CODE
2177	7/8"	30	48	336	5	33700	100.0	1 & 2
2178	1"	30	48	384	4	38600	120.0	1 & 2
2179	1 1/8"	30	48	432	4	43330	130.0	1 & 2
2180	1 1/4"	30	48	480	3	48150	145.0	1 & 2
2181	1 3/8"	30	48	528	3	53000	150.0	1 & 2
2182	1 1/2"	30	48	576	2	57775	165.0	1 & 2

PUT-UP CODE: 1—50 Ft. 2—100 Ft.

SILVER PLATED TUBULAR BRAID CONSTRUCTION TO MIL SPEC QQ-B-575

DESCRIPTION: A woven silver plated copper braid which is manufactured completely round as outlined in Mil Spec QQ-B-575. Each strand of the braid is soft drawn silver plated copper wire. The braid is self-supporting and maintains its round configuration. The percentage of shielding coverage is 95% or more when placed over a mandrel of an equivalent diameter to the inside braid diameter.

ALPHA NO.	NOM. I.D. WHEN ROUNDED	AWG OF INDIV. ENDS	BRAID CONSTRUCTION CARRIERS	TOTAL NO. OF INDIV. ENDS	APPROX. AWG. EQUIV.	NOM. CIRCULAR MILLS	*CURRENT CARRYING CAPACITY (Amps)	PUT-UP CODE
2190	1/32"	36	24	24	22	600	7.0	1-3
2191	1/16"	36	24	48	19	1200	11.0	1-3
2192	3/64"	36	24	72	18	1800	16.0	1-3
2193	1/8"	36	24	96	16	2400	19.0	1-3
2194	3/8"	36	24	120	15	3000	25.0	1-3
2195	5/16"	36	24	240	12	6000	40.0	1-3
2196	11/64"	36	24	168	14	4200	32.0	1-3
2197	13/64"	34	24	192	11	7640	46.0	1 & 2
2198	1/4"	36	24	384	10	9600	53.0	1 & 2

PUT-UP CODE: 1—50 Ft. 2—100 Ft. 3—250 Ft.

* Values shown are for bare cable in free air at 30°C (86°F) and intended as a reference guide only. Actual values will depend on permissible temperature rise, permissible voltage drop and other conditions of service.

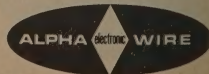
PRICES

Alpha No.	Sugg. Resale per 250'
2160	6.60
2162	12.71
2163	15.06
2164	19.23
2166	18.15
2167	36.30
2168	24.75

Alpha No.	Sugg. Resale per 100'
2170	15.78
2171	19.05
2171/1	21.78
2172	20.13
2173	32.30
2174	29.70
2175	58.98
2175/1	91.65

2176	43.92
2177	63.53
2178	64.35
2179	76.23
2180	87.12
2181	98.01
2182	107.09
Sugg. Resale per 250'	
Alpha No.	
2190	12.51

Alpha No.	Sugg. Resale per 250'
2191	24.50
2192	32.67
2193	45.38
2194	49.01...
2195	90.75
2196	68.06
Sugg. Resale per 100'	
Alpha No.	
2197	54.63
2198	68.06



High Voltage Wire

DESCRIPTION: Single conductor, stranded tinned copper, white flame retardant polyethylene insulation. When shielded, braided tinned copper shield overall.

APPLICATIONS: Designed for use as high-voltage leads in electronic equipment, especially for cathode ray tubes in television receivers and oscilloscopes. Shielded type used to minimize RF radiation in transmitters, X-ray, and diathermy equipment.

UNSHIELDED TYPE

ALPHA NO.	CONDUCTOR SIZE	STRAND	NOM. WALL THICKNESS	VOLTAGE BREAKDOWN AC	DC	NOM. O.D.
1640	22	7/30	.047"	5,000	10,000	.124"
1641	20	10/30	.047"	5,000	10,000	.132"
1642	20	10/30	.063"	10,000	20,000	.164"
1643	18	16/30	.047"	5,000	10,000	.144"
1644	18	16/30	.063"	10,000	20,000	.176"
1645	18	16/30	.095"	15,000	40,000	.240"
1646	16	26/30	.047"	5,000	10,000	.156"
1647	16	26/30	.063"	10,000	20,000	.188"
1648	16	26/30	.095"	15,000	40,000	.252"

SHIELDED TYPE

1660	22	7/30	.047"	5,000	10,000	.144"
1661	20	10/30	.047"	5,000	10,000	.152"
1662	20	10/30	.063"	10,000	20,000	.184"
1663	18	16/30	.047"	5,000	10,000	.164"
1664	18	16/30	.063"	10,000	20,000	.196"
1665	18	16/30	.095"	15,000	40,000	.264"
1666	16	26/30	.047"	5,000	10,000	.180"
1667	16	26/30	.063"	10,000	20,000	.208"
1668	16	26/30	.095"	15,000	40,000	.276"

STANDARD SPOOL PUT-UP: 100 FT., 500 FT., 1000 FT.

STRANDED
CONDUCTOR

WHITE
POLYETHYLENE
INSULATION

Test Lead Wire

DESCRIPTION: Single conductor, extra flexible stranded tinned soft annealed copper, separator, color coded rubber insulation, smooth satin finish.

APPLICATIONS: As test leads in analyzers, oscillators, multi-meters, and all other types of testing apparatus or wherever an extra flexible insulated wire is required. Heavy Duty type designed for television, therapeutic equipment, analyzers, oscillators, etc.

Suggested Operating Temperature: -20°C to +60°C.

STRANDED
CONDUCTOR

SEPARATOR

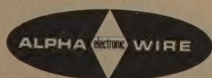
COLOR
CODED
RUBBER
INSULATION

ALPHA NO.	CONDUCTOR SIZE	STRAND	NOM. WALL THICKNESS	VOLTAGE BREAKDOWN	SUGG. WORKING VOLTAGE	NOM. O.D.	STOCK COLORS
1632	20	41/36	.040"	6,000 ††	1500 V	.125"	Black, Red
1635	20	41/36	.047"	12,000 ††	3000 V	.140"	Black, Red
1636	18	65/36	.045"	20,000 ††	5000 V	.140"	Black, Red
1638	18	65/36	.090"	29,000 ††	10000 V	.230"	Black, Red
* 1639	18	65/36	.047"	20,000 ††	5000 V	.145"	Black, Red Green

STANDARD SPOOL PUT-UP: 100 FT., 250 FT., 500 FT., 1000 FT.

†† 60 Cycles

Military type specification MIL-W-13169B



Alpha No.	Sugg. Resale per 500'	PRICES					
1640	16.88	1646	32.12	1663	58.53	1632	12.12
1641	19.59	1647	45.92	1664	112.98	1635	12.99
1642	29.49	1648	64.25	1665	124.28	1636	13.35
1643	23.40	1649	47.21	1666	78.95	1638	22.52
1644	36.11	1661	50.82	1667	103.91		
1645	56.27	1662	76.68	1668	131.13		

U.L. Approved Hook-Up Wire

DESCRIPTION: Stranded tinned copper, color coded polyvinylchloride insulation.
CHARACTERISTICS: Temperature rating (-10°C to +80°C, 300 V) (-10°C to +105°C, 600 V).
 Resistant to acids, alkalis, oil, flame, moisture and fungus.

300 VOLT 80°C - STYLE No. 1007

ALPHA NO.	CONDUCTOR SIZE	STRAND	NOM. O.D.
3050	24	7/32	.057"
3051	22	7/30	.065"
3053	20	10/30	.071"
3055	18	16/30	.080"
3057	16	26/30	.095"

* STOCK COLORS: 1-19

1—White	7—Brown	13—White/Green
2—Black	8—Orange	14—White/Yellow
3—Red	9—Gray (slate)	15—White/Blue
4—Green	10—Violet (purple)	16—White/Brown
5—Yellow	11—White/Black	17—White/Orange
6—Light Blue	12—White/Red	18—White/Gray
		19—White/Violet

*Other striped color — combinations to order

600 VOLT* 105°C - STYLE No. 1015

ALPHA NO.	CONDUCTOR SIZE	STRAND	NOM. O.D.
3071	22	7/30	.095"
3073	20	10/30	.102"
3075	18	16/30	.112"
3077	16	26/30	.125"
3079	14	41/30	.142"

* STOCK COLORS: 1-10

STANDARD SPOOL PUT-UP: 100 FT., 500 FT., 1000 FT.

U.L. Semi-Rigid Business Machine Wire

DESCRIPTION: Stranded tinned copper, color coded semi-rigid polyvinylchloride insulation.

CHARACTERISTICS: Temperature rating -10°C to +80°C, 300 volts in business machine or electronic computers only.

APPLICATIONS: Internal wiring of computers, electric bookkeeping, accounting machines, and other office and control equipment.

300 VOLT 80°C — STYLE No. 1061

ALPHA NO.	CONDUCTOR SIZE	STRAND	NOM. WALL THICKNESS	NOM. O.D.
3250	24	7/32	.009"	.042"
3251	22	7/30	.009"	.048"
3252	20	7/28	.009"	.056"

STOCK COLORS

1—White	6—Blue
2—Black	7—Brown
3—Red	8—Orange
4—Green	9—Gray
5—Yellow	10—Violet

*Other striped color combinations available to order.

STANDARD SPOOL PUT-UP: 100 FT., 500 FT., 1000 FT. 5000 FT.

U.L. Silicone Rubber Appliance and Fixture Wire

300 VOLT 80°C — STYLE No. 1061

DESCRIPTION: Stranded tinned copper conductor, silicone rubber insulation, impregnated white fiberglass braid overall.

CHARACTERISTICS: Resistant to abrasion, oil, moisture, and fungus.

APPLICATIONS: For wiring all types of lighting fixtures and other high wattage devices.

MAXIMUM OPERATING TEMPERATURE +200°C (392°F)

ALPHA NO.	N.E.C. TYPE DESIGNATION	CONDUCTOR SIZE	STRAND	INSULATION WALL (64ths)	VOLTAGE RATING (Volts)	NOM. O.D. (Inches)	NET WT. LBS. PER M/FT.
6124	SF-2	18	7/26	2	600	.13	12
6125	SF-2	16	7/24	2	600	.14	16
6126	SF-2	14	7/22	2	600	.16	22
6127	—	12	19/25	2	600	.18	32
6128	—	10	41/26	3	600	.24	52

MAXIMUM OPERATING TEMPERATURE +150°C (302°F)

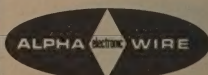
6129	—	22*	7/30	1	300	.08	5
6130	—	22*	7/30	2	600	.11	8
6131	—	20*	10/30	1	300	.09	7
6132	—	20*	10/30	2	600	.12	9
6133	SFF-1	18	16/30	1	300	.10	9
6134	SFF-2	18	16/30	2	600	.13	12
6135	SFF-2	16	26/30	2	600	.14	16
6136	SFF-2	14	41/30	2	600	.16	22
6137	—	12	41/28	2	600	.18	32

* Listed by U/L for radio hook-up wire.

STANDARD SPOOL PUT-UP: 100 FT., 500 FT., 1000 FT.

PRICES

Alpha No.	Sugg. Resale per 1000'	Alpha No.	Sugg. Resale per 1000'
3050	5.99	3075	14.52
3051	6.89	3077	19.41
3053	8.45	3079	26.31
3055	10.89	3250	7.98
3057	14.33	3251	8.70
3071	10.89	3252	11.61
3073	11.97	6124	143.13
		6125	180.48
		6126	218.87
		6127	271.97
		6128	547.44
		6129	87.09
		6130	94.92
		6131	104.01
		6132	111.83
		6133	147.68
		6134	145.98
		6135	183.53
		6136	220.38
		6137	262.55



Uninsulated Tinned Copper

SOLID WIRE — SOFT DRAWN

DESCRIPTION: Pure electrolytic soft, drawn, solid, copper properly annealed and tinned for quick soldering.

APPLICATIONS: Winding of coils. Antennas. Point to point wiring. Bus-bar. Component leads. Ground wire.

SPECIFICATIONS MIL-W-3861 TYPE S — QQ-W-343 TYPE S — ASTM-B-33

ALPHA NO.	CONDUCTOR SIZE	NOMINAL CIRCULAR MIL AREA	NOMINAL O.D.
299/3	30 AWG	100.5	.010"
299/2	28 AWG	159.8	.013"
299/1	26 AWG	254.1	.016"
299	24 AWG	404.0	.020"
298	22 AWG	642.4	.025"
297	20 AWG	1022.0	.033"
296	18 AWG	1642.0	.040"
295	16 AWG	2583.0	.051"
286	14 AWG	4107.0	.065"
289	12 AWG	6530.0	.082"
292	10 AWG	10380.0	.103"
292/8	8 AWG	16510.0	.129"
292/6	6 AWG	26250.0	.162"

STANDARD SPOOL PUT-UP: 100 FT., 500 FT., 1000 FT.

ROUND BUS-BAR — HARD DRAWN

SPECIFICATION ASTM-B-246-51

278	14 AWG	4107.0	.065"
280	12 AWG	6530.0	.082"
282	10 AWG	10380.0	.103"

STANDARD PUT-UP: TWO FOOT LENGTHS—100 PER PACKAGE

TINNED
COPPER
WIRE

Antenna-Aerial Wire

APPLICATIONS Recommended especially for ship, short-wave and transmitter antennas where 1159-1164: high tensile strength and corrosion resistance is required.

APPLICATIONS For short wave and transmitter antennas. Suitable for commercial and 136 and 112: amateur use. Easy to install, no "backlash."

ALPHA NO.	CONDUCTOR SIZE	STRAND	BREAKING STRENGTH	CONDUCTOR TYPE	NOMINAL O.D.	GOVERNMENT SPECIFICATION
1159	16	7/24	230 Lbs.	Silicon Bronze	.060"	—
1160	14	7/22	420 Lbs.	Silicon Bronze	.075"	—
1161	12	7/20	650 Lbs.	Silicon Bronze	.100"	MIL-W-13276
1163	10	7/18	1000 Lbs.	Silicon Bronze	.122"	MIL-W-13074
1164	8	7/16	1600 Lbs.	Silicon Bronze	.150"	—
136	16	7/24	—	Bare Copper	.060"	—
112	14	7/22	—	Bare Copper	.075"	—

STANDARD SPOOL PUT-UP: 100 FT., 500 FT., 1000 FT.

STRANDED
SILICON
BRONZE
OR
COPPER



Alpha No.		Sugg. Resale per 1000'		Alpha No.		Sugg. Resale per 200'		Alpha No.		Sugg. Resale per 500'	
299/3	3.06	295	11.55	278	6.35	1163	58.44				
299/2	3.30	286	17.33	280	8.52	1164	82.04				
299/1	3.14	292	63.53	282	11.97						
299	3.47	Sugg. Resale per 500'		Alpha No.		Sugg. Resale per 500'		Alpha No.		Sugg. Resale per 1000'	
298	3.89	292/8	51.09	1159	22.05	136	9.90				
297	5.28	292/6	80.58	1160	28.49	112	16.10				
296	8.25			1161	38.12						

CATV Foam 75 OHM Triaxial Feeder Cable

DOUBLE SHIELD — DOUBLE JACKET — FOAM RG 11/U TYPE

This cable has been specially designed for use as a secondary distribution lead-in cable for community antenna television systems.

The double shield construction provides maximum attenuation of radiated signals and allows for a minimum of cross-cable interference and pickup.

Cable construction consists of a solid bare copper conductor, foamed polyethylene dielectric, braided copper shield, covered by an inner polyethylene jacket, and a second braided copper shield with a polyethylene jacket overall.

The outer jacket offers high resistance to sunlight, weathering, and resists attack by acid, alkalis, oil, and grease.

Alpha No.	9602F
Nominal Impedance	75 ohm
Conductor	Solid Copper
Conductor O. D.	.064"
Insulation Material	Foamed Polyethylene
Insulation O. D.	.285"
Shield Material	#33 Bare Copper
Inner Shield O. D.	.313"
(All dimensions are nominal)	

Outer Shield O. D.	.396"
Jacket Material	Polyethylene
Inner Jacket O. D.	.368"
Outer Jacket O. D.	.470"
Stock Color	Black
Attenuation (db/100 ft.)	50 mc — 1.2
	100 mc — 1.7
	200 mc — 2.5

CABLE IS 100%
SWEEP TESTED

STANDARD PUT-
UP: 100 FT.,
500 FT., 1000
FT.—INQUIRE
RE LARGER
PUT-UPS

CATV Foam 75 OHM Coaxial Feeder Cable

SINGLE SHIELD — SINGLE JACKET — FOAM RG 11/U TYPE

A high quality foam core feeder cable with non-peaking attenuation characteristics. This foam core cable is widely used as secondary distribution lead-in cable. Cable has a solid bare copper conductor, foam polyethylene dielectric, braided copper shield with a weather proof polyethylene jacket overall. A tough, long lasting cable that is relatively light weight, flexible and easy to install.

Alpha No.	9603F
Nominal Impedance	75 ohm
Conductor	Solid Copper
Conductor O. D.	.064"
Insulation Material	Foamed Polyethylene
Insulation O. D.	.285"
Shield Material	#33 Bare Copper
(All dimensions are nominal)	

Shield O. D.	.313"
Jacket Material	Polyethylene
Jacket O. D.	.405"
Stock Color	Black
Attenuation (db/100 ft.)	50 mc — 1.2
	100 mc — 1.7
	200 mc — 2.5

CABLE IS 100%
SWEEP TESTED

STANDARD PUT-
UP: 100 FT.,
500 FT., 1000
FT.—INQUIRE
RE LARGER
PUT-UPS

CATV Foam 75 OHM Drop Cable

FOAM RG 59/U TYPE — WITH AND WITHOUT MESSENGER

A low-loss, light weight cable with wide use as subscriber tap-off lead-in cable. Cable contains a bare copper conductor, foam polyethylene dielectric, braided copper shield with a black polyethylene jacket overall. Jacket withstands effect of weathering and sunlight and is resistant to attack by acid, alkali, oil, and grease.

Alpha No. 9606M has, in addition, a built-in #14 gauge steel wire messenger in a "figure eight" construction.

Alpha No. 9606M — Same as 9606F with steel messenger wire

Alpha No.	9606F
Nominal Impedance	75 ohm
Conductor	Solid Copper
Conductor O. D.	.0320"
Insulation Material	Foamed Polyethylene
Insulation O. D.	.146"
Shield Material	#34 Bare Copper
(All dimensions are nominal)	

Shield O. D.	.170"
Jacket Material	Polyethylene
Jacket O. D.	.242"
Stock Color	Black
Attenuation (db/100 ft.)	50 mc — 2.4
	100 mc — 3.2
	200 mc — 4.6

CABLE IS 100%
SWEEP TESTED

STANDARD PUT-
UP: 100 FT.,
500 FT., 1000
FT.—INQUIRE
RE LARGER
PUT-UPS

CATV Solid Core 75 OHM Drop Cable

RG 59/U TYPE — WITH AND WITHOUT MESSENGER

A long lasting, weatherproof cable widely used as a subscriber tap-off lead-in cable. Cable conductor is copper coated steel, with an extruded polyethylene insulation, braided copper shield, with a grey or black PVC jacket overall.

Alpha No. 9659M has, in addition, a built-in #14 gauge steel wire messenger in a "figure eight" construction.

Alpha No. 9659M — Same as 9659F with steel messenger wire

Alpha No.	9659
Nominal Impedance	75 ohm
Conductor	Solid Copper Coated Steel
Conductor O. D.	.0253"
Insulation Material	Polyethylene
Insulation O. D.	.146"
Shield Material	#34 Bare Copper
(All dimensions are nominal)	

Shield O. D.	.171"
Jacket Material	Polyvinylchloride
Jacket O. D.	.242"
Stock Color	Grey, Black
Attenuation (db/100 ft.)	50 mc — 2.7
	100 mc — 4.0
	200 mc — 5.7

CABLE IS 100%
SWEEP TESTED

STANDARD PUT-
UP: 100 FT.,
500 FT., 1000
FT.—INQUIRE
RE LARGER
PUT-UPS

MESSENGER

PRICES

Alpha No.	Sugg. Resale per 1000'	Alpha No.	Sugg. Resale per 1000'
9602F	154.50	9606F	41.63
9603F	100.13	9659	35.25



75 OHM Foam TV and FM Coaxial Cable

FOAM RG 59/U TYPE LOW LOSS—MAXIMUM SIGNAL STRENGTH

Foam core coaxial cable delivers maximum low-loss performance for any TV or FM antenna system. This cable, while providing superior signal for black and white TV, is especially recommended for color TV installations.

Coaxial cable maintains a constant impedance match, eliminates ghosts and color smears, will not pick up interference and gives optimum signal in all types of weather.

The cable contains a solid bare copper conductor, foam polyethylene insulation, braided copper shield and a heavy duty black polyethylene jacket.

Alpha No.	9606F	Shield O. D.	.170"
Nominal Impedance	75 ohm	Jacket Material	Polyethylene
Conductor	Solid Copper	Jacket O. D.	.242"
Conductor O. D.	.0320"	Stock Color	Black
Insulation Material	Foamed Polyethylene	Attenuation (db/100 ft.)	50 mc — 2.4
Insulation O. D.	.146"		100 mc — 3.2
Shield Material	#34 Bare Copper		200 mc — 4.6

(All dimensions are nominal)

75 OHM Solid Core TV and FM Coaxial Cable

RG 59/U TYPE

MAXIMUM SIGNAL STRENGTH — EXTENDED OPERATING LIFE

Coaxial cable is recommended by many leading antenna manufacturers for optimum black and white and color reception. Ghosts, color smears, and noise are eliminated by use of coaxial cable and effective operating life is many times that of ordinary flat line wire. Many TV sets and antennas are now manufactured for use with 75 ohm cable and inexpensive matching transformers may be used in older sets designed for 300 ohm line.

Construction consists of a copper coated steel conductor, polyethylene dielectric, braided copper shield and a grey or black PVC jacket overall.

Alpha No.	9659	Shield O. D.	.171"
Nominal Impedance	75 ohm	Jacket Material	Polyvinylchloride
Conductor	Solid Copper Coated Steel	Jacket O. D.	.242"
Conductor O. D.	.0253"	Stock Color	Grey, Black
Insulation Material	Polyethylene	Attenuation (db/100 ft.)	50 mc — 2.7
Insulation O. D.	.146"		100 mc — 4.0
Shield Material	#34 Bare Copper		200 mc — 5.7

(All dimensions are nominal)

50 OHM Amateur Radio and CB Coaxial Cables

FOAM RG 8/U TYPE — SOLID RG 58/U TYPE

Signal loss between transmitter and antenna is minimized by the use of these specially designed coaxial cable types. In addition, the ability of these cables to shield out stray radiation fields makes them the preferred broadcast transmission cables.

Foam core cable consists of a stranded bare copper conductor, foam polyethylene dielectric, braided copper shield, and a black PVC jacket.

The solid core cable contains a solid bare copper conductor, solid polyethylene dielectric braided copper shield with a black PVC jacket overall.

Jackets resist effects of weathering and sunlight and heavy abrasion.

FOAM RG 8/U TYPE

Alpha No.	9608F	Shield Material	#33 Bare Copper
Nominal Impedance	50 ohm	Shield O. D.	.313"
Conductor Stranding	7/.036 Copper	Jacket Material	Polyvinylchloride
Conductor O. D.	.108"	Jacket O. D.	.405"
Insulation Material	Foamed Polyethylene	Stock Color	Black
Insulation O. D.	.285"		

(All dimensions are nominal)

RG 58/U TYPE

Alpha No.	9658	Shield Material	#36 Tinned Copper
Nominal Impedance	50 ohm	Shield O. D.	.136"
Conductor Stranding	Solid Copper	Jacket Material	Polyvinylchloride
Conductor O. D.	.032"	Jacket O. D.	.195"
Insulation Material	Polyethylene	Stock Color	Black
Insulation O. D.	.116"		

(All dimensions are nominal)

CABLE IS 100% SWEEP TESTED

STANDARD PUT-UP: 100 FT., 500 FT., 1000 FT.—INQUIRE RE LARGER PUT-UPS

CABLE IS 100% SWEEP TESTED

STANDARD PUT-UP: 100 FT., 500 FT., 1000 FT.—INQUIRE RE LARGER PUT-UPS

STANDARD PUT-UP: 100 FT., 500 FT., 1000 FT.—INQUIRE RE LARGER PUT-UPS

STANDARD PUT-UP: 100 FT., 500 FT., 1000 FT.—INQUIRE RE LARGER PUT-UPS



Alpha No.	Sugg. Resale per 1000'	Alpha No.	Sugg. Resale per 1000'
9606F	41.63	9608F	111.75
9659	35.25	9658	30.75

PRICES

NEW

NEW



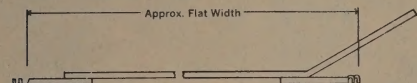
ALPHLEX® ZIPPER TUBING

DESCRIPTION Alphlex Zipper Tubing is the all purpose modern way to harness, cover and protect cables. Just zip to close — and zip to reopen. If you wish, it may be permanently sealed with PB-200 Special Compound Liquid Sealer. Alphlex Zipper Tubing is strong, flexible, durable, and offers new freedom in design, production and repair.

APPLICATIONS To shield, to harness wire, to custom-cable to any length, to enclose, to encase, to identify (such as cable markers), to protect, to replace worn jackets.

TYPES OF ZIPPER TUBING

TYPE	MATERIAL	WALL THICKNESS (Inches)	OPER. TEMP.	APPLICATIONS	STOCK COLORS	STANDARD PUT-UPS
ZIP-31	Polyvinyl-chloride made from MIL-I-631 D, GRADE C Materials	.020	-20° C to 105° C	All Purpose Type	Clear Black Yellow	25' 50' 100' 25' 50' 100' 25' 50' 100'
ZIP-31M	Polyvinyl-chloride made from MIL-I-631 D, GRADE C Materials	.040	-20° C to 105° C	Heavy Duty Constructions	Clear Black	100' 100'
ZIP-44	Polyvinyl-chloride made from MIL-I-7444 B Materials	.020	-67° C to 70° C	Extreme Flexibility, Low Temperature & Aircraft Industry	Clear Black	100' 100'
ZIP-50	Polyvinyl-chloride "sandwich" of aluminum foil laminated between two sheets of polyvinyl	.040	-20° C to 105° C	100% RF shielding	Silver-Grey	100'



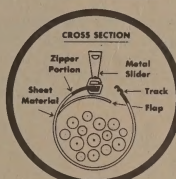
ZIPPER SPECIFICATIONS FOR ALL TYPES OF ALPHLEX ZIPPER TUBING

Material	Polyvinylchloride	Cold Brittleness	-86° C
Track Thickness (when closed)	.095"	Fungus-proof	will not support fungus
Dielectric Strength, V/mil	759	Flammability	self-extinguishing
Tensile Strength-P.S.I.	3810	Lateral Pull Strength (unsealed)	42.7 pounds/inch
Ultimate Elongation	255%	Lateral Pull Strength (permanently sealed)	59.8 pounds/inch
Operating Temperature, Upper Limit	106° C	Standard Colors	Black, Clear, Yellow

Contrasting color combinations of zipper and body are available to order. The zipper portion can be supplied in any of the following colors: Black, Yellow, Clear, Blue, White, Brown, Purple, Red, Orange, Green, Slate.

STANDARD SIZES FOR ALL ZIPPER TUBING

Zipper Tubing Inside Diameter	Approx. Flat Width (From track to track — excluding flap)
1/8"	1 1/4"
3/16"	1 1/2"
1/4"	2"
5/16"	2 1/4"
3/8"	2 1/2"
1/2"	3 1/4"
5/8"	3 3/4"
3/4"	4 1/4"
7/8"	4 3/4"
1"	5 1/4"
1 1/8"	6 1/4"



"Because of small inside diameter, these sizes cannot be closed by using the slider. The tracks must be closed by manual pressure."

HOW TO ORDER

Select the type of Zipper Tubing desired from the chart and the required inside diameter. When ordering, request as follows: For example, ZIP-31 Tubing in 1/2" inside diameter order — ZIP-31 — 1/2".

PRICES

Alpha No.	Sugg. Resale per 100'
ZIP-31 — 1/4"	36.00
ZIP-31 — 3/8"	37.00
ZIP-31 — 1/2"	37.50
ZIP-31 — 5/8"	38.00
ZIP-31 — 3/4"	38.50
ZIP-31 — 7/8"	39.50
ZIP-31 — 1"	40.00
ZIP-31 — 1 1/8"	41.50
ZIP-31 — 1 1/4"	42.00
ZIP-31 — 1 1/2"	43.50
ZIP-31 — 1 3/4"	45.00
ZIP-31 — 2"	46.00

Alpha No.	Sugg. Resale
LC-113 — White	1/2 lb. 4.73
LC-113 — Black	1/2 lb. 5.51
LC-114 — White	1/2 lb. 4.73
LC-114 — Black	1/2 lb. 5.51
LC-115 — White	1/2 lb. 4.73

Alpha No.	Sugg. Resale
LC-115 — Black	1/2 lb. 5.51
LC-132 — White	500 yd. 8.45
LC-132 — Black	500 yd. 9.14
LC-134 — White	500 yd. 5.41
LC-134 — Black	500 yd. 6.09

Alpha No.	Sugg. Resale
LC-136 — White	500 yd. 8.45
LC-136 — Black	500 yd. 9.14
LC-140 — White	500 yd. 8.45
LC-140 — Black	500 yd. 9.14
LC-143 — White	500 yd. 8.45

Alpha No.	Sugg. Resale
LC-143 — Black	500 yd. 9.14
LC-158 — White	500 yd. 8.45
LC-158 — Black	500 yd. 9.14
LC-162 — White	500 yd. 8.45
LC-162 — Black	500 yd. 9.14

Alpha No.	Sugg. Resale per 1000'
PVC-105/24	13.00
PVC-105/22	13.10
PVC-105/20	13.50
PVC-105/18	13.80
PVC-105/17	14.00
PVC-105/16	14.60
PVC-105/15	14.90

Alpha No.	Sugg. Resale per 500'
PVC-105/14	9.95
PVC-105/13	10.20
PVC-105/12	10.70
PVC-105/11	11.05
PVC-105/10	11.55
PVC-105/9	15.70
PVC-105/8	18.95
PVC-105/7	18.10
PVC-105/6	19.55
PVC-105/5	21.15
PVC-105/4	13.75
PVC-105/3	14.70

Alpha No.	Sugg. Resale per 100'
PVC-105/2	6.91
PVC-105/1	7.42
PVC-105/0	7.98
PVC-105/3/8	9.42
PVC-105/3/4	10.81
PVC-105/3/2	11.58
PVC-105/2 1/2	12.77
PVC-105/2 1/4	17.00
PVC-105/5/8	18.38

Alpha No.	Sugg. Resale per 50'
PVC-105/3/4	12.67
PVC-105/7/8	14.25
PVC-105/1	15.92
PVC-105/1 1/4	20.88
PVC-105/1 1/2	22.07
PVC-105/1 3/4	23.59
PVC-105/1 1/2	28.60
PVC-105/1 3/4	35.66
PVC-105/2	49.00
PVC-105/2 1/4	58.26
PVC-105/2 1/2	69.07

ALPHLEX® ELECTRONIC LACING CORDS AND TAPES

MIL-T-713A NYLON TWISTED CORD

ALPHA NO.	CLASS	TYPE	BREAKING STRENGTH	FINISH	NOMINAL DIAMETER	STOCK COLORS	YARDS PER STANDARD PUT-UP
LC-113	I	P Twine	70 lbs.	MW	.050"	Wh., Blk.	560 8 oz. spls.
LC-114	II	P Twine	48 lbs.	MW	.035"	Wh., Blk.	750 8 oz. spls.
LC-115	III	P Twine	32 lbs.	MW	.030"	Wh., Blk.	1180 8 oz. spls.

MIL-T-713A NYLON FLAT BRAIDED TAPE

ALPHA NO.	CLASS	TYPE	BREAKING STRENGTH	NOMINAL WIDTH	NOMINAL THICKNESS	FINISH	STOCK COLORS	STANDARD PUT-UP
LC-136	II	P Tape	50 lbs.	.090" (3/32")	.014"	MW	Wh., Blk.	500 yd. spls.

NYLON FLAT BRAIDED TAPE

ALPHA NO.	WIDTH	THICKNESS	TENSILE STRENGTH	FINISH	STOCK COLORS	STANDARD PUT-UP
LC-132	3/32"	.014"	50 lbs.	GE	Wh., Blk.	500 yd. tubes
LC-134	1/16"	.010"	30 lbs.	MW	Wh., Blk.	500 yd. spls.
LC-136	3/32"	.014"	50 lbs.	MW	Wh., Blk.	500 yd. spls.
LC-140	3/32"	.014"	50 lbs.	SR	Wh., Blk.	500 yd. spls.
LC-143	3/32"	.014"	50 lbs.	AM	Wh., Blk.	500 yd. spls.

DACRON FLAT BRAIDED TAPE

ALPHA NO.	WIDTH	THICKNESS	TENSILE STRENGTH	FINISH	STOCK COLORS	STANDARD PUT-UP
LC-158	3/32"	.014"	50 lbs.	GE	Wh., Blk.	500 yd. tubes
LC-162	3/32"	.014"	50 lbs.	MW	Wh., Blk.	500 yd. spls.

Other materials, finishes and sizes available to order.

Alphlex® Polyvinylchloride Plastic Tubing (PVC-105)

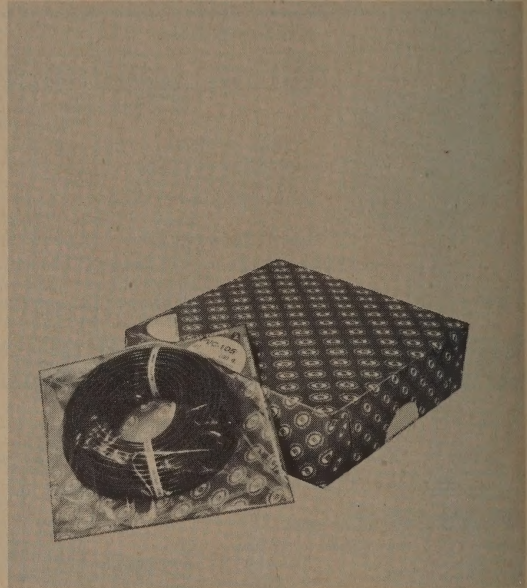
CONFORMS TO MIL-I-631D †

DESCRIPTION: The superior mechanical, thermal, and electrical properties of Alphlex PVC-105, coupled with its economical cost have led to an ever increasing use of this all-purpose insulating material. Another major advantage of Alphlex PVC-105 is its high degree of flexibility, which is maintained even under severe environmental conditions.

Rated for temperatures as high as 105°C, PVC-105 has a high dielectric strength that remains unaffected by increasing temperature throughout its range. PVC-105 maintains a high resistance to the agents of heat, oil, chemical corrosion and fungi with no loss in tensile strength, or flexibility. Other features include an exceptional resistance to abrasion and indefinite shelf life.

Alphlex PVC-105 is compounded with first quality, non-migratory resinous type plasticizers. Carefully selected stabilizers and modifiers added in the manufacturing process, counteract chemical and environmental degradation. Under adverse conditions Alphlex PVC-105 retains its flexibility which permits it to cling to and protect irregular shapes. An unusually simple to handle insulating material, PVC-105 "snakes" well under all environmental conditions.

APPLICATIONS: Designed and manufactured for general electronic, aircraft and electrical applications involving temperatures as high as 105°C. Especially useful to protect wires and cables subject to abrasion or where a flexible tubing with a high degree of resistivity to oil, chemicals or solvents is necessary.



DIMENSIONS CHART

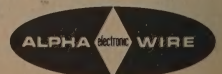
ALPHLEX NUMBER	SIZE	NOM. INSIDE DIA. (Inch.)	NOM. WALL THICKNESS (Inch.)	*STOCK COLORS	STANDARD PUT-UPS
PVC-105/24	24	.022	.013	1-6	100', 500', 1000' Spools
PVC-105/22	22	.027	.012	1-6	100', 500', 1000' Spools
PVC-105/20	20	.034	.016	1-6	100', 500', 1000' Spools
PVC-105/19	19	.038	.016	1-6	100', 500', 1000' Spools
PVC-105/18	18	.042	.016	1-6	100', 500', 1000' Spools
PVC-105/17	17	.047	.016	1-6	100', 500', 1000' Spools
PVC-105/16	16	.053	.016	1-6	100', 500', 1000' Spools
PVC-105/15	15	.059	.016	1-6	100', 500', 1000' Spools
PVC-105/14	14	.066	.016	1-6	100', 500', — Spools
PVC-105/13	13	.076	.016	1-6	100', 500', — Spools
PVC-105/12	12	.085	.016	1-6	100', 500', — Spools
PVC-105/11	11	.095	.016	1-6	100', 500', — Spools
PVC-105/10	10	.106	.016	1-6	100', 500', — Spools
PVC-105/9	9	.118	.020	1-6	100', 500', — Spools
PVC-105/8	8	.133	.020	1-6	100', 500', — Spools
PVC-105/7	7	.148	.020	1-6	100', 500', — Spools
PVC-105/6	6	.166	.020	1-6	100', 500', — Spools
PVC-105/5	5	.186	.020	1-6	100', 500', — Spools
PVC-105/4	4	.208	.020	1-6	100', 250', — Coils
PVC-105/3	3	.234	.020	1-6	100', 250', — Coils

* STOCK COLORS 1—Clear 2—Black 3—White 4—Yellow 5—Red 6—Green

ALPHLEX NUMBER	SIZE	NOM. INSIDE DIA. (Inch.)	NOM. WALL THICKNESS (Inch.)	*STOCK COLORS	STANDARD PUT-UPS
PVC-105/2	2	.263	.020	1-6	100', 250' Coils
PVC-105/1	1	.294	.020	1,2,3	100', 250' Coils
PVC-105/0	0	.330	.020	1,2,3	100', 250' Coils
PVC-105/3/8"	3/8"	.312	.025	1,2,3	100', 250' Coils
PVC-105/3/8"	3/8"	.375	.025	1,2,3	100', 250' Coils
PVC-105/1/2"	1/2"	.438	.025	1,2,3	25', 100', — Coils
PVC-105/1/2"	1/2"	.500	.025	1,2,3	25', 100', — Coils
PVC-105/5/8"	5/8"	.562	.030	1,2,3	25', 100', — Coils
PVC-105/5/8"	5/8"	.625	.030	1,2,3	25', 100', — Coils
PVC-105/3/4"	3/4"	.750	.035	1,2,3	25', 50', — Coils
PVC-105/7/8"	7/8"	.875	.035	1,2,3	25', 50', — Coils
PVC-105/1"	1"	1.000	.035	1,2,3	25', 50', — Coils
PVC-105/1 1/8"	1 1/8"	1.125	.035	1,2	25', 50', — Coils
PVC-105/1 1/4"	1 1/4"	1.250	.040	1,2	25', 50', — Coils
PVC-105/1 1/2"	1 1/2"	1.375	.040	1,2	25', 50', — Coils
PVC-105/1 1/2"	1 1/2"	1.500	.045	1,2	25', 50', — Coils
PVC-105/1 3/4"	1 3/4"	1.750	.055	1,2	25', 50', — Coils
PVC-105/2"	2"	2.000	.060	1,2	25', 50', — Coils
PVC-105/2 1/4"	2 1/4"	2.250	.065	1,2	25', 50', — Coils
PVC-105/2 1/2"	2 1/2"	2.500	.070	1,2	25', 50', — Coils

† MIL-I-631D, Type F, Form U, Grade C, Class I, Category 1

SEE PAGE 1637 FOR PVC-105 PRICES



Alphlex® Teflon Extruded Tubing

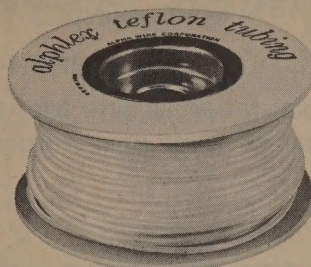
CONFORMS TO MIL-I-22129B

DESCRIPTION: Alphlex Teflon Tubing is unmatched by any other type of tubing for use in electrical applications at high frequencies and temperatures. Teflon is rated for continuous operation at 250°C, and retains an exceptional toughness and its flexibility throughout its temperature range.

Alphlex Teflon Tubing has the further advantage of a high degree of resistance to flexural fatigue and repetitive stresses; coefficient of friction lower than that of any other known solid; and a dielectric constant and power factor lower than that of any other known solid. This tubing will not crack or become brittle during aging.

Because of its resistance to soldering iron temperature, Alphlex Teflon Tubing will not shrink back during the soldering process. Alphlex Teflon Tubing will not melt and flow as do conventional thermoplastic materials. At high frequencies, its dielectric strength is many times that of other insulating materials.

Alphlex Teflon Tubing is chemically inert, has zero moisture absorption and its insulation resistance properties are unaffected by heat aging or temperature use up to 250°C.



APPLICATIONS: A thin flexible insulation, Alphlex Teflon Tubing permits a miniaturization and compactness of design never before possible. Invaluable in any application where a high heat resistant, flexible, non-flammable, chemical solvent and corrosion-resistant material is required.

ALPHLEX® THIN WALL TEFLON TUBING (TFT-200)

ALPHLEX NUMBER	SIZE	NOM. INSIDE DIA. (Inch.)	NOM. WALL THICKNESS (Inch.)	STOCK COLORS	STANDARD PUT-UPS	ALPHLEX NUMBER	SIZE	NOM. INSIDE DIA. (Inch.)	NOM. WALL THICKNESS (Inch.)	STOCK COLORS	STANDARD PUT-UPS
TFT-200/30	30	.012	.009	Nat., Yel., Blk., Red	100' Spools	TFT-200/12	12	.085	.012	Nat., Yel., Blk., Red	100' Spools
TFT-200/28	28	.015	.009	Nat., Yel., Blk., Red	100' Spools	TFT-200/11	11	.095	.012	Nat., Yel., Blk., Red	100' Spools
TFT-200/26	26	.018	.010	Nat., Yel., Blk., Red	100' Spools	TFT-200/10	10	.106	.012	Nat., Yel., Blk., Red	100' Spools
TFT-200/24	24	.022	.010	Nat., Yel., Blk., Red	100' Spools	TFT-200/9	9	.118	.015	Nat., Yel., Blk., Red	100' Coils*
TFT-200/22	22	.027	.010	Nat., Yel., Blk., Red	100' Spools	TFT-200/8	8	.133	.015	Nat., Yel., Blk., Red	100' Coils*
TFT-200/20	20	.034	.012	Nat., Yel., Blk., Red	100' Spools	TFT-200/7	7	.148	.015	Natural Only	100' Coils*
TFT-200/19	19	.038	.012	Nat., Yel., Blk., Red	100' Spools	TFT-200/6	6	.166	.015	Natural Only	100' Coils*
TFT-200/18	18	.042	.012	Nat., Yel., Blk., Red	100' Spools	TFT-200/5	5	.186	.015	Natural Only	100' Coils*
TFT-200/17	17	.047	.012	Nat., Yel., Blk., Red	100' Spools	TFT-200/4	4	.208	.015	Natural Only	100' Coils*
TFT-200/16	16	.053	.012	Nat., Yel., Blk., Red	100' Spools	TFT-200/3	3	.234	.015	Natural Only	100' Coils*
TFT-200/15	15	.059	.012	Nat., Yel., Blk., Red	100' Spools	TFT-200/2	2	.263	.015	Natural Only	100' Coils*
TFT-200/14	14	.066	.012	Nat., Yel., Blk., Red	100' Spools	TFT-200/1	1	.294	.015	Natural Only	100' Coils*
TFT-200/13	13	.076	.012	Nat., Yel., Blk., Red	100' Spools	TFT-200/0	0	.330	.015	Natural Only	100' Coils*

* RANDOM LENGTHS PACKED IN 100' COILS

ALPHLEX® STANDARD WALL TEFLON TUBING (TFT-250)

Similar in characteristics to TFT-200 (Thin Wall Tubing), but for use in application where additional dielectric values and mechanical strength are necessary.

ALPHLEX NUMBER	SIZE	NOM. INSIDE DIA. (Inch.)	NOM. WALL THICKNESS (Inch.)	STOCK COLORS	STANDARD PUT-UPS	ALPHLEX NUMBER	SIZE	NOM. INSIDE DIA. (Inch.)	NOM. WALL THICKNESS (Inch.)	STOCK COLORS	STANDARD PUT-UPS
TFT-250/24	24	.022	.012	Natural Only	100' Spools	TFT-250/10	10	.106	.016	Natural Only	100' Spools
TFT-250/22	22	.027	.012	Natural Only	100' Spools	TFT-250/9	9	.118	.020	Natural Only	100' Coils*
TFT-250/20	20	.034	.016	Natural Only	100' Spools	TFT-250/8	8	.133	.020	Natural Only	100' Coils*
TFT-250/19	19	.038	.016	Natural Only	100' Spools	TFT-250/7	7	.148	.020	Natural Only	100' Coils*
TFT-250/18	18	.042	.016	Natural Only	100' Spools	TFT-250/6	6	.166	.020	Natural Only	100' Coils*
TFT-250/17	17	.047	.016	Natural Only	100' Spools	TFT-250/5	5	.186	.020	Natural Only	100' Coils*
TFT-250/16	16	.053	.016	Natural Only	100' Spools	TFT-250/4	4	.208	.020	Natural Only	100' Coils*
TFT-250/15	15	.059	.016	Natural Only	100' Spools	TFT-250/3	3	.234	.020	Natural Only	100' Coils*
TFT-250/14	14	.066	.016	Natural Only	100' Spools	TFT-250/2	2	.263	.020	Natural Only	100' Coils*
TFT-250/13	13	.076	.016	Natural Only	100' Spools	TFT-250/1	1	.294	.020	Natural Only	100' Coils*
TFT-250/12	12	.085	.016	Natural Only	100' Spools	TFT-250/0	0	.330	.020	Natural Only	100' Coils*
TFT-250/11	11	.095	.016	Natural Only	100' Spools						

* RANDOM LENGTHS PACKED IN 100' COILS

Sugg. Resale per 100'		Alpha No.	P R I C E S		Sugg. Resale per 100'	Alpha No.	Sugg. Resale per 100'
Alpha No.							
TFT-200/30	9.00	TFT-200/12	20.48	TFT-250/24	10.01	TFT-250/9	45.86
TFT-200/28	8.00	TFT-200/11	20.45	TFT-250/22	11.23	TFT-250/8	45.43
TFT-200/26	7.70	TFT-200/10	22.04	TFT-250/20	15.19	TFT-250/7	49.56
TFT-200/24	7.70	TFT-200/9	24.95	TFT-250/19	16.31	TFT-250/6	53.55
TFT-200/22	9.50	TFT-200/8	27.52	TFT-250/18	18.70	TFT-250/5	58.99
TFT-200/20	12.00	TFT-200/7	29.45	TFT-250/17	20.39	TFT-250/4	64.09
TFT-200/19	12.50	TFT-200/6	31.82	TFT-250/16	21.78	TFT-250/3	70.89
TFT-200/18	12.98	TFT-200/5	34.85	TFT-250/15	22.26	TFT-250/2	73.14
TFT-200/17	14.18	TFT-200/4	38.10	TFT-250/14	24.03	TFT-250/1	81.26
TFT-200/16	14.53	TFT-200/3	41.74	TFT-250/13	25.33	TFT-250/0	91.38
TFT-200/15	14.58	TFT-200/2	48.13	TFT-250/12	27.41		
TFT-200/14	16.04	TFT-200/1	52.71	TFT-250/11	30.43		
TFT-200/13	17.17	TFT-200/0	59.14	TFT-250/10	33.02		

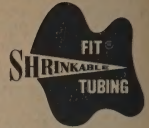


NEW

Irradiated Polyolefin Tubing

NEW ALL-PURPOSE SHRINKABLE TUBING — FIT-221

- SHRINKS 50% (2:1 RATIO) WITH ONLY 5% LONGITUDINAL SHRINKAGE
- FEWER SIZES COVERING MORE APPLICATIONS



DESCRIPTION: Alphlex FIT-221 Shrinkable Tubing, when heated, forms a tight-mechanical bond, even over irregularly shaped materials. FIT-221 is available in a range of colors and in clear.

FIT-221 is an all-purpose polyolefin extruded tubing that is simple to use and provides a tight mechanical bond. FIT-221 is an irradiated, thermally stable, modified polyolefin base product. FIT-221 Clear may be used so that jacketed, printed components or cable data is clearly visible and inspection of insulated components, cables or terminations is simplified.

The tubing is supplied in an expanded form and easily slips over the object to be covered. When a temperature of approximately 275°F (135°C) is applied, it immediately returns to its predetermined size (approximately one-half smaller) and forms a permanent tight-fitting mechanical bond. FIT-221 Tubing will not cold-flow or melt but retains form stability

throughout its temperature range. No radioactivity exists in or on the material and it will not emit radiation. Longitudinal shrinkage is 5% maximum when completely recovered.

Controlled shrinkage to the correct predetermined size takes place within seven seconds at 225°F to 255°F. Shrinkage will begin at 235°F, but at a somewhat slower rate. When using an oven, temperature may range from 235°F to 300°F. Prolonged exposure to these temperatures will not affect the physical or electrical properties of FIT-221 Shrinkable Tubing. FIT-221 Clear Tubing remains transparent over its entire operating range of -55°C to 135°C.

FLAMMABILITY: Although FIT-221 Clear is a high temperature material, it is flammable and will burn. However, when the tubing is shrunk over non-flammable or flame-resistant components, such as connectors, terminals and wire, the entire assembly will not support combustion.

All  Types of FIT Tubing are available from stock and may be cut and/or marked to your specifications.

DIMENSIONS CHART

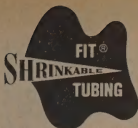
ALPHLEX NO. FIT-221	EQUIVALENT TO FIT-275/270	SIZE	MIN. I.D. BEFORE SHRINKAGE (Inches)	RECOVERED I.D. AFTER SHRINKAGE (Inches)	RECOVERED NOM. WALL THICKNESS (Inches)	STANDARD PACKAGE* 4' LENGTHS		STANDARD PACKAGE* 6' LENGTHS	
						TOT. FTG.	NO. OF LGTHS.	TOT. FTG.	NO. OF LGTHS.
FIT-221- $\frac{3}{64}$ "	FIT-275-24	$\frac{3}{64}$	.046	.023	.016	100'	25	20'	40
FIT-221- $\frac{1}{16}$ "	FIT-275-22, 20	$\frac{1}{16}$	.063	.031	.017	100'	25	18'	36
FIT-221- $\frac{3}{32}$ "	FIT-275-18, 16	$\frac{3}{32}$	.093	.046	.020	100'	25	16'	32
FIT-221- $\frac{1}{8}$ "	FIT-275-14	$\frac{1}{8}$	.125	.062	.020	100'	25	14'	28
FIT-221- $\frac{3}{16}$ "	FIT-275-12, 10	$\frac{3}{16}$	.187	.093	.020	100'	25	12'	24
FIT-221- $\frac{1}{4}$ "	FIT-275-8	$\frac{1}{4}$	.250	.125	.025	100'	25	10'	20
FIT-221- $\frac{3}{8}$ "	FIT-275-6, 4	$\frac{3}{8}$	.375	.187	.025	100'	25	8'	16
FIT-221- $\frac{1}{2}$ "	FIT-275-2, $\frac{3}{16}$ "	$\frac{1}{2}$	.500	.250	.025	20'	5	7'	14
FIT-221- $\frac{3}{4}$ "	FIT-275- $\frac{3}{8}$ ", $\frac{1}{4}$ "	$\frac{3}{4}$	.750	.375	.030	20'	5	6'	12
FIT-221-1"	FIT-275- $\frac{1}{2}$ ", $\frac{5}{16}$ "	1	1.000	.500	.035	20'	5	4'	8
FIT-221-1 $\frac{1}{2}$ "	FIT-275- $\frac{3}{4}$ ", $\frac{7}{8}$ "	1 $\frac{1}{2}$	1.500	.750	.040	20'	5	2.5'	5
FIT-221-2"	FIT-275-1", 1 $\frac{1}{4}$ "	2	2.000	1.000	.045	20'	5	1.5'	3
FIT-221-3"	FIT-275-1 $\frac{1}{2}$ ", 1 $\frac{3}{4}$ "	3	3.000	1.500	.050	8'	2	1'	2
FIT-221-4"	FIT-275-2"	4	4.000	2.000	.055	8'	2	.5'	1

STOCK COLORS—Black White, Red, Yellow, Blue, and Clear

*STANDARD PACKAGE FIT-221 Tubing is available ONLY in the specified packages. When ordering, indicate package desired (6 inches or 4 foot).

PRICES — 4' Lengths			
Alpha No.	Footage	Sugg. Resale	
FIT-221- $\frac{3}{64}$ "	100	14.10	
FIT-221- $\frac{1}{16}$ "	100	14.80	
FIT-221- $\frac{3}{32}$ "	100	17.15	
FIT-221- $\frac{1}{8}$ "	100	18.35	
FIT-221- $\frac{3}{16}$ "	100	22.35	
Alpha No.	Footage	Sugg. Resale	
FIT-221- $\frac{1}{4}$ "	100	27.95	
FIT-221- $\frac{3}{8}$ "	100	31.00	
FIT-221- $\frac{1}{2}$ "	20	8.25	
FIT-221- $\frac{3}{4}$ "	20	11.00	
FIT-221-1"	20	15.40	
Alpha No.	Footage	Sugg. Resale	
FIT-221-1 $\frac{1}{2}$ "	20	23.10	
FIT-221-2"	20	31.90	
FIT-221-3"	8	20.24	
FIT-221-4"	8	29.48	





Irradiated Polyolefin Semi-Rigid Tubing FIT-295

All Types of FIT Tubing are available from stock and may be cut and/or marked to your specifications.

FOR MAXIMUM STRENGTH AT ALL STRESS POINTS

SHRINKAGE RATIO 2:1 (50% Shrinkage)

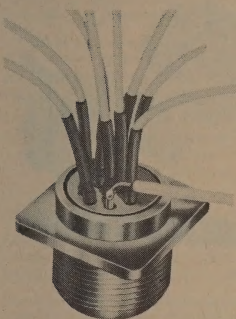
DESCRIPTION: Alphlex FIT-295 Shrinkable Tubing is designed to provide maximum mechanical strength at stress or connection points. An extremely strong, heavy wall, abrasion-resistant, extruded tubing FIT-295 is supplied in expanded form and easily slips over the object to be covered.

When a temperature of approximately 275°F (135°C) is applied, Alphlex FIT-295 immediately returns to its predetermined size (approximately 1/2 smaller) and forms a permanent tight-fitting mechanical bond. FIT-295 will not cold-flow or melt but retains form stability throughout its temperature range. No radioactivity exists in or on the material and it will not emit radi-

ation. Longitudinal shrinkage is less than 5% when completely recovered.

Controlled shrinkage to the correct predetermined size takes place within seven seconds at 275°F to 300°F. When using an oven, temperature may range from 235°F to 300°F. Prolonged exposure to these temperatures will not affect the physical or electrical properties of FIT-295 Tubing.

FLAMMABILITY: Although FIT-295, Clear, is a high temperature material, it is flammable and will burn. However, when the tubing is shrunk over non-flammable or flame-resistant components, such as connectors, terminals and wires, the entire assembly will not support combustion.

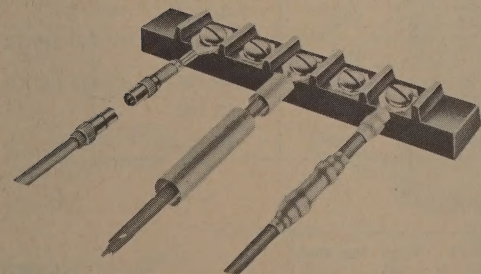


DIMENSIONS CHART

ALPHLEX NUMBER	STOCK COLORS	SIZE (Inches)	MINIMUM	RECOV'D	NOMINAL THICK- NESS (Inches)	STNDRD. PKG.* 4 FT. LENGTHS		STNDRD. PKG.* 6 IN. LENGTHS	
			I.D. BEFORE SHRINK- ING- (Inches)	I.D. SHRINK- ING- (Inches)		TOT. FTG.	NO. LGTHS.	TOT. FTG.	NO. LGTHS.
FIT-295-3/4	Yellow, Clear	3/4	.046	.023	.020	100'	25	20'	40
FIT-295-1/2	White, Clear	1/2	.063	.032	.020	100'	25	18'	36
FIT-295-3/8	Blue, Clear	3/8	.093	.045	.020	100'	25	16'	32
FIT-295-1/8	Red, Clear	1/8	.125	.063	.020	100'	25	14'	28
FIT-295-3/16	Green, Clear	3/16	.187	.093	.025	100'	25	12'	24
FIT-295-1/4	Slate, Clear	1/4	.250	.125	.025	100'	25	10'	20
FIT-295-3/16	Brown, Clear	3/16	.375	.187	.030	100'	25	8'	16
FIT-295-1/2	White, Clear	1/2	.500	.250	.030	20'	5	7'	14

*STANDARD PACKAGE

FIT-295 Tubing is available only in the specified standard packages. When ordering indicate package desired (6 inch or 4 foot.)



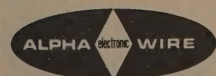
PACKAGED ASSORTMENTS

FIT-295-MS — Contains an assortment of 6" lengths in all sizes. Every length identified as to size.

ALPHLEX NO.	TUBING SIZE RANGE	LENGTHS PER BOX
FIT-295-MS-1	3/4" thru 1/2" (8 sizes)	5 lengths per size (40 lengths)
FIT-295-MS-2	3/8" thru 1" (4 sizes)	6 lengths per size (24 lengths)

PRICES — 4' Lengths

Alpha No.	Footage	Sugg. Resale	Alpha No.	Footage	Sugg. Resale
FIT-295-3/4	100	14.10	FIT-295-3/8	100	22.35
FIT-295-1/2	100	14.80	FIT-295-1/4	100	27.95
FIT-295-3/8	100	17.15	FIT-295-3/16	100	31.00
FIT-295-1/8	100	18.35	FIT-295-1/16	20	8.25



Irradiated Polyvinylchloride Tubing FIT-105

All Types of FIT Tubing
are available from stock and may be
cut and/or marked to your specifications.

HIGHLY FLEXIBLE — IDEAL FOR CABLE JACKETING

Conforms to MIL-1-631D, Type F, Form U, Grade C, Class 1, Cat. 1

SHRINKAGE RATIO 2:1 (50% Shrinkage)

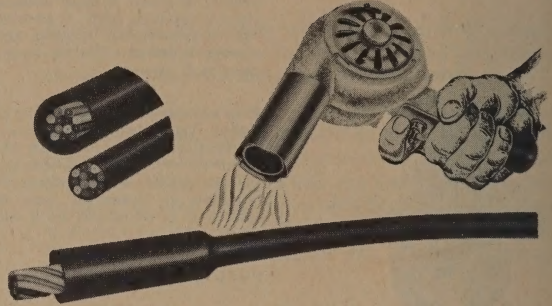
DESCRIPTION: Alphlex FIT-105 is an easy-to-use modified polyvinylchloride that provides a snug, extremely flexible insulation.

Because of its flexibility, strength and its ability to shrink 50% on application of heat, FIT-105 is ideally suited for insulating components and cables with a wide variation in shape and diameter.

Because of the 50% expanded diameter of FIT-105 Tubing, it is an extremely useful cable jacketing material. Cable cores may be pulled through FIT-105 Tubing with comparative ease and shrunk down to form a jacket with all the qualities of the finest extruded plastic jackets.

The tubing is supplied in expanded form and in continuous lengths. When a temperature of approximately 347°F (175°C) is applied, Alphlex FIT-105 Tubing immediately returns to its predetermined size (approximately 50% smaller), and forms a permanent, tight-fitting mechanical bond. FIT-105 Tubing will not cold-flow or melt but retains form stability within its temperature range. No radioactivity exists in or on the material and it will not emit radiation. Longitudinal shrinkage is less than 10%.

Controlled shrinkage to the correct predetermined size takes place within seven seconds at 325°F, or above. When using an oven, temperature may range from 325°F to 350°F.



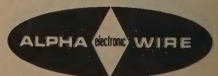
DIMENSIONS CHART

ALPHLEX NO. (BLACK ONLY)	SIZE (Inches)	MINIMUM I.D. BEFORE SHRINKING (Inches)	RECOVERED I.D. AFTER SHRINKING (Inches)	NOMINAL WALL THICKNESS (Inches)	STANDARD PUT-UP (Feet)
FIT-105- $\frac{3}{4}$	$\frac{3}{4}$	.046	.023	.020	25, 100, 500
FIT-105- $\frac{1}{2}$	$\frac{1}{2}$	.062	.031	.020	25, 100, 500
FIT-105- $\frac{3}{32}$	$\frac{3}{32}$	.093	.046	.020	25, 100, 200
FIT-105- $\frac{1}{8}$	$\frac{1}{8}$	.125	.062	.025	25, 100, 200
FIT-105- $\frac{3}{16}$	$\frac{3}{16}$	.187	.093	.025	25, 100, 200
FIT-105- $\frac{1}{4}$	$\frac{1}{4}$	.250	.125	.025	25, 100, 200
FIT-105- $\frac{3}{8}$	$\frac{3}{8}$	.375	.187	.030	25, 100, 200
FIT-105- $\frac{1}{2}$	$\frac{1}{2}$	.500	.250	.030	25, 100
FIT-105- $\frac{3}{4}$	$\frac{3}{4}$	.775	.375	.035	25, 100
FIT-105-1	1	1.000	.500	.040	25, 100
FIT-105-1 $\frac{1}{2}$	1 $\frac{1}{2}$	1.500	.750	.045	25, 100
FIT-105-2	2	2.000	1.000	.050	10, 25, 50

STOCK COLOR — BLACK

LONG LENGTHS — MAXIMUM THREE LENGTHS PER PUT-UP.

Alpha No.	Footage	Sugg. Resale	PRICES			Alpha No.	Footage	Sugg. Resale
FIT-105- $\frac{3}{4}$	500	31.75	FIT-105- $\frac{3}{4}$	200	26.30	FIT-105- $\frac{3}{4}$	25	8.61
FIT-105- $\frac{1}{2}$	100	9.15	FIT-105- $\frac{1}{2}$	100	13.90	FIT-105-1	100	40.00
FIT-105- $\frac{3}{32}$	25	2.95	FIT-105- $\frac{3}{32}$	25	4.35	FIT-105-1	25	12.20
FIT-105- $\frac{1}{8}$	500	33.25	FIT-105- $\frac{1}{8}$	200	33.00	FIT-105-1 $\frac{1}{2}$	100	65.75
FIT-105- $\frac{1}{8}$	100	9.50	FIT-105- $\frac{1}{8}$	100	17.25	FIT-105-1 $\frac{1}{2}$	25	19.73
FIT-105- $\frac{3}{16}$	25	3.06	FIT-105- $\frac{3}{16}$	25	5.33	FIT-105-2	50	56.60
FIT-105- $\frac{3}{16}$	200	20.30	FIT-105- $\frac{3}{16}$	200	36.50	FIT-105-2	25	28.80
FIT-105- $\frac{1}{4}$	100	10.90	FIT-105- $\frac{1}{4}$	100	19.00	FIT-105-2	10	11.57
FIT-105- $\frac{1}{4}$	25	3.48	FIT-105- $\frac{1}{4}$	25	5.84			
FIT-105- $\frac{3}{8}$	200	21.50	FIT-105- $\frac{3}{8}$	100	20.75			
FIT-105- $\frac{3}{8}$	100	11.50	FIT-105- $\frac{3}{8}$	25	6.58			
FIT-105- $\frac{1}{2}$	25	3.65	FIT-105- $\frac{1}{2}$	100	27.75			



Irradiated Kynar[®] Tubing

FIT-350

HIGH TEMPERATURE TUBING

A tough, thin wall tubing with outstanding cut-through and abrasion resistance. Semi-rigid polyvinylidene fluoride.

10 sizes cover complete range of .032 — 1 inch

Clear and non-flammable

SHRINKAGE RATIO 2:1 (50% Shrinkage)

DESCRIPTION: Alphalex FIT-350 is a new shrinkable tubing with outstanding temperature and physical characteristics and high dielectric strength. Longitudinal shrinkage is only 5%.

FIT-350 is an extremely tough extruded tubing that can be repeatedly flexed, bent, or twisted without loss of its mechanical or electrical strength. Supplied as a clear tubing, FIT-350 may be used where inspection or identification of the item covered is necessary.

When a temperature of approximately 347°F. (175°C.) is applied, the tubing immediately returns to its predetermined size (approximately one-half smaller) and forms a permanent, tough mechanical bond.

FIT-350 will never cold flow or melt and will not split when shrunk over sharp or irregularly shaped objects.

FIT-350 is non-flammable and will operate continuously at temperatures from -55°C to +175°C. It will withstand intermittent heat shock at temperatures up to 350°C.

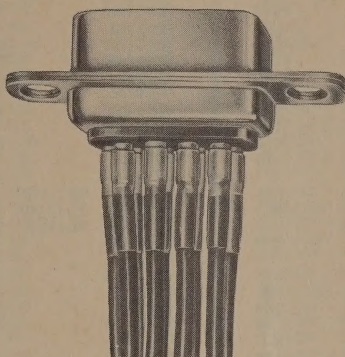
Compared with other fluorocarbon tubing types, FIT-350 has markedly superior abrasion, cut-through, and cold flow properties.

SHRINKING METHODS: The use of a hot air gun (Alpha HG-1) is recommended as being generally the easiest heating method. However, excellent results may be achieved by the use of an oven, radiant heat, dipping in hot liquids, or heating with a soldering iron, burner, or even the flame of a match.

NEW



All FIT-350 Tubing available from stock and may be cut and/or marked to your specifications.

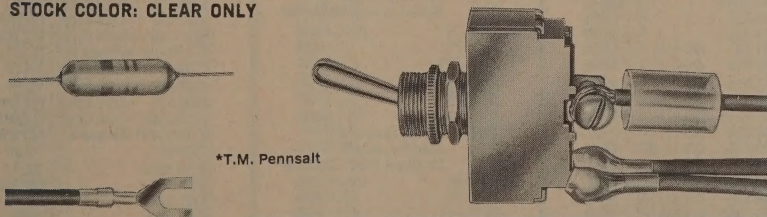


DIMENSIONS CHART

ALPHA NO.	MIN. I.D. BEFORE SHRINKAGE (Inches)	RECOVERED I.D. AFTER SHRINKAGE (Inches)	RECOVERED NOM. WALL THICKNESS (Inches)	STANDARD PACKAGE* 4' LENGTHS		STANDARD PACKAGE 6' LENGTHS	
				TOTAL FOOTAGE	NO. OF LENGTHS	TOTAL FOOTAGE	NO. OF LENGTHS
FIT-350- $\frac{3}{4}$ "	.046	.023	.010	100'	25	16'	32
FIT-350- $\frac{1}{2}$ "	.063	.031	.010	100'	25	14'	28
FIT-350- $\frac{3}{8}$ "	.093	.046	.010	100'	25	12'	24
FIT-350- $\frac{1}{4}$ "	.125	.062	.010	100'	25	10'	20
FIT-350- $\frac{3}{16}$ "	.187	.093	.010	100'	25	8'	16
FIT-350- $\frac{1}{8}$ "	.250	.125	.012	100'	25	6'	12
FIT-350- $\frac{3}{16}$ "	.375	.187	.012	100'	25	4'	8
FIT-350- $\frac{1}{2}$ "	.500	.250	.012	20'	5	2'	4
FIT-350- $\frac{3}{4}$ "	.750	.375	.017	20'	5	1'	2
FIT-350-1"	1.000	.500	.019	20'	5	5'	1

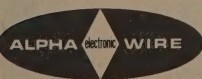
STANDARD PACKAGE: FIT-350 tubing is available only in the specified packages. When ordering, indicate package desired (6 inches or 4 foot).

STOCK COLOR: CLEAR ONLY



PRICES — 4' Lengths

Alpha No.	No. of Lengths	Footage	Sugg. Resale	Alpha No.	No. of Lengths	Footage	Sugg. Resale
FIT-350- $\frac{3}{4}$ "	25	100	14.70	FIT-350- $\frac{1}{4}$ "	25	100	41.20
FIT-350- $\frac{1}{2}$ "	25	100	16.05	FIT-350- $\frac{3}{8}$ "	25	100	58.90
FIT-350- $\frac{3}{8}$ "	25	100	19.30	FIT-350- $\frac{1}{2}$ "	5	20	22.46
FIT-350- $\frac{1}{4}$ "	25	100	21.20	FIT-350- $\frac{3}{4}$ "	5	20	41.27
FIT-350- $\frac{3}{16}$ "	25	100	32.85	FIT-350-1"	5	20	75.88



SECTION 6000

BELDEN • PRICE LIST

Reference
Bulletin E 66 P-1T
Effective Aug. 1, 1988

Trade Number Lgth. in Ft.	Sug. Trade Price Each	Trade Number Lgth. in Ft.	Sug. Trade Price Each	Trade Number Lgth. in Ft.	Sug. Trade Price Each	Trade Number Lgth. in Ft.	Sug. Trade Price Each
8000-50	1.11	8205-500	10.65	8241-250	(RG-59/U) 12.00	8301-100 †Solid Color	5.25
8000-75	1.59	8205-1000	20.85	8241-500	(RG-59/U) 18.60	8301-500 †Solid Color	47.00M
8000-100	2.01	8208-100	6.90	8241-1000	(RG-59/U) 37.20	8301-1000†Solid Color	46.15M
8000-1000	18.40	8208-500	30.30	8242-100	(RG-9/U) 31.15	8301-1000†Striped ▲	55.15M
8002-50	.81	8208-1000	60.60	8242-1000	(RG-9/U) 288.00	8302-25	2.05
8002-100	1.43	8209-500	(Obs) 29.25	8243-500	(RG-98/U) 175.20	8302-100 †Solid Color	5.50
8008-100	3.85	8209-1000	(Obs) 58.50	8243-1000	(RG-98/U) 350.40	8302-500 †Solid Color	48.75M
8008-150	5.40	8210-100	6.70	8245-500	(RG-55/U) 35.50	8302-1000†Solid Color	48.00M
8008-200	(Obs) 5.05	8210-250	15.60	8245-1000	(RG-55/U) 71.00	8302-1000†Striped ▲	57.00M
8008-500	16.90	8211-500	22.05	8254-100	(RG-62/U) 5.85	8303-25 †Solid Color	2.35
8009-100	2.40	8211-1000	44.10	8254-500	(RG-62/U) 21.75	8303-1000†Solid Color	6.55
8009-150	3.30	8211-2000	88.20	8254-1000	(RG-62/U) 43.50	8303-500 †Solid Color	56.65M
8009-200	(Obs) 3.60	8212-500	22.05	8255-500	(RG-62B/U) 26.25	8304-25 †Solid Color	2.25
8009-500	9.70	8212-1000	44.10	8255-1000	(RG-62B/U) 52.50	8304-100 †Solid Color	5.85
8011-100	3.00	8212-2000	88.20	8257-500	(RG-71/U) 37.05	8304-500 †Solid Color	53.25M
8012-100	2.22	8213-500	58.05	8257-1000	(RG-71/U) 74.10	8304-1000†Solid Color	52.50M
8012-1000	18.40	8213-1000	116.10	8258-500	(RG-71B/U) 35.65	8304-1000†Striped ▲	61.50M
8013-100	1.50	8213-2000	232.20	8258-1000	(RG-71B/U) 71.30	8305-25 †Solid Color	2.50
8013-1000	12.10	8214-50	7.75	8259-25	(RG-58A/U) 1.88	8305-100 †Solid Color	7.05
8014-25	.57	8214-100	14.25	8259-50	(RG-58A/U) 2.95	8305-500 †Solid Color	62.25M
8014-500	3.25	8214-500	57.75	8259-100	(RG-58A/U) 5.40	8305-1000†Solid Color	61.50M
8018-50	1.05	8214-1000	115.50	8259-500	(RG-58A/U) 19.95	8305-1000†Striped ▲	70.50M
8018-500	9.00	8215-100	11.25	8259-1000	(RG-58A/U) 39.90	8306-25 †Solid Color	2.65
8019-100	1.03	8215-500	48.75	8261-100	(RG-11A/U) 12.15	8306-100 †Solid Color	7.45
8019-1000	7.75	8215-1000	97.50	8261-500	(RG-11A/U) 51.40	8306-500 †Solid Color	68.00M
8020-100	.81	8216-100	(RG-174/U) 3.45	8261-1000	(RG-11A/U) 102.80	8306-1000†Solid Color	67.30M
8020-1000	5.50	8216-500	(RG-174/U) 12.30	8262-500	(RG-58C/U) 21.75	8306-1000†Striped ▲	76.30M
8021-100	.67	8216-1000	(RG-174/U) 24.60	8262-1000	(RG-58C/U) 43.50	8307-25 †Solid Color	2.85
8021-1000	4.00	8217-100	5.70	8263-500	(RG-59B/U) 23.65	8307-100 †Solid Color	8.80
8022-100	.66	8217-500	22.05	8263-1000	(RG-59B/U) 47.30	8307-500 †Solid Color	81.00M
8022-1000	3.40	8217-1000	44.10	8264-500	(RG-5A/U) 119.25	8307-1000†Solid Color	80.25M
8023-100	.66	*8218-100	4.80	8264-1000	(RG-5A/U) 238.50	8307-1000†Striped ▲	89.25M
8023-1000	3.10	*8218-500	17.85	8265-100	(RG-178B/U) 13.00	8308-25 †Solid Color	2.95
8024-100	.66	*8218-1000	35.70	8265-500	(RG-178B/U) 125.25M	8308-100 †Solid Color	8.55
8024-1000	3.00	*8219-100	5.70	8266-100	(RG-180B/U) 34.20	8308-500 †Solid Color	78.00M
8025-100	.66	*8219-500	22.05	8266-500	(RG-180B/U) 304.50M	8309-25 †Solid Color	3.45
8025-1000	2.70	*8219-1000	44.10	8267-500	(RG-213/U) 57.00	8309-100 †Solid Color	10.75
8040	.81	8222-100	1.65	8267-1000	(RG-213/U) 114.00	8309-500 †Solid Color	99.00M
8041	.87	8222-500	7.50	8268-500	(RG-214/U) 180.00	8309-1000†Solid Color	98.25M
8042	.95	8225-25	.75	8268-1000	(RG-214/U) 360.00	8309-1000†Striped ▲	107.25M
8043	1.02	8225-50	1.17	8269-100	(RG-188A/U) 22.80	8310-25 †Solid Color	4.50
8044	1.13	8225-75	1.52	8269-500	(RG-188A/U) 205.50M	8310-100 †Solid Color	13.00
8045	1.43	8225-100	1.91	8270-100	(RG-196A/U) 18.25	8310-500 †Solid Color	123.00M
8046	1.95	8225-250	4.75	8270-500	(RG-196A/U) 152.00M	8310-1000†Solid Color	121.50M
8047	1.08	8225-500	8.95	8275-50	2.63	8310-1000†Striped ▲	130.50M
8048	1.08	8225-1000	17.20	8275-75	3.70	8323-25 †Solid Color	2.80
8049	1.10	8225-T1000	17.20	8275-100	4.50	8323-100 †Solid Color	8.10
8050	1.10	8226-25	.75	8275-250	10.75	8323-500 †Solid Color	72.75M
8051	1.10	8226-50	1.17	8275-500	21.40	8325-25 †Solid Color	2.85
8052	1.13	8226-75	1.52	8275-1000	42.00	8325-100 †Solid Color	8.25
8053	1.19	8226-100	1.91	8279-100	9.00	8325-500 †Solid Color	74.25M
8054	1.26	8227-500	49.35	8279-250	21.00	8326-25 †Solid Color	3.00
8055	1.40	8230-25	.86	8279-500	39.00	8326-100 †Solid Color	9.00
8056	1.58	8230-50	1.29	8280S	(Cut to customer's specified length Maximum 1500') 682.50M	8326-500 †Solid Color	82.50M
8057	1.67	8230-75	1.73			8326-1000†Solid Color	81.75M
8058	1.95	8230-100	2.16	8281-500	76.90	8326-1000†Striped ▲	90.75M
8059	1.10	8230-250	5.35	8281-1000	153.80	8327-25 †Solid Color	3.45
8060	1.10	8230-500	10.35	8282S	(Cut to customer's specified length Maximum 2000') 300.00M	8327-100 †Solid Color	10.15
8061	1.14	8230-1000	19.75			8327-500 †Solid Color	94.50M
8062	1.16	8230-T1000	19.75	8283S	(Cut to customer's specified length Max. 1000') 2520.00M	8327-1000†Solid Color	93.75M
8063	1.19	8232-500	42.25			8327-1000†Striped ▲	102.75M
8064	1.20	8232-1000	84.50	8284S	(Cut to customer's specified length Max. 1000') 2520.00M	8328-25 †Solid Color	3.45
8065	1.28	8232-2000	169.00			8328-100 †Solid Color	9.90
8066	1.38	8233-500	82.50			8328-500 †Solid Color	92.25M
8067	1.53	8233-1000	165.00			8329-25 †Solid Color	4.05
8068	1.65	8233-2000	330.00			8329-100 †Solid Color	13.00
8069	1.88	8235-100	4.95			8329-500 †Solid Color	118.50M
8070	2.25	8235-500	22.50	8285-50	2.85	8329-1000†Solid Color	117.75M
8071	2.82	*8237-50	(RG-8/U) 6.60	8285-75	3.85	8329-1000†Striped ▲	126.75M
8072	3.48	8237-100	(RG-8/U) 12.40	8285-100	4.90	8330-25 †Solid Color	4.90
8073	1.85	8237-250	(RG-8/U) 26.65	8285-250	11.65	8330-100 †Solid Color	14.65
8074	1.92	8237-500	(RG-8/U) 49.65	8285-500	22.50	8330-500 †Solid Color	138.00M
8075	2.03	8237-1000	(RG-8/U) 99.30	8285-1000	45.00	8330-1000†Solid Color	136.50M
8076	2.03	8238-100	(RG-11/U) 11.25	*8286S	(Cut to customer's specified length Maximum 1000') 705.00M	8330-1000†Striped ▲	145.50M
8077	2.03	8238-250	(RG-11/U) 26.25			8390-25	9.75
8078	2.10	8238-500	(RG-11/U) 45.30	*8290-50	5.80	8390-100	36.75
8079	2.25	8238-1000	(RG-11/U) 90.60	*8290-75	7.80	8390-500	367.50M
8080	2.46	8239-500	(RG-54A/U) 36.40	*8290-100	9.90	8391-25	12.15
8081	2.78	8239-1000	(RG-54A/U) 72.80	*8290-500	47.25	8391-100	45.00
8082	3.02	8240-25	(RG-58/U) 1.65	8299-25	3.75	8391-500	450.00M
8083	3.56	8240-50	(RG-58/U) 2.65			8392-25	14.55
8084	4.53	8240-100	(RG-58/U) 4.60			8392-100	54.00
8085	5.61	8240-250	(RG-58/U) 9.90	8300-25 †Solid Color	2.05	8392-500	540.00M
8086	7.30	8240-500	(RG-58/U) 16.90	8300-100 †Solid Color	5.10	8401-15	1.13
*8201-100	4.15	8240-1000	(RG-58/U) 33.80	8300-500 †Solid Color	44.55M	8401-25	1.47
*8201-500	17.25	8241-25	(RG-59/U) 1.88	8300-1000†Solid Color	43.75M	8401-50	2.60
*8201-1000	34.50	8241-50	(RG-59/U) 2.95	8300-1000†Striped ▲	52.75M	8401-100	4.80
8205-100	2.75	8241-100	(RG-59/U) 5.35	8301-25 †Solid Color	2.05	8401-250	10.15

SECTION 6000

BELDEN • PRICE LIST

Reference
Bulletin E 66 P-1T
Effective Aug. 1, 1966

Trade Number Lgth. in Ft.	Sug. Trade Price Each	Trade Number Lgth. in Ft.	Sug. Trade Price Each	Trade Number Lgth. in Ft.	Sug. Trade Price Each	Trade Number Lgth. in Ft.	Sug. Trade Price Each
8401-500	20.30	8423-1000	103.50	8453-100	7.20	8485-500	19.15
8401-1000	40.60	8424-15	2.55	8453-500	36.45	8485-1000	38.30
8403-15	1.80	8424-50	6.70	8454-50	4.60	8486-500	10.00
8403-50	4.90	8424-100	12.60	8454-100	8.25	8486-1000	20.00
8403-100	9.00	8424-250	30.45	8454-500	38.65	8487-500	13.65
8403-250	20.25	8424-500	59.25	8454-1000	77.30	8487-1000	27.30
8403-500	40.50	8424-1000	118.50	8455-100	8.50	8488-100	4.95
8403-1000	81.00	8425-100	15.00	8455-250	21.40	8488-500	22.50
8404-15	2.18	8425-250	36.75	8456-100	8.10	8488-1000	45.00
8404-100	10.15	8426-100	18.40	8456-500	37.15	*8490	1.50
8404-250	23.50	8426-250	45.00	8456-1000	74.30	8491	1.73
8404-500	47.00	8427-100	19.90	8457-100	8.55	8492-1000	18.00
8404-1000	94.00	8427-250	48.00	8457-500	39.75	8493-1000 (Obs)	22.75
8405-250	26.80	8428-100	12.90	8457-1000	79.50	8494	1.56
8405-500	53.60	8428-500	61.50	8458-100	15.00	8495	1.31
8405-1000	107.20	8428-1000	123.00	8458-500	66.75	8497-1	1.46
8406-100	11.10	8429-10	.80	8458-1000	133.50	*8497-50	1.32
8406-250	26.25	8429-25	1.30	8459-100	23.25	8498 (Obs)	1.05
8406-500	52.50	8429-250	8.95	8459-500	105.00	8499	.98
8407-100	22.15	8430-10	.57	8459-1000	210.00	8500-100 †	Solid Color 1.95
8407-250	53.50	8430-25	.75	8460-100	3.00	8500-500 †	Solid Color 8.25
8409	1.05	8430-250	4.50	8460-500	11.70	8500-1000†	Solid Color 15.55
8410-25	2.70	8431-10	.66	8460-1000	23.40	8500-100 †	Striped† 2.07
8410-50	4.75	8431-15	.75	8461-100	3.90	8500-1000†	Striped† 16.70
8410-100	8.65	8431-25	1.17	8461-500	15.40	8501-100 †	Solid Color 1.62
8410-250	20.25	8431-100	3.75	8461-1000	30.80	8501-500 †	Solid Color 6.40
8410-500	40.50	8431-500	17.35	8462-25 †	1.20	8501-1000†	Solid Color 12.15
8411-15	.90	8434-100	5.50	8462-100 †	3.60	8501-100 †	Striped† 1.74
8411-25	1.23	8434-500	24.75	8462-250 †	8.20	8501-1000†	Striped† 13.30
8411-50	1.95	8434-1000	49.50	8463-50	2.18	8502-100 †	Solid Color 1.49
8411-100	3.75	8436-500 (Obs)	24.40	*8463-75	3.10	8502-500 †	Solid Color 5.25
8411-250	7.90	8436-1000 (Obs)	44.80	8463-100	4.00	8502-1000†	Solid Color 9.70
8411-500	15.75	8437-500	20.25	8463-500	18.60	8502-100 †	Striped† 1.61
*8411-1000	31.50	8437-1000	40.50	8464-50	1.88	8502-1000†	Striped† 10.85
8412-25	2.65	8441-100	5.20	8464-75	2.55	8503-100 †	Solid Color 1.31
8412-50	5.10	8441-500	23.25	8464-100	3.30	8503-500 †	Solid Color 4.80
8412-100	9.55	8441-1000	46.50	8464-500	14.50	8503-1000†	Solid Color 8.70
8412-250	21.75	8442-500	9.00	8464-1000	28.00	8503-100 †	Striped† 1.43
8412-500	43.50	8442-1000	18.00	8465-100	7.20	8503-500 †	Striped† 5.40
*8412-1000	87.00	8443-25	1.05	*8465-250	17.05	8503-1000†	Striped† 9.85
8413-15	1.80	8443-100	2.70	8465-500	33.40	8504-100 †	Solid Color 1.25
8413-25	2.65	*8443-250	5.85	8465-1000	66.80	8504-500 †	Solid Color 4.35
8413-50	4.80	8443-500	10.75	8466-100	19.90	8504-1000†	Solid Color 8.05
8413-100	8.95	8443-1000	21.45	*8466-250	48.75	8504-100 †	Striped† 1.37
8413-250	20.65	8444-25	1.23	8466-500	93.00	8504-500 †	Striped† 4.95
8413-500	41.30	8444-100	3.40	8466-1000	186.00	8504-1000†	Striped† 9.20
8414-50 (Obs)	4.90	*8444-250	7.75	8467-100	10.05	8505-100 †	Solid Color 1.29
8414-500 (Obs)	40.50	8444-500	14.25	*8467-250	24.00	8505-500 †	Solid Color 4.90
8415-1	1.41	8444-1000	28.50	8467-500	46.15	8505-1000†	Solid Color 9.00
*8415-50	1.28	8445-25	1.31	8467-1000	92.30	8505-100 †	Striped† 1.41
8416-15	1.25	8445-100	4.20	8468-100	25.90	8505-1000†	Striped† 10.15
8416-25	1.65	*8445-250	9.15	8468-500	120.00	8507-100 †	Solid Color 1.65
8416-50	3.00	8445-500	17.25	8468-1000	240.00	8507-1000†	Solid Color 12.15
8416-100	5.25	8445-1000	34.50	8469-100	13.50	8507-100 †	Striped† 1.77
8416-250	12.15	8446-15	1.35	*8469-250	33.00	8507-1000†	Striped† 13.30
8417-15	.98	8446-100	6.15	8469-500	60.00	8508-100 †	Solid Color 1.58
8417-25	1.31	*8446-250	14.05	8469-1000	120.00	8508-1000†	Solid Color 10.20
8417-50	2.10	8446-500	26.65	8470-500	15.40	8508-100 †	Striped† 1.70
8417-100	4.00	8446-1000	53.30	8470-1000	30.80	8508-1000†	Striped† 11.35
8417-250	8.65	8447-100	6.85	8471-500	19.45	8509-100 †	Solid Color 1.43
8418-100	21.90	*8447-250	15.75	8471-1000	38.90	8509-1000†	Solid Color 9.70
8418-250	54.00	8447-500	30.30	8472-25	2.50	8509-100 †	Striped† 1.55
8419-10	.90	8447-1000	60.60	8472-100	8.55	8509-1000†	Striped† 10.85
8419-25	1.58	8448-15	1.50	8472-250	20.25	8510-100 †	Solid Color 2.43
8419-250	11.35	8448-100	7.35	8473-500	32.65	8510-1000†	Solid Color 20.05
8420-15	1.65	*8448-250	17.25	8473-1000	65.30	8510-100 †	Striped† 2.55
8420-25	2.50	8448-500	33.00	8474-100	10.15	8510-1000†	Striped† 21.20
8420-50	3.70	8448-1000	66.00	8474-250	24.00	8511-100 †	Solid Color 2.10
8420-100	6.90	8449-15	1.65	8475-100	5.65	8511-1000†	Solid Color 16.30
8420-250	17.85	8449-100	8.05	8475-500	25.50	8511-100 †	Striped† 2.22
8420-500	32.40	*8449-250	18.75	8476-100	8.10	8511-1000†	Striped† 17.45
8421-15	1.13	8449-500	36.75	8476-500	36.40	8512-100 †	Solid Color 1.71
8421-25	1.43	8449-1000	73.50	8478-100	5.85	8512-1000†	Solid Color 12.85
8421-50	2.70	8450-100	3.45	8478-250	14.65	8512-100 †	Striped† 1.83
8421-100	4.50	*8450-250	7.00	8478-1000	54.90	8512-1000†	Striped† 14.00
8421-250	10.05	8450-500	12.75	8481-100	1.65	8513-100 †	Solid Color 1.62
8422-15	1.43	8450-1000	25.50	8481-500	5.40	8513-1000†	Solid Color 11.70
8422-25	2.20	8451-100	3.90	8481-1000	10.80	8513-100 †	Striped† 1.74
8422-50	3.90	*8451-250	8.55	8482-100	2.10	8513-1000†	Striped† 12.85
8422-100	7.00	8451-500	16.15	8482-500	7.50	8514-100 †	Solid Color 1.50
8422-250	15.40	8451-1000	32.30	8482-1000	15.00	8514-1000†	Solid Color 10.50
8422-500	30.75	8452-25	1.88	8483-100	2.70	8514-100 †	Striped† 1.62
*8422-1000	61.50	8452-50	3.15	8483-500	10.50	8514-1000†	Striped† 11.65
8423-15	2.25	8452-100	5.40	8483-1000	21.00	8515-100 †	Solid Color 1.58
8423-50	5.95	8452-250	12.75	8484-100	3.60	8515-1000†	Solid Color 11.50
8423-100	11.10	8452-500	25.50	8484-500	15.15	8516-100 †	Solid Color 2.33
8423-250	25.90	8452-1000	51.00	8484-1000	30.30	8516-1000†	Solid Color 18.60
8423-500	51.75	8453-50	3.60	8485-100	4.30	8516-100 †	Striped† 2.45

SECTION 6000

BELDEN • PRICE LIST

Reference
Bulletin E 66 P-1T
Effective Aug. 1, 1966

Trade Number Lgth. in Ft.	Sug. Trade Price Each	Trade Number Lgth. in Ft.	Sug. Trade Price Each	Trade Number Lgth. in Ft.	Sug. Trade Price Each	Trade Number Lgth. in Ft.	Sug. Trade Price Each
8516-1000† Striped¶	19.75	8542-1000	16.05	8599-100 † Solid Color	1.47	8685-100	2.10
8517-100 † Solid Color	1.95	8543-100	2.66	8599-1000† Solid Color	10.50	*8688-100	12.00
8517-1000† Solid Color	15.15	8543-1000	19.95	8601	1.05	*8689-100	6.15
8517-100 † Striped¶	2.07	8544-100	3.00	8602	1.59	8690-100	9.75
8517-1000† Striped¶	16.30	8544-1000	23.80	8603	1.62	8690-500	43.95
8518-100 † Solid Color	1.92	8545-100	4.00	8604	2.52	8690-1000	87.90
8518-1000† Solid Color	14.70	8545-500	16.75	8620-100	9.75	8691-100	18.75
8519-100 † Solid Color	1.68	8545-1000	32.25	8620-500	45.00	8691-500	86.25
8519-1000† Solid Color	12.75	8546-100	5.25	8620-1000	90.00	8691-1000	172.50
8520-100 † Solid Color	3.38	8546-500	23.25	8621-100	16.35	8692-100	27.40
8520-500 † Solid Color	15.40	8546-1000	45.00	8621-500	74.65	8692-500	129.75
8520-1000† Solid Color	28.80	8547-100	96.00	8621-1000	149.30	8692-1000	259.50
8520-100 † Striped¶	3.50	8548-100	81.00	8622-100	27.75	8700-25	1.55
8520-500 † Striped¶	16.00	8549-100	55.50	8622-500	130.50	8700-50	2.52
8520-1000† Striped¶	29.95	8550-100	39.00	8622-1000	261.00	8700-100	4.50
8521-100 † Solid Color	2.48	8550-500	189.00	8623-100	39.60	8700-250	10.15
8521-500 † Solid Color	9.90	8551-100	29.25	8623-500	191.25	8701-100	2.20
8521-1000† Solid Color	19.30	8551-500	142.50	8623-1000	382.50	8701-500	7.75
8521-100 † Striped¶	2.60	8552-100	22.35	8624-100	45.75	8701-1000	15.50
8521-500 † Striped¶	10.50	8552-500	106.50	8624-500	223.50	8719-500	29.65
8521-1000† Striped¶	20.45	8553-100	10.90	8624-1000	447.00	8719-1000	59.30
8522-25 † Solid Color	.75	8553-500	49.50	8627-100	16.50	8720-500	45.75
8522-100 † Solid Color	1.88	8553-1000	99.00	8627-500	76.50	8720-1000	91.50
8522-500 † Solid Color	7.15	8554-100	6.10	8627-1000	153.00	8722-500	26.85
8522-1000† Solid Color	13.65	8554-500	26.25	8628-100	29.25	8722-1000	53.70
8522-100 † Striped¶	2.00	8554-1000	52.50	8628-500	138.75	8723-100	5.10
8522-500 † Striped¶	7.75	8555-100	4.65	8628-1000	277.50	8723-500	22.50
8522-1000† Striped¶	14.80	8555-500	20.25	8629-100	48.00	8723-1000	45.00
8523-25 † Solid Color	.65	8555-1000	40.50	8629-500	232.50	*8724-250	11.70
8523-100 † Solid Color	1.50	8556-100	3.75	8629-1000	465.00	8724-500	22.50
8523-500 † Solid Color	5.40	8556-1000	31.50	8640-250	6.45	8724-1000	45.00
8523-1000† Solid Color	10.05	8557-100	3.55	8640-500	12.15	8725-500	99.75
8523-100 † Striped¶	1.62	8557-1000	28.50	*8641-100	3.30	8725-1000	199.50
8523-500 † Striped¶	6.00	8558-100	3.00	*8641-500	13.20	8726-100	15.55
8523-1000† Striped¶	11.20	8558-1000	23.10	*8641-1000	26.40	8726-500	72.00
8524-25 † Solid Color	.57	8559-100	2.80	8642-250	17.85	8726-1000	144.00
8524-100 † Solid Color	1.28	8559-1000	19.50	8642-500	33.15	8727-100	32.25
8524-500 † Solid Color	4.80	8561-100 †	7.15	*8649-100	2.18	8727-500	161.25
8524-1000† Solid Color	8.85	8561-1000†	59.65	*8649-500	7.80	8727-1000	322.50
8524-100 † Striped¶	1.40	8562-100 †	4.30	*8649-1000	15.60	*8729-500	37.90
8524-500 † Striped¶	5.40	8562-1000†	36.15	8660-10	.65	*8729-1000	75.75
8524-1000† Striped¶	10.00	8563-100 †	3.85	8660-50	1.94	8731-500	16.35
8525-100 † Solid Color	1.17	8563-1000†	31.50	8660-250	8.80	8731-1000	32.70
8525-500 † Solid Color	4.05	8564-100 †	3.00	8661-10	.90	8732-100	5.80
8525-1000† Solid Color	7.50	8564-1000†	25.50	8661-50	3.15	8732-500	24.40
8525-100 † Striped¶	1.29	8565-100 †	2.55	8661-250•	14.50	8732-1000	48.80
8525-500 † Striped¶	4.65	8565-1000†	20.65	8662-10	2.16	8733-100	5.65
8525-1000† Striped¶	8.65	8566-100 †	2.05	8662-50	9.40	8733-500	25.05
8527-100 † Solid Color	4.90	8566-1000†	16.95	8662-250•	45.45	8733-1000	50.10
8527-500 † Solid Color	21.40	8567-100 † Solid Color	1.32	8663-10	.96	8734-100	4.45
8527-1000† Solid Color	40.50	8567-1000† Solid Color	8.65	8663-50	3.25	8734-500	18.75
8528-100 † Solid Color	1.64	8568-100 † Solid Color	1.05	8663-250	15.00	8734-1000	37.50
8528-500 † Solid Color	6.10	8568-1000† Solid Color	6.55	8666-100	6.30	8735-15	1.11
8528-1000† Solid Color	11.55	8569-100 † Solid Color	1.02	8668-10	.90	8735-50	2.85
8529-25 † Solid Color	.57	8569-1000† Solid Color	6.00	8668-50	2.55	8735-100	4.95
8529-100 † Solid Color	1.28	8570-100 † Solid Color	.98	8668-250	11.25	8735-500	21.40
8529-500 † Solid Color	4.50	8570-1000† Solid Color	5.85	8669-10	1.56	8735-1000	42.80
8529-1000† Solid Color	8.40	8571-100 † Solid Color	.98	8669-50	6.70	8737-100	3.75
8529-100 † Striped¶	1.40	8571-1000† Solid Color	5.85	8669-250•	31.15	*8737-250	8.25
8529-500 † Striped¶	5.10	8574-1000† Solid Color	13.00	8670-10	3.00	8737-500	15.40
8529-1000† Striped¶	9.55	8575-1000† Solid Color	10.50	8670-50	14.10	8737-1000	30.80
8530-25 † Solid Color	.54	8576-1000† Solid Color	9.75	8670-250•	67.50	8738-1000	27.00
8530-100 † Solid Color	1.08	8577-1000† Solid Color	9.60	8671-10	2.45	8739-100	3.30
8530-500 † Solid Color	3.60	8578-1000† Solid Color	9.45	8671-50	10.95	8739-500	14.00
8530-1000† Solid Color	6.90	8580-100 † Solid Color	30.00	8671-250•	52.50	8739-1000	28.00
8530-100 † Striped¶	1.20	8580-500 † Solid Color	130.50	8672-10	1.75	8740-100	2.06
8530-500 † Striped¶	4.20	8581-100 † Solid Color	23.25	8672-50	7.60	*8740-250	4.20
8530-1000† Striped¶	8.05	8581-500 † Solid Color	108.00	8672-250•	34.50	8740-500	7.30
8531-100 † Solid Color	2.03	8582-100 † Solid Color	9.75	8673-100	8.70	8740-1000	14.55
8531-500 † Solid Color	8.25	8582-1000† Solid Color	90.00	8673-500	42.60	8741-100	3.55
8531-1000† Solid Color	16.05	8583-100 † Solid Color	6.40	8674-10	.60	*8741-250	7.80
8535-100 † Solid Color	2.81	8583-1000† Solid Color	58.50	8674-50	1.46	8741-500	14.00
8535-1000† Solid Color	19.90	8584-100 † Solid Color	4.90	8674-250	6.55	8741-1000	28.00
8536-100 † Solid Color	2.01	8584-1000† Solid Color	38.40	8675-100	6.75	8742-100	4.60
8536-1000† Solid Color	15.15	8585-100 † Solid Color	2.80	8675-500	31.65	*8742-250	10.30
8537-100 † Solid Color	1.89	8585-1000† Solid Color	21.60	8676-10	.54	8742-500	19.30
8537-1000† Solid Color	13.05	8586-100 † Solid Color	2.40	8676-50	.98	8742-1000	38.60
8537-100 † Striped¶	2.01	8586-1000† Solid Color	16.90	8676-250	4.50	8743-100	7.30
8537-1000† Striped¶	14.20	8589-100	30.00	8677-100	5.10	*8743-250	17.65
8538-100 † Solid Color	1.11	8589-500	147.00	8677-500	24.15	8743-500	33.00
8538-500 † Solid Color	3.35	8590-100	20.25	8678-100	13.20	8743-1000	66.00
8538-1000† Solid Color	5.95	8590-500	96.00	8678-500	63.00	8744-100	10.05
8538-100 † Striped¶	1.23	8591-100 †	10.05	*8679-100	19.90	*8744-250	24.75
8538-500 † Striped¶	3.95	8591-1000†	89.25	8680-100	16.20	8744-500	47.25
8538-1000† Striped¶	7.10	8597-100 † Solid Color	1.16	8681-100	10.65	8744-1000	94.50
8541-100	2.10	8597-1000† Solid Color	7.45	8682-100	5.80	8745-100	16.65
8541-1000	14.35	8598-100 † Solid Color	1.23	8683-100	3.90	*8745-250	40.80
8542-100	2.25	8598-1000† Solid Color	8.50	8684-100	2.70	8745-500	79.50

SECTION 6000

BELDEN • PRICE LIST

Reference
Bulletin E 66 P-17
Effective Aug. 1, 1966

Trade Number Lgth. in Ft.	Sug. Trade Price Each	Trade Number Lgth. in Ft.	Sug. Trade Price Each	Trade Number Lgth. in Ft.	Sug. Trade Price Each	Trade Number Lgth. in Ft.	Sug. Trade Price Each
8745-1000	159.00	8769-1000	570.00	8852-100	5.25	8899-14	.81
8746S (Cut to customer's specified length maximum 1500') 294.00M'		8770-500	26.65	8852-500	23.25	8899-25 †	1.15
8747-100	9.00	8770-1000	53.30	8853-100	4.85	8899-100 †	3.60
*8747-250	21.55	*8771-250	8.70	8853-1000	40.15	8899-500 †	13.00
8747-500	41.50	8771-500	16.95	8854-100	4.20	8899-1000†	26.00
8747-1000	82.50	8771-1000	33.90	8854-1000	37.50	8916-100 †	3.60
8748-100	12.70	8772-500	21.40	8855-100	3.85	8916-500 †	14.95
*8748-250	30.75	8772-1000	42.80	8855-1000	31.50	8917-100 †	2.70
8748-500	60.00	8773S (Cut to customer's specified length maximum 1000') 846.00M'		8858-100	8.55	8917-500 †	10.90
8748-1000	120.00	8774-100	27.90	8858-1000	79.30	8918-100 †	1.95
8749-100	21.75	*8774-250	66.40	8859-100	6.75	8918-1000†	14.85
*8749-250	51.60	8774-500	132.80	8859-1000	62.25	8919-100 †	1.62
8749-500	102.75	8774-1000	265.60	8860-100	5.70	8919-1000†	12.00
8749-1000	205.50	8775-100	33.00	8860-1000	51.75	8920-100 †	1.43
8750S (Cut to customer's specified length maximum 1500') 390.00M'		*8775-250	79.15	8861-100	4.65	8920-1000†	10.00
8751S (Cut to customer's specified length maximum 1500') 837.00M'		8775-500	158.30	8861-1000	42.75	8933-100 †	4.50
*8752S (Cut to customer's specified length maximum 1500') 765.00M'		8775-1000	316.60	8862-100	4.20	8933-500 †	19.50
8753-100	12.75	8776-100	43.90	8862-1000	36.75	8934-100 †	3.00
*8753-250	31.50	*8776-250	105.75	8863-100	3.85	8934-500 †	12.60
8753-500	60.40	8776-500	211.50	8863-1000	35.25	8935-100 †	2.40
8753-1000	120.80	*8776-1000	423.00	8868-25	1.05	8935-1000†	18.60
8754-100	14.25	8777-100	9.75	8868-100	2.60	8936-100 †	1.88
*8754-250	35.25	*8777-250	23.95	8868-500	10.20	8936-1000†	14.55
8754-500	69.00	8777-500	47.90	8869-25	.90	8937-100 †	1.65
8754-1000	138.00	8777-1000	95.80	8869-100	2.10	8937-1000†	12.25
8755-500	105.00	8778-100	19.50	8869-500	8.10	8938-100 † (Obs)	3.15
8755-1000	210.00	*8778-250	48.00	8870-100	32.25	8941-25 † (Obs)	.68
8756-500	123.00	8778-500	96.00	8873-1	.48	8941-100 † (Obs)	1.80
8756-1000	246.00	8778-1000	192.00	8873-100	.33	8941-1000† (Obs)	13.00
8757-500	24.75	8779-500	31.15	8874	.66	8942-100 † (Obs)	2.40
8757-1000	49.50	8779-1000	62.30	8875	.42	8942-1000† (Obs)	20.25
8758-100	4.00	8780-100	6.60	8878	3.10 pr	8943-25 † (Obs)	.68
8758-500	16.50	8780-500	30.40	8879	1.38 pr	8943-100 † (Obs)	1.80
8758-1000	33.00	8781-100	60.80	8880-100 †	6.55	8943-1000† (Obs)	13.90
8759-100	4.35	8781-500	1.62	8880-1000†	59.55	8945-100 † (Obs)	1.90
8759-500	18.40	8782-100	1.47	8881-100	5.10	8945-1000† (Obs)	15.30
8759-1000	36.80	8782-500	4.90	8881-1000†	45.60	8947-100 † (Obs)	2.03
*8760-250	10.75	8782-1000	9.80	8882-100	3.30	8947-1000† (Obs)	17.25
8760-500	20.25	8783-100	5.40	8882-1000†	32.25	8950-100 Solid Color	4.00
8760-1000	40.50	8783-500	24.40	8883-100 †	2.70	8950-1000	32.25
8761-500	13.50	8784-500	49.20	8883-1000†	22.80	8951-100 Solid Color	2.65
8761-1000	27.00	8786-100	6.25	8884-100 †	4.50	8951-1000 Solid Color	21.75
8762-100	4.05	8786-500	30.00	8884-1000†	39.30	8952-100 † Solid Color	2.10
*8762-250	9.25	8787-500	63.00	8885-15	.98	8952-1000† Solid Color	16.50
8762-500	17.10	8788-500	36.40	8885-25	1.28	8953-100 † Solid Color	1.80
8762-1000	34.20	8789-500	23.65	8885-100	3.75	8953-1000† Solid Color	13.50
8763-500	21.25	8789-1000	47.30	8885-500	17.25	8954-100 † Solid Color	1.58
8763-1000	42.50	8790-100	5.40	8886-100 †	3.15	8954-1000† Solid Color	11.25
8764-100	21.75	*8790-250	12.30	8886-1000†	27.00	8955-100 Solid Color	1.46
*8764-250	54.00	8790-500	23.65	8887-100 †	2.65	8955-1000 Solid Color	10.30
8764-500	108.00	8790-1000	47.30	8887-1000†	22.65	8956-100 Solid Color	4.15
8764-1000	216.00	8791-100	6.60	8888-25 †	1.13	8956-1000 Solid Color	37.50
8765-100	26.25	8791-500	29.65	8888-100 †	2.95	8957-100 Solid Color	3.00
*8765-250	64.50	8791-1000	59.30	8888-250 †	6.40	8957-1000 Solid Color	27.00
8765-500	127.50	8794-500	10.90	8889-1	.45	8958-100 † Solid Color	2.55
8765-1000	255.00	8794-1000	21.75	8889-100	.32	8958-1000† Solid Color	21.00
8766-100	35.25	*8795-500	9.00	8890-25 †	.90	8959-100 † Solid Color	2.25
*8766-250	84.75	*8795-1000	18.00	8890-100 †	2.10	8959-1000† Solid Color	18.00
8766-500	169.50	8800	.83	8890-500 †	8.70	8960-100 † Solid Color	2.10
8766-1000	339.00	8817-100	.65	8892-100	4.90	8960-1000† Solid Color	15.00
8767-100	8.05	8818 (Obs)	5.44	8892-500	20.25	8963-100 Solid Color	24.75
*8767-250	19.35	8819 (Obs)	9.00	8893-100	40.50	8963-500 Solid Color	123.00
8767-500	36.75	8820 (Obs)	5.44	8893-1000	3.90	8964-100 Solid Color	21.25
8767-1000	73.50	8821 (Obs)	9.00	8894-100	17.05	8964-500 Solid Color	101.25
8768-100	15.75	8822	5.70	8895-1	34.05	8965-100 Solid Color	8.55
*8768-250	37.50	8823	6.40	8894-1000	53.25	8965-1000 Solid Color	85.50
8768-500	75.00	8824	5.20	8895-100	.45	8966-100 Solid Color	6.45
8768-1000	150.00	8825	8.73	8895-1000	.26	8966-1000 Solid Color	64.50
8769-100	60.00	8826	8.38	8896-100	4.15	8967-100 Solid Color	4.00
*8769-250	142.50	8827	9.60	8896-500	18.60	8967-1000 Solid Color	39.75
8769-500	285.00	8850-100	8.05	8896-1000	37.20	8968-100 Solid Color	3.90
		8851-100	6.55	8897-500	14.65	8968-1000 Solid Color	36.75
				8897-1000	29.30	8969-100 † Solid Color	2.80
				8898-10 †	1.05	8969-1000† Solid Color	24.75
				8898-25 †	1.95	8970-100 † Solid Color	2.50
				8898-100 †	5.05	8970-1000† Solid Color	20.25
				8898-500 †	21.00	8971-100 † Solid Color	2.10
				8899-10 †	.75	8971-1000† Solid Color	16.90

* New Item ‡ New Put-Up † Specify Color (Obs) Obsolete

ALL SPOOLS ARE ONE PIECE EXACT LENGTH, (EXCEPT SPOOLS WITH (*) FOOTNOTE)

* Spools may contain more than one piece, minimum length of any one piece is 25 ft.

When priced per M ft. length may vary $\pm 10\%$ from length shown; all other lengths are exact.

‡ Cut to Customer's Specified Length subject to available stock lengths—minimum length 25', 25' to 199', plus 25', minus 0', 200' or over, plus 50', minus 0'.

S (Teflon Hook-up Wire) Prices apply to any striped color combination in quantities of 1000' or more. Minimum order 1000' per stripe color combination on 500' and 1000' spools only. Stripping adders do not apply to braided tracers—Write for prices on non-stock tracer colors.

† (Vinyl Hook-up Wire) Prices apply to standard stock colors as listed in our current catalog and to non-stock striped colors over stock solid colors in quantities of 10,000' or more. Non-stock striped colors over stock solid colors in quantities of 1000' to 9999', add pro-rata set-up charge of \$4.50 per color combination. Minimum order 1000' per special stripe combination. Special stripe colors in any quantity will be subject to 2 piece put-up and plus or minus 10% per spool.

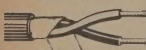
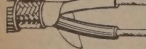
Prices Subject to Change Without Notice

Belden

shielded sound and broadcast audio cables

GRAY HORIZONTAL PANEL INDICATES THAT THE BELDFOIL SHIELDED CABLES ARE ALSO RECOMMENDED FOR INSTRUMENTATION APPLICATIONS

TWO CONDUCTOR SHIELDED CABLES

Description	Trade Number	AWG & (Stranding)	Insulation Thickness (Inch)	Jacket Thickness (Inch)	Nom. O.D. (Inch)	Cond. Color Coding	Percent Shield Coverage	Nom. *Cap. (mmf ft)	Nom. **Cap. (mmf ft)	Suggested Working Voltage	Standard Spool Lengths in ft
With JACKET											
 BELDFOIL[®]	8640	26 (Solid)	.002	.020	.089	Red, Clear	100	80	140	100	250, 500
Solid copper, BELDSOL ^{††} (solderable—no stripping required) insulated BELDFOIL aluminum-Mylar shield, 30 AWG solid tinned Copperweld [▲] ground drain wire, WHITE vinyl jacket. Maximum operating temperature 105° C. Ideal for Instrumentation and Audio Console Work where Subminiaturization is Required.											
 BELDFOIL[®] Miniature Broadcast Audio Cable	8450	22 (Solid)	.006	.018	.118	Blk, Red	100	40	76	200	100, 250, 500, 1000
	8451	22 (7x30)	.008	.020	.135	Blk, Red	100	34	67	200	100, 250, 500, 1000
	Tinned copper, Polypropylene insulated, conductors cabled, stranded tinned copper ground drain wire, BELDFOIL aluminum-Mylar shield, paper wrap, BLACK or GRAY vinyl jacket. Belden's Miniature Type Broadcast Audio Cable occupies 1/2 to 2/3 less space than required by Standard Broadcast Audio Cables. The Beldfoil Shield combines high cable reliability with ease of termination.										
 Broadcast Audio Cable	8437	22 (Solid)	.015	.025	.200	Blk, Red	88	48	85	200	500, 1000
	8441	22 (16x34)	.015	.025	.210	Blk, Red	88	49	86	200	100, 500, 1000
	Tinned copper, vinyl insulated, conductors cabled, 8437 solid tinned copper drain wire, 8441 stranded tinned copper drain wire, tinned copper brass shield, black vinyl jacket.										
 BELDFOIL[®]	NEW 8641	24 (7x32)	.014	.025	.160	Blk, Wht	100	22	42	350	100, 500, 1000
	8761	22 (7x30)	.014	.025	.167	Blk, Wht	100	24	47	350	500, 1000
	8762	20 (7x28)	.014	.028	.196	Blk, Wht	100	27	49	350	100, 250, 500, 1000
	8760	18 (16x30)	.018	.028	.222	Blk, Wht	100	24	44	450	250, 500, 1000
	8719	16 (19x29)	.025	.030	.274	Blk, Wht	100	24	47	600	500, 1000
	8720	14 (19x27)	.032	.035	.340	Blk, Wht	100	24	47	750	500, 1000
	Tinned copper polyethylene insulated, BELDFOIL aluminum-Mylar shield, stranded tinned copper ground drain wire, (24 AWG for 8641, 22 AWG for 8761, and 20 AWG for 8760 and 8762, 18 AWG for 8719, 16 AWG for 8720), chrome vinyl jacket.										
	8739	22 (Solid)	.015	.025	.160	Blk, Red	94.0	38	66	350	100, 500, 1000
	8737	22 (7x30)	.015	.025	.170	Blk, Red	89.3	40	70	350	100, 250, 500, 1000
	8759	20 (7x28)	.015	.025	.195	Blk, Red	81.0	47	79	350	100, 500, 1000
	8790	16 (19x26)	.020	.028	.231	Red, Wht	76.5	53	92	450	100, 250, 500, 1000
	8780	16 (19x29)	.023	.030	.266	Blk, Wht	84.1	57	98	450	100, 500, 1000
	Tinned copper, vinyl insulated, tinned copper spiral wrapped shield, chrome vinyl jacket.										
 High Temperature	8390 TEFLON	22 (19x34)	.015	.015	.180	Blk, Wht	90	23	40	1000	25, 100, 500
	Stranded tinned copper, FEP teflon [®] insulated, cabled tinned copper braid shield, white FEP teflon jacket. +200° C maximum, -70° C minimum operating temperature. Ideal where chemical resistance is needed and/or extremely high or low temperatures are required.										
	8208	18 (16x30)	.020	.025	.255	Red, Wht	69	46	77	200	100, 500, 1000
Tinned copper, rubber insulated, braided tinned copper shield, chrome vinyl jacket.											
Without JACKET											
	8738	22 (Solid)	.015	—	.130	Blk, Red	72.8	35	61	350	1000
	8758	20 (7x28)	.015	—	.165	Blk, Red	63.8	42	72	350	100, 500, 1000
	8789	18 (7x26)	.020	—	.204	Blk, Wht	74	50	89	450	500, 1000
	8779	16 (19x29)	.023	—	.225	Blk, Wht	83	63	112	600	500, 1000
Tinned copper, vinyl insulated, braided tinned copper shield.											

Copyright 1965 Belden Manufacturing Co.

*Capacitance between conductors.

†Belden U.S. Patent 3,032,604.

▲Trademark of Copperweld Steel Co.

**Capacitance between 1 conductor and other conductor connected to shield.

††Belden trademark—Reg. U.S. Pat. Off.

■Dupont Tradename for fluorocarbon resins.

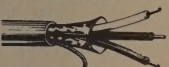
For underground burial recommendations of all types of vinyl, polyethylene, and neoprene jacketed cables, please write for Bulletin #6 Electronic Wire Section.

shielded instrumentation, strain gauge,
sound and audio cables

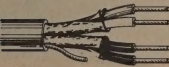
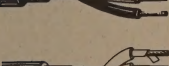
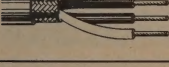
Belden

GRAY HORIZONTAL PANEL INDICATES THAT THE BELDFOIL SHIELDED CABLES ARE ALSO RECOMMENDED FOR INSTRUMENTATION APPLICATIONS

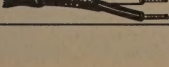
THREE CONDUCTOR SHIELDED

Description	Trade Number	AWG & (Stranding)	Insulation Thickness (Inch)	Jacket Thickness (Inch)	Nom. O.D. (Inch)	Cond. Color Coding	Percent Shield Coverage	Nom. Cap. (mmf ft)	Nom. Cap. (mmf ft)	Suggested Working Voltage	Standard Spool Lengths in ft
	8731	22 (Solid)	.015	.025	.178	Blk, Red, Wht	76.2	36	63	350	500, 1000
	8791	18 (7x26)	.020	.028	.236	Blk, Red, Wht	78.2	47	84	450	100, 500, 1000
Tinned copper, vinyl insulated, conductors cabled, tinned copper spiral wrapped shield, chrome vinyl jacket.											
	8771	22 (7x30)	.014	.025	.175	Blk, Red, Wht	100	23	41	350	250, 500, 1000
	8772	20 (7x28)	.014	.028	.200	Blk, Red, Wht	100	27	51	350	500, 1000
	8770	18 (16x30)	.018	.028	.236	Blk, Red, Wht	100	24	48	450	500, 1000
Tinned copper, polyethylene insulated, conductors cabled, BELDFOIL aluminum-Mylar shield, stranded tinned copper ground drain wire (22 AWG for 8771, and 20 AWG for 8770 and 8772), chrome vinyl jacket.											
	8735	22 (7x30)	.015	.025	.199	Blk, Red, Wht	70	34	60	350	15, 50, 100, 500, 1000
	8391 TEFLON	22 (19x34)	.015	.015	.190	Blk, Red, Wht	90	20	35	1000	25, 100, 500
Stranded tinned copper, FEP teflon [®] insulated, cabled tinned copper braid shield, white FEP teflon jacket. HIGH TEMPERATURE +200°C maximum, -70°C minimum operating temperature. Ideal where chemical resistance is needed and/or extremely high or low temperatures are required.											

QUADS STRAIN GAUGE CABLES

Description	Trade Number	No. of Cond.	AWG & (Stranding)	Insulation Thickness (Inch)	Jacket Thickness (Inch)	Nom. O.D. (Inch)	Cond. Color Coding	Percent Shield Coverage	Nom. Cap. (mmf ft)	Nom. Cap. (mmf ft)	Suggested Working Voltage	Standard Spool Lengths in ft
	8434	4	25 (7x33) 3 copper 4 copper-weld	.013	.020	.179	Red, Blk, Grn, Wht	100	25	40	400	100, 500, 1000
Tinned copper, polyethylene insulated, black and red conductors under BELDFOIL aluminum-Mylar shield, stranded ground wire, green and white conductors under over-all BELDFOIL aluminum-Mylar shield, chrome vinyl jacket.												
	8723	4	22 (7x30) copper	.008	.019	.165	Red, Blk, Grn, Wht	100	35	62	400	100, 500, 1000
Tinned copper, polypropylene insulated, black and red under a BELDFOIL aluminum-Mylar shield. Green and white under a BELDFOIL aluminum-Mylar shield, each pair separate, stranded tinned copper drain wire, chrome vinyl jacket.												
	NEW 8729	4	22 (19x34)	.015	.050	.250	Wht, Blk, Red, Grn	100	22	42	600	500, 1000
Tinned copper, polyethylene insulated, cabled BELDFOIL aluminum-Mylar shield. 18 AWG stranded tinned copper-weld ground drain wire, white vinyl jacket.												
	8404	4	20 (26x34)	.015	.033	.255	Red, Blk, Grn, Wht	87	25	45	600	15, 100, 250, 500, 1000
Tinned copper, polyethylene insulated, cabled, rayon braid, tinned copper braid shield, chrome vinyl jacket.												
	8407	4	16 (65x34)	.032	.043	.422	Red, Blk, Grn, Wht	84	37	65	600	100, 250
Tinned copper, separator, rubber insulated, cabled, rayon braid, tinned copper braid shield, cotton wrap, black neoprene jacket.												
	8424	4	20 (26x34)	.020	.040	.295	Red, Blk, Grn, Wht	83.5	55	95	600	15, 50, 100, 250, 500, 1000
Tinned copper, cotton wrap, rubber insulated, rayon braid, tinned copper braid shield, cotton wrap, black rubber jacket.												
	8392 TEFLON	4	22 (19x34)	.015	.015	.205	Red, Blk, Grn, Wht	90	20	35	1000	25, 100, 500
Stranded tinned copper, FEP teflon [®] insulated, cabled tinned copper braid shield, white FEP teflon jacket. HIGH TEMPERATURE +200°C maximum, -70°C minimum operating temperature. Ideal where chemical resistance is needed and/or extremely high or low temperatures are required.												

AUDIO AND SOUND CABLES

	8724	2 shielded	22 (7x30)	.008	.019	.165	Red, Blk, Grn, Wht	100	34	67	200	250, 500, 1000
		2 unshielded	22 (7x30)	.008								
	8722	2 shielded	20 (7x28)	.015	.028	.260	Red, Blk, Grn, Wht	100	60	99	350	500, 1000
		2 unshielded	20 (7x28)	.015								
Tinned copper, 8722 vinyl insulated, 8724 polypropylene insulated, BELDFOIL aluminum-Mylar shield over 2 conductors, stranded tinned copper ground drain wire (22 AWG for 8722 and 24 AWG for 8724), chrome vinyl jacket.												
	8732	2 shielded	22 (7x30)	.015	.030	.188x	Blk, Wht	62	21	37	350	100, 500, 1000
		2 unshielded	22 (7x30)	.015		.296	Blk, Wht					
Tinned copper, polyethylene insulated, tinned copper braid shield over 2 conductors, chrome vinyl jacket.												

*Capacitance between conductors.

**Capacitance between 1 conductor and other conductor connected to shield.

©Belden U.S. Patent 3,032,604.

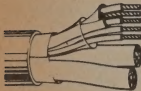
■Du Pont Tradename for fluorocarbon resins.

Belden

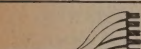
multi-purpose and special audio and sound cables

GRAY HORIZONTAL PANEL INDICATES THAT THE BELDFOIL SHIELDED CABLES ARE ALSO RECOMMENDED FOR INSTRUMENTATION APPLICATIONS

MULTIPLE QUADS AUDIO AND SOUND CABLES

Description	Trade Number	No. of Cond.	AWG & (Stranding)	Cond. Color Coding	Insulation Thickness (Inch)	Jacket Thickness (Inch)	Nom. O.D. (Inch)	Percent Shield Coverage	Suggested Working Voltage	Nom. 'Cap. (mmf ft)	Nom. 'Cap. (mmf ft)	Standard Spool Lengths in ft
 BELDFOIL®	8726	12 (3 QUADS)	22 (7x30)	Red, Blk, Grn, Wht	.008	.035	.330	100	200	34	67	100, 500, 1000
	8727	28 (7 QUADS)	22 (7x30)	Red, Blk, Grn, Wht	.008	.040	.450	100	200	34	67	100, 500, 1000
22 AWG tinned copper, polypropylene insulation, cabled in quads, BELDFOIL shield over black and red conductors, 24 AWG stranded tinned copper drain wire. Each quad is 8724 (on page 4) with clear Mylar tape wrap instead of vinyl jacket. Shields color coded, overall chrome vinyl jacket.												

SPECIAL AUDIO AND SOUND CABLES

 BELDFOIL®	8734	1 shielded 2 unshielded	22 (7x30) 22 (7x30)	Wht Blk, Red	.015 .015	.025	.194	82	350	—	79	100, 500, 1000
	Tinned copper, vinyl insulated, tinned copper braid shield over 1 conductor, 3 conductors cabled, chrome vinyl jacket.											
 BELDFOIL®	8763	2 shielded 1 unshielded	20 (7x28) 20 (7x28)	Blk, Red Wht	.014 .014	.028	.210	100	350	26	48	500, 1000
	Tinned copper, polyethylene insulated, BELDFOIL aluminum-Mylar shield over 2 conductors, 20 stranded tinned copper ground drain wire, chrome vinyl jacket.											
 BELDFOIL®	8733	3 shielded	22 (7x30)	Blk, Red, White	.014	.030	.205	100	350	—	51	100, 500, 1000
	Tinned copper, polyethylene insulated, each conductor separately BELDFOIL aluminum-Mylar shielded. Ground wire for each conductor is tinned cadmium bronze ribbon under BELDFOIL "Z" fold, chrome vinyl jacket.											
 BELDFOIL®	8788	3 shielded 2 unshielded	22 (7x30)	Blk, Red, Grn, Yel, Blue	.015	.028	.236	100	350	—	125	500
	Tinned copper, vinyl insulated 3 conductors each separately BELDFOIL shielded, ground drain wire for each conductor is tinned cadmium bronze ribbon under BELDFOIL "Z" fold, 2 conductors unshielded, cabled around a vinyl filler, chrome vinyl jacket.											
 BELDFOIL®	8783	3 (3 unshielded)	1-20 (10x30) 2-16 (26x30)	Blue, Grn, Org	.020 .020	.025	.250	—	450	—	—	100, 500
	Tinned copper, vinyl insulated, conductors cabled, chrome vinyl jacket.											
 BELDFOIL®	8786	6 (2 unshielded) (4 shielded)	22 (7x30) 24 (7x32)	Blk, Wht Blk, Grn, Red, Yel	.015 .015	.028	.256	100	350	—	—	100, 500
	Tinned copper, vinyl insulated, 4 conductors twisted under BELDFOIL aluminum-Mylar shield, 2 conductors unshielded, 22 AWG drain wire, chrome vinyl jacket.											
 BELDFOIL®	8787	10 (4 shielded) (4 shielded) (2 unshielded)	24 (7x32) 24 (7x32) 22 (7x30)	Gry, Wht, Blu, Grn Red, Brn, Yel, Org Wht, Blu	.012 .012 .015	.030	.290	100	350	—	—	500
	Tinned copper, 22 AWG conductors vinyl insulated, 24 AWG conductors polyethylene insulated, cabled in 2 quads, each with transparent Mylar tape wrap, 24 AWG tinned copper ground wire. Red BELDFOIL shield over one quad, green BELDFOIL shield over the other quad; plus 2 unshielded conductors, chrome vinyl jacket.											
 BELDFOIL®	8784	10 (10 unshielded)	2-16 (26x30) 1-20 (10x30) 7-22 (7x30)	Blk, Wht Gray Red, Grn, Org, Yel, Blu, Purple Brown	.016 .018 .013	.040	.295	—	300	—	—	500
	Tinned copper, vinyl insulated, conductors cabled vinyl jacket.											
 BELDFOIL®	8640	2 26 (Solid) 1 Pair		Red, Clear	.002	.020	.089	100	100	80	140	250, 500
	8642	6 26 (Solid) 3 Pair		Red, Clear	.002	.025	.140	100	100	80	140	250, 500

Solid copper, BELDSOL†† (solderable—no stripping required), BELDFOIL aluminum-Mylar shield on each pair, red, brown, orange textile marker and isolating Mylar tape for each pair on 8642, Copperweld ground drain wire, WHITE vinyl jacket.

Ideal for Instrumentation and audio console work where subminiaturization is required.

105°C maximum operating temperature.

†Belden U.S. Patent 3,032,604.

††Belden Trademark—Reg. U.S. Pat. Off.

*Capacitance between conductors.

**Capacitance between 1 conductor and other conductor connected to shield.

miniature coaxial and shielded paired
instrumentation and sound cables

Belden

COLOR CODING FOR PAIRED CABLES

GRAY HORIZONTAL PANEL INDICATES THAT THE BELDFOIL SHIELDED CABLES ARE ALSO RECOMMENDED FOR INSTRUMENTATION APPLICATIONS

Pair Number	Color Combination	Pair Number	Color Combination	Pair Number	Color Combination
1	Black paired with Red	10	Red paired with Blue	19	White paired with Blue
2	Black paired with White	11	Red paired with Yellow	20	White paired with Yellow
3	Black paired with Green	12	Red paired with Brown	21	White paired with Brown
4	Black paired with Blue	13	Red paired with Orange	22	White paired with Orange
5	Black paired with Yellow	14	Green paired with White	23	Blue paired with Yellow
6	Black paired with Brown	15	Green paired with Blue	24	Blue paired with Brown
7	Black paired with Orange	16	Green paired with Yellow	25	Blue paired with Orange
8	Red paired with White	17	Green paired with Brown	26	Brown paired with Yellow
9	Red paired with Green	18	Green paired with Orange	27	Brown paired with Orange

MULTIPLE PAIR INDIVIDUALLY SHIELDED AUDIO AND SOUND CABLES

Description	Trade Number	No. of Pairs	Stranding	Insulation Thickness (Inch)	Jacket Thickness (Inch)	Nom. O.D. (Inch)	Nom. "Cap. (mmf ft)	Nom. "Cap. (mmf ft)	Standard Spool Lengths in ft
22 GAUGE VINYL INSULATION 	8767	3	Solid	.013	.030	.270	40	77	100, 250, 500, 1000
	8768	6	Solid	.013	.037	.394	40	77	100, 250, 500, 1000
	8764	9	Solid	.013	.040	.440	40	77	100, 250, 500, 1000
	8765	11	Solid	.013	.040	.485	40	77	100, 250, 500, 1000
	8766	15	Solid	.013	.045	.540	40	77	100, 250, 500, 1000

#22 tinned copper, vinyl insulated, cabled in pairs, each pair and its ground wire under Beldfoil aluminum-Mylar shield, over-all chrome vinyl jacket. 300 Volts suggested working voltage.

Insulation resistance between shields 100 megohms/M'
 Capacitance between adjacent shields 115 mmf/ft
 Voltage breakdown between adjacent shields 1500 volts
 Working voltage between adjacent shields 50 volts

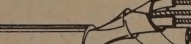
BELDFOIL®

Vinyl insulation is used for ease of stripping and soldering. Recommended for audio frequency applications requiring excellent circuit isolation. Maximum operating temperature 80°C.

MULTIPLE PAIR INDIVIDUALLY SHIELDED AUDIO AND DATA CABLES

Description	Trade Number	No. of Pairs	Stranding	Insulation Thickness (Inch)	Jacket Thickness (Inch)	Nom. O.D. (Inch)	Nom. "Cap." (mmf. ft)	Nom. "Cap." (mmf. ft)	Standard Spool Lengths in ft
22 GAUGE POLYPROPYLENE INSULATION  BELDFOIL®	8777	3	(7x30)	.010	.030	.270	30	55	100, 250, 500, 1000
	8778	6	(7x30)	.010	.037	.394	30	55	100, 250, 500, 1000
	8774	9	(7x30)	.010	.040	.440	30	55	100, 250, 500, 1000
	8775	11	(7x30)	.010	.040	.485	30	55	100, 250, 500, 1000
	8776	15	(7x30)	.010	.045	.540	30	55	100, 250, 500, 1000
	8769	19	(7x30)	.010	.055	.620	30	55	100, 250, 500, 1000
	8773	27	(7x30)	.010	.070	.760	30	55	§Cut to customer's specified length. Maximum length 1000
#22 gauge tinned copper, polypropylene insulated, cabled in pairs, each pair and its ground wire under "Z" fold BELDFOIL aluminum-Mylar shield, over-all chrome vinyl jacket. 300 volts suggested working voltage.						Insulation resistance between shields . . . 100 megohms/M' Capacitance between adjacent shields . . . 115 mmf./ft Voltage breakdown between adjacent shields . . . 1500 volts Working voltage between adjacent shields . . . 50 volts			
Recommended for audio, pulse, and radio frequency applications requiring superior circuit isolation. Polypropylene insulation is used for excellent high frequency properties and mechanical toughness. Maximum operating temperature 105 C.									

SPECIAL INSTRUMENTATION CABLES

Description	Trade Number	AWG & (Standing)	Insulation Thickness (Inch)	Jacket Thickness (Inch)	Nom O.D. (Inch)	Cond. Color Coding	Percent Shield Coverage	Nom. Cap. (mmf ft)	Nom. Cap. (mmf ft)	Suggested Working Voltage	Standard Spool Lengths in ft
	8700	28 (Solid) Coaxial	.005	.008	.054	Black	80	48	—	100	25,50,100,250
Solid tinned copper, polypropylene insulation, copper braid, black vinyl jacket. May be steam sterilized for medical research.											
	8725	4 pairs 20 (7x28)	.015	.030	.360	Red, Blk Grn, Wht Wht/Red Wht/Blk Wht/Grn Wht/Yel	100	27	49	400	500 1000
Tinned copper conductors, Polypropylene insulated, four groups of two conductors with #22 AWG drain wire. Each group individually BELDFOIL shielded with Mylar tape wrap, chrome vinyl jacket. 105°C Maximum operating temperature.											
*Capacitance between conductors.						Belden U.S. Patent 3,032,604.			§Minimum length 25'		
**Capacitance between 1 conductor and other conductor connected to shield.									25' to 199', plus 25' minus 0. 200' or over, plus 50', minus 0.		

Belden

unshielded paired sound cables

MULTIPLE PAIR UNSHIELDED SOUND CABLES

TYPICAL APPLICATIONS: Balanced line sound systems.

Made with 80 C vinyl plastic compounds for high dielectric strength and the best physical properties, such as free stripping, small

diameter, and tear resistance. It also resists the effects of water, sun, oil, grease, and ozone. The conductors are paired with a short-lay twist for conductor balance, providing a quiet circuit, free from cross talk.

1 to 27 Pairs	Trade Number	No. of Pairs	AWG & Stranding	Insulation Thickness (Inch)	Jacket Thickness (Inch)	Nom. O.D. (Inch)	Suggested Working Voltage	Standard Spool Lengths in ft
ALL CONSTRUCTIONS: Tinned copper, vinyl insulated cabled in pairs, chrome vinyl jacket.	8740	1	22 Solid	.015	.025	.150	200	100, 250, 500, 1000
	8741	2	22 Solid	.015	.028	.201	200	100, 250, 500, 1000
	8742	3	22 Solid	.015	.030	.240	200	100, 250, 500, 1000
	8690	3	18 (16x30)	.018	.037	.362	400	100, 500, 1000
	8757	4	22 Solid	.015	.030	.255	200	500, 1000
	8743	6	22 Solid	.010	.035	.305	200	100, 250, 500, 1000
	8747	6	22 (7x30)	.010	.035	.340	200	100, 250, 500, 1000
	8691	6	18 (16x30)	.018	.045	.550	400	100, 500, 1000
	8744	9	22 Solid	.010	.037	.354	200	100, 250, 500, 1000
	8748	9	22 (7x30)	.010	.037	.389	200	100, 250, 500, 1000
	8692	9	18 (16x30)	.018	.055	.638	400	100, 500, 1000
	8753	11	22 Solid	.010	.037	.384	200	100, 250, 500, 1000
	8754	13	22 Solid	.010	.037	.409	200	100, 250, 500, 1000
	8745	15	22 Solid	.010	.040	.420	200	100, 250, 500, 1000
	8749	15	22 (7x30)	.010	.040	.425	200	100, 250, 500, 1000
	8755	19	22 Solid	.010	.040	.480	200	500, 1000
	8756	23	22 Solid	.010	.040	.510	200	500, 1000
	8746	27	22 Solid	.010	.045	.550	200	§Cut to customer's specified length. Maximum length 1500'
	8750	27	22 (7x30)	.010	.045	.595	200	§Cut to customer's specified length. Maximum length 1500'

For color coding please refer to page 6

38 AND 51 PAIR CABLES

Description	Trade Number	No. of Pairs	Conductors	Insulation Thickness (Inch)	Jacket Thickness (Inch)	Nom. O.D. (Inch)	Standard Spool Lengths in ft
	NEW 8752	38	Solid Tinned Copper	.008	.045	.600	§Cut to customer's specified length. Maximum length 1500'
	8751	51	Solid Tinned Copper	.010	.050	.725	

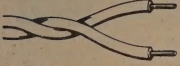
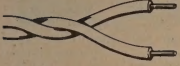
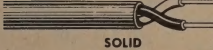
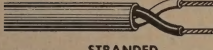
#22 tinned copper, 8751 vinyl insulated, 8752 polypropylene insulated, cabled in pairs, BELDFOIL aluminum-Mylar shield over cabled pairs, #22 (7x30) stranded ground drain wire, chrome vinyl jacket. 200 Volts suggested working voltage. Color coding available on request.

§Minimum length 25'.
 25' to 199', plus 25', minus 0.
 200' or over, plus 50', minus 0.

For color coding information on 8751 and 8752 write for Technical Data Electronic Wire Section SO-4

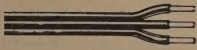
two and three conductor unshielded cables

Belden**TWO CONDUCTOR UNSHIELDED CABLES**

Description	Trade Number	AWG & (Stranding)	Insulation Thickness (Inch)	Jacket Thickness (Inch)	Conductor Color Coding	Nominal O.D. (Inch)	Suggested Working Voltage	Standard Spool Lengths in ft
 Copper, vinyl insulated, PARALLEL	8782	24 (7x32)	.017	—	Chrome, Sand, White, Clear 1 cond. tinned	.058x .115	300	25, 50, 100, 500, 1000
	8781	22 (Solid)	.016	—	Chrome 1 cond. tinned	.060x .120	100	100, 500, 1000
	NEW 8649	20 (7x28)	.020	—	Chrome, Clear 1 cond. tinned	.073x .146	300	100, 500, 1000
 Without JACKET	8481	22 (Solid)	.015	—	Brn, Tan	.112	350	100, 500, 1000
	8482	19 (Solid)	.015	—	Brn, Tan	.130	350	100, 500, 1000
	8492	19 (Solid)	.025	—	Brown or White 1 cond. tinned	.170	600	1000
 Copper, vinyl insulated, TWISTED.	8460	18 (7x26) tinned	.020	—	Blk, Wht	.175	450	100, 500, 1000
	8470	16 (19x29) tinned	.023	—	Blk, Wht	.195	600	500, 1000
	With JACKET	22 (Solid) tinned	.015	.025	Blk, Red	.150	200	100, 250, 500, 1000
 SOLID	8442	22 (7x30) tinned	.015	.025	Blk, Red	.165	350	500, 1000
	8205	20 (10x30) tinned	.018	.025	Blk, Red	.190	350	100, 500, 1000
	8486	19 (Solid)	.015	.025	Brn, Tan	.162	350	500, 1000
 STRANDED	8461	18 (7x26) tinned	.020	.028	Blk, Wht	.226	450	100, 500, 1000
	8471	16 (19x29) tinned	.023	.030	Blk, Wht	.256	600	500, 1000
	8473	14 (19x27) tinned	.031	.035	Blk, Wht	.332	600	500, 1000

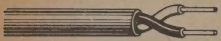
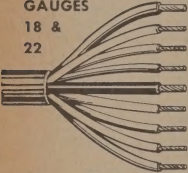
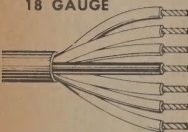
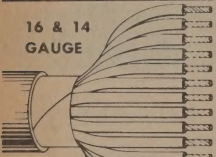
For additional 2 conductor cables see PORTABLE CORDAGE on page 12, and DUPLEX PRIMARY WIRE on page 26

THREE CONDUCTOR UNSHIELDED CABLES

Description	Trade Number	AWG & (Stranding)	Insulation Thickness (Inch)	Jacket Thickness (Inch)	Conductor Color Coding	Nominal O.D. (Inch)	Suggested Working Voltage	Standard Spool Lengths in ft
 Copper, vinyl insulated, PARALLEL	8701	22 (Solid)	.016	—	Chrome 1 cond. tinned	.060x .190	100	100, 500, 1000
	8475	16 (19x29) bare	.023	—	Wht, Brn, Red	.102x .295	300	100, 500
Without JACKET	8483	19 (Solid)	.015	—	Brn, Gray, Tan	.132	350	100, 500, 1000
Bare copper, vinyl insulated, CABLED								
 With JACKET	8443	22 (7x30) tinned	.010	.025	Blk, Grn, Red	.150	200	25, 100, 250, 500, 1000
	8487	19 (Solid) bare	.015	.025	Brn, Gray, Tan	.180	350	500, 1000
Copper, vinyl insulated, CABLED, chrome vinyl jacket.								

For additional 3 conductor cables see PORTABLE CORDAGE on page 12.

Beldenmultiple unshielded cables
and telephone cables**MULTIPLE CONDUCTOR CONTROL AND AUDIO CABLES (NOT PAIRED)**

Description and Gauge	Trade Number	No. of Cond.	AWG & (Stranding)	Insulation Thickness (Inch)	Jacket Thickness (Inch)	Nom. O.D. (Inch)	Color Code or Chart No.	Standard Spool Lengths in ft.
	NEW 8795	2	22 (Solid)	.016	.022	.160	Red, Grn	500, 1000
Bare copper, polyethylene insulated, cabled, rose gray vinyl-jacket.	8794	3	22 (Solid)	.016	.022	.168	Red, Grn, Yel	500, 1000
Telephone cable								
All Constructions: Tinned copper, vinyl plastic insulated, cabled, vinyl jacket.	8443	3	22 (7x30)	.010	.025	.150	1	25, 100, 250, 500, 1000
22 GAUGE 	8444	4	22 (7x30)	.010	.025	.168	1	25, 100, 250, 500, 1000
	8445	5	22 (7x30)	.010	.025	.180	1	25, 100, 250, 500, 1000
	8456	10	22 (7x30)	.010	.030	.260	1	100, 500, 1000
	8457	12	22 (7x30)	.010	.030	.260	1	100, 500, 1000
	8458	15	22 (7x30)	.010	.040	.320	2	100, 500, 1000
	8459	25	22 (7x30)	.010	.040	.370	2	100, 500, 1000
	8446	6	4-22 (7x30) 2-18 (16x30)	.010 .018	.025	.222	1	15, 100, 250, 500, 1000
	8447	7	5-22 (7x30) 2-18 (16x30)	.010 .018	.028	.246	1	100, 250, 500, 1000
	8448	8	6-22 (7x30) 2-18 (16x30)	.010 .018	.028	.250	1	15, 100, 250, 500, 1000
	8449	9	7-22 (7x30) 2-18 (16x30)	.010 .018	.028	.261	1	15, 100, 250, 500, 1000
COMBINATION GAUGES 18 & 22 	8465	5	18 (16x30)	.018	.030	.272	1	100, 250, 500, 1000
	8467	7	18 (16x30)	.018	.035	.320	1	100, 250, 500, 1000
	8469	9	18 (16x30)	.018	.035	.375	1	100, 250, 500, 1000
	8466	12	18 (16x30)	.018	.040	.402	2	100, 250, 500, 1000
	8468	15	18 (16x30)	.018	.045	.490	2	100, 500, 1000
18 GAUGE 	8620	4	16 (19x29)	.030	.045	.375	2	100, 500, 1000
	8621	7	16 (19x29)	.030	.045	.455	2	100, 500, 1000
	8622	12	16 (19x29)	.030	.060	.600	2	100, 500, 1000
	8623	15	16 (19x29)	.030	.060	.650	2	100, 500, 1000
	8624	19	16 (19x29)	.030	.065	.715	2	100, 500, 1000
	8627	4	14 (19x27)	.045	.045	.495	2	100, 500, 1000
	8628	7	14 (19x27)	.045	.060	.630	2	100, 500, 1000
	8629	12	14 (19x27)	.045	.065	.770	2	100, 500, 1000
16 & 14 GAUGE 								

For 22 AWG and 18 AWG Combinations—22 AWG is rated at 200 volts and 18 AWG is rated at 400 volts.

COLOR CODE
Chart No. 1

Conductor	Color
1st	Black
2nd	Red
3rd	Green
4th	White
5th	Brown
6th	Blue
7th	Orange
8th	Yellow
9th	Purple
10th	Gray
11th	Pink
12th	Tan

18 Gauge conductors in cables 8446 through 8449 are Black and Red.

IPCEA COLOR CODE
(Insulated Power Cable Engineers Association)

Chart No. 2

Conductor	Color	Conductor	Color	Conductor	Color
1st	Black	9th	Green/Black	17th	White/Red
2nd	White	10th	Orange/Black	18th	Orange/Red
3rd	Red	11th	Blue/Black	19th	Blue/Red
4th	Green	12th	Black/White	20th	Red/Green
5th	Orange	13th	Red/White	21st	Orange/Green
6th	Blue	14th	Green/White	22nd	Blk/Wht/Red
7th	White/Black	15th	Blue/White	23rd	Wht/Blk/Red
8th	Red/Black	16th	Black/Red	24th	Red/Blk/Wht
				25th	Grn/Blk/Wht

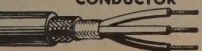
rubber and plastic microphone and shielded power supply cables

Belden

RUBBER AND NEOPRENE MICROPHONE AND SHIELDED POWER SUPPLY CABLES

Description	Trade Number	No. of Cond.	AWG (Stranding)	Insulation Thickness (Inch)	Jacket Thickness (Inch)	Nom. O.D. (Inch)	Percent Shield Coverage	Suggested Working Voltage	Impedance (Ohms)	Cap. (mmf/ft)	Cap. (mmf/ft)	Standard Spool Lengths in ft
SINGLE CONDUCTOR 	8410	1	25(7x33)	.063	.025	.245	80	3000	52	—	33	25, 50, 100, 250, 500
	3 strands copper, 4 strands Copperweld tinned, cellulose yarn braid, rubber insulated, rayon braid, tinned copper braid shield, cellulose yarn wrap, black rubber jacket.											
MINIATURE 	8413	2	24(45x40)	.019	.025	.190	100	300	—	38	71	15, 25, 50, 100, 250, 500
	8406	3	24(45x40)	.019	.025	.223	100	300	—	43	76	100, 250, 500
Tinned cadmium bronze, cotton serve, rubber insulated, cabled with fillers, conductive textile serve, tinned copper braid shield, cotton serve, black rubber jacket.												
MULTIPLE CONDUCTOR  Tinned copper, cotton wrap, rubber insulated, rayon braid, tinned copper braid shield, cotton wrap, black rubber jacket.	8412	2	20(26x34)	.020	.043	.268	84	600	—	42	68	25, 50, 100, 250, 500, 1000
	8423	3	20(26x34)	.020	.040	.277	84	600	—	50	85	15, 50, 100, 250, 500, 1000
	8424	4	20(26x34)	.020	.040	.295	83.5	600	—	55	95	15, 50, 100, 250, 500, 1000
	8425	5	20(26x34)	.020	.040	.323	76	600	—	44	80	100, 250
	8426	6	20(26x34)	.020	.040	.349	90	600	—	40	78	100, 250
	8427	7	20(26x34)	.020	.043	.360	90	600	—	40	75	100, 250
	8418	8	20(26x34)	.020	.043	.386	92	600	—	42	75	100, 250
	8428	2	18(41x34)	.022	.038	.295	91	600	—	47	80	100, 500, 1000
	8407	4	16(65x34)	.032	.043	.422	84	600	—	37	65	100, 250
Tinned copper, separator, rubber insulated, cabled, rayon braid, tinned copper braid shield, cotton wrap, black neoprene jacket.												

VINYL MICROPHONE AND SHIELDED POWER SUPPLY CABLES

Description	Trade Number	No. of Cond.	AWG (Stranding)	Insulation Thickness (Inch)	Jacket Thickness (Inch)	Nom. O.D. (Inch)	Percent Shield Coverage	Suggested Working Voltage	Impedance (Ohms)	Cap. (mmf/ft)	Cap. (mmf/ft)	Standard Spool Lengths in ft
SINGLE CONDUCTOR 	8411	1	25(7x33)	.020	.020	.144	72	3500	52	—	34	15, 25, 50, 100, 250, 500, 1000
	8401	1	25(7x33)	.043	.025	.200	74	5000	57	—	25	15, 25, 50, 100, 250, 500, 1000
3 strands copper, 4 strands Copperweld, tinned, cellulose yarn braid, polyethylene insulated, tinned copper braid shield, chrome vinyl jacket.												
MINIATURE 	8420	2	24(45x40)	.015	.020	.185	77	500	—	22	40	15, 25, 50, 100, 250, 500
Tinned cadmium bronze, cotton wrap, polyethylene insulated, cabled with fillers, rayon braid, tinned copper braid shield, chrome vinyl jacket.												
MULTIPLE CONDUCTOR  Tinned copper, polyethylene insulated, cabled, rayon braid, tinned copper braid shield, chrome vinyl jacket.	8422	2	22(16x34)	.023	.023	.231	87	1000	—	18	32	15, 25, 50, 100, 250, 500, 1000
	8403	3	20(26x34)	.015	.033	.244	89	600	—	25	45	15, 50, 100, 250, 500, 1000
	8404	4	20(26x34)	.015	.033	.255	87	600	—	25	45	15, 100, 250, 500, 1000
	8405	5	20(26x34)	.015	.035	.275	83	600	—	25	45	250, 500, 1000

RUBBER—PLASTIC—NEOPRENE

PLASTIC CABLES RECOMMENDED FOR: Lower capacitance, lower loss, greater ozone and oil resistance, lighter weight, smaller diameter.
 RUBBER CABLES RECOMMENDED FOR: Greater abrasion and impact resistance, and extra limpness so cable will lie flat on stage or studio floor.
 NEOPRENE CABLES RECOMMENDED FOR: Outside use, cold weather applications. Resistant to effects of sun, oil, and ozone.

*Capacitance between conductors.

**Capacitance between 1 conductor and remaining conductors (if any) connected to shield.

Belden

retractile (coiled) cables and cords

NEOPRENE RETRACTILE (COILED) MICROPHONE CABLES

Description	Trade Number	No. of Cond.	AWG & (Stranding)	Insulation Thickness (Inch)	Jacket Thickness (Inch)	Nom. O.D. (Inch)	Nom. Coil O.D. (Inch)	Percent Shield Coverage	Cap. (mmf/cord)	Retracted Length	Practical Extended Length	Standard Put-Up
	8409	4 unshielded	28 (7x36)	.005	.050	.165	¾	No shield	—	12"	6'	1
	Tinned copper, nylon insulated, neoprene jacket.											
	8415	4 unshielded	23 (21x36)	.020	.055	.250	¾	No shield	—	11 ½"	6'	1, 50
	8499	1 shielded	24 (45x40)	.019	.043	.160	1 ½	80	285	7 ½"	4'	1
	8497	³ 1 shielded 2 unshielded	23 (21x36)	.020	.046	.250	¾	100	480	11 ½"	6'	1, 50
	8491	⁴ 2 individually shielded 2 unshielded	23 (21x36)	.020	.050	.300	1 ½	100	480	12"	6'	1
	NEW 8490	5 unshielded	23 (21x36)	.020	.045	.265	¾	No shield	—	11 ½"	6'	1

Tinned cadmium bronze, rubber insulated, paper tape wrap, black neoprene jacket. 8499 has a spiral tinned copper shield. 8497 and 8491 have a double BELDFOIL[®] tape shield with a (21x36) tinned cadmium bronze drain wire for each shield conductor.

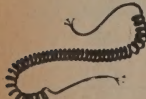
NEOPRENE RETRACTILE (COILED) POWER CONTROL CABLES

Longer lengths are available on request.

Trade Number	No. of Cond.	UL Type	AWG & (Stranding)	Insulation Thickness (Inch)	Jacket Thickness (Inch)	Nom. O.D. (Inch)	Nom. Coil O.D. (Inch)	Retracted Length	Practical Extended Length	Standard Put-Up
8601	2	SVO	18 (41x34)	.016	.045	.270	1	12"	6'	1
8602	3	SJO	18 (41x34)	.031	.045	.360	1¾"	12"	6'	1
8603	3	SJO	16 (65x34)	.031	.045	.370	1½"	12"	6'	1
8604	3	SJO	16 (65x34)	.031	.045	.370	1½"	22"	12'	1

Bare copper, paper wrap, rubber insulation, cabled with fillers, paper tape wrap, black neoprene jacket. 6" straight portion each end. Jacket removed 1½" each end.

VINYL RETRACTILE (COILED) TELEPHONE CORDS

Description	Trade Number	No. of Cond.	AWG & (Stranding)	Insulation Thickness (Inch)	Jacket Thickness (Inch)	Nom. O.D. (Inch)	Nom. Coil O.D. (Inch)	Retracted Length	Practical Extended Length	Standard Put-Up
	8495	3	23 (21x36)	.020	.041	.220	¾"	10"	4½'	1
	8494	4	23 (21x36)	.020	.043	.245	¾"	10"	4½'	1

Bare cadmium bronze, vinyl insulated, cabled, paper wrapped, black vinyl jacket. 8494 one end stripped 7¾", spade terminals attached and hook strain relief clamped over jacket. Other end stripped 6¼" and spade terminals attached. 8495 one end stripped 2¾", spade terminals attached and hook strain relief clamped over jacket. Other end stripped 3¾" and spade terminals attached.

Color coding of individual conductors for cables on this page and microphone cables on page 10: (1) White, (2) Black, (3) Red, (4) Green, (5) Blue, (6) Brown, (7) Yellow, (8) Orange.

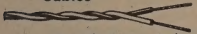
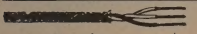
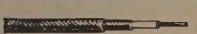
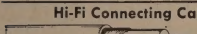
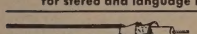
***Capacitance of shielded conductor.

©Belden U.S. Patent 3,032,604.

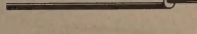
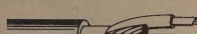
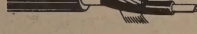
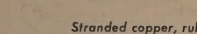
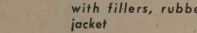
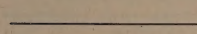
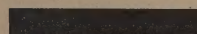
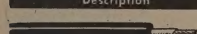
phonograph, hi-fi and stereo cables
portable cordage and test prod wire

Belden

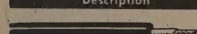
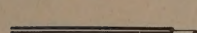
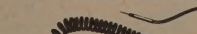
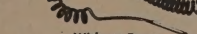
HI-FI AND STEREO CABLES

Description	Trade Number	No. of Cond.	AWG & (Stranding)	Insulation Thickness (Inch)	Jacket Thickness (Inch)	Nom. O.D. (Inch)	Cond. Color Coding	Nom. Cap. between condrs. (mmf ft)	Nom. Cap. cond. to other cond. & shield (mmf ft)	Standard Spool Lengths in ft
Phono Pick-Up Arm Cables	8430	2	32 (7x40)	.009	—	.050	Blk, Red	21	—	10, 25, 250
	→	4	Use two 8430s for maximum channel isolation, one for each channel.							
Tinned copper, vinyl insulated, twisted pair.	8429	2	32 (7x40)	.009	—	.057	Blk, Red	22	38	10, 25, 250
	8419	3	32 (7x40)	.009	—	.067	Blk, Red, Wht	30	50	10, 25, 250
Tinned copper, vinyl insulated, twisted pair, tinned copper braid shield.	→	4	Use two 8429s for maximum channel isolation, one for each channel.							
	8431	1	24 (16x36)	.015	—	.095	—	96	—	10, 15, 25, 100, 500
Tinned copper, rubber insulated, tinned copper braid shield, brown cotton braid.										
Hi-Fi Connecting Cable	8421	1	25 (7x33)	.025	.025	.180	—	18	—	15, 25, 50, 100, 250
	3 strands tinned copper and 4 tinned Copperweld, cellular polyethylene insulated, tinned copper spiral wrapped shield, chrome vinyl jacket.									
	8416	2	25 (7x33)	.018	.020	.106 x .213	1 Wht 1 Red	35 each channel	—	15, 25, 50, 100, 250
Dual Channel Audio Cable for stereo and language labs	3 strands tinned copper and 4 tinned Copperweld, polyethylene insulated, individual tinned copper spiral wrapped shield, chrome vinyl jacket, polarity rib on red conductor.									
	8417	1	25 (7x33)	.020	.026	.140	Chrome	25	—	15, 25, 50, 100, 250
BELDFOIL Miniature Audio Connecting Cable totally shielded	3 strands tinned copper and 4 tinned Copperweld, cellular polyethylene insulated double BELDFOIL aluminum-Mylar shield, inner shield folded 26 AWG stranded tinned copper ground drain wire, chrome vinyl jacket.									

RUBBER-VINYL MULTI-CONDUCTOR PORTABLE CORDAGE—300V-60C

Description	Trade Number	U.L. Type	Insulation	No. of Conductors	AWG & Stranding	Insulation Thickness (Inch)	Conductor Coding	Jacket Thickness (Inch)	Nominal O.D. (Inch)	Color	Standard Spool Lengths in ft
	8462	SP-1	Rubber	2	18 (41x34) Tinned	.031	Polarity Ribbed	—	.123 x .223	Brown or Ivory	25, 100, 250
	8888	SPT-1	Vinyl	2	18 (41x34)	.031*	Polarity Ribbed	—	.110 x .207	Brn, Ivory, or Gray	25, 100, 250
Two conductors, stranded copper, parallel, insulated with one conductor polarity ribbed.											
	8452	SV	Rubber	2	18 (41x34)	.016	Blk, Wht	.031	.245	Black	25, 50, 100, 250, 500, 1000
	8478	SJ	Rubber	2	18 (41x34)	.031	Blk, Wht	.031	.298	Black	100, 250, 1000
	8472	SJ	Rubber	2	16 (65x34)	.031	Blk, Wht	.031	.325	Black	25, 100, 250
	8474	—	Rubber	2	14 (41x30)	.031	Blk, Wht	.035	.360	Black	100, 250
	8453	SV	Rubber	3	18 (41x34) Tinned	.016	Blk, Wht, Green	.031	.265	Black	50, 100, 500
	8454	—	Rubber	4	18 (41x34) Tinned	.016	Blk, Wht, Brn, Red	.031	.265	Black	50, 100, 500, 1000
	8455	—	Rubber	5	3—20 (26x34) 2—18 (41x34) Tinned	.015 .015	Brn, Grn, White Blk, Red	.031	.280	Black	100, 250

TEST PROD WIRE

Description	Trade Number	AWG & (Stranding)	Insulation Thickness (Inch)	Nom. O.D. (Inch)	Breakdown Voltage	Suggested Working Voltage	Standard Package	Standard Spool Lengths in ft.
	8899	18 (65x36)	.045	.144	20,000	5,000	—	10, 14*, 25** 100**, 500**, 1000
Tinned copper, separator, rubber insulated, red or black.	8897	18 (65x36)	.045	.144	20,000	5,000	—	500, 1000
* 7' of red and 7' of black. **Also available in green or yellow								
Manufactured per MIL-W-13169								
	8898	18 (65x36)	.088	.230	29,000	10,000	—	10, 25, 100, 500
Miniature	8890	24 (45x40)	.019	.066	10,000	1,000	—	25, 100, 500
Stranded tinned copper, cotton separator, rubber insulated, red or black.								
	8878	20 (42x36)	.063	.173	20,000	5,000	1 pair Red and Black	—
COILED With Prods	Tinned copper, rubber insulated, red or black. Retracted length 8". Stretches to 5'.							
	8879	20 (42x36)	.063	.173	20,000	5,000	1 pair Red and Black	—
Without Prods	Tinned copper, rubber insulated, red or black. Retracted length 8". Stretches to 5'.							

© Belden U.S. Patent 3,032,604

All breakdown voltages and suggested working voltages are AC RMS values.

Belden

tv camera cable and 75 ohm video cables

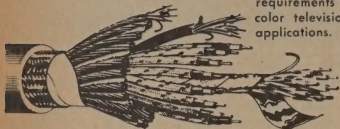
TV CAMERA CABLES

Belden TV Broadcasting and closed circuit TV Camera Cables are precision engineered to assure reliable performance and long service life. In addition to lighter weight, greater flexibility, and easier termination

these cables are designed to maintain high conductor insulation resistance regardless of changes in ambient temperatures.

Trade number 8283

Designed to meet the critical electrical and physical requirements necessary for color television broadcast applications.

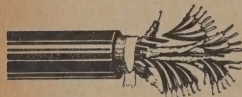


Trade Number 8280



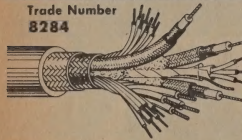
A smaller, lighter weight cable designed to make long runs easier. For black and white (Monochrome) systems.

Trade Number NEW 8286



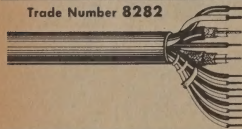
A 75 ohm cable designed to remain flexible in cold weather. Recommended for transistorized TV cameras.

Trade Number 8284



Designed specifically for color TV transmission. This cable incorporates circuit isolation assuring the reduction in AC hum level and cross talk essential for color TV broadcasting.

Trade Number 8282



Especially engineered for TV Eye Cameras. Recommended for remote control, monitor and cue line applications.

82 Conductor TV Color Camera Cable

4-14 AWG (19x27) tinned copper, vinyl plastic insulated, color coded.
3-16 AWG (26x30) tinned copper, vinyl plastic insulated, color coded.
BELDFOIL aluminum-Mylar wrapped shield around the above 7 conductors cabled with stranded tinned copper drain wire.
8 coaxial cables. Nom. impedance 53.5 ohms, color coded.

67-22 AWG (7x30) tinned copper, vinyl plastic insulated, color coded, 7 under conductive textile shield with stranded ground wire.
Tinned copper braid shield.
Chrome vinyl plastic jacket. 1.22" Nom. O.D.
§Cut to customer's specified length. Maximum length 1000'.

28 Conductor TV Camera Cable

4-18 AWG (16x30) tinned copper, vinyl insulated, color coded.
21-22 AWG (7x30) tinned copper, vinyl insulated, cabled in 3 groups of 7, color coded.

3 coaxial cables. Nom. impedance 51 ohms, color coded.
Tinned copper braid shield.
Chrome vinyl plastic jacket. .750" Nom. O.D.
§Cut to customer's specified length. Maximum length 1500'.

NEW 28 Conductor Hypalon & TV Camera Cable

4-18 AWG (16x30) tinned copper, vinyl insulated, color coded.
BELDFOIL aluminum-Mylar wrapped shield around 4 conductors with stranded drain wire, Mylar tape over this shielded group.
21-22 AWG (7x30) tinned copper, vinyl insulated, cabled in 3 groups of 7, color coded, one group of 7 has a BELDFOIL aluminum-Mylar

wrapped shield overall with a stranded drain wire, Mylar tape over this shielded group.
3 coaxial cables. Nom. impedance 75 ohms.
Tinned copper braid shield.
Black Hypalon jacket. .730" O.D.
§Cut to customer's specified length. Maximum length 1000'.

24 Conductor TV Camera Cable

17-22 AWG (7x30) tinned copper, vinyl insulated, color coded.
3 under BELDFOIL shield with stranded drain wire.
4-16 AWG (26x30) tinned copper, vinyl insulated, color coded.
3 coaxial cables. Nom. impedance

53.5 ohms, color coded.
Tinned copper braid shield.
Heavy cotton braid.
Chrome vinyl plastic jacket. .800" Nom. O.D.
§Cut to customer's specified length. Maximum length 1000'.

13 Conductor TV Eye Cable

9-22 AWG (7x30) tinned copper, vinyl insulated, color coded.
2-18 AWG (16x30) tinned stranded copper conductor vinyl insulated. Black and Red.
1-RG-58A/U cable 50-ohm coax.

1-72-ohm coax, stranded conductor, Mylar tape wrapped.
Chrome vinyl jacket. .470" Nom. O.D.
§Cut to customer's specified length. Maximum length 2000'.

This series of cables is also recommended as interconnecting cables in complex electronic applications. Each cable contains coaxial cables for §Minimum length 25'. 25' to 199', plus 25', minus 0. 200' or over, plus 50, minus 0. & Dupont Trademark

RF and Video signals, pulse voltages or high voltage lines as well as many conductor groups for control and power circuits.

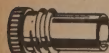
75 OHM PRECISION VIDEO CABLE

TYPICAL APPLICATIONS: Video signal transmission in Color and Monochrome TV studios. Provides high quality carrier of video signal with superior picture definition and eliminates problems of periodicity. Cable

is manufactured with rigid control of concentricity and all dimensional tolerances. The black polyethylene jacket is manufactured with a non-contaminating, non-migratory compound. 100% SWEEP TESTED.

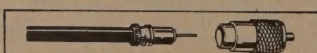
Description	Trade Number	AWG & (Stranding) Material	Nom. O.D. (Inch)	Percent Shield Coverage	Nom. Impedance (Ohms)	Nom. Velocity of Propagation	Nom. Cap (mmf/ft)	Nom. Attenuation per 100' kc or mc db	Standard Spool Lengths in ft
	8281	20 (Solid) copper	.304	96.4	75	66%	21.	10 KC .06 100 KC .08 1 MC .25 10 MC .78 100 MC 2.70	500, 1000
Conductor, polyethylene insulated, tinned copper double braid shield, black polyethylene jacket.									
	8279	23 (7x31) Tinned compacted conductor	.220	96	75	66%	21.	10 KC .14 100 KC .15 1 MC .35 10 MC 1.30 100 MC 4.90	100, 250 500
Miniature									

Compacted conductor, polyethylene insulated, tinned copper braid shield, black polyethylene jacket. Fits RG 59/U connectors.
Compacted conductor combines impedance uniformity of solid conductor and "nick-resistance" of stranded conductor.



For Use on 8281 Only

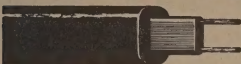
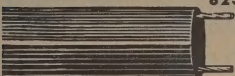
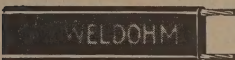
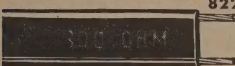
8299 Adapter for use with PL-259 connector. 25 in a box.



BELDEN PAGE 13

300 ohm transmission
line cables**Belden**

TWIN LEAD WIRES

Description & Trade Number	AWG & (Stranding)	Color	Nom. O.D. (Inch)	Nom. Velocity of Propagation	Nom. Capacitance (mmf/ft)	Nom. Attenuation per 100		Standard Package Lengths in ft
Permohm* 8285 	22 (7x30)	Brown	.255	73.3%	5.3	100	1.4	50, 75, 100 coils in counter dispenser 250, 500 coils 1000 spool
			x			300	2.8	
			.468			500	3.8	
			700			4.8		
			900			5.6		
PERMOHM Encapsulated twin lead for strong, clear signals on all channels despite salt spray industrial contamination, rain, ice and fringe area reception. An excellent color, UHF or VHF cable. First choice for all weather, all channel T.V. reception								
Celluline** 8275 	20 (7x28)	Brown	.300	80%	4.6	100	1.05	50, 75, 100 coils in counter dispenser 250, 500 1000 spools
			x			200	1.64	
			.400			300	2.12	
			400			2.5		
			500			2.98		
700	3.62							
900	4.3							
CELLULINE Maintains uniform electrical characteristics by eliminating all possible moisture between conductors. Installation is easier as no end-sealing is necessary. Losses are lower because of its lower dielectric constant (1.5). The thick outer wall of brown polyethylene protects the cable from abrasion and sun damage, and the round shape offers less wind resistance. The result is a longer lasting, more efficient line which helps maintain a strong UHF or VHF reception for black and white or color.								
8235 	18 (7x26)	Brown	.185	77%	5.0	100	.85	100 coil 500 spool
			x			200	1.35	
			.520			300	1.80	
			400			2.20		
			500			2.60		
Amateur transmitting and receiving twin lead—1KW(RF) rated.								
Weldohm†† 8230 	20 (7x28)	Brown	.072	80%	4.4	100	1.1	25, 50, 75, 100 pancake coils in a sleeve 250, 500 1000 spools
			x			200	1.7	
			.400			300	2.2	
			400			2.7		
			500			3.1		
700	3.7							
900	4.5							
WELDOHM This cable is 1½ times STRONGER and has 2½ times more FLEX LIFE than equivalent twin lead with all copper conductors, without changing the RF electrical characteristics. Tests prove its superior resistance to the pulling, whipping, and twisting that is so important to a long lasting installation.								
8225 	20 (7x28)	Brown	.058	80%	4.4	100	1.1	25, 50, 75, 100 pancake coils in a sleeve 250, 500 1000 spools
			x			200	1.7	
			.400			300	2.2	
			400			2.7		
			500			3.1		
700	3.7							
900	4.5							
Brown polyethylene for the best weathering.								
8226 	20 (7x28)	Ivory, Clear	.058	80%	4.4	Same as 8225		25, 50, 75, 100 pancake coils in a sleeve
			x					
			.400					
For indoor use only								

†† Belden Trademark—Reg. U.S. Pat. Off.

* Belden Trademark, Reg. U.S. Pat. Off., and Belden U.S. Pat. 2,782,251.

** Belden Trademark, Reg. U.S. Pat. Off., and Belden U.S. Pat. 2,814,666.

BELDEN MERCHANDISERS

WITH TERMINALS



10 Pancake Coils per Box

300 ohm Line Package Coils

8225**8226** (New Indoor Ivory)**8230** (Weldohm)

Put-ups 25', 50', 75', 100'

Antenna Rotor Cables**8464** (4 conductor, flat)

Put-ups 50', 75', 100'

8463 (5 conductor, flat).

Put-ups 50', 75', 100'



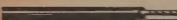
300 ohm Line Coils

8275 (Celluline)**8285** (Permohm)

Put-ups 50', 75', 100'

10 Coils per box

Beldentransmission line cables
and antenna rotor cables**72 OHM TRANSMISSION LINE CABLES**

Description	Trade Number	AWG & (Stranding)	Nom. O.D (Inch)	Nom. Velocity of Propagation	Nom. Capacitance (mmf ft)	Nom. Attenuation per 100'		Standard Spool Lengths in ft	
						mc	db		
 72 OHM LINE	8222	20 7x28)	.075	69%	20.3	100	7.7	100, 500	
			x			200	11.0		
			.128			300	13.6		
			Bare copper, 2 conductors parallel, brown polyethylene insulated.			400	15.9		
 72 OHM 1 KW (RF) RATED	8210	13 7x21)	.166	68%	21.0	100	3.8	100, 250	
			x			200	6.0		
			.278			300	7.8		
			Bare copper, 2 conductors parallel, brown polyethylene insulated.			400	9.3		
						500	11.0		
						700	13.7		
						900	16.0		

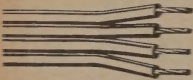
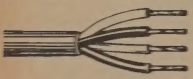
SHIELDED 100 OHM TRANSMISSION LINE

Description	Trade Number	AWG & (Stranding)	Nom. O.D. (Inch)	Nom. Velocity of Propagation	Percent Shield Coverage	Nom. Capacitance (mmf ft)	Nom. Attenuation per 100'		Standard Spool Lengths in ft
	8227	20 (7x28)	.325	62%	83	15.5	100	4.1	500
							200	6.4	
							300	8.4	
							400	10.2	

One conductor tinned, one bare copper, polyethylene insulated, cabled, polyethylene jacket, tinned copper braid shield, black vinyl jacket.

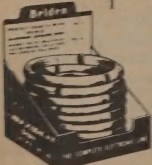
This shielded transmission line offers low-loss signal transmission which remains unaffected by outside signals or noise fields. Recommended for RF applications requiring a cross-talk free, balanced operation.

ANTENNA ROTOR CABLE

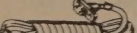
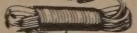
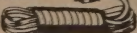
Description	Trade Number	No. of Cond.	AWG & (Stranding)	Cond. Coding	Insulation Thickness (Inch)	Jacket Thickness (Inch)	Nom. O.D. (Inch)	Suggested Working Voltage	Standard Package Lengths in ft
	8464	4	20 (7x28)	1 cond. tinned and insulation ribbed	—	—	.070 x .390	200	50, 75, 100 pancake coils 500, 1000 spools
Bare copper, parallel, chrome vinyl insulated.									
	8463	5	20 (7x28)	1 cond. tinned	—	—	.070 x .375	200	50, 75, 100 pancake coils 500, spools
Bare copper, parallel, brown polyethylene insulated. Suggested working voltage 200 volts.									
	8484	4	20 (7x28)	Blk, Grn, Red, Wht	.010	.020	.180	200	100, 500, 1000 spools
	8485	5	20 (7x28)	Blk, Grn, Red, Wht, Yel	.010	.020	.190	200	100, 500, 1000 spools
	8488	8	22 (7x30)	Blk, Blu, Brn, Grn, Org, Red, Wht, Yel	.010	.020	.205	200	100, 500, 1000 spools
Bare copper, vinyl insulated, cabled, chrome vinyl jacket.									

ALUMINUM GROUND WIRE

Packaged in counter dispensers of 10-50' connected coils, or spools of 500 ft. Wire on spools is marked every 100' for easy measuring.

Description	Trade Number	Nom. O.D. (Inch)	Standard Package Lengths in ft
	8018	.128	500 in 10-50 connected coils 500 spools
			8 AWG solid, soft annealed aluminum

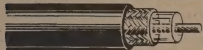
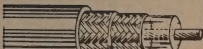
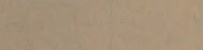
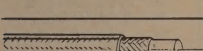
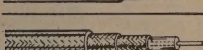
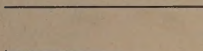
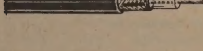
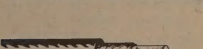
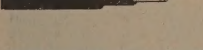
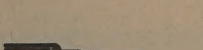
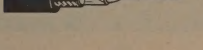
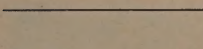
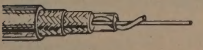
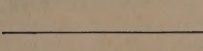
TV AND CHEATER CORDS

Description	Trade Number	Length in ft.	Standard Package
CHEATER CORDS 	8874	6	1 in polyethylene bag with description. SP-1 brown rubber parallel cord with male plug and TV connector.
	8895	6	1 in polyethylene bag with description. 100 bulk hanked.
	8889	9	SPT-1 brown plastic parallel cord with male plug and TV connector.
	8873	6	1 in polyethylene bag with description. 100 bulk hanked.
Polarized 	8875	6	1 in polyethylene bag with description. SPT-1 red plastic parallel cord with male and female TV connectors.

RG/U, transmission line cables

Belden

RG/U CABLES

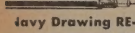
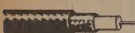
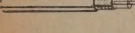
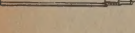
Description	Trade Number	RG No.	AWG & (Stranding) Material	Insulation	No. of Shields & Material	Jacket	Nom. O.D. (Inch)	Nom. Imp. (Ohms)	Nom. Vel. of Prop.	Nom. Cap. (mmf. ft.)	Nom. Attenuation per 100' mc db	Standard Spool Lengths in ft.
	8264 JAN-C-17A	5A/U	16 (Solid) silver coated copper	Polyethylene	2 silver-coated copper	Gray non-contaminating vinyl	.328	50	66%	28.5	100 2.40 200 3.50 400 5.25	500 1000
	8237 JAN-C-17A	8/U	13 (7x21) bare copper	Polyethylene	1 bare copper	Black vinyl	.405	52	66%	29.5	100 2.10 200 3.30 400 4.50	50, 100, 250, 500 1000
	8242 JAN-C-17A	9/U	13 (7x21) silver coated copper	Polyethylene	2 inner-silver-coated outer-bare copper	Gray non-contaminating vinyl	.420	51	66%	30.0	100 2.10 200 3.30 400 4.50	100 1000
	8243 MIL-C-17D	9B/U	13 (7x21) silver coated copper	Polyethylene	2 silver coated copper	Black non-contaminating vinyl	.420	50	66%	30.0	100 2.10 200 3.30 400 4.50	500 1000
	8238 JAN-C-17A	11/U	18 (7x26) tinned copper	Polyethylene	1 bare copper	Black vinyl	.405	75	66%	20.5	100 1.90 200 2.85 400 4.35	100 250, 500 1000
	8261 MIL-C-17D	11A/U	18 (7x26) tinned copper	Polyethylene	1 bare copper	Black non-contaminating vinyl	.405	75	66%	20.5	100 1.90 200 2.85 400 4.35	100 500 1000
	8239 JAN-C-17A	54A/U	18 (7x.0152) bare copper	Polyethylene	1 tinned copper	Clear polyethylene	.245	58	66%	26.5	100 3.10 200 4.40 400 6.70	500 1000
	8245 JAN-C-17A	55/U	20 (Solid) bare copper	Polyethylene	2 tinned copper	Clear polyethylene	.201	53.5	66%	28.5	100 4.10 200 6.20 400 9.50	500 1000
	8240 JAN-C-17A	58/U	20 (Solid) bare copper	Polyethylene	1 tinned copper	Black vinyl	.195	53.5	66%	28.5	100 4.10 200 6.20 400 9.50	25, 50, 100 250, 500 1000
	8259 JAN-C-17A	58A/U	20(19x.0071) tinned copper	Polyethylene	1 tinned copper	Black vinyl	.195	50	66%	30.8	100 5.30 200 8.20 400 12.60	25, 50 100, 500 1000
	8262 MIL-C-17D	58C/U	20(19x.0071) tinned copper	Polyethylene	1 tinned copper	Black non-contaminating vinyl	.195	50	66%	28.5	100 5.30 200 8.20 400 12.60	500 1000
	8241 JAN-C-17A	59/U	22 bare Copperweld	Polyethylene	1 bare copper	Black vinyl	.242	73	66%	21.0	100 3.75 200 5.60 400 8.30	25, 50, 100 250, 500 1000
	8263 MIL-C-17D	59B/U	.023 bare Copperweld	Polyethylene	1 bare copper	Black non-contaminating vinyl	.242	75	66%	20.5	100 3.75 200 5.60 400 8.30	500 1000
	8254 JAN-C-17A	62/U	22 bare Copperweld	Semi-solid Polyethylene	1 bare copper	Black vinyl	.242	93	84%	13.5	100 3.10 200 4.40 400 6.30	100 500 1000
	8255 MIL-C-17-D	62B/U	24 (7x32) bare Copperweld	Semi-solid Polyethylene	1 bare copper	Black non-contaminating vinyl	.242	93	84%	13.5	100 3.10 200 4.40 400 6.30	500 1000
	8257 JAN-C-17A	71/U	22 bare Copperweld	Semi-solid Polyethylene	2 tinned copper	Clear Polyethylene	.245	93	84%	13.5	100 3.10 200 4.40 400 6.30	500 1000
	8258 MIL-C-17-D	71B/U	22 bare Copperweld	Semi-solid Polyethylene	2 tinned copper	Black polyethylene	.245	93	84%	13.5	100 3.10 200 4.40 400 6.30	500 1000

Manufactured to current Government specifications and subsequent revisions.

Belden

RG/U, transmission line cables

RG/U CABLES

Description	Trade Number	RG No.	AWG & (Stranding) Material	Insulation	No. of Shields & Material	Jacket	Nom. O.D. (Inch)	Nom. Imp. (Ohms)	Nom. Vel. of Prop.	Nom. Cap. (mmf/ft)	Nom. Attenuation per 100' db	Standard Spool Lengths in ft.
 Heavy Drawing RE-498716	8216	174/U	7x34 bare Copper-weld	Polyethylene	1 tinned copper	Black vinyl	.100	50	65.5%	30.4	100 8.8 200 13.0 400 20.0	100 500 500 1000
 NEW 8218	NEW 8218	—	27 7x35 bare Copper-weld	Polyethylene	1 tinned copper	Black vinyl	.150	75	66%	20.5	100 5.7 200 12.5 400 12.5	100 500 500 1000
 8265 MIL-C-17-D	8265 MIL-C-17-D	178B/U	30 (7x38) Silver coated Copper-weld	TFE TEFLON	1 Silver coated copper	Brown FEP TEFLON	.072	50	69.5	29	400 29.0 Max.	100 500
 8266 MIL-C-17-D	8266 MIL-C-17-D	180B/U	30 (7x38) Silver coated Copper-weld	TFE TEFLON	1 Silver coated copper	Brown FEP TEFLON	.142	95	69.5	15	400 17.0 Max.	100 500
 8269 MIL-C-17-D	8269 MIL-C-17-D	188A/U	26 (7x.0067) Silver coated Copper-weld	TFE TEFLON	1 Silver coated copper	White TFE TEFLON	.106	50	69.5	29	400 20.0 Max.	100 500
 8270 MIL-C-17-D	8270 MIL-C-17-D	196A/U	30 (7x38) Silver coated Copper-weld	TFE TEFLON	1 Silver coated copper	White TFE TEFLON	.076	50	69.5	29	400 29.0 Max.	100 500
 8267 MIL-C-17-D	8267 MIL-C-17-D	213/U	13 (7x21) bare copper	Polyethylene	1 bare copper	Black non-contaminating vinyl	.405	50	66%	28.5	100 2.10 200 3.30 400 4.50	500 1000
 8268 MIL-C-17-D	8268 MIL-C-17-D	214/U	13 (7x.0296) Silver coated copper	Polyethylene	2 Silver coated copper	Black non-contaminating vinyl	.425	50	66%	30	100 2.10 200 3.30 400 4.50	500 1000

Manufactured to current Government specifications and subsequent revisions.

REQUEST QUOTATIONS ON PRODUCTION QUANTITIES OF RG/U CABLES NOT LISTED.

RG/U COAXIAL CABLES

Belden's RG/U cables are manufactured and laboratory tested in accordance with existing military specifications. These cables combine low capacitance and low attenuation. The virgin polyethylene insulation assures constant electrical characteristics regardless of changes in frequency or temperature.

A variety of available jacket types include abrasion resistant polyethylene, polyvinylchloride (recommended for chemical and weather resistance) and a special non-contaminating vinyl compounded for applications above 3000 megacycles.

Typical applications: Flexible test leads, patch cords and high voltage leads (consult applicable Mil Spec for dielectric rating of individual RG/U types). Excellent for audio applications.

Note: Maximum temperature rating of polyethylene is 80°C (176°F). The polyethylene insulation begins to soften above this temperature.

FOAM CORE RG-8/U AND RG-58A/U TYPE TRANSMISSION LINE

Description	Trade Number	AWG & (Stranding) Material	Percent Shield Coverage	Nom. O.D. (Inch)	Nom. Impedance (Ohms)	Nom. Velocity of Propagation	Nom. Cap. (mmf/ft)	Nom. Attenuation per 100' db	Standard Spool Lengths in ft.
 Foam core RG-8/U type—for use in citizens' band and amateur radio as a 50 ohm antenna cable.	8214	11 (7x19)	96.8	.403	50	78%	26	50 1.20 100 1.80 200 2.60 300 3.30 400 3.80	50, 100, 500, 1000
 NEW 8219	NEW 8219	20 (19x32)	96	.195	50	78%	26	50 3.6 100 4.8 200 7.6 300 8.5 400 10.1	100 500 1000
Foam core RG-58A/U type for use in citizens' band and amateur radio as a 50 ohm antenna cable.									

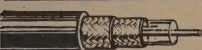
Conductor, cellular polyethylene insulated, bare copper braid shield, black vinyl jacket.

foam coaxial RG/U types
and high voltage cables

Belden

FOAM COAXIAL RG/U TYPES AND CLOSED CIRCUIT TV CABLES

ALL CABLES IN THIS GROUP ARE SWEEP TESTED

Description	Trade Number	AWG & (Stranding) Material	Percent Shield Coverage	Nom. O.D. (Inch)	Nom. Impedance (Ohms)	Nom. Velocity of Propagation	Nom. Cap. (mmf. ft)	Nom. Attenuation per 100		Standard Spool Lengths in ft
	8211 Black	22 (Solid) Copperweld	94.6	.242	80	78%	16.3	50 100 200 300 400	2.4 3.4 4.8 5.8 6.7	500, 1000, 2000
		<i>Fits the same connectors as RG-59/U Foam core RG-59/U type</i>								
	8212 Black	20 (Solid) Copperweld	94.6	.242	75	78%	17.3	50 100 200 300 400	2.3 3.2 4.5 5.5 6.3	500, 1000, 2000
		<i>Foam core RG-59/U type</i>								
	8217 White	22 (Solid) Copperweld	94.6	.242	80	78%	16.3	50 100 200 300 400	2.4 3.4 4.8 5.8 6.7	100, 500, 1000
		<i>Fits the same connectors as RG-59/U Foam core RG-59/U type</i>								
	8213 Black	14 (Solid) copper	96.8	.405	75	78%	17.3	50 100 200 300 400	1.0 1.5 2.3 2.9 3.4	500, 1000, 2000
		<i>Foam core RG-11/U type</i>								
	8215 Black	21 (Solid) Copperweld	96.6 (inner shield)	.332	75	66%	20.5	50 100 200 300 400	2.0 2.9 4.3 5.4 6.5	100, 500, 1000
		<i>RG-6A/U type</i>								
		<i>Conductor, polyethylene insulated, bare copper braid shield, black polyethylene jacket.</i>								
	8232 Black	20 (Solid) Copperweld	94.6 (inner shield)	.315	75	78%	17.3	50 100 200 300 400	2.3 3.2 4.5 5.5 6.3	500, 1000, 2000
		<i>Conductor, cellular polyethylene insulated, bare copper braid shield, polyethylene insulated, bare copper braid shield, black polyethylene jacket.</i>								
	8233 Black	14 (Solid) copper	82.5 (inner shield)	.475	75	78%	17.3	50 100 200 300 400	1.0 1.5 2.3 2.9 3.4	500, 1000, 2000
		<i>Conductor, cellular polyethylene insulated, bare copper braid shield, black polyethylene jacket.</i>								
		<i>Triaxial</i>								

SWEEP TESTING

For satisfactory transmission of a signal through a cable at any frequency, Belden Sweep Tests every length of its Community TV Cables at all channels in the VHF Frequency range on an oscilloscope.

Sweep Testing, performed by trained technicians using the most modern equipment, prevents unsatisfactory program reception due to

imperfections in the cable acting as "Filter Traps" at some frequencies.

The black polyethylene jackets on Belden numbers 8211, 8212, 8213, 8215, 8232, and 8233 are manufactured with a noncontaminating, nonmigratory compound specially formulated for superior weather resistance.

HIGH VOLTAGE CATHODE-RAY TUBE LEAD

Description	Trade Number	AWG & (Stranding)	Insulation Thickness (Inch)	Jacket Thickness (Inch)	Nom. O.D. (Inch)	Jacket Color	Break-down Voltage	Suggested Working Voltage	Standard Spool Lengths in ft
	8868	22 (7x30)	.045	.015	.150	Red	50,000	25,000	25, 100, 500
	8869	22 (7x30)	.030	.015	.120	Blk	35,000	17,000	25, 100, 500
		<i>8869 for use with non-conductive ceramic flyback cores.</i>							

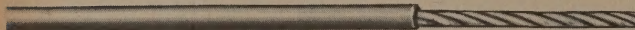
80 KV D.C. HIGH VOLTAGE CABLE

Description	Trade Number	AWG & (Stranding)	Insulation Thickness (Inch)	Jacket Thickness (Inch)	Nom. O.D. (Inch)	Jacket Color	Break-down Voltage	Suggested Working Voltage	Standard Spool Lengths in ft
	8870	22 (Solid) Copperweld	.142	.020	.440	Black	160,000 D.C.	80,000 D.C.	100
		<i>Solid Copperweld, conductive polyethylene, polyethylene insulation, tinned copper braid equipotential sheath, black polyethylene jacket.</i>							

Conductive polyethylene over inner conductor combined with a copper wire braid over the dielectric provides uniform distribution of voltage stress. Consult Belden Engineering Department for AC or pulse applications.

Belden

mil-w-16878d vinyl plastic

TYPE B—VINYL—600V—105C

Tinned copper, vinyl insulated.

Trade Number	Type Designation	AWG & (Stranding)	Insulation Thickness (Inch)	Nom. O.D. (Inch)	Stock Colors on Standard Spools			Stock Colors
					100	500	1000	
8599	B-32	32(7x40)	.010	.029	1 thru 10	—	1 thru 10	1 Brown 2 Red 3 Orange 4 Yellow 5 Green 6 Light Blue 7 Violet (purple) 8 Gray (slate) 9 White 10 Black 14 White/Black 15 White/Red 16 White/Green 17 White/Yellow 18 White/Blue 19 White/Brown 20 White/Orange 21 White/Gray 22 White/Violet
8598	B-30	30(7x38)	.010	.032	1 thru 10	—	1 thru 10	
8597	B-28	28(7x36)	.010	.035	1 thru 10	—	1 thru 10	
8505	B-26	26(7x34)	.010	.039	1 thru 10 14 thru 22	1 thru 10 —	1 thru 10 14 thru 22	
8509	B-24	24(19x36)	.010	.045	9, 14 thru 22	—	9, 14 thru 22	
8504	B-24	24(7x32)	.010	.044	1 thru 10 14 thru 22	1 thru 10 14 thru 22	1 thru 10 14 thru 22	
8508	B-22	22(19x34)	.010	.051	9, 14 thru 22	—	9, 14 thru 22	
8503	B-22	22(7x30)	.010	.050	1 thru 10 14 thru 22	1 thru 10 14 thru 22	1 thru 10 14 thru 22	
8507	B-20	20(19x32)	.010	.059	9, 14 thru 22	—	9, 14 thru 22	
8502	B-20	20(7x28)	.010	.058	1 thru 10 14 thru 22	1 thru 10 —	1 thru 10 14 thru 22	
8501	B-18	18(7x26)	.010	.068	1 thru 10 14 thru 22	1 thru 10 —	1 thru 10 14 thru 22	
8500	B-16	16(19x29)	.010	.077	1 thru 10 14 thru 22	1 thru 10 —	1 thru 10 14 thru 22	

TYPE B—VINYL-NYLON JACKET—600V—115C

Tinned copper, vinyl insulated, nylon jacket overall.

Trade Number	Type Designation	AWG & (Stranding)	Insulation Thickness (Inch)	Nom. O.D. (Inch)	Stock Colors on Standard Spools		Stock Colors
					100	1000	
8515	B-26	26(7x34)	.010	.045	1 thru 10	1 thru 10	1 Brown 2 Red 3 Orange 4 Yellow 5 Green 6 Light Blue 7 Violet (purple) 8 Gray (slate) 9 White 10 Black 14 White/Black 15 White/Red 16 White/Green 17 White/Yellow 18 White/Blue 19 White/Brown 20 White/Orange 21 White/Gray 22 White/Violet
8519	B-24	24(19x36)	.010	.051	1 thru 10	1 thru 10	
8514	B-24	24(7x32)	.010	.050	1 thru 10 14 thru 22	1 thru 10 14 thru 22	
8518	B-22	22(19x34)	.010	.057	1 thru 10	1 thru 10	
8513	B-22	22(7x30)	.010	.056	1 thru 10 14 thru 22	1 thru 10 14 thru 22	
8517	B-20	20(19x32)	.010	.065	1 thru 10 14 thru 22	1 thru 10 14 thru 22	
8512	B-20	20(7x28)	.010	.064	1 thru 10 14 thru 22	1 thru 10 14 thru 22	
8516	B-18	18(19x30)	.010	.075	9, 14 thru 22	9, 14 thru 22	
8511	B-18	18(7x26)	.010	.074	1 thru 10 14 thru 22	1 thru 10 14 thru 22	
8510	B-16	16(19x29)	.010	.083	1 thru 10 14 thru 22	1 thru 10 14 thru 22	

Manufactured to current Government specifications and subsequent revisions.

mil-w-16878d vinyl plastic and teflon

Belden**TYPE C—VINYL & VINYL-NYLON—1000V.**

VINYL

VINYL-NYLON

Tinned copper, vinyl insulated.

Tinned copper, vinyl insulated, Nylon jacket overall.

Trade Number	Type Designation	AWG & (Stranding)	Insulation Type	Insulation Thickness (Inch)	Nom. O.D. (Inch)	Temperature Rating	Stock Colors on Standard Spools		Stock Colors
							100	1000	
8955	C-24	24(7x32)	Vinyl	.018	.058	105C	9	9	
8954	C-22	22(7x30)	Vinyl	.018	.064	105C	1 thru 10	1 thru 10	
8960	C-22	22(7x30)	Vinyl-Nylon	.018	.070	115C	1 thru 10	1 thru 10	
8953	C-20	20(7x28)	Vinyl	.018	.072	105C	1 thru 10	1 thru 10	
8959	C-20	20(7x28)	Vinyl-Nylon	.018	.078	115C	1 thru 10	1 thru 10	
8952	C-18	18(7x26)	Vinyl	.018	.082	105C	1 thru 10	1 thru 10	
8958	C-18	18(7x26)	Vinyl-Nylon	.018	.089	115C	1 thru 10	1 thru 10	
8951	C-16	16(19x29)	Vinyl	.018	.091	105C	9	9	
8957	C-16	16(19x29)	Vinyl-Nylon	.018	.098	115C	9	9	
8950	C-14	14(19x27)	Vinyl	.018	.105	105C	9	9	
8956	C-14	14(19x27)	Vinyl-Nylon	.018	.114	115C	9	9	

1 Brown
2 Red
3 Orange
4 Yellow
5 Green
6 Light Blue
7 Violet (purple)
8 Gray (slate)
9 White
10 Black

14 White/Black
15 White/Red
16 White/Green
17 White/Yellow
18 White/Blue
19 White/Brown
20 White/Orange
21 White/Gray
22 White/Violet

TYPE D—VINYL—3000V—105C

Tinned copper, vinyl insulated.

Trade Number	Type Designation	AWG & (Stranding)	Insulation Thickness (Inch)	Nom. O.D. (Inch)	Stock Colors on Standard Spools			Stock Colors
					100	500	1000	
8971	D-22	22(7x30)	.030	.090	1 thru 10	—	1 thru 10	
8970	D-20	20(7x28)	.030	.098	1 thru 10	—	1 thru 10	
8969	D-18	18(7x26)	.030	.108	1 thru 10	—	1 thru 10	
8968	D-16	16(19x29)	.030	.117	9	—	9	
8967	D-14	14(19x27)	.030	.131	9	—	9	
8966	D-12	12(19x25)	.035	.160	9	—	9	
8965	D-10	10(37x26)	.035	.178	9	—	9	
8964	D-8	8(133x29)	.040	.245	9	9	—	
8963	D-6	6(133x27)	.040	.290	9	9	—	

1 Brown
2 Red
3 Orange
4 Yellow
5 Green
6 Light Blue
7 Violet (purple)
8 Gray (slate)
9 White
10 Black

14 White/Black
15 White/Red
16 White/Green
17 White/Yellow
18 White/Blue
19 White/Brown
20 White/Orange
21 White/Gray
22 White/Violet

TYPE E—TFE TEFLON—600V—200C

TYPE E 600V—200C

TYPE EE—TFE TEFLON—1000V—200C

TYPE EE 1000V—200C

Concentrically stranded silver coated copper conductor, extruded TFE Teflon insulated

Trade Number	Type Designation	AWG & (Stranding)	Nom. O.D. (Inch)	Stock Colors	Standard Spool Lengths in ft.	Trade Number	Type Designation	AWG & (Stranding)	Nom. O.D. (Inch)	Stock Colors	Standard Spool Lengths in ft.
8300	E-30	30(7x38)	.033	1 thru 10	25, 100, 500, 1000	8323	EE-24	24(19x36)	.053	1 thru 10	25, 100, 500
8301	E-28	28(7x36)	.036	1 thru 10	25, 100, 500, 1000	8325	EE-22	22(7x30)	.058	1 thru 10	25, 100, 500
8302	E-26	26(7x34)	.041	1 thru 10	25, 100, 500, 1000	8326	EE-22	22(19x34)	.060	1 thru 10	25, 100, 500, 1000
8303	E-24	24(19x36)	.046	1 thru 10	25, 100, 500	8327	EE-20	20(19x32)	.068	1 thru 10	25, 100, 500, 1000
8304	E-24	24(7x32)	.045	1 thru 10	25, 100, 500, 1000	8328	EE-20	20(7x28)	.066	1 thru 10	25, 100, 500
8305	E-22	22(7x30)	.051	1 thru 10	25, 100, 500, 1000	8329	EE-18	18(19x30)	.079	1 thru 10	25, 100, 500, 1000
8306	E-22	22(19x34)	.052	1 thru 10	25, 100, 500, 1000	8330	EE-16	16(19x29)	.086	1 thru 10	25, 100, 500, 1000
8307	E-20	20(19x32)	.060	1 thru 10	25, 100, 500, 1000	Stock Colors 1. Brown 3. Orange 5. Green 7. Violet (purple) 9. White 2. Red 4. Yellow 6. Light Blue 8. Gray (slate) 10. Black Color stripping available on 1,000 ft. minimum per item each color on 500' and 1000' spools.					
8308	E-20	20(7x28)	.059	1 thru 10	25, 100, 500						
8309	E-18	18(19x30)	.071	1 thru 10	25, 100, 500, 1000						
8310	E-16	16(19x29)	.080	1 thru 10	25, 100, 500, 1000						

Manufactured to current Government specifications and subsequent revisions.

Belden

mil-w-76b vinyl plastic

TYPE MW—VINYL & VINYL-NYLON—1000 V

VINYL

VINYL-NYLON



Tinned copper, vinyl insulated, medium wall. The extruded vinyl insulation is flame and ozone-resistant and is inert to most chemicals, oils, and solvents.

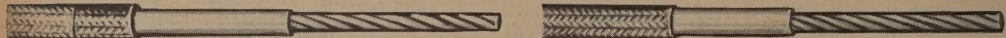
Tinned copper, vinyl insulated. Medium wall, clear nylon jacket overall.

Trade Number	Type Designation	AWG & (Stranding)	Insulation Type	Insulation Thickness (Inch)	Nom. O.D. (Inch)	Temperature Rating	Stock Colors on Standard Spools				Stock Colors
							25	100	500	1000	
8525	MW-C-24-(7)-U	24(7x32)	Vinyl	.017	.058	80C	—	1 thru 22	1 thru 22	1 thru 22	First color in stripe combination is body color and second or third colors are stripes. (White/Black/Red).
8538	MW-C-24-(1)-U	24(Solid)	Vinyl	.017	.054	80C	—	1 thru 22	—	1 thru 22	
8524	MW-C-22-(7)-U	22(7x30)	Vinyl	.017	.064	80C	1 thru 13	1 thru 30	1 thru 30	1 thru 30	
8530	MW-C-22-(1)-U	22(Solid)	Vinyl	.017	.059	80C	1 thru 13	1 thru 30	1 thru 30	1 thru 30	1 Brown
8537	MW-C-22-(7)-J	22(7x30)	Vinyl-Nylon	.017	.069	90C	—	1 thru 10 14 thru 22	—	1 thru 10 14 thru 22	2 Red
8523	MW-C-20-(10)-U	20(10x30)	Vinyl	.017	.070	80C	1 thru 13	1 thru 30	1 thru 30	1 thru 30	3 Orange
8529	MW-C-20-(1)-U	20(Solid)	Vinyl	.017	.066	80C	1 thru 13	1 thru 22	1 thru 22	1 thru 22	4 Yellow
8536	MW-C-20-(10)-J	20(10x30)	Vinyl-Nylon	.017	.076	90C	—	1 thru 10	—	1 thru 10	5 Green
8522	MW-C-18-(16)-U	18(16x30)	Vinyl	.017	.080	80C	1 thru 13	1 thru 30	1 thru 30	1 thru 30	6 Light Blue
8528	MW-C-18-(1)-U	18(Solid)	Vinyl	.017	.074	80C	—	1 thru 13	1 thru 13	1 thru 13	7 Violet (purple)
8535	MW-C-18-(16)-J	18(16x30)	Vinyl-Nylon	.017	.086	90C	—	1 thru 10	—	1 thru 10	8 Gray (slate)
8521	MW-C-16-(26)-U	16(26x30)	Vinyl	.019	.098	80C	—	1 thru 22	1 thru 22	1 thru 22	9 White
8531	MW-C-16-(1)-U	16(Solid)	Vinyl	.017	.085	80C	—	1 thru 10	1 thru 10	1 thru 10	10 Black
8520	MW-C-14-(41)-U	14(41x30)	Vinyl	.020	.111	80C	—	1 thru 22	1 thru 22	1 thru 22	11 Tan
8527	MW-C-12-(65)-U	12(65x30)	Vinyl	.020	.130	80C	—	1 thru 10	1 thru 10	1 thru 10	12 Pink

TYPE MW—SHIELDED—WITH & WITHOUT NYLON JACKET—1000V—80C

WITH JACKET

WITHOUT JACKET



Tinned copper, vinyl insulation. Medium wall, tinned copper shield, nylon jacket.

Tinned copper, vinyl insulation. Medium wall, tinned copper shield overall.

Trade Number	Type Designation	AWG & (Stranding)	Insulation Thickness (Inch)	Jacket	Nom. O.D. (Inch)	Stock Colors on Standard Spools			Stock Colors
						100	500	1000	
8887	MW-C-24-(7)-S	24(7x32)	.017	None	.082	1 thru 10	—	1 thru 10	1 Brown 2 Red 3 Orange 4 Yellow 5 Green
8883	MW-C-22-(7)-S	22(7x30)	.017	None	.088	1 thru 10	—	1 thru 10	
8893	MW-C-22-(7)-SJ	22(7x30)	.017	Nylon	.096	9	9	9	
8886	MW-C-20-(10)-S	20(10x30)	.017	None	.096	1 thru 10	—	1 thru 10	
8896	MW-C-20-(10)-SJ	20(10x30)	.017	Nylon	.105	9	9	9	
8882	MW-C-18-(16)-S	18(16x30)	.017	None	.105	1 thru 10	—	1 thru 10	6 Light Blue 7 Violet (purple) 8 Gray (slate) 9 White 10 Black
8892	MW-C-18-(16)-SJ	18(16x30)	.017	Nylon	.114	9	9	9	
8884	MW-C-16-(26)-S	16(26x30)	.019	None	.122	1 thru 10	—	1 thru 10	
8894	MW-C-16-(26)-SJ	16(26x30)	.019	Nylon	.132	9	—	9	
8881	MW-C-14-(41)-S	14(41x30)	.020	None	.135	9, 10	—	9, 10	
8880	MW-C-12-(65)-S	12(65x30)	.020	None	.154	9, 10	—	9, 10	

Manufactured to current Government specifications and subsequent revisions.

BELDEN PAGE 21

mil-w-76b vinyl plastic

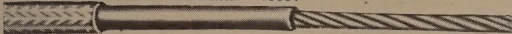
Belden**TYPE MW-GLASS BRAID-SHIELDED—1000V—80C**

Tinned copper, vinyl insulated. Medium wall, lacquered glass braid, tinned copper shield overall.

Trade Number	Type Designation	AWG & (Stranding)	Insulation Thickness (Inch)	Nom. O.D. (Inch)	Stock Colors on Standard Spools		Stock Color
					100	1000	
8863	MW-C-22(7)-BS	22(7x30)	.017	.102	9	9	White only (9)
8862	MW-C-20(10)-BS	20(10x30)	.017	.110	9	9	
8861	MW-C-18(16)-BS	18(16x30)	.017	.119	9	9	
8860	MW-C-16(26)-BS	16(26x30)	.019	.136	9	9	
8859	MW-C-14(41)-BS	14(41x30)	.020	.149	9	9	
8858	MW-C-12(65)-BS	12(65x30)	.020	.168	9	9	

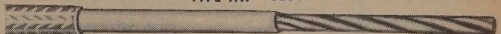
TYPE MW & HW VINYL—GLASS BRAID (OVERALL)—80C

TYPE MW 1000V



Tinned copper, vinyl insulated. Medium wall, lacquered glass braid overall.

TYPE HW—600V



Tinned copper, vinyl insulated. Heavy wall, lacquered glass braid.

Trade Number	Type Designation	AWG & (Stranding)	Insulation Thickness (Inch)	Nom. O.D. (Inch)	Voltage Rating	Stock Colors on Standard Spools			Stock Colors
						100	500	1000	
8566	MW-C-22(7)-B	22(7x30)	.017	.078	1000V	1 thru 10	—	1 thru 10	1 Brown 124 White/Brown 2 Red 125 White/Red 3 Orange 126 White/Orange 4 Yellow 127 White/Yellow 5 Green 128 White/Green 6 Light Blue 129 White/Blue 7 Violet (purple) 130 White/Violet 8 Gray (slate) 131 White/Gray 9 White 132 White/Black 10 Black
8565	MW-C-20(10)-B	20(10x30)	.017	.086	1000V	1 thru 10	—	1 thru 10	
8564	MW-C-18(16)-B	18(16x30)	.017	.095	1000V	1 thru 10 124 thru 132	—	1 thru 10 124 thru 132	
8563	MW-C-16(26)-B	16(26x30)	.019	.112	1000V	1 thru 10 124 thru 132	—	1 thru 10 124 thru 132	
8562	MW-C-14(41)-B	14(41x30)	.020	.125	1000V	9, 124 thru 132	—	9, 124 thru 132	
8561	MW-C-12(65)-B	12(65x30)	.020	.144	1000V	9, 125, 132	—	9, 125, 132	
8591	HW-C-10(105)-B	10(105x30)	.048	.238	600V	9, 125, 132	—	9, 125, 132	
8590	HW-C-8(133)-B	8(133x29)	.048	.279	600V	9	9	—	
8589	HW-C-6(133)-B	6(133x27)	.048	.328	600V	9	9	—	

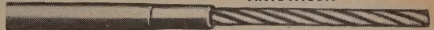
TYPE LW—VINYL & VINYL-NYLON—300V

VINYL



Tinned copper, vinyl insulated. Light wall.

VINYL-NYLON



Tinned copper, vinyl insulated. Light wall, clear nylon jacket overall.

Trade Number	Type Designation	AWG & (Stranding)	Insulation Type	Insulation Thickness (Inch)	Nom. O.D. (Inch)	Temperature Rating	Stock Colors on Standard Spools		Stock Colors
							100'	1000'	
8571	LW-C-28(7)-U	28(7x36)	Vinyl	.011	.037	80C	1 thru 10	1 thru 10	1 Brown 6 Light Blue 2 Red 7 Violet (purple) 3 Orange 8 Gray (slate) 4 Yellow 9 White 5 Green 10 Black
8578	LW-C-28(7)-J	28(7x36)	Vinyl-Nylon	.011	.042	90C	—	1 thru 10	
8570	LW-C-26(7)-U	26(7x34)	Vinyl	.011	.041	80C	1 thru 10	1 thru 10	
8577	LW-C-26(7)-J	26(7x34)	Vinyl-Nylon	.011	.046	90C	—	1 thru 10	
8569	LW-C-24(7)-U	24(7x32)	Vinyl	.011	.046	80C	1 thru 10	1 thru 10	
8576	LW-C-24(7)-J	24(7x32)	Vinyl-Nylon	.011	.051	90C	—	1 thru 10	
8568	LW-C-22(7)-U	22(7x30)	Vinyl	.012	.054	80C	1 thru 10	1 thru 10	
8575	LW-C-22(7)-J	22(7x30)	Vinyl-Nylon	.012	.059	90C	—	1 thru 10	
8567	LW-C-20(10)-U	20(10x30)	Vinyl	.012	.060	80C	1 thru 10	1 thru 10	
8574	LW-C-20(10)-J	20(10x30)	Vinyl-Nylon	.012	.065	90C	—	1 thru 10	

Manufactured to current Government specifications and subsequent revisions.

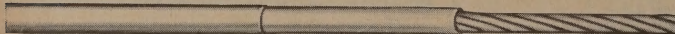
Belden

mil-w-76b vinyl plastic
mil-w-5086a & mil-w-7078a aircraft wire

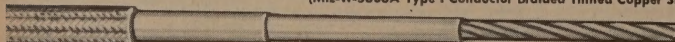
TYPE HW—VINYL—Gauges 16-22 2500V, Gauges 6-14 600V—80C

Tinned copper, vinyl insulated. Heavy wall.

Trade Number	Type Designation	AWG & (Stranding)	Insulation Thickness (Inch)	Nom. O.D. (Inch)	Stock Colors on Standard Spools			Stock Colors
					100'	500'	1000'	
8586	HW-C-18(16)-U	18(16x30)	.034	.115	1 thru 10	—	1 thru 10	1 Brown 2 Red 3 Orange 4 Yellow 5 Green 6 Light Blue 7 Violet (purple) 8 Gray (slate) 9 White 10 Black
8585	HW-C-16(19)-U	16(26x30)	.034	.128	2, 9, 10	—	2, 9, 10	
8584	HW-C-14(19)-U	14(41x30)	.048	.171	2, 9, 10	—	2, 9, 10	
8583	HW-C-12(19)-U	12(65x30)	.048	.191	2, 9, 10	—	2, 9, 10	
8582	HW-C-10(37)-U	10(105x30)	.048	.220	2, 9, 10	—	2, 9, 10	
8581	HW-C-8(127)-U	8(133x29)	.048	.261	2, 9, 10	2, 9, 10	—	
8580	HW-C-6(127)-U	6(133x27)	.048	.310	2, 9, 10	2, 9, 10	—	

MIL-W-5086A—TYPES 1 & 2—600V**UNSHIELDED**

Trade Number	MIL Type Designation	AWG & (Stranding)	Nom. O.D. (Inch)	Spec. Type	Stock Colors on Standard Spools			Stock Color
					100	500	1000	
8541	AN-22	22(19x34)	.068	No. 1	9	—	9	White only (9) Additional Description MIL-W-5086A-Type I AN-22 thru AN-12. Stranded tinned copper, white vinyl, clear nylon jacket insulation.
8542	AN-20	20(19x32)	.078	No. 1	9	—	9	
8543	AN-18	18(19x30)	.088	No. 1	9	—	9	
8544	AN-16	16(19x29)	.098	No. 1	9	—	9	
8545	AN-14	14(19x27)	.117	No. 1	9	9	9	
8546	AN-12	12(19x25)	.137	No. 1	9	9	9	
8559	AN-22	22(19x34)	.075	No. 2	9	—	9	MIL-W-5086A-Type II AN-22 thru AN-12 Stranded tinned copper, white vinyl insulation, saturated glass braid, clear nylon jacket.
8558	AN-20	20(19x32)	.085	No. 2	9	—	9	
8557	AN-18	18(19x30)	.095	No. 2	9	—	9	
8556	AN-16	16(19x29)	.105	No. 2	9	—	9	
8555	AN-14	14(19x27)	.125	No. 2	9	9	9	
8554	AN-12	12(19x25)	.143	No. 2	9	9	9	
8553	AN-10	10(49x27)	.190	No. 2	9	9	9	MIL-W-5086A-Type II AN-10 thru AN-00 Stranded tinned copper, white vinyl insulation, saturated glass braid, nylon braid, nylon lacquer.
8552	AN-8	8(133x29)	.240	No. 2	9	9	—	
8551	AN-6	6(133x27)	.293	No. 2	9	9	—	
8550	AN-4	4(133x25)	.355	No. 2	9	9	—	
8549	AN-2	2(665x30)	.425	No. 2	9	—	—	
8548	AN-0	0(1045x30)	.525	No. 2	9	—	—	
8547	AN-00	00(1330x30)	.590	No. 2	9	—	—	

MIL-C-7078A—TYPE 1—600 VOLT
 (MIL-W-5086A Type I Conductor Braided Tinned Copper Shield)


Trade Number	MIL Type Designation	AWG & (Stranding)	Nom. O.D. (Inch)	Spec. Type	Stock Colors on Standard Spools			Stock Color
					100	500	1000	
8855	AN-22	22(19x34)	.092	No. 1	9	—	9	White only (9) Additional Description Stranded tinned copper, white vinyl insulation, nylon jacket, braided tinned copper shield.
8854	AN-20	20(19x32)	.102	No. 1	9	—	9	
8853	AN-18	18(19x30)	.112	No. 1	9	—	9	
8852	AN-16	16(19x29)	.122	No. 1	9	9	—	
8851	AN-14	14(19x27)	.141	No. 1	9	—	—	
8850	AN-12	12(19x25)	.156	No. 1	9	—	—	

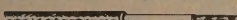
Manufactured to current Government specifications and subsequent revisions.

hook-up and lead wires—grid wire
shielding and bonding cable—bus bar wire

Belden

UL TYPE HOOK-UP AND LEAD WIRES

UL-600V-90C (CSA-TYPE TRB)

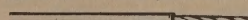
 Tinned copper, vinyl insulated,
cotton braid, lacquered

Trade Number	AWG & (Stranding)	Insulation Thickness (Inch)	Nom. O.D. (Inch)	Stack Colors	Standard Spool Lengths in ft
8937	22(7x30)	.016	.091	1, 2, 3, 4, 5, 9, 10, 13	100, 1000
8936	20(10x30)	.017	.098	1, 2, 3, 4, 5, 9, 10, 13	100, 1000
8935	18(16x30)	.017	.113	1, 2, 3, 4, 5, 9, 10, 13	100, 1000
8934	16(26x30)	.017	.126	1, 2, 3, 4, 5, 9, 10, 13	100, 500
8933	14(41x30)	.031	.177	1, 2, 3, 4, 5, 9, 10, 13	100, 500

For color coding see Page 25.

UL rated 600V for electronic circuits only—300V for other applications.

UL-600V-105C (CSA-600V-TYPE TEW)

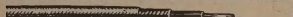
 Tinned copper, vinyl insulated.

Trade Number	AWG & (Stranding)	Insulation Thickness (Inch)	Nom. O.D. (Inch)	Stack Colors	Standard Spool Lengths in ft
8920	22(7x30)	.031	.095	1, 2, 3, 4, 5, 9, 10, 13	100, 1000
8919	20(10x30)	.031	.102	1, 2, 3, 4, 5, 9, 10, 13	100, 1000
8918	18(16x30)	.031	.112	1, 2, 3, 4, 5, 9, 10, 13	100, 1000
8917	16(26x30)	.031	.126	1, 2, 3, 4, 5, 9, 10, 13	100, 500
8916	14(41x30)	.031	.141	1, 2, 3, 4, 5, 9, 10, 13	100, 500

For color coding see Page 25.

UL rated 2500 volts peak for electronic circuits.

GRID WIRE

Description	Trade Number	AWG & Stranding	Insulation Thickness (Inch)	Nom. O.D. (Inch)	Suggested Working Voltage	Breakdown Voltage	Nom. Cap. (mmf/ft)	Standard Spool Lengths in ft
	8885	20(10x30)	.015	.117	300	4000	80	15, 25, 100, 500

Tinned copper, rubber insulated, cellulose acetate braid, lacquered, tinned copper braid shield.

SHIELDING AND BONDING CABLES



Cables conforming to QQ8575 can be manufactured on a special order basis.

Braided tinned copper.

Standard Spool: 10, 50, 250 feet

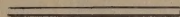
Trade Number	Stranding	Approx. Cir. Mil. Area	Nom. I.D. (Inch)	Approx. Flat Dimension (Inch)
8676	16x36	400	1/32	.025x .035
8674	24x36	600	3/64	.030x .045
8660	96x34	3,800	1/8	.050x .150
8668	120x34	4,700	11/64	.060x .205
8663	168x34	6,700	1/4	.060x .275
8661	192x34	7,600	3/8	.060x .310
8669	336x34	13,300	1/2	.060x .520
8672	528x36	13,200	3/8	.040x .580
8662	576x34	22,900	23/32	.100x .590
8670	480x30	48,000	3/4	.125x .750
8671	864x36	21,600	1	.050x 1.000

This braided cable will provide approximately 90% shield coverage when applied over the recommended diameter.

For additional sizes, see current BRAIDED AND STRANDED COPPER CABLE CATALOG.

BUS BAR WIRE

Made in accordance with Federal Spec QQ-W-343.



Solid tinned copper.

Standard Spool: 100, 1000 feet

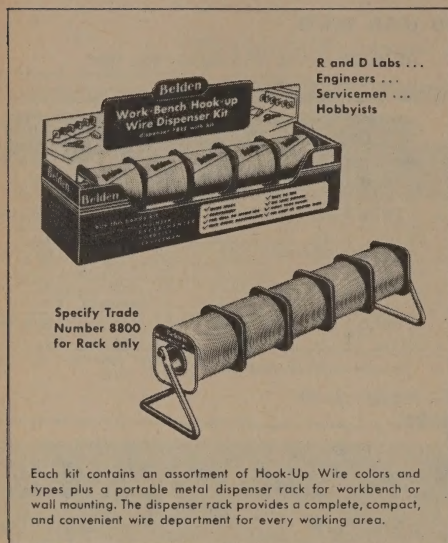
Trade Number	AWG	Nom. O.D. (Inch)	Circular Mil. Area
8025	30	.010	100.0
8024	28	.012	159.0
8023	26	.016	253.0
8022	24	.020	404.0
8021	22	.025	640.0
8020	20	.032	1020.0
8019	18	.040	1620.0
8013	16	.050	2580.0
8012	14	.064	4110.0
8011	12	.080	6530.0

8011 Available in 100' spool only.

Belden

hook-up wire, antenna and litz wire

KITS—HOOK-UP WIRE ON RACKS



Trade Number	No. of Spools	Spool Lengths	Type of Wire	Colors in Kit
8822	10	25'	20 solid, Type MW vinyl (8529-25)	1, 2, 3, 4, 5, 6, 7, 8, 9, 10
8823	5	100'	20 solid, Type MW vinyl (8529-100)	2, 5, 6, 9, 10
8824	8	25'	20 stranded, Type MW vinyl (8523-25)	1, 2, 3, 4, 5, 6, 9, 10
8825	5	100'	20 stranded, MIL-W-16878D vinyl (8507-100)	9, 14, 15, 16, 17
8826	5	100'	22 stranded, MIL-W-16878D vinyl (8508-100)	9, 14, 15, 16, 17
8827	5	100'	22 stranded, MIL-W-16878D vinyl-nylon (8518-100)	2, 5, 6, 9, 10

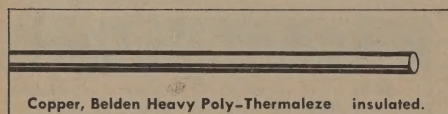
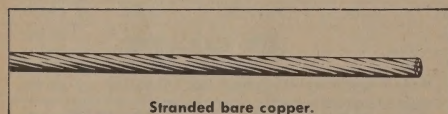
See column below for color coding.

STOCK COLORS

First color in stripe combination is body color and second or third color are stripes (White Black Red)

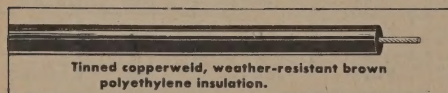
1 Brown	7 Violet (purple)	13 Dark Blue
2 Red	8 Gray (slate)	14 White Black
3 Orange	9 White	15 White Red
4 Yellow	10 Black	16 White Green
5 Green	11 Tan	17 White Yellow
6 Light Blue	12 Pink	

ANTENNA WIRE



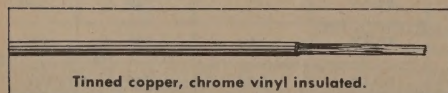
Trade Number	AWG & (Stranding)	Nom. O.D. (Inch)	Standard Spool Lengths in ft.
8002	16(7x24)	.060	50, 100
8000	14(7x22)	.076	50, 75, 100, 1000
8009	14(Solid)	.067	100, 150, 500
8008	12(Solid)	.084	100, 150, 500

RADIO ANTENNA WIRE



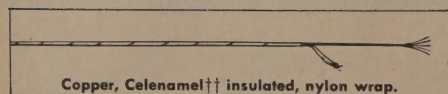
Trade Number	AWG & (Stranding)	Insulation Thickness (Inch)	Nom. O.D. (Inch)	Standard Spool Lengths in ft.
NEW 8201	20(7x28)	.121	.278	100, 500, 1000

INDOOR ANTENNA WIRE



Trade Number	AWG & (Stranding)	Insulation Thickness (Inch)	Nom. O.D. (Inch)	Standard Spool Lengths in ft.
8014	25(13x36)	.010	.044	25, 500

LITZ WIRE



Trade Number	Stranding	Nom. O.D. (Inch)	Standard Spool Lengths in ft.
8817	5x44	.008	100

†† Belden Trademark—Reg. U.S. Pat. Off.

‡ Licensed under U.S. Patent 3,022,200

magnet wire — mobile communications cable for marine and automotive

Belden



BELDSOL Magnet Wire is a dual film insulated Magnet Wire that combines the excellent dielectric characteristics of Polyurethane and the known toughness and solvent resistance offered by an overcoat of nylon. This wire is rated by IEEE tests for 130 C usage and will solder without insulation removal at 750 F.

BELDEN POLY-THERMALEZE is a dual polyester film insulated Magnet Wire rated for 180 C usage and has exceptional ability to resist solvents and abuse in difficult windings.

SINGLE BELDSOL Solderable

Size	¼ Pound Spool		½ Pound Spool		Turns per Linear Inch	Turns per Square Inch
	Trade Number	Approx. Length (Feet)	Trade Number	Approx. Length (Feet)		
14			8047	40	15.2	231
16			8048	63	19.1	365
18			8049	100	23.9	571
20			8050	160	29.9	894
22			8051	254	37.5	1410
24			8052	404	46.9	2200
26			8053	645	59.0	3480
28	8040	510	8054	1020	73.8	5450
30	8041	807	8055	1615	91.7	8410
32	8042	1257	8056	2515	114.0	13000
34	8043	2030	8057	4060	144.0	20700
36	8044	3200	8058	6400	180.0	32400
38	8045	5070			225.0	50600
40	8046	8050			290.0	84100

BELDEN HEAVY POLY-THERMALEZE High Temperature

Size	¼ Pound Spool		1 Pound Spool		Turns per Linear Inch	Turns per Square Inch
	Trade Number	Approx. Length (Feet)	Trade Number	Approx. Length (Feet)		
14	8059	40	8073	80	14.9	222
16	8060	63	8074	126	18.6	346
18	8061	100	8075	199	23.2	538
20	8062	157	8076	315	28.9	835
22	8063	250	8077	501	36.0	1296
24	8064	396	8078	793	44.7	1998
26	8065	630	8079	1260	55.7	3102
28	8066	995	8080	1990	69.4	4816
30	8067	1570	8081	3140	86.2	7430
32	8068	2440	8082	4880	106.0	11236
34	8069	3930	8083	7860	133.0	17689
36	8070	6200	8084	12400	167.0	27889
38	8071	9700	8085	19400	225.0	50600
40	8072	16050	8086	32100	290.0	84100

38 AWG & 40 AWG Polyester, Blue Color

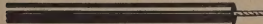
PRIMARY WIRE—MARINE AND AUTO

S.A.E. TYPE G.P.T.

Bare copper, vinyl insulated.

Trade Number	AWG & (Stranding)	Insulation Thickness (Inch)	Nom. O.D. (Inch)	Color	Standard Spool
8685	16 (19x29)	.023	.102	Black	100
8684	14 (19x27)	.023	.117	Green	100
8683	12 (19x25)	.026	.142	Red	100
8682	10 (19x23)	.031	.175	White	100
8681	8 (19x21)	.037	.219	Chrome	100
8680	6 (37x21)	.043	.290	Chrome	100
NEW 8679	4 (61x22)	.061	.350	Chrome	100

MARINE RADIO ANTENNA WIRE

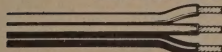


WEATHER-RESISTANT

Tinned Copperweld
polyethylene insulated

Trade No.	AWG & (Stranding)	Insulation Thickness (Inch)	Nom. O.D. (Inch)	Standard Spool
NEW 8201	20 (7x28)	.121	.278	100, 500, 1000

3 & 4 CONDUCTOR PARALLEL BONDED PRIMARY WIRE



Bare copper, vinyl insulated.

Trade Number	AWG & (Stranding)	Insulation Thickness (Inch)	Nom. O.D. (Inch)	Color Coding	Standard Spool
8475	16-3 19x29	.023	.102x .295	Wht./Brn Red	100, 500
8476	16-4 19x29	.023	.102x .400	Wht./Brn Yel./Grn	100, 500

Conforms to SAE and Outboard Industries
Association Color Coding for boat trailers.

DUPLEX PRIMARY WIRE

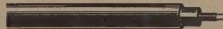


Tinned copper, vinyl insulated,
conductors parallel, chrome
vinyl jacket.

Standard Spools: 100 and 500 feet

Trade Number	AWG & (Stranding)	Insulation Thickness (Inch)	Jacket Thickness (Inch)	Nom. O.D. (Inch)	Color Coding
8677	16 (19x29)	.032	.022	.164 x .276	Brn, Red
8675	14 (19x27)	.037	.022	.189 x .326	Brn, Red
8673	12 (19x25)	.040	.022	.213 x .384	Brn, Red
8678	10 (19x23)	.040	.025	.243 x .436	Brn, Red

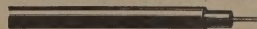
7 MM IGNITION WIRE



Ignition Radiation Suppression

Standard Spool: 100 feet

Trade Number	AWG & (Stranding)	Insulation Thickness (Inch)	Nom. O.D. (Inch)	Color
NEW 8688	Elastomer Duoprene G Conductor	.104	.278	Blk.



Tinned Copperweld
conductor

Standard Spool: 100 feet

Trade Number	AWG & (Stranding)	Insulation Thickness (Inch)	Nom. O.D. (Inch)	Color
NEW 8689	20 (7x28)	.120	.278	Blk.

| Licensed under U.S. Patent 3,022,200

AUDIO CABLE SELECTION GUIDE

The choice of appropriate audio cables for runs of varying distances depends on many factors such as amplifier voltage output and power level as well as load impedances and the percent of power loss which can be tolerated. For this reason it is not practical to provide a general chart showing the recommended wire size for all conditions. The following chart shows the maximum recommended cable runs for various wire sizes selected for commonly encountered load impedances.

Wire Size (AWG)	Maximum Length of Cable Run (Ft.)					
	Low Impedance— 10% Power Loss			High Impedance— 5% Power Loss		
	4 OHM	8 OHM	16 OHM	100 OHM	250 OHM	500 OHM
14	88	176	352	1045	2610	5220
16	55	110	220	630	1574	3150
18	35	70	140	410	1020	2050
20	22	44	88	262	655	1310
22	13	26	52	164	410	820
24	8	16	32	105	262	525

The length of cable run for a given wire size can be doubled if twice the power loss can be tolerated in the cable.

The next smaller size can be used when twice the power loss can be tolerated in the cable and the length of cable run remains the same.

To use this chart for constant voltage systems, determine the load impedance using Step 1 below. If this impedance does not appear on the chart, use Step 2 to determine the maximum length of cable run for each wire size.

STEP 1 $Z \text{ (Load Impedance)} = \frac{E^2 \text{ (Voltage} \times \text{Voltage)}}{P \text{ (Watts)}}$

STEP 2 $\text{Ft. (Max.)} = \frac{\text{Ft. (chart)} \times Z \text{ (Load Impedance)}}{Z \text{ (chart)}}$

FOR EXAMPLE Find maximum length of run for

#20 AWG pair in a 70 volt, 25 watt system.

1. $Z = \frac{70 \times 70}{25} = 196 \text{ Ohms}$ 2. $\text{Ft. (max.)} = \frac{262 \times 196}{100} = 513 \text{ feet}$

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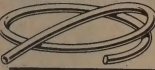


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645 STEWART AVENUE • GARDEN CITY, N. Y. 11530

Biraco-105—EXTRUDED PLASTIC TUBING



APPROVED FOR 105°C-OPERATION — MEETS MIL-1-631D SPECS — A quality plastic Vinyl tubing designed for electronic and electrical insulation work. Has high dielectric strength, extreme flexibility, non-flammability, abrasion resistance, impermeability to oil, water, alkalies, solvents, etc., high heat stability and resistance to aging. Meets all A.S.T.M. specifications, Mil. Spec. (Type F, Form U, Grades A and C, Class 2, Category 1).

B&S Gauge Size No.	Birnbach No.	Old Part No.	Nom. I.D.	Nom. Wall
24	B105-24	308	.022	.012
22	B105-22	311	.027	.012
20	B105-20	313	.034	.016
19	B105-19	—	.038	.016
18	B105-18	314	.042	.016
17	B105-17	—	.047	.016
16	B105-16	315	.053	.016
15	B105-15	—	.059	.016
14	B105-14	316	.066	.016
13	B105-13	—	.076	.016
12	B105-12	317	.085	.016
11	B105-11	—	.095	.016
10	B105-10	325	.106	.016
9	B105-9	—	.118	.020
8	B105-8	318	.133	.020
7	B105-7	—	.148	.020
6	B105-6	326	.166	.020
5	B105-5	—	.186	.020
4	B105-4	319	.208	.020
3	B105-3	—	.234	.020

STANDARD COLORS

EVEN NUMBERS — #24, 22, 20, 18, 16 — Clear Black, Yellow, Red, Green, Brown, Orange, Blue, White, Violet and Gray; #14, 12, 10, 8, 6, 4, 2, $\frac{3}{8}$ ", $\frac{1}{2}$ ", $\frac{5}{8}$ " — Clear, Black, Yellow, Red, Green, Brown, Orange, Blue and White.

ODD NUMBERS — #19, 17, 15, 13, 11, 9, 7, 5, 3, 1, 0 — Clear, Black White; $\frac{3}{4}$ " thru $2\frac{1}{2}$ " — Clear, Black, White.

STANDARD PUT-UPS

#24 thru #15	1,000' - 500' - 100' - 50' - 25' spools
#14 thru #8	500' - 100' - 50' - 25' spools
#4 thru $\frac{1}{2}$ "	250' - 100' - 50' - 25' coils
$\frac{3}{8}$ " thru $\frac{7}{8}$ "	100' - 50' - 25' coils
1" & larger	50 coils

SIZES #24 THRU #15 AVAILABLE IN 36" LENGTHS

B&S Gauge Size No.	Birnbach No.	Old Part No.	Nom. I.D.	Nom. Wall
2	B105-2	320	.263	.020
1	B105-1	—	.294	.020
0	B105-0	—	.330	.020
$\frac{3}{8}$ "	B105- $\frac{3}{8}$ "	321	.312	.025
$\frac{1}{2}$ "	B105- $\frac{1}{2}$ "	322	.375	.025
$\frac{5}{8}$ "	B105- $\frac{5}{8}$ "	—	.438	.025
$\frac{3}{4}$ "	B105- $\frac{3}{4}$ "	323	.500	.025
$\frac{7}{8}$ "	B105- $\frac{7}{8}$ "	—	.562	.030
$\frac{1}{2}$ "	B105- $\frac{1}{2}$ "	324	.625	.030
$\frac{3}{4}$ "	B105- $\frac{3}{4}$ "	327	.750	.035
$\frac{7}{8}$ "	B105- $\frac{7}{8}$ "	360	.875	.035
1"	B105-1"	361	1.000	.035
1 $\frac{1}{8}$ "	B105-1 $\frac{1}{8}$ "	—	1.125	.040
1 $\frac{1}{4}$ "	B105-1 $\frac{1}{4}$ "	362	1.250	.040
1 $\frac{3}{8}$ "	B105-1 $\frac{3}{8}$ "	—	1.375	.040
1 $\frac{1}{2}$ "	B105-1 $\frac{1}{2}$ "	363	1.500	.045
1 $\frac{3}{4}$ "	B105-1 $\frac{3}{4}$ "	328	1.750	.055
2"	B105-2"	329	2.000	.060
2 $\frac{1}{4}$ "	B105-2 $\frac{1}{4}$ "	364	2.250	.065
2 $\frac{1}{2}$ "	B105-2 $\frac{1}{2}$ "	365	2.500	.070

TABLE OF PHYSICAL & ELECTRICAL PROPERTIES—BIRACO TUBING

Tensile Strength—2500 Psi. (Minimum Average)

Flammability—Non-Flammable

Ultimate Elongation—340%

Recommended for Temperatures to—105° C

Cold Bend—40° C

Dielectric Strength—.020" Wall—800 V/Mil

Varnish Baking—Good

Water Absorption

Weight Increase (1 Week)—0.1%—Fungi Resistance—Yes

Oil Resistance—Indefinitely flexible when immersed in oil.

Insulation Resistance—over 1,000,000 megohms.

IN STOCK

The Birnbach line of insulated sleeving and tubing is the basic quality line designed for the rigid performance requirements of the Aircraft, Electrical and Electronic Industries.

Meets or exceeds the required MIL Specifications and ASTM and NEMA standards. We invite your inquiries on special problems and requirements.

Birflex-130—VINYL COATED/FIBERGLASS SLEEVING

Per MIL-I-3190B and NEMA Standards to 130° C.



(ASTM, NEMA Grade B-B-1) MEETS MIL-I-3190 SPECS. — Quality Electronic and Electrical Tubing. It is Class B insulation that combines the best features of the inorganic fiberglass base sleeving with heat resistant, flexible plastic insulation. The plastic compound provides the highest electrical properties, heat stability (130° C.), flexibility and toughness. Meets performance requirements of specs. MIL-I-3190 A, NEMA VSI, ASTM D 372.

Birnbach No.	B&S Ga. Size No.	Old Part No.	Nom. I.D.
B130-24	24	289	.022
B130-22	22	290	.027
B130-20	20	291	.037
B130-19	19	—	.038
B130-18	18	293	.042
B130-17	17	—	.047
B130-16	16	294	.053
B130-15	15	—	.059
B130-14	14	295	.066
B130-13	13	—	.076
B130-12	12	300	.085
B130-11	11	—	.095
B130-10	10	307	.106
B130-9	9	—	.118
B130-8	8	301	.133

SIZES

#24, 22, 20, 18, 14, 12, 10, 8, 6, 4, 2
$\frac{3}{8}$ ", $\frac{1}{2}$ ", $\frac{5}{8}$ ", $\frac{3}{4}$ "
#19, 17, 15, 13, 11, 9, 7, 5, 3
#1, 0, $\frac{1}{8}$ "
$\frac{1}{4}$ ", $\frac{1}{2}$ ", 1", 1 $\frac{1}{4}$ ", 1 $\frac{1}{2}$ ", 1 $\frac{3}{4}$ ", 2"
2 $\frac{1}{4}$ ", 2 $\frac{1}{2}$ "

STANDARD COLORS

Black, Red, White, Yellow, Brown, Orange, Green, Blue, Gray, Purple
Black, Red, White, Yellow, Orange, Green, Blue
Black, Red, Yellow, Green
Black, Yellow
Black

OTHER COLORS AVAILABLE TO ORDER

DIMENSIONAL TOLERANCES OF VINYL COATED FIBERGLASS

Size	Apx. I.D.	N.E.M.A. Tolerances Inches
24	.022	.020-.027
22	.027	.025-.032
20	.034	.032-.039
18	.042	.040-.049
16	.053	.051-.061
14	.066	.064-.072
12	.085	.081-.089
10	.106	.102-.112
8	.133	.129-.141
6	.166	.162-.178
4	.208	.204-.224
$\frac{1}{2}$, 2	.263	.258-.278
$\frac{3}{8}$	.3125	.312-.328
$\frac{1}{4}$	.375	.375-.399
$\frac{3}{16}$	.500	.500-.524
$\frac{1}{8}$	.625	.625-.655

PHYSICAL & ELECTRICAL PROPERTIES BIRFLEX VINYL COATED FIBERGLASS

Class B

Grade B-1

Dielectric Strength	4000 V.
Temperature Rating	130° C.
Low Temp. Flexibility	—30° C.
Non-Flammable	—
Ins. Resistance	Over 1,000,000 MEGS.
Corrosion Resistance	Excellent
Oil Resistance	Good

COLORS:

Black, Red, White, Yellow, Brown, Orange, Green, Blue, Gray, Purple

STANDARD PUT-UPS

#24 thru #15	1000' - 500' - 250' - 100' - 50' - 25' - 30"
#14 thru #6	500' - 250' - 100' - 50' - 25' - 30"
#5 thru #1	250' - 100' - 50' - 25' - 30"
$\frac{1}{8}$ " thru $\frac{1}{4}$ "	100' - 50' - 25' - 36"
1" thru 2 $\frac{1}{2}$ "	50' - 25'

ALL THE ABOVE TUBING CAN BE ORDERED CUT AND MARKED TO YOUR SPECIFICATIONS

FOR MORE INFORMATION ON COMPLETE LINES, WRITE FOR NEW CATALOG.

BIRNBACH

RADIO COMPANY INC.

Birflon—TEFLON* SPAGHETTI TUBING

TFE EXTRUDED TUBING



Birflon T-500 Tubing is extruded from DuPont Tetrafluoroethylene Resin. Used in electronic and electrical equipment for connection of components, its flexibility, ease of handling has established it as the best and most popular insulation sheathing. This high temperature Class C insulation does not melt and flow as the conventional thermoplastic materials. Birflon T-500 Teflon has unique electrical, chemical and mechanical properties unmatched by any other type tubing for use in applications requiring high frequencies and high temperatures.

Because of Teflon's continuous service temperature of 250° C., which is more than 100° C. above other materials, the soldering technique is simplified since "Teflon" is not harmed by the hot barrel of the soldering iron—therefore, the assembly of aircraft, missile and electronic communication equipment is greatly speeded up. Thin Wall flexible Teflon Tubing can be processed easily into flexible and rigid printed circuits. As a thin, flexible insulation, it permits miniaturization and compactness of design never before possible.

Thin Wall

Birnbach No.	B&S Gauge Size No.	Old No.	Nom. I.D.	Nom. Wall
T500-32	32	8013	.011	.0085
T500-30	30	8014	.012	.009
T500-28	28	8015	.015	.009
T500-26	26	8016	.018	.010
T500-24	24	8000	.022	.010
T500-22	22	8001	.027	.010
T500-20	20	8002	.034	.012
T500-19	19	—	.038	.012
T500-18	18	8003	.042	.012
T500-17	17	—	.407	.012
T500-16	16	8004	.053	.012
T500-15	15	—	.059	.012
T500-14	14	8005	.066	.012
T500-13	13	—	.076	.012
T500-12	12	8006	.085	.012
T500-11	11	—	.095	.012

STANDARD PUT-UPS

SIZES #32 thru 26 1000'-500'-250'-100'
SIZES #24 thru 1 1/4" 1000'-500'-250'-100'-50'-25'

Birnbach No.	B&S Gauge Size No.	Old No.	Nom. I.D.	Nom. Wall
T500-10	10	8007	.106	.012
T500-9	9	—	.118	.015
T500-8	8	8008	.125	.015
T500-7	7	—	.133	.015
T500-6*	6	8009	.166	.015
T500-5*	5	—	.186	.015
T500-4*	4	8010	.208	.015
T500-3*	3	—	.234	.015
T500-1/4*	1/4	—	.250	.015
T500-2*	1/2	8011	.263	.015
T500-1*	1	—	.294	.015
T500-3/4*	3/4	—	.312	.015
T500-0*	0	8012	.330	.015
T500-3/8*	3/8	8020	.390	.020
T500-1/2*	1/2	8021	.453	.020
T500-5/8*	5/8	8022	.515	.025
T500-3/4*	3/4	8023	.583	.025
T500-1"	1"	8024	.640	.030
T500-1 1/4"	1 1/4"	8025	.765	.030
T500-1 1/2"	1 1/2"	8026	.895	.030
T500-1 3/4"	1 3/4"	8027	1.025	.030
T500-2"	2"	8028	1.150	.030
T500-2 1/2"	2 1/2"	8029	1.275	.030

* In random lengths.

Tolerance — Nos. 32 thru 0 — ±.003" on Wall
Tolerance — Nos. 3/4" thru 1 1/4" — .020" on I.D., .006" on Wall

Biraco — BIRFLON HEAT SHRINKABLE PLASTIC TUBING

BIRNBACH HEAT SHRINK POLYVINYL CHLORIDE PLASTIC TUBING NEW ALL PURPOSE TUBING WITH CONTROLLED SHRINKAGE (2:1—50%—SHRINK RATIO)

Series SK265 covers heat shrinkable PVC polyvinyl chloride plastic tubing. This flexible, electrical insulating tubing is extruded and its expansion is arrived at thru a patented secondary operation which builds a memory into the material. The memory is activated via the application of heat at approximately 130°C (266°F). The thinner the wall, the faster the shrinkage. The heavier the wall, the slower the shrinkage. In each case, the diameter is reduced to a predetermined size upon the application of heat and will maintain strength, insulating properties and form stability.

Material is SK265 PVC (Polyvinylchloride), flame resistant, self-extinguishing, dimensions as supplied in its expanded stage and after its recovery, with application of heat in excess of 130°C (266°F) shall be in accordance with noted table. Longitudinal shrink shall not be greater than 10%.

- NEW ALL PURPOSE TUBING — HAS CONTROLLED SHRINKAGE.
- SHRINKS IN SECONDS.
- FORMS A PERMANENT, TIGHT MECHANICAL BOND.
- PVC (POLYVINYLCHLORIDE).

SK265 PVC TUBING PROPERTIES CHART

	RATING	TEST
TENSILE STRENGTH	2960 PSI	ASTM D-876-59-T
ULTIMATE ELONGATION	200%	ASTM D-876-59-T
BRITTLINESS TEMPERATURE	—34° C.	ASTM D-746-57-T
SPECIFIC GRAVITY	1.34	MIL-I-631 D, 4, 6, 12
WATER ABSORPTION	0.06% 24 Hours	ASTM D-570-57-T Proc. A.
DIELECTRIC STRENGTH	1050 Volts/Mil	ASTM D-149-55-T
VOLUME RESISTIVITY	5.2 x 10 ¹⁴ Ohm-cm	ASTM D-257-58 MIL-I-631 D, 4, 6, 13
FUNGUS RESISTIVITY	0-1	MIL-I-631 D 3, 5, 7 and 4, 6, 16
FLAMMABILITY	Self-Extinguishing	ASTM D-876-60-T MIL-I-631 D, 4, 6, 13
FLEXIBILITY AFTER HEAT AGING 200 Hrs. at 100° C. BEND OVER 1/4" MANDREL	GOOD	
CORROSION ON COPPER, BRASS AND ALUMINUM AFTER 14 DAYS at 100° C.	EXCELLENT	MIL-I-7444 B

CHEMICAL RESISTANCE CHART

FUEL JP-4 MIL-J-5624	EXCELLENT
AVIATION GASOLINE 100/130	EXCELLENT
HYDRAULIC OIL MIL-O-5606	EXCELLENT
HYDROCHLORIC ACID 35%	EXCELLENT
WATER	EXCELLENT
SODIUM CHLORIDE 5%	EXCELLENT
ALKALIS	EXCELLENT

*NOTE: SK265 PVC tubing is unsuitable in contact with organic solvents.
SK265 PVC tubing has a higher resistance to oils than low density Polyethylene.

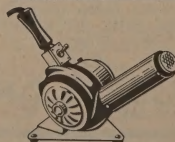
HEAT SHRINKABLE POLYVINYL TUBING DIMENSION CHART

Birnbach No.	Size	Min. Expanded	Max. Recovered	Wall Thickness
SK265-1/32"	1/32"	.062	.031	.020
SK265-3/64"	3/64"	.094	.047	.025
SK265-1/16"	1/16"	.125	.063	.025
SK265-3/32"	3/32"	.184	.094	.025
SK265-1/8"	1/8"	.250	.125	.025
SK265-3/16"	3/16"	.313	.156	.025
SK265-1/4"	1/4"	.375	.188	.025
SK265-3/8"	3/8"	.500	.250	.025
SK265-1/2"	1/2"	.750	.375	.025
SK265-3/4"	3/4"	1.00	.500	.030
SK265-1"	1"	1.50	.750	.035
SK265-1 1/4"	1 1/4"	2.00	1.00	.040

STOCK COLORS: BLACK, WHITE, CLEAR

1/32" Thru 1/8" 500'—250'—100'—50'—25'
3/16" Thru 1/4" 250'—100'—50'—25'
3/8" Thru 1" 100'—50'—25'

SK275: Irradiated Polyolefin per MIL-I-23053.
Available from stock as above.



HAG-12 Hot Air Gun For PVC Series HAG-13 Hot Air Gun For TE Series

The quickest and most versatile method for applying heat is the hot air gun noted herein. Also, use of an oven, radiant heat, dipping in hot liquids, or using a soldering iron or the flame of a match.

FOR MORE INFORMATION ON COMPLETE LINES, WRITE FOR NEW CATALOG.

BIRNBACH

RADIO COMPANY INC.

MAGNET WIRE PER MIL-W-583B

SOLID TINNED (SOFT DRAWN) SYMBOL TC

Specification MIL-W-3861 Type S, QQ-W-343 Type S, ASTM-B-33

Cat. No.	1/4 lb. SPOOL		1/2 lb. SPOOL		1 lb. SPOOL		Nom. O.D.
	Size B&S	Ft.	Size B&S	Ft.	Size B&S	Ft.	
BST-10	10	8	10	16	10	32	.031"
BST-12	12	12	12	25	12	50	.082"
BST-14	14	20	14	40	14	80	.065"
BST-16	16	32	16	63	16	126	.051"
BST-18	18	50	18	100	18	201	.040"
BST-20	20	80	20	160	20	320	.033"
BST-22	22	127	22	254	22	508	.025"
BST-24	24	201	24	403	24	806	.020"
BST-26	26	320	26	640	26	1280	.016"
BST-28	28	507	28	1015	28	2030	.013"
BST-30	30	805	30	1610	30	3220	.010"
BST-32	32	1282	32	2564	32	5128	.008"
BST-34	34	2037	34	4075	34	8150	.006"
BST-36	36	3221	36	6443	36	12887	.005"
BST-38	38	5132	38	10264	38	20492	.004"
BST-40	40	8143	40	16286	40	32573	.003"

ALL SOLID TINNED COPPER AVAILABLE IN 1000 FT. SPOOLS
BARE COPPER — SOFT DRAWN AVAILABLE FROM STOCK

TINNED COPPER WIRE — SOLID SOFT BRAND

Pure Electrolytic, Copper, annealed, tinned for quick soldering
MIL-W-3861 Type S, ASTM-B-33 specifications, QQ-W-343 Type S

Cat. No.	Put-Up	Size AWG	Area Circular Mills	O. D.
1433/4	100' Coil	4	41,704	.204"
1433/6	100' Coil	6	26,250	.162"
1433	100' Coil	8	16,510	.129"
1402	100' Coil	10	10,380	.103"
1403	1000' Spool	10	10,380	.103"
1406	100' Coil	12	6,530	.082"
1407	1000' Spool	12	6,530	.082"
1410	100' Coil	14	4,107	.065"
1411	1000' Spool	14	4,107	.065"
1414	100' Coil	16	2,583	.051"
1415	1000' Spool	16	2,583	.051"
1418	100' Coil	18	1,624	.040"
1419	1000' Spool	18	1,624	.040"
1422	100' Coil	20	1,022	.033"
1423	1000' Spool	20	1,022	.033"
1434	1000' Spool	22	626.4	.025"
1424	1000' Spool	24	404.0	.020"
1426	1000' Spool	26	254.1	.016"
1428	1000' Spool	28	159.8	.013"
1430	1000' Spool	30	100.5	.010"
1430/32	1000' Spool	32	63.21	.008"
1430/34	1000' Spool	34	39.75	.006"
1430/36	1000' Spool	36	25.00	.005"
1430/38	1000' Spool	38	15.72	.004"

BUS BAR WIRE (Hard Drawn)

QQ-W-343 type S—MIL-W-3861 type S, ASTM-B-33, ASTM-B-246-S specifications

For hooking up all types of transmitters, especially ultra short wave equipment. All bus wire is made of hard drawn copper, tinned, straightened, and cut in 2 ft. lengths.

Cat. No.	No.			
2010	10	Round	Tinned	
2013	12	Round	Tinned	
2014	14	Square	Tinned	
2015	14	Round	Tinned	
2016	16	Round	Tinned	
2018	18	Round	Tinned	
2020	20	Round	Tinned	
2022	22	Round	Tinned	



TUBULAR BRAID PER MIL SPEC. QQ-B-575

Manufactured completely round as noted in MIL Spec. QQ-B-575, this tinned copper shielded braid has self-supporting characteristics which enables it to maintain its round shape. The shielding coverage percentage is 95% or more. This tubular braid is used in military applications where maximum shielding against electrostatic interference is indicated. In addition, it is used as a protective covering against mechanical abrasion and stresses for the wires, cables and other components.

Cat. No.	Nom. Inside Diam. When Rounded	Construction		AWG of Indiv. Wires	Approx. AWG.	Nom. Circular Mills	*Current Carrying Capacity Amps
		Total No. of Wires	Carriers				
2250-1/32	1/32"	24	24	36	22	640	7.0
2250-1/16	1/16"	48	24	36	19	1,290	11.0
2250-5/64	5/64"	72	24	36	17	1,900	18.0
2250-7/64	7/64"	96	24	36	16	2,500	22.0
2250-1/8	1/8"	120	24	36	15	3,260	28.0
2250-5/32	5/32"	240	24	36	12	6,200	39.0
2250-1/4	1/4"	360	24	36	10	9,500	50.0
2250-3/16	3/16"	192	24	36	13	5,100	35.0
2250-1/8	1/8"	312	24	36	11	8,200	46.0
2250-1/4	1/4"	384	24	36	10	10,400	53.0
2250-3/8	3/8"	384	48	36	10	10,400	53.0
2250-1/2	1/2"	528	48	36	9	13,200	70.0
2250-3/4	3/4"	528	48	36	9	13,200	70.0
2250-11/16	11/16"	720	48	36	7	19,000	82.0
2250-25/32	25/32"	864	48	36	7	21,750	85.0
2250-13/16	13/16"	864	48	36	7	21,750	85.0

STANDARD SPOOL PUT-UPS: 50' — 100' — 250'

*Values based on copper in free air at 65°F.

Additional constructions and variations made to order. Also available in silver plated copper, bare copper and stainless steel.

HEAVY FORMVAR (HF) TYPE T2

Single conductor round bare copper, baked film insulation from a varnish based on a vinyl acetal resin. 105°C.

Has new tough abrasion resisting film. Replaces enamel and fabric insulations for certain applications requiring exceptional abrasion resistance. Stable under heat. High dielectric strength. Infinite resistance to water and moisture. Does not fall after two hours at 105°C. Takes up less winding space.

ALL MAGNET WIRE AVAILABLE IN LARGER PUT-UPS

Cat. No.	1/4 lb. SPOOL		1/2 lb. SPOOL		1 lb. SPOOL		Nom. O.D.
	Size B&S	Ft.	Size B&S	Ft.	Size B&S	Ft.	
BHF-10	10	8	10	16	10	32	.1056"
BHF-12	12	12	12	25	12	50	.0842"
BHF-14	14	20	14	39	14	78	.0673"
BHF-16	16	31	16	62	16	124	.0539"
BHF-18	18	49	18	99	18	198	.0432"
BHF-20	20	78	20	156	20	313	.0346"
BHF-22	22	125	22	250	22	501	.0277"
BHF-24	24	200	24	399	24	798	.0224"
BHF-26	26	300	26	600	26	1200	.0180"
BHF-28	28	500	28	1000	28	1999	.0144"
BHF-30	30	800	30	1600	30	3200	.0116"
BHF-32	32	1225	32	2450	32	4900	.0095"
BHF-34	34	1968	34	3935	34	7950	.0075"
BHF-36	36	3200	36	6400	36	12800	.0060"
BHF-38	38	5050	38	10100	38	20200	.0049"
BHF-40	40	7975	40	15850	40	31700	.0038"
BHF-42	42	12375	42	24750	42	49500	.0032"
BHF-44	44	14500	44	29000	44	5800	.0026"

PLAIN ENAMEL (PE) TYPE T

Single conductor round bare copper covered with a continuous insulating film of enamel. 105°C.

Cat. No.	1/4 lb. SPOOL		1/2 lb. SPOOL		1 lb. SPOOL		Nom. O.D.
	Size B&S	Ft.	Size B&S	Ft.	Size B&S	Ft.	
BPE-10	10	8	10	16	10	32	.1037"
BPE-12	12	12	12	25	12	50	.0825"
BPE-14	14	20	14	40	14	80	.0657"
BPE-16	16	32	16	63	16	126	.0522"
BPE-18	18	50	18	100	18	201	.0416"
BPE-20	20	80	20	160	20	320	.0332"
BPE-22	22	127	22	254	22	508	.0266"
BPE-24	24	201	24	403	24	806	.0212"
BPE-26	26	320	26	640	26	1280	.0169"
BPE-28	28	507	28	1015	28	2030	.0135"
BPE-30	30	805	30	1610	30	3220	.0108"
BPE-32	32	1282	32	2564	32	5128	.0087"
BPE-34	34	2037	34	4075	34	8150	.0069"
BPE-36	36	3221	36	6443	36	12887	.0055"
BPE-38	38	5132	38	10264	38	20492	.0044"
BPE-40	40	8143	40	16286	40	32573	.0034"
BPE-42	42	12803	42	25606	42	51211	.0028"
BPE-44	44	20455	44	40910	44	81819	.0023"

Shielding Braid, Insulated Copper Wire, Braiding UNINSULATED COPPER WIRE

TINNED COPPER SHIELDING

Used for shielding and bonding on aircraft, marine and auto radio wires and cables. Shields speaker leads, lead-ins, amplifier wires. Extremely flexible, slides over wires and cables.

DESCRIPTION:

No. 853 thru 856/7—Composed of extremely flexible fine soft annealed copper tinned wires closely woven, braided and Rolled Flat.

No. 860—Composed of extremely flexible fine soft annealed copper wires closely woven, braided and Rolled Flat.

TINNED

Cat. No.	Size & No. of Wires	Inside Diam. Flat	Approx. O.D. Flat	Approx. AWG Equiv.	Nom. Circ. Mills	Current Carrying Capacity Amps
853	12x 2/36	3/16"	3/16"	24	400	6.0
854	12x 2/36	3/16"	3/16"	22	600	7.0
855	16x 3/36	3/8"	3/8"	20	1200	11.00
858	24x 5/36	1/2"	1/2"	18	1800	16.00
859	24x 5/36	1/2"	1/2"	15	3000	25.00
863	24x 7/36	5/8"	5/8"	14	4200	32.00
864	48x 3/36	3/4"	3/4"	12	7200	36.00
868	48x 7/36	7/8"	7/8"	10	9600	53.00
865	48x 8/36	7/8"	7/8"	10	9600	53.00
865/1	48x11/36	1"	1"	7	20,800	85.00
857	48x19/36	1 1/8"	1 1/8"	7	20,800	85.00
858	48x19/36	1 1/8"	1 1/8"	7	20,800	85.00
856/1	48x19/36	1 1/8"	1 1/8"	7	53,064	85.00
856/2	48x19/36	1 1/8"	1 1/8"	3	125,425	150.00
856/3	48x27/30	1 3/4"	1 3/4"	001	154,368	280.00
856/4	48x32/30	2"	2"	000	192,000	310.00
856/5	48x45/30	2 1/2"	2 1/2"	000	216,000	340.00
856/7	48x64/30	3"	3"	0000	225,000	390.00

BARE

860	24x10/36	1/4"				
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STANDARD PUT-UPS:

#853 thru #856/1 — 50' — 100' — 250' — 500' — 1000'

#856/2 thru #856/7 — 50' — 100' — 250' — 500' — 1000'

#860 — 50' — 100' — 250' — 500' — 1000'

FOR MORE INFORMATION ON COMPLETE LINES, WRITE FOR NEW CATALOG.

BIRNBACH

RADIO COMPANY INC.

MIL-W-76B PLASTIC WIRE

TYPE MW—UNCOVERED PLASTIC 1,000 V

DESCRIPTION: Solid or extra flexible tinned copper, color coded medium wall polyvinylchloride insulation.

CHARACTERISTICS: Temperature rating —40° to +80°C. Voltage rating 1000 volts. Resistant to acids†, alkalis, oil, flame, moisture and fungus.

STRANDED

No. Cat.	AWG Size	Type Designation Mil-W-76A	Conductor Strand	Nom. Wall	Volt Rating	Nom. O.D.
7024	22	MW-C 24(16)U	16/36	.015"	1000	.055"
7001	22	MW-C 22(7)U	7/30	.017"	1000	.066"
7003	20	MW-C 20(10)U	10/30	.017"	1000	.074"
7005	18	MW-C 18(16)U	16/30	.017"	1000	.085"
7007	16	MW-C 16(26)U	26/30	.017"	1000	.098"
7009	14	MW-C 14(41)U	41/30	.017"	1000	.114"
7011	12	MW-C 12(65)U	65/30	.017"	1000	.132"

SOLID

No. Cat.	AWG Size	Type Designation Mil-W-76A	Conductor Strand	Nom. Wall	Volt Rating	Nom. O.D.
7025	24	MW-C 24(1)U	1	.017"	1000	.056"
7000	22	MW-C 22(1)U	1	.017"	1000	.061"
7002	20	MW-C 20(1)U	1	.017"	1000	.068"
7004	18	MW-C 18(1)U	1	.017"	1000	.075"
7026	16	MW-C 16(1)U	1	.017"	1000	.084"

MIL-W-76B TYPE HW (Heavy Wall)
2500 VOLTS (Fungus Proof)

DESCRIPTION: Similar to type MW. One conductor stranded tinned copper with larger wall of primary thermoplastic insulation to take 2500 V RMS.

CHARACTERISTICS: Temperature rating —40°C to +80°C. Resistant to acids, alkalis, oil, flame, moisture and fungus.

No. Cat.	Size AWG	MIL-W-76A Type Designation	Conductor Strand	Nom. Wall	Volt Rating	Nom. O.D.	Stock Colors As Listed
7322	22	HW-C 22(7)U	7/30	.033"	2500	.105"	1-10
7320	20	HW-C 20(10)U	10/30	.033"	2500	.112"	1-10
7318	18	HW-C 18(16)U	16/30	.033"	2500	.122"	1-10
7316	16	HW-C 16(26)U	26/30	.033"	2500	.135"	1-10
7314	14	HW-C 14(41)U	41/30	.045"	600	.175"	1-10
7312	12	HW-C 12(65)U	65/30	.045"	600	.195"	1-10
*7013	10	HW-C 10(105)U	105/30	.045"	600	.217"	1-3
*7015	8	HW-C 8(133)U	133/29	.045"	600	.268"	1-3
*7017	6	HW-C 6(133)U	133/27	.045"	600	.315"	1-3

STANDARD PUT-UPS: 100' - 500' - 1000'

SPECIFICATION MIL-W-76B TYPE MW

(Med. Wall)—NYLON JACKET 1000 V (Fungus Proof)

DESCRIPTION: One conductor stranded tinned copper with thermoplastic insulation and extruded nylon jacket overall.

Cat. No.	Size AWG	MIL-W-76A Type Designation	Conductor Strand	Nom. Wall	Volt Rating	Nom. O.D.	Stock Colors
7224	24	MW-C 24(16)J	16/36	.015"	1000	.068"	1-19
7222	22	MW-C 22(7)J	7/30	.017"	1000	.075"	1-19
7220	20	MW-C 20(10)J	10/30	.017"	1000	.087"	1-19
7218	18	MW-C 18(16)J	16/30	.017"	1000	.100"	1-19
7216	16	MW-C 16(26)J	26/30	.017"	1000	.112"	1-19
7214	14	MW-C 14(41)J	41/30	.017"	1000	.122"	1-19
7212	12	MW-C 12(65)J	65/30	.017"	1000	.140"	1-3
7210	10	HW-C 10(105)J	105/30	.045"	600	.240"	1-3

MIL-W-76B—TYPE LW (Light Wall)
TYPE LW—LW—VINYL—300 VOLTS

TEMP. RATING —40°C TO 80+°C

DESCRIPTION: One conductor stranded tinned copper with light wall of primary thermoplastic insulation. Nom. Wall .010".

CHARACTERISTICS: Temperature rating —40°C to +80°C. Voltage rating 300 volts. Resistant to acids, alkalis, oil, flame, moisture and fungus.

Cat. No.	Size AWG	MIL-W-76B Type Designation	Conductor Strand	Nom. O.D.
7330	30	LW-C 30(7)U	7/38	.033"
7328	28	LW-C 28(7)U	7/36	.035"
7326	26	LW-C 26(10)U	10/30	.040"
7324	24	LW-C 24(7)U	7/32	.044"
7324/22	22	LW-C 22(7)U	7/30	.050"
7324/20	20	LW-C 20(7)U	7/28	.060"

STOCK COLORS: 1 thru 19, as listed.
STANDARD PUT-UPS: 100' - 500' - 1000'MIL-W-76B — TYPE MW — SHIELDED —
NYLON JACKET

DESCRIPTION: One conductor stranded tinned copper, white medium wall polyvinyl chloride insulation, shielded braided copper braid, minimum 80% coverage, clear nylon (polyimide) jacket overall. Temperature rating —40°C to +90°C. Resistant to acids, alkalis, oil, flame, moisture, fungus.

Cat. No.	Size AWG	MIL-W-76A Type Designation	Conductor Strand	Nom. Wall	Volt Rating	Nom. O.D.
7074J	24	MW-C 24(16)SJ	16/36	.015"	1000	.091"
7072J	22	MW-C 22(7)SJ	7/30	.017"	1000	.100"
7070J	20	MW-C 20(10)SJ	10/30	.017"	1000	.105"
7068J	18	MW-C 18(16)SJ	16/30	.017"	1000	.115"
7067J	16	MW-C 16(26)SJ	26/30	.017"	1000	.125"
7066J	14	MW-C 14(41)SJ	41/30	.017"	1000	.138"
7065J	12	MW-C 12(65)SJ	65/30	.017"	1000	.160"

Additional color codes available to order.
STANDARD PUT-UPS: 100' - 500' - 1000'

PLASTIC HOOK-UP WIRE — MIL-W-16878D

PLASTIC HOOK-UP WIRE — MIL-W-16878D —
Type B — High Temperature Vinyl — 600 Volt

Suitable for general purpose wiring for miniature high temperature hook-ups in aircraft, electronic instruments, devices, etc., where excellent resistance to moisture and solvents may be required.

DESCRIPTION: One conductor stranded tinned copper with rated —55°C to +105°C high temperature thermoplastic light wall insulation. Resistant to acids, alkalis, oil, flame, moisture, solvents, and fungus. Nominal wall: .010.

Cat. No.	MIL-W-16878D Type Designation	Size AWG	Conductor Strand	Nom. O.D.
7190	B-32	32	7/40	.028"
7191	B-30	30	7/38	.030"
7192	B-28	28	7/36	.033"
7193	B-26	26	7/34	.037"
7194	B-24	24	7/32	.043"
7195	B-22	22	7/30	.048"
7196	B-20	20	7/28	.057"
7197	B-18	18	7/26	.067"
7198	B-16	16	19/29	.077"

*STOCK COLORS: 1 thru 19, as listed.
STANDARD PUT-UPS: 100' - 500' - 1000'PLASTIC HOOK-UP WIRE — MIL-W-16878D —
Type B — Nylon Jacket — 600 Volt

Suitable for general purpose wiring for miniature high temperature hook-ups in aircraft, electronic instruments, devices, etc., where excellent resistance to moisture and solvents may be required.

DESCRIPTION: Stranded tinned copper, color coded .010" polyvinylchloride insulation, clear nylon (polyimide) jacket overall.

CHARACTERISTICS: Temperature rating —55°C to +115°C. Voltage rating 600 volts. Resistant to acids, alkalis, oil, flame, moisture, solvents, and fungus.

Cat. No.	MIL-W-16878D Designation	Size AWG	Conductor Strand	Nom. Wall Thickness	Nom. O.D.
7190N	B-32	32	7/40	.010"	600 .032"
7191N	B-30	30	7/38	.010"	600 .036"
7192N	B-28	28	7/36	.010"	600 .039"
7193N	B-26	26	7/34	.010"	600 .042"
7194N	B-24	24	7/32	.010"	600 .047"
7195N	B-22	22	7/30	.010"	600 .053"
7196N	B-20	20	7/28	.010"	600 .065"
7197N	B-18	18	7/26	.010"	600 .075"
7198N	B-16	16	19/29	.010"	600 .085"

STANDARD PUT-UPS: 100' - 500' - 1000'
*STOCK COLORS: 1 thru 19, as listed.

FOR MORE INFORMATION ON COMPLETE LINES, WRITE FOR NEW CATALOG.

BIRNBACH

RADIO COMPANY INC.

PLASTIC AND TEFLON* — MIL-W-16878D

MIL-W-16878D — Type C — High Temperature — Vinyl Jacket — 1000 Volt

DESCRIPTION: One Conductor Similar to Type B—Heavier Wall Hi-Temp. Thermoplastic. Nom. Wall .016".

CHARACTERISTICS: Temperature rating —55°C to +105°C. Voltage rating 1000 volts. Resistant to acids, alkalis, oil, flame, moisture, solvents and fungus.

Cat. No.	MIL-W-16878C Type Designation	Size AWG	Minimum Strand	Nom. O.D.
7170	C-24	24	7/32	.058"
7171	C-22	22	7/30	.064"
7172	C-20	20	7/28	.073"
7173	C-18	18	7/26	.085"
7174	C-16	16	19/29	.095"
7175	C-14	14	19/27	.109"
7176	C-12	12	19/25	.124"

*STOCK COLORS: 1 thru 1, as listed.
STANDARD PUT-UPS: 100' - 500' - 1000'

Type D — High Temperature — Vinyl 3000 Volts

DESCRIPTION: One Conductor Stranded Similar to Type C—Heavier Wall Hi-Temp. Thermoplastic Insulation. Nom. Wall 24 thru 14 032, 12 thru 8 040.

CHARACTERISTICS: Temperature rating —55°C to +105°C. Voltage rating 3000 volts. Resistant to acids, alkalis, oil, flame, moisture, solvents and fungus.

Cat. No.	MIL-W-16878D Type Designation	Size AWG	Cond. Strand	Nom. O.D.
7180	D-24	24	7/32	.084"
7181	D-22	22	7/30	.089"
7182	D-20	20	10/30	.097"
7183	D-18	18	16/30	.107"
7184	D-16	16	26/30	.116"
7185	D-14	14	41/30	.130"
7186	D-12	12	65/30	.163"
7187	D-10	10	105/30	.182"
7188	D-8	8	133/29	.247"
7189	D-6	6	133/27	.291"

*STOCK COLORS: 1 thru 10, as listed.
STANDARD PUT-UPS: 100' - 500' - 1000'

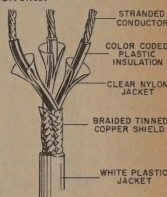
MIL-W-16878D — MULTI-CONDUCTOR CABLE — Type B — Nylon Shielded-Plastic Jacket

DESCRIPTION: Each conductor stranded tinned copper, .010" polyvinylchloride insulation, color coded, clear nylon (polyamide) jacket, conductors cabled, braided tinned copper shield 90% coverage, with polyvinylchloride jacket overall.

CHARACTERISTICS: Temperature rating —55°C to +105°C. Voltage rating 600 volts, resistant to acids, alkalis, oil, flame, moisture, fungus, solvents.

Birnbach No.	No. of Cond.	Conductor Size	Strand	Nom. Wall Thickness	Nom. Nylon Thickness	Nom. Overall Jacket	Nom. O.D.
7368-1	1	24	19/36	.010"	.003"	.010"	.092"
7368-2	2	24	19/36	.010"	.003"	.016"	.152"
7368-3	3	24	19/36	.010"	.003"	.016"	.161"
7367-1	1	24	19/34	.010"	.003"	.010"	.100"
7367-2	2	22	19/34	.010"	.003"	.016"	.168"
7367-3	3	22	19/34	.010"	.003"	.017"	.178"
7368-1	1	20	19/32	.010"	.003"	.010"	.106"
7368-2	2	20	19/32	.010"	.003"	.019"	.186"
7368-3	3	20	19/32	.010"	.003"	.019"	.196"
7369-1	1	18	19/30	.010"	.003"	.012"	.120"
7369-2	2	18	19/30	.010"	.003"	.021"	.210"
7369-3	3	18	19/30	.010"	.003"	.022"	.227"

STANDARD PUT-UP: 100' - 500' - 1000' COLOR CODE OF CONDUCTORS: 1—White, 2—Black, 3—Red



MIL-W-16878D—TEFLON*—HOOK-UP WIRE

MIL-W-16878D — TEFLON† WIRE

Type E—Extruded (600 Volts) —
High Temperature Rating — 90° To + 250°C

Chemically inert, non-flammable, excellent flexibility, easy stripping, high dielectric strength, unaffected by fungus. Exceeds Class H insulation requirements. Unaffected by high or low temperature. Outstanding for its dependability and long life under all operating conditions indoors or outdoors. Teflon permits miniaturization and compactness in electronic designs of sub-miniature components, computers, UHF equip., slip ring assemblies, leads to hermetically sealed and potted components, telemetering equip., and guided missiles. Nom wall .010". TFE extruded.

DESCRIPTION: Single conductor silver plated copper wire concentrically stranded and insulated with extruded or Teflon insulation.

Cat. No.	Size AWG	Mil Type Designation	Strand	Diam. Over Insulation Max.
8532	32	E-32	7/40	.033"
8530	30	E-30	7/38	.036"
8528	28	E-28	7/36	.039"
8526	26	E-26	7/34	.043"
8524	24	E-24	19/36	.048"
8522	22	E-22	19/34	.054"
8520	20	E-20	19/32	.062"
8518	18	E-18	19/30	.074"
8516	16	E-16	19/29	.087"
8514	14	E-14	19/27	.097"
8512	12	E-12	19/25	.120"
8510	10	E-10	37/26	.139"

*STOCK COLORS: 1 thru 19, as listed.
STANDARD PUT-UPS: 25' - 50' - 100' - 250' - 500' - 1000'

MIL-W-16878D — TEFLON* WIRE

Type EE—Extruded (1000 Volts) MIL-W-16878D

DESCRIPTION: Single conductor silver plated copper wire concentrically stranded and insulated with .010" TFE extruded TEFLON* insulation. Temperature rating —80°C to +260°C 1000 volts.

Cat. No.	Mil Type Designation	Size AWG	Strand	Nom. O.D.
9524	EE-24	24	19/36	.055"
9522	EE-22	22	19/34	.062"
9520	EE-20	20	19/32	.070"
9518	EE-18	18	19/30	.080"
9516	EE-16	16	19/29	.089"
9514	EE-14	14	19/27	.106"
9512	EE-12	12	19/25	.124"
9510	EE-10	10	37/26	.145"
9508	EE-8	8	133/29	.210"

*STOCK COLORS: 1 thru 19, as listed.
STANDARD PUTUPS: 100' - 250' - 500' - 1000'

SUBMINIATURE TEFLON* HOOK-UP WIRE

Per MIL-W-16878D Type ET 250 Volts, 200°C

This new exceptionally thin miniature hook-up wire is suitable in miniature slip ring assemblies, as interconnecting wire between wafers in microminiature electronic circuitry, instrument wire, medical wire, subminiature thermo-couple lead wire, strain gauge wire, etc. Provides lighter weight, greater flexibility and hi temperature resistance. Size Nos. 32 thru 20 conform to MIL-W-16878D type ET 250 volts, 200°C.

Cat. No.	Mil Type Designation	Size AWG	Strand	Nom. O.D.
8550/36		36	7/44	.018"
8550/34		34	7/42	.020"
8550/32	ET-32	32	7/40	.021"
8550/30	ET-30	30	7/38	.024"
8550/28	ET-28	28	7/36	.027"
8550/26	ET-26	26	7/34	.031"
8550/24	ET-24	24	7/32	.036"
8550/22	ET-22	22	7/30	.042"
8550/20	ET-20	20	7/28	.049"

*STOCK COLORS: 1 thru 19, as listed.
STANDARD PUTUPS: 100' - 250' - 500' - 1000'

TEFLON* TAPE WRAP JACKET OVER SHIELD

Cat. No.	Conds.	AWG Size	Strand	Nom. O.D.
8521	1	24	19/36	.084"
8521/2	2	24	19/36	.128"
8521/3	3	24	19/36	.135"
8521/4	4	24	19/36	.148"
8521/5	5	24	19/36	.162"
8523	1	22	19/34	.099"
8523/2	2	22	19/34	.140"
8523/3	3	22	19/34	.148"
8523/4	4	22	19/34	.162"
8523/5	5	22	19/34	.183"
8525	1	20	19/32	.098"
8525/2	2	20	19/32	.158"
8525/3	3	20	19/32	.167"
8525/4	4	20	19/32	.184"
8525/5	5	20	19/32	.204"
8527	1	18	19/30	.109"
8527/2	2	18	19/30	.178"
8527/3	3	18	19/30	.189"
8527/4	4	18	19/30	.208"
8527/5	5	18	19/30	.230"

STANDARD PUT-UPS: 250' - 500' - 1000'
CONDUCTOR COLOR CODE: 1—White, 2—Black, 3—Red, 4—Green, 5—Yellow.

FOR MORE INFORMATION ON COMPLETE LINES, WRITE FOR NEW CATALOG.

BIRNBACH

RADIO COMPANY INC.

HOOK-UP AND TEST LEAD WIRES

U.L. Plastic Insulated Hook-Up Wire

Designed for the chassis, sub-chassis wiring of radio and television receivers and transmitters inside or outside the chassis. UL approved for 105°C (221°F) operating temp.

DESCRIPTION: One Conductor stranded annealed copper tinned, plastic insulation.

Cat. No.	Size AWG	Stranding	Nom. Wall	Volt. Break-down	DC Ins. Res. Megs./Ft.	Max. O.D.
7201	22	7/30	.032"	18000	5000	.100"
7203	20	10/30	.032"	18000	5000	.104"
7205	18	16/30	.032"	18000	5000	.112"
7207	16	26/30	.032"	18000	5000	.125"
7202	22	Solid	.032"	18000	5000	.095"
7204	20	Solid	.032"	18000	5000	.102"

STOCK COLORS: 1 thru 10, as listed
STANDARD PUT-UPS: 100' - 500' - 1000'

Hi-Voltage and Cathode Ray Cable

Used for 10,000, 20,000, 40,000, 60,000 volt applications as for cathode ray tubes in TV receivers, oscilloscopes and other electronic devices. Has dielectric constant of 2.7 and power factor of .002. Shielded Hi-Voltage type used to shield RF radiation in X-Ray, diathermy, medical equipment, and in transmitters.

DESCRIPTION: One conductor stranded copper tinned rulan (flame retarding type) polyethylene insulation. Available white/red tracer. Temp. Rating: 105°C
Shielded—Same as above with tinned copper braided shield overall.

Cat. No.	Size AWG	Strand	Nom. Ins. Wall	Suggested Working Vol.	Nom. O.D.
7402	20	10/30	.047"	10,000	.125"
7412	20	10/30	.068"	20,000	.169"
7418	18	16/30	.047"	10,000	.135"
7428	18	16/30	.069"	20,000	.179"
7448	18	16/30	.095"	40,000	.231"
7449	18	16/30	.123"	60,000	.285"

SHIELDED

7458	18	16/30	.095"	40,000	.256"
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STANDARD PUT-UPS: 100' - 500' - 1000'

KINKLESS TEST LEAD WIRE

Used with portable test equipment; as tested, leads in analyzers, oscillators, instruments; wherever extreme flexibility and limppiness is required. Has excellent dielectric properties.

DESCRIPTION:

No. 61—#20—41/36 extra flexible annealed tinned copper, stranded.

No. 66—#18—65/36 extra flexible annealed tinned copper stranded; paper serve; 3/4" special low capacity rubber, wax finish.

Colors: Red, Black.

Types WS-16/U Black, WS-17/U Red; No. 70 per MIL-W-13169
Specification available same construction as Birnback #66 except compound per specification.

Cat. No.	Size AWG	Strand	Ins.	Puncture Voltage	Nom. O.D.
61	20	41/36	3/64"	20,000 V	.137"
66	18	65/36	3/64"	22,000 V	.145"
70	18	65/36	3/64"	22,000 V	.145"

MILITARY TYPE SPECIFICATION MIL-W-13169B

WS-16/U Black WS-17/U Red

STANDARD PUT-UPS: 100' - 250' - 500' - 1000'

HEAVY DUTY HI-VOLTAGE TYPE

DESCRIPTION:

No. 68—#18—65/36 extra flexible annealed tinned copper; rubber, paper serve; 3/4" special low capacity rubber, wax finish.

Colors: Red, Black.

Used for oscillators, analyzers, TV, therapeutic instruments, etc.; wherever an extremely flexible high voltage lead is indicated.

Cat. No.	Size AWG	Strand	Ins.	Puncture Voltage	Nom. O.D.
68	18	65/36	5/64"	29,000 V	.210"

STANDARD PUT-UPS: 100' - 250' - 500' - 1000'

200° C—Birsil Silicone Rubber Hook-Up Lead Wire—600 Volt

This Birsil Silicone Rubber Hook up lead wire withstands extreme temperature range and flexibility from —104°C, to +400°F, with retention of physical properties and is highly resistant to flex cracking at temperature extremes; fungus resistant; corona resistant; engineered for high-heat and hi-frequency applications; low power factor; acid-alkali-oil resistant; low dielectric constant; insulation approaching mica. Approved by U.L. but consumer must apply for Underwriter's Laboratories approval for individual product.

DESCRIPTION: One conductor, tinned copper strands, silicone rubber insulation, glass braid, lacquered. Color: White.

Cat. No.	Size AWG	Strand	Nom. Ins. Wall	Volt Rating	Breakdown Voltage AC	Nom. O.D.
7622	22	7/30	1/32"	600	11,500	.105"
7620	20	10/30	1/32"	600	18,000	.121"
7618	18	16/30	1/32"	600	21,000	.128"
7616	16	26/30	1/32"	600	20,000	.144"
7614	14	41/30	1/32"	600	15,500	.165"
7612	12	65/30	1/32"	600	14,500	.185"
7610	10	65/28	3/64"	600	20,000	.240"
7608	8	84/27	1/16"	2300	20,000	.320"

Additional sizes and colors available to order.

Types F and FF per MIL-W-16878C available to order.

STANDARD PUT-UPS: 100' - 500' - 1000'

Birlene® Kel-F Hook-Up Wire

— 125°C to +175°C Meets MIL-W-12349-Spec

PERFORMANCE SPECIFICATIONS

Continuous: —60° to +175°C. Operating Voltage: 1000 volts RMS
Spark Test: 7500 volts. Dielectric Strength: 5000 volts at 60°C for 1 minute. Insulation Resistance: Greater than 5000 Meg Ohms/1000 Ft. at 60°C. Moisture Absorption: Nil. Flammability: Non-flammable. Resistance to Chemicals: All solvents and acids. Aging: Outdoor, 1 year; no detectable change.

DESCRIPTION: One conductor silver plated copper stranded, insulation—Monochlorotrifluoroethylene (Birlene Kel-F).

Cat. No.	Size AWG	Strand	Nom. Ins. Wall	Nom. O.D.
7130	30	7/38	.006"	.029"
7128	28	7/36	.006"	.032"
7126	26	7/34	.008"	.037"
7124	24	7/32	.008"	.043"
7122	22	7/30	.008"	.050"
7120	20	7/28	.010"	.060"
7118	18	16/30	.010"	.070"
7116	16	19/29	.010"	.079"

*Made with Kellogg Co. Kel-F or Bakelite Co. Fluorothene.

STANDARD PUT-UPS: 100' - 500' - 1000'

STOCK COLORS: 1 thru 10 as listed

Miniaturization Hook-Up Wire and Cable

High Temperature 105°C — Unshielded —

One Conductor

Used in miniaturized equipment Phono-pickup lead computers transistor circuits, electro-medical and electro therapeutic apparatus, instrumentation projects, miniaturization programs, where fine sizes are required with high operating temperature.

DESCRIPTION: One conductor stranded tinned copper with 105°C high temperature thermoplastic insulation overall.

Cat. No.	No. of Cond.	Size AWG	Conductor Strand	Nom. Wall	Nom. O.D.
7534	1	34	4/40	.010"	.027"
7532	1	32	7/40	.010"	.029"
7530	1	30	7/38	.010"	.030"
7529	1	29	5/36	.010"	.030"
7528	1	28	7/36	.010"	.035"
7527	1	27	7/35	.010"	.037"
7526	1	26	10/36	.010"	.038"
7524	1	24	16/36	.015"	.055"

STOCK COLORS: 1 thru 10, as listed

STANDARD PUT-UPS: 100' - 500' - 1000'

NEW PLASTIC KINKLESS TEST LEAD WIRE

New formulation vinyl compound insulation allows maximum flexibility; rough treatment; extreme variation in climatic conditions; excellent abrasion resistance; greater temperature stability from —30°C to +155°C; fungus resistant; self extinguishing-flame proof; smooth surface. Resists exposure to gasoline and oil.

DESCRIPTION: One conductor tinned copper stranded, special formulation vinyl insulation.

Colors: Black, Red, Yellow, Green, White, Blue.

Cat. No.	Size AWG	Strand	Ins.	Nom. O.D.
1922	22	26/36	.032"	.100"
1920	20	26/34	.032"	.104"
1918	18	65/36	.032"	.112"
1916	16	65/34	.032"	.129"

For portable test equipment; as test leads for instrumentation exceeds the requirements for MIL-I-3930A type JP (PVC). It is superior to synthetic rubber spec MIL-R-6855 Class II Grade 60.

STANDARD PUT-UPS: 100' - 250' - 500' - 1000'

FOR MORE INFORMATION ON COMPLETE LINES, WRITE FOR NEW CATALOG.

BIRNBACH

RADIO COMPANY INC.

MULTI-CONDUCTOR, SUB-MINIATURE, AUDIO AND HOOK-UP WIRE

SUB-MINIATURE

SHIELDED HOOK-UP WIRE

(Super Flexible)
DESCRIPTION: Stranded tinned copper with 105°C. high temperature thermoplastic insulation and tinned copper shielded braid overall.

Cat. No.	No. of Cond.	Size AWG	Strand	Nom. Wall	Nom. O.D.
7538	1	30	7/38	.010"	.053"
7535	1	28	7/36	.010"	.058"
7537	1	26	10/36	.010"	.061"
7536	1	24	16/36	.015"	.075"

STOCK COLOR: White (under shield)
STANDARD PUT-UPS: 100'—250'—500'—1000'

SUB-MINIATURE

MULTI-CONDUCTOR CABLE

(Super Flexible)
DESCRIPTION: Multi-Cond. tinned copper stranded 105°C high temperature P.V.C. thermoplastic insulation. When jacketed clear P.V.C. thermoplastic used over cabled wire.

Cat. No.	No. of Cond.	Size AWG	Cond. Strand	Nom. Wall	Nom. O.D.
7652	2	30	7/38	.010"	.059"
7653	3	30	7/38	.010"	.065"
7654	4	30	7/38	.010"	.072"

CONDUCTOR COLOR CODE CHART:
1—Black, 2—White, 3—Red, 4—Green
CLEAR VINYL JACKET OVERALL

Cat. No.	No. of Cond.	Size AWG	Cond. Strand	Nom. Wall	Nom. O.D.
7668	2	28	7/36	.010"	.079"
7669	3	28	7/36	.010"	.086"
7670	4	28	7/36	.010"	.095"

CONDUCTOR COLOR CODE CHART:
1—Black, 2—White, 3—Red, 4—Green
STANDARD PUT-UPS: 100'—250'—500'—1000'



SHIELDED PLASTIC JACKETED CABLE BRAIDED COPPER SHIELD

Designed for P.A. and sound systems, installations in schools, hospitals and institutions, transmitters, recording studios, electronic circuits, etc. The construction of the shield allows ease of pigtail soldering and the shield provides additional strength for the cable.
DESCRIPTION: Each conductor tinned copper, polyvinylchloride insulation color coded, twisted, braided copper tinned shield, gray polyvinylchloride jacket overall. Cables suitable for outdoor installations.

Cat. No.	Cond.	Size AWG	Strand	Nom. Insul.	Nom. Jacket	Nom. O.D.
1790	2	22	7/30	.017"	.020"	.175"
1790/3	3	22	7/30	.017"	.020"	.195"
1791	2	20	10/30	.017"	.020"	.195"
1791/3	3	20	10/30	.017"	.020"	.215"
1792	2	18	16/30	.017"	.020"	.235"
1792/3	3	18	16/30	.017"	.020"	.245"
1793	2	16	26/30	.017"	.020"	.255"
1794	2	14	41/30	.020"	.020"	.290"

DESCRIPTION: Same as above using solid conductors with black PVC jacket overall.

Cat. No.	Cond.	Size AWG	Strand	Nom. Insul.	Nom. Jacket	Nom. O.D.
*1797	2	22	1	.017"	.020"	.170"
1798	2	20	1	.017"	.020"	.195"
1799	2	18	1	.017"	.020"	.220"

*No. 22 solid T.C. ground wire under braided copper shield
CONDUCTOR COLOR CODE: 1—Black, 2—Red, 3—White

MULTI-CONDUCTOR FLEXIBLE CABLE

DESCRIPTION: Each conductor #22 7/30 tinned copper stranded 1/4" thermoplastic insulation, color coded, conductors twisted, gray vinyl plastic jacket overall. Used for signal, P.A. systems. Electronic computer cable, suitable for outdoor use.

Cat. No.	Cond.	Size AWG	Strand	Nom. Insul.	Nom. Jacket	Nom. O.D.
156	2	22	7/30	.010"	.020"	.140"
157	3	22	7/30	.010"	.020"	.145"
158	4	22	7/30	.010"	.020"	.170"
159	5	22	7/30	.010"	.020"	.175"
160	7	22	7/30	.010"	.020"	.185"
161	9	22	7/30	.010"	.020"	.190"
162	8	22	7/30	.010"	.020"	.200"
163	9	22	7/30	.010"	.020"	.225"
164	10	22	7/30	.010"	.020"	.235"
165/10	10	22	7/30	.010"	.020"	.255"
165/15	15	22	7/30	.010"	.020"	.280"
165/20	20	22	7/30	.010"	.020"	.310"
165/25	25	22	7/30	.010"	.020"	.340"
165/30	30	22	7/30	.010"	.020"	.365"
165/40	40	22	7/30	.010"	.020"	.425"
165/50	50	22	7/30	.010"	.020"	.500"
165/60	60	22	7/30	.010"	.020"	.530"

STANDARD PUT-UPS: 100'—250'—500'—1000'

SUB-MINIATURE

MULTI-CONDUCTOR CABLE SHIELDED

(Super Flexible)
DESCRIPTION: Multi-conductor, tinned copper stranded 105°C high temperature P.V.C. thermoplastic insulation, tinned copper shield. When jacketed clear P.V.C. thermoplastic jacket used over tinned copper shield.

Cat. No.	No. of Cond.	Size AWG	Cond. Strand	Nom. Wall	Nom. O.D.
7542	2	24	16/36	.015"	.114"
7542/3	3	24	16/36	.015"	.123"
7542/4	4	24	16/36	.015"	.144"

CONDUCTOR COLOR CODE CHART:
1—Black, 2—White, 3—Red, 4—Green

CLEAR VINYL JACKET OVERALL

Cat. No.	No. of Cond.	Size AWG	Cond. Strand	Nom. Wall Jacket	Nom. O.D.
7552	2	28	7/36	.010"	.137"
7552/3	3	28	7/36	.010"	.145"
7552/4	4	28	7/36	.010"	.163"

CONDUCTOR COLOR CODE CHART:
1—Black, 2—White, 3—Red, 4—Green

STANDARD PUT-UPS: 100'—250'—500'—1000'

SPIRAL WRAPPED SHIELDED AUDIO and MULTI-CONDUCTOR CABLE

Plastic Jacketed—with Spiral wrapped copper shield
Designed for P.A. and sound systems, installations in schools, hospitals, and institutions, recording studios, transmitters, paging and call systems.

DESCRIPTION: Each conductor copper tinned, 1/4" plastic insulation, color coded, twisted, spiral wrapped tinned copper shield, gray plastic jacket overall.

Cat. No.	Cond.	Size AWG	Strand	Nom. Insul.	Nom. Jacket	Nom. O.D.
941	2	22	7/30	.017"	.020"	.171"
941/1	1	22	7/30	.017"	.020"	.120"
941/3	3	22	7/30	.017"	.020"	.190"
941/4	4	22	7/30	.017"	.020"	.205"
941/6	6	22	7/30	.017"	.020"	.240"
950	2	22	1	.017"	.020"	.169"
942	2	20	10/30	.017"	.020"	.190"
942/1	1	20	10/30	.017"	.020"	.129"
943	3	20	10/30	.017"	.020"	.208"
944	4	20	10/30	.017"	.020"	.220"
945	6	20	10/30	.017"	.020"	.260"
946	1	18	16/30	.017"	.020"	.139"
947	2	18	16/30	.017"	.020"	.230"
947/3	3	18	16/30	.017"	.020"	.228"
947/4	4	18	16/30	.017"	.020"	.240"
948	2	16	26/30	.017"	.020"	.250"
949	3	16	26/30	.017"	.020"	.249"

CONDUCTOR COLOR CODE: 1—Black, 2—Red, 3—White, 4—Green
STANDARD PUT-UP: 100'—250'—500'—1000'

SHIELDED PLASTIC JACKETED CABLE with ALUMINUM MYLAR® FOIL SHIELD

This cable is extremely light in weight and provides 100% shield coverage at audio and radio frequencies.

DESCRIPTION: Each conductor tinned copper, color coded polyethylene insulation, twisted with #22 7/30 stranded tinned copper drain wire, aluminum Mylar® foil shield, gray polyvinylchloride jacket overall.

Cat. No.	Cond.	Size AWG	Strand	Nom. Insul.	Nom. Jacket	Nom. O.D.
1890	2	22	7/30	.015"	.020"	.165"
1890/3	3	22	7/30	.015"	.020"	.175"
1890/4	4	22	7/30	.015"	.020"	.190"
1891	2	20	10/30	.015"	.020"	.180"
1891/3	3	20	10/30	.015"	.020"	.190"
1891/4	4	20	10/30	.015"	.020"	.200"
1892	2	18	16/30	.017"	.020"	.220"
1892/3	3	18	16/30	.017"	.020"	.230"
1892/4	4	18	16/30	.017"	.020"	.240"

CONDUCTOR COLOR CODE: 1—Black, 2—Red, 3—White, 4—Green
STANDARD PUT-UP: 100'—500'—1000'

PLASTIC—MULTI-CONDUCTOR MICROPHONE

Gen'l. Purpose Shielded Multi-Conductor Cable

Used with carbon and all low impedance microphones, control circuits, video and audio inter-connections, cable, broadcast studio use.

DESCRIPTION: Each conductor tinned copper, Polyethylene insulation—color coded. Multi conductors are cushioned with jute fillers, cotton wrapped under tinned copper shield, chrome vinyl jacket overall.

Cat. No.	Cond.	Size AWG	Stranding	Nom. Cap./Ft.	Nom. O.D.
1842	2	22	16/34	31MMF.	.231"
1843	3	20	26/34	33MMF.	.295"
1844	4	20	26/34	43MMF.	.320"
1845	5	20	26/34	48MMF.	.345"
1846	6	20	26/34	54MMF.	.370"
1846/8	8	20	26/34	57MMF.	.330"
1846/10	10	20	26/34	60MMF.	.375"
1846/12	12	20	26/34	64MMF.	.385"
1846/15	15	20	26/34	67MMF.	.410"
1846/20	20	20	26/34	71MMF.	.455"

STANDARD PUT-UPS: 100'—250'—500'—1000'

COLOR CODE OF CONDUCTORS: 1—Black, 2—White, 3—Red, 4—Green, 5—Yellow, 6—Blue, 7—Brown, 8—Orange, 9—Slate, 10—Purple, 11—White/Black, 12—White/Red, 13—White/Green, 14—White/Yellow, 15—White/Blue, 16—White/Brown, 17—White/Purple, 18—White/Slate, 19—Black/Red, 20—Black/Yellow.

FOR MORE INFORMATION ON COMPLETE LINES, WRITE FOR NEW CATALOG.

BIERNBACH

RADIO COMPANY INC.

MICROPHONE, MULTI-CONDUCTOR AND SERVICE CORD CABLE

RUBBER JACKETED MULTI-CONDUCTOR CABLE (Not Shielded) GENERAL PURPOSE CONTROL CABLE

Used for permanent or portable P.A. systems, sound recording, indoor or outdoor speakers, interconnecting cable for all electronic uses. Each conductor, extra flexible stranded tinned copper, insulated with a .022" wall, special low capacity rubber, color coded, conductors twisted, filler, cotton wrap with tough weatherproof black rubber jacket overall.

Cat. No.	Cond.	Size No. Awg.	Strand.	Cap. Bet. 1 Cond. & Others	Nom. O.D.
788	2	20	26/34	40 Mmf	.245"
790	3	20	26/34	50 Mmf	.260"
792	4	20	26/34	53 Mmf	.285"
794	5	20	26/34	56 Mmf	.305"
796	6	20	26/34	58 Mmf	.320"
798	7	20	26/34	60 Mmf	.335"
749	8	20	26/34	63 Mmf	.370"
749/10	10	20	26/34	65 Mmf	.415"
749/12	12	20	26/34	67 Mmf	.435"
749/15	15	20	26/34	70 Mmf	.505"
749/20	20	20	26/34	79 Mmf	.570"

COLOR CODE OF CONDUCTORS: 1-Black, 2-White, 3-Red, 4-Green, 5-Yellow, 6-Blue, 7-Brown, 8-Orange, 9-Slate, 10-Purple, 11-White/Black (Braid), 12-White/Red (Braid), 13-White/Green (Braid), 14-White/Yellow (Braid), 15-White/Blue (Braid), 16-White/Brown (Braid), 17-White/Purple (Braid), 18-White/Slate (Braid), 19-Black/Red (Braid), 20-Black/Yellow (Braid).

STANDARD PUTUPS: 100' — 250' — 500' — 1000'

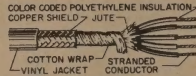
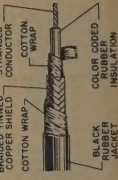


RUBBER MICROPHONE CABLE

Designed for long service life and low loss. Use with crystal, ribbon, dynamic and velocity microphones and photoelectric cells. Birnbach #870 is used widely for lapel microphones and phono pick ups.

DESCRIPTION: Single Conductor, 26 Strands—#34 extra flexible tinned copper, special low loss rubber compound, tinned copper braid shield, cotton wrap, tough black rubber jacket overall.

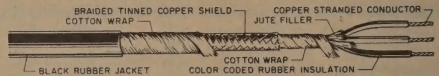
Cat. No.	Spool Cond.	Size No. Awg.	Stranding	Nom. Cap./Ft.	Nom. O.D.
870	100'	1	20 26/34	40 Mmf	.175"
872	100'	1	20 26/34	30 Mmf	.245"



RUBBER OR NEOPRENE MICROPHONE General Purpose Multi-Conductor Shielded Control Cable

DESCRIPTION: Each Conductor, extra flexible stranded tinned copper, insulated with a .002" wall special low capacity rubber, color coded, conductors twisted, filler cotton wrap, tinned copper braided shield, cotton wrap with tough weatherproof black rubber or neoprene jacket overall.

Used for indoor and outdoor crystal, carbon and condenser microphones, public address systems, and control circuits, video and audio inter-connecting cable, broadcast and heavy-duty studio use.



RUBBER JACKET

Cat. No.	Cond.	Size No. Awg.	Strand.	Nom. Cap. Between & Others		Nom. Cap. Between 1-Cond. & Others	
				1-Cond. & Shield	Connected to Shield	1-Cond. & Others	Nom. O.D.
772	2	20	26/34	65 Mmf	68 Mmf	43 Mmf	.280"
772/18	2	18	41/34	70 Mmf	73 Mmf	48 Mmf	.300"
773	3	20	26/34	68 Mmf	72 Mmf	55 Mmf	.290"
773/18	3	18	41/34	68 Mmf	72 Mmf	55 Mmf	.350"
774	4	20	26/34	68 Mmf	74 Mmf	57 Mmf	.300"
774/18	4	18	41/34	68 Mmf	74 Mmf	57 Mmf	.335"
775	5	20	26/34	75 Mmf	76 Mmf	58 Mmf	.330"
776	6	20	26/34	71 Mmf	80 Mmf	60 Mmf	.350"
777	7	20	26/34	72 Mmf	85 Mmf	62 Mmf	.365"
778	8	20	26/34	74 Mmf	90 Mmf	65 Mmf	.390"
778/10	10	20	26/34	75 Mmf	92 Mmf	67 Mmf	.440"
778/12	12	20	26/34	77 Mmf	93 Mmf	69 Mmf	.525"
778/15	15	20	26/34	79 Mmf	95 Mmf	71 Mmf	.595"
778/20	20	20	26/34	83 Mmf	96 Mmf	75 Mmf	.660"

COLOR CODE OF CONDUCTORS: 1-Black, 2-White, 3-Red, 4-Green, 5-Yellow, 6-Blue, 7-Brown, 8-Orange, 9-Slate, 10-Purple, 11-White/Black (Braid), 12-White/Red (Braid), 13-White/Green (Braid), 14-White/Yellow (Braid), 15-White/Blue (Braid), 16-White/Brown (Braid), 17-White/Purple (Braid), 18-White/Slate (Braid), 19-Black/Red (Braid), 20-Black/Yellow (Braid).

NEOPRENE JACKET — HEAVY DUTY

DESCRIPTION: Each conductor stranded tinned copper, color coded rubber insulation, cotton wrap, braided tinned copper shield, cotton wrap, tough black neoprene jacket overall.

APPLICATIONS: Shielded microphone and electronic power cable. Control circuits: Video and Audio inter-connecting cable. Broadcast and heavy studio use, and for ground support equipment related to guided missile systems.

CHARACTERISTICS: Oil and acid resistant. Suitable for outdoor use and direct burial. Will resist aging and rough usage. Neoprene jacket.

No.	Cond.	Size No. Awg.	Strand.	Wall Thick.	Nom. Jacket	Nom. O.D.
1781	500'	1	18 41/34	.040"	.030"	.250"
1782	500'	2	18 41/34	.020"	.035"	.305"
1783	500'	3	18 41/34	.020"	.035"	.325"
1784	500'	4	18 41/34	.020"	.035"	.335"
1786	500'	6	18 41/34	.020"	.035"	.430"

MICROPHONE CABLE COLOR CODE CHART: 1-Black, 2-White, 3-Red, 4-Green, 5-Yellow, 6-Blue, 7-Brown, 8-Orange.

STANDARD PUT-UPS: 100' — 250' — 500' — 1000'

RUBBER & NEOPRENE SERVICE CORD (Heavy Duty) — UL APPROVED

For power line requirement where rough usage is indicated as for amplifiers, sound systems, speakers, vacuum cleaners, washing machines, trouble lights, refrigerators, etc. Color coded. Underwriters approved. Neoprene construction recommended for equipment exposed to oil, acids, outdoor use, direct burial, etc. Each conductor, copper conductor, paper separator, color coded, rubber insulation, filler, separator, tough rubber or neoprene jacket.

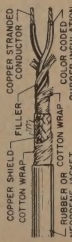
RUBBER		NEOPRENE		Std. Put-ups	Conds.	Size No. Awg.	Strand	Amp Rating	Volt Rating	Nom. O.D.
Cat. No.	U/L Type	Cat. No.	U/L Type							
701	SV 690	SV0	250'	2	18	41/34	7	300	.250"	
*701/3	SV 690/3	SV0	250'	3	18	41/34	7	300	.265"	
574	SJ 691	SJO	250'	2	18	41/34	7	300	.300"	
575	SJ 692	SJO	250'	3	18	41/34	7	300	.330"	
575/4	SJ 692/4	SJO	250'	4	18	41/34	7	300	.360"	
578	SJ 693	SJO	250'	2	16	65/34	10	300	.325"	
578/3	SJ 693/3	SJO	250'	3	16	65/34	10	300	.365"	
578/4	SJ 693/4	SJO	250'	4	16	65/34	10	300	.395"	
702	S 694	SO	250'	2	18	16/30	7	600	.390"	
702/3	S 694/3	SO	250'	3	18	16/30	7	600	.435"	
702/4	S 694/4	SO	250'	4	18	16/30	7	600	.435"	
703	S 695	SO	250'	2	16	26/30	10	600	.410"	
703/3	S 695/3	SO	250'	3	16	26/30	10	600	.430"	
703/4	S 695/4	SO	250'	4	16	26/30	10	600	.485"	
704	S 696	SO	250'	2	14	31/30	15	600	.540"	
704/3	S 696/3	SO	250'	3	14	41/30	15	600	.560"	
704/4	S 696/4	SO	250'	4	14	41/30	15	600	.605"	
705	S 697	SO	250'	2	12	65/30	20	600	.605"	
705/3	S 697/3	SO	250'	3	12	65/30	20	600	.635"	
705/4	S 697/4	SO	250'	4	12	65/30	20	600	.665"	
706	S 698	SO	250'	2	10	103/30	25	600	.640"	
706/3	S 698/3	SO	250'	3	10	103/30	25	600	.690"	
706/4	S 698/4	SO	250'	4	10	103/30	25	600	.745"	

Additional Conductors Available — 701/3 has tinned copper wire conductor color code: 1—White, 2—Black, 3—Green, 4—Red

SERVICE CORD PER MIL-C-3432C SPEC WITH CERTIFICATION — INSPECTION AVAILABLE

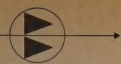
Cat. No.	Mil Type	Spec. Designation	Conds.	Avg. Size	Spec. No.	Nom. O.D.
M-218	CO-02	MGF	2	18	MIL-C-3432A	.300"
H-218	CO-02	HGF	2	18	MIL-C-3432A	.380"
L-218	CO-02	LGF	2	18	MIL-C-3432A	.250"
H-216	CO-02	HGF	2	16	MIL-C-3432A	.405"
M-216	CO-02	MGF	2	16	MIL-C-3432A	.338"
M-214	CO-02	MGF	14	14	MIL-C-3432A	.400"
H-214	CO-02	HGF	14	14	MIL-C-3432A	.535"
M-318	CO-03	MGF	3	18	MIL-C-3432A	.330"
M-316	CO-03	MGF	3	16	MIL-C-3432A	.375"
H-312	CO-03	HOE	3	12	MIL-C-3432A	.355"

ADDITIONAL NUMBERS AVAILABLE — YOUR INQUIRIES INVITED



FOR MORE INFORMATION ON COMPLETE LINES, WRITE FOR NEW CATALOG.

RADIO COMPANY INC.



SECTION 6000

RETRACTILE CORDS

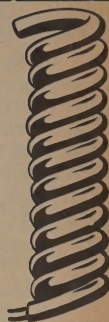
RETRACTILE COILED COMMUNICATION CORD

Multi-conductor stranded communication cord No. 23 AWG. Tinned copper wire neoprene or Geon plastic jacketed. Long lengths can be cut to exact requirement. Adds product reliability. Useful wherever cords must change length or position. Nom. cond. resistance .022 ohms per linear foot, .185 ohms per retracted foot. Maximum working voltage 120 volts. Current carrying capacity 1 ampere.

Cat. No.	Re-tracted Length	Approx. Length Extended	Cond.	Size AWG	Strand	Coil O.D.	Nom. O.D.
875-2	24"	12 Ft.	2	23	21/36	3/4"	.200"
875	36"	18 Ft.	2	23	21/36	3/4"	.200"
875-4	48"	25 Ft.	2	23	21/36	3/4"	.200"
876-2	24"	12 Ft.	3	23	21/36	3/4"	.210"
876	36"	18 Ft.	3	23	21/36	3/4"	.210"
876-4	48"	25 Ft.	3	23	21/36	3/4"	.210"
877-2	24"	12 Ft.	4	23	21/36	13/16"	.240"
877	36"	18 Ft.	4	23	21/36	13/16"	.240"
877-4	48"	25 Ft.	4	23	21/36	13/16"	.240"
878-2	24"	12 Ft.	5	23	21/36	1"	.285"
878	36"	18 Ft.	5	23	21/36	1"	.285"
878-4	48"	25 Ft.	5	23	21/36	1"	.285"

Cat. No.	Re-tracted Length	Approx. Length Extended	Cond.	Size AWG	Strand	Coil O.D.	Nom. O.D.
878/6-2	24"	12 Ft.	6	23	21/36	1 1/4"	.305"
878/6	36"	18 Ft.	6	23	21/36	1 1/4"	.305"
878/6-4	48"	25 Ft.	6	23	21/36	1 1/4"	.305"
878/7-2	24"	12 Ft.	7	23	21/36	1 1/2"	.320"
878/7	36"	18 Ft.	7	23	21/36	1 1/2"	.320"
878/7-4	48"	25 Ft.	7	23	21/36	1 1/2"	.320"
878/8	48"	25 Ft.	8	23	21/36	1 3/4"	.360"
878/10	48"	25 Ft.	10	23	21/36	1 3/4"	.380"
878/12	48"	25 Ft.	12	23	21/36	1 3/4"	.410"
878/15	48"	25 Ft.	15	23	21/36	1 3/4"	.470"
878/37	48"	25 Ft.	37	23	21/36	2 1/2"	.680"

CONDUCTOR COLOR CODING: 1-Black, 2-White, 3-Red, 4-Green, 5-Blue, 6-Yellow, 7-Brown, 8-Orange, 9-White/Black Tracer, 10-White/Red Tracer, 11-White/Green Tracer, 12-White/Blue Tracer, 13-White/Yellow Tracer, 14-White/Brown Tracer, 15-White/Orange Tracer. Also available in retracted lengths of 12", 24" and 48".



RETRACTILE (KINKLESS) COILED SHIELDED COMMUNICATION CORDS

DESCRIPTION: Single and multi-conductor shielded microphone cable neoprene or geon plastic jacketed. This cable remains neat and compact with no danger of tripping or of the wire becoming entangled in equipment. Also suitable for stereo and additional speaker extensions. Shield can be pigtailed for soldering. No. 24 AWG Str. is 41/40 tinned soft cad. copper. No. 23 has 21/36 tinned soft cad. copper. Spiral wrapped tinned soft copper shielding.

Cat. No.	Re-tracted Length	Approx. Length Extended	Cond.	Size AWG	Coil O.D.	Nom. O.D.	Maximum Working Voltage	Capacitance MMF Lin. Ft.	MMF Retr. Ft.	Std. Pkg.
895	48"	25 Ft.	1	No. 24 Shielded	3/4"	.160"	75	56	440	10
895A	12"	6 Ft.	1	No. 24 Shielded	3/4"	.160"	75	56	440	10
895B	6"	3 Ft.	1	No. 24 Shielded	3/4"	.160"	75	56	440	10
896	48"	25 Ft.	2	1-No. 23 1-No. 24 Shielded	3/4"	.200"	#23-120 #24- 75	56	450	10
896A	12"	6 Ft.	2	1-No. 23 1-No. 24 Shielded	3/4"	.200"	#23-120 #24- 75	56	450	10
897	48"	25 Ft.	3	2-No. 23 1-No. 24 Shielded	3/4"	.240"	#23-120 #24- 75	56	450	10
897A	12"	6 Ft.	3	2-No. 23 1-No. 24 Shielded	3/4"	.240"	#23-120 #24- 75	56	450	10
899	48"	25 Ft.	2	2-No. 24 Shielded	3/4"	.210"	75	56	450	10
899A	12"	6 Ft.	2	2-No. 24 Shielded	3/4"	.210"	75	56	450	10
898	48"	25 Ft.	4	2-No. 23 2-No. 24 Shielded	1"	.270"	#23-120 #24- 75	56	460	10
898A	12"	6 Ft.	4	2-No. 23 2-No. 24 Shielded	1"	.270"	#23-120 #24- 75	56	460	10

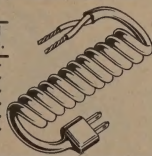
Additional conductors and sizes available. CONDUCTORS ARE COLOR CODED.

RETRACTILE (KINKLESS) POWER CORD SETS

Excellent for portable use. All mobile equipment and office equipment wherever the device application is synonymous with repetitive movement. The "Answer" to most tough hazard problems. 2 and 3 conductors SVO and SJO Retractable Kinkless Neoprene Service Cord Sets with Molded Male Plug one end, other end stripped for application. Adds reliability, compactness and portability.

Cat. No.	Retracted Length	Size AWG	UL Type	Strand	Coil O.D.
880	18"	9 Ft.	2 18	SVO	41/34
880/3	18"	9 Ft.	3 18	SVO	41/34
881	18"	9 Ft.	2 18	SJO	41/34
881/3	18"	9 Ft.	3 18	SJO	41/34
882	18"	9 Ft.	2 16	SJO	65/34
882/3	18"	9 Ft.	3 16	SJO	65/34

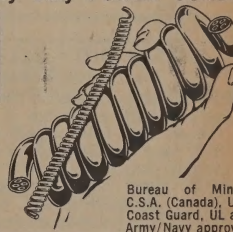
CONDUCTOR COLOR CODING: 1-Black, 2-White, 3-Green.



RETRACTILE Super Heavy Duty POWER CORDS

THIS IS A NEW CORD and should not be confused with cords of lesser quality.

BB Cat. No.	Size	Nom. JKT.	Nom. O.D.
1300	3 16 65/34	7/64"	.505"
1300/4	4 16 65/34	7/64"	.535"
1301	3 14 41/30	7/64"	.620"
1301/4	4 14 41/30	7/64"	.660"
1302	3 12 65/30	8/64"	.715"
1302/4	4 12 65/30	8/64"	.770"



Bureau of Mines, C.S.A. (Canada), U.S. Coast Guard, UL and Army/Navy approved

RETRACTILE (KINKLESS) POWER CORDS RUBBER, NEOPRENE AND PLASTIC — UL AND CSA APPROVED

DESCRIPTION: Multi-conductor power cords, each conductor stranded copper, tough rubber, neoprene or geon plastic jacket overall UL and CSA approved. Available from stock in indicated lengths, can be cut to desired length.

Cat. No.	Retracted Length	Approx. Length Ext.	No. Cond.	Size AWG	Strand	UL Type	Amp. Rating	Volt Rating	Coil Nom. O.D.	Cord. Nom. O.D.
886-2	24"	12'	2	18	41/34	SVO	7	300	3/4"	.250
886	36"	18'	2	18	41/34	SVO	7	300	3/4"	.250
886-4	48"	25'	2	18	41/34	SVO	7	300	3/4"	.250
886/3-2	24"	12'	3	18	41/34	SVO	7	300	1"	.275
886/3-3	36"	18'	3	18	41/34	SVO	7	300	1"	.275
886/3	48"	25'	3	18	41/34	SVO	7	300	1"	.275
887-2	24"	12'	2	18	41/34	SVT	7	300	3/4"	.250
887	36"	18'	2	18	41/34	SVT	7	300	3/4"	.250
887-4	48"	25'	2	18	41/34	SVT	7	300	3/4"	.250
889-2	24"	12'	2	18	41/34	SJO	7	300	1 1/4"	.310
889	36"	18'	2	18	41/34	SJO	7	300	1 1/4"	.310
889-4	48"	25'	2	18	41/34	SJO	7	300	1 1/4"	.310
890-2	24"	12'	2	18	41/34	SJT	7	300	1 1/4"	.310
890	36"	18'	2	18	41/34	SJT	7	300	1 1/4"	.310
890-4	48"	25'	2	18	41/34	SJT	7	300	1 1/4"	.310
889/3-2	24"	12'	3	18	41/34	SJO	7	300	1 1/4"	.330
889/3	36"	18'	3	18	41/34	SJO	7	300	1 1/4"	.330
889/3-4	48"	25'	3	18	41/34	SJO	7	300	1 1/4"	.330
889/4-2	24"	12'	4	18	41/34	SJO	5.6	300	1 1/2"	.360
889/4	36"	18'	4	18	41/34	SJO	5.6	300	1 1/2"	.360
889/4-4	48"	25'	4	18	41/34	SJO	5.6	300	1 1/2"	.360
889/5-2	24"	12'	5	18	41/34	—	5.6	300	1 3/4"	.440
889/5	36"	18'	5	18	41/34	—	5.6	300	1 3/4"	.440
889/7-2	24"	12'	7	18	41/34	—	5.6	300	1 3/4"	.500
889/7	36"	18'	7	18	41/34	—	5.6	300	1 3/4"	.500

FOR MORE INFORMATION ON COMPLETE LINES, WRITE FOR NEW CATALOG.

BIARNBACH

RADIO COMPANY INC.

SECTION 6000

CORD SETS

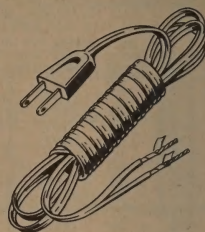
SERVICE LINE CORDS

UL Approved

An all purpose approved power supply cord for radios, record players, lamps, & small appliances.

DESCRIPTION: Two Conductors Rubber Parallel SP-1 (POSJ) with Molded-on Male Plug, double brass blades, conductor end striped and tinned, hanked, Available in Black and Brown.

Cat. No.	Length Ft.	Cond.	Size AWG	Strand	Nom. O.D.
1-816	6	2	18	41/34	.130x.235
1-817	7½	2	18	41/34	.130x.235
1-819	10	2	18	41/34	.130x.235
1-820	12	2	18	41/34	.130x.235
1-821	15	2	18	41/34	.130x.235
1-822	20	2	18	41/34	.130x.235



HEAVY DUTY SERVICE CORD

CSA APPROVED — (HEAVY DUTY) — UL APPROVED

Used for heavy duty replacement on refrigerators, washing machines, machine-ry, tools and electronic devices.

DESCRIPTION: Two and Three Conductors, Stranded Bare Copper, cotton serve, rubber insulation, jute filler, cotton wrap, tough rubber jacket overall, molded plug one end, free end stripped and tinned for easy attachment — Hankd.



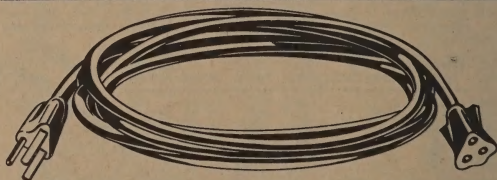
Cat. No.	Length Ft.	Cond.	Size AWG	UL Type	Strand	O.D.
1-301	6	2	18	SV	41/34	.250
1-309	9	2	18	SV	41/34	.250
1-312	12	2	18	SV	41/34	.250
1-304	20	2	18	SV	41/34	.250
1-309/3	9	3	18	SV	41/34	.265
1-306	8	2	18	SJ	16/30	.300
1-307	10	2	18	SJ	16/30	.300
1-308	12	2	18	SJ	16/30	.300
1-347	8	3	18	SJ	16/30	.330
1-310	10	3	18	SJ	16/30	.330
1-311	12	3	18	SJ	16/30	.330
1-348	8	2	16	SJ	26/30	.325
1-313	10	2	16	SJ	26/30	.325
1-314	12	2	16	SJ	26/30	.325
1-346	8	3	16	SJ	26/30	.355
1-316	10	3	16	SJ	26/30	.355
1-317	12	3	16	SJ	26/30	.355

HEAVY DUTY EXTENSION CORD SETS

(UL & CSA APPROVED)

DESCRIPTION: Extension cord sets manufactured for lasting service with a flexible 2 or 3 conductor quality black rubber cord. This rugged cord has a black molded plastic male and female plug on either end to fit conventional sockets and plugs.

APPLICATION: Small business machines, vacuum cleaners, lamps, movie projectors, or any other home appliance. 3 conductor cord used when 1 conductor requires grounding.



Cat. No.	Length Ft.	Cond.	Size AWG	UL Type	Strand	O.D.
1-401	6	2	18	SV	41/34	.250
1-402	9	2	18	SV	41/34	.250
1-403	10	2	18	SJ	16/30	.300
1-404	25	2	18	SJ	16/30	.300
1-405	50	2	18	SJ	16/30	.300
1-406	10	2	16	SJ	26/30	.330
1-407	25	2	16	SJ	26/30	.330
1-408	50	2	16	SJ	26/30	.330
1-409	100	2	16	SJ	26/30	.330
1-410	15	3	18	SJ	16/30	.330
1-411	25	3	18	SJ	16/30	.330
1-412	50	3	18	SJ	16/30	.330
1-413	15	3	16	SJ	26/30	.360
1-414	25	3	16	SJ	26/30	.360
1-415	50	3	16	SJ	26/30	.360
1-416	100	3	16	SJ	26/30	.360

TV POWER SUPPLY CORD—UL APPROVED

Used extensively as replacement of damaged or worn out TV cords.

DESCRIPTION: Six Foot Rip Strip TV U.L. Approved Safety Cord. 2-cond. No. 18 SP-1 (POSJ) brown rubber cord with molded male plug and TV molded-on connector on other end.

Cat. No. 1-815	Television Power Supply Cord	6 Feet
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FOR MORE INFORMATION ON COMPLETE LINES, WRITE FOR NEW CATALOG.

BIRNBACH

RADIO COMPANY INC.

ELECTRONIC LACING CORD/TAPE

To Meet JAN-T-713 — COMP-P - Type S — MIL-T-713A - Type P*

FLAT BRAIDED LACING TAPE — NYLON

Flat braided Hi-Tenacity Nylon Fiber impregnated with (MW) microcrystalline fungicidal wax. Engineered to stay flat. Distributes stress evenly over a wide area. Resistant to fungus, flame, abrasion, acids. Will not cut or damage insulation. Has strength, toughness and stability.

PUT UP ON 500 YARDS PER TUBE

Cat. No.	Class	Width	Thick.	Test lbs.	Yd./Lb.
1035	Natural White	—	.200"	.014"	150 250
1035B	Black	—	.200"	.014"	150 250
1036	Natural White	1	.120"	.014"	80 550
1036B	Black	1	.120"	.014"	80 550
1037	Natural White	2*	.090"	.014"	50 750
1037B	Black	2*	.090"	.014"	50 750
1038	Natural White	3	.062"	.010"	30 1500
1038B	Black	3	.062"	.010"	30 1500
1039	Natural White	4	.046"	.010"	15 2400
1039B	Black	4	.046"	.010"	15 2400

DACRON

Flat Braided Hi-Tenacity Dacron Fiber impregnated with special non-slip fungicidal finish. Will not cut or damage insulation. Engineered to stay flat—for strength, toughness, stability. Will not cut insulation.

PUT UP ON 500 YARDS PER TUBE

Cat. No.	Class	Width	Thick.	Test lbs.	Yd./Lb.
1041	Natural White	—	.120"	.014"	80 450
1041B	Black	—	.120"	.014"	80 450
1042	Natural White	—	.090"	.014"	48 600
1042B	Black	—	.090"	.014"	48 600
1043	Natural White	—	.060"	.010"	35 850
1043B	Black	—	.060"	.010"	35 850
1044	Natural White	—	.046"	.010"	25 1100
1044B	Black	—	.046"	.010"	25 1100

ROUND NYLON LACING CORDS

This nylon lacing cord manufactured to meet Spec. MIL-T-713A Type P, Composition P, Classes 3, 2, 1. Wax finished — compounded with a fungicide to resist mildew.

PUT UP ON 1 LB. TUBES

Class	Cat. No.	Cat. No.	Yds.	Diam.	Breaking Strength Lbs.
Class 1	1070	1070B	600	.039"	70
Class 2	1071	1071B	800	.029"	48
Class 3	1072	1072B	1140	.025"	32
Class 4	1072/1	1072/1B	2400	.020"	20

TEFLON-FIBERGLASS

Flat Braided Fiberglass, teflon coated and bonded for hi-temperature applications (550°F). Engineered to stay flat — for strength, toughness and stability. Teflon finish increases tensile strength and abrasion resistant surface. Will not cut or damage insulation. Color: White.

PUT UP ON 500 YARDS PER SPOOL

Cat. No.	Width	Thickness	Test Lbs.	Yd./Lb.
1045	.170"	.025"	150	200
1046	.120"	.020"	90	200
1047	.080"	.020"	70	280

TEFLON*

Flat Braided Teflon for hi-temperature applications (550°F). Engineered to stay flat. Will not cut or damage insulation. Color: Brown.

PUT UP ON 500 YARDS PER SPOOL

Cat. No.	Width	Thickness	Test Lbs.	Yd./Lb.
1048	.100"	.016"	35	325
1049	.075"	.010"	15	700

ROUND LINEN LACING CORDS

This linen lacing cord is made from pure flax treated with microcrystalline wax compounded with fungicide to resist mildew. The twelve, eight and six ply cord meet Spec. MIL-T-713A Type N, Classes 1, 2 and 3 respectively. Color: Natural. Also available in Black in 1 lb. Tubes.

4 OZ. TUBES

Cat. No.	Yds.	Class	Ply	Diam.	Lb. Test
1073	210	—	4	.036"	22
1076	150	3	6	.044"	33
1082	115	2	8	.051"	50
1079	100	—	9	.054"	56
1085	75	1	12	.063"	72

8 OZ. TUBES

Cat. No.	Yds.	Class	Ply	Diam.	Lb. Test
1074	425	—	4	.036"	22
1077	300	3	6	.044"	33
1083	235	2	8	.051"	50
1080	200	—	9	.054"	56
1086	150	1	12	.063"	72

1 LB. TUBES

Cat. No.	Cat. No.	Yds.	Class	Ply	Diam.	Lb. Test
1075 Natural	1075B Black	850	—	4	.036"	22
1078 Natural	1078B Black	600	3	6	.044"	33
1084 Natural	1084B Black	470	2	8	.051"	50
1081 Natural	1081B Black	400	—	9	.054"	56
1087 Natural	1087B Black	300	1	12	.063"	72

NEW—COMPLETE WIRE MEASURING OUTFIT

ACCURATE • COMPACT • NOISELESS

MEASURING MACHINE

Sturdy and compact construction. Has a precision quality built counter with large numbers for easy reading and will register wire up to 3,999 feet for direct accurate reading. Can be easily reset to zero position.

Wire passes through two rollers, the upper roller being self-adjusting and the tension of the upper roller can be set by a thumb screw to provide the proper grip for very fine as well as for heavy wire.

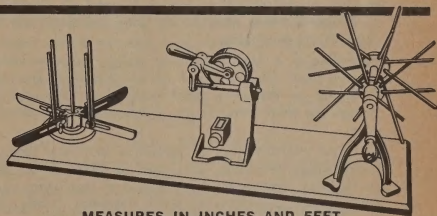
Two hardened lead bushings with an opening of 3/8" diameter will guide the wire properly through the rollers. Bushings are removable to allow cables up to 1" dia. to pass through. Will measure accurately all electric wires, cables, coaxial cables, rope, tape, etc.

WIRE WINDER

Has adjustable arms to be set to the desired coil size and the arms will open to a flat position for easy removal of the coil. Simply open thumb screw which holds the front collar tight on the shaft, push the collar in any direction to the desired position and tighten the thumb screw again.

HOLDING REEL

Compact, adjustable to size of coil and folding. Will hold spools or coils of wire.



MEASURES IN INCHES AND FEET

CERTIFICATE OF APPROVAL NO. 498-61

DEPARTMENT OF AGRICULTURE STATE OF CALIFORNIA

Complete: Model No.

Wire Measuring Outfit 7389A

Separately:

Holding Reel 7398-1M

Measuring Machine 7398-2MA

Wire Winder 9398-3M

HarnessRAP

Part No.	Outside Diameter	Wall Thickness	PHYSICAL CHARACTERISTICS	
			Standard Polyethylene	Flame Retarded Polyethylene
POLYETHYLENE				
BHR-1/8	1/8"	.031	Temp. Range —140°F+200°F	—90°F+180°F
BHRX-1/4	1/4"	.032	Flammability 0.94	Self. Ext.
BHR-3/8	3/8"	.058	Tensile Strgth. 1700	1500
BHR-1/2	1/2"	.058	Water Absorp. .02	.02
FLAME RETARDANT (RULAN)			24 hours .03	2.7
BHRF-1/4	1/4"	.058	Dielectric Con. 2.3	15
BHRF-3/8	3/8"	.058	Wgt. thous. ft. 10	

MADE IN FOUR SIZES

1/8" O.D. 3/16" to 1/2" wire groups
1/4" O.D. 3/8" to 1" wire groups
3/8" O.D. 1/2" to 2" wire groups
1/2" O.D. 3/4" to 4" wire groups

COLORS: Natural (White). Additional colors and sizes available on request.

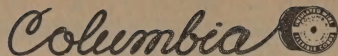
AVAILABLE IN 25' - 100' - 500' - 2000' Lgths.



FOR MORE INFORMATION ON COMPLETE LINES, WRITE FOR NEW CATALOG.

BIERNBACH

RADIO COMPANY INC.



DURAFOAM UHF/VHF TELEVISION TRANSMISSION LINE*

Over 25,000,000 Feet Already in Use



Durafoam quality is so high that we can offer an unconditional 15 year guarantee. Its high reliability construction features two tubes of cellular polyethylene, to assure low signal loss, and a heavy black polyethylene Permaline insulation, to offer the maximum protection against deterioration caused by moisture, chemicals, salts and sunlight.

Durafoam is also extremely easy to install, cutting down the amount of time required to reach job.

Cat. No.	
5790L	50 ft.
5790S	65 ft.
5790C	100 ft.
5790D	500 ft.
5790M	1000 ft.

* U. S. Pat. #3,219,752

PERMALINE TV TRANSMISSION LINES

It is now over 12 years since Columbia introduced Permaline television transmission line, the only television wire available today with a written guarantee against deterioration. In all this time we have yet to replace one single foot of this wire for reasons of deterioration, proving beyond all doubt that Permaline insulation has no equal for long life under the most severe atmospheric conditions.

Permaline is a high molecular weight polyethylene containing a very small percentage of carbon black to provide maximum resistance to the ultra violet rays in sunlight which has been proven the chief factor in the deterioration of ordinary television wire.

Electrical characteristics of Permaline are very similar to brown polyethylene television lines, but as there is no deterioration attenuation remains constant instead of increasing as is the case with brown polyethylene which becomes brittle and cracks. Remember it is not how THICK but how GOOD!

25 YEAR WARRANTY

80 Mil 20 Ga. Str. PERMALINE Television Transmission Line
.080 x .395

CAT. NO.

5050M.....	1,000 Ft. Metal Spool
5050D.....	500 Ft. Metal Spool
5050C.....	100 Ft. Coil | 12 coils come packed in FREE counter
5050S.....	65 Ft. Coil | display
5050R.....	35 Ft. Coil

15 YEAR WARRANTY

50 Mil 20 Ga. Str. PERMALINE Television Transmission Line
.050 x .385

5150M.....	1,000 Ft. Metal Spool
5150D.....	500 Ft. Metal Spool
5150C.....	100 Ft. Coil | 12 coils come packed in FREE counter
5150S.....	65 Ft. Coil | display
5150R.....	35 Ft. Coil

Highly resistant to:

- SUNLIGHT
- MOISTURE
- FAR BELOW ZERO TEMP.
- CHEMICAL FUMES
- OIL REFINERY FUMES
- SALT AIR & SALT SPRAY
- ABRASION

Tensile Strength — 2300 lbs. per Sq. In.

Separate Warranty Certificate with every spool or package of Permaline Television Transmission Line.

PERMAFOAM LOW LOSS COAXIAL CABLES

PERMAFOAM is a new type of coaxial cable for television systems, communication work, and all other co-ax applications. A foam polyethylene dielectric replaces the conventional solid polyethylene thus providing far lower capacity and attenuation. In fact, attenuation is approximately 25% lower than standard coaxial cables of same type. Overall jacket is our PERMALINE high molecular weight polyethylene. This non-contaminating jacket is unaffected by salt air, chemical fumes, damp rot, fungus, acids, alkalis, etc., and is remarkably resistant to all extreme weather conditions. Moisture resistance is so high that this insulation is now used on submarine cables. Will withstand severe temperature extremes and is immune to the deteriorating effects of sunlight and other ultra violet. Note: In addition to the PERMAFOAM cables listed below, any other RG U cable is available with a foam polyethylene dielectric on special order.

PERMAFOAM 72-75 OHM COAXIAL CABLE

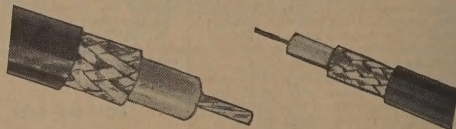
R.G. No.	Nom. Imp.	Attenuation 100 Ft.	Wire Size	O.D.	Spool Size	Cat. No.
RG 59 U	73	2.95 DB.	22 Cpwld.	.240	500 Ft. 1000 Ft.	5035D 5035M
RG 11 U	75	1.50 DB.	14 Solid	.405	500 Ft. 1000 Ft.	5025D 5025M

PERMAFOAM 52-53 OHM COAXIAL CABLE

R.G. No.	Nom. Imp.	Attenuation 100 Ft.	Wire Size	O.D.	Spool Size	Cat. No.
RG 58 U	53	3.10 DB.	20 Solid	.195	100 Ft. 500 Ft. 1000 Ft.	5045C 5045D 5045M
RG 8 U	52	1.50 DB.	7/21	.405	100 Ft. 500 Ft. 1000 Ft.	5015C 5015D 5015M
RG 17 U	52	.712 DB.	5 Solid	.870	100 Ft. 500 Ft. 1000 Ft.	5090C 5090D 5090M

COLUMBIA STANDARD COAXIAL CABLES

Premium quality standard coaxial cable. Meets all specifications. Black vinyl jacket.



R.G. No.	Nom. Imp.	Mmfd. Ft.	Wire Size	Overall Jacket	Spool Size	Cat. No.
RG 59 U	73.0	21.0	22 C Weld	Black Vinyl .240 O.D.	100 Ft. 500 Ft. 1000 Ft.	1104C 1104D 1104M
RG 8 U	52.0	29.5	7/21	Black Vinyl .405 O.D.	100 Ft. 500 Ft. 1000 Ft.	1154C 1154D 1154M
RG 11 U	75.0	20.5	7/26	Black Vinyl .405 O.D.	100 Ft. 500 Ft. 1000 Ft.	1160C 1160D 1160M
RG 58 U	53.5	28.5	20 Ga.	Black Vinyl .195 O.D.	100 Ft. 500 Ft. 1000 Ft.	1166C 1166D 1166M
RG 58 A/U	50.0	29.0	19/.0068	Black Vinyl .159 O.D.	100 Ft. 500 Ft. 1000 Ft.	1178C 1178D 1178M

Long Lengths of Any Co-ax Available Upon Request

WRITE TO YOUR LOCAL PARTS DISTRIBUTOR FOR COMPLETELY ILLUSTRATED COLUMBIA WIRE PRODUCTS CO. CATALOG



FLEXFOAM ULTRA LOW CAPACITANCE MICROPHONE CABLES — EXCLUSIVE WITH COLUMBIA

Another Columbia first is a complete line of microphone cables with capacity as much as 35% lower than the best regular microphone cables available today. This drastic lowering of capacity has been made possible by the use of foamed polyethylene as the inner dielectric instead of solid polyethylene as normally used. This low capacitance means that lengths of microphone cable can be increased as much as 50%. These cables are also ideal for Hi-Fi and high quality sound work because of the extremely low attenuation, particularly at the higher audio-frequencies. The use of a special flexible vinyl as an outer jacket provides flexibility practically as good as rubber yet has much greater abrasion resistance. Color—Grey.

Also available in high gloss gleaming white jackets.

FLEXFOAM MIKE CABLE WITH BRAIDED SHIELD

	Per Ft.	250 Ft. Spool	Net	500 Ft. Spool
Crystal Size (.190" O.D.)	16 MMF	No. 1399T	11.90	1399D
Lapel Size (.140" O.D.)	19 MMF	No. 1397T	9.02	1379D

FLEXFOAM MIKE CABLE WITH SPIRAL SHIELD

Crystal Size (.190" O.D.)	16 MMF	No. 1389T	11.07	1389D
Lapel Size (.140" O.D.)	19 MMF	No. 1369T	8.29	1369D
Miniature (.085" O.D.)	35 MMF	No. 1359T	6.11	1359D

TWO CONDUCTOR PLASTIC MICROPHONE CABLE — .230 O.D. T/C BRAID SHIELD

250 Ft. Spool	22 Ga.	16/34 Stranding	1322T
500 Ft. Spool	22 Ga.	16/34 Stranding	1322D
Nominal Capacitance 30 MMF Per Ft. Between 1 Cond. and Remaining Cond. Connected to Shield			

ECONOMY SPIRAL SHIELDED MICROPHONE CABLES

Plastic insulated with wrapped concentric spiral shield for more effective shielding. Cables are more flexible and of smaller size.

CRYSTAL MICROPHONE CABLE .160 O.D.

25 Ga. 7 x 33 Str.

CAT. NO.	250 Ft. Spool	Nominal Cap. 25 MMF Per Ft.
1314T	250 Ft. Spool	Nominal Cap. 25 MMF Per Ft.
1314D	500 Ft. Spool	Nominal Cap. 25 MMF Per Ft.

LAPEL MICROPHONE CABLE .125 O.D.

25 Ga. 7 x 33 Str.

1366T	250 Ft. Spool	Nominal Cap. 33 MMF Per Ft.
1366M	250 Ft. Spool	Nominal Cap. 33 MMF Per Ft.

HEAVY DUTY MICROPHONE CABLE

Heavy duty studio type plastic insulated microphone cable that will withstand abrasion and rough usage.

18 Ga. Str. 41 x 34 Tinned Copper Conductors.
Jute Fillers T/C Shield
.295 O.D.

	CAT. NO.
100 Ft. Spool	Color—Black 3302C
500 Ft. Spool	Color—Black 3302D

Nominal Capacitance 75 MMF. Per Ft.

Also available with bright red jackets for easy identification.

COLUMBIA SUPER-FLEX

ULTRA FLEXIBLE FOAM COAXIAL CABLES

We believe Super-Flex Coaxial Cables are the finest available today — not only because of their appearance and flexibility, but because they actually out-perform any similar type of coaxial cable in use today. Cables feature High Gloss Non Contaminating Jackets and have a primary insulation of foam Polyethylene to reduce attenuation as much as 25% over regular types of coaxial cables. In addition to the above features Super-Flex Coaxial Cables will not become rigid in severe cold. Can be used with standard connectors. Ideal for citizens band and amateur use. Perfect for master television systems due to the wide range of colors available. Standard stock colors are: Black-White-Silver or Beige. Other colors to special order with a minimum of 5000 ft. of a color.



SUPER-FLEX RG 8/U 52 OHM IMPEDANCE

19/.020 Conductor. Insulation Foam Poly Dielectric

Cat. No.

1198C	100 Ft.	RG 8/U	Super-Flex	.405 O.D.
1198D	500 Ft.	RG 8/U	Super-Flex	.405 O.D.
1198M	1000 Ft.	RG 8/U	Super-Flex	.405 O.D.

Cap. 22.1 MMF Per Ft.

Attenuation 1.50 DB Per 100 Ft. at 100 MC.



SUPER-FLEX RG 58 A/U 50 OHM IMPEDANCE

19/.0068 Conductor. Insulation Foam Poly Dielectric

1188C	100 Ft.	RG 58 A/U	Super-Flex	.195 O.D.
1188D	500 Ft.	RG 58 A/U	Super-Flex	.195 O.D.
1188M	1000 Ft.	RG 58 A/U	Super-Flex	.195 O.D.

Cap. 22.9 MMF Per Ft.

Attenuation 4.25 DB Per 100 Ft. at 100 MC.



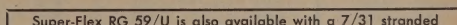
SUPER-FLEX RG 59/U 73 OHM IMPEDANCE

22 Solid Copperweld Conductor. Insulation Foam Poly Dielectric

1135C	100 Ft.	RG 59/U	Super-Flex	.242 O.D.
1135D	500 Ft.	RG 59/U	Super-Flex	.242 O.D.
1135M	1000 Ft.	RG 59/U	Super-Flex	.242 O.D.

Cap. 16.6 MMF Ft.

Attenuation 2.95 DB Per 100 Ft. at 100 MC



Super-Flex RG 59/U is also available with a 7/31 stranded conductor to provide still more flexibility. Center conductor can be used only with Pin Type Fittings such as used to plug into wall plates for Master Television Systems.

H'VY GAUGE JUKE BOX-H.F. SPKR CABLE

FOR LONG RUNS—LESS LOSS

This cable is similar to the 24 ga. juke box speaker cable listed in our general catalog, except that the 21 ga. conductors in this cable reduce the line loss to exactly half. Ridge in insulation over one conductor plus one tinned and one bare conductor provide double indication of polarity.

COLORS: Clear, Grey, Brown, White, Clear Gold



.180" x .090"
2 COND. 21 GA. STR. 10/31

No. 1360C	100 Ft. Spool
No. 1360D	500 Ft. Spool
No. 1360M	1000 Ft. Spool

WRITE TO YOUR LOCAL PARTS DISTRIBUTOR FOR COMPLETELY ILLUSTRATED COLUMBIA WIRE PRODUCTS CO. CATALOG

CONSOLIDATED WIRE AND ASSOCIATED CORPORATIONS

See Following Pages for Specifications

PRICE LIST

No.	Unit Pkg. or Length	Net Price Each																		
801	25'	.30	1389	50'	1.57	1460	15'	1.20	1484	100'	5.48	4079	25'	1.75	1484	250'	52.88	4079	50'	2.45
801	100'	.90	1389	100'	2.92	1460	25'	1.88	1484	500'	51.38	4079	100'	4.50	1484	1000'	51.38	4079	250'	43.50M'
801	500'	4.15	1389	500'	13.87	1460	100'	6.60	1484	1000'	51.38	4079	250'	43.50M'	1484	1000'	51.38	4079	500'	42.75M'
801	1000'	7.85	1389	1000'	27.37	1460	250'	63.75M'	1484	1000'	51.38	4079	500'	42.75M'	1484	1000'	51.38	4079	1000'	42.00M'
811	25'	.35	1390	50'	1.62	1460	500'	61.75M'	1485	100'	6.75	4087	100'	6.65	1485	250'	65.63	4087	250'	64.25M'
811	100'	1.05	1390	100'	3.07	1460	1000'	61.75M'	1485	500'	64.78	4087	500'	6.65	1485	500'	64.78	4087	500'	64.25M'
811	500'	4.85	1390	250'	7.27	1461	10'	.43	1485	1000'	64.78	4087	1000'	6.65	1485	1000'	64.78	4087	1000'	64.25M'
811	1000'	9.00	1390	500'	14.25	1461	25'	.57	1486	100'	8.25	4092	250'	5.75	1486	250'	80.10	4092	250'	54.35M'
821	25'	.35	1390	1000'	27.10	1461	50'	1.50	1486	500'	78.60	4092	500'	5.75	1486	500'	80.10	4092	500'	54.35M'
821	100'	1.05	1391	50'	1.87	1461	100'	2.85	1486	1000'	78.60	4202	25'	1.20	1486	1000'	78.60	4202	25'	1.20
821	500'	4.85	1391	100'	3.52	1461	250'	27.75M'	1487	100'	9.98	4202	50'	2.25	1487	250'	96.75	4202	50'	2.25
821	1000'	9.00	1391	250'	9.00	1461	500'	25.50M'	1487	500'	95.25	4202	100'	4.45	1487	500'	95.25	4202	100'	4.45
831	25'	.43	1391	500'	17.62	1461	1000'	25.50M'	1487	1000'	95.25	4202	250'	40.25M'	1487	1000'	95.25	4202	250'	40.25M'
831	100'	1.20	1391	1000'	34.50	1462	15'	1.28	1488	100'	11.55	4212	25'	2.15	1488	250'	110.25	4212	25'	2.15
831	500'	6.00	1392	50'	2.48	1462	25'	2.10	1488	500'	105.75	4212	50'	3.45	1488	500'	105.75	4212	50'	3.45
831	1000'	11.75	1392	100'	4.80	1462	50'	3.90	1488	1000'	105.75	4212	100'	7.70	1488	1000'	105.75	4212	100'	7.70
841	25'	.46	1392	250'	12.00	1462	100'	7.50	1488	250'	110.25	4212	250'	72.50M'	1488	250'	110.25	4212	250'	72.50M'
841	100'	1.65	1392	500'	23.60	1462	250'	75.00M'	1489	100'	12.91	4212	500'	3.75	1489	250'	125.55	4212	500'	3.75
841	500'	7.50	1392	1000'	46.85	1462	500'	68.25M'	1489	500'	124.05	4212	1000'	7.00	1489	500'	124.05	4212	1000'	7.00
841	1000'	14.00	1393	50'	3.22	1462	1000'	68.25M'	1489	1000'	124.05	4212	250'	13.50	1489	1000'	124.05	4212	250'	13.50
846	25'	.51	1393	100'	6.35	1463	15'	1.50	1490	100'	14.78	4212	500'	127.50M'	1490	250'	144.00	4212	500'	127.50M'
846	100'	1.70	1393	250'	14.50	1463	25'	2.40	1490	250'	144.00	4212	1000'	1.80	1490	500'	142.50	4212	1000'	1.80
846	500'	7.85	1393	500'	28.50	1463	50'	3.65	1490	500'	142.50	4212	50'	3.30	1490	1000'	142.50	4212	50'	3.30
846	1000'	15.00	1393	1000'	56.25	1463	100'	8.70	1490	1000'	142.50	4212	100'	6.30	1490	1000'	142.50	4212	100'	6.30
851	25'	.42	1394	50'	4.85	1463	250'	21.00	1490	1000'	142.50	4212	250'	58.50M'	1490	1000'	142.50	4212	250'	58.50M'
851	100'	1.50	1394	100'	9.35	1463	500'	84.00M'	1490	1000'	142.50	4212	500'	2.45	1490	1000'	142.50	4212	500'	2.45
851	500'	6.50	1394	250'	24.00	1463	1000'	84.00M'	1490	1000'	142.50	4212	1000'	4.35	1490	1000'	142.50	4212	1000'	4.35
851	1000'	12.35	1394	500'	47.25	1464	15'	1.72	1490	1000'	142.50	4212	250'	79.25M'	1490	1000'	142.50	4212	250'	79.25M'
856	25'	.50	1394	1000'	93.00	1464	25'	2.85	1490	1000'	142.50	4212	500'	3.20	1490	1000'	142.50	4212	500'	3.20
856	100'	1.85	1395	50'	5.55	1464	50'	5.25	1490	1000'	142.50	4212	1000'	6.00	1490	1000'	142.50	4212	1000'	6.00
856	500'	7.65	1395	100'	10.80	1464	100'	10.00	1490	1000'	142.50	4212	250'	110.50M'	1490	1000'	142.50	4212	250'	110.50M'
856	1000'	14.50	1395	250'	27.00	1464	250'	24.25	1490	1000'	142.50	4212	500'	3.90	1490	1000'	142.50	4212	500'	3.90
861	25'	.60	1395	500'	53.60	1464	500'	97.50M'	1490	1000'	142.50	4212	1000'	7.45	1490	1000'	142.50	4212	1000'	7.45
861	100'	2.15	1395	1000'	106.50	1464	1000'	97.50M'	1490	1000'	142.50	4212	250'	135.95M'	1490	1000'	142.50	4212	250'	135.95M'
861	500'	9.90	1396	50'	12.35	1465	15'	2.03	1495	100'	17.48	4224	25'	4.20	1495	250'	171.00	4224	25'	4.20
861	1000'	19.00	1396	100'	24.30	1465	25'	3.38	1495	250'	171.00	4224	50'	8.25	1495	500'	169.50	4224	50'	8.25
866	25'	.55	1396	250'	60.00	1465	50'	6.30	1495	500'	169.50	4224	100'	16.20	1495	1000'	169.50	4224	100'	16.20
866	100'	1.90	1396	500'	119.25	1465	100'	12.30	1495	1000'	169.50	4224	250'	150.00M'	1495	1000'	169.50	4224	250'	150.00M'
866	500'	7.65	1396	1000'	237.00	1465	250'	20.00	1501	100'	21.00	4224	500'	2.45	1501	250'	190.50	4224	500'	2.45
866	1000'	14.50	1397	50'	7.95	1465	500'	120.00M'	1501	250'	190.50	4224	1000'	4.35	1501	500'	189.00	4224	1000'	4.35
871	25'	.61	1397	100'	15.75	1465	1000'	120.00M'	1501	500'	189.00	4224	250'	79.25M'	1501	1000'	189.00	4224	250'	79.25M'
871	100'	2.20	1397	250'	39.00	1466	15'	2.55	1502	100'	22.13	4232	25'	3.20	1502	250'	211.50	4232	25'	3.20
871	500'	8.70	1397	500'	77.25	1466	25'	7.72	1502	250'	211.50	4232	50'	6.00	1502	500'	210.00	4232	50'	6.00
871	1000'	16.85	1397	1000'	153.75	1466	100'	15.50	1502	500'	210.00	4232	100'	11.50	1502	1000'	210.00	4232	100'	11.50
876	25'	.70	1398	50'	12.25	1466	250'	37.50	1502	1000'	210.00	4232	250'	110.50M'	1502	1000'	210.00	4232	250'	110.50M'
876	100'	2.55	1398	100'	26.25	1466	500'	150.00M'	1502	1000'	210.00	4232	500'	4.72	1502	1000'	210.00	4232	500'	4.72
876	500'	10.55	1398	250'	65.25	1466	1000'	150.00M'	1502	1000'	210.00	4232	1000'	9.00	1502	1000'	210.00	4232	1000'	9.00
876	1000'	20.50	1398	500'	127.50	1467	15'	2.78	1502	1000'	210.00	4232	250'	16.95	1502	1000'	210.00	4232	250'	16.95
881	100'	3.20	1398	1000'	247.50	1467	25'	4.58	1502	1000'	210.00	4232	500'	165.00M'	1502	1000'	210.00	4232	500'	165.00M'
881	500'	15.00	1399	50'	14.60	1467	50'	8.48	1502	1000'	210.00	4232	1000'	3.00	1502	1000'	210.00	4232	1000'	3.00
881	1000'	29.75	1399	100'	28.85	1467	100'	16.50	1502	1000'	210.00	4232	500'	5.40	1502	1000'	210.00	4232	500'	5.40
901	25'	.33	1399	250'	71.50	1467	250'	40.00	1502	1000'	210.00	4232	1000'	10.30	1502	1000'	210.00	4232	1000'	10.30
901	100'	1.20	1399	500'	142.50	1467	500'	160.50M'	1502	1000'	210.00	4232	250'	98.55M'	1502	1000'	210.00	4232	250'	98.55M'
901	500'	5.65	1399	1000'	281.25	1467	1000'	160.50M'	1502	1000'	210.00	4232	500'	3.97	1502	1000'	210.00	4232	500'	3.97
901	1000'	10.55	1453	100'	15.00	1471	100'	4.13	1502	1000'	210.00	4232	1000'	7.50	1502	1000'	210.00	4232	1000'	7.50
911	25'	.38	1453	500'	126.00M'	1471	250'	9.00	1502	1000'	210.00	4232	250'	14.00	1502	1000'	210.00	4232	250'	14.00
911	100'	1.42	1453	1000'	120.00M'	1471	500'	35.25	1502	1000'	210.00	4232	500'	135.95M'	1502	1000'	210.00	4232	500'	135.95M'
911	500'	6.60	1454	100'	31.50	1471	1000'	33.75	1502	1000'	210.00	4232	1000'	5.75	1502	1000'	210.00	4232	1000'	5.75
911	1000'	12.50	1454	500'	307.50M'	1471	250'	9.75	1502	1000'	210.00	4232	250'	10.80	1502	1000'	210.00	4232	250'	10.80
921	25'	.38	1454	1000'	300.00M'	1472	250'	9.75	1502	1000'	210.00	4232	500'	20.70	1502	1000'	210.00	4232	500'	20.70
921	100'	1.42	1455	15'	2.70	1472	500'	37.50	1502	1000'	210.00	4232	1000'	202.50M'	1502	1000'	210.00	4232	1000'	202.50M'
921	500'	7.00	1455	50'	8.25	1472	1000'	37.50	1502	1000'	210.00	4232	250'	3.90	1502	1000'</				

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No.	Unit Pkg. or Length	Net Price Each	4401 100'	4401 500'	4401 1000'	4402 100'	4402 500'	4402 1000'	4403 100'	4403 500'	4403 1000'	4404 100'	4404 500'	4404 1000'	4405 100'	4405 500'	4405 1000'	4406 100'	4406 500'	4406 1000'	4407 100'	4407 500'	4407 1000'	4408 100'	4408 500'	4408 1000'	4409 100'	4409 500'	4409 1000'	4410 100'	4410 500'	4410 1000'	4411 100'	4411 500'	4411 1000'	4412 100'	4412 500'	4412 1000'	4413 100'	4413 500'	4413 1000'	4414 100'	4414 500'	4414 1000'	4415 100'	4415 500'	4415 1000'	4416 100'	4416 500'	4416 1000'	4417 100'	4417 500'	4417 1000'	4418 100'	4418 500'	4418 1000'	4419 100'	4419 500'	4419 1000'	4420 100'	4420 500'	4420 1000'	4421 100'	4421 500'	4421 1000'	4422 100'	4422 500'	4422 1000'	4423 100'	4423 500'	4423 1000'	4424 100'	4424 500'	4424 1000'	4425 100'	4425 500'	4425 1000'	4426 100'	4426 500'	4426 1000'	4427 100'	4427 500'	4427 1000'	4428 100'	4428 500'	4428 1000'	4429 100'	4429 500'	4429 1000'	4430 100'	4430 500'	4430 1000'	4431 100'	4431 500'	4431 1000'	4432 100'	4432 500'	4432 1000'	4433 100'	4433 500'	4433 1000'	4434 100'	4434 500'	4434 1000'	4435 100'	4435 500'	4435 1000'	4436 100'	4436 500'	4436 1000'	4437 100'	4437 500'	4437 1000'	4438 100'	4438 500'	4438 1000'	4439 100'	4439 500'	4439 1000'	4440 100'	4440 500'	4440 1000'	4441 100'	4441 500'	4441 1000'	4442 100'	4442 500'	4442 1000'	4443 100'	4443 500'	4443 1000'	4444 100'	4444 500'	4444 1000'	4445 100'	4445 500'	4445 1000'	4446 100'	4446 500'	4446 1000'	4447 100'	4447 500'	4447 1000'	4448 100'	4448 500'	4448 1000'	4449 100'	4449 500'	4449 1000'	4450 100'	4450 500'	4450 1000'	4451 100'	4451 500'	4451 1000'	4452 100'	4452 500'	4452 1000'	4453 100'	4453 500'	4453 1000'	4454 100'	4454 500'	4454 1000'	4455 100'	4455 500'	4455 1000'	4456 100'	4456 500'	4456 1000'	4457 100'	4457 500'	4457 1000'	4458 100'	4458 500'	4458 1000'	4459 100'	4459 500'	4459 1000'	4460 100'	4460 500'	4460 1000'	4461 100'	4461 500'	4461 1000'	4462 100'	4462 500'	4462 1000'	4463 100'	4463 500'	4463 1000'	4464 100'	4464 500'	4464 1000'	4465 100'	4465 500'	4465 1000'	4466 100'	4466 500'	4466 1000'	4467 100'	4467 500'	4467 1000'	4468 100'	4468 500'	4468 1000'	4469 100'	4469 500'	4469 1000'	4470 100'	4470 500'	4470 1000'	4471 100'	4471 500'	4471 1000'	4472 100'	4472 500'	4472 1000'	4473 100'	4473 500'	4473 1000'	4474 100'	4474 500'	4474 1000'	4475 100'	4475 500'	4475 1000'	4476 100'	4476 500'	4476 1000'	4477 100'	4477 500'	4477 1000'	4478 100'	4478 500'	4478 1000'	4479 100'	4479 500'	4479 1000'	4480 100'	4480 500'	4480 1000'	4481 100'	4481 500'	4481 1000'	4482 100'	4482 500'	4482 1000'	4483 100'	4483 500'	4483 1000'	4484 100'	4484 500'	4484 1000'	4485 100'	4485 500'	4485 1000'	4486 100'	4486 500'	4486 1000'	4487 100'	4487 500'	4487 1000'	4488 100'	4488 500'	4488 1000'	4489 100'	4489 500'	4489 1000'	4490 100'	4490 500'	4490 1000'	4491 100'	4491 500'	4491 1000'	4492 100'	4492 500'	4492 1000'	4493 100'	4493 500'	4493 1000'	4494 100'	4494 500'	4494 1000'	4495 100'	44
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CONSOLIDATED WIRE AND ASSOCIATED CORPORATIONS

SEND FOR COMPLETE CATALOG

RG TYPE COAXIAL CABLES



Non-Contaminating Low Temp. Black Jacket		Vinyl & Poly. Jackets		Armor O.D.	Jacket O.D.	Vinyl Jacket	Shields		Dielectric O.D.	Center Conductor	V.P. %	Cap. Mmfd. /Ft.	Max. Oper. Volts Rms.	Nom. Imp. Ohms	
Number RG-/U	Cat. Number	No. RG/U	Cat. No.				Outer	Inner							
		5	4431		.332	Black	C	C	.185	16	65.9	28.5	3000	52.5	
5B	4432				.332	Black	S	S	.185	.053S	65.9	29.5	3000	50	
6A	4433				.332	Black	C	S	.185	21CW	65.9	20.	2700	75	
		7	4434		.370	Black	—	C	.250**	19	84	12.5	1000	97	
		8	4415		.405	Black	—	C	.285	7/21	65.9	29.5	4000	52	
8A	4435				.405	Black	—	C	.285	7/.0296	65.9	30.5	4000	52	
		9	4436		.420	Grey	C	S	.280	7/21S	65.9	30	4000	51	
9A	4437				.420	Grey	S	S	.280	7/21S	65.9	30	4000	51	
9B	4438				.425	Black	S	S	.285	7/.0296S	65.9	30.5	4000	50	
10A	4439				.475	Black	—	C	.285	7/.0296	65.9	30.5	4000	50	
		11	4419		.405	Black	—	C	.285	7/26T	65.9	20.5	4000	75	
11A	4440				.405	Black	—	C	.285	7/26T	65.9	20.5	4000	75	
12A	4441				.475	Black	—	C	.285	7/26T	65.9	20.5	4000	75	
		13	4442		.425	Black	C	C	.285	7/26T	65.9	20.5	4000	75	
13A	4443				.425	Black	C	C	.285	7/26T	65.9	20.5	4000	75	
14A	4467				.545	Grey	C	C	.370	10	65.9	29.5	5500	52	
14A	4468				.545	Black	C	C	.370	.106	65.9	30	5500	52	
17A	4482				.870	Black	—	C	.680	.188C	65.9	29.5	11000	52	
18A	4483				.945	.870	Black	—	C	.680	.188C	65.9	29.5	11000	52
		21	4444		.322	Grey	S	S	.185	16N	65.9	29	2700	53	
21A	4445				.332	Black	S	S	.185	.053N	65.9	30	2700	50	
		22	4471		.405	Black	—	T	.285	Two 7/.0152	65.9	16	1000	95	
22B	4475				.420	Black	T	T	.285	Two 7/.0152	65.9	16	1000	95	
		29	4446		.184	Poly	—	T	.116	20	65.9	28.5	1900	53.5	
		54A	4469		.250	Poly	—	T	.178	7/.0152	65.9	26.5	3000	58	
		55	4447		.206	Poly	T	T	.116	20	65.9	28.5	1900	53.5	
55A	4448				.216	Black	S	S	.116	.035S	65.9	29.5	1900	50	
55B	4484				.206	Black	T	T	.116	20S	65.9	28.5	1900	53.5	
		58	4405		.195	Black	—	T	.116	20	65.9	28.5	1900	53.5	
58A	4449				.195	Black	—	T	.116	19/.0071T	65.9	29.5	1900	50	
58B	4474				.195	Black	—	T	.116	20	65.9	28.5	1900	53.5	
58C	4450				.195	Black	—	T	.116	19/.0071T	65.9	29.5	1900	50	
		59	4401		.242	Black	—	C	.146	22CW	65.9	21	2300	73	
		59	4402		.242	Grey	—	C	.146	22CW	65.9	21	2300	73	
59A	4451				.242	Black	—	C	.146	.023CW	65.9	20.5	2300	75	
59B	4470				.242	Black	—	C	.146	.023CW	65.9	20.5	2300	75	
		62	4452		.242	Black	—	C	.146**	22CW	84	13.5	750	93	
62A	4453				.242	Black	—	C	.146**	22CW	84	13.5	750	93	
62B	4472				.242	Black	—	C	.146	22CW	84	13.5	750	93	
		63	4454		.405	Black	—	C	.285**	22CW	84	10	1000	125	
63B	4455				.405	Black	—	C	.285**	22CW	84	10	1000	125	
65A	4473				.405	Black	—	C	.340	32F	65	44	3000	950	
		71	4456		.250	Poly	T	T or C	.146**	22CW	84	13.5	750	93	
71A	4466				.245	Black	T	T or C	.146**	22CW	84	13.5	750	93	
71B	4485				.250	Black	T	C	.146	22CW	84	13.5	750	93	
74A	4486				.615	.545	Black	C	.370	10C	65.9	29.5	7000	52	
79B	4487				.475	.405	Black	—	C	.285	22CW	84	10	1000	125
		108	4464		.235	Black	—	T	.079 ea.	Two 7/28T	68	23.5	1000	78	
108A	4465				.235	Black	—	T	.079 ea.	Two 7/28T	65.9	23.5	1000	78	
122	4457				.160	Black	—	T	.096	27/36T	65.9	29.5	1900	50	
212	4488				.332	Black	S	S	.185	.0556S	65.9	29.5	3000	50	
213	4489				.405	Black	—	C	.285	7X.0296C	65.9	29.5	5000	50	
214	4490				.425	Black	S	S	.285	7X.0296C	65.9	29.5	5000	50	
215	4497				.475	Black	—	C	.285	7/.029C	65.9	29.5	4000	50	
216	4491				.425	Black	C	C	.285	7X26TC	65.9	20.5	5000	75	
217	4492				.545	Black	C	C	.370	.106C	65.9	29.5	7000	50	
218	4493				.870	Black	—	C	.680	.195C	65.9	29.5	11000	50	
219	4494				.945	.870	Black	—	C	.680	.195C	65.9	29.5	11000	50
222	4495				.332	Black	S	S	.185	.0556N	65.9	29.0	2700	50	
223	4496				.216	Black	S	S	.116	.035S	65.9	29.5	1900	50	

**Semi-Solid Dielectric N—Nichrome C—Cooper S—Silvered Copper CW—Copperweld T—Tinned Cooper F—Formvar

CONSOLIDATED WIRE PAGE 3

CONSOLIDATED WIRE AND ASSOCIATED CORPORATIONS

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RG TYPE COAXIAL CABLES



MINIATURE COAXIAL CABLE

Non-Contaminating Low Temp. Black Jacket		Vinyl & Poly. Jackets		Armor O.D.	Jacket O.D.	Vinyl Jacket	Shields		Dielectric O.D.	Center Conductor	V.P. %	Cap. Mmfd. /Ft.	Max. Oper. Volts Rms.	Nom. Imp. Ohms
Number RG/U	Cat. Number	Cat. No.	No. RG/U				Outer	Inner						
		4459	174		.105	Black	—	—	.060**	7/.0063CW		30		50

**Semi-Solid Dielectric N—Nichrome C—Copper S—Silvered Copper CW—Copperweld T—Tinned Copper F—Formvar

FOAM POLYETHYLENE COAXIAL CABLE

		8	4477		.405	Black	—	C	.285	7/19C	80	24.5	1500	50
11	4476				.405	Black	—	C	.285	14C	80	16.5	3000	75
		58	4498		.195	Black	—	T	.116	20C	80	28.5	1900	53.5
		59	4478		.195	Black	—	C	.107	22CW	80	17	500	72
62	4479				.242	Black	—	C	.146	.023CW	80	14.5	700	93
11	4480				.406	Black	C	C	.285	14C	80	16.5	3000	75
59	4481				.242	Black	C	C	.107	.107	80	17	500	72

**Semi-Solid Dielectric N—Nichrome C—Copper S—Silvered Copper CW—Copperweld T—Tinned Copper F—Formvar

TRIAXIAL CABLE DOUBLE SHIELD DOUBLE JACKET

RG/U Type	Cat. No.	Impedance in Ohms	Jacket Diameter	Vinyl Jacket	Shields		O. D. Dielectric	Inner Conductor	V. P. %	Cap. MMFD./Ft.	Max. Oper. Volts-RMS
					1st	2nd					
Triaxial 58A	4463	50	.285	Black	T	T	.116	19 .0071T	65.9	28.5	1,900
Triaxial 59	4460	73	.242	Black	C	C	.146	22CW	65.9	21.0	2,300
Triaxial 11	4461	75	.460	Black	C	C	.285	7 26T	65.9	20.5	4,000
Triaxial 8	4462	52	.490	Black	C	C	.285	7 21C	65.9	29.5	4,000

**Semi-Solid Dielectric N—Nichrome C—Copper S—Silvered Copper CW—Copperweld T—Tinned Copper F—Formvar

TEFLON COAXIAL CABLE

Number RG/U	Cat. Number	Inner Conductor	Dielectric Material	Nominal Diameter of Dielectric (inch)	Type of Shielding Braids	Protective Covering	Nominal Over-all Diameter (inch)	Nominal Capacitance (mmfd./ft.)	Maximum Operating Voltage (Volts rms)	Nominal Impedance (Ohms)
87A	4701	7/.032 Silver Covered Copper	F-1	.280	Silver Coated Copper Double Braid	V	.425	29.5	5000	50
94	4702	19/.0225 Silver Covered Copper	F-2	.292	Copper Double Braid	V	.445	29.0	7000	50
94A	4703	19/.0254 Silver Plated Copper	F-2	.370	Copper Double Braid	V	.500	27.0	7000	50
115	4704	7/.028 Silver Covered Copper	F-2	.250	Silver Coated Copper Double Braid	V	.375	29.5	5000	50
115A	4705	7/.028 Silver Covered Copper	F-2	.255	Silver Coated Copper Double Braid	V	.415	29.5	4000	50
116	4706	7/.032 Silver Covered Copper	F-1	.280	Silver Coated Copper Double Braid	V with armor	.490	29.5	5000	50
117	4707	.188 Copper	F-1	.620	Copper Single Braid	V	.730	29.0	7000	50
117A	4708	.188 Copper	F-1	.620	Copper Single Braid	V	.730	—	7000	50
118	4709	.188 Copper	F-1	.620	Copper Single Braid	V with armor	.795	29.0	7000	50
118A	4710	.188 Copper	F-1	.620	Copper Single Braid	V with armor	.780	—	7000	50
119	4711	.102 Copper	F-1	.332	Copper Double Braid	V	.465	29.0	6000	50
120	4712	.102 Copper	F-1	.332	Copper Double Braid	V with armor	.525	29.0	6000	50
126	4713	7/.0203 Karma or Equal	F-1	.185	Karma or Equal Single Braid	V	.280	29.0	3000	50
140	4714	.025 Silver Coated Copper Steel	F-1	.146	Silver Coated Copper Single Braid	V	.233	21.0	2300	75
141	4715	.0359 Silver Plated Copper Weld	F-1	.116	Silver Coated Copper Single Braid	V	.190	28.5	1900	50
141A	4716	.039 Silver Covered Copper Steel	F-1	.116	Silver Coated Copper Single Braid	V	.190	28.5	1900	50
142	4717	.0359 Silver Covered Copper Steel	F-1	.116	Silver Coated Copper Double Braid	V	.206	28.5	1900	50
142A	4718	.039 Silver Covered Copper Steel	F-1	.116	Silver Coated Copper Double Braid	V	.206	28.5	1900	50

Continued on following page

F-1—Solid Teflon F-2—Taped Teflon

F-3—Air Spaced Teflon

V—High Temperature Lacquer Impregnated Fiberglass Braid with Teflon Tape Between Shield and Jacket

VI—Polyester Fiber Impregnated with High Temperature Lacquer over Wrapped or Extruded Silicone Impregnated Fiberglass

IIA—Low Temperature Black Polyvinylchloride Non-Contaminating

FEP—Fluorinated Ethylene Propylene Copolymer, 200° Teflon

TFE—Tetrafluoride Ethylene Propylene Copolymer, 250°C Teflon

TEFLON COAXIAL CABLE



Number RG/U	Cat. Number	Inner Conductor	Dielectric Material	Nominal Diameter of Dielectric (inch)	Type of Shielding Braids	Protective Covering	Nominal Over-all Diameter (inch)	Nominal Capacitance (mmfd./ft.)	Maximum Operating Voltage (Volts rms)	Nominal Impedance (Ohms)
142B	4719	.039 Silver Covered Copper Steel	F-1	.116	Silver Coated Copper Double Braid	FEP	.195	28.5	1900	50
143	4720	.057 Silver Plated Copper Weld	F-1	.185	Silver Coated Copper Double Braid	V	.325	28.5	3000	50
143A	4721	.059 Silver Covered Copper Steel	F-1	.185	Silver Coated Copper Double Braid	V	.325	28.5	3000	50
144	4722	7/.0177 Silver Covered Copper Steel	F-1	.285	Silver Coated Copper Single Braid	V	.410	20.5	5000	75
146	4723	.007 Copper Covered Steel	F-3	.285	Copper Single Braid	V	.375	6.0	1000	190
161	4724	7/38 Silver Plated Cadmium Bronze	F-1	.057	Single Silver Copper	Extruded Black Nylon	.090	20.0	1000	70
165	4725	7/.032 Silver Covered Copper	F-1	.285	Silver Covered Copper Single Braid	V	.410	—	5000	50
166	4726	7/.032 Silver Covered Copper	F-1	.285	Silver Covered Copper Single Braid	V with armor	.460	—	5000	50
178	4727	7/.0039 Silver Plated Copper Weld	F-1	.036	Silver Plated Copper Single Braid	KEL-F	.079	27.9	1000	50
178A	4728	7/.004 Silver Covered Copper Steel	F-1	.034	Silver Plated Copper Single Braid	KEL-F	.075	27.9	1000	50
178B	4729	7/.004 Silver Covered Copper Steel	F-1	.034	Silver Covered Copper Single Braid	FEP	.075	—	1000	50
179A	4730	7/.004 Silver Covered Copper Steel	F-1	.063	Silver Plated Copper Single Braid	KEL-F	.105	20.0	1200	75
179B	4731	7/.004 Silver Covered Copper Steel	F-1	.063	Silver Covered Copper Single Braid	FEP	.105	—	1200	75
180	4732	7/.0039 Silver Plated Copper Weld	F-1	.103	Silver Plated Copper Single Braid	KEL-F	.141	15.3	1500	93
180A	4733	7/.004 Silver Covered Copper Steel	F-1	.102	Silver Plated Copper Single Braid	KEL-F	.145	14.5	1500	95
180B	4734	7/.004 Silver Covered Copper Steel	F-1	.102	Silver Covered Copper Single Braid	FEP	.145	—	1500	95
187	4735	7/.004 Silver Covered Copper Steel	F-1	.060	Silver Covered Copper Single Braid	Teflon	.110	—	1200	75
187A	4736	7/.004 Silver Covered Copper Steel	F-1	.060	Silver Covered Copper Single Braid	TFE	.110	—	1200	75
188	4737	7/.0067 Silver Covered Copper Steel	F-1	.060	Silver Covered Copper Single Braid	Teflon	.110	—	1200	50
188A	4738	7/.0067 Silver Covered Copper Steel	F-1	.060	Silver Covered Copper Single Braid	TFE	.110	—	1200	50
195	4739	7/.004 Silver Covered Copper Steel	F-1	.102	Silver Covered Copper Single Braid	Teflon	.155	—	1500	95
195A	4740	7/.004 Silver Covered Copper Steel	F-1	.102	Silver Covered Copper Single Braid	TFE	.155	—	1500	95
196	4741	7/.004 Silver Covered Copper Steel	F-1	.034	Silver Covered Copper Single Braid	Teflon	.080	—	1000	50
196A	4742	7/.004 Silver Covered Copper Steel	F-1	.034	Silver Covered Copper Single Braid	TFE	.080	—	1000	50
209	4743	19/.037 Silver Covered Copper	F-3	.500	Silver Covered Copper Double Braid	VI	.750	—	3200	50
210	4744	.0253 Silver Covered Copper Steel	F-3	.146	Silver Covered Copper Single Braid	V	.242	14.5	750	93
211	4745	.190 Copper	F-1	.620	Copper Single Braid	V	.730	—	7000	50
211A	4746	.190 Copper	F-1	.620	Copper Single Braid	V	.730	—	7000	50
225	4747	7/.0312 Silver Covered Copper	F-1	.285	Silver Covered Copper Double Braid	V	.430	—	5000	50
226	4748	19/.0254 Silver Covered Copper	F-2	.370	Copper Double Braid	V	.500	—	7000	50
227	4749	7/.0312 Silver Covered Copper	F-1	.285	Silver Covered Copper Double Braid	V with armor	.490	—	5000	50
228	4750	.190 Copper	F-1	.620	Copper Single Braid	V with armor	.795	—	7000	50
228A	4751	.190 Copper	F-1	.620	Copper Single Braid	V with armor	.795	—	7000	50
235	4752	7/.028 Copper	F-2	.255	Silver Covered Copper Double Braid	VI	.490	—	5000	50
280	4753	.1144 Copper	F-2	.327	Silver Covered Copper Double Braid	IIA	.480	27.5	4000	50
281	4754	19/.0378 Silver Covered Copper	F-2	.500	Silver Covered Copper Double Braid	VI	.750	29.5	4000	50
301	4755	7/.0203 Karma	F-1	.185	Karma Single Braid	FEP	.245	29.0	3000	50
302	4756	.025 Silver Covered Copper Steel	F-1	.146	Silver Covered Copper Single Braid	FEP	.206	21.0	2300	75
303	4757	.039 Silver Covered Copper Steel	F-1	.116	Silver Covered Copper Single Braid	FEP	.170	28.5	1900	50
304	4758	.059 Silver Covered Copper Steel	F-1	.185	Silver Covered Copper Double Braid	FEP	.280	28.5	3000	50
316	4759	7/.0067 Silver Covered Copper Steel	F-1	.060	Silver Covered Copper Single Braid	FEP	.102	—	1200	50

F-1—Solid Teflon

F-2—Taped Teflon

F-3—Air Spaced Teflon

V—High Temperature Lacquer Impregnated Fiberglass Braid with Teflon Tape Between Shield and Jacket

VI—Polyester Fiber Impregnated with High Temperature Lacquer over Wrapped or Extruded Silicone Impregnated Fiberglass

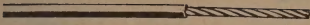
IIA—Low Temperature Black Polyvinylchloride Non-Contaminating

FEP—Fluorinated Ethylene Propylene Copolymer, 200° Teflon

TFE—Tetrafluoride Ethylene Propylene Copolymer, 250°C Teflon

CONSOLIDATED WIRE AND ASSOCIATED CORPORATIONS

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CONSOLIDATED**MIL-W-76****TYPE MW-VINYL — 1000V — 80C**


Tinned copper, vinyl insulated, medium wall. The polyvinylchloride insulation is flame and ozone resistant and is inert to most chemicals, oils, and solvents.

STRANDED CONDUCTOR

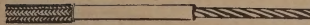
Catalog Number	Type Designation	Size & (Stranding)	Insulation Thickness (Inch)	Nom. O.D. (Inch)	Stock Colors on Standard Spools		
					100'	500'	1000'
9001	MW-C-24-(7)-U	24(7x32)	.017	.058	As Listed	As Listed	As Listed
9002	MW-C-22-(7)-U	22(7x30)	.017	.064	As Listed	As Listed	As Listed
9003	MW-C-20-(10)-U	20(10x30)	.017	.070	As Listed	As Listed	As Listed
9004	MW-C-18-(16)-U	18(16x30)	.017	.080	As Listed	As Listed	As Listed
9005	MW-C-16-(26)-U	16(26x30)	.019	.098	As Listed	As Listed	As Listed
9006	MW-C-14-(41)-U	14(41x30)	.020	.111	As Listed	As Listed	As Listed
9007	MW-C-12-(65)-U	12(65x30)	.020	.130	As Listed	As Listed	As Listed

SOLID CONDUCTOR

Catalog Number	Type Designation	Size & (Stranding)	Insulation Thickness (Inch)	Nom. O.D. (Inch)	100'	500'	1000'
9010	MW-C-22-(1)-U	22 (Solid)	.017	.059	As Listed	As Listed	As Listed
9011	MW-C-20-(1)-U	20 (Solid)	.017	.066	As Listed	As Listed	As Listed
9012	MW-C-18-(1)-U	18 (Solid)	.017	.074	As Listed	As Listed	As Listed
9013	MW-C-16-(1)-U	16 (Solid)	.017	.085	As Listed	As Listed	As Listed

Stock Colors*

0 Black	92 White/Red
1 Brown	93 White/Orange
2 Red	94 White/Yellow
3 Orange	95 White/Green
4 Yellow	96 White/Blue
5 Green	97 White/Violet
6 Dark Blue	98 White/Gray
7 Violet (Purple)	901 White/Black/Brown
8 Gray (Slate)	902 White/Black/Red
9 White	908 White/Black/Orange
11 Tan	904 White/Black/Yellow
12 Pink	905 White/Black/Green
13 Light Blue	906 White/Black/Blue
90 White/Black	907 White/Black/Violet
91 White/Brown	908 White/Black/Gray

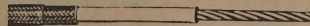
TYPE MW-SHIELDED — 1000V — 80C


Tinned copper, polyvinylchloride insulation. Medium wall, tinned copper shield overall.

Catalog Number	Type Designation	Size & (Stranding)	Insulation Thickness (Inch)	Nom. O.D. (Inch)	Stock Colors on Standard Spools		
					100'	500'	1000'
9014	MW-C-24-(7)-S	24(7x32)	.017	.082	As Listed	As Listed	As Listed
9015	MW-C-22-(7)-S	22(7x30)	.017	.088	As Listed	As Listed	As Listed
9016	MW-C-20-(10)-S	20(10x30)	.017	.094	As Listed *	As Listed	As Listed
9017	MW-C-18-(16)-S	18(16x30)	.017	.104	As Listed	As Listed	As Listed
9018	MW-C-16-(26)-S	16(26x30)	.019	.122	As Listed	As Listed	As Listed
9019	MW-C-14-(41)-S	14(41x30)	.020	.135	0, 2, 9	0, 2, 9	0, 2, 9
9020	MW-C-12-(65)-S	12(65x30)	.020	.154	0, 2, 9	0, 2, 9	0, 2, 9

Stock Colors*

0 Black	5 Green
1 Brown	6 Dark Blue
2 Red	7 Violet (Purple)
3 Orange	8 Gray (Slate)
4 Yellow	9 White

TYPE MW-SHIELDED — NYLON JACKET — 1000V — 80C


Tinned copper, polyvinylchloride insulation. Medium wall, tinned copper shield, nylon jacket.

Catalog Number	Type Designation	Size & (Stranding)	Insulation Thickness (Inch)	Nom. O.D. (Inch)	Stock Colors on Standard Spools		
					100'	500'	1000'
9021	MW-C-22-(7)-SJ	22(7x30)	.017	.095	9	9	9
9022	MW-C-20-(7)-SJ	20(10x30)	.017	.101	9	9	9
9023	MW-C-18-(16)-SJ	18(16x30)	.017	.112	9	9	9
9024	MW-C-16-(19)-SJ	16(26x30)	.019	.131	9	9	9

Stock Color*

9 Vinyl insulation. White only.

*Stock Color Numbers in Accordance to Military Type Designation and EIA Color Coding.

MIL-W-76

TYPE MW-GLASS BRAID — 1000V — 80C



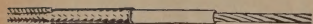
Tinned copper, polyvinylchloride insulated. Medium wall, lacquered glass braid overall.

Catalog Number	Type Designation	Size & (Stranding)	Insulation Thickness (Inch)	Nom. O.D. (Inch)	Stock Colors on Standard Spools		
					100'	500'	1000'
9025	MW-C-22(7)-B	22(7x30)	.017	.076	As Listed	As Listed	As Listed
9026	MW-C-20(10)-B	20(10x30)	.017	.084	As Listed	As Listed	As Listed
9027	MW-C-18(16)-B	18(16x30)	.017	.094	As Listed	As Listed	As Listed
9028	MW-C-16(26)-B	16(26x30)	.019	.112	As Listed	As Listed	As Listed
9029	MW-C-14(41)-B	14(41x30)	.020	.125	9,90thru98	9,90thru98	9,90thru98
9030	MW-C-12(65)-B	12(65x30)	.020	.144	9, 90, 92	9, 90, 92	9, 90, 92

Stock Colors*

0 Black	90 White/Black
1 Brown	91 White/Brown
2 Red	92 White/Red
3 Orange	93 White/Orange
4 Yellow	94 White/Yellow
5 Green	95 White/Green
6 Dark Blue	96 White/Blue
7 Violet (Purple)	97 White/Violet
8 Gray (Slate)	98 White/Gray
9 White	

TYPE MW-GLASS BRAID-SHIELDED — 1000V — 80C



Tinned copper, polyvinylchloride insulated. Medium wall, lacquered glass braid, tinned copper shield overall.

Catalog Number	Type Designation	Size & (Stranding)	Insulation Thickness (Inch)	Nom. O.D. (Inch)	Stock Colors on Standard Spools		
					100'	500'	1000'
9031	MW-C-22(7)-BS	22(7x30)	.017	.102	9	9	9
9032	MW-C-20(7)-BS	20(10x30)	.017	.108	9	9	9
9033	MW-C-18(16)-BS	18(16x30)	.017	.118	9	9	9
9034	MW-C-16(19)-BS	16(26x30)	.019	.136	9	9	9
9035	MW-C-14(19)-BS	14(41x30)	.020	.149	9	9	9
9036	MW-C-12(19)-BS	12(65x30)	.020	.168	9	9	9

Stock Color*

9 Vinyl insulation. White only.

TYPE MW — NYLON JACKET — 1000V — 90C



Tinned copper, polyvinylchloride insulated. Medium wall, clear nylon jacket overall.

Catalog Number	Type Designation	Size & (Stranding)	Insulation Thickness (Inch)	Nom. O.D. (Inch)	Stock Colors on Standard Spools		
					100'	500'	1000'
9037	MW-C-22(7)-J	22(7x30)	.017	.069	As Listed	As Listed	As Listed
9038	MW-C-20(10)-J	20(10x30)	.017	.075	As Listed	As Listed	As Listed
9039	MW-C-18(16)-J	18(16x30)	.017	.086	As Listed	As Listed	As Listed
9040	MW-C-16(26)-J	16(26x30)	.019	.106	As Listed	As Listed	As Listed
9041	MW-C-14(41)-J	14(41x30)	.020	.118	0, 1, 3, 4 5, 9	0, 1, 3, 4 5, 9	0, 1, 3, 4 5, 9
9042	MW-C-12(65)-J	12(65x30)	.020	.139	0, 1, 3, 4 5, 9	0, 1, 3, 4 5, 9	0, 1, 3, 4 5, 9

Stock Colors*

0 Black	90 White/Black
1 Brown	91 White/Brown
2 Red	92 White/Red
3 Orange	93 White/Orange
4 Yellow	94 White/Yellow
5 Green	95 White/Green
6 Dark Blue	96 White/Blue
7 Violet (Purple)	97 White/Violet
8 Gray (Slate)	98 White/Gray
9 White	

*Stock Color Numbers in Accordance to Military Type Designation and EIA Color Coding.

CONSOLIDATED WIRE AND ASSOCIATED CORPORATIONS

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MIL-W-76

TYPE HW — VINYL — Gauges 16-22 2500V, Gauges 6-14 600—80C

Tinned copper, polyvinylchloride insulated. Heavy wall.

Catalog Number	Type Designation	Size & (Stranding)	Insulation Thickness (Inch)	Nom. O.D. (Inch)	Stock Colors on Standard Spools		
					100'	500'	1000'
9100	HW-C-22(7)-U	22(7x30)	.034	.098	As Listed	As Listed	As Listed
9101	HW-C-20(10)-U	20(10x30)	.034	.104	As Listed	As Listed	As Listed
9102	HW-C-18(16)-U	18(16x30)	.034	.114	As Listed	As Listed	As Listed
9103	HW-C-16(26)-U	16(26x30)	.034	.128	0, 2, 9	0, 2, 9	0, 2, 9
9104	HW-C-14(41)-U	14(41x30)	.048	.171	0, 2, 9	0, 2, 9	0, 2, 9
9105	HW-C-12(65)-U	12(65x30)	.048	.191	0, 2, 9	0, 2, 9	0, 2, 9
9106	HW-C-10(105)-U	10(105x30)	.048	.214	0, 2, 9	0, 2, 9	0, 2, 9
9107	HW-C-8(133)-U	8(133x29)	.048	.261	0, 2, 9	0, 2, 9	0, 2, 9
9108	HW-C-6(133)-U	6(133x27)	.048	.296	0, 2, 9	0, 2, 9	0, 2, 9

Stock Colors*

0 Black	5 Green
1 Brown	6 Dark Blue
2 Red	7 Violet (Purple)
3 Orange	8 Gray (Slate)
4 Yellow	9 White

TYPE HW — GLASS BRAID — 600V — 80C

Tinned copper, polyvinylchloride insulated. Heavy wall, lacquered glass braid.

Catalog Number	Type Designation	Size & (Stranding)	Insulation Thickness (Inch)	Nom. O.D. (Inch)	Stock Colors on Standard Spools		
					100'	500'	1000'
9110	HW-C-10(105)-B	10(105x30)	.048	.232	As Listed	As Listed	As Listed
9111	HW-C-8(133)-B	8(133x29)	.048	.279	As Listed	As Listed	As Listed
9112	HW-C-6(133)-B	6(133x27)	.048	.314	As Listed	As Listed	As Listed

Stock Colors*

9 White
90 White/Black
92 White/Red

TYPE LW — VINYL — 300V — 80C

Tinned copper, polyvinylchloride insulated. Light wall.

Catalog Number	Type Designation	Size & (Stranding)	Insulation Thickness (Inch)	Nom. O.D. (Inch)	Stock Colors on Standard Spools		
					100'	500'	1000'
9200	LW-C-30(7)-U	30(7x38)	.011	.034	0 thru 9	0 thru 9	0 thru 9
9201	LW-C-28(7)-U	26(7x36)	.011	.037	As Listed	As Listed	As Listed
9202	LW-C-26(7)-U	26(7x34)	.011	.041	As Listed	As Listed	As Listed
9203	LW-C-24(7)-U	24(7x32)	.011	.046	As Listed	As Listed	As Listed
9204	LW-C-22(7)-U	22(7x30)	.012	.054	As Listed	As Listed	As Listed
9205	LW-C-20(10)-U	20(10x30)	.012	.060	As Listed	As Listed	As Listed

Stock Colors*

0 Black	90 White/Black
1 Brown	91 White/Brown
2 Red	92 White/Red
3 Orange	93 White/Orange
4 Yellow	94 White/Yellow
5 Green	95 White/Green
6 Dark Blue	96 White/Blue
7 Violet (Purple)	97 White/Violet
8 Gray (Slate)	98 White/Gray
9 White	

TYPE LW — NYLON JACKET — 300V — 90C

Tinned copper, polyvinylchloride insulated. Light wall, clear nylon jacket overall.

Catalog Number	Type Designation	Size & (Stranding)	Insulation Thickness (Inch)	Nom. O.D. (Inch)	Stock Colors on Standard Spools		
					100'	500'	1000'
9210	LW-C-30(7)-J	30(7x38)	.011	.039	0 thru 9	0 thru 9	0 thru 9
9211	LW-C-28(7)-J	28(7x36)	.011	.042	As Listed	As Listed	As Listed
9212	LW-C-26(7)-J	26(7x34)	.011	.046	As Listed	As Listed	As Listed
9213	LW-C-24(7)-J	24(7x32)	.011	.051	As Listed	As Listed	As Listed
9214	LW-C-22(7)-J	22(7x30)	.012	.059	As Listed	As Listed	As Listed
9215	LW-C-20(10)-J	20(10x30)	.012	.065	As Listed	As Listed	As Listed

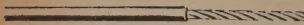
Stock Colors*

0 Black	90 White/Black
1 Brown	91 White/Brown
2 Red	92 White/Red
3 Orange	93 White/Orange
4 Yellow	94 White/Yellow
5 Green	95 White/Green
6 Dark Blue	96 White/Blue
7 Violet (Purple)	97 White/Violet
8 Gray (Slate)	98 White/Gray
9 White	

*Stock Color Numbers in Accordance to Military Type Designation and EIA Color Coding.

CONSOLIDATED WIRE AND ASSOCIATED CORPORATIONS

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MIL-W-16878**TYPE B — VINYL — 600V — 105C**

 Tinned copper, polyvinylchloride insulated.

Catalog Number	Type Designation	Size & (Stranding)	Insulation Thickness (Inch)	Nom. O.D. (Inch)	Stock Colors on Standard Spools		
					100'	500'	1000'
9300	B-32	32(7x40)	.010	.029	0 thru 9	0 thru 9	0 thru 9
9301	B-30	30(7x38)	.010	.032	0 thru 9	0 thru 9	0 thru 9
9302	B-28	28(7x36)	.010	.035	0 thru 9 90 thru 98	0 thru 9 90 thru 98	0 thru 9 90 thru 98
9303	B-26	26(7x34)	.010	.039	0 thru 9 90 thru 98	0 thru 9 90 thru 98	0 thru 9 90 thru 98
9304	B-24	24(19x36)	.010	.045	9,90thru98	9,90thru98	9,90thru98
9305	B-24	24(7x32)	.010	.044	As Listed	As Listed	As Listed
9306	B-22	22(19x34)	.010	.051	9,90thru98	9,90thru98	9,90thru98
9307	B-22	22(7x30)	.010	.050	As Listed	As Listed	As Listed
9308	B-20	20(19x32)	.010	.059	9,90thru98	9,90thru98	9,90thru98
9309	B-20	20(7x28)	.010	.058	As Listed	As Listed	As Listed
9310	B-18	18(19x30)	.010	.069	9,90thru98	9,90thru98	9,90thru98
9311	B-18	18(7x26)	.010	.068	0 thru 9 90 thru 98	0 thru 9 90 thru 98	0 thru 9 90 thru 98
9312	B-16	16(19x29)	.010	.077	0 thru 9 90 thru 98	0 thru 9 90 thru 98	0 thru 9 90 thru 98

Stock Colors*

0 Black	90 White/Black
1 Brown	91 White/Brown
2 Red	92 White/Red
3 Orange	93 White/Orange
4 Yellow	94 White/Yellow
5 Green	95 White/Green
6 Dark Blue	96 White/Blue
7 Violet (Purple)	97 White/Violet
8 Gray (Slate)	98 White/Gray
9 White	
11 Tan	
12 Pink	
13 Light Blue	

TYPE B — VINYL-NYLON JACKET — 600V — 115C

 Tinned copper, polyvinylchloride insulated, nylon jacket overall.

Catalog Number	Type Designation	Size & (Stranding)	Insulation Thickness (Inch)	Nom. O.D. (Inch)	Stock Colors on Standard Spools		
					100'	500'	1000'
9313	B-32	32(7x40)	.010	.035	0 thru 9	0 thru 9	0 thru 9
9314	B-30	30(7x38)	.010	.038	0 thru 9	0 thru 9	0 thru 9
9315	B-28	28(7x36)	.010	.041	As Listed	As Listed	As Listed
9316	B-26	26(7x34)	.010	.045	As Listed	As Listed	As Listed
9317	B-24	24(19x36)	.010	.051	As Listed	As Listed	As Listed
9318	B-24	24(7x32)	.010	.050	As Listed	As Listed	As Listed
9319	B-22	22(19x34)	.010	.057	As Listed	As Listed	As Listed
9320	B-22	22(7x30)	.010	.056	As Listed	As Listed	As Listed
9321	B-20	20(19x32)	.010	.065	As Listed	As Listed	As Listed
9322	B-20	20(7x28)	.010	.064	As Listed	As Listed	As Listed
9323	B-18	18(19x30)	.010	.075	9,90thru98	9,90thru98	9,90thru98
9324	B-18	18(7x26)	.010	.074	As Listed	As Listed	As Listed
9325	B-16	16(19x29)	.010	.083	As Listed	As Listed	As Listed

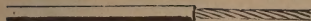
Stock Colors*

0 Black	90 White/Black
1 Brown	91 White/Brown
2 Red	92 White/Red
3 Orange	93 White/Orange
4 Yellow	94 White/Yellow
5 Green	95 White/Green
6 Dark Blue	96 White/Blue
7 Violet (Purple)	97 White/Violet
8 Gray (Slate)	98 White/Gray
9 White	

*Stock Color Numbers in Accordance to Military Type Designation and EIA Color Coding.

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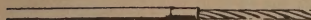
MIL-W-16878**TYPE C VINYL — 1000V — 105C**

Tinned copper, polyvinylchloride insulated.

Catalog Number	Type Designation	Size & (Stranding)	Insulation Thickness (Inch)	Nom. O.D. (Inch)	Stock Colors on Standard Spools		
					100'	500'	1000'
9400	C-24	24(7x32)	.018	.060	9,90thru98	9,90thru98	9,90thru98
9401	C-22	22(7x30)	.018	.066	As Listed	As Listed	As Listed
9402	C-20	20(7x28)	.018	.074	As Listed	As Listed	As Listed
9403	C-18	18(7x26)	.018	.084	As Listed	As Listed	As Listed
9404	C-16	16(19x29)	.018	.093	9,90thru98	9,90thru98	9,90thru98
9405	C-14	14(19x27)	.018	.107	9,90thru98	9,90thru98	9,90thru98

Stock Colors*

0 Black	90 White/Black
1 Brown	91 White/Brown
2 Red	92 White/Red
3 Orange	93 White/Orange
4 Yellow	94 White/Yellow
5 Green	95 White/Green
6 Dark Blue	96 White/Blue
7 Violet (Purple)	97 White/Violet
8 Gray (Slate)	98 White/Gray
9 White	

TYPE C — VINYL-NYLON JACKET — 1000V — 115C

Tinned copper, polyvinylchloride insulated, nylon jacket overall.

Catalog Number	Type Designation	Size & (Stranding)	Insulation Thickness (Inch)	Nom. O.D. (Inch)	Stock Colors on Standard Spools		
					100'	500'	1000'
9410	C-24	24(7x32)	.018	.066	9,90thru98	9,90thru98	9,90thru98
9411	C-22	22(7x30)	.018	.072	As Listed	As Listed	As Listed
9412	C-20	20(7x28)	.018	.080	As Listed	As Listed	As Listed
9413	C-18	18(7x26)	.018	.091	As Listed	As Listed	As Listed
9414	C-16	16(19x29)	.018	.100	9,90thru98	9,90thru98	9,90thru98
9415	C-14	14(19x27)	.018	.114	9,90thru98	9,90thru98	9,90thru98

Stock Colors*

0 Black	90 White/Black
1 Brown	91 White/Brown
2 Red	92 White/Red
3 Orange	93 White/Orange
4 Yellow	94 White/Yellow
5 Green	95 White/Green
6 Dark Blue	96 White/Blue
7 Violet (Purple)	97 White/Violet
8 Gray (Slate)	98 White/Gray
9 White	

TYPE D — VINYL — 3000V — 105C

Tinned copper, polyvinylchloride insulated.

Catalog Number	Type Designation	Size & (Stranding)	Insulation Thickness (Inch)	Nom. O.D. (Inch)	Stock Colors on Standard Spools		
					100'	500'	1000'
9500	D-24	24(7x32)	.030	.084	9,90thru98	9,90thru98	9,90thru98
9501	D-22	22(7x30)	.030	.090	As Listed	As Listed	As Listed
9502	D-20	20(7x28)	.030	.098	As Listed	As Listed	As Listed
9503	D-18	18(7x26)	.030	.108	As Listed	As Listed	As Listed
9504	D-16	16(19x29)	.030	.117	9,90thru98	9,90thru98	9,90thru98
9505	D-14	14(19x27)	.030	.131	9,90thru98	9,90thru98	9,90thru98
9506	D-12	12(19x25)	.035	.160	9,90thru98	9,90thru98	9,90thru98
9507	D-10	10(37x26)	.035	.181	9,90thru98	9,90thru98	9,90thru98
9508	D- 8	8(133x29)	.040	.245	9,90thru98	9,90thru98	9,90thru98
9509	D- 6	6(133x27)	.040	.290	9,90thru98	9,90thru98	9,90thru98

Stock Colors*

0 Black	90 White/Black
1 Brown	91 White/Brown
2 Red	92 White/Red
3 Orange	93 White/Orange
4 Yellow	94 White/Yellow
5 Green	95 White/Green
6 Dark Blue	96 White/Blue
7 Violet (Purple)	98 White/Gray
8 Gray (Slate)	
9 White	

*Stock Color Numbers in Accordance to Military Type Designation and EIA Color Coding.

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CONSOLIDATED WIRE AND ASSOCIATED CORPORATIONS

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MIL-W-5086A**AIRCRAFT WIRE & CABLE****TYPES 1 & 2 — 600V****UNSHIELDED**

Catalog Number	MIL Type Designation	Size & (Stranding)	Nom. O.D.	Spec. Type	Stock Colors on Standard Spools		
					100'	500'	1000'
9700	AN-22	22(19x34)	.068	No. 1	9	9	9
9701	AN-20	20(19x32)	.078	No. 1	9	9	9
9702	AN-18	18(19x30)	.088	No. 1	9	9	9
9703	AN-16	16(19x29)	.098	No. 1	9	9	9
9704	AN-14	14(19x27)	.117	No. 1	9	9	9
9705	AN-12	12(19x25)	.137	No. 1	9	9	9

Stock Color*

White only (9)

Additional Description**MIL-W-5086A-Type I**
AN-22 thru AN-12.

Stranded tinned copper, white polyvinylchloride clear nylon jacket insulation.

9706	AN-22	22(19x34)	.075	No. 2	9	9	9
9707	AN-20	20(19x32)	.085	No. 2	9	9	9
9708	AN-18	18(19x30)	.095	No. 2	9	9	9
9709	AN-16	16(19x29)	.105	No. 2	9	9	9
9710	AN-14	14(19x27)	.125	No. 2	9	9	9
9711	AN-12	12(19x25)	.143	No. 2	9	9	9

MIL-W-5086A-Type II
AN-22 thru AN-12

Stranded tinned copper, white polyvinylchloride insulation, saturated glass braid, clear nylon jacket.

9713	AN-10	10(49x27)	.189	No. 2	9	9	9
9714	AN-8	8(133x29)	.240	No. 2	9	9	9
9715	AN-6	6(133x27)	.293	No. 2	9	9	9
9716	AN-4	4(133x25)	.355	No. 2	9	9	9
9717	AN-2	2(665x30)	.425	No. 2	9	9	9
9718	AN-0	0(1045x30)	.525	No. 2	9	9	9
9719	AN-00	00(1330x30)	.590	No. 2	9	9	9

MIL-W-5086A-Type II
AN-10 thru AN-00

Stranded tinned copper, white polyvinylchloride insulation, saturated glass braid, nylon braid, nylon lacquer.

MIL-C-7078A — TYPE 1 — 600 VOLT

(MIL-W-5086A Type I Conductor Braided Tinned Copper Shield)

SHIELDED

Catalog Number	MIL Type Designation	Size & (Stranding)	Nom. O.D.	Spec. Type	Stock Colors on Standard Spools		
					100'	500'	1000'
9720	AN-22	22(10x34)	.092	No. 1	9	9	9
9721	AN-20	20(19x32)	.102	No. 1	9	9	9
9722	AN-18	18(19x30)	.112	No. 1	9	9	9
9723	AN-16	16(19x29)	.122	No. 1	9	9	9
9724	AN-14	14(19x27)	.141	No. 1	9	9	9
9725	AN-12	12(19x25)	.161	No. 1	9	9	9

Stock Color*

White only (9)

Additional Description

Stranded tinned copper, white polyvinylchloride insulation, nylon jacket, braided tinned copper shield.

*Stock Color Numbers in Accordance to Military Type Designation and EIA Color Coding.

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MIL-W-16878-D

TYPE E — TFE TEFLON — 600V — 200C

Concentrically stranded silver coated copper conductor, extruded TFE Teflon insulated.

Catalog Number	Type Designation	Size & (Stranding)	Nom. O.D. (Inch)	Stock Colors on Standard Spools		
				100'	500'	1000'
9600	E-32	32(7x40)	.032	As Listed	As Listed	As Listed
9601	E-30	30(7x38)	.032	As Listed	As Listed	As Listed
9602	E-28	28(7x36)	.035	As Listed	As Listed	As Listed
9603	E-26	26(19x38)	.039	As Listed	As Listed	As Listed
9604	E-26	26(7x34)	.039	As Listed	As Listed	As Listed
9605	E-24	24(19x36)	.044	As Listed	As Listed	As Listed
9606	E-24	24(7x32)	.044	As Listed	As Listed	As Listed
9607	E-22	22(19x34)	.050	As Listed	As Listed	As Listed
9608	E-22	22(7x30)	.050	As Listed	As Listed	As Listed
9609	E-20	20(19x32)	.058	As Listed	As Listed	As Listed
9610	E-20	20(7x28)	.058	As Listed	As Listed	As Listed
9611	E-18	18(19x30)	.069	As Listed	As Listed	As Listed
9612	E-18	18(7x26)	.069	As Listed	As Listed	As Listed
9613	E-16	16(19x29)	.080	As Listed	As Listed	As Listed
9614	E-14	14(19x27)	.095	As Listed	As Listed	As Listed
9615	E-12	12(19x25)	.115	As Listed	As Listed	As Listed
9616	E-10	10(37x26)	.131	As Listed	As Listed	As Listed

Stock Colors*

0 Black	5 Green
1 Brown	6 Dark Blue
2 Red	7 Violet (Purple)
3 Orange	8 Gray (Slate)
4 Yellow	9 White

NOTE: Tracer colors available upon customer request. Minimum quantity 500 feet.

TYPE EE — TFE TEFLON — 1000V — 200C

Concentrically stranded silver coated copper conductor, extruded TFE Teflon insulated.

Catalog Number	Type Designation	Size & (Stranding)	Nom. O.D. (Inch)	Stock Colors on Standard Spools		
				100'	500'	1000'
9620	EE-32	32(7x40)	.042	As Listed	As Listed	As Listed
9621	EE-30	30(7x38)	.042	As Listed	As Listed	As Listed
9622	EE-28	28(7x36)	.045	As Listed	As Listed	As Listed
9623	EE-26	26(19x38)	.049	As Listed	As Listed	As Listed
9624	EE-26	26(7x34)	.049	As Listed	As Listed	As Listed
9625	EE-24	24(19x36)	.054	As Listed	As Listed	As Listed
9626	EE-24	24(7x32)	.054	As Listed	As Listed	As Listed
9627	EE-22	22(19x34)	.060	As Listed	As Listed	As Listed
9628	EE-22	22(7x30)	.060	As Listed	As Listed	As Listed
9629	EE-20	20(19x32)	.068	As Listed	As Listed	As Listed
9630	EE-20	20(7x28)	.068	As Listed	As Listed	As Listed
9631	EE-18	18(19x30)	.079	As Listed	As Listed	As Listed
9632	EE-18	18(7x26)	.079	As Listed	As Listed	As Listed
9633	EE-16	16(19x29)	.089	As Listed	As Listed	As Listed
9634	EE-14	14(19x27)	.110	As Listed	As Listed	As Listed
9635	EE-12	12(19x25)	.129	As Listed	As Listed	As Listed
9636	EE-10	10(37x26)	.149	As Listed	As Listed	As Listed

Stock Colors*

0 Black	5 Green
1 Brown	6 Dark Blue
2 Red	7 Violet (Purple)
3 Orange	8 Gray (Slate)
4 Yellow	9 White

NOTE: Tracer colors available upon customer request. Minimum quantity 500 feet.

ROME SYNTHINOL

UL TYPE HOOK-UP AND LEAD WIRES

UL-300V-80C

Catalog Number	Size Awg.	Stranding	Nom. Ins. Thckns.	Volts	Max. Dia. Inches
801	22	Solid	1/64	300	.065
811	20	Solid	1/64	300	.071
841	18	Solid	1/64	300	.080
821	22	7 x No. 30	1/64	300	.069
831	20	10 x No. 30	1/64	300	.078
846	18	16 x No. 30	1/64	300	.085
881	20—2 cond. Black & Red	10 x No. 30	.025	300	.170

UL-600V-105C (CSA 600V-90C)

Catalog Number	Size Awg.	Stranding	Nom. Ins. Thckns.	Volts	Max. Dia. Inches
851	22	Solid	1/32	600	.097
836	20	Solid	1/32	600	.104
861	18	Solid	1/32	600	.112
866	22	7 x No. 30	1/32	600	.102
871	20	10 x No. 30	1/32	600	.110
876	18	16 x No. 30	1/32	600	.119

Colors: Black, Blue, Brown, Green, Orange, Pink, Purple, Red, Slate, White, Yellow

STANDARD SPOOL PUT-UP: 25 FT., 100 FT., 500 FT., 1000 FT.

*Stock Color Numbers in Accordance to Military Type Designation and EIA Color Coding.

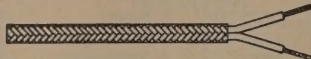
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**SHIELDED TEFLON CABLES
MIL-W-16878**

Each conductor stranded silver plated copper Type E extruded Teflon .010" insulation—90% braided silver copper shield, also supplied with either a Teflon impregnated Fiberglass braid or Teflon fused tape overall jacket.

Temperature rating -65°C to $+260^{\circ}\text{C}$. Voltage rating 600 volts.

**NO OUTER COVERING OVER SHIELD**

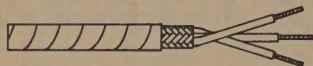
Catalog Number	No. of Cond.	Size & Stranding	Nom. O.D. (Inch)
9800	1	24(19x36)	.069
9801	2	24(19x36)	.112
9802	3	24(19x36)	.120
9803	4	24(19x36)	.132
9804	1	22(19x34)	.075
9805	2	22(19x34)	.124
9806	3	22(19x34)	.132
9807	4	22(19x34)	.146
9808	1	20(19x32)	.083
9809	2	20(19x32)	.142
9810	3	20(19x32)	.151
9811	4	20(19x32)	.168
9812	1	18(19x30)	.093
9813	2	18(19x30)	.162
9814	3	18(19x30)	.172
9815	4	18(19x30)	.192

STOCK COLORS

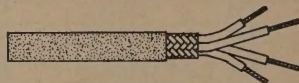
Catalog Numbers 9800 thru 9855

Specify color coding when ordering.

Standard spool put up Catalog Numbers 9800 thru 9855: 100 ft., 500 ft., 1000 ft.

**TEFLON TAPE WRAP
JACKET OVER SHIELD**

Catalog Number	No. of Cond.	Size & Stranding	Nom. O.D. (Inch)
9820	1	24(19x36)	.084
9821	2	24(19x36)	.128
9822	3	24(19x36)	.135
9823	4	24(19x36)	.148
9824	1	22(19x34)	.090
9825	2	22(19x34)	.140
9826	3	22(19x34)	.148
9827	4	22(19x34)	.162
9828	1	20(19x32)	.099
9829	2	20(19x32)	.158
9830	3	20(19x32)	.167
9831	4	20(19x32)	.184
9832	1	18(19x30)	.109
9833	2	18(19x30)	.178
9834	3	18(19x30)	.189
9835	4	18(19x30)	.208

**TEFLON IMPREGNATED
BRAID OVER SHIELD**

Catalog Number	No. of Cond.	Size & Stranding	Nom. O.D. (Inch)
9840	1	24(19x36)	.081
9841	2	24(19x36)	.126
9842	3	24(19x36)	.133
9843	4	24(19x36)	.144
9844	1	22(19x34)	.088
9845	2	22(19x34)	.137
9846	3	22(19x34)	.144
9847	4	22(19x34)	.158
9848	1	20(19x32)	.097
9849	2	20(19x32)	.154
9850	3	20(19x32)	.163
9851	4	20(19x32)	.180
9852	1	18(19x30)	.106
9853	2	18(19x30)	.174
9854	3	18(19x30)	.185
9855	4	18(19x30)	.205

Stock Color Numbers in accordance to Military Type Designation and E.I.A. Color Coding.

CONSOLIDATED WIRE PAGE 13

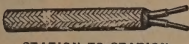
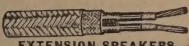
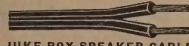
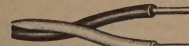
CONSOLIDATED WIRE AND ASSOCIATED CORPORATIONS



SEND FOR COMPLETE CATALOG

INTERCOMMUNICATING AND SOUND SYSTEM CABLES

STANDARD SPOOL PUT-UP: 10 FT., 25 FT., 50 FT., 100 FT., 500 FT., 1000 FT.

	NO.	TYPE	Size and Stranding	INSULATION THICKNESS (INCHES)	SPECIFICATION AND GENERAL APPLICATION	NOMINAL DIAMETER (INCHES)
	5501	2 Condr.	22 Solid	.015	Tinned copper vinyl plastic insulation, wires twisted together—1 condr. red—1 condr. black—closely woven braided tinned copper shield.	.110
	5506	3 Condr.	22 Solid	.015	Same as 5504—1 condr. red—1 condr. black—1 condr. blue.	.145
	5521	2 Condr.	20 Solid	.015	Tinned copper vinyl plastic insulation, wires twisted together—1 condr. red—1 condr. black—closely woven braided tinned copper shield.	.155
	5511	2 Condr.	22 Solid	.015	Tinned copper vinyl plastic insulation, wires twisted together—1 condr. red—1 condr. black—and a spiral tinned copper shield with .020" tubed gray vinyl plastic jacket.	.170
	5516	2 Pair 4 Condr.	22 7x30	.015	Stranded tinned copper vinyl plastic insulation, 2 pair cabled (4 conductors—1 pair black & white with braided tinned copper shield—1 pair black & brown unshielded—both pair bunched and .020" gray vinyl plastic jacket overall.	.16x.276
	5526	2 Condr.	20 10x30	.015	Tinned copper vinyl plastic insulation, wires twisted together—1 condr. red—1 condr. black—closely woven tinned copper shield.	.215
	5531	3 Condr.	20 10x30	.015	Same as 5526—1 condr. red—1 condr. black—1 condr. blue.	.230
	5536	2 Condr.	18 16x30	.015	Stranded tinned copper vinyl plastic insulation, wires twisted together, 1 condr. red—1 condr. white, closely woven braided tinned copper shield.	.235
	5568	2 Condr.	22 7x30	.015	Tinned copper vinyl plastic insulation, 2 condrs.—cabled black and red—tinned copper spiral wrapped shield .023" chrome vinyl plastic jacket.	.166
	5569	3 Condr.	22 7x30	.015	Tinned copper vinyl plastic insulation, 3 condrs.—cabled black, red, white—tinned copper spiral shield—chrome vinyl plastic jacket.	.198
	5538	2 Condr.	18 16x30	.015	Stranded tinned copper vinyl plastic insulation, wires twisted together, 1 condr. red, 1 condr. white. Spiral tinned copper shield and .020" gray vinyl plastic jacket overall.	.225
	5543	2 Condr.	20 10x30	.015	Same as 5538 1 condr. Red. 1 condr. Black.	.185
	5541	2 Condr.	18 16x30	.015	Stranded tinned copper vinyl plastic insulation, wires twisted together, 1 condr. red—1 condr. white, closely woven braided tinned copper shield and .020" gray vinyl plastic jacket overall.	.260
	5547	2 Condr.	24 7x32	.015	Stranded 1 condr. bare copper—1 condr. tinned copper—2 condrs. parallel gray vinyl plastic insulation. Colors—brown, clear, gray, white.	.058x.115
	5551	1 Condr.	24 10x34	.020	Stranded tinned copper polyethylene insulation closely woven braided tinned copper shield with .020" gray vinyl jacket.	.125
	5556	2 Condr.	18 Solid	.015	Bare copper vinyl plastic insulation, wires twisted together—1 condr. brown—1 condr. tan.	.115
	5561	3 Condr.	19 Solid	.015	Same as 5556—1 condr. brown—1 condr. tan—1 condr. gray.	.132
	5566	2 Condr.	22 Solid	.015	Bare copper .015 rubber insulation with a black cotton braid weatherproof finish. Conductors coded for easy identification. Ideal for exterior or interior communication installations.	.181x.203

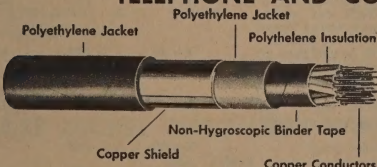
TELEPHONE AND COMMUNICATION CABLE DIRECT BURIAL TYPE

FULLY COLOR CODED

SPECIFICATIONS

Solid bare annealed copper 22 Awg. gauge conductors; thin wall, color coded, polyethylene insulation; conductors twisted to form pairs with symmetrical varying lays to minimize cross-talk; cabled (for 6 thru 50 pairs) by stranding pairs in concentric layers, or (for 75 thru 400 pairs) by stranding pairs into concentrically formed units, which are in turn cabled to form the complete assembly; non-hygroscopic binder tape furnishing high dielectric strength between shield and individual conductors; continuous copper shielding tape; high-molecular weight, polyethylene jacket.

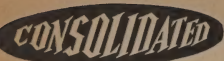
NO.	NO. OF PAIRS	NO. OF COND.	COND. SIZE	NOMINAL JACKET THICKNESS, MILS.		NOMINAL O. D. (Inches)
				INNER	OUTER	
6006	6	12	22 Solid	40	40	.430
6012	12	24	22 Solid	40	40	.500
6018	18	36	22 Solid	40	40	.560
6025	25	50	22 Solid	40	40	.630
6050	50	100	22 Solid	40	40	.820
6075	75	150	22 Solid	50	50	.990
6100	100	200	22 Solid	50	50	1.20
6150	150	300	22 Solid	50	50	1.30
6200	200	400	22 Solid	50	50	1.50
6300	300	600	22 Solid	50	60	1.80
6400	400	800	22 Solid	50	60	2.00



GENERAL APPLICATION AND ADVANTAGE

APPLICATION: Communication and Telephone Cable for use in direct burial installations provides a high quality product similar to that used for aerial and duct systems, but with the addition of protective armoring. This minimizes the possibility of damage to the cable from rodents and insects and, correctly installed, reduces the dangers to the cable from sharp stones and other hazards of underground burial installations.

ADVANTAGE: The lightweight, but rugged construction of direct burial Communication and Telephone Cable permits fast and economical underground installation of communication systems with the assurance of dependable and enduring service. This is made possible through utilization of the same high quality polyethylene compounds that are used in its counterpart for aerial and duct type installations, with the added protection of copper armoring tapes and a durable, high-molecular weight, polyethylene jacket.



CONSOLIDATED WIRE AND ASSOCIATED CORPORATIONS

SEND FOR COMPLETE CATALOG

PAIRED PLASTIC CONDUCTORS

SPECIFICATIONS AND GENERAL APPLICATIONS Tinned copper conductor .010" vinyl plastic insulation. Cabled .202" gray vinyl plastic Jacket overall

NO.	TYPE	SIZE AND STRANDING	NOMINAL DIAMETER (Inches)
5201	1 Pr. 2 Condr.	22 Solid	.145
5205	2 Pr. 4 Condr.	22 Solid	.190
5211	3 Pr. 6 Condr.	22 Solid	.230
5221	5 Pr. 10 Condr.	22 Solid	.250
5226	6 Pr. 12 Condr.	22 Solid	.265
5231	7 Pr. 14 Condr.	22 Solid	.280
5236	8 Pr. 16 Condr.	22 Solid	.300
5241	9 Pr. 18 Condr.	22 Solid	.320
5251	11 Pr. 22 Condr.	22 Solid	.360
5271	15 Pr. 30 Condr.	22 Solid	.390
5286	27 Pr. 54 Condr.	22 Solid	.510

MULTIPLE CONDUCTORS FULLY COLOR CODED

SIZE & STRANDING 22 - 7x30 SPECIFICATION AND GENERAL APPLICATION Tinned copper conductor .010" vinyl plastic insulation. Cabled .020" gray vinyl plastic Jacket overall

NO.	TYPE	SIZE AND STRANDING	NOMINAL DIAMETER (Inches)
5400	2 Condr.	22 7x30	.130
5401	3 Condr.	22 7x30	.140
5406	4 Condr.	22 7x30	.158
5411	5 Condr.	22 7x30	.170
5416	6 Condr.	22 7x30	.212
5421	7 Condr.	22 7x30	.230
5426	8 Condr.	22 7x30	.235
5431	9 Condr.	22	.245
5434	12 Condr.	22 7x30	.250

STANDARD SPOOL PUT-UP: 100 FT., 500 FT., 1000 FT.

STANDARD SPOOL PUT-UP: 10 FT., 15 FT., 25 FT., 100 FT., 500 FT., 1000 FT.

PHONOGRAPH MULTIPLE CABLE STANDARD SPOOL PUT-UP: 500 FT., 1000 FT.

TYPE No.	SIZE	SPECIAL USE	SPECIFICATIONS	STRANDING	FINISHED O.D. (Inches)
5103	3-22	Same as 5030	3 condrs. No. 22 with $\frac{1}{4}$ " thermoplastic insulation, all individually color coded. All conductors grouped into cable form with a treated cotton braid overall lacquered.	7 x 30	.125
5123	2-16 1-18	Same as 5030	2 condrs. No. 16 $\frac{1}{4}$ " thermoplastic insulation. 1 cond. No. 18 $\frac{1}{4}$ " thermoplastic insulation, all individually color coded. All conductors grouped into cable form with gray vinyl plastic jacket.	2-26 x 30 1-16 x 30	.215
5135	22 5 condr.	Same as 5030	5 cond. No. 22 with $\frac{1}{4}$ " thermoplastic insulation; 3 cond. twisted together with a braided tinned copper shield; 2 cond. twisted; all cond. grouped into cable form with a brown cotton braid overall.	5-7 x 30	.225
5124	4-18	Same as 5030	No. 18 solid 4 cond. color coded gray plastic jacket overall.	Solid	.225

MICROPHONE CABLE

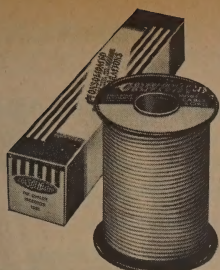
CONDUCTOR COLOR CHART: 1—Black; 2—White; 3—Red; 4—Green; 5—Yellow; 6—Blue; 7—Brown.

STANDARD SPOOL PUT-UP: 9 FT., 10 FT., 25 FT., 50 FT., 100 FT., 250 FT., 500 FT., 1000 FT.

SHIELDED: Weatherproof rubber Jacket for all microphone or weatherproof extension work. (Longer continuous lengths if desired.)

No.	TYPE	SIZE	SPECIAL USE	SPECIFICATIONS	STRANDING	FINISHED O.D. (Inches)	NOMINAL CAPACITY per ft. (mmf)
1461	1 conductor	22	Lapel microphone	Tinned copper polyethylene insulation with a closely woven tinned copper shield. Gray vinyl plastic jacket.	16 x 34	.125	34.
1457	1 conductor	22	Crystal, Ribbon and other high impedance microphones	Same as 1461 except heavier polyethylene insulation on conductor.	16 x 34 26 x 34	.200 .175	25. 40.
1458	2 conductor	22	Low impedance microphones	Tinned copper conductors polyethylene insulation conductors; black and white. Cabled with fillers closely woven tinned copper shield. Gray vinyl plastic jacket.	16 x 34	.231	32.
1459	1 conductor	20	Lapel microphone	Tinned Copper Wire, with polyethylene to .087" O.D. with a closely woven tinned copper shielded braid, and a heavy black plastic jacket overall.	26 x 34	.240	33.
1460	1 conductor	20	Crystal microphone	Tinned copper, yarn serve; wall of live rubber; tinned copper braid shield; rubber jacket overall.	26 x 34	.240	68.
1462	2 conductor	20	Carbon microphones	Same as 1460; color coded	00 x 00	.268	
1456	2 conductor	18	Heavy duty studio cable	Same as 1460; color coded	41 x 34	.295	80.
1463	3 conductor	20	Carbon microphones	Same as 1460; color coded	26 x 34	.277	85.
1464	4 conductor	20	Carbon microphones	Same as 1460; color coded	26 x 34	.295	95.
1465	5 conductor	20	Carbon microphones	Same as 1460; color coded	26 x 34	.323	
1466	6 conductor	20	Carbon microphones	Same as 1460; color coded	26 x 34	.350	
1467	7 conductor	20	Carbon microphones	Same as 1460; color coded	26 x 34	.360	
1455	8 conductor	20	Carbon microphones Same as 1465	Same as 2460; color coded	26 x 34	.386	

CONSOLIDATED WIRE PAGE 15



MAGNET WIRE

Popular, profitable specialty wire packaged for easy selling in radio-electrical, department, specialty and hardware stores. Wide variety of sizes and insulations. Keeps stock in perfect order, always saleable. Supplied on Spool as shown and in Heavier Weights for whatever weight desired. Here is a handy and convenient way to stock small quantities of wire. It prevents wire from matting or tangling.

No. 2000

VARIOUS OTHER INSULATIONS

Film	Technical Classification
ENAMEL—oleoresinous	
FORMVAR—poly vinyl acetal	
SODEREZE—polyurethane	
THERMALEZE—epoxide polyester	
NYFORM—formvar, nylon sheath	
NYLON	
BONDEZE	
GRIZEPE	
LECTRON—acrylic	
ISONSEL—terephthalic polyester	
ALKANVAR—terephthalic polyester	
SYLYD ENAMELED	
COTTON AND COMBINATIONS	
SILK AND COMBINATIONS	
CELANESE AND COMBINATIONS	
GLASS AND COMBINATIONS	
PAPER AND COMBINATIONS	

PLAIN ENAMEL MAGNET WIRE

Size	1/4 lb.	1/2 lb.	1 lb.
14	\$0.45	\$0.75	\$1.39
15	.45	.80	1.40
16	.50	.84	1.42
17	.50	.87	1.44
18	.50	.89	1.45
19	.55	.92	1.49
20	.55	.94	1.50
21	.55	.95	1.59
22	.55	.97	1.70
23	.58	.99	1.75
24	.80	1.00	1.87
25	.65	1.10	1.95
26	.65	1.10	2.03
27	.70	1.15	2.14
28	.73	1.20	2.25
29	.75	1.25	2.30
30	.80	1.30	2.35
31	.89	1.35	2.45
32	.90	1.40	2.50
33	.95	1.50	2.65
34	1.00	1.70	2.75
35	1.09	1.84	3.14
36	1.29	2.00	3.50
37	1.45	2.25	4.00
38	1.70	2.50	4.50
39	1.87	3.00	5.00
40	2.50	3.75	6.00
41	3.00	5.68	8.48
42	3.48	6.60	12.89
43	4.35	8.25	15.75
44	4.88	9.38	18.45

SINGLE FORMVAR MAGNET WIRE

Size	1/4 lb.	1/2 lb.	1 lb.
14	\$0.66	\$1.12	\$2.07
15	.66	1.20	2.10
16	.75	1.25	2.14
17	.75	1.30	2.15
18	.75	1.34	2.17
19	.83	1.39	2.23
20	.83	1.40	2.25
21	.83	1.42	2.37
22	.83	1.45	2.56
23	.89	1.49	2.62
24	.90	1.50	2.80
25	.97	1.65	2.92
26	.99	1.65	3.05
27	1.05	1.74	3.26
28	1.10	1.80	3.37
29	1.14	1.87	3.46
30	1.20	1.95	3.52
31	1.34	2.02	3.67
32	1.35	2.10	3.75
33	1.42	2.25	3.95
34	1.50	2.55	4.12
35	1.64	2.81	4.70
36	1.92	3.00	5.26
37	2.17	3.57	6.00
38	2.55	4.25	6.76
39	2.80	4.50	7.50
40	3.75	5.64	9.00
41	3.75	6.75	12.60
42	4.28	7.40	13.43
43	5.18	7.88	14.25
44	6.60	11.70	22.58

HEAVY FORMVAR MAGNET WIRE

Size	1/4 lb.	1/2 lb.	1 lb.
14	\$0.73	\$1.24	\$2.27
15	.73	1.34	2.33
16	.84	1.39	2.35
17	.84	1.44	2.37
18	.84	1.47	2.39
19	.92	1.52	2.45
20	.92	1.54	2.51
21	.92	1.55	2.61
22	.92	1.60	2.80
23	.97	1.64	2.87
24	1.00	1.65	3.07
25	1.15	1.97	3.50
26	1.19	1.98	3.64
27	1.25	2.07	3.84
28	1.34	2.15	4.04
29	1.37	2.24	4.14
30	1.44	2.34	4.22
31	1.67	2.52	4.58
32	1.69	2.63	4.67
33	1.77	2.81	4.94
34	1.87	3.19	5.16
35	2.04	3.46	5.88
36	2.39	3.75	6.58
37	2.72	4.20	7.50
38	2.97	4.69	8.45
39	3.50	5.64	9.38
40	4.69	7.04	11.27
41	5.18	7.59	13.65
42	5.78	8.15	14.72
43	6.00	8.63	15.08
44	7.43	11.40	23.33

DOUBLE COTTON COVERED MAGNET WIRE

Size	1/4 lb.	1/2 lb.	1 lb.
14	\$0.55	\$0.95	\$1.87
15	.58	.98	1.90
16	.60	1.00	1.95
17	.60	1.05	2.00
18	.60	1.10	2.05
19	.65	1.15	2.28
20	.65	1.25	2.34
21	.77	1.34	2.50
22	.82	1.39	2.64
23	.88	1.50	2.75
24	.94	1.60	3.00
25	.95	1.65	3.14
26	1.00	1.75	3.39
27	1.15	1.89	3.64
28	1.20	2.14	4.00
29	1.30	2.39	4.50
30	1.32	2.50	4.75
31	1.50	2.75	5.00
32	1.75	3.00	5.64
33	1.89	3.37	6.25
34	2.14	3.89	7.00
35	2.39	4.25	7.50
36	2.75	4.89	8.65
37	2.25	6.25	11.40
38	4.75	8.65	16.50
39	6.00	11.50	20.00
40	8.00	15.00	28.15

BARE COPPER WIRE

Size	1/4 lb.	1/2 lb.	1 lb.
14	\$0.53	\$0.87	\$1.54
15	.57	1.00	1.80
16	.60	1.10	1.83
17	.52	1.12	1.87
18	.63	1.14	1.90
19	.65	1.17	1.95
20	.67	1.20	2.00
21	.68	1.20	2.07
22	.70	1.24	2.14
23	.70	1.27	2.17
24	.70	1.30	2.20
25	.72	1.30	2.20
26	.73	1.34	2.27
27	.75	1.37	2.30
28	.77	1.40	2.40
29	.77	1.42	2.47
30	.77	1.42	2.47
31	.77	1.44	2.53
32	.77	1.44	2.60
33	.78	1.47	2.68
34	.80	1.50	2.77
35	.82	1.55	2.90
36	.84	1.60	3.04
37	.92	1.75	3.22
38	1.00	1.90	3.40
39	1.02	1.97	3.45
40	1.04	2.04	3.50

TINNED COPPER WIRE

Size	1/4 lb.	1/2 lb.	1 lb.
14	\$0.67	\$1.13	\$1.75
15	.73	1.27	1.92
16	.80	1.40	2.00
17	.84	1.44	2.03
18	.87	1.47	2.08
19	.90	1.50	2.12
20	.94	1.53	2.17
21	.95	1.53	2.24
22	.97	1.57	2.30
23	.98	1.58	2.34
24	1.00	1.60	2.37
25	1.00	1.60	2.37
26	1.00	1.60	2.37
27	1.05	1.67	2.64
28	1.10	1.75	2.90
29	1.13	1.84	2.94
30	1.17	1.92	2.97
31	1.20	2.00	3.04
32	1.24	2.09	3.10
33	1.27	2.17	3.19
34	1.30	2.24	3.27
35	1.32	2.30	3.40
36	1.34	2.34	3.54
37	1.36	2.42	3.72
38	1.38	2.50	3.90
39	1.39	2.50	3.95
40	1.40	2.67	4.00

Larger Quantities At
Same Per Pound List

SPECIAL MAGNET WIRES

In addition to the standard listing shown here, we maintain an extensive stock of all other sizes in round, rectangular and square magnet wire.

BARE NICKEL CHROMIUM WIRE

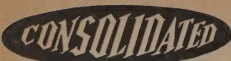
No. 2000

Recommended for electrical heating appliances and other devices where the highest quality in performance is required, whose operating temperatures do not exceed 1850° F. Particularly suited for heavy duty rheostats and controls which require compact resistance.

ON PROTECTA-METAL SPOOLS

Size	1 Oz.	1/4 Lb.	1 Lb.
14	....	\$1.52	\$5.56
15	....	1.56	5.65
16	....	1.58	5.73
17	....	1.63	5.80
18	....	1.67	5.87
19	....	1.71	6.02
20	\$0.67	1.76	6.17
21	.71	1.85	6.49
22	.72	1.93	6.79
23	.74	2.08	7.44
24	.76	2.22	8.09
25	.82	2.37	8.74
26	.87	2.53	9.39
27	.89	2.57	9.96

Size	1 Oz.	1/4 Lb.	1 Lb.
28	\$0.92	\$2.84	\$10.53
29	1.00	2.98	11.18
30	1.09	3.11	11.83
31	1.14	3.28	12.28
32	1.18	3.43	12.73
33	1.31	3.79	14.73
34	1.44	4.16	16.73
35	1.58	4.55	17.71
36	1.71	4.94	18.69
37	2.22	6.50	23.86
38	2.74	8.05	29.03
39	2.86	8.39	31.62
40	2.98	8.95	34.20



CONSOLIDATED WIRE AND ASSOCIATED CORPORATIONS

SEND FOR COMPLETE CATALOG

MULTIPLE CONDUCTOR COTTON BRAIDED CABLE

FOR SPEAKERS, TESTERS,
BATTERY HOOK-UP, ETC.



SPECIFICATIONS: Tinned flexible copper; colored plastic insulation; bunched individual conductors; heavy brown cotton braid overall; color coded. Size 20; Stranding 10x30; Insulation Thickness $\frac{1}{64}$ "

TYPE NO.	TYPE	FINISHED O.D. (Inches)	TYPE NO.	TYPE	FINISHED O.D. (Inches)
1481	1 cond.	.150	1487	7 cond.	.275
1482	2 cond.	.175	1488	8 cond.	.300
1483	3 cond.	.200	1489	9 cond.	.310
1484	4 cond.	.275	1490	10 cond.	.325
1485	5 cond.	.250	1494	11 cond.	.335
1486	6 cond.	.260	1495	12 cond.	.350

MULTIPLE CONDUCTOR TINNED COPPER SHIELD CABLE



SPECIFICATIONS: Tinned flexible copper, 912E20, Stranding 10x30— $\frac{1}{64}$ " plastic insulation, color coded, Braided tinned copper shield.

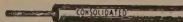
TYPE NO.	TYPE	FINISHED O.D. (Inches)
1471	1 conductor	.110
1472	2 conductors	.190
1473	3 conductors	.200
1474	4 conductors	.220
1475	5 conductors	.235
1476	6 conductors	.250
1477	7 conductors	.265

ANALYZER CABLE

SPECIFICATIONS: Extra flexible tinned copper; plastic insulation; color coded; Brown cotton braid overall.

TYPE	SIZE	STRAND- ING	INSULATION THICKNESS (Inches)	FINISHED O.D. (Inches)
1501	8 cond.	2-14	41 x 30	$\frac{1}{64}$.300
		6-18	16 x 30	
1502	9 cond.	2-14	41 x 30	$\frac{1}{64}$.320
		7-18	16 x 30	

TEST PROD WIRE



A Specially Constructed High Grade Wire For Use On Laboratory Test Equipment, Bench Analyzers, Etc.

SPECIFICATIONS: Extra flexible tinned copper; cotton wrap; red or black; live rubber insulation.

1001	5,000 volts	20	41 x 36	.043	.140
1006	10,000 volts	18	65 x 36	.088	.230

SHIELDING AND BONDING CABLE DESIGNED FOR SHIELDING INSULATED WIRES AND CABLES . . . BONDING AND MANY OTHER USES

STANDARD SPOOL PUT-UP:
50 FT., 100 FT., 250 FT., 1000 FT.

NO.	APPROX. I. D.	SIZE & NUMBER OF WIRES	APPROX. AWG.	CARRYING CAPACITY IN AMPERES
1386	$\frac{1}{32}$ "	24 x 36	24	7
1387	$\frac{3}{64}$ "	24 x 36	23	7
1388	$\frac{1}{32}$ "	48 x 36	19	12
1389	$\frac{1}{64}$ "	72 x 36	18	14
1390	$\frac{1}{8}$ "	96 x 36	18	15
1391	$\frac{3}{16}$ "	120 x 36	15	23
1392	$\frac{1}{4}$ "	168 x 36	14	30
1393	$\frac{3}{8}$ "	288 x 36	11	50
1394	$\frac{1}{2}$ "	386 x 36	10	55
1395	$\frac{5}{8}$ "	396 x 36	10	61
1396	$\frac{3}{4}$ "	832 x 36	7	80
1397	$\frac{25}{32}$ "	832 x 36	7	80
1398	1"	832 x 36	7	84
1399	$1\frac{1}{8}$ "	912 x 36	7	105

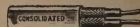


TINNED COPPER BUS BAR WIRE SOLID SOFT DRAWN COPPER AND BRIGHTLY TINNED FOR ALL TYPES OF SOLDERING CONNECTIONS AND OTHER APPLICATIONS

STANDARD SPOOL PUT-UP: 100 FT., 1000 FT.

NO.	NOMINAL DIAMETER	SIZE SOLID	CIRCULAR MIL. AREA
3845	.129"	8	16510
3841	.102"	10	10380
3831	.082"	12	6530
3821	.064"	14	4110
3815	.051"	16	2583
3816	.040"	18	1624
3817	.032"	20	1022
3818	.025"	22	642
3819	.020"	24	404
3846	.016"	26	254.1
3847	.013"	28	159.8
3848	.010"	30	100.5

LEAD COVERED CABLE



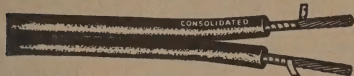
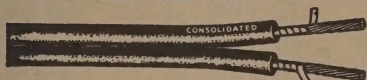
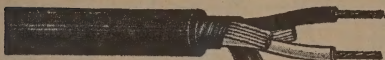
FOR FREEDOM FROM INTERFERENCE, CORROSION AND DAMPNES.

SPECIFICATIONS: Tinned copper wire; heavy rubber insulation and cotton braid; heavy lead shield.

1453	2 cond.	18	Solid	$\frac{1}{32}$	240 x .200
1454	3 cond.	18	Solid	$\frac{1}{32}$	.420

CONSOLIDATED WIRE AND ASSOCIATED CORPORATIONS**CONSOLIDATED**

SEND FOR COMPLETE CATALOG

ELECTRICAL CORDAGES
UNDERWRITERS APPROVEDSUPPLIED ON ATTRACTIVE TRI-COLOR
LITHOGRAPHED METAL SPOOLS**RUBBER HANDYCORD
CENTERSTRIP****PLASTIC HANDYCORD
CENTERSTRIP****RUBBER SHEATHED
SERVICE CORD**
UNDERWRITERS APPROVED**SPECIFICATIONS AND APPLICATION**

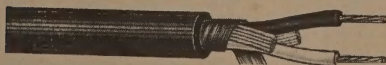
Extra flexible bare copper cotton served. 1/32" rubber insulation color coded conductors cabled with fillers, cotton wrap and black, tough rubber jacket.

For all electronic equipment, household appliances, garden and power tools.

**NEOPRENE SHEATHED
SERVICE CORD**
UNDERWRITERS APPROVED**SPECIFICATIONS AND APPLICATION**

Same specifications as 4200 Series except black Neoprene jacket.

For all types of equipment exposed to oils, acid and excessive moisture.

HEATER CORD

Colors: Black and White Marker.

STANDARD SPOOL PUT-UP: 25 FT., 50 FT., 100 FT., 250 FT., 500 FT., 1000 FT.

NO.	NO. OF COND.	SIZE AWG.	U. L. TYPE	STRAND-ING	NOM. INS. THICKNESS	NOM. O. D.
4072	2	18	SP(P.O.S.J.)	41 x 34	1/64"	.235 x .130
4074	2	16	SP(P.O.S.J.)	65 x 34	1/32"	.300 x .160

Colors: Black, Brown, White, Gray.

STANDARD SPOOL PUT-UP: 25 FT., 50 FT., 100 FT., 250 FT., 500 FT., 1000 FT.

4077	2	18	SPT(P.O.T.)	41 x 34	1/64"	.235 x .130
4079	2	16	SPT(P.O.T.)	65 x 34	1/32"	.300 x .160

Colors: Black, Brown, White, Gray.

STANDARD PUT-UP: 25 FT., 50 FT., 100 FT., 250 FT.

NO.	NO. OF COND.	SIZE AWG.	U. L. TYPE	CURRENT CARRYING CAPACITY	VOLTAGE RATING	NOM. O. D.
4202	2	18	SV	5 Amps.	300	.250"
4207	2	18	SJ	5 Amps.	300	.310"
4212	3	18	SJ	5 Amps.	300	.345"
4214	4	18	SJ	5 Amps.	300	.360"
4217	2	16	SJ	7 Amps.	300	.340"
4222	3	16	SJ	7 Amps.	300	.375"
4224	4	16	SJ	7 Amps.	600	.395"
4227	2	18	S	5 Amps.	600	.390"
4232	3	18	S	5 Amps.	600	.405"
4234	4	18	S	5 Amps.	600	.435"
4237	2	16	S	7 Amps.	600	.410"
4242	3	16	S	7 Amps.	600	.430"
4244	4	16	S	7 Amps.	600	.485"
4247	2	14	S	15 Amps.	600	.540"
4252	3	14	S	15 Amps.	600	.560"
4254	4	14	S	15 Amps.	600	.605"
4257	2	12	S			
4262	3	12	S	20 Amps.	600	.635"
4264	4	12	S	20 Amps.	600	.665"
4267	2	10	S	25 Amps.	600	.640"
4272	3	10	S	25 Amps.	600	.690"
4274	4	10	S	25 Amps.	600	.745"

STANDARD PUT-UP: 25 FT., 50 FT., 100 FT., 250 FT.

4307	2	18	SJO	5 Amps.	300	.310"
4312	3	18	SJO	5 Amps.	300	.345"
4314	4	18	SJO	5 Amps.	300	.360"
4317	2	16	SJO	7 Amps.	300	.340"
4322	3	16	SJO	7 Amps.	300	.375"
4324	4	16	SO	7 Amps.	600	.395"
4327	2	18	SO	5 Amps.	600	.390"
4332	3	18	SO	5 Amps.	600	.405"
4334	4	18	SO	5 Amps.	600	.435"
4337	2	16	SO	7 Amps.	600	.410"
4342	3	16	SO	7 Amps.	600	.430"
4344	4	16	SO	7 Amps.	600	.485"
4347	2	14	SO	15 Amps.	600	.540"
4352	3	14	SO	15 Amps.	600	.560"
4354	4	14	SO	15 Amps.	600	.605"
4357	2	12	SO	20 Amps.	600	.605"
4362	3	12	SO	20 Amps.	600	.635"
4364	4	12	SO	20 Amps.	600	.665"
4367	2	10	SO	25 Amps.	600	.640"
4372	3	10	SO	25 Amps.	600	.690"
4374	4	10	SO	25 Amps.	600	.745"

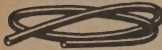
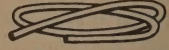
STANDARD SPOOL PUT-UP: 100 FT., 250 FT.

NO.	NO. OF COND.	SIZE AWG.	U. L. TYPE	STRAND-ING	NOM. INS. THICKNESS	NOM. O. D.
4087	2	16	HPD	65 x 34	1/32"	.275
4092	2	18	HPD	41 x 34	1/32"	.250

CONSOLIDATED WIRE PAGE 18

DABURN**DABURN ELECTRONICS & CABLE CORP.**

WIRE • CABLE • TUBING • MIL/COMM • SWITCHES • ELECTRONIC HARDWARE

**DAFLEX PLASTIC TUBING****105°C POLYVINYLCHLORIDE (PVC) MEETS MIL-I-631D SPECS**

Specifically compounded vinyl resins for superior all around performance. UL approved for 105°C, conforms to Spec MIL-I-631D Type F, Form U, Grades A and C. Class 1 and 2, Category 1. Resistant to heat, oil, water, chemical corrosion, fungi and aging. Very high abrasion resistance. Will retain its flexibility. Suitable for covering and protecting wires and cables. Designed for electrical, electronic and aircraft applications. Non-flammable. Meets ASTM—D876, ASTM—D922.

DAFLEX No.	Size	Old Daburn No.	Nom. I.D.	Nom. Wall	Specify Std. Put-Up Spool or Coil
D105-24	24	808	.022"	.012"	25', 100', 1000'
D105-22	22	811	.027"	.012"	25', 100', 1000'
D105-20	20	813	.034"	.016"	25', 100', 1000'
D105-19	19	—	.038"	.016"	100', 1000'
D105-18	18	814	.042"	.016"	25', 100', 1000'
D105-17	17	—	.047"	.016"	100', 1000'
D105-16	16	815	.053"	.016"	25', 100', 1000'
D105-15	15	—	.059"	.016"	100', 500'
D105-14	14	816	.066"	.016"	25', 100', 500'
D105-13	13	—	.076"	.016"	100', 500'
D105-12	12	817	.085"	.016"	25', 100', 500'
D105-11	11	—	.095"	.016"	100', 500'
D105-10	10	825	.106"	.016"	25', 100', 500'
D105-9	9	—	.118"	.020"	100', 500'
D105-8	8	818	.135"	.020"	25', 100', 500'
D105-7	7	—	.148"	.020"	100', 500'
D105-6	6	826	.166"	.020"	25', 100', 250'
D105-5	5	—	.186"	.020"	100', 250'
D105-4	4	819	.208"	.020"	25', 100', 250'
D105-3	3	—	.234"	.020"	100', 250'
D105-2	2	820	.263"	.020"	100', 250'
D105-1	1	—	.330"	.020"	100', 250'
D105-0	0	—	.330"	.020"	100', 250'
D105-3/4"	3/4"	821	.312"	.025"	100', 250'
D105-3/8"	3/8"	822	.375"	.025"	100', 250'
D105-1/2"	1/2"	—	.438"	.025"	100', 250'
D105-1/4"	1/4"	823	.500"	.025"	100', 250'
D105-3/16"	3/16"	—	.562"	.030"	50', 100'
D105-1/8"	1/8"	824	.625"	.030"	50', 100'
D105-3/32"	3/32"	827	.750"	.035"	50', 100'
D105-7/8"	7/8"	860	.875"	.035"	50', 100'
D105-1"	1"	861	1.000"	.035"	50'
D105-1 1/8"	1 1/8"	—	1.125"	.040"	50'
D105-1 1/4"	1 1/4"	862	1.250"	.040"	50'
D105-1 1/2"	1 1/2"	—	1.375"	.040"	50'
D105-1 3/4"	1 3/4"	863	1.500"	.045"	50'
D105-1 7/8"	1 7/8"	828	1.750"	.055"	50'
D105-2"	2"	829	2.000"	.060"	50'
D105-2 1/4"	2 1/4"	864	2.250"	.065"	50'
D105-2 1/2"	2 1/2"	865	2.500"	.070"	50'

COLORS AVAILABLE FROM STOCK

Sizes #24 thru 2: Clear, Black, White, Yellow, Red, Green, Brown, Blue, Orange.

Sizes 3/4" thru 3 1/2": Clear, Black, Yellow, Red, Green, White.

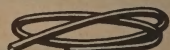
Sizes 7/8" thru 2 1/2": Clear, Black, White.

Additional Colors to Order.

ALL THE ABOVE TUBING CAN BE ORDERED CUT AND MARKED TO YOUR SPECIFICATIONS

DAFLEX VINYL COATED FIBERGLASS TUBING 130**MEETS MIL-I-3190B SPECS (ASTM, NEMA GRADE B-B-1)**

DAFLEX 130 is recommended for continuous temperatures up to 130°C. Constructed to provide a tough, flexible, heat resistant tubing. Made from an inorganic fiberglass base sleeving with heat resistant plastic coating, extremely flexible tough plastic insulation. Will not support combustion. Meets MIL-I-3190B, NEMA VSI ASTM D372, MIL-I-21557



PROPERTIES OF DAFLEX 130 VINYL COATED FIBERGLASS
Recommended for Temperatures to 130°C

Max. Low Temperature Flexibility —20°C

Dielectric Strength 4000 V/MIL

Dielectric Constant 7.0

Tensile Strength — Min. (PSI) 1500

Ultimate Elongation 350%

Will not support Combustion, Abrasion, Oil, Chemical Corrosion Resistance Excellent

Fungus Resistance Good

Gamma Radiation Dosage to 25% 10⁵

Degradation ERGS/GRAM Color Stability even on Prolonged Baking at Elevated Temperatures

DAFLEX No.	Size	Old Daburn No.	Nom. I.D.	Specify Std. Put-Up Spool or Coil
D130-24	24	889	.022"	100', 1000'
D130-22	22	890	.027"	100', 1000'
D130-20	20	891	.034" 25',	100', 1000'
D130-19	19	—	.038"	100', 1000'
D130-18	18	893	.042" 25',	100', 1000'
D130-17	17	—	.047"	100', 1000'
D130-16	16	894	.053" 25',	100', 1000'
D130-15	15	—	.059"	100', 1000'
D130-14	14	895	.066" 25',	100', 500'
D130-13	13	—	.076"	100', 500'
D130-12	12	800	.085" 25',	100', 500'
D130-11	11	—	.095"	100', 500'
D130-10	10	807	.106" 25',	100', 500'
D130-9	9	—	.118"	100', 500'
D130-8	8	801	.133" 25',	100', 500'

DAFLEX No.	Size	Old Daburn No.	Nom. I.D.	Std. Put-Up Spool or Coil
D130-7	7	—	.148"	100', 250'
D130-6	6	802	.166"	100', 250'
D130-5	5	—	.186"	100', 250'
D130-4	4	805	.208"	100', 250'
D130-3	3	—	.234"	100', 250'
D130-2	2	806	.263"	100', 250'
D130-1	1	—	.294"	100'
D130-0	0	803	.330"	100'
D130-3/4"	3/4"	804	.375"	100'
D130-1/2"	1/2"	—	.438"	100'
D130-1/4"	1/4"	899	.500"	100'
D130-3/8"	3/8"	896	.625"	100'
D130-1/8"	1/8"	—	.750"	100'
D130-3/16"	3/16"	—	.875"	100'
D130-1/32"	1/32"	—	1.018"	100'

DIMENSIONAL TOLERANCES OF VINYL COATED FIBERGLASS

DAFLEX 130 Size	Approx. I.D., Inches	N.E.M.A. Tolerances, Inches
24	.022	.020-.027
22	.027	.025-.032
20	.034	.032-.039
18	.042	.040-.049
16	.053	.051-.061
14	.066	.064-.072
12	.085	.081-.089
10	.106	.102-.112
8	.133	.129-.141
6	.166	.162-.178
4	.208	.204-.224
2	.263	.258-.278
1	.3125	.312-.328
3/4	.375	.375-.399
1/2	.500	.500-.524
3/8	.625	.625-.655

COLORS AVAILABLE FROM STOCK

#24 thru #2: Black, Red, Green, Yellow, Brown, Blue, 1/4" thru 1": Black.

Additional Colors to Order.

DABURN**DABURN ELECTRONICS & CABLE CORP.**

WIRE • CABLE • TUBING • MIL/COMM • SWITCHES • ELECTRONIC HARDWARE

DAFLON TEFLON® SPAGHETTI TUBING

Daflon 500 and 550 tubing is extruded from Dupont tetrafluoroethylene resin and is unmatched by any other tubing for use in applications for hi frequencies and hi temperatures. Rated for continuous operation of 250°C it retains its toughness and flexibility thruout. Has high resistance to fatigue and stresses. Will not shrink back during soldering operation. Non-flammable, flexible, it permits miniaturization of design and compactness. Lowest coefficient of friction. Inert to all fungus growth. Conforms to **MIL-I-22129C Spec.** AMS 3651B, 3653B, 3654, 3655.

TABLE OF PROPERTIES

Test	ASTM Method	Result
Tensile Strength, 73°F.	D638-52T	1500-300 Lb/Sq. In.
Elongation, 73°F.	D638-52T	100-200%
Deformation Under Load—122°F. 1200 Lb/Sq. In., 24 Hrs. 2000 Lb/Sq. In., 24 Hrs.	D621-51 D621-51	4-8% 25%
Hardness Durometer	D676-49T	D50-D65
Heat Distortion Temp., 6 Lb/Sq. In.	D648B-45T	250°C
Dielectric Strength, .080"	D149-44	400-500 V/MIL
Surface Arc-Resistance	D495-48T	Sec.
Volume Resistivity	D257-52T	10 ¹⁵ Ohm-CM
Surface Resistivity, 100% R.H.	D257-52T	3.6x10 ⁹ Megohms
Dielectric Constant, 60 to 10 ⁶ Cycles	D150-54T	2.00
Power Factor, 60 to 10 ⁶ Cycles	D150-54T	0.0003
Specific Gravity	D792-50	2.1-2.2

**DAFLON THIN WALL TEFLON® TUBING
(DTT-500) MIL-I-22129C**

DAFLON No.	Size	Nom. I.D.	Nom. Wall Thickness	Specify Std. Put-Up Spool or Coil
DTT 500-32	32	.011"	.0085"	100', 500', 1000'
DTT 500-30	30	.012"	.009"	100', 500', 1000'
DTT 500-28	28	.015"	.009"	100', 500', 1000'
DTT 500-26	26	.018"	.010"	100', 500', 1000'
DTT 500-24	24	.022"	.010"	25', 50', 100', 500', 1000'
DTT 500-22	22	.027"	.010"	25', 50', 100', 500', 1000'
DTT 500-20	20	.034"	.012"	25', 50', 100', 500', 1000'
DTT 500-19	19	.038"	.012"	100', 500', 1000'
DTT 500-18	18	.042"	.012"	25', 50', 100', 500', 1000'
DTT 500-17	17	.047"	.012"	100', 500', 1000'
DTT 500-16	16	.053"	.012"	25', 50', 100', 500', 1000'
DTT 500-15	15	.059"	.012"	100', 500', 1000'
DTT 500-14	14	.066"	.012"	25', 50', 100', 500', 1000'
DTT 500-13	13	.076"	.012"	100', 500', 1000'
DTT 500-12	12	.085"	.012"	25', 50', 100', 500', 1000'
DTT 500-11	11	.095"	.012"	100', 500', 1000'
DTT 500-10	10	.106"	.012"	25', 50', 100', 500', 1000'
DTT 500-9	9	.118"	.015"	100', 500', 1000'*
DTT 500-8	8	.133"	.015"	25', 50', 100', 500', 1000'*
DTT 500-7	7	.148"	.015"	100', 500', 1000'*
DTT 500-6	6	.166"	.015"	25', 50', 100', 500', 1000'*
DTT 500-5	5	.186"	.015"	100', 500', 1000'*
DTT 500-4	4	.208"	.015"	25', 50', 100', 500', 1000'*
DTT 500-3	3	.234"	.015"	100', 500', 1000'*
DTT 500-2	2	.263"	.015"	25', 50', 100', 500', 1000'*
DTT 500-1	1	.294"	.015"	100', 500', 1000'*
DTT 500-0	0	.330"	.015"	25', 50', 100', 500', 1000'*
DTT 500-3/8	3/8	.390"	.020"	50', 100'*
DTT 500-1/2	1/2	.453"	.020"	50', 100'*
DTT 500-5/8	5/8	.515"	.025"	25', 50', 100'*
DTT 500-3/4	3/4	.583"	.025"	25', 50', 100'*
DTT 500-7/8	7/8	.640"	.030"	25', 50', 100'*
DTT 500-1	1"	.765"	.030"	25', 50', 100'*
DTT 500-1 1/8	1 1/8"	.895"	.030"	25', 50', 100'*
DTT 500-1 1/4	1 1/4"	1.025"	.030"	25', 50', 100'*
DTT 500-1 1/2	1 1/2"	1.150"	.030"	25', 50', 100'*
DTT 500-1 3/4	1 3/4"	1.275"	.030"	25', 50', 100'*

*Random Lengths in Coils.

STOCK COLORS: Natural, Red, Black, Yellow, Blue, Brown, Green, Orange, Gray, Violet, White.

If no color is specified, natural will be supplied.

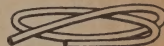
**SMALL PIECE CUTTING AVAILABLE
TO ORDER**

STOCK COLORS: Natural, Red, Black, Blue, Brown, Green, Orange, Yellow, Gray, Violet, White.

Nos. DTT500-3/8 thru 1 1/4" available in Natural. Additional Colors, Sizes Made to Order.

Teflon Tubing can be ordered cut to your specifications.

Tracer Colors Available



We Invite Your Inquiries For Your Special Requirements.

WIRE — CABLE — TUBING DIVISION**PROPERTIES OF DAFLON
500 & 550 TEFLON TUBING**

Continuous Service to 250°C

Low Temperature Flexibility -90°C

Dielectric Strength

Color Stability

Dielectric Constant 2.0

Dielectric Strength. 500 to 1000 V/MIL

Fungus, Oil, Chemical Corrosion Completely Inert

**DAFLON STANDARD WALL TEFLON® TUBING
(DTT-550) MIL-I-22129C Spec.****FOR USE WHERE GREATER MECHANICAL STRENGTH
IS INDICATED**

DAFLON No.	Nom. Size	Nom. I.D.	Nom. Wall Thickness	Std. Put-Up Spool or Coil
DTT 550-24	24	.022"	.012"	100'
DTT 550-22	22	.027"	.012"	100'
DTT 550-20	20	.034"	.016"	100'
DTT 550-19	19	.038"	.016"	100'
DTT 550-18	18	.042"	.016"	100'
DTT 550-17	17	.047"	.016"	100'
DTT 550-16	16	.053"	.016"	100'
DTT 550-15	15	.059"	.016"	100'
DTT 550-14	14	.066"	.016"	100'
DTT 550-13	13	.076"	.016"	100'
DTT 550-12	12	.085"	.016"	100'
DTT 550-11	11	.095"	.016"	100'
DTT 550-10	10	.106"	.016"	100'
DTT 550-9	9	.118"	.020"	100'*
DTT 550-8	8	.133"	.020"	100'*
DTT 550-7	7	.148"	.020"	100'*
DTT 550-6	6	.166"	.020"	100'*
DTT 550-5	5	.186"	.020"	100'*
DTT 550-4	4	.208"	.020"	100'*
DTT 550-3	3	.234"	.020"	100'*
DTT 550-2	2	.263"	.020"	100'*
DTT 550-1	1	.294"	.020"	100'*
DTT 550-0	0	.330"	.020"	100'*

STOCK COLORS: Natural

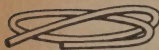
Available All Other Colors.

*Random Lengths in Coils.

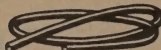
Made from Hi Molecular Weight Virgin "TEFLON."

DABURN**DABURN ELECTRONICS & CABLE CORP.**

WIRE • CABLE • TUBING • MIL/COMM • SWITCHES • ELECTRONIC HARDWARE

LOW TEMPERATURE TUBING**DAFLEX 74** EXTRUDED PLASTIC TUBING
LOW TEMPERATURE PER MIL SPEC MIL-I-7444B
TO -94°CLow temperature applications at sub-zero.
Meets Mil spec. Fungus resistant. 750 V/Mil
dielectric strength. Tensile strength 2200 psi.
Elongation — 360%

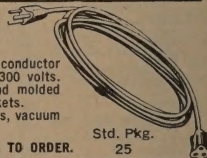
DAFLEX No.	Size	Nom. I.D.	Nom. Wall
D74-24	24	.022"	.012"
D74-22	22	.027"	.012"
D74-20	20	.034"	.016"
D74-19	19	.038"	.016"
D74-18	18	.042"	.016"
D74-17	17	.047"	.016"
D74-16	16	.053"	.016"
D74-15	15	.059"	.016"
D74-14	14	.066"	.016"
D74-13	13	.076"	.016"
D74-12	12	.085"	.016"
D74-11	11	.095"	.016"
D74-10	10	.106"	.016"
D74-9	9	.118"	.020"
D74-8	8	.133"	.020"
D74-7	7	.148"	.020"
D74-6	6	.166"	.020"
D74-5	5	.186"	.020"
D74-4	4	.208"	.020"
D74-3	3	.234"	.020"
D74-2	2	.263"	.020"
D74-1	1	.294"	.020"
D74-0	0	.330"	.020"
D74-3/16	3/16	.312"	.025"
D74-3/8	3/8	.375"	.025"
D74-1/2	1/2	.438"	.025"
D74-5/8	5/8	.500"	.025"
D74-3/4	3/4	.562"	.030"
D74-7/8	7/8	.625"	.030"
D74-1	1	.750"	.035"
D74-1 1/4	1 1/4	.875"	.035"
D74-1 1/2	1 1/2	1.000"	.035"
D74-1 3/4	1 3/4	1.250"	.040"
D74-2	2	1.375"	.040"
D74-2 1/4	2 1/4	1.500"	.045"
D74-2 1/2	2 1/2	1.750"	.055"
D74-3	3	2.000"	.060"
D74-3 1/4	3 1/4	2.250"	.065"
D74-4	4	2.500"	.070"

STANDARD COLOR: CLEAR (NATURAL) ADDITIONAL COLORS AVAILABLE TO ORDER.
STD. PUT-UP: 100 FT., 500 FT., 1000 FT.**FIBERGLASS SLEEVING****DAFLEX 1200-FOR HIGH TEMPERATURE APPLICATIONS TO 1200°F**
FLEXIBLE FIBERGLASS SLEEVINGExtremely flexible class H, it is non-flammable
and is treated for removal of all organic matter
and glass braid is fray resistant. Will provide
maximum mechanical strength. Tightly
braided. Applicable specs — Nema VSI. Dielectric
strength determined by space factor.

DAFLEX No.	SIZE	Nom. I.D.
D1200-24	24	.022"
D1200-22	22	.027"
D1200-20	20	.034"
D1200-19	19	.038"
D1200-18	18	.042"
D1200-17	17	.047"
D1200-16	16	.053"
D1200-15	15	.059"
D1200-14	14	.066"
D1200-13	13	.076"
D1200-12	12	.085"
D1200-11	11	.095"
D1200-10	10	.106"
D1200-9	9	.118"
D1200-8	8	.133"
D1200-7	7	.148"
D1200-6	6	.166"
D1200-5	5	.186"
D1200-4	4	.208"
D1200-3	3	.234"
D1200-2	2	.263"
D1200-1	1	.294"
D1200-0	0	.330"
D1200-3/4"	3/4"	.387"
D1200-1/2"	1/2"	.450"
D1200-5/8"	5/8"	.512"
D1200-3/4"	3/4"	.640"
D1200-7/8"	7/8"	.768"
D1200-1"	1"	.893"
D1200-1 1/4"	1 1/4"	1.018"

STANDARD COLOR: NATURAL. ADDITIONAL COLORS AVAILABLE TO ORDER.
STD. PUT-UP: 100 FT., 500 FT., 1000 FT.**POWER CORD SETS**

UL and CSA approved

Manufactured for lasting service these 2 and 3 conductor
quality black rubber cords are flexible. Rated at 300 volts.
One end has molded plastic male plug, other end molded
female plug. Will fit conventional plugs and sockets.
Useful for business and data machines, projectors, vacuum
cleaners, appliances, etc.

CUSTOM CONSTRUCTION OF POWER CORDS MADE TO ORDER.

Std. Pkg.
25

CAT. NO.	SIZE & CONDS.	CORD LGTH. FT.	UL TYPE	STRAND.	AMP RATING	NOM. O.D.
9-201	2/18	6	SV	41/34	7	.245"
9-202	2/18	9	SV	41/34	7	.245"
9-203	2/18	10	SJ	16/30	7	.300"
9-204	2/18	25	SJ	16/30	7	.300"
9-206	2/16	10	SJ	26/30	10	.325"
9-207	2/16	25	SJ	26/30	10	.325"
9-208	2/16	50	SJ	26/30	10	.325"
9-211	3/18	10	SJ	16/30	7	.330"
9-212	3/18	25	SJ	16/30	7	.330"
9-213	3/18	50	SJ	16/30	7	.330"
9-215	3/16	15	SJ	26/30	10	.365"
9-216	3/16	25	SJ	26/30	10	.365"
9-217	3/16	50	SJ	26/30	10	.365"

NEW!**NEW FROM DABURN ELECTRONICS & CABLE CORP.**

AIRCRAFT TUBING. LOW TEMPERATURE

CAPTIVE HARDWARE

CONTROL CABLE

CORD SETS

CORONA RESISTANT HIGH VOLTAGE WIRE AND CABLE

FIBERGLASS TUBING. HIGH TEMPERATURE

HARNES WRAP SPIRAL TUBING

HEAT SHRINKABLE TUBING

PLUG — JACKS; (PHONE & TELEPHONE)

RETRACTILE CORDS

SOLDERLESS TERMINALS

SPAGHETTI PACKS

SPIRAL WRAPS

WASHERS

WIRE TIES

See above in Sections 2100, 2800, 3100, 5100, 6000

DABURN**DABURN ELECTRONICS & CABLE CORP.**

WIRE • CABLE • TUBING • MIL/COMM • SWITCHES • ELECTRONIC HARDWARE

SHRINKABLE IRRADIATED POLYOLEFIN TUBING

This series is designed for maximum mechanical strength at stress or points of connection. It is strong and abrasion resistant and is supplied in expanded sizes. It insulates, jackets, splices, encapsulates, weatherproofs components, connectors, cables and irregular shaped objects. When exposed to heat (235°F) the tubing shrinks 50% in diameter, 5% longitudinal contraction. Controlled shrinkage to exact requirement takes place. Meets or exceeds MIL-12053 (WEP) Class 1 specs.

OPERATING TEMPERATURE: -55°C to +135°C.

DAFLUX SH-275 All Purpose	DAFLUX SH-290 Semi-Rigid	Before Shrinkage I.D. AWG	As Supplied Expand. I.D.	Recovered I.D.	Recovered Nom. Wall	Standard Package
SH-275- $\frac{1}{8}$ "	SH-290- $\frac{1}{8}$ "	22-20	.063"	.031"	.016"	100', 250'
SH-275- $\frac{3}{16}$ "	SH-290- $\frac{3}{16}$ "	18-16	.093"	.046"	.020"	100', 250'
SH-275- $\frac{1}{4}$ "	SH-290- $\frac{1}{4}$ "	14	.125"	.062"	.020"	100', 250'
SH-275- $\frac{5}{16}$ "	SH-290- $\frac{5}{16}$ "	12-10	.187"	.093"	.020"	100', 250'
SH-275- $\frac{3}{4}$ "	SH-290- $\frac{3}{4}$ "	8	.250"	.125"	.025"	100', 250'
SH-275- $\frac{1}{2}$ "	SH-290- $\frac{1}{2}$ "	6	.312"	.156"	.025"	100', 250'
SH-275- $\frac{3}{8}$ "	SH-290- $\frac{3}{8}$ "	4	.375"	.187"	.025"	100', 250'
SH-275- $\frac{1}{2}$ "	SH-290- $\frac{1}{2}$ "	2	.500"	.250"	.025"	100'
SH-275- $\frac{3}{4}$ "	SH-290- $\frac{3}{4}$ "	$\frac{3}{8}$	.750"	.375"	.030"	100'
SH-275-1"	SH-290-1"	$\frac{1}{2}$	1.000"	.500"	.035"	100'

STOCK COLORS: Black, White, Red, Clear. Although processed by hi-energy radiation the Daflux SH-275 shrinkable tubing does not at any time become radioactive or possess any residual radioactivity.

SPECIFICATIONS

All Tests Made on Tubing in Recovered Dimension

Continuous Operating Temperature	135°C
Longitudinal Change	5% Max.
Tensile Strength	1500 PSI Min.
Ultimate Elongation	200% Min.
Special Gravity	1.29 Max.
Low Temperature Flexibility (-54°C)	No Cracking
Shrinkage Ratio	2:1 (50%)
Dielectric Strength	500 V/MIL Min.
Dielectric Constant	2.87 Max.
Corrosive Resistance	Non-Corrosive
Resistance to Soldering Iron	Excellent
Fuel, Oil, Solvent, Acid, Alkali, Hydraulic Fluid Resistance	Excellent

HEAT SHRINKABLE TEFLON® TUBING**DAFLON SH-400 (FEP)**

Made with Modified TEFLON® FEP will shrink over inserted objects upon exposure to moderate heat. Heretofore, many joints, parts, components, devices could not be protected because of hi temperature required for shrinkage; Can now use this FEP TEFLON® which has a continuous service temperature of 400°F. Will shrink at 300°F. Supplied in natural color. Complete shrinkage at 350°F. Now, many heat sensitive products can use the permanent protection of TEFLON®. Will not burn or support flame, long lengths available. Extruded.

DAFLON No.	Size	I.D.	Min. Exp. I.D.	Max. I.D.	Wall Thickness
SH-400-24	24	.023"	.031"	.027"	.008"
SH-400-22	22	.028"	.036"	.032"	.008"
SH-400-20	20	.034"	.045"	.039"	.008"
SH-400-18	18	.042"	.060"	.049"	.008"
SH-400-16	16	.053"	.075"	.061"	.009"
SH-400-14	14	.066"	.092"	.072"	.009"
SH-400-12	12	.085"	.115"	.089"	.009"
SH-400-10	10	.108"	.141"	.114"	.010"
SH-400-9	9	.118"	.158"	.124"	.010"
SH-400-8	8	.136"	.180"	.143"	.010"
SH-400-7	7	.148"	.197"	.158"	.011"
SH-400-6	6	.170"	.225"	.180"	.011"
SH-400-5	5	.196"	.248"	.198"	.011"
SH-400-4	4	.214"	.290"	.226"	.011"
SH-400-3	3	.234"	.310"	.249"	.011"
SH-400-2	2	.268"	.365"	.280"	.012"
SH-400-1	1	.294"	.400"	.311"	.012"
SH-400-0	0	.366"	.440"	.349"	.012"
SH-400- $\frac{3}{8}$ "	$\frac{3}{8}$ "	.375"	.500"	.383"	.015"
SH-400- $\frac{1}{2}$ "	$\frac{1}{2}$ "	.437"	.580"	.448"	.020"
SH-400- $\frac{3}{4}$ "	$\frac{3}{4}$ "	.500"	.666"	.510"	.020"
SH-400- $\frac{1}{2}$ "	$\frac{1}{2}$ "	.625"	.830"	.637"	.025"
SH-400- $\frac{3}{4}$ "	$\frac{3}{4}$ "	.750"	1.000"	.764"	.030"
SH-400- $\frac{1}{2}$ "	$\frac{1}{2}$ "	.875"	1.170"	.891"	.035"
SH-400-1"	1"	1.000"	1.330"	1.020"	.035"

STANDARD PACKAGE: 100 Ft.

* DUPONT

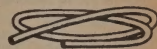
Daburn No. HG2 — Heat Gun for SH-275 and SH-290 Series.

DABURN SHRINKABLE POLYVINYLCHLORIDE ALL PURPOSE

Shrinkage Ratio: 2:1 (50%)

Flexible, shrinks 50% on heat application, less than 10% longitudinal contraction. Suitable for insulating components and cables in varying shapes and diameters. Has a higher resistance to oils than low density polyethylene. Conforms to MIL-I-6310, Type F, Form V, Grade A and C, Class 1 and 2. Cat. 1. Controlled shrinkage on application of heat to predetermined size takes place in seven seconds at above 266°F.

OPERATING TEMPERATURE: -20° to +105°C.



CAT. NOS. INDICATE EXPANDED SIZE

DAFLUX SH-265	Equiv. I.D. AWG	Before Shrinkage As Supplied Expanded I.D.	Max. Recovered I.D.	Recovered Nom. Wall	Standard Package
SH-265- $\frac{1}{8}$ "	22-20	.063"	.031"	.020"	100', 250'
SH-265- $\frac{3}{16}$ "	18-16	.093"	.046"	.025"	100', 250'
SH-265- $\frac{1}{4}$ "	14	.125"	.062"	.025"	100', 250'
SH-265- $\frac{5}{16}$ "	12-10	.187"	.093"	.025"	100', 250'
SH-265- $\frac{3}{4}$ "	8	.250"	.125"	.025"	100', 250'
SH-265- $\frac{1}{2}$ "	6	.312"	.156"	.025"	100', 250'
SH-265- $\frac{3}{8}$ "	4	.375"	.187"	.025"	100', 250'
SH-265- $\frac{1}{2}$ "	2	.500"	.250"	.025"	25', 100'
SH-265- $\frac{3}{4}$ "		.750"	.375"	.025"	25', 100'
SH-265-1"		1.000"	.500"	.030"	25', 100'
SH-265-1 $\frac{1}{2}$ "		1.500"	.750"	.035"	25', 100'
SH-265-2"		2.000"	1.000"	.040"	25', 100'

COLORS: Black, White, Clear, Red.

PACK ASSORTMENTS

DAFLUX Cat. No.	Lengths Per Pack	Tubing Size
SH-275-PA1	30	$\frac{1}{8}$ " thru $\frac{3}{8}$ "
SH-275-PA2	16	$\frac{1}{4}$ " thru $\frac{3}{4}$ "
SH-275-PA3	10	1"

COLORS: Black, White, Clear, Red. Each pack contains an assortment of 6' lengths in mixed sizes and colors (specify).

DAFLON SHRINK SERIES SH-621**TFE TUBING MIL-1-23053 (WEP) CLASS 2**

Made of modified TEFLON® polytetrafluorethylene will shrink when heated to 621°F. Suitable where hi temp protection is required. Extruded. Will not support combustion, dielectric strength (20 MIL Wall) 850 V/M, low temp. brittle point -66°F, superior chemical resistance.

DAFLON No.	Nominal Tubing Size	Minimum Expanded ID	Recovered Dimensions Wall Maximum ID (1)	Wall Thickness (2)
SH-621-26	26	.046"	.022"	.009"
SH-621-24	24	.050"	.027"	.010"
SH-621-22	22	.055"	.032"	.010"
SH-621-20	20	.060"	.039"	.012"
SH-621-19	19	.065"	.043"	.012"
SH-621-18	18	.076"	.049"	.012"
SH-621-17	17	.085"	.054"	.012"
SH-621-16	16	.093"	.061"	.012"
SH-621-15	15	.110"	.067"	.012"
SH-621-14	14	.120"	.072"	.012"
SH-621-13	13	.140"	.080"	.012"
SH-621-12	12	.150"	.089"	.012"
SH-621-11	11	.170"	.101"	.012"
SH-621-10	10	.191"	.112"	.012"
SH-621-9	9	.205"	.124"	.015"
SH-621-8	8	.240"	.141"	.015"
SH-621-7	7	.270"	.158"	.015"
SH-621-6	6	.302"	.178"	.015"
SH-621-5	5	.320"	.198"	.015"
SH-621-4	4	.348"	.224"	.015"
SH-621-3	3	.360"	.249"	.015"
SH-621-2	2	.375"	.278"	.015"
SH-621-1	1	.385"	.311"	.015"
SH-621-0	0	.400"	.347"	.015"
SH-621- $\frac{3}{8}$ "	$\frac{3}{8}$ "	.560"	.399"	.020"
SH-621- $\frac{1}{2}$ "	$\frac{1}{2}$ "	.655"	.462"	.020"
SH-621- $\frac{3}{4}$ "	$\frac{3}{4}$ "	.750"	.524"	.020"

STANDARD PACKAGE: 100 Feet.

STANDARD PUT-UP: 36" Straight Lengths — One Foot Minimums.

WALL TOLERANCES: 26 thru 22 $\pm$.002; 20 thru 10 $\pm$.003; 9 thru 0 $\pm$.004.

(*) Stock Sizes.

Daburn No. HG3 — Heat Gun for SH-400 and SH-621 Series.

DABURN**DABURN ELECTRONICS & CABLE CORP.**

WIRE • CABLE • TUBING • MIL/COMM • SWITCHES • ELECTRONIC HARDWARE

TUBULAR BRAID PER MIL SPEC QQ-B-575

Tinned copper shielded braid m'd completely round per Mil Spec QQ-B-575. Maintains its round configuration. Shielding coverage is 95% or more. Used in military applications where maximum shielding is required against electrostatic interference. Useful against mechanical abrasion and stresses for cables — as grounding cable.

DABURN No.	Nom. Inside Diam. When Rounded	Construction Total No. of Wires	Car-riers	AWG of Indiv. Wires	Approx. AWG Equiv.	Nom. Circular Mills.	*Current Carrying Cap.
2350-1/32	$\frac{1}{32}$ "	24	24	#36	#22	640	7.0 amps.
2350-1/16	$\frac{1}{16}$ "	48	24	#36	#19	1,290	11.0 amps.
2350-5/64	$\frac{5}{64}$ "	72	24	#36	#17	1,900	18.0 amps.
2350-7/64	$\frac{7}{64}$ "	96	24	#36	#16	2,500	22.0 amps.
2350-1/8	$\frac{1}{8}$ "	120	24	#36	#15	3,260	28.0 amps.
2350-5/32	$\frac{5}{32}$ "	240	24	#36	#12	6,200	39.0 amps.
2350-11/64	$\frac{11}{64}$ "	168	24	#36	#14	4,500	32.0 amps.
2350-3/16	$\frac{3}{16}$ "	192	24	#36	#13	5,100	35.0 amps.
2350-13/64	$\frac{13}{64}$ "	312	24	#36	#11	8,200	46.0 amps.
2350-1/4	$\frac{1}{4}$ "	384	24	#36	#10	10,400	53.0 amps.
2350-9/32	$\frac{9}{32}$ "	120	24	#30	#9	12,060	60.0 amps.
2350-3/8	$\frac{3}{8}$ "	384	48	#36	#10	10,400	53.0 amps.
2350-7/16	$\frac{7}{16}$ "	240	24	#30	#6	24,120	90.0 amps.
2350-1/2	$\frac{1}{2}$ "	528	48	#36	#9	13,200	70.0 amps.
2350-9/16	$\frac{9}{16}$ "	528	48	#36	#9	13,200	70.0 amps.
2350-11/16	$\frac{11}{16}$ "	720	48	#36	#7	19,000	82.0 amps.
2350-25/32	$\frac{25}{32}$ "	864	48	#36	#7	21,750	85.0 amps.
2350-13/16	$\frac{13}{16}$ "	864	48	#36	#7	21,750	85.0 amps.
2350-7/8	$\frac{7}{8}$ "	336	48	#30	#5	33,700	100.0 amps.
2350-1	1"	384	48	#30	#4	38,600	120.0 amps.
2350-1 1/8	1 1/8"	432	48	#30	#4	43,330	130.0 amps.
2350-1 1/4	1 1/4"	480	48	#30	#3	48,150	145.0 amps.
2350-1 3/8	1 3/8"	528	48	#30	#3	53,000	150.0 amps.
2350-1 1/2	1 1/2"	576	48	#30	#2	57,775	165.0 amps.

STANDARD SPOOL PUT-UP: 50 Ft., 100 Ft., 250 Ft.

Larger Spools Available — Advise.

*Values based on copper in free air at 65°F. Additional constructions and variations made to order. Also available in silver plated copper, bare copper and stainless steel.

BARE COPPER WIRE (Soft Drawn)QQ-W-341A SPECIFICATIONS
SOLID

DABURN No.	Size AWG	Area Circular Mills	O.D.
2375/8	8	16,510	.1285"
2375/10	10	10,380	.102"
2375/12	12	6,530	.081"
2375/14	14	4,107	.064"
2375/16	16	2,583	.051"

STANDARD PUT-UP: 100 Ft., 1000 Ft.

SOLID FORMVAR COPPER WIRE

DABURN No.	Size AWG	O.D.
2380/10	10	.103"
2380/12	12	.083"
2380/14	14	.066"

STANDARD PUT-UP: 100 Ft., 150 Ft., 200 Ft., 1000 Ft.

TINNED COPPER WIRE

Pure Electrolytic, Copper, annealed, tinned for quick soldering—Solid Soft Drawn MIL-W-3861 Type S, ASTM-B-33 Specifications, QQ-W-343 Type S

DABURN No.	Size AWG	Area Circ. Mills	O.D.	DABURN No.	Size AWG	Area Circ. Mills	O.D.
2360/4	4	41,704	.204"	2360/18	18	1,624	.040"
2360/6	6	26,250	.162"	2360/20	20	1,022	.033"
2360/8	8	16,510	.129"	2360/22	22	624.4	.025"
2360/10	10	10,380	.103"	2360/24	24	404.0	.020"
2360/12	12	6,530	.082"	2360/26	26	254.1	.016"
2360/14	14	4,107	.065"	2360/28	28	159.8	.013"
2360/16	16	2,583	.051"	2360/30	30	100.5	.010"

STANDARD PUT-UP: 100 Ft., 1000 Ft. See Magnet Wire Section For Additional Sizes

DABURN COPPERWELD WIRE

Bare Copper Welded to Core. 40% Conductivity. Hard Drawn; will not stretch. Used for hi tensile strength.

DABURN No.	Size AWG	Nom. O.D.	DABURN No.	Size AWG	Nom. O.D.
2386/20	20	.033"	2386/12	12	.080"
2386/18	18	.040"	2386/10	10	.102"
2386/16	16	.050"	2386/8	8	.129"
2386/14	14	.064"	2386/6	6	.162"

STANDARD PUT-UP: 500 Ft., 1000 Ft.

TINNED COPPER SHIELDING

Soft annealed tinned copper woven braid, rolled flat at time of manufacture. It is extremely flexible. Used as battery grounding, bonding strap for aircraft, vehicles, marine equipment. Eliminates ignition interference and moving parts. Slides over wire and cables.

DABURN No.	Size of Wires	Indiv. Wires AWG	Flattened I.D.	Flattened O.D.
2355-1/2	12 x 2	36	$\frac{1}{2}$ "	$\frac{3}{4}$ "
2355-3/4	12 x 2	36	$\frac{3}{4}$ "	$\frac{1}{2}$ "
2355-1/4	16 x 3	36	$\frac{1}{4}$ "	$\frac{3}{4}$ "
2355-1/8	24 x 5	36	$\frac{1}{8}$ "	$\frac{3}{4}$ "
2355-1/6	24 x 5	36	$\frac{1}{6}$ "	$\frac{3}{4}$ "
2355-1/4	24 x 7	36	$\frac{1}{4}$ "	$\frac{3}{4}$ "
2355-3/8	48 x 4	36	$\frac{3}{8}$ "	$\frac{1}{2}$ "
2355-1/2	48 x 7	36	$\frac{1}{2}$ "	$\frac{1}{2}$ "
2355-3/8	48 x 8	36	$\frac{3}{8}$ "	$\frac{1}{2}$ "
2355-3/4	48 x 11	36	$\frac{3}{4}$ "	$\frac{1}{2}$ "
2355-5/8	48 x 19	36	$\frac{5}{8}$ "	$\frac{1}{2}$ "
2355-1	48 x 19	36	1"	$\frac{1}{4}$ "
2355-1 1/8	48 x 19	36	1 1/8"	$\frac{1}{4}$ "
2355-1 1/2	48 x 19	36	1 1/2"	$\frac{1}{4}$ "
2355-1 3/4	48 x 27	30	1 3/4"	$\frac{1}{8}$ "
2355-2	48 x 32	30	2"	$\frac{1}{4}$ "
2355-2 1/4	48 x 35	30	2 1/4"	$\frac{1}{4}$ "
2355-2 1/2	48 x 45	30	2 1/2"	$\frac{1}{4}$ "
2355-3	48 x 64	30	3"	$\frac{1}{4}$ "

STANDARD SPOOL PUT-UP: 50 Ft., 100 Ft., 500 Ft., 1000 Ft.

BUS BAR WIRE (Hard Drawn)

QQ-W-343 Type S

For hooking up all types of transmitters, especially ultra short wave equipment. All bus wire is made of hard drawn copper, tinned, straightened, and cut in 2 ft. lengths.

MIL-W-3861 Types S, ASTM-B-33, ASTM-B-246-51 Specifications

DABURN No.	Nom. Circ. Mil Area	Size	Nom. O.D.
2362/10	10,380	10	.103"
2362/12	6,530	12	.082"
2362/14	4,107	14	.065"
2362/16	2,583	16	.051"
2362/18	1,622	18	.040"
2362/20	1,022	20	.033"
2362/22	624	22	.025"

STANDARD PUT-UP: 100 Per Package in two foot lengths.

SILICON BRONZE AERIAL WIRE

Especially designed for ships, airports, short wave and transmitting antennas where high tensile strength and resistance to the elements are important.

DABURN No.	Size AWG	Strand	Breaking Strength	O.D.
2364/4	4	7/12	3670 lbs.	.240"
2364/6	6	7/14	2140 lbs.	.190"
2364/8	8	7/16	1600 lbs.	.150"
2364/10	10	7/18	1000 lbs.	.122"
2364/12	12	7/20	650 lbs.	.100"
2364/14	14	7/22	420 lbs.	.075"

STANDARD PUT-UP: 100 Ft., 500 Ft., 1000 Ft.

2364/10 and 2364/6 meets MIL-W-13074, 2364/12 meets MIL-W-13276 Specs.

COPPERWELD ANTENNA WIRE

Used where high tensile strength is required as for short wave and transmitting aeriels. Has low R.F. resistance and is ideal for transmitting doublet and directional antennas. Will maintain frequency characteristics because of its stretchless qualities. 40% conductivity.

DABURN No.	Size AWG	Tensile Strength	O.D.
2382/10	10	1130 lbs.	.103"
2382/12	12	720 lbs.	.082"
2382/14	14	400 lbs.	.065"

STANDARD PUT-UP: 100 Ft., 250 Ft., 500 Ft., 1000 Ft., 2500 Ft.

STRANDED BARE COPPER WIRE

DABURN No.	Size AWG	Strand	O.D.
2366/12	12	7/20	.100"
2366/14	14	7/22	.075"
2366/16	16	7/24	.060"
2366/18	18	7/26	.050"
2366/19	19	7/27	.041"

PUT-UP: 100 Ft., 1000 Ft. Spool.

DABURN**DABURN ELECTRONICS & CABLE CORP.**

WIRE • CABLE • TUBING • MIL/COMM • SWITCHES • ELECTRONIC HARDWARE

**PLASTIC HOOK-UP WIRE
TYPE B—HIGH TEMPERATURE VINYL
SPECIFICATION MIL-W-16878D**

DESCRIPTION: One conductor stranded
tinned copper with rated -55°C to
+105°C high temperature thermoplastic
light wall insulation.

DABURN Cat. No.	MIL-W-16878D Type Designation	Size AWG	Conductor Strand	Nom. O.D.
2500/32	B-32	32	7/40	.028"
2500/30	B-30	30	7/38	.030"
2500/28	B-28	28	7/36	.033"
2500/26	B-26	26	7/34	.037"
2500/24	B-24	24	7/32	.043"
2500/22	B-22	22	7/30	.048"
2500/20	B-20	20	7/28	.057"
2500/18	B-18	18	7/26	.067"
2500/16	B-16	16	19/29	.077"
2500/14	B-14	14	19/27	.091"

STD. PUT-UP: 100'-1000'.

TYPE B—NYLON JACKET

NYLON JACKET THICKNESS: 32-20 .002, 18-16 .003

DABURN Cat. No.	MIL-W-16878D Type Designation	Size AWG	Conductor Strand	Nom. O.D.
2510/32	B-32	32	7/40	.032"
2510/30	B-30	30	7/38	.036"
2510/28	B-28	28	7/36	.039"
2510/26	B-26	26	7/34	.042"
2510/24	B-24	24	7/32	.047"
2510/22	B-22	22	7/30	.053"
2510/20	B-20	20	7/28	.065"
2510/18	B-18	18	7/26	.075"
2510/16	B-16	16	19/29	.085"
2510/14	B-14	14	19/27	.099"

STD. PUT-UP: 100'-1000'

STOCK COLORS: Black, Red, Brown, Blue, Orange, White, Yellow, Green, Gray, Purple.

White/Black	White/Yellow	White/Orange
White/Red	White/Blue	White/Gray
White/Green	White/Brown	White/Violet

**TYPE C—HIGH TEMPERATURE—VINYL JACKET
SPECIFICATION MIL-W-16878D**

DESCRIPTION: One conductor similar to
Type B—heavier wall hi-temp thermoplastic
insulation Nom. wall .016".

DABURN Cat. No.	MIL-W-16878D Type Designation	Size AWG	Minimum Strand	Nom. O.D.
2515/24	C-24	24	7/32	.058"
2516	C-24	24	16/36	.059"
2515/22	C-22	22	7/30	.064"
2515/20	C-20	20	7/28	.079"
2515/18	C-18	18	7/26	.090"
2515/16	C-16	16	19/29	.099"
2515/14	C-14	14	19/27	.114"
2515/12	C-12	12	19/25	.135"

TYPE C—NYLON JACKET

NYLON JACKET THICKNESS: 24 .002, 22-18 .003, 16-14 .004

DABURN Cat. No.	MIL-W-16878D Type Designation	Size AWG	Conductor Strand	Nom. O.D.
2520/24	C-24	24	7/32	.065"
2520/22	C-22	22	7/30	.064"
2520/20	C-20	20	7/28	.079"
2520/18	C-18	18	7/26	.090"
2520/16	C-16	16	19/29	.099"
2520/14	C-14	14	19/27	.114"
2520/12	C-12	12	19/25	.135"

STOCK COLORS: Black, Red, Brown, Blue, Orange, White, Yellow, Green, Gray, Purple. Also available in tracer colors. Additional types available to order.

STD. PUT-UP: 100 Ft.-1000 Ft.

**TYPE D—HIGH TEMPERATURE—VINYL—3000 VOLTS
SPECIFICATION MIL-W-16878D**

DESCRIPTION: One conductor stranded
similar to Type C—heavier wall hi-temp
thermoplastic insulation. Nom. wall 24
thru 14 .032, 12 thru 6 .040.

DABURN Cat. No.	MIL-W-16878D Type Designation	Size AWG	Conductor Strand	Nom. O.D.
2525/24	D-24	24	7/32	.084"
2525/22	D-22	22	7/30	.089"
2525/20	D-20	20	10/30	.097"
2525/18	D-18	18	16/30	.107"
2525/16	D-16	16	26/30	.116"
2525/14	D-14	14	41/30	.130"
2525/12	D-12	12	65/30	.163"
2525/10	D-10	10	105/30	.182"
2525/8	D-8	8	133/29	.247"
2525/6	D-6	6	133/27	.291"
2525/4	D-4	4	133/25	.355"

MIL-W-16878B Type D Available with Nylon Jacket ALL WIRES ON THIS PAGE CAN BE ORDERED CUT AND STRIPPED TO YOUR SPECIFICATIONS.

**PLASTIC HOOK-UP WIRE (Medium Wall)
1000 VOLTS (Fungus Proof)
SPEC. MIL-W-76B TYPE MW**

**1000 VOLT
TEMP. RATING:** -40°C to +80°C.

STRANDED

DABURN Cat. No.	Spool	Size AWG	MIL-W-76B Type Designation	Conductor Strand	Nom. Wall	Nom. O.D.
2555/24	1000'	24	MW-C 24(7)U	7/32	.015"	.059"
2556	1000'	24	MW-C 24(16)U	16/36	.015"	.059"
*2555/22	1000'	22	MW-C 22(7)U	7/30	.017"	.065"
*2555/20	1000'	20	MW-C 20(10)U	10/30	.017"	.074"
*2555/18	1000'	18	MW-C18(16)U	16/30	.017"	.085"
2555/16	1000'	16	MW-C 16(26)U	26/30	.017"	.096"
2555/14	1000'	14	MW-C 14(41)U	41/30	.017"	.110"
2555/12	1000'	12	MW-C 12(65)U	65/30	.017"	.130"

SOLID

DABURN Cat. No.	Spool	Size AWG	MIL-W-76B Type Designation	Conductor Strand	Nom. Wall	Nom. O.D.
2560/22	1000'	22	MW-C 22(1)U	1	.017"	.060"
2560/20	1000'	20	MW-C 20(1)U	1	.017"	.066"
2560/18	1000'	18	MW-C 18(1)U	1	.017"	.074"

STD. PUT-UP: 100 Ft., 500 Ft., 1000 Ft.

STOCK COLORS: White, Yellow, Lt. Blue, Black, Violet (purple), Blue, Brown, Lt. Green, Pink, Red, Green, Tan, Orange, Gray (slate).

*SINGLE SPIRAL TRACER COLORS AVAILABLE: White/Black, White/Brown, White/Red, White/Orange, White/Yellow, White/Green, White/Blue, White/Purple, White/Gray.

*DOUBLE SPIRAL TRACER COLORS AVAILABLE: White/Black/Red, White/Black/Green, White/Black/Yellow, White/Black/Blue, White/Black/Brown, White/Black/Orange, White/Black/Gray, White/Black/Purple.

Additional spiral tracer combination available, to order, for all numbers

1000 VOLT—NYLON JACKET (Medium Wall)**SPEC. MIL-W-76B TYPE MW
(Fungus Proof)**

DESCRIPTION: One conductor stranded tinned
copper with thermoplastic insulation and extruded
nylon jacket overall.

TEMPERATURE RATING: -40°C to +90°C.

DABURN Cat. No.	Size AWG	MIL-W-76B Type Designation	Conductor Strand	Nom. Wall	Nom. O.D.
2565/24	24	MW-C 24(16)J	16/36	.015"	.068"
2565/22	22	MW-C 22(7)J	7/30	.017"	.075"
2565/20	20	MW-C 20(10)J	10/30	.017"	.087"
2565/18	18	MW-C 18(16)J	16/30	.017"	.100"
2565/16	16	MW-C 16(26)J	26/30	.017"	.122"
2565/14	14	MW-C 14(41)J	41/30	.017"	.122"
2565/12	12	MW-C 12(65)J	65/30	.017"	.140"
2565/10	10	MW-C 10(105)J	105/30	.045"	.240"

STD. PUT-UP: 100 Ft.-1000Ft.

NYLON JACKET THICKNESS: #24 .002, 22, 20, 18 .003; 16, 14 .004; 12 .005; 10 .007.

STOCK COLORS: White, Orange, Purple, Black, Yellow, Gray, Brown, Green, Red, Blue, White/Black, White/Brown, White/Red, White/Orange, White/Yellow, White/Green, White/Blue, White/Purple, White/Gray, White/Black/Red, White/Black/Yellow, White/Black/Blue, White/Black/Green, White/Black/Orange, White/Black/Brown, White/Black/Gray.

Nos. 2565/12 and /10 available solid colors only.

**1000 VOLTS GLASS BRAID (Medium Wall) TYPE MW
SPEC. MIL-W-76B**

DESCRIPTION: One conductor-stranded tinned copper with thermoplastic insu-
lation and lacquered glass braid overall.

TEMPERATURE RATING: -40°C to +80°C. NOM. WALL: .017"

DABURN Cat. No.	Spool	Size AWG	MIL-W-76B Type Designation	Conductor Strand	Nom. O.D.
2570/22	100'-1000'	22	MW-C 22(7)B	7/30	.079"
2570/20	100'-1000'	20	MW-C 20(10)B	10/30	.084"
2570/18	100'-1000'	18	MW-C 18(16)B	16/30	.100"
2570/16	100'-1000'	16	MW-C 16(26)B	26/30	.116"
*2570/14	100'-1000'	14	MW-C 14(41)B	41/30	.129"
*2570/12	100'-1000'	12	MW-C 12(65)B	65/30	.149"

STOCK COLORS: White, Black, Brown, Red, Orange, Yellow, Green, Blue, Purple, Gray, White/Brown, White/Black, White/Orange, White/Yellow, White/Green, White/Blue, White/Red, White/Gray, White/Purple, White/Black/Red, White/Black/Yellow, White/Black/Blue, White/Black/Green, White/Black/Orange, White/Black/Brown, White/Black/Gray. *Nos. 2570/14 and /12, available stock in solid colors.

GLASS BRAID—TYPE HW (Heavy Wall)

TEMPERATURE RATING: -40°C to +80°C. NOM WALL: .045"

DABURN Cat. No.	Spool	Size AWG	MIL-W-76B Type Designation	Conductor Strand	Nom. O.D.
2575/10	100'-1000'	10	HW-C 10(105)B	105/30	.237"
2575/8	100'-1000'	8	HW-C 8(133)B	133/29	.293"
2575/6	100'-1000'	6	HW-C 6(133)B	133/27	.340"

STOCK COLORS: White, Black. Also multi-conductors can be formed to order twisted, shielded with or without plastic jacket overall.

DABURN**DABURN ELECTRONICS & CABLE CORP.**

WIRE • CABLE • TUBING • MIL/COMM • SWITCHES • ELECTRONIC HARDWARE

**TEFLON WIRE
TYPE E—600 VOLTS****SPEC. MIL-W-16878D**
High Temperature Rating—90°C to +250°C

Single conductor, stranded silver plated copper, .010" TFE Teflon® insulation. Acid, alkalis, oil, flame, moisture, fungus, solvent resistant.

Daburn Cat. No.	Daburn Extruded Cat. No.	MIL Type Designation	Size AWG	Strand	Nom. O.D.
2401	—	E-32	7/40	.033"	
2402	—	E-30	7/38	.036"	
2403	2415/28	E-28	7/36	.039"	
2404	2415/26	E-26	7/34	.043"	
2405	2415/24	E-24	19/36	.048"	
2406	2415/22	E-22	19/34	.054"	
2407	2415/20	E-20	19/32	.062"	
2408	2515/18	E-18	19/30	.074"	
2409	—	E-16	19/29	.087"	
2409/14	—	E-14	19/27	.097"	
2409/12	—	E-12	19/25	.120"	
2409/10	—	E-10	37/26	.139"	

STD. PUT-UP: 100 Ft., 500 Ft., 1000 Ft. Solid conductors available.

COLORS: Black, Brown, Red, Orange, Yellow, Green, Blue, Purple, Gray, White, White/Black, White/Red, White/Green, White/Yellow, White/Blue, White/Brown, White/Orange, White/Gray, White/Violet.

Additional special custom construction available to order. Nos. 2405, 2406, 2407 available with 7 strand construction.

TEFLON® WIRE**MIL-W-16878D—TYPE EE**
Extruded (1000 VOLTS) MIL-W-16878D

DESCRIPTION: Single conductor silver plated copper wire concentrically stranded and insulated with .016 TFE extruded TEFLON® insulation.

TEMPERATURE RATING: -90°C to +260°C, 1000 volts.

Daburn Cat. No.	MIL Type Designation	Size AWG	Strand	Nom. O.D.
2428/24	EE-24	24	19/36	.055"
2428/22	EE-22	22	19/34	.062"
2428/20	EE-20	20	19/32	.070"
2428/18	EE-18	18	19/30	.080"
2428/16	EE-16	16	19/29	.089"
2428/14	EE-14	14	19/27	.106"
2428/12	EE-12	12	19/25	.124"
2428/10	EE-10	10	37/26	.145"
2428/8 (wrapped)	EE-8	8	133/29	.210"

STANDARD SPOOL PUT-UPS: 250 Ft., 500 Ft., 1000 Ft. Solid conductors available.

STOCK COLORS: 1—White, 2—Black, 3—Red, 4—Green, 5—Yellow, 6—Blue, 7—Brown, 8—Orange, 9—Gray (Slate), 10—Violet (Purple). *TEFLON—Dupont

SUBMINIATURE TEFLON® HOOK-UP WIRE

PER MIL-W-16878D—TYPE ET—250 VOLTS, 200°C.

Thin miniature hook-up wire is suitable in miniature slip ring assemblies, as interconnecting wire between wafers in microminiature electronic circuitry, instrument wire, medical wire, subminiature thermo-couple lead wire, strain gauge wire, etc. Provides lighter weight, greater flexibility and its temperature resistance. Size Nos. 32 thru 20 conform to MIL-W-16878D type ET 250 volts, 200°C. Silver plated copper conductor.

Daburn Cat. No.	MIL Type	Size AWG	Strand	Nom. O.D.
2427/36	—	36	7/44	.018"
2427/34	—	34	7/42	.020"
2427/32	ET-32	32	7/40	.021"
2427/30	ET-30	30	7/38	.024"
2427/28	ET-28	28	7/36	.027"
2427/26	ET-26	26	7/34	.031"
2427/24	ET-24	24	7/32	.036"
2427/22	ET-22	22	7/30	.042"
2427/20	ET-20	20	7/28	.049"

STANDARD SPOOL PUT-UPS: 500 Ft., 1000 Ft.

MIL-W-7139BCLASS 1: 600V Silver Coated Copper Conductor for +200°C Operation.
CLASS 2: 600V nickel Coated Copper Conductor for +260°C Operation.

Daburn Cat. No. Class 1	Daburn Cat. No. Class 2	Size AWG	Strand	Nom. O.D.
2426-22	2425-22	22	19/34	.085"
2426-20	2425-20	20	19/32	.095"
2426-18	2425-18	18	19/30	.110"
2426-16	2425-16	16	19/29	.130"
2426-14	2425-14	14	19/27	.143"
2426-12	2425-12	12	19/25	.163"

STANDARD SPOOL PUT-UPS: 500 Ft., 1000 Ft.

STANDARD COLOR: Class 1—White/Blue Tracer; Class 2—White/Orange Tracer.
ADDITIONAL SIZES AVAILABLE.**TEFLON® CABLES—Shielded and Unshielded
TO MIL-W-16878D**

DESCRIPTION: One or more conductors, each conductor silver plated concentrically stranded copper wire, Type E Extruded TFE .010" insulation. When shielded, braided silver plated copper shield over conductor(s), 90% shield coverage. When covered, either a TEFLON® impregnated fiberglass braid or a .010" TEFLON® fused, double reversed tape jacket overall. Fungus, solvent, moisture, flame, acid, alkali and oil resistant Multi-conductors are twisted.

TEMPERATURE RATING: -65°C to +260°C.

VOLTAGE RATING: 600 Volts

**TEFLON®
IMPREGNATED
BRAID OVER SHIELD**

Daburn No.	Conds.	Size AWG	Strand	Nom. O.D.
2444	1	26	7/34	.075"
2444/2	2	26	7/34	.119"
2445	1	24	19/36	.081"
2445/2	2	24	19/36	.126"
2445/3	3	24	19/36	.133"
2445/4	4	24	19/36	.144"
2445/5	5	24	19/36	.156"
2446	1	22	19/34	.088"
2446/2	2	22	19/34	.137"
2446/3	3	22	19/34	.144"
2446/4	4	22	19/34	.158"
2446/5	5	22	19/34	.172"

STANDARD SPOOL PUT-UPS: 250 Ft., 500 Ft., 1000 Ft.

CONDUCTOR COLOR CODE: 1—White, 2—Black, 3—Red, 4—Green, 5—Yellow.

**TEFLON®
TAPE WRAP JACKET
OVER SHIELD**

Daburn No.	Conds.	Size AWG	Strand	Nom. O.D.
2454	1	26	7/34	.078"
2454/2	2	26	7/34	.125"
2455	1	24	19/36	.084"
2455/2	2	24	19/36	.128"
2455/3	3	24	19/36	.135"
2455/4	4	24	19/36	.148"
2455/5	5	24	19/36	.162"
2456	1	22	19/34	.090"
2456/2	2	22	19/34	.140"
2456/3	3	22	19/34	.148"
2456/4	4	22	19/34	.162"
2456/5	5	22	19/34	.183"

STANDARD SPOOL PUT-UPS: 250 Ft., 500 Ft., 1000 Ft.

CONDUCTOR COLOR CODE: 1—White, 2—Black, 3—Red, 4—Green, 5—Yellow.

**SHIELDED
BRAID
OVERALL**

Daburn Cat. No.	Conds.	Size AWG	Strand	Nom. O.D.
2434	1	26	7/34	.066"
2434/2	2	26	7/34	.104"
2435	1	24	19/36	.068"
2435/2	2	24	19/36	.112"
2435/3	3	24	19/36	.120"
2435/4	4	24	19/36	.132"
2435/5	5	24	19/36	.140"
2436	1	22	19/34	.075"
2436/2	2	22	19/34	.124"
2436/3	3	22	19/34	.132"
2436/4	4	22	19/34	.146"
2436/5	5	22	19/34	.154"

STANDARD SPOOL PUT-UPS: 250 Ft., 500 Ft., 1000 Ft.

CONDUCTOR COLOR CODE: 1—White, 2—Black, 3—Red, 4—Green, 5—Yellow.

**NO SHIELD—TEFLON®
IMPREGNATED
FIBERGLASS**

Daburn Cat. No.	Conds.	Size AWG	Strand	Nom. O.D.
2464	1	26	7/34	.040"
2464/2	2	26	7/34	.080"
2465	1	24	19/36	.044"
2465/2	2	24	19/36	.088"
2465/3	3	24	19/36	.096"
2465/4	4	24	19/36	.108"
2465/5	5	24	19/36	.116"
2466	1	22	19/34	.051"
2466/2	2	22	19/34	.100"
2466/3	3	22	19/34	.108"
2466/4	4	22	19/34	.122"
2466/5	5	22	19/34	.131"

STANDARD SPOOL PUT-UPS: 250 Ft., 500 Ft., 1000 Ft.

CONDUCTOR COLOR CODE: 1—White, 2—Black, 3—Red, 4—Green, 5—Yellow.

DABURN**DABURN ELECTRONICS & CABLE CORP.**

WIRE • CABLE • TUBING • MIL/COMM • SWITCHES • ELECTRONIC HARDWARE

HOOK-UP WIRE**2500 VOLTS (Fungus Proof) — TYPE HW (Heavy Wall)****SPEC. MIL-W-76B**600 VOLTS SIZES — 14 through 6 — (Supersedes Jan-C-76 Type SRHW) — TEMP. RATING — -40°C to 80°C.
NOM. WALL SIZE: — 22 through 16 .033; Size 14 through 6 .045

DESCRIPTION: Similar to type MW. One conductor stranded tinned copper with larger walls of primary thermoplastic insulation to take 2500 V RMS.

DABURN No.	Size AWG	MIL-W-76B Type Designation	Conductor Strand	Nom. O.D.
2580/22	22	HW-C 22(7)U	7/30	.092"
2580/20	20	HW-C 20(10)U	10/30	.100"
2580/18	18	HW-C 18(16)U	16/30	.112"
2580/16	16	HW-C 16(26)U	26/30	.126"
2580/14	14	HW-C 14(41)U	41/30	.170"

STOCK COLORS: White, Black, Brown, Red, Orange, Yellow, Green, Blue, Purple, Gray, Additional sizes, colors available to order.

300 VOLTS — TYPE LW (Light Wall)**SPEC. MIL-W-76B**

DESCRIPTION: One conductor stranded tinned copper with light wall of primary thermoplastic insulation. Nom. Wall .010".

TEMPERATURE RATING: — -40°C to +80°C.

LW — UNCOVERED

DABURN No.	Size AWG	MIL-W-76B Type Designation	Conductor Strand	Nom. O.D.
2585/30	30	LW-C 30(7)U	7/38	.033"
2585/28	28	LW-C 28(7)U	7/36	.035"
2585/26	26	LW-C 26(10)U	10/36	.040"
2585/24	24	LW-C 24(7)U	7/32	.044"
2585/22	22	LW-C 22(7)U	7/30	.050"
2585/20	20	LW-C 20(7)U	7/28	.060"

LW — NYLON JACKET

DABURN No.	Size AWG	MIL-W-76B Type Designation	Conductor Strand	Nom. O.D.
2590/30	30	LW-C 30(7)J	7/38	.036"
2590/28	28	LW-C 28(7)J	7/36	.039"
2590/26	26	LW-C 26(7)J	7/34	.042"
2590/24	24	LW-C 24(7)J	7/32	.047"
2590/22	22	LW-C 22(7)J	7/30	.053"
2590/20	20	LW-C 20(7)J	7/28	.065"

SHIELDED PLASTIC HOOK-UP WIRE
1000 VOLT — TYPE MW (Medium Wall) SHIELDED — SPEC. MIL-W-76B
TEMPERATURE RATING — -40°C TO +80°C

DESCRIPTION: One conductor stranded tinned copper with thermoplastic insulation and tinned copper shielded braid overall.

DABURN Cat. No.	Size AWG	MIL-W-76B Type Designation	Strand	Nom. Wall	Nom. O.D.
2592/24	24	MW-C24(7)S	7/32	.015"	.074"
2593	24	MW-C24(16)S	16/36	.015"	.075"
2592/22	22	MW-C22(7)S	7/30	.017"	.084"
2592/20	20	MW-C20(10)S	10/30	.017"	.094"

STOCK COLORS: (Underneath Shield) Black, White, Red, Yellow, Brown, Green, Blue, Gray, Nos. 2592/14 and /12, available from stock in Black, White or Red.
STANDARD PUT-UP: 100 Ft., 500 Ft., 1000 Ft.

Also multiconductors can be formed to order twisted shielded, with or without plastic Jacket overall.

SHIELDED PLASTIC HOOK-UP WIRE**TYPE MW — SHIELDED — NYLON JACKET**
SPEC. MIL-W-76B

DESCRIPTION: One conductor stranded tinned copper, white medium wall polyvinyl chloride insulation, shielded tinned copper braid, minimum 80% coverage, clear nylon (polyimide) jacket overall. Resistant to acids, alkalis, oil, flame, moisture, fungus.

TEMPERATURE RATING: — -40°C to +90°C.

DABURN Cat. No.	Size AWG	MIL-W-76A Type Designation	Min. Strand	Nom. Wall	Nom. O.D.
2595/24	24	MW-C24(7)SJ	7/32	.015"	.091"
2595/22	22	MW-C22(7)SJ	7/30	.017"	.100"
2595/20	20	MW-C20(7)SJ	7/28	.017"	.105"
2595/18	18	MW-C18(19)SJ	19/30	.017"	.115"
2595/16	16	MW-C16(19)SJ	19/29	.017"	.125"
2595/14	14	MW-C14(19)SJ	19/29	.017"	.138"
2595/12	12	MW-C12(19)SJ	19/25	.017"	.160"

Additional colors available to order.

STANDARD PUT-UP: 100 Ft., 500 Ft., 1000 Ft.

TYPE MW — SHIELDED — VINYL JACKET
SPEC. MIL-W-76B

DESCRIPTION: One conductor stranded tinned copper, white medium wall polyvinyl chloride insulation, shielded tinned copper braid, minimum 80% coverage, PVC (polyvinylchloride) jacket overall. Resistant to acids, alkalis, oil, flame, moisture, fungus.

TEMPERATURE RATING: — -40°C to +90°C.

DABURN Cat. No.	Size AWG	MIL-W-76A Type Designation	Min. Strand	Nom. Wall	Nom. O.D.
2597/24	24	MW-C24(7)SJ	7/32	.015"	.095"
2597/22	22	MW-C22(7)SJ	7/30	.017"	.105"
2597/20	20	MW-C20(7)SJ	7/28	.017"	.112"
2597/18	18	MW-C18(19)SJ	19/30	.017"	.120"
2597/16	16	MW-C16(19)SJ	19/29	.017"	.133"
2597/14	14	MW-C14(19)SJ	19/27	.017"	.148"
2597/12	12	MW-C12(19)SJ	19/25	.017"	.170"

Additional colors available to order.

STANDARD PUT-UP: 100 Ft., 500 Ft., 1000 Ft.

DABURN**DABURN ELECTRONICS & CABLE CORP.**

WIRE • CABLE • TUBING • MIL/COMM • SWITCHES • ELECTRONIC HARDWARE

SHIELDED PLASTIC HOOK-UP WIRE & CABLE
PER MIL-W-16878D**1000 VOLTS — TYPE C****SHIELDED WITH VINYL JACKET — SPEC. MIL-W-16878D****DESCRIPTION:** Stranded tinned copper, .016" wall white with polyvinylchloride insulation braided tinned copper shield with polyvinylchloride jacket overall. Resistant to acids, oils, alkalis, flame, fungus, solvents, moisture. Temp. rating —55°C to +105°C.

DABURN No.	Size AWG	Min. Strand	Nom. Wall	Nom. O.D.
2535/24	24	7/32	.016"	.094"
2535/22	22	7/30	.016"	.104"
2535/20	20	7/28	.016"	.112"
2535/18	18	7/26	.016"	.120"
2535/16	16	19/29	.016"	.133"
2535/14	14	19/27	.016"	.150"
2535/12	12	19/25	.016"	.165"

STD. PUT-UP: 1000 Ft.

MULTI-CONDUCTOR CABLE TYPE B
NYLON SHIELDED-PLASTIC JACKET**PER MIL-W-16878D — 600 V****DESCRIPTION:** One or more conductors stranded tinned copper, PVC insulation, color coded, clear nylon (polyamide) jacket, cable conductors, 90% coverage braided tinned copper, white polyvinylchloride jacket overall.
TEMPERATURE RATING: —55°C to +105°C. Voltage rating 600 volts. Resistant to acids, alkalis, flame, fungus, oil, moisture, solvents.

DABURN Cat. No.	No. of Cond.	Size	Strand	Nom. Wall	Nom. Nylon Wall	Nom. Overall Jkt.	Nom. O.D.
2540	1	26	7/34	.010"	.003"	.010"	.087"
2541	1	24	19/36	.010"	.003"	.010"	.092"
2541/2	2	24	19/36	.010"	.003"	.016"	.152"
2541/3	3	24	19/36	.010"	.003"	.016"	.161"
2541/4	4	24	19/36	.010"	.003"	.017"	.162"
2542	1	22	19/34	.010"	.003"	.010"	.100"
2542/2	2	22	19/34	.010"	.003"	.016"	.168"
2542/3	3	22	19/34	.010"	.003"	.017"	.178"
2542/4	4	22	19/34	.010"	.003"	.019"	.174"
2543	1	20	19/32	.010"	.003"	.010"	.106"
2543/2	2	20	19/32	.010"	.003"	.019"	.186"
2543/3	3	20	19/32	.010"	.003"	.019"	.196"
2543/4	4	20	19/32	.010"	.003"	.021"	.193"
2544	1	18	19/30	.010"	.003"	.012"	.120"
2544/2	2	18	19/30	.010"	.003"	.021"	.210"
2544/3	3	18	19/30	.010"	.003"	.022"	.227"
2545	1	16	19/29	.010"	.003"	.016"	.137"
2545/2	2	16	19/29	.010"	.003"	.023"	.236"
2545/3	3	16	19/29	.010"	.003"	.023"	.240"

STD. PUT-UP: 500 Ft., 1000 Ft. **CONDUCTOR COLOR CODE:** 1-White, 2-Black, 3-Red, 4-Green. Additional sizes, conductors - variations - available to order.**1000 VOLTS — TYPE C — SHIELDED****SPEC. MIL-W-16878D****DESCRIPTION:** Stranded tinned copper, .016" wall white polyvinylchloride insulation, braided tinned copper shield overall temp. rating —55°C to +105°C 1000 volts.

DABURN No.	Size AWG	Min. Strand	Nom. Wall	Nom. O.D.
2530/24	24	7/32	.016"	.075"
2530/22	22	7/30	.016"	.085"
2530/20	20	7/28	.016"	.095"
2530/18	18	7/26	.016"	.105"
2530/16	16	19/26	.016"	.115"
2530/14	14	19/27	.016"	.140"
2530/12	12	19/25	.016"	.152"

STD. PUT-UP: 1000 Ft.

1000 VOLTS — TYPE C
SHIELDED NYLON JACKET**SPEC. MIL-W-16878D****DESCRIPTION:** Stranded tinned copper, .016" wall polyvinylchloride insulation, braided tinned copper shield, 90% coverage, clear nylon (polyamide) jacket overall. Nylon nominal jacket thickness .005".
TEMPERATURE RATING: —55°C to +115°C.

DABURN No.	Size AWG	Min. Strand	Nom. Wall	Nom. O.D.
2533/24	24	7/32	.016"	.090"
2533/22	22	7/30	.016"	.096"
2533/20	20	7/28	.016"	.105"
2533/18	18	7/26	.016"	.115"
2533/16	16	19/26	.016"	.125"
2533/14	14	19/27	.016"	.145"
2533/12	12	19/25	.016"	.157"

STD. PUT-UP: 1000 Ft.

AIRCRAFT PLASTIC HOOK-UP WIRE**NYLON JACKET****SPECIFICATIONS MIL-W-5086A and MIL-C-7078A (105°C Rating)****DESCRIPTION:** Type 1 MIL-W-5086A — one conductor stranded tinned copper with plastic insulation nylon jacket overall. Type 2 MIL-W-5086A — one conductor stranded tinned copper, plastic insulation, nylon lacquered glass braid. Color: White. Additional colors available to order.**MIL-W-5086A UNSHIELDED (Supersedes) AN-J-C-48A) — 600 V RATING**

DABURN Cat. No.	Mil. Type	Type	Cond. Strand.	Nom. O.D.
2601/22	AN-22	No. 1	19/34	.070"
2601/20	AN-20	No. 1	19/32	.080"
2601/18	AN-18	No. 1	19/30	.090"
2601/16	AN-16	No. 1	19/29	.125"
2601/14	AN-14	No. 1	19/27	.125"
2601/12	AN-12	No. 1	19/25	.140"
2602/22	AN-22	No. 2	19/34	.068"
2602/20	AN-20	No. 2	19/32	.078"
2602/18	AN-18	No. 2	19/30	.088"
2602/16	AN-16	No. 2	19/29	.098"

STANDARD PUT-UP: 100 Ft., 1000 Ft.

MIL-C-7078A SHIELDED (Supersedes AN-C-168) 600 V RATING**DESCRIPTION:** One conductor stranded tinned copper with plastic insulation, nylon jacket with tinned copper shielded braid overall. Color: White under shield. Additional types to order.

DABURN Cat. No.	Size AWG	Mil. Type	Type	Cond. Strand.	Nom. O.D.
2605/22	22	AN-22	No. 1	19/34	.100"
2605/20	20	AN-20	No. 1	19/32	.110"
2605/18	18	AN-18	No. 1	19/30	.124"

STANDARD PUT-UP: 100 Ft., 1000 Ft.

ALL WIRE ON THIS PAGE CAN BE CUT AND STRIPPED TO YOUR SPECIFICATION.

DABURN Cat. No.	Mil. Type	Type	Cond. Strand.	Nom. O.D.
2602/14	AN-14	No. 2	19/27	.117"
2602/12	AN-12	No. 2	19/25	.137"
2602/10	AN-10	No. 2	49/27	.189"
2602/8	AN-8	No. 2	133/29	.240"
2602/6	AN-6	No. 2	133/27	.297"
2602/4	AN-4	No. 2	133/25	.355"
2602/2	AN-2	No. 2	665/30	.412"
2602/0	AN-0	No. 2	1045/30	.518"
2602/00	AN-00	No. 2	1330/30	.588"

DABURN Cat. No.	Size AWG	Mil. Type	Type	Cond. Strand.	Nom. O.D.
2605/16	16	AN-16	No. 1	19/29	.139"
2605/14	14	AN-14	No. 1	19/27	.158"
2605/12	12	AN-12	No. 1	19/25	.177"

DABURN**DABURN ELECTRONICS & CABLE CORP.**

WIRE • CABLE • TUBING • MIL/COMM • SWITCHES • ELECTRONIC HARDWARE

MINIATURIZATION HOOK-UP WIRE AND CABLE**UNSHIELDED — ONE CONDUCTOR 105°C**

Used as lead computers, transistor circuits, instruments — where fine sizes are required with high temperature conditions. One conductor stranded tinned copper, 105°C vinyl resin overall.

DABURN No.	Conductor	Size	Strand	Nom. Wall	Nom. O.D.
2670/32	1	32	7/40	.010"	.029"
2670/30	1	30	7/38	.010"	.030"
2670/28	1	28	7/36	.010"	.035"
2670/26	1	26	10/36	.010"	.038"
2670/24	1	24	16/36	.015"	.055"

STD. PUT-UP: 500 Ft., 1000 Ft.

STOCK COLORS: Black, Red, Green, Yellow, Blue, Brown, White, Orange and Purple.

DESCRIPTION

One conductor stranded tinned copper with 105°C high temperature thermoplastic insulation overall.

SHIELDED HOOK-UP WIRE**SUB-MINIATURE • SUPER FLEXIBLE**

One conductor stranded tinned copper, 105°C vinyl resin overall.

DABURN Conductor No.	Size	Strand	Nom. Wall	Nom. O.D.
2682	1 30	7/38	.010"	.052"
2684	1 28	7/36	.010"	.057"
2686	1 26	10/36	.010"	.060"
2688	1 24	16/36	.010"	.073"

STOCK COLOR: White (Under Shield).

STD. PUT-UP: 500 Ft., 1000 Ft.

DESCRIPTION

One conductor stranded tinned copper with 105°C high temperature thermoplastic insulation and tinned copper shielded braid overall.

MULTI CONDUCTOR CABLE
SUB-MINIATURE • NOT SHIELDED • FLEXIBLE
TINNED COPPER CONDUCTORS

Suggested Operating Temp.: -55°C to +105°C

TWISTED — NO OUTER JACKET

DABURN No.	Cond.	Size	Strand	Wall Nom.	O.D. Nom.
2672	2	30	7/38	.010"	.058"
2672/3	3	30	7/38	.010"	.064"
2672/4	4	30	7/38	.010"	.072"

CONDUCTOR COLOR CODE: 1—Black, 2—White, 3—Red, 4—Green.

STD. PUT-UP: 500 Ft., 1000 Ft.

TWISTED — CLEAR VINYL JACKET OVERALL

DABURN No.	Cond.	Size	Strand	Wall Nom.	O.D. Nom.
2674	2	28	7/36	.010"	.079"
2674/3	3	28	7/36	.010"	.086"
2674/4	4	28	7/36	.010"	.095"

CONDUCTOR COLOR CODE: 1—Black, 2—White, 3—Red, 4—Green.

STD. PUT-UP: 500 Ft., 1000 Ft.

SHIELDED MULTI-CONDUCTOR CABLE
SUB-MINIATURE • SUPER FLEXIBLE
TINNED COPPER CONDUCTORS

Suggested Operating Temp.: -55°C to +105°C

TWISTED — SHIELDED — NO OUTER JACKET

DABURN No.	Cond.	Size	Strand	Nom. Wall	Nom. O.D.
2676	2	24	16/36	.015"	.114"
2676/3	3	24	16/36	.015"	.123"
2676/4	4	24	16/36	.015"	.144"

CONDUCTOR COLOR CODE: 1—Black, 2—White, 3—Red, 4—Green.

STD. PUT-UP: 500 Ft., 1000 Ft.

TWISTED — SHIELDED — CLEAR VINYL JACKET OVERALL

DABURN No.	Cond.	Size	Strand	Wall Nom.	O.D. Nom.
2678	2	28	7/36	.010"	.105"
2678/3	3	28	7/36	.010"	.115"
2678/4	4	28	7/36	.010"	.120"

CONDUCTOR COLOR CODE: 1—Black, 2—White, 3—Red, 4—Green.

STD. PUT-UP: 500 Ft., 1000 Ft.

Construction available to conform to MIL-W-16878D.

NOTE: Multi-conductors can be formed to order twisted, shielded with or without plastic jacket overall.

NEW FLAT RIBBON CABLE — MULTI-CONDUCTORS PER MIL-W-16878D
TYPES B AND C MADE TO ORDER
DABURN COAXIAL CABLES
WITH HIGH TEMPERATURE TEFLON® CORE DIELECTRIC
MEETS MIL-C-17C

These Teflon® Core Dielectric Co-Axial Cables combine both miniaturization and hi-temperature qualities. The Teflon Jackets are weatherproof, resistant to fuels and are extremely flexible.

DABURN No.	Military Number R6/U Type	Ohms	Jkt. Mtl.	Cap. MMFT/Ft.	Dielectric Material	Inner Conductor	Shield	O.D. Inches	Max. Oper. Volts RMS	Nom. Atten. DB/100Ft. 400 Mc	R6/U Type
D187A/U	187A/U	75	Teflon	19.5	Teflon	7/38 Silvered Copperweld	Silver Covered Copper	.110	1200	16.0	187A/U
D188/U	188/U	50	TFE Teflon	29.0	Teflon	7/.0067 Silvered Copperweld	Silver Covered Copper	.110	1200	16.7	188/U
D188A/U	188A/U	50	TFE Teflon	29.0	Teflon	7/.0067 Silvered Copperweld	Silver Covered Copper	.110	1200	16.7	188A/U
D195/U	195/U	95	TFE Teflon	15.0	Teflon	7/38 Silvered Copperweld	Silver Covered Copper	.155	1500	11.0	195/U
D195A/U	195A/U	95	TFE Teflon	15.0	Teflon	7/38 Silvered Copperweld	Silver Covered Copper	.155	1500	11.0	195A/U
D196/U	196/U	50	TFE Teflon	28.5	Teflon	7/38 Silvered Copperweld	Silver Covered Copper	.080	1000	28.0	196/U
D196A/U	196A/U	50	TFE Teflon	28.5	Teflon	7/38 Silvered Copperweld	Silver Covered Copper	.080	1000	28.0	196A/U

STANDARD PUT-UP: 500 Ft., 1000 Ft.

*TEFLON—DUPONT

DABURN**DABURN ELECTRONICS & CABLE CORP.**

WIRE • CABLE • TUBING • MIL/COMM • SWITCHES • ELECTRONIC HARDWARE

**AUDIO CABLE — SHIELDED
2 CONDUCTOR SHIELDED****NO OUTER JACKET**

Each conductor copper tinned, plastic insulation, color coded, twisted, tinned copper shield.
Suitable for sound systems, industrial paging systems, broadcast-audio cable, rack panel wiring, etc.
OPERATING TEMPERATURE: -20°C to +60°C.



DABURN Cat. No.	Conds.	Size AWG.	Strand	Nom. Wall	Nom. O.D.	Nom. Operating Voltage
2902/30	2	30	7/38	.010"	.085"	200V
2902/28	2	28	7/36	.010"	.090"	200V
2902/26	2	26	7/34	.010"	.095"	200V
2902/24	2	24	16/36	.017"	.120"	350V
2902/22	2	22	7/30	.017"	.140"	350V
2902/20	2	20	10/30	.017"	.155"	350V
2902/18	2	18	16/30	.017"	.170"	350V
2902/16	2	16	26/30	.020"	.210"	450V
2902/14	2	14	41/30	.020"	.225"	450V
2902/12	2	12	65/30	.025"	.295"	600V
2902/10	2	10	105/30	.025"	.375"	600V

STD. PUT-UP: 100 Ft., 250 Ft., 500 Ft., 1000 Ft.
CONDUCTOR COLOR CODE: 1—Black, 2—Red.

**INTERCOM CABLE
INDIVIDUALLY SHIELDED MULTIPLE PAIR**

This construction reduces the bulk in required cables. Multipaired #22 solid tinned copper, vinyl insulated .013" cable in pairs. Aluminum foil mylar shield over each pair and ground, overall gray vinyl jacket. Nom. Cap. between Conds. 40 MMF/Ft. Nom. Cap. between 1 Cond. and others connected to shield — 77 MMF/Ft.



DABURN Cat. No.	Pairs	Conds.	Nom. Jacket	Nom. O.D.
2930/3	3	6	.030"	.298"
2930/6	6	12	.037"	.394"
2930/9	9	18	.040"	.425"
2930/11	11	22	.040"	.485"
2930/15	15	30	.045"	.510"
2930/19	19	38	.055"	.678"
2930/27	27	54	.070"	.860"

STD. PUT-UP: 500 Ft. 1000 Ft. Variations Available to Order.

**ALUMINUM MYLAR FOIL SHIELD
PLASTIC JACKETED CABLE**

Extremely light in weight, provides 100% shield coverage — small diameters. Each cond. tinned copper, stranded color coded polyethylene insulation, twisted, drain wire, aluminum mylar foil shield, gray polyvinylchloride jacket overall. Drain wire provides quick and easy grounding.

OPERATING TEMPERATURE: -20°C to +60°C. OPERATING VOLTAGE: 400 Volts.

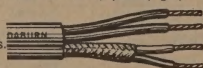
DABURN Cat. No.	Cond.	Size	Strand	Nom. Wall	Nom. Jacket	Nom. O.D.
2960	2	22	7/30	.015"	.020"	.160"
2960/3	3	22	7/30	.015"	.020"	.185"
2960/4	4	22	7/30	.015"	.020"	.205"
2961	2	20	10/30	.015"	.020"	.185"
2961/3	3	20	10/30	.015"	.020"	.205"
2961/4	4	20	10/30	.015"	.020"	.225"
2962	2	18	16/30	.017"	.020"	.220"
2962/3	3	18	16/30	.017"	.020"	.235"
2962/4	4	18	16/30	.017"	.020"	.255"
2963	2	16	26/30	.017"	.020"	.255"
2963/3	3	16	26/30	.017"	.020"	.275"
2964	2	14	41/30	.017"	.020"	.295"
2964/3	3	14	41/30	.017"	.020"	.305"

STD. PUT-UP: 500 Ft., 1000 Ft.
CONDUCTOR COLOR CODE: 1—Black, 2—Red, 3—White, 4—Green.

PLASTIC INTER-COM CABLE

Station to station wiring to eliminate cross-talk. Each conductor tinned copper stranded, color coded PVC, T.C. braid, shield where indicated, paired, gray polyvinylchloride jacket overall.

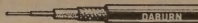
2935 — Suitable for unbalanced systems.
2935/4 — Suitable for balanced systems.
2935/5 — Suitable for coin operated phonographs.
OPERATING VOLTAGE: 350 Volts.
OPERATING TEMPERATURE: -20°C to +60°C.



DABURN Cat. No.	Cond.	Size	Strand	No. Cond. Shield	Nom. Wall	Nom. Jacket	O.D.
2935	3	22	7/30	1	.016"	.020"	.200"
2935/4	4	22	7/30	2	.016"	.020"	.180"x.285"
2935/5	5	22	7/30	3	.016"	.020"	.200"x.300"

CONDUCTOR COLOR CODE: 2935 — White — shielded; Black, Red — unshielded.
2935/4 — Black, White — shielded; Black, Red — unshielded.
2935/5 — Black, White, Red — shielded; Black, Red — unshielded.

STD. PUT-UP: 500 Ft., 1000 Ft.

**SHIELDED
PLASTIC MICROPHONE CABLE**

Will withstand abuse and is resistant to oil, moisture, aging. Have low capacitance, Hi insulation resistance and low attenuation. Will not strain or mark.

2772 — For hi impedance microphone
2773 — For crystal, ribbon, etc. Mikes all are suitable for hi-fi interconnecting cables.

2774 — For hi impedance lapel mikes.

OPERATING TEMPERATURE: -20°C to +60°C.

PLASTIC — ONE CONDUCTOR SHIELDED CABLE

DABURN Cat. No.	Cond.	Size	Strand	Nom. Cap./Ft.	Sug. Work Voltage	Nom. O.D.
2772	1	20	26/34	36 MMF	4000	.175"
2773	1	25	7/33*	34 MMF	3500	.144"
2774	1	25	7/33*	23 MMF	5000	.190"

* 3 strands tinned copper, 4 strands tinned copperweld.

**SPIRAL WRAPPED
SHIELDED MICROPHONE CABLE**

Uses tinned copper spiral shield — for ease in soldering — extremely flexible.

DABURN Cat. No.	Cond.	Size	Strand	Nom. Cap./Ft.	Sug. Work Voltage	Nom. O.D.
2770	1	25	7/33	23 MMF	3000	.159"
2771	1	25	7/33	33 MMF	1000	.110"

**MULTI-CONDUCTOR MICROPHONE
AND CONTROL CABLE****PLASTIC JACKET**

Each conductor tinned copper, polyethylene insulation — color coded., twisted, tinned copper braid shield, vinyl jacket overall.

OPERATING TEMPERATURE: -20°C to +60°C, 600 Volts.

DABURN Cat. No.	Cond.	Size	Strand	Nom. Wall	Nom. Jacket	Nom. O.D.
2782	2	22	16/34	31 MMF	1000	.231"
2782/20	2	20	26/34	45 MMF	600	.240"

DABURN Cat. No.	Cond.	Size	Strand	Nom. Wall	Nom. Jacket	Nom. O.D.
2783	3	20	26/34	.014"	.030"	.250"
2784	4	20	26/34	.014"	.035"	.260"
2785	5	20	26/34	.014"	.035"	.275"
2786	6	20	26/34	.014"	.035"	.300"
2786/8	8	20	26/34	.014"	.035"	.330"
2786/10	10	20	26/34	.014"	.035"	.375"

STD. PUT-UP: 100 Ft., 250 Ft., 500 Ft., 1000 Ft.

CONDUCTOR COLOR CODE: 1—White, 2—Black, 3—Red, 4—Green, 5—Yellow, 6—Blue, 7—Brown, 8—Orange, 9—Purple, 10—Slate.

**PLASTIC JACKETED AUDIO
AND MULTI-COND. CABLE****SPIRAL WRAPPED COPPER SHIELD**

Suitable for P.A. and sound systems, schools hospitals, institutions, recording studios, paging and call systems. Each conductor copper tinned, plastic insulation, color coded, twisted, spiral wrapped tinned, copper shield, gray plastic jacket.

Simplifies pigtailng. Provides almost 100% shielding coverage.

DABURN Cat. No.	Cond.	Size	Strand	Nom. Insul.	Nom. Jacket	Sug. Working Voltage	Nom. O.D.
2950	2	22	7/30	.017"	.020"	350V	.170"
2950/1	1	22	7/30	.017"	.020"	350V	.115"
2950/3	3	22	7/30	.017"	.020"	350V	.190"
2950/4	4	22	7/30	.017"	.020"	350V	.200"
2950/6	6	22	7/30	.017"	.020"	350V	.235"
2949	2	22	1	.017"	.020"	350V	.170"
2952	2	20	10/30	.017"	.020"	350V	.190"
2952/1	1	20	10/30	.017"	.020"	350V	.129"
2952/3	3	20	10/30	.017"	.020"	350V	.205"
2952/4	4	20	10/30	.017"	.020"	350V	.222"
2952/6	6	20	10/30	.017"	.020"	350V	.260"
2953	2	18	16/30	.017"	.020"	350V	.230"
2953/1	1	18	16/30	.017"	.020"	350V	.133"
2953/3	3	18	16/30	.017"	.020"	350V	.230"
2953/4	4	18	16/30	.017"	.020"	350V	.245"
2954	2	16	26/30	.017"	.020"	350V	.235"
2954/3	3	16	26/30	.017"	.020"	350V	.245"
2954/4	4	16	26/30	.017"	.020"	350V	.255"
2955	2	14	41/30	.020"	.025"	450V	.285"
2955/3	3	14	41/30	.020"	.025"	450V	.292"
2955/4	4	14	41/30	.020"	.025"	450V	.310"
2956	2	12	65/30	.020"	.025"	450V	.325"
2956/3	3	12	65/30	.020"	.025"	450V	.335"

STD. PUT-UP: 250 Ft., 500 Ft., 1000 Ft.

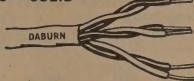
CONDUCTOR COLOR CODE: 1—Black, 2—Red, 3—White, 4—Green.

DABURN**DABURN ELECTRONICS & CABLE CORP.**

WIRE • CABLE • TUBING • MIL/COMM • SWITCHES • ELECTRONIC HARDWARE

PLASTIC INTERCOMMUNICATION CABLES
TWISTED PAIRS—SOLID

Each Cond. #22 Solid Tinned Copper, .010" wall (Operating Temp. -20°C to +60°C). Vinyl plastic insulation, conductors color coded, twisted pairs, cabled, gray vinyl jacket overall. Suitable for outdoor installations. Operating Voltage: 200 Volts.

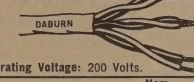


DABURN No.	Pairs	Cond.	Size	Nom. Jacket	Nom. O.D.
3000	1	2	22 Solid	.020"	.130"
3000/2	2	4	22 Solid	.020"	.205"
3000/3	3	6	22 Solid	.020"	.215"
3000/6	6	12	22 Solid	.020"	.275"
3000/9	9	18	22 Solid	.020"	.310"
3000/11	11	22	22 Solid	.020"	.340"
3000/13	13	26	22 Solid	.025"	.385"
3000/15	15	30	22 Solid	.025"	.390"
3000/16	16	32	22 Solid	.025"	.415"
3000/27	27	54	22 Solid	.035"	.505"
3000/31	31	62	22 Solid	.035"	.555"
3000/41	41	82	22 Solid	.035"	.630"
3000/51	51	102	22 Solid	.045"	.735"
3000/76	76	152	22 Solid	.070"	.970"
3000/101	101	202	22 Solid	.080"	1.140"

STD. PUT-UP: 100 Ft., 500 Ft., 1000 Ft. Other pairs available to order.

PLASTIC INTERCOMMUNICATION CABLES
TWISTED PAIRS—STRANDED

Each Cond. #22 7/30 Tinned Copper, .010" wall vinyl plastic insulation, conductors color coded, twisted pairs, cabled, gray vinyl jacket overall. Suitable for outdoor installations. Operating Temp. -20°C to +60°C. Operating Voltage: 200 Volts.

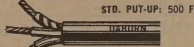


DABURN No.	Pairs	Cond.	Size	Strand	Nom. O.D.
3002	1	2	22	7/30	.145"
3002/2	2	4	22	7/30	.210"
3002/3	3	6	22	7/30	.225"
3002/4	4	8	22	7/30	.235"
3002/5	5	10	22	7/30	.245"
3002/6	6	12	22	7/30	.290"
3002/9	9	18	22	7/30	.350"
3002/15	15	30	22	7/30	.455"
3002/27	27	54	22	7/30	.570"

STD. PUT-UP: 100 Ft., 500 Ft., 1000 Ft. Other pairs available to order.

MULTI-CONDUCTOR—PLASTIC JACKET
UNSHIELDED AUDIO—FLEXIBLE

Each Cond. #22 7/30 Tinned Copper, stranded, .010" wall plastic insulation, color coded, twisted, gray vinyl jacket overall. Suitable for signal, P.A. systems, computer cable—for outdoor use. Operating Voltage: 200 Volts. OPERATING TEMPERATURES: -20°C to +60°C.



DABURN No.	Cond.	Size	Strand	Nom. Wall	Nom. Jacket	Nom. O.D.
3054/2	2	22	7/30	.010"	.020"	.140"
3054/3	3	22	7/30	.010"	.020"	.145"
3054/4	4	22	7/30	.010"	.020"	.170"
3054/5	5	22	7/30	.010"	.020"	.175"
3054/6	6	22	7/30	.010"	.020"	.185"
3054/7	7	22	7/30	.010"	.020"	.190"
3054/8	8	22	7/30	.010"	.020"	.200"
3054/9	9	22	7/30	.010"	.020"	.225"
3054/10	10	22	7/30	.010"	.020"	.235"
3054/12	12	22	7/30	.010"	.020"	.255"
3054/15	15	22	7/30	.010"	.020"	.280"
3054/20	20	22	7/30	.010"	.020"	.310"
3054/25	25	22	7/30	.010"	.020"	.340"
3054/30	30	22	7/30	.010"	.020"	.365"

CONDUCTOR COLOR CODE: 1—Black, 2—Red, 3—White, 4—Green, 5—Orange, 6—Blue, 7—Brown, 8—Yellow, 9—Violet, 10—Slate, 11—Pink, 12—Tan, 13—Red/Green, 14—Red/Yellow, 15—Red/Black.

STD. PUT-UP: From 2 thru 7 cond. 500 ft.; from 8 thru 30 cond. 250 ft.

SHIELDED CABLE
PLASTIC JACKETED BRAIDED COPPER SHIELD

Suitable for P.A. and sound systems, installation in schools, hospitals and institutions, transmitters, electronic circuits, etc. Construction allows ease of pigtail. Shield provides additional strength for cable. Each conductor tinned copper, PVC insulation, color coded, twisted, braided T-C shield, gray PVC jacket overall. Suitable for outdoor installations. OPERATING TEMPERATURE: -20°C to +60°C.



DABURN No.	Cond.	Size	Strand	Nom. Wall	Nom. Jacket	Nom. O.D.
2970	2	22	7/30	.017"	.020"	.175"
2970/3	3	22	7/30	.017"	.020"	.195"
2971	2	20	10/30	.017"	.020"	.195"
2971/3	3	20	10/30	.017"	.020"	.215"
2972	2	18	16/30	.017"	.020"	.235"
2972/3	3	18	16/30	.017"	.020"	.245"
2974	2	16	26/30	.017"	.020"	.255"
2975	2	14	41/30	.020"	.020"	.290"
2975/3	3	14	41/30	.020"	.020"	.295"
2976	2	12	65/30	.020"	.020"	.335"

CONDUCTOR COLOR CODE: 1—Black, 2—Red, 3—White.

STD. PUT-UP: 500 Ft., 1000 Ft.

UNSHIELDED AUDIO CABLE
SOLID AND STRANDED CONDUCTORS (2 & 3)

FOR INDOOR USE—NO OUTER JACKET
Tinned copper, vinyl plastic insulation, color coded, conductors twisted.



DABURN No.	Cond.	Size	Strand	Insul. Wall	Nom. O.D.
3004	2	22 Solid	1	.016"	.100"
3004/3	3	22 Solid	1	.016"	.115"
3005	2	20 Solid	1	.016"	.120"
3005/3	3	20 Solid	1	.016"	.140"
3006	2	18 Solid	1	.016"	.145"
3006/3	3	18 Solid	1	.016"	.155"
3007	2	16 Solid	1	.016"	.175"
3007/3	3	16 Solid	1	.016"	.190"
3011	2	22 Stranded	7/30	.016"	.125"
3011/3	3	22 Stranded	7/30	.016"	.140"
3012	2	20 Stranded	10/30	.016"	.145"
3012/3	3	20 Stranded	10/30	.016"	.160"
3013	2	18 Stranded	16/30	.016"	.165"
3013/3	3	18 Stranded	16/30	.016"	.180"
3014	2	16 Stranded	26/30	.016"	.190"
3014/3	3	16 Stranded	26/30	.016"	.210"
3015	2	14 Stranded	41/30	.016"	.220"
3015/3	3	14 Stranded	41/30	.016"	.240"
3016	2	12 Stranded	65/30	.016"	.250"
3016/3	3	12 Stranded	65/30	.016"	.275"

CONDUCTOR COLOR CODE: 1—Brown, 2—Tan, 3—Gray.
STD. PUT-UP: 1000 Ft.

PLASTIC JACKET OVERALL
FOR OUTDOOR USE

Tinned copper, vinyl plastic insulation, color coded, twisted, plastic jacket overall. Operating Temp.: -20°C to +60°C. Operating Voltage: 350 Volts.



DABURN No.	Cond.	Size	Strand	Nom. Wall	Jacket	Nom. O.D.
3020	2	22	1	.010"	.020"	.125"
3020/3	3	22	1	.010"	.020"	.130"
3020/4	4	22	1	.010"	.020"	.150"
3021	2	20	1	.016"	.020"	.170"
3021/3	3	20	1	.016"	.020"	.180"
3021/4	4	20	1	.016"	.020"	.200"
3022	2	18	1	.016"	.020"	.185"
3022/3	3	18	1	.016"	.020"	.190"
3022/4	4	18	1	.016"	.020"	.220"
3022/5	5	18	1	.016"	.020"	.235"
3022/6	6	18	1	.016"	.020"	.265"
3027	2	22	7/30	.010"	.020"	.130"
3027/3	3	22	7/30	.010"	.020"	.140"
3027/4	4	22	7/30	.010"	.020"	.165"
3028	2	20	10/30	.016"	.020"	.175"
3028/3	3	20	10/30	.016"	.020"	.185"
3028/4	4	20	10/30	.016"	.020"	.195"
3029	2	18	16/30	.016"	.020"	.195"
3029/3	3	18	16/30	.016"	.020"	.205"
3029/4	4	18	16/30	.016"	.020"	.235"
3030	2	16	26/30	.016"	.020"	.220"
3030/3	3	16	26/30	.016"	.020"	.245"
3030/4	4	16	26/30	.016"	.020"	.270"
3031	2	14	41/30	.016"	.020"	.260"
3031/3	3	14	41/30	.016"	.020"	.280"

STD. PUT-UP: 1000 Ft.

CONDUCTOR COLOR CODE: 1—Black, 2—Red, 3—White, 4—Green, 5—Orange, 6—Blue.

SHIELDED ULTRA LOW CAPACITY MICROPHONE CABLE
Plastic Jacket—Cellular Foam Polyethylene Insulation
BRAIDED SHIELD

DESCRIPTION: Constructed with white foam polyethylene insulation, braided tinned copper shield, chrome gray vinyl jacket. The low loss foam polyethylene construction has lower capacitance and attenuation than standard polyethylene mike cables as much as 50%. This increases the effective length of cable as much as 50% without signal loss.



OPERATING TEMPERATURE: -20°C to +60°C.

DABURN Cat. No.	Cond.	Size	Strand	Nom. Cap./ft.	Nom. Jacket	Nom. O.D.
2790	1	26	7/34*	30MMF	.020"	.114"
2791	1	24	10/34	20MMF*	.030"	.180"
2792	1	24	10/34	15MMF	.030"	.220"
2793	2	22	16/34	11MMF	.030"	.295"

STD. PUT-UP: 100 Ft., 250 Ft., 500 Ft., 1000 Ft.

CONDUCTOR COLOR CODE: 1—White, 2—Black.

*3 strands tinned copper, 4 strands tinned copperweld.

DABURN**DABURN ELECTRONICS & CABLE CORP.**
WIRE • CABLE • TUBING • MIL/COMM • SWITCHES • ELECTRONIC HARDWARE

Long Lasting Service—useful wherever cords must change length or position. Extend to approximately six times its retracted length. Returns to its original shape or length when released. Eliminates tangling, twisting or knots. Cords are UL and CSA approved.

RETRACTILE COILED CORDS

POWER CORDS—RETRACTED LENGTHS: 1, 2, 3 & 4 FT. • EXTENDED LENGTHS: 6, 12, 18 & 25 FT.

UL APPROVED—NEOPRENE JACKETED CORD—CSA

Operating Temperature: -20°C to +60°C

4 Ft. Lgth.	3 Ft. Lgth.	2 Ft. Lgth.	1 Ft. Lgth.	No. Conds.	Size	Strand	*UL and CSA Type	Amps	Volt Rating	Coil Nom. O.D.	Cord Nom. O.D.
986-4	986-3	986-2	986-1	2	18	41/34	SVO	7	300	7/8"	.250"
986/3-4	986/3-3	986/3-2	986/3-1	3	18	41/34	SVO	7	300	1"	.275"
987-4	—	—	—	2	18	41/34	SVT	7	300	7/8"	.250"
989-4	989-3	989-2	989-1	2	18	41/34	SJO	7	300	1 1/4"	.310"
989/3-4	989/3-3	989/3-2	989/3-1	3	18	41/34	SJO	7	300	1 3/8"	.330"
989/4-4	989/4-3	989/4-2	989/4-1	4	18	41/34	SJO	5.6	300	1 1/4"	.360"
989/5-4	—	989/5-2	—	5	18	41/34	—	5.6	300	1 3/4"	.440"
989/7-4	—	989/7-2	—	7	18	41/34	—	5.6	300	1 7/8"	.500"
990-4	—	—	—	2	18	41/34	SJT	7	300	1 3/8"	.310"
991-4	991-3	991-2	991-1	2	16	65/34	SJO	10	300	1 3/8"	.330"
991/3-4	991/3-3	991/3-2	991/3-1	3	16	65/34	SJO	10	300	1 1/4"	.365"
991/4-4	—	991/4-2	—	4	16	65/34	SJO	8	300	1 3/8"	.395"
991/5-4	—	991/5-2	—	5	16	65/34	—	8	600	2"	.540"
991/6-4	—	991/6-2	—	6	16	65/34	—	8	600	2 1/4"	.550"
991/7-4	—	991/7-2	—	7	16	65/34	—	8	600	2 1/4"	.600"
993-4	—	993-2	—	2	14	41/30	SO	15	600	2"	.535"
993/3-4	—	993/3-2	—	3	14	41/30	SO	15	600	2 1/8"	.560"
993/4-4	—	993/4-2	—	4	14	41/30	SO	12	600	2 1/4"	.605"
994-4	—	994-2	—	2	12	65/30	SO	20	600	2 1/4"	.605"
994/3-4	—	994/3-2	—	3	12	65/30	SO	20	600	2 3/8"	.635"
994/4-4	—	994/4-2	—	4	12	65/30	SO	16	600	2 1/2"	.665"
994/6-4	—	994/6-2	—	6	4-18	#12-65/30 #18-41/34	—	#12-17 #18-6	600	2 1/4"	.605"
994/7-4	—	994/7-2	—	7	12	65/30	—	16	600	2 5/8"	.775"

* Wherever UL type is shown, approved by CSA Testing Laboratories.

† Preferred Put-up.

Std. Pkg. 5

CONDUCTOR COLOR CODE: 1-Black, 2-White, 3-Green, 4-Red, 5-Blue
6-Brown, 7-Yellow.

**DABURN MINIATURE
RETRACTILE
COMMUNICATION CORDS**

2 Feet Retracted—10 Ft. Extended

Miniature size. Suitable for compact equipment. Black plastic jacket overall.
Operating Temperature: -20°C to +60°C

DABURN No.	Conds.	Size	Strand	Coil O.D.	Cord O.D.
975/28	2	28-19/40 T.C.	1/2"	.135"	
977/28	4	28-19/40 T.C.	1/2"	.150"	

**RETRACTILE
TEST LEAD
WIRE**

Stretch coiled kinkless test lead wire description. 12" coil stretches to approx. 6 feet. One conductor #20 stranded copper rubber insulation .165 O.D. Colors: Red, Black. Coil O.D. 3/4". Working Voltage: 1000V, 4 Amps.

DABURN No.	Lgth.	Size	Strand	Coil O.D.	Cord O.D.
984A	12"	20	41/36	3/4"	.155"
984	24"	20	41/36	3/4"	.165"

12" Extends Approx. 6 Ft.
24" Extends Approx. 12 Ft.

Specify Color, Red or Black
Std. Pkg. 6

UL APPROVED RETRACTILE POWER CORD SETS

18" Retracted—Approx. 9 Ft. Extended—300V—UL Approved

For portable use. Mobile and office equipment. Neoprene jacketed cord sets with molded male plug on one end.
OPERATING VOLTAGE 300 VOLTS

DABURN Cat. No.	Conds.	AWG Size	Strand	Type	Coil O.D.	Cord O.D.
980	2	18	41/34	SVO	7/8"	.250"
980/3	3	18	41/34	SVO	1"	.275"
981	2	18	41/34	SJO	1 1/4"	.310"
981/3	3	18	41/34	SJO	1 3/8"	.330"
982	2	16	65/34	SJO	1 3/8"	.330"
982/3	3	16	65/34	SJO	1 7/8"	.365"

CONDUCTOR COLOR CODE: 1-Black, 2-White, 3-Green.

Std. Pkg. 10

RETRACTILE COMMUNICATION COIL CORDS

RETRACTED LENGTHS 2, 3 & 4 FT.—EXTENDED LENGTHS 12, 18 & 25 FT.

Multi-conductors stranded extra flexible #23 AWG 21/36 tinned soft copper for long flex life. Neoprene or "Danyon" plastic jacketed cable for long life. 120 volt working, current carrying capacity 1 ampere. Nom. cond. resist. .022 ohms per linear foot, .135 ohms per retracted foot.

For communication equip. such as ham operators, telephone car carriers, radio equip., head sets, etc.

SPECIAL CONSTRUCTION AVAILABLE TO ORDER

DABURN CAT. NOS.	4 Ft.*	3 Ft.	2 Ft.	No. Conds.	Size	Strand	Coil O.D.	Nom. Cord O.D.
975-4	975-3	975-2	2	23	21/36	3/4"	.200"	
976-4	976-3	976-2	3	23	21/36	1 1/4"	.210"	
977-4	977-3	977-2	4	23	21/36	7/8"	.240"	
978-4	978-3	978-2	5	23	21/36	1"	.285"	
978/6-4	978/6-3	978/6-2	6	23	21/36	1 1/4"	.305"	
978/7-4	978/7-3	978/7-2	7	23	21/36	1 1/2"	.320"	

CONDUCTOR COLOR CODING: 1-Black, 2-White, 3-Red, 4-Green, 5-Blue, 6-Yellow, 7-Brown, 8-Orange, 9-White/Black Tracer, 10-White/Red Tracer, 11-White/Green Tracer, 12-White/Blue Tracer, 13-White/Yellow Tracer, 14-White/Brown Tracer, 15-White/Orange Tracer.

*Preferred Put-up.

SHIELDED RETRACTILE COMMUNICATION CORDS

RETRACTED LENGTHS 1, 2 & 4 FT.—EXTENDED LENGTHS 6, 12 & 25 FT.

Single and multi-cond. Shielded mike cables Neoprene or "Danyon" plastic jacketed shielded conductors are individually shielded. Shield can be pre-plated for soldering. Safe—Reliable.

OPERATING TEMPERATURE: -20°C to +60°C

DABURN CAT. NOS.	4 Ft. Lgth.	3 Ft. Lgth.	2 Ft. Lgth.	No. Conds.	Size	Strand	Nom. Coil O.D.	Nom. Cord O.D.	Volt Rating	CAPACITANCE MMF Lin. Ft.	MMF Retr. Ft.
995-4†	995-2	995-1	1	24	Shielded	41/40	5/8"	.160"	75	56	440
996-4	996-2	996-1	2	1-23 1-24	Shielded	21/36 41/40	7/8"	.210"	#23-120 #24-75	56	450
997-4	997-2	997-1	3	1-24 1-24	Shielded	21/36 41/40	7/8"	.240"	#23-120 #24-75	56	450
998-4	998-2	998-1	4	2-23 2-24	Shielded	21/36 41/40	1"	.270"	#23-120 #24-75	56	460

† Preferred Put-up

Conductors are Color Coded.

Std. Pkg. 10

DABURN**DABURN ELECTRONICS & CABLE CORP.**

WIRE • CABLE • TUBING • MIL/COMM • SWITCHES • ELECTRONIC HARDWARE

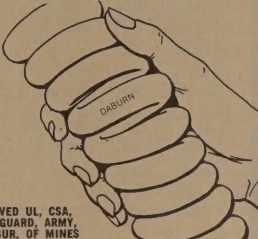
RETRACTILE SUPA HEAVY DUTY POWER CORDS

with a
GUARANTEED 4 YEAR RETRACTABILITY

48" RETRACTED, APPROX.
25 FEET EXTENDED NEOPRENE
JACKET



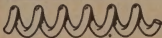
APPROVED UL, CSA,
COAST GUARD, ARMY,
NAVY, BUR. OF MINES



SUGGESTED OPERATING TEMPERATURE: -20°C to +60°C.

Suitable for maintenance of industrial automation equip., refrigerated trucks, mass production, cherry pickers, magnetic cranes, standby power distribution. Wherever a tougher requirement is indicated. Std. Pkg. 6 Retracted length 48" — extends to 25 ft.

DABURN Cat. No.	No. Cond.	Size	Stranding	Nom. Jacket Thickness	Nom. Cord O.D.
960	3	16	65/34	7/64"	.505"
960/4	4	16	65/34	7/64"	.535"
961	3	14	41/30	7/64"	.620"
961/4	4	14	41/30	7/64"	.660"
962	3	12	65/30	8/64"	.715"
962/4	4	12	65/30	8/64"	.770"



RETRACTILE COMMUNICATION CORD PREPARED

Retracted length 12" — extended length 6 feet.

Same as our regular communication cord but each end is prepared as specified.

Daburn No.	Size & Strand	Coil O.D.	Cord O.D.	PREPARED
966	3 #23-21/36	13/16"	.220"	1 END: L'gth 1 1/2". Conductor stripped and tinned. Other end: Total L'gth 1 1/2". Jacket removed.
967	4 #23-21/36	15/16"	.250"	1 END: Total length 1". Conductors stripped and tinned. Other end: Total length 1 1/2". Jacket removed.
968	5 #23-21/36	1-1/16"	.285"	1 END: Total length 1 1/2". Conductors stripped and tinned. Other end: Total length 1 1/2". Conds. stripped and tinned.

Std. Pkg. 10



HI-FI STEREO

Interconnecting Cable — Phono Wire

Extremely flexible. Designed for low hum and noise pickup. Special PVC formulation -40°C to +80°C operation.

TWISTED — UNSHIELDED

DABURN No.	Cond.	Size	Strand	Nom. Wall	Nom. O.D.
2742	2	32	7/40	.010"	.047"
2743	3	32	7/40	.010"	.053"
2744	4	32	7/40	.010"	.061"

TWISTED — SHIELDED

DABURN No.	Cond.	Size	Strand	Nom. Wall	Nom. O.D.
2746	2	32	7/40	.010"	.067"
2747	3	32	7/40	.010"	.072"
2748	4	32	7/40	.010"	.080"
2751	2	32	7/40	.010"	.080"

STD. PUT-UP: 500 FT., 1000 FT.

#2751 Individually Shielded.

CONDUCTOR COLOR CODE: 1-White, 2-Red, 3-Black, 4-Green.

RUBBER, NEOPRENE & PLASTIC PORTABLE CORD

UL APPROVED — 300 AND 600 VOLT

For power line requirement where rough usage is indicated as for amplifiers, sound systems, speakers, vacuum cleaners, washing machines, trouble lights, refrigerators, etc. Color coded. Underwriters approved. Neoprene and plastic construction recommended for equipment exposed to oil, acids, outdoor use, direct burial, etc.

SUGGESTED OPERATING TEMPERATURE: -20°C to +60°C.

Each conductor, copper conductor, paper separator, col'r coded, rubber insulation, filler (where necessary) separator, tough rubber or neoprene jacket, black.



UL Type	Volt Rating
SV, SVO, SVTO	300V
SJ, SJO, SJTO	300V
S, SO, STO	600V

RUBBER Daburn No.	UL Type	NEOPRENE Daburn No.	UL Type	PLASTIC Daburn No.	UL Type	Conds.	Size	Amp. Rating	Nom. O.D.
2860	SV	2890	SVO	2870	SVTO	2	18	7	.250"
2860/3	SV	2890/3	SVO	2870/3	SVTO	3	18	7	.265"
2861	SJ	2891	SJO	2871	SJTO	2	18	7	.300"
2861/3	SJ	2891/3	SJO	2871/3	SJTO	3	18	7	.330"
2861/4	SJ	2891/4	SJO	2871/4	SJTO	4	18	6	.360"
2862	SJ	2892	SJO	2872	SJTO	2	16	10	.325"
2862/3	SJ	2892/3	SJO	2872/3	SJTO	3	16	10	.365"
2862/4	SJ	2892/4	SJO	2872/4	SJTO	4	16	8	.395"
2863	S	2893	SO	2873	STO	2	18	7	.390"
2863/3	S	2893/3	SO	2873/3	STO	3	18	7	.405"
2863/4	S	2893/4	SO	2873/4	STO	4	18	6	.435"
2864	S	2894	SO	2874	STO	2	16	10	.410"
2864/3	S	2894/3	SO	2874/3	STO	3	16	10	.430"
2864/4	S	2894/4	SO	2874/4	STO	4	16	8	.485"
2865	S	2895	SO	2875	STO	2	14	15	.540"
2865/3	S	2895/3	SO	2875/3	STO	3	14	15	.560"
2865/4	S	2895/4	SO	2875/4	STO	4	14	12	.605"
2866	S	2896	SO	2876	STO	2	12	20	.600"
2866/3	S	2896/3	SO	2876/3	STO	3	12	20	.635"
2866/4	S	2896/4	SO	2876/4	STO	4	12	16	.665"
2867	S	2897	SO	2877	STO	2	10	25	.640"
2867/3	S	2897/3	SO	2877/3	STO	3	10	25	.690"
2867/4	S	2897/4	SO	2877/4	STO	4	10	20	.745"
2868	—	2898	—	—	—	2	8	35	.700"
2868/3	—	2898/3	—	—	—	3	8	35	.750"
2868/4	—	2898/4	—	—	—	4	8	28	.820"
2869	—	2899	—	—	—	2	6	45	.820"
2869/3	—	2899/3	—	—	—	3	6	45	.885"
2869/4	—	2899/4	—	—	—	4	6	36	.975"

Additional conductors and sizes available

† Not listed by UL.

CONDUCTOR COLOR CODE: 1-White, 2-Black, 3-Green, 4-Red.

STD. PUT-UP: 250 FT.

SPEC MIL-C-3432B SERVICE CORD



DABURN Cat. No.	MIL Type	Spec. Design.	Conds.	Size	Spec. No.	Nom. O.D.
2812	CO-02	MGF	2	18	MIL-C-3432B	.300"
2813	CO-02	HGF	2	18	MIL-C-3432B	.380"
2814	CO-02	LGF	2	18	MIL-C-3432B	.250"
2815	CO-02	HGF	2	16	MIL-C-3432B	.405"
2816	CO-02	MGF	2	16	MIL-C-3432B	.338"
2817	CO-02	MGF	2	14	MIL-C-3432B	.400"
2818	CO-02	HGF	2	14	MIL-C-3432B	.535"
2819	CO-03	MGF	3	18	MIL-C-3432B	.340"
2820	CO-03	MGF	3	16	MIL-C-3432B	.375"
2821	CO-03	HOE	3	12	MIL-C-3432B	.635"

Additional Numbers Available — Your Inquiries Invited

CONTROL CABLE (unshielded)

MULTI-CONDUCTOR RUBBER JACKETED —
GENERAL PURPOSE

SUGGESTED OPERATING TEMPERATURE: -20°C to +60°C.

Used for permanent or portable P.A. systems, sound recording, indoor or outdoor speaker, interconnecting cable for all electronic uses.

Each conductor, extra flexible stranded tinned copper, insulated with a .022" wall, standard low capacity rubber, color coded, conductors twisted, filler (where necessary), cotton wrap with tough weatherproof black rubber jacket overall.



DABURN Cat. No.	Cond.	Size	Strand	Nom. O.D.
2802	2	20	26/34	.240"
2803	3	20	26/34	.255"
2804	4	20	26/34	.275"
2805	5	20	26/34	.300"
2806	6	20	26/34	.315"
2807	7	20	26/34	.325"
2808	8	20	26/34	.360"
2808/10	10	20	26/34	.410"
2808/12	12	20	26/34	.435"

For longer lengths and alternate Put-Ups — Specify

STD. PUT-UP: 100 FT., 250 FT., 500 FT., 1000 FT.

CONDUCTOR COLOR CODE: 1-Black, 2-White, 3-Red, 4-Green, 5-Yellow, 6-Blue, 7-Brown, 8-Orange, 9-Purple, 10-Slate, 11-Wh/Blk (Braid), 12-Wh/Red (Braid).

DABURN**DABURN ELECTRONICS & CABLE CORP.**

WIRE • CABLE • TUBING • MIL/COMM • SWITCHES • ELECTRONIC HARDWARE

SERVICE CORD — HEAVY DUTY**UL APPROVED — CSA APPROVED**

Approved for replacement on machinery, tools, refrigerators, electronic devices.

DESCRIPTION: Two and three conductors, stranded bare copper, serve, rubber insulation, filler, wrap, tough black rubber jacket overall. Molded plug one end, free end stripped and tinned — Hanked.

**VOLTAGE RATING: 300V**

DABURN No.	Cord L'gth. Ft.	Cond.	Size	Strand	Type	Amp Rating	Cord O.D.
1980	8	2	16	65/34	SJ	10	.325"
1980/3	8	3	16	65/34	SJ	10	.355"
1982/3	8	3	18	41/34	SJ	7	.330"
1984	9	2	18	41/34	SV	7	.245"
1984/3	9	3	18	41/34	SV	7	.265"

Std. Pkg. 25

UL APPROVED — SERVICE LINE CORD

Use as an all purpose power supply cord for small appliances, lamps, radios, etc.

DESCRIPTION: Two conductors parallel SP-1 (POSJ) with molded-on male plug, double brass blades, conductor end stripped and tinned — Hanked. Available in black and brown.



DABURN No.	L'gth	Cond.	Size	Strand	Nom. O.D.	Std. Pkg.
1987	6	2	18	41/34	130" x .235"	50
1988	7½	2	18	41/34	130" x .235"	50

DESCRIPTION: Plain Enamel — Single conductor round bare copper covered with a continuous insulating film of enamel. 105°C, Type T per MIL-W-583B.

PLAIN ENAMEL (PE)

DABURN No.	Size	Nom. O.D.
DPE-10	10	.1037"
DPE-12	12	.0825"
DPE-14	14	.0657"
DPE-16	16	.0522"
DPE-18	18	.0416"
DPE-20	20	.0332"
DPE-22	22	.0266"
DPE-24	24	.0212"
DPE-26	26	.0169"
DPE-28	28	.0135"
DPE-30	30	.0108"
DPE-32	32	.0087"
DPE-34	34	.0069"
DPE-36	36	.0055"
DPE-38	38	.0044"
DPE-40	40	.0034"
DPE-42	42	.0028"
DPE-44	44	.0023"

DESCRIPTION: Heavy Formvar — Single conductor round baked copper, baked film insulation from varnish base on a vinyl acetate resin. 105°C, Type T2 per MIL-W-583B.

HEAVY FORMVAR (HF)

DABURN No.	Size	Nom. O.D.
DHF-10	10	.1056"
DHF-12	12	.0842"
DHF-14	14	.0673"
DHF-16	16	.0539"
DHF-18	18	.0432"
DHF-20	20	.0346"
DHF-22	22	.0277"
DHF-24	24	.0224"
DHF-26	26	.0180"
DHF-28	28	.0144"
DHF-30	30	.0116"
DHF-32	32	.0095"
DHF-34	34	.0075"
DHF-36	36	.0060"
DHF-38	38	.0049"
DHF-40	40	.0038"
DHF-42	42	.0032"
DHF-44	44	.0026"

DESCRIPTION: Single conductor soft drawn annealed copper tinned per Spec MIL-W-3861 Type S, QQ-W-343 Type S, ASTM-B-33.

TINNED COPPER (TC)

DABURN No.	Size	Nom. O.D.
DTC-10	10	.103"
DTC-12	12	.082"
DTC-14	14	.065"
DTC-16	16	.051"
DTC-18	18	.040"
DTC-20	20	.033"
DTC-22	22	.025"
DTC-24	24	.020"
DTC-26	26	.016"
DTC-28	28	.013"
DTC-30	30	.010"
DTC-32	32	.008"
DTC-34	34	.006"
DTC-36	36	.005"
DTC-38	38	.004"
DTC-40	40	.003"

STANDARD PUT-UP: ¼ lb., ½ lb., 1 lb., 5 lbs., 10 lbs. **SIZES:** 34, 36, Largest Put-up 5 lbs **SIZES:** 38, 40, 42, 44, Largest Put-up 1 lb.

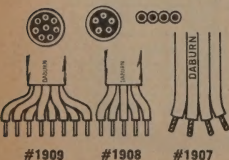
ANTENNA CONTROL ROTOR CABLE

USEFUL FOR TV ANTENNA ROTATORS, ETC.

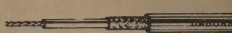
#1907 — 4 cond. flat parallel polyethylene plastic insulation — one outer conductor tinned, balance bare copper.

#1908 — 5 cond. twisted, color coded, vinyl plastic jacket overall.

#1909 — 8 cond. twisted, color coded vinyl plastic jacket overall.

**RG/U COAXIAL CABLE**

DESCRIPTION: One conductor, polyethylene insulation, copper braid shield, plastic jacket overall.

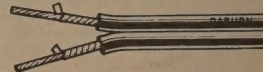


DABURN No.	Spool	Type	Nom. Imp.	Size	Nom. MMFD/ FT.	Strand	O.D.
1925	500'	RG-8/U	52	13	29.5	7/21 Bare	.405"
1926	500'	RG-9/U	51	13	30.0	7/21 S	.420"
1927	500'	RG-11/U	75	18	20.5	7/26 Tinned	.405"
1928	1000'	RG-58A/U	50	20	29.0	19/.0068 Tinned	.195"
1929	1000'	RG-58/U	53.5	20	28.5	Solid	.195"
1930	1000'	RG-59/U	73	22	21.0	Solid C.W.	.242"
1931	1000'	RG-62/U	93	22	13.5	Solid	.242"

Additional RG numbers available conforming to MIL-C-17B Specs.

LAMP CORD**TYPES SP-1 (POSJ-64) — TYPE SP-1 (POT) UL APPROVED**

An all purpose approved cord both SP-1 (rubber) and SPT-1 (Plastic) for lamps, radios and small instruments and appliances.



DABURN No.	Cond.	Size	Strand	Insul.	Type	UL Type	Nom. O.D.
1990	2	18	41/34	Rubber	SP-1	POSJ	.130" x .235"
1991	2	18	41/34	Plastic	SPT-1	POT	.130" x .225"
1993	2	18	41/34	Pl. Clear	SPT-1	POT	.115" x .215"
1994	2	16	65/34	Pl. Brown	SPT-2	POT	.160" x .300"

STD. PUT-UP: 100 Ft., 250 Ft., 500 Ft., 1000 Ft.

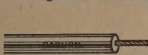
COLORS: (Rubber) Brown, Black, White. (Plastic) Brown, Black, Ivory.

DABURN**DABURN ELECTRONICS & CABLE CORP.**

WIRE • CABLE • TUBING • MIL/COMM • SWITCHES • ELECTRONIC HARDWARE

HI-VOLTAGE CABLE

One conductor, stranded copper tinned, rulan — flame retardant — polyethylene insulation, braided tinned copper overall when shielded. Used as hi-voltage leads in electronic equipment to minimize RF radiation in equipment.



DESCRIPTION: One conductor, stranded copper tinned, rulan (flame retarding type) polyethylene insulation. Available white/red tracer. Temp. Rating: 105°C.

Shielded: Same as above with tinned copper braided shield overall. Special construction available to order.

UNSHIELDED					
Daburn No.	AWG	Strand	Ins. Wall	Nom. Voltage Breakdown AC	Nom. O.D.
2641	22	7/30	.047"	5,000	10,000 .124"
2642	20	10/30	.047"	5,000	10,000 .125"
2643	20	10/30	.068"	10,000	20,000 .168"
2644	18	16/30	.047"	5,000	10,000 .134"
2645	18	16/30	.068"	10,000	20,000 .178"
2646	18	16/30	.095"	16,000	40,000 .235"
2649	18	16/30	.124"	26,000	60,000 .280"
SHIELDED					
2652	20	10/30	.095"	16,000	40,000 .252"
2655	18	16/30	.095"	16,000	40,000 .255"
2656	16	26/30	.095"	16,000	40,000 .276"

STD. PUT-UP: 100 Ft., 500 Ft., 1000 Ft.

SILICONE RUBBER LEAD WIRE
600 VOLT — 200°C

FLEXIBILITY FROM -104°C TO +400°F

Suitable for high-heat and hi-frequency applications. Resistant to acid, alkali, oil. Retains physical properties under extremes. Low power factor, low dielectric constant. Tinned copper, stranded, silicone rubber insulation, glass braid, lacquered. Color: White.



DESCRIPTION: One conductor, tinned copper strands, silicone rubber insulation, glass braid, lacquered.

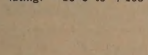
COLOR: White.

DABURN No.	Size	Strand	Nom. Ins. Wall	Nom. O.D.
2625/22	22	7/30	1/32"	.105"
2625/20	20	10/30	1/32"	.121"
2625/18	18	16/30	1/32"	.128"
2625/16	16	26/30	1/32"	.144"
2625/14	14	41/30	1/32"	.165"
2625/12	12	65/30	1/32"	.185"
2625/10	10	65/28	3/64"	.240"
2625/8	8	84/27	1/16"	.320"

STD. PUT-UP: 100 Ft., 500 Ft., 1000 Ft.

PLASTIC HOOK-UP WIRE**600 VOLT UL APPROVED — 105°C****(CSA 600V — 90°C)**

Resistant to acids, alkalis, oil, flame, fungus and moisture. Temperature Rating: -10°C to +105°C.



DESCRIPTION: One conductor, stranded annealed copper tinned, plastic insulation.

STRANDED				
DABURN No.	Size	Strand	Nom. Ins. Wall	Nom. O.D.
2630	22	7/30	.032"	.098"
2631	20	10/30	.032"	.104"
2632	18	16/30	.032"	.112"
2633	16	26/30	.032"	.126"
2633/14	14	41/30	.032"	.142"
SOLID				
2635/22	22	1	.032"	.095"
2635/20	20	1	.032"	.102"

COLORS: Black, Red, Green, Yellow, Blue, White, Orange, Gray, Purple.
STD. PUT-UP: 100 Ft., 500 Ft., 1000 Ft.

300 VOLT UL APPROVED — 80°C

DABURN No.	Size	Strand	Nom. Ins. Wall	Nom. O.D.
2628/22	22	7/30	.016"	.057"
2628/20	20	10/30	.016"	.065"
2628/18	18	16/30	.016"	.071"
2628/16	16	26/30	.016"	.080"

COLORS: Black, Red, Green, Yellow, Blue, Brown, White, Orange, Gray, Purple.
STD. PUT-UP: 100 Ft., 500 Ft., 1000 Ft.

NEW HI-VOLT CORONA RESISTANT TEFLON* CABLE

Voltage Rating at Sea Level • Voltage Rating at 80,000 feet, approximately 1/3 lower • Minimum life expectancy: 10,000 hours.

SMALL SIZE:

You do not need bulky, thick, insulation jacketing as used with silicone rubber and polyethylene insulations to get your hi-voltage requirements. Wire used is MIL-SPEC QQ-W-343 and MIL-W-16878D. Insulation used conforms and surpasses MIL-SPEC-W-16878D.

AVOID CORONA PROBLEMS:

Corona resistant Teflon construction is specifically designed to retard and prevent corona penetration. Temperature variations from -60° to +300°C have no life effect on the corona resistant Teflon. In addition, there is no stress or crack failure under severe, adverse conditions including mechanical strain, moisture, corona or chemical conditions.

PUT-UP: 250', 500', 1000'

DABURN No.	AWG Size	Strand	Voltage Rating AC	DC	Nom. O.D.
CRT-12-2	12	19/25	2500	10,000	.142"
CRT-12-2.5	12	19/25	3750	12,500	.152"
CRT-12-3	12	19/25	4500	15,000	.162"
CRT-12-3.5	12	19/25	5300	17,500	.172"
CRT-12-4	12	19/25	6000	20,000	.182"
CRT-12-5	12	19/25	7500	25,000	.202"
CRT-12-6.5	12	19/25	10,000	32,500	.232"
CRT-12-8	12	19/25	12,000	40,000	.262"
CRT-12-10	12	19/25	15,000	50,000	.302"
CRT-14-2	14	19/27	2500	10,000	.124"
CRT-14-2.5	14	19/27	3750	12,500	.134"
CRT-14-3	14	19/27	4500	15,000	.144"
CRT-14-3.5	14	19/27	5300	17,500	.154"
CRT-14-4	14	19/27	6000	20,000	.164"
CRT-14-5	14	19/27	7500	25,000	.184"
CRT-14-6.5	14	19/27	10,000	32,500	.214"
CRT-14-8	14	19/27	12,000	40,000	.244"
CRT-14-10	14	19/27	15,000	50,000	.284"
CRT-16-2	16	19/29	2500	10,000	.109"
CRT-16-2.5	16	19/29	3750	12,500	.119"
CRT-16-3	16	19/29	4500	15,000	.129"
CRT-16-3.5	16	19/29	5300	17,500	.139"
CRT-16-4	16	19/29	6000	20,000	.149"
CRT-16-5	16	19/29	7500	25,000	.169"
CRT-16-6.5	16	19/29	10,000	32,500	.199"
CRT-16-8	16	19/29	12,000	40,000	.229"
CRT-16-10	16	19/29	15,000	50,000	.269"
CRT-18-2	18	19/30	2500	10,000	.102"
CRT-18-2.5	18	19/30	3750	12,500	.112"
CRT-18-3	18	19/30	4500	15,000	.122"
CRT-18-3.5	18	19/30	5300	17,500	.132"
CRT-18-4	18	19/30	6000	20,000	.142"
CRT-18-5	18	19/30	7500	25,000	.162"
CRT-18-6.5	18	19/30	10,000	32,500	.192"
CRT-18-8	18	19/30	12,000	40,000	.222"
CRT-18-10	18	19/30	15,000	50,000	.272"
CRT-20-2	20	19/32	2500	10,000	.092"
CRT-20-2.5	20	19/32	3750	12,500	.102"
CRT-20-3	20	19/32	4500	15,000	.112"
CRT-20-3.5	20	19/32	5300	17,500	.122"

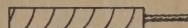
DESCRIPTION: Single Conductor, Stranded Silver Plated Copper, Corona Resistant Teflon* Insulation.

TEMPERATURE RATING: -90°C to +250°C.

VOLTAGE RATING: Based on insulation thickness.

AVAILABLE COLORS:

White, Black, Red, Green, Yellow, Lt. Blue, Brown, Orange, Gray, Violet. (Also available in tracer colors)



* DUPONT

DABURN No.	AWG Size	Strand	Voltage Rating AC	DC	Nom. O.D.
CRT-20-4	20	19/32	6000	20,000	.132"
CRT-20-5	20	19/32	7500	25,000	.152"
CRT-20-6.5	20	19/32	10,000	32,500	.192"
CRT-20-8	20	19/32	12,000	40,000	.212"
CRT-20-10	20	19/32	15,000	50,000	.252"
CRT-22-2	22	19/34	2500	10,000	.084"
CRT-22-2.5	22	19/34	3750	12,500	.094"
CRT-22-3	22	19/34	4500	15,000	.104"
CRT-22-3.5	22	19/34	5300	17,500	.114"
CRT-22-4	22	19/34	6000	20,000	.124"
CRT-22-5	22	19/34	7500	25,000	.144"
CRT-22-6.5	22	19/34	10,000	32,500	.174"
CRT-22-8	22	19/34	12,000	40,000	.204"
CRT-22-10	22	19/34	15,000	50,000	.244"
CRT-24-2	24	19/36	2500	10,000	.077"
CRT-24-2.5	24	19/36	2750	12,500	.087"
CRT-24-3	24	19/36	4500	15,000	.097"
CRT-24-3.5	24	19/36	5300	17,500	.107"
CRT-24-4	24	19/36	6000	20,000	.117"
CRT-24-5	24	19/36	7500	25,000	.137"
CRT-24-6.5	24	19/36	10,000	32,500	.167"
CRT-24-8	24	19/36	12,000	40,000	.197"
CRT-24-10	24	19/36	15,000	50,000	.237"
CRT-26-2	26	7/34	2500	10,000	.071"
CRT-26-2.5	26	7/34	3750	12,500	.081"
CRT-26-3	26	7/34	4500	15,000	.091"
CRT-26-3.5	26	7/34	5300	17,500	.101"
CRT-26-4	26	7/34	6000	20,000	.111"
CRT-26-5	26	7/34	7500	25,000	.131"
CRT-26-6.5	26	7/34	10,000	32,500	.161"
CRT-26-8	26	7/34	12,000	40,000	.191"
CRT-26-10	26	7/34	15,000	50,000	.231"
CRT-28-2	28	7/36	2500	10,000	.067"
CRT-28-2.5	28	7/36	3750	12,500	.077"
CRT-28-3	28	7/36	4500	15,000	.087"
CRT-28-3.5	28	7/36	5300	17,500	.097"
CRT-28-4	28	7/36	6000	20,000	.117"
CRT-28-5	28	7/36	7500	25,000	.127"
CRT-28-6.5	28	7/36	10,000	32,500	.157"
CRT-28-8	28	7/36	12,000	40,000	.187"
CRT-28-10	28	7/36	15,000	50,000	.227"

DABURN**DABURN ELECTRONICS & CABLE CORP.**

WIRE • CABLE • TUBING • MIL/COMM • SWITCHES • ELECTRONIC HARDWARE

TEST LEAD WIRE

Suitable as Test Lead Wire in analyzers, instruments, oscillators, meters, etc. Wherever extra flexibility and limpness is necessary. Single conductor, extra flexible stranded soft tinned copper, separator, wall color coded rubber, smooth wax finish.

OPERATING TEMPERATURE: -20°C to +60°C.

DABURN No.	Size	Strand	Insul. Wall Nom.	Nom. O.D.
2715	20	41/36	3/4"	.137"
2716	18	65/36	3/4"	.145"
*2718	18	65/36	3/4"	.145"

*Types WS-16/U Black, WS17/U Red Per MIL-W-13169.

STD. PUT-UP: 100 Ft., 500 Ft., 1000 Ft.

PLASTIC KINKLESS TEST LEAD WIRE

Soft formulation vinyl for maximum flexibility. Temperature stability from -80°C to +115°C. Exceed requirements for MIL-I-3930A Type JP (PVC).

Suitable for test leads, etc. Resistant to gasoline and oil. Excellent abrasion resistance.

DESCRIPTION: One conductor tinned copper stranded, special formulation vinyl insulation — smooth surface.

OPERATING TEMPERATURE: -80°C to +115°C.

COLORS: Black, Red, Yellow, Green, White, Blue.

DABURN No.	Size	Strand	Ins.	Nom. O.D.
2722/22	22	26/36	.032"	.100"
2722/20	20	26/34	.032"	.104"
2722/18	18	65/36	.032"	.112"
2722/16	16	65/34	.032"	.129"

STD. PUT-UP: 100 Ft., 500 Ft., 1000 Ft.

7MM HIGH TENSION CABLE

#2730 — unshielded one conductor, insulation, cotton braid highly lacquered.

#2731 — same construction as above plus a closely woven tinned copper shielded braid overall.

DABURN No.	Size	Strand	Insul.	Nom. O.D.
2730	16	19/29	3/32"	.275"
2731 (Shielded)	16	19/29	3/32"	.295"

STD. PUT-UP: 100 Ft., 500 Ft.

Suitable for auto and aircraft ignition systems where grounding is indicated.

HI VOLTAGE LACQUERED WIRE

Primary wire for autos, aircraft, hi-voltage instrument leads. Resistant to acid, grease, oil, gasoline, moisture.

DABURN No.	Size	Strand	Ins.	Nom. O.D.
2725/18	18	16/30	.022"	.115"
2725/16	16	19/29	.022"	.125"
2725/14	14	19/27	.022"	.146"
2725/12	12	19/25	.027"	.171"
2725/10	10	19/23	.031"	.202"

STD. PUT-UP: 100 Ft., 500 Ft., 1000 Ft.

TINNED COPPER SHIELDED PHONO WIRE

Suitable where small diameter, limpness and extreme flexibility is necessary as for phono pickups, stereo, etc.

OPERATING TEMPERATURE: -20°C to +60°C.

DABURN No.	Size	Strand	Overall Insul. Wall	Nom. O.D.
2737	24	16/36	.010"	.075"
2738	22	7/30	.010"	.080"

COTTON BRAID OVER SHIELD

DABURN No.	Size	Strand	Overall Insul. Wall	Nom. O.D.
2739	24	16/36	.010"	.095"

STD. PUT-UP: 100 Ft., 500 Ft.

SHIELDED HOOK-UP WIRE

One conductor, tinned copper stranded, polyvinylchloride insulation, lacquered glass braid, overall tinned copper shielded braid.

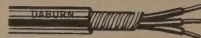
Operating Temp.: -20°C to +60°C.

DABURN No.	Size	Strand	Nom. Wall	Nom. O.D.
2727/22	22	7/30	.016"	.095"
2727/20	20	10/30	.016"	.105"
2727/18	18	16/30	.016"	.125"
2727/16	16	26/30	.016"	.135"
2727/14	14	41/30	.016"	.155"
2727/12	12	65/30	.016"	.175"
2727/10	10	105/30	.025"	.200"

STD. PUT-UP: 1000 Ft.

**NEW CONTROL CABLE
HEAVY DUTY MULTI-CONDUCTOR**

PORTABLE TYPE SO
NEOPRENE JACKETED — 600 VOLT



DESCRIPTION: Stranded bare copper each conductor, rubber insulation color coded, filler where necessary, wrap over conductors, flexible heavy duty black Neoprene jacket overall.

Recommended for outside installation, this heavy duty control cable resists oil, ozone, sunlight, moisture, impact and abrasion. Suitable for remote control automatic equipment, telemetering, signal transmission.

No. 18 AWG-SO CONTROL CABLE

DABURN Cat. No.	Cond.	Size AWG	Strand	Nom. O.D.
3300/5	5	18	16/30	.495"
3300/6	6	18	16/30	.525"
3300/7	7	18	16/30	.525"
3300/8	8	18	16/30	.565"
3300/10	10	18	16/30	.635"
3300/12	12	18	16/30	.665"
3300/14	14	18	16/30	.715"
3300/16	16	18	16/30	.745"
3300/18	18	18	16/30	.775"
3300/20	20	18	16/30	.815"
3300/22	22	18	16/30	.875"
3300/24	24	18	16/30	.895"
3300/26	26	18	16/30	.915"
3300/30	30	18	16/30	.945"
3300/36	36	18	16/30	1.060"
3300/40	40	18	16/30	1.085"

No. 16 AWG-SO CONTROL CABLE

DABURN Cat. No.	Cond.	Size AWG	Strand	Nom. O.D.
3305/5	5	16	26/30	.525"
3305/6	6	16	26/30	.560"
3305/7	7	16	26/30	.560"
3305/8	8	16	26/30	.605"
3305/10	10	16	26/30	.710"
3305/12	12	16	26/30	.745"
3305/14	14	16	26/30	.760"
3305/16	16	16	26/30	.800"
3305/18	18	16	26/30	.840"
3305/20	20	16	26/30	.890"
3305/22	22	16	26/30	.930"
3305/24	24	16	26/30	1.02"
3305/26	26	16	26/30	1.03"
3305/30	30	16	26/30	1.05"
3305/36	36	16	26/30	1.12"
3305/40	40	16	26/30	1.18"

No. 14 AWG-SO CONTROL CABLE

DABURN Cat. No.	Cond.	Size AWG	Strand	Nom. O.D.
3310/5	5	14	41/30	.685"
3310/6	6	14	41/30	.745"
3310/7	7	14	41/30	.800"
3310/8	8	14	41/30	.860"
3310/10	10	14	41/30	.875"
3310/12	12	14	41/30	.945"
3310/14	14	14	41/30	1.000"
3310/16	16	14	41/30	1.075"
3310/18	18	14	41/30	1.115"
3310/20	20	14	41/30	1.155"

No. 12 AWG-SO CONTROL CABLE

DABURN Cat. No.	Cond.	Size AWG	Strand	Nom. O.D.
3315/5	5	12	65/30	.760"
3315/6	6	12	65/30	.810"
3315/7	7	12	65/30	.860"
3315/8	8	12	65/30	.945"
3315/10	10	12	65/30	1.000"
3315/12	12	12	65/30	1.100"
3315/14	14	12	65/30	1.120"
3315/16	16	12	65/30	1.150"
3315/18	18	12	65/30	1.30"
3315/20	20	12	65/30	1.33"

STD. PUT-UP: Cut to Specific Lengths — Min. 100 Ft.

The Color Code for Neoprene Jacket Control Cables Conforms to IPCEA Standards.

DABURN**DABURN ELECTRONICS & CABLE CORP.**

WIRE • CABLE • TUBING • MIL/COMM • SWITCHES • ELECTRONIC HARDWARE

ELECTRONIC LACING CORDS AND TAPES • CABLE CLAMPS • TIES**LACING CORD-TAPE TO MEET MIL-T-713A TYPE P*
NYLON FLAT BRAIDED LACING TAPE**

Nylon fiber flat braided impregnated with MW microcrystalline fungicidal wax, Stays flat. Designed to create a wider contact to distribute the stress. Flexible. Won't slip when knotted. Resistant to fungus, flame, abrasion, acids.

DABURN No.	Color	Class	Nom. Width	Nom. Thickness	Tensile Strength	Standard Put-Up Tubes
2035	Natural White	—	.200"	.014"	150 lbs.	500 yd.
2035B	Black	—	.200"	.014"	150 lbs.	500 yd.
2036	Natural White	1	.120"	.014"	80 lbs.	500 yd.
2036B	Black	1	.120"	.014"	80 lbs.	500 yd.
2037	Natural White	2*	.090"	.014"	50 lbs.	500 yd.
2037B	Black	2*	.090"	.014"	50 lbs.	500 yd.
2038	Natural White	3	.065"	.010"	35 lbs.	500 yd.
2038B	Black	3	.065"	.010"	35 lbs.	500 yd.

DACRON FLAT BRAIDED LACING TAPE

Dacron fiber flat braided impregnated with non-slip fungicidal finish. Will not cut or damage insulation. Stays flat. Has all characteristics of nylon with elongation, better resistance to acids.

DABURN No.	Color	Nom. Width	Thickness Nom.	Tensile Strength	Standard Put-Up Tubes
2041	Natural White	.120"	.014"	80	500 yd.
2041B	Black	.120"	.014"	80	500 yd.
2042	Natural White	.090"	.014"	48	500 yd.
2042B	Black	.090"	.014"	48	500 yd.
2043	Natural White	.060"	.010"	35	500 yd.
2043B	Black	.060"	.010"	35	500 yd.
2044	Natural White	.046"	.010"	25	500 yd.
2044B	Black	.046"	.010"	25	500 yd.

**TEFLON* FIBERGLASS FLAT BRAIDED
LACING TAPE**

Teflon coated fiberglass flat braided lacing tape bonded for high temp. operations (550°F). Stays flat—for strength, stability. Teflon finish increases strength and abrasion resistant surface. Will not cut or damage insulation.

DABURN No.	Color	Nom. Width	Thickness Nom.	Lbs. Test	Standard Put-Up Tubes
2045	White	.130"	.025"	150	500 yd.
2046	White	.120"	.020"	90	500 yd.
2047	White	.070"	.020"	70	500 yd.

**TEFLON* FLAT BRAIDED LACING TAPE
for high temperature operations (550°F)**

DABURN No.	Color	Nom. Width	Nom. Thickness	Test lbs.	Standard Put-Up Tubes
2048	Brown	.100"	.016"	35	500 yd.
2049	Brown	.060"	.010"	15	500 yd.

ROUND TWISTED NYLON LACING CORD

Manufactured to meet MIL-T-713A Type P specification, Composition P, Classes 3, 2, 1. Wax finish—compounded with fungicide to resist mildew. Easy to tie.

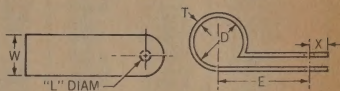
PUT-UP ON 1 LB. TUBES

DABURN No.	Color	Class	Tensile Strength	Nom. Diam.	Lb. Per Tube
2070	Natural	1	70 lbs.	.039"	600
2070B	Black	1	70 lbs.	.039"	600
2071	Natural	2	48 lbs.	.029"	800
2071B	Black	2	48 lbs.	.029"	800
2072	Natural	3	32 lbs.	.025"	1140
2072B	Black	3	32 lbs.	.025"	1140
2072/1	Natural	4	20 lbs.	.020"	2400
2072/1B	Black	4	20 lbs.	.020"	2400

ROUND TWISTED LINEN LACING CORD

Manufactured from pure flax treated with microcrystalline wax compounded with fungicide to resist mildew. Classes 1, 2, 3 meet MIL-T-713A Type N specifications.

4 OZ. TUBE DABURN No.	8 OZ. TUBE DABURN No.	1 LB. TUBES DABURN No.	Yes. Class Ply	Diam.	Lb. Test
2073 210	2074 425	2075 850	—	4 .036"	22
2076 150	2077 300	2078 2078B 600	3 6	.044"	33
2082 115	2083 235	2084 2084B 470	2 8	.051"	50
2079 100	2080 200	2081 2081B 400	—	9 .054"	56
2085 75	2086 150	2087 2087B 300	1 12	.063"	72

**NYLON CABLE
CLAMPS****MADE OF DU PONT "ZYTEL" 101 NYLON RESIN**

Meets MIL-P-26093A and MIL-P-17091A Amend. 2. Light and tough these nylon cable clamps are used as a clamp, strain relief, clip hanger, fastener or strap. Smooth non-abrasive surfaces, rounded edges will not cause shorts or grounds in cable. Insoluble in solvents, gasoline, oils, hydraulic fluids, alcohol, acids, alkalies. Temperature range -60°F to +300°F. Does not support combustion. Inside matte finish. Prevents slipping and is self aligning. Snaps on cable. Meets MIL-P-26093A specs. Fungus resistant.

DABURN No.	To Fit Size	D	E	W	L	H	X
625	1/8"	.125	.316	3/8	.050	.177	.227
626	3/16"	.187	.378	3/8	.050	.177	.277
627	1/4"	.250	.409	3/8	.050	.177	.277
628	5/16"	.312	.441	3/8	.050	.177	.277
629	3/8"	.375	.471	3/8	.050	.177	.277
630	7/16"	.437	.519	3/8	.050	.177	.277
631	1/2"	.500	.550	3/8	.050	.177	.277
631A	5/8"	.563	.625	1/2	.060	.177	.277
632	5/8"	.625	.634	1/2	.060	.177	.277
632A	1 1/4"	.687	.752	1/2	.060	.177	.277
633	3/4"	.750	.718	1/2	.060	.177	.277
634	7/8"	.875	.760	1/2	.060	.177	.277
635	1"	1.000	.802	1/2	.060	.177	.277
636	1 1/8"	1.125	.968	1/2	.062	.204	.250
637	1 1/4"	1.250	1.156	1/2	.062	.204	.250
638	1 1/2"	1.500	1.188	5/8	.070	.204	.250

Std. Pkg. 100, 500, 1000

ETHYL CELLULOSE CABLE CLAMPS

Ethocel recommended for general use. Combines light weight and chemical resistance with excellent shock resisting properties in temp. range from -100°F to +185°F. Approved 7-21 Army-Navy Aeronautical AN-742. Also made to meet MIL STD. 242A (Ships). Suitable indoor-outdoor. Std. Pkg. 100, 1000.

DABURN No.	To Fit Size	D	E	W	L	H	X
615	1/4"	.125	.325	1/2	.060	.204	3/32
615A	3/16"	.188	.390	1/2	.060	.204	3/32
615B	1/4"	.250	.421	1/2	.060	.204	3/32
615C	5/16"	.313	.457	1/2	.060	.204	3/32
615D	3/8"	.375	.483	1/2	.060	.204	3/32
615E	7/16"	.438	.531	1/2	.060	.204	3/32
616	1/2"	.500	.562	1/2	.060	.204	3/32
616A	5/8"	.563	.625	1/2	.060	.204	3/32
616B	3/4"	.625	.610	1/2	.060	.204	3/32
616C	1 1/4"	.688	.666	1/2	.060	.204	3/32
616D	3/4"	.750	.766	1/2	.060	.204	3/32
616E	7/8"	.875	.813	1/2	.060	.204	3/32
617	1"	1.000	.906	1/2	.060	.204	3/32
617A	1 1/8"	1.125	.969	1/2	.060	.204	3/32
617B	1 1/4"	1.250	1.156	1/2	.060	.204	3/32
617C	1 1/2"	1.5	1.0625	5/8	.070	.204	3/32
617D	2"	2.0	1.313	5/8	.070	.204	3/32
617E	2 1/2"	2.5	1.563	5/8	.070	.204	3/32

**DABURN ALUMINUM
CABLE CLAMPS**

Made of hard drawn aluminum. Light weight. Useful when mounting resonant lines, elements for beams, etc. Strong, durable, rust-proof.

DABURN No.	To Fit Size	Width	Length	Thickness	Clearance Hole For	Std. Pkg.
651A	1/8"	1/2"	1 3/4"	.050"	10	100
651	1/4"	1/2"	7/8"	.050"	10	100
652	3/8"	1/2"	1 3/4"	.050"	10	100
653	1/2"	1/2"	1"	.050"	10	100
654	1 1/2"	1/2"	1 1/4"	.050"	10	100
654A	5/8"	1/2"	1 1/4"	.050"	10	100
655	3/4"	3/4"	1 3/4"	.090"	1/4-20	50
657	7/8"	3/4"	1 5/8"	.090"	1/4-20	50
656	1"	3/4"	1 3/4"	.090"	1/4-20	50
656A	1 1/8"	3/4"	1 7/8"	.090"	1/4-20	50
656B	1 1/4"	3/4"	2"	.090"	1/4-20	50

DABURN PUSH BUTTON WIRE TIES

Push button wire ties for harnessing wire. 4 1/2" in length, each tie is adjustable to 30 different diameters. Made of strong polyethylene, it is inert chemically and heat resistant. Breaking strength 45 to 95 lbs. After the tie is placed in hole for anchoring, wires can be replaced or added by loosening tie and pulling tight again. Designed to fit .250" - .265" hole in a .031" to .140" thick panel. Material conforms to Spec. LP500.

DABURN No.	(Specify Color)	Std. Pkg.
601-A	Red, Blue, Yellow	100, 1000

SPIRAL WRAP FOR HARNESSING AVAILABLE.

SECTION 6000

DABURN PRICE LIST

Daburn No.	Sugg'd. Resale	Daburn No.	Sugg'd. Resale	Daburn No.	Sugg'd. Resale	Daburn No.	Sugg'd. Resale	Daburn No.	Sugg'd. Resale	Daburn No.	Sugg'd. Resale	Daburn No.	Sugg'd. Resale	Daburn No.	Sugg'd. Resale
10-0	\$ 13.92/0	14-51A	3.36/0	15-65	52.20/0	601-4	2.26/0	986-2	4.43	2086	2.57	2428/10*	802.13/0		
10-01	3.13/0	14-51B	3.36/0	15-66	58.80/0	615	2.30/0	986-3	5.28	2087	4.73/b	2428/12*	492.83/0		
10-02	6.30/0	14-52	3.45/0	15-67	64.80/0	615A	2.30/0	986-4	8.08	2088	5.48/0	2428/14*	307.05/0		
10-03	12.00/0	14-53	3.50/0	15-68	70.80/0	615B	2.30/0	986-5	13.35	2350-1/32	15.30/0	2428/16*	230.18/0		
10-04	12.00/0	14-54	3.50/0	15-69	76.80/0	615C	2.30/0	986-6	3.2	2350-1/16	6.54/0	2428/18*	169.05/0		
10-05	14.00/0	14-55	3.45/0	15-70	82.80/0	615D	3.00/0	986-7	9.77	2350-5/64	7.54/0	2428/20*	143.18/0		
10-07	19.80/0	14-56	18.60/0	15-72	7.80/0	615E	3.30/0	986-8	13.49	2350-7/64	10.49/0	2428/22*	113.16/0		
10-08	32.60/0	14-57	18.54/0	15-73	18.80/0	615F	3.30/0	986-9	12.67	2350-1/8	18.68/0	2428/24*	97.20/0		
10-31	43.99/0	14-58	3.60/0	15-74	13.20/0	616A	4.17/0	986-10	5.07	2350-3/32	27.40/0	2430	88.84/0		
10-32	70.29/0	14-59	3.50/0	15-75	18.00/0	616B	4.41/0	986-11	7.10	2350-11/64	13.50/0	2430-1/2*	190.21/0		
10-33	16.20/0	14-60	3.60/0	15-76	21.00/0	616C	4.67/0	986-12	9.15	2350-1/4	28.30/0	2430-3/4*	276.80/0		
10-40A	18.80/0	14-55A	5.80/0	15-77	22.80/0	616D	5.00/0	986-13	3.59	2350-3/16	65.00/0	2430-5/8*	353.93/0		
10-40B	17.85/0	14-56A	16.30/0	15-81	1.80/0	616E	5.33/0	986-14	3.07	2350-1/2	27.40/0	2430-7/8*	101.64/0		
10-40C	20.40/0	14-57A	16.80/0	15-82	1.80/0	616F	5.33/0	986-15	11.78	2350-1/8	27.40/0	2430-9/8*	217.80/0		
10-40D	29.35/0	14-58B	16.20/0	15-82A	1.95/0	617A	6.00/0	986-16	4.77	2350-7/16	45.00/0	2430-11/8*	238.48/0		
10-40E	30.80/0	14-59	16.35/0	15-82B	2.34/0	617B	6.17/0	986-17	4.77	2350-1/2	45.00/0	2430-13/8*	381.15/0		
10-41	31.80/0	14-60A	21.00/0	15-83	2.40/0	617C	6.17/0	986-18	9.60	2350-1/8	65.00/0	2430-15/8*	259.55/0		
10-41A	14.50/0	14-79	2.10/0	15-83A	2.40/0	617E	16.68/0	986-19	14.15	2350-11/16	49.50/0	2430-17/8*	129.77/0		
10-41B	14.50/0	14-79A	2.10/0	15-84	3.30/0	620	3.83/0	986-20	8.73	2350-3/16	61.50/0	2430-19/8*	290.40/0		
10-42	15.10/0	14-79	2.20/0	15-84A	3.96/0	626	3.83/0	986-21	15.80	2350-1/8	72.00/0	2430-21/8*	379.34/0		
10-42A	17.42/0	14-79C	2.40/0	15-84B	4.03/0	627	4.17/0	986-22	13.05	2350-7/8	81.00/0	2430-23/8*	486.42/0		
10-42B	16.42/0	14-79D	2.70/0	15-85	4.84/0	629	4.17/0	986-23	3.25	2350-1/2	85.50/0	2430-25/8*	335.78/0		
10-43A	18.10/0	14-85	7.50/0	15-85A	4.20/0	630	5.00/0	986-24	5.85	2350-11/16	95.30/0	2430-27/8*	308.50/0		
10-44	17.50/0	14-86	7.50/0	15-85B	4.20/0	631	5.00/0	986-25	11.33	2350-1/8	175.62/0	2430-29/8*	404.75/0		
10-44A	17.50/0	14-87	7.50/0	15-86	4.20/0	632	7.16/0	986-26	3.74	2355-1/32	36.23/0	2430-31/8*	559.04/0		
10-44B	18.10/0	14-88	7.50/0	15-86A	5.50/0	631A	6.50/0	986-27	10.13	2355-1/16	43.95/0	2430-33/8*	559.04/0		
10-44C	28.50/0	14-89	7.50/0	15-86B	5.50/0	632	7.16/0	986-28	15.15	2355-1/8	54.42/0	2430-35/8*	189.87/0		
10-45	18.90/0	14-90	7.50/0	15-87	5.50/0	633	8.86/0	986-29	15.15	2355-1/4	64.42/0	2430-37/8*	223.85/0		
10-45B	19.75/0	14-91	1.80/0	15-88	4.95/0	633A	8.86/0	986-30	18.00	2355-1/2	80.03/0	2430-39/8*	290.58/0		
10-45C	19.75/0	14-92	1.80/0	15-89	5.85/0	634	8.86/0	986-31	18.00	2355-3/4	138.68/0	2430-41/8*	178.41/0		
10-45D	19.75/0	14-93	1.80/0	15-90	5.85/0	635	12.08/0	986-32	18.00	2355-5/8	94.50/0	2430-43/8*	379.34/0		
10-45E	37.50/0	14-94	2.22/0	15-91	18.00/0	636	12.08/0	986-33	31.05	2355-3/2	44.25/0	2430-45/8*	477.35/0		
10-46	23.10/0	14-95	2.90/0	15-92	16.20/0	637	12.08/0	986-34	31.05	2355-7/8	44.25/0	2430-47/8*	317.65/0		
10-46A	26.20/0	14-96	3.90/0	15-93	11.00/0	638	12.08/0	986-35	31.05	2355-1/2	47.48/0	2430-49/8*	199.95/0		
10-46B	23.10/0	14-97	4.95/0	15-94	17.99/0	639	12.08/0	986-36	12.53	2355-3/8	54.60/0	2430-51/8*	333.96/0		
10-46C	23.10/0	14-98	5.28/0	15-95	17.99/0	640	12.08/0	986-37	12.53	2355-1/4	51.50/0	2430-53/8*	569.91/0		
10-46D	32.60/0	14-99	5.28/0	15-96	20.83/0	641	12.08/0	986-38	12.53	2355-3/4	192.00/0	2430-55/8*	357.56/0		
10-46E	40.40/0	14-100	5.28/0	15-97	20.83/0	642	12.08/0	986-39	12.53	2355-1/2	277.00/0	2430-57/8*	399.30/0		
10-47	54.90/0	14-101	8.00/0	15-98	26.65/0	643	12.08/0	986-40	12.53	2355-3/8	367.50/0	2430-59/8*	522.70/0		
10-48	39.40/0	14-102	10.90/0	15-99	63.30/0	644	12.08/0	986-41	12.53	2355-1/4	231.60/0	2430-61/8*	689.70/0		
10-49	11.92	14-103	14.30/0	15-100	71.20/0	645	12.08/0	986-42	12.53	2355-3/4	195.57/0	2430-63/8*	473.72/0		
10-58	23.82/0	14-110	3.30/0	15-101	81.65/0	657	15.50/0	986-43	12.53	2355-1/2	330.35/0	2430-65/8*	206.91/0		
10-62	22.80/0	14-111	4.35/0	15-102	7.280	800	6.36/0	986-44	12.53	2355-3/8	231.60/0	2430-67/8*	364.82/0		
10-63	30.80/0	14-112	5.28/0	15-103	8.87	801	6.36/0	986-45	12.53	2355-1/4	195.57/0	2430-69/8*	480.85/0		
10-64	33.88/0	14-113	6.30/0	15-104	7.282	802	8.62/0	986-46	12.53	2355-3/4	330.35/0	2430-71/8*	571.73/0		
10-65	62.65/0	14-114	7.20/0	15-105	1.02	803	16.50/0	986-47	12.53	2355-1/2	254.30/0	2430-73/8*	361.19/0		
10-66	25.80/0	14-115	3.30/0	15-106	2.180	804	16.50/0	986-48	12.53	2355-3/8	254.30/0	2430-75/8*	480.85/0		
10-68	48	14-116	3.30/0	15-107	2.180	805	10.35/0	986-49	12.53	2355-1/4	22.85/0	2430-77/8*	571.73/0		
10-69	25	14-117	5.28/0	15-108	17.322	806	10.35/0	986-50	12.53	2355-3/4	14.60/0	2430-79/8*	361.19/0		
10-70	85	14-118	5.28/0	15-109	17.322	807	10.35/0	986-51	12.53	2355-1/2	17.57/0	2430-81/8*	480.85/0		
10-71	120.00/0	14-119	7.20/0	15-110	17.361	808	1.65/0	986-52	12.53	2355-3/8	7.16/0	2430-83/8*	399.30/0		
10-72	37.32/0	14-120	3.30/0	15-111	3.25	811	1.75/0	986-53	12.53	2355-1/4	4.77/0	2430-85/8*	526.35/0		
10-73	21.42/0	14-121	4.35/0	15-112	4.124	812	1.75/0	986-54	12.53	2355-3/4	19.57/0	2430-87/8*	689.70/0		
10-74	20.00/0	14-122	5.28/0	15-113	36.00/0	814	1.89/0	986-55	12.53	2355-1/2	3.53/0	2430-89/8*	424.21/0		
10-76	113.00/0	14-123	6.30/0	15-114	36.00/0	815	1.89/0	986-56	12.53	2355-3/8	3.53/0	2430-91/8*	286.77/0		
10-77	36.78/0	14-124	6.30/0	15-115	36.00/0	816	1.89/0	986-57	12.53	2355-1/4	3.53/0	2430-93/8*	515.65/0		
10-79	64.16/0	14-125	5.28/0	15-116	22.00/0	817	2.17/0	986-58	12.53	2355-3/4	16.43/0	2430-95/8*	622.95/0		
10-125	42.36/0	14-126	6.30/0	15-117	32.64/0	818	3.97/0	986-59	12.53	2355-1/2	11.55/0	2430-97/8*	783.63/0		
10-126	49.58/0	14-127	6.30/0	15-118	32.64/0	819	3.97/0	986-60	12.53	2355-3/8	6.44/0	2430-99/8*	482.13/0		
10-200	77.72/0	14-128	8.25/0	15-119	20.99/0	820	2.90/0	986-61	12.53	2355-1/4	6.37/0	2430-101/8*	311.64/0		
10-201	70.00/0	14-129	9.30/0	15-120	15.00/0	821	4.85/0	986-62	12.53	2355-3/4	5.85/0	2430-103/8*	504.57/0		
10-202	127.00/0	14-130	9.30/0	15-121	30.00/0	822	2.90/0	986-63	12.53	2355-1/2	20.82/0	2430-105/8*	669.31/0		
10-203	4.27/0	14-131	6.30/0	15-122	7.453/0	823	3.90/0	986-64	12.53	2355-3/8	5.55/0	2430-107/8*	820.98/0		
10-204	22.90/0	14-132	8.00/0	15-123	18.98/0	824	16.98/0	986-65	12.53	2355-1/4	41.85/0	2430-109/8*	629.31/0		
10-205	25.20/0	14-133	8.00/0	15-124	20.99/0	825	2.33/0	986-66	12.53	2355-3/4	30.85/0	2430-111/8*	814.96/0		
10-206	32.90/0	14-134	14.20/0	15-125	33.00/0	826	2.33/0	986-67	12.53	2355-1/2	135.23/0	2430-113/8*	178.79/0		
10-207	35.75/0	14-135	3.90/0	15-126	10.80/0	827	15.36/0	986-68	12.53	2355-3/8	101.25/0	2430-115/8*	213.45/0		
10-208	1.40	14-136	4.95/0	15-127	20.99/0	828	23.80/0	986-69	12.53	2355-1/4	48.38/0	2430-117/8*	183.68/0		
10-209	14.95/0	14-137	6.00/0	15-128	33.00/0	829	16.98/0	986-70	12.53	2355-3/4	5.06/0	2430-119/8*	47.65/0		
10-215	9.10/0	14-138	8.40/0	15-129	33.00/0	860	17.48/0	986-71	12.53	2355-1/2	2.55/0	2430-121/8*	156.09/0		
10-234	94.88/0	14-139	10.40/0	15-130	18.00/0	861	18.50/0	986-72	12.53	2355-3/8	11.79/0	2430-123/8*	328.53/0		
10-235	261.20/0	14-140	10.40/0	15-131	18.00/0	862	18.50/0	986-73	12.53	2355-1/4	11.79/0	2430-125/8*	216.09/0		
10-238	341.60/0	14-141	4.95/0	15-132	18.00/0	863	18.50/0	986-74	12.53	2355-3/4	5.25/0	2430-127/8*	210.54/0		
10-240	25.90/0	14-142	6.00/0	15-133	19.00/0	864	39.00/0	986-75	12.53	2355-1/2	2.20/0	2430-129/8*	286.86/0		
10-241	11.07	14-143	6.00/0	15-134	19.00/0	865									

DABURN PRICE LIST

Daburn No.	Sugg'd. Resale	Daburn No.	Sugg'd. Resale	Daburn No.	Sugg'd. Resale	Daburn No.	Sugg'd. Resale	Daburn No.	Sugg'd. Resale	Daburn No.	Sugg'd. Resale	
19.62/M	2660/24*	7.92/M	2896/31	146.25/D	3028/31	74.25/M	4408-26	537.20/C	5184	148.50/C	DTC-28*	3.48/Lb
17.60/M	2660/24*	7.92/M	2896/31	138.58/D	3028/31	83.70/M	4408-26	586.70/C	5184A	148.50/C	DTC-30*	3.51/Lb
16.60/M	2670/26*	11.40/M	2897	142.50/D	3029	57.60/M	4408-27	586.70/C	5185	172.30/C	DTC-32*	3.75/Lb
20.55/M	2670/28	10.58/M	2897/3	184.50/D	3029/3	96.00/M	4408-28	531.70/C	5185A	172.30/C	DTC-34*	3.82/Lb
51.30/M	2687/17*	23.70/M	2898/4	231.80/D	3030	132.45/D	4410	540.90/C	5186	205.00/C	DTC-36*	4.32/Lb
89.10/M	2672/2*	25.10/M	2898	268.50/D	3030	84.00/M	4410	540.90/C	5190	122.50/C	DTC-38*	4.65/Lb
70.95/M	2672/3*	26.10/M	2898/3	364.50/D	3030/3	145.05/M	4412	733.45/C	5191	122.50/C	DTT-500-32*	11.85/C
88.55/M	2687/17*	26.10/M	2898/4	468.00/D	3031	195.60/M	4412A	799.90/C	5192	141.00/C	DTT-500-30*	8.39/C
51.16/M	2672/2*	26.10/M	2898/3	222.75/D	3031	147.00/M	4412B	733.45/C	5193	184.85/C	DTT-500-28*	6.27/C
70.95/M	2672/3*	26.10/M	2898/4	171.68/D	3031/3	198.00/M	4413	76.689/C	5194	184.85/C	DTT-500-26*	6.75/C
88.55/M	2687/17*	26.10/M	2898/4	105.00/D	3032	12.75/M	4415	103.40/C	5200	205.00/C	DTT-500-24*	6.27/C
61.50/M	2674/3*	29.70/M	2902/12*	66.98/D	3054/3	15.08/E	4417	815.90/C	5206	75.90/C	DTT-500-22*	7.50/C
50.82/M	2674/3*	29.70/M	2902/12*	44.81/D	3054/4	20.10/E	4418	815.90/C	5201	99.00/C	DTT-500-20*	9.98/C
88.55/M	2687/17*	29.70/M	2902/12*	25.88/D	3054/5	36.60/E	4422-1	679.90/C	5202A	99.00/C	DTT-500-18*	10.49/C
40.88/M	2676*	64.02/M	2902/22*	34.50/D	3054/7	42.60/E	4422-21	679.90/C	5203	126.50/C	DTT-500-16*	11.41/C
28.85/M	2676/3*	73.59/D	2902/26*	39.93/D	3054/9	27.00/D	4424-24	4.93	5204	139.00/C	DTT-500-14*	12.80/C
18.53/M	2676/3*	74.40/M	2902/26*	41.25/D	3054/12	29.85/D	4424-26	4.93	5208	158.40/C	DTT-500-12*	13.65/C
13.50/M	2678*	74.40/M	2902/26*	41.25/D	3054/12	29.85/D	4424-26	4.93	5208A	158.40/C	DTT-500-10*	14.85/C
10.35/M	2678/3*	74.40/M	2902/26*	41.25/D	3054/12	29.85/D	4424-26	4.93	5208A	158.40/C	DTT-500-8*	16.35/C
8.67/M	2682*	49.98/M	2902/30*	41.25/D	3054/12	29.85/D	4424-26	4.93	5208A	158.40/C	DTT-500-6*	17.85/C
8.91/M	2682*	49.98/M	2902/30*	41.25/D	3054/12	29.85/D	4424-26	4.93	5208A	158.40/C	DTT-500-4*	19.35/C
15.75/M	2684*	48.18/M	2930/3	115.50/D	3054/12	29.85/D	4424-26	4.93	5208A	158.40/C	DTT-500-2*	20.85/C
11.03/M	2686*	52.50/M	2930/9	168.90/D	3054/12	29.85/D	4424-26	4.93	5208A	158.40/C	DTT-500-0*	22.35/C
8.10/M	2688*	55.05/M	2930/9	168.90/D	3054/12	29.85/D	4424-26	4.93	5208A	158.40/C	DTT-500-0*	23.85/C
146.39/M	2710/16*	116.00/M	2930/11	214.50/D	3054/12	29.85/D	4424-26	4.93	5208A	158.40/C	DTT-500-0*	25.35/C
72.00/M	2710/16*	116.00/M	2930/11	214.50/D	3054/12	29.85/D	4424-26	4.93	5208A	158.40/C	DTT-500-0*	26.85/C
50.10/M	2710/10*	58.90/M	2930/19	338.33/D	4300	75.90/C	4426-12	717.70/C	5216	196.00/C	DTT-500-9*	30.82/C
34.65/M	2710/12*	40.68/M	2930/27	560.61/D	4301	89.80/C	4426-12	717.70/C	5216	196.00/C	DTT-500-7*	32.32/C
63.15/M	2710/14*	48.17/M	2930/31	433.47/D	4302	83.40/C	4430-5	818.50/C	5221	94.96/C	DTT-500-5*	33.82/C
20.10/M	2710/16	20.29/M	2935*	27.45/D	4303	102.65/C	4432-7	818.50/C	5221A	101.63/C	DTT-500-3*	35.32/C
15.60/M	2712/12*	86.79/M	2935*/4	37.13/D	4304	139.34/C	4440-10	7.44	5223	158.27/C	DTT-500-1*	36.82/C
15.64/M	2712/12*	86.79/M	2935*/4	37.13/D	4304	139.34/C	4440-10	7.44	5223	158.27/C	DTT-500-0*	38.32/C
12.95/M	2712/16*	52.47/M	2949*	15.75/E	4306	157.68/C	4441	238.00/C	5224	104.96/C	DTT-500-0*	39.82/C
55.35/M	2715*	14.85/E	2950*	26.48/D	4307	176.00/C	4441	238.00/C	5224	104.96/C	DTT-500-0*	41.32/C
44.50/M	2716*	15.45/E	2950*/1	31.60/D	4307	176.00/C	4441	238.00/C	5224	104.96/C	DTT-500-0*	42.82/C
33.00/M	2718*	30.60/M	2950*/3	35.85/D	4309	106.30/C	4444	260.00/C	5228	828.00/C	DTT-500-0*	44.32/C
25.13/M	2722/16*	39.00/E	2950*/4	55.77/D	4310	122.85/C	4445	280.50/C	5230	83.30/C	DTT-500-0*	45.82/C
21.30/M	2722/18*	25.41/D	2952*	22.73/D	4312	201.20/C	4447	280.50/C	5231	204.92/C	DTT-500-0*	47.32/C
40.02/M	2722/20*	22.50/D	2952*	22.73/D	4312	201.20/C	4450	452.10/C	5231A	204.92/C	DTT-500-0*	48.82/C
31.275/M	2722/22*	17.78/E	2952/1	22.73/D	4312	201.20/C	4450	452.10/C	5231A	204.92/C	DTT-500-0*	50.32/C
17.23/M	2725/10*	37.50/D	2952/4	74.55/D	4315	89.80/C	4452	495.00/C	5232	25.82/C	DTT-500-0*	51.82/C
15.00/M	2725/14*	19.42/D	2952/6*	100.88/D	4316	115.50/C	4453	541.00/C	5233	25.82/C	DTT-500-0*	53.32/C
132.50/M	2725/16*	16.05/D	2953/1	33.38/D	4317	141.90/C	4455	587.50/C	5235	216.62/C	DTT-500-0*	54.82/C
73.04/M	2728/18*	72.00/D	2953/3*	44.78/D	4319	297.00/C	4456	587.50/C	5236	216.62/C	DTT-500-0*	56.32/C
51.60/M	2730*	114.00/M	2953/4*	85.50/D	4320	89.85/C	4457	587.50/C	5238	229.91/C	DTT-500-0*	57.82/C
32.25/M	2731*	21.30/D	2954/3	86.63/D	4322	138.60/D	4480K1	748.10/C	5238A	229.91/C	DTT-500-0*	59.32/C
18.57/M	2738*	29.04/D	2954/3	124.13/D	4323	138.60/D	4480K2	748.10/C	5238A	229.91/C	DTT-500-0*	60.82/C
15.27/M	2739*	27.30/D	2954/4*	124.13/D	4323	138.60/D	4480K3	1008.30/C	5240	164.93/C	DTT-500-0*	62.32/C
11.40/M	2740*	28.15/D	2954/4*	124.13/D	4323	138.60/D	4480K4	758.00/C	5241	144.94/C	DTT-500-0*	63.82/C
9.60/M	2743*	25.85/D	2955*	151.50/D	4325	355.70/C	4480K5	1008.30/C	5242	22.42/C	DTT-500-0*	65.32/C
8.40/M	2744*	36.33/D	2955/4*	226.50/D	4326	106.30/C	4480K6	1008.30/C	5244	84.97/C	DTT-500-0*	66.82/C
27.60/M	2746*	30.95/D	2955/4*	226.50/D	4326	106.30/C	4480K7	748.00/C	5244A	84.97/C	DTT-500-0*	68.32/C
8.70/M	2747*	37.13/D	2960*	19.95/D	4328	119.15/C	4480K8	1008.30/C	5244A	84.97/C	DTT-500-0*	69.82/C
9.00/M	2748*	43.35/D	2960/3*	24.58/D	4329	89.80/C	4481K1	935.00/C	5244C	108.29/C	DTT-500-0*	71.32/C
12.65/M	2751*	28.63/D	2961*	24.45/D	4330	119.15/C	4481K2	1089.00/C	5244D	111.62/C	DTT-500-0*	72.82/C
12.60/M	2752*	37.78/D	2961*	24.45/D	4331	297.00/C	4481K3	1162.00/C	5244E	111.62/C	DTT-500-0*	74.32/C
0.24/M	2753*	19.80/D	2961/3*	30.78/D	4332	106.30/C	4481K4	935.00/C	5245	18.16/C	DTT-500-0*	75.82/C
12.45/M	2754*	39.75/D	2962*	32.83/D	4334	355.70/C	4481K5	935.00/C	5245A	26.39/C	DTT-500-0*	77.32/C
12.38/M	2755*	20.53/D	2962*	32.83/D	4335	91.60/C	4481K6	1089.00/C	5246	18.16/C	DTT-500-0*	78.82/C
13.75/M	2756*	28.43/D	2962/3*	39.20/D	4336	91.60/C	4481K7	935.00/C	5246A	31.85/C	DTT-500-0*	80.32/C
0.30/M	2757*	41.55/D	2963*	57.33/D	4337	53.10/C	4481K8	1089.00/C	5247	73.82/C	DTT-500-0*	81.82/C
12.75/M	2758*	53.78/D	2963/3*	57.33/D	4338	53.10/C	4481K9	1089.00/C	5247A	73.82/C	DTT-500-0*	83.32/C
2.16/M	2759*	53.85/D	2963/3*	57.33/D	4339	53.10/C	4482K1	935.00/C	5248	23.82/C	DTT-500-0*	84.82/C
2.16/M	2760*	53.85/D	2963/3*	57.33/D	4340	42.00/C	4482K2	935.00/C	5248A	40.32/C	DTT-500-0*	86.32/C
2.16/M	2761*	53.85/D	2963/3*	57.33/D	4341	155.10/C	4482K3	935.00/C	5249	161.27/C	DTT-500-0*	87.82/C
2.16/M	2762*	53.85/D	2963/3*	57.33/D	4342	155.10/C	4482K4	935.00/C	5249A	161.27/C	DTT-500-0*	89.32/C
2.16/M	2763*	53.85/D	2963/3*	57.33/D	4343	270.60/C	4482K5	935.00/C	5250	16.49/C	DTT-500-0*	90.82/C
2.16/M	2764*	53.85/D	2963/3*	57.33/D	4344	270.60/C	4482K6	935.00/C	5251	26.39/C	DTT-500-0*	92.32/C
2.16/M	2765*	53.85/D	2963/3*	57.33/D	4345	270.60/C	4482K7	935.00/C	5252	26.39/C	DTT-500-0*	93.82/C
2.16/M	2766*	53.85/D	2963/3*	57.33/D	4346	270.60/C	4482K8	935.00/C	5253	26.39/C	DTT-500-0*	95.32/C
2.16/M	2767*	53.85/D	2963/3*	57.33/D	4347	270.60/C	4482K9	935.00/C	5254	26.39/C	DTT-500-0*	96.82/C
2.16/M	2768*	53.85/D	2963/3*	57.33/D	4348	270.60/C	4482K10	935.00/C	5255	26.39/C	DTT-500-0*	98.32/C
2.16/M	2769*	53.85/D	2963/3*	57.33/D	4349	270.60/C	4482K11	935.00/C	5256	26.39/C	DTT-500-0*	99.82/C
2.16/M	2770*	53.85/D	2963/3*	57.33/D	4350	270.60/C	4482K12	935.00/C	5257	26.39/C	DTT-500-0*	101.32/C
2.16/M	2771*	53.85/D	2963/3*	57.33/D	4351	270.60/C	4482K13	935.00/C	5258	26.39/C	DTT-500-0*	102.82/C
2.16/M	2772*	53.85/D	2963/3*	57.33/D	4352	270.60/C	4482K14	935.00/C	5259	26.39/C	DTT-500-0*	104.32/C
2.16/M	2773*	53.85/D	2963/3*	57.33/D	4353	270.60/C	4482K15	935.00/C	5260	26.39/C	DTT-500-0*	105.82/C
2.16/M	2774*	53.85/D	2963/3*	57.33/D	4354	270.60/C	4482K16	935.00/C	5261	26.39/C	DTT-500-0*	107.32/C
2.16/M	2775*	53.85/D	2963/3*	57.33/D	4355	270.60/C	4482K17	935.00/C	5262	26.39/C	DTT-500-0*	108.82/C
2.16/M	2776*	53.85/D	2963/3*	57.33/D	4356	270.60/C	4482K18	935.00/C	5263	26.39/C	DTT-500-0*	110.32/C
2.16/M	2777*	53.85/D	2963/3*	57.33/D	4357	270.60/C	4482K19	935.00/C	5264	26.39/C	DTT-500-0*	111.82/C
2.16/M	2778*	53.85/D	2963/3*	57.33/D	4358	270.60/C	4482K20	935.00/C	5265	26.39/C	DTT-500-0*	113.3

SEND FOR COMPLETE CATALOG AND PRICES

Cradleclip

FOR SUPPORTED WIRING

cradles and clips



CRADLES



C1, C2, C3

C1-M, C2-M, C3-M
molded in nut
to take 6/32
thread bolts



B0-N0
Miniature
with
captive clip

FOR UNSUPPORTED WIRING

binders and clips



BINDERS



B1

B2, B12

CLIPS



N0
miniature
(for
replacement)

N1, N3,
N5, N7

DIMENSIONS

Type & Size	Dimensions (inches) A	Dimensions (inches) B	Type & Size	Dimensions (inches) A	Dimensions (inches) B
Cradles			Binders		
C0	.500	.335	B0	.500	.250
C1	.937	.562	B1	.875	.187
C1-M	.937	.562	B12	.937	.400
C2	1.375	.750	B2	1.875	.812
C2-M	1.375	.750			
C3	1.875	1.000	Clips		
C3-M	1.875	1.000	N0	.340	.500
			N1	.500	.937
			N3	1.000	1.000
			N5	1.750	1.000
			N7	2.562	1.000

MATERIALS

Cradles and Binders are molded from special nylon. Extensible Clips are available in Neoprene, Butyl, Viton and Silicone rubber. NO available in Neoprene only. Temperature range -76°F to +250°F.

RECOMMENDED COMBINATIONS

DIAMETER OF CABLE FORM	SUPPORTED* WIRING Cradle Clip	UNSUPPORTED* WIRING Binder Clip
1/4" - 3/8"	C0 N0	B0 N0
1/4" - 5/8"	C1 N1	B1 N1
1/2" - 1 1/8"	C1 N3	B1 N3
1/2" - 1 3/8"	C2 N3	B12 N5
1/2" - 1 3/8"	C2 N5	B12 N5
1/2" - 1 3/8"	C3 N3	B2 N3
1 1/4" - 1 1/2"	C3 N5	B2 N5
1 1/2" - 2"	C3 N7	B2 N7

*for Neoprene, Butyl and Viton Clips. Ask for special recommendations for Silicone Clips.

Standard pack: 500. Packed in polyethylene bags in cardboard cartons.

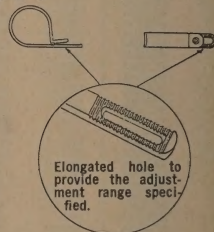
Adjustable P-Clips Nine (9) Sizes Fit Any Loop Diameter From 1/8" Through 2".

- Molded of finest natural, virgin nylon.
- Lightweight, chemical and abrasion resistant, high tensile strength, excellent dielectric properties, rust and rot resistant.
- Typical applications include: cables; bundles of wires, components, pipes and tubing wherever a clamp, strain relief or strap is required.

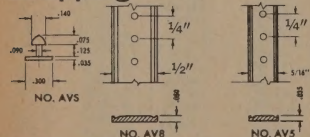
ADVANTAGES OF ADJUSTABLE FEATURE:

- Reduces Inventory.
- Permits Quantity Purchases with Better Discounts.
- Controls Tension.

Size No.	Adjustable Loop Range	Screw Clearance
0	1/8" - 3/8"	No. 4
1	3/8" - 1/2"	No. 4
2	1/4" - 3/8"	No. 6
3	3/8" - 1/2"	No. 6
4	3/8" - 7/8"	No. 10
5	7/8" - 1 3/8"	No. 10
6	1 3/8" - 1 1/2"	No. 10
7	1 1/2" - 1 3/4"	No. 10
8	1 3/4" - 2"	No. 10



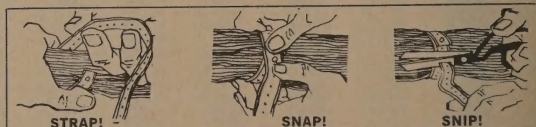
Strapping



Material: PVC (Polyvinylchloride); extremely strong; temperature range -26°F to +180°F

Packing: Strap, 75 ft. coil boxed; or 500 or 1000 ft. coils on reels. Studs, 1000 per box.

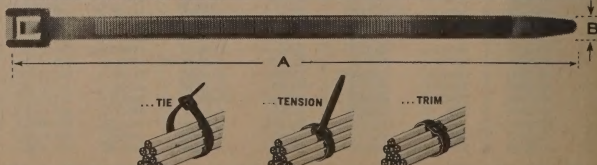
For panel mounting a Strap Saddle is available for use in combination with the AV 5 strapping. Lay wire bundle into Strap Saddle fastened to panel. Thread Strapping through wings of saddle and fasten. Material is molded nylon. Temperature range: -76°F to +250°F.



Installation: Stud is inserted in end of strap extending from dispenser carton; strap is then passed under and around wire bringing it back, under tension, over stud again. Strap is then cut at next hole. This operation should be repeated approximately every 6 inches or as required.

Cable Ties

Size No.	A	B	Thickness	To Accommodate Cable Runs	
				From	To
LK1	3"	3 1/2"	3/64"	3/16"	3/16"
LK2	4 1/16"	4 1/2"	3/64"	3/16"	1 1/16"
LK3	9"	9 1/2"	3/64"	3/16"	2 1/4"



ELECTROVERT^{INC} COMPONENTS AND EQUIPMENT DIVISION

SEND FOR COMPLETE CATALOG AND PRICES

Spiroband Reduces inventory costs • Three standard materials — natural polyethylene, ultraviolet resistant, fire resistant • Three diameters, each for application to a wide range of bundle sizes.



Size No.	Outside Diameter	Wall Thickness	Length of Std. Coil
1/2	.500	.062	25 ft.
3/4	.250	.045	100 ft.
1 1/8	.125	.032	100 ft.

MATERIAL SPECIFICATIONS

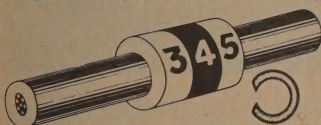
Natural Polyethylene: (grade specification shown in table at right) color is clear.

Ultraviolet Resistant: basically same as above with additives to withstand ultraviolet rays which color material black.

MATERIAL	Natural Polyethylene — DFD-2005
PROPERTIES	Brittleness (D746) —85°C = -121°F Dielectric constant (D150 —23°C) 2.27
SPECIFICATIONS	ASTM: D1248-58T, Type 1, Class A, Grade 4 Federal: L-P-590, Type II, Grade 4 REA: PE-23

Fire Resistant: as above, but with additive which colors material bone white.

"C" markers



Clip-on type. Quick, easy to fit after connection is made or terminal tag fitted. May be removed for re-coding. Same marker used for right or left hand entry.

Materials: Durable resilient PVC.

Colors: White with black markings (standard). Also available in black, blue, red, green and yellow.

Markings: Single; numerals 0-9, letters A to Z and symbols.

Packing: 50 markers of same size, color and marking.

Size No.	Recommended for Wires/Cable of O.D.
2	.080" - .100"
3	.100" - .118"
4	.118" - .138"
5	.138" - .156"
6	.156" - .187"
7	.187" - .218"
8	.218" - .250"
9	.250" - .280"

"Z" markers

APPLICATION SPEED

Size No.	Recommended for Wires/Cables of O.D.	Length	Thickness
22	.045"-.065"	.140"	.055"
20	.066"-.085"	.140"	.050"
18	.086"-.115"	.140"	.040"
16	.110"-.135"	.140"	.030"
14	.130"-.160"	.160"	.040"
12	.150"-.175"	.160"	.045"
10	.170"-.195"	.160"	.045"
9	.190"-.215"	.160"	.050"
8	.210"-.250"	.190"	.055"
7	.245"-.295"	.190"	.055"
6	.290"-.360"	.224"	.060"
4-1	.355"-.460"	.224"	.060"

Colors: White with black markings (Standard color). Black with white markings, Blue, Green, Yellow, Red with black markings.

Material: PVC MIL-1-631C, Type F, Form U, Grade a & b, Class I, Category 1, finish: glossy. Specific gravity: 1.21. Hardness (shore A): 73 av. Tensile Strength: 2600 psi. av. Ultimate Elongation: 350% av. Dielectric Strength (20 mil specimen): 750 volts/mil. Cold Brittle Temp. (50% non-failure): -65° F.

Markings: Single: numerals 0-9, letters A to Z, symbols +, -, ~, ±. Multiple: any 2, 3, 4 or 5 unit combinations of above.

Packing: Coil of 50 single markers, one size, color and character per polyethylene covered cards. Coil of 500, as above, on self-servicing reels.

Min. Quantity: per size, and character: 50 single white, 500 multiple, 500 colored. **Min. Order:** 500 markers.

"S" markers for cables with O.D. of more than .500".



Strap-on-marker: Size: 3/8" x 3/8" x .040", material P.V.C., colors and material same as ELECTROVERT "Z". Markings: 0-9, A-Z, +, -, ~, ±.

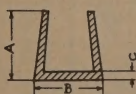
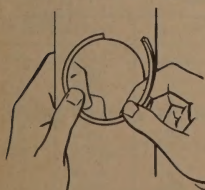
Applications Strip: P.V.C.—covered aluminum, 4 mm wide 0.6 mm thick.

Min. Quantity: Per size, color and character: 50 markers.

Min. Order: 500 Markers, 165' coil of strip.

Packing: Markers, 50 per indicator card pouch; strips in 165' coils.

Grommet Strip with the "Snip-n-Fit" feature



U-shaped, strip-type grommeting material can be cut to size, provides smooth surface around edge of any hole and features quick, simple application. No adhesive or special tools required.

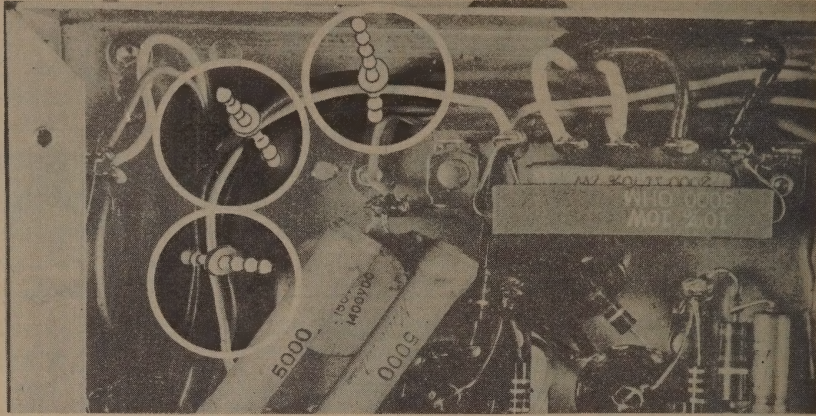
...offers the advantage of one strip only for applications to: round holes; square holes; rectangular holes; oval holes.

MATERIAL	Natural Polyethylene—DFD-2005				
PROPERTIES	Brittleness (D746) —85°C = -121°F Dielectric constant (D150—23°C) 2.27				
SIZE	A	B	C	APPLICATION	PACKAGING
2	.120	.100	.035	20 Ga. and smaller	75' coils
3	.150	.150	.035	18 to 12 gauge	75' coils
4	.150	.200	.045	11 to 8 gauge	75' coils
5	.190	.280	.045	8 Ga. to 3/16" thick	75' coils
6	.250	.375	.062	3/16" to 1/4" thick	50' coils

Specifications: ASTM: D-1248-58T, Type 1, Class A, Grade 4. Federal: L-P-590, Type II, Grade 4. REA: PE-23. MIL-C-17C, Cable, radio frequency, coaxial, dual coaxial, twin conductor and twin lead. MIL-W-76B, Insulated hookup wire. MIL-C-915A, Electrical cable for shipboard use.



WIRE and CABLE TIES



Cable ties, an efficient, cost cutting and time proven asset to any operation, large or small, as a single replacement or on an assembly line. Easily utilized by skilled or unskilled manpower and eliminating many of the problems of difficult lacing. GC cable ties are widely used today by manufacturers of electronic equipment, by the US Government, computer manufacturers, even on automobile production lines. Consider cable ties for your operation. Learn how they cut operation costs and keep customers happy.

PLASTIC

Tough and flexible. Chemically inert. Available in Red, Yellow, or Blue in four different lengths. Smart looking...a compliment to any assembly. Special SNAP BUTTON model holds wire and cable bundles to walls, chassis, cabinets, fire walls etc.

Part No.	Description	O.E.M. Net	Part No.	Description	O.E.M. Net
DISPLAY CARDED PACKAGE OF 40 TIES					
34-431*	4 1/4" Green	.98	34-448-M	10" Yellow	21.60
34-432	4 1/4" Red	.98	34-452-M	10" Blue	21.60
34-436	4 1/4" Yellow	.98	34-453-M	10" Green	21.60
34-440	4 1/4" Blue	.98	34-449-M	12" Yellow	24.90
BULK BOXES OF 1000 TIES*					
34-431-M	4 1/4" Green	11.10	34-450-M	12" Red	24.90
34-432-M	4 1/4" Red	11.10	34-451-M	12" Blue	24.90
34-436-M	4 1/4" Yellow	11.10	34-455-M	12" Green	24.90
34-440-M	4 1/4" Blue	11.10	4 1/4" SNAP-IN PLASTIC CABLE TIES		
34-443-M	8" Green	18.15	34-454-M	4 1/4" Red	13.95
34-445-M	8" Red	18.15	34-456-M	4 1/4" Yellow	13.95
34-446-M	8" Yellow	18.15	34-458-M	4 1/4" Blue	13.95
34-447-M	8" Blue	18.15			
34-444-M	10" Red	21.60			

*Write for prices on quantities of 10,000-up.

*Patent Pending

NYLON

Heavy duty, extra tough. All types are available in natural white only. Nylon withstands extreme temperature. Chemically inert.

Part No.	Description	O.E.M. Net
NYLON CABLE TIES		
34-442-M	4 1/4" White	14.90
34-460-M	10" White	33.85

ETHYL CELLULOSE CABLE CLAMPS

Transparent (light yellowish) plastic. Meets specifications AN742. Plastic thickness is .063".

For Cable O.D.	Cat. No.	Net per C	Cat. No.	Net per M
1/8"	34-300C	2.33	34-300M	19.80
3/16"	34-304C	2.40	34-304M	19.92
1/4"	34-308C	2.58	34-308M	21.97
5/16"	34-312C	2.85	34-312M	24.23
3/8"	34-316C	3.00	34-316M	25.50
7/16"	34-320C	3.30	34-320M	27.83
1/2"	34-324C	3.60	34-324M	28.63
9/16"	34-328C	4.20	34-328M	34.68
19/32"	34-332C	4.50	34-332M	36.00
5/8"	34-336C	4.80	34-336M	39.83
1 1/16"	34-340C	5.10	34-340M	42.71
3/4"	34-344C	5.40	34-344M	44.76
7/8"	34-348C	5.70	34-348M	48.36
1"	34-352C	6.00	34-352M	51.60
1-1/8"	34-356C	6.30	34-356M	55.08
1-1/4"	34-358C	6.60	34-358M	58.20

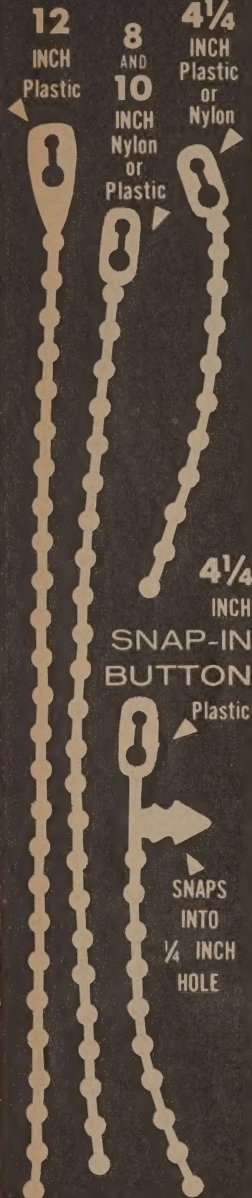
SPECIAL CABLE TIES

Special sizes and colors, even styles of cable ties are available in large quantities. Write or call your specifications today.

NYLON CABLE CLAMPS

Natural color (translucent white) Nylon. Thickness is .050" on 1/2" diameter and smaller clamps, .060" on 5/16" and larger.

For Cable O.D.	Cat. No.	Net per C	Cat. No.	Net per M
1/8"	34-370C	3.60	34-370M	30.00
3/16"	34-374C	3.93	34-374M	31.77
1/4"	34-378C	4.17	34-378M	34.73
5/16"	34-382C	4.68	34-382M	38.37
3/8"	34-386C	4.83	34-386M	40.32
7/16"	34-390C	5.15	34-390M	42.63
1/2"	34-394C	5.47	34-394M	45.38
9/16"	34-398C	6.72	34-398M	62.26
5/8"	34-402C	7.50	34-402M	65.63
1 1/16"	34-406C	7.80	34-406M	77.33
3/4"	34-410C	8.40	34-410M	75.00
7/8"	34-414C	9.00	34-414M	81.00
1"	34-418C	10.50	34-418M	96.00



ELECTRORAFT PLASTIC CABLE CLAMPS

Electrocraft Cable Clamps are used for fastening cables, harnesses, tubing, etc. Lightweight, durable, with excellent electrical and mechanical properties. Two materials: (1) Ethyl Cellulose, for normal industrial and commercial uses—where temperatures range from -40 degree F. to 185 degree F. (2) Nylon (Zytel), for extreme durability and high resistance to temperature (-50 degree F. to 300 degree F.) and most chemicals.





ELECTRONIC COMPONENTS

INSULATING TEFLON* TUBING

Exceptionally tough and flexible. Withstands temperatures from 450 degrees below zero F. to 500 degree above zero F. Will not melt solder joints. Outstanding dielectric properties — zero moisture absorption. Chemically inert. Completely weatherproof. Wires can be inserted much more easily than in any other tubing.

*Registered trademark DuPont Co.

Part No.	Feet Per Spool	Color	Gauge (Inches)	I.D.	Wall Thickness	Net Per Spool
7980-7	10	Nat	24	.022	.010	\$ 1.33
7980-7C	100	Nat	24	.022	.010	11.83
7980-1	10	Red	24	.022	.010	1.33
7980-1C	100	Red	24	.022	.010	11.83
7980-4	10	Blue	24	.022	.010	1.33
7980-4C	100	Blue	24	.022	.010	11.83
7981-7	10	Nat	22	.027	.012	1.47
7981-7C	100	Nat	22	.027	.012	13.26
7981-1	10	Red	22	.027	.012	1.47
7981-1C	100	Red	22	.027	.012	13.26
7981-4	10	Blue	22	.027	.012	1.47
7981-4C	100	Blue	22	.027	.012	13.26
7982-7	10	Nat	20	.034	.012	1.83
7982-7C	100	Nat	20	.034	.012	18.27
7982-1	10	Red	20	.034	.012	1.83
7982-1C	100	Blue	20	.034	.012	18.27
7982-4	10	Nat	18	.042	.012	1.83
7982-4C	100	Blue	20	.034	.012	18.27
7983-7	10	Red	20	.034	.012	2.23
7983-7C	100	Nat	18	.042	.012	20.88
7983-1	10	Red	18	.042	.012	2.23
7983-1C	100	Red	18	.042	.012	20.88
7983-4	10	Blue	18	.042	.012	2.23
7983-4C	100	Blue	18	.042	.012	20.88

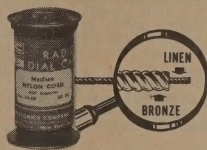
7984-7	10	Nat	16	.053	.012	2.65
7984-7C	100	Nat	16	.053	.012	25.02
7984-1	10	Red	16	.053	.012	2.65
7984-1C	100	Red	16	.053	.012	25.02
7984-4	10	Blue	16	.053	.012	2.65
7984-4C	100	Blue	16	.053	.012	25.02
7985-7	10	Nat	14	.066	.012	2.92
7985-7C	100	Nat	14	.066	.012	28.38
7985-1	10	Red	14	.066	.012	2.92
7985-1C	100	Red	14	.066	.012	28.38
7985-4	10	Blue	14	.066	.012	2.92
7985-4C	100	Blue	14	.066	.012	28.38
7986-7	5	Nat	12	.085	.014	1.83
7986-7C	100	Nat	12	.085	.014	34.76
7986-1	5	Red	12	.085	.014	1.83
7986-1C	100	Red	12	.085	.014	34.76
7986-4	5	Blue	12	.085	.014	1.83
7986-4C	100	Blue	12	.085	.014	34.76
7987-7	5	Nat	10	.106	.014	2.17
7987-7C	100	Nat	10	.106	.014	41.58
7987-1	5	Red	10	.106	.014	2.17
7987-1C	100	Red	10	.106	.014	41.58
7987-4	5	Blue	10	.106	.014	2.17
7987-4C	100	Blue	10	.106	.014	41.58

GC NO. 75 STANDARD THIN NYLON CORD .028" DIAMETER

Nylon cord with a fiberglass core. All especially treated to prevent stretching and slipping. GC cords No. 75, 75-A and 74 will handle 90% of replacements. 25 ft., 50 ft., 100 ft. spools are supplied in permanent, clear plastic containers.

Used on 95% of the latest sets manufactured. Made of finest braided nylon over a Fibreglass Core. It is pre-stretched and chemically treated.

Cat. No. 75-25	25 ft. spool	Net .75
Cat. No. 75-50	50 ft. spool	Net 1.43
Cat. No. 75-100	100 ft. spool	Net 2.37
Cat. No. 75-1000	1000 ft. spool	Net 15.57



GC NO. 74 MEDIUM NYLON CORD .040" DIAMETER

Used on models of RCA, Philco, Majestic, Wells Gardner, etc. Made of finest braided Nylon over a Spun Fibreglass Core.

Cat. No. 74-25	25 ft. spool	Net .75
Cat. No. 74-50	50 ft. spool	Net 1.43
Cat. No. 74-100	100 ft. spool	Net 2.37
Cat. No. 74-1000	1000 ft. spool	Net 19.77

GC NO. 75-A EXTRA THIN NYLON CORD .025" DIAMETER

Used on Motorola, RCA, Sentinel, Stromberg Carlson, and others. Extra thin, made of finest braided Nylon, chemically treated.

Cat. No. 75A-25	25 ft. spool	Net .75
Cat. No. 75A-50	50 ft. spool	Net 1.43
Cat. No. 75A-100	100 ft. spool	Net 2.37
Cat. No. 75A-1000	1000 ft. spool	Net 14.25

GC NO. 70 BRAIDED BRONZE CABLE .035" DIAMETER

Braided phosphor bronze cable made over a Fibreglass core for greater strength and flexibility. Will not unravel.

Cat. No. 70-25	25 ft. spool	Net .97
Cat. No. 70-50	50 ft. spool	Net 1.63
Cat. No. 70-100	100 ft. spool	Net 2.70
Cat. No. 70-1000	1000 ft. spool	Net 22.20

GC NO. 71 42-STRAND BRONZE CABLE .040" DIAMETER

42-strand twisted phosphor bronze cable used on Majestic, Bosch, Philco, etc. 42 line strands braided over a cotton core.

Cat. No. 71-25	25 ft. spool	Net 1.23
Cat. No. 71-50	50 ft. spool	Net 1.88
Cat. No. 71-100	100 ft. spool	Net 3.52
Cat. No. 71-1000	1000 ft. spool	Net 25.80

GC NO. 73 HEAVY NYLON CORD .062" DIAMETER

This is a heavier cord such as used on models of Philco, Silver Marshall, Majestic, Brunswick, etc.

Cat. No. 73-25	25 ft. spool	Net 1.92
Cat. No. 73-50	50 ft. spool	Net 1.73
Cat. No. 73-100	100 ft. spool	Net 2.97
Cat. No. 73-1000	1000 ft. spool	Net 24.90

GC NO. 76 SPECIAL THIN BRONZE CABLE .023" DIAMETER

Extra thin braided bronze cable such as is used on GE and RCA sets. Also used for speaker cones, pigtail, etc.

Cat. No. 76-25	25 ft. spool	Net .97
Cat. No. 76-50	50 ft. spool	Net 1.63
Cat. No. 76-100	100 ft. spool	Net 2.70
Cat. No. 76-1000	1000 ft. spool	Net 22.20

GC COLOR TV NO-STRETCH DIAL CORD

EXTRA FINE .025" diameter		supplied on metal
spools.		
Cat. No. 87-25	25 ft. spool	Net .90
Cat. No. 87-100	100 ft. spool	Net 2.70

STANDARD .028" diameter - supplied on metal spools.		
Cat. No. 88-25	25 ft. spool	Net .90
Cat. No. 88-100	100 ft. spool	Net 2.70

MEDIUM .040" diameter - supplied on metal spools.		
Cat. No. 89-25	25 ft. spool	Net .90
Cat. No. 89-100	100 ft. spool	Net 2.70

GC DIAL CABLE TOOL



A handy tool to aid in replacing worn out cables or cables slipped off of drums, to replace dial cord springs also.

Cat. No. 5096	Net .60
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GC RCA TUNER BELT

Belt used on RCA Tuners such as 8T, 8TC, 8TK, 9TC, etc.

Cat. No. 195	Net .30
Exact replacement for 1956 model RCA TV sets.	
Cat. No. 197	Net 1.10

GC AC-DC INDOOR ANTENNA WIRE



Antenna lead wire for indoor type AC-DC sets. Flexible copper wire covered with brown plastic insulation.

Cat. No. 840 25 ft. coil	Net .37
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GC 300-OHM LINE PROTECTIVE TUBING

Clear plastic tubing will fit over 300-ohm flat lines and will protect the line from grounding and rubbing on corners of buildings, eaves, etc. It actually protects and waterproofs the line.

Cat. No. 625 Box of 8 ft.	Net .75
Cat. No. 626 250 ft. coil	Net 18.29
Cat. No. 627 1000 ft.	Net 68.26

GC GENFLEX PLASTIC TUBING

High grade extremely flexible plastic tubing for radio and electronic insulation work. Highly resistant to cold or heat. High dielectric strength, average 8000 volts.

Colors: Black, Red, Green and Clear (Specify color).	
Cat. No. 603 16 B-S Gauge, .042 I.D., 20' pkg.	Net .82
Cat. No. 605 16 B-S Gauge, .053 I.D., 20' pkg.	Net .82
Cat. No. 607 14 B-S Gauge, .066 I.D., 20' pkg.	Net .82
Cat. No. 609 12 B-S Gauge, .085 I.D., 20' pkg.	Net .82
Cat. No. 611 10 B-S Gauge, .106 I.D., 15' pkg.	Net .82
Cat. No. 613 8 B-S Gauge, .133 I.D., 15' pkg.	Net .82
Cat. No. 616 6 B-S Gauge, .166 I.D., 10' pkg.	Net .82
Cat. No. 617 4 B-S Gauge, .208 I.D., 10' pkg.	Net .82
Cat. No. 620 2 B-S Gauge, .263 I.D., 10' pkg.	Net .82

GC SERVICEMEN'S KIT

Handy kits of assorted colors and sizes. Ideal for experimenters and servicemen. Kit of 25 ft. assorted. Sizes 18 to 10 Genflex Tubing.

Cat. No. 635	Net .82
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GC ASSORTED SPAGHETTI KIT



An assortment of 75' lengths of spaghetti wiring, 26 lengths to the kit. Sizes include from No. 17 wire to 3/8" I.D.

Cat. No. 550	Net .40
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SPAGHETTI AND SLEEVING ASSORTMENT



A variety of sizes and colors are included in high grade varnish tubing. Put up in attractive box.

Cat. No. 551	Net .90
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GC PLASTIC TUBING KITS



Best grade varnished tubing but in convenient 20 ft. lengths. Will fit wire from No. 12 to No. 18. Colors: Black, Red, Yellow, Green and Blue.

Cat. No. 499	Net 1.67
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GC RADIO SPAGHETTI

High grade spaghetti for radio-television work. Average dielectric strength 4000 volts. Very flexible. Smoothly coated with best grades of varnish. Material is approved by A.S.T.M. Colors: Black, Brown, Red, Green and Yellow (Specify color). 30' lengths.

Cat. No. 500 No. 20, 16 ft. wire	Net 15
Cat. No. 503 No. 17, 18 ft. wire	Net 15
Cat. No. 506 No. 14, 14 ft. wire	Net 17
Cat. No. 508 No. 12, 12 ft. wire	Net 17
Cat. No. 512 I.D. 1/8"	Net 23
Cat. No. 515 I.D. 3/16"	Net 25
Cat. No. 518 I.D. 1/4"	Net 40
Cat. No. 521 I.D. 3/8" (resist. size)	Net 63
Cat. No. 522 I.D. 7/16" (red and black)	Net 73
Cat. No. 523 I.D. 1" (red and black)	Net 103

GC MOTOROLA TV DIAL BELT

Replacement belt as used on Motorola TV Tuners. Original replacement part.

Cat. No. 196	Net 30
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GC LAMINATED PHENOLIC PLASTIC PANELS



Black laminated panels. 1/16" thick. Black Color: black.

Cat. No. 590 6" x 6"	Net .42
Cat. No. 591 6" x 12"	Net .82
Cat. No. 592 12" x 12"	Net 1.58




ICORE

ELECTRO-PLASTICS, INC.

a subsidiary of ICORE INDUSTRIES

During the manufacturing process, HEATRAX tubing is expanded beyond its original extruded diameter. It will shrink back, or recover to, this original state when heat is applied briefly. Special formulations and irradiation improve its ability to return to original dimensions, assure more uniform recovery, and develop superior strength and crack resistance. When irradiated, HEATRAX materials will not melt at elevated temperatures.

HEATRAX offers these advantages in applications:

1. Elastic memory—tubing shrinks quickly on application of heat to form a tight cover, even over irregularly shaped objects
2. Thermal stability
3. Outstanding electrical characteristics
4. Excellent mechanical properties
5. Excellent chemical and solvent resistance

The table of Typical Properties below supplies comparative characteristics for the various HEATRAX materials. The following brief description will also be helpful in selecting the proper type for specific applications:

Catalog #HIX—IRRADIATED POLYOLEFIN

Shrink ratio 2 to 1 (expanded to recovered diameter) Temperature range: from 135°C/275°F to —55°C/—65°F

This flexible, general purpose material will not cold flow, never melts and will not split on applications within temperature range. It is less expensive than Teflon HEATRAX. Compared with Vinyl HEATRAX, it is superior in mechanical and dielectric strength, and has less longitudinal shrinkage, higher corrosion resistance and a wider temperature range.

HIX is supplied in two classes:
I-Flame Retarded II-Clear (not flame retarded)
Available with U/L approval.

Catalog #HRX—IRRADIATED SEMI-RIGID POLYOLEFIN

Shrink ratio 2 to 1 (expanded to recovered diameter) Temperature range: from 135°C/275°F to —55°C/—65°F

This material is designed for strain relief applications and protection of delicate components. It will not cold flow, never melts, and will not split on applications within temperature range. It has better gripping power and tensile strength than HIX Irradiated Polyolefin, HCX Irradiated Vinyl and HVX Vinyl.

HRX is supplied in two classes:
I-Flame Retarded II-Clear (not flame retarded)

Catalog #HCX—IRRADIATED FLEXIBLE VINYL

Shrink ratio 2 to 1 (expanded to recovered diameter) Temperature range: from 105°C/220°F to —20°C/—5°F

HEATRAX®

HEAT SHRINKABLE TUBING

This general purpose material is more flexible and less expensive than HIX Irradiated Polyolefin. Compared with HVX Flexible Vinyl, it is superior in flexibility and crack resistance and has slightly better mechanical strength.

Catalog #HVX—FLEXIBLE VINYL

Shrink ratio 2 to 1 (expanded to recovered diameter) Temperature range: from 95°C/200°F to —10°C/15°F

This material has the lowest shrink temperature and the lowest cost of all HEATRAX tubing. HVX is offered in 4 colors.

TEFLON HEATRAX:

Flexible Teflon is primarily for use in high thermal and difficult chemical environmental applications, or where a low coefficient of friction is desirable. It provides excellent electrical insulation, has excellent chemical and solvent resistance. It has the widest temperature range, best dielectric and corrosion resistant properties of all HEATRAX tubings. Temperature range of all Teflon HEATRAX is from 260°C/500°F to —65°C/—85°F.

The following types of Teflon HEATRAX are available:

Cat. #HTX-Thin Wall Teflon (AWG sizes)—Shrink ratio 1½ to 1 (expanded to recovered diameter)
Cat. #HSX-Stand. Wall Teflon (AWG sizes)—Shrink ratio 1½ to 1 (expanded to recovered diameter)
Cat. #HFx-4x Teflon (fractional sizes)—Shrink ratio is 4 to 1 (expanded to recovered diameter)

HEATRAX SPECIFICATION CHART: TYPICAL PROPERTIES

CHARACTERISTICS	ASTM TEST METHOD	UNITS	#HIX Irradiated Flexible Polyolefin	#HRX Irradiated Semi-rigid High strength Polyolefin	#HCX Irradiated Flexible Vinyl	#HVX Low cost Flexible Vinyl	#HSX & #HTX High Temperature Thin & Standard Wall Teflon, AWG Sizes	#HFx High Temperature Flexible Teflon, Fractional Sizes
Maximum continuous operating temperature		°C °F	135 275	135 275	105 220	105 220	260 500	260 500
Low temperature brittle point		°C °F	—55 —65	—55 —65	—20 —5	—10 +15	—65 —85	—65 —85
Shrinkage ratio (Expanded size to recovered size)			2 to 1	2 to 1	2 to 1	2 to 1	1-½ to 1	4 to 1
Shrinkage temp.		°C °F	120 250	135 275	175 345	95 200	325 620	325 620
Longitudinal shrinkage (max.)		%	5	5	10	10	10	10
Ultimate elongation	D638	%	400	400	250	200	400	400
Tensile strength (min.)	D638	PSI	2500	3000	2600	2000	5000	5000
Dielectric strength	D876 D149—55T	Volts/mil	1300	1300	750	700	1300	1300
Volume resistivity	D257	Ohm-cm	10 ¹⁶	10 ¹⁶	10 ¹²	10 ¹¹	10 ¹⁸	10 ¹⁸
Specific Gravity	D792		CLASS I - 1.20 CLASS II - 0.92 (clear)	CLASS I - 1.25 CLASS II - 0.95 (clear)	1.35	1.40	2.2	2.2
Flammability			Class I - self extinguishing class II - (Clear) slow burning	Class I - self extinguishing Class II - (Clear) slow burning	self-extinguishing in 5 sec.	self-extinguishing in 45 sec.	non-flammable	non-flammable
Fungus resistance			will not support fungus growth	will not support fungus growth	will not support fungus growth	will not support fungus growth	inert	inert
Water absorption	D570	%	Class I - 0.1 Class II - 0.05	Class I - 0.1 Class II - 0.05	0.6	1.0	.01	.01
Corrosion resistance			non-corrosive	non-corrosive	passes contact corrosion test	passes contact corrosion test	non-corrosive	non-corrosive
Specifications			MIL-I-23053A Classes 1, 2 AMS 3636, 3637	MIL-I-23053A Classes 3, 4 AMS 3638, 3639	MIL-I-23053A Class 5 MIL-I-631D Grade C	MIL-I-23053A Class 5 MIL-I-631D Grade C	MIL-I-23053A Class 6	MIL-I-23053A Class 6

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ICORE
ELECTRO-PLASTICS, INC.

a subsidiary of ICORE INDUSTRIES

HEATRAX[®]

HEAT SHRINKABLE TUBING

FLEXIBLE IRRADIATED POLYOLEFIN

CATALOG #HIX

Conforms to: MIL-I-23053A,
Classes 1, 2
AMS 3636, 3637

Cat. # Size (Inches)	Inside Diameter		Re- covered Nom. Wall Thick- ness* (Inches)	Standard Colors*	Standard 4 foot lengths, total ft. per pkg.	Standard Spools, occasional random lengths (ft.)	Price 100'
	Ex- panded — as supplied (Inches, Min.)	Re- covered — after heating (Inches, Max.)					
HIX- $\frac{3}{4}$	.046	.023	.016	Black, White, Clear, Red	100, 200	1000	\$ 13.80
$\frac{1}{8}$	.063	.031	.017	Black, White, Clear, Red	100, 200	1000	14.60
$\frac{3}{32}$	.093	.046	.020	Black, White, Clear, Red	100, 200	500	16.90
$\frac{1}{4}$	.125	.062	.020	Black, White, Clear, Red	100, 200	500	17.90
$\frac{3}{8}$	.187	.093	.020	Black, White, Clear, Red	100, 200	500	21.90
$\frac{1}{2}$	.250	.125	.025	Black, White, Clear, Red	100	500	27.60
$\frac{3}{4}$	.375	.187	.025	Black, White, Clear, Red	100	250	30.60
$\frac{1}{2}$	.500	.250	.025	Black, White, Clear, Red	20, 100	250	34.50
$\frac{3}{4}$	.750	.375	.030	Black, White, Clear, Red	20, 100	250	46.25
1	1.000	.500	.035	Black, White, Clear, Red	20, 48	250	65.00
1 $\frac{1}{2}$	1.500	.750	.040	Black, White, Clear, Red	20, 48	125	98.00
2	2.000	1.000	.045	Black, White, Clear, Red	20	125	135.00
3	3.000	1.500	.050	Black, White, Clear, Red	8, 24	50	213.75
4	4.000	2.000	.055	Black, White, Clear, Red	8, 24	50	312.50

* Wall thickness will be less if recovery is restricted
** Yellow and blue available on request

SEMI-RIGID IRRADIATED POLYOLEFIN

CATALOG #HRX

Conforms to: MIL-I-23053A,
Classes 3, 4
AMS 3638, 3639

Cat. # Size (Inches)	Inside Diameter		Re- covered Nom. Wall Thick- ness* (Inches)	Standard Colors	Standard 4 foot lengths, total ft. per pkg.	Price 100'
	Ex- panded — as supplied (Inches, Min.)	Re- covered — after heating (Inches, Max.)				
HRX- $\frac{3}{4}$	.046	.023	.020	Yellow, Clear	100, 200	\$14.10
$\frac{1}{8}$	.063	.031	.020	White, Clear	100, 200	14.80
$\frac{3}{32}$	.093	.046	.020	Blue, Clear	100, 200	17.15
$\frac{1}{4}$	.125	.062	.020	Red, Clear	100, 200	18.35
$\frac{3}{8}$	.187	.093	.025	Green, Clear	100, 200	22.35
$\frac{1}{2}$	.250	.125	.025	Slate, Clear	100	27.95
$\frac{3}{4}$	.375	.187	.030	Brown, Clear	100	31.00
$\frac{1}{2}$	.500	.250	.030	White, Clear	20, 100	35.25

* Wall thickness will be less if recovery is restricted.

IRRADIATED FLEXIBLE VINYL CATALOG #HCX

Conforms to: MIL-I-23053A,
Class 5
MIL-I-631D,
Grade C

Cat. # Size (Inches)	Inside Diameter		Re- covered Nom. Wall Thick- ness* (Inches)	Standard Occasional Random Lengths (ft.)	Price 100'
	Expanded — as supplied (Inches, Min.)	Recovered — after heating (Inches, Max.)			
HCX- $\frac{3}{4}$	.046	.023	.020	100, 500, 1000	\$ 8.25
$\frac{1}{8}$	.062	.031	.020	100, 500, 1000	8.65
$\frac{3}{32}$	.093	.046	.020	100, 500	10.15
$\frac{1}{4}$	.125	.062	.025	100, 500	10.75
$\frac{3}{8}$	.187	.093	.025	100, 500	13.15
$\frac{1}{2}$	.250	.125	.025	100, 500	16.50
$\frac{3}{4}$	.375	.187	.030	100, 250	18.25
$\frac{1}{2}$	.500	.250	.030	100, 250	20.75
$\frac{3}{4}$	.750	.375	.035	100, 250	27.75
1	1.000	.500	.040	100, 250	40.00
1 $\frac{1}{2}$	1.500	.750	.045	25, 50	65.75
2	2.000	1.000	.050	25, 50	96.75

* Wall thickness will be less if recovery is restricted.
Standard Color: Black

FLEXIBLE VINYL CATALOG #HVX

Conforms to: MIL-I-23053A,
Class 5
MIL-I-631D,
Grade C

Cat. # Size (Inches)	Inside Diameter		Re- covered Nom. Wall Thick- ness* (Inches)	Standard Colors	Standard Spools Occasional Random Lengths (ft.)	Price 100'
	Expanded — as supplied (Inches, Min.)	Recovered — after heating (Inches, Max.)				
HVX- $\frac{3}{4}$	.063	.031	.020	Black, White, Red, Clear	100, 250	\$ 4.85
$\frac{3}{32}$	.093	.046	.025	Black, White, Red, Clear	100, 250	5.35
$\frac{1}{8}$	.125	.062	.025	Black, White, Red, Clear	100, 250	5.75
$\frac{3}{8}$	.187	.093	.025	Black, White, Red, Clear	100, 250	6.25
$\frac{1}{4}$	.250	.125	.025	Black, White, Red, Clear	100, 250	7.10
$\frac{3}{4}$	.375	.187	.025	Black, White, Red, Clear	100, 250	8.90
$\frac{1}{2}$	.500	.250	.025	Black, White, Red, Clear	100	10.00
$\frac{3}{4}$	.750	.375	.025	Black, White, Red, Clear	100	13.30
1	1.000	.500	.030	Black, White, Red, Clear	50, 100	17.75
1 $\frac{1}{2}$	1.500	.750	.035	Black, White, Red, Clear	25, 50	24.80
2	2.000	1.000	.040	Black, White, Red, Clear	25, 50	36.65

* Wall thickness will be less if recovery is restricted.



ICORE
ELECTRO-PLASTICS, INC.

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**THIN WALL (AWG SIZES)
CATALOG #HTX**

Conforms to:
MIL-I-23053A,
Class 6

Cat. # Size	Inside Diameter Expanded — as supplied (Inches, Min.)	Recovered — after heating (Inches, Max.)	Recovered Nom. Wall Thickness* (Inches)	Standard 4 foot lengths, total ft. per pkg.	Price 100'
HTX-30	.030	.022	.009	100	\$ 19.45
28	.035	.025	.009	100	20.30
26	.040	.028	.010	100	22.05
24	.050	.032	.010	100	27.40
22	.055	.037	.010	100	29.40
20	.060	.044	.012	100	36.75
18	.076	.052	.012	100	40.40
16	.093	.063	.012	100	46.60
14	.121	.078	.012	100	52.40
12	.153	.096	.012	48	61.35
10	.191	.116	.012	48	70.80
8	.240	.144	.015	48	105.55
6	.302	.178	.015	20	141.45
4	.370	.224	.015	20	171.20
2	.430	.278	.015	20	187.05
0	.470	.347	.015	20	227.65

* Wall thickness will be less if recovery is restricted.
Standard Colors: Natural

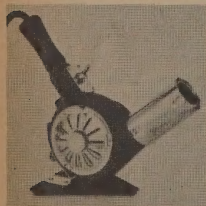
**4X (FRACTIONAL SIZES)
CATALOG #HFX**

Conforms to:
MIL-I-23053A
Class 6

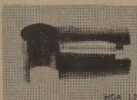
Cat. # Size	Inside Diameter Expanded — as supplied (Inches, Min.)	Recovered — after heating (Inches, Max.)	Recovered Nom. Wall Thickness* (Inches)	Standard 4 foot lengths, total ft. per pkg.	Price 100'
HFX- $\frac{5}{64}$	.078	.025	.009	100	\$ 42.90
$\frac{1}{8}$	.125	.037	.010	100	44.00
$\frac{1}{4}$	.250	.063	.012	100	63.80
$\frac{3}{8}$	.375	.096	.012	100	81.40
$\frac{1}{2}$	.500	.144	.015	100	126.00
$\frac{3}{4}$	.625	.178	.015	100	169.20
$\frac{1}{1}$	.750	.224	.015	100	207.00
1	1.000	.278	.015	20	279.00
$1\frac{1}{4}$	1.250	.347	.015	20	399.60

* Wall thickness will be less if recovery is restricted.
Standard Colors: Natural

HEATRAX HEAT GUN & ACCESSORIES



HGA-12



HGA-21



HGA-13



HGA-22

**TFE
FLEXIBLE
TEFLON**

HEATRAX[®]

HEAT SHRINKABLE TUBING

**STANDARD WALL (AWG SIZES)
CATALOG #HSX**

Conforms to:
MIL-I-23053A,
Class 6

Cat. # Size	Inside Diameter Expanded — as supplied (Inches, Min.)	Recovered — after heating (Inches, Max.)	Recovered Nom. Wall Thickness* (Inches)	Standard 4 foot lengths, total ft. per pkg.	Price 100'
HSX-24	.045	.027	.012	100	\$ 22.40
22	.050	.032	.012	100	24.25
20	.055	.039	.016	100	32.30
19	.060	.043	.016	100	34.35
18	.065	.049	.016	100	37.00
17	.080	.054	.016	100	39.75
16	.090	.061	.016	100	43.20
15	.110	.067	.016	100	46.20
14	.120	.072	.016	100	48.10
13	.130	.080	.016	100	51.20
12	.140	.089	.016	100	54.90
11	.160	.101	.016	100	60.35
10	.180	.112	.016	100	62.80
9	.200	.124	.020	100	81.25
8	.230	.141	.020	48	93.55
7	.240	.158	.020	48	97.80
6	.290	.178	.020	48	104.80
5	.310	.198	.020	20	114.25
4	.335	.224	.020	20	122.90
3	.350	.249	.020	20	134.80
2	.365	.278	.020	20	147.00
1	.375	.311	.020	20	161.70
0	.390	.347	.020	20	180.50

* Wall thickness will be less if recovery is restricted.
Standard Colors: Natural

**SHRINKING METHODS
HEAT GUN & ACCESSORIES**

Excellent results may be obtained by dipping HEATRAX in hot liquids, by oven heat, infrared heat, or open flame. However, the HEATRAX Heat Gun offers the easiest method of applying heat to all types of shrinkable tubing.

HEATRAX Heat Gun:

The HEATRAX Heat Gun is a flameless hot air torch — lightweight and mobile — or adaptable for permanent mounting. Three models, with different temperature ranges, are available. All models have adjustable air volume control and a three-way switch (hot-cool-off). All Heat Guns operate on 115V, 50/60 cycles and deliver an air volume of 35 CFM with a velocity of 3000 FPM.

Cat. #	Current (Amp.)	Temperature Range		Price Each
		°C	°F	
HG-103	12	150/260	300/500	\$40.25
HG-105	14	260/400	500/750	45.35
HG-107	18	400/525	750/1000	56.25

In addition, adaptors for the Heatgun (shown below) have been developed to concentrate heat in specific application areas.



ICORE
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This expandable spiral-cut plastic wrap harnesses, insulates and protects wire assemblies up to 8" diameter.

HARNESSING:

Spiral Wrap applies a strong grip developed both from its torsional cut and the memory of plastic materials used. It retains its strength under repeated flexing and bending, follows wire paths easily, and makes neat, free-running cables. It is extremely useful on long continuous runs where many leads are required; wires can enter or break out at any point. Spiral Wrap can be removed easily for trouble shooting and then re-applied.

PROTECTION:

Spiral Wrap is available in materials which accommodate a heat range from -265°C/-450°F to 260°C/500°F for insulation purposes. It is also available in materials with high abrasion resistance and in materials for use outdoors where resistance to ultra-violet rays is required.

SPIRAL WRAP®

MATERIAL DESCRIPTION

Polyethylene Versatile, low cost material
Polyethylene, black In addition to above, this material is designed for outdoor use. It resists ultra-violet rays. Oper. Temp. -75°C/-105°F to 100°C/215°F.
Rulan (carbon impregnated polyethylene) Used primarily in applications where a low cost self-extinguishing material is required. Oper. Temp. -25°C/-10°F to 95°C/200°F.
Nylon, natural This material offers best mechanical protection; also has a higher temperature rating than polyethylene. Oper. Temp. -100°C/-150°F to 150°C/300°C.
Nylon, black In addition to the above, this material is designed for outdoor use; it resists ultra-violet rays. Oper. Temp. -100°C/-150°F to 110°C/230°F.
Teflon Primarily used in high temperature applications; also has an extremely low operating temperature, excellent dielectric properties and is not affected by organic solvents or acids. Oper. Temp. -265°C/-450°F to 260°C/500°F.

Cat. # Size	Price 100'
SWN-1/8	\$ 7.50
1/4	14.00
3/8	36.40
1/2	44.00
3/4	73.00
1"	92.00
SWP-1/8	3.60
3/16	5.30
1/4XXT	5.60
1/4XT	5.80
1/4	6.00
3/8	9.50
1/2	14.50
3/4	21.75
1XT	28.55
1"	29.25
SWR-1/8	4.65
1/4	9.00
3/8	13.00
1/2	18.00
SWT-1/8	117.00
3/16	128.00
1/4	139.00
3/8	261.00
1/2	380.00
3/4	570.00
1"	760.00

CATALOG #SWP — POLYETHYLENE

Conforms to: Grade C Fed. Spec. L.P. 390 MIL-I-631D MIL-P-26692

Cat. #	Nominal Outside Dia., (Inches)	Nominal Wall (Inches)	Nominal Pitch (Inches)	Max. Bundle Size (In.)*	Standard Colors**	Standard Package (Ft./Spool)
SWP-1/8	.125	.031	1/4	1/2	Nat., Blk.	100, 500
3/16	.187	.031	1/4	1-1/2	Nat., Blk.	100, 500
1/4XXT	.250	.031	3/8	2	Nat., Blk.	100, 500
1/4XT	.250	.040	3/8	2	Nat., Blk.	100, 500
1/4	.250	.058	5/16	2	Nat., Blk., Bl., Rd.	100, 500
3/8	.375	.058	7/16	3	Nat., Blk., Bl., Rd.	100, 500
1/2	.500	.058	9/16	4	Nat., Blk.	100, 250
3/4	.750	.065	7/8	6	Nat., Blk.	50, 100 (Box)
1XT	1.000	.065	1	8	Nat., Blk.	50, 100 (Box)
1	1.000	.100	7/8	8	Nat., Blk.	50, 100 (Box)

CATALOG #SWN — NYLON

Conforms to: MIL-M-22096

Cat. #	Nominal Outside Dia., (Inches)	Nominal Wall (Inches)	Nominal Pitch (Inches)	Max. Bundle Size (In.)*	Colors**	Standard Package (Ft./Spool)
SWN-1/8	.125	.016	1/4	1/2	Nat., Blk.	100, 500
1/4	.250	.030	5/16	2	Nat., Blk.	100, 500
3/8	.375	.030	7/16	3	Nat., Blk.	100, 500
1/2	.500	.030	9/16	4	Nat., Blk.	100, 250
3/4	.750	.040	7/8	6	Natural	50, 100 (Box)
1	1.000	.040	1	8	Natural	50, 100 (Box)

CATALOG #SWR — RULAN

Cat. #	Nominal Outside Dia., (Inches)	Nominal Wall (Inches)	Nominal Pitch (Inches)	Max. Bundle Size (In.)*	Colors**	Standard Package (Ft./Spool)
SWR-1/8	.125	.030	1/4	1/2	Wh., Gray	100, 500
1/4	.250	.058	5/16	2	Wh., Gray	100, 500
3/8	.375	.058	7/16	3	Wh., Gray	100, 500
1/2	.500	.058	9/16	4	Wh., Gray	100, 250

CATALOG #SWT — TEFLON

Conforms to: MIL-I-22129B AMS 3651B, 3653

Cat. #	Nominal Outside Dia., (Inches)	Nominal Wall (Inches)	Nominal Pitch (Inches)	Max. Bundle Size (In.)*	Colors**	Standard Package (Ft./Spool)
SWT-1/8	.125	.030	1/4	1/2	Natural	25, 50, 100, 500
3/16	.187	.030	1/4	1	Natural	25, 50, 100, 500
1/4	.250	.030	3/8	2	Natural	25, 50, 100, 500
3/8	.375	.030	7/16	2-1/2	Natural	25, 50, 100, 500
1/2	.500	.030	9/16	3	Natural	25, 50, 100, 250
3/4	.750	.040	7/8	4	Natural	25 (Box)
1	1.000	.040	1	6	Natural	25 (Box)

* Size will vary on a specific bundle depending on desired flexibility and protection

** ADDITIONAL COLORS AVAILABLE ON REQUEST

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TUBING

VINYL, FIBERGLASS & TEFLON

ICORE offers a complete line of Vinyl, Fiberglass, and Teflon tubing for electrical insulation applications.

	Cat. #	Class	
Vinyl	SLV-105	A	Low cost, high temperature vinyl for applications up to 105°C/220°F.
	SLV-40	—	Low temperature vinyl for applications down to -65°C/-85°F.
Fiberglass	SLV-130	B	Grade B Abrasion resistant fiberglass tubing for applications up to 130°C/225°F.
	SLV-1200	C	Tightly braided 100% fiberglass tubing for applications up to 650°C/1200°F.
Teflon		C	Excellent electrical insulating properties, good flexibility, chemical inertness for applications up to 260°C/500°F.
	STT		Teflon thin wall
	STS		Teflon standard wall
	STL		Teflon lightweight (extra thin wall)
	TTF		Teflon tubing in fractional sizes (heavy wall).

TUBING SPECIFICATION CHART
TYPICAL PROPERTIES

CHARACTERISTICS	TEST METHOD	UNITS	SLV-105 High Temperature Vinyl	SLV-40 Low Temp. Vinyl	SLV-130 Abrasion Resistant Fiberglass	SLV-1200 High Temp. Fiberglass	STT, STS, STL, TTF TEFLON
Class			A		B, Grade B	C	C
Maximum Continuous Operating Temp.		°C °F	105 220	80 175	130 265	650 1200	260 500
Low Temp. Brittle Point	ASTM D876	°C °F	-10 +15	-65 -85	-20 -5	N/A	-65 -85
Tensile Strength	ASTM D876	PSI	3000	2000	1500*	N/A	5000
Dielectric Strength							
Dry		Volts/mil	.015 in. wall-1000 .030 in. wall- 900	.015 in. wall-650 .030 in. wall-300	7000	Determined by space factor	.010 in. wall-1400 .020 in. wall- 850
Wet		Volts/ mil	.015 in. wall- 900 .030 in. wall- 800	.015 in. wall-475 .030 in. wall-250	3000		.010 in. wall-1200 .020 in. wall- 800
Min. Volume Resistivity	MIL-I-631D	Ohm/cm	10 ¹³	10 ⁹	10 ⁷	N/A	10 ¹⁷
Dielectric Constant (Max. at 1 Kilocycle)	MIL-I-631D		4	4.5	7	N/A	2.1
Dielectric Factor (Max. at 1 Kilocycle)	MIL-I-631D		.08	.14	.40	N/A	.0002
Corona Resistance			Excellent	Good	Excellent	N/A	Poor
Fungus Resistance	MIL-I-631D		Good	Good	Good	Inert	Inert
Abrasion Resistance	MIL-T-5438		Good	Fair	Good	N/A	Good
Flame Resistance	ASTM D876		Self-extinguishing	Self-extinguishing	Self-extinguishing	Will not burn	Will not burn
Cut Through Resistance			Excellent	Excellent	Excellent	N/A	Fair
Oil Resistance	ASTM D876		Excellent	Excellent	Excellent	N/A	Superior
Chemical Resistance			Resistant to acids & alkalies, softened by ketones & esters	Resistant to acids & alkalies, softened by ketones & esters	Resistant to acids & alkalies, softened by ketones & esters	Superior	Superior, unaffected by practically any solvent
Specifications			MIL-I-631D Grade C	MIL-I-7444B MIL-I-22076	MIL-I-3190B NEMA-VS-1950	NEMA VSI-1957	AMS3651B (All) AMS3653 STS AMS3654-STL AMS3655-STT MIL-I-22129B-STT, STS, TTF

* Applies to coating material only

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CAT. #SLV-105 HIGH TEMPERATURE, CLASS A

Low cost, flexible, high temperature vinyl, with excellent electrical, mechanical and thermal properties for applications up to 105°C/221°F.

CATALOG #SLV-105 Conforms to: MIL-I-631D Grade C, Class 1 & 2

Cat. # Sizes	Nominal Inside Dia. (Inches)	Nominal Wall Thick- ness (Inches)	Standard Colors*	Standard Packaging (ft.)		Price 100'
				Short Lengths	Standard Lengths	
SLV 105-						
24	.022	.012	Blk., Clr., Wh.	100, 500 Spools	1,000 Spools	\$ 1.96
22	.027	.012	Blk., Clr., Wh.	100, 500 Spools	1,000 Spools	1.97
20	.034	.016	Blk., Clr., Wh.	100, 500 Spools	1,000 Spools	2.01
19	.038	.016	Blk., Clr., Wh.	100, 500 Spools	1,000 Spools	2.06
18	.042	.016	Blk., Clr., Wh.	100, 500 Spools	1,000 Spools	2.08
17	.047	.016	Blk., Clr., Wh.	100, 500 Spools	1,000 Spools	2.11
16	.053	.016	Blk., Clr., Wh.	100, 500 Spools	1,000 Spools	2.20
15	.059	.016	Blk., Clr., Wh.	100, 500 Spools	1,000 Spools	2.27
14	.066	.016	Blk., Clr., Wh.	100 Spools	500 Spools	2.34
13	.076	.016	Blk., Clr., Wh.	100 Spools	500 Spools	2.39
12	.085	.016	Blk., Clr., Wh.	100 Spools	500 Spools	2.43
11	.095	.016	Blk., Clr., Wh.	100 Spools	500 Spools	2.56
10	.106	.016	Blk., Clr., Wh.	100 Spools	500 Spools	2.66
9	.118	.020	Blk., Clr., Wh.	100 Spools	500 Spools	3.49
8	.125	.020	Blk., Clr., Wh.	100 Spools	500 Spools	3.60
7	.133	.020	Blk., Clr., Wh.	100 Spools	500 Spools	3.74
6	.148	.020	Blk., Clr., Wh.	100 Spools	250 Spools	3.97
5	.166	.020	Blk., Clr., Wh.	100 Spools	250 Spools	4.26
4	.186	.020	Blk., Clr., Wh.	100 Spools	250 Spools	4.58
3	.208	.020	Blk., Clr., Wh.	100 Spools	250 Spools	4.93
2	.234	.020	Blk., Clr., Wh.	100 Spools	250 Spools	5.25
1	.250	.020	Blk., Clr., Wh.	100 Spools	250 Spools	5.47
#2	.263	.020	Blk., Clr., Wh.	100 Coils	250 Coils	5.69
#1	.294	.020	Blk., Clr., Wh.	100 Coils	250 Coils	6.12
3/8	.312	.025	Blk., Clr., Wh.	100 Coils	250 Coils	7.79
1/2	.330	.020	Blk., Clr., Wh.	100 Coils	250 Coils	8.94
5/8	.375	.025	Blk., Clr., Wh.	50, 100 Coils	250 Coils	8.94
1	.438	.025	Blk., Clr., Wh.	50, 100 Coils	250 Coils	10.10
1 1/8	.500	.025	Blk., Clr., Wh.	50, 100 Coils	250 Coils	11.29
1 1/4	.562	.030	Blk., Clr., Wh.	50, 100 Coils	100 Coils	14.17
1 1/2	.625	.030	Blk., Clr., Wh.	50, 100 Coils	100 Coils	15.30
1 3/4	.750	.035	Blk., Clr., Wh.	50, 100 Coils	100 Coils	21.12
2	.875	.035	Blk., Clr., Wh.	50 Coils	100 Coils	23.74
2 1/4	1.000	.035	Blk., Clr., Wh.	25 Coils	50 Coils	26.53
2 1/2	1.125	.035	Blk., Clr., Wh.	25 Coils	50 Coils	31.79
2 3/4	1.250	.040	Blk., Clr., Wh.	25 Coils	50 Coils	36.78
3	1.375	.040	Blk., Clr., Wh.	25 Coils	50 Coils	39.31
3 1/4	1.500	.045	Blk., Clr., Wh.	25 Coils	50 Coils	47.67
3 1/2	1.750	.055	Blk., Clr., Wh.	25 Coils	50 Coils	59.43
3 3/4	2.000	.060	Blk., Clr., Wh.	25 Coils	50 Coils	81.97
4	2.250	.065	Blk., Clr., Wh.	25 Coils	50 Coils	91.70
4 1/2	2.500	.070	Blk., Clr., Wh.	25 Coils	50 Coils	115.12

* Red, yellow, green available on request

CAT. #SLV-1200 HIGH TEMPERATURE, CLASS C

This sleeving of tightly braided 100% fiberglass is for use in temperatures up to 650°C/1200°F. Closely woven construction provides maximum abrasion resistance with high flexibility. Material is treated to remove all organic matter and to render the glass braid fray resistant. Material available in double wall on request.

CATALOG #SLV-1200

Cat. # Sizes	Nominal Inside Dia. (Inches)	Nominal Wall Thick- ness (Inches)	Standard Packaging (ft.)		Price 100'
			Short Lengths	Standard Lengths	
SLV-1200					
24	.022	.010	100, 500 Spools	1,000 Spools	\$ 3.15
22	.027	.010	100, 500 Spools	1,000 Spools	3.15
20	.034	.010	100, 500 Spools	1,000 Spools	3.30
19	.038	.015	100, 500 Spools	1,000 Spools	3.30
18	.042	.015	100, 500 Spools	1,000 Spools	3.51
17	.047	.015	100, 500 Spools	1,000 Spools	3.51
16	.053	.015	100, 500 Spools	1,000 Spools	3.60
15	.059	.015	100, 500 Spools	1,000 Spools	3.82
14	.066	.015	100 Spools	500 Spools	3.82
13	.076	.015	100 Spools	500 Spools	3.90
12	.085	.015	100 Spools	500 Spools	3.97
11	.095	.015	100 Spools	500 Spools	4.35
10	.106	.015	100 Spools	500 Spools	4.58
9	.118	.015	100 Spools	500 Spools	4.92
8	.133	.015	100 Spools	500 Spools	5.02
7	.148	.015	100 Coils	250 Coils	5.45
6	.166	.015	100 Coils	250 Coils	6.00
5	.186	.015	100 Coils	250 Coils	6.47
4	.208	.015	100 Coils	250 Coils	7.12
3	.234	.015	100 Coils	250 Coils	8.10
2	.263	.020	100 Coils	250 Coils	9.00
#1	.294	.020	100 Coils	250 Coils	10.32
3/8	.312	.020	100 Coils	250 Coils	11.88
1/2	.387	.032	100 Coils	250 Coils	15.37
5/8	.450	.032	100 Coils	250 Coils	20.32
1	.512	.032	100 Coils	250 Coils	26.40
1 1/8	.640	.032	100 Coils	100 Coils	31.80
1 1/4	.768	.032	100 Coils	100 Coils	38.92
1 1/2	.893	.032	100 Coils	100 Coils	47.62
1 3/4	1.018	.032	100 Coils	100 Coils	57.90

Color: Natural

SECTION 6000

VINYL TUBING

CAT. #SLV-40 LOW TEMPERATURE

An extremely flexible material designed primarily for low temperature applications (-65°C/-85°F), with continuous rating of 80°C/175°F. Widely used in applications where all purpose vinyls lose their flexibility.

CATALOG #SLV-40

Conforms to: MIL-I-7444B, MIL-I-22076

Cat. # Sizes	Nominal Inside Dia. (Inches)	Nominal Wall Thick- ness (Inches)	Standard Packaging (ft.)		Price 100'
			Short Lengths	Standard Lengths	
SLV 40-					
24	.022	.012	100, 500 Spools	1,000 Spools	\$ 2.15
22	.034	.016	100, 500 Spools	1,000 Spools	2.22
20	.038	.016	100, 500 Spools	1,000 Spools	2.22
18	.042	.016	100, 500 Spools	1,000 Spools	2.28
17	.047	.016	100, 500 Spools	1,000 Spools	2.31
16	.053	.016	100, 500 Spools	1,000 Spools	2.42
15	.059	.016	100, 500 Spools	1,000 Spools	2.46
14	.066	.016	100 Spools	500 Spools	2.55
13	.076	.016	100 Spools	500 Spools	2.64
12	.085	.016	100 Spools	500 Spools	2.78
11	.095	.016	100 Spools	500 Spools	2.84
10	.106	.016	100 Spools	500 Spools	3.05
9	.118	.020	100 Spools	500 Spools	4.08
8	.125	.020	100 Spools	500 Spools	4.22
7	.133	.020	100 Spools	250 Spools	4.35
6	.148	.020	100 Spools	250 Spools	4.61
5	.166	.020	100 Spools	250 Spools	4.92
4	.186	.020	100 Spools	250 Spools	5.25
3	.208	.020	100 Spools	250 Spools	5.57
2	.234	.020	100 Spools	250 Spools	6.02
1	.250	.020	100 Spools	250 Spools	6.26
#2	.263	.020	100 Coils	250 Coils	6.51
#1	.294	.020	100 Coils	250 Coils	7.05
3/8	.312	.025	100 Coils	250 Coils	9.03
1/2	.330	.020	100 Coils	250 Coils	7.68
5/8	.375	.025	50, 100 Coils	250 Coils	10.58
1	.438	.025	50, 100 Coils	250 Coils	11.94
1 1/8	.500	.025	50, 100 Coils	250 Coils	13.32
1 1/4	.562	.030	50 Coils	100 Coils	15.34
1 1/2	.625	.030	50 Coils	100 Coils	16.78
1 3/4	.750	.035	50 Coils	100 Coils	23.14
2	.875	.035	50 Coils	100 Coils	26.11
2 1/4	1.000	.035	25 Coils	50 Coils	29.19
2 1/2	1.125	.040	25 Coils	50 Coils	40.46
2 3/4	1.375	.040	25 Coils	50 Coils	43.80
3	1.500	.045	25 Coils	50 Coils	52.44
3 1/4	1.750	.055	25 Coils	50 Coils	65.38
3 1/2	2.000	.060	25 Coils	50 Coils	89.84
3 3/4	2.250	.065	25 Coils	50 Coils	106.81
4	2.500	.070	25 Coils	50 Coils	126.63

Standard Color: Clear

Black available on request

FIBERGLASS TUBING

CAT. #SLV-130 CLASS B, GRADE B

This combination of fiberglass and plastic insulation material has good abrasion resistance, excellent cut through characteristics, and ends will not fray. Widely used in applications up to 130°C/265°F where tubing is subject to knotting, bending and high torque.

Conforms to: MIL-I-3190B

CATALOG #SLV-130

NEMA-VSI-196.2

Cat. # Sizes	Nominal Inside Dia. (Inches)	Wall Thickness (Inches)		Standard Packaging (ft.)		Price 100'
		Min.	Max.	Short Lengths	Standard Lengths	
SLV-130						
24	.022	.012	.016	100, 500 Spools	1,000 Spools	\$ 4.79
22	.027	.012	.016	100, 500 Spools	1,000 Spools	5.05
20	.034	.012	.016	100, 500 Spools	1,000 Spools	5.12
19	.038	.012	.016	100, 500 Spools	1,000 Spools	5.15
18	.042	.014	.018	100, 500 Spools	1,000 Spools	5.21
17	.047	.014	.018	100, 500 Spools	1,000 Spools	5.23
16	.053	.014	.018	100, 500 Spools	1,000 Spools	5.43
15	.059	.014	.018	100, 500 Spools	1,000 Spools	5.54
14	.066	.016	.020	100 Spools	500 Spools	5.62
13	.076	.016	.020	100 Spools	500 Spools	5.95
12	.085	.016	.020	100 Spools	500 Spools	6.11
11	.095	.016	.020	100 Spools	500 Spools	6.53
10	.106	.017	.022	100 Spools	500 Spools	6.83
9	.118	.017	.022	100 Spools	500 Spools	7.03
8	.133	.017	.022	100 Spools	500 Spools	7.51
7	.148	.017	.022	100 Spools	250 Spools	7.93
6	.166	.017	.022	100 Spools	250 Spools	8.42
5	.186	.017	.022	100 Spools	250 Spools	9.34
4	.208	.019	.024	100 Coils	250 Coils	10.24
3	.234	.019	.024	100 Coils	250 Coils	11.39
2	.263	.023	.028	100 Coils	250 Coils	12.88
#1	.294	.029	.035	100 Coils	250 Coils	14.72
3/8	.312	.029	.035	100 Coils	250 Coils	16.50
1/2	.387	.033	.040	100 Coils	250 Coils	21.05
5/8	.450	.033	.040	100 Coils	250 Coils	27.89
1	.512	.033	.040	100 Coils	250 Coils	36.39
1 1/8	.640	.037	.044	100 Coils	100 Coils	43.89
1 1/4	.768	.047	.054	100 Coils	100 Coils	53.72
1 1/2	.893	.053	.060	50 Coils	100 Coils	65.76
1 3/4	1.018	.053	.060	50 Coils	100 Coils	79.37

Color: Black


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Teflon is rated for continuous operation at 260°C/500°F. A hot soldering iron will not shrink back Teflon as frequently happens with conventional thermoplastic materials. In addition, Teflon has an excellent low temperature rating (-65°C/-85°F).

**THIN WALL
CAT. # STT**

Conforms to: AMS 3651B, 3655
MIL-I-22129B
(Sizes 30, 28 and
26 only)

Cat. # Size	Nominal Inside Diameter (Inches)	Nominal Wall Thickness (Inches)	Standard Colors*	Standard Packaging (Feet)**	Price 100'
STT-					
30	.012	.009	Natural, Black	100, 500, 1000 Spool	\$ 7.56
28	.015	.009	Natural, Black	100, 500, 1000 Spool	6.53
26	.018	.009	Natural, Black	100, 500, 1000 Spool	6.79
24	.022	.010	Natural, Black	100, 500, 1000 Spool	6.90
22	.027	.010	Natural, Black	100, 500, 1000 Spool	8.58
20	.034	.012	Natural, Black	100, 500, 1000 Spool	11.45
19	.038	.012	Natural, Black	100, 500, 1000 Spool	12.38
18	.042	.012	Natural, Black	100, 500, 1000 Spool	12.98
17	.047	.012	Natural, Black	100, 500, 1000 Spool	14.18
16	.053	.012	Natural, Black	100, 500, 1000 Spool	14.53
15	.059	.012	Natural, Black	100, 500, 1000 Spool	14.58
14	.066	.012	Natural, Black	100, 500, 1000 Spool	16.04
13	.076	.012	Natural, Black	100, 500, 1000 Spool	17.17
12	.085	.012	Natural, Black	100, 500, 1000 Spool	18.48
11	.095	.012	Natural, Black	100, 500, 1000 Spool	20.45
10	.106	.012	Natural, Black	100 Spool	22.04
9	.118	.015	Natural, Black	100 Spool	24.95
1/8	.125	.015	Natural, Black	100 Coil	26.18
8	.133	.015	Natural, Black	100 Coil	27.52
7	.148	.015	Natural, Black	100 Coil	29.45
6	.166	.015	Natural, Black	100 Coil	31.82
5	.186	.015	Natural, Black	100 Coil	34.85
4	.208	.015	Natural, Black	100 Coil	38.10
3	.234	.015	Natural, Black	100 Coil	41.74
1/4	.255	.015	Natural, Black	100 Coil	46.16
2	.263	.015	Natural, Black	100 Coil	48.13
1	.294	.015	Natural, Black	100 Coil	52.71
3/8	.318	.015	Natural, Black	100 Coil	57.38
0	.330	.015	Natural, Black	100 Coil	59.14

* Blue, Brown, Gray, Green, Red, Orange, White, Yellow are available on request.

** Occasional random lengths.

(EXTRA-THIN) LIGHTWEIGHT
CAT. # STL

Conforms to: AMS 3651B, 3654

Cat. # Size	Nominal Inside Dimension (Inches)	Nominal Wall Thickness (Inches)	Standard Packaging (Feet)**	Price 100'
STL-				
28	.015	.006	100, 500, 1000 Spool	\$ 5.20
26	.018	.006	100, 500, 1000 Spool	5.30
24	.022	.006	100, 500, 1000 Spool	5.60
22	.027	.006	100, 500, 1000 Spool	6.50
20	.034	.006	100, 500, 1000 Spool	8.15
19	.038	.006	100, 500, 1000 Spool	8.90
18	.042	.006	100, 500, 1000 Spool	9.77
17	.047	.006	100, 500, 1000 Spool	10.74
16	.053	.006	100, 500, 1000 Spool	11.51
15	.059	.006	100, 500, 1000 Spool	11.85
14	.066	.008	100, 500, 1000 Spool	13.95
13	.076	.008	100, 500, 1000 Spool	15.10
12	.085	.008	100, 500, 1000 Spool	16.81
11	.095	.008	100, 500, 1000 Spool	18.60
10	.106	.008	100 Spool	19.54
9	.118	.008	100 Spool	20.10
1/8	.125	.008	100 Coil	20.23
8	.133	.008	100 Coil	20.60
7	.148	.008	100 Coil	22.30
6	.166	.010	100 Coil	26.45
5	.186	.010	100 Coil	30.77
4	.208	.010	100 Coil	34.60
3	.234	.010	100 Coil	37.90
1/4	.255	.010	100 Coil	40.40
2	.263	.010	100 Coil	41.15
1	.294	.010	100 Coil	45.40
3/8	.318	.012	100 Coil	53.75
0	.330	.012	100 Coil	54.60

Colors — Natural

** Occasional random lengths

TEFLON TFE TUBING

ICORE Teflon tubing offers the exceptional combination of properties inherent in Teflon: heat resistance, excellent electrical insulating characteristics, flexibility, and good abrasion resistance. Special extrusion techniques produce pinhole-free tubing of uniform concentricity which assures maximum mechanical and electrical protection.

ICORE Teflon tubing has high resistance to flexural fatigue and stress, will not absorb moisture and has lowest coefficient of friction of all materials. Ideal for applications where heat resistance, flexibility, excellent dielectric values, and chemically inert properties are required.

STANDARD WALL

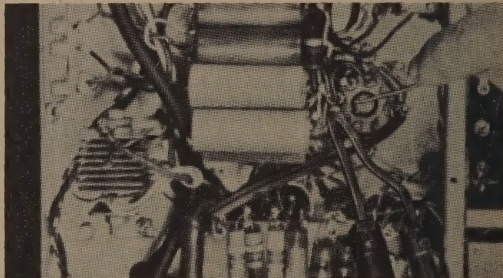
Conforms to: AMS 3651B, 3653
MIL-I-22129B

CAT. # STS

Cat. # Size	Nominal Inside Dimension (Inches)	Nominal Wall Thickness (Inches)	Standard Packaging (Feet)**	Price 100'
STS-				
24	.022	.012	100, 500, 1000 Spool	\$ 9.63
22	.027	.012	100, 500, 1000 Spool	10.78
20	.034	.016	100, 500, 1000 Spool	14.67
19	.038	.016	100, 500, 1000 Spool	15.65
18	.042	.016	100, 500, 1000 Spool	18.70
17	.047	.016	100, 500, 1000 Spool	20.39
16	.053	.016	100, 500, 1000 Spool	21.78
15	.059	.016	100, 500, 1000 Spool	22.26
14	.066	.016	100, 500, 1000 Spool	24.03
13	.076	.016	100, 500, 1000 Spool	25.33
12	.085	.016	100, 500, 1000 Spool	27.41
11	.095	.016	100, 500, 1000 Spool	30.43
10	.106	.016	100 Spool	33.02
9	.118	.020	100 Spool	45.86
1/8	.125	.020	100 Coil	46.54
8	.133	.020	100 Coil	47.43
7	.148	.020	100 Coil	49.56
6	.166	.020	100 Coil	53.55
5	.186	.020	100 Coil	58.99
4	.208	.020	100 Coil	64.09
3	.234	.020	100 Coil	70.89
1/4	.255	.020	100 Coil	72.34
2	.263	.020	100 Coil	73.14
1	.294	.020	100 Coil	81.26
3/8	.318	.012	100 Coil	53.75
0	.330	.020	100 Coil	91.38

Standard Color—Natural. Blue, Brown, Gray, Green, Red, Orange, White, Yellow are available on request.

**Occasional random lengths.



Speed and efficiency in application. Hot soldering iron will not shrink back tubing.

FRACTIONAL TUBING

Conforms to: MIL-I-22129B
AMS-3651B

CAT. # TTF

Cat. # Size	Nominal Inside Dimension (Inches)	Nominal Wall Thickness (Inches)	Standard Packaging (Ft./Coil)*	Price/Ft. 25' to 49'
TTF-				
1/8	.062	.030	5, 25, 50	\$.46
1/8	.125	.030	5, 25, 50	.68
3/16	.188	.030	5, 25, 50	.95
1/4	.250	.030	5, 25, 50	1.22
5/16	.313	.030	5, 25, 50	1.50
3/8	.375	.030	5, 25, 50	1.75
1/2	.438	.030	5, 25, 50	1.81
5/8	.500	.030	5, 25, 50	2.07
3/4	.562	.030	5, 25, 50	2.30
7/8	.625	.030	5, 25, 50	2.56
1	.688	.032	5, 25, 50	3.01
1 1/8	.750	.030	5, 25, 50	3.56
1 1/4	.875	.045	5, 25, 50	4.79
1 1/2	1.000	.050	5, 25, 50	6.10

Colors — Natural

* Occasional random lengths

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ELECTRO-PLASTICS, INC.

LACING TAPE and CORD

Catalog #LTN—Flat Braided Nylon Tape LCN—Round Twisted Nylon Cord
LTD—Flat Braided Dacron Tape LCL—Round Twisted Linen Cord
LTT—Flat Braided Teflon Tape LCV—Round Vinyl Cord

a subsidiary of ICORE INDUSTRIES

General Description

Flat Braided Tape—Designed to create a wider contact area with insulation so tape does not slip away from contact point. It is more flexible than cord and easier on the user's hand. Flat tapes do not appreciably increase the diameter of the cable. Recommended for all types of harness work.

Round Twisted Cord—Suited particularly for wires having a secondary insulation or those utilizing a textile as an insulation material. It may also be used for plastic and rubber insulated wire.

Materials

Nylon—synthetic fiber resistant to fungus and most acids, with excellent tensile strength and abrasion resistance.

Dacron—has all of nylon characteristics, as well as better acid resistance, less elongation and less susceptibility to discoloration.

Linen—Available in cord only, has less stretch than nylon and dacron and is excellent for serving heavy cable and ropes. Also used for lacing wire bundles where a stiffer tie is required, as in switchboards, motors, etc.

LACING BRAIDED TAPE

Cat. #	Material	Width (In.)	Tensile Test (lbs.)	Finishes Available		Stock Colors	Std. Pkg. Yards/Spool	Conforms to:	Price ea. Std. Finish
				Std. Finish	Special Finishes*				
LTN-2	Nylon	.090	50	MW	PVA, HPVA SR	Blk. Wh.	500	MIL-T-713A Type P, and interim spec IP/DES-S-26-4 MIL-T-713A Type P, and interim spec IP/DES-S-26-4 **	\$5.93 B 5.43 W
LTN-3	Nylon	.062	32	MW	PVA, HPVA SR	Blk. Wh.	500	MIL-T-713A Type P, and interim spec IP/DES-S-26-4 **	5.72 B 5.20 W
LTN-4	Nylon	.045	20	MW	PVA, HPVA SR	Blk. Wh.	500	MIL-T-713A Type P, and interim spec IP/DES-S-26-4 **	5.50 B 4.95 W
LTD-2	Dacron	.090	50	PVA	MW, HPVA SR	Wh.	500	MIL-T-713A Type D	5.98
LTT-2	Teflon	.090	50	-	-	Wh.	250	MIL-T-713A Type PTFE	11.63

Zipper tubing is an ideal jacketing material to enclose, insulate, waterproof, shield, mark and identify wire and cable assemblies. The wrap-around, quick zip characteristics allow wire harnesses to be covered at any point, even after connections have been made. The closure device is a zipper running along the zipper track which permits easy re-entry for inspection or modification. Zipper track may

HOW TO DETERMINE SIZE REQUIRED		Zipper Tubing Accessories			
Measure outside diameter of wire bundle. Add 1/8" to this diameter for correct Zipper Tubing size. All Catalog Nos. shown below are available in the following sizes:		Cat.#ZTS-10 Zipper Tubing sliders (one slider free with each 25') Zipper Tubing Sealer:			
		ZTS-1 oz. bottle			
		ZTS-2 oz. bottle			
		ZTS-4 oz. bottle			
		ZTS-1 pt. can			
		ZTS-1 qt. can			
		ZTS-1 gal. can			
3/8" 1 1/4" 1/2" 1 3/8" 5/8" 1 1/2" 3/4" 1 5/8" 7/8" 1 3/4" 1" 1 7/8" 1 1/8" 2" Sizes 2 1/4" to 4" available on special order					
Cat. #	Description	Conforms to:	Nom. Wall (In.)	Colors	Std. Pkg. Ft. per Spool
Z6320-Size	General purpose vinyl tubing application up to 105°C/220°F.	MIL-I-631D Grade C, Class 1	.020	Blk., Clear	25, 50, 100
Z6340-Size		Category 1*	.040	Blk., Clear	100
Z7420-Size	Low temperature, flexible vinyl for applications down to -70°C/-95°F	MIL-I-7444B	.020	Blk., Clear	100
Z7440-Size			.040	Blk., Clear	100
ZASHN-Size	Material is a lamination of vinyl impregnated nylon cloth and aluminum foil with tinned copper wire braid attached to inside of overlap. Excellent RF shielding (nearly 100%), abrasion protection, and grounding properties.	Coated fabric MIL-C-20696 Type II, Class 2 Foil MIL-A-148A	.015	Blk., Grey	100

* Also available in grade A and B on special order

Teflon—a specially developed fiberglass flatbraid of Teflon coated yarns designed for high temperature applications up to 260°C/500°F. Teflon is bonded to fiberglass to keep tape from fraying. Vinyl—inexpensive material used in bundling and harnessing wires.

Finishes—the function of the finish is to permit easier handling of the material (reduce fray), and improve knot retention.

ICORE Standard MW Finish—A micro-crystalline wax with melting point above 55°C/130°F and non-flaking characteristics. It is compounded to develop excellent knot retention, yet not give a waxy feel to user.

Special PVA Finish—Polyvinyl acetate resin with a melting point above 175°C/350°F for use where a wax-free type or higher operating temperature is specified.

Special HPVA Finish—(Similar to GE) Polyvinyl acetate with a heavier finish which permits easier handling and better knot retention.

Special SR Finish—A special coating of fungistatic synthetic rubber containing no corrosive compounding ingredients. It has best knot characteristics of all materials, along with good non-dusting or flaking properties. Being soft and pliable, it will not injure user's hands.

LACING BRAIDED CORD

Cat. #	Material	Dia. (In.)	Tensile Test (lbs.)	Std. Finish	Std. Colors	Std. Pkg. Yards/Spool	Conforms to:	Price ea. Std. Finish
LCN-1	Nylon	.050	70	MW	Blk. Wh.	550	MIL-T-713C-Type P	\$6.40 B 5.40 W
LCN-2	Nylon	.035	48	MW	Blk. Wh.	750	MIL-T-713C-Type P	6.40 B 5.40 W
LCN-3	Nylon	.030	32	MW	Blk. Wh.	1100	MIL-T-713C-Type P	6.40 B 5.40 W
LCL-2	Linen	.035	48	MW	Blk. Nat.	450	MIL-T-713C-Type N	3.95 B 3.75 W
LCV	Vinyl	.065	-	-	Blk. Clear	1000	Virgin PVC-Type A	14.50

* Add numbers behind catalog number for ordering special finishes — example — LTN-2-PVA-White.

** Military specification covers class 2 only. Class 3 and 4 produced under same procedures and can be certified accordingly.

ZIPPER TUBING

be permanently closed and waterproofed with the application of Zipper Tubing Sealer over the track.

The ease of application of Zipper Tubing allows significant labor savings.

ZIPPER TUBING SPECIFICATION CHART TYPICAL PROPERTIES

CHARACTERISTICS	UNITS	Z63	Z74	ZASHN
Construction		Overlap	Overlap	Overlap & Grounding braid
Max. Continuous Operating Temp.	°C	105	70	105
Low Temperature Brittleness	°F	220	160	220
Wall thickness	Inches	—30	—70	—40
Wall tolerance		—20	—95	—40
Tensile strength	PSI	.020 or .040	.020 or .040	.015
Elongation	%	±10	±10	±10
Dielectric strength (dry)	Volts/mil	2700	2000	12,000
Flame Resistance		450	400	3
Fungus Resistance Specifications		800	400	5700
		Self-extinguishing Yes	Self-extinguishing Yes	Non-supporting
		MIL-631D Grade C, Class 1, Category 1 (Also available in grade A & B)	MIL-I-7444B	Base material MIL-C-20696 Type II, Class 2 Foil: MIL-A-148A

Cat. #	Z6320	Z6340	Z7420	Z7440	ZASHN
Size*	Price per 100'				
3/8"	\$34.00	\$42.00	\$34.00	\$43.50	\$48.00
1/2"	36.00	42.50	36.00	45.00	50.50
5/8"	37.50	43.00	38.00	47.50	53.00
3/4"	38.00	43.50	40.00	50.00	55.50
7/8"	38.50	44.00	42.50	53.50	58.00
1"	39.50	44.50	45.00	56.50	60.50
1 1/8"	40.00	45.00	47.00	59.00	63.00
1 1/4"	41.50	47.00	49.00	61.50	65.50
1 3/8"	42.00	48.00	51.00	64.00	68.00
1 1/2"	42.70	48.75	53.00	66.50	70.50
1 5/8"	43.25	49.50	55.00	69.00	73.00
1 3/4"	44.25	50.25	57.00	71.50	75.50
1 7/8"	45.00	51.00	59.00	74.00	78.00
2"	46.00	52.00	61.00	76.50	80.50

Standard Colors: Black and Clear. *Sizes 2 1/4" to 4" available on request.



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ETHYL CELLULOSE CLAMPS

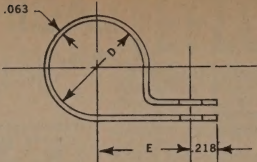
Low cost clamp having excellent shock resistance in temperature range -40°C/-40°F to 85°C/185°F.

Conforms to: 7-21-44 Army-Navy Aeronautical AN 742

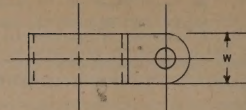
CATALOG # CLE

DIMENSIONS (INCHES)			Std. Pkg.	Price 100 Pk.
D	E	W		
Cat. # Diameter		Width		
CLE- 1/8	.328	1/2	100 1000	\$1.62
1/8	.390	1/2	100 1000	1.68
1/4	.421	1/2	100 1000	1.79
3/8	.453	1/2	100 1000	1.99
1/2	.483	1/2	100 1000	2.14
5/8	.531	1/2	100 1000	2.28
3/4	.562	1/2	100 1000	2.43
1	.625	1/2	100 500	2.99
1 1/8	.610	1/2	100 500	3.10
1 1/4	.666	1/2	100 500	3.43
1 1/2	.765	1/2	100 500	3.60
1 3/4	.812	1/2	100 500	4.05
2	.906	1/2	100 500	4.26
2 1/4	.968	1/2	100 500	4.65
2 1/2	1.025	1/2	100 500	4.78
2 3/4	1.156	1/2	100 500	4.92
3	1.063	1/2	100 500	5.33
3 1/4	1.093	1/2	100 500	5.47
3 1/2	1.250	1/2	100 500	5.63
3 3/4	1.250	1/2	100 500	5.86

Color - Amber Assortment Pak Cat. #CLE-S1 50 assorted ethyl cellulose clamps



CABLE CLAMPS



NYLON CLAMPS

Durable clamp that is tougher, resists acids better and has a higher operating temperature 135°C/275°F than ethyl cellulose.

Conforms to: MIL-P-17091A & Amend 2, MIL-P-17091B, P-20693, Type 1, MS-39014*, MIL-C-21565*

* Conforms to dimensional requirements and material specifications.

CATALOG # CLN

DIMENSIONS (INCHES)			Colors	Std. Pkg.	Price 100 Pk.
D	E	W			
Cat. # Diameter		Width			
CLN- 1/8	.328	3/8	Natural, Blk.	100 1000	\$2.50
1/8	.390	3/8	Natural, Blk.	100 1000	2.64
1/4	.421	3/8	Natural, Blk.	100 1000	2.89
3/8	.453	3/8	Natural, Blk.	100 1000	3.18
1/2	.483	3/8	Natural, Blk.	100 1000	3.36
5/8	.531	3/8	Natural, Blk.	100 1000	3.55
3/4	.562	3/8	Natural, Blk.	100 1000	3.77
1	.593	1/2	Natural, Blk.	100 500	5.66
1 1/8	.625	1/2	Natural, Blk.	100 500	5.95
1 1/4	.656	1/2	Natural, Blk.	100 500	6.46
1 1/2	.765	1/2	Natural, Blk.	100 500	7.06
1 3/4	.812	1/2	Natural, Blk.	100 500	7.65
2	.906	1/2	Natural, Blk.	100 500	8.62
2 1/4	.970	1/2	Natural, Blk.	100 500	9.12
2 1/2	1.000	3/8	Natural, Blk.	100 500	9.75
2 3/4	1.000	3/8	Natural, Blk.	100 500	10.30
3	1.062	3/8	Natural, Blk.	100 500	10.63
3 1/4	1.125	3/8	Natural, Blk.	100 500	13.36
3 1/2	1.125	3/8	Natural, Blk.	100 500	13.79
3 3/4	1.125	3/8	Natural, Blk.	100 500	14.17

Assortment Pak Cat. #CLN-S1 50 assorted nylon clamps

CONTINUOUS STRIP GROMMETS

Gromstrip is a continuous length of extruded U-channel for use as a protective covering on sharp edges. It can be cut to desired length and easily inserted into any hole, regardless of shape or configuration. (On angles less than 90°, miter the two outside edges for better fit). Gromstrip requires minimum space, grips surfaces snugly, and won't jar loose. Wherever wires pass through a metal piece, Gromstrip used on the sharp edges will eliminate cutting and fraying of the wires. The use of continuous strips sharply reduces inventory of stock grommets. The addition of sizes #6 and #7 now allows the use of Gromstrip up to 1/2" thickness.

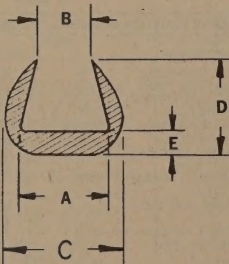
GSP Conforms to: Fed. Spec.

LP390, Type 2, Grade 4

GSN Conforms to:

MIL-M-22096, Type 4

Cat. #	GSN	GSP
	Price	100'
Size 1	\$13.75	\$ 5.50
2	16.50	6.60
3	19.80	7.90
4	25.74	10.25
5	33.46	13.35
6	43.49	18.70
7	56.53	26.20



Poly- ethy- lene Nylon Cat. Cat. # # Size	Dimensions In Inches					Application		Std. Pkg. Dispenser Pak Reels (Feet)*
						Ferrous Material Std. U.S. Gauge	Non- Ferrous Material B & S Gauge	
	A	B	C	D	E	#24 & smaller	#24 & smaller	
GSP GSN 1	.030	.010	.085	.120	.030	#24 & smaller	#24 & smaller	50, 100, 500
GSP GSN 2	.070	.020	.110	.135	.035	22 to 16	22 to 14	50, 100, 500
GSP GSN 3	.120	.060	.160	.155	.040	15 to 12	12 to 9	50, 100, 500
GSP GSN 4	.180	.109	.240	.190	.045	11 to 8	8 to 6	50, 100, 500
GSP GSN 5	.255	.156	.328	.250	.060	¾ to ¼ in.		25, 100, 250
GSP GSN 6	.380	.218	.468	.375	.080	¼ to ⅜ in.		25, 100, 250
GSP GSN 7	.505	.330	.625	.430	.090	⅜ to ½ in.		25, 100, 250

GSP & GSN Color - Natural

GROMSTRIPS®

New tough polyethylene see-thru dispenser pak allows users to pull out enough material for requirements; a quick glance tells when to re-order.

Polyethylene—used for general application

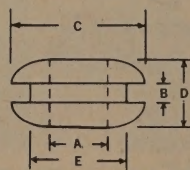
Nylon—used where a particularly tough and abrasive resistant material is desired; it has a higher operating temperature, and better dielectric constant than polyethylene.

Teflon—used for high temperature applications. Available on quotation only.

GROMMETS, VINYL

CAT. # GV

Inexpensive flexible, oil resistant, high dielectric vinyl grommet with outstanding aging qualities. Complete specifications available on request.



Cat. #	Dimensions in Inches					Colors	Std. Pkg.	Price 100 Pk.
	A	B	C	D	E			
GV- 1/4	1/4	1/4	1/2	3/8	1/4	Blk., White	100, 1000	\$.93
3/8	3/8	3/8	3/4	1/2	3/4	Blk., White	100, 1000	1.13
1/2	1/2	1/2	1	3/4	1	Blk., White	100, 1000	1.24
3/4	3/4	3/4	1 1/4	1	1 1/4	Blk., White	100, 1000	1.33
1	1	1	1 3/4	1 1/4	1 3/4	Blk., White	100, 1000	1.40
1 1/4	1 1/4	1 1/4	2	1 3/4	2	Blk., White	100, 1000	2.26
1 1/2	1 1/2	1 1/2	2 1/4	2	2 1/4	Blk., White	100, 1000	2.90
1 3/4	1 3/4	1 3/4	2 3/4	2 1/4	2 3/4	Blk., White	100, 1000	3.72
2	2	2	3	2 3/4	3	Blk., White	100, 1000	7.13

Assortment Pak Cat. #GV-S1 50 assorted grommets of various sizes and colors

PLASTICS

ICORE offers a variety of plastic rod, sheet, and tube in polystyrene, acrylic, paper base phenolic, canvas base phenolic, polyethylene, nylon, Teflon, Delrin, and Lexan. Contact your distributor for complete information.

PANDUIT® wiring components



Type E—Open Slot

PART NUMBER SYSTEM

Channel Only
Example: E 1.5 x 2 LG 6
 Type 1.5" Wide 2" High Light Gray 6' Long

Cover Only
Example: C 1.5 LG 6
 Cover 1.5" Wide Light Gray 6' Long

PANDUCT CHANNEL ONLY

Types Avail.	Nominal Width x Height (Inches)	Approx. Shpg. Wt. Per 100'	Price/Foot		
			Under 200 ft.	200 ft. 1999 ft.	2000 to 4999 ft.
E	.5x.5	11 lbs.	\$0.39	\$0.31	\$0.28
E	.5x.62	12 lbs.	.41	.33	.31
E	.5x1	16 lbs.	.45	.36	.34
E	.5x1.25	16 lbs.	.51	.40	.37
E	.5x1.75	16 lbs.	.53	.43	.40
E	.75x.75	14 lbs.	.44	.35	.33
E	.75x1	16 lbs.	.45	.36	.34
E	.75x1.5	19 lbs.	.53	.42	.39
E	.75x2	23 lbs.	.65	.52	.48
E	1x1	16 lbs.	.45	.37	.34
E	1x1.5	18 lbs.	.60	.49	.45
E	1x2	21 lbs.	.64	.52	.48
E	1x3	31 lbs.	.81	.65	.60
E	1.5x1.5	20 lbs.	.63	.51	.46
E	1.5x2	20 lbs.	.69	.55	.50
E	1.5x3	30 lbs.	.87	.70	.64
E	1.5x4	40 lbs.	1.11	.89	.82
E	2x1	18 lbs.	.62	.50	.45
E	2x2	23 lbs.	.75	.60	.55
E	2x3	36 lbs.	.90	.72	.66
E	2x4	48 lbs.	1.16	.93	.85
E	2.5x3	41 lbs.	.95	.76	.71
E	3x1	20 lbs.	.75	.60	.56
E	3x2	33 lbs.	.82	.65	.60
E	3x3	43 lbs.	.98	.78	.72
E	3x4	53 lbs.	1.21	.97	.89
E	4x1.5	33 lbs.	.86	.69	.64
E	4x2	38 lbs.	.88	.71	.65
E	4x3	48 lbs.	1.05	.84	.77
E	4x4	58 lbs.	1.23	.98	.90

CORRESPONDING COVER ONLY

Nominal Width (Inches)	Approx. Shpg. Wt./100'	Price/Foot		
		Under 200 ft.	200 to 1999 ft.	2000 to 4999 ft.
.5	4 lbs.	\$0.09	\$0.07	\$0.06
.75	6 lbs.	.10	.08	.07
1	9 lbs.	.12	.09	.08
1.5	10 lbs.	.15	.12	.11
2	12 lbs.	.18	.14	.13
2.5	14 lbs.	.22	.18	.16
3	17 lbs.	.25	.20	.18
4	22 lbs.	.33	.26	.24

Order by Total No. of Ft. Req'd. (must be multiple of length per part.)

Standard Mounting Holes: No Charge—Supplied Only if Specified—See Duct Catalog For Dimensions.

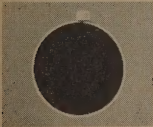
NOTE: Standard Length: 6 ft. Other lengths available. Standard Colors: Light Gray, Dark Gray and White. Black available.

NOTE: Total length of all sizes of duct and cover, ordered for shipment at one time to one location, determines price columns.

STA-STRAP® (Permanent)

CABLE TIES AND CLAMPS

LOK-STRAP® (Releasable)



SST—Tie



SSC—Clamp



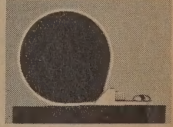
SSM—Marker



SSP—Push



LST—Tie



LSC—Clamp

STANDARD PKG. OF 100

Part Number	Maximum Bundle Diameter	Approx. Shpg. Wt. lbs./1000	Price Per 100	
			Base Price 100-400	500
SST1	3/4"	1	\$ 3.60	\$ 2.85
SST2	1 3/4"	2.6	4.30	3.40
SST4	4"	4.5	9.80	7.80
SST4H	4"	12	14.50	11.50
SSC2	1 3/4"	3.2	4.90	3.90
SSC4	4"	5.5	10.80	8.60
SSC4H	4"	14	17.00	13.60
SSM2	1 3/4"	3.3	8.60	6.80
SSM4	4"	6	14.10	11.20
SSP2	1 3/4"	3.2	4.90	3.90
LST2	1 3/4"	3.2	6.90	5.45
LST4	4"	5	12.00	9.45
LSC2	1 3/4"	3.5	7.45	5.90

BULK PKG. OF 1000

Part Number	Approx. Shpg. Wt. lbs./1000	Price Per M (1000)		
		1M-24M	25M-49M	50M-249M*
SST1B	1	\$ 23.00	\$ 21.85	\$ 20.70
SST2B	2.6	27.00	25.65	24.30
SST4B	4.5	60.00	57.00	54.00
SST4HB	12	93.00	88.35	83.70
SSC2B	3.2	30.00	28.50	27.00
SSC4B	5.5	66.00	62.70	59.40
SSC4HB	14	111.80	106.20	100.75
SSM2B	3.3	55.00	52.25	49.50
SSM4B	6	87.50	83.15	78.25
SSP2B	3.2	30.00	28.50	27.00
LST2B	3.2	44.10	41.90	39.70
LST4B	5	77.00	73.15	69.30
LSC2B	3.5	47.70	45.30	42.95

INSTALLATION TOOLS



TS-2B—Manual \$19.00



GS-2B—Manual \$19.00



ATS-2B—Pneumatic \$183.00

® Registered Trademark

Order by Number of Pieces Required.

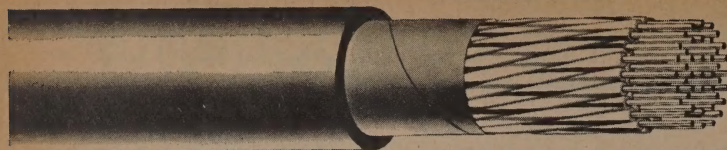
Colors: Standard Color—Natural Nylon White. Other Colors—10% additional price.

*Large Quantities: Quotation Basis.

TERMS: Net, 30 days.

Minimum Order \$10.00

All prices subject to change without notice



In Stock
MIL-SPEC

Multiple Conductor Cables!

National Wire & Cable Corporation manufactures a complete line of multiple conductor control cables. Conductors are of tinned copper strand with primary insulation for use up to 105°C per MIL-W-16878D Type C. Insulated for 1000 volts working voltage. Conductors are color coded using 10 standard basic colors, plus spiral tracers on white per MIL-STD. 122.

All conductors are planetary cabled and contra-helically laid with a Mylar tape serve over the cable bundle. The overall jacket is a 105°C black Thermoplastic or may be Neoprene to MIL-R-6855 Class 2 Grade 60 specification, (Neoprene extra cost.)

SHIELDED CABLES

National Multiple Conductor SHIELDED CABLES are to the same specifications as above with addition of tinned copper braided shield over cable complex with 85-90% coverage to MIL-C-7078A. STANDARD PUT-UPS: 500 ft. and 1000 ft. No-deposit reels.

TECHNICAL DATA (all cables)

Insulation Breakdown Voltage:	Greater than 8000 volts AC RMS, 60 cps.
Capacitance:	Nominal capacitance from a wire to all else in the cable ranges from 40 to 65 mmfd per ft., @ 1000 cps; dependent on cable construction.
Insulation Leakage Res.:	200. megohms/1000 ft. min. at 500 VDC from any conductor to all else in cable.
Sheath Leakage Res.:	10. megohms/1000 ft. min. at 500 VDC from overall shield through sheath to outside world.
Useable Temp. Range:	Suitable for continuous use from +105°C to -55°C.
Cold Bending Capability:	All cables are suitable for flexing to a circle diam. of approx. 6 cable diameters from +105°C to -20°C; Recommended flex diameter should be greater than 20 cable diam. for flexing at -40°C., or for continuous flexing service to -55°C, specify our neoprene sheath, in lieu of plastic sheath.

MULTI-CONDUCTOR STOCK CABLES

Conductor sizes 22, 20, 18, 16, 14 & 12 gauge. 22 AWG is 7 strand. All others 19 strand.

UNSHIELDED					
PART NO.	NO. COND.	COND. AWG	JKT. THICK	CABLE O.D.	WEIGHT PER M'
NW-722 J	7	22	.040	.295	40 Lbs.
NW-1222J	12	22	.050	.390	70 Lbs.
NW-1922J	19	22	.060	.460	110 Lbs.
NW-2722J	27	22	.060	.530	160 Lbs.
NW-3722J	37	22	.060	.600	200 Lbs.
NW-4822J	48	22	.060	.670	245 Lbs.
NW-6022J	60	22	.060	.730	300 Lbs.
NW-7222J	72	22	.060	.775	360 Lbs.
NW-8822J	88	22	.060	.835	425 Lbs.
NW-10222J	102	22	.060	.880	485 Lbs.
NW-720 J	7	20	.040	.300	50 Lbs.
NW-1220J	12	20	.050	.400	105 Lbs.
NW-1920J	19	20	.060	.470	160 Lbs.
NW-2720J	27	20	.060	.560	210 Lbs.
NW-3720J	37	20	.060	.610	280 Lbs.
NW-4820J	48	20	.060	.700	360 Lbs.
NW-6020J	60	20	.060	.750	435 Lbs.
NW-7220J	72	20	.060	.840	485 Lbs.
NW-8820J	88	20	.060	.900	580 Lbs.
NW-10220J	102	20	.060	.975	670 Lbs.
NW-718 J	7	18	.040	.350	75 Lbs.
NW-1218J	12	18	.050	.460	135 Lbs.
NW-1918J	19	18	.060	.560	225 Lbs.
NW-2718J	27	18	.060	.650	300 Lbs.
NW-3718J	37	18	.060	.730	390 Lbs.
NW-4818J	48	18	.060	.820	510 Lbs.
NW-6018J	60	18	.060	.900	600 Lbs.
NW-7218J	72	18	.060	1.100	720 Lbs.
NW-716 J	7	16	.040	.370	95 Lbs.
NW-1216J	12	16	.050	.500	155 Lbs.
NW-1916J	19	16	.060	.600	230 Lbs.
NW-2716J	27	16	.060	.700	320 Lbs.
NW-3716J	37	16	.060	.785	430 Lbs.
NW-4816J	48	16	.060	.900	625 Lbs.
NW-6016J	60	16	.060	.980	750 Lbs.
NW-714 J	7	14	.050	.450	150 Lbs.
NW-1214J	12	14	.050	.560	240 Lbs.
NW-1914J	19	14	.060	.675	370 Lbs.
NW-2714J	27	14	.060	.800	515 Lbs.
NW-512 J	5	12	.050	.480	175 Lbs.
NW-712 J	7	12	.050	.525	225 Lbs.
NW-1212J	12	12	.060	.700	375 Lbs.
NW-1912J	19	12	.060	.820	560 Lbs.

OVERALL SHIELDED						
PART NO.	NO. COND.	COND AWG	T.C. SHIELD	JKT. THICK	CABLE O.D.	WEIGHT PER M'
NW-722 SJ	7	22	No. 36	.040	.320	55 Lbs.
NW-1222SJ	12	22	No. 34	.050	.420	90 Lbs.
NW-1922SJ	19	22	No. 34	.060	.490	145 Lbs.
NW-2722SJ	27	22	No. 34	.060	.560	200 Lbs.
NW-3722SJ	37	22	No. 34	.060	.630	245 Lbs.
NW-4822SJ	48	22	No. 34	.060	.700	300 Lbs.
NW-6022SJ	60	22	No. 34	.060	.760	355 Lbs.
NW-7222SJ	72	22	No. 34	.060	.810	425 Lbs.
NW-8822SJ	88	22	No. 34	.060	.870	500 Lbs.
NW-10222SJ	102	22	No. 34	.060	.915	560 Lbs.
NW-720 SJ	7	20	No. 34	.040	.335	68 Lbs.
NW-1220SJ	12	20	No. 34	.050	.435	125 Lbs.
NW-1920SJ	19	20	No. 34	.060	.500	195 Lbs.
NW-2720SJ	27	20	No. 34	.060	.595	250 Lbs.
NW-3720SJ	37	20	No. 34	.050	.650	325 Lbs.
NW-4820SJ	48	20	No. 34	.060	.735	415 Lbs.
NW-6020SJ	60	20	No. 34	.060	.785	500 Lbs.
NW-7220SJ	72	20	No. 34	.060	.875	555 Lbs.
NW-8820SJ	88	20	No. 34	.060	.935	660 Lbs.
NW-10220SJ	102	20	No. 34	.060	1.010	750 Lbs.
NW-718 SJ	7	18	No. 34	.040	.380	95 Lbs.
NW-1218SJ	12	18	No. 34	.050	.490	170 Lbs.
NW-1918SJ	19	18	No. 34	.060	.590	265 Lbs.
NW-2718SJ	27	18	No. 34	.060	.680	350 Lbs.
NW-3718SJ	37	18	No. 34	.060	.760	445 Lbs.
NW-4818SJ	48	18	No. 34	.060	.850	575 Lbs.
NW-6018SJ	60	18	No. 34	.060	.935	680 Lbs.
NW-7218SJ	72	18	No. 34	.060	1.135	820 Lbs.
NW-716 SJ	7	16	No. 34	.040	.400	125 Lbs.
NW-1216SJ	12	16	No. 34	.050	.535	195 Lbs.
NW-1916SJ	19	16	No. 34	.060	.635	275 Lbs.
NW-2716SJ	27	16	No. 34	.060	.735	375 Lbs.
NW-3716SJ	37	16	No. 34	.060	.820	500 Lbs.
NW-4816SJ	48	16	No. 34	.060	.935	700 Lbs.
NW-6016SJ	60	16	No. 34	.060	1.015	830 Lbs.
NW-714 SJ	7	14	No. 34	.050	.485	180 Lbs.
NW-1214SJ	12	14	No. 34	.050	.600	280 Lbs.
NW-1914SJ	19	14	No. 34	.060	.710	420 Lbs.
NW-2714SJ	27	14	No. 34	.060	.835	575 Lbs.
NW-512 SJ	5	12	No. 34	.050	.515	210 Lbs.
NW-712 SJ	7	12	No. 34	.050	.560	265 Lbs.
NW-1212SJ	12	12	No. 34	.060	.735	430 Lbs.
NW-1912SJ	19	12	No. 34	.060	.850	625 Lbs.

NATIONAL WIRE & CABLE CORP.

SPECIAL SHIELDED DATA & INSTRUMENTATION CABLES

Designed for Low Level or Low Capacitance Needs • All feature extremely low dielectric leakage both in insulation and outer sheath • Suitable for very long runs in tray or conduit. (1000 ft and up).

SINGLE CONDUCTOR SHIELDED

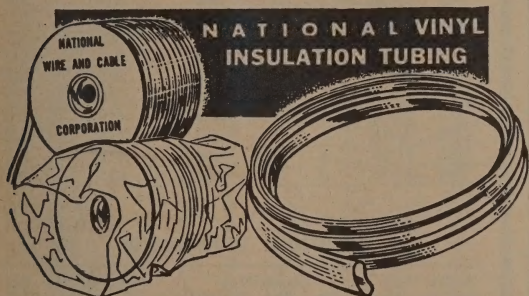
Part Number	AWG & Stranding	Drain AWG & Str.	Insulation & Thickness	Jacket Thickness	Nom. O.D.	Shield % Coverage	Cap. mmfd/ft	Working Voltage	Surge Impedance Ohms	Temp. °F
S10-516	28(7 x 38)	—	.086" NAFOAM	.015" pvc	.242"	TC Braid 90% *	12.	3000.	120.	+180
S10-328-1 S10-328-2	22(19 x 34)	—	.042" NAFOAM	.020" pvc	.182"	(1) 90% Braid* (2) 100% NAFOIL & Braid	20.7 20.7	1000. 1000.	60.	+180
S10-680	22(19 x 34)	22 7 x 30	.032" poly	.016" pvc	.135"	NAFOIL & Drain	30.	3000.	—	+180
S10-679	22(19 x 34)	24 7 x 32	.010" pvc .002" nylon	.015" pvc	.091"	100% NAFOIL & Drain	100.	600.	25.	+221

TWO CONDUCTOR SHIELDED

S10-010-1 S10-010-2	22(19 x 24)	—	.042" NAFOAM	.020" pvc	.295"	(1) 90% Braid (2) 100% NAFOIL + Braid (3) NAFOIL only	10.6 W-W	1000.	120.	+180
S10-010-3	22(19 x 34)	22 7 x 30	.025" NAFOAM	.020" poly	.210"	100% NAFOIL & Drain	15. W-W	600.	84.	+180
S10-686	22(19 x 34)	22 7 x 30	.019" NAFOAM	.020" poly	.178"	100% NAFOIL & Drain	20.	600.	63.	+180
S10-362	22(19 x 34)	22 7 x 30	.010" pvc .002" nylon	.020" poly	.166"	100% NAFOIL & Drain	40. W-W	600.	52.	+180

THREE CONDUCTOR SHIELDED

S10-683	22(19 x 34)	18 19 x 30	.042" NAFOAM	.020" pvc	.297"	100% NAFOIL & Drain	10.	1000.	—	+180
S10-684	22(19 x 34)	20 19 x 32	.018" NAFOAM	.020" pvc	.185"	100% NAFOIL & Drain	20.	600.	—	+180



INSULATION

EXTRUDED VINYL AND TEFLON TUBING

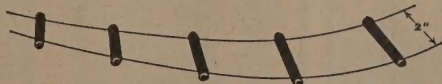
SIZES: #24 through 2½" Diam.

PUT-UP: #24 to ¾" on spools, completely sealed in plastic wrapping. Size ¾" to 2½" in tied coils.

SPEC. Vinyl +105°C to -32°C Type: MIL-I-631C, ASTM-D922 Grade C

GRADES: Vinyl + 80°C to -55°C Type: MIL-I-7444B, MIL-I-22076

Teflon +250°C to -55°C Type: MIL-I-22129B (#20 to #2)



NATIONAL OPENLINE

DESIGNED FOR COMMERCIAL TV DISTRIBUTION SYSTEMS AND RF POWER TRANSMISSION

Specifications: two inch spacing between conductors . . . 12 gauge copperweld . . . 470 ohm impedance . . . attenuation: 150 mc 0.25 DB PER 100 FEET, AT 30 mc 0.1 DB PER 100 FEET. Velocity factor 0.975 . . . copperweld steel for maximum strength and electrical stability, and to insure permanent uniform performance. . . Spreaders are brown polystyrene, spaced at average five foot intervals, staggered slightly to avoid spurious resonances.

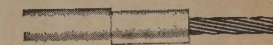
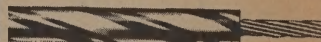
Also 1" & ½" copper line for TV leadin Formvar coated.

COMPLETE WIRE AND CABLE INVENTORY ALWAYS AVAILABLE FOR IMMEDIATE SHIPMENT!

National Wire and Cable Corporation maintains one of the largest and most complete stocks of electronic and aircraft wire and cable in the nation. Total footage of floor stocks exceeds 50 million feet!

Your immediate source for "MIL and Jan-Spec" wires, coaxial cables and vinyl sleeving.

Special color coded, shielded and jacketed combinations of hook-up wire and multi-conductor cables can be made to your specifications and delivered promptly without delay.



IN STOCK!

MIL-W-76 A

MW, HW, LW

MIL-W-16878/D

B, BN, C, CN, D, DN

E, EE, K, KK

J, JN

NAS -702

CLASS A, B, C

MIL-W-5086 A

Type I, II, III

MIL-C-7078/A

Type I, II, III

JAN-C-76

SRIR, SRHV

FOR COMPLETE
INFORMATION AND
PRICES, PHONE, WRITE
OR WIRE NATIONAL.

NATIONAL WIRE & CABLE CORP.

HOOK-UP WIRE

PLASTIC TYPE

PLASTIC INSULATION STRANDED OR SOLID TINNED CONDUCTOR

SOLID CONDUCTOR

Saxton Number	Style No.	—Conductor— Size	Stranding	Insulation Thickness	Nominal O.D.
1300	1AD22	22	solid	.016"	.061"
1301	1AD20	20	solid	.016"	.064"
1302	1AD18	18	solid	.016"	.072"

STRANDED CONDUCTOR

Saxton Number	Style No.	—Conductor— Size	Stranding	Insulation Thickness	Nominal O.D.
1303	1A24	24	7 x 32	.016"	.056"
1304	1A22	22	7 x 30	.016"	.062"
1305	1A20	20	10 x 30	.016"	.067"
1306	1A18	18	16 x 30	.016"	.077"
1307	1A16	16	26 x 30	.016"	.092"
1308	1A14	14	41 x 30	.016"	.106"

SHIELDED HOOK-UP WIRE

PLASTIC TYPE

TINNED COPPER SHIELD

PLASTIC INSULATION

STRANDED OR SOLID TINNED CONDUCTOR

STRANDED CONDUCTOR

Saxton Number	Style No.	—Conductor— Size	Stranding	Insulation Thickness	Nominal O.D.
1309	1AS22	22	7 x 30	.016"	.090"
1310	1AS20	20	10 x 30	.016"	.100"
1311	1AS18	18	16 x 30	.016"	.120"
1312	1AS16	16	26 x 30	.016"	.130"
1313	1AS14	14	41 x 30	.016"	.150"
1314	1AS12	12	65 x 30	.016"	.170"
1315	1AS10	10	105 x 30	.025"	.195"

UNSHIELDED AUDIO CABLE

2 AND 3-CONDUCTOR • NO OUTER JACKET

PLASTIC INSULATION

SOLID OR STRANDED CONDUCTOR

SOLID CONDUCTOR

Saxton Number	Style No.	—Conductor— Size	Stranding	Insulation Thickness	Nom. O.D.
1318	2AD22	2 22	solid	.016"	.100"
1319	3AD22	3 22	solid	.016"	.115"
1320	2AD20	2 20	solid	.016"	.120"
1321	3AD20	3 20	solid	.016"	.135"
1322	2AD18	2 18	solid	.016"	.145"
1323	3AD18	3 18	solid	.016"	.160"
1324	2AD16	2 16	solid	.016"	.175"
1325	3AD16	3 16	solid	.016"	.190"

STRANDED CONDUCTOR

Saxton Number	Style No.	—Conductor— Size	Stranding	Insulation Thickness	Nom. O.D.
1326	2A22	2 22	7 x 30	.016"	.125"
1327	3A22	3 22	7 x 30	.016"	.140"
1328	2A20	2 20	10 x 30	.016"	.145"
1329	3A20	3 20	10 x 30	.016"	.160"
1330	2A18	2 18	16 x 30	.016"	.165"
1331	3A18	3 18	16 x 30	.016"	.180"
1332	2A16	2 16	26 x 30	.016"	.190"
1333	3A16	3 16	26 x 30	.016"	.210"

MULTI-CONDUCTOR JACKETED CABLE

.020"-WALL PLASTIC JACKET

PLASTIC INSULATION

TINNED CONDUCTOR

VINYL JACKET

SOLID CONDUCTOR

Saxton Number	Style No.	—Conductor— No. Awg	Stranding	Insulation Thickness	Nom. O.D.
1334	2JD22	2 22	solid	.015"	.140"
1335	3JD22	3 22	solid	.015"	.150"
1336	4JD22	4 22	solid	.015"	.170"
1337	5JD22	5 22	solid	.015"	.185"
1338	6JD22	6 22	solid	.015"	.190"
1339	7JD22	7 22	solid	.015"	.200"
1340	8JD22	8 22	solid	.015"	.210"
1341	9JD22	9 22	solid	.015"	.240"
1342	10JD22	10 22	solid	.015"	.250"
1343	12JD22	12 22	solid	.015"	.270"
1344	15JD22	15 22	solid	.015"	.300"
1345	2JD20	2 20	solid	.015"	.155"
1346	3JD20	3 20	solid	.015"	.165"
1347	4JD20	4 20	solid	.015"	.195"
1348	5JD20	5 20	solid	.015"	.220"
1349	6JD20	6 20	solid	.015"	.230"
1350	7JD20	7 20	solid	.015"	.240"
1351	8JD20	8 20	solid	.015"	.285"
1352	9JD20	9 20	solid	.015"	.300"
1353	10JD20	10 20	solid	.015"	.315"
1354	12JD20	12 20	solid	.015"	.330"
1355	15JD20	15 20	solid	.015"	.345"
1356	20JD20	20 20	solid	.015"	.400"
1357	2JD18	2 18	solid	.015"	.188"
1358	3JD18	3 18	solid	.015"	.208"
1359	4JD18	4 18	solid	.015"	.223"
1360	5JD18	5 18	solid	.015"	.233"
1361	6JD18	6 18	solid	.015"	.263"

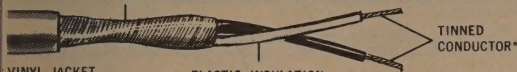
STRANDED CONDUCTOR

Saxton Number	Style No.	—Conductor— No. Awg	Stranding	Insulation Thickness	Nom. O.D.
1370	2J22	2 22	7 x 30	.015"	.145"
1371	3J22	3 22	7 x 30	.015"	.160"
1372	4J22	4 22	7 x 30	.015"	.185"
1373	5J22	5 22	7 x 30	.015"	.190"
1374	6J22	6 22	7 x 30	.015"	.195"
1375	7J22	7 22	7 x 30	.015"	.215"
1376	8J22	8 22	7 x 30	.015"	.225"
1377	9J22	9 22	7 x 30	.015"	.245"
1378	10J22	10 22	7 x 30	.015"	.260"
1379	12J22	12 22	7 x 30	.015"	.285"
1380	15J22	15 22	7 x 30	.015"	.340"
1381	2J20	2 20	10 x 30	.015"	.175"
1382	3J20	3 20	10 x 30	.015"	.185"
1383	4J20	4 20	10 x 30	.015"	.205"
1384	5J20	5 20	10 x 30	.015"	.230"
1385	6J20	6 20	10 x 30	.015"	.250"
1386	7J20	7 20	10 x 30	.015"	.260"
1387	8J20	8 20	10 x 30	.015"	.305"
1388	9J20	9 20	10 x 30	.015"	.320"
1389	10J20	10 20	10 x 30	.015"	.325"
1390	12J20	12 20	10 x 30	.015"	.345"
1391	15J20	15 20	10 x 30	.015"	.365"
1392	20J20	20 20	10 x 30	.015"	.420"
1393	2J18	2 18	16 x 30	.015"	.210"
1394	3J18	3 18	16 x 30	.015"	.230"
1395	4J18	4 18	16 x 30	.015"	.245"
1396	5J18	5 18	16 x 30	.015"	.260"
1397	6J18	6 18	16 x 30	.015"	.275"

MULTI-CONDUCTOR SHIELDED CABLE*

.020" WALL PLASTIC JACKET

BRAIDED OR WRAPPED TINNED COPPER SHIELD



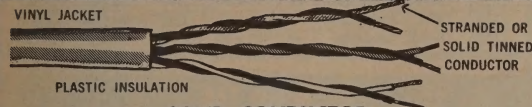
TINNED CONDUCTOR*

Saxton Number	Style No.	Type Shield	Conductors No.	Conductors Awg	Conductors Stranding	Insul. Thick.	Jacket Thick.	Nom. O.D.
1400	1SSJ22	wrap	1	22	7 x 30	.016"	.020"	.135"
1401	2SSJ22	wrap	2	22	7 x 30	.016"	.020"	.175"
1402	2SSJD22	wrap	2	22	solid	.016"	.020"	.170"
1403	2SSJ20	wrap	2	20	10 x 30	.016"	.020"	.195"
1404	3SSJ20	wrap	3	20	10 x 30	.016"	.020"	.210"
1405	4SSJ20	wrap	4	20	10 x 30	.016"	.020"	.225"
1406	2SSJ18	wrap	2	18	16 x 30	.016"	.020"	.230"
1407	2SSJ16	wrap	2	16	26 x 30	.016"	.020"	.250"
1408	2SJ20	braid	2	22	7 x 30	.016"	.020"	.183"
1409	2SJ20	braid	2	20	10 x 30	.016"	.020"	.195"
1410	2SJ18	braid	2	18	16 x 30	.016"	.020"	.235"

*Bare conductors available. For additional constructions see Audio Cable Section.

INTERCOM CABLE

TWISTED PAIRS WITH PLASTIC JACKET

STRANDED OR
SOLID TINNED
CONDUCTOR

PLASTIC INSULATION

SOLID CONDUCTOR

Saxton Number	Style No.	Number Pairs	Conductors No.	Conductors Awg	Conductors Stranding	Insul. Thick.	Jacket Thick.	Nom. O.D.
1411	2PD22	1	2	22	solid	.015"	.020"	.128"
1412	4PD22	2	4	22	solid	.015"	.020"	.205"
1413	6PD22	3	6	22	solid	.015"	.020"	.230"
1414	12PD22	6	12	22	solid	.015"	.020"	.330"
1415	14PD22	7	14	22	solid	.015"	.020"	.345"
1416	18PD22	9	18	22	solid	.015"	.020"	.370"
1417	22PD22	11	22	22	solid	.015"	.020"	.385"
1418	26PD22	13	26	22	solid	.015"	.025"	.415"
1419	30PD22	15	30	22	solid	.015"	.025"	.450"
1420	32PD22	16	32	22	solid	.015"	.025"	.470"
1421	54PD22	27	54	22	solid	.015"	.035"	.605"
1422	62PD22	31	62	22	solid	.015"	.035"	.630"
1423	82PD22	41	82	22	solid	.015"	.035"	.710"
1424	102PD22	51	102	22	solid	.015"	.045"	.845"

STRANDED CONDUCTOR

Saxton Number	Style No.	Number Pairs	Conductors No.	Conductors Awg	Conductors Stranding	Insul. Thick.	Jacket Thick.	Nom. O.D.
1425	2P22	1	2	22	7 x 30	.015"	.020"	.155"
1426	4P22	2	4	22	7 x 30	.015"	.020"	.220"
1427	6P22	3	6	22	7 x 30	.015"	.020"	.245"
1428	8P22	4	8	22	7 x 30	.015"	.020"	.275"
1429	10P22	5	10	22	7 x 30	.015"	.020"	.320"
1430	12P22	6	12	22	7 x 30	.015"	.020"	.340"
1431	18P22	9	18	22	7 x 30	.015"	.020"	.375"
1432	22P22	11	22	22	7 x 30	.015"	.020"	.415"
1433	30P22	15	30	22	7 x 30	.015"	.025"	.485"
1434	54P22	27	54	22	7 x 30	.015"	.035"	.645"

AUDIO CABLE

COMBINATION SHIELDED & JACKETED

TINNED
STRANDED
CONDUCTOR

PLASTIC INSULATION

Saxton No.	Style No.	No.	Conductors	Conductors	Insultn.	Jacket	Nom.
			Awg	Stranding	Thckns.	Thckns.	O.D.
1435	2S2J22	4	22	7 x 30	.016"	.020"	.315"
			(Two conductors shielded, two unshielded)				
1436	1S2J22	3	22	7 x 30	.016"	.020"	.200"
			(One conductor shielded, two unshielded)				

E-Z ZIP-CORD—LAMP-CORD

PLASTIC TYPE • 2 & 3-CONDUCTOR

POLARITY-MARKED PLASTIC JACKET

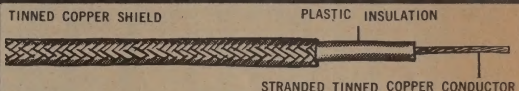
STRANDED BARE
COPPER CONDUCTORS

Saxton No.	Style No.	Conductors No.	Conductors AWG	Conductors Stranding	UL Type	Wall Thckns.	Nominal O.D.
1437	2F24*	2	24	7 x 32	—	.016"	.061" x .137"
1437A		Same as above—clear. (polarized conductors)					
1438	2F20*	2	20	10 x 30	—	.016"	.105" x .210"
1438A		Same as above—clear. (polarized conductors)					
1439	2F18*	2	18	16 x 30	SPT-1	.016"	.130" x .215"
1439A	2F18A	Same as above—clear (unpolarized conductors)					
1440	3F18	3	18	16 x 30	SPT-2	.032"	.130" x .300"
1441	2F16	2	16	65 x 34	SPT-2	.032"	.160" x .300"
1442	3F24	3	24	7 x 32	—	.032"	.061" x .204"

*Black, Brown, White, Gray

PHONO WIRE

1 AND 2-CONDUCTOR • SHIELDED, UNJACKETED



Saxton No.	Style No.	No.	Conductors AWG	Conductors Stranding	Insultn. Thckns.	Nom. O.D.
1443	1S24	1	24	16 x 36	.016"	.080"
1444	2S28	2	28	6 x 36	.016"	.125"

AUDIO CABLE

2-CONDUCTOR SHIELDED, UNJACKETED



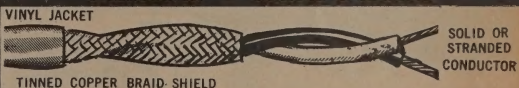
Saxton No.	Style No.	No.	Conductors AWG	Conductors Stranding	Insultn. Thckns.	Nom. O.D.
1445	2SD22	2	22	solid	.016"	.132"
1446	2SD20	2	20	solid	.016"	.148"
1447	2SD18	2	18	solid	.016"	.175"

STRANDED CONDUCTOR

Saxton No.	Style No.	No.	Conductors	Conductors	Insultn.	Nom.
			Awg	Stranding	Thckns.	O.D.
1448	2S24	2	24	16 x 36	.016"	.125"
1449	2S22	2	22	7 x 30	.016"	.140"
1450	2S20	2	20	10 x 30	.016"	.155"
1451	2S18	2	18	16 x 30	.016"	.170"
1452	2S16	2	16	26 x 30	.020"	.210"
1453	2S14	2	14	41 x 30	.020"	.225"
1454	2S12	2	12	65 x 30	.025"	.295"

AUDIO CABLE

2-CONDUCTOR • SHIELDED & JACKETED



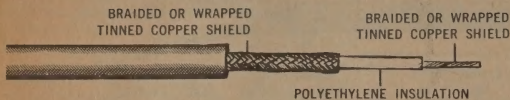
Saxton No.	Style No.	No.	Conductors	Conductors	Insultn.	Jacket	Nom.
			Awg	Stranding	Thckns.	Thckns.	O.D.
1455	2SDJ22	2	22	solid	.016"	.020"	.172"
1456	2SDJ20	2	20	solid	.016"	.020"	.208"
1457	2SDJ18	2	18	solid	.016"	.020"	.218"

STRANDED CONDUCTOR

1458	2SJ22	2	22	7 x 30	.016"	.020"	.183"
1459	2SJ20	2	20	10 x 30	.016"	.020"	.195"
1460	2SJ18	2	18	16 x 30	.016"	.020"	.235"

AUDIO CABLE

LOW LOSS MICROPHONE & INPUT



Saxton No.	Style No.	Nom. Cap./ft.	Shield Type	Conductors No. AWG	Strdg.	Ins. Th.	Jkt. Th.	Nom. O.D.
1290	1SSJC20RB	21 mmf.	wrap	1 20	19x34	Special		.200"
Foam, woven Rayon braid, extra flexible.								
1291*	2MFSJC22	34 mmf.	foil	2 22	7x30	.022"	.028"	.225"
1292*	3MFSJC22	36 mmf.	foil	3 22	7x30	.027"	.031"	.286"
1293*	2MFSJC20	32 mmf.	foil	2 20	7x28	.024"	.029"	.228"
1294*	3MFSJC20	30 mmf.	foil	3 20	7x28	.026"	.035"	.288"
1461	1SSJC26	36 mmf.	wrap	1 26	7x34	.016"	.020"	.125"
cprwld.								
1462	1SJC24	35 mmf.	braid	1 24	10x34	.016"	.030"	.145"
1463	1SJC24A	23 mmf.	braid	1 24	10x34	.040"	.030"	.200"
1464	1SJC20	36 mmf.	braid	1 20	26x34	.030"	.030"	.175"
1465	2SJC20	31 mmf.	braid	2 20	16x34	.025"	.030"	.230"
1466	3SJC20	34 mmf.	braid	3 20	26x34	.025"	.035"	.290"
1467	4SJC20	36 mmf.	braid	4 20	26x34	.025"	.035"	.315"
1468	5SJC20	45 mmf.	braid	5 20	26x34	.025"	.035"	.340"
1469	6SJC20	51 mmf.	braid	6 20	26x34	.025"	.035"	.365"

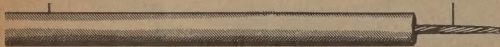
*Mylar-foil shield with ground runner.

TEST LEAD WIRE

SUPER-FLEXIBLE VINYL INSULATION*

LOW DUROMETER SUPER-FLEXIBLE VINYL INSULATION

STRANDED TINNED CONDUCTOR

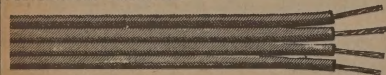


Saxton No.	Style No.	Type	Conductors AWG	Strndg.	Wall Thkns.	Brkdwn. Voltage	Nom. O.D.
1470	1C20	Standard	20	41 x 36	.040"	5,000	.120"
1471	1C20A	Standard	20	41 x 36	.044"	8,500	.130"
1472	1C20B	Standard	20	41 x 36	.047"	10,000	.135"
1473	1C18	Standard	18	41 x 34	.047"	12,000	.140"
1474	1C18A	Hvy. Duty	18	41 x 34	.109"	22,000	.245"
1475	1C20R*	Standard	20	41 x 36	.040"	5,000	.120"
1476	1C18R*	Standard	18	41 x 34	.045"	5,000	.138"

*Rubber. Also available to MIL-spec from stock. ALL TEST PROD WIRES RED or BLACK. Other colors available.

ROTOR CABLE

POLYETHYLENE INSULATION



ONE TINNED LEG FOR POLARITY IDENTIFICATION

Saxton No.	Style No.	No.	Conductors AWG	Strndg.	Insulation Material	Nominal O.D.
1481	4FC2	4	22	7 x 30	polyethylene	.085 x .360"
1483	4FC3	4	20	10 x 30	polyethylene	.085 x .360"
1485	5FC3	5	20	7 x 28	polyethylene	.095 x .485"
1039	round	8	6/22-2/18	7 x 30 7 x 26	polyethylene	.250
1040	round	8	6/18-2/22	7 x 26 7 x 30	polyethylene	.375

MIL-C-3432 SPECIAL CABLES

Saxton No.	Style No.	Specifctn.	Desgntn.	Construction	Specification Number	Nom. O.D.
1486	2M18	C0-02	MGF	2/18 SJO (shielded)	MIL-C-3432A	0.375
1487	2M18A	C0-02	MGF	2/18	MIL-C-3432B	0.300
1488	2M18B	C0-02	HGF	2/18	MIL-C-3432B	0.380
1489	2M18C	C0-02	LGF	2/18	MIL-C-3432B	0.250
1490	2M16	C0-02	HGF	2/16	MIL-C-3432B	0.405
1491	2M16A	C0-02	MGF	2/16	MIL-C-3432B	0.338

Many other types available; prices on request.

HIGH VOLTAGE WIRE

FLAME-RETARDANT RULAN INSULATION

"RULAN" FLAME-RETARDANT INSULATION

STRANDED TINNED CONDUCTOR



Saxton No.	Style No.	Type	Conductors AWG	Strndg.	Wall Thkns.	Brkdwn. Voltage	Nom. O.D.
1477	1R20	unshielded	20	10 x 30	.047"	10,000	.120"
1478	1R20A	unshielded	20	10 x 30	.063"	20,000	.170"
1479	1R18	unshielded	18	16 x 30	.095"	40,000	.240"
1480	1RS18	shielded	18	16 x 30	.075"	20,000	.243"

MIL-W-76B

WITH CERTIFICATION

TYPE MW—Uncovered Plastic, Medium Wall, 1000V. Rating

PLASTIC INSULATION

STRANDED OR SOLID TINNED CONDUCTOR



SOLID CONDUCTOR

Saxton No.	Style No.	Specification Designation	AWG	Insln. Thkns.	Nom. O.D.
1503	1MD22	MW-C 22(1)U	22	.016"	.061"
1504	1MD20	MW-C 20(1)U	20	.016"	.064"
1505	1MD18	MW-C 18(1)U	18	.016"	.072"
1506	1MD16	MW-C 16(1)U	16	.016"	.083"

STRANDED CONDUCTOR

SPECIAL QUANTITY PRICES

Saxton No.	Style No.	Specification Designation	AWG	Conductor Strndg.	Insln. Thkns.	Nom. O.D.
1507	1M24	MW-C 24(7)U	24	7 x 32	.016"	.056"
1508	1M22	MW-C 22(7)U	22	7 x 30	.016"	.062"
1509	1M20	MW-C 20(10)U	20	10 x 30	.016"	.067"
1510	1M18	MW-C 18(16)U	18	16 x 30	.016"	.077"
1511	1M16	MW-C 16(26)U	16	26 x 30	.016"	.092"
1512	1M14	MW-C 14(41)U	14	41 x 30	.016"	.106"
1513	1M12	MW-C 12(65)U	12	65 x 30	.016"	.127"

TYPE HW—Uncovered Plastic, Heavy Wall

Saxton No.	Style No.	Specification Designation	AWG	Conductor Strndg.	Insln. Thkns.	Nom. O.D.
1514	1M22A	HW-C 22(7)U	22	7 x 30	.032"	.094"
1515	1M20A	HW-C 20(10)U	20	10 x 30	.032"	.099"
1516	1M18A	HW-C 18(16)U	18	16 x 30	.032"	.109"
1517	1M16A	HW-C 16(26)U	16	26 x 30	.032"	.122"
1518	1M14A	HW-C 14(41)U	14	41 x 30	.045"	.165"
1519	1M12A	HW-C 12(65)U	12	65 x 30	.045"	.185"

MIL-W-16878C

WITH CERTIFICATION • SPECIAL QUANTITY PRICES

EXTRUDED TEFLON INSULATION

SILVER-PLATED STRANDED CONDUCTOR

TYPE E—Extruded Teflon, 600 V. Rating

1520	1M30E	E-30	30	7 x 38	.010"	.033"
1521	1M28E	E-28	28	7 x 36	.010"	.036"
1522	1M26E	E-26	26	7 x 34	.010"	.041"
1523	1M24E	E-24	24	19 x 36	.010"	.046"
1524	1M22E	E-22	22	19 x 34	.010"	.052"
1525	1M20E	E-20	20	19 x 32	.010"	.060"
1526	1M18E	E-18	18	19 x 30	.010"	.072"
1527	1M16E	E-16	16	19 x 29	.010"	.084"
1528	1M14E	E-14	14	19 x 27	.010"	.098"

TYPE EE—Extruded Teflon, 1000 V. Rating

1529	1M30EE	EE-30	30	7 x 38	.015"	.043"
1530	1M28EE	EE-28	28	7 x 36	.015"	.046"
1531	1M26EE	EE-26	26	7 x 34	.015"	.050"
1532	1M24EE	EE-24	24	19 x 36	.015"	.056"
1533	1M22EE	EE-22	22	19 x 34	.015"	.062"
1534	1M20EE	EE-20	20	19 x 32	.015"	.070"
1535	1M18EE	EE-18	18	19 x 30	.015"	.081"
1536	1M16EE	EE-16	16	19 x 29	.015"	.090"
1537	1M14EE	EE-14	14	19 x 27	.015"	.104"

PLASTIC INSULATION

STRANDED OR SOLID TINNED CONDUCTOR

TYPE C—Uncovered Plastic, 1000 V. Rating

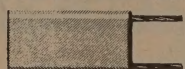
Saxton No.	Style No.	Specification Designation	Conductor AWG	Strndg.	Insln. Thkns.	Nom. O.D.
1538	1M22C	C-22	22	7 x 30	.016"	.065"
1539	1M20C	C-20	20	7 x 28	.016"	.073"
1540	1M18C	C-18	18	7 x 26	.016"	.081"
1541	1M16C	C-16	16	19 x 29	.016"	.092"
1542	1M14C	C-14	14	19 x 27	.016"	.103"

TYPE D—Uncovered Plastic, 3000 V. Rating

1543	1M22D	D-22	22	7 x 30	.032"	.097"
1544	1M20D	D-20	20	7 x 28	.032"	.105"
1545	1M18D	D-18	18	7 x 26	.032"	.113"
1546	1M16D	D-16	16	19 x 29	.032"	.124"
1547	1M14D	D-14	14	19 x 27	.032"	.135"

DISPENSER-PACKAGED TRANSMISSION LINE**TANGLE-FREE SELF-DISPENSING WIRE PACKAGES**


These easy to handle wire dispenser packages let you take the exact length you need. The rest stays neatly in place... never tangled, always clean. Ask your Saxton representative about the special dispenser "LIFELINE" series of wire packages.

***LIFELINE TWIN LEAD****No. 1665**

Full size, heavy duty deluxe twin lead constructed of the finest materials. Chemically protected against deterioration. In Magic Dispenser. Saxton LTL (100-ft.), Brown

LIFELINE 100* ROTOR CABLE

* Available 1000' spools.

No. 1666

Extra heavy duty 4-conductor rotor cable. Superior quality. One leg polarized for easy reference. Sold in exclusive Magic dispenser carton.

Saxton L4FC (100-ft.), Brown

300-OHM TWIN LEAD

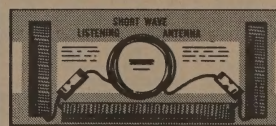
VHF-UHF TRANSMISSION LINE*

Saxton No.	Style No.	Name	Stranding	Nom. Size Web Width
1552*	TL-40	standard	1 (solid)	0.040 x 0.0375
1553*	TL-55	signal sender	7	0.055 x 0.385
1554*	TL-80	trophy line	10	0.080 x 0.385
1555*	TL-100	crusader	10	0.093 x 0.355
1556*	TL-100DL	top notch	10	0.095 x 0.383
1557*	TL-100EZ	E-Z Strip	10	0.080 x 0.370
1558*	TL-100SDL	double ten	20	0.100 x 0.400
1559	18/125	brown or gold	41	0.125 x 0.415
1560	TTL-22†	tubular	7	0.160x0.445
1561*	CW-100	brown solid	1	0.100 x 0.400
1036		standard foam	10	.197 x .392
1562**	INS-500	ins. open wire	1	0.075 x 0.975

* Available in special tangle-free self-dispensing packages.

** 18 Gauge Copperweld, Solid, Non Stretch. Stranded Available, on request.

† 22 ga.

**SHORT WAVE LISTENING ANTENNA**

COMPLETELY ASSEMBLED...
READY FOR INSTALLATION
AND USE

#4301

Can be mounted almost anywhere... pole-to-pole, pole-to-tree, garage-to-house, under the eaves, in the attic, etc. Scientifically tuned for 1.8 to 30 mc coverage. Antenna package includes 50 feet of copper wire, attached at both ends to low-loss insulators. Attached to each insulator is 15 feet of waterproof non-stretch rope for mounting the antenna. At one end of the antenna is 50 feet of insulated copper lead-in wire. Comes with detailed instructions.

COLORWIRE TRANSMISSION LINES

Provides Maximum Transfer of Signal Energy from Antenna to Set
GOOD FOR VHF; EXCELLENT FOR UHF; SUPERB FOR COLOR TV

A full range of quality, low-loss transmission lines and accessories that answer all-channel and color reception problems. See details of each type below:

1. SUPER TWIN FOAM #1037



Porous, low loss, air-filled foam dielectric separates two pre-stretched heavy duty copper conductors. Overall ultraviolet resisting, carbon black filled outer polyethylene jacket makes for abrasion resistant, highly flexible, highly efficient (20 year guarantee) transmission line in wet or dry weather. Adequate for all normal color requirements; needs no transformers. Excellent VHF; good UHF; excellent color.

Attenuation per 100 feet at 200mc — 1.1 db; at 500 mc — 3.1 db; at 900 mc — 3.99 db.

Put Up: "500 or 1000 foot spools."
Convenient 50, 75, or 100 foot hanks.

2. SHIELDED TWIN FOAM #1038

Same general characteristics as #1037 except for overall 99 per cent braid shield plus additional abrasion-free overall jacket. Ideally suited for noise-free UHF, FM and multiplex; excellent for smear-free color TV reception.

3. FOIL SHIELDED TWIN TRANSMISSION LINE WITH GROUND RUNNER #1041

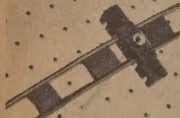
Very similar to #1038 except that shielding material is aluminum foil — mylar backed as opposed to regular tinned copper braid. Highly efficient (100% coverage), more economical. Good for UHF, VHF or color.

4. S-906 COLORIFIC 450 OHM INSULATED OPEN WIRE TRANSMISSION LINE KIT

The best of all transmission lines. Reliable, efficient, lowest loss, perfect for any type of service — UHF, VHF or color. Lowest attenuation, lowest leakage path. Includes 450/300 ohm and 300/400 ohm matching transformers. Easy to install. Has 18 gauge solid non-stretch copperweld conductors and carbon black filled polyethylene insulation. One transformer used at antenna; the other installed at window leading to TV set, and from 300 ohm side of this transformer regular 300 ohm twin lead is brought directly to set.

Tried and true under the most adverse conditions. This line most nearly approaches perfection in transmission lines. Attractively packaged to command attention.

USES #1562 LADDER WIRE; FOR DETAILS SEE LISTING FOR #1562 ON PAGE 4.



5. COLORIFIC FACTORY SWEPT COAXIAL CABLE SYSTEMS

Uses #1594 RG-59-U Foam



Designed particularly for noise problem areas. Basic impedance 72 ohms. Low loss dielectric construction to cut down attenuation and signal leakage. Unaffected by stray fields and proximity to metals. Good for VHF and color, adequate for UHF. Complete with factory installed terminations and weather boot, with or without indoor and outdoor 72/300 ohm matching transformers. Attractively packaged.

#1598 — specially designed, new 72 ohm all-channel coax for full 82-channel use. Slightly higher cost, much more efficient.

SAXTON NO.	DESCRIPTION	FEET
S-900	Low loss, foam-filled RG 59/U complete with pre-attached F59 fittings each end, weather boot and complete instructions. Uses #1594.	100
S-901	Same as above.	75
S-902	Same as above.	50
S-903	Same as above, including two 72/300 ohm matching transformers — one for outdoor use, one indoor, complete with mounting hardware.	100
S-904	Same as above.	75
S-905	Same as above.	50
S-907	All-channel (82 channel) coax complete with terminal fittings on each end, weather boot, and complete instructions. Uses #1598.	100
S-908	Same as S-907	75
S-909	Same as S-907	50
S-910	Same as S-907, except includes two special matching transformers — one for indoor; one outdoor. Also includes matching fittings and hardware.	100
S-911	Same as S-910	75
S-912	Same as S-910	50
S-330*	Indoor matching transformer — matches 75 ohm coaxial cable to 300 ohm terminals on TV receivers — includes fittings and mounting hardware. For UHF, VHF, color.	
S-331*	Outdoor matching transformer — matches from 300 ohms to 72 ohms — connects from antenna to transmission line — includes fittings and mounting hardware. For UHF, VHF, color.	

*Use with all S-900 Series except S-906.

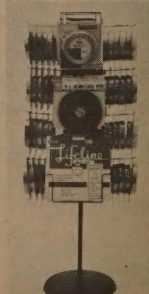
SPECIAL SELF-SERVICE DISPLAYS

ATTRACTIVELY COLORED • CUSTOMER CONVENIENCE EASY TO INSTALL • MODULAR DESIGN

Two feet wide, four feet high — easy to see over. Joining units four inches wide makes it possible to modularize display panels, and also to break up different categories of products for maximum eye appeal, greatest impulse value, largest turnover.

Saxton's displays are designed for breakdown into category types. And you can add additional display units as needed. "Look up" shelf provides easy customer viewing of bottom level displays.

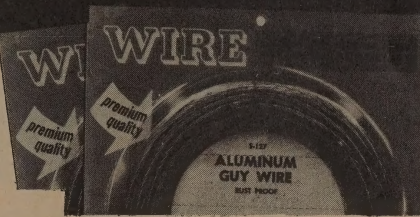
Complete information on request. Ask your Saxton representative for full lists of products in the following display categories: CB and Ham; Telephone Items; General Wire Types for the Engineer and Experimenter; Audio and Hi-Fi; Modules; TV Antenna Wires and Antenna Accessories; Special Purpose Types — Toys, Hobbies, Etc.; General Purpose Types for Display in Hardware, Lumberyard, Chain and Discount Outlets.



WINDOW-PAKS

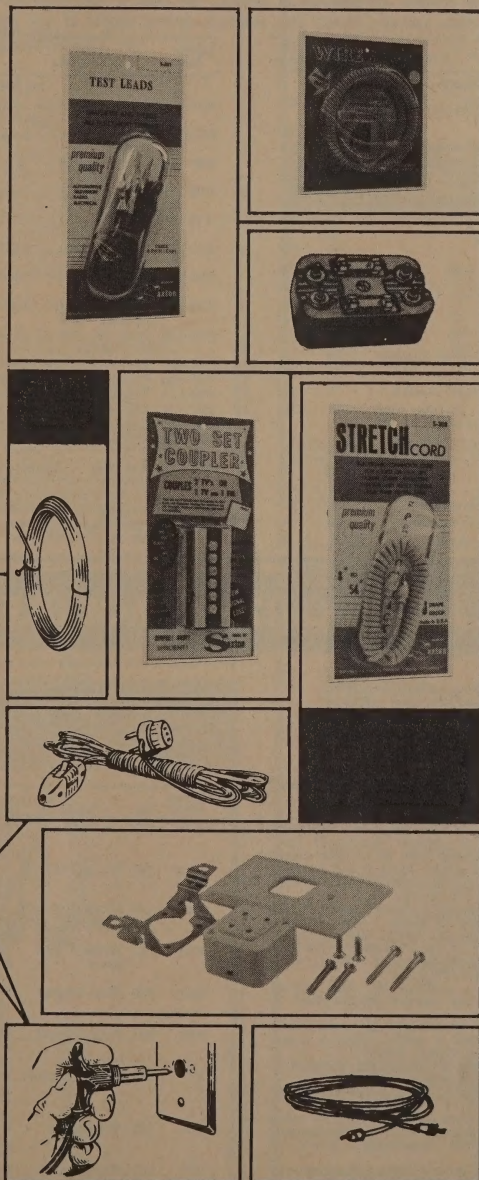
Saxton's "S" and "TS" Series of Window-Paks keep the products clean and tangle free . . . and increase sales turnovers.

These quality products cover a wide selection of wire and cable products as well as a wide variety of in-demand cable and hardware assemblies. Properly displayed and serviced, these items generate maximum sales with minimum sales time.



THESE WINDOW-PAKS ARE USEFUL FOR:
 SERVICEMEN, TECHNICIANS, ENGINEERS,
 STUDENTS, HOBBYISTS AND HAMS.

Saxton No.	Description	Feet	Std. Case
WINDOW-PAK "S" SERIES			
S-92B	Hook-up wire—tinned copper—stranded—12 ga. power supply and filament leads—heavy duty—general purpose	15	30
S-93B	Hook-up wire—tinned copper—stranded—14 ga. power supply and filament leads—general purpose—heavy duty	17	30
S-94B	Hook-up wire—tinned copper—stranded—general purpose—heavy duty	23	30
S-95	Ignition wire for auto, boat or model airplane	20	16
S-96	Audio cable—shielded—2 cond.—22 ga. w/jacket—general purpose	16	30 (14)
S-98	Mike cable—2 cond. low impedance—high quality audio cable	18	20
S-102	Intercom wire—2 cond.—no jacket (excellent thermostat wire)	60	20
S-103	Intercom wire—2 cond.—no jacket (excellent thermostat wire)	35	20
S-104	Intercom wire—3 cond.—no jacket (excellent thermostat wire)	40	20
S-105	Intercom wire—3 cond.—w/jacket (excellent thermostat wire)	28	20
S-106	Microphone cable—single cond.—low capacitance—high impedance—heavy duty	20	20
S-107	Zip cord—Vinyl—2 cond.—18 ga. lamp cord—available in gray, brown and white	30	20
S-109	Zip cord—rubber—extra flexible—lamp cord—oil resistant—available in brown and white	25	20
S-110	Guy wire—galvanized steel—4 strand—rust resistant—for garden, house or boat use	100	20
S-111	Speaker cable—clear plastic—polarized—heavy duty—also may be used for lamp wiring	30	20
S-125	Antenna wire—copper—7/24 prestretched	50	30
S-126	Antenna wire—copper—7/26—prestretched	50	30
S-127	Guy wire—aluminum—rust proof—will not stain wood or masonry—for guying and general utility	40	20
S-128	Guy wire—steel—6 strand—20 ga.—bright galvanized—rust resistant	70	20
S-130	Ground wire—aluminum—dead soft #8 A/VG solid—general utility	40	20
S-135	Copperweld wire—hard drawn—hi-conductivity antenna wire—18 ga.—nonstretch—general utility—home—farm—garden—electric fences—seeded lawn protection—do it yourself projects	100	30
S-138	Coaxial cable—RG58U—52 ohm for CB—HAM—fixed or mobile use	20	20
S-139	Coaxial cable—RG59U—72 ohm antenna leads	20	20
S-147*	Telephone extension kit—color coded—4 conductor wire—with plug and jack	25	20
S-148	Microphone cable—3 conductor—one lead shielded—2 leads unshielded—ideal for push to talk microphone application	16	20
S-149*	Telephone extension cord—4 conductor—std. 4-pin molded plug and jack—adds mobility to phone or intercom	25	20
S-150	Shielded ignition wire	15	20
S-160	Television wire—twin lead—300 ohm—crystal clear—highly efficient for indoor use	21	20
S-161	Four conductor wires, with jacket, intercom, electric trains, kits, etc.	20	20
S-203*	Lazy bones—on/off appliance control for T.V., radio, fan, lamp, heater, percolator	15	20
S-204*	Aerial kit for improved broadcast and shortwave reception	—	20
S-205*	Safe-pull—improved type of plug-in device for master T.V. antenna system. Replaces popular Motorola type plug	10	20
S-206*	Safe-pull—improved type of plug-in device for master T.V. antenna system. Replaces popular Motorola type plug	20	20
S-206*	Retractable coiled cord—microphone cable—1 shielded—2 unshielded	6	30
S-209*	Retractable coiled cord—microphone cable—1 shielded—3 unshielded	6	30
S-211*	Aerial kit—de luxe—for improved broadcast and shortwave reception—heavy duty antenna wire & heavy duty lead-in wire	—	20
S-212*	Same as S-205 but RCA plugs one end, lugs other end.	10	20
S-213*	Same as S-206 but RCA plugs one end, lugs other end.	20	20
S-214*	Replacement cord—UL approved, with molded male plug one end and tinned wires other end. Suitable for vacuum cleaners, electric brooms, power tools, etc.	18	20



*Special purpose cable

Saxton No.	Description	Feet	Std. Case
S-215*	Retractable telephone handset extension cord—available in assorted colors	35	20
S-216*	Extension cord—heavy duty de luxe type, with cube tap one end, and molded male plug other end	18	16
S-222*	Stereo extension cord—To be used as extension cord for stereo headphones	15	30
S-223*	Stereo extension cord—To be used as extension cord for stereo headphones	25	30
S-230	Antenna wire—copper—7/22—prestretched	50	30
S-231	Retractable electric guitar extension cord complete with regular and offset plugs	15	—
S-232*	Telephone handset extension—retractable—available in black, white or beige	15	20
S-301*	Test leads—3 color coded—30" leads with alligator clips attached at both ends—for all automotive and household use	—	20
S-306*	FM antenna—folded dipole—ideal for FM	—	20
S-309	Heavy duty lightning arrester de luxe type—ceramic shell, externally fused, suitable for UHF & VHF applications, can accommodate coaxial cable, tubular, oval and flat twin lead as well as open wire line, with virtually no effect on the overall performance of the sets	—	24
S-310	Ball-tun type shielded 2 set coupler	—	24
S-311	3 Set coupler—completely enclosed in aluminum body, small and compact lightweight—maximum shielding, all other specifications same as 2 set coupler	—	24
S-317	Braded bonding strap—used for grounding	10	24
S-318*	Shielded audio cables—retractable—color coded for quick and easy identification, RCA type plugs each end	4	24
S-319	Telephone plug and jack—make your own telephone extension, move your phones from room to room	—	24
S-320	Telephone jack only—(Male)	—	24
S-321	Telephone jack only—(Female)	—	24
S-325*	Shielded audio cable—retractable—color coded—RCA type plug one end, tinned leads other end	54	40
S-326*	Shielded audio cable—retractable—color coded—RCA type plugs one end, alligator clips other end	54	40
S-327*	Indoor matching transformer—matches 75 ohm coax to 300 ohm terminals on TV sets—with F59 connector	—	36
S-330	Outdoor matching transformer—300 ohm to 75 ohm—with mounting strip, F59 cable connector and weather boot	—	36
S-332	UHF-VHF-FM antenna splitter—triple tuned—band pass filter—requires 2 antennas, one down lead	20	—
S-333*	Guitar extension—heavy duty—not retractable	6	—
S-334*	Audio accessory cord—with plug and alligator clips—for portable and transistor radio speaker extensions and general utility extensions	—	6
S-335*	Audio accessory cord—with built-in matching network complete with plug and alligator clips—record directly from output without overloading	6	—
S-336*	Audio accessory cord—interconnects most audio components—RCA plugs each end	6	—
S-337*	Audio accessory cord—interconnects most audio components—RCA plugs each end	10	—
S-400	Matching transformer kit—300 ohm to 75 ohm—includes one S-330 transformer, one mounting strap, one F59 connector and one weather boot	—	—
S-501	Telephone jack and wall plate for indoor installation of phone extensions	—	—
S-810*	Citizens Band extension—RG58/U with PL-259 and UG-175/U reducer one end and two universal terminating lugs other end	20	20
S-811*	Citizens Band extension—RG58/U with PL-259 and UG-175/U at both ends	20	20
TS-25	TWIN LEAD WINDOW-PAK Twin lead—300 ohm—for improved FM or T.V. reception—brown, clear, gold & silver	25	20
TS-50	Twin lead—300 ohm—for improved FM or T.V. reception—brown, clear, gold & silver	50	50
TS-75	Twin lead—300 ohm—same as above	75	20
TS-100	Twin lead—300 ohm—same as above	100	20

WIRE DISPENSER PACKAGES



UNI-SPOOL
WIRE BANKS



TRI-SPOOL
WIRE BANKS

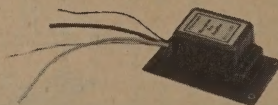
A wide variety of wire and cable products are available in Saxton's two types of self-dispensing wire banks . . . the Uni-Spool and Tri-Spool. These packages provide easy access to desired lengths of wire and cable.

Saxton No.	Description	Feet	Std. Case
UNI-SPOOL "WS" SERIES			
WS-100	Cable — miniature parallel — 24 ga. — available in black, brown, gray, white and clear	50	36
WS-101	Microphone cable — lapel	20	36
WS-108	Audio cable — wrap shield — easily pigtailed — available in other colors	20	36
WS-112	Phono or grid wire — shielded — single conductor	30	36
WS-113	High voltage wire — 20 KV rating — flame retardant	20	36
WS-115	Hook up wire — 18 ga. solid	55	36
WS-115B	Hook up wire — 18 ga. stranded	52	36
WS-116	Hook up wire — 20 ga. solid	72	36
WS-116B	Hook up wire — 20 ga. stranded	70	36
WS-117	Hook up wire — 22 ga. solid	90	36
WS-117B	Hook up wire — 22 ga. stranded	85	36
WS-118	Bell wire — 18 ga.	58	36
WS-122	Test prod wire — red — plastic	22	36
WS-122A	Test prod wire — red — rubber — extra flexible	16	36
WS-123	Test prod wire — black — plastic	22	36
WS-123A	Test prod wire — black — rubber — extra flexible	16	36
WS-156	Three conductor, clear, miniature, parallel cable speaker extensions — stereo and monaural — low voltage applications	36	36
WS-162	Magnet wire for hobbyists — 22 ga.	114	36
WS-163	Magnet wire for hobbyists — 24 ga.	153	36
WS-164	Magnet wire for hobbyists — 26 ga.	243	36
WS-170	Rainbow wire — two color, two conductor	38	36
WS-171	Rainbow wire — three color, three conductor	29	36
WS-172	Rainbow wire — four color, four conductor	25	36

Saxton No.	Description	Feet	Std. Case
TRI-SPOOL "WBS" SERIES			
WBS-100	Speaker extension cable — miniature parallel — 24 ga. 3 colors — low voltage applications	54	36
WBS-115	Hook up wire — 3 colors — 18 ga. solid — high quality	51	36
WBS-115B	Hook up wire — 3 colors — 18 ga. stranded — high quality	48	36
WBS-116	Hook up wire — 3 colors — 20 ga. solid — High quality	60	36
WBS-116B	Hook up wire — 3 colors — 20 ga. stranded — high quality	66	36
WBS-117	Hook up wire — 3 colors — 22 ga. solid — high quality	81	36
WBS-117B	Hook up wire — 3 colors — 22 ga. stranded — high quality	72	36
WBS-119	Hook up wire — 3 colors — 24 ga. solid — high quality	108	36
WBS-120	Hook up wire — 3 colors — 24 ga. stranded — high quality	96	36
WBS-121	Bell wire — 3 colors — 22 ga. — high quality	69	36
WBS-122	Test prod wire — plastic — 3 colors	27	36
WBS-123	Test prod wire — rubber — extra flexible — 3 colors	24	36
WBS-129	Bell wire — 3 colors — 20 ga. — high quality	54	36
WBS-131	Bell wire — 3 colors — 18 ga. — high quality	48	36
WBS-170	Phono pickup wire — stereo arm assortment	lib. qty.	36
WBS-172	Bus wire — tinned — 20, 22 and 24 ga. — electrical or electronic applications — highly conductive — easily soldered — home or factory bench	108	36
WBS-175	Hook up wire — Nylon — assortment — high temp	60	36
WBS-180	High temperature wire — Teflon coated — assorted colors — 3 packages	69	36

TRANSISTORIZED MODULES

Each module is an assembled package of electronic components—transistors, resistors, capacitors, etc. All can be powered by standard 6 volt battery pack. Each module comes with an instruction book including schematic drawings and parts list.



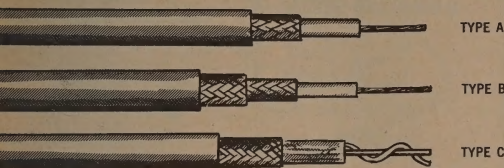
Saxton Model	No.	Use	Description
HFA	570	Fire alarm	When hooked up to 2 or 3 speakers, makes any room or area safe against unexpected fires.
HS	571	Siren	Creates tone varying from 50 to 3000 cycles during 30-second period, using 8 ohm speaker.
HCO	572	Code OSC & Key	Produces sharp, crisp signal for transmitting code, using any PM speaker.
HPA-1	573	Public address	Amplifies and produces quality audio signal with power output of about 1 watt, using 8 ohm speaker, carbon button microphone.
HDF	574	Dual Flasher	Permits 2 signal devices to flash alternately or give warning 70-80 times per minute, using pilot light bulbs.
HP	575	Phono amplifier	Amplifies signals produced by phono pickup arm so that loud speaker reproduction is possible.
HI	576	Intercom	An economical way to carry on conversations efficiently between 2 points, using 2 8-ohm speakers and talk-listen switches.
HB	577	Baby nurse	Monitors an infants' desire for recognition, using 2 8-ohm speakers.
HPA-2	578	High gain public address	Provides clear audio, using 8-ohm speaker or trumpet.
HG	579	Guitar amp	Amplifies music from guitar or accordion, using contact microphone and 8 or 16 ohm speaker.
HTA	580	Telephone amp	Amplifies telephone conversations, useful for conference calls.
HM	581	Metronome	Produces sounds for maintaining proper musical beat; generates 20-200 audio pulses per minute.

Saxton Model	No.	Use	Description
HFH	582	Fog Horn	Creates loud attention-getting signal which can be heard and identified over long distances on land or sea, using 8 or 45 ohm speakers.
HWM	583	Wireless Mike	Transmits signals from point-to-point with no physical connection between transmitter and receiver, using an AM radio.
HWP	584	Wireless Phono oscillator	Allows phono pickup and arm to be played through any radio with no physical connections, using any radio receiver.
HWB	585	Wireless baby nurse	Amplifies infants' restless movements or requests for attention with no physical links between module and a radio receiver.
HMP	586	Mike preamp	Serves as booster for low level signal producing devices such as microphones, magnetic phonograph cartridges, etc.
HBA	587	Burglar Alarm	Warns against intruders with switches installed at various entrances, using 3, 8 or 16 ohm speakers.
HT	588	Electronic timer	Permits holding back or controlling time from one second to three minutes for dozens of situations — such as turning off T.V. sets during commercials.
HST	589	Stroboscope	Permits viewing of rapidly moving objects such as motors as if they were standing still for measurement, calibration, etc.
HPS	590	Power Supply	Delivers 6-12 volts continuously at 1 amp, hum-free, plug-in, reliable source for powering all modules.

COAXIAL CABLE

COMMERCIAL TYPES

Quotations on cable to MIL-C-17B specifications on request. Quotations on RG-8/U and RG-11/U with 15 AWG solid copperweld conductor on request.



Saxton Cat. No.	Style No.	In-III. Type	Nom. Imp. (Ohms)	Nom. O.D.	Jacket	Description
1582*	RG-8/U	A reg.	52	.405	black PE	gen'l purpose
1583†*	RG-8/U	A foam	52	.405	black PVC	—
1584*	RG-8A/U	A reg.	.50	.405	non-cont. PE	—
1585*	RG-11/U	A reg.	75	.405	black PVC	TV & comm.
1586*	RG-11/U	A foam	75	.405	black PVC	—
1587*	RG-11A/U	A reg.	75	.405	non-cont. PE	—
1588*	RG-11/UDS	B reg.	75	.465	black PVC	double-shielded
1589*	RG-58/U	A reg.	53.5	.195	black PVC	20 AWG solid B.C.
1590‡*	RG-58A/U	A reg.	52	.195	black PVC	19/.0071 TC
1591*	RG-58C/U	A reg.	50	.195	non-cont. blk PE	19/.0071 TC
1592*§	RG-59/U	A reg.	73	.242	black PVC	TV cable
1593*§	RG-59/UDS	B reg.	73	.285	black PVC	double-shielded
1594*§	RG-59/U	A foam	73	.242	black PVC	TV cable
1595*	RG-174/U	A reg.	70	.100	black PVC	miniature "59/U"
1596*	RG-59A/U	A reg.	75	.242	non-cont. blk PE	.023 copperweld
1597*	RG-62/U	C reg.	93	.242	black PVC	small size low cap.
1598*	RG-59/U	A foam	72	.280	black PVC	special type
						82-channel (UHF)

*Available in 100-ft. lengths.

†Available extra flexible.

§Available in white.

UNINSULATED COPPERWELD*

100% COPPERWELD CONDUCTOR • NON-STRETCH • HARD-DRAWN



Saxton Number	Awg	Nom. O.D.
5300	18 solid	.0403
5302	14 solid	.0641
5303	12 solid	.0808
5304	10 solid	.1019
5305	8 solid	.1285
5306	6 solid	.1620

Saxton Copperweld available on 1M' spools. Nos. 5300 to 5303 also in 50' & 100' interconnected coils of 1M' total.

GUY WIRE & MESSENGER CABLE*

HEAVY GALVANIZED STEEL, ALUMINUM & COPPERWELD

Saxton No.	Spec. Desig.	Stranding	Material	Test Strgth. P.S.I.	Strength Yield Per C Ft.
5100	GW-4/20	4 x 20	hvy. galv. steel	215	4%
5101	GW-6/20	6 x 20	hvy. galv. steel	335	3.6%
5103	GW-6/18	6 x 18	hvy. galv. steel	515	3%
5105	AL-7/18	7 x 18	EC quality aluminum, aircraft temper	370	4.5%
5106		7 x 18	Same as 5105 except plastic insulated		
5112	Tiller Cable	7 x 7 (49 str.)	3/32" cable vinyl jacket 3/16" O.D.	2100	—

Hi Strength

*50' and 100' interconnected coils are standard. 500' or 1000' spools available.

UNINSULATED TINNED COPPER

SOLID CONDUCTOR

Saxton No.	AWG No.	Saxton No.	AWG No.
1362	ADT-20	1570	ADT-28
1363	ADT-18	1571	ADT-26
1364	ADT-16	1572	ADT-24
1365	ADT-14	1573	ADT-22
1366	ADT-12		

STRANDED

Saxton No.	AWG No.	Stranding	Saxton No.	AWG No.	Stranding
1574	AT-24	7x30	1578	AT-16	26x30
1575	AT-22	7x30	1579	AT-14	41x30
1576	AT-20	10x30	1580	AT-12	65x30
1577	AT-18	16x30			

ANTENNA WIRE



Saxton Number	Stranding	Material	Packing
1275	solid	#12 AWG enameled solid copper	1M' interconnected coils of 100' ea.
1280	solid	#14 AWG enameled solid copper	1M' interconnected coils of 100' ea.
1286/50	7 x 22	bare copper	1000' interconnected coils of 50' ea.
1286/100	7 x 22	bare copper	1M' interconnected coils of 100' ea.
1288/50	7 x 24	bare copper	1M' interconnected coils of 50' ea.
1288/100	7 x 24	bare copper	1M' interconnected coils of 100' ea.
1289	7 x 26	bare copper	1M' interconnected coils of 50' ea.

ALUMINUM GROUND WIRE

1240/1M	—	#8 AWG solid dead soft alum.	1000-ft. spool
1240/50	—	#8 AWG solid dead soft alum.	1M' interconnected coils of 50' ea.
1240/100	—	#8 AWG solid dead soft alum.	1M' interconnected coils of 100' ea.
1255/1M	—	#6 AWG solid dead soft alum.	1000-ft. spool
1255/50	—	#6 AWG solid dead soft alum.	1M' interconnected coils of 50' ea.
1255/100	—	#6 AWG solid dead soft alum.	1M' interconnected coils of 100' ea.

SPECIAL PRODUCT SECTION

"MITY-AMP" 2-WATT AUDIO AMPLIFIER



MA-100

**COMPLETELY EPOXY ENCAPSULATED
MODULE • Shockproof & Moisture-proof
• Dirt & Dustproof**

FEATURES

- **SPACE-SAVING**—2" x 3 1/4" x 3/8"
- **HI-FI AMPLIFIER**—20 cy. to 15KC $\pm$ db at 1-watt level
- **LIGHTWEIGHT**—Weights total of 6 ounces
- **RUGGED**—Unconditionally guaranteed. Shock, moisture and dust-proof
- **EASY TO INSTALL & USE**—Hooked up in minutes. Simple instructions make unit functional immediately.
- **ECONOMICAL**—Low in price, big in performance. Long, trouble-free life. Total power requirements 6 or 12 volts.
- **PORTABLE**—Operates on auto or boat battery
- **VERSATILE**—Uses limited only by your ingenuity. Ideal for p. a. system, phono amplifier, stereo, intercom, signal tracer, modulation, tape monitor, etc.

SPECIFICATIONS

1. **INPUT VOLTAGE REQUIRED TO DRIVE FULL POWER**—5 Volts
2. **POWER REQUIREMENTS**—6 to 12 volts at 300 to 700 ma. Current determined by speaker voice coil impedance.
3. **FREQUENCY RESPONSE**—20 cy. to 15 KC $\pm$ 2 db at 1 watt level.
4. **INPUT IMPEDANCE**—45 ohms to 50K ohms.
5. **OUTPUT IMPEDANCE**—3.2 to 45 ohms.
6. **WEIGHT**—Six ounces.
7. **OVERALL SIZE**—2" x 3 1/4" x 7/8".
8. **HIGHLY SHOCKPROOF**—Unaffected by dust, dirt or moisture. Operable under water.
9. **GUARANTEED AGAINST DEFECTS.**

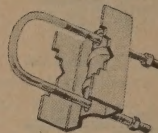
ANTENNA ACCESSORIES SPECIAL HARDWARE

GROUND MAST CLAMPS



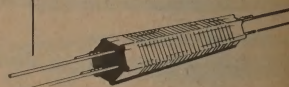
Saxton No. 1100

U-BOLTS AND SADDLES



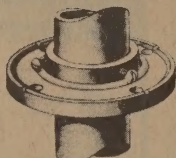
Saxton No. 1103
Also available without saddle

TV ANTENNA MATCHING BALUN COILS



Efficiently matches 72 to 150 ohms; 72 to 450 ohms; 150 to 300 ohms; 150 to 450 ohms; 300 to 450 ohms and 75 to 300 ohms. Eliminates standing waves. Use as set coupler, impedance transformer or for line matching, etc. Instructions included. Available in bulk or pairs. Saxton No. 1121

FLOATING GUY RINGS



Cast aluminum, two-piece floating guy ring. Fits most masts up to 1 1/2" dia. Individually packed, complete with hardware, in plastic bags. Saxton No. 1099

GROUND RODS



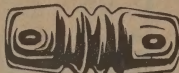
Saxton No. 1064
Four-foot overall length with clamp.

ANTENNA WINDOW STRAPS

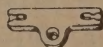


Saxton No. 1126

BROWN, PORCELAIN GLAZED INSULATOR



Saxton No. 1154



Doublet type antenna insulator, white glazed. Excellent electrical characteristics, high tensile strength. Dim.: 4 1/2" x 2 1/4" Saxton No. 1155



Transposition block with porcelain glaze finish. Use with many types of doublet antennae. Saxton No. 1157

Film & Recording Tape STORAGE CHEST



Saxton No. 1230—Complete with 12 Swivel-locked, dust-proof storage cans. Insures moisture and dust-free storage of valuable tape and film. Attractive indexed storage chest. High-impact Styrene containers accommodate 5" and 7" tape or 8mm film

Saxton No. 1231—Individual plastic storage can

6-PAK TAPE STORAGE CASE

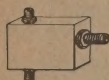


Saxton No. 1234

Sturdily constructed, indexed Tape Storage Case designed for bookshelf. Compartmented to accommodate six 7-inch reels, boxes or cans.

Saxton No. 1235
Complete unit. Includes above Case plus six Saxton No. 1231 Tape Cans.

ISOLATION NETWORKS



Saxton No.	Type
700	UG88U
703	UG175U
704	UG176U

Saxton No.	Type
705	SO239
706	PL258
707	PL259

Saxton No.	Type
713	M359-A
*722	Line Tap

NEW SOLDERLESS COAX. CONN.	
Saxton No.	Saxton No.
716	C52
717	C61
718	C81
719	F59
719A	F59A
720	F61
721	F81

CUSTOM CABLES—Available with any combination of fittings or connectors.

* **ATTENUATED LINE TAPS:** Color-coded in red, yellow, green and blue.

†For use with 82-channel coax.

SOLDERLESS COAXIAL CONNECTORS ADAPTERS & FITTERS, "F" AND "C" SERIES

CONNECTORS UHF - BNC

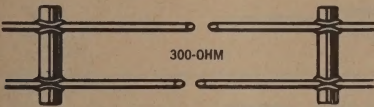
SPECIAL PRODUCT SECTION

** OPEN WIRE TRANSMISSION LINE

LOW LOSS AIR DIELECTRIC • BULK QUANTITIES

Saxon Number	Conductor	Spacing	Imped.	Avg No.	Insul. Spac.
2500	40% copperweld	1"	450-ohm	18	6"
2501	40% copperweld	1"	450-ohm	18	12"
2502	40% copperweld	7/16"	300-ohm	18	6"
2507	solid copper	1"	450-ohm	18	6"
2515	solid copper Formvar	1"	450-ohm	18	6"
2517	solid copper Formvar	7/16"	300-ohm	18	6"
2520	solid copper Formvar	1"	450-ohm	16	6"
2525	40% copperweld	2"	475-ohm	14	random spaced
2526	40% copperweld	2"	450-ohm	12	random spaced

MAX. SPOOL: 6" spacing, 500 ft.; 12" spacing, 1000 ft.; 300-ohm, 500 ft. 500' spool standard. 100' & 250' available.



CHARACTERISTIC CHART

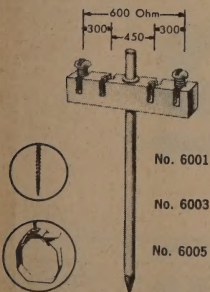
TRANSMISSION LINE LOSS DB LOSS PER 100 FT.

Type	100 MC		500 MC		1000 MC	
	Wet	Dry	Wet	Dry	Wet	Dry
300 Ohm Open Wire	1.20	0.40	2.30	.80	1.9	1.8
450 Ohm Open Wire		0.35		.78		1.1
Two Inch Spaced Open Wire		.19		.42		.89
300 Ohm Tubular	2.8	1.1	6.8	3.1	10.2	4.8
300 Ohm Flat	7.6	1.5	20.0	3.2	30.0	5.0
RG-59U		3.8		9.4		14.2
RG-11U		1.8		5.0		7.6

* CHARACTERISTIC IMPEDANCE WILL VARY WITH WIRE SIZES USED
 * PLASTIC INSULATED OPEN WIRE — SEE P. 4, ITEM NO. 1562.

OPEN LINE ACCESSORIES

STAND-OFFS & STRESS INSULATORS



No. 6001

No. 6003

No. 6005



#6000

BLOCKS ONLY WITHOUT DRIVE-IN HARDWARE

Complete with 2 plated screws for use as spacer blocks in making your own open line installations.
 Saxon No. 6000

Especially designed for use with open line transmission wire installations. Tighten screws after pulling wire taut. For use as spacer, partially tighten set-screws. This permits movement of wire in the slots and avoids potential wire breaks. Use outside slots for 600-ohm wire. The "Tappee" Stand-off insulator is good for community installations where random spacing of open line is desirable to avoid tuned circuits. Ideal also for use as anchor point or spacer for "fence wire" installations. "Tappee" permits inexpensive, time and labor-saving, trouble-free installations, and is made for use with No. 12 thru No. 18-gauge wire. Hardware constructed of double-dip galvanized steel; block is high impact polystyrene.

6000 Block only

6001 5 1/2" nail type

6003 5" wood screw type

6005 5" pole clamp type

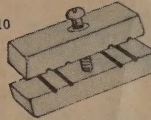
*6007 INS-500 type

SEE PAGE 4 FOR INSULATED OPEN WIRE TYPE INS-500.

OPEN LINE ACCESSORIES

STRESS INSULATORS AND BLOCKS

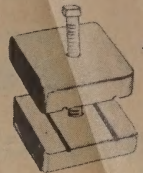
#6010



HEAVY DUTY OPEN LINE STRESS INSULATORS

Plastic blocks, slotted on either one or two-inch centers, for taking up slack or as anchor points in open line installations. Complete with plated lag bolt. 12 or 14 gauge. Saxon No. 6010

#6011



12 AWG INSULATOR

Same as Saxon No. 6010. Has 2-inch spacing for #12 AWG wires. Insulators for other gauges available on special order only.
 Saxon No. 6011

FIBRE GLASS GUY LINE

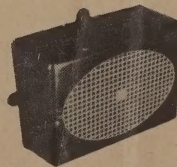


Non-radiating, non-absorbing, high-strength "wireless" guy wire in vinyl jacket. 500-lb test strength. 100-ft. coil.
 Saxon No. 7000

SUPER-STRONG FIBRE GLASS GUY WIRE

Same as above but in grey vinyl jacket. 1000-lb. tensile strength. 100-ft. coil.
 Saxon No. 7002

PATIO SPEAKER BAFFLE



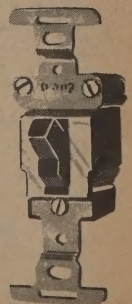
Saxon No. 1205

Made of unbreakable, high impact styrene. Mahogany color. Complete with hardware and mounting instructions. Use for paging, monitoring, patio and stereo extensions, or as extension speaker anywhere. Complete with mounting escutcheon for 5 x 7, 6 x 9, 4, 5 or 6" round speakers.

DELAYED ACTION • COMMERCIAL SAFETY SWITCH

Switch "off" and the lamp goes out SIXTY SECONDS LATER! Allows sufficient time to reach destination SAFELY. Replaces present wall switch in seconds. Ideal for Home, Farm or Cottage. Fully guaranteed and UL Approved.

Saxon No. 560 (Ivory) or
 Saxon No. 561 (Brown)



SPECIAL PRODUCT SECTION

SHIELDED TWIN LEAD



Saxton No. 1118—Each conductor #20AWG. Features abrasion-proof Vinyl jacket. Delivers noise-free signal on FM, FM Multiplex, TV.

100-ft. coil

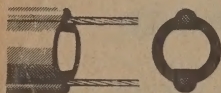
1000-ft. spool

TELEPHONE WIRE



Saxton No. 1009 — 2-conductor, stranded for indoor or outdoor use.

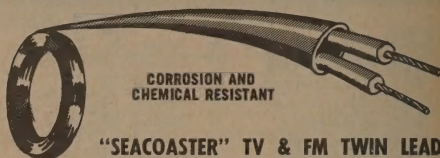
LOW LOSS UHF LIFELINE TUBULAR TWIN LEAD



(Deluxe)

Heavy duty brown PE designed for UHF use. 20-gauge.

Saxton No. 1010



CORROSION AND
CHEMICAL RESISTANT

"SEACOASTER" TV & FM TWIN LEAD

Designed to resist air-borne corrosives and chemical reactions. 300-ohm 20 gauge (7 x 28) copper conductors encased in low loss PE foam and tough, brown outer jacket.

Saxton No. 1017—100-ft. coil.

Saxton No. 1017—1000-ft. spool

HEAVY DUTY SHIELDED IGNITION WIRE



Saxton No. 1008 — For ham or CB applications. Reduces noise.

100-ft. coil

LOW LOSS LIFELINE "SPONGEE" TWIN LEAD



(Deluxe)

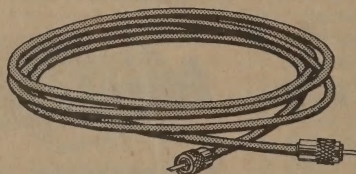
Designed especially for UHF, "Spongee" provides stronger signals on VHF. 300-ohm 20-ga. stranded copper conductors encased in porous, low loss PE foam.

Saxton No. 1016/100
(100-ft. coil)

Saxton No. 1016/1M
(1000-ft. spool)

COAXIAL CABLE ASSEMBLIES

FOR CITIZEN'S BAND

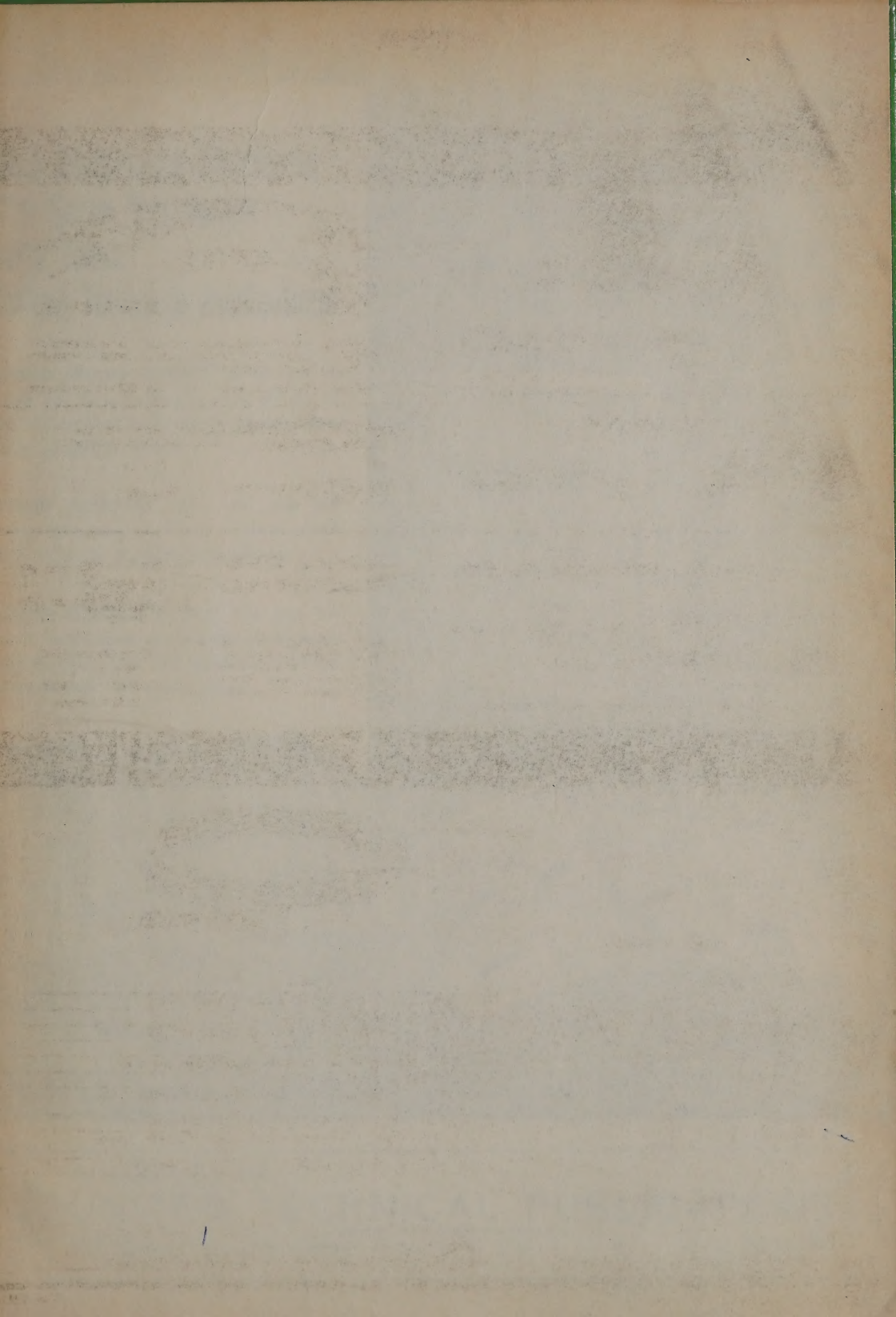


BAG-PACKED

Saxton Number	Length	Type	Description
800	10'	RG8U	Has PL259 on one end, two terminating spade lugs on the other
801	10'	RG8U	Same as #800 except PL259 to PL259
802	15'	RG8U	Has PL259 on one end, two terminating spade lugs on the other
803	15'	RG8U	Same as #802 except PL259 on both ends
804	20'	RG8U	Has PL259 on one end and two terminating spade lugs on the other
805	20'	RG8U	Same as #804 except PL259 to PL259
806	10'	RG58U	Has PL259 and UG175U reducer on one end, two univ. terminating lugs on other end
807	10'	RG58U	Same as #806 except PL259 and UG175U reducer at both ends
808	15'	RG58U	Has PL259 and UG175U reducer on one end, two univ. type terminating lugs on other end
809	15'	RG58U	Same as #808 except PL259 and UG175U reducers are at both ends

BUBBLE-PACKED

810	20'	RG58U	Has PL259 and UG175U reducer on one end, two univ. type terminating lugs on other end
811	20'	RG58U	Same as #810 except PL259 and UG175U reducers are at both ends

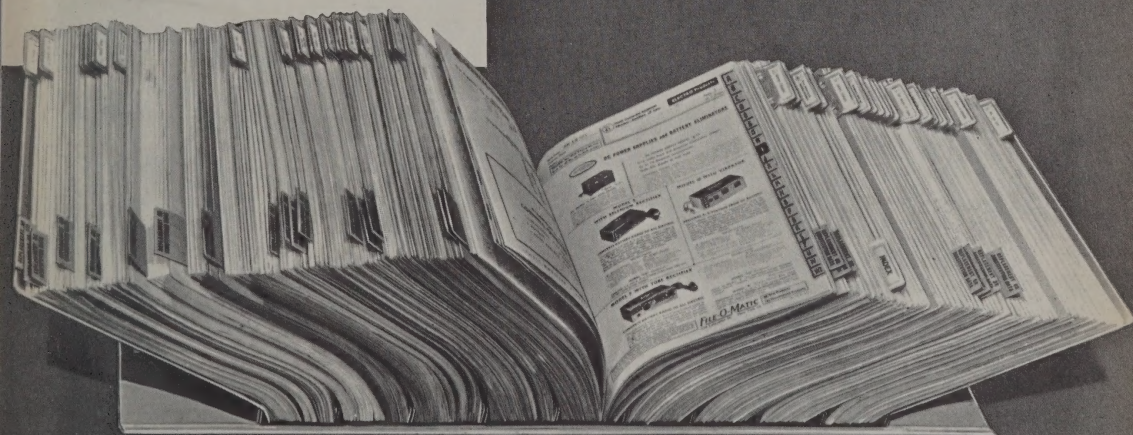
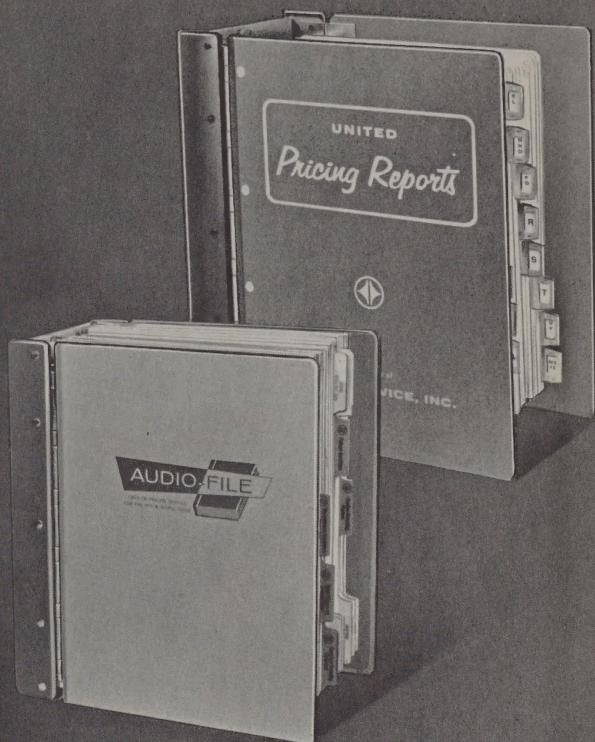


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